

CODELCO NORTE

Challenges and Opportunities

CRU 7th World Copper Conference, Santiago, Chile

April 2008



Sergio Jarpa, Corporate Vice President Codelco Norte

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Geographical Location | General Data

Radomiro Tomic Mine

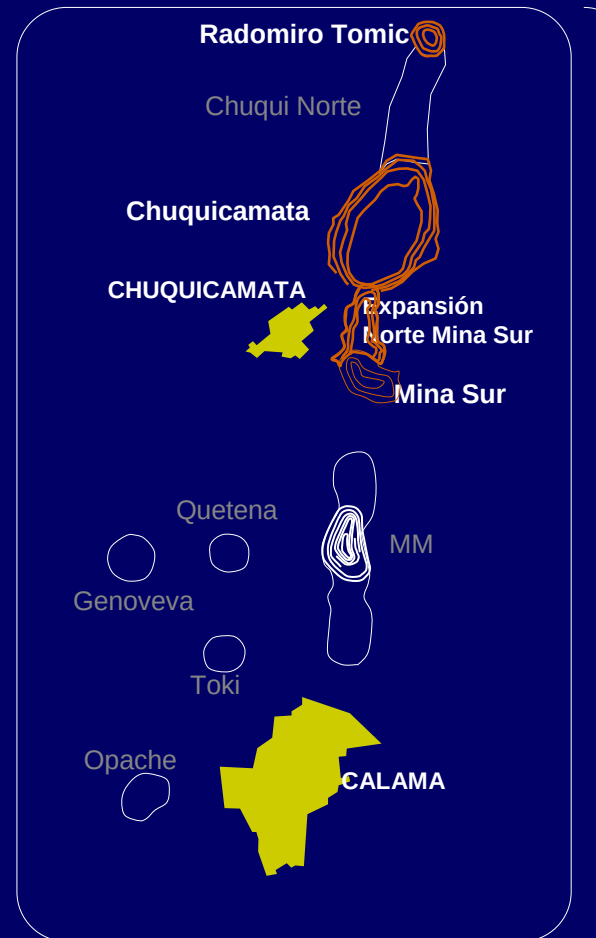
Open pit mining,
commissioning in 1995

Chuquicamata Mine

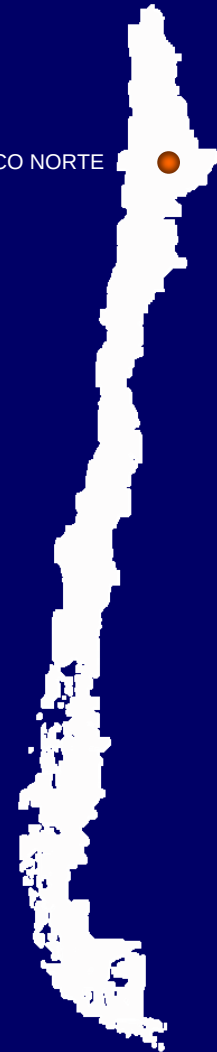
Open pit mining, industrial scale
commissioning since 1915

Sur Mine

Open pit mining, started in 1970 as
La Exótica,



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Roads Connectivity



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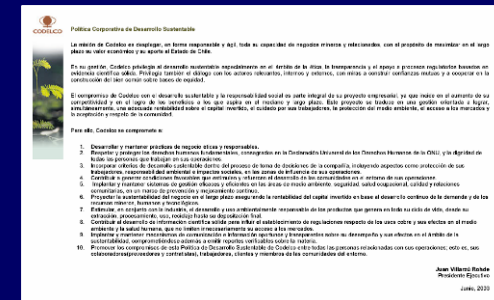
Supplies and logistics

1. Water : 2000 l/s from own sources in the mountain range
2. Electric Power : 390 MW from the SING, Electroandina Company.
Contracts until 2009 and 2017. Coal and Diesel Generation
3. Fuels : Diesel and bunker: via trucks from Antofagasta
4. Materials : Via truck or railroad from the ports of Antofagasta, Iquique, Mejillones and other places from the country.
5. Acid : Own production, occasional purchases from Mejillones.
6. Transportation : Railroad (Chuqui) and trucks (RT y SBL).
7. Logistic routes : Roads: Antofagasta – Tocopilla.
Railroad: to the ports of Antofagasta and Mejillones.
Air: 3 airlines.

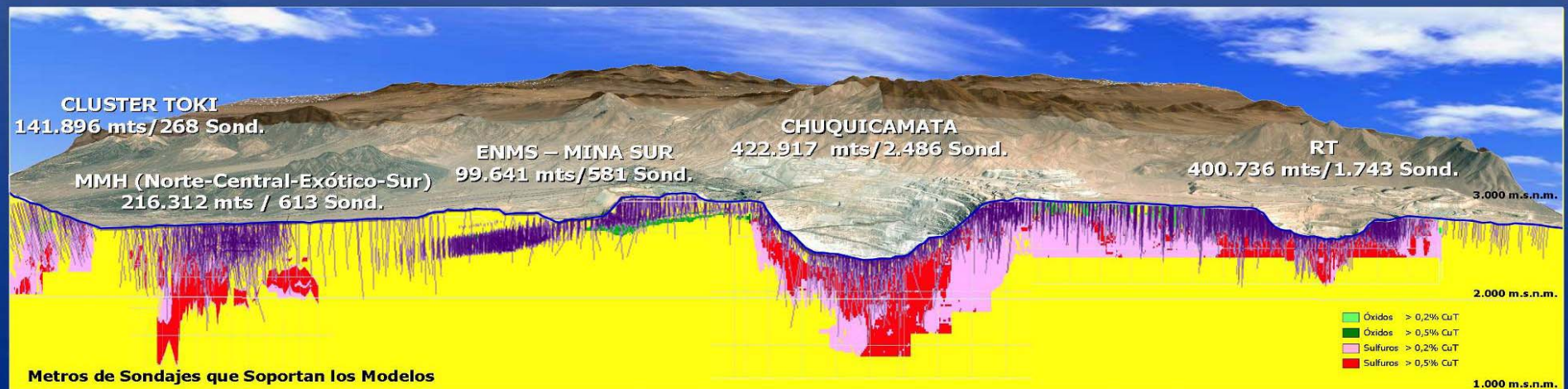
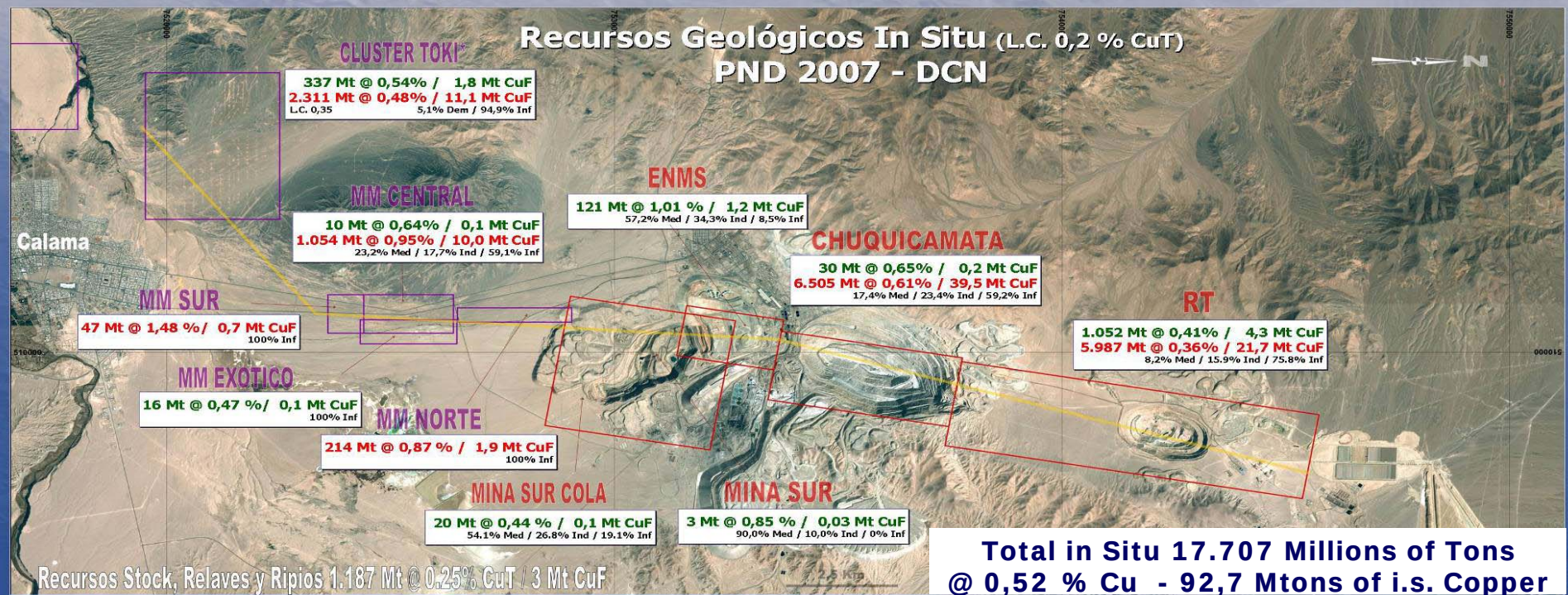
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Sustainable Development, Risk Management and Community Relations

- **Sustainable Development Policy:** Environmental Management – Safety and Social Responsibility.
- ISO 14.001 and 9001 and OHSAS 18.001 Certification
- Chuquicamata cease to be an SO2 emission saturated zone and has its own air quality monitoring system.
- Mining Camp relocation to Calama
- Environmental Investment: 1,000 MUS\$ in last 10 years
- EIA Puno and MM Proceedings
- Codelco Strong Social Commitment with local community



CODELCO NORTE Resources



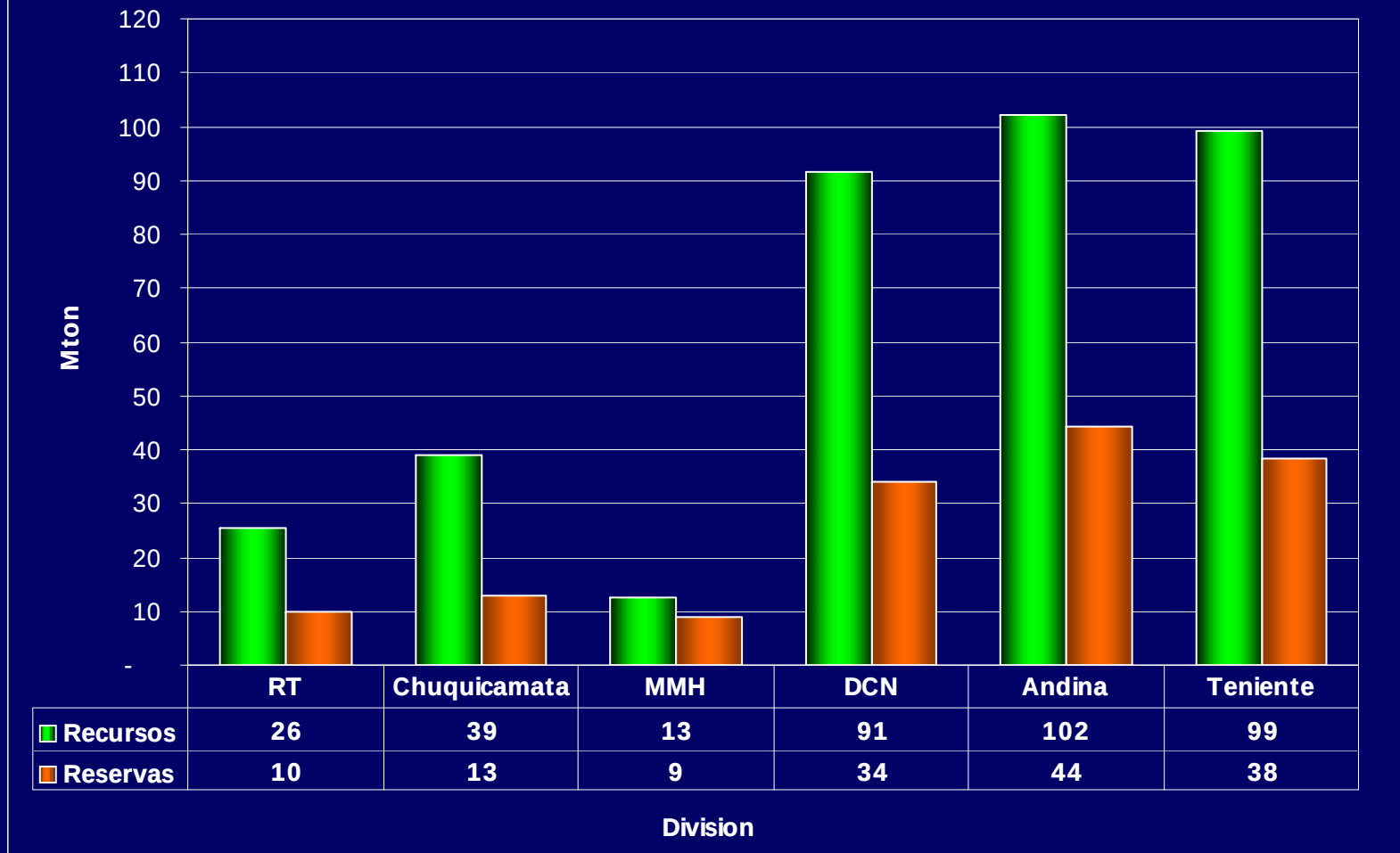
CODELCO NORTE - SUBGERENCIA DE GEOLOGÍA

CODELCO NORTE Challenges and Opportunities



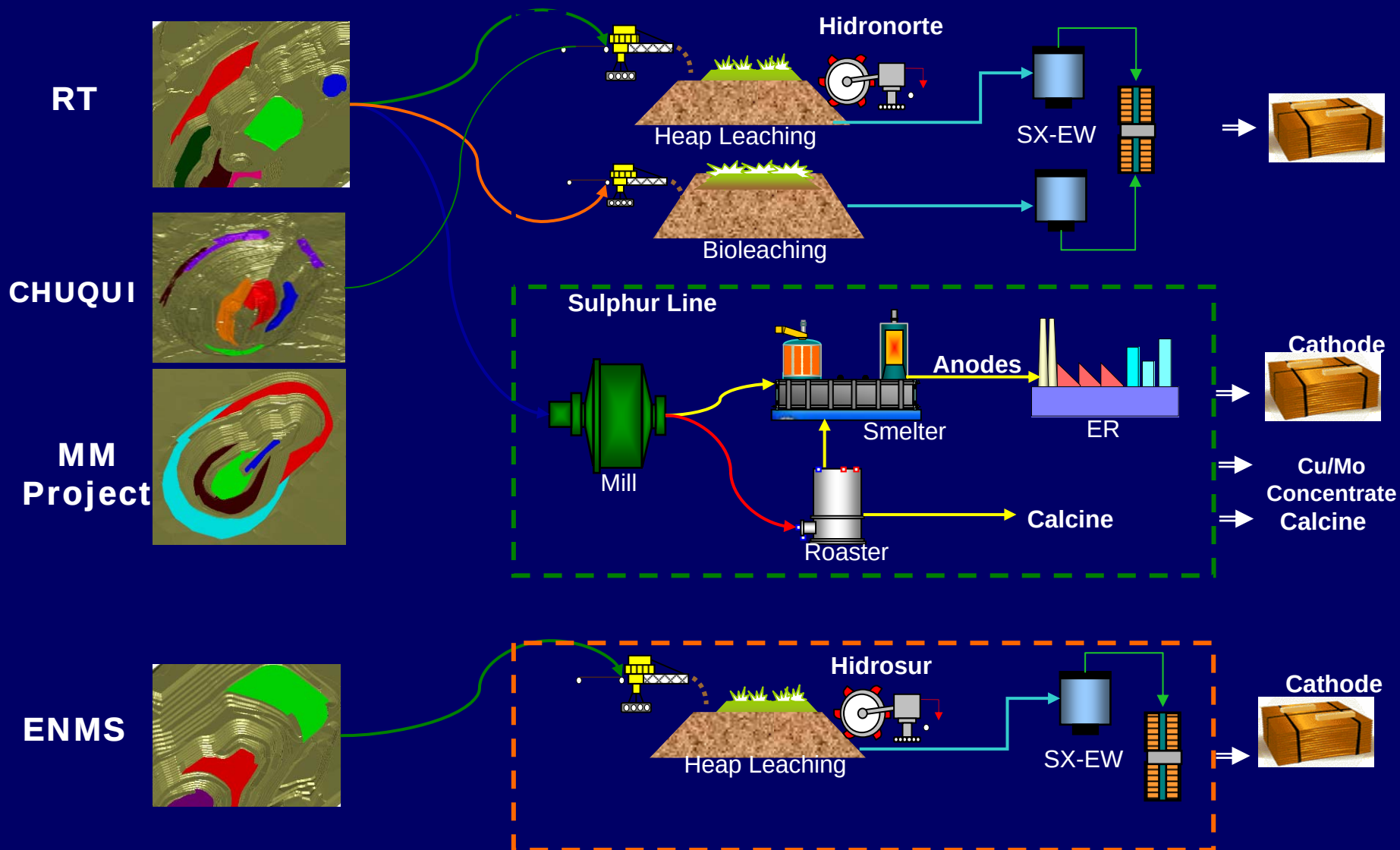
Resources - Fine Copper Total Reserves

Codelco Chile



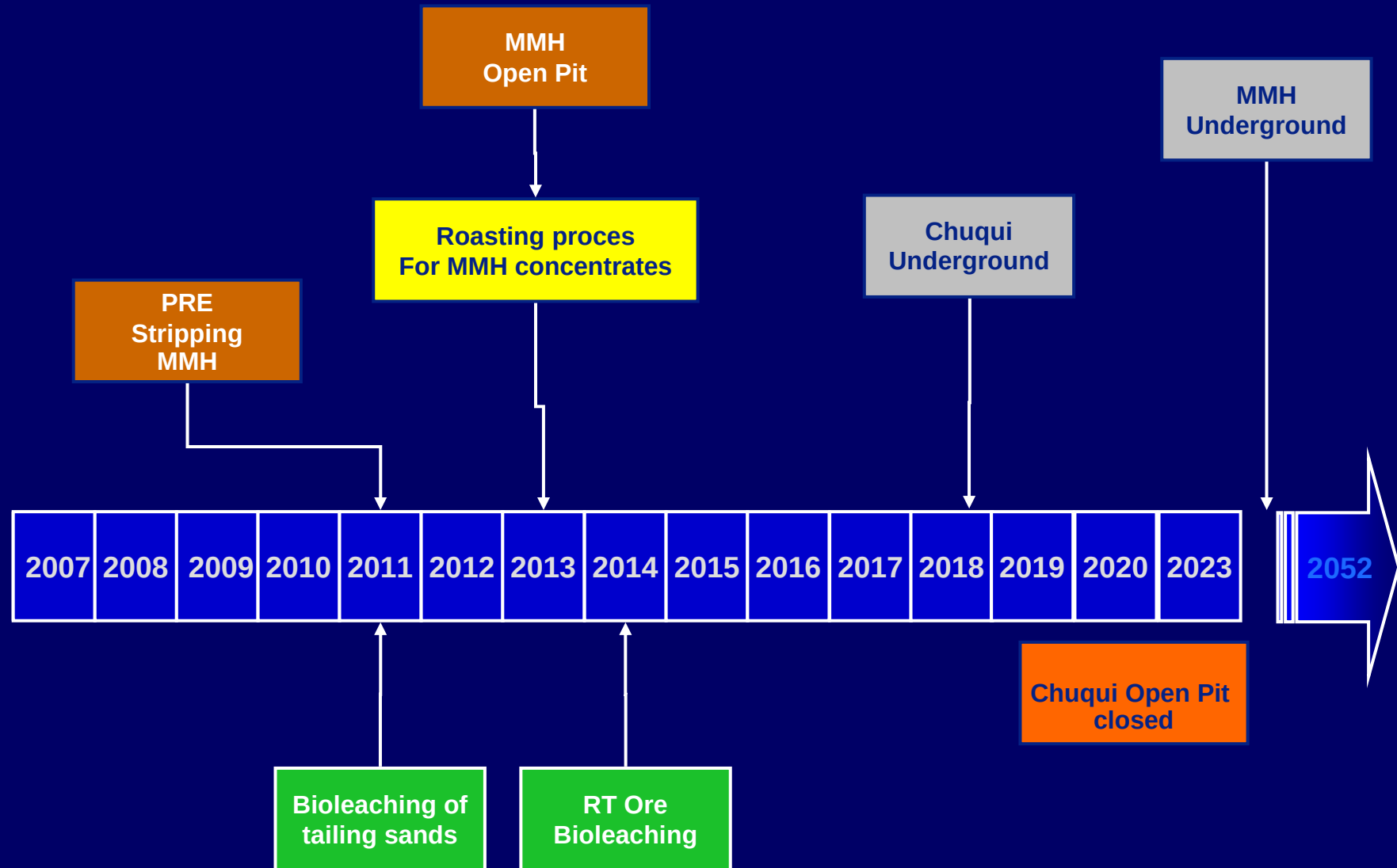
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Productive Processes

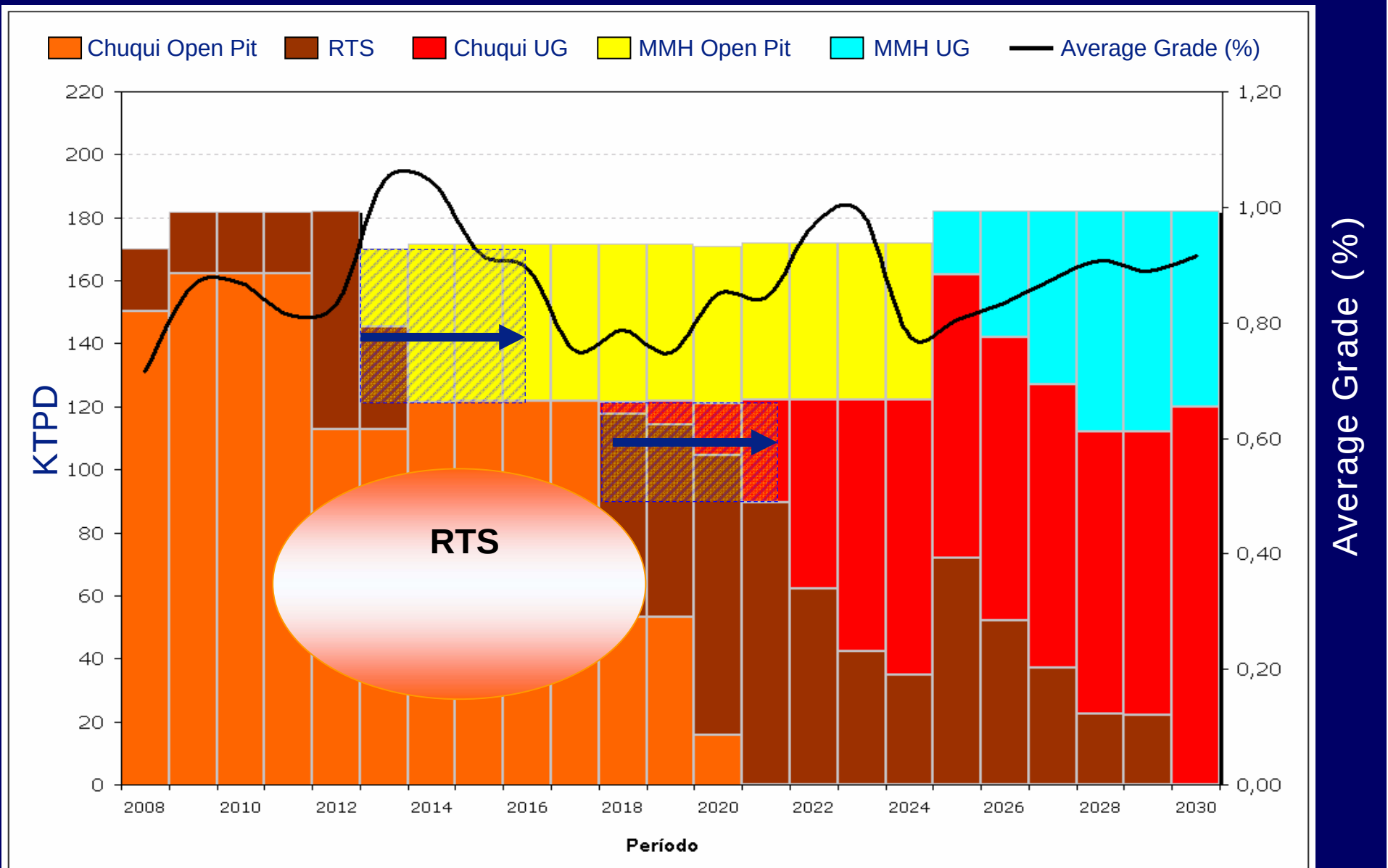


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Special Projects



Codelco Norte Mining Projects Sulphur Line – Alternative E1 @ 182 ktpd

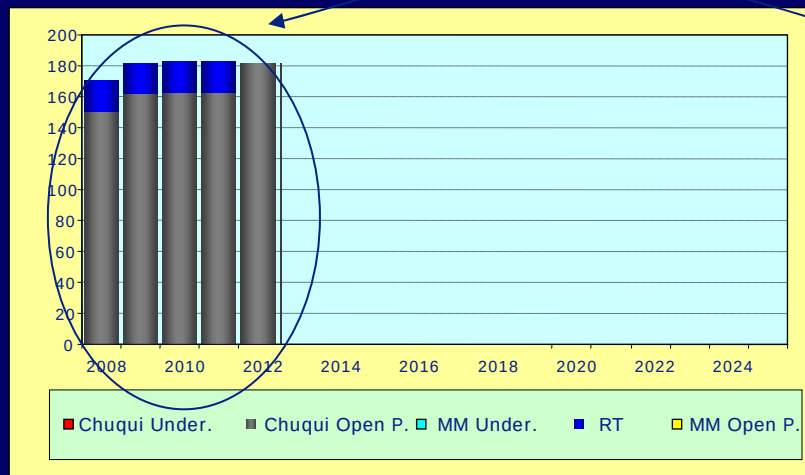


RT Sulphides Project

Concentrator feed allows to decrease the VaR in 2008-2012 five-year period

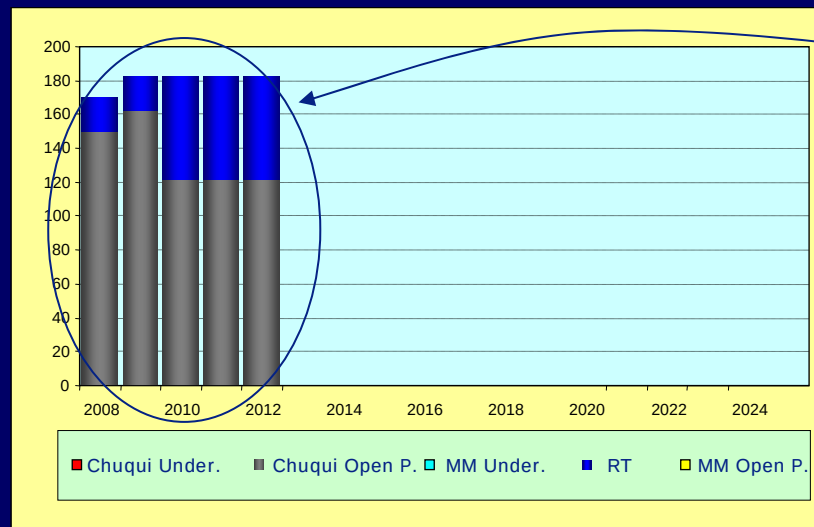
Risk Analysis to 95% Reliability

Undeveloped plan



$VaR_{95\%}$: MUS\$ 2.055

RT Plan
60 ktpd
2010

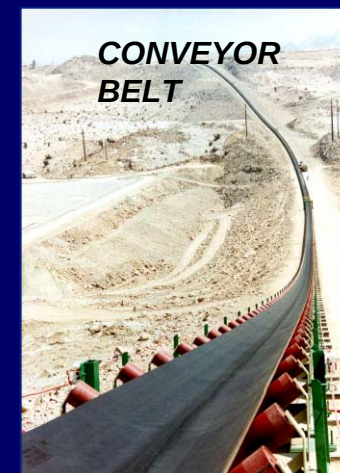
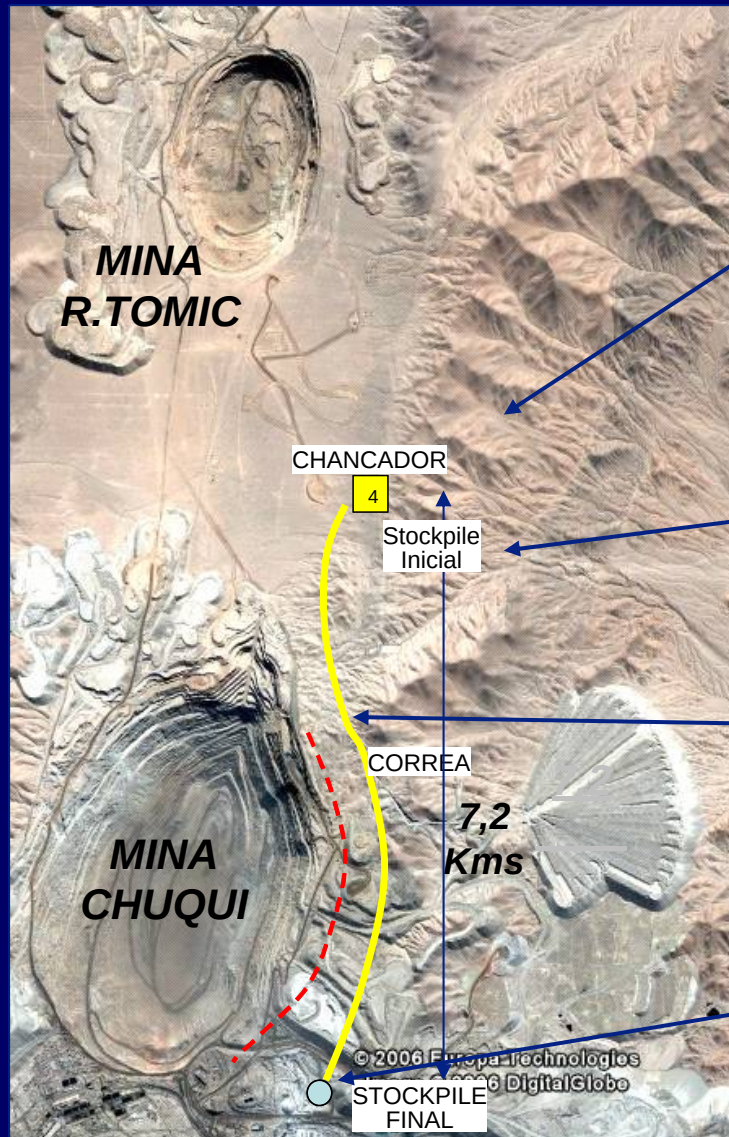


$VaR_{95\%}$: MUS\$ 480

Variation

$\Delta VaR_{95\%}$: MUS\$ - 1.575

RT Sulphides Explotation Project

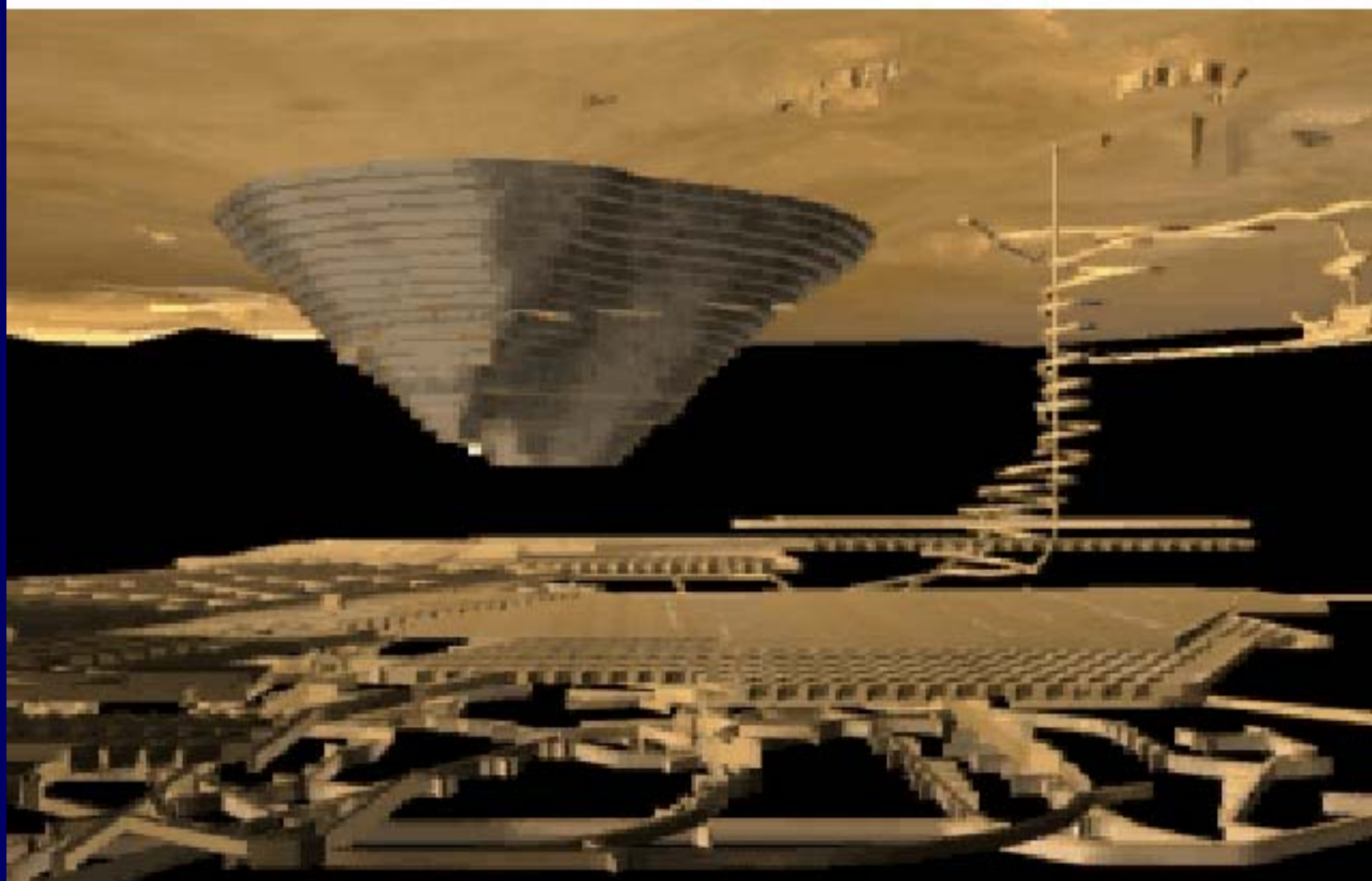


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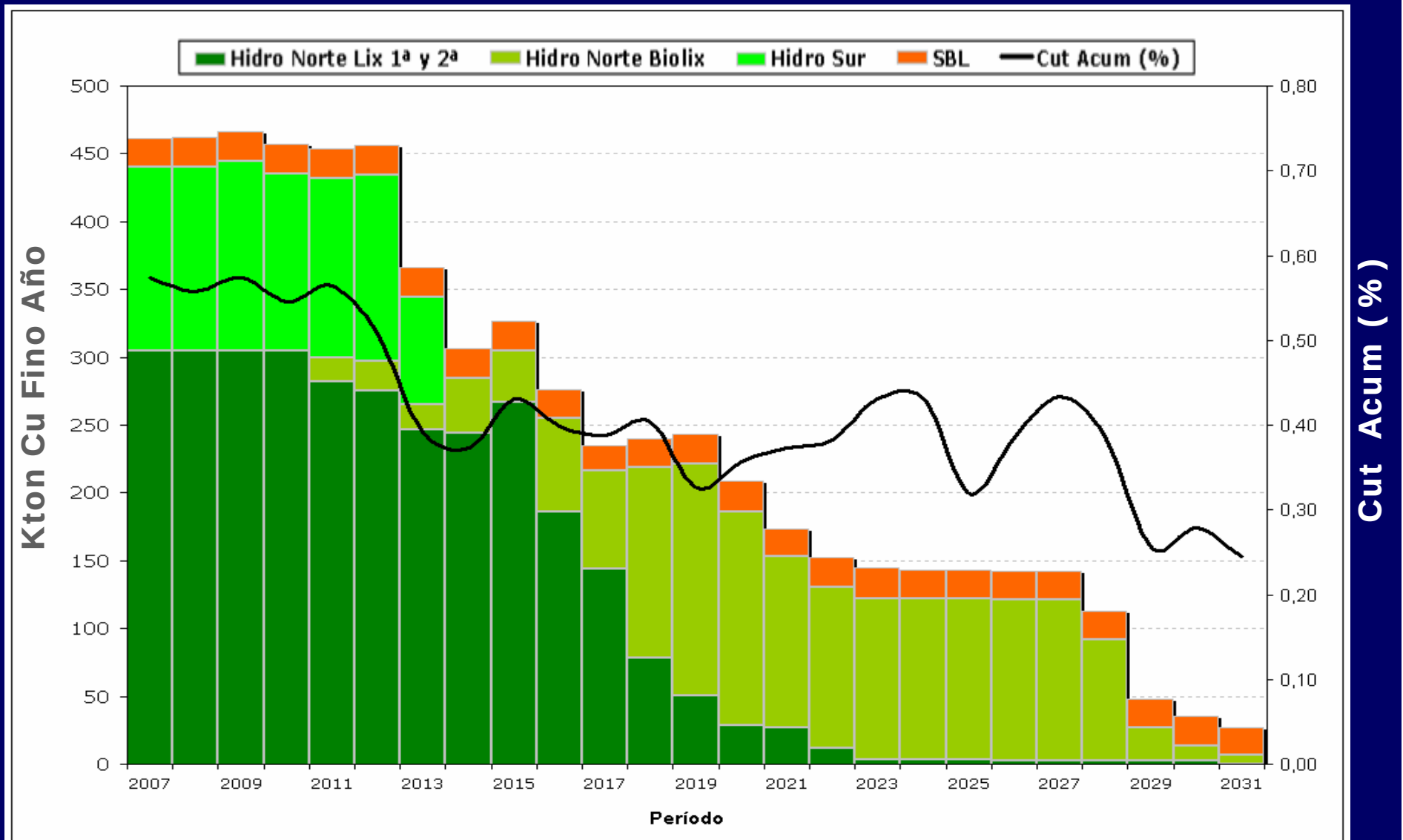
Chuqui Pit Final Push Backs



Chuquicamata Underground An opportunity to rethink the business

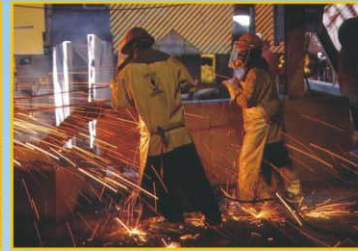


Leaching Copper Production



Immediate Challenges and Opportunities for Codelco Norte

- Continue to mitigate geotechnical risk by monitoring and unloading.
- Improve “control” of ongoing operations – benchmarking and operational excellence integration.
- Investigate pre-stripping of RT and acceleration of MMH open pit as opportunities to mitigate risk.
- Revisit high arsenic issue - a long term strategic perspective considering market-values of concentrates and environmental restrictions.
- Reassess the mill expansion strategy - requires a rigorous quantitative approach that fully considers associated risks but also the opportunities to expand production capacity based on our significant mineral resources potential.
- Reevaluate Toki and bioleaching of low grade sulphide resources to mitigate exhaustion of MS an RT leacheable ore.



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