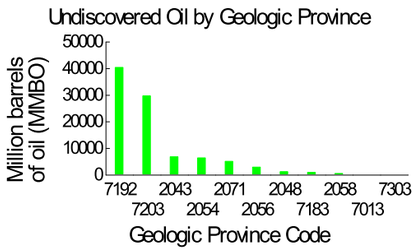
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

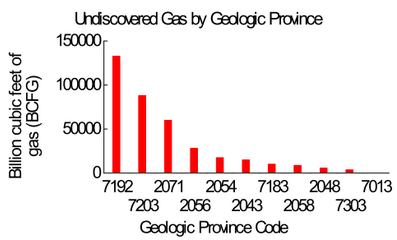
OPEN FILE REPORT 97-470A, VERSION 2.0

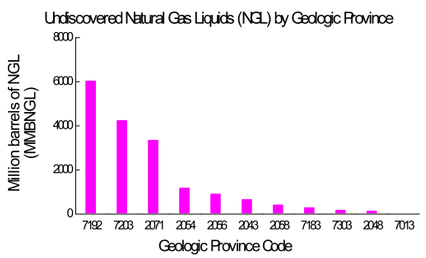
This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards or with the International Stratigraphic Code. Any use of trade names is for descriptive purposes only and does not imply endorsement by the U.S. government.

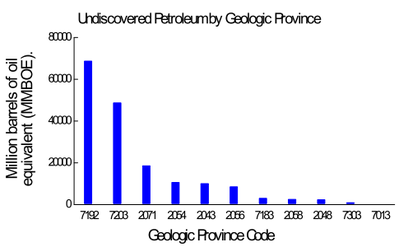
EXPLANATION

- Center of Oil or Gas Field
- Lattitude-Longitude Grid
- Geologic Province Outline
- Provinces assessed by the USGS World Petroleum Assessment 2000
- Country Boundary









Projection - Mercator
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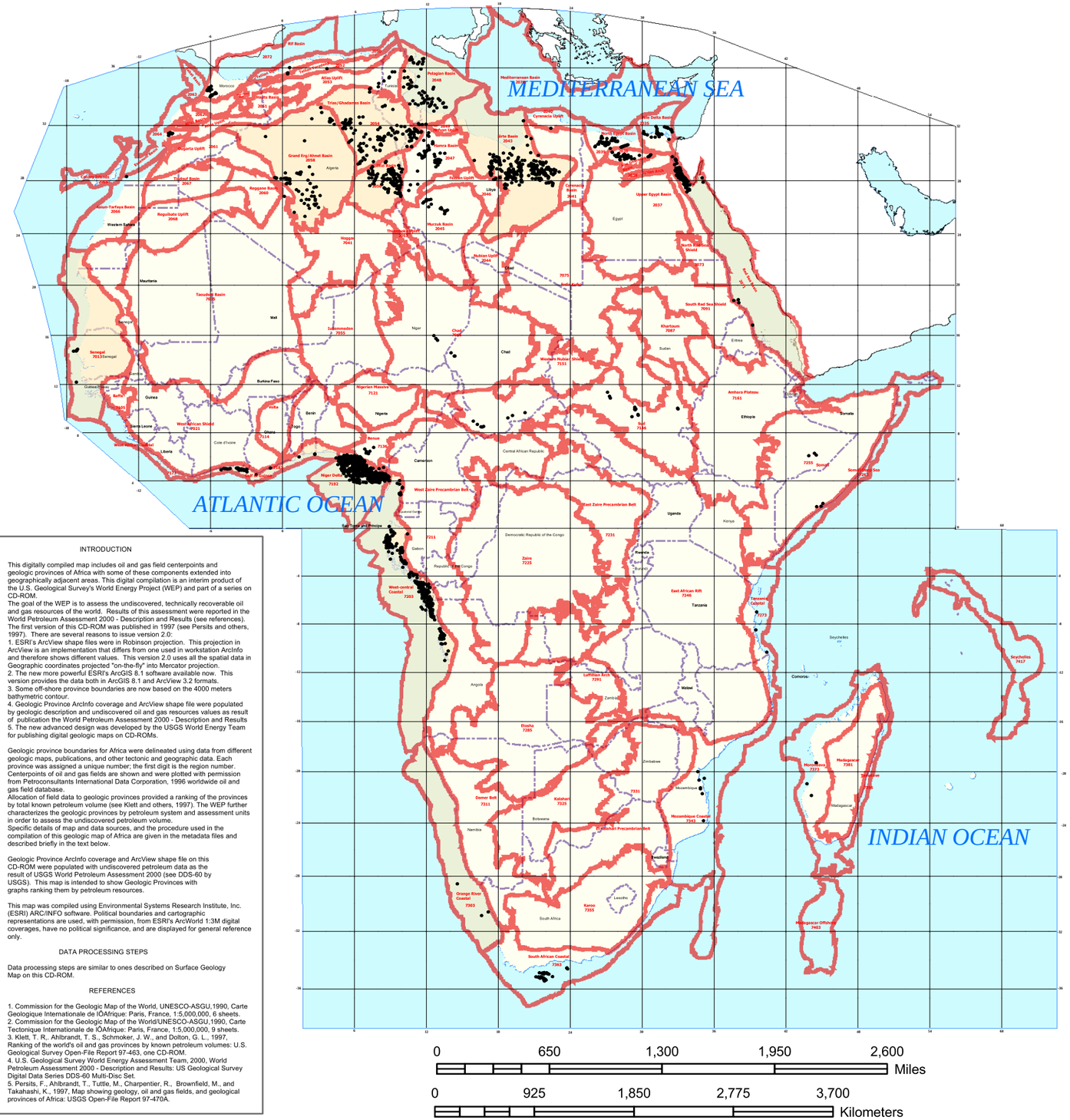
False Northing: 0.000000
Central Meridian: 25.000000
Standard Parallel: 0.000000



INTRODUCTION

This digitally compiled map includes oil and gas field centerpoints and geologic provinces of Africa with some of these components extended into geographically adjacent areas. This digital compilation is an interim product of the U.S. Geological Survey's World Energy Project (WEP) and part of a series on CD-ROM.
The goal of the WEP is to assess the undiscovered, technically recoverable oil and gas resources of the world. Results of this assessment were reported in the World Petroleum Assessment 2000 - Description and Results (see references). The first version of this CD-ROM was published in 1997 (see Persits and others, 1997). There are several reasons to issue version 2.0:
1. ESRI's ArcView shape files were in Robinson projection. This projection in ArcView is an implementation that differs from one used in workstation ArcInfo and therefore shows different values. This version 2.0 uses all the spatial data in Geographic coordinates projected "on-the-fly" into Mercator projection.
2. The new more powerful ESRI's ArcGIS 8.1 software available now. This version provides the data both in ArcGIS 8.1 and ArcView 3.2 formats.
3. Some off-shore province boundaries are now based on the 4000 meters bathymetric contour.
4. Geologic Province ArcInfo coverage and ArcView shape file were populated by geologic description and undiscovered oil and gas resources values as result of publication the World Petroleum Assessment 2000 - Description and Results
5. The new advanced design was developed by the USGS World Energy Team for publishing digital geologic maps on CD-ROMs.

Geologic province boundaries for Africa were delineated using data from different geologic maps, publications, and other tectonic and geographic data. Each province was assigned a unique number; the first digit is the region number. Centerpoints of oil and gas fields are shown and were plotted with permission from Petroconsultants International Data Corporation, 1996 worldwide oil and gas field database.
Allocation of field data to geologic provinces provided a ranking of the provinces by total known petroleum volume (see Klett and others, 1997). The WEP further characterizes the geologic provinces by petroleum system and assessment units in order to assess the undiscovered petroleum volume.
Specific details of map and data sources, and the procedure used in the compilation of this geologic map of Africa are given in the metadata files and described briefly in the text below.

Geologic Province ArcInfo coverage and ArcView shape file on this CD-ROM were populated with undiscovered petroleum data as the result of USGS World Petroleum Assessment 2000 (see DDS-60 by USGS). This map is intended to show Geologic Provinces with graphs ranking them by petroleum resources.

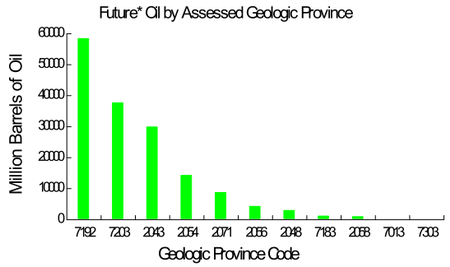
This map was compiled using Environmental Systems Research Institute, Inc. (ESRI) ARC/INFO software. Political boundaries and cartographic representations are used, with permission, from ESRI's ArcWorld 1:3M digital coverages, have no political significance, and are displayed for general reference only.

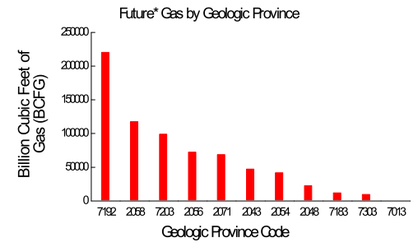
DATA PROCESSING STEPS

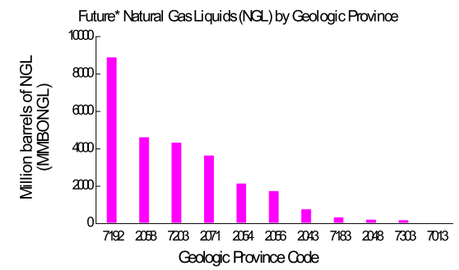
Data processing steps are similar to ones described on Surface Geology Map on this CD-ROM.

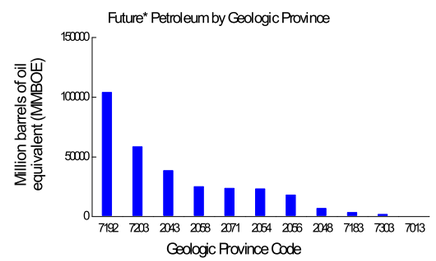
REFERENCES

1. Commission for the Geologic Map of the World, UNESCO-ASGU,1990, Carte Geologique Internationale de lÒAfrique: Paris, France, 1:5,000,000, 6 sheets.
2. Commission for the Geologic Map of the World/UNESCO-ASGU,1990, Carte Tectonique Internationale de lÒAfrique: Paris, France, 1:5,000,000, 9 sheets.
3. Klett, T. R., Ahlbrandt, T. S., Schmoker, J. W., and Dolton, G. L., 1997, Ranking of the world's oil and gas provinces by known petroleum volumes: U.S. Geological Survey Open-File Report 97-463, one CD-ROM.
4. U.S. Geological Survey World Energy Assessment Team, 2000, World Petroleum Assessment 2000 - Description and Results: US Geological Survey Digital Data Series DDS-60 Multi-Disc Set.
5. Persits, F., Ahlbrandt, T., Tuttle, M., Charpentier, R., Brownfield, M., and Takahashi, K., 1997, Map showing geology, oil and gas fields, and geological provinces of Africa: USGS Open-File Report 97-470A.









* Future = Remaining + Undiscovered

MAP SHOWING OIL AND GAS FIELDS AND GEOLOGIC PROVINCES OF AFRICA

Digitally compiled by Feliks M. Persits, Thomas S. Ahlbrandt, Michele L. Tuttle, Ronald R. Charpentier, Michael E. Brownfield, and Kenneth I. Takahashi

2001