NI 43-101 TECHNICAL REPORT

on the

Laguna Guayatayoc and Laguna Vilama Lithium, Potassium, Boron Projects

Jujuy Province, Argentina



Prepared for:

A.I.S. Resources Limited 2300-1177 West Hastings Street Vancouver BC V6E2K3 Canada

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Important Notice

This report was prepared as a National Instrument NI43-101 Technical Report in accordance with Form 43-101 F1. The quality of the information, conclusions and estimates set out in this report are consistent with the information (both current and historical pursuant to section 2.4 of the NI43-101 code) available at the time of writing, data supplied from outside sources, and the qualifications stated. This report is intended for the use of AIS Resources Limited and for filing as a Technical Report with Canadian Securities Regulators. Except for the purposes legislated under provincial securities law and particularly the British Columbia Securities Commission, any use of this report by third parties is at that Party's sole risk.

Disclosure of Historical Estimates as set out in NI 43-101 features in this report and the details required in Section 2.4 (a-g) have been set out in compliance with the National Instrument.

Certificate of Qualified Person – Dr Carlos RM Sorentino MIMVA (CMV), MACS, FAusIMM

I, Dr Carlos Sorentino, am a professional Geologist/Chemical Engineer and am currently working as a Consulting Geological Engineer residing in Sydney, NSW Australia.

This certificate applies to the Technical Report titled "NI 43-101 TECHNICAL REPORT on the Laguna Guayatayoc and Laguna Vilama Lithium, Potassium, Boron Projects" dated 30 March 2017.

My doctoral dissertation was in the field of mineral economics on the topic of uranium supply and demand economics. I also have a Master of Environmental Studies degree, a Bachelor of Engineering (Chemistry) degree and a Diploma in Radioisotopes Technology.

I am a member of the Australasian Institute of Mineral Valuers and Appraisers, with the designation Certified Mineral Valuer. I am a member of the American Chemical Society, a Fellow of the Australasian Institute of Mining and Metallurgy who certified my qualifications as Chartered Professional (Management) and Chartered Professional (Environment).

My exploration and production experience includes uranium, iron ore, hard rock gold, mineral sands, bauxite, phosphate, borates, evaporitic resources, lithium, borates and rare earths. I have published a large number of technical papers in peer-reviewed journals on valuation subjects, lithium, borates and presented at many international conferences.

I have approximately forty years of geological and chemical engineering experience of which 25 years has been focussed on brine deposits containing lithium in Salares in Argentina. I have reviewed the available data, and made exploration trips to Guayatayoc and Laguna Vilama.

I have detailed previous knowledge of Salares in the surrounding area, namely Rio Grande, Salinas Grandes, Pocitos, Pozuelos, Rincon and Cauchari Salares. I personally inspected the Guayatayoc Laguna on the 9 April 2016 and identified a number of locations for Phillip Thomas to sample at a later date. I completed the reconnaissance of the geology in the area over the next two days.

I am responsible for the entirety of this report except for the section on sampling which Mr Thomas completed in November and December 2016. I have no relationship with AIS Resources Ltd either as a shareholder or officer and am a Director of the vendor.

As a result of my qualifications, and experience I am classified as a Qualified Person as defined in National Instrument 43-101 *Standards of Disclosure of Mineral Projects (NI43-101)*. I have read National Instrument 43-101 and this report has been written in compliance with that instrument. As of the date of this certificate, to the best of my knowledge and information available to me, this report contains the necessary scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed

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Dr Carlos RM Sorentino Dated 30 March 2017

Certificate of Qualified Person – Phillip Thomas

I, Phillip Thomas, am a professional geologist and am currently working as a consulting geologist for Panopus Plc and for A.I.S. Resources Limited. I am a Director, Officer and shareholder of AIS Resources Ltd and was appointed to the board on 31 October 2016.

This certificate applies to the Technical Report titled "NI 43-101 TECHNICAL REPORT on the Laguna Guayatayoc and Laguna Vilama Lithium, Potassium, Boron Projects" dated 30 March 2017.

I am a Member of the Australian Institute of Geoscientists and the Australasian Institute of Mineral Valuers and Appraisers, with the designation Certified Mineral Valuer. I graduated with a Science degree in Geology from The Australian National University in the ACT, Australia and a Masters of Business Degree from Monash University, Victoria, Australia.

I have approximately fourteen years' geological experience of which 11 years has been focussed on lithium brine deposits in Salares in Argentina. I have reviewed the available data, and made three exploration trips to the Guayatayoc Laguna in September and October 2016 and February 2017. In September 2016 I took two samples, and on the trip to Laguna Vilama in October 2016 I took nine samples from existing works and had them analysed at two different analytical laboratories. I am responsible for collecting, analysing, QA/QC and providing this data and the presentation of this sampling data in this report.

I have detailed previous knowledge of Salares in the surrounding area, namely Salinas Grandes, Pocitos, Pozuelos, and Rincon Salares. I have been on a study tour to Atacama and visited the SQM facility and the then Chemetall Facilities. I started exploration of Rincon Salar in 2005 and was able to bring it into production with the ADY Resources team in 2008.

As a result of my qualifications, and experience I am classified as a Qualified Person as defined in National Instrument 43-101 *Standards of Disclosure of Mineral Projects (NI43-101)*. I have read National Instrument 43-101 and this sampling report has been written in compliance with that instrument.

As of the date of this certificate, to the best of my knowledge and information available to me, this reports contains the necessary scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed

Milly dom.

Phillip Thomas BSc Geol MBusM MAIG Dated 30 March 2017

1. SUMMARY

1.1.INTRODUCTION

The Guayatayoc Laguna and Vilama Laguna Salares are located in the Puna Region, a geographical unit of the southern Andes defined as terrain of more than 2600m of altitude above sea level (m asl), some of which occurs in the north-western part of Argentina. Mina Guayatayoc is located in Guayatayoc Laguna, and Mina Gianinna is located in Vilama Laguna. Both projects are declared mines and are early stage projects being undertaken by A.I.S. Resources Limited (AIS). AIS has an option over 5,225 hectares of concessions in the southern part of the Guayatayoc Laguna, and an option over 7,500 hectares that covers almost all of the Vilama Laguna (Mina Gianinna). These options expire on 4 May 2017 and can be exercised for a single payment of USD4.5 million. An extension agreement for month by month has been negotiated to 4 August 2017.

This Technical Report details the reconnaissance studies undertaken to date, the initial pit sampling results undertaken by me and Mr. Thomas, and provides recommendations for further investigations aimed initially at establishing an Inferred Mineral Resource and later, if the results warrant, a study incorporating pump tests and mass and thermal balance geochemistry.

The Guayatayoc Laguna has been explored in the past by several companies and is at the time of writing extensively staked by a number of listed and unlisted companies. Dr. Romina L Steinmetz completed a three year study on Guayatayoc from 2010- 2013 for which she was awarded her doctorate, and the company has a copy of her thesis. Her thesis examiner was Prof. Dr. Ricardo Alonso, also academic researcher that consults for the Company and supervised by Prof. Dr. Claudia Galli. Some of the background data has been adopted or quoted from her thesis. Dr. Alonso has been closely involved with her exploration work and hence he has independently verified her results and supervised her work. Dr Alonso is a Qualified Person for the purposes of NI 43-101.

The minerals of interest at Guayatayoc salar – lithium, potassium and boron occur in a hypersaline solution concentrated in sodium enriched brines and precipitate in clays, halites and loams on the surface. Guayatayoc is not referred to as a Salar but a Laguna or lagoon as it has a river system on one side of the basin.

The evaluation of Salares and Lagunas requires special considerations not normally applied to mineral resource evaluation. There are some key factors that determine an in-situ brine resource: the geometry of the host aquifer (although depth studies can be highly misleading due to compaction of silts, sands and halites at depth and presence of paleochannels), its effective porosity and transmissitivity, and the brine grade or concentration isobars on the surface and at depth. In addition, there are three further key factors required in order to determine a recoverable resource: the permeability of the host aquifers, its specific yield (the unit volume of fluid that will drain), and its water balance (fluid inputs – surface and groundwater inflows, and outputs – evaporation). Some Salares are endorheic, closed basins from where brines cannot drain out but tend to come to the surface through capillary action and evaporate. Salar Atacama and Lake Titicaca are probably the most famous.

1.2. MINING LAW IN JUJUY PROVINCE

Argentinean law provides for the granting of two types of mining rights: exploration permits or a **Cateo** which is an exploration concession that does not permit mining but gives the owner a preferential right to explore the cateo area for minerals and to apply for a mining concession within the same area. Cateos are measured in 500 ha unit areas and cannot exceed 20 units (10,000 ha). No person may hold more than 400 units in a single province. The term of a cateo is based on its area. Cateos are identified by a file number or "expediente" number. Guayatayoc has been granted a mining permit and Guayatayoc III and Vilama have been granted exploration permits or cateos. To convert an exploration concession (or cateo) to a mining concession, some or all of the area of a cateo must be converted to a "mina".

Minas are mining concessions which permit mining on a commercial basis. Minas are obtained by the following process:

- a. Declaration of manifestation of discovery in which a point within a cateo is nominated as a discovery point. The manifestation of discovery is used as a basis for location of pertenencias of the sizes described above. Manifestations of discovery do not have a definite area until pertenencias are proposed. Within a period following designation of a manifestation of discovery, the claimant may do further exploration, if necessary, to determine the size and shape of the mineral body.
- b. Survey and pegging ("mensura") of the mina. Following a publication and opposition period and approval by the province, a formal survey of the pertenencias (together forming the mina) is completed before the granting of a mina. The status of a surveyed mina provides the highest degree of mineral land tenure and rights in Argentina.

The area of a mina is measured in "pertenencias". There is a transition phase between an exploration and mining license called a "manifestacion de descubrimento." This occurs when the Mines Department offers the opportunity to convert the Cateo to a Mina after a discovery has been reported. The boundaries of the Cateo are redefined to include the discovery. This is the status of Guayatayoc. Guayatayoc III and Gianinna are in the status of concession to be upgraded to mines at a later point in time.

Mining permits are unlimited in duration and remain the holder's property as long as the holder meets its obligations under the Argentinean National Mining Code, as amended, including biannual Cateo payments and minimum investment commitments. Mr. Ignacio Celorrio, Lawyer located in Buenos Aires has completed due diligence on the three concessions and has provided certification as to the proper registration, location and ownership has been conducted by his firm and Associates to the satisfaction of AIS.

1.3. ACQUISITION OF PROPERTY FROM THE VENDOR

AIS can acquire a 100% interest in the Property in consideration of making the following payments to the Vendor:

- a. \$150,000 USD six month option agreement that commenced on 4 November 2016 (which has been paid), and
- b. payment of \$4,500,000 USD on Exchange approval of the Purchase Agreement on or before the 4 May 2017;

c. Payment of US\$50,000 per month for a maximum of three months to extend the option.

The Guayatayoc properties exhibit anomalous lithium, boron and potassium brines and have been tested by surface geochemical sampling and lithological strata has been modelled using 2D seismic that has been obtained from previous studies.

1.4. REGIONAL LOCATION

The Salar basin is in the Altiplano-Puna region of Argentina – Bolivia – Chile, known as the Lithium Triangle. Basins in this region have proved to host the largest portion of lithium brine resources in the world. These basins started evolving as inland closed lakes in a basin and range structural environment generated by alternating compressional and extensional regimes over the back arc of the Andean magmatic belts. Basin evolution began almost 20 million years ago as closed basins in a relatively dry environment, resulting in gradational sediments (gravels-sands-clays) and salt concentration enriched in lithium and potassium, possibly as consequence of metal leaching and concentration from acidic-intermediate intrusive, gneisses, schist and migmatites of Paleozoic and Precambrian basement rocks, locally with well-developed pegmatite lithium anomalies; Miocene-younger ignimbrite fields intermediate to acidic Miocene lava flows; and structurally controlled alkali rock hot-springs occur over the flanks portions of the basins.

Steinmetz (STEINMETZ, 2013) presents evidence from the endorheic depression of Guayatayoc-Salinas Grandes (G-SG), located at 3,400m on the eastern border of the North Puna of Argentina. The basin includes a saline playa domain in the north (Guayatayoc playa lake) and a salt pan in the southern part (Salinas Grandes), which are related to the processes originating the subdivision of the G-SG depression. The characterization of those processes includes sedimentological and geomorphological observations, and chronologies using luminescence and radiocarbon.



Figure 1 Location Map abridged version by Geól. Gabriel Gustavo Blasco from his report Estudio de impacto ambiental etapa de exploración Expediente Nº 082-L-1998 December, 2016

1.5. GEOLOGY

Evidence reveals the development of lacustrine water bodies which are associated with the Last Glacial Maximum. During the Late Pleistocene and until ~13,800 yr. cal BP, lake shores were created on the front of distal-alluvial fans, the sedimentary aggradation was

widespread, and associated with kaolinitic-clay accumulation, inyoite, and the formation of 2 peat-deposits. An environmental change towards aridic conditions was recorded after 9,000 yr. cal BP.

Extreme weather conditions created the playa lake, with montmorillonitic-fine sediments generated and ulexite (boron mineral). The subdivision of the G-SG depression was onset by two processes, the topographic decoupling, associated with the Las Burras River's alluvial fan aggradation, and the lacustrine regression phase during the post Last Glacial Maximum. Therefore, Guayatayoc and Salinas Grandes salars are saline systems functioning as a playa lake and a salt pan, respectively, since Middle Holocene, and its genesis resulted from the aforementioned environmental constraints.

1.6. ECONOMIC POTENTIAL

Sampling has been completed on two occasions, in November 2016 by Phillip Thomas and in December 2016 by Mr. Bragantino and Dr. Ricardo Alonso under my supervision. All samples were tested by the National Measurement Institute in Australia and details are provided in the relevant section of this report. The results showed average to exceptional surface values for a number of surface pits, one being 970 ppm Lithium and 20,700 for potassium. Borates were also very high. The denser brines tend to sink till the lower porosity in deeper sediments prevents them from going any deeper so it is expected that different values will be obtained once drilling results are known.

1.7. LAGUNA VILAMA "MINA GIANINNI". REGIONAL LOCATION AND GEOLOGY

The Vilama lagoon is located in the highlands of the Province of Jujuy, northwest of Argentina (4,500m asl, 22° 30'S and 66° 50'E). Numerous smaller salt lagoons (such as Palar) are known in the area, with a total of approximately 5,200 ha of water Salares (in humid times) whose basins are integrated in an area of approximately 380,000 ha.

The small basins that make up this area are located in the Puna geological province, which is the southern terminus of the Bolivian and Peruvian Altiplano, in a stepped plateau between numerous volcanoes that constitute the maximum height of the Andes Mountain Range. The predominant morphology is of great cones and plains of lavas and ignimbrites on which are located hundreds of small lagoons, and some much larger ones. The small to medium lagoons are freshwater and deeper, while the two largest, Vilama and Palar, are very shallow, with high evaporation and concentration of salts and a large contribution of volcanic sediments, presenting fluctuations in level during the dry and wet seasons.

The hydrography of the area, like most of the altiplano, is characterized by distributing its drainage in numerous endorheic basins, whose more depressed part is occupied by shallow lagoons and Salares, as is the case of lagoon of Vilama (at 4500m asl). The total basin, 45 square kilometers (km) are covered by evaporates.



Figure 2 Google Earth Map of Mina Gianina at Laguna Vilama, from EIS study by Gabriel Blasco

2. RELIANCE ON OTHER EXPERTS

The author and AIS relied on property reports prepared by independent lawyers, Mr. Ignacio Celorrio, Lawyer of Argentina, for information regarding the legal status of the properties, the property agreements, and permits. Mr. Celorrio has twenty years of experience counseling international clients in legal and institutional affairs in the mining sector. He has also worked in Toronto at Gowlings LLP (1998/1999) and in Miami at Greenberg Traurig LLP (2002/2004), top tier Canadian and US law-firms respectively. His report to AIS is dated 9 October 2016.

Dr. CMR Sorentino, the Qualified Person and author of this report has relied on information and advice from Dr. Ricardo N. Alonso, a geological researcher of international reputation that has published more than 270 peer reviewed scientific papers about the geology of the Puna and has advised the Company in some aspect of the sampling and program of works to be carried out.

Dr Sorentino also relied on Mr. Phillip Thomas for the sampling and analysis information described in Section 9.

Phillip Thomas visited and worked from the corporate office in Salta from November 15-22, 2016, as part of the preparation for technical report. Relevant Project documents inspected and reviewed during these visits included the following: Hard copies of all available analytical data; Project technical papers; Project environmental and property documentation; Through these personal inspections and additional off-site interaction with the Guayatayoc Project team and Project dataset, the independent QP has gained a clear understanding of the exploration program methods and results.

In evaluating this information, the key issue considered is whether the methods, results and interpretations are appropriate and acceptable to support this technical report and sampling for

the lithium and borate brine deposit.

3. PROPERTY DESCRIPTION AND LOCATION

3.1. MINA GUAYATAYOC AND GUAYATAYOC III

The Guayatayoc and Guayatayoc III properties referred to above are located in the Jujuy Province, in northwestern Argentina. They lie at the central portion of the southernmost end of the Guayatayoc Basin that connects with the Salinas Grandes basin structure, 5km (km) east of the Rinconadillas village, 123km by road Northwest (NW) of San Antonio de los Cobres town and 274km north of the Salta provincial capital. The Property is 690km by road via Calama to Antofagasta, the closest sea port. The central coordinates of the Salar are 23°33'66" south latitude and 65°88'73" west longitude, at an average elevation of 3,410 meters above sea level (m asl)



The UTM Gauss Kruger co-ordinates of Guayatayoc and Guayatayoc III are as follows:

Х	Y
7,419,700	3,513,900
7,419,700	3,515,900
7,416,700	3,515,900
7,416,700	3,517,900
7,415,700	3,517,900
7,415,700	3,515,900

Х	Y
7,414,700	3,515,900
7,414,700	3,514,900
7,412,700	3,514,900
7,412,700	3,513,900
7,409,700	3,513,900
7,409,700	3,510,900
7,412,700	3,510,900
7,412,700	3,512,900
7,414,700	3,512,900
7,414,700	3,513,900



3.2. Nature and Extent of Issuers Title to Properties

AIS Resources has signed an option contract that enables the Company to acquire 100% of the Guayatayoc Mina, Guayatayoc II and Vilama concessions by paying US\$4.5m and advising the vendor they wish to exercise the option. The option extension agreement expires on 4 August

2017 provided extension fees of US\$50,000 are paid on June 4 2017 and July 4, 2017 if required. Guayatayoc Laguna is located adjacent to the main public road and the mine declaration allows surface rights to mine for borates, and free movement across the access roads. This legal access has been granted and is part of the rights of the mining concessions. Further the local community of Quebrellas has signed a memorandum dated 3 May 2017 which endorses exploration on their communal lands. This memorandum has been lodged with the Jujuy Mines department as an annexure to the existing environmental permit that has been approvided.

The obligations that must be met to maintain the properties are the six monthly payment (April and October) of the canon fee to the Mines Department in Jujuy. For all three properties the fee is US\$2,250 each six months at current exchange rates (US\$1=15.4 Arg peso, \$CAD1=11.33). While these canon payments are made there is no expiration of the claims. Mina Guayatayoc has been declared a mine and has mining status for borates. A new environmental permit has been lodged (December 2016) to include pumping of brines for lithium and potassium for Mina Guayatayoc. Guayatayoc III remains in the transition stage as an exploration concession.

Vilama is located on a public road and there is free access to the concession. Due to the remoteness of its location there is no local community. An exploration licence has been granted for inspection of the property and to examine existing exploration works. An environmental report for exploration has also been lodged.

3.3. Payments

The properties are not subject to any encumbrances and there is only a single payment required to take ownership of all three concessions as described in detail above. Apart from royalties payable on production to the Jujuy province and the negotiation for payments to the two local communities when production commences there are no other payments due. There are no royalties, back-in rights, payments, or other agreements and encumbrances to which the property is subject.

There are no environmental liabilities during the exploration phase of which the concessions are subject to. There are no other significant factors and risks that may affect access, title, or the right or ability to perform work on the property. When the drilling phase is commenced a environmental permit application will be lodged for this work. After the seismic exploration is completed, the location of the drilling hole co-ordinates will be known.

3.4. VILAMA – MINA GIANINNA

The Property in Laguna Vilama is known as "Mina Gianinna." This property has been declared a mine "Mina" status for Minerals of the Mining Code 1st category. It is located in the Jujuy Province, in northwestern Argentina close to the Bolivian border. Mina Gianinni is 498km north of Salta by road, and 198km from Guayatayoc Salar. The central coordinates of the Salar are 22°57'21" south latitude and 66°91'32" west longitude, at an average elevation of 4,610 meters above sea level (m asl). The exploration area is located, within the lagoon of Vilama, at the foot of Pululo hill, to the west in the section of Rinconada, Province of Jujuy about 5.5km from the Argentine - Bolivian border.



CROQUIS DE DEMARCACION Mina GIANINNA 099-L-2003

E			7505	5200	_,			
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	16	17	18	1000 월 19 월 1000	20	21	22	409300
	23	24	25	26	27	28	29	3
1000	1000 30 울 1000	31	32	33	34	35	1000 36 8 1000	
					1			

7500000 Dated June 2003

4. GUAYATAYOC: ACCESSIBILITY, CLIMATE, VEGETATION, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

4.1. ROAD ACCESSIBILITY

Guayatayoc is located about 269km by road from the City of Salta, a 4 hour drive along RN9 then RN52. The main route is via Jujuy tollway then through the town of Purmamarca, then along highway 52 to Salinas Grandes turnoff, then 46km down a dirt public road to the Salar turnoff. There is a another highway from Salta to Jujuy which is RN51 but takes 5 hours but goes through the township of San Antonio de la Cobres. The western boundary of the concession is approximately 3km from the road. The surrounding area is very flat. The production warehouse of the Losi borate business is adjacent to the dirt public road and there are some abandoned worker's quarters there. There are two families on the perimeter of the property.



Figure 3 Train Route from Salta to Antofagasta Chile – from Wikimedia 2016, Nicholas Mendoza.



There is a railway crossing from northern Argentina to Chile that passes approximately 80km south of the project Guayatayoc.

4.2. PRECIPITATION, RELATIVE HUMIDITY, ATMOSPHERIC PRESSURE, TEMPERATURE.

Rainfall occurs between the months of November and March approximately 4 out of 5 months a year, responding to the temperature increase at this time of the year. This is due to the regime of winds that circulate throughout the territory, as a consequence of the interaction of the Atlantic, Pacific, and Polar anticyclonic (anticyclonic defined as a large-scale circulation of winds around a central region of high atmospheric pressure, counterclockwise in the Southern Hemisphere) centers.

The Pacific anticyclone, due to the height of the Andes, impacts on the atmospheric processes that develop to the east of the Andes, reducing its humidity in the mountain peaks of approximately 5,000 meters in the form of snow. During the summer months, the entrance from the Chaco plain of the South Atlantic anticyclone loaded with a mass of air with abundant humidity and along with the cold fronts that cross the country towards the north, produces very heavy rainfall. In the winter the cooling of the continent transforms the air into a center of high pressure winds, so during the cold season (June to September) good weather with dry and clear days prevail.

The distribution of the humidity during the summer by the winds of the South Atlantic is influenced mainly by the mountainous relief. In the Puna, as a consequence of the above, once the mass of humid air reaches a height of 2,500 - 3,000m, it has discharged the highest percentage of moisture, so that, although it continues to rise, no new precipitation occurs, which determines the aridity of the Salares.

This region is divided into two zones:

- One to the southwest (region Susques and south of Cochinoca) called Puna Desértica, where the precipitation reach their minimum levels, between 50 and 100 mm annually. It is the Puna of the Salares that occupies the bottom of the valleys and pockets.
- The other to the northwest (Yavi, Cochinoca Sta. Catalina, west of Tumbaya and Humahuaca) is the Puna Seca, where the rainfall is 300mm annually, where the salt flats are replaced by lagoons and the rivers are permanent.

The study area, due to the characteristics it presents, is located within the Puna Seca, with annual average rainfall of 150 to 200 mm. The data given in the table above indicate the precipitation values in the dry Puna, using as reference for the Guayatayoc area the values of the locality of Abra Pampa.

4.3. VEGETATION

There is very little evidence of any vegetation on the Guayatayoc salt plain. Due to the extreme weather conditions in the region, the predominant vegetation is of the high-altitude

xerophytic type adapted to high levels of solar radiation, winds and severe cold found mainly in the foothills.

The vegetation is dominated by woody herbs of low height from 0.40 - 1.5m, grasses, and cushion plants. With high salinity on its surface, the nucleus of the Salar is devoid of vegetation.

To date no specific vegetation survey had been carried out in the tenement area. However, it is possible to define a number of vegetation areas, based on their physiography.

Different types of grasses are recognized, depending on the grass species, on the hills which are frequented by Vicunas which may consist of *Stipa sp., Festuca sp.,* and *Panicum chloroleucum*.

Region	Sub-	Locality	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	Region														mm
		Abra Pampa	78	72	30	2	0	0	0	0	0	3	15	48	248
		Barrios	75	94	45	7	0	0	0	2	20	14	21	63	341
		Cieneguillas	104	89	59	4	2	2	0	0	2	8	17	88	375
		El Condor	96	83	55	18	2	1	0	2	5	13	29	66	370
		La Quiaca	85	70	45	6	1	1	0	1	3	9	28	64	313
PUNA	Seca	Pto. Marques	78	68	28	3	0	0	0	0	1	4	17	51	250
		Pumahuasi	78	73	43	4	1	0	0	0	1	6	19	59	284
		Rinconada	183	130	57	2	0	0	0	0	0	6	9	77	464
		Tafna	99	74	51	11	3	2	0	2	5	15	24	75	361
		Tres Cruces	68	60	25	2	1	0	0	0	1	4	8	40	209
		Sata.Catalina	107	102	49	4	5	0	0	1	3	8	22	74	375

Monthly and annual average rainfall table



Figure 5 Map of the annual rainfall adapted from Buitrago and Larran 1984 Project area is shaded in Black

The following table shows the values of Relative Humidity of different localities of the province, expressed in percentages. (Buitrago, 1994)

	Relative Humany												
Locality	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Set	Oct	Nov	Dec	Avg Year
La Quiaca	63	64	59	50	39	30	29	29	37	45	56	63	47
Humahuaca	62	65	63	55	47	46	45	42	42	46	56	62	53
SSdeJujuy	77	81	82	82	80	77	72	63	60	65	68	75	74
El Cadillal	69	73	75	76	73	72	63	54	51	56	59	63	65
El Talar	68	73	75	75	75	75	67	58	55	57	62	64	67

Relative Humidity

4.4. LOCAL RESOURCES

There is a small camp at Salinas Grandes for tourists on the highway about 46km from the Guayatayoc. The Pistrani works camp is also close by that provides heavy engineering support and services. The closest petrol station and supplies are located at Purmamarca (population about 2,000 plus about 500 tourists) which is 85km south or approximately 1.5 hours' drive. Abra Pampa (population about 9,500) is 83km west and about 1.75 hours' drive due to the dirt road. San Antonio de la Cobres is about 121km to the south east. There is approximately 100 people working there.

4.5. INFRASTRUCTURE

The gas pipeline runs across the top and the bottom of the concession area. There is a terminus about 5km from the turnoff on the road to Guayatayoc. There is 240V and 345Kva lines within 3km of the project. The roads are in very good condition and sealed nearly all the way to Salta after the first 46 km. There are numerous freshwater springs on the hills surrounding the Guayatayoc concessions. One spring exists where the past borate miners set up their processing operations and worker quarters 3km from the concession. There is no mobile phone signal present and no telephones lines to the area.

4.6. PHYSIOGRAPHY

Steinmetz (Steinmetz, Galli, & Chayle, 2016 Mar 31) summarises the area as an endoreicevaporitic basin is located in the northwest part of the Argentinean Andes, between 65°20'W to 66°35'W and 22°24'S to 24°00'S. This region is arid and has arid weather; rainfalls are less than 300mm per year. The feeding tributary rivers of the basin, flow only and episodically during the summer monsoons. The waterbody of Guayatayoc Lake, the lowest drainage point of the basin, is at an altitude of 3,400m asl and it is included within the eastern border of the Puna Geologic Province. (Gonzalez, 2000).

The determination of the most important spatial arrangement of the stream channels in the basin landscape has been based on several important factors like slope and structure without forgetting other factors as weather. However, the adjusted and anomalous river patterns are mainly produced by slope and structure. (Twidale C, 2004) Some slope linked river patterns in the Guayatayoc basin, such as parallel arrangements, are well represented in the plains zones of Coranzuli ignimbrite, as well as the subparallel streams in the highest parts of the quaternary glacis located at the west side of the Sierra de Santa Victoria. Several radial patterns can be recognized in basin borders zones and also have been observed around basin waterbodies. Distributary patterns are well developed in quaternary alluvial fans like Las Burras and generally in the west slopes of the Sierra de Aguilar. On the other side, there are quite a lot of examples showing structure linked straight arrangements in large areas dominated by parallel, angular, trellis and segments of other patterns which can be considered linear patterns on a local scale. Some of those straight streams, arranged on the guaternary alluvial deposits, are demonstrating a neo-tectonic activity. In some parts of Coranzuli ignimbrite plains, angular and trellis patterns are well represented too. Annular arrangements characterize the surrounding drainage in the vicinity of the Miocene volcanoes. Remnants of relatively recent direction change of subparallel and dendritic streams were identified in the guaternary alluvia of Cangrejo sub river basin. Evidences of recent structural activity, which are controlling arrangements, are also

identified by the present divergence of the distributary drainage closed to the town of Abra Pampa and through-out Pastos Chicos sub river basin.

Moreover, some examples of anomalous fluvial designs, considering the stream flows as subsequent-obsequent, can be referred in several outcrops. An example of them is the Ordovician outcrop situated at the NNE of the Huancar village. Anabranching streams, which characterize aggradational plains, are often represented by angular- trellis patterns. This arrangement association, angular-anabranching, is only verified in ignimbrite lithologies, even though such kind of plains are not present aggradational environments. The areas of the Guayatayoc basin which have possible aggradational environments are the alluvial fans at the mouth of Miraflores and Las Burras rivers, although Las Burras fan does not seem active. Finally, some conspicuous examples of anabranching patterns were also found in the present alluvial sediments which are filling up the southern zone of Pastos Chicos river.

Steinmetz (Steinmetz R. L., 2013) in her thesis describes Guayatayoc Laguna as a 400 km² ephemeral, endorheic and evaporative saline lake (or playa lake), located at 3,400m asl in the western border of the north Puna. The N-S elongated depocenter of Guayatayoc extends between Tusaquillas and Aguilar Ranges. The playa lake goes transitionally to the alluvial valley of the Miraflores River to the north, and to Salinas Grandes southward. The sedimentary filling of the basin has been traditionally considered unknown and related to the Tres Cruces Basin, based on stratigraphic assignments.

Steinmetz' thesis analyzes the seismic architecture of the stratigraphy with the aim to understanding both style evolution and chronology during Cenozoic times. Environmental processes during Quaternary have defined the two sedimentary domains in the basin, the north clastic-sedimentary one (Guayatayoc playa lake) and the chemical-sedimentary area in south part (Salinas Grandes). Characterization of such processes took into consideration geomorphology, sedimentology and chronology (OSL as well as 14C) analyses. The saline system of Guayatayoc comprise a few-known prospective resources. This contribution incorporates a hydro chemical facies characterization of the Guayatayoc hydro-system.

The original sinorogenic depocenter comprised both Guayatayoc and Salinas Grandes. The eastern border was established during Upper Eocene, while western one during nearly Miocene. Consequently, in this basin there was no W-E orogenic deformation advance.

Guayatayoc stored 2500m thick sedimentary deposits over a period of 35 Ma. Since the stablizing of endorheism, during the foreland fragmentation in the Upper Eocene, sediment filled and contained interstitial solutions which were enriched and concentrated by evaporative processes since, at least, during the last 20 to 15 Ma.

The topographic division of the Guayatayoc-Salinas Grandes depression was defined by aggradation of Las Burras's alluvial fan, its development has started during Lower to Middle Pleistocene and ended near the Pleistocene – Holocene boundary. The lacustrine phase during final Pleistocene occupied the whole depression, and was characterized by a 5m deep saline water body. Therefore, the disconnection between Guayatayoc and Salinas Grandes was actually established as late as post-lacustrine times.

During the Pleistocene, Las Burras river flowed mainly to Salinas Grandes, the Holocene change of its river channel originated a Salar-domain southward with the alluvial fan and a

playa lake northward. The change to aridity conditions took place after 9000 cal yr. BP and was characterized by incisive sedimentary setting.

The length of the operating season is 11 months for exploration based on the rainy season commences in February for approximately one month (see rainfall statistics above). The short heavy rains make the Laguna surface muddy and 4WD vehicles find it difficult to get traction on some parts of the salt flat. However quadbikes and motor bikes can traverse the surface easily. Colder temperatures prevail in July and August but apart from being inconvenient do not impact exploration or drilling.

5. LAGUNA VILAMA: ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY



5.1. ACCESSIBILITY

Laguna Vilama is situated on a road that leads into Bolivia. From the town of Susques the route follows a dirt road to Pairique Grandes and then onto Pairique Chico then on to the town Rosario de Coyaguaima then to the Laguna. An alternative route is to Pirquitas mine then to the Laguna past Palar Laguna. The town Lagunilla del Farallon is the closest to the Laguna Vilama some 50km to the north. The Vilama Laguna is approximately 170km from Susques but due to road conditions takes approximately 3.5

hours, with small sections of the road requiring repair. Significant road works are currently being conducted in the area. There is no power, railway or major highways close by. The exploration area is located, within the Laguna of Vilama, at the foot of Pululo hill, to the west in the department of Rinconada, Province of Jujuy; 5.5km from the Argentine - Bolivian border.

The operating season for exploration is 12 months of the year due to the high altitude and low rainfall.



of http://www.latitud-cero.com.ar 2006

The human population is very scarce and not permanent, except for pastors who live in the village of Lagunilla del Farallón. In November or December the farmers climb the hills from the outskirts of the village to the flats of Vilama and during the wet season they return only sporadically to control and herd the animals. At 4,600m asl the area is fairly remote, with dirt roads leading into Bolivia.

5.2. NEARBY	CITIES AND	Towns
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West	North	East	South		
Piedras Blancas (17.5km)	Loma Blanca (8.7km)	Santo Domingo (6.9km)	Mina Ajedrez (5.8km)		

Tiomayo (11.6km)	Lopiara (7.3km)	Antiguyo (9.3km)		
Casa Colorada (13.9km)	Rinconada (12.1km)	Mina Pirquitas (11.1km)		
Bravo Grande (13.9km)	Casa Colorada (18.7km)			

CLIMATE



Figure 7 La Quiaca Weather Station. 3,459m asl, 147km from Laguna Vilama. Annual averages

Castino et al (Castino, Bookhagen, & Strecker, 2016 April) states that for the last three decades (1979–2014) there is a general trend towards drier conditions at low elevations during the wet season and locally wetter conditions at the mountain front. On the contrary, we found evidence for extensive areas exhibiting a trend of increasing total seasonal rainfall amount in the arid Puna de Atacama Plateau region. Interestingly, the positive trend revealed in their study appears to be in contrast with rainfall projections for a different emission scenario for the northern Andean Plateau (Altiplano) obtained during recent studies (Urrutia and Vuille 2009; Minvielle and Garreaud 2011; Thibeault et al. 2012). In particular, Urrutia and Vuille's (2009) projections for DJF rainfall in the tropical Andes during the period 2071–2100 exhibits a rather incoherent pattern, with increasing, as well as decreasing total rainfall amounts compared to the period 1961–1990.

On the Bolivian Altiplano the projection showed a significant total-amount decrease. We emphasize that our study area was only partially included in their investigated region. Urrutia and Vuille (2009) suggest that the rainfall decrease expected for DJF by the end of the century could be linked to the weakening of the easterlies in the middle and upper troposphere. It has been recognized that easterly wind anomalies at high tropospheric levels are associated with deep convection on the Altiplano by transporting moist air from the interior of the continent. This phenomenon has been called the 'easterly/wet– westerly/dry relationship' (Garreaud and Aceituno 2001; Thibeault et al. 2010). Minvielle and Garreaud (2011) analyzed the predicted change in rainfall pattern in the Central Andes (15°–25°S) for the end of the twenty-first century (2070–99), confirming a significant decrease in total amounts linked to the change in the middle and upper troposphere

circulation with respect to 1970–99. Unfortunately, their study does not include statistically significant results for NW Argentina. Thibeault's et al. (2012) projections also suggested a decrease of rainfall on the Bolivian Altiplano, starting already in 2020, although the implications for the precipitation on the southern Andean Plateau were not discussed.

5.3. INFRASTRUCTURE

There is no infrastructure close by. Susques is the nearest town and supplies of gas, food and labour would need to be trucked in or out. It is located on RN 52 and the road to the Mine.

5.4. PHYSIOGRAPHY

Laguna Vilama is located in the highlands of the Province of Jujuy, northwest of Argentina (4,500m asl, 22° 30'S and 66° 50'W). Numerous smaller salt lagoons are known in the area, with an approximate area covering 5,200ha of lagoons (in humid times) whose basins are located within a region of approximately 380,000 ha.

The small basins that make up this area are located in the Puna geological province, which is the southern terminus of the Bolivian and Peruvian Altiplano, in a stepped plateau between numerous volcanoes that constitute the maximum height of the Andes Mountain Range. The predominant morphology is of great cones and plains of lavas and ignimbrites on which are located hundreds of small lagoons, and some larger ones like Vilama. The small to medium lagoons are freshwater and deeper, while the two largest, Vilama and Palar, are very shallow, with high evaporation and concentration of salts and a large contribution of volcanic sediments, presenting fluctuations in level during the dry seasons and wet.

6. HISTORY: GUAYATAYOC

6.1. PRE AIS RESOURCES

Several academics most notably Dr R N Alonso have been studying the borates in the Guayatayoc Salar, and more recently Dr R Steinmetz in 2013 with her most recent paper published in January 2017.

Alonso and Viramonte (1985) discussed thermal-spring borate deposits in northwestern Argentina. Earlier reports about Andean Salares are Reichert (1907), Barnabe (1915), and Catalano (1926, 1927, 1930) on borate deposits in northwestern Argentina;

Houston notes that Fabricaciones Militares (an Argentine government agency) carried out sampling of brines from Puna Salares, in 1970. The presence of anomalous Li values was detected at this time, when only salt and borates were exploited from the Puna Salares.

Initial evaluation of the mineral potential of Salares in Northern Argentina is documented by Igarzábal (1984) as part of the Institute of Mineral Beneficiation (IN-BE-MI) investigation carried out by the University of Salta. No assay certificate is available for the information

contained in the Igarzábal (1984) report and consequently no reliance can be placed on this data.

Guayatayoc was staked in 1998 and Guayatayoc III in 2005.

In 2008, cateos were applied for by Orocobre around the edges of Guayatayoc, with additional applications made at Guayatayoc in 2009. Additional properties were also purchased by the Company during 2009 and 2010 either as outright purchases or via option to purchase agreements.

On April 30, 2010 John Houston, a British Geohydrologist published a NI 43-101 technical report for Orocobre Ltd (through its 85% beneficially owned subsidiary South American Salares SA that held directly or indirectly over 1,200 km² of mining tenements in the area of the Salar de Salinas Grandes and Laguna de Guayatayoc).

Houston commented on page 9 of the report "Technical Report on the Salinas Grandes-Guayatayoc Project" that "No data is yet available to assess the recoverable reserves. The data collected to date suggest that the Salinas Grandes-Guayatayoc property may have significant potential as a source of lithium, potassium and boron. It is therefore recommended that an investigation program be mounted in order to establish initially the insitu resources, and if warranted, later the recoverable resources."

In October 2010, MariFil Mines Limited offered to Renholn International its Guayatayoc's lithium claim in Jujuy Province. Renholn agreed to accept this claim in lieu of the two lost claims if Marifil would provide a NI 43-101 report on this claim. Subsequently Renholm never progressed to do a NI 43-101 report and the sale was terminated. Marifil Mines said "Marifil considers these properties to have considerable potential. We have a NI 43-101 report recommending a large work program and our sampling shows the presence of lithium." The NI43-101 report referred to was in Catamarca province.

In 2012 Murray Brooker published an updated NI 43-101 report for Orocobre on Salinas Grandes and Guayatayoc called "*Technical Report on the Salinas Grandes Lithium Project*" (Brooker, 2012). While this report quoted extensively from the Houston report there was no new information on Guayatayoc. The YPF seismic section "F" was represented in a map of the geology of the regional area.

Dajin Resources did some preliminary work on the Guayatayoc concessions it held which were mostly in the northern end of the Salar, but in October 2016 it assigned 51% interest to a private company Lithium S for a consideration of CAD\$1 million in cash and CAD\$2 million of expenditure. In 2011 they drilled two holes and their press release posted in 2011 quoted *"Dajin Resources Corp. ("Dajin"*) reports results from drill Hole #1 and #2 of two holes drilled to prospect a deep brine aquifer in the region north of Guayatayoc Lake in Jujuy Province, Argentina. The two holes were stopped due to technical reasons at depths below 300 meters, following their entry into the brine aquifer, but above their target depths. Both holes encountered brines of similar salinity. The assay results from Hole #1 and #2 confirmed the presence of potassium, lithium and boron but do not indicate potential for the economic harvesting of potassium, lithium or boron from brines at the north end of Guayatayoc Lake.

The samples were collected in the presence of Dan Emerson, P.Geo., of AMEC Earth and Environmental or by professionals trained by him. Mr. Emerson, a qualified person as

defined by NI 43-101, has approved the technical content of this press release. The Company will now focus on exploration of its properties at the Salinas Grandes Salar which are to the south of Guayatayoc Lake. Further drilling will commence once permit approval has been received from competent authorities in Salta and Jujuy Provinces."

Exploitation of borates takes place locally in the Guayatayoc properties by a company Called Luis Losi SA, as does the production of borates and salt by solar radiation processes.

Goldinka Limited, a private company staked a project out of the Laguna Guayatayoc to the north called Project Minas "Kaias", located in the basin of Salinas Grandes-Guayatayoc, bordering both Lithium-S / Dajin projects. Goldinka Energy owns an area of 142,000 ha in the catchment area of North Guayatayoc. They claim with no attribution of author except excepts from Dajin Resources "From the preliminary interpretation of 2 D seismic lines in the area, conducted for the study of gas and oil in the 90's it was established the presence of a sedimentary pile (potential paleolake), with the presence of cells in the Goldinka Energy area, which has a considerable thickness, potential and clastic sediments saline, embedded in brines containing B - K - Li. Correlated Tertiary - Quaternary rocks.

South of the area controlled by Goldinka Energy is the Li-K Project Dajin Resources Corp (now Lithium S). Given the size of the area controlled by Goldinka Energy, and the geological conditions shows the same, this would be one of the prospects of world-class to develop for B-K-Li.

The seismic WE is entirely within the area controlled by Goldinka Energy and the same is observed the presence of two sedimentary basins and stacking the same in the presence of a possible fault that separates central intrusive."

From the results obtained in a partial and preliminary surface samples made in duplicate in two areas of sampling and a sample taken from a well dug to 12 meters, we demonstrate the existence of B-K-Li in the project area and its potential relation to the presence of saline paleo lake. It is hoped the presence of deep brine aquifers enriched in these elements. This requires the reinterpretation of seismic lines and the subsequent deep drilling in search of brackish aquifers. One of the key benefits of this project is the existence of a large volume of recharge water and continuous supply to the basin of elements such as B-K-Li." (Retrieved on 29 March 2017 from www.goldinka.net)

The largest research on this area was carried out and reported in a Ph D thesis written by Dr. Romina L Steinmetz during 2010-2013. Dr. Steinmetz recently published another paper in 2015 "*Lithium- and boron-bearing brines in the Central Andes: exploring hydrofacies on the eastern Puna plateau between 23° and 23°30'S*." (López Steinmetz R.L., 2015)

6.2. AIS RESOURCES

After the Option Agreement was executed on 4 November 2016, the Guayatayoc Salar was visited on three occasions by Messrs. Carlos Sorentino, Phil Thomas, Ricardo Alonso, Marc Enright-Morin, Gabriel Blasco and Sam Eakin. During visits samples were taken from two pits, the boron mining works inspected and samples of ulexite taken. On subsequent visits in December samples of brine were taken and also a visit to Laguna Vilama where 11 pits were sampled from existing works for boron, potassium and lithium. These works are fully

described in the sampling section. In late December Jorge Bragantini, Dr. Alonso and two other geologists visited Guayatayoc to dig 36 pits and sample the brines for boron, potassium and lithium.

7. HISTORY LAGUNA VILAMA – MINA GIANINNA

There has been very little technical work published on the brines in Laguna Vilama. One notable exception is the recent publication by Soler et al, 2007 (Soler, M.M. *Geology of the Vilama caldera: A new interpretation of a large-scale explosive event in the Central Andean plateau during the Upper Miocene*. (M.M. Soler, 2007).

Geologist Gabriel Blasco from Jujuy quoted "Its geological framework is given by the extensive ignimbritic spills that cover the region. The borate present is ulexite which is distributed in two well-defined areas to the north and south of the depression (Alonso, 1986). The northern sector is the most important in terms of concentrations. In general, the borate is of poor quality. Existing reserves have not been evaluated, nor are farms in place. Unpublished reports by the English in the mid-nineteenth century estimated at least one million tonnes of raw ulexite. Given the abundant presence of borates it is estimated that it may be potentially rich in lithium. An important part of the evaporitic environment is covered by the property named Mina GIANNINA (File N ° 99 - L - 2003), of the company Luis Losi S.A." (Blasco, 2016)

The following publications have been used as background information in preparing this Technical Report, in addition to those specifically referenced in the text:

8. GEOLOGICAL SETTING AND MINERALIZATION

8.1. REGIONAL GEOLOGY

8.1.1. STEINMETZ 2013 STUDY

Steinmetz, 2013 describes the Guayatayoc Salar as:

"The N-S elongated depocenter of Guayatayoc extends between Tusaquillas and Aguilar Ranges. The playa lake goes transitionally to the alluvial valley of the Miraflores River to the north, and to Salinas Grandes southward. The sedimentary filling of the basin has been traditionally considered unknown and related to the Tres Cruces Basin, based on stratigraphic assignments.

Environmental processes during Quaternary have defined the two sedimentary domains in the basin, the north clastic-sedimentary one (Guayatayoc playa lake) and the chemical-sedimentary area in south part (Salinas Grandes). Characterization of such processes took into consideration geomorphology, sedimentology and chronology (OSL as well as 14C) analyses. This PhD thesis contribution incorporates a hydrochemical facies characterization of the Guayatayoc hydro-system.

The original sinorogenic depocenter comprised both Guayatayoc and Salinas Grandes. The eastern border was established during Upper Eocene, while

western one during nearly Miocene. Consequently, in this basin there was no *W*-*E* orogenic deformation advance. Guayatayoc stored 2,500m thick sedimentary deposits during 35 Ma. Since the endorheism stabilizing, with the foreland fragmentation during Upper Eocene, sedimentary filling by interstitial solutions which were enriched and concentrated by evaporative processes since, some 20 or 15 Ma. Occurred.

The topographic division of the Guayatayoc-Salinas Grandes depression was defined by aggradation of Las Burras's alluvial fan, it's development has started during Lower to Middle Pleistocene and ended near the Pleistocene – Holocene boundary. The lacustrine phase during final Pleistocene occupied the whole depression, and was characterized by a 5m deep saline water body. Therefore, the disconnection between Guayatayoc and Salinas Grandes was actually established as late as post-lacustrine times. During the Pleistocene, the Las Burras River flowed mainly to Salinas Grandes, the Holocene change of its river channel originated a Salar-domain southward to the alluvial fan and a playa lake northward. The change to aridity conditions took place after 9000 cal yr. BP and was characterized by incisive sedimentary weathering.

Holocene aridity caused the increasing salinity, linked to rising evaporation, and playa lake deposits resulted in saturated hypersaline brines, characterized by Cl^- / Na^+ (K^+) compositions. Residual brines can be differentiated from brackish and saline inflows, originated by leaching of sedimentary, igneous and volcanic basements, because of K^+ enrichment and constant pH 7.5 to 7.6.

Li+ and K+ have parental linkage, while another source provides boron. The Las Burras River supplies saline and hyper saline brines, Cl⁻/Na⁺, with boron, Li⁺ being present. The comparison between ionic concentrations of residual brines (45 to 125mg/L of Li⁺) and Las Burras shows that this river represents the main supply for Li⁺ and B enrichment, thus Las Burras's basin involves interesting perspectives for exploration."

Houston 2010 summarized the regional geology from various authors in his 2010 report as follows:

Jurassic-Cretaceous

The Andes have been part of a convergent plate margin since the Jurassic, and both the volcanic arc and the associated sedimentary basins developed as a result of subduction processes. An initial island arc formed along the west coast of South America during the Jurassic (195-130 Ma), moving eastward during the mid-Cretaceous (125-90 Ma) (Coira et al., 1982). An extensional regime persisted through the late Cretaceous (see Figure 9.1) generating back-arc rifting and grabens (Salfity & Marquillas, 1994). Marine sediments covering most of the Central Andean region indicate an extensive back-arc seaway with little land above sea level (Lamb et al., 1997; Scotese, 2001).

Paleogene

During the late Cretaceous to Eocene (78-37 Ma), the arc shifted farther east to the location of the current Precordillera (Allmendinger et al, 1997; Lamb et al., 1997). Significant shortening commenced during the Incaic Phase (44-37 Ma) largely in the west, with associated uplift to perhaps 1000m (Gregory-Wodzicki,

2000) creating a major north-south watershed. Coarse clastic continental sediments eroded from this ridge indicate eastward transport in Chile and Argentina (Jordan & Alonso, 1987). The subsequent initiation of shortening and uplift in the Eastern Cordillera of Argentina (~38 Ma), led to the development of a second north-south watershed with coarse continental sediment accumulating throughout the Puna (Allmendinger et al., 1997; Coutand et al., 2001).

Neogene

By the late Oligocene to early Miocene (20-25 Ma), the volcanic arc switched to its current location in the Western Cordillera. At the same time, significant shortening across the Puna on reverse faults led to the initiation of separated depocenters (Figures 9.2, 9.3). Major uplift of the Altiplano-Puna plateau began during the middle to late Miocene (10-15 Ma), perhaps reaching 2500m by 10 Ma, and 3500m by 6 Ma (Garzione et al., 2006). Coutand et. al. (2001) interpret the reverse faults as being responsible for increasing the accommodation space in the basins by uplift of mountain ranges marginal to the Puna Salar basins. This is confirmed by the seismic section across Salinas Grandes. The late Miocene volcanic flare-up (5-10 Ma) centered on the Altiplano-Puna Volcanic Complex (APVC) between 21° -24° S (de Silva, 1989), produced a high density of both caldera subsidence and associated extensive ignimbrite sheets, as well as andesitic-dacitic stratovolcanoes. In the Puna, volcanic activity was frequently constrained by major NW-SE crustal mega fractures (Chernicoff et al., 2002), that are especially well displayed along the Calama-Olacapato-El Toro lineament to the south of Cauchari (Salfity, 1985).

During the early to middle Miocene, red bed sedimentation is found throughout the Puna, Altiplano and Chilean Pre-Andean Depression (Jordan & Alonso, 1987). As thrust faulting, uplift and volcanism intensified during the middle to late Miocene, the sedimentary basins became isolated by the mountain ranges. developing internal drainages, with major watersheds (the Cordilleras) bounding the Puna to the west and east. Sedimentation in these basins initiated with alluvial fans being shed from the uplifted ranges and continued with playa sandflat and mudflat facies. Northern Argentina has experienced a semi-arid to arid climate since at least 150 Ma as a result of its stable location relative to the Hadley circulation (Hartley et al., 2005), but as a result of Andean uplift almost all flow of moisture from Amazonia to the northeast has been blocked, leading to increased aridity since at least 10-15 Ma. Consequently, given the zonally high radiation and evaporation levels, the reduction in precipitation has led to the development of increased aridity in the Puna. The combination of internal drainage and arid climate led to the deposition of evaporite precipitates in many of the Puna basins.

Late Neogene-Quaternary

During the Pliocene-Pleistocene deformation as a result of shortening moved out of the Puna, eastward into the Santa Barbara system. At the same time orbital influences led to a fluctuating climate regime with short periods of wetter conditions alternating with drier. As a result of both reduced tectonic activity and frequent aridity, a reduction in erosion and accommodation space means that sediment accumulation in the isolated basins has been limited. Nevertheless, ongoing runoff, both surface and underground continues solute dissolution from the basins and concentration in their centers where evaporation is the only outlet. Evaporite minerals occur both disseminated within clastic sequence and as discrete beds. The earliest record of evaporite formation is for the middle Miocene, but their frequency and magnitude tends to increase during the Late Neogene-Quaternary (Alonso et al., 1991; Vandervoort et al., 1995; Kraemer et al., 1999). Dating of the thick halite sequences in the Salares de Hombre Muerto and Atacama suggest that they have mostly formed since 100 Ka (Lowenstein, 2000; Lowenstein et al., 2001).

8.2. DEPOSIT TYPES

8.2.1. GUAYATAYOC BASIN

Houston 2010 summarizes the local geology as "The basement units surrounding the Guayatayoc Salar are younger than those at Salinas Grandes, consisting of Ordovician Santa Victoria Group sandstones, mudstones and marly mudstones. These are intruded by the Jurassic-Cretaceous Tusuquillas composite batholiths, composed of muscovite granite, porphyritic granite and monzogranite; and the Aguilar-Abra Laite Formation, composed of calcalkaline granite. Holocene clastic pediment sediments – sands, gravels and siltstones – occupy the topographic low of the Salar basin, with the Salar and its associated deposits occupying the central part of the basin."

Steinmetz 2013 provides significant detail commenting (translated from Spanish) "From a stratigraphic point of view, the basin of Puna Norte (Alonso et al., 1984) is Ordovician and consists of marine deposits and volcanic rocks that occur in two submeridian eruptive bands (Méndez et al., 1973; Palma et al.1986; Pérez and Coira, 1999). The deposits of the Mesozoic - Eocene rift basin, as well as igneous bodies, volcanic deposits and continental sedimentary deposits of the Andean orogen, complete the stratigraphic record.

The area of study is framed in what Alonso and Viramonte (1985) and Alonso (1986) called "Boratífera sub-province of the Eastern Puna" in which the conditions of evaporite endorheism, volcanism and aridity would have lasted from the Miocene to the present. According to Alonso (1986), Jordan and Alonso (1987) and Alonso and González Barry (2008), the basins of the Puna de Jujuy are endorheic, volcanic, lacustrine, intra-arc / intra-plateau evaporites and have Miocene evaporite deposits and quaternary Salares.

In Guayatayoc the basement is constituted by the Santa Victoria Group (Turner, 1960), of age Tremadocian - Llanvirniano, and inclusive to Santa Rosita Formations (Turner, 1960) and Acoite (Harrington, 1957). These are marine deposits whose outcrops can be observed in the Sierra de Cobres, Sierra Alta and Sierra de Aguilar. The Ordovician also includes plutonites and volcanites of the East Puna Eruptive Belt (Méndez et al., 1973), for example in the Sierra de Cobres (Figure 4). In the hills bordering the Guayatayoc depression, intrusive Jurassic-Cretaceous age (Zappettini, 1999, 2008, Rubiolo, 1997), for example Tusaquillas (Zappettini, 1990; Cristiani et al., 1999), Cobres (Toselli and Rossi de Toselli, 1977, Zapettini, 1989, Menegatti et al., 1997) and Aguilar (Coira and Darren, 2002). The petrographic mineralization includes leucocratic granites of brown tones and porphyric monzogranites, among which are granodiorites, porphyric granites, microgranites and monzonites (Zapettini, 1989).



Figure 8 Location Map and geological units of the Guayatayoc and Salinas Grandes Basins adapted from Steinmetz

The Cretaceous deposits - Middle Eocene of the Salta Group (Turner, 1959) include the Pirgua Subgroups (Reyes and Salfity, 1973), Balbuena (Moreno, 1970) and Santa Barbara (Moreno, 1970) and surface southeast of the basin, Slope of Lipán, and to the northwest, in the vicinity of Santa Ana and Casabindo. The Pirgua Subgroup (Reyes and Salfity, 1973) is composed of red beds and polymictic conglomerates deposited in alluvial fans and river systems in the sinrift stage. The Balbuena Subgroup (Moreno, 1970) includes the Lecho Formations (Turner, 1964) and Yacoraite (Turner, 1959), represented in the region by calcareous sandstones, fossiliferous limestones and perlites deposited during the post-rift stage in an environment Marine coastal, sublittoral and shallow (Sánchez and Marquillas, 2010). The Santa Barbara Subgroup (Moreno, 1970) includes the Mealla (Moreno, 1970), Maíz Gordo (Moreno, 1970) and Lumbrera (Moreno, 1970) formations represented by granodecreciente fluvial successions with development of paleo soils and floodplains associated with plains (Sánchez and Marquillas, 2010).

The Andean orogeny begins with the compressive events of the Incaic phase and in northern Puna continental sediments were deposited in an ancestor basin system from the Middle Eocene - Early Oligocene (Hernández et al., 1999). The paleogenic geography was complex, the development and connectivity between the Puno sedimentary basins is still an object of analysis and its evolutionary style is usually assigned to a simple anchors system (Carrapa et al., 2005; Carrapa and DeCelles, 2008; In her 2013 PhD study, it is possible to determine the relationship between the number of species and the number of species that are present (Debreu et al., 2011).

Neogene sedimentation is represented by an important Miocene ignimbrite platform,

mainly originated in the Coranzulí Volcanic Complex (Seggiaro and Aniel, 1989) and clastic-volcanoclastic sequences of the Miocene-Pliocene boundary in the eastern slope of the Pastos Chicos (Arias and Viera, 1982), Coira and Paris, 1981). Finally, the juvenile (current) landscape responds to clastic and detrital accumulations that form descents, alluvial fans and evaporitic deposits that cover the low of the depression (Alonso, 1999; Alonso and González Barry, 2008). The endorheic character of the region would have remained.



Figure 9 Schematic representation of the structural geology that formed the Guayatayoc basin from five authors from Steinmetz RLL 2013

8.3. EXPLORATION

Exploration carried out to date consists of the following:

Surface pit sampling (reported in the press releases from AIS Resources dated February 22, 2017, February 1, 2017, January 3, 2017) – with a geophysical interpretation provided in this chapter, from Steinmetz PhD study.

The sedimentary facies of lake beach of Guayatayoc were originally described by Reverberi (1968), who focused on the presence of borate mineralization. Later Sandruss (1978), Lavadenz (1981) and Meneguzzi (1984) extended the pioneering studies of Reverberi. Kulemeyer (2010, pers. Pers.) The southern part of Guayatayoc and AMS dating from ~ 35,000 and ~ 14,000 AP years at depths of 11m and 0.40m, respectively.

The alluvial fan of the Las Burras River was studied by Abril and Amengual (1999) using spectral characterizations of satellite images for the determination of morphodynamic sequences. They propose that during the mid - upper Pleistocene the basins of Little Grasses and Coranzulí would have been captured due to factors related to climatic conditions and, to the east, this process would originate the alluvial fan of the river Las Burras.

Houston 2010 and Brooker 2012 focused mainly on Salinas Grandes and not Guayatayoc when completing work for Orocobre Ltd. Houston 2010 completed the analysis of 23 pit samples for lithium and 38 for boron and potassium at Guayatayoc. No real conclusions were drawn as they were not analysed in detail.

Steinmetz R LL 2013 wrote "The Guayatayoc lagoon constitutes the end point of the water discharges of this endoreic basin. Due to the absence of incisive processes that generate sediment fill exposures, the study of beach lake sedimentology required the execution of paving stones, whose depth range was limited by the presence of brines that saturate the sediments, even in the period Of drought. Twenty-four hand gauges were distributed in four areas, the sectors located north of Guayatayoc, coinciding with the mouth of the Miraflores river and the latitude of the town of Tusaquillas (calicates T1 to T6), the area near the town of Sausalito S1 to S11), the southwestern zones bordering the town of Rinconadillas (calicates R1 to R3) and the southwest sector near Quebraleña (calicates Q1 to Q4).

The studied sedimentary profiles include three typologies. To the west of the beach lake, the observation of the deposits of the alluvial fan of the river Las Burras was possible thanks to the existence of a quarry of extraction of materials for road use. The deposits located at the foot of the Sierra de Tusaquillas required manual excavation in order to achieve sediment exposure. Finally, the profiles naturally exposed in river terraces located in tributary courses to Guayatayoc from the southeast. The cartographic location of the lattice cross-sections and profiles is presented in Figure 10.

Field observations include sedimentological characterization, such as description of textures, color and potency of deposits. The samples obtained were firstly subjected to observations by thin film microscopy and then examined using electron microscopy. Compositional analyzes included EDAX, DRX and FRX. Chronologies were performed on the basis of optical stimulation luminescence dating and using radiocarbon isotopy."

The hydrogeochemical study of the Guayatayoc basin included samples of residual brines and feedwater during the dry season of 2010, 2011 and 2012. The evaporitic, residual and interstitial brines were collected at depths of 1.7m from pits made manually in the beach lake of Guayatayoc. The contribution waters were sampled in the main tributary courses to the basin, upstream of the urban settlements and corrals, which sometimes required placing the sampling in the rivers' springs or in the slopes. In addition to the actual sampling, field determinations were made in situ as well as water and air temperature.

The determination of the evaporative behavior of Guayatayoc residual brine was carried out by chemical analysis in samples concentrated by evaporation. The procedure considered the analytical concentrations of the sample of residual brine Q0 (S0) and 2 aliquots of 1.5L (S1) and 2.25L (S2) which were reduced by evaporation to 0.75L.



Figure 10 Location of the pits and quaternary profiles of Guayatayoc

8.4. ORIGIN OF SOLUTES

The highest concentrations of B, Li⁺ and K⁺ (Figure 11, A, B and C) are present in the hypersaline, chloride and residual brines obtained in potholes at Guayatayoc beach lake. The most enriched contribution waters (ellipse continuous line) in boron come from the slopes of Rinconadillas and Alfarcito as well as the rivers San Antonio de los Cobres and Las Burras. This in turn constitutes the largest contribution of lithium while potassium is present in low concentrations in all tributaries.

The following information is NOT NI 43-101 compliant because the qualified persons signing this report were not able to verify the results and they are historical in nature pursuant to section 2.1 of the NI 43-101 code.

Steinmetz 2013 commented:

"The naturally occurring ratios of equivalents in the water system vary generally from 1:7 to 1:14 of Li^*/B while Li^*/K^* exceeds 1:30 in the residual brines and is at least 1:4 in the Samples from Las Burras and Alfarcito. Samples containing boron and lithium (Figure 11, D) show $[B]>[Li^*]$ with the exception of the Aguas Calientes slope, whose ratio $[B]<[Li^*]$ corresponds to a low concentration of boron and not to An anomalous lithium value. Potassium inputs are always higher than those of lithium (Figure 11, E) and only the samples of Aguas Calientes and the mouth of the Miraflores River (sample 7), NE tributaries Of the Sierra de Aguilar and the Grande (sample 22) and Colorado (sample 24) rivers, in addition to the residual brines (Figure 11, F).

In the Li⁺/B, K⁺/Li⁺ and K⁺/B formulations formulated in meq/L (Figure 11, D, E and F) the concentration of the residual brines is the result of the mixture between the inputs. The superimposing of evaporative concentration processes is eliminated by standardizing SDT, thus the ionic tenor of the residual brines is the reference standard for the identification of the waters that relatively contribute or dilute the various elements. In the case of boron, the sample of Alfarcito (Figure 11 D) has concentrations in the range of residual brines and the enrichments are contributed by the slope of Rinconadillas and the rivers Las Burras and San Antonio de los Cobres. There are also samples that have B but not Li⁺, the relative contributions of boron in these cases are deduced from the relation K⁺/B and are generally associated with samples located near the faults that delimit the depression to the east and west (Figure 3.2.13, A). The Las Burras River constitutes the contribution of lithium enrichment (Figure 3.2.13, B), while in the case of potassium, all samples have lower concentrations than the residual brines of beach lake (Figure 11)."

The reader must be cautioned that these results are NOT NI 43-101 compliant and are historical in nature as the Qualified Person was unable to verify the data accuracy.



Figure 11 Concentrations of boron, lithium and potassium expressed in mg/L (AB and C) and in Meq/L normalized to SDT (DEF) from Steinmetz 2013

8.5. SEISMIC WORK

The seismic sections of reflection studied are mostly unpublished and were ceded by the Provincial Mining Directorate of the Province of Jujuy. The **.sgy** files containing the migrated reflection seismic data were accessible through the use of two-dimensional visualization software Six View 2, in which suitable visual parameters (color, scale, gain, etc.) were selected. The three-dimensional visualization was carried out using the software Petrel 2004 in the Chair of Geophysics, of the School of Geology of the Faculty of Natural Sciences (UNSa).

The files of the seismic reflection sections do not have speed data, so it was decided to unify the value of the same to 4,200 m/s, used for similar deposits. Due to this, the seismic reflection sections considered do not allow an exact reconstitution of the Guayatayoc subsurface geometry.

The seismic reflection sections were plotted in their final graphical version in white-red contrast colors using the same horizontal and vertical scale. Gray gradations were adopted for detailed enlargements. The horizontal extensions, the number of pegs and their spacing, the horizontal reference plane and the origin and end coordinates were among the data annexed to the seismic sections. The latter allowed georeferencing of the seismic lines in the context of Guayatayoc (Figure 13).



Figure 12 Location map of seismic lines on the basis of DEM. references LAB seismic line of reflection studied by Acevedo and Bianucci (1987) and Monaldi et al (1990) L1177, seismic line of reflection studied by Gangui and Gotze (1996); L4 and L5, seismic lines of reflection studied by Coutand (1999); F7 and F9, seismic lines of reflection studied by Connors (1999).

Monaldi et al. (1990), analyzed the same seismic lines of Acevedo and Bianucci (1987); he identified 4 stratigraphic intervals and more than 5000m of sedimentary record. The

sequence I would correspond to the Salta Group (1000m thick), the sequence II is assimilated to the Formation Casa Grande (with very variable thickness and up to 600 m), Sequence III would correspond to the group formed by the Río Grande and Pisungo Formations (3000m thick in the east and 2000m in the west) and Sequence IV (700m thick) was assigned to the Sijes formation and quaternary alluvial deposits. They recognized the presence of two inverse faults delimiting the eastern edge of the Guayatayoc depression. The eastern one corresponds to the south prolongation of the East Aguilar Falla, which has a western dip. The other fault, located to the west, has a high angle dip toward the east.



 66° 00' W
 65° 45' W

 Figure 13 Location map of the seismic lines of reflection in the context of the Guayatayoc depression based on a DEM.

8.5.1. SEISMIC REFLECTION LINE 1189

Steinmetz 2013 comments

"The image of the seismic line 1189 reveals an important syn-sedimentary structure due to the inverse faulting that affects the entire Guayatayoc basin filling in the eastern sector, as well as giving rise to west-sloping growth structures (Figure 14, 35km in length).

The seismic basement (IS) is characterized by its poor to chaotic stratified signal and is located at depths of up to 5000m in the depocenter. Above ~ 1200m of blocks folded and delimited in base and ceiling by discordant reflectors (SII). On the south-eastern edge of Guayatayoc, this quake-sequence loses depth and surfaces (Figure 14). The sequences involved in the filling of the Guayatayoc basin are S3 to S10, have thicknesses ranging from 120 to 930m in the basin center and are coined to the east with onlap finishes."



Figure 14 Seismic Reflection Line 1189 - the yellow lines are the interpretation of the surface boundary

8.5.2. SEISMIC REFLECTION LINE TX90-87

The TX90-87 seismic line crosses from west to east the southern zone of Guayatayoc (Figure 15, 33.76km in length). The edges of the basin are clearly defined by inverse faults of opposing verges, affecting both the basement of the Guayatayoc basin (SI and SII) and the lower part of its landfill (S3 to S6).

The sequence SII presents a thickness that is coined to the west (1200m to 630 m) representing a watershed border for the time involved. The sequence S3 has a substratigraphic configuration of homogeneous depth (~ 700m thick), in the border areas they are affected by faults that limit the basin and the upper layer corresponds to an erosive surface. The sequences S4 to S6 have little thickness (210m to 300 m) and S6 presents onlap finishes in the eastern edge of the basin and the roof corresponds to an erosive discordance, which is identified through much of the sedimentary basin. Above this, S7 and S8 (420m and 600m thick respectively) are arranged, both sequences overlap the edges of the basin, lie on SI and have a sedimentary architecture in onlap, wedges towards the ends and are separated by a Erosive surface located at 900 STD.



Figure 15 Seismic line TX90-87 and its interpretation - yellow lines are the interpolated strata in the basin of Guayatayoc



Figure 16 Seismic line across the AIS Resources concessions Guayatayoc and Guayatayoc Ili

8.6. DRILLING

No drilling has taken place.

9. SAMPLE PREPARATION, ANALYSES AND SECURITY

There were two visits where sampling took place. The first was on November 16, 2016. Both Guayatayoc and Vilama Salares were visited. In attendance was Phillip Thomas, Marc Enright Morin and Jorge Bragantini a qualified geological engineer.

In summary, the following sampling occurred:

A total of 11 pit samples were taken, 2 in Guayatayoc and 9 in Laguna Vilama. Guayatayoc sample 1618 (G9) returned 910mg/L lithium (0.091% Li), with 27,300 mg/L potassium (2.73% K) and magnesium to Lithium ratio of 1.0:1; Vilama sample 1626 (V18) returned 820mg/L lithium (0.082% Li), 7320mg/L potassium (0.732% K) and a magnesium to lithium ratio of 7.9:1.

9.1. LOCATION OF THE SAMPLE PITS

The location of the pits are as follows:

Hole No	South Latitude	West Longitude							
	Guayatayoc								
G6	S23° 20.721'	W65° 51.169'							
G9	S23° 21.167'	W65° 51.144'							
	Vilama								
V11	S22° 35.405'	W66° 54.715'							
V12	S22° 35.396'	W66° 54.732'							
V13	S22° 35.390'	W66° 54.741'							
V14	S22° 35.383'	W66° 54.193'							
V15	S22° 34.862'	W66° 54.197'							
V16	S22° 34.818'	W66° 54.210'							
V18	S22° 34.783'	W66° 54.185'							

Figure 17 Location of sample pits

9.2. ANALYSIS AND SECURITY

Samples collected at Guayatayoc and Vilama have lithium and boron values in the range that would be considered exceptionally commercial along with very high relative potassium grades. Note that a 43-101 Report setting our resource estimates has not been issued and that readers should be cautioned that the inference of commerciality relates only to the grade and not to any resource estimates. The magnesium to lithium ratio is very low at Guayatayoc which implies a lower usage of Slaked Lime and Sodium Sulphate to remove the magnesium from the brine.

9.3. METHOD

Nine one litre bottles were rinsed out in brine from the sample pits and were immersed by hand to the middle depth of the pit at an elevation of 3,410 metres in Guayatayoc and 4,451 meters in Laguna Vilama. Samples were then prepared for shipping. No air was allowed to be present in the bottles. The 1 litre bottles were gradually immersed into the pits and not too much sediment was stirred up. After the bottle was retracted the it was labelled and the top sealed with tape.

The refrigerated samples were sent via DHL to the Australian National Measurement Institute ("NMI") in Sydney, Australia which is one of the highest rated analysis institutions in the world. It is responsible for Australian measurement standards. NMI have an ISO 17025 accredited standard protocol to handle the samples and complete the analysis.

There is no relationship between the Australian National Measurement Institute ("NMI") assay laboratory and the Issuer AIS Resources Ltd. They are independent of each other.

	Calcium Filtered	Magnesium Filtered	Potassium Filtered	Sodium Boron Filtered Total		Calcium Total	Lithium Total	Magnesium /Lithium Ratio
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
Guayatayo	DC	<u></u> ,			0,			
G6A	730	350	7670	123000	1050	800	270	1.30
G6B	660	330	7480	120000	890	730	260	1.27
G9	200	730	20400	125000	3300	350	910	0.80
Vilama								
V11A	550	570	740	5800	130	8300	110	5.18
V11B	530	590	730	6090	100	11700	110	5.36
V12	2050	2890	1740	22100	370	2690	390	7.41
V13	960	600	270	2820	100	1160	52	11.54
V14	580	540	380	4040	84	690	69	7.83
V15	1540	1070	1020	11300	99	1910	160	6.69
V16	1990	3460	4990	68100	590	2280	730	4.74
V18	1850	3170	5280	59000	860	6990	820	3.87

9.4. SAMPLES ANALYSIS RESULTS

Figure 18 Results of Sample analyses from NMI Australia laboratories

							Cation/					Dissolved	Dissolved			
	Magnesium	Potassium	Sodium				Anion	Bicarbonate	Carbonate as	Hydroxide	Conduc	Solids -	Solids -			
	Total	Total	Total	Chloride	Anions	Cations	Balance	as CaCO3	CaCO3	as CaCO3	tivity	Total	Total	Sulphate	Nitrate-N	pН
	NT2_47	NT2_47	NT2_47	NW_D3_E	CALC_ION	CALC_ION	CALC_IC	NW_B1	NW_B1	NW_B1	NW_B9	NW_B10A	NW_B10B	NW_D10_	NW_B19	NW_\$11
	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	mg/L	mg/L	mg/L	uS/cm	mg/L	mg/L	mg/L	mg/L	pH_unit
Guayatay	oc															
G6A	360	10200	137100	175000	5166	5612	4.1	630	<5	<5	499000	319000	350000	10400	< 0.005	7.3
G6B	350	9910	133900	173200	5128	5471	3.2	640	<5	<5	496000	317000	337000	11000	< 0.005	7.3
G9	950	27300	142600	170000	5550	6029	4.1	2300	<5	<5	516000	330000	375000	34000	< 0.005	6.9
Vilama																
V11A	2090	770	7990	11100	329	346	2.5	310	<5	<5	31400	20000	25000	470	0.22	7.1
V11B	2220	760	8010	11500	340	359	2.7	300	<5	<5	33400	21000	27000	480	0.2	7.1
V12	3920	1890	27000	46600	1332	1346	0.5	160	<5	<5	150000	96000	102000	660	<0.005	6.3
V13	760	270	3630	7600	230	227	0.7	290	<5	<5	19300	12000	15000	490	0.008	6.9
V14	680	380	5100	8800	261	259	0.4	210	<5	<5	26400	17000	21000	430	<0.005	6.7
V15	1550	1060	13600	23700	704	683	1.5	90	<5	<5	54700	35000	48000	1600	0.011	7.1
V16	4220	6060	75900	110000	3227	3474	3.7	440	<5	<5	275000	176000	211000	5500	3	7.4
V18	6480	7320	79000	97000	2868	3055	3.2	520	<5	<5	241000	154000	191000	5800	1.4	7.5

Figure 19 Anion and Cation Balance with conductivity values

Your Client Serv	vices Manager	: RICHARD COGHLAN	Phone	: (02) 94490161
Project Nome			campion 27	
Attention	: PHIL THOM	AS	Sampled By	: CLIENT
			Date Receive	d : 11-JAN-2017

Lab Reg No.	Sample Rei	Sample Description
NQ17/00006	-	BRINE WATER G05
NQ17/00007		BRINE WATER GO6
NQ17/00008	8	BRINE WATER G07
NQ17/00009	5	BRINE WATER G08

Lab Reg No.		NQ17/00006	NQ17/00007	NQ17/00008	NQ17/00009					
Sample Reference		÷			ii					
	Units			2		Method				
Filtered Trace Elements by ICP										
Calcium Filtered	mg/L	1230	1260	740	1150	NT2_47				
Magnesium Filtered	mg/L	330	240	210	280	NT2_47				
Potassium Filtered	mg/L	4950	4310	2730	6160	NT2_47				
Sodium Filtered	mg/L	75400	74500	52800	84400	NT2_47				
Total Recoverable Trace Elemen	nts by ICP									
Boron Total	mg/L	410	550	330	450	NT2_47				
Calcium Total	mg/L	1370	1370	1650	1130	NT2_47				
Lithium Total	mg/L	140	160	100	170	NT2_47				
Magnesium Total	mg/L	310	260	250	320	NT2_47				
Potassium Total	mg/L	4980	4200	2810	5970	NT2_47				
Sodium Total	mg/L	87600	84700	60600	97600	NT2_47				

Figure 20 Extract from NMI report showing ICP values for filtered brine samples

Prof Dr Ricardo Alonso accompanied by Jorge Bragatini and support staff visited the Guayatayoc Salar in December 2016 and conducted a sampling program digging 35 pits in a geometric pattern. The 34 samples were taken and sent to the Australian Government National Measurement Institute ("NMI") in Sydney, Australia.

The objective of the pit sampling was to create a geometric pattern of sampling to determine the relative relationships between lithium and boron, and lithium and potassium at the surface where brines had been observed. This is important when combined with the geophysical and drilling data to interpret the geohydrological data close to the surface.

9.5. METHOD

One litre bottles were rinsed out in brine from the sample pit and were immersed by hand to the middle depth of the pit, which ranged from 10cm to 2 metres. Most pits were one metre wide and two metres in depth with brine depth about 50 centimetres. The sample bottles were immersed approximately at half depth and filled and capped with no air in the bottle. Sampling took place within an hour of digging. The elevation was 3,410 metres.

9.6. LOCATION OF THE SAMPLE PITS

		Result	Deep (m)	Description
Pc	23*20'47.50"\$ 65*51'22.10"W	Brine	1.2	10cm red sandy clay / 30cm sandy clay intercalated with borates / 90cm green clay
G01	23*20'32.20"S 65*51'40.70"w	Brine	0.75	10cm red sandy clay / 55cm sandy clay intercalated with borates / 10cm green clay
G02	23*20'29.50"\$ 65*51'22.06"W	Brine	1.1	30cm red sandy clay / 80cm green clay
G03	23*20'30.00"S 65*51'0.50"W	Brine + Sediment	1.6	1m red sandy clay / 0.6cm sandy clay with borates
G04	23*20'28.90"\$ 65*50'47.90"W	Brine + Sediment	1.7	10cm sandy clay / 1.5m green to black clay
G05	23*20'48.90"5 65*51'39.40"W	Brine	0.9	25cm grey sandy clay / 60cm sandy clay with borates
G06	23*20'45.15"\$ 65*51'3.19"W	Brine	1.1	gery sandy clay
607	23*20'43.10"S 65*50'48.40"W	Brine + Sediment	1.6	grey clay sand
608	23*21'1.50"\$ 65*51'38.40"W	Brine	0.9	10cm red sandy clay / 20cm sandy clay intercalated with borates / 30cm borates / 30cm clay
609	23*21*3.70*\$ 65*51*20.80*W	Brine + Sediment	1.7	40cm red sandy clay/ 60 cm sandy clay intercalated with borates / 40cm green clay
G10	23*21*2.40*\$ 65*51*3.30*W	Dry	1.8	red clay sand
G11	23*21'1.30"\$ 65*50'45.60"W	Brine + Sediment	1.6	20cm red sandy clay / 30cm sandy clay intercalated with borates / 1m green clay
G12	23*21*17.90*5 65*51*37.20*W	Brine	0.6	40cm sandy clay intercalated with borates / 20cm green clay
G13	23*21*19.80*\$ 65*51*19.60*W	Brine + Sediment	1.8	20cm sandy clay / 1.3mgreen clay/ 20cm black clay
G14	23*21'18.40"S 65*51'1.90"W	Brine + Sediment	1.8	60cm red sandy clay / 1m green clay/ 10cm black clay
615	23*21*17.20*\$ 65*50*44.60*W	Brine + Sediment	1.6	red sandy clay with borates
616	23*21*37.30*\$ 65*51*36.10*W	Brine	0.5	10cm red sandy clay / 30cm sandy clay intercalated with borates (fiborus ulexite)
617	23*21'38.40"\$ 65*51'18.07"W	Brine	0.7	30cm red sandy clay / 30cm sandy clay intercalated with borates
621	23*22'10.40"\$ 65*51'50.00" W	Brine	0.6	20cm red sandy clay / 30cm sandy clay intercalated with borates (fibrous ulexite)
G22	23*22'10.40"\$ 65*51'32.40" W	Brine + Sediment	1.8	0.3m red sandy clay / 1.5m green clay
G23	23*22'42.90" \$ 65*51'50.00"W	Brine	0.6	15cm red sandy clay / 30cm sandy clay intercalated with borates
G24	23*22'43.50"S 65*51'32.40"W	Diluted brine	1	red sandy clay
625	23*23'9.17"\$ 65*52'25.7" W			
626	23*23'9.20"\$ 65*51'50.50"W	Diluted brine	1.3	20cm red sandy clay/ grey clay
627	23*23*5.30*\$ 65*51*32.70*W	Diluted brine	1	red sandy clay
G28	23*23*25.80"S 65*51*50.80"W	Diluted brine	1.1	red sandy clay
G29	23*23'41.95"5 65*52'24.99"W	Diluted brine	1.4	20cm red sandy clay / 1.2m green clay
G30	23*23'42.03"5 65*52'7.89"W	Diluted brine	1.3	red sandy clay
G31	23*23'42.00" \$ 65*51'52.60"W	Diluted brine	1.20	red sandy clay
G32	23*23'58.41"5 65*51'52.73"W	Diluted brine	1.25	red sandy clay
G33	23*24'12.85*5 65*52'24.88*W	Diluted brine	1.6	1.2m red sandy clay / 30cm green clay
634	23*24'12.99"\$ 65*52'7.04"W	Diluted brine	1.25	red sandy clay
635	23*24'13.21"S 65*51'49.96"W	Diluted brine	1.4	red sandy clay

Figure 21 Listing of the samples, locations and commentary of the lithology



Figure 22 Pictures of the samples being labelled and packed in Salta for transport direct to the NMI Laboratories



Figure 23 Sampling pit locations on map with tenement outline in red



Figure 24 Pictures of pits showing brine and in picture 3 Dr Alonso

9.7. COMMENTARY

The key exploration objective was to take a large number of samples to the south of previous sampling, in a geometric pattern over a large area, and log the data so as to create surface maps showing isobars of boron, lithium, and potassium bearing in mind the lithium and boron relationship. Ulexite (a boron mineral) was observed on the surface at nearly all the pits. In my opinion as the Qualified Person responsible for the sample preparation, security and analytical procedures I am satisified that they adequately comply with ISO17045 standards and have been adequate for the purpose of analysis.

9.8. RESULTS

SAMPLE DESCRIPTION	Calcium Filtered	Magnesium Filtered	Potassium Filtered	Sodium Filtered	Boron Total	Calcium Total	Lithium Total	Magnesium Total	Magnesium to Lithium Ratio	Potassium Total	Sodium Total	Chloride	Anions	Cations
	NT2_47	NT2_47	NT2_47	NT2_47	NT2_47	NT2_47	NT2_47	NT2_47		NT2_47	NT2_47	NW_D3_E	CALC_ION	CALC_ION
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	mg/L	mg/L	meq/L	meq/L
PRINE WATER CO1	1040	270	2020	E2400	240	1950	75	260	1 20	2010	60500	82000	2401	2472
BRINE WATER GOT	1/20	2/0	2920	50800	240	1700	/5	570	4.80	2510	59900	80000	2401	2472
BRINE WATER G03	1200	440	3660	63200	590	1540	130	580	4.46	3810	7/300	96000	2400	29/0
BRINE WATER GOA	1/180	530	2630	48100	370	1820	100	600	6.00	2720	55200	75000	2050	2040
BRINE WATER GOS	1230	330	4950	75400	410	1370	140	310	2 21	4980	87600	120000	3563	3495
BRINE WATER GOG	1260	240	4310	74500	550	1370	160	260	1 63	4200	84700	110000	3310	3456
BRINE WATER G07	740	210	2730	52800	330	1650	100	250	2 50	2810	60600	80000	2409	2421
BRINE WATER G08	1150	280	6160	84400	450	1130	170	320	1.88	5970	97600	126000	3760	3909
BRINE WATER G09	800	210	3260	53600	440	1090	120	230	1 92	3210	60400	79000	2405	2472
BRINE WATER G11	1200	130	2030	42500	440	1690	71	170	2.39	2120	48700	62000	1901	1971
BRINE WATER G12	1200	230	5700	88800	410	1200	150	270	1.80	5620	103500	132000	3934	4087
BRINE WATER G13	1000	210	2340	42200	340	1310	73	270	3.70	2420	49300	61000	1890	1963
BRINE WATER G14	820	100	1580	27500	260	1040	52	90	1.73	1630	31400	41000	1260	1286
BRINE WATER G15	1290	100	1190	22700	380	1610	34	140	4.12	1260	25600	35000	1106	1090
BRINE WATER G16	1460	210	3640	67000	400	1500	96	260	2.71	3610	77700	102000	3064	3098
BRINE WATER G17	1330	230	3680	54100	320	1450	130	230	1.77	3580	59200	79500	2404	2533
BRINE WATER G18	1270	380	6820	89400	420	1260	130	540	4.15	6730	103200	136000	4026	4168
BRINE WATER G19	1550	380	3690	65600	260	1860	80	400	5.00	3620	75600	99300	2958	3057
BRINE WATER G21	1230	180	3690	70400	270	1320	87	180	2.07	3650	80700	102000	3057	3233
BRINE WATER G22	1190	220	4270	77200	400	1180	130	250	1.92	4330	87800	112000	3341	3545
BRINE WATER G23	1130	210	2280	50000	320	1360	68	230	3.38	2360	59000	75000	2280	2307
BRINE WATER G24	1000	150	670	20400	73	1050	21	160	7.62	720	24100	31000	1006	993
BRINE WATER G26	900	89	460	14900	49	990	16	87	5.44	500	17300	23000	757	712
BRINE WATER G27	800	43	220	7200	32	900	7.2	38	5.28	240	9890	11500	399	362
BRINE WATER G28	860	59	290	7740	33	880	7.3	68	9.32	310	9850	12000	421	392
BRINE WATER G29	1130	150	1490	29900	160	1150	47	150	3.19	1530	33200	43000	1308	1407
BRINE WATER G30	1290	120	1140	33700	270	1360	48	140	2.92	1180	39300	48000	1489	1569
BRINE WATER G31	670	44	150	3230	23	750	4.3	32	7.44	140	4300	5200	196	181
BRINE WATER G32	1050	94	240	7420	46	1070	11	100	9.09	260	9540	12200	418	389
BRINE WATER G33	880	64	880	26400	180	1320	44	77	1.75	910	29900	39000	1201	1220
BRINE WATER G34	1170	110	380	16600	58	1190	17	120	7.06	420	19900	28000	873	799
BRINE WATER G35	950	79	190	4812	31	1030	8.9	81	. 9.10	200	6140	8000	288	268
BRINE WATER PC	1140	140	2810	51700	330	1730	94	180	1.91	2830	60200	80400	2414	2389
MAXIMUM	1550	530	6820	89400	590	1860	170	600	9.32	6730	103500	136000	4026	4168

Figure 25 Results of the analysis from NMI of 35 sample bottles

Pits 3 to 9 showed higher lithium values and a lithium to boron ratio of 1:3.3-3.7. Pit 10 was not sampled. Pits 5, 6, PC, and 8 showed good flows of brine with higher lithium values. The pits also corresponded to the highest potassium and boron values. Pits 17, 18 and 22 to the south also showed high values of lithium. The brines are expected to be much more concentrated at depth and pit samples have shown that lithium, boron and potassium is disseminated across the property.

9.9. DATA VERIFICATION

9.9.1. SAMPLE PREPARATION

Samples from pits were not field filtered and were not subjected to any addition prior to shipment to the laboratory. All samples collected contained some suspended sediment. In the second shipment of one litre samples, duplicate samples were provided.

9.9.2. SAMPLE ANALYSES

The NMI laboratories have extensive experience analysing lithium bearing brines. They are ISO 9001 accredited, and operate according to NMI standards consistent with ISO 17025 methods at other laboratories. Samples were analyzed at NMI laboratories using Inducted Coupled Plasma spectrometry (ICP) method.

NMI's measurement expertise, infrastructure, standards and services are simultaneously world-class and practically oriented. They develop and maintain Australia's primary measurement standards to deliver internationally recognized measurement services to Australian industry covering calibrations, chemical and biological analyses such as food and environmental testing, sports drug and forensic drug testing, and training in specific measurement techniques.

They also provide support and advice on measurements made for legal purposes; assist industries to develop new measurement methods and administer Australia's national trade measurement system. They are a multidisciplinary team of more than 400 people across Australia that delivers practical measurement solutions to help address Australia's societal and economic challenges in areas including health, environment, energy, food and agriculture, security and trade. They work collaboratively with researchers and industry to support Australia's competitive edge using measurement to improve productivity through enhanced process efficiency and control, waste reduction, and product research, development and optimization.

Testing of blanks and blind samples on this occasion was not warranted as the data was not going to be used for a resource estimate. A number of certified standards prepared by the NMI were used as part of the QA/QC program.

9.9.3. SURVEY DATA

A hand held Garmin GPS 650 Montana was used to collect the location of sample pits. In the Salar setting the GPS signal is typically strong with up to 27 satellites and a minimum horizontal precision is expected to be ± 15 m. Data was collected in the Argentine co-ordinate system with the Gauss Krueger UTM projection, Zone 3, and the Popstar 94 datum.

In the opinion of the qualified person supervising the data verification, Phillip Thomas, the process and standards adhered to were adequate for the purpose of sampling brine from surface pits.

10. MINERAL PROCESSING AND METALLURGICAL TESTING

There has been no mineral processing or metallurgical testing to produce lithium carbonate, lithium chloride, lithium hydroxide, borates, potassium compounds or magnesium chloride.

11. MINERAL RESOURCE ESTIMATES

No mineral resource estimates have been determined, as no drilling has taken place.

12. ADJACENT PROPERTIES

Dajin Resources has staked to the North and South of AIS Resources. This is 51% held by LSC Corporation. The area is approximately 44,967 hectares.



Figure 26 Adjacent properties

13. OTHER RELEVANT DATA AND INFORMATION

The projects are at too earlier stage to have information regarding recovery methods. As the elements of interest (Li, K, B) are contained in brine, the potential mining method would involve pumping brine from aquifers beneath the Salar to purpose-built evaporation ponds, prior to chemical processing.

The project is at too earlier stage to provide information regarding project infrastructure, market studies and contracts, capital and operating costs or economic analysis. However, any future economic development would require installation of wells, pumps and construction of evaporation ponds to receive pumped brine.

The Steinmetz 2013 study has significant amount of data covering seismic, lithology and hydrology and geochemistry which has not been completely reported in this NI 43-101 report but will significantly contribute to the project understanding.

14. INTERPRETATION AND CONCLUSIONS

The Vilama and Guayatayoc prospects are at an early stage of exploration.

Published geological studies show that the sedimentary basins started life in the Palaeogene as an extensional graben, converting during the early Neogene to a compressional, thrust-bounded basins. The basins has been infilled with coarse continental sediments becoming progressively finer and enriched with evaporitic precipitates as the climate became drier consequent upon Andean uplift during the late Miocene.

The current Guayatayoc Salar occupies the centre of an endorheic (internal drainage) basin of \sim 5,000 km². Influent dilute waters from La Burras river system and evaporites around the margins of the Salar transfer concentrated solutions to the nucleus, which over thousands of years has led to a creation of a brine body hosted in the sedimentary aquifers.

The current Salar covers an area of approximately 5,000 km². Geophysical studies suggest that the aquifers may be up to 400m thick, hosting a brine body. Reconnaissance surface pitting, brine sampling and chemical analyses indicate a nucleus, largely within the concession area, where lithium is highly concentrated reaching over 900 mg/L over an

area of ~5 km². Both potassium and boron are also found in high concentrations in the centre and western parts of Guayatayoc. K values of >20,000 mg/L. Subsidiary concentrations of K and B are found in the central and northern parts of

Guayatayoc from Houston 2010 work. The information currently available strongly suggest the possibility of a significant resource of Li, K and B at Guayatayoc. Planned exploration programs are warranted to define a resource.

Results obtained from Vilama were very encouraging and samples recorded fair to moderate values of lithium, and potassium but in both Salares the notable statistic was the low magnesium to lithium ratio in the brines, particularly at Guayatayoc.

15. RECOMMENDATIONS

The results of the reconnaissance studies carried out to date indicate the possibility of a significant brine resource at Guayatayoc, containing possibly economic quantities of Li, K and B. It is thus recommended that a sequenced program of investigation be commenced as described below.

15.1. OBJECTIVES

The objectives of the next phases of work are to establish the resource with a greater level of confidence. The program outlined below is intended to initially establish the Inferred Mineral Resource of the Salar and in a second phase, to move to a Measured Mineral Resource under NI 43-101 terminology. A final phase, not detailed here, will be required to establish a Measured Resources and Proven and Probable Mineral Reserve. At this stage the company wishes to focus on Guayatayoc and develop Vilama at a later stage.

At the conclusion of each phase the results will be used to determine the viability of moving forward to the next step. The first two stages will allow a reliable in-situ resource estimate to be established with sufficient additional information to estimate the recoverable reserves and to identify any likely issues that require further investigation or might prove problematical during the project life. It is not intended that this next phase of work will provide sufficient information to be able to predict potential brine grade changes during operation and hence further work would be required before final well sites are defined.

15.2. SCOPE OF WORK REQUIRED FOR INFERRED RESOURCE EVALUATION - PHASE ONE

15.2.1. BASIN EVALUATION

A first order evaluation of the basin is required to determine its generalized structure, stratigraphy and sedimentary architecture.

SURFACE VARIATION OF BRINE CHEMISTRY

As a first step in understanding the fluid chemistry, facies distribution and provenance, the variation in the near surface brine, its density and flow directions are required to be recorded. While 36 samples have been collected further work is desirable.

SUBSURFACE GEOLOGY

The subsurface geology requires investigation to establish the principal lithological variations with depth. Reconnaissance work with Steinmetz 2010 work will complete this.

POROSITY VARIATIONS

The effective porosity of the main lithological units needs to be established at this stage.

SUBSURFACE BRINE VARIATIONS

The chemistry of the pore fluid in the major lithological units needs to be established at this stage.

15.2.2. DETAILED SEISMIC WORK

A CSAMT or TEM seismic survey needs to be completed on about 100 points to determine the likely location, thickness and depth of the aquifers. This may be correlated with the seismic work already completed by Connors and others reported by Steinmetz 2013.

15.2.3. METHODOLOGY FOR INFERRED RESOURCE

SURFACE PITTING PROGRAM – PHASE ONE

By digging shallow (1-3 m) pits on a regular grid of approximately 2 km, and having

them accurately surveyed (both for location and elevation) it will be possible to obtain information on the elevation of the brine surface and to take samples for determination of pH, density, temperature and electrical conductivity in the field, in addition to sending samples to a laboratory for major ion (K, Li, B) analysis.

DRILLING – PHASE TWO

Eight wells are planned to be drilled to 50m at selected locations across the Salares. The wells will be cored using advanced sonic techniques, in order to be able to sample both the formation and the brines at specified depth intervals, under what are expected to be difficult drilling conditions.

Logging and core sampling and analysis will proceed in the same manner as described in more detail below.

All holes will be logged using, natural gamma, neutron, density and sonic.

ANALYSIS AND REPORTING

Wherever possible analysis of the data gathered will be on-going throughout the field work so that errors and omissions may be identified and corrected in a timely manner. Final analysis at the end of the field work will lead to the development of a detailed report containing the resource estimate.

15.3. BUDGET

Detail	US\$
PHASE ONE Access road and trenching	8,000
Pumping and conditioning of trenches	2,000
Preparation of 8 drilling platforms	4,000
Civil Works	14,000
Chemical analysis, NMI, 250 samples (1 in 5 duplicates)	37,000
Logging & field supervision, 5 days, 1 geologist	5,000
Geological compilation, mapping and reporting	4,000
Basin evaluation, geology	9,000
Mobilization and demobilisation	7,500
High Resolution SRT Acquisition (p-wave), 10 km	50,000
High Resolution SRT Processing (p-wave), 10 km	10,000
Final Report	4,500
High Resolution Seismic Refraction Tomography - TEM	72,000
Sub-Total PHASE TWO	132,000
8 wells, 50 metres depth each, US\$250 per meter drilled	100,000
Logging & field supervision, 15 days	15,000
Porosity testing, 40 samples	6,000

Detail	US\$
Pumping Test, 8 wells	36,000
Drilling	157,000
Project Management fees and wages	240,000
Travelling and accommodation	60,000
Project management	300,000
Contingencies, 25%, rounded to the nearest \$ '000	147,000
Total	736,000

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