

FRANCISCO GARCIA

Senior Civil Engineer



Curriculum Vitae

QUALIFICATIONS

MSc, Mineral and Energy Economics, Curtin University, 2012 – Australia

BE Hons (Civil Eng), University of Engineering, 2001 – Peru.

MIE Peru

BACKGROUND

Francisco has more than twelve years' postgraduate experience working in mining consulting, in operational underground mines and road construction. He has wide experience in geotechnical and hydraulic design; prefeasibility, preliminary feasibility, feasibility and final feasibility studies; mine planning operations, and scheduling and strategic planning.

In addition, Francisco has experience as a Project Engineer in the mining and transport sectors, with experience in project planning, design, preparation of tender and construction documentation, tender evaluations, construction and construction supervision for roads, TSF's (conventional tailings and high density) and mine closure.

SOFTWARE

- Draft and Planning: AutoCAD 2010, AutoCAD 3D Civil 2010, Advanced Road Design, Rift TD
- Geotechnical Design: GeoStudio Slope/W and Seep/W, Rocscience Slide, Clara-W.
- Hydrology and statistics: HydroCad, Culvert Master, Easy Fit Professional, Minitab16
- Scheduling: Microsoft Project
- Mine costing: Australian Mine & Mill Equipment Cost Calculator

SPECIAL EXPERTISE

Francisco has special expertise in a number of areas including:

- Mine and Project Feasibility Studies
- Construction and Supervision
- Mine Closure Planning

MINE AND PROJECT FEASIBILITY STUDIES

- Esperanza Project- Chile 2014. Feasibility and Detailed engineering. Design of embankment, Capex and Opex estimation.
- Tembang Gold Project- Sumatra Copper and Gold. Indonesia. 2013. Feasibility study - Design new TSF.
- Jupiter Project- Jupiter Mines Limited – Australia. 2012. Design channels, bunds and sedimentation ponds for water management.
- Larger Heinrich Uranium. Paladin Energy Ltd – Namibia. 2012. TFS design into open pits, including conceptual closure plan.



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- Tucano Project, Beadell Resources Limited, Macapa – Brazil, 2011. Final feasibility –TSF design.
- Chelopech Mining, Bulgaria, 2011. Feasibility study – modeling the TSF in 3D.
- Nammuldi Project – Rio Tinto, Western Australia, 2011. Pre-feasibility study – designing access road, general roads and haul road.
- Lumwana Project, Zambia, 2010. Feasibility study – designing general roads.
- Akyem Project – Newmont, Ghana, 2010. Feasibility study – designing road, earthworks, culvert and quantities.
- Nammuldi Project – Rio Tinto, Western Australia, 2010. Pre-feasibility study – designing channels around open pits and waste dumps.
- Tropicana Project – Anglo Gold Ashanti, Western Australia, 2009. Feasibility study – designing access road (210 km), culverts and earthworks.
- Yauliyacu Mine – Glencore Group, Lima - Peru, 2008, Pre-feasibility study – designing of settlers to underground operation.
- Raura Mine – Company Mining Raura SA, Lima – Peru, 2006, Feasibility study - technical coordinator to study of analysis of alternatives for disposition of tailings at Raura mine.
- Raura Mine – Company Mining Raura SA, Lima – Peru, 2006, Feasibility study – designing water dams.

CONSTRUCTION AND SUPERVISION

- Cannington Mine, BHP Billiton, Queensland, Australia 2013. Supervision of construction for new tailings dam - Cell 3. The main tasks included: Civil earthworks and HDPE liner supervision.
- Tucano Project, Beadell Resources Limited, Macapa – Brazil, 2011 & 2012. Supervision of construction for four tailings dams. The main tasks included: Civil earthworks supervision.
- Tucano Project, Beadell Resources Limited, Macapa – Brazil, 2011. Final feasibility - supervision of geotechnical research for Plant Site.
- Yauliyacu Mine – Glencore Group, Lima - Peru, 2008, construction of Stage II - TSF Chinchán. The main tasks included: Civil earthworks and HDPE liner supervision.
- Cascajal Mining, La Libertad – Perú, 2008. Feasibility study – supervision of geotechnical research for construction of mine waste dump.
- Sayaatoc Mining, La Libertad – Perú, 2008. Pre -feasibility study – supervision of geotechnical research for remediation of TSF Higospampa.
- Sinaycocha Mining, Junin – Perú, 2008. Construction – QA/QC to TSF Sinaycocha II. The main tasks included: Civil earthworks and HDPE liner supervision.
- Central Road (La Oroya – Puente Matachico), Junin – Perú, 2002. Construction – Coordination of earthworks, culverts, drainages, walls, gabions and asphalt works.

MINE CLOSURE PLANNING

- Chanca Mine – Company Mining Raura SA, Lima – Peru, 2006, Feasibility study – designing geometric, hydraulic and geotechnical aspects for closure of TSF.
- Carolina Mine – Society Mining Corona SA, Cajamarca – Peru, 2006, Feasibility study, peer review of final report Mine Closure Plan.
- Chungar Mine – Volcan Mining Company SAA, Cerro de Pasco – Peru, 2005, Feasibility study, peer review of final report Mine Closure Plan.
- Esperanza Project – Buenaventura Mining Company SAA, Huancavelica – Peru, 2005, Feasibility study, designing geometric, hydraulic and geotechnical aspects for closure of waste dumps.
- Santa Barbara Mine – Society Mining El Brocal SAA, Huancavelica – Peru, 2005, Feasibility study, designing geometric, hydraulic and geotechnical aspects for closure of TSFs and waste dumps.
- Recuperada Mine – Buenaventura Mining Company SAA, Huancavelica – Peru, 2005, Feasibility study, designing geometric, hydraulic and geotechnical aspects for closure of waste dumps and TSFs.
- Colquirrumi Mine – Buenaventura Mining Company SAA, Huancavelica – Peru, 2005, Final feasibility study, designing geometric, hydraulic and geotechnical aspects for closure of waste dumps.