


High pressure pipeline safety information



Vector[®]



Vector is responsible for the operation of more than 2,500 kilometres of high pressure transmission gas pipelines throughout the North Island, and over 800 kilometres of surface easements for petroleum product pipelines owned by other companies.

These high pressure transmission pipelines transport natural gas or petroleum products to over 200,000 industrial, commercial and domestic gas customers. Some of these pipelines could pass through property you own or occupy.

The greatest risk to our pipelines is from damage by people unfamiliar with safe work practices around pipelines

You can help prevent damage to our pipelines by reading this booklet and contacting us before you undertake any work near a high pressure pipeline.

Working safely around pipelines

Any work that may affect the integrity of a high pressure transmission pipeline or the surrounding easement must be approved by Vector. Although pipelines are buried, accidents can still occur.

For your safety Vector provides pipeline location, on-site supervision and work permit services free of charge.

Dial before you dig 0800 734 567

Permits to work

You must obtain a permit for all works within a pipeline easement or in the road reserve near a high pressure transmission pipeline, this includes:

- All excavation works
- Laying or working on other services
- Construction of roads and tracks
- Removing or increasing soil cover
- Under-boring
- Blasting
- Building construction
- Operating heavy machinery
- Placement of fence posts
- Planting and deep ripping
- Drain construction and cleaning.

We will meet you at the site to locate and identify the pipeline, and then issue you with a *Permit to work*. We'll need at least two working days notice of the proposed work (more time for larger projects).

The *Permit to work* sets out the minimum safety conditions relevant to the scheduled work which you must adhere to. **NEVER commence work without a permit.** You could be liable for any damage to the pipeline and the surrounding easement.

To get your *Permit to work*, contact Vector:

Phone 0800 734 567, fax 06 759 6490

Email locations@vector.co.nz

Or write to:

Vector

Private Bag 2020

New Plymouth

NEVER commence work without a permit

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Pipeline locations

Our high pressure pipelines are located in registered easements on private property and in the road reserve.

The terms and conditions of easements ensure that pipeline owners/operators have access to the assets for inspection and maintenance. The easement also ensures that controls can be applied to prevent possible pipeline damage.

Easement widths vary but they are generally 12 metres wide for a single pipeline and increase by 4 metres for each additional pipeline.

The location of high pressure gas and petroleum pipelines are clearly marked. However, signs are an indication only and you must contact us before any excavation commences.

Look out for:

- Warning signs and painted posts on fences in rural areas
- White triangular warning signs at major river and harbour crossings
- Signs on kerbs, streetlights and power poles in urban areas
- Marker tape may be in the trench line above the pipe.



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Pipeline depths

High pressure pipelines are buried at a depth of approximately 900mm. This can vary, as alterations to the ground cover may reduce or increase depths. Pipelines are usually laid with marker tape above the pipe. However, the tape may have shifted over time.

Never assume you know exactly where the pipeline is located – always contact us.

Given appropriate notice we will accurately locate the position and depth of the pipelines free of charge.

Report all damage to pipelines

In the event of any damage, no matter how minor, it is essential that you notify Vector immediately. Damage to the coating or denting of the pipe could seriously impact its integrity, or shorten its life.

Never repair the pipeline yourself. Repairs must only be made under Vector supervision or by a Vector representative.

You can help us keep the pipelines safe by reporting any pipeline exposure, damage or signs of defects that could put the pipelines at risk.





Planting on a pipeline easement

Vector controls the right to the planting of shrubs and trees on pipeline easements. Some plant species have deep rooting systems that are attracted to the pipeline trenches as these are a good source of moisture. There is a danger that these roots may damage the pipeline.

Under the grant of easement, Vector can remove vegetation, whether natural or cultivated.

You may be granted permission to plant in certain circumstances, but approval is dependent upon plant type, pipe depth, pipe-wrap type and water table depth.

Contact Vector for advice before planting any shrubs or trees. You will require a permit.

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Recognising a gas pipeline leak

Despite all precautions, leaks have occurred in pipeline systems around the world.

Gas leaks can be detected by a visible liquid fuel leak and by the hissing noise of escaping gas. Escaping gas or liquid is dangerous. Dead or dying vegetation can also indicate a leak and the ground may also be frozen. Be cautious and respond immediately when you discover a leak. If you suspect a leak, call Vector immediately on 0800 734 567.

NOTE: *Not all gas in pipelines has that characteristic gas odour*

Leaks in liquid pipelines

Leaks in a liquid pipeline may show the same signs as those from a gas pipeline, but a petroleum like odour will be present. A small leak may do no more than moisten the surrounding soil, but a large leak may create a pool of liquid. Some liquids are only in liquid form when under pressure in a pipeline. If liquids of this type escape from the pipeline they may change to gas and may be detected by a fog-like vapour near the ground as well as by odour.

NOTE: *Notify Vector immediately if a leak is suspected*



Vector's pipeline protection policy

Vector takes pipeline safety seriously. We use many resources to ensure that our pipelines are protected from the hazards of corrosion, ground movement and external interference. All Vector pipelines comply with, or exceed, national or international codes and standards.

We conduct regular ground and air patrols to look for potential hazards to the pipelines or indications of a leak. Safety valves strategically placed along the length of the pipeline enable sections of the pipeline to be isolated.

You can help us keep the pipelines safe by keeping a look out for any digging activity or natural occurrence that could damage the pipeline. If the pipe is exposed but no leak is evident contact Vector on 0800 734 567.



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What to do in an emergency

- Move to a safe area approximately 100m upwind and immediately call the **fire service on 111**
- Switch off all machinery and remove all sources of ignition, including mobile phones
- Leave the damaged pipe to vent
- **DO NOT** start any vehicles for removal
- **DO NOT** attempt to extinguish ignited gas fires
- **DO NOT** cover the damaged area with any material, including digger buckets.

NOTE: *Move away from the site. Natural gas is flammable and explosive*

For incidents involving pipeline exposure, damage or signs of defects, contact Vector on 0800 734 567, 24 hours a day – even if it appears minor.

We have field staff available throughout the North Island to respond to high pressure pipeline emergencies.

Dial 111 and ask for the Fire Service if you are unsure who to contact.



This booklet has been prepared by Vector for our own pipelines and the pipelines we manage and operate for our clients:

- *Liquigas Limited*
- *Maui Development Limited*
- *Origin Energy Resources New Zealand Limited*
- *Methanex New Zealand Limited*
- *The New Zealand Refining Company Limited*
- *Wiri Oil Services Limited*
- *Shell Todd Oil Services Limited*
- *Todd Taranaki Limited*
- *Greymouth Petroleum Limited*

About Vector

Vector is New Zealand's leading multi-utility network infrastructure owner and manager.

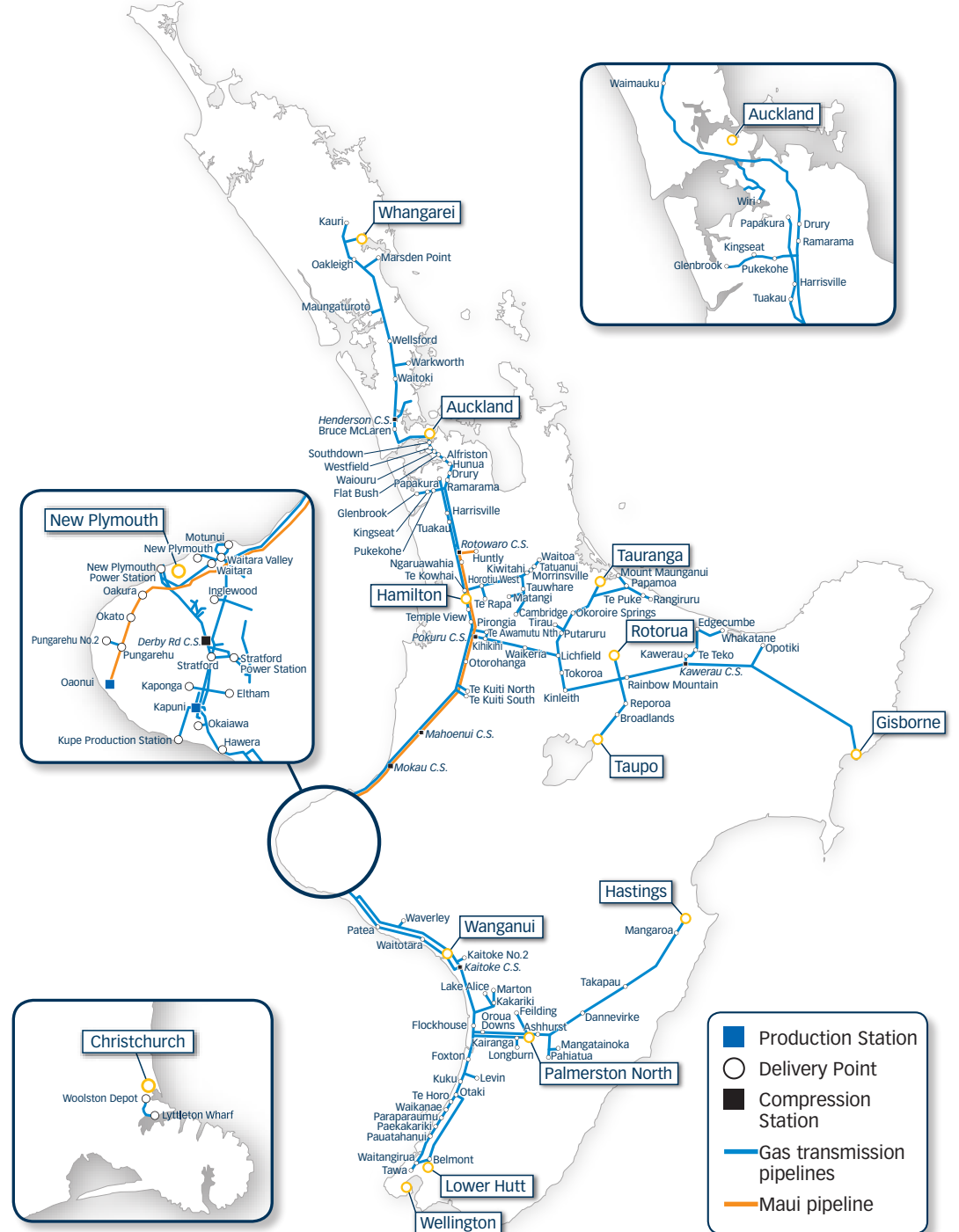
Our group owns and manages a range of energy, technology and service businesses and assets which touch more than one million New Zealand homes and businesses.

We own and operate electricity distribution networks in Auckland, high speed fibre optic networks in Auckland and Wellington, and gas processing, transmission and distribution networks throughout the North Island.

For more information about Vector visit www.vector.co.nz

Dial before you dig 0800 734 567

High pressure transmission pipelines



Map as at August 2010

For more information, on-site supervision and permits to work:

- Call **0800 734 567**
- Fax 06 759 6490
- Email locations@vector.co.nz
- Or write to Vector, Private Bag 2020, New Plymouth 4342

In an emergency call the fire service on 111, then Vector on **0800 734 567**.

Vector Limited

Operations office:

42 Connett Road West, Private Bag 2020, New Plymouth

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www.vector.co.nz