2001 ANNUAL REPORT

TO

PRIMARY INDUSTRIES AND RESOURCES SA (Petroleum)

On

Licence No 6 Riverland Pipeline

Document Number

JDK-TR-1011-01

April 2002

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LIST OF ABBREVIATIONS

AS2885	Australian Standard 2885 – Pipelines- Gas and Liquid Petroleum
AVT	Accuracy Verification Test
CEP	Code of Environmental Practice
CFS	Country Fire Service
CP	Cathodic Protection
DNV	Det Norske Veritas
ERC	Emergency Response Centre
ESD	Emergency Shutdown
HSE	Health, Safety and Environment
MFS	Metropolitan Fire Service
MLV	Mainline Valve
PIRSA	Primary Industries and Resources of South Australia
PL6	Pipeline Licence No 6
ROC	Remote Operation Controller
ROW	Right of Way
SCADA	Supervisory Control and Data Acquisition
SEO	Statement of Environmental Objectives
SES	State Emergency Service
SMS	Safety Management System

1.0 SUMMARY

This report is submitted in accordance with the requirements of Pipeline Licence 6 and Petroleum Regulations 2000. The Riverland Pipeline is owned by Origin Energy and is operated and maintained by Epic Energy.

The report reviews operations carried out during 2001 and intended operations for 2002 and 2003. In accordance with the Petroleum Regulations, a performance assessment is also provided with regard to the Statement of Environmental Objectives for the Riverland Pipeline.

2.0 ACTIVITIES UNDERTAKEN IN 2001

2.1 Safety and Environmental

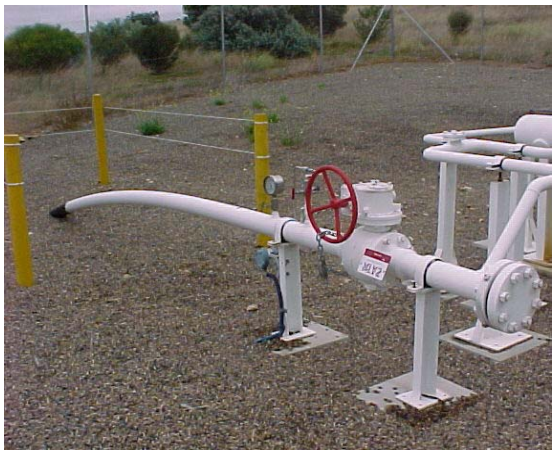
- An incident at the Angaston Compressor Station on 19 October resulted in a relief valve opening, thus venting natural gas. As a result of the gas "smell", a member of the public reported the incident to the local police. The amount of gas released was minimal and not reportable. The incident was fully investigated and all preventive measures, including changes to maintenance procedures were implemented.
- A land owner encroached into the easement for the Tooravale Lateral while developing a vineyard. The total encroachment highlighted a 45 metre section of the Right-of-Way, where an easement was not established during construction of the pipeline. The landowner was compensated for not being able to develop the vineyard to the extent he wished. An easement for the pipeline is being obtained.

2.2 Maintenance Performance

In 2001, 157 Maintenance Work Orders were produced from Epic Energy's Computerised Maintenance Management System (Maximo), made up as follows:

- 65 % Preventative Maintenance tasks; and
- 35 % Corrective Maintenance tasks.

2.2.1 Pipeline



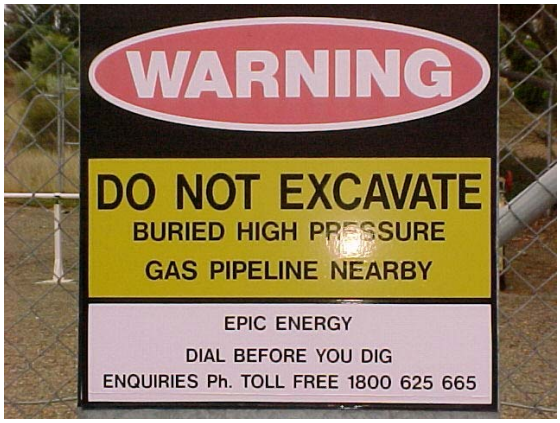
- All scheduled routine pipeline road patrols, meter readings, and inspections of above ground facilities were completed as per contractual agreements.
- Fire extinguisher inspections and maintenance has been completed in accordance with Australian Standards.
- Clear and grade was completed in two locations in the Winkie / Berri area to maintain easement line of sight.
- Wombat burrow holes were discovered over the pipeline downstream of Sedan. These have the potential to cause coating damage. On several occasions, work was carried out to backfill existing burrows. This is an ongoing problem and will continue to be monitored.

2.2.2 Cathodic Protection

Potential Surveys and Cathodic Protection System

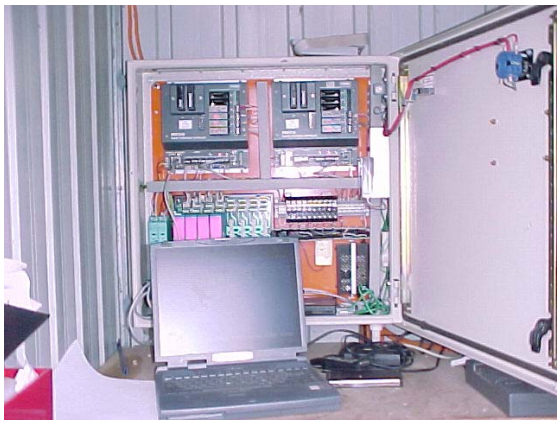
- To mitigate corrosion, the Riverland pipelines are coated with a protective extruded butyl mastic and polyethylene coating system, which serves to isolate the external pipeline surfaces from corrosive elements in the surrounding environment. Field joints are coated with a polyethylene backed butyl mastic tape system. Secondary protection at coating holidays and imperfections is achieved by applying cathodic protection.
- The effectiveness of the cathodic protection system is monitored by carrying out two full line potential surveys annually.
- So far the impressed current system of the pipeline has not been activated. This is due to the healthy pipeline coating currently in place and low protective current requirement. The magnesium anodes installed during construction as temporary current sources for protection have provided sufficient protection to the pipe.
- Potential profiles of the Berri Lateral and Murray Bridge Lateral are given in Appendix C. Both profiles indicate that the laterals are protected according to the requirements of AS 2885.3 and AS 2832.1. Tellurics (induced voltage on the pipeline due to the Earth's magnetic field) were active particularly on the Murray Bridge Lateral. Pipe potentials up to 1600 mV were recorded on the Lateral. The extent of tellurics was limited on the Berri lateral. Telluric activities have been observed during previous surveys.
- There were 23 foreign crossings of the Riverland Pipeline System in 2001. For pipeline potentials at the foreign crossings, refer to Full Line Survey data.
- Total current requirement for the Berri Lateral was 132.8 mA, which is equivalent to 2.2 micro A/m2.
- Total current requirement for the Murray Bridge Lateral was 155.8 mA, which is equivalent to 6.7 micro A/m2.

Coating Surveys and Pipeline Inspection



- Pipeline potential at all locations indicated full polarisation.
- Excavations on wet areas and areas of low potential are planned for 2002.
- The next coating survey is due in 2005.
- Bonding to the Riverland Pipeline at the Mildura Pipeline crossing was checked and the bonding clamps were inspected. One clamp was removed for inspection and proved to be in good condition.

2.2.3 Electrical & Instrumentation



- Accuracy verification testing is carried out at all sites two monthly in accordance with customer agreements.
- Several corrective maintenance issues were addressed in 2001:
  - Low battery volts at several sites,
  - Low pressure alarms at several sites,
  - Replacement of turbine meters,
  - Faulty Remote Transmitter Device at Metro Meats,
  - Faulty control card at Angaston compressor,
  - Faulty Emergency Shutdown valve at Berrivale Orchards, and
  - Faulty transmitters at several sites.

2.2.4 Communications

- Investigations continued in an effort to eliminate a spiking fault with the Fisher ROC's. This requires constant billing corrections until the fault is rectified.
- Several modem faults resulted in loss of communications until such time as the fault was responded to and rectified.

2.2.5 Mechanical

- All scheduled routine filter inspections/ changes, MLV maintenance, regulator inspection/services, relief valve testing, and ESD valve operational checks were completed as per contractual obligations.
- Corrective maintenance consisted of mainly regulator failures and blocked pipe strainers.

2.2.6 Other

2.2.6.1 Landholder Contacts

There are 83 landowners and occupiers along the Riverland Pipeline system. A property owner contact scheme is in place to visit each owner or occupier annually. Each is visited personally and if not home, they are contacted by letter or telephone. A letter explaining the reason for the visit, the contact officer's business card and an information brochure on pipeline safety and the "Dial before you dig" and the Epic Energy Emergency Freecall contact phone numbers are left at all unattended

residences visited. All property owners receive an Epic Energy pipeline safety brochure and a complimentary biro as well as a high quality calendar, which is individually mailed out. These items all contain the “Dial before you dig “ and the Epic Energy Emergency Freecall contact phone numbers.

Epic Energy maintains a computer link with the land titles office which facilitates up-to-date records of changes in land ownership along the pipeline easements.

Tooravale Lateral right-of-way was found to have encroached into private land. The total encroachment was 45metres. As no easement existed for the pipeline, the landowner was compensated for not being able to develop his vineyard to the extent he wished.

2.2.6.2 Pipeline Location Service

Epic Energy provide a free service to locate pipelines for which they are responsible. This service is primarily used by landowners / occupiers or contractors carrying out civil works in the vicinity of any of the pipelines administered by Epic Energy.

There were 23 actual pipe locations carried out for third parties on the Riverland Pipeline System in 2001. All locations resulted in supervision of third party activity within the pipeline easement. Work ranged from repairs and installations of domestic water supplies, through to redevelopment of the land for vineyards. Any additional service installed on the pipeline easement has been recorded and pipeline alignment sheets have been modified to reflect the changes.

2.2.6.3 Community Awareness

Epic Energy implements a Community Awareness Program, that entails holding awareness meetings with communities along the pipeline route.

The target is to hold meetings approximately monthly with CFS, MFS, police, ambulance, SES, councils, Earth Moving Contractors, irrigation installation contractors and various community members invited to attend.

In year 2001, public awareness presentations for the Riverland Pipeline System were made at Murray Bridge and at Mannum. The focus of the presentation was on the specific nature and characteristics of the products carried by the Riverland Pipeline System, the route of the pipeline, basic information about the pipeline and its monitoring, control and emergency procedures.

2.3 Training

- Fisher Remote Operation Controllers (ROC) training was completed by all Epic Energy electrical and instrumentation staff involved in maintenance of the Riverland Pipeline system. Training was developed and delivered by Centralian Controls.

- Base Line (Petroleum Industry) training has been completed by all Epic Energy field staff personnel, involved in the Riverland pipeline system maintenance.

- Senior First Aid Training (re-certification) was completed for all field staff. Training was conducted by Saint John Ambulance Australia to the level of Senior First Aid certificate in accordance with Epic Energy Training Policy.

- Heath, Safety and Environmental (HSE) Induction training was completed by all Epic Energy field staff involved in the Riverland Pipeline system maintenance. The training was developed by the Epic Energy Safety Adviser and delivered during Base Line Training.

- Health, Safety and Environmental Induction training was completed by the Epic Energy first response contractor for the Riverland Pipeline system, Leon Rosenswieg, in accordance with Epic Energy HSE policies.

- Permit to Work training was completed by all Epic Energy field staff personnel involved in the Riverland Pipeline system maintenance. The training was developed by the Epic Energy Safety Adviser and delivered during Base Line Training.

- Permit to Work training was completed by the Epic Energy first response contractor for the Riverland Pipeline system, Leon Rosenswieg, in accordance with Epic Energy HSE policies.

- In house, on the job training has been achieved for various field staff in the conduct of:
  - Relief Valve Testing
  - Regulator Maintenance
  - AVT inspections
  - Filter Vessel inspection and Filter change procedure.
  - Cathodic Protection (Full Line Surveys and Transformer Rectifier Surveys)

2.4 Emergency Response

An emergency drill was held on 15th February 2001. The scenario consisted of a fire in the Angaston Compressor Station building and a crowd of 20 to 30 onlookers from the public gathered outside the compound's fence. The compressor was deemed to trip.

Within 40 minutes of the initial notification, all relevant parties had been contacted.

- The Emergency Response Centre (ERC) was established at Epic Energy's Dry Creek Depot in SA to handle the incident.

- The Transportation Services Manager made the relevant contacts with customers, PIRSA, Epic Energy's Commercial Services Manager in SA and Epic Energy senior management.
- Epic Energy's Public Affairs Officer was notified in case of any media requirements.

- Isolations and remaining gas in the system available to the customer were identified.

- Preliminary engineering solutions were identified.

Staff arrived at Angaston 90 minutes after the initial call. Delays were caused by extensive road works in the area. At this stage it was deemed emergency services had arrived on site and that smoke had almost cleared from the building.

A safety analysis was carried out before staff entered the area. On investigation the electric drive and some cabling had suffered heat damage and required replacement.

A list of equipment and parts required to complete repairs was prepared by staff on site. Engineering staff in the ERC utilised field information to develop a recovery plan and a timeframe.

It should be noted that the incident used in this drill could never happen due to equipment protection and shut down systems.

2.5 Contractual Issues

There were no contractual issues associated with the Riverland Pipeline system in 2001.

Charges associated with the operation and maintenance of this asset are enshrined in the gas supply agreement.

3.0 COMPLIANCE ISSUES

Every endeavor is made to ensure that design, manufacture, construction, operation, maintenance and testing of all appropriate facilities are carried out in accordance with AS 2885. Any non-compliance identified is logged in Epic Energy's Computerised Maintenance Management System, where they are tracked to conclusion. Significant items are reported through Origin Energy to PIRSA.

A copy of the currently gazetted Statement of Environmental Objectives (SEOs) for PL6 is provided at Annex A. The overall objectives of the SEOs were achieved in that:

- Environmental damage from activities involved in operation of the Riverland Pipeline was minimised;
- Appropriate consultative processes involving people directly affected by regulated activities and the public generally were established; and
- The public was protected from risks inherent in regulated activities involving the Riverland Pipeline.

The specific objectives declared in the SEO's have been assessed in accordance with the Goal Attainment Scaling. The results of that assessment are provided in Annex B.

4.0 ACTIONS TO RECTIFY NON-COMPLIANCE

4.1 Pipeline Integrity

Refer to Section 2.2.2.

5.0 MANAGEMENT SYSTEM AUDITS

5.1 Operational Audits

Epic Energy is partially owned by El Paso Corporation, a major North American gas transmission company. The El Paso Corporate Audit Division conducted an operational audit on Epic Energy in the third quarter of 2001. Results of that audit were very favourable and Epic Energy is now being used as a model for El Paso's other assets in North America.

5.2 Environmental Audits

During the year each property on the PL6 pipeline system, was visited by our environment and land management officer.

The officer spoke to each landholder regarding pipeline safety and environmental issues.

At each meeting, landholders were asked to comment on any issue that they may have relating to the operation of the pipeline through their land.

Any area of concern or special requirement, such as conditions of entry could then be captured on GPS, and recorded on the Epic Energy Land Management System (LMS).

No environmental non conformance was noted.

5.3 Safety Audits

Epic Energy has developed and implemented a Safety Management System (SMS) for all operations and pipeline systems. An internal audit of the SMS was conducted in 2001. Further to this an external review was undertaken by Det Norske Veritas (DNV) in accordance with our Western Australia Safety Case requirements.

Housekeeping inspections are conducted monthly at all facilities in accordance with our SMS requirements.

6.0 REPORTS GENERATED IN 2001

The following reports were generated and forward to Origin Energy during 2001:

- PL6 Annual Report for 2000 compiled in February 2001, forwarded 13 March 2001.
- PL6 Emergency Response Exercise Report dated 14 March, for exercise conducted 15 February 2001.
- PL6 Emergency Response Exercise Close out Report dated 2 October 2001.

7.0 REPORTED INCIDENTS

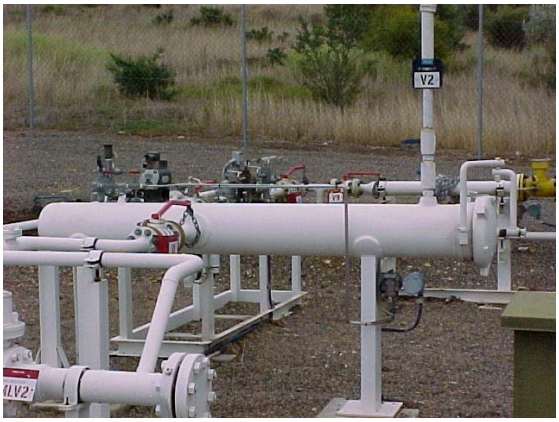
- An incident in the Angaston Compressor station on 19th October 2001 resulted in a relief valve venting. The incident was reported to Police by a member of public due to smelling of gas. The amount of gas released was minimal and not reportable. The incident was fully investigated and all preventive measures including changes to maintenance procedures were implemented.
- A landowner encroached into the Tooravale Lateral Right-Of-Way while developing a vineyard. The total encroachment was 45 metres as the land was not claimed during construction of the pipeline, the land owner was compensated for not being able to develop the vineyard to the extent he wished.

8.0 THREATS TO THE PIPELINE

AS2885 Risk Assessment

The last “Risk Assessment“ of the Riverland Pipeline System was submitted in October 1999. As a result of that assessment, induced voltage from overhead powerlines was determined to be a risk. An Electrical Engineering Contractor carried out an Alternating Current mitigation study that indicated additional anodes would be required for protection against induced voltage to the Riverland Pipeline System. Epic Energy have constructed ground earth mats and developed a work instruction to ensure safe protection for persons working on the pipeline facilities.

The next AS2885 Risk Assessment is scheduled for 2004.



9.0 OPERATIONS PROPOSED FOR 2002/2003

9.1 One-off Activities for 2002

There are no planned one-off projects scheduled for 2002.

9.2 One-off Activities for 2003

Three options have been presented to Origin Energy for a solution to induced voltage on the Riverland Pipeline System. Those options will be debated openly during 2002 and the selected option will be budgeted for installation in 2003.

10.0 KEY PERFORMANCE INDICATIONS

The following key performance indicators have previously been established to monitor performance of operations and maintenance activities on the Riverland Pipeline.

	2001 target	2001 actual	2001Comment
Cathodic Protection			
1. Percentage of Pipeline that has an off pipe to soil potential greater than –850 mV (Winter)	95%	100%	
2. Length of the pipeline protected to the AS 2885 level	95%	98%	
Third Party Incident			
1. Number of times pipeline is damaged	0	0	
2. Number of near misses (digging within 1m of pipeline)	0	0	
3. Exposure of pipeline due to washout and wind erosion	0	0	
Unplanned Gas Releases			
1. Number of Relief valve/vent discharges	0	0	
2. Number of pipeline leaks (more than 200 m3/hr)	0	0	
3. Amount of gas discharged (m3)	500		
SCADA			
1. Reliability of SCADA	99.5%	99.8%	

ANNEX A

2001 PL6 ANNUAL REPORT

DATED APRIL 2002

STATEMENT OF ENVIRONMENTAL OBJECTIVES

Riverland

Gas Pipeline

STATEMENT OF ENVIRONMENTAL OBJECTIVES

AUGUST 2000

epicenergy

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APPENDICES

APPENDIX A	OBJECTIVES AND ASSESSMENT CRITERIA
APPENDIX B	GOAL ATTAINMENT SCALING

INTRODUCTION

This Statement of Environmental Objectives (SEO) has been prepared in accordance with the requirements of Section 99 of the Petroleum Act 2000.

Licence	Pipeline Licence 6
Licence description	Riverland Pipeline
Location	Refer to Figure 1.
Activities covered by this CEP/SEO.	All regulated activities relating to the operation of the Riverland Pipeline. This SEO does not apply to de-commissioning of the pipeline. A separate SEO will be required prior to de-commissioning. This SEO does not apply to pipeline construction projects.

The objectives developed in this SEO are in keeping with the objectives of the Petroleum Act 2000, which include:

- To minimise the environmental damage from the activities involved in the construction or operation of transmission pipelines for transporting petroleum;
- To establish appropriate consultative processes involving people directly affected by regulated activities and the public generally;
- To protect the public from risks inherent in regulated activities.

This document is based on Statements of Environmental Objectives/Codes of Environmental Practice (SEO/CEP) developed for the following recent pipeline projects:

- Pipeline Licence No 1 – Moomba to Adelaide Pipeline Looping Project
- Pipeline Licence No 4 – South East Pipeline – Nangwarry Lateral Project

In each case, the SEO/CEP was developed in accordance with both the existing legislation (*Petroleum Act 1940*) and the proposed legislation (*Petroleum Bill 1999*). This included an assessment of the projects in accordance with the Significance Assessment Criteria (PIRSA 1999), and in each case the proposals were assessed as being of LOW environmental significance. Public consultation on the SEOs was not required. Under the terms of draft Memoranda of Understanding with DEH and Planning SA, these SEO's were developed in consultation with both organisations.

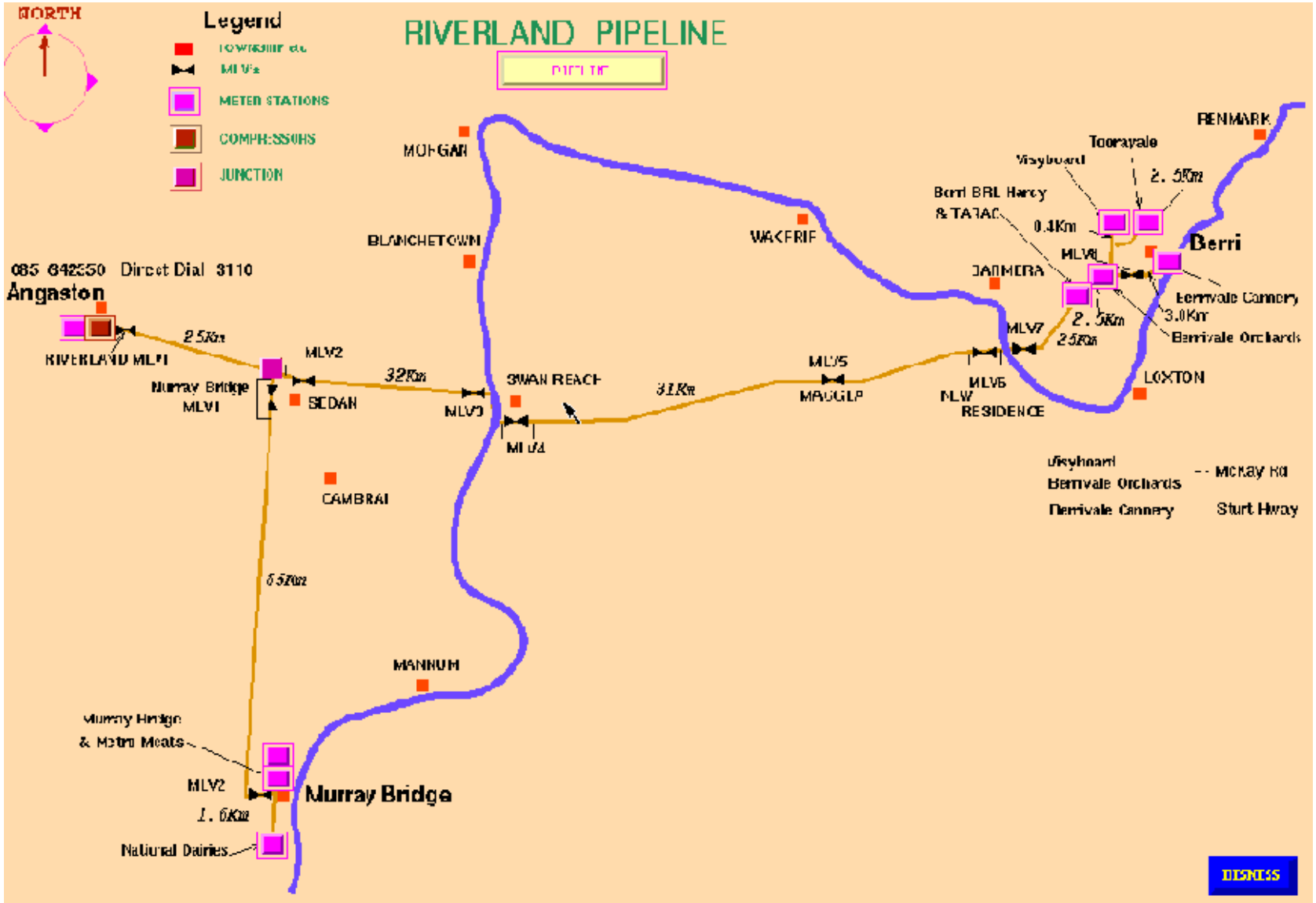


Figure 1 – Map of Pipeline Route

This SEO also takes account of previous Declarations of Environmental Factors and Codes of Environmental Practice approved under the Petroleum Act 1940, and makes reference to the Australian Pipeline Industry Association Code of Environmental Practice : Part B – Onshore Pipeline Operations.

It should be noted that the major environmental impacts associated with a pipeline project are associated with construction, while operational impacts are negligible in comparison. As stated above, this SEO applies to pipeline operations only.

OBJECTIVES

OBJECTIVE	GOAL(S)
1. To avoid significant disturbance to landuse or damage to infrastructure.	1.1 To minimise disturbance to landuse and damage to infrastructure
2. To promote and maintain soil stability.	2.1 To ensure there is no erosion on the easement.
3. To promote and maintain vegetation cover on the ROW.	3.1 To ensure that weeds and pathogens are controlled at a level that is at least consistent with adjacent land. 3.2 To maintain regrowth of native vegetation
4. To minimise noise due to operations.	4.1 To ensure operations comply with noise standards.
5. To minimise the potential for emissions that may cause public concern.	5.1 To ensure that uncontrolled emissions are reported and acted upon immediately
6. To minimise the risks to public and third party health and safety.	6.1 To adequately protect public and third party safety during normal operation. 6.2 To adequately reduce the likelihood of fire associated with maintenance activities. 6.3 To adequately protect public and third party safety during maintenance.
7. To ensure the environmental management and rehabilitation of dig-ups is carried out in accordance with the APIA Code of Environmental Practice Part B – Onshore Pipeline Operations.	7.1 To minimise the impact as a result of an emergency situation, incident or operational dig up.
8. To ensure security of supply for users of natural gas.	8.1 Minimise the likelihood of any significant curtailment of gas supply to customer(s) which could result in a detrimental impact on gas supply to a significant number of gas users in South Australia. 8.2 Maintain a prudent level of gas supply to comply with contractual obligations.

ASSESSMENT CRITERIA

The objectives identified above are subject to an assessment to measure the level of achievement. The assessment criteria for each objective will be one of the following:

- Defined conditions - objectives for construction and operation activities that can only be managed through the prevention of unacceptable actions (e.g. no remnant vegetation shall be cleared);
- Defined requirements - the achievement of an objective can be assessed against the implementation of specific procedures or actions required for an activity (e.g. the design and construction of the pipeline must meet the requirements of AS 2885.1—1997 Pipelines—Gas and liquid petroleum);
- Goal Attainment Scaling (GAS) criteria - the objectives are assessed against a set criteria to determine the level of goal achievement (i.e. goal exceeded, achieved or not achieved).

Appendix A tabulates the objectives and the appropriate assessment criteria. The GAS criteria is detailed in Appendix B.

REPORTING REQUIREMENTS

DEFINITIONS

It is a requirement under Section 85 of the *Petroleum Act 2000* that any incidents that are determined to be 'serious' or 'reportable' incidents must be reported to the Minister. The following descriptions have been provided to help clarify and elaborate on the definitions given in Section 85(1) of the *Petroleum Act 2000* and Regulation 32(1) of the *Petroleum Regulations 2000*.

Serious Incidents

The incidents listed below are considered to be to be serious incidents under Section 85(1) of the *Petroleum Act 2000*:

- Pipeline failure or rupture.
- Unauthorised activity on the pipeline easement where the pipeline is actually contacted.
- After taking into account relevant factors on a day and the rights and obligations under contracts, a significant curtailment of firm service to a shipper that may be necessary, and may detrimentally impact upon the security gas supply to a significant number of gas users in South Australia.
- A Ministerial direction to effect gas supply rationing.

Reportable Incidents

- The incidents listed below are considered to be reportable incidents under Section 85(1) of the *Petroleum Act 2000*:
- Unauthorised activity on the pipeline easement where the pipeline is not contacted.

- Oil or hazardous material spill that adversely impacts on an area not specifically designed to contain such spills.
- A less than the prudent level of gas being supplied to, or through, the supply/transmission system for Epic to comply with its contractual obligations for a period greater than 12 hours.
- A range of KPI's are also required to be reported in the annual report.
- Reporting Requirements

Serious Incidents must be reported to the PIRSA Minister as soon as practicable after the occurrence, as per Section 85 of the *Petroleum Act 2000* and Section 32 of the *Petroleum Regulations 2000*.

Reportable Incidents must be reported to PIRSA on a quarterly basis within 1 month of the end of the quarter, as per Section 32 of the *Petroleum Regulations 2000*.

GLOSSARY

ALARP	As Low As Reasonably Practical
APIA	Australian Pipeline Industry Association
DEF	Declaration of Environmental Factors
DHEAA	Department of Environment, Heritage and Aboriginal Affairs
EPA	Environment Protection Agency
EIR	Environmental Impact Report prepared in accordance with Section 97 of the *Petroleum Act 2000* and Regulation 10.
PIRSA	Primary Industries and Resources, South Australia
Planning SA	Department of Transport, Urban Development and the Arts
ROW	Right of Way
SEO	Statement of Environmental Objectives prepared in accordance with Section 99 and 100 of the *Petroleum Act 2000* and Regulations 12 and 13.

REFERENCES

McDonough, R. 1999. *Goal attainment scaling: a tool for evaluating pipeline environmental performance.* Primary Industries and Resources of South Australia, Adelaide.

Petroleum Group (PIRSA) 2000. *Criteria for Classifying the Level of Environmental Impact of Regulated Activities: Requirements under Part 12 Petroleum Act 2000*. Primary Industries and Resources of South Australia, Adelaide. http://www.pir.sa.gov.au

APPENDIX A
OBJECTIVES AND ASSESSMENT CRITERIA

Goal	Goal/ Comment	Criteria
1. To avoid significant disturbance to landuse or damage to infrastructure.	1.1 To minimise disturbance to land use and damage to infrastructure	Refer to GAS criteria Appendix B.
2. To promote and maintain soil stability.	2.1 To ensure there is no erosion on the easement.	Refer to GAS criteria Appendix B.
3. To promote and maintain vegetation cover on the ROW.	3.1 To ensure that weeds and pathogens are controlled at a level that is at least consistent with adjacent land. 3.2 To maintain regrowth of native vegetation	Refer to GAS criteria Appendix B.
4. To minimise noise due to operations.	4.1 To ensure operations comply with noise standards.	The requirements of the *Environment Protection Act 1993* and EPA IS No 9 April 1998 Noise Control are met. (Refer to Epic Energy Obligation Register). *Refer to GAS criteria Appendix B.*
5. To minimise the potential for emissions that may cause public concern.	5.1 To ensure that uncontrolled emissions are reported and acted upon immediately.	Refer to GAS criteria Appendix B.
6. To minimise the risks to public and third party health and safety.	6.1 To adequately protect public safety during normal operation. 6.2 To adequately reduce the likelihood of fire associated with maintenance activities. 6.3 To adequately protect public safety during maintenance.	Risk assessment report demonstrates that the pipeline risks are Negligible, Low or ALARP, in accordance with AS 2885 Section 2. Adherence to AS 2885.3 1997 demonstrated via annual reports, emergency response reports and fitness for purpose reports (refer to Petroleum Regulations 2000). Arrangements in place for effectively communicating with councils based on the 600 meter rule as request in 15/12/2000 PIRSA letter to Epic Energy General Manager, Operations. Refer to GAS criteria Appendix B.

7. To ensure the environmental management and rehabilitation for emergency, incident or operational dig-ups will be carried out in accordance with the APIA Code of Environmental Practice: Part B – Onshore Pipeline Operations.	7.1 To minimise the impact as a result of an emergency situation, incident or operational dig up. In the event of an emergency, stockpiling of topsoil and vegetation etc are not a consideration. Appropriate rehabilitation action should be taken once the emergency has been dealt with.	Adherence to APIA CEP Section 4.2. (Refer to Section 5 of Epic Energy's EMP Operations).
8. To ensure security of supply for users of natural gas.	8.1 Minimise the likelihood of any significant curtailment of gas supply to customer(s) which could result in a detrimental impact on the gas supply to a significant number of gas users in SA. 8.2 Maintain a prudent level of gas supply to comply with contractual obligations.	No serious or reportable incidents in relation to the security of gas supply as defined in section 4 of this SEO.

REFER TO EPIC ENERGY'S EMP OPERATIONS FOR DETAILS OF THE ENVIRONMENTAL CONTROL MEASURES TO BE IMPLEMENTED IN ORDER TO ACHIEVE THE STATED OBJECTIVES.

APPENDIX B
GOAL ATTAINMENT SCALING

		Goal significantly exceeded	Goal exceeded	Goal achieved	Minor shortfall	Significant shortfall
Objective	**Goal parameter**	**+2**	**+1**	**0**	**-1**	**-2**
1. To avoid significant disturbance to landuse or damage to infrastructure.	1.1 To minimise disturbance to landuse and damage to infrastructure.	No disturbance to infrastructure. No access to private land.	Disturbance to infrastructure occurs less than once every ten years. Access to private property occurs on an annual basis in accordance with landowner agreements.	Disturbance to infrastructure (eg. such as fencing or access tracks) occurs less than once every five years. Access to private property occurs more often than once a year in accordance with landowner agreements.	Disturbance to infrastructure occurs less than once every two years. Access to private property occurs more often than twice a year in accordance with landowner agreements.	Disturbance to infrastructure occurs more often than once every two years. Access to private property occurs more often than four times and was not in accordance with landowner agreements.
2. To promote and maintain soil stability.	2.1 To ensure there is no erosion on the easement.		There was no evidence of erosion.	The extent of soil erosion on the easement was consistent with surrounding land.	There was evidence of more extensive erosion than on surrounding land for up to 1% of the easement.	There was evidence of extensive erosion on more than 1% of the easement.
3. To promote and maintain vegetation cover on the ROW.	3.1 To ensure that weeds and pathogens are controlled at a level that is at least consistent with adjacent land.	No noxious weeds or pathogens were evident on the right-of-way.	There were less weeds and pathogens than on adjacent land.	The presence of weeds and pathogens on the easement was consistent with adjacent land.	Weeds and pathogens were slightly more abundant than on adjacent land.	There was a greater abundance and diversity of weed and pathogen species than on adjacent land.

		Goal significantly exceeded	Goal exceeded	Goal achieved	Minor shortfall	Significant shortfall
Objective	**Goal parameter**	**+2**	**+1**	**0**	**-1**	**-2**
	3.2 To maintain regrowth of native vegetation.	Revegetation was indistinguishable from the surroundings.	Species abundance and distribution was consistent with the surroundings.	Species abundance and distribution in such areas was consistent with the surroundings. Follow-up restoration work was undertaken as necessary.	75% of species present in surrounding areas have established and cover was consistent. Some follow-up restoration work was undertaken.	Less than 75% of species present in surrounding areas have established and cover was less than adjacent land. No follow-up restoration work was undertaken.
4. To minimise noise due to operations	4.1 Operations comply with noise standards.			Operational activities comply with noise regulations, under the Environment Protection Act 1993. No complaints were received.	Operational activities exceed noise regulations on one or two occasions per year. Complaints were received.	Operations frequently exceed noise regulations. Numerous complaints were filed.
5. To minimise the potential for emissions that may cause public concern.	5.1 To ensure that uncontrolled emissions are reported and acted upon immediately.			Emissions were kept to an acceptable level for the life of the pipeline. No complaints were received from the public	Emissions were reported. Complaints from the public were acted upon immediately.	Emissions were reported and complaints were not acted upon.
6. To minimise the risks to public health and safety.	6.1 To adequately protect public safety during normal operation.			The pipeline easement was clearly identified by signs that had been installed in accordance with AS2885. A comprehensive landowner liaison program was implemented. An Emergency Response Plan was in place and staff were adequately trained.	The pipeline easement was clearly identifiable for most of the route. Most landowners were consulted on a regular basis. An Emergency Response Plan was in place and some staff were trained.	The pipeline easement was poorly marked by signs and difficult to identify for more than 50% of the easement. No landowner liaison was conducted. No Emergency Response Plan was in place.

		Goal significantly exceeded	Goal exceeded	Goal achieved	Minor shortfall	Significant shortfall
Objective	**Goal parameter**	**+2**	**+1**	**0**	**-1**	**-2**
	6.2 To adequately reduce the likelihood of fire associated with pipeline maintenance activities.			Fuel load on the easement was consistent with adjacent land. All operations personnel were trained in fire safety procedures. No project related fires have occurred.	Fuel load on the easement greater than on adjacent land. Some operations personnel were trained in fire safety procedures. No project related fires have occurred.	Fuel load on the easement significantly greater than on adjacent land. No operations personnel were trained in fire safety procedures. Project related fires have occurred.
	6.3 To adequately protect public safety during maintenance.			All affected and adjacent landowners were advised of the nature and schedule of maintenance activities. All potentially hazardous areas were signposted or marked with bunting. Adequate traffic management practices were implemented. There were no injuries or near misses involving the public.	More than 75% of the landowners were advised of the nature and schedule of maintenance activities. Most potentially hazardous areas were signposted or marked with bunting. No specific traffic management procedures were in place. At least one near miss involving the public occurred.	Less than 75% of the landowners were advised of the nature and schedule of maintenance activities. No potentially hazardous areas were signposted or marked with bunting. No specific traffic management procedures were in place. At least one injury involving the public occurred.

ANNEX B

2001 PL6 ANNUAL REPORT

DATED APRIL 2002

ASSESSMENT OF DECLARED OBJECTIVES

ASSESSMENT OF DECLARED OBJECTIVES

OBJECTIVE	GOAL(S)	ASSESSMENT	COMMENT
1. To avoid significant disturbance to land use or damage to infrastructure.	1.1 To minimise disturbance to land use and damage to infrastructure.	-2	23 excavations were carried out on the right of way to accommodate foreign crossings of the pipeline.
2. To promote and maintain soil stability.	2.1 To ensure there is no erosion on the easement.	+1	There was no evidence of erosion on the easement.
3. To promote and maintain vegetation cover on the ROW.	3.1 To ensure that weeds and pathogens are controlled at a level that is at least consistent with adjacent land.	+2	No noxious weeds or pathogens were evident on the right of way.
	3.2 To maintain regrowth of native vegetation.	+2	Revegetation was indistinguishable from the surroundings.
4. To minimise noise due to operations.	4.1 To ensure operations comply with noise standards.	0	Operational activities comply with noise regulations, under the Environment Protection Act 1993. No complaints were received.
5. To minimise the potential for emissions that may cause public concern.	5.1 To ensure that controlled emissions are reported and acted upon immediately.	-1	The incident at the Angaston Compressor Station resulted in a small amount of public concern.
6. To minimise the risks to public health and safety.	6.1 To adequately protect public safety during normal operation.	0	Risk assessment report demonstrates that the pipeline risks are Negligible, Low or ALARP, in accordance with AS 2885.
	6.2 To adequately reduce the likelihood of fire associated with maintenance activities.	0	Risk assessment report demonstrates that the pipeline risks are Negligible, Low or ALARP, in accordance with AS 2885.

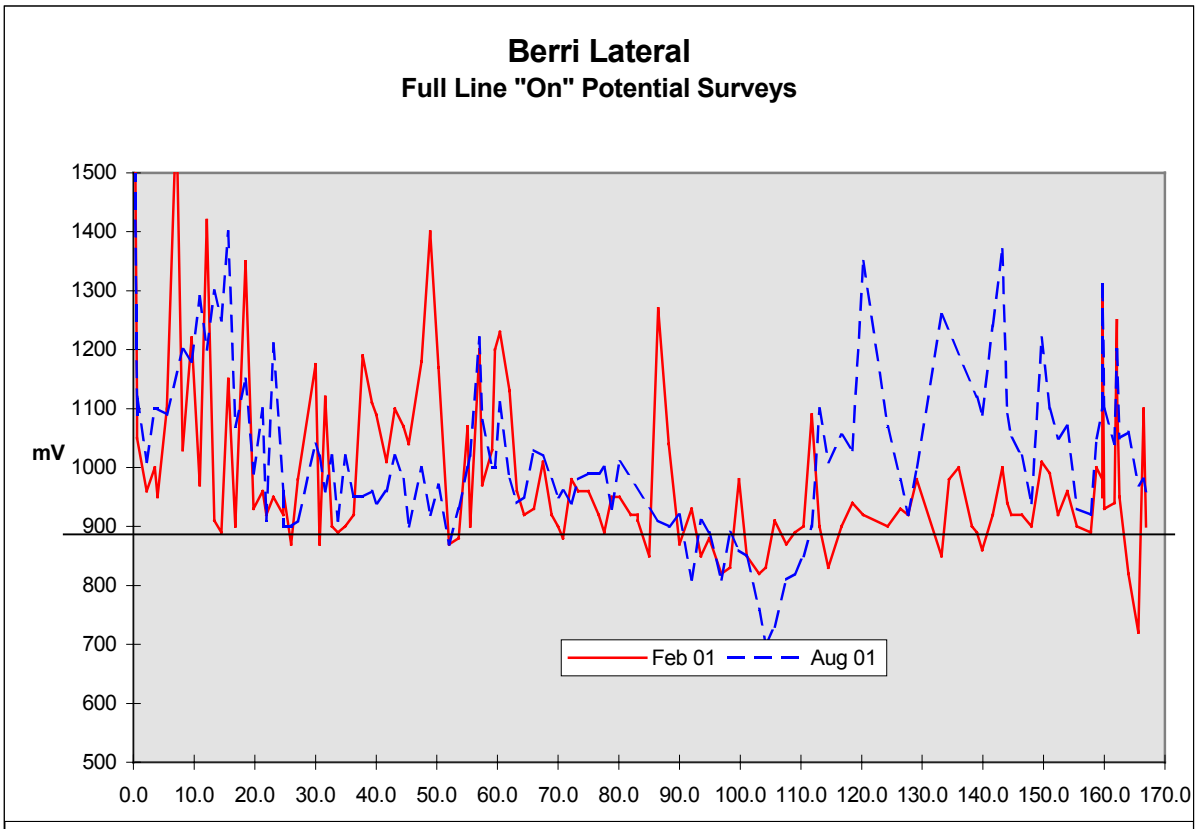
OBJECTIVE	GOAL(S)	ASSESSMENT	COMMENT
	6.3 To adequately protect public safety during maintenance.	0	All maintenance activities were conducted in a controlled manner.
	11.2 To limit the severity of any emergency rupture or pipeline liquids release.	0	Risk assessment report demonstrates that the pipeline risks are Negligible, Low or ALARP, in accordance with AS 2885.

ANNEX C

2001 PL6 ANNUAL REPORT

DATED APRIL 2002

PIPELINE CATHODIC PROTECTION DATA AND ON/OFF POTENTIALS PROFILES


Berri Lateral
Full Line "On" Potential Surveys
mV
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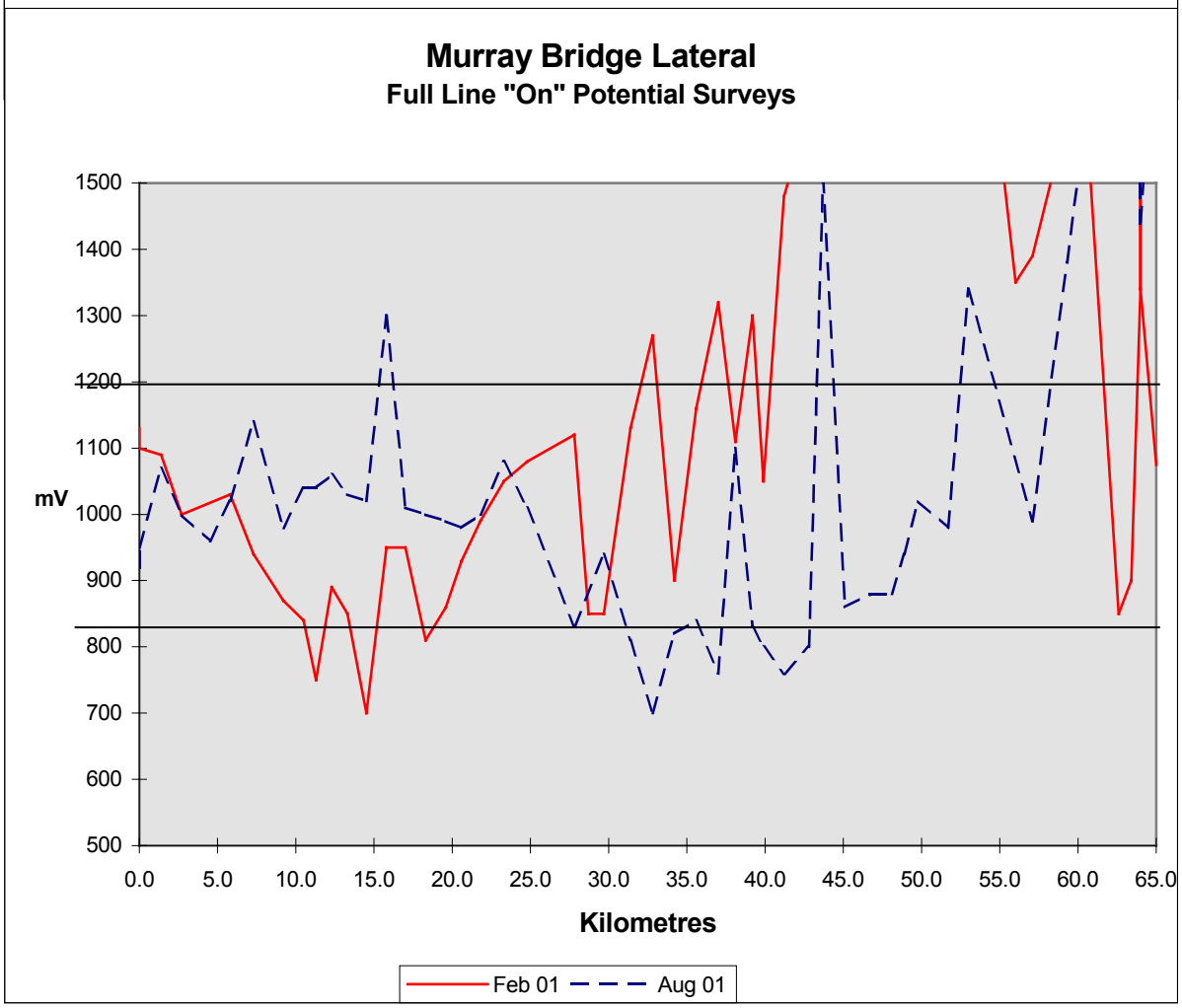
Feb 01
Aug 01


Murray Bridge Lateral
Full Line "On" Potential Surveys
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Kilometres
Feb 01
Aug 01