

WHY IT IS DIFFICULT TO RECOVER OIL



- Oil and gas lives in a complex, three-dimensional network which is difficult to map.
- Fluid is pushed down into a blocked channel from which it cannot return.
- The material to be moved in the network is generally far from the point of access.
- Fluid sticks to rock and is hard to remove.
- Other substances added to the oil cause it to become less mobile.
- In a mixed-phase system, some substances will flow preferentially through networks, preventing flow of other substances.
- Oil is composed of different molecular fractions which have different mobility properties and precipitation conditions.
- For small pathways, the driving pressure is not great enough to push liquid through.
- Small solid particles block channels and prevent the flow of fluid.
- Different parts of a network are physically disconnected from one another.
- Extraction of material makes pathways close, preventing further extraction.