



SOCIETY OF ECONOMIC GEOLOGISTS, INC.

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Student Chapter Annual Report Cover Page

Submission Deadline: September 30th

Submit to: studentprograms@segweb.org

Month/Year Reported: From 04/2020 (mm/yyyy) – To 04/2021 (mm/yyyy)

STUDENT CHAPTER:

Check if update needed at segweb.org

Name: NAZCA Student Chapter

University Affiliation: Universidad de Concepción

Mailing Address: _____

Dedicated E-mail: nazcaudec@gmail.com

Website: _____

Logo: _____

Facebook: https://www.facebook.com/NazcaUdeC

Twitter: _____

Instagram: https://www.instagram.com/nazcaudec/

LinkedIn: https://www.linkedin.com/company/nazca-udec-seg/

YouTube: https://www.youtube.com/channel/UCwo5C1O1rED80NI3ffFgrA

Chapter Executive Committee (*in office during the time frame captured on this report*) (type "Vacant" if position not filled):
The new committee is reported on the Student Chapter Membership Information form (SCMIF).

President: Francisca Riffo / Isaac Navarro isnavarro@udec.cl
Name E-mail

VicePresident: Álvaro Cárdenas / Gabriel Arriagada garriagadav@udec.cl
Name E-mail

Secretary: Nicolás Henríquez / Andrés Parra aparra2016@udec.cl
Name E-mail

Treasurer: Bruno Arriagada / Javiera Cárdenas jcardenas2016@udec.cl
Name E-mail

Chapter Academic Sponsor: Check if SEG Fellowship in good standing

Verónica Oliveros voliveros@udec.cl
Name E-mail Phone

Casilla 160-C, Universidad de Concepción
Address Fax

Chapter Industry Sponsor (*not affiliated with the student chapter's institution*): Check if SEG Fellowship in good standing

Constantino Mpodozis cmpodozis@aminerals.cl
Name E-mail Phone

Address Fax

Sponsoring Institution or Company(name): Antofagasta Minerals



ANNUAL REPORT

NAZCA STUDENT CHAPTER (2020-2021)



Universidad de Concepción, Chile

| LIST OF NAZCA MEMBERS 2021 | | | |
|-----------------------------------|-----------|------------|-------------------|
| Members | | | Membership |
| Andrés | Parra | Ramírez | Active |
| Álvaro | Cárdenas | Maripillán | Active |
| Bruno | Arriagada | Escobar | Inactive |
| Catalina | Rivera | Peña | Inactive |
| Cristian | Ávila | Gajardo | Inactive |
| Diego | Peña | Collao | Inactive |
| Diego | Delgado | Rivas | Active |
| Eduardo | Vargas | Zapata | Inactive |
| Felipe | Baltierra | Suazo | Active |
| Francesca | Michela | Maureria | Inactive |
| Francisca | Riffo | Fuentes | Active |
| Gabriel | Arriagada | Valdés | Active |
| Ignacio | Huenupi | Contreras | Inactive |
| Isaac | Navarro | Carriel | Active |
| Iván | Arévalo | Rossel | Inactive |
| Javiera | Cárdenas | Contreras | Active |
| Javiera | Hernández | Arias | Inactive |
| Jorge | Puchi | Cáceres | Active |
| Lorenzo | Manosalva | Rojas | Active |
| María | Mella | Farías | Inactive |
| María | Stevenson | Baeza | Active |
| Michelle | Berndt | Barriga | Active |
| Paz | Butikofer | Rodríguez | Inactive |
| Valentina | Elgueta | Ocampo | Active |
| Vicente | Sepúlveda | Donoso | Active |
| Vicente | Orellana | Poblete | Active |

General Information

I. Actual Student Chapter Executive Comitte (4/2020 to 04/2021)

President: Francisca Isabel Riffo Fuentes (friffo@udec.cl)

Vice-president: Álvaro Gonzalo Cárdenas Maripillán (alcardenas@udec.cl)

Secretary: Nicolás Eduardo Henríquez Cáceres (nhenriquez@udec.cl)

Treasure: Bruno Ignacio Arriagada Escobar (brarriagada@udec.cl)

II. Future Student Chapter Executive Comitte

President: Isaac Belisario Navarro Carriel (isnavarro@udec.cl)

Vice-president: Gabriel Ignacio Arriagada Valdés (garriagadav@udec.cl)

Secretary: Andrés Alexander Parra Ramírez (aparra2016@udec.cl)

Treasure: Javiera Ignacia Cardenas Contreras (jcardenas2016@udec.cl)

III. Student Chapter Academic Sponsor

PhD Verónica Laura Oliveros Clavijo (voliveros@udec.cl)

Associate Professor

Earth Sciences Departament

Universidad de Concepción

Phone: 56-41-2203070

Casilla 160-C, Concepción, Chile

IV. Summary of Activities during 2019

1. Regular Meetings

Members of Nazca Student Chapter scheduled formal appointments every two weeks and more frequently near the arrival of a project. The meetings served to organize different chapter activities, discuss plans, as well as notify active members of relevant information pertaining to the SEG student chapter. Usually, a member brings a new topic to discuss about economic geology, so we expand our knowledge about this area.

2. Introductory Talk to people interested to join Nazca.

At the beginning of this year, an introductory talk was held for geology students who wanted to be part of Nazca Student Chapter, in which, topics such as the interaction between SEG and all different student groups worldwide, Nazca Student Chapter's motivation with the economic geology, its way of working, different activities and future projects were discussed. This meeting had a very good call and diffusion, achieving about **XX** new members to our Student Chapter.

3. Participation in Introductory Leapfrog Geo Course

During the first week of July of 2020, Nazca student chapter, in coordination with Luiz Vazquez (functionary of earth sciences department of UDEC and responsible of geodesic area) organized an introductory course of software Leapfrog Geo of Seequent. The course was imparted by lic. Cristian Rocagliolo Belmar, and included the basic concepts about how to use Leapfrog, its use like a tool of 3D modelling in both academic and mining areas.

The modality work consists in 1 session per week of two and half hours for 3 weeks which included both theoretical and practice concepts.

The course was attended by members of our student chapter. Organize a course of this type helped us to provide greater knowledge about the tools currently used in the industry, in a context where technological and digital tools are increasingly sought after.

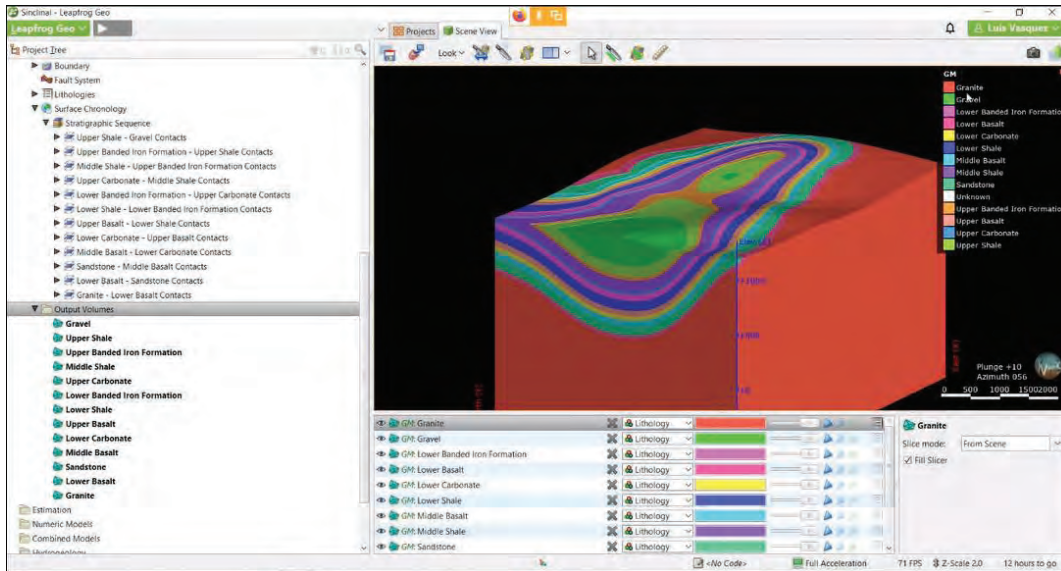


Figure 1: Screenshot of introductory course of Leapfrog.

4. Participation in “Virtual Ibero- American Meeting of Student Chapters of SEG”

On May 29th of last year, UNLP’s student chapter organized an Ibero-American meeting of student chapters in which Nazca was invited to participate. This activity consisted of sharing projects, workshops, fieldtrips, and future projects of each chapter. In addition, topics such as the functioning of the student chapter in the context of pandemics, current situation of geology in each country, among others, were discussed.

The Nazca directive represented us and shared our situation and plans for future to the rest of the groups. This instance was enriching because we can exchange ideas between other student chapters. These ideas will be taken in consideration at moment of planning our future activities.

5. Organization of Workshop: “Desde la Universidad hasta el primer trabajo”

In July of last year, Nazca organized a course with the aim of bridging the gap between the final stage of university and getting a first job. The course called " Desde la Universidad hasta el primer trabajo” (From University to the first job) was given by geologist Enrique Crisostomo and was divided into 6 modules which covered the following topics: Module 1 - Transition to Mineral Exploration; Module 2 - Drillhole Supervision; Module 3 - Logging; Module 4 - QA/QC; Module 5 - Geological Mapping; Module 6 - Cabinet Stage.

The modules were presented in sessions of about 2 hours each. Module 1 was held on July 17 while the remaining modules were held daily between July 20 and 23.

This course was attended by both Nazca members and geology students from University of Concepción and other universities. It was a very gratifying instance since the transition from university to the working world is never easy, and there are few courses like this one that give you a real approach to practice without falling into theoretical aspects.



Figure 2: Promotional poster of workshop: “Desde la Universidad hasta el primer trabajo” imparted by geologist Enrique Crisostomo.

6. Conversatory : “Desde la experiencia con Nazca”

At present, the web connection is an essential tool to the diffusion of information, and this allows the organization of many webinars, talks and courses in virtual mode, however, there are few instances where the student can interact or present their doubts and concerns to people who work every day in the industry, and know by first-hand the environment and the world of work in the different areas of economic geology.

To solve the afore mentioned, Nazca set out to create a trustworthy instance, where the members of the student chapter could interact directly with speakers from various sectors of mining industry, and in this way create a close environment in which it was not a simple exhibition or talk but as a conversation. From this idea, from this idea arises the first conversatory “Desde la experiencia con Nazca”.

This event was organized by our Student Chapter in coordination with many speakers of the mining industry which were invited one for each session.

The sessions were led by a moderator and lasted one hour. The first thirty minutes were meant for questions of the moderator to the guest (like an interview) about topics like university experience, the transition from university to the first job, first years of work, tips for students, current role in their work areas in economic geology. The next thirty minutes was used by Nazca members to interact directly with the guest to ask about their doubts and concerns.

The event was held between August 24 and September 11 of last year, and the chronogram was as follows:

| DATE | Invited | Title and position held |
|----------------|------------------|---|
| August 24th | Benjamín Larenas | Project geologist and operational excellence engineer at ENAEX company. |
| August 28th | Javiera Jimenez | Geologist in the CODELCO graduate program in exploration management and area of operational excellence. |
| September 1st | Sandra Amores | Academic of Institute of Applied Economic Geology (GEA) of UDEC |
| September 4th | Oswaldo Rabbia | Academic of Institute of Applied Economic Geology (GEA) of UDEC |
| September 8th | Giancarlo Daroch | Exploration Manager at Capstone Mining Chile |
| September 11th | Tamara Leves | President of Women in Mining, Chile (WIM), Commercial Engineer |

The conversatory it was disseminated by social networks and had the presence of geology students from various universities nationwide. This activity was an excellent opportunity to clear up doubts about the world of work and to share with people in the industry in a closer way.



Figure 3: Promotional posters of conversatory: "Desde la experiencia con Nazca".

7. Future projects

Our future projects contemplate the realization of:

- A workshop of structural geology, geochemistry and petrography, engineer geology and geometallurgy applied to mining.
- A virtual meeting with the student chapter of Slovakia (the actual president is an ex-student of our university, so we have a link between both student chapters).
- Cooperate with our academic sponsor Veronica Oliveros to realize a conference about “The economic potential of asteroids” which will be imparted by her.
- A field trip to “El Espino” IOCG district, Illapel, Chile or a field trip to Copiapó with the goal to visit the Maricunga metallogenic fringe.

V. Expense report detail

a. Tables with initial Status 2019 and final status 2020:

| Initial Status Nazca 2020 | CLP | Dollars |
|---------------------------|-------|---------|
| Initial Fund 2020 | 45624 | 64.77 |

| Date | Final Status Nazca 2021 | CLP | Dollars |
|----------|-------------------------|--------|---------|
| 3/5/2021 | Total | 305624 | 433.88 |

b. Tables with the details of incomes.

| Incomes | | | |
|------------|----------------------------|--------|---------|
| Date | Reason | CLP | Dollars |
| 1/1/2020 | Initial Fund | 45624 | 64.77 |
| 10/11/2020 | Nazca members contribution | 260000 | 369.11 |

Note: The last year, Nazca had not expenditures, that is why we do not present an expenditures table.