Video

Exploration – Refinery – Drilling – R&D – Renewable – GTL

Exploration

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Formation of Reservoir Rock – Oil&Gas Videos

The video explains all the key elements and factors behind the formation of conventional petroleum reservoirs and how oil and gas are generated during long and complex geological processes lasting several millions of year

Seismic Image – Total – Oresome Resources – Energy Tomorrow – OMV

These videos show the application of seismic technology for the discovery of oil and gas reservoirs. It explains the principles of seismic reflection which involves transmitting sound waves beneath the surface. The reflected waves return to the surface and are recorded, producing an image which will be properly interpreted by geophysicists.

3D Seismic – GeOphysicsrocks

This video simply and clearly explains the application of one of the most powerful geophysical technologies: 3D Seismic. Oil companies rely on this relevant technology to create 3D images thousands of feet below the subsurface to try to locate new potential hydrocarbon targets.

Refinery

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Refining oil and Gas -Total

In this video it is shown how crude oil is refined and transformed into different products. Crude oil needs to be processed before it can be used. Three major types of operation are performed to refine the oil into finished products: separation, conversion and treating

Petrochemistry – Total

This video shows the relevance of Petrochemistry – a branch of chemistry that studies the transformation of crude oil (petroleum) and natural gas into useful products or raw materials. These petrochemicals have become an essential part of the chemical industry today. Petrochemicals are derived from petroleum – primarily naphtha and natural gas

The oil and gas chain – Total -Mechanicalengg4u

These videos include all the phases and operations involved during the long and complex oil and gas industry chain: from exploration to production, from transportation to refining and end products distribution.

LNG Chain -Total

This video shows the technology behind the LNG chain. The production chain of Liquefied Natural Gas (LNG) consists of four main phases: Gas extraction and production, Liquefaction, Transportation, Regasification. Once extracted, gas is cleaned of impurities and cooled to the liquid state at a liquefaction plant. It is later loaded into the LNG carriers for transport. Once at a regasification terminal, LNG is regasified and sent to the national distribution network to reach the end-use consumer.

Drilling

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How a Drilling Operation is Carried out – Total

This video shows what happens after a potential deposit has been identified. Exploration drilling is carried out and a drill bit bores 2,000 to 4,000 meters or even deeper into the Earth's subsurface. Drilling mud, core samples and logging (physical measurements) are examined to get a better picture of the drilled geological formations.

Drilling for Oil and Gas – OMV

This film explores the dynamic world of these complex disciplines – from the architecture of a rig through to different offshore platforms. The video takes in account the technology used and the difference between drilling on land or in water.

Chesapeake Energy Horizontal Drilling Method – Emmanuel Owona

The video explains how horizontal drilling allows for the production of oil and natural gas in a safe, environmentally responsible manner. Horizontal drilling is generally used for tight formation and thin layers production.

Cementing & Casing – SledgeHammer Oil Tools Pvt.Ltd

The video shows the importance of well casing and cementing operations. Cementing is one of the most critical steps in the drilling and completion of oil or gas wells. Casing operations occur periodically throughout the drilling process starting with the surface casing, intermediate casing, and ending with production string which takes place during well completion

Animation of hydraulic fracturing – MarathonOilCorp

This video introduces the proven techniques used to extract resources from shale formations in a safe, environmentally

responsible manner. Safe, cost-effective refinements in hydraulic fracturing (also known as fracking), horizontal drilling and other innovations now allow for the production of oil and natural gas from tight shale formations that previously were inaccessible.

3D Drilling Animation – Mud Pumps Circulating Fluid-Stonegraphicdesign

This video introduces the fundamental role of drilling fluids for the safe and efficient drilling of oil and gas wellbores. Drilling fluids, also referred to as drilling mud, are used to facilitate the drilling process by suspending cuttings, controlling pressure, stabilizing exposed rock, providing buoyancy, and cooling and lubricating

R&D

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R&D – Solar Power Concentration

Concentrating Solar Power – U.S. Department of Energy

This video explains what CSP is, how it works, and how systems like parabolic troughs produce renewable power. From towers to dishes to linear mirrors to troughs, concentrating solar power (CSP) technologies reflect and collect solar heat to generate electricity. A single CSP plant can generate enough power for about 90,000 homes.

R&D – Solar Power Concentration

Explanation of Concentrated Solar Power – Eric Layton

In this video, a simple explanation on how Concentrated Solar Power (CSP) works is given. This is the type of solar power that uses thousands of mirrors over hundreds of acres to

reflect sunlight on a tower. This heats up molten salt to over 1,000 degrees Fahrenheit. The heated molten salt then creates steam from water, driving a steam turbine to produce electricity.

R&D – Carbon Capture and Storage

Capturing carbon to Store it Safety Underground – SHELL

This video shows the effective way to tackle a large share of man-made greenhouse gases which contribute to climate change. These gases are produced by industrial plants such as power stations, cement factories, refineries and chemical plants. It is possible to capture CO2 and store it safely underground in depleted oil and gas reservoirs or saline formations, this process is known as carbon capture and storage or CCS.

R&D – Biodiesel from Microalgae

How the Technology Works – Algae to Biofuels – AlgaeTec biofuels

This video explains how oil is extracted from algae and refined into sustainable biofuels. Algae are one of the fuel sources of the future, small aquatic organisms that convert sunlight into energy and store it in the form of oil.

Renewable

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Renewable – Energy Explained

This animation explains the different types of energy such as, fossil fuels, biomass, nuclear and renewables.

Renewable – Virtual Power Plant

Virtual Power Plant (VPP), a new form of energy management

Virtual Power Plants or VPPs are a new energy management

concept that interweaves several energy sources managed by a single control system.

Renewable – Smart Energy System

Smart Energy Systems 100% Renewable Energy at a National Level

Smart Energy to have communication and intelligence management.

GTL

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GTL – Shell Natural Gas

Gas to liquids (GTL)

Shell's gas to liquids (GTL) technology converts natural gas – the cleanest-burning fossil fuel – into high-quality liquid products that would otherwise be made from crude oil. These products include transportation fuels, motor oils and the ingredients for everyday necessities like plastics, detergents and cosmetics. GTL products are colourless and odourless. They contain almost none of the impurities – sulphur, aromatics and nitrogen – that are found in crude oil.

GTL – INFRA XTL Technology

INFRA M100 – Tour to the First Commercially Feasible GTL Plant in Texas

INFRA XTL Technology is an international company that innovated, developed, and commercialized the next generation of GTL (gas-to-liquids) technology, based on the Fischer-Tropsch synthesis process, for the production of value-added light synthetic oil and clean liquid synthetic transportation fuels from natural and associated gas, as well as from biomass and other fossil fuels (XTL).

GTL- Sasol

Experience the Sasol Secunda Plant in Virtual Reality 360 degree

Sasol Secunda is located in Mpumalanga, South Africa and is the largest operating site in the Sasol group and is located only 90 minutes from Johannesburg. We work on the cutting edge of the chemical industries and operate world-scale facilities, which produce materials and technology used by millions of people around the world.