

EPIC ENERGY
South Australia Pty Ltd



2013 Annual Report

SOUTH EAST PIPELINE

Pipeline Licences 3 & 4

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LIST OF ABBREVIATIONS

AFD	Axial Flow Detection
ALARP	As Low As Reasonably Practical
AS2832	Australian Standard 2832 Part 1 – Cathodic Protection – Pipelines and Cables
AS2885	Australian Standard 2885 Pipelines – Gas and Liquid Petroleum
AVT	Accuracy Verification Test
CDP	Corrosion Detection Pig
CFS	Country Fire Service
CMMS	Computerised Maintenance Management System (MAXIMO)
CP	Cathodic Protection
CPU	Cathodic Protection Unit
Cu/CuSO4	Copper/Copper Sulphate
DCGV	Direct Current Voltage Gradient
DNV	Det Norske Veritas
EESA	Epic Energy South Australia Pty Ltd
EGP	Electronic Geometry Pig
EMS	Environmental Management System
ERE	Emergency Response Exercise
ESD	Emergency Shut Down
GEA	Gas Engine Alternator
GIS	Geographical Information System
GPS	Geographical Positioning System
GUF	Gas unaccounted for
HAZOP	Hazard Operability
HELM	Heritage, Environment and Land Management
HSE	Health, Safety and Environment
HV	High Voltage
ILI	In Line Inspection
KP	Kilometre Point
LMS	Land Management System
MAOP	Maximum Allowable Operating Pressure
MFS	Metropolitan Fire Service
MLV	Mainline Valve
PIRSA	Primary Industries and Resources of South Australia
PL3 & 4	Pipeline Licence 3 and Pipeline Licence 4
POMS	Pipeline Operating Management System
RCD	Residual Current Device
ROW	Right of Way
RTU	Remote Terminal Unit
SCADA	Supervisory Control and Data Acquisition
SEO	Statement of Environmental Objectives
SEP	South East Pipeline
SES	State Emergency Services
SMS	Safety Management Systems
SRB	Sulphate Reducing Bacteria
SWER	Single Wire Earth Return
TJ	Tera Joule
UHF	Ultra High Frequency
VHF	Very High Frequency

1. Purpose

This report is submitted in accordance with the requirements of Pipeline Licence 3 (PL3) and Pipeline Licence 4 (PL4) and the South Australian Petroleum and Geothermal Energy Regulations 2013.

2. Scope

Pipeline Licence 3 (PL3) and Pipeline Licence 4 (PL4) and, known as the South East Pipeline (SEP) is owned, operated and maintained by Epic Energy South Australia Pty Ltd (EESA).

This report reviews the operations carried out during 2013 and the intended operations for 2014. In accordance with the Petroleum and Geothermal Energy Regulations 2013, a performance assessment is also provided with regards to the Statement of Environmental Objectives (SEO) for PL3 and PL4.

3. Technical Aspects

Table 1 summarises the technical aspects of SEP. Figure 1 indicates the pipeline location and layout.

Table 1 – SEP Technical Data

	Katnook to Apcel	Glencoe to Mount Gambier	Nangwarry	Safries
Pipeline Licence	PL3	PL3	PL4	PL3
Date Constructed	1990-1991	1990-1991	2001	1990
Date Commissioned	March 1991	April 1991	August 2001	January 1991
Length	46.1 km	18.9 km	11.5km	4.5 km
External Diameter	168.3mm	168.3mm	88.9mm	60.3mm
Wall Thickness <ul style="list-style-type: none"> • Normal • Special crossings (roads, rivers etc) 	4.2mm 5.0mm	4.2mm 5.0mm	3.2mm 4.0mm	3.9mm 3.9mm
Pipe Grade	API 5LX 42	API 5LX 42	API 5LX 56	ASTM A106 Gr B
MAOP	10,000kPa	10,000kPa	9850kPa	10,000kPa
Coating	Yellow Jacket	Yellow Jacket	Yellow Jacket	Yellow Jacket
Cathodic Protection	Sacrificial Anode	Sacrificial Anode	Sacrificial Anode	Sacrificial Anode
MLV	3	2	U/S and D/S isolation valves	U/S and D/S isolation valves
Actuators	Manual	Manual	Manual	Manual
Compressor Stations	Nil	Nil	Nil	Nil
Meter Stations	1 – Apcel (Kimberley Clarke)	1 – Mount Gambier	1 Nangwarry	1 – Safries

Figure 1 – SEP route map



4. Operational and Maintenance Activities

4.1. Risk Management Review

A five yearly SMS review for the South East Pipeline System was carried out in 2012 as per the requirements of AS2885 (refer to EESA document number S-32-108-RAE-G-002).

This workshop review did not identify any significant threats that had not been identified in previous workshops, nor did it identify any significant shortcomings in the controls required to be applied in accordance with AS 2885.

4.2. Training

EESA continues to meet its contractual, operational and technical requirements in a safe and competent manner by ensuring its employees and contractors have the relevant skill set to meet the challenges of the gas transmission industry.

By maintaining and enhancing current levels of skills/knowledge of its personnel, while identifying any skill set deficiencies and arranging suitable training to assist meeting those requirements, EESA will ensure industry currency for itself and personnel under its jurisdiction.

In 2013 EESA has used several methods of training employees and contract labour. In-house techniques such as self-paced modules, group presentations and one on one session's. External Registered Training Organisations and other organisations have provided a range of certified and specialised external courses, lectures seminars and conferences.

The range of courses/training undertaken by EESA personnel and contract labour during 2013 include:

- ACA Corrosion & Prevention Conference 2013
- Accommodation Rules.
- Alcohol & other Drugs
- Apply First Aid
- AS 2885.3 Pipelines Gas & Liquid Petroleum - O & M (in-house)
- Australian Standards
- Basic Fire Prevention & Control (Extinguishers)/Refresher (Phase 3)
- Basic Fire Training
- CGR Software Training (in-house)
- Chainsaw - Basic Operations & Maintenance
- Chemical Hazards
- Chemical Use and You
- Class C Drivers Licence Validity
- Combustion Basics
- Compressor Service Training Seminar
- Confine Space
- Confine Space with 'BA'
- Confined Space Awareness (in-house)
- Corrosion Control Introduction
- Dry Creek Induction On Line

EEHA
Elevated Work Platform WP
Engineering Workshop
Environmental Induction - On line
Epic Field introduction and Familiarisation (in-house)
Excavation of Pipelines (in-house)
Excel Introduction
Fire Aware & Extinguisher
First Aid in the field
Gas Safety
Gas Test Atmospheres 2013
GC700 (Rosemount) Basics & Overview.
Hazard And Incident Reporting
Heat Stress
Heat Stress - Santos (Epic SA & Qld)
High Risk License
HR Class Licence - Heavy Rigid 8t-9t
HR Truck TLIC3004A
HSR level 2
Human Resources Induction
Hydrocarbon Basic
Hydrocarbon Properties & Principles
Inductions Contract Personnel
Inductions Epic personnel
Isolation - SSOW
JHA - SSoW
Land Access Code & Cultural Heritage
Learning & Development Kiosk (in-house)
Liquids Line
LVR
LVR / CPR in the field
Manual Handling
Melbourne Office Induction
Mercury Awareness
Operate Vehicles in the Field
Operations Field Induction On Line
Permit to Work
Personnel Movement & Tracking
Pipe Location - General Epic Module
Pipeline Excavation
Pipeline location
Pipeline Surveillance
Pipeline Voice Communications
Preventing Discrimination & Harassment
Purchase Requisition & Purchase Order (in-house)
Review the Maintenance Standard - Basic Overview (in-house)

ROC Training
Rotating equipment sub-committee
Safety Video (in-house)
Santos - EHS Toolbox
Santos - Hazard Management using Stepback & JHA
Santos HR code of conduct
Santos ID
Santos Level 1 Induction - QLD and SA
Santos Level 2 - Moomba/Cooper Basin
Santos Port Bonython Induction - SA
Santos Rev 7.3 - Permit to Work
Snake Awareness 2013
Solar standalone CP supplies training
SSoW Isolation
SSoW JHA
SSoW Permit to Work
STTM Induction
STTM Management Systems
Taxation & Payroll Training
The Atmosphere & Working With Gases
Third Party Works
Valve Training
Vehicle Loading Crane (< 10 metre tonnes)
Voice Communications
Work Orders (in-house)
Working Alone in Remote Locations
Working at Heights
Working at Heights - Awareness
Working in Remote Locations
Workplace Drugs & Alcohol
Workplace Safety
Workzone Traffic Management
X-Info & GBM(gps) Training

4.3. Operations and Maintenance Activities

Operations and maintenance activities have been conducted in accordance with AS2885.3 and other relevant standards. Work is programmed in accordance with the 2013 Annual Maintenance Plan.

All maintenance activities are programmed in EESA's CMMS, a scheduling system which generates work orders for maintenance staff to complete. Some of the key items in the 2013 maintenance schedule include:

- Road Patrols conducted on a monthly basis; all action items identified during the patrols were rectified immediately by the patrolling officer or completed during regular maintenance visits by Epic Energy personnel.
- Inspection and maintenance of dust and coalescer filter vessels.

- Monthly Meter, Off-take & Scraper site inspections carried out by Epic Energy authorised contractors with no major issues identified.
- Inspection and servicing of all fire extinguishers.
- Six monthly maintenance was carried out on all MLVs and Pig Vessels during the year.
- Six monthly Cathodic Protection (CP) surveys.
- Six monthly mechanical and electrical/instrumentation maintenance carried out on all meter stations and associated equipment.
- Three monthly Accuracy Verification Testing at all meter stations.
- Administration of the free call 1100 “Dial Before You Dig” system with 24 calls received throughout the year relating directly to the SEP system.
- Landowner Contact and Community Pipeline Safety Awareness program

A summary of the Operations and Maintenance activities completed in 2013 is provided below

4.4. Pipeline Patrol Activities

Monthly road patrols were completed in accordance with AS 2885.3 criteria to ensure the following issues are assessed:

- Signage is in suitable condition and if not, repairs are effected as soon as is practically possible. Any issues not addressed during the patrol are fed back into the CMMS.
- That there are no third party activities being carried within the vicinity of the pipeline easement with potential to cause pipeline integrity issues.
- Soil erosion due to wind and water is assessed and where necessary restored to maintain the required depth of cover.
- There are no leaks occurring at the pipeline facilities or along the pipeline route.
- All sites are secure and kept in a good, clean and tidy state.
- Inspections of above ground pipe coating condition, fences, gates, padlocks, signage, fire extinguishers, weeding and housekeeping at the meter station.

There were no significant issues identified during road patrols in 2013.

4.5. Cathodic Protection

Two CP full line surveys were undertaken in 2013 (April and November). Due to the sacrificial anode design of the CP system, historically only ON potential surveys have been carried out. Whilst this approach is acceptable under AS2832.1 Cathodic Protection of Metals – Pipes and Cables (and equivalent NACE Standards), the use of switching gear was included in the November survey to allow ON/OFF potentials to be taken.

The collection of OFF potentials provides a more direct indication of the CP system performance. As detailed by the data provided in Appendix B, CP levels on all SEPS pipelines were to the requirements of AS2832.1.

4.6. Coating Integrity

The most recent coating defect survey was conducted on the SEPS in May 2008. Two locations were identified with defects considered large enough to inspect; one on the SAFries lateral and one on the Glencoe to Mt Gambier lateral. Both have been excavated, assessed and repaired. Three other locations recorded minor coating defects. These were below inspection criteria, and

will be reassessed during the next coating survey planned for the first half of 2014. SEPS coating is considered to be in good condition.

4.7. Pipeline Integrity

There have been previous concerns with occasional out-of-specification gas in the SEPS leading to potential internal corrosion. This was due to the combination of higher CO₂ content SEAGas gas from the SESA connection with higher moisture content gas from the Katnook Plant, which created the potential for the formation of carbonic acid. However, the Katnook Plant ceased operation in late 2011, so there is now only one source of gas in the SEPS.

An in-line inspection (ILI) was carried out on the Glencoe Junction to Mt Gambier section of the SEPS in June 2013. The inspection reported three internal corrosion anomalies of between 10 and 19% wall thickness loss.

An in-line inspection was also carried out on the Katnook to Apcel section of SEPS in 2012. This inspection similarly reported a small number of locations with 'light' internal metal loss.

Based on the ILI results, even though some minor corrosion activity is evident, the location of highest corrosion growth was from 13% to 15% wall thickness loss between inspections. This translates to a corrosion rate of approximately 0.014 mm/yr. This is considered low, and safe allowable operating pressure calculations show that all detected corrosion defects are acceptable for the pipeline MAOP of 10 MPa.

Corrosion anomaly locations will be programmed for excavation and inspection as part of routine integrity management activities. It is also noted that SEPS is normally operated between 5 and 6 MPa, well below the pipeline MAOP.

4.8. Electrical and Instrumentation Maintenance Activities

Accuracy Verification Testing was completed on a three monthly basis at all active meter stations on the South East Pipeline System. There were no significant issues associated with the gas metering.

Electrical compliance testing was carried out on all portable electrical equipment and residual current devices (RCD's) at all sites.

Scheduled six monthly maintenance was carried out at all active stations which involved calibration of all non-billing transmitters, testing all remotely operated valves, calibration of all switches and testing of all associated systems.

The earthing system at Katnook was upgraded in June 2013 due to the nearby installation of a new high voltage cable by Electranet. New zinc earth electrodes and an extensive system of buried cabling were installed, as well as polarisation cells across insulation joints for step and touch protection. Zinc earth electrodes were chosen to ensure maximum compatibility with the sites interconnected CP systems.

4.9. Mechanical Maintenance Activities

All routine mechanical maintenance activities were completed as scheduled on the South East Pipeline system. This work involved MLV servicing, station filter inspections and replacement and vessel servicing and maintenance.

Routine inspection and maintenance was carried out on the pressure regulation, pressure relief and ESD valves at all South East Meter Stations on a 6 monthly basis.

- Maintenance tasks for the pressure control systems consisted of the inspection/overhaul of regulator seats, pilots and instrumentation filters to ensure correct operation of set points of the active, monitor and bypass regulation systems.
- Pressure Safety Valves were checked to confirm correct set point, operation and alarming functions. Where applicable, overpressure isolation valve functions were tested to ensure satisfactory operation.
- All routine 6 monthly maintenance is documented via Epic Energy's computerized asset management system (Maximo) and file copies are located within the central filing system.

All buildings and structures are inspected and maintained as part of routine maintenance procedures.

The filter lid from the filter vessel at Mount Gambier Meter Station was removed in July this year to have a filter access hook mechanism replaced due to wear over time.

A new filter vessel was installed on the inlet to the SAFries lateral at Katnook in 2013. Work included installation of a new filter vessel, PSV and bypass pipe work.

All other reactive faults were classified as minor and tended to immediately without incident.

4.10. Leak Detection

EESA monitors and operates all of its pipeline assets using a Telvent OASyS DNA 7.4 SCADA system from the Dry Creek control room.

The SCADA system has leak detection functionality that is configured to monitor the flows in and out of the system, line-pack inventory, gas quality and pressure and temperature change rates. Alarms identify the pipeline section with the anomalous readings, allowing the pipeline controller to investigate further and take actions as appropriate (i.e. mobilizing on-call field staff to close manually operated isolation valves). These 'leak alarms' are augmented by maintenance activities along the pipeline which include regular patrols and inspections for the identification of leaks, and isolation valves are routinely tested to ensure operability.

In addition to the field maintenance activities, control room staff also perform daily gas balancing of all accountable gas sources and has a procedure to follow if Gas Unaccounted For (GUF) falls outside accepted limits.

There were no pipeline leaks for the MAPS in 2013.

4.11. Communications

EESA operates and controls the SEPS from the PCR in Dry Creek, South Australia. There is also an emergency control centre in Mawson Lakes, South Australia.

The SCADA system is a distributed, dual redundant system, which utilizes EESA and third party communications providers, to communicate to the remote field telemetry devices.

Glencoe Junction had the backup batteries and the solar charger for communications replaced in September 2013 to ensure communications reliability is maintained. Both assets were considered to be at the end of their serviceable life.

There were no significant communication faults reported in 2013 for the SEPS.

5. Incident Reporting

There were no serious or reportable incidents associated with the South East Pipeline during 2013.

6. Land Management

6.1. Land Owner Liaison

There are 83 landholders along the South East Pipeline system. During 2013 EESA visited all properties (or other nominated contact addresses), completing a questionnaire during the visit, confirming contact details, current and proposed land use, awareness of the pipeline location and reminding landowners of their responsibilities with respect to working in the pipeline vicinity. Where landholders were not available to be seen in person, the questionnaire was completed via telephone.

As part of EESA's pipeline awareness program, all landowners were also contacted via mail on two occasions, with a letter sent in June 2013 emphasising the importance of using the DBYD system and an EESA 2014 calendar containing information on pipeline safety and their responsibilities sent in December 2013.

6.2. Pipeline Safety Awareness

EESA implements a Community Awareness Program, which entails holding awareness meetings with communities, Councils, government departments, utilities, emergency services and contractors along the pipeline route. One presentation was held with representatives from the District Council of Grant, an employer of staff and contractors who work in close proximity to the South East Pipeline system.

The presentation focused on the general properties of the gas transported, location of the high pressure gas pipelines in the regions concerned, correct procedures when working within pipeline easements, pipeline threats and dealing with emergency situations.

6.3. Pipeline Locations and Referral Services

EESA continues to provide a free service to locate any pipeline that they own or operate on behalf of third parties. Historically this service was primarily used by companies and third parties carrying out civil works in the vicinity of the pipelines, with contact made via either direct telephone to EESA or via the free call 1100 "Dial Before You Dig" (DBYD) asset referral service.

In 2013 EESA made a concerted effort to encourage all landowners to use the free DBYD service as it provides more traceability and consistency in response.

During 2013 EESA updated its Dial Before You Dig Procedure to further improve the service. Updates included adding a 'Supervision Decision Matrix' to ensure appropriate supervision, as described in AS2885.3, is provided in all circumstances, a 'Standard Conditions Form' that we ask

be signed by all parties before works commence, and a returnable 'Work Instruction' completed by EESA personnel on site acknowledging all procedural steps have been completed.

EESA received 17 DBYD enquiries in relation to third party activity in the vicinity of the South East Pipeline system.

7. Environmental Management

7.1. Control Document and Training

Environmental procedures and work instructions continue to be regularly reviewed and updated.

In 2013 EESA updated its Environmental and Land Access Policy to bring it in line with the Australian Standard ISO14001:2004 Environmental management systems – Requirements with guidance for use.

The online environmental training module was completed by all employees and contractors entering the field on behalf of EESA. This induction provides an overview of environmental risks, control measures and responsibilities.

7.2. Soil Erosion and Subsidence Management

No erosion or subsidence was identified on the South East Pipeline in 2013.

Appendix A contains the "Assessment of Declared Objectives" completed for the South East Pipeline system.

8. Emergency Response

The Petroleum and Geothermal Energy Regulations 2013 require that an Emergency Response exercise is to be conducted on the South East Pipeline System once every two years and in addition to this exercise a set of Emergency Response procedures is to be developed and maintained. These procedures are detailed in EESA's Incident Management Plan.

EESA have reviewed the outcomes of the 2012 exercise and have developed an Emergency Response Plan in line with the new EESA organisational structure.

As an emergency exercise was conducted during 2012, no further exercise has been conducted in 2013.

It is intended to conduct an exercise in 2014.

9. Regulatory Compliance

EESA ensures that design, manufacture, construction, operation and maintenance and testing of all appropriate facilities is carried out in accordance with the relevant Acts of Parliament, licence conditions and AS2885 requirements.

EESA attends quarterly meetings with DMITRE, where operational regulatory compliance is discussed in an open manner.

EESA manages legislative changes through SAI Global, an organisation which monitors, tracks and advises EESA of legislative changes that could affect the operation of the pipeline.

EESA is not aware of any regulatory non compliance for this pipeline, and believe it is fulfilling its obligations in relation to the following requirements:

- Petroleum and Geothermal Energy Act 2000;
- Petroleum and Geothermal Energy Regulations 2013;
- Pipeline Licence 3 (PL3);
- Pipeline Licence 4 (PL4); and
- The Statement of Environmental Objectives (SEO) for PL3 and PL4

Significant items are reported through to DMITRE and are raised at quarterly compliance meetings held between DMITRE and EESA.

There have not been any significant regulatory compliance issues during this reporting period.

10. Risk Management

EESA has established a complete Safety Management System throughout 2013 that meets all obligations under the harmonised WHS legislation and AS2885:2012; and is aligned to AS4801 – Occupational Health and Safety Management Systems. The WHS Safety Management System consists of an overarching Safety Management Plan, Policies, Guidelines, Procedures and Work Instructions; and has been implemented across all elements of the business.

EESA utilise an online Risk Management database known as Corporate Governance Risk (CGR).. CGR is a web-based risk management platform that performs the following key functions:

- a) Risks, which incorporates HAZID style workshop outcomes, eg risks, causes, controls, consequences and risk rankings;
- b) Learnings, which captures HSE and operational lessons learnt, including related actions;
- c) Actions, which tracks actions from risk workshops, incident reporting, inspections/audits and meetings;
- d) Incidents, which records information on incidents in the areas of clinical health, injury, environment, asset, reputation, security, legal and financial; and
- e) Audits, which allow audits and other checklists to be created and generated.

Recommendations arising from the checklists can be elevated to actions and transferred to the action component.

11. Management System Audits

11.1. Health and Safety

WHS audits are undertaken by EESA to provide assurance and to assess the effectiveness of WHS management practices to determine if they are effective for ongoing and future management of

significant risks in line with best industry practice and company policies. Audits also identify opportunities for WHS continuous improvement.

WHS audits are important to provide a health check on all WHS governance activities and to provide confidence that WHS risks are being managed to levels that are As Low As Reasonably Practicable (ALARP). These audit and assurance activities are also conducted to provide due diligence WHS reporting data to the officers of EESA to assist them in discharging their WHS due diligence requirements under the WHS Act (SA) 2012.

A schedule of audits was developed in order to ensure adequate planning and preparation with a combination of internal and external audits conducted.

In addition to these systems audits, EESA have established, as part of its Tasks and Targets for Supervisors and Managers, tools to conduct field based quality assurance inspections to ensure that the system is being appropriately utilised in the field.

Audits undertaken during 2013 are listed below:

- WHS and Assurance
- Incident Management
- Fitness for work including fatigue, Alcohol and Other Drug & physical and psychological impairment
- DIMTRE Self Assessment audit alignment to AS4801
- 43 field based safe systems of work observations / audits
- Crisis and Emergency Management
- Journey Management
- Hazardous Substances and Dangerous Goods

11.2. Management Audit

EESA completed a number of management audits during 2013. These were a combination of EESA's internal audit program and external audits by industry experts initiated by EESA.

The following topics were subject to audit during 2013:

- Aviation Audits;
- Compliance with National Greenhouse and Energy Reporting Scheme (NGERS);
- Short Term Trading Market (STTM) Compliance;
- SWER Maintenance Plan;
- Policies and Procedures Audit; and
- AS2885 Gap Analysis

The auditing program offers the opportunity to identify and promote continual improvement within EESA and completion of these audits is recognised as a key performance indicator by management and the Board.

12. Reports Issued during the Reporting Period

The following reports were issued for PL3 and 4 during 2013:

- 2013 SEP PL3 and 4 Annual Report

13. Volume of Product Transported

Approximately 1,809 TJ of natural gas was transported through the SEPS in 2013.

14. Proposed Operational Activities for the next year

During 2014 the following activities are planned for the SEPS:

- Completion of all routine maintenance activities in accordance with the SEPS maintenance plan
- Due to advice from the customer on the SAFries lateral, this pipeline will cease deliveries from 1 January 2014, so the asset is to be placed in 'suspension' under AS2885.3 in early 2014
- The current suspended condition of the Nangwarry Lateral will also be reviewed to ensure the ongoing safety and integrity of this pipeline section that has not flowed since 2010
- A coating survey is planned for all SEPS pipelines in the second quarter of 2014
- CP system upgrades will be considered to install permanent GPS synchronising units to allow ON/OFF readings during full line surveys

15. Statement of Expenditure

Information relating to expenditure by Santos in relation to the regulated activities of the pipeline is provided as "Commercial in Confidence" in accordance with *sub regulation 33(9)* of the *Petroleum and Geothermal Energy Regulations 2013*, where public disclosure is not required in accordance with *sub regulation 33(4)*.

16. Conclusion

The maintenance and inspection programs carried out on the South East Pipeline Systems during 2013 have ensured the pipeline is fit for service and capable of operating within the set parameters.

Appendix A - SEO Assessment of Declared Objectives

Assessment of Declared Objectives

OBJECTIVE	GOAL	HOW / MEASURE	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED "YES/NO"	SUPPORTING COMMENTS
<p>1. To avoid unnecessary disturbance to 3rd party infrastructure, landholders or land use</p>	<p>1.1 To minimise disturbance or damage to infrastructure/land use and remediate where disturbance cannot be avoided</p>	<p>Incident reports. Records of communications with adjacent landholders / 3rd party prior to & during maintenance work. Landholder contact records database. Photo points or inspection reports, specifically to look at: removal of waste products, re-instatement of soil profiles, adequate re-contouring of surface profile, return of land use. Where disturbance is unavoidable or accidental, infrastructure or land use is restored as near as is practicable to its pre-disturbed condition or as agreed between the relevant parties. Duration of disturbance does not exceed agreed timeframe.</p>	<p>No reasonable landholder complaints</p>	<p>Yes</p>	<p>There were no activities carried out during 2013 to cause disturbance or damage to 3rd party infrastructure.</p>

OBJECTIVE	GOAL	HOW / MEASURE	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED "YES/NO"	SUPPORTING COMMENTS
	1.2 To minimise disturbance to landholders	Records of communications with adjacent landholders / 3 rd party prior to & during maintenance work. Landholder contact records database. Landholder activities not restricted as a result of pipeline activities. Completed disturbance checklist.	No reasonable landholder complaints. Landholder activities not restricted or disturbed as a result of pipeline activities unless by prior arrangement.	Yes	There have been no incidents or negative communications with landholders / third parties during 2013.
2. To maintain soil stability/ integrity	2.1 To remediate erosion as a result of pipeline operations in a timely manner	Timed photo points or annual land survey, specifically to look at evidence of erosion, subsidence, vegetation loss on easement & compare to adjacent land. Inspections undertaken as part of regular patrols, following specific works, following significant storm events. Preventative measures implemented and monitored in susceptible areas	The extent of soil erosion on the easement is consistent with surrounding land.	Yes	Regular vehicle patrols are conducted to identify anomalies on the easement. No erosion was reported or repaired in 2013.
	2.2 To prevent soil inversion	Annual land survey to look for soil discolouration, success of vegetation return as an indicator. Disturbance checklist signed off to indicate top soil/subsoil are stockpiled separately and soil profiles appropriately reinstated following the re-instatement of works/excavations.	Vegetation cover is consistent with surrounding land. No evidence of subsoil on surface (colour). No landholder complaints.	Yes	No excavations or soil disturbance was carried out during 2013.

OBJECTIVE	GOAL	HOW / MEASURE	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED "YES/NO"	SUPPORTING COMMENTS
<p>3. To maintain native vegetation cover on the easement</p>	<p>3.1 To maintain regrowth of native vegetation on the easement to be consistent with surrounding area</p>	<p>Annual land survey to look for evidence of disturbance to vegetation on easement (apart from access tracks). Disturbance checklist (including timed photos) signed off to indicate adequate steps undertaken to facilitate regrowth. Follow-up rehabilitation work undertaken where natural regeneration has been inadequate.</p>	<p>Species abundance and distribution on the easement.</p> <p>Note: assessment of the consistency with surrounding areas will take into account that re-growth is a time and rainfall dependent process.</p>	<p>Yes</p>	<p>Land surveys did not identify areas of vegetation disturbance. The native vegetation within the pipeline easement is consistent with surrounding environment.</p>
	<p>3.2 To minimise additional clearing of native vegetation as part of operational activities</p>	<p>Annual land easement survey to review vegetation regrowth. Records demonstrating compliance with AS2885. Vegetation removed in accordance with the <i>Native Vegetation Act 1991</i> and <i>Development Act 1993</i>.</p>	<p>No pipeline interference due to vegetation cover.</p>	<p>Yes</p>	<p>No excavations or soil disturbance was carried out during 2013. No previously undisturbed vegetation was cleared on the SEPS in 2013.</p>

OBJECTIVE	GOAL	HOW / MEASURE	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED "YES/NO"	SUPPORTING COMMENTS
	<p>3.3 To minimise additional clearing of native vegetation as part of operational activities</p>	<p>Annual land survey to look for evidence of disturbance to vegetation on easement (apart from access tracks). Use of Disturbance checklist and photo points before, during & after any excavation or land disturbance activity. Vegetation trimmed rather than cleared where possible. Consideration of sensitive vegetation during vegetation trimming and / or clearing activities in line with government legislation and regulations. Where practicable approval obtained under <i>Native Vegetation Act 1991</i> for any clearance of native vegetation.</p>	<p>Vegetation clearance is limited to previously disturbed areas or areas assessed to be of low sensitivity, unless prior regulatory approval obtained.</p>	<p>Yes</p>	<p>Land surveys did not identify areas of vegetation disturbance. The native vegetation within the pipeline easement is consistent with surrounding environment. No previously undisturbed vegetation was cleared on the SEPS in 2013. Vegetation is trimmed rather than cleared to maintain line of sight within pipeline easement.</p>
	<p>3.4 To ensure maintenance activities are planned and conducted in a manner that minimises impacts on native fauna</p>	<p>Use of Disturbance checklist and photo points before, during & after any excavation or land disturbance activity. In event of pipeline repair, open trenches are monitored daily and not left open for more than 72 hours.</p>	<p>The excavation procedure is followed at all times, which requires the implementation of good fauna management practices.</p>	<p>Yes</p>	<p>No excavations, land disturbance or open trench in 2013.</p>

OBJECTIVE	GOAL	HOW / MEASURE	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED "YES/NO"	SUPPORTING COMMENTS
4. To prevent the spread of weeds and pathogens	4.1 To ensure that weeds and pathogens are controlled at a level that is at least consistent with adjacent land	<p>Regular patrols undertaken to look for evidence of weeds on easement and adjacent land (if weeds on easement but not adjacent land must implement control to prevent spread).</p> <p>Records of outbreaks found, weed control activities and photo-monitoring of significant outbreaks.</p> <p>Where appropriate, closure of access tracks.</p>	<p>The presence of weeds and pathogens on the easement is consistent with or better than adjacent land.</p> <p>No new outbreak or spread of weeds reported.</p>	Yes	The presence of weeds and pathogens on the easement is consistent with adjacent land.
5. To minimise the impact of the pipeline operations on surface water resources	5.1 To maintain current surface drainage patterns	<p>Regular patrols and annual survey undertaken to look for evidence of erosion, abnormal vegetation growth or death.</p> <p>Observations also to be undertaken following significant storm events.</p> <p>Use of Disturbance checklist and photo points before, during and after excavations, CP installation, construction activities, etc.</p>	<p>For excavations, surface drainage profiles restored.</p> <p>For existing easement, drainage is maintained to pre-existing conditions or better.</p>	Yes	There were no alterations made to existing landscapes or drainage patterns during 2013.

OBJECTIVE	GOAL	HOW / MEASURE	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED "YES/NO"	SUPPORTING COMMENTS
6. To avoid land or water contamination	6.1 To prevent spills occurring, and if they occur, minimise their impact	<p>Evidence of soil discolouration, vegetation or fauna death during patrols. Incident / Spill reports.</p> <p>Use of spill protection methods where work is completed within or adjacent to environmentally sensitive areas.</p> <p>Containment of all hazardous substances and liquid waste in appropriate vessels.</p> <p>In the event of a spill, the spill was:</p> <ul style="list-style-type: none"> • Reported • Contained • Cleaned-up, and • Cause investigated and corrective and/or preventative action implemented. <p>Prevention program including pigging, intelligent pigging and pipe maintenance.</p> <p>Compliance with relevant sections of the Environment Protection Act.</p>	<p>No soil or water contamination as a result of pipeline activities.</p> <p>No land or water contamination as a result of spills during pipeline operation activities.</p>	Yes	<p>No spills were recorded in 2013.</p> <p>All hazardous substances are stored in appropriate vessels and banded.</p>
	6.2 To remediate and monitor areas of known contamination arising from pipeline operations.	<p>Incident / Spill reports.</p> <p>Active remediation methods implemented where it is determined that contamination is spreading or level of contamination is not decreasing.</p> <p>Use of groundwater monitoring bores.</p> <p>Use of soil farms for remediation.</p>	<p>Contamination confined to known area.</p> <p>Level of contamination continually decreasing, ultimately to meet EPA guidelines.</p>	Yes	<p>There are no known contaminated areas from pipeline operations on the SEPS.</p>

OBJECTIVE	GOAL	HOW / MEASURE	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED "YES/NO"	SUPPORTING COMMENTS
	<p>6.3 To prevent the spread of contamination where then easement intersects known contaminated sites.</p>	<p>Use of Disturbance checklist and photo points before, during & after excavations, CP installation, construction activities, etc.</p> <p>Identification of contaminated sites along easement and establishment of monitoring points.</p>	<p>No evidence of movement of contaminated material along easement (i.e. vegetation death, soil discolouration, subsidence).</p>	<p>Yes</p>	<p>Refer to 6.2</p>
	<p>6.4 To ensure that rubbish and waste material is disposed of in an appropriate manner.</p>	<p>Regular patrols or annual survey undertaken to look for evidence of rubbish, spills (soil discolouration).</p> <p>Waste disposal records, chemical manifests. Appropriately licensed contractors used for any hazardous waste disposal and records are maintained for all hazardous waste disposal.</p> <p>Use of Disturbance checklist and photo points before, during & after excavations, CP installation, construction activities, etc.</p>	<p>No evidence of rubbish or litter on easement or at facilities.</p> <p>Waste material is contained and disposed of in accordance with EPA approved procedures.</p>	<p>Yes</p>	<p>All waste materials are disposed by a licensed carrier in accordance with EESA's Waste Management Procedure.</p>

OBJECTIVE	GOAL	HOW / MEASURE	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED "YES/NO"	SUPPORTING COMMENTS
	<p>6.5 To prevent impacts as a result of waste water disposal</p>	<p>Water disposed of in a manner that prevented discharge or runoff to watercourses or environmentally sensitive areas.</p> <p>Water discharged onto stable ground, with no evidence of erosion as a result of discharge.</p> <p>Records on source of water and discharge method/location.</p> <p>Testing of water quality prior to release/disposal of waste water.</p> <p>Inspection of water disposal sites for evidence of water entering a watercourse or environmentally sensitive area.</p> <p>Compliance with the <i>Environment Protection (Water Quality) Policy 2003</i>.</p>	<p>No evidence of impacts to soil, water and vegetation as a result of water disposal (ie. soil erosion, dead vegetation, water discoloration).</p>	<p>Yes</p>	<p>No waste water disposal was carried out on the SEP during 2013.</p>
	<p>6.6 To ensure the safe and appropriate disposal of grey and black water (sullage, sewage)</p>	<p>Compliance with the relevant local government regulations or relevant health and sanitation regulations.</p>	<p>No evidence of non-compliance with local or state government regulations.</p>	<p>Yes</p>	<p>Currently not applicable practice on the SEP.</p>
<p>7. To minimise the risk to public health and safety</p>	<p>7.1 To adequately protect public safety during normal operations</p>	<p>Job Hazard Analysis.</p> <p>Records of Annual Reports, Fitness for Purpose Reports, Risk Assessments and inspections.</p> <p>Records (including above) demonstrating compliance to AS2885.</p> <p>Emergency procedures implemented and personnel trained.</p>	<p>No injuries or incidents involving the public.</p>	<p>Yes</p>	<p>All pipeline signage is considered to be fit for purpose and is maintained at a standard to meet AS2885 requirements.</p> <p>All landowners on the pipeline were contacted by an EESA representative during 2013.</p>

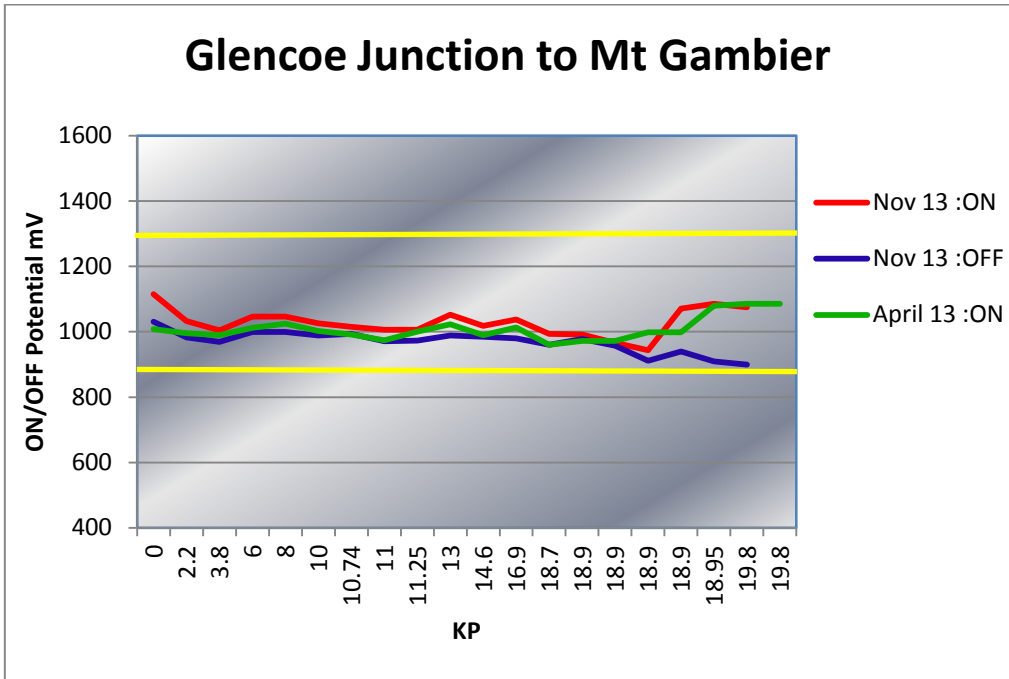
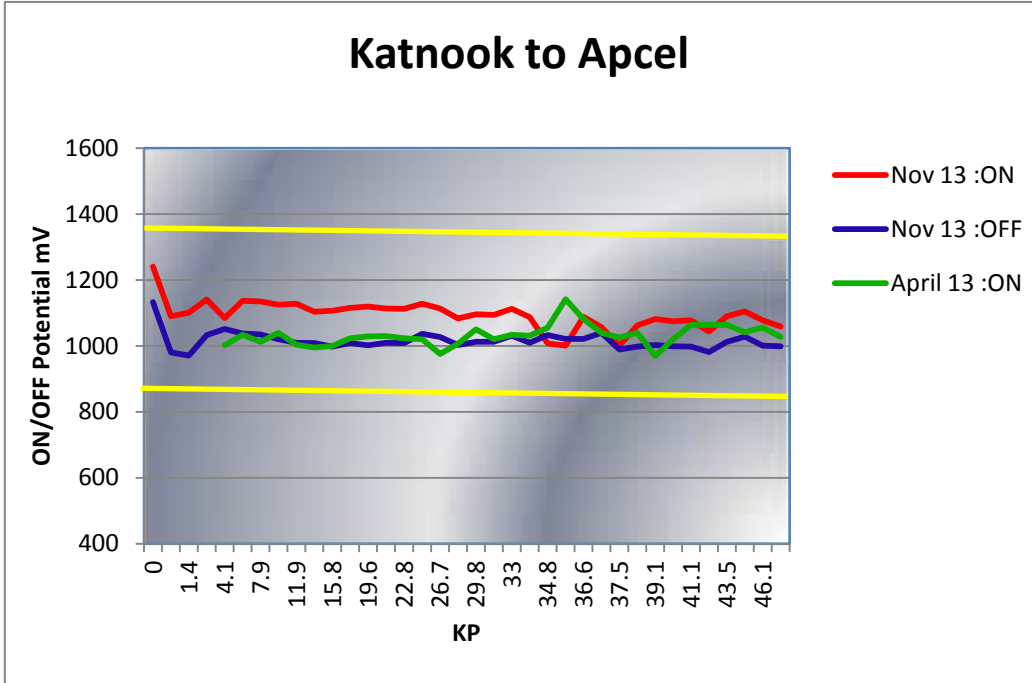
OBJECTIVE	GOAL	HOW / MEASURE	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED "YES/NO"	SUPPORTING COMMENTS
	<p>7.2 To adequately protect public safety during maintenance</p>	<p>Job Hazard Analysis'. Records of communications with adjacent landholders prior to and during maintenance work including advice on the nature and schedule of maintenance activities. Use of signage or bunting to identify all potentially hazardous areas. Adequate implementation of traffic management practices. Records of regular emergency response training for employees and review of procedures. Incident Reports.</p>	<p>No injuries or incidents involving the public. Emergency procedures implemented and personnel trained.</p>	<p>Yes</p>	<p>No injuries or incidents involving the public occurred in 2013. Established safe systems of work including the use of approved work instructions and procedures, job hazard analysis, permit to work and experienced staff all contributes to EESA meeting this objective.</p>
	<p>7.3 To avoid fires associated with pipeline maintenance activities</p>	<p>Incident reports. Records of regular fire safety and emergency response training for all operations personnel and review of procedures. Established procedures for minimising fire risk during maintenance. Emergency procedures implemented and personnel trained.</p>	<p>No pipeline related fires.</p>	<p>Yes</p>	<p>There were no fires on the SEP system during 2013.</p>

OBJECTIVE	GOAL	HOW / MEASURE	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED "YES/NO"	SUPPORTING COMMENTS
	<p>7.4 To prevent unauthorised activity on the easement that may adversely impact on the pipeline integrity</p>	<p>Inspection / Patrol reports and records. Comprehensive landholder and other stakeholder pipeline awareness program and records of communications with these. Community education program implemented in Regional areas. 'Dial before you dig' number available and widely advertised. Clear identification of the pipeline by signs installed in accordance with AS2885. All reports of unauthorised activity are reported and investigated.</p>	<p>No unauthorised activity on the easement that has the potential to impact on the pipeline integrity.</p>	<p>Yes</p>	<p>There were no reported unauthorised activities within the pipeline easement during 2013.</p>
<p>8. Minimise impact of emergency situations</p>	<p>8.1 To minimise the impact as a result of an emergency situation or incident</p>	<p>Incident reports. Emergency response trials (carried out at least annually) and associated documentation. Records of regular emergency response training for all personnel and review of procedures. Link between ER exercises and Risk assessment.</p>	<p>Emergency response procedures are effectively implemented in the event of an emergency. Emergency response exercises are aligned with credible threats and consequences identified in the risk assessment.</p>	<p>Yes</p>	<p>No emergency situations have been recorded or managed during this reporting period. During 2013 EESA developed an Incident Management Plan to ensure that any emergency situation is properly responded to, managed and controlled. The plan also provides for regular emergency exercises to test and review its adequacy. EESA conducted two emergency response exercises in 2013. All personnel have current 'Apply First Aid' certificates.</p>

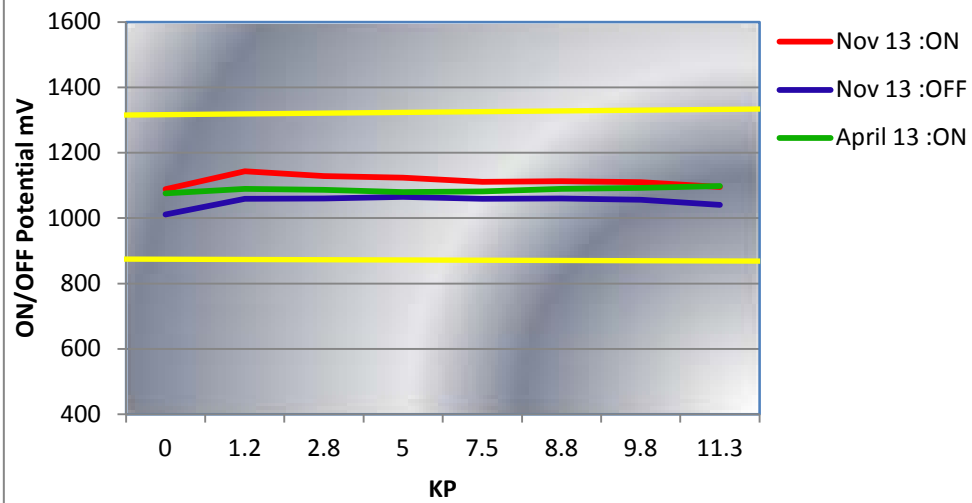
OBJECTIVE	GOAL	HOW / MEASURE	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED "YES/NO"	SUPPORTING COMMENTS
	8.2 To restore any damage that may occur as a result of an emergency situation	Refer to previous criteria (Objective 1, 2, 3 & 6).	Refer to previous criteria (Objective 1, 2, 3 & 6).	Yes	No emergency situations have arisen during this reporting period.
9. To minimise noise due to operations	9.1 To ensure operations comply with noise standards	Incident reports. Monitoring results, where deemed necessary (e.g. frequent complaints).	Operational activities comply with noise regulations, under the <i>Environment Protection (Noise) Policy 2007</i> . No complaints received.	Yes	No complaints were received during 2013. Maintenance activities performed during the reporting period did not contribute to any increased noise levels.
10. To minimise atmospheric emissions	10.1 To eliminate uncontrolled atmospheric emissions	Maintenance Program Following relevant operational procedures Compliance with <i>Environment Protection (Air Quality) Policy 1994</i> .	No uncontrolled atmospheric emission.	Yes	No uncontrolled atmospheric emissions occurred or were reported in 2013.
	10.2 To minimise the generation of dust.	Incident reports. Compliance with EMS Procedures (vehicle movement, dust suppression, etc).	No complaints received. No dust related injuries recorded.	Yes	No dust complaints were received in 2013. EESA maintains native vegetation cover on the pipeline easement which aids dust suppression.

OBJECTIVE	GOAL	HOW / MEASURE	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED "YES/NO"	SUPPORTING COMMENTS
<p>11. To adequately protect cultural heritage sites and values during operations and maintenance</p>	<p>11.1 To ensure that identified cultural sites are not disturbed</p>	<p>Consultation with relevant heritage groups if operations occurring outside known surveyed areas.</p> <p>Records of site locations on operations GIS.</p> <p>Use of Disturbance checklist prior to undertaking maintenance works.</p> <p>Site examined for cultural heritage material prior to work involving off-easement disturbance or in an area of archaeological potential or in an area identified as being of known medium to high archaeological sensitivity.</p> <p>Any new sites identified are recorded in Land Management System and reported to appropriate authority.</p>	<p>No impact to known sites without approval under the <i>Aboriginal Heritage Act 1988</i> or the <i>Heritage Places Act 1993</i>.</p>	<p>Yes</p>	<p>EESA's Aboriginal Cultural Heritage Management Procedure and Work Instruction was updated in 2013.</p> <p>These documents describe EESA's obligations and the process and considerations that apply to the management of cultural heritage sites on or in the vicinity of pipeline easements, access tracks and associated facilities.</p> <p>Prior to conducting any land disturbance outside of the pipeline easement, all areas are surveyed to identify whether cultural sites are present or not.</p> <p>EESA maintains a GIS database of known cultural sites.</p> <p>No operation and maintenance activities occurred that would have had the potential to impact on any cultural heritage sites located in the SEP.</p>

Appendix B - 2013 SEPS Cathodic Protection Data



Nangwarry Lateral



Katnook to Safries

