June 30, 2023

TECHNICAL REPORT FOR THE POCITOS SALAR LITHIUM CONCESSION, SALTA PROVINCE, ARGENTINA

Prepared for:

RECHARGE RESOURCES LIMITED

Prepared by:

PANOPUS PTE LTD

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Date & Signature Page

This NI 43-101 report titled "**Technical Report for the Pocitos Salar Lithium Concession** "**Pocitos 1**", **Salta Province, Argentina**" with effective date of June 30, 2023, was prepared and signed by the following author:

Milly da.

Phillip Thomas, FAusIMM MAIG MAIMVA (CMV) Dated at Melbourne, Australia June 30, 2023



Certificate of Qualified Person

Phillip Thomas

I, Phillip Thomas, FAusIMM, MAIG, MAIMVA(CMV) as the author of this report entitled **"Technical Report for the Pocitos Salar Lithium Concession, Salta Province, Argentina**" prepared for Recharge Resources Limited CSE:RR (the "Issuer") with an effective date of June 30, 2023, do hereby certify that:

- a. My name is Phillip Thomas, of 2 Bagley Street, Brighton Victoria Australia, a senior consulting geologist and mineral valuer and appraiser specialising in lithium brines and principal of Panopus Pte Ltd.
- b. I graduated with a Bachelor of Science degree in Geology from the Australian National University Canberra, ACT Australia in 1979. I graduated with a Master of Business Degree from Monash University in 1995. I am a member of the Australasian Institute of Geoscientists, a Fellow of the Australasian Institute of Mining and Metallurgy, and a member, director of the Australasian Institute of Mineral Valuers and Appraisers with the post nominal of Certified Mineral Valuer. I have practiced geology and hydrogeology in Argentina for 20 years since 2003, with much of this time working in salar basins of Rincon, Pozuelos, Guayatayoc, Incahuasi, Pocitos and Salinas Grande. I am also a Director with Ekosolve Limited, a direct lithium extraction process provider with the University of Melbourne. I have attended geophysics short courses at the University of Adelaide and recently completed the AusIMM JORC refresher course.
- c. I have more than 5 years experience in exploration, resource estimates and chemical engineering processes for extracting lithium and thus am eligible to be classified as a Qualified Person.
- d. I started working in brine salar systems in the Puna region of Argentina in 2003 at the Rincon Salar. From 2003 to 2008 I explored the Rincon as CEO of Admiralty Resources and with my team prepared a resource estimate and later implemented a pilot plant. Starting in 2009, I began working as CEO and exploration director of Lithea Inc at Pozuelos Salar and with Professor Dr Ricardo Alsonso computed a resource estimate for this salar. From 2016 onwards I worked on the following projects: AIS Resources – Salinas Grandes, Pocitos, Vilama, Pocitos concessions 1,2,7,9 and Spey Resources - Incahuasi and Pocitos projects.



- e. 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 and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- f. I visited the Pocitos Salar concession for four weeks in May 2018 supervising the drilling of two holes on Pocitos 1 for the AIS resources drilling campaign, and again In Octoberr 2022 for two weeks and again in January and May 2023 for two weeks supervising the Recharge Resources drilling campaign and inspecting well three and core.
- g. I am responsible for all chapters of this technical report.
- h. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
- i. My prior involvement with the subject property was when I held the position of CEO and Director of Exploration of AIS Resources, AIS optioned the property from Ekeko SA. This option lapsed in 2018. In 2021 AIS resources optioned five properties from Ekeko SA which were subsequently optioned to Spey Resources Corp. of which Pocitos 1 was optioned to Recharge Resources Limited, who have exercised this option to acquire the property. I am currently CEO of Spey Resources Corp, but Spey has no further involvement in Pocitos 1.
- j. I have read the definition of "qualified person" set out in NI 43-101 and have read this technical report and confirm this technical report has been prepared in compliance with NI 43-101 and Form 43-101F1 guidelines.
- k. At the effective date of this technical report, to the best of my knowledge, information, and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the content of the technical report not misleading.

Dated this 30th day of June 2023,

Milly do.

Signed Phillip Thomas 2 Bagley Street, Brighton VIC 3186 Australia Philthomas @ Panopus.net



Glossary

%	.percent
°C	.degrees Celsius
CAD\$.Canadian dollars
cm	.centimeter
EID	.environmental impact declaration
EIS	.environmental impact statement
FOB	.free on board
g/cm ³	.grams per cubic centimeter
K/Ar	.potassium/argon
km	.kilometer
km/h	.kilometer per hour
km ²	.square kilometer
L	.liter
Li	.lithium
Li m	.lithium .meter
Li m masl	.lithium .meter .meters above sea level
Li m masl m,bls	.lithium .meter .meters above sea level .meters below land surface
Li m masl m,bls mg/L	.lithium .meter .meters above sea level .meters below land surface .milligrams per liter
Li m masl m,bls mg/L mm	.lithium .meter .meters above sea level .meters below land surface .milligrams per liter .millimeter
Li m masl m,bls mg/L NI	.lithium .meter .meters above sea level .meters below land surface .milligrams per liter .millimeter .national instrument
Li m masl m,bls mg/L mm NI Ohm-m	.lithium .meter .meters above sea level .meters below land surface .milligrams per liter .millimeter .national instrument .Ohm-meters
Li m masl m,bls mg/L mm NI Ohm-m ppm	.lithium .meter .meters above sea level .meters below land surface .milligrams per liter .millimeter .national instrument .Ohm-meters .part per million
Li m	.lithium .meter .meters above sea level .meters below land surface .milligrams per liter .millimeter .national instrument .Ohm-meters .part per million .polyvinyl chloride
Li m masl m,bls mg/L mm NI Ohm-m ppm PVC TDS	.lithium .meter .meters above sea level .meters below land surface .milligrams per liter .millimeter .national instrument .Ohm-meters .part per million .polyvinyl chloride .total dissolved solids
Li m masl m,bls mg/L NI Ohm-m ppm PVC TDS TEM	.lithium .meter .meters above sea level .meters below land surface .milligrams per liter .millimeter .national instrument .Ohm-meters .part per million .polyvinyl chloride .total dissolved solids .transient electromagnetic method



1 Summary

This report has been prepared for Recharge Resources Limited (the "Issuer") by Phillip Thomas (the "Author") to conform to the regulatory requirements of Canadian National Instrument 43-101 using the Form 43-101F1 Standards of Disclosure for Mineral Projects. The Pocitos 1 mining concession (the "Project") area is located in the Salar de Pocitos basin (the "Salar") in the Salta province in the Puna Region of northwest Argentina, about 10 km from the township of Pocitos on the North Western end of the Pocitos Salar. It is approximately 3,660 meters above sea level (masl) and is 265 kilometers (km) from the city of Salta and about 108 km to San Antonio de los Cobres. The Project is not yet considered to be an advanced project. The Salar is an evaporite basin with demonstrated brine in the subsurface that contains lithium. Salar de Pocitos is in the Central Andes of Argentina and within the so-called "Lithium Triangle" of Argentina, Bolivia and Chile.

Description and Ownership

The Pocitos 1 Mina concession is a license for exploration of lithium and borates with a claim number Expediente No. 19457-2008. The Pocitos 1 concession is in the Los Andes department in Salta Province, Argentina. The concession is described in file 19457; the table below summarizes the Gauss Posgar UTM system coordinates.

Corner	X Co-ordinate	Y Co-ordinate	
1	3392564.87	7294252.38	
2	3397688.75	7294252.38	
3	3397688.75	7288651.24	
4	3392564.87	7288651.24	

Pocitos 1 Mina covers approximately 800 hectares, 8 square kilometers (km²) being about 2.97 km long and 2.7 km wide.

Regarding mineral tenure and ownership, the following groups are represented:

- Recharge Resources Limited third optioner and acquirer and Issuer
- Spey Resources Corp. Second optioner
- A.I.S. Resources Limited Initial Optioner



• Ekeko SA – Vendor

The Vendor had provided an option to AIS Resources Limited ("AIS") (signed on June 10, 2021) to initially acquire all five properties as a package but later offered AIS to acquire just the Pocitos 1 concession by making a payment of \$1,000 USD per hectare plus the tax of 35% being a total of USD\$1.08million (about CAD\$1.4256 m). Prior to completing the option agreement, the Vendor was the sole legal and beneficial owner of mining tenements. The Issuer obtained an option and had the right to explore via an option agreement signed on March 21, 2022 with Spey Resources Corp ("Spey")to acquire the exploration licence concession identified as File No. 19457– Mina Pocitos 1. In February 2023 the Issuer acquired an option from Spey to acquire the mining tenement identified as File No. 19458, Pocitos 2 which is adjacent to Pocitos 1 located on Pocitos Salar, Salta province but as of the date of this report it was not exercised.

The Issuer can exercise the Pocitos 1 Option under the terms of the Agreement with Spey, and earn an 80% undivided interest in the Pocitos 1 Project by paying Spey USD 850,000 in cash payments and by issuing USD 900,000 in common shares over a 12-month period from the date of exchange approval of the Agreement.

Note: Issued at the Market Price of the common shares on the date of issuance (such term as defined in the policies of the Canadian Securities Exchange). In addition there is a provision for AIS to have a 7.5% royalty on any future lithium product produced by Recharge. Following the exercise of the AIS Option and payment of the purchase price, a royalty payment of 7.5% of the FOB price of lithium carbonate or other lithium compounds sold will be payable 14 days after the invoice has been settled net of export taxes by the Issuer. The surface rights belong to the concession holder (Ekeko SA) and can be acquired via the option agreements by the Issuer. There are no encumbrances on the property by the vendor or optioners.

Geological Setting and Mineralization - Pocitos basin

The Salar de Pocitos is a tectonic depression, delineated to the north by stratovolcanoes with andesitic and ignimbrite composition. To the east, the salar is bordered by extensive alluvial fans and alluvial deposits that compose the western flank of the volcanic complex of the Tul Tul and Media volcanoes. To the west, the salar is bordered by granitic intrusions. The southern and southeastern edges of the Salar de Pocitos are composed of Ordovician sediments, which are unconformably overlain by Miocene sediments. The Salar de Pocitos, like several other salars in the region of La Puna, is an endorheic basin. Two features are well defined in the basin. The first one corresponds to a saline crust mostly composed of sodium chloride, which is



in the central portion of the basin. The second feature is the presence of deposits of fine-grained materials around the edge of the saline crust that correspond to alluvial deposits bordering the former lake. The surface of the salar is composed primarily of silts and clays, with a saline coating (known as "efflorescence"). It is common to observe small gypsum crystals scattered along the surface of the salar and in some areas, forming a crust of evaporitic minerals and small accumulations of crystals that outcrop in the silt-clay sediments. Clastic sediment deposits occur over the basin fill sediments and form coalescing alluvial fans. The alluvial fans essentially divide the basin into two zones with similar surface features. The project area is in the current surface portion of the salar. Reddish-brown silts and clays occur at the surface of the project area, with abundant small crystals of gypsum and halite scattered almost to the border of the salar. To the north of the project area, and near the edge of the salar, surficial green-gray clays were observed, and it is believed that the clays are associated with shallow groundwater and reductive environment. The conceptual geologic model for the Salar de Pocitos mineral deposits is similar to other known deposits located in similar continental basins identified in Bolivia, Chile and Argentina. The mineral deposit type is related to brine hosted in aquifers associated with a closed, endorheic basin, located in zones where evaporation rates exceed precipitation. This results in the precipitation of diverse types of salts on the surface of the salars and their beaches. Lithium, as well as other elements of economic interest, occurs as dissolved elements in the brine. The occurrence of underground brine close to the ground surface of the project area was confirmed during the site visit in November 2022 as well as in May 2018 by the QP.

Near-Surface Brine Sampling

In May 2018, the author obtained 7 samples of near-surface brine using a backhoe and excavating to 3-4m depth. The samples were collected using a bailer, put into 1-liter bottles that had been rinsed in brine, labelled and securely taped closed, and put into a secure box for transport to the Alex Stewart laboratory in Jujuy. Of the 7 trenches three did not have brine and the others had brine flow at less than 1 m in depth. Lithium concentrations ranged from 22 - 72 mg/L. The lowest values of lithium and total dissolved solids ("TDS") occur in the western part of the concession near the boundary. The Author believes that this area may be a freshwater recharge area and there may be some dilution of the brine occurring in this area.



TEM Geophysics Study

In May 2018, Quantec was contracted to conduct a Transient Electro Magnetic ("TEM") survey of the properties (Pocitos 1 and 2). A total of 19 soundings were taken along three, east-west lines. The goal of the survey was to identify locations for two or more exploration boreholes. Interpreted sections for the survey identify low resistivity units thought to be fine grained sediments containing halite, and fine and coarse-grained units. In general, the sediment thickness increases to the east within the concession boundaries. The depth of penetration was approximately 150m where the resistivity data could be relied upon.

MT Geophysics Study

In May 2023, Southernrock Geophysics conducted three lines of MT survey across the top and the bottom of the concession in an east-west direction and one line in a north-south direction along the border of Pocitos 1 and Pocitos 2 concessions. 1D and 2D inversion of the Magneto-Telluric impedance dataset provided images of the likely distribution of the resistivity to depths of around 1-2km, limited by the very conductive setting and bandwidth of the dataset. The survey was located over a very conductive domain, with resistivity predominantly less than 1 Ω m. In general, a thin upper conductive layer is modelled overlying a slightly less conductive layer of about 1 Ω m that in turn overlies an extensive conductive interval of about 0.5 Ω m that may extend to depths of as much as 1 km. Marginally higher resistivity is imaged beneath the eastern part of the northernmost survey line. Low resistivity has been shown to be indicative of presence of brines.

Drilling

Drilling activities were conducted for the Salar de Pocitos Project area during 2018 when two wells were drilled by AIS, and a subsequent drill hole by the Issuer in November 2022. The three wells were drilled using diamond drilling triple tube with 97% of the core retrieved. Drilling activities were completed in May-June 2018 by Conhidrotec at PO1 and AGV at PO2. CR Drilling completed PO3. The drilling contractors Conhidrotec and AGV are based in Salta, Argentina and CR Drilling based in Santiago, Chile. Depth of the three wells ranged from 355 to 419 meters below land surface with PO1 EOH being 355m, PO2 EOH being 407.38m and PO3 being 363m.



During drilling, core was collected, and brine samples obtained using a packer system which isolated specific zones of the aquifer. A total of two brine samples were collected from the each of the boreholes PO1, PO2 and PO3. PO3 samples were submitted for SGS laboratory chemical analyses in Salta, and PO1 and PO2 submitted to Alex Stewart Laboratories in Jujuy. It should be noted that the brine flow from PO1 and PO2 was so substantial that the brine surged into the air more than 10metres at a very high flow rate for more than five hours before it was capped off. The samples were obtained via airlift in the completed wells when the pressure of the flow had subsided enough to let the packer go down the wells. For each brine sample, field measurements were conducted on regular basis for electrical conductivity, pH and temperature. Lithium concentrations ranged from PO1 – 66-88 mg/L; PO2 – 39-126 mg/L and PO3 116-169 mg/L. AlS did not proceed with the project in 2018 because the lithium to magnesium ratios were too high and there was no viable process available to extract the lithium. The Issuer has investigated the EkosolveTM DLE process and assessed it as applicable to process brines with a high magnesium content.

The laboratory results and geophysics support the concept that the deeper brine contains a larger lithium content than the brine located in the upper part of the aquifer. This is likely due to freshwater with a lower lithium content and lower density entering the basin and mixing with the older brine in the lower part of the aquifer using the results of the MT survey that surveyed to a depth of 1.0-1.5km and 0.4Ω .m

Interpretation and Conclusions

Based on the recent results from exploration drilling and geophysical surveys, the aquifer underlying the Pocitos 1 concession is saturated with a concentrated highly conductive brine that contains lithium. The upper part of the aquifer consists of halite mixed in with black coarse sands and finer clays and the lower part of the aquifer is mostly fine grained clays with voids. While not statistically significant the lithium values to the edge of the salar are lower than those in the centre of the salar although this trend is contrary to the new geophysics interpretation of the MT survey. The TEM survey results can be disregarded as they cover the top 150-200m and the brine aquifers were below this level at 340m and 363m in hole PO3. In holes PO1 and PO2 it was difficult to determine the depth below 355m and 407m, because of the brine flow under pressure inhibited drilling. No publicly available data is available near the concession to compare lithium concentration trends in the eastern section of the salar. The highest reported lithium concentration was 169 mg/L at well PO3 (assay SA22-00392). In the opinion of the Author, sample preparation,



security, and analytical procedures were acceptable and results from the laboratory analyses, especially with respect to lithium, are considered adequate and acceptable.

The MT geophysical surveys show that the aquifer gets thicker to the west and to south; It is important to note that, geophysics and drilling supports the idea that lithium brines pressured by gas are present at depth. Inspection of the core shows very low porous results although testing of two core samples at Geosystems Analysis Inc in Arizona for porosity showed values of 0.085 cm³/cm³ and specific yields of 0.047 cm³/cm³ and 0.015 cm³/cm³. The value of 0.047 is encouraging. The range of values in these measurements of specific yield are significant and may be due to sampling error so a new analysis on the core is being prepared and will be included in an updated report.

Recommendations

Based on the initial results of exploration to date, additional exploration activities are justified to better characterize the subsurface brine in the concession. To date, the centre part of the concession that intercepted an aquifer has been drilled and tested. Given the high quality data from the MT survey additional drilling and testing will allow for expansion of the resource laterally throughout the entire concession area, and deeper. Because well PO3 was effectively isolated due to the pressure of the gas, two new wells are recommended near the very low resistivity measurements between 699000N and 700000N and 7292000E. We recommend one HQ diamond drill hole with depth-specific sampling at regular intervals down to 500m to better define the brine chemistry and aquifer lithology. We recommend a production size well approximately 8 inch in diameter be put in and pumped dry with the exploration well brine levels being monitored. Both holes should be free of gas. Additional drilling and testing will allow for estimation of an initial lithium resource and will support estimation of a future reserve.

We recommend one HQ (drilled to a maximum of about 500m, bls), and one pumpable well drilled and constructed to depths to be determined based on the results of the deep corehole. The coreholes will include depth-specific brine sampling using an inflatable packer, and laboratory analysis of core for drainable porosity values and a BMR downhole porosity test as a brine release test may give misleading data.

If the results of the proposed exploration program are favorable and support feasibility of a lithium extraction project, additional studies should include the following:



- Development of a geologic reserve model to allow estimation of an initial reserve estimation;
- Additional studies in support of a preliminary economic assessment ("PEA") study, and
- Further tests of the brines from the production well using the Ekosolve[™] system to determine the extraction efficiency and quality of the lithium chloride produced by their process.

Budget

For the proposed two well program, costs (excluding tax, in USD) can be summarized as follows:

- Roads and drilling platforms \$10,000
- Environmental studies \$40,000 (includes baseline study for production)
- Drilling HQ exploration well \$275,000
- Drilling 8inch production well \$400,000
- Field monitoring and supervision \$40,000
- Development of a resource block model \$80,000
- Geophysics and Reporting \$70,000

Total estimated cost of about USD \$915,000 (plus taxes less IVA refunds) (CAD \$1,200,00 plus taxes) for the proposed one corehole and one pumpable production well program.



2 Introduction

The Project is located in the Puna region of Argentina (**Figure 2-1**), about 10 km from the township of Pocitos on the middle west side of the Pocitos Salar. It is approximately 3,660 meters above sea level (masl) and is 10 kilometers (km) from the town of Pocitos and about 108 km to San Antonio de los Cobres. **Figure 2-2** shows the location of the Salar.



Figure 2-1. Map of Argentina Puna Region and lithium projects





Figure 2-2. Satellite Image Showing the Pocitos 1 Salar

2.1 Terms of Reference

This report was prepared at the request of the Issuer, a company existing pursuant to the laws of British Columbia, Canada, and with its head office located at Royal Centre, Suite 1500 1055 West Georgia Street, Vancouver, British Columbia, Canada V6E 4N7. The terms of reference were to describe the Property, surface sampling, geophysics and drilling that has taken place on the concession known as Pocitos 1 on the Pocitos Salar being File No. 19457, and to prepare a report consistent with NI 43-101 guidelines. The purpose of this report is to provide shareholders of the Issuer with a summary of material information about the Pocitos lithium brine prospect property on which the Issuer is exploring.

The Author was engaged by the Issuer to prepare this report, and to function as a Qualified Person ("QP") to supervise the project. The Author visited the site in May and June 2018 for a two week period to supervise the drilling, and again in November 2022 to supervise drilling for 4 days, in January, March and May 2023 for one day to inspect the PO3 well for the purpose of obtaining water levels, gas sampling and supervising brine samples and core logging. This effort is detailed later in this report. The Author is not an officer or director of the Issuer. The Author does not own shares of the Issuer and is being paid normal consulting fees for his report.



2.2 Sources of Information

The information provided in the report was taken from the following sources:

Nigel Unger from Quantec Geoscience (2018) TEM survey in Salta Argentina provided the geophysics survey and initial interpretation. The report was dated January 26, 2018. Interpretation for this work was relied on for Chapter 9.

Jeremy Barrett from Southernrock Geophysics (2023) MT survey in Santiago Chile provided the MT geophysics survey and interpretation. The report was dated 26 June 2023. Interpretation for this work was relied upon for chapter 9.

David Carabanti, Anabel Molas, both geologists who graduated from the Geology faculty of the Nationcial University of Salta employed by Recharge Resources SA in Salta arranged for the sampling at site, and for delivery of the samples to SGS Laboratories in Salta, Argentina. Mr. Carabanti and Ms Molas were onsite with me during drilling and packer tests in November 2022 during the exploration boreholes program for PO3. This work was relied on for Chapter 10.

Carlos Enrique Ganam, a registered Argentine geologist, prepared and signed the Environmental Impact Report (Ganam, 2021). This report was dated May 17, 2017, then updated on June 5, 2021 and 11 August 2022. This work was used to complete Chapter 24 of this report.

2.3 Latest personal inspection

The Author visited the site on May 9, 2023, to inspect the brine and mud being forced out of the well PO3, to concrete around the drill hole casing and to take samples of the gas being emitted to try to determine its composition which originally was tested and determined to be air and water vapour.

2.4 Language currency and measurement standards

Some technical reports and references have been written in Spanish and been translated to English. The currencies used are United States dollars (USD) and Canadian dollars (CAD). The measurements used are the metric system.



2.5 Statement for Brine Mineral Prospects and Related Terms

Brine Mineral Resource and Reserve estimates are not "solid mineral deposits" as defined under the Canada Institute of Mining ("CIM") (2003, 2010, and 2012) standards. However, there are sufficient similarities to mineral deposits that the guidelines published by the CIM are followed for this Report. Brine is a fluid and hosted in an aquifer and thus has the ability to move and mix with adjacent fluids once extraction starts using production wells as a mining method. Resource estimation of a brine is based on knowledge of the geometry of the aquifer, and the variation in drainable porosity and brine grade within the aquifer. In order to assess the potential reserve, further information on the permeability and flow regime in the aquifer, and its surroundings are necessary in order to predict how the resource will change over the life of mine.

The CIM standards do not provide guidance on how to treat aquifers with gas or air pressure in them nor do they comment on how to manage brine release calculations which would be invalid under a high pressure gas scenario. The author believes that Borehole Magnetic Resonance and core porosity may give a more accurate assessment of the transmissivity of the brines contained in the aquifers.



3 Reliance on other Experts

The Author has relied on an extract from the Mining Secretary office that's states that Ekeko SA is the owner of the exploration concession. Ekeko SA acquired the concession on November 25, 2008. This extract report is relied on for the purpose of the entire technical report legal contents.

The Author also relied on the entirety of a preliminary Environmental Impact Report needed to obtain the exploration drilling permits and a subsequent addenda titled *"INFORME DE IMPACTO AMBIENTAL ETAPA PERFORACIÓN DE POZOS EXPLORATORIOS PROYECTO POCITOS"* prepared by Mr. Carlos Ganam (2021) for the Vendor and submitted.



4 Property Description and Location

4.1 Description and Location

The Project is a license for exploration declared as a "mina" of lithium and borates with a claim number Expediente No. 19457. The Project is in the Los Andes department in Salta Province, Argentina. The concession is described in file 19457 and **Table 4-1** summarizes the Gauss Kruger - Posgar coordinates.

Point Corner	X Coordinate	Y Coordinate
1	3392564,87	7294252,38
2	3397688,75	7294252,38
3	3397688,75	7288651,24
4	3392564,87	7288651,24

Table 4-1. Summary of Pocitos 1 Coordinates

The Project covers approximately 8 square kilometers (km²) or 800 hectares being about 3 km long and 2.7 km wide. **Figure 4-1** shows the location of the Project.



Figure 4-1. Map Showing the Pocitos Salar and the Pocitos 1 Mining Concession



4.2 Mineral Tenure

Spey had provided an option to the Issuer to acquire the Project by making a payment of USD\$1.120 million (about CAD\$1,495,000). The Issuer and Spey have contractual obligations to keep the Project in good standing, including rehabilitation and/or other requirements. The Issuer advises that they have paid these amounts Spey, and Spey confirmed it had received the money and shares.

Argentinean Mining law provides for the granting of two types of mining rights: exploration permits ("cateos") which are limited in duration and which allow for the exploration of a mineral property, and mining permits (minas), which allow for the exploitation of the minerals in the subject property. The designations of the permits in respect of the Project are mining permits. Mining permits are unlimited in duration and remain the holder's property as long as the holder meets their obligations under the Argentinean National Mining Code, including biennial canon payments and minimum investment commitments.

The option agreement with Ekeko SA and the sub optioners expires on 30 June 2023. The Issuer advises that it has provided notice to Spey that it wishes to exercise its option and Spey advises has provided notice to AIS.

4.3 Surface Rights

The surface rights belong to the concession holder and activities on the concession are subject to the permission being granted by the Mining Court of Salta.

4.4 Agreements and Encumbrances

There are no encumbrances on the Project by the Issuer. The option agreement between Spey and the Issuer was signed on March 22, 2022.

The Issuer had a USD \$250,000 exploration expenditure commitment to explore the Project in during the option; the exploration commitment work was completed and is documented in this report. Under the terms of the Agreement, the Issuer may exercise the Option and earn an 80% undivided interest in the Pocitos 1 Project by paying Spey USD 850,000 in cash payments and by issuing USD 900,000 in common shares over a 12-month period from the date of exchange



approval of the Agreement, on the following basis: USD 250,000 in exploration expenditures must be incurred over the initial 12 month period; An initial cash payment of USD 350,000 and common share issuance having a value of USD 400,000 are to be made within three business days; and a further payment of USD 500,000 in cash and common share issuance having a value of US\$500,000 are to be made 12 months from the date of the first cash payment and share issuances. The Issuer has expended more than 600,000 USD on exploration since the commencement of the option agreement. This has been confirmed by the Author.

At s3.2 of the option agreement between the Issuer and Spey it states that the Optionee (Issuer) may exercise the option and earn an additional 20% undivided interest in the property for a total of 100% interest, subject only to the underlying royalty by paying to the Optionor (Spey) US\$6m by the fifth anniversary of this agreement.

4.5 Mining Royalties and Taxes

From a historical perspective, Law No. 27,541 (Economic Emergency Law), which was adopted by the National Congress in 2019 enabled the federal government to impose export duties on mining activities until December 31, 2021. These cannot exceed 8% of the dutiable value of the official FOB price. Most provinces, including Salta, have their own Mining Procedural Codes, which generally follow the standards and guidelines of the national Mining Code. The provincial Mining Procedural Codes include the following elements:

- Relevant procedure for requests for the granting of mineral rights.
- Available mechanisms to challenge decisions of mining enforcement authorities.

The exports of lithium carbonate and lithium chloride (MERCOSUR Tariff Position No. 2836.91.00) are included and taxed at a 4.5 per cent rate since 1 January 2021. Decree No. 1060/2020 does not set a cap applicable to these exports (as Decree No. 793/2018 did) and does not determine the term of validity of the 2021 Export Duties, nor whether the 4.5 per cent rate shall be calculated on the **export's tax basis or their FOB value**. Decree No. 908/2021 extended the expiration date of Decree No. 785/2020 until 31 December 2023.

By Decree No. 57/2023 ("**Decree**") issued on 3 February 2023, the National Executive Power (NEP) cancelled the 5% export refund on exports of lithium, lithium oxide and hydroxide, lithium chloride and lithium carbonate ("**Benefit**") produced in the provinces of Catamarca, Jujuy and Salta ("**Provinces**").

The cancellation of the Benefit (which was calculated on the FOB value of the goods, including all transport and insurance costs to the port of shipment of the goods, but not the taxes levied on



exports) by the NEP is a measure that negatively affects the situation of projects in northern Argentina (Puna region), which will see their competitiveness and profitability margins affected by the change in the indirect tax burden that weighs on them. (source: Baker Mckenzie Insightplus Magazine Feb 2023).

4.6 Environmental Liabilities

All persons or entities engaged in prospecting, exploration and exploitation activities are responsible for any environmental damage that may occur due to non-compliance with rules of environmental protection that apply to mining activities, whether the damage is caused directly or by contractors or subcontractors (*section 248, Argentine Mining Code*).

The Issuer is jointly and severally liable for damage caused by persons or entities conducting surface activities with the consent of the titleholder. Environmental requirements are set out in the Environmental General Protection Act No. 25,675, which also applies to the mining industry, and Law No. 24,585, which has been incorporated into the Mining Code. Law No. 24,585 outlines the most important rules of environmental protection specific to mining activities, including the following:

- Individuals or entities seeking to conduct prospecting, exploration, or exploitation activities must first file an environmental impact statement ("EIS") with the enforcement authority.
- If the EIS meets the standards of Law No. 24,585 and its complementary rules, the enforcement authority issues an environmental impact declaration ("EID") that allows the applicant to carry out the proposed activities.
- The EID is issued for 2 years with a set of conditions and requirements that the interested party must comply with to maintain the validity of the EID.
- Companies must submit updates of the EIS every 2 years from its initial approval.

The Federal Congress sets the minimum environmental standards, and the provincial and municipal governments can impose higher protections. Higher provincial and municipal requirements will apply if they are not manifestly incompatible with federal standards (this is the interjurisdictional co-ordination criteria established by the Federal Supreme Court) (section 41, Constitution).



4.7 Permitting

All permitting for the proposed drill program had been submitted and accepted. An application for an exploration concession must include the following details:

- The geographic coordinates of the requested area.
- The purpose of the exploration.
- The name of the individual or company requesting the permit.
- The name of the owner of the surface land.
- A description of the work to be done, including the estimated investment and equipment.
- A sworn statement affirming that the request does not violate the Mining Code.

The exploration permit applicant must pay an exploration fee on filing of the application (approx. CAD \$100 per hectare, or USD \$78 per hectare). The fee is reimbursed (totally or partially) if the permit is denied or granted for a smaller area. The mining authority will automatically deny the request if the applicant does not submit evidence of payment of the fee.

To obtain an exploitation concession, the applicant must comply with the following requirements/steps:

- The discoverer must file a discovery claim with the mining enforcement authority. The discovery claim must be submitted together with a sample of the mineral.
- If the requested area is available, the mining authority must register the discovery claim. The registration request is published in the provincial Official Gazette.
- Within 100 days following the registration of the discovery claim, the discoverer must perform and declare legal works over the area to prove the existence of the deposit.
- The discoverer must file a petition requesting the measurement and demarcation of the units of exploitation corresponding to the area (pertenencia). The number of areas that a miner can request varies depending on the type of mineral deposit (lithium or secondary minerals such as borates) and on the type of applicant (for example, an entity or an individual).
- The mining authority registers the measurement and grants a copy to the applicant as proof of title to the exploitation concession.



4.8 Other Significant Factors

No other significant factors are known by the Author as of the date of this report. When gas was discovered in PO3, a report on its composition was sent to the Mining Directorate of Salta.

Panopus

5 Accessibility, Climate, Local Resource, Infrastructure & Physiography

5.1 Access

Figure 5-1 shows the location of the Project and the road access to get there from Salta. The Project is located approximately 10 km south west of the town of Pocitos. Access from Salta city on the west motorway and driving about 35.5 km along National Route N°51 to Campo Quijano town. From there continue along approximately 129 km going past villages Ing. Mauri, Alfarcito, Santa Rosa de Tastil, reaching the town of San Antonio de los Cobres. A further 61 km is driven towards Cauchari salar. Then Provincial route N° 27 is taken, driving about 50 km until reaching Pocitos Salar. **Figure 5-2** shows the condition of the mining road in the Salar.



Figure 5-1. Location map Showing the Pocitos 1 Prospect (in red) and Road Access from San Antonio de Los Cobres and major river systems





Figure 5-2. View of Mining Road on the Pocitos 1 Property, Pocitos Salar and PO3 well rig

5.2 Climate

The climate of the Puna is arid desert, with a summer season of rains and thunderstorms, from October to March. Summer is hot during the day, with temperatures that can exceed 40° and at night the temperature is close to 0°. Winter is rigorous, with extreme temperatures of up to 30° below zero. The rainfall, in general, is between 100 and 200mm per year. According to Köppen classification system of five main climate types, the climate is continental, arid Andean, with frosts frequent. The air is very pure and in certain sectors the lack of oxygen is noticeable due to the altitude. The dust contamination observed is caused by the dust mobilized by the winds. The winds in the Project area are not very intense in the months of August-September. The hours of sunshine and evaporation are remarkable with more than 200 days of sunshine.



Table 5-1 shows monthly average temperature and precipitation records for Pocitos (located 10km south of the Pocitos weather station) as a graph.



Table 5-1. Average Monthly Weather Conditions in Pocitos Salar



Figure 5-3 Historical rainfall from 2010 to June 2023 source www.worldweatheronline.com

Strong winds are common at the prospect site, as is common in many cold deserts and the Puna regions. Wind speeds during winter commonly range from 15 kilometers per hour (km/h) to gusts



of 40 km/h. The velocity is lower during the summer months, and much lower at night than during the day.



Annual Sun Hours and Sun Days Averages

Figure 5-4 The hours of sunshine per quarter, and days is 100, 200, 300 on the left hand scale Source: www.worldweatheronline.com

5.3 Local Resources & Infrastructure

The nearest population center is the village of Pocitos (estimated population 200 inhabitants) with services such as a lodging facilities (Hotel Planeta Puna), three restaurants and a town community centre. The town is expanding quickly with FMC/Livent, Rio Tinto-Rincon, Ganfeng-Pozuelos and other large projects nearby. The nearest large city is Salta, (population 719,000 source: www.macrotrends.com) located about 240 km to the east-southeast of the prospect area. Resources in the local area are basic, with most supplies being brought from Salta or San Antonio de Los Cobres.

There is a major gas line near Pocitos Salar that runs to Tolar Grande on the eastern side of the salar. Roads are unmaintained dirt, but generally in good condition due to the low rainfall during



the winter months, and are usable all year round. The sealed highway finishes at San Antonio de Los Cobres.

The railway is located near the Pocitos village. Another populated zone is the town of Olacapato, with fewer than 200 inhabitants. The largest populated community is the village of San Antonio de Los Cobres, with a population of close to 5,500 inhabitants. The village is located 120 km from the project area.

5.4 Physiography

The Project is located in the Puna (Altiplano) region of western Salta province at an altitude of about 3,600 masl. The region is dominated by ancient volcanos. The Puna Plateau is an uplifted crustal block of the old crystalline basement raised by the Tertiary orogeny, and includes evaporite basins or "salars" like Pocitos that may contain elevated lithium concentrations. The Salar de Pocitos is a tectonic depression, delineated to the north by stratovolcanoes with andesitic composition (that is, the Pocitos, Del Medio, and Tull Tull volcanoes). To the east, the salar is bordered by extensive alluvial fans and alluvial deposits that make the western flank of the volcanic complex of the Quevar, Mamaturi and Azufrero volcanoes. To the west, the salar is bordered by granitic intrusions that form the Macon Hills (Serranía Macon). The southern and southeastern extremes of the Salar de Pocitos are composed of Ordovician sediments, which are unconformably overlain by Miocene sediments of the Pastos Grandes Group (Garcia, R.F., et al., 2006) along the Cordón de Pozuelos. **Figure 5-5** shows a photo of the Salar and surrounding hills. Volcanic complexes dominate the relief to the north.



Figure 5-5 Shows the Rincon volcano and the road across the Pocitos salar and disused railway line





Figure 5-6. Photo of the Pocitos Salar from the West showing Tul Tul (far left), Medio and Pocitos volcanic cones



Figure 5-7 Digital elevation model of the Calama-Olacapato-El Toro lineament sector with mapped volcanoes discriminated by age (references as in Figure 3). volcanoes: Chimpa (Ch), Rincón (Rn), Tuzgle (Tz), Tul-Tul (TT), Chivinar (Chv), Del Medio (Md), Pocitos (Po), Guanaquero (Gu), Quevar-Azufrero (QA) Source: Grosse, Pablo & Guzmán, Silvina & Petrinovic, Ivan. (2017). Volcanes compuestos cenozoicos del noroeste argentino.



6 History

6.1 **Ownership and Development History**

The Vendor Ekeko SA (a private company incorporated in Argentina) had acquired the concession in 2008, but did no exploration until 2016 when they took some surface samples. Ekeko SA entered into an option agreement with AIS on November 10, 2017. On May 1, 2018 the option was extended for a further six month period. AIS did extensive deep trench surface sampling, and commissioned Quantec to do a TEM survey in two lines east west and north south through the middle of the tenement. AIS drilled two wells on Pocitos 1 and encountered high magnesium values in the brine (1:20 Li/Mg) and decided that given there was no technology available to process the lithium in the brines at the magnesium grades they encountered that they would abandon the project and relinquish the option. The lithium carbonate price on October 1, 2018 was 94,230 Yuan (source: www.trading economics.com) or approximately (6.8495:1 CNY/USD) US\$13,757 and trending downward.



Figure 6-1 shows the location of the trenches and the red lines are the VES survey lines The samples were taken along the line 729082N 698894E to 729082N 701762E.



Seven trenches were made and sampled using a bailer that had been rinsed in the brine before the sample was taken. The sample was put into a plastic bottle also rinsed and sealed and kept in a locked plastic container. The samples were then taken to Alex Stewart Laboratories in Jujuy for Analysis.

Pit No	Li	Са	Mg	В	Na	к	Sr	Mg:Li
1	22	692	313	31	55,784	998	13.94	15:1
2	No brine							
3	65	307	322	209	121722	3201	5.58	4.95
4	No brine							
5	45	267	349	53	119763	1623	5.90	7.75
6	No brine							
7	72	494	1131	141	116172	2467	9.79	15.7:1

Pocitos 1 Trenches

Pits (All Values in ppm (parts per million) 10,000 ppm=1%) trench Depth 4.0m-4.5m



Figure 6-2 Picture of the trench Pit 1 with brine approximately 1 metre from the surface



Diamond Drill Holes

Two HQ drill holes were drilled. DDH1 by Hidrotec and DDH2 by AGV Corporation.

Pocitos One - DDH Hole 1 All Values in ppm (parts per million) 100,000 ppm=10% , -90 degrees dip Latitude 24° 28' 40.34"S Longitude 67° 01' 25.01"W EOH 355.0

Sample No	Density	Li	Са	Mg	В	Na	к	Sr Strontium	Mg:Li Ratio
Accuracy Mg/L ICP		0.05	0.025	0.05	0.05	0.1	0.2	0.01	
PO1	1.211	66	788	1111	89	116571	2375	18.17	16.8:1
PO2		40	1197	22	740	116957	1816	27.37	0.55:1
PO3		59	1010	1237	47	113729	2139	23.41	21.0:1
PO4		66	660	1006	105	117887	2475	16.02	15.2:1
PO5		76	588	1100	131	116127	2630	13.05	14.5:1
PO6	1.213	88	581	1258	145	116147	2846	11.73	14.3:1

Pocitos One - DDH Hole 2 All Values in ppm (parts per million) 100,000 ppm=10%, -90 degrees dip

Sample No	Li	Ca	Mg	В	Na	к	Sr Strontium	Mg:Li Ratio
Accuracy Mg/L ICP	0.05	0.025	0.05	0.05	0.1	0.2	0.01	
PO2-1	39	1229	758	25	115894	1866	27.12	19.4:1
PO2-2	74	1140	1547	62	106605	1600	23.62	20.9
PO2-3	112	1133	2144	88	103995	1568	20.88	19.1:1
PO2-4	126	1067	2521	111	94408	1392	19.23	20.0:1
PO2-5	95	601	1447	123	116064	2468	12.88	15.23

Latitude 24° 28' 38.59"S Longitude 67° 01' 00.82"W EOH 407.38


The DDH1 (PO1) encountered significant brine surge at approximately 355m depth and the drilling had to stop because of the pressure of the water coming up the triple tube. The picture below shows the pressure by the height of the water going through an 83mm diameter HQ drill rod. At the time we attributed the brine pressure to the water pressure in the aquifer but after drilling hole PO3, we realise that gas pressure from deep below may have contributed to the flow rate that was evidenced.





Figure 6-3 Picture of the brine surge from DDH1 at approximately 355m depth

About one week later at the DDH2 a similar significant brine surge was encountered and also continued for approximately 6 hours until the rod could be capped to prevent the spray of the water in the windy conditions. Gamma was run in DDH1, but the tool broke down at 215m so the interval recorded was only 337m to 215m. Given the substantial brine flow at 337m and 407 metres respectively in both DDH's 1 and 2, no detailed gamma interpretation was undertaken. The Pocitos Salar was subjected to substantial rainfalls during December to March 2018 and this impacted surface brine concentration. The highest lithium pit value was 179ppm in Pit 10 on the eastern most edge of Pocitos 2. No evaporation studies were undertaken but anecdotal evidence suggests that 3-5cm of water had evaporated over the 30 day drill period.



Figure 6-4 Picture of the brine surge from DDH2 at approximately 407m depth



Core from both holes near where the surge occurred were sent to Geosystems Analysis in Tucson Arizona and Dr Michael Yao supervised the analysis. The results were as follows:

G	GeoSy Analysis	ystems 3383 5, Inc. 3381 Hydrology Pecc	i Dodge Blvd on, AZ 85716 (20-628-9330 (20-628-1122 analysis.com						
	July 15. 2018								
Project #	91827								
Project Name	Brine Release Testing				20				
го:	AIS Resources Limited			CC	∧″ / c	Concluster	200		
	Suite 2300 - 1177 West Hastings S	Street,		00		reogyste	1115		
	Vancouver, British Columbia				An	alvsis. In	C.		2202 N Dodge Blud
roject Contact	Phil Thomas				Innovati	ons in Hydr	alogy		Tucson, AZ 85716
inclosed are results for:	Brine Release Testing				movati	520-628-9330 520-628-1122	Fax: www.gsanalysis.com		
	Test	Method	Qty			Laborator	y Test Results - Soil Parti	le Density	
Specific	Specific Gravity of Soils ASTM D 854 - 02		10						
			-		Date:				
Bu	Ik Density	ASTM D 2937 - 00	40		Job No:	91827			
Total Parasity Fi	old Water Capacity and	MOSA Part 4 Ch 2 2 2 2 1 Ch 2 2 2 2 2 and			Job Name: Brine Release Testing				
Spi	acific Yield	3.3.3.5/Horton et al	40		Job Description:	Brine Release Testi			
					Company:	AIS Resources Limit	ed		
Particle Size Ar	Systems Analysis for your material test	ASTM D 422 - 63 / ASTM C136	10 Du have any			Sample ID	Post RBR Assumed	Post Brine Wash	
uestions or require addition	nal information, please contact us at 1-5	20-628-9330				DO1 CORE 1	Particle Density (g/cm) Particle Density (g/cm ⁻)	
						POI CORE I	2.3/5	-	
						TOTCOLLE	2.002		
incerely		0 4							
	2	my wa fre							
Ń	t. Toula								
- Ce								-	
Prepared By Laborator	: Katherine Heydom y Project Manager	Reviewed By: Mike Yao Laboratory Technical Director							
	, ,	,		- Cover	T2 - Partic	e Density	3 - Bulk Density T4	- Porosity T5 - Parti	cle Size Distributi

Table 2 The 5 particle density measurements for each core sample were 2.375 and 2.302

GSA Ar Innovati	GeoSystem alysis, Inc. ions in Hydrolo	IS gy					
		Laboratory Test I	Results - Core Bulk I	Density			
Date							
Job No:	91827						
Job Name:	Brine Release Testing						
Job Description:	Brine Release Testing						
Company:	AIS Resources Limited						
	Sample ID	Bulk Density (g/cm ³)	Core type	Estimated Texture			
	PO1 CORE 1	2.17	HQ	Halite with minor cemented sediments			
	PO1 CORE 2	2.11	HQ	Halite with minor cemented sediments			
T2 - Particle Density T3 - Bulk D	ensity T4 - Porosity	T5 - Particle Size Dist	ibution T5 - PSD Fig	ures RBRC Centrifuge +			

Table 3 The bulk density measurement was 2.17g/cm3 and 2.11g.cm3 from 20 samples of each core



Date:										
Job No:	91827									
Job Name:	Brine Release Testing									
Job Description:	Brine Release Te	Brine Release Testing								
Company:	AIS Resources Li	mited								
Sample ID	Porosity (cm3/cm ³)	Field Water Capacity (cm3/cm3)	Yield for 0- 120 mbar (cm3/cm3)	Specific Yield (cm3/cm3)						
PO1 CORE 1	0.085	0.070	0.011	0.015						
PO1 CORE 2	0.082	0.036	0.022	0.047						
T2 - Particle Density	T3 - Bulk Density	T4 - Poro	sity T5 - F	Particle Size [

Laboratory Test Results - Porosity and Effective Porosity

Table 4 Porosity values were very reasonable considering the particle size of the core. The specific yield was inconsistent and so the core has been sent away for retesting with the core from recent drilling.



Table 5 The core was very fine grained with sizing from 0.001mm to 5mm.



Geophysics

Two profiles were run across the concession as per lines set out in Figure 6-1. The profiles are set out below:



Figure 6-5 The TEM survey profiles provided by Quantec (profile 1 East West and profile 2 North South) show very low resistivity 100m below the surface at approximately 0.1 Ω m. Profile 2 shows similar encouraging results.

The survey equipment specifications were:



Instrumentation

Receiver: Geonics Digital PROTEM - 20 channels Transmitter: Geonics EM-37 (2.8 kilo-Watt) Antenna: Geonics 3D-3 (200 m2 effective coil area) **Survey Parameters** Configuration: TEM Sounding Sounding Type: Center-loop Transmit loop: 200 m x 200 m Transmitted frequencies: 25 Hz & 2,5 Hz Normalized Current: 1 A Transmit Turn-off Time: 105 – 110 us Nigel Unger General Manager of Quantec stated" Between 10/01/2018 to 17/01/2018, Quantec Geoscience Argentina S.A. surveyed 19 soundings of TEM data over the Pocitos Project on behalf of AIS Resources Limited. The data were processed and inverted in 1D using Interpex IX1Dv3.53. The acquired data are of high quality, and the inversion results present a good model of the subsurface resistivity distribution to depths of approximately 200 m in the best cases. The models show to be consistent from one location to another. A very interesting conductive horizon is located around 10m depth in most of the soundings, especially in the northern area."



Figure 6-6 Sounding locations on Pocitos 1 (1,3,4,5,8) and Pocitos (5,6,7,2,9)

		UTM Coordinates (WGS84, Zone 19S)				
Point	Area	Easting	Northing			
01	North	700300	7292000			
02	North	702700	7292000			
03	North	698900	7290850			
04	North	700300	7290850			
05	North	701750	7290850			
06	North	702700	7290850			
07	North	703550	7290850			
08	North	700300	7289600			
09	North	702700	7289600			

B.1. SOUNDINGS

Table 6 Co-ordinates of the soundings over Pocitos 1 and 2 concessions

6.2 Exploration

Apart from the work done by AIS Resources no other explorer has worked on the Pocitos 1 concession but they have worked above and below the property within 1km but it is noted the summary **below is not on the Pocitos 1 property so results should not be extrapolated**. The Argentine government agency, the Direccion General de Fabricaciones Militares (DGFM) completed extensive exploration in the Argentinan salars in this region in the 1970s. In 1979, the DGFM reported a reconnaissance sampling campaign at Pocitos that consisted of 12 shallow auger holes and one surface sample. Of the 12 auger holes, two reported anomalous values of 155ppm (Hole P12) and 417ppm Li (Hole P8) were recorded. The results of these holes and the sampling conducted are historical in nature and cannot be confirmed by the Issuer under National Instrument 43-101 standards of exploration applicable today.

In 2010 and 2011, the company Li3 Energy Inc. (acquired by Wealth Minerals in 2016) released preliminary results of a near surface brine sampling campaign and a geophysical study completed in the northern portion of the Salar de Pocitos. Based on the reported results, Li3 Energy defined the presence of two near-surface anomalies. The eastern anomaly had reported lithium concentrations ranging from 100 to 300 parts per million ("ppm") and a potassium concentration



ranging from 1,000 to 7,000 ppm. The western anomaly had reported lithium concentrations ranging from 100 ppm to 200 ppm and potassium concentrations ranging from 1,000 to 5,000 ppm. The geophysical survey indicated the presence of three targets at depth with potential to host mineral rich brines. The geophysical anomalies are described as coincident with the surface geochemical anomalies.

Additional surface sampling campaigns were conducted by Lacus 7 Minerals and Li3 Energy Inc. (Li3E) (OTCBB: LIEG); TEM geophysics by Southern Lithium Corp (CVE:SNL) and Millennial Lithium Corp. in the north-west extreme of the basin and VES surveys by PepinNini Minerals Ltd. (ASX: PNN now Power Minerals Ltd) on the northwestern and eastern margins of the basin. (Source 2018 PepinNini Minerals Annual Report).

Li3E reported in a press release reported their 2010 shallow sampling campaign and geophysics results. The sampling was near-surface on two 6km x 2km grids, located to the north-east of the Pocitos West properties. The campaign returned values of 100-300ppm Li in the eastern area, and 1-200 ppm Li in the western grid. A resistivity survey over the Li3E prospect area reportedly identified three target areas, including one highly conductive zone of 0.2 ohm-meters at 250 meters deep, and other possible mixed brine zones of 0.4 - 0.75 ohm/m that encase the high conductivity layer from near surface to 450 m. (Source August 3, 2017 NI 43-101 Technical Report prepared by Nivaldo Rojas.) Forty six brine samples taken from just below the surface of the salar, with brine assays ranging from 300 ppm to 600 ppm lithium. These samples were taken immediately east of the Pocitos West property. Previous geophysical studies conducted by Li3 Energy Inc. also demonstrate the Pocitos basin, where sampled, is approximately 500 metres deep and that the prospective brine target is open and extends westward toward the Pocitos West property (source Millennial Corp press release dated 12 April 2017).

Lacus Minerals also reported in 2010 on their sampling and geophysics overseen in the same area, which was later optioned to Li3E. While Lacus did not report geochemical assay values, they included in their report distribution maps for 95 samples collected at 6.8 meters and below indicating values up to 255ppm Li. Their geophysical survey consisted of 42 soundings from which the interpretation indicated a possible 140m thick conductive brine layer with the top at a depth of 150m. According to Lacus, the brine-bearing horizon could be projected to the surface at the western margin of the basin, comprising the western limit of Millennial's claims and consisting of



conglomerate and sandstone. (Source NI43-101 Technical report prepared for Liberty One Resources by Nivaldo Rojas).

In September 2016 Argosy Minerals acquired an option over Pocitos 1 and 2. The option expired on September 3, 2017. No work was reported in their quarterly reports to the Australian Stock Exchange.

Pure Energy Minerals Ltd explored their Terra Cotta project on Salar de Pocitos in August 2017 in the south of the Salar and had adjacent concessions Pocitos 4 and Pocitos AO1. They did not conduct any drilling. The trenching results

6.3 Historical Mineral Resource and Reserve Statements

There are no historical published resource or reserve statements.

6.4 **Production History**

There has been no lithium production at the Project to date.



7 Geological Setting and Mineralization

The Salar de Pocitos is located in the Geological Province of La Puna (Turner, 1972) and within the Puna Austral Geological Sub-province (Alonso et al., 1984a). One of the most important characteristics that define the Geological Province of La Puna is the presence of evaporite basins or "salares" where deposits of borates, sodium sulfate and lithium are concentrated. The Salar Pocitos occupies one of these endorheic (internal drainage) basins.

The central Andean plateau is divided into the Puna and the Altiplano plateaus. The Argentine Puna (also known as "La Puna") is the southern extension of the discrete and much larger Altiplano plateau of southern Peru, Bolivia and northern Chile. The Salar de Pocitos is located in the southern Puna. This zone corresponds to the fringe of land located between the Cordillera Oriental (northern portion) and the Sierras Pampeanas (southern extreme) to the east, and the Cordillera Principal (southern extension of the western Cordillera of Bolivia) to the west.

To the north stands out the Quevar Volcanic Complex. The Cordón de Pozuelos is constituted, mainly, by composite rocks with volcanoes that are linked and form multiple volcanoes. The alluvial environments that border the Salar de Pocitos are numerous and are at the base of the coalescing alluvial cones. These, alluvial cone shaped areas form the alluvial planes of the eastern edge of the Salar de Pocitos. Tertiary sedimentary deposits distributed in low lying outcrops show very low resistance to erosion so they do not form outstanding reliefs. In the area where the mines are located, the Pocitos salt flats stand out with benches of sediments above them.

The semi-arid, high desert that is the Puna plateau is characterized by numerous basins with interior drainage. The lowest part of the basin often contains a "salar", which is a salt encrusted playa that formed from lakes or superficial waters that collected in a topographic low area where the water subsequently evaporated, forming a dry lake bed. The continuous upward evaporation of shallow groundwater, climatic conditions, presence of groundwater and lack of drainage results in the precipitation of minerals that occur in the dissolved state in the near-surface water. The shallow groundwater is brackish (or saline) and has a high concentration of salts such as sodium chloride, potassium chloride, lithium chloride and boron. The precipitating minerals can create a salt crust. The Salar de Pocitos is a tectonic depression, delineated to the north by stratovolcanoes with andesitic composition (that is, the Pocitos, Del Medio, and Tull Tull volcanoes). To the east, the salar is bordered by extensive alluvial fans and alluvial deposits that



make the western flank of the volcanic complex of the Quevar, Mamaturi and Azufrero volcanoes. To the west, the salar is bordered by granitic intrusions that form the Macon Hills (Serranía Macon). The southern and southeastern extremes of the Salar de Pocitos are composed of Ordovician sediments, which are unconformably overlain by Miocene sediments of the Pastos Grandes Group (Garcia, R.F., et al., 2006) along the Cordón de Pozuelos.



Figure 7-1 Geological Map of Pozuelos salar adopted from Meixner, A., Alonso, R.N., Lucassen, F. et al. Lithium and Sr isotopic composition of salar deposits in the Central Andes across space and time: the Salar de Pozuelos, Argentina. Miner Deposita 57, 255–278 (2022). <u>https://doi.org/10.1007/s00126-021-01062-3</u>

Red square is approximate location of Pocitos 1 concession.



The Salar de Pocitos, like several other salars in the region of La Puna, is an endorheic basin. Two features are well defined in the basin. The first one corresponds to a saline crust mostly composed of sodium chloride (the mineral halite), which occurs in the central portion of the basin. The second feature is the presence of deposits of fine-grained materials around the edge of the saline crust that correspond to lacustrine sediments bordering the former lake and more recent heavy rains as occurred in 2018. These sediments are composed primarily of silts and clays, with a saline coating (known as "efflorescence"). It is common to observe small gypsum crystals scattered along the surface of the salar particularly to the south and, in some areas, forming a crust of evaporitic minerals and small accumulations of crystals that outcrop in the silt clay sediments. Clastic sediment deposits occur over the basin fill sediments and form coalescent alluvial fans. The alluvial fans essentially divide the basin into two zones. The project area is located primarily on the lacustrine sediment deposits on the western side of the salar. Reddishbrown silt and clays occur at the surface of the project area, with abundant small crystals of halite scattered almost to the border of the salar. To the north of the project area, and near the border of the salar, surficial green-gray clays were observed, and it is believed that the clays are associated with shallow groundwater related to reductive environment conditions.

Source of Lithium

The primary lithium sources of the salar deposits and the mobilisation process of lithium are still a matter of speculation. Chemical weathering at or near the surface and leaching in hydrothermal systems of the active magmatic arc are considered the two main mechanisms of Li extraction from the source rock. The lithium and strontium isotope composition of typical salar deposits ofer insights into the processes on how Li brine deposits in Andean evaporites are formed. Data from the Salar de Pozuelos indicate near-surface chemical weathering in a cold and dry climate as the dominant mobilisation process of Li, with evaporation being responsible for the enrichment. The Cenozoic ignimbrites are the favoured source rock for the Li, with subordinate additions from the Palaeozoic basement. The identification of the source rocks is supported by radiogenic Nd and Pb and stable B isotope data from salar deposits. A comparison with other Li brine and salt deposits in the Altiplano-Puna Plateau and its western foothills places the Salar de Pozuelos as an endmember of Li solubilisation by chemical weathering with only minor hydrothermal mobilisation of Li. (Source: Meixner, A., Alonso, R.N., Lucassen, F. et al. Lithium and Sr isotopic composition of salar deposits in the Central Andes across space and time: the Salar de Pozuelos, Argentina. Miner Deposita 57, 255-278 (2022). https://doi.org/10.1007/s00126-021-01062-3



8 Deposit Type

The deposit type is a lithium-enriched, saline brine aquifer occurring in a high altitude, hydraulically closed basin. The conceptual geological model of salars by Bradley et al. (2013) (**Figure 8-1**) agrees well with the observed conditions in the salars in the Puna region in Northern Argentina. In closed basin systems where evaporation potential exceeds precipitation input, the freshwater evaporates, concentrating the elements in the water and producing brines. When even small amounts of lithium are present in the freshwater, lithium has the potential to evapo-concentrate because it does not easily crystallize into mineral form until effectively all of the water is evaporated. Therefore, lithium stays in solution in the aquifer resulting in lithium-rich brine in closed basins where the conditions are optimal for its evapo-concentration.



Source: Bradley et al. (2013)

Figure 8-1. Generic Model of a Salar with an Enriched Lithium Brine

The year 2018 and 2022 exploration programs, and future proposed exploration programs are based on the concept that extractable brines are encountered in permeable aquifer materials,



such as porous halite, or permeable clastic sediments. Therefore, exploration drilling attempts to target the permeable aquifer material. Exploration also tends to target the thickest parts of the sedimentary sequence where the largest thickness of aquifer material is present. The aquifer tends to increase in thickness toward the center of the basin but resistivity lowers to the west. Ultimately, the amount of brine able to be pumped from the basin will be a function of the thickness and hydraulic conductivity of the aquifer, and independent of the lithium content in the brine.

9 Exploration

9.1 MT Geophysics Study

In May 25-30, 2023, following the TEM geophysics conducted by AIS in 2018, an MT survey was commissioned by the Issuer with Southernrock Geophysics. Three lines were surveyed two east west and one north south. They covered Pocitos 1 and Pocitos 2 concession with the north south line going along the border of the two concessions. The principal objective of the Magneto-Telluric survey was to image the distribution of resistivity beneath the survey lines within the project area from near-surface to depths of as much as 2km, constrained by the inherent limitations of the survey method and extent of the surveyed area. The survey was comprised of the acquisition of remote referenced broadband Magneto-Telluric data with contiguous along-line 200m E-field dipoles (EMAP-style array) incorporating sparse tensor sites every 600m. Data was acquired at 64 sites distributed along three survey lines for a total length of 12.8km.

The Magneto-Telluric data is of good quality and compliant with the scope of the survey. 1D and 2D inversion of the Magneto-Telluric impedance dataset provided images of the likely distribution of the resistivity to depths of around 1-2km, limited by the very conductive setting and bandwidth of the dataset. This survey is located over a very conductive domain, with resistivity predominantly less than 1 Ω m. In general, a thin upper conductive layer is modelled overlying a slightly less conductive layer of about 1 Ω m that in turn overlies an extensive conductive interval of about 0.5 Ω m that may extend to depths of as much as 1 km. Marginally higher resistivity is imaged beneath the eastern part of the northernmost survey line.





Figure 9-1 Pocitos 1-2, Salar de Pocitos, MT survey with Magneto-Telluric survey stations and 200m Efield dipoles (Ex as red, and Ey in green) marked by scaled arrows over a satellite image (GoogleEarth) with a regional location map. North up the page, coordinates WGS84 UTM Z19S.

	Magneto-Tellurics • Survey Specifications
Survey mode	Natural source, remote referenced, broadband Magneto-Tellurics using an EMAP-style contiguous E-field array with sparse tensor sites.
Survey Configuration	64 EMAP-style MT sites, including 20 tensor sites, distributed along two west- east oriented survey lines each of 5000m length, and one south-north oriented survey line of 2.8km length. Arrays of contiguous along-line 200m- length E-field dipoles (E_x) were read with the incorporation of orthogonal 200m-length E-field dipoles (E_y) every 600m as indicated in the " <i>Survey_Info</i> " file (see digital archive). Sparse local H_x - and H_y - fields, comprising both high- and low-band induction coils, were located within the areas of active acquisition. A dedicated remote reference site (H_{xR} - and H_{yR} - fields) was maintained during the survey, located about 320km west of the survey area. Note that in processing E- and H-field components are rotated to form a right-hand set for the X-azimuth with Z-downward according to standard MT conventions.
Rx contacts	Stainless-steel electrodes in hand dug pits wetted with fresh water
Data acquisition	Time series data acquired with sampling rates (Fs) of 128Hz, 2kHz, and 32kHz. Multiple time series records of 2 ²² samples for each Fs (except 128Hz). Timing provided by internal GPS. Data acquired over mainly nocturnal intervals of at least 12 hours.

Table 7 Magneto Tellerics survey specifications



For this survey, the median skew for the MT dataset is 0.12, with 91% of all data having a skew less than 0.2 and, of particular relevance to this discussion, none of the data exceeded a skew of 1 which may otherwise indicate poor quality estimates of the impedance.

2D inversion of this MT dataset utilized the two off diagonal (Zxy and Zyx) components of the tensor impedance (the principal diagonal components are assumed in the 2D case to be zero). The tensor data was not rotated as it was assumed that the dominant strike direction was close to orthogonal to the line direction and as such roughly orthogonal to the Zxy component assigned as the TM-mode. The survey area's model space was discretized into cells of 200m width and 2m thickness, extending past the ends of the survey lines, becoming progressively thicker below and above the topographically lowest and highest parts of the measured transects and likewise increasing in lateral dimensions in distal padding which extended out to 50km and a maximum depth of just over 40km. The inversion used a starting model of 1 Ω m. The model was run without inversion for galvanic distortion, although as for the 1D inversion, static offsets may affect the modelling, as might 3D effects including the influence of topographic variation orthogonal to the survey line direction. 2D inversion provided RMS data misfits of 1.035, 1.107, and 2.117 for lines 7289600mN, 7291900mN, and 701750mE respectively which is considered inconsequential to the overall results.



Figure 9-2 Pocitos 1-2, Salar de Pocitos, MT survey. 1D inversion model resistivity (interpolated to 2D sections) draped beneath topographic surface, viewed from above looking northeast.



The lowest resistivity units (pink) are evident on the western border and form a v to the north. The blue unit on Pocitos 2 has a low resistivity of 1.0Ω which is considered prospective for brines but doesn't exist in the southern part of the concession. The depth of the lowest resistivity at 0.4Ω .m on the northern most east west line expands to approximately 200m wide and at a depth of 1440m deep (from 3807.5 surface to 2367.5 at bottom of survey).



Figure 9-3 Pocitos 1-2, Salar de Pocitos, MT survey. 2D inversion model resistivity section draped beneath topographic surface, viewed from above looking northeast.

The 1D and 2D inversion models for the Magneto-Telluric data describe a very conductive setting throughout, although in detail it is generally comprised of an upper sub-1 Ω m layer overlying a slightly less conductive layer of about 1 Ω m of variable thickness that in turn overlies an **extensive conductive interval of about 0.5** Ω m extending indeterminately to perhaps 1km depth. Marginally higher resistivities of up to 2 or 3 Ω m in the eastern part of the northernmost survey line (Pocitos 2 concession) may represent a contrast in composition of the basin material or fluid salinity, in an otherwise fairly homogenous conductive setting.

Panopus



Figure 9-4 phase tensor ellipses over the satellite image for half-decades of the bandwidth of the survey centred on 100Hz.

Phase tensor ellipses often align themselves with **current flow**, **such that their long axes** will tend to align with structure or will "point" toward conductive zones. Although this inherent ambiguity as to their interpretation in the absence of supporting information should be considered, the evaluation of the phase tensors at different frequencies can provide information regarding structure at different, albeit imprecise, depths.

The brine flow seems to be in a general north south direction with the higher resistive unit sending it easterly in the north east section of the survey.





Figure 9-5 phase tensor ellipses over the satellite image for half-decades of the bandwidth of the survey centred on 1Hz.

10 Drilling

Drilling activities were conducted for the Project area during year 2022. One well was drilled using triple tube diamond core method. Drilling activities started on October 11, 2022, and were finished one December 17, 2022. Location of the boreholes are shown below. The co-ordinates were PCT 22-01:X:700608E; AND: 7291463N 19S. Lat Long - 24° 28' 39" S 76° 1' 14" W 3,660M ABSL

Two packer tests were done, one at 342m and the other at 363m. Two samples were taken and sent to the SGS laboratory in Salta for assay.





Figure 10-1. Location Map for Exploration Well PCT22-01 and the two wells previously drilled by AIS. The MT survey lines are in blue and c-C1 marks the boundary between Pocitos 1 and Pocitos 2 concessions.

The drilling contractor used for the program was CR Perforaciones, based in Santiago Chile. The drill rig used was a sled-mounted, Boart Longyear 700 LM75series. The initial 116m of the hole was drilled with HQ3 and the balance of the hole with NQ diameter drill rod. A brine-based, polymer drilling mud was used. Vizcosan, Gettrol and Poliget fluids were the drilling fluid additives used to condition the borehole to prevent collapse. Brine was taken from a surface pond near the road that had been escavated.

10.1 Exploration Well PCT 22-01

Drilling activities for the exploration well started on October 16, 2022, reaching a depth of 363 meters below land surface (m.bls) on November 27, 2022.



Exploration Well		UTM Easting ¹	UTM Northing ¹		
Identifier	Total Depth (m)	(m, WGS 84)	(m, WGS 84)		
PCT 22-01	363	700608	7291463		

¹ UTM Easting and Northing from a hand-held portable GPS.

Table 8 Well co-ordinates and depth of PCT 22-01

The following represents a brief summary of the equipment and methods utilized during construction of the well.

- The 3^{1/4} -inch (83mm) diameter borehole was drilled from land surface to 363 m,bls.
- Core was collected every 3m or lesser if recovery was restricted and were logged and stored in labeled cutting boxes.
- Water level was measured after construction and was 5.5m below surface level.
- Two brine samples were collected with a packer system between at 342m and 363m bsl.
- An attempt was made at 270m but no brine was available.
- Two one litre bottles of brine were collected at 342m and three one litre bottles at 363m.
- Drilling was halted at 363m due to gas upwelling and preventing drilling to continue.
- The gas was tested for methane and hydrogen sulphides but was negative.
- A standard was provided by SGS for lithium and it assayed 263ppm Li against 265ppm Li.

SGS del Argentina S.A.												
Division Laboratorio.												
Environmental - Salta												
Orden:	SA22-003	392										
Cliente:	Recharge	e Resources S	A									
Numero de Muestras:	4											
Fecha de Recepcion:		14/12/2022										
Fecha de Reporte:		21/12/2022										
Referencia del Cliente:												
Analysis	SG	Boron	Calcium	Strontium	Iron	Lithium	Magnesium	Manganese	Sodium	Potasium	Zinc	Mg:Li Ratio
Units Depth		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
Method		SGS.ME.342	SGS.ME.342	SGS.ME.342	SGS.ME.342	SGS.ME.342	SGS.ME.342	SGS.ME.342	SGS.ME.342	SGS.ME.342	SGS.ME.342	
RR1 - 342m	1.2031	35	1305	21	17	36	587	<10	119646	1729	<10	16.31
RR2 - 363m	1.2041	81	585	<10	82	169	4716	<10	102530	1529	<10	27.91
RR3 - Blank distilled water	<10	<10	<10	<10	<10	13	10	<10	2606	37	<10	0.77
RR4 - control standard	1.2100	<10	<10	<10	<10	268.0	<10	<10	2606.0	37.0	<10	

Table 9 Results of the two packer tests and a QA/QC blank of distilled water





Figure 10-2 Picture of QP Phillip Thomas working at Drill Rig at Pocitos 1



Meter Interval	description			
30-39	Clay			
39-42	 Halite sand clay			
42-46	Clay			
46-50	Halite sand clay			
50-53	Sand			
53-54	Halite			
54-55	Clay			
55-57	Sand			
57-59	Halite sand clay			
59-60	Sand			
60-62	 Halite sand clay			
62-66	Clay		^	Pozo: PCT-22-01
66-68	Halite sand clay		THE REAL PROPERTY AND A RE	Profundidad: 362 m Sistema de coordenadas: UTM WGS84 - Zona 19S X:700608 - Y:7291463
68-69	Sand	REC Salar de Pocit	CHARGE RESOURCES itos - Provincia de Salta Argentina	
69-70	Halite and Clay			
70-72	Halite sand clay	20	Arcilla. Color pardo rojizo	
72-73	Halite and Clay	40		UNICACION IPOZO PCT-22-01
73-75	Sand	60	Intercalaciones de halita con presencia de ma detritico fino y niveles de arena y arcilla	Iterial (SURVIS)
75-76	Sand and Clay	100	Ř	725500
76-78	Clay	120	Arcilla con niveles de arena mediana a f	ina. 779800
78-80	Sand	140		228-500 m emotio 20000 70000 70000 70000
80-84	Halite and Sand	180		
84-93	Clay	200		Leyenda
93-94	 Sand and Clay	220		arcilla arena
94-98	Clay	260	Arcilla, Color pardo roiizo	📉 halita
98-102	Sand	280		
103-104	 Sand and Clay	300		
104-114	Clay	340	Nivel de surgencia: 342 m	
114-116	Sand and Clay	360 =	Vivel de surgencia: 363 m	
116-167	Clay			
167-168	Halite and Sand			
168-363	Clay			

Figure 10-3. Schematic Diagram for Exploration Well PCT 22-01 with lithologies

10.2 Summary of Sampling During Drilling

Two samples were obtained via airlift in the completed wells. For each brine sample, field measurements were conducted for electrical conductivity, pH and temperature. Sample collection, preparation and analytical methods are described in Section 11. Daily static water level measurements were carried out inside the drill string at the start of each drilling shift, using a



water level tape. Boreholes were completed with steel surface casing and a surface sanitary cement seal.

Table 10-10.	Summary	of Depths	and Field	Parameters	for Brine	Samples	Obtained	During	Drilling

Packer Test-Airlift												
Test №	From_m	To_m	Geologist	Date_Taken	Flow (L/h)	Temperature (ºC)	Density (Kg/m3)	Ph	Conductivity	Observations		
									ms			
Surge 1 1/12/22	342.00		HR	1/12/2022						First brine upwelling. 2 liters of samples are taken.		
Surge 2 4/12/22	363.00		HR	4/12/2022	89	13.4	1.210	3.8	302.60	Second surge of brine and gas. High pressure gas makes it impossible to continue drilling. Brine with sporadic upwelling of low volume and flow. 3 liters of samples are taken. With portable multi-gas detectors for hydrogen sulfide, combustible gases, oxygen and carbon monoxide, it is a question of determining the type of kick gas. It is determined that none of these aforementioned gases corresponds to the upwelling of the well.		

Note: Depths and intervals are in meters; density in kg/m³; conductivity in milliSeimens/cm

A flow rate of 89 litres an hour was measured, but the gas was preventing brine from flowing. Inspection of the results support the concept that the deeper brine contains a larger lithium content than the brine located in the upper part of the aquifer. The smallest lithium concentration for the samples occurs in those samples obtained above about 340 m,bls. This is likely due to a lower concentration occurring at the top of an amorphous aquifer body with no lithological boundary (eg a sand or aggregate cap) with a lower lithium content and lower density entering the basin and mixing with the older brine in the upper part of the aquifer.

Sampling from the AIS wells nearby also recorded lower lithium values but exceptionally high surge rates.

10.3 Summary of Sampling and/or Recovery Factors that Could Affect Results

This basin area is unusual in that it has a significant amount of gas pushing the brines, so brine release tests and pumping will not reveal any factors about the field as it is dominated by gas pressure. The well was sealed with concrete around the drill pipe and even after five months ie 10 May 2023 gas was still coming out of the well with brine and mud. For the brine samples obtained during drilling, the main factor that could impact the results would be if the packer did not adequately seal off other aquifer zones during the sampling process. An inadequate seal could allow for brine from different zones above the packer to leak into the interval being sampled. For this project, because slightly lower lithium concentration brine is located in the upper part of the aquifer, errors of this type would most likely result in "lower than actual" lithium concentrations,



and not overestimated lithium concentrations. That said, packer inflation was not noted as being a problem during sampling and is therefore not believed to be an issue of concern.



Figure 10-4 QP Hillip Thomas examining the clay core at 200.05m interval





Figure 10-5 Picture of the gas coming out of the well in December 12,2022 and with mud and brine on January 20, 2023 (left hand photo)





Figure 10-6 Picture of Recharge geologists examining brine and mud flow over the concrete platform on June 30, 2023 seven months after it was drilled. Gas and brine is still flowing.

11 Sample Preparation, Analyses, and Security

Sample Preparation Methods And Quality Control Measures Employed

Sampling of brine for the program occurred during drilling and testing, and after the program was completed in the form of additional sample. The following is a general summary of the sampling methods employed during each phase of sampling; sampling methods and quality control were similar during each phase.

In December 2022, Anabel Molas, site geologist and her assistant arranged with the drillers to use a single packer sample airlift system at 342m depth. Samples were assayed at SGS laboratories for a range of elements, including Li, Mg, K, Ca, SO₄, B, as well as alkalinity, TDS, density, electrical conductivity and pH.



The bottles were rinsed with the brine and then filled to the top of the bottle removing any airspace, and capped. Bottles were labelled with the borehole number and sample depth with permanent marker pens, and labels were covered with transparent tape, to prevent labels being smudged or removed. Two bottles were collected for 342m and three bottles for 363m. each packer sample, (main sample, duplicate sample and spare). Sample bottles were labelled with the hole number, sample or duplicate number and collection date; Labels were protected by clear packaging tape. Field measurements of pH, density, electrical conductivity, temperature and TDS were taken. All field data were recorded in a notebook and transcribed to the electronic data base maintained by Anabel Molas field geologist for Recharge Resources.

Brine samples remained in possession of Anabel Molas until delivered to the assay laboratory SGS, in Salta 4400, Argentina. No other sample preparation was done prior to shipment to the laboratory. The laboratory is ISO 17025 and 9001 certified and not affiliated with the Issuer.

Brine Chemistry Laboratory Procedures and Analyses

Brine samples were analyzed by SGS Laboratories, in Salta Argentina. SGS is an independent laboratory, has significant experience in assaying lithium brines, and is certified to ISO 17025 standards for lithium brine assays. **Figure 11-3** is an example of the laboratory reports obtained for each sample. Brine samples were collected by packer sampling of brine, on a metre basis from the fluid extracted from within the packer device as a representative sample following purging of brine from the packer equipment and surrounding sediments.

Security

Site geologist Anabel Molas closed and sealed the bottles and delivered them personally to SGS in Salta. The samples were collected using a packer, put into 1-liter bottles, labelled and securely taped closed, and put into a secure box for transport to the SGS laboratory. Chain of custody forms were used, and confirmation was issued by SGS on receipt of the sample bottles.

Summary

In the opinion of the QP, sample preparation, security, and analytical procedures were adequate and adhere to best industry practice.



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202		Av. Moseñor Tave Salta - Capital - C Tel: (54)-(9387)-598	Ila 2580 P: 4400 85769			
Salta, 16 de enero de 2023		SA23-00009			Página 2 de	
Identificación SGS: SA23-00009.0001 Identificación cliente: RR5		Producto cliente: Salmuera Recibido: 11/01/2023	3	Muestreo cliente: 10/12/2022 15:17		
Análisis	Método	LD	LC	Resultado	Unidad	
Densidad a 20°C	ASTM D4052-18a	14		1.3597	G/ML	
Densidad a 20°C	ASTM D4052-18a	-	-	1359.7	kg/m3	
Alcalinidad	Basado en SM 2320 B - 23rd Edition	-	1	882.9	mg CaCO3/I	
Bicarbonatos	Basado en SM 2320B - 23rd Edition	-	1	883	mg CaCO3/I	
Carbonatos	Basado en SM 2320B - 23rd Edition		1	<1	mg CaCO3/I	
Cloruros	Basado en SM 4500CI-D - 23rd Edition	-	2	209271	mg/L	
Conductividad	Basado en SM 2510 B 23rd Edition	-	0.1	217000.0	uS/cm	
Dureza (por cálculo)	Basado en SM 2340B - 23rd Edition		-	7030	mg/L	
Bario	SGS.ME.342		10	<10	mg/L	
Boro	SGS.ME.342		10	166	mg/L	
Calcio	SGS.ME.342		10	627	mg/L	
Estroncio	SGS.ME.342		10	<10	mg/L	
Hierro	SGS.ME.342		10	<10	mg/L	
Litio	SGS.ME.342		10	161	mg/L	
Magnesio	SGS.ME.342	-	10	1327	mg/L	
Manganeso	SGS.ME.342		10	<10	mg/L	
Sodio	SGS.ME.342	141	10	133287	mg/L	
Potasio	SGS.ME.342	-	10	3512	mg/L	
Zinc	SGS.ME.342	-	10	<10	mg/L	
pH	Basado en SM 4500 H B 23rd Edition	-	0.1	6.0	UpH	
Solidos Suspendidos Totales	Basado en SM 2540 D - 23rd Edition	121	10	237000	mg/L	
Solidos Totales Disueltos	Basado en SM 2540 C - 23rd Edition	-	10	341000	mg/L	
Sulfatos	Basado en SM 4500 D - 23rd Edition	0.2	5	14793	mg/L	

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Laboratorio Salta

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Table 11 shows an example and the actual assay report for sample 22 at 363m showing 161ppm lithium which was the duplicate test.



12 Data Verification

Analytical quality assurance and quality control (QA/QC) was monitored through the use of duplicate samples, blank sample and by standard sample. Accuracy, the closeness of measurements to the "true" or accepted value, was monitored by the insertion of a standard. Distilled water blank samples were used to evaluate potential sample contamination and were inserted to measure any potential cross contamination.

Initially, QA/QC analysis of the December 14, 2022 well brine samples included one duplicate assay. Analysis of the duplicate results shows reasonable correlation between main and duplicate results for the major elements of interest. Lithium was 161ppm in duplicate (SA-00009) compared to 169ppm in the primary sample.

12.1 Conclusions

The packer sampling of brines was done in accordance with generally accepted industry standards. The brine sampling program included standard QA/QC elements such as obtaining duplicate laboratory samples, and submitting standard samples with known values and blank samples. Formal traffic reports and chain of custody documents were prepared for each sample obtained and submitted for laboratory analysis. In the opinion of the Author, sample preparation, security, and analytical procedures were acceptable and results from the laboratory analyses, especially with respect to lithium, are considered adequate and acceptable. Verification was limited because the Author was not physically present in the field during the packer sampling event but present for part of the exploration program; however, documentation of activities were complete and laboratory results, including results of duplicate samples for the original samples and the sample taken by the Author, support the work completed and the results obtained.

For subsequent exploration and aquifer characterization programs, the Author recommends development of a more comprehensive QA/QC program that includes more samples to obtain statistically significant results.

The author of this report considers that the information available to date is sufficient to justify the project of merit status established in this report.



13 Mineral Processing and Metallurgical Testing

The Issuer collected a 200L brine sample and it was sent to the Ekosolve laboratory at the university of Melbourne Australia for testing lithium extraction. The brines are currently being processed to produce lithium chloride at the date of this report.

Initial sample processed

The brine containing drum was first shaken to ensure a homogeneous distribution. It had been spiked with 5mm nitric acid to stop crystallization. Following this, brine samples were taken three times individually from the bottom, the middle, and the top sections of the 20-litre container. These nine brine samples were diluted at three ratios (50-, 500- and 2500-times dilution) for all cations except for lithium, and anions, including chloride and sulphate. The lithium concentration in the salt lake brine samples were analyzed by the lithium spike method previously developed and disclosed. Specifically, 0 ppm, 10 ppm, 25 ppm, 50 ppm and 100 ppm lithium, sourced from a 1000 mg/L lithium ICP standard solution supplied by Merck, was spiked into the brine samples, and the resulting solution diluted as a 50 times dilution. The diluted samples were analysed using inductively coupled plasma – optical emission spectroscopy (ICP-OES) for cations, and three samples for each of the bottom, middle and top were analysed for anion concentrations using lon Chromatography.

	Sample Position	Dilution: 50 times. Unit in mg/L or ppm.			
		[Li]			
	Top #1	97.26			
	Top #2	87.23	89.44		
	Top #3	83.83			
	Middle #1	83.07			
Brine from Becharge Resources	Middle #2	84.10	83.39		
Recharge Resources	Middle #3	83.01			
	Bottom #1	85.87			
	Bottom #2	84.10	85.03		
	Bottom #3	85.13			
Average conc	entration	85.96			

Table 12 Shows the brine lithium concentration distribution in the 20 litre container



	Sample Position	Dilution: 500 or 2500 times, depending on concentration range. Unit in g/L									
		[Na]		[Mg]		[Ca]		[K]		[B]	
Brine from Recharge Resources	Top #1	139.61	140.64	1.13	1 1 5	0.50	0.51	3.36	2.24	0.62	0.02
	Top #2	141.27		1.16	1.15	0.52		3.36	3.34	0.65	0.63
	Top #3	141.04		1.16		0.51		3.30		0.62	
	Middle #1	141.65	141.76	1.16	1.10	0.52	0.52	3.34	3.33	0.60	0.59
	Middle #2	140.86		1.15	1.16	0.51		3.29		0.57	
	Middle #3	142.79		1.16		0.52		3.35		0.60	
	Bottom #1	140.96	143.03	1.15		0.52	0.52 0.52 0.52	3.31	3.29	0.59	0.59
	Bottom #2	142.32		1.14	1.15	0.52		3.27		0.58	
	Bottom #3	145.83		1.15		0.52		3.28		0.60	
Average concentration		141.81		1.15		0.52		3.32		0.60	

Table 13 Concentrations of other cations in Pocitos 1 brine sample



Figure 13-1 Schematic of the pilot plant of 10 cycles to complete lithium extraction using Ekosolve™ process of Solvent extraction.

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The Exosolve extraction	process extracted 94.8	32% of the lithium	from Pocitos 1 brine.

	[Li] mg/L	Extraction efficiency %	A/O ratio
Original brine	85.08		
1st batch brine after 1 st EX stage	60.22	29.22%	1/1
1st batch brine after 2 nd EX stage	45.24	46.83%	1/2
1st batch brine after 3 rd EX stage	34.04	59.99%	1/3
1st batch brine after 4 th EX stage	26.02	69.42%	1/4
1st batch brine after 5 th EX stage	20.20	76.26%	1/5
1st batch brine after 6 th EX stage	15.27	82.06%	1/6
1st batch brine after 7 th EX stage	11.90	86.02%	1/7
1st batch brine after 8 th EX stage	8.61	89.88%	1/8
1st batch brine after 9 th EX stage	6.14	92.78%	1/9
1st batch brine after 10 th EX stage	4.32	94.92%	1/10

Table 14 Table shows the amount of lithium extracted in each pass that takes about 30 seconds.



Further passes would marginally increase the extraction efficiency – 98.5% of the solvents were recaptured.

Associate Professor Kathryn Mumford said in her report that "The lithium extraction from Recharge Resources brine is proven to be efficient especially at low A/O ratios (added - solvent to brine) with extractions of 94.92% obtained. Next step includes conducting washing and crysallisation".

14 Mineral Resource Estimates

No mineral resource estimates were done on the Project by the Issuer.

15 Mineral Reserve Estimates

Not applicable.

16 Mining Methods

Not applicable.

17 Recovery Methods

Not applicable.

18 Project Infrastructure

Not applicable.

19 Market Studies and Contracts

Not applicable.

20 Environmental Studies Permitting and Social or Community Impact

Not applicable.

21 Capital and Operating Costs

Not applicable.



22 Economic Analysis

Not applicable.

23 Adjacent Properties

Figure 23-1 shows the properties adjacent to the Project, and in the nearby area. Little information has been made public for the exploration efforts by the adjacent owners. File # 19465 optioned by C29 Metals from Ekeko SA achieved lithium values of 121ppm but was 25km from the Pocitos 1 concession.



Figure 23-1 Concession map showing the concessions around Pocitos 1.



24 Other Relevant Data and Information

The following information is excerpted from Ganam (2021). This preliminary study was prepared mainly for the purpose of obtaining exploration drilling permits. Aside from this information, there are no other relevant data to disclose that has not already been covered in this report.

24.1 Environmental Studies in Argentina and in Salta

Mining operations in Argentina are regulated by the National Mining Code (national Law 24.196) and are enforced by the provinces. Argentina is a Federal Republic, and therefore the Provincial government is in charge of establishing the rules for mining activities and issuing environmental permits. The Mining and Energy Secretariat of the province of Salta is the enforcement authority for mining and environmental issues. Permits are granted by multiple ministries within the Salta Government, however, the engagement and permitting process is coordinated by the Provincial Mining Secretariat.

The EIS is the main permit required for mining operations and includes the conditions and rules for such operations and is compliant with the Law of Environmental Protection for the Mining Activity (Law 24.585) and complementary regulations. The EIS is normally prepared by an external environmental consultant based on detailed information for the project. The consultant updates the environmental baseline, analyses the potential alternatives for the project against current legislation, assesses the environmental impacts. Also, the EIS process defines several environmental management plans and a community engagement process. The EIS is then submitted to the Mining Secretariat, which in turn involves other provincial secretariats and groups (Environment, Water Resources, Industry, Energy, and others as applicable) in the review. After the review process with all these groups is completed, the Mining and Environmental Secretariats prepare a preliminary report for approval.

A Public Audience organized by Mining Secretariat with the involved communities is then held to discuss the results of the preliminary report. After the Public Audience, the Mining Secretariat provides final approval. The time for this approval is typically between 6 and 9 months, depending on the complexity of the project. It is important to note that results of the Public Audience are not binding.



24.2 Pocitos 1 Environmental Studies

At the beginning of 2021, the EIS was presented for the exploration stage of the Pocitos 1 mining concession (Ganam, 2021). In March of the same year, the report was approved by the environmental authorities of Mining Secretariat in Salta province. This report proposed the drilling of two wells to a maximum depth of 400 m using the diamond method with core recovery, which were executed later. For the realization of the wells, permanent facilities such as camp and accessories were not built (only temporary), with a minimum of personnel for drilling and geological control tasks. In August 2022 this permit was updated with an addendum for specific conditions regarding drilling. During drilling operations, brine from the salt flat was used, for which extraction pits were excavated in the vicinity of the wells. The water for human consumption was transferred from Pocitos township. It is noteworthy that biodegradable additives were used for drilling.

Given the scope of the operations, no significant environmental impacts were recorded on geomorphology, landscape, surface water, groundwater, air quality, flora, and fauna during exploration drilling.

24.3 Environmental Baseline Studies

No specific environmental baseline studies were carried out for the project's area of influence. In this case, a bibliographic compilation in Ganam's 2021 report of the main disciplines of geology, geomorphology, soil and land uses, climate, hydrogeology, flora and fauna was made. In the area of influence of the Pocitos 1 mining concession there are no records of sites of cultural, archaeological and paleontological value of importance, however, a field study with ES Consultores has been commissioned according to the activities carried out, and to be carried out in the future.

24.3.1 Social

The town of Pocitos, which is the closest population center, is approximately 10 km from the Pocitos 1 project. According to the census of the year 2010 it has a permanent population of about 200 inhabitants. It has lodging infrastructure, a primary school, no cell phone service, satellite television service, electricity supply, restaurants and limited merchandise supply.


The San Antonio de Los Cobres Hospital is the closest complex center, 75 km away from the town of Pocitos. This center has more of 30 inpatient beds and professionals of different specialties.

San Antonio de Los Cobres has more urban characteristics that the other communities because of the larger population approximately 2000. These include additional public institutions, and more commercial activity. The main economic activities in San Antonio de los Cobres are employment in public administration, trade, craft industries, and since the last decade, small industries related to tourism and mining. Current mining-related employment includes direct employment, and indirect employment such as jobs in transportation, lodging, dining, grocery stores, vacation homes, and offices.

Companies with activities in the Puna region coordinate their activities directly with the local communities.

Except for San Antonio de Los Cobres, as the most important town-city of Los Andes Department, all communities share similar rural characteristics. The main activities in the area have been historically related to small-scale livestock (mainly camelid) production. Settlement patterns and spatial dispersion vary with livestock pasturing movements.

Mining is considered to be one of the most important sources of work for the residents of these communities, only preceded by animal husbandry; also manual labor and a growing tourism sector contribute to the local economy.

24.4 Total Impact and Management Plan

The impacts on the geomorphology and the landscape due to the construction of access roads and drill pads to the wells were considered negligible and reversible on the salar surface; therefore the affect will be temporary after the application of the corrective measures at the end of the works operations. Within the surface of the salar, there are no developed soils, therefore the impact of the operations is considered null in terms of its current and potential use. The volumes of water that will be used both for drilling wells and subsequent pumping tests are very low compared to the natural recharge of the salt flat, so the impact is considered insignificant. In addition the brine is coming from depths of greater than 350m. In the same way, gas emissions from vehicles and machinery used in the operation, as well as the production of particulate matter



(PM), are considered insignificant for the impact on air quality in the area. Since the surface of the salt flat is devoid of flora, there will be no impact on this environmental factor. Even though the noise produced by the movement of the operations may affect the fauna, this impact is minor and reversible, given the temporary nature of the operations. No llamas or other animals have been seen.

Prior to initiation of the exploratory tasks, and as part of the communication plan, informative meetings were held with the community. Planned activities were explained in detail, as well as the potential for environmental impacts. Positive impacts include local employment and the purchase and use of local goods and services particularly at Planeta Puna hotel restaurant.

An environmental contingency plan was created in view of the potential for accidental spills of fuel, lubricants and other substances used in operations, as well as the prevention and mitigation of possible employee accidents. No environmental accidents were reported since exploration operations started.

25 Interpretation and Conclusions

Caution to readers:

This report contains forward looking information related to the Project. There are many factors that could cause actual results to differ materially from any conclusions set out in this report. Some of the material factors include changes to regulatory framework development and issues with approval of exploitation licenses, differences from the assumptions made in this report regarding concentration assays, drilling results, pumping rates, porosity and transmissivity of aquifers, and other circumstances such that the project proceeds, as described in this report. Potential risks associated with the Project are typical for lithium projects, and may include, but are not limited to laboratory error, uncertainty in hydrogeologic conceptualization, permitting and legal delays, and logistical issues associated with mining in remote areas. For this reason, readers should read this summary solely in the context of the full report and after reading all other items of this report. The purpose of this technical report is to describe the lithium project and the exploration work completed to date.

Based on the recent results from exploration drilling and geophysical surveys, the aquifer underlying the Project is saturated with a concentrated lithium brine up to 169ppm lithium. The aquifer is more than 350m deep, and is mostly clastic clays. In the western part of the concession



close to the edges of the basin, the aquifer may be deeper and brine chemistry may contain more lithium.

The geophysical surveys show that the aquifer gets thicker to the west and to the south; drilling is yet to confirms this. It is important to note that, the geophysics supports the idea that relatively deep sediments contain very low resistivity lithologies and the gas may be confined to a certain part of the aquifer and indeed support the flow of brine from surrounds.

26 Recommendations

Based on the initial results of drilling and geophysics exploration to date, additional exploration activities are justified to better characterize the subsurface brine in the concession. Additional drilling and testing will allow for expansion of the resource laterally throughout the entire concession area. The Author recommends additional diamond drill holes with depth-specific sampling at regular intervals to better define the brine chemistry in the MT geophysics areas that showed resistivities of just $0.4\Omega m$. Additional drilling and testing will allow for estimation of an initial lithium resource and will support estimation of a future reserve.

The Author recommends a single additional drilling phase consisting of one corehole (drilled to a maximum of about 500m, bls), and one pumpable well drilled and constructed to depths to be determined based on the results of the deep corehole. The corehole will include depth-specific brine sampling using an inflatable packer, and laboratory analysis of core for drainable porosity values. It will also have a borehole magnetic resonance survey done to examine porosity.

For the proposed two well program, costs (excluding tax, in USD) can be summarized as follows:

- Roads and drilling platforms \$10,000
- Environmental studies \$40,000 (includes baseline study for production)
- Drilling HQ exploration well \$275,000
- Drilling 8inch production well \$400,000
- Field monitoring and supervision \$40,000
- Development of a resource block model \$80,000
- Geophysics and Reporting \$70,000

Total estimated cost of about USD \$915,000 (plus taxes less IVA refunds) (CAD \$1,200,00 plus taxes) for the proposed one corehole and one pumpable production well program.



If the results of the proposed exploration program are favorable and support feasibility of a lithium extraction project, additional studies should include the following:

- Second production well
- Development of a geologic reserve model to allow estimation of an initial reserve estimation
- Additional studies in support of a PEA study.

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