PLANETE ENERGIES

Transcript Vidéo – Fossil Fuel Exploration and Refining in 2 Minutes

EXPLORATION = the search for hydrocarbon deposits such as oil.

Phase 1: subsurface ultrasound

Seismic waves are sent underground. They are generated using truck-mounted vibrators or air guns in offshore areas.

Phase 2: exploratory drilling

A borehole is drilled and filled with drilling mud. The mud brings hydrocarbon samples to the surface that confirm whether or not there is an oil deposit.

Once a deposit has been identified, fossil fuel extraction can begin.

REFINING = an essential step in converting fossil fuels into a variety of finished products.

There are 3 key steps at an oil refinery:

Separation:

The oil is heated and evaporated using a distillation column. (Crude oil/Distillation furnace/Distillation column)

The molecules condense into liquids or remain in gas form. They are captured by panels and then serve a variety of purposes.

(+ légendes - gas/petrochemicals/naphtha/jet fuel/diesel/heavy fuel oil/asphalt)

Conversion:

Liquids are converted into natural gas, gasoline and diesel using a catalyst, a substance that speeds up a chemical reaction.

Purification:

Molecules that are corrosive or harmful for the environment, especially sulfur, are removed or significantly reduced.

Summary:

EXPLORATION = the search for fossil fuel deposits./Phase 1: subsurface ultrasound/Phase 2: exploratory drilling

REFINING = an essential step in converting fossil fuels into a variety of finished products.

3 key refining steps: Separation/Conversion/Purification