



# Exploration Activities in the Vicinity of Turkey

**SCOUT Meeting**  
**20 October 2015**

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*E&P Group Leader*

# **Content of the Presentation**

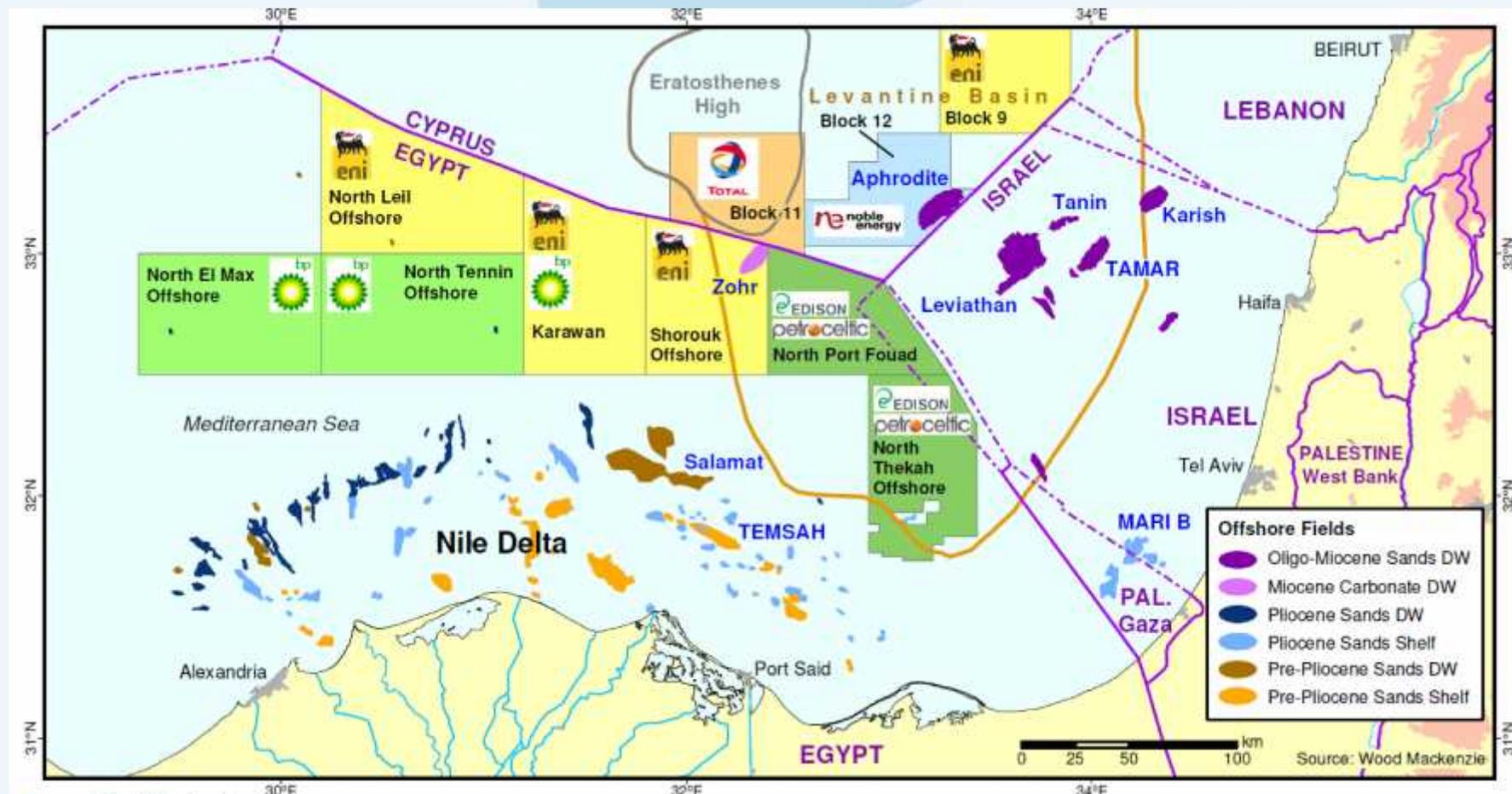


- 1) A major discovery in East Mediterranean**
- 2) Removal of Iran Sanctions**
- 3) Black Sea Exploration Activities**
- 4) Historical Oil Prices**
- 5) Impacts on Turkish E&P Sector**

# A Major New Eastern Mediterranean Discovery



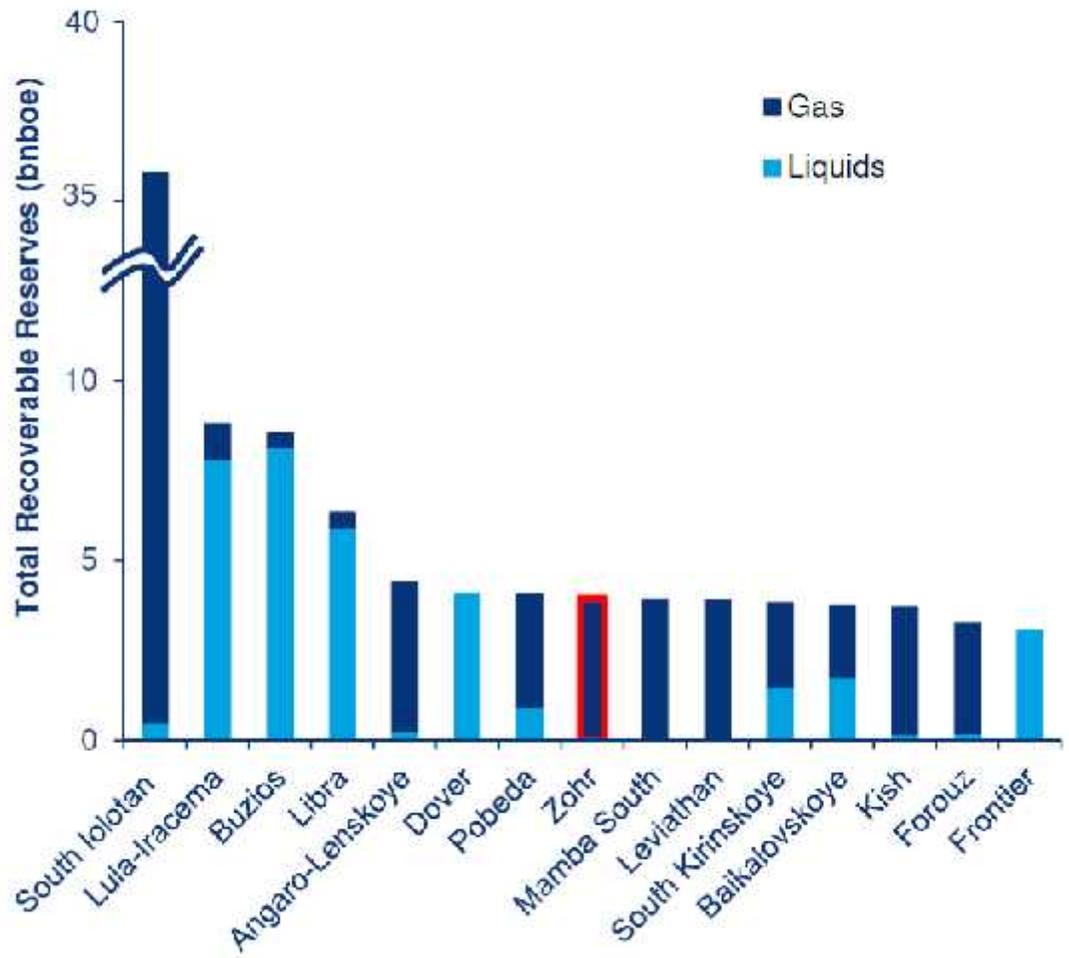
The Zohr discovery – 30 tcf in place



# Eighth Largest Global Discoveries since 2005



**Top 15 global discoveries 2005 - 2015**

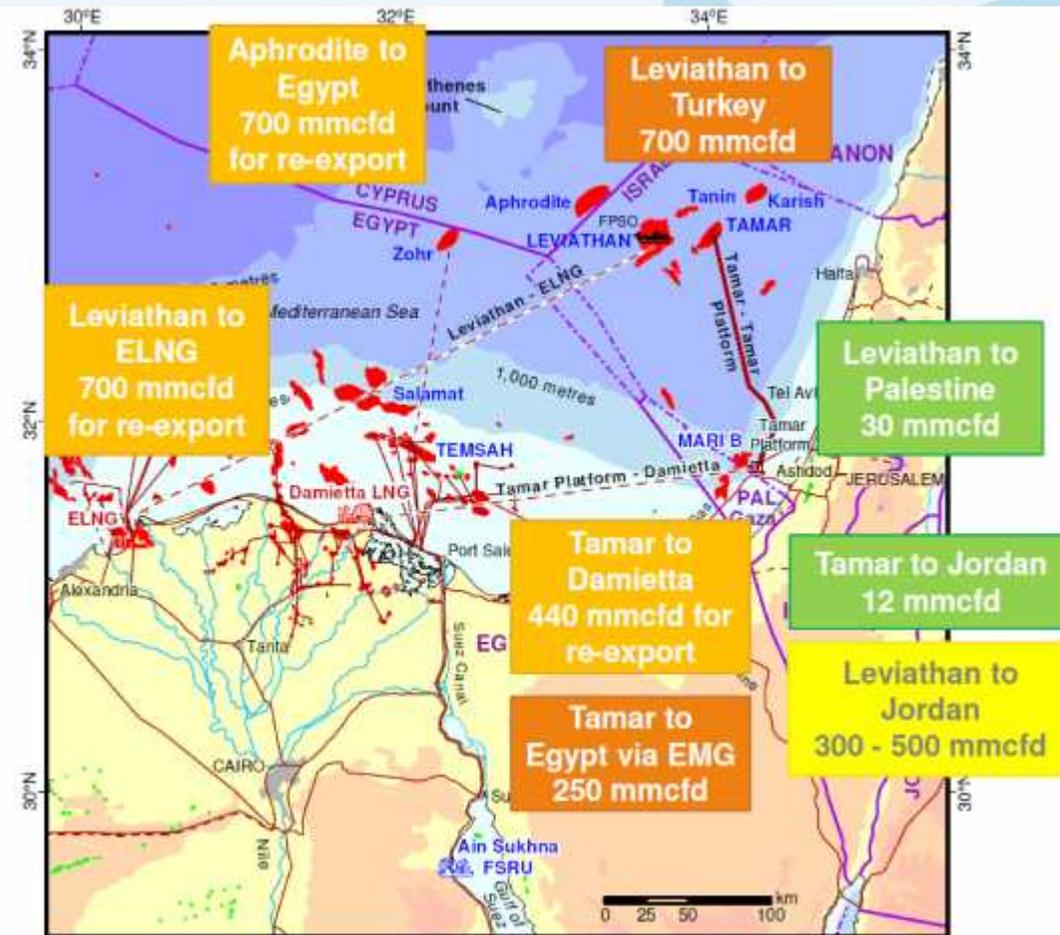


- Turkmenistan
- Brazil
- Brazil
- Brazil
- Russia
- USA
- Russia
- Egypt
- Mozambique
- Israel
- Russia
- Russia
- Russia
- Iran
- Iran
- USA

# Zohr's Impact will be Felt Beyond Egypt



## Regional implications



Source: Wood Mackenzie

- **Egypt has ambitions to become a regional gas hub**
  - » Re-exporting Tamar and Leviathan gas via Egyptian LNG is still possible
  - » Further Egyptian discoveries could close this window of opportunity
- **Zohr may stall plans to develop Aphrodite**
  - » Should Zohr extend into Cypriot waters (Total Block 11) it could provide a gas boost for the country.

Agreed	In Negotiations
Possible	Unlikely

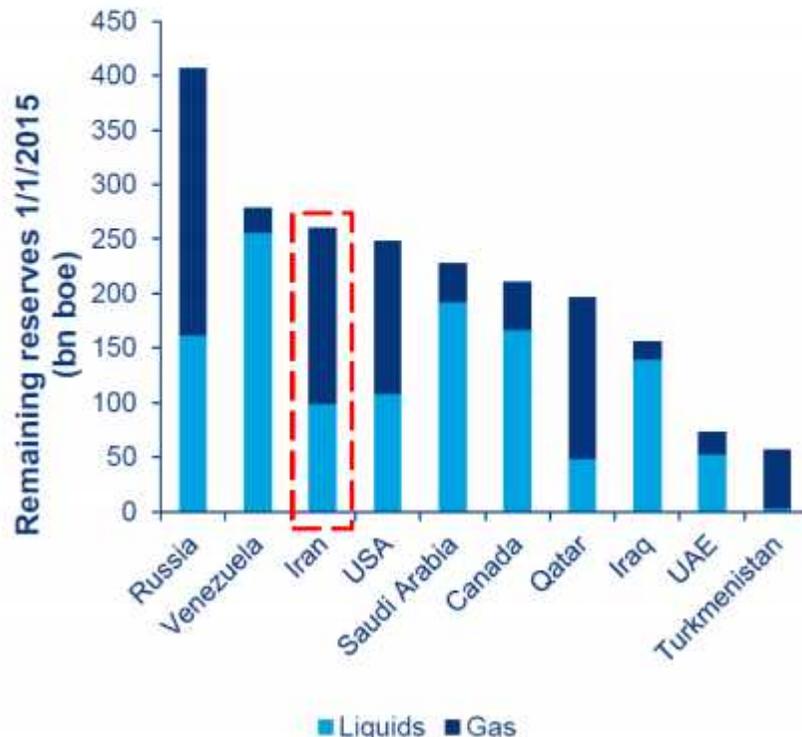
# Removal of Iran Sanctions Implications for the Oil & Gas Industry



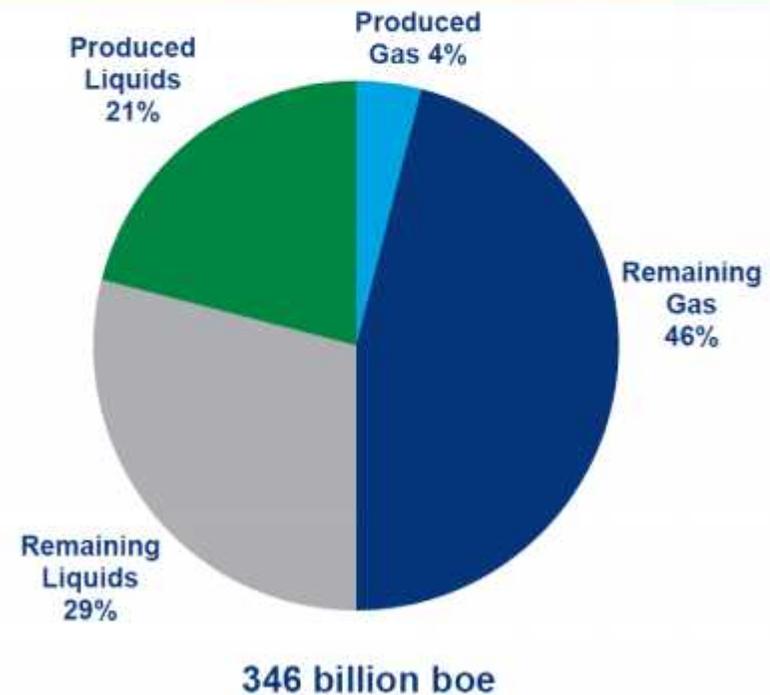
Iran has the third largest reserves in the world

Potential is huge: three quarters of total reserves yet to be produced

Top 10 countries by remaining reserves



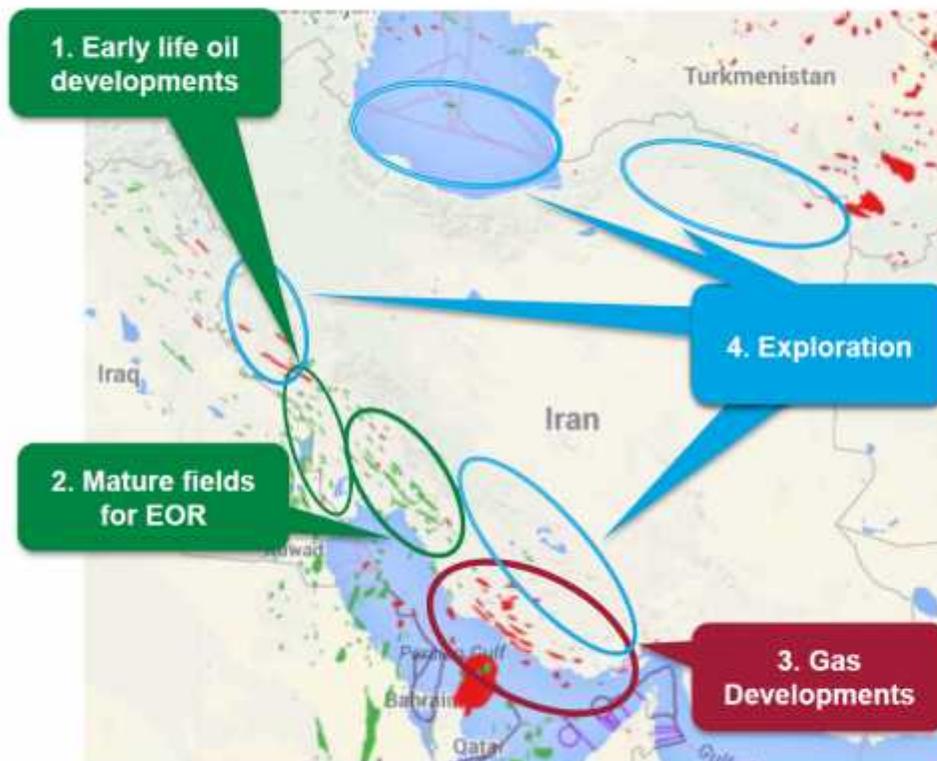
Breakdown of Iran's total reserves



# Potential Sources of Production Growth from Iran



Beyond lifting of sanctions, IOC investment could boost production



Source: Wood Mackenzie Upstream Data Tool

## Major fields

Field	STOIIP (bn bbls)	Production start year	Estimated recovery rate (%)
Ahwaz	65	1959	23.9
Gachsaran	55	1934	25
Marun	49.7	1958	25
Agha Jari	32	1939	36.8

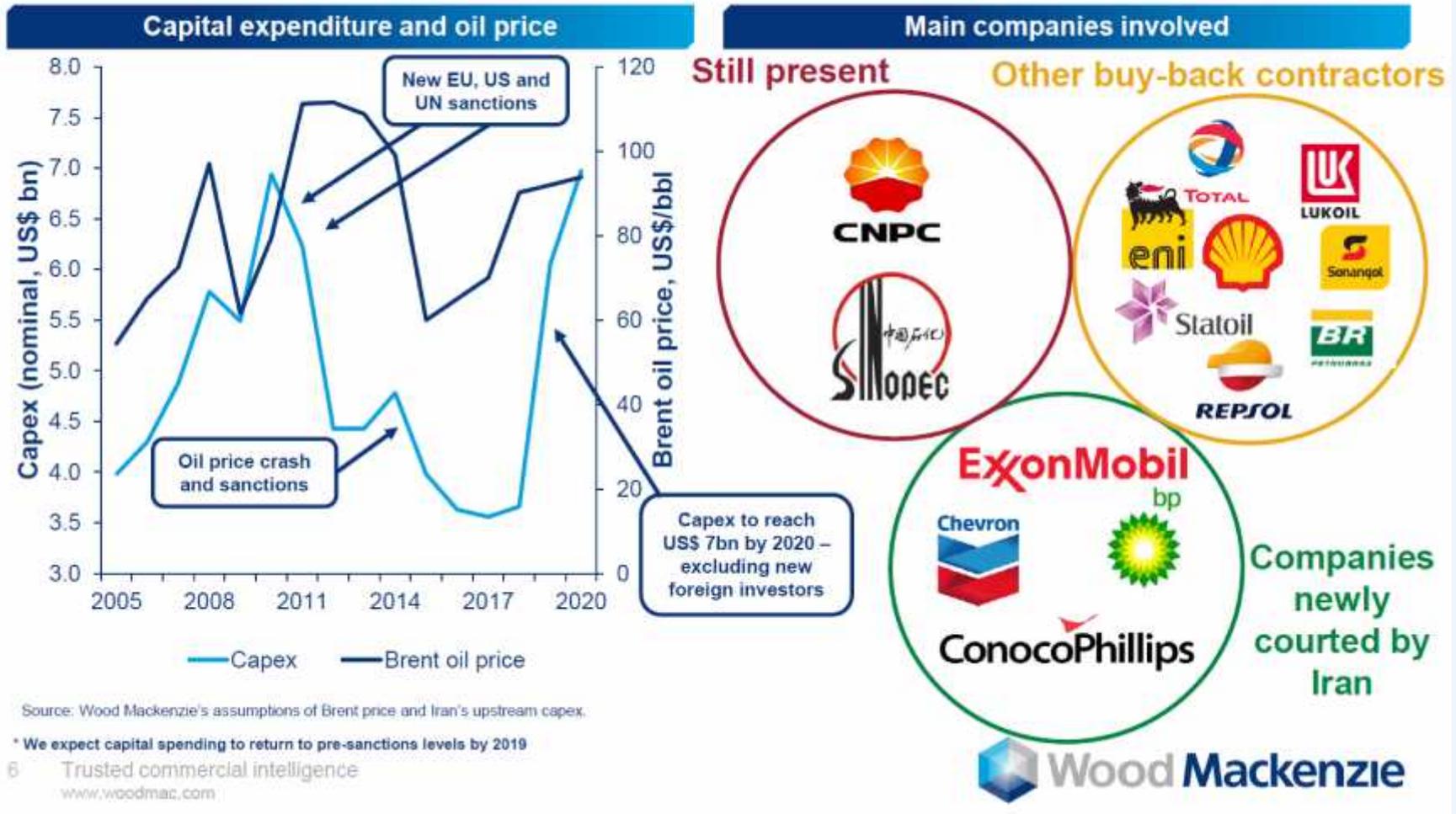
## Major undeveloped gas discoveries

Field	Undeveloped gas (tcf)	Undeveloped liquids (mmbbl)
South Pars (remaining phases)	298.5	14,140
North Pars	47.0	188
Kish	30.0	180
Golshan	22.0	500
Forouz	17.3	200
Madar	12.3	600
Sefid Zakhour	11.0	333

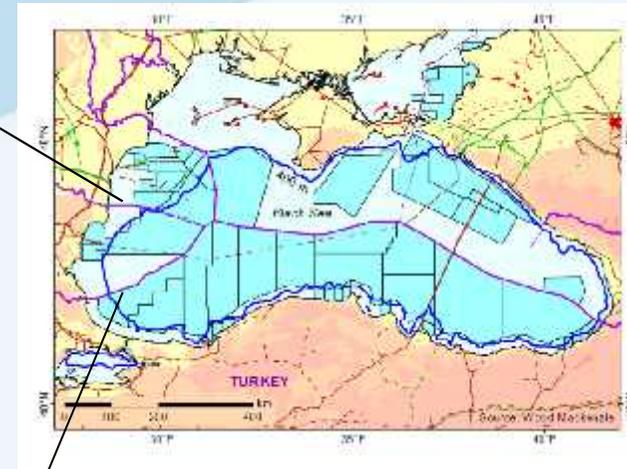
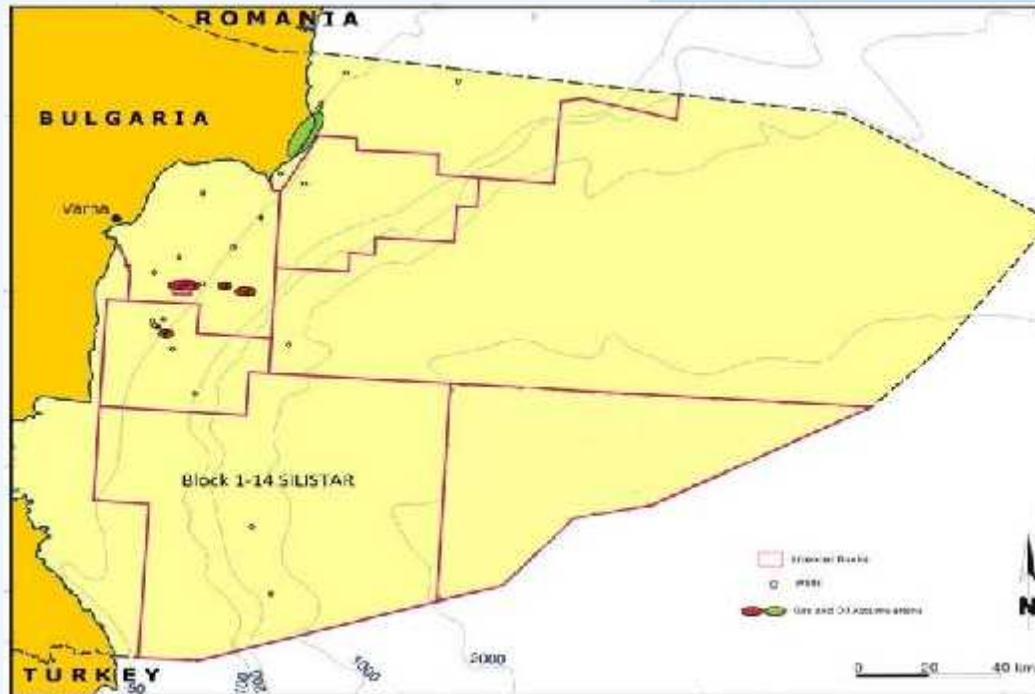
# Potential Sources of Production Growth from Iran



Upstream investment is set to double by 2020 while foreign involvement could provide upside

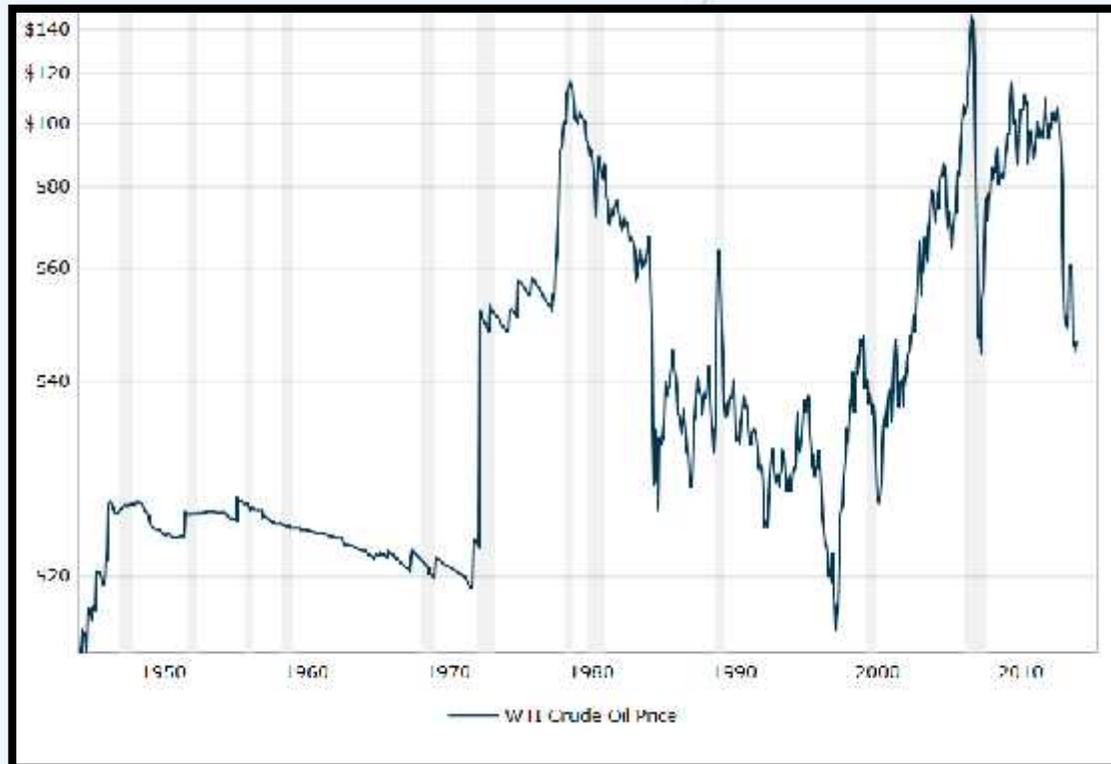


# Black Sea



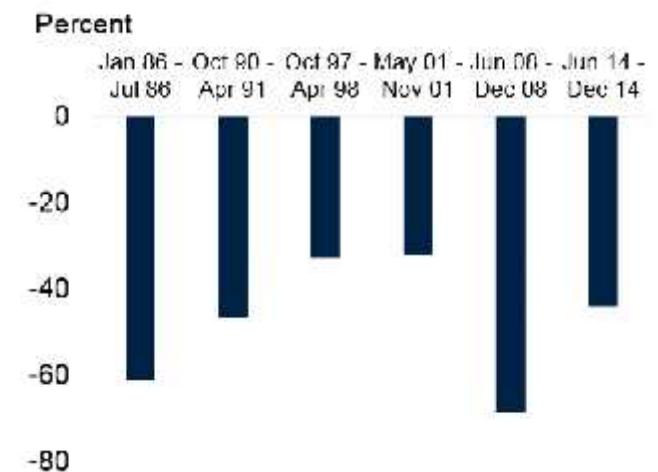
"Shell Exploration and Production (LIX) B.V." has been elected the holder of permit for deep-water prospecting and exploration of oil and natural gas in Blocks "1-14 Silistar" in the Black Sea, September 29, 2015

# Crude Oil Price History Chart



Sharply reducing capital expenditures will have to be laying the seeds for the next bull market that industry did the same during 1990s, eventually generating a price rally that lasted from 2003 to 2007

## C. Magnitude of significant oil price drops<sup>3</sup>



# Impacts on Turkish E&P Sector



Increasing exploration activities in the vicinity of Turkey will impact positively on Turkish E&P Sector

- Turkey has one of the fastest growing gas markets in the European and Middle Eastern regions. It is also becoming an important hub for natural gas supplies from Central Asia, Russia, Middle East, moving into Europe.
- Annual gas demand was at around 48 bcm in 2014 and is projected to grow to around 70 bcm by 2025.
- Natural gas can be stored for an indefinite period of time in natural gas storage facilities for later consumption; therefore, most of the depleted reservoirs that our E&P sectors have will be very respected by natural gas traders. (Importers have a legal liability to store 10% of their gas imports in storage facility)
- Increasing exploration activities around will create investment for local service companies working in E&P sector such as drilling and seismic data acquisition.
- Especially activities in Black sea will attract IOC to come to Turkey because Turkey is the only country to have entirely licensed its sector and having biggest acreage which is around 150,00 km<sup>2</sup>