



Resource Rehabilitation Showcase

This worksheet will help guide your journey through the Resource Rehabilitation Showcase as you learn about how resources are extracted in different mining operations. In the Year 12 course, you will spend more time on rehabilitation. The Resource Rehabilitation Showcase is available online at: https://vantageinteractive.com.au/UNSW/MERE/virtual_tour/ResourceRehabilitationShowcase/. You can do the sections in any order. The subheadings below are those used in the Showcase.

Rehabilitation to Thick Vegetation: open-pit coal mine

Video: *Before, during and after a coal mine* (11:35)

This video has little navigation stops that are boxes below the time bar. There is an information box for each on the lower right side of the screen to show you where you are in the life of mine.

Pre-mining native vegetation assessment

What does a mining company have to assess before mining? _____

Why is vegetation assessed and what actions are taken? _____

Mulching of vegetation

What is progressive rehabilitation? _____

Topsoil removal

What is done with the topsoil? _____



Drilling and blasting

What factors must be considered when deciding where and when to drill and blast? _____

Overburden removal

What is overburden? _____

How is spread of dust minimised? _____

Overburden shovel

How is overburden used? _____

Coal removal

When was the coal formed? _____

What are the impacts of coal mining? _____

How is coal used? _____

Coal excavator

Why is a smaller excavator used to remove coal? _____



Coal haul truck

How is dust controlled? _____

At what stages of mining do you see dust production? _____

List four different types of jobs at a mine. _____

Rehabilitation to Artificial Reef: offshore petroleum drilling

Video: *What does an oil rig look like?* (4:08)

How do workers get to the offshore oil rig? _____

What types of equipment did you notice and how did this differ from the open pit mine? _____

Working in Sensitive Environments: Ranger Uranium Mine

Video: *A uranium mine within a national park!* (3:53)

Look around – what type of mine is this? _____

Outline two or three challenges related to the location of the mine. _____

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Rehabilitation to Farmland: onshore drilling for coal seam gas

Video: *How a gas well works from start to finish* (3:15)

What are aquifers and aquitards? _____

Why are steel casings and cement put into the drill hole? _____

What is pumped out of the coal seam? _____

Where are the pumped resources when they are underground? _____

What can be pumped into the coal seam and why? _____

Final questions

1. Which type of mining creates the largest surface disturbance? _____

2. Contrast the resources extracted from open-pit mines versus drilling. _____

3. Outline three ways in which mining operations minimise environmental disturbance during the mining process. _____

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