

### INTERNATIONAL PROJECT HIGHLIGHTS

Acero has successfully completed over 50+ conceptual, Pre-FEED, FEED, Detailed Engineering and Construction Support Projects in Iraq, Egypt, Chad, Sudan, India, Russia and South America. Our extensive experience with full scopes of project work, from concept through detailed engineering and construction management, allows Acero to examine the feasibility of various options and work with our clients to select a 'best path forward' for development.

#### ACORDIONERO CPF EXPANSION () GRAN TIERRA ENERGY INC () Middle Magdalena Basin, Colombia

Since 2017, Acero has been responsible for several projects; Pre-FEED through detailed design, related to the expansion of an existing early production facility (EPF) into a central processing facility (CPF) in the Acordionero field in Colombia. The facility was expanded to handle larger volumes of produced liquids; from 3500 BOPD to 7500 BOPD.

- CPF expansion phase 1 from 3,500 BOPD to 7,500 BOPD (Pre-FEED through detailed design including procurement support)
- CPF expansion phase 2 15,000 BOPD (FEED, procurement & detailed design support)
- CPF expansion phase 3 25,000 BOPD (Debottlenecking study)
- Water injection for 30k BWPD (Pre-FEED)
- Power generation 15 MW (Pre-FEED)
- Truck loading 15K BOPD (Pre-FEED)
- Blending terminal 15K BOPD and export P/L (FEED)
- Blending Facility CPF Crude Oil Export Pipeline (FEED)



#### AYOMBERO FULL FIELD DEVELOPMENT PRE-FEED

GRAN TIERRA ENERGY INC ♦ Middle Magdalena Basin, Colombia Acero is responsible for the Ayombero full field development Pre-FEED which examines increased production and processing for between 15K and 45K bpd of (18 API high viscosity 8500 cSt @ 120°F) oil. Currently production of 400bpd is trucked 200 km for processing. The full field development is expected to progress in three phases: Early Production Facility (EPF), Central Processing Facility (CPF) at 15,000 bpd of oil, Expanded CPF to 45,000 bpd of oil.

#### GAS PLANT OPTIMIZATION & DE-PROPANIZER ADDITION

**CENTURION ENERGY INTERNATIONAL INC** *Vile Delta, Egypt* 

Provided detailed engineering and construction management, for the process optimization and debottlenecking study and construction additions to an existing 160 MMscfd refrigeration and condensate stabilization plant.



"A POSSE AD ESSE" From Possibility to Reality

# **RESPONSIVE FLEXIBLE EFFICIENT**



Since 2015, Acero has provided FEED, detailed design, and procurement support for facility expansions and well pad development and tie-ins to accommodate 39API crude oil produced in Chad Africa's Mangara and Badila fields.

- Badila well pad designs and pipelines (Detailed engineering, design including drawing package, procurement support)
- Badila 75,000BOPD PCT Blending and Export Terminal Debottlenecking and Expansion (FEED, detailed design & technical support for procurement)
- Mangara well pad designs (Detailed design & Construction support)
- Badila Crude Oil Topping Unit (Conceptual study)
- Mangara 65,000 bopd CPF Water Injection (FEED)
- Mangara Power Distribution to Well Sites (FEED)
- Mangara Gas Injection Facility (FEED & Detailed Engineering)



### BRETANA DEVELOPMENT

GRAN TIERRA ENERGY INC Loreto, Peru

Provided technical direction to the EPC contractor for a 20,000 bpd EPF in NE Peru, completing PFDs and P&IDs for a 2,500 bpd EPF, full time process engineering support, project management consulting and reviewing all major deliverables.



AMGUIRI INTERIM CONDENSATE RECOVERY () CANORO RESOURCES LTD. () Assam, India Responsible for engineering, procurement and logistics from North American to India, and construction management of a brownfield, 20 MMscfd gas inlet / 1500 bpd condensate recovery project in remote, northeast India. The project was fast-tracked due to an immediate need to install an interim condensate removal as the reservoir was approaching retrograde condensation.

#### PUTUMAYO MOBILE TESTING FACILITY

**GRAN TIERRA ENERGY INC** () *Putumayo Basin, Colombia* Acero was responsible for the conceptual through to detailed engineering, procurement, and construction management of a long term fully mobile testing facility, to be fully transportable from site to site, capable of long

term use on each well pad from six months to one year. Equipment designed to handle the production of two wellheads with each wellhead producing up to 1,500 bpd of crude oil.



#### EARLY WELL TESTING FACILITY

GENEL ENERGY **()** Kurdistan, Iraq

Responsible for the engineering, procurement and construction management of an early well testing facility (EWTF) located in Kurdistan, northern Iraq. To fast track the project, and allow operations to

commence with as little downtime as possible, an Antanov AN-124 cargo plane was chartered to bring an in-stock oil cooler and refurbished electrostatic heater treater from Calgary, Alberta.





## KURDAMIR FIELD DEVELOPMENT 🜗 TALISMAN ENERGY INC. 🔶 Kurdistan, Iraq

Responsible for several projects from conceptual design to detailed engineering in Kurdistan, Iraq.

- Conceptual study for 50,000 bopd CPF and Gas plant 300 MMSCFD c/w sulphur recovery
- Conceptual study through to detailed engineering of 5,000 bopd (42 API & 75WC) EPF
  - Expedited detailed engineering & design of modified testing facility

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