



Preliminary Economic Assessment (PEA) - Pozuelos -
Pastos Grandes Project
NI 43-101 Technical Report
Salta, Argentina

January 2019

Table of contents

Item 1 - Summary.....	12
1.1 Purpose and Terms of Reference.....	12
1.2 Units and Currency	12
1.3 Property Description and Ownership.....	12
1.4 Mineral Resource Estimate.....	13
1.5 Process Recovery Methods.....	15
1.6 Project Infrastructure Requirements.....	15
1.7 Capital and Operating Costs.....	16
1.8 Economic Analysis.....	17
1.9 Environmental and Social	18
1.10 Conclusions and Recommendations	19
Item 2 - Introduction	22
2.1 Terms of Reference	22
2.2 Report Responsibility Matrix	22
2.3 Sources of Information.....	24
2.4 Details on Property Inspection by QP.....	24
2.5 Statement of Independence.....	24
2.6 Units and Currency	25
2.7 Use of Report.....	26
Item 3 - Reliance on Other Experts.....	27
Item 4 - Property Description and Location.....	29
4.1 Pozuelos	29
4.2 Pastos Grandes	35
Item 5 - Accessibility, Climate, Local Resources, Infrastructure and Physiography.....	38
5.1 Accessibility	38
5.2 Climate	38
5.3 Local Resources	43
5.4 Infrastructure.....	44
5.5 Physiography	44
5.6 Soils	48
5.7 Vegetation.....	48
Item 6 - History	50
6.1 Prior Exploration and Ownership.....	50
6.2 Prior Ownership and History – Pastos Grandes	54
Item 7 - Geological Setting and Mineralization	57

7.1	Regional Geology	57
7.2	Pozuelos and Pastos Grandes	58
	Item 8 - Deposit Types	69
	Item 9 - Exploration	73
9.1	Pozuelos	73
9.2	Pozuelos Conceptual Hydrogeological Model	85
9.3	Pastos Grandes	86
	Item 10 - Drilling	95
10.1	Pozuelos	95
10.2	2018 Drilling	97
10.3	Lithology.....	99
10.4	Pumping Tests	105
10.5	Pastos Grandes	130
	Item 11 - Sample Preparation, Analysis and Security	135
11.1	Sample Preparation, Analysis and Security.....	135
11.2	Quality Control Program	143
11.3	Brine Results.....	145
11.4	Pastos Grandes	163
11.5	Sample Security.....	177
11.6	Author's Opinion on Adequacy of Sample Preparation, Analysis, Quality Control and Sample Security	177
	Item 12 - Data Verification.....	178
12.1	Mineral Resources	178
12.2	Metallurgical Testing and Processing Evaluation	178
12.3	Preliminary Economic Assessment	178
	Item 13 - Mineral Processing and Metallurgical Testing	180
13.1	Batch Open Circuit Testwork	180
	Item 14 - Mineral Resource Estimates	182
14.1	Modelling.....	182
14.2	Assay Data Base	186
14.3	Resource Classification	186
14.4	Resource Estimate.....	189
14.5	Exploration Potential – Pastos Grandes	191
	Item 15 - Mineral Reserve Estimates	192
	Item 16 - Mining Methods – Brine Abstraction	193
16.1	Hydrogeological Data Acquisition and Basis of Design.....	193
16.2	Mining Method	194

16.3	Mining Infrastructure	195
16.4	Mining Dilution and Recovery	196
16.5	Mineral Reserves	196
16.6	Mine Planning	196
16.7	Production Equipment Selection and Well Design	196
16.8	Harvested Salt Piles and Service Equipment	197
	Item 17 - Recovery Methods	198
17.1	Brine Extraction.....	200
17.2	Brine Treatment Plant.....	200
17.3	Lithium Carbonate Plant	201
17.4	Metallurgical Efficiencies.....	203
	Item 18 - Project Infrastructure.....	205
18.1	Project Access	205
18.2	Project Areas and Facilities	208
18.3	Temporary Installations.....	209
18.4	Permanent Installations	210
18.5	Worker's Camp	215
18.6	Services	215
	Item 19 - Market Studies and Contracts	217
19.1	Lithium Supply	217
19.2	Lithium Demand.....	219
19.3	Price Forecast.....	220
19.4	Conclusions	221
	Item 20 - Environmental Studies, Permitting and Social/Community Impacts.....	222
20.1	Environmental Permits for Exploration	222
20.2	Production EIS	222
20.3	Mine Closure.....	225
20.4	Social and Communities	225
20.5	Tailings Management.....	226
20.6	Permitting	227
	Item 21 - Capital & Operating Expenses.....	228
21.1	Capital Expenditure (CAPEX) Estimate.....	228
21.2	Operating Expenses (OPEX) Estimate.....	235
	Item 22 - Economic Analysis.....	237
22.1	Main assumptions	237
22.2	Project Revenues.....	239
22.1	Cash Flow Projection	240
22.2	Sensitivity Analysis	242

22.3 Economic Analysis Summary244

Item 23 - Adjacent Properties.....245

23.1 Pastos Grandes245

23.2 Pozuelos247

Item 24 - Other Relevant Data and Information249

24.1 Project Schedule249

24.2 Trade-Off Studies.....251

Item 25 - Interpretation and Conclusions253

Item 26 - Recommendations255

Item 27 - References.....257

Glossary266

28.1 List of Abbreviations.....268

Table index

Table 1-1: Combined PPG Project Resource Inventory	14
Table 1-2: PPG Project Total Initial CAPEX Summary	17
Table 1-3: PPG Project Yearly OPEX Summary.....	17
Table 1-4: PPG Project Key Economic Parameters.....	18
Table 2-1: PPG PEA Responsibility Matrix	23
Table 4-1: LitheA Inc. Tenements on Pozuelos Salar	33
Table 4-2: LSC Tenements - Pastos Grandes Project.....	37
Table 6-1: Historic Resource Estimate Summary – Salar de Pozuelos, February 28, 2018	53
Table 6-2: Mineral Resource Estimate – Salar de Pastos Grandes Project – LSC Lithium Corp., October 19, 2018	55
Table 8-1: Selected Salar Types and Brine Chemistry in the Altiplano Puna Region	71
Table 9-1: Line Lengths, Spreads and Shot Numbers	74
Table 9-2: Main Characteristics of Springs at Salar de Pozuelos	80
Table 9-3: Monitoring Well Characteristics	84
Table 9-4: Summary of Line Lengths, Spread and Shot numbers 2018 Seismic Survey at Pastos Grandes	92
Table 10-1: LSC Drill Program on Salar de Pozuelos – 2017 Pumping Wells	95
Table 10-2: Core Recovery – 2017 Drill Program	96
Table 10-3: 2018 Drill Program	97
Table 10-4: Deep Drill Hole RBRC and Lithium Assay Comparison.....	104
Table 10-5: Test Summary – 2017 Pumping Tests.....	105
Table 10-6: Step Test Result – Well SP 2017-10W	109
Table 10-7: Well SP-2017-10W Hydraulic Parameters.....	112
Table 10-8: Step Test Results – Well WPZ-18-04	114
Table 10-9: Well SP-2017-2W Step Test Results	117
Table 10-10: Hydraulic Properties – Well SP-2017-2W	120
Table 10-11: Step Test Results – Pumping Well Sp-2017-14W	121
Table 10-12: Hydraulic Parameters – Well SP-2017-14W	124
Table 10-13: Step Test Results Well WPZ18-01	124
Table 10-14: Calculated Hydraulic Parameters – Well WPZ-18-01	128
Table 10-15: Pumping Test Results Summary – Key Hydraulic Parameters	128
Table 10-16: Brine Assay Comparisons for Pump Tests	129

Table 10-17: LSC Exploration Drilling – Salar de Pastos Grandes.....	130
Table 10-18: Drilling Summary – LSC Exploration Salar de Pastos Grandes	132
Table 11-1: Relative Brine Release Capacity Sample Results - Pozuelos	137
Table 11-2: Relative Brine Release Capacity Sample Results – Pozuelos	138
Table 11-3: RBRC Samples	140
Table 11-4: Methods for Brine Assays	141
Table 11-5: Key Assay Results – Pozuelos, 2017 Drilling	141
Table 11-6: Key Assay Results – Pozuelos 2018 Exploation Program	142
Table 11-7: Summary Brine Assay Results – Drill Holes	143
Table 11-8: Standard Samples Brine Chemistry Design.....	144
Table 11-9: QA/QC Program Design – Brine Samples	145
Table 11-10: Brine Assay QA/QC Protocol	164
Table 11-11: Standards Assay Results – LSC-001, LSC-002, LSC-003 – LSC Explotation 2017/18 – Pastos Grandes	171
Table 11-12: Certified Values LSC-2018-2 Standard.....	173
Table 13-1: Results from Concentration Test Work in Puna Conditions	180
Table 13-2: Lithium Carbonate Impurity Levels from Pozuelos Brine Test Work	181
Table 14-1: Lithological Units Defined for Resource Estimates	182
Table 14-2: Combined PPG Project Resource Inventory	190
Table 14-3: Exploration Potential – LSC Tenements Maria Luisa II and La Rescatada II – Salar de Pastos Grandes	191
Table 16-1: Pumping results Summary –Key Hydraulic Parameters.....	193
Table 18-1: Contractor’s Installations Summary	210
Table 18-2: Salar Area Permanent installations.....	212
Table 18-3: Process Area Permanent Installations.....	213
Table 23-1: Millennial Lithium Resource Estimate – Salar de Pastos Grandes Property, January 2018	245

Figure index

Figure 4-1: PPG Project Location.....	30
Figure 4-2: Pozuelos Tenement Map	32
Figure 4-3: Pastos Grandes Tenement map.....	36
Figure 5-1: Project Access Map	39
Figure 5-2: Isohyet Map of Puna	41
Figure 5-3: Weather Data – Santa Rosa de Pastos Grandes, 35NW of Pozuelos, Nov. 2016 – Nov. 2017	43
Figure 5-4: Physiography of Salar de Pozuelos and Surrounding Area	45
Figure 5-5: Salar de Pozuelos Geomorphology	46
Figure 5-6: Salar de Pastos Grandes Geomorphology	48
Figure 6-1: Li Isocontour Thematic Map	51
Figure 7-1: Geology Map, PPG Project.....	59
Figure 7-2: Stratigraphic Column for Salar de Pastos Grandes District.....	61
Figure 7-3: Structural Interpretation of Salar de Pozuelos	64
Figure 7-4: Examples of Lithotypes at Salar de Pozuelos	67
Figure 8-1: Salar Types, Facies Evolutions & Hydrological Components.....	70
Figure 9-1: Seismic Lines across Salar de Pozuelos – 2017/18.....	74
Figure 9-2: Seismic Interpretation – Line 1	76
Figure 9-3: Seismic Re-Interpretation - Lines 2 and 3	77
Figure 9-4: Catchment Basin of Salar de Pozuelos	79
Figure 9-5: Springs Location at Salar de Pozuelos.....	81
Figure 9-6: SEV Stations for Hydrology Studies – Salar de Pozuelos.....	82
Figure 9-7: monitoring Wells – Salar de Pozuelos	83
Figure 9-8: Conceptual Hydrogeological Model of Salar de Pozuelos.....	85
Figure 9-9: SEV Survey – 2016 LSC Exploration	88
Figure 9-10: SEV Results, 2016 LSC Exploration.....	90
Figure 9-11: Seismic Survey Lines – LSC 2018 Exploration at Pastos Grandes	91
Figure 9-12: Interpreted Seismic Results – Pastos Grandes	94
Figure 10-1: Drill Hole Location Map.....	98
Figure 10-2: NW-SE Cross Section through Holes 10, 12 and 15.....	100
Figure 10-3: NW-SE Cross Section through Holes 2, 7 AND 9	101
Figure 10-4: W-E Cross Section Through Holes 5,6,7, and 8.....	102

Figure 10-5: S-N Cross Section through Holes 15, 13, 5 and 2.....	103
Figure 10-6: 2017 Constant rate Pumping Test Brine Assays Results – Well PW1-35.....	106
Figure 10-7: 2017 Constant Rate Pumping Test Brine Assays – Well P2-90.....	107
Figure 10-8: Well SP-2017-10W Step Test Result – Pumping Rate vs. Dynamic Level and Drawdown.....	110
Figure 10-9: SP-2017-10W Continuous Pumping Test – Lithium Assay.....	111
Figure 10-10: 7-Day Constant Rate Pumping Test Well SP-2017-10W.....	112
Figure 10-11: WPZ18-04 Step Test Lithium Assay.....	114
Figure 10-12: Well WPZ18-04 Step Test Results.....	115
Figure 10-13: Well WPZ-18-04 Pumping Curve.....	116
Figure 10-14: Well SP-2017-2W Step Test Drawdown and Recovery Curve.....	117
Figure 10-15: Flow Rate vs. Dynamic Level Drawdown – Well SP-2017-2W.....	118
Figure 10-16: Constant Rate 48-Hour Pump Test Curves - Well SP-2017-2W.....	119
Figure 10-17: SP-2017-2W Continuous Pumping Test Lithium Assay.....	119
Figure 10-18: Step Test results – Well SP-2017-14W.....	121
Figure 10-19: Pumping Curve – Well SP-2017-14W.....	122
Figure 10-20: SP-201-14W Continuous Pumping Test - Lithium Assay.....	123
Figure 10-21: Constant Rate 48-h Test result – Well SP-17-14W.....	123
Figure 10-22: Step Test Drawdown Data – Well WPZ-18-01.....	125
Figure 10-23: Pumping Curve – Well WPZ-18-01.....	126
Figure 10-24: 7-Day Pump Test Performance – Well WPZ-18-01.....	127
Figure 10-25: Continuous Pumping Test – Well WPZ-18-01.....	127
Figure 10-26: Pastos Grandes Drill Hole Location Map.....	131
Figure 11-1: Regression Analysis – Duplicate Sample.....	148
Figure 11-2: Re-Assay Comparison – Main Brine Samples.....	152
Figure 11-3: Check Assay Regression Results.....	155
Figure 11-4: Standard LSC-001 Assay Results.....	158
Figure 11-5: Standard LSC-003 Assay Results.....	161
Figure 11-6: Standard LSC-2018-2 Assay Results.....	163
Figure 11-7: Duplicate Sample Analysis – Pastos Grandes – LSC Exploration 2017/18.....	167
Figure 11-8: Check Sample Regression Analysis LSC Exploration 2017/2018 – Pastos Grandes.....	170
Figure 11-9: Standard Assay Results Standard LSC 2018 – LSC Exploration 2017/18 – Pastos Grandes.....	175
Figure 11-10: Control Charts for Blanks – LSC Exploration 2017/2018 – Pastos Grandes.....	177

Figure 14-1: Pozuelos Resource Polygons.....	184
Figure 14-2: Pastos Granbdes Resource Polygons.....	185
Figure 14-3: Adjusted Resource Polygons – Pastos Grandes.....	188
Figure 16-1: Li Grade from t-day Pump Test at SP-2107-10W.....	194
Figure 16-2: Observed Drawdown and Recovery from 7-Day Pump Test at SP-2017-10W.....	194
Figure 16-3: Wellfield Lay-Out – Pastos Grandes and Pozuelos.....	195
Figure 17-1: Process General Block Diagram.....	199
Figure 18-1: Local Road Infrastructure to Reach Project Site	206
Figure 18-2: International Road Infrastructure	207
Figure 18-3: Main Project Facilities and Areas – PPG Project	208
Figure 18-4: General Arrangement Temporary Installations.....	210
Figure 18-5: Salar Area Permanent Installations Arrangement	211
Figure 18-6: Process Plant’s Permanent Installations Arrangement	213
Figure 18-7: PPG Project Natural Gas Pipelines Network.....	216
Figure 19-1: Global Lithium Reserves (Source:USGS).....	217
Figure 19-2: Global Lithium Supply in 2017 (Source: USGS).....	218
Figure 19-3:Forecast vs Actual Lithium Supply (Source: Orocobre, 2018).....	219
Figure 19-4: Forecast Sale of Global Passenger Vehicles (Source: UBS).....	219
Figure 19-5: Forecast Growth in Lithium Demand to 2025 (Source: UBS, 2017).....	220
Figure 19-6: Price Forecast Summary of other lithium projects (USD) – Battery Grade Lithium Carbonate	220
Figure 19-7: Battery Grade Lithium Carbonate Price used for the PPG Project Economic Evaluation	221
Figure 20-1: A Vicuna Observed at Pozuelos (from Pozuelos Baseline Study)	223
Figure 20-2 Recharge Monitoring Points around Salar Pozuelos.....	224
Figure 20-3: Pozeuleos Area Stockpile Arrangement.....	226
Figure 21-1: PPG Project Total CAPEX Estimate.....	230
Figure 21-2: Project’s Deferred Costs Estimation for Year Two	231
Figure 21-3: Project’s Deferred Costs Estimation for Year Three.....	232
Figure 21-4: Project’s Deferred Costs Estimation for Year Ten.....	233
Figure 21-5: PPG Project – Productivity Factor	234
Figure 21-6: PPG Project Yearly OPEX Estimate.....	235
Figure 22-1: Production Rates through Life of Proect.....	238
Figure 22-2: Yearly Projected Project Revenue– Base Case	240

Figure 22-3: Cash Flow Projection – Base Case	240
Figure 22-4: Sensitivity of PPG Project Value to CAPEX	242
Figure 22-5: Sensitivity of PPG Project Value to Product Price	243
Figure 22-6: Sensitivity of PPG Project Value to Production Rate.....	243
Figure 22-7: Sensitivity of PPG Project NPV to Discount Rate.....	244
Figure 23-1: Pastos Grandes Adjacent Properties.....	246
Figure 23-2: Pozuelos Adjacent Properties.....	248
Figure 24-1: Level 1 PPG Project Schedule	250

Item 1 - Summary

1.1 Purpose and Terms of Reference

The following report has been prepared by GHD Chile (“GHD”) at the request of LSC Lithium Corporation (LSC), to provide LSC with an NI 43-101 compliant, Independent Technical Report and Preliminary Economic Assessment (PEA) on the Pozuelos and Pastos Grandes (PPG) Project in Salta, Argentina.

The report was carried out for the purpose of determining the preliminary criteria under which the PPG Project in northwest Argentina may be considered potentially economic so that a development program can be planned. GHD was commissioned for this service with the purpose of defining and quantifying the technical merits of the project and for determining the conditions under which the PPG Project should be progressed to a the Prefeasibility or Feasibility Study stage. This PEA report is produced for Public Reporting under Canadian National Instrument (NI) 43-101 in Canada (NI 43-101, 2014), and was prepared in accordance with the requirements of:

- Disclosure and reporting requirements of the Toronto Stock Exchange (TSX);
- Canadian National Instrument 43-101, ‘Standards of Disclosure for Mineral Projects’, Form 43-101F1 and Companion Policy 43-101CP (NI 43-101, 2014); and
- Canadian Institute of Mining, Metallurgy and Petroleum Definition Standards (CIM, 2014).

The Project is conceived as one large brine extraction and brine processing facility to produce 20,000 tons per annum of Battery Grade Lithium Carbonate production, combining the resources from salar de Pozuelos and salar de Pastos Grandes, that lie in close proximity to each other, namely Salar de Pozuelos and Salar de Pastos Grandes. Brine will be extracted from Pozuelos and Pastos Grandes via wells drilled on the surface of each salar, and carried to evaporation ponds or concentration ponds located at Pozuelos, where lithium concentration will be increased by means of solar evaporation and chemical reactions. Once the desired lithium concentration is reached, the concentrated brine is transported to the process plant, where it will be chemically treated and purified to acquire the final battery grade lithium carbonate (Li_2CO_3).

1.2 Units and Currency

Unless otherwise noted, all units of measurement used throughout this report correspond to the “Le Système International d’Unités” (SI System) and are denoted in brackets “[]”.

Monetary values in this report are expressed in constant 2018 USA dollars.

All currency used throughout this report is indicated according to ISO 4217 designations.

1.3 Property Description and Ownership

The project properties are located in Salta province, northwestern Argentina. The Pozuelos property is located approximately 250 [km] west of the city of Salta and 150 [km] east of the Chilean border. The Pastos Grandes property is located approximately 230 [km] west of the city of Salta and 56 [km] south of San Antonio de Los Cobres. Santa Rosa de Pastos Grandes is the nearest village, located 13 [km] north-northeast of Pastos Grandes.

Access to the property from Salta is excellent. A high quality paved highway is available from Salta to San Antonio de los Cobres, the major urban centre in the Puna. Good quality gravel roads lead from San Antonio de Los Cobres to the property, passing through Santa Rosa de Pastos Grandes, located 40 [km] to the northeast of the Pozuelos Property. The typical driving time from Salta to the properties is approximately 3.5 hours.

The mining concessions which make up the Pozuelos Property are currently registered under the name Lithea Inc. Sucursal Argentina, a wholly owned subsidiary of LitheA Inc., which in turn is wholly owned by LSC.

The Pozuelos tenements are primarily comprised of two main mining 'groups':

- LitheA Norte; and
- LitheA Sur

Together, they cover approximately 10,787 [ha] and substantially represent the entire Pozuelos Salar.

At Pastos Grandes, LSC controls 2,683 [ha] on the salar and immediately adjacent area as mining concessions. The tenements held by LSC are located on the east and west sides of the salar. Tenements held by others are located between the LSC tenements and on either side of the LSC tenements. LSC acquired its Pastos Grandes tenements via a series of property transfers and purchases detailed in Heins (2017a).

All of the LSC tenements are registered as Exploitation Concessions ("Minas") that have an unlimited duration provided all canon fees are paid on time and all required environmental reports and other obligations set out in the National Mining Code are met by the title holder. All the LSC tenements are in good standing.

1.4 Mineral Resource Estimate

1.4.1 Pastos Grandes

A resource estimate for the LSC tenements has been prepared based on the results of the geophysical surveys, drilling, sample assays, and RBRC tests. A technical report detailing the resource estimate with an effective date of October 19, 2018 and dated October 25, 2018 has been filed on SEDAR by LSC. The resource estimate detailed in the report is summarized in Table 1-1, below.

1.4.2 Pozuelos

A mineral resource estimate for salar de Pozuelos has been prepared based on the results of surface sampling, drilling, brine sampling, pump tests and geophysical surveys undertaken by LSC in the 2016 – 2018 period. The resource estimate was announced by LSC in a news release dated November 25, 2018. The technical report supporting the resource estimate is dated December 21 2018 and has an effective date of November 22, 2018 and has been filed on SEDAR. The resource estimated is summarized in Table 1-1, below.

Table 1-1: Combined PPG Project Resource Inventory

Salar and Resource Classification	Total Brine Volume	Li	Ca	Mg	K	SO ₄	RBRC	Available Brine ⁴	Li (tons)	LCE Equivalent ³
PASTOS GRANDES¹	[m ³] x10⁶	[mg/l]	[mg/l]	[mg/l]	[mg/l]	[mg/l]	%	[m ³] x10⁶	Metric ton	Metric ton
Pastos Grandes - Measured	7353	465	682	3093	4783	9847	4.83	355	168,090	894,720
Pastos Grandes - Indicated	508	452	727	2909	4479	9533	3.51	18	8,335	44,360
Pastos Grandes - M&I	7862	464	685	3081	4763	9827	4.74	373	176,425	939,080
Pastos Grandes – Inferred	2515	467	681	3084	4775	9879	4.81	121	57,760	307,500
POZUELOS²	[m ³] x10⁶	[mg/l]	[mg/l]	[mg/l]	[mg/l]	[mg/l]	%	[m ³] x10⁶	Metric ton	Metric ton
Pozuelos – Measured	4713	470	1757	2652	4143	6570	8.41	396.4	180,000	958,000
Pozuelos – Indicated	4260	544	1054	3216	2761	11359	5.84	248.9	135,000	719,400
Pozuelos - M&I	8973	505	1423	2920	3487	8843	7.19	645.3	315,000	1,677,500
Pozuelos – Inferred	4937	518	1170	2948	2240	8771	4.64	229.3	118,600	631,000

Notes:

- For resource estimate details see “Technical Report on the Pastos Grandes Lithium Project” dated October 25, 2018 with an effective date of October 19, 2018 prepared for LSC Lithium Corporation as filed on SEDAR.
- For resource estimate details see “Technical Report on the Pozuelos Lithium Project prepared for LSC Lithium Corporation as filed on SEDAR dated December 21 2018 with an effective date of November 22, 2018.
- Lithium Carbonate Equivalent (LCE) calculated by applying a factor of 5.323 to lithium metal resource estimate
- Available brine volume within each resource category calculated by applying the Relative Brine Release Capacity (RBRC) factor to total brine volume. RBRC value is the weighted average for the resource classification category
- Resources have been classified in accordance with CIM mineral resource definitions, May 25, 2014. Assay values have been rounded to nearest whole number
- Resources have been estimated by Louis Fourie, P. Geo., Pr.Nat. Sci., under the direction of D. Hains, P. Geo.
- Resources have been estimated using a cut-off grade of 330 [mg/L] Lithium for Pozuelos and 100 [mg/L] for Pastos Grandes based on economic considerations related to estimated production costs for brine extraction.
- Mineral resources which are not Mineral Reserves do not have demonstrated economic value. There is no assurance that additional exploration will result in the conversion of Mineral resources to Mineral Reserves.
- Inferred Mineral Resources are considered as too speculative to have economic criteria applied to them. There is no assurance that additional exploration will result in the conversion of Inferred Mineral Resources to Indicated or Measured Mineral Resources.

1.5 Process Recovery Methods

The project considers the production of 20,000 tons per year (TPY) of Battery-Grade Lithium Carbonate (Li_2CO_3).

For the PPG project, a classical process combining solar evaporation with chemical treatment has been selected. Salts and residues are produced as brine is evaporated and impurities are rejected. The salt-residue reject ratio on a dry basis is approximately 135 tonne Salt per tonne Lithium Carbonate. Of this amount only 2% is produced in the chemical treatment steps.

Brines are extracted through brine extraction wells located in Pastos Grandes and Pozuelos Salars, to produce a brine blend within the desired ratio of impurity elements. This brine is then conducted to the process plant where it will be processed.

The process plant is conveniently divided into two discrete building blocks:

1. Brine treatment plant, incorporates two process steps:
 - Water evaporation and hence salt concentration to the extent that any impurity salts that are at their solubility limits are precipitated. Three discrete water evaporation steps are envisaged:
 - o Primary concentration and primary brine treatment stage,
 - o Secondary concentration and secondary brine treatment stage,
 - o Tertiary concentration stage where the target lithium-in-brine concentration is achieved by evaporation.
 - Chemical treatment to reject impurities. Two chemical treatment steps are interposed between the three evaporation steps. This process sequence has been carefully crafted to minimise lithium mis-report to the evaporation and precipitation products such that an overall high recovery of lithium is both chemically and mechanically achievable.
2. Lithium carbonate plant comprised of the final purification stages before lithium carbonate is produced, filtered, milled, dried and bagged for export. Included in this section are:
 - o Ion exchange for the removal of impurities,
 - o Precipitation of lithium carbonate employing sodium carbonate,
 - o Drying, size reduction and packaging of the final product.

1.6 Project Infrastructure Requirements

The project site is reachable from the cities of Jujuy and Salta via major roads. These roads also connect the project site to major export ports such as Buenos Aires and Antofagasta, Chile.

The project site's physical areas include:

- Well field at Pastos Grandes and well field at Pozuelos. Pastos Grandes wells are connected to the main Industrial facilities by means of a pipeline.
- Evaporation/Concentration and auxiliary ponds in Pozuelos. Primary evaporation ponds are located in the centre of Pozuelos allowing the concentration of brine in four steps, through evaporation of water and precipitation of salts contained in the brine. Secondary and tertiary evaporation ponds are also considered.

- Industrial facilities (lithium plant) located in Pozuelos, include:
 - o Lithium carbonate plant
 - o Auxiliary services
 - o Permanent facilities including offices and worker's camp
 - o Temporary facilities including contractor's installations and camp
 - o Gas supply and electricity and steam generation infrastructure
- Tailings areas

Energy supply will come from six natural gas generation sets used as a Combined Heat and Power (CHP) system for the process plant. It is expected that 65 % of the steam production will be obtained from cogeneration. The remaining steam production shall be handled by using a conventional steam boiler set.

Natural gas will be supplied via a new 25 [km] 4" gas pipeline coming from the existing Puna/Fenix gas pipeline located near the project's site. An additional 23 [km] 12" gas pipeline loop and compression gas station are required to supplement the existing gas infrastructure.

1.7 Capital and Operating Costs

Table 1-2 presents the capital costs summary for the project. These Capital Expenditures include direct and indirect costs for the implementation of the entire process plant, considering:

- Brine production wellfields and pipeline delivery system
- Evaporation ponds
- Platforms, earthworks and earth movements
- Lithium carbonate plant
- General services
- Infrastructure
- Indirects and Owner's Costs

Capital expenditures for the project are based on design production capacity of 20,000 tonnes per year of battery-grade lithium carbonate. Capital equipment costs have been obtained from in-house data and solicited budget price information.

The project also considers deferred Investments for year two, three and ten, as detailed below:

- Project deferred costs for the second year amount to USD 22,400,000. These costs correspond to the Pastos Grandes wellfield construction, auxiliary ponds and washate ponds for Area 100 harvesting.
- Project deferred costs for the third year amount to USD 10,500,000. These costs correspond to the acquisition of Area 100 ponds harvesting (trucks, frontloaders).
- Project deferred costs for the tenth year amount to USD 2,300,000. These costs correspond to tailings stockpile capacity expansion (+50%).

Annual sustaining capex of USD 6,800,000, equivalent to 2% of initial capex is estimated to be incurred from 2022 onwards.

Table 1-2: PPG Project Total Initial CAPEX Summary

Description	MH	Construction				Equipment		Total
		Labour	Equipment	Material	Sub Contract	Local	Imported	
		USD	USD	USD	USD	USD	USD	
Total Direct Cost	3,222,887	57,907,034	61,370,760	59,070,105	14,324,349	0	44,884,875	237,557,124
Total Indirect Costs	0	0	0	0	39,173,287	0	2,244,244	41,417,531
Contingency (20,9%)		11,546,656	12,254,983	12,374,662	11,078,525	0	11,417,597	58,672,423
Subtotal	3,222,887	69,453,690	73,625,743	71,444,768	64,576,161	0	58,546,716	
TOTAL CAPEX								337,647,077

Operating expenses have been calculated considering a total plant production of 20.000 [ton/year] and are presented here as a yearly value throughout the Life of Mine (LoM). Brine processing costs and outputs are based upon process definition, testwork, and reagents consumption rates determined by the mass balance. This estimation also considers the experience of other Lithium Carbonate plants in the project area. Budget vendor quotations have been used for reagents costs. Expenses estimates, as well as manpower levels are based on GHD's experience as well as local information provided directly by LSC. Energy generation costs, which include natural gas costs, have been adjusted for expected long term costs in Argentina. Costs for pipeline construction and for ancillary gas supply facilities are assumed at 25% of total costs based on anticipated sharing of these costs between LSC and the other major developers of lithium production in the area.

Table 1-3: PPG Project Yearly OPEX Summary

Description	[USD/year] x 1000	USD per ton of Li ₂ CO ₃ produced
Direct Costs	54,714	2,736
Contingency (5%)	2,736	137
Indirect Costs	2,436	122
Total Production Costs	57,150	2,994

Note: No royalties included.

1.8 Economic Analysis

The economic analysis and its results represent forward-looking information as defined under Canadian securities law. These results depend on inputs that are subject to a number of known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those presented here. Factors that could cause such differences include, but are not limited to: changes in commodity prices, costs and supply of materials relevant to the mining industry, the actual extent of the mineral resources compared to those that were estimated, actual mining and brine recoveries that may be achieved, technological change in the mining, processing and waste disposal, changes in government and changes in regulations affecting the ability to permit and operate a mining operation. Forward-looking information in this analysis includes statements regarding future mining and mineral processing plans, rates and amounts of production, tax and royalty terms, the ability to finance the project, and lithium price forecasts.

Key economic parameters for the PPG project are summarised in Table 1-4. Using a 20-year life of mine, the project base case's Net Present Value using an 8% discount rate (NPV_{8%}) amounts to approximately MMUSD 762¹, with an Internal Rate of Return (IRR) of 30% and a payback period of less than 5 years on an after-tax basis. Annual free cash flows have an average value of MMUSD 127 across the life of the project.

The economic analysis indicates that the Pastos Grandes/Pozuelos Project is economically viable when considering conservative assumptions. A sensitivity analysis indicated that NPV and IRR remain positive with increasing capex, reduced production capacity or lower market prices.

Project value could be further enhanced by considering an increased life of mine for the PPG project within the available resources.

Table 1-4: PPG Project Key Economic Parameters

US\$2,994/t Li ₂ CO ₃	US\$338m	US\$1,036m	34%
Average Operating Costs (incl 5% contingency)	Initial Capital (incl. \$59m contingency)	NPV _{8%} (Pre-Tax)	IRR (Pre-Tax)
US\$125m	20,000 t	US\$762m	30%
After Tax Annual Free Cash Flow	Annual Production of Battery Grade Li ₂ CO ₃	NPV _{8%} (Post-Tax)	IRR (Post-Tax)

1.9 Environmental and Social

LSC is committed to preserving the natural environment of the Puna region. All exploration activities undertaken by the company are under the auspices of an approved Environmental Impact Statement (EIS) by the Provincial Argentine regulator. These are referred to locally as Declaracion De Impacto Ambiental (DIA) and are issued for the exploration activities. Resolution 440 for activities at Pastos Grandes was approved in December 2017 and Resolution 034 was passed in February 2018 for advanced exploration activities at Pozuelos. These approvals have a validity of 2 years whereafter they can be readily renewed.

LSC is committed to the requirements of the International Finance Corporation (IFC) Performance Standards and the Equator Principles (EP) defined by the World Bank. On completion of mining operations at the PPG project, LSC is committed to restoring the area to its pre-mining use state where practical and applicable. Therefore, LSC intends to prepare a full mine closure plan in the next study phase. For the purposes of this PEA, GHD estimated closure costs by applying a 5% factor to initial capex.

LSC has continued to commit to the highest environmental and social standards and maintain a constant and active dialogue with all stakeholders in the provinces, including the local communities, National, Provincial and respective Municipal Administrations, and their representatives in the various government departments. The PPG project is within the direct influence of the community of Santa Rosa de los Pastos Grandes, located in close vicinity to Salar Pastos Grandes. The community of Pocitos, located approximately 60 [km] north of Pozuelos is also considered to be within the project as an indirect area of influence.

¹ NPV calculated on the basis of constant 2020 US dollars.

In general, Pozuelos and Pastos Grandes are relatively unencumbered by communities and, the Pozuelos area, in particular, hosts no people in its vicinity. Nevertheless, LSC is committed to ensuring a positive impact on local host communities through a range of initiatives. During construction and operations, staff will be employed and trained preferentially from local communities.

LSC has prepared baseline studies for Pozuelos and Pastos Grandes and the preparation of the Production Environmental Study for a 20,000 [ton/year] production system at PPG is in progress, with submission of the report anticipated in Q1 2019. In addition, the Company has already submitted an Environmental Study for the pipeline corridor to allow for the transport of brine from Pastos Grandes to Pozuelos. This is currently under review by the Secretary of Mines, Province of Salta, the authority responsible of the administrative approval.

1.10 Conclusions and Recommendations

Conclusions

The PPG project is economically viable. The project is expected to have total capital expenditures of 373 MMUSD during its lifetime of 20 years and all in sustaining operating costs are estimated to be USD 3,727 per ton of lithium carbonate. A production of 20,000 tons per annum of battery grade lithium carbonate is targeted using conventional lithium productions processes.

The base case's NPV8% amounts to approximately USD 762 million, with an IRR of 30% and a payback period of less than 5 years. Annual free cash flows have an average value of USD 127 million across the life of the project.

Project value could be further enhanced by focusing on an increased LoM for the PPG project, depending on the resources, however, this possibility will require additional hydrogeologic studies and advanced engineering work to define the opportunity.

Overall, the work undertaken to date indicates that the salar de Pozuelos has a significant, high quality brine resource and potential to be a producer of lithium brine for lithium carbonate production. The salar is of the mature halite type (with some portions exhibiting an immature, clastic lithology) and has high effective porosity and high lithium brine values down to significant depth.

Pumping tests based on step tests, and 2-day, 7-day and 30-day continuous tests from holes spread across the salar demonstrate the ability to pump at high rates up to 130 [m³/h], fast recoveries and stability in brine grade composition with lithium values in excess of 500 [mg/L] for several wells.

The Mg:Li ratio of the brine is typically less than 6:1 and often lower, with other elements also exhibiting favourable chemistry for lithium extraction and production. Salar de Pozuelos is considered to be highly prospective for lithium brine production. The size of the salar, lithium brine composition and lithium grade in the brine are all favourable. The porous nature of the halite down to depths of at least 70 m; the presence of a large, deep lying and high grade aquifer in the central portion of the salar, and the consistency of lithium grade with depth and across the salar are highly favourable for production.

LSC is proposing to develop its Pastos Grandes tenements in conjunction with development of its salar de Pozuelos lithium brine project. The brine chemistry at Pastos Grandes is complementary to the brine chemistry at salar de Pozuelos.

Recommendations

The study team recommends:

- LSC continue to further refine the project and gather additional supporting information to support the development of the project by advancing to the feasibility study stage. These next steps include additional understanding of the salar resource, the lithology, the surrounding conditions, and the supporting infrastructure. The team recommends a field program to improve understanding of hydrogeology as well as a detailed hydrogeologic model to represent the salar. While on the salar, additional information should be gathered supporting the brine grade and quality across the project definition area.
- Additional definition for pond area, including geotechnical information within the pond footprint. Bearing capacity, leakage rates, and material suitability are recommended for the pond and transfer trench infrastructure areas. The area proposed as the site for the lithium plant should also be geotechnically assessed and drainage conditions within the footprint need to be better understood.
- Detailed review of the process route should occur, including pilot plant and pilot-scale (1-3 ha) ponds should be built to ensure the selected process can support industrial production. During this effort, a review and opinion of any equipment, reagents, processes, and applicable patents for the proposed process for the LSC operation should be conducted.

Geology and exploration recommendations include:

- Obtain satellite imagery to better understand seasonal distribution of snowpack in the catchment basin area, local (salar) variations in seasonal flooding patterns, salar/water interface patterns, local geological features and structures and the distribution of water inflows to the salars.
- For Salar de Pastos Grandes:
 - o Develop Holes PG18-01 and SPG-2017-04 as pumping wells to obtain pumping data on the tenements on the east side of Pastos Grandes;
 - o Drill a pumping well on the west side of Pastos Grandes near hole SPG-2017-2b to develop pumping data on the west side of the salar. For both pumping wells, tracer dyes should be used to better establish Specific Yield data
 - o Drill an exploration hole on south end the Coronal Vidt tenement to develop additional data on brine grade and salar lithology on the western tenements.
 - o Drill an exploration hole on the La Rescatada II tenement on the NW side of Pastos Grandes to explore for deep lying brine off of the salar.
 - o Drill an exploration hole on the north side of the La Playosa tenement at Pastos Grandes, to confirm the presence of brine below the overlying fresh water, as noted by Millennial Lithium for its tenement located north of the La Playosa tenement.
 - o Update the resource estimate for Pastos Grandes based on the results of the pumping tests and additional drilling.
- For Salar de Pozuelos:
 - o Additional drilling is required to better define the lithology, brine chemistry, and porosity of the northern portion of the salar. Holes 03 and 04, which were not drilled due to ground access issues, should be completed and incorporated into the

hydrogeologic model. An additional hole is required in Polygon 1 in the northeast of the salar to better define the lithology, depth and brine grade distribution in this area.

- o Further pumping wells are required to define the hydraulic properties of the salar in Polygons 1, 3 and 4. A deep pumping well should be developed in the area PZ_18_01 to define hydraulic properties in the deep aquifer. Furthermore, at least one additional exploration hole/pumping well is required in Polygon 10 to better define the brine grade and productive capacity within the depozone in the southwest of the salar. All pumping wells should be monitored using piezometer wells located in close proximity to the pumping wells.
- o Additional work on hydrogeological modelling and definition of the fluid balance is required to support development of the 3D fluid flow model for reserve estimation and design of the production pumping field.
- o 3D Fluid Flow Modelling is required to develop reserve estimates for lithium brine.

Item 2 - Introduction

2.1 Terms of Reference

The following report has been prepared by GHD Chile (“GHD”) at the request of LSC Lithium Corporation (LSC), to provide LSC with an NI 43-101 compliant, Independent Technical Report and Preliminary Economic Assessment (PEA) on the Pozuelos - Pastos Grandes (PPG) Project in Salta, Argentina.

The report was carried out for the purpose of determining the preliminary criteria under which the PPG Project in northwest Argentina may be considered potentially economic. GHD was commissioned for this service with the purpose of defining and quantifying the technical merits of the project and for determining the conditions under which the PPG Project should be progressed to the Prefeasibility or Feasibility study stage. This PEA report is produced for Public Reporting under Canadian National Instrument (NI) 43-101 in Canada (NI 43-101, 2014), and was prepared in accordance with the requirements of:

- Disclosure and reporting requirements of the Toronto Stock Exchange (TSX);
- Canadian National Instrument 43-101, ‘Standards of Disclosure for Mineral Projects’, Form 43-101F1 and Companion Policy 43-101CP (NI 43-101, 2014); and
- Canadian Institute of Mining, Metallurgy and Petroleum Definition Standards (CIM, 2014).

This PEA study is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them and that would enable them to be categorised as Mineral Reserves. There is no certainty that the conclusions of this preliminary economic assessment will be realised.

The results of this PEA study are a guide to indicate the potential reward versus risk for the PPG Project and must not be regarded as a final measure of value at this stage of study.

2.2 Report Responsibility Matrix

For the preparation of this report, GHD has relied extensively on LSC and their independent consultants for all matters referring to geology, hydrology, resource estimation, site topography, site environmental information, exploration, drilling, product marketing and pricing and general project information as described in the following responsibility matrix. GHD has verified this information making due enquiry of all material issues that are required in order to comply with NI 43-101 requirements.

Mr. Lawrence Henchel P.G., PGeo acted as the “qualified person” (QP) for the preparation of this report. Mr. Henchel is an independent Consultant for GHD that has no relationship with LSC as required by the definitions of NI43-101. Mr. Henchel has thoroughly reviewed the present report. The chapters under direct responsibility of Mr Henchel are shown in Table 2-1.

Mr. Antoine LeFaivre, P. Eng. and Novopro Projects (Novopro) are independent of LSC. Neither Mr. Lefaivre nor Novopro have, or have had previously, any material interest in LSC or the mineral properties in which LSC has any interest. Mr. Lefaivre’s relationship with LSC and GHD is solely one of professional association between client and independent subconsultant. Mr. Don Hains P.Geo., MBA acted as the “qualified person” (QP) for the preparation of certain chapters in this report as shown in Table 2-1. Mr. Hains is independent of LSC as defined by NI 43-101.

Grenvil Dunn and Paul Kluge are professional process engineer and mining engineers respectively. Both are consultants to LSC, but are not considered independent as they are intimately involved with the company. They are not considered to be QP's for this report, their contributions to the report have been reviewed and verified by the relevant QP.

Table 2-1: PPG PEA Responsibility Matrix

	Section	Qualified Person	Main Contributors
1	Summary	All	Fernando Avarez/Paul Kluge
2	Introduction	All	Fernando Avarez/Paul Kluge
3	Reliance on other Experts	All	Lawrence Henchel/Don Hains/ Antoine LeFaivre
4	Property Description and Location	Don Hains	Don Hains
5	Accessibility, climate, Local resources, Infrastructure and Physiography	Don Hains	Don Hains
6	History	Don Hains	Don Hains
7	Geological Setting and Mineralization	Don Hains	Don Hains
8	Deposit Type	Don Hains	Don Hains
9	Exploration	Don Hains	Don Hains
10	Drilling	Don Hains	Don Hains
11	Sample Preparation, Analysis and Security	Don Hains	Don Hains
12	Data Verification	Don Hains	Don Hains
13	Brine Processing and Testing	Antoine LeFaivre	Grenvil Dunn
14	Mineral Resource Estimates	Don Hains	Louis Fourie
15	Mineral Reserve Estimates	All	Lawrence Henchel
16	Mining Methods	All	Paul Kluge
17	Recovery Methods	Antoine LeFaivre	Marcela Matus/Grenvil Dunn
18	Project Infrastructure	Lawrence Henchel	Ivan Napoleoni
19	Market Studies and Contracts	Don Hains	Paul Kluge

	Section	Qualified Person	Main Contributors
20	Environmental Studies, Permitting and Social/Community	All	Paul Kluge
21	Capital & Operating Costs	Lawrence Henchel	Julio Olivos
22	Economic Analysis	Lawrence Henchel	Manuel Olivares
23	Adjacent Properties	Lawrence Henchel	Don Hains
24	Other Relevant Data and Information	All	Don Hains/ Paul Kluge/ Lawrence Henchel/ Fernando Alvarez
25	Interpretation and Conclusions	All	Don Hains/ Paul Kluge/ Lawrence Henchel/ Manuel Olivares
26	Recommendations	All	Don Hains/ Paul Kluge/ Lawrence Henchel/ Manuel Olivares

2.3 Sources of Information

This report is based on information and data provided to GHD by LSC and its consultants, including technical reports, maps, published government reports, company correspondence, budget quotations from contractors and service providers and public information.

GHD's cost estimation and design work has relied on information and criteria from its project database. For major capital equipment items and raw materials, GHD has requested budgetary quotations from third parties.

2.4 Details on Property Inspection by QP

Mr. Hains has visited the Pozuelos and Pastos Grandes properties on numerous occasions following acquisition of the Pastos Grandes and Pozuelos tenements by LSC. Mr. Hains had previously visited the Pozuelos property in December, 2009 in connection with the sale of the property from the original owners to LitheA, the prior owner of the salar de Pozuelos project.

Mr Henchel visited the project sites on 11 October 2018 and viewed exploration core, available infrastructure, proposed future infrastructure locations and general conditions. Mr. Henchel conducted extensive interviews with with GHD and LSC project personnel during the week of October 9, 2019.

2.5 Statement of Independence

About GHD:

GHD is an independent consulting company contracted by LSC to develop this PEA report. Neither GHD, nor the authors of this report, have or have had previously, any material interest in LSC or the

mineral properties in which LSC has any interest. GHD's relationship with LSC is solely one of professional association between client and independent consultant.

This report is prepared in return for professional fees based upon agreed commercial rates and the payment of these fees is not contingent on the results of this report. No member or employee of GHD is, or is intended to be, a director, officer or other direct employee of LSC.

About Don Hains, P. Geo.

Don Hains, P. Geo. and Hains Engineering Company Limited are independent of LSC. Neither Mr. Hains nor Hains Engineering have, or have had previously, any material interest in LSC or the mineral properties in which LSC has any interest. Mr. Hains' relationship with LSC is solely one of professional association between client and independent consultant.

This report is prepared in return for professional fees based upon agreed commercial rates and the payment of these fees is not contingent on the results of this report. Neither Mr. Hains nor any employee or associate of Hains Engineering is, or is intended to be, a director, officer or other direct employee of LSC.

About Larry Henchel, P. Geo.

Larry Henchel, P. Geo. and Stantec Consulting Service, Incorporated (Stantec) are independent of LSC. Neither Mr. Henchel nor Stantec have, or have had previously, any material interest in LSC or the mineral properties in which LSC has any interest. Mr. Henchel's relationship with LSC and GHD is solely one of professional association between client and independent consultant.

This report is prepared in return for professional fees based upon agreed commercial rates and the payment of these fees is not contingent on the results of this report. Neither Mr. Henchel nor any employee or associate of Stantec Consulting is, or is intended to be, a director, officer or other direct employee of LSC.

About Antoine LeFavre

Mr. Antoine LeFavre, P. Eng. and Novopro Projects (Novopro) are independent of LSC. Neither Mr. Lefavre nor Novopro have, or have had previously, any material interest in LSC or the mineral properties in which LSC has any interest. Mr. Lefavre's relationship with LSC and GHD is solely one of professional association between client and independent subconsultant.

This report is prepared in return for professional fees based upon agreed commercial rates and the payment of these fees is not contingent on the results of this report. Neither Mr. Lefavre nor any employee or associate of Novopro is, or is intended to be, a director, officer or other direct employee of LSC.

This report is prepared in return for professional fees based upon agreed commercial rates and the payment of these fees is not contingent on the results of this report. Neither Mr. Lefavre nor any employee or associate of Novopro is, or is intended to be, a director, officer or other direct employee of LSC.

2.6 Units and Currency

Unless otherwise noted, all units of measurement used throughout this report correspond to the "Le Système International d'Unités" (SI System) and are denoted in brackets "[]".

Monetary values in this report are expressed in constant 2018 USA dollars.

All currency used throughout this report is indicated according to ISO 4217 designations.

2.7 Use of Report

GHD of Santiago, Chile, prepared this report with data and information provided by LSC and third parties, in accordance with National Instrument 43-101 and NI 43 – 101 F1 pursuant to the agreed contractual terms of the present engagement. GHD represents that it exercised reasonable care in the preparation of this report and that the report complies with published industry standards for such works and that it is subject to the terms and conditions of engagement between GHD Limited Canada and LSC.

The recommendations and opinions contained in this report assume that unknown, unforeseeable, or unavoidable events will not occur. Such events may adversely affect the cost, progress, scheduling or ultimate success of the Project. Any discussion of legal issues contained in this report merely reflects technical analysis on the part of GHD and does not constitute legal opinions or the advice of legal counsel.

Further, GHD has relied extensively on reports, opinions and statements of various third party experts and on the Company on matters relating to legal, political, environmental, tax and pricing of commodities for which pricing is not publicly available. While GHD believes that such information is true and accurate, GHD disclaims any and all responsibility and liability in relation thereto. In this regard, legal information concerning title to the PPG Project may be found in Chapter 4 for both project sites. Project environmental considerations are found in Chapter 20. Lithium Carbonate commodity pricing and taxes information is found Chapter 19.

Expected accuracy of the estimates contained in this report is $\pm 25\%$.

This report is considered current as of January 17, 2019.

Item 3 - Reliance on Other Experts

The preparation of a technical report of this nature requires the contribution of multiple disciplines. In the case of a lithium salar project the primary disciplines from which the evaluation stems are geology and hydrogeology that provide the estimation and characterization of the lithium resource.

The project disciplines required for this Report have been chemical and process engineering, mechanical engineering; cost estimating engineering and economics modelling. Each discipline has been led by experts in each corresponding area, throughout the development of this report. Main experts that participated in this study are as follows:

- ❖ Lawrence Henchel - Review of report Items 18, 21, and 22 of this Technical Report. The information, conclusions, opinions, and estimates contained in the aforementioned sections are based on:
 - Information available to Stantec and Mr. Henchel at the time of preparation of this report,
 - Assumptions, conditions, and qualifications as set forth in this Technical Report, and
 - Data, reports, and other information supplied by LSC, GHD, and other third party sources as noted in Item 27, References.

Except for the purposes legislated under provincial securities laws, any use of this Technical Report by any third party is at that party's sole risk.

Mr. Henchel has also relied upon work completed by GHD who completed the work to estimate and compile the capital (Item 21) and operating costs (Item 22) for the project and associated infrastructure, as described in Chapter 18.

- ❖ Antoine Lefavre - For the preparation of Items 13 and 17 of this Technical Report. The information, conclusions, opinions, and estimates contained in the aforementioned sections are based on:
 - Information available to Mr. Lefavre at the time of preparation of this report,
 - Assumptions, conditions, and qualifications as set forth in this Technical Report, and
 - Data, reports, and other information supplied by LSC and other third party sources as noted in Item 27, References.

Except for the purposes legislated under provincial securities laws, any use of this Technical Report by any third party is at that party's sole risk.

Mr. Lefavre has not researched property title or ownership for the Pastos Grandes or Pozuelos tenements and has relied on LSC for information on property ownership, annual canon fees and required filings of environmental reports.

Mr. Lefavre has relied on information provided on data and interpretation by LSC's process consultancy, Norlab s.r.l., for data related to process test work.

From LSC's side, the following participants have contributed to this report:

- ❖ Hains Engineering - For the preparation of Items 4 through 12 and Item 14 of this Technical Report. The information, conclusions, opinions, and estimates contained in the aforementioned sections are based on:
 - Information available to Hains at the time of preparation of this report,

- Assumptions, conditions, and qualifications as set forth in this Technical Report, and
- Data, reports, and other information supplied by LSC and other third party sources as noted in Section 27, References.

Except for the purposes legislated under provincial securities laws, any use of this Technical Report by any third party is at that party's sole risk.

Hains has not researched property title or ownership for the Pastos Grandes or Pozuelos tenements and has relied on LSC for information on property ownership, annual canon fees and required filings of environmental reports.

Hains has relied on technical reports filed on SEDAR by Millennial Lithium related to certain geophysical and other exploration data on adjacent properties held by Millennial Lithium at salar de Pastos Grandes as such information may extend to the tenements held by LSC. Hains has not independently verified the information contained in the technical reports filed by Millennial Lithium and notes that mineralization on the Millennial Lithium tenements may not necessarily be comparable to mineralization on the tenements held by LSC at salar de Pastos Grandes.

Hains has relied on information provided on data and interpretation by LSC's hydrogeological consultancy, Conhidro s.r.l., for data related to pumping well tests and overall hydrogeological understanding of salar de Pozuelos and salar de Pastos Grandes.

From GHD Chile's side, the following participants have contributed to this report:

- ❖ Marcela Matus – Process and pond design and preparation of Item 17 of this Technical Report.
- ❖ Ivan Napoleoni – Site lay-out, process plant and ponds equipment definitions, and preparation of Item 18 of this Technical Report.
- ❖ Julio Olivos – Project's Capital Expenditure preparation.
- ❖ Manuel Olivares – Project's Operational Expenses and Economic Analysis preparation
- ❖ MSc. Fernando Alvarez- PEA report preparation.

Item 4 - Property Description and Location

The PPG project incorporates two projects that are in close proximity to each other, namely the Pozuelos and Pastos Grandes salars. The salars are located in the Puna (Altiplano) region of northwestern Argentina, Salta Province, Departamento Los Andes. The salars are regarded as one production system for the purposes of this report. Figure 4-1 illustrates the location of the project.

4.1 Pozuelos

Salar de Pozuelos property is located approximately 250 [km] west of the city of Salta and 150 [km] east of the Chilean border. The property is comprised of two main mining groups covering 10,787 [ha], representing essentially all of the salar and is situated at an elevation of approximately 3,755 metres above sea level (m.a.s.l). Access to the property from Salta is excellent. A high quality paved highway is available from Salta to San Antonio de los Cobres, the major urban centre in the Puna. Good quality gravel roads lead from S.A. de Los Cobres to the property, passing through Santa Rosa de los Pastos Grandes, located 40 [km] to the northeast of the Pozuelos Property. The typical driving time from Salta to the property is approximately 3.5 hours.

The mining concessions which make up the Pozuelos Property are currently registered under the name “LitheA Inc. Sucursal Argentina”, a wholly owned subsidiary of LitheA Inc., which in turn is wholly owned by LSC.

4.1.1 Land Tenure

The LSC property at salar de Pozuelos is comprised of two main mining ‘groups’:

- LitheA Norte; and
- LitheA Sur

The tenements have been registered as mines and surveyed and all required canon payments have been made for the current year. Canon payments are next due on December 31, 2018. The tenements are fully registered for lithium and borates extraction. Investment plans respecting the tenements have been filed and accepted and all required investment plan requirements have been satisfied. A notarial certificate has been issued stating that no aboriginals live on the tenements and that there are no aboriginal claims on the subject lands. As fully registered mines, there is no expiration date on the validity of title, provided annual canon payments are made by the due date.

All required environmental permits have been filed and approved for surface exploration and an Environmental Information Report, Level II (EIR II) has been filed and approved for drilling and other exploration on the LitheA Sur and Norte tenements. An Environmental Impact Assessment (EIA) report on the property and the proposed PPG project is in progress and is anticipated to be submitted by the end of Q1-2019. The EIA report, once approved, forms the mining licence under Argentine mining law and provides for final approval for construction and operation of the project.

In addition to the above mining groups, LitheA holds several other mining tenements and easements totalling 10,638 [ha] in the area immediately surrounding the salar which are prospective for fresh water and are currently registered for disseminated gold and copper.

Semi-annual canon payments on the tenements are ARS 1,600 per hectare for tenements designated for lithium and borate extraction and ARS 800 per hectare for tenements registered for other minerals. The total annual canon payments for the Pozuelos tenements are ARS 342,400

A detailed list of the mining tenements owned by LitheA Inc. covering Pozuelos is illustrated in Figure 4-2 and provided in Table 4-1.

Encumbrances on the Pozuelos tenements include the following:

- 1% royalty held by LSC Lithium based on mine-mouth value of borate and lithium production from the following tenements:
 - o Sarita (File No. 1208)
 - o Margarita (File No. 5569)
 - o Pozuelo (File No. 4959)
 - o San Mateo II (File No. 13171)
 - o San Mateo III (File No. 13172)

The royalty can be purchased by LitheA for an amount of \$1 million.

There are no known other encumbrances or other charges on the subject property.

LitheA also holds tenements, servitudes and options on several properties outside of Pozuelos, as detailed in Hains (2017a). These are collectively known as the “Other Tenements” and do not form part of the current Technical Report or PPG project.

Once in production, there is a 3% mine mouth “boca mina” royalty due the Salta provincial government, calculated as the value of the brine after all extraction, processing and transport charges are deducted.

There are no other significant factors and risks besides noted in the technical report that may affect access, title, or the right or ability to perform work on the property.

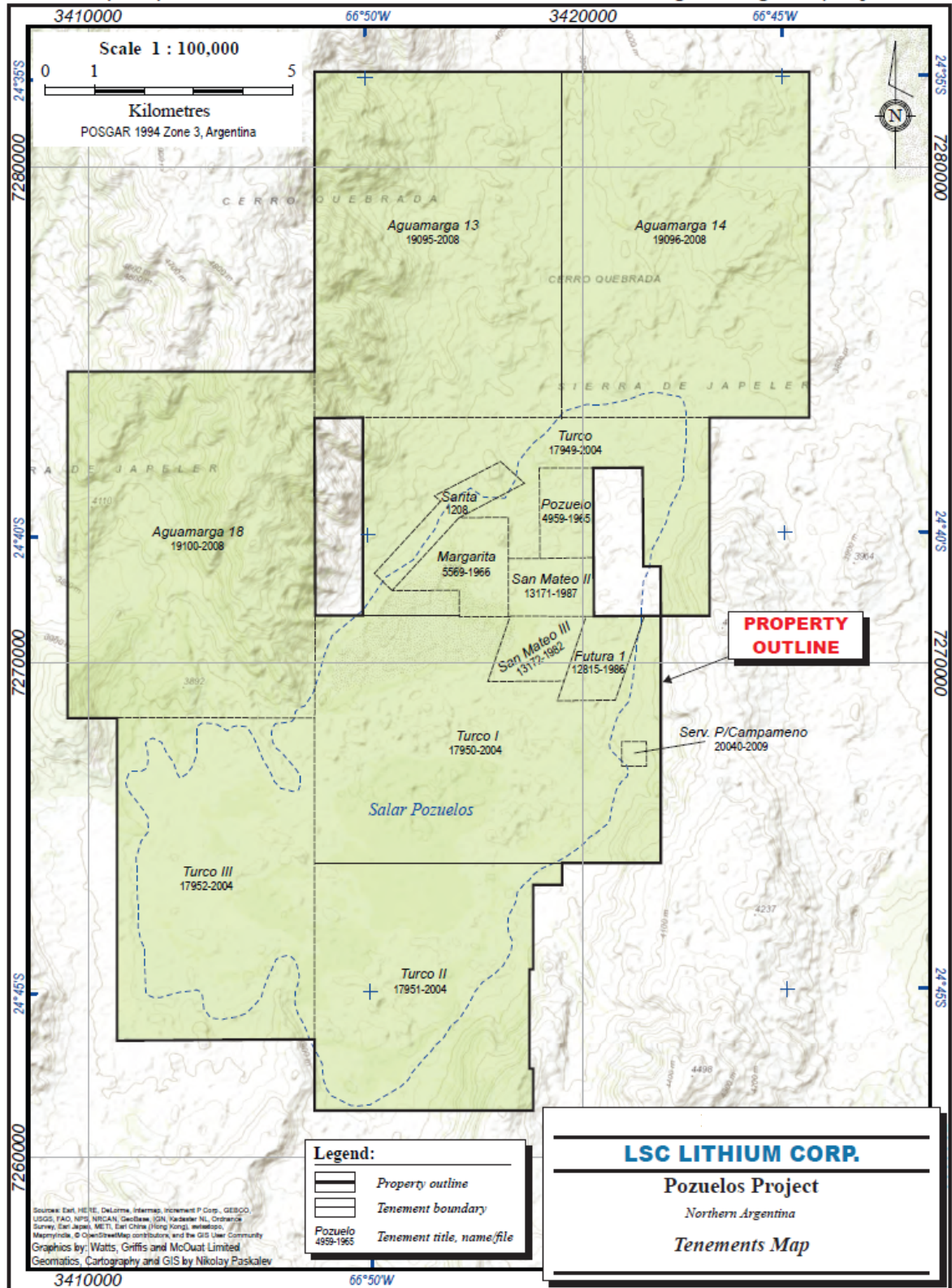


Figure 4-2: Pozuelos Tenement Map

Table 4-1: LitheA Inc. Tenements on Pozuelos Salar

			Title		Status of Proceedings		Minerals	Acreage		Investment Plan		Mining Fee	Liens		
No.	Mine	File #	Title holder	Title Acquisition	Concession	Surveyed	(registered)	Area [ha]	Claims	Filed	Compliance	Evid. of payment	Mortgage	Usufruct	Royalty
	LitheA Norte Mining Group1	20475	LitheA Arg Branch	N/A	Granted	Approved		2,870.44	29	N/A	Yes	2 nd Semester 2018			
1	Turco	17949	LitheA Arg Branch		Granted	Approved	Borates, Li	1,576	16	Yes	Yes	Yes	Yes	No	Yes
2	Sarita	1208	LitheA Arg Branch		Granted	Approved	Borates, Li	194	2	Yes	Yes	Yes	Yes	Yes	Yes
3	Margarita	5569	LitheA Arg Branch		Granted	Approved	Borates, Li	298	3	Yes	Yes	Yes	Yes	Yes	Yes
4	Pozuelo	4959	LitheA Arg Branch		Granted	Approved	Borates, Li	200	2	Yes	Yes	Yes	Yes	Yes	Yes
5	San Mateo II	13171	LitheA Arg Branch		Granted	Approved	Borates, Li	202	2	Yes	Yes	Yes	Yes	Yes	Yes
6	San Mateo III	13172	LitheA Arg Branch		Granted	Approved	Borates, Li	200	2	Yes	Yes	Yes	Yes	Yes	Yes
7	Futuro I	12815	LitheA Arg Branch		Granted	Approved	Borates, Li	200	2	Yes	Yes	Yes	Yes	No	Yes
8	Easement	18242	Easement beneficiary		Granted	Approved	N/A	97	N/A	N/A	N/A	N/A	N/A	N/A	N/A
No.	Mine	File No.	Titleholder	Title Acquisition	Status of Proceedings		Minerals (Registered)	Acreage		Investment Plan		Mining Fee	Liens		
					Concession	Surveyed		Area [ha]	Claims	Filed	Compliance	Evid. of Payment			
	LitheA Sur Mining Group1	20476	LitheA Arg Branch	N/A	Granted	Approved		7,916	79	N/A	Yes	1st Semester 2018	Mortgage	Usufruct	Royalty
9	Turco I	17950	LitheA Arg. Branch		Granted	Approved	Borates. Li	3,095	31	Yes	Yes	Yes	Yes	No	No
10	Turco II	17951	LitheA Arg. Branch		Granted	Approved	Borates, Li	2,221	22	Yes	Yes	Yes	Yes	No	No
11	Turco III	17952	LitheA Arg. Branch		Granted	Approved	Borates, Li	2,600	26	Yes	Yes	Yes	Yes	No	No
12	Easement	19832	LitheA Arg. Branch		Granted	Approved	Easement	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13	Easement	20040	LitheA Arg. Branch		Granted	Approved	Camp, path, water	34	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 4-1 (cont'd): LitheA Tenements on Pozuelos Salar

			Title		Status of Proceedings		Minerals	Acreage		Investment Plan		Mining Fee	Liens		
No.	Mine	File #	Titleholder	Title Acquisition	Concession	Surveyed	(registered)	Area (ha)	Claims	Filed	Compliance	Evid. of payment	Mortgage	Usufruct	Royalty
14	Agumarga 13	19095	LitheA Arg. Branch	Direct Application (vacant mine)	Granted	Approved	Cu, Au (disseminated)	3,500	35		Yes	1st Semester 2018	No	No	No
15	Agumarga 14	19096	LitheA Arg. Branch	Direct Application (vacant mine)	Granted	Approved	Cu, Au (disseminated)	3,500	35		Yes	1st Semester 2018	Yes	No	No
16	Agumarga 18	19100	LitheA Arg. Branch	Direct Application (vacant mine)	Granted	Approved	Cu, Au (disseminated)	3,500	35		Yes	1st Semester 2018	Yes	No	No

1) Mining Group is a structure that the AMC provides for handling a group of tenements in an easier way from a procedural perspective. This structure does not impact on the tenements legal features. Source: LitheA Company data

4.2 Pastos Grandes

Salar de Pastos Grandes is a triangular shaped salar centred at 24°34'S, 66°42'W and sits at an average elevation of 3,773 (m.a.s.l.) and occupies an area of 36 [km²] in the Los Andes Department, Salta Province, within the Puna area of northwestern Argentina. The overall drainage basin has an area of approximately 3,600 [km²] (Alonso and Sorentino, 2009).

The salar is located 56 [km] southwest of San Antonio de Los Cobres (S.A. Las Cobres), the largest community in the Puna. The village of Santa Rosa de los Pastos Grandes is located 13 [km] north-northeast of the salar. Pozuelos is located approximately half an hour drive south-southwest of Pastos Grandes. The project location is illustrated in Figure 4-1.

The salar surface is approximately 9 [km] north-south and 7 [km] east-west. The surface is essentially flat with the exception of the remains of clastic deposits forming “islands” approximately 10 [m] to 15 [m] in height. This formation, the Blanca Lila, extends to the north of the salar as a series of ridges.

LSC controls 2,683 [ha] on the salar and immediately adjacent area as mining concessions (see Figure 4-3). The tenements held by LSC are located on the east and northwest sides of the salar. Tenements held by Millennial Lithium and others are located between the LSC tenements and on either side of the LSC tenements.

LSC acquired its Pastos Grandes tenements via a series of property transfers and purchases as detailed in Hains (2017a and 2018b).

All the LSC tenements are registered as Exploitation Concessions (“Minas”) that have an unlimited duration provided all canon fees are paid on time and all required environmental reports and other obligations set out in the National Mining Code are met by the title holder. All the LSC tenements are in good standing.

All of the LSC tenements are registered for lithium, with some tenements also being registered for sodium chloride (salt) and or borate production. Table 4-2 provides details on the status of each tenement. Semi-annual canon fees are ARS 40,880.

Royalties on lithium brine production are due on several tenements as indicated in Table 4-2. In addition, a “mine mouth” royalty of 3% is due the Salta government on lithium brine production from all the tenements. The Salta provincial government royalty is calculated as the value of the lithium brine after deduction for all production, processing, sales and transportation expenses.

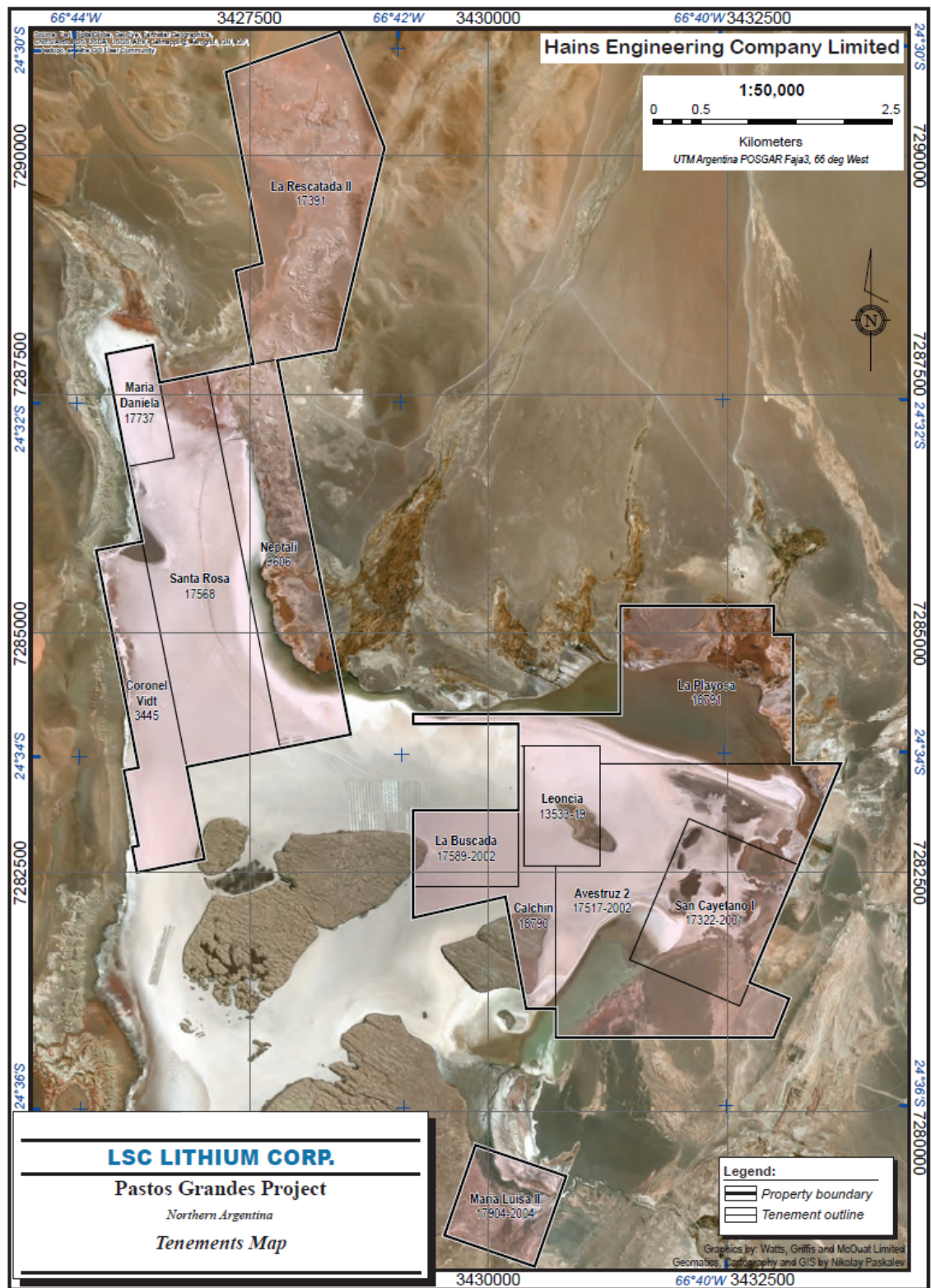


Figure 4-3: Pastos Grandes Tenement map

Table 4-2: LSC Tenements - Pastos Grandes Project

PROVINCE OF SALTA																							
				Title		Status of Proceedings		Minerals	Claims	Investment Plan				Mining fee			Surface Properties			Enoubrances		Environmental Reports	
Project	#	Tenement Name	File #	Titleholder	Title Acquisition	Concession	Surveyed	(registered)	Claims	Filed	Compliance	Period	Debt	Period	Evidence	Canon/year- Pesos	Aboriginal communitie s	Registered Owner	Surface Extension - hectares	Liens	Royalties	Original	Renewal Date
Pastos Grandes	1	Avestruz	17,517	LSCSA	Deed of Transfer Nr. 57 (03.02.2017)	Granted	Approved	Borato, Li, K	5	Yes	YES		N/A	1º 2018	YES	\$ 8,000.00	N/A	FISCAL LAND OF SALTA	460	NO	Mr. Sosa Quintana, has the right to a royalty over the net smelter return of the 1.5% of the amounts effectively received by the person exploiting Avestruz for the sale of any mineral extracted		APPROVED
Pastos Grandes	2	Leoncia	13,533	LSCSA	Deed of Transfer Nr. 9 (09.02.17)	Granted	Approved	Sodium, Sulfate, Li, K	1	Yes	YES		N/A	1º 2018	YES	\$ 1,600.00	N/A	FISCAL LAND OF SALTA	100	NO	Mr. Viveros had a royalty over the net smelter return of the 2.5% of the amounts effectively received from the exploitation of Leoncia for the sale of any mineral extracted		PENDING APPROVAL
Pastos Grandes	3	San Cayetano I	17,322	LSCA	Deed of Transfer	Granted	Approved	Borates, Li, K	2	Yes	YES		N/A	1º 2018	YES	\$ 3,200.00	N/A	FISCAL LAND OF SALTA	200	NO	NO		PENDING APPROVAL
Pastos Grandes	4	María Luisa II	17,904	LSCSA	Deed of Transfer Nr. 12 (17.02.17)	Granted	Approved	Borates, Li, K	1	Yes	YES		N/A	1º 2018	YES	\$ 1,600.00	N/A	FISCAL LAND OF SALTA	100	NO	NO		PENDING APPROVAL
Pastos Grandes	5	La Buscada	17,589	LSCSA	Deed of Transfer Nr. 8 (08.02.17)	Granted	Approved	Sodium, Chloride, Li, K	1	Yes	YES		N/A	1º 2018	YES	\$ 80.00	N/A	FISCAL LAND OF SALTA	88	NO	Mr. Federico Study, has the right to exploit the salt or sodium chloride extracted from La Buscada for a period of 15 years as from the date of acceptance the offer		PENDING APPROVAL
Pastos Grandes	6	Calchin	18,790	LSCSA	Deed of Transfer Nr. 153 (22.12.16)	Granted	Approved	Salt, Li, K	1	Yes	YES		N/A	1º 2018	YES	\$ 1,600.00	N/A	FISCAL LAND OF SALTA	90	NO	NO		PENDING APPROVAL
Pastos Grandes	7	La Playosa	18,791	LSCSA		Granted	Approved	Salt, Li, K	4	Yes	YES		N/A	1º 2018	YES	\$ 6,400.00	N/A	FISCAL LAND OF SALTA	344	NO	NO		PENDING APPROVAL
Pastos Grandes	8	Coronel Vidt	3,445	LSCSA		Granted	Approved	Salt, Li, K	2	Yes	YES		N/A	1º 2018	YES	\$ 3,200.00	N/A	FISCAL LAND OF SALTA	185	NO	NO		APPROVED
Pastos Grandes	9	María Daniela	17,737	LSCSA		Granted	Approved	Sodium, Sulfate, Li, K	1	Yes	YES		N/A	1º 2018	YES	\$ 1,600.00	N/A	FISCAL LAND OF SALTA	60	NO	NO		PENDING APPROVAL
Pastos Grandes	10	La Rescatada II	17,391	LSCSA		Granted	Approved	Borates, Li, K	4	Yes	YES		N/A	1º 2018	Yes	\$ 6,400.00	N/A	FISCAL LAND OF SALTA	396	NO	NO		PENDING APPROVAL
Pastos Grandes	11	Neptali I	9,606	LSCSA		Granted	Approved	Salt, Borates, Li, K	3	Yes	YES		N/A	1º 2018	YES	\$ 4,800.00	N/A	FISCAL LAND OF SALTA	300	NO	NO		PENDING APPROVAL
Pastos Grandes	12	Santa Rosa	17,568	LSCSA		Granted	Approved	Salt, Li, K	4	Yes	YES		N/A	1º 2018	YES	\$ 6,400.00	N/A	FISCAL LAND OF SALTA	360	NO	NO		APPROVED
29															\$ 44,680.00			2683					

Item 5 - Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1 Accessibility

Access to the properties from Salta is via National Route 51 (RN51) 170 [km] west and northeast to San Antonio de los Cobres. From there, the route goes 15 [km] to the junction with Provincial Route 129 (PR129) and from there 50 [km] toward Santa Rosa de los Pastos Grandes and then south approximately 11 [km] to salar de Pastos Grandes. From Pastos Grandes follow PR129 westwards approximately 35 [km], where it joins up with the access road southwards to Pozuelos salar as shown in Figure 5-1.

Access from Antofagasta, Chile is via the Panamerican Highway 5N 70 [km] to Baquedano, proceeding east along Routes 365, 367, and 23 for approximately 300 [km] to the international crossing at Paseo Sico. From Sico the shortest route to the sites is 130 [km] via routes RN51, RP127 and RP129 through Cauchari and Pocitos. Access from Chile is also possible via Paso Jama on NR52 and then via RN40 to Cauchari and RN 51, RP127 and RP129.

5.2 Climate

The climate of the Puna varies from semiarid in the eastern border to arid along the western border and arc. Mountains east of the Altiplano-Puna are orographic barriers to humidity, producing the rain shadow desert in the plateau. The paucity of precipitation on the Puna is compounded by the high elevation, producing a harsh climate. The air is extremely dry, winds blow strongly throughout the year, precipitation is scarce, temperatures are low, clouds are normally absent, radiation is intense, and there are large daily temperature fluctuations. These parameters enhance evaporation and reduce detrital input to basins. Perennial streams locally feed sub-basins, but normally the water quickly disappears into alluvial fans. The conditions described above produce high rates of evaporation varying from 2500 to 3000 [mm] in an annual period (7-8 [mm] per day) generating a considerable hydric deficit.

The primary source of precipitation in this region is associated with Atlantic moisture recycled via the Amazon and moisture related to the South Atlantic Convergence Zone during summer. Minor amounts of precipitation also reach this arid zone via incursions of the southern hemisphere westerlies during winter. 80% of the annual precipitation falls in the summer from November to February. Based on data from the meteorological station at salar de Pocitos, the yearly average is 35 [mm], mostly concentrated during the summer.

Based on INTA (National Institute of Agroindustry and Technology) data for the Puna region during the period 1901-1940, the mean annual temperature is 9.5 [°C]. The warmest month is December, which has a monthly mean temperature of 13.2 [°C], whilst the coldest month is June with 3.7 [°C]. Daily temperature amplitude varies from 30 [°C] to 35 [°C] between day and night, depending on the season. The frost free period is relatively short and frost is very common and intense.

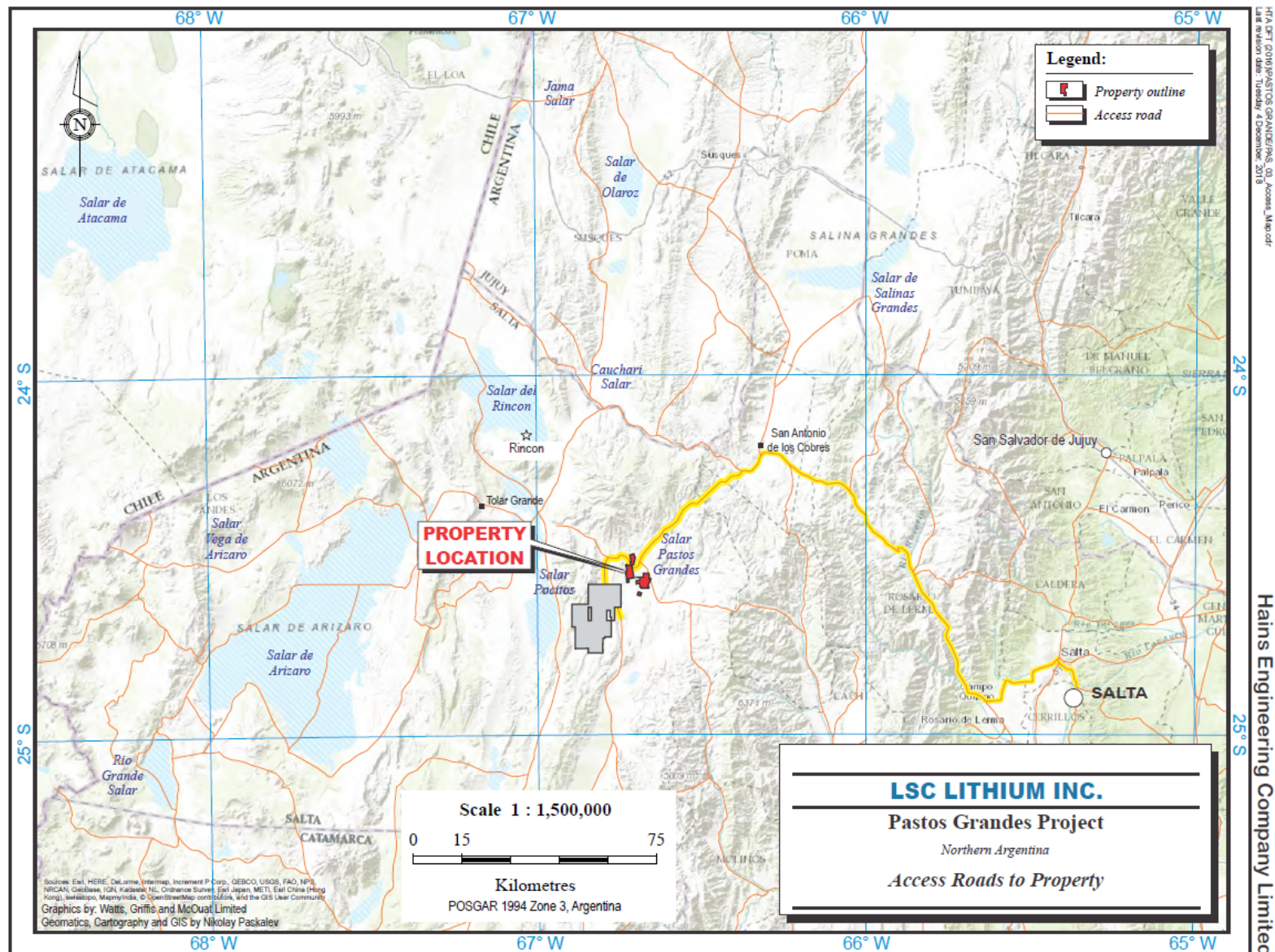


Figure 5-1: Project Access Map

Winds in the Puna region vary considerably in velocity and are strongly controlled by the relief. The Puna region is located within a high-pressure zone originating southwest oriented winds, but its altitude above sea level generates a low pressure centre with predominating local winds. There is also a seasonal air mass interchange between the Puna and its ranges; during the day the wind blows down from the ranges to the lower regions and during the night the reverse occurs. The maximum speed is registered during spring, remaining uniform the rest of the year. Beginning in September, there is an increase of solar radiation, atmospheric humidity and temperature variation producing more air mass movement compared to other months.

The climatic conditions at salar de Pozuelos and salar de Pastos Grandes are very similar due to their proximity to each other. The PPG project lies close to the 50 [mm/year] isohyet (see Figure 5-2). Data for Santa Rosa de los Pastos Grandes, located approximately 35 [km] to the northeast of salar de Pozuelos and 11 [km] north of Pastos Grandes, has been used to illustrate weather trends over the past few years. Figure 5-3 provides data on precipitation, wind speed, and other factors for Santa Rosa de los Pastos Grandes. Total average annual precipitation is approximately 60 [mm/year] in the actual salar, with higher elevations receiving somewhat more precipitation, primarily in the form of snowfall. Overall, the estimated average annual precipitation for the basin as a whole is estimated at approximately 75 [mm].

Winds can be quite strong in the area, with wind speeds in excess of 80 [km/h] being recorded. Winds tend to increase during the day, with maximum wind speeds typically reached in the mid-afternoon. Wind speeds vary by season, with higher speeds typically being recorded in the summer months.

While the climate does not impose significant restrictions on exploration, it is normal procedure to not undertake drilling during the peak of the summer rain period in January and February due to problems associated with surficial flooding of the salars. The presence of water on the surface weakens the salt crust, preventing movement of heavy vehicles.

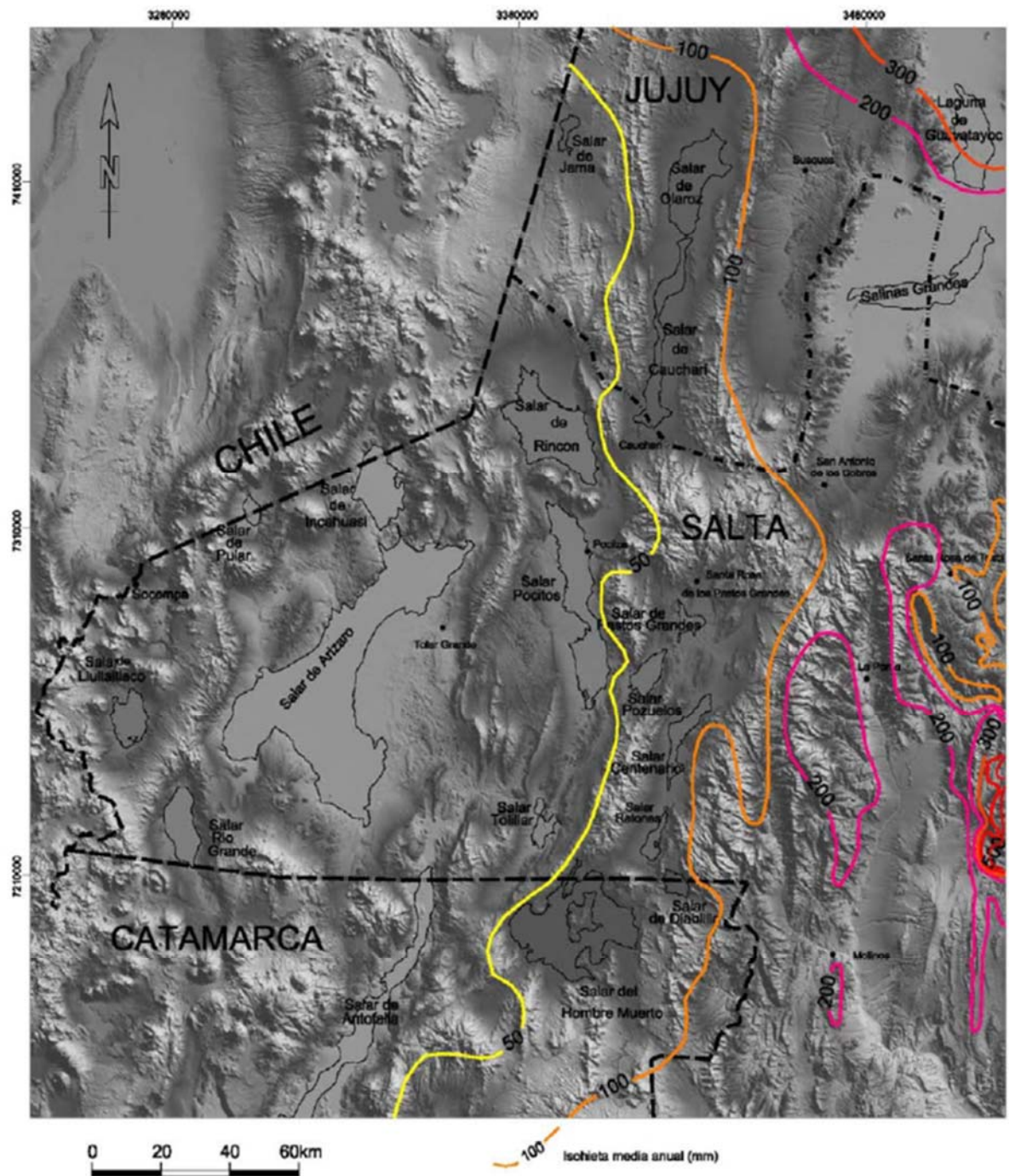
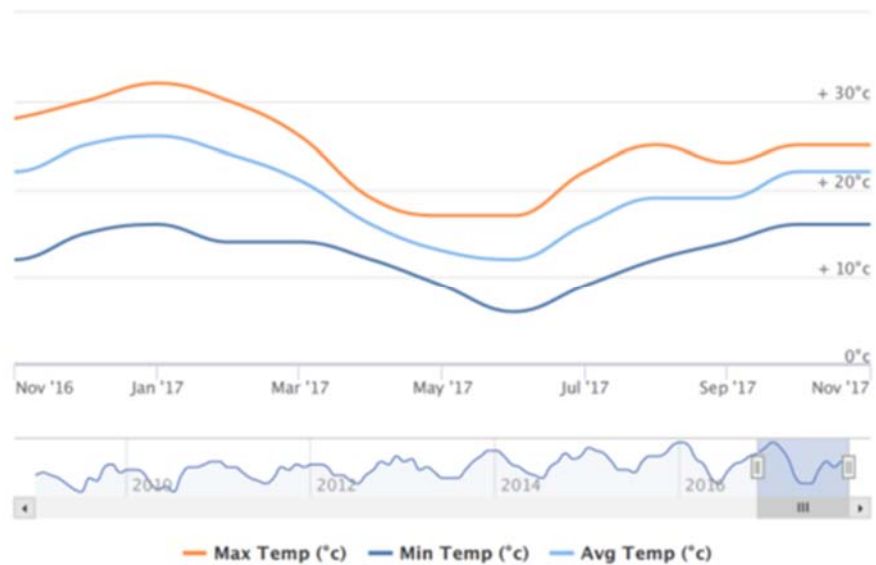


Figure 5-2: Isohyet Map of Puna

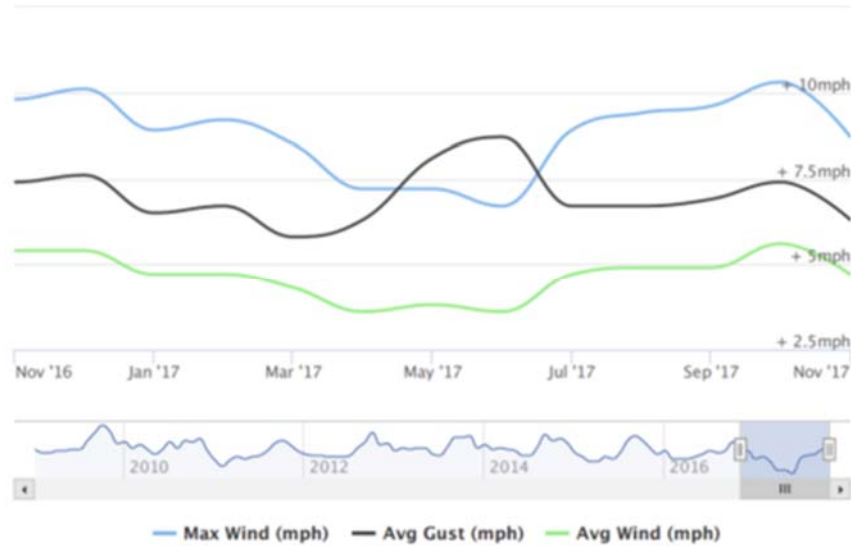
Precipitation



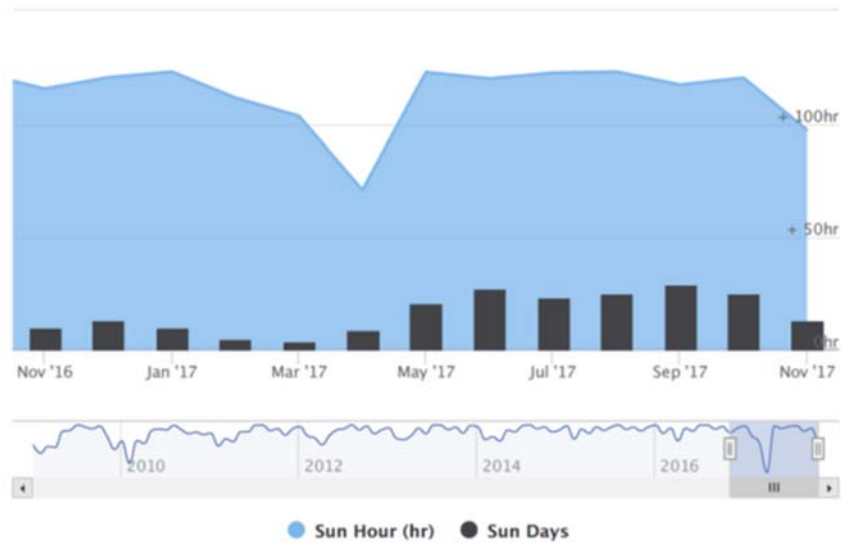
Temperature



Wind



Sunshine



Source: www.worldweatheronline.com

Figure 5-3: Weather Data – Santa Rosa de Pastos Grandes, 35NW of Pozuelos, Nov. 2016 – Nov. 2017

5.3 Local Resources

Pozuelos hosts the Pozuelos exploration camp, which was completed in October 2018. It has 18 rooms, an infirmary, warehouse, office and kitchen and can accommodate 50 people. The camp serves as the exploration base for the PPG project and will be expanded as the PPG project advances. There are no significant local resources at Pastos Grandes. Basic first aid, accommodation and food can be obtained at the village of Sta Rosa de Pastos Grande (population 120). The town of SA de los Cobres, with a population of approximately 5,500, is the regional centre of the Puna and offers more extensive but still somewhat limited services in the form of accommodations, restaurants, basic equipment supplies and repairs, a clinic, primary and secondary schools and communications.

5.4 Infrastructure

There is limited infrastructure within the immediate area of Pozuelos and Pastos Grandes. The village of Pocitos, population approximately 100, is located about 36 [km] northwest of the property. Pocitos is a station on the Antofagasta-Salta Railway and commercial train service is available three times per week between Pocitos and Antofagasta. Pocitos is the terminus of the Gasoducto de Puna (Puna gas pipeline) which has an extension running to the Mina Fenix lithium operation operated by Livent (formerly FMC Lithium) at salar de Hombre Muerto. LSC has secured a gas allocation from the operator in sufficient quantity to meet the needs of the PPG project. LSC will be required to construct an approximate 25 [km] connection to the gas line. A 375 [KV] transmission line running from Argentina to Chile is located approximately 50 [km] north of the salars. Connections to this line are possible but not currently planned as part of the development of the PPG project.

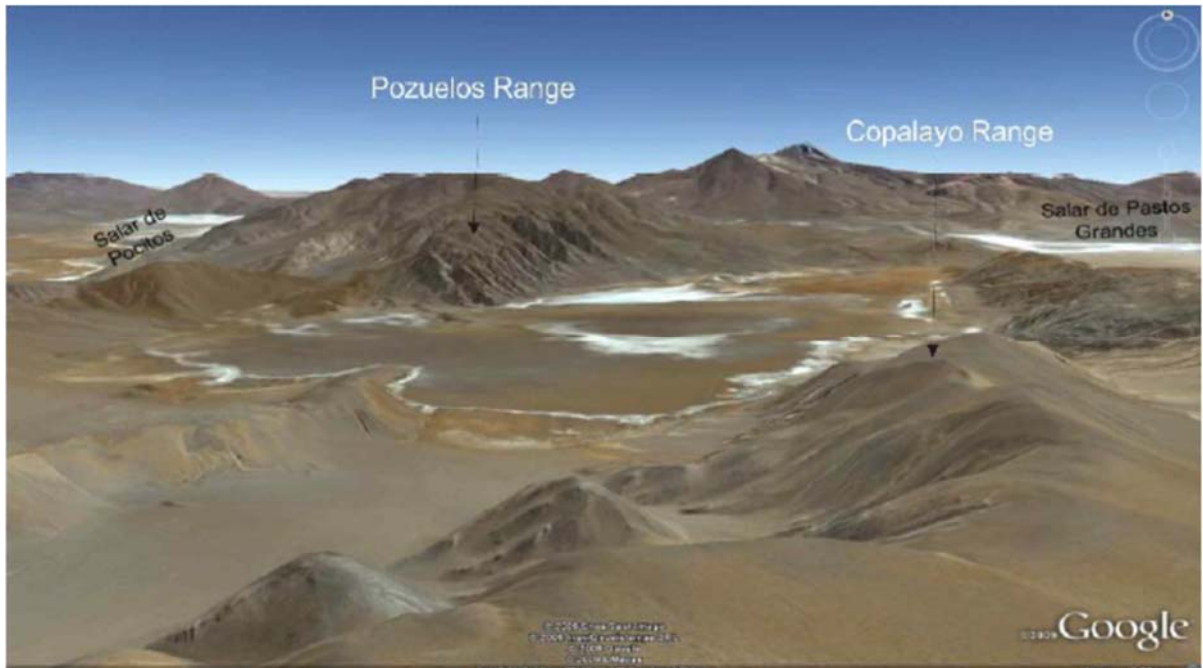
National Route 51 passes through SA de los Cobres and connects Salta city with Antofagasta, Chile via the Paseo de Sico. This road is largely paved from Salta to SA de los Cobres and is a well maintained gravel road from SA de los Cobres to the border with Chile. Provincial roads such as PR 129 and PR 127 are well maintained gravel roads.

5.5 Physiography

5.5.1 Pozuelos

As with other evaporite basins throughout the Puna, salar de Pozuelos has a centripetal drainage and basin-filling composed mainly of halite. It is emplaced between the NNE-SSW trending relatively low mountain chains: Pozuelos and Copalayo range. The average altitude is 3,755 m.a.s.l. in the centre of the salar, whereas the maximal altitude reaches 4,850 m.a.s.l. in the Pozuelos range (see Figure 5-4). The overall basin has a drainage area of approximately 385 [km²], while the salar itself occupies an area of approximately 82 [km²] comprising the core, edge and alluvial fan (Conhidro, 2018).

The salar is roughly ellipse- shaped and is characterized by a NE-SW trending long axis and a short axis slightly displaced southward. The salar is a large fossil salt pan where inflow waters seem to currently stem exclusively from fresh and salty springs from the flanks of the two bounding ranges. However, it is evident that sometime in the geologic past (~>1.5 MMY) it was connected to salar de Pastos Grandes by a paleo channel located in the north-eastern end of Pozuelos.



Source: Google Maps

Figure 5-4: Physiography of Salar de Pozuelos and Surrounding Area

The surface of the salar de Pozuelos is characterized by three types of salt crust with transitions between the three types:

- Hard, rough saline crust with halite pinnacle formations to approximately 30 – 40 [cm] height;
- Earthy saline crust with rounded surfaces, often with substantial clay and trending to soft conditions during wet periods; and,
- Smooth saline crust.

The distribution of the three types reflects the length of time since the area was flooded by surface waters which dissolve the halite crust, smoothing the surface and adding fine sediments. Hence, the hard halite crust is concentrated in the central part of the salar, away from runoff from the surrounding ranges. Figure 5-5 illustrates the geomorphology of the salar.

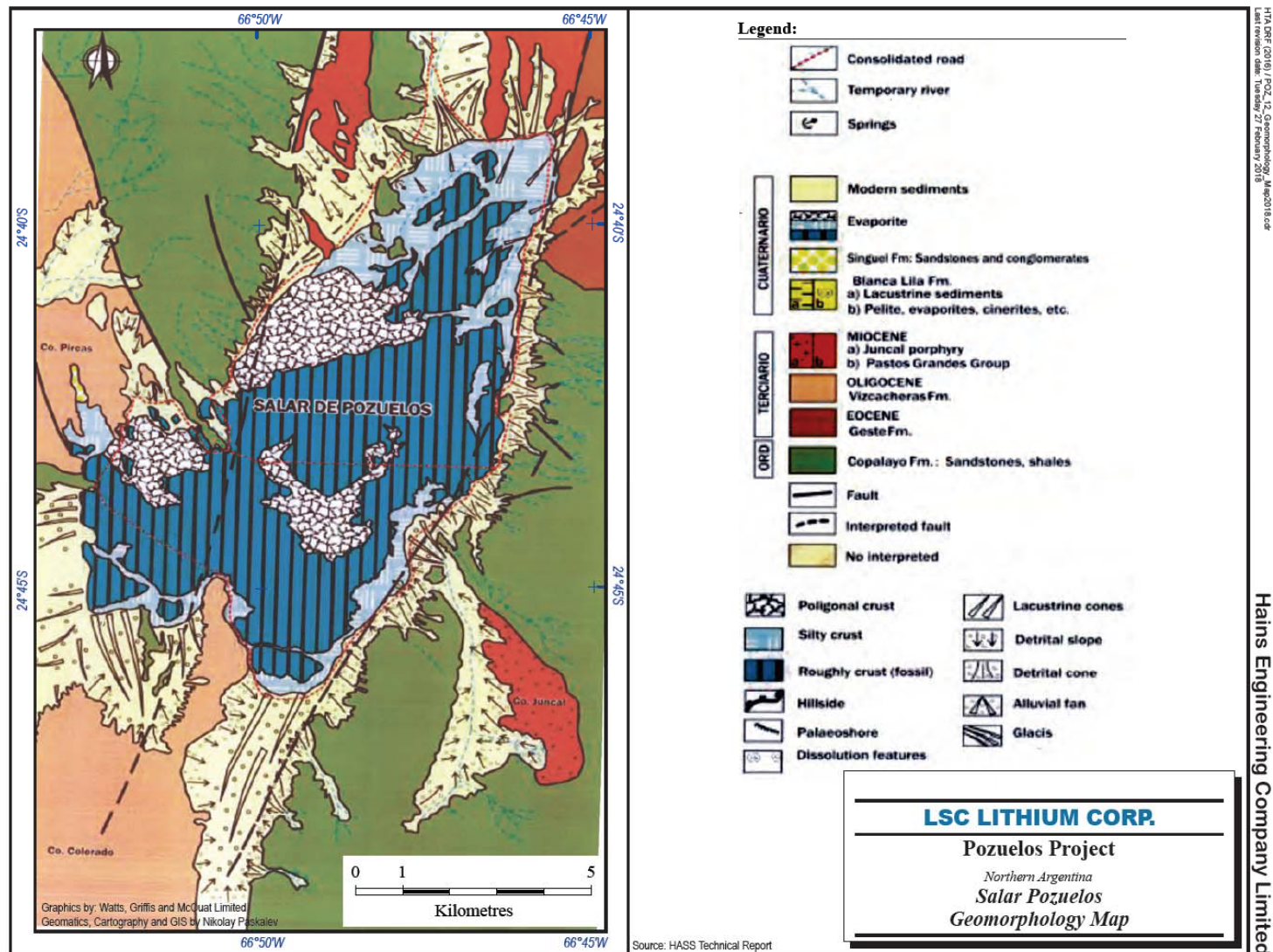


Figure 5-5: Salar de Pozuelos Geomorphology

5.5.2 Pastos Grandes

Salar de Pastos Grandes occupies an area of approximately 36 [km²] comprised mostly of flat sandy-silty salt crust. Several remnants of outcropping sand-silt-clay sediments are present in the central portion of the salar and represent approximately 15% of the salar surface (Millennial Lithium, 2018). These outcrops, the Blanca Lila Formation, form “islands”. They are, however, hydraulically connected to the salar (Millennial Lithium, 2018). The geomorphology of the salar is illustrated in Figure 5-6.

The general elevation of the salar surface is 3,773 m.a.s.l., with the “islands” having a typical elevation approximately 10 [m] – 15 [m] above the salt flat. The surrounding hills range in elevation from approximately 3,825 on the south, east and northeast sides of the salar and increase rapidly on the west side to approximately 3,990 m.a.s.l.

LSC’s properties are located on the east and northwest sides of the salar and extend into a zone of tuffs, ignimbrites and recent alluvial sediments to the north on the northwest sides of the salar. A portion of the LSC tenements on the east side borders alluvial fan sediments subject to surface inflow of fresh water, and open pools of brackish water overlying halite-bearing sediments may be present at various times in this restricted zone.



Soils in Pozuelos/Pastos Grandes area are of the ardisol type, with high salt content, very low organic content, low fertility and having a relatively coarse texture. SEGEMAR, the Argentine geological survey, classifies the salar itself as having a saline soil type “La”, with the immediate surrounding area containing the dunes and wetlands classified as DGtc-7 soil type and the higher elevations consisting of consolidated rock outcrops and natural elevations as EKtc-14 and Eni-6 soils.

Vegetation in the Puna consists of sparse, low shrub steppe-type xerophile and holophile plants. In more humid areas of the Puna such as salar de Pastos Grandes the dominant grass types are *Stipa* and *Fescue Doliophila*. Drier parts are represented by scattered grasses and low shrubs including: *Fabiana* sp, *Adesmia* sp, *Parastrephia* sp, *Bacharis* sp, *Maihueopsis* and *Polylepis* sp, *Tomentela* (endangered), *Ferozerable Prosopis* (used as firewood), *Trichosereus Pascana* (endangered and

used in construction), *Larrea Divaricata* ("Jarilla Hembra"), *Artemisia Vulgaris* ("Ajenjo"), *Haplopapus Rigidus* (locally "Bailabuena" and endangered due to medicinal use), *Alcantholippia Deserticola phil* (locally "rica rica" and endangered due to medicinal use), *Baccharis Incarum* ("Tola"), and *Senecio Eriophyton* or *Escalonia Resinosa* ("Chachacoma") (Millennial Litium, 2018).

5.7.1 Fauna

Fauna in the Puna are adapted to the extreme living conditions of high aridity, intense sunlight during the day and very low night-time temperatures. Many animals are nocturnal or have acquired certain physiological features and behaviours that allow them to survive in the harsh environment. The most significant mammals in the region are the vicuña (*Vicugna Vicugna*), a camelid species, and llama (*Lama Glama*), which is domesticated. Fox (*Dusicyon*, *Lycalopex*) are present and prey on small rodents such as the mole known as Oculito or Tuco-Tuco (*Ctenomys Opimus*) and the Puna mouse (*Auliscomys Sublimis*).

Birds in the region include the Parina or Andean flamingo, living in moist and salty lagoons, and known as the Cerceta de la Puna (*Anas Puna*), and the Andean Goose, Guayata or Huallata (*Chloephaga Melanoptera*). The queu or quevo (*Tinamotis Pentlandi*) inhabits the highlands and is similar to a large partridge. The Nandu enano (*Rhea*) comparable with the species *Pterocnemia Pennata* inhabits the lower plains of the region. Small parrots, pigeons and owls also exist as sporadic inhabitants. The donkey (*Equus Africanus Asinuskey*) is a feral species introduced by inhabitants of the area.

Item 6 - History

6.1 Prior Exploration and Ownership

The prior exploration history and ownership of Salar de Pozuelos and Salar de Pastos Grandes properties is documented in NI 43-101 technical reports filed by LSC lithium on SEDAR (Hains, 2016; 2017a, b; 2018a, b). A brief summary is provided here:

Pozuelos

- Sampling of brines in Argentine salars by Fabricaciones Militares (an Argentine government agency) during 1970;
- Evaluation of mineral potential of Argentine salars, including Pozuelos, by Igarzábal (1984) as part of the Instituto de Beneficio de Minerales (INBEMI) investigation carried out by the National University of Salta;
- Production of borates from surface of northern portion of salar de Pozuelos (on-going on intermittent basis);
- Acquired by Ekeko S.A. in about 2007. Acquired by LitheA Inc. in 2008 (Ekeko and LitheA were related companies at the time);
- LitheA acquired by LSC Lithium by way of purchase option dated November 23, 2016. Option exercised March 15, 2017. (see press release issued by LSC Lithium on March 15, 2017 for details).

Details of the exploration by LitheA are described in detail in Hains (2017a,b; 2018a,b). Exploration activity included the following:

Surface Sampling

- Widely spaced surface sampling (40 pits) to maximum depth of 1.8 [m] and mechanically dug pits (237 on 500 [m] x 500 [m] grid). Assay results indicated the presence of two higher grade areas within the salar and a significant area of high grade brine within the central nucleus of the salar, with decreasing lithium grades towards the margins of the salar (see Figure 6-1).

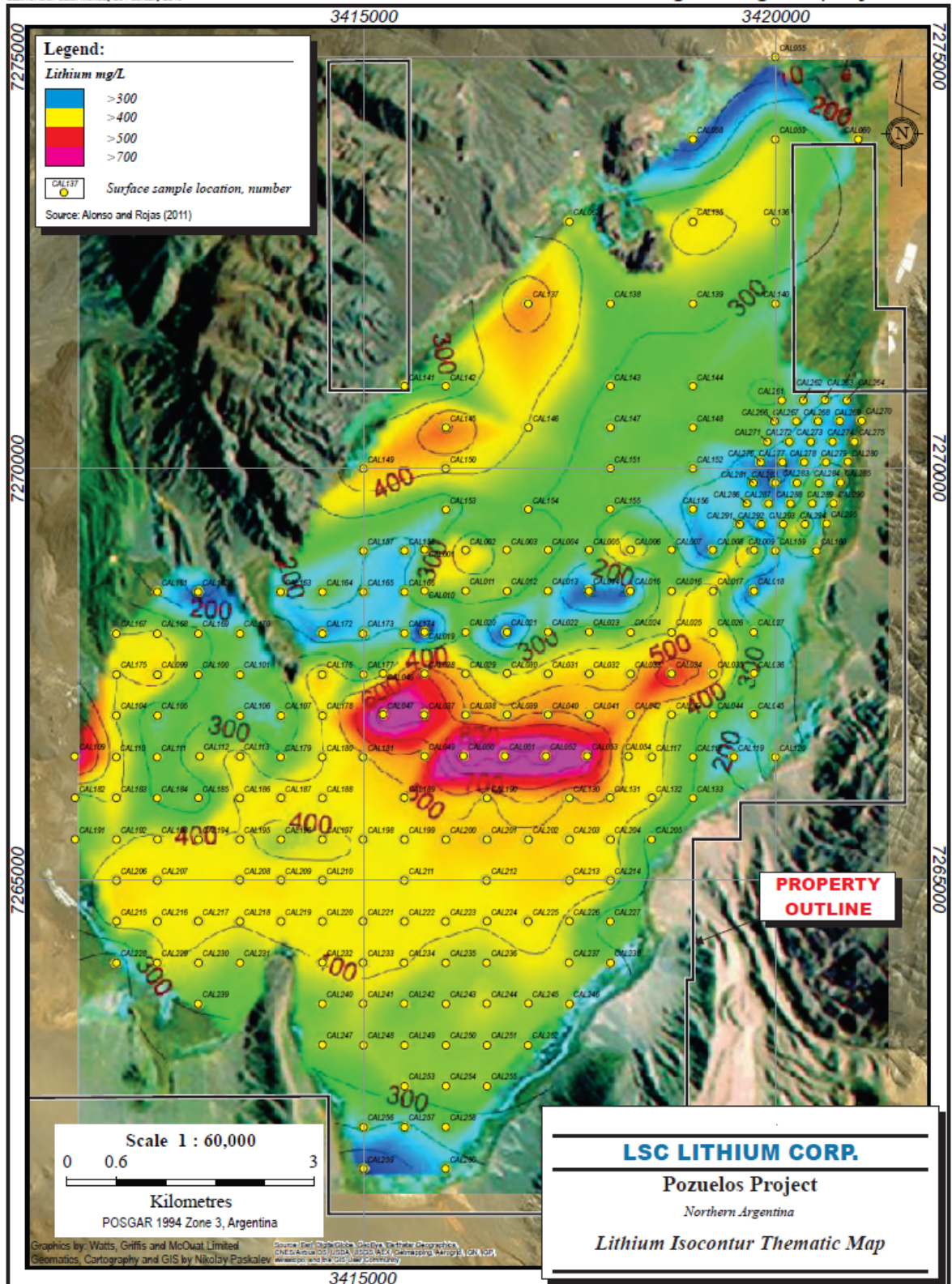


Figure 6-1: Li Isocontour Thematic Map

Geophysics

- 2009 Vertical Electrical Sounding (SEV) and magnetotelluric (MT) surveys to determine the presence and distribution of aquifer zones and the shape of the salar basin. The work identified the presence of three resistivity response zones indicating the presence of brine:
 - (1) Upper Conductive Zone (UCZ) likely consisting of current or recent evaporite facies and highly porous brine-saturated halite;
 - (2) Intermediate Resistive Zone (IRZ) mainly formed by massive galite, gypsum, carbonates, borates and interbedded clastic sediments; and,
 - (3) Lower Conductive Zone (LCZ) or geoelectrical basement composed of buried equivalents of Ordovician and Cenozoic sedimentary outcrops surrounding the salar, and;
- Presence of two depocentres in the salar one greater than 150 [m] depth with a halite composition and the other, smaller one, greater than 100 [m] depth and probably of a more clastic nature.

Drilling and Pump Tests

Drilling

- Two vertical wells (SPZ RC001 and SPZ RC 002) to a depth of approximately 90 [m]. A short (20 m deep) uncased piezometer well was drilled approximately 11 [m] east of SPZ RC001;
- One HQ size diamond drillhole (SPZ DDH001) drilled to a depth of 183 [m] adjacent to SPZ RC001. This hole was drilled to collect data on variations in lithology with depth and to collect brine samples below a massive clay layer encountered at about 90 [m] depth in the rotary holes.

Pump Tests

- Pump tests by Eramine SudAmerica and LitheA from holes SPZ001 and SPZ002. The results of the pumping tests by Conhidro (2011) indicated a transmissivity in the area of hole SPZ001 of 1,001 [m^2/day] and a storage coefficient of 0.0025 to 20 [m] depth and a transmissivity of 639 [m^2/day] and storage coefficient of 0.0000855 to 79.5 [m]. The pumping test for SPZ002 indicated a substantial drawdown of 55 [m] and a flow rate of 100 [m^3/hr] over the full depth of the well. Grades (>500 [mg/L] lithium).
- Eramine Sudamerica (2012) completed step tests at well RC001PZ (ex SPZ RC001) and determined a transmissivity on the order of 400 [m^2/day]. A long term pumping test (19 days) showed average lithium content during pumping was about 570 [mg/l], with similar stability in other key anions and cations.

6.1.1 Evaporation Tests

As part of the work with POSCO, LitheA undertook a series of evaporation tests on brine recovered from the salar. These tests included analyses of evaporation from small test pits, as well as studies of evaporation using both lined and unlined ponds on the salar. It was found that due to the high porosity of the surface halite, pond evaporation using unlined ponds was not possible but that use of lined ponds could be considered.

6.1.2 Fresh Water Exploration

Lithea completed a program of exploration for fresh water in 2016 (Hidrotec, 2016). The focus of the program was on the northwestern corner of the salar based on the results of the SEV geophysics. A 12" diameter 60 [m] deep RC hole was drilled near SEV 13 at UTM 3418550 E, 7274830 N (Gauss Kruger Posgar 94 datum). The hole was geo-electrically logged and three intervals screened for grain size distribution. The well was completed at 8" internal diameter with open slot casing from 20 to 42 [m] depth. The pump was set at 38 m depth.

Step and constant rate pumping tests indicated a specific yield for the well of 3.248 [m³/h/m] with a yield of 18.936 [m³/h] and a maximum operating rate of 35 [m³/h]. Geological mapping of fresh water inflow areas around the perimeter of the salar shows major inflow sources are located in the north western and southern areas of the salar.

6.1.3 Past Production

There has been no past production of lithium brine at Salar de Pozuelos. The amount of production of borates from surface deposits is unknown.

6.1.4 Prior Resource Estimates

LSC reported a resource estimate for salar de Pozuelos in an NI 43-101 report dated February 28, 2018. The historic estimate is summarized in Table 6-1 below.

Table 6-1: Historic Resource Estimate Summary – Salar de Pozuelos, February 28, 2018

Classification	Brine Vol. ¹ '000 [m ³]	RBRC ² %	Brine Assay Values [mg/l]					Contained Li [ton]	LCE ⁹ [ton]
			Li	Ca	Mg	K	SO ₄		
Measured	4,412,283.95	12.34	371	1,666	2,053	3,164	5,125	202,325.6	1,076,979
Indicated	1,324,466.25	6.40	486	1,373	2,621	4,318	8,671	41,210.8	219,365
Measured & Indicated	5,736,750.20	10.97	387	1,627	2,129	3,319	5,602	243,536.4	1,296,000
Key Ratios									
		Mg/Li	Ca/SO ₄		K/Li		SO ₄ /Li	Li/Ca	K/Mg
		5.50	0.25		11.16		14.48	0.24	1.56

Classification	Brine Vol.1 '000 [m3]	RBRC ² %	Brine Assay Values (mg/L)					Contained Li [ton]	LCE ⁹ [ton]
			Li	Ca	Mg	K	SO ₄		
Inferred	7,663,141.31	3.58	340	757	1373	1894	3824	93360.7	497,000
Key Ratios									
		Mg/Li	Ca/SO ₄		K/Li		SO ₄ /Li	Li/Ca	K/Mg
		4.04	0.20		5.57		11.25	0.45	1.38

Notes:

1. Brine volumes are before application of Relative Brine Release Capacity (RBRC) factor
2. RBRC value is the weighted average for the resource classification category
3. Resources have been classified in accordance with CIM mineral resource definitions, May 25, 2014
4. Resources have been estimated by Louis Fourie, P. Geo., Pr.Nat. Sci., under the direction of D. Hains, P. Geo.
5. The effective date of this mineral resource estimate is February 28, 2018
6. Resources have been estimated using a cut-off grade of 100 mg/L lithium.

7. Mineral resources which are not Mineral Reserves do not have demonstrated economic value. There is no assurance that additional exploration will result in the conversion of Mineral resources to Mineral Reserves.
8. Inferred Mineral Resources are considered as too speculative to have economic criteria applied to them. There is no assurance that additional exploration will result in the conversion of Inferred Mineral Resources to Indicated or Measured Mineral Resources.
9. A conversion factor of 5.323 has been used to convert Li metal to Lithium Carbonate Equivalent (LCE). Totals for M&I and Inferred Resources have been rounded to nearest thousand.

This estimate is now considered historic and has been superseded by the current resource estimate detailed in Chapter 14 of this report.

6.2 Prior Ownership and History – Pastos Grandes

Mining for borates has been conducted in the Pastos Grandes area since the early 1960s. Borax Argentina, a subsidiary of Orocobre Limited, mines colemanite, hydroboracite and ulexite from the Sijes Formation on tenements located on the southern and eastern margins of the Pastos Grandes basin. The minerals are processed at the Sijes borates plant operated by Borax Argentina S.A.

In 1987 Ulex started borate mining operations on the southeastern extension of the Pastos Grandes basin at the Sol de Mañana mine, producing approximately 1,000 [ton] per annum of colemanite-hydroboracite-ulexite. Tramo SRL has mined colemanite on an intermittent basis at the Quebracho property on the southern border of the Pastos Grandes salar and common salt on the salar surface since 2006. Various other mining groups have recovered salt from the salar using solar evaporation on various properties across the salar.

Initial exploration for lithium at Pastos Grandes was undertaken by the Direccion Generale Fabricaciones Militares (DGFM), an agency of the Argentine government, in 1979 when a program to explore for lithium in many of the salars in the Puna was started (Nicolli et al, 1982). Work at Pastos Grandes included geological mapping and surface sampling, with six brine samples from surface and eight from hand-dug pits and four from stream samples. The samples from the salar showed an average value of 384 [ppm] Li and 4,066 [ppm] K for pit samples and 327 [ppm] Li and 3,518 [ppm] K for surface samples (Nicolli et al, 1982).

In 2011 and 2012 Eramine Sudamerica SA, a subsidiary of Eramet SA, carried out surface mapping and sampling, drilling and pump testing at locations across the salar. Drilling was limited to a maximum depth of 160 [m]. In addition, Eramine also completed a program of geophysical surveys, including TEM, CS-AMT and VES (Eramine, 2016). The work by Eramine was summarized in an NI 43-101 technical report filed by Millennial Lithium in 2016 (Rojas, 2016) and updated in 2017 (Rosko, 2017).

LSC, as part of its initial due diligence exploration program related to acquisition of tenements on salar de Pastos Grandes, completed a program of surface sampling under the direction of the author. Details of the results of the due diligence program can be found in Hains (2017a).

LSC completed a program of exploration geophysics, drilling, and brine sampling resulting in an initial resource estimate for its salar de Pastos Grandes tenements dated October 19, 2018. Details on the resource estimate are to be found in Hains (2018a). The estimate is summarized in Table 6-2, below. Details of the estimate are provided in Item 14 of this report.

Table 6-2: Mineral Resource Estimate – Salar de Pastos Grandes Project – LSC Lithium Corp., October 19, 2018

Measured												
Horizon	Total Volume	# Assay Samples*	Li	Ca	Mg	B	K	SO ₄ ²⁻	RBRC	Available Brine	Li (tons)	LCE Equivalent
	million m ³		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	%	Million m ³	Metric tonnes	Metric tonnes
Upper Halite	62.47	5	463	664	3555	676	2220	10570	9.02	5.63	2600	13840
Upper Sand	191.81	0	463	664	3555	676	2220	10570	4.32	8.28	3830	20390
Halite	3349.79	122	446	728	2918	844	4679	9588	2.43	81.35	36260	193000
Sand	2051.48	39	486	625	3293	711	5273	9887	8.30	170.30	82700	440200
Gravel	1697.63	39	478	663	3126	621	4781	10202	5.26	89.37	42700	227290
Total Measured	7353.18	205	465	682	3093	750	4783	9847	4.83	354.94	168090	894720
Indicated												
Upper Halite	5.66	5	463	664	3555	676	2220	10570	6.01	0.34	160	850
Upper Sand	19.39	0	463	664	3555	676	2220	10570	4.60	0.89	410	2180
Halite	375.77	105	439	731	2874	836	4603	9476	2.39	8.98	3950	21025
Sand	95.13	24	502	731	2874	836	4603	9476	7.63	7.26	3640	19375
Gravel	12.42	39	458	701	2945	610	4342	9637	3.10	0.38	175	930
Total Indicated	508.38	173	452	727	2909	822	4479	9533	3.51	17.85	8335	44360
Total M&I	7861.55	205	464	685	3081	754	4763	9827	4.74	372.79	176425	939080

Inferred												
Horizon	Total Volume	# Assay Samples*	Li	Ca	Mg	B	K	SO ₄ ²⁻	RBRC	Available Brine	Li (tons)	LCE Equivalent
	million m ³		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	%	Million m ³	Metric tonnes	Metric tonnes
Upper Halite	11.96	5	463	664	3555	676	2220	10570	6.67	0.80	370	1960
Upper Sand	40.05	0	463	664	3555	676	2220	10570	4.55	1.82	840	4480
Halite	852.72	105	441	731	2888	841	4629	9515	2.39	20.39	9000	47900
Sand	661.41	24	497	619	3359	727	5443	10201	8.71	57.64	28660	152600
Gravel	948.54	39	469	680	3044	616	4581	9945	4.25	40.32	18890	100550
Total Indicated	2514.68	173	467	681	3084	723	4775	9879	4.81	120.97	57760	307500

Note: data are rounded and may not sum

Notes:

1. Brine volumes are before application of Relative Brine Release Capacity (RBRC) factor
2. RBRC value is the weighted average for the lithological unit within each resource category
3. Resources have been classified in accordance with CIM mineral resource definitions, May 25, 2014 and the CIM Best Practice Guidelines for Estimation of Lithium Brine Resources and Reserves
4. Resources have been estimated by Louis Fourie, P. Geo., Pr.Nat. Sci., under the direction of D. Hains, P. Geo.
5. The effective date of this mineral resource estimate is October 19, 2018
6. Resources have been estimated using a cut-off grade of 100 mg/L lithium.

7. Mineral resources which are not Mineral Reserves do not have demonstrated economic value. There is no assurance that additional exploration will result in the conversion of Mineral Resources to Mineral Reserves.
8. Inferred Mineral Resources are considered as too speculative to have economic criteria applied to them. There is no assurance that additional exploration will result in the conversion of Inferred Mineral Resources to Indicated or Measured Mineral Resources.
9. A conversion factor of 5.323 has been used to convert Li metal to Lithium Carbonate Equivalent (LCE). Totals for M&I and Inferred Resources have been rounded.

Item 7 - Geological Setting and Mineralization

7.1 Regional Geology

The Puna region of north western Argentina, north eastern Chile and south western Bolivia forms a high altitude plateau within the Andes. The Andes have been part of a convergent plate margin since the Jurassic period and both the volcanic arc and the sedimentary basins have developed as a result of subduction of the Nazca Plate beneath the western margin of South America.

An initial island arc formed along the west coast of South America during the Jurassic (194 – 130 Ma), moving eastwards during the Middle Cretaceous (125 to 90 Ma) (Coira, Davidson, Mpodozis and Ramos, 1982). An extension regime persisted through the Late Cretaceous generating back-arc rifting and grabens.

During the Late Cretaceous to Eocene (78 to 37 Ma) the arc shifted further east to the position of the present pre-cordillera. Significant shortening commenced during the Incaic Phase (44 – 37 Ma) largely in the west, with associated uplift to perhaps 1,000 [m] (Gregory-Wodzicki, 2000), creating a major north-south watershed. Coarse clastic continental sediments eroded from this ridge indicate eastward transport in Chile and Argentina (Jordan and Alonso, 1987). The subsequent initiation of shortening and uplift in the Eastern Cordillera of Argentina (~39 Ma), led to the development of a second north-south watershed, with coarse continental sediment accumulating throughout the Puna (Almendinger et al, 1997; Coutland et al., 2001).

By the Late Oligocene to early Miocene (25 to 20 Ma), the volcanic arc switched to its current location in the Western Cordillera. At the same time, significant shortening across the Puna on reverse faults led to the initiation of separated depositional basins. Major uplift of the Altiplano-Puna plateau began during the Middle to Late Miocene (15 – 10 Ma), perhaps reaching 2,500 [m] by 10 Ma, and 3,500 [m] by 6 Ma (Grazione et al., 2006). Coutland, et al. (2001) interpret the reverse faults as being responsible for increasing the accommodation space in the basins by uplift of mountain ranges marginal to the Puna salar basins.

Late Miocene volcanic activity (10 – 5 Ma), centred on the Altiplano-Puna Volcanic Complex (APVC) between 210 to 240 S (de Silva, 1989), produced a high density of both caldera subsidence and associated ignimbrite sheets, as well as andesitic-dacitic stratovolcanoes. In the Puna, volcanic activity was frequently constrained by major NW-SE crustal megafractures (Chernicoff et al., 2002), that are especially well displayed along the Calama-Olacapto-El Toro lineament to the south of Cauchari.

During the Early to Middle Miocene, red bed sedimentation occurred throughout the Puna-Altiplano and Chilean Pre-Andean Depression (Jordan and Alonso, 1987). As thrust faulting, uplift and volcanism intensified during the Middle to Late Miocene, the sedimentary basins become isolated by the mountain ranges, developing internal drainages, with major watersheds (the Cordilleras) bounding the Puna to the east and west. Sedimentation in these basins comprises alluvial fans being shed from the uplifted ranges, playa sand flats and mudflat facies.

During the Pliocene-Pleistocene deformation as a result of shortening moved out of the Puna into the Santa Barbara system. Reduced tectonic activity and frequent aridity resulted in a reduction in erosion, and sediment accumulation in the isolated basins has been limited since Pleistocene times.

Nevertheless, ongoing runoff, both surface and underground, continues to dissolve solutes from the basin rims and concentrate in their centres, where evaporation is the only outlet.

Evaporite minerals are found both disseminated within clastic sequences and as discrete beds. The earliest of evaporite formations in the Puna are dated Middle Miocene, but their frequency and magnitude tends to increase during the Late Neogene-Quaternary (Alonso et al., 1991; Vandervoort et al., 1995, Kraemer et al, 1999). Dating of the thick halite sequences in the salars de Hombre Muerto and Atacama suggest that they have been mostly formed since 100 Ka (Lowenstein et al., 2001, 2003).

7.2 Pozuelos and Pastos Grandes

The local geology of the Pozuelos – Pastos Grandes is illustrated in Figure 7-1.

7.2.1 Stratigraphy - Pozuelos

Pozuelos and Pastos Grandes share much the same local stratigraphy. The basins are separated in the northeast of Pozuelos by the Pozuelos and Geste Formations.

The oldest rocks in the Pozuelos area are serpentinites, gabbros and diorites belonging to the Complejo Ojo Basico de Colorados of Tremadocian (Lower Ordovician) age (Zappettini et al, 1994). These rocks are exposed in a discontinuous strip to the north and west of the salar. The gabbros are present as reef structures up to 200 [m] thick while the serpentinites appear in a more localized manner. The gabbros exhibit alternating 2 [cm] – 10 [cm] thick dark and light bands of pyroxenes and plagioclase. The Ojo Basico de Colorados Complex is believed to have formed following rifting of the continental crust in Upper Cambrian times, resulting in the generation of an ocean basin. Progressive thinning of the crust was followed by clastic sediment fill represented by the nearby outcrops of the Tolar Chico (Upper Cambrian) and Tolillar (Lower Ordovician, Tremadocian age) Formations. During the last stage of crustal thinning, basic magmas were injected into the accumulated sediments.

The oldest rocks outcropping at Salar de Pozuelos consist of lower Middle Ordovician turbidites of the Coquena Formation (Schwab, 1971), composed by grey and greenish sandstones and shales. They form two NNE-trending mountain ranges: The Pozuelos Range to the west of the salar and the Copalayo Range to the east (Figure 7-1). The Coquena Formation is composed of a sequence of shales, siltstones and subordinate sandstones of greenish yellow colour. There is evidence of very low grade regional metamorphism and intercalations of acidic submarine volcanics up to 1 [m] in thickness. In many places the degree of deformation is such that it obliterates the original stratification, while in other sectors black flint intercalations are observed.

Cenozoic rocks are represented by sequences of continental clastic sediments comprising the Pastos Grandes group of Eocene-Miocene and intrusive and pyroclastic volcanic rocks of Miocene age (Turner, 1964). The oldest rocks comprise the Geste Formation, which outcrops to the south and west of the salar forming an en echelon structure of failed anticlines and synclines. Tertiary age red bed alluvial units of the Geste Formation lie unconformably above the Ordovician rocks in contact with steep eastward and westward dipping reverse faults. In the north the Geste Formation is in fault contact with the overlying Pozuelos Formation, and in the northeast forms a dissected anticline running in a NNE-SSW direction which represents the ancient paleochannel link between Pozueolos and Pastos Grandes. The Geste Formation is composed of tabular packages of thick polymictic conglomerates, representing fluvial and alluvial fan deposits (Donato and Vergani, 1985) which have been intersected in the 2017 drill program in holes near the edge of the east side of the salar.

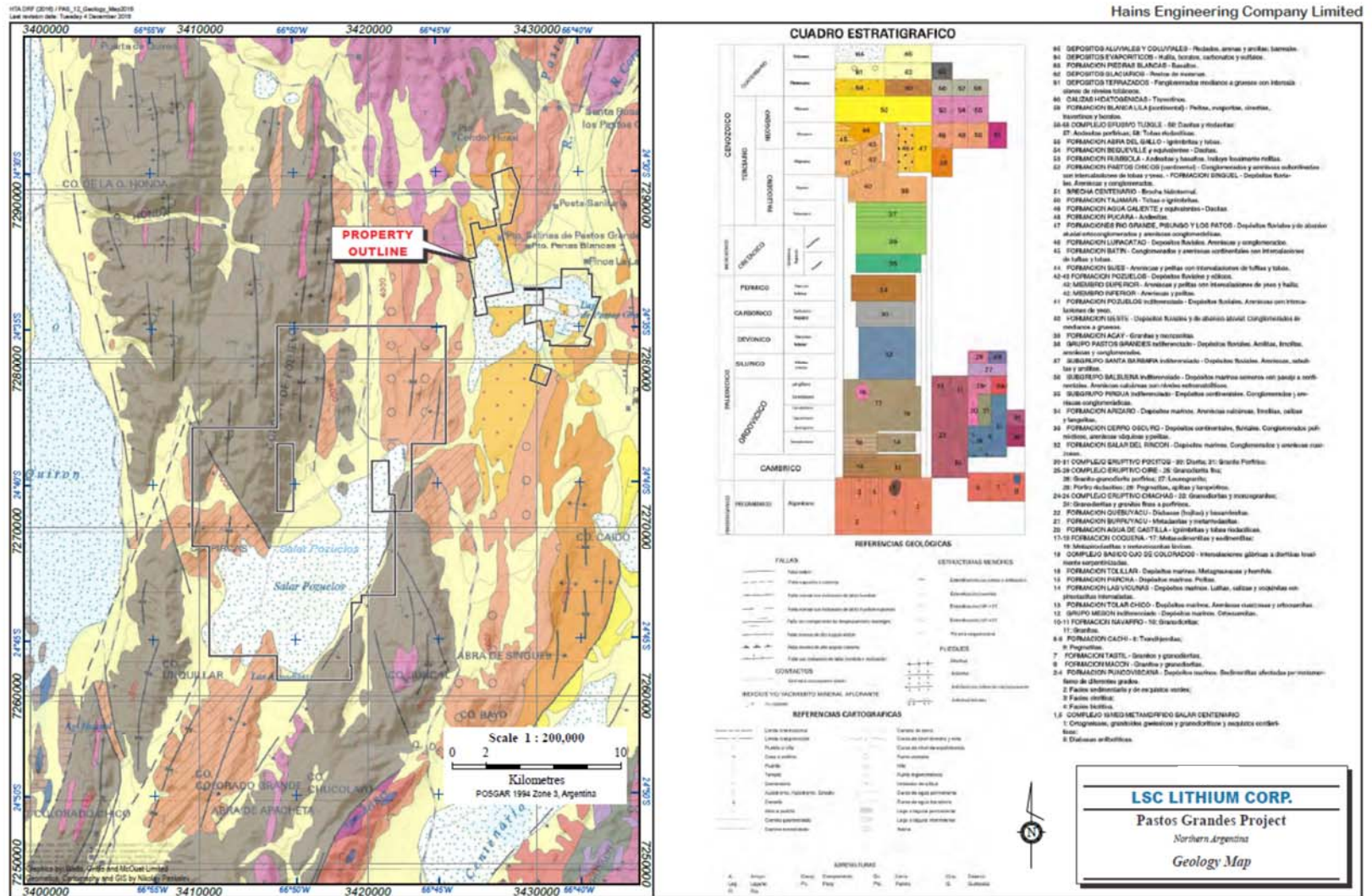


Figure 7-1: Geology Map, PPG Project

The Pozuelos Formation crops out in the north and east of Co. Juncal (in the salar de Centenario area). It is composed of purple red sandstones and pelites in the lower member and pinkish to grayish and yellowish coloured sandstones, clays and pelites with intercalations of gypsum in the upper member. Cenozoic effusive rocks are represented by andesites, basalts and (locally) rhyolites of the Rumibola Formation (Turner, 1964). These are found to the north of the salar de Pozuelos and salar Pastos Grandes but also are seen at Cerro Juncal in the southeast of the salar where a dacite porphyry appears directly in contact with the Ordovician rocks. This is locally named the Abra de Gallo Formation and is composed of ignimbrites and volcanic tuffs. Silicification and quartz sericitic hydrothermal alteration are common on the host rock.

Quaternary age rocks are observed in the form of accumulations of evaporites such as halite, borates, carbonates and sulphates that occupy the intermontane depression. These deposits would have their genesis at the end of the Tertiary and beginning of the Quaternary periods. In the margins of the salar are horizontally bedded alluvial and colluvial deposits of variable granulometry covering underlying Ordovician and Tertiary units and forming small alluvial cones derived from the streams draining the slopes of the salar basin.

7.2.2 Stratigraphy – Pastos Grandes

In the Pastos Grandes region several parallel north-south structures intercept the Calama-Olacapato-el Toro lineament carrying Upper Miocene-Oligocene acidic-intermediate volcanism and development of large NW to SE trending volcanic structures such as Cerros del Rincon-Tultul-Del Medio-Pocitos-El Queva-El Azufre and the Acay systems. Large ignimbrite fields, major caldera nests, surge pyroclastic fields, as well as hot spring systems have contributed to the flowing of calcium-magnesium and sodium-potassium-lithium and boron anomalous solutions that have concentrated in the basins over time and spaced at different levels and positions of the lagunas and salars from early Tertiary times.

The geology of the Pastos Grandes area is comprised of Precambrian meta-sedimentary units consisting of slates and phyllite rocks of the Puncoviscana Formation and Lower Ordovician turbidites built of shales and sandstone of the Caucota and Copalayo Formations, both intruded by Late Ordovician granitoids (Complejo Eruptivo Oire and the Faja Eruptiva de la Puna, dacitic porphyries, granites and granodiorites) and a Tertiary continental sedimentary cover (Pastos Grandes Group/Geste, Pozuelos, Sijes, Singuel Formations consisting of red-beds, tuffs, halite, borates, gypsum, upper Miocene volcanics built up of dacitic lava flows and subvolcanic intrusions (Aguas Calientes Formation), Miocene dacitic tuffs and ignimbrites of the Tajamar Formation, and Quaternary sediments covering the lower part of the salar basins and slope deposits and eolian sandstones (Jordan and Alonso, 1987).

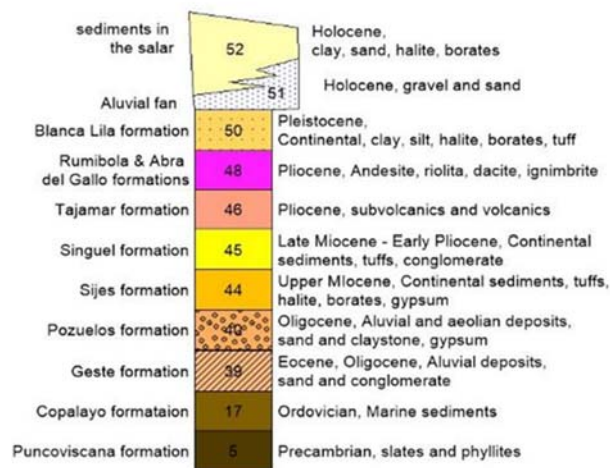


Figure 7-2: Stratigraphic Column for Salar de Pastos Grandes District

The salar de Pastos Grandes is the current expression of a larger sedimentary basin, known as the Sijes Basin, developed and deposited from the Miocene (7 - 5 Ma). The Sijes formation is represented by sandstone silt, clay, tuff and evaporite such as halite, gypsum, borate and travertine. It exhibits a thickness over 400 metres. This unit is a potential aquifer and can host brine rich in lithium. Above that, the Singuel Formation (4 - 3 Ma) has been deposited. It is composed of clastic and volcanic material and crops out to the southeast of the Pastos Grandes salar. Both geological units (Sijes and Singuel formations) are folded and faulted along a NNE-SSW trending homoclinal structure, with the oldest rocks to the west and dipping east with minor locally folding.

The Blanca Lila Formation (age: <2Ma) crops out as patches ("islands") within and outside the present salar outline, occupying an area of 17 [km] north-south by 8.5 [km] in an east -west direction. This unit consists of sub-horizontal terraces of clastic material (sand, silt and clay) and evaporites (halite and minor borate). Its known thickness is over 50 metres (Menegatti and Alonso, 1990; Alonso 1999; Alonso and Jordan, 1999). The Blanca Lila Formation represents an ancient salar with more extension than the recent salar and is a potential aquifer that may host lithium-rich brine.

The bedding is horizontal and covers the pre-existing formations. Geological features indicate erosion - dissolution of older rocks and subsidence of the central part of the salar. The sediments host lithium enriched brine, as demonstrated by Eramine Sudamerica S.A during their 2011 - 2012 campaign.

The salar de Pastos Grandes is filled by clastic unconsolidated sediments (clay, sand and silt), organic material and fine-grained sediments. Evaporites are represented by halite, gypsum and ulexite. The age of these sediments is Late Quaternary to Recent and the thickness is unknown.

Salar de Pastos Grandes was previously connected to salar de Pozuelos by a paleochannel. This channel was broken approximately 1.5 Ma by the reverse fault on the east side of Pozuelos, which resulted in infilling of the Pozuelos basin due to the uplift of salar de Pastos Grandes above salar de Pozuelos.

7.2.3 Structure

The most important structural feature in the area of the PPG project and surroundings is the Calama-Olacapato-Toro lineament (COT), which represents the northern limit of the basin. This megastructure

is of continental character, has been active since Lower Paleozoic times, and has controlled the sedimentation and volcanism of the salars associated with it.

Salar de Pozuleos is a structurally controlled basin. It is characterized by SSW-NNE trending normal faults defining the east and west sides of the basin. On the western side of the salar, a high angle, east dipping inverse fault flanking the Copalayo range affects the Ordovician sediments, placing them in contact with Tertiary and modern sediments. Another large reverse, west dipping fault on the western flank of the Pozuelos Formation puts Ordovician sediments in contact with the Geste Formation. There are two significant reverse faults trending in a SE-NW direction and crossing the salar in the south and mid-northern section. The major faults are accompanied by smaller parallel and sub- parallel faults resulting in isolated half-grabens and isolated horst blocks within the salar and the surrounding areas. The basin is thus defined as a large depocentre in the central portion of the salar and smaller depocentres south of the southern reverse cross fault and north of the northern reverse cross fault.

Anticlinal and synclinal folds are observed in the Couqena Formation. Some are arranged in an *echelon* formation, with their axes in the same sense as the mountain system. In other cases, the tectonic activity was such that it is very common to observe overturned folds and internal deformation of the strata. A similar situation is observed with outcrops in the Pozuelos Formation, where one can observe synclines and anticlines, but on a wider scale. In other cases, the Pozuelos Formation presents a more homoclinal form, appearing as small wedges within the Ordovician outcrops.

Satellite imagery and geophysical analysis (VES and seismics) permit a more detailed analysis of the structure of the basin, as shown in Figure 7-2 and described as follows:

- The salar de Pozuelos is located on a NNE-SSW regional orientation line with an inflection to the ENE which would have generated the opening of the evaporitic basin. This limits salar Pastos Grandes to the north and salar Hombre de Muerto to the south, thus implying the overall basin is an old structure that has been reactivated in successive pulses of deformation, resulting in the separation of the salars.
- On the east, the salar is limited by a shift with vergence to the west and a possible course component, giving it a transpressive character interpreted as a dextral transpressive fault. This same shift, when the direction passes from NNE to ENE, changes to a dextral transpressive fault that borders the eastern side of the salar. To the south, the fault again presents characteristic transpressive failure.
- On the west side, the salar is limited by faults with east vergence and N-S to NNW orientation which present features of sinistral transpressive failure in the northern sector. In the southern sector, the salar is limited by a NNE-oriented transpressive fault with apparent dextral displacement.
- The dextral course interaction and displacement between the two parallel NNE oriented faults limiting the east and west margins of the salar make up a dilational jig which generates a series of parallel ENE-oriented faults. This series of faults controls the location of the depocentre to the central portion of the salar and limits it by ENE transverse faults of opposite dip located to the north and south, thus forming a graben with an axis of maximum extension in the NNW-SSE direction.
- To the north, the salar is limited by a transverse dextral fault of ENE orientation. This fault joins the two NNE faults which limit the salar in the east and west. The fault is usually referred to as a link failure. Due to the characteristics of the depocentres present in the salar, the fault is interpreted as dipping to the south at a high angle.

- In the south, the salar is limited by a series of ENE and WNW transtensive faults with respective sinistral and dextral character. The WNW orientation has a marked control on the shape of the major depocentre indicated from the SEV geophysics (Conhidro, 2010) and also limits another small depocentre located in the southwestern end of the salar.

The Pozuelos Formation is encountered at a depth of approximately 380 [m] in DDH 400 and PZ18-01, located in the south-central part of the salar. The depth to basement in other parts of the salar varies considerably. The minimum depth to the basement is approximately 40 [m] in the south on the uplift side of the SE-NW trending normal fault. More typically, the depth to basement in the southern part of the salar is in the range of 120 [m] to approximately 180 [m]. Seismic data across the northern seismic line indicates the depth to basement is approximately 230 [m] in the region of Hole SP-2017-02 on the NW side of the salar and reaches depths of approximately 390 [m] in the area of Hole PZ 18-02 in the north.

Salar de Pastos Grandes is structurally controlled by north trending normal faults located on the east and west sides of the basin.

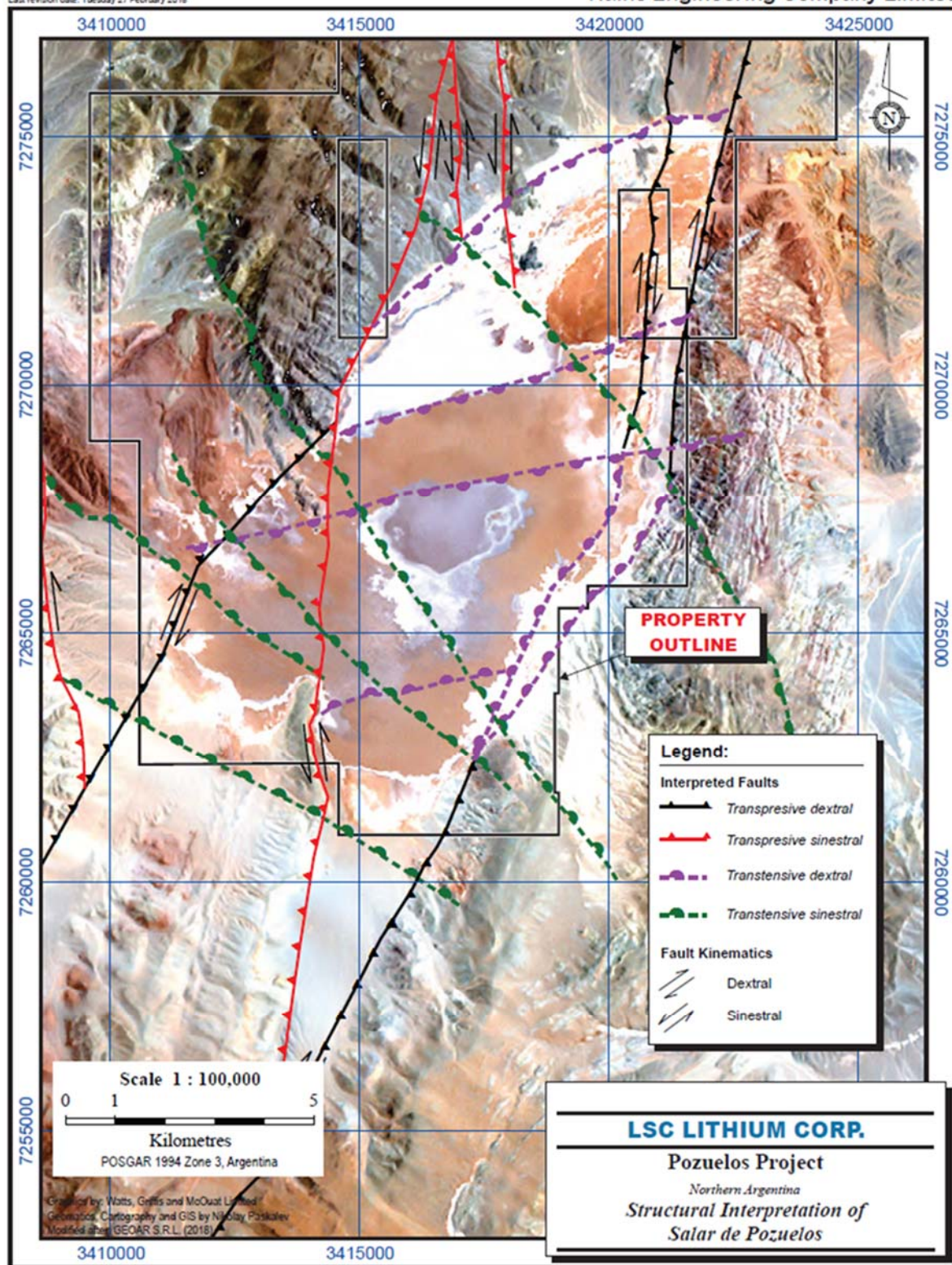


Figure 7-3: Structural Interpretation of Salar de Pozuelos

7.2.4 Lithology

Salar de Pozuelos is classified as a mature salar. The lithology of the salar reflects this development, with the following general sequence:

	Typical Thickness of Sequence
Highly fractured, coarse crystalline halite	0 m to ~ 15 m (max ~45 m)
Moderately fractured, porous halite	~ 15 m to ~ 25 m (max ~45 m)
Competent, porous halite	~ 25 m to ~35 m (max ~40 m)
Massive halite	~ 30 m to ~ 80 m
Fanglomerates with sandy to stiff clays and bioturbated clay	~ from 80 m to basement
Basement rock	Pozuelos and/or Geste Formation

The upper, highly fractured halite is extremely porous and exhibits significant porosity in both the horizontal and vertical directions. Channels and pores can exceed 3 – 4 [mm] width in the vertical direction and over 10 [cm] in the horizontal direction. This zone and the zone of moderately fractured, porous halite also exhibit significant zones of loose, coarse crystalline halite with crystals which can be up to several centimetres in size.

Variations in the thicknesses of the sequences can be significant, especially between the zones of moderately fractured porous halite and competent, porous halite. Within these zones, short intervals of either more competent or more fractured halite can be observed within the more broadly defined lithology. These more fractured zones can exhibit significantly higher porosity than the immediately surrounding zones.

The fanglomerate zone varies in composition from thick, rather impermeable clay to zones exhibiting significant porosity due either to channel development (bioturbation burrows?) or increasing proportions of sand and/or gravel within the clay. At the margins of the salar the matrix material is gravellier and porosity is high. The amount of clay increases toward the nucleus of the salar, with a decreasing sand/gravel component.

Examples of the various lithologies found in Salar de Pozuelos are provided in Figure 7-4.





Figure 7-4: Examples of Lithotypes at Salar de Pozuelos

Lithology at Pastos Grandes is composed of a thin halite zone in the upper 2 [m] – 3 [m] (often intercalated with clays, silts or sands), followed by halite and clastics sequences down to approximately 100 [m], where there is a transition to more sandy-silty sequences with halite down to approximately 350 [m], and then (in general) sequences of sand and silt with minor halite. Thin zones of organic material, ulexite and volcanic tuffs may be present within any of the major sequences.

Geomorphologically, the salar presents as a flat salt surface covering most of the central portion, with minor polygonal salt crust formation associated with silt and sand on the periphery, especially in the south west and southeast. Shallow (<20 [cm]) open water pools of brackish to fresh water overlying mixed halite/sand/silt sediments are present in the northeast and southeast bordering the alluvial fan.

7.2.5 Mineralization

Mineralization at salar de Pozuelos and Pastos Grandes consists of a lithium and potassium enriched brine of the SO₄-Na-Cl variety. The brine is present throughout the salar as one or more aquifers separated by semi-permeable layers composed of sand/clay/halite mixtures. Borates (as ulexite) are

primarily present within the upper 1 [m] – 2 [m] of the playa zone in the northern sector of the salar de Pozuelos basin. Borates at Pastos Grandes may be present in thin zones at almost any depth in the salar.

Sampling of brines at Pozuelos shows that the Mg:Li ratio is typically in the range of approximately 5:1 to 7:1, with lithium grades varying across the salar and with depth, but typically in the range of approximately 300 [mg/l] to approximately 600 [mg/l]. Brines at Pastos Grandes show relatively low surface values for lithium (100 [mg/l] – 300 [mg/l]) but can be locally higher. Samples recovered at depth show increased lithium values typically in the range of 300 [mg/l] to approximately 600 [mg/l]. The average Mg:Li ratio at Pastos Grandes is approximately 6.3:1.

Calcium and sulphate values at Pozuelos and Pastos Grandes are complementary, permitting blending of the brines to achieve efficient precipitation of undesirable salts.

Item 8 - Deposit Types

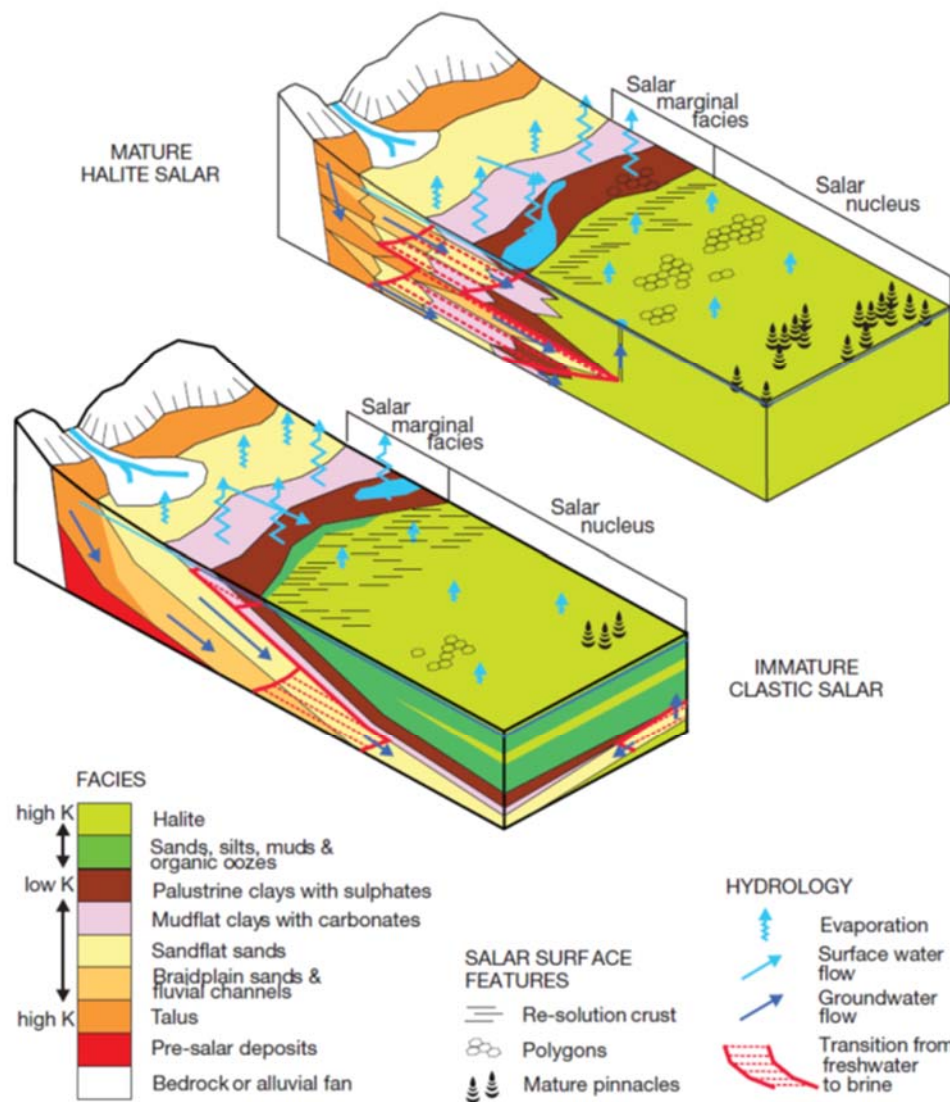
Pastos Grandes and Pozuelos are both classified as salars, which are brine formations containing elevated levels of metals in solution, typically as salts. Salars can be found at elevations from 1,000 [m] to more than 4,000 [m] above sea level. They typically represent the end product of a basin infill process that starts with the erosion of the surrounding relief, beginning with deposition of colluvial talus and fan gravels and grading upwards to sheet sands and playa silts and clays as the basin fills. There are numerous variations on the model and the literature provides ample discussion of the relevant tectonic and sedimentary processes involved in both general and specific terms (Hardie et al, 1978; Reading, 1996; Warren, 1999; Einsele, 2000); and specifically with regard to the Altiplano-Puna (Erickson and Salas, 1989; Alonso et al, 1991; Chong et al., 1999, Bobst et al, 2001; Lowenstein et al., 2003; Risacher et al., 2003; Vinante and Alonso, 2006).

Lithium brine projects differ significantly from hard rock mining projects due to their fluid nature. The important considerations of a brine deposit are the contained elements and chemistry of the brine and the characteristics of the host aquifer, such as aquifer extent, thickness, internal variations/heterogeneity and the physical aquifer properties, particularly porosity.

Lithium brine projects can be subdivided into two broad 'deposit types', depending on the salar characteristics (Houston et. al., 2011):

- Mature salars (those containing extensive thicknesses – often hundreds of meters - of halite, such as the salar de Atacama, the salar Pozuelos and the salar Hombre Muerto operation), and;
- Immature salars, which are dominated by clastic sediments, with (usually) limited thicknesses of halite. Examples are salar de Pastos Grandes, salar Pocitos and salar Olaroz/Cauchari.

The two types are illustrated in Figure 8-1.



Notes:

1. K refers to hydraulic conductivity of the different units
2. Source: Houston et al, (2011)

Figure 8-1: Salar Types, Facies Evolutions & Hydrological Components

In the mature model, extension and recession of the marginal facies as a result of tectonism and climatic variation lead to the possibility of dilute waters being transferred to the nucleus. In the immature model, while the marginal conditions have been simplified for clarity, the transmission of dilute waters into the nucleus is also possible.

The two different salar types reflect the different characteristics of these salars and the brine resources they contain. Individual salars may also contain immature and mature areas within the same salar basin (such as at Hombre Muerto).

Mature salt dominated salars are characterized by having:

- high permeabilities and specific yields near surface, with the porosity and permeability decreasing rapidly with depth;

- the brine resource is generally between surface and 50 m below surface, as below this depth there is typically limited permeability in the salt due to salt recrystallization and cementation of fractures.

Immature salars conversely have porosity and permeability controlled by individual layers within the salar sequence. In immature salars

- the porosity and permeability may continue to depths of hundreds of meters in clastic salars (such as at Silver Peak in Nevada); however,
- the porosity and permeability characteristics may be highly variable, due to differences between sand and gravel units and finer grained silts and clays.

The presence of different stratigraphic units in clastic salars typically results in differences in the distribution of the contained brine. It is very important to consider the characteristics of the host aquifer in each salar, together with the geometry and physical properties, particularly porosity.

Based on the typical architecture of the Puna salar basins, the salars typically have a zonation consisting of coarser grained sediments on the margins of the basin, with successive inner shells of finer grained clastic units;

- In the centre of salars, where evaporation is generally highest, deposits consist of carbonate, sulphate and finally chloride evaporites;
- The general model for salars consists of an inner nucleus of halite surrounded by marginal deposits of mixed carbonate and sulphate evaporites with fine grained clastic sediments.

Salars can also be classified in terms of brine type (Table 8-1). The brine chemistry is a function of the relative elemental composition source rocks and associated evaporation pathways.

Table 8-1: Selected Salar Types and Brine Chemistry in the Altiplano Puna Region

Salar	Area [km ²]	Elevation [m.a.s.l.]	MAP [mm]	Salar Type	Brine Type	Cl	Li	K	B
						Typical values in [g/L]			
Uyuni	10,000	3,653	150	Immature	Na-Cl-SO ₄	190	0.42	8.7	0.24
Atacama	2,900	2,300	25	Mature	Na-Cl-Ca/SO ₄	210	2.55	27.4	0.52
Olaroz-Cauchari	550	3,900	130	Immature	Na-Cl-SO ₄	180	0.71	5.9	1.00
Guayatayoc – Salinas Grande	2,500	3,400	180	Immature	Na-Cl-Ca/SO ₄	190	0.78	9.8	0.23
Rincon	280	3,740	63	Largely mature	Na-Cl-SO ₄	195	0.40	7.5	0.33
Arizaro	1,600	3,500	50	Immature	Na-Cl-SO ₄	190	0.08	4.0	0.12
Pocitos	435	3,660	60	Immature	Na-Cl-SO ₄	170	0.09	4.8	1.32
Antofalla	540	3,580	-	Immature	Na-Cl-SO ₄	166	0.32	.7	10.80
Hombre Muerto W	350	3,750	77	Mature	Na-Cl-SO ₄	195	0.68	6.3	2.06
Hombre Muerto E	280	3,750	77	Immature	Na-Cl-SO ₄	140	0.78	5.9	0.62
Maricunga	90	3,700	35	Mixed	Na-Cl-Ca/SO ₄	204	1.05	5.9	0.79

MAP= Mean Annual Precipitation

Source: Houston et al. (2011)

Pastos Grandes is classified as an immature salar. Chemically, it is of the Na-Cl-Ca/SO₄ type. Pozuelos is classified as a halite dominated mature salar with some immature salar characteristics.

Understanding the nature of the salar matrix (halite or clastic sediments), the distribution of the matrix and the correlation between matrix type and brine distribution, grade and matrix porosity is fundamental to any exploration program and governs the type and amount of required geophysical, drilling, and hydrogeological investigations.

Hydrology and Geochemical Features

The saline cycle comprises of three main steps: 1) flooding evidenced by horizontal truncation and cavities formed by dissolution, 2) ponding on the saline pan and 3) dissolution of the underlying saline crust. Inflow water directly enters the brine bodies without going through preconcentration areas. Dilute groundwaters acquire their initial charge of solutes by the chemical weathering of local rocks and by addition of components dissolved in basin precipitation.

Most halite units lose their effective porosity and permeability by a depth of 50-60 [m]. Quaternary halite buried to depths of 200 [m] show no petrographic evidence or further diagenetic modification. The lithium source can be circulating ground water (leaching on acid rocks) and thermal springs (3-4 [mg/l] Li). Springs are invariably fed by ground water discharge. On the east side of the Pozuelos basin there is surface evidence of several ancient hot springs with some travertine deposits.

Ca rich brines in Andean salars are not compatible with the salar drainage basin, which can only produce alkaline or sulphate rich weathering waters. Ca rich brines in salars are due to recycled calcic brines from ancient salars in sedimentary basins. Pozuelos is a sulfate rich brine type featured by a high content of SO₄, Na and Cl, low Ca, SO₄>Ca and pH<9. Evidence from lithium isotope analysis (Orberger et.al., 2015) indicates lithium brine at salar de Pozuelos originates from water-rock interactions with variable magmatic, metamorphic and sedimentary host rocks.

Item 9 - Exploration

Prior exploration work on both salars has been summarized in Item 6 of this Technical Report.

9.1 Pozuelos

9.1.1 Seismic Exploration

LSC has completed two seismic exploration programs on salar de Pozuelos. The first program was completed in late 2017 and consisted of a 28.29 line-km seismic survey comprising three lines with geophones placed at 400 [m] stations (Geoar, 2017). The survey was planned to test depths to 350 [m]. Figure 9-1 illustrates the seismic survey plan. The survey was designed to provide better definition of longitudinal and cross-cutting interpreted faults, provide better definition of the structure of the halite and clastic zones in the salar and to provide data for positioning of exploration drill holes. The work was contracted to Geoar s.r.l., Mendoza, Argentina. Due to data acquisition and data processing issues, the raw data was subsequently re-processed by GEC of Mendoza, Argentina using WET inversion methodology. GEC was subsequently engaged to undertake a new seismic survey along the SW-NE axis of the salar ((GEC, 2018). This resulted in a considerable improvement in the data interpretation.

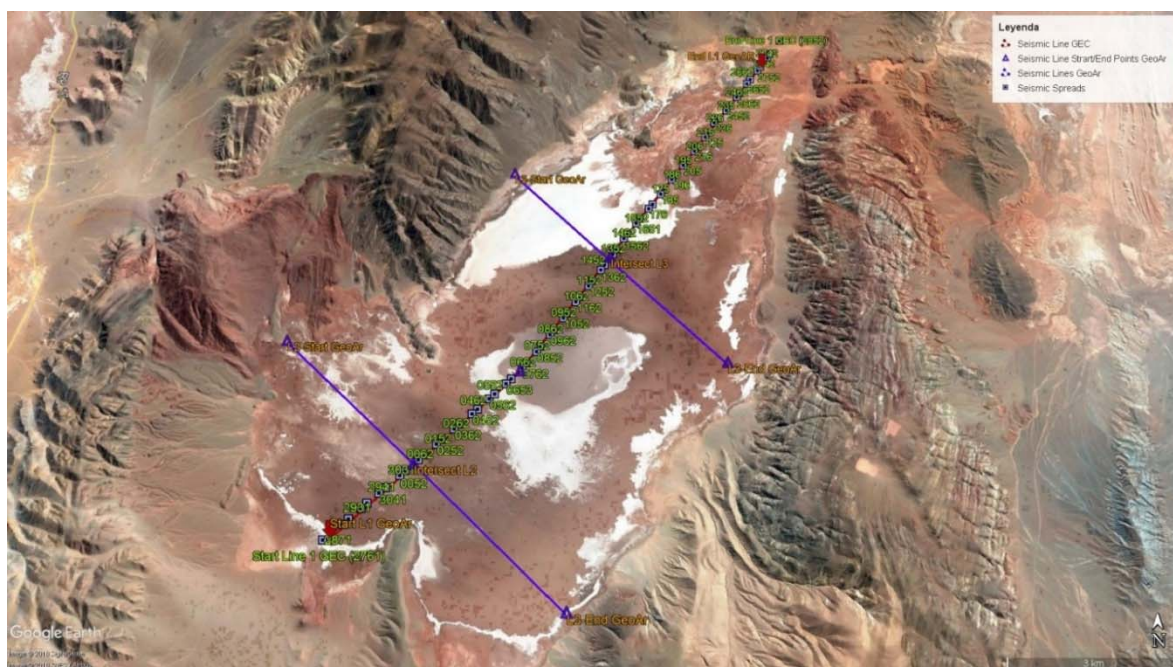
The Geoar seismic survey comprised three profiles, a longitudinal line of 14,280 [m] (L1) and two transverse lines of 7,690 [m] and 6,320 [m] running in a NW-SE direction across the salar in the south (L2) and north (L3), as illustrated in Figure 9-1.

Equipment utilized included the following:

- Two GEODE 24 seismographs
- Two 12 volt batteries, as seismograph power supply.
- Two Netbook computers for data acquisition
- Forty-eight vertical geophones of 9 Hz, to measure P-wave velocity
- Two seismic cables with 20m separation of 24 channels.
- Cable trigger, as actuator of the registration signal.
- Source transmitter: Seismic source of accelerated weight of 100.

The results of the seismic work indicated the following:

- Significant highly fractured halite zone in the upper ~20 [m] - 30 [m]
- Increasingly compacted halite zone in lower 30 [m] - 50 [m] zone,
- Mixed sand/clay/halite of varying thickness,
- Fanglomerate zone of varying thickness extending to basement
- Confirmation of NW-SE trending normal faults crossing the salar in the south and central areas,
- Confirmation of the second depocentre south of the southern NW-SE trending fault



Source: GEC, 2018

Figure 9-1: Seismic Lines across Salar de Pozuelos – 2017/18

GEC was contracted in mid-2018 to redo the seismic profiling of Line 1. This line, which runs in a NE direction from the SW to the NE of the salar, was 14.394 [km] long. Data was processed using WET inversion technology to provide a high resolution interpretation. Table 9-1 details the data acquisition for both the 2017 and 2018 seismic programs.

Table 9-1: Line Lengths, Spreads and Shot Numbers

2017/18 Seismic Survey Program – Salar de Pozuelos			
Seismic Line ID	Line Length	Spreads	Total Shots
1 (GeoAR)	14.220 m	26	130
1 (GEC)	14.394 m	33	686
2 (GeoAr)	7.680 m	10	67
3 (GeoAR)	6.220 m	9	53

Source: GEC, 2018

GEC interpreted Line 1 as comprising 10 seismic units as follows:

- Unit I (surface layer): Dry to partial saturated surficial sediments and alluvial material with Vp velocities in a range from $400 \text{ m/s} < V_p < 1,600 \text{ m/s}$. This unit mainly consists of loose Sands, Gravels, Clays, Salt and / or organic material. These velocities were mainly found at surface at the NE-end of Line 1 (11,000 – 14,394 relative line meters).
- Unit II (near surface layer): Completely saturated sediments (Alluvium) with Vp velocities in a range from $1,600 \text{ m/s} < V_p < 2,100 \text{ m/s}$. This unit mainly consists of Sands, Gravels, Clays, Silt, Salt and / or organic material. These velocities were mainly found in the NE-zone of Line 1.
- Unit III (Clastic HALITE Sequence / Halite with abundant Matrix (HAM) / Halite Crust): $2,100 \text{ m/s} < V_p < 2,800 \text{ m/s}$. This unit seems to dominate the NE-part of Line 1 (9,800 – 14,393

relative line meters) and was found from Surface (as Halite Crust) down to deeper parts of the section (as Clastic HALITE Sequence / Halite with abundant Matrix (HAM)). In the SW-part of line 1 this unit was only found between 0 - 800 relative line meters as a small surficial layer (around 40 m thick).

- Unit IV (Clastic SEDIMENT Sequence (mainly Gravel / Silt)): $2,800 \text{ m/s} < V_p < 3,200 \text{ m/s}$. This unit contains mainly Gravel and Silt. These velocities were mainly found in the NE-zone of Line 1 between 8,000 relative line meters and the NE-end of line 1 and at the SW-start of line 1 to 2,200 relative line meters.
- Unit V (Compact HALITE / Halite with scarce Matrix (HSM)): $3,200 \text{ m/s} < V_p < 3,600 \text{ m/s}$. This unit dominates the shallow part of the seismic section from the SW-start of Line 1 to 10,800 relative line meters.
- Unit VI (Clastic SEDIMENT Sequence): $3,600 \text{ m/s} < V_p < 3,800 \text{ m/s}$. This unit consists mainly of Sand and Silt and can be found from the SW-start of line 1 to 10,600 relative line meters.
- Unit VII (Compact HALITE / Halite with scarce Matrix (HSM)): $3,800 \text{ m/s} < V_p < 4,100 \text{ m/s}$. This unit dominates the deeper part of the seismic section from the SW-start of Line 1 to 10,800 relative line meters.
- Unit VIII (Clastic SEDIMENT Sequence): $4,100 \text{ m/s} < V_p < 4,200 \text{ m/s}$. This unit contains mainly Clay and Gypsum.
- Unit IX (SANDSTONE Sequence): $4,200 \text{ m/s} < V_p < 4,600 \text{ m/s}$. This unit contains sandstones and was found between 1,000 and 10,000 relative line meters.
- Unit X (probable Bedrock basement): $V_p > 4,600 \text{ m/s}$. This unit underlying the sandstone unit contains Firm Metasediments and / or igneous acid & volcanic rocks or fractured - weathered basic igneous and volcanic rocks and / or high grade Metamorphics.

These units are also seen in Lines 2 and 3 crossing in NW-SE directions toward the southern and central portions of the salar.

Figure 9-2 and Figure 9-3 illustrate the interpretation of the seismic work based on the re-processed data.

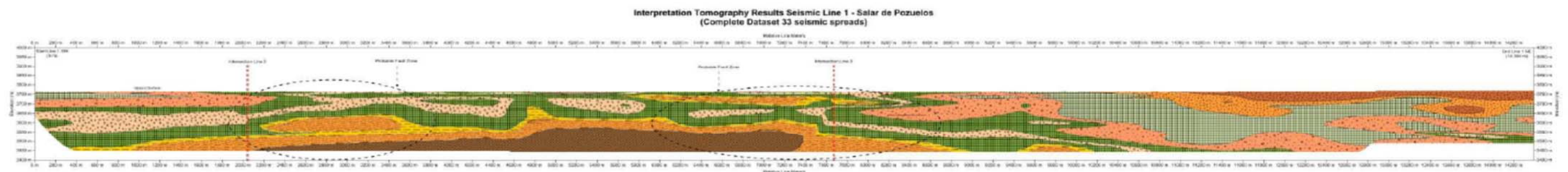
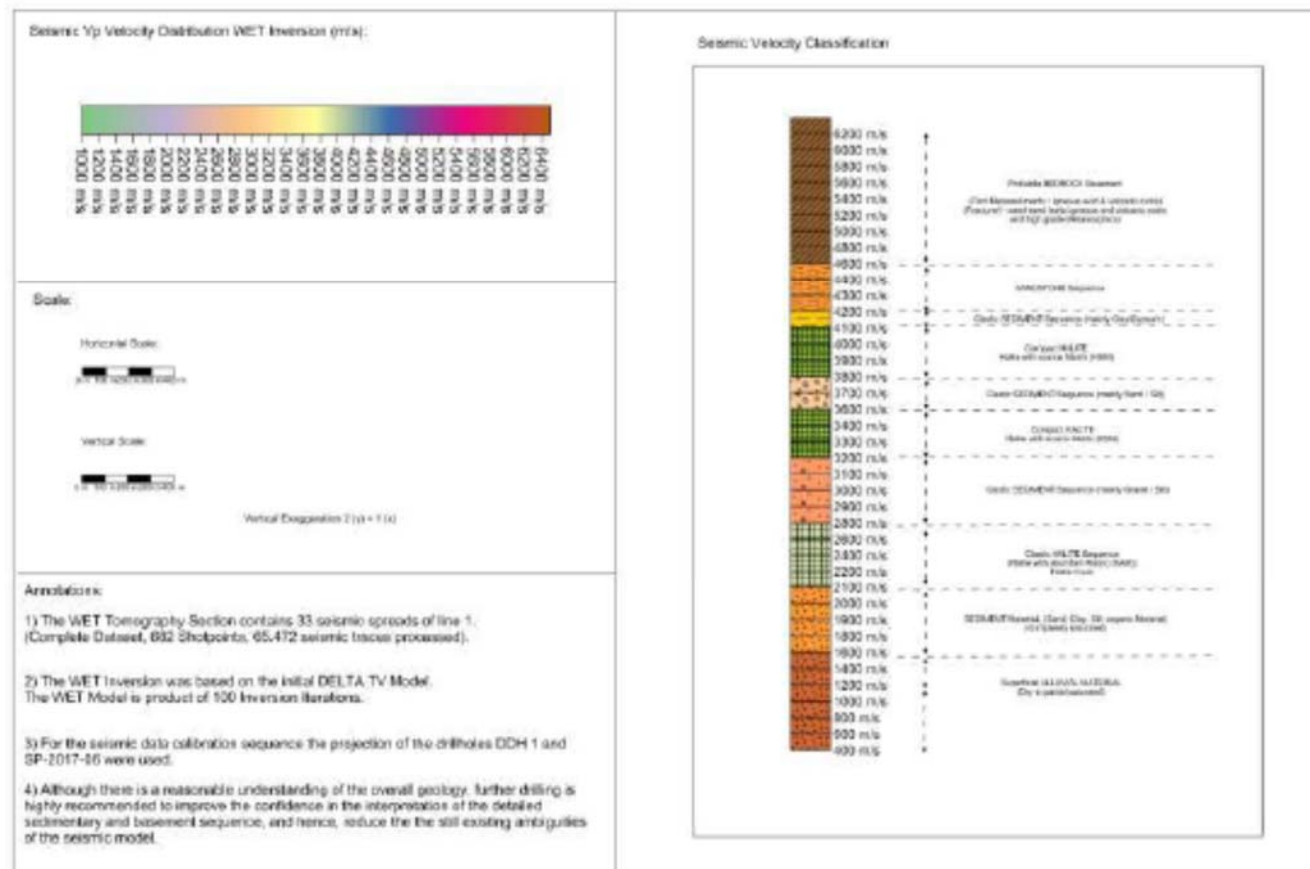
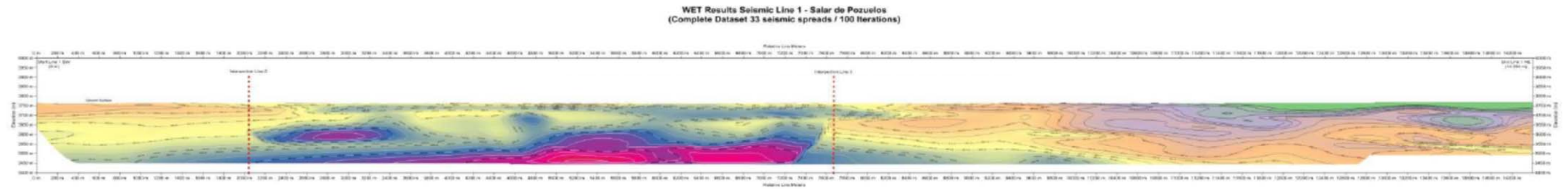
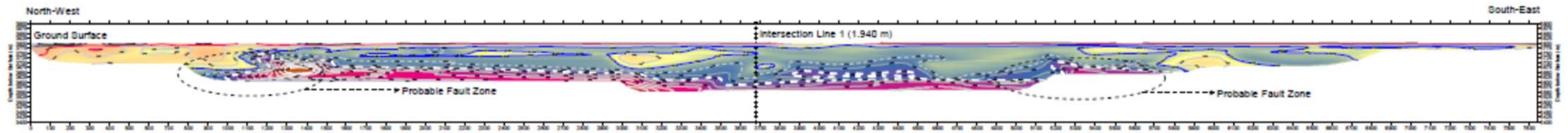
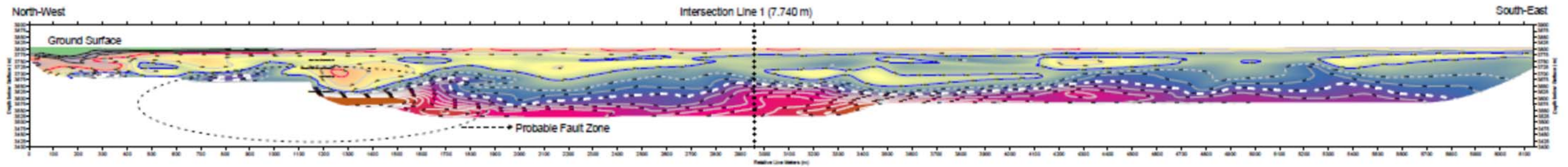


Figure 9-2: Seismic Interpretation – Line 1

Line 2



Line 3



Seismic Velocity Distribution (Range: 1.000 m/s - 6.500 m/s)

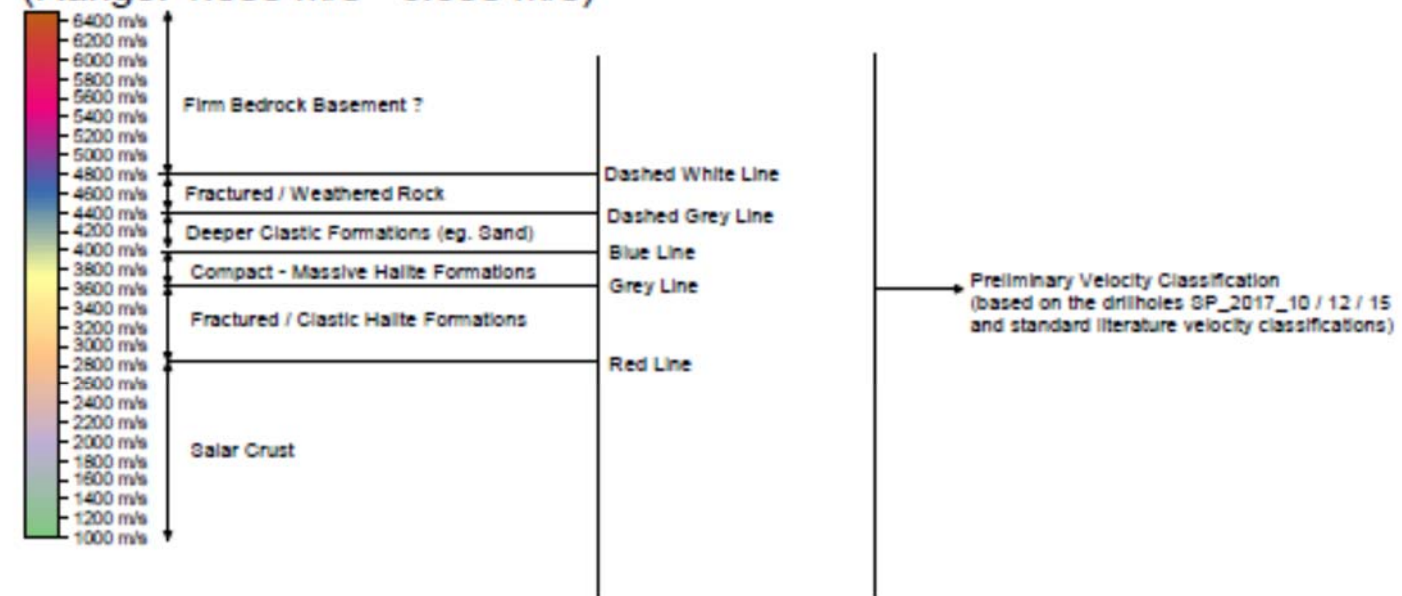


Figure 9-3: Seismic Re-Interpretation - Lines 2 and 3

9.1.2 Hydrology and Hydrogeology

LSC contracted Conhido s.r.l. to undertake a program of hydrology and hydrogeological studies of the salar in support of development of a conceptual hydrogeological model of salar de Pozuelos (Conhido, 2018a). The work program included the following activities:

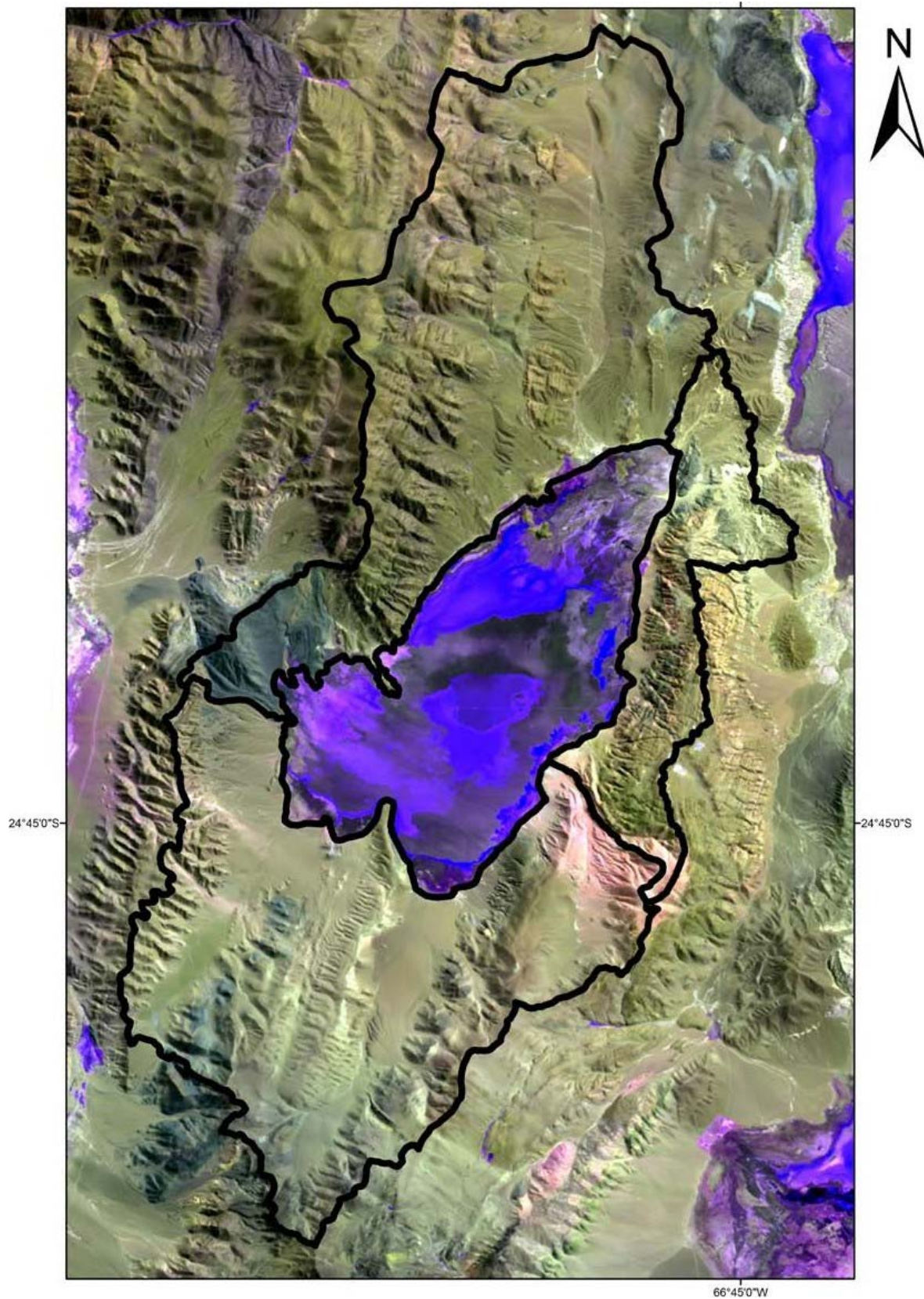
- Delineation of the various hydrographic sub-basins in the salar de Pozuelos catchment zone;
- Identification and flow measurement of various springs surrounding the salar;
- 13 station SEV survey on the perimeter of the salar to establish brine/freshwater interface and nature of lithology;
- Drilling of monitoring wells at north and south ends of salar to establish brine/fresh water interface and seasonal variations in fresh water inflows and fresh water/brine interface level;
- Definition of the main hydrogeological units within the salar;

The results of this work are summarized below:

Hydrographic Basin

The catchment basin for salar de Pozuelos occupies an area of approximately 385 [km²], with the salar having an area of approximately 82 [km²] (core, edge and alluvial fan). The catchment basin can be divided into four main hydrographic units (Figure 9-4) defined as:

- **Evaporitic Central Sub-basin:** It covers an area of approximately 82 km² and occupies the 21.3% of the total area of the basin. Includes the halite nucleus, clastic margin and alluvial fan.
- **Northwest Sub-basin:** Located in the northern sector of the Salar de Pozuelos. It covers an area of approximately 135 km² and occupies 35% of the total surface of the basin. The main fluvial course presents a discontinuous runoff. The unit develops mainly in very fractured Ordovician rocks that, in principle, could present a high infiltration capacity. In those instances, where the river discharges as an open flow when it emerges from its high basin, it quickly infiltrates the sediments of the small river fan that forms at the exit of the basin and that is superimposed on the salt flats.
- **Sub-basin South:** It is located in the south sector of the Salar de Pozuelos. It covers an approximate area of 130 km² and occupies 33.8% of the total area of the basin. The main fluvial course presents a discontinuous runoff. In the headwaters of the basin, the river drains over tertiary clastic sediments and a cover of sediments of alluvial origin, which can present moderate to high infiltration capacity. In those instances, where the river discharges as an open flow when it emerges from the upper basin, it quickly infiltrates the sediments of the small river fan that forms at the exit of the basin and that is superimposed on the salt flats.
- **Sub-basin East:** It is located in the east sector northeast of the Salar de Pozuelos. It covers an approximate area of 38 km² and occupies 9.9% of the total area of the basin. The main characteristic is that in most of the unit, there are only small drainage lines which drain on fractured and folded Ordovician rocks. In the northeast sector, greater fluvial activity is observed, where the drainage develops on tertiary clastic sediments.



Source: Conhidro, 2018a

Figure 9-4: Catchment Basin of Salar de Pozuelos

Springs

Fourteen springs have been identified within the basin. The springs are located primarily along the western side of the salar, mainly in contact with the rocky outcrops. One spring (M3) is located in the southeast area, while another (M14) is located in the west but in the upper slopes of the salar margin. This spring has a decidedly different water quality than the other springs and is the most productive (Table 9-2). Figure 9-5 illustrates the locations of the springs.

SEV Survey

A thirteen station SEV survey was conducted around the perimeter of the salar to establish data on the brine/fresh water interface and the nature of the host lithology. The survey utilized a Schlumberger tetrapolar electrode device with variable distances between the probes and current electrodes (maximum of 400 m) and separations between the potential electrodes of 1 m to 100 m. The data was initially interpreted using IPI2WIN software and then by INTREPREX1D software to develop definitive 1D models and resistivity sections. 2D profiles were subsequently prepared based on the interpreted 1D profiles. In total 44 survey points were taken to develop the 13 geophysical profiles. Figure 9-6 illustrates the locations of the SEV stations around the salar perimeter.

Table 9-2: Main Characteristics of Springs at Salar de Pozuelos

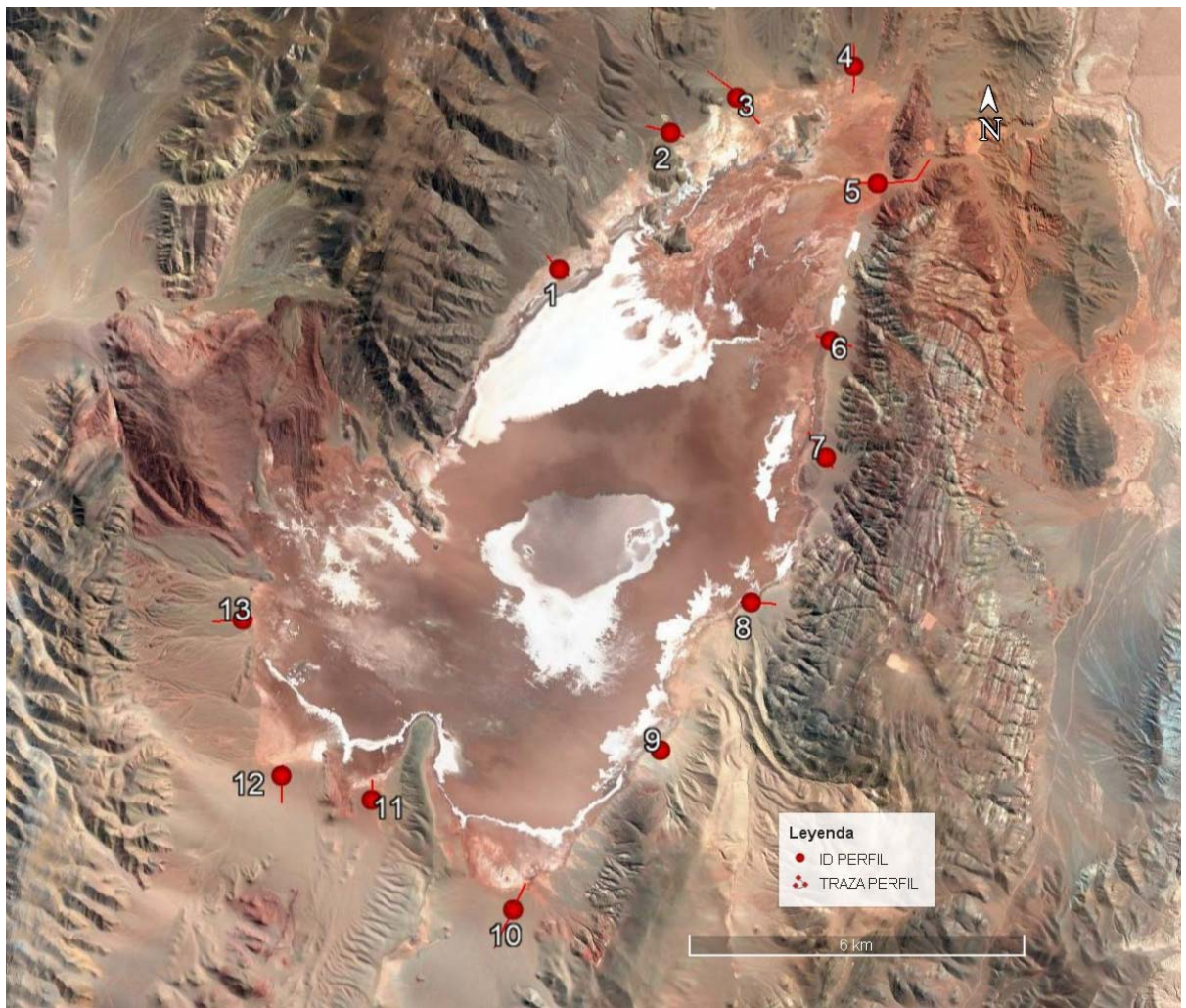
Spring	Coordinates		CE [μ S/cm]	T [°C]	Yield [l/h]
M1	24° 40' 4,47" S	66° 49' 12,81" W	70.700	6,3	s/d
M2	24° 40' 5,91" S	66° 49' 13,1" W	147.700	7,4	s/d
M3	24° 43' 8,84" S	66° 47' 8,79" W	36.500	3,9	190
M4	24° 41' 49,93" S	66° 50' 42,14" W	89.300	13,9	s/d
M5	24° 41' 39,42" S	66° 50' 39,84" W	107.500	11,5	70
M6	24° 41' 20,21" S	66° 50' 29,22" W	89.900	13,7	480
M7	24° 45' 57,03" S	66° 50' 24,06" W	26.860	6,9	s/d
M8	24° 45' 58,65" S	66° 50' 20,35" W	33.600	6,5	s/d
M9	24° 46' 7,04" S	66° 50' 11,70" W	73.700	3,2	s/d
M10	24° 46' 9,94" S	66° 46' 8,65" W	10.530	6,9	s/d
M11	24°40' 58.70" S	66°50' 20.90" W	seco	seco	seco
M12	24°39' 29.57" S	66°48' 18.63" W	8.100	9,9	450
M13	24°39' 33.27" S	66°48' 24.93" W	16.190	11,1	740
M14	24°38' 58.60" S	66°49' 36.94" W	673	5,8	920
Total					2850

Source: Conhidro, 2018a



Source: Conhidro, 2018a

Figure 9-5: Springs Location at Salar de Pozuelos

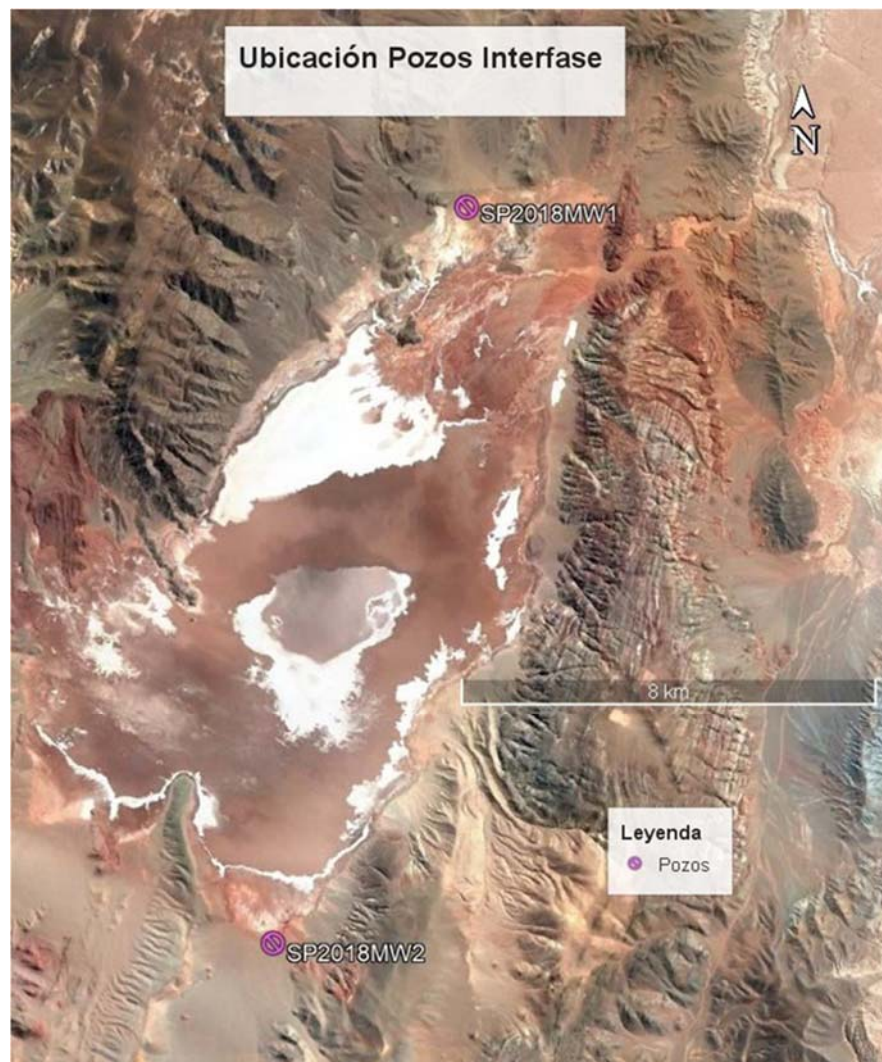


Source: Conhidro, 2018a

Figure 9-6: SEV Stations for Hydrology Studies – Salar de Pozuelos

Monitoring Wells

Two monitoring well systems were constructed at the northwest and southeast sectors of the salar on the alluvial fans (Figure 9-7) to evaluate the fresh water/brine interface and develop data on seasonal variations in groundwater chemistry.



Source: Conhidro, 2018a

Figure 9-7: monitoring Wells – Salar de Pozuelos

The wells were designed as a multi-level system of 4 wells. The wells were separated approximately 2 [m] from each other with positions noted with suffixes as A, B, C and D in the downstream direction. Well D in each case was a mechanically dug pit, while the others were rotary drilled at 8" diameter. After development of each well, the wells were tested for various parameters such as flow, depression, temperature and conductivity. The results of the work are detailed in Table 9-3.

Table 9-3: Monitoring Well Characteristics

Well Number	Coordinates (Posgar 94, Zone 3, AR-16 geoid)			Depth [m]	Filters		Static Level (m below ground level)	C.E. [μS/cm]
	Easting	Northing	Elevation (At ground level)		From [m]	To [m]		
SP2018MW1A	3419609.939	7274956.152	3762.696	70	40	60	2.720	224.600
SP2018MW1B	3419611.250	727953.572	3762.742	23	15.5	21.5	2.214	30.2000
SP2018MW1C	3419612.535	7274950.957	3762.616	13	4	12	2.085	4.120
SP2018MW1D				4	0.0	4	2.008	
SP2018MW2A	3415655.151	7260986.168	3762.113	74	40	60	3.348	240.800
SP2018MW2B	3415654.678	7260989.215	3761.937	23	15.5	21.5	3.121	26.500
SP2018MW2C	3415654.349	7260992.182	3761.89	13	4	12	2.921	4.530
SP2018MW2D				4	0.0	4	2.78	

Source: Conhidro, 2018a

The data for well SP2018MW1 indicated fresh water to a depth of 14 [m], followed by brackish water from 14 [m] to 23 [m] depth and brine saturated facies from 23 [m] to 65 [m] depth. The lithology of the wells showed a clastic sequence of mainly coarse gravels and coarse sands, with bands of fine sands and small intercalations of clays.

Well SP2018MW2 was interpreted to have a similar lithological distribution as well SP2018MW1. Fresh water was observed down to 14 [m] depth, with brackish water between 15 [m] and 22 [m] depth and brine saturated facies from 22 [m] to 70 [m] depth.

Salar Hydrogeological Units

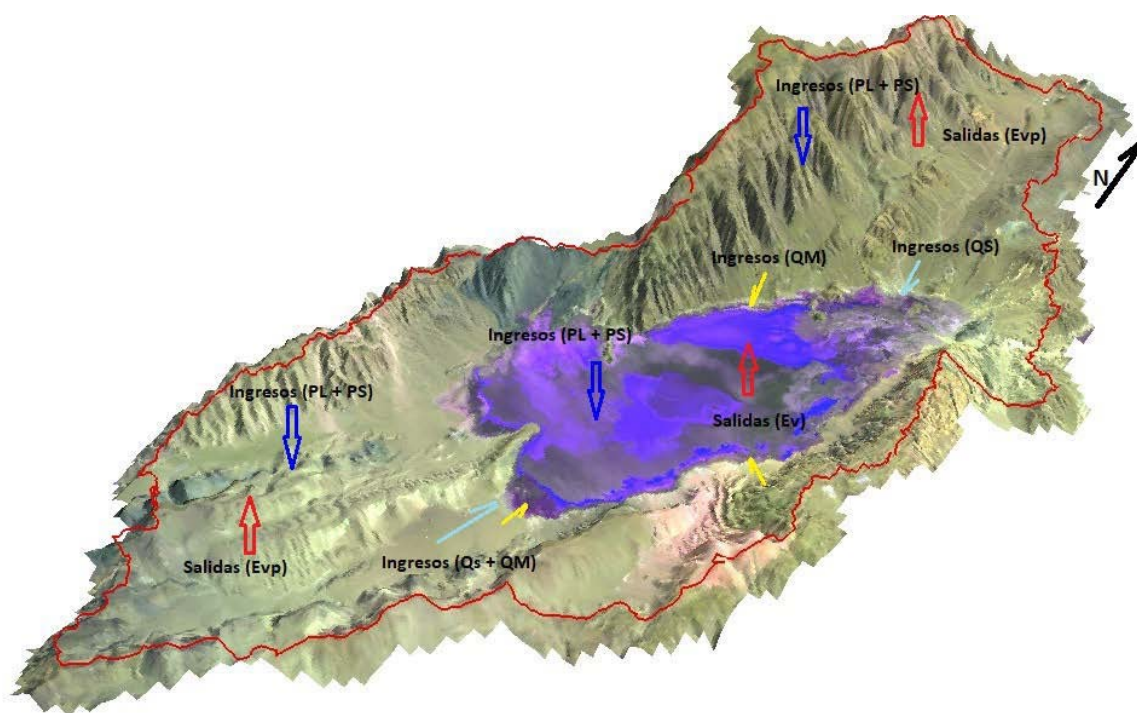
The actual salar occupies an area of approximately 82 [km²]. The principal hydrogeological units within the salar (which can be further subdivided for analytical purposes) are:

- An upper zone approximately 15 [m] thick composed of extremely fractured and porous halite, typically with large sacchroidal crystals. There are interspersed thin bands of reddish brown sands and silty sands of the same color, with small thicknesses and, in several sectors, thin bands of clayey silts and gray and black clays, and the presence of centimetre levels of ulexite. Recovery in the unit can be poor due to its coarse, crystalline nature and the presence of caverns. The typical RBRC value obtained from laboratory measurements is approximately 10%. However, pumping tests indicate significantly higher values for Specific Yield (Sy), on the order of 19% to 32%.
- A more compact halite zone ranging in thickness from 23 [m] to 66 [m] and has an average thickness of approximately 52 [m]. It is sub-divided into a fractured banded halite unit and a compact banded halite unit. The fractured banded halite zone shows a highly variable character, with halite ranging from large crystals to small crystals with high porosity to banded, relatively compact halite with meso-to-macropores. The compact banded halite unit is comprised of relatively dense halite with micropores to mesopores and massive halite. Sy values are highly variable but typically range from approximately 2% to approximately 8%.
- A clastic zone characterized by the presence of sedimentary facies composed of sands and clays. The clastic zone appears immediately below the compact banded halite zone. The

zone begins with a clastic sequence mixed with crystals of halite and gypsum, and then continues downwards with facies of sands, silty sands and argillaceous sands before reaching the Ordovician basement. The thickness of the zone is variable from approximately 40 [m] on the edge of the basin to over 200 [m], with the greatest interval occurring in the two major depocentres where the basement rocks are encountered at depths of approximately 380 [m]. Specific yield values within the zone typically range from approximately 3% to 6% but can be significantly higher in the two major depocentres, reaching values in excess of 15%.

9.2 Pozuelos Conceptual Hydrogeological Model

A conceptual hydrogeological model has been developed by Conhidro to provide a water balance for the salar. The model is based on the principal that fluid inputs, i.e precipitation, springs, sub-surface flows feeding the salar basin must equal fluid outputs; i.e evapotranspiration. The inputs and outputs are illustrated in Figure 9-8.



Source: Conhidro, 2018a

Figure 9-8: Conceptual Hydrogeological Model of Salar de Pozuelos

Precipitation in the catchment basin area is estimated at approximately 60 [mm/year] after adjusting for higher precipitation in the upper elevations of the basin using the relationships developed for other areas of the Puna and in Chile (Houston and Hartley, 2003; Garcia et. Al. 212, Garcia et. Al, 2015). This factor has been defined as:

$$PP = e^{(0.0012 \times A)}$$

Where A = altitude. The factor has a reported correlation coefficient of 0.88. Thus, for the salar floor at Pozuelos at 3,755 [m] the equation yields a value of 60 [mm/year]. Assuming an average height of

the basin of approximately 3,960 m.a.s.l. (i.e. top of catchment basin), and bearing in mind that the mountain ranges to the northwest and southwest would have the most effective orographic barriers to the winds from the east, the calculation of the average precipitation by height of the basin would be approximately 75 mm/year. Given that the total basin area is 385 [km²], the average annual precipitation input would be approximately 28.875 [M m³/year].

Input from springs in the salar basin is estimated at 36,500 [m³/year] based on a total flow of 2,850 [L/hr] (see Table 9.1).

Sub-surface inflows to the salar were estimated based on two methods: 1) calculation of recharge by measurement of the variation in piezometric level using monitoring wells, and (2) estimation of sub-surface flow based on Darcy's equation. Both methods resulted in an estimated recharge to the salar of approximately 13%, or 3.75 [M m³/year].

Evapotranspiration losses were estimated at approximately 2400 [mm/year] (6.5 [mm/day]), equivalent to 32.70 [M m³/year] based on comparison to other salars with known evaporative losses, the altitude of the salar and Houston's empirical relationship developed for the salar de Atacama (Houston, 2006).

The conceptual hydrogeological model requires further development to reduce the range of uncertainty associated with the estimate. However, the current estimate does provide a reasonable basis for understanding the resource potential of the salar and the potential impact of any proposed pumping operations. LSC intends to use this model as the basis for the Environmental Impact Statement report for the PPG project.

9.3 Pastos Grandes

9.3.1 Eramine Exploration

The Eramine exploration program incorporated the following work:

- Surface brine sampling from shallow pits, primarily in the south-southwest and north-northeast sectors of the salar,
- Transient Electromagnetic (TEM) survey to define the fresh water/brine interface around the salar perimeter,
- Vertical Electrical Sounding (VES) survey to define the brine and fresh water interface in the salar,
- Closed Source Audio-Magnetotelluric (CS-AMT) survey to define the brine-freshwater interface and identify lithological units,
- Refraction Seismic survey to define basin lithological structure.

The results reported by Eramine are consistent with results obtained by LSC.

9.3.2 Millennial Lithium Exploration

Millennial Lithium holds tenements located between tenements held by LSC. Millennial completed a program of VES survey work on the northern alluvial fan area located to the north and west of LSC's tenement area on the east side of Pastos Grandes. The results of the work, reported in Rosko (2018) indicated that the northern alluvial fan area comprised a zone of fresh to brackish water ranging from 50 [m] depth to approximately 200 [m] depth moving in a south to north direction and also from west to east, with a zone of brine to highly conductive brine underlying the freshwater, with the highly

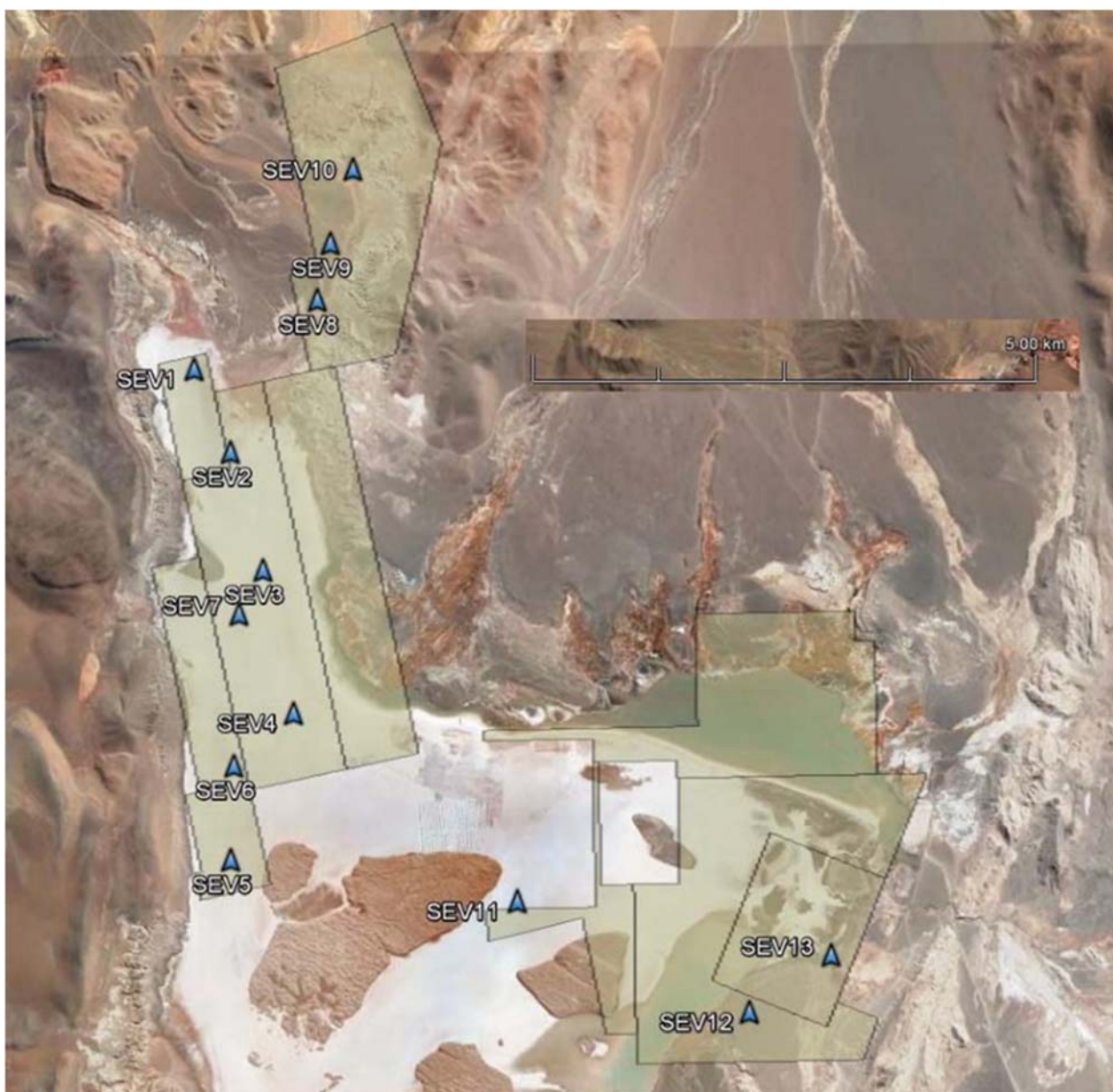
conductive brine typically lying below a depth of 200 [m] from surface. Such an interpretation is consistent with the known density gradient behaviour of fresh water and brine and consistent with observations of deep seated brines flowing into salars. Thus, it may be presumed that highly conductive brine is present at depths in excess of 200 [m] in the alluvial fan portion of the LSC tenements located to the immediate southeast of the Millennial tenements on the northern alluvial fan at Pastos Grandes.

9.3.3 LSC Lithium Exploration

SEV Survey

LSC contracted Conhidro srl to undertake a program of geological sampling, brine sampling and SEV work in 2016. The SEV survey coverage was directed in a South to North pattern in the western tenements and west-east and SW-NE directions in the eastern tenements (see Figura 9-9). The results of the work indicated the following:

- Three units of varying conductivity can be identified on the west side, running in a general South to North pattern from SEV 5 to SEV 10, with a slope decreasing from the NE to the SW and running approximately 7.4 [km]:
 - 1) a highly conductive (low resistivity) unit having an average thickness of 100 [m] and wedged toward the North. The unit is interpreted to be composed of evaporitic facies with intercalations of clastic facies, all saturated with brine,
 - 2) a semi-conductive zone with a variable thickness of 100 [m] to 140 [m] and a depocentre between SEV 8 to SEV 10. The resistivity values are interpreted to represent fines facies (silts and clays) and/or evaporites (halite, gypsum, borates) with intercalations of fine clastic layers. This may represent levels of the Blanca Lila Formation or other Tertiary deposits that are present in the salar,
 - 3) a Resistive Zone identified between SEV 8, 9 and 10 and between 20 [m] and 100 [m] deep, interpreted as belonging to mainly thick clastic facies (conglomerates) and/or facies of volcanic rocks (andesites) that emerge in the periphery of the salar.



Source: Conhidro (2016)

Figure 9-9: SEV Survey – 2016 LSC Exploration

It is notable that SEV 4 shows a very deep, highly conductive zone (>170 [m]) that does not appear in the other SEV results. Figure 9-10 illustrates the SEV results.

In the central and eastern SEV survey points, one can make the following interpretations:

SEV 11: This shows four resistivity layers; the first an evaporite facies with conductive clastics saturated in brine down to approximately 5 [m] depth. This is followed by a zone of interspersed facies of silts, clays, sands and halites saturated in brine to approximately 64 m depth. Underlying this are zones interpreted as facies belonging to the Blanca Lila Formation and Tertiary sequences of conglomerates of the Singuel Formation

SEV 12: Presents a sequence of four conductive layers, with an upper zone of modern gravels and sands extending to a depth of approximately 20 [m]. This is followed by facies interpreted as belonging to the Blanca Lila Formation to a depth of 31 [m]. Underlying this zone is a highly conductive zone of alternating evaporite and clastic facies saturated with brine. The bottom of this zone could not be determined from the SEV results.

SEV 13: This station detected five distinct geoelectric layers. The upper-most layer is assigned as evaporite facies saturated in brine and having a thickness of approximately 0.5 [m]. This is followed by a zone of layered evaporites and mixed halite/clastics (silts, sands and clays) saturated in brine to a depth of approximately 85 [m]. Underlying this is a zone of mixed halite and clastics, again saturated in brine, to a depth of approximately 134 [m]. A more resistive layer is found below, possibly representing the Blanc Lila Formation or Tertiary sequences that emerge in the margins of the salar and extending to a depth of approximately 287 [m], where the resistivity again decreases, indicating a change to a more conductive zone similar in facies composition to the mixed halite/clastic zone present from 85 [m] to 134 [m].

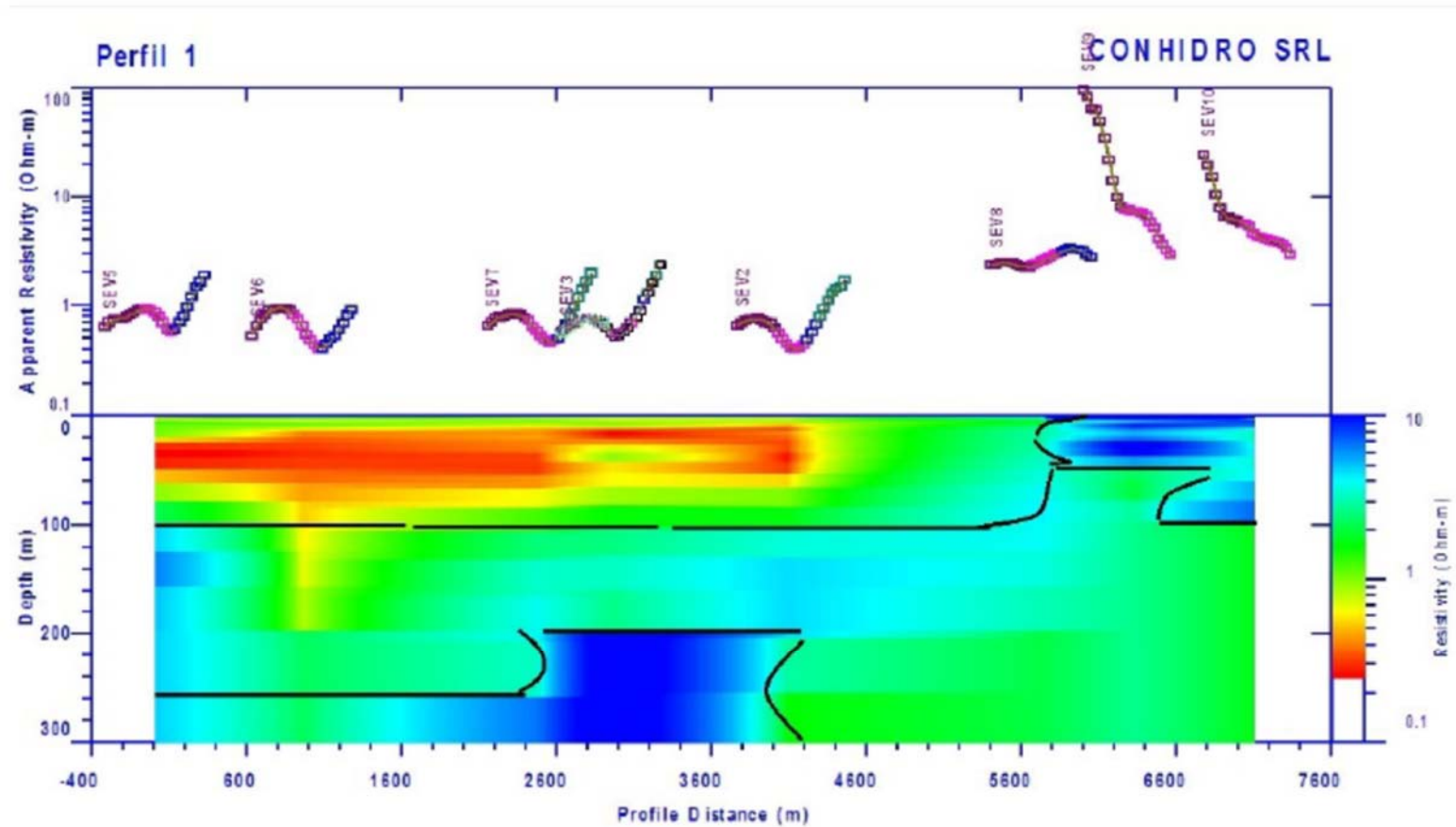


Figure 9-10: SEV Results, 2016 LSC Exploration

Refraction Seismic Survey

LSC contracted GEC (Geophysical Exploration and Consulting S.A.) in 2018 to undertake a seismic tomography refraction survey over the LSC tenements at Pastos Grandes. The survey comprised six seismic lines for a total of 15,372 [m] (Figure 9-11 and Table 9-4). The survey was undertaken using a 24-bit GEODE Acquisition System with data processing using Geometrics software (MGOS). The system provides for 20 [kHz] bandwidth (8 to 0.2 [Ms] sampling), low noise and high stacking accuracy. Specifications for the survey were as follows:

Geophone spacing:	6 [m]
Source spacing:	36 m inline
Outline offsets:	180, 360, 540, 920 [m] (both ends)
Geophone type:	8 [Hz] Geospace (single) geophones with spike
Spread layout:	96 active channels
Seismic source:	150 kg trailer mounted dropweight
Recording length:	250 – 1,000 [ms]
Sample rate:	0.25 [ms]
Gain factor:	Automatic gain control

Raw data were processed using tomography inversion using RAYFRACT software (Delta TV and WET (Wave Eikonal Traveltime) tomography processing) to enable high quality data interpretation and visualization.



Source: GEC, 2018

Figure 9-11: Seismic Survey Lines – LSC 2018 Exploration at Pastos Grandes

Table 9-4: Summary of Line Lengths, Spread and Shot numbers 2018 Seismic Survey at Pastos Grandes

Seismic Line ID	Line Length	Spreads	Total Shots
1	4.026 m	9	183
2	1.146 m	3	42
3	1.434 m	3	51
4	3.594 m	8	150
5	2.298 m	5	93
6	2.874 m	7	125

Source: GEC, 2018

Lithologies were assigned based on standard seismic literature values/distributions for seismic velocities, the regional geologic information and correlated to the lithologies for two drill holes, SPG-2017-02B in the NW zone and SPG-2017-04A in the SE zone. The maximum depth of the seismic survey was approximately 600 [m] below surface. The interpretations of the seismic results for each zone are noted below:

Seismic Lines 1-3 (NW Zone)

Interpreted as comprising 7 units:

- Unit I (thin surface layer): Dry to partial saturated sediments and alluvial material with Vp velocities in a range from 400 m/s < Vp < 1.200 m/s. This unit mainly consists of loose Sands, Gravels, Clays, Salts and / or organic material.
- Unit II (Halite Crust (HC) / Surface Halite Layer (HCL)): 1.200 m/s < Vp < 1.600 [m/s].
- Unit III (Probable surficial aquifer sediment formation): 1.600 m/s < Vp < 2.100 [m/s]. This unit contains mainly Sand, Clay, Silt and / or organic Material.
- Unit IV (Halite (HCL)): 2.100 m/s < Vp < 2.400 [ms]. The fourth unit consists mainly of crystalline Halite.
- Unit V (Probable aquifer sediment formation): 2.400 m/s < Vp < 2.800 [ms]. This unit contains mainly Sand, Clay, Silt and / or organic Material. G
- Unit VI (Sediment formation): 2.800 m/s < Vp < 4.600 [ms]. This unit contains mainly Gravel.
- Unit VII (Breccia): Vp > 4.600 [ms]. This unit contains mainly Breccia.

No structural features such as faults were detected on seismic lines 1 -3.

Seismic Lines 4-6 (SE Zone)

Interpreted as comprising 11 units:

- Unit I (thin surface layer): Dry to partial saturated sediments and alluvial material with Vp velocities in a range from 400 m/s < Vp < 1.200 m/s. This unit mainly consists of loose Sands, Gravels, Clays, Salts and/or organic material.
- Unit II (Halite Crust (HC) / Surface Halite Layer (HCL)): 1.200 m/s < Vp < 1.600 [m/s].
- Unit III (Probable surficial aquifer sediment formation): 1.600 m/s < Vp < 2.100 [m/s]. This unit contains mainly Sand, Clay, Silt and / or organic Material.

- Unit IV (Halite with scarce matrix (HSM)): $2.100 \text{ m/s} < V_p < 2.400 \text{ [ms]}$. The fourth unit consists mainly of Halite with scarce matrix.
- Unit V (Halite with abundant matrix (HAM)): $2.400 \text{ m/s} < V_p < 3.400 \text{ [ms]}$. This unit contains mainly Halite with abundant matrix.
- Unit VI (Halite with scarce matrix (HSM)): $3.400 \text{ m/s} < V_p < 3.900 \text{ [ms]}$. The sixth unit consists mainly of Halite with scarce matrix.
- Unit VII (Probable aquifer sediment formation): $3.900 \text{ m/s} < V_p < 4.100 \text{ [m/s]}$. This unit contains mainly Sand.
- Unit VIII (Halite with interbedded Sand): $4.100 \text{ m/s} < V_p < 4.600 \text{ [ms]}$. This unit is characterized by an alternation of Halite and Sand bands.
- Unit IX (Probable aquifer sediment formation): $4.600 \text{ m/s} < V_p < 4.800 \text{ [m/s]}$. This unit contains Gravel, Sand and / or Clay.
- Unit X (Halite with interbedded Sand): $4.800 \text{ m/s} < V_p < 5.600 \text{ [ms]}$. This unit is characterized by an alternation of Halite and Sand bands.
- Unit XI (Probable aquifer sediment formation): $V_p > 5.600 \text{ [m/s]}$. This unit contains Gravel and / or Sand.

No structural features such as faults were detected on seismic lines 4-6.

The final WET interpretations of the seismic results are summarized in Figure 9-12.

The seismic data are interpreted as follows:

Line 1 – NW Zone

Thin surface layers of halite mixed with sediment material in the north, intersecting a thicker halite zone (~25 [m] thick) at Line 2 and then reverting to a sediment zone composed of clay, sand and silt, with a zone of compact halite lying north of Line 2 extending from approximately 50 [m] depth to approximately 125 [m] depth. A halite dominant clastic band forms an undulating seam of varying thickness (~25 [m] – 50 [m]) throughout the length of the survey line. A clastic zone composed of sand/silt/clay present at approximately 175 [m] – 225 [m] below surface overlies a deeper lying sediment zone composed mainly of gravels from approximately 225 [m] to 450 [m] depth below surface), which sits on top of a breccia zone.

Line 2

Line 2 is a cross section across Line and located in the northern sector of Line 1. The interpreted section shows thick sand/clay and silt sediments overlying an approximate 25 [m] – 40 [m] thick halite horizon, followed by another sequence of sand/clay/silt sediments which overly a thick sequence of sediments interpreted primarily as gravels.



Source: GEC, 2018

Figure 9-12: Interpreted Seismic Results – Pastos Grandes

Line 3

Line 3 is a cross section located toward the southern end of line 1. The interpreted seismic data show a similar, but somewhat more complex distribution of sediment and halite layered sequences to Line 2.

Line 4: SE Zone

Line 4 is a W-E line located in the SE part of Pastos Grandes cutting both Lines 5 and 6. The seismic data show a series of wave-like, somewhat intercalated sequences of halite mixed with sediment, sand/clay/silt sediments, and halite with minor sediment.

Line 5

Line 5 runs N-S and is located in the central part of LSC's tenements on the east side of Pastos Grandes. The interpreted section has the same pattern of distribution of sediments as Line 4.

Line 6

Line 6 is a North-South line located on the eastern side of the LSC tenements and extending into the foreland on the southeast side. The interpreted data indicates an upper sequence of mixed halite-sediment to a depth of 175 m below surface. The sequence increases in depth, with mixed halite sediment predominating, gradually becoming more clastic dominated moving to the south.

The overall seismic results are consistent with the SEV results and indicate the LSC tenements on both the west and east sides of Pastos Grandes demonstrate lithological and geo-electrical characteristics consistent with the presence of brines within a thick permeable matrix of varying halite and clastic composition.

Item 10 - Drilling

A summary of prior drilling at salar de Pozuelos and Pastos Grandes is provided in Item 6 of this Technical Report. Details of drilling activity by LSC are provided in the NI 43-101 reports on Pozuelos (Hains, 2018b) and Pastos Grandes (Hains, 2018a) filed by LSC on SEDAR. These results are summarized in this section.

10.1 Pozuelos

Details of prior drilling activity at salar de Pozuelos are to be found in Hains (2017a, 2017b and 2018a). Drilling completed by LSC in 2017 is summarized in Table 10-1.

Table 10-1: LSC Drill Program on Salar de Pozuelos – 2017 Pumping Wells

Hole	Gauss-Kruger Posgar 94 Datum1 AR-16 geoid		Elev1 [m]	Depth [m]	Azi [m]	Dip	Type	Bit Size	Casing [inch]	Type	Screen Interval [m]
	Northing	Easting									From – To
W1-35	7266942.42	3415993.16	3755.776	45.0	0	90	Direct Rotary	15"	10"	Pump	0 – 35
PzW1-35-5	7266939.98	3415997.63	3755.89	35.0	0	90	DDH	HQ	2"	Piezo	0 – 35
PzW1-35-20	7266931.61	3415976.19	3755.851	35.0	0	90	DDH	HQ	2"	Piezo	0 – 35
PzW1-35-50	7266992.22	3415993.55	3755.834	35.0	0	90	DDH	HQ	2"	Piezo	0 – 35
W2-90	7266938.59	3418025.63	3756.155	95.0	0	90	Direct Rotary	15"	10"	Pump	35 – 80
PzW2-90-5	7266936.37	3418030.27	3755.801	90.0	0	90	DDH	HQ	2"	Piezo	35 – 85
PzW2-90-20	7266928.95	3418008.31	3755.817	90.0	0	90	DDH	HQ	2"	Piezo	35 – 85
PzW2-90-50	7266992.22	3418993.55	3755.804	90.0	0	90	DDH	HQ	2"	Piezo	35 – 85
Test Well 12	7266962.22	3416013.08	3755	15.0	0	90	Direct Rotary	12"	none	Pump	0-15
Piezo TW12	10 m from well		3755	15.0	0	90	Direct Rotary	8"	none	Piezo	0-15
Piezo TW12	20 m from well		3755	15.0	0	90	Direct Rotary	8"	none	Tracer	0-15
Test Well 22	7270339.9071	3416903.1618	3755	15.0	0	90	Direct Rotary	12"	none	Pump	0-15
Piezo TW22	5 m from well		3755	15.0	0	90	Direct Rotary	8"	none	Piezo	0-15
Piezo TW22	10 m from well		3755	15.0	0	90	Direct Rotary	8"	none	Tracer	0-15
Total				605.0							

Notes:

1. restated from 2017 DGPS data due to change in geoid
2. locations not restated from original 2017 data

Source: LSC

Table 10-1 (Cont'd): LSC Drill Program on Salar de Pozuelos – 2017 Diamond Core Drill Holes

Hole	Gauss-Kruger POSGAR 94 Zone 3 AR-16 geoid datum2		Elevation2	Depth (m)	Azimuth	Dip	Type	Size
	Northing	Easting						
DDH-400	7266436.29	3417075.96	3755.769	322.7	0	90	DDH	HQ
SP-2017-01	7272418	3419735		cancelled ¹	0	90	DDH	HQ
SP-2017-02	7270791.66	3416483.05	3755.622	128.0	0	90	DDH	HQ

SP-2017-03	7270944	3418684		Cancelled1	0	90	DDH	HQ
SP-2017-04	7270942	3419993		Cancelled1	0	90	DDH	HQ
SP-2017-05	7268938.34	3415985.52	3756.203	101.0	0	90	DDH	HQ
SP-2017-06	7268961.48	3417305.51	3756.207	200.0	0	90	DDH	HQ
SP-2017-07	7268945.65	3418352.37	3756.388	105.0	0	90	DDH	HQ
SP-2017-08	7268945.15	3419997.43	3756.613	125.0	0	90	DDH	HQ
SP-2017-09	7267308.68	3419993.78	3756.685	114.5	0	90	DDH	HQ
SP-2017-10	7265935.17	3413192.72	3756.229	141.5	0	90	DDH	HQ
SP-2017-11	7265008.41	3411987.01	3756.305	51.8	0	90	DDH	HQ
SP-2017-12	7264930.57	3414285.86	3756.027	168.5	0	90	DDH	HQ
SP-2017-13	7264926.91	3415970.37	3756.16	125.0	0	90	DDH	HQ
SP-2017-14	7264932.75	3417969.08	3756.175	123.5	0	90	DDH	HQ
SP-2017-15	7263362.90	3415965.48	3756.362	81.5	0	90	DDH	HQ
Total				1,788.0				

Notes:

1. Cancelled due to access issues related to ground conditions, rescheduled for later drilling
2. Restated from 2017 DGPS data due to change in geoid

Source: LSC

Core recovery was variable, with high recoveries in the more competent halite zones and in the deeper lying clastic supported clay unit and lower recoveries in the highly fractured upper halite zone; especially in zones of loose coarse crystalline halite. Overall, core recovery ranged from a low of 40% in Hole SP-2017-14 to a high of 96.8% in Hole PzW2-90-20. Table 10-2 details core recovery for each hole.

Table 10-2: Core Recovery – 2017 Drill Program

Hole No.	Total Drilled (m)	Recovered Length (m)	% Core recovery	Comments
SP-2017-02	128.0	62.77	49.0%	Primary core losses in friable clastic sequences from 69.5 m to 104 m
SP-2017-05	101.0	68.0	66.3%	Core losses in highly fractured crystalline halite zones
SP-2017-06	200.0	134.0	67.0%	Dominated by fractured halite and friable clastic sequences
SP-2017-07	105.0	71.0	67.6%	Core losses in highly fractured crystalline halite zones
SP-2017-08	125.0	82.0	65.6%	Core losses in highly fractured crystalline halite zones
SP-2017-09	114.5	67.06	58.6%	Core losses in highly fractured crystalline halite zones
SP-2017-10	141.5	71.63	50.6%	Core losses in highly fractured crystalline halite zones
SP-2017-11	51.8	47.15	91.0%	Dominated by competent halite
SP-2017-12	168.5			
SP-2017-13	125.0	109.08	87.3%	Dominated by competent halite
SP-2017-14	123.5	49.44	40.0%	Significant loss in highly fractured, coarse crystalline halite
SP-2107-15	81.5	67.06	82.3%	Dominated by competent halite
PzW1-35--5	35.0	29.11	83.2%	Dominated by competent halite
PzW1-35-20	35.50	30.85	86.9%	Dominated by competent halite
PzW1-35-50	35.50	31.98	90.1%	Dominated by competent halite
PzW2-90-5	91.0	87.89	96.6%	Dominated by competent halite

Hole No.	Total Drilled (m)	Recovered Length (m)	% Core recovery	Comments
PzW2-90-20	91.0	88.12	96.8%	Dominated by competent halite
PzW2-90-50	91.0	91.0	94.6%	Dominated by competent halite
DDH400	322.7	285.66	88.53	Dominated by competent halite and clays

10.2 2018 Drilling

Drilling in 2018 consisted of a program of diamond drilling to obtain brine and core samples and rotary drilling to develop a series of pumping wells and piezometers to evaluate aquifer parameters and brine chemistry. Two exploration holes were drilled to test the northern section of the Property (Hole PZ-18-02) and the lateral and depth extension of the central depocentre (Hole PZ-18-01). Several planned holes, primarily in the northern part of the salar, were cancelled due to time constraints associated with construction of access roads. Table 10-3 provides details on the 2018 drill program.

Table 10-3: 2018 Drill Program

LSC Lithium Salar de Pozuelos Project

Hole	Gauss-Kruger POSGAR 94 Zone 3 datum, AR-16 geoid		Elevation [m]	Depth [m]	Azimuth	Dip	Type	Size	Type
	Northing	Easting							
SP-2017-02W	7270791.66	3416483.05	3755.622	128.0	0	90	Tricone	8"	Pumping
SP-2017-pz5-2W	7270787.32	3416479.16	3755.705	128.0	0	90	Tricone	4"	Piezo
SP-2017-pz10-2W	7270799.02	3416473.75	3755.698	128.0	0	90	Tricone	4"	Piezo
SP-2017-10W	7265930.67	3413190.89	3756.186	141.5	0	90	Tricone	8"	Pumping
SP-2017-pz10-10W	7265927.59	3413200.62	3756.26	141.5	0	90	Tricone	4"	Piezo
SP-2017-pz5-10W	7265935.35	3413192.75	3756.22	141.5	0	90	Tricone	4"	Piezo
SP-2017-14W	7264929.00	3417966.00	3756.15	123.5	0	90	Tricone	8"	Pumping
SP-2017-pz5-14W	7264928.73	3417966.20	3756.133	123.5	0	90	Tricone	4"	Piezo
SP-2017-pz10-14W	7264923.18	3417976.60	3756.217	123.5	0	90	Tricone	4"	Piezo
WPZ-18-01	7269675.67	3416824.78	3756.163	103.0	0	90	Rotary	8"	Pumping
Pzm20-WPZ18-01	7269655.41	3416825.78	3756.02	100.0	0	90	Rotary	4"	Piezo
WPZ-18-04	7264938.43	3415953.20	3755.937	183.0	0	90	Rotary	8"	Pumping
PZ-18-01	7267900.13	3417787.38	3755.865	380.3	0	90	DDH	HQ	Exploration
PZ-18-02	7272770.83	3419744.2	3758.407	358.0	0	90	DDH	HQ	Exploration
Total Drilled				2,303.3					

Drilling was undertaken by Andina Drilling (pumping and piezo wells) and by AGV Falcon (exploration holes). AGV Falcon used an Atlas CC14 drill rig. Andina used a conventional rotary rig fitted with either a tricone bit or standard RC bit.

Figure 10-1 illustrates the locations of all drill holes, pumping wells, piezometer wells and other drilling activity undertaken at salar de Pozuelos.

Core recovery in the 2018 exploration holes was relatively poor at 49.41% in PZ-18-02. Recovery to 150 m was very low at 19.9% but improved significantly to more than 90% from 150 m to End-of-Hole at 358 m. The poor recovery in the top section was attributed to the highly clastic nature (coarse

gravels and sand) found in the hole. Recovery in Hole PZ-18-01 was high at 95.2% from 0 m to 284 m depth but decreased to 60.2% from 284 m to end of hole at 380.3 m. Core losses in the hole were attributed to the clastic nature of the sediments.

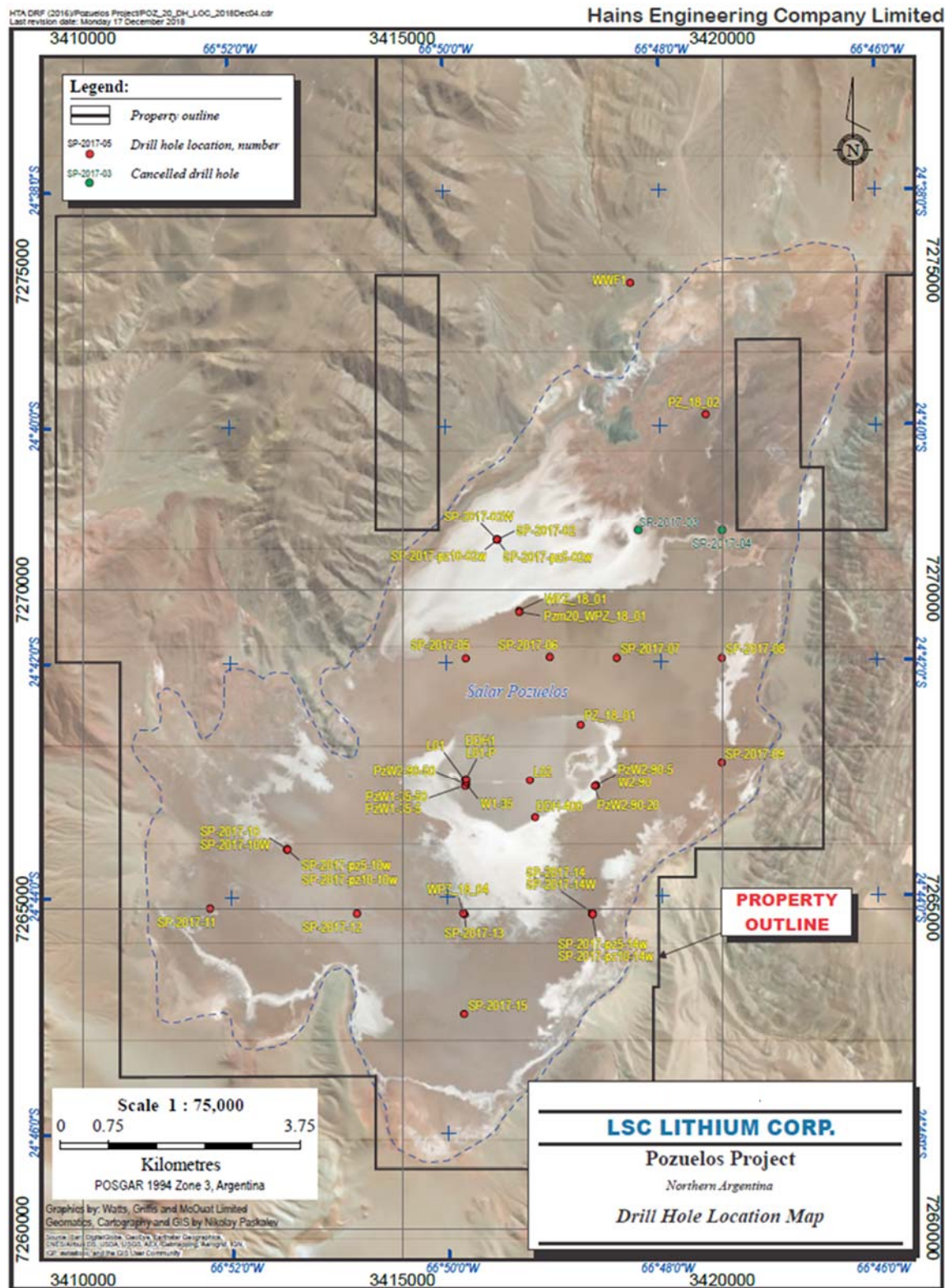


Figure 10-1: Drill Hole Location Map

10.3 Lithology

The lateral and vertical distribution of the various lithologies at Salar de Pozuleos is variable, but in general the typical lithological profile across the salar can be characterized as follows:

- 0 [m] to ~ 5 [m]: Highly fractured halite exhibiting significant horizontal macro-pores and vertical channels, sometimes associated with clay encrustation, especially at near surface. May contain coarse crystalline halite up to 2 [cm] – 3 [cm] size, sometimes in loose form. Most common in salar nucleus, becoming less common at salar margins;
- ~5 [m] to ~ 15 [m]: Moderately fractured to moderately compact halite, often with intervals of coarse, crystalline halite or present as thin 1 [cm] to 3 [cm] halite layers separated by thin (typically <0.2 [cm]) layers of volcanic ash or other clastic material, sometimes with organic material imbedded in halite. Coarse crystalline halite and volcanic ash intervals highly porous. Small ulexite grains and/or gypsum occasionally present and more common on salar margins;
- ~ 15 [m] to ~25 [m]: Increasingly compact halite, becoming less porous with depth; intercalated with very thin layers of volcanic ash. Tends to massive halite at depth;
- ~ 25 [m] to ~ 75 [m]: massive halite, sometimes with gypsum or mirabilite and or intercalated with clays. On salar margin, halite with clay-sand mixture is more common;
- ~ 75 [m] to ~ 120 [m]: clay, sandy clay and clay/sand/halite mixtures, trending to clay-sand mixtures with depth in central portion of salar and to sand/gravel mixtures on salar margins; clay often characterized by channels and pores
- ~120 [m] to ~ 170 [m]: clay with some clay/sand zones, especially in central portion of salar; channels and pores often present in clay;
- ~170 [m] to ~200 [m]: sand/cay/halite mixture in central portion of salar, occasional intervals of gravel; channels and pores often present in clay
- > ~200 [m]: predominately clay with intervals of clay-sand in central portion of salar, channels and pores may be present.

In the northeast of the salar the lithology is comprised of clastic sequences with thin intercalations of halite. The clastics range from gravels to sands, silts and clays. The distribution of the clastic and halite sequences represents periods of varying pluvial intensity with short interruptions of more arid conditions.

Figures 10-1 through 10-4 illustrate the lithology through various cross sections across the salar.

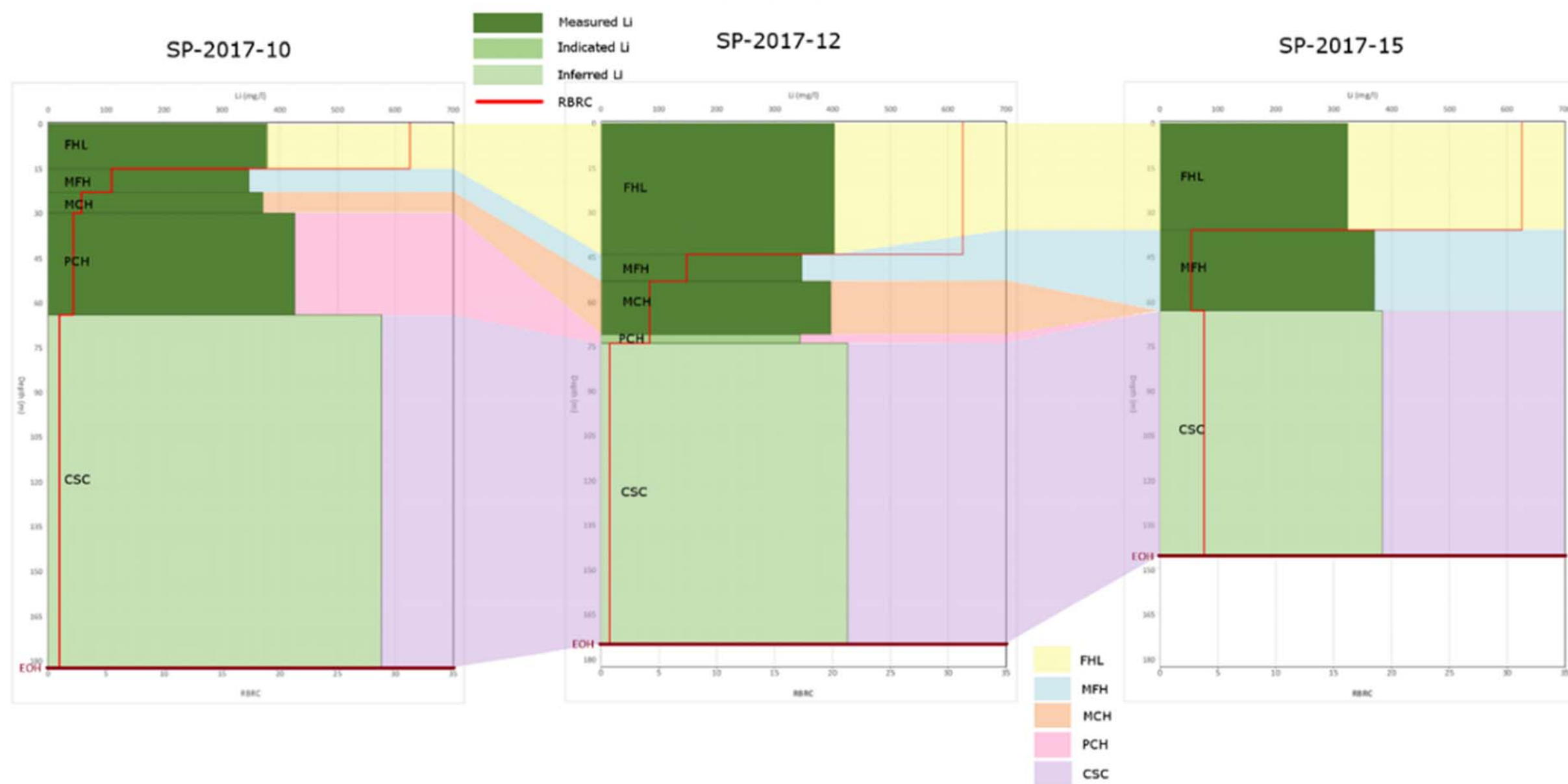


Figure 10-2: NW-SE Cross Section through Holes 10, 12 and 15

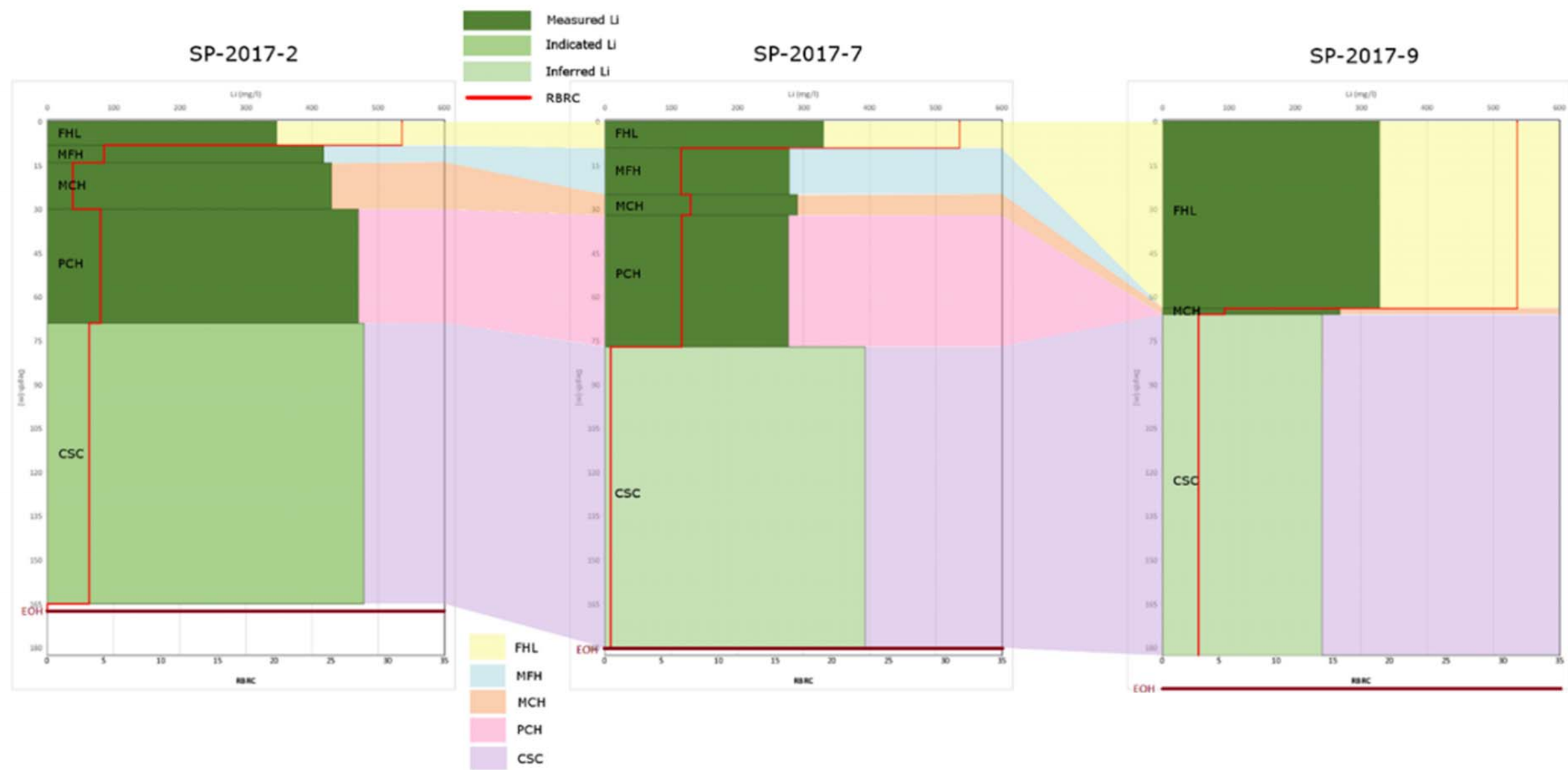


Figure 10-3: NW-SE Cross Section through Holes 2, 7 AND 9

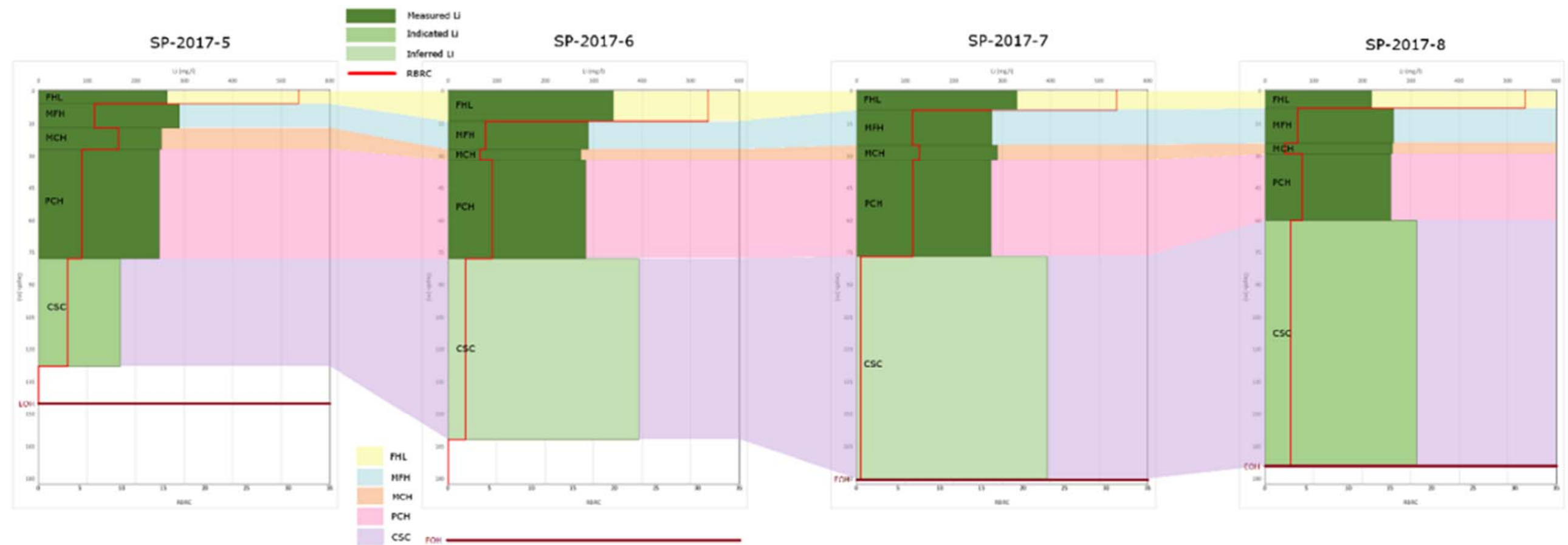


Figure 10-4: W-E Cross Section Through Holes 5,6,7, and 8

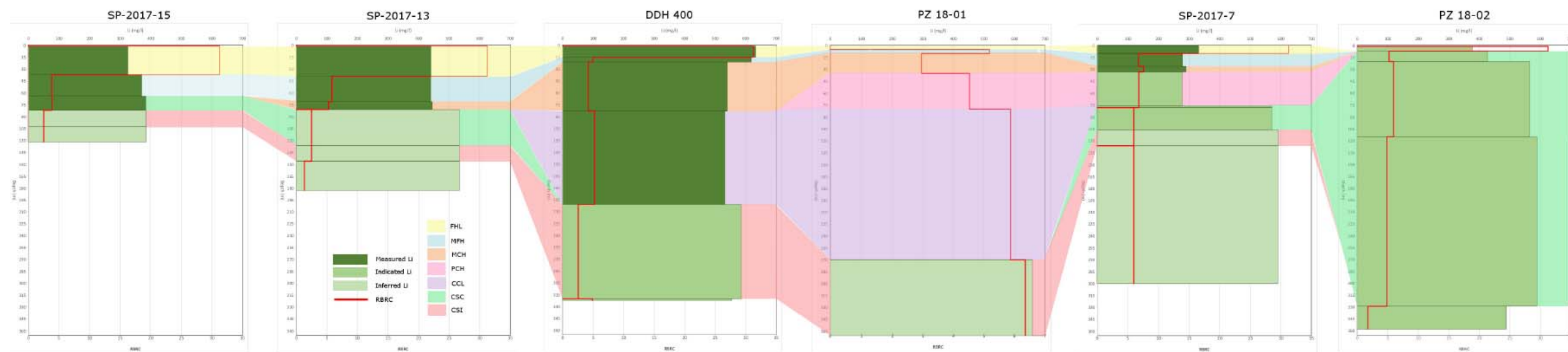


Figure 10-5: S-N Cross Section through Holes 15, 13, 5 and 2

Brine samples were collected from Hole PZ-18-02 using a packer system. Samples were collected on 3 m intervals. Samples exhibited brine assays with lithium values consistently >500 mg/L from surface to end of hole (see Figure 11-1).

Hole PZ-18-01 was intended as a pumping hole to be reamed out and no brine samples were collected except for two bailer samples towards the bottom of the hole. These samples reported lithium assays of 696.7 mg/L at 303.8 m and 619.2 mg/L at 378.8 m depth. Relative Brine Release Capacity (RBRC) core samples were collected from the hole for evaluation of Specific Yield (Sy) properties. The average RBRC values over the total depth of hole was 5.62%; with average values of 4.17% from 6 m to 81 m, 10.07% from 100 m to 145 m, 3.30% from 250 m to 292 m and 11.77% from 311 m to 375 m. Development of Hole PZ-18-01 as a pumping well is scheduled for later.

All of the pumping holes developed as twin holes to adjacent diamond holes (2W and 2, 10W and 10, WPZ-18-04 and SP-2017-13) exhibited similar lithologies to the diamond holes. Hole PZ-18-01 exhibited similar lithology down hole to DDH-400 to approximately 200 m depth and then transitioned to a more sand-rich matrix. This demonstrated extension of the central depocentre to the north with increased depth and a similar favourable lithology for development of zones of high Sy. RBRC samples from Hole PZ-18-01 demonstrated good values to end of hole at 380.3 m, with an average of 4.20% over the depth of hole and averages of 9.45% from 101 m to 150 m and 6.87% from 248 m to 297 m. A high value of 17.66% was recorded at 149 m.

Table 10-4 details key RBRC and lithium assay results for Holes PZ-18-01 and PZ-18-02 with a comparison to DDH-400, which was drilled in the 2017 drill program.

Table 10-4: Deep Drill Hole RBRC and Lithium Assay Comparison

LSC Salar de Pozuelos Project

Factor	Interval (m)	DDH-400	PZ-18-01	PZ-18-02
RBRC %	90 m - 200	5.95	5.61	5.93
	174 m - 196 m	9.41		
	18 m - 347 m		5.77 (18 m – 375 m)	5.73
	100 m - 150 m	6.01 (100 m – 202 m)	10.07	9.45
	139 m - 175 m		6.00	8.59
	301 m - 375 m		11.77 (310 m – 375 m)	12.07
	310 m - 375 m		11.77	
Lithium Assay (mg/L)	20 m – 182 m	528		
	25 m – 358 m			573
	269 m – 380 m		553	
	303.8 m		697.6	
	378.8 m		619.2	
	46 m – 358 m			512

Source: LSC

The distance from DDH-400 to PZ-18-02 is 6,874 m in a northeasterly direction. The data demonstrate that high lithium grades and good RBRC values are consistent and extend through the central part of the salar in an elliptical shape over considerable distances and depths. The width of the depozone in the south-central part of the salar may be up to 3.5 km.

10.4 Pumping Tests

10.4.1 2017 Pumping Tests

The results of pumping tests from the 2017 exploration program are detailed in Hains (2017b) and summarized here. Step-tests and long-term pumping tests were run on Wells PW1 (35 [m] depth) and PW-2 (90 [m] depth). Both wells were monitored by piezometer wells set at 5 [m], 20 [m] and 50 [m] in a radial pattern from each well, with piezometers installed at the same depth as the pumping wells. Table 10-5 summarizes the results of the step tests for the 2017 pumping tests for the wells.

Table 10-5: Test Summary – 2017 Pumping Tests

LSC Salar de Pozuelos Project

Well & Screen Interval	Pumping Rate [m ³ /hr]	Static Level [m]	Dynamic Level [m]	Pumping Time	Final Drawdown	Yield (m ³ /h/m)	T (m ² /day)	K (m/day)	S1
PW-1 0 [m] – 35 [m]		0.78							
	22.79		8.63	105 min	7.85	2.9			
	26.41		13.0	90 min	10.6	2.49			
	33.75		23.17	162 min	20.77	1.62			
PzW1-35-5	33.75				0.76				
PzW1-35-20					0.16				2.437 x 10 ⁻²
PzW1-35-50					0.04				3.605 x 10 ⁻²
PW-1	31.9			30 days			1,490	49.68	
		2.26							
PW-2 35 [m] – 80 [m]	5.29		4.26	120 min	2	2.65			
	8.87		6.65	120 min	4.39	2.02			
	13.4		10.035	120 min	7.775	1.69			
PW-2	15 – 27.87			15 days	42.88	50 m ³ /h			
PzW2-90-20	27.87				6.397				
PzW2-90-50					4.11				

Note: Values are for constant rate tests

Brine sample assay results for both wells showed very consistent results over the test duration (Figures 10-7 and 10-8). The results from the tests indicate good productivity with fast recovery for the upper 35 [m] interval in the nucleus of the salar; characteristic of highly fractured mature salars and a wide cone of depression. The interval between 35 [m] and 80 [m] shows a lower, but still quite productive capacity with a somewhat slower recovery factor. The stable assay results over the full depth of pumping from 0 [m] to 80 [m] over extended time periods and a horizontal distance of more 2 [km] between wells indicate very broad and stable distribution of high grade brine in significant volume in the salar nucleus.

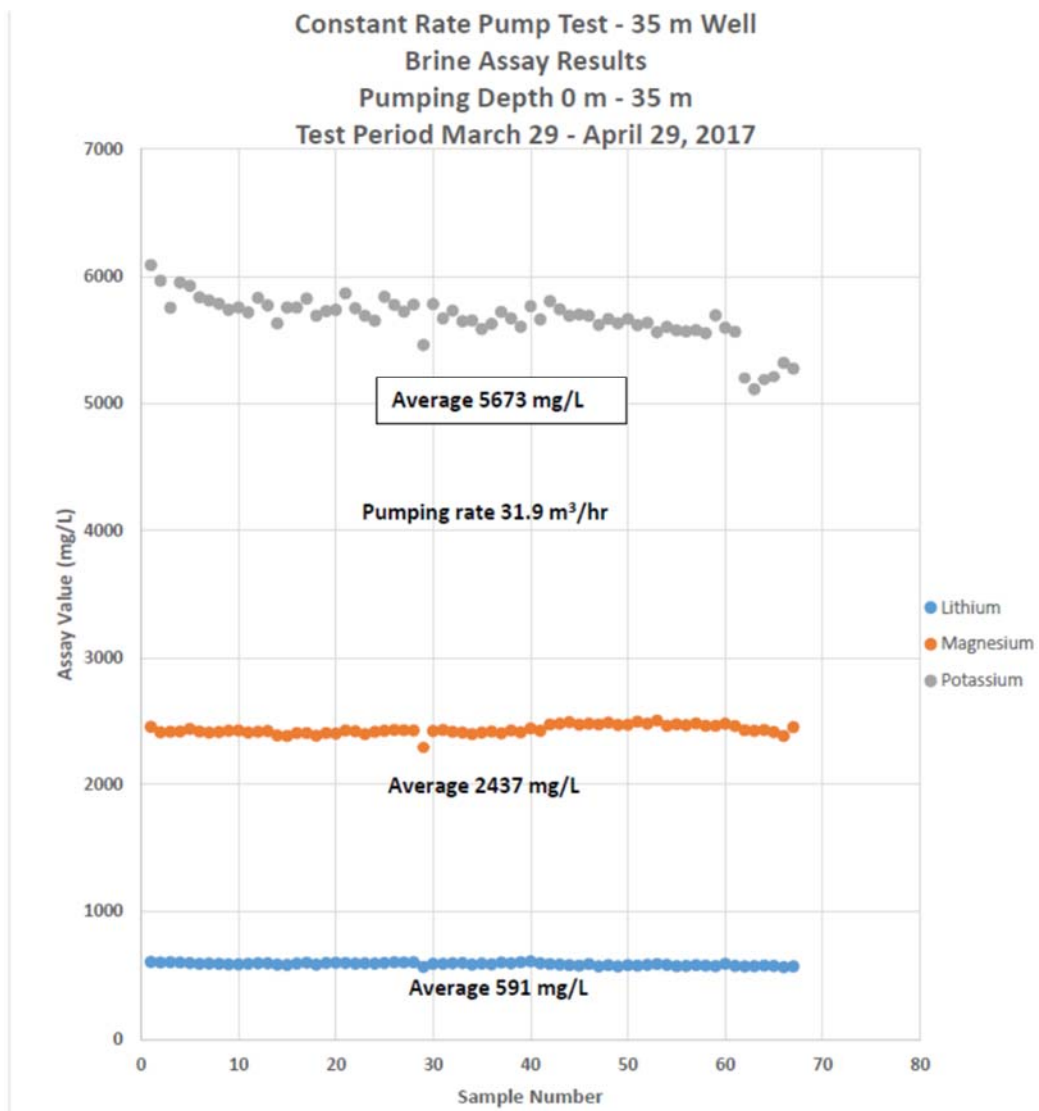


Figure 10-6: 2017 Constant rate Pumping Test Brine Assays Results – Well PW1-35

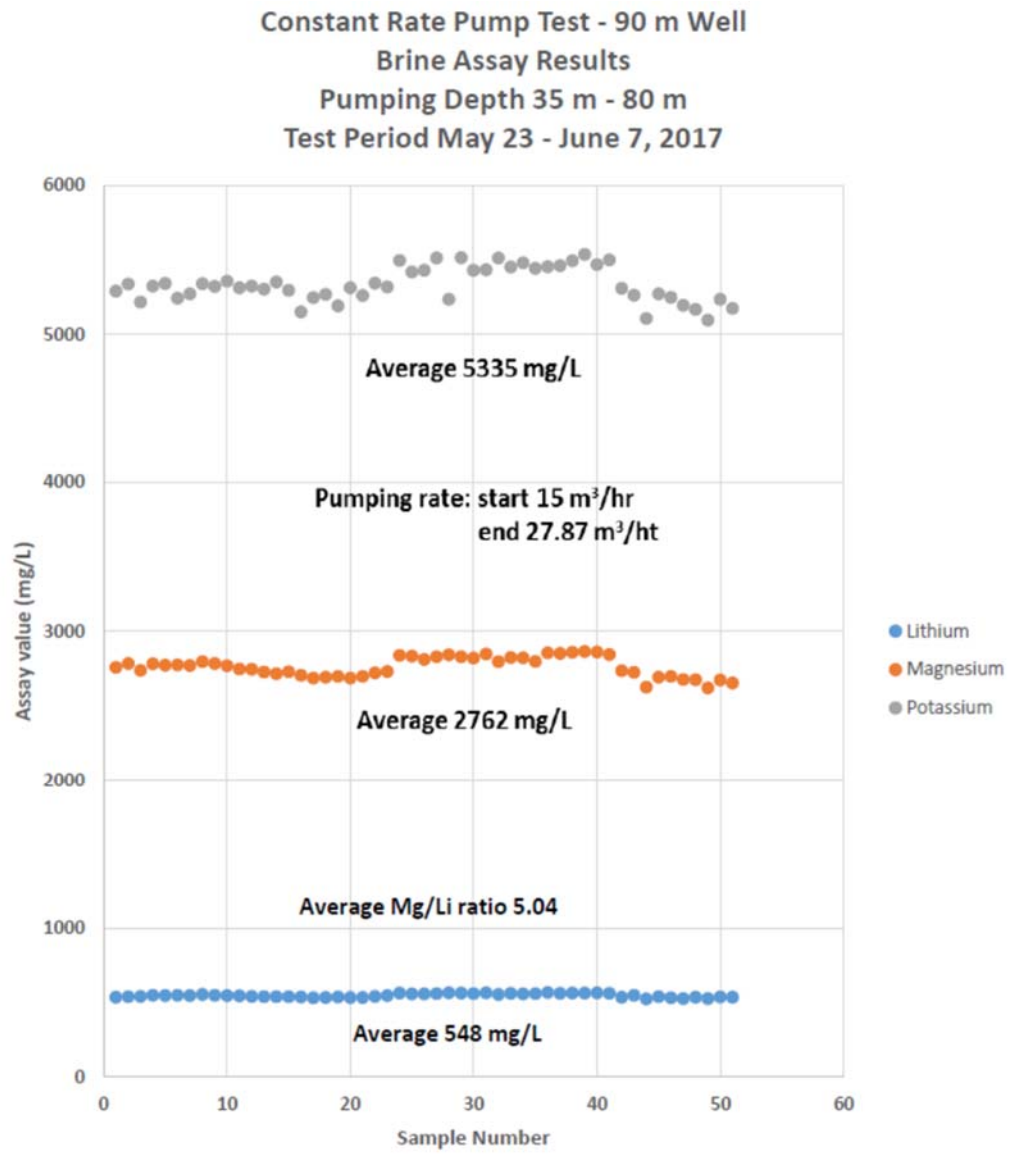


Figure 10-7: 2017 Constant Rate Pumping Test Brine Assays – Well P2-90

10.4.2 Pumping Tests – Specific Yield

Two shallow (15 [m]) pump tests were undertaken to evaluate porosity and determine Specific Yield (Sy) within the Highly Fractured Halite zone. The selected locations were located in the northwest of the salar, approximately 600 [m] from Hole SP-2017-02 (Test Site 2) and near PW1 in the central part of the salar (Test Site 1) (see Figure 10-1). The well design provided for a 12" diameter pumping well and 8" diameter piezometric wells. The piezo wells for Test Site 1 were located at distances of 10 [m] and 20 [m] from the pumping well, while the piezo wells for Test Site 2 were located at 5 [m] and 10 [m] from the pumping well. In both cases, the submersible pump was set at 10 [m] below the salar surface. All holes were conventionally developed using compressed air and overpumping and were left open. Conhidro s.r.l., consulting hydrogeologists to LSC, was responsible for well design, construction, management of the test program and calculation of the results.

A tracer system using fluorescein dye was used to determine measure the time of arrival of fluorescein dye from the injection point in one of the piezo wells to the pumping well. Fluorescein was dissolved

in a container containing natural brine, added to one of the piezo wells and thoroughly mixed. The pump was run at constant flow rate until the tracer was observed in the pumping well. The formula for convergent flow involving the pumping rate, time of arrival of the tracer and the volume of the initial well was used to determine the effective porosity (Specific Yield, or Sy) was used:

$$m = \frac{Q t_v}{\pi r^2 b}$$

where,

m = porosity

Q = constant pump flow

tv = tracer arrival time

r2 = distance to the injection point

b = saturated thickness of the aquifer

The data of drawdown versus time, obtained during the pumping, were treated manually and also with Starpoint Infinite Extent ver 4.1 software in order to obtain a reference value of the storage coefficient.

Results for Test Area 1 were evaluated using the Thiem-Dupuit method. Analysis of the data using Starpoint Infinite Extent software resulted in convergence with Neuman standard curves and determination of an effective porosity of 29% for piezometer 1 and 30% for piezometer 2. Using the convergent flow formula, an effective porosity of 31.9% was calculated, as follows:

$$m = \frac{Q t_v}{\pi r^2 b}$$

$$m = \frac{39 \text{ m}^3/\text{h} \cdot 36_{\text{horas}}}{\pi 10^2 14_{\text{metros}}}$$

$$m = \frac{1170}{4398} = 0,319$$

$$m = 31,9 \%$$

A similar procedure was employed for the test at Area 2, located in the halite zone in the northwest of the salar. Fluorescein treated native brine was added to piezometer 1 located 5 m from the pumping well. Pumping was at a constant rate of 16 [m³/hr] for 36 hours without observing the appearance of tracer. Analysis of the data using Infinite Extent software yielded congruence with Neuman's standard curves and an effective porosity value of 19% Drawdown data for piezometer 2 located at 10 [m] distance from the pumping well was inconsistent and was not analyzed.

A series of trenches was constructed near the pump test location in Test Area 2. Three trenches were constructed: a pumping trench and two observation trenches. The first observation trench was located 8.5 [m] from the pumping trench, while the second was located 18.5 [m] from the pumping trench. The pumping trench was 20 [m] long x 3 [m] wide x 3.7 [m] deep. Observation trench 1 was 10 [m] long x 3 [m] wide and 3.7 [m] deep. Observation trench 2 had the same dimensions as the pumping trench.

500 liters of brine dyed with fluorescein were placed inside Trench 1, located at 8.5 meters distance from the Pump Ditch and homogenized with a rod. The pumping started (with motor pump) with a constant flow of 15 [m³/h], during 14 hours, until the entry of the tracer was observed in the Pump Ditch. In the No - equilibrium regime, an average Transmissivity of 300 [m²/day] and a radius of influence of the 30-meter depression cone was calculated for 14 pumping hours. The convergent flow analysis yielded the following result:

$$m = \frac{Q t_v}{\pi r^2 b}$$

$$m = \frac{15 \text{ m}^3/\text{h} \cdot 14_{\text{horas}}}{\pi 8,5^2 3_{\text{metros}}}$$

$$m = \frac{210}{681} = 0,308$$

$$m = 30,8 \%$$

Analysis of drawdown versus time measured in Trench 1 (8.5 [m]) and Trench 2 (18.5 [m]) using Infinite Extent software resulted in convergence with Walton-type curves and determination of effective porosity values of 32% and 34% for Trench 1 and Trench 2, respectively.

10.4.3 2018 Pumping Tests

The LSC 2018 pumping well test program was designed to test salar aquifer properties and evaluate brine chemistry variables across the salar. Pumping tests were conducted based on step tests and longer duration tests of 2 days to 7 days' duration. All holes were conventionally developed using compressed air and over pumping and were left open. Conhidro s.r.l., consulting hydrogeologists to LSC, under the direction of Dr. Rodolfo Garcia, was responsible for well design, construction, management of the test program and calculation of the results.

Well SP-2017-10W

Pumping well SP-2017-10W was drilled to 141.5 [m] depth and placed adjacent to exploration hole SP-2017-10 in the southwestern portion of the salar to test the smaller depocentre in that area. Piezometers SP-2017-pz5-10W and SP-2017-pz10-10W were placed at right angles and distances of 5.12 [m] and 10.23 [m] from the pumping well. The screen interval was from 66 m to 99 m, with the pump set at 99 [m]. The pump discharge was placed 200 [m] from the well and the flow rate monitored with a weir and flow meter. Step tests were run at pumping rates of 10.6, 20.4, 40 and 82.16 [m³/hr]. Brine samples were collected at 15-minute intervals from 08:15 to 14:00 on March 31, 2018.

Table 10-6 summarizes the results of the step test.

Table 10-6: Step Test Result – Well SP 2017-10W

Pumping Rate [m3/h]	10.6	20.4	40	82.16
Dynamic Level [m]	3.115	4.945	9.48	24.2
Drawdown [m]	1.815	3.645	8.18	22.9
Specific Rate [m ³ /h/m]	5.84	5.597	4.889	3.587
Specific Decline [m/m ³ /h]	0.171	0.179	0.205	0.278

The drawdown data were analyzed using the methods of Jacob or Hantush-Bierschenk and Rorabaugh, with a major concordance obtained with the second method. The calculated drawdown equation was $s=0.164Q + 1.92 \times 10^{-4}Q^{2.45}$ where s = drawdown in metres and Q = Yield in [m³/h].

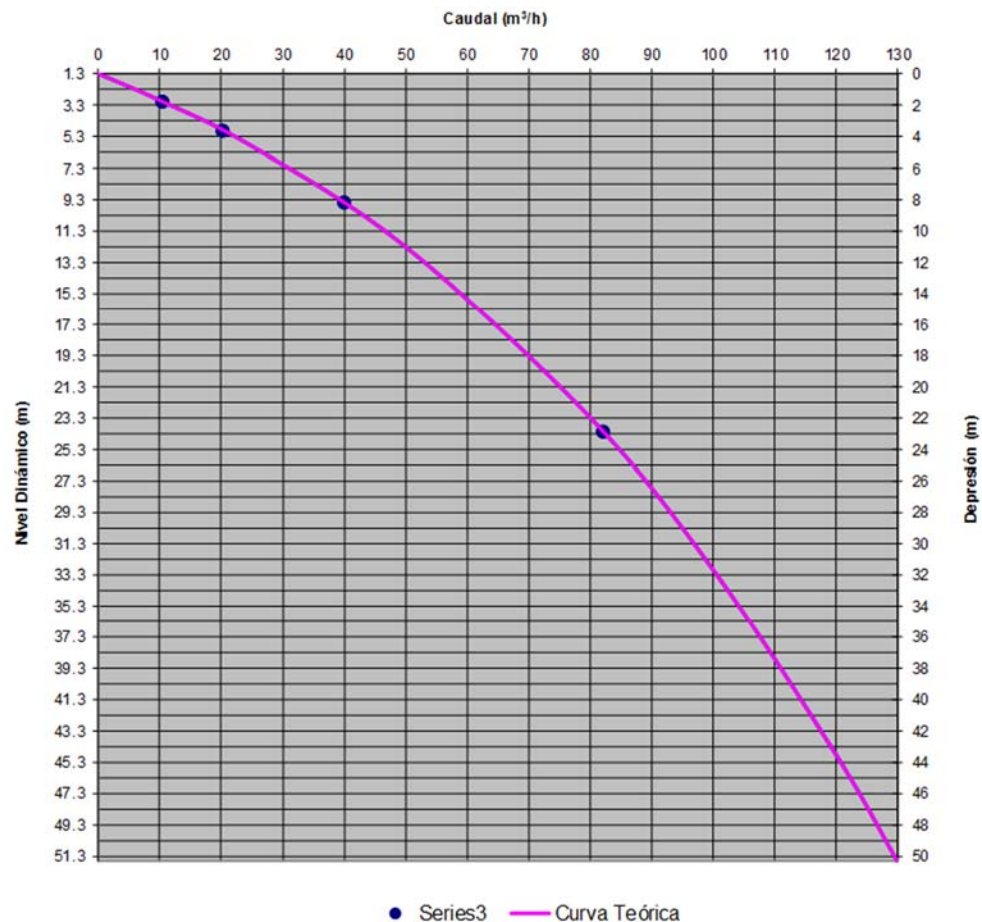


Figure 10-8: Well SP-2017-10W Step Test Result – Pumping Rate vs. Dynamic Level and Drawdown

A two-day constant rate test was run on April 1, 2018, with samples collected initially at 1 hour intervals and eventually at 3 hour intervals. High pumping rates were achieved with high lithium values exceeding 700 [mg/L]. As the data were promising, a 7-day constant rate pumping test was run starting August 9, 2018. Brine samples were collected every hour for the first day, every 3 hours the second day and every 8 hours on subsequent days. Figure 10-9 illustrates the lithium assay results over the two test periods. Lithium values averaged 731 [mg/L] in the 2-day continuous pumping test and increased to 750 [mg/L] for the 7-day continuous pumping test, with an overall average assay of 742 [mg/L] for the combined tests.

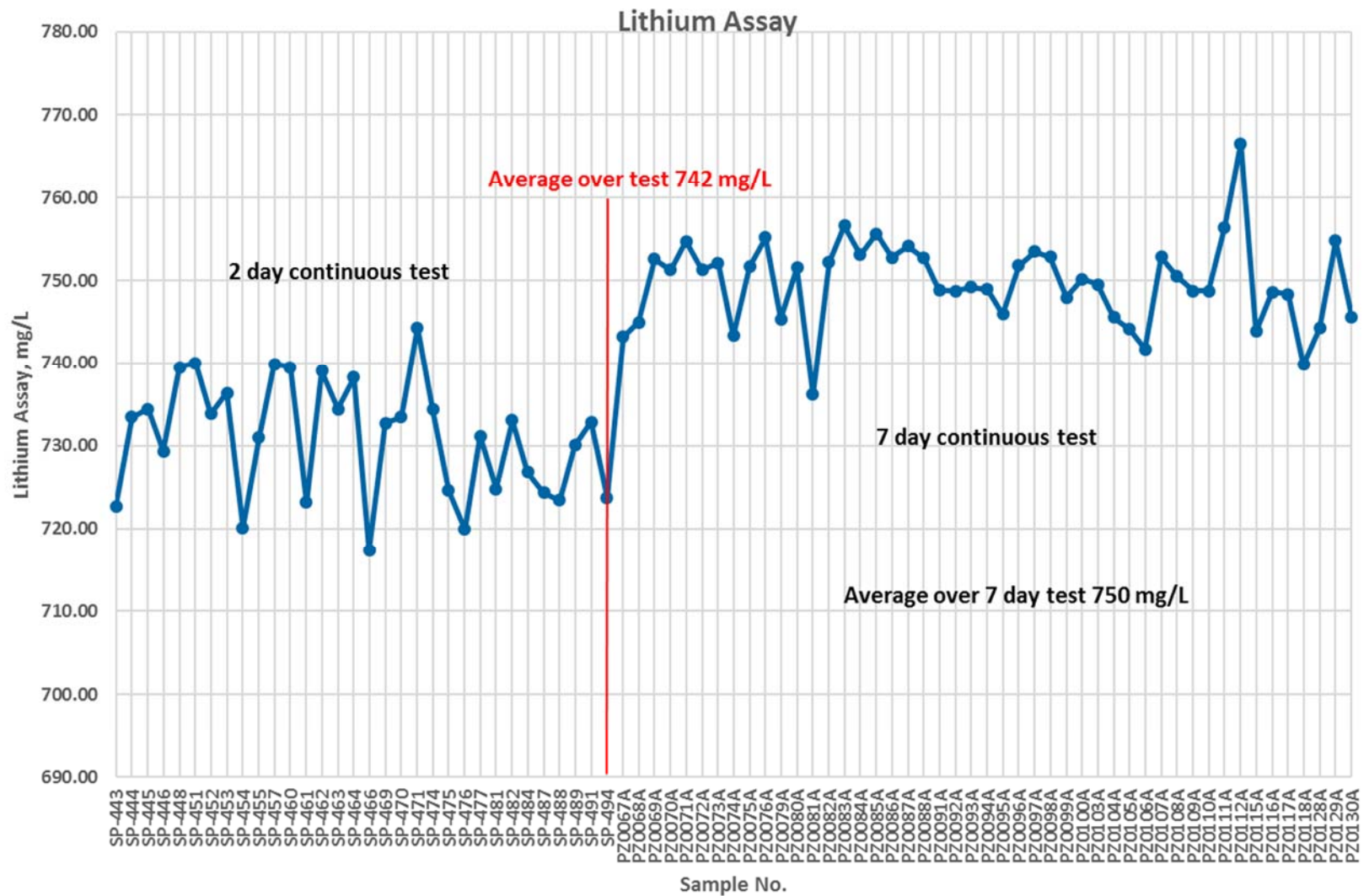


Figure 10-9: SP-2017-10W Continuous Pumping Test – Lithium Assay

The 7-day test was run at a constant pumping rate of 82.16 [m³/h]. Well recuperation was achieved in 20 hours. The well performance for the 7-day test is illustrated in Figure 10-10.

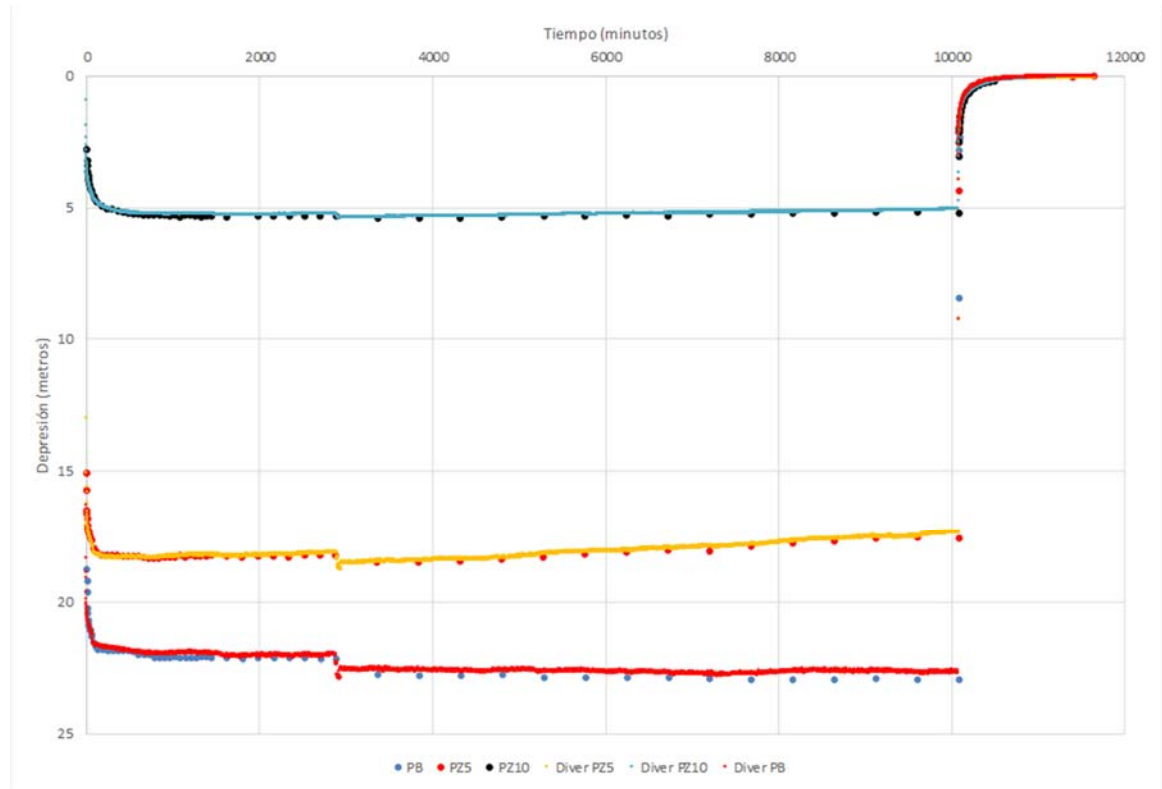


Figure 10-10: 7-Day Constant Rate Pumping Test Well SP-2017-10W

Pumping data were analyzed by Walton's method using Starpoint Software Infinite Extent Version 4.1.0.1. The results showed the following hydraulic properties for the well (Table 10-7):

Table 10-7: Well SP-2017-10W Hydraulic Parameters

Test	Constant Yield		
	WALTON		RECOVERY
	S	T (m ² /d)	T (m ² /d)
WELL	1.82E-02	59	408
Piezo 5	4.00E-05	56	411
Piezo 10	8.20E-04	138	405

Source: Conhidro, 2018d

Based on the results, the average transmissivity was estimated at 246 [m²/day] and the storage coefficient (S) at 6.35 x 10⁻³ in a semi-confined aquifer. Based on the results of the pumping tests it was concluded that the well was capable of producing at a maximum rate of 130 [m³/h] with a drawdown of 51.62 [m].

Well WPZ-18-04

This well is located in the south-central part of the salar adjacent to Hole Sp-2017-13. The well was drilled using an 8" tricone bit to a depth of 183 [m]. Cuttings were taken at each metre interval to record the lithology. The lithology shows the following:

- 0 m to 20 m: Mainly crystalline halite with minor very fine to medium sand. Some volcanic lithoclasts and biotite. Abundant black nodules (carbonates) with ulexite nodules.
- 20 m to 81 m: Halite dominant, with minor very fine to fine sand, some ulexite and becoming more clastic with depth
- 81 m to 183 m: Intercalated sandy clay and very fine sand. Volcanic sand and biotite in places with ulexite nodules. Crystalline halite mixed with clay, sand and volcanic ash. Some metre intervals of greenish grey volcanic clay present.

Geoelectric logging of the hole was undertaken using spontaneous resistance (SPR), short and long normal resistivity (RNC, RNL) and spontaneous potential (SP).

The short and long resistivity profiles showed alternating very conductive to very resistive sequences from 2 [m] to 11 [m] and from 85 [m] to 179 [m] below surface, indicating predominately clastic layers in these intervals, interspersed with sequences of massive halite and saturated clastic layers. The interval between 11 [m] and 85 [m] was more resistive and corresponded to granular to massive halite sequences with intercalations of ulexite, organic material and clastics.

The well was finished at 8", screened in sections down to 176 [m], and fitted with a 1-3 [mm] filter gravel pack. Well SP-2017-13 was set up as a piezometer well with screens from 6.5 [m] to 80 [m]. Step tests of 2 [h] duration were conducted to establish the hydraulic characteristics of the well. Piezometer measurements were both automatic (diver) in the well and manual. Pumped brine was discharged 200 [m] from the well, with flow measured by a weir and by flow gauge. Brine samples were collected at 15 minute intervals. Figure 10-11 illustrates the brine assay results for the step tests, indicating relatively stable values independent of the pumping rate.

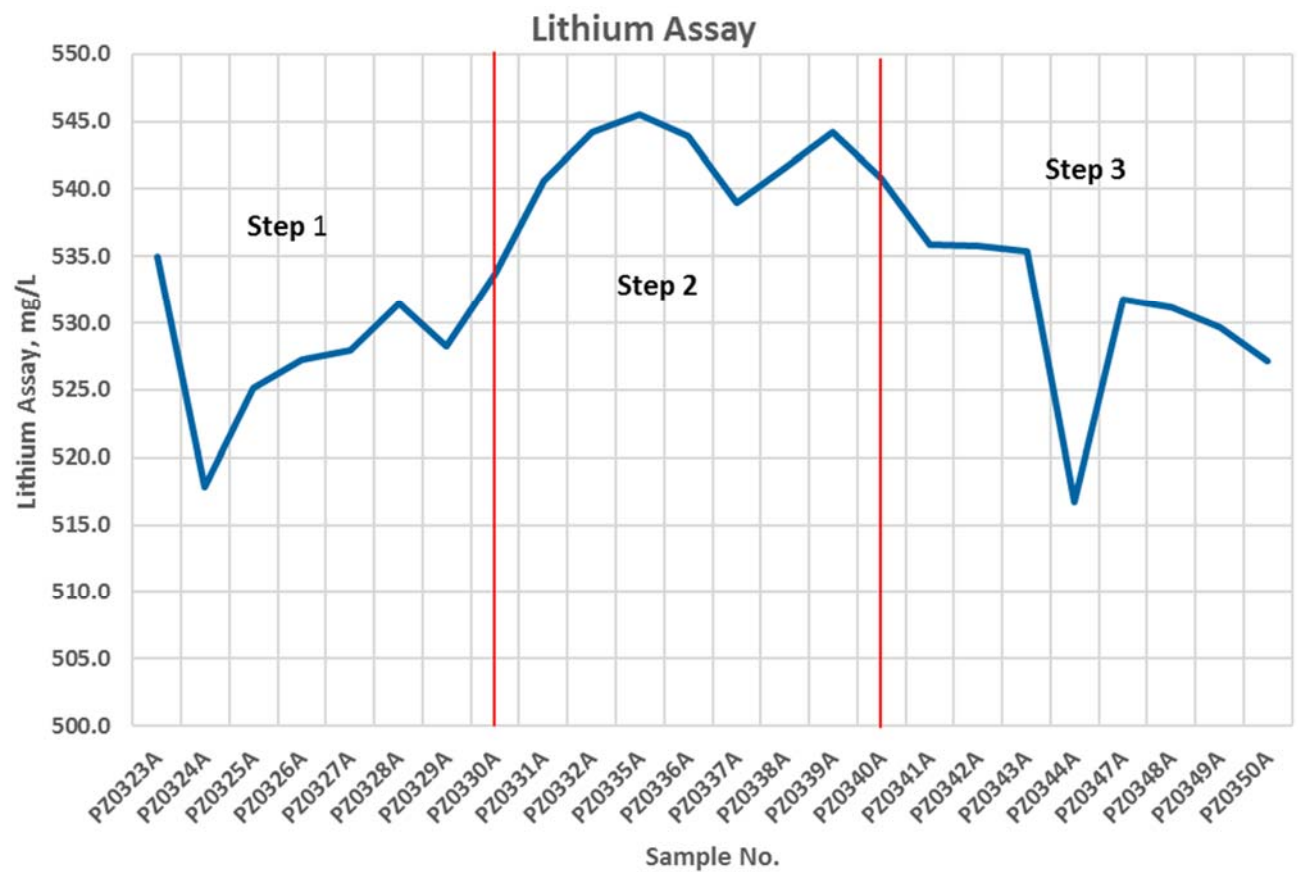


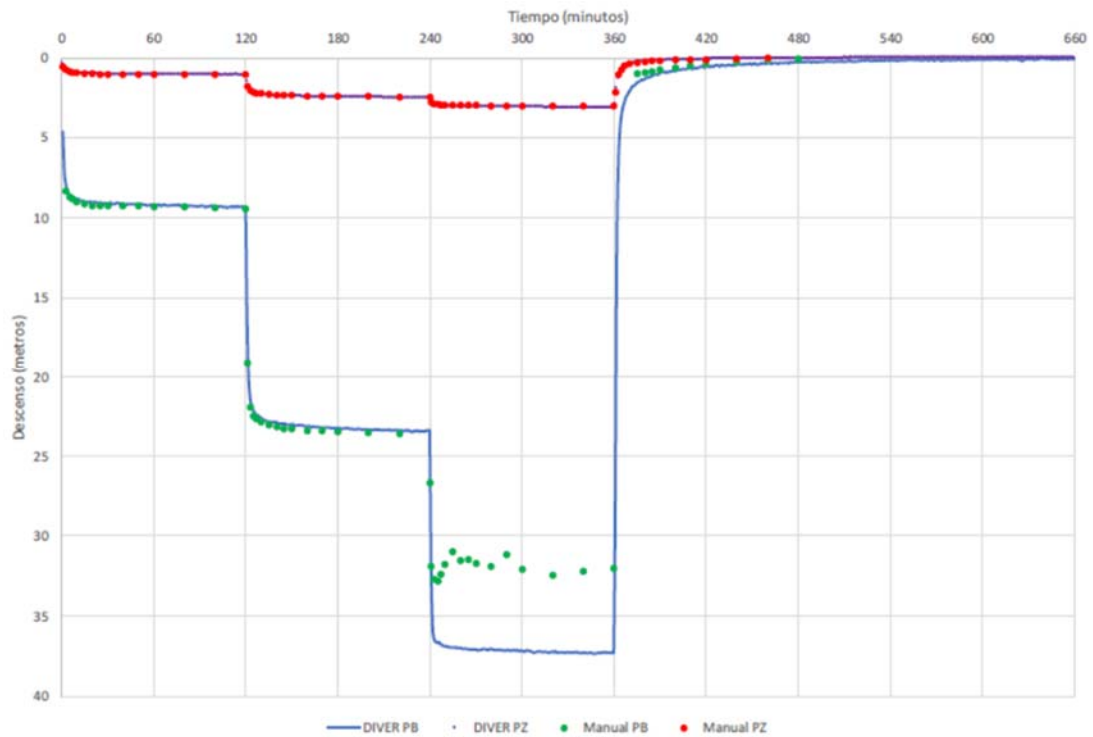
Figure 10-11: WPZ18-04 Step Test Lithium Assay

The results of the step test showed very fast recovery (Figure 10-12). Data on the step test results are provided in Table 10-8.

Table 10-8: Step Test Results – Well WPZ-18-04

Pumping Rate (m3/hr)	20.4	43.46	57.72
Level (m)	10.7	24.78	38.65
Drawdown (m)	9.34	23.4	37.29
Specific Rate (m3/h/m)	3.184	1.857	1.547
Specific Drawdown (m/m3/hr)	0.4578	0.538	0.0646

Cohindro, 2018e



Source: Cohindro, 2018e

Figure 10-12: Well WPZ18-04 Step Test Results

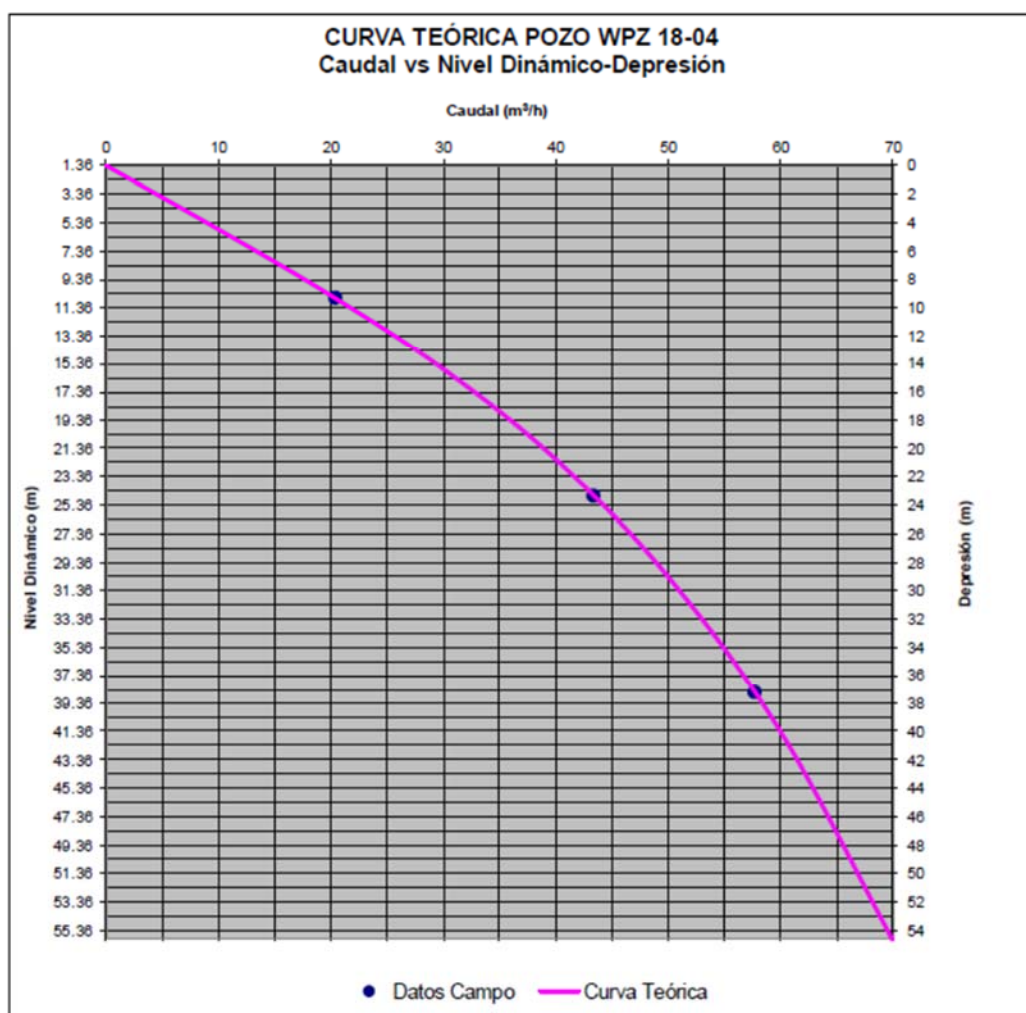
The pumping data were analyzed using the methods of Jacob and Hantush-Bierschenk and Rorabaugh, with the latter providing excellent correspondence, indicating a non-quadratic solution. The solution yielded the following relationship between pumping rate, dynamic level and drawdown:

$$S = 0.466Q + 3.2211 \times 10^{-6}Q^{3.72}$$

Where:

s= drawdown in metres and Q = pumping rate in [m³/h].

The pumping test indicated well WPZ-18-04 represented an aquifer with evaporite facies from 0 [m] to 80 [m] below surface and clastics from 80 [m] to 182 [m]. The well is capable of a pumping rate of 70 [m³/h] with a drawdown of 56.04 [m]. Recovery in the well is excellent.



Source: Cohindro, 2018e

Figure 10-13: Well WPZ-18-04 Pumping Curve

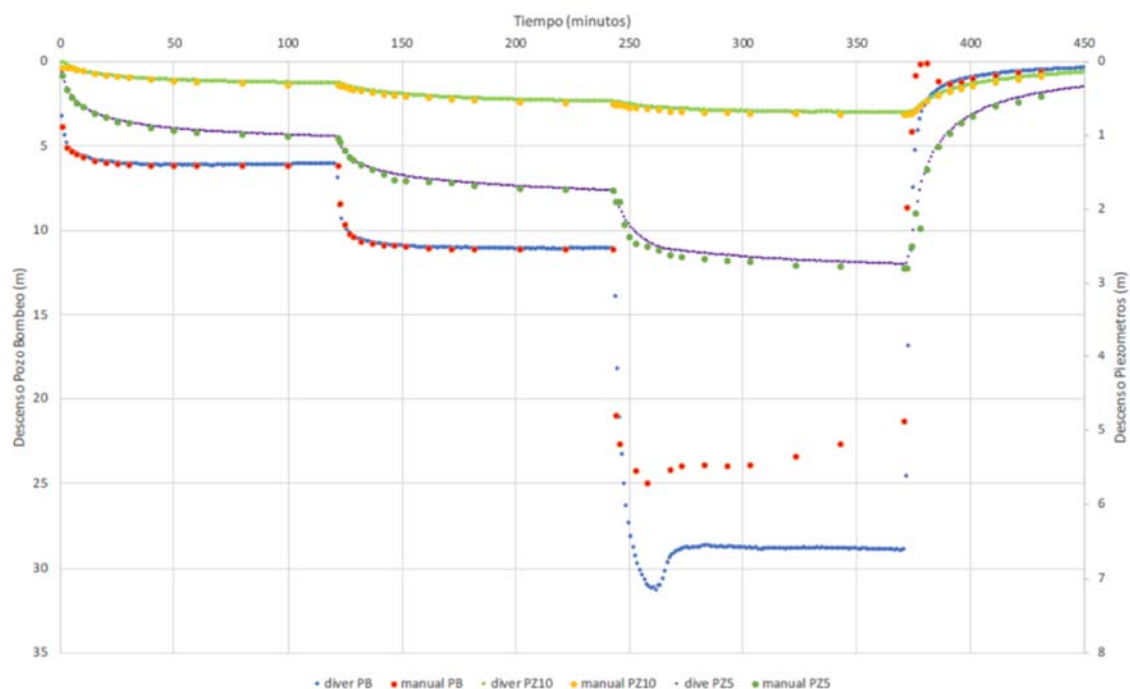
Well SP-2017-2W

This well is located adjacent to Hole SP-2017-2. The well was designed to develop hydraulic data in the NW sector of salar de Pozuelos. Two tests were run on the well, a step test to establish hydraulic data and determine suitable pumping rates, and a 2-day constant rate pump test.

The well was drilled to 70 [m] depth, with a screen filter installed from 11 [m] to 66.5 [m]. The lithology was determined based on drill cuttings collected very meter interval. The lithology indicated halite sequences of varying crystal size with high porosity from surface to 36 [m], followed by intervening sequences of halite and clastic materials, primarily volcanic sands to the end of hole at 70 [m]. Geoelectric logging included resistance (SPR), normal short and long resistivity (RNC and RNL) and spontaneous potential (SP) measurements. The geoelectric logging indicated a very conductive zone from 0 [m] to 9 [m] representing sequences of highly fractured halite with small intercalations of clays and silty clays. Between 9 [m] and 66 [m] the resistivity values corresponded to massive halite with intercalations of ulexite, organic material and clastics. Clastics saturated with brine were present from 66 [m] to end of hole at 70 [m].

The well design included two piezometers installed at right angles to the pumping well at distances of 5.75 [m] and 11.85 [m]. The pumping and piezometer wells were conventionally developed until clear brine was obtained. Piezometer measurements were obtained using both manual and automatic (datalogger) methods. Pump discharge was measured using a flow gauge and a V-notch weir, with the discharge set at 200 [m] from the well.

The step test was run on March 13, 2018 between 11:15 and 17:00. Samples were collected every 15 minutes. Step test pumping rates were set at 13 [m³/h], 21 [m³/h] and 28 [m³/h] based on 2 [h] runs for each pumping rate. The results of the step tests are illustrated in Figure 10-13 and Table 10-9.



Source: Cohindro, 2017

Figure 10-14: Well SP-2017-2W Step Test Drawdown and Recovery Curves

Table 10-9: Well SP-2017-2W Step Test Results

Flow Rate [m ³ /h]	13	21	28
Dynamic level [m]	7.145	12.12	29.91
Drawdown [m]	6.175	11.15	28.94
Specific Flow Rate [m ³ /h/m]	2.10	1.88	0.967
Specific Drawdown [m/m ³ /h]	0.47	0.53	1.033

Source: Cohindro, 2017

The step test data was analyzed using the methods of Jacob and Hantush-Bierschenk and Rorabaugh, with a major concordance achieved with the former method, indicating the drawdown equation is quadratic. The derived drawdown equation is:

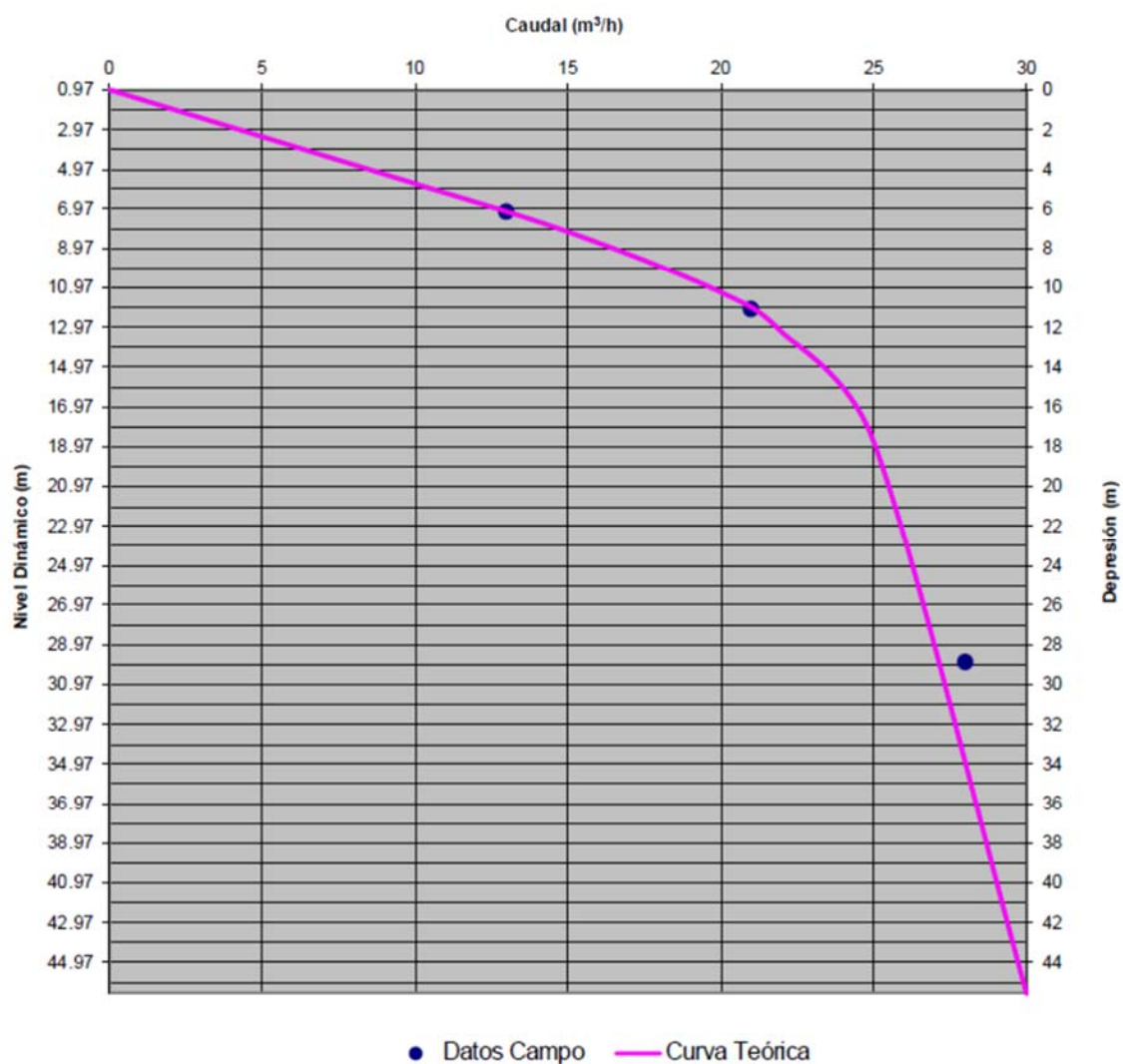
$$s = 0.4739Q + 9.561 \times 10^{-13}Q^{9.15}$$

where:

s = drawdown in [m]

Q = Flow rate in [m³/h]

The graphical solution for the equation is illustrated in Figure 10-15.



Source: Conhindo, 2017

Figure 10-15: Flow Rate vs. Dynamic Level Drwdown – Well SP-2017-2W

Based on the results of the step test, a 2-day constant rate test was run at a pumping rate of 27.5 [m³/h], with 24-hour recuperation. The pumping curves for the test are illustrated in Figure 10-16.

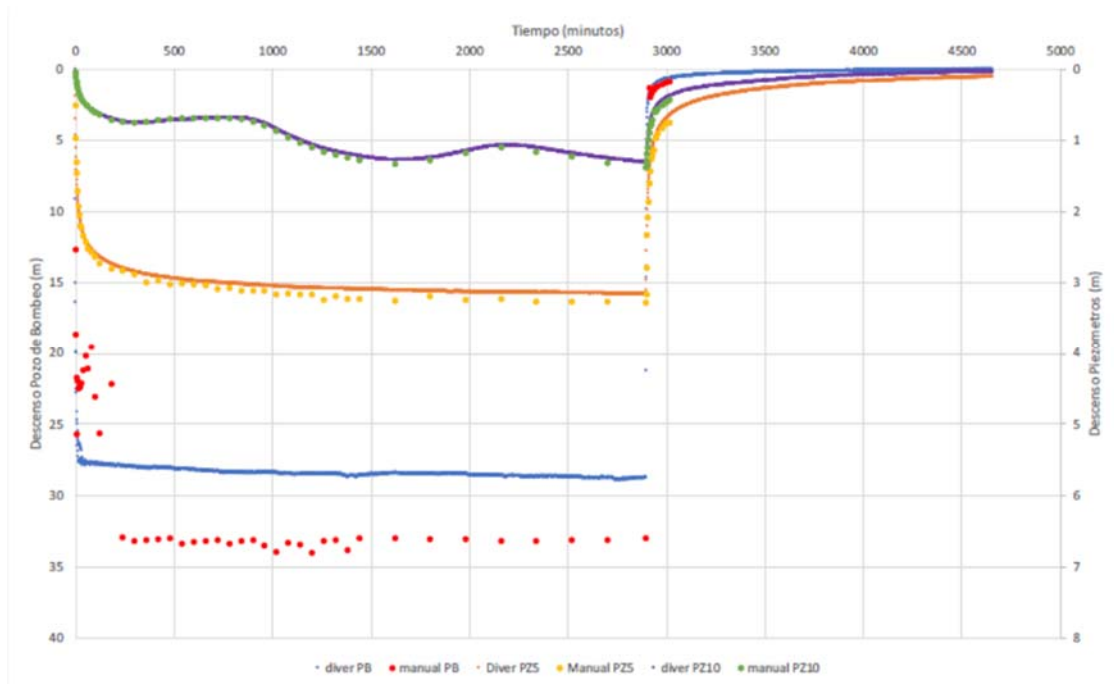


Figure 10-16: Constant Rate 48-Hour Pump Test Curves - Well SP-2017-2W

Lithium assay values increased with time and stabilized at the high pumping rate (Figure 10-17).

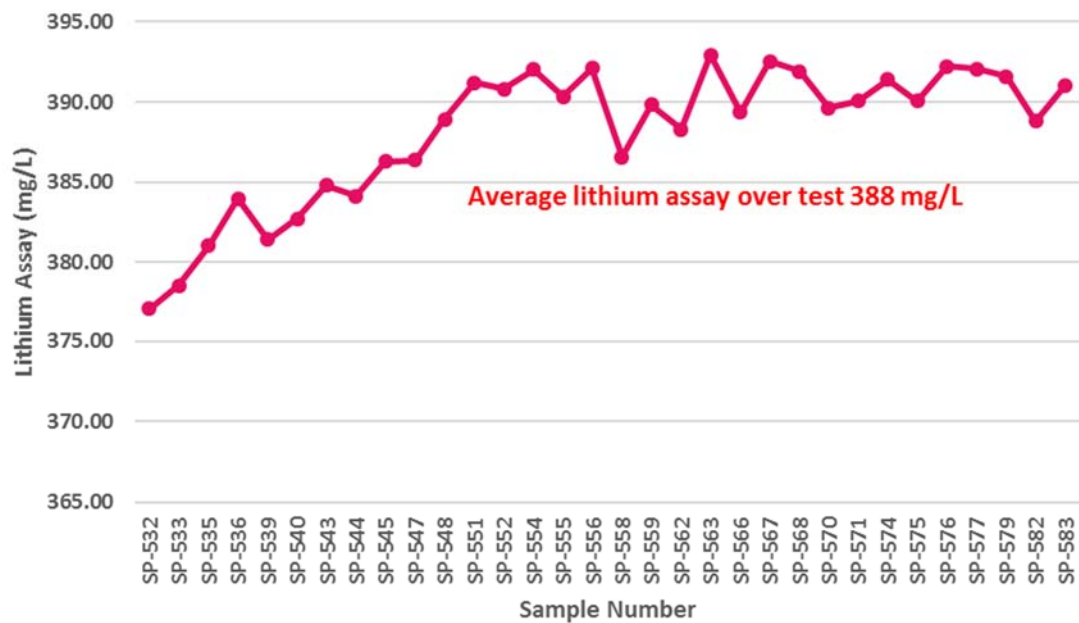


Figure 10-17: SP-2017-2W Continuous Pumping Test Lithium Assay

In addition to the constant rate test, a test was run using fluorescein dye injected into Pz5 and then Pz10. The flow rate for the pumping well was 30 [m³/h], with the arrival time for the dye from Pz5 being 20 minutes and for Pz10 being 70 minutes.

The constant rate pump tests data the fluorescein dye test data were analyzed using Infinite Extent Version 4.1.0.1 and StepMaster Unicode Version 2.1.0.0 software by Starpoint Software. The results of the analysis gave the following hydraulic parameters for the aquifer (Table 10-10):

Table 10-10: Hydraulic Properties – Well SP-2017-2W

Test	Step		Constant Rate			Fluorescein
Method	Birsoy Summers		Walton		Recovery	Sample
	S	T [m ² /d]	S	T [m ² /d]	T [m ² /d]	S
Pumping Well					166	
Pz5	3.53E-03	121	2.88E-03	92	197	1.78E-03
Pz10	4.08E-08	406	1.09E-02	267	320	1.47E-03

Source: Cohindro, 2017

Based on the analysis, the average Transmissivity for the aquifer was calculated as T= 224 [m²/day] and the storage coefficient, S = 4.11 x 10⁻³ in a semi-confined aquifer system.

Well SP-2017-14W

This pumping well was designed to test aquifer properties in the eastern section of the south end of salar. The pumping well was located adjacent to SP-2017-14. The well was drilled to 123.5 [m], with screen filters set at 11 [m] to 51.5 [m]. Piezometer holes were drilled to the same depth and screened to the same interval as the pumping well. The piezometers were constructed at right angles to the pumping well at distances of 5.8 [m] (Pz5) and 11.6 [m] (Pz10) from the well.

The lithology of the well was logged from drill cuttings collected every metre interval. The log for the interval from 0 m to 55 m showed the following:

- 0 [m] - 3.5 [m] Halite crust, large crystal with caverns. Clay/silt inclusions. High porosity
- 3.5 [m] – 7 [m] Halite/clastic sequences. Large halite crystals. Ulexite present. Clastics mainly sandy clays. Medium porosity
- 7 [m] – 9.5 [m] Halite-clastic sequences. Medium halite crystals. Medium porosity. Some ulexite and presence of sulphur. Medium porosity with horizontal fractures
- 9.5 [m] – 28.5 [m] Compact halite intercalated with moderately fractured halite. Moderate to low porosity.
- 28.5 [m] – 41 [m] Compact halite. Low to moderate porosity
- 41 [m] – 47 [m] Compact halite with traces of clays. Moderate to low porosity
- 47 [m] – 53 [m] Compact halite with thin intercalations of sand. Horizontal fractures
- 53 [m] – 55 [m] Compact halite with intercalated sand and clay. Horizontal fractures

A step test was run at 2-hour duration for each test, with brine samples collected every 15 minutes. The results of the step test are detailed in Table 10-11 and Figure 10-16 and the drawdown curve in Figure 10-17.

Table 10-11: Step Test Results – Pumping Well Sp-2017-14W

Flow Rate [m ³ /h]	3.4	8.16	19.5
Dynamic Level [m]	3.24	6.44	23.47
Drawdown [m]	2.18	5.38	22.41
Specific Flow [m ³ /h/m]	1.559	1.515	0.870
Specific Drawdown [m/m ³ /h]	0.641	0.660	1.149

Source: Cohindro, 2018b

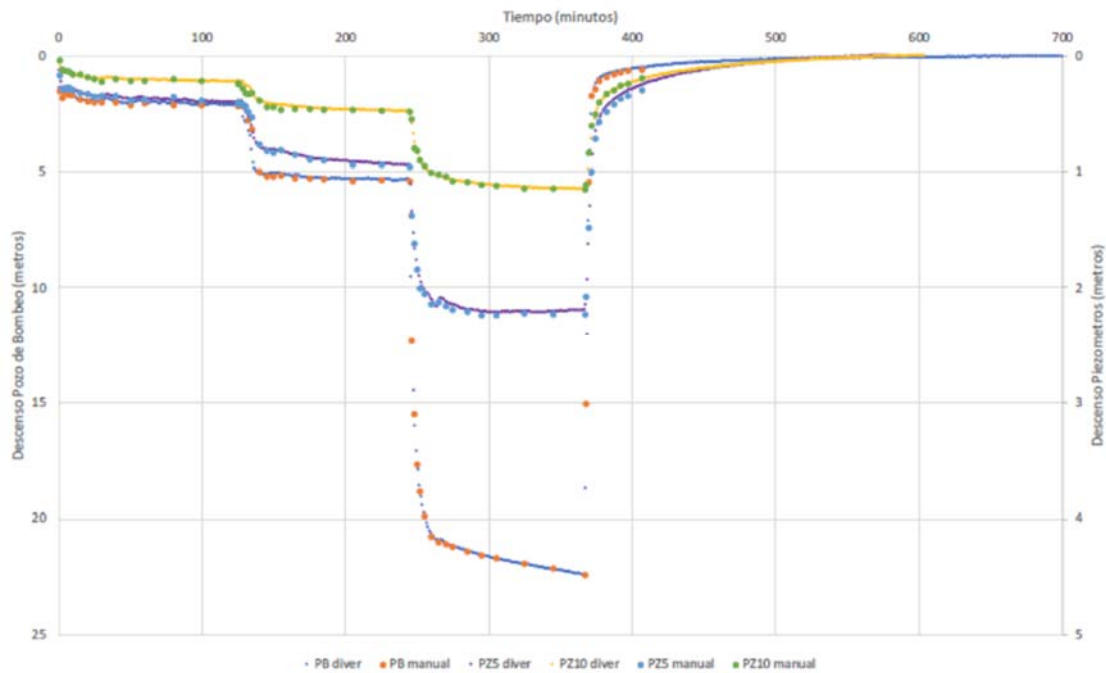
Analysis of the step test data by the Jacobs and Hantush-Bierschenk and Rorabaugh methods indicated excellent agreement using the former and thus that the solution was quadratic. The derived drawdown versus pumping rate equation was:

$$s = 0.6404Q + 7.941 \times 10^{-6}Q^{4.73},$$

where:

s= drawdown in [m]

Q = flown rate in [m³/h]



Source: Cohindro, 2018b

Figure 10-18: Step Test results – Well SP-2017-14W

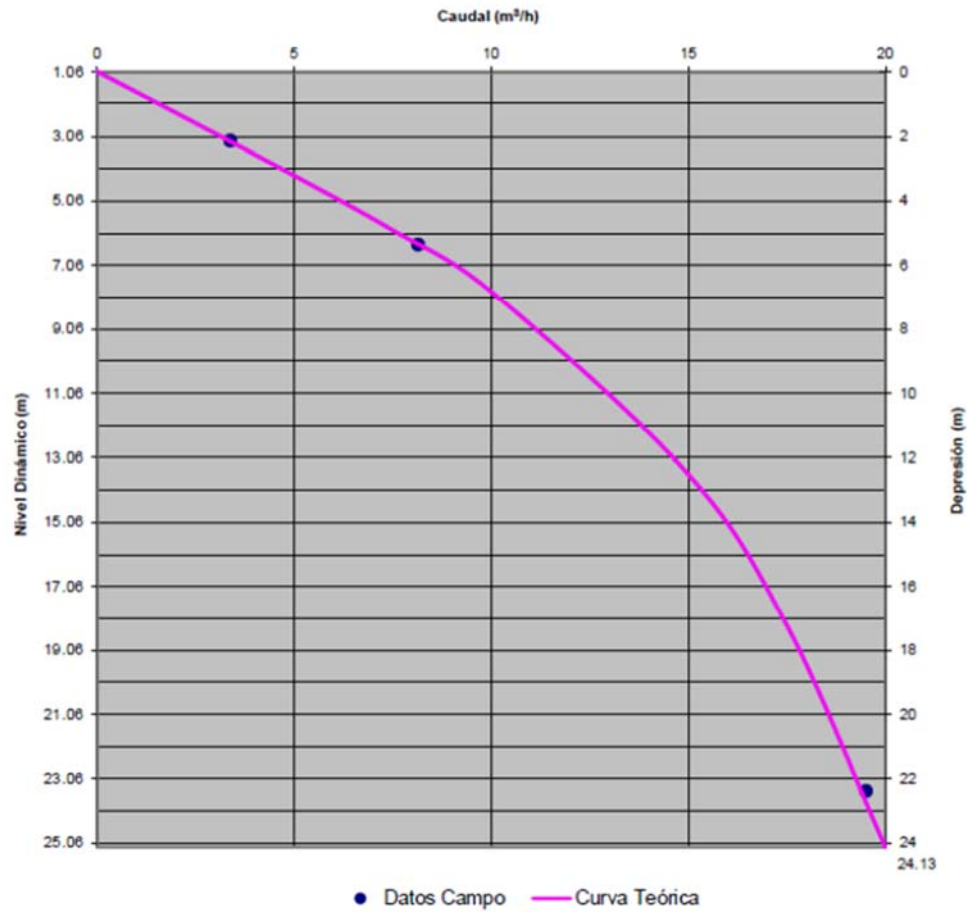


Figure 10-19: Pumping Curve – Well SP-2017-14W

A two-day constant rate test was run at a pumping rate of 17.5 [m³/h]. Fluorescein dye was injected in Pz5 during the constant rate test but did not appear in the pump discharge during the test period. Brine sample assays showed a slight decrease over time, averaging 358 [mg/L] for the test, but only 350 [mg/L] towards the end of the test (Figure 10-20).

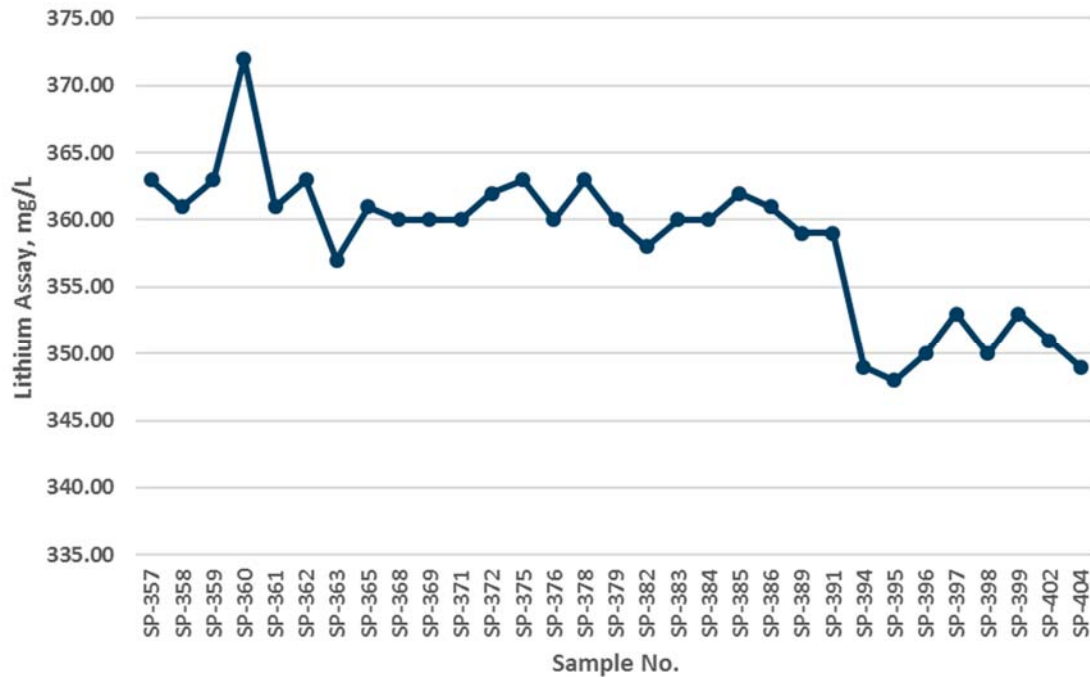


Figure 10-20: SP-201-14W Continuous Pumping Test - Lithium Assay

The results of the constant rate test are illustrated in Figure 10-18. The test data were analyzed using Infinate Extent Version 4.1.0.1 and Stepmaster Unicode Version 2.1.0.0 software from Starpoint Software, with the results detailed in Table 10-12.



Source: Cohindro, 2018b

Figure 10-21: Constant Rate 48-h Test result – Well SP-17-14W

Table 10-12: Hydraulic Parameters – Well SP-2017-14W

Test	Step		Constant rate		
Method	Birsoy Summers		Walton		Recovery
	S	T [m ² /d]	S	T [m ² /d]	T [m ² /d]
Well				61	82
Pz5	3.17 x 10 ⁻³	170	1.01 x 10 ⁻³	46	267
Pz10	1.25 x 10 ⁻⁴	231	1.46 x 10 ⁻³	54.5	333

Source: Cohindro, 2018b

Based on the data, the estimated maximum pumping rate for the well is 20 [m³/h] with a calculated dynamic level of 25.19 [m] under the well head. The mean value of the Transmissivity of the aquifer is $T = 156$ [m²/day] and the storage coefficient, S, is 1.44×10^{-3} in a semi-confined aquifer.

Well WPZ-18-01

Pumping well WPZ-18-01 was positioned to test the hydraulic properties in the northwestern part of the salar between Holes SP-2017-02, SP-2017-05 and SP-2017-06. The well was drilled at 8" diameter using a tricone bit to a depth of 103 [m]. The inside diameter of the well was reduced to 6" from 78.8 [m] to 103 [m]. A 4" diameter piezometer hole was drilled to a depth of 100 [m] and located 20.45 m from Well WPZ18-01. The pumping well was screened at intervals of 14 [m] – 30 [m], 42 [m] – 49 [m], 59 [m] – 67 [m] and 85 [m] – 103 [m].

The lithology of the pumping well was logged based on drill cuttings collected every metre interval and the well geoelectrically logged using resistivity (SPR), normal short (RNC) and long resistivity (RNL), and spontaneous potential (SP). The lithological log showed the following:

- 0 [m] - 8.5 [m]: massive coarse crystalline halite with very fine to fine sand and sandy clay.
- 8.5 [m] – 9 [m]: black carbonaceous clay with abundant crystalline halite
- 9 [m] – 75 [m]: Crystalline halite with inclusions of clastics and organic material. Minor very fine to fine sand and sandy clay with ulexite nodules distributed throughout
- 75 [m] – 93 [m]: sandy clay with very fine to fine sand with abundant small halite crystals
- 93 [m] – 96 [m]: as above
- 96 [m] – 106 [m]: as above

A step test was run at two hour intervals at pumping rates of 11.5, 19.2 and 39.2 [m³/h]. Brine samples were collected every 15 minutes. Piezometer data was obtained using both manual methods and a datalogger. Figure 10-19 illustrates the pumping data from the step tests. The very fast recovery is clearly evident. Table 10-13 details the step test results.

Table 10-13: Step Test Results Well WPZ18-01

Pumping Rate	11.5	19.2	39.2
Dynamic Level [m]	7.01	12.04	35.58
Drawdown [m]	5.09	10.12	33.66
Specific Flow [m ³ /h/m]	2.259	1.897	1.164
Specific Drawdown [m/m ³ /h]	0.422	0.527	0.858

Source: Cohindro, 2018b

The step test data was analyzed using the methods of Jacob and Hantush-Bierschenk and Rorabaugh, with the best fit found with the latter, indicating the solution was non-quadratic. The calculated equation is:

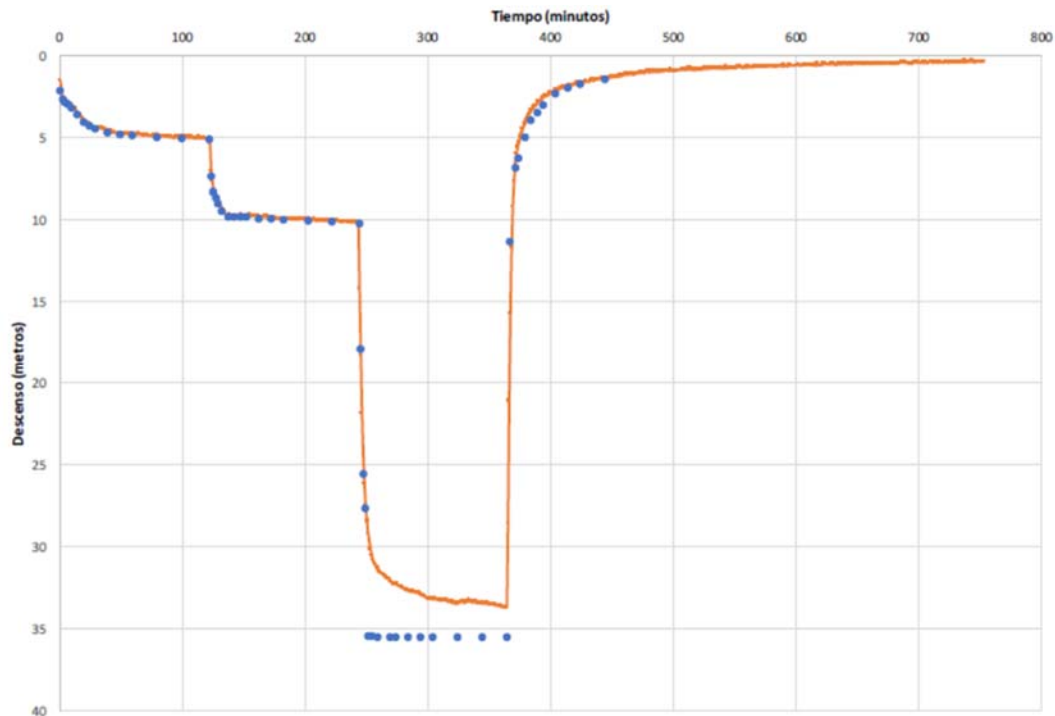
$$s = 0.3798Q + 1.44 \times 10^{-3}Q^{2.65},$$

where

s = drawdown in metres

Q = flow rate in m3/hr

Figure 10-22 illustrates the drawdown curve derived from the equation.



Source: Cohindro, 2018c

Figure 10-22: Step Test Drawdown Data – Well WPZ-18-01

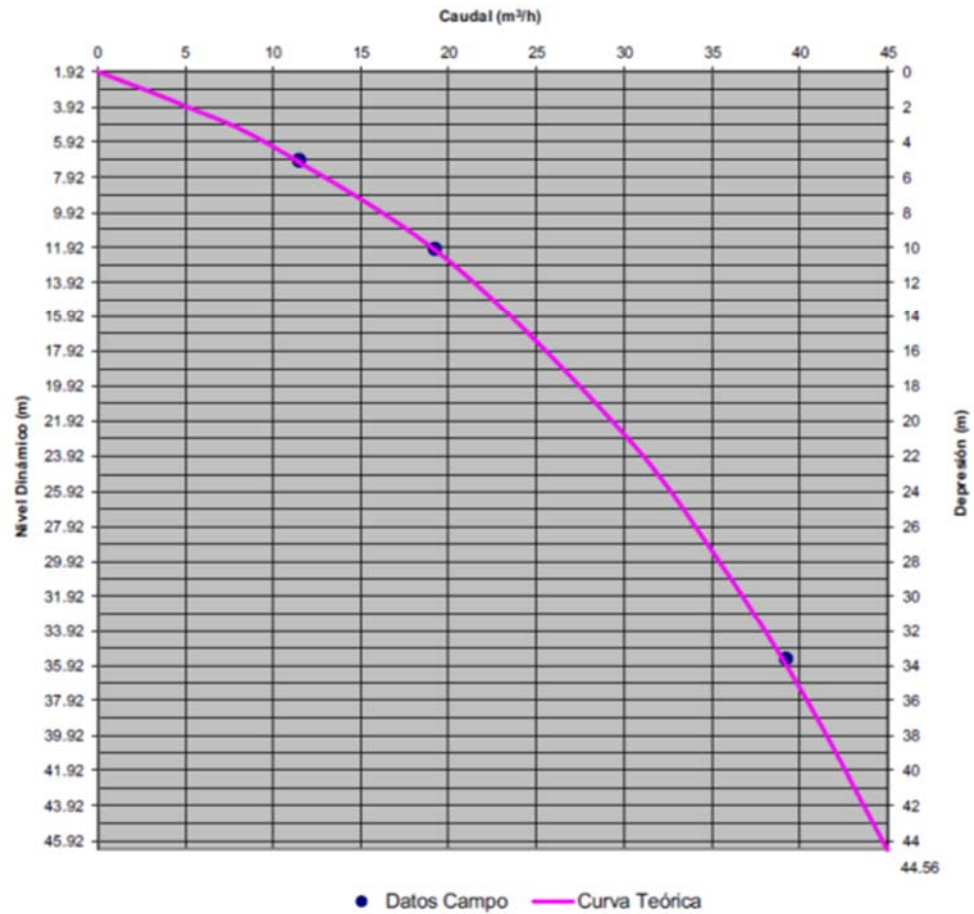
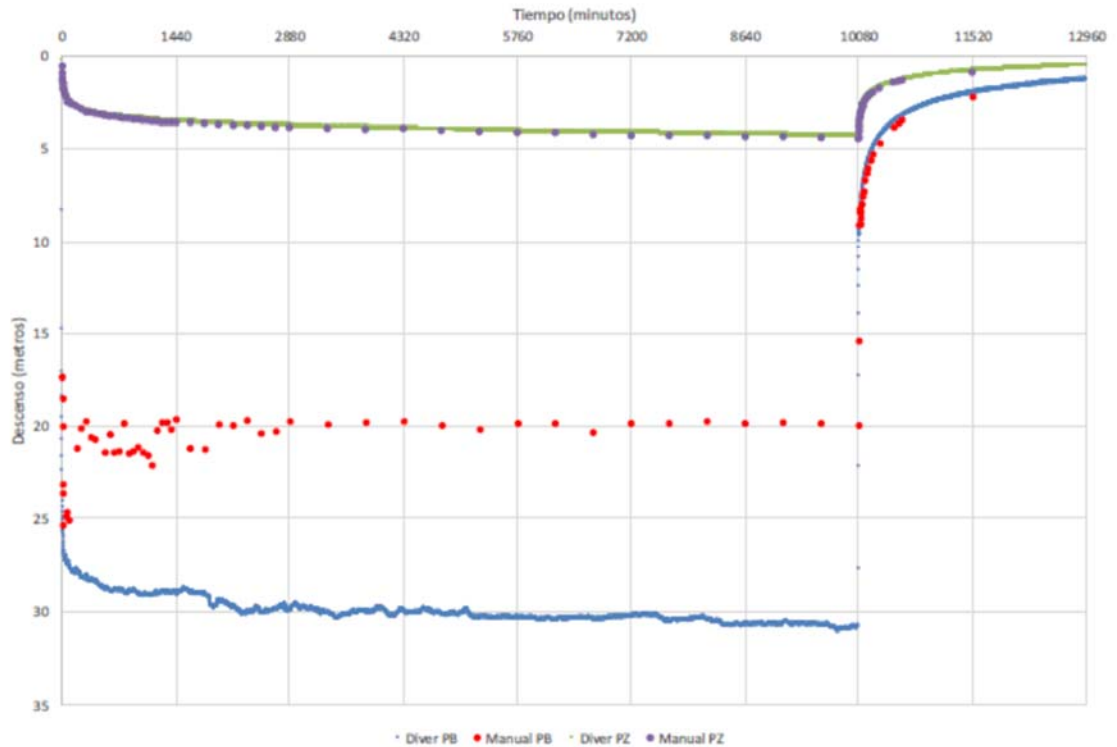


Figure 10-23: Pumping Curve – Well WPZ-18-01

A 7-day constant rate pumping test was run from September 11 to September 17, 2018 at a pumping rate of 41.5 [m³/h], with 2 days for recovery. The pumping rate was monitored with a flow meter and also by means of a V-notch weir. The pump discharge was placed 200 [m] from the well. Brine samples were collected at 1 [h] intervals for the first day, 3-hour intervals for the second day and 8-hour intervals for the balance of the test. The hydraulic properties measured during the test are illustrated in Figure 10-20. The data show stabilization of drawdown after a short interval and fast recovery.

Brine assay values over the duration of the constant rate pumping test showed good stability, with an average of 415 [mg/L] lithium (Figure 10-24).



Source: Cohindro, 2018c

Figure 10-24: 7-Day Pump Test Performance – Well WPZ-18-01

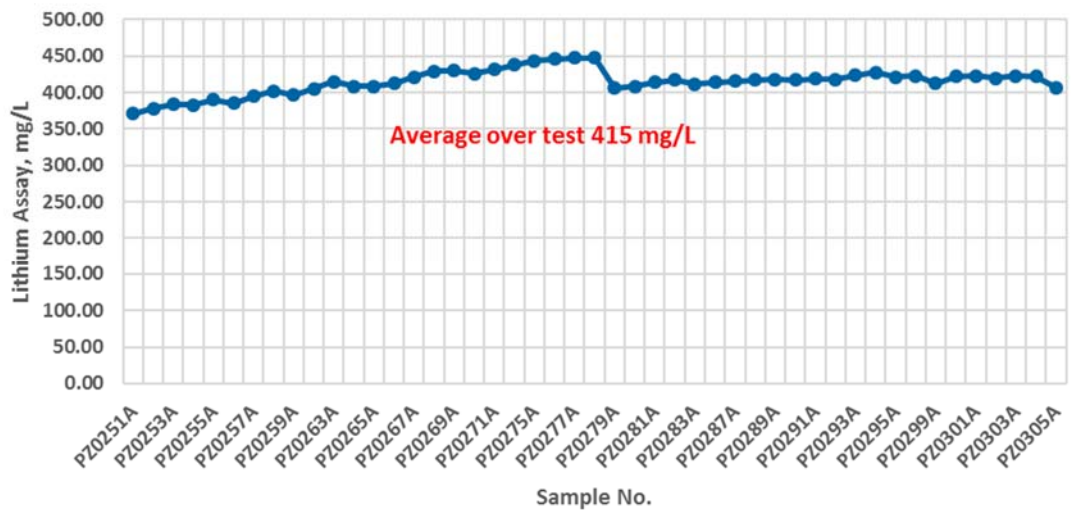


Figure 10-25: Continuous Pumping Test – Well WPZ-18-01

The constant rate pumping data was analyzed using Starpoint Software Infinite Extent Version 4.1.0.1 software. Good concordance was obtained between the step test results and the constant rate tests, as illustrated in Table 10-15. The constant rate pump test gave an average Transmissivity value of $T = 152 \text{ [m}^2\text{/day]}$ with a storage coefficient, S , of 2.80×10^{-4} in a semi-confined aquifer.

Table 10-14: Calculated Hydraulic Parameters – Well WPZ-18-01

Test	Constant Rate		
Method	Hantush		Recovery
	S	T [m ² /d]	T [m ² /d]
Pz20	2.89 x 10 ⁻⁴	159	145

Source: Cohindro, 2018c

10.4.4 Sample Assay Results Summary – Pumping Tests

Brine assay data for the step tests and constant rate tests showed consistent values over time, with only small variations in key analytes. Table 10-15 summarizes the key hydraulic parameters for each well determined from the pumping tests. Comparisons for average assay results for step tests and constant rate tests are detailed in Table 10-16.

Table 10-15: Pumping Test Results Summary – Key Hydraulic Parameters

Well	Transmissivity [m ² /day]	Storage Coefficient (S)	Indicated Operational Pumping Rate [m ³ /h]
SP-2017-10W	246	6.5 x 10 ⁻³	130
SP-2017-2W	224	4.11 x 10 ⁻³	27.5
WPZ-18-04	Not determined	Not determined	70.0
SP-2017-14W	156	1.44 x 10 ⁻³	20.0
WPZ-18-01	159	2.89 x 10 ⁻⁴	45.0
W1-35	1,490	3.021 x 10 ⁻²	33.7
W2-90	Not determined	Not determined	27.87

Source: LSC

The results of the 2018 pumping tests, combined with the results of the 2017 pumping tests, indicate that the salar demonstrates unconfined aquifer characteristics within the upper 15 [m] zone and semi-confined aquifer characteristics below approximately 15 [m]. Transmissivities are relatively low, indicating relatively narrow cones of depression, while storage coefficients are reasonable. Recoveries are typically quite fast even from relatively deep wells. These characteristics indicate potential to pump at significant rates from various depths using a combination of trenches, shallow and deep wells; but that the number of wells required will be relatively high to permit relatively frequent on and off operation. It is likely that relatively shallow wells will dominate the mix, with fewer deep wells. Such a pumping regime can be highly cost effective as well construction costs and pumping costs increase rapidly with depth.

Table 10-16: Brine Assay Comparisons for Pump Tests

Well	Average Assay Values [mg/L]														
	Step Test					Constant Rate Test									
						2 Day					7 Day				
	Li	Ca	Mg	K	SO4	Li	Ca	Mg	K	SO4	Li	Ca	Mg	K	SO4
SP-2017-10W	704	706	4194	5707	14712	731	584	4459	5832	15764	750	536	4522	6160	16500
WPZ-18-04	534	1325	2732	4546	5857										
SP-2017-2W	381	1282	2992	3304	6099	388	1269	2958	3309	6542					
WPZ-18-01	396	931	2948	3229	10053						415	624	2995	3385	12763
SP-2017-14W	365	2141	1826	2673	2946	358	2086	1791	2656	3103					

10.5 Pastos Grandes

LSC has completed six drill holes at Pastos Grandes for a total of 2,848.0 [m] as of August 31, 2018 (**Error! Reference source not found.**). Drilling was completed by Hidrotec using a Christensen CS-14 rig (Holes 2, 2B, 4A, 5, 5B) and AGV, also using a Christensen CS-14 rig (Hole 18-01). Holes were drilled using a combination of diamond bit and tri-cone at HQ diamter. Due to the difficult drilling conditions the typical drilling practice was to drill 50 [m] with diamond bit to recover core samples and take brine samples using a packer system followed by 50 [m] of drilling with a tri-cone bit and taking brine packer samples, with chips recovered on a per meter interval basis for lithological determination. Some holes were twinned or moved to another location due to drilling problems. Such holes are noted with the suffix B. Hole positions were recorded using a digital GPS or hand held GPS as noted. Collar elevations based on digital GPS are considered accurate and elevations based on hand held GPS have been corrected to correspond. The 2018 drill program is on-going and drill data in this Technical Report are reported as of August 1, 2018. A total station survey of the drill holes will be conducted after completion of all holes in the 2018 drill program.

Table 10-17: LSC Exploration Drilling – Salar de Pastos Grandes

(2017-2018)
(data as of August 31, 2018)
(POSGAR 94 Zone 3 Datum)

Hole	Easting	Northing	Collar Elevation [m]	Location Device	Hole Depth [m]	Az	Dip	Drill Method	Bit Size	Casing
SPG-2017-02	3426954.49	7285188.36	3817.04	DGPS	121.0	00	900	DDH	HQ	HW
SPG-2017-02B	3427201.01	7284054.76	3817.02	DGPS	572.5	00	900	DDH-Tricone	HQ	No
SPG-2017-04A	32430767.93	7282489.13	3815.04	DGPS	553.0	00	900	Tricone	HQ	No
SPG-2017-05	3429294.31	7282110.18	3815 ¹	Handheld GPS	500.0	00	900	DDH	HQ	No
SPG-2017-05B	3429343	7282086	3815 ¹	Handheld GPS	500.5	00	900	DDH	HQ	No
SPG-2018-01	3431612	7283169	3815 ¹	Handheld GPS	601	00	900	DDH-Tricone	HQ	No
Total					2,848					

¹: assigned elevation based on DGPS

Figure 10-26 illustrates the locations of the drill holes.

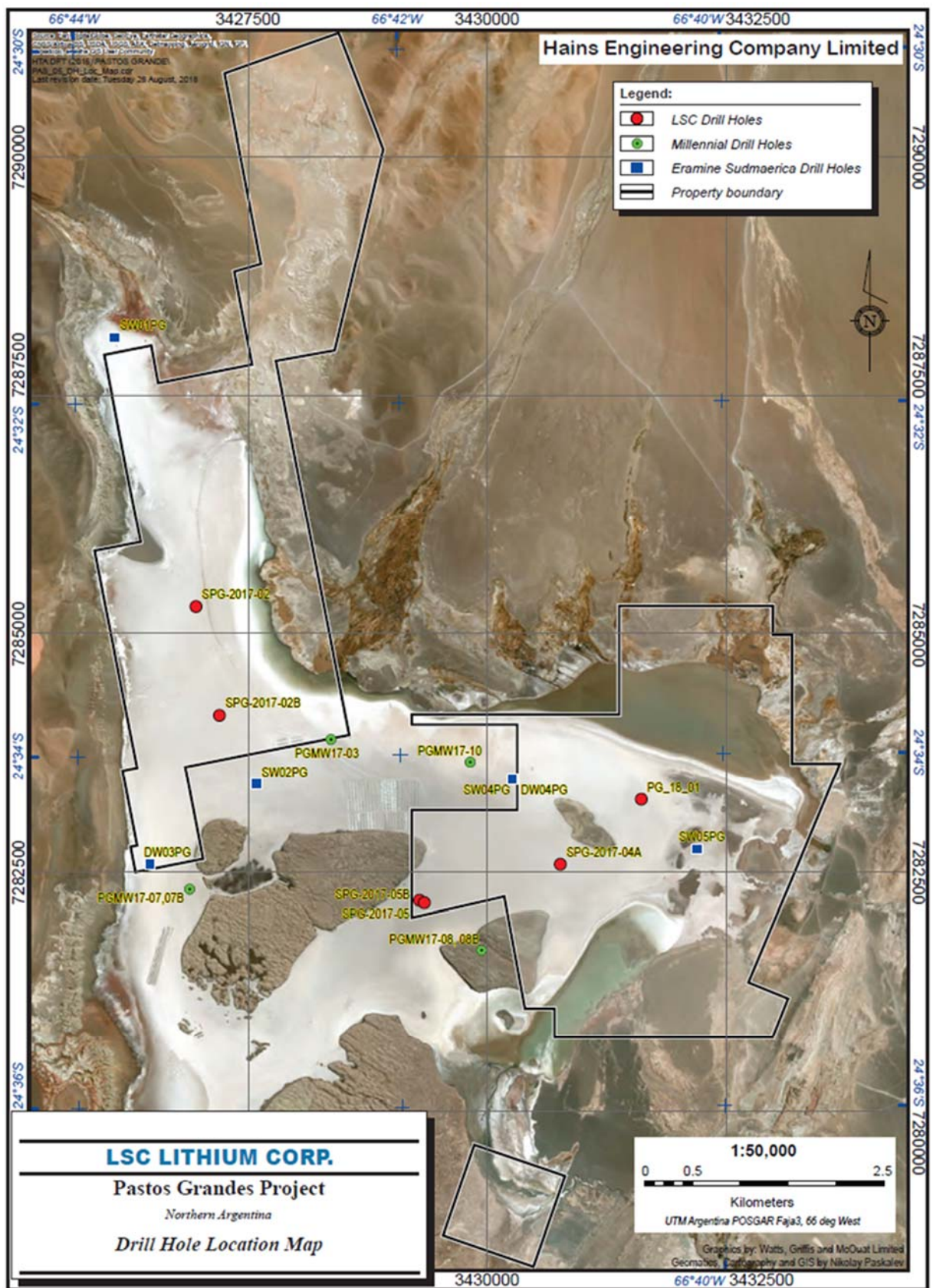


Figure 10-26: Pastos Grandes Drill Hole Location Map

Drill logs for the holes are summarized in Table 10-18. It is notable that the halite intersections typically returned brine in packer samples even in cases where no visible pores could be observed.

The LSC drilling results are consistent with the results obtained by Eramine and Millennial for holes in close proximity to the LSC drill holes and are consistent with the SEV and seismic geophysical survey results obtained by LSC. The data show the LSC tenements are underlain by thick intersections of mixed halite-sand with varying porosity, complemented by thick intersections of porous sand and mixed intersections of halite/sand/clay with varying porosity. Pure halite intersections tend to be restricted to the upper 20 [m] – 30 [m] of the salar. The data also indicate that salar Pasto Grandes is deep and that brine productive horizons are present to depths of at least 600 [m]. Figure 10-22 illustrates the locations of the drill holes discussed in this report.

Table 10-18: Drilling Summary – LSC Exploration Salar de Pastos Grandes

Hole No.	From [m]	To [m]	Major Lithology	Observations	Brine samples (No.), Interval and average Li assay [mg/L]	RBRC ¹ Samples (No.)
SPG2017-02	0.0	77.0	Halite mixed with clay, silt and sand. Some organic material	Intervals of halite with macropores, visible mesopores. No recovery for some minor intervals in upper 25 m.	1 (artesian conditions)	18
	77	106	Volcanic ash mixed with halite, sand and clay intervals	Mixed zones of no visible pores and visible mesopores, Visible pores more prevalent in halite rich intervals		
	106	121	Gravel and breccia with occasional halite intervals/intercalations	Visible pores		
SPG2017-2B	0	7.5	No recovery		42 57 m to 524 m 450 mg/L	69
	7.5	10.5	Halite	Macropores visible		
	11	17.5	No recovery			
	17.5	19.5	Halite	Visible pores		
	19.5	22.5	No recovery			
	22.5	27	Volcanic ash	Visible mesopores		
	27	30	No recovery			
	30	34	Volcanic ash	Visible mesopores		
	34	40	No recovery			
	40	43	Clay			
	43	44.5	Volcanic ash	Visible mesopores		
	44.5	46	No recovery			
	46	50.5	Clay			
	50.5	72.5	Halite	Visible fractures and channels		
	72.5	85	Silt			
	85	163	Tuff and volcanic ash	Visible mesopores		
	163	542.5	Gravels mixed with halite	Visible macropores and mesopores		
	532.5	572	Sand with halite	Visible micropores from 545m		
SPG2017-04/4A	0	5.5	Halite	Visible macropores	21 9 m to 404 m 402 mg/L	0
	5.5	27	Sand/silt			
	27	80	Halite	Visible mesopores		
	80	86	Sand			
	86	310	Halite	Visible micropores		

Hole No.	From [m]	To [m]	Major Lithology	Observations	Brine samples (No.), Interval and average Li assay [mg/L]	RBRC ¹ Samples (No.)
	310	349	Sand			
	349	366	Halite	Visible micropores		
	366	522	Sand			
SPG2017-05	0	9.5	Halite	Visible macropores	0	28
	9.5	11	Sand			
	11	14.5	No recovery			
	14.5	15.5	Halite	Visible macropores		
	15.5	31	Silt			
	31	277.5	Halite	Sequences of varying thickness exhibiting visible pores or no visible pores. Visible pore sequences dominate intervals		
	277.5	280	Sand			
SPG2017-05B	0	7.5	Halite	Visible mesopore	30	6
	7.5	36	Sand	Visible micropores		
	36	112.5	Halite	No visible pores		
	112.5	113.5	No recovery			
	113.5	117.5	Sand	Visible mesopores		
	117.5	282.5	Halite	No visible pores 117.5m – 275m, Visible micropores 275m – 282.5m		
	282.5	290	Organic matter			
	290	305	Halite	Visible mesopores		
	305	500	Clay and sand intervals	Sand fom 321m to 500m		
SPG2018-01	0	3.6	Halite with organic material		100 16.62 m – 520.4 m 492 [mg/L]	71
	3.6	87	Fine sand, minor ulexite & halite	Varying porosity		
	87	134	Halite with minor sand or clay	Varying porosity		
	134	159	Fine sand			
	159	186.6	Halite with sand	Moderate porosity		
	186.6	200	Halite with fine sand	No visible pores		
	200	236.7	Halite	No visible pores		
	236.7	245	Halite	Viisble mesopores		
	245	305.8	Halite mixed with sand or clay	Varying porosity		
	305.8	324	Clay with halite	No visible pores		
	325	329	Sand and clay with halite	Varying porosity		
	329	385	Sand, clay mixes with halite	Varying porosity		
	385	426.6	Clay	No visible pores		
	426.6	441	Fine sand			
	441	601	Fine sand with minor clay lenses	Free-flowing black sand predominates from approx. 500 m to 601 m		
Total					194	192

¹: RBRC = Relative brine Release Capacity, a measure of Specific Yield (Sy), drainable porosity under gravity

The drill logs for the LSC drill holes are consistent with the drill logs for the Eramine and Millennial Lithium drill holes located in reasonable proximity to each other. As such, the general lithology of the salar is consistent both laterally and vertically. The LSC drill logs show a general pattern of a relatively thin halite zone near surface, followed by thick sequences of variable halite-sand-clay intervals of varying thickness and porosity, followed by relatively thick zones of sand and sand/silt/clay, with coarser sands or gravels in the deepest lying intervals. The salar is open at depth below 600 [m].

Item 11 - Sample Preparation, Analysis and Security

11.1 Sample Preparation, Analysis and Security

Sample collection, analytical and security procedures used in the 2017 and 2018 exploration programmes for Pozuelos and Pastos Grandes are identical and briefly detailed below. Additional details can be found in the most recently filed relevant NI 43-101 resource estimation reports on salar de Pozuelos and salar de Pastos Grandes (Hains, 2018a,c).

11.1.1 Sample Preparation – Drill Core

Core samples are recovered from the drill rod by extrusion to retain the integrity of the halite core. The core is oriented in the core box, the interval recorded on the box and the core photographed using a standard jig. Photos are taken at a consistent camera angle and in consistent light.

Drill core is quickly logged in the field, with more detailed logging being undertaken at the field office using a standardized logging form for lithology, grain size, texture, mineralization and other drill core features and the data entered into the sample data base. Initially, the logging form was paper-based and data transferred to Excel, but all data are now entered on a tablet, with the data uploaded to the master database.

Drill core samples for RBRC testing are selected to represent all lithologies and intervals within a given drill hole and across extent and depth of the salar. Samples are typically approximately 20 – 25 [cm] in length and either manually cut with a hack saw or broken with a geological hammer. Every consideration is taken to retain the integrity of the core sample for RBRC testing. RBRC samples are enclosed in bubble wrap, sealed with clear packaging tape and then placed in PVC tubes of suitable diameter and the ends sealed with clear packaging tape. The sample number is recorded on the PVC tube and the number protected by covering with clear packaging tape. It is noted that due to the requirement to select relatively competent core for testing, RBRC samples may understate the true RBRC values, especially for core selected from overall less competent intervals.

Brine from each hole, approximately 20 litres, is collected during packer sample testing for use as re-saturation brine and shipped with the RBRC samples from that hole to the analytical laboratory.

Check samples for RBRC testing are collected from the interval immediately above or below the interval selected for the main RBRC sample, or from a comparable interval in an adjacent hole. The same sample preparation procedures are employed as for the main RBRC samples. Given the nature of check sample selection, the samples are not exact replicates of the main samples. Despite this limitation, the sample coverage is considered as suitable and relevant for comparison purposes.

11.1.2 Sample Preparation – Brine Samples

Brine samples for chemical assay are collected from drill holes using a packer system to isolate specific intervals. The typical packer interval is 6 [m], although more frequent, shorter intervals have been used in sampling some holes. The packer system is allowed to flush the selected interval several times before collection of the assay sample. Final brine for sample assays is collected in a 20 [L] container which is washed with clean brine before final filling.

At the time of sample collection relevant field data such as density, pH, temperature, and conductivity are collected using a multi sensor instrument and densimeters. These data are recorded in field books (now on a tablet) for subsequent entry into the sample data base.

Clean, dry one litre sample bottles are used. The sample bottles and bottle caps are rinsed with the brine several times before filling to the top and the bottle sealed with a secure type lid. Four samples of each selected interval are collected (main sample, check sample, duplicate/replicate sample and reserve sample). Sample bottles are labelled with the sample number, the label wrapped in clear packaging tape to prevent erasure, and the samples stored in a secure location prior to shipment by courier to the assay laboratory.

Brine sampling for the pump tests involves collection of samples from a valve attached to the pump outlet. Brine is allowed to flush and then fresh brine is used to wash the sample bottle several times before collecting the sample. Sample bottles are 1-litre in size and are filled to the top to prevent entrance of air. The samples are sealed with a leak proof lid, labelled and the label covered by clear tape. Samples remain in the possession of the site geologist until delivery by courier to the assay laboratory.

11.1.3 Sample Analysis – RBRC Samples

RBRC samples are shipped by courier to D.B. Stephens & Associates (“DBSA”) in Albuquerque, New Mexico (main sample) or to CoreLabs (“CoreLabs” in Houston, Texas (check samples) for determination of Relative Brine Release Capacity. DBSA has developed a proprietary method for determination of RBRC values (see Geotechnical Testing Journal, Vol. 34, No. 5. Paper available at www.astm.org.) which has become the industry norm for analysis. CoreLabs has developed a slightly modified version of the DBSA procedure which has also been widely adopted by the lithium brine exploration community. Both DBSA and CoreLabs are independent of LSC Lithium. Both laboratories are certified to undertake a wide range of soil and groundwater/brine analyses in accordance with ASTM, USEPA, National Groundwater Association and various state procedures and specifications. Toward the end of the drilling program it was determined that the CoreLabs data exhibited excessive deviation and DBSA was used for both original and duplicate RBRC sample analysis.

Table 11-1 and 11-2 summarize key RBRC results by drill hole for Salar de Pozuelos. Relative brine release capacity is a function of lithology, with average, salar-wide values by lithology being as follows:

Highly fractured, coarse crystalline halite	top 15 m in salar, 31.25%
Moderately fractured, porous halite	~3%- 8%
Moderately Compact halite	~3% - 6%
Porous, compact halite	~1% - 6%
Massive halite	~0.5% - 3%
Clay supported clastic matrix material	~2.5% - 3.5%
Channeled clay	~6% - 11.5%

It is noted that the RBRC values for the highly fractured, coarse crystalline halite and moderately fractured, porous halite lithologies may be understated due to difficulties in obtaining suitable samples. The test method requires samples with reasonable structural competence. Analysis of core photos indicates that RBRC samples within the affected lithologies were generally more competent than the majority of the core within the same overall lithological zone and thus the RBRC results may

understate the true effective porosity of the interval. This is especially true for the Highly Fractured Halite zone, particularly within the top 15 m. Pump and trench test work, described in Item 10 of this report, indicated a Specific Yield of approximately 30% - 32% may be more representative of this interval and a value of 31.25% has been applied across the salar for the Highly Fractured Halite zone to a depth of 15 [m].

Table 11-1: Relative Brine Release Capacity Sample Results - Pozuelos

2017 Drilling

Representative Results by Lithology

Pumping Wells and 400 m DDH Hole

RBRC	Hole	From [m]	To [m]	Length [m]	RBRC (% , cm ³ /cm ³)	Lithology
001	PzW1-35-5	4.64	4.81	0.17	6.8	halite, large macropores
002		7.15	7.38	0.23	4.2	halite, some macropores
004		20.25	20.50	0.25	6.6	halite, large crystals & macropores, fractured
005		23.72	24.01	0.29	1.7	halite, some macropores
006	PzW1-35-20	2.79	2.92	0.13	5.6	halite, some macropores, slightly brittle
007		6.79	7.00	0.21	4.4	halite, some macropores
008		12.48	12.71	0.23	2.7	halite, some macropores & some variability, dense
009		16.10	16.30	0.20	6.5	halite, some macropores
016	PzW2-90-5	3.33	3.53	0.20	6.7	halite, some macropores
026		87.80	88.00	0.20	3.3	clay core with halite, dense
036		82.65	82.88	0.23	10.6	halite with clay & some silt & macropores
037		85.00	85.22	0.22	3.7	clay with halite & macropores
043		53.06	53.31	0.25	1.0	halite, dense
048		85.61	85.86	0.25	3.8	clay with some halite
049	DDH-400	89.96	90.21	0.25	5.2	clay with some halite & macropores
050		92.60	92.82	0.22	6.4	clay with sand & halite
051		102.63	102.80	0.17	8.7	clay with silt/sand & halite with medium crystals
054		173.50	173.70	0.20	12.0	clay/sand with halite, soft
055		195.44	195.69	0.25	6.8	sand with fine grained halite and clay

Diamond Drill Holes

Hole	From (m)	To (m)	RBRC (% , cm ³ /cm ³)	Hole	From (m)	To (m)	RBRC (% , cm ³ /cm ³)
SP-2017-02	12.7	12.93	5.0	SP-2017-09	6.80	6.93	9.28
	10.87	11.00	4.0		15.83	15.94	7.30
	16.03	16.26	1.7		35.00	35.10	14.02
	34.73	34.93	4.7		40.42	40.57	4.60
	37.83	38.05	4.7		51.74	51.86	6.31
	56.54	56.75	1.1		56.71	56.86	16.33
	71.66	71.85	2.1		65.00	65.17	5.45
	95.11	95.24	5.3		71.10	71.34	3.16

Hole	From (m)	To (m)	RBRC (%, cm ³ /cm ³)	Hole	From (m)	To (m)	RBRC (%, cm ³ /cm ³)
SP-2017-05	12.06	12.34	3.7	SP-2017-11	4.60	4.72	4.4
	16.17	16.37	9.6		10.75	11.00	2.9
	19.80	19.91	2.5		17.24	17.45	2.6
	27.20	27.35	4.8		21.90	22.04	3.4
	34.63	34.82	6.7		23.90	24.12	5.8
	41.76	41.90	4.7		29.76	29.97	2.8
	49.70	49.90	5.0	SP-2017-10	6.54	6.69	4.7
	65.80	66.00	3.7		15.99	16.20	5.5
SP-2017-06	78.00	78.12	6.4		25.49	25.64	2.9
	11.44	11.58	5.29		50.85	51.04	2.2
	12.01	12.21	4.67	SP-2017-12	64.72	64.86	0.6
	15.11	15.31	3.24		7.08	7.21	10.30
	18.17	19.16	2.99		10.20	10.38	1.70
SP-2017-07	28.70	28.84	3.82		35.21	35.32	2.50
	77.30	77.84	0.36		47.30	47.47	0.80
	13.40	13.59	7.98		45.35	45.50	7.40
	17.55	17.70	5.88		48.66	48.94	2.50
	19.13	19.32	7.53		51.63	51.83	2.60
	27.80	27.98	7.55	SP-2017-14	60.66	60.85	4.20
SP-2017-08	50.10	50.28	6.60		8.22	8.33	1.50
	62.25	62.45	6.93		24.76	24.92	4.70
	66.97	67.18	1.19		34.09	34.23	5.80
	15.06	15.14	3.92		41.62	41.78	3.70
	25.28	25.44	2.40	SP-2017-15	45.16	45.31	8.00
	30.07	30.22	4.25		50.39	50.50	5.20
	37.65	37.85	4.76		4.80	4.92	13.4
	47.19	47.36	4.33		9.71	9.87	3.3
	66.50	66.65	6.19		16.34	16.45	11.8
	90.56	90.73	1.69		26.79	26.98	4.8
	115.68	115.86	1.27		31.72	31.83	4.3
					38.42	38.61	1.4
					45.35	45.46	4.0
					60.20	60.32	0.8
					75.67	75.85	3.8

Table 11-2: Relative Brine Release Capacity Sample Results – Pozuelos

2018 Exploration

Results by Lithology

Hole	Sample	From [m]	To [m]	Relative Brine Release Capacity %, [cm ³ /cm ³]	Technician Description
	PZ0001A	6.60	6.74	5.2	Halite core, small crystals, with layers of silt and some gypsum

Hole	Sample	From [m]	To [m]	Relative Brine Release Capacity %, [cm³/cm³]	Technician Description
PZ-18-01	PZ0002A	9.40	9.55	2.4	Halite core, small crystals, with silt, traces of gypsum and sand
	PZ0004A	18.55	18.75	3.6	Halite core, small crystals, with impurities
	PZ0007A	40.15	40.28	2.9	Halite core, medium and large crystals, with layers of gypsum
	PZ0009A	54.58	54.70	9.4	Halite core, medium crystals, with voids and some gypsum
	PZ0010A	68.60	68.76	2.5	Halite core, medium crystals, dense with small amount of silt and gypsum
	PZ0012A	81.64	81.80	3.3	Silt core, with chunks of medium crystal halite and some salt
	PZ0014A	100.18	100.38	10.9	Silt/halite core, medium crystals
	PZ0018A	139.90	140.10	4.0	Clay core, dense, with small crystal halite and silt
	PZ0019A	144.30	144.50	15.3	Silt core, with sand, clay and chunks of medium crystal halite
	PZ0020A	151.25	151.40	0.5	Halite core, medium crystals, dense, with traces of gypsum
	PZ0021A	155.50	155.66	4.8	Silt core, with sand and chunks of large crystal halite
	PZ0050A	175.25	175.43	5.4	Silt core, dense, with sand and some salt
	PZ0052A	195.80	196.00	0.7	Halite core, medium crystals, dense, with layers of silt and sand
	PZ0055A	250.10	250.30	2.6	Silt core, dense, with sand
	PZ0056A	270.34	270.51	2.5	Silt core, dense, with sand, salt and some clay
	PZ0057A	289.50	289.70	3.4	Silt core, with sand and gravel
	PZ0058A	291.80	291.97	4.7	Sand core, with silt and gravel
	PZ0059A	299.09	299.26	1.8	Sand core, cemented, with silt and clay
	PZ0061A	306.96	307.13	1.6	Sand core, cemented, with silt, gravel and clay
	PZ0062A	310.87	311.03	6.7	Sand core, with silt, salt and gravel
	PZ0063A	315.38	315.58	16.0	Sand core
	PZ0065A	353.83	353.99	13.8	Sand core, with silt and salt
	PZ0066A	375.17	375.33	10.6	Sand/gravel core with silt
PZ-18-02	PZ0119A	18.85	19.00	2.02	Clay core , with silt and trace of gypsum, black and gray
	PZ0148A	101.20	101.35	4.21	Cemented sand core, brittle, with gravel and clay, red
	PZ0161A	139.40	139.55	6.48	Cemented sand core, brittle, with gravel and clay, red
	PZ0165A	149.67	149.82	17.7	Sand core, with silt and salt, red
	PZ0172A	161.85	162.05	1.78	Consolidated sand/silt core, dense, with salt, red
	PZ0180A	167.60	167.78	1.80	Consolidated sand core, dense, with salt, red
	PZ0181A	173.59	173.88	8.36	Silt/Sand core, dense, with much gravel, red
	PZ0182A	183.39	183.63	1.26	Gravel core, dense, with sand, silt, and some salt, red
	PZ0192A	220.00	220.19	2.52	Gravel core, dense, with sand, silt and some salt, red
	PZ0193A	248.27	248.42	8.39	Gravel core, brittle, with sand, brown
	PZ0220A	251.50	251.68	10.98	Sand core, cemented, with gravel
	PZ0225A	281.00	281.16	3.09	Sand core, cemented, dense, with gravel and little silt
	PZ0235A	297.00	297.18	5.00	Sand core, cemented, with gravel and salt
	PZ0242A	306.00	306.20	1.84	Sandstone, cemented, with gravel and salt
	PZ0249A	321.55	321.70	1.05	Sand/gravel core, cemented, dense

Hole	Sample	From [m]	To [m]	Relative Brine Release Capacity %, [cm ³ /cm ³]	Technician Description
	PZ0250A	323.10	323.30	0.79	Sandstone, with little gravel
	PZ0310A	326.91	327.05	4.20	Gravel core, cemented, dense, with coarse sand and gypsum
	PZ0311A	333.00	333.15	1.76	Gravel core, cemented, dense, with some silt, sand, and gypsum
	PZ0312A	335.92	336.10	1.41	Sandstone, with gravel and salt
	PZ0313A	337.83	338.00	1.37	Silt core, cemented, with sand and gravel
	PZ0319A	346.75	346.95	2.26	Gravel/silt core, dense, with clay

Table 11-3 details RBRC tests results for salar de Pastos Grandes.

Table 11-3: RBRC Samples

LSC Explorations – Salar de Pastos Grandes – 2017/18

Hole No.	From [m]	To [m]	No. of Samples	Min RBRC Value (%)	Max RBRC Value (%)
2	6.76	108.60	18	0.55 (dense halite)	5.83 (halite with macropores)
2B	8.40	529.45	69	0.20 (claystone with silt)	13.18 (siltstone with halite, large crystals with sand, gravel & clay)
5	22.10	278.52	28	0.6 (sandstone, dense)	10.5 (sand core, soft, with silt and halite)
5B	303.65	329.81	6	1.0 (clay core with gypsum & sand)	9.2 (sand core, loose, with halite)
18-01	3.37	465.05	69	0.23 (halite core, dense, small crystals, minor sand and gypsum)	8.88 (halite core, small & medium crystals with macropores & voids)
Total			190		

Source: LSC

11.1.4 Sample Analysis – Brine Assays

Brine assays for the main samples are undertaken at Alex Stewart Argentina (“ASA”) S.A. in Jujuy, Argentina. ASA is independent of LSC and has significant experience in assaying lithium brines and is certified to ISO17025 standards for lithium brine assays. Brine assays are undertaken using the methods shown in Table 11-4.

Check assays of brine samples are undertaken at SGS in Buenos Aires, Argentina. SGS is certified to ISO 9001:2008 and ISO 14001:2004 standards for geochemical analysis of numerous sample types, including brines. The analytical methods employed SGS are similar to those employed by ASA. SGS is independent of LSC.

Table 11-4: Methods for Brine Assays

Analyte	Method	ASA Method Name	Limit of Detection [mg/L]
Li	ICP	LMMT03	0.05
Ca	ICP	LMMT03	0.025
Mg	ICP	LMMT03	0.05
B	ICP	LMMT03	0.05
Na	ICP	LMMT03	0.1
K	ICP	LMMT03	0.25
Ba	ICP	LMMT03	0.01
Sr	ICP	LMMT03	0.005
Fe	ICP	LMMT03	0.01
Mn	ICP	LMMT03	0.05
Cl-	Argentometric	LMC101	250
PO43-	Colorometric	LMC107	1
SO42-	Gravimetric	LMC122	10
Alkalinity	Volumetric	LMFQ15	20
CO32-	Volumetric	LMFQ16	10
HCO3-	Volumetric	LMFQ17	10
Density	Pycnometer	LMFQ19	
Hardness	Volumetric	LMFQ13	20 mgCaCO ₃ /L
pH	Potentiometric	LMC128	
Conductivity	Potentiometric	LMFQ01	
TDS	Gravimetric	LMFQ08	

Source: Alex Stewart Assayers, Argentina

Key brine assay results for assays from Pozuelos in 2017 are detailed in Table 11-5, with results from the 2018 program detailed in Table 11-6. Results for the Pastos Grandes exploration are detailed in Table 11-7. The Pozuelos data indicate lithium values typically increase toward the nucleus of the salar and that lithium brine grades tend to be fairly consistent from surface to depth. It is also apparent that sulphate values exhibit a wide range and are localized to particular areas and depths within the salar. While in general the sulphate values are low, certain locations within the salar exhibit high values. In production, blending of brine from the pumping wells is anticipated to reduce the composite sulphate value to provide suitable SO₄/Ca and SO₄/Li ratios for effective brine processing.

The results for Pastos Grandes brine sampling show lithium values in the 400 [mg/L] – 600 [mg/L] across the salar, with other key elements also being relatively consistent in assay values. The average Mg:Li ratio is approximately 6.5:1, but variations down hole are present across the salar.

Table 11-5: Key Assay Results – Pozuelos, 2017 Drilling

Pumping Wells and 400 m DDH – Brine Assays

Hole No.	Sample Interval (depth, [m])	Li ([mg/L], average)	Li Assay Range [mg/L]	Mg/Li	SO ₄ /Ca	Mg/Ca	K/Li	SO ₄ /Li	Density [g/mL]
PzW1-35	8.00 – 30.97	613	575- 627	4.1	1.8	1.3	9.9	5.7	1.22
PzW2-90	30.77 – 89.47	499	480 - 509	4.4	34.3	4.4	9.7	30.2	1.22
DDH-400	20 - 182	522	467 - 614	4.5	4.3	1.5	9.3	12.0	1.22

Diamond Drill Holes - Brine Assays

Hole No.	Sample Interval [m]		Li [mg/L] average	Li Assay Range [mg/L]	Ratio Mg/Li	Ratio SO ₄ /Ca	Ratio Mg/Ca	Ratio K/Li
	From	To						
SP-2017-02	6.00	76.00	446	360-507	8	12.56	3.66	9.21
SP-2017-05	12.00	101.00	245	169-290	9	4.84	1.71	11.97
SP-2017-06	14.00	46.00	282	274-289	8	3.56	1.62	10.68
	50.00	72.00	284	272-296	8	3.34	1.48	10.73
SP-2017-07	14.00	34.00	285	279-291	7	3.36	1.39	11.15
	40.00	78.00	277	259-265	7	3.70	1.41	11.43
SP-2017-08	15.00	63.00	261	259-265	5	6.39	1.20	11.69
	63.00	87.00	326	253-426	7	14.53	2.94	10.24
SP-2017-09	7.10	19.10	223	218-228	7	4.54	1.38	9.85
	34.10	58.10	237	219-255	7	5.32	1.53	9.93
	64.10	73.00	255	241-268	7	4.79	1.35	9.36
SP-2017-10	24.20	94.20	458	371-576	6	3.92	1.45	9.27
SP-2017-11	13.20	42.20	466	402-557	6	1.45	1.20	8.86
SP-2017-12	24.00	35.00	387	378-397	6	0.70	0.84	8.75
	54.00	70.50	397	397	6	0.69	0.83	8.55
	75.00	89.00	404	397-411	6	1.10	0.89	8.72
	95.00	101.00	449	447-450	6	2.10	1.15	8.27
SP-2017-13	27.00	74.00	452	430-508	6	1.77	1.02	8.19
SP-2017-14	18.00	53.00	395	272-444	5	0.97	0.83	7.99
SP-2017-15	18.20	81.00	370	361-385	7	0.97	1.20	7.57

Table 11-6: Key Assay Results – Pozuelos 2018 Exploation Program

Pumping Wells¹

Hole No.	Test Type	Sample Interval (depth, m)	Li (mg/L, avg)	Li Assay Range (mg/L)	Mg/Li	SO ₄ /Ca	Mg/Ca	K/Li	SO ₄ /Li	Density (g/ml)
SP-2017-10W	Step	63 - 99	704	558- 734	5.96	20.84	5.94	8.11	20.90	1.195
	Continuous		742	717 - 767	6.06	29.09	8.07	8.12	21.84	1.203
SP-2017-2W	Step	11 – 66.5	381	371 - 390	7.85	4.76	2.33	8.67	16.01	1.194
	Continuous		388	379 - 393	7.62	5.16	2.33	8.53	16.86	1.194
SP-2017-14W	Step	9 - 51	365	361 - 372	5.00	1.38	0.85	7.32	8.07	1.191
	Continuous		358	348 - 372	5.00	1.49	0.86	7.42	8.67	1.189
WPZ-18-04	Step	12- 103	534	517 - 545	5.12	4.42	2.06	8.51	10.97	1.205
WPZ-18-01	Step	14 - 103	396	352 - 431	7.44	10.80	3.17	8.15	25.39	1.207
	Continuous		415	371 - 448	7.22	17.25	4.80	8.16	30.75	1.203

1) Ratios based on average values

Exploration Drill Holes

Hole No.	Sample Interval		Li [mg/L], average	Li Assay Range [mg/L]	Ratio Mg/Li	Ratio SO ₄ /Ca	Ratio Mg/Ca	Ratio K/Li
	From [m]	To [m]						
PZ-18-01	269	3801	553	n.a.	5.33	13.23	3.39	9.30
	303.82	n.a.	697	n.a.	5.99	60.43	11.32	8.13
	378.82	n.a.	619	n.a.	5.33	22.33	4.79	8.12
PZ-18-02	46	3581	512	n.a.	5.79	8.10	2.54	9.06
	25	283	427	n.a.	5.20	2.49	1.27	8.69
	76	1603	588	550 - 612	6.01	16.18	4.45	7.60
	160	2003	595	592 - 612	5.22	8.49	2.92	7.91
	200	2513	590	593 - 601	4.80	4.62	2.10	8.05
	251	3013	579	565 - 588	5.24	7.07	2.45	7.82
	301	3493	554	434 - 588	5.37	7.86	1.73	7.82
	349	3583	440	386 - 446	5.44	5.16	1.71	7.85

1) air lift sample

2) bailer sample

3) packer samples

Table 11-7: Summary Brine Assay Results – Drill Holes

LSC Exploration – Salar de Pastos Grandes – 2017/18

Hole No.	From [m]	To [m]		Assay Results					
				Li	Ca	Mg	B	SO ₄ -	Mg:Li
				[mg/L]	[mg/L]	[mg/L]	[mg/L]	[mg/L]	
2B	57	524	Average	450	697	2929	600	9428	6.5
			Range	344 - 511	605 - 732	2524 - 3348	430 - 651	6256 - 11031	6.2 – 7.9
4A	9	404	Average	402	752	2606	684	8473	6.5
			Range	307 – 546	572 – 808	1900 – 3652	385 – 734	4831 – 11434	6.1 – 7.1
5B	53.95	484.55	Average	569	662	3823	809	11199	6.7
			Range	470 – 637	555 – 853	3060 – 4546	730 – 851	8067 – 13146	5.4 – 7.2
18-01	16.62	520.4	Average	492	714	3181	935	10295	6.5
			Range	347 – 680	578 – 984	2370 – 3823	643 – 1225	8512 – 12068	5.4 – 7.3

Source. LSC

11.2 Quality Control Program

Details of the QA/QC programs used in the 2016, 2017 and 2018 exploration programs at salar de Paozuelos and salar de Pastos Grandes are provided in Hains (2017b, 2018b and 2018c). The same basic procedures have been followed in all cases. Duplicate brine samples are taken at a rate exceeding 10% of the main samples. Check samples are typically taken at a similar rate. Certified

standards and blanks are inserted at a rate in excess of 5% of samples. A cation-anion balance is calculated for all main brine assays. The section below summarizes the procedures and results obtained for the 2018 exploration programs at Pozuelos and Pastos Grandes.

11.2.1 Pozuelos

QA/QC Control Standards and Blanks – Brine Samples

LSC used three synthetic brine standards in the QA/QC program. Two standards were prepared by Norlab at their facility in Jujuy. Norlab is an independent analytical laboratory with extensive experience in lithium brine assays. Norlab is independent of LSC. The standards were designed to provide a low grade and high grade brine having a chemistry comparable to the expected chemistry at salar de Pozuelos. The third standard, a mid-range lithium standard, was prepared by Alex Stewart Laboratories in Mendoza. Table 11-8 summarizes the design of the three standards. Standard LSC-2018-2 was exclusively used after exhaustion of Standards LSC-001 and LSC-003. A single example of a fourth standard, LSC-2018-3, a high lithium grade standard also produced and certified by ASA was also used.

Table 11-8: Standard Samples Brine Chemistry Design

ID	Concentration	Mg/Li	Li [mg/l]	Ca [mg/l]	Mg [mg/l]	B [mg/l]	Na [mg/l]	K [mg/l]	SO ₄ = [mg/l]
LSC-1	Low	9	150	2000	1400	340	120500	2500	4800
LSC-3	High	4	800	1400	3500	400	122200	4000	3000
LSC-2018-2	Medium	2.92	584	962	1706	457	107668	6128	n.a.

Details of the certification procedures for standards LSC-1, LSC-2 and LSC-3 are provided in Hains (2018b). Standard LSC-2018-2 (ASA Standard D3003) was independently certified by ASA using a round robin assay program with assays by both ICP and AA methods to derive statistical data on mean, standard deviation, confidence intervals, variance and other parameters. Discrepancies were found between the reported assay values for standard LSC-2018-2 and the assay results and the standard was re-assayed to develop new statistical parameters. The re-assayed values for the standard have been used in the analysis. The differences between the original values and the re-assayed values for the standard are believed to be due to aging of the standard between its original production and time of use. As an additional check on the standard and the overall assay results, 104 samples were re-assayed. The re-assay results for the brine samples were all within acceptable limits compared to the original assays.

Standards and blanks were inserted in the sample batches on a random basis.

Blanks were distilled water. Blanks were inserted in the sample batches on a random basis.

Duplicates were inserted in sample batches on a random basis to monitor laboratory accuracy. These duplicates were in addition to duplicate assays undertaken as part of internal laboratory control at ASA. ASA inserts duplicates at a rate of 1 in 20 (5%) of samples analysed.

Check samples were sent to ALS Argentina for analysis. One standard, one blank and one duplicate were included in the check sample assay batches.

Overall QA/QC Program Design – Brine Samples

The overall brine sampling program for the 2018 exploration program involved 605313 sample assays, of which 412236 were primary samples and the balance control samples. Table 11-9 summarizes the QA/QC program design for the brine samples.

Table 11-9: QA/QC Program Design – Brine Samples

2018 Exploration Program – Salar de Pozuelos

Type of Sample	Number	Insertion Rate (% of Main Samples)
Main Sample	412	100%
Duplicate	55	13%
Standard	53	13%
Blank	52	13%
Total	572	
Check sample	32	8%
Duplicate check	1	
Total Samples	605	

QA/QC Program Design – RBRC Samples

The QA/QC program for the Pozuelos RBRC samples involved 45 main samples, all from the 2018 drill program, and 16 check samples (12 from core from the 2017 drill program and 4 from the 2018 drill program). Samples were sent as duplicates to DBSA under separate sample numbers. To the extent possible, samples were taken from intervals adjacent to the primary core samples. However, due to variations in sample core integrity within even relatively short intervals, exact matches of lithology between the main and duplicate samples may not be possible. Overall results showed reasonable comparison between the main sample and the “duplicate” samples.

The QA/QC program for the RBRC samples from Pastos Grandes involved 15 samples. Overall results indicated moderate correlation between the samples. The main reasons for the differences in the results were attributed to timing differences in the collection and analysis of the samples, resulting in potential changes in porosity due to formation of various salts; and differences in the location of samples. In some cases, “duplicate” samples were collected at significantly different levels from each other and thus the lithologies may be quite dissimilar. Despite these differences, the overall results were considered as acceptable.

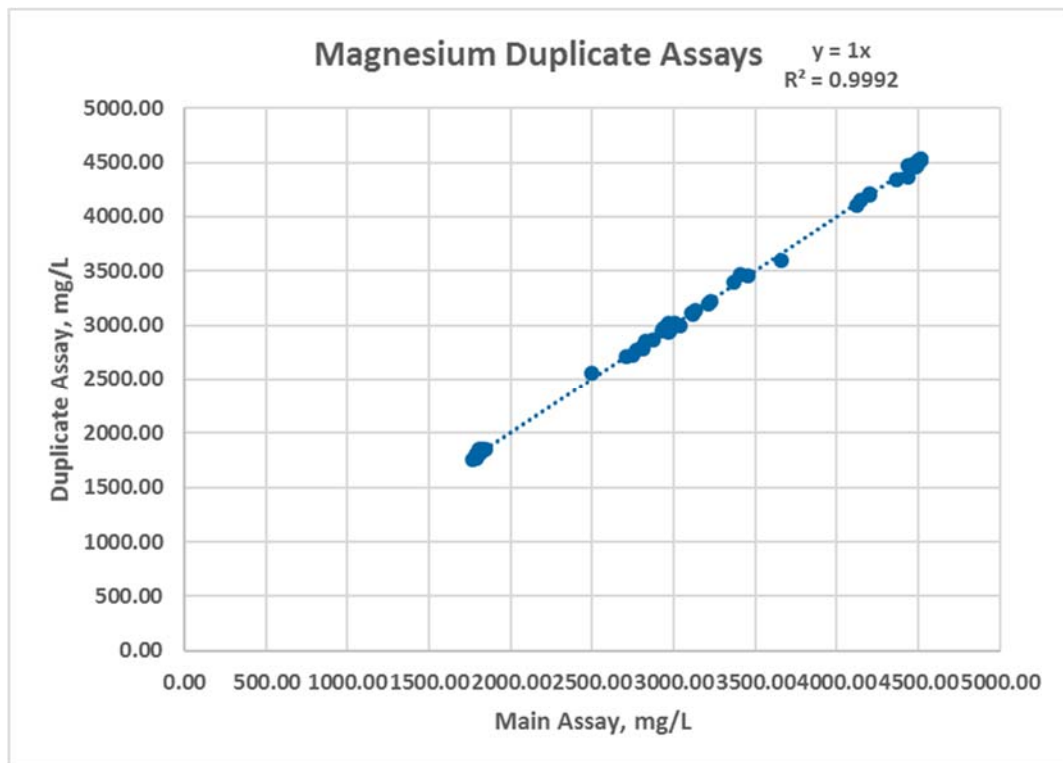
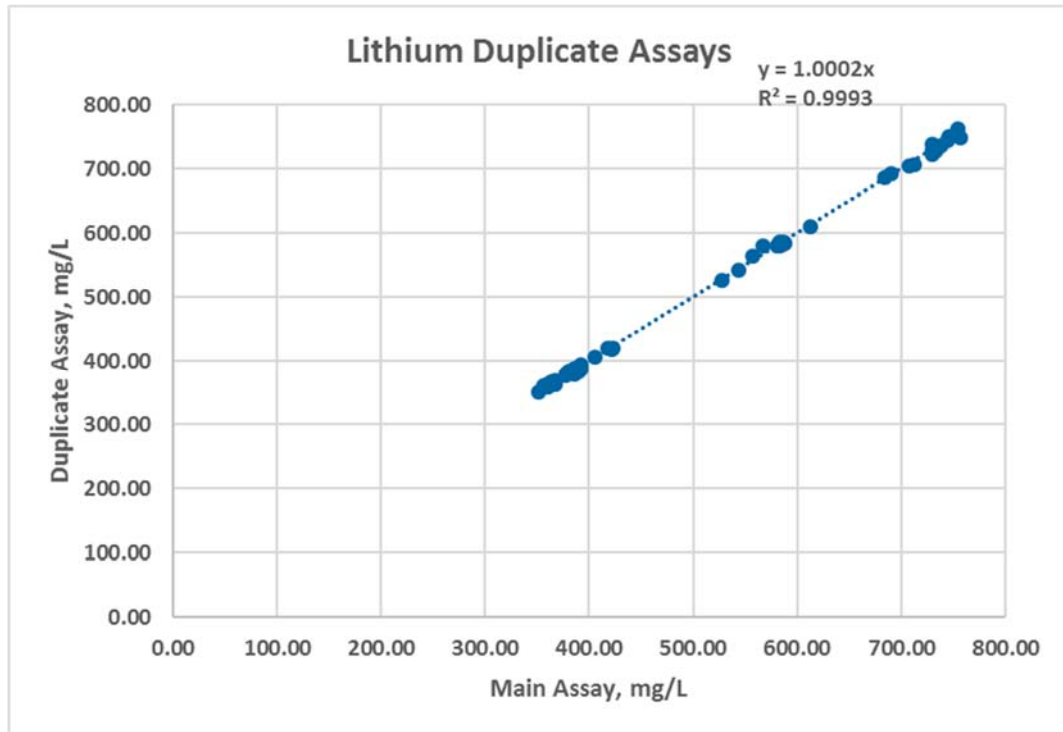
11.3 Brine Results

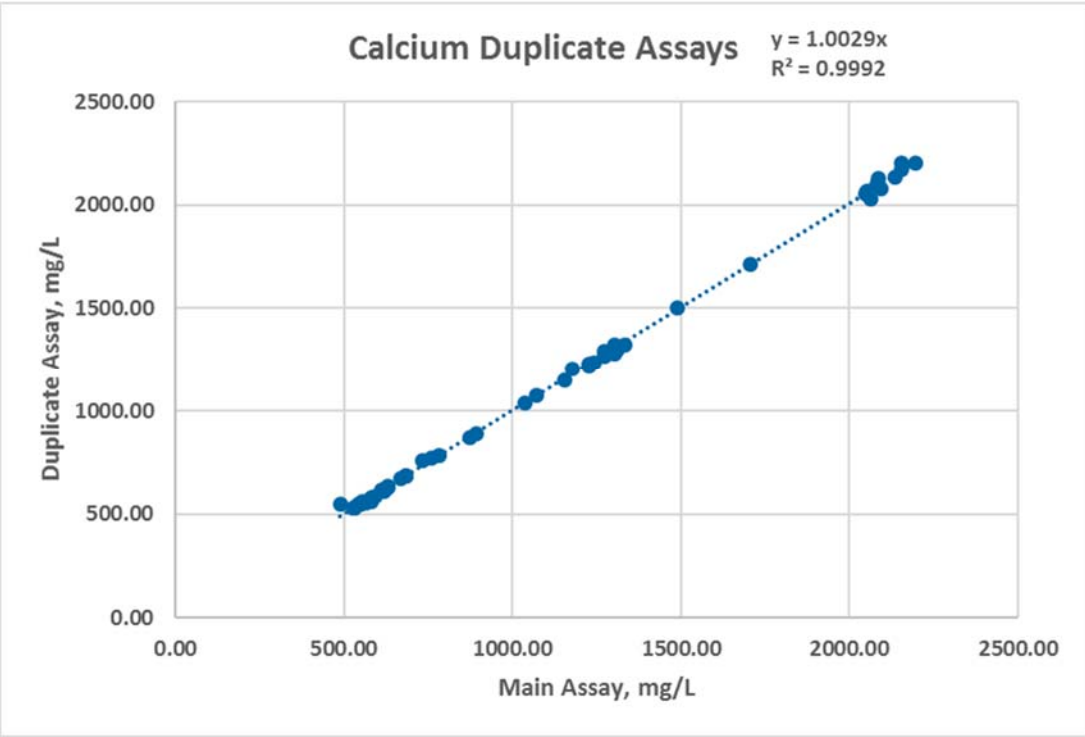
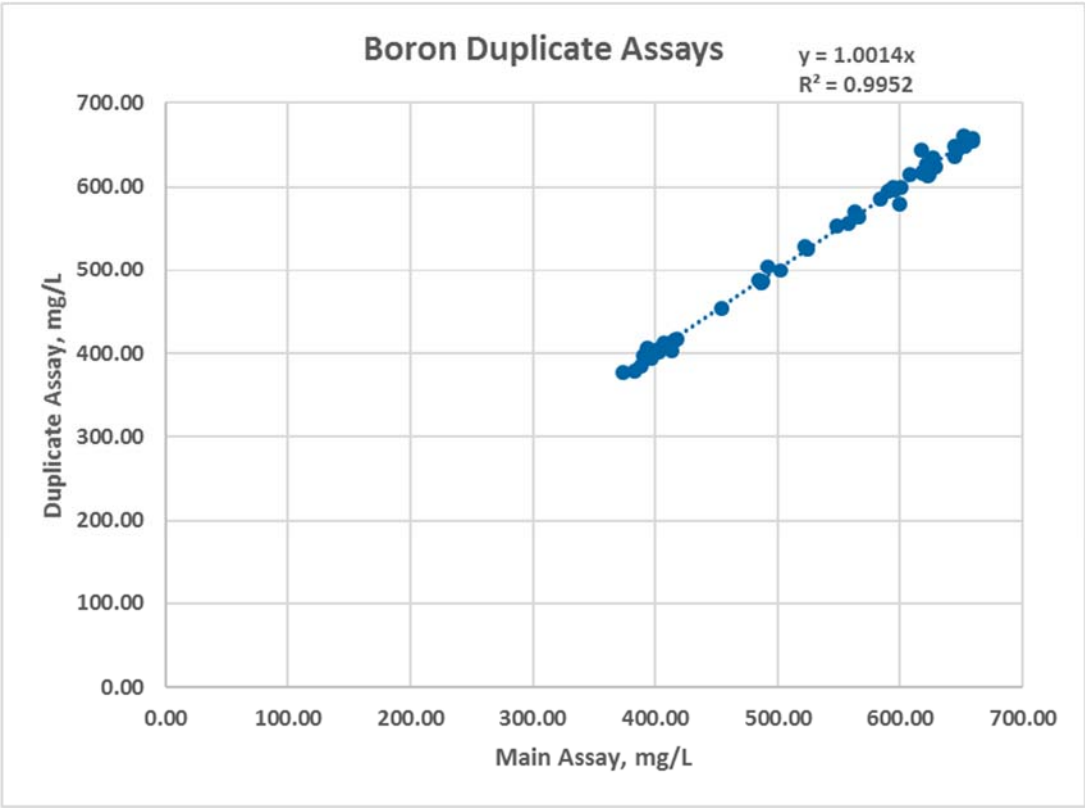
11.3.1 Brine Duplicates – Pozuelos

Excellent correlation was observed with the brine duplicates, with R2 values exceeding 0.99 for Li, Ca, B, Mg, K and SO4. The %RSD difference (% Relative Standard Deviation Difference) was less than 3% for all elements, pH, density, and alkalinity, indicating a high degree of analytical precision. Values for conductivity measurements were somewhat poorer but still within the acceptable range.

Figure 11-1 illustrates the duplicate assay regression results for Li, Mg, Ca, K, B, and SO4. All assay values fell within the $\pm 5\%$ tolerance envelope.

2018 Salar de pozuelos Exploration Program





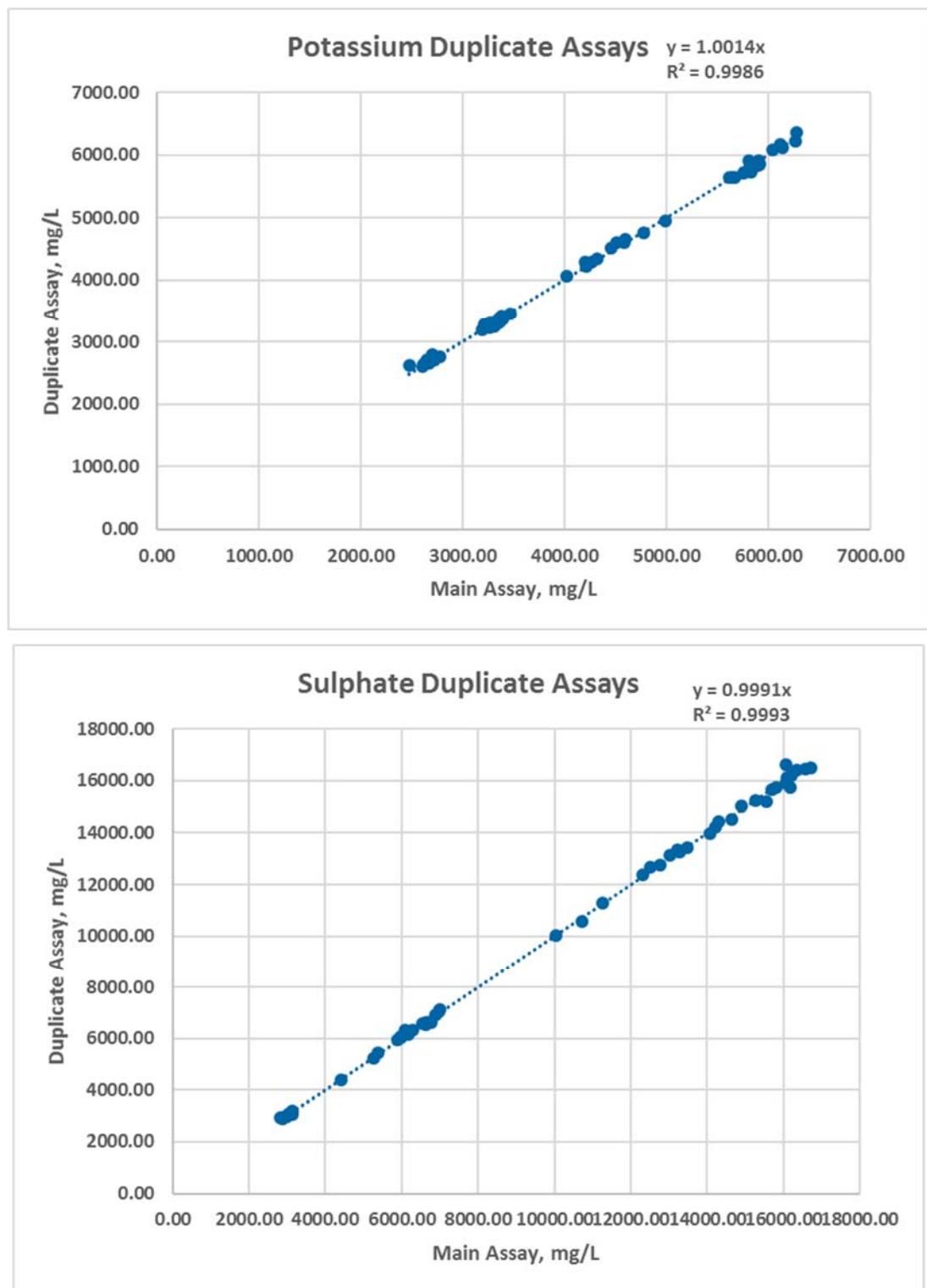


Figure 11-1: Regression Analysis – Duplicate Sample

11.3.2 Brine Re-Assays – Pozuelos

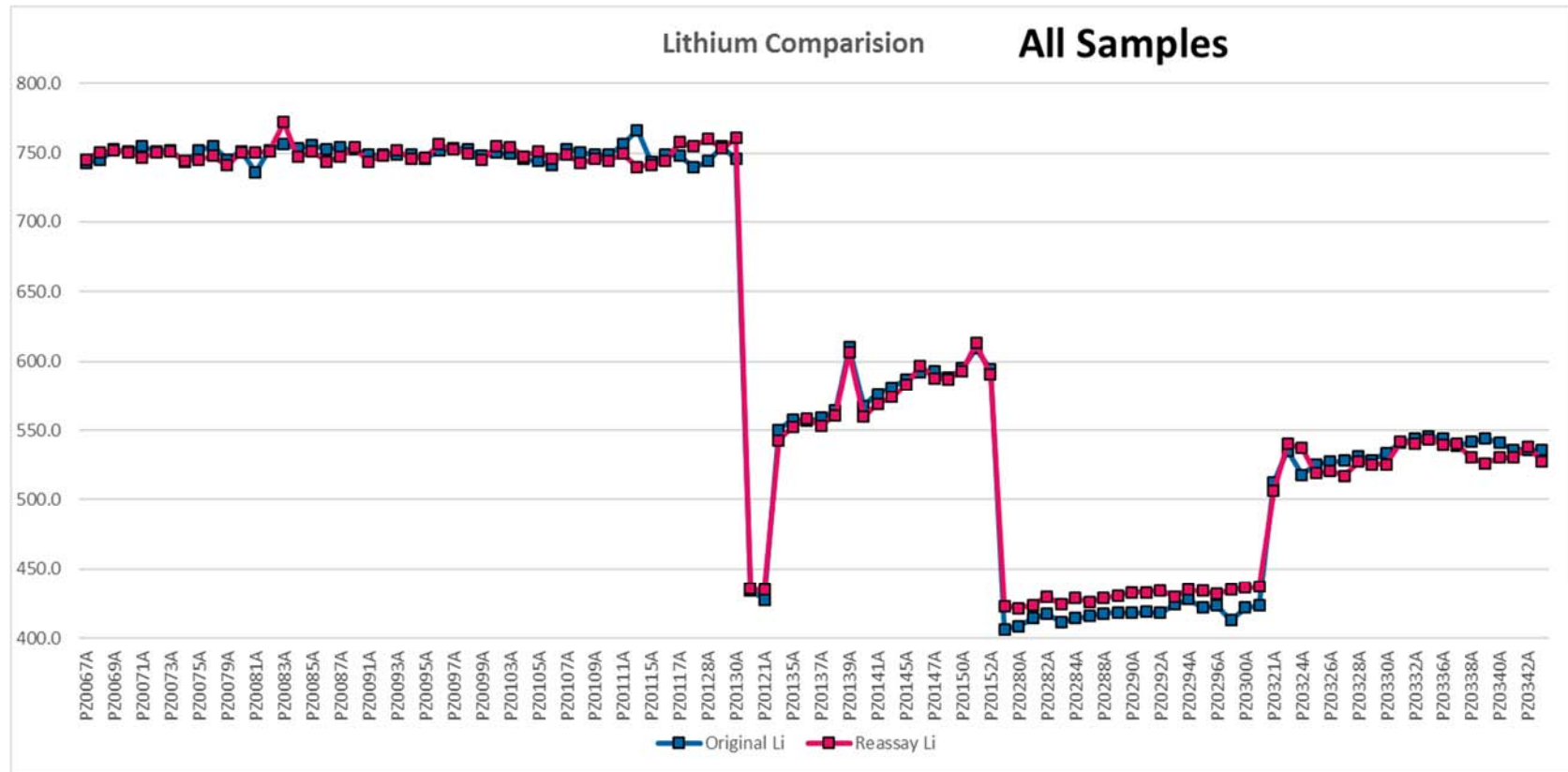
As noted above, some discrepancies were noted in assay results for Standard LSC-2018-2. As a check, it was decided to re-assay 104 main brine samples from the 2018 exploration program. The

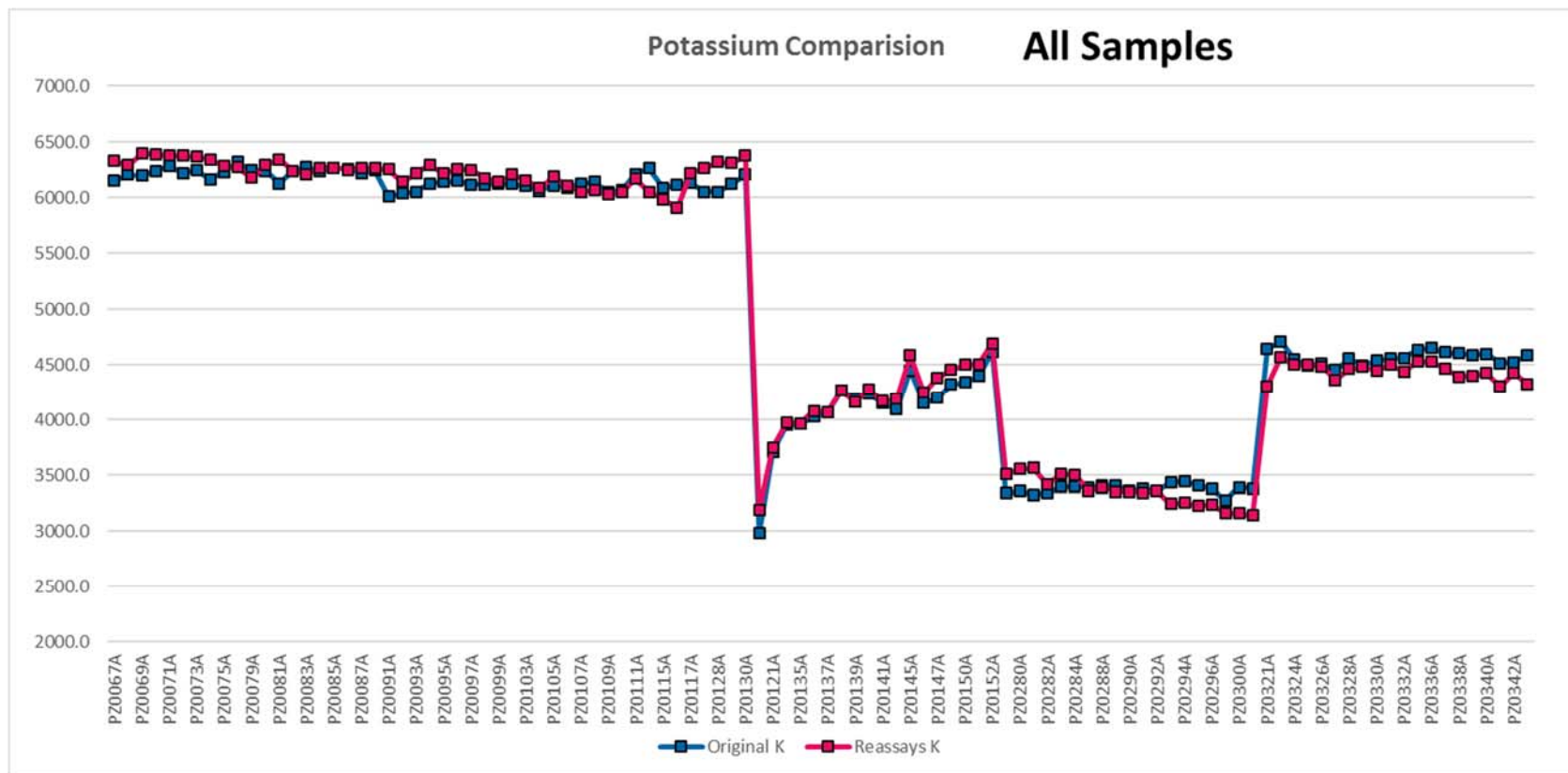
samples represented constant rate, step test, packer and air lift samples from Holes SP-2018-10W, PZ18-02, WPZ18-01 and WPZ18-04. The results of the re-assays showed excellent comparisons for the assays for Li, Mg, and K, as illustrated in Figure 11-2. Based on the results of the re-assay program, it was determined that the original assays could be used for resource estimation purposes.

11.3.3 Brine Check Assay

Check assays were analysed at SGS Argentina, Buenos Aires. The assay results showed excellent correlation between the main assay and the check assay, as illustrated in Figure 11-3. All assays fell within the $\pm 10\%$ envelope with one exception. There was one sample for sulphate exhibiting an outlier profile. This single example is not considered as significant. The Reduced to Major Axis (RMA) analysis of the regressions for the major elements were very similar to the main regression results, indicating there was very little bias in the assay results between the laboratories.

The main and check assay results for the 2018 exploration program are similar to the results for the 2017 exploration program (Hains, 2017b), indicating consistency in laboratory results and confidence in the overall data used in developing the updated resource estimate detailed in Item 14 of this technical report.





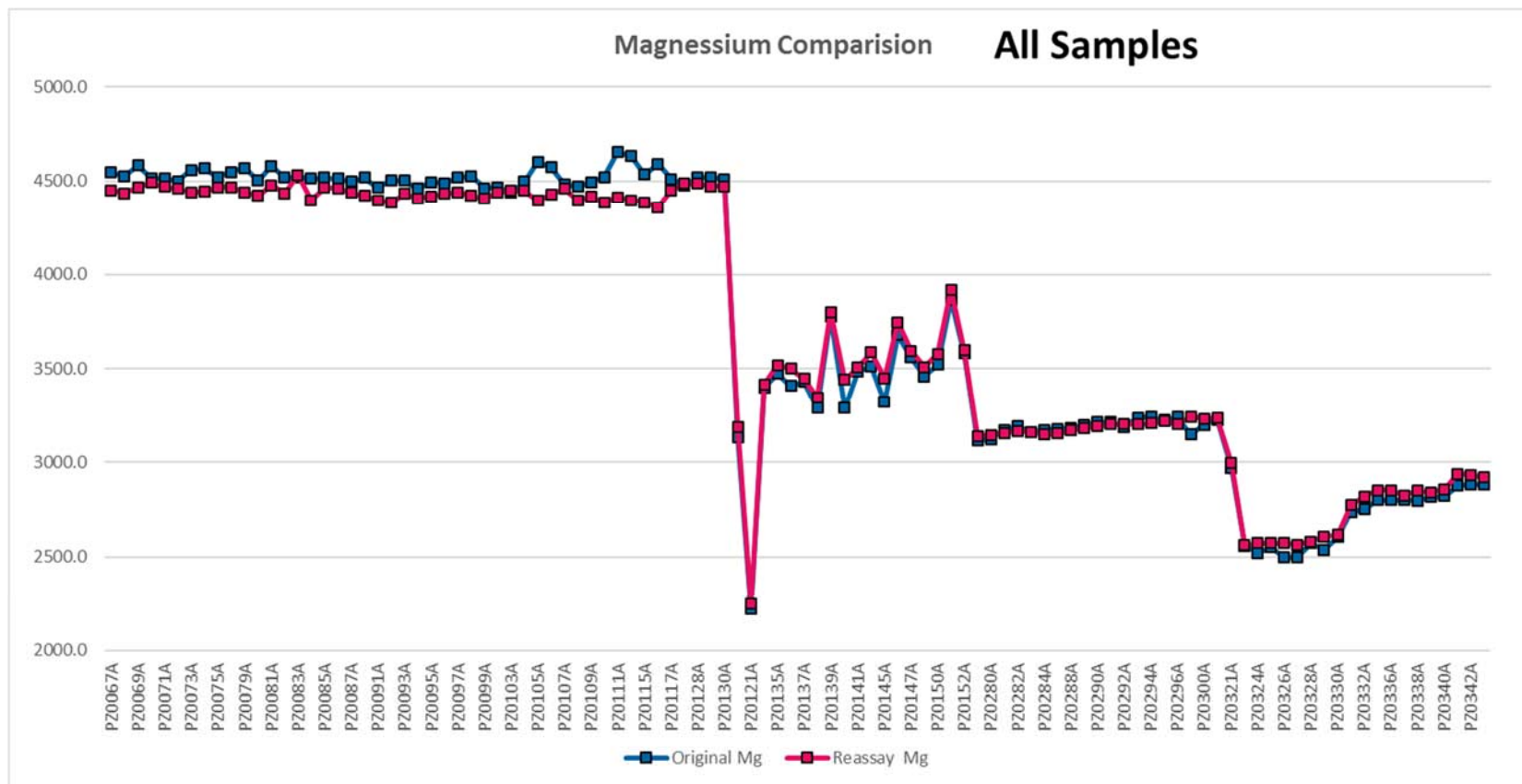
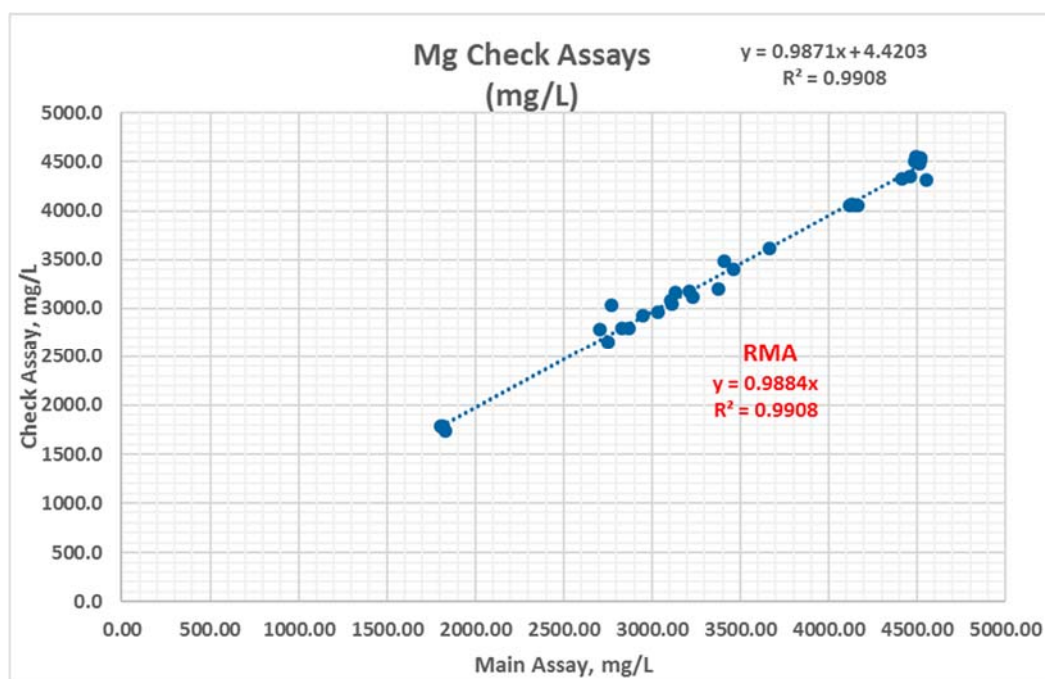
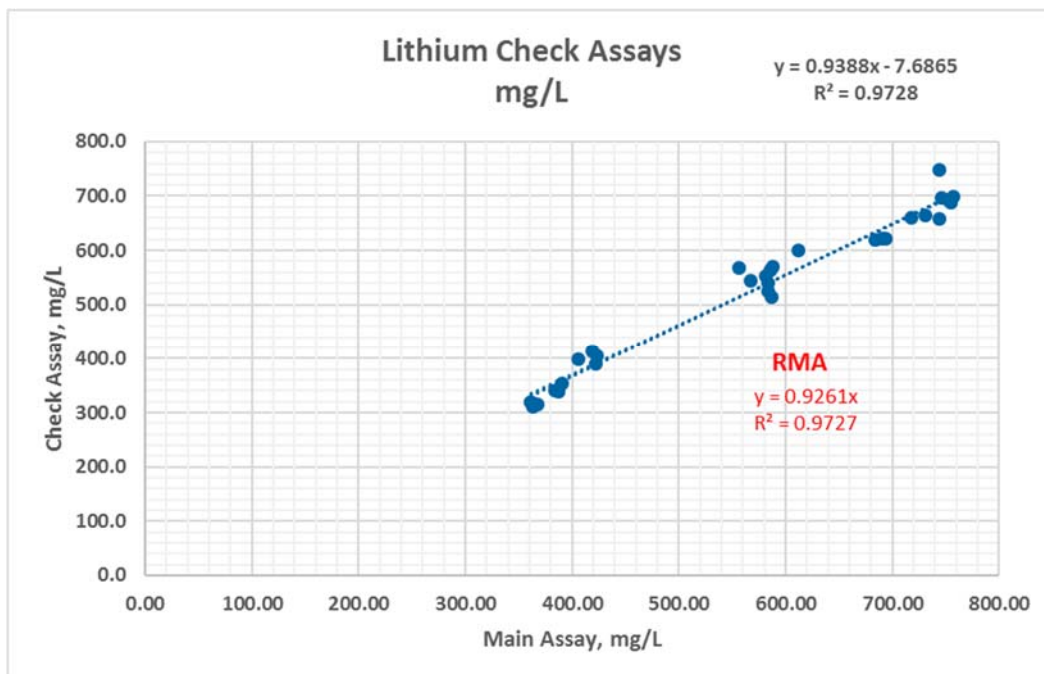
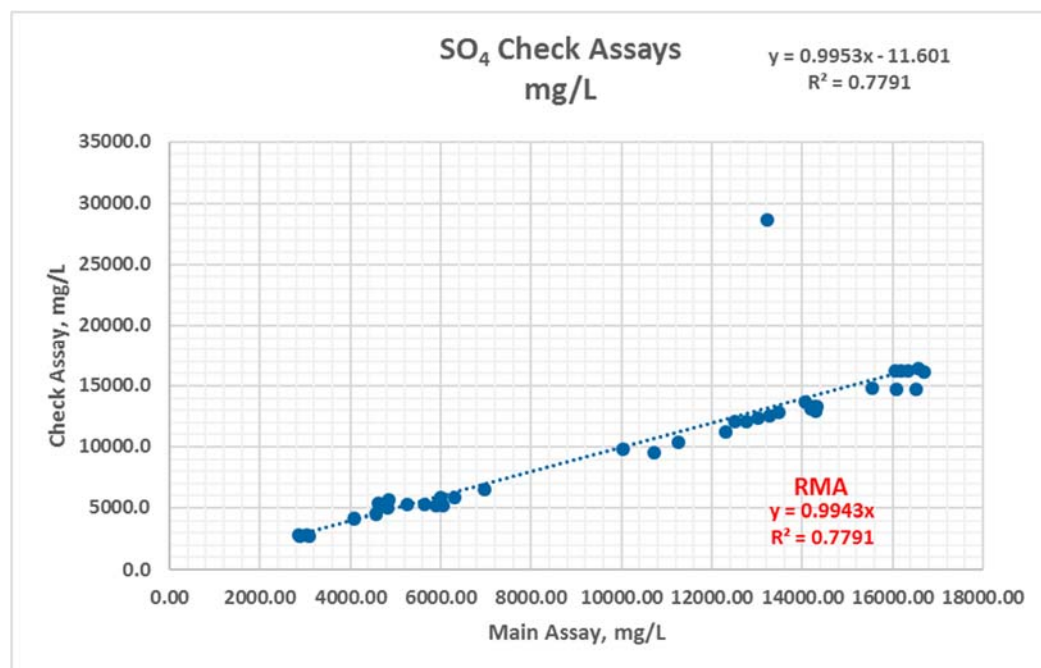
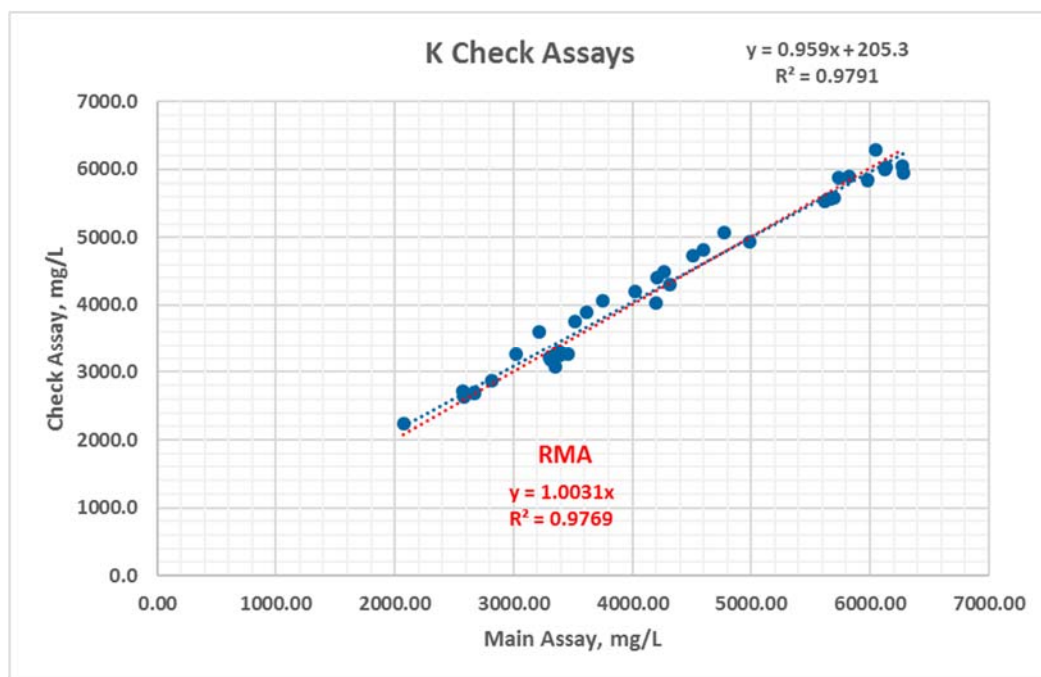


Figure 11-2: Re-Assay Comparison – Main Brine Samples

Salar de Pozuelos 2018 Exploration Program





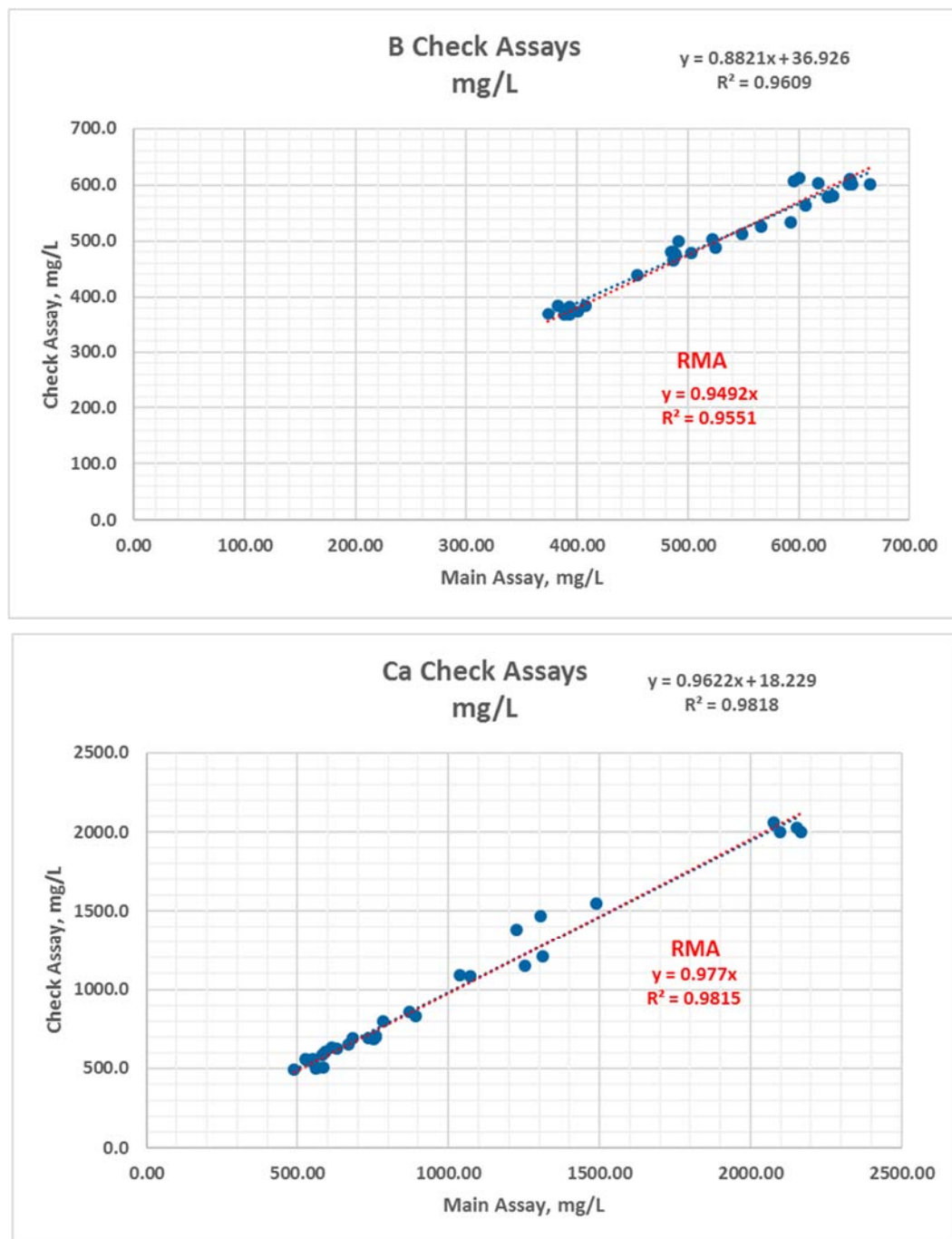


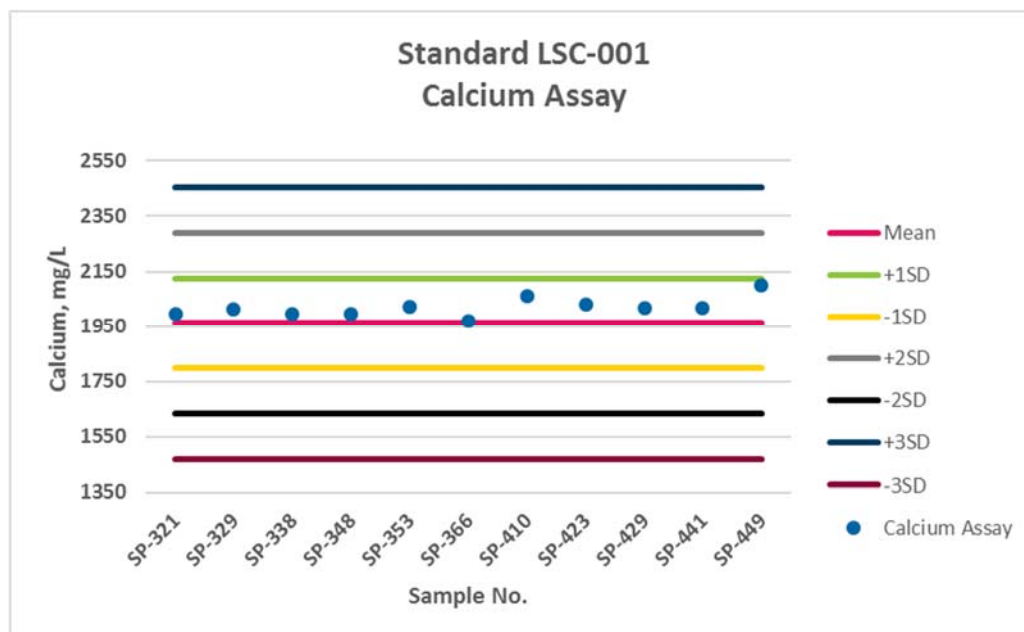
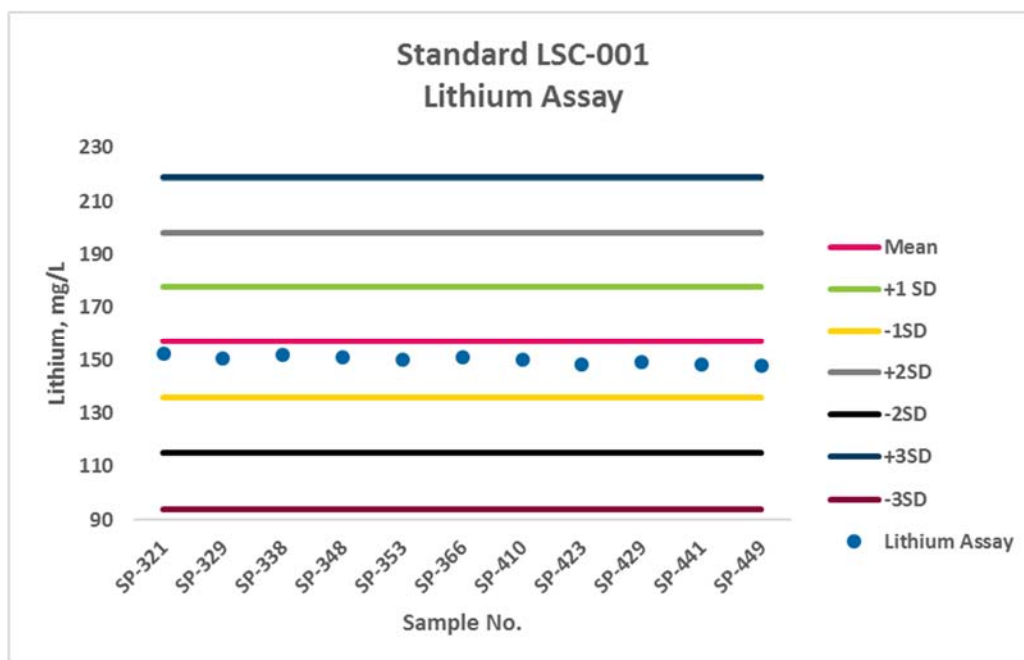
Figure 11-3: Check Assay Regression Results

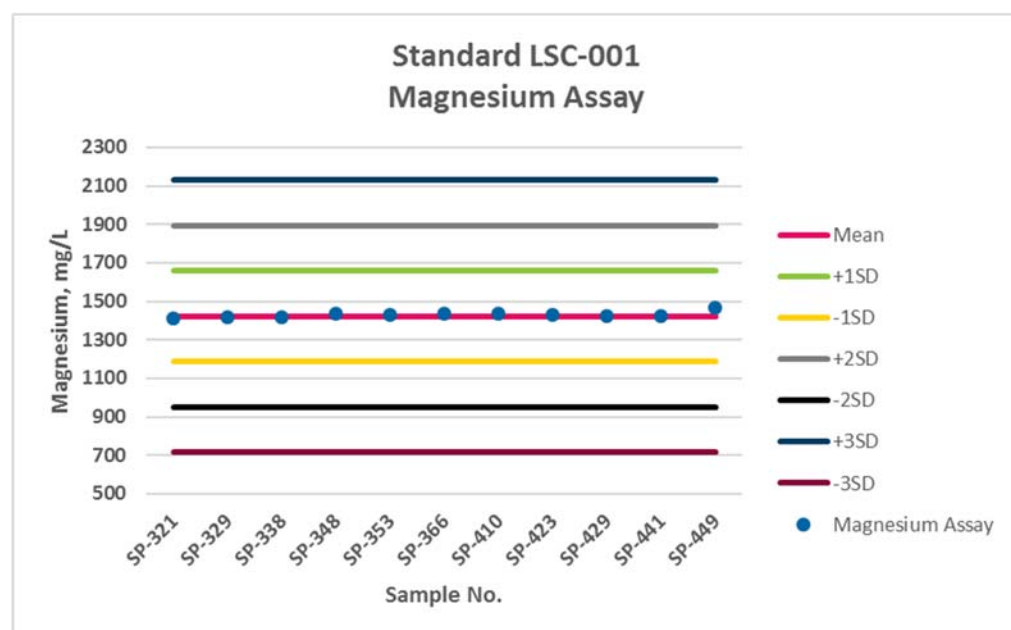
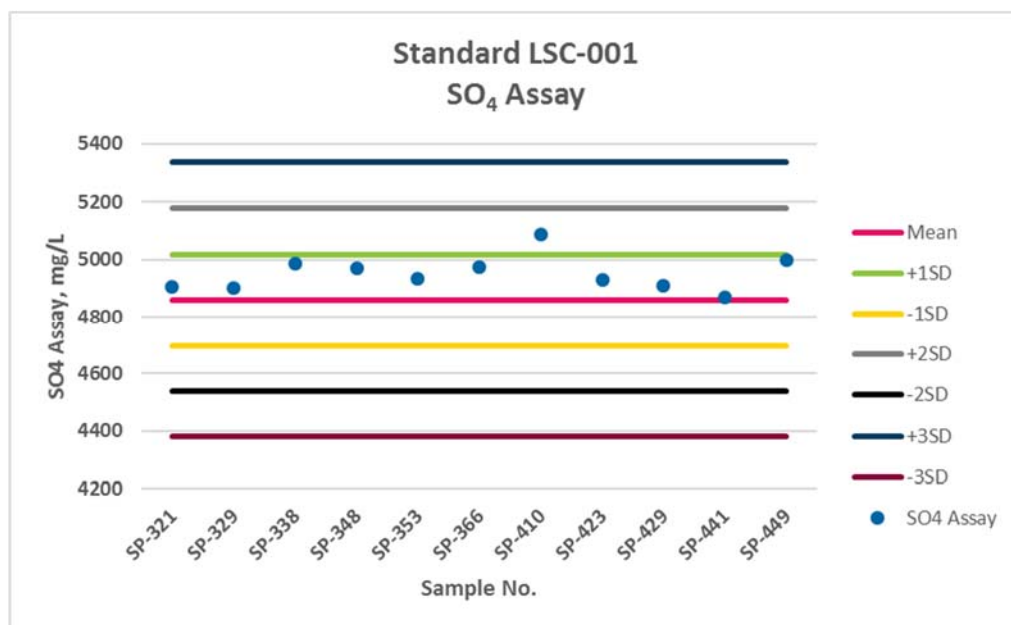
11.3.4 Standards

Three primary standards, LSC-001, LSC-003 and LSC-2018-2 were used to monitor analytical accuracy. One sample of LSC-2018-3 was also used. Standards LSC-001 and LSC-003 showed very good accuracy for all elements analyzed, with reporting values typically within ± 1 standard deviation of the mean (Figures 11-4 and 11-5). Standard LSC-2018-2 exhibited a more variable result, with some values for some samples exceeding the 3σ deviation limit. The assays for Standard LSC-2018-2 illustrated in this report (Figure 11-6) are for re-assayed samples. The reasons for some reported

assay values exceeding the 3σ limits are not known but may be due to laboratory equipment issues or degradation of the standard. The author is satisfied that overall analytical results are acceptable but does recommend that a new batch of standards be prepared and subject to a round robin certification program.

The assay results for the one sample using standard LSC-2018-3 were within the 2σ limits for all elements analyzed.





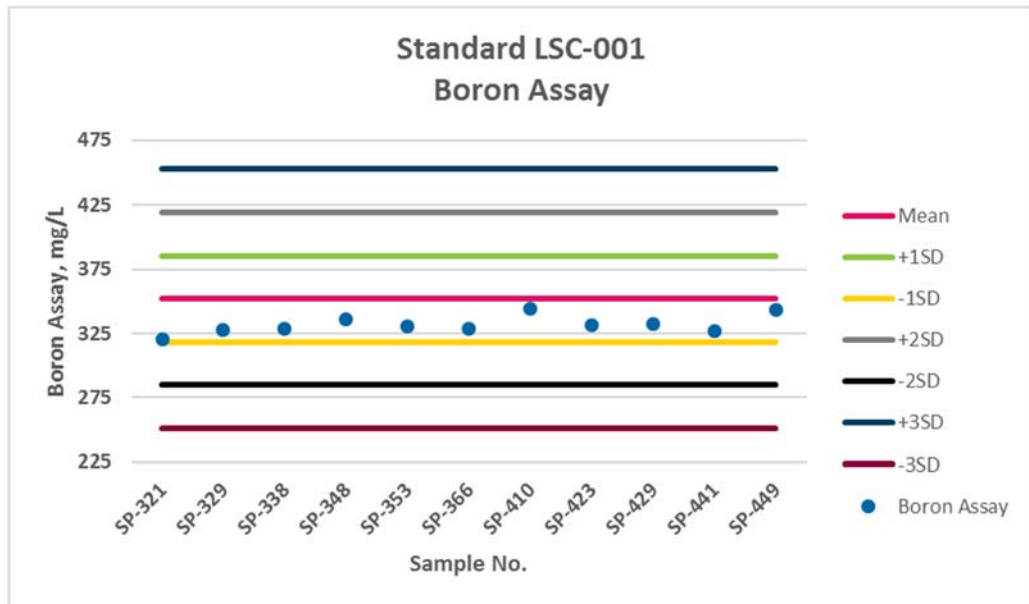
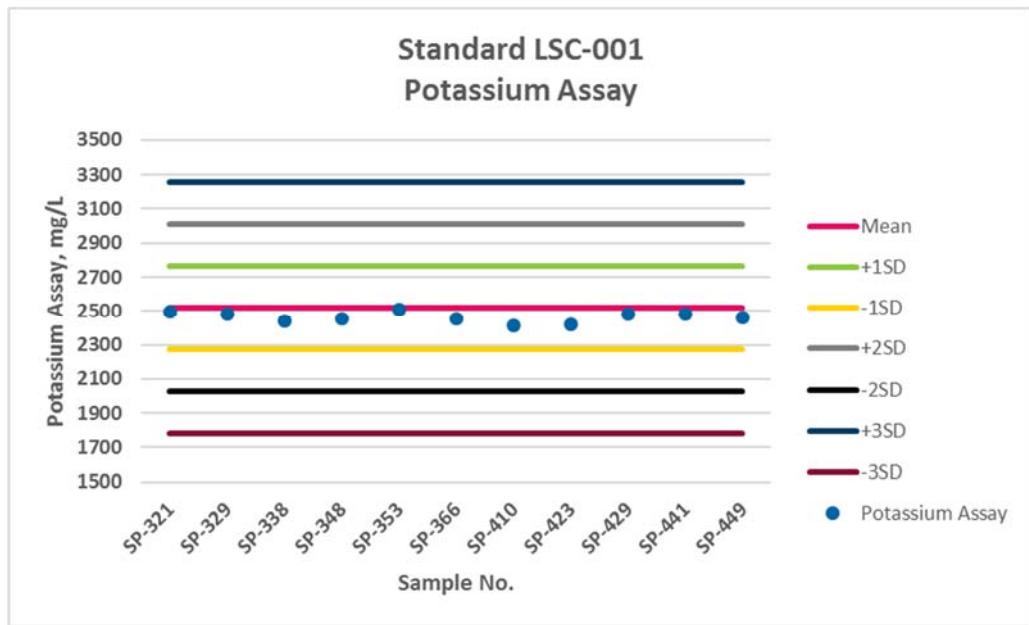
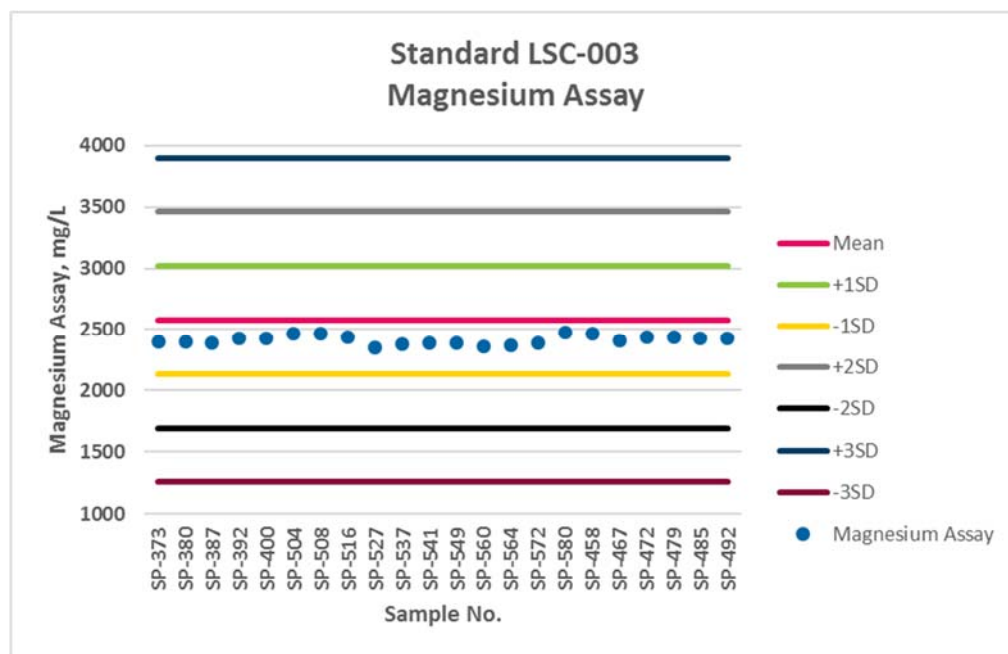
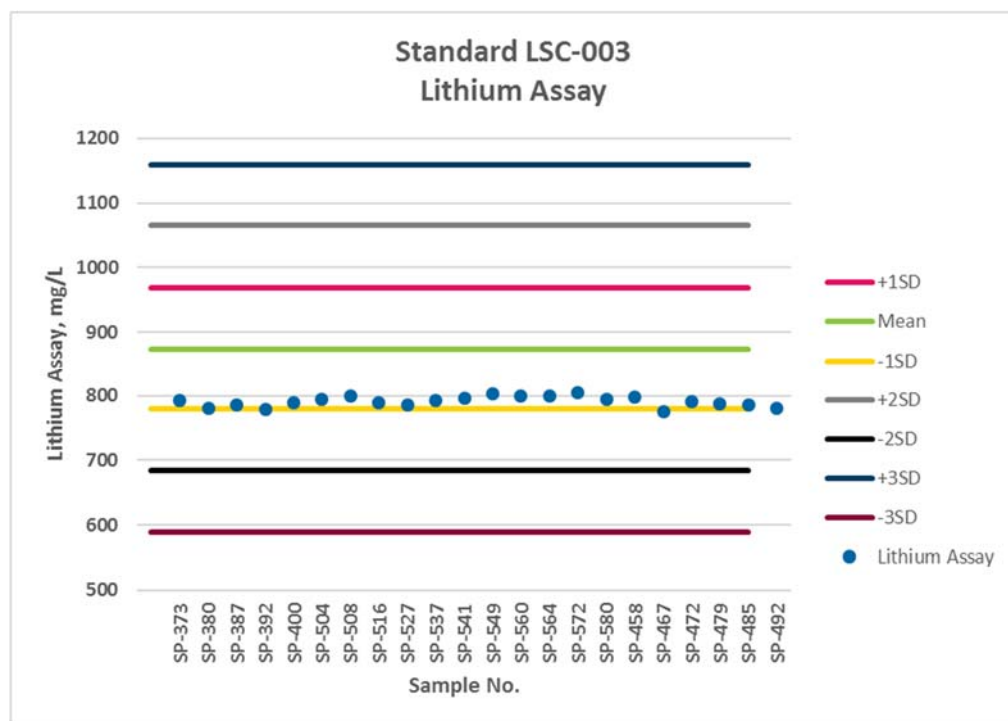


Figure 11-4: Standard LSC-001 Assay Results



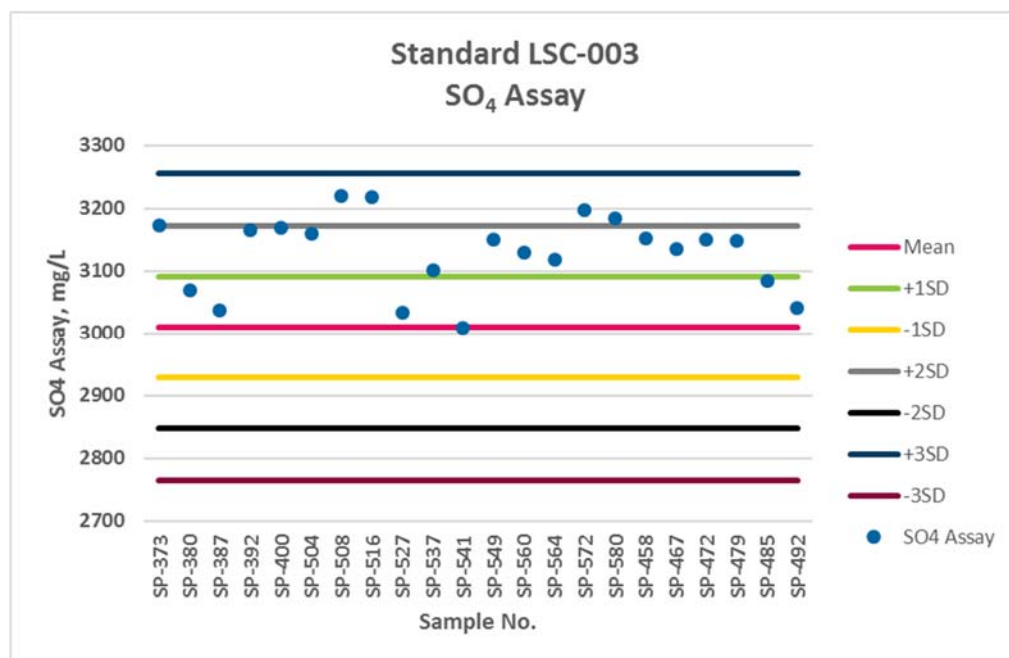
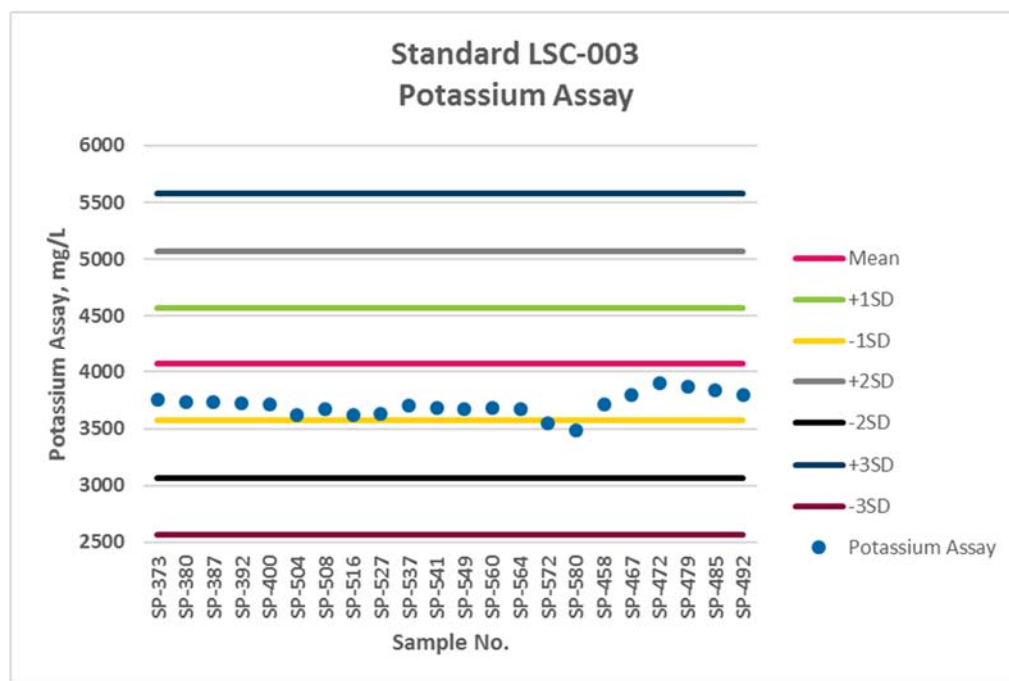
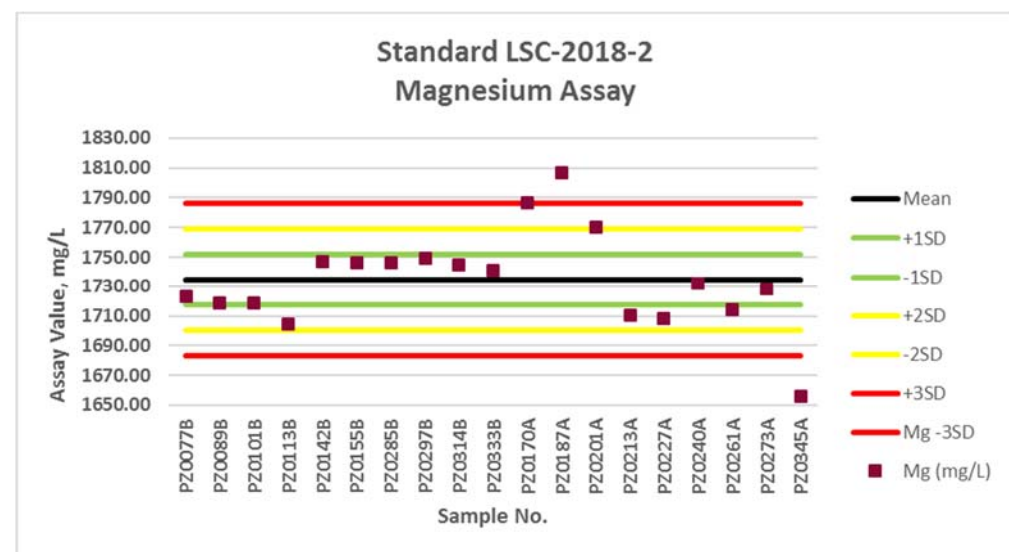
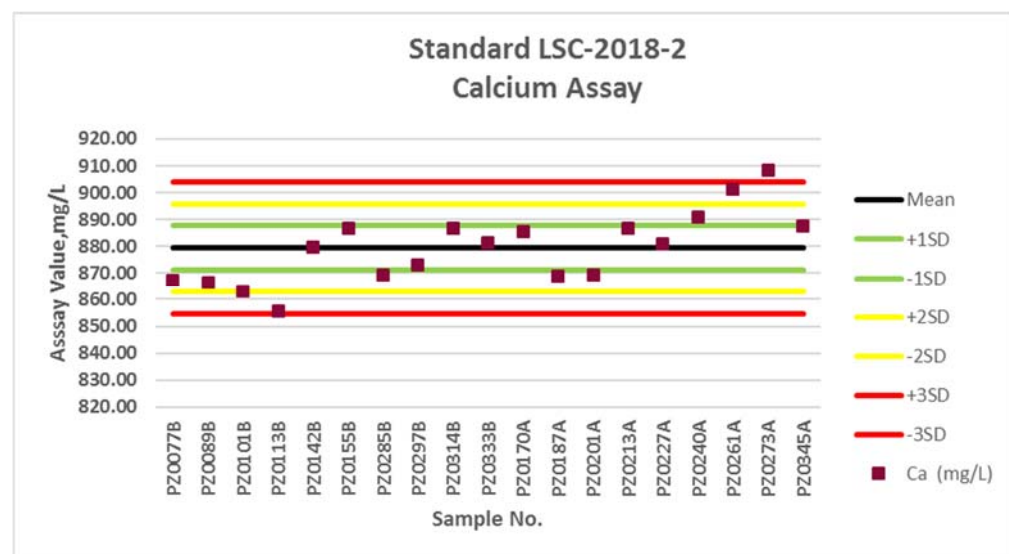
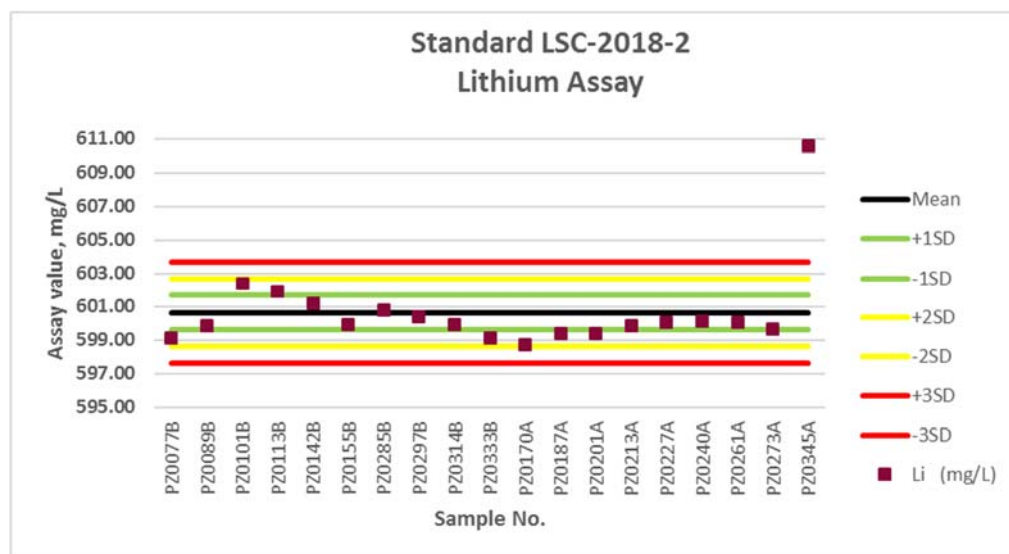




Figure 11-5: Standard LSC-003 Assay Results



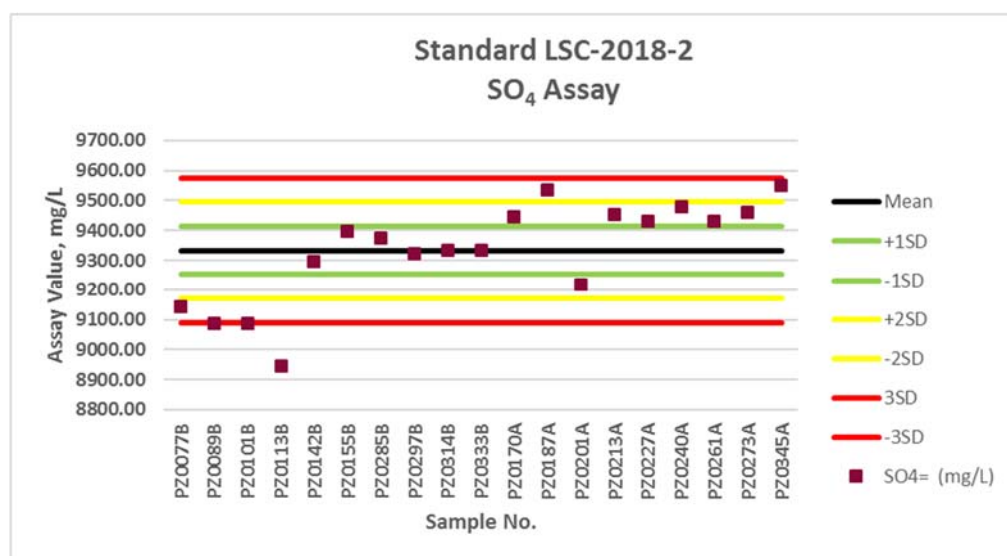


Figure 11-6: Standard LSC-2018-2 Assay Results

11.3.5 Blanks

All blanks returned assay values below the control limit of 5X the detection limit for the relevant analyte. No sample contamination was observed.

11.3.6 Cation-Anion Balance

A cation-anion balance was calculated for each brine assay as a check on the analytical result. Good laboratory control is achieved when the cation-anion balance shows less than a $\pm 5\%$ difference. Analytical results showing cation-anion balances in excess of a 10% difference between the sum of cations and anions indicate poor analytical results. The cation-anion balance for the brine samples showed a maximum positive difference of 1.89% and a maximum negative difference of 1.89%, with an overall average difference of -2.78%. These results are regarded as excellent and indicate a high level of laboratory precision and accuracy.

11.4 Pastos Grandes

Brine sample QA/QC incorporated a program of duplicate samples, check samples, blanks and standards to monitor laboratory precision and accuracy. Duplicate samples were assayed at the main assay laboratory, ASA, while check samples were assayed at SGS. Insertion rates for duplicates, blanks, standards and check samples were as detailed in Table 11-7. The QA/QC sampling rate in excess of 10% was selected to ensure adequate coverage of all key QA/QC parameters given the inherent difficulties in reliably assaying brines near saturation limits.

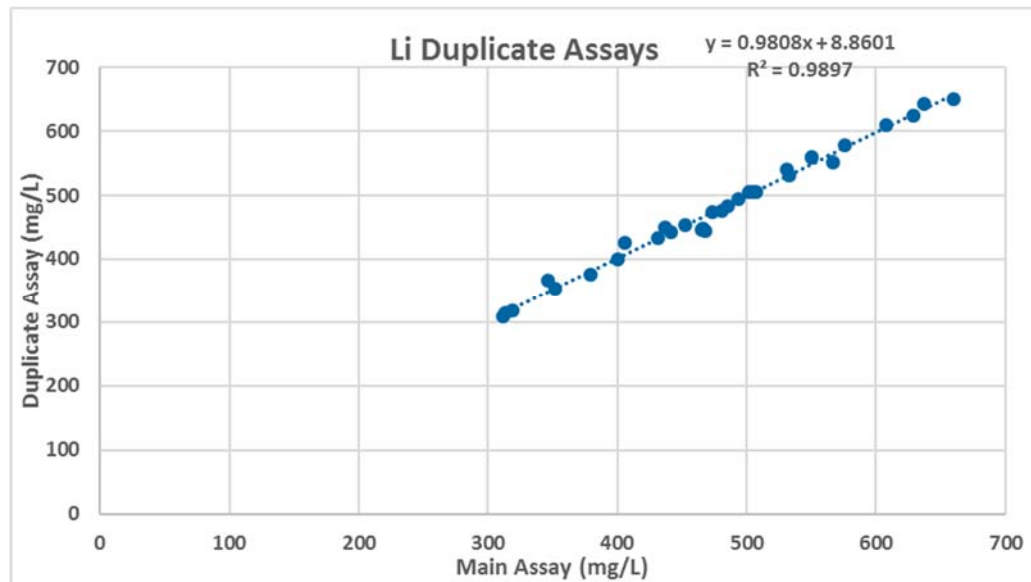
Table 11-10: Brine Assay QA/QC Protocol

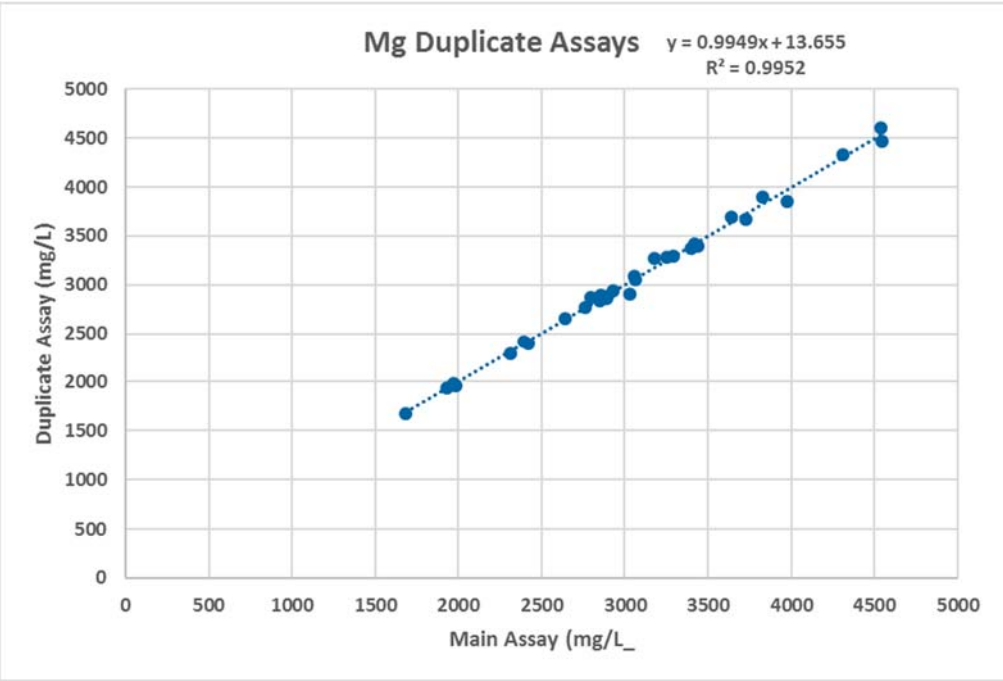
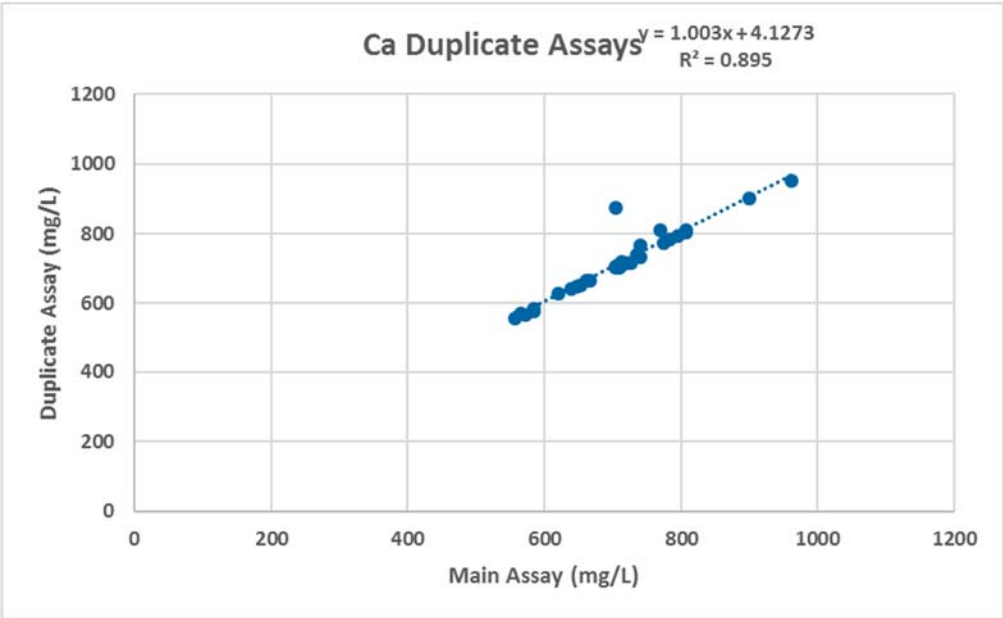
Type of Sample	Total No.	% of Main Samples	% of Total Samples
Main Assay	194	100%	65%
Duplicates	30	16%	10%
Standards	27	13%	9%
Blanks	27	14%	9%
Check Sample	22	11%	7%
Total	300		100%

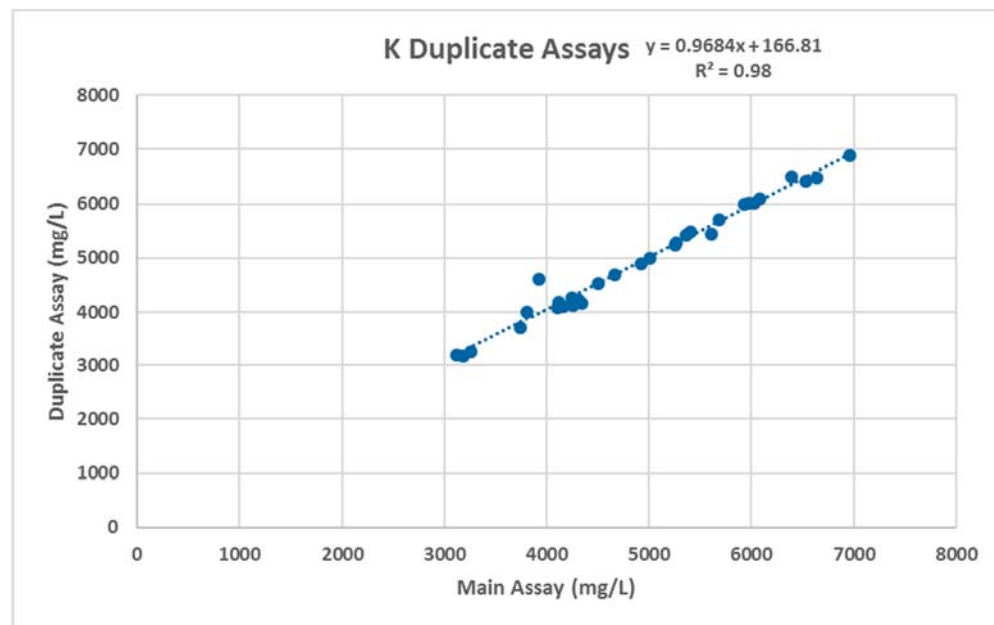
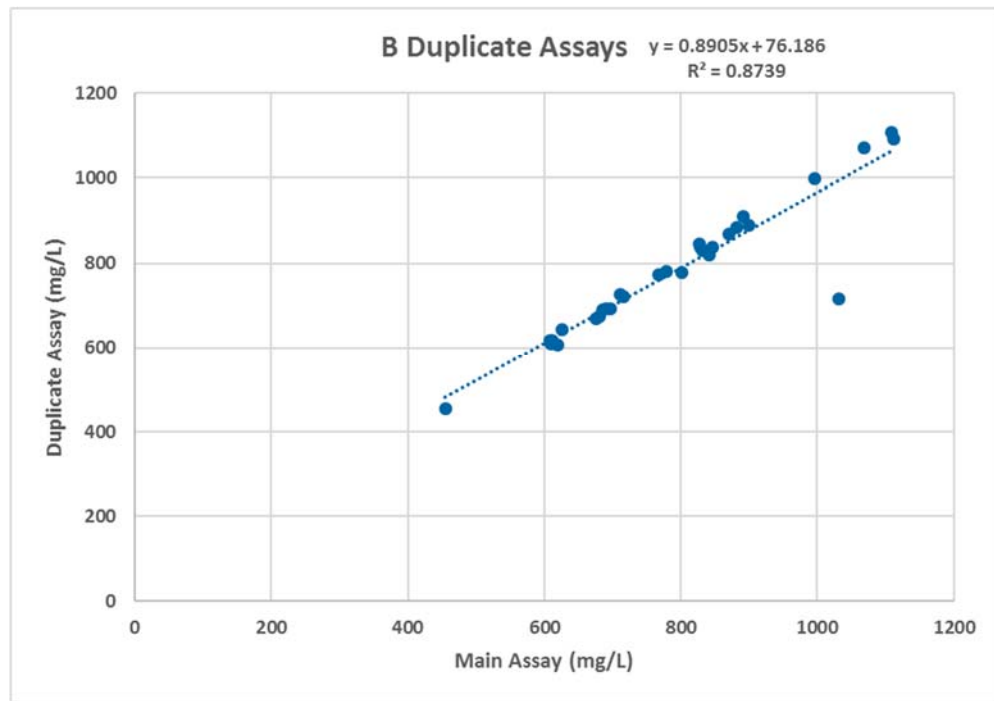
Source: LSC

Duplicate Samples

Graphical analysis of regression curves for duplicate assays for Li, Ca, Mg, K, B and SO₄ show high correlation coefficients (Figure 11-7) with only a few minor outlying assay exceptions. Analysis of the data indicate the Relative % Std. Dev. (%RSD) for all duplicate pairs is well within the accepted limit of 3% considered as excellent precision. In fact, the calculated %RSD differences for Li, Ca, Mg, K, B and SO₄ duplicate pairs were all less than ±1%, indicating a very high degree of precision for the assays.







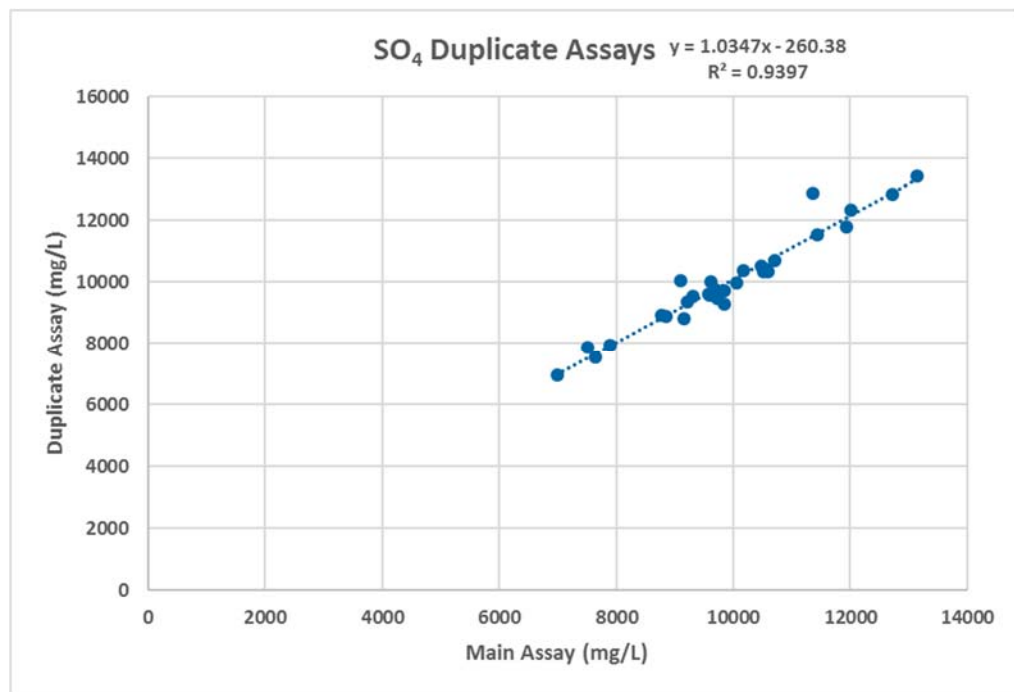
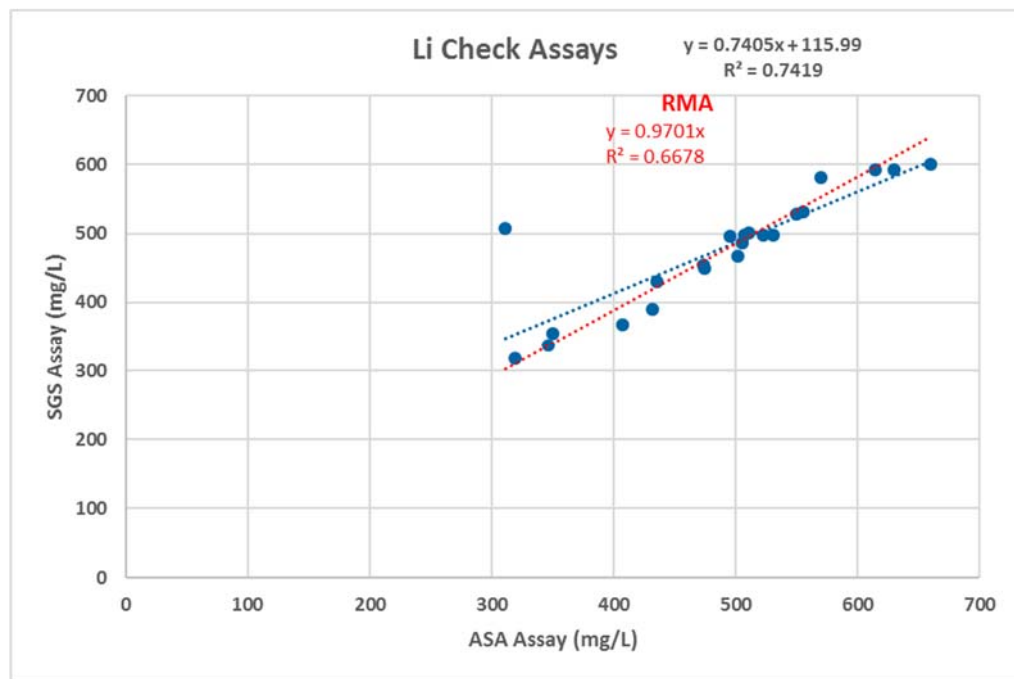


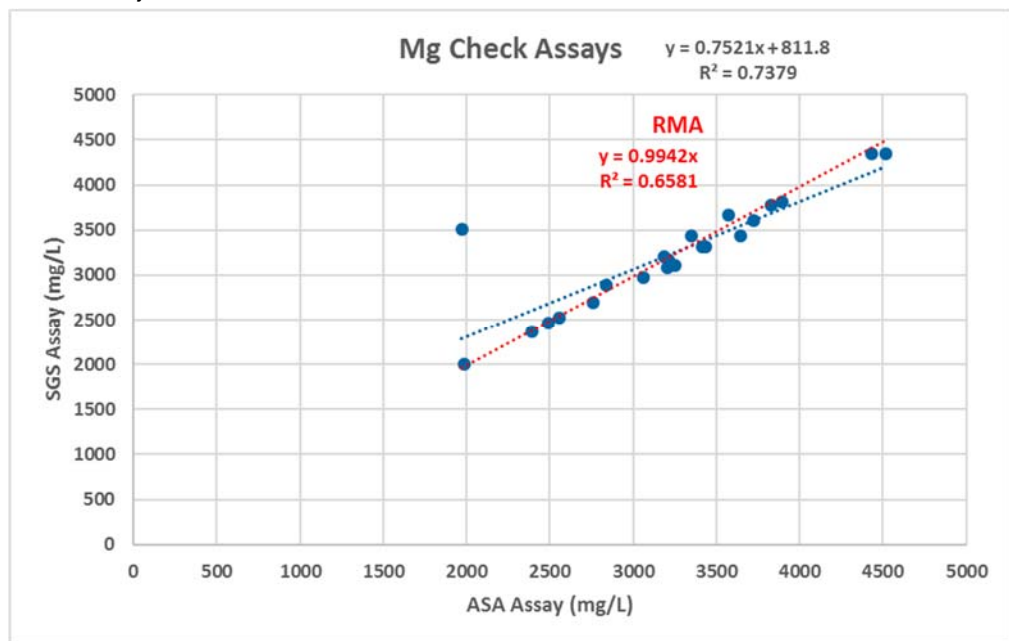
Figure 11-7: Duplicate Sample Analysis – Pastos Grandes – LSC Exploration 2017/18

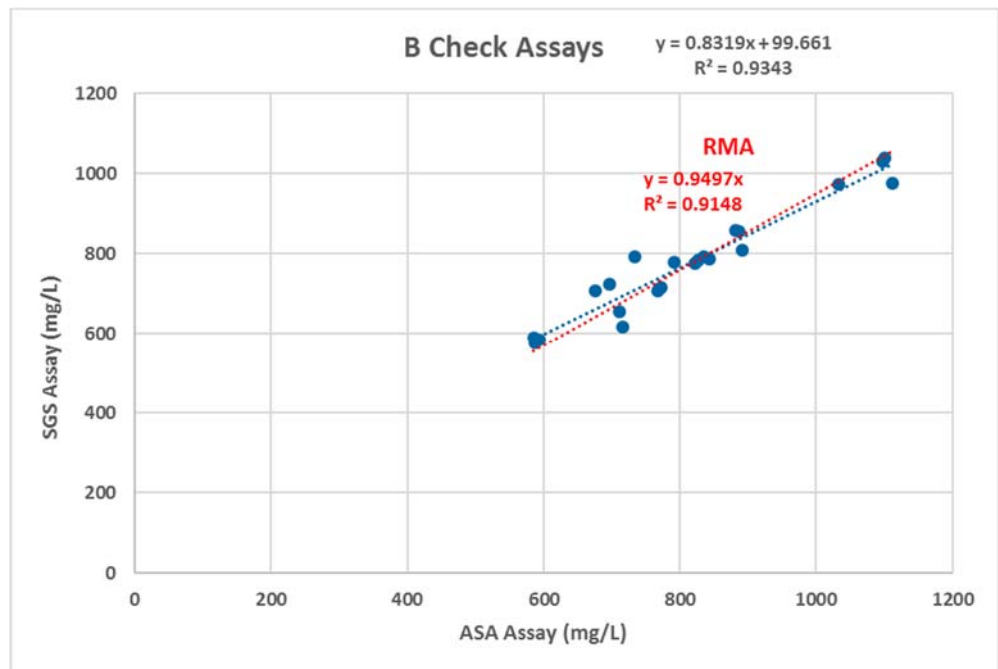
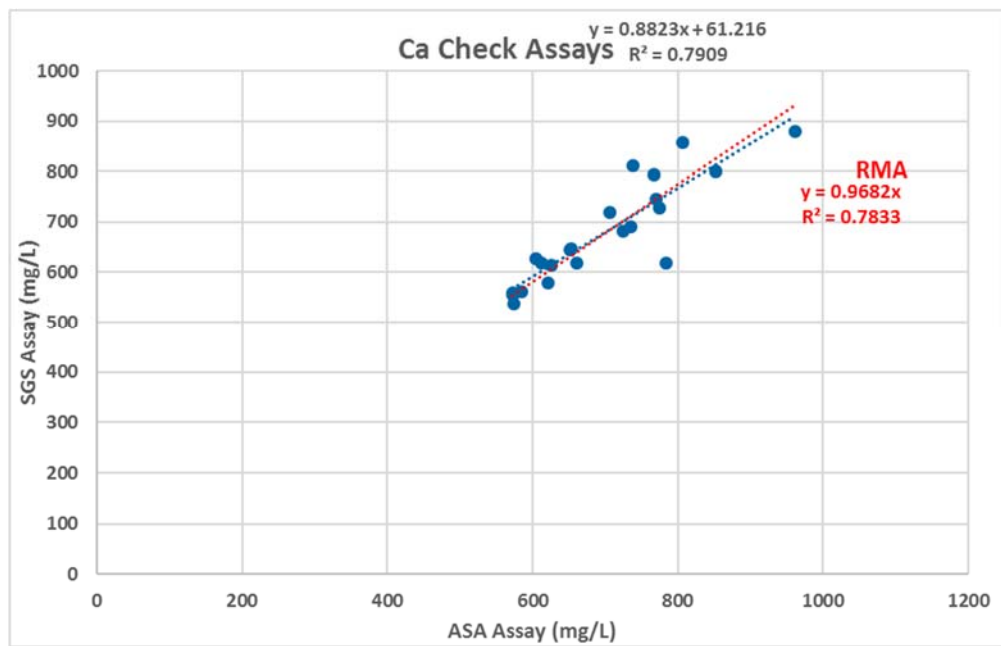
Check Samples

Check samples were assayed at SGS Argentina and results of the assays compared to results for the main assays completed at Alex Stewart Argentina. A regression analysis for assays for Li, Ca, Mg, K, B and SO₄ indicates fair correlation, with an upward bias for the SGS results, as indicated by the Reduced to Major Axis (RMA) regression results. Analysis of the data in terms of %RSD for the sample pairs indicates a high level of precision, with values all within $\pm 3\%$. Figure 11-8 illustrates the regression analyses for the check samples.



RMA = Reduced to Major Axis





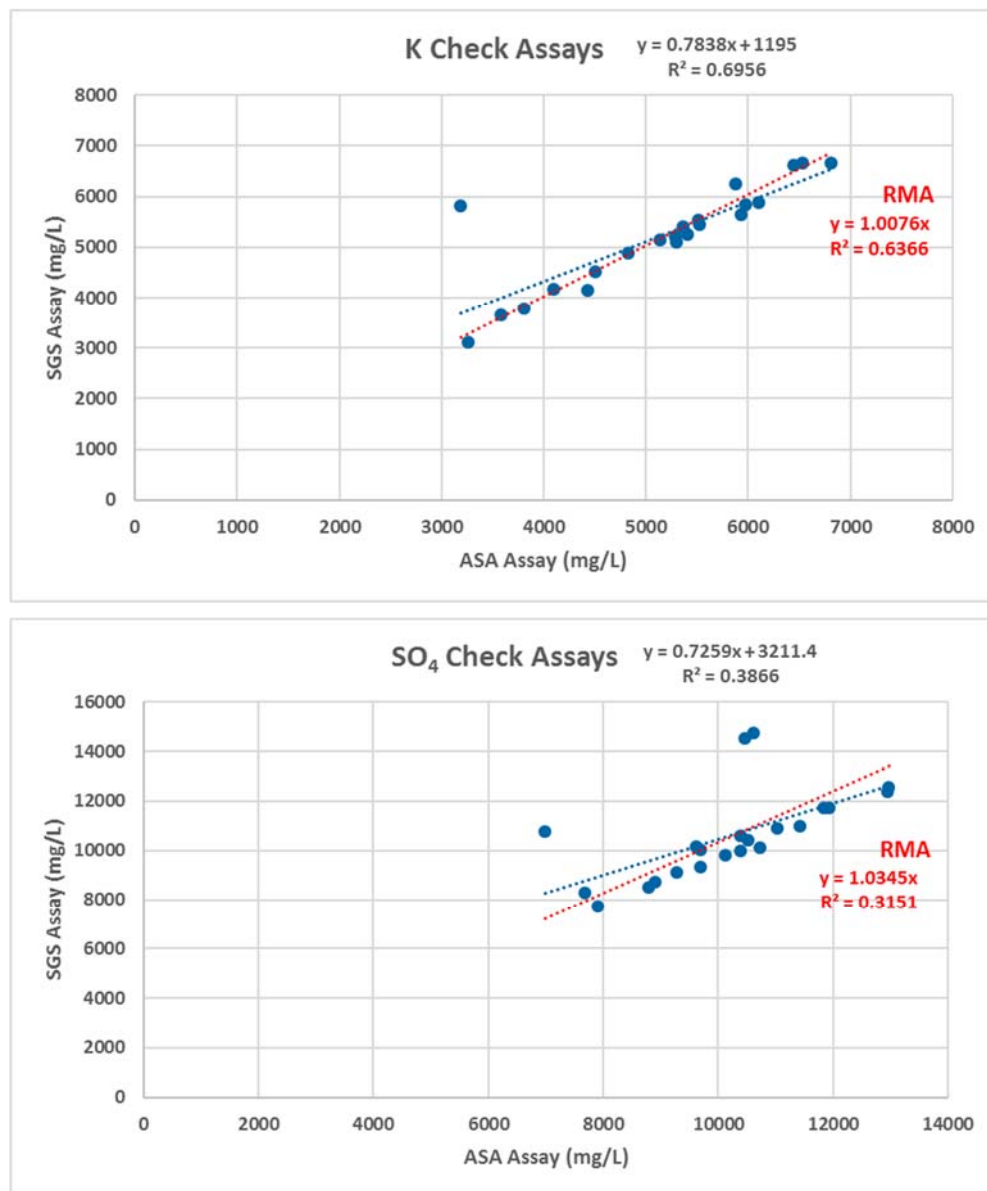


Figure 11-8: Check Sample Regression Analysis LSC Exploration 2017/2018 – Pastos Grandes

Standards

LSC used four different standards as part of the QA/QC program. Three standards, LSC-001, 002 and 003, were initially used. The standards were designed to represent high, medium and low Li values with corresponding values for other major cations and anions. These standards were synthetic standards produced by Alex Stewart Argentina and certified by a round robin testing program. Full details of the design of the standards and the certification protocol are to be found in Hains (2017b). The assay results for these standards for Li, Ca, Mg, B, K and SO₄ are detailed in Table 11-8.

Table 11-11: Standards Assay Results – LSC-001, LSC-002, LSC-003 – LSC
Exploitation 2017/18 – Pastos Grandes

LSC-001						
	Li	Ca	Mg	B	K	SO4
Accepted Value	[mg/L]	[mg/L]	[mg/L]	[mg/L]	[mg/L]	[mg/L]
Mean	157	1962	1422	352	2519	4858.4
95% CI	9.1301	72.0054	103.186	14.75	107.4224	69.74
St. Dev.	20.833	164.298	235.443	33.656	245.1104	159.13
Variance	434	26993.8	55433.6	1132.7	60079.09	25322
+1SD	178	2126	1657	385	2764	5017
-1SD	136	1798	1187	318	2274	4699
+2SD	198	2291	1893	419	3009	5177
-2SD	115	1633	951	285	2029	4540
+3SD	219	2455	2128	453	3254	5336
-3SD	94	1469	715	251	1783	4381
Reported Value	Li	Ca	Mg	B	K	SO4
SPG-044	147	2013	1461	337	2399	4974
	all values within $\pm 1SD$					

LSC-002						
	Li	Ca	Mg	B	K	SO4
Accepted Value	[mg/L]	[mg/L]	[mg/L]	[mg/L]	[mg/L]	[mg/L]
Mean	540	2037	2115	429	3508	4564
95% CI	18.838	93.0017	151.26	27.017	137.9081	54.013
St. Dev.	42.98	212.21	345.14	61.65	314.67	123.24
Variance	1847.5	45031.5	119119	3800.3	99017.84	15189
+1SD	583	2249	2460	490	3823	4687
-1SD	497	1825	1770	367	3193	4441
+2SD	626	2461	2805	553	4137	4810
-2SD	454	1612	1425	306	2879	4318
+3SD	669	2673	3150	614	4452	4934
-3SD	411	1400	1080	245	2564	4194
Reported Values	Li	Ca	Mg	B	K	SO4
SPG-006	458	2071	2206	396	3452	4766
SPG-018	500	2090	2212	387	3436	4834
SPG-077	502	2085	2152	380	3415	4787
SPG-091	499	2027	2167	366	3405	4651

SPG-098	486	2002	2047	361	3464	4828
SPG-108	501	2048	2011	380	3448	4798
SPG-122	497	2034	2053	377	3454	4790
SPG-147	493	2031	2000	385	3231	4810
	All values ±1SD	All values ±2SD	All values ±1SD	All values ±2SD	All values ±1SD	All values ±2SD

LSC-003						
	Li	Ca	Mg	B	K	SO4
Accepted Value	[mg/L]	[mg/L]	[mg/L]	[mg/L]	[mg/L]	[mg/L]
Mean	874	1402	2577	438	4072	3010
95% CI	41.68	78.35	193.44	28.16	219.53	35.815
St. Dev.	95.1	178.77	441.37	64.25	500.92	81.72
Variance	9044.4	31958.9	194807	4128.1	250919.3	6678.1
+1SD	969	1581	3018	502	4573	3092
-1SD	779	1223	2136	374	3571	2928
+2SD	1065	1759	3460	567	5073	3173
-2SD	684	1044	1694	310	3070	2847
+3SD	1159	1938	3,901	630.75	5575	3255
-3SD	589	866	1,253	245.25	2569	2765
Reported Value	Li	Ca	Mg	B	K	SO4
SPG-034	798	1392	2595	398	3915	3076
SPG-115	782	1387	2488	393	3894	3109
SPG-132	798	1455	2454	406	3846	3066
	All values ±1SD	All values ±1SD	All values ±1SD	All values ±1SD	All values ±1SD	All values ±2SD

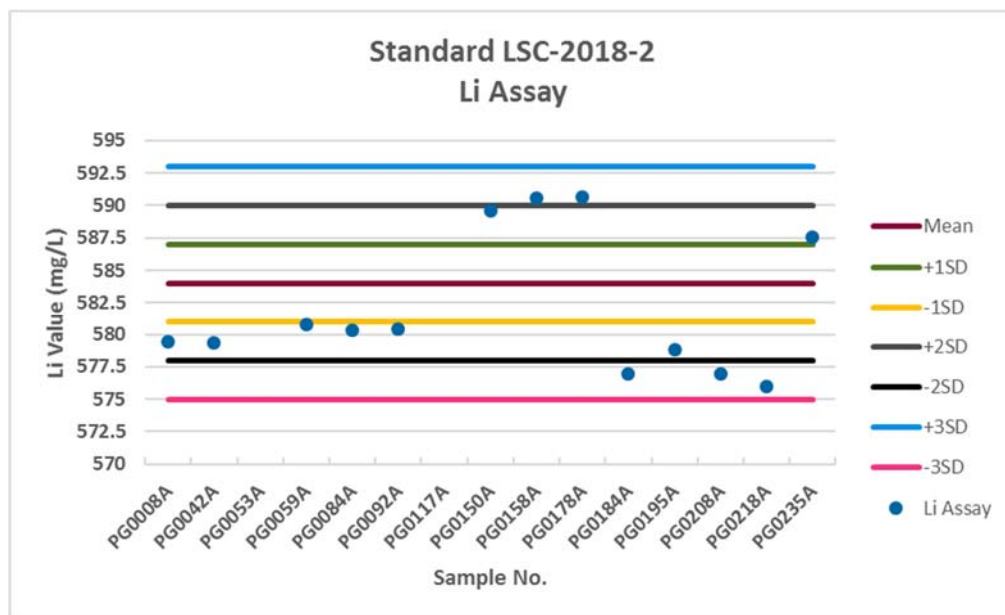
After exhausting the supply of the LSC-001, LSC-002 and LSC-003 standards, a synthetic standard developed by ASA was purchased. This standard, D3003 (LSC-2018-2), was a mid-grade (~500 [mg/L]) lithium brine which had been subject to extensive certification analysis to establish values for mean, standard deviation, 95% confidence interval, variance and other statistical parameters. LSC also evaluated the standard by conducting independent analyses at SGS Argentina, University of Antofagasta and ALS Argentina. Table 11-12 provides details on the certified values for the standard.

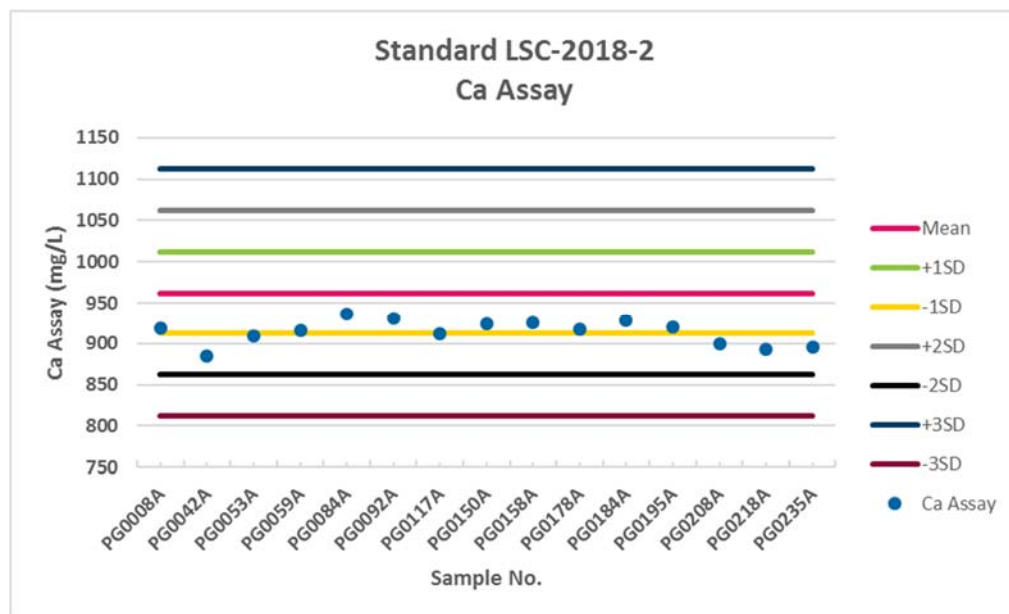
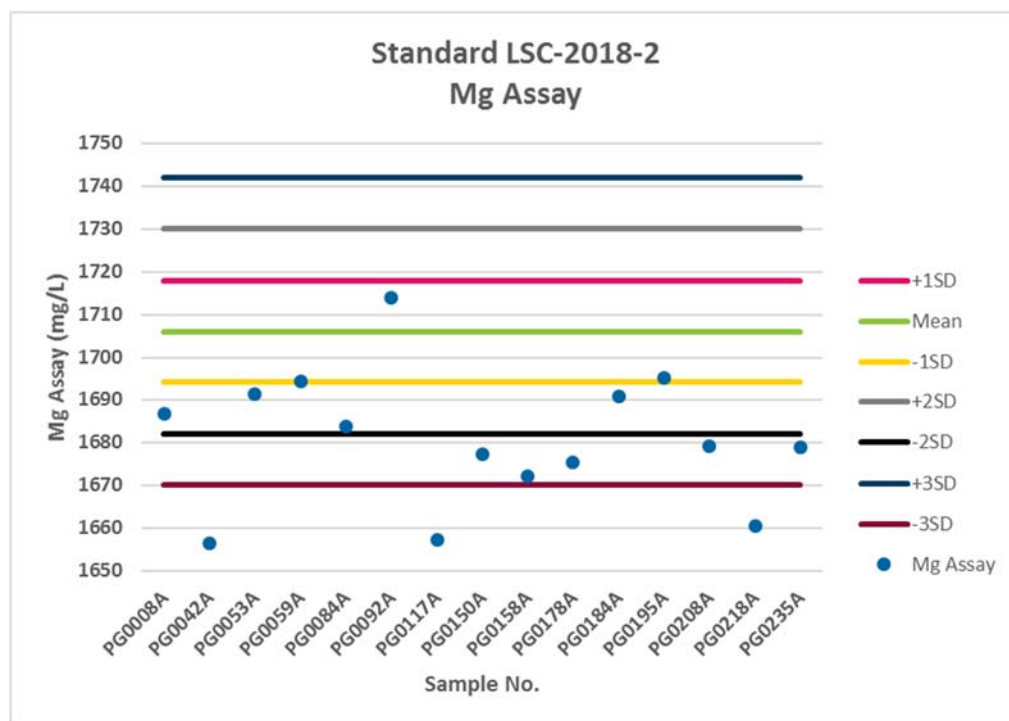
Table 11-12: Certified Values LSC-2018-2 Standard

	LSC-2018-2				
	Li	Ca	Mg	B	K
Accepted Value	[mg/L]	[mg/L]	[mg/L]	[mg/L]	[mg/L]
Mean	584	962	1706	457	6128
95% CI	4	35	8	4	28
St. Dev.	3	50	12	7	40
Variance	9	2509	132	44	1629
+1SD	587	1012	1718	464	6168
-1SD	581	912	1694	450	6088
+2SD	590	1062	1730	471	6208
-2SD	578	862	1682	443	6048
+3SD	593	1112	1742	478	6248
-3SD	575	812	1670	436	6008

Source: ASA, 2018

Graphical analysis for the assay results for samples using the standard are provided in Figure 11-9. It is noted that some individual assays reported values slightly below the -3SD control limit, but within the limit after accounting for the 95% confidence interval of the mean. Five samples, three for Mg and two for K, fell slightly outside the $\pm 3SD$ limit after considering the 95% confidence interval. The differences are very minor and the outlying results are not considered to be significant. However, re-assay of the affected samples is warranted. A bias check for the assay results indicated a negative bias ranging of -0.61% for Li, -1.48% for Mg, -1.55% for K, and -4.96% for Ca, indicating a potential need for re- calibration of the analytical equipment.





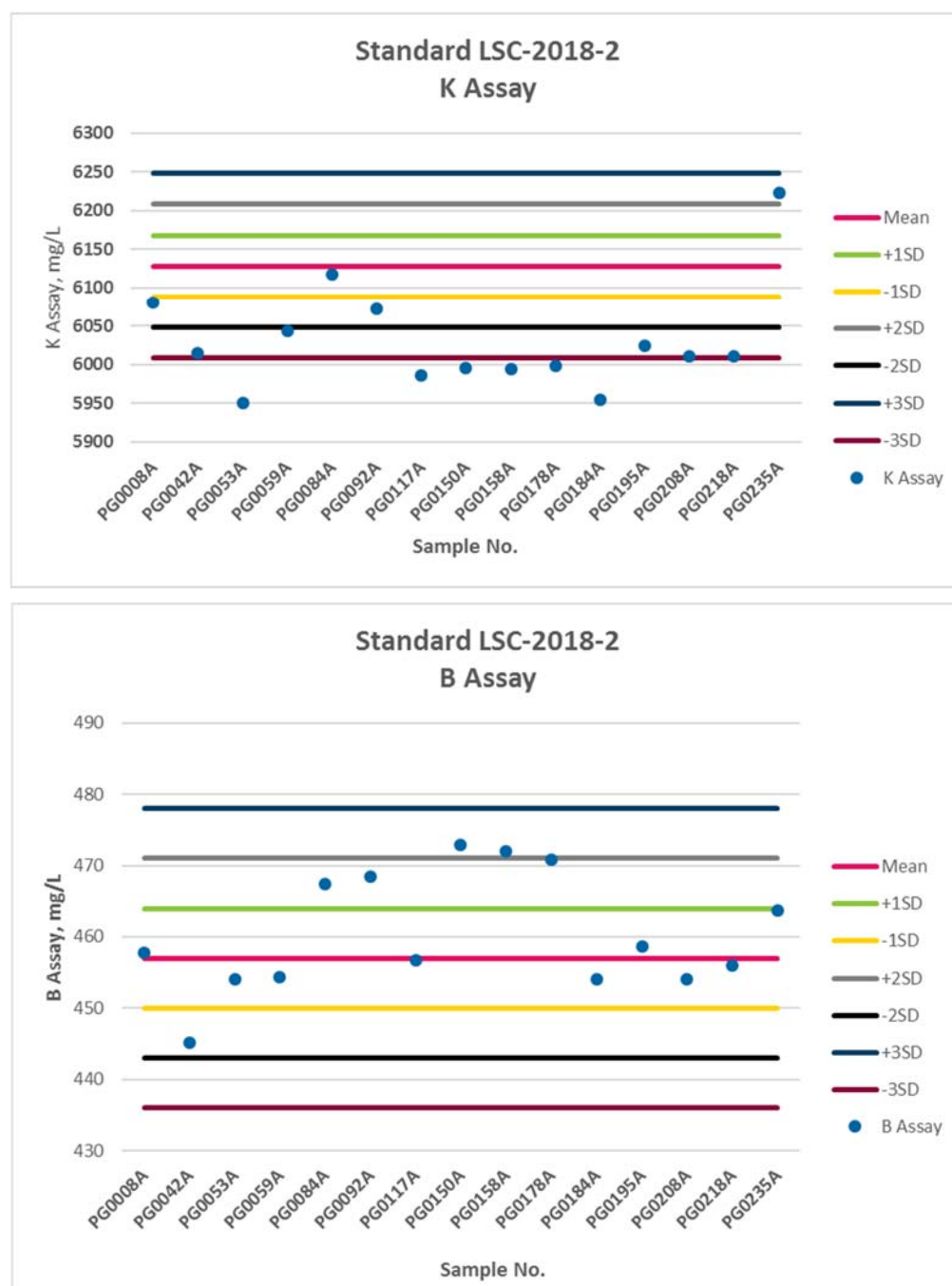


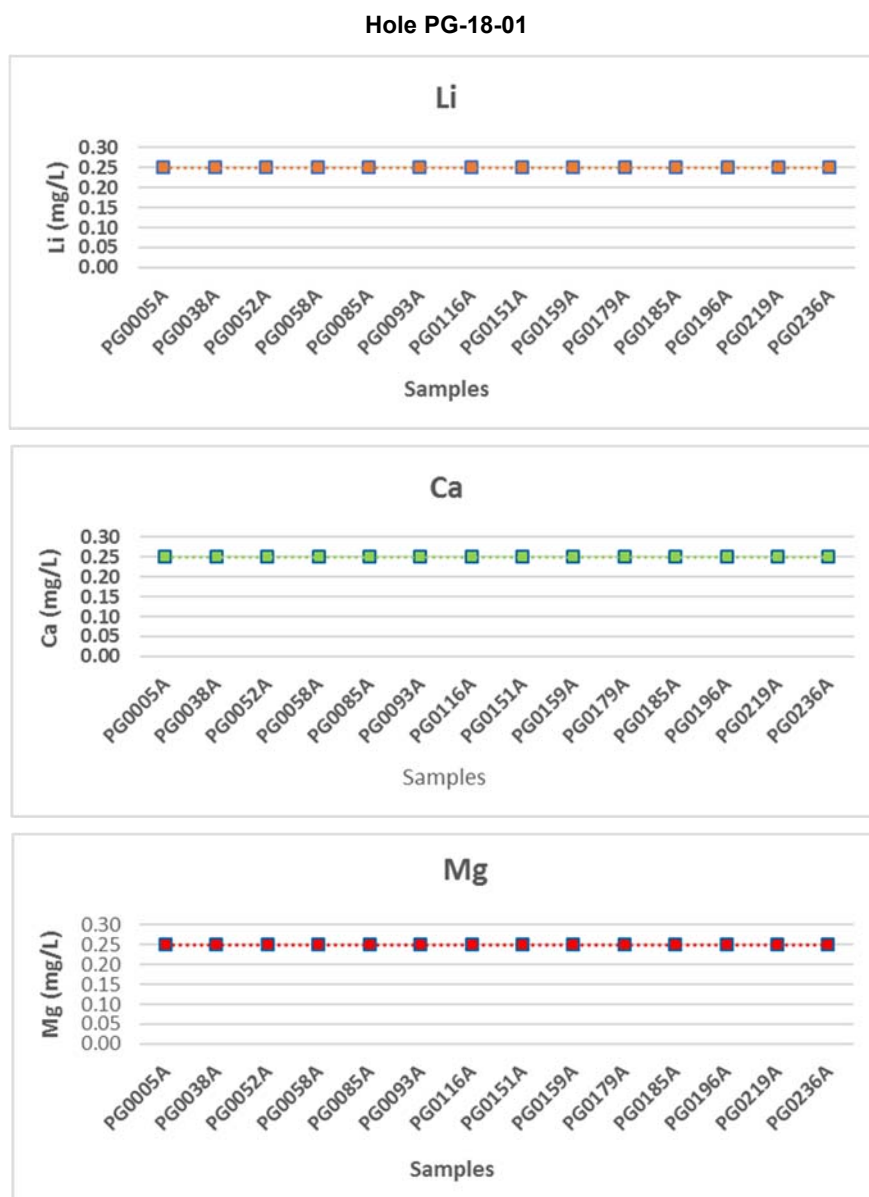
Figure 11-9: Standard Assay Results Standard LSC 2018 – LSC Exploration 2017/18 – Pastos Grandes

Blanks

Assays for blanks were used to check for sample contamination. All assays for all major cations and anions returned values below the reporting limits for the analytical method used, except for 9 samples, where the supplier of the blank material (distilled water) was substituted. In those cases, while key anion and cation values continued to report below the reporting limits, Ca and Mg values were slightly above the reporting limits. The reasons for the differences have been investigated and it has been concluded that as the reported differences are very slight (a few mg/L at most) and would not impact

the overall assay results, the affected samples are not considered as failures or indications of sample contamination. LSC has been advised of the issue and is taking corrective measures to ensure all blank sample material is suitably certified.

Control charts for the blanks used for sample assays for Hole PG18-01 are illustrated in Figure 11-10. The control limit was set at half of the LOD (Limit of Detection) for the respective element. The results show no contamination.



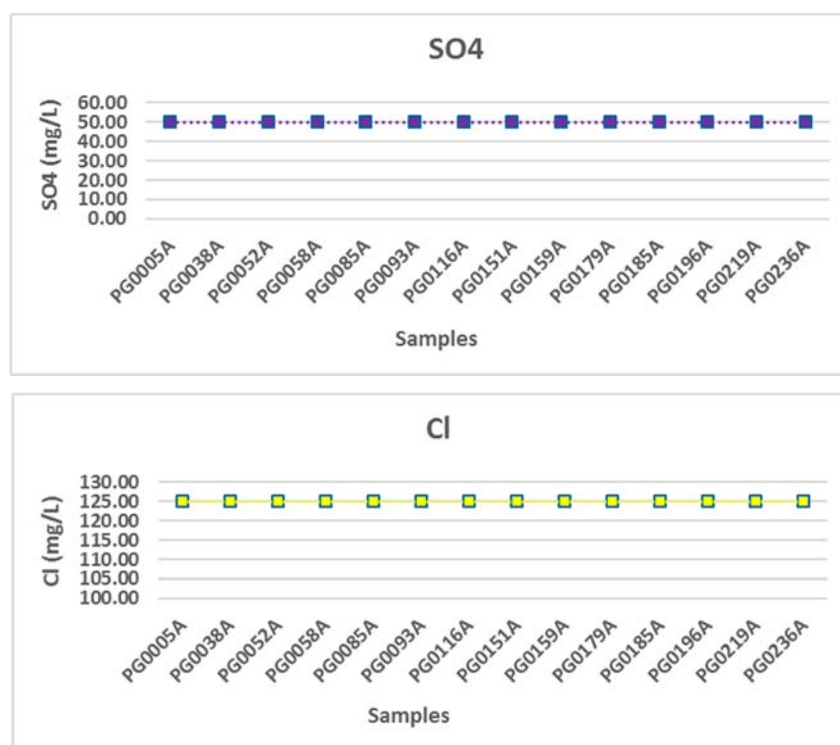


Figure 11-10: Control Charts for Blanks – LSC Exploration 2017/2018 – Pastos Grandes

Cation-Anion Balance

A cation-anion balance for the main samples was undertaken as another check on the analytical accuracy. Assay results should be electrically neutral, with ionic balances of <5% difference (cations vs anions) considered as excellent and results between 5% and 10% considered as acceptable. The results of the ionic balance calculations for the 194 main samples showed a minimum difference of -1.88% and a maximum difference of +2.00% and an average for all samples of -0.15%. These results are considered as excellent and demonstrate that the analytical results are reliable.

11.5 Sample Security

Drill core was initially transported to by the site geologist to the field camp at Pocitos, where it was stored in a secure facility. LSC has now since secured a storage facility at San Antonio. de los Cobres, where all core is securely stored. Brine and RBRC samples were transported to Salta where they were stored at the LitheA office prior to shipment by courier to the assay laboratories. No sample security issues have been observed by the author.

11.6 Author's Opinion on Adequacy of Sample Preparation, Analysis, Quality Control and Sample Security

In the opinion of the author, the sample preparation, sample assay, quality assurance and sample security procedures employed by LSC were adequate for the purposes and the assay and sampling data are suitable for use in resource estimates.

Item 12 - Data Verification

12.1 Mineral Resources

Data verification procedures undertaken by Don H. Hains, P.Geo., of Hains Technology Associates, included the following procedures:

Assay certificates for brine assays from the current exploration program have been reviewed and checked against the sample data base. No errors have been found.

Drill core has been checked against the drill core logs for consistency in core logging during the site visits and core photos have also been checked against the drill logs. The locations of RBRC samples have been checked against the drill logs and the core photos.

The author has undertaken numerous site visits during the course of the current exploration program to observe drilling, sampling and core logging procedures. While no independent brine samples were collected by the author, the author has observed brine sample collection processes on numerous occasions and is satisfied that effective field collection procedures are followed and that brine samples are representative of the stated interval.

The author is satisfied that all drilling, sampling and core logging procedures are suitable for the type of exploration and that the sampling and assay data can be used in resource estimates.

12.2 Metallurgical Testing and Processing Evaluation

A review of the Project's metallurgical testwork and proposed processing route to date was performed by Antoine Lefavre of Novopro Projects. GHD has provided Mr. Lefavre with detailed documentation of the evaporation rates, pond chemistry and balance, as well as benchscale test results, which have been audited and modeled by the Novopro team. The project has been investigated for reasonableness and found to be adequately developed by the issuer and GHD's staff for this level of study.

The author finds that the project processing concept, from the ponds through to the product stream, to be reasonable for the level of study reported herein and for a Preliminary Economic Assessment at the time of the effective date of this report. Additional technical work to define the selected processing route will be required to confirm economic viability through the anticipated life of the project.

12.3 Preliminary Economic Assessment

A thorough review of the Project's cost assumptions and economic model was performed by Lawrence D. Henchel, P.Geo., of Stantec Consulting International LLC. Mr. Henchel met with LSC staff during the week of October 9, 2018 and visited both the Pozuelos and Pastos Grandes sites on October 11, 2018. GHD has provided Mr. Henchel with detailed documentation of both capital and operating cost estimates, which have been checked with verifiable vendor quotes for primary initial capital expenditures. The project has been investigated for reasonableness with sustaining capital and operating expenses compared to other lithium development projects in the region and found to be adequately assessed by the issuer and GHD's staff.

The author finds the estimates of project costs to be reasonable for the level of study reported herein and that the Project shows economic viability through the Preliminary Economic Assessment at the time of the effective date of this report. Additional technical work, particularly with the hydrogeologic

aspects of the PPG salaries, will be required to establish a mineral reserve estimate and a thorough market evaluation will be necessary to confirm economic viability through the anticipated life of the project.

Item 13 - Mineral Processing and Metallurgical Testing

13.1 Batch Open Circuit Testwork

The flowsheet described in Item 17 has been developed from testwork conducted over two fronts.

13.1.1 On-Puna Testwork

The first phase of the testwork was conducted on the Puna in representative conditions close to the salar Salinas Grandes employing brines from Pozuelos trench SP-2018T2 with coordinates (POSGAR 1994 zone 3): x= 3416504; y = 7270272. Norlab from Jujuy supervised the concentration testwork on the Puna and the chemical treatment in Jujuy.

The flowheet steps of Primary Concentration, Primary Chemical treatment, Secondary Concentration, Secondary Chemical Treatment and finally the Tertiary Concentration were sequentially tested. All separation steps were quantified and the data employed in the development of the Project Design Basis and the SysCad Mass and Energy Balance.

Table 13-1: Results from Concentration Test Work in Puna Conditions

	Mg/Li	SO ₄ /Li	K/Li	B/Li
Starting raw brine	10.8	14.6	9.7	1.08
Concentrated brine	<0.0001	<0.001	<0.05	<0.1

13.1.2 Purification Testwork

The concentrated brine from the Tertiary Concentration step was thoroughly fingerprinted and reproduced by SGS in Perth, Western Australia where the final steps of purification were made. These steps included:

- Calcium and Magnesium Ion Exchange,
- Boron Ion Exchange
- Crude Lithium Carbonate production
- Lithium Bicarbonate to Carbonate transformation

This work on a synthetic brine was followed by repeat suit of tests on the Norlab brine from the Tertiary Concentration step. Product samples were assayed by TSW Analytical in Perth who have standards for spec pure Lithium Carbonate

The data derived from this work was also employed in the Project Design Basis and the Mass and Energy Balance.

Thus the flowsheet has been tested from the Brine feed at Pozuelos to the final product in a manner specifically targeting the data delivery for the process development and design.

All reagent inputs have been derived from this metallurgical testwork further adding confidence to the expected operating cost of the project.

The impurity levels in the Lithium Carbonate produced at SGS from the Norlab Tertiary Concentrate brine were:

Table 13-2: Lithium Carbonate Impurity Levels from Pozuelos Brine Test Work

	Parts Per Million
Sodium	<150
Potassium	<35
Chloride	<25
Magnesium	<1
Calcium	<40
Strontium	<1
Barium	<1
Boron	<2
Aluminum	<5
Iron	<2
Phosphorous	<2
Sulfur	<17
Silicon	<15

Item 14 - Mineral Resource Estimates

Mineral resource estimates for the LSC tenements at salar de Pozuelos and salar de Pastos Grandes have been prepared based on the results of the geophysical surveys, drilling, sample assays, and RBRC tests undertaken at each property in the period 2016-2018. The resource estimates cover all of the LSC tenements at Pozuelos within the LitheA Notre and LitheA Sur blocks as detailed in Table 4-2 of this report and all the Pastos Grandes tenements except for the Rescatada II tenement (File No. 17391) located in the NW side of Pastos Grandes and the Maria Luisa II tenement (File No. 17904-2004) located in the SE side of Pastos Grandes as no data are available to determine the brine potential of these tenements.

Full details on the data and the resource estimation methodology used to develop resource estimates for salar de Pozuelos and salar de Pastos Grandes are to be found in Hains, (2018b and 2018c) and in the relevant press releases and NI43-101 reports filed by LSC on SEDAR.

14.1 Modelling

The resource estimates were completed using the polygonal method. The drill hole locations were plotted on a map of the salar, with tenement coordinates provided as a dxf file and the salar perimeter provide as a separate dxf file, with both data sets imported into ArcGIS. Polygons were constructed in ArcGIS centered on the drill holes, with polygon boundaries determined by the middle of the distance between all neighbouring drill holes. Once this was completed, the constructed polygons were clipped by the tenement boundaries (Figures 14-1 and 14-2). Note that the polygons for the Pastos Grandes resource estimate were not clipped by the “islands” in the salar, as the lithohydrostratigraphic units are hydraulically connected beneath the “islands”, as demonstrated by interpretation of the seismic and SEV data. In addition, the polygons were extended where the tenement boundaries extended off of the salar (in the case of Pastos Grandes), as hydraulic continuity is assumed based on the results of the geophysical data and as reported in Rosko (2018).

Lithological units were defined based on analysis of drill core and drill logs and comparison to the seismic results. The major lithological units defined for each salar were (Table 14-1):

Table 14-1: Lithological Units Defined for Resource Estimates

Salar de Pozuelos and Salar de Patos Grandes	
Salar de Pozuelos	Salar de Pastos Grandes
Highly Fractured Halite	Upper Halite
Moderately Fractured Halite	Upper Sand
Moderately Compact Halite	Halite
Porous Compact Halite	Sand
Clay Supported Clastics	Gravel
Channeled Clay	

To compute the relevant polygon volumes, lithological thicknesses for each hole were multiplied by the area to obtain the rock volume. All holes at Pozuelos were taken to the drilled depth or the interpreted depth to the crystalline basement based on the seismic data. Holes at Pastos Grandes were taken to a depth of 600 [m]. In cases where the drilled depth was less than 600 [m], the lithology for the interval between the end of hole (EOH) and 600 [m] was derived from the seismic data and comparison to adjacent holes. The rock volume times the applicable RBRC (expressed as a

percentage) for the relevant lithology provides the available brine volume. To determine the applicable brine grades and RBRC for each polygon, the average for all assays for the specific lithological horizon was determined. In the case of Pozuelos, brine assays from pumping holes were averaged with assays from immediately adjacent packer samples. Surface sample assays were included in the assay data base for the resource estimates for both salars.

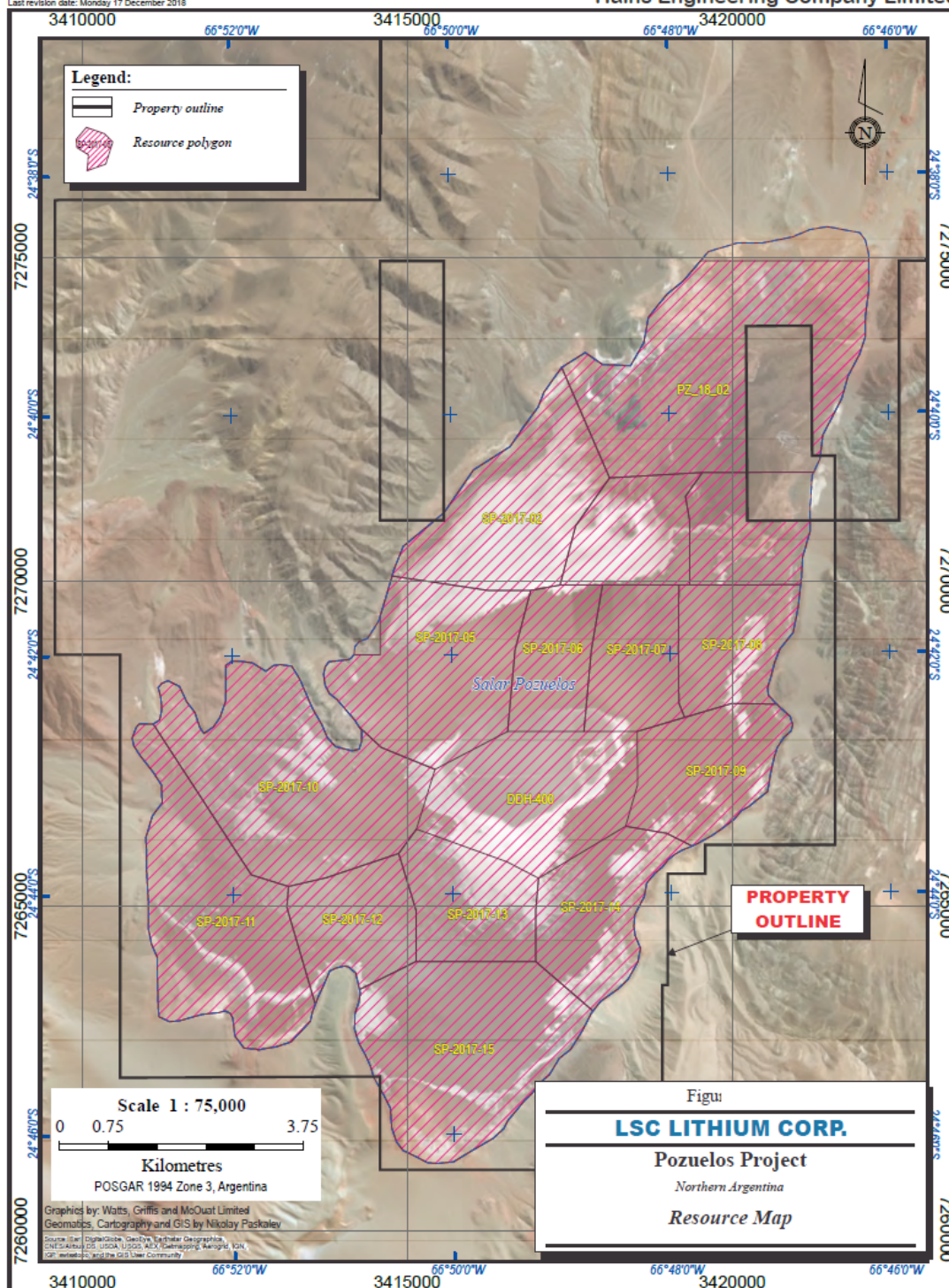


Figure 14-1: Pozuelos Resource Polygons

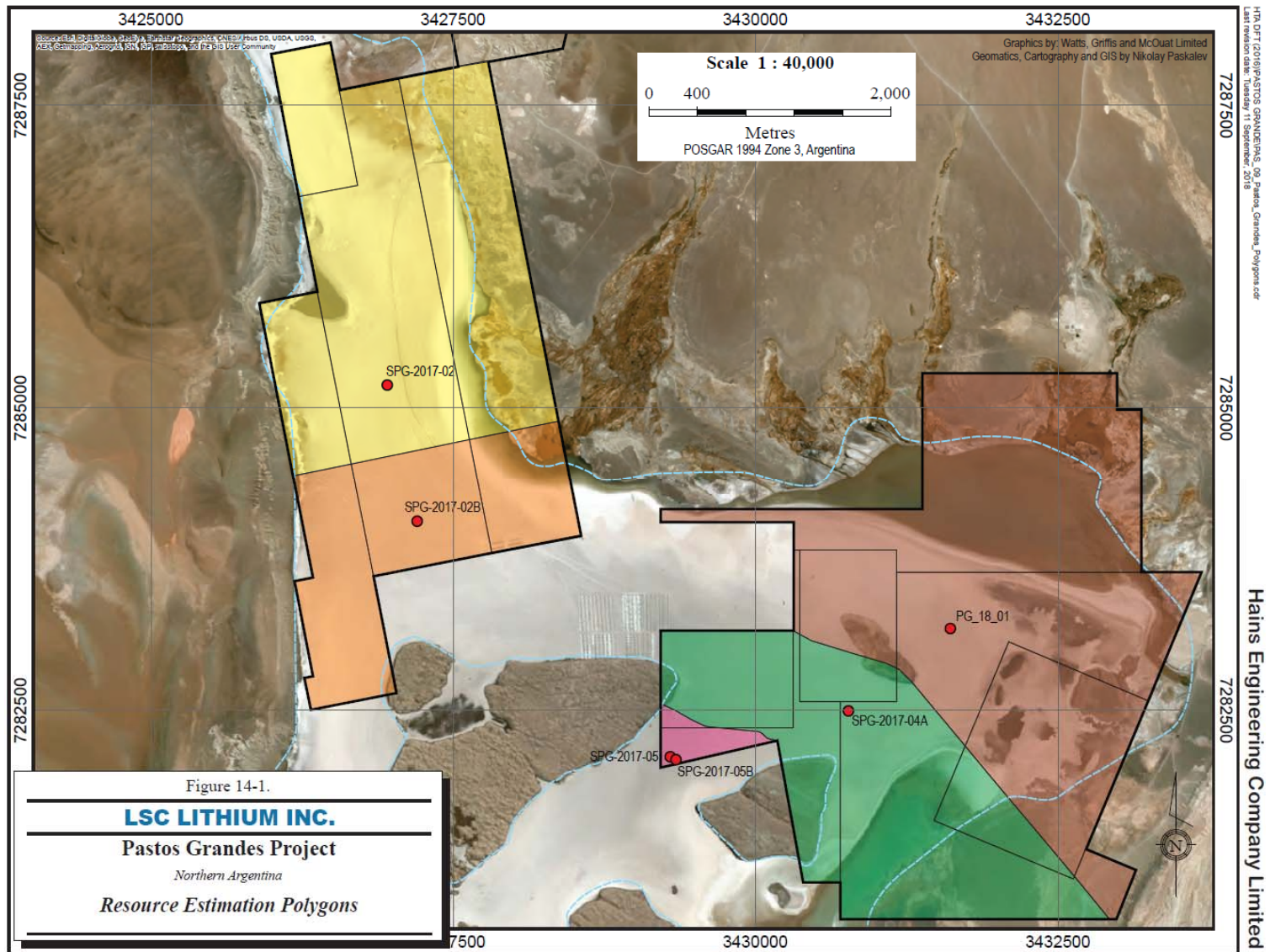


Figure 14-2: Pastos Granbdes Resource Polygons

14.2 Assay Data Base

14.2.1 Pozuelos

The assay data base used for the resource estimate incorporated a total of 883 brine assays for lithium, including surface sample results from the 2010 sample program undertaken by LitheA. In a few cases, values for some elements were not included in the assay certificates for surface samples. In such cases, the statistical analysis of the data was limited to the full data set incorporating all elements of interest. A combination of packer (207), bailer (2) and airlift (2) samples were used in the data base; plus, sample averages for the step tests (145 assays) and short and long term continuous pump test results (308 assays). Pump test data for holes adjacent to exploration holes (Holes 10, 2, 14 and 13) was averaged with the packer sample data for distinct intervals. 18,9 RBRC samples were used in the data base. No grade capping was applied to the brine assay samples.

14.2.2 Pastos Grandes

The assay data base for the resource estimate incorporated 205 assay samples (194 packer samples, 11 surface samples) and 190 RBRC samples, as detailed in Table 14-2:

14.3 Resource Classification

14.3.1 Pozuelos

Resources were classified as follows:

Each lithological horizon in each polygon was classified as Measured, Indicated or Inferred according to the following criteria:

Measured

Those horizons within each polygon for which both brine assay and RBRC values were available for the full depth of the hole. A minimum of 8 brine assays and 8 RBRC values per hole were required.

Indicated

Those horizons within each polygon for which brine and/or RBRC values were available for a significant portion of the drill length but for which brine and RBRC results were not available for the same interval or data was limited to short intervals.

Inferred

Those horizons and polygons for which data was limited to surface samples (Polygons 2 and 3) or brine and RBRC values were not available or very limited but could be reasonably inferred from drill hole data above the subject horizon.

14.3.1 Pastos Grandes

Resources were classified as follows:

Measured Resource:

A radius of influence (ROI) of 2000 [m] was applied to all drill holes with assay and/or RBRC data to a depth of 600 [m]. The ROI was selected based on the criteria defined by Houston et al (2011). This covered all of the tenement areas, except for a relatively small area in the northwest (indicated as

number 1 in Figure 14-2), below. In addition, the resource volume lying between 200 [m] and 600 [m] within these areas was classified as Measured.

Indicated Resource:

Areas covered by surface fresh-brackish water on the salar were treated as follows:

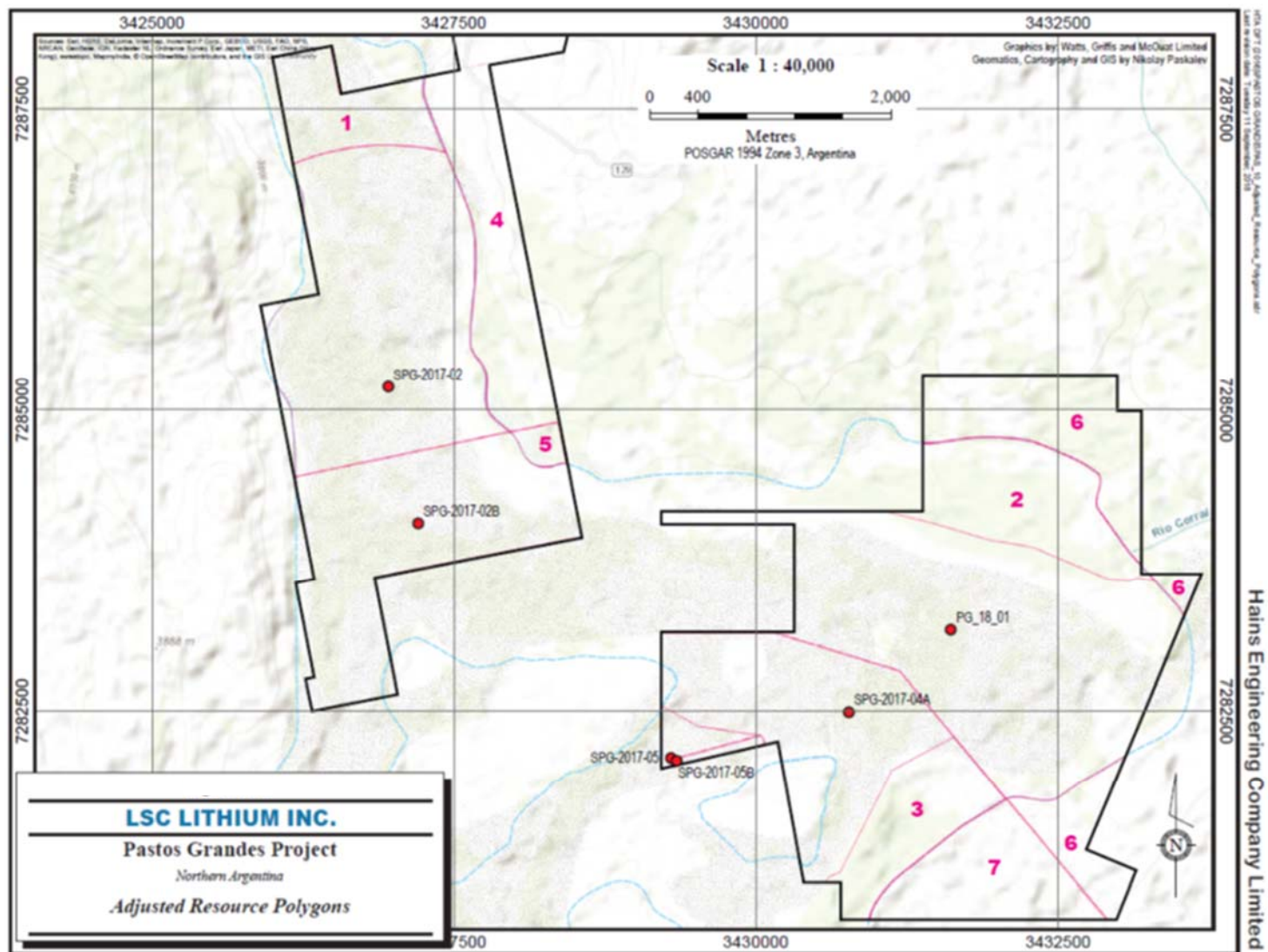
Top 50 [m] removed from the resource estimate

Next 150 [m] classified as Indicated, irrespective of distance from drilling

These areas are indicated by numbers 2 and 3 in Figure 14-3.

Inferred Resource:

Resources outside the perimeter of the salar, but within the tenement boundaries (indicated by numbers 4 – 7 in Figure 14-2) were classified as Inferred Resources. In addition, where bordering areas presenting surface fresh-brackish water were present, the top 50 [m] was removed from the resource estimate, similar to the methodology noted above for resources classified as Indicated.



14.4 Resource Estimate

14.4.1 Pozuelos

Resources were estimated for each of the lithological units in each polygon and summed by polygon within each resource classification based on the criteria noted in noted above. A cut-off grade of 330 [mg/L] lithium was used based on consideration of the technical and economic factors detailed in this report.

14.4.2 Pastos Grandes

Resources were estimated for each of the lithological units in each polygon and also summarized by lithology. Resources have been classified as Measured, Indicated or Inferred based on the criteria noted above. A cut-off grade of 100 [mg/L] lithium was used based on consideration of the technical and economic factors detailed in this report.

For both resource estimates brine assays were assigned to the relevant lithological unit for each polygon based on the sample intervals down hole and the average value applied to determine average brine grades by lithological unit. Where assay data was not available between the last sample and the End-of-Hole, the average assay values for the lowest lying relevant 50 [m] interval was applied. This assumption is valid as the assay data show very consistent values over extended intervals, regardless of lithology.

RBRC values were applied to the brine volumes for each polygon and lithological unit to estimate the available brine volume by polygon and lithology and the estimated brine grades and volumes by polygon calculated.

Table 14-3 provides a summary of the combined resource estimate for the PPG project.

Table 14-2: Combined PPG Project Resource Inventory

Effective Date for Pastos Grandes Resource Estimate October 19, 2018

Effective date for Pozuelos Resource Estimate November 22, 2018

Salar and Resource Classification	Total Brine Volume	Li	Ca	Mg	K	SO4	RBRC	Available Brine ⁴	Li (tons)	LCE Equivalent ³
PASTOS GRANDES ¹	Million [m ³]	[mg/L]	[mg/L]	[mg/L]	[mg/L]	[mg/L]	%	Million [m ³]	Metric tonnes	Metric tonnes
Pastos Grandes - Measured	7353	465	682	3093	4783	9847	4.83	355	168,090	894,720
Pastos Grandes - Indicated	508	452	727	2909	4479	9533	3.51	18	8,335	44,360
Pastos Grandes - M&I	7862	464	685	3081	4763	9827	4.74	373	176,425	939,080
Pastos Grandes - Inferred	2515	467	681	3084	4775	9879	4.81	121	57,760	307,500
POZUELOS²										
Pozuelos – Measured	4713	470	1757	2652	4143	6570	8.41	396.4	180,000	958,000
Pozuelos – Indicated	4260	544	1054	3216	2761	11359	5.84	248.9	135,000	719,400
Pozuelos - M&I	8973	505	1423	2920	3487	8843	7.19	645.3	315,000	1,677,500
Pozuelos – Inferred	4937	518	1170	2948	2240	8771	4.64	229.3	118,600	631,000

- For resource estimate details see “Technical Report on the Pastos Grandes Lithium Project” dated October 25, 2018 with an effective date of October 19, 2018 prepared for LSC Lithium Corporation as filed on SEDAR.
- For resource estimate details see “Technical Report on Pozuelos Lithium Brine Project, Salta Province, Argentina” dated December 21, 2018 with an effective date of November 22, 2018 prepared for LSC Lithium Corporation as filed on SEDAR.
- Lithium Carbonate Equivalent (LCE) calculated by applying a factor of 5.323 to lithium metal resource estimate
- Available brine volume within each resource category calculated by applying the Relative Brine Release Capacity (RBRC) factor to total brine volume. RBRC value is the weighted average for the resource classification category
- Resources have been classified in accordance with CIM mineral resource definitions, May 25, 2014. Assay values have been rounded to nearest whole number
- Resources have been estimated by Louis Fourie, P. Geo., Pr.Nat. Sci., under the direction of D. Hains, P. Geo.

7. Resources have been estimated using a cut-off grade of 330 [mg/L] lithium for Pozuelos and 100 mg/L for Pastos Grandes based on economic considerations related to estimated production costs for brine extraction.

8. Mineral resources which are not Mineral Reserves do not have demonstrated economic value. There is no assurance that additional exploration will result in the conversion of Mineral resources to Mineral Reserves.

9. Inferred Mineral Resources are considered as too speculative to have economic criteria applied to them. There is no assurance that additional exploration will result in the conversion of Inferred Mineral Resources to Indicated or Measured Mineral Resources.

14.5 Exploration Potential – Pastos Grandes

The resource estimate for Pastos Grandes summarized in Table 14-3 excludes potential brine resources contained within the Maria Luisa II tenement in the southeast portion of salar de Pastos Grandes and the La Rescatada II tenement in the northwest portion of salar de Pastos Grandes. These tenements are considered to have exploration potential for lithium brine based on the following considerations:

1. The Maria Luisa II tenement is adjacent to tenements controlled by Millennial Lithium and for which Millennial Lithium has estimated Inferred Resources (Rosko, 2018). It can be reasonably assumed that the same lithology and lithium brine grade as found in the adjacent Millennial tenements will be present in the Maria Luisa II tenement held by LSC.
2. SEV geophysical work by LSC on the La Rescatada II tenement indicated the presence of a potential aquifer at depths below approximately 200 m from surface. Millennial Lithium reported the presence of deep lying lithium brine at Hole PGMW1711 (Rosko, 2018) on the northeast side of Pastos Grandes. By analogy, it can be inferred there is potential for lithium brine at depth on the LSC tenement given geological continuity in the northern sector of Pastos Grandes.

Based on the above, an estimate of exploration potential for the two LSC tenements has been developed, as detailed in Table 14-4:

Table 14-3: Exploration Potential – LSC Tenements Maria Luisa II and La Rescatada II – Salar de Pastos Grandes

Tenement	Area [ha]	Assumed Depth [m]	Volume '000 [m3]	Assumed RBRC (%)		Assumed Li Grade [mg/L]		LCE Potential [t]	
				Min	Max	Min	Max	Min	Max
Maria Luisa II	100	600	600,000	2.5	6.0	300	500	23,900	95,800
La Rescatada II	396	300	1,188,000	2.5	6.0	300	500	47,430	189,700
Total Exploration Potential	496		1,788,000	2.5	6.0	300	500	71,330	285,500

The exploration potential described in Table 14-4 is purely conceptual in nature. There has been insufficient exploration to define a mineral resource and it is uncertain if further exploration will result in the target being delineated as a mineral resource.

Item 15 - Mineral Reserve Estimates

No mineral reserve estimate has been prepared for the Project, with further hydrodynamic modelling and process test work required to enable the resource to reserve conversion process.

Item 16 - Mining Methods – Brine

Abstraction

Mineral brine, occurring as groundwater within the salars, is to be used as the primary raw material for lithium carbonate production. A total of 1200 [m³/h] of raw brine feed is required to support the lithium carbonate production system. The system targets a blend of 500 [m³/h] from Pastos Grandes and 700 [m³/h] from Pozuelos. The Pozuelos feed blend initially targets production of 500 [m³/h] from the deep southern deposition centre, with the remainder being produced from shallow trenches immediately south of the evaporation ponds.

16.1 Hydrogeological Data Acquisition and Basis of Design

LSC has developed a resource estimate using polygonal modelling as described in Item 14 of this report. Furthermore, LSC undertook a series of step tests and pumping tests at Pozuelos. These tests were developed to prove the viability of long- term brine extraction from the salar, support data input into the static recharge model, which is required for the environmental permit (see Item 20), and to provide inputs in the dynamic hydrological model, which will be prepared for the reserve estimate in the next phase of project development.

Table 16-1 shows data that supports the hydrogeological assumption used in the initial mine design. Data acquisition was supervised and interpreted by the Salta-based hydrogeological consultancy Conhidro.

Table 16-1: Pumping results Summary –Key Hydraulic Parameters

Well	Transmissivity [m ² /day]	Storage Coefficient (S)	Indicated Operational Pumping Rate [m ³ /hr]
SP-2017-10W	246	6.5 x 10 ⁻³	130
SP-2017-2W	224	4.11 x 10 ⁻³	27.5
WPZ-18-04			70.0
SP-2017-14W	156	1.44 x 10 ⁻³	20.0
WPZ18-01	159	2.89 x 10 ⁻⁴	45.0
W1-35	1,490	3.021 x 10 ⁻²	33.7
W2-90			27.87

Source: Conhidro (2018); Hains (2018a)

Figure 16-1 and Figure 16-2 show the average grade and observed drawdown and recharge rates from well SP-2017-10W. The drawdown was measured from two monitoring piezometers as well as within the pumping well itself. The results shown in the two figures are measured from the pumping well, but drawdown decreases rapidly with distance, with only 5 [m] observed at 10 [m] distance in the monitoring wells. This supports the concept of a battery of production wells located in close vicinity in this high-grade production area.

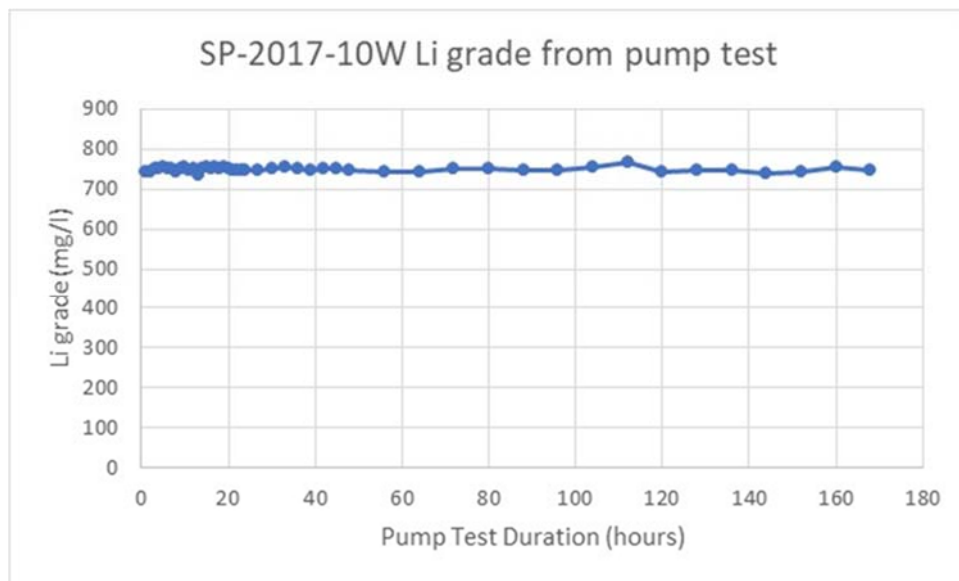


Figure 16-1: Li Grade from t-day Pump Test at SP-2107-10W

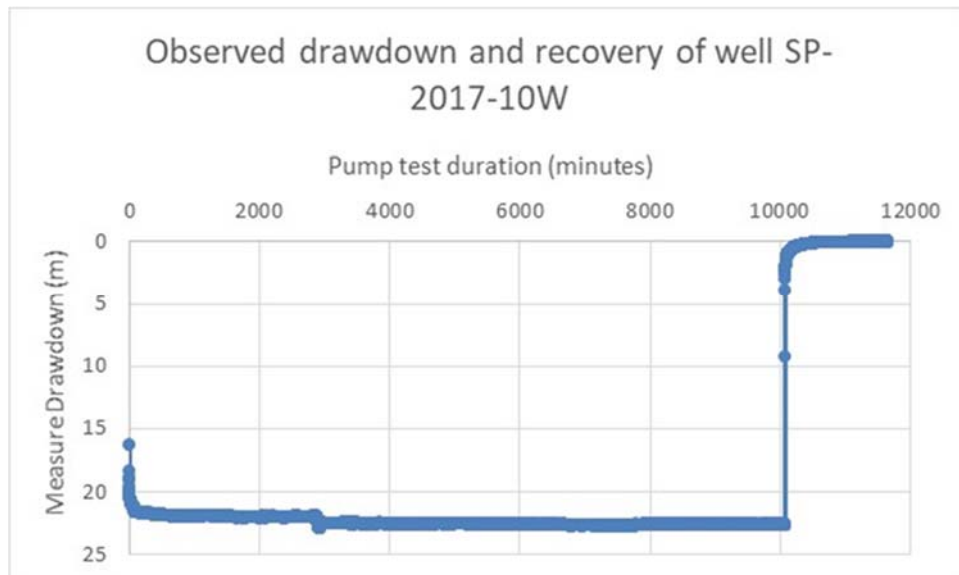


Figure 16-2: Observed Drawdown and Recovery from 7-Day Pump Test at SP-2017-10W

16.2 Mining Method

The mining method considers 24-hour extraction of brine from production wells. Brine extraction considers the use of electrical submersible pumps in each production well. The brine is pumped through a pipe network that connects each production well field (Pastos Grandes and Pozuelos) with the Brine Transfer/Mixing Pond located at Pozuelos. From there the mixed brine is pumped to the evaporation ponds, the first stage of the project's processing component.

The operating brine extraction wells will be relocated throughout the brine resource areas of both salars during the life of the project. An initial wellfield layout is shown for both salars in Figure 16 3 (marked in red), with progressive potential wellfield areas to be installed nearby each location. Additional wells are added as required to provide constant blended flow as the salar draws down over time. The associated network of brine gathering pipelines will be relocated and amended to service

the operating well locations as they progress across the salars. It is envisioned that brine will be supplied by a combination of deep and shallow wells and trenches.

The design layout at this stage is conceptual and final layout will be determined in the next study phase together with the preparation of a 3D hydrodynamic model.

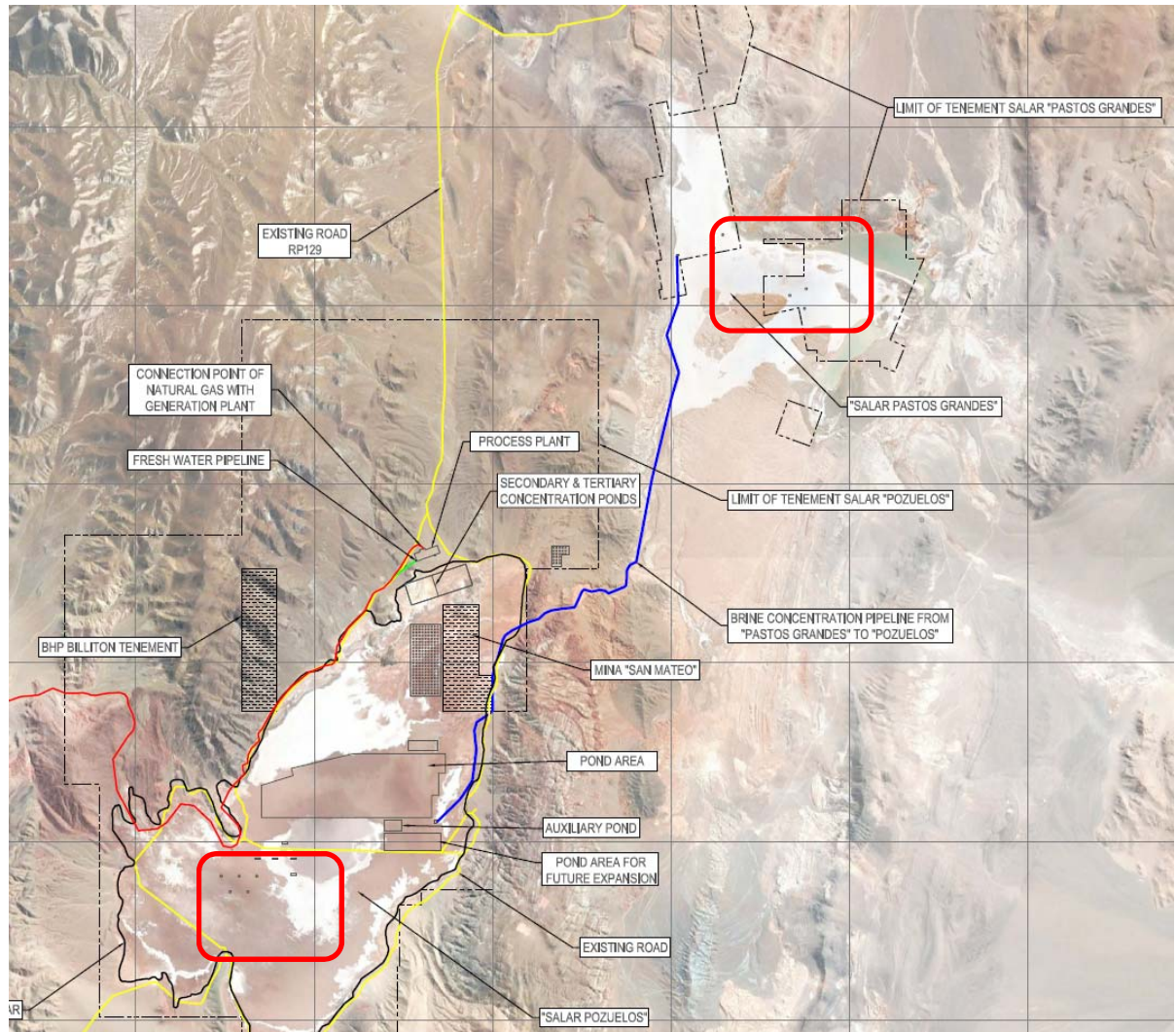


Figure 16-3: Wellfield Lay-Out – Pastos Grandes and Pozuelos

16.3 Mining Infrastructure

Basic mining infrastructure for brine extraction considers:

- Consolidated access road and platform for rig and well services
- Consolidated pad for drill location and drilling equipment
- Production wells, including pumps and electricity supply
- Pipe network connecting each well area to the process area (evaporation ponds and process plant)

16.4 Mining Dilution and Recovery

In brine mining projects the concepts of Dilution and Recovery are different from hard rock mining. Brine dilution occurs over time as a result of the influx of fresh water into the salt flat as the mineral saturated brine is extracted. The exact rate at which this process happens will be studied using a dynamic hydrological model which will be developed in the next study phase to support a reserve estimate. Examples from other mines such as Silver Peak in Nevada are known to have experienced a drop in the grade of over 50% over a period of 50 years of continuous production.

An initial hydro-logic balance was developed for Pozuelos. This considers only the recharge rate of the salar. Annual recharge rate at Pozuelos is approximately 12-14% of the salar volume, which compares favourably to the planned extraction of 3% of volume per annum.

The concept of recovery involves the ratio of the specie of interest effectively extracted from a porous media. The extraction depends on many factors including density, viscosity, interconnectivity of the porous space, etc. These parameters will be considered in detail in the hydro-dynamic model, but, as a general rule of thumb, not more than one third of the available brine reservoir can be considered as available for extraction based on currently available information.

16.5 Mineral Reserves

Mineral Reserves have not been defined during the development of this report; at this stage only in situ measured, indicated and inferred resources have been defined to date.

A full 3D hydro-dynamic model will be developed from pump test data to support a mineral reserve estimate in the next phase of the study.

16.6 Mine Planning

A total of 1200 [m³/h] of raw brine feed is required to support the lithium carbonate production system. The system targets a blend of 500 [m³/h] from Pastos Grandes and 700 [m³/h] from Pozuelos. The Pozuelos feed blend initially targets production of 500 [m³/h] from the deep southern depositional centre, with the remainder being produced from shallow trenches immediately south of the evaporation ponds.

When the higher grade portions of Pozuelos are depleted after several years of operations, additional wells will be added in the lower grade areas, which will be supported by additional primary evaporation ponds. This is currently expected to occur in Year 7. The connection between Pozuelos and the well field in Pastos Grandes is expected to be completed in Year 3 of mining operations.

It is expected that the available resource can support a life of mine of at least 25 years.

16.7 Production Equipment Selection and Well Design

The well design is supported by the field data acquired by LSC and described in Section 16.1. As a preliminary design basis, Ppump wells have been designed to operate 24 [h/day] at 125 [m³/h] nominal flow capacity. Well depth is 70 [m] in the Pozuelos production wells and 500 [m] for the wells located at Pastos Grandes. Pozuelos brine Trenches have a nominal brine production capacity of 50 [m³/h] from a depth of 2 [m] each. Final well depths will be determined on completion of the 3D hydrodynamic modelling in the next study phase. Well depths will vary depending on location, brine flows, grade and balance between upper and lower aquifers.

Production wells differ from one another in regards of flowrate, porosity and other geological and hydrological parameters. Therefore, each production well will be specifically designed to match the hydrogeological conditions encountered at the drilling site during well preparation.

The preliminary well design used in this report has been developed using available pump test data.

The equipment required for the field of production wells are submersible electric pumps, located at depths that ensure they will always be submerged in lithium-rich brine. For this reason, a slotted "casing" was designed, to be located in the largest lithium concentrated water tables.

For brine transfer between production wells and evaporation ponds, self-priming pumps will be used. The Project considers submersible electric pumps across both salars.

Other equipment required are:

- Trucks for HDPE's pipe transportation inside the brine well field.
- A mobile crane for pipe manipulation purposes.
- Two HDPE's Welders.
- Cable reel truck, for electrical network construction and maintenance
- Mobile small electrical substations, for proper power distribution.

16.8 Harvested Salt Piles and Service Equipment

The evaporation process in the solar evaporation ponds leaves considerable amounts of salts on the bottom of the ponds. These salts must be removed ("harvested") from the ponds and transported to nearby piles as waste material. The quantity of salt to be harvested is approximately 2.9 MM metric tons per year. The harvesting and transport operation utilizes typical heavy machinery, such as dozers, front end loaders and dump trucks.

The salt stockpiles are considered to be up to 16 [m] high and will be located immediately westwards of the Mina San Mateo Tenement. It is estimated that approximately 20 [ha] of stockpiles will be built over a 20-year period and these piles will be built immediately adjacent to the pond area.

The composition of the stockpiles from the primary precipitated salts is sodium chloride (NaCl), which is the only stockpile that will be constructed within the salar. The stockpiles from salts harvested from the secondary and tertiary ponds will be deposited in a lined area 4 [km] to the east of the lithium plant and contain calcium chloride (CaCl₂), potassium chloride and more complex magnesium salts such as bischoffite and carnallite. These precipitated salts can be considered as inert because the salts are generated from the brine already present in the salt flat and do not introduce foreign compounds to it. Sodium chloride and calcium chloride make up over 80% of this waste.

The construction and operation of these stockpiles will be undertaken under full consideration of all the environmental requirements and international best practice.

Item 17 - Recovery Methods

The project considers the production of 20,000 tons per year (TPY) of Battery-Grade Lithium Carbonate (Li_2CO_3). The lithium is obtained from brines extracted from Pastos Grandes and Pozuelos Salars to produce a brine blend within the desired ratio of impurity elements.

The process plant is conveniently divided into two discrete building blocks:

- Brine Treatment Plant, which comprises the processes of evaporation and chemical treatment for impurity removal in three sections:
 - o Primary concentration and primary brine treatment stage,
 - o Secondary concentration and secondary brine treatment stage,
 - o Tertiary concentration stage where the target lithium-in-brine concentration is achieved by evaporation.
- Lithium Carbonate Plant which comprises the final purification stages before lithium carbonate is produced, filtered, milled, dried and bagged for export. Included in this section are:
 - o Ion Exchange for the removal of impurities,
 - o Precipitation of lithium carbonate employing sodium carbonate,
 - o Drying, size reduction and packaging of the final product.

The process, used on the PPG project employs common process building blocks to extract and produce lithium from salar brines. As conceptualized for this preliminary study and report, the process relies on commonly available techniques and equipment. The author has not reviewed the process in detail for any available patents and recommends that this is done in the future to ensure that the process is fully within the rights of LSC to operate as designed.

The overall operation, including ponds and process plant, has been sized for an 85% mechanical and process availability

Process Block Diagram are presented below, showing both production units.

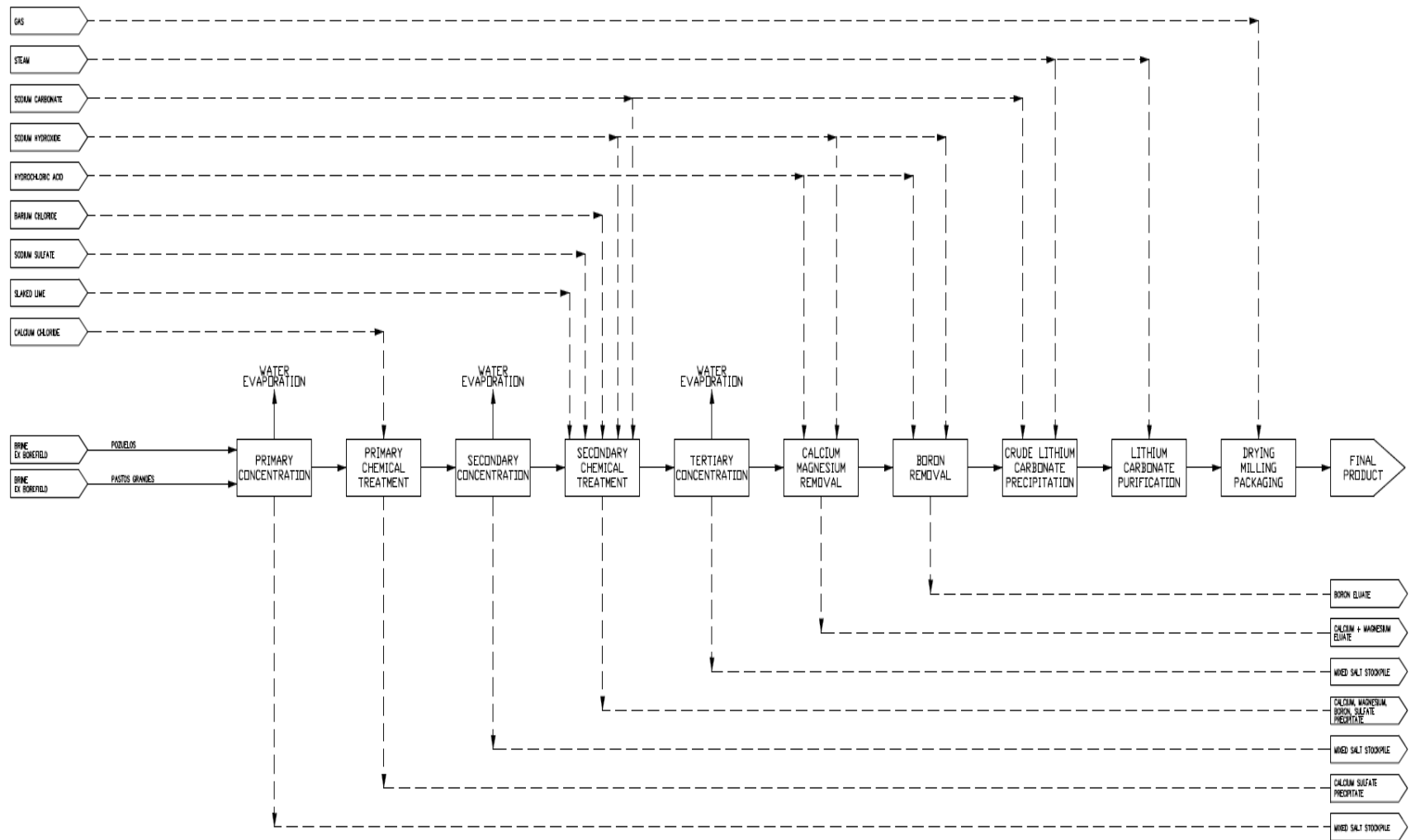


Figure 17-1: Process General Block Diagram

17.1 Brine Extraction

Brine extraction will be done through brine extraction wells located in Pastos Grandes and Pozuelos. The wells in both salars are designed to operate at 24 hours per day. At Pastos Grandes, the brine is first pumped to a nearby transfer reservoir and then through a HDPE pipeline to a storage reservoir located at Pozuelos. The Pozuelos and Pastos Grandes brines are blended in the storage reservoir.

The impurity element concentration in the brines is not sufficient to warrant any by-product revenue from these elements.

17.2 Brine Treatment Plant

The Brine Treatment Plant incorporates two process steps that are employed. These are:

- Water evaporation and hence salt concentration to the extent that any impurity salts that are at their solubility extent are precipitated. Three discrete water evaporation steps are envisaged.
- Chemical treatment to reject impurities. Two chemical treatment steps are interposed between the three evaporation steps. This process sequence has been carefully crafted to minimise lithium mis-report to the evaporation and precipitation products such that an overall high recovery of lithium is both chemically and mechanically achievable.

Unwanted salts are accumulated at the bottom of the ponds. Mechanical “harvesting” and ordinarily washing occurs before disposal. Salt harvesting will be carried out employing an appropriate mix of excavating and dredge-filtration equipment.

All impurities arising from the chemical treatment steps will be recovered in solid-liquid separation equipment and processed to reduce lithium entrainment.

Where washing is employed, the spent wash fluids are re-introduced into the process where they are employed, for example in de-scaling operations by brine dilution. Wash fluids comprise an appropriate blend of water types commensurate with the needs of the process step where the water may be applied.

17.2.1 Primary Concentration

This section consists of multiple ponds in a series-parallel arrangement comprising at least four sub stages. The hydraulic flow is diminished across the sub stages with increasing lithium tenors. The final pond supernatant is fed to the Primary Chemical Treatment circuit.

With the lithium concentrations relatively low in the Primary Concentration Ponds, the salt harvesting after dewatering is conducted with earth moving excavators and trucks. A two yearly harvest cycle is anticipated. After supernatant decant from the ponds these salts are parted with windrows to permit drainage of supernatant within the channels. As a final step they are uplifted with machines and transported by trucks to a prepared storage pad. The excavated salts comprise mainly sodium chloride, carnalite, and lesser amounts of potassium chloride, gypsum and some double salts of potassium and magnesium.

17.2.2 Primary Chemical treatment

This is a primary sulfate removal step conducted continuously in a tank cascade employing calcium chloride as the reagent.

The precipitates are filtered and washed. The residue is disposed of to a prepared site.

17.2.3 Secondary Concentration

This section consists of multiple ponds arranged in series-parallel and comprising at least 4 sub-stages. The hydraulic flow is diminished across the system with concomitant increasing lithium tenors. The final pond supernate is fed to the Secondary Chemical Treatment circuit.

The settled salts comprise sodium chloride, carnalite, and lesser amounts of gypsum. The lithium concentrations are raised to approximately 3% in this circuit and consequently attention is paid to entrained losses within the salts that accumulate in the ponds. A continuous dredger-filtration harvesting process is employed to remove and recover lithium from the precipitates. These lithium-barren salts are transported by trucks to a prepared storage pad.

This continuous harvesting process improves the pond on-line time to evaporation and reduces the pond area.

17.2.4 Secondary Chemical Treatment

The 3% lithium brine is received into a Secondary Chemical Treatment stage where the major impurities of magnesium, boron, calcium, strontium and sulfate are significantly attenuated in a precipitation process. This is done in two stages:

- Magnesium, boron and calcium are precipitated in the first stage.
- Sulfate, strontium and calcium are further trimmed to very low levels in a second stage of treatment.

In both stages the precipitation is undertaken in a continuously operated tank cascade and the residue is processed to reject a lithium-barren product.

17.2.5 Tertiary Concentration Ponds

The third evaporative concentration stage consists of two ponds arranged in series-parallel and comprising at least two sub-stages. The hydraulic flow is diminished across the system with lithium tenors increasing with water evaporation. The final pond supernate is fed to the lithium carbonate Plant.

The settled salts comprise mainly sodium chloride, and potassium chloride. The lithium concentrations are raised to approximately 4% in this circuit. The entrainment of lithium in the settled salts is significant and consequently attention is paid to recovering what would otherwise constitute entrained losses if the salts were removed without washing. A continuous dredger-filtration harvesting process is employed to remove the salts. These salts, which are essentially barren in lithium, are transported by trucks to a prepared tailings facility.

This continuous harvesting process improves the pond on-line time to evaporation and reduces the pond area.

17.3 Lithium Carbonate Plant

The Tertiary Concentration circuit brine contains low level impurities of the type magnesium, calcium, strontium, barium, boron and sulfate. Higher levels of sodium and potassium accompany the lithium as chlorides.

The divalent metal impurities are first trimmed where after an ion exchange process is employed to remove all divalent and trivalent impurities (excluding sulfate). The eluates from the ion exchange processes containing these impurities are re-processed in the Secondary Chemical Treatment circuit.

The final step comprises a seeded precipitation of lithium carbonate

17.3.1 Calcium & Magnesium Removal

The Tertiary Concentration brine product is treated in a two stage process to remove the divalent metals. These are:

- A conditioning step for trimming these impurities to a concentration below 150 [mg/l] is employed. Sodium carbonate at a low dose is employed in a cascade of tanks to produce a precipitate that is returned to the Secondary Chemical Treatment circuit for the rejection of these impurities.
- Ion exchange is finally employed to remove all residual divalent metals to a combined concentration of below 1 [mg/l] in the ion exchange barren liquor. A low concentration hydrochloric acid eluant is employed to strip the impurities from the resin. The overall barren liquor from this process is fed to the Boron Removal circuit.

17.3.2 Boron Removal

Boron is next removed employing an ion exchange resin with a methylglucamine functional group. A multi-column ion exchange rig is employed to achieve a barren liquor with less than 2 [mg/l] boron. A low concentration hydrochloric acid eluant is employed to strip the boron from the resin.

The eluates from both ion exchange circuits are low volume streams and are recycled to the Secondary Chemical Treatment circuit.

The final product after impurity removal is fed to the lithium carbonate production circuit.

17.3.3 Lithium Carbonate Production

The lithium carbonate is processed over two discrete steps:

Lithium Carbonate Precipitation Circuit

After impurity removal a lithium carbonate is precipitated at approximately 85 [°C] to produce a carbonate product which is filtered and washed with hot water. A simple tank cascade is employed in this service. Low pressure steam is required to heat the circuit. Barren liquors from this process are returned to the Secondary Chemical Treatment step to close the lithium balance, and provide an exit for contained sodium and potassium chlorides.

The washed lithium carbonate is repulped in water and advanced to the Lithium Carbonate Purification Circuit.

Lithium Carbonate Purification Circuit

The Lithium Carbonate Purification stage incorporates a continuous transformation of the first produced lithium carbonate to a bicarbonate from which a pure lithium carbonate is recrystallised at elevated temperature. Carbon dioxide is employed to facilitate this transformation and it is conserved within the circuit. Top up of the recirculated carbon dioxide is maintained to offset losses in the product streams and vent gases.

The purified lithium carbonate is filtered and washed with hot water in a pressure filter selected to dewater the purified final lithium carbonate to a low residual moisture content. The barren liquor from this transformation process along with the wash filtrates are recycled to recover contained lithium.

Steam is employed to convert the lithium bicarbonate at elevated temperatures to carbonate and the released carbon dioxide is fed to a surface condenser to remove entrained water vapor and cool the gas before recycle the bicarbonate step.

17.3.4 Drying, Milling and Packaging

The purified lithium carbonate discharged from the filter contains approximately 20% moisture. It is dried in a rotary direct contact hot air dryer after which it is jet milled and produced in 1 cubic metre bulky bags. The final product dryness is less than 0.5% and it has a D50 (assuming perfect spheres) of 5 to 6 micron.

The plant has been sized to produce lithium carbonate at 20,000 [ton/annum] of dry equivalent final product.

17.4 Metallurgical Efficiencies

A classical process combining solar evaporation with chemical treatment has been selected. Salts and residues are produced as water is evaporated and impurities are rejected. The salt-residue reject ratio on a dry basis is approximately 135 tonne salt per tonne lithium carbonate. Of this amount only 2% is produced in the chemical treatment steps. As water evaporation progresses the lithium concentrations rise in the brine, consequently these salts and residues become a rich source of lithium entrainment loss. Added to this is the 1-2 [g/l] of contained lithium in barren liquors from the carbonate process.

The overall entrainment and precipitation loss of lithium in the classical processes can be as much as 50% of the influent lithium in the salar brines fed to the plant. Of this amount 30% to 40% can be avoided by adopting well proven metallurgical interventions to recover soluble lithium from this high mass of rejected salt residue.

The flowsheet described above incorporates appropriate barren liquor recycles and separation equipment that permit the recovery of interstitial lithium from precipitates. These solute recovery interventions have been modelled on other operating plants. A SysCAD Mass and Energy balance was developed for the integrated flowsheet.

SysCAD is a versatile plant simulation software, which has been developed and improved by process engineers since 1985. The PPG Mass and Energy balance was based on the process chemistry derived from test work, empirical solubility product data derived from salar brines and the solute recovery improvements employed in other metallurgical operations – notably nickel, copper and cobalt. The SysCAD balance incorporating the foregoing has predicted a high lithium recovery of approximately 80%. There are distinct benefits from employing improved lithium recovery interventions that in many cases more than offset the costs. Amongst these benefits are:

- Reduced brine flows to achieve the lithium nameplate capacity.
- Reduced waste salt and residue storage foot print
- Reduced reagent requirements on a per tonne of lithium carbonate produced basis.
- Reduced pond evaporation area.

- Reduced capital investment in mechanical equipment on a per tonne of lithium carbonate produced basis.

Item 18 - Project Infrastructure

This chapter describes the infrastructure required for LSC's PPG project.

18.1 Project Access

Access to the project site is through Route 51 coming from the city of Salta, heading 145 [km] north-east to the regional hub town of San Antonio de los Cobres. Following Route 51 for another 14.5 [km] from there, the road meets local road RPN 129, which travels south for 49.2 [km] reaching Santa Rosa de los Pastos Grandes. Following the same road for another 10 [km] south leads to Salar de Pastos Grades Salar (Pastos Grandes).

Salar Pozuelos (Pozuelos), the main project site, is reachable by traveling along the gravel road (Ruta del Borax) from Santa Rosa de los Pastos Grandes heading east and then south, circumventing Salar de Pastos Grandes, for another 32 [km] before reaching Pozuelos. Total driving distance from the City of Salta to Salar Pozuelos is 250 [km], using this route, with a driving time of around four (4) hours.

Alternatively, Salar Pozuelos may be reached directly by traveling Route 51, 65 [km] east from San Antonio de los Cobres, to reach RPN17, and then following this road southwards 40 [km] to reach the centre of Pozuelos. This route does not directly connect RPN17 to Pozuelos, prompting development for a suitable road if this alternative route is considered adequate. Pastos Grandes can be reached using this route by means of traveling RPN 17 southwards 20 [km] and then traveling RP129 westwards for another 26 [km].

Route 51 is mostly paved until it reaches San Antonio de los Cobres and then continues as a consolidated gravel road. All other access roads described in this report are gravel roads, mostly kept in good condition as these roads are used by several mining companies active around Pastos Grandes. These roads are also used to reach several locations, including tourist destinations, around the area.

Figure 18-1 shows the local roads available around the project.



Figure 18-1: Local Road Infrastructure to Reach Project Site

18.1.1 Site Connectivity to main Ports

Nearest ports to the project site are the Antofagasta and Mejillones Ports in Chile, both of which serve as large Chilean mining industry ports for import and export activities. These main ports can be reached from the Pozuelos site following the same access route to Route 51, reaching “Paso de Sico” border pass and from there following Route 23 westbound to San Pedro de Atacama, Calama and finally Antofagasta. In this case the distance from Pozuelos to Antofagasta is approximately 700 [km].

Alternatively, Antofagasta can be reached by traveling north of Pozuelos, through San Antonio de los Cobres, and reaching Route 52 and then traveling west to reach the “Paso Jama” border pass into Chile. This is the most used border pass in the region for international traffic. The distance from Pozuelos to Antofagasta through this route is approximately 800 [km].

Additionally, an active rail road is available connecting San Antonio de los Cobres with the Port of Antofagasta in Chile. The train stops at Pocitos, approximately 60 [km] from Pozuelos, where an existing lithium producer currently loads lithium products on to trains destined for Antofagasta. This is also the preferred logistics route for product export as well as for the import of reagents to the PPG project site.

Alternative ports of import/export in Argentina are Rosario and Buenos Aires, which lie approximately 1,370 and 1,700 [km] away from the project site, respectively.

The nearest cities to the project's site are Jujuy and Salta. Both have air connectivity offering regular flights to Chile and other South American countries (via Buenos Aires connection). Domestic flights connecting to other major cities across Argentina are also available on a regular basis.



Figure 18-2: International Road Infrastructure

18.2 Project Areas and Facilities

Areas of the project are shown in detail in the following figure.

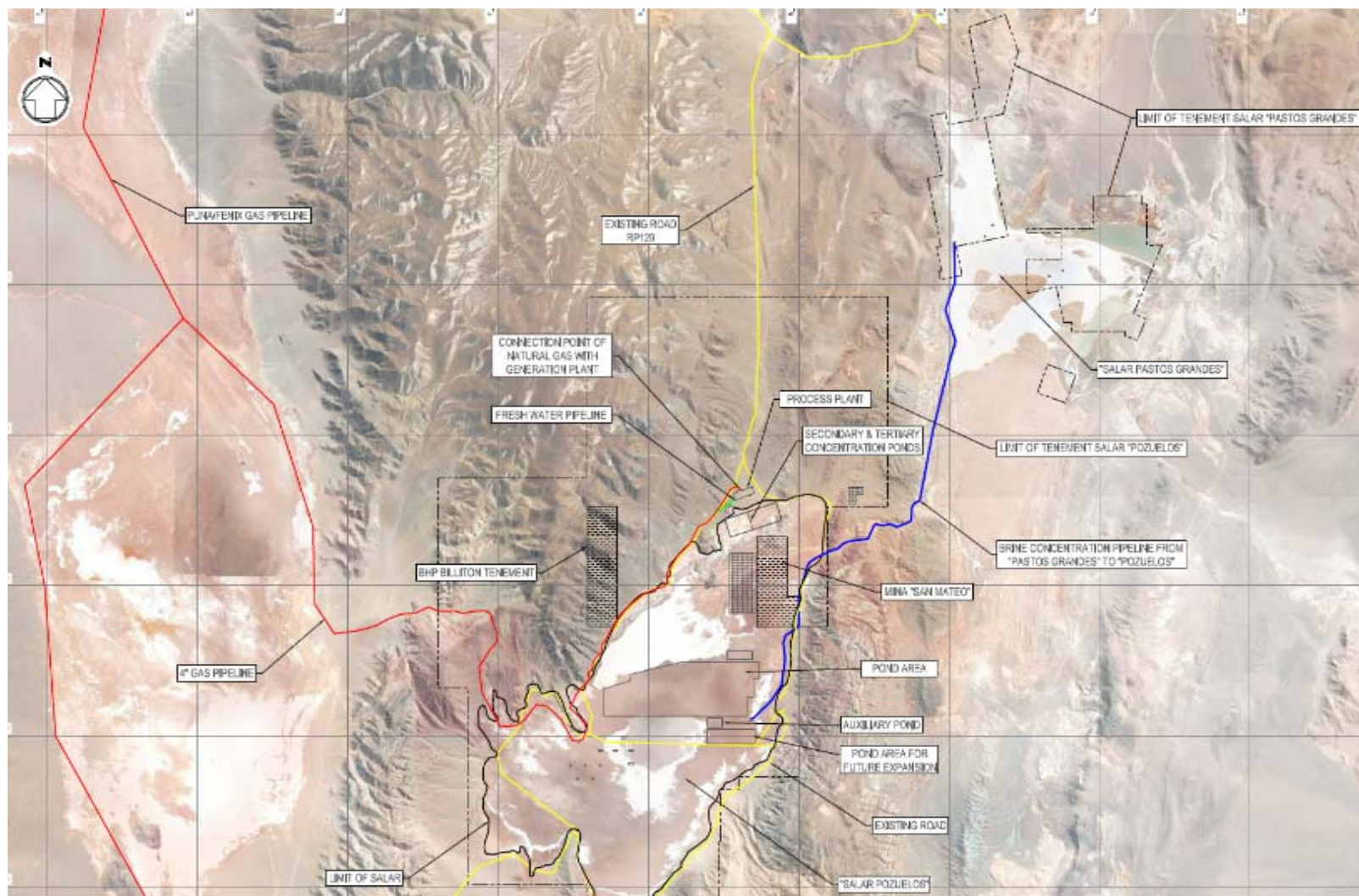


Figure 18-3: Main Project Facilities and Areas – PPG Project

Physical areas of the project include:

- Well Field - Pastos Grandes (including pipeline connection to Pozuelos)
- Well Field - Pozuelos
- Evaporation/Concentration and auxiliary Ponds (in Pozuelos)
- Industrial facilities (lithium plant) (in Pozuelos)
- Tailings areas (halite and other in Pozuelos area)

Extraction wells are located both in Pastos Grandes and Pozuelos at an average elevation of 3,770 m.a.s.l. Pastos Grandes wells are connected to the main Industrial facilities by means of a pipeline with a capacity to pump 500 [m³/h].

Primary evaporation ponds are located in the centre of Pozuelos allowing the concentration of brine in four steps, through evaporation of water and precipitation of salts contained in the brine. Secondary and Tertiary evaporation ponds are also considered.²

Salt is harvested from the primary evaporation ponds and stored in a lined halite stockpile. The stockpile will be built throughout the life of the project. Salt harvested from the secondary and tertiary ponds will be stored in lined stockpiles located off Pocitos.

The main project facilities are described in the following sections and include:

- Lithium carbonate plant
- Auxiliary services
- Permanent facilities including offices and worker's camp
- Temporary facilities including contractor's installations and camp
- Gas supply and electricity and steam generation infrastructure

18.3 Temporary Installations

Temporary installations refer to those facilities needed during the plant's construction stage including the Contractor's installations. These facilities have been located adjacent to the current exploration camp at Pozuelos and their location is shown in the following figure:

² Ponds have been designed with an additional 10% size in order to account for leaking losses, operational availability and other unquantifiable losses that might affect production.



Figure 18-4: General Arrangement Temporary Installations

Contractor temporary installations are summarized in the following table below.

Table 18-1: Contractor's Installations Summary

No.	Installation	Area [m ²]
T1	Waste water treatment plant	1.000
T2	Process Plant Sub-Contractor area	20.000
T3	Process plant sub-contractor storage area (Open and Closed)	15.000
T4	Dangerous solid waste area	3.000
T5	Non dangerous solid waste area	3.000
T6	Domestic waste area	2.000
T7	Earth movements Sub-contractor area	8.000
T8	Earth movements storage open area	250
T9	Geo-membrane Sub-contractor area	8.000
T10	Geo-membrane storage area	250

18.4 Permanent Installations

Permanent installations are related with all production plant areas involved in the project including process plant facilities, ponds, wells, stockpile areas, service areas and personnel facilities. All infrastructure, excluding production wells and related pipeline connecting from Pastos Grandes, is located at Pozuelos.

18.4.1 Salar Area Permanent Installations

Salar area installations are shown in the following figure and detailed below:

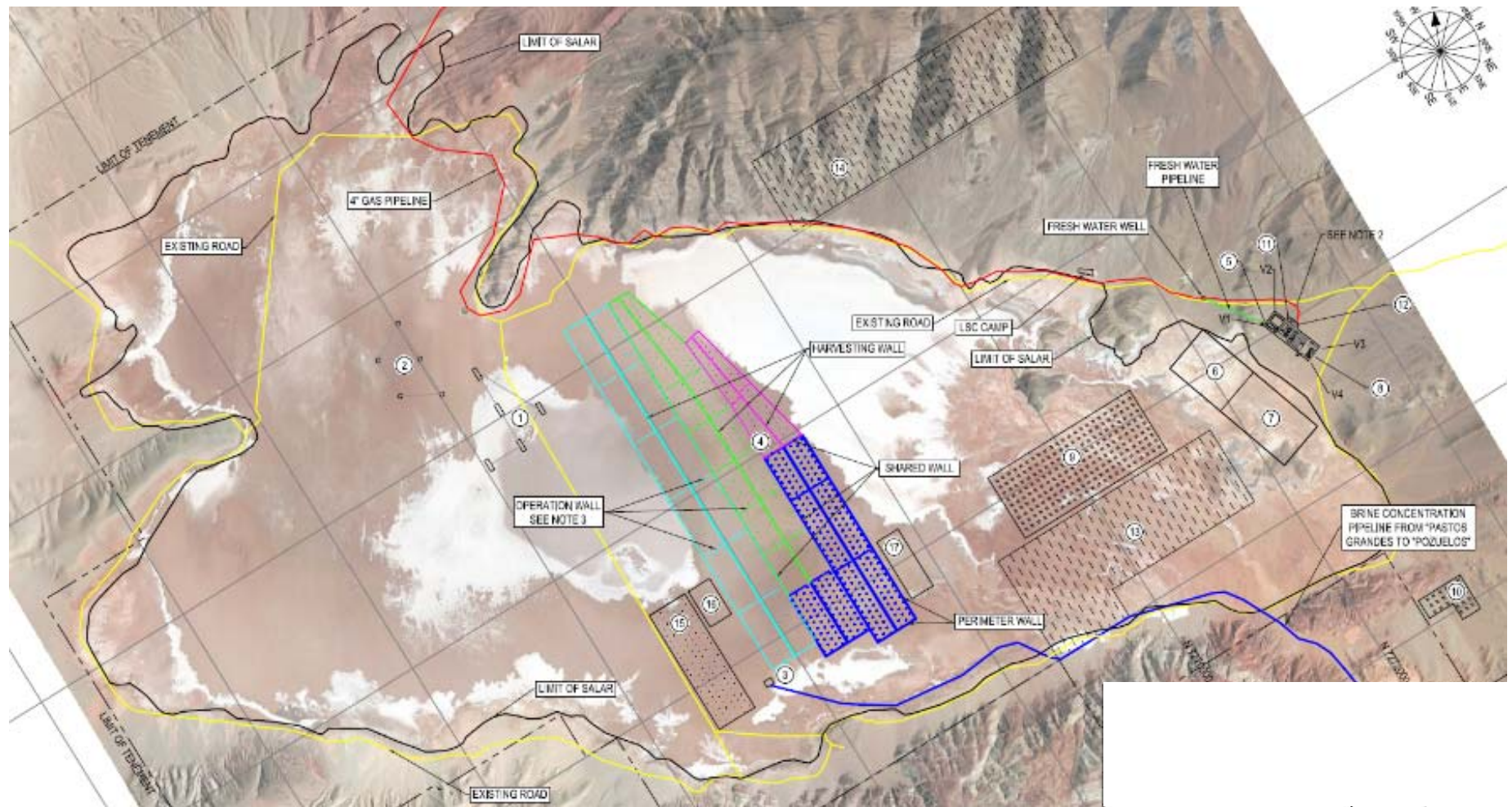


Figure 18-5: Salar Area Permanent Installations Arrangement

Table 18-2: Salar Area Permanent installations

No.	Installation	Area [ha]
1	Pozuelos Trenches Area	0.0434
2	Pozuelos Well Pumps Area	0.0327
3	Brine Transfer/mixing pond	0.8
4	Primary Concentration Ponds	77,000
6	Secondary Concentration Ponds	53.2
7	Tertiary Concentration	57.0
9	Halite Stockpile area	170
10	Stockpile area	20
16	Auxiliary pond	15
17	Washate pond	24
18	Pastos Grandes Well Pumps Area	0.01

Permanent installations are briefly explained below:

- Trenches are surface brine collecting channels intended for brine pumping by means of horizontal standard centrifugal pumps. These trenches will be located close to primary concentration ponds and will be created during the construction of the ponds.
- Well pumping areas involve operational wells plus spare wells close to the trench area.
- The transfer/mixing pond receives and mixes brine from Pastos Grandes and Pozuelos wells. Mixed brine will be pumped to primary concentration ponds using centrifugal pumps.
- The primary concentration area receives brine from Pastos Grandes wells and Pozuelos wells and trenches. This area has four concentration ponds arranged in two rows. This area is located in Pozuelos as shown in Figure 18 5. Brine transfer will be done using horizontal centrifugal pumps between ponds. The location for the primary ponds was selected for the following reasons:
 - o They are located centrally within the salar, optimising pumping distances from various sites
 - o They are located in an area of low surface mineralisation, which reduces the sterilisation of lithium resource from the evaporation ponds
 - o Location is on a mature portion of the Pozuelos salar. This slightly elevated section of the salar represents competent ground conditions and is not subjected to annual flooding. The viability of siting the ponds in this area has been confirmed by a geotechnical investigation.
 - o A trade-off study undertaken by GHD confirmed that capital cost intensity of the ponds can be reduced by constructing the ponds from native halite salar material
- The secondary and tertiary concentration ponds are located in close vicinity to the lithium plant as the chemical treatment processes associated with these ponds take place within the plant area.
- Stockpile areas are designated to store different kinds of waste coming from concentration ponds. Depending on the waste characteristics, these areas shall need soil protection via liner installation.

18.4.2 Process Plant Area Permanent Installations

Process plant area installations are shown in the following figure and detailed below:

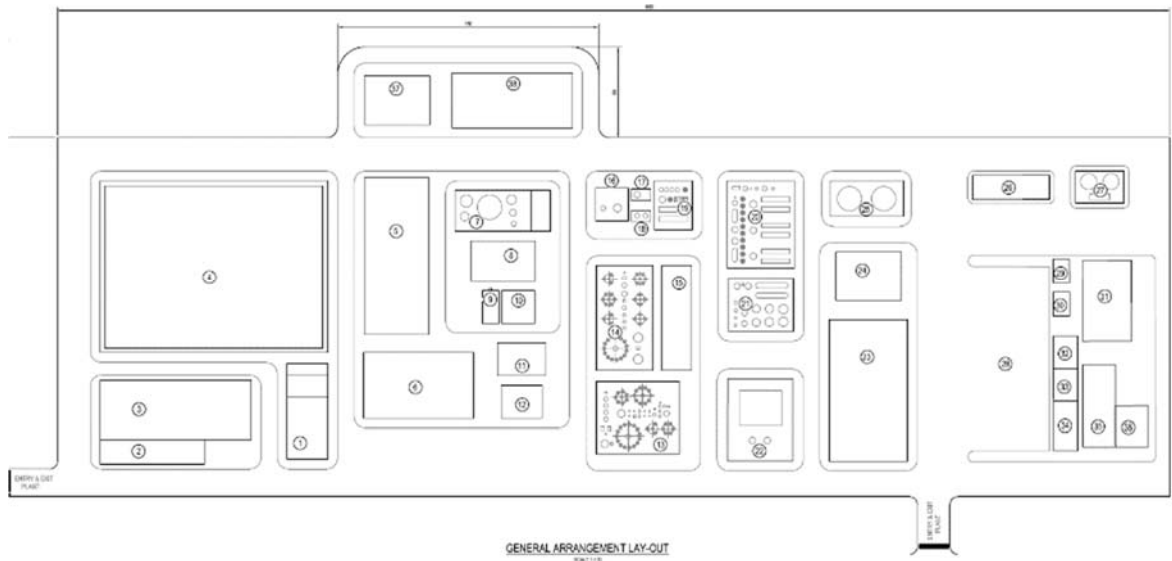


Figure 18-6: Process Plant's Permanent Installations Arrangement

Table 18-3: Process Area Permanent Installations

No.	Installation	Area [ha]
1	Brine storage pond	0.145
2	Primary Chemical Treatment	0.096
3	Secondary Chemical Treatment	0.3375
4	Raw water storage pond	1.34
5	Na ₂ CO ₃ storage & preparation	0.388
6	Reagent storage	0.27
7	Water and Steam Services – Steam Gen	0.145
8	Water and Steam Services – Demi Water Plant	0.1
9	Water and Steam Services – Raw Water Filtration Plant	0.04
10	Water and Steam Services – Cooling Water	0.02
11	Control room	0.06
12	Fire control system	0.05
13	Calcium Magnesium Ion Exchange	0.1
14	Borate Ion Exchange	0.1
15	Solid waste discard area	0.117
16	Flocculant plant	0.04
17	Potable water treatment plant	0.0084
18	Air compressor room	0.0084
19	Crude Carbonate Precipitation	0.0720
20	Crude Carbonate Dissolution & Decarbonation Circuit	0.2214

No.	Installation	Area [ha]
21	Reagents Make-Up	0.1320
22	Lime plant	0.2
23	Finished product warehouse	0.4
24	Drying & Packaging	0.12
25	Fuel tanks	0.1012
26	Maintenance and warehouse	0.07
27	Domestic waste water treatment plant	0.06
28	Parking	0.5
29	Chemical laboratory	0.015
30	Exchange house (dressing room)	0.015
31	Operations camp	0.15
32	Medical first aid	0.03
33	Dining room	0.03
34	Offices	0.045
35	Subcontractor camp	0.075
36	Management camp	0.0375
37	Electrical Room	0.12
38	Gas Generation Plant & Electrical Room	0.25
Total		6.2313

The installations shown in Table 18-3 are briefly described below:

- The primary and secondary chemical treatment plant removes magnesium, calcium, strontium, borate and sulfate impurities.
- Water and steam services are employed in the process plant. A water treatment plant produces process water and a small deionised water stream for steam generation. Steam is mostly produced by gas engines (co-generation) with a small additional quantity from steam boilers.
- The crude carbonate precipitation section is where the lithium carbonate is produced from a high-quality sodium carbonate. The barren liquor from the ion exchange circuit area receives brine from the ion exchange circuits. The crude lithium carbonate is re-crystallised employing the bicarbonate-carbonate transformation.
- The lithium carbonate drying and milling area will house a drying, and milling system to achieve the desired physical quality of the finished product.
- A finished product area has been designed as a closed storage area allowing 2.640 big-bag storage capacity (1,550 [ton]) equivalent to approximately 1 month of production.
- Maintenance and warehouse areas are suitable for main mechanical maintenance operations as well as standard equipment spare parts storage.
- Gas fuelled generator arrangement is a CHP (Combined Heat and Power) that consists of six 1.5 [MW] gen sets with an additional standby unit, able to produce power for the entire

plant and process steam. A total of 4.52 [MW] of electrical power is expected to be required for the PPG production system.

18.5 Worker's Camp

The project's workers camp will be built within the process plant area, as shown in Figure 18 6. The Camp includes several facilities which are planned to be connected by walkways and roads. Currently LSC Lithium maintains a small camp with capacity for fifty workers on site that supports exploration and test work. These facilities will be repurposed and re-used for operations

The main facilities considered within the Worker's Camp are considered for dual use during construction and operations phases and include:

Lodging facilities for workers which include sanitary, HVAC and fire-fighting systems. The facility has been sized for a total workforce of approximately 150 people, but taking consideration of rotation schedules.

Office facilities include sanitary, HVAC and fire-fighting systems. Also considered within these facilities are meeting rooms, support personnel rooms, locker rooms and shower facilities for the labour force.

A dining facility includes all appliances and equipment necessary to accommodate fifty workers during construction and operation. This installation also considers sanitary, HVAC, fire-fighting systems, a large kitchen and food storage area.

A first aid area serves as a local treatment centre for workers. It includes sanitary, HVAC, fire-fighting systems, reception room, first aid sector, restrooms, recovery rooms and medical personnel offices.

18.6 Services

18.6.1 Electrical Power

Six natural gas generation sets will be used as a Combined Heat and Power (CHP) system to supply energy and heat to the plant, one of which is considered as a stand-by set. Heat from the CHP will be used to produce process steam. It is expected that 65 % of the steam production will be obtained from cogeneration. The remaining steam production shall be handled by using a conventional steam boiler set.

18.6.2 Natural Gas

Natural gas will be supplied via a new 25 [km] 4" gas pipeline coming from the existing Puna/Fenix gas pipeline, as shown in Figure 18-10.



Figure 18-7: PPG Project Natural Gas Pipelines Network

An additional 23 [km] 12" gas pipeline loop and compression gas station are required to supplement the existing gas infrastructure. It is assumed that the costs for expanding these facilities are shared with other project developers in the area. An allowance for this loop has been included in the capital estimate³.

18.6.3 Fresh Water Supply

Fresh water supply (raw water) is available from the northern part of Pozuelos, where two sites have been identified by LSC in the vicinity of the lithium plant location as shown in Figure 18-3. Sites WF1 and MW-N will be supplemented by a further fresh water site identified in the south, if required.

Wells will supply the temporary facilities as well as permanent plant facilities. A filter plant is required for proper water treatment. Process water requirements are split into process requirements, requirements for the demineralised/Reverse Osmosis. water plant, the potable water plant and for general reticulation. Potable water consumption has been estimated considering 150 [L/day/person] @ 150 persons at full plant operation.

³ CAPEX estimates assume a 25% share to LSC for the construction and delivery requirements for the natural gas pipeline and ancillary facilities.

Item 19 - Market Studies and Contracts

Lithium's major use in high energy density batteries has made it the centre of much attention in the last few years. The anticipated electric vehicle (EV) revolution, coupled with grid storage batteries and the increasing use of battery micro-grids in homes combine to support long term demand growth trends.

Many observers predict the demand for lithium to grow 10- or 20-fold in the coming decades, an unprecedented growth rate for an industrial commodity. Demand is expected to triple by 2025 alone (The Economist 2017).

This chapter discussed the supply and demand dynamics of lithium and uses this analysis to determine price forecasts. Material presented in this chapter is available from open sources and references are provided in the References at the end of this document.

19.1 Lithium Supply

Lithium (Li) is a silver white metal that belongs to the alkali metal group of chemical elements. It is the lightest metal and the least dense solid element. Lithium is highly reactive and therefore appears only in the form of compounds such as lithium chloride (LiCl) in brines, or lithium oxide (Li₂O) in hard-rock minerals or pegmatites.

The USGS (United States Geological Survey) reports global lithium reserves of 16M [ton], which equates to 83M [ton] of lithium carbonate equivalent (LCE) (USGS, 2018). Figure 19-1 shows global lithium reserves by country. It can be seen that Chile accounts for almost half of global lithium reserves, with Argentina providing 13%.

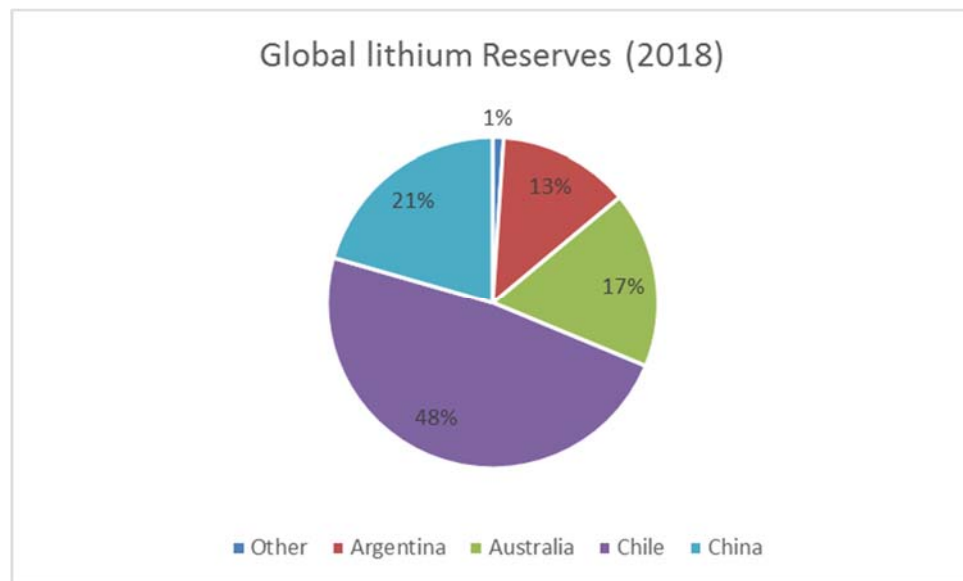


Figure 19-1: Global Lithium Reserves (Source:USGS)

Lithium is most commonly produced in two major chemical compositions, lithium carbonate and lithium hydroxide, with minor production of dozens of other specialised compounds. The world's largest producers are SQM and Albemarle in the Salar de Atacama in Chile. Other production occurs from brines in China and from hard rock sources, mostly in Australia, where the largest operation is the Greenbushes mine.

Global production of lithium equated to 43,000 [ton] in 2017, which equates to 230,000 [ton] of LCE. As can be seen from Figure 19-2, Australia and Chile together makeup over three quarters of global lithium production (USGS, 2014).

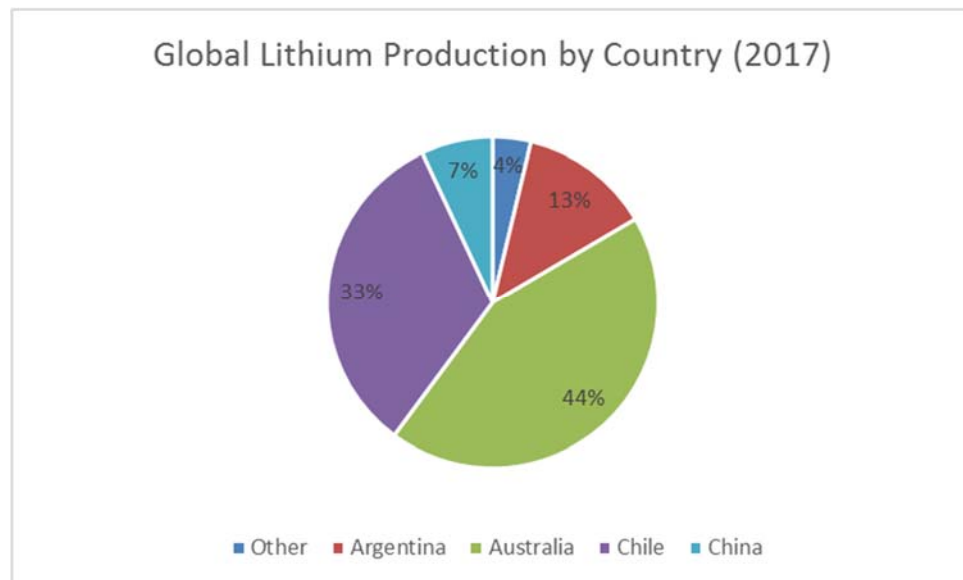


Figure 19-2: Global Lithium Supply in 2017 (Source: USGS)

As prices have been high in previous years, hundreds of potential new lithium project are being marketed. Over 50 lithium projects can be identified in Argentina alone (USGS). Most of these projects are in the early prospecting stage, with other projects undergoing both greenfields and brownfields engineering studies (USGS, 2018). However, due to the long permitting timelines, extensive exploration requirements, high capital expenditures and complex mineralogy, it is unlikely that many of these projects will reach production.

Figure 19-3 shows a summary of the difficulties in ramping up new lithium supply. It can be seen that actual production in 2017 barely achieved half of the forecast of existing and potential new producers in 2012.

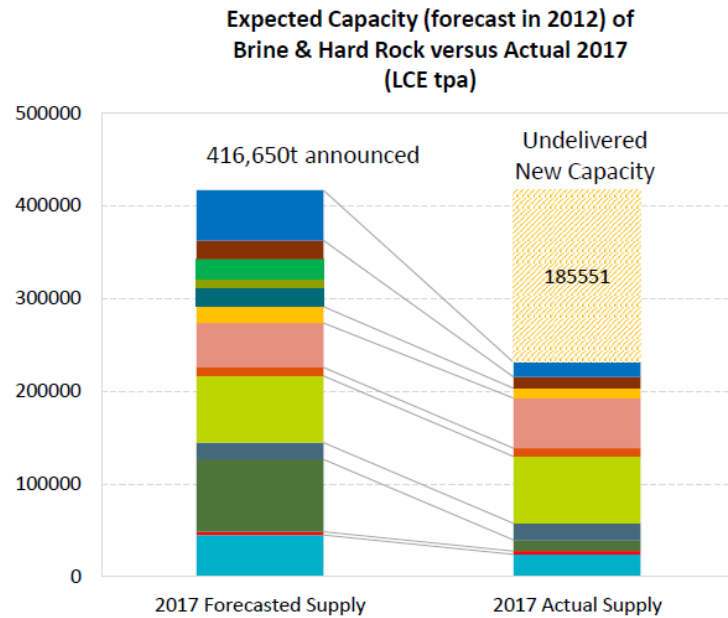


Figure 19-3: Forecast vs Actual Lithium Supply⁴ (Source: Orocobre, 2018)

19.2 Lithium Demand

The battery of preference in high-density applications is the lithium-ion battery. An average electric vehicle requires approximately 30-50 [kg] of lithium in the battery. Therefore, lithium demand for the coming decades is strongly underpinned by the transition to electric vehicles. This demand growth is driven by consumer preference, with an increasing willingness by individuals to reduce their environmental footprints. In parallel, legislation in developed countries is looking to further accelerate this trend. As an example, Norway and the Netherlands have pledged to ban the sale of petrol and diesel cars by 2025, with France and the UK making the same commitment by 2040 (UBS, 2017). These trends support an expected fast growth in EV adoption as shown in Figure 19-4.

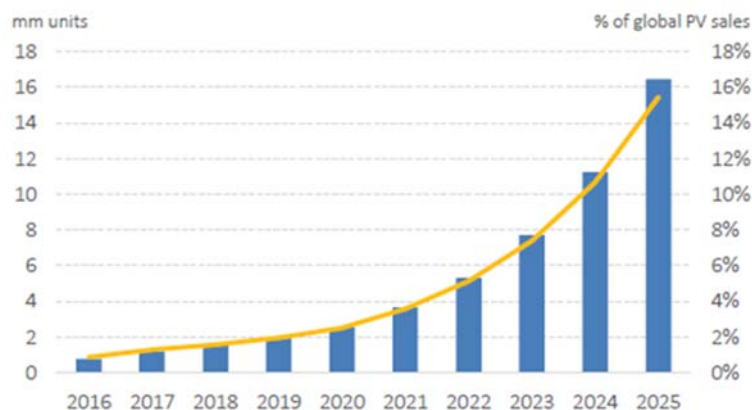


Figure 19-4: Forecast Sale of Global Passenger Vehicles (Source: UBS)

⁴ Colors represent different existing lithium producers.

In addition to electric vehicles, lithium-ion batteries are seeing increasing use in grid storage solution for utility companies and in residential micro-grids coupled with solar photo-voltaic systems. These applications will supplement the expected lithium demand growth, which is expected to average 20% compound annual growth for the next few decades.

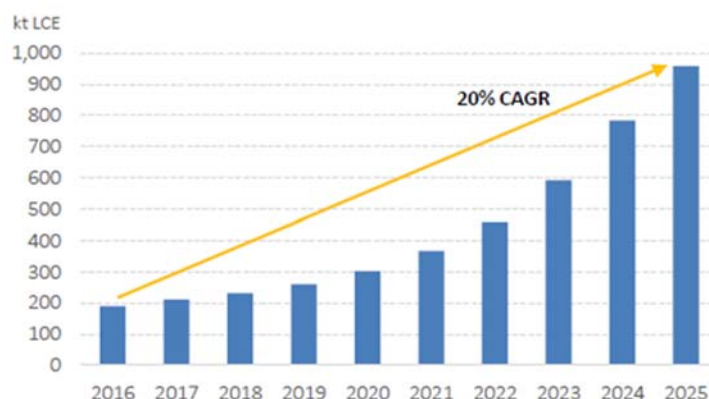


Figure 19-5: Forecast Growth in Lithium Demand to 2025 (Source: UBS, 2017)

The USGS reports that “Lithium supply security has become a top priority for technology companies in the United States and Asia. Strategic alliances and joint ventures among technology companies and exploration companies continued to be established to ensure a reliable, diversified supply of lithium for battery suppliers and vehicle manufacturers.”

19.3 Price Forecast

LSC has reviewed five publicly available price forecast scenarios, which have been concluded between May 2017 and August 2018. The forecasts include analysis undertaken by SignumBOX, Roskill, Global Lithium LLC and Benchmark Mineral Intelligence (Lithium Americas, 2017; Advantage Lithium, 2018; Neolithium, 2017; Galaxy, 2018; Millennial Lithium, 2018).

Table 19-1 presents the average, lowest and highest price forecasts for battery-purity lithium carbonate gathered from the five forecast scenarios. The prices are presented in real 2018 US\$.

Figure 19-6: Price Forecast Summary of other lithium projects (USD) – Battery Grade Lithium Carbonate

	2018	2019	2020	2021	2022	2023	2024	2025	2026
Highest	\$ 14 750	\$ 14 750	\$ 14 750	\$ 14 000	\$ 14 000	\$ 14 250	\$ 14 250	\$ 14 500	\$ 14 500
Average	\$ 13 635	\$ 13 466	\$ 13 198	\$ 13 016	\$ 12 975	\$ 13 043	\$ 13 095	\$ 13 135	\$ 13 171
Lowest	\$ 12 261	\$ 11 463	\$ 10 690	\$ 10 869	\$ 11 026	\$ 11 273	\$ 11 601	\$ 11 834	\$ 11 834
	2027	2028	2029	2030	2031	2032	2033	2034	2035
Highest	\$ 14 500	\$ 14 500	\$ 14 500	\$ 14 500	\$ 14 500	\$ 14 500	\$ 14 500	\$ 14 500	\$ 14 500
Average	\$ 13 210	\$ 13 342	\$ 13 479	\$ 13 412	\$ 13 413	\$ 13 411	\$ 13 406	\$ 13 400	\$ 13 392
Lowest	\$ 11 834	\$ 11 834	\$ 11 834	\$ 11 834	\$ 11 834	\$ 11 834	\$ 11 834	\$ 11 834	\$ 11 834

It can be seen that long-term price forecasts used in other projects vary between USD 11,800 –USD 14,500 per tonne of lithium carbonate, with an average forecast price of approximately USD 13,500 per tonne. This compares with the current free on board (fob) price achieved by an Argentinian lithium producer of USD 14,700 per tonne (Orocobre, Nov 2018).

Nevertheless, LSC has decided to apply a conservative long-term price forecast near the bottom end of the range of price forecasts used by other project developers. A price of USD 12,000 per tonne will be used for the project base case. A downside scenario of USD 10,000 per tonne and an upside scenario of USD 15,000 per tonne will also be considered.

Figure 19-7: Battery Grade Lithium Carbonate Price used for the PPG Project Economic Evaluation

Price Case Scenario	Year					
	2021	2022	2023	2024	2025	2040
	1	2	3	4	5	20
Base [USD/ton]	12,000	12,000	12,000	12,000	12,000	12,000
High [USD/ton]	15,000	15,000	15,000	15,000	15,000	15,000
Low [USD/ton]	10,000	10,000	10,000	10,000	10,000	10,000

Note:

LSC has reviewed five publicly available price forecast scenarios, which have been concluded between May 2017 and August 2018. The forecasts include analysis undertaken by SignumBOX, Roskill, Global Lithium LLC and Benchmark Mineral Intelligence (Lithium Americas, 2017; Advantage Lithium, 2018; Neolithium, 2017; Galaxy, 2018; Millennial Lithium, 2018).

19.4 Conclusions

Although lithium reserves are globally abundant and many projects are currently in the development pipeline, these projects face capital constraints and long permitting timelines. Furthermore, lithium demand is forecast to grow significantly in the coming decades, with compound annual growth rates of 20% expected. This is underpinned by demand for batteries, in particular, associated with electric vehicles.

As a result, prices are forecast to remain firm for the foreseeable future. LSC undertook a review of five publicly available lithium price forecast studies, which were published between May 2017 and August 2018. Long term price forecasts for battery grade lithium carbonate range between USD 11,800 and USD 14,500. LSC has therefore selected a conservative price of USD 12,000 per tonne to be used for the project base case. A downside scenario of USD 10,000 per tonne and an upside scenario of USD 15,000 per tonne will also be considered in the economic analysis.

Item 20 - Environmental Studies, Permitting and Social/Community Impacts

LSC has prepared baseline studies for Pozuelos and Pastos Grandes and the preparation of the Production Environmental Study for a 20,000 [ton/year] production system at PPG is in progress. In addition, the Company already submitted an Environmental Study for the pipeline corridor which allows the transport of brine from Pastos Grandes to Pozuelos. This is currently under review by the Secretary of Mines, Province of Salta, the authority responsible of the administrative approval.

20.1 Environmental Permits for Exploration

LSC is committed to preserving the natural environment of the Puna region. All exploration activities undertaken by the company are under the auspices of an approved Environmental Impact Statement (EIS) by the Provincial Argentine regulator. These are referred to locally as Declaracion De Impacto Ambiental (DIA) and are issued for the exploration activities. Resolution 440 for activities at Pastos Grandes was approved in December 2017 and Resolution 034 was passed in February 2018 for advanced exploration activities at Pozuelos. These approvals have a validity of 2 years whereafter they can be readily renewed.

20.2 Production EIS

The development of the PPG project will cause impacts on the environment, which need to be quantified and actions shall be taken to avoid, minimize or compensate these impacts. The Environmental Impact Study provides the framework for this process. This detailed study is ongoing and is planned to be presented to the authorities of the province of Salta by the end of 2018. Salta-based consultancy Pacha has been hired to undertake this study. The Environmental and Social Impact Study aims to establish a balance between the development of the project and the environment, including the potential effects on hydrological system of the basin, human life, fauna, flora, soil, air, climate, landscape, historical and the environment.

The methodology to carry out the qualitative and quantitative assessment of the potential environmental impacts of the PPG project, will be that proposed by Mr. Vicente Conesa Fernández Vítora. The process considers a review of the environmental baseline studies, hydro-static recharge model and the technical project description.

The environmental zones identified for the project will be classified into systems, subsystems, and environmental components. All environmental subsets can be considered unique and should be analysed accordingly. A standardized classification system will be used by an inter-disciplinary team to identify environmental components and subsystems.

The identified elements of the environment (systems, subsystems and environmental components) have different relative weight according to their location. A differentiated relative weight, entitled the Environmental Units (UA) will be assigned to each environmental element. By convention, the sum of all UAs of a given site must be equal to 1,000 UA (one thousand environmental units), which is the total value of the environment in that site. The weighting will be assigned by a panel of experts, using a convergence technique called Method of Convergence of Ideas (Conesa Fernández Vítora, 1997).

20.2.1 Baseline Studies

The general objectives of the Environmental Baseline Studies are the following:

- Characterize the current state of air, soils and bodies of surface water present in the area that may be influenced by mining activities.
- Make a description of environmental zones within the study area, based on their physiognomy and vegetation, characterizing the different types of ecosystems.
- Analyse the richness and diversity of the flora and fauna of local vertebrates
- Identify:
 - o Areas of special biological relevance and protected areas in accordance with Argentine law.
 - o Critical periods (nesting, migration, breeding, mating)
 - o Species that have a biological interest in terms of conservation or exploitation
- Analyse demographic and quality of life aspects of the populations included in the area of direct and indirect influence of the project.
- Describe the archaeological and cultural heritage in the area, recognizing areas of special interest for conservation.

In order to achieve these objectives, the Environmental Baseline includes the study of biodiversity and the quality of the environment in the project area, specifically the recording of the data to observe in which state the studied environmental components are found such as air, soil, water, climate, fauna and flora, and other elements such as the quality of life of the inhabitants or the cultural heritage of the area. This will ensure that measures to take to conserve these components are better understood.



Figure 20-1: A Vicuña Observed at Pozuelos (from Pozuelos Baseline Study)

20.2.2 Hydro-static Recharge Model

Conhidro, a Salta-based hydrogeology consultancy, started data acquisition and modelling work in Q4 2017 to determine the static recharge of the Pozuelos salar. The model indicates that Pozuelos is fed by two major inflows in the North and South of the salar respectively. Total recharge of the salar is estimated to be between 12-14% of total brine volume annually. This compares with a planned abstraction rate of less than 3% annually and bodes well for the environmental sustainability of the production system.

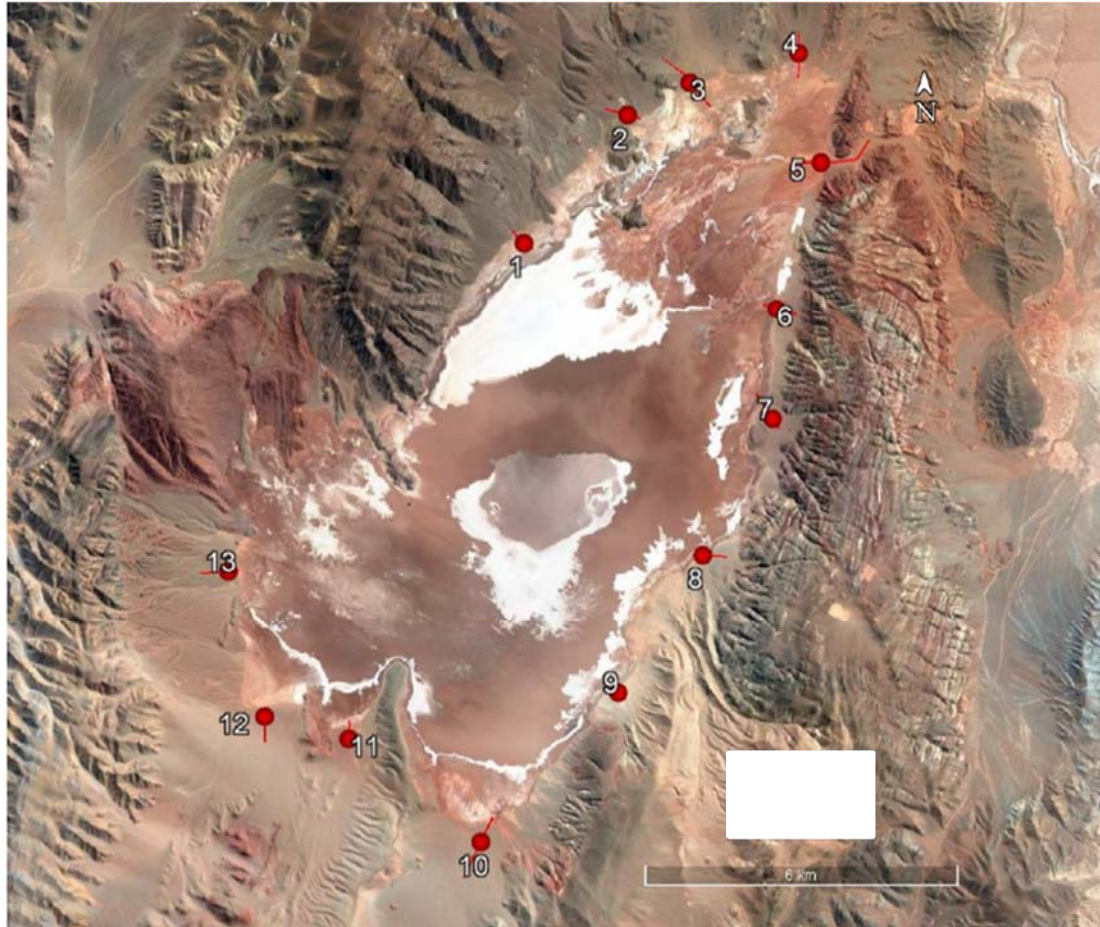


Figure 20-2 Recharge Monitoring Points around Salar Pozuelos

20.2.3 Project Description

In parallel with the preparation of this PEA report, GHD prepared a technical description of the project focussed on environmental inputs and outputs. The focus is to describe aspects of a future production system that may have particular impacts on the project baseline. These include expected traffic, air emissions, chemical usage, water usage, tailings storage, road footprints, etc for the construction, operations and closure phases of the project.

20.2.4 Impacts

The full impact assessment has not yet been undertaken for the PPG project. However, it is expected that project impacts may be the following:

- Changes to landscape and topography due to occupation of physical spaces (evaporation ponds, lithium plant and salt stockpiles).
- Noise level increased caused by the use of pumps at the well field sites and mobile equipment near the evaporation ponds.
- Alteration to flora and fauna habitats due to infrastructure footprint and movement of mobile machinery.
- Greenhouse gas emissions, in particular, related to the project use of natural gas for electricity and steam production.
- Noise and dust impact related to traffic for project reagent supply and product export

20.2.5 Environmental Monitoring Plan

Once the impacts are understood, an Environmental Monitoring Plan is developed for the project. This is a management tool that helps to obtain information over time, providing the necessary knowledge for decision making, to improve the management of possible impacts identified in the EIS process. In addition to ongoing comparison and trend observations, it is necessary to have a starting point that reflects or presents the initial condition of the environment, an environmental baseline, which will be provided by the baseline studies described earlier.

20.3 Mine Closure

LSC is committed to the requirements of the International Finance Corporation (IFC) Performance Standards and the Equator Principles (EP) defined by the World Bank. Therefore, LSC intends to prepare a full mine closure plan in the next study phase.

On completion of mining operations at the PPG project, LSC is committed to restoring the area to its pre-mining use state where practical and applicable. For the purposes of this PEA, GHD estimated closure costs by applying a 5% factor to initial capex. This results in a closure cost allowance of MMUSD 18.5. A detailed closure cost estimate will be based on the closure plan developed in the next study phase.

20.4 Social and Communities

LSC has continued to commit to the highest environmental and social standards and maintain a constant and active dialogue with all stakeholders in the provinces, including the local communities, National, Provincial and respective Municipal Administrations, and their representatives in the various government departments. The PPG project is within the direct influence of the community of Santa Rosa de los Pastos Grandes, located in close vicinity to Salar Pastos Grandes. The community of Pocitos, located approximately 60 [km] north of Pozuelos is also considered to be within the project as an indirect area of influence.

In general, Pozuelos and Pastos Grandes are relatively unencumbered by communities and, the Pozuelos area, in particular, hosts no people in its vicinity. Nevertheless, LSC is committed to ensuring a positive impact on local host communities through a range of initiatives which include:

- Employing individuals from local communities and contracting local suppliers. LSC opened an office in San Antonio de los Cobres, a town in the Puna region close to LSC's projects and main communities in which the Company operates. The office has been operating full-time since January 2018.

- Actively participating with other lithium companies in associated CSR programs.
- Providing support to the local hospital in San Antonio de los Cobres by performing pre-employment medical checks in the Puna.
- Organizing and managing training sessions for local communities to help them diversify their economic activities and revenues. LSC actively participates in local events and meetings in the communities surrounding Pastos Grandes, Salinas Grandes and San Antonio de los Cobres.
- Internally developing an integrated project for existing and new yarn producers in Santa Rosa de los Pastos Grandes in order to add value and train producers in commercialization of products of high quality.

During construction and operations staff will be employed and trained preferentially from local communities.

20.5 Tailings Management

Tailings produced by the project are the solid salts precipitated in the various stages of evaporation ponds. The largest quantities are NaCl (halite) salts harvested from the primary evaporation ponds. Approximately 2.9M [ton/year] of solid halite will be stored in 20 [m] high stockpiles on the Pozuelos salar. Entrained liquid within the salt will be caught by liners and directed back to the pond.

More complex salts such as carnallite, sylvinite, bischoffite and others will precipitate in the secondary and tertiary evaporation ponds. The filter cake from these slurries harvested salts will be trucked to a tailings facility located to the North-East of Pozuelos salar. The quantities are expected to be no more than 300,000 [ton/year]. The facility will be lined and run-off will be caught and returned to the evaporation ponds.

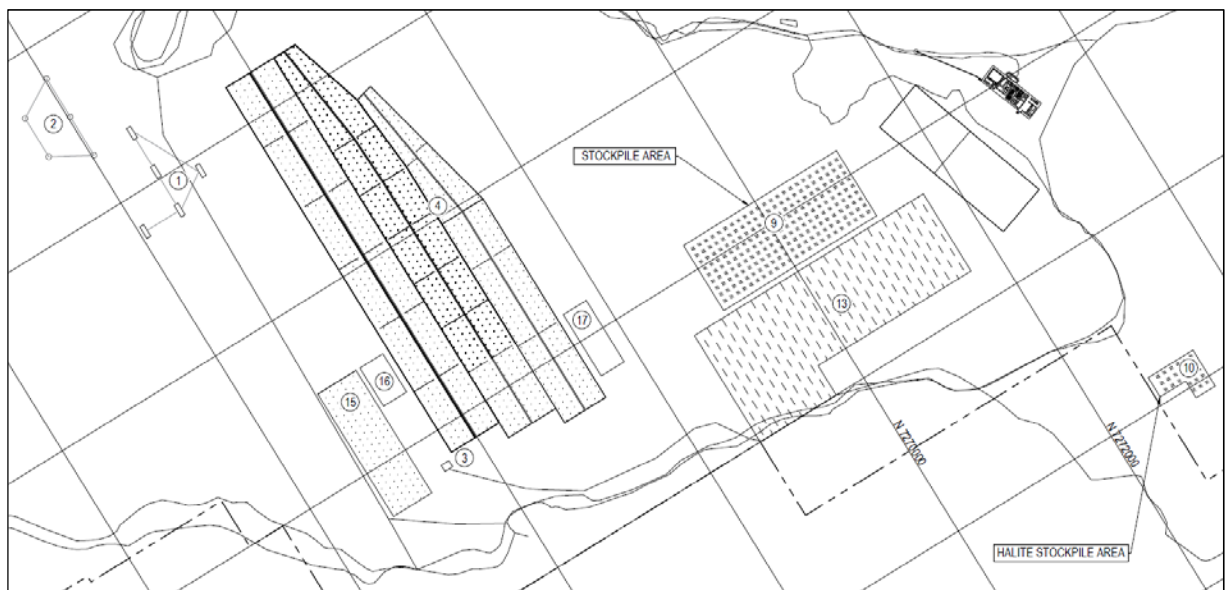


Figure 20-3: Pozeuleos Area Stockpile Arrangement

20.6 Permitting

The current exploration EIS allows LSC to undertake proposed seismic surveys, drill exploration holes, perform pump tests, excavate trial trenches and perform other exploration works. The Pozuelos exploration camp has received permit approval. LSC also submitted applications for fresh water abstraction, pilot ponds, a pipeline easement connecting Pastos Grandes and Pozuelos and the gas pipeline. Approvals for these permits are all expected in Q1 2019.

The production EIS described in Section 20.2 will grant the full permission for the construction and operation of the mining project. Approval is expected in H2 2019.

Item 21 - Capital & Operating Expenses

21.1 Capital Expenditure (CAPEX) Estimate

Capital expenditure, or CAPEX, constitute funds required by LSC to undertake and implement the PPG Project. The project's CAPEX estimates include direct and indirect costs for the implementation of the entire PPG Project, including:

- Brine production wellfields and pipeline delivery system
- Evaporation ponds
- Platforms, earthworks and earth movements
- Lithium carbonate plant
- General services
- Infrastructure
- Indirects and Owner's Costs

Capital expenditures for the project consider extraction and plant infrastructure to produce 20,000 tonnes per year of battery-grade lithium carbonate. Capital equipment costs have been obtained from a combination of GHD's in-house data and selected vendor pricing information.

The estimates are expressed in 2018 US dollars considering the available vendor quotes and estimation work effort. No provision has been included to offset future cost escalation since estimated expenses, as well as expected revenue, are expressed in constant dollars. Accuracy of this estimate is expected to be within a $\pm 25\%$ range.

The capital expenditure for the PPG Project, including equipment, materials, indirect costs and contingencies during the construction period has been estimated in **USD 337,648,000**. This value excludes interest expenses that might be capitalized during the same period. This value includes the following estimations:

- Direct Project Costs equal USD 237,557,124, equivalent to 70.4% of the total CAPEX
- Indirect Project Costs equal USD 41,417,531 equivalent to 12.3% of the total CAPEX⁵
- Project Contingencies equal USD 58,672,077 equivalent to 17.3% of the total CAPEX

The project also considers deferred Investments for year two, three and ten, as detailed below:

- ❖ Project deferred costs for the second year amount to USD 22,395,210. These costs correspond to the Pastos Grandes Wells construction, Auxiliary ponds and washate ponds for Area 100 harvesting.
- ❖ Project deferred costs for the third year amount to USD 10,502,057. These costs correspond to the acquisition of Area 100 ponds harvesting (trucks, frontloaders).
- ❖ Project deferred costs for the tenth year amount to USD 2,327,814. These costs correspond to stockpile capacity expansion (+50%).

LSC made the decision to develop the primary concentration ponds to a higher level of accuracy. Additional engineering was undertaken to support an estimate for this infrastructure that is at

⁵ Indirect Costs include, but are not limited to, the following costs: Camp, temporary facilities, temporary power, water supply.

Prefeasibility Study level. Therefore, the accuracy of the estimate increased in this area and the contingency was reduced.

Figure 21-1: PPG Project Total CAPEX Estimate

	Description	MH	Construction				Equipment		Total
			Labour	Equipment	Material	Sub Contract	Local	Imported	
			USD	USD	USD	USD	USD	USD	
Direct Costs	Civil	872,985	27,380,730	43,649,238	0	1,015,838	0	0	72,045,806
	Geomembrane	1,133,912	11,311,401	941,147	24,620,301	0	0	0	36,872,849
	Concrete	384,432	5,903,534	5,074,506	2,739,110	0	0	0	13,717,150
	Structural	397,622	6,106,085	5,248,613	13,028,725	0	0	567,788	24,951,210
	Architecture	0	0	0	0	7,579,963	0	567,788	8,147,751
	Mechanical	108,718	1,940,018	1,913,436	4,003,230	5,728,548	0	26,922,000	40,507,232
	Piping	238,908	4,080,277	3,784,295	9,897,051	0	0	1,769,513	19,531,135
	Electrical	72,628	997,142	639,124	3,624,065	0	0	13,321,350	18,581,680
	Instrumentation	13,682	187,847	120,402	1,157,625	0	0	1,736,438	3,202,312
	Total Direct Cost	3,222,887	57,907,034	61,370,760	59,070,105	14,324,349	0	44,884,875	237,557,124
Indirect Costs	Fright – Local					1,063,262			1,063,262
	Fright - International					6,851,292			6,851,292
	Taxes								0
	Spare Parts						0	1,346,546	1,346,546
	Vendor Rep.						0	897,698	897,698
	EPCM - Engineering					4,751,142			4,751,142
	EPCM - Procurement					2,956,983			2,956,983
	EPCM - Construction Management					14,048,323			14,048,323
	Start-Up					4,751,142			4,751,142
	Owner's Cost					4,751,142			4,751,142
	Total Indirect Costs	0	0	0	0	39,173,287	0	2,244,244	41,417,531
	Contingency (20,9%)		11,546,656	12,254,983	12,374,662	11,078,525	0	11,417,597	58,672,423
	TOTAL	3,222,887	69,453,690	73,625,743	71,444,768	64,576,161	0	58,546,716	337,647,077

Figure 21-2: Project's Deferred Costs Estimation for Year Two

	Description	MH	Construction				Equipment		Total
			Labour	Equipment	Material	Sub Contract	National	Imported	
			USD	USD	USD	USD	USD	USD	USD
Direct Costs	Civil	46,578	1,460,888	2,328,888	0	4,063,350	0	0	7,853,126
	Geomembrane	48,399	482,807	40,171	1,056,900	0	0	0	1,579,878
	Concrete	1,840	28,250	24,283	74,160	0	0	0	126,693
	Structural	0	0	0	0	0	0	0	0
	Architecture	0	0	0	0	0	0	0	0
	Mechanical	7,592	135,475	133,619	0	0	0	1,459,500	1,728,595
	Piping	66,838	1,141,526	1,058,720	1,774,972	0	0	0	3,975,218
	Electrical	27,740	380,856	244,112	420,000	0	0	0	1,044,968
	Instrumentation	0	0	0	0	0	0	0	0
	Total Direct Cost	198,987	3,629,802	3,829,792	3,326,032	4,063,350	0	1,459,500	16,308,477
Indirect Costs	Fright – Local					59,869			59,869
	Fright - International					278,991			278,991
	Taxes								0
	Spare Part						0	43,785	43,785
	Vendor Rep						0	29,190	29,190
	EPCM - Engineering					326,170			326,170
	EPCM - Procurement					221,222			221,222
	EPCM - Construction Management					949,724			949,724
	Start-Up					326,170			326,170
	Owner's Cost					326,170			326,170
	Total Indirect Costs	0	0	0	0	2,488,314	0	72,975	2,561,289
	Contingency (18.6%)		637,505	662,458	608,653	1,310,333	0	306,495	3,525,444
	Total	198,987	4,267,306	4,492,251	3,934,685	7,861,997	0	1,838,970	22,395,210

Figure 21-3: Project's Deferred Costs Estimation for Year Three

	Descripción	MH	Construction				Equipment		Total
			Labour	Equipment	Material	Sub Contract	National	Imported	
			USD	USD	USD	USD	USD	USD	USD
Direct Costs	Civil	0	0	0	0	0	0	0	0
	Geomembrane	0	0	0	0	0	0	0	0
	Concrete	0	0	0	0	0	0	0	0
	Structural	0	0	0	0	0	0	0	0
	Architecture	0	0	0	0	0	0	0	0
	Mechanical	0	0	0	0	0	0	6,951,000	6,951,000
	Piping	0	0	0	0	0	0	0	0
	Electrical	0	0	0	0	0	0	0	0
	Instrumentation	0	0	0	0	0	0	0	0
	Total Direct Cost	0	0	0	0	0	0	6,951,000	6,951,000
Indirect Costs	Freight - Local					0			0
	Freight - International					695,100			695,100
	Taxes								0
	Spare Parts						0	208,530	208,530
	Vendor Rep						0	139,020	139,020
	EPCM - Engineering					139,020			139,020
	EPCM - Procurement					173,775			173,775
	EPCM - Construction Management					456,854			456,854
	Start-Up					139,020			139,020
	Owner's Cost					139,020			139,020
	Total Indirect Costs	0	0	0	0	1,742,789	0	347,550	2,090,339
	Contingency (16.2%)		0	0	0	348,558	0	1,112,160	1,460,718
	Total	0	0	0	0	2,091,347	0	8,410,710	10,502,057

Figure 21-4: Project's Deferred Costs Estimation for Year Ten

	Descripción	MH	Construcción				Equipment		Total
			Labor	Equipment	Material	SubContract	National	Imported	
			USD	USD	USD	USD	USD	USD	
Direct Costs	Civil	17,096	536,211	854,805	0	0	0	0	1,391,016
	Geomembrane	7,332	73,140	6,086	190,831	0	0	0	270,057
	Concrete	0	0	0	0	0	0	0	0
	Structural	0	0	0	0	0	0	0	0
	Architecture	0	0	0	0	0	0	0	0
	Mechanical	0	0	0	0	0	0	0	0
	Piping	0	0	0	0	0	0	0	0
	Electrical	0	0	0	0	0	0	0	0
	Instrumentation	0	0	0	0	0	0	0	0
	Total Direct Cost	24,428	609,351	860,891	190,831	0	0	0	1,661,073
Indirect Costs	Freight - Local					3,435			3,435
	Freight - International					7,633			7,633
	Taxes								0
	Spare Part						0	0	0
	Vendor Rep						0	0	0
	EPCM - Engineering					33,221			33,221
	EPCM - Procurement					4,771			4,771
	EPCM - Construction Management					94,057			94,057
	Start-Up					33,221			33,221
	Owner Cost					33,221			33,221
	Total Indirect Costs	0	0	0	0	209,561	0	0	209,561
	Contingency (24.4%)		152,338	215,223	47,708	41,912	0	0	457,180
	Total	24,428	761,689	1,076,114	238,539	251,473	0	0	2,327,814

21.1.1.1 CAPEX Basis of Estimation

Productivity Factor

The productivity factors used for construction and assembly labour costs estimation are shown in Table 21-5. These values have been developed from GHD's experience on similar projects and taking into account multiple factors such as location, weather, facilities and human resources available, among others.

Figure 21-5: PPG Project – Productivity Factor

Summary	Unit	Value
Daily losses	hours	487.2
Daily losses due to external causes	hours	321.6
Total hours lost	hours	808.8
Available hours	hours	1,740.0
Productivity factor		1.46
Effective hours	hours / Shift	6.85

Exclusions

The following items have not been included in the project's CAPEX estimate:

- Sunk and legal costs
- Incentives, special or otherwise
- Allowances and Compensations
- Permitting and construction insurances costs
- Price Escalation
- Interests and financing costs
- Additional exploration expenses

Currency

All capital cost values are expressed in constant fourth quarter 2018 US dollars.

Although special consideration must be taken on the devaluation of the Argentinian Peso (ARS) towards the US Dollar (USD) during 2018, the CAPEX estimation should not be greatly affected by this, mainly because most equipment items are considered to be imported, and most Argentinian capital items are quoted in USA dollars. Nevertheless, items that have a strong local labour component such as pond area earthworks, price variations in terms of USD currency shall be expected.

No provision for escalation has been included since both revenues and expenses are expressed in constant dollars.

Sustaining CAPEX

Sustaining capital expenditures are costs that are incurred to sustain and maintain existing assets at mine the mining operation at the designed productive capacity in order to achieve constant planned levels of productive output. These costs are calculated in a yearly basis throughout the

life of mine (LoM). Among the costs considered in this item are major equipment replacements, well field expansion and vehicle fleet extension.

This number was factored as 2% of the total CAPEX and amounts to USD 6,752,942 per year. This expenditure is considered to be incurred starting on the second year of production (2022).

21.2 Operating Expenses (OPEX) Estimate

Operating expenses or OPEX are costs to operate the production system and were estimated by GHD⁶. Brine processing costs and outputs are based upon process definition, testwork, and reagents consumption rates determined by mass balance calculations.

This estimation considers the experience of other lithium carbonate plants in the project area. Informative vendor quotations have been used for reagents costs. Expenses estimates, as well as manpower levels are based on GHD's experience as well as local information provided directly by LSC. Energy generation costs, which include natural gas costs, have been adjusted for expected long term costs in Argentina.

The summary is presented below:

Figure 21-6: PPG Project Yearly OPEX Estimate

Description	[USD/year] x 1000	USD per ton of Li ₂ CO ₃ produced
Direct Costs		
Chemical Reactive Substances and Reagents	28,625	1,431
Salt Removal and Transport	8,798	440
Energy	3,209	160
Manpower	6,279	314
Catering & Camp Services	2,113	106
Maintenance	2,890	144
Consumables (bags, water treatment, grinding media, resins, lubricants)	500	25
Li ₂ CO ₃ Transport to Antofagasta Port	2,300	115
Total Direct Costs	54,714	2,736
Contingency (5%)	2,736	137
Indirect Costs		
General & Administration - LO	2,436	122
Total Indirect Costs	2,436	122
Total Production Costs	57,150	2,994

21.2.1 Reagents

The use of reagents and chemicals reactive substances constitute the main operating cost for the project. Reagent prices were obtained from quotations received collectively by LSC and GHD. As many reagents are imported, transport costs from Buenos Aires to the Pozuelos site were also based on a budget price. Reagent consumption was determined from the detailed heat and material balance developed for the project.

⁶ Project Costs do not include corporate overhead.

21.2.2 Energy Costs

Energy costs consider the generation of electricity by means of natural gas engines. The use of a Heat Recovery Steam Generation system allows a more efficient use of fuel and significantly lowers consumption while complying with the plant's heat and electricity requirements. Electricity requirements were estimated from the detailed mechanical equipment list with steam requirements coming from the process development. Gas prices are based on current benchmarks in the Puna region and include taxes and transport

21.2.3 Maintenance Costs

The maintenance cost estimate was developed applying GHD experience by applying a factor to plant and equipment costs.

21.2.4 Labour

Personnel required for the operation, maintenance and administration of the production facilities were estimated on the basis of experience in similar installations. Personnel salaries and benefits were estimated and updated using GHD's database from other similar operations in Argentina. Catering includes all costs related to lodging and food the project's personnel.

21.2.5 All-In Sustaining Costs

In addition to the life of mine average operating costs, a royalty of approximately USD 360 per ton of lithium carbonate is applicable based on the base case product price. Furthermore, estimated sustaining capital averages USD 373 per ton of lithium carbonate. Total all-in sustaining costs are therefore estimated to be USD 3,727 per ton of lithium carbonate.

Item 22 - Economic Analysis

The results of the economic analysis represent forward-looking information as defined under Canadian securities law. The results depend on inputs that are subject to a number of known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those presented here. Factors that could cause such differences include, but are not limited to: changes in commodity prices, costs and supply of materials relevant to the mining industry, the actual extent of the mineral resources compared to those that were estimated, actual mining and brine recoveries that may be achieved, technological change in the mining, processing and waste disposal, changes in government and changes in regulations affecting the ability to permit and operate a mining operation. Forward-looking information in this analysis includes statements regarding future mining and mineral processing plans, rates and amounts of production, tax and royalty terms, the ability to finance the project, and lithium price forecasts.

This chapter presents the economic valuation of the PPG Project using a discounted cash flow model to analyse revenue, costs, royalties and tax effects on NPV, IRR and payback period.

22.1 Main assumptions

Assumptions taken for the preparation of the economic analysis are as follows:

- **Lithium carbonate production:** Nominal plant capacity is 20.000 [ton/year], starting operations in 2021 with a defined ramp up (20% 2021, 50% 2022, 80% 2023 and full capacity at 2024) (see Item 24 of this report).
- **Lithium carbonate price:** Price is based on LSC lithium carbonate battery grade benchmark forecast (see Item 19 of this report). Different scenarios have been established, considering a base case price of 12.000 [USD/ton], a low price scenario of 10.000 [USD/ton] and a high price scenario of 15.000 [USD/ton].
- **CAPEX:** Presented in Item 21. This economic analysis assumes 100% LSC equity, making a total initial Capital Expenditure of ~ 332 MMUS\$. No project debt has been considered in this economic analysis.
- **OPEX:** Presented on Item 21. This economic analysis considers a plant production of 20.000 [ton/year].
- **Sustaining Capex:** Presented in Item 21, it has been defined as 2% per year of the total CAPEX.
- **Royalties:** A 3% rate on the gross value on revenues has been considered.
- **Taxes:** A 25% rate was applied in line with the new Argentinian Federal Mining Agreement
- **Depreciation:** A 5-year straight line depreciation has been applied to the project CAPEX.
- **Working Capital:** An initial working capital of 10 MMUSD has been included in the allowance.
- **Closure cost:** The closure cost has been defined as 5% value of the total CAPEX.
- **Discount rate:** A 8% rate has been considered.
- **Evaluation period:** The project has been evaluated considering 20 years' continuous operation.

- **NPV:** Estimated from the start of construction period, expected to be in 2020 and calculated in current year (2020) dollars.
- **Free Cash Flow:** The model is based on annual discounts, discounted at the start of each year.

22.1.1 Capital Expenditures

The project is expected to have total capital expenditures of 373 MMUSD during its lifetime (20 years).

The CAPEX structure considered for the economic evaluation, can be found in Item 21 of this report. Other considerations are:

- Indirect Costs are composed by Freight of National and Imported goods, Taxes, Spare Parts, Vendor Rep., Engineering, EPCM, Engineering, Procurement, Construction Management and StartUp and Owner Cost.
- Contingency values for Direct and Indirect costs have been estimated separately for each each project area. Areas such as the primary evaporation ponds have been developed to a more detailed level of design and have therefore received a lower contingency. The weighted average contingency for the CAPEX is 21%.

22.1.2 Operating Expenses

Operating expenses have been detailed in Item 21 of this report. The OPEX has been divided into fixed and variable costs, with fixed costs applied at their full rate starting from the first year of production.

22.1.3 Production

The project is assumed to have a period of four years for plant ramp-up. Production capacity starts at 20% in 2021 and reaches full operational capacity (100%) in 2024. From then on, it is considered to remain constant for the remainder of the project's lifetime.

Figure 22-1: Production Rates through Life of Project

	Year								
	2018	2019	2020	2021	2022	2023	2024	2025	2040
	-2	-1	0	1	2	3	4	5	20
Installed Production Capacity [ton/year]				20,000	20,000	20,000	20,000	20,000	20,000
Operating Rate				20%	50%	80%	100%	100%	100%
Actual Production Capacity [ton/year]				4,000	10,000	16,000	20,000	20,000	20,000

22.1.4 Lithium Carbonate Prices

Lithium Carbonate prices have been fixed for this analysis as 12.000 [USD/ton] for the project base case. A low-price scenario of 10.000 [USD/ton] and a high price scenario of 15.000 [USD/ton] will also be considered. For more detail see section 19.3 of this report.

22.2 Project Revenues

Project revenues for the base case lithium price scenario are presented below, considering ramp-up production during the first four years all the way through life of mine (Year 20).

Figure 22-2: Yearly Projected Project Revenue– Base Case

	Year								
	2018	2019	2020	2021	2022	2023	2024	2025	2040
	-2	-1	0	1	2	3	4	5	20
Installed Production Capacity [ton/year]				20,000	20,000	20,000	20,000	20,000	20,000
Operating Rate				20%	50%	80%	100%	100%	100%
Actual Production Capacity [ton/year]	0	0	0	4,000	10,000	16,000	20,000	20,000	20,000
Projected Revenue [USD/year]	0	0	0	48,000,000	120,000,000	192,000,000	240,000,000	240,000,000	240,000,000

22.1 Cash Flow Projection

A cash flow analysis and methodology are used to show the effects and sensitivities of all the assumptions defined by LSC for the PPG Project.

Figure 22-3: Cash Flow Projection – Base Case

	Total Period	Unit	Year					
			2020	2021	2022	2023	2024	2040
			0	1	2	3	4	20
Volume	370,000	[ton/year]	0	4,000	10,000	16,000	20,000	20,000
Li2CO3, Price		[USD/ton]	12,000	12,000	12,000	12,000	12,000	12,000
Revenues	4,440,000,000	[USD/year]	0	48,000,000	120,000,000	192,000,000	240,000,000	240,000,000
Operating Costs	1,244,731,853	[USD/year]	0	15,365,710	34,760,558	54,155,406	67,085,305	67,085,305
Direct Cost @ 2,872 [USD/ton]		[USD/year]	0	11,489,899	28,724,747	45,959,595	57,449,494	57,449,494
Indirect Cost @ 2,435,811 USD		[USD/year]	0	2,435,811	2,435,811	2,435,811	2,435,811	2,435,811
Royalties (3%)	3%	[USD/year]	0	1,440,000	3,600,000	5,760,000	7,200,000	7,200,000
EBITDA		[USD/year]	0	32,634,290	85,239,442	137,844,594	172,914,695	172,914,695
% EBITDA Margin			0%	68%	71%	72%	72%	72%

	Total Period	Unit	Year					
			2020	2021	2022	2023	2024	2040
			0	1	2	3	4	20
Depreciation		[USD/year]	0	-36,764,708	-70,529,415	-76,499,946	-80,091,846	-25,372,330
Taxable Income		[USD/year]	0	34,942,251	56,524,541	70,748,099	99,719,820	147,542,366
Carried Loss	6,000,000	[USD/year]		-6,000,000				0
Taxable Income + Carried Loss	[USD/year]	[USD/year]	0	-4,130,417	10,579,609	61,344,648	92,822,849	147,542,366
Taxes	25%	[USD/year]	0	0	1,612,298	15,336,162	23,205,712	36,885,591
Profit After Taxes		[USD/year]	0	-4,130,417	8,967,311	46,008,486	69,617,137	110,656,774
CAPEX	372,872,159	[USD/year]	-154,155,433	-183,491,644	-22,395,210	-10,502,057	0	0
Sustaining Capex		[USD/year]			-7,457,443	-7,457,443	-7,457,443	0
Working Capital	10,000,000	[USD/year]			-10,000,000			10,000,000
Closure Cost		[USD/year]						-18,643,608
Depreciation		[USD/year]	0	36,764,708	70,529,415	76,499,946	80,091,846	25,372,330
(=) Free Cash Flow		[USD/year]	-168,823,539	-136,189,248	43,774,491	104,548,932	142,251,540	127,385,496
Discounted Free Cash Flow		[USD/year]	-168,823,539	-126,101,156	37,529,571	82,994,313	104,559,128	27,330,330
Accumulated Discounted Free Cash Flow		[USD/year]	-168,823,539	-294,924,694	-257,395,124	-174,400,811	-69,841,683	761,537,746
Payback		[USD/year]	0	0	0	0	0	0

Using base case price assumptions, and applying a discount rate of 8%, the after-tax project NPV_{8%} amounts to approximately MMUSD 762, with an IRR of 30% and a payback period of less than 5 years. Annual free cash flows have an average value of MMUSD 127 across the life of the project.⁷

The pre-tax NPV_{8%} is MMUSD 1,036, with an IRR of 34% and annual free cash flows of approximately MMUSD 165.

⁷ NPV calculations in the PEA financial model have been escalated to 2020 US dollars. OPEX and CAPEX are calculated using constant 2018 US dollars.

22.2 Sensitivity Analysis

A sensitivity analysis was performed on the capital costs, production capacity, product price and discount rate. Sensitivities were conducted on the criteria described below.

22.2.1 CAPEX Sensitivity

CAPEX sensitivity analysis considered a CAPEX variation range of -10% to +20%, where the lower range represents an optimistic value for a project during detail engineering stage, i.e. minimum contingencies; while the upper range considers overrated capital costs, on-site re-engineering during start-up (due to underestimations of capital costs components such as foundations, civil works or lower freight estimation of imported equipment as well as corresponding taxes). The direct impacts on NPV, IRR are shown in the figure below.

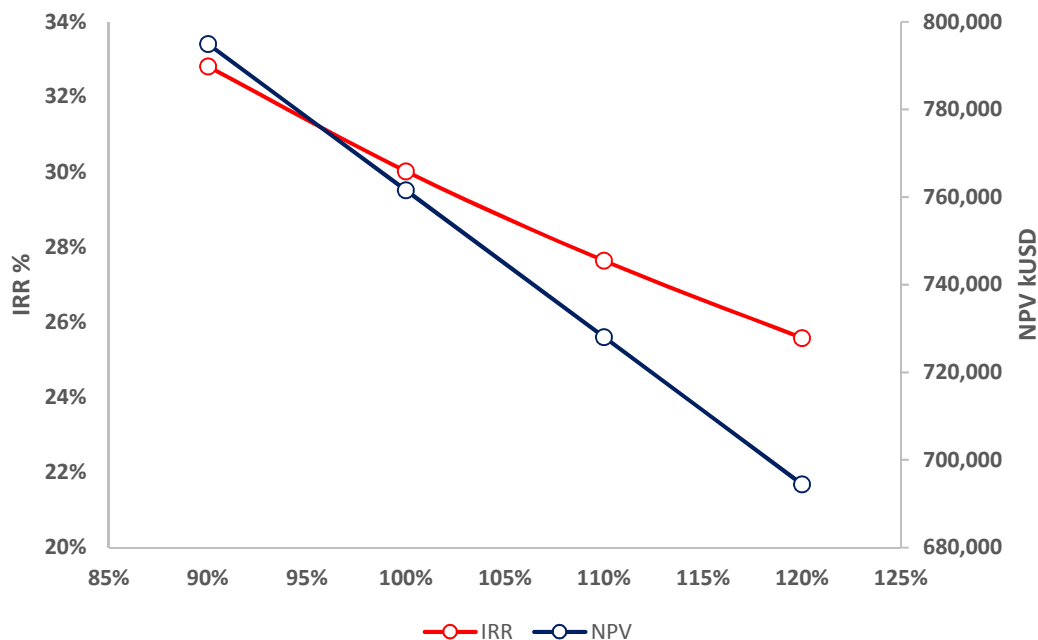


Figure 22-4: Sensitivity of PPG Project Value to CAPEX

22.2.2 Price Sensitivity

Lithium carbonate price sensitivity analysis was performed in $\pm 5\%$ increments, where the lowest range represent a low price scenario, and the highest range, corresponding to a high price scenario.

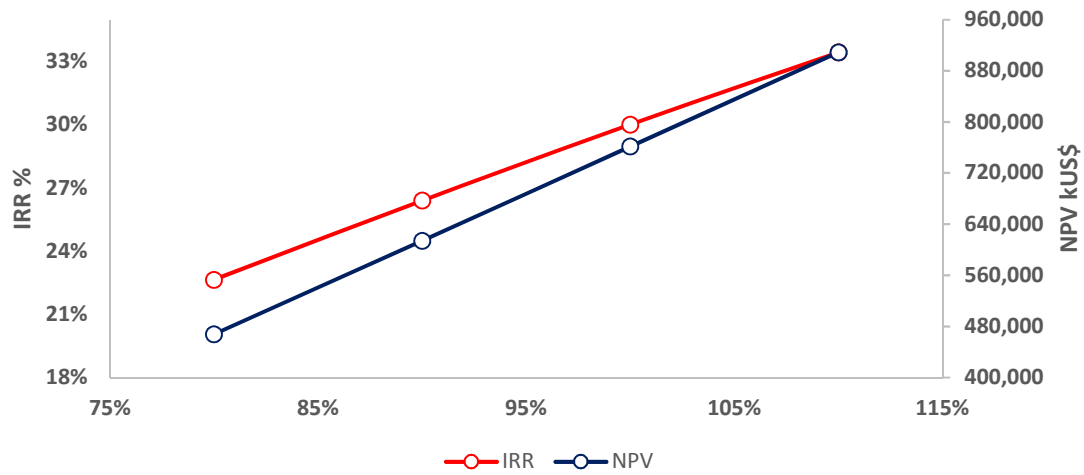


Figure 22-5: Sensitivity of PPG Project Value to Product Price

22.2.3 Lithium Carbonate Production Sensitivity

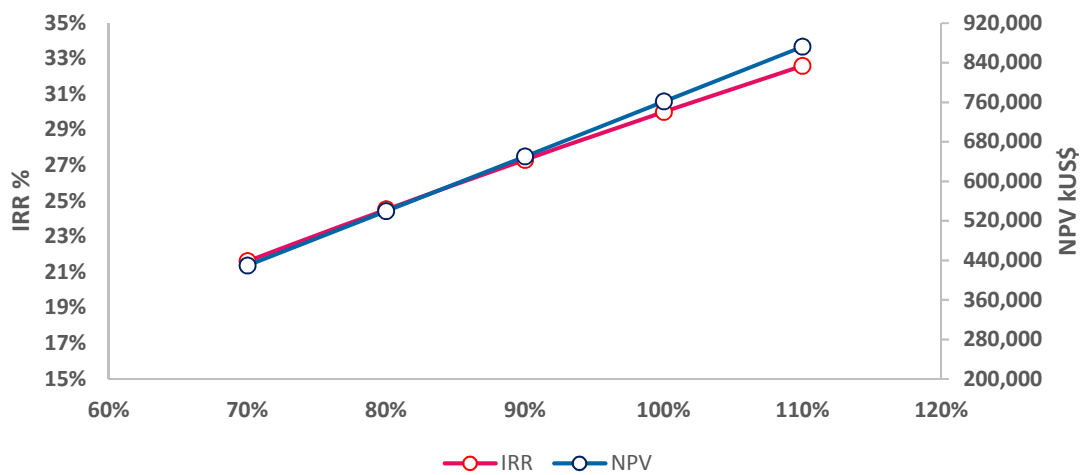


Figure 22-6: Sensitivity of PPG Project Value to Production Rate

22.2.4 Discount Rate Sensitivity

The project NPV at real discount rates of 6%, 8%, 10%, 12% and 14% is shown in the figure below.

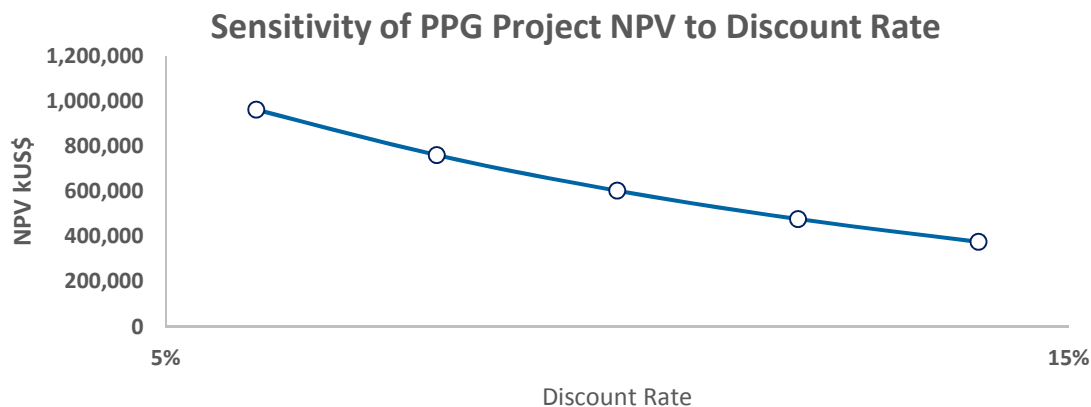


Figure 22-7: Sensitivity of PPG Project NPV to Discount Rate

22.2.5 Sensitivity Summary

The project economics are most sensitive to product price, the after-tax NPV_{8%} for the low product price scenario is MMUSD 515 and MMUSD 1,135m in the high price scenario.

The net present value is least sensitive to capex, with a 20% increase in capex, reducing the NPV_{8%} by less than MMUSD 70 or less than 10%. The after-tax NPV_{10%} is MMUSD 604; the NPV_{12%} is MMUSD 478 and the NPV_{6%} is MMUSD 962. Reducing production to 16,000 tons per annum, reduces the NPV_{8%} to MMUSD 540.

22.3 Economic Analysis Summary

The economic analysis can be summarized as follows:

The project base case's NPV_{8%} amounts to approximately MMUSD 762, with an IRR of 30% and a payback period of less than 5 years. Annual free cash flows have an average value of MMUSD 127 across the life of the project.

There is an opportunity to improve values further with the generation of byproducts and it is recommended that this is studied in the next stage of development.

This economic analysis also shows that both lithium carbonate price and production rates have the strongest impacts on the Project's economic performance. The after-tax NPV_{8%} for the low product price scenario is USD 515 million and USD 1,135m in the high price scenario.

Project value could be further enhanced by focussing on an increased LoM for the PPG project.

Item 23 - Adjacent Properties

23.1 Pastos Grandes

LSC's tenements on the salar de Pastos Grandes are located on the east and west sides of the salar. Adjoining tenements in the central portion of the salar and to the north and south are owned or under control by Millennial Lithium and a number of other companies. Figure 23-1 illustrates the disposition and ownership of the adjacent tenements.

Millennial Lithium has filed an NI 43-101 technical report on its tenements at salar de Pastos Grandes. This report (Rosko, 2018) provides a resource estimate for the tenements located in the central part of salar de Pastos Grandes, excluding those tenements acquired by Millennial Lithium from REMSA in late 2017. In its 2018 technical report, Millennial reported the following resource estimate (Table 23-1):

Table 23-1: Millennial Lithium Resource Estimate – Salar de Pastos Grandes Property, January 2018

(cut-off grade 300 [mg/l] Li)

Resource Category	Brine Vol [m ³]	Avg. Li [mg/l]	In Situ Li [ton]	Avg. K [mg/l]	In Situ [ton]
Measured	5.2 x 10 ⁸	465	240,000	5,009	2,582,000
Indicated	3.8 x 10 ⁸	418	160,000	4,395	1,687,000
M+I	9.0 x 10 ⁸	445	400,000	4,747	4,269,000
Inferred	3.5 x 10 ⁸	469	165,000	4,871	1,711,000

Source: Rosko, 2018

Note: Mineralization on adjacent properties may not necessarily be comparable to mineralization on the LSC tenements. The Qualified Person for this report has not verified the information contained in the Millennial Lithium technical report.

Salt is produced by various operators on the Millennial tenements located on the salar surface under usufruct agreement.

Millennial Lithium acquired tenements to the south and north of its existing tenements from REMSA, in a competitive bidding process in late 2017. No information is available on the lithium mineral potential of these tenements as of the date of this report.

The tenements held by Borax Argentina S.A. are located off of the salar surface and within the Sijes Formation. These tenements are mined for borax minerals by Borax Argentina. Tenements held by others on the periphery of the salar are licensed for borate production.

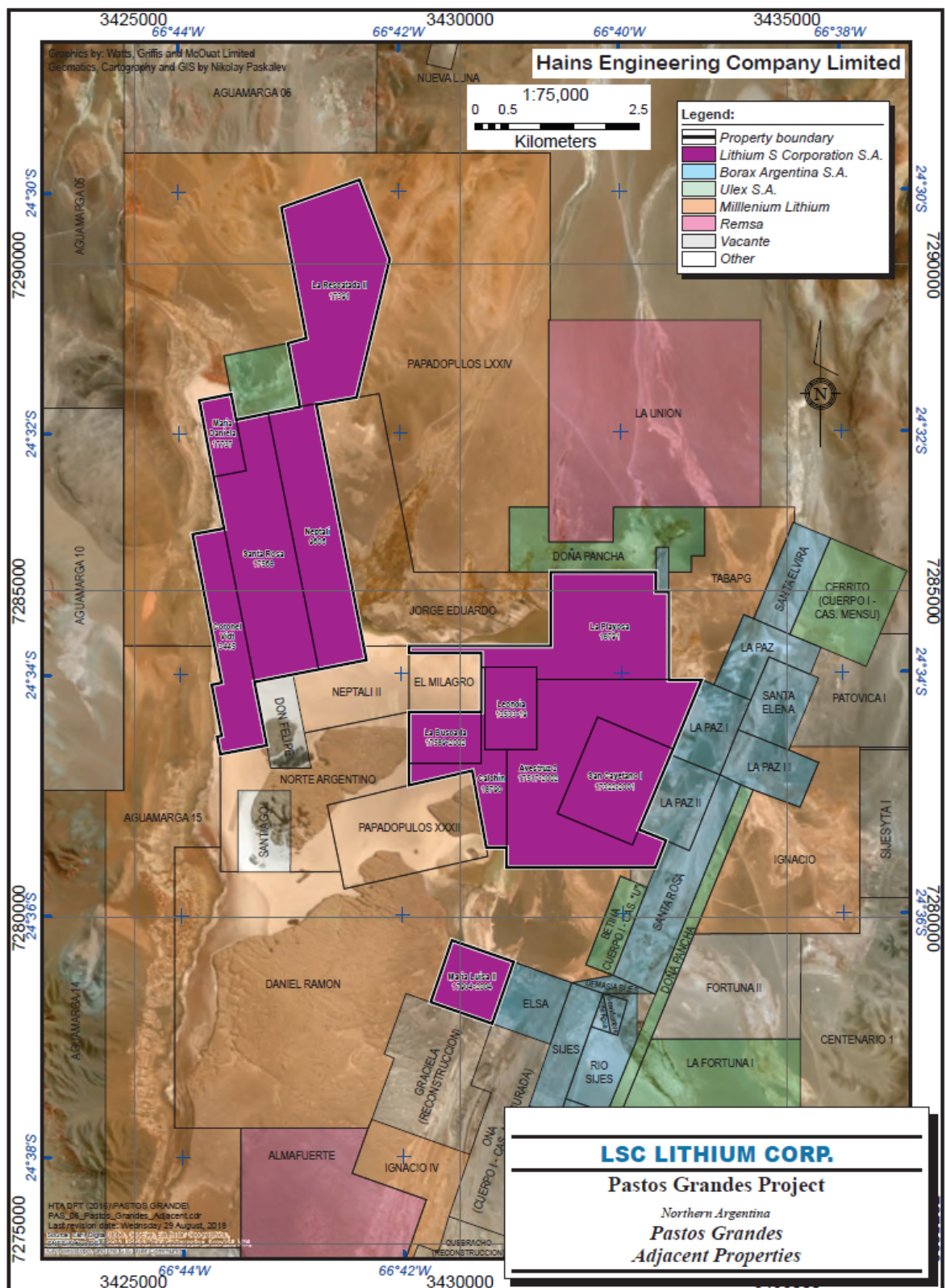


Figure 23-1: Pastos Grandes Adjacent Properties

The planned pipeline connecting Pastos Grandes and Pozuelos salars traverses mining tenements controlled by other parties. An application for an easement for this connection has been filed with the relevant authorities and approval is expected in Q1 2019.

23.2 Pozuelos

There are two other tenements within the greater salar de Pozuelos area. The borate mine named San Mateo I (file 6405) and its servitude (file 14195) are both located in the northwestern portion of the salar and are operated on an intermittent basis by the tenement holder. No other information on the operation is available to the authors.

BHP Billiton holds a tenement known as Aguamara 19 (File No. 19101) located between LitheA's tenements Aguamara 18 and Turco. The BHP tenement is believed to be held for future copper exploration potential. No additional information is available on these tenements.

Figure 23-2 illustrates the location of the Mina San Mateo and BHP Billiton tenements relative to the LitheA tenements.

Enirgi Group Ltd. is developing the salar del Rincón lithium project at salar del Rincón, located approximately 60 km NW of LSC's salar de Pozuelos project. Enirgi reported completion of a definitive Feasibility Study (DFS) in July, 2016 for the project. Probable Reserves were estimated at 1.2 million tonnes LCE, while Measured and Indicated Resources were reported as 3.5 million tonnes LCE and Inferred Resources as 4.6 million tonnes. The resource and reserve estimates were reported to be prepared in accordance with NI 43-101 standards of disclosure by SRK Consulting. It is noted that mineralization at salar del Rincón is not necessarily comparable to mineralization at salar de Pozuelos.

Other companies in the area exploring for lithium brines or currently in production include Advantage Lithium on salar Cauchari; Orocobre on salar Olaroz; Eramine SudAmerica S.A. on salar Centenario; Gangfeng and Lithium Americas on salar Cauchari; Galaxy Lithium and POSCO at salar Hombre de Muerto; FMC at salar Hombre de Muerto and Hanaq at salar Diablillos. Mineralization on these properties is not necessarily indicative of mineralization on the property which is the subject of this technical report.

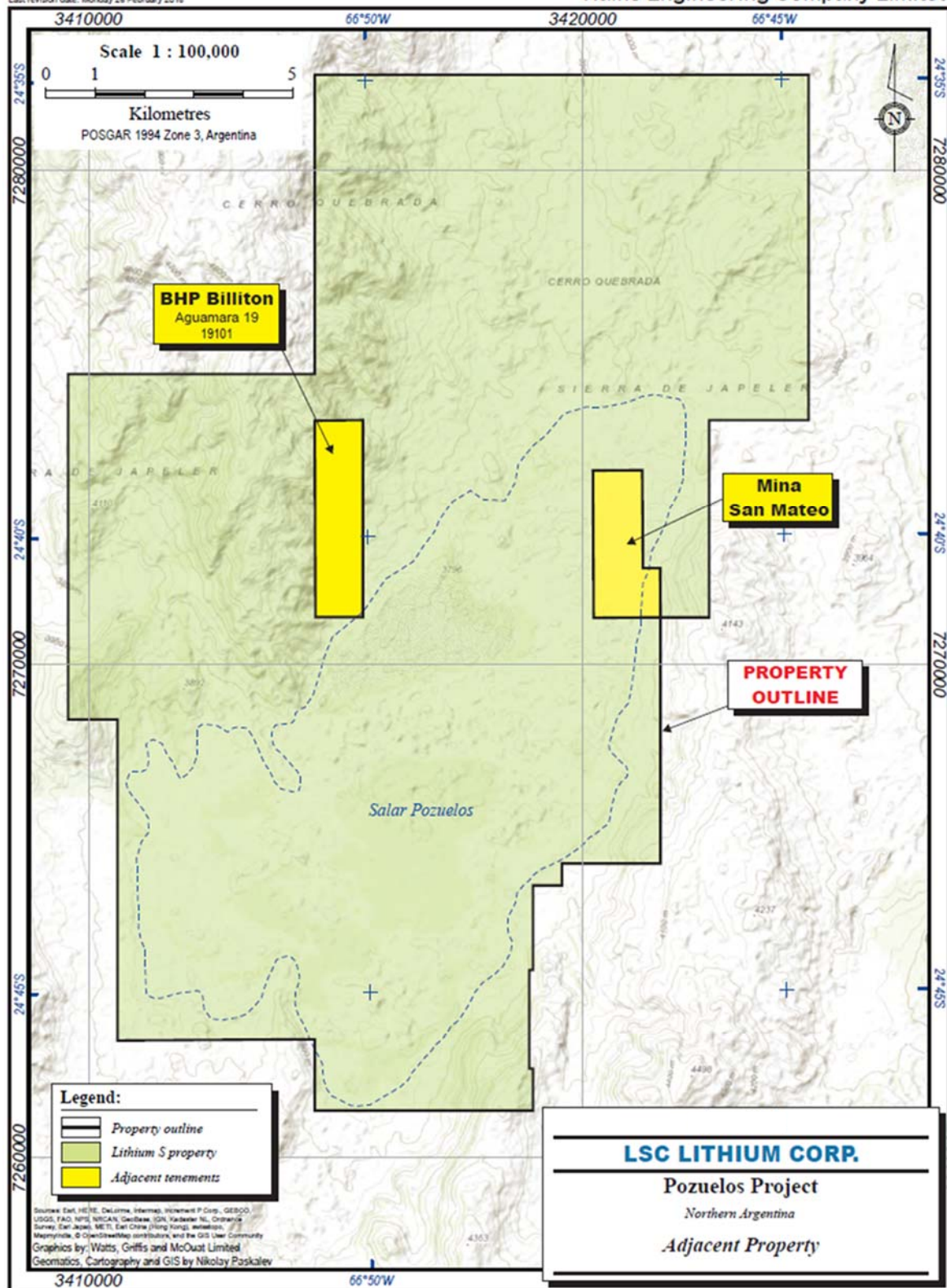


Figure 23-2: Pozuelos Adjacent Properties

Item 24 - Other Relevant Data and Information

24.1 Project Schedule

A Level 1 Project Schedule has been prepared by GHD considering main project activities starting with the PEA completion all way through the production ramp-up to 20.000 [ton/year] in 2024.

The schedule was developed based on GHD's experience of similar projects. It assumes that LSC is funded for the future work programme and that there are no delays due to project finance.

Main Milestones considered for this project are:

- Completion and submission of PEA Report is considered to happen by January 2019.
- Submission of Environmental Impact Study (EIS) by January 2019
- Feasibility Study initiation by March 2019
- EIS approval by October 2019
- Feasibility Study completion by February 2020
- Evaporation Ponds construction initiation by March 2020
- Lithium Plant Construction initiation by September 2020
- Pond filling by November 2020
- Lithium Plant Construction finished by September 2021
- First Lithium Carbonate produced by September 2021
- Production Ramp-Up start by October 2021
- Pond Construction completion by January 2022
- Pastos Grandes connection initiation by jul 2023
- Production ramp-up completion by January 2024
- Connection with Pastos Grandes finished by January 2024

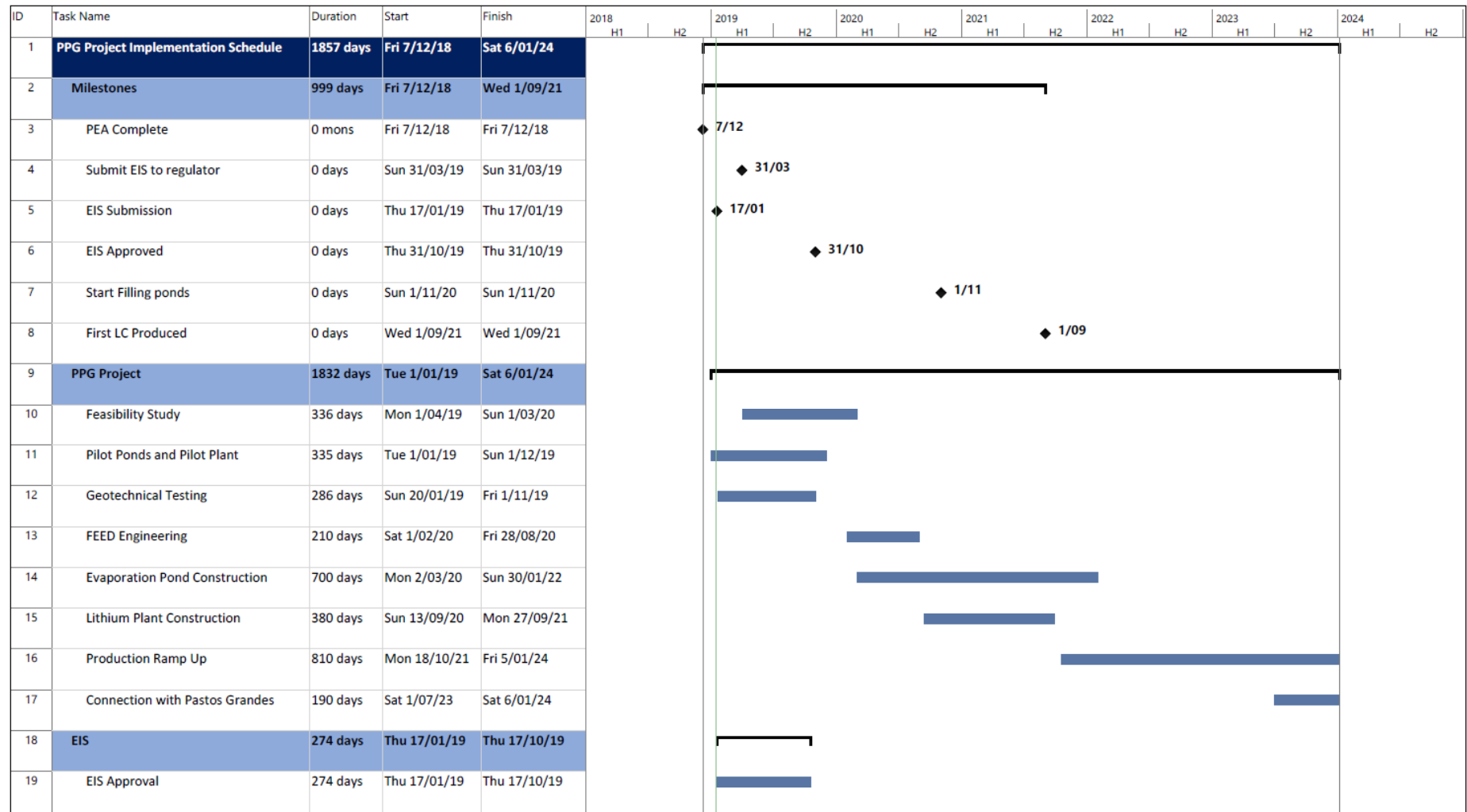


Figure 24-1: Level 1 PPG Project Schedule

The schedule considers the following assumptions:

- It is assumed that all permitting work streams, project financing activities, negotiations for offtake agreements and all other agreements required for the construction and operation of the PPG project are obtained by LSC at the appropriate time.
- EIS approval to allow plant and camp construction will not suffer any delay.
- After DFS completion, internal reviews and approvals shall not take longer than one month.
- While gas pipeline is constructed, construction camp shall operate using diesel power.
- Solar evaporation ponds are expected to be constructed in a 22-months period. This considers that the project will not require additional earthworks or other works. A DFS is key to define any uncertainties for this activity.
- Lithium plant construction considers 13 months for completion including commissioning.
- No delays due to project finance activities.

This schedule does not include contingency for unknown or unexpected factors not considered in the project's risk assessment. In case of occurrence, the overall schedule will be impacted. To mitigate this, a more detailed schedule shall be prepared during the next study phase.

24.2 Trade-Off Studies

In preparation for the PEA and subsequent studies, GHD and LSC undertook 9 trade off studies, to finalise project configuration and infrastructure. These studies are briefly listed below:

24.2.1 Production Capacity

It was decided to target an annual production of 20,000 [tpa] of lithium carbonate based on a review of available resource inventory, capital intensity, hydrogeological yield and salar recharge.

24.2.2 Materials of Construction

This study focussed specifically on a review of materials used for the construction of evaporation ponds. The study concluded that using halite from the salar for the construction of pond perms was feasible and economic. HDPE liner, underlain by a geotextile was selected as the preferred liner material.

24.2.3 Location Study

The location study considered a review of lithium plant locations, both inside and outside Pozuelos salar or a possible plant at the rail and gas link in Pocitos. In conjunction with this study, GHD considered energy supply options including grid power, diesel, solar and gas energy as well as hybrid options. It was concluded, on the basis of operability and practicality, that a lithium plant in the north of Pozuelos supplied by electricity and steam cogenerated from gas represents the best solution for the project.

24.2.4 Brine Blending

This study considered the optimal chemical and resource blending point for brine from Pozuelos and Pastos Grandes. The preferred ratio is approximately 40% from Pastos Grandes and 60% from Pozuelos, with a higher feed from Pozuelos in the early years.

24.2.5 Brine Transport

Options to use trenches or open channels were considered. A pipeline was preferred for operability reasons.

24.2.6 Surface Trenches

Trenches were considered to pre-concentrate brine and supply shallow brine from the salar to the evaporation ponds. The conclusion was to conservatively assume no preconcentration at this stage and to undertake some test work in this area.

24.2.7 Aerial Evaporation

Aerial evaporation technologies were assessed for their potential to reduce evaporation pond footprints. It was concluded, that operating costs are increased too much to support this technology. Operational concerns are also expected to arise.

24.2.8 Lime Supply

Various sources of lime supply were considered, including import from San Juan province, opening LSC's own lime quarry, or local supply of quick lime or hydrated lime. It was concluded that supplying quicklime, even if lower grade, from local sources is the preferred option.

24.2.9 Ramp up

The LSC process was reviewed by GHD in terms of complexity, McNulty factors and expected operability concerns. It was concluded that a relatively rapid process ramp up can be expected due to the low level complexity, lack of new technologies and the efficient use of entrainment recovery.

Item 25 - Interpretation and Conclusions

The PPG project is economically viable. The project is expected to have total capital expenditures of 373 MMUSD during its lifetime of 20 years and all in sustaining operating costs are estimated to be USD 3,727 per ton of lithium carbonate. A production of 20,000 tons per annum of battery grade lithium carbonate is targeted using conventional lithium productions processes.

The base case's NPV_{8%} amounts to approximately USD 762 million, with an IRR of 30% and a payback period of less than 5 years. Annual free cash flows have an average value of USD 127 million across the life of the project.

There is an opportunity to improve values further with the generation of byproducts and it is recommended that this is studied in the next stage of development.

This economic analysis also shows that both lithium carbonate price and production rates have the strongest impacts on the Project's economic performance. The after-tax NPV_{8%} for the low product price scenario is USD 515 million and USD 1,135 million in the high price scenario.

Project value could be further enhanced by focusing on an increased LoM for the PPG project, depending on the resources, however, this possibility will require additional hydrogeologic studies and advanced engineering work to define the opportunity.

LSC holds 2,683 [ha] of tenements located on the east and west sides of salar de Pastos Grandes. The tenements are prospective for lithium brine. Salar de Pastos Grandes is classified as an immature salar comprised of thick sequences mixed halite-sand-silt and sand/gravels. The salar brine is of the Na-Cl-Ca/SO₄ type. Brine sample assay data show consistent values down hole and across the LSC tenements.

The mixed halite-sand-silt sequences vary considerably in terms of the proportions of the matrix. Geophysical exploration (seismic, SEV, TEM) and sampling indicates brine is present in the salar to depths of at least 600 [m]. While RBRC (Sy) values vary widely, all sampled lithologies returned brine samples, indicating all lithologies can be productive for brine. In the opinion of Hains, reported RBRC values are conservative and thus the resource estimate may be understated.

The brine chemistry is amenable to lithium carbonate production using conventional lithium brine processing technologies for brine concentration such as solar evaporation, followed by precipitation of lithium carbonate.

LSC is proposing to develop its Pastos Grandes tenements in conjunction with development of its salar de Pozuelos lithium brine project. The brine chemistry at Pastos Grandes is complementary to the brine chemistry at salar de Pozuelos (Hains 2017b). LSC is proposing to pump raw brine from Pastos Grandes to a potential processing plant at Pozuelos.

Overall, the work undertaken to date indicates that the salar de Pozuelos has a significant, high quality brine resource and potential to be a producer of lithium brine for lithium carbonate production. The salar is of the mature halite type (with some portions exhibiting an immature, clastic lithology) and has high effective porosity and high lithium brine values down to significant depth. Lithium values in the brine are typically in excess of 400 [mg/L], with significant brine volumes reporting lithium values greater than 500 [mg/L]. The brine chemistry is highly amenable to processing using a variety commercially proven processes and (potentially) several new process technologies.

Pumping tests based on step tests, and 2-day, 7-day and 30-day continuous tests from holes spread across the salar demonstrate the ability to pump at high rates up to 130 [m³/h], fast recoveries and stability in brine grade composition with lithium values in excess of 500 [mg/L] for several wells.

The Mg:Li ratio of the brine is typically less than 6:1 and often lower, with other elements also exhibiting favourable chemistry for lithium extraction and production. Salar de Pozuelos is considered to be highly prospective for lithium brine production. The size of the salar, lithium brine composition and lithium grade in the brine are all favourable. The porous nature of the halite down to depths of at least 70 m; the presence of a large, deep lying and high grade aquifer in the central portion of the salar, and the consistency of lithium grade with depth and across the salar are highly favourable for production.

A resource estimate based on a program of drilling, brine sampling, analysis of core for Relative Brine Release Capacity (RBRC or Specific Yield) determination, seismic and SEV geophysics, and pump tests has been prepared for both Pozuelos and Pastos Grandes. The resource estimate is based on a polygonal model. Polygon volumes have been defined based on the salar perimeter and clipped to the tenement boundaries. The drill hole loci have been used to centre the polygons. The individual polygons are subdivided by lithological horizon to establish brine volumes by polygon and lithological unit. Relative Brine Release Capacity (RBRC) data determined from pump tests and core sample analysis have been used to determine the available brine volume within each polygon and lithological unit. Resources have been classified as Measured, Indicated or Inferred based on sample density data for both brine assay values and RBRC data. The resource estimate is reported in Item 14.

Item 26 - Recommendations

The study team recommends:

- LSC to continue to further refine the project and gather additional supporting information to support the development of the project by advancing to the feasibility study stage. These next steps include additional understanding of the salar resource, the lithology, the surrounding conditions, and the supporting infrastructure. The team recommends a field program to improve understanding of hydrogeology as well as a detailed hydrogeologic model to represent the salar. While on the salar, additional information should be gathered supporting the brine grade and quality across the project definition area.
- Additional definition for pond area, including geotechnical information within the pond footprint. Bearing capacity, leakage rates, and material suitability are recommended for the pond and transfer trench infrastructure areas. The area proposed as the site for the lithium plant should also be geotechnically assessed and drainage conditions within the footprint need to be better understood.
- Detailed risk analysis to be undertaken by the project team encompassing the design details as well as the environmental and permitting elements. Consideration should be given to incorporating construction and economic as well as product (supply) market risk.
- Detailed review of the process route, including pilot plant and pilot-scale (1-3 ha) ponds should be built to ensure the selected process can support industrial production. During this effort, a review and opinion of any equipment, reagents, processes, and applicable patents for the proposed process for the LSC operation should be conducted.

Geology and exploration recommendations include:

- Obtain satellite imagery to better understand seasonal distribution of snowpack in the catchment basin area, local (salar) variations in seasonal flooding patterns, salar/water interface patterns, local geological features and structures and the distribution of water inflows to the salars.

For Salar de Pastos Grandes:

- o Develop Holes PG18-01 and SPG-2017-04 as pumping wells to obtain pumping data on the tenements on the east side of Pastos Grandes;
- o Drill a pumping well on the west side of Pastos Grandes near hole SPG-2017-2b to develop pumping data on the west side of the salar. For both pumping wells, tracer dyes should be used to better establish Specific Yield data
- o Drill an exploration hole on south end the Coronal Vidt tenement to develop additional data on brine grade and salar lithology on the western tenements.
- o Drill an exploration hole on the La Rescatada II tenement on the NW side of Pastos Grandes to explore for deep lying brine off of the salar.
- o Drill an exploration hole on the north side of the La Playosa tenement at Pastos Grandes, to confirm the presence of brine below the overlying fresh water, as noted by Millennial Lithium for its tenement located north of the La Playosa tenement.
- o Update the resource estimate for Pastos Grandes based on the results of the pumping tests and additional drilling.

- For Salar de Pozuelos:
 - o Additional drilling is required to better define the lithology, brine chemistry, and porosity of the northern portion of the salar. Holes 03 and 04, which were not drilled due to ground access issues, should be completed and incorporated into the hydrogeologic model. An additional hole is required in Polygon 1 in the northeast of the salar to better define the lithology, depth and brine grade distribution in this area.
 - o Further pumping wells are required to define the hydraulic properties of the salar in Polygons 1, 3 and 4. A deep pumping well should be developed in the area PZ_18_01 to define hydraulic properties in the deep aquifer. Furthermore, at least one additional exploration hole/pumping well is required in Polygon 10 to better define the brine grade and productive capacity within the depozone in the southwest of the salar. All pumping wells should be monitored using piezometer wells located in close proximity to the pumping wells.
 - o Additional work on hydrogeological modelling and definition of the fluid balance is required to support development of the 3D fluid flow model for reserve estimation and design of the production pumping field.
 - o 3D Fluid Flow Modelling is required to develop reserve estimates for lithium brine.

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Glossary

Hantush-Bierschenk and Rorabaugh Methods

The Hantush-Bierschenk and Rorabaugh methods are used to analyze the results of a variable rate “step test” to determine both the linear and **non**-linear well loss coefficients B and C. These coefficients can be used to predict an estimate of the real water level drawdown inside a pumping well in response to pumping.

Hydraulic Conductivity (K)

Defined as the rate of flow under a unit hydraulic gradient through a unit cross sectional area of aquifer. Defined by Darcy’s law: $v = -Ki$, where v = specific discharge (L/T), L = length, T = Time, K = hydraulic conductivity and i = hydraulic gradient. Also termed Coefficient of Permeability. Hydraulic Conductivity can have both horizontal and vertical components.

Jacob Method

A method to determine hydraulic parameters (transmissivity and storativity) based on matching a straight line to drawdown data plotted as a function of logarithm of time since pumping began. Applicable to non-leaky aquifers (confined aquifers). The method is a late-time approximation derived from the Thies type curve method.

Neumann-type curves

The Neuman (1974) solution may be used to determine the hydraulic properties (transmissivity, elastic storage coefficient, specific yield and vertical hydraulic conductivity) of unconfined (water-table or phreatic) aquifers. Analysis involves matching type curves to drawdown data collected during a pumping test.

Relative Brine Release Capacity (RBRC)

A measure of the drainable porosity under gravity of a unit volume of aquifer. Determined by test methods and considered as a proxy for Specific Yield (S_y)

Specific Storage (Ss)

Defined as volume of water that a unit volume of aquifer (or aquitard) release from storage under a unit decline in head. Related to compressibilities of water and the aquifer (or aquitard) as follows:

$S_s = \rho g (\alpha + \eta e \beta)$, where ρ = mass density of fluid (M/L³),

g = gravitational; constant (9.8 m/sec²),

α = aquifer (or aquitard) compressibility (T²L/M),

ηe = effective porosity (dimensionless) and

β = compressibility of water (Pa⁻¹)

Steady-state Thiem solution

Steady-state radial flow to a pumping well is commonly called the Thiem solution, it comes about from application of Darcy’s Law to cylindrical shell control volumes about the pumping well; it is commonly written as:

$$h_0 - h = \frac{Q}{2\pi T} \ln\left(\frac{R}{r}\right)$$

In this expression h_0 is the background hydraulic head, h_0-h is the drawdown at the radial distance r from the pumping well, Q is the discharge rate of the pumping well (at the origin), T is the transmissivity, and R is the radius of influence, or the distance at which the head is still h_0 .

Storativity (S)

Defined as the volume of water released from storage per unit surface area of the aquifer or aquitard per unit decline in hydraulic head.

For a confined aquifer, $S = S_{sb}$, where S = storativity

S_s = specific storage and b = aquifer or aquiclude thickness.

For an unconfined aquifer, storativity includes its specific yield, $S = S_y + S_{sb}$

Specific Yield (S_y)

Defined as the volume of water released from storage by an unconfined aquifer per unit surface area of aquifer per unit decline of the water table; i.e. the volumes released per unit surface area under gravity drainage. Also termed effective porosity (P_e). Related to total porosity, P_t , as follows:

$P_t = S_y + S_r$, where S_y = Specific Yield and S_r = Specific retention

Specific Retention (S_r)

Defined as the residual saturation of an aquifer (or aquitard); i.e. the retained fluid in a unit volume after drainage under gravity.

Theis Solution

A mathematical solution defining the two-dimensional radial flow to a point source in an infinite, homogeneous aquifer. Defined as:

$$s(r,t) = \frac{Q}{4\pi T} W(u)$$

where:

$s(r,t)$ = drawdown at distance (r) at time (t) after start of pumping (L)

Q = discharge rate of pump (m^3/T)

$W(u)$ = Well Function of Theis, approximated by an infinite series defined as:

$$W(u) = \int_u^\infty \frac{e^{-y}}{y} dy = -\gamma - \log_e u + u - \frac{u^2}{2 \cdot 2!} + \frac{u^3}{3 \cdot 3!} - \dots + (-1)^{n+1} \frac{u^n}{n \cdot n!}$$

and γ = Euler's constant.

Transmissivity (T)

Defined as the rate of flow under a unit hydraulic gradient through a unit width of aquifer of given saturated thickness. Related to hydraulic conductivity as follows:

$T = Kb$, where T = Transmissivity, and b = aquifer thickness

Units are [m^2/day]

Walton-type Curves

A graphical method involving fitting drawdown data to curves derived from pump tests. Based on modified Theis equation and applicable to unsteady-state flow conditions.

28.1 List of Abbreviations

μ	micron	km ²	square kilometre
°C	degree Celsius	kPa	kilopascal
°F	degree Fahrenheit	kVA	kilovolt-amperes
μg	microgram	kW	kilowatt
A	ampere	kWh	kilowatt-hour
a	annum	L	litre
bbl	barrels	L/s	litres per second
		LoM	Life of Mine
Btu	British thermal units	M	metre
C\$	Canadian dollars	M	mega (million)
cal	calorie	m ²	square metre
cfm	cubic feet per minute	m ³	cubic metre
cm	centimetre	Min	minute
cm ²	square centimetre	MASL	metres above sea level
d	day	Mm	millimetre
dia.	diameter	Mph	miles per hour
dmt	dry metric tonne	MVA	megavolt-amperes
dwt	dead-weight ton	MW	megawatt
ft	foot	MWh	megawatt-hour
ft/s	foot per second	m ³ /h	cubic metres per hour
ft ²	square foot	opt, oz/st	ounce per short ton
ft ³	cubic foot	Oz	Troy ounce (31.1035g)
g	gram	Ppm	part per million
G	giga (billion)	Psia	pound per square inch absolute
Gal	Imperial gallon	Psig	pound per square inch gauge
g/L	gram per litre	RL	relative elevation
g/t	gram per tonne	S	second
gpm	Imperial gallons per minute	St	short ton
gr/ft ³	grain per cubic foot	Stpa	short ton per year
gr/m ³	grain per cubic metre	Stpd	short ton per day
hr	hour	T	metric tonne
ha	hectare	Tpa	metric tonne per year
hp	horsepower	Tpd	metric tonne per day
in	inch	US\$	United States dollar
in ²	square inch	USg	United States gallon
J	joule	USgpm	US gallon per minute
k	kilo (thousand)	V	volt
kcal	kilocalorie	W	watt
kg	kilogram	Wmt	wet metric tonne
km	kilometre	yd ³	cubic yard
km/h	kilometre per hour	Yr	year

CERTIFICATE OF QUALIFIED PERSON

I, Antoine Lefavre, P. Eng., do hereby certify that:

1. I am currently employed as Process Engineer by Novopro Projects, Inc, 1350 Sherbrooke St. West, Suite 600, Montreal, Qc, Canada, H3G 1J1.
2. I am a graduate of Ecole Polytechnique, Montreal, Qc, H3T 1J4, Chemical Engineering, 2007.
3. I am a member in good standing of the Order des Ingenieurs du Quebec (OIQ), license no. 5002027.
4. I have over 10 years of experience in industrial Process Engineering, mainly in the field of alkali metals (chlorides and sulfates) including Heat and Mass Balances, Process Modelling and Equipment Design.
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 meet the requirements to be a “qualified person” for the purposes of NI 43-101.
6. I am co-author of the report for the preparation of Sections 13 and 17 of the report titled “Preliminary Economic Assessment – Pozuelos – Pastos Grandes Project, NI 43-101 Technical Report, Salta, Argentina”, with an **Effective Date of December 4, 2018** (the “Technical Report”).
7. I have not visited the property.
8. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the parts of the Technical Report that I am responsible for contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
9. I do not hold, nor do I expect to receive, any securities or any other interest in any corporate entity, private or public, with interests in the properties that are the subject of the Technical Report or in the properties themselves, nor do I have any business relationship with any such entity apart from a professional consulting relationship with LSC Lithium Corporation.
10. I am independent of LSC Lithium Corporation, as defined by Section 1.5 of NI 43-101.
11. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in accordance with that instrument and form.

Signed and dated this 18th day of January 2019.

“Original document dated, signed and sealed”

Antoine Lefavre, P.Eng. (Quebec)

CERTIFICATE OF QUALIFIED PERSON

I, Lawrence D. Henchel, P.Geo., do hereby certify that:

1. I am currently employed as Manager, Geological Services by Stantec Consulting International LLC, American Towers II, 57 West 200 South, Suite 500, Salt Lake City, UT, 84101, U.S.A.
2. I am a graduate of Saint Lawrence University, Canton, NY, U.S.A., with a Bachelor of Science Degree in Geology, 1978.
3. I am a member in good standing of the Association of Professional Engineers and Geoscientists of Alberta (APEGA), license no. 159013 and I am a Registered Member of The Society for Mining, Metallurgy and Exploration, Inc., license no. 4150015RM.
4. I have forty years of experience in exploration, geologic interpretation, evaluation and resource estimation of mineral properties, specializing in coal and industrial minerals. I have worked with industrial minerals such as potash, trona, nahcolite, phosphate and gypsum over the past 20 years of my career in the United States, Mongolia, Africa and the Middle East. My experience includes modeling, resource and reserve estimation, and project cost analysis including similar brine extraction projects in Australia, North America and the Middle East.
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 meet the requirements to be a “qualified person” for the purposes of NI 43-101.
6. I am co-author of the report titled “Preliminary Economic Assessment – Pozuelos – Pastos Grandes Project, NI 43-101 Technical Report, Salta, Argentina”, with an **Effective Date of December 4, 2018** (the “Technical Report”), being responsible for Items 18, 21, 22, 23, and contributed to 1, 2, 3, 24, 25, and 26.
7. I visited the properties that are the subject of this Technical Report on October 11, 2018.
8. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the parts of the Technical Report that I am responsible for contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
9. I do not hold, nor do I expect to receive, any securities or any other interest in any corporate entity, private or public, with interests in the properties that are the subject of the Technical Report or in the properties themselves, nor do I have any business relationship with any such entity apart from a professional consulting relationship with LSC Lithium Corporation.
10. I am independent of LSC Lithium Corporation, as defined by Section 1.5 of NI 43-101.
11. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in accordance with that instrument and form.

Signed and dated this 18th day of January 2019.

“Original document dated, signed and sealed”

Lawrence D. Henchel, P.Geo. (Alberta)

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