

# Toke Oil and Gas activities in Timor-Leste

2008 to 2012

- Timor Sea Bathymetric Survey:.....slide 2*
- Suai, Kammanasa and Beaco Surveys:.....slide 10*
- Beaco LNG Survey:.....slide 24*

# Timor Sea Bathymetric Survey

March 2008 to February 2009

CLIENT: GOVERNMENT OF TIMOR-LESTE – SAMSUNG – STX  
KOGAS – GS CALTEX

Contract value: \$5,200,000

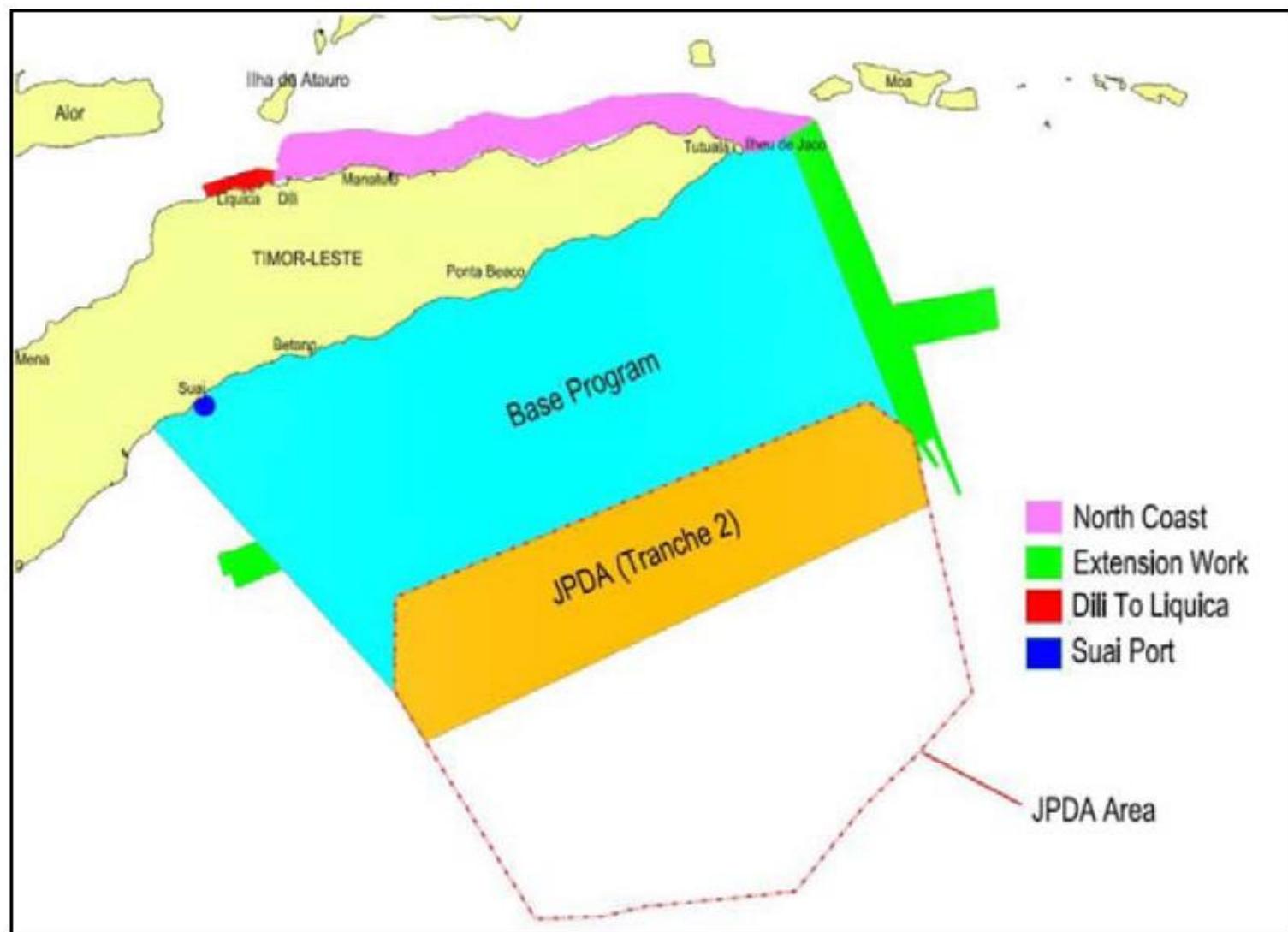
The object of the project was to survey the Timor-Leste Offshore Exclusive Economic Zone plus a portion of the marine area held in common by Timor-Leste and Australia.

The survey was used to study the feasibility of a heavy deep pipeline across the Timor Sea.

The total surface area of the survey exceeded 43,000 sq. km (17,000 sq. mi.), making it one of the largest such survey to date. Water depths reached 3,300 m (11,000 ft).

Three survey ships were used, S/V's Ridley Thomas, Northern Light and Northern Prince.

A total of about 35 workers were present at any given time.



## Bathymetric Survey Scope of Works



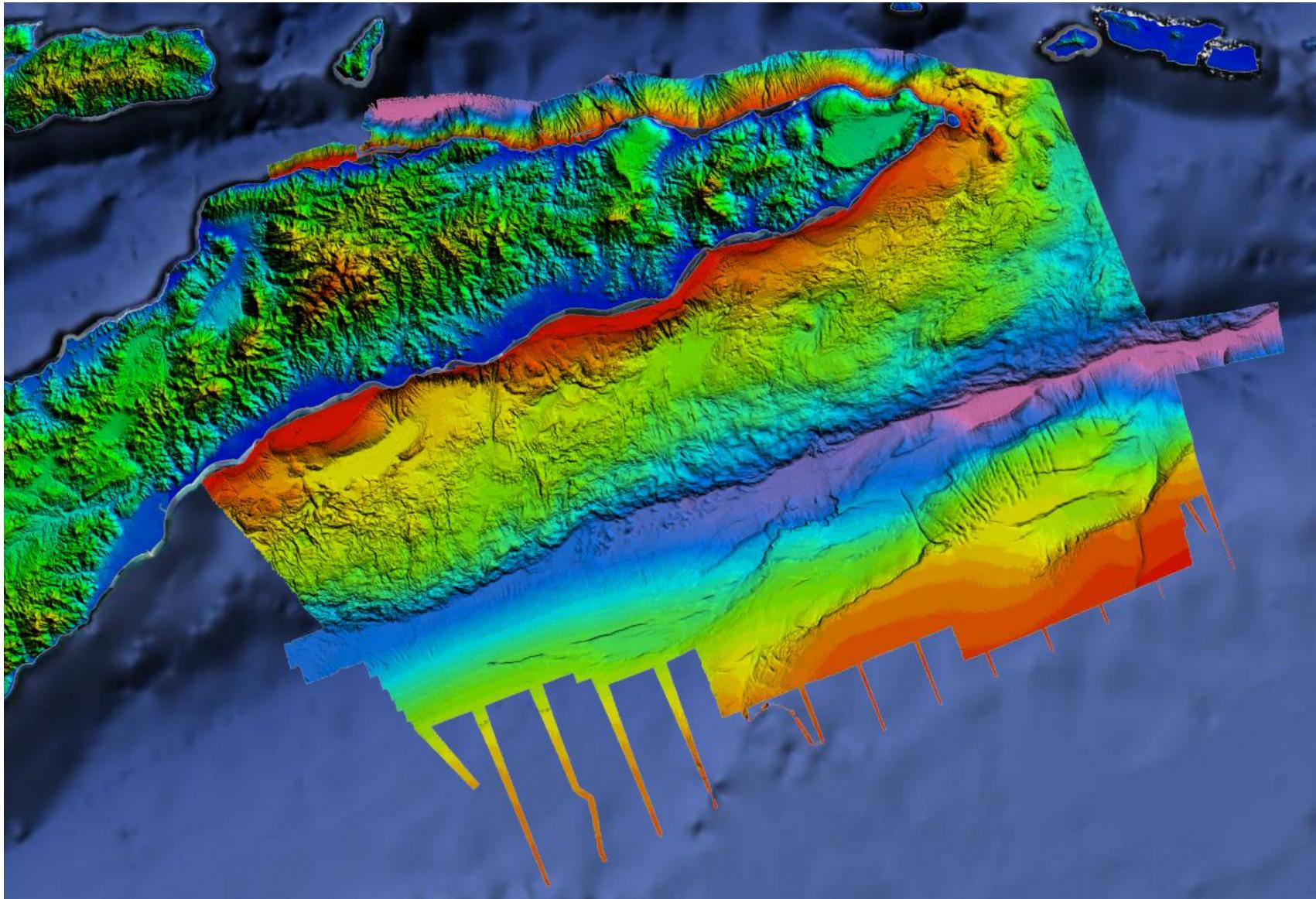
**S/V Ridley Thomas, used from June to July 2008**



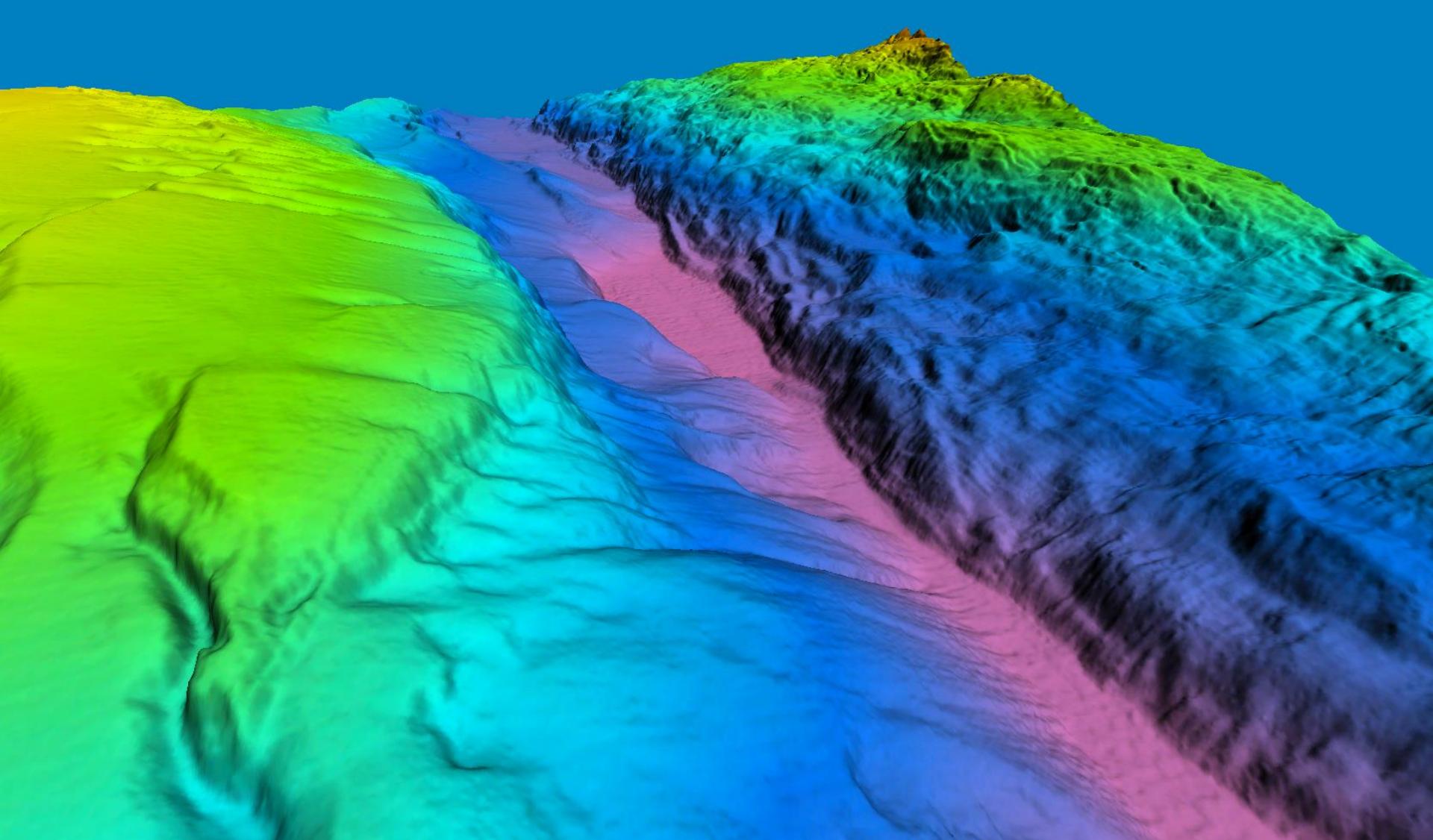
**S/V Northern Light, used from July to August 2008**



**S/V Northern Prince, used from October 2008 to February 2009**



Bathymetric Survey



3D Visualization of part of the Bathymetric Survey

# **Suai, Kammanasa and Beaco Geophysical and Geotechnical Survey**

November 2009 to March 2010

**CLIENT: GOVERNMENT OF TIMOR-LESTE**

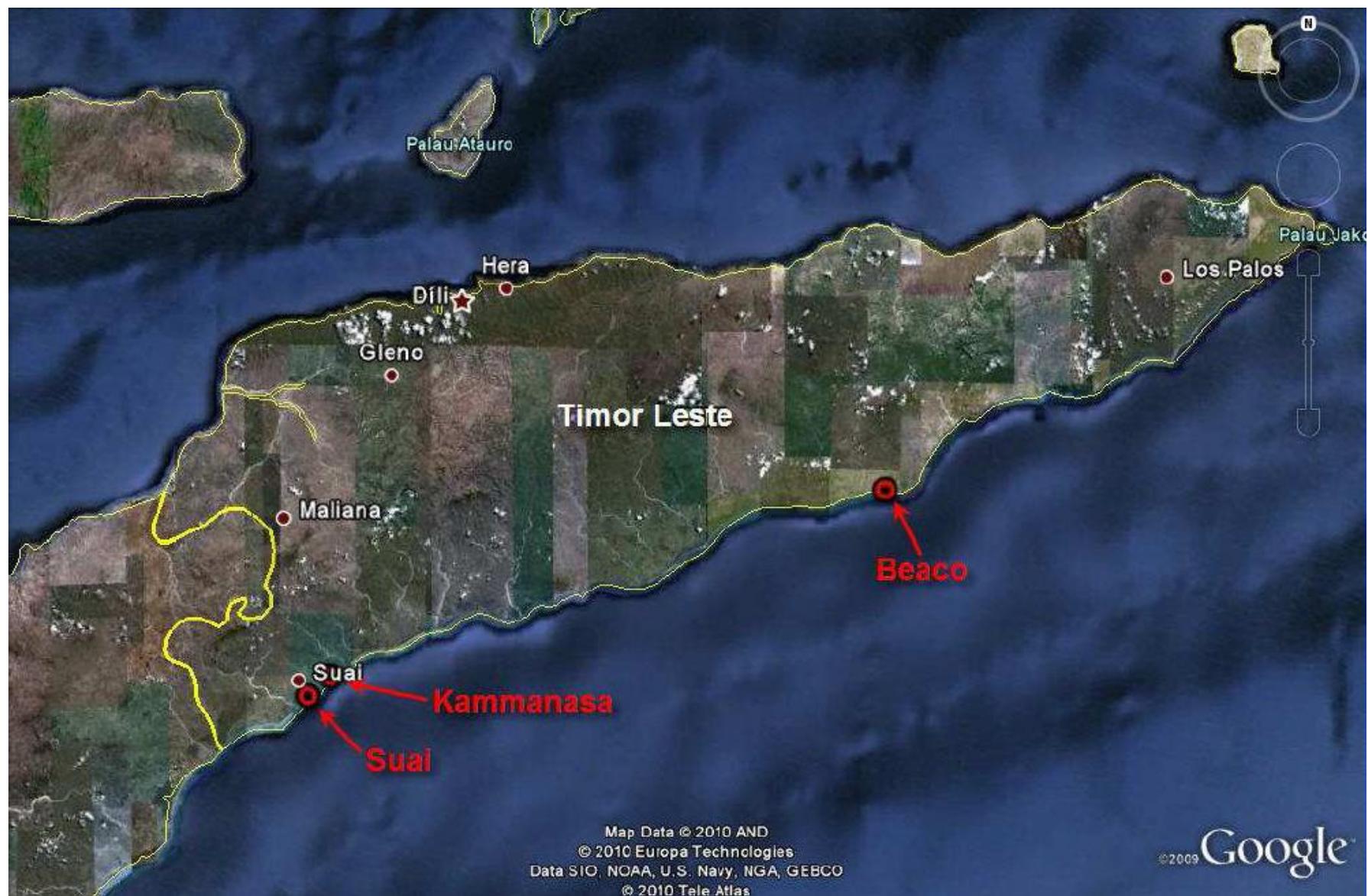
Contract value: \$3,000,000

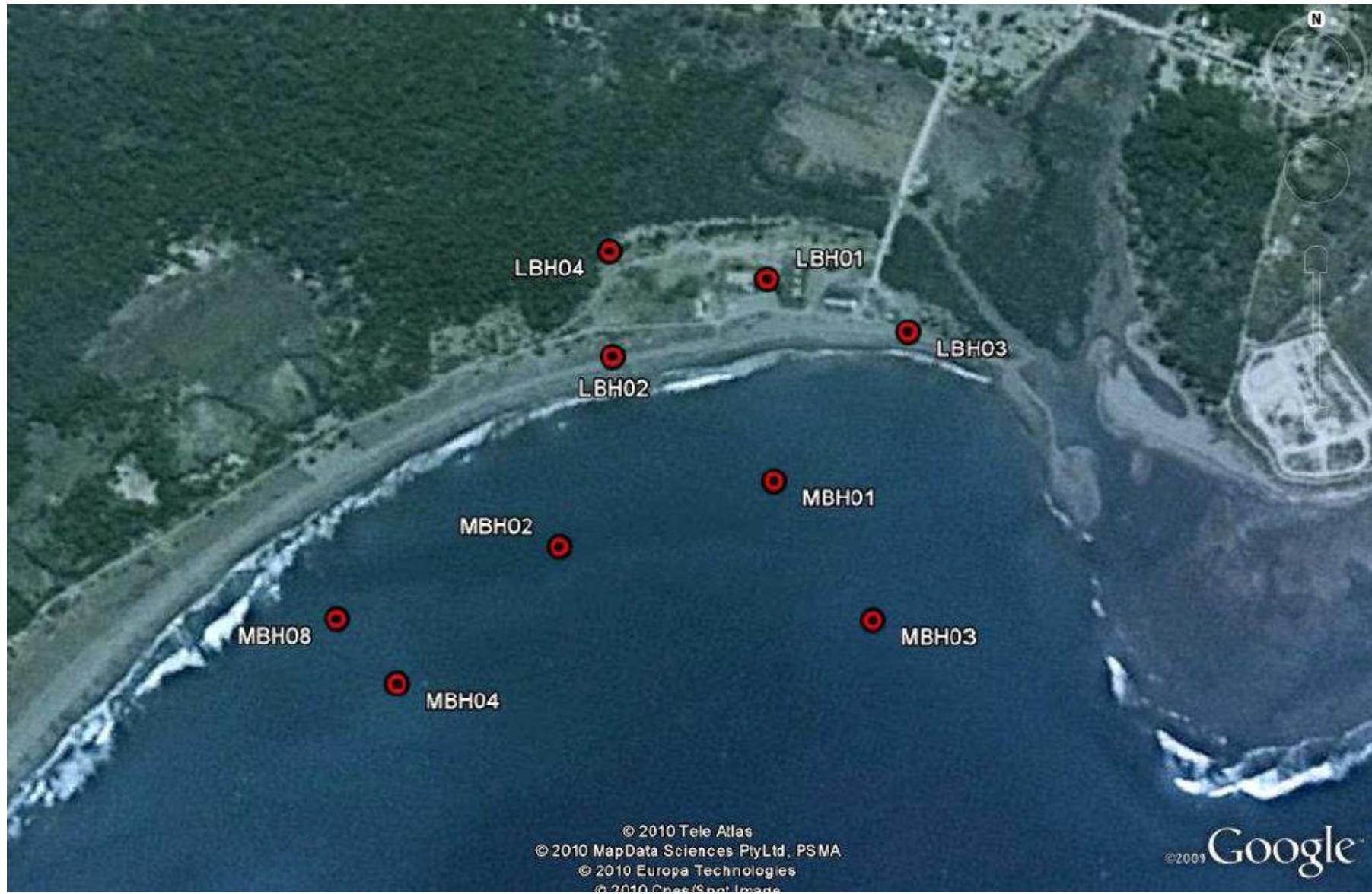
The purpose of the survey was to study the feasibility of ports in three locations, Suai, Kammanasa and Beaco.

9 land boreholes and 8 marine boreholes were drilled to 200 ft depth.

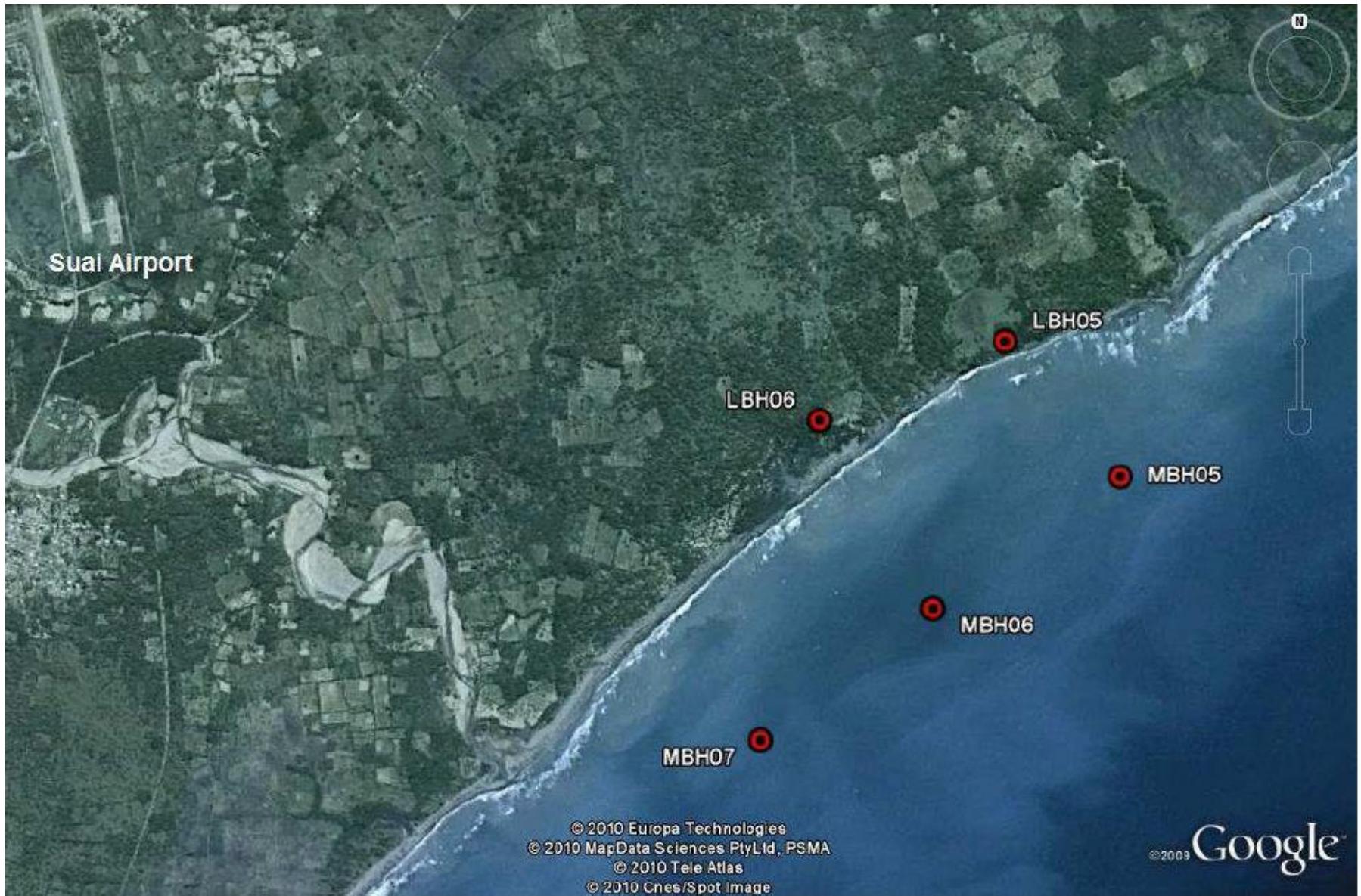
Two mobile drilling rigs were used onshore and a jack-up barge offshore, together with two assistance boats. Two LCT ships were used for transportation.

A total of 75 workers were present at any given time.

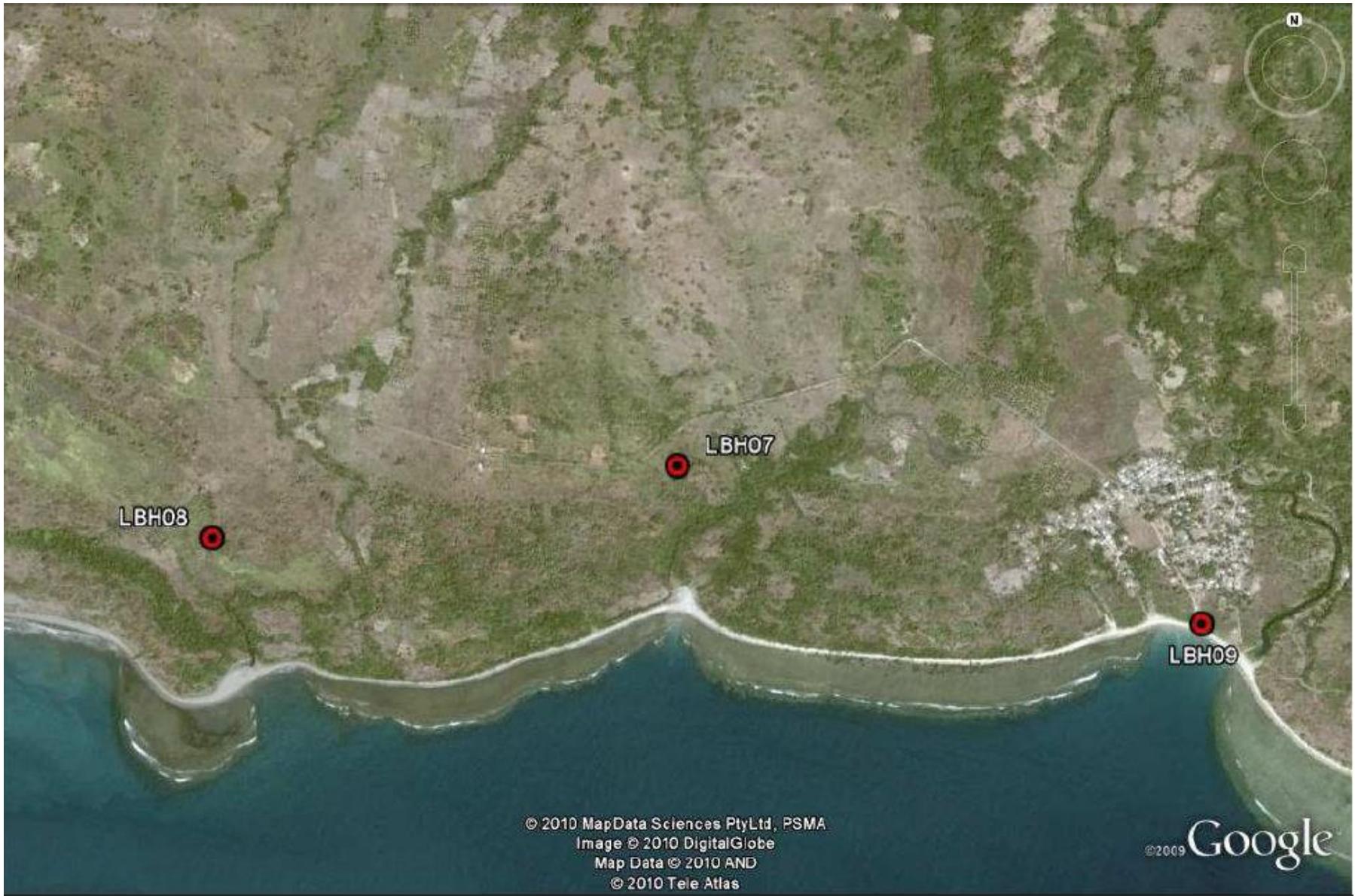




**Suai: Marine Boreholes (MBH) and Land Boreholes (LBH)**



Kammanasa: Marine Boreholes (MBH) and Land Boreholes (LBH)



© 2010 MapData Sciences Pty Ltd, PSMA  
Image © 2010 DigitalGlobe  
Map Data © 2010 AND  
© 2010 Tele Atlas

©2009 Google

## Beaco: Land Boreholes (LBH)



**Crane on LCT ship helps assemble Jack-Up Barge**



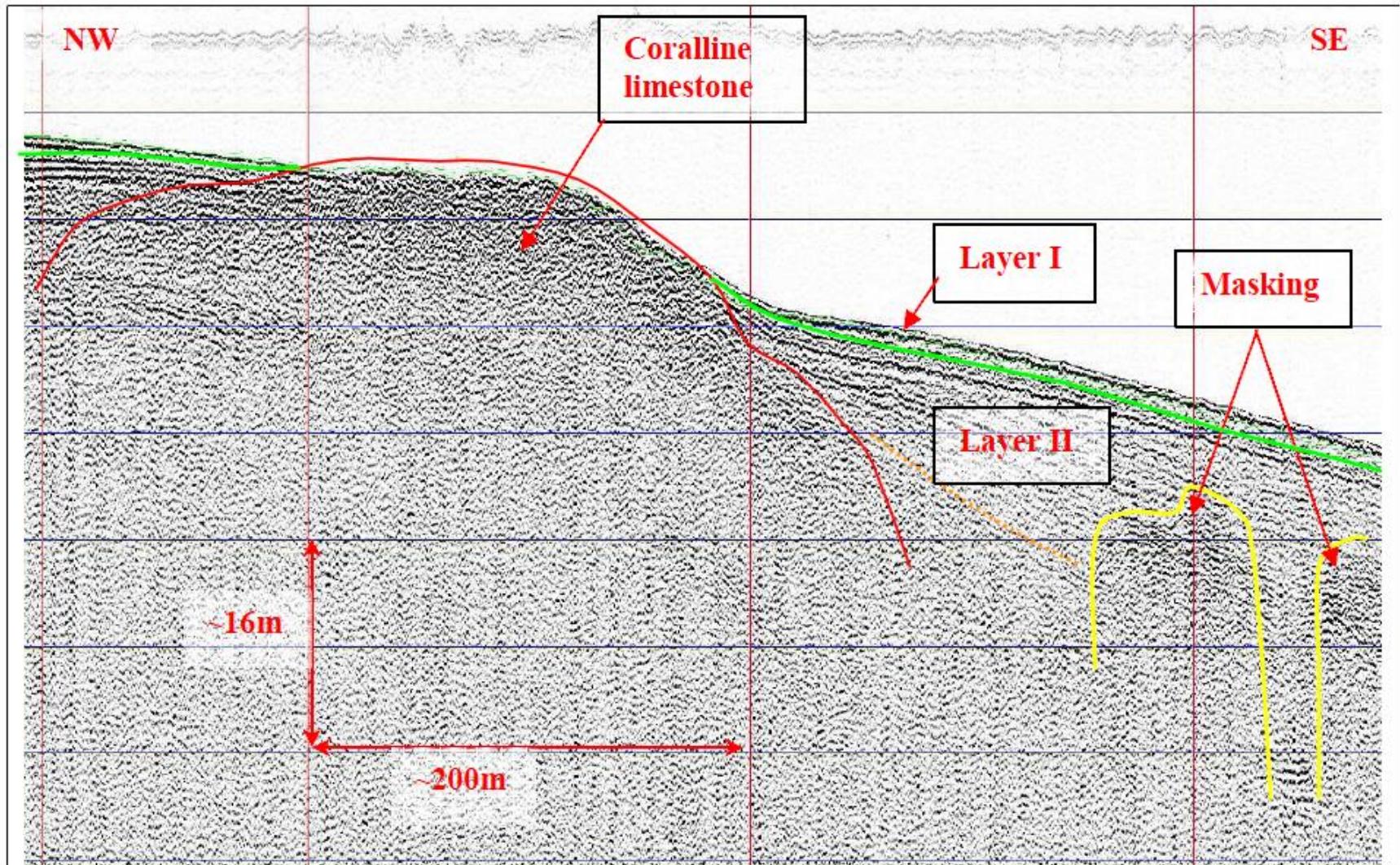
**Jack-Up Barge used to drill marine boreholes**



**Jack-Up Barge used to drill marine boreholes**



A mobile land drill rig



A sample of the seismic investigation offshore Suai



Earth works in Suai



Loading an LCT ship in Suai



Loading an LCT ship in Suai

# **Beaco LNG Geophysical, Geotechnical and Metocean Survey**

November 2010 to June 2012

**CLIENT: GOVERNMENT OF TIMOR-LESTE**

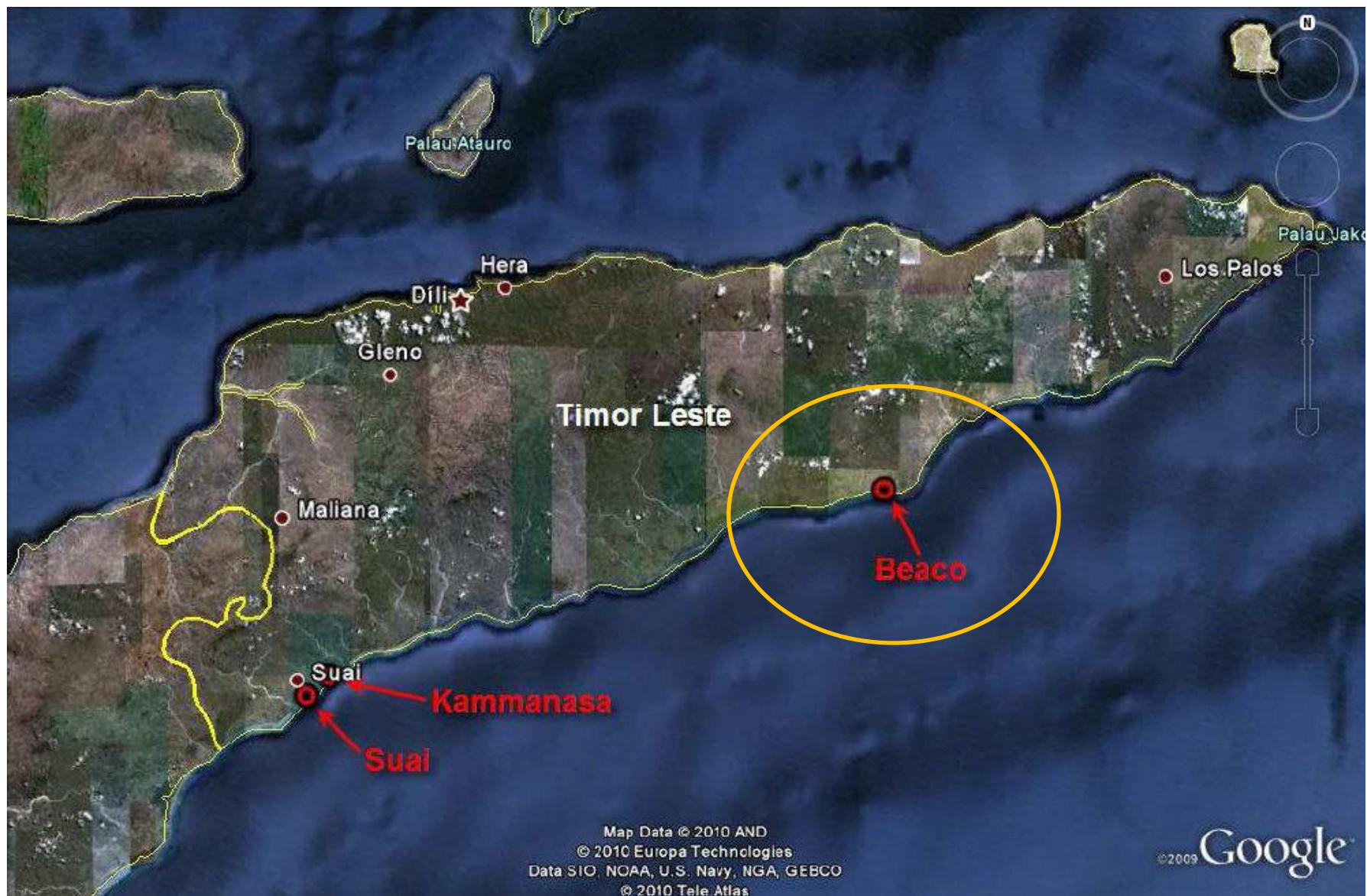
**Contract value: \$6,700,000**

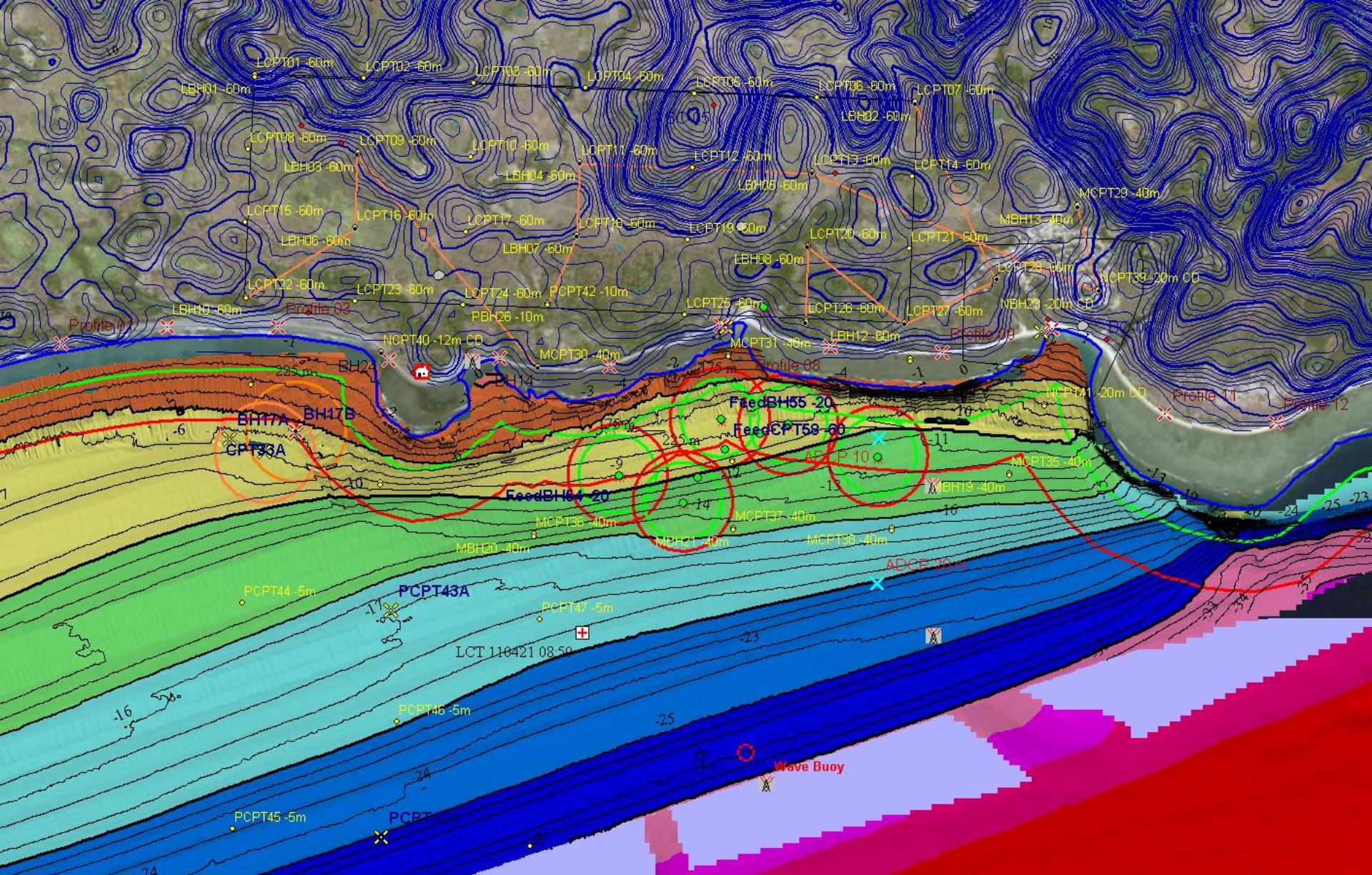
The object of the Beaco project was to investigate the feasibility of a Liquefied Natural Gas (LNG) plant.

The scope of work included a large geotechnical survey, the drilling of 30 land boreholes and CPT's (Cone Penetration Testing) and 24 marine boreholes and CPT's, a complete geophysical investigation and an extensive Metocean (metorological and oceanographic) survey.

Marine operations were conducted using a 4 points anchored ship and 4 assistance boats. Land operations used 3 mobile drilling rigs and a 20 tons CPT laboratory truck. In addition, a nearshore drilling jack-up platform was used on the reefs.

A total of 150 workers were present on the project at any given time.





## Beaco Survey Area and Scope of Works



## 4 Points Mooring Drill-CPT Ship



**Drilling Tower (left) and CPT System (yellow) with 80 ton crane**



**CPT System (yellow) and Drilling Tower (orange)**



Deck of Drillship at dawn



Land Drilling Rig in Beaco



CPT Truck



Metocean station



**3 of the 4 Assistance Boats and Metocean Deployment Unit**



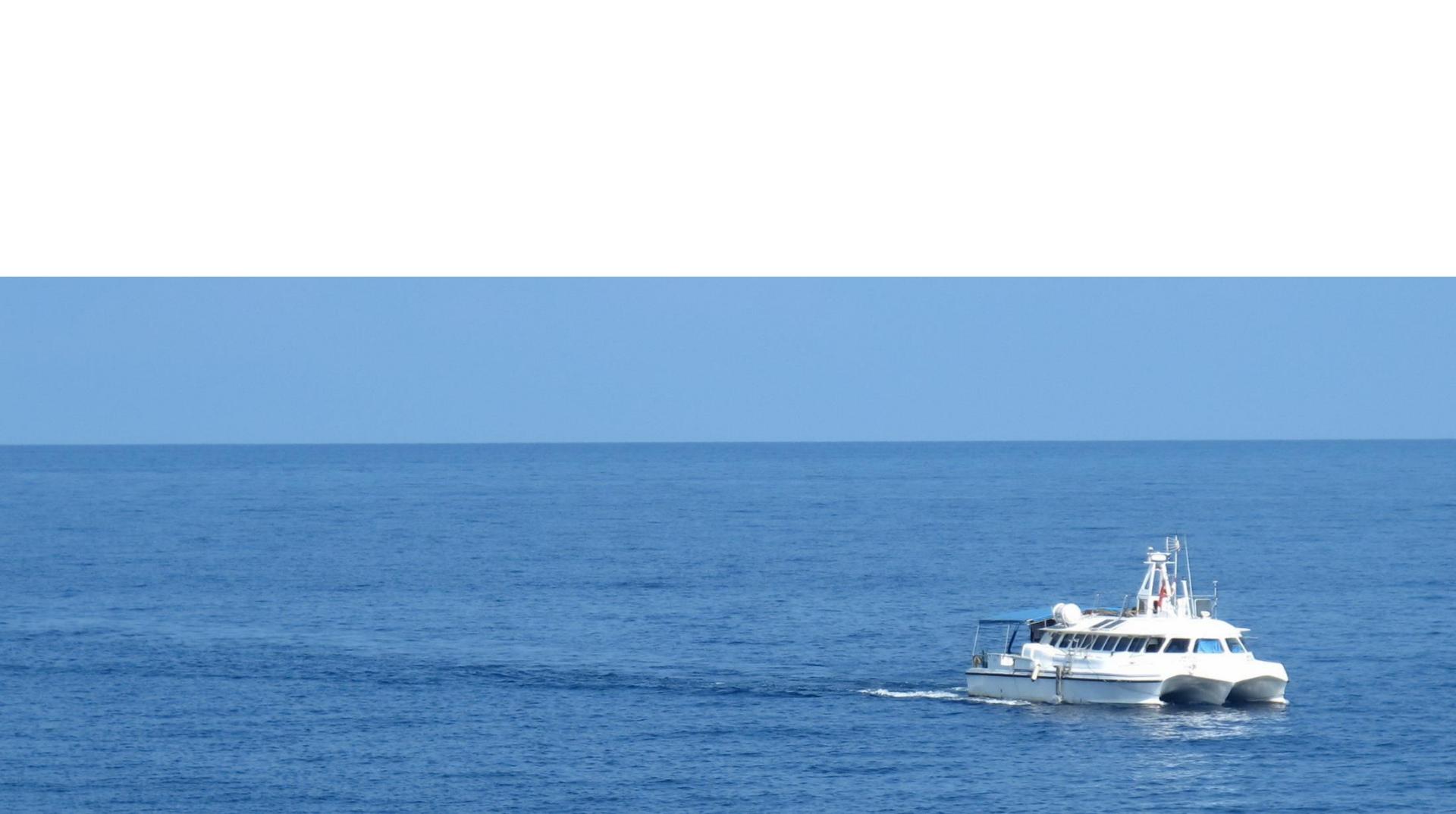
Nearshore Drilling Jack-up Platform on reef



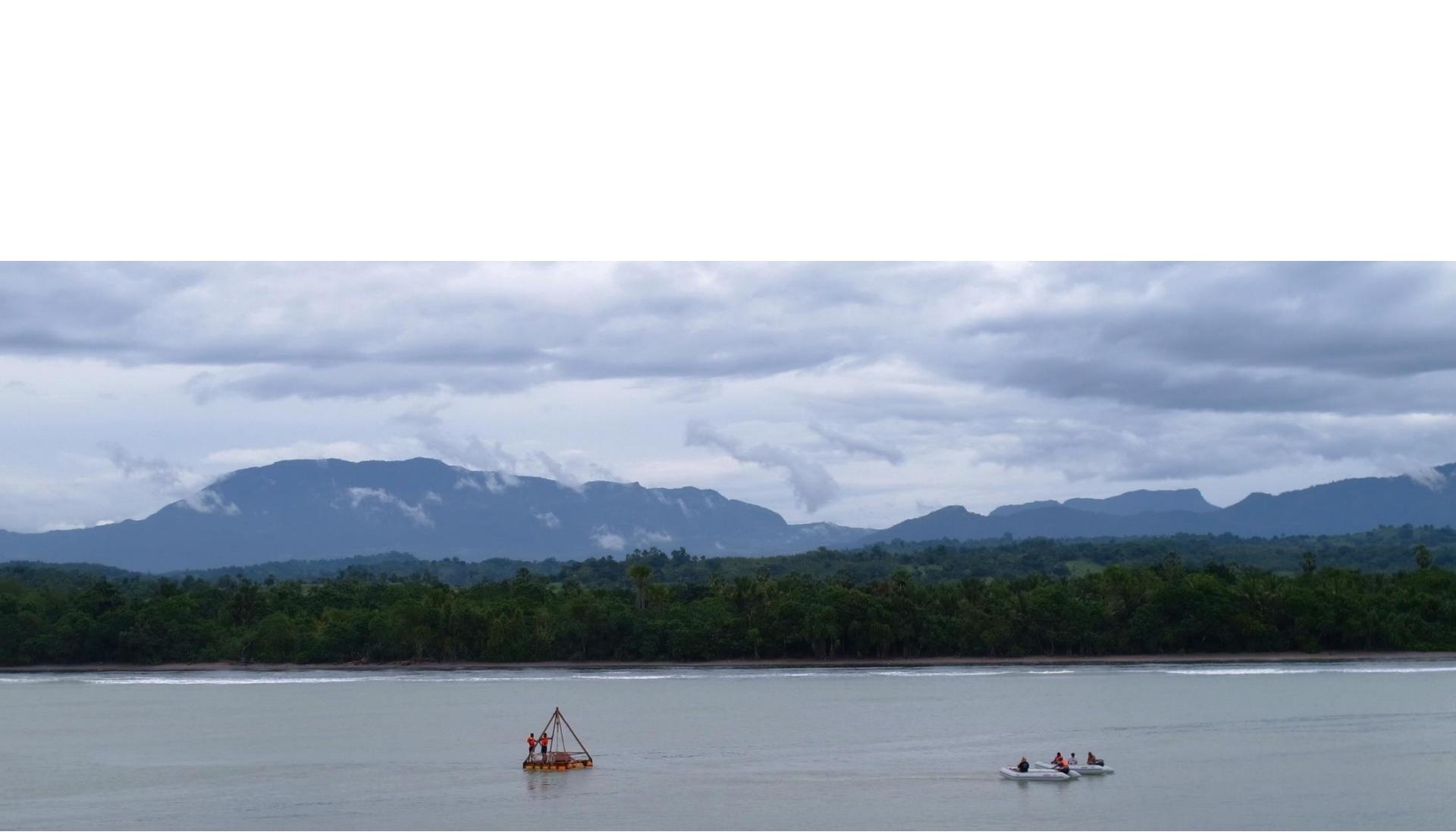
## Base Camp and Boat Launch Area



**Management cabin**



**S/V Amertha used to conduct geophysical activities**



## Deployment of Metocean Equipment



An early visitor (*Crocodylus porosus*)