### **Turkey**

# Emre Özgür, Ministry of Energy and Natural Resources







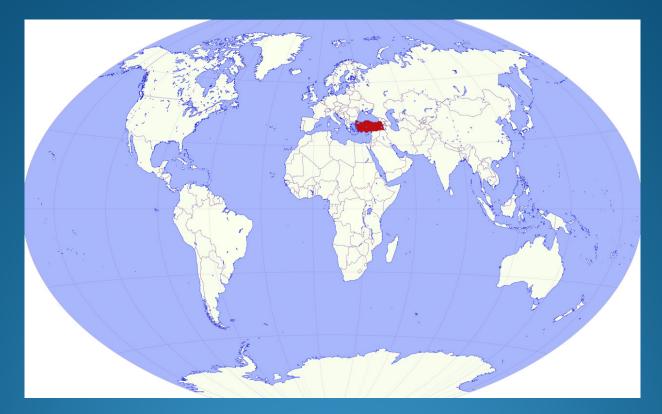
# Methane Emissions Resulting from Upstream Petroleum Activities in Turkey

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GMI Oil and Gas Subcommittee Meeting Geneva, Switzerland 25-26 March 2019

# General Information About Turkey



Capital City: Ankara

Area: 814,578 km<sup>2</sup>

Population: 80 million

Energy Consumption: 135 million toe

#### Upstream Petroleum Sector in Turkey



18 million barrel crude oil production (annual) 0,4 billion m<sup>3</sup> (1,400 million scf) natural gas production (annual) <sub>4</sub>

#### Characteristics of Turkish Crude Oils

Black Oil Type

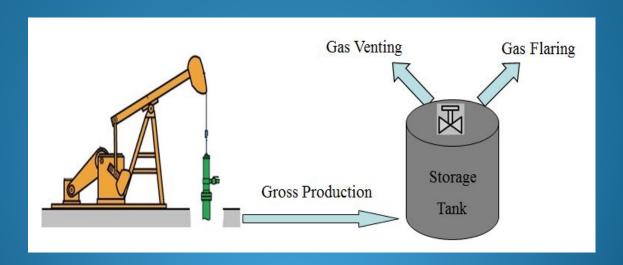
Low gas content



Weighted Average Gas/Oil Ratio (GOR): 70 scf/bbl

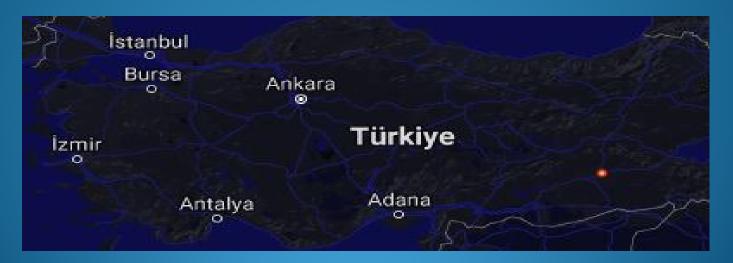
### Methane Emission

- Associated gas is processed through venting at storage tanks in several of the fields with low gas content and is flared at most of the fields
- Flared Methane Amount ≈ 33 million m³ (1.1 billion scf) annually resulting from associated gas
- Emitted Methane Amount ≈ 3 million m³ (o.1 billion scf) annually resulting from associated gas



#### **Evaluations**

- Low greenhouse gas emissions based on the oil & gas sector (upstream) activities in Turkey
- The estimated flared methane amount shows similarity to the results (26 million m³) of the satellite data of "World Bank" (NOAA/GGFR, 2017)





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### Thank you

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