







**BASSGAS PROJECT  
YOLLA 4 & 3 WELLS  
And  
TREFOIL-1 WELL  
END OF DRILLING OPERATIONS  
HSE REPORT**




**BR1155-D-210**

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C	Jan 2005	Issued for Project Review Following Completion of Trefoil-1.	M. Woods		J. Bell M. Nasarczyk		M. Mussared	
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19	VDPI	Petroleum Environmental Officer

## PREFACE

In 2004 Origin Energy Resources Ltd (Origin Energy) drilled and completed two development wells in permit T/L1 (Yolla 3 and 4 - BassGas Project Yolla-A Platform) and drilled and completed one exploration well in permit T/18P (Trefoil-1 open water location) located in Commonwealth waters of the Bass Strait approximately half way between Victoria and Tasmania.

The Tasmanian Department of Infrastructure, Energy and Resources (TDIER) is the Designated Authority (DA) pursuant to the Petroleum (Submerged Lands) Act. A Departmental Division of Mineral Resources Tasmania (MRT) is responsible for the administration of the Permit, with managerial assistance being provided by the Victoria Department of Primary Industries (VDPI) for the Yolla-A drilling campaign. All subsequent references to the DA will mean the VDPI on behalf of the TDIER MRT.

Australian Drilling Associates Ltd (ADA) (drilling management contractor) provided drilling project management services for Origin Energy. The drilling operations were managed from the Origin Energy and the ADA offices in Melbourne.

The Origin Energy approvals to drill Yolla and Trefoil-1 permits were issued by TDIER MRT, the Designated Authority, and are conditional upon the implementation of the requirements stated in the following documents and those other documents referenced therein:

- Origin Energy BassGas Yolla-A Drilling Operations Principal Safety Case Bridging Document and Addendum Document, document numbers BR1155-D-201 and BR1155-D-202; and
- Origin Energy Trefoil-1 Drilling Operations Principal Safety Case Bridging Document and Addendum Document, document numbers BR1155-D-211 and BR1155-D-212.

This end of well HSE report has been produced as part of the reporting requirements of these documents following completion of Origin Energy BassGas Project drilling operations for:

- Yolla 4 Well; and
- Yolla 3 Well.

This document was revised and re-issued following completion of Origin Energy:

- Trefoil-1 Well.

The use of this report, for any other purpose than as a history of Origin Energy Drilling Operations HSE performance may be misleading.

## ABBREVIATIONS

AHTS	Anchor Handling, Towing and Supply (Rig support and supply boats)
ALARP	As Low As Reasonable Practicable
AMOSC	Australian Marine Oil Spill Centre
AMSA	Australian Maritime Safety Authority
ADA	Australian Drilling Associates
IMT	Incident Management Team
EP	Environment Plan
ERT	Emergency Response Team
HSE	Health, Safety and Environment
LTI	Lost Time Injury
MODU	Mobile Offshore Drilling Unit
MRT	Mineral Resources Tasmania
NATPLAN	National Oil Spill Plan
OIM	Offshore Installation Manager
OSCP	Oil Spill Contingency Plan
TDIER	Tasmania Department of Infrastructure, Energy and Resources
TDPIWE	Tasmania Department of Primary Industries, Water and Environment
TDIERWS	Tasmania Department of Infrastructure, Energy and Resources Workplace Standards
TasPlan	Tasmanian Marine Oil Pollution Plan
VDPI	Victoria Department of Natural Resources and Environment
VicPlan	Victorian Marine Oil Pollution Plan

## REFERENCES

Australian Standard Worksafe Australian National Standard Workplace Injury and Disease Recording Standard, Measurement of Occupational Health and Safety Performance AS 1885.1 1990.

Origin Energy Health, Safety & Environmental Policy, December 2002.

Origin Energy HSE Standards HSE-STD-001 through to HSE-STD-020.

Origin Energy BassGas Project Yolla 4 Drilling Program, BR1155-D-221.

Origin Energy BassGas Project Yolla 3 Drilling Program, BR1155-D-223.

Origin Energy Trefoil-1 Drilling Program, BR1155-D-230.

Origin Energy BassGas Project Yolla-A Principal Safety Case Bridging Document, BR1155-D-201.

Origin Energy BassGas Project Yolla-A Principal Safety Case Bridging Document Addendum, BR1155-D-202.

Origin Energy Yolla-A Drilling Operations Emergency Response Plan BR1155-D-203.

Origin Energy Yolla-A Drilling Operations Oil Spill Contingency Plan BR1155-D-205.

Origin Energy Yolla-A Drilling Operations Health, Safety and Environmental Management Plan BR1155-D-206.

Origin Energy Trefoil-1 Principal Safety Case Bridging Document, BR1155-D-211.

Origin Energy Trefoil-1 Principal Safety Case Bridging Document addendum, BR1155-D-212.

Origin Energy Trefoil-1 Drilling Operations Health, Safety and Environmental Management Plan BR1155-D-216.

Origin Energy Drilling Operations Incident Investigation Register, BR1155-D-239.

Origin Energy Drilling Operations Incident Investigation Report AHTS Vessel Incident Port of Melbourne #28 Wharf, BR1155-D-240.

Origin Energy Drilling Operations Incident Investigation Report Death of Dulio Fratini Schlumberger Test Engineer on MODU ENSCO 102 - 04/09/24, BR1155-D-241.

Petroleum (Submerged Lands) Acts Schedule, Specific Requirements As To Offshore Petroleum Exploration and Production.

Petroleum (Submerged Lands) (Management of Safety on Offshore Facilities) Regulations 1996.

Petroleum (Submerged Lands) (Management of the Environment) Regulations 1999.

Tasmanian Government Workplace Health and Safety Act 1995 Workplace Standards for Workplace Health and Safety.

DuPont<sub>R</sub> Safety Resources Safety Training Observation Program.

Australian Drilling Associates web site, [www.australiandrilling.com.au](http://www.australiandrilling.com.au).

## DEFINITIONS

The following have been selected to provide the definitions for use in this report:

- Australian Standard 1885.1 Workplace Injury and Disease Recording Standard; and
- Tasmanian Government Workplace Health and Safety Act 1995.

### Australian Standard 1885.1

Australian Standard Worksafe Australia National Standard Workplace Injury and Disease Recording Standard AS 1885.1 provide the following definitions for use herein.

#### Lost-time Injuries or Diseases

Those occurrences that resulted in a fatality, permanent disability or time lost from work of one day/shift or more.

#### No Lost-time Injuries or Diseases

Those occurrences which were not lost-time injuries and for which first aid and or medical treatment was administered.

#### Near Misses

Any unplanned incidents that occurred at the workplace which, although not resulting in any injury or disease, had the potential to do so.

### Tasmanian Government Health and Safety Act 1995

The Tasmanian Government Health and Safety Act provides the following definitions for use herein.

#### Dangerous Incident

An occurrence, including those involving any substance, involving imminent risk of explosion, fire, death, serious bodily injury or illness to any person or serious damage to any property.

#### Responsible Officer

A responsible officer means a person appointed as a responsible officer under section 10 of the Tasmanian Government Health and Safety Act 1995.

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## EXECUTIVE SUMMARY

This report encompasses all Origin Energy drilling operational and drilling program support activities undertaken and the incidents (accidents and near misses) recorded during the completion of the Origin Energy three well drilling program for, Yolla 4, Yolla 3 and Trefoil-1.

There was a measure of HSE performance improvement during the drilling of the second well (Yolla 3 drilling program) and this improved performance continued during the drilling of the third well (Trefoil-1 drilling program).

These activities and incidents included all marine, aviation, drilling and logistics activities undertaken from the start of the Yolla 4 well through to the hand back of the ENSCO 102 following completion of the Trefoil-1 well.

The soils analysis obtained for the Yolla platform installation was also used for the expected leg penetration of ENSCO 102. The cutting of seabed cores at the Trefoil Permit was part of the Trefoil site investigations work for the location of the MODU ENSCO 102, and herein forms part of the Trefoil-1 well program.

The Origin Energy BassGas Drilling Program (drilling operations) started when the ENSCO 102 was handed over to Origin Energy from ESSO Australia after their West Whiptail-1 well on the 6<sup>th</sup> of June 2004. The ENSCO 102 was towed and pulled into position by the Tidewater Marine AHTS Vessels Ray J Hope, Invincible Tide, assisted by an Adsteam Tug and the anchors set for that purpose.

The Yolla 4 well was drilled to measured depth (MDRT) 3235 meters and completed.

The Yolla 3 well was drilled to measured depth (MDRT) 3497 meters and completed.

The Trefoil-1 well was drilled to measured depth (MDRT) 3545 meters and suspended.

The ENSCO 102 was released by Origin Energy one (1) nautical mile from Trefoil-1 at 07.45 hrs on Saturday 25<sup>th</sup> December 2004 and handed over to ESSO Australia for continuance of their operations.

All Origin Energy drilling operations statutory reportable incidents (Statutory Reportable or Dangerous Incidents) and non-statutory (Origin Energy Reportable Incidents) are described in the incident register included as an attachment to this report, reference document BR1155-D-239.

### Statutory Reportable or Dangerous Incidents

#### Yolla 4

There were zero (0) statutory reportable or dangerous health, safety or environmental incidents or lost time injuries or industrial diseases cases reported during the Yolla 4 sixty one (61) day drilling program.

The exposure hours recorded during the Yolla 4 drilling program was sixty two (62) thousand hours.

#### Yolla 3

There was one (1) statutory reportable or dangerous health, safety or environmental incidents or lost time injuries or industrial diseases cases reported during the Yolla 3 seventy three (73) day drilling program.

The exposure hours recorded during the Yolla 3 drilling program was seventy five (75) thousand hours.

**Trefoil-1**

There were zero (0) statutory reportable health, safety or environmental incidents or lost time injuries or industrial diseases cases during Trefoil-1 sixty nine (69) day drilling program.

The exposure hours recorded during the Trefoil-1 drilling program was seventy seven (77) thousand hours. These hours include over nine (9) thousand exposure hours for the PROD sea bed core cutting activities.

There were zero (0) statutory reportable or dangerous health, safety or environmental incidents or lost time injuries or industrial diseases cases reported during the MV Mermaid Raider PROD sea bed core cutting activities, which are classified here as being part of the Trefoil-1 program.

**Origin Energy Reportable Incidents**

All Origin Energy drilling operations reportable incidents are described in the incident register included as an attachment to this report, reference document BR1155-D-239.

**Yolla 4**

There were a total of fifteen (15) incidents reported during the sixty one (61) day period of the Yolla 4 drilling and well testing program. None of these were statutory reportable incidents however one (1) of these incidents was investigated.

**Yolla 3**

There were a total of five (5) incidents reported during the seventy three (73) day period of the Yolla 3 drilling and well testing program. One (1) of these was a reportable incident and has been investigated and a report (BR115-D-241) issued to the Tasmanian Government Responsible Officer.

**Trefoil-1**

There were a total of two (2) incidents reported during the sixty nine (69) day period of the Trefoil-1 drilling and well testing program. None of these were statutory reportable incidents however one (1) of these incidents (near miss) required a AHTS Vessel to be returned to the Port of Melbourne for repair due to a loss of propulsion control. This was caused by a lack of maintenance which lead to equipment failure.

**First Aid and Medical Treatment Cases**

The most serious medical treatment (health) case reported was that of alcohol withdrawal involving a person on an AHTS Vessel.

The most serious safety incident was a first aid case involving a person on an AHTS vessel as a result of being struck on the face by a hand operated mechanical tensioning device (deck load binder), that was followed up by an onshore medical examination.

**Near Misses**

The most serious near misses were when a stand of drill pipe fell across the drill floor and two separate cases involving dropped object(s) weighing 4 kgs and 12 kgs respectfully. The 4 kgs object landed on the MODU drill floor and the 12 kgs object landed on the Yolla-A platform.

**Environmental Impact**

During the drilling of the Yolla 3 and 4 wells a small colony of seals was identified below Yolla-A Platform. One (1) seal was in residency for the complete duration of the two (2) Yolla wells with a maximum of five (5) seals identified on other occasions.

The most significant environmental incident was the discharging of approximately 20 liters of diesel fuel from an AHTS into the sea at the Port of Melbourne, which was investigated by the Melbourne Port Authority.

### **Asset Damage Incidents**

There was very little asset damage associated with the reported incidents.

One asset damaging incident involving an AHTS vessel in the Port of Melbourne where an AHTS vessel suffered a loss of propulsion control and collided with the wharf was such that the potential of this incident should it occur on location at the MODU ENSCO 102 or Yolla-A platform determined that an incident investigation be undertaken by ADA and an incident investigation report was subsequently issued.

A separate asset damaging incident involved another AHTS vessel, and which resulted in a bulk hose parting during bulk transfer on location at ENSCO 102, and although the consequential asset damage was minimal the cause was a loss of propulsion control. The potential consequences of this incident, the incident taking place at the MODU ENSCO 102, determined that the vessel be returned to port for an investigation be undertaken by the vessel equipment manufactures. A vendor equipment failure report was subsequently issued. This identified the root cause of the failure being the failure of the vessel operator to carry out maintenance on a battery back-up power supply for the vessel propulsion control system.

### **HSE Incidents Verses Exposure Hours Chart**

The chart of HSE incidents verses exposure hours provides a qualitative comparison between the three (3) wells. This chart shows a measure of HSE performance improvement during the drilling of the Yolla 3 well and that this improved performance continued during the Trefoil-1 drilling program.

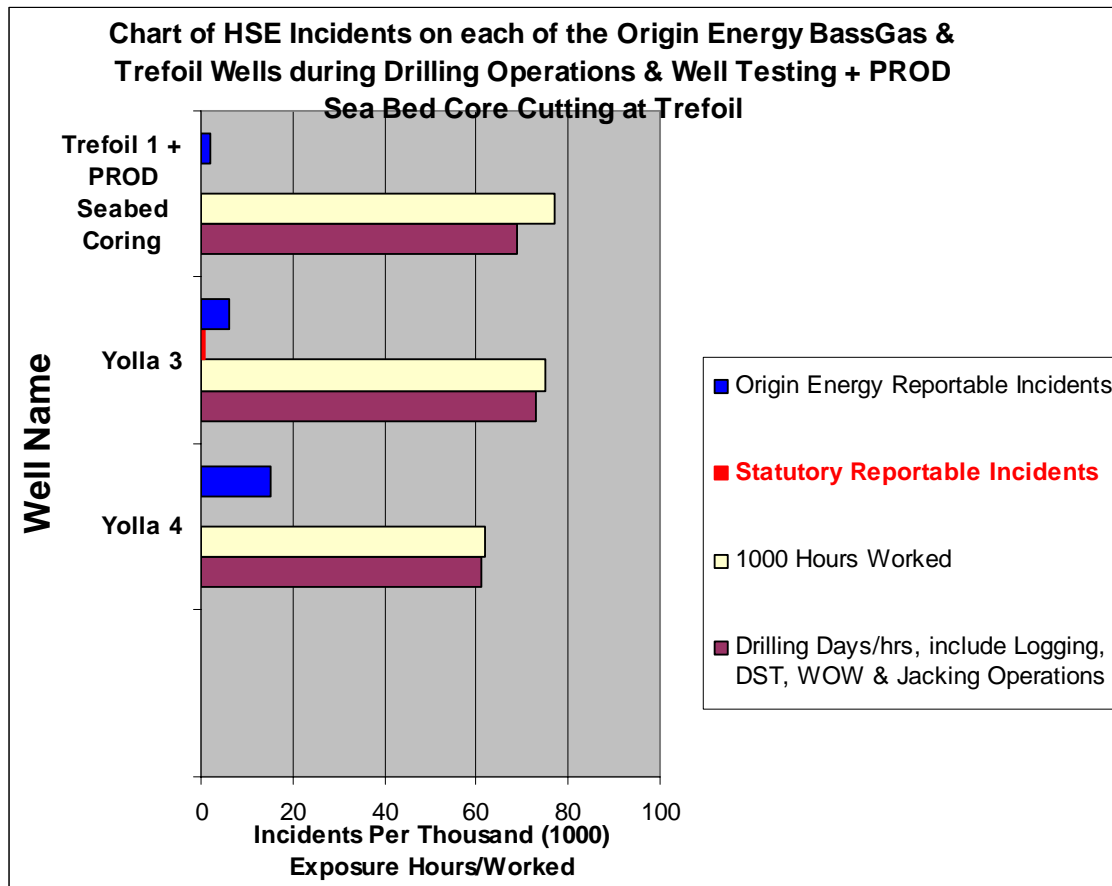
The death by natural causes of a Well Test Engineer during Yolla 3 is classified as a statutory reportable incident however was not attributed to a failure of the safety management system controls or emergency response arrangements. The Origin Energy incident investigation report identified improvement opportunities for the management of personnel and made recommendations that were implemented.

The exposure hours recorded herein included the periods when the ENSCO 102 was waiting on weather (WOW) following the completion of the drilling and drill stem testing programs.

There were a total of fifteen (15) incidents during the Yolla 4 drilling program.

There were a total of five (5) incidents during the Yolla 3 drilling program.

There were a total of two (2) incidents during the Trefoil-1 drilling program.



## 1 INTRODUCTION

This HSE report can be considered the documented HSE history of the Origin Energy Yolla BassGas Project and Trefoil-1 Drilling Operations.

### 1.1 Purpose

The purpose of the document is to provide information and references to data relating to the activities that were completed during the Origin Energy BassGas and Trefoil-1 Drilling Programs and to provide an assessment of the HSE performance during the completion of these drilling, marine and aviation related activities.

### 1.2 Statutory HSE Reporting

The statutory HSE reporting requirements applicable to the Origin Energy drilling operations are stated in Petroleum (Submerged Lands) (Management of Safety on Offshore Facilities) Regulations 1996 the Petroleum (Submerged Lands) (Management of Environment) Regulations 1999 and as stated in the Origin Energy Safety Case Bridging documentations which were formally submitted to the Designated Authorities and are referenced herein. These formal submission documents and their contents become co-regulations between Origin Energy and the Designated Authority under the P (SL) Acts for the duration of the approval period.

There were no health, safety or environmental statutory reportable accidents, incidents or lost time injury cases as required to be reported and as qualified as a significant accidents or incidents by:

- Regulation 31 of the Petroleum (submerged Lands) (Management of Safety on Offshore Facilities) Regulations 1996;
- Regulation 26 of the Petroleum (submerged Lands) (Management of Environment) Regulations 1999; and
- As defined in Australian Standard 1885.1 1990 Workplace Injury and Disease Recording Standard.

There was one death by natural causes during the Yolla 3 drilling program, which was reported (document number BR1155-D-241) to the statutory authorities.

### 1.3 Qualitative Safety Performance Assessment

This report provides a qualitative assessment of the Origin Energy drilling operations HSE performance and a summary of the drilling operations activities.

The details of the management of safety and HSE activities undertaken during these drilling programs, and the statutory and company policy HSE reporting requirements are provided in the material referenced herein.

The statistical data from these activities to calculate the HSE performance rates (quantitative analysis) has been provided as input data to the overall Origin Energy BassGas Project Management Team HSE Coordinator for Origin Energy statistical reporting processes. The number of exposure hours (hours worked) during these drilling operation periods has been insufficient to justify further quantitative analysis here, see Quantitative Safety Performance Measurement Rates.

### 1.4 Quantitative Safety Performance Measurement Rates

Australian Standard 1885.1 1990 provides for methods for the calculation of rates to identify groups at higher risk and to monitor safety performance at the work place over time. These methods are best employed when the organization has two hundred (200) or more employees

and a considerable number of cumulative hours are expended over a six (6) or twelve (12) month period. The rolling average can then be calculated and comparisons made.

The BassGas drilling operations data (exposure hours) has been provided to the BassGas Project Management Team HSE Coordinator for this purpose and to allow quantitative safety performance measurement rates to be calculated.

Measurement rates are of limited value when used in isolation. Analyzing the rates in conjunction with each other data provides workplaces with comparative information to assist in evaluating occupational health and safety performance. This is particularly so for frequency and average time lost rates which, when examined together, give a more accurate measure of the number of occurrences and time lost as they relate to the level of exposure to risk.

### **Incident Rate**

This is the number of occurrences of lost-time injury or disease for each one hundred (100) workers employed, and while the Origin Energy drilling programs did engage on average one hundred (100) persons they were not employed by the same organization for a continuous period of time.

### **Frequency Rate**

This is the number of occurrences of lost-time injury or disease for each one million (1,000,000) hours worked.

### **Average Time Lost Rate**

This is the average time lost per occurrence of lost-time injury or disease, normally over a twelve (12) month period.

## **1.5 Document History**

This revision of BR1155-D-210 has been developed following completion of the Origin Energy Trefoil-1 Well.

This document contains data and information of a historic nature only, the previous revisions of this document included the then current BassGas Yolla 4 and 3 Well Drilling Programs, and the planned activities for Trefoil-1 well.

This report is supported by a number of data which are referred to in the text, however may not be recorded specifically in the reference section. One such source of data is the Australian Drilling Associates web site, where photographic information is available as a photographic record of the activities undertaken during drilling operation.

## **1.6 Drilling Operations History**

The Origin Energy three (3) well drilling program was completed in two hundred and three (203) days, starting on the 6<sup>th</sup> June 2004 and being completed on 25<sup>th</sup> December 2004.

The Yolla 4 well was drilled to measured depth (MDRT) 3235 meters and completed.

The Yolla 3 well was drilled to measured depth (MDRT) 3497 meters and completed.

The Trefoil-1 well was drilled to measured depth (MDRT) 3545 meters and suspended.

The Origin Energy BassGas Drilling Program (drilling operations) started when the ENSCO 102 was handed over to Origin Energy from ESSO Australia after their West Whiptail-1 well on the 6<sup>th</sup> of June 2004. The ENSCO 102 was towed and pulled into position by the Tidewater Marine AHTS Vessels Ray J Hope, Invincible Tide, assisted by an Adsteam Tug and the anchors set for that purpose.



The hand over from ESSO Australia Ltd to Origin Energy occurred one (1) nautical mile from the BassGas Project Yolla-A Platform following completion of work for ESSO Australia Ltd on West Whipetail-1.

The Yolla-a platform is in the Bass Strait mid way between Tasmania and the continent of Australia, at Latitude 39 degrees, 50 minutes, 45.90 seconds South, Longitude 145 degrees, 49 minutes, 01.39 seconds East.

The Yolla drilling program started with the drilling and setting of the conductor for both Yolla 4 and Yolla 3 wells. The setting of the Yolla 3 conductor took approximately 1 day to complete. The Yolla 4 drilling program (setting conductor) started at 12:30 hours on the 12<sup>th</sup> June 2004.

The Yolla 4 drilling program was effectively completed at 12:30 hours on Saturday 8<sup>th</sup> August 2004 following successful well testing program and the rigged down of test equipment.

The Yolla 3 drilling program was effectively completed at 12:00 hours on Thursday 30<sup>th</sup> September 2004 following successful well testing program and the strip down of test equipment.

The rig was skidded back over Yolla 4 on Thursday 30<sup>th</sup> September for two days to remove a plug in Yolla 4 and to test one sand zone. This was completed on Saturday 2<sup>nd</sup> October 2004.

On Saturday 2<sup>nd</sup> October the rig was prepared for skidding back to centerline and drill pipe was removed from the derrick, well test equipment was back loaded using the two AHTS vessels with the MV Mermaid Raider on location as the stand by vessel.

The ENSCO 102 drill line was changed out on Tuesday 5<sup>th</sup> October 2004.

The ENSCO 102 was ready to jack down at Yolla on Wednesday 6<sup>th</sup> October 2004 at approximately 11.00 hrs for the move to Trefoil-1.

The poor weather in Bass Strait had prevailed from Sunday 3<sup>rd</sup> October, and continued for an extended period of days, thus prevented the continuous operation for ENSCO 102 leg extraction. The jacking down and leg extraction of ENSCO 102, was finally completed on Saturday 16<sup>th</sup> October.

The start of the Trefoil-1 drilling program was Saturday 16<sup>th</sup> October 2004, when ENSCO 102 was one (1) nautical mile from the Yolla-A Platform. Upon completion of the Trefoil-1 drilling and logging programs the well was successfully tested and was subsequently suspended.

Poor weather again disrupted/prevented the ENSCO 102 from completing the jacking down leg extraction operation and the moving off location.

The ENSCO 102 was released by Origin Energy one (1) nautical mile from Trefoil-1 at 07.45 hrs on Saturday 25<sup>th</sup> December 2004 and handed over to ESSO Australia for continuance of their operations.

## 2 MANAGEMENT of HSE ACTIVITIES

The details of the activities, methods and means for the management of HSE and for the achievement of HSE performance targets during the Yolla and Trefoil drilling programs are described and referenced in the following data:

- Origin Energy BassGas Project Yolla-A Principal Safety Case Bridging Document, BR1155-D-201;
- Origin Energy BassGas Project Yolla-A Principal Safety Case Bridging Document Addendum, BR1155-D-202;
- Origin Energy BassGas Project Yolla-A Health, Safety and Environmental Management Plan BR1155-D-206;
- Origin Energy BassGas Project Trefoil-1 Principal Safety Case Bridging Document, BR1155-D-211;
- Origin Energy BassGas Project Trefoil-1 Principal Safety Case Bridging Document addendum, BR1155-D-212; and
- Origin Energy BassGas Project Trefoil-1 Health, Safety and Environmental Management Plan BR1155-D-216.

### 2.1 HSE Objectives

The HSE objectives for the three drilling programs are stated in the Origin Energy BassGas Yolla-A and Trefoil-1 HSE Management Plans, documents BR1155-D-206 and BR1155-D-216, these can be described as ensuring that:

- The risk to personnel the environment and biota during the drilling programs is ALARP;
- The drilling programs are completed with an improving HSE performance with a target of zero (0) accidents, injuries or environmental damage;
- Risk assessments for each phase of the Yolla-A and Trefoil drilling programs are documented;
- A safe working environment is provided while operating the ENSCO 102 during the drilling programs;
- The marine and aviation activities are completed in a safe manner subject to the applicable regulatory codes and practices of these types of transportation;
- All personnel are trained and are provided with HSE inductions in accordance with company policy;
- The Interface communications with service contractors (and others) at the operations level on board the ENSCO 102 is effective to ensure that the HSE objectives are achieved;
- Monitoring of HSE performance and an audited demonstration of ENSCO and 3<sup>rd</sup> party contractor commitment to improved HSE performance is established;
- All near misses, incidents, accidents, lost time and environmental impact events are recorded.

## 2.2 HSE Reporting

The reporting requirements of the Origin Energy Health Safety and Environmental Standards are that all near misses, incidents and accidents are reported by all organizations, third parties and subcontractors involved in the drilling programs.

The objectives of providing the information and data herein are to allow Origin Energy personnel, relevant authorities and key stakeholders to assess the overall HSE performance against acceptable HSE performance criteria.

The qualitative criteria for HSE performance can be described as that stated in the:

- Origin Energy Health, Safety & Environmental Policy;
- Origin Energy Health, Safety & Environmental Standards;
- Petroleum (Submerged Lands) (Management of Safety on Offshore Facilities) Regulation 31; and
- Petroleum (Submerged Lands) (Management of Environment) Regulation 26.

The BassGas drilling operations data has been provided to the BassGas Project Management Team HSE Coordinator to allow quantitative safety performance measurement rates to be calculated.

This report provides a qualitative assessment of the drilling operations and HSE performance as the limited amount of statistical data produced (exposure hours verses incidents) during the drilling programs would allow only truncated graphical information to be presented here.

## 2.3 Demonstration of HSE Performance Targets

The Origin Energy HSE Policy requires demonstration of HSE management commitment and complying with relevant HSE legislation and conditions of licenses under which the business is operated. The P (SL) Act Regulations require that the Safety Management System in relation to a facility must make provision for:

- As far as reasonably practicable, the elimination or reduction of risks to persons involved with a facility and, in particular;
- Risks arising during evacuation, escape and rescue in case of emergency; and
- Criteria and information demonstrating that other risks to the safety of the facility and to persons on it have been reduced as far as reasonably practicable.

This demonstration has occurred and is evident by the issuing of this report and referenced data.

## 2.4 HSE Performance Achievements

The Origin Energy BassGas Yolla drilling operations and drilling programs were completed with one (1) statutory reportable incident being recorded.

There were zero (0) significant accident, incidents or lost time injuries or industrial disease cases recorded.

The HSE performance over the duration of the three well drilling program showed an improving performance and that the HSE objectives were largely achieved and this is qualified here.

The statistical data (incidents verses exposure hours) provided herein shows that the HSE performance overall was good although Safety Management System (SMS) improvements were identified and implemented. Of significant importance was that there were no lost time events recorded or industrial disease cases as a result of a failure of equipment or SMS controls, and

that those who received first aid and medical treatment were expected to make a full recovery.

The one (1) statutory reportable incident was not as a result of an incident or accident, and one (1) of the medical treatment cases received counseling and it is anticipated with the treatment provide by the sub-contractor could make a full recovery.

There were a number of incidents and near misses reported as required by the Origin Energy HSE Standards and formal submission documents. These incidents and near misses are described in the Origin Energy Incident Investigation Register; document number BR1155-D-239:

- During the Yolla 4 Drilling Program fifty seven (57) day period there were fifteen (15) incidents and near misses reported, none of which were reported as a lost-time workplace injury or industrial disease;
- During the Yolla 3 Drilling Program sixty six (66) day period there was one (1) statutory reportable incident. There were five (5) other incidents reported during this period, non of which were reported as a lost-time workplace injury or industrial disease;
- During the Trefoil-1 Drilling Program seventy one (71) day period there were two (2) incidents and near misses reported, none of which were reported as a lost-time workplace injury or industrial disease.

The drilling program days as recorded in Table 1 include all drilling, logging, drill stem testing, waiting on weather and jacking operations.

Table 1. HSE Statistical Data

<b>Table 1. HSE Statistical Data</b> <b>Origin Energy BassGas &amp; Trefoil Drilling Operations End of Well HSE Report</b> <b>Document Number BR1155-D-210</b>							
Well Name	Drilling Days include; Logging, DST, WOW & Jacking Operations	Hours Worked (1000)	Statutory Reportable Incidents	Origin Energy Reportable Near Misses & Incidents			
				Total	Drilling Sub-total	Marine Sub-total	Aviation Sub-total
Yolla 4	61	61.72	0	15	9	5	1
Yolla 3	73	74.93	1	6	3	2	1
Trefoil 1 + PROD Seabed Coring	69	77.06	0	2	0	2	0

## 2.5 HSE Monitoring

Continuous monitoring of the drilling, marine and aviation activities has taken place during the Yolla drilling programs.

All incidents and accidents are required to be recorded and reported, this has occurred, a record of these events, the incident register is provided as an attachment to this document.

The details of any near miss or injury are provided on the projects incident reporting forms, which are retained in project files the relevant data are collated here. These reports provide

information and data that meets the purpose and objectives of Origin Energy HSE Standards and that of AS 1885.1.

An aspect of the reporting of near misses and injuries is the proposed method for prevention of a reoccurrence of the root cause and the elimination of the hazardous event.

The drilling operations daily written report and the morning telephone conference call from the Drilling Supervisor and ENSCO 102 OIM to the Drilling Superintendent and other drilling management team members include HSE data. The morning call conversation between the ENSCO 102 OIM and the Drilling Superintendent includes a review of the STOP Card System observations and the internal cross department audits completed during the previous twenty four (24) hours.

## 2.6 Safety Awareness and Culture

The key method used on ENSCO 102 for reporting on safety observations is the Dupont<sub>R</sub> Safety Training Observation Program (STOP) system. This system is a well established industrial benchmark system for reporting and for maintaining a positive safety culture.

The daily average number of STOP cards submitted during the Yolla drilling programs was 55, this can be described as each person making an HSE observation each 2<sup>nd</sup> day of the drilling programs. The number of area STOP audits was on average seven (7) per week.

The safety culture on ENSCO 102 during the Yolla drilling programs was very positive and was effective in maintaining a very good safety record. The Job Safety Analysis Technique and the Dupont<sub>R</sub> Safety Training Observation Program (STOP), and STOP Audits and the application of the PTW (permit to Work) System were principal safety tools used by ENSCO 102 personnel to identify hazards, implement controls and to record the observations during the implementation of the work activity.

The safety alerts issued by the IADC were distributed to personnel during the drilling programs and topics from these alerts and from the STOP cards were used during the weekly safety meeting facilitated by the ENSCO 102 OIM and Drilling Supervisor.

## 2.7 Employment Occupations and Fitness for Work

All personnel in all employment occupations on the Origin Energy BassGas Project Drilling Operation are required to be physically fit and to be in good health for the role and responsibilities they are engaged to undertake. They are required to be screened by their employers as part of the projects subcontract arrangements. Personnel are also screened as fit prior to undertaking the Helicopter Underwater Escape Training (HUET) program. The HUET is of a limited physical exertion.

Many of the rig floor tasks have the potential to cause significant injuries and fatalities as they require significant stored energy to be expended to complete. Many of the rig floor tasks to be completed have been mechanised. Rig floor activities can still be very demanding and could cause injury if not completed in the correct manner with the correct posture, by personnel who are trained and alert.

Almost all of the tasks completed during a drilling program require some physical effort to be expended for the task to be completed safely and, all require the person to be alert as to the potential hazards that are ever present on a drilling rig. A simple example of a task that is undertaken every day is walking down states, this if not completed using the correct technique has the potential to result in a the person falling down stairs which is likely to result in an injury. A person observed incorrectly descending the stairs would be counselled by the person observing the unsafe act and this act would be reported as such using the STOP card system.

Personnel engaged on AHTS vessel are exposed to a number of different hazards and must be fit and alert to avoid the loads that are moved from the vessel deck. Even while not on deck they are constantly exposed to the movement of the vessel due to the severe weather that is a feature of the Bass Strait.

A small number of personnel engaged in drilling and marine activities were required to be treated by medically trained personnel as they sustained minor injuries during work activities that were initially recorded as first aid cases. These first aid cases were followed up by medical examinations when the person returned onshore.

One (1) person was subsequently dismissed from the service of the vessel under the Navigation Act of Australia, following medical examination and being declared medically unfit due to alcohol abuse following examination by an onshore Doctor. This person was provided with counselling services under the Seafarers Rehabilitation and Compensation Act and through the employer's private health care provider.

One (1) person died from natural causes on ENSCO 102 during the Yolla 3 drilling program, as subsequently stated by the Victorian State Coroner. The Origin Energy incident investigation report document number BR1155-D-241 on this death provides information and made SMS improvement recommendations which were implemented.

## **2.8 Yolla 4 Drilling Program Incidents**

There were a total of fifteen (15) incidents and near misses reported during the fifty seven (57) day period of the Yolla 4 Drilling Program, none of these events were reported as a lost-time workplace injury or industrial disease. These were all male personnel and had been declared medically fit for work.

One (1) person was hurt by operating powered or stored energy equipment (incorrectly).

There was some minor capital equipment damage as a result of unplanned events.

### **Statutory Reportable Incidents**

There were zero (0) statutory reportable incidents or accidents the Yolla 4 drilling program.

### **Lost Time Injuries**

There were zero (0) lost-time injuries or industrial diseases during the Yolla 4 drilling program.

### **First Aid and Medical Treatment Cases**

There were four (4) first aid cases on ENSCO 102 which were treated by the ENSCO 102 Medic.

There were three (3) first aid cases on the AHTS vessels that were treated by the crew, during the Yolla 4 drilling program. One (1) of these cases resulted when the person was struck on the face following the incorrect release of a AHTS vessel deck load tensioning (hand operated stored energy) device. These were all male personnel and had been declared medically fit for work as required by maritime regulations.

### **Environmental Impact**

There were no known animals or fish injured or killed as a result of the Yolla 4 drilling program. A seal was observed in the water below the Yolla-A Platform shortly after the arrival of ENSCO 102 and was there at the end of the Yolla 4 drilling program.

There was one minor environmental impact event when a small amount (20 litres) of diesel fuel oil was released by a AHTS Vessel in the Port of Melbourne; this was investigated by the Melbourne Port Authority.

### **Near Misses**

There was one (1) planned event that resulted in a dropped object (4 kgs) near miss on ENSCO 102. The JHA completed prior to the event recognised the importance of keeping personnel away from the equipment (caisson hammer and elevators) being operated.

There was one (1) unplanned event that resulted in a dropped object (12 kgs) near miss on ENSCO 102 that could have had serious consequences.

### **2.9 Yolla 3 Drilling Program Incidents**

There were a total of six (6) incidents and near misses reported during the sixty six (66) day period of the Yolla 3 Drilling Program, none of which were reported as a lost-time workplace injury or industrial disease. One (1) of these events was a statutory reportable case. These were all male personnel and had been declared medically fit for work.

No one was hurt by operating powered or stored energy equipment.

There was some minor capital equipment damage as a result of unplanned events.

### **Statutory Reportable Incidents**

There was one (1) statutory reportable incident or accident during the Yolla 3 Drilling Program.

### **Lost Time Injuries**

There were zero (0) lost-time injuries or industrial diseases during the Yolla 3 drilling program.

### **First Aid and Medical Treatment Case**

There were two (2) first aid cases on ENSCO 102 which were treated by the ENSCO 102 Medic.

There were zero (0) first aid cases on the AHTS vessels that were treated by the crew, during the Yolla 3 drilling program.

There was one (1) male medical treatment case on the AHTS vessels as a result of alcohol abuse. This person had been declared medically fit for work as required by maritime regulations.

### **Environmental Impact**

There were no known animals or fish injured or killed as a result of the Yolla 3 drilling program. The number of seals observed in the water below the Yolla-A Platform during the Yolla 3 drilling program increased to a maximum of five (5).

### **Near Misses**

There was one (1) near miss from a planned event that resulted in an in bound crew change helicopter completing a run on landing at Essendon air port on one engine.

There was one (1) unplanned event that resulted in a dropped object near miss on ENSCO 102 that could have had serious consequences.

### **2.10 Trefoil-1 Drilling Program Incidents**

There were a total of two (2) incidents and near misses reported during the seventy one (71) day period of the Trefoil-1 drilling program, none of which were reported as a lost-time workplace injury or industrial disease.

No one was hurt by operating powered or stored energy equipment.

There was some minor capital equipment damage as a result of unplanned events.

### **Statutory Reportable Incidents**

There were zero (0) statutory reportable incidents or accidents the Trefoil-1 drilling program.

### **Lost Time Injuries**

There were zero (0) lost-time injuries or industrial diseases during the Trefoil-1 drilling program.

### **First Aid and Medical Treatment Case**

There were zero (0) first aid cases on ENSCO 102 which were treated by the ENSCO 102 Medic.

There was one (1) male medical treatment case on the AHTS vessels as a result of a twisted knee which occurred while descending stairs, while the vessel was in calm waters. This person had been declared medically fit for work as required by maritime regulations.

### **Environmental Impact**

There were no known animals or fish injured or killed as a result of the Trefoil-1 drilling program.

### **Near Misses**

There was one (1) near miss from a planned event during the Trefoil-1 drilling program. The AHTS Vessel offloading bulk supplies at ENSCO 102 suffered a loss of propulsion control which resulted in the bulk hose parting. The potential consequences of this event were that the vessel and the ENSCO 102 could have sustained mechanical damage. The vessel was returned to port for a full manufacturers technical evaluation. A vendor equipment failure report was subsequently issued. This identified the root cause of the failure being the failure of the vessel operator to carry out maintenance on a battery back-up power supply for the vessel propulsion control system. The failed equipment (propulsion control system battery power supply) was repaired and the vessel returned to service.

### **2.11 Emergency Response**

There was one (1) emergency response events that required the mobilisations of the resources identified in the BassGas drilling operations Emergency Response Plan and the activation of the Emergency Response Team. This event is reported in Origin Energy Incident Investigation Report; document BR1155-D-241.

### **2.12 Oil Spill or Hydrocarbon Releases**

There were no events that required neither the mobilisation of the resources identified in the BassGas drilling operations Oil Spill Contingency Plan nor activation of the Emergency Response Team.



### 3 FIELD DESCRIPTIONS

A description of the Yolla and Trefoil permits is provided here for completeness of this report; the referenced drilling documentation should be consulted for details.

#### 3.1 Yolla Field Description

The Yolla gas field is located in Tasmanian Production License 1 (T/L1) in the Bass Basin, 120 kilometers offshore from Tasmania and 220 kilometers south south-east of Melbourne in water depths of approximately 80 meters.

The Yolla-A platform and wells are approximately 90 km southwest from the nearest point of the Victorian coast and 96 km from the nearest landfall of the Tasmanian coast at Three Hummock Island (Figure 2.1 BR1155-D-201).

The Yolla field contains an estimated (proven and probable) 256 petajoules of sales gas, 13.7 million barrels of condensate (light oil) and 1.0 million tonnes of liquefied petroleum gas (LPG). The Yolla Joint Venture Partners (Table 2.1 BR1155-D-201) propose to supply gas at a rate of 20 petajoules per annum, 1.2 million barrels of condensate per annum and 80,000 tonnes of LPG per annum.

The Yolla Field is a large northwest - southwest trending anticlinal feature which has been divided into compartments by major faults. The structure of the reservoir is shown in Figure 2.1 in BR1155-D-221.

The details of the Yolla Field development plan and sales market are contained in the Origin Energy Environment Effects Statement/Environment Impact Statement previously submitted to the DA.

#### 3.2 Yolla 4 Location Data

Yolla-A Platform location: Latitude 39° 50' 40.5" South, Longitude 145° 49' 06.3" East. Well slot location 5,588,824N, 398,910E (GDA94 Zone 55).

The Yolla 4 target bottom hole location (top 2809 sand) was 5,588,223N, 398,671E (GDA 94 Zone 55).

Kick off ~1257mSS to ~25deg max deviation. Vertical section ~762m at TD, 202deg Azimuth.

#### 3.3 Yolla 3 Location Data

Yolla-A Platform location: Latitude 39° 50' 40.578" South, Longitude 145° 49' 06.186" East, 5,588,822N, 398,908E (GDA94 Zone 55). Well slot location 5,588,825.22N, 398,905.69E (GDA 94 Zone 55).

Yolla 3 target hole locations top TEV4 5,589,373.77N, 398,015.38E (GDA 94 Zone 55) top 2809 sand 5,589,510N, 397,865E (GDA 94 Zone 55).

Kick off ~252mVDSS to ~41deg max deviation & hold till 1645mVDSS, where well angle will start to drop until vertical at well TD. Vertical section ~1292m at TD, 301.374 deg Azimuth.

#### 3.4 Trefoil-1 Field Description

The Trefoil 1 exploration well targeted sandstone reservoirs of the Eastern View Coal Measures (EVCm) within a four-way dip closure. Primary objectives were in the Paleocene with secondary targets in the Early Eocene and Late Cretaceous. The well location lies in the offshore Bass Basin in permit T/18P approximately 37 km west of the Yolla gas field.

Gas charge was confirmed during well testing as the hydrocarbon type with lesser oil and/or associated liquids. This was based on the predominantly gas charged pools in the Yolla and White Ibis fields.

### 3.5 Trefoil-1 Location Data

The Trefoil-1 is approximately 114 km southwest from the nearest point of the Victorian coast (Wilsons Promontory) and 59 km from the nearest landfall of the Tasmanian coast at Three Hummock Island (Figure 2.1 BR1155-D-211).

The well is located in 69 meters of water and was suspended following testing and approval; a well head protrudes approximately 2 meters above the sea floor at the well site.

Trefoil-1 open water surface location Latitude 39° 51' 44.12" South, Longitude 145° 22' 30.73" East (GDA94).

## 4 DRILLING PROGRAM ACTIVITIES

The details of the Yolla and Trefoil drilling programs are provided in the referenced drilling programs.

### 4.1 No One Gets Hurt

The project HSE theme expressed throughout the drilling program is No One Gets Hurt.

### 4.2 Drilling Activities

The Yolla and Trefoil drilling programs require the drilling of two (2) production wells with a MODU using the ENSCO 102 jack up drilling rig, while jacked-up on location over the Yolla-A Platform and the drilling of a single (1) exploration well in open water at Trefoil-1.

The details of the drilling activities to be completed are provided in the following data:

- Yolla 4 Drilling Program, BR1155-D-221, Yolla 4 was drilled to measured depth (MDRT) 3235 meters and completed.
- Yolla 3 Drilling Program, BR1155-D-223, Yolla 3 was drilled to measured depth (MDRT) 3497 meters and completed; and
- Trefoil-1 Drilling Program, BR1155-D-230, Trefoil-1 was drilled to measured depth (MDRT) 3545 meters and suspended.

### 4.3 Operational Activity Areas

The main activity areas during the Origin Energy drilling programs were:

- Drilling Operations, offshore on ENSCO 102;
- Marine Operations, two (2) AHTS vessels and, including the loading and unloading of AHTS vessels at ENSCO 102, Yolla-A Platform and in the Port of Melbourne;
- Helicopter Operations, mainly flights from Essendon airport to ENSCO 102 and occasional flights within Victoria and to Tasmania;
- Survey Operations, the cutting of sea bed cores at the Trefoil permit location using an early generation supply vessel specifically chartered for that purpose. The cores were cut at location of where the MODU ENSCO 102 will be soft pinned and subsequently pre-loaded and jacked up into position;
- Project Management, mainly onshore office based activities, with occasional visits to ENSCO 102; and
- Supporting services, including warehousing, stevedoring, engineering workshops modifications to drilling equipment, freight forwarding, transportation and logistics.

### 4.4 Training, Drills and Exercises

All personnel engaged in the Origin Energy BassGas drilling program are trained for their primary technical role and are also provided with induction and emergency response training.

During the completion of the drilling programs this training is reinforced by weekly emergency response drills and exercises.

## 5 WORKER GROUPS

### 5.1 Gender

Approximately 98% of the personnel engaged offshore during the three drilling programs were male and 2% were female. This included ENSCO 102 and third party contractors personnel.

### 5.2 Drilling Operations

The drilling operations worker groups that were employed on the MODU ENSCO 102 during the drilling programs included ENSCO drilling, deck crew and catering personnel, third party contractors, drilling supervision and management personnel.

The ENSCO 102 drilling personnel worked two (2) twelve (12) shifts, each day of the drilling program.

Third party contractors worked twelve (12) hour split shifts and occasionally additional (regulated) over time hours to overcome equipment failures and technical problems.

These drilling and third party personnel were identified in the ENSCO 102 MODU (stand alone) Safety Case.

The additional activities and personnel that were not stated in the ENSCO 102 Vessel Safety Case were identified in the Origin Energy formal submission documentation (see references) provided to the designated authority as party of the drilling program(s) approvals processes.

Visitors to ENSCO 102 included designated authority, project management and union delegate personnel.

### 5.3 Marine Operations

Marine personnel were employed operating AHTS vessel equipment at sea and the loading and unloading of the two (2) AHTS vessels in the Bass Strait at ENSCO 102 and Yolla-A Platform. Marine personnel worked regulated marine split watch patterns over a twenty four (24) hour period, the crew changing each four (4) weeks while the AHTS vessel is in the Port of Melbourne.

### 5.4 Sea Bed Core Cutting Operations

A combined team of marine vessel and technical personnel were mobilised onboard a small (565 gross tonnes) early generation supply vessel using PROD (Portable Remotely Operated Drill) system to cut sea bed cores at the Trefoil permit location. This was to provide input data for the ENSCO 102 pre-load plan where the ENSCO 102 will be soft pinned and subsequently pre-loaded and jacked up into position. This required that the vessel was modified by trades personnel in the Port of Melbourne to accept the PROD system ancillary equipment and a four (4) point mooring system. During modifications trades personnel worked a single 12 hour shift. During vessel mobilisation, PROD trials and the sea bed core cutting program marine personnel worked split 24 hour marine watches. The PROD operational and geological assessment team worked 12 hour day and night shifts.

### 5.5 Aviation Operations

Helicopter air and ground crew were employed in the almost twice (2) daily helicopter flights to and from Essendon airport, with occasional additional flights to facilitate the movement of passengers and freight. Helicopter aircrew operate under a Fatigue Risk Management System that is approved by the Civil Aviation Safety Authority. This work practise allows crews to work 16 consecutive days; however the maximum duty permitted during this period is 102 hours. Duty includes all time conducting any work for the company, all travel time to and from work,

all flight preparation the flight period and post flight paperwork and aircraft husbandry. A pilot may only perform 12 hours duty in any 24 hour period.

#### **5.6 Project Management**

Project management personnel included a number of drilling supervisory personnel engaged directly in the drilling activities and, also included a significant number of personnel in supporting roles, some of which were full time and others were engaged part time. These personnel were engaged in such activities as telecommunications, information technology and logistics.

#### **5.7 Support Services**

Supporting services included personnel that were engaged by third party groups in a number of onshore activities such as, workshop engineering, stevedoring, freight forwarding, and security and auditing. The recording and reporting of these groups statistical and incidents is out with the scope of this document.

## 6 STATISTICAL DATA

The statistical data reported herein is a small part of the overall project statistical data available. The data reported in the following Tables has been extracted from the overall drilling operations data and has been provided to give a perspective for HSE performance and as a comparison to other reported data.

<b>Table 2. Drilling Operations Statistical Data</b>	<b>Drilling Operational Days</b>	<b>Days Worked (1) minus (5)</b>	<b>Hours Worked (2)</b>	<b>Marine Vessel Voyages (3)</b>	<b>Helicopters Flights (4)</b>
Well Name					
Yolla 4	61	5143	61716	17	79
Yolla 3	73	6244	74928	16	82
Trefoil-1 + PROD Seabed Coring	69	5630	77040 (6)	15	76

Notes: Table 2.

1. From ENSCO 102 Daily POB Record Sheets, including Integrated Services, ADA, Third Party & Visitors and Clough Engineering Personnel.
2. Based upon a 12 hour shift.
3. Return Voyages from Port of Melbourne to ENSCO 102.
4. Return Helicopter Flights from Essendon to ENSCO 102.
5. For completeness of the ENSCO 102 POB statistics reported here the ENSCO 102 POB includes 642 bed nights during the Yolla 4 and 292 bed nights during the Yolla 3 drilling programs when Clough Engineering Personnel were accommodated on ENSCO 102, and while they were provided with medical care on ENSCO 102 the hours worked were mostly on the Yolla-A Platform and are not recorded against the drilling operations statistical data collated here.
6. The hours recorded against Trefoil-1 include 9,480 exposure hours expended on PROD sea bed core cutting activities.

<b>Table 3. HSE Statistical Data</b>	<b>Drilling Operational Days</b>	<b>Days Worked (1)</b>	<b>Hours Worked (2)</b>	<b>Statutory Reportable Incidents (3)</b>	<b>Origin Energy Reportable Near Misses &amp; Incidents (4)</b>			
Well Name					Total	Drilling Sub-Total (5)	Marine Sub-Total (5)	Aviation Sub-Total (5)
Yolla 4	61	5143	61716	0	15	9	5	1
Yolla 3	73	6244	74928	1	6	3	2	1
Trefoil-1+ PROD Seabed Coring	69	5630	77040 (6)	0	2	0	2	0

Notes: Table 3.

1. From ENSCO 102 Daily POB Record Sheets.
2. Based upon a 12 hour shift.
3. Based upon P(SL) Acts Regulations and Formal Submission Requirements.
4. All Operational Reportable Incidents Based upon Origin Energy HSE Standards.
5. Sub-total for the Main Operational Areas for Operational Reportable Incidents Based upon Origin Energy HSE Standards.
6. The hours recorded against Trefoil-1 include 9,480 exposure hours expended on PROD sea bed core cutting activities.

## **7 SIMOPS**

The relevant details of SIMOPS activities are provided in the referenced Yolla drilling operations formal submission addendum document BR1155-D-202.

### **7.1 Safety Drills and Emergency Response Exercises**

Simultaneous operations (SIMOPS) safety drills and emergency response exercises involving ENSCO 102 and Yolla-A Platform construction and commissioning personnel were completed under the command of the ENSCO 102 OIM.

### **7.2 Matrix Of Permitted Operations**

A Matrix of Permitted Operations (MOPO) was developed and used by the ENSCO 102 OIM when determining Permit to Work requirements for the completion of Yolla-A Platform activities.

### **7.3 Construction of Yolla-A Platform**

The information provided here on the Origin Energy BassGas Project construction contractor Clough Engineering Ltd (CEL) has been state herein to provide a limited understanding of the other activities that were required to be managed by the drilling operations management team, and to rationalise the ENSCO 102 POB data used herein.

A significant number of personnel engaged by CEL for the completion of Yolla-A Platform were accommodated onboard the ENSCO 102, during the Yolla drilling programs. These are classified as SIMOPS activities. These activities were dominated by the Yolla-A platform construction, process system pressure testing and commissioning activities. These personnel required material and logistic support and were crew changed from ENSCO 102 using the Origin Energy helicopter service provider.

During the Yolla drilling program a construction support vessel was mobilised from Tasmania into the Yolla permit area. Construction personnel were shuttled each working day from the construction support vessel mainly to the Yolla-A platform and on occasions to ENSCO 102, via a helicopter service provided by the construction support vessel operator.

### **7.4 Care of Yolla-A Platform Construction Personnel**

The ENSCO 102 Medic provided care to the CEL personnel onboard ENSCO 102 and when required to do so to other personnel working on Yolla-A Platform.

There were a small number of CEL personnel treated by the ENSCO 102 medic as first aid cases; these personnel generally had colds or muscular strains.

The ENSCO 102 Medic also attended a CEL employee who successfully self administered prescribed medication. This medication had been recorded by the Medic as part of the persons medical declarations process in place on ENSCO 102. These cases were reported separately and are out with the scope of this document.



## 8 ACKNOLEGMENTS

Origin Energy and Australian Drilling Associates acknowledge that a number of organizations and individuals have made significant contribution to the successful completion of the Origin Energy BassGas and Trefoil Drilling Operations. Although they are not named individually here they were recognized as having made a contribution above the very high standard achieved by the drilling operations team.

### 8.1 STOP Card Award Winners

A number of personnel made a positive impact to the HSE performance; these personnel were nominated by their peer group and received a small token in recognition of their contribution and safety performance, and as being a STOP Card award winner. The names of these personnel are retained by ENSCO Australia Ltd.

**Table 4. STOP Cards Statistical Data**

The data in Table 4 has been extracted from the ENSCO 102 STOP records.

STOP Cards Daily Average	% Well Done	% House Keeping	% Unsafe Acts & Body Position	% Unsafe Conditions
55	60	15	20	5

## 9 ATTACHMENTS

### 9.1 Origin Energy Incident Investigation Register, BR1155-D-239.

## Origin Energy BassGas Yolla Drilling Program Incident Accident Register

Origin Energy Yolla Drilling Operations HSE Project Records						
Day 1 of Yolla Drilling Program being the first day after mobilisation & jack up of ENSCO 102 on 11th June 2004.						
Incident occurred at Day 'N' of Yolla 4 Drilling Program.						
Yolla 4 Drilling Program Day of Incident.	Date & Incident No.	Location	Description	Consequences	Investigation Conclusions	Actions Required
1	11/06/2004. 1	AHTS Vessel Invincible Tide.	Loss of Propulsion Control while maneuvering in Port of Melbourne Harbor. The was the day after ENSCO 102 Jacking Operations had been completed offshore.	Minor damage to Port of Melbourne quay.  No injuries to personnel reported.	Draft Report issued by Tidewater Marine, not conclusive.	16/06/04. ADA carried out an incident investigation, when vessel returned to port. 17/06/04. Full technical report on hydraulic valve sent by Chief Engineer to Hylec, from Tidewater Marine required.
	<p><b>Investigation.</b></p> <p><b>Further Action Required.</b></p> <p>02/07/04. Phoned Chris King (0410 677 800), who stated that the Vendor Hylech reported that the valve had not been changed for a long time?</p> <p>02/07/04. Asked that a recommendation for the change out of this type of valve in critical service be placed on maintenance routine.</p> <p>02/07/04. Sent email to Chris King requesting confirmation that a robust system for hydraulic valves in critical service are checked and that the date of last service is known to Chief Engineer.</p> <p>02/07/04. Hylec have investigated Dowty valve failure on Dowty 4681-215-000 Servovalve S/N30545 Hylec VS No. 040610. The valve had internal damage assessed as being caused by poor quality hydraulic oil and contaminants in the system. Chris King has sent an out a instruction to the vessels in the fleet to check the quality of the oil.</p> <p>02/07/04. Visited Vessel and met with Chief Engineer, who had been contacted by Chris King regarding hydraulic oil &amp; valves and the implementation of quality control of hydraulic fluid.</p> <p>31/08/04. Email back from Tidewater Marine GM, do not disagree with Orinin Energy Incident Investigation Report BR1155-D-240, issued to key Stakeholders. Further action not required.</p> <p><b>Closed out.</b></p>					

## Origin Energy BassGas Yolla Drilling Program Incident Accident Register

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<b>14/06/2004</b>  <b>2</b>	MODU ENSCO 102.	Dropped object onto MODU ENSCO 102 drill floor. Latch pin from Origin Energy owned 20" elevators dropped while driving 20" conductor with Franks Hammer.	Near miss to Franks Hammer Service Technician.  No injuries to personnel reported.	Draft report with photographs issued by ADA Drilling Engineer.	Discuss at morning meeting, 14th June 2004. The initial ENSCO conclusions are that a latch pin from a 20" fell to the drill floor due to the failure of a safety retaining bolt. The elevators had been purchased by Origin Energy for the BassGas Yolla drilling project and modified to allow the lifting of coated 20" conductors. The latch pin and safety bolt were not part of the machined modification. The ENSCO 102 OIM has jurisdiction and will produce an incident report.
<p><b>Investigation.</b></p> <p><b>Further Action Required.</b></p> <p>ADA are to clarify the modification process and produce a report to Origin Energy.</p> <p>The ADA conclusions are that the design and use of the elevator to drive conductors lead the incident. The design was such that the hinge pin was not designed to withstand the dynamic loads created by the driving hammer</p> <p><b>Further action required:</b> Make recommendations to supplier and or manufacturer of the elevators to modify similar elevators such that the hinge pin cannot become detached from the body under similar conditions and is not reliant on the current designed safety pin, which sheered during conductor driving. This can be achieved by the welding of retaining plates above and below the hinge pin bore hole.</p> <p><b>Further action required:</b> Make recommendations to Origin Energy to disable the elevators such that the are reduced to scrape and therefore not able to be used again.</p> <p><b>Closed out.</b></p>					

## Origin Energy BassGas Yolla Drilling Program Incident Accident Register

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	20/06/2004 <b>3</b>	MODU ENSCO 102.	Drill pipe stand movement on drill floor	Near miss to Franks Hammer Service Technician.  No injuries to personnel reported.	Preliminary Conclusion – a wind gust moved the finger and pushed the stand out the racking board. Investigation Conclusions:	A brief summary of the drill pipe across the derrick incident: 1. The stand used to pull the wear bushing had been racked back for approx 1 hr. 2. The PRS screen showed all the fingers closed. 3. The PRS has a fail safe that does not allow the operator to move away after racking back. 4. From points 2 and 3 it has been assumed that the finger was closed. 5. At around 23:15 the stand fell across the derrick coming to rest on the dolly tracks. No injuries or equipment damage. 6. Immediate action was to close more fingers on the racking board as 'back ups'. 7. Recovered stand and racked back in different finger. 8. The fingers on the racking board are actuated by pneumatic cylinders, when actuated the fingers can be raised by hand. 9. Preliminary conclusion – a wind gust moved the finger and pushed the stand out the racking board.
<p><b>Investigation.</b></p> <p><b>Further Action Required.</b></p> <p>Some days later ADA HSE Manager observed the PRS in operation and visually observed the fingers in operation of the fingers from the gantry walk way in the derrick.</p> <p>The conclusions are that the the design of the PRS system, the incipient weather and the blurring of the view of the camaras in the derrick contributed to the incident.</p> <p>The design of the PRS allows for a significant number of system faults to be logged an operator warning message displayed simultaneously, while allowing the PRS to continue operation. However the PRS does require the PRS operator to clear each fault indeividually.</p> <p>On the day the PRS system was observed in action the weather was inclement, the PRS camara monitor display in the drillers cabin was unusable by the PRS operator as rain was being driven into the camara housing window. The PRS operator did when it was available use the drillers camera to monitor PRS. The number of faults in the RPS was described as being 200 plus, the operator was engaged in clearing these faults and the operator was required to walk out onto the drill floor to observe the pipe being lached securely.</p> <p><b>Further action required:</b> Make recommendations to ENSCO 102 Rig Manager to provide a method the prevent water being retained on camara window and if there is any internal condensation in the camara housing provide facilities to remove condensation.</p> <p><b>Further action required:</b> Provide facilities for PRS operator to be able to clear all faults simultaneously.</p> <p><b>Closed out.</b></p>						

## Origin Energy BassGas Yolla Drilling Program Incident Accident Register

13	24/06/2004 <b>4</b>	MODU ENSCO 102.	Drill pipe stand striking inside of riser while running in hole .	Incident resulted in bent top joint of pipe.  No injuries to personnel reported.  No damage to top drive.	Preliminary Conclusion – running speed into hole exceeded good practice. Site Investigation Conclusions: Running speed into hole exceeded good practice.	ENSCO 102, Tool Pusher and Driller to discuss prior next trip. The image of the fingers displayed on the CCTV camera monitor on in the drillers cabin was obscured due to rain on camera lens or condensation in the camera?
	<b>Investigation.</b> ENSCO 102 OIM concluded that more concentration and reduced speed when running in hole would prevent reoccurrence. Further action not required. <b>Closed out.</b>					
14	25/06/2004 <b>5</b>	CHC Helicopters flight from ENSCO 102	Life Jackets not available on helicopter for Pax.	Incident resulted in the ENSCO 102 collecting life jackets for Pax to return to Essendon.	Preliminary Conclusion – The flight out was for freight only, no life jackets were loaded onto aircraft for the scheduled returning 7 Pax. The flight crew did not have life jackets during flight.	Investigation Conclusions: The life jackets will now be located in the aircraft, Pax will put on the life jacket when onboard helicopter. Spare life jackets sent to ENSCO 102.
	<b>Investigation not required.</b> Further action not required. <b>Closed out.</b>					

## Origin Energy BassGas Yolla Drilling Program Incident Accident Register

15	26/06/2004 <b>6</b>	AHTS Vessel Ray J Hope.	Diesel oil spill in Melbourne Harbor.	Incident resulted diesel oil spill during bunkering.	Preliminary Conclusion – Vessel discharges approximately 20 liters of diesel while taking on cargo in Melbourne harbor. Investigation Conclusions: Incorrectly fitted gasket on tank.	Vessel fitted new gasket to #19P tank cover.
	<b>Investigation not required.</b> Further action not required. <b>Closed out.</b>					
18	27/06/2004 <b>7</b>	MODU ENSCO 102.	Fall from bunk in accommodation.	Incident resulted PRS operator falling while climbing back into top bunk and requiring medical examination the next morning for a stiff shoulder.	Preliminary Conclusion – Person attempted to use chair to climb into top bunk. The chair tipped over lost footing and grip. Fell approximately 1 meter to floor, with left arm taking most of the impact.	OIM to examine better method for gaining access to top bunk.
	<b>Investigation not required.</b> Further action not required. <b>Closed out.</b>					

## Origin Energy BassGas Yolla Drilling Program Incident Accident Register

21	29/06/2004 <b>8</b>	AHTS Vessel Ray J Hope.	Engineer twisted back in engine room.	Incident resulted in the engineer requiring to be helped from the engine room and received medical treatment on board.	Preliminary Conclusion – Person attempted to use chair to climb into top bunk. The chair tipped over lost footing and grip. Fell approximately 1meter to floor, with left arm taking most of the impact.	Master produced incident report 01/07/04. Medical treatment was pain killers/anti-inflammatory drugs and hot compress.
	<b>Investigation not required.</b> Further action not required. <b>Closed out.</b>					
25	3/07/2004 <b>9</b>	MODU ENSCO 102.	Cook burnt left hand in galley.	Incident resulted in the 2nd cook receiving a minor burn on left hand due to lifting hot pot from stove, while not wearing PPE	Preliminary Conclusion – Minor burn which was treated by 2nd cook.	OIM produced incident report 03/07/04. Medical treatment was run cold water over hand.
	<b>Investigation not required.</b> Further action not required. <b>Closed out.</b>					



## Origin Energy BassGas Yolla Drilling Program Incident Accident Register

29	7/07/2004 <b>10</b>	MODU ENSCO 102.	Top Drive Collided with PRS while POOH.	Incident resulted in minor damage to PRS.	Preliminary Conclusion – Minor damage to PRS cable racking caused by wind moving cable into	OIM produced incident report 07/07/04.  Investigated by OIM.
	<b>Investigation.</b> <b>Further Action Required.</b> Why did the cables move out from the boundaries of the PRS exclusion zone into the Top Drive exclusion zone? Should the PRS exclusion zones be redefined. Further action: Tensioning of vertical cable drag chain/catenaries wires to be carried out by ENSCO. <b>Closed out.</b>					
35	15/07/2004 <b>11</b>	Invincible Tide & MODU ENSCO 102.	Wire sling damaged while lifting filter package.	Incident resulted in damage to wire sling only.	Preliminary Conclusion – Damage to sling, other three legs of sling and damaged sling held load.	OIM produced incident report 15/07/04 #71.  Origin Energy incident report required. Materials Supervisor instructed vendor to provide tarpaulins or covers/cages over open loads to prevent snagging of wire slings.
	<b>Investigation not required.</b> Further action not required. <b>Closed out.</b>					
41	21/07/2004 <b>12</b>	MODU ENSCO 102.	Roustabout was installing 'wine racks' on the 7" chrome tubing on pipe deck when his leg slipped through a gap in the pipe.	Incident resulted in Roustabout causing soft tissue injuries to his right knee.	Preliminary Conclusion – Damage to right knee, requiring medical treatment by medic.	OIM produced incident report 21/07/04 #?.  Origin Energy incident report completed 21/0704.
	<b>Investigation.</b> <b>Further Action Required.</b> Walk boards to be installed over pipe, with anti slip paint. JSA to be reviewed by ENSCO OIM. <b>Closed out.</b>					

## Origin Energy BassGas Yolla Drilling Program Incident Accident Register

47	27/07/2004 <b>13</b>	Invincible Tide & MODU ENSCO 102.	Deck Officer was tensioning up a load binder using a lever type chain tensioner and cheater pipe.	Incident resulted in the person being struck on the face by pipe cheater.	Preliminary Conclusion – Cut to face requiring first aid.	Captain reported injury by email to Tidewater Marine Manager. Injured person to be examined by Doctor. Origin Energy incident report completed 28/0704.
	<b>Investigation.</b> <b>Further Action Required.</b> All lever type binders and cheater bars to be banned on Tidewater Marine vessels. ADA will visit vessel when next available in port. <b>Closed out.</b>					
54	03/08/2004 <b>14</b>	Ray J Hope.	Back Pain the day after working bulk hoses on deck of vessel.	Incident resulted in the person treated with pain killers, ice pack and rest.	Preliminary Conclusion – Twisted back the previous day while working bulk hoses on deck of vessel at Yolla.	Captain reported injury by email to Tidewater Marine Manager. Injured person given pain relief Voltarin. Origin Energy incident report completed 05/08/04.
	<b>Investigation.</b> Further action not required. <b>Closed out.</b>					
55	04/08/2004 <b>15</b>	MODU ENSCO 102.	Cook slipped and fell coming out of galley freezer.	Incident resulted in the person slipping and landing on backside on the floor at fridge entrance.	Preliminary Conclusion – No injury, with a small amount of discomfort and returned to normal duties.	ADA HSE Coordinator reported incident by email. Photographs of the fridge entrance deck area and the soles of the footwear wore by cook were also sent ADA HSE Manager.  Origin Energy incident report completed 05/0804.
	<b>Investigation.</b> <b>Further Action Required.</b> Anti slip tape to be applied to entrance to galley freezer. <b>Closed out.</b>					

## Origin Energy BassGas Yolla Drilling Program Incident Accident Register

Origin Energy Yolla Drilling Operations HSE Project Records						
Day 1 of Yolla 3 Drilling Program; 8th August (12:30 hrs) 2004.						
<b>Incident occurred at Day 'N' of Yolla 3 Drilling Program.</b> <b>State Emergency Response Phone Number 000.</b>						
Yolla 3 Drilling Program Day of Incident.	Date & Incident No.	Location	Description	Consequences	Investigation Conclusions	Actions Required
<b>6</b>	14/08/2004. <b>16</b>	MODU ENSCO 102.	Dropped object from MODU ENSCO 102 to Yolla-A Platform Deck.	<p>Near miss to Clough Engineering Person on Yolla-A Platform Upper Deck.</p> <p>No injuries to personnel reported.</p>	Draft report with photographs issued by ADA Drilling Engineer.	<p>Discuss at morning meeting, 15th August 2004. The initial ENSCO conclusions are that the tray approximately 11 meters long supporting the BOP Hoist hydraulic hoses became detached from the over head gantry and fell towards the deck around the BOP Stack. A section approximately 3.5 meters in length 0.2 meters wide weighing 8 kgs became detached and fell to the Yolla-A Platform Deck, adjacent to the stairway down to the Yolla-A deck. A Clough Engineering employee was approximately 3 meters from the dropped object impact location.</p> <p><b>No one was hurt, however this is classified as a significant near miss.</b></p> <p>The ENSCO 102 OIM has jurisdiction and produced an incident report.</p>
	<p><b>Investigation.</b></p> <p><b>Further Action Required.</b></p> <p>24th Aug 2004, ENSCO 102 Incident Report required, and details of actions taken to prevent re-occurrence.</p> <p>27th Aug 2004, copy of ENSCO report issued by Rig Manager.</p> <p>Further Action Required.</p> <p>Recommend that a Safety Alert is issued to ENSCO 102 designers and builders.</p> <p><b>Closed out.</b></p>					

## Origin Energy BassGas Yolla Drilling Program Incident Accident Register

28	06/09/2004. <b>17</b>	MODU ENSCO 102.	Dropped object from MODU ENSCO 102 ceiling onto person in Upper Bunk Bed.	Minor First Aid Case miss to ENSCO 102 Person reading book in upper bunk bed.  No injuries to personnel reported.	Report with photographs issued by ENSCO 102 Rig Manager.	Discuss at morning meeting, 7th September 2004. The initial ENSCO conclusions are that the three (3) metallic ceiling tiles each weighing 2.0 kgs became detached from the ceiling and one (1) fell onto the knee cap of the employee. Minor marking to knee, no bruising or other signs of injury. The ENSCO 102 OIM has jurisdiction and has produced an incident report.
	<p><b>Investigation.</b></p> <p><b>Further Action Required.</b></p> <p>7th Sept: 2004, The ENSCO 102 OIM has instigated the maintenance department and galley personnel to examine all ceiling tiles in rooms and passage ways and to secure tiles by screw fixings.</p> <p>7th Sept: 2004, copy of ENSCO report issued by Rig Manager to ADA.</p> <p style="font-size: 24pt; font-weight: bold;">Closed out.</p>					

## Origin Energy BassGas Yolla Drilling Program Incident Accident Register

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	09/09/2004. <b>18</b>	AHTS Vessel Invincible Tide.	Sea man became ill while vessel underway to MODU ENSCO 102. Vessel returned to disembark the seaman at Queenscliff pilot station. Seaman subsequently examined by Doctor.	<b>Medical Treatment Case.</b> Seaman treated by Dr Steven Jones, Emergency Dept. Geelong Hospital, PO Box 281, Geelong, Vic 3220.	Initial email from Tidewater Marine indicated the seaman had a medical seizure and was restrained by crew. Crew member collapsed in the mess room and had what was thought to be an epileptic fit, spasms and frothing at the mouth.	Discuss at morning meeting, Vessel had returned to port to allow seaman to be examined by Doctor.. The initial conclusions as subsequently reported by email, was that the seaman was suffering from an alcoholic induced reaction/sickness. The Vessel Master has jurisdiction is required to produced an incident report. The Masters report was recieved on Saturday 11th Sept: The seaman was restrained by two crew members who were in the messroom. The master and mate were called and the handle of a spoon inserted in his mouth to prevent him from biting his tongue. He was put in the recovery position until he regained consciousness. After about half an hour he was able to sit up put was not very lucid. By 0600 he was fully conscious and aware of his situation For information only. This was the Masters first vuoage having joined the vessel with a new crew on the 10th Sept 2004, having flown in at short notice from New Zealand.
	<p><b>Investigation.</b></p> <p>10th Sept: 2004, Email sent requesting incident report from Tidewater Marin Operations Manager.</p> <p>11th Sept: 2004, Phoned Vessel Master while in Port of Melbourne, who stated that a report had been sent to Tidewater Marine.</p> <p>11th Sept: 2004, Copy of Masters report received at 11:25, from Tidewater Marine. The vessel is due to sail at 14:00 on 11th Sept:</p> <p>Further Action Required.</p> <p>11th Sept: Copy of Tidewater Marine Management Report requested by email.</p> <p>11th Sept: Carry out an incident investigation when vessel next in Port.</p> <p>12th Sept: Recieved email from Tidewater Marine, regarding health &amp; care: All offshore companies and seafarers are covered under the Seafarers Rehabilitation and compensation act, full counselling services are provided through this organisation with the OSA Group, we also use the OSA group (Perth office is in our building 16th floor) as a provider to Tidewater privately and will assist Chris Softley in getting the assistance he requires as a back up, we also use Delta Health Services and their Australia wide network to provide full medical support to our offshore staff and work with them to provide and counseling or psychological support should the OSA group or seacare cannot provide support required.</p> <p>29th Sept: 2004 Tidewater Marine management report issued.</p> <p><b>Closed out.</b></p>					

## Origin Energy BassGas Yolla Drilling Program Incident Accident Register

46	24/09/2004. <b>19</b>	MODU ENSCO 102.	Well Test Engineer died while working on deck of ENSCO 102. Subsequent resuscitation & CPR administered by ENSCO 102 Medic.	<b>Serious Incident.</b>	The Victorian State Coroner recorded death from natural causes.	Origin Energy Incident Investigation Report BR1155-D-241.
		<p><b>Further Investigation required.</b></p> <p>Origin Energy Incident Investigation Report BR1155-D-241 made a number of recommendations, which resulted in Helicopter Operations document BR1155-D-253 being revised, to include Fitness to Travel &amp; Medical Declaration form FTMD-001 being introduced. A letter being sent to Schlumberger regarding medical checks on Third Party contract personnel. A review of the method for helicopter checking at CHC &amp; Chubb Security. Amendments to ENSCO 102 procedures for recording personal details being implemented.</p> <p><b>Closed out.</b></p>				

## Origin Energy BassGas Yolla Drilling Program Incident Accident Register

49	27/09/2004. <b>20</b>	MODU ENSCO 102.	Well Test Supervisor slipped on deck struck left leg shin on step-up deck steel work. Person subsequently given first aid by ENSCO 102 Medic.	<b>First Aid Case.</b>	The deck had non slip paint, however the Supervisor has stood in water on deck 10 meters away just prior to the incident.	ENSCO 102 OIM sent in an incident report on 28th September 2004. Photographs of Supervisors boots show tread in reasonable condition. Briefly discuss at morning meeting on 28th Sept: Person returned to work and reported slight soreness during morning call. No further treatment seems necessary other than changing of dressing. OIM reported and sent in photographs of deck area and wound on shin.
	<p>Further Investigation not required.</p> <p><b>Closed out.</b></p>					

## Origin Energy BassGas Yolla Drilling Program Incident Accident Register

49	27/09/2004. <b>21</b>	VH-BZH CHC Helicopter.	Single engine run on landing at Essendon Air Port.	<b>Near Miss.</b>	VH-BZH while over Melbourne at 2000 ft the Master Caution light illuminated.	The Captain (flying pilot) followed emergency procedures & shut down one engine to reduce load on the combining gear box. A PAN call to Melbourne radar made on 135.7khz which was acknowledged. The fault was found to be substantial ferrous slivers an flakes. The combining gear box was subsequently replaced and the aircraft returned to service with an improved performance a few days later.
	<p><b>Further Investigation not required.</b></p> <p><b>Closed out.</b></p>					



## Origin Energy BassGas Yolla Drilling Program Incident Accident Register

Origin Energy Trefoil Drilling Operations HSE Project Records

Day 1 of Trefoil-1 Drilling Program; 16th October (22:00 hrs) 2004.

Incident occurred at Day 'N' of Trefoil-1 Drilling Program.  
State Emergency Response Phone Number 000.

Trefoil-1 Drilling Program Day of Incident.	Date & Incident No.	Location	Description	Consequences	Investigation Conclusions	Actions Required
3	18/10/2004. <b>22</b>	AHTS Vessel Ray J Hope.	Seaman twisted knee, seas calm.	<b>Medical Treatment Case.</b>	No reason provided for injury. The injury was not reported until 4 days after the injury occurred. Initially no pain in knee, swelling occurred days later.	Tidewater Reported incident, following a report by Vessel Master.
	<p><b>Further Investigation not required.</b> No further action required.</p> <p style="font-size: 24pt; font-weight: bold;">Closed out.</p>					

## Origin Energy BassGas Yolla Drilling Program Incident Accident Register

56	10/12/2004. <b>23</b>	AHTS Vessel Ray J Hope.	Vessel suffered a loss of propulsion control while discharging bulk material along side ENSCO 102.	<b>Serious Incident.</b> <b>Loss of propulsion</b> <b>control.</b> <b>Bulk hose parted.</b>	Equipment failure caused by a lack of maintenance by Vessel crew lead to a failure of the battery power supply to the Vessel joy stick propulsion controls. The crew were not aware of a battery bank that supplied power to the vessels propulsion control system.	Tidewater Reported incident, following a report by Vessel Master. The initial investigation by the vessel crew did not identify the cause of the loss of propulsion control, they were not aware of a set of batteries being in service to provide power to the control joy stick, & part of the vessels propulsion control system. The vessel master took control by use of a set of system control buttons. The ADA Drilling Superintended discussed the failure with the vessel owners, and made arrangements for the vessel to be returned to port. This was the second significant failure of a Tidewater Marine AHTS Vessel Propulsion Control System, and demonstrated the lack of understanding of the equipment on board the vessels by the Tidewater Technical and Marine Engineering Personnel
	<p><b>Further Investigation required.</b>  <b>ADA (Drilling Superintendent) request the vessel to be return to port for a full inspection of the propulsion control system. This is required to be completed by the equipment manufactured, it was then that the failure was identified.</b>  <b>The system control joy stick batteries were replaced, and the vessel returned to service, without further problems until the end of the drilling program, when the vessel was taken off hire.</b></p> <p style="font-size: 24pt; margin-top: 20px;"><b>Closed out.</b></p>					