Formations of Interest

- Maui Field, New Zealand
- Fault maps are for this area
- Formations of Interest

Major uplift

Trap Terminology

- FIGURE 7.1 Cross-section through a simple anticlinal trap

- Gas-oil contact
- Oil-water
- Spill point
- Water
- Edge water
- Oil zone

Maui Field, New Zealand
Map View of Anticlinal Trap

Trap Classification

Crude Classification of Hydrocarbon Traps

I. Structural traps—caused by tectonic processes
   - Fold traps
     - Compressional anticlines
   - Fault traps
     - Diapiric traps—caused by flow due to density contrasts between accretionary wedges
     - Salt diapirs
     - Mud diapirs

II. Stratigraphic traps—caused by depositional morphology or diagenesis
    (For detailed classification see Table 7.3.)
    - Hydrodynamic traps—caused by water flow
    - Combination traps—caused by a combination of two or more of the above processes

Stratigraphic Oil Traps

D. Sandstone lenses
E. Sandstone pinchout
F. Unconformity
G. Reef (a small "patch" reef)

Structural Traps and Plate Tectonics

- Plate Boundaries
  - Divergent
  - Convergent
  - Transform
- Structural Environments
  - Extensional
  - Compressional
  - Strike-slip
  - Passive (Salt)

Types of fault
Figure 18 — Relationships between fault geometry and crustal displacement field, demonstrating that shallow-dipping faults, whether rotational or not, require substantial horizontal extension (c), and vice versa.
Map of the Murre Field Newfoundland

Compressional Traps

Traps in Strike-Slip settings
Positive Flower Structures

Hydrocarbon Trap Types

3D Seismic Image
Namur Ss. (Slice at 1700 m depth)

Fault Network (ant tracking algorithm)

Patchawarra Fm (Slice at 2500 m depth)

Fault Network (ant tracking algorithm)