ADDENDA N° 3

IN RESPONSE TO THE 3RD REPORT CONSOLIDATED REQUEST FOR CLARIFICATIONS, CORRECTIONS AND/OR ADDITIONS OF THE ENVIRONMENTAL IMPACT STUDY

"ESPEJO DE TARAPACÁ" PROJECT

October 2015

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INTRODUCTION

The present addendum is presented within the framework of the environmental assessment of the environmental impact study (hereinafter, EIA) project "Espejo de Tarapacá" (hereinafter "the project")

This complementary addendum addresses the observations contained in the third consolidated report of clarifications, corrections and/or enlargements of the 22 of September of 2015 issued by the service of environmental assessment in the Region of Tarapacá based on the pronouncements of the Council of national monuments (hereinafter CMN), the direction General de Aguas (onwards, DGA), the Directorate of hydraulic works (hereinafter DOH) and the agricultural and livestock service (hereinafter SAG).

The answers are requests for clarifications, corrections and/or additions made in the following terms:

- With regard to the water from the desalination plant of the project to be delivered to the Committee of Rural Portable water of Caleta San Marcos is accommodated the request of (i) deliver to the APR, water desalinated and subsequently demineralized from the desalination plant of the project and (ii) delivering resources to the Committee of APR of San Marcos, in order to make compatible the infrastructure of both projects, i.e. for the connection of the desalination plant with the APR project. Reiterates that the responsibility for the operation of the APR of San Marcos remains in the Rural drinking water Committee.
- The request to install six more piezometers, two in the coast sector and four in the area of the reservoir, as well as monitor the groundwater from underground sea is accommodated.
- Quantitative targets for the success of the measure of rescue and relocation of reptiles, as well as for commitment to the study of birds in areas of the high-voltage line are.
- In the field of cultural heritage, is presented graphical information to show the location and relationship of 31 and 32 with their environment findings and the current land uses in the sector of Caleta Río Seco. In addition, a specialist carried out a day of ground and complementary information regarding finding 21. In this way it complies with the delivery of complete and organized information as required by the CMN. Respect of paleontology joined a report which discusses the drilling S2 and S3.

In this way, the owner clarifies and expands the information requested in accordance with the background provided during this environmental assessment process.

Finally, this addendum are accompanied the tabs overview referred to in article 18 letter n) of the regulations of the SEIA, duly updated in accordance with article 42 of the regulation.

1. DESCRIPTION OF THE PROJECT OR ACTIVITY

1.1. In relation to the desalination plant from which distributed water to the Caleta San Marcos, and considering that the proposal of the holder does not consider the remineralization in the process, nor transfer to the entry point of the APR plant designed by the Regional Directorate of the DOH, and whereas the Committee of Rural drinking water in Caleta San Marcos is aware of the scope of the APR project, prompted the owner noted how considered addressing the connectivity between your project and the APR projected, and in the event that appropriate, clarify the gaps that are in the process of treatment and conduction.

ANSWER:

The holder clarifies that, noted that the Rural drinking water project (APR) San Marcos requires that the water be demineralized in the form prior to your treatment, agrees to the following:

- Deliver to the APR, water desalinated and subsequently demineralized from the Desalination Plant of the project.
- Deliver the resources the Committee of APR of San Marcos, with the aim of combine the infrastructure of both projects, i.e., for the connection of the Plant desalination plant with el project of APR.

Reiterates that the responsibility for the operation of the APR of San Marcos remains in the rural drinking water Committee corresponding.

2. DETERMINATION AND JUSTIFICATION OF THE AREA OF INFLUENCE OF THE PROJECT OR ACTIVITY

2.1. It is important to point to the headline that article 1 of the water code stipulates that waters are divided into sea and land, and that the provisions of this code only apply to terrestrial waters. Article 2 ° paragraph 1 of the mentioned code, specific to that "terrestrial waters are surface or ground", for then noted that "are groundwater which are hidden in the bosom of the Earth and they have not been illuminated".

In relation to the foregoing, hydrological or hydrogeological resources present in the lower part of the project, especially in underground works of the coastal area that the aim is to make, they should be considered as inland waters, where applicable. In this respect and consideration to the analyzed the project background, is designated the holder that is considered as the area of influence

for the component hydrogeology, the upper area of the project where the extracted water (sect will accumulate from the reservoir) and the lower part of the project where the underground tunnel (Cliff and coastal sector) will be installed.

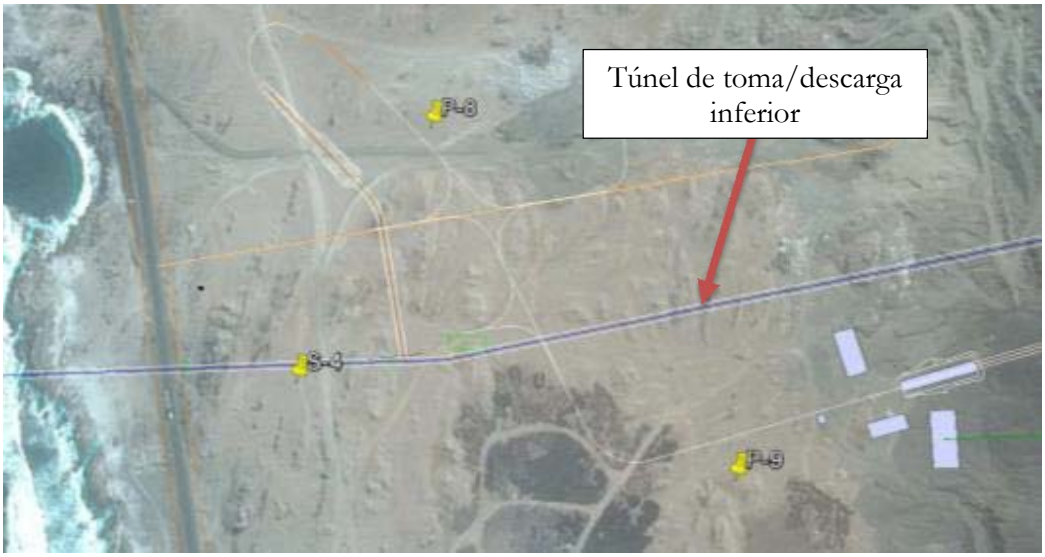
Given the above, it is the holder must take into consideration that low (Cliff and coastal sector) project for the area, the area of influence will be a RADIUS or distance of at least 200 metres, with respect to the underground tunnel. In this sense and without prejudice to that product's evaluated history, been ruled out the generation of significant impacts from the project, it is necessary that will safeguard the hydrogeological component, through the monitoring of the quality and quantity of the waters in the coastal sector and Cliff. The characteristics of this monitoring, are the exposed observation 8.2 of this report.

ANSWER:

It welcomes the observation in the sense that in the process it has ruled out the generation of significant impacts in this component, without prejudice to which, the holder undertakes to safeguard the hydrogeological component in the coastal sector and the cliff through a plan for monitoring the quality and quantity of water in the lower area of the project (i.e., the coastal sector and Cliff), as noted in the response 8.3 of the present addendum..

This monitoring will measure pH, conductivity, temperature and level piezometer at the point of probing S-4 as well as two new points of monitoring additional located in the area of influence of the underground tunnel, as described in 8.3 response. Below is indicates the area where intends to install the additional piezometers P-8 and P-9 in the sector of the lower tunnel.

Figure 2-1 location of additional piezometers in sector Costa - San Marcos



Source: Owner of the project

Reference coordinates are presented in the following table.

Table 2-1 coordinates of reference of additional piezometers in sector costa - Caleta San Marcos

Piezometer	East (m)	North (m)	Distance approx. to the tunnel (m)
P-8	383.774	7.665.882	170
P-9	383.998	7.665.622	110

Source: Owner of the project

Final location of the concerned piezometers will be informed to the General direction of water and the Superintendence of environmental before construction of the same, What if anything will happen prior to the construction phase of the bottom outlet/discharge tunnel shaped.

3. BASE LINE

3.1. With respect to the revision of the geologic drilling required S2 and S3 in order to detect or rule out the presence of paleontological material in the Area of influence of the project, in point 3.10 of the addendum N ° 2, the holder informs that you for the sectors of "drillhole S1 to S3 are located in areas of the project where the works or underground activities will not develop and therefore, it will not affect subsurface.". However, it is the description of the geological content of the same. Therefore reiterates the holder that is they must submit all the history associated with the drilling S2 and S3, which should be reviewed in this instance with the criteria previously requested by the competent authority, through its Ord ex officio. CMN # 4155 in the 14.11.2014. The above, since, without prejudgment that these were not carried out in the areas where they would be running underground works, is not clear if the drilling carried out affected or not geological units that, by lateral continuity, yes could correspond to units which contain remains paleontological will be affected by excavations in other parts of the work.

ANSWER:

Clarifies that information geological of all exploratory mechanical drilling carried out, in particular the drilling S2 and S3, It was presented in annex 1.3 "Reports and geological and geotechnical maps" the supplemental addendum (2nd addendum), as indicated in the response 3.10 on baseline for paleontology, of such supplemental addendum, showing especially in the body of the response the plane of the VALH-0001-000-OOSS-PL-002 geological profile of the sector where the underground works will be built.

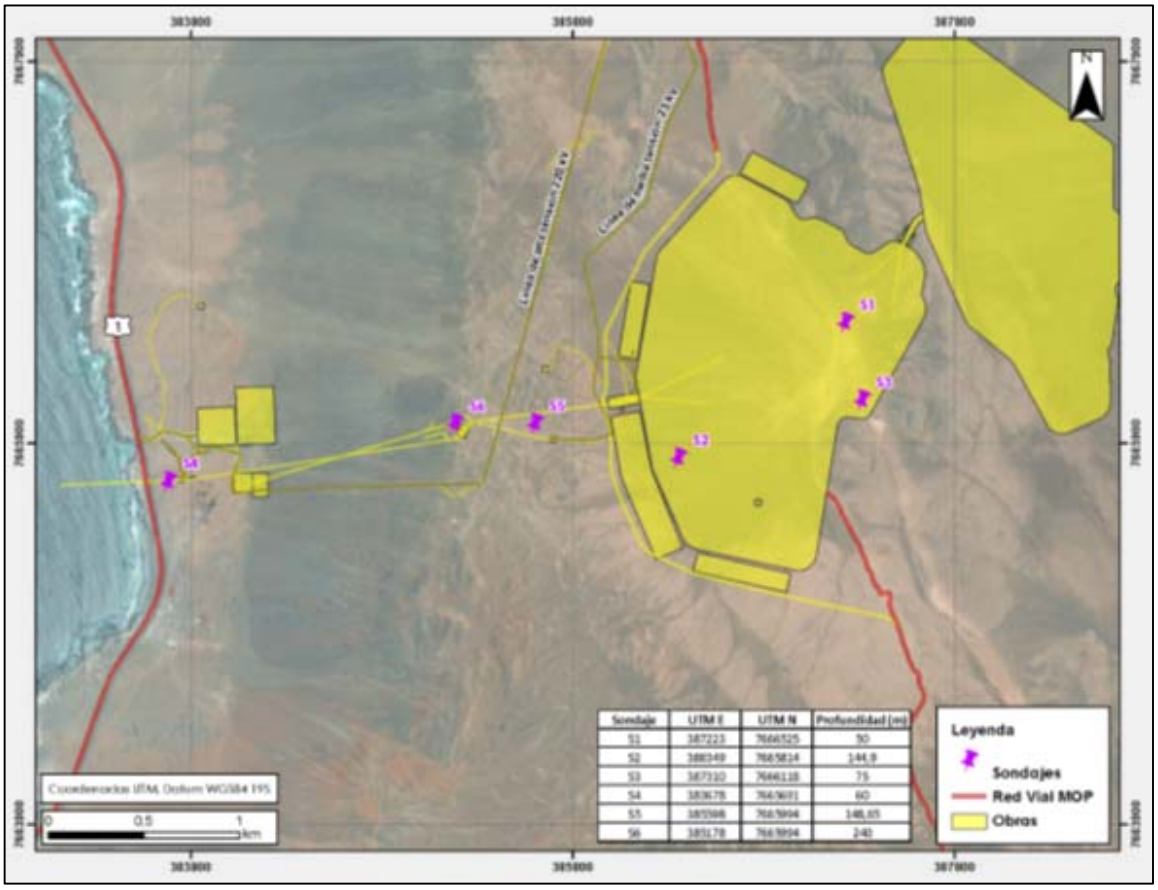
In regards to the geological information of the drilling, in annex 1.3 the supplemental addendum (second addendum) was presented the following information for the drilling S2 and S3:

- Geological ground, flat VALH-0001-000-OOSS-PL-001, also includes all stations geometric, the pits and the drilling.
- VALH-0001-000-OOSS-PL-002 geological, flat profile
- Report of investigations, geological, VALH-0001-000-OOSS-INF-001, describes the geological campaign and delivery the following results according to whether corresponds your application or analysis to the type of find:
    A. delivery photos of the witnesses of the drilling S1 to S5 (Probe S2, page 18 to 30. Probing S3, page 31 to 40)
    B. report of hidro fracturamiento the probing S5
    C. trials Lefranc to the S1, S2, S3 and S5 (probe S2 drilling pages 76-87. Probing S3 page 88 to 98.)
    D. trials Lugeon to the S1, S2, S4 and S5 drilling (Probe S2 pages 105 to 107)
    E. Structural characterization drillhole S1, S3, S4 and S5 (Probe S3 pages 120 and 121)
    F. water table S4 probing readings
    G. characterization RQD drilling S1, S2, S3, S4 and S5 (Probe S2 pages 137-144.) Probing S3 pages 145-148)
    H. reports results of the laboratory, IDIEM geotechnical tests
    I. petrographic descriptions B & F reports
    J. Report technical underwater inspection, Costasur
    K. Study of seismic refraction, Geodata
    L. Report scanning probing S5, check
- Report Geologico-geotecnico, VALH-0001-000-OOSS-INF-002. It relates the geology with the works of the project and chas a morphological and geological survey overview, research program, the geological conditions, reviews geomechanical additional and references.
- Final monitoring report probing S6, VALH-0001-000-OOSS-INF-013.
- Plane of interpretation of structural, VALH-0001-000-OOSS-PL-007 guidelines
- Flat of geological Fund plant marino, VALH-0001-000-OOSS-PL-006

Is based on the geological and geotechnical, information as well as the updating of the baseline of paleontology (Annex 3.10 of the addendum to previous) and the impact assessment (The previous addendum to annex 5.1-C), the addendum responses were developed Complementary (addendum previous o second addendum).

As for the drilling madethe Figure 3-1 Redisplays its location together with the works of project (Figure 3-5 of the addendum to supplemental (second addendum)).

Figure 3-1 Location of witnesses (drilling) drilling



Sondaje	UTM E	UTM N	Profundidad (m)
S1	387223	7646525	30
S2	388349	7645814	144,9
S3	387310	7646118	75
S4	383675	7643691	60
S5	385598	7643994	148,65
S6	385178	7643994	240

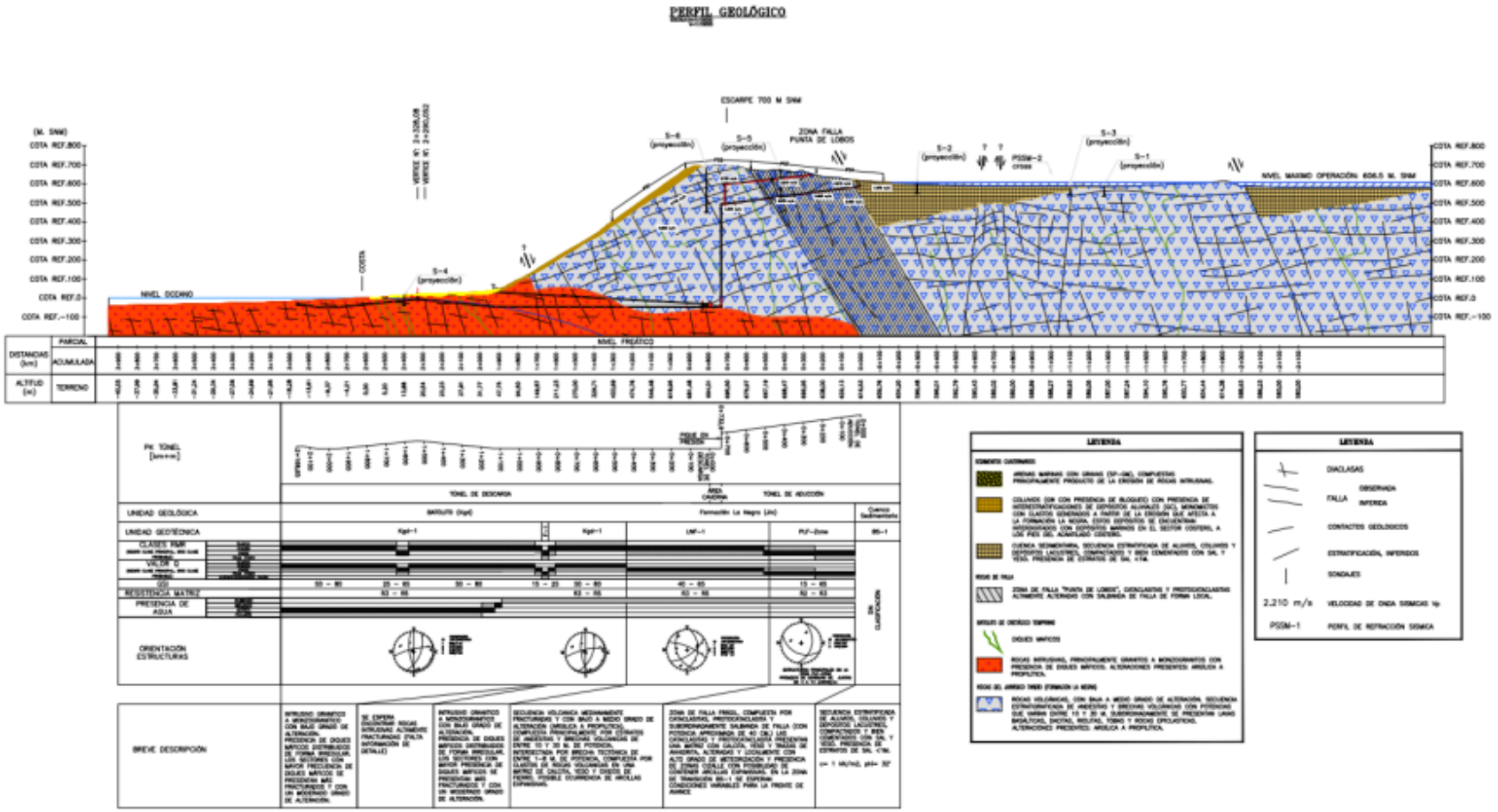
Source: Owner of the project. Plane VALH-0001-000-OOSS-INF-002 Annex 1.3 of the addendum N ° 2.

Based on the review of the drilling, it is observed that underground works are geologically related to the formation of the black. Therefore, the focus of paleontological analysis of drilling in the previous supplementary addendum (second addendum) was aimed at probing S5, as the representative of the geological area where tunnels will be built.

In addition, in the Figure 3-1 shown that drillhole S2 and S3 are located in areas of the reservoir of the project where works or underground activities will not develop and, therefore, it will not affect subsurface. Probing S2 was approximately 450 m from the portal of the tunnel top heading south-southeast home. On the other hand probing S3 was approximately 1,300 m from the portal of tunnel top heading West home.

Below is the geological profile.

Figure 3-2 Geological profile



Source: Owner of the project

According to the report, Geologico-geotecnico, VALH-0001-000-OOSS-INF-002, presented in annex 1.3 of the addendum to supplemental (second addendum):

- As regards the probing S2, the samples consist of alluvial sediments, colluvial and Lake with cementation of salt and gypsum. A diffuse salt layer was observed, but mainly the salt found in the pores of the sediment. There was no fossil materials in probing S2.
- S3 probing drilled a minor hydrothermal alteration and fractured rock (cataclasita) fault zone. Probing S-3 is located in the Centre of the basin area of FLN-1 with a length of 75 m. The first 19,20 meters of drilling are formed by sedimentary gap with silty to Sandy and strongly cemented matrix. The clasts are angular and correspond mainly to andesite, with sizes of up to 15 cm. low 19,20 meters, probing drilled andesite and volcanic gap, fractured and even with some parts completely decomposed. Between 65.2 m and the 67.1 volcanic rocks shows greater oxidation along the joints. There was no fossil materials in probing S3.

That is, in the case of a possible projection of geological units identified in drillhole S2 and S3 to the sector of the underground works of the project, also identifies potential fossil. If you check the geological plane, it is possible to observe that formations spanning these two drilling, S2, and S3, not projected tunnels works sector that will build the project. These works will take place in the formation the black, with zero fossil potential according to the results of the baseline (annex 3.10 of the supplemental addendum, second addendum), since qe:

- The review of bibliographic information (geological and paleontological) research concluded that there are no known paleontological background in the area of the project for the formation of the black. None of the geological studies that included this unit were mentioned fossils. These results were presented in point 2.2 palaeontological history of the annex 3.10 of the supplemental addendum (second addendum). The only reports of paleontological materials in this formation are over 80 km to the South of the project area.
- The geology of the project raised for geotechnical purposes corresponding to annex 1.3 of the above addendum, not recognized layers likely to contain fossils. S2 and S3 drillhole showed no presence of fossil material.
- Especially regarding S5 probing, which crosses the black La formation in the area where the excavation of the tunnel, is projected in the revision of the witnesses and history reflected in annex 3.10 of the supplemental addendum (second addendum), layers were not recognized likely to contain fossils.
- The observations made on site during the development of the baseline)e.g(., Cliff) and reflected in annex 3.10 of the supplemental addendum (second addendum), no identified areas with potential fossil.

According to the bibliographic information and terrain, it was determined the black La formation consists of a succession of volcanic rocks)e.g. you wash and gaps), which added to the background, leads to the conclusion that this unit in the area of underground works of the project has zero potential fossil.

For ease of reference, indicated that the fossil areas related to the project were identified and characterized in the annex 3.10 of the supplemental addendum (second addendum). These four areas correspond to AF 1, 2 AF, AF 3 and AF4. The first 3 are located on the coast, while AF 4 is located in the plateau (reservoir), and is not mineralized fossils of the Holocene which proposed actions and requested the PAS 132 (5.1-B annex to the addendum Complementary).

In the supplementary form attached to the present addendum, annex 3.1, document corresponding to the geological and paleontological analysis made by an unknown Terra for the drilling S2 and S3, signed by the responsible professional, which indicates that there were no fossils in S2 and S3 were not recognized layers likely to contain fossils.

4. PLAN FOR COMPLIANCE WITH THE APPLICABLE ENVIRONMENTAL LEGISLATION - ENVIRONMENTAL REGULATIONS

4.1. The holder must present environmental legislation and its enforcement, updated way.

ANSWER:

It welcomes the observation. In the annex 4.1 presents the environmental regulations applicable to the project up-to-date.

4.2. Noted the holder that, according to what is established in article 5 of the water code, the waters are national assets for public use and extends to individuals the right to use them in accordance to the mandatory of the legal text. Article 6 paragraph 1 ° °, of the water code defines the right of use as a real right that it falls over (well national public use) water and involves the use and enjoy, with requirements and in compliance with the rules stipulated in that encoding.

In relation to the above, the owner should consider in the stages of construction and operation of the project, all continental water that is present and remove a consumptive purposes and use, either by the same proprietor or by a third party It must be carried out according to the provisions of the water code.

ANSWER:

The holder receives the observation and will present as designated by the authority.

However, is present which during the stages of construction and operation of the project is not extracting water for consumptive purposes and use that, according to the rules of the water code, warrant the prefetching of rights of use of water. Furthermore, reiterates the designated during this environmental assessment (i.e., EIA, Chapter 1, section 1.5.9.2 and addendum N ° 1, response 1.21) in that the supply of water for the construction and operation phases will be obtained through trucks wells, of the water treated by plants of Tratment of served waters and of the collection and treatment of sea water.

By both, according to the above, inland waters that make it necessary to obtain rights of use in accordance with the code of waters are not used during the execution of the project.

5. COMPLIANCE WITH APPLICABLE ENVIRONMENTAL LEGISLATION - SECTORAL ENVIRONMENTAL PERMITTING PLAN

5.1. In relation to the permit environmental sector (PAS) as stipulated in article N ° 132 of the CUMPLIMIENTO, stated the following:

5.1.1. Paleontological component: the owner must submit the following background for granting:

- **General description of the types of analysis to the recovered materials;**
- **Proposal for preservation of materials in field, laboratory, and deposit;**
- **Plan for transportation and final disposal of recovered materials. In relation to this last point, it is required to attach letter of commitment of reception and guard of the Museum institution which will take care of rescued paleontological materials.**

Reminds the holder to make the surface collection and excavation of the paleontological detected during baseline and that they will be impacted by the works of the project, will require the PAS 132, which is given in this instance of evaluation, and in the event that the draft be adopted environmentally, must be processed before the Consejo of national monuments.

RESPONSE

The holder receives the observation. In the annex 5.1-A the present addendum is It extends the information presented, delivering properly updated the technical and formal content necessary to grant dPAS 132, related to paleontological component.
Then, to summarize, you can tell that:

- As regards the general description of the types of analysis to the recovered materials, it becomes clear that they will not be subjected to any kind of analysis rather than its visual examination for its proper determination.
- On the proposal of the materials conservation in field, laboratory, and deposit, fossil salvaged parts on ground they will be georeferenced, photographed and sigladas. Then, parts will be packed and immobilized to be transferred to the offices ofl responsible for the execution of the permit paleontologist, who meet the profile defined by the CMN. This place is realHe named the process of preparation, determination and packing parts. Finally, se Le will deliver the environmental authority and the CMN a database in format Digital registration of parts, within the three months following the completion of the above-mentioned activities of preparation, determination and packing
- As for the Plan of transportation and final disposal of recovered materials salvaged parts will be packed and immobilized to be transferred to the Regional Museum of Iquique in accordance with the coordination for delivery. In Annex 5.1-B the present addendum attached the letter of commitment of receipt and receipt of the Regional Museum of Iquique (Official N ° 02/2015 date 01-09-2015)institution that will take charge of rescued paleontological materials, as well as archaeological finds.

Finally, is present to the authority once the RCA for the execution of the project shall be dealt with sectoral permission to the CMN, prior to the intervention of the paleontological findings.

5.1.2. Archaeological component: the owner must submit the following background for granting:

- **Attach letter of acceptance by a museum institution of materials to collect before the construction of the project. It is worth mentioning that in this regard, in Addendum N ° 2 is only mentioned that the Regional Museum of Iquique will receive the materials from the site VE-19 (excavated during the expansion of Base line), but unstated acceptance for archaeological materials that will be collected from other archaeological sites. It therefore should be attached the letter of acceptance of deposit during this environmental assessment, covering all materials.**
- **Attach a table summary to indicate all the archaeological sites found within the framework of the project and who are less than 50 m from the works, the distance from them, central UTM, type of discovery, data (period to which it belongs), and measures to be carried out at each site .**

RESPONSE

The owner welcomes observations.

Firstly, with regard to the letter acceptance requested by the authority, sand Deputy in the annex 5.1-B the present addendum the letter of acceptance of the Iquique Regional Museum (Official N ° 02/2015 date 01-09-2015)where it is indicated to all collected archaeological and paleontological finds will be received in the project area.

On the other hand, spectrum of the requested table, to continuation, the table includes summary with all archeological sites identified in the framework of This environmental assessment So what they are less than 50 m of works, with the measure proposal, as requested:

Table 5-1 Summary of archaeological sites located less than 50 metres from the works of the project

Site / find	Description	UTM E	UTM N	TO Description Chrono cultural	Distance to the works	Measures for the construction phase
SEE 01	Bottle	386470	7666591	Historical	Inside reservoir	Surface collection
SEE 02	Bottle	382152	7677526	Historical	20 m of works road	Fenced perimeter of the find with plastic mesh 1.2 m minimum height and a buffer of 10 around the find, as well as associated signage.
SEE 07	Garbage dump	411629	7699378	Historical	less than 50 m,)Inside of the buffer of the LAT)	Was carried out topographical survey and registration of the structure, using specialized tab attached in annex 3.6 TOpeindex 2 of the TOdenda 1. Se proposed surface collectiongiven the infeasibility of fencing with a buffer of 10 m.
SEE 10	Cemetery	425134	7698522	Historical	50 m from the LAT	Fenced perimeter of the find with plastic mesh 1.2 m minimum height and a buffer of 10 around the findings, as well as associated signage.
SEE 11	Platform	424381	7698541	Historical	less than 50 m, (inside of the buffer of the LAT)	Was carried out topographical survey and registration of the structure, using specialized tab attached in TONexus 3.9 of the TOdenda complementary (2nd addendum). Proposed fencing using plastic mesh of 1.2 m of height, arranged as square brackets (screen) for the purpose of obstruct

Site / find	Description	UTM E	UTM N	TO Description Chrono cultural	Distance to the works	Measures for the construction phase
						visibility and traffic during construction, along with informative signage for avoid your involvement, .
SEE 12	Platform	423462	7698602	Historical	Intersects the LAT	Was carried out topographical survey and registration of the structure, using specialized tab attached in TONexus 3.9 of the TOdenda complementary (2nd addendum). Proposed fencing using plastic mesh of 1.2 m of height, arranged as square brackets (folding screen)with the purpose of obstruct visibility and tra.transit during construction, along with informational signage, to avoid involvement.
SEE 13	ESTRUCTURA	404485	7697015	Undetermined	50 m from the LAT	Fenced perimeter of the find with plastic mesh 1.2 m minimum height and a buffer of 10 around the findings, as well as associated signage.
SEE 15	Milestone	405762	7697424	Subactual	Inside of the buffer of the LAT	Was carried out characterization using attached specialized tab in TONexus 3.9 of the TOdenda complementary (2nd addendum). Proposed fencing using plastic mesh 1.2 m high, arranged as square brackets (folding screen)with the purpose of obstruct visibility and tra.transit during construction, along with informational signage, to avoid involvement.
SEE 16	Footprint	405732	7697419	Historical	Inside of the buffer of the LAT	Was rising topographic and structure, using specialized tab attached log in TONexus 3.6 TOpeindex 2 of the

Site / find	Description	UTM E	UTM N	TO Description Chrono cultural	Distance to the works	Measures for the construction phase
						TOdenda 1. Proposed through fence mesh plastic 1.2 m high, arranged as square brackets (screen) for the purpose of obstruct visibility and traffic during the construction, along with informational signage, for avoid their involvement.
SEE 17	Footprint	405946	7697479	Historical	Inside of the buffer of the LAT	Was carried out topographical survey and registration of the structure, using specialized tab attached in Annex 3.6 TOpeindex 2 of the addendum 1. Proposed fencing using plastic mesh 1.2 m high, arranged as square brackets (screen) for the purpose of obstruct visibility and traffic during construction, along with informative signage for avoid their involvement.
SEE 18	Ore	383158	7676859	Historical	5 m'sl road over existing track	Although this finding ES affected indirectly by the project, it is not possible to implement the fence with mesh and establishment of a buffer of 10 m, due to its proximity to the road. It is proposed to make a photographic record of high resolution of the find, which will complement the registration form presented in annex 3.6 Appendix 2 of the addendum 1.
SEE 19	Site	380031	7672063	Prehispanic	Adjacent to sector camp	Implemented characterization archaeological probes. Se proposes to implement fenced perimeter of ll U-12 and U-20 wells located

Site / find	Description	UTM E	UTM N	TO Description Chrono cultural	Distance to the works	Measures for the construction phase
						in the the camp area, with plastic mesh 1.2 m minimum height and a buffer of 10 around, in addition to informative signage.
SEE 20	Bottle	384168	7671305	Historical	Adjacent works road	Surface collection
SEE 21	Garbage dump	384754	7670123	Subactual	TO 20 m's works	Additional land was held and updated the information presented in the EIA and in annex 3-6 of the addendum 1, ruling out the equity value of the discovery (see annex 6.5.1) By virtue of such rectification, do not intend to safeguard measures. Sand he rectifies this distance with the road, which is 20 m.
SEE 22	Footprint	387518	7665621	Historical	Inside reservoir	Was rising topografico and registration of the structure, using specialized tab attached in TONexus 3.9 of the TOdenda Complementary (2nd addendum). Proposed fencing using plastic mesh 1.2 m high, arranged as square brackets (screen) for the purpose of obstruct visibility and tra.transit during construction, along with informational signage, to avoid involvement.
SEE 24	Bottle fragments	386675	7667201	Historical	Inside reservoir	Surface collection
VE 25	Metal fragments	386652	7667212	Historical	Inside reservoir	Surface collection
SEE 26	Bottle fragments	386617	7667211	Historical	Inside reservoir	Surface collection
SEE 31	Linear feature: Lifeline	380914	7677976	Historical	Adjacent works road	Cmarket of the Foundation of the lift next to the works of the project, through plastic mesh, arranged as square brackets (screen) in order
		(379877	*7677745*	*Historical*	*100 m of works road and line)*	

Site / find	Description	UTM E	UTM N	TO Description Chrono cultural	Distance to the works	Measures for the construction phase
						to obstruct the visibility and traffic during construction, along with informational signage, to avoid involvement.
SEE 32	Historical saline, to the West of route 1	379100	7677493	Historical	20 *(and more than 50m)* away with the junction of the North driveway located to the East of route 1	Barrier type new jersey plastic, located at the entrance to the salinas (sector closer to work on the project), corresponding to the junction with route 1. This measure is subject to the sectoral approval of roads, found within the road Strip. Informative signage is proposed and included in the historical study.

Source: Own elaboration

The findings go (3, 4, 5, 6, 8, 9, 14, 23, 27, 28, 29 and 30) are more than 50 m from the works of the project.

Annex 5.1-C n the present addendum is presented technical and formal content for the granting dPAS 132 of archaeology, properly updated which incorporates the replies contained in the present addendum.

5.2. With respect to the mixed PAS de article N ° 146 the CUMPLIMIENTO, and in relation to the designated by the holder in the addendum N response 5.2 ° 2, must set values or measurable goals that allow you to demonstrate compliance with the indicators of success, for evaluation.

ANSWER:

The owner welcomes the observation of the authority.

As noted in addendum 2, are expected make the rescue of the largest number of individuals of target species present in the area of capture, the long-awaited goal being the rescue of 75% of the specimens observed in the form (previous)What will happen 2 to 3 days prior to the rescue). Complementarily, and welcoming the observation of the authority intends measurable indicators of success for proposed "Target species abundance" and "Percentage of relocated individuals", both in the Area of Captura as the Area of Relocalizacion.

Then shownn the values proposed in each case:

- Capture area:
  - For the " abundance of species target " shall be deemed that the measure has been successful when recognized abundance estimation in the form subsequent to the implementation of the measure is less, at least, 75% abundance recognized prior to the execution of the measure.
  - For the "percentage of relocated individuals" (where there is the return of some specimens to this area after its relocation) is it will point to a maximum of one 10% of reavistami.
- Relocation area
  - For the " abundance of species target " shall be deemed that the measure has been successful when the estimation of abundance recognized after the implementation of the measure is not less than the abundance recognized prior to the execution of the measure (that is, 100% of individuals observed prior to implementation of the measure).
  - For the "percentage of relocated individuals" is will point to 5% of resighting.

It should be noted that the values expressed results expected, however these could see affected by climatic factors or conditions at the time of implementation of the measure or later, which will be analyzed by specialist and included in the report.

5.3. In relation to the PAS set out in article N ° 155 of the CUMPLIMIENTO and without prejudice to the technical and formal background presented to obtain, in hydraulic works of the Central hydro Reversible pump/generation, the holder must install 4 new points of monitoring (piezometers) at the top of the project (reservoir), which must be installed between the 3 that were initially (see proposal for a bounded in Figure 1 ORD nursing. N ° 252 dated August 20, 2015 of the DGA). These new piezometers as well the 3 piezometers considered initially, must be monitored (groundwater level) monthly and reports the information extracted at each of them, shall be forwarded to the environmental authority in a way quarterly.

ANSWER:

It welcomes the observation. The 4 new piezometers will be installed in the upper part of the project, within the area proposed by the DGA in its Office ORD. N ° 252 dated August 20, 2015, and complementary to the works that the project will develop in these areas, for the monthly monitoring of the ground water level, which will be reported in quarterly way.

The final location of the concerned piezometers will be informed to the Directorate General of water and to the Superintendence of environmental before construction thereof, which in any case will occur prior to the testing stage of the reservoir that will take place during the phase of project construction. This, by How much that location will depend on the necessary sectoral authorizations for the use of the land in the specific sector.

Figure 5-1 Reference location of the piezometers

Source: DGA, ORD. N ° 252 of 20 August 2015.

6. MEASURES OF MITIGATION, REPAIR AND COMPENSATION PLAN

6.1. The holder must submit the Plan of measures of mitigation, repair or compensation associated with the current project, considering the antecedents that are part of the evaluation process, including the new background generated product of the This report.

ANSWER:

It welcomes the observation. In the annex 6.1 the present addendum presents the Plan of measures of mitigation, repair or compensation, properly updated on the basis of the replies contained in this addendum.

6.2. In relation to the paleontological component, in particular to the as described in the CAP 7 of the addendum N ° 2, associated to the monitoring paleontological, noted that:

- **The fortnightly paleontological monitoring to be carried out by a paleontologist in areas located in the marine terrace in the coastal plain (of not mineralized fossils of the Holocene) AF1 (Sector Río Seco), AF2 (sector camp) and AF3 (sector San Marcos), must include the Marine learned of the underground excavations of the tunnels.**

- **With regard to the way in which this should be monitoring, he is reminiscent of the holder each monitoring should be reflected in photographic record, and a synthetic stratigraphic column of materials that arise. In case of fossil finds, these must be located in the stratigraphic column (climbing). The reports should include the projection of the work, on a geological basis, the smaller scale available for the area of the project, besides containing the points of monitoring in UTM coordinates Datum WGS84. This projection will be updated with each monthly report where joins the new monitored points.**
- **The paleontologist visits must be registered in the book of work, which will be photocopied for inclusion in each of the monthly reports of monitoring.**
- **The professional must stamp sign original in all documentation relating to the paleontological heritage associated with this project, whether texts, drawings or maps.**
- **It must be induction talks to workers of the work, prior to the commencement of activities involving earthworks, as requested in Ord. CMN No. 1349 of the National Monuments Council 20.05.2015. This material will include a history compiled in the base line and its results on informative cards with photos of each material, plus a poster that summarizes the main features of the findings.**

ANSWER:

It welcomes the observation at all designated points, with the exception of the requirement for the monitoring of the marine.

Respect the scope of the monitoring paleontological requested, and owner explains that, according to lto Update of Base line Paleontology present in the annex 3.10 of the addendum (complementary)Segunda TOdenda), the only sectors of the area study project in those recognized are paleontological materials correspond to the areas identified as AF1, AF2, AF3, and AF4.

Of them, the areas AF1, AF2 and AF3 correspond to places where realizAran works only on surface without perform excspace of underground tunnels. On the other hand, in the area BF4 movements of Earth but a filling will not be made. In all These fossiliferous areas of course will be a paleontological rescue as indicated in 7.5.1 response of the Addendum (complementary)Segunda TOdenda), and its annex 5.1-B.

By virtue of the foregoing, the paleontological monitoring will take place in areas AF1 (Sector Río Seco), (sector camp) AF2 and AF3 (sector San Marcos), in the marina on the plain terrace coastline (with not mineralized Holocene molluscs), in the area of the works at the time that works are made on those fronts.

On the other hand, in areas of the project for the construction of tunnels not be has detected presence of fossil materials or of rocks susceptible to contain them. Indeed, in probing S-5 (located in the area of plateau of the project where underground excavations will be carried out) paleontological or layers that can contain fossils were identified, or not observed in the cliff layers likely to contain fossils (see response to question 3.1 of the present addendum,

where the arguments that are given considering that the formation of the black fossil potential is null). In addition, in the areas of coast of the underground works, where it was probing S-4, according to the geological map)Skarmeta and Marinovic1981) and the Geotechnical study)Skava and Poch2015), was drilled Quaternary sediments of marine terraces, reviewed in the campaign of land and rocks plutonic, lack of interest from the paleontological point of view. The above is detailed in paleontological Base line update report presented in the supplemental addendum (second addendum).

Based on the above, I do not know identified potential effects on the component paleontological in the sector of the underground works, such as It was accredited in the assessment of impacts updated (The supplemental addendum annex 5.1-C). By the same, in accordance with the provisions of the same law Nº 19,300 and in the regulation of the SEIA (D.S. Nº 40/2012, Ministry of the environment), No is appropriate to the implementation of measures environmental aimed to take charge of this impact unidentified, nor of monitoring schemes in order to monitor the evolution of this component.[1].

Furthermore, should be according to the schedule established in the EIA for the project, the surface works that will be subject of paleontological monitoring occur in phases of construction other than the works of the tunnels.

However, if detected during excavations and earthworks of the project Re the presence of fossils, proceed. According to provisions of the rules of Act No. 17,288 national monuments.

Finally, is makes this that the project effectively provides training to workers through induction talks and educational, under the proposed measure in the EIA (Chapter 7, table 7-9 measure: promotion of paleontological heritage lectures). Anyway, reiterates that observations of the authority in terms of the characteristics of these talks are. Thus, these talks will incorporate outreach cards with photos of each material, plus a poster that summarizes the main features of each find. This will be taken into consideration compiled history in the baseline.

6.3. With respect to the proposed measure consisting in the preparation of material for the dissemination of the fossil representative of the project s, where is designated as material disclosure 1 referred will be produced during the first year of the construction phase of the project and will be printed 1,000 copies to

[1] En efecto, conforme a la Ley Nº 19.300, el plan de seguimiento de las variables ambientales solo procede respecto de aquellos "impactos significativos", es decir, de los efectos, características o circunstancias del artículo 11 de dicha ley que ameritan el ingreso mediante un EIA (art. 12, letra g), cual claramente no es el caso.

be distributed in the municipal schools of the communes Iquique and Pozo Almonte, is designated as follows:

- **In relation to the distribution of this material, it should be considered that there would be no inconveniences that occur close to the celebration of the day of the Cultural heritage, however clarified that the distribution should be performed by the holder.**
- **With regard to the focus of the activity, suggests defining the target audience (students of basic education or media) and adapt the material of diffusion for particular segment of the school population.**
- **Online, it is suggested to consider the number of students of the defined segment to set the number of copies, since the proposed number (1,000) is very small.**

ANSWER:

It welcomes the observation. El holder It has decided to increase to 7,000 the number of copies of the paleontological outreach material, the It will be designed for the public objective, corresponding students of 2nd half. The distribution of this material will be made by the holder in municipal schools of the communes of Iquique and Pozo Almonte.

6.4. In relation to the proposed measure consisting in the geological and paleontological characterization of the site where the Jurassic corals were identified (pf1 in the) Figure 3-10 the supplemental addendum), located approximately 500 m from the nearest to the project work, and will not intervened, is designated the holder that required taking samples for the analysis of this site you must request the Council of monuments National respective permission of intervention described in article 7 of the rules of the law 17,288 excavation. also refers to the holder that the result of this characterization will be included in the planned dissemination publication (above).

ANSWER:

The owner has this observation. However, clarifies in this regard that this geological and paleontological characterization alluded to in the question does not provide under any so-called intervention from the site. Therefore not expected need to request the permission of article 7 of the regulation of the Act No. 17,288.

6.5. In relation to the component Archaeological:

6.5.1. According to the information provided through the table 7-1 of the supplemental addendum, there are finds to less than 50 meters and that will be not impacted by the works, which have no associated measures; also indicated that it will collect a hallazgo that will not be impacted.

In this regard, emphasis on the archaeological sites which will not be affected by the works of the project and that are located less than 50 metres shall be protected by fencing them with mesh according to the indications given by the Council of monuments (national) Office Ord. N ° 1343 / 2015). To do so requires:

- **That site VE-2 is protected with fence and not collected, as shown in the designated table.**

ANSWER:

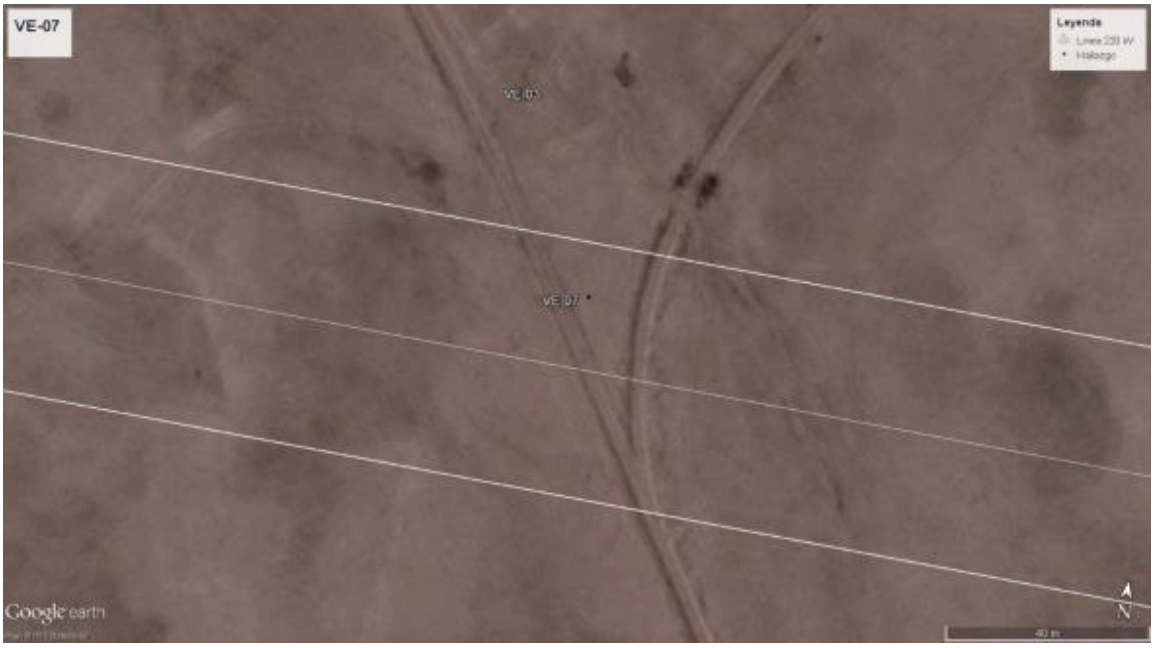
It welcomes the observation. Given that site VE-2 is not directly involved in the project, and is less 50 m of works, shall be to enclose the site, according to the CMN in their Office Ord. N ° 1343 / 2015, i.e., by a 1.2 m high perimeter fence (plastic mesh), with a buffer of 10 m around, along with signage information, to avoid involvement.

- **With respect to the VE-7 site, the addendum N ° 1 indicated that it was a garbage dump subactual. However, table 7-1 of the addendum indicates that historical data is and that will be affected by the works of the project. In that sense, your data should be clarified and if an archaeological item in the historical period, it must be collected before the construction phase, so it the holder shall request the PAS 132 by this site. Should also be cleared for the VE-21 site.**

ANSWER:

With regard to the VE-7 find, clarifies that This is historical. Si either lies within the buffer of the high voltage power line, is 13 m from the exand the location of the towers, so you cannot deploy a fence with a buffer of 10 m. Therefore proposes as the rescue of the historic archaeological item.

Figure 6-1 Location of the VE-7 finding with respect to the works of the project



Source: Own elaboration based on information provided by the owner.

Regard to the VE-21 site, corresponding to a landfill of discarded and highly fragmented shells and in a bad state of conservation was a new visit to land on October 24, 2015, in order to specify the data of the remains found. The Report of Terreno raised with regard to the visit It occurs in the annex 6.5.1 of the present addendum.

In particular, sand he carried out a survey of a square surface of 350 x 350 mm^2. The discovery was located 20 m from the footprint of the existing road. In close by find there were no other materials and to be historical or subactuales.

Among the remains of shells there were cultural, such as ceramic fragments or chips, textile evidence or others. No remains of ashes or spicules of coal. Finally nor characteristic of a coastal archaeological site (conchal) trampling and dispersion pattern was observed.

In addition, the shells are fragmented naturally, following the pattern of the elements exposed to the Sun, the surface is has crackled and scales, shedding pieces corresponding to the edge of the shell.

Also According to the information raised concerning this visit It's possible conclusion What the site in question does not correspond to an outcrop of a Bank of deposition natural, since it does not present the degree of compaction and calcareous concretion of fossiliferous formations.

Finally, the report concludes that las conditions of deposition and further processes of transformation and degradation of the material, indicate that the VE-21 element corresponds to a **garbage dump subactual**, What It had no association with elements of historical or excavaICO, nor of fossil type. In other words, does not constitute a patrimonial element

protected by law, so It is not necessary to apply protective measures or request special permission.

Without limiting the foregoing, it is present that the holder has adjusted the way way away from this finding, now running at 20 m distance.

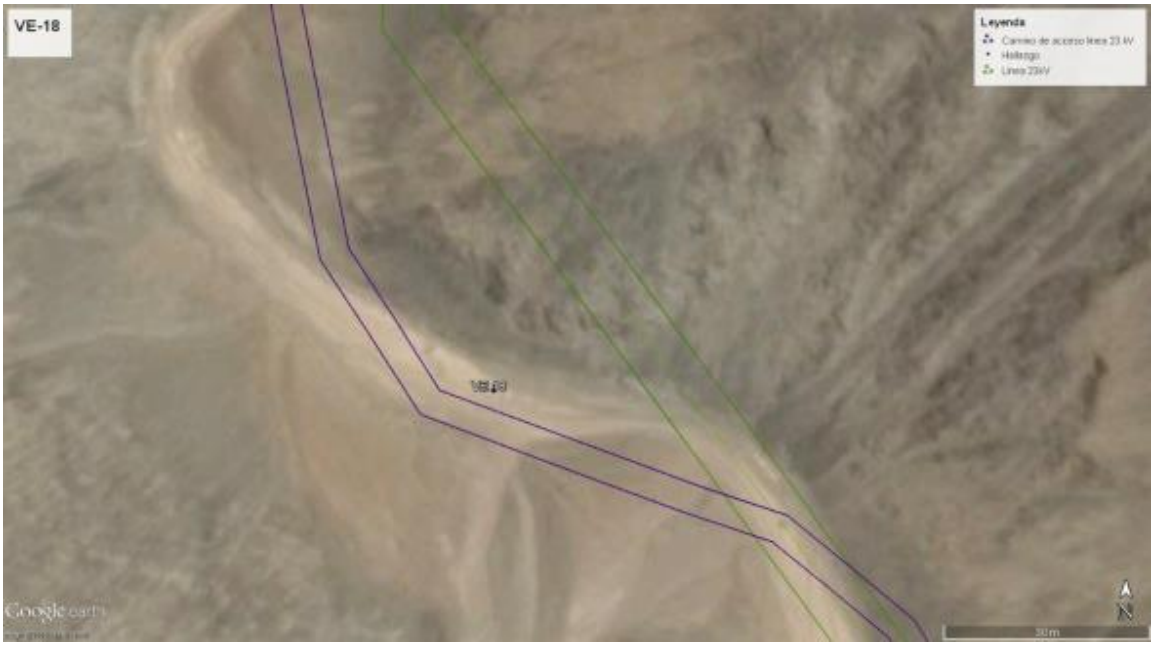
- **With respect to the VE-18 site, indicates that it is a concentration of ore of historical data at 20 m from the road. It should clarify whether it is or not to an archaeological site. If so, it must encircle according to the specifications of the Ord. N ° 1343 / 2015.**

ANSWER:

Clarifies that VE-18 corresponds to a finding ore of copper accumulated at surface and unobtrusive way, without other associated artifacts, historical affiliation, that is to less than 20 m of lto line of medium voltage, and less of 5 m of the Road access line. Although this finding is indirectly affected by the project, it is not possible to implement the fence with mesh and establishment of a buffer of 10 m, due to its proximity to the road.

However, to safeguard this finding properly sand it proposes to make a photographic record of high resolution of find, that will complement the registration form presented in Annex 3.6 Appendix 2 of the addendum 1.

Figure 6-2 Location of the VE-18 finding with respect to the works of the project



Source: Own elaboration based on information provided by the owner.

6.5.2. Clarifies that, as regards the topographic survey of thes features linear and registration a kilometer at each end, outside the area of the project, is a measure of compensation, which was requested to run before the construction phase of the project and not for this environmental assessment. in this regard, while the addendum N ° 2 indicates that such information was included in annex 3, it was not presented, except for the lifting of the VE-15 structure. Therefore, the records committed according to the delivered specification, both the EIA and the Ord. N ° 1343 / 2015 of the National Monuments Council, must be reflected at the level of commitment the application of the PAS 132, ara compromises that obtain a favorable RCA, must be carried out before the start of the works, except for historical study, which shall be delivered to more no later than a year aftertorgada the liberation of the area.

ANSWER:

Clarifies that, even if the owner is known to the topographic survey of the linear features and registration of one kilometre on each side requested constitute a measure of compensation, which must be carried out before the construction phase of the Project, in the supplemental addendum presented above (second addendum) surrendered the 7.4 Annex which contained such information. This annex presents rising to VE-11, VE-12, VE-16, VE-17 and VE-22 findings. The VE-31 finding not It could be followed in its extension, since it's a composite discrete feature by discontinuous platforms located in the slope of the Cordillera de la Costa, corresponding to the location of the old lift, where, at present, no observable material remains linear or continuous between the platforms.

The holder receives the observation, and shall submit more than a year after granted the release of the area, requested historical study.

6.5.3. With respect to sites 31-VE and VE-32 corresponding to a lifeline and a salt, respectively, indicated the holder that the authority was in accordance with the fence with wire mesh. However, in the addendum N ° 2 is suggested fencing by clasp in the areas closest to these sites, in order to divert traffic. Therefore, the holder shall provide all background information allowing to assess this new measure, for what must deliver one photography satellite with the path of the nearest work and the location of these square brackets; Ideally a picture generates both sites with works and one in detail.

ANSWER:

The holder receives the observation.

For these purposes, se incorporates then the Figure 6-3 It shows the points corresponding to the finds VE-31 (lift) and VE-32 (salinas), together with the work nearest to the project in the sector of Río Seco and the installation of operations and collection as references. In this figure se can see that works closest to the mentioned findings correspond to sections of the access road north in the area of Caleta Río Seco, and medium voltage line.

Figure 6-3 Reference location of findings and the works of the project in the sector of Caleta Río Seco

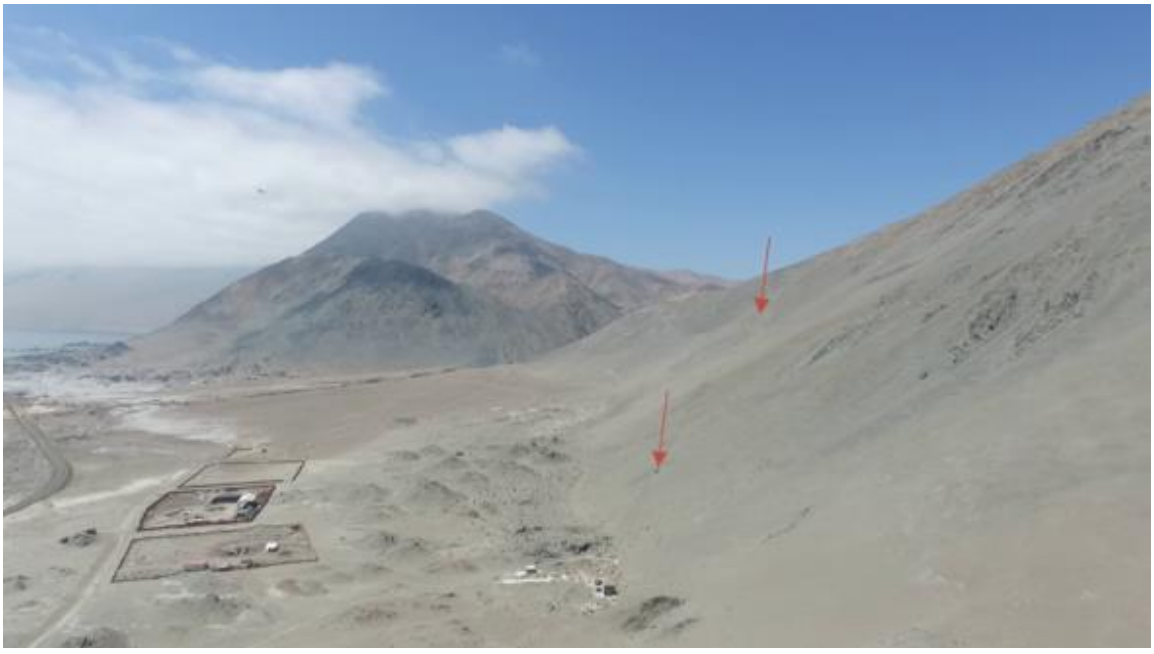
Source: Owner of the project.

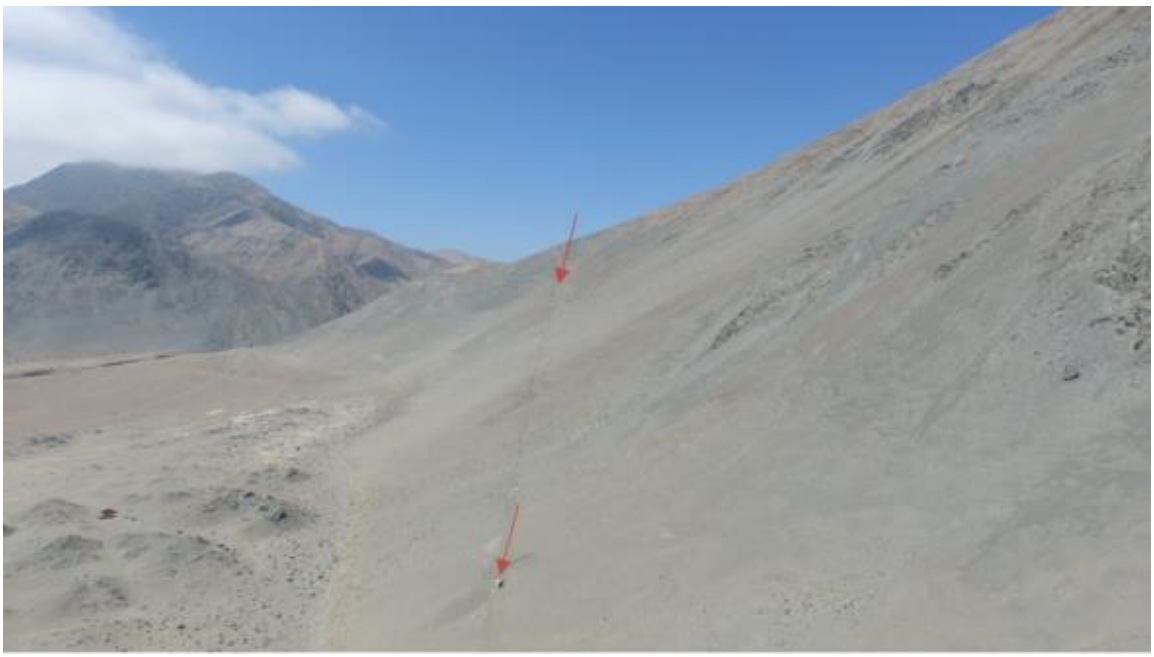
Next to find VE-31 (lift) sand they develop the road and the line of medium voltage, in the same cliff, but at a lower level. With regard to thes Salinas (VE-32), the nearest to the project work corresponds to the junction of the Northern access road in the isctor Caleta Seco River with the R1 UTA. The CAMINO is fromsarrollara East of the RUTA 1, while thes Salinas is locatedn to the West of This route. Therefore, There is a very low and unlikely probability of involvement of this finding on the occasion of the execution of the project, all time There is no work on the project that require travel on the side West of route 1.

On the other hand, el change in the form of implementation of the action described in the present question is fully justified Therefore, in the case of the VE-31 site, the foundations of the lift are in a sector with a steep slope, where could hardly move vehicles, since the place has little accessibility (see Figure 6-4 and Figure 6-5). In addition It has been estimated that the extent of the fencing in the terms initially requested by the CMN may backfire and unfit for precautionary measures the real goals that underlie its implementation, as could increase the vulnerability of the site that you want to protect to make it more visible, attracting Consequentially people to be directed to it.

The following pictures are indicated by red arrows finds relatives foundations of gaitivel and you can see the slope of the cliff on which are located.

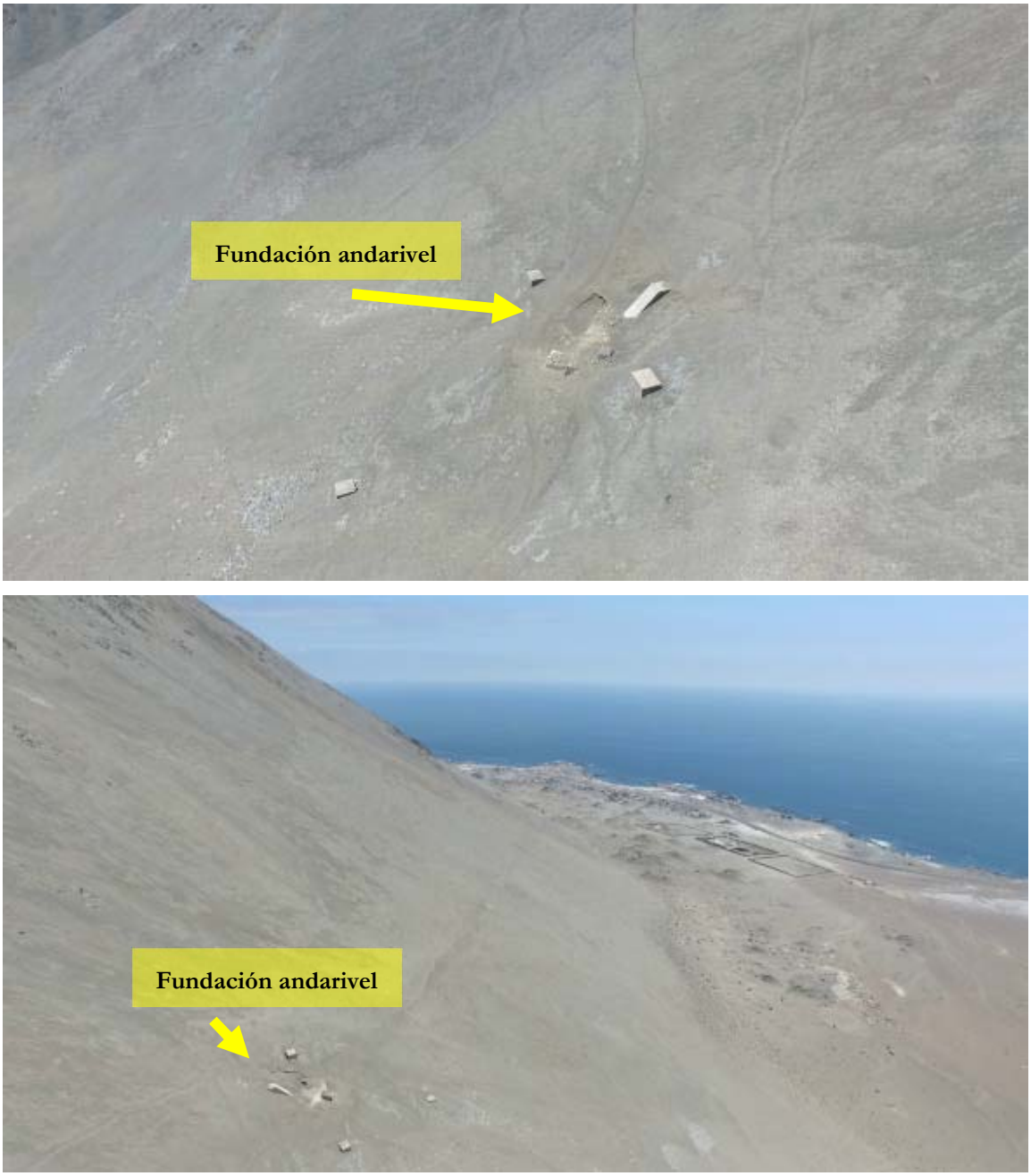
Figure 6-4 Panoramic views of the sector where the lifeline (VE-31)





Source: Owner of the project.

Figure 6-5 Aerial view of the foundations of the lift (VE-31)



Source: Owner of the project

On the other hand, rspectrum to the VE-32 site corresponding to the Salinasthe Titular requests to modify the implementation of the measure, by the installation of barriers new jersey plastic, in order to prevent access to the site at the closest point of the works of the project with the discovery, but without interfering with the activities currently developed by

the community, as, for example, access to the beach or the circulation between the area of the Jetty located to the West of the salinas, and community located to the West of route 1 side.

In the figures below you can see the location of the access road north in the sector of Caleta Río Seco on the sAlina (VE-32), as well as the uses of the coast that the community is currently in This sector.

Figure 6-6 Panoramic views of the sector where the salinas (VE-32)

Source: Owner of the project.

In summer, Holder proposes the next update of the measures relating to the VE-31 and VE-32 findings aimed to safeguard and protect more effectively this environmental component:

- For the VE-31: by fencing plastic mesh 1.2 m high, arranged as square brackets (screen) preventing access to bottom (and next) Lifeline (sector identified in the Figure 6-3). Lto Figure 6-7 Sample the location referential the siege of.
  For the Foundation of the lifeline that is farther away, not proposed measures, since the CERCADO It could increase the vulnerability of the finding.
- For the VE-32: installation of barriers type new jersey plastic (see Figure 6-8)to protect without hindering the free access of the population tol Jetty and to other areas that are uses DAS currently.
  In the Figure 6-10 It is a referential view of the location of the barrier on the works of the project.
  Without limiting the foregoing, by be within the tax strip of highway, its final implementation shall be subject to the approval of sectoral authority in this matter.

Figure 6-7 Reference location of the fencing type square brackets in the sector closest to the coast of the lift (VE-31)

Source: Owner of the project

Figure 6-8 Proposed fencing by bnew jersey arrera

Source: Owner of the project.

Note: Subject to sectoral approval of roads

Figure 6-9 Reference location of the barrier in the salt sector (VE-32)

Source: Owner of the project.

Figure 6-10 Reference location of the barrier in the sector of las salinas (VE-32) with respect to the works of the project

Source: Owner of the project.

7. CONTINGENCY AND EMERGENCY PREVENTION PLAN

7.1. In response to the drilling carried out in the framework of project engineering studies and prior to that start the operation of this stage, will be necessary to consider for those drilling found in the sector of the reservoir (upper part of the project), the shelter and/or blinded these techniques compatible with the environment. The above, due to possible interactions between the hydrological component of the project and the deep geological sectors, before a possible contingency on the area of the reservoir. In this regard, the licensee must submita description of how to conduct these activities.

ANSWER:

The holder receives the observation, committing to Cegar properly the drilling in the area of the reservoir of the project.

In this respect, is made present that within the framework of the project engineering studies were executed 6 drilling rotation of 4 "in diameter. Of these, drillhole S-01 and S-02, S-03 were in the area of reservoirs and they were sealed with concrete monoliths such as seen in annex 7.1 the present addendum.

Given the time elapsed since its drilling, expected that the date of construction of the project these perforations walls have collapsed since they do not have any type of casing, obstructing the opening.

All in all, during the stage of construction project prior to the placement of the waterproof membrane in the reservoir, the concrete monoliths will be withdrawn and it will proceed to the drilling cementing filling inside each one of them with grout. The grout will come from the concrete plant located in the installation of project tasks.

7.2. The owner must correct the phone number of the Regional Ministerial Secretariat of environment (57-2368258), shown in table N ° 8 on the Plan of prevention and contingencies of the addendum N ° 2.

RESPONSE:

It welcomes the observation. The following table shows the corrected information. Note that this table will be revised and updated prior to the start of the project.

Figure 7-1 Regional emergency phones

GENERAL EMERGENCY PHONES		
Entity	Address	Telephone no.
Hospital (131)	Heroes of the conception No. 502, Iquique	57-2395555
Fire (132)	Bolivar N ° 414, Iquique	57-2421212
Carabineros de Chile (133)	O'Higgins 427, Iquique	57-2557040
Navy of Chile	706 Avenida Arturo Prat, Iquique	57-2517100
SVS environment	Washington 2369, Antofagasta	55-2530385
Maritime governance of Iquique	Jorge Barrera 98, Iquique	57-2401900
Municipality of Iquique	Street Aníbal Pinto 50 building Ex - customs, Iquique	57-2514677
Municipality of Pozo Almonte	Calle Manuel Balmaceda 276, Pozo Almonte	57-2407200
Mutual security	Orella No. 769, Iquique	57-2408700
ACHS	Amunátegui No. 1517, Iquique	57-2402925
EMERGENCY TELEPHONES SERVICES		
Entity	**Address**	**Telephone no.**
Agricultural and livestock service	Orella 440, Iquique	57-2470115

GENERAL EMERGENCY PHONES		
Entity	Address	Telephone no.
SERNAPESCA	Passage 470 Alessandri Dept. 110 Iquique	57-2368150
National Emergency Office	Salvador Allende former Pedro Prado 3420, Iquique	57-2374400
SERNAGEOMIN	Grumete Bolados 125 Iquique	57-2427462
Regional Directorate of roads	Tarapacá 130, 3rd floor, Iquique	57-2572036
Directorate-General for water	Tarapacá No. 130, Iquique	57-2572265
SEREMI of health Tarapacá	Emerald 475, Iquique	57-2404661
Secretary Ministry of environment	San Martín N ° 255, office 151, Iquique	57-2368258

Source: Own elaboration

The holder will hold a semi-annual update of this table during all phases of the project.

7.3. The owner must be a monitoring of rainfall in the region, as detected a significant increase in these, shall update the information associated with this project, and implement measures and actions needed, prior authorization of the competent authority, considering that this phenomenon can affect the physical stability of the works involved in the project, creating risk of removal in mass.

ANSWER:

It welcomes the observation. The holder will include the monitoring of rainfall in the area of the project and, as detected a significant increase, proceed as indicated, updating the information associated with the project. If necessary, is presents the authority measures and actions corresponding.

8. MONITORING OF THE RELEVANT ENVIRONMENTAL VARIABLES

8.1. The holder must submit the follow-up Plan associated with the project updated way, considering the antecedents that are part of the evaluation process, including the new background generated product of this report.

ANSWER:

It welcomes the observation. In the annex 8.1 is the updated monitoring Plan.

8.2. The owner should review and rectify (sexagesimal) geographic coordinates, of the Plan of environmental monitoring related to the structure of the water column and subtidal sediments (table 1 - 2); particularly with regard to data of West longitude.

ANSWER:

It welcomes the observation. The following table presents the coordinates corrected table 1-2.

Figure 8-1 Corrected table 1-2 coordinates of stations for monitoring, valid for the structure of the column of water, subtidal sediment and water quality

Station	Sexagesimal coordinates		UTM coordinates	
	Latitude	Length	East (M)	North (m)
ASP1	21 ° 7'25 55 "S"	70 ° 8'7 06 "o"	382.102	7.663.734
ASP2	21 ° 6' 36.63 "S"	70 ° 7'29 05 "o"	383.188	7.665.246
ASP3	21 ° 6'27 42 "S"	70 ° 7'39 13 "o"	382.895	7.665.527
ASP4	21 ° 6' 22.89 "S"	70 ° 7'35 29 o	383.005	7.665.667
ASP5	21 ° 6'19 46 "S"	70 ° 7'28 36 "o"	383.204	7.665.774
ASP6	21 ° 6'57 5 "S"	70 ° 7' 33.70 o	383.047	7.666.200
ASP7	21 ° 5' 43.91 "S"	70 ° 7'38 18 "o"	382.913	7.666.865
ASP8	21 ° 5' 14.73 "S"	70 ° 7' 43.99 o	382.739	7.667.761
ASP9	21 ° 4'27 04 "S"	70 ° 8'34 50 o	381.271	7.669.217
ASP10	21 ° 8' 19.60 "S"	70 ° 7'47 43 "o"	382.680	7.662.076

Source: Euse own based on records provided by the holder.

It should be noted that the system of coordinates to be considered for this project are the delivered in the format UTM DATUM WGS 84, reason why will be those that are used in all the activities and reports of the same.

8.3. He is designated the holder that is considered necessary to the implementation of a follow-up Plan of hydrogeological component, particularly in the lower area of the project (sector coast and Cliff). This Plan should consider the quality (pH, conductivity, and temperature) and quantity of the waters (level monitoring piezometer). This must be done both for probing S-4, as well as two new points of monitoring strategically installed throughout the underground tunnel. The delivery of the information generated by the monitoring Plan, must be turned to the environmental authority quarterly way, but its monitoring should be considered a bi-weekly sampling of the variables mentioned above for the construction phase and monthly for the operation stage.

ANSWER:

It welcomes the observation. Measured depth, pH, conductivity, temperature and level piezometer at the point of probing S-4 as well as two new points of monitoring additional, located in the area of influence of the underground tunnel, in the coastal sector.

The position of the new points of monitoring shall be informed once the construction stage and prior to the start of underground works. Two locations for the additional piezometers are proposed in the answer to question 2.1 of the present addendum.

This monitoring will take place with a frequency of sampling during the construction stage bi-weekly and monthly during operation. The information generated will be delivered on a quarterly basis to the environmental authority.

8.4. Notwithstanding measures already presented by the holder, it must complement the tracking plan associated with the records of collision and/or electrocution of birds in the electrical transmission lines, establishing measurable goals for indicators or values of success are presented.

ANSWER:

The action of a track in the section of high voltage (LAT) line where, eventually, could collide birds, corresponds to a voluntary commitment signed by the holder, in the addendum, delivered in March 2015 (response 10.4), in response to the results of the study *in-situ* of the species *Storm petrel petrel* (black sea swallow), carried out at the request of the Authority (see 8.4 response of the addendum N ° 1). This study allowed to rule out significant impacts of the project on this species, proposed by both the implementation of voluntary commitments on the basis of the guide of the SAG (2015)[2] to avoid possible collision/electrocution of birds with power lines:

- **insulators** in the Center wire in the section close to each pole, in the case of middle voltage lines (LMT) (response 8.5 of the addendum, delivered in March, 2015).
- **includes of use** in the LAT (response 1.19 of the addendum).

In accordance with revised bibliography[3], the effectiveness of the use It is greater than or equal to 55% of the total number of sighted individuals. In accordance with the request, the

[2] Servicio Agrícola y Ganadero. 2015. Guía para la evaluación del impacto ambiental de proyectos eólicos y de líneas de transmisión eléctrica en aves silvestres y murciélagos. Primera edición. Ministerio de Agricultura. Santiago, Chile. 120 p.

[3] Barrientos R., Alonso, J. C., Ponce, C. & Palacin, C. 2011. Meta-Analysis of the Effectiveness of Marked Wire in Reducing Avian Collisions with Power Lines. Conservation Biology, 25 (5), 893-903. En "Medidas de mitigación de impactos en aves silvestres y murciélagos" (2014) Gonzalo González.

indicator of success of the device use It is the reduction in mortality of at least 55% on average for all sighted birds. This will be verified According to the results the study of Seffi indicating below.

In effect, during this environmental assessment proposed as a voluntary commitment to the realization of a **Studio of Seffi** associated with collision records, with the purpose contribute to knowledge about the behavior of the species black tern, through the study of the deterrent effect of the devices.

The erise Studio information in soil every six months during the first three years of operation of the LAT, in accordance with the following:

- Estimates of the number of individuals and species that collide with the LAT in the section where it is located An anti-collision devices.
- Estimates of the number of birds and species that collide with the LAT in a sector of the line of electric transmission without anti-collision devices.

The methodology will consider lifting the number of living birds and sightings, as well as the search for housing. With and without sectors, will be carried out throughout the site fixed width transect, during 5 workdays of at least eight hours each. The total number of transects to perform shall be subject to the criterion of the specialist, and they shall be made at different times of the day. As part of gathering information on terrain, will register any finds of birds or species that could have been electrocuted.

Each found housing will be recorded in a file which will contain at least the information indicated in the guide of the SAG (2015), table 7.

The study will cover a period of 3 years, and includea six-month follow-up: at the beginning (November/December) and at the end (April /)I may) of the black tern nesting period. For these purposes, first campaign will take place with the start of the nesting period (November/December) corresponding to the year of entry into operation of the LAT.

They will be delivered annual reports to the authority environmental you will understand each reproductive period full that they will be sent three months after the last campaign is finished.

9. SUMMARY FOR EACH PHASE OF THE PROJECT OR ACTIVITY FILE

9.1. The holder must submit all the tabs overview updated way, considering the antecedents that are part of the evaluation process, including the new background generated product of the present report.

ANSWER:

It welcomes the observation. In the annex 9.1 the tabs are presented Abstract updated.