



Bridging Document
for
Gippsland 3D Marine Seismic Surveys

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3. Senior Staff Geophysicist
4. AEL Explorationist – Onshore Co-ordinator
5. AEL Safety Manager
6. AEL Exploration Manager

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Glossary

Apache / AEL	APACHE Northwest Pty Ltd
BD	Bridging Document
FSA	Formal Safety Assessment
Schedule	P(SL)A Schedule - Specific Requirements as to Offshore Petroleum Exploration and Production
SMS	Safety Management System
DnV	Det Norske Veritas
ALARP	As Low As Reasonably Practicable
HSE	Health, Safety & Environment
QSHEMS	Quality, Health, Safety & Environment Management System

1 Introduction

This BD has been developed for Apache seismic operations in exploration permit areas in the Gippsland Basin. This document is designed to show the interfaces between the seismic contractor WesternGeco and Apache's SMS.

1.1 Objectives

The objective of this BD is to demonstrate that the systems and processes to manage safety during seismic acquisition in exploration permit areas in the Gippsland Basin have been reviewed and there are clearly defined areas of responsibility for normal operations and in emergency situations.

This document, in conjunction with the WesternGeco Contract Plan, comprises the seismic Safety Manual as required under Clause 401 of the Schedule.

To facilitate the objective of clearly defined responsibilities and so there is no confusion in roles, organisation and safety management it is intended that all activities on the Western Trident be conducted under the WesternGeco QSHEMS unless specifically identified in this document.

The vessel will under all circumstances and at all times be under the direct control of the vessel master who has responsibility for the safety of all personnel and the vessel while at sea.

1.2 Scope

This BD encompasses all offshore operations and activities associated with seismic acquisition in exploration permit areas in the Gippsland Basin.

1.3 Process

The process for developing the BD was:

- Review the WesternGeco QSHEMS in light of the Apache SMS;
- Review the WesternGeco Contract Plan with particular attention to Hazard register; and
- Identify interfaces and gaps to be addressed in the BD.

1.4 Priorities

The AEL and WesternGeco priorities in the event of an emergency associated with the seismic programme are:

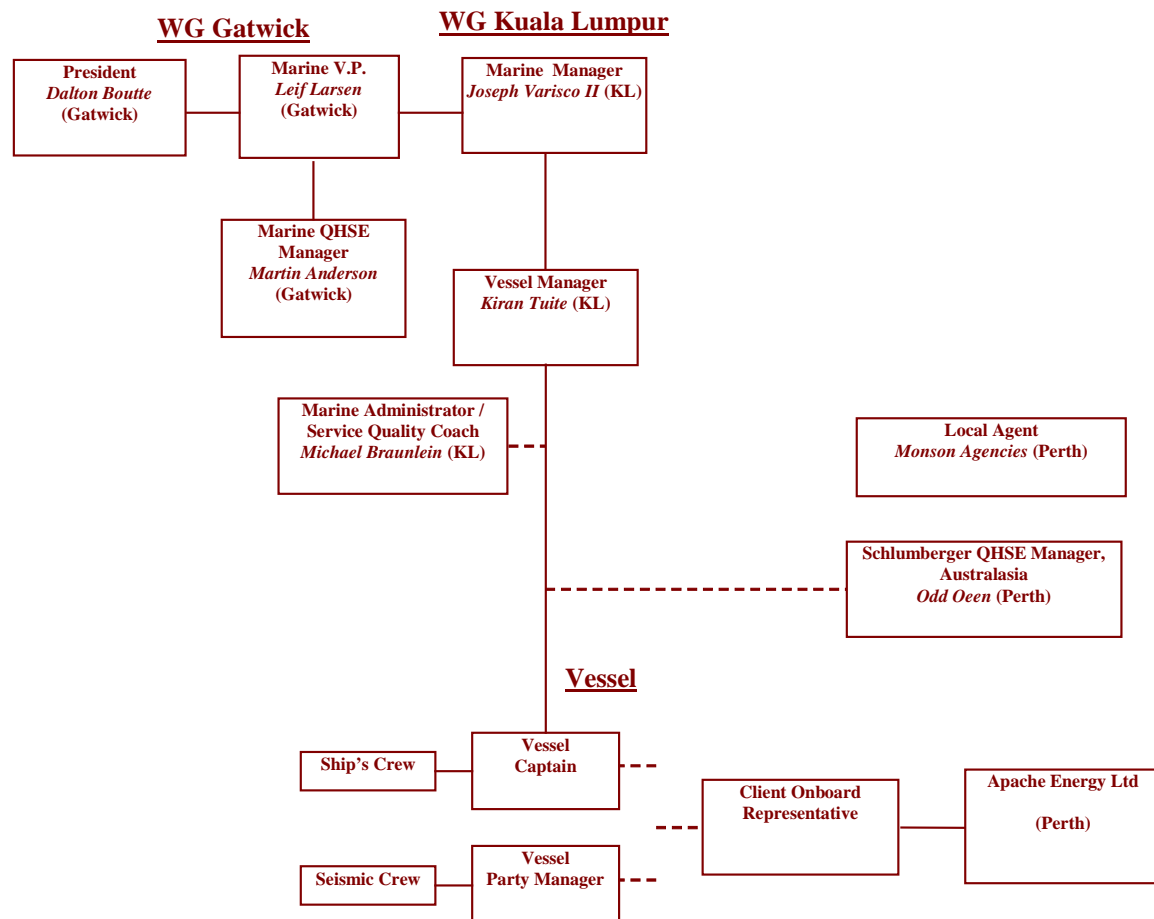
- Safety of all personnel (depending on circumstances it is recognised that integrity of vessel may take precedence to achieve this priority);
- Minimise any adverse environmental impacts;
- Secure and minimise potential losses or damage to equipment / assets; and
- Minimise disruption to work activities.

2 Statutory Compliance

This plan has been prepared to comply with the requirements of the Apache Safety Management System and the directions of the Commonwealth Petroleum (Submerged Lands) Act 1967, and the Schedule – Specific Requirements as to Offshore Petroleum Exploration and Production.

It is noted that the survey will extend into 2005 when seismic activities will be covered by the Australian Maritime Safety Authority (AMSA).

3 Organisation Structure for Seismic Acquisition



4 Risk and Hazard Assessment

Apache and WesternGeco personnel have reviewed the Contract Plan and determined that the proposed seismic programme does not introduce hazards additional to those identified in the Hazard Register. Additional environmental risks specific to this programme have been detailed in the Apache Environmental Plan.

All operations will be conducted in accordance with WesternGeco / Western Trident operating procedures and safe work practices.

5 Safety Management System

Apache has a SMS. This has been developed to reflect the undertakings of the Apache Safety & Health Policy, the operational needs and the Safety Case Guidelines issued by the Department of Industry, Science and Resources. The WesternGeco QSHEMS was reviewed in light of the Apache SMS.

WesternGeco has a corporate QSHEMS that is described under Section 3 of the Contract Management Plan.

5.1 Policy and Objectives

A copy of Apache's Safety and Health is attached (Appendix 1).

Apache Objective

All Apache managers are recognised as leaders in promoting and supporting a culture in the organisation that recognises safety and health as a key business priority.

Links

A review of the policies shows no fundamental conflicts between the policies.

The Apache objective is compatible with Western Geco and in this case impacts directly on the Apache Exploration Manager and Client Representative and the WesternGeco Party Manager and Vessel Master.

5.2 Organisation & Responsibilities

Apache Objective

All personnel working for Apache clearly understand their role and associated responsibilities in maintaining a safe and healthy workplace.

The Apache Client Representative is responsible for ensuring that the field operation is conducted in accordance with Apache Safety & Health Policy. This position is responsible via the Apache designated Project Manager to the Exploration Manager for the safe execution of the programme.

WesternGeco

The Vessel is under the direct control of the Vessel Master. This position is responsible for the safety health and welfare of all personnel on board. The organisation and responsibilities as they pertain to the vessel are detailed in the Contract Plan.

Links

The organisational chart shows the reporting relationships. The Safety & Health organisational interface is between the Apache Client Representative and the WesternGeco Party Manager.

5.3 Assessing & Managing Risk

Apache Objective

All potential risks are systematically identified and managed over the life of each Apache workplace / project through:

- identifying hazards;
- assessing their risks and consequences;
- analysing their causes; and
- implementing control measures to ensure that risks are reduced to ALARP.

WesternGeco

There is a risk assessment and risk management programme defined in the WesternGeco QSHEMS. This programme details the same identification and mitigation processes as Apache.

WesternGeco have defined parameters for safety critical operations within the Manual of Permitted Operations to assist field personnel in determining if an operation can be conducted.

Links

There are no conflicts with the approach taken with regard to the process for identifying hazards, assessing & mitigating risk and controlling residual risk.

5.4 Design, Construction & Commissioning

Apache Objective

Apache has systems in place to ensure that hazards and risks are eliminated or reduced to ALARP in the design, construction and commissioning of plant, equipment, wells and systems.

WesternGeco

The Western Trident has been constructed to standards approved by DnV. Tendering processes and procedures cover the procurement and start up of all new equipment.

5.5 Change Management Control

Apache Objective

Apache has a system, which ensures that any proposed change which may impact on the workplace is reviewed for hazard and risk before implementation and is properly communicated to all relevant personnel.

WesternGeco

The QSHEMS details the Management of Change process.

Links

No conflict with the WesternGeco process and Apache objective.

5.6 Operations, Asset Integrity Management & Materials Control

Safe Operational Practices

Apache Objective

Operational procedures effectively detail the requirements to operate facilities in a safe manner.

WesternGeco

Operating procedures exist for vessel and geophysical operations. The requirement for safe operating procedures is contained within the relative QSHEMS Manual

Asset Integrity Management

Apache Objective

The integrity of the structure, plant and equipment is maintained through proper assessment of condition and timely remedial action.

WesternGeco

HSE requirements shall systematically be incorporated into the design and purchasing criteria of equipment and products used in WesternGeco operations.

5.7 Information, Documentation & Communication

Apache Objective

Everyone who works for Apache is made fully aware of all known hazards and risks associated with their work. Everyone will have the opportunity and is expected to participate in enhancing the safety and health of the workplace.

WesternGeco

This aspect of the SMS is compatible with the Apache objective. WesternGeco has processes in place as detailed in the QSHEMS that allow and encourage employee participation.

5.8 Personnel & Training

Apache Objective

All employees are competent to perform their duties in a safe and effective manner.

WesternGeco

Section 3.3.3 of the Contract Plan details the performance appraisal process and the training programme.

There are no conflicts with the endeavours of either company in fulfilling the objective

5.9 Employee Health

Apache makes every effort to ensure that the working environment has no detrimental effect on the health of people at its work sites. Health hazards are regarded the same as for any hazard and therefore the processes and procedures are in place to help identify health related hazards. Once identified the hierarchy of control is used to reduce the risks ALARP.

WesternGeco

The processes and procedures in place as detailed in the Contract Plan reflect the approach taken by Apache.

5.10 Contractor Management

Apache Objective

As a minimum all contractors will operate to Apache's Safety and Health standards.

WesternGeco

There is a process in place to ensure all contract support services operate within the QSHEMS. Included is the right to audit to determine levels of compliance to Policy and Procedures.

The system for Contractor management is compatible.

5.11 Planning, Auditing & Review

Apache Objective

To set annual performance criteria and measure compliance with the Apache SMS via planned, systematic and independent audits.

WesternGeco

The QSHEMS describes the requirement for Audit. The performance targets for this programme are:

- Close out of all incident / hazard reports raised;
- No injuries to personnel;
- No loss or damage of equipment;
- All toolbox / safety meetings held as scheduled; and
- Musters / Emergency Response exercises held as scheduled.

5.12 Emergency Preparedness

Apache Objective

Apache has an effective emergency response management and recovery system.

WesternGeco

The emergency response procedures are detailed in the Contract Plan. The Western Trident response procedures dealing with the vessel and its personnel take precedence. If during the programme a response escalates to a Level 2, as defined in the Apache Emergency Response Management Manual, and the Apache Emergency Response Committee (ERC) has been formed the support co-ordination shall be via the ERC in conjunction with WesternGeco.

Apache contacts have been included in the Contract Plan.

Refer to Appendix 2 for Incident Reporting.

5.13 Incident Reporting Investigation & Analysis

Apache Objective

Apache has a systematic method of incident reporting, investigation and follow-up to prevent recurrence of incidents.

WesternGeco

Incident reporting and investigation procedures on board the vessel are compatible with the Apache objective

Appendix 2 outlines the reporting procedure and involvement of personnel to ensure timely reporting

APPENDIX 1



SAFETY & HEALTH POLICY

Everyone who works for APACHE ENERGY LIMITED is responsible for the Safety and Health of themselves and their work colleagues. Management has the ultimate responsibility in the work place for ensuring resources and systems are in place to meet Apache's commitment to Safety and Health.

Apache recognises Safety as an integral part of doing its business. The reduction of risk to everyone who works for Apache will be achieved by:

- providing Safety and Health leadership with allocation of clear responsibilities and accountabilities;
- providing relevant information and training on job safety, hazard identification and risk reduction;
- pro-actively managing all aspects of Safety & Health in all of Apache's activities;
- providing the means by which everyone working for Apache has the opportunity to participate in providing a Safe and Healthy work place;
- being prepared to manage all foreseeable events through contingency and emergency response planning; and
- continuous improvement through regular audit and review.

For Apache to achieve its goal of a workplace free from injury, disease and loss, everyone working for Apache has a responsibility to:

- report any hazard identified in the workplace and participate in the hazard elimination / risk reduction process;
- comply with all Safety and Health legislative and Apache's site specific requirements;
- participate in training and enhance the exchange of Safety and Health information; and
- report all incidents and participate, as required, in any subsequent investigation and follow up activities aimed at preventing a recurrence.

This policy is supported by Apache's Safety Management System.

APPENDIX 2



ACN 009 301 964

INCIDENT REPORTING AND INVESTIGATION PROCEDURE Marine Seismic Survey

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Appendix A: Incident Notification Procedure

1. GENERAL OUTLINE

All incidents including those that result in injury, damage to assets or the environment or those having the potential for any of these must be reported so that Apache can:

- * assess the incident and where appropriate initiate investigations aimed at determining all the relevant facts so that remedial action can be taken to prevent a recurrence; and
- * comply with statutory requirements.

The procedure and actions to be taken are summarised in the Reporting and Investigation Procedure Flowchart (see Appendix A). Essentially all environmental incidents and incidents notifiable to W.A. DoIR must be reported immediately. All other incidents need only be reported on the Contractor Incident Reporting System with a monthly summary sent to AEL.

2. NOTIFIABLE INCIDENTS

(Incidents Requiring Notification to Regulating Authority)

Incidents that meet set criteria are reportable to a regulating authority and must be reported to AEL via the AEL Client Representative on board immediately.

Note1. See attached Incident Notification Procedure for incidents reportable to the Regulating Authority. For seismic operations all notifications shall go via the Exploration Manager.

Note2. Immediate notification requires that the Regulator is notified **within 2 hours** of the incident or from the time the operator became aware of the incident.

Apache Representative On-Site

After ensuring any injured personnel have been attended to and the site is secure:

1. Notify the Exploration Manager / Designate by telephone and follow up with Incident Notification form as per attached notification procedure.
2. Assign an Investigation Team and complete or cause to be completed an **AEL Incident Report**.
3. Fax the report to the Exploration Manager / Designate.
4. Initiate preliminary investigations immediately in conjunction with Party Manager and begin filling in an investigation Report. Begin interviewing witnesses and taking statements as appropriate.
5. Determine via the Exploration Manager if there is to be an official investigation by Regulator. If **yes**, ensure the site is safe and secure,

- await inspection team. If **no**, complete the investigation. Monitor close out of any remedial action.
6. Send copies of the incident and investigation report along with any statements and supporting information to the Exploration Manager.
 7. Ensure personnel are kept informed and receive feedback on the incident as appropriate.

Exploration Manager / Designate

1. On receipt of the Incident notification ensure on-site resources are adequate for the situation. (*Note.* Emergency response will be as per the vessel emergency response procedures. However, dependent on the nature of the emergency, the Apache Emergency Response Committee may need to be activated.)
2. Inform Regulator as per attached notification procedure.
3. Make arrangements for an investigation team if required.
4. Notify Bass Strait Oil Company for Bass Strait Oil Company operated permits as per attached notification procedure
5. Notify Cue Petroleum Pty Ltd for Cue Petroleum Pty Ltd operated permits as per attached notification procedure

3. INCIDENTS NOT NOTIFIABLE TO REGULATOR

Party Manager

Carry out requirements as per company Incident Reporting Procedure.

Note 1. Incidents involving third party contractors must be reported to the Apache Representative.

Note 2. If the incident has ramifications for Apache policies or procedures a report to the Exploration Manager is required.

4. PROCESS

Exploration Manager / Designate

1. Allocate any remedial actions than may have been referred to Apache for close out and monitor.
2. Arrange the distribution of report copies to:
 - Environmental Adviser (if environmental incident)
 - Safety Manager
3. Monitor remedial action and progress to close out.

APPENDIX A



Incident Notification Procedure (for notification to Regulator)

Document Approval

Rev. No.	Date	Revision	Authorisation		
			<i>Originator</i>	<i>Checked by Owner</i>	<i>Approval Authority</i>
0	15/11/02		CJ	BDL/BMC	EAH
1	10/1/03	Up dated trigger notification list	CJ	BDL / BMC	EAH
2	05/11/04	Modified for Gippsland Survey use only	CJ		

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1. Incident Notification Trigger Matrix
2. Incident Notification Form

1. PURPOSE

To describe the criteria, method and responsibilities ensuring all incidents notifiable to the Regulator within the legislated two (2) hour time limit are correctly reported.

2. SCOPE

Applies to AEL Operated seismic operations in the Gippsland Basin

3. DEFINITIONS

AEL	Apache Energy Ltd
Designated Authority	Regulator
Matrix	Table of incidents that require reporting to Regulator with two (2) hours (Attachment 1)
Trigger Incident	Incident defined on the matrix

4. RESPONSIBILITIES

4.1 Exploration Department Manager or Designate

The Exploration Department Manager is responsible for:

- Ensuring all management and supervisory personnel are aware of the notification requirements
- Ensuring arrangements are in place to expedite the reporting process
- Initiating the process of notification to Regulator

4.2 AEL Site Representative (Seismic)

AEL Site Representative (Seismic) is responsible for:

- Ensuring Department Manager (or designate) is notified of the incident as soon as possible after the incident
- Complete, or cause to be completed, the incident notification form and forward to the Department Manager (or designate)

Note: Incidents requiring call out of emergency response and incident management teams will follow normal emergency response procedure where the site will concentrate on the event and inform designated Perth Office personnel who will notify the Regulator.

NOTIFIABLE INCIDENT

The requirement to report trigger incidents to the designated authority within two (2) hours is one of strict liability. Failure to comply will result in action by the designated authority, unless a suitable defence for not reporting within the time frame can be argued.

An incident as defined in the matrix (Attachment 1) must be reported to the Regulator within two (2) hours of it occurring or within two (2) hours of the operator becoming aware of it.

5. PROCESS

5.1 Originator

- Initiate immediate action to care for any injured or make the area safe
- Notify Site / Facility Manager – Supervisor, Superintendent / PIC

5.3 AEL Site Representative (Seismic)

- Determine need for an Emergency Response involving site Emergency Response Team (ERT) and / or Incident Management Team (IMT).
- If calling out ERT, follow standard Emergency Response procedures and keep Exploration Department Manager / Emergency Response Committee informed.
- If the incident meets any other incident trigger on the matrix the following must occur within two (2) hours of the incident:
 1. Call the Exploration Department Manager (or designate), and
 2. Initiate Regulator notification form and send to Exploration Department Manager (or designate)

5.4 Exploration Department Manager (or designate)

On receiving notification of the incident ensure:

- Review category of incident
- If an Emergency Response (ER) incident, call out ERC Chairman to initiate ER plan and initiate process to notify Regulator
- If non ER incident ensure notification process is initiated
- Assist as required by Site
- Notify Bass Strait Oil Company if incident within Bass Strait Oil Company operated permit
- Notify Cue Petroleum Pty Ltd if incident within Cue Petroleum Pty Ltd operated permit

Contacts

Department of Primary Industries (Petroleum and Mining)

Safety and Environment Manager –	0408 543 154
Petroleum Operations Inspector – Safety -	0417 398 821
A/H -	03 9416 2345

Australian Maritime Safety Authority (AMSA)

Maritime Rescue Co-ordination Centre and AMSA Marine Environment Protection Services – Duty Officer	1800 641 792
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Bass Strait Oil Company

General Manager Exploration -Ian Reid	Telephone	03 9614 0426
	Facsimile	03 9629 6278
	Mobile	0417 391 789
	Email	ian.reid@bassoil.com.au

Cue Petroleum Pty Ltd

General Manager - Mark Muzzin	Telephone	03 8610 4701
	Facsimile	03 8610 4799
	Mobile	0414 875 410
	Email	mark.muzzin@exoil.net

6. REFERENCES

AEL Safety Management System AE-91-IF-001

AEL Bridging Document - Ensco 56 – DR-50-ID-013

AEL Hazard Reporting, Incident Notification and Investigation Procedure AE-91-IF-002

Attachment 1 Incident Notification Trigger Matrix

Notification Trigger	Timing	Details Required
<p>Any incident that causes or is likely to cause death, serious injury, damage to safety critical equipment or incidence of public concern.</p> <p>For example:</p> <ul style="list-style-type: none"> Medivac from injury, caused during a work activity in connection with a facility Explosion or fire Collision involving marine vessels Uncontrolled hydrocarbon vapour releases exceeding 1 kg Uncontrolled escape of petroleum liquids exceeding 80 litres Well kicks exceeding 50 bbls An unplanned event that requires the Emergency Response Plan to be implemented 	<p>1: Verbal or written notification to an Inspector² within 2 hours of the incident, or its detection. Notification to generally include items 1 to 15 of next column, where available and applicable.</p> <p>2: Written report to the Designated Authority of items 1 to 17 inclusive as soon as practicable but within 3 days of the accident or incident occurrence, or its detection, (unless otherwise agreed with the Designated Authority).</p> <p>3: Written report containing details of items 18 and 19 to be provided to the Designated Authority within 30 days of the incident occurring (unless otherwise agreed with the Designated Authority).</p> <p>4: The operator shall also provide a summary of deaths and injuries, other than minor injuries not requiring treatment or first aid cases, in a form acceptable to the responsible Government Agency not later than 15 days after the end of each month.</p>	<ol style="list-style-type: none"> The facility name, site name or location where incident occurred; Name and business address of employer who controls work site; Time and date of incident; Names and contact details of any witnesses; Name/position/telephone number of person submitting these details; Brief description of incident; Work/activity being undertaken at time of incident; Action taken, to make work-site safe or prevent environmental damage, including details of any disturbance of the work site; Was emergency response initiated; <p><u>Injuries:</u></p> <ol style="list-style-type: none"> Name of employer of deceased/injured person(s) [if any and if different from answer in item 2]; Details of deceased/injured person(s) – including: name, date of birth, sex, residential address and telephone number, occupation/job title and details of injury, details of job being undertaken; Day of shift and hour of shift (e.g. 5th day of 7, 1st hour of 12); <p><u>Fluid Escape</u></p> <ol style="list-style-type: none"> Estimated quantity and composition of fluids that escaped or burned including known toxicity; Duration of escape; Location and weather conditions; <p><u>Serious Damage:</u></p> <ol style="list-style-type: none"> What equipment was damaged and to what extent; Will the plant be shutdown and for how long; <p><u>Immediate Actions</u></p> <ol style="list-style-type: none"> Immediate action taken/intended, if any, to prevent recurrence of incident; <p><u>Analysis and Remedial Actions</u></p> <ol style="list-style-type: none"> Immediate cause analysis; Root cause analysis and full report. Actions to prevent recurrence of incident with responsible party and completion date

² Notification shall be made to a Petroleum Inspector with powers under the P(SL)A.

