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Lithium outlook in Peru

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\ SUMMARY

Preliminary studies estimate that Peru’s Falchani deposit would have resources of 4.7 million tonnes of lithium. The deposit is considered to contain very high purity of lithium carbonate, mixed with uranium. However, further studies confirming these resources are still pending.

- Main possible obstacles to the exploitation of the Falchani lithium deposit are:
  a) the approval of the feasibility and environmental impact studies;
  b) the ongoing controversy involving an administrative fault by the company that discovered the deposit;
  c) the need to define the regulatory framework for uranium management, and
  d) the need to define the national policy on lithium in Peru.

- Besides the uncertainty about possible new lithium regulations, there also exists uncertainty about the current Peruvian political situation, which might jeopardise the future exploitation of the deposit.

CHAPTER 1 LITHIUM RESOURCES IN PERU

Peru is not currently a lithium producer. However, the various prospecting projects underway in the Puno region offer a potentially promising future, given the high global demand for this product as a raw material, mainly for the manufacture of batteries. Of these prospecting efforts, the only finding with an identification of significant lithium resources to this date is the one in Falchani hill. The deposit is estimated to contain around 4.7 million tonnes of lithium, with a potential equivalent to 99.74% high purity lithium carbonate - suitable for battery production. Further drilling is necessary to confirm the extent of these lithium as reserves. Other prospecting projects are currently being developed or in the phase of approval, which could lead to new deposits being found. If these resources are confirmed as reserves, Peru would be the 6th or 7th country with the largest lithium reserves in the world[1]. Nevertheless, there are a number of difficulties that generate great uncertainty about the progress of all these prospecting projects.

The Falchani hill reserves

In 2017, Macusani Yellowcake, a subsidiary of the Canadian Plateau Energy Metals, announced the discovery of a lithium carbonate deposit in stone in the Falchani hill, in the district of Corani, part of the Carabaya province of the Puno region, in south-eastern Peru. In November 2019, Plateau Energy Metals determined, based on a drilling covering 30% of the target area, that the deposit contains around 4.7 million tonnes of high-grade lithium, together with uranium. The deposit is located in rock at a depth of 45-80 meters. For that reason, its exploitation would have to be in open pit and not in brine pools, as is the case in Bolivia or Chile.

To determine the actual level of lithium reserves, the company needs to carry out additional and more extensive drilling work. In order to do that, a feasibility study and an environmental impact assessment are required, which the company had originally planned to conduct in 2020. In the first half of 2021 Plateau Energy Metals was acquired by American Lithium, another Canadian company. Following the acquisition, American Lithium announced that it would prioritize the conclusion of the prospecting in the Falchani lithium deposit during 2021, and then move on to prepare the feasibility study in 2022.

In terms of economic viability of exploiting these reserves, a 2020 report prepared for Plateau Energy Metals[2] showed that the project would have solid economic returns. The report determined that the project would involve an overall investment of up to US$2,089 million to develop the mine, which would involve a first phase investment of US$587 million, an internal rate of return of 19.7%, a payback of 4.7 years, a useful life of 33 years, and an average production of approximately 63,000 tons per year.

Other prospecting efforts

The Falchani deposit has not been the only lithium deposit under exploration in Peru. There are other lithium exploration efforts in the Puno region, and outcrops of lithium-rich limestone were found in the nearby areas of Quelcaya and Tres hermanas (Corani district, Carabaya province) in the framework of the Quelcaya Exploration Project. In mid-2021, Macusani Yellowcake submitted an Environmental Impact Statement (EIS) to the Ministry of Energy and Mines, planning to drill 40 exploration platforms. In October, the ministry sent Macusani Yellowcake comments requesting the amendment of the EIS, to which the company has not yet reacted.

Another exploration project is La Escalera (Picotani community, Putina district, San Antonio de Putina province). Oberon Uranium Corporation, another Canadian company, initiated steps to acquire the Escalera Group in the second quarter of 2022, which is currently undertaking a set of uranium and lithium exploration projects in Puno that includes three concessions: Lithuania, Condorlit and La Escalera. To this end, it has just signed an agreement with the Canadian firm Azincourt Energy, owner of Escalera Group, to negotiate an option to take a 100% interest in the assets of said company.

[1] After Argentina, Bolivia, Chile, Australia and the United States, and at a level comparable to that currently held by China

[2] In February 2020, Plateau Energy Metals produced the Positive Preliminary Economic Assessment for the Falchani Lithium Project report. https://minedocs.com/20/Falchani_PEA_03192020.pdf

CHAPTER 2 REGULATORY FRAMEWORK AND MAIN POSSIBLE OBSTACLES FOR THE EXPLOITATION OF LITHIUM IN PERU

The main constitutional principles of the Peruvian economy are freedom of contract, free competition, economic pluralism, subsidiary role of the state, equal treatment of domestic and foreign investment, and free possession of foreign currency; all of them within a social market economy framework. Having this as backdrop, mining exploration and exploitation, including radioactive material such as uranium is carried out under concessions granted in accordance with the General Mining Law (D.S. N 092-92-EM) and the Mining Procedures Regulation (D.S. N 020-2020-EM).

Box: Application requirements for a mining concession

In order to obtain rights over mineral substances existing in an area of the national territory and/or maritime domain, the following documents should be presented:

- An application of a mining petition and data registration of the legal entity and legal representative when applicable.
- Affidavit of Prior Commitment of the petitioner.
- Original receipt of payment of the processing fee.
- Original receipt of payment of the right of validity.
- A copy of national ID or Alien Registration Card of each one of the petitioners and of the legal representative or common proxy.
- A copy of the Small Mining Producer's or Artisanal Mining Producer's Certificate, Biennial Affidavit in case of first Artisanal Mining Producer (petitions located in Metropolitan Lima).
- Referential location plan, specifying the possible perimeters chosen for the facilities and mining exploitation, indicating facilities and mining exploitation, indicating the location of houses, road and highway layouts, high and low voltage lines, cultivated agricultural areas or areas of agricultural vocation and as many data that serve to locate the deposit and to characterize the exploitation (in case the mining claim is located in an area of urban expansion established by law).

Deadline to resolve:

30 days after the final favourable technical and legal reports.

Source: https://www.gob.pe/institucion/ingemmet/informes-publicaciones/2022404-petitorio-de-concesion-minera

However, due to the commotion produced by the lithium discovery announcements, in July 2021 the Congress of the Republic published Law N°31283[3] that basically establishes two things:

a. Declares of public necessity and national interest the exploration, exploitation and industrialization of lithium and its derivatives and establishes that the commercialization of lithium and its derivatives constitute strategic resources for the development of the country.

b. Mandates the Executive Power to regulate the declaration of strategic resource for the commercialization of lithium and its derivatives and to guarantee the development of the national industry in battery grade and the procedure for the recycling of lithium batteries.

Some possible future implications of this law are discussed below.

Main possible obstacles

To date, Plateau Energy Metals' relationship, through Macusani Yellowcake, with the communities of the Corani district and the political authorities of the district and the province of Carabaya has been positive,

[3] Its full name is *Law that declares of public necessity, national interest and strategic resource the exploration, exploitation and industrialization of lithium and its derivatives.*

and they have welcomed mining investment in the area, as long as it is linked to the possibility of producing lithium batteries. This good relationship is based both on the good image that Bear Creek, another Canadian company which operates the silver project in the Corani district, already built with the communities, and he support Macusani Yellowcake company provided to the different communities of the Corani district for several years. For example, it has signed agreements in infrastructure construction and commercial, productive, and sanitary activities, among others.

However, despite all these encouraging announcements and facts, there are several difficulties that must be solved before the true magnitude of the deposit can be determined, and the path for future exploitation can be further clarified. The main ones are:

a) the approval of the feasibility and environmental impact studies;
b) the ongoing controversy involving an administrative fault by the company that discovered the deposit;
c) the need to define the regulatory framework for uranium management, and
d) the need to define the national policy on lithium in Peru.

a. Approval of prior feasibility and environmental impact studies.

To date, there is no certainty about the actual magnitude of the deposit, since the figures given so far come from very limited studies. In order to consolidate the identified resources into proven reserves, feasibility and environmental impact studies must be approved by the General Directorate of Mining Environmental Affairs of the Ministry of Energy and Mines and the National Water Authority, which in turn are prior to carrying out a prior consultation with the indigenous communities in the area. Without these requirements being fulfilled, it would not be possible to carry out additional drilling to confirm the reserves. However, according to previous experience in other mining cases, the process until the prior consultation could be completed by mid-2023.

b. Dispute between Macusani Yellowcake and Instituto Geológico, Minero y Metalúrgico (INGEMMET).

In 2020, a legal dispute arose between Macusani Yellowcake and INGEMMET - a body attached to the Ministry of Energy and Mines - which determined that 32 of the company's mining concessions had expired, due to the company's failure to timely pay the *derecho de vigencia* - an annual payment that keeps mining rights in force - for the aforementioned concessions in 2017 and 2018. Of that set, one concession involved the Falchani lithium deposit. The company argued that it did make the payment on time, but failed to do the same with bank deposit receipts. Macusani Yellowcake brought the case to court, filing a contentious-administrative lawsuit and obtaining an injunction that put the concession expiring on hold. However, it will take some time to reach a final judgment in the case.

It is worth mentioning that another controversy arose in 2019 when the mayor of the district of Corani denounced that Macusani Yellowcake had carried out exploration tasks without having the environmental certification given by the Ministry of Energy and Mines. The company admitted the fault but argued that erroneously requested certification before the Regional Directorate of Energy and Mines, when it should have been done before the aforementioned ministry, which was the competent authority. Both cases reflect a certain informal way of doing business in which Macusani Yellowcake has been operating in the area.

c. Regulatory framework for uranium management

Although the concessions of the aforementioned companies were granted under the General Mining Law, the fact that traces of uranium were found in the Falchani deposit makes it particularly relevant to have regulations for proper handling of radioactive material. Peru does not currently have such regulations. In this regard, in 2019 the Ministry of Energy and Mines announced that a regulatory framework for uranium mining was being developed with the support of the United States Agency for International Development (USAID) and the Peruvian Institute of Nuclear Energy (IPEN). However, the progress of such regulatory framework is unclear, and there is no indication of when it would be adopted.

d. Definition of the national policy regarding lithium in Peru.

After Mr. Pedro Castillo assumed the Presidency of the country in August 2021, nothing new has transpired about the regulation of the aforementioned Law N°31283. Furthermore, the Ministry of Energy and Mines is currently experiencing great political instability and lack of a clear direction, having had four different Ministers in the last nine months.

The problem with this law is that, depending on how it is regulated, it could create barriers to the promotion of foreign investment or economic distortions in the exploration and exploitation of lithium in Peru. For example, it could introduce the obligation of joint investment by the State with foreign private investors to exploit lithium and the granting of specific tax and labour incentives for the exploration, exploitation and industrialization of lithium[4].

[4] The current government has not pronounced itself on new regulations regarding lithium, in particular on the regulation of Law 31283. Possibly this is due to reasons such as the fact that the mining issue already has enough conflicts at the moment, in addition to the current political instability and the successive changes of ministers of energy and mines. However, given the references of lithium nationalizations in the Latin American region (e.g., Bolivia and Chile and the very recent one in Mexico) and the sense of Law 31283, if the government would dare to introduce new regulations, it could propose policies such as those mentioned. It would appear to be extreme to reserve to the State the mining exploitation of lithium, because this could imply a change of the Political Constitution, since it would go against the non-discriminatory treatment between private and foreign investment (and also with the Free Trade Agreements that include this legal provision) and the subsidiary role of the State (although the Constitution foresees exceptions if a specific law is passed by Congress). If proposals such as these are made, they are likely to generate greater economic uncertainty.