

Coastal Plain and Offshore Assessment Unit 71830101



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-  Gulf of Guinea Geologic Province 7183

USGS PROVINCE: Gulf of Guinea (7183)

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TOTAL PETROLEUM SYSTEM: Cretaceous Composite (718301)

ASSESSMENT UNIT: Coastal Plain and Offshore (71830101)

DESCRIPTION: Mainly Cretaceous reservoirs in rifted fault blocks and ponded turbidites in the basins between the blocks.

SOURCE ROCKS: Expected to be primarily Albian, Cenomanian, and Turonian marine/terrestrial shales. The TOCs are fair to good (0.5 to 3.7 percent).

MATURATION: Possibly starting in Late Cretaceous for Albian source rocks; in Late Oligocene for Cenomanian-Turonian source rocks.

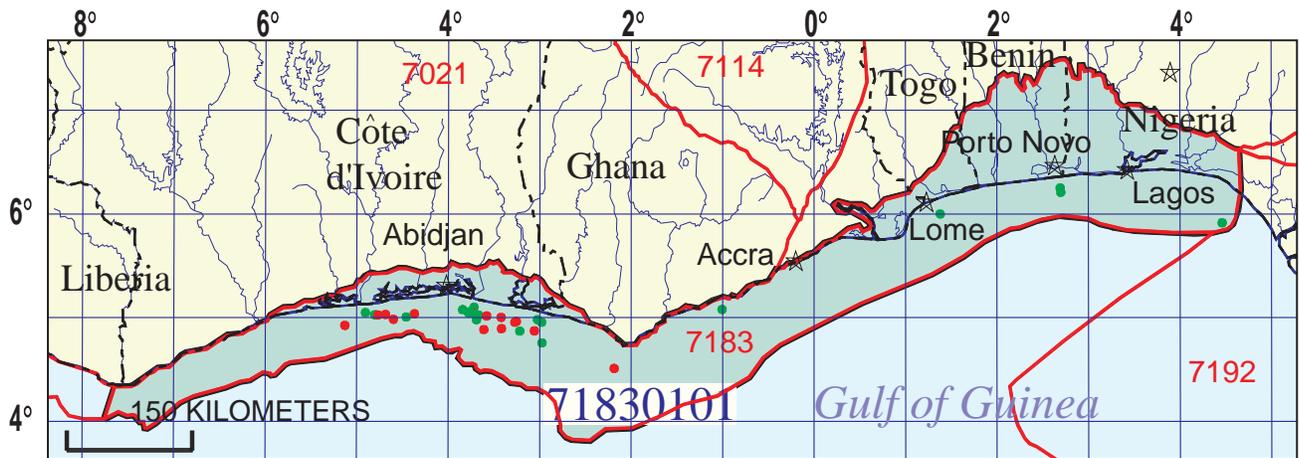
MIGRATION: Either directly from adjacent source rocks or up faults from deeper sources.

RESERVOIR ROCKS: Mostly Cretaceous sandstones; some minor production from Devonian sandstones.

TRAPS AND SEALS: Structural traps related to fault-block geometry and stratigraphic traps related to turbidite geometry; seals would be overlying shales.

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- Dumestre, M.A., 1985, Northern Gulf of Guinea shows promise: *Oil and Gas Journal*, v. 83, no. 18, p. 154, 156, 160, 165.
- Kesse, G.O., 1986, Oil and gas possibilities on- and offshore Ghana, *in* Halbouty, M.T., ed., *Future petroleum provinces of the world*, Proceedings of the Wallace E. Pratt Memorial Conference, Phoenix, December 1984: American Association of Petroleum Geologists *Memoir* 40, p. 427-444.
- Kulke, H., 1995, Côte d'Ivoire (former Ivory Coast), Ghana and Togo, *in* Kulke, H., ed., *Regional petroleum geology of the world, part II, Africa, America, Australia, and Antarctica*: Berlin, Gebrüder Borntraeger, p. 129-135.



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EXPLANATION

-  Hydrography
-  Shoreline
- 7183**  Geologic province code and boundary
-  Country boundary
-  Gas field centerpoint
-  Oil field centerpoint
- 71830101**  Assessment unit code and boundary

Projection: Robinson. Central meridian: 0

AVERAGE RATIOS FOR UNDISCOVERED FIELDS, TO ASSESS COPRODUCTS

(uncertainty of fixed but unknown values)

<u>Oil Fields:</u>	minimum	median	maximum
Gas/oil ratio (cfg/bo).....	2200	4400	6600
NGL/gas ratio (bnl/mmcf).....	17	33	50
<u>Gas fields:</u>	minimum	median	maximum
Liquids/gas ratio (bnl/mmcf).....	12	24	36
Oil/gas ratio (bo/mmcf).....			

SELECTED ANCILLARY DATA FOR UNDISCOVERED FIELDS

(variations in the properties of undiscovered fields)

<u>Oil Fields:</u>	minimum	median	maximum
API gravity (degrees).....	15	37	50
Sulfur content of oil (%).....	0.1	0.2	0.5
Drilling Depth (m)	1000	2700	4000
Depth (m) of water (if applicable).....	0	100	2000
<u>Gas Fields:</u>	minimum	median	maximum
Inert gas content (%).....			
CO ₂ content (%).....			
Hydrogen-sulfide content (%).....			
Drilling Depth (m).....	1000	3000	5000
Depth (m) of water (if applicable).....	0	100	2000

**ALLOCATION OF UNDISCOVERED RESOURCES IN THE ASSESSMENT UNIT
TO COUNTRIES OR OTHER LAND PARCELS** (uncertainty of fixed but unknown values)

1. Côte d'Ivoire represents 37 areal % of the total assessment unit

<u>Oil in Oil Fields:</u>	minimum	median	maximum
Richness factor (unitless multiplier):.....	_____	_____	_____
Volume % in parcel (areal % x richness factor):...	_____	60	_____
Portion of volume % that is offshore (0-100%):.....	_____	100	_____
<u>Gas in Gas Fields:</u>	minimum	median	maximum
Richness factor (unitless multiplier):.....	_____	_____	_____
Volume % in parcel (areal % x richness factor):...	_____	60	_____
Portion of volume % that is offshore (0-100%):.....	_____	100	_____

2. Ghana represents 29 areal % of the total assessment unit

<u>Oil in Oil Fields:</u>	minimum	median	maximum
Richness factor (unitless multiplier):.....	_____	_____	_____
Volume % in parcel (areal % x richness factor):...	_____	20	_____
Portion of volume % that is offshore (0-100%):.....	_____	100	_____
<u>Gas in Gas Fields:</u>	minimum	median	maximum
Richness factor (unitless multiplier):.....	_____	_____	_____
Volume % in parcel (areal % x richness factor):...	_____	20	_____
Portion of volume % that is offshore (0-100%):.....	_____	100	_____

3. Togo represents 6 areal % of the total assessment unit

<u>Oil in Oil Fields:</u>	minimum	median	maximum
Richness factor (unitless multiplier):.....	_____	_____	_____
Volume % in parcel (areal % x richness factor):...	_____	3	_____
Portion of volume % that is offshore (0-100%):.....	_____	100	_____
<u>Gas in Gas Fields:</u>	minimum	median	maximum
Richness factor (unitless multiplier):.....	_____	_____	_____
Volume % in parcel (areal % x richness factor):...	_____	3	_____
Portion of volume % that is offshore (0-100%):.....	_____	100	_____

4. Benin represents 9 areal % of the total assessment unit

<u>Oil in Oil Fields:</u>	minimum	median	maximum
Richness factor (unitless multiplier):.....	_____	_____	_____
Volume % in parcel (areal % x richness factor):...	_____	7	_____
Portion of volume % that is offshore (0-100%):.....	_____	100	_____
<u>Gas in Gas Fields:</u>	minimum	median	maximum
Richness factor (unitless multiplier):.....	_____	_____	_____
Volume % in parcel (areal % x richness factor):...	_____	7	_____
Portion of volume % that is offshore (0-100%):.....	_____	100	_____

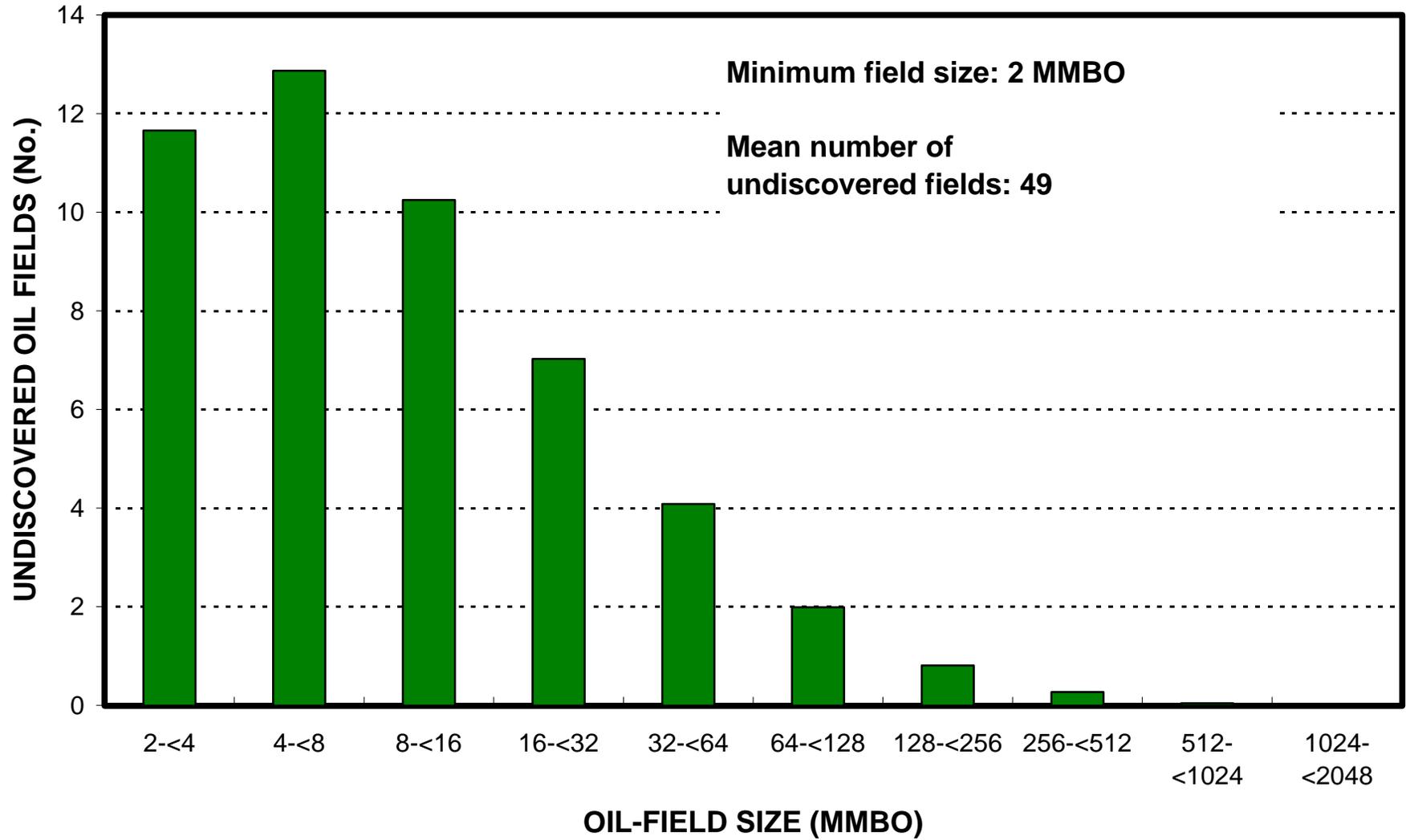
5. Nigeria represents 19 areal % of the total assessment unit

<u>Oil in Oil Fields:</u>	minimum	median	maximum
Richness factor (unitless multiplier):.....	_____	_____	_____
Volume % in parcel (areal % x richness factor):...	_____	10	_____
Portion of volume % that is offshore (0-100%).....	_____	100	_____

<u>Gas in Gas Fields:</u>	minimum	median	maximum
Richness factor (unitless multiplier):.....	_____	_____	_____
Volume % in parcel (areal % x richness factor):...	_____	10	_____
Portion of volume % that is offshore (0-100%).....	_____	100	_____

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Undiscovered Field-Size Distribution



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Undiscovered Field-Size Distribution

