

Gloucester Coal Seam Gas Project

Community
information
fact sheet

Number 10
October 2008

HDD and microtunnelling

Trenchless technology covers a range of techniques to install pipelines without trenching. It's commonly used to take pipelines under waterways, roads and other obstacles and reduces or eliminates safety problems, traffic problems, public inconvenience and virtually all environmental risks.

There are a number of technologies available. The two we are likely to use for the Gloucester Coal Seam Gas Pipeline are horizontal directional drilling (HDD) and microtunnelling.

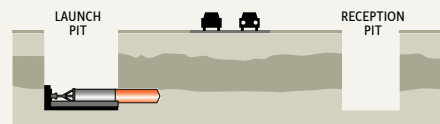
The Lucas Group, who will be responsible for the pipeline construction, is Australia's undisputed leader in this field and a world technical leader, with a string of world records and an exemplary safety and environmental record.

Microtunnelling/Thrust boring

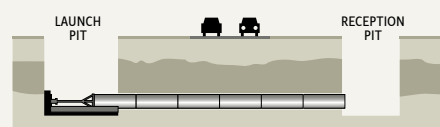
Microtunnelling is ideal for relatively short, straight pipeline crossings of roads, railway lines and other structures. Once the bore is completely through to a reception pit at the other end, the boring machine is removed and the product pipe is drawn through the jacking pipe and tied into the main pipeline.



Launch and reception pits are dug on either side and the microtunnelling unit put in place.



As the unit excavates the tunnel face, it's pushed forward by hydraulic rams and spoil is removed.



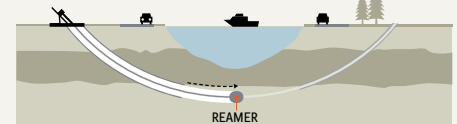
Pipe is added as needed to protect the product pipe. The machine is removed at the reception pit.

Horizontal directional drilling (HDD)

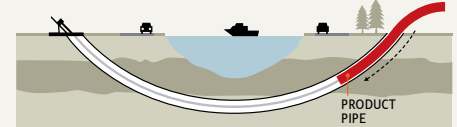
Instead of digging trenches, HDD can take a pipe or conduit directly from one point to another up to several kilometres away with virtually no surface disturbance. HDD reduces and often completely avoids environmental impacts on land and aquatic environments. It is sometimes called 'obstacle avoidance technology'.



A pilot hole is drilled along the pre-designed path using a drilling head to suit the site geology.



The pilot hole is enlarged to the final size with one or more reaming passes.



The product pipe is drawn into place on the final reaming pass. It can also be pushed when necessary.



Open cut trenching

Depending on ground conditions, either a specialised trencher or an excavator is used to dig the trench. Exposed trench will be minimised in line with land use and prevailing weather. Breaks in the trench will be left to allow stock and wildlife to cross and methods will be implemented to prevent fauna being trapped.

This community information fact sheet has been produced by the Gloucester Coal Seam Gas Project:
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