2 June 2023

Sampling at Formentera and Cilon Assays 1,122ppm lithium from sub-surface Brines and 0.7-1.0 Mg:Li ratio

Highlights

- 28 samples were submitted under security to SGS Argentina with two brine samples **assayed at 1,008ppm and 1,122ppm**.
- 10 of those 19 brine samples exceeded 75ppm, **including 238ppm and 467ppm in the Brines** at hole 4 and 18 respectively.
- The highest-grade lithium samples also had **elevated values of boron that is related to the presence of lithium.**
- **Extremely low ratios of magnesium to lithium were recorded** that makes extraction processing more efficient.
- A twenty-litre sample from **hole 16** will be taken for analysis at the Ekosolve™ facility at the University of Melbourne to determine the recovery and grade of lithium chloride, and
- **An 18km MT geophysics study is currently underway** to determine the resistivity, depth and location of aquifers on both concessions.

Patagonia Lithium Ltd (ASX:PL3 or **Company**) is pleased to announce that it has received assay results from its sampling program undertaken in May 2023, sampling 19 drill holes, with **some on the salars assaying a very high content of lithium.**

Phil Thomas, Executive Director stated that 'the board is delighted with these sampling results. The extreme high levels of lithium in the brines from surface sampling demonstrate that there are high concentrations of lithium across a wide area near the surface on the concessions.'

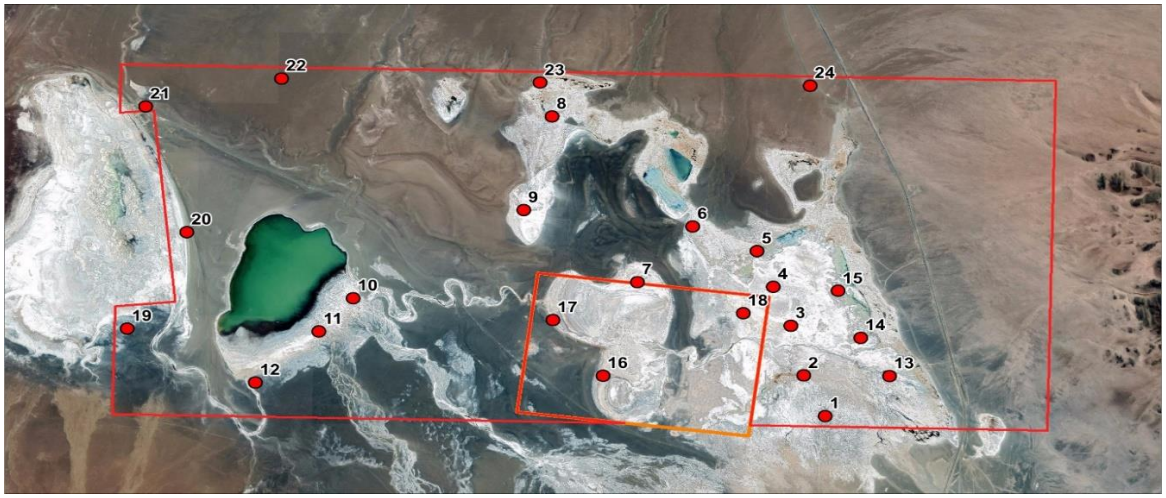

Figure 1. Hole numbers 12,17,21 were not sampled as it was too wet. Holes 22, 24 were dry at 2.5m depth

Sample	Type Sample of	Type Sample	East (UTM)	North (UTM)	Elevation (m)	Water Table (m)	Depth Sampling	Mine	Hole Number	Observations	Parameters pH Resistivity
JAM_01	Original		708310	7409858	4082	0.6	1.6	Formentera	**HOLE 1**		
JAM_02	Original		708138	7410194	4095	0.65	1.37	Formentera	**HOLE 2**		
JAM_03	**STD**										
JAM_04	**BLANK**										
JAM_05	Original		708071	7410627	4099	1.2	1.9	Formentera	**HOLE 3**		
JAM_06	Original		707934	7410962	4101	1.15	2.1	Formentera	**HOLE 4**		
JAM_07	Original		707814	7411215	4106	0.85	1.92	Formentera	**HOLE 5**	displaced 50 m due to unsteady area	
JAM_08	Original		707355	7411477	4102	0.54	1.7	Formentera	**HOLE 6**		
JAM_09	Original		706901	7411128	4101	0	1.15	Formentera	**HOLE 7**	displaced 120 m due to superficial water	
JAM_10	**DUPLICATE**	**JAM_07**						Formentera			
JAM_11	Original		706355	7412422	4099	0.6	1.8	Formentera	**HOLE 8**		pH 6,4 - 2,66 ms/cm
JAM_12	Original		706152	7411633	4097	1.15	1.85	Formentera	**HOLE 9**		pH 7,8 - 67,57 ms/cm
JAM_13	Original		704937	7410866	4095	0.57	1.1	Formentera	**HOLE 10**		
JAM_14	Original		704690	7410589	4084	0.65	1.38	Formentera	**HOLE 11**		
JAM_15	**STD**										
JAM_16	**BLANK**										
JAM_17	Original		708713	7410204	4102	0.2	1.2	Formentera	**HOLE 13**	displaced 12 m due to superficial water	
JAM_18	**DUPLICATE**	**JAM_13**						Formentera			
JAM_19	Original		708564	7410531	4101	0	1.5	Formentera	**HOLE 14**		
JAM_20	Original		708400	7410924	4096	0.35	1.22	Formentera	**HOLE 15**		
JAM_21	Original		707005	7409990	4099	0.35	1.4	Cilon	**HOLE 16**	displaced ~300 m due to superficial water	
JAM_22	Original		707717	7410743	4095	0.8	2	Cilon	**HOLE 18**		pH 7,5 - 164,2 ms/cm
JAM_23	Original		703314	7410605	4091	1.3	1.62	Formentera	**HOLE 19**		
JAM_24	Original		703721	7411426	4073	0.44	0.92	Formentera	**HOLE 20**	displaced 15m due to gravel accumulation	
JAM_25	**DUPLICATE**	**JAM_21**						Cilon			
JAM_26	Original		706259	7412714	4100	0.42	1	Formentera	**HOLE 23**		pH 6 - 1,13 ms/cm
JAM_27	**DUPLICATE**	**JAM_23**						Formentera			
JAM_28	**DUPLICATE**	**JAM_26**						Formentera			

Table 1. Location, sample type, elevation, depth of water table, depth of sampling and concession where sampling occurred.

SGS del Argentina S.A.									
Division Laboratorio.									
Environmental - Salta									
Order:	SA23-00184								
Cliente:	PATAGONIA LITHIUM ARGENTINA S.A.								
Numero de Muestras:	28								
Date at Reception	23/05/2023								
Date of Report	24/05/2023								
Client Reference	PAL01								
Análysis:		**Density at 20°C**	**Boron**	**Lithium**	**Magnesium**	**Potassium**	**Sodium**	**pH**	**Total Solids in Suspension**
Unit:		kg/m3	mg/L	mg/L	mg/L	mg/L	mg/L	UpH	mg/L
Méthod:		ASTM D4052-18a	SGS.ME.342	SGS.ME.342	SGS.ME.342	SGS.ME.342	SGS.ME.342	Basado en S	Basado en SM 2540 D - 23r
LD:									
LC:									
JAM_01		1000.456	25	<10	36	64	687	7.3	6100
JAM_02		1020.588	28	79	330	761	12826	7.5	1900
JAM_03		1194.428	562	119	1368	2942	108582	1	<10
JAM_04		996.184	<10	<10	<10	20	149	5.6	16
JAM_05		1069.864	143	238	139	3096	40908	7.9	1000
JAM_06		1054.456	94	166	240	2241	30607	7.6	5800
JAM_07		1059.84	10	<10	18	40	423	7.9	104700
JAM_08		999.372	17	<10	26	53	414	7.4	1950
JAM_09		1043.06	195	106	148	1128	21769	8.6	420
JAM_10		1064.56	10	<10	18	40	401	7.9	115300
JAM_11		1055.844	13	<10	40	51	493	7.3	109900
JAM_12		1035.348	236	105	303	1286	21769	7.9	2200
JAM_13		1010.12	94	20	83	210	3777	8.1	9000
JAM_14		1028.732	56	15	85	192	2291	8	49000
JAM_15		1207.596	618	173	673	1189	118341	1	60
JAM_16		996.628	<10	<10	<10	17	145	4.9	<10
JAM_17		1017.4	31	<10	47	117	954	7.2	39800
JAM_18		1013.004	92	20	84	216	3130	7.9	15900
JAM_19		1035.904	17	<10	53	126	786	7.7	67800
JAM_20		1026.928	16	<10	76	127	719	7.9	53800
JAM_21		1180.984	637	1008	788	9583	103479	7.4	300
JAM_22		1105.424	489	467	151	4856	59456	7.6	700
JAM_23		1005.5	93	13	51	170	2183	7.9	7100
JAM_24		1000.336	43	<10	28	107	1151	7.9	10600
JAM_25		1190.656	629	1122	785	10154	108371	7.6	9000
JAM_26		998.312	<10	<10	14	40	301	7.3	1050
JAM_27		1002.352	90	13	51	162	2088	8	1650
JAM_28		998.18	<10	<10	14	34	273	7.3	280

Table 2. Blue highlight lines are the lithium standards, orange lines are duplicates where Li>75ppm.


Figure 2, 3. Patagonia Lithium geologists sampling and receipt of sample bottles at SGS Salta.

The analysis was conducted by SGS which is an ISO 17025 accredited laboratory. The standards were 120 and 175ppm Lithium and were assayed at 119ppm and 173ppm, so analysis was accurate. Hole 16 duplicate was assayed at 1,008 which is a 10.16% difference, but can be attributed to sampling error. The specific gravity being 1.18-1.19 was excellent in sample JAM 25, as was the low Magnesium to Lithium ratio. Duplicates of samples 13 and 18 assayed at the same value, as did 23 and 27.

The significance of the sampling gives us a surface expression of where lithium is concentrating and where it is not. Once the MT data is collated and interpreted, we will have a high confidence of where the drilling targets will intercept aquifers containing conductive fluids which may be containing lithium. The geophysics will outline the extent and depth of the low resistivity lithologies ("aquifers") which appear to be concentrated in areas close to the surface.

Authorised for release by the Board of the Company. For further information please contact:

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Competent Person Statement

The information in this announcement that relates to the Argentine Lithium Brine project is based on, and fairly represents information compiled by Phillip Thomas, MAIG FAusIMM, Technical Adviser of Patagonia Lithium Ltd and is Executive Chairman, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Thomas has sufficient experience relevant to the style of mineralisation (lithium brines) and type of deposit under consideration, and to the activity which he has undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Thomas consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information*	• An motorised augur with a 20cm screw drill was used to obtain core samples of the top 1-3m of stratigraphy of the salar. Table one in the accompanying announcement dated 2 June 2023 sets out the locations, depths and conditions of the brine sampling. • One litre Brine samples using a bailer were taken from each hole after 30 minutes of settling of sediments. The bucket and bottles were flushed three times to eliminate contamination before being sampled. • Each bottle was labelled and sealed and put into a security chest with tape around the cap. • 19 brine samples were collected from sample locations 1-24. Two of the wells were dry to 2.5 metres. Three of the wells were in soft salt sediments which were very wet and unstable. • Sediments were logged for fineness and clay content as the augur was removed from the hole at 0.5m intervals.
Drilling techniques	• *Drill type (eg core, reverse circulation, open- hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• A 6" (20cm) bit was used to drill the holes and after 0.5m was drilled the operators removed the drill and a sample was taken from the drill bit. Then the operators reinserted the drill and continued down to 2-3m depending on the amount of brine flow and ground water level. It was then analyzed for resistivity and pH.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Brine samples were collected at each point. There was no sample bias due to brines contained in clays as we waited for 30 minutes for them to settle after they had been mixed when the augur was retrieved. • Brine quality is not related to the quality of core samples. The porosity, transmissivity and permeability of the lithologies where samples are taken influences the rate of brine inflow and brine characteristics. • Drilling is required to determine the flow characteristics of the underlying aquifers, surface sampling gives an idea of the presence of lithium and boron.

Criteria	JORC Code explanation	Commentary
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	All core was logged by two geologists and the CP geologist. Representative samples were taken every 0.5m or when the augur was removed. This was subject to the dryness and compaction of the sediments being drilled.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Brine samples were collected by allowing the hole to re-fill with brine then extracted using a bailer. • Duplicate sampling is undertaken for quality control purposes. Five duplicates were taken, and two blanks (distilled water and two standards were also provided to SGS laboratories for analysis. • There was no sub-sampling but the bailer was moved from the bottom of the well to the surface level so it collected a representative sample of the brine,
	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• The SGS laboratory was used for analyses and is also certified for ISO/IEC Standard 17025:2017 • Security control was kept with each bottle being taped closed and contained in a locked chest which was opened by SGS staff. • A garmin X650T hand held GPS with more than 10 satellites in signal was used to record the location of the wells. • Two blanks were sent with the bottles, one at 120ppm lithium and the other at 175ppm. The analysis was within 0.5% of the blanks. • There was very good correlation between duplicates except for one sample which will be re-assayed. We believe the sampling error is a function of the sampling as the lithium level was quite high.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Field duplicates, standards and blanks are used to monitor potential contamination of samples and the repeatability of analyses.

Criteria	JORC Code explanation	Commentary
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• The survey locations were located using handheld GPS with an accuracy of +/- 5m. • The grid System used is POSGAR 94, Argentina Zone 3 • Topographic control was obtained by handheld GPS • The topography is flat.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Brine samples were collected within the hole based upon the depth required to access brines.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• The brine concentrations being explored for generally occur as sub-horizontal layers and lenses hosted by conglomerate, sand, halites, silt and/or clay. Vertical diamond drilling is ideal for understanding this horizontal stratigraphy and the nature of the sub-surface brine bearing aquifers. • Surface sampling allows us to determine the presence of lithium and other minerals such as boron and presence of anions.
Sample security	• *The measures taken to ensure sample security.*	• Data was recorded and processed by employees and contractors to the Company and overseen by senior management CP on-site. • Samples were transported from the drill site to secure storage at the camp on a daily basis.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews have been conducted to date. The sampling is at a very early stage however the Company's independent consultant and Competent Person has approved the procedures to date and were present at sampling.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Formentera/Cilon Lithium Project consists of two tenements located in Jujuy Province, Argentina. The tenement is owned by Patagonia Lithium SA. The Company executed a purchase agreement on 18 December 2022 and paid for it on 19 December 2022.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• No historical exploration has been undertaken on this licence area
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Formentera/Cilon licence area covers most of the salar proper with minor alluvial cover to the southwest. The lithium concentrated brine is sourced locally from hot fluids passing through lithium minerals and altered intrusives and is concentrated in brines hosted within basin alluvial sediments and evaporites.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length* ○ *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case*	• See the table 1 in the release for northing and eastings, elevation, the dip is vertical, and depths.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Assay results will be derived by SGS method using ICP-OES. The actual test summary for each element is contained at the top of the heading of table 2.

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• The brine layers are horizontal to sub-horizontal therefore the intercepted thicknesses of brine layers would be true thickness as the sample hole is vertical. • The brine flowed from the walls of the hole in a section from 0.25-2m so the intercept width is variable depending on the porosity and transmissitivity of the surrounding sands and clays.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Refer to maps, figures and tables in the attached announcement dated the 2 June 2023.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• All assay results are reported as received from the lab.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• All meaningful and material information is reported
Further work	• *The nature and scale of planned further work (eg; tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• A Magnetotelleric (MT) geophysical survey is currently underway and will be completed (estimated for 6 June 2023) across the license to view lithological structures at a deeper level to 2000m, refine drill hole targeting followed by diamond drilling. Magnetotellurics (MT) is a passive geophysical method which uses natural time variations of the Earth's magnetic and electric fields to measure the electrical resistivity of the sub-surface. Lower frequencies will penetrate to almost 4,000m subject to resistivity of the sediments.