Introduction:

This report is issued in accordance with the requirements of the South Australian, Pipeline Regulations 2000, regulation 33 and concerns the regulated activities conducted under Petroleum Production Licence 21 (PPL21) at the 'Caroline 1' Well. The report covers the period 1 July 2002 to 30 June 2003.

Reg 33 (2) a - Summary of Regulated Activities:

Activities conducted under the licence within the report period included;

- Processing and distribution of Carbon Dioxide, approx. 16,000t
- Installation and commissioning of additional processing and purification equipment.
- Routine maintenance and minor plant improvements.

Reg 33 (2) b - Compliance with the Petroleum Act and Regulations 2000, the licence and statement of environmental objectives;

Operations at the Caroline 1 Well and associated processing plant have been conducted generally in accordance with the requirements of the Petroleum Act & Regulations 2000.

With regard to the environmental objectives the following table details progress towards those objectives and their assessment criteria. Refer also to the Air Liquide, Statement of Environmental Objectives, issued June 2001.

Environmental Objective	Comments
Avoid groundwater and soil contamination - General	
Chemicals, fuels and oils stored in a contained area on a flat, impermeable surface.	All items stored correctly
Sulphuric acid stored in a contained area. Lower strength acid in use from Jan.02	Portable bund in situ
Spill response station maintained.	In compliance
Environmental incident reporting integrated into existing incident reporting systems (i.e. QIR).	No incidents to report

Environmental Objective	Comments
Appropriate training in spill response and reporting for employees and contractors undertaken.	All site personnel have been trained in spill containment.
Material Safety Data Sheets and spill response procedures posted in appropriate work areas.	Some new MSDS for catalyst and activated alumina have been added to the register, all are current.
In the event of a spill, appropriate spill response procedures followed and the incident reported to the Plant Manager (as per Safety Training Manual).	No spills to report
Waste volumes recorded and continually reviewed to ensure that waste generation (as a percentage of CO2 production) is not increasing.	Losses are recorded daily. A loss reduction program is being implemented – main items in program are: Regeneration of activated carbon towers stopped – benefits have been reduced CO2 losses by 175 kg/h and 200kg/year solid activated carbon, Investigate feasibility of using Instrument air compressor in lieu of CO2 for instrument gas. Implement improved controls to 'catox' dryer unit. 'Snowflow' production stopped. Reduction in losses of approx 4% of 42 tpd.
Waste generation reviewed and opportunities for reduction identified and documented (by March 2001).	Replacement of Silica Gel completed

Environmental Objective	Comments
Use of silica gel phased out and waste generation below 800 kg/year for moisture removal stage of CO2 purification (by March 2001). New product, KC Trockenperlen, has double life of old silica gel.	The Silica Gel replacement, KC Trockenperlen adsorbs for water per kg of product meaning that the dryer cycle time can be extended (from 4 hours to 6 hours) while regeneration gas flow and temperature are unchanged. In this way the average no of regeneration cycles / day is decreased, which decreases CO2 losses (regeneration gas is CO2) and dryer energy input.
Strategy developed for continued waste reduction	Refer above 'Waste volumes …' which provides details of loss reduction strategy. In addition reduced plant throughput has reduced solid waste production proportionally. Current throughput is 80% of production levels when SEO's prepared.
Contracts with licensed waste disposal contractors maintained (i.e. spent KC Trockenperlen, activated carbon, Puraspec, sewage, hydrocarbon, and general rubbish).	Cleanaway contract continued 2003.
Monitor wellhead pressure and diesel system. Assess casing integrity every two years.	Daily monitoring of pressure in outer casing confirms the integrity of the casing.
Conduct soil analysis in the vicinity of the disused waste pits by March 2001.	Samples and analysis were performed in March 2001 and the results indicated no contamination.

Environmental Objective	Comments
Minimise air emissions	Maintenance program has been implemented and records are kept. A computerised maintenance management system has been implemented which is expected to further enhance the effectiveness of the maintenance program.
Reduce CO2 losses by 5% by December 2001	Current average losses are approx 20%. Average losses for year 2001 were 27.6% and 2002 21.6%. Objective achieved.
Freon gas (R12) phased out by June 2002.	R12 refrigerant no longer used or present from June 2002. Disposal was undertaken by an accredited contractor (Gordon Bros.). R22 and ammonia are still in use.
Provide a safe working environment for employees, contractors and third parties.	Based on the results of; monitoring of well head by expert consultant, monitoring of wellhead pressure, monitoring of diesel system, safe operation has been achieved. Air Liquide is committed to a zero accidents policy.
Avoid groundwater and soil contamination - Hydrocarbon Waste	
Hydrocarbon waste is stored in bunded tank. Sludge removed annually.	Cleanaway contract continued 2003

Environmental Objective	Comments
Hydrocarbon tank and bunded area inspected for spills and leaks	Daily checks have been conduected.and maintenance works performed confirm the integrity of the tank and bunded area
Procedure for hydrocarbon tank and bund maintenance and inspection to be documented.	Confirmed and recorded in daily logs
Hydrocarbon storage tanks and bund to be maintained in a structurally sound condition.	Based on inspections and maintenance conducted the integrity of the storage tanks and bunds is confirmed.
Avoid groundwater and soil contamination - Produced Formation Water	
Sprinkler system is relocated periodically to avoid creation of soakages and areas of die-off.	Daily check
A checklist for inspection of grassed areas, “effluent” tanks, hydrocarbon storage tank and bunds developed and implemented.	Daily check
Liquid waste sampled and analysed for hydrocarbon content, salinity and pH levels every six months.	Tests have been conducted to schedule and all results are within ANZECC guidelines.
Water quality monitoring data (hydrocarbon content, salinity and pH) and inspections of discharge (irrigation) water (i.e. signs of “die-off” or surface hydrocarbons on grassed areas) recorded.	Continuous
Water quality data to be assessed as per ANZECC guidelines for agriculture.	Nalco service agreement in place.

Reg 33 (2) c – Actions to rectify non-compliance with the Act

One non-compliance with the Act was identified within the reporting period. The non-compliance related to insufficient or late submission of reports and data to PIRSA. This matter related to late submission of the previous annual report which was also submitted with insufficient detail to meet all requirements of the Regulations. This was dealt with using the Air Liquide incident reporting system and internal document Qstar MG008 relates. Actions identified and completed included the development of a Work Instruction for reporting which includes allocation of responsibilities for all routine reporting tasks.

Reg 33 (2) d – Summary of management system audits

The following management system audits were conducted:

- Site Safety Inspection conducted by Mark Bennett, Primary Production Manager - Southern Region, Air Liquide May 2003.
- Annual Health, Safety and Environment audit conducted by Air Liquide Safety and Risk Management Director, August 2002,

Each audit identified minor physical and/or systems improvements and actions have been completed or are planned. The audits did not identify any major non-conformances.

Reg 33 (2) e – List of Reports and Data generated

The following table identifies the reports and data relevant to the Petroleum Act 2000 generated during the reporting period;

Report	Status
Report on Caroline 1 Perforations Workover conducted May 2002 (reg 41 (1)).	Submitted September 2002.
Revised Caroline 1 Well 'downhole diagram' (reg 44 (1))	Submitted September 2002.
Production Reports (reg 45 (1)).	Submitted with Royalty return.
Royalty returns.	Submitted each month.

Reg 33 (2) f – Incidents reported to the Minister

There have been no incidents reported to the minister during the reporting period.

Reg 33 (2) g – Foreseeable Threats

There are no reasonably foreseeable threats to the facilities that require reporting.

Reg 33 (2) h – Operations planned for next year

The proposed operations for the year 1 July 2003 to 30 June 2004 involve continued production of carbon dioxide at similar levels to the current year.

No down hole works are planned.

Reg 33 (2) i – Estimated production volume

The estimated production volume for the period 1 July 2003 to 30 June 2004 is 16,000t.

Reg 33 (2) j – Development Activities

No development activities are planned for the period 1 July 2003 to 30 June 2004.

Reg 33 (3) – Statement of Expenditure

Commercial in confidence

Mark Bennett

Air Liquide Australia Limited