

Middle East Mappack *(with Hydrocarbon Systems, Expanded Iraq, and with Egypt-Libya)*

Representative lithologic columns of most major basins; converted to GTS2016 age model (July 2016)

Egypt-Arabia-Iraq-Syria-Iran regions -- Stratigraphic nomenclature, calibration to international stages, regional sequences and main generalized facies are mainly from **Middle East Geological Timescale 2008** by Al-Husseini, *GeoArabia [Journal of Middle East Petroleum Geosciences]* v 13, no. 4, with lithostratigraphy descriptions enhanced from regional lexicons and other publications.

Middle East Tectonic History

Major Middle East Tectonic Events

Libya

Tripolitania and Sirte Basin
Fezzan Basin
Cyrenaica Basin

Chart derived from: USGS Correlation Chart and Columnar Section for Rocks in Libya, 1963. Descriptions from: Hallet, Don: *Petroleum Geology of Libya*, 2002.

Egypt

Basic Egyptian Stratigraphy Overview
Egypt Gulf of Suez
Egypt Gulf of Suez Lithostrat
Egypt Gulf of Suez Sequences

Saudi Arabia

NW Saudi Arabia
Red Sea (Saudi Arabia)
Red Sea Sequences
Red Sea Basin (West Saudi Arabia) Petroleum Systems: *Source/ reservoir/ seal columns*
Saudi Arabia Outcrop
Saudi Arabia Outcrop Sequences
Saudi Arabia Subsurface
Saudi Arabia Subsurface Sequences
Saudi Arabia Petroleum Systems *Source/ reservoir/ seal columns*

Bahrain

Bahrain Lithostrat
Bahrain Sequences

Qatar

Qatar Lithostrat
Qatar Sequences

Kuwait

Kuwait Lithostrat
Kuwait Sequences
Kuwait Petroleum Systems *Source/ reservoir/ seal columns*

Iraq

S Iraq
Southern Iraq Petroleum Systems
Central Iraq
Central and Southern Iraq Petroleum Systems
W Iraq
N Iraq
North Iraq Petroleum Systems *Source/ reservoir/ seal columns*
Kirkuk region (northeast)
Iraq 1 (northeast; Kirkuk region)

Data for Iraq compiled from Jassim, S.Z. et al., "Geology of Iraq", 2006 (their Figures 8-1, 9-1, 10-1, 11-1, 12-1, 13-1, and 14-2); except "Iraq 1/2 of Kirkuk region is from Middle East Geological Timescale 2008 by Al-Husseini, GeoArabia

	<i>NE Iraq 1 Hydrocarbons NE Iraq 1 lithostrat</i>	
Iraq 2 (northeast; Kirkuk region)		
	<i>NE Iraq 2 Hydrocarbons NE Iraq 2 lithostrat</i>	
NE Iraq		
<i>NE Iraq (left side) / (right side)</i>		
Dyala Region (NE Iraq) Petroleum Systems	<i>Source/ reservoir/ seal columns</i>	
Iraq Sequences and Events		
Iraq Sequences		
Iraq Regional Maximum Flooding Surfaces		
Iraq Sea Level		
Syria		
Syria Lithostrat		
SE Syria		From S. Z. Jassim and J. C. Goff, Geology of Iraq, 2006,
Syria Sequences		
Syria Petroleum Systems	<i>Source/ reservoir/ seal columns</i>	
Jordan (northeast)	<i>Lithostratigraphy</i>	From S. Z. Jassim and J. C. Goff, Geology of Iraq, 2006,
NE Jordan lithostratigraphy		
Rutba Uplift (inter-regional)		"Rutba Uplift Developed in the area now representing W Iraq, NE Jordan, E Syria and NW Saudi Arabia." From S. Z. Jassim and J. C. Goff, Geology of Iraq, 2006,
Turkey (southeast)		
SE Turkey lithostrat		
Southeast Turkey Petroleum Systems	<i>Source/ reservoir/ seal columns</i>	
Iran		
Zagros sedimentary basin (general)		
Iran Petroleum Systems		
<i>Iranian Oil Fields Petroleum Systems</i>	<i>Source/ reservoir/ seal columns</i>	
<i>SW-NW Iran Petroleum Systems</i>	<i>Source/ reservoir/ seal columns</i>	
<i>Fars Province Iran Petroleum Systems</i>	<i>Source/ reservoir/ seal columns</i>	
Iran East		
Zagros suture Zones		Data compiled from Fig. 16-3 in Jassim, S.Z. et al., "Geology of Iraq", 2006
High Folded Zone	<i>High Folded Zone LEFT side High Folded Zone RIGHT side</i>	
Balambo-Tanjero Zone		
Balambo Tanjero Zone Tectonic Development		
Qulqula-Khwakurk Zone		
Penjween-Walash Zone	<i>Penjween-Walash Zone MIDDLE Penjween-Walash Zone RIGHT side</i>	
Shalair Zone		
Zagros Paleozoic		
Central Iran Paleozoic		
Alborz Paleozoic (NW Iran)		
Iran Sequences		
United Arab Emirates		
United Arab Emirates Lithostrat		
United Arab Emirates Sequences		
Oman		
Oman Subsurface		
Oman Subsurface Sequences		
Oman Outcrop		

Oman Outcrop Sequences
Oman East