Romania Ploiesti Zone
Assessment Unit 40610202

Geologic Summary
Detailed map of this assessment unit

Exploration/Discovery-History Data
Plots of Known Field Sizes
Plots of Grown Resources
Tables

Assessment Input Data

Assessment Results
Assessment Unit Summary
Detailed Assessment Results
Undiscovered Field-Size Distributions

Romania Ploiesti Zone 40610202
Carpathian-Balkanian Basin Geologic Province 4061
DESCRIPTION: This unit, also known as the zone of diapir folds, lies between the Rimnicu Sarat and Dinibovita valleys and between the folds of the inner Carpathians and the external flanks of the foredeep. Due to depletion of shallow resources, deeper sub-salt targets to a depth of 6 km must be addressed.

SOURCE ROCKS: The Oligocene dysodile schist is considered the main source rock and the Neogene blackish marls and clays are thought to make a large contribution. The TOC values for the schists are as high as 29.8 percent.

MATURATION: These rocks are now at their maximum thermal maturation. Expelling of hydrocarbons probably began in Late Sarmatian-Pliocene time.

MIGRATION: Migration is along normal fault lines and those related to salt diapirism; also vertically into overlying sandstone reservoirs and laterally into the same.

RESERVOIR ROCKS: Oligocene and Middle Miocene sands and sandstones. These have porosity ranging from 14 to 25 percent and permeability from 10 to 500 mD. At least 14 fields exceed 4 km in depth, and several are deeper than 7 km.

TRAPS AND SEALS: Trap types are normal and faulted anticlines related to salt diapirism, pinch-outs and unconformities. Average size of structure is 6 to 30 km².

REFERENCES:
Romania Ploiesti Zone
Assessment Unit - 40610202

EXPLANATION

- Hydrography
- Shoreline
- Geologic province code and boundary
- Country boundary
  - Gas field centerpoint
  - Oil field centerpoint

Assessment unit code and boundary

Projection: Robinson. Central meridian: 0
SEVENTH APPROXIMATION
NEW MILLENNIUM WORLD PETROLEUM ASSESSMENT
DATA FORM FOR CONVENTIONAL ASSESSMENT UNITS

Date:………………………….. 5/20/99
Assessment Geologist:…….. M.J. Pawlewicz
Region:………………………… Europe
Province:……………………… Carpathian-Balkanian Basin
Priority or Boutique……….. Priority
Total Petroleum System:…….. Dysodile Schist-Tertiary
Assessment Unit:……………… Romania Ploiesti Zone

* Notes from Assessor Lower 48 growth factor.

CHARACTERISTICS OF ASSESSMENT UNIT

Oil (<20,000 cfg/bo overall) or Gas (>20,000 cfg/bo overall):… Oil

What is the minimum field size?………. 1 mmboe grown (≥1mmboe)
(the smallest field that has potential to be added to reserves in the next 30 years)

Number of discovered fields exceeding minimum size:………… Oil: 26 Gas: 1
Established (>13 fields) X Frontier (1-13 fields) Hypothetical (no fields)
Median size (grown) of discovered oil fields (mmboe):
1st 3rd 22 2nd 3rd 33 3rd 3rd 15
Median size (grown) of discovered gas fields (bcfg):
1st 3rd 205 2nd 3rd ______ 3rd 3rd ______

Assessment-Unit Probabilities:

Attribute Probability of occurrence (0-1.0)
1. CHARGE: Adequate petroleum charge for an undiscovered field ≥ minimum size………………… 1.0
2. ROCKS: Adequate reservoirs, traps, and seals for an undiscovered field ≥ minimum size…… 1.0
3. TIMING OF GEOLOGIC EVENTS: Favorable timing for an undiscovered field ≥ minimum size 1.0

Assessment-Unit GEOLOGIC Probability (Product of 1, 2, and 3):…………………………..……. 1.0

4. ACCESSIBILITY: Adequate location to allow exploration for an undiscovered field
≥ minimum size………………………………………………………………………………… 1.0

UNDISCOVERED FIELDS

Number of Undiscovered Fields: How many undiscovered fields exist that are ≥ minimum size?:
(uncertainty of fixed but unknown values)

Oil fields:…………………………….min. no. (>0) 3 median no. 13 max no. 35
Gas fields:…………………………….min. no. (>0) 1 median no. 3 max no. 5

Size of Undiscovered Fields: What are the anticipated sizes (grown) of the above fields?:
(variations in the sizes of undiscovered fields)

Oil in oil fields (mmbo)……………………min. size 1 median size 10 max. size 400
Gas in gas fields (bcfg)……………………min. size 6 median size 30 max. size 200
Assessment Unit (name, no.)  
Romania Ploiesti Zone, 40610202

**AVERAGE RATIOS FOR UNDISCOVERED FIELDS, TO ASSESS COPRODUCTS**  
(uncertainty of fixed but unknown values)

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<thead>
<tr>
<th></th>
<th>minimum</th>
<th>median</th>
<th>maximum</th>
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</thead>
<tbody>
<tr>
<td><strong>Oil Fields:</strong></td>
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<tr>
<td>Gas/oil ratio (cfg/bo)</td>
<td>600</td>
<td>1200</td>
<td>1800</td>
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<tr>
<td>NGL/gas ratio (bngl/mmcf)</td>
<td>15</td>
<td>30</td>
<td>45</td>
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<tr>
<td><strong>Gas fields:</strong></td>
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<tr>
<td>Liquids/gas ratio (bngl/mmcf)</td>
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<td>40</td>
<td>60</td>
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<tr>
<td>Oil/gas ratio (bo/mmcf)</td>
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**SELECTED ANCILLARY DATA FOR UNDISCOVERED FIELDS**  
(variations in the properties of undiscovered fields)

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<tbody>
<tr>
<td><strong>Oil Fields:</strong></td>
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<tr>
<td>API gravity (degrees)</td>
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<td>35</td>
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<tr>
<td>Sulfur content of oil (%)</td>
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<tr>
<td>Drilling Depth (m)</td>
<td>500</td>
<td>3000</td>
<td>6000</td>
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<tr>
<td>Depth (m) of water (if applicable)</td>
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<td><strong>Gas Fields:</strong></td>
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<tr>
<td>Inert gas content (%)</td>
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<tr>
<td>CO₂ content (%)</td>
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<td>Hydrogen-sulfide content (%)</td>
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<tr>
<td><strong>Oil in Oil Fields:</strong></td>
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<td>Richness factor (unitless multiplier):</td>
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<tr>
<td>Portion of volume % that is offshore (0-100%):</td>
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<td><strong>Gas in Gas Fields:</strong></td>
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<td>Richness factor (unitless multiplier):</td>
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<td>0</td>
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1. Romania represents 100 areal % of the total assessment unit

ALLOCATION OF UNDISCOVERED RESOURCES IN THE ASSESSMENT UNIT TO COUNTRIES OR OTHER LAND PARCELS (uncertainty of fixed but unknown values)
Romania Ploiesti Zone, AU 40610202
Undiscovered Field-Size Distribution

Minimum field size: 1 MMBO
Mean number of undiscovered fields: 14.2
Romania Ploiesti Zone, AU 40610202
Undiscovered Field-Size Distribution

Minimum field size: 6 BCFG
Mean number of undiscovered fields: 3