NEARSHORE EXPLORATION OPPORTUNITIES



More than 40 leads identified in the nearshore area (red line shows location of seismic section below)

The nearshore leads are mainly of stratigraphic nature. Below is an

The nearshore area encompasses the shallow offshore area just to the north of the coast of Suriname up to water dephts of approximately 35 meters. Sediments from Albian to Holocene age are present. The first exploration programs were carried out by IOC's in the 1960's.

Staatsolie re-processed a large amount of vintage seismic and acquired 1530 Km 2D seismic data in 2012 and 2014. A significant number of leads have been identified, which can be characterized as follows:

- Stratigraphic pinch outs
- Fault-bounded
- Facies change
- Four-way closure



example of a Paleocene section pinching out on the top Cretaceous. The nearshore Paleocene interval has good reservoir quality and a regionally deposited shale with good sealing capacity.



Paleocene stratigraphic lead mapped on 2D seismic data

Several studies were carried out in order to de-risk the area of interest. The results of three basin wide petroleum systems studies, carried out by different companies, were integrated into one report enabling Staatsolie to identify the areas of uncertainty. Oil slicks on the sea surface were identified by remote sensing and a number of fluid inclusion studies (CGG, 2014) were conducted on samples from vintage wells. A detailed depositional environmental study was completed together with an extensive study on sealing potential of the Cretaceous and Tertiary sealing rocks.

S-N seismic section showing main nearshore horizons



The main source rock accessible by the nearshore area is the Cenomanian-Turonian source rock. However, the likelihood of charge from older source rocks is significant (Albian and Jurassic).



Petroleum Systems study (Fugro-Robertson, 2010; CGG-Robertson, 2014; Beicip-Franlab, 2014)

Stratigraphic column for		
the nearshore area	Nearshore area	Onshore area
MD Period/Broch/Age GRTO NPHI Formations Bands lone top BS Glau PETM Systems Track 1:6846 0.00 gAPI 150.00 0.6000 m3/m3 0.0000		
38.5	B/34-1X	COPU

3D subsurface model displaying distribution of VShale

Distribution of reservoir and seal facies were evaluated by applying 3D subsurface modeling of distributions of petrophysical parameters.





Transitional to shallow marine depositional environments observed in the Paleocene section

GDE's, based on well data, such as cuttings, side wall cores, biostratigraphy and wireline log data, are available for all zones of interest. In general, the nearshore sediments have been deposited under fluvial to shallow marine conditions. Best estimate risked prospective volumes: Min: 450 MMbbls | Max: 1,869 MMbbls

Estimated risked volumes (MMbbls)



Fluid Inclusion Study (FIT 2013-2014)

