



Agility

**Moomba to Sydney
Ethane Pipeline**

Annual Report to Gorodok

2001

Moomba to Sydney Ethane Pipeline Annual Report for the Year 2001

Environmental and Safety Performance

General

There were no ethane specific: -

- incidents that posed a threat to the environment
- incidents that necessitated reporting to the Environmental Protection Authority
- incidents that resulted in a lost time injury to any employee
- vehicle related incidents or accidents

An incident occurred when a colleague removed an orifice plate from pipe-work at the Bulla Park pump station, without the proper engineering or team leader approval. An investigation was held and corrective action implemented.

Recommendations from the 2000 Hazard Report by Planager were followed up and generally implemented. Alternatives to the maintenance program, GASS (General Accounts and Service System) were however reviewed by not implemented. GASS already had the capacity to deal with the additional requirements and will be utilised to a greater extent, particularly for the Bulla Park pumping station.

Annual Maintenance Report

Mechanical Pipeline Maintenance

General

All mechanical 'A' services and 'O' services were completed, as per the schedule.

The painting of the mainline sites from Moomba to Young was completed. All sites involved were washed, blasted and painted using Dulux X10

Operations West MS00 - MS826

There are still some outstanding Crane globe valves to be replaced, but as the isolated leakage rate is excessive they will wait until the next planned pipeline shutdown.

Fin fan coolers continue to run reliably with no major problems

Replacement of the Udikor touch panel was required in the Bulla Park ethane control room after the colour in the screen failed

Fire panel wiring modifications were carried out after the unplanned dumping of the FM200 fire retardant. The fire panel now has battery backup should mains power fail

A full report from FFE on the failure of this panel is still outstanding. Numerous requests have been made to FFE requesting this report without success.

Operations Central West - MS826 – MS1034

One Crane globe valve remains in service at MS1034, this cannot be removed due to high leakage rates.

An emergency and fire on the Pt Bonython pipeline resulted in no ethane receipts into the Moomba – Sydney pipeline from 13:48 on 16 June 2001 to 01:48 on 19 June 2001. As part of this incident, the low-pressure valve trips were disabled at the following sites in the central west area:

Milne MS880

Wamboyne MS911

Marsden MS942

Berendebba MS973

Ashfield School road MS1002

Young MS1034.

These sites were restored at the termination of the incident.

Operations South West - MS1034 – MS1217

Crane globe valves were replaced at MS1077, and MS1192 with the nominated Kitz variety.

Moomba supply incidents throughout the year caused several ALBs to trip; several of these tripped early and required manual intervention. The setting of the ALBs trip pressure was monitored and adjusted accordingly, although these mechanical devices are known to be difficult to set reliably.

Coating inspection of natural gas supply lines to the ethane actuators was undertaken to determine if any corrosion was evident on the coated pipe work. The suspect areas of pipe at the following sites had wrapping removed, blasting, and “Dulux Luxepoxy” applied :-

MS1056 Murringo, MS1077 Boorowa, MS1098 Rye Park, MS1126, Dalton, MS1141 Gunning, MS1192 Towrang, and MS1217 Uringalla.

Several sections of small bore pipe-work feeding the reserve actuator tank, were replaced at the LV site at Boorowa, one gauge was also replaced.

Operations Metropolitan – MS1217 – MS1375

All scheduled mechanical maintenance has been performed on the ethane pipeline facilities. Major non-scheduled works have been:

- The replacement of the ethane filters at Wilton pressure control station. The filter exchange was required because the differential pressures across the filters reached 450 kPa.
- The duplication of valve V603 at Wilton pressure control station. The valve duplication was required because the original inlet valve, V603, could not provide a positive seal as required for safe venting procedures.

Right of Way Maintenance

General

All aerial surveillance was performed according to schedule, routine defects were recorded and scheduled for follow up action.

Pipeline Operators delivered annual packages to every landowner, in person wherever possible.

Visionstream commenced the laying of a fibre optic cable alongside the easement. The work will be completed in 2002 and has involved a considerable level of negotiation to ensure that the pipelines in the easement are protected from damage throughout the works, particularly where laying the cable inside or across the easement.

Operations West MS00 - MS826

The surveillance flights detected no third party interference or encroachments on to the ethane pipeline easement.

Gas Awareness Presentations

- Agility conducted six gas awareness presentations in the western area during November 2001. The venues were Tibooburra, White Cliffs, Wilcannia, Cobar, Lake Cargelligo and Condobolin. Invitations were sent out to earthmoving contractors, councils, and the emergency services. A total of 43 people attended the presentations.

Operations Central West - MS826 – MS1034

The surveillance flights detected no third party interference or encroachments on to the ethane pipeline easement.

The pipeline easement is in good condition.

Gas Awareness Presentations

- Agility conducted six gas awareness presentations in the central west area during September 2001; the venues were Cowra, Orange, Bathurst, Parkes, Dubbo, and West Wyalong. Invitations were sent out to earthmoving contractors, councils, and the emergency services. A total of 121 people attended the presentations.

Operations South West - MS1034 – MS1217

All identified minor easement restoration has been completed, erosion restoration at Rye Park will be programmed later in 2002

Gas awareness sessions were conducted at the following locations over the week of the 3/12/01, Griffith, Wagga Wagga, Young, Yass, Queanbeyan and Goulburn. A total of 99 people attended the presentations.

The Southern Slopes Noxious Plants Authority have approached Agility to perform weed control on our behalf along the pipeline easement within the Rye Park area, our

portion of works coincide with the Councils eradication program and a verbal go ahead has been given.

The majority of landowners from MW1112 to MW1122 were contacted by representatives from Visionstream and Leightons regarding the laying of new communications infrastructure along the pipeline easement.

Several landowners within the Goulburn district, Mulwaree shire, have approached Agility to supply chemicals to control the re-growth of serrated tussock. The matter is under consideration and previous agreements are being investigated.

The operational procedures and documentation for the Dos and Don'ts of working within or on the easement have been updated. A new contractor request sheet has been developed to streamline the approval process which is especially suited to major project activities. This is in use with Visionstream.

Gravel re-sheeting occurred at MS1167 to prevent weed growth and to tidy up the site.

MW1056 Murringo, a levy bank was reconstructed due to erosion problems on the Ethane side of the compound.

Re-seeding of the Ethane easement from MS1219 to MS1034 is underway, this will address several large zones of poor vegetation.

Mulch spraying occurred at MS1198, topsoil 35m³ was used to correct subsidence at MS1218.6. A restraining fence was constructed at MS1198 to reduce further erosion.

Jute mesh and reseeded took place at MS1208 and MS1206.

Backfilling and restoration took place at MS1192.8, MS1193.3 and MS1181.2.

Washaway repair at MS 1181.5

Operations Metropolitan – MS1217 – MS1375

On-going easement maintenance has been carried on the easement from Uringalla Creek to Botany. The regional maintenance has largely concentrated around vegetation control, fence painting and erosion control.

Electrical Pipeline Maintenance

General

All scheduled site electrical and CP maintenance was completed in accordance with the annual maintenance schedule.

Operations West MS00 - MS826

There were no electrical failures that posed a threat to the integrity of the ethane pipeline.

Minor calibration of field instrumentation was required during site maintenance.

Operations Central West - MS826 – MS1034

Minor calibration of field instrumentation was required during site maintenance.

The pipeline easement was excavated at MS973 to install a new temperature probe onto the pipeline.

Operations South West - MS1034 – MS1217

Electrical and instrumentation checks were performed at MS1126 Dalton and MS1217 Uringalla. One insulation joint protector was replaced at the latter site.

CP circuit checks at Mummel identified 3 insulation joint protectors that required replacement. These will be completed in early 2002.

A transformer rectifier at MS1126 was replaced due to faulty output.

The recent wet weather revealed several water leaks within the MS1141 Gunning ethane hut; flashing was removed prior to resealing with silicone and replacement.

A CP transformer rectifier at MS1126 Dalton was replaced due to intermittent fault.

Operations Metropolitan – MS1217 – MS1375

Major non-scheduled works have been completed:

- Investigation into the unauthorised closing of the ethane line valve at Yerrinbool valve site. Preliminary investigation determined that the fault was most likely caused by an electrical defect and subsequent fieldwork has verified the suspicions.
- Sourcing of a replacement cathodic protection unit for St Andrews Road. The original C.P unit was stolen in February 2001.

Bulla Park Pump Station Maintenance

Pump1: A new rocker assembly was required after an inspection revealed a missing rivet, which had led to a failure of a pushrod.

Some minor water on engine pipe-work leaks required welding.

Pump2

All scheduled maintenance has been carried out with no major problems recorded

Pipeline Corrosion Control

General

The CP annual survey from MS00 to MS1034 was performed during November 2001.

Network Control

SCADA operations were normal throughout the year.

Ethane Leak Detection System

The " LIC Energy " leak detection system has been in operation throughout the year. It still has outstanding problems, namely:

- Several false alarms per week
- Some stability issues.

The system has not yet passed the " Site Acceptance " test and remains a contractual issue with the supplier. The system currently operates in the background providing one or two indications of leaks every week. None of the " leaks " have existed to date, but all indications are fully checked and reported regardless.

A pressure decay spreadsheet has been developed. This spreadsheet predicts the timing of low-pressure mainline valve closures. The spreadsheet runs under the SQL program retrieving live data from the SCADA and placing it into excel, the spreadsheet calculates the current pressure decay and the remaining time before low pressure line valve closure.

A daily SCADA report highlighting daily run throughput and line-pack has been designed for automatically sending to the General Manager, Gorodok.

Moomba receipts were affected on many occasions throughout the year. Significant outages were:

- **January 2001** Interruptions to receipts were experienced due to Santos annual maintenance at Moomba.
- **February 2001** 9 hours of zero receipts due to a ruptured disc in the regeneration plant.
- **April 2001** Receipts were terminated between 11 and 19 April 2001 in conjunction with a prearranged Moomba shutdown
- **June 2001** Receipts were severely affected between 16 and 19 June 2001 due to an explosion at the Moomba plant
- **July 2001** Receipts were terminated for 24 hours due to maintenance on the LRP trains at Moomba
- **August 2001** Receipts were affected for nine hours and fifty two minutes due to Moomba maintenance and out of specification gas supply
- **October 2001** Receipts were terminated on 15 October 2001 for 465 minutes due to Moomba flow controller problems.
- **November 2001** Receipts were terminated for 189 minutes due to Santos changing a compressor
- **December 2001** Late December flows were terminated for 237 minutes due to high CO₂.

Summary

Performance Against Objectives

Region A All electrical maintenance was completed.

All mechanical mainline valve operator 'A' services, and 'O' services were completed.

Right of way aerial surveys and landholder contacts were completed.

The leak surveys were completed.

Pump station maintenance was completed.

Region B All electrical maintenance was completed.

All mechanical mainline valve operator 'A' services, and 'O' services were completed.

Right of way aerial surveys and landholder contacts were completed.

The leak surveys were completed.

Region C All electrical maintenance was completed.

All mechanical mainline valve operator 'A' services, and 'O' services were completed.

Right of way aerial surveys and landholder contacts were completed.

The leak surveys were completed.

Network Control

SCADA maintenance was ongoing throughout the year.