

# **NI43-101 TECHNICAL REPORT ON THE ORGANIMAX SALAR SEDIMENT DEPOSITS, MEXICO**

**Prepared For  
OrganiMax Nutrient Corp**

**Report Prepared by**



SRK Consulting (UK) Limited  
UK7560

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<b>SRK Legal Entity:</b>	SRK Consulting (UK) Limited	
<b>SRK Address:</b>	5 <sup>th</sup> Floor Churchill House 17 Churchill Way Cardiff, CF10 2HH Wales, United Kingdom.	
<b>Date:</b>	February, 2019	
<b>Project Number:</b>	UK7560	
<b>SRK Project Director:</b>	Martin Pittuck	Corporate Consultant (Mining Geology)
<b>SRK Project Manager:</b>	Ben Lepley	Senior Consultant (Resource Geology)
<b>Client Legal Entity:</b>	OrganiMax Nutrient Corp	
<b>Client Address:</b>	750 – 1095 West Pender Street Vancouver B.C. V6E 2M6 Canada	

## **EXECUTIVE SUMMARY**

### **NI43-101 TECHNICAL REPORT ON THE ORGANIMAX SALAR SEDIMENT DEPOSITS, MEXICO**

## **1 EXECUTIVE SUMMARY**

### **1.1 Introduction**

SRK Consulting (UK) Limited ("SRK") has been commissioned by OrganiMax Nutrient Corp (TSX-V:KMAX) ("OrganiMax", or the "Company") to produce maiden Mineral Resource estimates ("MRE") for their potassium-lithium salar sediment deposits (the "salar", or the "deposits") located in Mexico.

OrganiMax owns six mining concession (claims) across the Zacatecas and San Luis Potosi States, in addition to three claims in Coahuila State. This technical report describes the current status and all work undertaken to date on the OrganiMax salars in Zacatecas and San Luis Potosi only. To date, only sparse exploration has been undertaken in the Coahuila State salars and the exploration and deposits are not described herein. Specifically, this report provides a description of the MRE undertaken for the three principal salars with the most advanced exploration to date, namely: La Salada, Santa Clara and Caligüey.

The MRE and Mineral Resource statements have been reported and classified in accordance with the latest terminology, definitions, and guidelines given in the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards for Mineral Resources and Mineral Reserves (May 2014). The technical report follows the latest (2011) NI 43-101 Standards of Disclosure for Mineral Projects and Form 43-101F1 Technical Report, as required by the TSX-V stock exchange on which the Company is listed.

### **1.2 Property Description and Ownership**

OrganiMax owns the rights to 6 mining concessions located within the Zacatecas and San Luis Potosi States in central Mexico. These concessions contain a large number of salars, most of which have been sampled, but only three of which are sampled to the extent that an MRE is possible: La Salada, Santa Clara, and Caligüey.

### **1.3 Geological Setting and Mineralisation**

The salars contain recently deposited soft uncompacted lake sediments comprising a mixture of terrigenous, transported sediment and chemically-deposited evaporite sediment. The sediments contain elevated, economically-interesting values of potassium, lithium, and boron.

It should be noted that brine samples have also been taken in the region, the results of which are briefly described; however, the main focus of this report and the source of the MRE is the salar sediment material.

## 1.4 Exploration

Exploration has been conducted in two main phases: former owners Litio Mex, S.A. de C.V. (“Litio Mex”) between 2010 and 2012, and by OrganiMax between 2016 and 2018. Exploration has included geophysical (seismic) surveying, geological mapping, pitting, hand and drill-auger, reverse-circulation drilling, and diamond core drilling.

Sediment samples have been extracted at depths of up to 60 m from surface, but in general the sampling is restricted to 5 m depth in most areas. Samples are geologically logged and assayed using ICP methodology for the main elements of interest. Density measurements along with samples for geochemistry have been taken. In addition, samples of brine within the sediment have been extracted and analysed.

The sampling campaigns have been undertaken using quality assurance / quality control (“QA/QC”) protocols. The results of the QA/QC sampling show mixed results, with a number of issues identified predominantly with assaying methodology. This has been considered during Mineral Resource classification.

## 1.5 Mineral Processing and Metallurgical Testing

A number of mineralogical and leaching testwork programmes have been completed on the La Salada, Santa Clara, and Caligüey salar sediment material to date. The testwork has focussed on lithium, which was considered the main target up until 2018; however, the testwork included analysis of potential leachability of potassium. The mineralogy testwork completed in 2018 has confirmed previously undertaken testwork and provided more detail on deportment of potassium and lithium.

The results are preliminary in nature and further detailed testwork is required to ensure an economically viable flowsheet can be developed, including extraction of potassium and lithium (in addition to other potential products such as boron), and ensuring deleterious elements can be removed to generate saleable products.

## 1.6 Mineral Resource Estimates

SRK undertook geological modelling and MRE for sediment material in the three principal salars. Three-dimensional wireframe models of the mineralised material were modelled following a statistical analysis. Block models were then generated to undertake tonnage and grade estimation.

Mineral Resource Classification was undertaken using CIM guidelines and was based on the data quantity and quality, geological and grade continuity, and estimation quality. At the current data density and taking into consideration the data quality issues, SRK delineated Inferred Mineral Resources only at this stage.

The Mineral Resource statement (Table ES-1) was generated by undertaking an economic assessment of each block within the block models. A potential value was thereby used to report Mineral Resources in order to demonstrate ‘reasonable prospects for eventual economic extraction’ (“RPEEE”), as required by CIM. A separate statement is provided in Table ES-2 for La Salada to demonstrate the different grades within the three modelled domains (high-potassium, high-lithium and low-lithium) and to highlight the potential to mine a higher-lithium product at La Salada. It should be noted that SRK’s analysis of economic potential was driven by potassium as the primary commodity and a standalone lithium project was not considered.



SRK notes that no Prefeasibility or Feasibility Studies have been completed on the salars to date. The underlying costs and selling price assumptions were solely for use in the Mineral Resource reporting process for establishing RPEEE of the mineralised body and do not establish the economic viability and technical feasibility of the salars.

**Table ES1: Mineral Resource Statement as of 17 December 2018\***

Salar	Mineral Resource Category	Tonnes (Mt)	K (%)	Li (ppm)
La Salada	Inferred	20	4.1	880
Santa Clara		85	4.8	264
Caligüey		15	4.3	373
<b>Total</b>		<b>120</b>	<b>4.6</b>	<b>380</b>

\*Notes:

1. Mr. Martin Pittuck, CEng, MIMMM, FGS, is responsible for this Mineral Resource statement and is an "independent qualified person" as such term is defined in NI 43-101.
2. Mineral Resource is reported above breakeven value of USD 37/t; estimated using potassium and lithium grades, recoveries, operating costs and selling prices on a block-by-block basis.
3. Mineral Resource is considered to have reasonable prospects for eventual economic extraction by open pit surface mining.
4. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
5. The statement uses the terminology, definitions and guidelines given in the CIM Standards on Mineral Resources and Mineral Reserves (May 2014) as required by NI 43-101.
6. Effective date of 17 December 2018.
7. MRE is reported on 100% basis.
8. Tonnes are reported as dry and in metric units.

**Table ES2: La Salada Mineral Resource Statement\***

Domain	Tonnes (Mt)	K (%)	Li (ppm)
Potassium	11	5.3	518
High-Lithium	7	2.5	1,488
Low-Lithium	2	2.3	782
<b>Total</b>	<b>20</b>	<b>4.1</b>	<b>880</b>

\*Notes: as for Table ES-1.

## 1.7 Exploration Potential

In addition to the Mineral Resource statements above, OrganiMax's claims contain a number of other prospective salars, a number of which have been sampled. There is good potential to increase the Mineral Resource from these other salars and also at depth at the three principal salars. The brine potential of these salars is yet to be fully tested; however, preliminary shallow sampling has provided an indication of elevated potassium grades at La Salada in particular. Further exploration is planned for 2019 to test the depth variability of the brines.

## 1.8 Conclusions and Recommendations

SRK has produced the maiden Mineral Resource estimates for the La Salada, Santa Clara, and Caligüey salar sediment deposits. The resulting Mineral Resource statement delineated 120 Mt of Inferred Mineral Resources grading 4.6% potassium and 380 ppm lithium. SRK considers the material delineated to demonstrate 'reasonable prospects for eventual economic extraction' through the use of an economic analysis based on preliminary testwork undertaken to date along with operating costs from an analogous project and optimistic selling prices.

A large exploration potential exists within the OrganiMax claim areas, both at the three principal salars at depth (and extending to the edge of the known salar areas) and also for a number of currently underexplored salars. Sampling of water within drillholes has shown potential for a potassium-brine project, but this is yet to be tested through systematic exploration.

SRK considers the processability of the sediment material is the biggest challenge of these deposits and so further testwork is required, particularly to understand potassium extraction. Further verification of Lito Mex sampling in addition to infill and extensional sampling (particularly at depth) is required in order to upgrade the Mineral Resources to Indicated and/or Measured categories. Any future exploration should be undertaken using robust QA/QC protocols and in-situ dry bulk density measurements should be prioritised as well as sampling for geochemistry and processability. Geotechnical and hydrogeological data should be collected in tandem with geological data collection to optimise the cost of drilling and provide information in these areas to assess the ground conditions and potential mineability of the soft sediment material. A preliminary economic assessment (“PEA”) is also recommended to understand the economic viability of the project considering various potential mining, transportation, and processing options.

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## NI43-101 TECHNICAL REPORT ON THE ORGANIMAX SALAR SEDIMENT DEPOSITS, MEXICO

### 2 INTRODUCTION

#### 2.1 Background

SRK Consulting (UK) Limited ("SRK") has been commissioned by OrganiMax Nutrient Corp (TSX-V:KMAX) ("OrganiMax" or the "Company") to produce maiden Mineral Resource estimates ("MRE") for their potassium-lithium salar deposits (the "salar", or the "deposits") located in Mexico.

OrganiMax owns six mining concession (claims) across the Zacatecas and San Luis Potosi States, in addition to three claims in Coahuila State. This technical report describes the current status and all work undertaken to date on the OrganiMax salars in Zacatecas and San Luis Potosi only. To date, only sparse exploration has been undertaken in the Coahuila State salars and the exploration and deposits are not described herein. Specifically, this report provides a description of the MRE undertaken for the three principal salars with the most advanced exploration to date, namely: La Salada, Santa Clara and Caligüey.

It should be noted that OrganiMax changed its name from Alset Minerals Corp ("Alset") in August 2018 and SRK was originally engaged to undertake the MRE by Alset. As a result, many of the images and data relates to Alset, with no exploration having been completed by OrganiMax to date.

The MRE and Mineral Resource statement has been reported and classified in accordance with the latest terminology, definitions and guidelines given in the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards for Mineral Resources and Mineral Reserves (May 2014). The technical report follows the latest (2011) NI 43-101 Standards of Disclosure for Mineral Projects and Form 43-101F1 Technical Report, as required by the TSX-V stock exchange on which the Company is listed.

## 2.2 Qualifications of Consultants

SRK is an associate company of the SRK Group. The SRK Group comprises over 1,400 professional staff over 45 offices in 20 countries, offering expertise in a wide range of engineering disciplines. The SRK Group's independence is ensured by the fact that it holds no equity in any project. This permits the SRK Group to provide its clients with conflict-free and objective recommendations on crucial judgment issues. The SRK Group has a demonstrated track-record in undertaking independent assessments of resources and reserves, project evaluations and audits, mineral expert reports, independent valuation reports and independent feasibility evaluations to bankable standards on behalf of exploration and mining companies and financial institutions worldwide. The SRK Group has also worked with a large number of major international mining companies and their projects, providing mining industry consultancy service inputs. SRK also has specific experience in commissions of this nature. SRK's contribution to this Technical Report has been prepared based on input from a team of consultants sourced from SRK's office in the UK. These consultants are specialists in the fields of geology and resource and reserve estimation and classification and mineral processing.

The technical report has been prepared by the Qualified Person ("QP"), Mr Martin Pittuck (MSc, CEng, MIMMM). Mr Pittuck is a Chartered Engineer with the Institute of Materials Minerals and Mining and has sufficient experience which is relevant to the style of mineralisation under study to qualify as a QP as defined in the NI 43-101. Martin has over 20 years' broad geological experience, specialising in Mineral Resource estimation, mine project evaluation and reporting according international reporting codes. He has produced or reviewed resource estimates for a wide variety of commodities and mineralisation styles. Mr Pittuck is a full-time employee of SRK who is independent of OrganiMax.

The site visit and inspection of the main salars and Company facilities were undertaken between 30 April and 3 May 2018 by Mr Pittuck. In addition, Mr Pittuck supervised the MRE process, which was also contributed to by:

**Mr Ben Lepley** (Project Manager), who is also a full-time employee of SRK and is a Chartered Geologist with the Geological Society of London (CGeol). Mr Lepley has 10 years' geological experience specialising in Mineral Resource estimation.

**Dr Rob Bowell**, who is a who is also a full-time employee of SRK and is a Chartered Chemist with the Royal Society of Chemistry (CChem), a Chartered Geologist (CGeol) and Chartered Professional European Geologist (EurGeol). Dr Bowell has over 30 years' geological and geochemical experience specialising in metallurgy and geochemistry.

The individuals responsible for this report have extensive experience in the mining industry and are members in good standing of appropriate professional institutions.

## 3 RELIANCE ON OTHER EXPERTS

SRK has relied upon the Company's in house legal team with respect to validation of mineral tenement and land tenure status, specifically location and ownership agreements, including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. Costs and recoveries that have been used to derive a cut-off grade are based on analogous projects, a review of the currently available data and commodity price data from public and non-publicly available sources.

## 4 PROPERTY DESCRIPTION AND LOCATION

### 4.1 Location and Area

OrganiMax owns the rights to six mining concessions (also known as ‘claims’), which are located within the Zacatecas and San Luis Potosi States in central Mexico, as shown on Figure 4-1. The name, number, and contained defined salars of each exploration claim is shown in Table 4-1. The locations of the currently defined salars are shown in Figure 4-2, with many minor other salar occurrences.

The principal salars are located as follows:

- La Salada: 80 km north-northwest of Zacatecas city, adjacent to the town of La Salada.
- Santa Clara: 70 km northeast of Zacatecas city, 8 km north-northwest of the town of Illescas.
- Caligüey: 60 km northeast of Zacatecas city, 10 km east of the town of Villa de Cos.

All coordinates used in this technical report are WGS84, UTM Zone 13Q (north) unless otherwise specified.

**Table 4-1: Claim areas and contained defined salars**

Claim Name	Claim No.	Area (Ha)	State*	Defined Salars
Sutti 19 (18 sub-divisions)	239757	8,776	Zac/SLP	Santa Clara, Caligüey, Saldivar, Colorada, La Prietta, El Cristalillo, La Doncella
Sutti 20	234535	6,560	Zac/SLP	Hernandez, El Barril, El Agrito, Las Casas, Laguna Larga
Sutti 21	234527	561	SLP	El Salitral
Sutti 22	235057	4,975	SLP	Chapala, Salinas
Sutti 24**	234690	300	Zac	La Salada,
Sutti 25**	236329	300	Zac	La Salada,

Notes:

\* Zac = Zacatecas; SLP = San Luis Potosi.

\*\*Sutti 24 and 25 form one contiguous claim block.

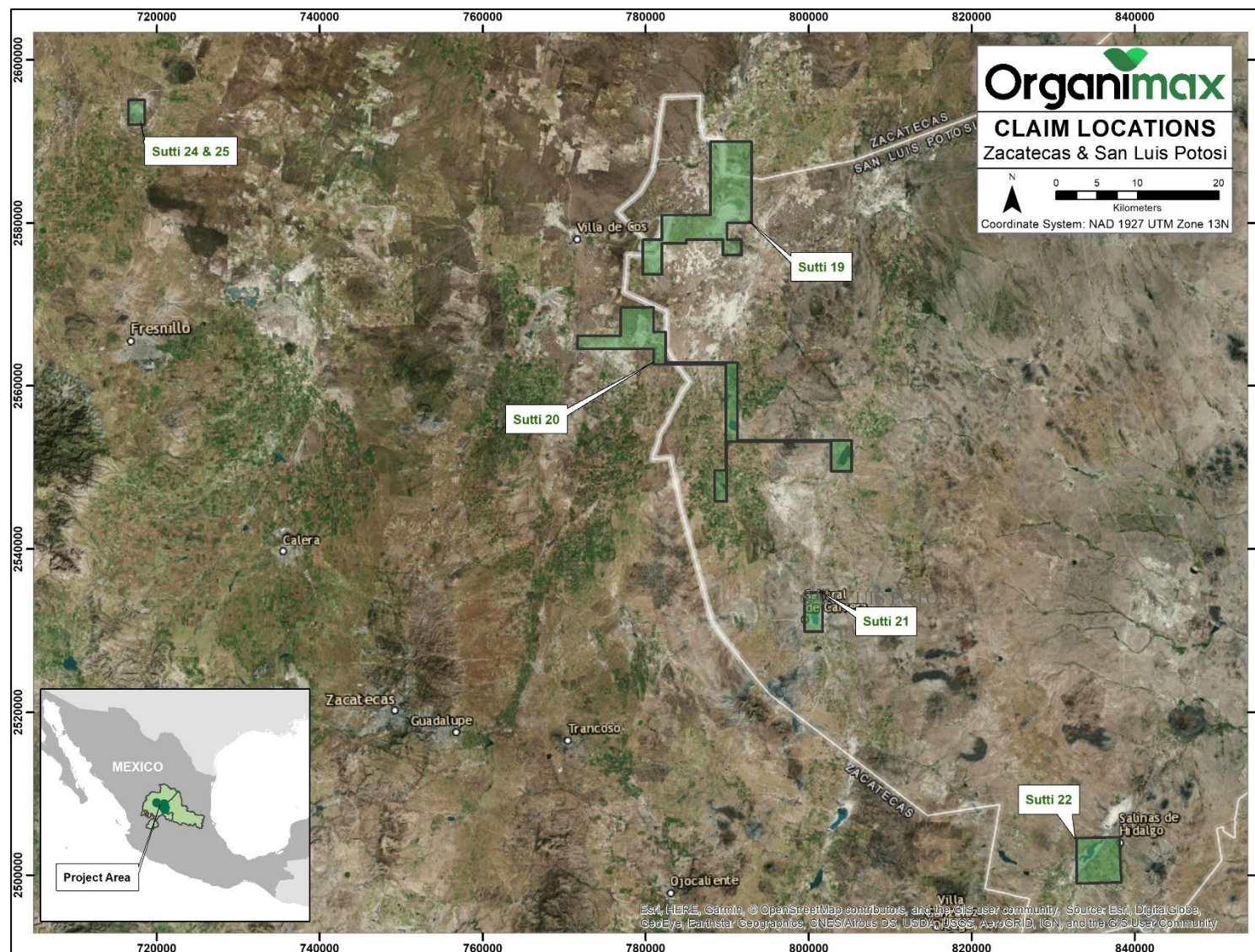
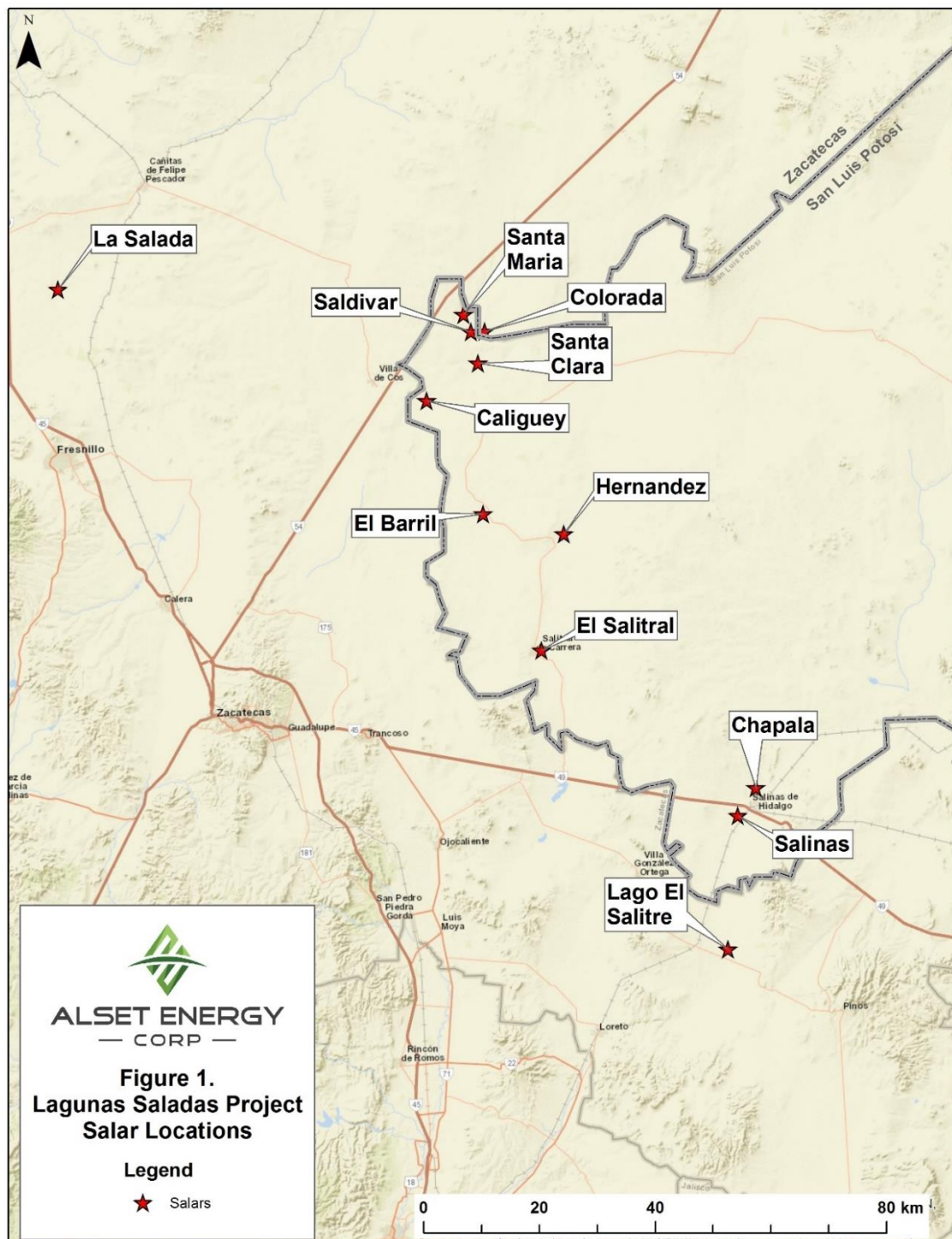


Figure 4-1: OrganiMax's Zacatecas-San Luis Potosi exploration claim locations





**Figure 4-2: OrganiMax's Zacatecas-San Luis Potosi salar deposit locations**

## 4.2 Mineral Tenure

### 4.2.1 Mining concession description

The General Bureau of Mining Regulation ("GBMR") is the agency of the Mexican federal government in charge of granting mining concessions and supervising the mining concessionaries to comply with Mining Law while holding mining concessions, while conducting mining activities, and while granting rights to third parties over the mining concessions for them to conduct mining activities, which are also subjected to the Mining Law.

Mining concessions (also referred to as 'claims') grant to their holders the right to explore and exploit all minerals and substances specified in the Mining Law, except for those reserved to be exploited by the Mexican government, such as gas derived from the exploitation of mineral coal, oil and solid, liquid or gaseous hydrocarbons. There are no reconnaissance, exploration, or other kind of mineral licences, only mining concessions.

Mining concessions do not grant the ownership or possession rights over the surface where they are located. When the concession holder does not have surface rights to access the lands where the mining concession is located, it can directly negotiate the use of land for mining activities with the owners of the surface rights. In the case that no agreements are reached for the use of the surface, mining concessionaries are entitled to start a procedure contemplated in the Mining Law to obtain the following:

- the expropriation;
- a temporary occupation; or
- an easement.

Legal information about ownership, agreements, liens, and encumbrances of mining concessions is available at the Public Registry of Mining ("PRM").

#### **4.2.2 Concession requirements**

The Mining Law imposes, among others, the following main obligations to title holders of mining concessions:

- exploration or exploitation activities must start within 90 days of the concession being granted and recorded before the PRM, with the obligation to conduct and evidence minimum investments in the area under the mining concession or the extraction of economically useful minerals in the amounts provided under the Mining Law and provide the relevant work assessment reports showing the foregoing on an annual basis;
- pay government mining concession fees, for which the amount payable depends on the following:
  - the date on which the mining concession was registered before the PRM (the older the mining concession is, the higher the government fees are);
  - the surface covered by the mining concession (number of hectares) (government mining fees);
- comply with applicable legislation regarding technical, safety and environmental standards;
- provide the Ministry of Economy with statistical, technical, and accounting reports in terms of the Mining Law;
- allow inspection visits from the Ministry of Economy; and
- inform Ministry of Energy ("SENER") in the case of finding any hydrocarbons where the mining concession is located.

### 4.2.3 Concession duration

Mining concessions are granted for a term of 50 years from the date of their registration in the PRM, and are subject to renewal for an additional term of 50 years if the holder is not subject to cancellation of the concession as the result of any act or omission so penalised by the Mining Law and if the holder requests the extension within five years prior to the expiry date.

Mining concessions can be cancelled before expiration in the following cases:

- for not paying of government mining fees as provided in the Mining Law and the Federal Duties Law;
- for not filing the work assessment reports evidencing minimum investments incurred in the mining concessions;
- by a court resolution (that is, execution of a guarantee involving a mining concession);
- for dropping the mining concession through the corresponding administrative proceeding;
- for exploiting or extracting minerals not permitted by the Mining Law;
- if the mining concession was acquired from the Mexican Geological Service ("MGS"), for not paying the corresponding royalties to the MGS;
- for conducting mining activities without the relevant authorisations and permits necessary to conduct them; and;
- if the title holders lose their capacity to own mining concessions (for example, if a company changes its Mexican nationality, among others).

According to Article 19 of the Mining Law, the owner of a claim (a 'mining concessionary') is entitled to transfer ownership of concessions to persons or entities legally qualified to obtain them (it must be registered in the PRM).

### 4.2.4 Environmental licences

Exploration, exploitation, and processing of minerals require the filing of an environmental impact assessment report, as well as the filing of a preventive report in some cases.

Applicants must notify the environmental authority of actions that seek to make it to determine whether the filing of an environmental impact assessment is required or may be performed without authorisation.

### 4.2.5 Additional fees

In addition to government mining fees, all mining concessions are subject to the payment of certain fees to the Mexican government, which are based on production. In accordance with the Federal Duties Law holders of mining concessions shall pay the following:

- 7.5% of the income from the sale of minerals extracted from a mining concession minus the authorised deductions, on an annual basis (the government royalty); and;
- in the case of commercialisation of gold, silver or platinum, concessionaires shall pay an additional 0.5% of the income for the sale of such minerals on an annual basis (the extraordinary government royalty).



Finally, holders of mining concessions that do not perform and verify exploration or exploitation works for two consecutive years, during the first 11 years of seniority counted from their issuance, shall pay on a biannual basis, an additional 50% of the corresponding government mining fees in accordance with the quotas stated in the Duties Law or 100% if the concession's seniority is over 11 years.

#### 4.2.6 OrganiMax concessions

The Mining Concessions / claims currently held by OrganiMax were previously held by former owners MKG Mining Mexico S.A. de C.A. ("MKG") for claims 19, 22, 24, and 25, and Hot Spring Mining S.A. de C.V. ("Hot Springs Mining") for claims 20 and 21. The claims were granted in 2015 with the expiry dates shown in Table 4-2.

**Table 4-2: Claim effective dates**

Claim Name	Claim No.	Date Granted	Expiry Date
Sutti 19	239757	28 February 2012	7 July 2059
Sutti 20	234535	28 February 2012	7 July 2059
Sutti 21	234527	8 July 2009	7 July 2059
Sutti 22	235057	2 October 2009	1 October 2059
Sutti 24	234690	29 July 2009	28 July 2059
Sutti 25	236329	11 June 2010	10 June 2060

The claims were subsequently transferred to Alset's Mexican subsidiary Grupo Minero Alset when they took full control in 2017. After Alset changed its name to OrganiMax, the claims were once again transferred.

SRK has not undertaken a legal review of the claims but has seen the documentation proving the original MKG and Hot Spring Mining claims were valid and transferred to Alset.

## 5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

### 5.1 Accessibility and Infrastructure

Located close to the city of Zacatecas at an elevation in excess of 2,000 m, the principal salars are accessible all year round with paved highways and gravel roads.

The Mexico-Ciudad Juarez rail line, passes 60 km southwest from the Caligüey and Santa Clara salars, and just 10 km from La Salada. The closest port access is at Mazatlán on the Pacific Ocean or Altamira/Tampico on the Gulf of Mexico coast, both which could be accessed by rail or road.

Power lines cross the claims from the highways in several directions, domestic water is available for human consumption and industrial use.

The Zacatecas international airport (Aeropuerto Internacional General Leobardo C. Ruiz) serves both Zacatecas and Fresnillo and is located approximately 15 km north-northwest of Zacatecas.

The populations of the city of Zacatecas (approximately 140,000) and Fresnillo (approximately 110,000) have a strong mining tradition with silver and salt mining in the local area.

## 5.2 Climate and Vegetation

The climate of the Zacatecas area is cool semi-arid, with an average annual temperature of 15.7°C. Freezing temperatures are not uncommon, especially in January and February. Most rain falls between June and October (500 mm annually).

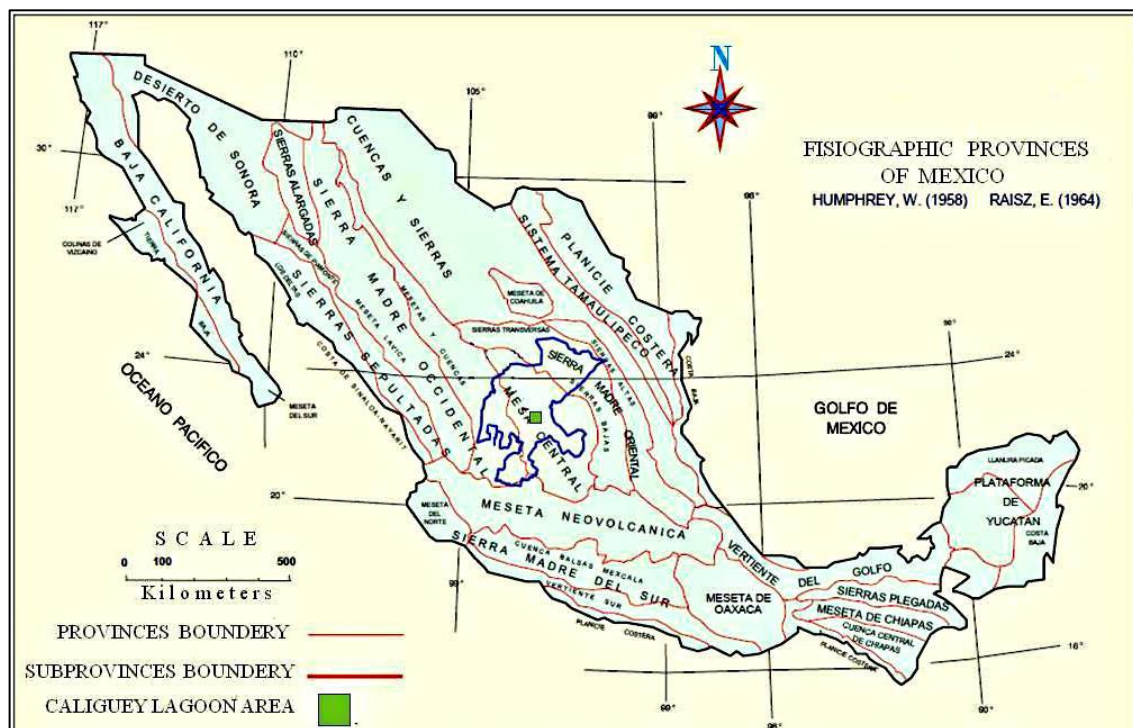
The vegetation is semi-arid scrubland with no vegetation on the salars themselves, which flood and are water-covered for some parts of the year. A general image of the Zacatecas salars showing minor scrub vegetation and no vegetation on the salar is shown in Figure 5-1.



**Figure 5-1: General view of OrganiMax salar (La Salada)**

### 5.3 Physiography

The salars are within the Mesa Central Physiographic Province, as shown on Figure 5-2. It is part of the Central Mexican Plateau, which is a large arid-to-semiarid plateau that occupies much of northern and central Mexico. It extends from the USA border in the north to the Trans-Mexican Volcanic Belt in the south and is bounded by the Sierra Madre Occidental and Sierra Madre Oriental mountain ranges to the west and east, respectively. The salar areas are located between approximately 1,950 to 2,000 metres above sea level (“masl”).



**Figure 5-2: Physiographic provinces of Mexico (Source: Humphrey (1958) and Raisz (1964))**

## 6 HISTORY

### 6.1 Key Historical Milestones

A generalised history of the Zacatecas region is provided below:

- **1652** - Colonial Spanish produced salt from brines in region.
- **1837** - salt production commenced by pumping brines to surface for evaporative concentration.
- **1912** - salt production 50 tons per day with capacity “for double that”.
- **1992** - MGS found lithium in evaporation lagoons (salar) at Caligüey ranging from 12,000 to 21,000 mg/L (Perez and Duran, 1992).
- **2012** – Litio Mex collected over 3,500 sediment samples with up to 11% potassium (K) and 2,590 ppm lithium (Li).
- **2017** - weak acid leach (aqua regia) tests reveal up to 97% recovery of lithium possible from salar sediments.

## 6.2 Ownership Changes

A history of ownership of the various salars is provided below:

- Piero Sutti, S.A (“Piero Sutti”).
- Litio Mex.
- MKG.
- Hot Springs Mining.
- Grupo Minero Alset S.A. de C.V. (“Grupo Minero Alset”):
  - Currently the Mexican subsidiary of OrganiMax Nutrient Corp, but previously subsidiary of Alset Minerals Corp, and previously Alset Energy Corp).

## 6.3 Mapping and Surface Sampling by Previous Explorers

### *Regional Sampling*

Lithium and potassium exploration in the Zacatecas-San Luis Potosi plateau area was first initiated in the 1980s, when the Council of Mineral Resources (“CMR”) developed a nation-wide ‘National Exploring Program’ for lithium and boron. Regional sampling efforts highlighted La Salada (grab samples grading 2,160 ppm K, 374 ppm Li) and El Salitral (grab samples grading 10,400 ppm K, 440 ppm Li) amongst several other salars as targets for additional lithium exploration (CMR, 1982); however, the project was classified as low importance because of the technical and economic context of lithium at the time. Sampling by the CMR continued in the 1990s and samples collected from Caligüey during a technical study of the salar highlighted the lithium potential of the region, with up to 2.1% Li in brines and up to 0.15% Li in sediments (Perez and Duran, 1992). Despite these results, regional sampling efforts were suspended due to limited demand in the lithium market.

Exploration began again in 2008, when the company Piero Sutti initiated a regional survey of approximately 100 salars described on the Mexican Geological Survey geology maps (for example, Servicio Geológico Mexicano 2000a, 2000b, 2001, 2009). This was followed by a geochemical sampling program of select salars in Zacatecas and San Luis Potosi, which highlighted the sediments hosted in the Caligüey, Santa Clara and La Salada salars as the primary targets for additional lithium exploration.

### *Deposit Sampling (after Parga Pérez 2012)*

Based on the results of the regional sampling program, Litio Mex (created by owners of Piero Sutti) began orientation exploration of the Caligüey Lagoon. Initially three sediment samples were collected, averaging 1,100 ppm Li and 1.62% K, followed by four additional samples. Because of the encouraging lithium and potassium results, Litio Mex initiated a systematic pit sampling program of the salar in 2009. A total of 300 pits on a 100 x 100 m grid were dug to 5 m depth using a backhoe. Sediment samples were collected by vertical channel sampling each metre (5 samples per pit, 1,512 samples in total); channels were approximately 0.02 m wide by 1 m long. Samples were removed from the pit in a clean plastic bucket and placed on a clean plastic sheet where an approximately 0.5 kg representative sample of the material was collected using the coning and quartering method (Figure 6-1). The representative sample was sent to Inspectorate Exploration and Mining Services Ltd (“Inspectorate”, now owned by Bureau Veritas S.A.) for potassium, lithium, and boron (for restricted samples) analysis. The remaining portions of each sample were labelled with the appropriate sample number and packaged for storage.



Systematic pit sampling as described above was also completed on the La Salada, Santa Clara, Saldivar, Colorada and La Doncella salars between 2010 and 2012. At the same time, a number of sediment samples were collected from the lower priority salars, including Salinas, Chapala, El Salitral, Hernandez, El Barril, El Agrito, El Salitre and Las Casas. Samples were also collected from salars outside of OrganiMax's current property boundaries including Los Perros, Los Pobre and Las Palomas salars; however, the mineral claims covering these salars were released upon receipt of poor geochemistry results.

A summary of work completed by Litio Mex is shown in Table 6-1.

**Table 6-1: Summary of Litio Mex pit sampling program at select salars**

Salar	Year	Pits	Grid (m)	Samples	Lab*	Average Results		
						Li (ppm)	K (%)	B (ppm)
Caligüey	2009-2011	300	100 x 100	1512	1, 2	310	3.5	661
La Salada	2010	151	100 x 100	711	2	865	3.26	32
Santa Clara	2011	384	200 x 200	848	2	25	4.49	-
	2012			1088	3	256	1.91	731
Saldivar	2011-2012	34	200 x 200	170	2	122	2.52	--
Colorada	2011-2012	34	200 x 200	170	2	169	2.54	-
La Doncella	2011-2012	26	200 x 200	130	2	107	2.05	-

\*Notes:

1. Inspectorate, Reno, NV USA (50-4A-UT)
2. Inspectorate, Vancouver, BC Canada (Li-4A-LL-ICP & K-4A-OR-ICP)
3. ALS Minerals, North Vancouver, BC Canada (ME-MS41 & K-ICP61)



**Figure 6-1: Coning and quartering method to collect representative samples for analysis by Litio Mex at Caligüey**

## 6.4 Geophysics by Previous Explorers

Ground resistivity geophysical surveys using a Schlumberger array to generate a series of vertical electric soundings ("VES") were conducted at Caligüey, La Salada, and Santa Clara in 2010, and Colorada, Doncella and Saldivar in 2011 (Becerra Amezcua, *numerous*). The primary goal of this program was to identify lithological boundaries, highlight potential horizons for potassium and lithium exploration, and estimate depth to bedrock.

In general, the results showed each salar is characterised by an upper sequence of alternating sands, clays, conglomerate, and possibly tuffs overlaying a lower volcano-sedimentary rock, likely andesitic Chilitos Formation. Low resistivity, averaging 1 to 2 ohms/m, in the sedimentary sequences are attributed to salty water. Modelled depths to bedrock range from 20 to 70 m, as summarised in Table 6-2.

Drilling at Caligüey in 2011 (see Section 6.5) contradicts the geophysical data. Average depth to bedrock for Caligüey was estimated at 30 m based on the resistivity surveys; however, reverse circulation (“RC”) holes drilled to a maximum of 60 m depth did not intersect basement. Similarly, bedrock was modelled at 20 m depth for La Salada, yet auger holes drilled in 2017 to a maximum depth of 25.5 m (see Section 10) and one diamond core drillhole (maximum depth 51.35 m) did not confirm basin depth. Generally, it can be concluded that the thickness of basin sediments has been underestimated by the geophysics.

**Table 6-2: Summary of historical resistivity surveys**

Salar	Estimated Depth to Bedrock (m)	Reference
Caligüey	30*	Becerra Amezcua, 2010a
La Salada	20**	Becerra Amezcua, 2010b
Santa Clara	20	Becerra Amezcua, 2010c
Colorada	70	Becerra Amezcua, 2011a
Doncella	70	Becerra Amezcua, 2011b
Saldivar	70	Becerra Amezcua, 2011c

Notes:

\*likely underestimated: drilling to 60 m did not intersect bedrock

\*\*likely underestimated: drilling to 53.5 m did not intersect bedrock

## 6.5 Drilling by Previous Explorers

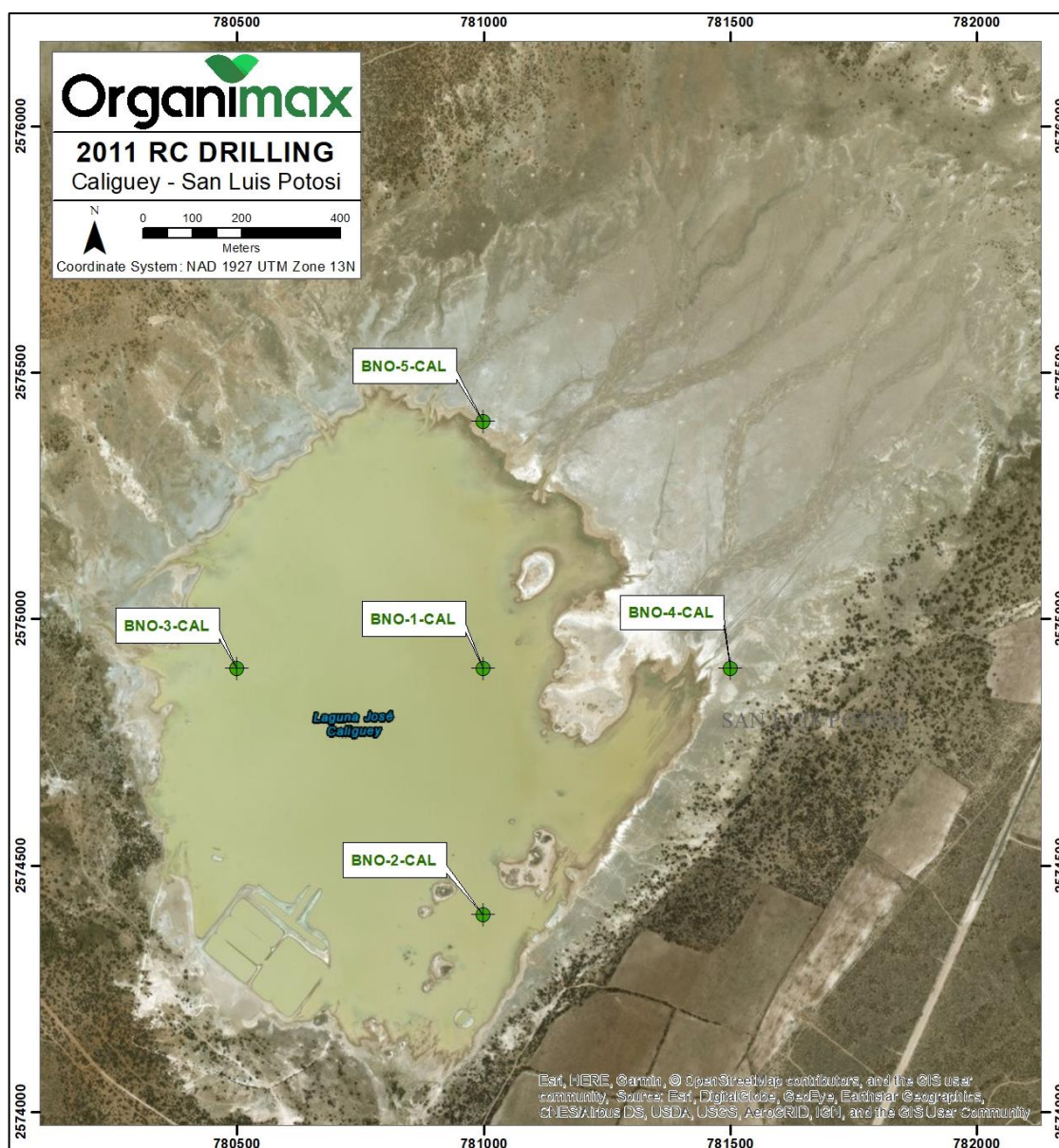
Five vertical RC drillholes were completed at Caligüey in 2011 (Figure 6-2, Table 6-3). Sediment samples were collected over 1 m intervals and submitted to ALS Minerals (Vancouver), Canada for analysis. Depths of the drillholes ranged from 34 to 60 m, none of the holes intersected basement.

**Table 6-3: Summary of historical Caligüey RC drillholes**

Drillhole	UTM E*	UTM N*	Depth (m)	Avg K (%)**	Avg Li (ppm)**	Lithology
BNO-1	781000	2574900	34	3.39	281	Green clays, brown clays, minor gravel
BNO-2	781000	2574400	60	2.64	185	Green clays, brown clays, sand, minor gravel
BNO-3	780500	2574900	42	2.49	166	Green clays, brown clays, sand, minor gravel
BNO-4	781500	2574900	40	2.50	162	Green clay, sandy brown clay with gravel
BNO-5	781000	2575400	40	2.74	177	Green clay, sandy brown clay with minor gravel

\*UTM Nad27 zone 13N

\*\*Length-weighted average for the entire hole.



**Figure 6-2: 2011 RC drilling locations at Caligüey**

## 6.6 Verification work

Behre Dolbear and Company ("Behre Dolbear") was engaged by Litio Mex in 2011 to analyse preliminary potassium and lithium recovery studies, generate maiden Mineral Resource estimates for lithium, and to compile a Canadian NI43-101 technical report for the Santa Clara salar. Behre Dolbear carried out site visits and monitored the pit sampling programs at La Salada and Caligüey in 2011. Upon review of geochemical data and preliminary recovery studies, it was concluded that lithium levels at Santa Clara were lower on average than 2,500 ppm, the cut-off grade considered for lithium in sediments at the time of reporting. Therefore, the report was modified to focus on the economic feasibility of the deposits based on potassium.

## 6.7 Mineral Resource Estimation by Previous Explorers

A 'preliminary mineral inventory' (not a term accepted by the CIM guidelines) was generated for La Salada, Caligüey and Santa Clara by Behre Dolbear on behalf of Litio Mex in 2012 (following the verification described above). A finalised MRE was not completed by Behre Dolbear due to pending metallurgical testwork results at the time.

## 7 GEOLOGICAL SETTING AND MINERALISATION

This section is mainly extracted from an internal report on the exploration and MRE completed by former owner Litio Mex (Parga Pérez, 2012) and is supplemented by metadata from the 1:50,000 MGS geology maps (Servicio Geológico Mexicano 2000a, 2000b, 2001, 2009).

### 7.1 Regional Geology and Tectonics

In the Central Plateau, outcropping rocks that vary in age from Mesozoic to Recent include Mesozoic, volcanic-sedimentary package, sedimentary, and plutonic rocks. Mesozoic metamorphic rocks of very low grade have also been reported. The Mesozoic Era in the region is represented by the Chilitos Formation of the Guerrero Terrain, comprising andesitic volcanic rocks with intercalations of greywacke, radiolarites and lenses of limestone. The Cenozoic Era is represented by volcanic rocks, intrusive igneous rocks of acid and intermediate composition and continental conglomerates. The Quaternary includes basalts, lacustrine deposits, alluviums and occasionally layers of evaporates, travertine, sinter, and pebbles.

### 7.2 Regional Tectonics

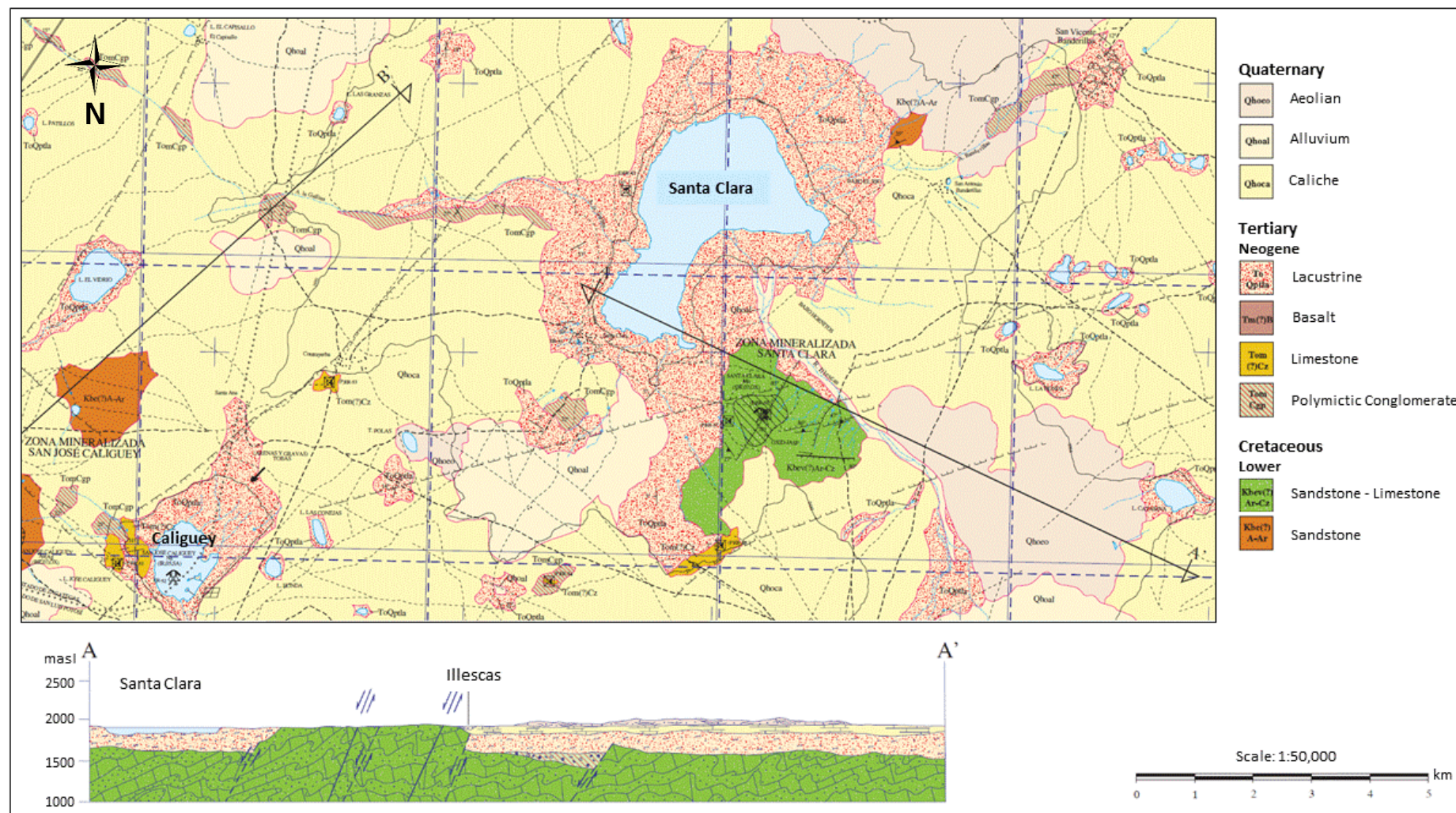
The more significant physiographic features in the region are the result of continental tectonic evolution. The dominant structures in the Central Plateau were formed during the Laramide Orogeny (Early Cenozoic), including anticlinal and synclinal folding and thrusting. A late tectonic phase has affected this territory giving rise to basement folds striking north, northwest, east, and southeast. These events are followed by emplacement of granitic stocks often associated with economic skarn-type mineralisation with the structural conditions for open-space filled type mineralisation by hydrothermal solutions in faults, folds, and bedding planes.

An orogenic extension phase during the Tertiary generated a series of normal faults and associated pyroclastic and rhyolitic volcanism. Faulting resulted in horst and graben structures that were later infilled by lacustrine sediments with or without tuffs, travertine, sinter, and basalt flows interleaved with sediments.

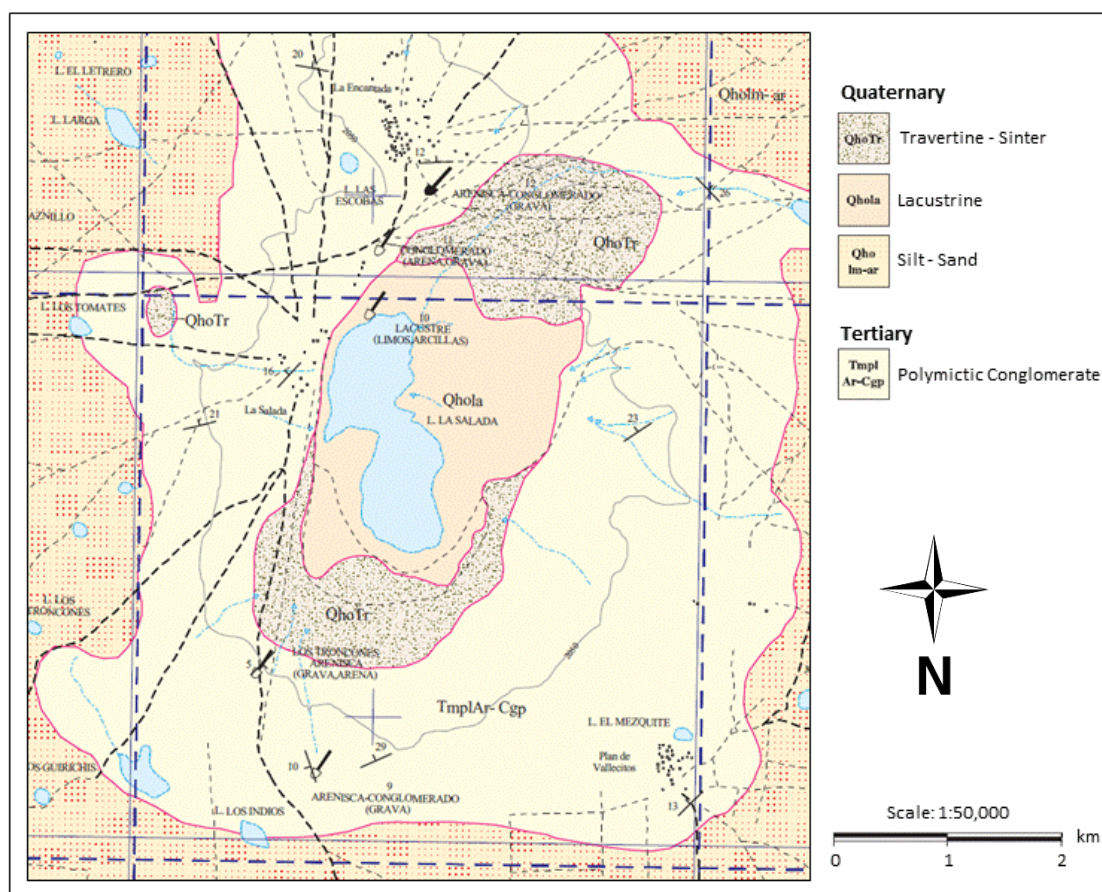
### 7.3 Local Geology and Stratigraphy

The geology in the Caligüey and Santa Clara area (Figure 7-1) is dominated by Quaternary and Tertiary sedimentary units as well as Cretaceous Chilitos Formation volcanic and sedimentary units, as described below. Similar formations outcrop in the La Salada area (Figure 7-2).





**Figure 7-1: Geology of Santa Clara and Caligüey salars and cross section showing lacustrine sediment infill of fault structures (modified after Servicio Geológico Mexicano, 2001)**



**Figure 7-2: Geology of La Salada (modified after Servicio Geológico Mexicano, 2009)**

### 7.3.1 Santa Clara and Caligüey

The description below is modified after Parga Pérez (2012) and Servicio Geológico Mexicano (2001).

**Chilitos Formation.** Originally described by De Cserna (1971), the Formation comprises a volcanic rock package of basaltic to andesitic composition with pillowed lava intercalations and lahars. The andesitic to basaltic lava flows are inter-bedded with calcareous sandstones and volcanoclastics. The sequence occasionally exhibits a very low grade of metamorphism.

The formation was deposited in a deep marine environment and is host to radiolarian and ammonite fossils which date the Chilitos as Lower Cretaceous. In some locations, dark grey to black radiolarian horizons up to 20 cm thick occur. The Chilitos Formation has great economic importance in the region, hosting silver vein epithermal deposits in the Zacatecas, Fresnillo, Minillas, Sombrerete mining areas, as well as volcanogenic massive sulphide (“VMS”) deposits such as the San Nicolas VMS belt.

In the Santa Clara region, this unit is represented by outcropping volcanoclastic and calcareous sandstone (Kbe(?)) and sandstone-limestones (Kbev(?)). Alternating calcareous siltstones, clayey limestones and dolomitized calcareous layers also occur.

**Polymictic Conglomerate (TomCpg).** Oligocene-Miocene aged deposits of gravel-sized fragments in a calcium carbonate cement with fine- to coarse-grained sandy horizons. Locally outcropping northwest and south of Santa Clara as well as northwest of Caligüey.



**Limestone (Tom(?)Cz).** This unit is associated with the deposition of the lacustrine sediments and results from carbonate deposition in secondary basins or near the margins of larger basins. The limestone unit is Oligocene-Miocene and occurs as sporadic outcrops around Santa Clara and west of Caligüey.

**Lacustrine (ToQptla).** Tertiary lacustrine deposits infill fault-related basins and grabens that host salars including Santa Clara, Caligüey, Saldivar and La Prieta. The unit is comprised of white to pinkish brown clay and silt and evaporitic gypsum horizons locally interbedded with conglomeratic horizons with a chalky clay to sandy matrix.

**Caliche (QhoCa).** Caliche up to 6 m thick dominates the region around Santa Clara and Caligüey.

**Alluvium (Qhoal).** The alluvium deposits consist of poorly-cemented and poorly-sorted fine sands, clays, gravel, combined with the clays, conglomerates, occasionally cemented by a calcareous matrix. The thickness is variable, ranging from 5 to 20 m. The unit discordantly overly Cretaceous to Quaternary-age rocks and is considered to be of Holocene age. These basin-fill materials are of continental (terrigenous) origin and represent the product of the mechanical disintegration and of the erosion of pre-existing rocks the region. These sediments have economic importance as aggregate and building materials (sands and gravel) and agricultural applications. This is the unit which hosts the potassium and lithium.

### 7.3.2 La Salada

The description below is modified after Parga Pérez (2012) and Servicio Geológico Mexicano (2009).

**Polymictic Conglomerate (TmplAr-Cgp).** This unit represents the oldest outcropping rock in the area of La Salada and dominates the area surrounding the salar. It is a continental sedimentary unit comprising semi-consolidated polymictic conglomerate with boulders up to 0.3 m of rhyolite, tuff, burdens, sand, silt, and clay. Most of the components were derived from pre-existing volcanic rocks. The coarser constituents are semi-compacted in a sandy matrix of coarse grain size with occasional clay cement, which gives the unit a yellow-brown colour. Interbeds of sandy conglomerate are also present. The unit is approximately 100 m thick.

A petrographic study of a sample (FR-1) located in the northeast of La Salada was undertaken by the MGS. The results show that the rock is a vitreous tuff of rhyolitic composition and is characterized by a pink-cream colour, compact structure, and massive fragmentary texture of pyroclastic igneous origin. The main components are crystal fragments constituted by: potassium feldspar (orthoclase), quartz, plagioclase sodium (albite), lamellar biotite altering to hematite through its zones of weakness. The volcanic glass matrix of the rock demonstrates flow-alignment with microcrystalline texture.

Mineralisation does not occur within the conglomerate units; however, the unit is considered to be important in the formation of water-bearing material. Based on the relationships observed in the field and its stratigraphic position, the age of this conglomerate is considered Miocene-Pliocene and correlates with the Cuencame Formation found in the area.

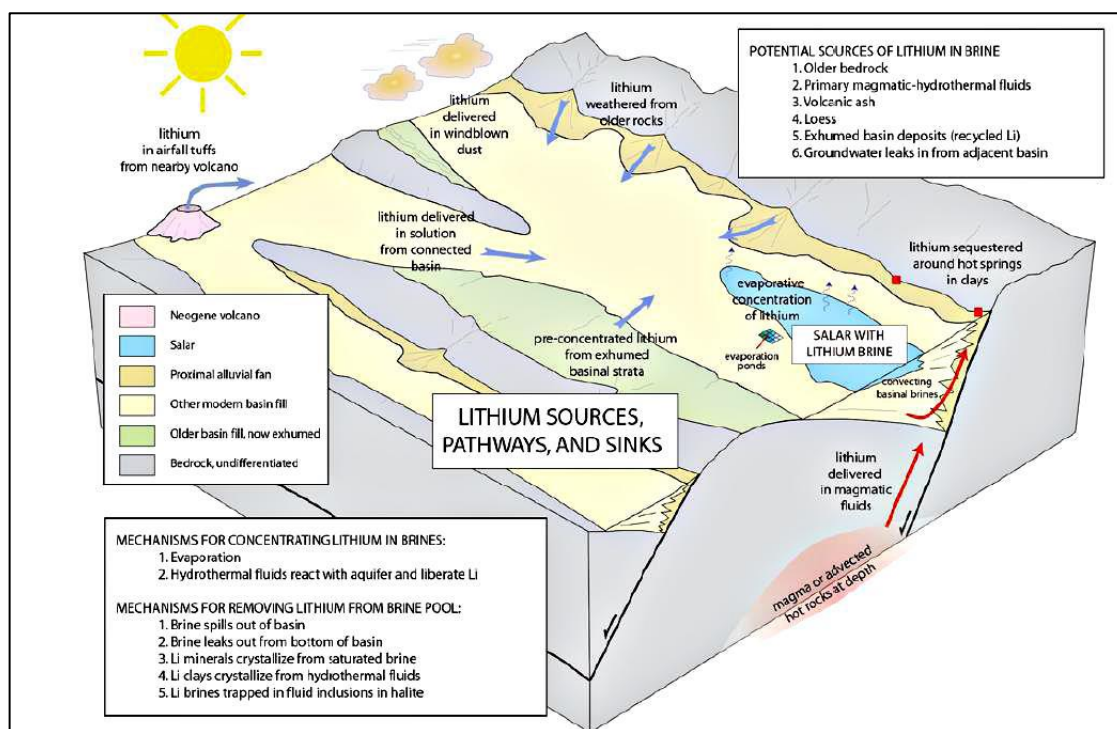
**Silt-sand (Qholm-ar).** Quaternary aged outcrops of silt and sand are widely distributed in the La Salada region.

**Lacustrine (Qhola).** Lacustrine deposits occur regionally and are the dominant infill material within the La Salada salar. The unit is comprised of evaporitic salt layers (potassium, sodium chloride, and sulphate) with layers of poorly consolidated, well sorted clay and conglomerate lenses which were formed by alternating periods of evaporation and flooding within the salar. These Quaternary-aged (Holocene) sediments overly Pleistocene conglomerates and Holocene alluvial deposits. The basin-fill materials are of continental (terrigenous) origin and represent the product of the mechanical disintegration and of the erosion of pre-existing rocks in the region. Resistivity surveys indicate a unit thickness of approximately 30 m. This is the unit which hosts the potassium and lithium.

**Travertine and Sinter (QhoTr).** Contemporaneous with regional alluvial deposits, small outcrops of travertine occur on the margins of La Salada. The travertine formed by calcium carbonate precipitation from thermal waters, also presenting as sinter (amorphous quartz sediment) which forms when highly siliceous the hydrothermal solutions intercept a water body and precipitate amorphous quartz, generally as chalcedony. These deposits display a laminar, stratified structure and occasionally they contain silicified plant and animal fossils.

## 8 DEPOSIT TYPES

The potassium and lithium mineralisation is found within lacustrine sediment deposits formed within salars in a semi-arid, plateau region. Figure 8-1 shows a schematic model of the sources and modes of transport of lithium within a semi-arid plateau region, such as Zacatecas.



**Figure 8-1: Schematic of potassium-lithium bearing salars and brines (Source: USGS, 2013)**

The mineralogy of the lacustrine deposits, analysed by x-ray diffraction (“XRD”) analysis, has suggested the presence of hectorite clay,  $\text{NaO}_3(\text{Mg; Li})_3\text{Si}_4\text{O}_{10}(\text{OH})_2$ , which is a lithium-bearing smectite clay mineral originating from hydrothermal alteration of volcanic rocks. In the 2016 and 2018 testwork, hectorite was not identified, and lithium appears to be associated with clay phases, potentially interstitially.

The presence of several sinter and travertine outcrops demonstrates that the salars are developed within hydrothermal systems which formed when the hydrothermal system loaded with silica intercepted the water body of the salar. In addition, these fluids of acid character gave rise to the intense argillic alteration that displays the volcanic rock, producing lithium-bearing clays.

The potassium is present in the lattices of clays, micas, and k-feldspars (such as sanidine and orthoclase), which are within the lacustrine sediments and a product of terrigenous erosion and transport into the salar basins.

## 9 EXPLORATION

### 9.1 Introduction

The CMR began a regional sampling program in the 1980s to identify prospective lithium and boron projects in Mexico. This program returned anomalous lithium sediment values for several salars in Zacatecas and San Luis Potosi including La Salada and El Salitral. Additional sampling in the 1990s identified anomalous lithium in brines and sediments of the Caligüey salar. Although the CMR programs resulted in the discovery of lithium and potassium anomalies, regional sampling efforts were suspended due to limited demand in the lithium market.

In 2008, private lithium exploration began with a regional survey of the salars in Zacatecas and San Luis Potosi and a follow-up geochemical sampling program of the higher priority salars by Peiro Sutti. Exploration efforts highlighted the sediments hosted in the Caligüey, Santa Clara and La Salada salars as the primary targets for additional lithium exploration. Detailed sampling of these salars (in addition to Colorada, Doncella and Saldivar) by Litio Mex, confirmed anomalous sediment-hosted lithium and potassium down to 5 m depth. Work in the area was suspended in 2012.

Exploration by OrganiMax (under previous name Alset) began in 2016 with re-analysing a selection of samples from Santa Clara, Caligüey, and La Salada collected by previous owners Litio Mex. In 2017, OrganiMax initiated a drilling program at La Salada as well as a surface sediment and water sampling program for the salars within the Sutti 19, 20, 21, and 22 claim blocks. Grid sampling was performed at Santa Clara, Caligüey, Colorada, and Saldivar; and reconnaissance sampling was completed at El Cristalillo, La Doncella, La Prietta, El Agrito, Hernandez, Laguna Larga, Las Casas, El Salitral, and Chapala. Salt samples were also collected from evaporation ponds at Saldivar during the surface sampling program. The work confirmed elevated to anomalous potassium and lithium within the salar sediments; water sampling was limited due to the shallow hole depths. In 2018, OrganiMax conducted a brief sediment density sampling program at La Salada, Santa Clara, and Caligüey.

## 9.2 2016 Analysis of Historical Samples

OrganiMax's initial exploration efforts focused on confirming historical assay values, evaluating mineralogy, and establishing leaching characteristics of the sediments from La Salada, Santa Clara, and Caligüey. In 2016, 30 historical samples, 10 from each salar, were collected from storage and submitted to Activation Laboratories ("ActLabs") in Zacatecas, Mexico, for lithium analysis and a multi-element scan using 4-acid digestion, ICP techniques. The samples from each salar were then mixed into three composite samples, one composite sample for each salar, and transported to ActLabs in Thunder Bay, Ontario for XRD mineralogy and leach testing.

Geochemistry results confirmed elevated potassium and lithium concentrations in the salar sediments. Values for the 30 samples ranged from 1.57 to 4.78% potassium and 340 to 1,680 ppm lithium; historical values for the same samples ranged from 1.58 to 10% potassium and 411 to 2,590 ppm lithium.

## 9.3 Surface Sampling

In 2017, samples were collected at each salar from locations previously selected based on historical sample locations and satellite imagery. Initially, samples were collected using a hammer and hollow tube sampling method; however, this method proved slow and a hand-held motorised auger was used for the remainder of the program and to duplicate some of the original holes. Material recovered from the top portion of each hole was discarded and composite sediment samples were collected from the 0.5 m down to a maximum of 1.0 m using the auger, and from 0.3 or 0.4 down to 0.7 m in the case of the tube sampler (Figure 9-1). Water samples were collected if any water was encountered during augering; salt and water samples were also collected from evaporation ponds, salt work channels, and wells when present.

Sediment, water, and salt samples collected during the 2017 surface sampling program (Table 9-1) were stored by the onsite geologist and then delivered to ALS Global in Zacatecas, Mexico for sample preparation and then shipped to ALS Minerals ("ALS") in Vancouver, Canada for analysis.

**Table 9-1: Summary of sediment, salt and water samples collected during the 2017 surface sampling program**

Claim	Salar	Auger Holes			Soil Samples	Salt Samples	Water Samples
		#	Total Depth (m)	Avg Depth (m)			
Sutti 19	Caligüey	36	33.71	0.94	36	-	-
	Colorada	30	30.00	1.00	30	-	1
	El Cristalillo	2	2.00	1.00	2	-	-
	La Doncella	1	1.00	1.00	1	-	1
	La Prietta	1	1.00	1.00	1	-	-
	Saldivar	28	28.00	1.00	28	6	6
	Santa Clara	59	48.68	0.83	59	-	11
Sutti 20	El Agrito	5	5.00	1.00	5	-	1
	Hernandez	5	5.00	1.00	5	-	1
	Laguna Larga	2	2.00	1.00	2	-	-
	Las Casas	5	5.00	1.00	5	-	-
Sutti 21	El Salitral	5	5.00	1.00	5	-	-
Sutti 22	Chapala	7	5.93	0.85	7	-	1
<b>TOTAL</b>		<b>186</b>	<b>172.32</b>	<b>0.92</b>	<b>186</b>	<b>6</b>	<b>22</b>



**Figure 9-1: Example of surface sediment sampling by hand-auger 2017**

### 9.3.1 Grid Sampling

Grid sampling was performed at four salars, including Santa Clara, Caligüey, Colorada, and Saldivar, using the sampling methodology as described in Section 11. Sample locations for Santa Clara and Caligüey are shown in Figure 9-2 and Figure 9-4, with cross-sections provided in Figure 9-3 and Figure 9-5, respectively. Sample locations for Colorada, Chapala, and Saldivar are provided in Figure 9-6 and Figure 9-7. A summary of assay results at ALS (Vancouver) are presented in Table 9-2.

**Table 9-2: Summary of 2017 grid surface sampling results**

Salar	No. Samples	Sampling Grid (m)	Potassium (%)		Lithium (ppm)	
			Range	Avg	Range	Avg
Santa Clara	59	500 x 500	1.69-4.60	3.55	70-890	392
Caligüey	36	200 x 400	1.73-5.29	3.38	210-1820	769
Colorada	30	200 x 200	1.80-2.73	2.34	80-310	234
Saldivar	28	200 x 200	1.83-2.67	2.22	80-200	139
Chapala	7*	400 x 400	0.59-1.65	1.62	190-530	416

\*limited sampling due to flooding and restricted access

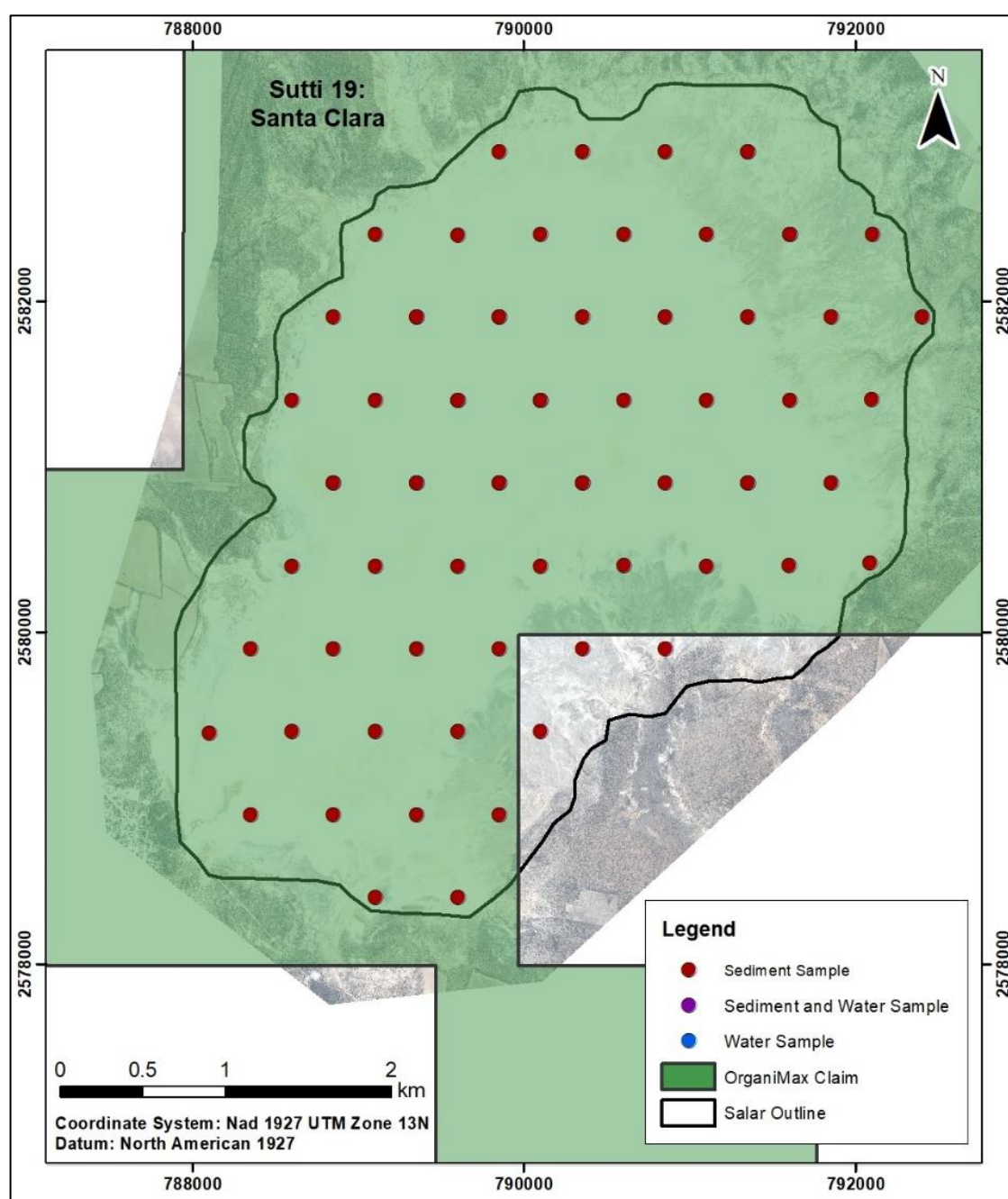
### 9.3.2 Reconnaissance Sampling

A reconnaissance sediment sampling program was also performed at 8 salars in Sutti 19, Sutti 20, and Sutti 21, using the methodology described above (and shown in Figure 9-7 to Figure 9-9). One to five samples were collected from each salar. Results of analysis at ALS (Vancouver) are presented in Table 9-3.

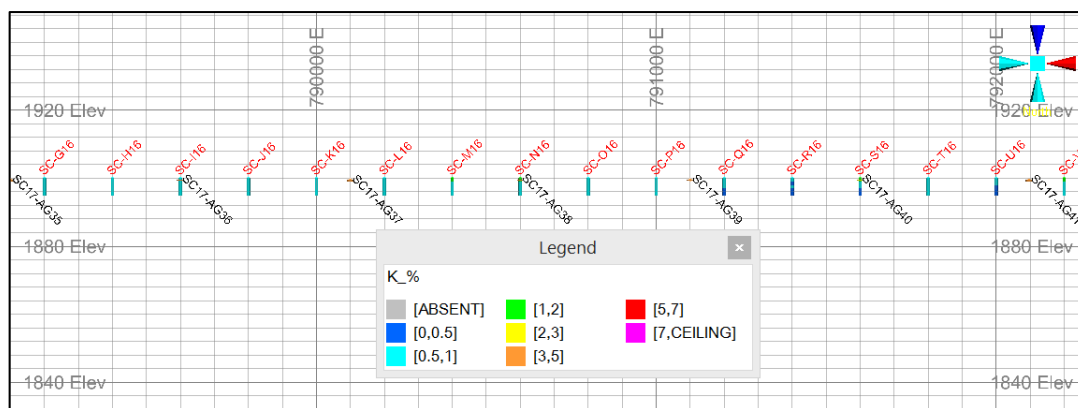


**Table 9-3: Summary of 2017 reconnaissance surface sampling results**

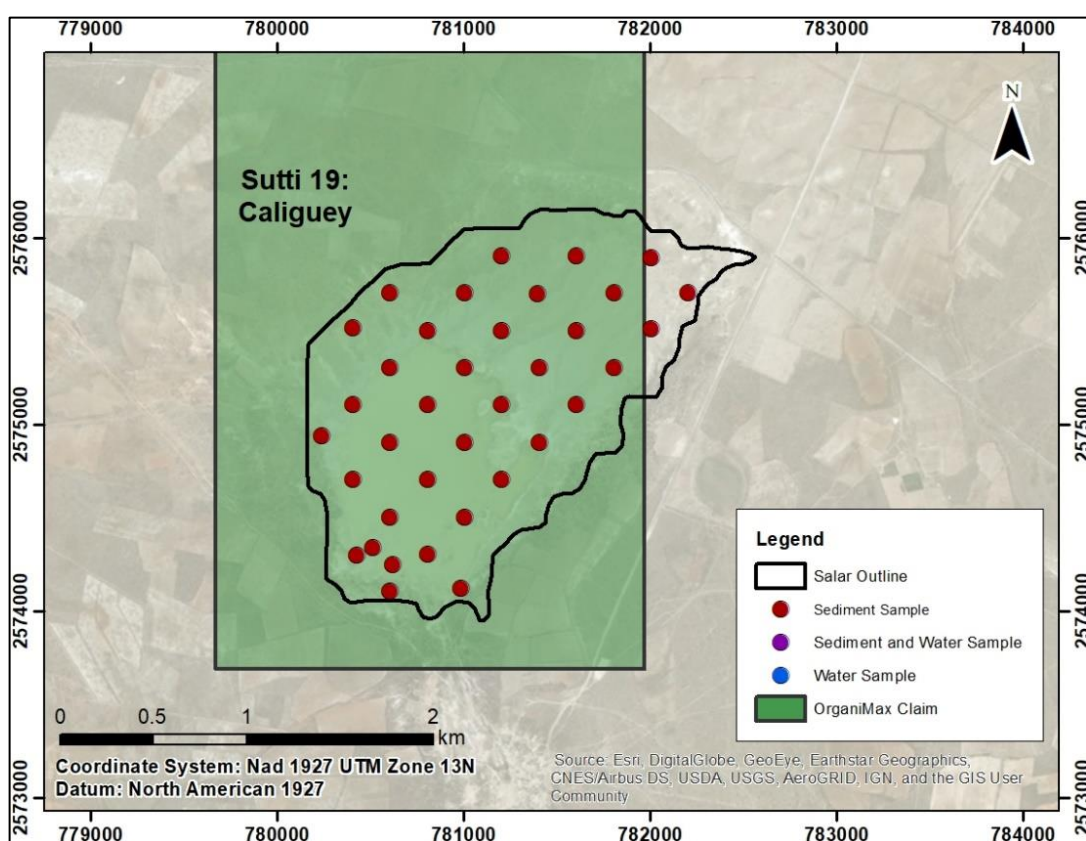
Salar	No. Samples	Potassium (avg %)	Lithium (avg ppm)
El Salitral	5	3.78	284
El Agrito	5	2.79	224
La Prietta	1	2.56	250
Las Casas	5	2.51	234
El Cristalillo	2	2.00	160
Laguna Larga	2	1.93	75
La Doncella	1	1.68	130
Hernandez	5	1.62	556

**Figure 9-2: Santa Clara (Sutti 19) surface sampling locations**

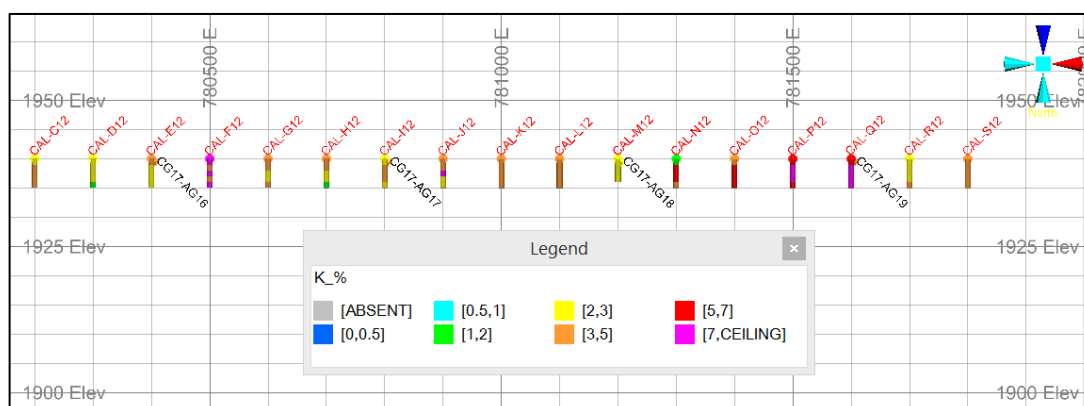




**Figure 9-3: Cross-section (Y: 2581400) through Santa Clara showing Litio Mex pits (red labels) and Alset augering (black labels). Vertical exaggeration x 10**



**Figure 9-4: Caligüey (Sutti 19) surface sampling locations**



**Figure 9-5: Cross-section (Y: 2581400) through Caligüey showing Litio Mex pits (red labels) and Alset augering (black labels). Vertical exaggeration x 10**

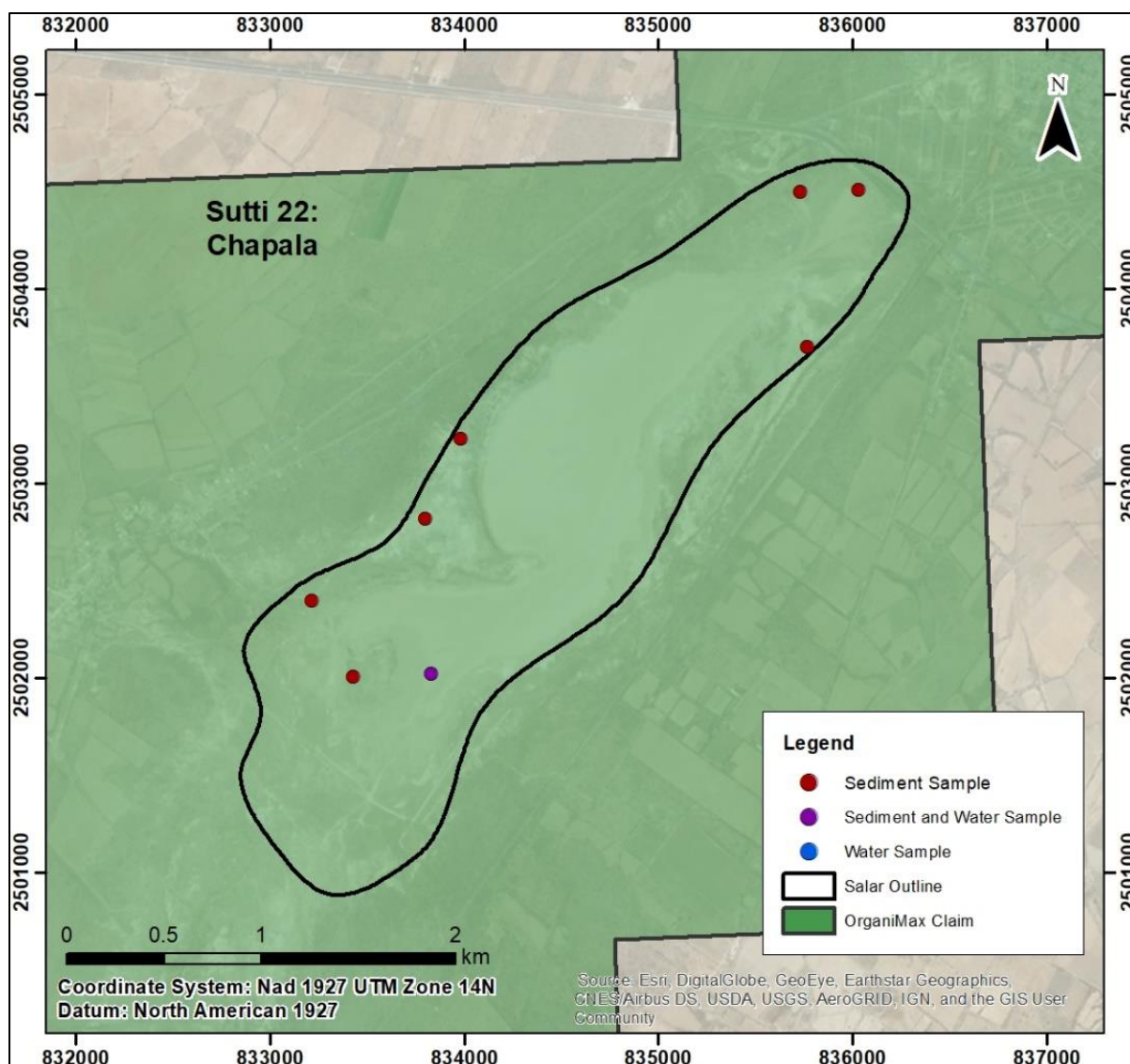
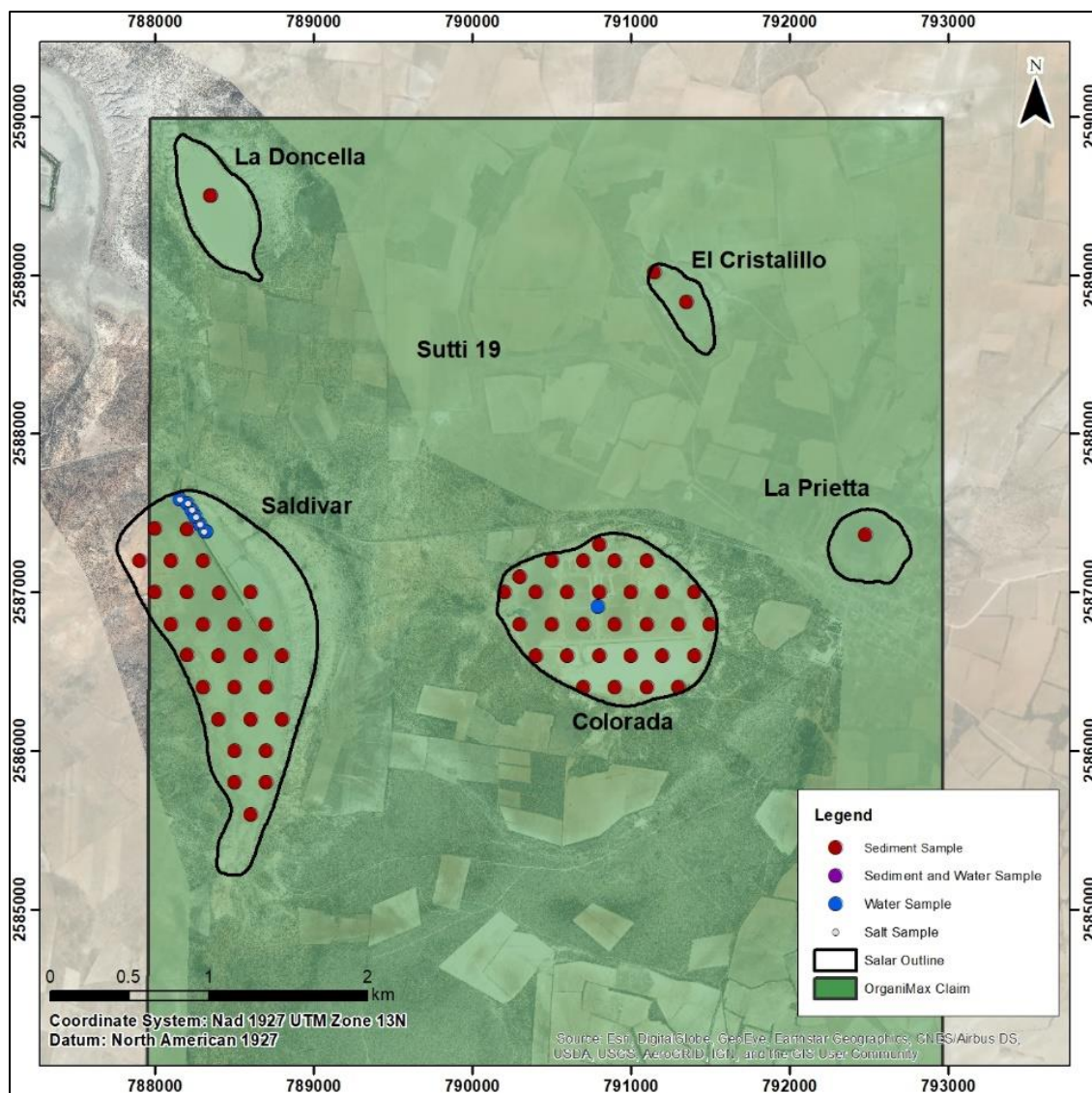
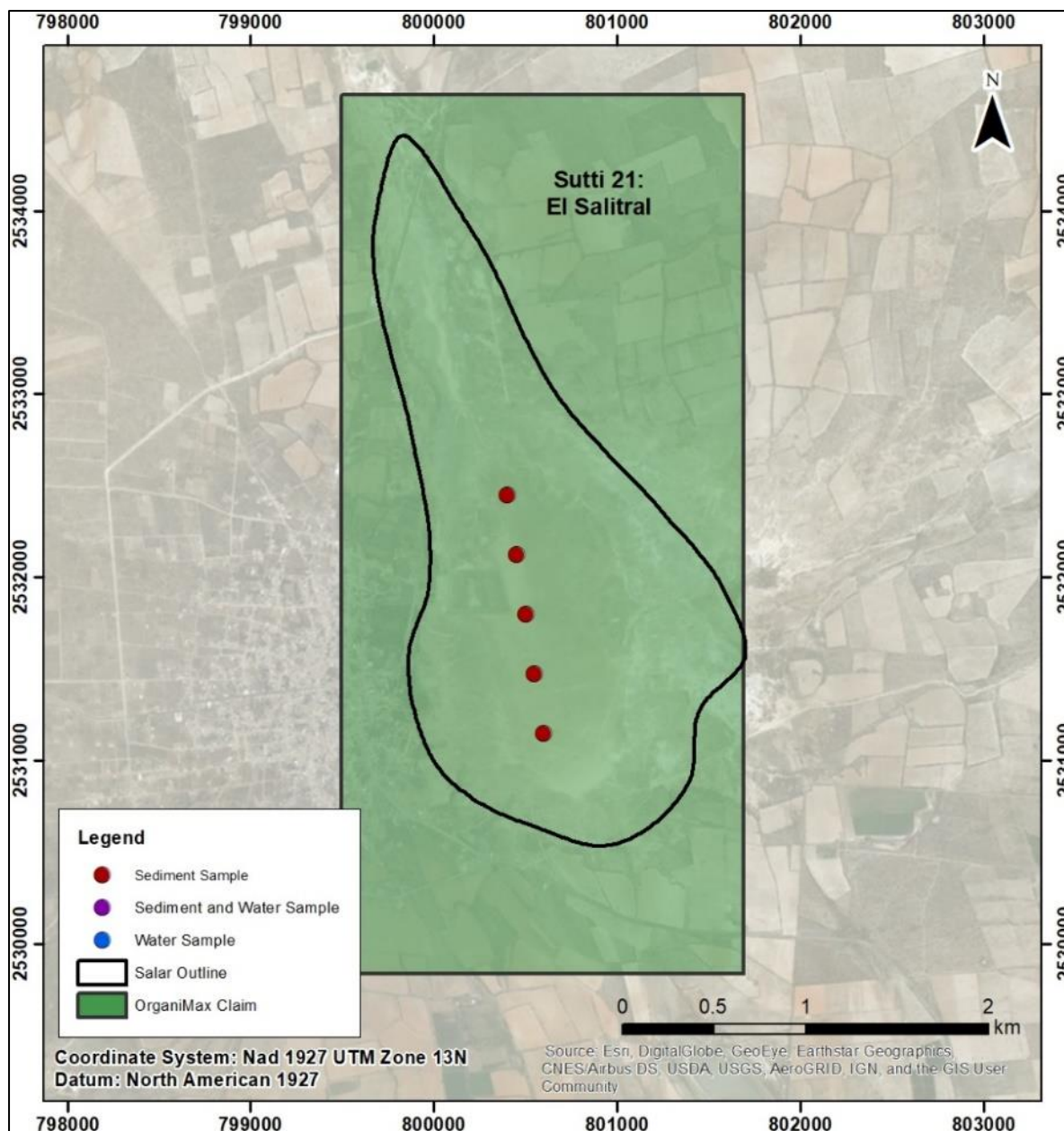


Figure 9-6: Chapala (Sutti 22) surface sampling locations

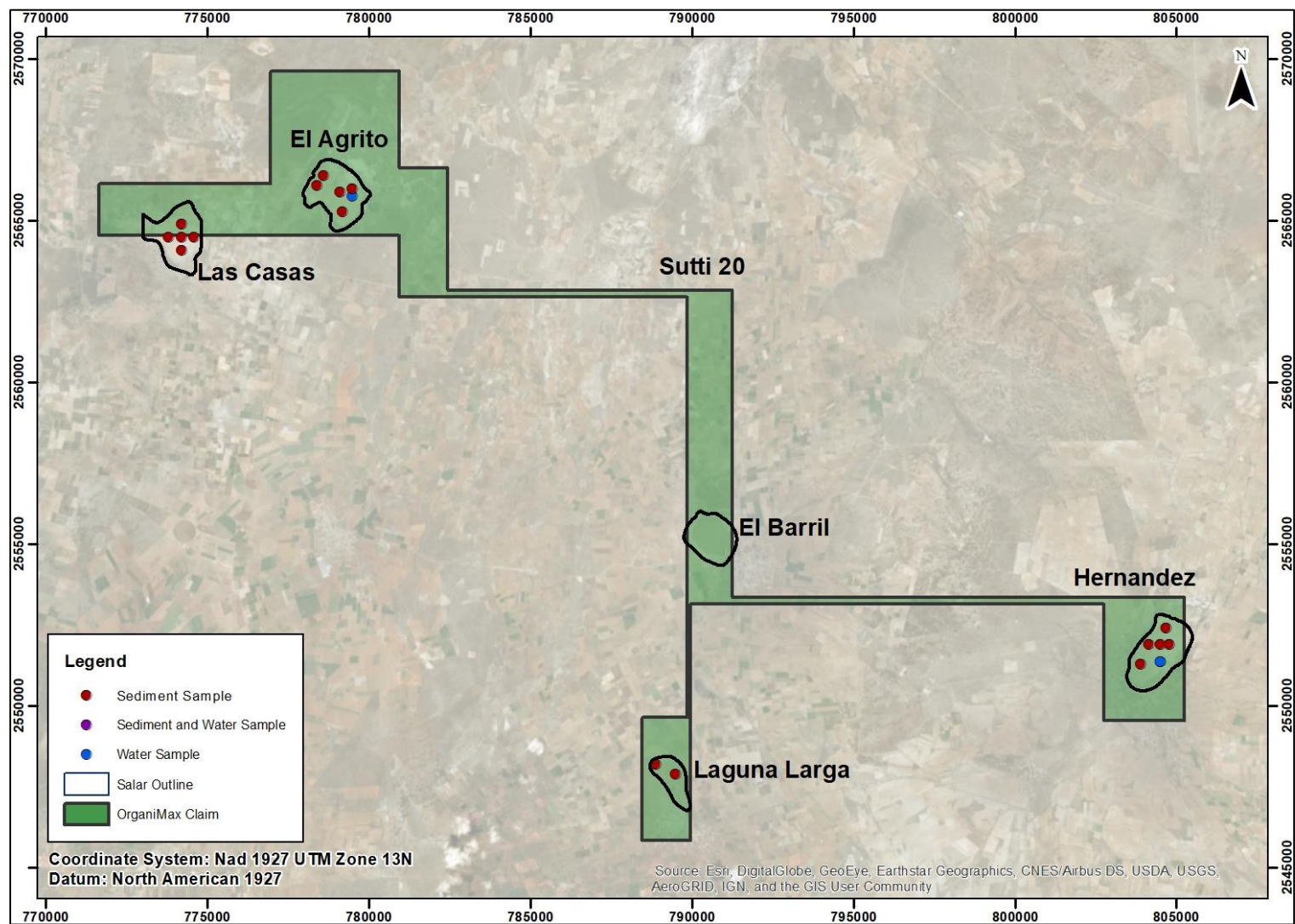


**Figure 9-7: Colorada, Saldivar, La Doncella, El Cristalillo and La Prietta (Sutti 19) surface sampling locations**





**Figure 9-8: El Salitral (Sutti 21) surface sampling locations**



**Figure 9-9:** El Agrito, El Barrill, Las Casas, Hernandez and Laguna Larga (Sutti 20) surface sampling locations

### 9.3.3 Salt Sampling

Saldivar (Sutti 19) was the only salar to have adequate salt from historical saltworks for sampling (Figure 9-10). Six samples were collected from evaporation ponds and salt piles, as shown in Figure 9-7. Results of analysis at ALS (Vancouver) range from 0.03 to 0.2% potassium, 10 to 30 ppm lithium, and 40 to 190 ppm boron.



**Figure 9-10: Salt sampling at Saldivar salar (Sutti 19)**

### 9.3.4 Water Sampling

Water samples were collected when water was intersected during sediment sampling at Santa Clara, Colorado, Chapala and Doncella; from evaporation ponds and old salt works channels at Saldivar and Chapala; and from an old well at Hernandez and Agrito. Results of the 22 water samples analysed by ALS (Vancouver) are summarised in Table 9-4.

**Table 9-4: Summary of 2017 surface water sampling results**

Salar	# Samples	Sample Location *	Potassium (ppm)		Lithium (ppm)		Boron (ppm)	
			Range	Avg	Range	Avg	Range	Avg
Santa Clara	11	1	<500-2000	1,632		<10	192-553	446
Saldivar	6	2	<500-2300	1,780	<10-40	30	80-408	237
Colorado	1	2		<500		<10		130
Chapala	1	1		<500		<10		<5
Hernandez	1	3		600		<10		303
El Agrito	1	3		<500		<10		46
Doncella	1	1		1000		<10		66

\*Notes: 1. Auger hole; 2. Old salt works: evaporation pond or channel; 3. Old well site



To ensure a clean and representative sample was collected, the sampling bottle “A” was rinsed in distilled water and then placed into the auger hole, well, pond or channel to check for water (Figure 9-11). The water collected was used to rinse bottles “B” and “C” and then discarded. Bottle “A” was used to collect a second batch of water which was transferred to bottle “B” and the method was repeated to fill bottle “C”, both “B” and “C” were submitted to the laboratory for analysis. Bottle “A” was used to collect a 4<sup>th</sup> sample which was used for in-field pH, total dissolved solids, and temperature measurements. In the cases where water was limited, distilled water was used for all washing.



**Figure 9-11: Example of water sampling at an auger hole**

## **9.4 Density Sampling**

In situ bulk density sampling at La Salada, Santa Clara, and Caligüey was conducted in 2018. A total of 21 samples and five control and duplicate samples were collected. Density sampling protocol was provided by SRK and one day of sampling at La Salada was monitored by SRK.

Due to the unconsolidated and porous nature of the sediments, a method using a pit filled with water was adopted to obtain the measurements for density calculations. The area selected for each sample was prepared by removing all surface detritus and excavated to approximately 20 cm below surface (Figure 9-12 A&B). A small pit was excavated from the subsurface and all material that was extracted was recovered in sample bags for laboratory analysis. Each pit measured approximately 30 x 30 x 20 cm (Figure 9-12 C). The excavated pit was lined with plastic and the pit was filled with water using a graduated cylinder to determine the volume of the pit (Figure 9-12 D). Duplicate samples were extracted adjacent to the excavated pits using a 2 inch, thin-walled steel-tube soil sampler.



**Figure 9-12: Photographs showing pit and water method for density sampling**

Custody of the sample material was maintained by the onsite geologist until the geologist delivered the material to ALS in Zacatecas, Mexico at which point chain of custody was transferred to ALS. There, the samples were weighed, dried at 60°C until achieving a constant weight, and then weighed when dry. Results from the laboratory measurements were used to calculate wet in situ density and dry in situ density (Table 9-5).

The dry values are extremely low, which is due to the uncompacted nature of the sediments with high porosity and high natural water content.

$$\text{Wet in situ bulk density (g/cm}^3\text{)} = \text{Wet mass (g)} \div \text{Volume (cm}^3\text{)}$$

$$\text{Dry in situ bulk density (g/cm}^3\text{)} = \text{Dry mass (g)} \div \text{Volume (cm}^3\text{)}$$

**Table 9-5: Summary of 2018 pit density results**

	Caligüey			Santa Clara			La Salada		
	Wet Density (g/cm <sup>3</sup> )	Moisture (%)	Dry Density (g/cm <sup>3</sup> )	Wet Density (g/cm <sup>3</sup> )	Moisture (%)	Dry Density (g/cm <sup>3</sup> )	Wet Density (g/cm <sup>3</sup> )	Moisture (%)	Dry Density (g/cm <sup>3</sup> )
No.	6			7			8		
Min	1.4	8.9	1.05	1.55	8.7	1.07	1.43	30.3	0.91
Max	1.96	34.6	1.79	2.11	25.6	1.92	1.65	38.6	1.12
Ave	1.67	25.2	1.34	1.78	20.2	1.34	1.56	35.0	1.01



## 10 DRILLING

### 10.1 Drilling Techniques

In 2017, OrganiMax conducted a drilling program at La Salada in the Sutti 24 and 25 concessions. The program included one triple-tube diamond core drillhole, and 40 drill-mounted auger holes for a total of 627.05 m drilled. Drilling was confined to the active salar and results demonstrate that potassium, lithium, and boron continue to depth in the salar sediments and elevated potassium and sulphate occur in the salar brines.

All drilling was undertaken by Perforación y Servicios de Exploración Mexico S. de R.L. de C.V.. The drill rig used for both the diamond drilling and auger drilling is shown in Figure 10-1. All drilling was supervised by OrganiMax's onsite, professional geologist.



**Figure 10-1: 2017 drill rig used for diamond and auger drilling**

#### 10.1.1 Diamond Core

One diamond drillhole was drilled to 51.35 m near the centre of the northern portion of La Salada in 2017. In an attempt to optimize recovery, diamond drilling was conducted using a HQ3 triple tube core barrel (Figure 10-2) providing core diameter of 61.1 mm. The second diamond drillhole planned for the centre of the southern lobe of the salar was cancelled due to poor recovery and slow drilling; this hole was replaced by an auger hole.



**Figure 10-2: Photograph of diamond core diameter**

### 10.1.2 Auger

Following the completion of the core drillhole, OrganiMax conducted a 40-hole drill-mounted auger program at La Salada. The auger program included 39 holes on a 150 m east-west by 200 m north-south grid over the active salar and one hole in place of the cancelled core drillhole. This program aimed to confirm results of historical pit sampling and to profile the lithology and geochemistry of salar sediments below the 5 m depth of the historical sampling program. Once each auger hole was complete, the hole was cased with perforated PVC casing to facilitate water/brine sampling.

## 10.2 Sampling Techniques

All drilling related photography, logging, and sampling was conducted by OrganiMax's onsite geologists. Custody of the samples was maintained by the geologist until the samples were collected by a representative of SGS (Durango), Mexico, at which point chain of custody was transferred to SGS. Core boxes and splits of auger samples were transported by OrganiMax personnel to OrganiMax's storage facility in Ojocaliente, Zacatecas, Mexico for storage.

All sampling protocols were reviewed by SGS Blainville, Canada prior to drilling.

### 10.2.1 Diamond Drill Sampling

#### *Core Photography*

Core and core blocks were placed into plastic coated cardboard core boxes by the driller. Drill runs were marked on the box and then core was photographed with a marker board listing the hole number, box number, and meterage of the box (Figure 10-3).



**Figure 10-3: Drill core presented prior to sampling procedures, showing examples of green clay, orange clay, and limestone typical of La Salada salar material**

#### *Core Recovery*

Core recovery and solid core recovery were measured for each run of the diamond drillhole:

$$\text{Core recovery} = \frac{\text{Sum of length of recovered core}}{\text{Total length of core run}} \times 100$$

$$\text{Solid core recovery} = \frac{\text{Sum of solid core pieces}}{\text{Total length of core run}} \times 100$$

Recovery for the 2017 diamond drillhole averaged 39%, solid core recovery averaged 21%.

#### *Density Sampling*

Two density samples were collected from the drill core. Whole core pieces were selected at 5.8 and 36.35 m depth. The core length, diameter and lithology were recorded, and the core pieces were tightly wrapped in poly bags then stored in a cool location out of the sun until collected by a representative from SGS (Durango). Core pieces were weighed, dried, and weighed again at SGS (Durango); a portion of the core was then used for specific gravity by pycnometer.

#### *Logging*

Geological logging was undertaken by the onsite geologist once core photography, recovery and density sampling was complete. The geologist noted recovery, water loss reported by the drillers, unconsolidated intersections, and basic lithology including colour, grain size, and reaction to acid.

#### *Sampling*

Sampling was completed onsite by the geologist. Sampling intervals were based on lithology and ranged from 1.0 to 5.44 m, averaging 2.2 m. Sampling intervals were increased over intersections with consistent lithology but poor recovery to ensure adequate material for analysis.



Samples were collected by cutting the core in half along the core axis using a knife for soft clays and poorly consolidate materials or a manual core splitter for harder materials and rocks. The samples were placed in poly samples bags and labelled with a sequential, unique laboratory assay number and company identification number. Assay tags were placed in the bag with the sample, duplicate assay tags were secured in the core boxes at the start of each sample interval. Bags were secured using a cable tie.

### 10.2.2 Auger Sediment Sampling

#### *Photography*

Each auger run was photographed with a marker board listing hole number, drill run, and meterage (Figure 10-4).



**Figure 10-4: Auger run prior to sampling**

#### *Sampling*

Sampling was completed onsite by the geologist with the driller's assistance. Sample intervals were based on drilling and each sample is a composite of material collected during one 1.5 m auger run. In places where the auger could not complete a run, for example with rocks intercepted at the end of the hole, the sample interval was less than 1.5 m. Auger holes were sampled in their entirety.

When the auger run was pulled from the hole any obvious coating was scraped off to avoid contamination by smearing of clays from above the sample interval. Two representative samples were collected from the auger bit using a putty knife. The laboratory sample was collected by starting at the bottom of the auger and scraping sediments off the bit while moving up the bit. This sample was placed in a poly bag, labelled with a sequential, unique laboratory assay number and company identification number and sealed with a cable tie. A field/storage duplicate sample was collected by starting at the top of the auger and scraping sediments off the bit while moving down the bit. The sample was placed in a poly bag, labelled with the same number as the laboratory sample and sealed. In the case of duplicate samples, material was collected from bottom to top with a third pass along the auger. Company sample number, assay number, length of auger run, sample lithology and reaction to acid were noted in a sample log.

#### *Density Sampling*

Density samples were collected by the onsite geologist at three auger holes. Samples were collected using a 2-inch, thin-walled steel-tube soil sampler. After the first auger run, the sampler was lowered into the 1.5 m deep hole and hammered with a slide hammer to collect the sample. After the sample was collected, the sample tube was capped, and the sample, tube and caps were bagged in two poly sample bags and sealed. Each sample was labelled with a sequential, unique laboratory assay number. Density samples were stored by the geologist in a cool, secure location.

### **10.2.3 Auger Water Sampling**

After each auger hole was completed, perforated PVC casing was placed into the hole to allow formational water to flow into the hole and the hole was left to settle overnight. The geologist returned to the site within 24-hours to check for water and to collect a water sample. Water was collected using a stainless-steel bailer which was rinsed with distilled water prior to sampling. The bailer was lowered into the hole to collect a water sample, depth to water and depth of sample were recorded. Sample bottles were washed twice with formational water before filling and sealing. Each bottle was labelled with a sequential, unique laboratory assay number and company identification number. Samples were stored in a cooler box until collected by a representative of SGS (Durango). An HI 98129 pH and conductivity meter was used to collect in field pH, conductivity, and total dissolved solids data for each sample. Water samples were collected from 38 of the auger holes; two auger holes were dry.

#### *Results*

The results of the water sampling are provided in Table 11-1. SRK notes that although there are economically interesting grades (particularly of potassium), no estimate of these water samples has been conducted as part of this commission. OrganiMax plans to undertake a larger-scale water sampling campaign in addition to geophysics to test the brine potential of their salars.

#### *Repeat Sampling*

Approximately one month after auger drilling was completed, a second set of water samples was collected from five auger holes. These samples were collected by the onsite geologist using the same methodology as described above. Samples were delivered to ALS (Zacatecas) and then shipped to ALS (Vancouver) for analysis.

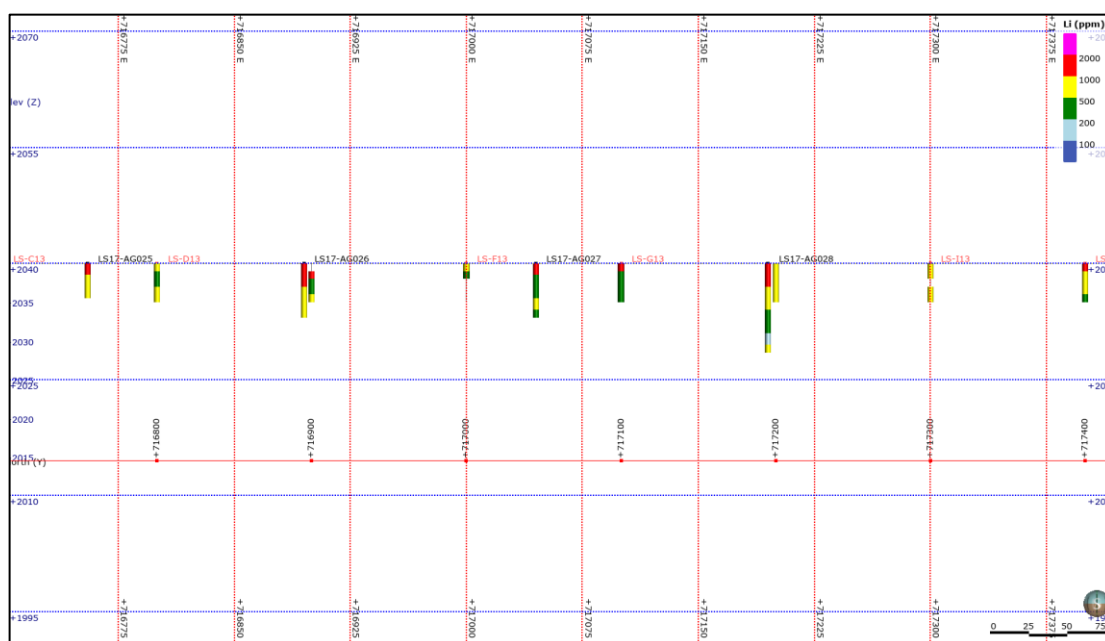
**Table 10-1: La Salada auger drillhole water sample assay results**

Element	# Samples	Min	Max	Average	Stdev
K (%)	38	0.06	2.7	1.2	0.9
Na (%)		0.2	9.2	4.0	3.0
Cl (%)		0.2	4.7	2.4	1.5
SO <sub>4</sub> (%)		0.05	4.0	1.6	1.3
Mg (mg/l)		1	12,600	513	2,072
Ca (mg/l)		3	35,500	1,115	5,740
Li (mg/l)		1	142	15	24
B (mg/l)		12	677	247	198

## 10.3 Drilling Results

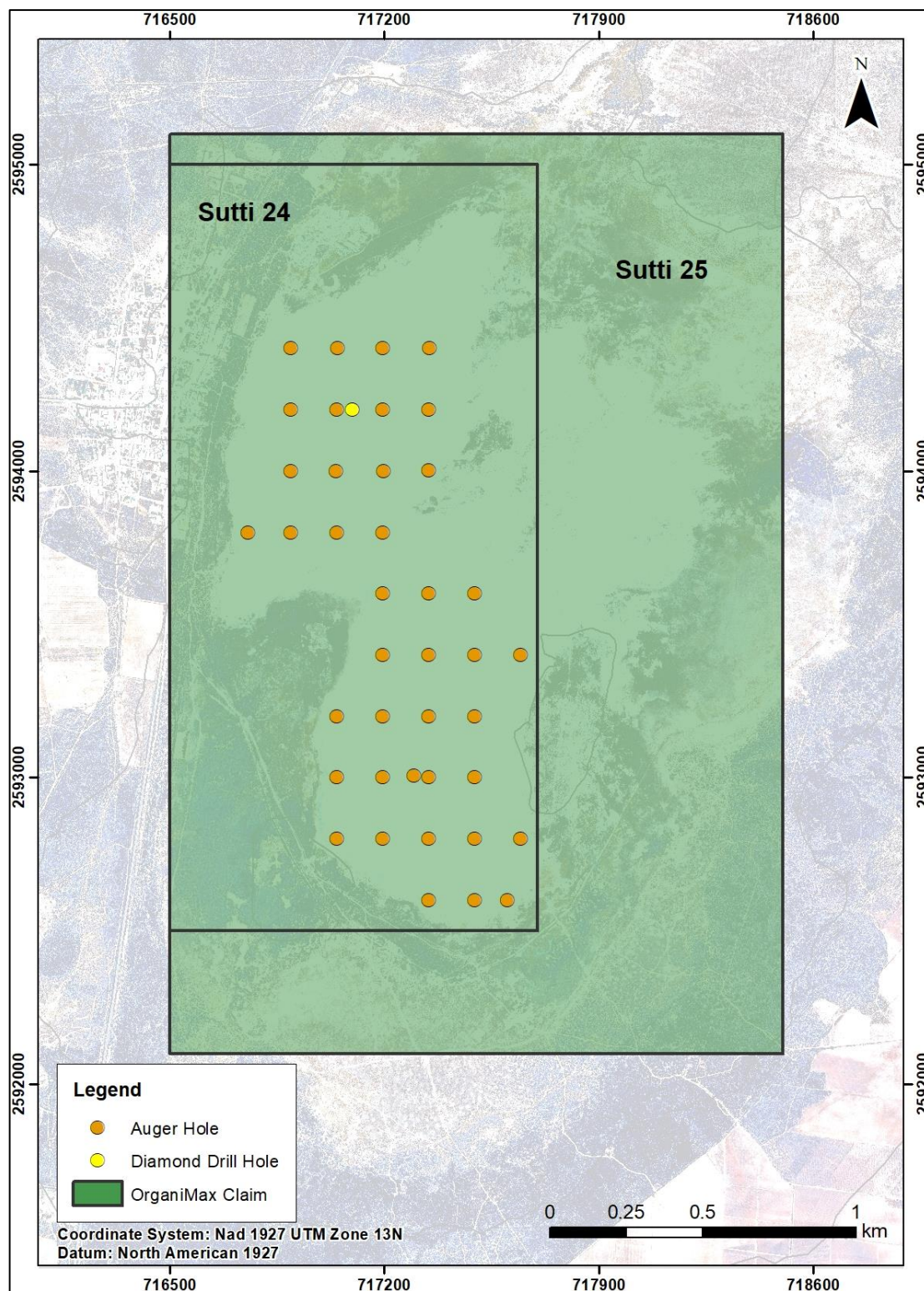
### 10.3.1 Location

Figure 10-5 shows a cross-section through La Salada with the Litio Mex pits and Alset drillholes. Figure 10-6 shows the locations of the diamond and auger drillhole collars at La Salada in the Sutti 24 and 25 concessions. All grades presented herein relate to sediment samples only.



**Figure 10-5: Cross-section (Y: 2593800) through La Salada showing Litio Mex pits (red labels) and Alset drillholes (black labels). Vertical exaggeration x 5**





**Figure 10-6: 2017 La Salada drillhole collars**

### 10.3.2 Surveying

Collar locations were located using a handheld Garmin GPSmap76Cx. Due to the flat nature of the salars, a single elevation value was used to avoid elevation resolution discrepancies.

All drillholes to date have been drilled vertically. None of the holes has been surveyed with down-hole survey or core orientation technology.

### 10.3.3 Intersections Compared to Mineralisation

The drillhole intercept the mineralisation perpendicular to the horizontally-layered sediments.

## 10.4 SRK Comments

SRK considers that the drilling has been undertaken to a high standard and no material issues have been identified, except for the poor core recovery of the core drillhole. As a result of this, the analysis results from this hole were not used during grade estimation.

SRK has only undertaken estimates for the sediment samples; no analysis has been conducted on the water/brine samples and no estimate of the brine potential has been provided.

# 11 SAMPLE PREPARATION, ANALYSES AND SECURITY

## 11.1 Assaying Methodology

Several laboratories and analytical methodologies have been utilised for deposits and are summarised in Table 11-1, with a brief summary of the sediment samples provided below:

- Lithio Mex:
  - Caligüey: 1,512 (100%) Inspectorate;
  - Santa Clara: 1,060 (56%) ALS, 848 (44%) Inspectorate;
  - La Salada: 711 Inspectorate;
- Alset:
  - Caligüey (hand auger): ALS (100%);
  - Santa Clara (hand auger): ALS (100%);
  - La Salada (mechanical auger + core): SGS (100%).

**Table 11-1: Summary of laboratories and analytical techniques used by past explorers and Alset for sediment analysis**

Lab	Facility (Certification)	Method Code	Digestion Method	Analysis	Element Suite	Campaign
Inspectorate America Corporation	Reno, Nevada USA	50-4A-UT	4 acid	ICP-MS	K, Li, B (selected elements reported as portion of standard 50 Element package)	2011 (Li, K) - Caligüey (1038 of 1512) 2011 (B) - Caligüey (14 of 1512)
	Vancouver, BC Canada	B-4A-LL-ICP	4 acid	ICP	B	2010 (Li, K, B): - La Salada
		K-4A-OR-ICP	4 acid	ICP	K	2011 (Li, K): - Caligüey (474 of 1512) - Santa Clara (848 of 1908)
		Li-4A-LL-ICP	4 acid	ICP	Li	- Colorado - La Doncella - Saldivar
ALS Global / ALS Minerals	North Vancouver, BC Canada (ISO 14001-2004)	Li-ICP61	4 acid	ICP-AES	Li	2012: - Caligüey (RC)
		ME-ICP61	4 acid	ICP-AES	K (selected elements reported as portion of standard 33 Element package)	- Caligüey (70, duplicates of Inspectorate) - La Salada (125, duplicates of Inspectorate)
		ME-MS41	Aqua regia	ICP-MS	51 Element (Ag, Al, As, Au, B, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, Ga, Ge, Hf, Hg, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr)	2012: - Caligüey (RC) - Santa Clara (1088 of 1908)
	North Vancouver, BC Canada (ISO/IEC 17025:2017)	ME-ICP61	4 acid	ICP-AES	33 Element + Li (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Th, Ti, Tl, U, V, W, Zn)	2017: - Surface sediment samples from all deposits except La Salada.
		S-GRA06a	HCL	WST-SEQ	Sulphate S (HCL leachable)	- La Salada (re-assay of sediment samples from 1 auger hole: all methods used)
		ME-ICP81	Na <sub>2</sub> O <sub>2</sub> Fusion	ICP-AES	K	
		B-MS-89L	Na <sub>2</sub> O <sub>2</sub> Fusion	ICP-MS	B	
		ME-MS89L	Na <sub>2</sub> O <sub>2</sub> Fusion	ICP-MS	50 Element (Ag, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Ge, Ho, In, La, Li, Lu, Mn, Mo, Nb, Nd, Ne, Pb, Pr, Rb, Re, Sb, Se, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, Tl, Tm, U, V, W, Y, Yb, Zn)	
ActLabs	Thunder Bay, ON Canada (ISO/IEC 17025)	1F2	4 acid	ICP	36 Element (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Hg, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Te, Ti, Tl, U, V, W, Y, Zn, Zr)	2016: Re-analysis of select historical samples from Santa Clara, Caligüey and La Salada
SGS Mineral Service	Durango, Mexico (ISO/IEC 17025:2005)	GE ICP40B	4 acid	ICP-OES	32 Element (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Cr, Co, Cu, Fe, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sc, Sn, Sr, Ti, V, W, Y, Zn, Zr)	2017: - La Salada (rock samples from 1 core hole)

Lab	Facility (Certification)	Method Code	Digestion Method	Analysis	Element Suite	Campaign
	Lakefield, ON Canada (ISO/IEC 17025:2005)	?	4 acid	ICP-OES	31 Element (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Cr, Co, Cu, Fe, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sc, Sn, Sr, Ti, V, W, Y, Zn)	2017: - La Salada (sediment samples from 5 auger holes)
		?	KOH Fusion	ICP-MS	B	
		GC ICP94V	KOH Fusion	ICP-AES	B	
		GE ICP40B	4 acid	ICP-OES	33 Element (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sn, Sr, Ti, V, W, Y, Zn, Zr)	2018: - La Salada (all 2017 auger sediment samples)

## 11.2 SGS 2017

La Salada sediment samples selected for analysis by SGS in 2017 were prepared at SGS (Durango) using the SGS a modified version of the procedure 'G\_PRP104' with or without crushing. Samples were weighed, air dried at approximately 30°C for approximately 24 hours until achieving a constant weight, crushed if required, dry screened, and riffle split. A 500 g split of each sample was shipped to SGS, Lakefield, Canada, who riffle split the sample in two. One half was saved for future testwork and the other half was pulverized and submitted for head assays.

La Salada water samples were shipped from SGS (Durango) to SGS (Lakefield) for preparation and analysis. Water samples were not filtered prior to analysis. Samples with high sediment load were shaken to attempt to homogenize the sample prior to analysis thereby including any solids present in the sample in the assays. Five samples with high sediment load were selected for repeat assays, the samples were filtered to 0.45 µm and the filtrate was analysed.

Rock samples from the 2017 diamond drillhole were prepared using the SGS standard rock and core procedure 'PRP89' with a modified drying temperature. Samples were dried at approximately 30°C until achieving a constant weight, crushed to 75% passing 2 mm, split to 250 g, the split was pulverized to 85% passing 75 µm. Pulps were then assayed at SGS (Durango).

### 11.2.1 ALS 2017

Sediment samples collected during the 2017 surface sampling program as well as duplicated sediment samples from one La Salada auger hole were delivered to ALS (Zacatecas). Samples were prepared at this facility using the ALS procedure 'PREP-31' with a modified drying temperature. Samples were dried at a maximum of 60°C, crushed to 70% less than 2 mm, riffle split to 250 g, and pulverizing the split to >85% passing 75 µm. Pulps were shipped to ALS (Vancouver) for analysis.

Salt samples were prepared by ALS using the ALS procedure as described for the sediments.

Water samples were delivered to ALS (Zacatecas) and then shipped to ALS (Vancouver) for preparation and analysis.

### 11.2.2 SGS 2018

Sediment samples analysed in 2018 were submitted to SGS (Durango) in 2017 and kept in storage. In 2018, all La Salada auger sediment samples were removed from storage and split in two. One portion was saved for future testwork and the other portion was prepared for shipment. The samples were prepared at the SGS (Durango) using a modified version of the procedure PRP89. Samples were dried at 60°C until achieving a constant weight, crushed to 75% passing 2 mm, riffle split to 205 g, pulverized using Cr steel to 85% passing 75 µm. Pulps were shipped to SGS (Lakefield).

## 11.3 Quality Assurance / Quality Control

### 11.3.1 Introduction

The Quality Assurance and Quality Control ("QA/QC") procedures for the La Salada sediment samples included duplicates, blanks, and certified reference materials ("CRM", or standards) that were purchased from Shea Clark Smith of MEG Inc. ("MEG"), Reno, Nevada, USA. SRK notes that the CRM are certified for lithium and boron using a Na<sub>2</sub>O<sub>2</sub> Fusion, ICP-AES technique which differs from the 4-acid digestion, ICP-OES technique for potassium and lithium and KOH fusion, ICP-AES technique for boron used by OrganiMax. MEG provided 4-acid ICP assay results for the standards giving confidence in the accuracy of the CRM for potassium and lithium with the analytical techniques used by OrganiMax. SRK also notes that despite this indication of grade, the CRM are not certified for potassium.

CRM and blanks were shipped the OrganiMax exploration manager in Canada, who re-labelled with unique laboratory number corresponding to the correct location within the sediment sample series submitted to SGS (Durango). The CRM and blanks were then couriered directly to SGS (Lakefield) where they were inserted into the sample stream and analysed with the sediment samples.

Historical QA/QC procedures relied upon umpire laboratory duplicates and laboratory control measures only.

SRK has provided an analysis of the QA/QC in Section 12.

### 11.3.2 Standards

OrganiMax purchased two lithium and boron CRM: MEG-Li.10.14 and MEG-Li.10.15, from MEG to provide information on the precision of the 2018 laboratory results. To prepare the standards, standard material was dried, crushed, blended, and pulverised to 96% pass 200 mesh. 25 g splits were placed in tin-top envelopes and a removable label was attached to each envelope for accuracy of assay submittal records.

#### *Sediment Samples*

In 2018, 18 CRM were submitted to SGS for analysis, 9 of each type of standard, along with the 392 La Salada sediment auger samples (total of 5% insertion rate).

In 2017, two CRM, one of each type, were submitted to SGS and ALS along with the 91 La Salada sediment auger and core samples (2% insertion rate).

For Sutti 19, four standards, two of each type, were submitted to ALS along with the 186 surface sediment samples (total of 2% insertion rate).

The CRM were not used as part of the analytical work at SGS in 2017.

#### *Water Samples*

OrganiMax purchased synthetic brine standards manufactured at Inorganic Ventures, Christiansburg, VA USA. Two standards, ALSET-2 and ALSET-3, were made to Alset's specification (Table 11-2).



The manufactured standards were shipped to the exploration manager at OrganiMax in Canada where they were re-bottled into smaller containers, labelled, and then couriered to each the laboratory. Standards were inserted into the sample stream and analysed with the water samples shipped from Mexico.

**Table 11-2: Composition of manufactured brine standards**

Element	ALSET-2	ALSET-3
Boron (mg/L)	300	650
Calcium (mg/L)	900	2,500
Chloride (mg/L)	55,000	80,000
Lithium (mg/L)	60	190
Magnesium (mg/L)	750	1,700
Potassium (mg/L)	800	5,500
Sodium (mg/L)	16,000	38,000
Sulphate (mg/L)	1,000	5,500

Brine standards were not included in the first round of water testing by SGS in 2017. Two brine standards, one of each, were submitted to SGS (Lakefield) and run with the five samples that were selected for repeat analysis for an insertion rate of 2 in 5.

Two brine standards, one of each, were submitted to ALS with the samples collected during second round of water sampling at the La Salada auger holes in 2017 for an insertion rate of 2 in 5.

Two brine standards, one of each, were submitted to ALS with the 22 water samples collected during the surface sampling program in 2017 for an insertion rate of 1 in 11.

### 11.3.3 Blanks

#### *Sediment Samples*

OrganiMax submitted a total of 10 blanks as part of the QA/QC process for the 2018 analysis of the La Salada sediment samples at SGS (Lakefield). MEG-BLANK.17.10 blanks were purchased from MEG. Blanks were not used as part of the analytical work by SGS in 2017. One blank was submitted to ALS with the La Salada sediment auger samples. A summary of the sediment QA/QC is provided in Section 12.3.

#### *Water Samples*

Distilled water was used for blank samples. Sample bottles were filled and labelled with a sequential, unique assay number in the field and submitted to the lab with the samples.

Three sample blanks were submitted to SGS with the La Salada water samples collected as part of the auger drilling program at an insertion rate of approximately 1 in 12.

One sample blank was submitted to ALS with the samples collected during second round of water sampling at the La Salada auger holes in 2017 at an insertion rate of 1 in 5.

One sample blank was submitted to ALS with the 22 water samples collected during the surface sampling program in 2017 at an insertion rate of 1 in 22.

### 11.3.4 Duplicates

#### *Sediment Samples*

One field sample duplicate was submitted to the laboratory and 12 sample pulp duplicates were made in the laboratory at the request of OrganiMax as part of the 2018 La Salada QA/QC program. Insertion rates for duplicates is approximately 1 in 30.

One duplicate sample each was submitted to SGS and ALS with the La Salada sediments in 2017. Ten duplicate samples were submitted to ALS with the Sutti 19 surface sediment samples.

#### *Water Samples*

Four duplicate samples were submitted to SGS with the La Salada water samples collected as part of the auger drilling program. Insertion rate of approximately 1 in 1 (4 in 38).

One duplicate sample was submitted to ALS with the samples collected during second round of water sampling at the La Salada auger holes in 2017 at an insertion rate of 1 in 5.

One duplicate sample was submitted to ALS with the 22 water samples collected during the surface sampling program in 2017 at an insertion rate of 1 in 22.

## 12 DATA VERIFICATION

### 12.1 Introduction

Due to the substantial proportion of data utilised for the MRE being collected by previous explorers, SRK undertook detailed analysis of the data quality to ensure it is usable for an MRE. The main purpose of Alset's 2016 to 2017 exploration programme was to verify the Litio Mex sampling, in addition to increasing the understanding of the deposits at depth (for La Salada only).

SRK undertook checks on the exploration data received including the Litio Mex and Alset data. Checks completed included validation collar, sampling, assay and lithology interval data. In addition, SRK reviewed the QA/QC results and compared the different exploration campaigns.

### 12.2 Litio Mex QA/QC

The only assaying QA/QC inserted into the sample stream by Litio Mex were umpire/secondary laboratory assay checks. The results for La Salada and Caligüey (no umpire samples were sent from Santa Clara) are displayed in Figure 12-1. Inspectorate was used as the primary laboratory for both these salars, with ALS as the umpire. The results show a high degree of scatter and a generally low correlation, particularly at higher grades.

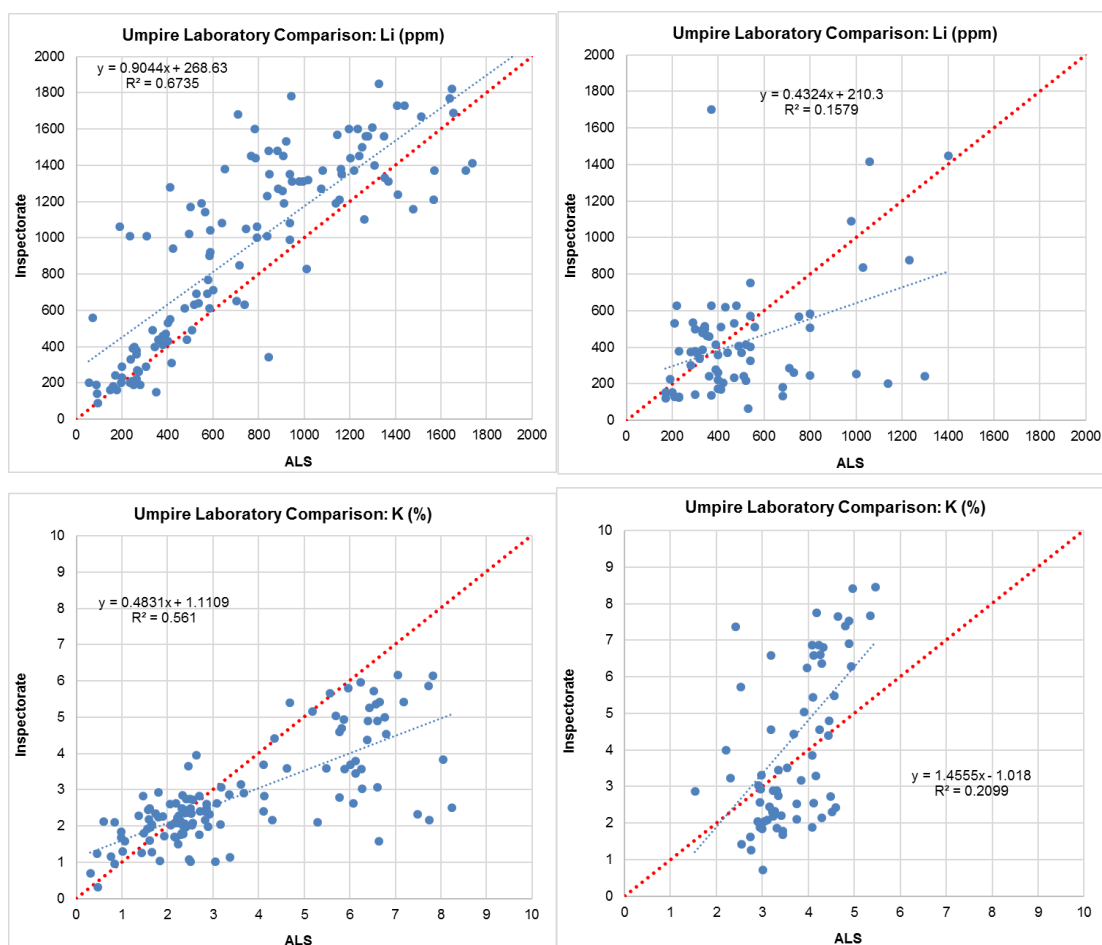


Figure 12-1: Umpire (ALS) vs Primary (Inspectorate) laboratory assay results for La Salada (left) and Caligüey (right)

## 12.3 Alset QA/QC

### 12.3.1 Overview

As part of the 2017 and 2018 assaying campaigns, Alset inserted assay QA/QC samples into the sample stream sent to both ALS and SGS, including CRM, blanks, and duplicate samples. Check samples were sent to ALS Chemex to act as an umpire laboratory in 2017. In addition, 2017 assays were repeated as part of the 2018 assay programme. A summary of the 2017 and 2018 QA/QC samples sent to the laboratories in 2017 and 2018 is shown in Table 12-1 and Table 12-2, respectively.

**Table 12-1: Summary of Alset 2017 QAQC samples (SGS Primary Laboratory)**

Sampling Programme	Total	(%)	Comment
Normal samples	169	-	Combination of La Salada, Santa Clara and Caligüey
Pulverised certified blanks	5	3%	
MEG-BLANK.17.10	5	3%	Only one blank used
Certified Reference Material	4	2%	
MEG-Li.10.14	2	1%	No failure
MEG-Li.10.15	2	1%	No failure
Field duplicates	0	-	
Coarse duplicates	0	-	
Pulp duplicates	12	7%	One outlier
Umpire lab pulp duplicates	15	9%	ALS method checks
Total QC Samples	36	21%	

**Table 12-2: Summary of Alset 2018 QAQC samples (SGS Primary Laboratory)**

Sampling Programme	Total	(%)	Comment
Normal samples	392	-	
Pulverised certified blanks	16	4%	
Incl. MEG-BLANK.17.10	16	4%	Only one blank used
Certified Reference Material	18	5%	
Incl. MEG-Li.10.14	9	2.5%	No failures
Incl. MEG-Li.10.15	9	2.5%	All Li results and some K failed performance gates
Field duplicates	0	-	
Coarse duplicates	0	-	
Pulp duplicates (2018)	13	3%	
Pulp duplicates (2017)	57	15%	2017 re-assays at same laboratory.
Umpire lab pulp duplicates	14	4%	Results from ALS method checks in 2017
Total QC Samples	118	30%	

### 12.3.2 CRM Results

The results of the 2018 CRM assays are provided in Figure 12-2. The results for 2017 are not displayed as there are only four, all of which fell within the 95% confidence limits provided by the CRM manufacturer. The 2018 results indicate an issue with lithium analysis, particularly for CRM MEG-Li.10.15, which is higher grade at 1,600 ppm Li. The potassium results also show a high-grade bias for the 2018 assays.

These results were discussed with the laboratory (SGS) and an investigation undertaken to determine the source of the error. They concluded that the error was probably due to calibration differences (calibration standard at end of life) between the different years. As the internal CRM and duplicate analysis highlighted a slight (5% over-reporting), however, compared to the 10 to 20% reported by CRM MEG-Li.10.15, SGS was not willing to accept the CRM analysis results were definitely caused by its instrumentation and could not rule out an issue with the CRM batch. This may be partly supported by the potassium results, which show good results for CRM MEG-Li.10.14 but elevated values for CRM MEG-Li.10.15, despite having similar average grades.

SRK notes that in 2018, some of the laboratory grades are therefore higher than the CRM suggests; however, SRK does not believe these results materially impact upon the quality of the reported Mineral Resource given that potassium is the key economic driver and only a few assay results are which are >1,500 ppm are affected. Future assaying should ensure a thorough analysis of the QA/QC is undertaken on a batch-by-batch basis to identify any issues early.

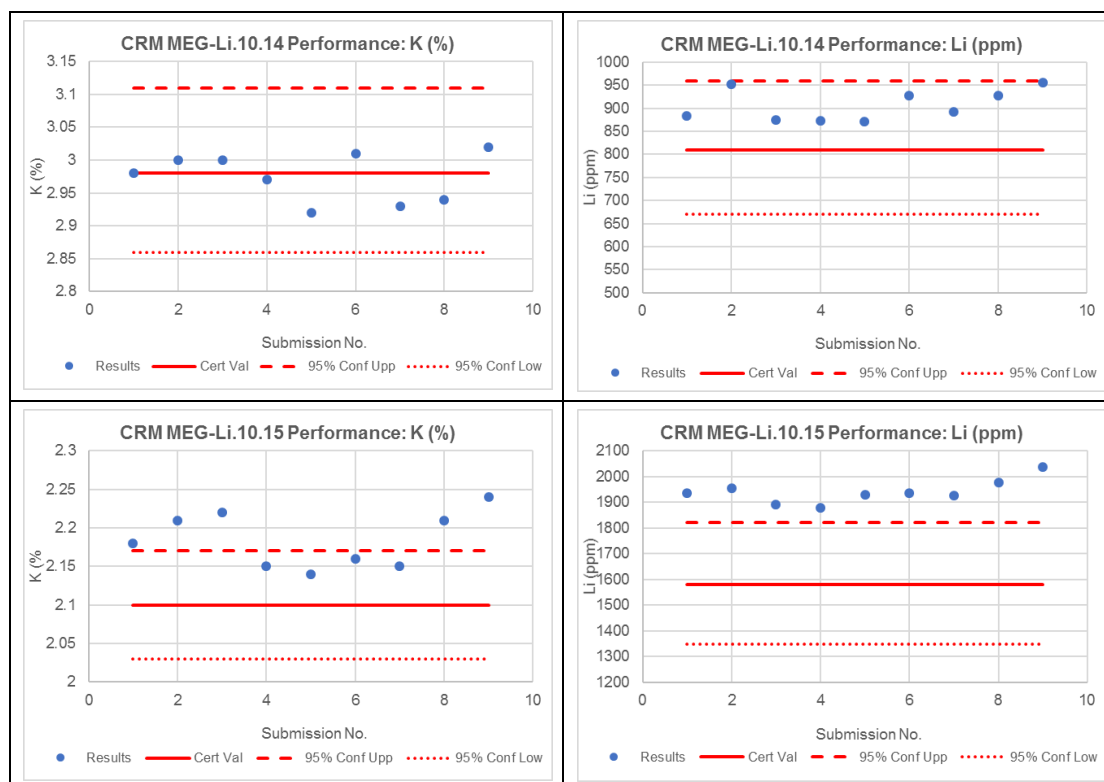


Figure 12-2: CRM results for 2018 La Salada Primary Laboratory (SGS) assays

### 12.3.3 Duplicate Results

The results of the 2017 and 2018 pulp duplicate assays are provided in Figure 12-3 and Figure 12-4, respectively. The results indicate a high level of precision with only one outlier for lithium in 2017 and one outlier for potassium in 2018.

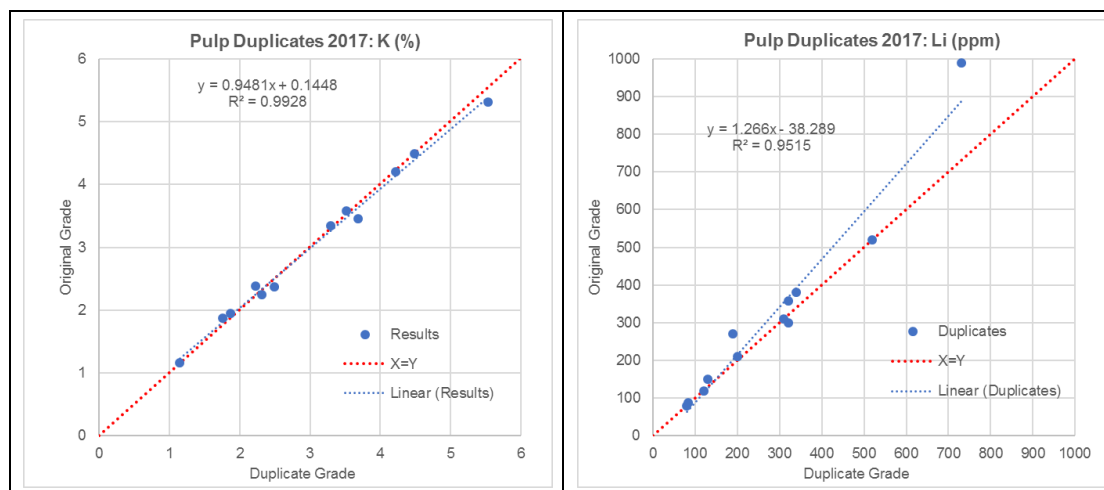
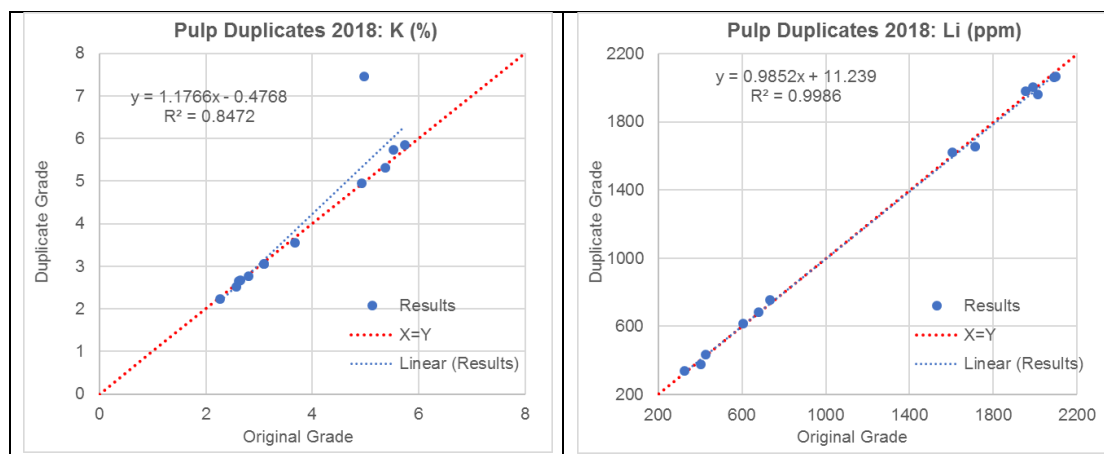


Figure 12-3: Pulp duplicate results for 2017 assays





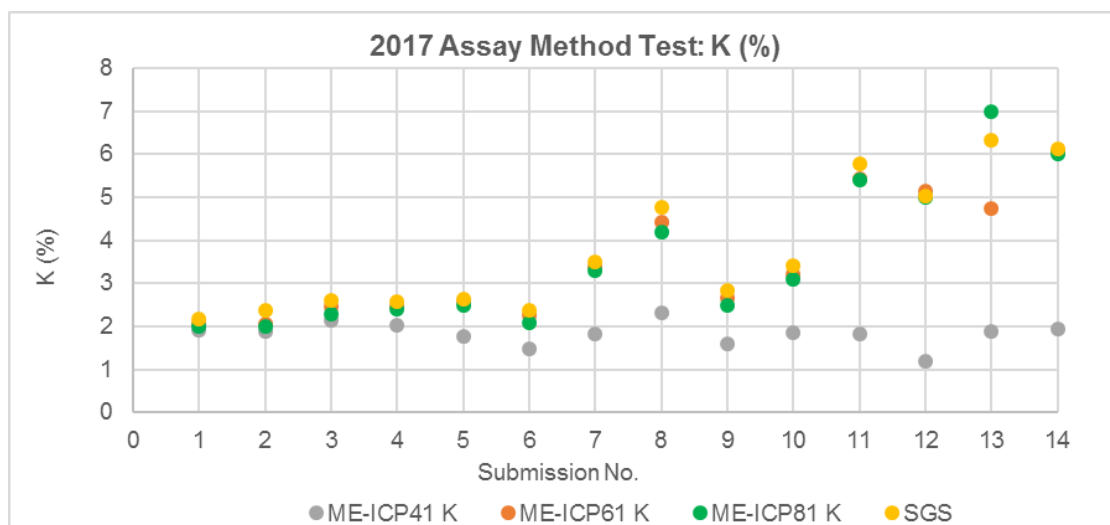
**Figure 12-4: Pulp duplicate results for 2018 La Salada SGS assays**

### 12.3.4 Method comparison

In order to test the impact of differing assaying methodologies on the potassium, lithium, and boron grades, Alset undertook an assay comparison test using the following methods:

- ALS fusion digestion ICP-MS super-trace (ME-MS89L);
- ALS four-acid digestion ICP-AES (ME-ICP61);
- ALS aqua-regia digestion (ME-ICP41); and;
- SGS four-acid digestion ICP-OES (GE\_ICP40B).

The results of the tests on 14 samples from La Salada are shown on Figure 12-5, Figure 12-6, and Figure 12-7 for potassium, lithium and boron, respectively. The potassium results show the clear discrepancy for aqua-regia analysis (described further below in Section 12.4.1). The lithium results show a reasonable spread but with fusion showing the lowest results and four-acid digest the highest. The boron results show a large spread of results with aqua-regia having the lowest and fusion the highest (note: boron was not analysed using ICP-61, but two sets of fusion assays were run).



**Figure 12-5: 2017 assay method test for K (%)**

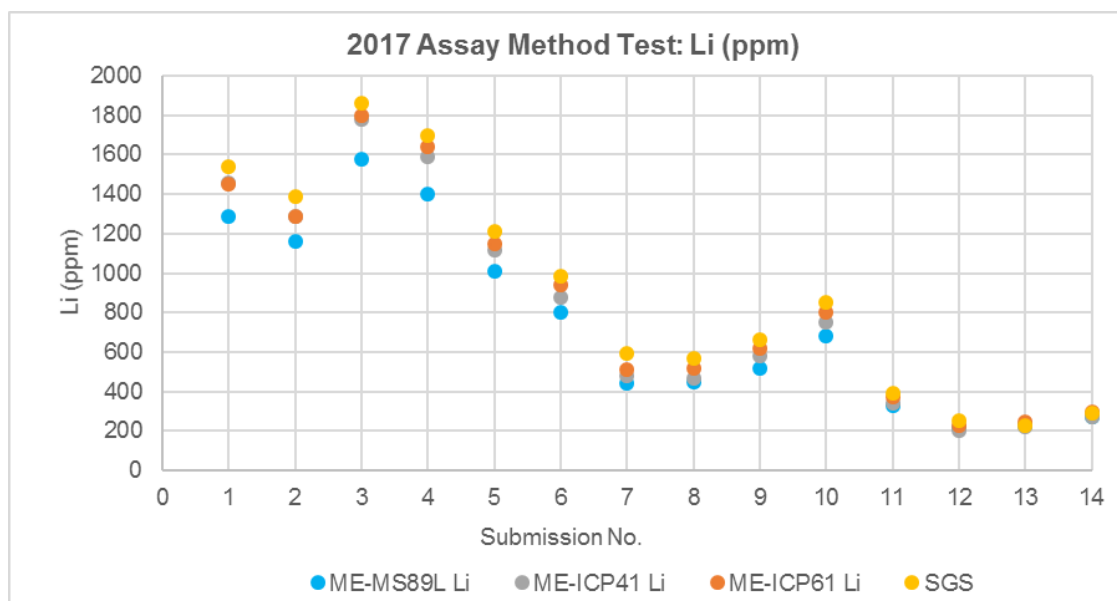


Figure 12-6: 2017 assay method test for Li (ppm)

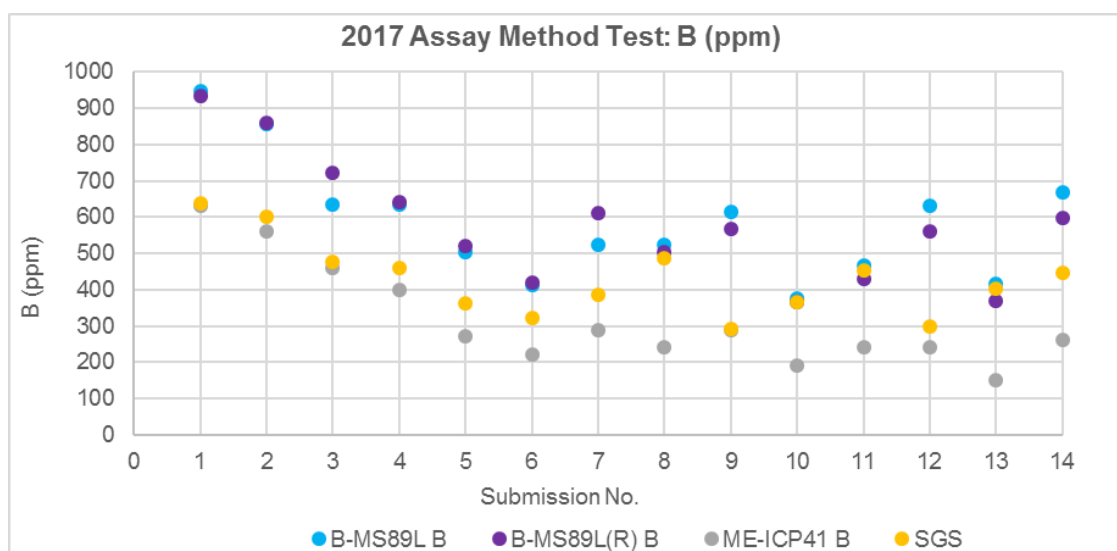


Figure 12-7: 2017 assay method test for B (ppm)

### 12.3.5 2017 vs 2018

The 2018 assaying of all La Salada auger samples at SGS (Lakefield) included the 56 auger samples analysed in 2017, also at SGS (Lakefield). These duplicate assays are displayed in Figure 12-8 for potassium and lithium. A noticeable higher-grade bias is noted for lithium, which equates to differences of approximately 10 to 20%. This was investigated further (as described above) with the laboratory and was probably due to calibration differences (calibration standard at end of life) between the different years. For the MRE, the 2018 results were used as a complete dataset.

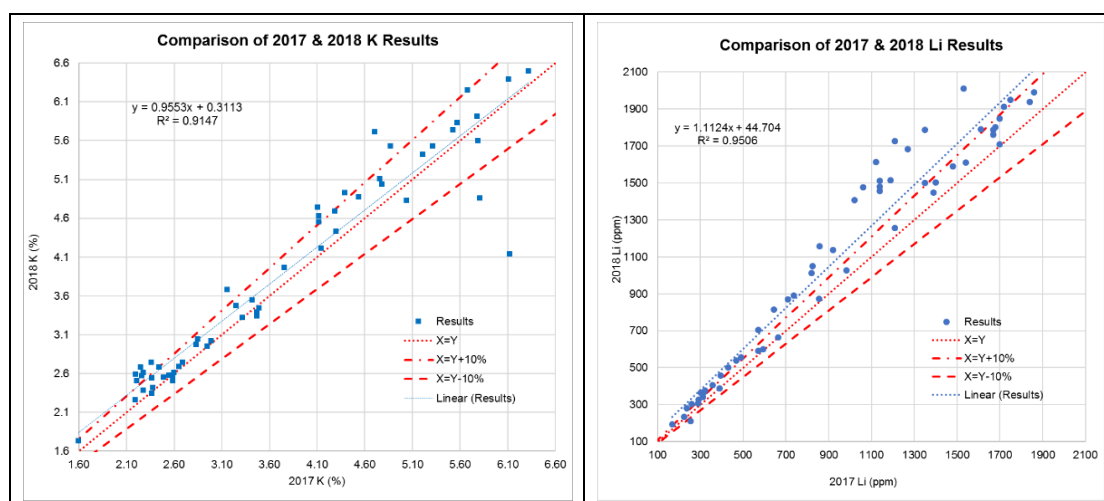


Figure 12-8: Scatterplots comparing 2017 to 2018 SGS La Salada assays

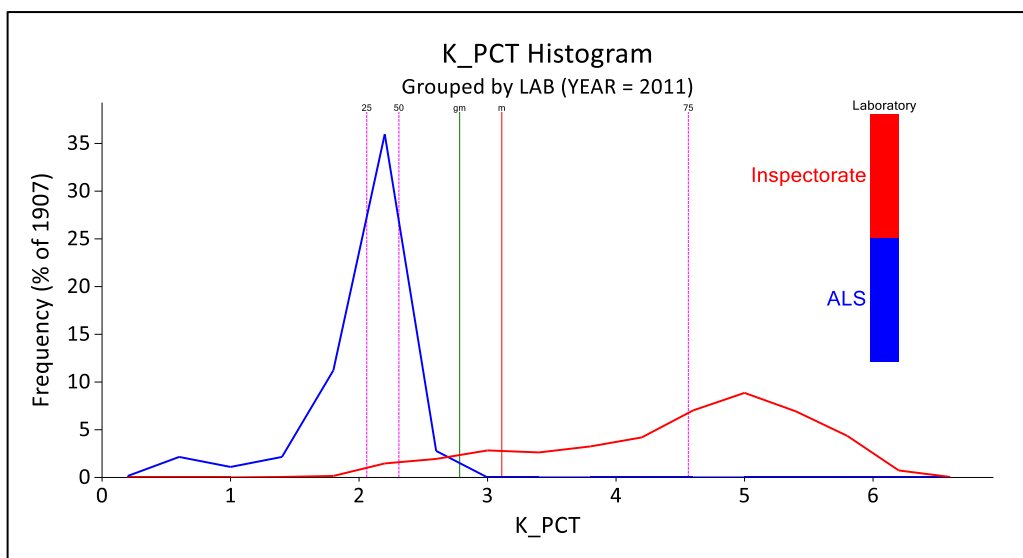
## 12.4 Inter-Laboratory Comparisons

Multiple laboratories were used for assaying for the Litio Mex and Alset exploration programmes, as described above. SRK has identified issues between the different laboratories, which are mainly due to utilising different assaying techniques.

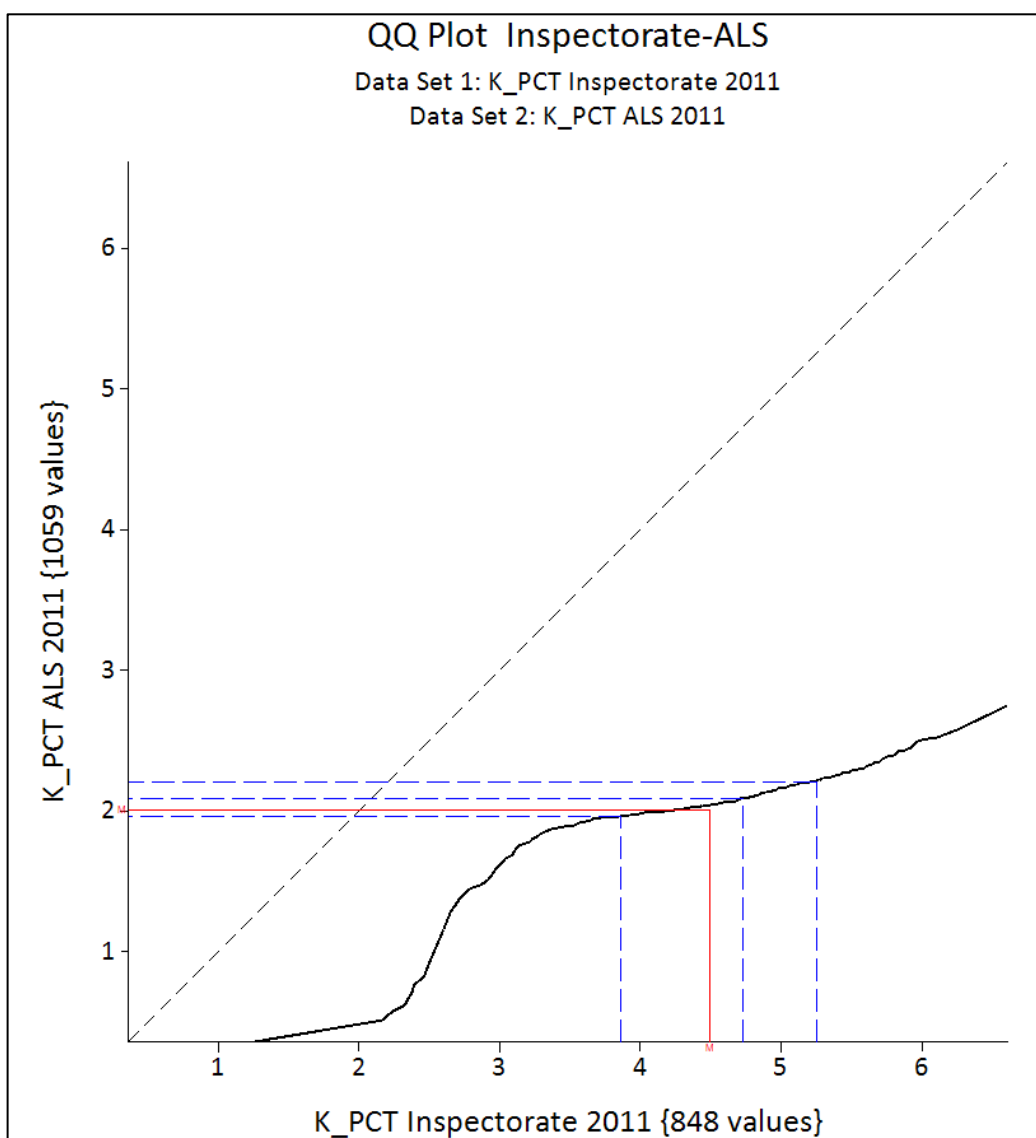
### 12.4.1 Potassium

For the Litio Mex assaying at Santa Clara, both ALS and Inspectorate were used, with ALS using aqua regia digestion compared to four-acid digestion at Inspectorate. This has caused a clear split in the assays for potassium, with assays from ALS reporting generally approximately half the values of Inspectorate, as shown in the histogram in Figure 12-9 and quantile-quantile (“Q-Q”) plot in Figure 12-10. The reasoning for this split is that aqua regia digestion fails to provide 100% digestion of some resistant silicate minerals containing the potassium, such as the feldspars. No such issue is identified for the lithium assays, which provides evidence that the lithium is not bound in a resistant silicate matrix.

As a result, no potassium assays from Litio Mex exploration assayed at ALS have been used in the grade estimation, which has impacted upon the quality of the potassium estimate for Santa Clara only. This has been considered during Mineral Resource classification.



**Figure 12-9: Histogram showing laboratory differences for Santa Clara K (%) assays**



**Figure 12-10: Q-Q plot showing laboratory differences for Santa Clara K (%) assays**

## 12.4.2 Boron

Boron assays analysed at Inspectorate for the Litio Mex sampling utilised a trace element method for analysis (B-4A-LL-ICP) compared to the 'ore' grade method used at ALS (ME-MS-41). This has resulted in an order of magnitude difference in assay grades between these two methods. This is demonstrated on Figure 12-11, where the 2010 (Litio Mex) assays are from Inspectorate and the 2017 (Alset) assays are from ALS.

As a result, no boron assays from Inspectorate have been used in the grade estimation, which has significantly impacted upon the quality of the boron estimate for La Salada only (Santa Clara and Caligüey contained no boron assays by Inspectorate). Therefore, even though it is potentially economically beneficial to the deposits, boron has not been reported in the Mineral Resource statements.

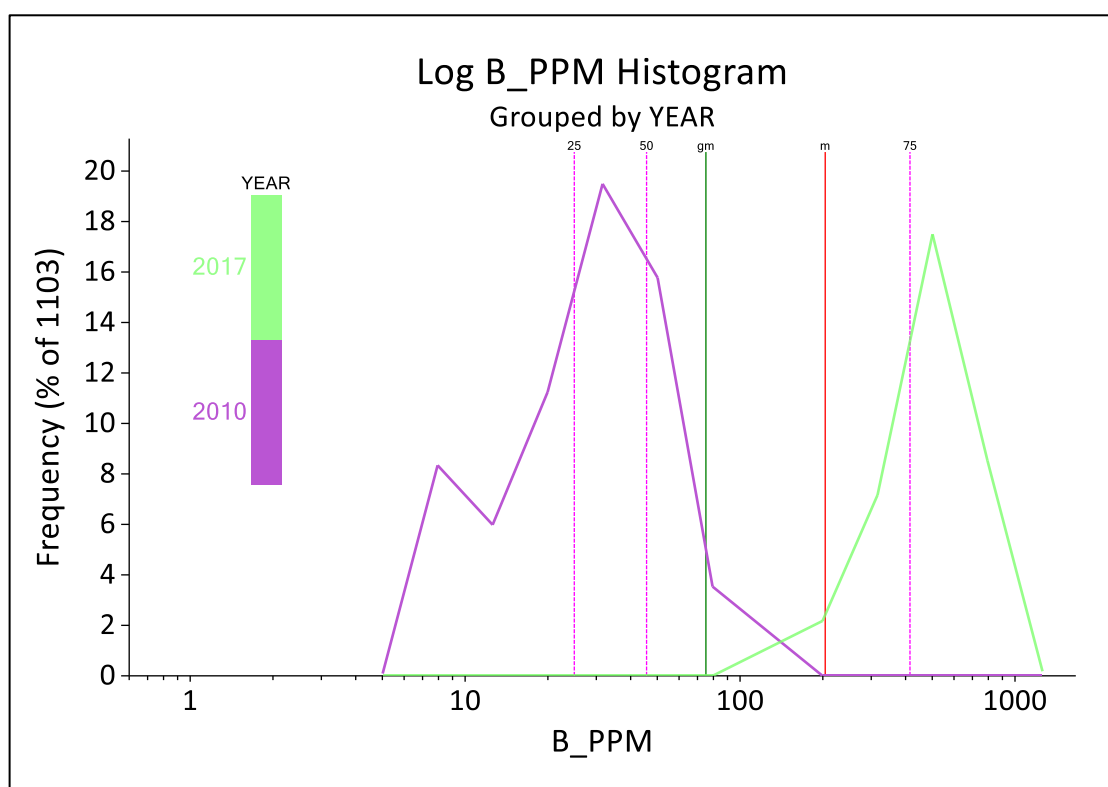


Figure 12-11: Log-normal histogram showing differences for La Salada B (ppm) assays

## 12.5 Twinned Drillhole/Pit Comparisons

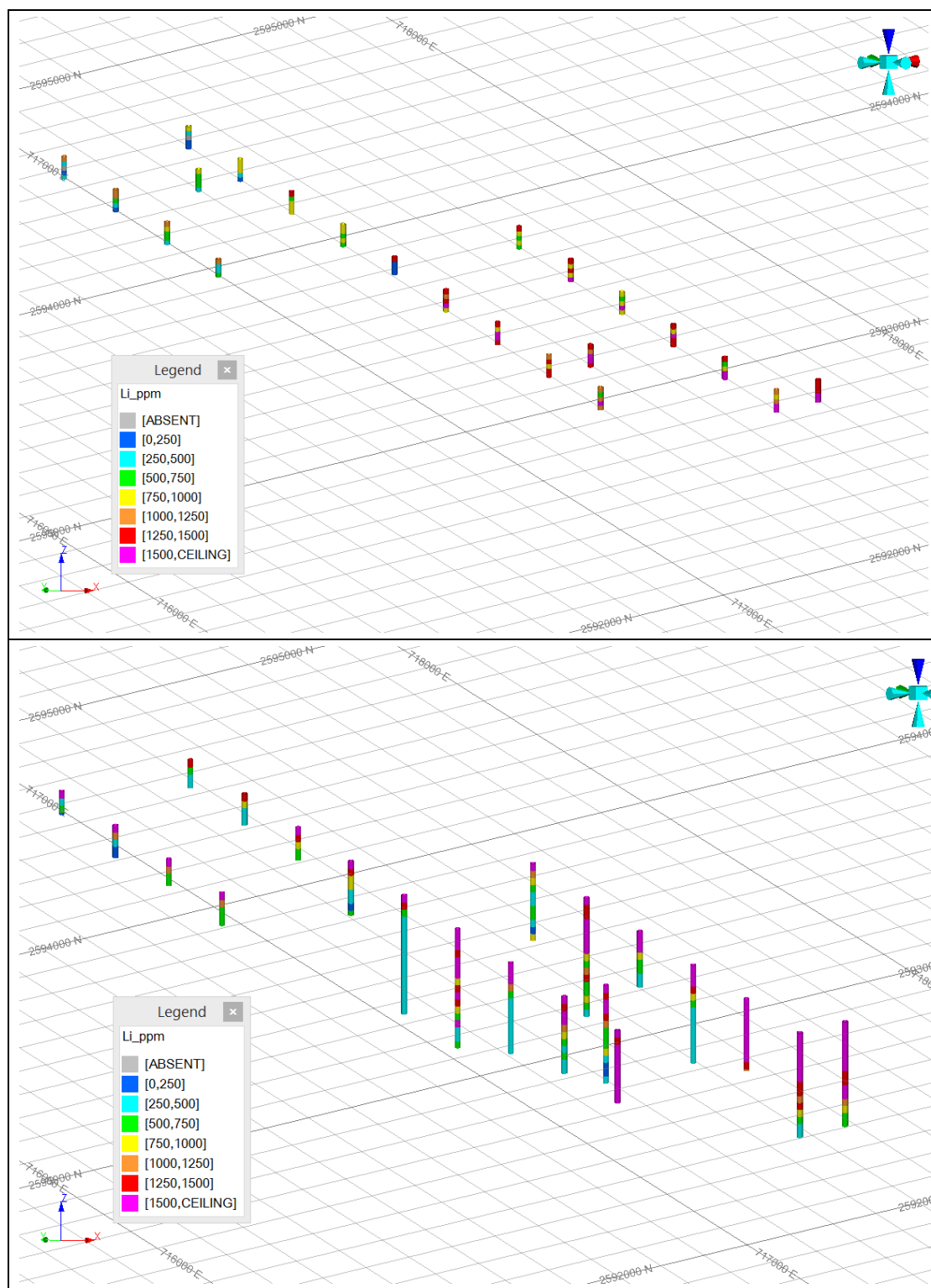
The 2017 exploration campaign by Alset focussed on verification of the Litio Mex results. SRK conducted a comparison of the 1 m hand-auger samples taken from Santa Clara and Caligüey, along with the deeper machine-auger samples at La Salada, to the Litio Mex pit samples.

### 12.5.1 La Salada

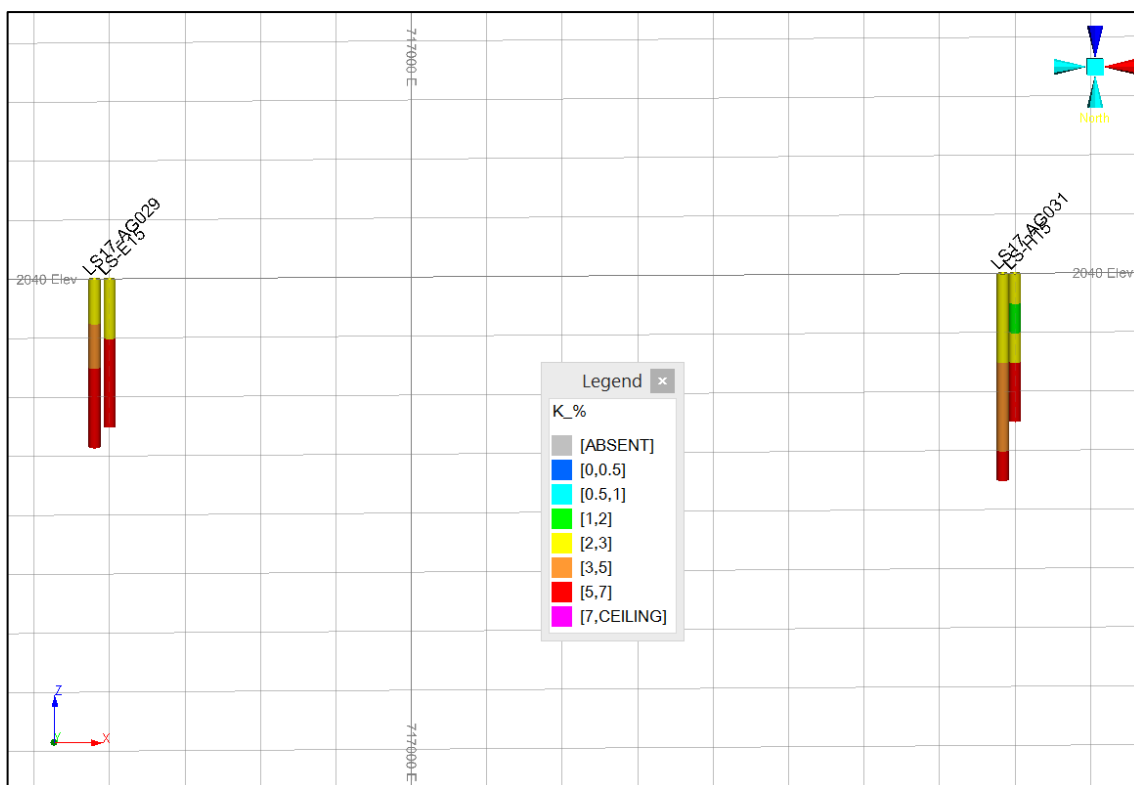
The location of the twin Alset auger holes (SGS) and Litio Mex (Inspectorate) pits are shown in Figure 12-12, with two cross-sections showing the twin sets coloured by grade shown in Figure 12-13 and Figure 12-14.

In general, the results show a reasonable comparison between grades of the two assaying campaigns, especially when considering the differing sampling techniques and sample lengths used: 1 m for Litio Mex pits; and 1.5 m for Alset auger holes.

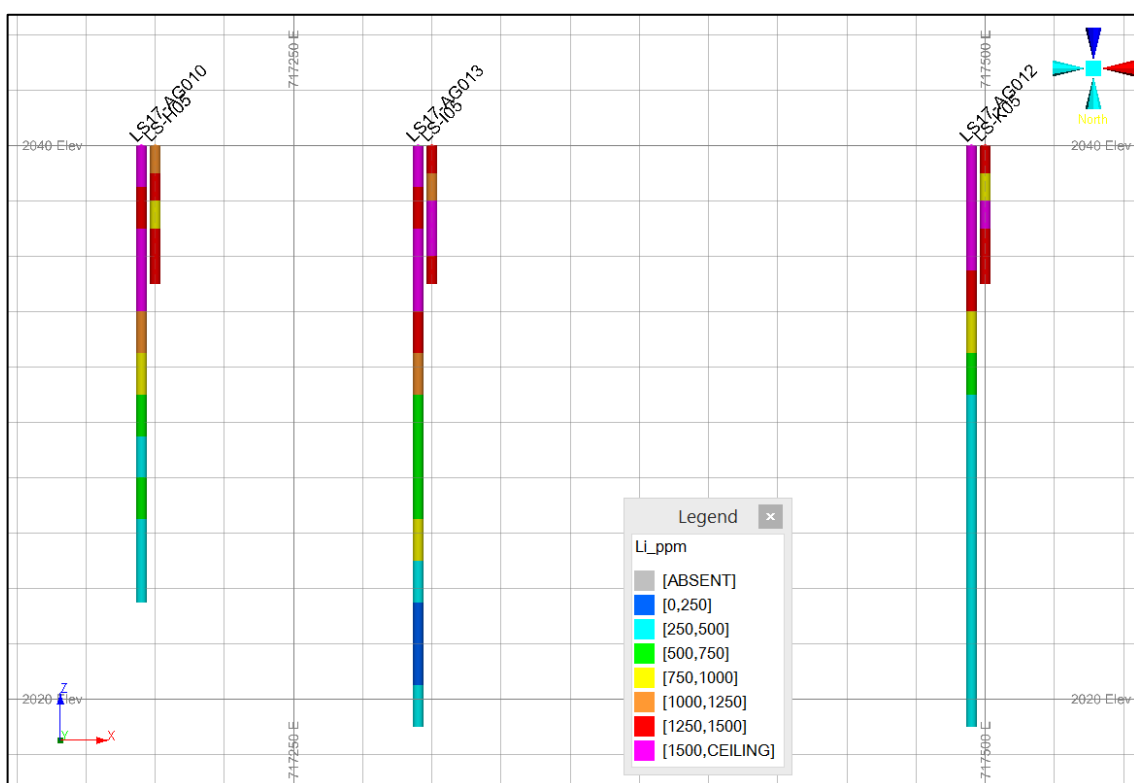




**Figure 12-12: Litio Mex pits (top) and Alset twinned auger holes (bottom); vertical exaggeration x 10, coloured by Li (ppm)**



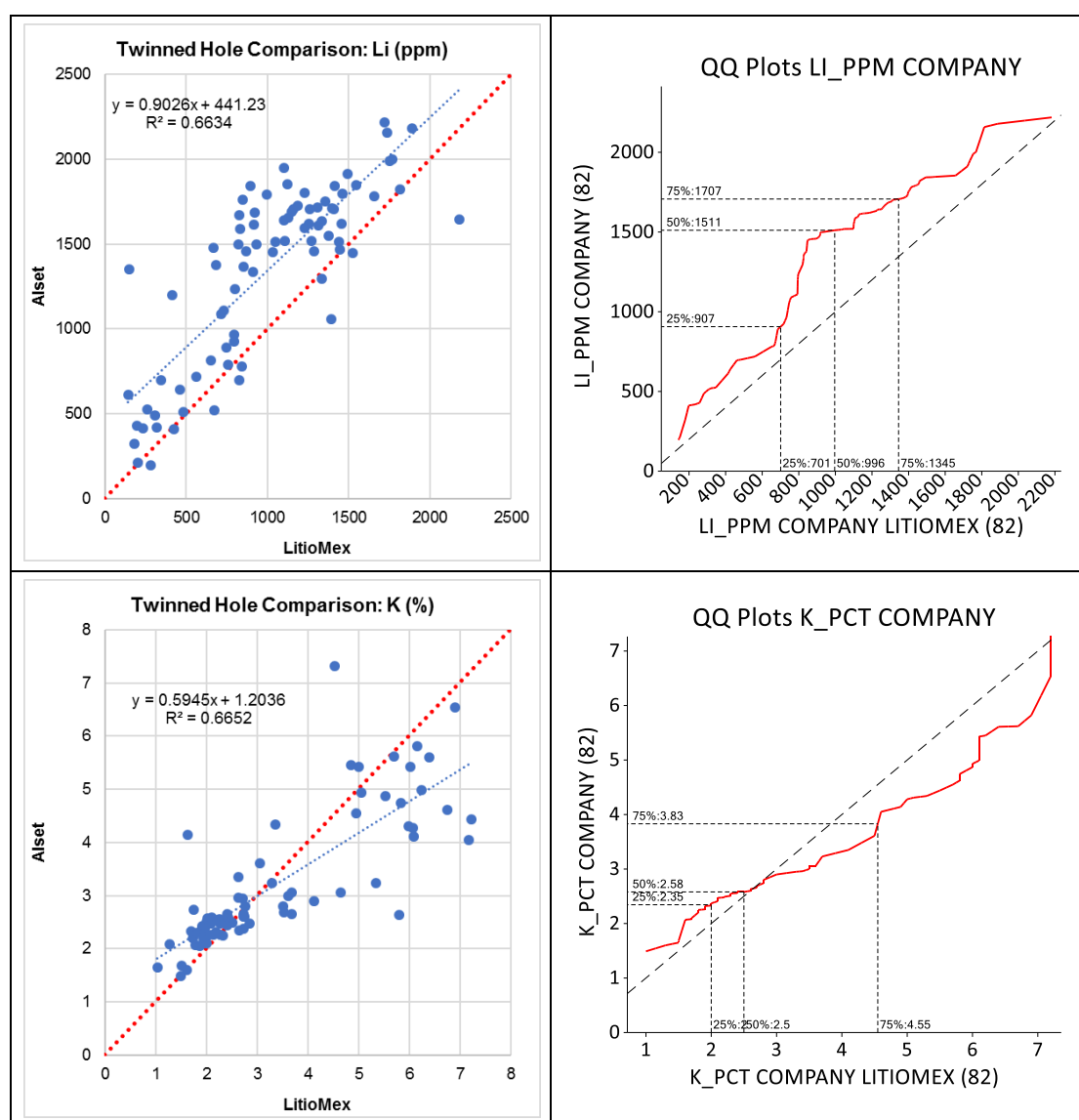
**Figure 12-13: Cross-section (Y: 2594000) showing Alset holes (left) and Litio Mex pits (right) coloured by K (%) grade**



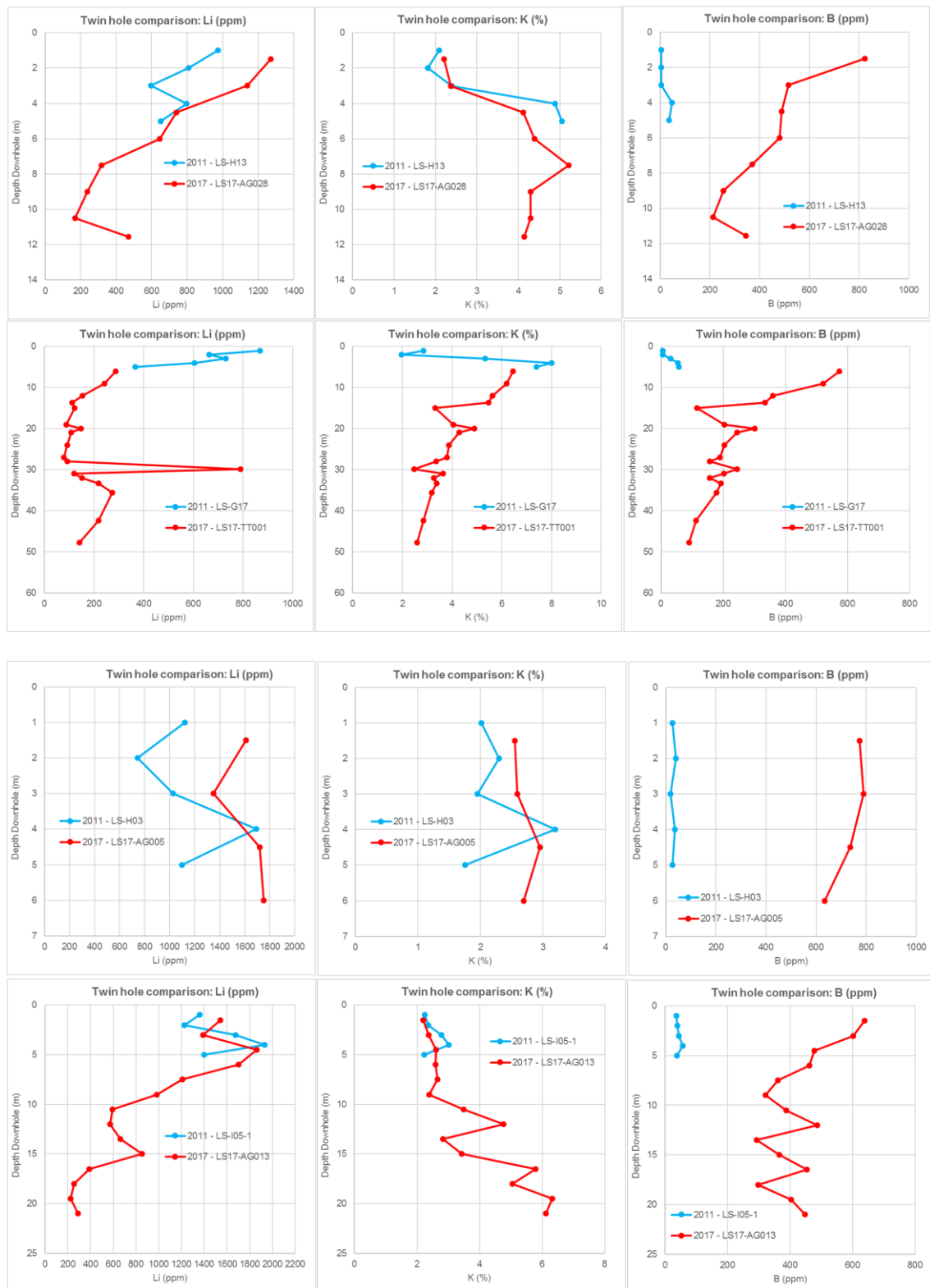
**Figure 12-14: Cross-section (Y: 2593000) showing Alset holes (left) and Litio Mex pits (right) coloured by Li (ppm) grade**

In order to provide a comparison of grade data of equivalent sample size, SRK composited the Litio Mex data to 1.5 m intervals (from 1 m original sample length) to match the 1.5 m sample intervals of Alset. The results (Figure 12-15 and Figure 12-16) show that, although in a similar range, there is significant divergence between the grades, particularly for lithium where a higher-grade bias towards Alset can be observed. The higher-grade potassium samples appear to be the opposite, with higher-grade bias towards Litio Mex assays. This could be a result of a number of factors, predominantly sampling method, sampling length, and analysis type, with a direct comparison difficult.

A number of down-hole plots were generated to understand the comparison with depth. With the exception of the core hole (LS17-TT001), a reasonable level of correlation can be observed between the Lithio Mex and Alset lithium and potassium results. The boron results confirm the issues identified above. The core hole encountered recovery issues during drilling and there are no directly comparable results; the core hole was not used to inform the MRE.



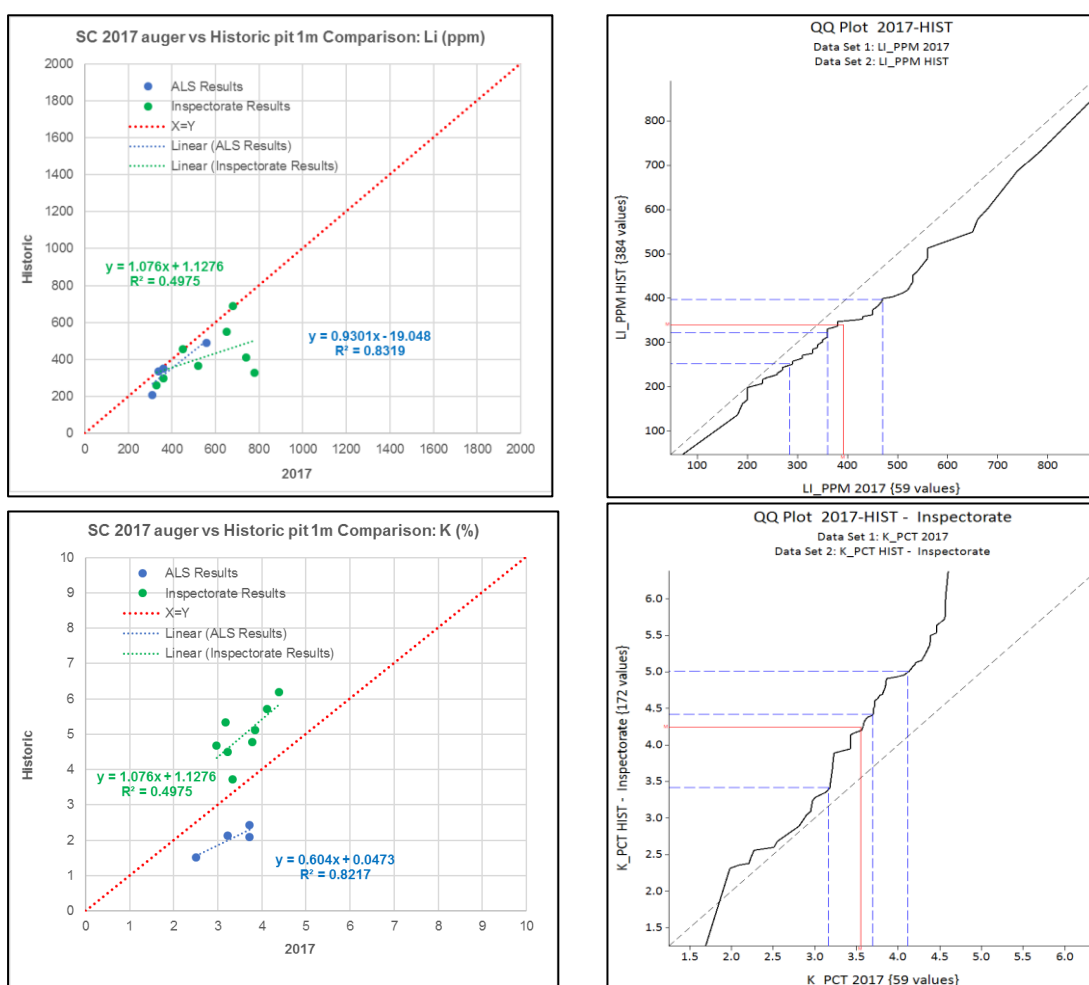
**Figure 12-15: Scatterplots and Q-Q plots comparing Alset and Litio Mex Li (ppm) and K (%) assays from La Salada**



**Figure 12-16: Down-hole plots comparing Li (ppm), K (%) and B (ppm) grades of Litio Mex (2011) and Alset (2017) sampling**

## 12.5.2 Santa Clara

There were only 12 true twinned samples at Santa Clara due to the differences in the sampling grids (200 x 200 m for Litio Mex and 500 x 500 m for Alset) with the other holes often >50 m apart. The scatterplots in Figure 12-17 show the comparison of just these 12 direct twins, with a reasonable correlation for lithium grade but significant differences for potassium grade, which is due to the assaying method difference highlighted above. The Q-Q plots show all 1 m Alset hand-auger samples compared to the top 1 m samples from all Litio Mex pit samples (Inspectorate results only). The results indicate that lithium results are reasonable, with a slight higher-grade bias towards Alset and the potassium the opposite, as shown for La Salada, above.



**Figure 12-17: Scatterplots and Q-Q plots comparing Alset (2017) and Litio Mex (historic) Li (ppm) and K (%) assays from Santa Clara**

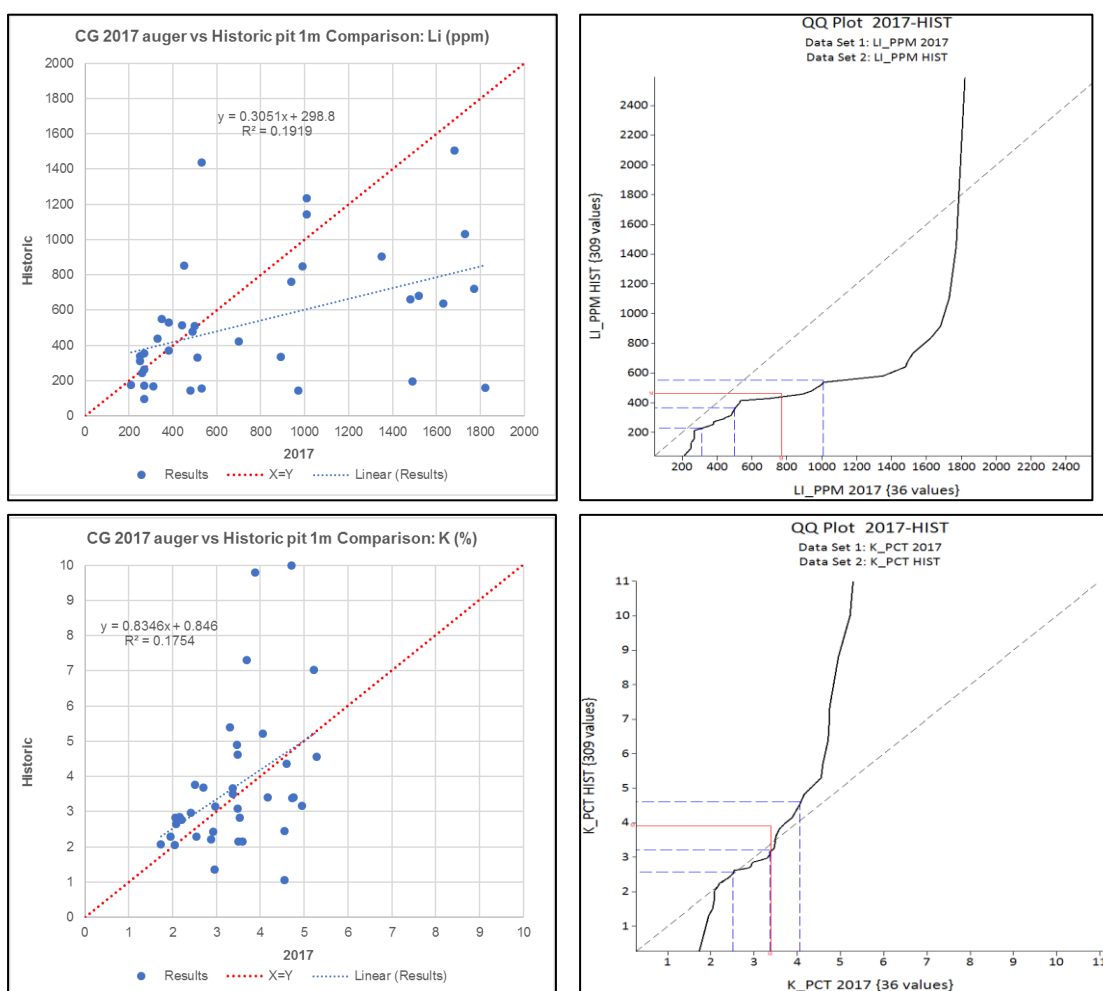


### 12.5.3 Caligüey

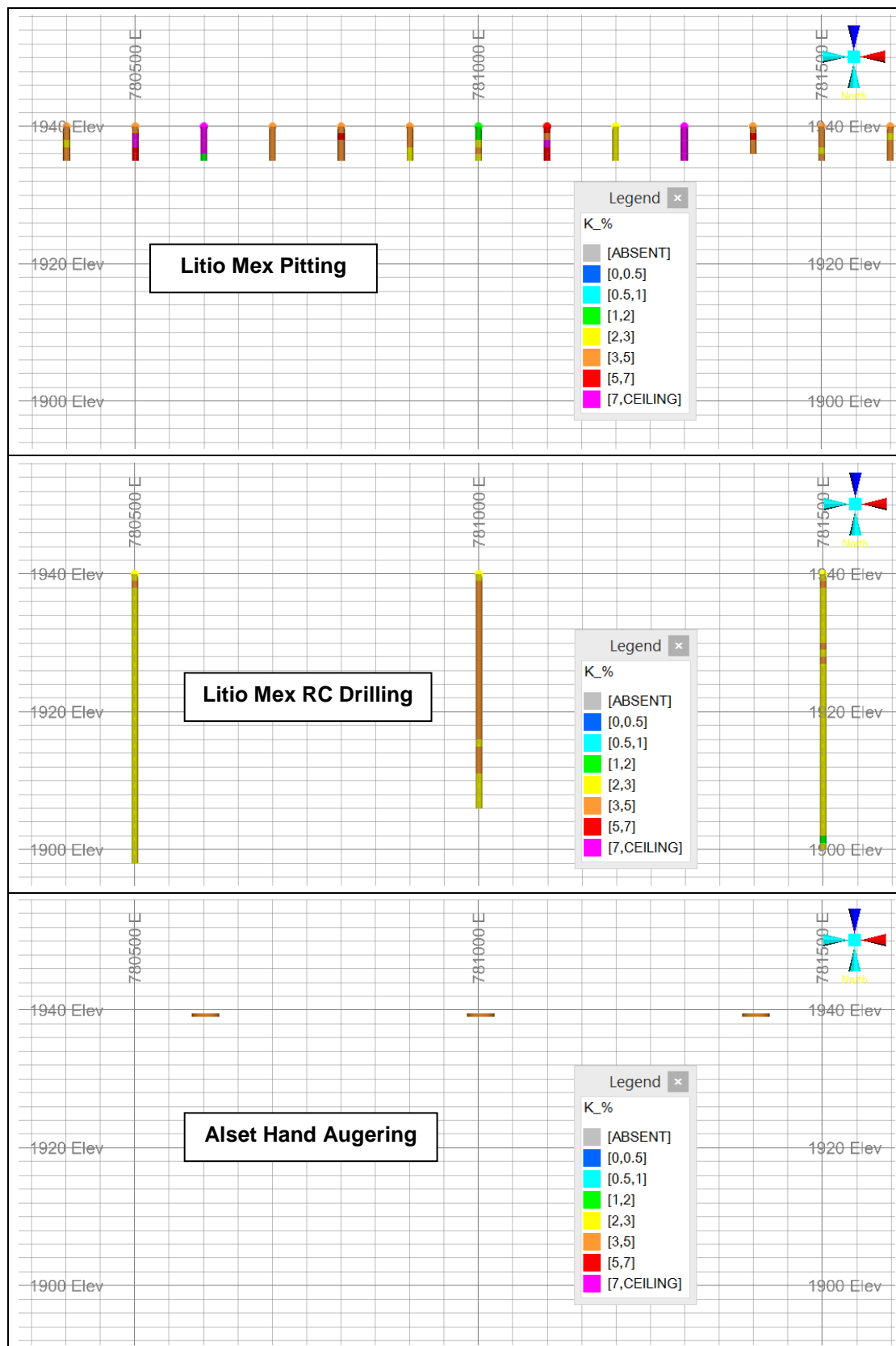
There were 37 twinned Alset samples at Caligüey for analysis (36 pits and 1 RC hole – top 1 m only); most of which were true twins, but with a number of twins >20 m apart. The scatterplots and Q-Q plots in Figure 12-18 show a high degree of scatter for both lithium and potassium with a slight higher-grade bias towards Alset assays for lithium, as for La Salada and Santa Clara. These results demonstrate a poor relationship but, again, differences in sample collection and analysis type make a direct comparison difficult.

Figure 12-19 shows a cross-section through Caligüey with the various exploration campaigns coloured by potassium grades. The images demonstrate the differences in sampling types in terms of depth of penetration and also assay results.

Figure 12-20 shows down-hole assay result comparisons between Litio Mex RC and pitting data (first 5 m only as pits limited to 5 m). The results for potassium and lithium show widely varying results, with some local correlation.



**Figure 12-18: Scatterplots and Q-Q plots Alset (2017) and Litio Mex (historic) Li (ppm) and K (%) assays from Caligüey**



**Figure 12-19: Cross-section through Caligúey showing different sampling campaigns coloured by K (%)**

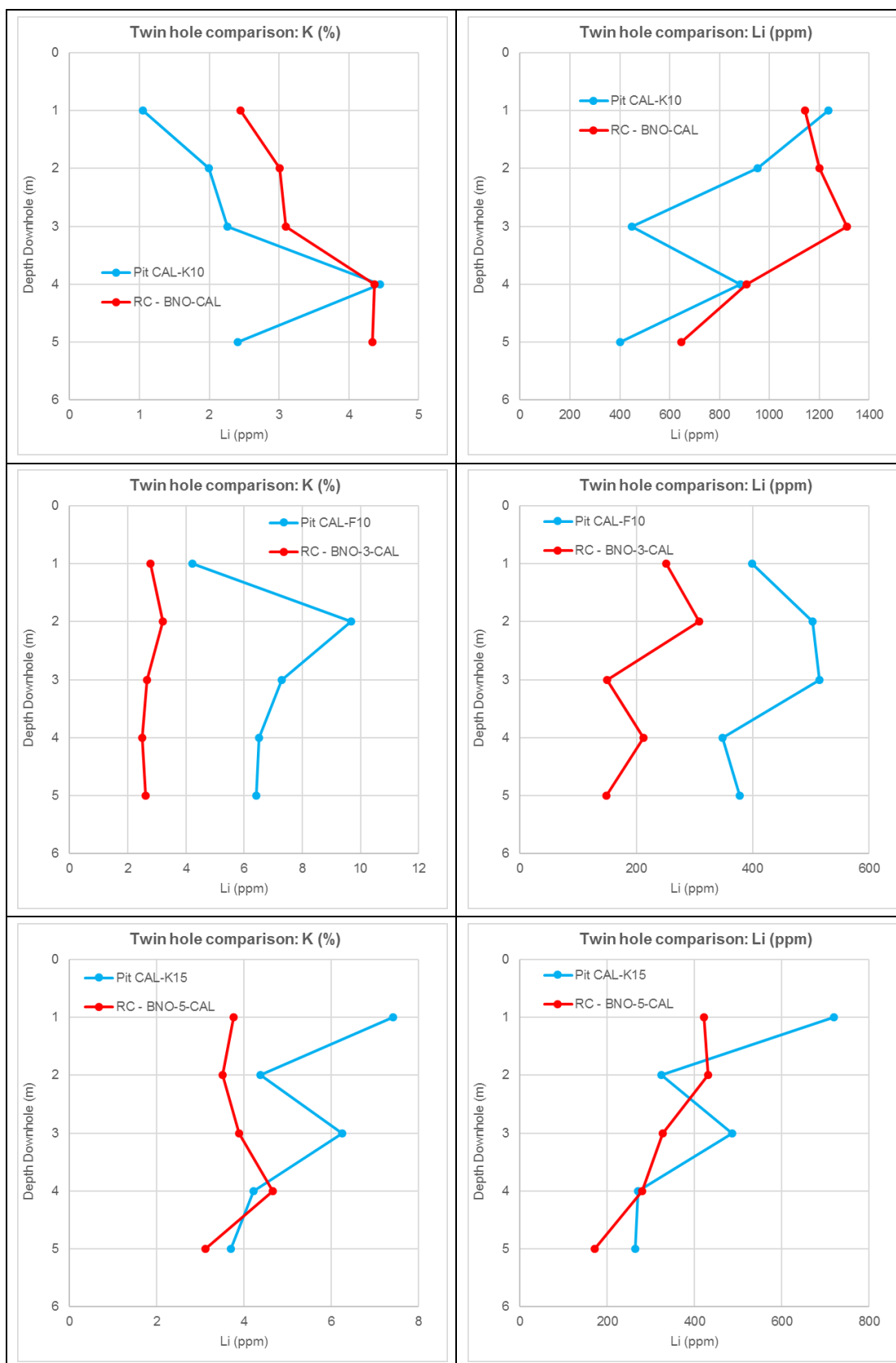


Figure 12-20: Caliquey twinned RC (red) and pit (blue) down-hole assay results

## 12.6 Density

SRK reviewed the density results from SGS (Durango) (2017) and found a wide range of results with some extremely low in situ bulk densities reported. As a result, SRK requested that Alset undertake check density measurements to ensure they are representative of the three principal salars being reported herein.

The methodology and results of the 2018 in situ bulk density were described in Section 10.4. The results support the results from the core and tube sampler method results for La Salada, with the very low values of dry density due to the inherently very high water/moisture content of the material. It should be noted, however, that these check measurements are all from the top 50 cm of salar and are not representative of the material at depth. Two of the SGS results (obtained from the core drillhole in La Salada) were from depths of >5 m; however, in conversations with OrganiMax personnel, there are doubts over the quality of this drillhole due to low recovery and issues with sampling.

For reporting of (dry) tonnage estimated herein, SRK has utilised a fixed value of 1.0 g/cm<sup>3</sup> for La Salada and 1.3 g/cm<sup>3</sup> for Santa Clara and Caligüey. SRK considers these values reasonable considering all the results received to date; however, there is a low confidence associated with these tonnage estimates due to the lack of measurements below the top meter of sediment.

## 12.7 Site Visit

In accordance with international best practices, Mr Martin Pittuck of SRK visited the Project between 30 April and 04 May 2018, accompanied by OrganiMax exploration manager in addition to other geological sub-consultants of OrganiMax.

The purpose of the site visit was to review the geological setting and exploration procedures, and to discuss project with staff present during sampling collection to ensure that best practices were in use and the data is acceptable for use in an MRE.

SRK was given full access to relevant data to obtain information on the past exploration work, to understand procedures used to collect, record, store and analyse historical and current exploration data.

## 12.8 Verification of Sample Database

SRK completed a phase of data validation on the digital sample database supplied by OrganiMax which included a search for sample overlaps, duplicate or absent samples, anomalous assay results. Following some minor amendments recommended by SRK, no material issues were noted in the final sample database. It was suggested, however, that unsampled auger hole intervals were assayed to enable more understanding of the La Salada deposit below 5 m depth; this was subsequently completed in late 2018 for inclusion in the MRE described herein.

## 12.9 Topographic Survey

No topographic survey has been generated over the principal salar areas. SRK downloaded publicly-available shuttle radar topographic mission ("SRTM") data for use as topographic surfaces; however, on inspection, these data were found to show high variability in elevation values producing an irregular and pockmarked topographic survey, not representative of the areas observed in the field. As a result, SRK used a static elevation value for each of the salar areas based on government topographic survey data (which shows generally one elevation across each salar). Due to the flat nature of the salar areas, this is not considered a material issue for the generation of volume and tonnage estimates.

### 12.10 Collar and Down-hole surveys

Collar locations were designated based on planned coordinates, with no re-surveying conducted in the field. As a result, no elevation (Z) values were measured in the field and the elevation of the salar from national publicly available sources was used (as above).

No down-hole surveys were conducted due to the vertical and short nature of the holes/pits. SRK does not believe this to be a material issue as the likely deviation is negligible over these short distances.

### 12.11 Comments and description of data quality

SRK's verification suggests that Alset's exploration approach was reasonable and appropriate for the style of mineralisation; however, the results of SRK's data verification indicate minor issues with assaying methodologies.

Issues with potassium and boron assays from different laboratories render a significant quantity of assays unable for the MRE. Comparisons between the Litio Mex and Alset exploration campaigns indicate a poor to reasonable level of correlation, which could be attributed to a number of factors, but likely main contributors are inherent grade variability, sampling method, and accuracy issues with certain analysis types. The results of the QA/QC analysis for Alset sampling show potentially elevated lithium grades. The Litio Mex QA/QC also showed a low correlation between umpire laboratory results.

Issues with unrepresentative density values results in a lack of understanding of the density variability across the different salars and at depth, which impacts upon the quality of the tonnage estimate.

Considering the issues identified above, SRK believes that there is currently a low level of confidence associated with the data particularly for Santa Clara.



## **13 MINERAL PROCESSING AND METALLURGICAL TESTING**

### **13.1 Introduction**

This section summarises reports relating to mineralogy, geometallurgy, comminution, leach tests, and precipitation testwork completed to date. Although a possible flowsheet has been proposed and SRK considers therefore that reasonable prospects for eventual economic extraction (as required by CIM for Mineral Resource reporting) exist, testwork is incomplete and there is considerable work still to be undertaken to verify if a saleable product can be economically generated and sold.

### **13.2 Mineralogy**

Several mineralogy studies have been undertaken from samples of the OrganiMax salars.

#### **13.2.1 Nittseu 2009**

Nittseu (2009) completed mineralogical work on a grab sample of broken clay sediment from La Salada and identified the presence of calcite, K-feldspar, illite, and vermiculite along with accessory gypsum.

#### **13.2.2 SGS 2012**

SGS completed mineralogical work on two composite samples from La Salada in 2012 on behalf of Litio Mex (SGS, 2012). The mineralogical study comprised of electron microscopy, X-ray diffraction ("XRD") analysis, electron microprobe analyses ("EMPA"), and laser ablation inductively coupled plasma mass spectrometry ("LA-ICP-MS"). The scope of the project was to determine the bulk mineralogy of the sample and the occurrence of lithium and boron in the samples. The two samples were composites and information on the location of the samples utilised was not provided to SRK.

XRD analysis was conducted to determine the bulk mineralogy of the samples as well as that of the clay fraction. The results of the XRD bulk mineralogy are shown in Table 13-1. Whole Rock analysis was broadly in agreement with mineralogy with grades of 300 ppm lithium in sample 615217 and higher at 780 ppm in sample 615218, whereas boron is 843 and 721 ppm, respectively.

An investigation with an electron microscope indicated that the samples consist of composite particles comprised of fine-grained minerals. Intergrowths are locally very complex and micrometric in size rendering mineral identification very difficult. Distinct and coarse grains of silicates were identified.

**Table 13-1: SGS sample bulk mineralogy (in wt%)**

Mineral	Sample 615217	Sample 615218
Alurgite	21.4	5.3
Quartz	2.9	23.5
Sanidine	11.9	24.2
Analcime	22.4	-
Calcite	13.3	9.3
Nontronite	7.1	4.7
Palygorskite	6.8	4.4
Albite	-	11.4
Biotite	4.4	5.4
Halite	4.2	1
Ankerite	2	2.9
Illite	2.7	1.7
Trona	-	3.8
Dolomite	-	2.3
Ilmenite	1	-
<b>Total</b>	<b>100.1</b>	<b>99.9</b>

EPMA was conducted on a number of minerals to determine the major elements and LA-ICP-MS was conducted to determine lithium and boron content. The lithium content in the various clay minerals in sample 615217 ranged from 40 to 611 ppm and averaged approximately 400 ppm. The boron content in the various clay minerals in sample 615217 ranged from 78 to 1,178 ppm and averaged approximately 751 ppm.

The lithium content in the various clay minerals in sample 615218 ranged from 10 to 2,880 ppm and averaged approximately 1,021 ppm. The boron content in the various clay minerals in sample 615218 ranged from 12 to 1,600 ppm and averaged approximately 778 ppm. Carbonates and quartz might carry minor (generally <40 ppm) lithium and boron. Potassium in the samples will occur mainly in feldspars such as sanidine, zeolites such as analcime, and, to a lesser extent, in micas and clay minerals such as alurgite and palygorskite.

SRK notes that the range and average lithium values in the clay minerals in sample 615218 were higher than those in sample 615217. This agrees with the higher lithium values of 780 ppm in 615218 compared to 300 ppm in 615217. Average boron values were broadly similar in the two samples. Potassium values were 4.0% and 5.0% in sample 615217 and 615218, respectively.

### 13.2.3 Actlabs 2016

#### *Methodology*

Thirty pulverised samples were submitted for quantitative XRD analysis including clay speciation. A portion of each sample was mixed with corundum and packed into a standard holder. Corundum was added as an internal standard, to determine the amount of poorly crystalline and X-ray amorphous material. For clay speciation analysis, a portion of each sample was dispersed in distilled water and clay minerals in the <2 µm size fraction separated by gravity settling. Oriented slides of the <2 µm size fraction were prepared by placing a portion of the suspension onto a glass slide. In order to identify expandable clay minerals, the oriented slides were analysed air-dry and after treatment with ethylene glycol.

The quantities of the crystalline mineral phases were determined using the Rietveld method which is based on the calculation of the full diffraction pattern from crystal structure information. The amount of poorly crystalline minerals such as smectite could not be calculated by the Rietveld refinement. Instead, the amounts of the crystalline minerals were recalculated based on a known percent of corundum and the remainder to 100% was considered poorly crystalline and X-ray amorphous material. The relative proportions of the clay minerals in the <2 µm size fraction were calculated using ratios of their basal-peak areas.

### Results

The minerals identified in the bulk samples were illite, quartz, K feldspar, plagioclase, analcime, calcite, dolomite, gaylussite, trona, and halite. Dolomite included Fe dolomite. A trace amount of chlorite was detected in sample 13951. The clay minerals identified in the < 2 µm size fraction were illite, smectite, and chlorite.

A summary of the mineral abundances in the bulk samples split by salar is provided in Table 13-2.

**Table 13-2: Summary of Actlabs XRD results per salar**

Salar	Clays			Feldspars				Quartz	Halite	Carbonates				
	Illite	Amorphous / Smectite	Total Clays	K feldspar	Plagioclase	Analcime	Total Feldspars			Calcite	Dolomite	Gaylussite	Trona	Total Carbonate
Santa Clara	44	21	65	4	3	7	15	8	2	11	-	-	-	11
La Salada	8	49	57	4	-	-	4	1	1	25	8	3	1	37
Caligüey	25	32	56	12	7	-	19	4	1	16	4	-	-	20

## 13.2.4 SGS 2018

### Sample Selection

In 2018, two composite samples were generated from pulp reject material generated during the 2017 auger drilling campaign at La Salada. SRK advised OrganiMax on the recipe, to generate two samples generally representative of the La Salada mineralisation:

- High-potassium, low-lithium - MI5011-AUG18-COMP01 (composite 1)
  - Based on general cut-off of >4% K and <800 Li but contiguous sampling across drillholes.
  - Total of 24 samples averaging 4.8% K and 463 ppm Li based on original sample grades.
- High-lithium, low-potassium - MI5011-AUG18-COMP02 (composite 2)
  - Based on general cut-off of <4% K and >800 Li but contiguous sampling across drillholes.
  - Total of 31 samples averaging 2.7% K and 1,362 ppm Li based on original sample grades.

These composite samples were sent to SGS (Lakefield) for further mineralogy testwork. A second split of the same composites were sent to Geolabs Global (Pty) Ltd ("Geolabs") for confirmatory clay mineralogy tests.

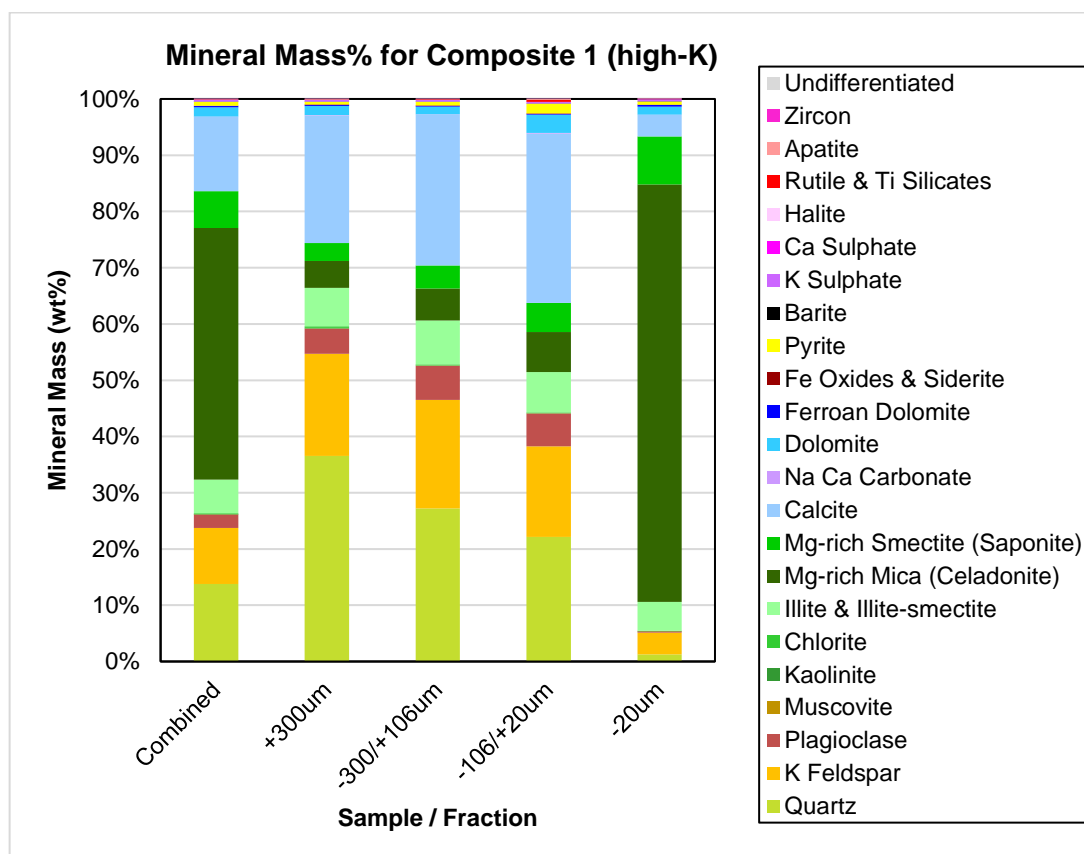
## Methodology

The following methodology was undertaken by SGS:

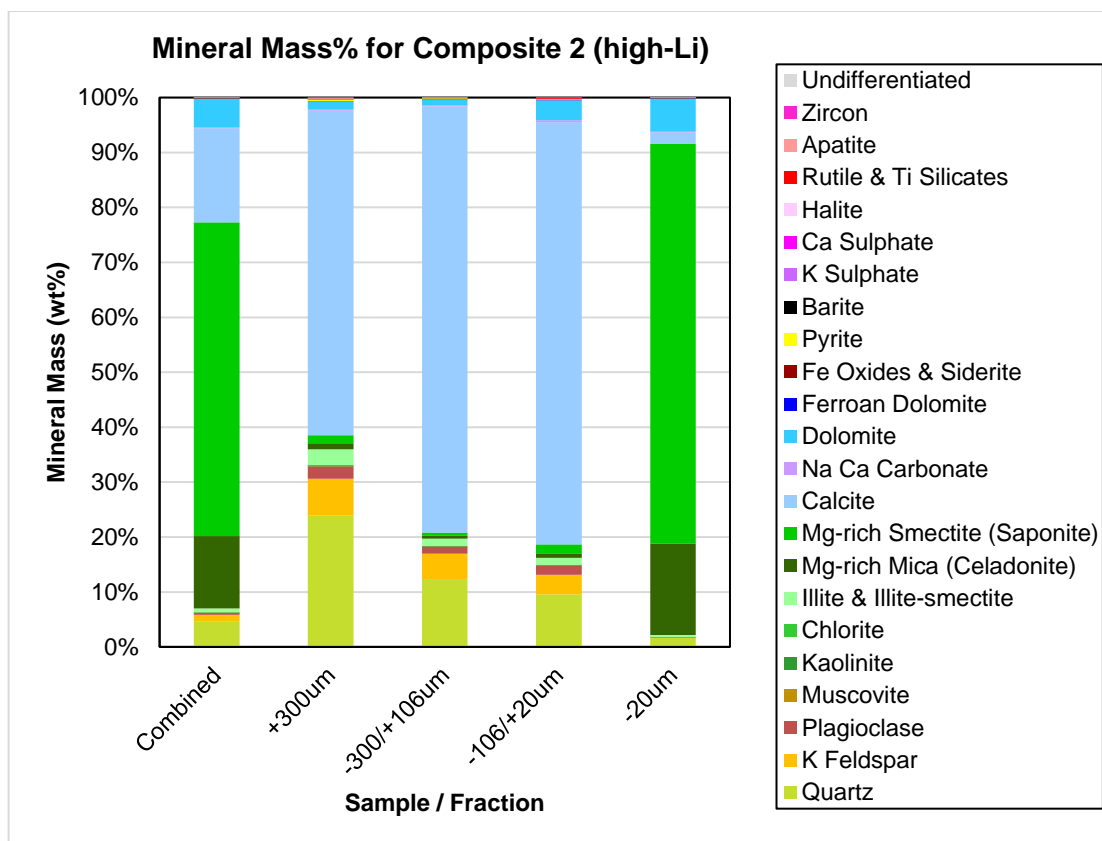
- XRD mineralogy: head and clay fraction;
- whole rock analysis (“WRA”) by XRF and geochemistry by multi-element ICP assays: head grade and by four size fractions: +300 µm, -300/+106, -106/+20, -20 µm;
- Fourier transform infrared spectroscopy (“FTIR”) analysis of clays; and;
- quantitative evaluation of minerals by scanning electron microscopy (“QEMSCAN”) mineralogy: head and three of the four size fractions (as above).

## Results

The results of the mineralogical testwork broken down into size fraction are shown in Figure 13-1 and Figure 13-2 for composite 1 and 2, respectively.



**Figure 13-1: Mineralogy results of composite 1 from SGS 2018 testwork**

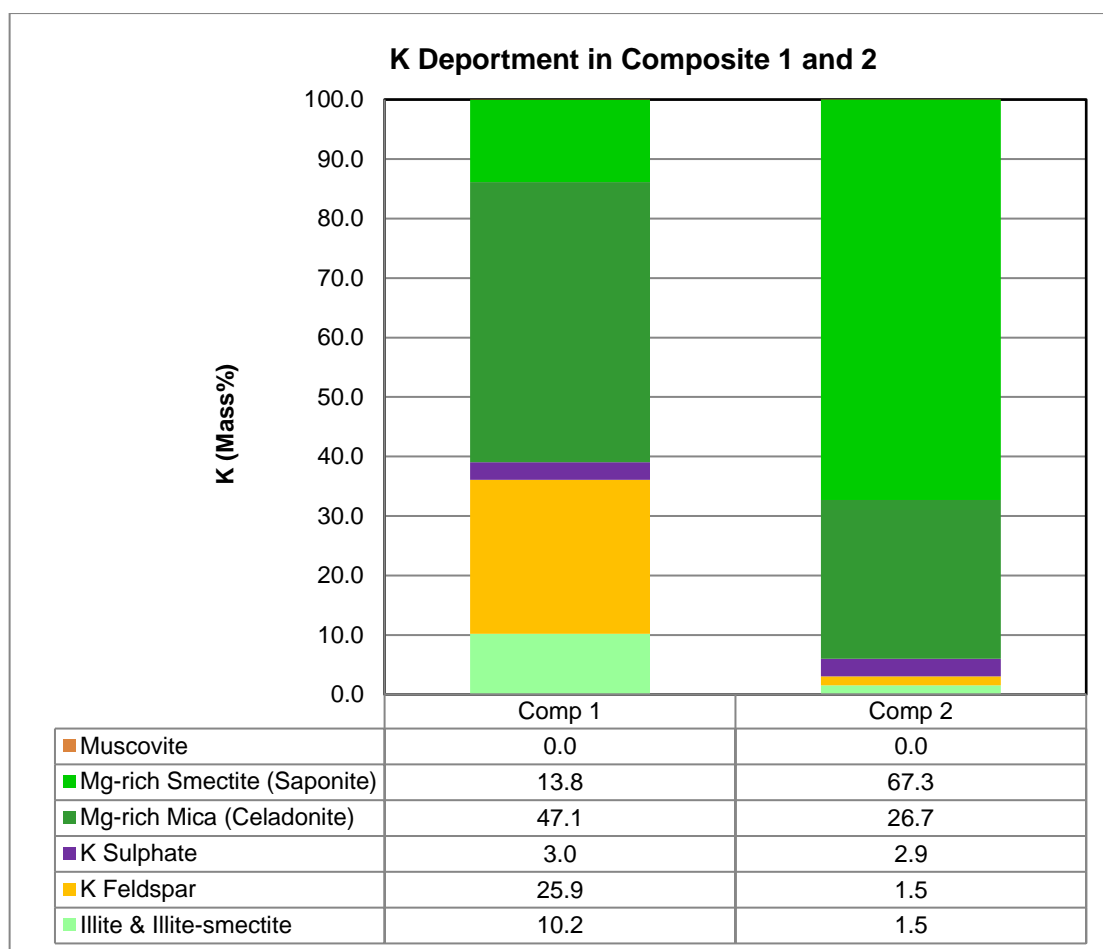


**Figure 13-2: Mineralogy results of composite 2 from SGS 2018 testwork**

**Table 13-3: Lithium-potassium-boron mass balance**

Sample	Fraction	Mass%	Li (%)	Li Norm. (%)	K <sub>2</sub> O (%)	K <sub>2</sub> O Norm. (%)	B (ppm)	B Norm. (ppm)
Composite 1	> 5 micron	69.20	0.025	37.7	4.55	55.0	230	42.5
	< 5 micron (clay)	30.80	0.093	62.3	8.38	45.0	700	57.5
Composite 2	> 5 micron	36.06	0.058	15.0	1.65	22.5	210	15.0
	< 5 micron (clay)	63.94	0.186	85.0	3.20	77.5	670	85.0





**Figure 13-3: Normalised potassium department from SGS 2018 testwork**

### 13.2.5 Geolabs 2018

Geolabs also used the two La Salada composite samples, as described above. Their scope was to analyse the composites to confirm the mineralogy results from SGS. The results showed comparable mineralogy to that found in the SGS testwork.

## 13.3 Leaching Testwork

### 13.3.1 Nittseu 2009

Nittseu (2009) completed initial diagnostic leach tests using ionised water and weak ammonium sulphate extractant. The head sample grade was 1,610 ppm lithium and 4.0% potassium.

Based on the results, it was concluded that less than 1% of the lithium was extracted by these weak lixiviants, indicating that the element is not present as a salt or easily exchanged ion but more likely in a silicate mineral phase or intercalated in a clay mineral. By comparison, potassium shows up to 24% extracted in ammonium sulphate indicating that a quarter of the potassium is present in a readily leachable form.

### 13.3.2 Inspectorate 2011

In 2011, Inspectorate undertook leach testwork with the aim of understanding the leachability of predominantly lithium, but also potassium.

Originally, two composite samples were generated from pulp reject material at La Salada and Caligüey. Following analysis of the composites, the La Salada composite was considered too low-grade to be considered as representative and therefore a third composite was generated and sent to Inspectorate.

The following extraction methods were tested:

- scrubbing;
- dissolution in water;
- settling characterisation;
- sulphuric acid leach;
- acid pug-water leach;
- limestone-gypsum roast-water leach; and;
- flotation.

From the methods tested acid pug water leach resulted in over 90% lithium extraction at sulphuric acid consumption levels of about 700 kg/t. Potassium recovery averaged around 40 to 50%.

Limestone gypsum roast-water leach resulted with ~50 to 60% of lithium and potassium recoveries.

Coarse and fine fractions after scrubbing for the first two Caligüey and La Salada composite samples were assayed to determine if there is concentration of lithium and potassium in finer fractions. Results indicated that lithium and potassium content followed the mass distribution with majority of lithium remaining in the fines for the Caligüey composite.

### 13.4 Autoclave testwork

In 2018, laboratory scale autoclave leach tests were completed on pulverised samples at Centro de Investigación y de estudios avanzados del Instituto Politécnico Nacional Unidad Saltillo in Ramos Arizpe, Coahuila state (Garibay et al., 2018). The work concluded that under ambient conditions (50°C) up to 85% of the lithium could be leached by a 0.6 M sulphuric acid solution in six hours.

### 13.5 Analogues

Whilst there are no direct analogues of this Project currently operational, several analogue deposits exist which are undergoing development studies. These include potassium and lithium enriched clay deposits and feldspar dominated deposits in Nevada, Brazil, and Mexico.

In terms of processing analogues, the most applicable project is the recently commissioned Verde project in Brazil that seeks to recover potassium from glauconite and feldspar bearing-sandstones. Using gypsum-roast and sulphuric acid leaching, potassium is separated from the silicate host and produced by fractional crystallization in the form of kainite or sulphate of potash. Whilst the mineralogy is different, in reality the silicate minerals in the OrganiMax salars will probably behave similarly to those at Verde.

At present, most non-brine lithium projects produce a spodumene concentrate. There has been limited historical (and potentially some small-scale current) production and conversion of lepidolite in China and there remains limited existing production of lepidolite in Portugal and petalite in Zimbabwe, both of which are primarily used in the glass/ceramics industries; however, overall commercial application of these minerals has been nominal. Nonetheless, there is increased interest in converting these lower concentration lithium materials to produce lithium carbonate / hydroxide. Whilst these contain significantly less lithium per mineral, the recent boom in lithium prices has renewed interest in these deposits and has prompted the current activity in developing projects such as Schorl Dorf in Germany, Zinnwald in the Czech Republic, and other deposits in China (Evans, 2014).

For lithium-bearing micas, clays, and feldspar, the lithium ion is situated between the aluminium-silicon sheets and not part of the silicon framework. Despite this, roasting is generally still required to liberate the encapsulated lithium. Similar processes applied to spodumene have been applied to lepidolite and zinnwaldite, but in many of these, the formation of insoluble lithium salts has led to low recovery and the need for additional aggressive reagent leaching that has proved uneconomic (Yan et al, 2012 a,b).

## 13.6 SRK Summary and Conclusions

In general, current economics and technology appears to support roasting, sulphuric acid leaching, evaporation-crystallisation, membrane technology to remove impurities, and carbonation as continuing to be the default processing method for the sediment material. Despite several alternatives being proposed, the reality appears that current practice, located in areas with low reagent and power costs (such as China) will remain the preferred process route. Modifications to this (for example, electrolysis) may be successfully adopted (again in appropriate jurisdictions where power costs are low), but only impact the steps to remove impurities and precipitate lithium products. Ultimately, the challenge for the OrganiMax projects will be the issue of grade and the cost per tonne of impurity removal. Undertaking any upgrading of the material to reduce the impurities could lead to the loss of potassium and lithium but mineral processing will generate high levels of impurities.

These challenges remain for such deposits and despite research, little has changed in the last three decades (Garrett, 1996, 2003).

### 13.6.1 Recovery factor

Based on all the results presented here it is proposed that 75% is a reasonable estimate for potassium recovery from mined material to sulphate of potash ("SOP", or potassium sulphate/ $K_2SO_4$ ) product and 75% for lithium recovery from mined material to lithium carbonate equivalent ("LCE") product. The proposed recoveries reflect the fact that it is unlikely a commercial plant will work as efficiently as the laboratory autoclaves and there will be lithium loss in precipitation and impurity removal.

### 13.6.2 Acid Consumption

On the basis of the testwork completed in Mexico (Garibay et al., 2018), 5.9 kg/t sulphuric acid consumption (equivalent to 0.06 M) is required to achieve optimum lithium extraction. For potassium extraction, a higher acid consumption will be required, and this is calculated to be in the order of 18 kg/t; however, the solution will require continued acidification and acid consumers such as calcite in the mineralised material may be present because magnetic separation is unlikely to remove all calcite in operations as it did in the small laboratory scale testwork. Consequently, as a conservative estimate, an acid consumption of 60 kg/t is proposed for the separated mineralised material and 180 kg/t for whole material processing.

### 13.6.3 Cost Estimates

Based on the analogues discussed above, SRK believes that OrganiMax's process using low end acid consumption would be similar in cost to Cerrado Verde in Brazil. Therefore, a similar operating cost of USD 30/t mineralised material feed is proposed in lieu of any direct information from the OrganiMax properties. An additional cost of USD 5/t mineralised material feed has been estimated to produce LCE from lithium in the leached solution through fractional crystallisation.

No estimates of capital costs are currently available and have not been considered for this study.

### 13.6.4 Summary

OrganiMax's potassium-lithium projects are at an early stage of development. As such, it is difficult to assign hard values for recovery or potential costs. Using analogue examples, a provisional estimate for discussion can be generated and can be refined through further testwork. Due to the very limited information on boron extraction, it has not been considered in the cut-off grade calculation or reported herein; it remains a potential upside to the Projects. The results are preliminary in nature and further detailed testwork is required to ensure an economically viable flowsheet can be developed, including extraction of potassium and lithium (in addition to other potential products such as boron), and ensuring deleterious elements can be removed to generate saleable products.

## 14 MINERAL RESOURCE ESTIMATES

### 14.1 Introduction

The Mineral Resource statements presented herein have been reported from the maiden MRE prepared for the La Salada, Santa Clara, and Caligüey salar deposits in accordance with CIM and NI 43-101.

The MRE was reviewed and verified by Mr Martin Pittuck, CEng, FGS, MIMMM an “independent qualified person” as defined in NI 43-101. The Effective Date of the Mineral Resource statements is 17 December 2018.

This section describes the MRE methodology and summarises the key assumptions considered by SRK. In the opinion of SRK, the Mineral Resource statement reported herein is a reasonable representation of the deposits based on current sampling data. The Mineral Resource has been estimated using generally accepted CIM “Estimation of Mineral Resource and Mineral Reserves Best Practices” guidelines (2014). Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resource will be converted into Mineral Reserve.

To the best of SRK’s knowledge, there are no environmental, permitting, legal, title, tax, socio-economic, market, political, or other relevant factors that would affect the Mineral Resource presented in this Technical Report.

OrganiMax supplied SRK with an export of the geological database and available geological interpretations which were reviewed and validated by SRK. SRK is of the opinion that the information supplied is sufficiently reliable to interpret with confidence the boundaries for potassium and lithium mineralisation and that the assay data is sufficiently reliable to support the MRE.

SRK utilised Leapfrog Geo Version 4.3 Modelling Software (“Leapfrog”) and Datamine Studio RM (“Datamine”) was used for geological modelling, Leapfrog for geostatistical analysis (variography) and block modelling. Datamine was used to generate the Mineral Resource statement.

### 14.2 Resource Estimation Procedures

The Mineral Resource estimation methodology involved the following procedures:

- database compilation and verification;
- construction of wireframe/mesh solid models for the mineralisation extents;
- definition of resource estimation domains;
- data conditioning (compositing) for statistical analysis;
- geostatistical analysis (variography);
- block modelling and grade estimation;
- resource classification and validation;
- assessment of “reasonable prospects for economic extraction” and selection of appropriate reporting cut-off grades; and;
- preparation of the Mineral Resource statement.



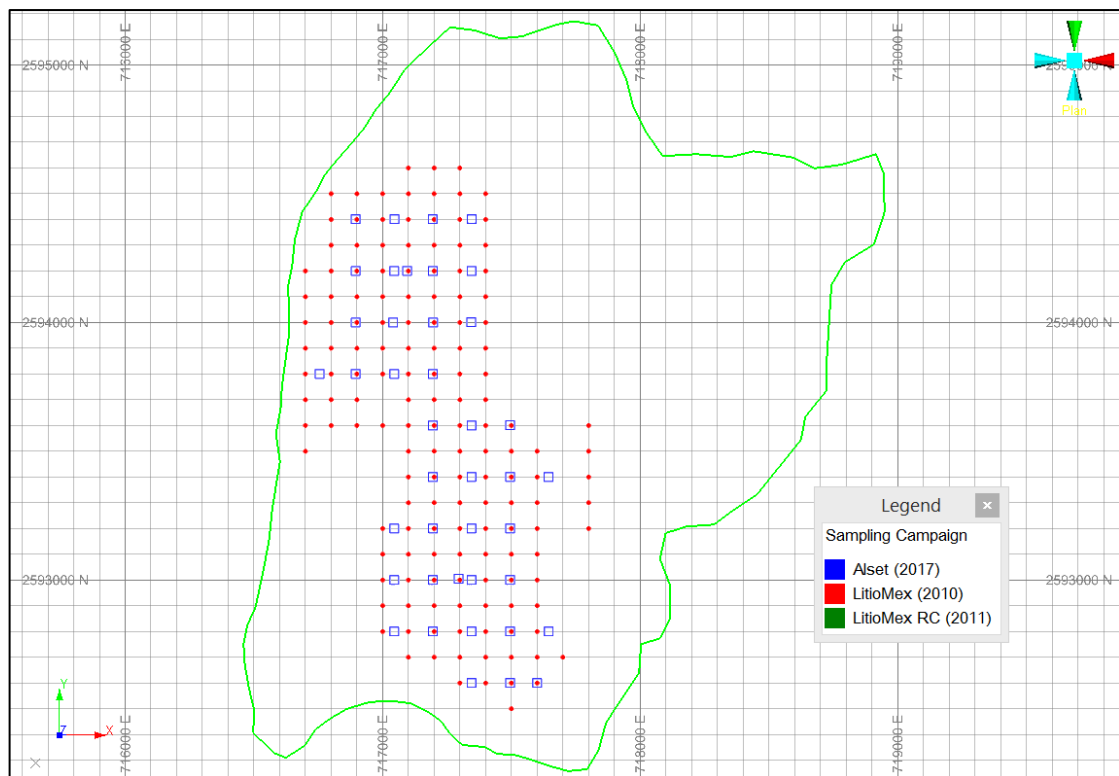
### 14.3 Summary of available data

A summary of the exploration completed on OrganiMax's licences split by salar is provided in Table 14-1. La Salada, Santa Clara, and Caligüey are sufficiently well sampled to produce an MRE for each, there is currently inadequate exploration data available to complete an MRE for the other salars.

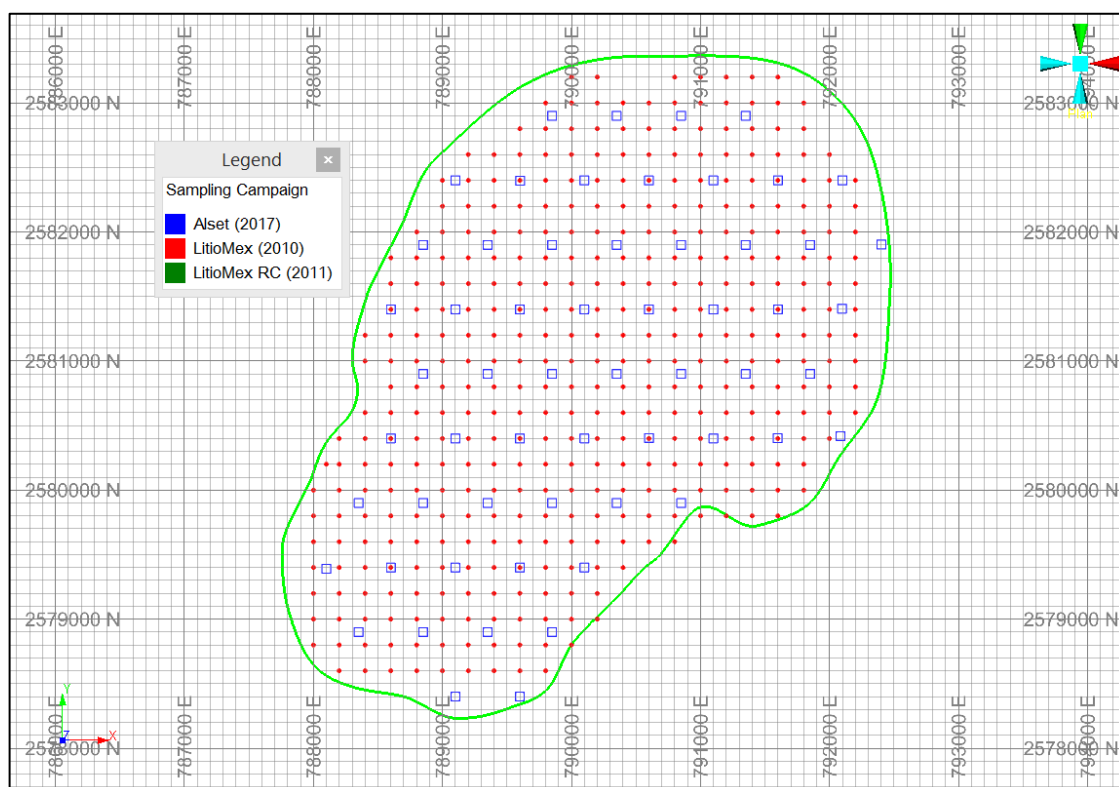
The locations of the Litio Mex and Alset exploration campaigns are shown in Figure 14-1 to Figure 14-3 for La Salada, Santa Clara, and Caligüey, respectively.

**Table 14-1: Summary of exploration**

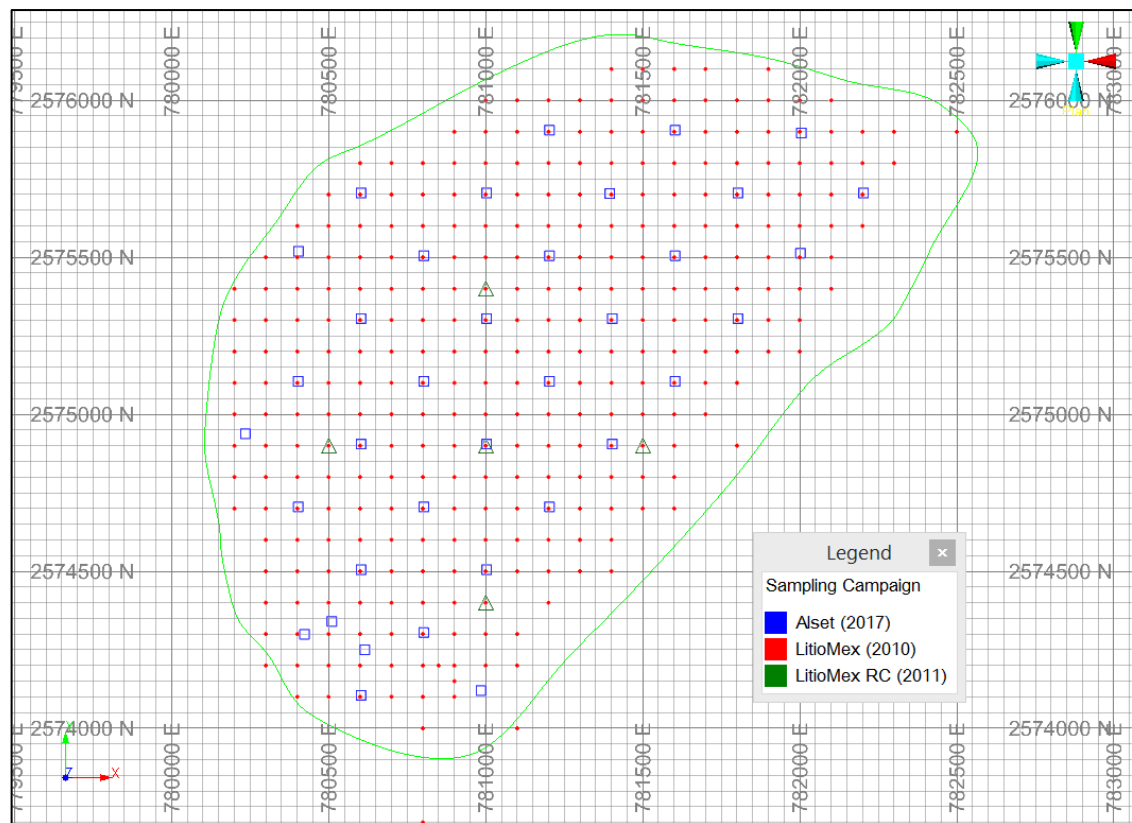
Salar	Company	Type	No. Holes/Pits	Meterage (m)	No. Samples
La Salada	Litio Mex	Pit	151	755	711
	Alset	Auger drill	40	577	392
		Core	1	51	18
Santa Clara	Litio Mex	Pit	384	1,920	1,907
	Alset	Hand auger	59	49	59
Caligüey	Litio Mex	Pit	306	1,530	1,511
		RC	5	216	216
	Alset	Hand auger	36	43	36
Saldivar	Litio Mex	Pit	34	170	170
	Alset	Hand auger	28	28	28
Colorada	Litio Mex	Pit	34	170	170
	Alset	Hand auger	30	30	30
Chapala	Litio Mex	Pit	?	?	?
	Alset	Hand auger	7	7	7
El Salitral	Litio Mex	Pit	2	10	10
	Alset	Hand auger	5	5	5
Hernandez	Litio Mex	Pit	?	?	7
	Alset	Hand auger	5	5	5
El Agrito	Litio Mex	Pit	?	?	5
	Alset	Hand auger	5	5	5
Las Casas	Litio Mex	Pit	1	3	3
	Alset	Hand auger	5	5	5
Laguna Larga	Litio Mex	Pit	?	?	?
	Alset	Hand auger	2	2	2
La Prietta	Litio Mex	Pit	?	?	?
	Alset	Hand auger	2	2	2
El Cristalillo	Litio Mex	Pit	?	?	?
	Alset	Hand auger	2	2	2
La Doncella	Litio Mex	Pit	26	130	130
	Alset	Hand auger	1	1	1
El Barril	Litio Mex	Pit	?	?	2
	Alset	Hand auger	0	0	0



**Figure 14-1: Lito Mex pits and Alset auger hole locations for La Salada (green = salar outline)**



**Figure 14-2: Lito Mex pits and Alset auger hole locations for Santa Clara (green = salar outline)**



**Figure 14-3: Lito Mex pits and RC holes and Alset auger hole locations for Caligüey (green = salar outline)**

## 14.4 Database Adjustments

Following the data verification exercise, a number of adjustments were made to the database to ensure all data used for the estimation are unbiased. This involved the following data adjustments:

- Removed potassium and boron assays from Lito Mex ALS results due to assaying technique issues.
- Removed 2017 hand-auger sampling results from the Santa Clara and Caligüey databases due to 1 m restriction and difference in sample support.
- For geological modelling and grade estimation, regarding the twinned assay results from La Salada the Lito Mex data was removed and the Alset data kept as it penetrates deeper.
- Removed RC drilling from Caligüey due to low-correlation to pitting results, limited number and wide spacing.

## 14.5 Geological Modelling and Domaining

### 14.5.1 Introduction

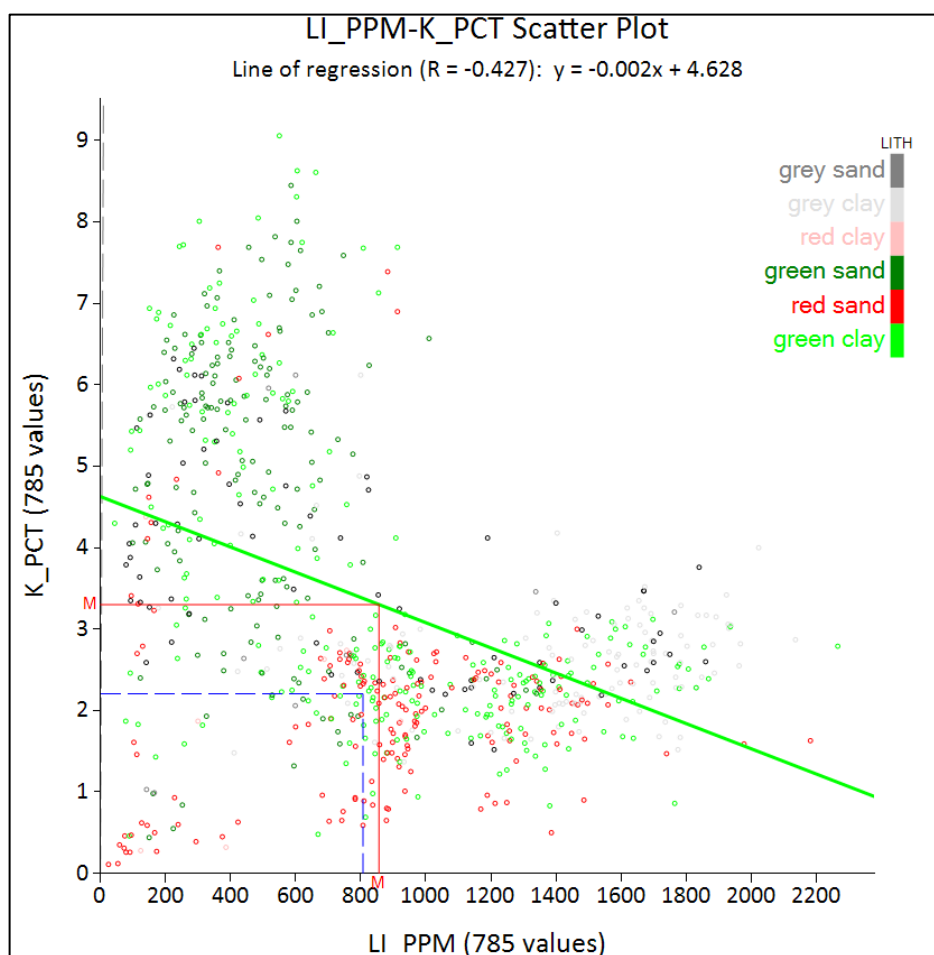
Prior to modelling, SRK ran statistical analysis using geological logging and assay data to attempt to find correlations between logged lithologies and grade. Subsequently, wireframe models were generated for each of the three principal salars based on the drilling data.

### 14.5.2 Pre-domaining statistical analysis

SRK utilised logging data from the historic drilling (containing simplified logging codes) to compare to assay grades of lithium and potassium to identify any correlations. Figure 14-4 shows the results of the analysis, with the following noted:

- No clear relationship between logged lithology and grade except:
  - most green sand samples are low-Li/high-K;
  - most grey clay and red sand samples are high-Li/low-K; and
  - green clay is well-mixed.
- Higher-grade lithium population correlates to lower-grade potassium population.

Following this analysis, it was considered that geological modelling should focus on domaining of separate potassium and lithium domains rather than lithology.



**Figure 14-4: Scatterplot of Li (ppm) vs K (%) coloured by logged lithology for La Salada**

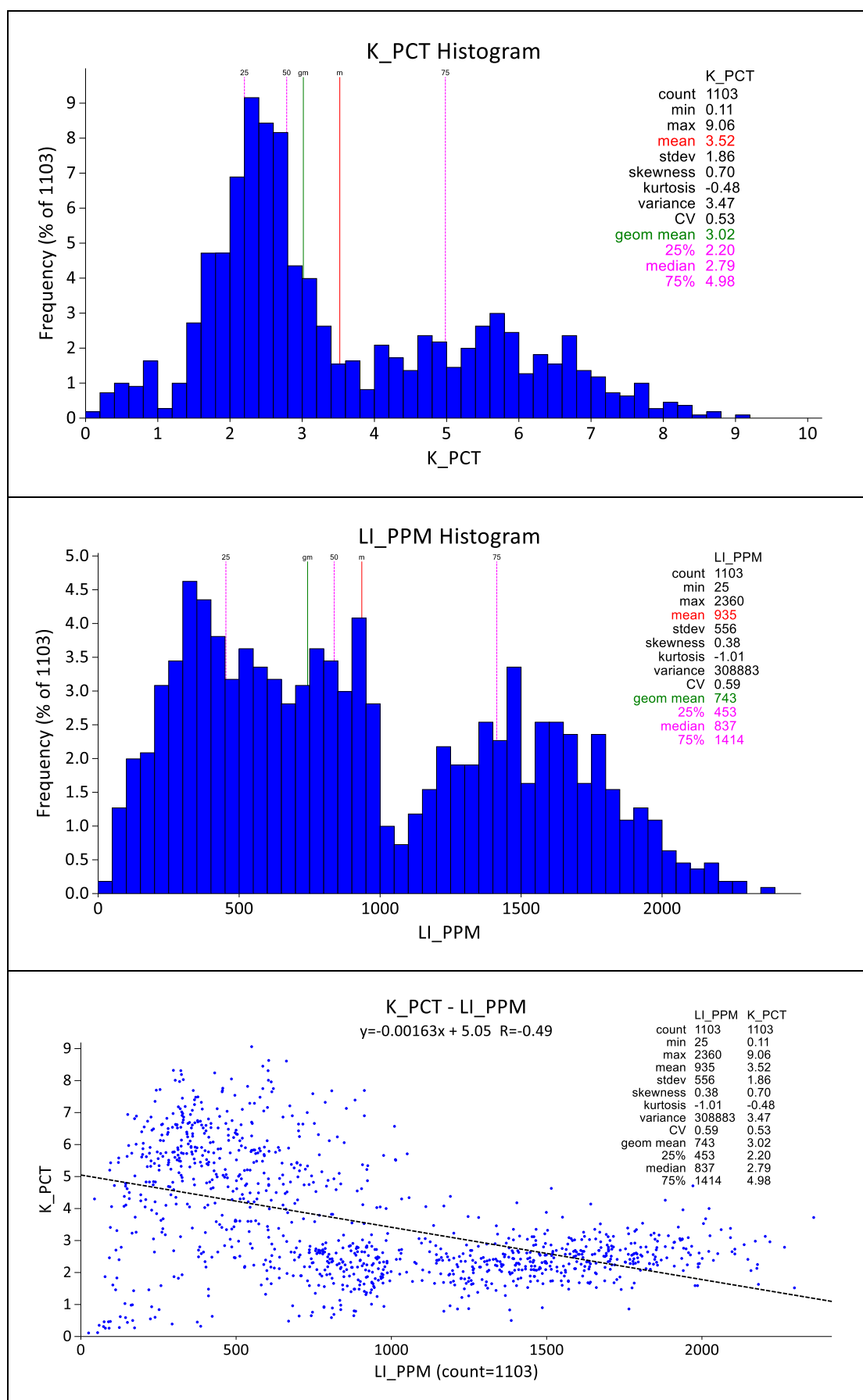
Histograms and scatterplots of the input data (following database alterations, as above) for potassium and lithium are provided in Figure 14-5, Figure 14-6, and Figure 14-7 for La Salada, Santa Clara, and Caligüey, respectively.

The La Salada results show a clear natural population break in both the potassium and lithium data. SRK has used this analysis to divide the data into three separate domains for modelling and estimation:

- high-potassium domain with approximate cut-off of >4% K.
- high-lithium domain with approximate cut-off of >1000 ppm Li.
- Low-potassium / low-lithium domain with grades generally <1000 ppm Li and <4% K.

Both Santa Clara and Caligüey were considered to be one domain for estimation purposes, although SRK notes that the Caligüey potassium grades have a long high-grade tail, which may be able to be domained separately with increased data density. In addition, an upper detection limit of 10% K has been reached in a number of samples, which should be re-analysed using analytical techniques with higher detection limits (probably an XRF method).





**Figure 14-5: La Salada K (%) and Li (ppm) statistical analysis**

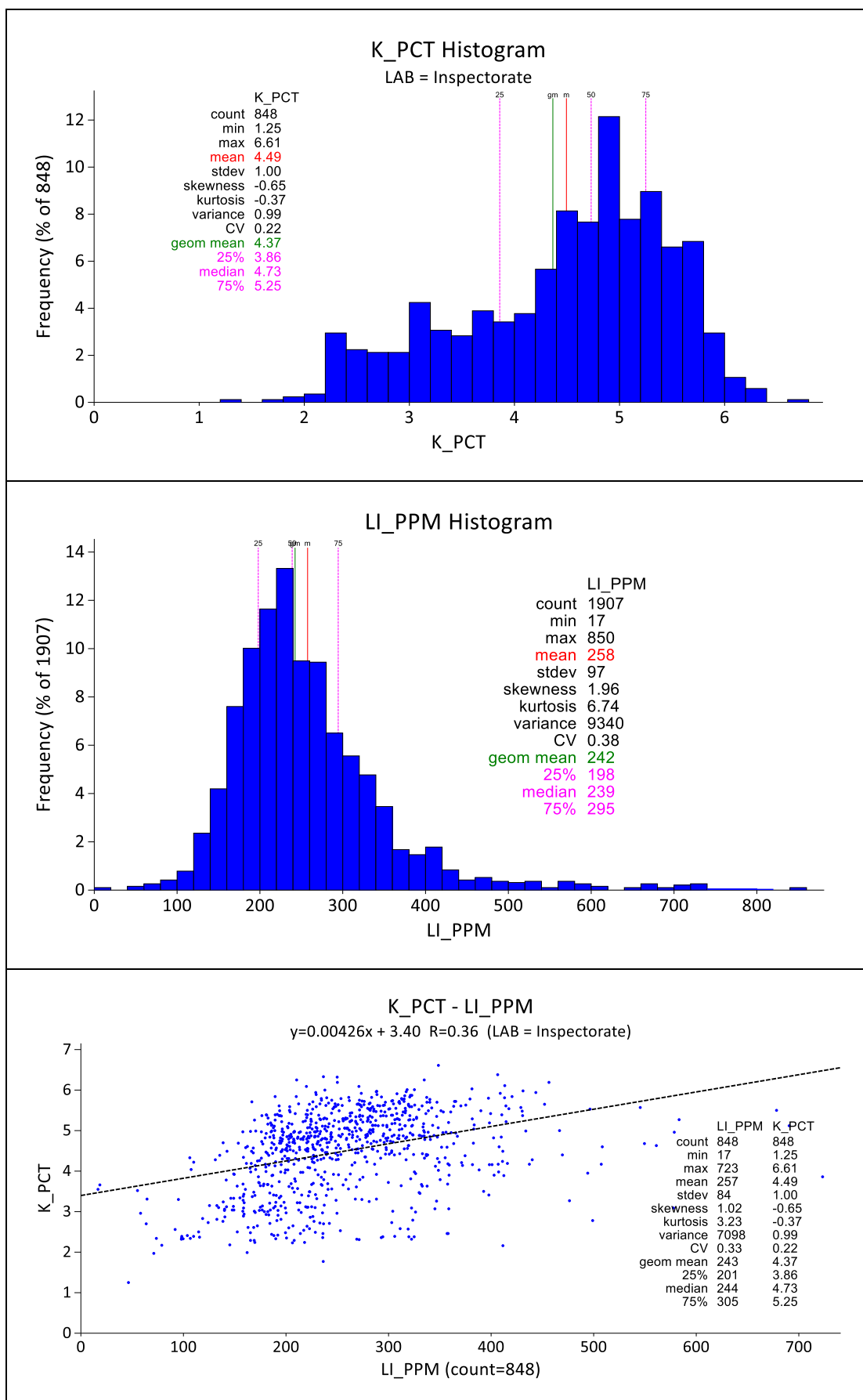


Figure 14-6: Santa Clara K (%) and Li (ppm) statistical analysis

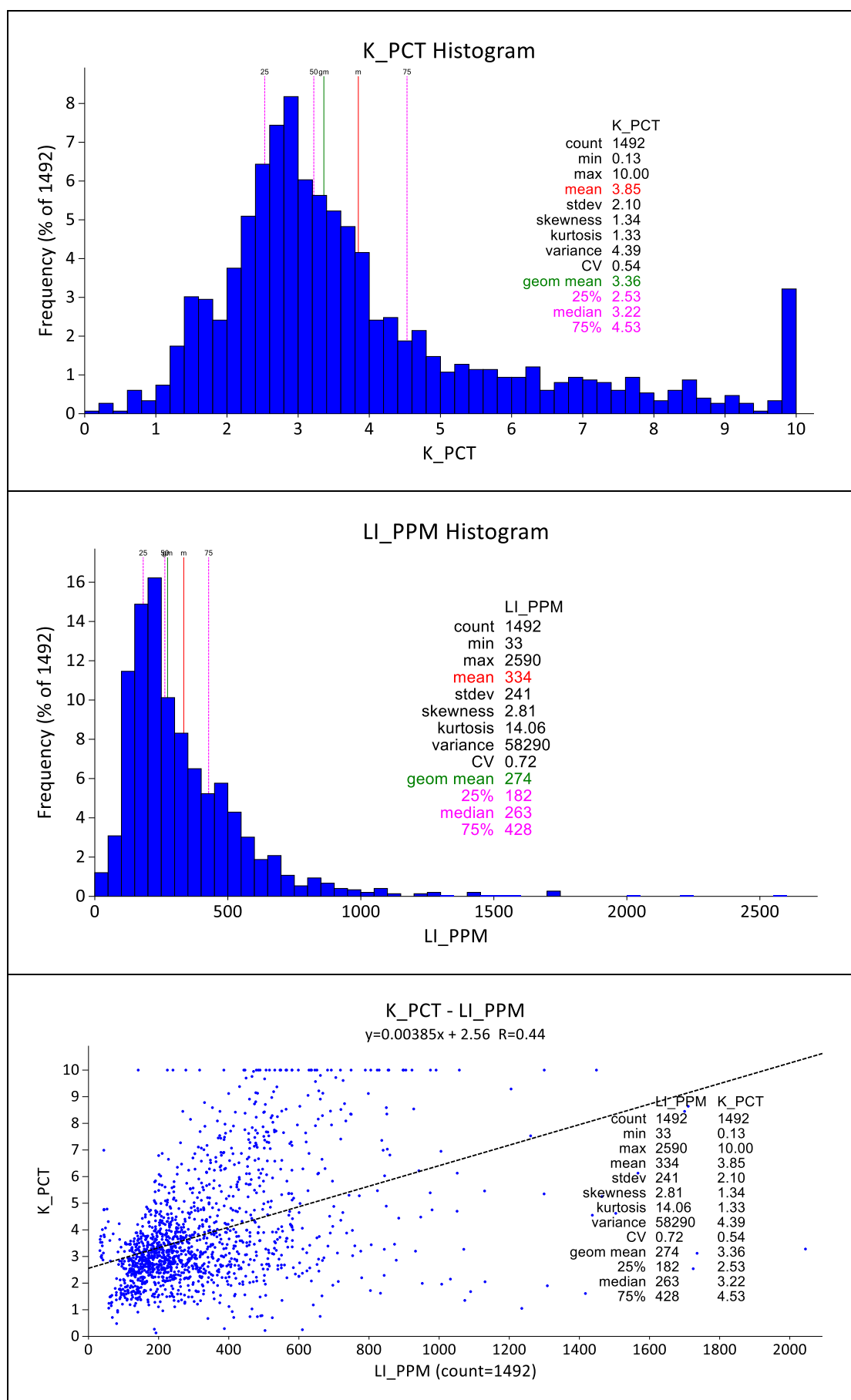
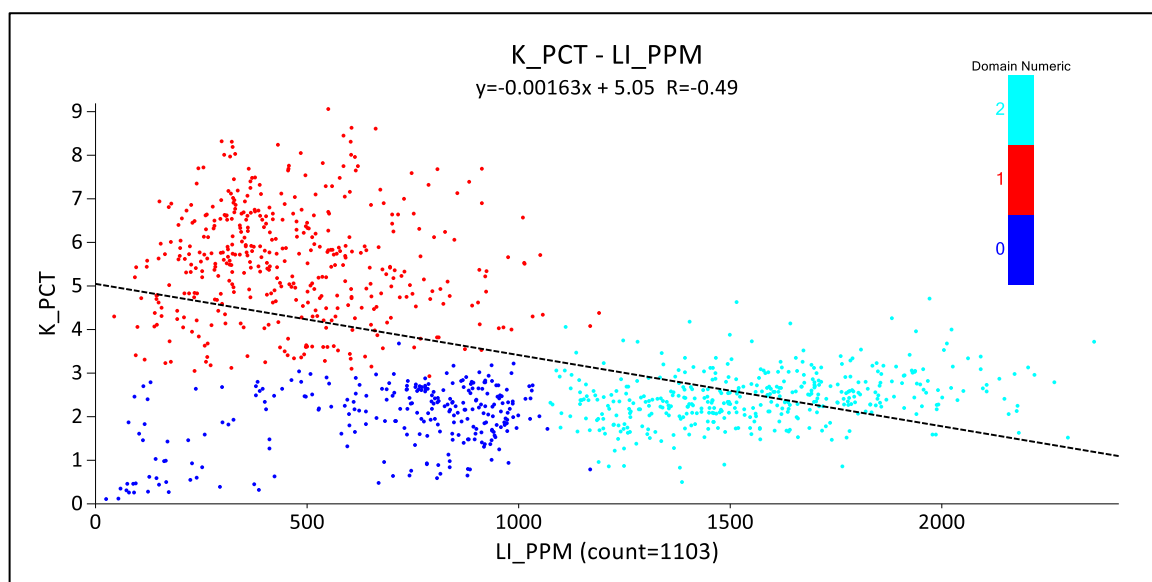


Figure 14-7: Caliguëy K (%) and Li (ppm) statistical analysis

### 14.5.3 Geological modelling

#### *La Salada*

In order to capture the 3D variability of the La Salada domains, Leapfrog Geo was used to model the separate domains. The scatterplot in Figure 14-8 shows the La Salada drillhole data coloured by the grade groups outlined above.



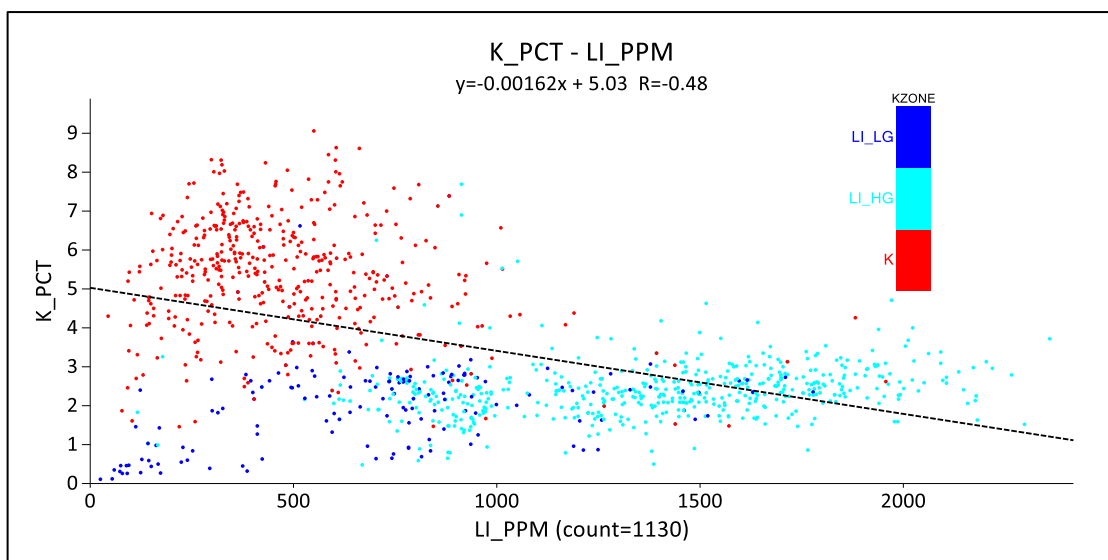
**Figure 14-8: Scatterplot of K (%) vs Li (ppm) for La Salada coloured by theoretical domain\***

*\*Note: numeric domain code: 0 = low-K, low-Li; 1 = high-K, 2 = high-Li*

In practice, the grade group samples were not always spatially continuous and so the statistical populations within the resulting domains (following geological modelling) were slightly different to the theoretical statistics (see Figure 14-9 and Figure 14-10).

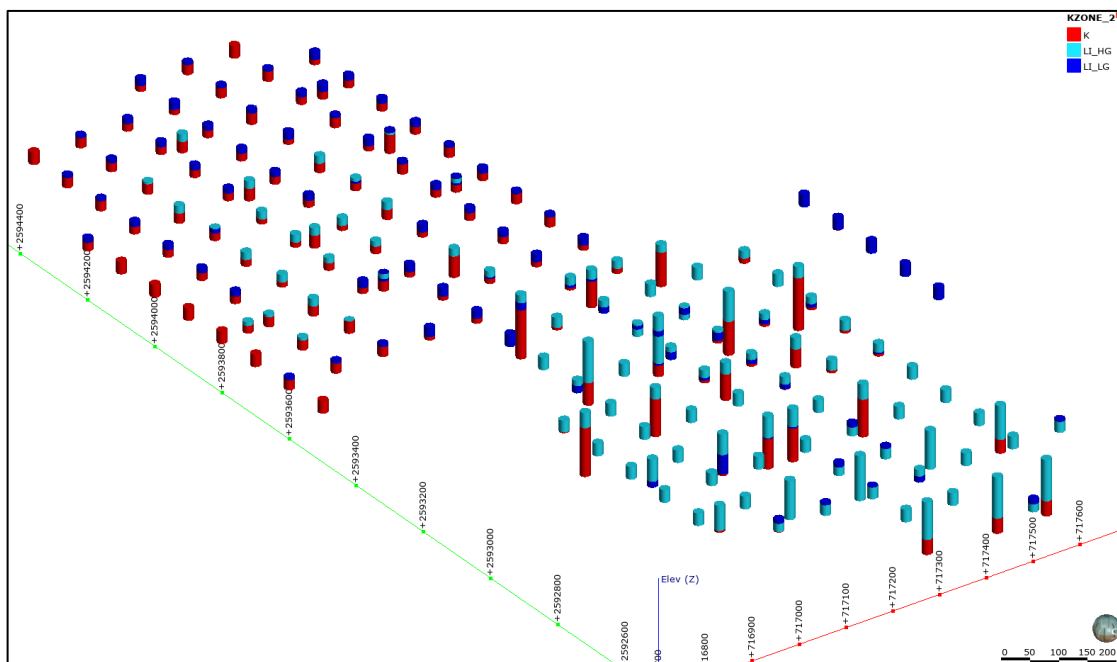
To generate the 3D model, first a surface was generated (using Leapfrog's deposit modelling tool) from the contact points between the generally deeper-lying high-potassium domain and the two lithium domains along with a boundary string around the current drilling (with a 0 m thickness to pinch-out the thickness of the wireframe model). Subsequently, the two lithium domains were divided using a RBF interpolant with grade iso-shells of >1,000 ppm and <1,000 ppm generated.

The 3D model/wireframe solids for the high- and low-lithium domains are shown in Figure 14-11; the potassium domain is considered as everything below the K-Li domain contact. It should be noted that, in general, the high-lithium domain dominates in the south and is present in the shallow areas of the northwest.



**Figure 14-9: Scatterplot of K (%) vs Li (ppm) for La Salada coloured by actual domain\***

\*Note: K = high-K, LI\_HG = high-Li, LI\_LG = low-K, low-Li.



**Figure 14-10: La Salada drillholes coloured by domain (KZONE)\*. Vert exag x 5\***

\*Note: K = high-K, LI\_HG = high-Li, LI\_LG = low-K, low-Li.



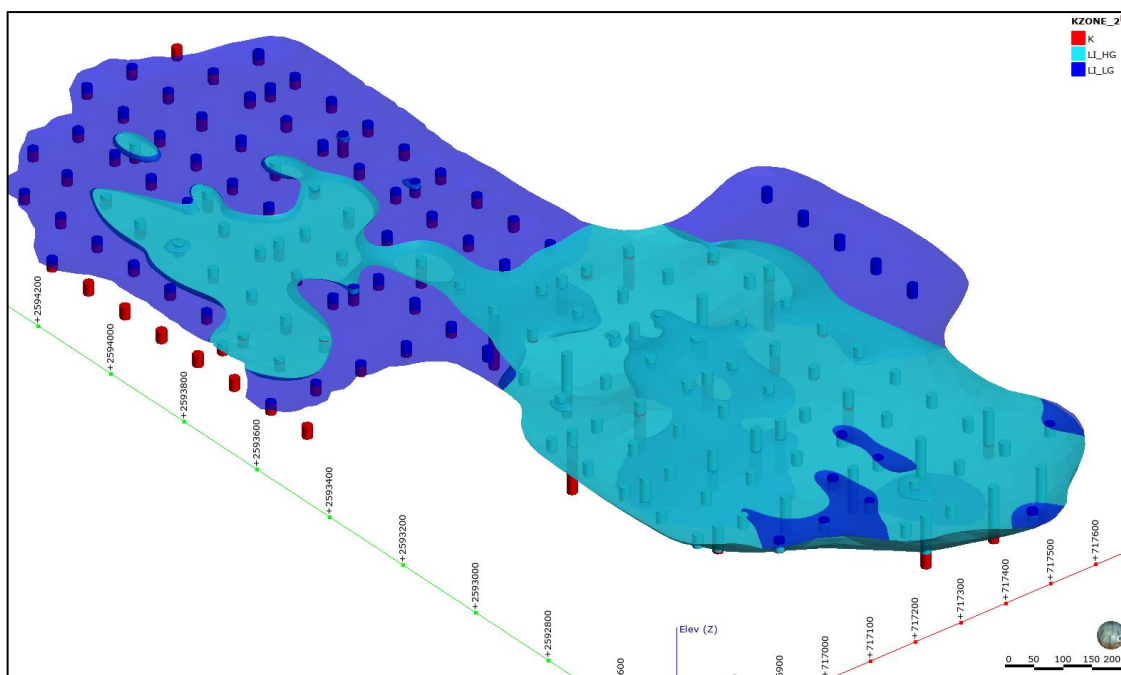


Figure 14-11: 3D view (looking northeast) of La Salada geological model of high- and low-Li wireframes. Vertical exaggeration x 5

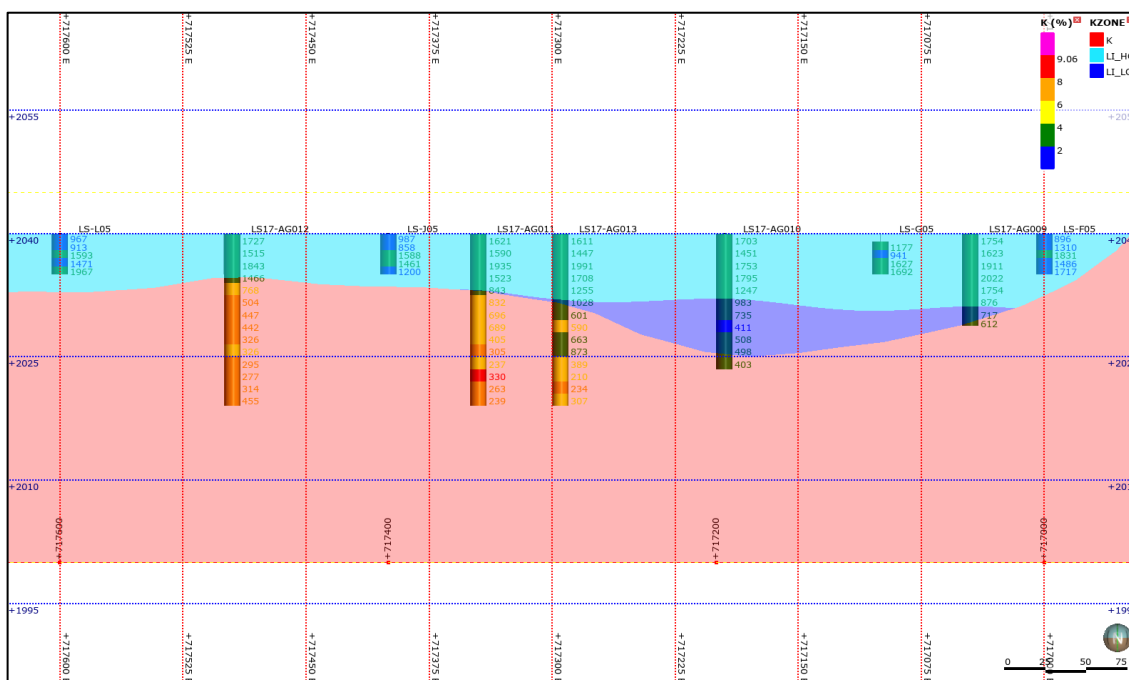
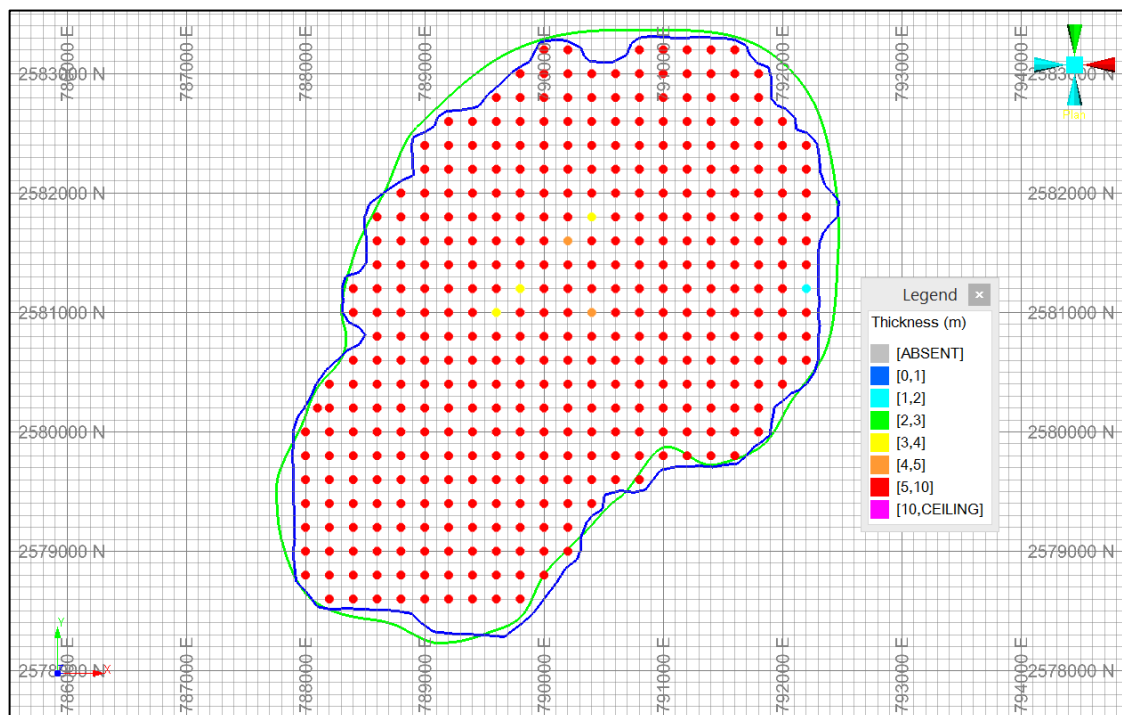


Figure 14-12: Cross-section (Y: 2593000, looking south) through of La Salada geological model showing drillholes coloured by K (% down-hole) and Li (ppm, right). Vertical exaggeration x 5

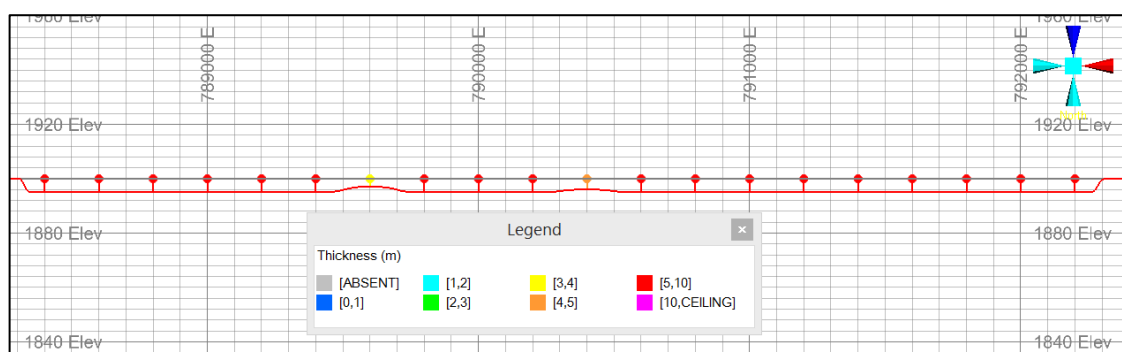
### *Santa Clara and Caligüey*

The Santa Clara and Caligüey modelling was simpler due to only one domain being identified, along with only 5 m Litio Mex pits being used. A base of 'clay' surface was generated based on the depth of the ends of the Litio Mex pits, which was generated 5 m, but occasionally between 1 to 4 m. A boundary string was digitised with a 0 m thickness assigned to pinch-out the thickness of the wireframe model to 0 m. This corresponded generally with the salar outlines based on aerial photography, as shown on Figure 14-13 and Figure 14-15 for Santa Clara and Caligüey, respectively.

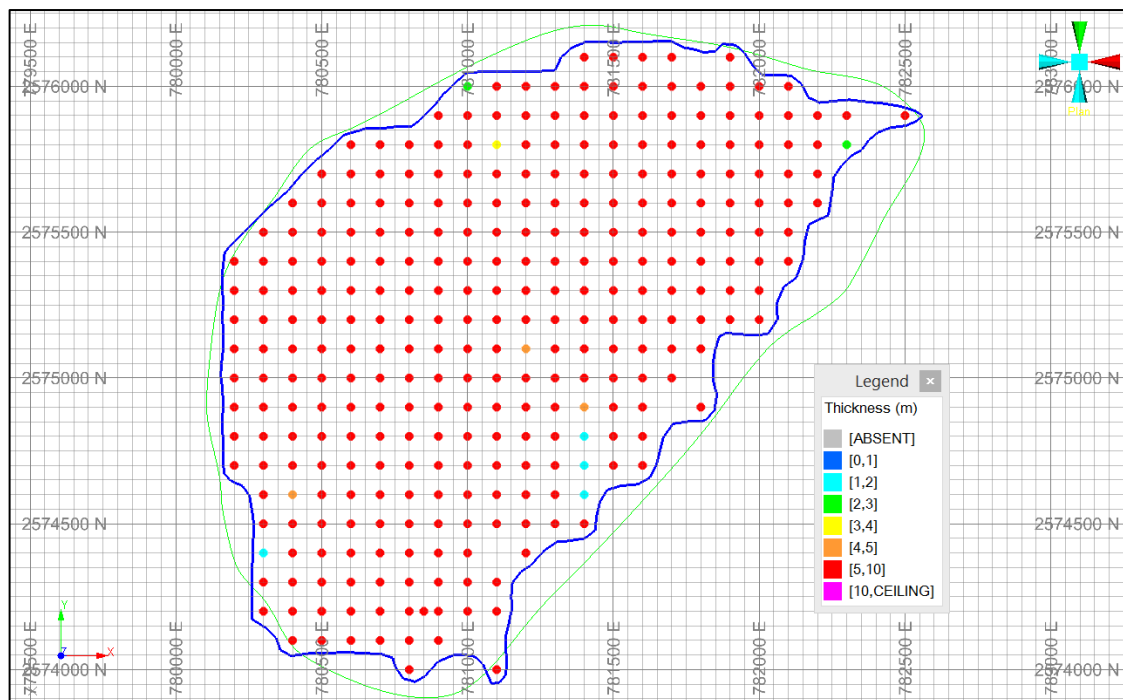
Cross-sections through the deposits showing the wireframes generated are shown in Figure 14-14 and Figure 14-16 for Santa Clara and Caligüey, respectively.



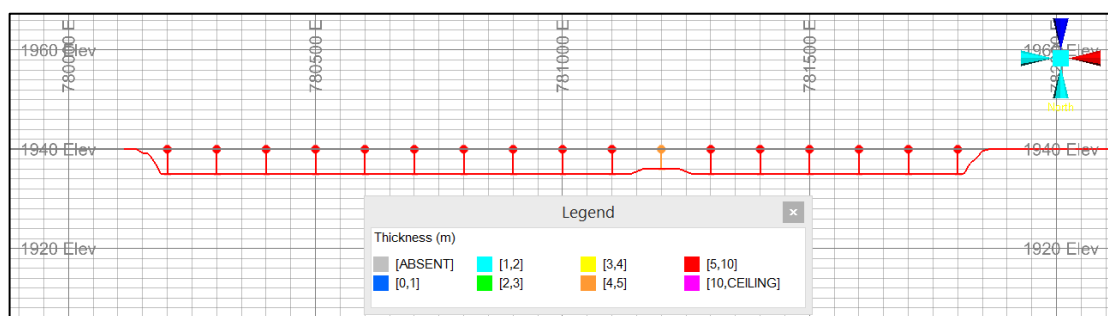
**Figure 14-13: Plan view of Santa Clara drillholes coloured by thickness with model boundary string (blue) and salar outline from aerial photography (green)**



**Figure 14-14: Cross-section (Y: 2581000, looking north) through Santa Clara showing drillholes coloured by thickness and wireframes (red = base of clay, grey = topographic surface). Vertical exaggeration x 10**



**Figure 14-15: Plan view of Caligüey drillholes coloured by thickness with model boundary string (blue) and salar outline from aerial photography (green)**



**Figure 14-16: Cross-section (Y: 2575100, looking north) through Caligüey showing drillholes coloured by thickness and wireframes (red = base of clay, grey = topographic surface). Vertical exaggeration x 10**

#### 14.5.4 Comments on the Geological Models

The lateral extent of the models for all three salars is restricted to the current drilling data, with all drillhole containing potentially economic grades of potassium and lithium sediment material. The pitting and drilling is within the salar boundaries, and in the case of La Salada, there is potential to expand the model laterally outside of the currently drilled area, but within the salar boundary.

At La Salada, auger drilling has allowed for the model to be extended to a depth of up to 25.5 m, where elevated potassium grade exist. In addition, evidence from the one deep core drillhole suggests potentially economic grade-bearing soft sediment up to depths of over 50 m, where limestone was intercepted.

The Santa Clara and Caligüey models are based on a simple population of data and the geometry of the model is confined to the salar boundary up to 5 m from surface (base of pitting); there is therefore a high level of geological continuity. A limited number of RC drillholes has suggested potentially economic grade-bearing soft sediment up to depths of 60 m, but the nature of this material is unsupported by adequate data and has not yet been modelled.

The La Salada model has added complexity due to separate lithium and potassium populations observed in the data. The geological continuity of the high- and low-lithium domains is sometimes low and infill drilling in this deposit is certainly warranted to understand the 3D continuity further.

To summarise, the depth extent of the mineralised sediment for all deposits is currently untested, though geophysics and limited deep drilling suggests the total depth is probably much deeper than currently modelled in this MRE. There is therefore excellent potential to increase the Mineral Resource extent through deep and extensional drilling.

## 14.6 Statistical Analysis

### 14.6.1 Domain analysis

Following the geological modelling, a statistical analysis was undertaken to check the domains generated are robust with single populations of data. Summary statistics for potassium and lithium are provided in Table 14-2 to Table 14-4, with histograms and scatterplots provided above in Section 14.5.2 and 14.5.3. The statistics show that the coefficient of variation (“CoV”, which is the variability of the data normalised to the mean value) for all domains is between 0.2 and 0.7, which is low and indicates a low degree of variability within the domains. This implies that the mineralised sediments have been well constrained by the modelling and coding.

The histograms show that, in general, the populations demonstrate near-normal to positively skewed distributions, with a minor number of higher-grade outliers. The exception is the Caligüey potassium grades, which have a long tail of higher grades, which may be able to be domained separately with higher data density. SRK has taken the decision not to apply any high-grade capping to any data.

**Table 14-2: La Salada composite drillhole/pits statistics by domain**

Domain	Grade	Count	Minimum	Maximum	Mean	StDev	CoV
K	K (%)	366	1.46	9.0	5.4	1.3	0.2
	Li (ppm)	366	93	1,882	479	243	0.5
LI_HG	K (%)	389	0.5	7.7	2.5	0.7	0.3
	Li (ppm)	389	363	2,360	1,479	347	0.2
LI_LG	K (%)	167	0.1	6.2	2.0	1.0	0.5
	Li (ppm)	167	25	1,778	728	346	0.5

**Table 14-3: Santa Clara pitting statistics by domain**

Grade	Count	Minimum	Maximum	Mean	StDev	CoV
K (%)	848	1.25	6.6	4.5	1.0	0.2
Li (ppm)	1907	16	850	258	97	0.4

**Table 14-4: Caligüey pitting statistics by domain**

Grade	Count	Minimum	Maximum	Mean	StDev	CoV
K (%)	1497	0.1	10.0	3.8	2.1	0.5
Li (ppm)	1497	32	2590	334	241	0.7

### 14.6.2 Compositing

For the Santa Clara and Caligüey estimates, all samples were 1 m pit samples and so no compositing has been undertaken.

For La Salada, the pitting samples were 1 m and auger samples 1.5 m and so all samples were composited to 1.5 m length to ensure equal sample support.

### 14.6.3 Comments and description of domain robustness

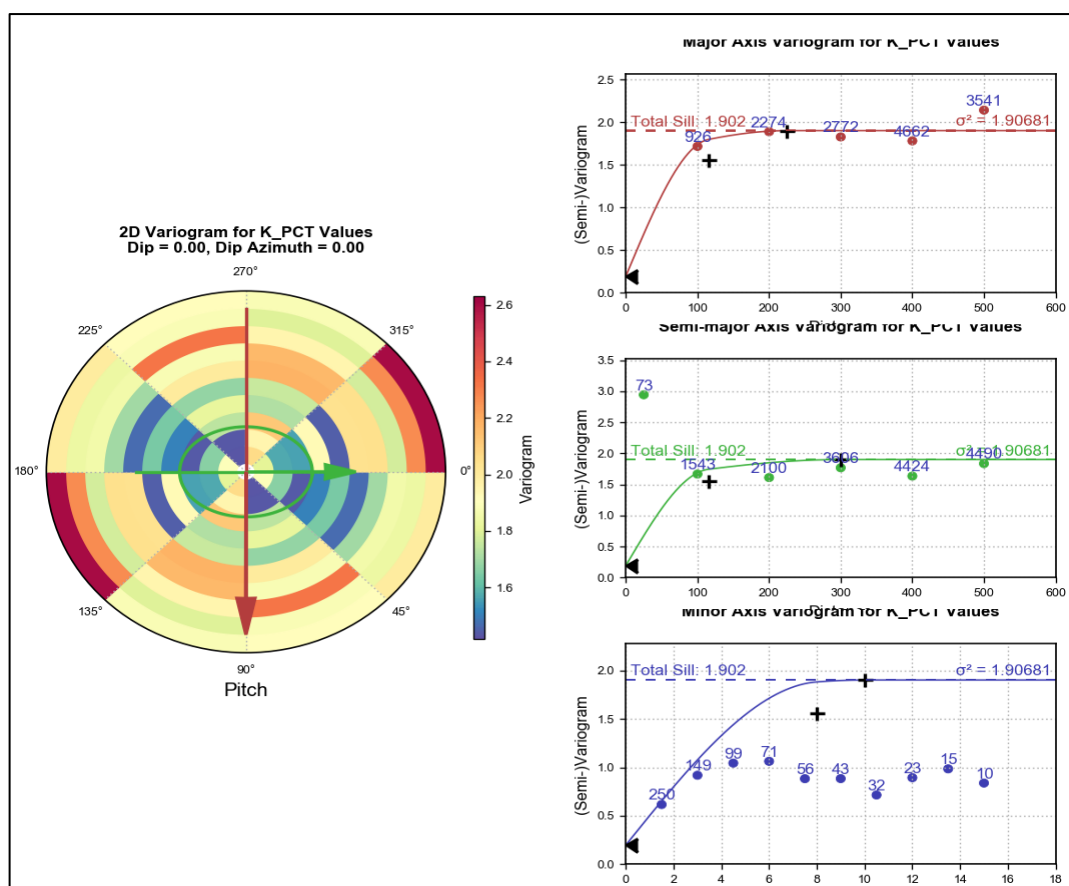
In SRK's opinion, the geological modelling has produced adequately domained datasets, which are statistically robust. For La Salada, there is a higher level of complexity due to the generation of separate domains, which has resulted in discontinuous zones and some population mixing. For the current level of data density this is considered reasonable and it is expected this could be improved with infill drilling.

## 14.7 Geostatistical/Variography Study

A geostatistical study was only undertaken for La Salada due to the grade variability observed and a more 3D geometry extending up to 25 m depth. Santa Clara and Caligüey were modelled in a simple fashion due to the restricted depth of analysis and so variography was not considered appropriate at this stage.

The variography was undertaken in Leapfrog Geo by first undertaking variogram continuity analysis (through a 2D variogram map) and then generating variograms along the principal (major), semi-major and minor axes of continuity. The variograms were then modelled to fit a nugget variance and other spherical structures to the data. An example of the variograms generated is provided in Figure 14-17 and the complete set of variograms generated is provided in Table 14-5.

In general, the quality of the variograms is not high due to the current drillhole spacing and discontinuous nature of the lithium domains in particular. Again, higher data density will help to improve the variography and resulting grade estimates.



**Figure 14-17: Variogram map and variograms in major (top), semi-major (middle) and minor (bottom) axes for K (%) in the high-K domain**

**Table 14-5: La Salada Variogram Parameters**

Domain	Variable	Direction	Nugget (C0) %	1 <sup>st</sup> Sill (C1) %	Range 1	2 <sup>nd</sup> Sill (C2) %	Range 2
K	K (%)	Major	10%	71%	115	18%	225
		Semi-major			115		300
		Minor			8		10
	Li (ppm)	Major	8%	40%	220	52%	510
		Semi-major			110		500
		Minor			5		7
Li LG	K (%)	Major	8%	43%	250	49%	900
		Semi-major			150		400
		Minor			5		10
	Li (ppm)	Major	24%	76%	500		
		Semi-major			300		
		Minor			10		
Li HG	K (%)	Major	10%	67%	110	23%	515
		Semi-major			150		175
		Minor			5		6
	Li (ppm)	Major	31%	34%	225	35%	500
		Semi-major			110		250
		Minor			5		10



## 14.8 Block Model

### 14.8.1 Block Model set-up

The wireframes that were created using a gridding algorithm in Datamine for Santa Clara and Caligüey, and based on domaining in Leapfrog for La Salada, were used to code a block model of framework as shown Table 14-6. The block size being chosen on the basis of the drill spacing, mineralisation thickness and subsequent quality and reliability of local block estimates.

Sub-blocking methodology was employed to ensure the model geometry fitted the interpreted wireframes to a sufficient degree of accuracy.

**Table 14-6: Block model framework**

Salar	Axis	Origin (NAD27)	Block Size	No. Blocks	Min Sub-block Size
La Salada	X	716200	50	54	10
	Y	2591600	50	76	10
	Z	2010	1.5	36	0.5
Santa Clara	X	787800	100	48	20
	Y	2578200	100	52	20
	Z	1808	1	40	0.5
Caligüey	X	780100	50	50	10
	Y	2573800	50	50	10
	Z	1920	1	50	0.5

### 14.8.2 Grade estimation

Ordinary Kriging (“OK”) was used for the grade estimation of potassium and lithium at La Salada and inverse distance squared (“IDW<sup>2</sup>”) for Santa Clara and Caligüey. In addition, boron was estimated into all three block models using IDW<sup>2</sup>.

The search parameters used for grade estimation are detailed in Table 14-7. The first search volume distances used for the estimates are based on approximately 2/3 the variogram extents (for La Salada) and sampling configuration. The second search volume doubles the first search distances to include other blocks in low data density areas to ensure all blocks are estimated. For Santa Clara and Caligüey, due to the 5 m maximum vertical limit of the model, tight restrictions were used in the vertical direction (1 m radius / 2 m diameter).

In order to limit the influence of single drillholes on each estimate, a maximum number of samples per drillhole has been specified so that the block estimate requires a minimum of two drillholes and the vertical grade profile is honoured. The maximum number of samples per drillhole is specified as three to maintain the thin nature of the vertical grade profile and to honour the lateral continuity of the higher and lower grade bands instead of vertically over smoothing.

**Table 14-7: Search parameters applied during grade interpolation**

Domain	Element	Search No.	Maj Axis Radius (m)*	Semi-maj Axis Radius (m)*	Minor Axis Radius (m)*	Min Samps	Max Samps	Max No. Samples per hole
LS: K	K	1	250	200	10	5	20	3
		2	500	400	10	5	20	-
LS: Li (low)	K	1	600	300	10	5	20	3
		2	1200	600	10	5	20	-
LS: Li (high)	K	1	350	150	10	5	20	3
		2	-	-	-	-	-	-
LS: K	Li	1	350	350	10	5	20	3
		2	700	700	20	5	20	-
LS: Li (low)	Li	1	350	200	10	5	20	3
		2	-	-	-	-	-	-
LS: Li (high)	Li	1	350	150	10	5	20	3
		2	700	300	10	5	20	-
Santa Clara	K+Li	1	250	250	1	5	20	3
		2	500	500	2	5	20	3
Caligüey	K+Li	1	150	150	1	5	20	3
		2	300	300	2	5	20	3

\*Note: major axis for La Salada orientated north-south, semi-major - west-east and minor – vertically.

### 14.8.3 Tonnage estimation

In order to generate tonnage estimates, a static in-situ dry bulk density of 1.3 g/cm<sup>3</sup> has been used for Caligüey and Santa Clara and 1.0 g/cm<sup>3</sup> for La Salada. SRK deems this a potentially conservative estimate due to the relatively untested variation in density with depth.

As described in the section on density measurement description (Section 12.6), further density measurements particularly at depth are required to ensure density values are representative of the entire mineralised sediment package rather than just the surface.

### 14.8.4 Comments and description of grade continuity

The grade estimates are based on gridded drilling and pitting data, which has provided a consistent estimate throughout the models. The grade distribution is variable in all directions, particularly for La Salada currently given the increased data density at depth. However, the low CoV of the data suggests a relatively low grade variability and high continuity, which is also demonstrated by the long variogram ranges at La Salada.

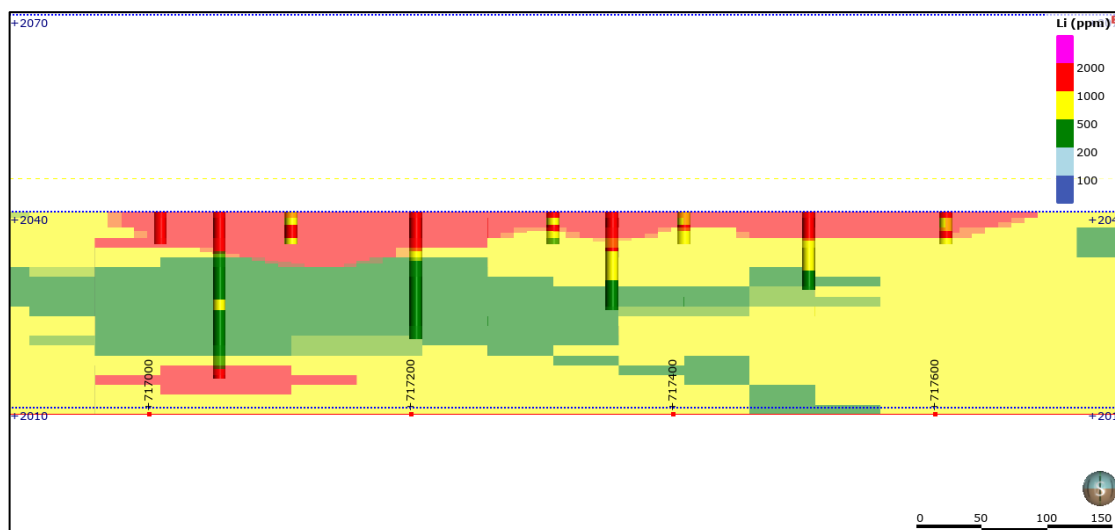
### 14.8.5 Validation of Models

SRK has validated the block model using the following techniques:

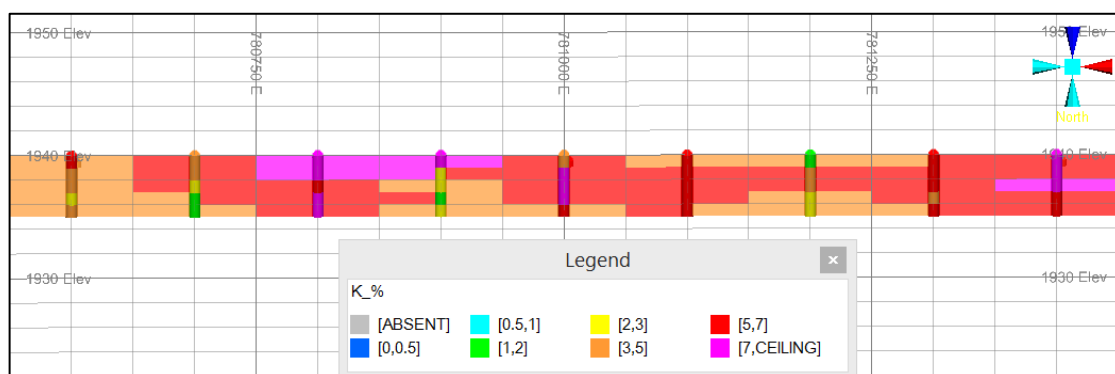
- visual inspection of block grades in comparison with drillhole data;
- sectional validation of the samples grades in comparison to the model grades; and
- comparison of block model statistics.

### Visual Validation

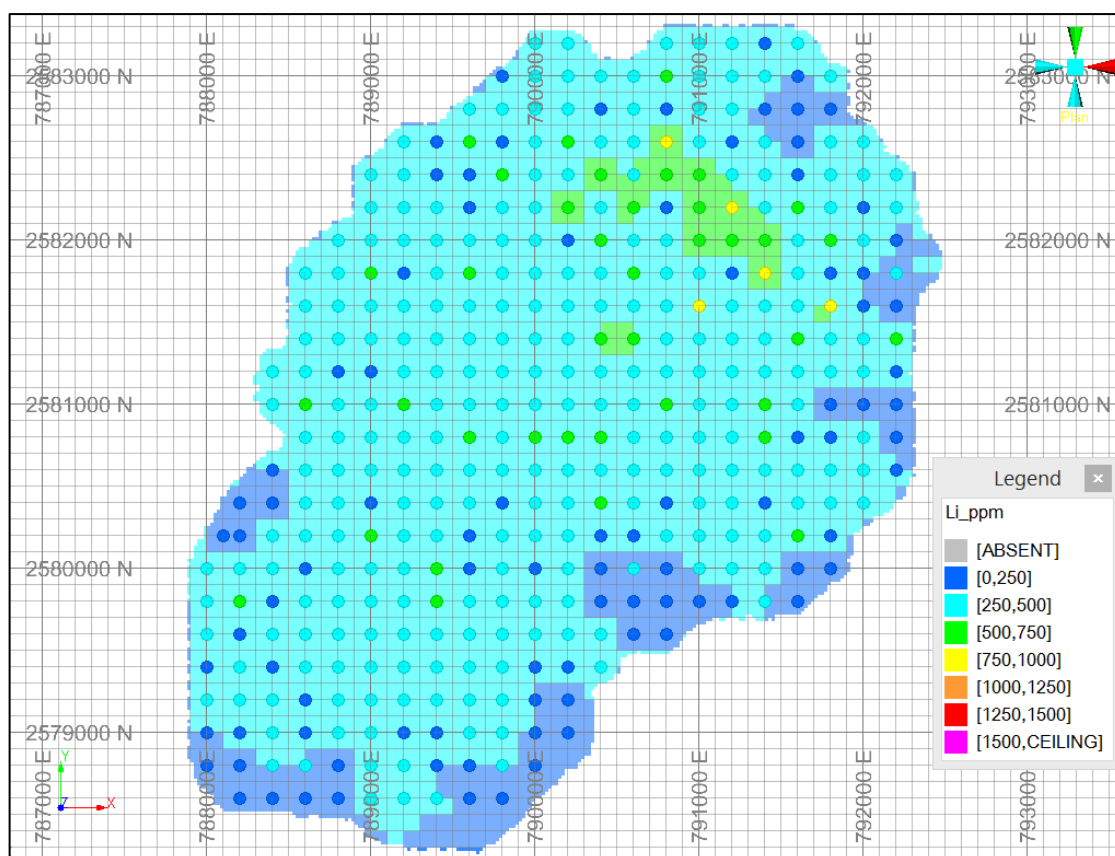
Local validation of the interpolated block model on a local block scale was achieved using visual assessments and validation of sample grades versus estimated block grades. A thorough visual inspection of cross-sections, long-sections and level plans, comparing the sample grades with the block grades has been undertaken, which demonstrates good comparison between local block estimates and nearby samples, without excessive smoothing in the block model. An example of a cross-section through La Salada and Caligüey are shown in Figure 14-18 and Figure 14-19, respectively. A level plan section through Santa Clara is shown in Figure 14-20.



**Figure 14-18: Cross-section (Y: 2593200, looking north) through La Salada with block model and samples coloured by Li (ppm). Vertical exaggeration x 5**



**Figure 14-19: Cross-section (Y: 2575100, looking north) through Caligüey with block model and samples coloured by K (%). Vertical exaggeration x 10**



**Figure 14-20: Plan view (Z: 1899 m) of Santa Clara block model and samples coloured by Li (ppm)**

#### *Sectional Validation*

As part of the validation process, the input sample grades are compared to the block model grades within a series of coordinate sections. The results are then displayed on graphs to check for visual discrepancies between grades.

Figure 14-21 displays the results for potassium (%) within the high-potassium domain of La Salada and Figure 14-22 displays lithium (ppm) within the high-lithium domain; both for the northing (Y) direction. The graphs show the block model and sample grades and the block model volume within each slice (in this case: 2 slices, or 100 m, which is the sample spacing). The plots generally show a good correlation between the block model grades and the sample grades, with the block model showing a typically smoothed profile. The plots confirm that no material bias has been introduced, and generally display an adequate degree of smoothing.

Due to the almost circular shape of the Santa Clara and Caligüey salars, the swath plots are less meaningful than the more north-south elongated La Salada deposit. As a result, the swath plots in both the easting or northing directions are not particularly valid and are not displayed herein.

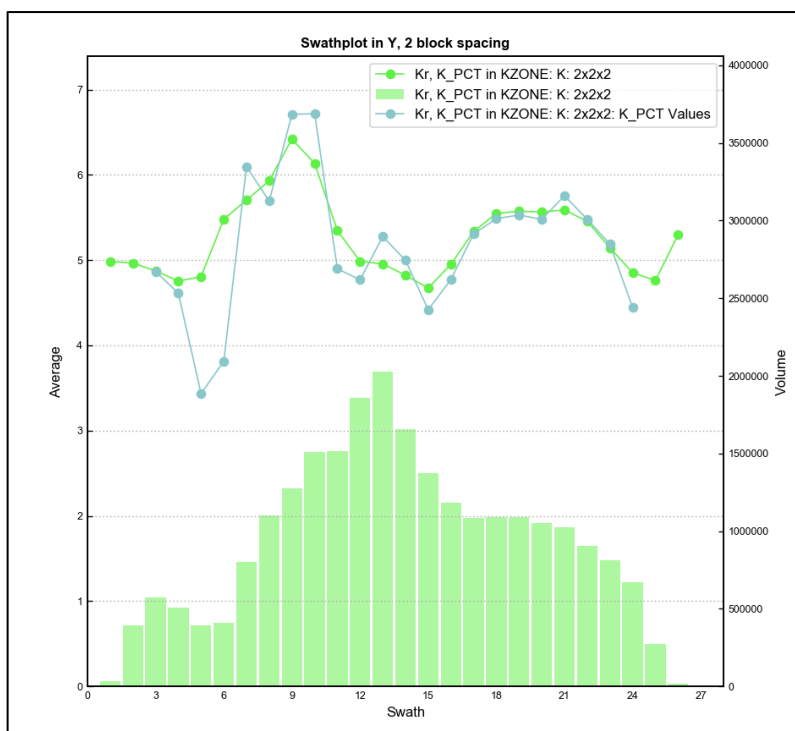


Figure 14-21: Northing (Y) swath plot for K (%) within La Salada K domain

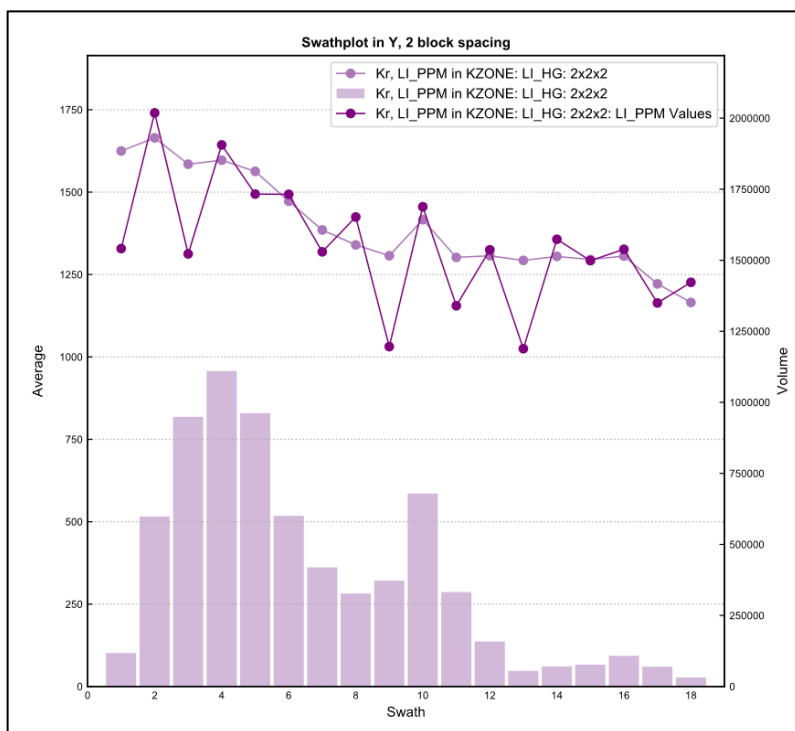


Figure 14-22: Northing (Y) swath plot for Li (ppm) within La Salada high-Li domain

## Statistical Validation

A statistical validation of the interpolated block model has been undertaken; with comparison is made between drillhole grades and the OK grade estimate. In general, the samples compare well with the block model estimates, with no sign of any bias, and therefore validating the estimated grades. Histograms showing a comparison of drillholes compared to block model grades are shown in Figure 14-23, Figure 14-24 and Figure 14-25 for La Salada, Santa Clara and Caligüey, respectively. The block model histograms show reduced variance but similar mean grades, as expected.

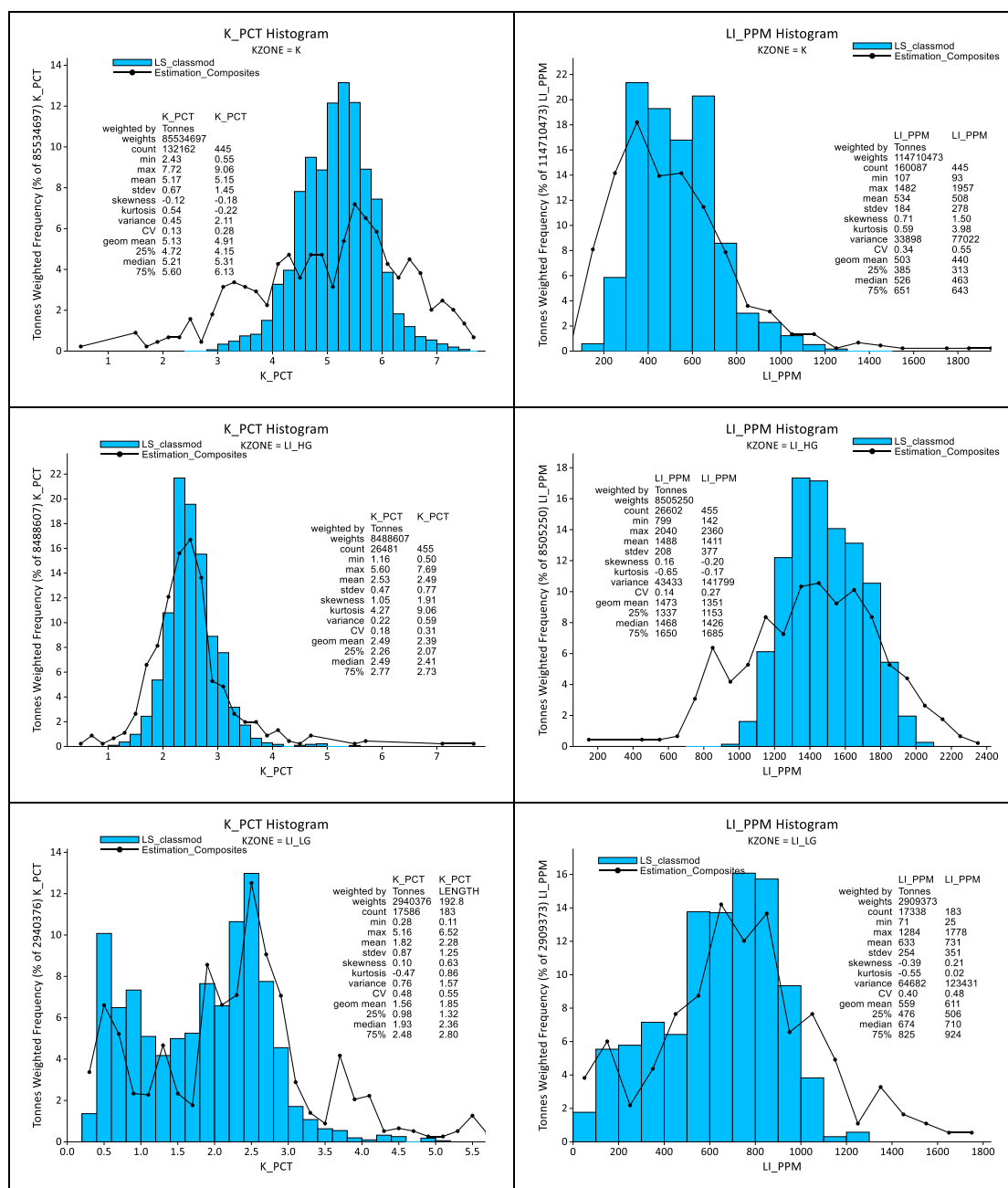
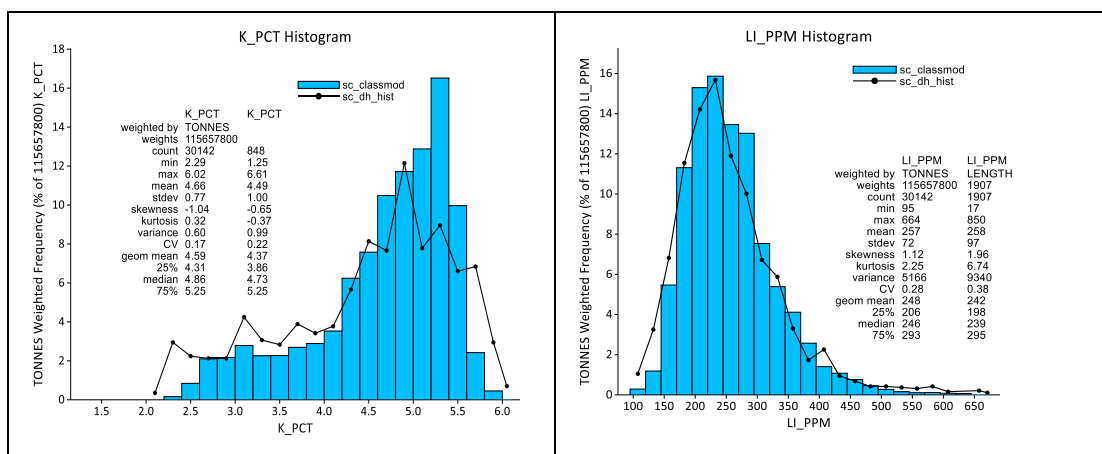
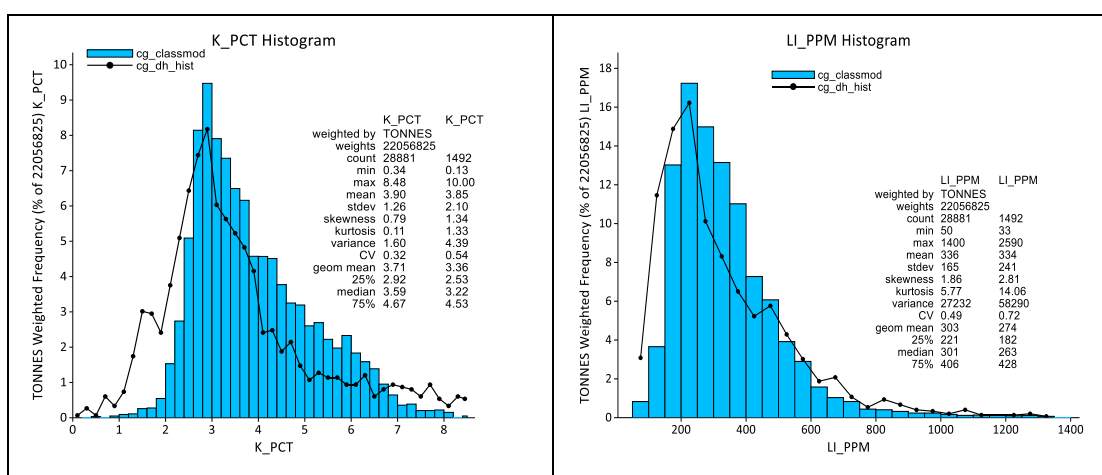


Figure 14-23: Histogram of drillhole grades (black line) compared to block model grades (blue bars) for K (%) and Li (ppm) at La Salada





**Figure 14-24: Histogram of drillhole grades (black line) compared to block model grades (blue bars) for K (%) and Li (ppm) at Santa Clara**



**Figure 14-25: Histogram of drillhole grades (black line) compared to block model grades (blue bars) for K (%) and Li (ppm) at Caliguéy**

## 14.9 Mineral Resource Classification

### 14.9.1 Introduction

Block model tonnage and grade estimates have been classified according to the CIM Definition Standards for Mineral Resources and Mineral Reserves.

Mineral Resource classification is typically a subjective concept considering the confidence in the geological continuity of the mineralised structures, the quality and quantity of exploration data supporting the estimates and the geostatistical confidence in the tonnage and grade estimates. Appropriate classification criteria should ideally integrate these concepts to delineate contiguous areas with similar resource classification.

### 14.9.2 Application

The block models have been classified in the Inferred Mineral Resource category as defined by CIM. The classification has considered the geological and grade continuity, data quantity, data quality, and estimation quality/confidence as a minimum, and is not just dependent on sample spacing.

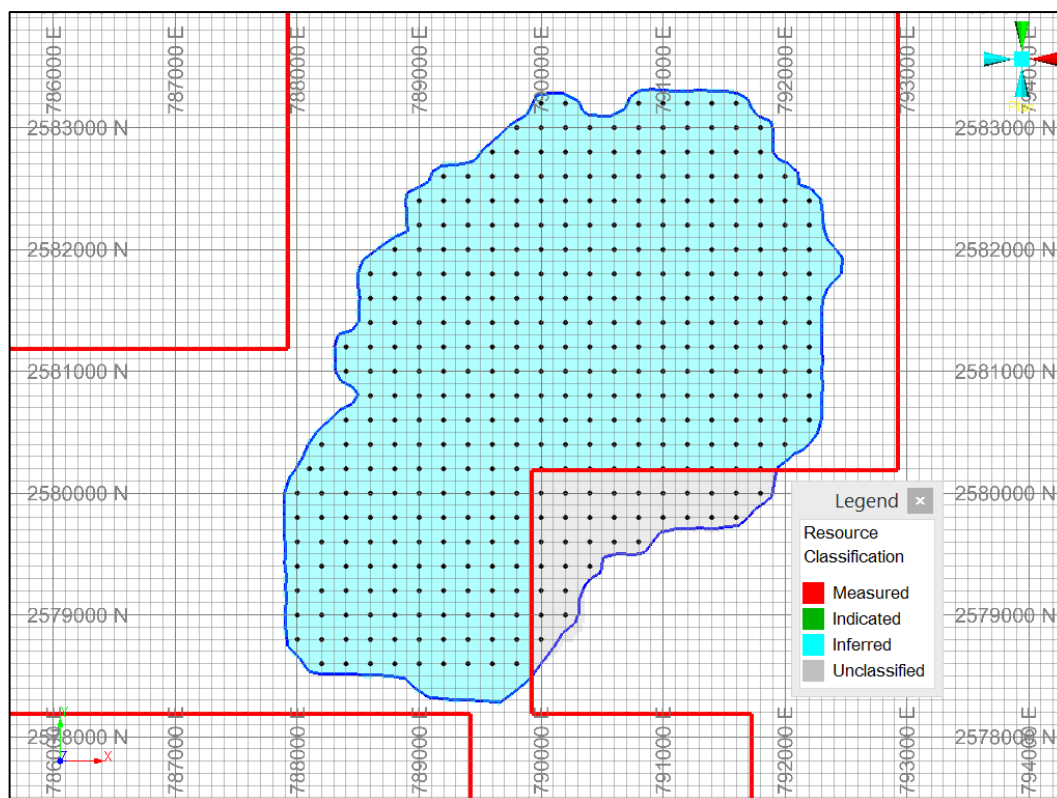
The following presents SRK's opinions on the classification:

- **Geological Continuity:** there is sufficient sample data to correlate the mineralised samples between drillholes/pits due to the highly continuous nature of the salars. Some doubts still exist with the exact boundaries of the salars, particularly for La Salada where the sampling has not been fully extended to the salar edges. For Santa Clara and Caligüey, the sampling is restricted to 5 m depth, all of which is modelled as mineralised material. For La Salada, the deeper 2017 auger drilling has allowed for the model to be extended up to 26 m from the surface and multiple grade-based domains are evident, which do not appear to correlate with logged lithology types. The geological continuity is therefore considered to be high.
- **Grade Continuity:** the thin, laterally extensive nature of these deposits shows high continuity in the X-Y orientations and higher variability in the Z direction, but with multiple grade domains evident (particularly for La Salada). The grade continuity is therefore considered to be moderate overall.
- **Data Quantity:** Litio Mex pitting information was collected on drilling grid of 100 m spacing at La Salada and Caligüey to 200 m spacing in Santa Clara. A moderate to high level of confidence can be attained by the geological and grade modelling at this data spacing. A minor number of density measurements from drill core and pits have also been conducted, which are not representative of the entire salar areas, and therefore SRK has a low level of confidence in the tonnage estimate.
- **Data Quality:** issues with the Lithio Mex data have been identified, including a lack of QA/QC, poor umpire laboratory duplicate analysis results, assaying methodology biasing boron (La Salada) and potassium (Santa Clara) grades and a general lack of boron analyses. The 2017 Alset exploration has provided higher-quality data with reasonable QA/QC results; however, the limited depth of Alset's sampling at Santa Clara and Caligüey means that Alset data was only utilised for the La Salada estimate. No detailed topography, collar elevation or down-hole surveys have been completed, though SRK does not believe this to be a material issue given the flat-lying nature of the salars, current sample spacing and depth of drilling. Overall, the general data quality used for the MREs is considered to be of low quality.
- **Estimation Quality:** grade estimates are considered to be of high-confidence given the sample spacing coupled with the grade continuity supported by the geostatistical study.

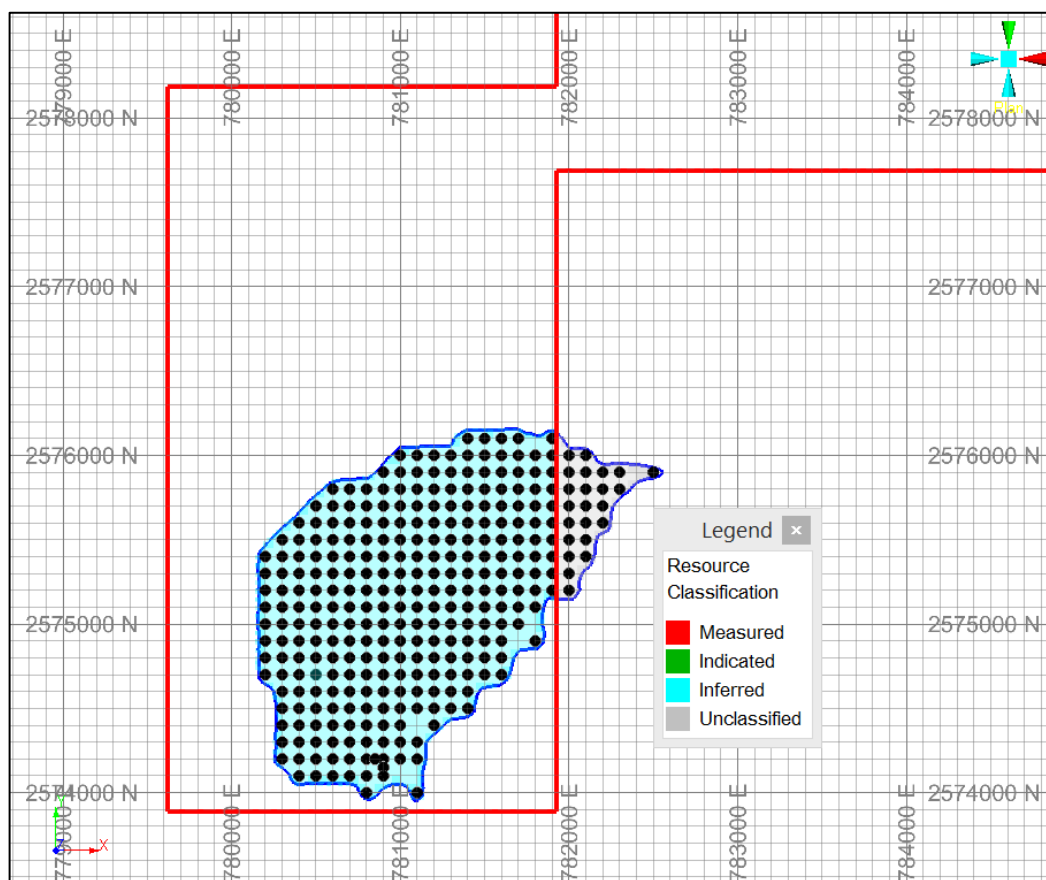
Based on the analysis above, SRK considers that the mineralised sediments in the salar deposits have been delineated with sufficient confidence to allow for Inferred Mineral Resources to be declared.

All material within ½ pit spacing of the Litio Mex pitting for Santa Clara and Caligüey has been classified as Inferred, as shown in Figure 14-26 and Figure 14-27 for Santa Clara and Caligüey, respectively.

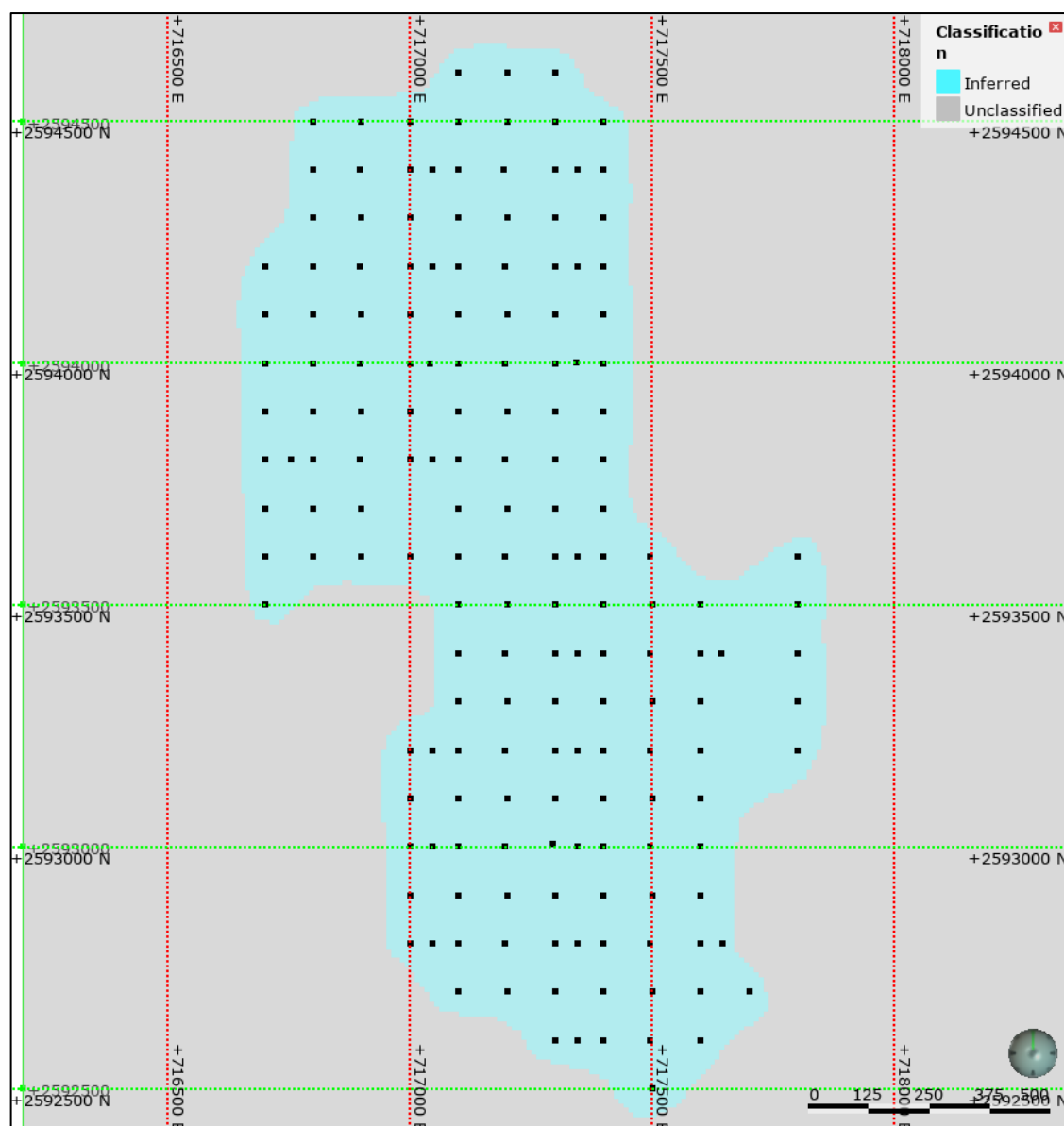
The geological model interpreted by deeper drilling at La Salada is less well-supported by sampling and therefore a significant quantity of this material is not currently classified. A wireframe surface was generated from the base of the 2017 drilling and forced towards the surface in areas of no Alset drilling. This, in conjunction with the model boundary string, was used to define Inferred Mineral Resources, as shown in the block model in plan view in Figure 14-28 and in 3D view in Figure 14-29.



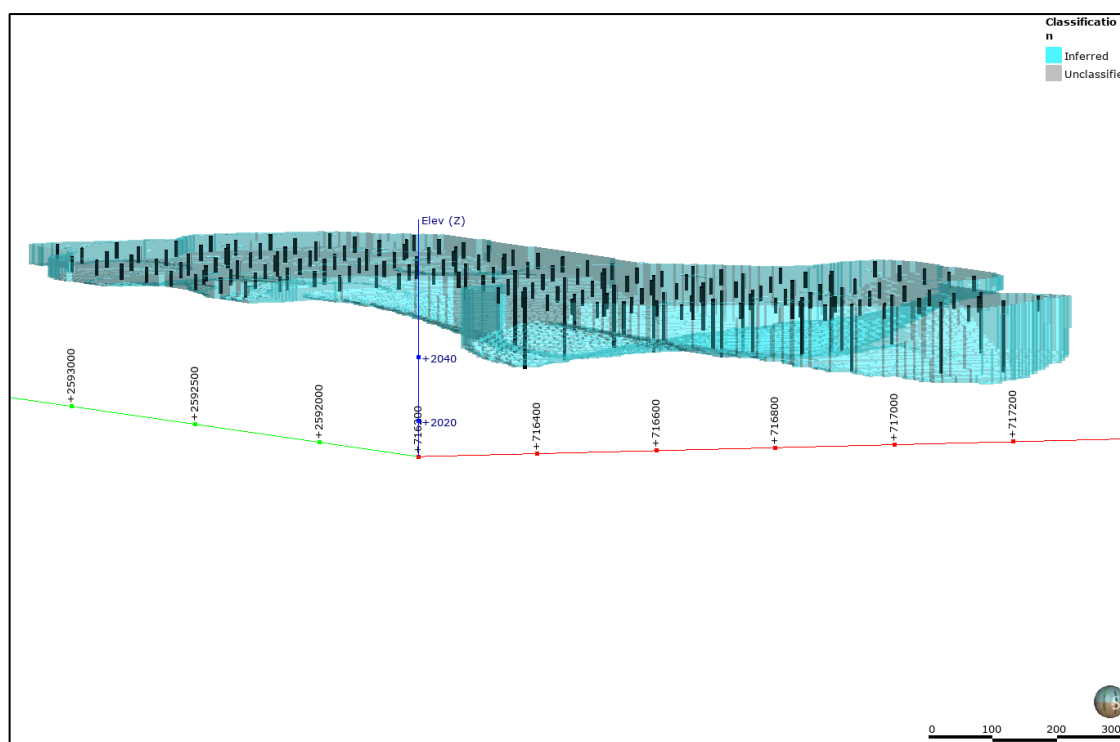
**Figure 14-26: Plan view of the Santa Clara block model coloured by Mineral Resource classification with 'Sutti 19' claim boundary (red) and pit collars (black)**



**Figure 14-27: Plan view of the Caligüey block model coloured by Mineral Resource classification with 'Sutti 19' claim boundary (red) and pit collars (black)**



**Figure 14-28: Plan view of La Salada block model coloured by Mineral Resource classification showing pit/drillhole collars (black)**



**Figure 14-29: 3D view (looking northeast) of La Salada block model coloured by Mineral Resource classification showing pits/drillholes (black)**

## 14.10 Economic Assessment

SRK has utilised the preliminary testwork results, prior experience, and an analogous project (Cerrado Verde) to generate potential metal recovery and associated costs of producing both potassium and lithium product. It is assumed that the potassium can generate a SOP product and the lithium a LCE product. The costs were used in conjunction with reasonable selling prices to generate a potential value (in USD) per block within each block model. The parameters used to generate the potential value per block in the resource model are provided in Table 14-8.

**Table 14-8: Potential value calculation parameters**

Item	Unit*	Value	Basis
Potassium recovery to SOP	%	75	Analogous project and SRK experience
Lithium recovery to LCE	%	75	Analogous project and SRK experience
Li to LCE Conversion	Multiplier	5.32	Known
K to SOP Conversion	Multiplier	2.23	Known
K Processing Cost (including general and admin)	USD/t <sub>insitu</sub>	30.00	Analogous project and SRK experience
Incremental Li Processing Cost	USD/t <sub>insitu</sub>	5.00	SRK experience
Mining Cost	USD/t <sub>insitu</sub>	2.00	SRK experience
SOP Selling Price	USD/t <sub>product</sub>	600	Optimistic price
LCE Selling Price	USD/t <sub>product</sub>	10,000	Optimistic price
Selling Royalty	%	3	Current Mexican royalty on industrial minerals projects

\*Note: USD/t<sub>insitu</sub> represents per tonne of mineralised material feed from the mine to the plant.

The Mineral Resource statement was generated by reporting all blocks demonstrating positive potential USD value, as shown in the calculation below:

$$\text{Potential Value (USD)} = \text{Total K + Li Revenue (USD)} - \text{Total K + Li Operating Costs (USD)}$$

## 14.11 Mineral Resource Statement

The Mineral Resource statement for the three OrganiMax salars estimated by SRK is provided in Table 14-9.

The Mineral Resource estimate is based on exploration results from mapping, pitting and drilling finalised on 22 October 2018 and technical economic inputs finalised by SRK on 17 December 2018.

The Mineral Resource statement represents the material which SRK considers demonstrates 'reasonable prospects for eventual economic extraction' ("RPEEE") by undertaking a preliminary economic analysis of each salar. The statement has been classified in accordance with the terminology, definitions and guidelines given in the Canadian Institute of Mining, Metallurgy and Petroleum Definition Standards for Mineral Resources and Mineral Reserves (May 2014) and has been reported in accordance with NI 43-101, by the Qualified Person, Mr Martin Pittuck (MSc., CEng., MIMMM). Mr Pittuck is a consultant who is independent of OrganiMax.

SRK is not aware of any additional factors (environmental, legal, title, taxation, socio-economic, marketing, political, or other relevant factors) that have materially affected the Mineral Resource estimate.

The tonnage and grade of Inferred Mineral Resources are uncertain and there has been insufficient exploration to define these Inferred Mineral Resources as an Indicated or Measured Mineral Resource. It is reasonable to expect that the majority of Inferred Mineral Resources could be upgraded to Indicated with continued exploration and testwork.

A separate statement is provided in Table 14-10 for La Salada to demonstrate the different grades within the three modelled domains (high-potassium, high-lithium and low-lithium) and to highlight the potential to mine a higher-lithium product at La Salada. It should be noted that SRK's analysis of economic potential was driven by potassium as the primary commodity and a standalone lithium project was not considered.

SRK notes that no Prefeasibility or Feasibility Studies have been completed on the salars to date. The underlying costs and selling price assumptions were solely for use in the Mineral Resource reporting process for establishing RPEEE of the mineralised body and do not establish the economic viability and technical feasibility of the salars.



**Table 14-9: Mineral Resource statement as of 17 December 2018\***

Salar	Mineral Resource Category	Tonnes (Mt)	K (%)	Li (ppm)
La Salada	Inferred	20	4.1	880
Santa Clara		85	4.8	264
Caligüey		15	4.3	373
<b>Total</b>		<b>120</b>	<b>4.6</b>	<b>380</b>

\*Notes:

1. Mr. Martin Pittuck, CEng, MIMMM, FGS, is responsible for this Mineral Resource statement and is an "independent qualified person" as such term is defined in NI 43-101.
2. Mineral Resource is reported above breakeven value of USD 37/t; calculated using potassium and lithium grades, recoveries, operating costs and selling prices on a block-by-block basis.
3. Mineral Resource is considered to have reasonable prospects for eventual economic extraction by open pit surface mining.
4. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability
5. The statement uses the terminology, definitions and guidelines given in the CIM Standards on Mineral Resources and Mineral Reserves (May 2014) as required by NI 43-101.
6. Effective date of 17 December 2018.
7. MRE is reported on 100% basis.
8. Tonnes are reported as dry and in metric units.

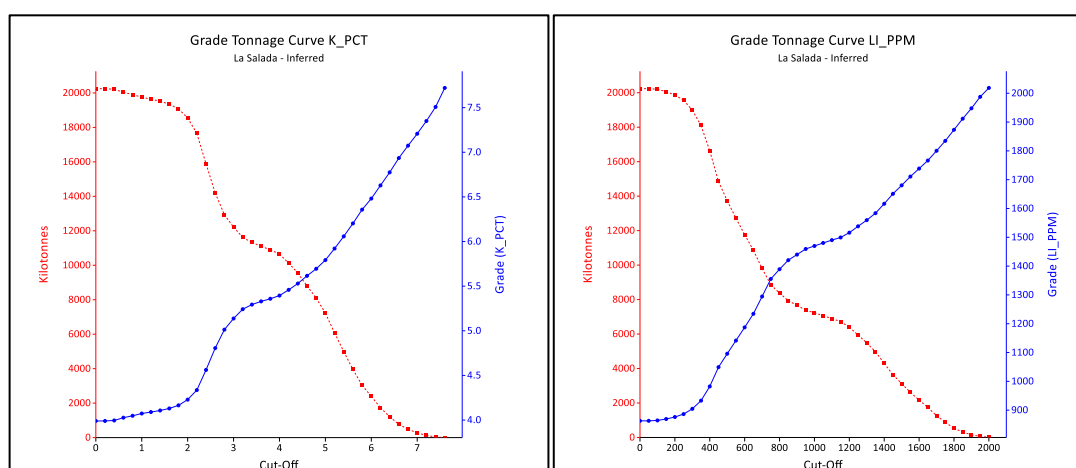
**Table 14-10: La Salada Mineral Resource Statement\***

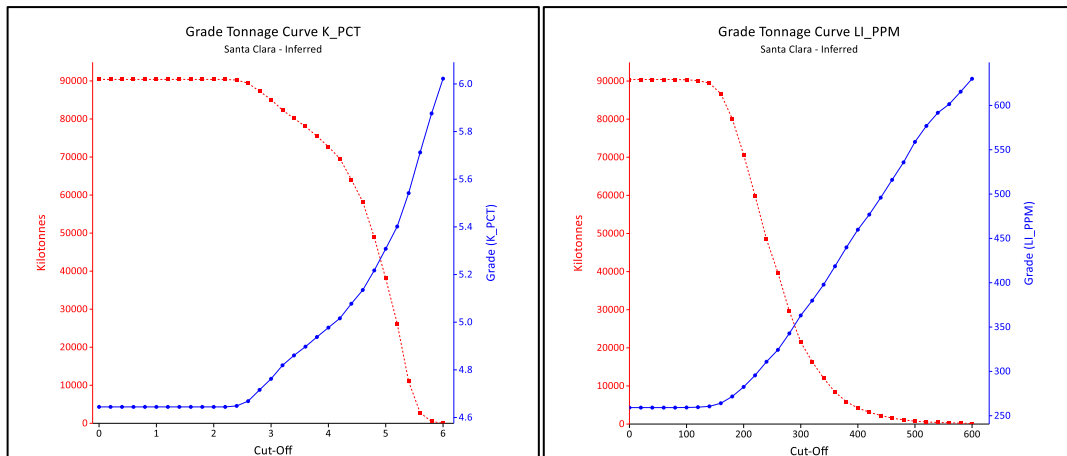
Domain	Tonnes (Mt)	K (%)	Li (ppm)
Potassium	11	5.3	518
High-Lithium	7	2.5	1,488
Low-Lithium	2	2.3	782
<b>Total</b>	<b>20</b>	<b>4.1</b>	<b>880</b>

\*Notes: as for Table 14-9.

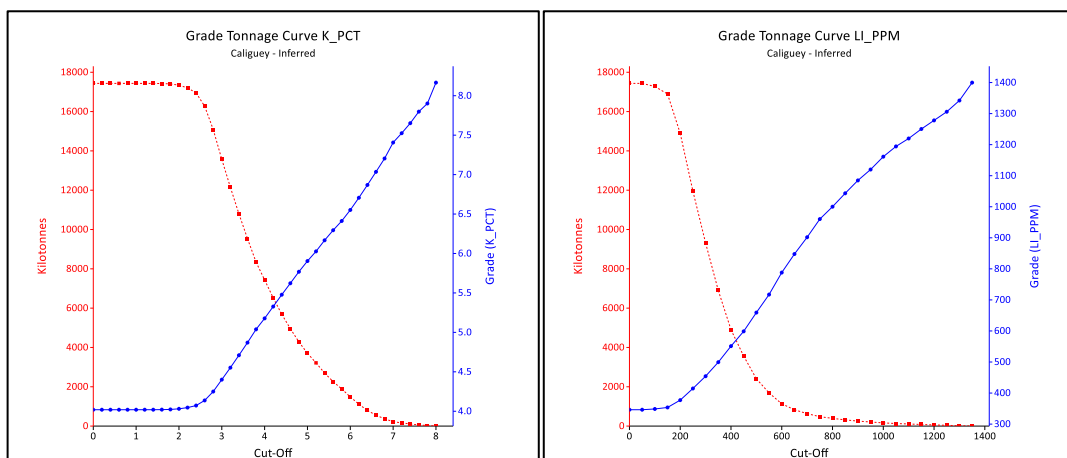
## 14.12 Grade-Tonnage Curves

The Mineral Resources stated in this report is sensitive to the grade of each block within the models, which determines the estimated potential value (and therefore Mineral Resource cut-off). To illustrate this sensitivity and the grade variability, the block model tonnage and grade at different cut-off grades within each model (block classified as Inferred only) are presented in Figure 14-30 to Figure 14-32.

**Figure 14-30: Grade-Tonnage Curves for La Salada**



**Figure 14-31: Grade-Tonnage Curves for Santa Clara**



**Figure 14-32: Grade-Tonnage Curves for Caligüey**

### 14.13 Comparison with Previous Mineral Resource estimates

A 'preliminary mineral inventory' (not a term accepted by the CIM guidelines) was generated for La Salada, Caligüey, and Santa Clara by Behre Dolbear on behalf of Litio Mex in 2012. SRK does not believe these results should be reported herein as they do not adhere to CIM terminology and guidelines; however, it should be noted that the in situ volumes and grade reported are similar to those found herein with the exception of La Salada, which is now larger due to the recent deeper Alset drilling.

### 14.14 Exploration Potential

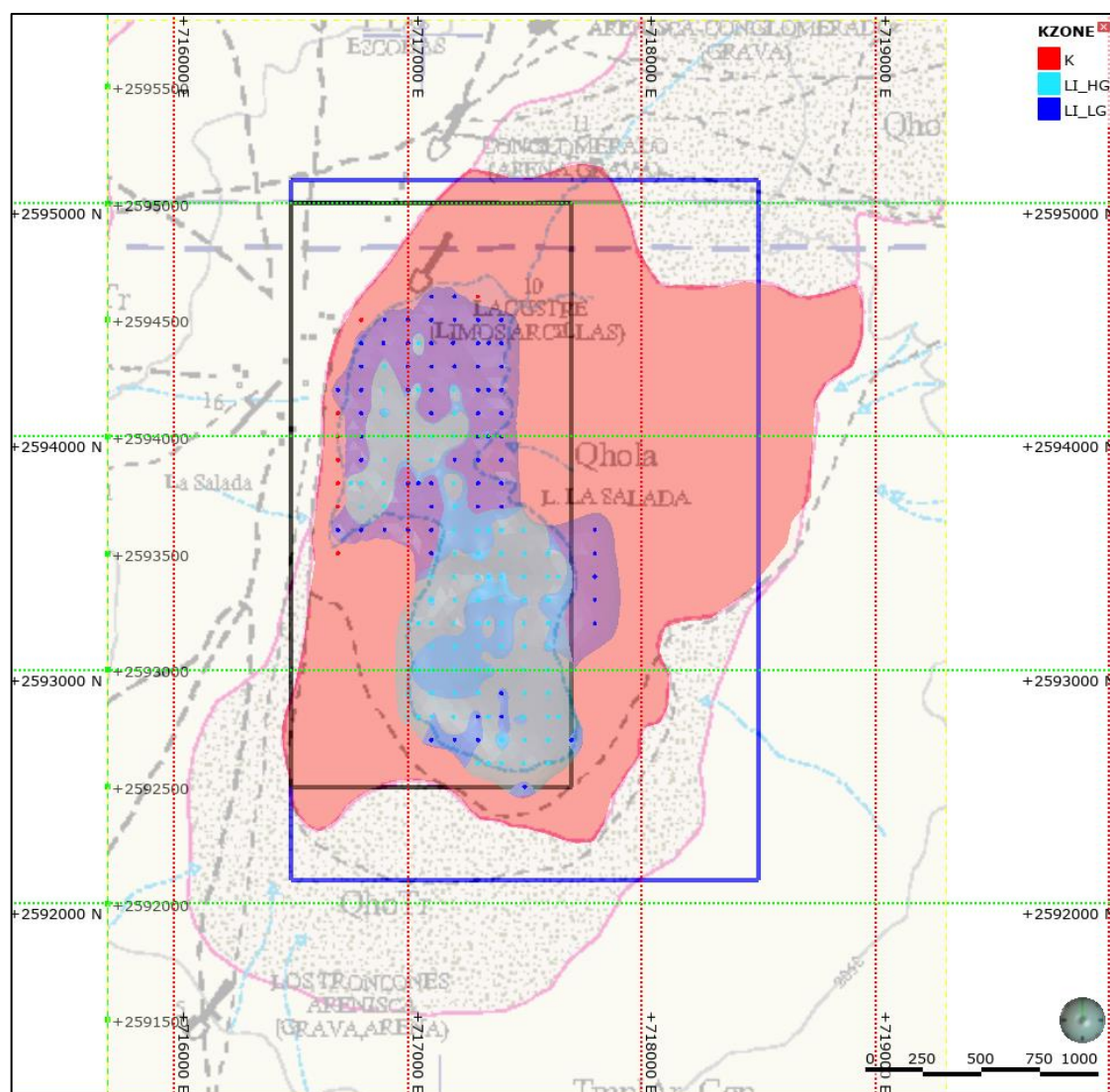
#### 14.14.1 Sediment

The geological modelling undertaken was driven by the pitting and drilling completed to date. Geophysical surveys have been completed and these suggest that there is potential for additional similar layers of potassium- or lithium-enriched material to be found under the current pitting/drilling (as demonstrated by recent deeper drilling at La Salada); however, the Mineral Resource models are restricted to the depth of the sampling which means there is potential to extend the models deeper with deeper sampling.

Alset's deepest drillhole intersected potassium and lithium (and boron) bearing soft sediment at depths of up to 51 m from surface. The deeper material is generally potassium-rich and lithium-poor and is open in all directions but will be geologically restricted to the salar basin. The current drilling is focussed in the area which is currently ephemerally flooded; however, there is potential for economically-interesting material to exist within the currently untested greater salar basin area.

At La Salada, the currently drilled area does not cover the extent of the mapped salar basin, as demonstrated in Figure 14-33. The area depicted in red shows the extent of the lacustrine sediment, with the current drillhole collars and exploration claim boundaries. The drilling covers the currently active salar basin, with the extensions historically active salar areas.

In addition to the three salars for which MREs are reported herein, there are an additional 12 salars, which currently have not had sufficient exploration data conducted to date to generate an MRE or report a Mineral Resource. Table 14-10 summarises the outlined salar size (area), number of samples taken to date, and Organimax's priority rating of each salar (based on prospectivity). SRK has undertaken a high-level review of the grade data for these additional salars, most of which demonstrate relatively low lithium and potassium values (compared to La Salada, see Table 9-2 and Table 9-3). A number of these salars may warrant further verification and infill sampling to fully understand the grade variability, particularly those with elevated potassium and lithium. The area of the salars is an estimate based on satellite photography and is not defined by sampling.



**Figure 14-33: La Salada geological map, 3D geological model, drillhole collars and claim boundaries (black = 24; blue = 25)**

**Table 14-11: Summary of salar area, exploration priority and samples taken**

Name of Salar	Claim	Area of Salar within Claim (Ha)	Priority (1 = high)	Historical Samples	2017 Samples
Santa Clara	Sutti 19	1,593	1	848	59
La Salada	Sutti 24,25	591	1	711	428
Caligüey	Sutti 19	219	1	1,512	36
Saldivar	Sutti 19	200	2	170	28
Colorada	Sutti 19	111	2	170	30
Chapala	Sutti 22	453	3	?	7
El Salitral	Sutti 21	308	4	10	5
Hernandez	Sutti 20	286	5	7	5
El Barril	Sutti 20	99	5	2	0
El Agrito	Sutti 20	475	5	5	5
Las Casas	Sutti 20	281	5	3	5
Laguna Larga	Sutti 20	Unknown	5	?	2
La Prietta	Sutti 19	Unknown	5	?	1
El Cristalillo	Sutti 19	Unknown	5	?	2
La Doncella	Sutti 19	32	5	130	1

#### 14.14.2 Brine

SRK was not contracted to undertake MRE for the brine contained within the salar sediments; however, some historical sampling and verification sampling by OrganiMax has been conducted on the brine material across the different salars. SRK recommends that further sampling and testwork should be conducted on this material to enable an assessment of the potential economic viability.

## 15 MINERAL RESERVE ESTIMATES

No Mineral Reserves have currently been declared due to the early stage exploration status of the salars.

## 16 MINING METHODS

No studies into mining methods has currently been undertaken due to the early stage exploration status of the salars.

## 17 RECOVERY METHODS

No studies into recovery methods has currently been undertaken due to the early stage exploration status of the salars.

## 18 PROJECT INFRASTRUCTURE

No studies into project infrastructure has currently been undertaken due to the early stage exploration status of the salars.

## **19 MARKET STUDIES AND CONTRACTS**

No studies into market studies and contracts has currently been undertaken due to the early stage exploration status of the salars.

## **20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT**

No studies into environmental studies, permitting and social or community impact has currently been undertaken due to the early stage exploration status of the salars.

## **21 CAPITAL AND OPERATING COSTS**

No studies into capital and operating costs has currently been undertaken due to the early stage exploration status of the salars.

## **22 ECONOMIC ANALYSIS**

No economic analysis has currently been undertaken due to the early stage exploration status of the salars.

## **23 ADJACENT PROPERTIES**

There is a long history of mining within the Zacatecas-Luis San Potosi region, including silver, gold, lead-zinc, copper, antimony, and manganese. In addition, salt quarrying has been conducted throughout the history of the region, including in the Salvador and Colorada salars.

In terms of current adjacent licences, Zenith Minerals Limited ("Zenith"), along with joint-venture partner Bradda Head Limited, owns exploration claims close to OrganiMax (San Vicente claim is 5 km to the east of Santa Clara and Illescas claim 10 km to the south) and have been exploring predominantly for potential brine deposits. No MRE have been generated on their exploration claims to date; however, surface sampling of sediment and geophysics in 2018 has defined deep drilling targets which are planned be drilled in 2019.

## **24 OTHER RELEVANT DATA AND INFORMATION**

No other information is considered relevant at this stage.

## **25 INTERPRETATION AND CONCLUSIONS**

SRK has produced the maiden Mineral Resource estimates for the La Salada, Santa Clara and Caligüey salar sediment deposits. The resulting statements have delineated 120 Mt of Inferred Mineral Resources grading 4.6% potassium and 380 ppm lithium. SRK considers the material delineated to demonstrate 'reasonable prospects for eventual economic extraction' through the use of a cut-off grade based on preliminary testwork undertaken to date along with optimistic selling prices.

In addition to the Mineral Resource base, a large exploration potential exists within the OrganiMax claim areas at the three principal salars beneath the resource models which have limited vertical extent, and also extending laterally beyond the sampled area to the edge of the known salar area. Also, there is potential to find new resources at a number of currently underexplored salars.

## 26 RECOMMENDATIONS

In order to increase the size of the Mineral Resource base, upgrade the Mineral Resource classification and allow for further technical studies to be undertaken, the following is recommended:

- Undertake geophysics to understand the total basin depth potential for both sediment and brine.
- Undertake water/brine sampling campaign across the most prospective salars.
- Detailed processing testwork to understand the processability of the material and more accurately estimate recoveries of potassium, lithium and potentially boron.
- Re-analysing available Litio Mex samples at Caligüey and La Salada for boron using suitable assaying method.
- Deeper drilling at all high-priority targets to understand the depth extent of the potentially economic material. To date, only La Salada has been sampled effectively below 5 m depth and has shown economically interesting grades of potassium, lithium and boron.
- Infill drilling at a regular spacing to allow for further verification of Litio Mex data and increase confidence in geological and grade continuity.
- Density measurements representative of each salar and in the different material types at depth. This could be achieved by excavating pits down to >5 m by hand mechanical excavator/back-hoe and digging small pits (as described in Section 9.4) at the top surface of every metre. Alternatively, diamond core could be used if samples retrieved are considered representative of in situ material.
- All assays to be conducted using assaying methodology appropriate for the grade and type of mineralisation for each economically interesting commodity (including ensuring samples above the upper detection limit are re-analysed with a higher-detection method). Robust QA/QC procedures should be continued to be used including CRM, field and pulp reject duplicates, and blanks.
- All future locations of drilling/pitting should be surveyed using high-resolution GPS methodology, such as differential GPS.
- Geotechnical and hydrogeological data should be collected in tandem with geological data collection to optimise the cost of drilling and provide information in these areas to assess the ground conditions and potential mineability of the soft sediment material.
- Topographic survey acquisition.
- Preliminary economic assessment (“PEA”) to understand the economic viability of the project considering various potential mining, transportation and processing options.



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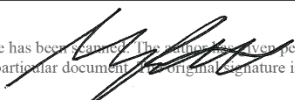
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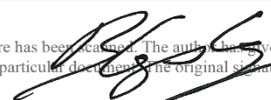
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Martin Pittuck  
Corporate Consultant (Mining Geology),  
**Project Director**  
SRK Consulting (UK) Limited

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Ben Lepley,  
Senior Consultant (Resource Geology),  
**Project Manager**  
SRK Consulting (UK) Limited

## Glossary

Salar	a natural salt pan or salt lake formed by evaporation.
Sample support	Sample size and assay distribution – block estimates assume that all samples have equal weighting and therefore are of equal support.

## Abbreviations

ActLabs	Activation Laboratories
ALS	ALS Minerals
Alset	Alset Minerals Corp
B	Boron metal (generally quoted in parts per million/ppm)
CIM	Canadian Institute of Mining, Metallurgy and Petroleum.
CRM	certified reference materials
Datamine	Datamine Studio RM
EMPA	electron microprobe analyses
IDW <sup>2</sup>	inverse distance squared
K	Potassium metal (generally quoted in percent/%)
LA-ICP-MS	laser ablation inductively coupled plasma mass spectrometry
Leapfrog	Leapfrog Geo Version 4.3 Modelling Software
Li	Lithium metal (generally quoted in parts per million/ppm)
Litio Mex	Litio Mex, S.A. de C.V.
MEG	Shea Clark Smith of MEG Inc.
MRE	Mineral Resource estimate
OK	Ordinary Kriging
OrganiMax	OrganiMax Nutrient Corp (TSX-V:KMAX)
QA/QC	Quality Assurance and Quality Control
RC	reverse circulation drilling
SRK	SRK Consulting (UK) Ltd
SRTM	shuttle radar topographic mission
XRD	X-ray diffraction analysis

## Units

km	Kilometre
km <sup>2</sup>	Square kilometre
masl	Metres above sea level
mg/l	Milligrams per litre
Mt	Million metric tonnes
ohms/m	Ohms per metre (measure of resistivity)
ppm	Parts per million

## **APPENDIX**

### **A QUALIFIED PERSON CERTIFICATE**

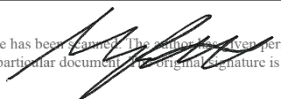
**CERTIFICATE OF QUALIFIED PERSON**

I, Martin Frank Pittuck, MSc., C.Eng, MIMMM do hereby certify that:

1. I am a Corporate Consultant (Mining Geology) of SRK Consulting (UK) Ltd with an office at 5<sup>th</sup> Floor, Churchill House, Churchill Way, Cardiff CF10 2HH;
2. This certificate applies to the technical report titled “NI43-101 Technical Report on the OrganiMax Salar Sediment Deposits, Mexico” (the “Technical Report”), prepared for OrganiMax Nutrient Corp;
3. The Effective Date of the Technical Report is 04 February 2019;
4. I am a graduate with a Master of Science in Mineral Resources gained from Cardiff College, University of Wales in 1996 and I have practised my profession continuously since that time. Since graduating I have worked as a consultant at SRK on a wide range of mineral projects, specializing in precious and rare metals. I have undertaken many geological investigations, resource estimations, mine evaluation technical studies and due diligence reports. I am a member of the Institution of Materials Mining and Metallurgy (Membership Number 49186) and I am a Chartered Engineer;
5. I have read the definition of “Qualified Person” set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfil the requirements to be a “Qualified Person” for the purposes of NI 43-101.
6. I visited the La Salada, Santa Clara and Caligüey properties between 30 April and 04 May 2018.
7. I am co-author and reviewer of this report and have overall responsibility for the Mineral Resource estimate and all of the sections in the Technical Report.
8. I am independent of the issuer applying all of the tests in section 1.5 of NI 43-101.
9. I have not had prior involvement with the property that is the subject of the Technical Report.
10. I have read NI 43-101 and Form 43-101F1; the sections of the Technical Report I am responsible for have been prepared in compliance with that instrument and form.
11. As of the aforementioned Effective Date, to the best of my knowledge, information and belief, the sections of the Technical Report I am responsible for contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 04 February 2019

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Martin Frank Pittuck, MSc. C.Eng, MIMMM  
Corporate Consultant (Mining Geology)