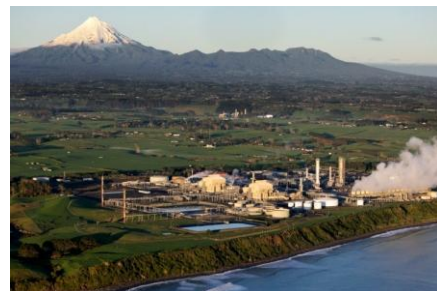


## CASE STUDY

### Methanol Pipeline Controls Upgrade

<b>OUR CLIENT:</b>	<b>Methanex - Motunui</b>
<b>INDUSTRY:</b>	Chemical
<b>VALUE:</b>	NZ\$5M
<b>OVERVIEW:</b>	<p>The Methanex pipeline runs from the Motunui production site to Port Taranaki, a distance of approximately 40Km, where ships are loaded with Methanol from a local tank farm via marine loading arms.</p> <p>The pipeline runs through 10 stations, with Modicon PLCs controlling pumps, valves, pressures, flows and tank levels. The PLCs communicated via Modbus RTU to a central Honeywell Experion DCS.</p> <p>The existing Modicon PLCs were obsolete. To bring the safety shutdown systems up to current stands, and improve reliability and availability of the pipeline systems a project to replace the obsolete PLCs with Hima HIMatrix SIL3 rated safety PLCs was initialized.</p>
<b>ENGINEERING:</b>	<p>ECL TÜV certified functional safety engineers were involved from the design of the controls systems, development of the project documentation, through to testing and commissioning for each station.</p> <p>The Hima HIMatrix SIL3 rated range of safety PLCs were utilised (F60, F35, F3, F2), this allowed upgrading of the communications between the stations from Modbus RTU to Hima Safe Ethernet, a validated version of Ethernet communications.</p> <p>The communications for each station to the Honeywell Experion HMI were upgrade to Modbus TCP/IP.</p> <p>The commissioning of each station was staged to fit in with the scheduled shutdowns of the pipeline.</p>

- The safety shutdown systems are now up to current standards and the reliability and availability of the pipeline has been improved.
- The project was completed on time, in budget with no lost time incidents.



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