

-----  
**Ta-Nb-Sn-Ti-REE - Minastyc Property**

Mining Title LFH-14431X  
Vereda Guaripa, Puerto Carreño  
- Vichada Dept., Colombia -

-----

**43-101 Technical Evaluation Report**



Trenches in oxidized gravels of Area 50. Drone view to the SW

Prepared for AUXICO Resources Canada Inc. by

André Ciesielski, DSc., P. Geo. &  
Joel Scodnick, B.Sc., P. Geo., QP

Effective Date: March 28, 2022

Amended Date: December 17, 2023

---

## Date and Signature

Ta-Nb-Sn-Ti-REE - Minastyc Property  
Mining Title LFH-14431X  
Vereda Guaripa, Puerto Carreño  
Vichada Dept., Colombia  
43-101 Technical Evaluation Report

This report has been prepared and revised by

*“Original Signed and sealed on file”*

**André Ciesielski**, DSc., P. Geo and

*“Original Signed and sealed on file”*

**Joel Scodnick**, B.Sc., P. Geo., QP

Effective Date

March 28, 2022

Amended Date

December 17, 2023

## Certificates of Authors

I **André Ciesielski**, P.Geo., hereby certify that

1. I am a Canadian citizen, living at 1777 Du Manoir Av., Montreal, H2V 1B7, Qc, Canada;
2. I have a DEA in structural geology and a Doctorate in petrology from Université Pierre & Marie Curie, France.
3. I am a member of Ordre des Géologues du Québec, with licence # 514.
4. I have worked as a professional geologist since diploma, 17 years as a research geoscientist with the Geological Survey of Canada and more than 20 years for various mining exploration companies. I have performed field works and completed studies, documents, assessments and reports on precious and base metals, diamond, rare earths and uranium in various mining properties in eastern Canada, West Africa, Morocco, Mexico, Guyana, Colombia, etc.
5. I have read the definition of "Qualified Person" set out in National Instrument (NI) 43-101 and certify that given my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a qualified person for the purposes of NI 43-101.
6. I am co-responsible for all the items of the Technical Report entitled Ta-Nb-Sn-Ti-REE – Minastyc property, Mining Title LFH-14431X, Vereda Guaripa, Puerto Carreno, Vichada Dept., Colombia, 43-101 Technical Evaluation Report with effective date of March 28, 2022.
7. I did not visit the property.
8. I am not aware of any material fact or material change with respect to the subject matter of this Technical Report that would make it misleading.
9. I had no prior involvement with the Minastyc property.
10. I am independent of the issuer (AUXICO Resources Canada Inc.), applying all of the tests in Section 1.5 of National Instrument 43-101.
11. This report may be amended only at the discretion of the authors.
12. I have read National Instrument 43-101 and Form 43-101F1 and the technical Report has been prepared in compliance with that instrument and form.

Montreal, December 17, 2023

*“Original Signed and sealed on file”*

André Ciesielski, P. Geo. (OGQ # 514)

---

I, **Joel Scodnick**, P.Geo., as an author of this Technical Report entitled “Ta-Nb-Sn-Ti-REE – Minastyc Property, Mining Title LFH-14431X, Vereda Guaripa, Puerto Carreno – Vichada Dept. , Colombia- 43-101 Technical Evaluation Report”, prepared for AUXICO Resources Canada Inc. and dated March 28, 2022, do hereby certify that:

I am the President and CEO of Sierra Geological Consultants Inc.;

I am a practicing member of the Association of Professional Geoscientists of Ontario (member # 1065). I have worked as a geologist for a total of 42 years since my graduation. My relevant experience for the purpose of this Technical Report is:

Review and report as a consultant on several exploration and mining operations around the world for due diligence, feasibility studies, and resource/reserve estimation;

Chief Geologist at the Velardena Polymetallic Mine in Durango, Mexico. Responsible for commissioning the mine and putting it into production at an initial pre-production rate of 500 tpd;

I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined by NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101;

I graduated in 1982 from Concordia University in Montreal, Quebec, Canada with a B.Sc. in Geology;

I graduated in 1978 from Algonquin College in Ottawa, Ontario, Canada with Honors Distinction in Electro-Mechanical Engineering Technology-Drafting;

I conducted exploration activities on the Minastyc Property from August to December, 2021 on various occasions;

I am a co-author of the Technical Report;

I have no prior involvement with the Property that is the subject of the Technical Report;

To the best of my knowledge I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected herein, the omission to disclose which makes the Technical Report misleading. The Technical report contains all scientific information that is required to be disclosed to make the Technical Report not misleading in any way;

This report may only be amended at the discretion of the authors of this report;

I have read National Instrument 43-101, and the Technical Report has been prepared in compliance with National Instrument 43-101 and 43-101F1.

Dated in Culiacan, Sinaloa, Mexico, this 17<sup>th</sup> day of December 2023.

*“Original Signed and sealed on file”*

Joel Scodnick, B.Sc., P. Geo. (APGO # 1065), QP

## Table of Content

	PAGE
Date & Signatures . . . . .	i
Certificates of Authors. . . . .	ii
1. Summary . . . . .	1
2. Introduction . . . . .	3
3. Reliance on Other Experts . . . . .	3
4. Property Description & Location	
4.1 Location . . . . .	4
4.2 Exploration Rights . . . . .	5
4.3 Agreements . . . . .	5
4.4 Environment Liability . . . . .	6
4.5 Surface Rights . . . . .	6
5. Accessibility, Climate Infrastructure, Physiography	
5.1 Accessibility . . . . .	7
5.2 Climate . . . . .	8
5.3 Physiography Flora & Fauna . . . . .	8
5.4 Local Resources & Infrastructures . . . . .	9
6. History . . . . .	10
7. Geological Setting & Mineralization	
7.1 Regional Geology . . . . .	10
7.2 Local & Property Geology . . . . .	12
7.3 Property mineralization . . . . .	14
8. Deposit Type . . . . .	14
9. Exploration . . . . .	15
9.1 Satellite Imagery / Remote Sensing . . . . .	15
9.2 Topography . . . . .	16
9.3 Geophysics . . . . .	16
Seismic Refraction . . . . .	18
IP Lines . . . . .	19
9.4 Geology, Sampling & Analyses by AMCO . . . . .	20
Parguaza Granite . . . . .	20
Quaternary Alluvial Deposits . . . . .	22
Sampling & Analytical Results . . . . .	26
9.5 Geology, Sampling & Analyses by CanaMex . . . . .	27
Geology of Granite & Alluvial Deposits . . . . .	28
Mineralization . . . . .	32
Sampling . . . . .	32
August 2021 analytical Results . . . . .	35
10. Drilling . . . . .	41

11. Sample Preparation, Analyses & Security	41
12. Data Verification	42
13. Mineral Processing and Metallurgical Testing	43
14. Mineral Resource Estimates	43
23. Adjacent Properties	43
24. Other Relevant Data & Information	43
24.1 Critical Minerals	43
24.2 World REE 2020 production	45
24.3 Environment Liabilities	46
24.4 AMCO Report.	51
24.5 Vichada Meteorite Impact	53
24.6 Agualinda Property	53
25. Conclusion	55
26. Recommendations & Budget	56
27. References	58
Appendix I Sample Descriptions	61
Appendix II Analytical Results	63
Appendix III Auger Program	65
Appendix IV Assay Certificates	67

<b>List of Tables</b>	<b>PAGE</b>
I Property coordinates	4
II Location of pits and trenches	23
III AMCO analytical results	26
IV AMCO 500 g analytical results	27
V Locations of December 2021 samples	33
VI CanaMex August 2021 analytical results	36
VII Geochemistry of area 50 monazites	38
VIII Geochemistry of Au, Ag, Pt, Pd samples	39
IX Presence of critical metals on Minastyc	44
X World REE 2020 production	45

<b>List of Figures</b>	<b>PAGE</b>
1 Location map	4
2 Location on satellite image	7
3 Precipitations	8
4 Grassy plains	8
5 Inselberg	8
6 Rio Orinoco satellite image	9

---

7a Location of section . . . . .	11
7b Section of Llanos Orientales . . . . .	11
8 Geology of Guiana Shield . . . . .	12
9 Local satellite image . . . . .	13
10 Property topography . . . . .	16
11 Location of IP & seismic sections . . . . .	17
12-16 P wave seismic sections . . . . .	18
17-20 IP sections . . . . .	19
21 Granite inselberg . . . . .	20
22 Pegmatite vein . . . . .	20
23 Coarse grain granite. . . . .	21
24 Stratified ferricrete. . . . .	21
25 Granite alteration section . . . . .	21
26 Inselberg section . . . . .	22
27 Location of AMCO trenches & IP lines . . . . .	23
28 Deposit section . . . . .	24
29 Deposit section . . . . .	25
30 Deposit section . . . . .	25
31 Deposit section . . . . .	25
32 Deposit section . . . . .	26
33 Location of 2021 CanaMex samples . . . . .	27
34 Deposit section S00357753 . . . . .	28
35 Parguaza granite . . . . .	29
36 Sediment 1 . . . . .	29
37 Sediment 2 . . . . .	30
38 Lithified sediment 1 in sediment 2 . . . . .	30
39 Sediment 2 & 1 . . . . .	31
40 Sediment 3 & 4 . . . . .	31
41 Sediment 3 & 4 . . . . .	32
42 Heavy minerals . . . . .	32
43 2021 sample locations . . . . .	35
44 Geobotany spectral map . . . . .	41
45 World REE 2020 production . . . . .	44
46 Section of channels . . . . .	49
47 Hydraulic tanks . . . . .	50
48 Vichada meteorite impact . . . . .	53
49 Minastyc South location . . . . .	54

---

## 1. Summary

Following agreements dated September 9th and December 17th 2020, between U.B. Climaco Silvestre and AUXICO Resources Canada Inc. concerning the Minastyc property covering 189 ha., south of Puerto Carreño, Colombia, exploration in Quaternary alluvial deposits took place for Ta, Nb, Zr, Sn and Rare Earth Elements (REE's).

In Colombia, historically, alluvial mining has been carried out mostly for gold and is concentrated in both cordilleras in the western part of the country and is related to the proximity of gold sources. Exploration for alluvial heavy minerals, mainly magnetite and ilmenite, took place offshore in northern Colombia, along the Caribbean Sea. Inland, artisanal alluvial mining and exploration for heavy minerals (Ta, Nb and REE) are limited in the Vichada and Guaiana Departments and further south in the Rio Guaiana watershed and in Brazil and Venezuela border areas.

Exploration on the Minastyc property was carried out in 2020 and 2021 by AMCO Consultores (AMCO) and comprises topographic and photo-mosaic surveys, induced polarization (IP) and seismic refraction sections, pit and trench digging, geology, sampling and geochemical analyses. A satellite imagery analysis was produced by JAPOSAT Satellite Mapping.

Further exploration was carried out in August and December 2021 by Servicios de Minería CanaMex S.A. de C.V. (CanaMex). Joel Scodnick, one of the authors of the present report is the Qualified Person (QP) for AUXICO. Mapping and geology, sampling and geochemical analyses were carried out in the various existing pits and trenches.

The Minastyc property is located along the west side of Rio Orinoco, 12 km south of Puerto Carreño. It shows a flat relief and comprises Quaternary alluvial deposits made of thin soil, iron-rich horizons, oxidized silt, sand and grit, gravel, clay, and lateritic material. The alluvial deposits are underlain by Proterozoic Parguaza granite, locally showing as inselbergs on which a ferricrete alteration horizon is described. Seismic line surveys show a 3-5 m thick low speed P-wave surficial horizon. Only one IP line shows a 7 m thick high resistive continuous horizon.

Geological mapping of pits and trenches by CanaMex show a 50 cm thick iron and clay-rich fine to coarse grain horizon at surface underlain by 2 m of oxidized silt, sand, clay and grit (sediment 3 and 4) followed by a lithic and conglomeratic oxidized sandy horizon showing rounded quartz, altered feldspars and heavy minerals (sediment 1 and 2). At the base, the Parguaza granite is overlain by 1 m or more of saprock and saprolite in which cm size layered iron concretions (ferricrete) are found.

AMCO's samples were taken from vertical channels or from adjacent stockpiles and washed to produce concentrates. XRF analytical results from 500 g concentrates shows Ta-Nb-Sn values above 2%. Given the lack of detailed information the AMCO results are considered only qualitative showing the presence of columbo-tantalite, cassiterite, possibly Ta-rutile and zircon in the heavy mineral concentrates.

Sampling of the various pits and trenches by CanaMex in August 2021 was done in the vicinity of the granite inselbergs, to the southeast and in the center of the property where a bulk sample was taken on two close pits in Area 50. The fine concentrate showed total rare earth oxides (TREO) of 65.57% and the coarser fraction returned 68.25%. Coarse fraction of



another sample at the same location, area 50, returned 60.90% TREO and a pulverized duplicate returned 63.18% TREO.

Other samples were taken on the property along vertical channels and in adjacent stockpiles and washed to produce concentrates. XRF analytical results from fine-grained concentrates show high  $\text{TiO}_2$  and  $\text{ZrO}_2$  values between 16-30% and 3-26% respectively. Various element concentrations suggest the presence of ilmenite, rutile and possible Ta-rutile, zircon and / or baddeleyite, cassiterite and limited amounts of native Pt, Au, Pd and Ag. The bulk sample concentrate from Area 50 shows high  $\text{P}_2\text{O}_5$  and  $\text{ThO}_2$  values along with high Ce, Nd, La, Pr and Sm values. The composition is compatible with the presence of REE-rich monazite, columbo-tantalite, cassiterite and iron hydroxides in the concentrates.

The geological description and sampling by CanaMex in December 2021 resulted in a more precise understanding of the Minastyc stratigraphy and shows a concentration of fertile heavy minerals above the granite saprolite in conglomeratic sediment 1 and 2. The distribution of the stratigraphic sections being limited, an auger program for 2022 is proposed to cover the center and eastern parts of the property at 100 x 100 m grid.

In a world favorable context for critical metals and minerals, the exploration of the Minastyc property by AMCO and CanaMex in 2020 and 2021 in Eastern Colombia, shows high Ta, Nb, Zr, Sn, and REE values in heavy mineral concentrates. It suggests potential for at least three alluvial deposits that should be fully evaluated following recommendations in 2022.

Given all the results presented in this report, the authors conclude that the alluvial deposits of the Minastyc Property show anomalous concentrations of Sn, Ti, Ta, Nb and REE, Au and Pt, and that with further detailed work, there is an opportunity of outlining a deposit of economic worth, should enough material, grade, and continuity of the alluvial's be established. Further exploration is required to fully assess the economic potential for Sn, Ti, Ta, Nb and REE, Au and Pt of the alluvial deposits of the Rio Orinoco in Colombia.

Following the analytical results and the stratigraphic works carried out on the Minastyc property in 2020 and 2021, and based on the positive results obtained in these field seasons, it is recommended to engage in a detailed exploration program for 2022-2023. A budget of USD 797,880 is recommended.

An auger program should be undertaken in order to map, sample and study the stratigraphy of the entire property. A 50 or 100 m spaced and staggered row grid should be established. The holes should reach 7 to 8 m or stopped at the water table and carefully sampled every meter or according to the various sedimentary units.

## 2. Introduction

The following provides an NI 43-101 compliant report of the REE Ta and Nb heavy minerals of the Minastyc property, Vichada department, Colombia. Major interest in the project was acquired by AUXICO Resources Canada Inc. following *purchase agreements* dated September 9th and December 17, 2020, with Climaco Silvestre Unda Barrios, owner of the property.

Recent exploration on the property was carried out by AMCO Consultores and Servicios de Minería CanaMex S.A. de C.V. The present Technical Report describes historic works, mineralization types and metal potential of the property. Information has been gathered from a number of government maps, independent scientific papers and technical reports, unpublished internal studies, maps and various geological sources. The author, Joel Scodnick, P. Geo., qualified person (QP) for AUXICO visited the Minastyc property on 3 occasions from August to December 2021.

AUXICO Resources may use this Technical Report to satisfy disclosure and filing requirements of Canadian securities regulators. This report has an effective date of March 28, 2022.

Units of measurement used in this report conform to the SI (metric) system. REE, Ta and Nb values are reported in percent (%). Some metals may be reported in ppm or g/t and as ppb. All currencies are US dollars (US \$) unless otherwise noted.

### LIST OF ABBREVIATIONS

m, km	meter, kilometer
mm, cm	millimeter, centimeter
ha	hectare
g, g/t	grams, gram/ton (equivalent to ppm)
GPS	geographical positioning system
ppm, ppb	parts per million, parts per billion
a.s.l.	above sea level
°C	degree Celsius
REE's	Rare Earth Elements
EM	Electro-magnetic
IP	Induced Polarization
UTM	Universal Transverse Mercator (projection)
WGS84	World Geodetic System (datum)

## 3. Reliance on Other Experts

The authors did not rely on any other experts to carry out the present technical report.

## 4. Property Description and Location

### 4.1 Location

The Minastyc property is located in the department of Vichada in eastern Colombia, 870 km by road east of Bogota via Villavicencio and Puerto Carreño at the junction of the Rio Meta and the Rio Orinoco. The property is located 12 km south of Puerto Carreño immediately west of the Rio Orinoco near the Casuarito village and covers 188,74 ha. It is limited by the following zone 19N UTM coordinates, Table I, Figure 1.



Figure 1 : Location of the Minastyc property 870 km east of Bogota, Colombia.

Table I : Minastyc property coordinates.

Id	X	Y
1	666893	670509
2	667444	670513
3	667445	670403
4	667885	670398
5	667886	670293
6	668217	670290
7	668223	670179
8	668655	670184
9	668665	670079
10	668995	670070
11	668993	669855
12	668881	669854
13	668884	669637
14	668775	669631
15	668776	669304
16	668666	669300
17	668664	669192
18	668556	669191
19	668553	669301
20	668223	669305
21	668217	669411
22	667781	669407
23	677771	669516
24	667448	669519
25	667442	669625
26	667005	669628
27	667002	669732
28	666672	669742
29	666666	669844
30	666557	669850
31	666553	669955
32	666667	669961
33	666669	670176
34	666776	670182
35	666780	670399
36	666889	670401

WGS84 UTM z 19N

## 4.2 Exploration Rights

### Promise of contract for the assignment of rights derived

From the request for mining legalization identified with Plate No. LFH-14431X before the National Agency of Mining that is regulated by the following clauses:

Ninth: Object of the contract: The **promising assignor** agrees to transfer in favor of the **promising assignee** by way of assignment of all the rights emanating from the mining transfer contract that results from the mining legalization process identified with the Plate No. LFH-14431X that is in the process evaluation at the National Mining Agency, headed by the promisor cedent Mr. Climaco Silvestre Unda Barrios (Climaco) identified with citizenship card no. 18.260.655, understanding that there are still some procedural stages missing in the legalization process that is being carried out at the National Agency for Mining and that through this document Mr. Climaco assigns in advance the future rights emanating from the mining title granted by the Mining Authority in this process of mining legalization, that is, through this document a clear obligation arises and expresses in the head of Mr. Climaco as **assignor** so that, once he is registered the mining concession contract that arises from the process of evaluation of the request for legalization identified with the plate LFH-14431X and is registered in the National Mining Registry, it will proceed immediately before the ANM with its position, as established by the Article 22, 23 and 24 of Law 685 of 2001, who will initiate the corresponding procedures to carry out the Assignment of Rights that emanate from the mining concession contract.

## 4.3 Agreements

On December 14, 2020 AUXICO Resources Canada Inc. entered into a Promise of Sale of Property and Possession of Property Denominated as Minastyc with Mr. Climaco, a resident of the municipality of Puerto Carreño, Vichada, Colombia. Under the Agreement, Mr. Climaco undertakes to transfer to AUXICO the rights of possession of Minastyc for a period of sixty-years through a request for title clearance with the National Mining Agency. The legal title of the property is identified with Plate No. LFH-14431X by the National Mining Agency. AUXICO has agreed to pay Mr. Climaco a total of COP 750,000,000 equivalent to CAD 242,457 for Minastyc as follows:

- COP 150,000,000 on signing the Promise of Sale Contract – PAID
- COP 300,000,000 to be transferred at 4 (four) business days after signing the Promise of Sale Contract – PAID
- COP 150,000,000 to be transferred after the PTO has been completed and the Temporary Mining Licence having been issued by the National Mining Agency.
- COP 150,000,000 to be transferred after signing the mining concession contract that arises from the legalization process and the request approved by the National Mining Agency in favor of AUXICO, and the signature of the public deed that recognizes the Promise of Sale Contract in relation to the sale of real estate.

AUXICO Resources Canada Inc. signed an Operational Contract with Minampro Asociados S.A.S. (Minampro) for the Minastyc Property. Minampro is a Colombian company dedicated to the exploration, exploitation and commercialization of minerals. The company

has extensive experience in the mineral sector and especially in the development of activities with several indigenous communities in Puerto Carreño, Vichada. Under the Operational Contract, Minampro will undertake the geological prospecting and exploration activities necessary for the identification, feasibility, and development (including construction of underground and surface infrastructure) of any possible mineral resources to be developed in the future, should they be proven to exist, located in the areas of the Application and/or the Property. AUXICO undertakes to pay the consideration provided in the Operation Contract. Minampro will carry out the above-mentioned activities in accordance with the technical document as provided in the Operation Contract at its own risk with its own resources with full managerial, technical and administrative autonomy.

Any mineral or resource that may be extracted by Minampro in execution of the Operational Contract, and/or in the area of the Application and/or the Property, is the exclusive property of AUXICO. According to the Operational Contract Minampro will issue an invoice to AUXICO on a monthly basis and AUXICO must pay the invoice within fifteen (15) days by electronic funds transfer (EFT).

#### **4.4 Environmental Liabilities**

The Minastyc property is located on the west side of the Orinoco River. AMCO Consultores (AMCO) out of Bogota, Colombia have conducted numerous technical and environmental studies within the subject area and have just produced a very detailed document call a “PTO”, translated into English is a Program of Work and Exploitation Work for the legalization of Mining on title LFH-14431X – Mining Project Minastyc. AMCO have outlined a series of steps required in order to help mitigate environmental liabilities in the future once the project will the small scale mining permit issued by the National Mining Agency and work can commence (AMCO, 2022).

Outlined in detail in section 24 below are the environment mitigations as described by AMCO in their report dated December, 2021.

AUXICO’s QP Joel Scodnick, P. Geo., was onsite on various occasions in 2021 and have seen AMCO consultants in the field carrying out different environmental tests.

There is currently a camp onsite which houses approximately 17 employees including technical assistants, cook, helper, and administration. There are two washrooms with toilets and a shower. There is one building constructed out of wood and a shanty type of kitchen area.

#### **4.5 Surface Rights**

The Minastyc property is subjected to surface rights or obligations as defined by regulations of the National Mining Agency (NMA) and Ministerio de Ambiente of Colombia.

## 5. Accessibility, Climate, Physiography, Local Resources and Infrastructures

### 5.1 Accessibility

The Minastyc property is located 870 km east of Bogota, Colombia, at the eastern end of the *Llanos Orientales* and can be reached via commercial daily flight from Bogota to Puerto Carreño or by using Highway 40 through Villavicencio to Puerto Carreño located at the junction of the Rio Meta and the Rio Orinoco, Figure 1. Eastern Highway 40 may be hazardous especially during intense precipitations. From Puerto Carreño, the property can be reached by boat on the Rio Orinoco some 14 km to the south or by road, 60 km from Highway 40 to the south and to NNE on dirt roads and tracks in grassy flat lands, Figure 2.



Figure 2 : Location of the Minastyc property on a satellite image also showing the main town, Puerto Carreño at the end of Highway 40, to the north, the Orinoco River and dirt roads and tracks. Image after Google Earth.

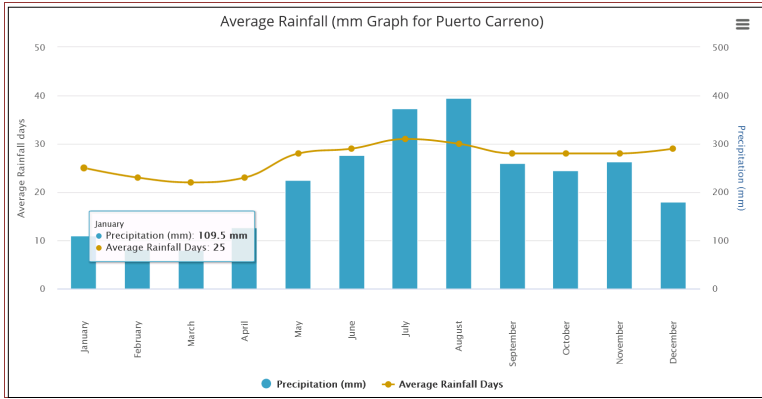


Figure 3 : Precipitations in the Minastyc property area.



Figure 4 : Grassy plains of the Colombia Llanos Orientales. Photo AMCO.

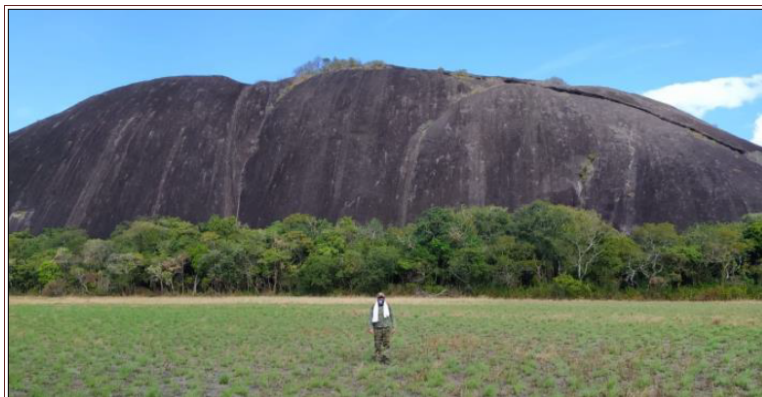


Figure 5 : Granite inselberg surrounded by gallery forest. Photo AMCO.

## 5.2 Climate

The property area shows a wet tropical climate with temperatures averaging 19 to 21° C at night and 30 to 33° C during the day. Temperatures may reach near 45° C between January and April before the rains. Humidity is normally above 77% and precipitations vary from 80 mm in 22 days in March to 390 mm in 30 days in August for an average of 2.5 m per year, Figure 3

## 5.3 Physiography, Flora & Fauna

The Minastyc property is located along the Rio Orinoco on the Colombian side in grassy flat lands with elevation averaging 55 m a.s.l. It is located at the limit between heavy forest high lands of the Guiana Shield on the eastern Venezuela side and the grassy savanna plains, Figure 4 and gallery forests (along streams) of the *Llanos Orientales* to the west, Figure 6. The property area shows barren white light brown color on the satellite image distributed on both sides of the river related to specific sandy quaternary deposits accumulated over the millenniums along the Rio Orinoco, specific grass vegetation and limited forest cover along streams. A concentration of forest also exists around number of granite inselbergs distributed all along and on both sides of the Rio Orinoco, Figure 5.

The eastern savanna of Colombia shows one of the richest tropical flora and fauna of South America locally threatened by cattle farming, deforestation and other human activities. More than 2000 species of plants are reported belonging to more than 800 genera and 180 families. With respect to fauna and as example roughly 35% of the 1700 bird species of Colombia and 28 amphibian, 119 reptile and number of mammal species are found in the *Llanos Orientales*. It comprises Orinoco crocodile, python, and other snakes, capybara, large felidae, rodents, etc. Further details can be found in Parra-O. (2006), AMCOa (2021) and AMCOB (2021).

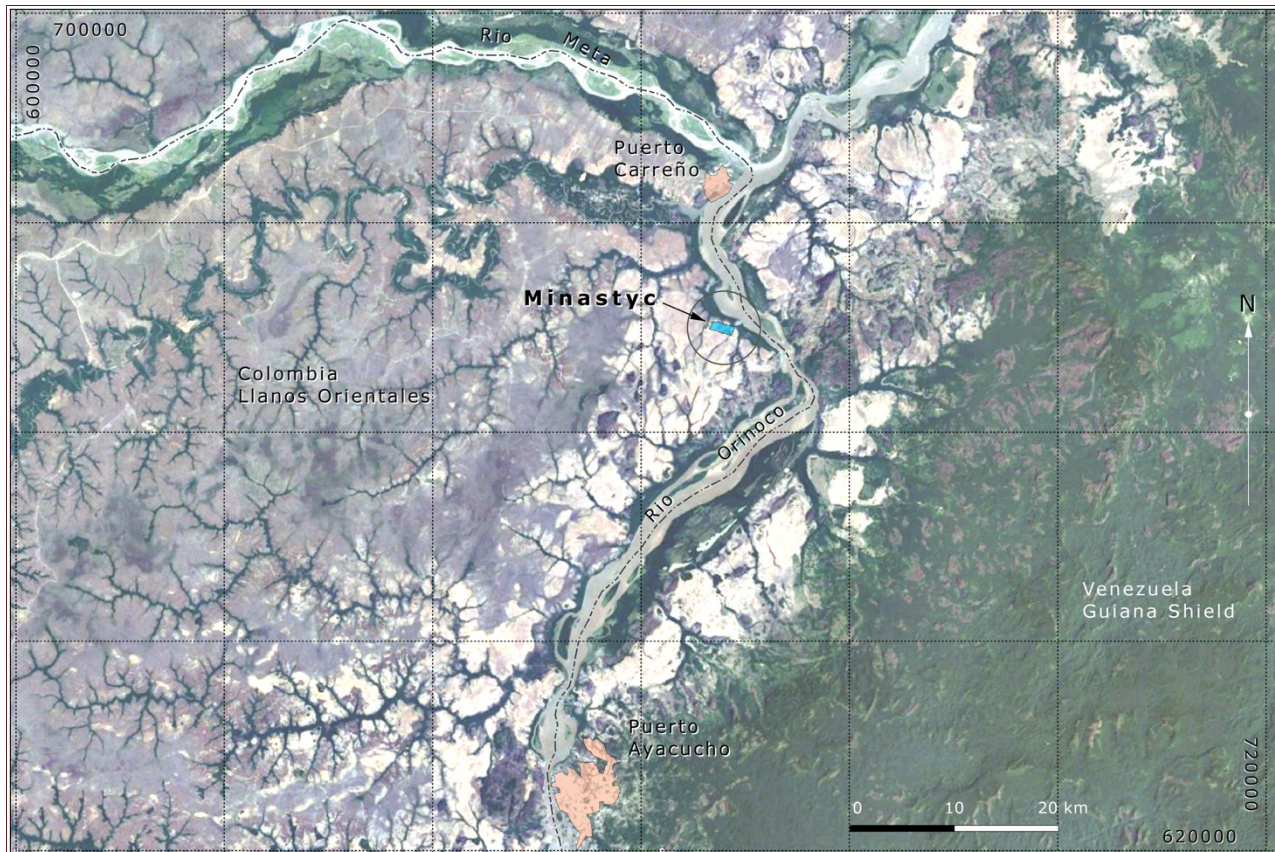


Figure 6 : Physiography of the property area along the Rio Orinoco at the limit between higher relief and forest cover of the Guiana Shield to the east and grassy flat plains of the Llanos Orientales to the west. Image after Google Earth.

#### 5.4 Local Resources & Infrastructures

Limited resources and infrastructures do exist in Puerto Carreño, 15 km north of the property. The accessibility of supplies necessary for exploration is hampered by the lack of direct connection between the property area and the nearest town. For example electricity generator and heavy machinery should be supplied from Villavicencio and Bogota, 870 km to the west. Some of the mining personnel may be hired locally.



## 6. History

In Colombia, historically, alluvial mining has been carried out mostly for gold and is concentrated in both cordilleras in the western part of the country and is related to the proximity of gold sources. See Rodriguez and Warden (1993) and UNODC (2020) for more details. Exploration for alluvial heavy minerals, mainly magnetite and ilmenite, took place offshore in northern Colombia, along the Caribbean Sea (Volp et al., 2009). Inland, artisanal alluvial mining and exploration for heavy minerals (Ta, Nb and REE) are limited in the Vichada and Guaiana Departments and further south in the Rio Guaiana watershed and in Brazil and Venezuela border areas. See Franco Victoria et al., (2021).

Prior to any work conducted by CanaMex on behalf of Auxico, the only activities on Minastyc comprised several exploration pits dug in two general areas of the property. The results are unreliable as there was no supervision of any qualified geologist, nor were the coordinates of the pits measured using a GPS unit. The camp manager was responsible for hiring staff in the field, whom in turn dug up the pits using shovels and pics. No machines were used during this program as there was no environmental permit issued at that time. In Colombia, without an environmental permit it is prohibited to utilize any machinery on mining property. There is no other work having been recorded on the Minastyc Property.

## 7. Geological Setting & Mineralization

### 7.1 Regional Geology

The Minastyc property is located in fluvial Quaternary deposits on the west side of the Rio Orinoco. Further west, the flat lands are underlain by Cenozoic and Mesozoic (Cretaceous) deposits. A W-E section through the Llanos Orientales from the Front Thrust of the Eastern Colombian Cordillera to the Rio Orinoco, Figure 7a shows change of altitude from Yopal, 350 m a.s.l. to Puerto Carreño on the Venezuela border, 55 m a.s.l. It shows a sub-horizontal succession of Cretaceous to Neogene sequences, favorable for hydrocarbons Figure 7b (see Barrero et al., 2007). At the east end of the Mesozoic to Cenozoic successions, the contact must be discordant on and / or in faulted position with the Mesoproterozoic granite that forms the western portion of the Guiana Shield in the Rio Orinoco large area, Figure 7b.

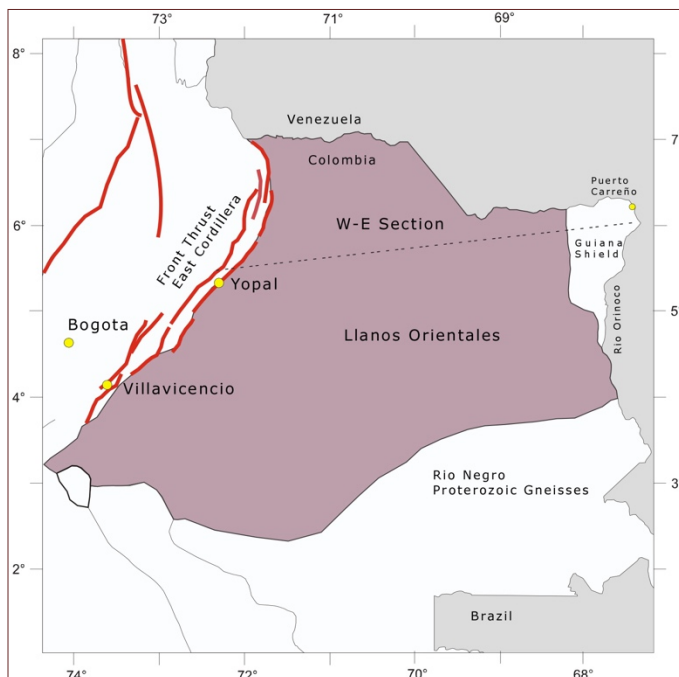


Figure 7a : Location of W-E section through the Llanos Orientales from Yopal to Puerto Carreño on the Rio Orinoco. Modified from Barrero et al. (2007).

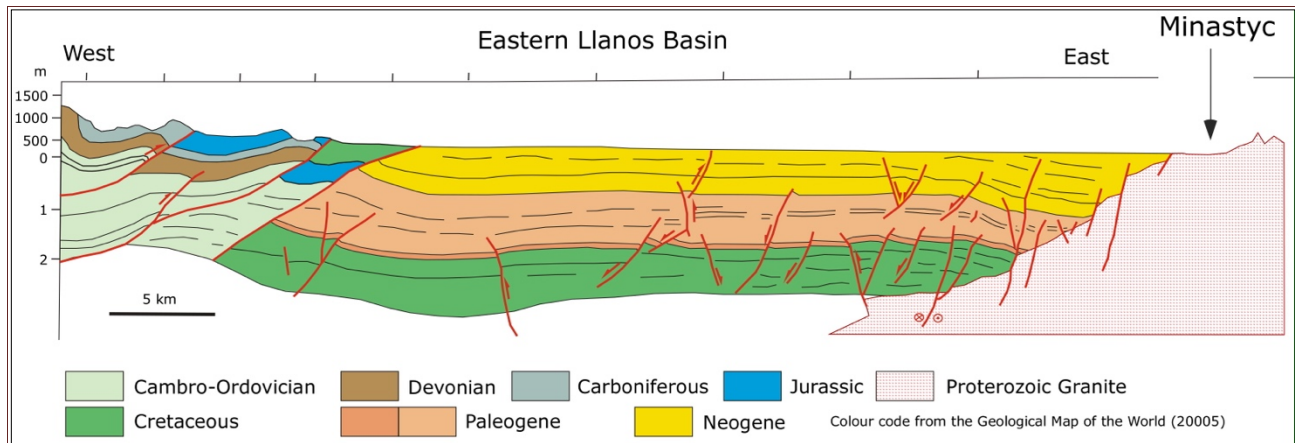


Figure 7b : Section through the Meso to Cenozoic cover of the Llanos Orientales to the Mesoproterozoic granite of the western Guiana Shield. Modified from Barrero et al. (2007).

The eastern plains of Colombia (Llanos Orientales) Neogene and Quaternary deposits are mostly composed of proximal and more distal sedimentation originating from the Eastern Cordillera (molasses) and higher grounds to the west. It also originates from slow dismantling of the Guiana Shield high grounds to the east and south and from aeolian processes, Figure 7b. Along the Venezuela / Colombia border, further east in the Rio Meta and the Rio Orinoco area, recent deposits are mostly fluvial, composed of grit, gravel, sand, iron oxide and hydroxide, clay, etc. See Goosen (1971) for more details.

The western part of the Guiana Shield shows Mesoproterozoic age (Calymmian) anorogenic granitoids intruding the Paleoproterozoic migmatitic and metasedimentary Rio Negro Terrane, Figure 8. The largest magmatic unit, the Parguaza rapakivi granite stands across the Rio Orinoco and further west and east and southeast and covers more than 30 000 square km. It also intrudes older Trans-Amazonian granites and volcanic sequences and shows ages from 1.55 to 1.40 Ga. Non mineralized anorogenic megacryst biotite granite intrusions with ages around 1.55 Ga abound in the Rio Negro succession block (Bonilla-Pérez et al., 2013, Kroonenberg et al., 2016, 2019a and 2019b, Ibanez-Mejia and Cordani, 2020).

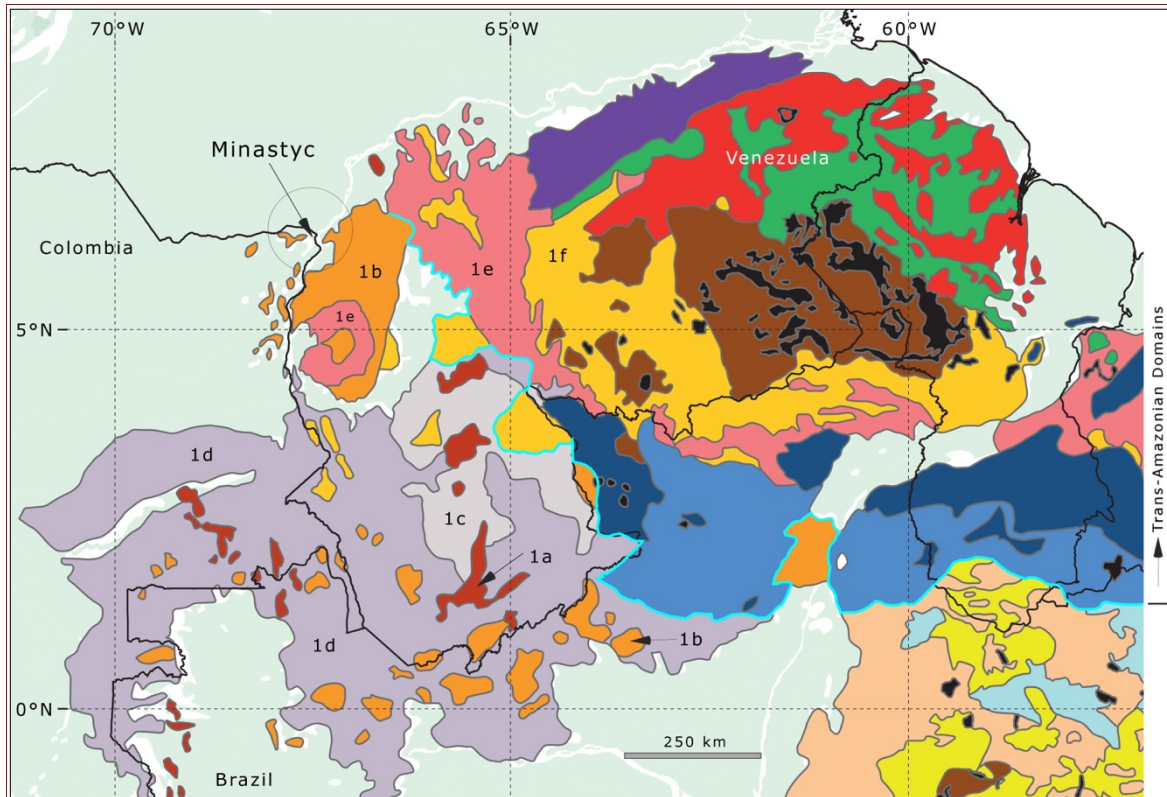


Figure 8 : Western portion of the Guiana Shield showing the location of the Minastyc property with respect to Mesoproterozoic anorogenic granites intruding the Rio Negro sequences and older granites. The Trans-Amazonian Domains are older from Mesoproterozoic to Archean ages. After Kroonenberg et al. (2016 and 2019).

**1a** : 1.3-1.2 Ga platform sandstones, **1b** : 1.6-1.5 Ga Parguaza rapakivi granites, **1c** : 1.8 -1.72 Ga Rio Negro magmatic basement, **1d** : Rio Negro high grade paragneisses, **1e** : 2.0-1.95 Ga felsic volcanics and granitoids, **1f** : felsic metavolcanics

## 7.2 Local & Property Geology

The Minastyc property is located within the Parguaza rapakivi granite showing local ages from 1.392 to 1.402 Ga and represents one of the largest anorogenic granite lacking tectonic deformation (Bonilla-Pérez, 2013, Kroonenberg, 2019b). The property is located at least 100 km east of the western border of an anorogenic large batholith, see section in Figure 7b. The property also lies in recent Holocene detrital mostly alluvial and coluvial deposits formed along the Rio Orinoco and the tributary rivers. Limited contemporary aeolian dune and loess deposits are also recorded in the property area (Gomez and Montes, 2020). It is possibly underlain by older Pleistocene and Neogene deposits. The property also shows high relief windows of Parguaza rapakivi granite (inselberg), Figure 5 and Figure 9. The inselbergs are all surface expression of the Parguaza anorogenic rapakivi granite forming the basement to the alluvial deposits of the Rio Orinoco watershed basins and plains (see below).

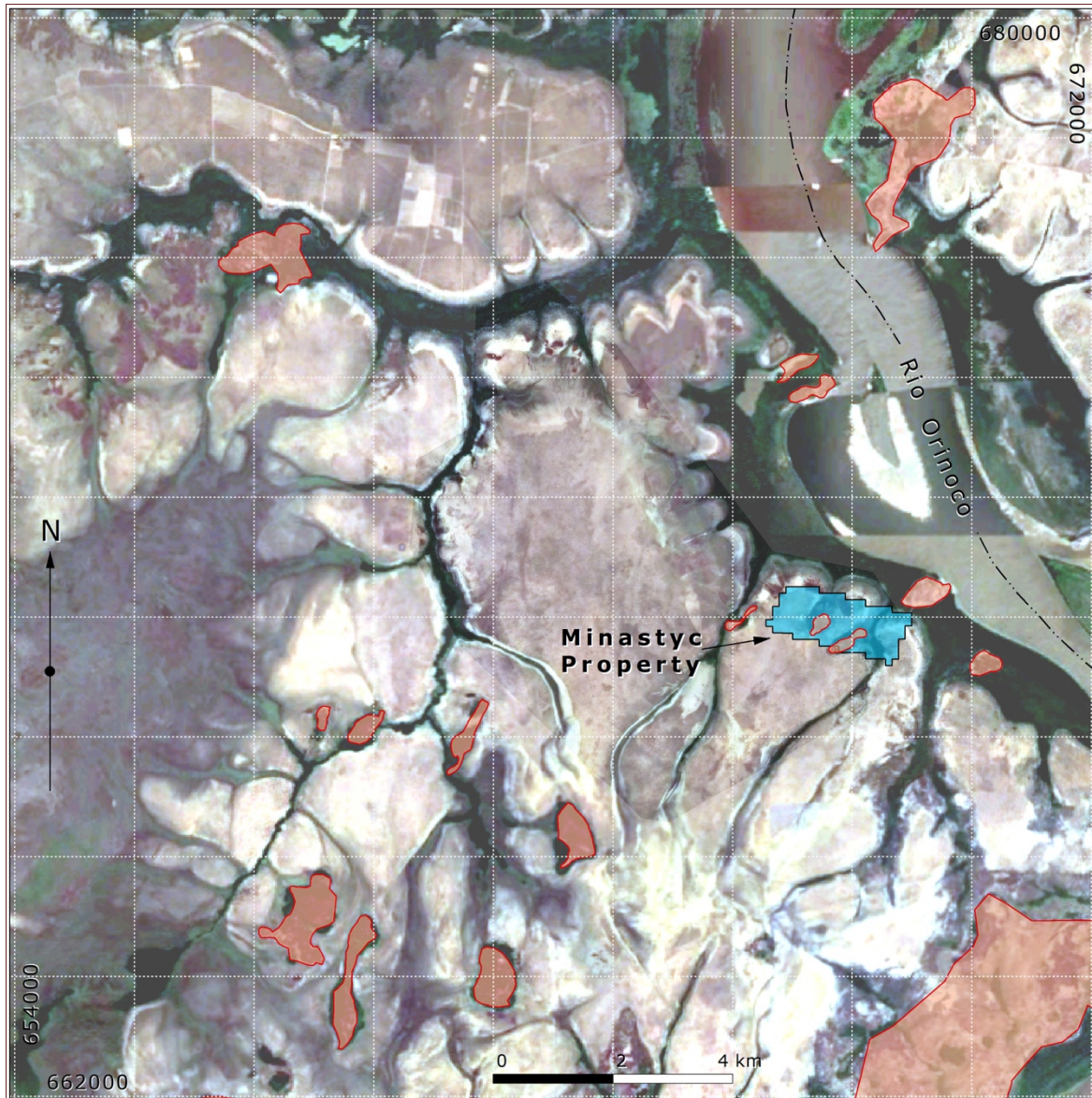


Figure 9 : Distribution of the Parguaza granite inselbergs in the Minastyc property area forming high relief windows (light brown closed surfaces) in extended Holocene detrital sediments, local aeolian deposits and soils. Image after Google Earth.

The anorogenic granites of the western Guiana Shield have long been studied for geochemistry and geochronology. See Sidder and Mendoza (1995) for extended references. More recent works by Bonilla-Pérez et al., (2013) on the geochemistry of the granite in Colombia showed 66.7 to 75% SiO<sub>2</sub>, 11.1 to 14.5% Al<sub>2</sub>O<sub>3</sub>, 5 to 7.5% K<sub>2</sub>O and 2.9 to 5.4% Na<sub>2</sub>O, etc. falling in the syeno and monzo-granite fields of Streckeisen classification. It shows granoblastic texture, with mm to cm crystal sizes, well developed rapakivi textures, biotite-hornblende, Na amphibole and aplite internal phases and late aplite, granodiorite, pegmatite and quartz dykes and veins. The Parguaza granite fall into late to anorogenic geochemistry field in the R2-R1 diagram of Batchelor and Bowden (1985) cited in Bonilla-Pérez et al., (2013).

### 7.3 Property Mineralization

The property mineralization are located within the Neogene alluvial sediment horizons underlying the top soil and composed of lithic fragments of granite and pegmatite, gravel, grit, conglomeratic sand, iron oxide and hydroxide, silt and clay. According to a recent studies in the property area, it is mostly composed of Ti, Nb, Ta, Sn,  $\pm$  Zr  $\pm$  V and REE minerals like

**Ilmenite** ( $\text{Fe}_2\text{TiO}_3$ ), **Columbo-Tantalite** ( $(\text{Mn,Fe})_4(\text{Nb,Ta})_8\text{O}_{24}$ ,

**Cassiterite** ( $\text{Sn}\pm(\text{Ta,Nb,W,Mn,Sc})\text{O}_2$ ), **Monazite** ( $(\text{Ce,La,Nd,Th})\text{PO}_4$ ),

**Ta-Rutile** ( $(\text{Ti,Ta,Fe})\text{O}_2$ ), etc. showing variable alteration and dissemination in detrital alluvial horizons below the top soil (AMCOa, 2021). These minerals are known to be contained in the Parguaza rapakivi granite mostly concentrated in the late pegmatitic and aplitic phases and in greisen zones related to hydrothermal alteration (see also Cramer et al. 2011, Franco et al., 2021 and below).

## 8. Deposit Types

Ta, Nb, Sn and REE mineralization area known to be found in various magmatic Precambrian and younger environments and associated with HFSE (high field strength element) U, Th, Ti, Cs, Be, Li, Zr, V, W, etc. Rare-element or metal producing districts of the world are dominantly associated with peralkaline and peraluminous granitoids. See Linnen and Cuney (2005), Schulz et al. (2017) and Van Gosen et al. (2017) for a review and details on mineral geochemistry and mining.

Various deposit types can be classified as

- *pegmatite-related Ta*, - *peraluminous granite-related Ta  $\pm$  Nb*, - *carbonatite-related Nb* and - *peralkaline complex-hosted Nb-Ta-REE* (Mackay and Simandl, 2015).

Comparable mineralization are also known in various anorogenic granite of Proterozoic ages in shields of Finland, India and Guiana. The Parguaza granite is located in the western parts of the Precambrian Guiana Shield straddling Venezuela and Colombia and shows Sn, Ta, Nb, W, Zr, Hf, Ga, Ge, Re and REE ( $\pm$  U, Th, Mn) mineralization expressed as cassiterite, columbo-tantalite, monazite, rutile, pyrochlore, ilmenite and other complex minerals.

It should be mentioned that the important Pitinga tin (Sn) mine is located in the Agua Boa granite in Brazil. It can be correlated with rapakivi anorogenic granite of Mesoproterozoic ages like the Surucucus granite also in northern Brazil. Moreover the major Pijiguaos bauxite deposit is developed in the laterite profile of the Parguaza granite in Venezuela (see Sidder, 1990, 1995, Cramer et al., 2010, Mackay and Simandl, 2015 and Kroonenberg et al., 2019a).

Sn, Ta, Nb, REE, W, Ti and Zr mineralization are known to exist in quartz pegmatite, aplite veins and greisen zones (quartz-muscovite-fluorite, tourmaline, etc.) of the Parguaza granite (Pérez et al., 1985, Sidder, 1990, 1995, Kamilli et al., 2017). It follows that local mineral concentrations do exist all along the alluvial and coluvial sedimentation of the Rio Orinoco and Rio Negro watersheds in the Vichada and Guainia Departments. It shows the same minerals as above with various alteration, presence of iron oxide and hydroxide and possibly local pure metal concentrations due to the

destruction of the various phosphate and oxides (Bonilla Pérez et al. 2013a and Franco et al., 2021).

## 9. Exploration

Exploration works took place on the Minastyc property from 2020 to 2021 and was carried out by Jaramillo (2021), JAPOSAT Satellite Mapping, AMCO Consultores and Servicios de Minería CanaMex S.A. de C.V.

Following works done in 2019 by Juan Guillermo Garcia and JAPOSAT remote sensing analyses, geologist, M. Jaramillo visited the property in late 2020 and early 2021 while working on the Venezuelan side of the Rio Orinoco in similar mineralized Parguaza granite, saprolite and alluvial deposits. The author claims coltan (Ta<sub>2</sub>O<sub>5</sub>) mineralization in Minastyc but the information remains qualitative as he does not provide sample coordinates or certificates of analyses (Jaramillo, 2021).

AMCO Consultores carried out various exploration works in 2020 and 2021, including drone photo-mosaic surveying and topography, hydrology and pedology works, surface geology, geophysics, surface sampling, geochemistry, mining geology and engineering and environmental and social baseline study (AMCOa, 2021).

Servicios CanaMex carried out surface geology, sampling and analytical works in 2021 (Pelletier and Scodnick, 2022).

### 9.1 Satellite Imagery / Remote Sensing

JAPOSAT produced various images of the Minastyc property area based on satellite data as follow (Popiela, 2020).

**1-Multispectral geobotany** and litho-structural mineral targeting was applied to map the spectral anomalies of the vegetation and the surface geochemistry, to map the litho-structural features in the rock types, to combine the geobotanical and soil results with the litho-structural interpretation and to identify mineral exploration target areas.

**2- 50 cm resolution images** were produced using - Pleiade's bands 1, 2, 3 enhanced for geology to produce a natural color composite image- Pleiade's bands 1, 2, 4 used to produce a false infrared color composite image - Landsat's band 10 and 11 used to produce a radiance image.

Note that these images were produced on the property area, AOI-1 and in the area adjacent to the southwest, AOI-2. 50 cm AOI-1 natural color image is used in the present report. Fracture lineament map was produced using the radiance image and lithological and sampling target maps were produced from the geobotany spectral data. Such a map is presented along with 2021 analytical results at the end of section 9.5 below.

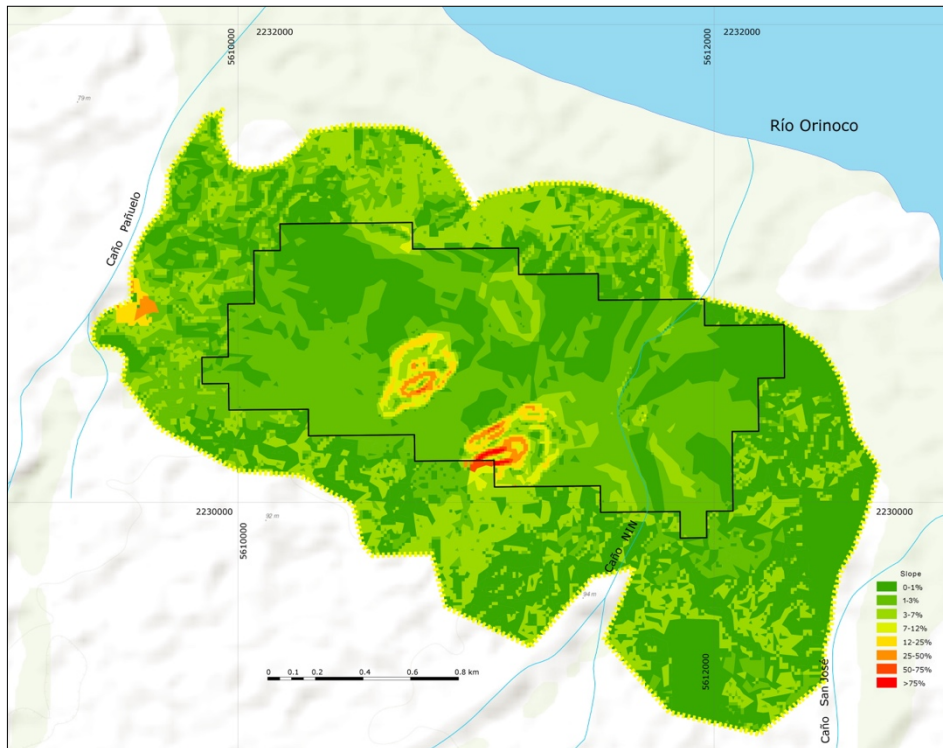
JAPOSAT produced a similar report on areas surrounding the Minastyc property with lineament, spectral analytical, recommended sampling and flow accumulation maps using high resolution satellite and radar images (Popiela, 2021).

*Note that the various satellite images were referenced using datum WGS84 in UTM zone 19 projection.*

## 9.2 Topography

The topography of the property area was carried out by AMCO through photo-mosaic and land surveying. The following map gives detail information on the variation of relief on the property outlining the presence of granite inselbergs, Figure 10 (See also Figure 5). Note the general flatness of the property all around the inselbergs, the light slope toward the Rio Orinoco from 93 m to 79 m a.s.l. from south to north of the property, the proximity of the Rio Orinoco, less than one kilometer and the presence of NNE oriented streams on the property, the Caño Panuelo, Caño NN and Caño San José.

Note that the maps produced by AMCO Consultores (AMCOa, 2021) were projected using Magna-Sirgas CMT12 datum in Traverse Mercator projection with 4° N, 73° W



reference coordinates. Also a photo-mosaic quality report does exist in the database for the Minastyc property, but no data was provided to the authors of the present report.

Figure 10 : Topography of the Minastyc area showing the flatness of the property around the granite inselbergs and the proximity of the Rio Orinoco. After AMCOa (2021).

## 9.3 Geophysics

Two different geophysical surface techniques were applied on the Minastyc property by AMCO Consultores. In order to assess the nature and stratigraphy of the alluvial and coluvial sedimentation at shallow depth, 5 seismic refraction lines and 4 IP lines were tested on the Minastyc property, Figure 11. Results from Figure 12 to 16 show consistency in the thickness of the top deposit from line LS1 to LS2, a decrease toward line LS3 and increase again from line LS4 and LS5. The top of the lines shows the following wave velocity characteristics (in meter per second, m/s) :

Line Vp	Line Vp	Line Vp
LS1 : 245 m/s	LS3 : 271 m/s	LS5 : 331 m/s
LS2 : 292 m/s	LS4 : 229 m/s	

According to AMCOa (2021) these low P wave velocities are related to a sterile top horizon of about 5 m thickness mostly composed of quartz grit and gravel sands. It could be confirmed by resistivity line T1 although the top resistive horizon seems much thicker. Line T3 also shows a thin resistive top horizon that could be correlated with line T1, Figure 17 to 20.

P and S wave velocities do vary a lot in the same alluvial or detrital horizon and is dependent upon density, porosity, granulometry, water and mineral oxide and hydroxide content, etc. Similarly, it should be noted that the conductivity of alluvial or detrital sedimentation does increase with water and electrolyte content and porosity.

It should be noted that if the resistivity images provided by AMCOa (2021) are pseudo-sections, data should be reprocessed to get inversion sections.

Shallow probing of alluvial sediments using seismic refraction and IP methods should be accompanied with direct access to nearby grounds by means of pits or trenches parallel to the IP or seismic lines and used as comparative tools to make precise geological descriptions and sampling, describe precise stratigraphy and ground structures and make sound correlations.

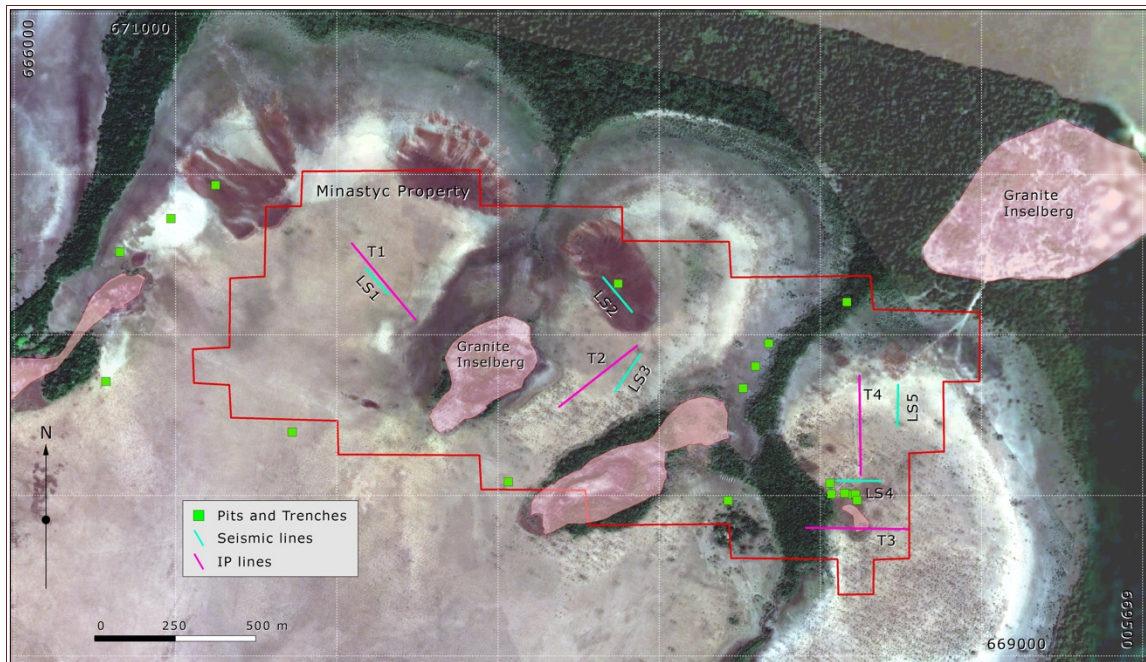


Figure 11 : Detail satellite image with the distribution of pits and trenches, seismic and IP lines carried out by AMCO Consultores on the Minastyc property. Note the presence of the granite inselbergs.



### Seismic Refraction (P wave)

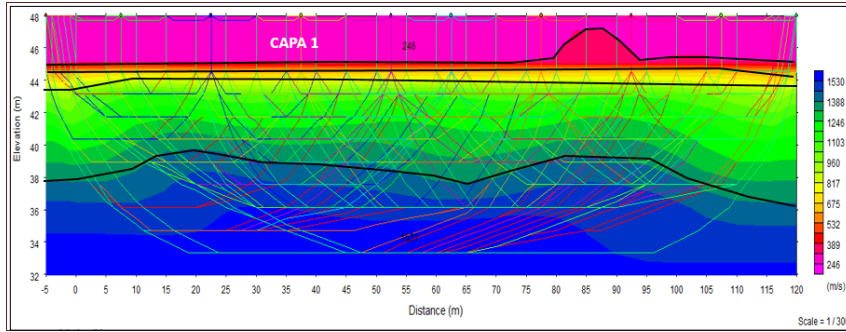


Figure 12 : Refraction line LS1 showing wave speed of 245 m/s over 3.75 m defining a relatively homogeneous top layer, with variations in lower units.

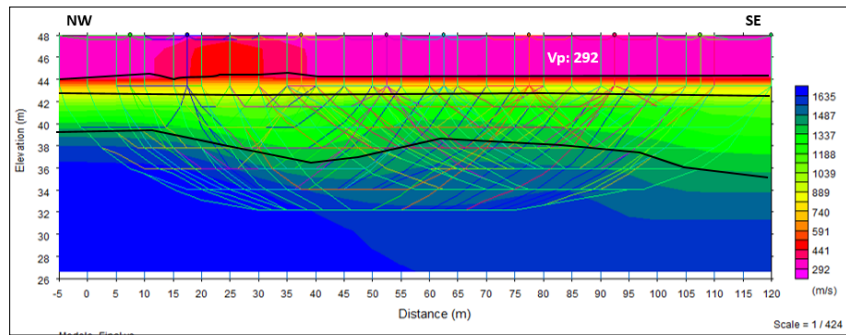


Figure 13 : Refraction line LS2 showing wave speed of 292 m/s over 4 m defining a relatively homogeneous top layer and thickness increase in lower units from NW to SE.

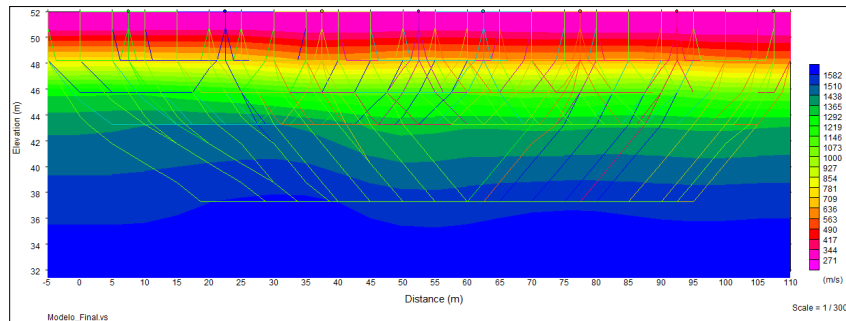


Figure 14 : Refraction line LS3 showing wave speed of 271 m/s over 3 m defining a relatively homogeneous top layer.

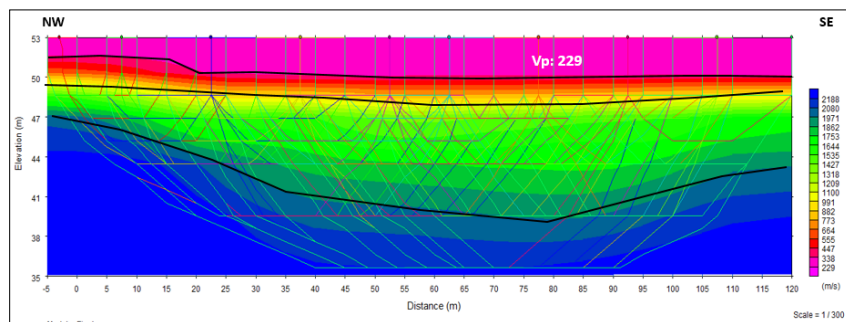


Figure 15 : Refraction line LS4 showing wave speed of 229 m/s over 2.5 m defining a constant top layer.

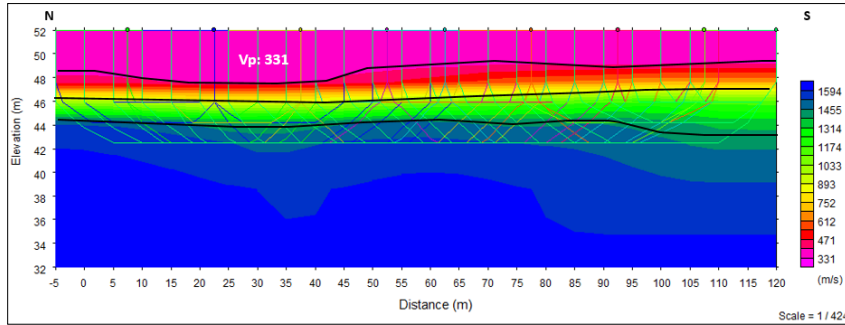


Figure 16 : Refraction line LS5 showing wave speed of 331 m/s. It defines a top layer varying from 3 to 5m.

IP Lines

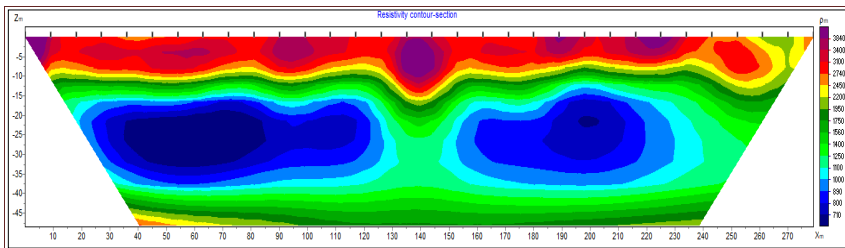


Figure 17 : Resistivity pseudo-section T1 showing higher conductivity below 15 m and homogeneous top high resistive top unit 7 m thick.

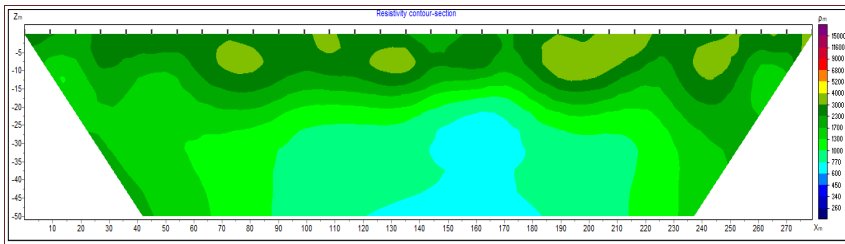


Figure 18 : Resistivity pseudo-section T2 showing medium resistivity in the top 10 m decreasing at depth.

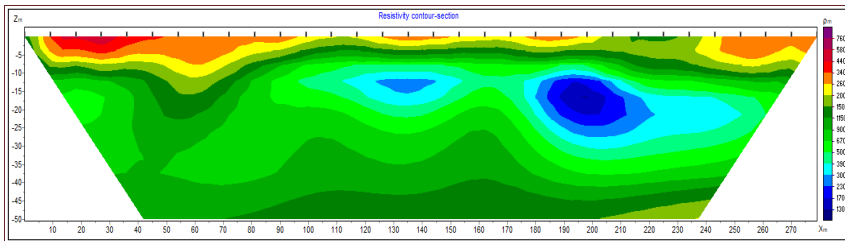


Figure 19 : Resistivity pseudo-section T3 showing higher resistivity in the top 5 to 7 m decreasing between 15 to 25 m depth.

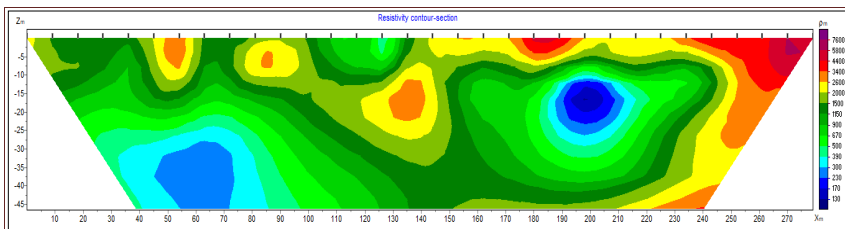


Figure 20 : Resistivity pseudo-section T4 showing heterogeneous high resistivity in the top 15 m decreasing locally at depth to 25 m depth.

## 9.4 Geology, Sampling & Analyses by AMCO

Surface geological mapping of the property was carried out by AMCO Consultores and most of the results can be found in AMCOa (2021) and in separate maps. The property carries only three geological units at surface. The Parguaza granite forming inselbergs, surrounding ferricrete and top soil covering the alluvial Quaternary deposits of the rest of the property

### Parguaza Granite Inselberg

The Parguaza granite forms hectometric and kilometric size inselbergs along the west side of the Rio Orinoco. It forms high relief windows popping out of the alluvial Quaternary deposits, Figure 5, 9, 10 and 21. The rock is homogeneous, coarse-grained with late aplite, pegmatite and greisen phases or dykes and late quartz veining, Figure 22.



Figure 21 : Parguaza granite inselberg and flat lying outcrop west of the Rio Orinoco. Photo AMCO.



Figure 22 : Coarse grained Parguaza granite showing cm size pegmatite dyke. Photo AMCO.

The rock is equigranular with mm to cm size granulometry showing quartz, feldspar, orthoclase, biotite, amphibole mineralogy, Figure 23. The Parguaza granite belongs to the Mesoproterozoic anorogenic granite of the western Guiana Shield that have been studied since the 1980's for their geochronology, geochemistry and Sn, Ta-Nb-REE mineralization. See sections above. A study of brittle deformation in the granite shows predominance of WNW-ESE, NW-SE and SW-NE-trending fracturation (AMCOa, 2021).



Figure 23 : Coarse grained pegmatoid Parguaza granite. Photo AMCO.

**Ferricrete**

Hard, fine grain stratified ferricrete (iron duricrust alteration) composed of limonite-hematite-goethite with local granular porous texture is described by AMCOa (2021), Figure 24. It is said to lie directly on the granite suggesting strong alteration and iron precipitation on the paleosurface. Later the duricrust was covered by Neogene fluvial sedimentation, Figure 26 below.



Figure 24 : Ferricrete formed on granite paleosurface. Photo AMCO.

In arid tropical terrain ferricrete is related to an aluminum and silica leaching of the basement, an upward migration and precipitation of iron ± manganese oxides and hydroxides at surface related to the cyclic variation of the water table height

and intensive evaporation. In Minastyc, the duricrust seems to be related to the alteration and precipitation of iron hydroxides on granite paleosurfaces implying the possible presence of saprolite and saprock below the ferricrete.

Ferricrete and iron duricrust have been largely studied. Experiments quoted by Nahon and Tardy (1992) shows the precipitation of clay, calcite, kaolin and upward iron hydroxides enrichment in artificial weathering zones under seasonally humid climates, Figure 25. One would find more reviews and details on iron-rich soils and laterites in Legros (2013).

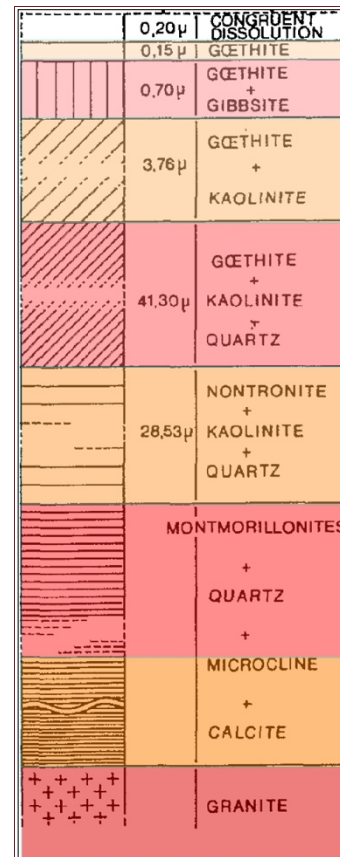


Figure 25 : Upward Al-Si leaching and iron enrichment section in granite alteration zone. After Nahon and Tardy (1992).

A recent study of a lateritic profile overlying the Parguaza granite shows a well developed pisolithic ferricrete alteration composed of goethite, hematite, limonite and quartz fragments. The profile is 1.5 m thick or so and located in Cachicamo south of Puerto Ayacucho on

the west side of the Rio Orinoco. It is located on Parguaza granite and shows the presence of tantalum-rutile or strüverite (Ti,Ta,Nb)O<sub>2</sub>, columbite and cassiterite mineralization, Franco et al., (2021).

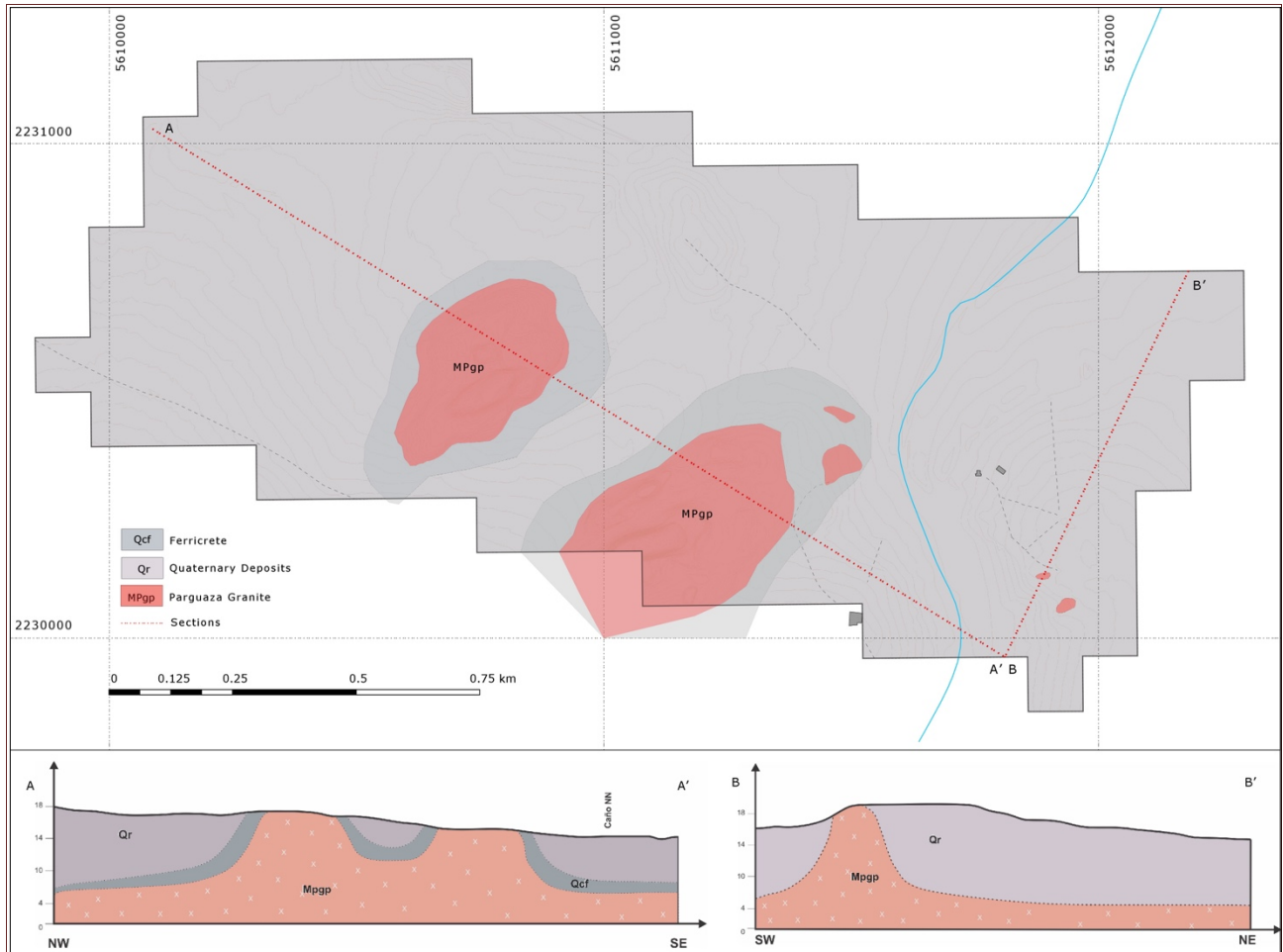


Figure 26 : Formation of a ferricrete above the Parguaza granite during Neogene seasonally humid tropical climate followed by the deposition of Quaternary alluvial sediments in the Rio Orinoco watershed. After AMCO Consultores map and sections, 2021.

### Quaternary Alluvial Deposits

The surficial study of alluvial deposits was carried out by AMCO Consultores by digging pits and trenches on the Minastyc property, Figure 27, with the following coordinates, Table II (AMCOa, 2021). It shows test pitting done to the west outside of the property in the Caño Pañuelo area. Description, pictures and drawings are provided by the author but no location or coordinate are given to refer the pictures to the distribution map.

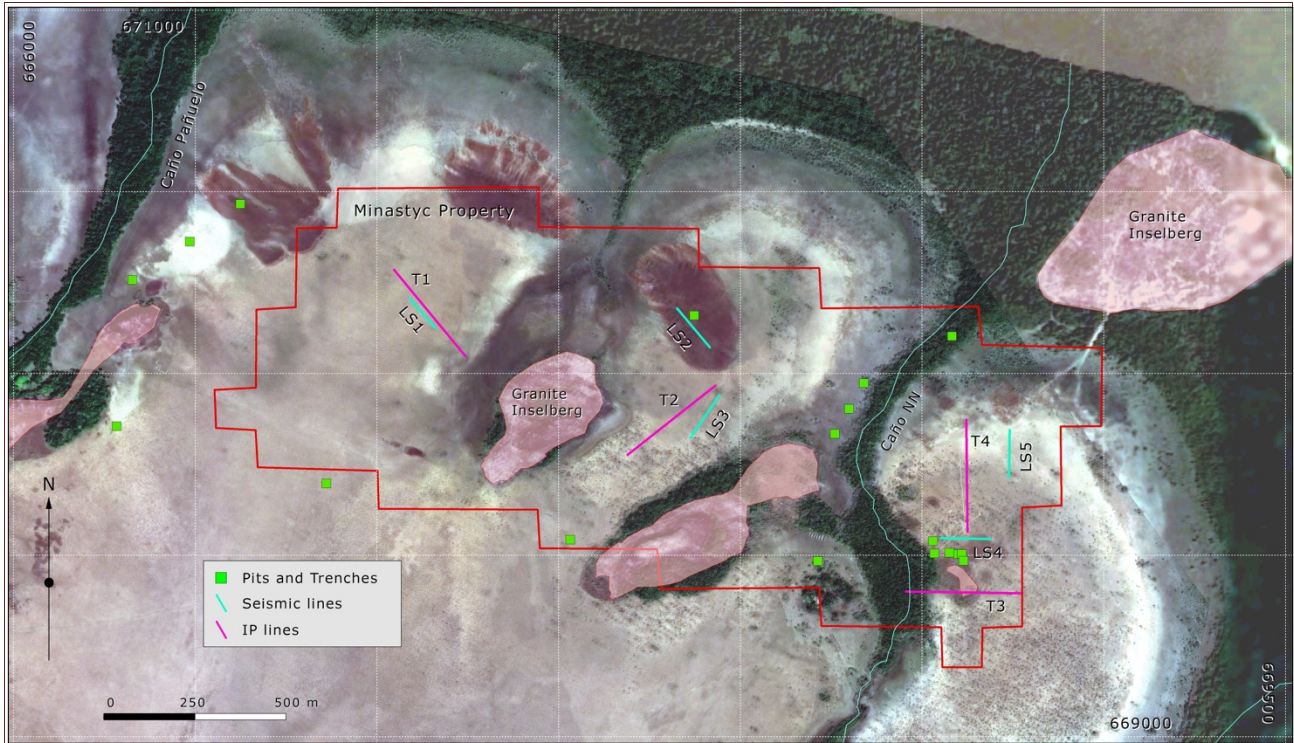


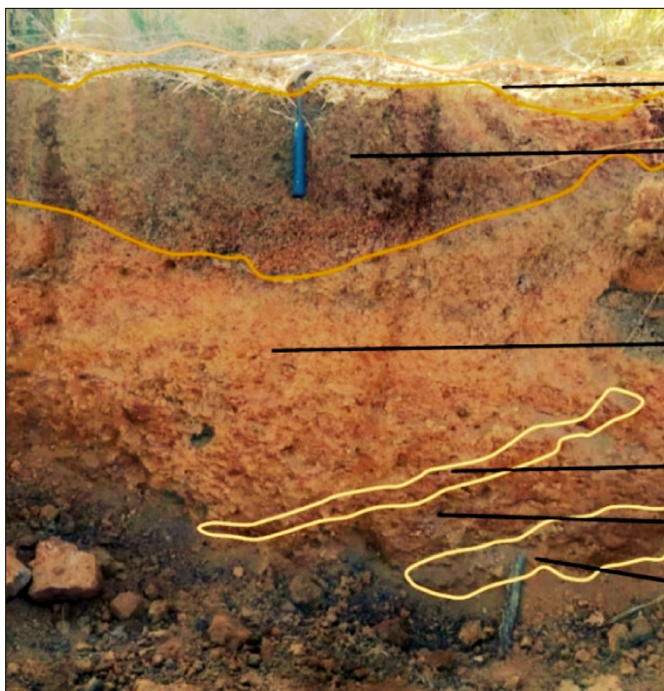
Figure 27 :Distribution of AMCO pits and trenches in the Minastyc property (AMCOa, 2021).

Table II : Pit and trench coordinates by AMCO Consultores

Tr Id	E z19	N z19	Prof m	Sample Id	N cmt12	E cmt12
T1	668600	669503	1,6	CCET01R	2230167	5611903
T2	668609	669504	1,7	CCET02R	2230168	5611912
T3	668614	669485	1,8	CCET03R	2230149	5611917
T4	668575	669507	2	CCET04R	2230170	5611878
T5	668534	669505	2	CCET05R	2230168	5611837
T6	668530	669539	2,1	CCET06R	2230202	5611832
T7	668213	669484	0,3	CCET07R	2230415	5611514
T8	661406	669687	0,25	CCET08R	2230298	5604680
T9	668260	669834	2	CCET09R	2230496	5611559
T10	668299	669903	2	CCET010R	2230566	5611598
T11	668340	669974	2	CCET011R	2230638	5611638
T12	667873	670160	6	CCET012R	2230821	5611168
T13	666284	669855	2	CCET013R	2230503	5609575
T14	666861	669698	2,1	CCET014R	2230349	5610156
T15	667532	669543	2,2	CCET015R	2230199	5610830
P1	666527	671039	Activ sedc	CCEB01	2231693	5609810
P2	668582	670103	Activ sedc	CCEB02	2230769	5611880
T16	666327	670258	2	CCET016R	2230908	5609617
T17	666485	670363	2	CCET017R	2231014	5609773
T18	666624	670467	2	CCET018R	2231120	5609912

Figure 28 shows the Quaternary surficial deposit composed of thin soil underlain by coarse grained hematite-rich horizon going down to 50 cm followed mostly by gravel and sand with limonitic matrix, iron-rich remnants and local concentrations of clays. Supplementary photographs show

- a hematite-rich dark brown coarse grain horizon about 30 cm thick underlain by stratified limonitic gravel and sand thick horizon, Figure 29,
- a hematite-rich dark brown coarse grain horizon about 50 cm thick underlain by orange homogeneous limonitic gravelly sand, Figure 30,
- a hematite-rich dark brown grit horizon about 25 cm thick underlain by quartz and plagioclase bearing iron-rich sand and grit and limonitic sand, Figure 31,
- a hematite-rich dark brown grit horizon about 40 cm thick underlain by limonitic sand with plagioclase and sericite alteration and iron-rich crust, Figure 32.



- arenitic soils
- iron-rich crust
- sand, gravel with iron-rich matrix
- remnant of iron-rich crust
- sand, gravel and iron-rich matrix
- clays

Figure 28 : Section in surficial alluvial deposit in the Minastyc property. Photo AMCO



Figure 29 : Section in surficial Quaternary deposits. Photo AMCO.



Figure 30 : Section in surficial Quaternary deposits. Photo AMCO.

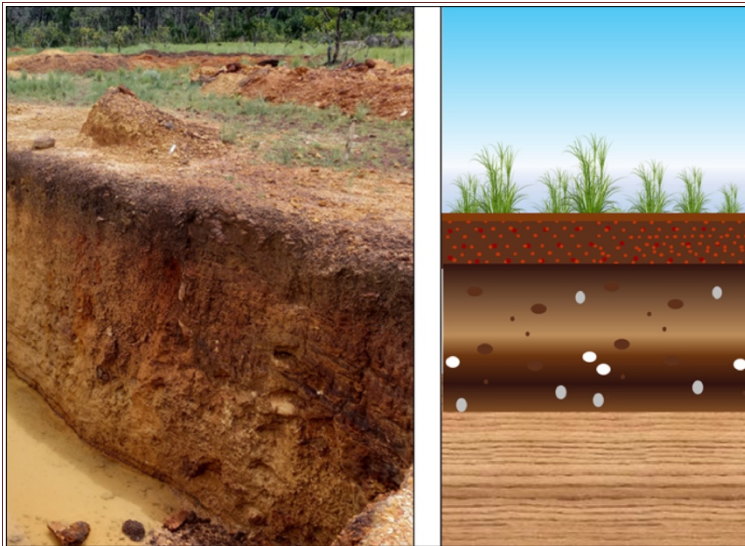


Figure 31 : Section in surficial Quaternary deposit. Photo AMCO.

- hematite-rich coarse grain horizon -30 cm
- sand and gravel w iron crust, quartz & plagioclase fragments
- orange red limonitic sand
- limonitic sand w quartz & plagioclase



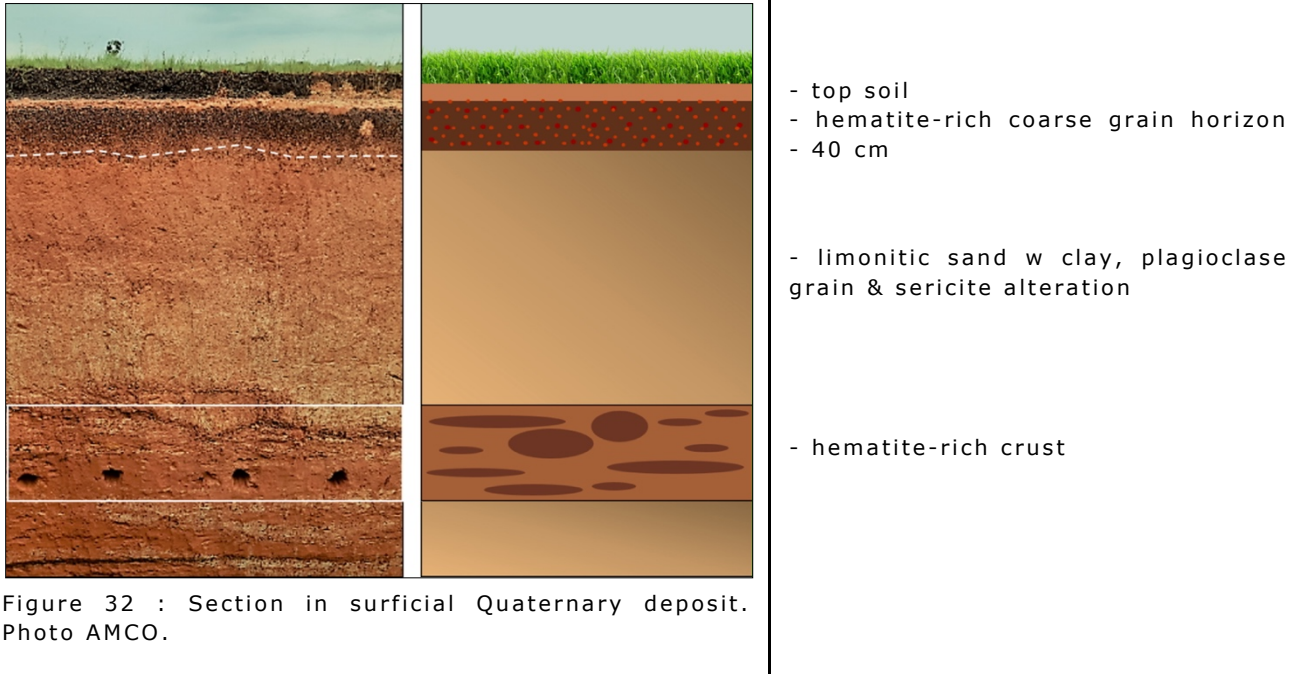


Figure 32 : Section in surficial Quaternary deposit. Photo AMCO.

### Sampling & Analytical Results

AMCO Consultores carried out sampling of the pits and trenches and produced heavy mineral concentrates that were sent for XRF analysis. The sample locations are listed in Table II and appear in Figure 27. The analytical results appear in Table III. Note that AMCOa (2021) do not provide sampling details, provenance of the concentrates, QAQC nor any detail on the laboratory that carried out the analyses. Anyhow and in spite of the lack of information on the whole sampling and analytical process, results remain qualitative and suggest the presence of columbo-tantalite, cassiterite, rutile and possibly ilmenite or pyrochlore in the heavy mineral concentrates.

Table III : AMCO analytical XRF results

<b>Id</b>	<b>TiO2 %</b>	<b>Nb2O5 %</b>	<b>Fe2O3 %</b>	<b>Ta2O5 %</b>	<b>SiO2 %</b>	<b>SnO2 %</b>
Auxico 1	42,85	25,44	13,32	8,28	3,3	0,58
Auxico 4	0,83	53 ppm	8,82	-	63,49	-
Auxico 5	0,48	40 ppm	47,56	-	45,5	-
Auxico 8	0,64	0,26	83,8	0,21	6,71	4,29
Auxico 11	2,78	0,81	17,6	0,66	39,72	1,49
Auxico 13	0,27	0,03	68,02	0,04	27,04	0,13
Auxico 16	0,12	-	0,9	-	94	-
Auxico 18	0,07	0,33	5,62	0,33	5,85	0,57
Auxico 21	0,03	18 ppm	0,09	-	99,3	-
Auxico 23	18,91	3,24	9,71	9,29	6,71	47,2

AMCO Consultores provided analytical results performed on 500 g of 5 concentrates of undisclosed provenance analyzed by XRF. The following results, Table IV, also suggest the presence of columbo-tantalite, cassiterite and possibly pyrochlore and zircon in the concentrates.

Table IV : AMCO 500 g analytical results

El	Conc	Sample (g)	Result (%)	El	Conc (g)	Sample (g)	Result (%)
Ta	500	14.22	2.84	Nb	500	11.29	2.26
Sn	500	14.67	2.93	V	500	0.33	0.07
				Zr	500	2.35	0.47

### 9.5 Geology, Sampling & Analyses by CanaMex

As a consultant for CanaMex and Qualified Person for AUXICO Resources on the project, Joel Scodnick (JS) P. Geo., spent time from August to December 2021 on the Minastyc property and carried out mapping and sampling of the various pits and trenches. The distribution of the stations and samples differs notably from the AMCO program. The ground works are concentrated to the southeast around small granite outcrops, in the center of the property in Area 50 and around the granite inselbergs, Figure 33.

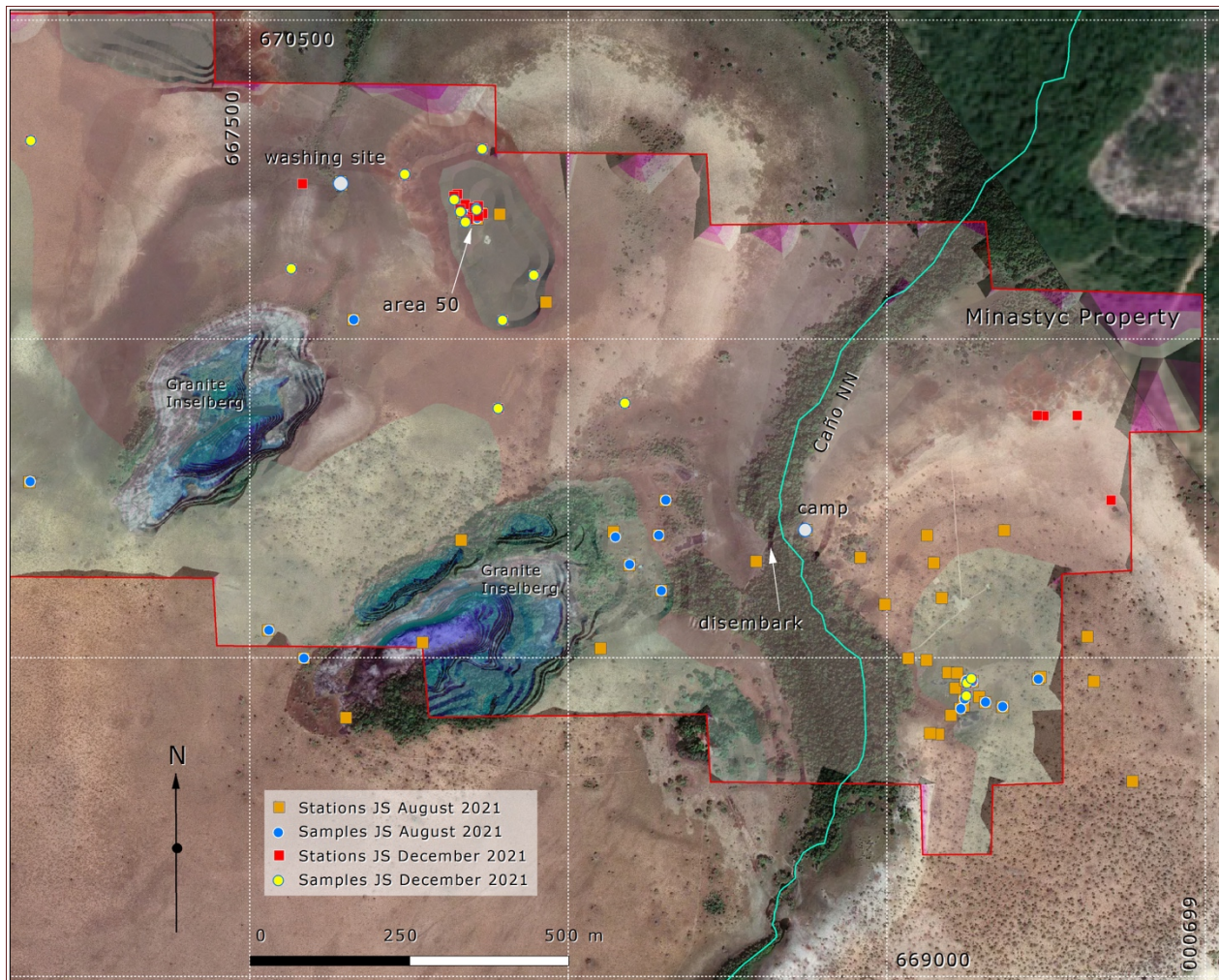


Figure 33 : Distribution of the station sites on the Minastyc property and samples taken in August and December 2021 by CanaMex with the location of the camp, the disembarking site along the Caño NN, a washing site in the centre of the property and **area 50** where a bulk sample was taken. See below.

## Geology of Granite & Alluvial deposits

As already shown by AMCO Consultores, the alluvial deposits of the Minastyc property are mostly composed of a thin soil with organic components, a 25-50 cm dark brown or red iron-rich coarse-grained horizon, a 1 to 2 m yellow or brown sand and a lower fine to coarse-grained unit containing quartz, plagioclase, lithic fragments and heavy minerals, Figure 34.



Figure 34 : Section through the Quaternary alluvial deposits at sample site S00357753 showing an iron-rich coarse-grained horizon underlain by dominant yellow brown sand and gravel. Photo JS.

In **August 2021**, the various existing pits and trenches were described, photographed and sampled. A stratigraphy was established where possible. The details are given in Appendix I and show that most of the available surfaces in pits or trenches were vertically sampled along channels or on wider surfaces and large quantity of sample material was collected weighting between 6 to 24 kg. Some of the samples were taken directly from adjacent stockpiles. In area 50, Figure 34, a large sample was taken weighting more than 3 tons. The samples, mostly composed of fine to coarse grain limonitic or hematitic material were washed and sieved to obtain a quantity of concentrate, proper for analysis. The sample weight and sample/concentrate ratio are given in Appendix I.

Concentrate samples were sent to Bogota at the Alpha Servicios Analiticos laboratories and analyzed via XRF for major, trace and RE elements. See section below.

In **December 2021**, various existing pits and trenches were enlarged and deepened, photographed and sampled using vertical channels. Most of the excavations are 2 x 2 m with a water table between 2 to 8 m. In area 50 in the center of the property, the main quarry is 8 x 8 m and 6 m deep.

Samples were washed and heavy minerals separated and prepared for chemical analysis. A stratigraphy was established where possible and a report on heavy mineral alluvial deposit was produced in February 2022 (Pelletier and Scodnick, 2022). The report synthesized the stratigraphy of the alluvial deposits on the Minastyc property and defined 6 different superposed units.

**Parguaza granite** - At the base, it comprises a rapakivi granite showing medium to coarse grain orbicular like textures, Figure 35. The granite also shows coarse grain pegmatoid textures and forms large inselbergs (see Figure 23, 26 and above).

**Saprolite** - The granite is overlain by variable thickness of saprock or saprolite, a tropical alteration resulting in transformed but autochthonous unit of clay, quartz, hematite, iron hydroxides, manganese oxide, etc. preserving the rock textures and structures.



Figure 35 : Parguaza rapakivi granite showing medium to coarse grain orbicular texture. After Pelletier & Scodnick (2022).

**Sediment 1** - The first detrital unit overlying the Parguaza granite saprolite is a medium to coarse grain conglomeratic more or less consolidated sand showing sub-rounded centimeter size quartz pebbles, mm to sub-mm size quartz and heavy minerals, limonite and iron hydroxides, Figure 36.



Figure 36 : Sediment 1 - Quartz pebble and heavy mineral conglomeratic sand. After Pelletier & Scodnick (2022).

**Sediment 2** - The second overlying detrital unit is a clay and kaolinite-rich conglomeratic sand showing cm size sub-rounded quartz pebbles, heavy minerals, iron hydroxides and limonite, Figure 37. Sediment 1 and 2 are fertile for heavy minerals and are mostly found close to the granite inselbergs preferably on the northeastern side, Figure 26 and 33.



Figure 37 : Sediment 2 - clay-rich and quartz pebble conglomeratic sand. After Pelletier & Scodnick (2022).

In the southeast side of the property, in the vicinity of the granite outcrop, Figure 26, lithified quartz-rich sediment 1 is in contact with the bedrock. Both granite and sediment 1 show irregular surface and gaps are filled with conglomeratic clay-rich sediment 2. Further up the later shows angular fragment of lithified sediment 1, Figure 38. According to the descriptions by Pelletier & Scodnick (2022) sediment 1 and 2 are possibly genetically related. The presence of sub-rounded quartz pebbles in both units and the fact that sediment 2 locally contains sediment 1 inclusions of various sizes suggest that sediment 1 and 2 are different results of the same process occurring immediately above the Parguaza granite saprolite. It also suggests that sediment 1 and 2 are partly parautochthonous and related to proximal sedimentation and “lateritization” processes. Due to differential actions of water and variations in mineral migration and alteration, in sediment 1 there is a higher concentration of heavy mineral and iron oxides and hydroxides.

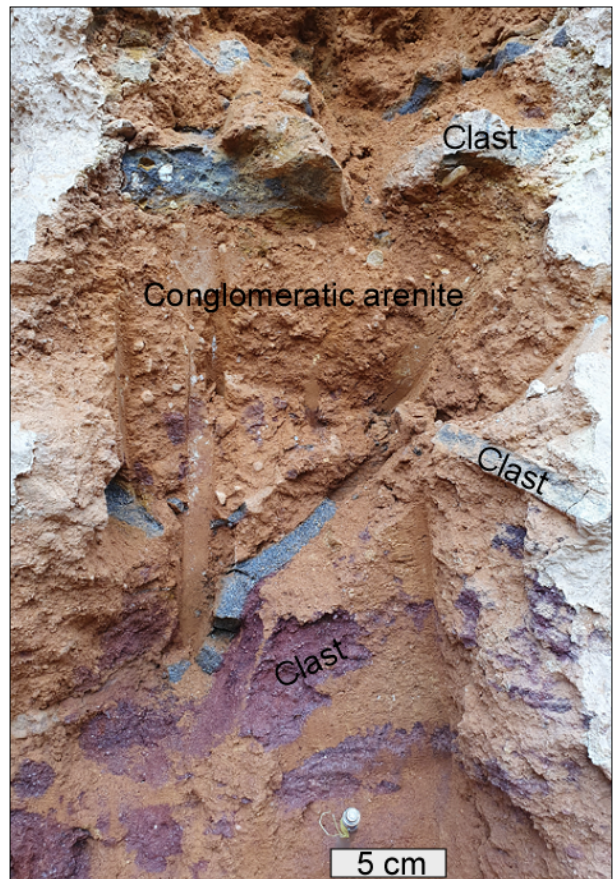


Figure 38 : Angular clast of hematite-rich lithified sediment 1 in sediment 2. After Pelletier & Scodnick (2022).

In sediment 2 there is a higher clay and layered kaolinite content and more scattered heavy minerals related to higher original concentration of feldspars, in the sediment, Figure 37. By analogy with standard lateritic profiles in tropical terrain, the presence of a ferricrete or iron concretion horizon immediately above the granite saprolite horizon,

Figure 39, suggests a peneplanation at the time, a dry climatic episode, seasonal variations of the water table and a migration of iron oxides and hydroxides and a layered precipitation of iron at surface.

**Sediment 3** - The third overlying alluvial unit, is mostly composed of a layered sand containing iron oxides and hydroxides and limonite and cm size kaolinite-rich horizons, Figure 40. The presence of kaolinite-rich horizons suggests an original high feldspar content during sedimentation and later lateritic processes transforming the feldspars into clay and kaolinite.

**Sediment 4** – The fourth and last overlying alluvial unit is composed of micro-conglomeratic lithic sand with minor hematite, iron hydroxide and limonite content, Figure 41. It possibly originates from a mixture of sediment 1 and 2 and layered sediment 3.

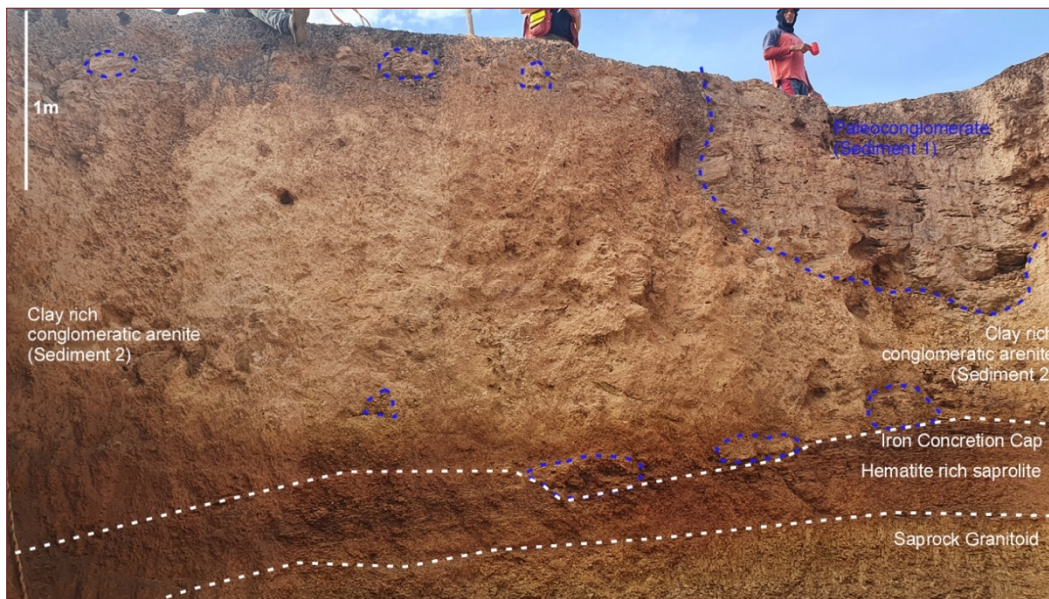


Figure 39 : Sediment 2 conglomeratic and clay-rich unit with inclusions of conglomeratic sediment 1. Note the presence of a 50 cm iron concretion (ferricrete) horizon and granite saprolite at the bottom of the pit. After Pelletier & Scodnick (2022).



Figure 40 : Sediment 3 – hematitic, kaolinite-rich and limonitic layered sand. After Pelletier & Scodnick (2022).



Figure 41 : Sediment 4 – micro-conglomeratic sand with minor iron oxides or hydroxides. After Pelletier & Scodnick (2022).

### Mineralization

The mineralization are represented by the heavy fraction present in the various alluvial deposits, principally in the lower conglomeratic units. The fraction mostly contains euhedral, subhedral or rounded mm and cm size ilmenite, columbo-tantalite, monazite, cassiterite, zircon and possibly xenotime, rutile and magnetite, Figure 42. The analyses carried out in the field are only qualitative and suggest that columbo-tantalite and ilmenite are concentrated in sediment 2 in the

southeast of the property (TA area) in the vicinity of a granite outcrop and monazite more present in sediment 4 in the center of the property in area 50 (see Figure 26, 33 and below). To the southeast in the TA zone, a 10 cm quartz pebble bed 1 m above an hematite-rich saprolite shows a concentration of interpreted columbo-tantalite mineralization (Pelletier & Scodnick, 2022)

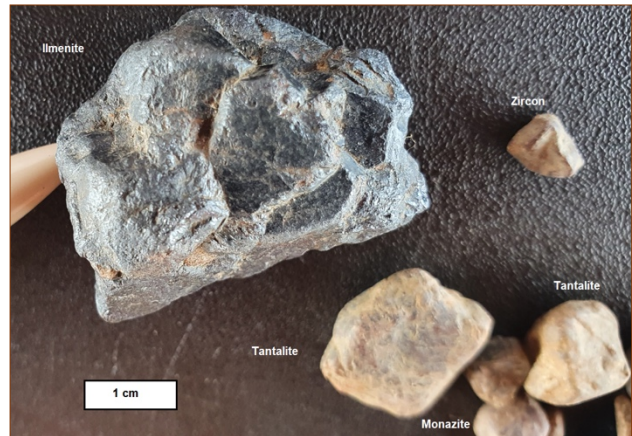


Figure 42 : Heavy minerals found in sediment 2 in the southeast of the property. After Pelletier & Scodnick (2022).

### Sampling

In December 2021, systematic sampling was carried out in the pits of interest. Vertical channels were dug over 1 to 2 m on clean surfaces from bottom to surface to avoid contamination. Longer samples were taken to evaluate different units. A total of 38 samples were taken, Table V. 15 kg of material was extracted, 3 kg was sent for multi-element analyses and 12 kg was washed and heavy mineral concentrate was produced and analyzed via portable XRF. At this time only qualitative analyses are available. The XRF geochemical analytical results are pending.

Table V : Locations and descriptions of December 2021 samples on the Minastyc property.

Id	Sample no.	Easting	Northing	El	From	To	l	Summary	Kg	Description	Litho
Pit-Zona50	S00357820	667851	670210	97	0	1	1	IC hm+		Iron oxides concretion (surface) + sand	Sed 3
Pit-Zona50	S00357821	667851	670210	96	1	2	1	Sand hm+		Sand quartz rich fine (platform)	Sed 3
Pit-Zona50	S00357822	667853	670209	95	2	3	1	Sand hm+		Sand quartz rich fine (platform)	Sed 3
Pit-Zona50	S00357823	667853	670209	94	3	4	1	Sand hm+ 20% Con hm+		Sand quartz rich fine (platform)	Sed 4
Pit-Zona50	S00357824	667853	670209	93	4	5	1	Sand hm+/-		Sand quartz rich fine (platform)	Sed 3
Pit-Zona50	S00357825	667853	670209	92	5	6	1	Sand hm+/-		Sand quartz rich fine (platform)	Sed 3
Pit-Zona50	S00357826	667853	670209	91	6	7	1	Sand hm+/-			Sed 3
Min21-PCC0004a	S00357827	667838	670185	95	0	1	1	IC Sand clay+/- hm+	13,5	Iron oxides concretion (surface) + hematite rich sand, important variation of clay, from surface to 1m.	Sed 3
Min21-PCC0004b	S00357828	667838	670185	94	1	2	1	Sand hm- clay++	15	Sand with hem spots, clay rich zone. 1 to 2m deep, = samples is 1m below PCC0004a	Sed 3
Min21-PCC0004c	S00357829	667830	670204	95	0	1	1	IC Sand clay+/- hm+	15	Iron oxides concretion (surface) + hematite rich sand, important variation of clay, from surface to 1m.	Sed 3
Min21-PCC0004d	S00357830	667830	670204	94	1	2	1	Sand hm- clay++	14,8	Sand with hem spots, clay rich zone. (1 to 2m deep, = samples is 1m below PCC0004c	Sed 3
Min21-PCC0005	S00357831	667821	670224	95	0	2	2	IC Sand clay+/- hm+	16	Iron oxides concretion (surface) + hematite rich sand, important variation of clay	Sed 3
Min21-PCC0006a	S00357832	667865	670298	55	0	2	2	IC ARN clay+/- hm+	15		Sed 3
Min21-PCC0006b	S00357833	667865	670298	54	2	3	1	Sand 40% Con	15,2		Sed 4
Min21-PCC0006c	S00357834	667865	670298	53	3	4	1	Sand 10% Con	15,8		Sed 4
Min21-PCC0007a	S00357835	667743	670258	49	0	1	1	IC clay+	15,7		Sed 3
Min21-PCC0007b	S00357836	667743	670258	48	1	3	2	Sand hm+/-	15,8		Sed 3
Min21-PCC0008a	S00357837	667156	670311	51	0	1,2	1,2	Sand hm-	16		Sed 3
Min21-PCC0008b	S00357838	667156	670311	49	1,2	3,8	2,6	IC hm+ Sand hm-	16		Sed 3
Min21-PCC0009	S00357839	667565	670110	51	0	1,3	1,3	Sand hm-	16		Sed 3
Min21-PCC0010a	S00357840	667897	670029	54	0	1,4	1,4	IC hm + Sand hm-	16,2		Sed 3
Min21-PCC0010b	S00357841	667897	670029	52	1,2	3	1,8	IC Sand 10% Con	16		Sed 4
Min21-PCC0011	S00357842	667946	670100	48	0	2	2	IC clay+ Sand hm-	16		Sed 3
Min21-PCC0012a	S00357843	667890	669891	50	0	1	1	Sand lim- 10% Con	16		Sed 4
Min21-PCC0012b	S00357844	667890	669891	49	1	2,6	1,6	IC Sand hm+ SandP 40% ConP	16		Sed 4c
Min21-PCC0013	S00357845	668089	669899	52	0	2	2	Sand clay+ lim- SandP 30% ConP	16		Sed 4c
Min21-PCC0014w	S00357846	668626	669460	55	0	1	1	Sand hm+ clay+	16		Sed 2
Min21-PCC0014x	S00357847	668626	669460	54	1	2	1	Sand hm- clay++	16		Sed 2
Min21-PCC0014y	S00357848	668626	669460	53	2	3	1	Sand hm- clay++ 10% Con	16		Sed 2a
Min21-PCC0014z	S00357849	668626	669460	52	3	4	1	Grd Rap	16	Bedrock: Saprock of the granite rapakivi texture.	Bedrock



Min21-PCC0015v	S00357850	668633	669467	51	0	1,5	1,5	Sand hm- 30% Con	16,1	Sed 2a
Min21-PCC0015w	S00357851	668633	669467	49	1,5	2,5	1	Sand hm- 15% Con	16,2	Sed 2a
Min21-PCC0015x	S00357852	668633	669467	48	2,5	3,5	1	Sand hm- clay++ 10% Con	16,1	Sed 2b
Min21-PCC0015y	S00357853	668633	669467	47	3,5	4,5	1	Sand hm- clay++ 10% Con	16,5	Sed 2b
Min21-PCC0016w	S00357854	668625	669440	51	0	1	1	Con sand hm+	16,1	Sed 2a
Min21-PCC0016x	S00357855	668625	669440	50	1	2	1	Con sand hm+/-	16,3	Sed 2a
Min21-PCC0016y	S00357856	668625	669440	49	2	3	1	Con Sand hm++	16,1	Sed 2a
Min21-PCC0016z	S00357857	668625	669440	48	3	4,6	1,6	Sand 10% Con clay+	16	Sed 2c

SandP: Polymictic sand. Con: Conglomerate, ConP: Polymictic conglomerate, IC: Iron oxide concretion, Grd: Granitoid, Rap: Rapakivi texture, lim: limonite, hm: hematite, -: trace, +: weak, ++: moderate, +++: strong

### August 2021 Analytical Results

XRF analytical results for 37 samples taken by Canamex in August 2021 are shown on Table VI and locations of samples are shown on Figure 43. Only significant element values are being discussed in the following and a complete table of results is available in Appendix IV. The following results in percent show a distinct variation in the element mean content related to the granulometry of the concentrate sample.

Conc. Size	Sample w. g	SiO2	Al2O3	TiO2	Fe2O3	K2O	LOI	ZrO2	MnO
Fine	30	39,8	2,64	24,5	23,1	0,2	0,3	8	0,08
Coarse	3800	48,3	16	0,5	26,9	0,9	7	0,07	1

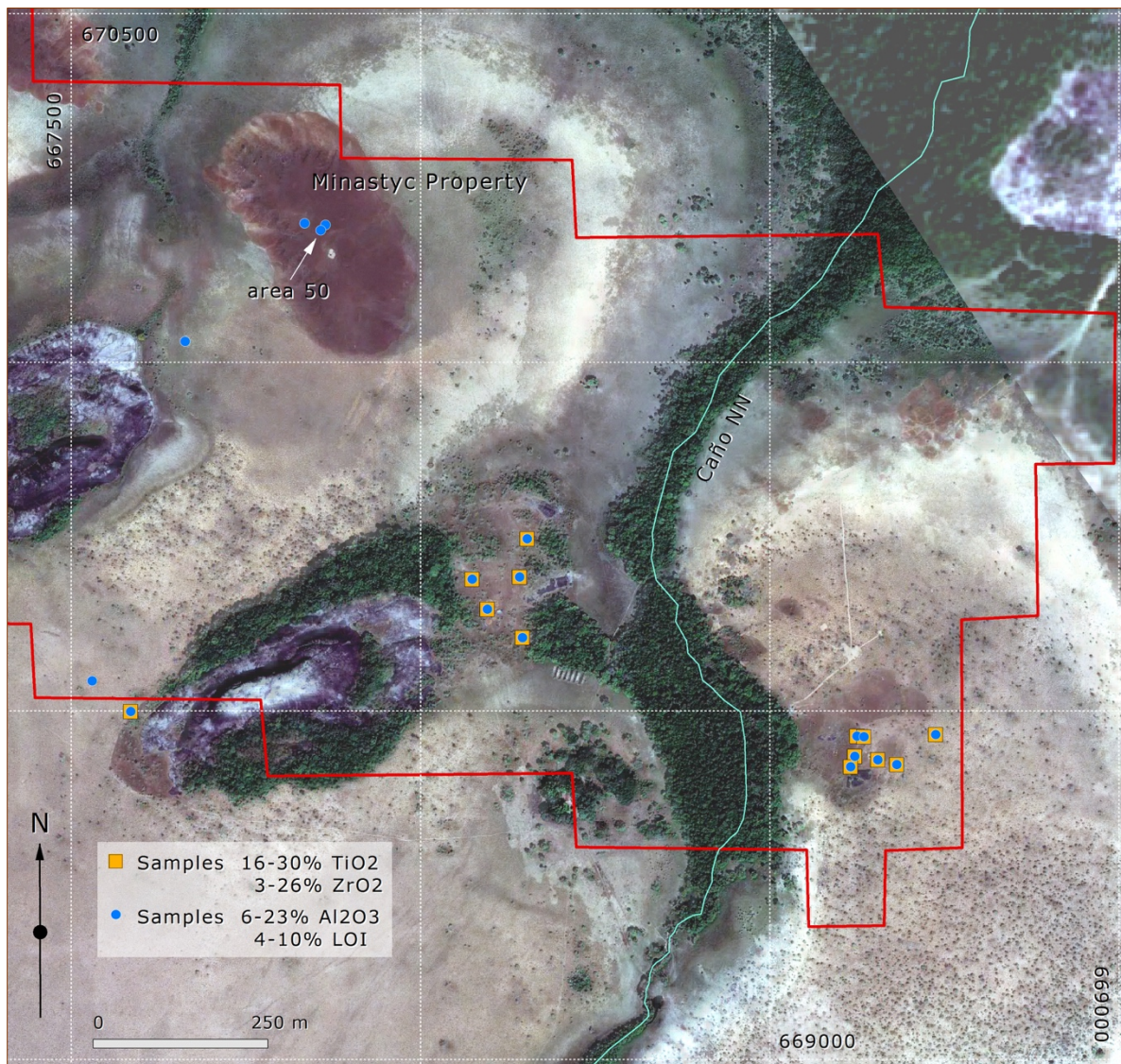


Figure 43 : Location of 2021 samples on the eastern side of the property showing coincident samples returning different TiO<sub>2</sub>, ZrO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub> and LOI related to the granulometry of the concentrate.

Table VI : CanaMex selected XRF analytical results from August 2021 samples

Lab Id	X z19	Y z19	SiO2	Al2O3	TiO2	Fe2O3	K2O	P2O5	LOI	ZrO2	MnO	SnO2	Nb2O5	HfO2	Wt g
S00357751	668625	669464	56,19	2,19	19,51	14,17		0,40	0,34	3,94	0,64	1,14	0,24	0,17	44
S00357752	668635	669463	47,72	1,88	23,24	19,54		0,11		5,33	0,82	0,86	0,15	0,08	32
S00357753	668622	669435	33,55	2,60	28,01	26,49		0,07		7,58	1,16	0,06	0,16	0,16	23
S00357754	668622	669435	18,31	1,12	33,16	31,84	0,14	0,18		12,36	1,34	0,13	0,78	0,39	9
S00357756	668616	669420	33,84	2,30	28,75	26,00		0,09		7,34	1,21		0,17	0,14	3
S00357757	668655	669430	40,08	2,01	26,38	24,66		0,06		5,45	0,93		0,15	0,10	43
S00357758	668682	669423	23,76	1,13	30,22	31,25		0,11		11,55	1,26		0,16	0,41	12
S00357759	668682	669423	47,57	1,78	23,32	20,36		0,04		5,61	0,91		0,13	0,13	49
S00357760	668738	669466	26,87	0,77	18,62	25,32		0,09		26,06	1,26		0,22	0,67	5
S00357762	668153	669747	53,57	2,17	19,20	18,16	0,19	0,04		5,46	0,80		0,12	0,28	26
S00357763	668142	669692	36,63	9,28	22,30	22,65	0,40	0,12		7,09	0,82		0,15	0,24	34
S00357764	668146	669605	42,91	6,12	23,61	17,91		0,09		8,01	0,72		0,15	0,27	23
S00357765	668096	669646	33,20	1,94	29,31	28,11		0,05		5,59	1,18		0,18	0,28	76
S00357766	668074	669689	42,23	1,94	26,03	23,13		0,03		5,15	0,97		0,16	0,19	36
S00357767	667585	669499	60,06	2,45	16,36	16,76	0,06	0,07		3,09	0,65		0,10	0,08	35
S00357774	668635	669463	65,19	8,90	0,30	20,50	0,18	0,10	4,72	0,03					1900
S00357776	668622	669435	61,62	7,60	0,29	25,18	0,07	0,17	5,01	0,05					5700
S00357777	668616	669420	52,57	12,61	0,37	26,85	0,07	0,13	7,21	0,08					5400
S00357778	668655	669430	42,42	18,33	0,53	29,79	0,06	0,11	8,53	0,12					7100
S00357779	668682	669423	57,04	7,92	0,29	28,71	0,10	0,22	5,66	0,04					7700
S00357780	668682	669423	36,71	20,46	0,52	32,06	0,03	0,14	9,77	0,07	0,14				5700
S00357781	668738	669466	49,52	10,92	0,30	32,62	0,38	0,19	5,92	0,05					6900
S00357782	668153	669747	47,58	23,35	0,91	16,35	2,39	0,21	8,85	0,11	0,03		0,00		2700
S00357783	668142	669692	65,91	19,48	0,34	3,51	6,18	0,11	3,78	0,05	0,09				2700
S00357784	668146	669605	89,53	6,54	0,11	1,57		0,02	2,13	0,03					1600
S00357785	668096	669646	17,62	19,72	0,77	51,25	0,24	0,22	10,02	0,10					2600
S00357786	668074	669689	37,78	23,33	1,13	26,93	0,21	0,21	10,05	0,15					1800
S00357787	667585	669499	45,00	30,59	0,59	11,56	1,90	0,22	9,54	0,07			0,00		1800
S00357789	667155	669776	50,87	17,78	0,58	23,59	0,78	0,12	6,07	0,04					3000
S00357790	667663	670030	33,82	13,86	0,50	44,55	0,67	0,09	6,38	0,05					4200
S00357791	667864	670197	41,46	11,83	0,53	38,22	0,68	0,40	6,62	0,04					1800
S00357792	667834	670199	26,11	19,38	0,71	43,87	0,78	0,14	8,90	0,04					1800
S00357793	667857	670189	2,72	1,06		4,11		13,99	4,16	0,73	3,55	0,19	0,62	0,21	7700

LOI : loss-on-ignition = water content

### Coarse grain concentrate

The high mean values in silica, alumina, LOI (loss-on-ignition) and manganese in coarse grain concentrate reflects the content of detrital quartz, iron hydroxide, manganese oxide and alumina produced by the alteration during lateritic processes like transformation of plagioclase and feldspar into kaolinite and clay, iron and manganese migration and enrichment in upper horizons of the profile and the absorption of water in iron oxides producing various hydroxide (goethite) and limonite (see Figure 25 and above).

### Fine grain concentrate

The high Ti (titanium) and Zr (zirconium) values in fine grain concentrate reflect the presence of heavy minerals like ilmenite, possibly rutile (TiO<sub>2</sub>), struverite, a tantalorutile (Ti,Ta,Nb,Fe)O<sub>2</sub>, zircon and / or baddeleyite (ZrO<sub>2</sub>) (see Cramer et al., 2011 and

Linnen, Cuney, 2005, Schulz et al., 2017 and Jones et al., 2017 for details on Ta, Nb, Zr, Hf behavior in mineral geochemistry). Limited amounts of Sn also suggest presence of cassiterite. The fine concentrate also contains values in niobium (Nb) and hafnium (Hf). A study describes Zr and Hf present in columbo-tantalite and in wodginite  $(\text{Mn}(\text{Sn},\text{Ta})(\text{Ta}, \text{Nb})_2\text{O}_8)$  found in various Archean and Proterozoic pegmatites of the Canadian Shield (Cerny et al., 2007). Zirconium (Zr) is said to be concentrated in pegmatitic or greisen phases of Proterozoic anorogenic granites in northwest Brazil ((Macambira et al., 1987).

On the Minastyc property, the samples composed of fine concentrate are located in the vicinity of the inselbergs and may reflect mineralization originating from aplitic, pegmatitic or greisen phases of the Parguaza anorogenic granite, already known to contain tin-related mineralization east of Rio Orinoco in Venezuela. Tin-related mineralization are also found in alluvial deposit further south in Colombia, along the Rio Guaviare and Rio Inirida both NE-trending tributaries of the Rio Orinoco (see Franco Victoria et al., 2021 and section 7.3 and 8 above).

### Area 50 analytical results

Large samples were taken from trenches of area 50, Figure 33 and 43. Two samples weighting 1.64 teach where taken 35 m apart with the following UTM z 19 coordinates : A 670189E/667857N, B 670196E/667894N.

Washing and sieving produced 7.7 kg of heavy mineral and particles with a 425 : 1 concentration ratio. Representative 736 g of fine and 706 g of coarse particles (357793A and B) were sent for analysis at Alpha1 lab. A blended sample 357793-AUX 26213 was sent for REE and 357793-AUX 26248 was sent for Au, Ag, Pt and Pd analysis. For comparison only, two other samples presented below, 357795, coarse fraction and 337796, same fraction pulverized, were collected from the same location **area 50**, but during a previous exploration program. Although the sample was not taken by the project QP, Joel Scodnick verified that the material was well sampled, preserved and could be utilize in confidence. Assay certificates are located in Appendix IV.

Area 50 is the only location where samples show high P<sub>2</sub>O<sub>5</sub> and ThO<sub>2</sub> values along with high Ce, Nd, La, Pr and Sm values. The chemistry is compatible with the composition of monazite  $(\text{Ce},\text{Nd},\text{La},\text{Th})\text{PO}_4$ , although phosphorus is depleted and only half normal monazite value. Table VII compares the stoichiometry of monazite from alluvial heavy mineral concentrate in Location 4 taken by Franco Victoria et al., (2021) along the Rio Inirida in the Guainia Department in Colombia, 200 km south of the property. Minastyc monazite shows higher Ce and lower La and Y values. The table also compares the chemistry of eluvial and magmatic monazite collected from pegmatite in Brazil (Overstreet, 1967). On the Minastyc property, low P, higher values for Fe, Mn and LOI and the presence of Sn, Nb and Ta suggest that iron hydroxide, columbo-tantalite and cassiterite are present in small quantities in the concentrate. Low phosphorous may also result from the high mobility in the leaching process during alteration. For its part, constant Th is attributed to a relative immobility during alteration.

Table VII : Geochemistry of area 50 samples & monazites

El	357793 AUX 26123	357793 AUX 26248	357793A	357793B	357795	357796	Loc4 FV et al. 2021	Eluv mon Braz	pegm Braz
SiO2	2,72	2,39	2,9	2	2,9	2,7	1,21	1,09	1,32
Al2O3	1,06	0,85	1,1	0,8	1,3	1,1		0,49	0,88
Fe2O3	4,11	3,38	4,4	3,7	7,2	4,8		2,07	0,48
CaO	0,4	0,27	0,3	0,4	0,4	0,4	1,21	0,02	0,02
P2O5	13,98	15,12	13,4	14,6	14	14	26,52	25,75	25,43
LOI	4,16		1,4	1,2	1,5	1,5		0,4	0,58
ZrO2	0,73	0,78	0,7	0,4	0,5	0,1		tr	
MnO	3,55							0,29	0,03
PbO	0,41	0,58	0,5	0,4	0,5	0,6	0,54	0,16	0,16
SnO2	0,19	0,19	0,2		0,2	0,3		0,33	
Nb2O5	0,62	0,73	0,6		1,2	1		4,72	
Ta2O5	0,72	0,72	0,7	0,1	1,3	1,3		0,64	
HfO2	0,21	0,18	0,3	0,1	0,3	0,3			
ThO2	7,27	7,97	7,4	7,9	7,1	7	8,42	6,22	8,88
UO2	0,18	0,23	0,2	0,2	0,2	0,2	0,22	tr	0,07
CeO2	38,66	43,86	40,74	43,93	36,75	38,82	30,1	38,08	32,6
Nd2O3	7,27	8,24	7,84	8,44	7,38	8,39	11,22		
La2O3	6,91	7,95	8,56	7,77	9,37	6,8	10,95	9,53	28,77
Pr2O3	2,06	2,33	2,13	2,25	1,82	2,74	3,1		
Sm2O3	2,2	2,12	2,12	2,37	2,08	2,59	2,78		
Eu2O3									
Gd2O3	1,1	0,91	2,46	2,67	2,17	2,39	1,23	tr	
Dy2O3	0,43	0,65	0,91	0,49	0,7	0,96	0,57		
Y2O3	0,04	0,05	0,1	0,07	0,12	1,03	1,42	10,15	0,98
Yb2O3	0,95	0,44	0,61	0,22	0,38	0,4			
Er2O3	0,01	0,01	0,2	0,11	0,25	0,09			
Total	99,94	99,95	99,77	100,12	99,62	99,51	99,47	99,94	100,2

Tr : trace

### Au, Ag, Pt & Pd analytical results

Number of samples were analyzed for precious metal by XRF at Apha1 lab. Results show up to 63 ppm Au and 53 ppm Pt in the various concentrates, Table VIII. The presence of platinoids and Au-Ag is documented in placers of Russia (Ural), Brazil, Alaska, Guaiana and Sierra Leone among others. Russian placers were the main producers of platinum in the 19th century, replaced by Sudbury and the Bushweld in the mid 20th century.

In placers, platinoids appear as rounded, dendritic, botryoidal or euhedral (polyhedra, pyritohedra) fine nuggets. Most of the platinum is present as native alloys like PtFe(NiIrPdCu), PtFeCu, PtPd or PtHg, locally associated with Te, Bi, Sn or S. Other platinoids may be present as alloys (OsIrRu) or sulfides (OsRu)S<sub>2</sub>. Gold and silver may be present as electrum in platinoid nuggets. Gold can also be found as platinum or palladium alloy (PtAu, PdAu).

The origin of detrital platinoid alloys is related to the presence in the various upstream basements of serpentinite or olivine or pyroxene-rich ultramafic units (ophiolites, olivine gabbros, dunites, komatiites, etc.).

Table VIII : Geochemistry of Au, Ag, Pt, Pd samples

Lab Id	E z19	N z19	InWt	Conc	Al2O3	SiO2	P2O5	K2O	TiO2	Fe2O3	ZrO2	LOI	Au	Pt	Ag	Pd
			g		%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm
S00357755	669435	668622	5200	125	2,29	86,1	0,05	0,08	0,19	9,5	0,09	1,67	15	38	-	-
S00357774	669463	668635	1200	31	8,17	80,9	0,08	0,09	0,23	10,5	0,05		-	-	-	-
S00357775	669435	668622	3560	79	17,6	61,3	0,09	0,07	0,63	15	0,26	5,04	13	53	-	-
S00357776	669435	668622	5100	81	4,22	76,9	0,14	0,07	0,23	15,1	0,13	3,14	13	38	-	-
S00357777	669420	668616	4655	126	4,31	77,2	0,08		0,93	13,7	0,36	3,37	23	20	19	19
S00357778	669430	668655	6730	522	16,8	53,9	0,1	0,07	0,3	22,2	0,12	6,59	46	31	-	-
S00357779	669423	668682	7250	388	2,21	82,9	0,09	0,07	0,19	11,7	0,08	2,67	63	15	-	-
S00357780	669423	668682	5110	78	18	55,2	0,12	0,09	0,89	21,8	0,3	3,37	56	25	-	-
S00357781	669466	668738	6650	116	5,3	73,2	0,17	0,19	0,28	17,4	0,01	3,37	19	-	-	-
S00357782	669747	668153	2044	158	17,3	70,5	0,1	3,68	0,93	6,9	0,23	-	32	-	32	-
S00357783	669692	668142	2440	106	21	64,1	0,12	7,69	0,28	2,82	0,05		-	-	-	-
S00357784	669605	668146	895	14	8,91	87,5	0,02	0,05	0,66	2,47	0,28		-	-	-	-
S00357785	669646	668096	1990	114	3,92	91,7	0,05		0,44	3,7	0,12		2	-	-	-
S00357786	669689	668074	830	13	9,25	83	0,12	0,09	0,5	6,9	0,13		-	-	-	-
S00357787	669499	667585	1380	99	21,6	64,3	0,19	0,56	0,65	6,67	0,14	5,49	63	15	-	-
S00357789	669776	667155	2505	134	9,03	77	0,06	0,95	0,34	9,85	0,02	2,5	11	-	-	-
S00357790	670030	667663	3585	112	7,64	69	0,09	0,45	0,4	18,8	0,04	3,52	-	-	-	-
S00357791	670197	667864	1105	55	8,82	61,1	0,22	0,3	0,36	24,5	0,05	4,55	15	-	-	-
S00357792	670199	667834	1250	74	15,6	34,8	0,17	0,82	0,71	40,2	0,06	7,43	13	-	-	-
S00357793	670189	667857	2315	31	0,85	2,39	15,1			3,38	0,78		9	-	-	-

Table VIII give the location and concentration ration of the various samples analyzed for Au, Ag, Pt, Pd. It shows the same distribution on the Minastyc property, Figure 33 and 43. The concentration factor has an influence on the sensibility of the XRF procedure, the more one concentrates, the more one is susceptible to find highly diluted precious metals. The results also show the presence of detrital quartz, kaolinite and iron hydroxides in most of the samples with exception of 357793 that has been discussed above. Detrital platinoid alloys are related to ultramafic rocks, detrital gold and silver are ubiquitous in most Quaternary alluvial deposits found in Precambrian basements. The distribution and the importance of precious metals like Pt and Au in the economic potential of the Minastyc property should be clarified during the next exploration program.

### **Spectral analysis vs REE & Sn content**

Spectral analysis was used to create geobotany maps of the Minastyc property and surrounding areas, using various filters and algorithms (Popiela, 2021). The following map show the variation of spectral responses on the Minastyc property and the location of the 2021 analytical results, Figure 44. The various spectral responses are related to variations at surface like concentration and variety of grass, plants, scrubs and trees, gallery forest, percentage of sand, alteration and concentration of iron oxides or hydroxides at surface or altered granite surface. Figure 45 shows a definite signature for gallery forest along the various streams and around the inselbergs, a false blue to violet response of the granite surfaces and white sands, a red response at the limit of forest and grass related to water content, etc.

Area 50 shows RE oxides near 60% in the concentrates of sample 357793 possibly related to a spectral response. To the SE, samples contain tin content up to 1.14% with no specific spectral signature.

Given that the spectral responses have multi factorial origins, Minastyc should be verified in the field with detailed control points, vegetation and soil description, geochemistry and radiometric readings, etc.

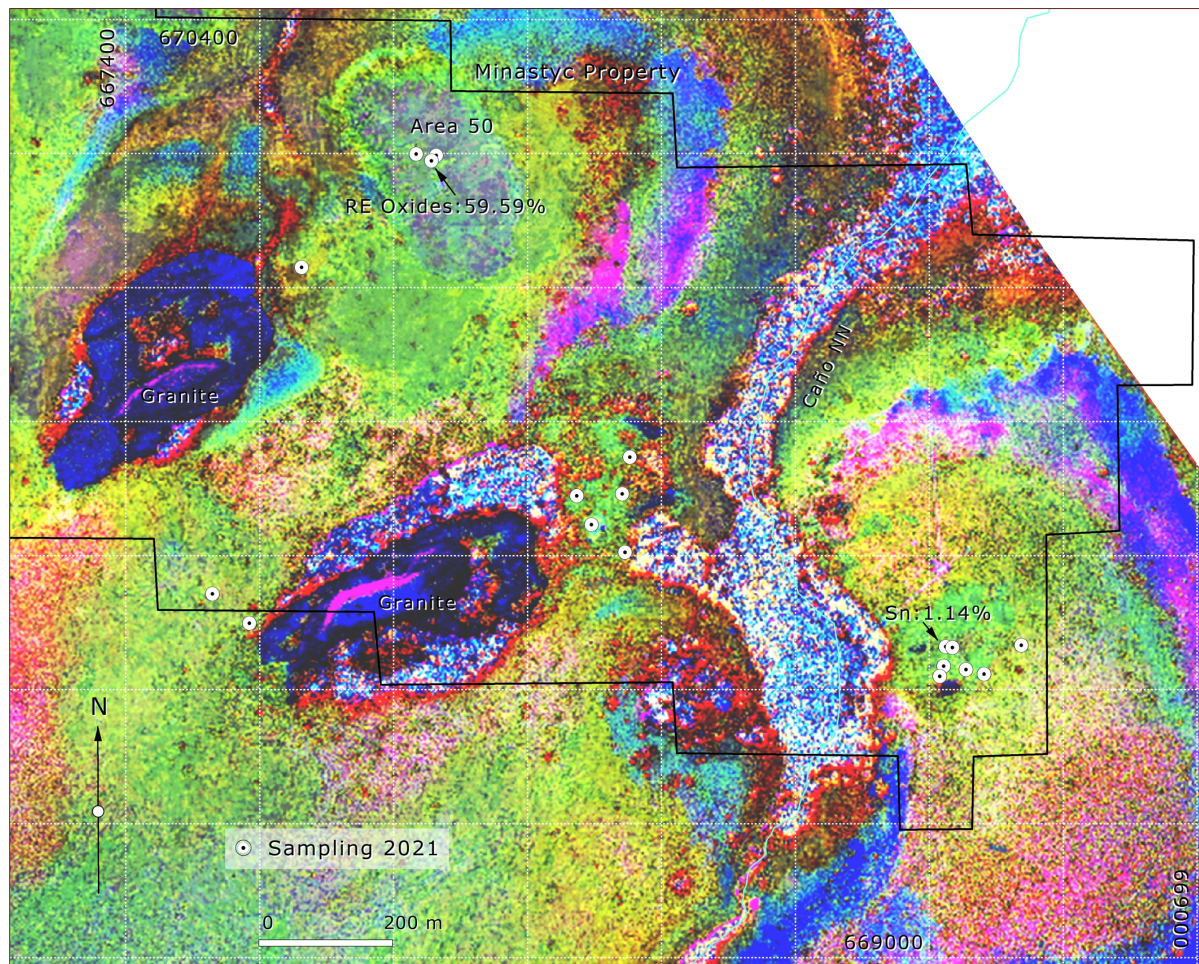


Figure 44 : Spectral geobotany map of Minastyc with 2021 analytical results. See also Figure 43. After Popiela (2021).

## 10. Drilling

No drilling was described in this report.

## 11. Sample Preparation, Analyses and Security

The following describes the procedures applied during the exploration programs detailed in sections above.

### 11.1 Sample Preparation and Field Quality Control Measures

The co-author of this report Joel Scodnick (JS), P. Geo. and QP, personally selected all of the samples as provided in Table V, VI and VII. He has reviewed all of the assay certificates provided in Appendix IV, the sample descriptions and sample database. All of the procedures for sample collection were carried out by trained personnel according to industry standards.

On the Minastyc property, samples were taken directly from vertical channels in pits and trenches or taken from stockpiles near the pits where water prevented access.

Most of the gravel samples were dried and sieved by experienced personnel working at artisanal mining operations. The samples were then separated into two fractions, a



coarse concentrate and a fine concentrate of heavy minerals. The bulk of the sample being most lighter material such as quartz and feldspars were discarded, however, all of the original weights of each sample were recorded as well as each fraction of coarse and fine material so that a concentration ratio could be determined. No field standards or blanks were used in the programs, however, the laboratory which did the bulk of the analyses have their own reliable quality control procedures. A visit to the lab in Bogota was performed and a very detailed tour was done. The database includes a description of the samples, sample weight, sample type, GPS coordinates, area selected, and analyses, as well as concentration ratios.

## 11.2 Assaying and Analytical Procedures

Rock chip and gravel samples were collected and delivered personally to Alpha1 laboratory in Bogota, Colombia where the bulk of the samples will be submitted to XRF analyses. One sample, S00357793, was taken by JS and delivered personally to Impact Global Solutions (IGS) in Denton, Qc, Canada for further verification, recovery and metallurgical tests. Pulps and samples were all processed at Alpha1 as well as analyses. Some pulps were also sent to Coalia laboratory in Thetford Mines, Quebec for additional metallurgical and mineralogical work.

## 11.3 Analyses of Gravel and Rock Samples

Sample preparation was carried out by crushing more than 70% of the sample to -10 mesh (2 mm grain size), then using a riffle splitter taking a 1 kg split and pulverizing this sub-sample to -200 mesh (74 microns grain size). A portable XRF was used to determine the chemistry of the sample by measuring the florescent or secondary X-ray emitted from the sample when submitted to a primary X-Ray source.

## 11.4 Security of the Samples

All of the samples were zip tied onsite at the property, transported by boat to Puerto Carreño and taxied to a secure storage by JS. The facility has a main gate under lock and a security guard living onsite. Once in the secure room, JS took pictures of the samples to make sure that they were all exactly in the same position. Shortly thereafter all of the samples were put into 50l plastic containers to be shipped to Bogota via air transport. The samples were picked at the airport and delivered personally to Alpha1 laboratory in Bogota. A secure chain of custody was applied all along the process.

## 12. Data Verification

The scale of sampling on the Minastyc property is limited and no reference material was introduced in the sample batch. Data verification is limited to the accuracy of the analytical results when compared to the certificates provided by Alpha1-Servicios Analiticos S.A.S. See Appendix IV.

All of the onsite work was under the supervision of Joel Scodnick, the Qualified Person (QP). It is of the opinion of the QP that all of the work performed was within industry standards and can be fully relied upon. It is also the QP's opinion that adequate cross-section and representative samples were collected and in adequate number.

## 13. Mineral Processing and Metallurgical Testing

No mineral processing nor metallurgical testing are presented in this report.

For information, it should be noted that AUXICO initiated a project with Central America Nickel (CAN) to develop a metallurgical process using specific geochemistry and ultrasound (UAEx) technology. The ongoing project aims at reducing the cycle leaching times, obtain above 80% of recoveries of most of REE and other critical metals, reduce by two order of magnitude the radiometric readings related to the presence of thorium and to reduce the operating and capital costs.

AUXICO is also involved with IGS Impact Global Solutions laboratories in REE extraction process. It involves acid bake testing and dissolution of REE sulfates and selective precipitation of Th and U from monazite ((REE, Th, U)PO<sub>4</sub>) concentrates. Results are positive but preliminary. It demonstrates that 99.9% of the radioactive thorium (Th) can be precipitated and therefore complies to the industry norm of transportation. Further research will establish if the process is applicable to pilot plant scale. Please refer to AUXICO July 30, 2021 press release.

## 14. Mineral Resource Estimate

No mineral resource estimate was carried out in this report, nor was any mineral resource estimate produced for the Minastyc Property.

## 23. Adjacent Properties

To the knowledge of the authors there is no adjacent property to Minastyc.

## 24. Other Relevant Data and Information

Relevant information and data are listed and detailed below. It comprises descriptions and summaries of critical metals/minerals present on Minastyc, world REE production and environment liabilities, summary of AMCO exploration report on the Minastyc property, the Vichada Meteorite Impact and the Agualinda Property.

### 24.1 Critical minerals / metals

Sn, Ta, Nb, Zr, Hf, REE and other critical metals were found on the Minastyc property. In February 2022, the USGS listed the first 50 most important metals/elements with their use in the world economy. See the web address below. The following Table shows the USGS list and the presence of the various critical metals / minerals on Minastyc.

<https://www.usgs.gov/news/national-news-release/us-geological-survey-releases-2022-list-critical-minerals>

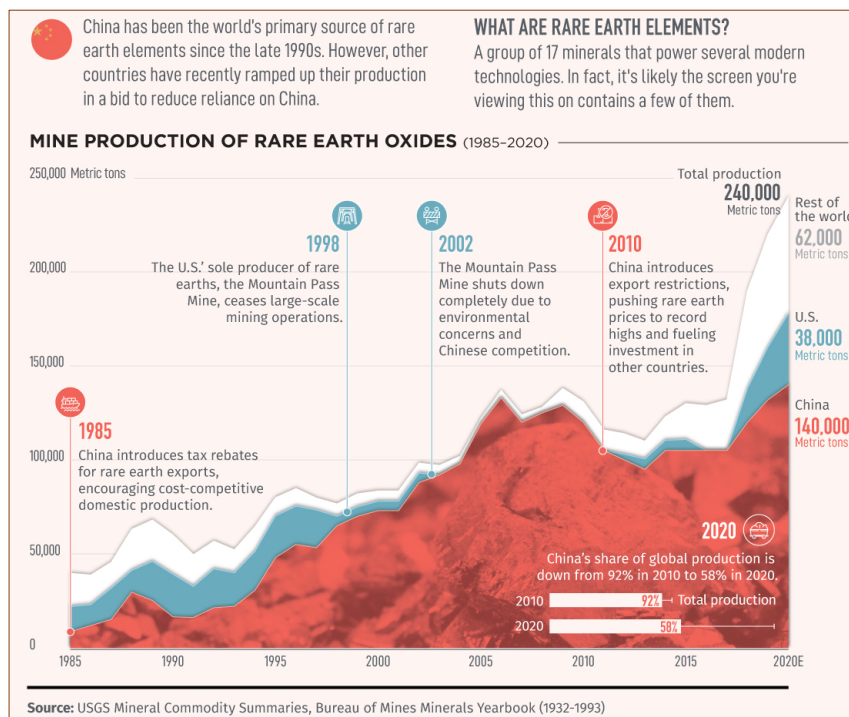
Table IX : Presence of critical metals on Minastyc

<b>El / Min</b>	<b>Industrial use</b>	<b>on Minastyc</b>
Aluminum	conductors, construction & electronics	
Antimony	lead-acid batteries & flame retardants	
Arsenic	semi-conductors	
Barite	hydrocarbon production	
Beryllium	alloying agent in aerospace & defense industries	
Bismuth	medical & atomic research	
Cerium	catalytic converters, ceramics, glass, metallurgy & polishing compounds	X
Cesium	research & development	
Chromium	stainless steel & other alloys	
Cobalt	rechargeable batteries & superalloys	
Dysprosium	permanent magnets, data storage & lasers	X
Erbium	fibre optics, optical amplifiers, lasers & glass colorants	X
Europium	phosphors & nuclear control rods	
Fluorspar	aluminum cement, steel gasoline & fluorine chemicals	
Gadolinium	medical imaging, permanent magnets & steelmaking	X
Gallium	integrated circuits, optical devices & LEDs	
Germanium	fibre optics & night vision applications	
Graphite	lubricants, batteries & fuel cells	
Hafnium	nuclear control rods, alloys & high-T ceramics	X
Holmium	permanent magnets, nuclear control rods & lasers	
Indium	liquid crystal display screens	
Iridium	coating of electrochemical anodes & chemical catalyst	
Lanthanum	catalyst ceramics, glass polishing, metallurgy & batteries	X
Lithium	rechargeable batteries	
Lutetium	scintillators for medical imaging & cancer therapies	
Magnesium	alloys & reducing metals	
Manganese	steelmaking & batteries	
Neodymium	permanent magnets, rubber catalysts, medical & industrial lasers	X
Nickel	stainless steel, superalloys & batteries	
Niobium	steel & superalloys	X
Palladium	catalytic converters & catalyst agent	X
Platinum	catalytic converters	X
Praseodymium	permanent magnets, batteries, aerospace alloys, ceramics & colorants	X
Rhodium	catalytic converters, electrical components & catalyst	
Rubidium	research & development in electronics	
Ruthenium	catalysts, electrical contacts & chip resistors in computers	
Samarium	permanent magnets, absorber in nuclear reactors & cancer treatments	X
Scandium	alloys ceramics & fuel cells	
Tantalum	electronic components & superalloys	X
Tellurium	solar cells, thermoelectric devices & alloys	
Terbium	permanent magnets, fibre optics, lasers & solid-state devices	
Thulium	various metal alloys & lasers	
Tin	protective coatings & alloys	X
Titanium	white pigment & metal alloys	X

Tungsten	wear-resistant metals	
Vanadium	alloying agent for iron & steel	
Ytterbium	catalysts, scintillometers, lasers & metallurgy	X
Yttrium	ceramic, catalysts, lasers, metallurgy & phosphors	X
Zinc	primarily metallurgy & galvanized steel	
Zirconium	high-T ceramics & corrosion-resistant alloys	X

## 24.2 World REE 2020 production

Until 2010, rare earth elements (REE) have been produced mainly by China. In 1985, China created incentives for domestic production. In 1998, Mountain Pass mine, the only US producer ceased large-scale operations. In 2002 Mountain Pass stopped operations due to environment issues and increased Chinese competition. In 2010,



China imposed restrictions on exports, provoking higher prices and easing exploration in other countries. In 2010, China produced 92% of the world REE, in 2020 it represents 58%. Figure 45 gives the past production and future tendencies and Table X the world production by country and reserves.

Figure 45 : World REE production 1985-2020.

Table X : 2020 World REE production and reserves

Country	2020 Production t	Reserves t	% of Word Reserves
China	140,000	44,000,000	38
Vietnam	1,000	22,000,000	19
Brazil	1,000	21,000,000	18.1
Russia	2700	12,000,000	10.4
India	3,000	6,900,000	6
Australia	17,000	4,100,000	3.5
U.S.	38,000	1,500,000	1.3
Greenland	-	1,500,000	1.3
Tanzania	-	890,000	0.8
Canada	-	830,000	0.7
South Africa	-	790,000	0.7
Other countries	100	310,000	0.3

Burma	30,000	-	-
Madagascar	8,000	-	-
Thailand	2,000	-	-
Burundi	500	-	-
Total	243,300	115,820,000	100

t : imperial ton

source : USGS Mineral Commodity Summaries

### 24.3 Environment Liabilities (continuation of section 4.4)

#### ENVIRONMENTAL ASPECTS

##### **Protection of Water Rounds**

Starting from the definition of Water Round which includes the belt parallel to the maximum tidal line or to that of the permanent channel of rivers and lakes, up to 30 m wide, it is emphasized that for no reason the phases of the project or the areas arranged for the construction of locations and / or benefit plant, intervene or invade these isolation zones corresponding to the water currents present in the area of influence of the mining project (Ministry of Environment and Sustainable Development, 2017).

##### **Domestic & industrial wastewater**

The treatment and disposal of domestic and industrial wastewater for the exploitation areas contemplate the following measures which will be implemented once the activities begin:

1. Water treatment for domestic and industrial consumption;
2. Update, maintain and control the water flow capacity systems used in the washing process, which includes the wastewater of the beneficiation plant, in order to comply with article 73, Decree 1594 of 1984 and Law 373 of 1997 on saving and efficient use of water or that environmental legislation that replaces or modifies it;
3. Use the water strictly necessary in the different stages of operation of the industrial process. That is why a closed water circulation system is projected, in order to use smaller amounts;
4. Implement water reduction systems in urinals and sinks.

##### **Disposal of domestic wastewater**

Structure and implement a schedule of inspection activities and, if necessary, update the project's domestic wastewater management system, in such a way that they comply with the current environmental standard for domestic wastewater discharges.

1. Implement systems and/or mechanisms that allow effective monitoring of domestic wastewater treatment systems;
2. Carry out periodic monitoring of the discharges of domestic wastewater generated for the verification of compliance with current environmental standards;
3. Avoid increasing the contamination of existing water sources (possible recipients of domestic wastewater discharges) and promote the improvement of the quality conditions of these water sources.

##### **Disposal of industrial wastewater**

1. Monitor and maintain the efficiency in the sedimentation systems of the suspended solids of the sandblaster and / or sedimentation pool;
2. Inspect and perform periodic maintenance to the pipes, equipment and elements associated with the process of conduction of industrial waters (of the process of benefit and areas of exploitation);
3. Periodically monitor the industrial discharges generated by the project;
4. Minimize the generation of suspended solids by implementing irrigation systems on the roads and vehicle cover;
5. Implement a system of management and treatment of wastewater resulting from the washing of the ore, in order to guarantee a closed circuit of conduction to a single sedimentation system. Likewise, the sedimentation time of the waters must be the minimum necessary to remove the suspended solids, in order to comply with the environmental standard at the dumping site;
6. Form drainage channels inside the internal routes of circulation of the FM, with cant towards the slope of 1% so that the runoff waters drain into the perimeter channels to be led to the drainage and treatment circuit of the project.

### **Handling, Treatment, Transport & Final Disposal of Domestic & Industrial Solid Waste**

The handling, treatment, transport and final disposal of solid, domestic and industrial waste for the project includes the following measures:

1. Adopt guidelines for a rational use of products and promote the program for separation at source of waste; managing with companies in the sector endorsed by the municipality, the delivery of the same.
2. Manage the delivery of hazardous waste with authorized companies that have the corresponding permits and licenses. In particular, the delivery to an authorized manager of 100% of the hazardous waste generated.
3. Implement and maintain ecological points with colored containers labeled that allow classification in the generation source. Emphasis will be placed on the delivery of 100% of recyclable waste for use.
4. Develop training and sensitization to staff in order to reduce the generation of solid waste and reuse those likely to be.

### **Air Emissions Control & Noise Management**

Control measures are made up of specific activities and procedures to prevent or mitigate environmental impacts from atmospheric emissions and noises.

#### **Control of atmospheric emissions**

The objective of these measures is to avoid air pollution generated by the mobilization of machinery and equipment. The control of atmospheric emissions includes the development of the following activities:

1. The goal of air emissions control is to comply with the Colombian regulations for emissions established in Resolution 1377 of 2015 and/or that which modifies and/or replaces it.
2. Comply with Colombian regulations for air quality and / or that which modifies and / or replaces it.
3. All vehicles must have gas emission certificates in accordance with current standards.
4. Vehicle traffic in work areas should be subject to speed limits to ensure not only safety, but also to prevent the entrainment of particles. For all types of vehicles, the limit allowed in internal accesses is 20 km / h. In the access roads to the area to be recovered, the restrictions established by the competent authorities must be taken into account.
5. Information signs should be installed in vehicular traffic areas to indicate the permitted speeds.
6. The internal accesses and recovery areas must be moistened to avoid the dragging of particles by the action of the wind or the movement of vehicles and machinery.
7. Drivers should participate in an introductory talk on safety regulations, authorized roads, schedules and speed limits.

The time of application of these measures will be throughout the mining cycle of the project (exploitation, profit and transformation, closure and recovery).

### **Noise management**

The goal is to avoid inconvenience in neighboring communities. Noise management requires considering the following actions:

1. Comply with environmental noise levels in accordance with Resolution 627 of 2006 and / or current regulations.
2. Perform semi-annually the respective measurements of sound pressure levels.
3. Follow up on complaints from communities in the area of influence of the project that they establish when they are affected by noise.
4. Perform periodic maintenance of all machinery, equipment and vehicles of the project.
5. Vehicles and machinery must ensure the proper functioning of silencers to control the noise levels emitted.
6. The use of bugles or whistles that emit high levels of noise should be prohibited.

The time of application of this measure will be throughout the mining cycle of the project (exploitation, benefit and transformation, closure and recovery).

### **Management & measures for runoff water**

The efficient management where required of runoff and subsurface waters is one of the most reliable measures to guarantee the stability of cuts made in the extraction areas. When a balance is achieved between the flow velocities and its dragging capacity, the conditions conducive to the growth of vegetation are generated, providing an additional measure of erosion control.

## Management measures for runoff water

The measures for the management and disposal of runoff water in the project areas are :

1. A collector channel must be designed so that all the waters that may occur on the starting front can be captured, thus, the waters received by the ditches of the internal track.
2. The ditches must be placed on the inside of each berm and built in such a way that they resist the erosion of the solids that the water drags and facilitate the cleaning work.
3. The structure of the sandblaster or sedimentation pool should be cleaned periodically and more frequently during rainy seasons, therefore, they should be located in places that facilitate access and transport of sedimented solids.

Some recommendations for designing ditches, channels and sandblasters are presented.

### Design of channels& ditches

Since the drainage works required to collect and conduct runoff water reaching the areas of mining excavations are relatively small.

The most commonly used sections in the canals and ditches are trapezoidal and triangular, Figure 46. In each case, the expressions for the hydraulic radius, R, are used, which are indicated in the Colebrooke-White and Manning equations.

$$Q = \frac{C \cdot I \cdot A}{3,6} v = -\sqrt{32R * S * g * \log_{10}(k/14,8 * R)} v = \frac{R^{\frac{2}{3}} S^{\frac{1}{2}}}{n}$$

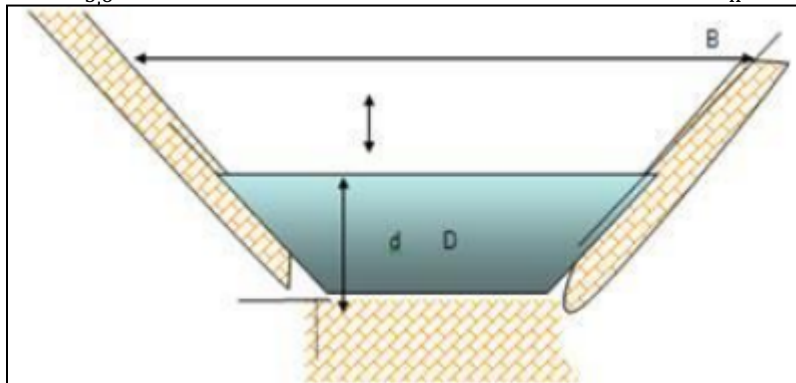


Figure 46 : Typical sections of channels and ditches.

### Design of sandblasters

Sandblasting tanks are built for the purpose of retaining solids that runoff water can carry away before it is delivered to the sewer system. As the recovery processes of the extraction area progress, these structures will lose importance, and the areas will be protected by vegetation.

The hydraulic design of the sandblasting tanks is carried out for a flow rate equal to 75% of the estimated rainfall of the return period of 10 years.



The large particles carried by the water are deposited at the bottom of the tank, where the speed of the water decreases and loses its greatest transport capacity. The sandblaster is composed of four zones: inlet, sedimentation, sludge and outlet, as shown in Figure 47.

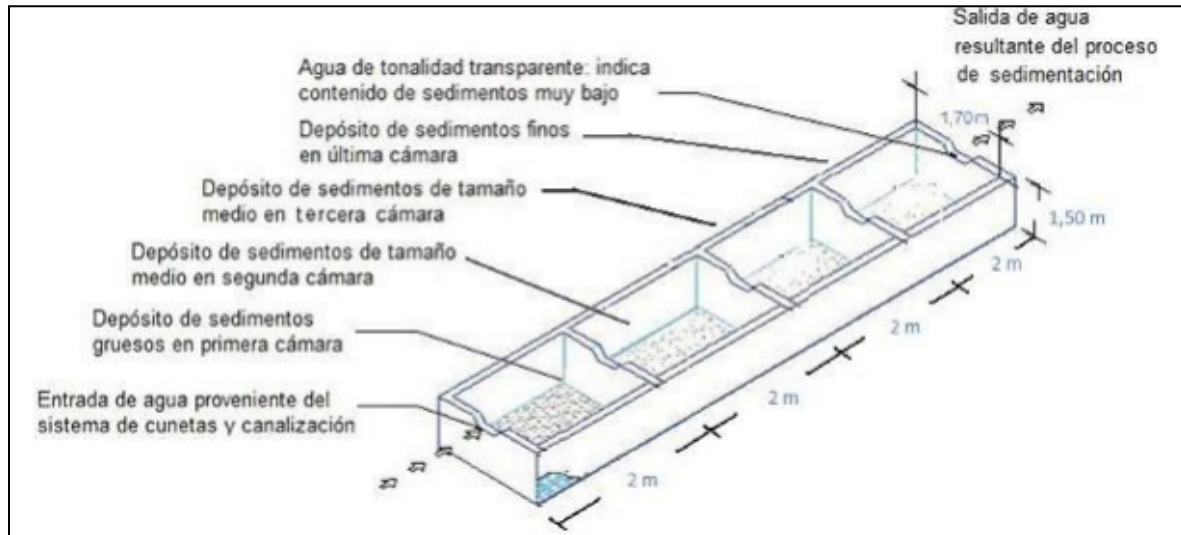


Figure 47 : Hydraulics of sandblasting tanks

The entrance area of the sandblaster serves to reduce the speed of the water and return excess water. It consists of a side landfill, dissipation chamber and perforated partition. The dissipation chamber slows the rate of entry of water into the sedimentation zone, while the perforated septum distributes it throughout the section.

The sedimentation tank must have dimensions such that a theoretical retention time is met, so that the larger solids are deposited at the bottom, which is the sludge zone. The exit zone is made up of a landfill that connects to a channel or pipeline.

#### MINING ENVIRONMENTAL TECHNICAL GUIDES

In accordance with the provisions of the Ministry of Mines and Energy, the mining-environmental technical guides that will be used in the different environmental components affected, and in the development of the construction, assembly and exploitation works of this project, giving way to the planning, execution and monitoring of the environmental activities that will be carried out according to the mining activity.

It is highlighted that within the Environmental Management Plan contained in the Environmental Impact Study that is delivered to CORPORINOQUIA, a detailed description of the control measures is made, with their respective files to be applied, in addition to the effects to be mitigated, causes of them, time and time of execution, costs of the works, follow-up, control and monitoring and responsible for the auditing

The following are the specific management sheets to be taken into account in the development of the project:

#### **Water Component**

CME 07-03 Rainwater management: Perimeter ditches built on land are proposed for the treatment of the same, preventing runoff waters from causing erosion in the areas destined as patios for the disposal of material of interest.

CME 07-04 Management of domestic wastewater: It will be used to treat domestic water from the camps located in the area, through the implementation of septic tanks.

CME 07-07 Management of water bodies: Although no type of intervention will be carried out in channels and / or water rounds, the protection measures that are convenient when the exploitation process is in nearby areas will be advanced, in order to avoid at all times any type of contamination in the water resource.

### **Air Component**

CME 07-09 Noise Management: It is developed to mitigate negative impacts on environmental factors due to the use of machinery and transport vehicles.

### **Soil Component**

CME 07-10 Fuel Management: It is developed in order to establish the loading, transport and handling of fuels used for machinery and vehicles, in order to avoid spills that may generate environmental damage.

CME 07-11 Soil management: These activities are intended to give adequate management to the soil that may be found covering the areas to be exploited and adapted for collection yards and other infrastructure, so that it can be reused in the subsequent process of morphological and landscape restoration of the areas affected by said infrastructure required for the development of the project.

CME 07-15 Management of Sterile and Debris: The objective is to give the correct handling to the sterile material resulting from the same exploitation fronts, which as explained in previous chapters, will be deposited in the areas already exploited for the morphological restoration of the land.

CME 07-16 Track Management: It is proposed to maintain the access roads to the operating fronts and the facilities, mainly developing ditches for the correct treatment of rainwater.

CME 07-17 Solid waste management: It is about giving proper management to garbage through the strategic location of baskets in the operation sites and the recycling of them to be delivered to the municipality's cleaning service.

CME 07-18 Management of fauna and flora: This includes the proper management of existing fauna and flora communities, conserving forested areas. Likewise, reforestation of a sector and maintenance of the existing flora.

CME 07-24 Landscape management: Includes reforestation, restoration, maintenance and conservation of existing forest areas, enrichment with herbaceous species of areas affected by mining and the installation of live fences.

CME 07-25 Plan de Recuperación: Conform a el plan de obras de recuperación morfológica, paisajística y forestal establecido en el capítulo 7.

## **24.4 AMCO Report**

Following the August 2021 report (AMCOa, 2021), a voluminous report was produced by AMCO Consultores in September 2021 on the Minastyc property for AUXICO Resources (AMCOb, 2021). The report entitled "**Estudio de impacto ambiental (EIA) para el tramite de licencia ambiental temporal de la solicitud de formalizacion minera LFH-14431X, en el municipio de Puerto Carreño**" was partly translated by the authors of the present report. It comprises 8 chapters.

- 1- Objectives
- 2- Description of the mineral activities
- 3- Characterization of the area of influence of the mineral activities
- 4- Socio-economic environment
- 5- Environment permit and authorization of natural resource exploitation, for the mineral activities
- 6- Environment evaluation
- 7- Management of the environment of the mineral activities
- 8- Dismantlement and abandonment of the mining activities

The objectives of the report are as follow.

- Description of the technical characteristics of the mineral exploitation of permit LFH-14431X, Minastyc project, in order to get a temporary environmental permit.
- Describes the area of environment influence and describes the abiotic, biotic and socio-economic environment.
- Identify, quantify, valorize and describe the possible impacts at present (scenario without project) and the one that could arise following the onset of the project (scenario with project).
- Request and obtain permit for exploitation of natural resources necessary and essential for the execution of the project as well as atmospheric emissions and impacts on forestry.
- From the sensitivity of the abiotic, biotic and socio-economic milieu, determine the zoning of environment management resulting in identification of exclusion zones, and intervention with restrictions of the mineral exploitation.
- Formulate different programs, environment management activities and social needs to prevent and mitigate the negative environment impacts resulting from the mineral exploitation and associated activities and identify the positive impacts of the mining exploitation.
- Insure the fulfillment of the environment management plan (EMP) using the program follow-up and monitoring of the abiotic, biotic and socio-economic milieu.

The report contains valuable information on topography, photo-mosaic surveying, hydrography and drainage and water quality. It also contains a thorough description of flora, fauna, biotic milieu, socio-economic status and land occupation of the people living in the Minastyc project area. The report contains a detailed mining plan and engineering chronograms, etc. The geological section of the report is not detailed and non compliant to 43-101 guidelines.

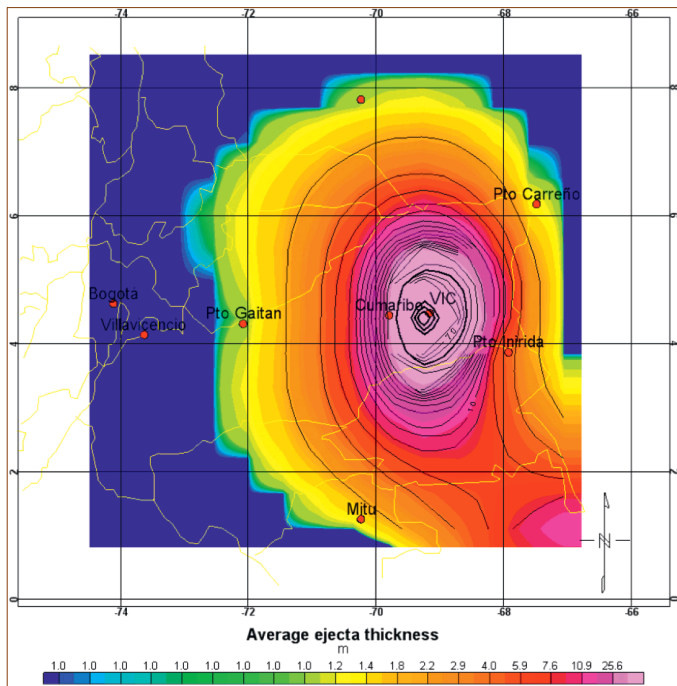
A more recent Documento\_PTO entitled **Programa de Trabajos y Obra de Explotacion para la Legalizacion de Minería de Hecho LFH-14431X- Proyecto**

**Minero Minastyc** was produced by AMCO in February 2022. It is the same document as the one described above with additions to satisfy the NMA and Ministerio de Minas y Energia de Colombia requirements (AMCO, 2022).

## 24.5 Vichada Meteorite Impact

### Vichada Meteorite Impact

A probable meteoritic impact of importance discovered in 2004, is located 248 km SW of Puerto Carreño. It forms a large curvature, along the Rio Vichada, 150 km west of the Rio Orinoco. The circular structure is 50 km wide and at least 30 million years old. It has affected the Neoproterozoic granitic basement and the Cenozoic cover and possibly the Parguaza granite Ta-Nb-REE mineralization, like in the Sudbury case.



Simulation by Hernandez et al. (2018) showed up to 1 m of ejecta thickness in the Minastyc property area, Figure 48. Much work still remain to be done to assess the likelihood of the impact and its influence on the basement mineralization.

Figure 48 : Ejecta thickness simulation for the Vichada impact located 248 km SW of the Minastyc property immediately south of Puerto Carreño, to the NE of the map.

## 24.6 Agualinda Property

On December 8, 2021, AUXICO announced the acquisition of the surface rights covering 1293 ha of a land titled Agualinda, also referred to as Minastyc South, located south of Puerto Carreño and adjoining the Minastyc property. The only preliminary exploration work done in the surrounding areas is a satellite imagery study carried out by Popiela (2021). Target priority maps were produced using spectral analysis and radar within the Minastyc South perimeter. Figure 49 shows an approximate position of Minastyc South adjacent or near the Minastyc property since AUXICO did not published the exact coordinates of Agualinda.

If, in the future a resource is completed on Minastyc, and exploration work conducted on Agualinda would indicate a sufficient amount of material to be exploited and a resource established, then if a processing facility were built on Minastyc, it would be able to process material from Agualinda as well since it is just adjacent to the south. There is already a road going through Agualinda and north onto Minastyc, so that the transportation of material from Agualinda to Minastyc would be quite simple and at a very low cost.



Figure 49 : Approximate location of the AUXICO Minastyc South property.

## 25. Conclusion

The Minastyc property covers 188,74 ha. and is located on the west side of the Rio Orinoco south of Puerto Carreño in Colombia. Exploration works were carried out in 2020 and 2021 by AMCO Consultores and CanaMex. It comprises topographic and photo-mosaic surveys, induced polarization (IP) and seismic refraction line surveys, pit and trench digging, geology, sampling, and geochemical analyses. The satellite imagery analyses were carried out by JAPOSAT Satellite Mapping.

The Minastyc alluvial deposits are overlying the Parguaza rapakivi granite showing as inselbergs on the property. From bottom to top the stratigraphy shows, granite, granite saprock or saprolite (50 cm to 1 m), iron concretion (ferricrete) (50 cm to 1 m), sediment 1 and 2, conglomeratic oxidized sands with quartz pebbles, heavy minerals and clays (2 m +), sediment 3, oxidized layered sand with kaolinite layers (1 m) and sediment 4 gritty oxidized sands (1 m).

The various alluvial horizons were described and sampled along vertical channels and from adjacent stockpiles. A heavy bulk sample was taken in the centre of the property. All samples were analyzed using XRF at Alpha1 lab in Bogota.

The AMCO results are only qualitative and suggest the presence of columbo-tantalite, cassiterite, rutile and possibly ilmenite or pyrochlore in the heavy mineral concentrates.

The analytical results from the first AUXICO exploration program in August 2021 show a relation between the mean values of specific elements and the size of the concentrate. The fine grained particles show high Ti and Zr possibly related to the presence of heavy minerals like ilmenite, possibly rutile or tantalite-rutile and zircon. Sn, Nb and Hf values may be related to cassiterite, columbo-tantalite or wodginite. The coarse concentrate shows high Al, Si, Mn and LOI (loss-on-ignition) related to processes like feldspar alteration, iron and manganese migration and enrichment in upper horizons of the alteration zones and absorption of water by the iron oxides. Area 50 bulk sample shows high concentrations of P<sub>2</sub>O<sub>5</sub>, ThO<sub>2</sub> and REE oxides compatible with the presence of monazite. Fe, Sn, Nb and Ta values suggest that iron hydroxide, columbo-tantalite and cassiterite are present in small quantities in the concentrate.

The analytical results from the second AUXICO sampling program in December 2021 are pending.

The exploration on the Minastyc property shows that the lower horizons immediately above the granite saprock or saprolite show heavy minerals containing cassiterite, ilmenite and columbo-tantalite possibly originating from the pegmatitic or greisen phases of the underlying Parguaza granite. South of the property on the west side of the Rio Orinoco, Ti, Ta, Nb heavy minerals were found in the ferricrete alteration of the Parguaza granite inselbergs. Au, Ag, Pt and Pd were detected in concentrates of 20 samples distributed on the property.

Given the world market need for critical and REE metals and minerals, section 24, the presence of Ta, Nb, Ti, Sn, , Zr, REE, Au and Pt opens the exploration in Eastern Colombia not only in the alluvial deposits along the rivers but also around the granite inselberg alteration zones that extend tens of kilometers to the west.

The authors conclude that given all the results presented in this report, the alluvial deposits of the Minastyc Property show anomalous concentrations of Sn, Ti, Ta, Nb and REE, Au and Pt, and that with further detailed work, there would be opportunity of outlining a deposit of economic worth, should enough material, grade, and continuity of the alluvial's be established.

Further exploration is required to fully assess the economic potential for Sn, Ti, Ta, Nb and REE, Au and Pt of the alluvial deposits of the Rio Orinoco in Colombia.

## 26. Recommendations & Budget

Following the analytical results and the stratigraphic works carried out on the Minastyc property in 2020 and 2021, and based on the positive results obtained in these field seasons, it is recommended to engage in a detailed exploration program for 2022-2023. A budget of USD 797,880 is recommended as per the following table. It could be described as follow :

- An auger program should be undertaken in order to map, sample and study the stratigraphy of the entire property. A 50 or 100 m spaced and staggered row grid should be established. The holes should reach 7 to 8 m or stopped at the water table and carefully sampled every meter or according to the various sedimentary units. The distribution is proposed with related coordinates in Appendix III .
- Additional trenches may be excavated in specific areas in order to carry out detail descriptive or sampling works. Machinery could be used to get to 5 m depth or more. A detail stratigraphy of the various fertile horizons should be established and correlations done across the property.
- The granite saprolite, the iron concretion (ferricrete) and the overlying conglomeratic sediments should be mapped and sampled in detail as they seem to be the primary source of heavy minerals.
- IP gradient line (dipole-dipole) could be located parallel to the pit or trench lines, to get an IP gradient survey of the property. A ground radiometric survey of the property should be initiated in order to locate concentrations of Th-REE-bearing monazite.
- Sampling should be carried out very carefully as well as the preparation of the concentrates, with detailed mineralogical descriptions using portable XRF device, dilution factors, granulometry, etc. The acquisition of a portable concentrator should be considered as they are efficient to standardize the sampling of heavy minerals and as they are available at reasonable costs.
- Microscopic and X-ray diffraction analyses of heavy mineral concentrates should be requested to identify the various mineral phases.
- Referenced material (standards) and blanks should be intercalated every 20 samples and duplicates should be inserted every 40 samples when submitting large batches to the XRF laboratory.

- A sufficient number of samples should be sent concurrently to ALS Chemex or SGS in South America for ICP-MS analysis or else, in order to confirm the XRF results.
- Finally a remote sensing analysis is recommended using ground analytical results in order to correlate spectral and geochemical results and to expand target areas outside the sampling sites.

### Budget 2022-2023

No.	Description	Unit (USD)	Days/sples	Total (USD)
1	Excavator Rental for 30 days	5000	30	150000
2	Purchase of Auger	25000	1	25000
3	Purchase of 4 x 4 vehicle	40000	1	40000
4	Purchase of All Terrain Vehicle	40000	1	40000
5	LIDAR survey	20000		20000
6	IP gradient and radiometric survey	40000		40000
7	Geological Supervision - 2 prof. geologists			150000
8	Sedimentologist			10000
9	Assays	100	500	50000
10	Metallurgical testing	2500	4	10000
11	Room & Board for 2 Geologists (Puerto Carreno)	150	60	9000
12	Travel (Flights, hotels, Meals)			10000
13	NI 43-101 Technical Resource Report			100000
				-----
	Subtotal Estimated Budget			654000
	Contingencies	0,15		98100
	Administration	0,07		45780
				-----
	<b>Total Estimated Budget Phase 1</b>			<b>797880</b>



## 27. References

- AMCOa**, 2021 : Programa de Trabajos y Obra de Explotacion para la Legalizacion de Minera de Hecho LFH-14431X - Proyecto Minero Minastyc; Unpublished report for AUXICO Resources by AMCO Consultores, August 2021, 147 p.
- AMCOb**, 2021 : Estudio de impacto ambiental (EIA) para el tramite de licencia ambiental temporal de la solicitud de formalizacion minera LFH-14431X en el minucipio de Puerto Carreño; Unpublished report for AUXICO Resources, by AMCO Consultores, September 2021, 8 chapters, 375 p.
- AMCO**, 2022 : Programa de Trabajos y Obra de Explotacion para la Legalizacion de Minería de Hecho LFH-14431X - Proyecto Minero Minastyc; Unpublished report for AUXICO Resources by AMCO Consultores, February 2022, 213 p.
- Barrero**, D., Pardo, A., Vargas, C.A. and Martinez, J.F., 2007 : Colombian Sedimentary Basins : Nomenclature, Boundaries and Petroleum Geology, a New Proposal; Agencia Nacional de Hidrocarburos, 91 p.
- Bonilla-Pérez**, A., Frantz, J.C., Charão-Marques, J., Cramer, T., Franco-Victoria, J.A., Mulocher, E. and Amaya-Perea, Z., 2013 : Petrografía, Geoquímica y Geocronología del granito de Parguaza en Colombia; Boletín de Geología, Vol 35 No 2, p. 83-104.
- Bonilla-Pérez**, A., Franco Victoria, J.A., Carlos, F.J., Cramer, T. and Amaya Perea, Z., 2013a. : Tantalum and Niobium Mineralization in the NW Guiana Shield; Oral Presentation; <https://studyres.com/doc/7923417/>.
- Cerný**, P., Ercit, T.S., Smeds, S-A., Groat, L.A. and Chapman, R., 2007 : Zirconium and Hafnium in minerals of the columbite and wodginite groups from granitic pegmatites; Canadian Mineralogist Vol. 45, p. 185-202.
- Cramer**, T., Bonilla Perez, A., Franco Victoria, J.A., Amaya Perea, Z. and Iregui, I., 2010 : Mineralization of Tantalum and Niobium in Vichada and Guainía, Eastern part of Colombia-Acta Mineralogica-Petrographica, Abstract Series, 6.
- Cramer**, T., Franco, J.A., Amaya Perea, Z., Bonilla Pérez, A., Poveda, A.P. and Celada Arango C.M., 2011 : Caracterización de depósitos aluviales con manifestaciones de tantalio y niobio (“coltán”) en las comunidades indígenas de Matraca y Caranacoa en el Departamento del Guainía. Contrato 021 de 2010, Ingeominas-Universidad Nacional de Colombia, Bogota, 63 p.
- Franco Victoria**, J.A., Cramer, T., de Oliveira Chaves, A., Horn, H.A., and Poujol, M., 2021: Geochronology of monazite related to REE, Nb-Ta and U-Th bearing minerals from Meso - Proterozoic anorogenic magmatism in the E-Colombian Amazonian Craton: links to mantle plume activity in the Columbia (Nuna) supercontinent; Journal of South American Earth Sciences, Elsevier, 2021, 109, pp.103228.
- Franco**, J.A., Cramer, T., Bonilla, A., Castañeda, A.J., Poujol, M. and Amaya, Z., 2021 : Mineralogía y geocronología, de rutilo-(Nb,Ta) relacionado a casiterita y columbita-tantalita provenientes de rocas Mesoproterozoicas del Craton Amazonico cerca de Cachicamo, Colombia; Boletín de Geología, 43 (1), p. 99-126.

- Gomez, J.** and Montes, N.E., 2020 : 5-11 Sheet of the Colombia Geological Atlas, 1 : 500 000 scale, Colombian Geological Service, Bogota.
- Goosen, D.**, 1971 : Physiography and Soils of the Llanos Orientales, Colombia; International Institute for Aerial Survey and Earth Sciences (ITC) - Enschede - The Netherlands, Series B, number 64, 198 p.
- Hernandez, O.** and Alexander, G.C., 2018 : Vichada asteroid impact effects from simulation of regional environment consequences of meteoroid impact on Earth; Earth Sciences Research Journal, 22(1), p. 7-12.
- Ibañez–Mejia, M.** & Cordani, U.G. 2020. Zircon U–Pb geochronology and Hf–Nd–O isotope geochemistry of the Paleo – to Mesoproterozoic basement in the westernmost Guiana Shield. **In:** Gómez, J. & Mateus–Zabala, D. (editors), The Geology of Colombia, Volume 1 Proterozoic –Paleozoic. Servicio Geológico Colombiano, Publicaciones Geológicas Especiales 35, p. 65–90.
- Jaramillo, M.**, 2021 : Report on the sampling program in the areas of Pijiguaos (Cedeño Municipality, State of Bolivar, Venezuela) and Puerto Carreño, Colombia in the Orinoco River region; Unpublished report for AUXICO Resources, January 2021, 36 p.
- Jones, J.V., III,** Piatak, N.M., and Bedinger, G.M., 2017 : Zirconium and Hafnium, chapter V of Schulz, K.J., DeYoung, J.H., Jr., Seal, R.R., II, and Bradley, D.C., eds., Critical mineral resources of the United States-Economic and environmental geology and prospects for future supply; U.S. Geological Survey Professional Paper 1802, p. V1–V26.
- Kamilli, R.J.,** Kimball, B.E., and Carlin, J.F., Jr., 2017 : Tin, chapter S of Schulz, K.J., DeYoung, J.H., Jr., Seal, R.R., II, and Bradley, D.C., eds., Critical mineral resources of the United States-Economic and environmental geology and prospects for future supply; U.S. Geological Survey Professional Paper 1802, p. S1–S53.
- Kroonenberg, S.B.,** de Roever, E.W.F., Fraga, L.M., Reis, N.J., Faraco, T., Lafon, J.-M., Cordani, U. and Wong, T.E., 2016 : Paleoproterozoic evolution of the Guiana Shield in Suriname : A revised model; Netherlands Journal of Geosciences, 95-4, p. 491-522.
- Kroonenberg, S.B.,** Mason, P.R.D., Kriegsman, L., de Roever, E.W.F. and Wong, T.E., 2019a : Geology and mineral deposits of the Guiana Shield; Mededeling Geologisch Mijnbouwkundige Suriname, 29, p. 111-115.
- Kroonenberg, S.B.,** 2019b : The Proterozoic Basement of the Western Guiana Shield and the Northern Andes; **in** Cediël, F. and Shaw, R.P., eds, The Geology and Tectonics and Northwestern South America, p. 115-192, Springer, 2019
- Legros, J.P.,** 2013 : Latérites et autres sols des régions intertropicales; Académie des Sciences et Lettres de Montpellier, Bulletin no. 44, p. 369-382.
- Linnen, R.L.** and Cuney, M., 2005 : Granite-related rare-element deposits and experimental constraints on Ta-Nb-W-Sn-Zr-Hf mineralization; **in** Linnen, R.L. and Samson, I.M., eds., Rare-Element Geochemistry and Mineral Deposits. Geological Association of Canada, GAC ShortCourse Notes 17, p.45-68.

- Macambira**, M.J.B., Teixeira, J.T., Daoud, W.K. and Costi, H.T., 1987 : Geochemistry, mineralizations and age of tin-bearing granites from Pitinga, NW Brazil; *Revista Brasileira de Geociencias*, 17 (4), p. 562-570.
- Mackay**, D.A.R. and Simandl, G.J., 2015 : Niobium and Tantalum : Geology, markets and supply chains. British Columbia Geological Survey Paper 2015-3, p. 13-22
- Nahon**, D. and Tardy, Y., 1992 : The Ferruginous Laterites; in .C.R.M. Butt and H. Zeegers (eds.), *Regolith Exploration Geochemistry in Tropical and Subtropical Terrains; Handbook of Exploration Geochemistry*, Elsevier 1992, p. 41-55
- Overstreet**, W.C., 1967 : The Geologic Occurrence of Monazite; USGS Professional Paper 530, 327 p.
- Pelletier**, J. and Scodnick, J., 2022 : Preliminary metallogeny report & work program on the Minastyc deposit, Puerto Carreño District, Vichada, Colombia; Servicios Minería CanaMex unpublished report for AUXICO Resources, 38 p.
- Perez**, H., Salazar, R., Penaloza, A., and Rodriguez, S., 1985, Evaluation preliminar geoeconomica de los aluviones presentando minerales de Ti, Sn, Nb y Ta del area de Boquerones y Aguamena, Distrito Cedeno, Estado Bolivar y Territorio Federal Amazonas: I Simposium Amazonico, Venezuela, *Boletin de Geologia, Publicacion Especial No. 10*, p. 587-602.
- Popiela**, B., 2020 : Satellite Study, Coltan prospect AOI-1 & AOI-2, Colombia. Unpublished report to AUXICO Resources by JAPOSAT Satellite Mapping, 30 p.
- Popiela**, B., 2021 : Remote Sensing Study, REE Prospect Minastyc South, Colombia; Multispectral surface signature targets similar to known REE sites Minastyc North; Unpublished report to AUXICO Resources by JAPOSAT Satellite Mapping, 32 p.
- Schulz**, K.J., Piatak, N.M., and Papp, J.F., 2017, Niobium and Tantalum, chapter M of Schulz, K.J., DeYoung, J.H., Jr., Seal, R.R., II, and Bradley, D.C., eds., *Critical mineral resources of the United States-Economic and environmental geology and prospects for future supply*; U.S. Geological Survey Professional Paper 1802, p. M1–M34.
- Sidder**, G.B., 1990 : Mineral Occurrences of the Guiana Shield, Venezuela; U.S. Geological Survey, Open-file Report 90-16, 28 p.
- Sidder**, G.B. 1995 : Mineral Deposits of the Venezuelan Guayana Shield; USGS Bulletin 2124-O, p. O1-O20.
- Sidder**, G.B. and Mendosa-S. V., 1995 : Geology of the Venezuelan Guyana Shield and Its Relation to the Geology of the Entire Guyana Shield; U.S. Geological Survey Bulletin 2124-B, p. B1-B41.
- UNODC**, 2020 : Colombia Alluvial Gold Exploitation; Evidence from remote sensing 2019; United Nations Office on Drugs and Crime, 229 p.
- Van Gosen**, B.S., Verplanck, P.L., Seal, R.R., II, Long, K.R., and Gambogi, J., 2017, Rare Earth elements, chapter O of Schulz, K.J., DeYoung, J.H., Jr., Seal, R.R., II, and Bradley, D.C., eds., *Critical mineral resources of the United States-Economic and environmental geology and prospects for future supply*; U.S. Geological Survey Professional Paper 1802, p. O1–O31.

## Appendix I : Sample Locations & Descriptions

Locations and descriptions of samples taken on the Mnastyc property by AUXICO in August 2021

<b>Id</b>	<b>E z19</b>	<b>N z19</b>	<b>EI m</b>	<b>WP</b>	<b>Pit No.</b>	<b>Description</b>	<b>Sple Type</b>	<b>Sple-Wt g</b>	<b>Conc-Ratio</b>	<b>Date</b>
S00357751	669464	668625	105	0030	MIN-01	siliceous material with Clay alteration	fine conc.	44	201	Aug 23
S00357752	669463	668635	90	0021		sample with obsidian, in a breccia 2m wide	fine conc.	32	519	Aug 21
S00357753	669435	668622	89	0020	MIN-02	TA Zone Main Trench, channel sample 6" wide x 2-3" deep x 2.5mL, 1.8m sand OB	fine conc.	23	513	Aug 23
S00357754	669435	668622				red gravel, vertical channel sample 2.3m (TW)	fine conc.	9	1435	Aug 23
S00357755	669435	668622				mafic bands in lateritic soil, rock samples	rock sample			Aug 23
S00357756	669420	668616	134	0031	MIN-03	sample taken across 1.9m (TW)	fine conc.	3	5182	Aug 23
S00357757	669430	668655	135	0037	MIN-08	channel sample taken vertically for 2.10m (TW)	fine conc.	43	411	Aug 23
S00357758	669423	668682	135	0038	MIN009	channel sample taken vertically for 0.80m (TW)	fine conc.	12	1440	Aug 23
S00357759	669423	668682	135	0038	MIN009	channel sample taken vertically for 1.20m (TW)	fine conc.	49	486	Aug 23
S00357760	669466	668738	90	0023	MIN010	5 grams of fines	fines 5 g	5		Aug 23
S00357762	669747	668153	97	0040	MIN011	4 shovels full from each pile, pit filled with water, Juan did not send a sample from this location	fine conc.	26	261	Aug 24
S00357763	669692	668142	100	0041	MIN012	80cm (TW) channel sample	fine conc.	34	199	Aug 24
S00357764	669605	668146	102	0042	MIN-013	60cm (TW) channel sample, 1m sand OB	fine conc.	23	416	Aug 24
S00357765	669646	668096	104	0043	MIN-014	rocks are lateritic, semi-massive to massive sulphides (Fe), took a composite sample from 4 locations at pit, dug down to an average of 35cm, very oxidized	fine conc.	76	217	Aug 24
S00357766	669689	668074	108	0044	MIN-015	cannot sample in the pit, too much water, took 2 shovel fulls from different locations	fine conc.	36	293	Aug 24
S00357767	669499	667585	114	0046	MIN-017	sand OB, red gravels, yellow alteration, then pegmatitic laterite	fine conc.	35	233	Aug 24
S00357768	669543	667530	116	0047	MIN-018	no fines present				Aug 24
S00357769	669776	667155	118	0048	MIN-019	no fines present	no fines			Aug 24
S00357770	670030	667663	117	0049	MIN-020	no fines present	no fines			Aug 24
S00357771	670197	667864	123	0050	MIN-021	no fines present	no fines			Aug 24
S00357772	670199	667834	125	0051	MIN-022	no fines present	no fines			Aug 24
S00357773	669464	668625	105	0030	MIN-01	siliceous material with clay alteration	coarse gravel	1000	9	Aug 23
S00357774	669463	668635	90	0021		sample with obsidian, in a breccia 2m wide	coarse gravel	1900	9	Aug 23
S00357775	669435	668622	89	0020	MIN-02	TA Zone Main Trench, channel sample 6" wide x 2-3" deep x 2.5mL, 1.8m sand OB	coarse gravel	4200	3	Aug 23
S00357776	669435	668622				red gravel, vertical channel sample 2.3m (TW)	coarse gravel	5700	2	Aug 23
S00357777	669420	668616	134	0031	MIN-03	sample taken across 1.9m (TW)	coarse gravel	5400	3	Aug 23

S00357778	669430	668655	135	0037	MIN-08	channel sample taken vertically for 2.10m (TW)	coarse gravel	7100	3	Aug 23
S00357779	669423	668682	135	0038	MIN009	channel sample taken vertically for 0.80m (TW)	coarse gravel	7700	2	Aug 23
S00357780	669423	668682	135	0038	MIN009	channel sample taken vertically for 1.20m (TW)	coarse gravel	5700	4	Aug 23
S00357781	669466	668738	90	0023	MIN010	channel sample taken vertically for 1.30m (TW)	coarse gravel	6900	3	Aug 23
S00357782	669747	668153	97	0040	MIN011	4 shovel fulls from each pile, pit filled with water, Juan did not send a sample from this location	coarse gravel	2700	3	Aug 24
S00357783	669692	668142	100	0041	MIN012	80cm (TW) channel sample	coarse gravel	2700	3	Aug 24
S00357784	669605	668146	102	0042	MIN-013	60cm (TW) channel sample, 1m sand OB	coarse gravel	1600	6	Aug 24
S00357785	669646	668096	104	0043	MIN-014	rocks are lateritic, semi-massive to massive sulphides (Fe), took a composite sample from 4 locations at pit, dug down to an average of 35cm, very oxidized	coarse gravel	2600	6	Aug 24
S00357786	669689	668074	108	0044	MIN-015	cannot sample in the pit, too much water, took 2 shovel fulls from different locations	coarse gravel	1800	6	Aug 24
S00357787	669499	667585	114	0046	MIN-017	sand OB, red gravels, yellow alteration, & pegmatitic laterite	coarse gravel	1800	5	Aug 24
S00357788	669543	667530	116	0047	MIN-018	sample taken from stockpile due to excessive water in the pit, 2.20m sand OB, then the bottom 0.40m sulphide zone	rock sample			Aug 24
S00357789	669776	667155	118	0048	MIN-019	pit full of water, 2 shovel fulls taken from stockpile	coarse gravel	3000	5	Aug 24
S00357790	670030	667663	117	0049	MIN-020	pit full of water, 3 shovel fulls taken from stockpile	coarse gravel	4200	3	Aug 24
S00357791	670197	667864	123	0050	MIN-021	channel sample 3.60m (TW)	coarse gravel	1800	9	Aug 24
S00357792	670199	667834	125	0051	MIN-022	channel sample 1.35m (TW)	coarse gravel	1800	7	Aug 24
S00357793	670189	667857	85	0052	Area50-ptA	Bulk Sample Area 50 - Point A, 13 wheelbarrows at 128 kg / wheelbarrow	fine conc.	7700	425	Aug 26

OB : overburden      TW : true width      WP : way point

## Appendix II : Analytical Results

Analytical results from AUXICO samples taken in August 2021, all in wt % unless specified

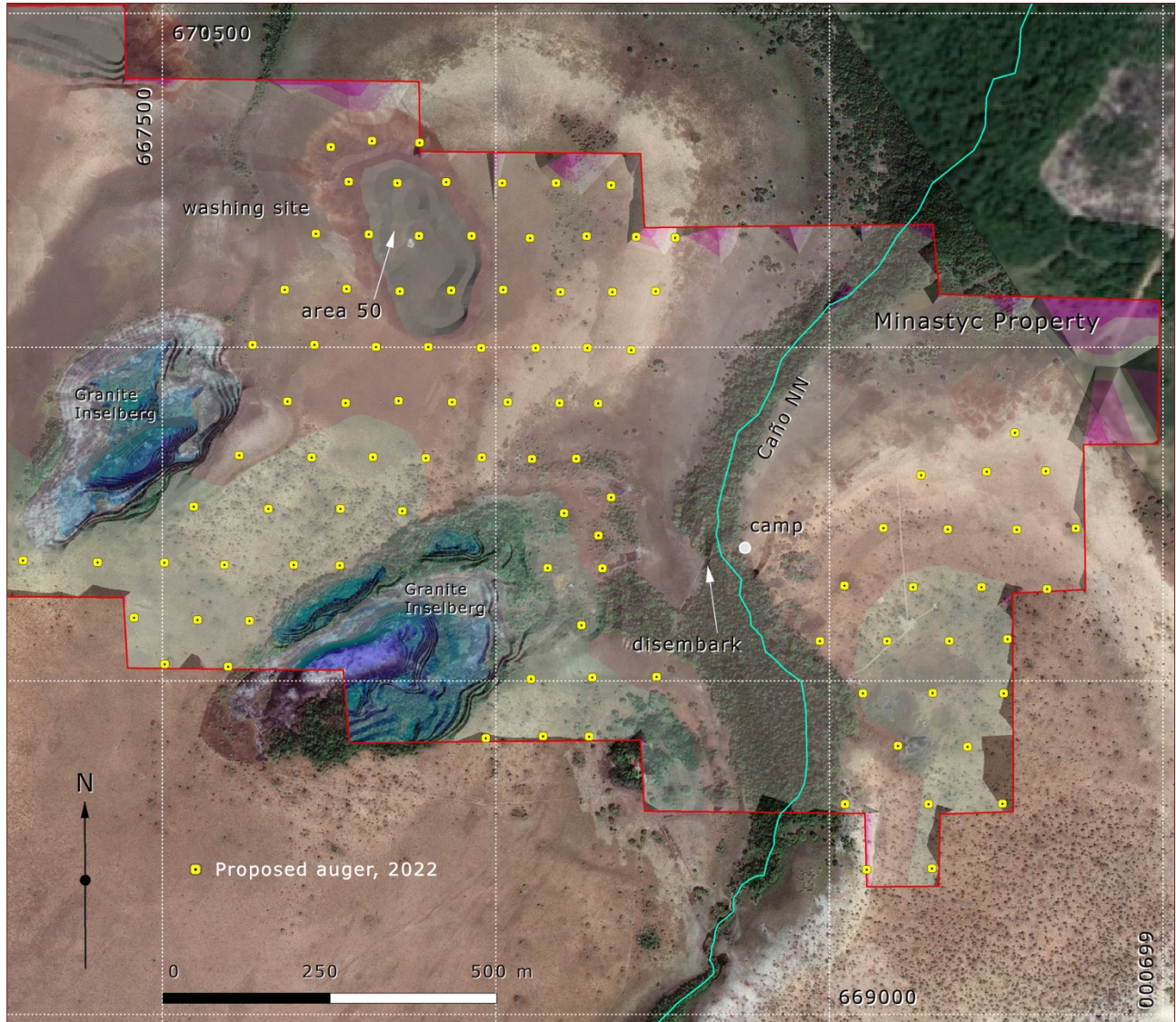
Lab Id	E z19	N z19	SiO2	Al2O3	TiO2	Fe2O3	MgO	CaO	Na2O	K2O	P2O5	LOI	ZrO2	MnO	PbO	ZnO	WO3	SnO2
S00357751	669464	668625	56,19	2,19	19,51	14,17	0,02	0,03			0,40	0,34	3,94	0,64	0,03		0,04	1,14
S00357752	669463	668635	47,72	1,88	23,24	19,54	0,02	0,07			0,11		5,33	0,82		0,13		0,86
S00357753	669435	668622	33,55	2,60	28,01	26,49	0,03	0,05			0,07		7,58	1,16		0,08		0,06
S00357754	669435	668622	18,31	1,12	33,16	31,84				0,14	0,18		12,36	1,34	0,06	0,06		0,13
S00357755	669435	668622																
S00357756	669420	668616	33,84	2,30	28,75	26,00	0,02	0,06			0,09		7,34	1,21		0,09		
S00357757	669430	668655	40,08	2,01	26,38	24,66	0,02				0,06		5,45	0,93		0,07		
S00357758	669423	668682	23,76	1,13	30,22	31,25	0,06				0,11		11,55	1,26		0,08		
S00357759	669423	668682	47,57	1,78	23,32	20,36					0,04		5,61	0,91		0,15		
S00357760	669466	668738	26,87	0,77	18,62	25,32	0,02				0,09		26,06	1,26		0,08		
S00357762	669747	668153	53,57	2,17	19,20	18,16				0,19	0,04		5,46	0,80		0,01		
S00357763	669692	668142	36,63	9,28	22,30	22,65	0,04	0,15	0,03	0,40	0,12		7,09	0,82				
S00357764	669605	668146	42,91	6,12	23,61	17,91		0,11	0,02		0,09		8,01	0,72		0,03		
S00357765	669646	668096	33,20	1,94	29,31	28,11		0,12			0,05		5,59	1,18	0,02	0,04		
S00357766	669689	668074	42,23	1,94	26,03	23,13					0,03		5,15	0,97		0,03		
S00357767	669499	667585	60,06	2,45	16,36	16,76	0,03	0,26		0,06	0,07		3,09	0,65	0,02			
S00357773	669464	668625			0,37													
S00357774	669463	668635	65,19	8,90	0,30	20,50	0,01	0,03	0,02	0,18	0,10	4,72	0,03					
S00357775	669435	668622																
S00357776	669435	668622	61,62	7,60	0,29	25,18			0,01	0,07	0,17	5,01	0,05					
S00357777	669420	668616	52,57	12,61	0,37	26,85		0,09		0,07	0,13	7,21	0,08		0,01			
S00357778	669430	668655	42,42	18,33	0,53	29,79		0,08		0,06	0,11	8,53	0,12		0,02	0,02		
S00357779	669423	668682	57,04	7,92	0,29	28,71	0,01			0,10	0,22	5,66	0,04			0,02		
S00357780	669423	668682	36,71	20,46	0,52	32,06		0,08		0,03	0,14	9,77	0,07	0,14		0,02		
S00357781	669466	668738	49,52	10,92	0,30	32,62	0,03	0,06	0,03	0,38	0,19	5,92	0,05					
S00357782	669747	668153	47,58	23,35	0,91	16,35	0,03	0,08	0,04	2,39	0,21	8,85	0,11	0,03				
S00357783	669692	668142	65,91	19,48	0,34	3,51	0,06	0,27	0,23	6,18	0,11	3,78	0,05	0,09				
S00357784	669605	668146	89,53	6,54	0,11	1,57					0,02	2,13	0,03				0,07	
S00357785	669646	668096	17,62	19,72	0,77	51,25	0,02	0,05		0,24	0,22	10,02	0,10					
S00357786	669689	668074	37,78	23,33	1,13	26,93	0,02	0,13		0,21	0,21	10,05	0,15					
S00357787	669499	667585	45,00	30,59	0,59	11,56	0,04	0,32	0,17	1,90	0,22	9,54	0,07					
S00357789	669776	667155	50,87	17,78	0,58	23,59	0,07		0,10	0,78	0,12	6,07	0,04					
S00357790	670030	667663	33,82	13,86	0,50	44,55	0,04		0,03	0,67	0,09	6,38	0,05		0,02			
S00357791	670197	667864	41,46	11,83	0,53	38,22	0,06	0,11	0,06	0,68	0,40	6,62	0,04			0,01		
S00357792	670199	667834	26,11	19,38	0,71	43,87	0,06			0,78	0,14	8,90	0,04		0,02			
S00357793	670189	667857	2,72	1,06		4,11		0,40			13,99	4,16	0,73	3,55	0,41			0,19

Au ppm	Pt ppm	Ag ppm	Pd ppm	Nb2O5	Ta2O5	HfO2	ThO2	UO2	CeO2	Nd2O3	La2O3	Pr2O3	Sm2O3	Gd2O3	Dy2O3	Y2O3	Yb2O3	Er2O3
				0,24		0,17	0,11		0,51	0,16	0,15					0,017		
				0,15	0,04	0,08										0,006		
				0,16		0,16										0,004		
				0,78		0,39										0,122		
16	38	tr	tr															
				0,17		0,14										0,01		
				0,15		0,10				0,09						tr		
				0,16		0,41										0,01		
				0,13		0,13												
				0,22		0,67										0,04		
				0,12		0,28										tr		
				0,15		0,24				0,12						tr		
				0,15		0,27	0,05									0,01		
				0,18		0,28												
				0,16		0,19				0,13						tr		
				0,10		0,08												
13	53																	
13	38																	
23	20	19	19															
46	31	tr	tr															
63	15																	
56	25	tr	tr															
19	0,2	tr	tr															
32		32		tr														
										0,07								
63	15			tr														
11	tr	tr	tr															
15																		
13																		
				0,62	0,72	0,21	7,27	0,18	38,68	7,27	6,91	2,07	2,20	1,10	0,48	0,04	0,95	0,01

tr = trace

## Appendix III : Distribution of Auger Holes

Proposed distribution of auger holes on the Minastyc property for the 2022 program



Minastyc proposed auger hole coordinates for the 2022 program

<b>Id</b>	<b>Easting</b>	<b>Northing</b>	<b>Id</b>	<b>Easting</b>	<b>Northing</b>	<b>Id</b>	<b>Easting</b>	<b>Northing</b>
2	667593	669674	79	668175	670082	115	668154	669916
3	667503	669677	80	668097	670083	116	668241	669505
46	667697	669673	81	668052	670164	117	668144	669505
47	667766	669673	82	667964	670166	118	668053	669502
48	667631	669589	83	668269	670164	119	668781	669726
49	667553	669591	84	668210	670165	120	668677	669727
50	667458	669594	85	668136	670166	121	668581	669729
51	667599	669521	86	668010	670246	122	668140	669416
52	667503	669525	87	667925	670248	123	668071	669416
53	667403	669677	89	668173	670243	124	667985	669414
54	667291	669680	90	668090	670246	125	668824	669814



55	667860	669754	91	667728	670003	126	668736	669813
56	667767	669758	92	667635	670003	127	668637	669808
57	667659	669758	93	667820	670000	128	668728	669640
58	667547	669761	94	667776	670087	129	668626	669640
59	667895	669834	95	667684	670086	130	668523	669642
60	667816	669835	96	667856	670083	131	668869	669728
61	667724	669835	97	667810	670169	132	668826	669637
62	667615	669838	98	667730	670170	133	668680	669559
63	668120	669833	99	667885	670167	134	668586	669559
64	668054	669832	100	667780	670248	135	668486	669559
65	667979	669835	101	668173	669775	136	668767	669562
66	667934	669918	102	667853	670246	137	668655	669481
67	667854	669919	103	667815	670309	138	668550	669481
69	668095	669916	104	667753	670300	139	668761	669481
70	668018	669918	105	667886	670306	140	668603	669402
71	667978	669999	106	667775	669916	141	668707	669401
72	667899	670000	107	667688	669918	142	668649	669315
73	668203	669995	108	668102	669751	143	668523	669315
74	668137	669999	109	668154	669717	144	668760	669315
75	668060	669999	110	668078	669669	145	668556	669217
76	668011	670086	111	668160	669669	146	668654	669218
77	667933	670085	112	668128	669583	147	668778	669872
78	668239	670083						

# Appendix IV Alpha1 Assay Certificates

WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT		
<b>Identification:</b> 500357751 CANECA 1 <b>Sample Type:</b> DESCONOCIDO <b>Origin:</b> DESCONOCIDO	<b>Consecutive of Sample:</b> AUX 26104 <b>Responsible for Sampling:</b> CLIENT <b>Sampling Plan/Procedure:</b> NONE <b>Date Received:</b> 02/09/2021 <b>Date of Analysis:</b> 15/09/2021 <b>Date of Report:</b> 15/09/2021	<b>Client:</b> AUXICO RESOURCES <b>Contact:</b> TIFFANY CIFUENTES <b>Address:</b> 201 RUE NOTRE DAME OUEST <b>City:</b> MONTREAL <b>Phone Number:</b> 1 4384999621 <b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA
<b>Solicitud Analisis:</b> SA7735 <b>Consecutive of Report:</b> 26104-RE XRF <b>Application:</b> 1,11 AQ 2020		
OBSERVATIONS		
Name	Element	Composition (%)
Magnesium	MgO	0,02
Aluminum	Al <sub>2</sub> O <sub>3</sub>	2,19
Silicon	SiO <sub>2</sub>	56,19
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,40
Manganese	MnO	0,64
Titanium	TiO <sub>2</sub>	19,50
Iron	Fe <sub>2</sub> O <sub>3</sub>	14,17
Zinc	ZnO	0,05
Zirconium	ZrO <sub>2</sub>	3,94
Niobium	Nb <sub>2</sub> O <sub>5</sub>	0,24
Tantalum	Ta <sub>2</sub> O <sub>5</sub>	0,04
Tungsten	WO <sub>3</sub>	0,04
Lead	PbO	0,03
Hafnium	HfO <sub>2</sub>	0,17
Thorium	ThO <sub>2</sub>	0,11
Tin	SnO <sub>2</sub>	1,14
Loss of Ignition	LOI	0,34
REE		
Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	0,51
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	0,16
Lanthanum	La <sub>2</sub> O <sub>3</sub>	0,15
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	0,02
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,8

**Observations**  
 N.D. : NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour.  
 The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material. This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

**Approved by** Jairo Torres  
 General Manager

**Produce by** Juan Sebastian Betancourt  
 Analyst

AK 60 No. 67\* 80 B. Modelo Norte  
 Bogotá D.C.  
 Tel. (57-1) 2313518  
 Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

Notes:  
 1. Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.  
 2. The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.  
 3. This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.  
 4. The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.  
 5. Any inconveniences with the results can be processed within 3 months after the the report has been sent to the client by Alpha1 S.A.S.  
 6. The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT		
<b>Identification:</b> 500357752 CANECA 1 <b>Sample Type:</b> DESCONOCIDO <b>Origin:</b> DESCONOCIDO	<b>Consecutive of Sample:</b> AUX 26105 <b>Responsible for Sampling:</b> CLIENT <b>Sampling Plan/Procedure:</b> NONE <b>Date Received:</b> 02/09/2021 <b>Date of Analysis:</b> 15/09/2021 <b>Date of Report:</b> 15/09/2021	<b>Client:</b> AUXICO RESOURCES <b>Contact:</b> TIFFANY CIFUENTES <b>Address:</b> 201 RUE NOTRE DAME OUEST <b>City:</b> MONTREAL <b>Phone Number:</b> 1 4384999621 <b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA
<b>Solicitud Analisis:</b> SA7735 <b>Consecutive of Report:</b> 26105-RE XRF <b>Application:</b> 1,11 AQ 2020		
OBSERVATIONS		
Name	Element	Composition (%)
Magnesium	MgO	0,02
Aluminum	Al <sub>2</sub> O <sub>3</sub>	1,88
Silicon	SiO <sub>2</sub>	47,72
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,11
Calcium	CaO	0,07
Manganese	MnO	0,82
Titanium	TiO <sub>2</sub>	23,24
Iron	Fe <sub>2</sub> O <sub>3</sub>	19,54
Zinc	ZnO	0,13
Zirconium	ZrO <sub>2</sub>	5,33
Niobium	Nb <sub>2</sub> O <sub>5</sub>	0,15
Tantalum	Ta <sub>2</sub> O <sub>5</sub>	0,04
Hafnium	HfO <sub>2</sub>	0,08
Tin	SnO <sub>2</sub>	0,86
Loss of Ignition	LOI	N.D.
REE		
Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	0,01
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

**Observations**  
 N.D. : NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour.  
 The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material. This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

**Approved by** Jairo Torres  
 General Manager

**Produce by** Juan Sebastian Betancourt  
 Analyst

AK 60 No. 67\* 80 B. Modelo Norte  
 Bogotá D.C.  
 Tel. (57-1) 2313518  
 Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

Notes:  
 1. Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.  
 2. The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.  
 3. This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.  
 4. The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.  
 5. Any inconveniences with the results can be processed within 3 months after the the report has been sent to the client by Alpha1 S.A.S.  
 6. The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT

Identification: 500357753 CANECA 1  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO  
 Client: AUXICO RESOURCES  
 Contact: TIFFANY CIFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA

Consecutive of Sample: AUX 26106  
 Responsible for Sampling: CLIENT  
 Sampling Plan/Procedure: NONE  
 Date Received: 02/09/2021  
 Date of Analysis: 15/09/2021  
 Date of Report: 15/09/2021  
 Solicited Analysis: SA7735  
 Consecutive of Report: 26106-RE XRF  
 Application: 1,11 AQ 2020

OBSERVATIONS

Name	Element	Composition (%)
Magnesium	MgO	0,03
Aluminum	Al <sub>2</sub> O <sub>3</sub>	2,60
Silicon	SiO <sub>2</sub>	33,55
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,07
Calcium	CaO	0,05
Manganese	MnO	1,16
Titanium	TiO <sub>2</sub>	28,00
Iron	Fe <sub>2</sub> O <sub>3</sub>	26,49
Zinc	ZnO	0,08
Zirconium	ZrO <sub>2</sub>	7,58
Niobium	Nb <sub>2</sub> O <sub>5</sub>	0,16
Hafnium	HfO <sub>2</sub>	0,16
Tin	SnO <sub>2</sub>	0,06
Loss of Ignition	LOI	N.D.

REE

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	0,004
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

Observations

N.D.: NOT DETECTABLE LOI: (LOSS OF IGNITION) 1000°C for 1 hour

The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.

This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability

For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity

and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

Moisture 0,29 %

Radioactivity NONE µSv/h

Sample quantity 25g

Magnetic Characteristics: NONE

Notes:

- Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
- The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
- This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.
- The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.
- Any inconveniences with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.
- The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

Approved by Jairo Torres  
General Manager

Produce by Juan Sebastian Betancourt  
Analyst

AK 60 No. 67ª 80 B. Modelo Norte  
Bogotá D.C.  
Tel. (57-1) 2313518  
Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT

Identification: 500357754 CANECA 1  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO  
 Client: AUXICO RESOURCES  
 Contact: TIFFANY CIFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PERLA

Consecutive of Sample: AUX 26107  
 Responsible for Sampling: CLIENT  
 Sampling Plan/Procedure: NONE  
 Date Received: 02/09/2021  
 Date of Analysis: 15/09/2021  
 Date of Report: 15/09/2021  
 Solicited Analysis: SA7735  
 Consecutive of Report: 26107-RE XRF  
 Application: 1,11 AQ 2020

OBSERVATIONS

Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	1,13
Silicon	SiO <sub>2</sub>	18,31
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,18
Potassium	K <sub>2</sub> O	0,14
Manganese	MnO	1,34
Titanium	TiO <sub>2</sub>	33,16
Iron	Fe <sub>2</sub> O <sub>3</sub>	31,84
Zinc	ZnO	0,07
Zirconium	ZrO <sub>2</sub>	12,36
Niobium	Nb <sub>2</sub> O <sub>5</sub>	0,78
Lead	PbO	0,06
Hafnium	HfO <sub>2</sub>	0,39
Tin	SnO <sub>2</sub>	0,13
Loss of Ignition	LOI	N.D.

REE

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	0,12
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,1

Observations

N.D.: NOT DETECTABLE LOI: (LOSS OF IGNITION) 1000°C for 1 hour

The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.

This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability

For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity

and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

Moisture N.A. %

Radioactivity NONE µSv/h

Sample quantity 15g

Magnetic Characteristics: NONE

Notes:

- Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
- The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
- This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.
- The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.
- Any inconveniences with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.
- The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

Approved by Jairo Torres  
General Manager

Produce by Juan Sebastian Betancourt  
Analyst

AK 60 No. 67ª 80 B. Modelo Norte  
Bogotá D.C.  
Tel. (57-1) 2313518  
Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: 500357756 CANECA 1  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO  
 Client: AUXICO RESOURCES  
 Contact: TIFFANY CIFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA

Consecutive of Sample: **AUX 26108**  
 Responsible for Sampling: CLIENT  
 Sampling Plan/Procedure: NONE  
 Date Received: 02/09/2021  
 Date of Analysis: 15/09/2021  
 Date of Report: 15/09/2021

Solicitud Analisis: **SA7735**  
 Consecutive of Report: **26108-RE XRF**  
 Application: 1.11 AQ 2020

**OBSERVATIONS**

Name	Element	Composition (%)
Magnesium	MgO	0,02
Aluminum	Al <sub>2</sub> O <sub>3</sub>	2,30
Silicon	SiO <sub>2</sub>	33,83
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,08
Calcium	CaO	0,06
Manganese	MnO	1,20
Titanium	TiO <sub>2</sub>	28,73
Iron	Fe <sub>2</sub> O <sub>3</sub>	25,98
Zinc	ZnO	0,09
Zirconium	ZrO <sub>2</sub>	7,36
Niobium	Nb <sub>2</sub> O <sub>5</sub>	0,17
Hafnium	HfO <sub>2</sub>	0,14
Loss of Ignition	LOI	N.D.

**REE**

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	0,005
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

**Observations**

N.D. : NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour

The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material. Approved by Jairo Torres  
General Manager

This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability

For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity

and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

Moisture 0,35 %

Radioactivity NONE µSv/h

Sample quantity 40g

Magnetic Characteristics: NONE

**Notes:**

- Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
- The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
- This report is only for this sample. Every copy of this results on paper will have an additional 15% cost of the price of the analysis.
- The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.
- Any inconveniences with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.
- The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

AK 60 No. 67\* 80 B. Modelo Norte  
 Bogotá D.C.  
 Tel. (57-1) 2313518  
 Móvil 3134549361

[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: 500357757 CANECA 1  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO  
 Client: AUXICO RESOURCES  
 Contact: TIFFANY CIFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA

Consecutive of Sample: **AUX 26109**  
 Responsible for Sampling: CLIENT  
 Sampling Plan/Procedure: NONE  
 Date Received: 02/09/2021  
 Date of Analysis: 15/09/2021  
 Date of Report: 15/09/2021

Solicitud Analisis: **SA7735**  
 Consecutive of Report: **26109-RE XRF**  
 Application: 1.11 AQ 2020

**OBSERVATIONS**

Name	Element	Composition (%)
Magnesium	MgO	0,02
Aluminum	Al <sub>2</sub> O <sub>3</sub>	2,01
Silicon	SiO <sub>2</sub>	40,06
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,06
Manganese	MnO	0,93
Titanium	TiO <sub>2</sub>	26,36
Iron	Fe <sub>2</sub> O <sub>3</sub>	24,65
Zinc	ZnO	0,07
Zirconium	ZrO <sub>2</sub>	5,45
Niobium	Nb <sub>2</sub> O <sub>5</sub>	0,15
Hafnium	HfO <sub>2</sub>	0,10
Loss of Ignition	LOI	N.D.

**REE**

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	0,09
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	0,004
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,1

**Observations**

N.D. : NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour

The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material. Approved by Jairo Torres  
General Manager

This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability

For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity

and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

Moisture 0,3 %

Radioactivity NONE µSv/h

Sample quantity 45g

Magnetic Characteristics: NONE

**Notes:**

- Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
- The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
- This report is only for this sample. Every copy of this results on paper will have an additional 15% cost of the price of the analysis.
- The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.
- Any inconveniences with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.
- The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

AK 60 No. 67\* 80 B. Modelo Norte  
 Bogotá D.C.  
 Tel. (57-1) 2313518  
 Móvil 3134549361

[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: 500357758 CANECA 1  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO

Client: AUXICO RESOURCES  
 Contact: TIFFANY CIFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PERLA

Consecutive of Sample: **AUX 26110**  
 Responsible for Sampling: CLIENT  
 Sampling Plan/Procedure: NONE  
 Date Received: 02/09/2021  
 Date of Analysis: 15/09/2021  
 Date of Report: 15/09/2021

Solicitud Analisis: **SA7735**  
 Consecutive of Report: **26110-RE XRF**  
 Application: 1,11 AQ 2020

FF-GT-35 Versión 3 Pagina 1 de 1

OBSERVATIONS		
Name	Element	Composition (%)
Magnesium	MgO	0,06
Aluminum	Al <sub>2</sub> O <sub>3</sub>	1,13
Silicon	SiO <sub>2</sub>	23,76
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,11
Manganese	MnO	1,26
Titanium	TiO <sub>2</sub>	30,22
Iron	Fe <sub>2</sub> O <sub>3</sub>	31,25
Zinc	ZnO	0,08
Zirconium	ZrO <sub>2</sub>	11,55
Niobium	Nb <sub>2</sub> O <sub>5</sub>	0,16
Hafnium	HfO <sub>2</sub>	0,41
Loss of Ignition	LOI	N.D.

REE		
Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	0,01
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

Observations  
 N.D.: NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour

The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.  
 This technique does not validate the none presence of elements not detected if they are below 100ppm. Our trac  
 For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity  
 and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

Moisture: N/A %  
 Radioactivity: NONE µSv/h  
 Sample quantity: 15g  
 Magnetic Characteristics: NONE

Approved by **Jairo Torres**  
 General Manager

Produced by **Juan Sebastian Betancourt**  
 Analyst

AK 60 No. 67\* 80 B. Modelo Norte  
 Bogotá D.C.  
 Tel. (57-1) 2313518  
 Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

Notes:  
 1. Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.  
 2. The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.  
 3. This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.  
 4. The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.  
 5. Any inconveniences with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.  
 6. The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: 500357759 CANECA 1  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO

Client: AUXICO RESOURCES  
 Contact: TIFFANY CIFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA

Consecutive of Sample: **AUX 26111**  
 Responsible for Sampling: CLIENT  
 Sampling Plan/Procedure: NONE  
 Date Received: 02/09/2021  
 Date of Analysis: 15/09/2021  
 Date of Report: 15/09/2021

Solicitud Analisis: **SA7735**  
 Consecutive of Report: **26111-RE XRF**  
 Application: 1,11 AQ 2020

FF-GT-35 Versión 3 Pagina 1 de 1

OBSERVATIONS		
Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	1,78
Silicon	SiO <sub>2</sub>	47,57
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,04
Manganese	MnO	0,91
Titanium	TiO <sub>2</sub>	23,32
Iron	Fe <sub>2</sub> O <sub>3</sub>	20,35
Zinc	ZnO	0,15
Zirconium	ZrO <sub>2</sub>	5,61
Niobium	Nb <sub>2</sub> O <sub>5</sub>	0,13
Hafnium	HfO <sub>2</sub>	0,13
Loss of Ignition	LOI	N.D.

REE		
Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

Observations  
 N.D.: NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour

The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.  
 This technique does not validate the none presence of elements not detected if they are below 100ppm. Our trac  
 For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity  
 and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

Moisture: 0,17 %  
 Radioactivity: NONE µSv/h  
 Sample quantity: 15g  
 Magnetic Characteristics: NONE

Approved by **Jairo Torres**  
 General Manager

Produced by **Juan Sebastian Betancourt**  
 Analyst

AK 60 No. 67\* 80 B. Modelo Norte  
 Bogotá D.C.  
 Tel. (57-1) 2313518  
 Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

Notes:  
 1. Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.  
 2. The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.  
 3. This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.  
 4. The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.  
 5. Any inconveniences with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.  
 6. The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: 500357760 CANECA 1  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO  
 Client: AUXICO RESOURCES  
 Contact: TIFFANY CIFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PERLA

Consecutive of Sample: **AUX 26112**  
 CLIENT: NONE  
 Responsible for Sampling: NONE  
 Sampling Plan/Procedure: NONE  
 Date Received: 02/09/2021  
 Date of Analysis: 15/09/2021  
 Date of Report: 15/09/2021

Solicitud Analisis: **SA7735**  
 Consecutive of Report: **26112-RE XRF**  
 Application: 1.11 AQ 2020

FR-01-35 Versión 3

Página 1 de 1

**OBSERVATIONS**

Name	Element	Composition (%)
Magnesium	MgO	0,02
Aluminum	Al <sub>2</sub> O <sub>3</sub>	0,77
Silicon	SiO <sub>2</sub>	26,86
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,09
Manganese	MnO	1,13
Titanium	TiO <sub>2</sub>	18,61
Iron	Fe <sub>2</sub> O <sub>3</sub>	25,31
Zinc	ZnO	0,08
Zirconium	ZrO <sub>2</sub>	26,05
Niobium	Nb <sub>2</sub> O <sub>5</sub>	0,22
Hafnium	HfO <sub>2</sub>	0,67
Loss of Ignition	LOI	0,14

**REE**

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	0,04
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

**Observations**

N.D.: NOT DETECTABLE LOI: (LOSS OF IGNITION) 1000°C for 1 hour  
 The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.  
 This technique does not validate the none presence of elements not detected if they are below 100ppm. Our track  
 For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity  
 and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.  
 Moisture: N.A. %  
 Radioactivity: NONE µSv/h  
 Sample quantity: 5g  
 Magnetic Characteristics: NONE

Approved by **Jairo Torres**  
 General Manager  
 Produce by **Juan Sebastian Betancourt**  
 Analyst

AK 60 No. 67\* 80 B. Modelo Norte  
 Bogotá D.C.  
 Tel. (57-1) 2313518  
 Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

- Notes:
- Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
  - The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
  - This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.
  - The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.
  - Any inconveniences with the results can be processed within 3 months after the the report has been sent to the client by Alpha1 S.A.S.
  - The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: 500357762 CANECA 1  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO  
 Client: AUXICO RESOURCES  
 Contact: TIFFANY CIFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA

Consecutive of Sample: **AUX 26113**  
 CLIENT: NONE  
 Responsible for Sampling: NONE  
 Sampling Plan/Procedure: NONE  
 Date Received: 02/09/2021  
 Date of Analysis: 15/09/2021  
 Date of Report: 15/09/2021

Solicitud Analisis: **SA7735**  
 Consecutive of Report: **26113-RE XRF**  
 Application: 1.11 AQ 2020

FR-01-35 Versión 3

Página 1 de 1

**OBSERVATIONS**

Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	2,17
Silicon	SiO <sub>2</sub>	53,56
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,04
Potassium	K <sub>2</sub> O	0,19
Manganese	MnO	0,80
Titanium	TiO <sub>2</sub>	19,20
Iron	Fe <sub>2</sub> O <sub>3</sub>	18,15
Zinc	ZnO	0,01
Zirconium	ZrO <sub>2</sub>	5,46
Niobium	Nb <sub>2</sub> O <sub>5</sub>	0,12
Hafnium	HfO <sub>2</sub>	0,28
Loss of Ignition	LOI	N.D.

**REE**

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

**Observations**

N.D.: NOT DETECTABLE LOI: (LOSS OF IGNITION) 1000°C for 1 hour  
 The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.  
 This technique does not validate the none presence of elements not detected if they are below 100ppm. Our track  
 For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity  
 and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.  
 Moisture: 0,21 %  
 Radioactivity: NONE µSv/h  
 Sample quantity: 30g  
 Magnetic Characteristics: NONE

Approved by **Jairo Torres**  
 General Manager  
 Produce by **Juan Sebastian Betancourt**  
 Analyst

AK 60 No. 67\* 80 B. Modelo Norte  
 Bogotá D.C.  
 Tel. (57-1) 2313518  
 Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

- Notes:
- Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
  - The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
  - This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.
  - The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.
  - Any inconveniences with the results can be processed within 3 months after the the report has been sent to the client by Alpha1 S.A.S.
  - The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT

Identification: 500357763 CANECA 1  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO  
 Client: AUXICO RESOURCES  
 Contact: TIFFANY CIFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA

Consecutive of Sample: AUX 26114  
 Responsible for Sampling: CLIENT  
 Sampling Plan/Procedure: NONE  
 Date Received: 02/09/2021  
 Date of Analysis: 15/09/2021  
 Date of Report: 15/09/2021  
 Solicitud Análisis: SA7735  
 Consecutive of Report: 26114-RE XRF  
 Application: 1.11 AQ 2020

PR-02-35 Versión 3

Página 1 de 1

OBSERVATIONS

Name	Element	Composition (%)
Sodium	Na <sub>2</sub> O	0,03
Magnesium	MgO	0,04
Aluminum	Al <sub>2</sub> O <sub>3</sub>	9,28
Silicon	SiO <sub>2</sub>	36,63
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,12
Potassium	K <sub>2</sub> O	0,04
Calcium	CaO	0,15
Manganese	MnO	0,82
Titanium	TiO <sub>2</sub>	22,30
Iron	Fe <sub>2</sub> O <sub>3</sub>	22,66
Zirconium	ZrO <sub>2</sub>	7,08
Niobium	Nb <sub>2</sub> O <sub>5</sub>	0,15
Hafnium	HfO <sub>2</sub>	0,24
Loss of Ignition	LOI	N.D.

REE

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	0,12
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	0,004
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,1

Observations

N.D.: NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour

The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material. This technique does not validate the none presence of elements not detected if they are below 100ppm. Our trac

For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

Moisture	0,2	%
Radioactivity	NONE	µSv/h
Sample quantity	35g	
Magnetic Characteristics:	NONE	

Notes:

- Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
- The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
- This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.
- The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.
- Any inconveniences with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.
- The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

Approved by Jairo Torres  
General Manager

Produce by Juan Sebastian Betancourt  
Analyst

AK 60 No. 67\* 80 B. Modelo Norte  
Bogotá D.C.  
Tel. (57-1) 2313518  
Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT

Identification: 500357764 CANECA 1  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO  
 Client: AUXICO RESOURCES  
 Contact: TIFFANY CIFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA

Consecutive of Sample: AUX 26115  
 Responsible for Sampling: CLIENT  
 Sampling Plan/Procedure: NONE  
 Date Received: 02/09/2021  
 Date of Analysis: 15/09/2021  
 Date of Report: 15/09/2021  
 Solicitud Análisis: SA7735  
 Consecutive of Report: 26115-RE XRF  
 Application: 1.11 AQ 2020

PR-02-35 Versión 3

Página 1 de 1

OBSERVATIONS

Name	Element	Composition (%)
Sodium	Na <sub>2</sub> O	0,02
Aluminum	Al <sub>2</sub> O <sub>3</sub>	6,10
Silicon	SiO <sub>2</sub>	42,91
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,09
Calcium	CaO	0,11
Manganese	MnO	0,71
Titanium	TiO <sub>2</sub>	23,61
Iron	Fe <sub>2</sub> O <sub>3</sub>	17,90
Zinc	ZnO	0,03
Zirconium	ZrO <sub>2</sub>	8,00
Niobium	Nb <sub>2</sub> O <sub>5</sub>	0,15
Hafnium	HfO <sub>2</sub>	0,27
Thorium	ThO <sub>2</sub>	0,05
Loss of Ignition	LOI	N.D.

REE

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	0,004
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

Observations

N.D.: NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour

The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material. This technique does not validate the none presence of elements not detected if they are below 100ppm. Our trac

For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

Moisture	0,17	%
Radioactivity	NONE	µSv/h
Sample quantity	25g	
Magnetic Characteristics:	NONE	

Notes:

- Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
- The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
- This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.
- The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.
- Any inconveniences with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.
- The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

Approved by Jairo Torres  
General Manager

Produce by Juan Sebastian Betancourt  
Analyst

AK 60 No. 67\* 80 B. Modelo Norte  
Bogotá D.C.  
Tel. (57-1) 2313518  
Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: 500357765 CANECA 1  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO

Client: AUXICO RESOURCES  
 Contact: TIFFANY CIFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621

Consecutive of Sample: **AUX 26116**  
 Responsible for Sampling: CLIENT  
 Sampling Plan/Procedure: NONE  
 Date Received: 02/09/2021  
 Date of Analysis: 15/09/2021  
 Date of Report: 15/09/2021

Solicitud Análisis: **SA7735**  
 Consecutive of Report: **26116-RE XRF**  
 Application: 1,11 AQ 2020

Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA

FR-05 Versión 3

Página 1 de 1

**OBSERVATIONS**

Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	1,94
Silicon	SiO <sub>2</sub>	33,19
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,05
Calcium	CaO	0,12
Manganese	MnO	1,17
Titanium	TiO <sub>2</sub>	29,31
Iron	Fe <sub>2</sub> O <sub>3</sub>	28,11
Zirconium	ZrO <sub>2</sub>	5,59
Niobium	Nb <sub>2</sub> O <sub>5</sub>	0,18
Lead	PbO	0,02
Hafnium	HfO <sub>2</sub>	0,28
Loss of Ignition	LOI	N.D.

**REE**

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

**Observations**  
 N.D.: NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour

The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.

This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

Moisture	0,28	%
Radioactivity	NONE	µSv/h
Sample quantity	75g	
Magnetic Characteristics:	NONE	

Approved by **Jairo Torres**  
 General Manager

Produce by **Juan Sebastian Betancourt**  
 Analyst

AK 60 No. 67\* 80 B. Modelo Norte  
 Bogotá D.C.  
 Tel. (57-1) 2313518  
 Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

- Notes:
- Alpha 1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
  - The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
  - This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.
  - The complete or partial reproduction of the report is prohibited without written approval of Alpha 1 S.A.S.
  - Any inconveniences with the results can be processed within 3 months after the report has been sent to the client by Alpha 1 S.A.S.
  - The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: 500357766 CANECA 1  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO

Client: AUXICO RESOURCES  
 Contact: TIFFANY CIFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621

Consecutive of Sample: **AUX 26117**  
 Responsible for Sampling: CLIENT  
 Sampling Plan/Procedure: NONE  
 Date Received: 02/09/2021  
 Date of Analysis: 15/09/2021  
 Date of Report: 15/09/2021

Solicitud Análisis: **SA7735**  
 Consecutive of Report: **26117-RE XRF**  
 Application: 1,11 AQ 2020

Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA

FR-05 Versión 3

Página 1 de 1

**OBSERVATIONS**

Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	1,94
Silicon	SiO <sub>2</sub>	42,20
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,03
Manganese	MnO	0,97
Titanium	TiO <sub>2</sub>	26,09
Iron	Fe <sub>2</sub> O <sub>3</sub>	23,12
Zirconium	ZrO <sub>2</sub>	5,20
Niobium	Nb <sub>2</sub> O <sub>5</sub>	0,15
Hafnium	HfO <sub>2</sub>	0,19
Loss of Ignition	LOI	N.D.

**REE**

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	0,16
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,2

**Observations**  
 N.D.: NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour

The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.

This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

Moisture	0,2	%
Radioactivity	NONE	µSv/h
Sample quantity	35g	
Magnetic Characteristics:	NONE	

Approved by **Jairo Torres**  
 General Manager

Produce by **Juan Sebastian Betancourt**  
 Analyst

AK 60 No. 67\* 80 B. Modelo Norte  
 Bogotá D.C.  
 Tel. (57-1) 2313518  
 Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

- Notes:
- Alpha 1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
  - The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
  - This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.
  - The complete or partial reproduction of the report is prohibited without written approval of Alpha 1 S.A.S.
  - Any inconveniences with the results can be processed within 3 months after the report has been sent to the client by Alpha 1 S.A.S.
  - The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.



**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: 500357767 CANECA 1  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO  
 Client: AUXICO RESOURCES  
 Contact: TIFFANY CIFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA

Consecutive of Sample: **AUX 26118**  
 Responsible for Sampling: CLIENT  
 Sampling Plan/Procedure: NONE  
 Date Received: 02/09/2021  
 Date of Analysis: 15/09/2021  
 Date of Report: 15/09/2021

Solicitud Análisis: **SA7735**  
 Consecutive of Report: **26118-RE XRF**  
 Application: 1,11 AQ 2020

**OBSERVATIONS**

Name	Element	Composition (%)
Magnesium	MgO	0,03
Aluminum	Al <sub>2</sub> O <sub>3</sub>	2,45
Silicon	SiO <sub>2</sub>	60,06
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,07
Potassium	K <sub>2</sub> O	0,06
Calcium	CaO	0,26
Manganese	MnO	0,65
Titanium	TiO <sub>2</sub>	16,36
Iron	Fe <sub>2</sub> O <sub>3</sub>	16,76
Zirconium	ZrO <sub>2</sub>	3,09
Niobium	Nb <sub>2</sub> O <sub>5</sub>	0,10
Lead	PbO	0,02
Hafnium	HfO <sub>2</sub>	0,08
Loss of Ignition	LOI	N.D.

**REE**

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

**Observations**

N.D. : NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour

The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.

This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

Moisture 0,07 %  
 Radioactivity NONE µSv/h  
 Sample quantity 35g  
 Magnetic Characteristics: NONE

Approved by **Jairo Torres**  
 General Manager

Produce by **Juan Sebastian Betancourt**  
 Analyst

AK 60 No. 67ª 80 B. Modelo Norte  
 Bogotá D.C.  
 Tel. (57-1) 2313518  
 Móvil 3134549361

[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

- Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
- The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
- This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.
- The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.
- Any inconformities with the results can be processed within 3 months after the the report has been sent to the client by Alpha1 S.A.S.
- The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: 50035773 CANECA 1  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO  
 Client: AUXICO RESOURCES  
 Contact: TIFFANY CIFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA

Consecutive of Sample: **AUX 26103**  
 Responsible for Sampling: CLIENT  
 Sampling Plan/Procedure: NONE  
 Date Received: 02/09/2021  
 Date of Analysis: 15/09/2021  
 Date of Report: 15/09/2021

Solicitud Análisis: **SA7735**  
 Consecutive of Report: **26103-RE XRF**  
 Application: 1,11 AQ 2020

**OBSERVATIONS**

Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	2,73
Silicon	SiO <sub>2</sub>	91,08
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,05
Potassium	K <sub>2</sub> O	N.D.
Titanium	TiO <sub>2</sub>	0,37
Iron	Fe <sub>2</sub> O <sub>3</sub>	4,20
Zirconium	ZrO <sub>2</sub>	0,09
Niobium	Nb <sub>2</sub> O <sub>5</sub>	0,01
Tungsten	WO <sub>3</sub>	0,04
Loss of Ignition	LOI	1,43

**REE**

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

**Observations**

N.D. : NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour

The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.

This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

Moisture 0,12 %  
 Radioactivity NONE µSv/h  
 Sample quantity 535g  
 Magnetic Characteristics: NONE

Approved by **Jairo Torres**  
 General Manager

Produce by **Juan Sebastian Betancourt**  
 Analyst

AK 60 No. 67ª 80 B. Modelo Norte  
 Bogotá D.C.  
 Tel. (57-1) 2313518  
 Móvil 3134549361

[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

- Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
- The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
- This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.
- The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.
- Any inconformities with the results can be processed within 3 months after the the report has been sent to the client by Alpha1 S.A.S.
- The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: 500357774 CANECA 1  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO  
 Client: AUXICO RESOURCES  
 Contact: TIFFANY CIFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA

Consecutive of Sample: **AUX 26137**  
 Responsible for Sampling: CLIENT  
 Sampling Plan/Procedure: NONE  
 Date Received: 02/09/2021  
 Date of Analysis: 15/09/2021  
 Date of Report: 15/09/2021

Solicitud Análisis: **SA7735**  
 Consecutive of Report: **26137-RE XRF**  
 Application: 1.11 AQ 2020

**OBSERVATIONS**

Name	Element	Composition (%)
Sodium	Na <sub>2</sub> O	0,02
Magnesium	MgO	0,01
Aluminum	Al <sub>2</sub> O <sub>3</sub>	8,90
Silicon	SiO <sub>2</sub>	65,19
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,10
Potassium	K <sub>2</sub> O	0,18
Calcium	CaO	0,03
Titanium	TiO <sub>2</sub>	0,30
Iron	Fe <sub>2</sub> O <sub>3</sub>	20,50
Zirconium	ZrO <sub>2</sub>	0,03
Loss of Ignition	LOI	4,72

**REE**

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

Observations  
 N.D. : NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour  
 The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.  
 This technique does not validate the none presence of elements not detected if they are below 100ppm. Our trac  
 For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity  
 and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

Moisture 1,12 %  
 Radioactivity NONE µSv/h  
 Sample quantity 1400g  
 Magnetic Characteristics: NONE

Approved by Jairo Torres  
 General Manager

Produce by Juan Sebastian betancourt  
 Analyst

AK 60 No. 67<sup>a</sup> 80 B. Modelo Norte  
 Bogotá D.C.  
 Tel. (57-1) 2313518  
 Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

- Notes:
- Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
  - The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
  - This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.
  - The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.
  - Any inconveniences with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.
  - The disposal of the counterexamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: 500357775 CANECA 1  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO  
 Client: AUXICO RESOURCES  
 Contact: TIFFANY CIFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA

Consecutive of Sample: **AUX 26139**  
 Responsible for Sampling: CLIENT  
 Sampling Plan/Procedure: NONE  
 Date Received: 02/09/2021  
 Date of Analysis: 15/09/2021  
 Date of Report: 15/09/2021

Solicitud Análisis: **SA7735**  
 Consecutive of Report: **26139-RE XRF**  
 Application: 1.11 AQ 2020

**OBSERVATIONS**

Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	23,28
Silicon	SiO <sub>2</sub>	43,51
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,11
Potassium	K <sub>2</sub> O	0,08
Calcium	CaO	0,08
Titanium	TiO <sub>2</sub>	0,58
Iron	Fe <sub>2</sub> O <sub>3</sub>	23,32
Zinc	ZnO	0,01
Zirconium	ZrO <sub>2</sub>	0,09
Loss of Ignition	LOI	8,91

**REE**

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

Observations  
 N.D. : NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour  
 The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.  
 This technique does not validate the none presence of elements not detected if they are below 100ppm. Our trac  
 For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity  
 and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

Moisture 1,76 %  
 Radioactivity NONE µSv/h  
 Sample quantity 3780g  
 Magnetic Characteristics: NONE

Approved by Jairo Torres  
 General Manager

Produce by Juan Sebastian betancourt  
 Analyst

AK 60 No. 67<sup>a</sup> 80 B. Modelo Norte  
 Bogotá D.C.

Tel. (57-1) 2313518  
 Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

- Notes:
- Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
  - The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
  - This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.
  - The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.
  - Any inconveniences with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.
  - The disposal of the counterexamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

<b>Identification:</b> 500357776 CANECA 1 <b>Sample Type:</b> DESCONOCIDO <b>Origin:</b> DESCONOCIDO  <b>Client:</b> AUXICO RESOURCES <b>Contact:</b> TIFFANY CIFUENTES <b>Address:</b> 201 RUE NOTRE DAME OUEST <b>City:</b> MONTREAL <b>Phone Number:</b> 1 4384999621 <b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA	<b>Consecutive of Sample:</b> AUX 26138 <b>Responsible for Sampling:</b> CLIENT <b>Sampling Plan/Procedure:</b> NONE <b>Date Received:</b> 02/09/2021 <b>Date of Analysis:</b> 15/09/2021 <b>Date of Report:</b> 15/09/2021  <b>Solicitud Análisis:</b> SA7735 <b>Consecutive of Report:</b> 26138-RE XRF <b>Application:</b> 1,11 AQ 2020
--	---

FP-01-35 Versión 3 Página 1 de 1

OBSERVATIONS		
Name	Element	Composition (%)
Magnesium	MgO	0,01
Aluminum	Al <sub>2</sub> O <sub>3</sub>	7,60
Silicon	SiO <sub>2</sub>	61,60
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,17
Potassium	K <sub>2</sub> O	0,07
Titanium	TiO <sub>2</sub>	0,29
Iron	Fe <sub>2</sub> O <sub>3</sub>	25,18
Zirconium	ZrO <sub>2</sub>	0,05
Loss of Ignition	LOI	5,01

REE		
Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

**Observations**

N.D. : NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour

The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material. This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability and traceability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

Moisture: 0,93 %  
 Radioactivity: NONE µSv/h  
 Sample quantity: 5300g  
 Magnetic Characteristics: YES

Approved by Jairo Torres  
General Manager

Produce by Juan Sebastian Betancourt  
Analyst

AK 60 No. 67° 80 B. Modelo Norte  
Bogotá D.C.  
Tel. (57-1) 2313518  
Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

Notes:  
 1. Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.  
 2. The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.  
 3. This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.  
 4. The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.  
 5. Any inconveniences with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.  
 6. The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

<b>Identification:</b> 500357777 CANECA 1 <b>Sample Type:</b> DESCONOCIDO <b>Origin:</b> DESCONOCIDO  <b>Client:</b> AUXICO RESOURCES <b>Contact:</b> TIFFANY CIFUENTES <b>Address:</b> 201 RUE NOTRE DAME OUEST <b>City:</b> MONTREAL <b>Phone Number:</b> 1 4384999621 <b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA	<b>Consecutive of Sample:</b> AUX 26139 <b>Responsible for Sampling:</b> CLIENT <b>Sampling Plan/Procedure:</b> NONE <b>Date Received:</b> 02/09/2021 <b>Date of Analysis:</b> 15/09/2021 <b>Date of Report:</b> 15/09/2021  <b>Solicitud Análisis:</b> SA7735 <b>Consecutive of Report:</b> 26133-RE XRF <b>Application:</b> 1,11 AQ 2020
--	---

FP-01-35 Versión 3 Página 1 de 1

OBSERVATIONS		
Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	12,60
Silicon	SiO <sub>2</sub>	52,59
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,13
Potassium	K <sub>2</sub> O	0,07
Calcium	CaO	0,09
Titanium	TiO <sub>2</sub>	0,37
Iron	Fe <sub>2</sub> O <sub>3</sub>	26,84
Zirconium	ZrO <sub>2</sub>	0,08
Lead	PbO	0,01
Loss of Ignition	LOI	7,21

REE		
Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

**Observations**

N.D. : NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour

The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material. This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability and traceability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

Moisture: 2,39 %  
 Radioactivity: NONE µSv/h  
 Sample quantity: 4860g  
 Magnetic Characteristics: NONE

Approved by Jairo Torres  
General Manager

Produce by Juan Sebastian Betancourt  
Analyst

AK 60 No. 67° 80 B. Modelo Norte  
Bogotá D.C.  
Tel. (57-1) 2313518  
Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

Notes:  
 1. Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.  
 2. The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.  
 3. This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.  
 4. The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.  
 5. Any inconveniences with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.  
 6. The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT

Identification: 500357778 CANECA 1  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO  
 Client: AUXICO RESOURCES  
 Contact: TIFFANY CIFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA

Consecutive of Sample: AUX 26135  
 Responsible for Sampling: CLIENT  
 Sampling Plan/Procedure: NONE  
 Date Received: 02/09/2021  
 Date of Analysis: 15/09/2021  
 Date of Report: 15/09/2021

Solicitud Análisis: SA7735  
 Consecutive of Report: 26135-RE XRF  
 Application: 1,11 AQ 2020

PF-01-35 Versión 3

Página 1 de 1

OBSERVATIONS

Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	18,33
Silicon	SiO <sub>2</sub>	42,42
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,11
Potassium	K <sub>2</sub> O	0,06
Calcium	CaO	0,08
Titanium	TiO <sub>2</sub>	0,53
Iron	Fe <sub>2</sub> O <sub>3</sub>	29,79
Zinc	ZnO	0,02
Zirconium	ZrO <sub>2</sub>	0,12
Lead	PbO	0,02
Loss of Ignition	LOI	8,53

REE

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

Observations

N.D.: NOT DETECTABLE LOI: (LOSS OF IGNITION) 1000°C for 1 hour

The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material. This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

Moisture 2,35 %

Radioactivity NONE µSv/h

Sample quantity 6730g

Magnetic Characteristics: NONE

Approved by Jairo Torres  
General Manager

Produce by Juan Sebastian Betancourt

Analyst

AK 60 No. 67\* 80 B. Modelo Norte  
Bogotá D.C.

Tel. (57-1) 2313518

Móvil 3134549361

www.alpha1.com.co

gerenciaadministrativa@alpha1.com.co

- Notes:
- Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
  - The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
  - This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.
  - The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.
  - Any inconformities with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.
  - The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT

Identification: 500357779 CANECA 2  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO  
 Client: AUXICO RESOURCES  
 Contact: TIFFANY CIFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA

Consecutive of Sample: AUX 26129  
 Responsible for Sampling: CLIENT  
 Sampling Plan/Procedure: NONE  
 Date Received: 02/09/2021  
 Date of Analysis: 15/09/2021  
 Date of Report: 15/09/2021

Solicitud Análisis: SA7735  
 Consecutive of Report: 26129-RE XRF  
 Application: 1,11 AQ 2020

PF-01-35 Versión 3

Página 1 de 1

OBSERVATIONS

Name	Element	Composition (%)
Magnesium	MgO	0,01
Aluminum	Al <sub>2</sub> O <sub>3</sub>	7,92
Silicon	SiO <sub>2</sub>	57,04
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,22
Potassium	K <sub>2</sub> O	0,10
Titanium	TiO <sub>2</sub>	0,29
Iron	Fe <sub>2</sub> O <sub>3</sub>	28,71
Zinc	ZnO	0,02
Zirconium	ZrO <sub>2</sub>	0,04
Loss of Ignition	LOI	5,66

REE

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

Observations

N.D.: NOT DETECTABLE LOI: (LOSS OF IGNITION) 1000°C for 1 hour

The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material. This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

Moisture 2,96 %

Radioactivity NONE µSv/h

Sample quantity 7485g

Magnetic Characteristics: NONE

Approved by Jairo Torres  
General Manager

Produce by Juan Sebastian Betancourt

Analyst

AK 60 No. 67\* 80 B. Modelo Norte  
Bogotá D.C.

Tel. (57-1) 2313518

Móvil 3134549361

www.alpha1.com.co

gerenciaadministrativa@alpha1.com.co

- Notes:
- Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
  - The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
  - This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.
  - The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.
  - Any inconformities with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.
  - The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

### WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT

<b>Identification:</b> 500357780 CANECA 1 <b>Sample Type:</b> DESCONOCIDO <b>Origin:</b> DESCONOCIDO  <b>Client:</b> AUXICO RESOURCES <b>Contact:</b> TIFFANY CIFUENTES <b>Address:</b> 201 RUE NOTRE DAME OUEST <b>City:</b> MONTREAL <b>Phone Number:</b> 1 4384999621 <b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA	<b>Consecutive of Sample:</b> AUX 26140 <b>Responsible for Sampling:</b> CLIENT <b>Sampling Plan/Procedure:</b> NONE <b>Date Received:</b> 02/09/2021 <b>Date of Analysis:</b> 15/09/2021 <b>Date of Report:</b> 15/09/2021  <b>Solicitud Análisis:</b> SA7735 <b>Consecutive of Report:</b> 26140-RE XRF <b>Application:</b> 1,11 AQ 2020
--	---

PF-0135 Versión 3 Página 1 de 1

OBSERVATIONS		
Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	20,46
Silicon	SiO <sub>2</sub>	36,70
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,14
Potassium	K <sub>2</sub> O	0,03
Calcium	CaO	0,08
Manganese	MnO	0,14
Titanium	TiO <sub>2</sub>	0,52
Iron	Fe <sub>2</sub> O <sub>3</sub>	32,05
Zinc	ZnO	0,02
Zirconium	ZrO <sub>2</sub>	0,07
Loss of Ignition	LOI	9,77

REE		
Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

**Observations**  
 N.D.: NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour.  
 The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.  
 This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

**Moisture:** 3,28 %  
**Radioactivity:** NONE µSv/h  
**Sample quantity:** 5320g  
**Magnetic Characteristics:** NONE

**Approved by Jairo Torres**  
General Manager

**Produce by Juan Sebastian Betancourt**  
Analyst

AK 60 No. 67ª 80 B. Modelo Norte  
Bogotá D.C.  
Tel. (57-1) 2313518  
Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

Notes:  
 1. Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.  
 2. The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.  
 3. This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.  
 4. The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.  
 5. Any inconveniences with the results can be processed within 3 months after the the report has been sent to the client by Alpha1 S.A.S.  
 6. The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

### WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT

<b>Identification:</b> 500357781 CANECA 2 <b>Sample Type:</b> DESCONOCIDO <b>Origin:</b> DESCONOCIDO  <b>Client:</b> AUXICO RESOURCES <b>Contact:</b> TIFFANY CIFUENTES <b>Address:</b> 201 RUE NOTRE DAME OUEST <b>City:</b> MONTREAL <b>Phone Number:</b> 1 4384999621 <b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA	<b>Consecutive of Sample:</b> AUX 26132 <b>Responsible for Sampling:</b> CLIENT <b>Sampling Plan/Procedure:</b> NONE <b>Date Received:</b> 02/09/2021 <b>Date of Analysis:</b> 15/09/2021 <b>Date of Report:</b> 15/09/2021  <b>Solicitud Análisis:</b> SA7735 <b>Consecutive of Report:</b> 26132-RE XRF <b>Application:</b> 1,11 AQ 2020
--	---

PF-0135 Versión 3 Página 1 de 1

OBSERVATIONS		
Name	Element	Composition (%)
Sodium	Na <sub>2</sub> O	0,03
Magnesium	MgO	0,03
Aluminum	Al <sub>2</sub> O <sub>3</sub>	10,92
Silicon	SiO <sub>2</sub>	49,52
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,19
Potassium	K <sub>2</sub> O	0,38
Calcium	CaO	0,06
Titanium	TiO <sub>2</sub>	0,30
Iron	Fe <sub>2</sub> O <sub>3</sub>	32,62
Zirconium	ZrO <sub>2</sub>	0,05
Loss of Ignition	LOI	5,92

REE		
Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

**Observations**  
 N.D.: NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour.  
 The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.  
 This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

**Moisture:** 1,77 %  
**Radioactivity:** NONE µSv/h  
**Sample quantity:** 6550g  
**Magnetic Characteristics:** NONE

**Approved by Jairo Torres**  
General Manager

**Produce by Juan Sebastian Betancourt**  
Analyst

AK 60 No. 67ª 80 B. Modelo Norte  
Bogotá D.C.  
Tel. (57-1) 2313518  
Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

Notes:  
 1. Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.  
 2. The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.  
 3. This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.  
 4. The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.  
 5. Any inconveniences with the results can be processed within 3 months after the the report has been sent to the client by Alpha1 S.A.S.  
 6. The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: 500357782 CANECA 2	Consecutive of Sample: <b>AUX 26131</b>
Sample Type: DESCONOCIDO	Responsible for Sampling: CLIENT
Origin: DESCONOCIDO	Sampling Plan/Procedure: NONE
Client: AUXICO RESOURCES	Date Received: 02/09/2021
Contact: TIFFANY CIFUENTES	Date of Analysis: 15/09/2021
Address: 201 RUE NOTRE DAME OUEST	Date of Report: 15/09/2021
City: MONTREAL	Solicitud Análisis: <b>SA7735</b>
Phone Number: 1 4384999621	Consecutive of Report: <b>26131-RE XRF</b>
Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA	Application: 1,11 AQ 2020

FP-0135 Version 3

Página 1 de 1

**OBSERVATIONS**

Name	Element	Composition (%)
Sodium	Na <sub>2</sub> O	0,04
Magnesium	MgO	0,03
Aluminum	Al <sub>2</sub> O <sub>3</sub>	23,35
Silicon	SiO <sub>2</sub>	47,57
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,21
Potassium	K <sub>2</sub> O	2,39
Calcium	CaO	0,08
Manganese	MnO	0,03
Titanium	TiO <sub>2</sub>	0,91
Iron	Fe <sub>2</sub> O <sub>3</sub>	16,35
Zirconium	ZrO <sub>2</sub>	0,11
Loss of Ignition	LOI	8,85

**REE**

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

**Observations**

N.D. : NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour  
 The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.  
 This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.  
 For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity

Approved by Jairo Torres  
General Manager

Moisture	1,76	%
Radioactivity	NONE	µSv/h
Sample quantity	1450g	
Magnetic Characteristics:	NONE	

Produce by Juan Sebastian Betancourt  
Analyst

AK 60 No. 67\* 80 B. Modelo Norte  
Bogotá D.C.  
Tel. (57-1) 2313518  
Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

- Notes:
- Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
  - The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
  - This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.
  - The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.
  - Any inconveniences with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.
  - The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: 500357783 CANECA 2	Consecutive of Sample: <b>AUX 26130</b>
Sample Type: DESCONOCIDO	Responsible for Sampling: CLIENT
Origin: DESCONOCIDO	Sampling Plan/Procedure: NONE
Client: AUXICO RESOURCES	Date Received: 02/09/2021
Contact: TIFFANY CIFUENTES	Date of Analysis: 15/09/2021
Address: 201 RUE NOTRE DAME OUEST	Date of Report: 15/09/2021
City: MONTREAL	Solicitud Análisis: <b>SA7735</b>
Phone Number: 1 4384999621	Consecutive of Report: <b>26130-RE XRF</b>
Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA	Application: 1,11 AQ 2020

FP-0135 Version 3

Página 1 de 1

**OBSERVATIONS**

Name	Element	Composition (%)
Sodium	Na <sub>2</sub> O	0,23
Magnesium	MgO	0,06
Aluminum	Al <sub>2</sub> O <sub>3</sub>	19,48
Silicon	SiO <sub>2</sub>	65,91
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,11
Potassium	K <sub>2</sub> O	6,18
Calcium	CaO	0,27
Manganese	MnO	0,09
Titanium	TiO <sub>2</sub>	0,34
Iron	Fe <sub>2</sub> O <sub>3</sub>	3,51
Zinc	ZnO	0,01
Zirconium	ZrO <sub>2</sub>	0,06
Loss of Ignition	LOI	3,78

**REE**

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

**Observations**

N.D. : NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour  
 The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.  
 This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.  
 For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity

Approved by Jairo Torres  
General Manager

Moisture	1,34	%
Radioactivity	NONE	µSv/h
Sample quantity	2440g	
Magnetic Characteristics:	NONE	

Produce by Juan Sebastian Betancourt  
Analyst

AK 60 No. 67\* 80 B. Modelo Norte  
Bogotá D.C.  
Tel. (57-1) 2313518  
Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

- Notes:
- Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
  - The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
  - This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.
  - The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.
  - Any inconveniences with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.
  - The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.



**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: 500357784 CANECA 1  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO  
 Client: AUXICO RECURSOS  
 Contact: TIFFANY CIJENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA

Consecutive of Sample: **AUX 26124**  
 CLIENT: NONE  
 Responsible for Sampling: NONE  
 Sampling Plan/Procedure: NONE  
 Date Received: 02/09/2021  
 Date of Analysis: 15/09/2021  
 Date of Report: 15/09/2021  
 Solicitud Análisis: **SA7735**  
 Consecutive of Report: **26124-RE XRF**  
 Application: 1.11 AQ 2020

**OBSERVATIONS**

Name	Element	Composition (%)
Sodium	Na <sub>2</sub> O	N.D.
Magnesium	MgO	N.D.
Aluminum	Al <sub>2</sub> O <sub>3</sub>	6,54
Silicon	SiO <sub>2</sub>	89,53
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,02
Potassium	K <sub>2</sub> O	N.D.
Calcium	CaO	N.D.
Manganese	MnO	N.D.
Titanium	TiO <sub>2</sub>	0,11
Iron	Fe <sub>2</sub> O <sub>3</sub>	1,57
Zinc	ZnO	N.D.
Zirconium	ZrO <sub>2</sub>	0,03
Niobium	Nb <sub>2</sub> O <sub>5</sub>	N.D.
Tantalum	Ta <sub>2</sub> O <sub>5</sub>	N.D.
Tungsten	WO <sub>3</sub>	0,07
Lead	PbO	N.D.
Hafnium	HfO <sub>2</sub>	N.D.
Thorium	ThO <sub>2</sub>	N.D.
Uranium	U	N.D.
Loss of Ignition	LOI	2,13

**REE**

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

**Observations**

N.D. : NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour  
 The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.  
 This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.  
 Moisture: 0,38 %  
 Radioactivity: NONE µSv/h  
 Sample quantity: 1095g  
 Magnetic Characteristics: NONE

Approved by Jairo Torres  
 General Manager

Produce by Juan Sebastian Betancourt  
 Analyst

AK 60 No. 67<sup>a</sup> 80 B. Modelo Norte  
 Bogotá D.C.  
 Tel. (57-1) 2313518  
 Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

- Notes:  
 1. Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.  
 2. The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: 500357785 CANECA 2  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO  
 Client: AUXICO RECURSOS  
 Contact: TIFFANY CIJENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA

Consecutive of Sample: **AUX 26127**  
 CLIENT: NONE  
 Responsible for Sampling: NONE  
 Sampling Plan/Procedure: NONE  
 Date Received: 02/09/2021  
 Date of Analysis: 15/09/2021  
 Date of Report: 15/09/2021  
 Solicitud Análisis: **SA7735**  
 Consecutive of Report: **26127-RE XRF**  
 Application: 1.11 AQ 2020

**OBSERVATIONS**

Name	Element	Composition (%)
Magnesium	MgO	0,02
Aluminum	Al <sub>2</sub> O <sub>3</sub>	19,72
Silicon	SiO <sub>2</sub>	17,62
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,22
Potassium	K <sub>2</sub> O	0,24
Titanium	TiO <sub>2</sub>	0,76
Iron	Fe <sub>2</sub> O <sub>3</sub>	51,24
Zirconium	ZrO <sub>2</sub>	0,10
Loss of Ignition	LOI	10,02

**REE**

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

**Observations**

N.D. : NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour  
 The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.  
 This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.  
 Moisture: 1,54 %  
 Radioactivity: NONE µSv/h  
 Sample quantity: 2180g  
 Magnetic Characteristics: YES

Approved by Jairo Torres  
 General Manager

Produce by Juan Sebastian Betancourt  
 Analyst

AK 60 No. 67<sup>a</sup> 80 B. Modelo Norte  
 Bogotá D.C.  
 Tel. (57-1) 2313518  
 Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

- Notes:  
 1. Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.  
 2. The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.  
 3. This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.  
 4. The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.  
 5. Any inconformities with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.  
 6. The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

### WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT

<b>Identification:</b> 500357786 CANECA 2 <b>Sample Type:</b> DESCOCIDO <b>Origin:</b> DESCOCIDO  <b>Client:</b> AUXICO RESOURCES <b>Contact:</b> TIFFANY CIFUENTES <b>Address:</b> 201 RUE NOTRE DAME OUEST <b>City:</b> MONTREAL <b>Phone Number:</b> 1 4384999621 <b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA	<b>Consecutive of Sample:</b> AUX 26126 <b>Responsible for Sampling:</b> CLIENT <b>Sampling Plan/Procedure:</b> NONE <b>Date Received:</b> 02/09/2021 <b>Date of Analysis:</b> 15/09/2021 <b>Date of Report:</b> 15/09/2021  <b>Solicitud Análisis:</b> SA7735 <b>Consecutive of Report:</b> 26126-RE XRF <b>Application:</b> 1,11 AQ 2020
--	---

PF4535 - Version 3 Página 1 de 1

OBSERVATIONS		
Name	Element	Composition (%)
Magnesium	MgO	0,02
Aluminum	Al <sub>2</sub> O <sub>3</sub>	23,33
Silicon	SiO <sub>2</sub>	37,78
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,21
Potassium	K <sub>2</sub> O	0,21
Calcium	CaO	0,13
Titanium	TiO <sub>2</sub>	1,13
Iron	Fe <sub>2</sub> O <sub>3</sub>	26,93
Zirconium	ZrO <sub>2</sub>	0,15
Loss of Ignition	LOI	10,05

REE		
Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
<b>Total Rare Earth Elements</b>	<b>REE</b>	<b>0,0</b>

**Observations**  
 N.D. : NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour  
 The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried matter.  
 This technique does not validate the none presence of elements not detected if they are below 100ppm. Our trace.  
 For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

Moisture: 0,07 %  
 Radioactivity: NONE µSv/h  
 Sample quantity: 1130g  
 Magnetic Characteristics: NONE

Approved by **Jairo Torres** General Manager  
 Produce by **Juan Sebastian Betancourt** Analyst

AK 60 No. 67\* 80 B. Modelo Norte  
 Bogotá D.C.  
 Tel. (57-1) 2313518  
 Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

Notes:  
 1. Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.  
 2. The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.  
 3. This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.  
 4. The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.  
 5. Any inconveniences with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.  
 6. The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

### WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT

<b>Identification:</b> 500357787 CANECA 2 <b>Sample Type:</b> DESCOCIDO <b>Origin:</b> DESCOCIDO  <b>Client:</b> AUXICO RESOURCES <b>Contact:</b> TIFFANY CIFUENTES <b>Address:</b> 201 RUE NOTRE DAME OUEST <b>City:</b> MONTREAL <b>Phone Number:</b> 1 4384999621 <b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA	<b>Consecutive of Sample:</b> AUX 26125 <b>Responsible for Sampling:</b> CLIENT <b>Sampling Plan/Procedure:</b> NONE <b>Date Received:</b> 02/09/2021 <b>Date of Analysis:</b> 15/09/2021 <b>Date of Report:</b> 15/09/2021  <b>Solicitud Análisis:</b> SA7735 <b>Consecutive of Report:</b> 26125-RE XRF <b>Application:</b> 1,11 AQ 2020
--	---

PF4535 - Version 3 Página 1 de 1

OBSERVATIONS		
Name	Element	Composition (%)
Sodium	Na <sub>2</sub> O	0,17
Magnesium	MgO	0,04
Aluminum	Al <sub>2</sub> O <sub>3</sub>	30,57
Silicon	SiO <sub>2</sub>	44,95
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,22
Potassium	K <sub>2</sub> O	1,90
Calcium	CaO	0,32
Titanium	TiO <sub>2</sub>	0,59
Iron	Fe <sub>2</sub> O <sub>3</sub>	11,57
Zirconium	ZrO <sub>2</sub>	0,07
Niobium	Nb <sub>2</sub> O <sub>5</sub>	0,04
Tungsten	WO <sub>3</sub>	0,00
Loss of Ignition	LOI	9,54

REE		
Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	0,0
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
<b>Total Rare Earth Elements</b>	<b>REE</b>	<b>0,0</b>

**Observations**  
 N.D. : NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour  
 The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried matter.  
 This technique does not validate the none presence of elements not detected if they are below 100ppm. Our trace.  
 For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

Moisture: 1,14 %  
 Radioactivity: NONE µSv/h  
 Sample quantity: 1580g  
 Magnetic Characteristics: NONE

Approved by **Jairo Torres** General Manager  
 Produce by **Juan Sebastian Betancourt** Analyst

AK 60 No. 67\* 80 B. Modelo Norte  
 Bogotá D.C.  
 Tel. (57-1) 2313518  
 Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

Notes:  
 1. Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.  
 2. The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.  
 3. This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.  
 4. The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.  
 5. Any inconveniences with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.  
 6. The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.



**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

**Identification:** 500357789 CANECA 1  
**Sample Type:** DESCONOCIDO  
**Origin:** DESCONOCIDO  
**Client:** AUXICO RESOURCES  
**Contact:** TIFFANY CIFUENTES  
**Address:** 201 RUE NOTRE DAME OUEST  
**City:** MONTREAL  
**Phone Number:** 1 4384999621  
**Method of Analysis:** PRT-GT-01 WDXRF-OMNIAN PASTILLA  
**Consecutive of Sample:** AUX 26134  
**Responsible for Sampling:** CLIENT  
**Sampling Plan/Procedure:** NONE  
**Date Received:** 02/09/2021  
**Date of Analysis:** 15/09/2021  
**Date of Report:** 15/09/2021  
**Solicitud Análisis:** SA7735  
**Consecutive of Report:** 26134-RE XRF  
**Application:** 1,11 AQ 2020

**OBSERVATIONS**

Name	Element	Composition (%)
Sodium	Na <sub>2</sub> O	0,10
Magnesium	MgO	0,07
Aluminum	Al <sub>2</sub> O <sub>3</sub>	17,78
Silicon	SiO <sub>2</sub>	50,86
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,12
Potassium	K <sub>2</sub> O	0,78
Titanium	TiO <sub>2</sub>	0,58
Iron	Fe <sub>2</sub> O <sub>3</sub>	23,59
Zirconium	ZrO <sub>2</sub>	0,04
Uranium	U	N.D.
Loss of Ignition	LOI	6,07

**REE**

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

**Observations**  
 N.D.: NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour  
 The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.  
 This technique does not validate the none presence of elements not detected if they are below 100ppm. Our track  
 For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity  
 and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.  
 Moisture 2,06 %  
 Radioactivity NONE µSv/h  
 Sample quantity 2505g  
 Magnetic Characteristics: YES  
 Notes:

Approved by **Jairo Torres**  
 General Manager  
 Produce by **Juan Sebastian Betancourt**  
 Analyst

AK 60 No. 67ª 80 B. Modelo Norte  
Bogotá D.C.

Tel. (57-1) 2313518

Móvil 3134549361

[www.alpha1.com.co](http://www.alpha1.com.co)

[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

- Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
- The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
- This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.
- The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.
- Any inconveniences with the results can be processed within 3 months after the the report has been sent to the client by Alpha1 S.A.S.
- The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

**Identification:** 500357790 CANECA 2  
**Sample Type:** DESCONOCIDO  
**Origin:** DESCONOCIDO  
**Client:** AUXICO RESOURCES  
**Contact:** TIFFANY CIFUENTES  
**Address:** 201 RUE NOTRE DAME OUEST  
**City:** MONTREAL  
**Phone Number:** 1 4384999621  
**Method of Analysis:** PRT-GT-01 WDXRF-OMNIAN PASTILLA  
**Consecutive of Sample:** AUX 26122  
**Responsible for Sampling:** CLIENT  
**Sampling Plan/Procedure:** NONE  
**Date Received:** 02/09/2021  
**Date of Analysis:** 15/09/2021  
**Date of Report:** 15/09/2021  
**Solicitud Análisis:** SA7735  
**Consecutive of Report:** 26122-RE XRF  
**Application:** 1,11 AQ 2020

**OBSERVATIONS**

Name	Element	Composition (%)
Sodium	Na <sub>2</sub> O	0,04
Magnesium	MgO	0,03
Aluminum	Al <sub>2</sub> O <sub>3</sub>	13,82
Silicon	SiO <sub>2</sub>	33,73
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,09
Potassium	K <sub>2</sub> O	0,66
Titanium	TiO <sub>2</sub>	0,49
Iron	Fe <sub>2</sub> O <sub>3</sub>	44,52
Zirconium	ZrO <sub>2</sub>	0,05
Lead	PbO	0,20
Loss of Ignition	LOI	6,38

**REE**

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

**Observations**  
 N.D.: NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour  
 The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.  
 This technique does not validate the none presence of elements not detected if they are below 100ppm. Our track  
 For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity  
 and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.  
 Moisture 1,74 %  
 Radioactivity NONE µSv/h  
 Sample quantity 3785g  
 Magnetic Characteristics: NONE  
 Notes:

Approved by **Jairo Torres**  
 General Manager  
 Produce by **Juan Sebastian Betancourt**  
 Analyst

AK 60 No. 67ª 80 B. Modelo Norte  
Bogotá D.C.

Tel. (57-1) 2313518

Móvil 3134549361

[www.alpha1.com.co](http://www.alpha1.com.co)

[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

- Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
- The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
- This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.
- The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.
- Any inconveniences with the results can be processed within 3 months after the the report has been sent to the client by Alpha1 S.A.S.
- The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

SERVICIOS ANALITICOS

### WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT

<b>Identification:</b> 500357791 CANECA 2 <b>Sample Type:</b> DESCONOCIDO <b>Origin:</b> DESCONOCIDO  <b>Client:</b> AUXICO RESOURCES <b>Contact:</b> TIFFANY CIFUENTES <b>Address:</b> 201 RUE NOTRE DAME OUEST <b>City:</b> MONTREAL <b>Phone Number:</b> 1 4384999621 <b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA	<b>Consecutive of Sample:</b> <b>AUX 26121</b> <b>Responsible for Sampling:</b> CLIENT <b>Sampling Plan/Procedure:</b> NONE <b>Date Received:</b> 02/09/2021 <b>Date of Analysis:</b> 15/09/2021 <b>Date of Report:</b> 15/09/2021  <b>Solicitud Analisis:</b> <b>SA7735</b> <b>Consecutive of Report:</b> <b>26121-RE XRF</b> <b>Application:</b> 1.11 AQ 2020
--	--

PF-01-35 Versión 3 Page 1 of 1

OBSERVATIONS		
Name	Element	Composition (%)
Sodium	Na <sub>2</sub> O	0,06
Magnesium	MgO	0,06
Aluminum	Al <sub>2</sub> O <sub>3</sub>	11,80
Silicon	SiO <sub>2</sub>	41,40
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,40
Potassium	K <sub>2</sub> O	0,67
Calcium	CaO	0,10
Titanium	TiO <sub>2</sub>	0,53
Iron	Fe <sub>2</sub> O <sub>3</sub>	38,30
Zirconium	ZrO <sub>2</sub>	0,04
Loss of Ignition	LOI	6,62

REE		
Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

**Observations**  
 N.D. : NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour  
 The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.  
 This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability is based on the calibration of the instrument.  
 For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.  
 Moisture: 1,22 %  
 Radioactivity: NONE µSv/h  
 Sample quantity: 15g  
 Magnetic Characteristics: NONE  
 Notes:  
 1. Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.  
 2. The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.  
 3. This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.  
 4. The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.  
 5. Any inconveniences with the results can be processed within 3 months after the the report has been sent to the client by Alpha1 S.A.S.  
 6. The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

Approved by **Jairo Torres**  
General Manager

Produce by **Juan Sebastian Betancourt**  
Analyst

AK 60 No. 67ª 80 B. Modelo Norte  
Bogotá D.C.  
Tel. (57-1) 2313518  
Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

### WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT

<b>Identification:</b> 500357792 CANECA 2 <b>Sample Type:</b> DESCONOCIDO <b>Origin:</b> DESCONOCIDO  <b>Client:</b> AUXICO RESOURCES <b>Contact:</b> TIFFANY CIFUENTES <b>Address:</b> 201 RUE NOTRE DAME OUEST <b>City:</b> MONTREAL <b>Phone Number:</b> 1 4384999621 <b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA	<b>Consecutive of Sample:</b> <b>AUX 26120</b> <b>Responsible for Sampling:</b> CLIENT <b>Sampling Plan/Procedure:</b> NONE <b>Date Received:</b> 02/09/2021 <b>Date of Analysis:</b> 15/09/2021 <b>Date of Report:</b> 15/09/2021  <b>Solicitud Analisis:</b> <b>SA7735</b> <b>Consecutive of Report:</b> <b>26120-RE XRF</b> <b>Application:</b> 1.11 AQ 2020
--	--

PF-01-35 Versión 3 Page 1 of 1

OBSERVATIONS		
Name	Element	Composition (%)
Magnesium	MgO	0,06
Aluminum	Al <sub>2</sub> O <sub>3</sub>	19,35
Silicon	SiO <sub>2</sub>	26,08
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,14
Potassium	K <sub>2</sub> O	0,72
Titanium	TiO <sub>2</sub>	0,70
Iron	Fe <sub>2</sub> O <sub>3</sub>	43,87
Zirconium	ZrO <sub>2</sub>	0,04
Lead	PbO	0,02
Loss of Ignition	LOI	8,90

REE		
Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	N.D.
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	N.D.
Lanthanum	La <sub>2</sub> O <sub>3</sub>	N.D.
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	N.D.
Samarium	Sm <sub>2</sub> O <sub>3</sub>	N.D.
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	N.D.
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	N.D.
Yttrium	Y <sub>2</sub> O <sub>3</sub>	N.D.
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	N.D.
Erbium	Er <sub>2</sub> O <sub>3</sub>	N.D.
Total Rare Earth Elements	REE	0,0

**Observations**  
 N.D. : NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour  
 The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.  
 This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability is based on the calibration of the instrument.  
 For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.  
 Moisture: 1,69 %  
 Radioactivity: NONE µSv/h  
 Sample quantity: 1450g  
 Magnetic Characteristics: NONE  
 Notes:  
 1. Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.  
 2. The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.  
 3. This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.  
 4. The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.  
 5. Any inconveniences with the results can be processed within 3 months after the the report has been sent to the client by Alpha1 S.A.S.  
 6. The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

Approved by **Jairo Torres**  
General Manager

Produce by **Juan Sebastian Betancourt**  
Analyst

AK 60 No. 67ª 80 B. Modelo Norte  
Bogotá D.C.  
Tel. (57-1) 2313518  
Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)



**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: PERSONAL 500357793B COORSE  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO  
 Client: AUXICO RESOURCES  
 Contact: TIFFANY OFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA

Consecutive of Sample: **AUX 26101**  
 Responsible for Sampling: CLIENT  
 Sampling Plan/Procedure: NONE  
 Date Received: 01/09/2021  
 Date of Analysis: 02/09/2021  
 Date of Report: 02/09/2021  
 Solicitud Analisis: **SA7734**  
 Consecutive of Report: **26101-RE XRF**  
 Application: 1,11 AQ 2020

**OBSERVATIONS**

Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	0,8
Silicon	SiO <sub>2</sub>	2,0
Phosphorus	P <sub>2</sub> O <sub>5</sub>	14,6
Calcium	CaO	0,4
Iron	Fe <sub>2</sub> O <sub>3</sub>	3,7
Zirconium	ZrO <sub>2</sub>	0,4
Niobium	Nb <sub>2</sub> O <sub>5</sub>	N.D.
Tantalum	Ta <sub>2</sub> O <sub>5</sub>	0,1
Tungsten	WO <sub>3</sub>	0,1
Lead	PbO	0,4
Hafnium	HfO <sub>2</sub>	0,1
Thorium	ThO <sub>2</sub>	7,9
Uranium	U	0,2
Loss of Ignition	LOI	1,2

**REE**

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	43,93
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	8,44
Lanthanum	La <sub>2</sub> O <sub>3</sub>	7,77
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	2,25
Samarium	Sm <sub>2</sub> O <sub>3</sub>	2,37
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	2,67
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	0,49
Yttrium	Y <sub>2</sub> O <sub>3</sub>	0,07
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	0,22
Erbium	Er <sub>2</sub> O <sub>3</sub>	0,11
Total Rare Earth Elements	REE	68,3

**Observations**

N.D. : NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour  
 The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.  
 This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability  
 For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity  
 and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.  
 Moisture 0,28 %  
 Radioactivity 5,0 µSv/h  
 Sample quantity 106g  
 Magnetic Characteristics: NONE

Approved by Jairo Torres  
General Manager

Produce by Juan Sebastian Betancourt  
Analyst

AK 60 No. 67\* 80 B. Modelo Norte  
Bogotá D.C.  
Tel. (57-1) 2313518  
Móvil 3134549361

[www.alpha1.com.co](http://www.alpha1.com.co)

[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

- Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
- The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
- This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.
- The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.
- Any inconveniences with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.
- The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: 500357795  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO  
 Client: AUXICO RESOURCES  
 Contact: TIFFANY OFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA

Consecutive of Sample: **AUX 26099**  
 Responsible for Sampling: CLIENT  
 Sampling Plan/Procedure: NONE  
 Date Received: 01/09/2021  
 Date of Analysis: 02/09/2021  
 Date of Report: 02/09/2021  
 Solicitud Analisis: **SA7734**  
 Consecutive of Report: **26099-RE XRF**  
 Application: 1,11 AQ 2020

**OBSERVATIONS**

Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	1,3
Silicon	SiO <sub>2</sub>	2,9
Phosphorus	P <sub>2</sub> O <sub>5</sub>	14,0
Calcium	CaO	0,4
Manganese	MnO	0,1
Iron	Fe <sub>2</sub> O <sub>3</sub>	7,2
Zirconium	ZrO <sub>2</sub>	0,5
Niobium	Nb <sub>2</sub> O <sub>5</sub>	1,2
Tantalum	Ta <sub>2</sub> O <sub>5</sub>	1,3
Tungsten	WO <sub>3</sub>	0,3
Lead	PbO	0,5
Hafnium	HfO <sub>2</sub>	0,3
Thorium	ThO <sub>2</sub>	7,1
Uranium	U	0,2
Tin	SnO <sub>2</sub>	0,2
Bismuth	Bi <sub>2</sub> O <sub>3</sub>	0,2
Loss of Ignition	LOI	1,5

**REE**

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	36,75
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	7,38
Lanthanum	La <sub>2</sub> O <sub>3</sub>	9,37
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	1,82
Samarium	Sm <sub>2</sub> O <sub>3</sub>	2,08
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	2,17
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	0,70
Yttrium	Y <sub>2</sub> O <sub>3</sub>	0,12
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	0,38
Erbium	Er <sub>2</sub> O <sub>3</sub>	0,25
Total Rare Earth Elements	REE	61,0

**Observations**

N.D. : NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour  
 The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.  
 This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability  
 For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity  
 and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.  
 Moisture 0,34 %  
 Radioactivity 4,0 µSv/h  
 Sample quantity 150g  
 Magnetic Characteristics: NONE

Approved by Jairo Torres  
General Manager

Produce by Juan Sebastian Betancourt  
Analyst

AK 60 No. 67\* 80 B. Modelo Norte  
Bogotá D.C.  
Tel. (57-1) 2313518  
Móvil 3134549361

[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciaadministrativa@alpha1.com.co](mailto:gerenciaadministrativa@alpha1.com.co)

- Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
- The analytical results present correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
- This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.
- The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.
- Any inconveniences with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.
- The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: 500357796  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO  
 Client: AUXICO RESOURCES  
 Contact: TIFFANY CIFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA

Consecutive of Sample: **AUX 26100**  
 Responsible for Sampling: CLIENT  
 Sampling Plan/Procedure: NONE  
 Date Received: 01/09/2021  
 Date of Analysis: 02/09/2021  
 Date of Report: 02/09/2021

Solicitud Analisis: **SA7734**  
 Consecutive of Report: **26100-RE XRF**  
 Application: 1,11 AQ 2020

**OBSERVATIONS**

Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	1,1
Silicon	SiO <sub>2</sub>	2,7
Phosphorus	P <sub>2</sub> O <sub>5</sub>	14,0
Calcium	CaO	0,4
Iron	Fe <sub>2</sub> O <sub>3</sub>	4,8
Zirconium	ZrO <sub>2</sub>	0,1
Niobium	Nb <sub>2</sub> O <sub>5</sub>	1,0
Tin	SnO <sub>2</sub>	0,3
Tantalum	Ta <sub>2</sub> O <sub>5</sub>	1,3
Tungsten	WO <sub>3</sub>	0,1
Lead	PbO	0,6
Hafnium	HfO <sub>2</sub>	0,3
Thorium	ThO <sub>2</sub>	7,0
Uranium	U	0,2
Loss of Ignition	LOI	1,5

**REE**

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	38,82
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	8,39
Lanthanum	La <sub>2</sub> O <sub>3</sub>	6,80
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	2,74
Samarium	Sm <sub>2</sub> O <sub>3</sub>	2,59
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	2,39
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	0,96
Yttrium	Y <sub>2</sub> O <sub>3</sub>	1,03
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	0,40
Erbium	Er <sub>2</sub> O <sub>3</sub>	0,09
Total Rare Earth Elements	REE	64,2

**Observations**

N.D. : NOT DETECTABLE LOI : (LOSS OF IGNITION) 1000°C for 1 hour  
 The analysis corresponds to a semi-quantitative program (max std 5%). The result is based on dried material.  
 This technique does not validate the none presence of elements not detected if they are below 100ppm. Our traceability.  
 For the validity or applicability of the results with commercial ends, Alpha1 S.A.S does not take responsibility for the representativity  
 and traceability of the sample and forwards them to the Sampling Plan/Procedure referenced above.

Moisture	0,45	%
Radioactivity	4,6	µSv/h
Sample quantity	173g	
Magnetic Characteristics:	NONE	

Approved by Jairo Torres  
 General Manager

Produce by Juan Sebastian Betancourt  
 Analyst

AK 60 No. 67ª 80 B. Modelo Norte  
 Bogotá D.C.  
 Tel. (57-1) 2313518  
 Móvil 3134549361  
[www.alpha1.com.co](http://www.alpha1.com.co)  
[gerenciadadministrativa@alpha1.com.co](mailto:gerenciadadministrativa@alpha1.com.co)

- Notes:
- Alpha1 S.A.S reserves the right to confirm the authenticity of this report of analysis under the policies of confidentiality and property rights of our clients.
  - The analytical results passed correspond EXCLUSIVELY to the sample received and NOT to any other material of the same origin.
  - This report is only for this sample. Every copy of the results on paper will have an additional 15% cost of the price of the analysis.
  - The complete or partial reproduction of the report is prohibited without written approval of Alpha1 S.A.S.
  - Any inconverences with the results can be processed within 3 months after the report has been sent to the client by Alpha1 S.A.S.
  - The disposal of the countersamples and unused samples is done in accordance with what has been approved with the client in the request of analysis.

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: 500351155 CANECA 1 LAVADO // "26136"  
 Sample Type: DESCONOCIDO  
 Origin: DESCONOCIDO  
 Client: AUXICO RESOURCES  
 Contact: TIFFANY CIFUENTES  
 Address: 201 RUE NOTRE DAME OUEST  
 City: MONTREAL  
 Phone Number: 1 4384999621  
 Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA

Consecutive of Sample: **AUX 26258**  
 Responsible for Sampling: CLIENT  
 Sampling Plan/Procedure: NONE  
 Date Received: 10/6/2021  
 Date of Analysis: 10/7/2021  
 Date of Report: 10/7/2021

Solicitud Analisis: **SA7767**  
 Consecutive of Report: **26258-RE XRF**  
 Application: 11 AQ 2020 LT

FT-GT-3: Versión 3

Página 1 de 1

Initial weight (g)	Weight before concentration (g)	Weight after concentration and drying(g)
5200	5200	41.6
<b>Concentration ratio</b>		<b>125</b>

**OBSERVATIONS**

Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	2.29
Silicon	SiO <sub>2</sub>	86.11
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0.05
Potassium	K <sub>2</sub> O	0.08
Manganese	MnO	N.D.
Titanium	TiO <sub>2</sub>	0.19
Iron	Fe <sub>2</sub> O <sub>3</sub>	9.50
Zirconium	ZrO <sub>2</sub>	0.09
Tungsten	WO <sub>3</sub>	N.D.
Loss of Ignition	LOI	1.67

**Precious metals on concentrate**

Name	Element	Composition (ppm)
Gold	Au	15
Silver	Ag	<1
Palladium	Pd	<1
Platinum	Pt	38

\*Estimated LLD for WDXRF-OMNIAN PASTILLA on concentrate material is 100 ppm.

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

<b>Identification:</b> 500357774 CANECA 1 LAVADO // "26137" <b>Sample Type:</b> DESCONOCIDO <b>Origin:</b> DESCONOCIDO  <b>Client:</b> AUXICO RESOURCES <b>Contact:</b> TIFFANY CIFUENTES <b>Address:</b> 201 RUE NOTRE DAME OUEST <b>City:</b> MONTREAL <b>Phone Number:</b> 1 4384999621 <b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA	<b>Consecutive of Sample:</b> <b>AUX 26259</b> <b>Responsible for Sampling:</b> CLIENT <b>Sampling Plan/Procedure:</b> NONE <b>Date Received:</b> 06/10/2021 <b>Date of Analysis:</b> 29/11/2021 <b>Date of Report:</b> 29/11/2021  <b>Solicitud Análisis:</b> <b>SA7767</b> <b>Consecutive of Report:</b> <b>26259-RE XRF</b> <b>Application:</b> 1,11 AQ 2020 LT	
--	---	--

FT-GT-35 Versión 3

Página 1 de 1

Initial weight (g)	Weight before concentration (g)	Weight after concentration and drying (g)
1200	1200	39,3
Concentration ratio		31

**OBSERVATIONS**

Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	8,17
Silicon	SiO <sub>2</sub>	80,87
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,08
Potassium	K <sub>2</sub> O	0,09
Titanium	TiO <sub>2</sub>	0,23
Iron	Fe <sub>2</sub> O <sub>3</sub>	10,47
Zirconium	ZrO <sub>2</sub>	0,05

Precious metals on concentrate		
Name	Element	Composition (ppm)
Gold	Au	<1
Silver	Ag	<1
Palladium	Pd	<1
Platinum	Pt	<1

\*Estimated LLD for WDXRF-OMNIAN PASTILLA on concentrate material is 100 ppm

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

<b>Identification:</b> 500357775 CANECA 1 LAVADO // "26139" <b>Sample Type:</b> DESCONOCIDO <b>Origin:</b> DESCONOCIDO  <b>Client:</b> AUXICO RESOURCES <b>Contact:</b> TIFFANY CIFUENTES <b>Address:</b> 201 RUE NOTRE DAME OUEST <b>City:</b> MONTREAL <b>Phone Number:</b> 1 4384999621 <b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA	<b>Consecutive of Sample:</b> <b>AUX 26261</b> <b>Responsible for Sampling:</b> CLIENT <b>Sampling Plan/Procedure:</b> NONE <b>Date Received:</b> 06/10/2021 <b>Date of Analysis:</b> 07/10/2021 <b>Date of Report:</b> 07/10/2021  <b>Solicitud Análisis:</b> <b>SA7767</b> <b>Consecutive of Report:</b> <b>26261-RE XRF</b> <b>Application:</b> 1,11 AQ 2020 LT	
--	---	--

FT-GT-35 Versión 3

Página 1 de 1

Initial weight (g)	Weight before concentration (g)	Weight after concentration and drying (g)
3560	3560	45,0
Concentration ratio		79

**OBSERVATIONS**

Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	17,64
Silicon	SiO <sub>2</sub>	61,28
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,09
Potassium	K <sub>2</sub> O	0,07
Manganese	MnO	0,03
Titanium	TiO <sub>2</sub>	0,63
Iron	Fe <sub>2</sub> O <sub>3</sub>	14,95
Zirconium	ZrO <sub>2</sub>	0,26
Loss of Ignition	LOI	5,04

Precious metals on concentrate		
Name	Element	Composition (ppm)
Gold	Au	13
Silver	Ag	<1
Palladium	Pd	<1
Platinum	Pt	53

\*Estimated LLD for WDXRF-OMNIAN PASTILLA on concentrate material is 100 ppm

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: 500357776 CANECA 1 LAVADO // "26138"	Consecutive of Sample: <b>AUX 26260</b>
Sample Type: DESCONOCIDO	Responsible for Sampling: CLIENT
Origin: DESCONOCIDO	Sampling Plan/Procedure: NONE
Client: AUXICO RESOURCES	Date Received: 06/10/2021
Contact: TIFFANY CIFUENTES	Date of Analysis: 07/10/2021
Address: 201 RUE NOTRE DAME OUEST	Date of Report: 07/10/2021
City: MONTREAL	Solicitud Análisis: <b>SA7767</b>
Phone Number: 1 4384999621	Consecutive of Report: <b>26260-RE XRF</b>
Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA	Application: 1,11 AQ 2020 LT

FF-GT-35 Versión 3

Página 1 de 1

Initial weight (g)	Weight before concentration (g)	Weight after concentration and drying (g)
5100	5100	63,0
Concentration ratio		81

**OBSERVATIONS**

Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	4,22
Silicon	SiO <sub>2</sub>	76,89
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,14
Potassium	K <sub>2</sub> O	0,07
Titanium	TiO <sub>2</sub>	0,23
Iron	Fe <sub>2</sub> O <sub>3</sub>	15,14
Zirconium	ZrO <sub>2</sub>	0,13
Loss of Ignition	LOI	3,14

**Precious metals on concentrate**

Name	Element	Composition (ppm)
Gold	Au	13
Silver	Ag	<1
Palladium	Pd	<1
Platinum	Pt	38

\*Estimated LLD for WDXRF-OMNIAN PASTILLA on concentrate material is 100 ppm

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

Identification: 500357778 CANECA 1 LAVADO // "26138"	Consecutive of Sample: <b>AUX 26257</b>
Sample Type: DESCONOCIDO	Responsible for Sampling: CLIENT
Origin: DESCONOCIDO	Sampling Plan/Procedure: NONE
Client: AUXICO RESOURCES	Date Received: 10/6/2021
Contact: TIFFANY CIFUENTES	Date of Analysis: 10/7/2021
Address: 201 RUE NOTRE DAME OUEST	Date of Report: 10/7/2021
City: MONTREAL	Solicitud Análisis: <b>SA7767</b>
Phone Number: 1 4384999621	Consecutive of Report: <b>26257-RE XRF</b>
Method of Analysis: PRT-GT-01 WDXRF-OMNIAN PASTILLA	Application: 11 AQ 2020 LT

FF-GT-31 Versión 3

Página 1 de 1

Initial weight (g)	Weight before concentration (g)	Weight after concentration and drying (g)
6730	6730	12,9
Concentration ratio		522

**OBSERVATIONS**

Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	16,77
Silicon	SiO <sub>2</sub>	53,86
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,10
Potassium	K <sub>2</sub> O	0,07
Titanium	TiO <sub>2</sub>	0,30
Iron	Fe <sub>2</sub> O <sub>3</sub>	22,15
Zirconium	ZrO <sub>2</sub>	0,12
Loss of Ignition	LOI	6,59

**Precious metals on concentrate**

Name	Element	Composition (ppm)
Gold	Au	46
Silver	Ag	<1
Palladium	Pd	<1
Platinum	Pt	31

\*Estimated LLD for WDXRF-OMNIAN PASTILLA on concentrate material is 100 ppm

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

**Identification:** 500357783 CANECA 2 LAVADO // "26130"  
**Sample Type:** DESCONOCIDO  
**Origin:** DESCONOCIDO  
**Client:** AUXICO RESOURCES  
**Contact:** TIFFANY CIFUENTES  
**Address:** 201 RUE NOTRE DAME OUEST  
**City:** MONTREAL  
**Phone Number:** 1 4384999621  
**Method of Analysis:** PRT-GT-01 WDXRF-OMNIAN PASTILLA  
**Consecutive of Sample:** AUX 26255  
**Responsible for Sampling:** CLIENT  
**Sampling Plan/Procedure:** NONE  
**Date Received:** 10/6/2021  
**Date of Analysis:** 10/7/2021  
**Date of Report:** 10/7/2021  
**Solicitud Análisis:** SA7767  
**Consecutive of Report:** 26255-RE XRF  
**Application:** 11 AQ 2020 LT

FT-GT-3: Versión 3

Página 1 de 1

Initial weight (g)	Weight before concentration (g)	Weight after concentration and drying(g)
6650	6650	57.2
Concentration ratio		116

**OBSERVATIONS**

Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	5.30
Silicon	SiO <sub>2</sub>	73.16
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0.17
Potassium	K <sub>2</sub> O	0.19
Titanium	TiO <sub>2</sub>	0.28
Iron	Fe <sub>2</sub> O <sub>3</sub>	17.44
Zirconium	ZrO <sub>2</sub>	0.01
Loss of Ignition	LOI	3.37

**Precious metals on concentrate**

Name	Element	Composition (ppm)
Gold	Au	19
Silver	Ag	<1
Palladium	Pd	<1
Platinum	Pt	<1

\*Estimated LLD forWDXRF-OMNIAN PASTILLA on concentrate material is 100 ppm

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

**Identification:** 500357783 CANECA 2 LAVADO // "26130"  
**Sample Type:** DESCONOCIDO  
**Origin:** DESCONOCIDO  
**Client:** AUXICO RESOURCES  
**Contact:** TIFFANY CIFUENTES  
**Address:** 201 RUE NOTRE DAME OUEST  
**City:** MONTREAL  
**Phone Number:** 1 4384999621  
**Method of Analysis:** PRT-GT-01 WDXRF-OMNIAN PASTILLA  
**Consecutive of Sample:** AUX 26254  
**Responsible for Sampling:** CLIENT  
**Sampling Plan/Procedure:** NONE  
**Date Received:** 06/10/2021  
**Date of Analysis:** 07/10/2021  
**Date of Report:** 07/10/2021  
**Solicitud Análisis:** SA7767  
**Consecutive of Report:** 26254-RE XRF  
**Application:** 1,11 AQ 2020 LT

FT-GT-35 Versión 3

Página 1 de 1

Initial weight (g)	Weight before concentration (g)	Weight after concentration and drying (g)
2440	2440	23,0
Concentration ratio		106

**OBSERVATIONS**

Name	Element	Composition (%)
Sodium	Na <sub>2</sub> O	0,19
Magnesium	MgO	0,04
Aluminum	Al <sub>2</sub> O <sub>3</sub>	20,96
Silicon	SiO <sub>2</sub>	64,12
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,12
Potassium	K <sub>2</sub> O	7,69
Calcium	CaO	0,26
Manganese	MnO	0,08
Titanium	TiO <sub>2</sub>	0,28
Iron	Fe <sub>2</sub> O <sub>3</sub>	2,82
Zirconium	ZrO <sub>2</sub>	0,05
Cerium	CeO <sub>2</sub>	0,15
Loss of Ignition	LOI	3,24

**Precious metals on concentrate**

Name	Element	Composition (ppm)
Gold	Au	<1
Silver	Ag	<1
Palladium	Pd	<1
Platinum	Pt	<1

\*Estimated LLD forWDXRF-OMNIAN PASTILLA on concentrate material is 100 ppm



**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

<b>Identification:</b> 500357784 CANECA 2 LAVADO // "26124" <b>Sample Type:</b> DESCONOCIDO <b>Origin:</b> DESCONOCIDO  <b>Client:</b> AUXICO RESOURCES <b>Contact:</b> TIFFANY CIFUENTES <b>Address:</b> 201 RUE NOTRE DAME OUEST <b>City:</b> MONTREAL <b>Phone Number:</b> 1 4384999621 <b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA	<b>Consecutive of Sample:</b> <b>AUX 26249</b> <b>Responsible for Sampling:</b> CLIENT <b>Sampling Plan/Procedure:</b> NONE <b>Date Received:</b> 06/10/2021 <b>Date of Analysis:</b> 29/11/2021 <b>Date of Report:</b> 29/11/2021  <b>Solicitud Análisis:</b> <b>SA7767</b> <b>Consecutive of Report:</b> <b>26249-RE XRF</b> <b>Application:</b> 1,11 AQ 2020 LT	
--	---	--

FF-GT-35 Versión 3

Página 1 de 1

Initial weight (g)	Weight before concentration (g)	Weight after concentration and drying (g)
895	895	63,5
<b>Concentration ratio</b>		14

**OBSERVATIONS**

Name	Element	Composition (%)
Sodium	Na <sub>2</sub> O	0,01
Aluminum	Al <sub>2</sub> O <sub>3</sub>	8,91
Silicon	SiO <sub>2</sub>	87,48
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,02
Potassium	K <sub>2</sub> O	0,05
Calcium	CaO	0,05
Titanium	TiO <sub>2</sub>	0,66
Manganese	MnO	0,03
Iron	Fe <sub>2</sub> O <sub>3</sub>	2,47
Zirconium	ZrO <sub>2</sub>	0,28
Copper	CuO	0,02

**Precious metals on concentrate**

Name	Element	Composition (ppm)
Gold	Au	<1
Silver	Ag	<1
Palladium	Pd	<1
Platinum	Pt	<1

\*Estimated LLD for WDXRF-OMNIAN PASTILLA on concentrate material is 100 ppm

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

<b>Identification:</b> 500357785 CANECA 2 LAVADO // "26127" <b>Sample Type:</b> DESCONOCIDO <b>Origin:</b> DESCONOCIDO  <b>Client:</b> AUXICO RESOURCES <b>Contact:</b> TIFFANY CIFUENTES <b>Address:</b> 201 RUE NOTRE DAME OUEST <b>City:</b> MONTREAL <b>Phone Number:</b> 1 4384999621 <b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA	<b>Consecutive of Sample:</b> <b>AUX 26252</b> <b>Responsible for Sampling:</b> CLIENT <b>Sampling Plan/Procedure:</b> NONE <b>Date Received:</b> 06/10/2021 <b>Date of Analysis:</b> 29/11/2021 <b>Date of Report:</b> 29/11/2021  <b>Solicitud Análisis:</b> <b>SA7767</b> <b>Consecutive of Report:</b> <b>26252-RE XRF</b> <b>Application:</b> 1,11 AQ 2020 LT	
--	---	--

FF-GT-35 Versión 3

Página 1 de 1

Initial weight (g)	Weight before concentration (g)	Weight after concentration and drying (g)
1990	1990	17,5
<b>Concentration ratio</b>		114

**OBSERVATIONS**

Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	3,92
Silicon	SiO <sub>2</sub>	91,66
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,05
Chromium	Cr <sub>2</sub> O <sub>3</sub>	0,02
Titanium	TiO <sub>2</sub>	0,44
Iron	Fe <sub>2</sub> O <sub>3</sub>	3,70
Zirconium	ZrO <sub>2</sub>	0,12

**Precious metals on concentrate**

Name	Element	Composition (ppm)
Gold	Au	2
Silver	Ag	<1
Palladium	Pd	<1
Platinum	Pt	<1

\*Estimated LLD for WDXRF-OMNIAN PASTILLA on concentrate material is 100 ppm

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

<b>Identification</b> 500357786 CANECA 2 LAVADO // "26126"	<b>Consecutive of Sample:</b> <b>AUX 26251</b>
<b>Sample Type:</b> DESCONOCIDO	<b>Responsible for Sampling:</b> CLIENT
<b>Origin:</b> DESCONOCIDO	<b>Sampling Plan/Procedure:</b> NONE
<b>Client:</b> AUXICO RESOURCES	<b>Date Received:</b> 06/10/2021
<b>Contact:</b> TIFFANY CIFUENTES	<b>Date of Analysis:</b> 29/11/2021
<b>Address:</b> 201 RUE NOTRE DAME OUEST	<b>Date of Report:</b> 29/11/2021
<b>City:</b> MONTREAL	<b>Solicitud Análisis:</b> <b>SA7767</b>
<b>Phone Number:</b> 1 4384999621	<b>Consecutive of Report:</b> <b>26251-RE XRF</b>
<b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA	<b>Application:</b> 1,11 AQ 2020 LT

FF-GI-35 Versión 3

Página 1 de 1

Initial weight (g)	Weight before concentration (g)	Weight after concentration and drying (g)
830	830	65,0
<b>Concentration ratio</b>		13

**OBSERVATIONS**

Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	9,25
Silicon	SiO <sub>2</sub>	83,00
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,12
Potassium	K <sub>2</sub> O	0,09
Titanium	TiO <sub>2</sub>	0,50
Iron	Fe <sub>2</sub> O <sub>3</sub>	6,90
Zirconium	ZrO <sub>2</sub>	0,13

Precious metals on concentrate		
Name	Element	Composition (ppm)
Gold	Au	<1
Silver	Ag	<1
Palladium	Pd	<1
Platinum	Pt	<1

\*Estimated LLD for WDXRF-OMNIAN PASTILLA on concentrate material is 100 ppm

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

<b>Identification</b> 500357787 CANECA 2 LAVADO // "26125"	<b>Consecutive of Sample:</b> <b>AUX 26250</b>
<b>Sample Type:</b> DESCONOCIDO	<b>Responsible for Sampling:</b> CLIENT
<b>Origin:</b> DESCONOCIDO	<b>Sampling Plan/Procedure:</b> NONE
<b>Client:</b> AUXICO RESOURCES	<b>Date Received:</b> 06/10/2021
<b>Contact:</b> TIFFANY CIFUENTES	<b>Date of Analysis:</b> 07/10/2021
<b>Address:</b> 201 RUE NOTRE DAME OUEST	<b>Date of Report:</b> 07/10/2021
<b>City:</b> MONTREAL	<b>Solicitud Análisis:</b> <b>SA7767</b>
<b>Phone Number:</b> 1 4384999621	<b>Consecutive of Report:</b> <b>26250-RE XRF</b>
<b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA	<b>Application:</b> 1,11 AQ 2020 LT

FF-GI-35 Versión 3

Página 1 de 1

Initial weight (g)	Weight before concentration (g)	Weight after concentration and drying (g)
1380	1380	13,9
<b>Concentration ratio</b>		99

**OBSERVATIONS**

Name	Element	Composition (%)
Sodium	Na <sub>2</sub> O	0,09
Magnesium	MgO	0,04
Aluminum	Al <sub>2</sub> O <sub>3</sub>	21,56
Silicon	SiO <sub>2</sub>	64,29
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,19
Potassium	K <sub>2</sub> O	0,56
Calcium	CaO	0,26
Manganese	MnO	0,05
Titanium	TiO <sub>2</sub>	0,65
Iron	Fe <sub>2</sub> O <sub>3</sub>	6,67
Zirconium	ZrO <sub>2</sub>	0,14
Loss of Ignition	LOI	5,49

Precious metals on concentrate		
Name	Element	Composition (ppm)
Gold	Au	63
Silver	Ag	<1
Palladium	Pd	<1
Platinum	Pt	15

\*Estimated LLD for WDXRF-OMNIAN PASTILLA on concentrate material is 100 ppm

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

<b>Identification</b> 50035788 CANECA 2 LAVADO // "26128" <b>Sample Type:</b> DESCONOCIDO <b>Origin:</b> DESCONOCIDO  <b>Client:</b> AUXICO RESOURCES <b>Contact:</b> TIFFANY CIFUENTES <b>Address:</b> 201 RUE NOTRE DAME OUEST <b>City:</b> MONTREAL <b>Phone Number:</b> 1 4384999621 <b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA	<b>Consecutive of Sample:</b> <b>AUX 26253</b> <b>Responsible for Sampling:</b> CLIENT <b>Sampling Plan/Procedure:</b> NONE <b>Date Received:</b> 06/10/2021 <b>Date of Analysis:</b> 07/10/2021 <b>Date of Report:</b> 07/10/2021  <b>Solicitud Análisis:</b> <b>SA7767</b> <b>Consecutive of Report:</b> <b>26253-RE XRF</b> <b>Application:</b> 1,11 AQ 2020 LT	
--	---	--

FT-GT-35 Versión 3

Página 1 de 1

Initial weight (g)	Weight before concentration (g)	Weight after concentration and drying (g)
1980	1980	23,0
Concentration ratio		86

**OBSERVATIONS**

Name	Element	Composition (%)
Magnesium	MgO	0,02
Aluminum	Al2O3	16,92
Silicon	SiO <sub>2</sub>	53,49
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,08
Potassium	K <sub>2</sub> O	0,15
Titanium	TiO <sub>2</sub>	0,64
Iron	Fe <sub>2</sub> O <sub>3</sub>	22,72
Zirconium	ZrO <sub>2</sub>	0,10
Loss of Ignition	LOI	5,88

Precious metals on concentrate		
Name	Element	Composition (ppm)
Gold	Au	<1
Silver	Ag	<1
Palladium	Pd	<1
Platinum	Pt	<1

\*Estimated LLD for WDXRF-OMNIAN PASTILLA on concentrate material is 100 ppm

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

<b>Identification</b> 500357789 CANECA 1 LAVADO // "26128" <b>Sample Type:</b> DESCONOCIDO <b>Origin:</b> DESCONOCIDO  <b>Client:</b> AUXICO RESOURCES <b>Contact:</b> TIFFANY CIFUENTES <b>Address:</b> 201 RUE NOTRE DAME OUEST <b>City:</b> MONTREAL <b>Phone Number:</b> 1 4384999621 <b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA	<b>Consecutive of Sample:</b> <b>AUX 26256</b> <b>Responsible for Sampling:</b> CLIENT <b>Sampling Plan/Procedure:</b> NONE <b>Date Received:</b> 10/6/2021 <b>Date of Analysis:</b> 10/7/2021 <b>Date of Report:</b> 10/7/2021  <b>Solicitud Análisis:</b> <b>SA7767</b> <b>Consecutive of Report:</b> <b>26256-RE XRF</b> <b>Application:</b> 11 AQ 2020 LT	
---	--	--

FT-GT-3: Versión 3

Página 1 de 1

Initial weight (g)	Weight before concentration (g)	Weight after concentration and drying (g)
2505	2505	18,7
Concentration ratio		134

**OBSERVATIONS**

Name	Element	Composition (%)
Sodium	Na2O	0.06
Magnesium	MgO	0.04
Aluminum	Al2O3	9.03
Silicon	SiO <sub>2</sub>	77.00
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0.06
Potassium	K <sub>2</sub> O	0.95
Calcium	CaO	0.09
Titanium	TiO <sub>2</sub>	0.34
Iron	Fe <sub>2</sub> O <sub>3</sub>	9.85
Zirconium	ZrO <sub>2</sub>	0.02
Loss of Ignition	LOI	2.50

Precious metals on concentrate		
Name	Element	Composition (ppm)
Gold	Au	11
Silver	Ag	<1
Palladium	Pd	<1
Platinum	Pt	<1

\*Estimated LLD for WDXRF-OMNIAN PASTILLA on concentrate material is 100 ppm

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

<b>Identification</b> 500357790 CANECA 2 LAVADO // "26122"	<b>Consecutive of Sample:</b> <b>AUX 26247</b>
<b>Sample Type:</b> DESCONOCIDO	<b>Responsible for Sampling:</b> CLIENT
<b>Origin:</b> DESCONOCIDO	<b>Sampling Plan/Procedure:</b> NONE
<b>Client:</b> AUXICO RESOURCES	<b>Date Received:</b> 06/10/2021
<b>Contact:</b> TIFFANY CIFUENTES	<b>Date of Analysis:</b> 07/10/2021
<b>Address:</b> 201 RUE NOTRE DAME OUEST	<b>Date of Report:</b> 07/10/2021
<b>City:</b> MONTREAL	<b>Solicitud Análisis:</b> <b>SA7767</b>
<b>Phone Number:</b> 1 4384999621	<b>Consecutive of Report:</b> <b>26247-RE XRF</b>
<b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA	<b>Application:</b> 1,11 AQ 2020 LT

FT-GT-35 Versión 3

Página 1 de 1

Initial weight (g)	Weight before concentration (g)	Weight after concentration and drying (g)
3585	3585	32,0
Concentration ratio		112

**OBSERVATIONS**

Name	Element	Composition (%)
Sodium	Na <sub>2</sub> O	0,02
Aluminum	Al <sub>2</sub> O <sub>3</sub>	7,64
Silicon	SiO <sub>2</sub>	69,02
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,09
Potassium	K <sub>2</sub> O	0,45
Chromium	Cr <sub>2</sub> O <sub>3</sub>	0,02
Titanium	TiO <sub>2</sub>	0,40
Iron	Fe <sub>2</sub> O <sub>3</sub>	18,80
Zirconium	ZrO <sub>2</sub>	0,04
Loss of Ignition	LOI	3,52

**Precious metals on concentrate**

Name	Element	Composition (ppm)
Gold	Au	<1
Silver	Ag	<1
Palladium	Pd	<1
Platinum	Pt	<1

\*Estimated LLD for WDXRF-OMNIAN PASTILLA on concentrate material is 100 ppm

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

<b>Identification</b> 500357791 CANECA 2 LAVADO // "26121"	<b>Consecutive of Sample:</b> <b>AUX 26246</b>
<b>Sample Type:</b> DESCONOCIDO	<b>Responsible for Sampling:</b> CLIENT
<b>Origin:</b> DESCONOCIDO	<b>Sampling Plan/Procedure:</b> NONE
<b>Client:</b> AUXICO RESOURCES	<b>Date Received:</b> 06/10/2021
<b>Contact:</b> TIFFANY CIFUENTES	<b>Date of Analysis:</b> 07/10/2021
<b>Address:</b> 201 RUE NOTRE DAME OUEST	<b>Date of Report:</b> 07/10/2021
<b>City:</b> MONTREAL	<b>Solicitud Análisis:</b> <b>SA7767</b>
<b>Phone Number:</b> 1 4384999621	<b>Consecutive of Report:</b> <b>26246-RE XRF</b>
<b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA	<b>Application:</b> 1,11 AQ 2020 LT

FT-GT-35 Versión 3

Página 1 de 1

Initial weight (g)	Weight before concentration (g)	Weight after concentration and drying (g)
1105	1105	20,0
Concentration ratio		55

**OBSERVATIONS**

Name	Element	Composition (%)
Sodium	Na <sub>2</sub> O	0,04
Magnesium	MgO	0,04
Aluminum	Al <sub>2</sub> O <sub>3</sub>	8,82
Silicon	SiO <sub>2</sub>	61,09
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,22
Potassium	K <sub>2</sub> O	0,30
Calcium	CaO	0,04
Chromium	Cr <sub>2</sub> O <sub>3</sub>	0,02
Titanium	TiO <sub>2</sub>	0,36
Iron	Fe <sub>2</sub> O <sub>3</sub>	24,45
Zirconium	ZrO <sub>2</sub>	0,05
Loss of Ignition	LOI	4,55

**Precious metals on concentrate**

Name	Element	Composition (ppm)
Gold	Au	15
Silver	Ag	<1
Palladium	Pd	<1
Platinum	Pt	<1

\*Estimated LLD for WDXRF-OMNIAN PASTILLA on concentrate material is 100 ppm

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

<b>Identification</b> 500357792 CANECA 2 LAVADO	<b>Consecutive of Sample:</b> <b>AUX 26233</b>
<b>Sample Type:</b> DESCONOCIDO	<b>Responsible for Sampling:</b> CLIENT
<b>Origin:</b> DESCONOCIDO	<b>Sampling Plan/Procedure:</b> NONE
<b>Client:</b> AUXICO RESOURCES	<b>Date Received:</b> 06/10/2021
<b>Contact:</b> TIFFANY CIFUENTES	<b>Date of Analysis:</b> 06/10/2021
<b>Address:</b> 201 RUE NOTRE DAME OUEST	<b>Date of Report:</b> 06/10/2021
<b>City:</b> MONTREAL	<b>Solicitud Analisis:</b> <b>SA7764</b>
<b>Phone Number:</b> 1 4384999621	<b>Consecutive of Report:</b> <b>26233-RE XRF</b>
<b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA	<b>Application:</b> 1,11 AQ 2020 LT

FT-GT-35 Versión 3

Página 1 de 1

Initial weight (g)	Weight before concentration (g)	Weight after concentration and drying (g)
1250	1250	17,0
Concentration ratio		74

**OBSERVATIONS**

Name	Element	Composition (%)
Magnesium	MgO	0,06
Aluminum	Al <sub>2</sub> O <sub>3</sub>	15,62
Silicon	SiO <sub>2</sub>	34,75
Phosphorus	P <sub>2</sub> O <sub>5</sub>	0,17
Potassium	K <sub>2</sub> O	0,82
Calcium	CaO	0,04
Vanadium	V <sub>2</sub> O <sub>5</sub>	0,12
Titanium	TiO <sub>2</sub>	0,71
Iron	Fe <sub>2</sub> O <sub>3</sub>	40,18
Zirconium	ZrO <sub>2</sub>	0,06
Lead	PbO	0,02
Loss of Ignition	LOI	7,43

**Precious metals concentrated**

Name	Element	Composition (ppm)
Gold	Au	13
Silver	Ag	<1
Palladium	Pd	<1
Platinum	Pt	<1

\*Estimated LLD for WDXRF-OMNIAN PASTILLA on concentrate material is 100 ppm

**WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE REPORT**

<b>Identification</b> 500357793 CANECA 2 LAVADO // "26123"	<b>Consecutive of Sample:</b> <b>AUX 26248</b>
<b>Sample Type:</b> DESCONOCIDO	<b>Responsible for Sampling:</b> CLIENT
<b>Origin:</b> DESCONOCIDO	<b>Sampling Plan/Procedure:</b> NONE
<b>Client:</b> AUXICO RESOURCES	<b>Date Received:</b> 06/10/2021
<b>Contact:</b> TIFFANY CIFUENTES	<b>Date of Analysis:</b> 29/11/2021
<b>Address:</b> 201 RUE NOTRE DAME OUEST	<b>Date of Report:</b> 29/11/2021
<b>City:</b> MONTREAL	<b>Solicitud Analisis:</b> <b>SA7767</b>
<b>Phone Number:</b> 1 4384999621	<b>Consecutive of Report:</b> <b>26248-RE XRF</b>
<b>Method of Analysis:</b> PRT-GT-01 WDXRF-OMNIAN PASTILLA	<b>Application:</b> 1,11 AQ 2020 LT

FT-GT-35 Versión 3

Initial weight (g)	Weight before concentration (g)	Weight after concentration and drying (g)
2315	2315	74,0
Concentration ratio		31

**OBSERVATIONS**

Name	Element	Composition (%)
Aluminum	Al <sub>2</sub> O <sub>3</sub>	0,85
Silicon	SiO <sub>2</sub>	2,39
Phosphorus	P <sub>2</sub> O <sub>5</sub>	15,12
Calcium	CaO	0,27
Iron	Fe <sub>2</sub> O <sub>3</sub>	3,38
Zirconium	ZrO <sub>2</sub>	0,78
Niobium	Nb <sub>2</sub> O <sub>5</sub>	0,73
Tantalum	Ta <sub>2</sub> O <sub>5</sub>	0,72
Lead	PbO	0,58
Hafnium	HfO <sub>2</sub>	0,18
Thorium	ThO <sub>2</sub>	7,97
Uranium	U	0,23
Tin	SnO <sub>2</sub>	0,19

**REE**

Name	Element	Composition (%)
Cerium	CeO <sub>2</sub>	43,86
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	8,24
Lanthanum	La <sub>2</sub> O <sub>3</sub>	7,95
Praseodymium	Pr <sub>2</sub> O <sub>3</sub>	2,33
Samarium	Sm <sub>2</sub> O <sub>3</sub>	2,12
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	0,91
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	0,65
Yttrium	Y <sub>2</sub> O <sub>3</sub>	0,05
Ytterbium	Yb <sub>2</sub> O <sub>3</sub>	0,44
Erbium	Er <sub>2</sub> O <sub>3</sub>	0,01
Total Rare Earth	REE	66,6

**Precious metals on concentrate**

Name	Element	Composition (ppm)
Gold	Au	9
Silver	Ag	<1
Palladium	Pd	<1
Platinum	Pt	<1

\*Estimated LLD for WDXRF-OMNIAN PASTILLA on concentrate material is 100 ppm

