

# **GLOBEX FAR EAST**

**T/27P**

**BARRAMUNDI-1**

**PROPOSAL TO DRILL  
AND DRILLING PROGRAMME**

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for GLOBEX Far East**

*OR-0453*

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## 1. SUMMARY

T/27-P is located in Bass Strait (Fig. 1).

Globex Far East is the Operator of the permit.

Interests in T/27-P are as follows:

Globex Far East	80.00% (Operator)
Seven Seas Petroleum Australia	20.00%

The permit covers an area of approximately 1,800,000 acres.

The mandatory work programme are set out below:

**TABLE 1**  
**T/27-P WORK PROGRAMME**

Permit Year	Work Obligation	Actual Work	Notes
1 Effective date 15 September 1994 to 15/9/1995	data review, seismic reprocessing, mapping and interpretation	satisfied	
2 to 15/9/1996	a) Seismic Survey (1000 km) b) 100 sq km 3-D seismic survey.	a) satisfied	4 Sep 1996 2 <sup>nd</sup> year 100 sq km seismic survey obligation moved to the 3 <sup>rd</sup> year.
3 to 15/9/1997	Two Exploration Wells		15 Jly 1997 completion of 3 <sup>rd</sup> year obligations extended by six months to 14 March 1998 and Term extended to 15 March 2001
4 to 15/9/1998	Review of data, seismic processing, mapping and interpretation		13 Jly 1998 completion of 3 <sup>rd</sup> year obligations extended by twelve months to 14 March 1999 and Term extended to 15 March 2002
5 to 15/9/1999	100 sq km seismic survey		
6 to 9/2/2000	one well		

Barramundi 1 will test the hydrocarbon potential of the Eastern View Group, 38-83 Ma, from 1,332 m RT to TD at 3027.4 m RT.

The anticipated reserve size is 368 Mmbbl as calculated by Exploration Partners for GLOBEX.

The Barramundi 1 well will be drilled out of the 340 mm (13<sup>3</sup>/<sub>8</sub>"") casing shoe set at approximately 865m RT with a 311 mm (12<sup>1</sup>/<sub>4</sub>"") bit. Drilling will be controlled from just above the Eastern View Group at 1,280 m RT. to approximately 1,340 m RT. The reservoir will either be drilled ahead or cored depending on hydrocarbon/reservoir indications.

The well will be drilled to a TD of approximately 3027.4 m RT and then logged. While drilling ahead, all sandstones of Eastern View Group will be carefully analysed for hydrocarbon presence.

The Barramundi-1 well progress, drilling time/depth plot is shown in Figure 7.

## 2. WELL DATA: PROPOSED BARRAMUNDI 1

## 2.1 WELL SUMMARY SHEET

<b>Well Name</b>	: Barramundi 1
<b>Designation</b>	: Exploration
<b>Permit</b>	: T/27P
<b>Basin</b>	: Bass
<b>Operator</b>	: GLOBEX Far East
<b>Permittees</b>	: GLOBEX Far East 80 % Seven Seas Petroleum Australia 20 %
<b>Location</b> (provisional)	: Latitude .....39.66167 deg South Longitude .....145.73413 deg East Easting .....X = 391,412 Northing .....Y = 5,609,012 AMG Zone .....55 South
<b>Seismic Reference</b>	: Line BB96-50 SP 1940
<b>Water Depth</b>	: 70 m
<b>Elevations</b>	: Rotary Table ("RT") to Mean Sea Level ("MSL") - 27.4 m
<b>Spud Date</b>	: January, 1999
<b>Estimated Drilling Time</b>	: 26 days (dry hole)
<b>Drilling Contractor</b>	: Schlumberger - Sedco Forex
<b>Rig</b>	: "Sedco 702"
<b>Rig Type</b>	: Semi-submersible
<b>Primary Objective</b>	: Eastern View Group Sandstone
<b>Depth to Primary Objective</b>	: 1527.4 m RT (1,500 m subsea ("SS"))
<b>Estimated Total Depth ("TD")</b>	: 3027.4 m RT (3000 m SS)

### 3. GEOLOGY

#### 3.1 GEOLOGICAL PROGNOSIS OF THE AREA

The location of the Bass Basin, wells and tenements and the location of the Barramundi feature is shown in Figure 1. The Bass Basin is located directly north of Tasmania and south of Victoria. The basin was formed as a result of rifting between Australia and Antarctica (95-80 MA). Subsequent compression in the Oligocene-Miocene (38-12.5 MA) led to modification of pre existing traps and formation of new ones. The structural history of the Basin has been described by Etheridge et al (1984, 1985 and 1987) and more recently using aeromagnetic data by Gunn et al (1996a, b and 1997) Figure 2 shows the generalised tectonic elements of Bass Strait.

The two major depocentres are the Pelican Trough and the Cormorant Trough (Fig 2). The Pelican Trough appears to be producing predominantly gas while the Cormorant Trough produced gas saturated oil and wet gas. Yolla-1 located to the south of the Cormorant Trough as well as Cormorant-1 and King-1, located on a structural inversion near the centre of the Trough, all recovered oil and gas from sands near the top of the Eastern View Group. Deeper reservoir of wet gas were located in Yolla-1 from 2,800 m -2850 in a number of sands. Cormorant-1 encountered good hydrocarbon shows from four intervals in the range 2000 m to 2,500 m RT. King-1 well located about 2 km from Cormorant-1 was only drilled to 2223 m RT and did not encounter similar shows to Cormorant-1. The recently completed White Ibis-1 well located on the western flank of the trough produced gas from four intervals from 2001,5 to 2140 m.). The Barramundi structure is located on the north eastern flank of the Cormorant Trough.

##### 3.1.1 Geochemistry

Geochemical work on hydrocarbons from Cormorant-1 (Oterdoom 1981) concludes *that the Eastern View Coal Measures contain excellent source rocks for gas. However a considerable oil potential exists from 1,800 m. and even at 3,000 m.(TD) the Eastern View Coal Measures were not post mature.*

Summons (1996) studying oils from Yolla-1 and Cormorant-1 with state-of -the-art-techniques concluded that:

- 1) Hydrocarbons from both wells had a common source.
- 2) The Bass Basin oils have a geochemical signature consistent with a predominant input from vascular plants. The plant biomarkers for the Gippsland and Bass Basins are very similar as can be seen in comparisons with Tuna-1 and Snapper-4 and -5 oils.
- 3) It is likely that the Bass Basin oils have their **source in the Paleocene and Eocene section** (upper L. balmei to middle N. asperus) of the Eastern view Coal Measures. These rocks have a high potential to generate petroleum. AGSO's work on coal-sourced oils (eg Boreham and Powell. 1994) from the Cooper, Eromanga and Bowen basins shows petroleum can be produced from coal as well as carbonaceous sediments.

##### 3.1.2 Stratigraphy

The pre-Eocene (Upper L. balmei) stratigraphy of the Basin has been described by

Williamson et al 1985. The overall stratigraphy is as shown in Figure 3. It was provided by Palynologist and Explorationist Alan Partridge and embodies the most recent data available. The predicted stratigraphy with predicted depths in Barramundi-1 are shown on the well schematic, Figure 4 and listed below:

**TABLE 2**  
**BARRAMUNDI 1 PROGNOSSED FORMATION TOPS**

Formation	Age (Ma)	Depth Time	Depth (m RT) RT = 27.40 m	Depth (m SS)	Thickness (m)
Undiff. Pliocene and Torquay Group	35-Recent		97.4	-70.0	1220.0
Top Volcanoclastics	~ 25	0.75 sec	911.4	-884	
base prominent limestones	~ 29	0.91 sec	1002.4	-975	
Addiscott Sandstone:	36-35	1.07 sec	1,127.4	- 1,100	5
Demons Bluff Formation	40-36.5	1.07 sec	1,132.4	-1,105	205
Eastern View Group	85-39	1.23 sec	1,337.4	- 1,310	
Konkon Formation	40 - 39	1.23 sec	1,337.4	- 1,310	190
Anomaly Horizon	41 - 40	1.335 sec	1,527.4	-1,500	?150
Easter View Coal Measures	85 - 41		1,677.4	- 1,650	? 1,350+
Total Depth			3027.4	-3000	

### 3.1.2.1 Torquay Group.

This group can be subdivided into several formations as shown on Figure 3. Following the unnamed soft unconsolidated Pliocene and middle to late Miocene mud and calcareous silt sequence is the **Puebla Formation**, which consists predominantly of soft bioclastic limestones and clayey marls. Below this is the **Jan Juk Marl** that is predominantly marls and calcareous mudstones with scattered thin (~2-4 m.) high velocity limestone streaks. The underlying **Angahook Formation** is much the same as the **Jan Juk Marl** and is unlikely to be recognised in the well from cuttings. Below the Jan Juk Marl/Angahook Formation is a thin (5 m.) glauconitic marine sandstone the **Addiscot Formation**. This important basin wide and rather anomalous sand is readily recognisable in Cormorant-1 and King-1 where it produces a distinct gamma ray low typical of a sandstone. It is recognisable in almost every well in the basin except Yolla-1 where it is far harder to recognise, possibly because of erosion or non deposition from on Yolla high. Thickness of the Torquay Group varies from about 450 m. at the margins of the basin to over 1,000 m. in the Cormorant-1.- King-1 area. It is prognosed to be about 1,300 M. at Barramundi-1. **Igneous rocks** are common throughout the Basin in this sequence and occur in two stratigraphic positions, (1) in the mid Miocene and (2) near the Oligocene-Miocene boundary. They occur most commonly as tuffaceous extrusives which can be mapped over considerable distances with confidence on the seismic but can be difficult to recognise in the cuttings. The top of this interval is expected to be at about 875 m SS. They are almost inevitably soft and clayey but can be recognised in the cuttings by fine sand sized dark brown-grey and black minerals. Alternatively the igneous rocks are intrusives. These are difficult to identify with confidence on the seismic as they may appear as a prominent short strong black, or

quite weak and almost insignificant. While the intrusives may be hard and slow drilling, in most cases they are highly altered and breakup readily when intersected in drilling. They may be recognisable in the cuttings as chips of igneous rock rather than the grains which characterise the tuffs and volcanoclastics. No interval of probable intrusives in the Torquay Group, at the proposed well location, has been recognised.

### **3.1.2.2 Demons Bluff.**

This formation immediately underlies the thin but prominent and consistent Addiscot Sandstone. The Demons Bluff is a sequence of fine grained distal pro delta marine mudstone and siltstone highly organic and extensively burrowed. It was probably deposited in water depths of 100 m. or so. It forms the seal for hydrocarbons of the Eastern View Group and its lateral equivalent in the Gippsland Basin, the Lakes Entrance Formation provides the seal to the major Oil and Gas fields of that basin. The Lakes Entrance Formation was however deposited as a marine ooze in deeper distinctly marine conditions. The thickness is 178 m. in Cormorant-1, 196 m. in King-1 and 145 m. in Yolla-1. From these figures plus the regional thickness variation suggested from the seismic the thickness will probably be about 150 m. in Barramundi-1.

### **3.1.2.3 Eastern View Group.**

#### **3.1.2.3.1 Konkon Sandstone/Boonah Sandstone.**

At the top of the Eastern View Group is an upper and lower shoreface - beach sand, well developed in Konkon -1 and regarded as an offshore equivalent of the onshore Boonah Sandstone. It is commonly referred to as the Konkon Sandstone offshore. It is commonly glauconitic at the top but grades downwards to clean quartz sandstone with excellent reservoir characteristics. There may be several sands with intervening shales which are non carbonaceous. The Konkon /Boonah sand interval contains the oil of Yolla-1, Cormorant-1 and residual column of King-1. The unit is rather loosely and ambiguously defined but does not include the coal seams or carbonaceous siltstones of the underlying Eastern View Coal Measures. Thickness is variable but rarely exceeds 100 m. Environmentally it constitutes beach, upper and lower shoreface environments seaward of the terrestrial coaly sequence of the Eastern View Coal Measures. The Demons Bluff is the pro delta sequence seaward of the Konkon Sandstone.

#### **3.1.2.3.2 Eastern View Coal Measures.**

This sequence consists of sandstones, shales, siltstones, commonly carbonaceous and coals. These were deposited in fluvial, deltaic and lacustrine environments with minor local marine incursions. As progradation was into an essentially land locked basin the marine incursions were rare and short lived. However there was sufficient fetch within the basin to develop beaches and winnow the detritus to form clean beaches.

This group is thickest in the centre of the Pelican and Cormorant Troughs (Fig 2). The greatest thickness penetrated is 2,500 m in Pelican 5 but even there the Otway Group was not reached and the section was condensed as compared to other wells in the basin. Maximum thickness is probably in the order of 5,000 m. While the primary target is near the top of this Group at the Anomaly Horizon, adjacent wells Cormorant-1 and Yolla-1 intersected wet gas in several deeper intervals. Each was beneath continuous shale sections of 15-25 m. Several such potential seals were present in both of these wells. Similar potential seals will almost certainly be present in Barramundi-1 and each

will have the potential to retain significant hydrocarbon columns.

Cormorant-1 at 3,000 m. was in basal *M. diversus* rocks and Yolla-1 at TD was in Upper L *balmei* rocks (Fig 3). There is no possibility of Barramundi-1 drilling rocks older than earliest L. *balmei*, such as the Late Cretaceous/early Paleocene “Lower” Eastern View Group, sometimes informally referred to as the Furneaux Group, or the even older Lower Cretaceous Otway Group. Consequently there will be no discussion of these section as it has no bearing on Barramundi-1.

### 3.1.3 Regional variation as evident from seismic

Enclosure 1 is a composite of four seismic lines from Cormorant-1 eastwards to the Barramundi -1 location then south to Yolla-1. The interpreted horizons are :

Blue	Top of volcanics.
Brown	Base prominent seismic reflector believed to be carbonate.
Yellow	Addiscott Sandstone/Top Demons Bluff.
Green	Top Eastern View Group.
Red	Amplitude Anomaly Horizon (over Barramundi only).
Pink	“Middle Eastern View” - about base <i>P. asperopolus</i> /top <i>M. diversus</i> age.
Orange	“Deep Eastern View Group”. Not shown on all sections.

The top volcanics horizon (blue) is notably rough as it traces around and between various volcanic centres. The brown horizon is easily mapped as it is both prominent and persistent and exhibits none of the roughness of the blue horizon. The interval blue to brown though very variable thins toward the Cormorant high and the Yolla area.

The reflector at the top of the Demons Bluff (yellow) is almost certainly created by the contrast caused by the basin wide Addiscott Sandstone. The Demons Bluff-(yellow) - G horizon ( brown) thins from the Cormorant High to Barramundi but is relatively constant to beyond Yolla, except on the Yolla high where it is noticeably thinner.

The Eastern View Group (green) to Addiscott/top Demons Bluff (yellow) has it's greatest time thickness on the Cormorant High, thins a little to Barramundi then continues to thin to the end of line BB96-50 after which it is relatively constant to Yolla-1.

Within the Eastern View there is just one reflector shown, the base *P. asperopolus*/top *M. diversus*. The section thins noticeably from Barramundi to the eastern end of line BB96-50 but thickens a little to just prior to Yolla-1 where it thins markedly onto the Yolla High.

### 3.1.4 Structure

The generalised tectonics are shown in Figure 1. Enclosure 2 shows the time structure at the top of the Eastern View Group over the Barramundi structure. Enclosure 3 shows the depth structure at the Amplitude Anomaly Horizon over the same structure. These Enclosures show the complex fault closure and it's various compartments. No maps were made of horizons below the Anomaly Horizon following the BB96 seismic survey and reprocessing of older lines despite their greater resolution at depth of the new and reprocessed lines.

### 3.2 OBJECTIVES OF THE WELL

To test a large fault bounded structure north of Yolla-1 and east of Cormorant-1 and King-1.

Enclosure 4 of seismic line BB96-50 is a seismic line through the wellsite, Enclosure 5 is of line BB96-8 a dip line 250m south east of the proposed well site and Enclosure 6 is of seismic line BB96-9, a strike line 500 m. north east of the well site.

The primary target is the Anomaly Horizon at about 1,400 m. SS. This is anticipated to be a clean sand with excellent reservoir characteristics and holding oil, probably gas saturated, possibly with a minor gas cap.

The secondary targets will be below the primary target and be beneath any of the thicker shale intervals of 15 m. or more. Several such traps are anticipated between 1,700 m. and TD. Gas and condensate, or light oil, reservoirs were intersected in this interval in Yolla-1 (2,800+), Cormorant-1 (2000 to 2450 m.) and the recent White Ibis-1 well (2000 to 2140 m.).

#### 3.2.1 Estimated hydrocarbons-in-place.

The estimated hydrocarbons-in-place for the anomaly horizon were produced by Exploration Consultants, Dallas in April 1997 for Globex Far East and are quoted below. Figure 5 (Isochron) and Figure 6 (Time Structure) show the Barramundi structure at the Anomaly Horizon and the six interpreted trap compartments of the structure. These are defined by the limits of the identified anomaly and are shown on Enclosure 7. Note that all measurements are in imperial units.

##### Barramundi Prospect Reserve Estimate.

Area under closure:	14,300 acres
Structural relief:	300 feet
Pay Thickness:	100 feet
Avg. Porosity:	128%
Recovery Factor:	250 bbls/ac-ft

$$14,300 \text{ ac.} \times 100 \text{ ft} \times 250 \text{ bbls/ac-ft} = 368 \text{ million bbls}$$

No maps were made of any horizons below the Anomaly Horizon so no estimates of reserves below the Anomaly Horizon were made.

### 3.3 REFERENCES

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## **4. DRILLING PROGRAMME**

### **4.1 REFERENCE MANUALS**

- GLOBEX /Sedco - Emergency Response Manual
- GLOBEX Oil Spill Contingency Manual
- Sedco - Safety Manual
- Sedco - Well Control Manual
- Sedco- Well Operations Procedures Manual
- Petroleum Submerged Lands Act (“PSLA”) - Schedule, Specific Requirements as to Offshore Petroleum Exploration and Production -1997
- GLOBEX Bridging Document

#### **Reference Wells**

- Cormorant-1 is located 20 km to the west of Barramundi-1 and Yolla-1 located 30 km to the south of it.

Refer **Section 9** (and **Table 11**) for offset well data/correlation.

### **4.2 POSSIBLE DRILLING HAZARDS**

#### **4.2.1 Mooring**

Water depth is approximately 70 m.

A site survey will be conducted prior to drilling. Currents are expected to be less than 2 knots. Rig heading will be contingent on the weather pattern for the period from the actual date of arrival on location.

#### **4.2.2 Shallow Gas**

No shallow gas has been reported in offset wells and is not anticipated on this location. A shallow seismic survey will be conducted during the Site Survey prior to drilling.

#### **4.2.3 Lost Circulation**

Lost circulation is not anticipated based on offset well data. However sufficient quantities of LCM will be kept on board the rig as a contingency.

#### **4.2.4 Abnormal Pressure**

Pore pressures are expected to exhibit a normal gradient.

Actual mud weight required will be dictated by hole conditions and drilling pressure indicators.

#### **4.2.5 Hole Deviation**

Offset well data indicates that excessive hole deviation is unlikely. Adequate tools will be on hand to enable corrective assemblies to be run to control angle build-up should it be necessary.

#### **4.2.6 Differential Sticking**

Hydrostatic overbalance through the lower sandstone sections may increase the possibility of differential sticking. Mud weight should be kept as low as possible. Wiper trips will be made more frequently through hole sections with long sandstone sections.

#### **4.2.7 Dangerous Gases**

No dangerous gases, including hydrogen sulphide and carbon dioxide, have been encountered in offset wells, however continuous monitoring will be performed through the mud logging systems and corrosion coupons in the drill string to detect any H<sub>2</sub>S or CO<sub>2</sub> levels in the mud.

### **4.3 HOLE AND CASING SIZES/DEPTHS**

Refer **Tables 4, 5 and 6** for specific drilling details in regard to pressure testing, cementing and drilling fluids.

#### **4.3.1 Structural Pipe**

A 914 mm (36") hole will be drilled to ± 145 m RT for setting of 762 mm (30") structural pipe. The actual depth will be determined by pipe measurements.

#### **4.3.2 Conductor Pipe**

508 mm (20") conductor pipe will not be run.

#### **4.3.3 Surface**

445 mm (17½") surface hole will be drilled to +/- 875 m RT for setting of 340 mm (13<sup>3</sup>/<sub>8</sub>") surface casing - approximately 35m above the interpreted volcanoclastics seismic horizon.

#### **4.3.4 Production**

311 mm (12¼") hole will be drilled to TD at 3027.4 m RT. 244 mm (9<sup>5</sup>/<sub>8</sub>") casing will be run if required for production testing.

## 4.4 CASING DESIGN

**TABLE 3  
WELL CASING DESIGN**

Hole Size mm (ins)	Casing Size mm (ins)	Setting Depth m RT	Joint	Specifications	Design Loads				
					Est BHP kpa (psi)	Burst kpa (psi)	Collapse kpa (psi)	Tension dkn (lbs)	Safety Factor
914 (36)	762 (30)	142	Housing  Cross-over Jt  Intermediate Shoe Joint	Dril-Quip 30" Type SS-10 with 1.5" wall extension with 30" HD 90 Box Down 30" x 1" wall, Grade X52, Dril-Quip HD90 pin x SF-60 Box. 30" x 1" wall, Grade X52, Dril-Quip SF-60 pin x Box 30" x 1" wall, Grade X52, Dril-Quip SF-60 pin Up x 20" Float Shoe B = 3090 psi. C = 19501 psi. T = 1068650	na	na	na	na	na
445 (17½)	340 (13 <sup>3</sup> / <sub>8</sub> )	865	Housing  Cross-over All pipe	Dril-Quip 18¾" Type SS-10 with 0.625" wall extension with 20" HD 90 Box Down. HD 90 Pin x 340mm (13 3/8") 68 ppf, L80, BTC Pin 68 lb/ft, K55, BTC, Range 3	1290	1682	842	406850	2.93 2.32 2.36
311 (12¼)	244 (9 <sup>5</sup> / <sub>8</sub> )	3000	All pipe	47 lb/ft, L80, BTC, Range 3	4475	3917	na	618751	1.75 1.76

**Design Parameters**

Condition	Design SF
<b>Estimated Bottomhole Pressure ("BHP")</b> Estimated BHP in hole section based on maximum anticipated mud weight.	
<b>Burst Pressure (i)</b> - 340 mm casing - gas column from est. BHP in next hole section in equilibrium with fracture pressure at shoe. Sea water in annulus.	1.10
<b>Burst Pressure (ii)</b> - 244 mm casing - well shut in with gas column from est. BHP in next hole section. Sea water in annulus.	1.10
<b>Collapse</b> - Partial evacuation of the casing due to a 1.0 sg loss zone at TD of next hole section. Drilling fluid in annulus, or Hydrostatic of cement in annulus ( sea water on inside of casing whichever is higher	1.00
<b>Tension</b> - String weight plus plug bumping pressure.	1.60

For design purposes the fracture pressure at the 13 3/8" casing shoe has been assumed as 1.6 sg MWE

## 4.5 FORMATION PRESSURE CONTROL

### 4.5.1 Wellhead

Dril-Quip SS 10 Marine Wellhead System consisting of a 762 mm (30") conductor housing and a 476 mm (18¾") 68,950 kpa (10,000 psi) high pressure housing.

### 4.5.2 Blow Out Prevention Equipment

A 476 mm (18¾") 68,950 kpa (10,000 psi) blow out preventer ("BOP") will be run after landing the high pressure housing.

BOP equipment details are provided in the Well Control Procedures Manual.

### 4.5.3 Pressure Testing

Refer to **Table 4** for test pressures. BOP test procedures are provided in the Well Operations Procedures Manual (Sedco).

### 4.5.4 Formation Leak-off Tests

Formation leak-off tests ("LOT") will be carried out after drilling out the 340 mm (13<sup>3</sup>/<sub>8</sub>") surface casing and 244 mm (9<sup>5</sup>/<sub>8</sub>") intermediate casing (if run).

The procedure is set out in the Offshore Drilling Operations Manual. The tests will be taken to leak-off point.

## 4.6 DETAILED DRILLING PROGRAMME

Operational procedures and practices are detailed in the Well Operations Manuals.

### 4.6.1 Drilling Chronology

1. Position rig on location and run anchors.
2. Run TGB if required.
3. Drill 914 mm (36") hole to 145 m.
4. Run and cement 762 mm (30") conductor at 142 m with PGB.
5. Drill 445 mm (17½") hole to 875m RT
6. Run and cement 340 mm (13<sup>3</sup>/<sub>8</sub>") casing at 865m RT. Casing will be run with the high pressure housing.
7. Run and test BOP.
8. Drill out casing. LOT.
9. Drill 311 mm (12¼") hole to 3027.4 m RT.
10. Run wireline logs.
11. Run production test or plug and abandon as required.
12. Pull anchors.

## 4.6.2 Pressure Testing

**TABLE 4  
WELL PRESSURE TESTING SUMMARY**

Function	TEST PRESSURE kpa (psi)						
	Casing/ Pack-off	Pipe Rams	Shear Rams	Annulars	Mud Manifold/ Standpipe	Choke Manifold, Inside BOPs	Choke/ Kill Lines
BOP on test stump	-	68,950 (10,000)	68,950 (10,000)	24,000 (3,500)	34,500 (5,000)	34,500 (5,000)	-
508 mm x 340 mm Casing Set							
(i) Plug bump	13,800 (2,000)						34,500 (5,000)
(ii) Running BOP							34,500 (5,000)
(iii) BOP installed		34,500 (5,000)	34,500 (5,000)	24,000 (3,500)	34,500 (5,000)	34,500 (5,000)	34,500 (5,000)
(iv) Interim test		24,000 (3,500)	13,800 (2,000)	24,000 (3,500)	24,000 (3,500)	24,000 (3,500)	24,000 (3,500)
244 mm Casing Set*							
(i) Plug bump	20,500 (3,000)						
(ii) Pack-off	36,200 (5,250)						
(iii) Drill-out		34,500 (5,000)	34,500 (5,000)	24,000 (3,500)	34,500 (5,000)	34,500 (5,000)	34,500 (5,000)
(iv) Interim test		34,500 (5,000)	-	24,000 (3,500)	34,500 (5,000)	34,500 (5,000)	34,500 (5,000)

**Notes:**

\* If Run

Pressure tests shall be preceded by a low pressure test of 2100 kpa (300 psi).

Pressure tests shall be held for 5 minutes (low pressure) and 15 minutes (high pressure).

The Interim BOP test shall not exceed 14 days between tests. The BOP shall also be pressure tested to the above values prior to any production testing or following any repair where the BOP is disconnected from the wellhead.

## 4.7 CEMENTING PROGRAMME

**TABLE 5  
WELL CEMENTING PROGRAMME**

			CEMENTING DETAILS						
Hole Size mm (ins)	Casing Size mm (ins)	Setting Depth m RT	Type	Weight SG	Water Reqt. cum/t (gps)	Yield cum/t(cuft/sx)	Additives *	Cement Volume	Comments
914 (36)	762 (30)	142	Class G	1.90	0.443 (5.0)	0.762 (1.15)	1.0% CaCl <sub>2</sub>  (BWOC)	Cement to seabed.  200% excess Approx. (600 sx)	Displace through drill pipe. Stinger to leave 5 m cement inside casing.
445 (17½)	340 (13 <sup>3</sup> / <sub>8</sub> )	865	Class G	1.54 - Lead	0.97 (10.97)	1.29 (1.96)	2.5% PHG (BWOW)	Cement to seabed 20% excess Approx. (1000 sx)	Run float collar two joints above float shoe. Thread-lock shoe track.
			Class G	1.90 - Tail	0.433 (5.0)	0.762 (1.15)	TBA	TOC 150 m above shoe 20% excess Approx. (600 sx)	Centralisers - tba Two plug SSR (PDC drillable).
311 (12¼)	244 (9 <sup>7</sup> / <sub>8</sub> )	As required	Class G	1.90	0.433 (5.0)	0.762 (1.15)	TBA		As above

\* Cement formulations and additives, including thickening times, will be advised from laboratory tests.

**Note:**

Cement volumes are estimates and will be re-calculated on site.

## 4.8 DRILLING FLUIDS PROGRAMME

**TABLE 6  
DRILLING FLUIDS PROGRAMME**

Hole Size mm (ins)	Depth m	Mud Weight SG	Viscosity sec/qt	PV/YP cp/lb/100 sqft	Fluid Loss cc	Mud Type	Comments
914 (36)	145	1.03 - 1.05	100	-/60 to 90	-	Sea water/50 bbl high viscosity sweeps every 5-10 m	Use pre-hydrated bentonite flocculated with lime for sweeps - viscosity 100 sec/qt. Displace hole to high viscosity un-flocculated mud prior to running casing.
445 (17½)	875	1.08	44 - 52	-/60 to 90	-	Seawater with high viscosity sweeps	Displace hole to high viscosity un-flocculated mud prior to running casing with 8% KCL pill across the exposed Wangarlu.
311 (12¼)	3027.4	1.08	46 - 54	20/23	8.0	KCL/PHPA	6% KCL, 1.5 ppb PHPA Drill out with 1.08 sg and maintain to section TD

**Notes:**

The above parameters are provided as a guide. Refer to the mud company's Drilling Fluids Programme for full details. A Mud Engineer will be on site to run the mud systems and provide technical advice.

A Corrosion Control Programme should be run in accordance with the Drilling Fluids Programme.

Run solids control equipment to restrict solids build-up to less than 5% in the 311 mm hole.

## 4.9 DEVIATION CONTROL

### 4.9.1 Objectives

Maximum rate of change of angle to be less than  $1\frac{1}{2}^\circ$  per 30 m.  
A maximum deviation of  $5^\circ$  for the well.

### 4.9.2 Surveys

914 mm (36") hole: Run Totco at TD. Bulls-eye angle on guide base should not exceed  $1^\circ$  before cementing.

445 mm (17½") hole: Single shot surveys every 300 m maximum or bit trip.

311 mm (12¼") hole: Single shot surveys every 300 m maximum or bit trip.

Survey intervals may be amended depending on hole conditions.

A Magnetic Multi-shot or Gyro Survey may be run at casing points if a dipmeter is not run in the logging suite.

BHAs will be discussed and agreed between the GLOBEX Drilling Supervisor and the KDC Drilling Manager.

## 4.10 TEST/SUSPENSION/ABANDONMENT PROGRAMME

If significant hydrocarbon shows are encountered and a decision to test or suspend the well made, an appropriate programme will be issued.

If testing is not warranted, a plug and abandonment programme will be advised after final logs have been examined.

The plug and abandonment programme will be in accordance with the requirements of the PSLA Schedule, Specific Requirements as to Offshore Petroleum Exploration and Production, (1997).

## 4.11 REPORTING

### 4.11.1 General

The well is a tight hole, and communications to joint venture participants will only take place through GLOBEX's office.

### 4.11.2 Reporting Requirements

#### Drilling Reports

The following reports will be forwarded from the rig to:

**Kelly Down Consultants Pty Ltd, Sydney: Attention - Project Manager**

(1) Daily Reports - by email by 0615 hours EST:

- daily drilling report;
  - daily mud properties consumption report (mud contractor);
  - bulk report. **cc: Materials and Logistics Supervisor**
- (2) Other Daily Reports - by email:
- drilling status report at 1430 hours EST;
  - register of personnel - each day after the last helicopter flight.  
**cc: Materials and Logistics Supervisor**
- (3) Specific Reports - shortly after the event by fax:
- rig positioning;
  - accident or lost time;
  - casing and cementing;
  - LOTs;
  - coring and testing;
  - rig inspection report.
- (4) Other Reports - weekly by mail:
- tour sheets;
  - materials movements and consumption;
  - copies of field tickets/memos/faxes.
- (5) At the completion of the well:
- completed drilling forms (e.g. bit records etc.);
  - final inventories and movements;
  - adequate notes and reports on any event, problem or operation specific to the well.

### **Geological Reports**

The following reports will be forwarded from the rig to:

**GLOBEX: Attention -**

- daily report - by email by 0700 hours EST;
- daily geological report;
- mud logging report;

**cc: Kelly Down Consultants Pty Ltd, Sydney: Attention - Project Manager**

## **5. FORMATION EVALUATION**

### **5.1 WELLSITE GEOLOGIST RESPONSIBILITIES**

The Wellsite Geologist is responsible for geological supervision at the wellsite and for formation evaluation. He will supervise the mud logging unit, the mud loggers, the electric logging (including velocity survey) and will select coring and testing intervals as per this programme. All service tickets for these contractors require his approval, in addition to the approval of the GLOBEX Drilling Supervisor. The Wellsite Geologist reports to the GLOBEX Senior Operations Geologist. Prior to drilling, the Wellsite Geologist will be briefed by the GLOBEX Senior Operations Geologist on all aspects of this Drilling Programme.

All sample collection is the responsibility of the Wellsite Geologist who will ensure that the contracted mud logging company correctly gathers, labels and ships the samples as per instructions.

Cuttings gas, mud gas and salinity will be closely monitored over zones of interest. Additional samples may be collected at any time at the discretion of the Wellsite Geologist. All shows will be fully evaluated whilst drilling.

Whilst drilling, the Wellsite Geologist will monitor the mud logging and drilling operations in order to compile the daily geological report. A daily morning report will be sent to GLOBEX's office by 0730 (EST) via email and will summarise geological progress and parameters listed below for the previous 24 hours to 0600 (EST). This report will be made by the Wellsite Geologist and will include:

- lithologic description;
- drilling rate;
- gas detector readings and show report;
- formation and/or lithological boundaries;
- correlation points;
- any other pertinent information; and
- up-to-date mud logging sheets (faxed).

Depths should be reported in metric units. Pipe size, mud weights and other operations parameters will be reported in (conventional) imperial units.

### **5.2 MUD LOGGING**

The mud loggers will be under the supervision of the Wellsite Geologist.

A computerised mud logging unit will be on board with video displays on the rig floor, in the GLOBEX Drilling Supervisor's office and Wellsite Geologist's office. Mud loggers will provide drilling assistance and geological samples and analysis services as required.

Mud logging services will provide continuous 24 hour surveillance of drilling operations including:

- **Gas Monitoring:**
  - total gas;
  - cuttings gas; and
  - chromatographic analysis.
- **Mechanical indicators:**
  - depth;
  - pump stroke rate, pressure;
  - mud pit level;
  - ROP; and
  - drilling parameters (RPM, WOB, torque, etc).

It is anticipated that mud logging services will commence at the 508 mm (20") conductor shoe (at 300 m) and continue until TD.

Four sets (2 for Government, 1 for Globex, 1 for destructive analysis (eg palynology, geochemistry and vitrinite reflectance) of washed, dried and bagged samples (minimum 200 gms in accordance with Government regulations) to be collected at 10 m. intervals to 50m above the predicted top of the Demons Bluff (1050 m SS, 1077.4 m RT)

From 1077.4 m. RT to TD samples to be collected at 5 m intervals.

Additionally "bulk " samples of 500 g composited over each 10 m., "*lightly*" washed to remove only the excess mud, **air** dried and bagged in synthetic cloth bags. **No cotton bags** to be used as they rot and disintegrate; **No polypropylene bags** as they disintegrate in sunlight (UV). These are for geochemistry, micropaleontology, fission track analysis etc as may be needed.

A comprehensive 1:500 scale mud log will be maintained at all times from commencement of drilling to TD. All instrument charts, annotated for depth in metres, are to be submitted prior to release of the mud logging unit.

Gas detectors and chromatographs are to be calibrated with standard check gas blends once per day. Total gas detectors are to be calibrated so that 1% methane in air will produce a chart deflection of 50 units (1 unit is equivalent to 200 parts per million ("ppm") methane equivalents in air). Total gas readings are to be recorded and annotated on the mud log in total gas units and the chromatograph gas readings annotated in parts per million. Calcium carbide lag checks will be run once per shift or every 100 m, whichever occurs first (or at the discretion of the Wellsite Geologist), and total gas units and lag (actual and calculated) are to be recorded on the mud log.

Drill rate will be recorded in minutes/metre on a non-linear scale to best show significant changes in rate and to minimise scale changes. The logger is responsible for resolving any discrepancies in measured depth.

Leak-off tests, pit losses/gains, tight-hole and other geologically significant data will be

recorded on the mud log.

Mud and mud filtrate salinity will be measured from any significant hydrocarbon show. As a reference, salinity checks should be made as soon after a significant drilling break as possible (i.e. before the sample from the break is at surface).

The mud loggers will be responsible for the collection, logging and description of drill cuttings samples. A copy of the updated mud log will be available every morning in time for the morning report. A copy may be required for the afternoon report while drilling in zones of interest.

Routine microscopic and fluoroscopic examination of ditch cuttings for hydrocarbon shows will be undertaken.

Digital data are to be backed up on a regular basis such that, in the event of a system failure, a minimum of data would have to be re-entered. Each morning the computer based files will be updated and a copy handed to the Wellsite Geologist for transmission to GLOBEX's office.

At the conclusion of the well, a complete set of edited data is to be written to 3½" floppy disks using an agreed format and handed to the Wellsite Geologist.

### 5.3 CORING AND CORE ANALYSIS

**Note: Pipe is to be strapped and pipe measurements checked against mud loggers' tally prior to coring, testing or logging operations.**

Coring is programmed but will depend upon suitable hydrocarbon shows. In the event coring takes place and if shows are encountered and they persist to the bottom of the first core, then additional cores may be necessary.

Due to the generally unconsolidated nature of some of the sands and the possibility of poor recovery and deep fluid invasion, special coring and handling procedures will be implemented to ensure good recovery for future analysis.

A core barrel with fibreglass inner barrels will be available on site and a low invasion face-discharge core-head will be utilised for any coring operations.

If a core is cut, the following handling procedures should be followed:

After cutting and retrieval, the fibreglass sleeve should be laid on the catwalk, measured, oriented (using standard procedures, i.e. red line on the right and white line on the left pointing downwards) and cut into 1 m length pieces. Depths should be annotated at the top and bottom of each 1 m length piece as well as the 1 m marks along the core. Core chips can be cut at the core ends and tested for fluorescence and cut immediately. A core description should be prepared using the core chips. Without delay, caps should be placed on the open ends and further sealed with tape. Waxing of caps is not recommended. Experience has shown that cracks usually develop after the wax has cooled down.

The core should be delivered for analysis as soon as possible. If the core is unconsolidated, special analytical techniques might be required to ensure adequate and meaningful results.

#### 5.4 WIRELINE LOGGING

The following logging programme will be conducted upon reaching TD.

**TABLE 7  
LOGGING PROGRAMME**

Suit No.	Hole Size (mm)	Depth Interval (m RT)	Run No.	Logging Suite
1	445 (17½")	875 - 145 m	0	No riser, no logs
2	311 (12½")	3027.4 - 875	1 2 3 4 5 6	DLL-MSFL- GR-SP-PE-LDL-CNL-NGT SHDT-G -BHC (with full wave form sonic) BHC-GR continued to surface inside casing VELOCITY SHOOT RFT - GR CST-GR (1 Gun 52 shot preferable) (2nd Gun Optional)

It should be noted that the programme as outlined above is flexible, and modifications may be made dependent upon well bore conditions, engineering constraints, geological aspects and changes in the objectives of the well.

#### Presentation

- All log data to be presented at 1:200 and 1:500 vertical scales according to GLOBEX's standard electric logging presentation format as per Table 7.

#### Log Data Transmission

- Facsimile  
All log data should be faxed to GLOBEX's office as soon as possible. who will, in turn, re-fax the log data to joint venturers if required.
- Modem  
If modem is operational at time of logging, log data should be transmitted to:
  - GLOBEX's office and
  - wireline logging contractor's office.

GLOBEX's office will re-transmit the log data to joint venturers on request, and the wireline logging contractor's office will supply prints as soon as practicable to GLOBEX's office for distribution to joint venturers.

### 5.4.1 Standard Electric Logging Presentation Format

The following log presentation style will be adopted for the final presentation of all logs unless otherwise agreed.

**TABLE 8  
SUMMARY OF LOG PRESENTATION**

Curve	Scale	Track	Back-ups	Coding
Gamma-Ray	0 : 150 API	T1	Wrap	Light Line
Laterolog - Deep	0.2 : 2,000 Log	T23	None	Light Dash
LLD-Backup	2,000 : 20,000 Log	T2	None	Heavy Dash
Laterolog - Shallow	0.2 : 2,000 Log	T23	None	Light Spot
LLS-Backup	2,000 : 20,000 Log	T2	None	Heavy Spot
Micro-SFL	0.2 : 2,000 Log	T23	None	Light Line
Micro-Normal	10 : 0	T1	None	Light Spot
Micro-inverse	10 : 0	T1	None	Light Dash
Deviation	0 : 5 deg	T1	Shift	Light Spot
Relative bearing	-0.40 : 360 deg	T1	Wrap	Light Dash
Azimuth	-0.40 : 360 deg	T1	Wrap	Light Line
ILD	0.2 : 2,000 Log	T23	None	Light Dash
ILD-Backup	2,000 : 20,000 Log	T23	None	Heavy Dash
SFLU	0.2 : 2,000 Log	T23	None	Light Spot
SFLU-Backup	2,000 : 20,000 Log	T23	None	Heavy Dash
SP	-0.50 : 50 mv	T1	Wrap	Light Spot
Caliper	6 : 16 in	T1	Shift	Light Dash
Bit Size	6 : 16 in	T1	None	Heavy Line
Density	1.85 : 2.85	T23	Shift	Light Line
Density Correction	-0.25 : 0.25	T3	None	Light Spot
PE	0 : 10	T23	None	Heavy Gap
Neutron	0.45 : -0.15	T23	Shift	Light Dash
Delta T	140 : 40 msec/ft	T23	Shift	Light Line
Delta T (long)	140 : 40 msec/ft	T23	None	Light Dash
CBL	0 : 10 mv	T2	None	Light Line
CBL-Backup	0 : 10 mv	T2	None	Light Dash
Tension	0 : 4,000 lb	Depth Track	None	Light Spot

### 5.4.2 Sidewall Cores

Sidewall cores ("SWC") will be taken over selected intervals for the following reasons:

- palaeontological analysis; (~35 shots)
- show evaluation; or
- visual assessment of reservoir/seal quality. (~17 shots)

One 52 shot run to be made. 17 shots for sampling hydrocarbon show sands etc; 35 for palynology located in shales or finest grained intervals at about 50 m spacing throughout the Eastern View Section. Coals to be avoided as they separate easily from cuttings with little ambiguity.

The cores will be described by the Wellsite Geologist directly after the samples have been acquired. SWC should be placed in SWC jars with foil-lined caps; direct contact with wax-coated cap liners should be avoided. SWCs of hydrocarbon-bearing reservoir units should be kept sealed and in a cool location prior to transport.

The sidewall coring equipment should be on location prior to logging, and all explosives will be kept in a designated safe container. Minimum required personnel should be on the catwalk/rig floor when armed core guns are run or pulled. All radio transmitters and electric welding units are to be de-energised while arming or disarming core guns and while the core gun is within the top 60 m of the hole.

#### 5.4.3 Wireline Formation Tests

RFTs will be run if hydrocarbons are suspected in any of the reservoir sandstone intervals, and if hole conditions permit. The purpose of these tests is to measure formation pressure, establish hydrocarbon and water gradients, and obtain a preliminary indication of permeability and formation fluids. An RFT may be used to evaluate zones too thin for production tests.

A range of chamber sizes should be available (1-6 gal), the combination to be used dependent upon the zone to be tested and available should segregated samples be taken.

Fluids recovered from the upper chamber should be analysed on site, while fluids from the lower chamber should be kept sealed and delivered for analysis as soon as possible.

The Wellsite Geologist will recommend RFT intervals to the GLOBEX Senior Operations Geologist for approval.

#### 5.4.4 Velocity Survey

As anticipated, the 17 1/2" hole will only be to about 870 m. RT. Section would thus be all be in the Torquay Group. Consequently no checkshot survey is required in this section. For the 12 1/4" hole section to TD logging run, the geophone for shots should be located at:

- (1) About 500 m.
- (2) 1,000 m just below limestone reflector if it can be identified.
- (3) Top Demons Bluff.
- (4) Top Eastern View C. M.
- (5) Top of Anomaly Horizon.
- (6) At velocity breaks picked from the sonic or other logs such as continuous thick coals (over 25 m, but not anticipated); alternatively shots should be located at not more than 400 m intervals approximately evenly spaced.
- (7) If thick basalt-gabbro intervals are intersected similar to in Yolla-1 (2563-2651) shots should be taken at top and bottom of the interval.
- (8) At TD.

### 5.5 TESTING

No firm tests are programmed for the well. Tests will be run depending on evaluation of shows encountered while drilling, coring and subsequent log analysis and RFT results.

Tests will be run after consultation with GLOBEX's Senior Operations Geologist. Test tools will be available on short notice should they be required.

A separate programme will be issued should cased hole testing operations be required.

## 6. SAMPLING

### 6.1 CUTTINGS

Table 9 sets out the cuttings sampling programme for the well.

**TABLE 9  
CUTTINGS SAMPLING**

Type	Weight	Interval Spacing (m)	Interval (m)	No. of Sets
Washed and dried (lithology)	200 g bags	10	860-950	4*
		5	950-3022	4*
Lightly washed (almost unwashed), air-dried (biostratigraphy and geochemistry).	500 g bags	10	860-950	1
		10	950-3022	1

- \* 1 set for Mineral Resources, Tasmania.
- 1 set for Australian Geological Survey Organisation ("AGSO").
- 1 set for GLOBEX.
- 1 set for destructive analysis as required.

### 6.2 FLUIDS

The packaging of samples is to be in suitably sized cardboard cartons clearly marked identifying the boxes contents. The samples shall be packed in such a way as to not damage both the contents and the labelling on the boxes.

#### 6.2.1 Crude Oil

Recovered crude oil samples will be collected in 3 x 5 litre cans and prepared for analysis off site. Preliminary determination of the API gravity and pour point of the oil will be made at the wellsite.

The samples should be labelled with the well name, date, drill stem test ("DST") number, DST interval, formation, sampling point and surface temperature, time and at what stage of the DST the sample was collected. A note should also be made about the flow as to slugging or stability etc.

#### 6.2.2 Gas

Between 500 and 1000 ml of gas are required for analysis. A minimum of two samples per test should be collected under pressure in an evacuated steel cylinder at stabilised flowing conditions.

The cylinder should be labelled with well name, date, DST number, DST interval, formation, the pressure and location at which the sample was collected, the time and at what stage of the DST procedure the sample was taken, and surface temperature.

A note should also be made about the flow as to slugging or stability etc. A sample of any gas to surface will be analysed at the wellsite using the chromatograph in the mud logging unit. Avoid saturating the detector by diluting with air.

### 6.2.3 Water

Formation water samples are to be collected in one litre plastic bottles.

Other water samples such as well completion fluids, cementing fluids, well stimulation back-flow fluids and production test fluids all require a one litre plastic bottle sample for optimum laboratory results.

### 6.2.4 Mud

500 ml mud samples will be taken every 3 m whilst hydrocarbon shows within the reservoir section are being recorded either on the chromatograph or in cuttings fluorescence. Additional mud sampling at other times is at the discretion of the Wellsite Geologist.

RMF should be recorded on any mud sample while drilling in shows.

**Store samples in a cool place and ship as soon as possible for analysis.**

## 7. SAMPLE SHIPMENT

All cores and cutting samples, once properly labelled and packed, should be dispatched from the rig as soon as possible.

All samples requiring urgent analysis should be dispatched immediately to the company that will perform such analysis via work boat. All other samples should be dispatched as soon as possible in a shipping container via work boat.

All shipments must be properly addressed, documented, and manifested with the materials coordinator on board the rig. Shipments which do not require urgent analysis should be delivered to GLOBEX's office from which point final delivery to laboratory or joint venturers will be made.

Washed and dried samples will be retained at the wellsite until the end of the well when the Samplex tray set and one set of 100g washed and dried samples will be despatched to GLOBEX's office.

The second and third sets of the washed and dried samples shall be shipped to:

Mineral Resources Tasmania  
Core and Cutting Library  
30 Gordons Hill Road,  
Rosny Park, Tasmania, 7018.  
Telephone: (03) 6233 8326 Attention: Ms Carol Bacon/Mr Tony Brown.

All other material will be labelled and shipped to:

GLOBEX Far East  
Memorial Plaza II, 820 Gessner, Suite 1680, Houston, Texas, 77024  
Telephone: 713 463 7710, Fax: 713 463 7722, Email: xxxxxxxxx@xxx.xxx  
Attention: Mr Tom Burgett, Exploration Manager

## 8. DATA DISTRIBUTION

Originals of all logs and magnetic tapes will be retained by GLOBEX. Log tapes and films

are to be hand carried to GLOBEX's office by the Wellsite Geologist. Originals of mud log data sheets, charts and floppy disks will be given to the Wellsite Geologist for delivery to GLOBEX's office.

**TABLE 10  
DATA DISTRIBUTION LIST**

REPORT/DATA	MEDIUM TYPE	R I G	G L O B E X			M R T
<b>REPORTS</b>						
Well Proposal	PAPER	4	5	3	3	3
Daily Reports	PAPER	1	1	1	1	1
Weekly Reports	PAPER	1	1	1	1	1
Mud logging Final Report	PAPER		2	1	1	2
Well Completion Report	PAPER		2	1	2	2
<b>LOGS (* UPON REQUEST)</b>						
Data Transmission	MODEM		1	*	*	*
Field E-Log (each run main scale)	FAX	2	1	1	1#	1
Final E-Log (each run all scales)	PAPER		2	2	1	2
Final E-Log (each run all scales)	SEPIA		1	1	1	1
Final Edited E-log Data (LAS OR LIS)	Exabyte () 9 Track () 3½" Disk ()		() () (*)	() () (*)	() () 1	() () (*)
<b>SAMPLES Amt (g) Interval</b>						
Cuttings	100 5m/3 m		1			1
Samplex trays			1			
Paleo (unwashed)	100 x 5m/3 m		1			
Oil	5 litre cans		2			
Water	1 litre plastic bottle		2			
Mud	500 ml plastic bottle		2			
Core			2/3			1/3

**Note:** Representative cuttings, cores, sidewall cores and fluid samples will be delivered for analysis to the designated service companies as soon as possible; their addresses are found in **Appendix A**.

9. OFFSET WELL DATA/CORRELATION

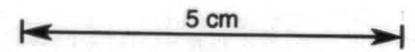


TABLE 11

OFFSET WELL/DATA CORRELATION

Depth	Fm	Cormorant-1 ← 20 km →			Barramundi-1			← 30 km → Yolla-1		
		Li.	Casing	Mud Wt.	Li.	Casing	Mud Wt.	Li.	Casing	Mud Wt.
500 m			wd 73 m SS			wd 72 m SS			wd 79m SS	
			20" 250 m RT			36" 145m RT			30" 189m RT	
1000 m									20" 399m RT	
			13 <sup>3</sup> / <sub>8</sub> 865m RT			13 <sup>3</sup> / <sub>8</sub> 865m RT				
1500 m						primary				
									13 <sup>3</sup> / <sub>9</sub> 1752 RT	
2000 m			c&g sands			secondary to TD				
			c&g sands							
2500 m			c&g sands							
			c&g sands							
3000 m									gabbro	
									c&g sands	
									c&g sands	

10. OIL SPILL CONTINGENCY PLAN

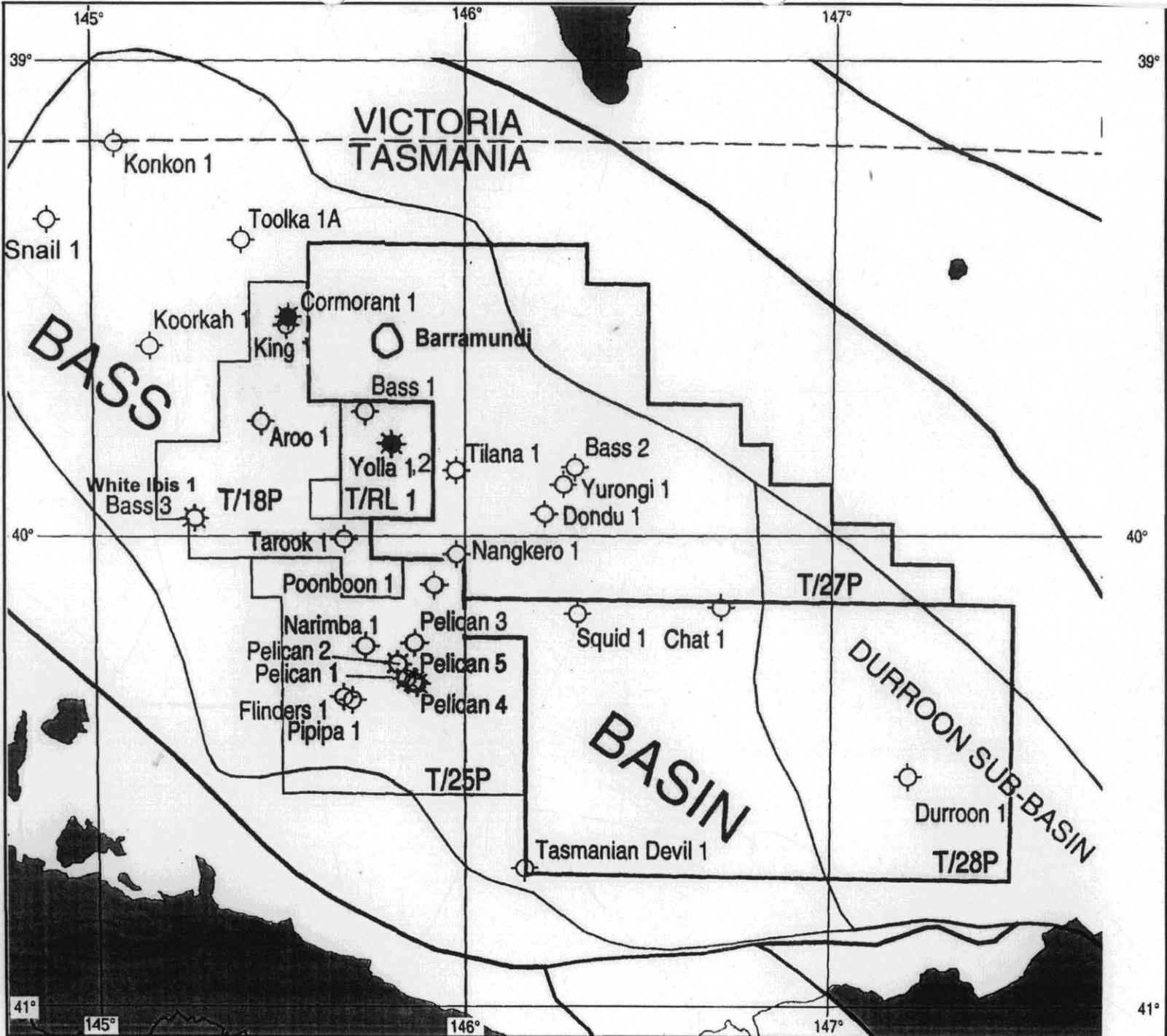
The GLOBEX Oil Spill Contingency Plan ("OSCP") provides guidelines for use by field and office personnel to:

- notify the relevant authorities and groups of an oil spill;
- contain and manage the spill; and
- clean up the oil spill if necessary.

The OSCP shall be kept on board the rig for reference by all personnel.

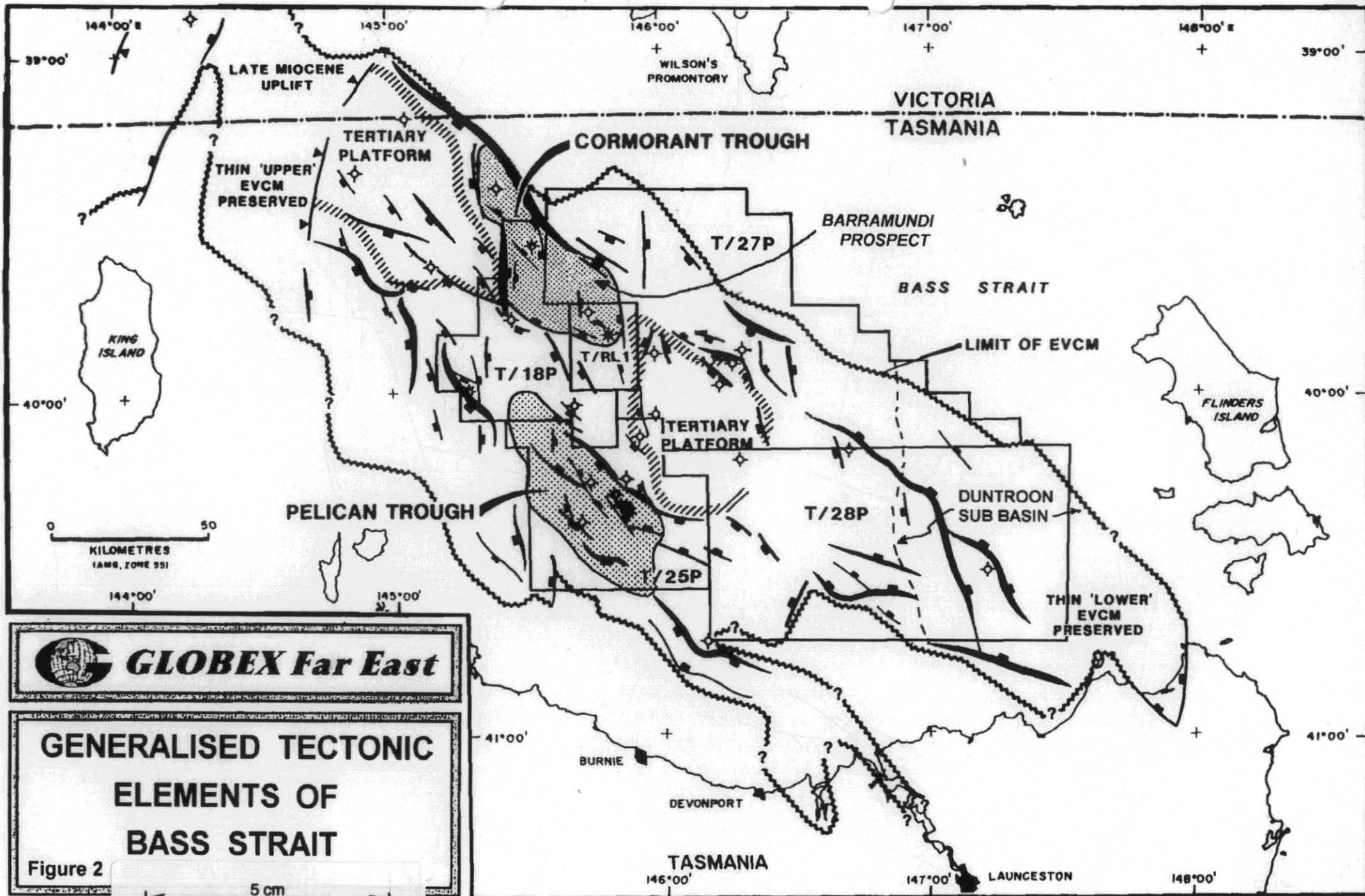
**FIGURES**

5 cm



543034

Figure 1 Locality map of Bass Strait showing leases and Proposed Barramundi - 1 Location

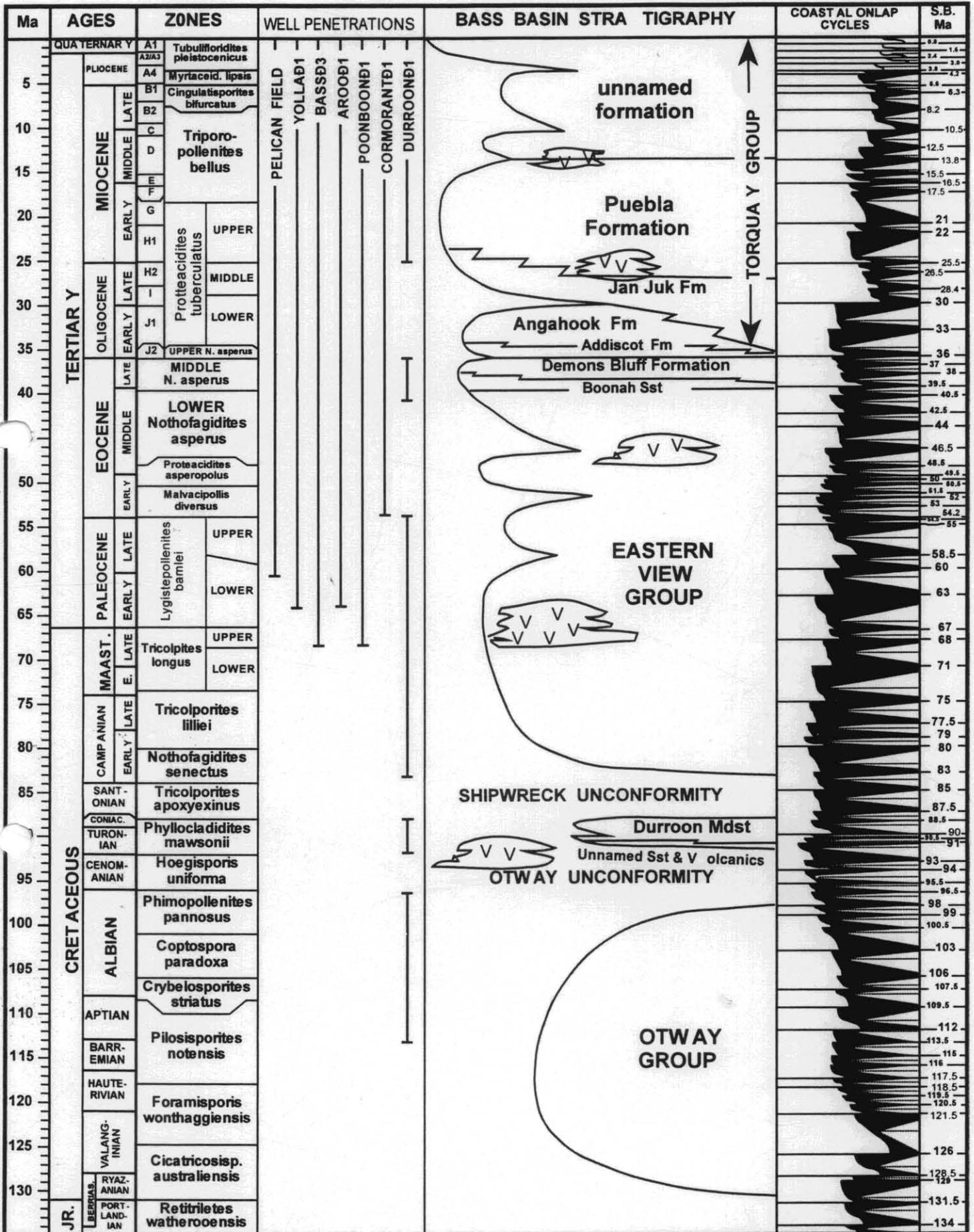


 **GLOBEX Far East**

**GENERALISED TECTONIC  
ELEMENTS OF  
BASS STRAIT**

Figure 2

5 cm



A. D. Partridge Nov 1998

Figure 3. Stratigraphy of the Bass Basin.

5 cm

# BARRAMUNDI # 1

543037

Latitude: 39.66167 deg South Longitude: 145.73412 deg East

UTM ZONE: 55 South X = 391,412 Y = 5,609,012

RT = 27 m

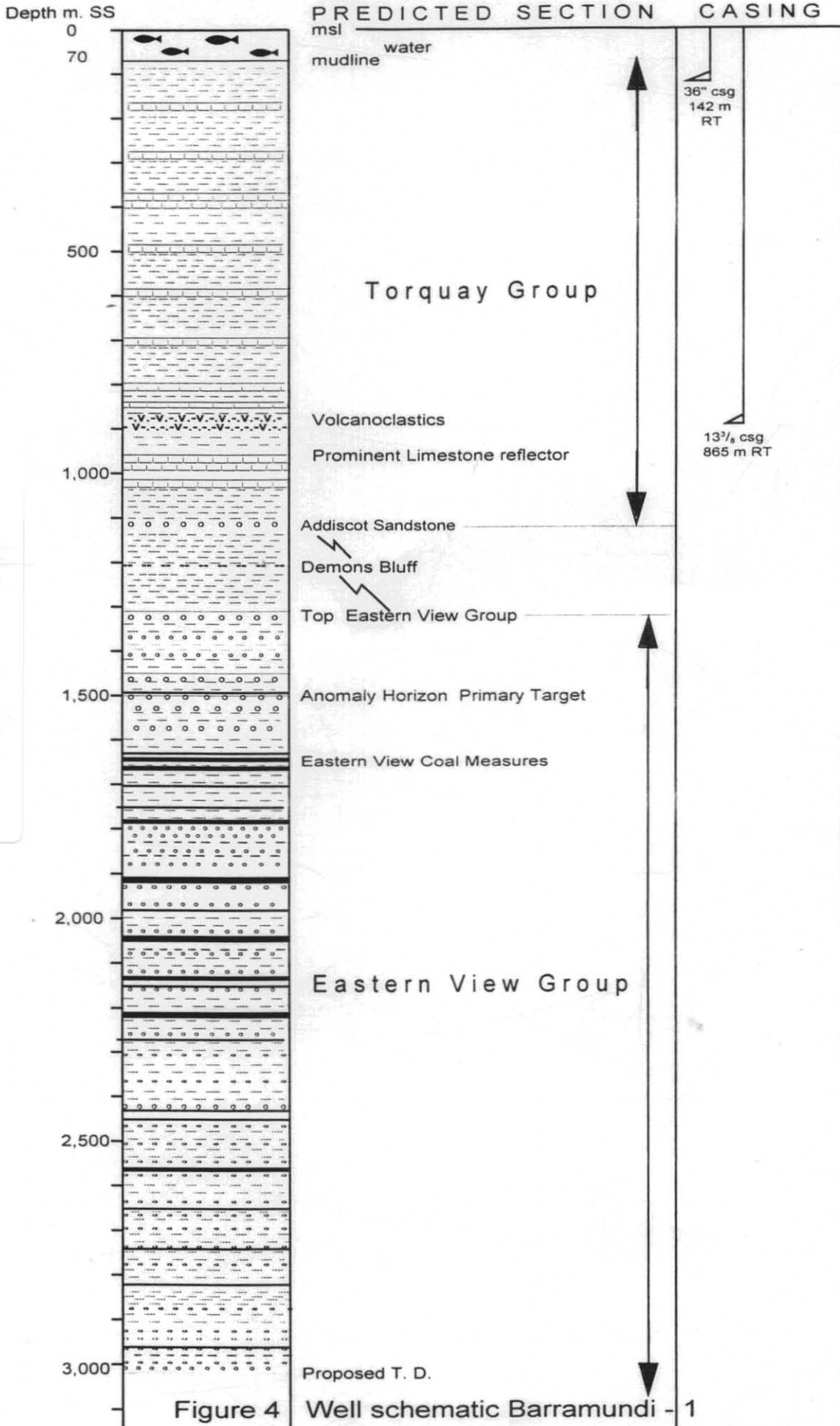


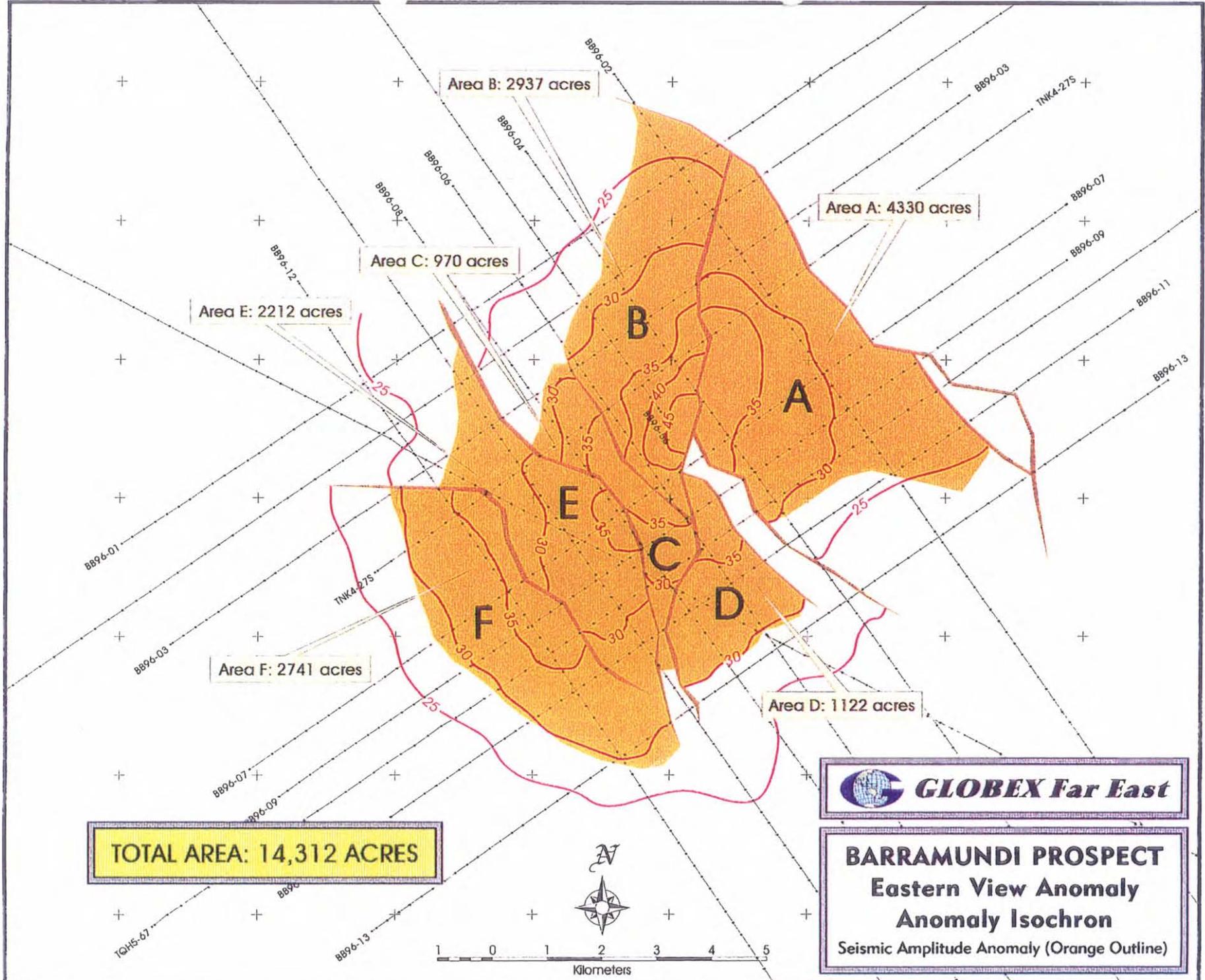
Figure 4

Well schematic Barramundi - 1

543038

Figure 5 Barramundi Prospect Eastern View Anomaly Isochron showing compartments of structure.

5 cm



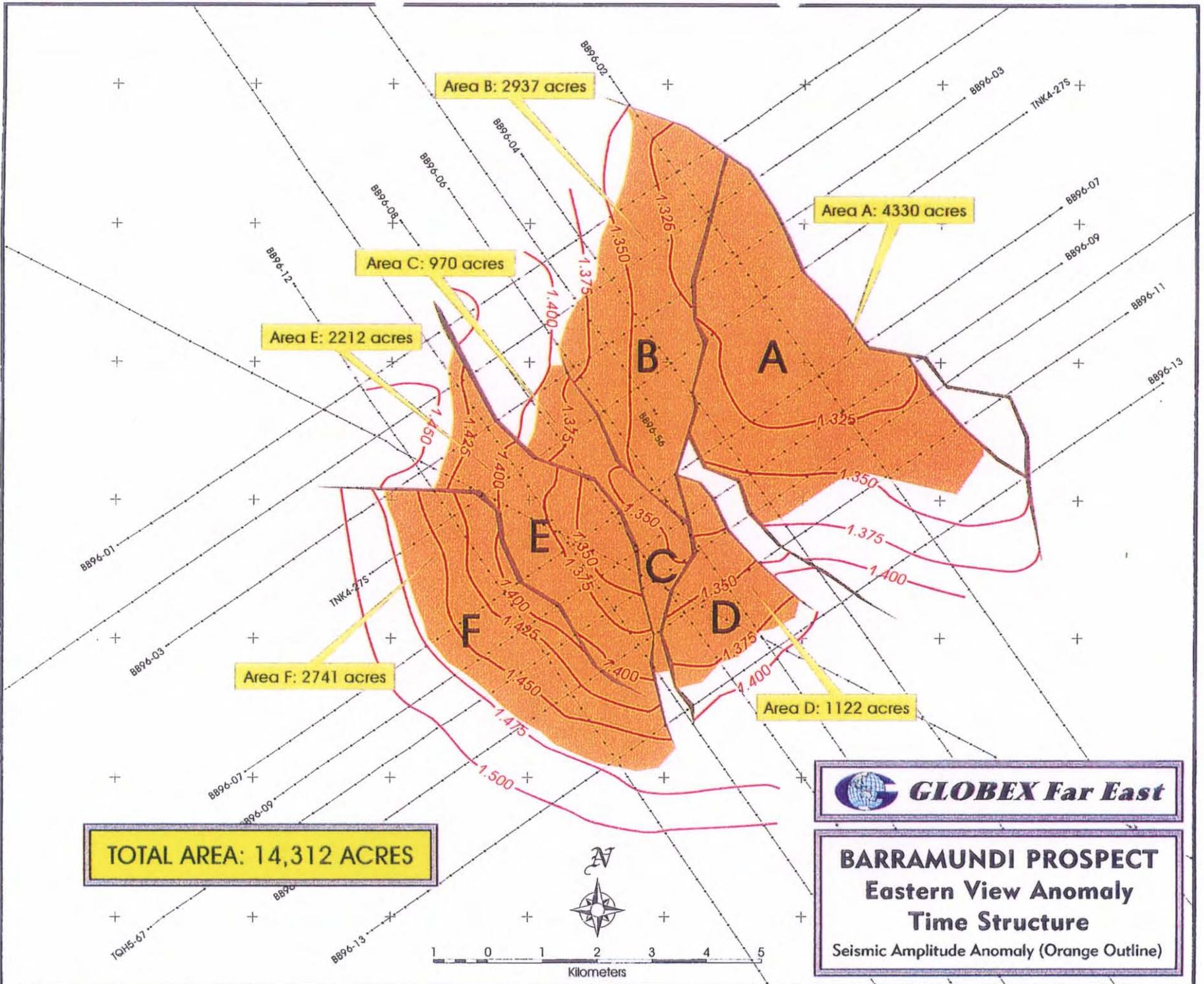


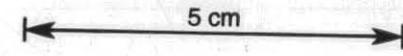
Figure 6 Barramundi Prospect Eastern View Anomaly Time Structure showing compartments of structure.

TOTAL AREA: 14,312 ACRES

**GLOBEX Far East**

**BARRAMUNDI PROSPECT**  
**Eastern View Anomaly**  
**Time Structure**  
Seismic Amplitude Anomaly (Orange Outline)

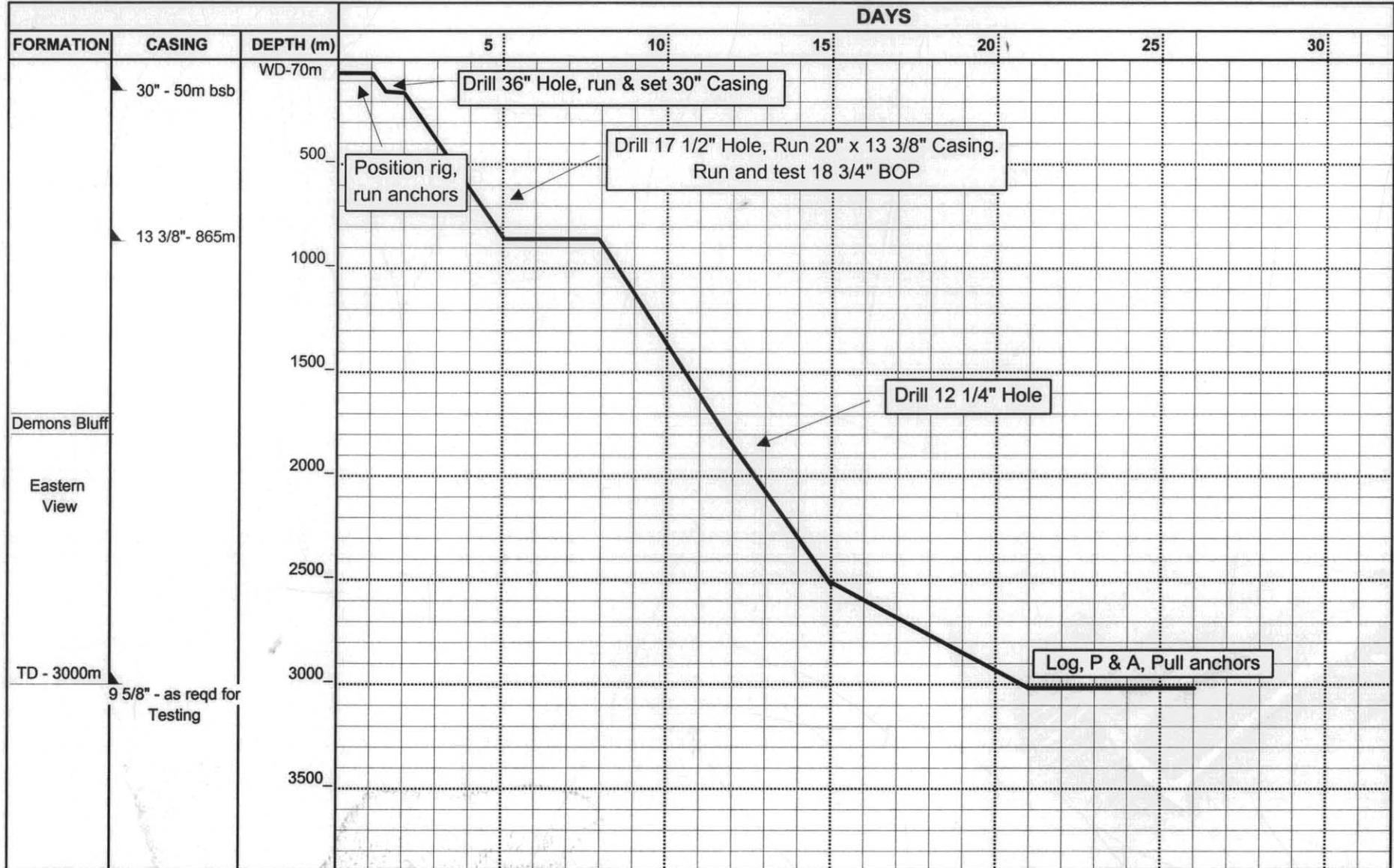
# GLOBEX Far East



## BARRAMUNDI-1 (T-27-P)

### TIME/DEPTH CURVE

Fig.7



**APPENDICES**

## APPENDIX A

## OPERATOR/PROJECT MANAGER CONTACTS

Company/Address/Contact	Office Tel.	Office Fax.	Home Tel.	Mobile
<b>GLOBEX Far East</b> <b>Memorial City Plaza 11</b> <b>820 Gessner</b> <b>Houston, Texas 77024</b> <b>Contacts:</b> Richard P. Crist - Vice President - Exploration Thomas L. Burgett - Exploration Manager	1-713 463 7710	1-713 463 7722	1-409 321 1475	
<b>Kelly Down Consultants Pty Ltd</b> Level 4, 621 Pacific Highway St Leonards NSW 2065 <b>Contacts:</b> Jim Slater - Drilling Manager Geoff Rowlands - Project Manager	02 9901 3422	02 9901 3635	02 9452 2780 02 9906 4725	0412 446 440 0417 682 839
<b>GLOBEX Supply Base</b> c/- Toll Energy, 654, Footscray Road West Melbourne <b>Contacts:</b> - Materials & Logistics Supervisor				

**APPENDIX B**

543043

**JOINT VENTURE CONTACTS**

Company/Address/Contact	Office Tel.	Office Fax.	Home Tel.	Mobile
Seven Seas Petroleum Australia.				

\* Facsimile number for receiving Daily Reports

**APPENDIX B (cont'd)  
GOVERNMENT CONTACTS**

Address/Contact	Office Tel.	Office Fax.	Home Tel.	Mobile
<b>Mineral Resources Tasmania</b>	03 6233 8333	03 6233 8338		
30 Gordons Hill Road, Rosny Park, Tasmania, 7018 PO Box 56, Rosny Park, Tasmania, 7018				
<b>Contact:</b> Ms. Carol Bacon - <i>Managing Geologist</i>	03 6233 8326		03 6239 1409	
<b>Alternate:</b> Mr Anthony Brown - <i>Director of Mines</i>	03 6233 8343			

## APPENDIX C

## SERVICE COMPANIES

Service/Company/Address/Contact	Office Tel.	Office Fax.	Home Tel.	Mobile
<b>Drilling Rig</b> Schlumberger Australia Pty Ltd (Sedco Forex) Level 5, Capitol Centre, 256 St. Georges Terrace, Perth, WA 6000 Don Munroe - District Manager Dave Wright - Rig Manager  <i>"Sedco 702" - Marisat</i> GLOBEX - Rig	08 9420 4800	08 9322 3110		
<b>Rig Positioning</b> Racal Survey 4 Ledger House Balcatta WA 6021 Bart van der Groen - Sales Co-ordinator Derek Evans-Consultant - "Bird-dog"	08 9344 7166	08 9344 8783	08 9384 6956 08 9384 6956	
<b>Supply Vessels:</b> Swire Pacific Offshore Pty Ltd Queensgate Centre Cnr. William and Newman Streets Fremantle WA 6160 Sam Pullan - General Manager	08 9430 5434	08 9430 7849		
<b>Helicopters:</b> Lloyd Helicopters Pty Ltd 45 Greenhill Road Wayville SA 5034 Ian McBeath - Marketing Director Melbourne Base - Base Manager - Deputy Base Manager	08 8373 0700	08 8373 3366		
<b>Cementing:</b> Halliburton Australia Pty Ltd  Mike Vennes - Base Manager	08 9455 5200	08 9455 5300		
<b>Drilling Fluids:</b> Baroid Australia Pty Ltd No 5 Pitino Court, Osborne Park WA 6017 Dick Allen - Manager Peter McNaughton - Area Engineer Ed Schleifer - District Manager	08 9 446 6666     03 9621 3311	08 9446 1197     03 9621 3367		

**APPENDIX C (cont'd)  
SERVICE COMPANIES**

<b>Service/Company/Address/Contact</b>	<b>Office Tel.</b>	<b>Office Fax.</b>	<b>Home Tel.</b>	<b>Mobile</b>
<b>ROV:</b>				
<b>Electric Logging:</b> Schlumberger Seaco Inc				
<b>Mud Logging:</b> Geoservices Overseas S.A. Unit 8, Farrall Road Midvale WA 6056				
<b>Coring:</b>				
<b>Weather Forecasting:</b> Weathernews Pty Ltd 31 Bishop Street Jolimont WA 6014 David Duncalf - Senior Meteorologist	08 9387 7955	08 9387 6686	08 9385 8384	
<b>Drilling Tools:</b>				
<b>Directional Drilling:</b>				
<b>Casing Running:</b>				
<b>Well Testing:</b>				

**APPENDIX C (cont'd)  
SERVICE COMPANIES**

<b>Service/Company/Address/Contact</b>	<b>Office Tel.</b>	<b>Office Fax.</b>	<b>Home Tel.</b>	<b>Mobile</b>
<b>Wellheads:</b> Dril-Quip 132, Sheffield Road, Welshpool, WA 6106 Keith Petley - Projects-Sales	08 9458 5700	08 9458 5595		0412 913 025
<b>Casing (30")</b> DQ Holdings Pty Ltd 134 Sheffield Road Welshpool WA 6106 Keith Petley - Projects-Sales	08 9458 5700	08 9458 5595		0412 913 025
<b>Fuel:</b> The Shell Company of Australia Ltd 22 Bracks Street North Fremantle WA 6843 Ted Johns - National Trade Manager	09 432 1222	09 432 1234		
<b>Supply Base:</b> Toll Energy 654 Footscray Road West Melbourne, Vic, 3003 Phil Dent - Manager	03 9688 8325	03 9688 8340		0418 359 526
<b>Palynology:</b> Mr Alan Partridge, Biostrata Pty Ltd, 302 Waiora Road, Macleod, Vic., 3085.	03 9479 1517	03 9457 3888	03 9457 3888	none
<b>Petrography:</b>  Kewdale WA 6105				
<b>Core and Fluid Analysis/Geochem</b>				

543047

**APPENDIX D**

**Drilling Rig, Vessels and Helicopter Details**

**SEDCO 702****Semi-Submersible Drilling Unit**

<b>Vessel</b>	<b>Design</b>	MODU (CSDU) Earl & Wright SEDCO 700
<b>Specifications</b>	<b>Service Date</b>	April 1973 - Major enhancement/refit 1992
	<b>Classification</b>	ABS Class - +A1 (E) (M) CSDU +PAS
	<b>Registry/Flag</b>	Liberia
	<b>Length</b>	295 ft
	<b>Width</b>	245 ft
	<b>Main Deck Height</b>	130 ft from keel to top of main deck
	<b>Transit Draft</b>	19 ft
	<b>Operating Draft</b>	85 ft
	<b>Variable Load</b>	
	<b>Transit</b>	1,500 st at 21 ft Draft
	<b>Operating</b>	3,325 st at 80 ft Draft
	<b>Transit Speed</b>	7 knots at transit draft
	<b>Crew Quarters</b>	104 certified berths available along with hospital facilities for 4 persons
	<b>Rated Drilling Depth</b>	25,000 ft
	<b>Operating Water Depth</b>	Currently equipped for 1,500 ft

<b>Mooring System</b>	<b>Anchors</b>	8 - Stevpris, 12 mt Each anchor combined with 4,300 ft of 3 inch chain
	<b>Windlasses</b>	Baylor, 1,000 kips hold, 500 kips stall
	<b>Thrusters</b>	4 - Pleuger/Baylor, each rated 1600 horsepower
	<b>Environmental Capability</b>	Operating : Wind : 70 knots Waves : 70 ft at 11.7 seconds Current : 2.4 knots Survival Wind : 100 knots Waves : 110 ft at 18.8 seconds Current : 2.4 knots

<b>Storage Capacities</b>	<b>Sack Material</b>	3,000 sacks
	<b>Bulk Mud &amp; Cement</b>	15,400 cu.ft
	<b>Liquid Mud</b>	2,185 bbl
	<b>Drill Water</b>	8,700 bbl
	<b>Potable Water</b>	1,325 bbl
	<b>Fuel</b>	3,315 bbl
	<b>Base Oil</b>	3,315 bbl
	<b>Brine</b>	2,900 bbl

<b>Rig Equipment</b>	<b>Drawworks</b> <b>Derrick/Mast Capacity</b> <b>Main Power</b> <b>Emergency Power</b>  <b>Power Conversion</b>  <b>Mud Pumps</b> <b>High Performance Shale Shakers</b> <b>Topdrive</b> <b>Heave Compensator</b> <b>Deck Cranes</b>  <b>Rotary Table</b> <b>Riser Tensioners</b> <b>Cementing Unit</b> <b>Burner Booms</b> <b>Subsea TV System</b> <b>Communications</b>	Oilwell E-3000, input horsepower : 2,000 Lee C Moore 185 ft rated 1000 kips static hook load 3 - EMD 12-645E9; 2,875 hp each 1 - Detroit Diesel 16V-71, rated at 350 kW Generator : Delco, 480 V, 60 HZ, 437 kVA, 350 kW SCR System : Baylor Rated at : 2,500 amps and 600 volts 3 - Oilwell A1700-PT, input horsepower : 1,600 each 3 - Thule VSM 100 3 - Brandt scalping shakers Varco TDS 4S Rucker; 400 kips, 18 ft stroke 2 - National OS-435 Rated : 55 st at 30 ft and 13 st at 120 ft max radius Oilwell; 49-1/2 inch with independent drive 8 - Rucker; Capacity : 80 kips each, 50 ft line travel Dowell Schlumberger; 15,000 psi with recirculating mixer None Hydro Products WC-125 for 1,500 ft water depth Marisat 'A' 1 - VHF Sailor radios RT2047 Inmarsat terminal 1 - Fax machine, Canon FAX270S 2 - Sailor SSB radios; one 600 watts PCP and one 250 watts PCP
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<b>Blowout Preventer Equipment</b>	<b>Diverter</b>  <b>Slip Joint</b>  <b>Riser</b>  <b>Lower Marine Package</b>   <b>Blowout Preventers</b>    <b>Choke Manifold</b> <b>BOP Control System</b>	Hughes Regan KFDS-3, 47 inch, Pressure rating : 500 psi  Hughes Regan, size : 26 inch OD by 20 inch ID, Stroke : 55 ft Hughes Regan FD-8, integral riser Size : 21 inch, Length : 1,500 ft Two, NL spherical Size : 18-3/4 inch, Pressure rating : 5,000 psi, H2S Trim LMRP Connector : Cameron Collet Two, CIW Type U double Size : 18-3/4 inch, Pressure rating : 10,000 psi, H2S Trim Wellhead Connector : Cameron Collet Cameron 3 inch, 10,000 psi, H2S Trim Koomey hydraulic Accumulator capacity : 1,500 gal.
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543050

# SWIRE PACIFIC OFFSHORE

MARINE SERVICES TO  
THE OFFSHORE INDUSTRY



## M.V. "PACIFIC SHOGUN"

9000 BHP Anchor Handling Tug Supply Vessel 1800 Tonnes Cargo Deadweight

### BUILT:

Teraoka Shipyard Co Ltd., May 1982

### FLAG:

Panama

### CLASSIFICATION:

US + A1 (Tug Supply Vessel) (E) + AMS Ice Class "C"

### DIMENSIONS:

Length, overall:	64.00 m (210')	Breadth, moulded:	15.02 m (49' 3")
Depth, moulded:	6.50 m (21' 4")	Draft (Summer):	5.50 m (18')
GRT:	1797 tons	NRT:	539 tons

### MACHINERY:

Main engines: 4 x 2250 BHP Yanmar 8Z280 diesel engines, total 9000 BHP, driving 2 x controllable pitch propellers in fixed Kort Nozzles

Bow thruster: Kamome controllable pitch driven by Yanmar 600 BHP diesel engine developing 7 tonnes thrust

Electrical generators: 3 x 320 kw, 440V, 60 hz alternators driven by Yanmar S165UT diesel engines

### SPEED AND CONSUMPTION:

Speed at 100% MCR:	14.5 kts
Speed at 85% MCR:	13.5 kts
Con at max. output:	Abt. 28 tonnes/day (4 engines) Abt. 14 tonnes/day (2 engines)
Con at econ MCR:	Abt 8.5 tonnes/day (2 engines)
Endurance:	4 Engines 10,500 nm at 13.5 kts. 2 Engines 17,000 nm at 12.5 kts.

### TOWING AND ANCHOR HANDLING:

Bollard Pull: 110 tonnes at 110% MCR 10,000 BHP

Winch: Nitchitsu Three drum electro-hydraulic waterfall winch, enclosed.

Pull Rating: Low Gear: 200/100/40 tonnes x 6/12/18 m/min  
High Gear: 32/16 tonnes x 30/60 m/min

Brake Capacity: 300 tonnes

Drum Capacity: 1 x 1250 m x 64 mm wire rope  
2 x 600 m x 72 mm wire rope

Chain Gypsies: 4 x 3" Rig Chain rated at 100 tonnes  
Pneumatic controls at local station & wheelhouse.  
Remote quick release device for all drums at wheelhouse.

Spare Tow Wire: 1 x 1200 x 64 mm wire powered storage reel.

Pennant Wire: Drum capacity 1800 m x 64 mm wire rope

Stern Roller: 4.00 m x 2.0 m dia. (13' 1" x 6' 7") 210 tonnes SWL

Stern Gate: Fitted in transom bulwark in way of stern roller

Rig chain locker: Four (4) rig chain lockers, (2 x 84 m<sup>3</sup>, 2 x 91 m<sup>3</sup>) capable of stowing abt. 1200 metre of 3" rig chain.

Shark Jaw/Tow Pin: Ulstein AHT 013 SWL 125 tonnes

### EXTERNAL FIRE-FIGHTING:

Fitted with 480 m<sup>3</sup>/hr x 120 m head fire pump with two monitors (400 l/min x 2 sets) on wheelhouse top. Integral foam and pollution dispersant tanks each 9.7 m<sup>3</sup> (2650 USG). dispersant can be fed through monitors using percentage mixer or through 2 x 6 m booms with direct suction pump. 500 micron droplets.

### CAPACITIES:

Deck cargo:	700 tonnes	Fuel:	502 m <sup>3</sup>
Clear deck space:	30 m x 12 m = 360m <sup>2</sup>	Potable water:	373 m <sup>3</sup>
Deck loading:	5.0 t/m <sup>2</sup>		
Liquid mud:	332 m <sup>3</sup> (chain lockers x 4, 2000 bbls)		
Cargo deadweight:	1836 tonnes		
Drill/ballast water:	518 m <sup>3</sup>		
Optional fuel/drill/pot:	728 m <sup>3</sup>		
Cement/Bulk materials:	Smatco pneu-tanks 198 m <sup>3</sup> in 4 x 49.5 m <sup>3</sup> (7000 cu. ft. in 4 x 1750 cu. ft. tanks). Independently piped so that four different grades of bulk materials may be carried loaded or discharged simultaneously		
Refrigerated storage:	15.0 m <sup>3</sup> cooler/180.0 m <sup>3</sup> freezer		

### DISCHARGE PUMPS:

Fuel oil:	120 m <sup>3</sup> /hr at 60 m	Water:	120 m <sup>3</sup> /hr at 60 m
Standby pump:	80 m <sup>3</sup> /hr at 60 m		
Bulk materials:	Abt 40 tonnes/hr x 100 m distance x 30 m head (or 70 tonnes/hr total using combined compressors)		
Bulk compressors:	1 x 14 m <sup>3</sup> /min at 5.67 kg/cm <sup>2</sup> (500 cfm x 80 psi) 1 standby 10 m <sup>3</sup> /min at 5.67 kg/cm <sup>2</sup> (350 cfm x 80psi)		
Liquid mud:	720 BBL/hr, continuous circulation by Mission Magnum pump		

### DECK EQUIPMENT:

Windlass: 2 x 17 tonne x 15 m/min electro-hydraulic.  
Max rating 25 tonnes.

Anchor: 2 x 1740 kg high holding power

Cables: 2 x 605 m x 36 mm (22 shackles x 1.4") chain

Deep water mooring: 2 x 1200 m x 38 mm wire  
17/8 tonne x 15/30 m/min

Tugger Winch: 2 x 10 tonne x 15 m/min electro-hydraulic winches for handling deck cargo

Capstans: 2 x 10 tonne x 15 m/min electric capstans at stern

### ACCOMMODATION:

Officers:	6 x 1 berth
Charterers:	2 x 4 berth
Crew:	5 x 2 berth
Total:	24 berths

All accommodation fully air-conditioned with duplicated machinery, for redundancy.

### ELECTRONICS:

Radar: 2 x Furuno (72/48 mile)

Echo sounder: Simrad ED 162 with digital readout

Auto Pilot: Tokyo Keiki with Sperry ES11 gyro compass

SSB Radio: Sailor R1119/T1127/S1301, 800W, 240 channels, fully synthesised, telex compatible. Furuno FS-1500, 150w, fully synthesised, telex compatible. Simrad RW105 2182 watch receiver.

VHF Radio: Sailor RT 144B x 2 units

UHF Radio: Air band: Jotron TR-6102

Anemometer: Wind direction and speed indicator. Transceiver 4DW

Weather fax: Furuno Type-D fax

Joystick: Kamome MACS 100, connecting M.E. + Thruster + Rudders

Satnav: Navstar 2000

Navtex: Lo-Kata Navtex Receiver

P.A. system. T.V. & Video.

### CALL SIGN:

HO 6577

### Life Saving:

McCorkill R5 ridged hull rescue boat w/twin 60 HP Yamaha outboard motors; 7 persons (solas) speed light 35 knots laden 28 knots. Bennex rescue basket type BRB2500. Extra lifejackets (50) & lifebuoys (25) for standby duties.

### MISCELLANEOUS:

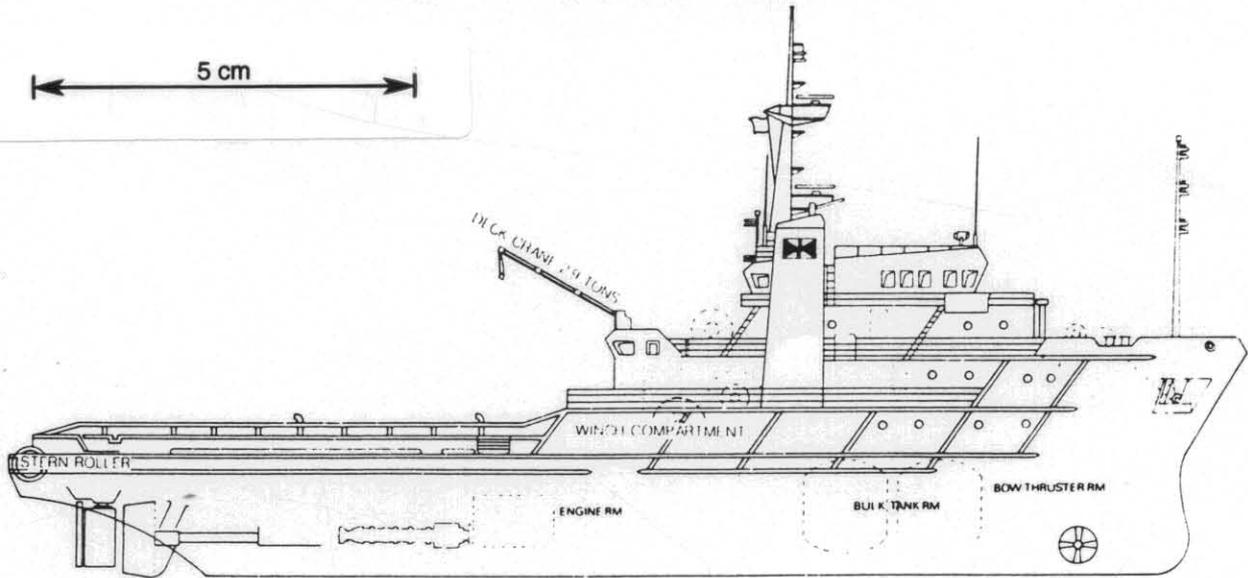
Wood sheathed main deck. Cargo control centre in wheelhouse, with Nitto Seiko liquid cargo flowmeters incorporating printout meters. Meters for ship's fuel consumption. Trailing flap rudders fitted for increased manoeuvrability. Sewage treatment unit for 40 persons. Zodiac inflatable workboat. The standby bulk compressor is modified for a primary role as deck air compressor delivering at 7.5 kg/cm<sup>2</sup> (105 psi). Gas detection system for H<sub>2</sub>S and combustible gas. Remote closing system for forced draft intakes.

**9000 BHP ANCHOR HANDLING TUG SUPPLY VESSEL  
1800 TONNES CARGO DEADWEIGHT**

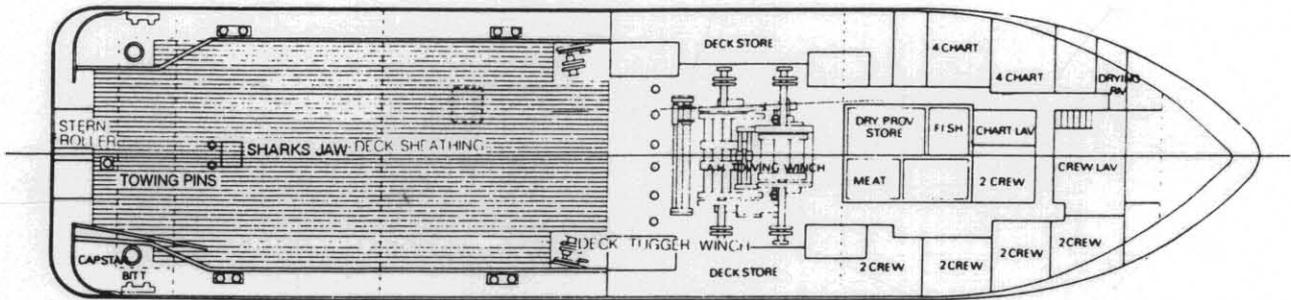
m.v. Pacific Shogun

543051

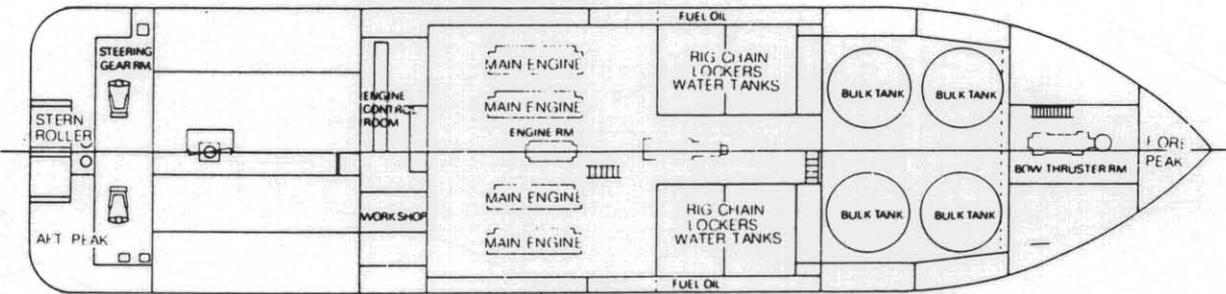
5 cm



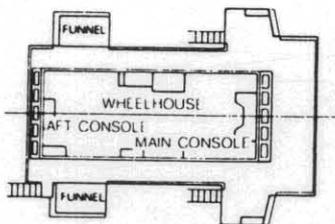
PROFILE



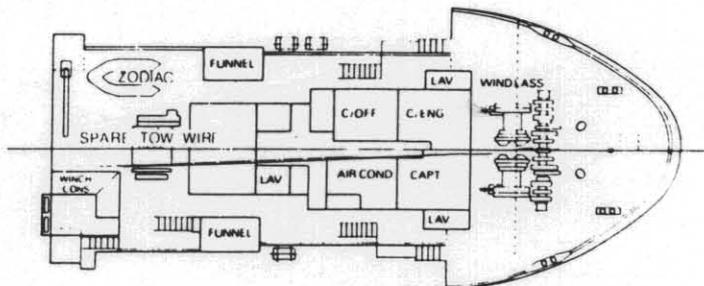
MAIN DECK PLAN



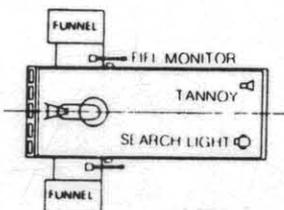
BOTTOM PLAN



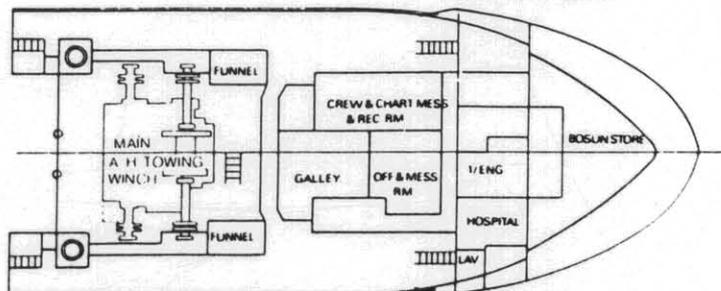
NAV. BRIDGE DECK



FO'C'SLE DECK



COMPASS DECK



QUARTER DECK



# SWIRE PACIFIC OFFSHORE

MARINE SERVICES TO  
THE OFFSHORE INDUSTRY



## M.V. "PACIFIC CHALLENGER 1"

9000 BHP Anchor Handling Tug Supply Vessel

### BUILT:

Ikenbergs Varv Ab, Sweden, 1983  
Type VT704 Mk3

### FLAG:

Panama

### CLASSIFICATION:

DNV + 1A1 + mv Tug Supply (SF) EO

### DIMENSIONS:

Length, overall: 64.40 m  
Length, b.p.: 56.40 m  
Breadth mid: 13.80 m  
Depth mid: 6.90 m  
Draft (max. loaded draft): 5.80 m  
Freeboard: abt. 1.10 m  
GRT (tonnage): 1330 tons  
NRT: 399 tons

### MACHINERY:

Main Engines: 2 x 4500 BHP B & W ALPHA 16028 L-VO,  
Total 9000 BHP  
Bow Thruster: 2 x 500 BHP developing a total of  
11 tonnes thrust.  
Generators: Auxiliary:  
2 x 225 Kva  
Shaft:  
2 x 800 Kva  
440v, 3 phase, 60 hz  
Propellers: 2 x B & W ALPHA CPP  
2 x Ulstein stern thrust.  
Effect of approx. 10 tonnes lateral thrust by  
applying individually operated rudders &  
propellers. Electronically synchronized steering  
gears can be operated independently in both  
manual & joy-stick manoeuvring mode.  
Steering engines: 2 x TENFJORD

### SPEED AND CONSUMPTION:

Max. speed: 15.6 kts  
At trial speed: 30.5 mt/day  
At 12 kts: 12.5 mt/day  
At 10 kts: 10.1 mt/day  
In port: 0.7 mt/day

### TOWING AND ANCHOR HANDLING:

Bollard Pull: 110 tonnes  
Winch: Norwinch low pressure hydraulic, SWL 250  
tonnes two drums; anchor handling/towing  
winches, powered by four hydraulic motors,  
with a brake load of 350 tons (1st layer), 222  
tons (mid layer), 157 tons (top layer). Slack  
rope speed on 1st layer 0-5m/min at 250 tons  
51.5 m/min, mid layer 0.7-6 m/min at 158 tons  
80.6 m/min, top layer 0-10.7 m/min at 112 tons  
13.3 m/min. Capacity 1 x 1200 m x 64 mm wire.  
Pennant Reel: 2 x 1000 m x 61 mm wire  
Space Towing Wire: 1 x 1000 m x 64 mm wire  
Shark Jaws: 1 x Ulstein, retractable  
Towing Pins: 1 x Ulstein, retractable  
Stern Rollers: 2.50 m x 3.60 m  
Chain Lockers: 2 x 60 m<sup>3</sup> lockers

### CAPACITIES:

Deck cargo: 700 tonnes  
Clear deck space: 11 m 38 m = 418 m<sup>2</sup>  
Deck loading: 5 tonnes/m<sup>2</sup>  
Cargo deadweight: 1860 tonnes (summer)  
Displacement: 3214 tonnes (summer)  
Fuel oil: 817m<sup>3</sup>  
Drilling water: 777.5m<sup>3</sup>  
Potable water: 250m<sup>3</sup>  
Oil based mud: 320m<sup>3</sup> (2012 bbls at 2.0)  
Brine: 235 m<sup>3</sup> (1478 bbls at 1.5)  
Dry bulk tanks: Smatco pneu tanks 170m<sup>3</sup> in 4 x 42.5 m<sup>3</sup>  
(6000 cu. ft.)

### DISCHARGE PUMPS:

(Manufacturers: Alweiler)  
Potable water: 1 x 100 m<sup>3</sup>/hr at 70m. head  
Drill water: 1 x 100 m<sup>3</sup>/hr at 70 m. head  
Fuel oil: 1 x 110 m<sup>3</sup>/hr at 70 m. head  
Oil based mud: 2 x 50 m<sup>3</sup>/hr at 21 bar  
5 Agitator pumps  
Brine: 1 x 50 m<sup>3</sup>/hr at 11 bar  
Bulk: Two compressors, type Ingersoll Rand, SSR 2000  
Model 15L, seawater cooled.  
Cap. each comp. 15 cbm - 5.6 bar.  
Oil spill combatant equipment for chemical dispersion is fitted.

### DECK EQUIPMENT:

Deck crane: 1 x Hydralift 3.5 t at 7 m  
Windlass: Cables 34 mm. diameter 650 m Port, 850 m Stbd.  
Anchors 2 x 1400 kg.  
Tugger winches: 2 x 10 tonnes  
Capstans: 2 x 6 tonnes - 1 each side aft.

### ACCOMMODATION:

- 7 single cabins  
- 3 double cabins  
- 1 passenger cabin - 6 berths  
- 1 large hospital

### ELECTRONICS:

Radars: 1 pc. LP FR - 85, 5 cm gyro stabilised  
1 pc. LP LP-1011, 3 cm unstabilised  
1 pc. Colour Radar Monitor  
1 pc. Colour Videoplotter GD 2000 c/w control unit  
1 pc. Anschutz  
1 pc. Anschutz  
1 pc. Furuno Furuno FE-881  
Poscon  
1 pc. Shipmate RS 5500 GPS satellite navigator  
1 pc. Shipmate RS 4000 Decca navigator  
1 pc. Furuno FD-521 VHF ADF direction finder  
1 pc. Furuno FAX-208/AN weather facsimile receiver  
1 pc. LO-KATA Navtex 2 navtex receiver  
1 pc. Sailor 400/800 W main station  
1 pc. Sailor C-401 VHF duplex with remote control  
1 pc. Sailor RT-143 semi-duplex with remote control  
1 pc. Sailor R-501 watch receiver  
1 pc. Capsat Inmarsat-C transceiver

CALL SIGN  
HP7670

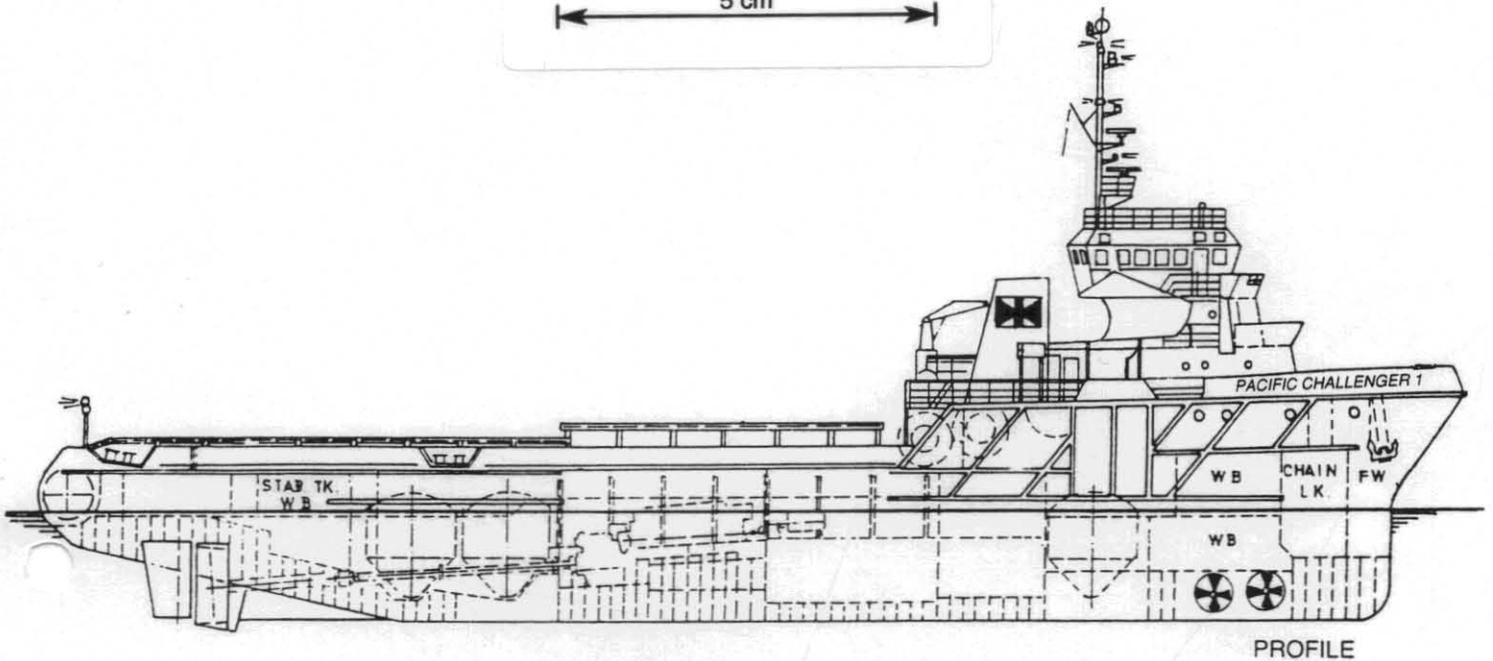
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# 9000 BHP ANCHOR HANDLING TUG SUPPLY VESSEL

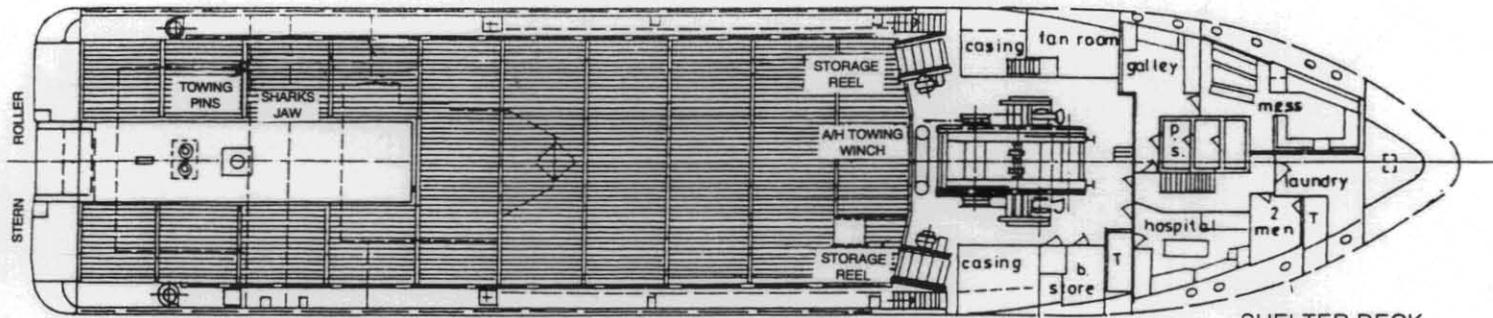
m.v. Pacific Challenger 1

543053

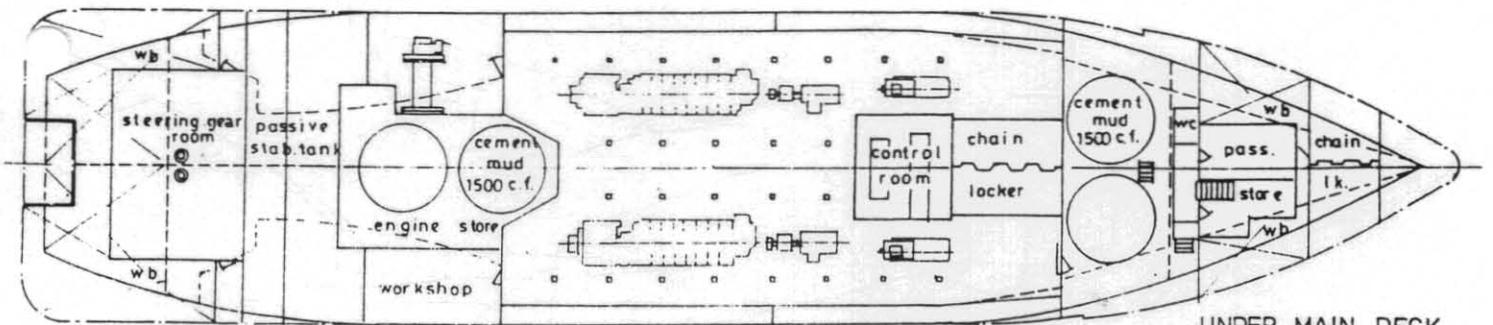
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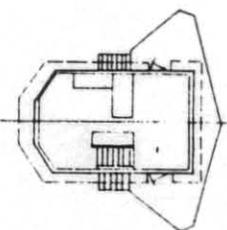
PROFILE



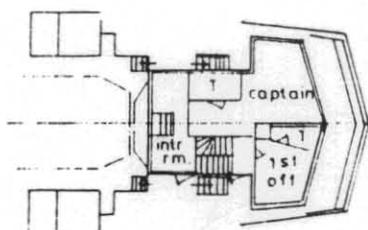
SHELTER DECK



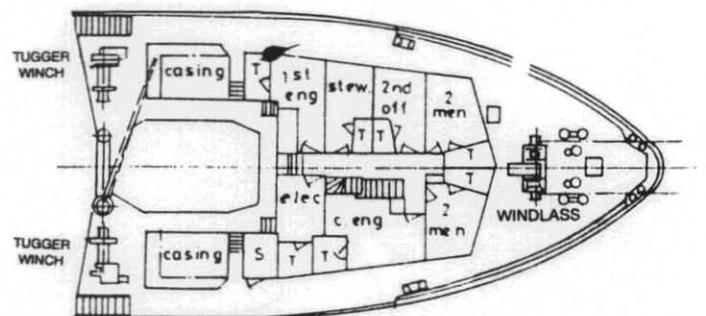
UNDER MAIN DECK



WHEEL HOUSE



BOAT DECK



FORECASTLE DECK

AIRCRAFT SPECIFICATIONS**AIRCRAFT DESCRIPTION**

Registration : VH-HUC  
 Model : SIKORSKY S-76 A+  
 Aircraft Serial Number : 760011  
 Engine Type / Serial Number : ENGINE 1 - S/N TBA  
 ENGINE 2 - S/N TBA  
 Year of Manufacture : 1979

**RADIO / NAVIGATION EQUIPMENT**

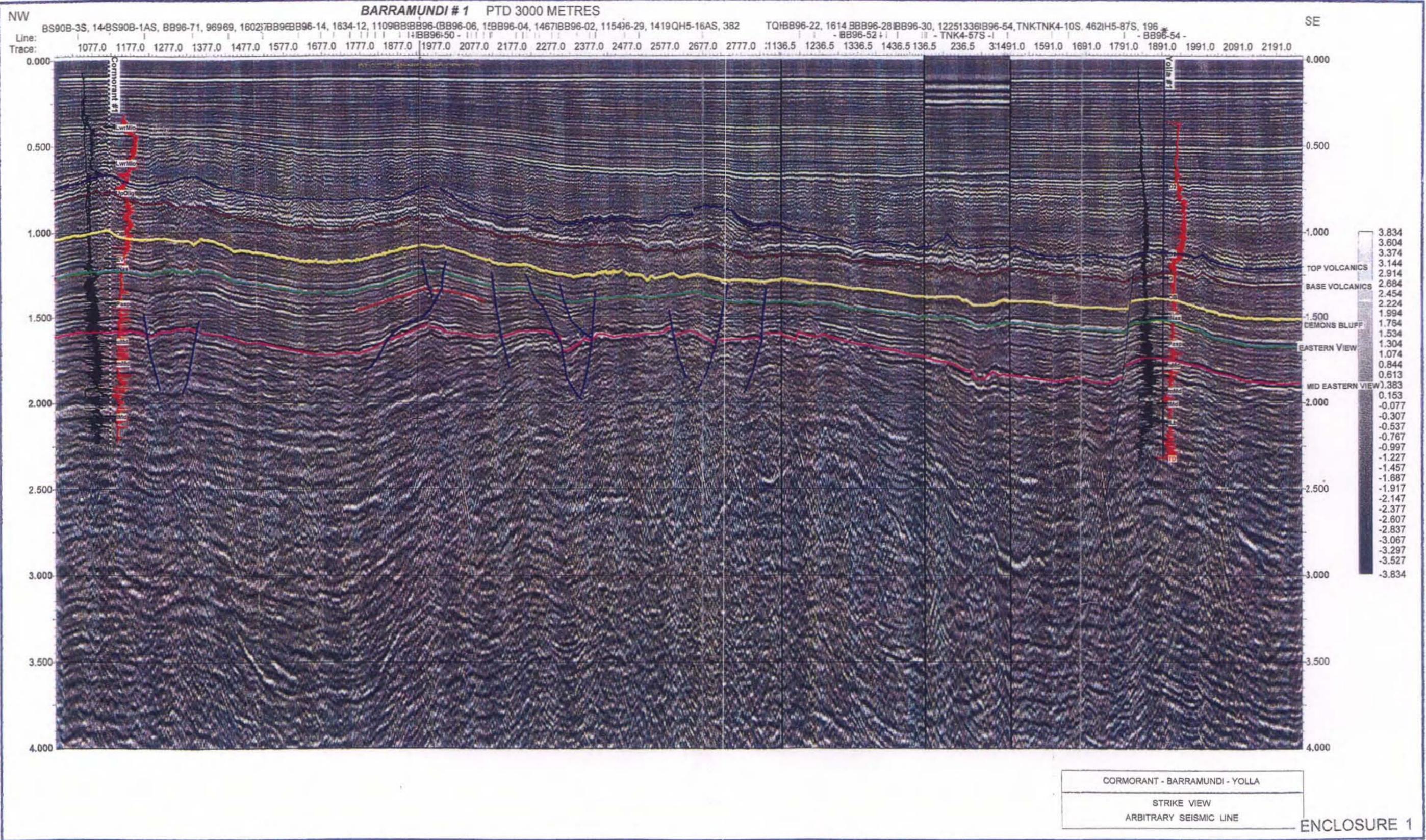
No. 1 VHF Comms Installation : COLLINS VHF-20  
 No. 2 VHF Comms Installation : COLLINS VHF-20  
 No. 1 VHF NAV Installation : COLLINS VIR-30  
 No. 2 VHF NAV Installation : COLLINS VIR-30  
 No. 1 ADF Installation : COLLINS ADF-60  
 No. 2 ADF Installation : COLLINS ADF-60  
 D.M.E. International Installation : COLLINS DME-40  
 HF Radio Installation : KHF950  
 Transponder Mode C Installation : COLLINS TDR-90  
 Audio Control Installation : 3 X ANDREA A301  
 Emergency Locator Beacon : POINTER 3000-10 (TSO C91a)  
 Radio Altimeter Installation : COLLINS ALT-50  
 Weather Radar Installation : SPERRY PRIMUS 500  
 VHF Homer Installation : BEKKER ZVG-2002  
 Underwater Locator Beacon : DUKANE DK-100  
 GPS : TRIMBLE 2101 (TSO C129)

**OTHER EQUIPMENT**

Helipilot : HAMILTON STANDARD P3  
 Rescue Hoist : PROVISIONS  
 Cargo Hook : FITTED  
 Dual Controls : FITTED  
 Seating : 12 PASSENGER UTILITY (DEPENDANT UPON CABIN CONFIGURATION)  
 Pop-Out Emergency Flotation : FITTED  
 2 x 9 Man Life Rafts : FITTED (NOT AUTOMATICALLY DEPLOYABLE)  
 Landing Light : FITTED  
 R/H Sliding Door : FITTED  
 Aux Fuel Tank : PROVISIONS  
 Cabin Luggage Compartment : PROVISIONS  
 Public Address System : P.A. (Orion CO-2300)

CHECKED BY Chris SchrapelDATE 21 May, 1998

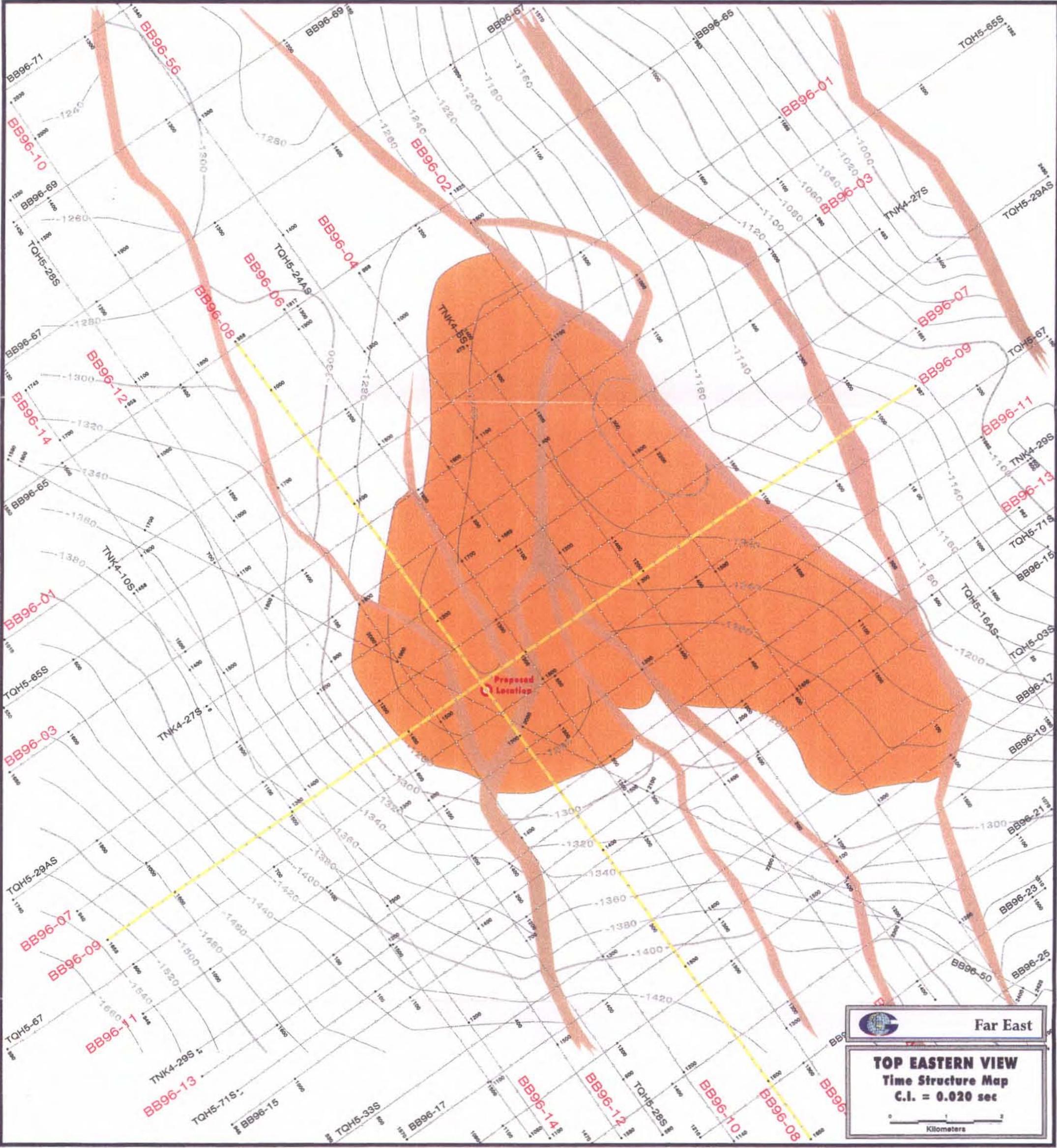
**ENCLOSURES**



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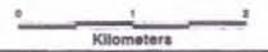
OR-453B

5 cm

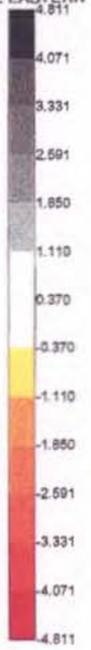
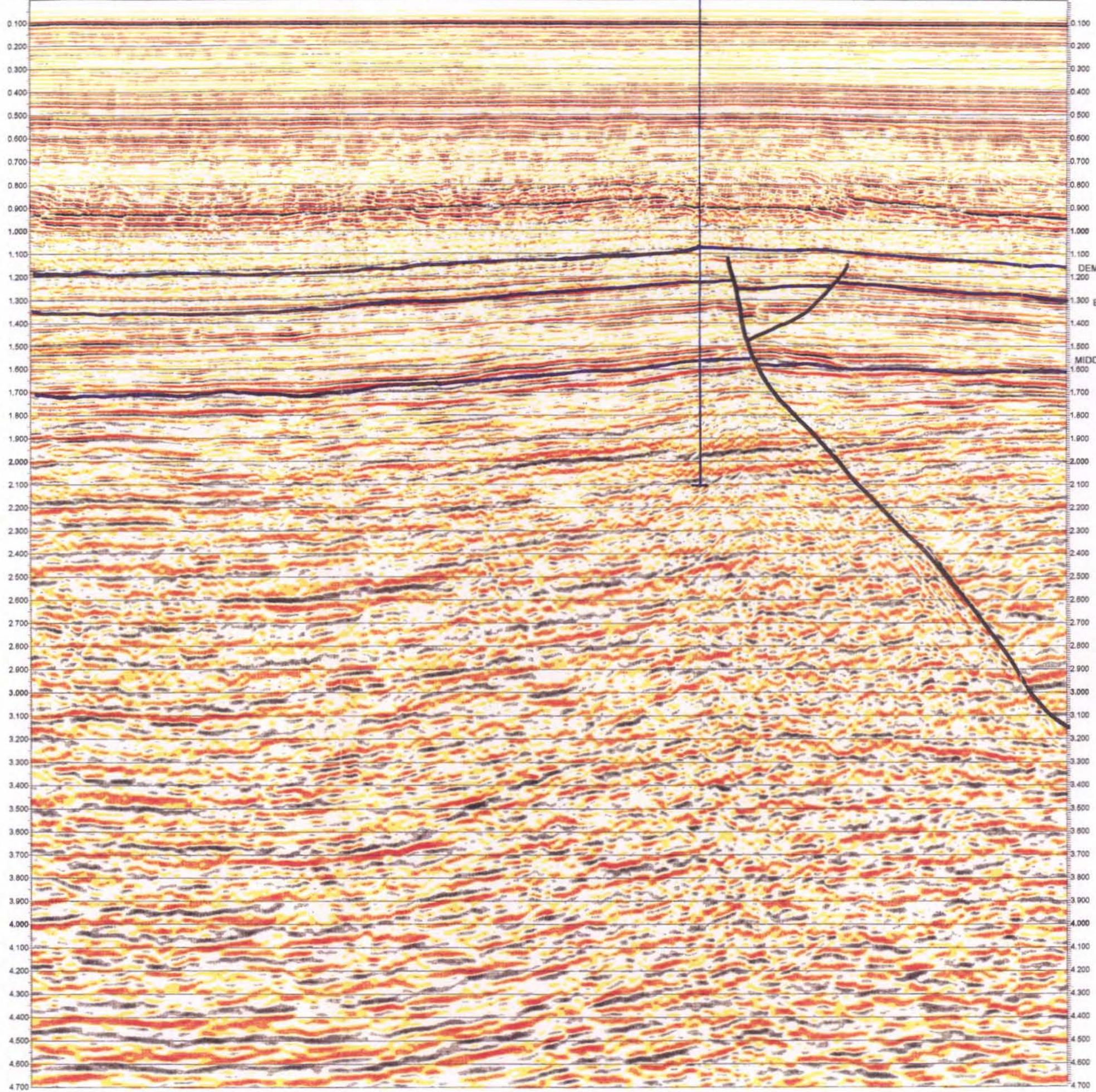


 Far East

**TOP EASTERN VIEW**  
Time Structure Map  
C.I. = 0.020 sec

  
Kilometers





545060

5 cm

Line BB96-50, Amplitudes  
 11/02/88 10:38:26

OR-453B  
 ENCLOSURE 4

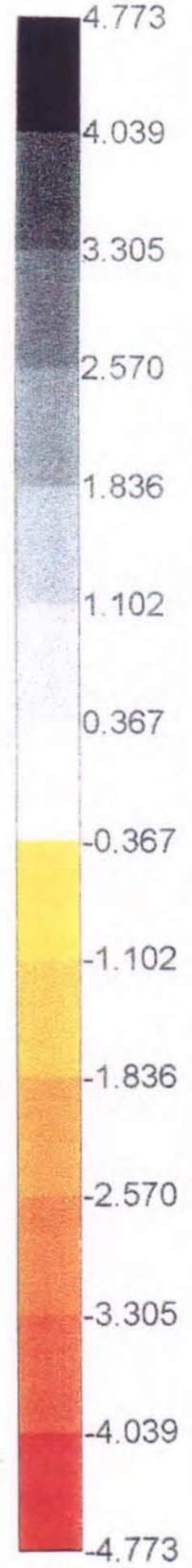
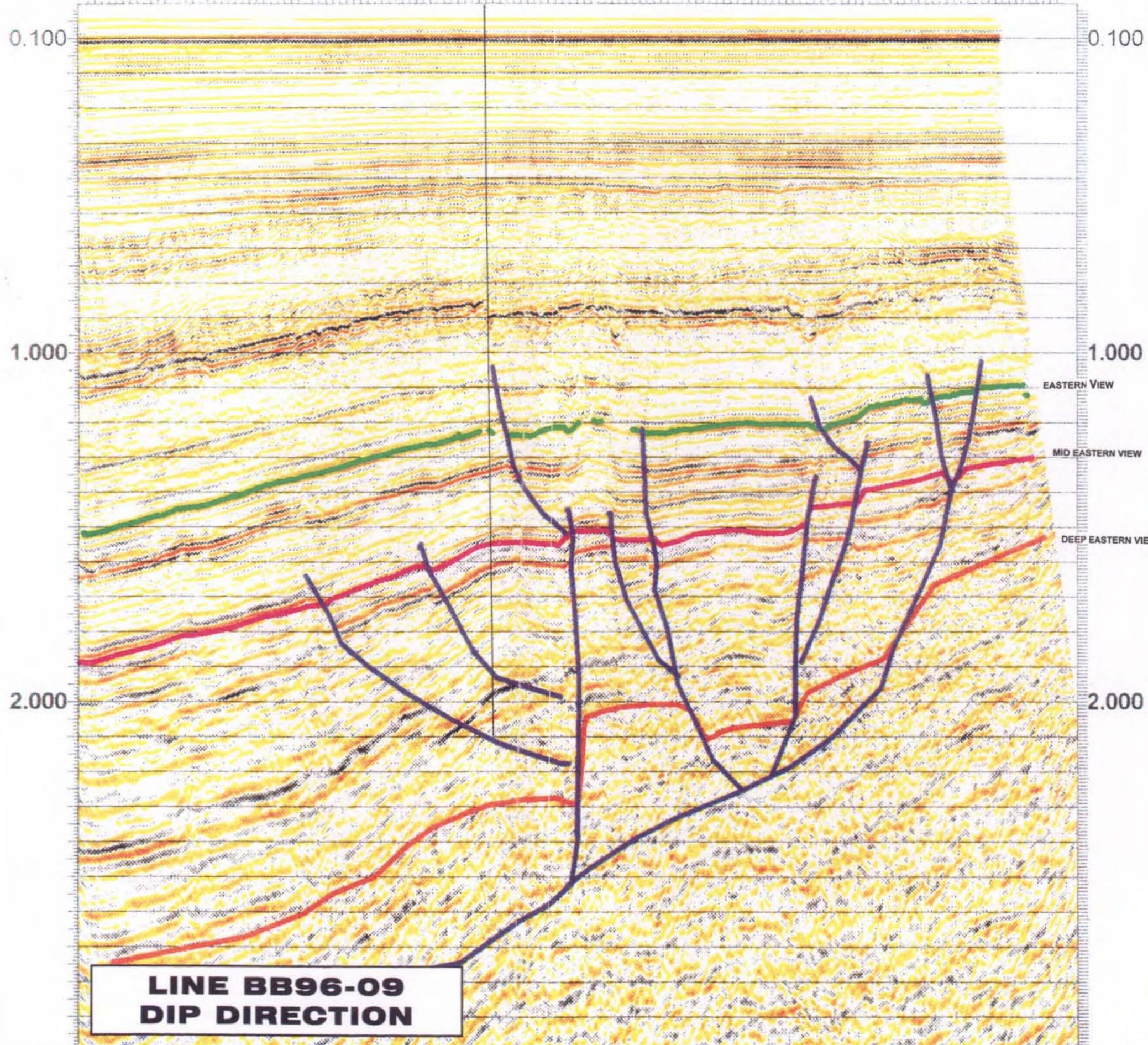
SW

BARRAMUNDI # 1  
PTD 3000 METRES

NE

OR - 453β

SP: 1650.01600.01550.01500.01450.01400.01350.01300.01250.01200.01150.01100.01050.01000.0 950.0



**LINE BB96-09  
DIP DIRECTION**

5 cm

545061

ENCLOSURE 5

NW

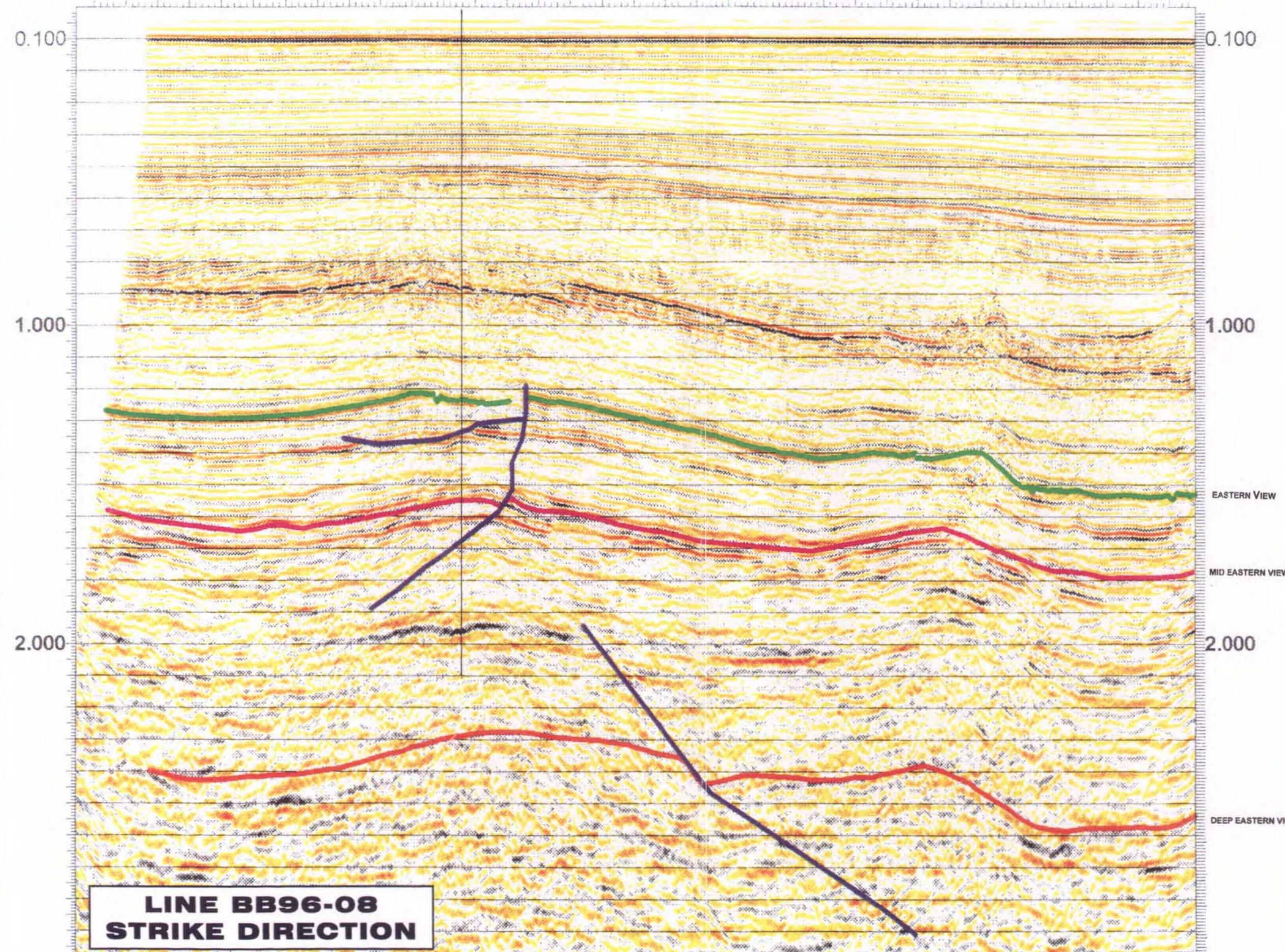
BARRAMUNDI # 1  
PTD 3000 METRES

5 cm

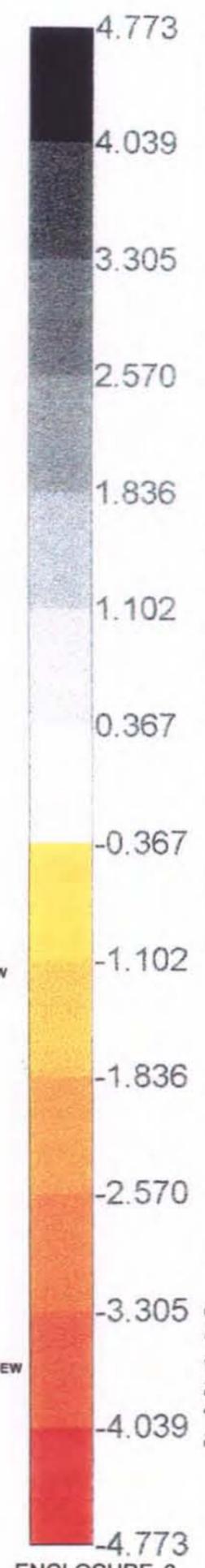
SE

OR-453B

SP: 950.0 1000.0 1050.0 1100.0 1150.0 1200.0 1250.0 1300.0 1350.0 1400.0 1450.0 1500.0 1550.0 1600.0 1650.0 1700.0 1750.0 1800.0



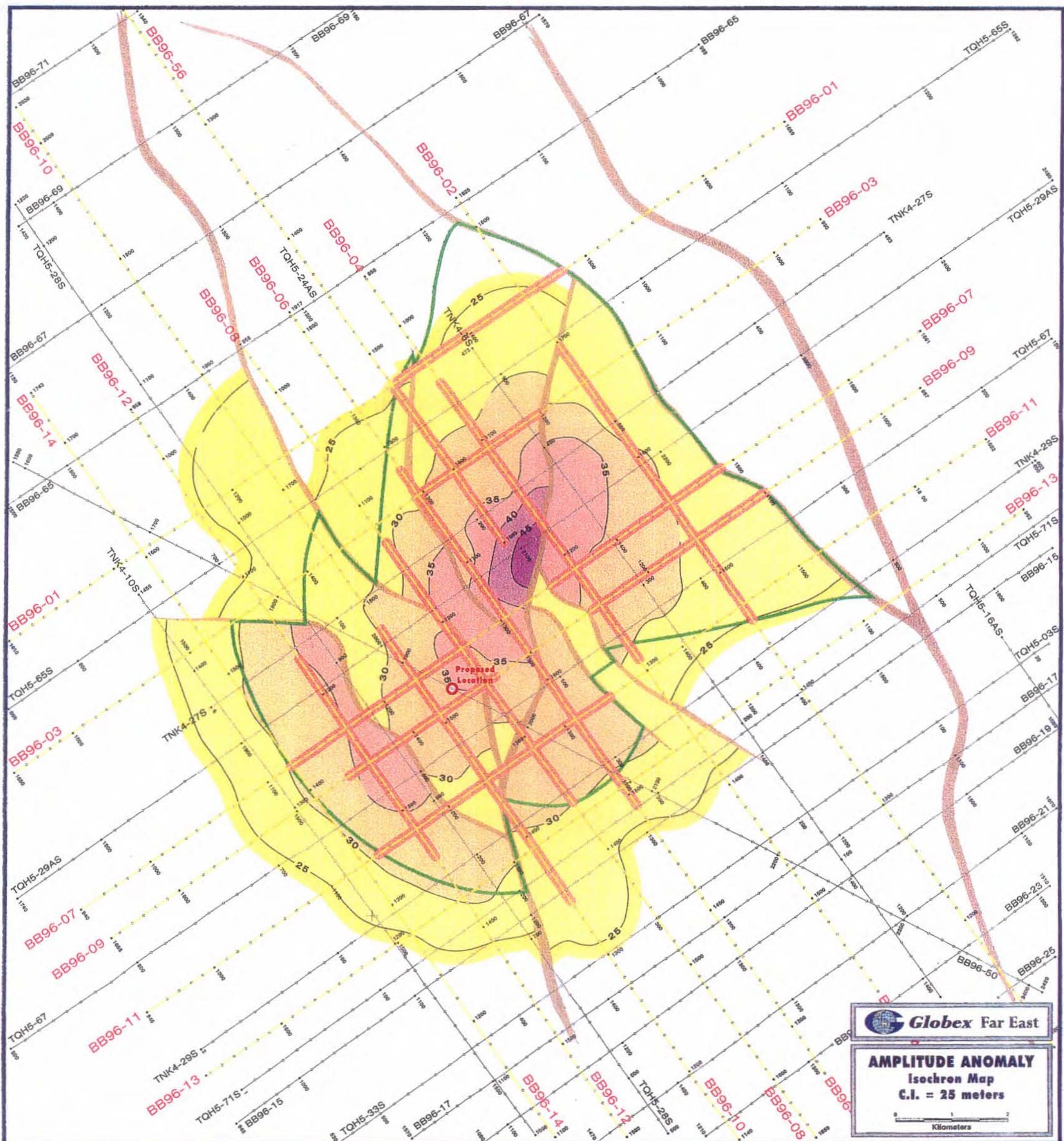
**LINE BB96-08  
STRIKE DIRECTION**



545002

ENCLOSURE 6

5 cm



545063

ENCLOSURE 7

**Globex Far East  
Emergency Response Plan  
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**Globex Far East  
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**8. Petroleum Exploration, Production Companies  
& Associations**

**26/11/98**

# Emergency Response Plan CONTACT DIRECTORY

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## 1 Globex Far East Offices & Personnel

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>1.1 Geelong</b>					
<u>Globex Far East Geelong (IDD ++ 61 3)</u> TBA	TBA				
<b>1.2 Houston</b>					
<u>Globex Far East Houston (IDD ++ 1 713)</u> TBA	TBA				
<b>1.3 Kelly Down Consultants</b>					
<u>Kelly Down Consultants Sydney (IDD ++ 61 2)</u> Switchboard	TBA				
<b>1.4 Sedco Forex Australia Pty Ltd</b>					
<u>Sedco Forex Australia Pty Ltd Perth (IDD ++ 61 8)</u> Switchboard	(08) 9321 5477 (24hrs)		(08) 9322 3110		
<b>Manager - Australia Division</b> Munro, Don	(08) 9360 4831	(08) 9316 8891		0412 126 458	(08) 9322 3110
<b>Technical / Operations Manager</b> Burr, Gordon	(08) 9360 4832	(08) 9367 6908		0412 154 606	(08) 9322 3110
<b>Rig Manager (Sedco 703)</b> Civiello, Tom	(08) 9360 4829	(08) 9319 2534		0412 245 517	(08) 9322 3110
<b>Rig Manager (Sedco 702)</b> Myers, Richard	(08) 9360 4828	(08) 9364 4574	016 983 300	015 384 920	(08) 9322 3110 (08) 9364 4752 (a/h)
<b>Personnel Administrator</b> Nelson, Jaqui	(08) 9360 4827	(08) 9434 1185	(08) 9357 9582		(08) 9322 3110
<b>Materials Supervisor</b> Pereira, Joseph	(08) 9360 4837	(08) 9310 7522	016 983 829	0412 329 639	(08) 9322 3110

# Emergency Response Plan CONTACT DIRECTORY

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## 2 Government Authorities, Australia

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>2.1 Federal Authorities</b>					
<b><u>ACF Coastal Surveillance</u></b>					
Operations Room	1800 061 800 (02) 6275 6000 (24 hrs)				(02) 6275 6275
Switchboard	1800 061 800 (02) 6275 6000 (24 hrs)				(02) 6275 6275
<b><u>Airservices Australia - Flight Services</u></b>					
<b><u>Adelaide (IDD ++ 61 8)</u></b>					
Switchboard	(08) 8238 7838 (24 hrs)				(08) 8234 4174
<b><u>Canberra (IDD ++ 61 2)</u></b>					
Switchboard	1300 301 120				(02) 6268 5683
<b><u>Australian Maritime Safety Authority</u></b>					
<b><u>Australia Search &amp; Rescue (AusSAR) (IDD ++ 61 2)</u></b>					
<b>Operations Manager</b>					
Neale, Bob	(02) 6279 5710				(02) 6279 5757
RCC - Aviation	(02) 6230 6899 (24 hrs)		1800 815 257 (24 hrs)		(02) 6230 6868 1800 622 153
RCC - Maritime	(02) 6230 6811 (24 hrs)		1800 641 792 (24 hrs)		(02) 6230 6868 1800 622 153
<b><u>Devonport (IDD ++ 61 3)</u></b>					
Switchboard	(03) 6424 1597				(03) 6424 8009
<b><u>Marine Environment Protection Unit - Canberra (IDD ++ 61 2)</u></b>					
<b>General Manager</b>					
Baird, David	(02) 6279 5935		(02) 6269 0843	0418 622 824	(02) 6279 5076
<b>Operations Coordinator</b>					
Beck, Greg	(02) 6279 5868		(02) 6269 0799	0418 623 353	(02) 6279 5076
<b>Manager Operations</b>					
Lipscombe, Ray	(02) 6279 5929		(02) 6269 0800	0418 633 107	(02) 6279 5076
<b>Admin Clerk/PA</b>					
Stiller, Cheryl	(02) 6279 5069				(02) 6279 5076
Switchboard	(02) 6279 5000		1800 641 792 (24 hrs)		(02) 6279 5757
<b>Senior Project &amp; Environmental Officer</b>					
Wilde, Shayne	(02) 6279 5873			0419 484 446	(02) 6279 5076
<b><u>Melbourne (IDD ++ 61 3)</u></b>					
MacKay, Bob	(03) 9685 5757				

**Emergency Response Plan  
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**2 Government Authorities, Australia**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>2.1 Federal Authorities</b>					
<b><u>Bureau of Air Safety Investigation (BASI)</u> Melbourne (IDD ++ 61 3)</b> Air Safety Investigator Sonneveld, John	(03) 9285 6676		1800 011 034 (24 hrs)		(03) 9285 6674
<b><u>CSIRO - Division of Wildlife &amp; Ecology</u> Canberra (IDD ++ 61 2)</b> Switchboard	(02) 6242 1600				(02) 6241 3343
<b><u>Department of Agriculture, Fisheries &amp; Forestry</u> Canberra (IDD ++ 61 2)</b> Switchboard	(02) 6272 3933				
Director Exploration Petroleum & Fisheries Div. Furnell, Geoff	(02) 6272 4695				(02) 6272 4137
Department Secretary Matthews, Ken	(02) 6272 4182				(02) 6272 4906
Special Advisor Murray, Mr. Gardner	(02) 6272 5848				(02) 6272 5697
Assistant Secretary, Exploration & Development Payne, Steve	(02) 6272 4595			0418 115 806 (24hrs)	(02) 6272 5542
Minister for Agriculture, Fisheries & Forestry Vaile, Senator Hon Mark	(02) 6277 7520				(02) 6273 4120
<b><u>Department of Employment, Workplace Relations &amp; Small Business</u> Canberra (IDD ++ 61 2)</b> Switchboard	(02) 6243 7333				(02) 6243 7508
Minister of Employment & Workplace Relations Reith MP, Mr. Peter	(02) 6277 7320				(02) 6273 4115
Department Secretary Shergold, Dr Peter	(02) 6243 7500				(02) 6243 7508

**Emergency Response Plan  
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**2 Government Authorities, Australia**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>2.1 Federal Authorities</b>					
<b>Department of Environment &amp; Heritage Canberra (IDD ++ 61 2)</b>					
Switchboard	(07) 6274 1111				(07) 6274 1123
<b>Department Secretary</b> Beale, Mr. Roger	(02) 6274 1550				(02) 6274 1552
<b>Minister for the Environment &amp; Heritage</b> Hill, Hon. Senator Mr. Robert	(02) 6277 7640				(02) 6273 6101
<b>Telstra Mobile Satellite &amp; Radio Services (MS&amp;RS) (Darwin Radio) (IDD ++ 61 8)</b>					
<b>Officer in Charge</b> Morgan, Brian	(08) 8981 5774 (24 hrs)				
Switchboard	(08) 8981 2103 (24 hrs)				(08) 8981 5018
<b>2.2 Tasmanian State Authorities</b>					
<b>Department of Environmental &amp; Land Management North West (IDD ++ 61 3)</b>					
Switchboard	(03) 6458 1100 (03) 6458 1415			018 142 617	(03) 6458 1420
<b>Prospect (IDD ++ 61 3) Northern Regional Manager <i>Coordinator</i> Parks &amp; Wildlife</b>					
Sallans, Steve	(03) 6336 5328			0418 129 468	(03) 6344 8109
<b>Environmental Pollution Incidents &amp; Complaints Tasmania (IDD ++ 61)</b>					
Switchboard	1800 005 171 (24hrs)				
<b>Fire Department Burnie (IDD ++ 61 3)</b>					
Switchboard	(03) 6434 6700		000 (24 hrs)		(03) 6431 5264
<b>Marine Board Tasmania (IDD ++ 61 3)</b>					
Switchboard	(03) 6461 1155				

# Emergency Response Plan CONTACT DIRECTORY

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## 2 Government Authorities, Australia

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>2.2 Tasmanian State Authorities</b>					
<u>Mineral Resources Tasmania</u> <u>Tasmania (IDD ++ 61 3)</u> <i>managing Geologist</i> Bacon, Carol <i>Director of Mines</i> Switchboard					
Dr AV Brown ph 0362 338343 (03) 6233 8326 (03) 6233 8333					(03) 6233 8338 (03) 6233 8338
<u>Parks &amp; Wildlife</u> <u>Burnie, TAS (IDD ++ 61 3)</u> Switchboard					
	(03) 6233 8011				
<u>Police Headquarters</u> <u>Burnie (IDD ++ 61 3)</u> Switchboard <u>Hobart (IDD ++ 61 3)</u> Switchboard					
	(03) 6434 5211				
	(03) 6230 2111				
<u>Port Authorities</u> <u>Burnie (IDD ++ 61 3)</u> Switchboard <u>Devonport (IDD ++ 61 3)</u> Harbor Authority Nasat Marine Supervisor					
	(03) 6434 7300 (24hrs)				(03) 6434 7373
	(03) 6424 0911		(03) 6424 0911		
	(03) 6424 0911				
<u>State Security Service</u> <u>Tasmania (IDD ++ 61 3)</u> Switchboard					
	(03) 6437 1274			0418 303 447	
<b>2.3 Tasmanian Local Authorities</b>					
<u>Council</u> <u>Burnie (IDD ++ 61 3)</u> Switchboard					
	(03) 6431 1033	(03) 6430 5799			(03) 6431 3896
<u>Hobart Communications Centre</u> <u>Hobart (IDD ++ 61 3)</u> Switchboard					
	(03) 6230 2111 (24hrs)				(03) 6230 2412
<u>Police Headquarters</u> <u>Burnie (IDD ++ 61 3)</u> Switchboard					
	(03) 6434 5211				
<b>2.4 Victorian State Authorities</b>					
<u>Bureau of Meteorology</u> <u>Melbourne (IDD ++ 61 3)</u> Switchboard					
	1900 1553 363				

**Emergency Response Plan  
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**2 Government Authorities, Australia**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>2.4 Victorian State Authorities</b>					
<b><u>Conservation and Natural Resources</u></b>					
<b><u>Melbourne (IDD ++ 61 3)</u></b>					
Switchboard	(03) 9637 8080				
<b><u>Portland (IDD ++ 61 3)</u></b>					
Switchboard	(03) 5523 3232	(03) 5523 4866	(03) 5523 1395		
<b><u>Country Fire Authority (CFA)</u></b>					
<b><u>Mlebourne (IDD ++ 61 3)</u></b>					
Switchboard	(03) 9262 8444			000 (24hrs)	
<b><u>Department of Natural Resources &amp; Environment, Agriculture, Energy &amp; Minerals</u></b>					
<b><u>Melbourne (IDD ++ 61 3)</u></b>					
<b><u>Petroleum Engineer (Emergency Response)</u></b>					
Arvidson, Graham	(03) 9412 5012	(03) 9782 4323			(03) 9412 5152
<b><u>General Manager (Petroleum)</u></b>					
Gardner, Ken	(03) 9412 7884			015 535 427	(03) 9412 5640
<b><u>Manager (Minerals and Petroleum)</u></b>					
King, Robert	(03) 9412 5069			015 360 773	(03) 9412 5152
<b><u>Petroleum Geophysicist</u></b>					
Megallaa, Maher	(03) 9412 5648				
<b><u>Petroleum Geologist</u></b>					
Mehin, Kourosh	(03) 9412 5659				
<b><u>Principal Drilling Engineer</u></b>					
Nadji, Ahmed	(03) 9412 5089	(03) 9848 2935		0412 110 997	(03) 9412 5152 (03) 9848 8905 (a/h)
Switchboard	(03) 9637 8000				
<b><u>Manager Resources Assessment</u></b>					
TBA	(03) 9412 5640				
<b><u>Department of Natural Resources &amp; Environment, Minerals &amp; Petroleum</u></b>					
<b><u>Melbourne (IDD ++ 61 3)</u></b>					
Minerals Business Centre	(03) 9412 5103				(03) 9412 5157
Reference Centre	(03) 9412 5146				

# Emergency Response Plan CONTACT DIRECTORY

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## 2 Government Authorities, Australia

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>2.4 Victorian State Authorities</b>					
<b><u>Environmental Protection Authority</u></b> <b><u>Geelong (IDD ++ 61 3)</u></b> Switchboard	(03) 5226 4825				
<b><u>Melbourne (IDD 61 3)</u></b> Duty Officer	(03) 9628 5777				
Emergency Response Coordinator	(03) 9628 5777		016 030 # 344 388		
<b>Director of Commercial and Industry Services</b> Monahan, Dennis	(03) 9628 5747	(03) 9438 1744			
<b><u>Fire Department</u></b> <b><u>Melbourne (IDD ++ 61 3)</u></b> Switchboard	(03) 9662 2311			000 (24hrs)	
<b><u>Geelong Port</u></b> <b><u>Geelong (IDD ++ 61 3)</u></b> Marine Controllers			(03) 5226 6300 (24hrs) (03) 5226 6341 (24hrs)		
Switchboard	(03) 5221 5855				
<b>Marine Supervisor</b> Trezise, Ian	(03) 5226 6220			0417 391 794	(03) 5221 6883
<b><u>Marine Board of Victoria</u></b> <b><u>Melbourne (IDD ++ 61 3)</u></b> <b>Director, Marine Pollution and Navigation Safety</b> Turnbull, Capt. John	(03) 9655 9783			017 815 838	(03) 9655 6611
<b><u>Police Headquarters</u></b> <b><u>Melbourne (IDD ++ 61 3)</u></b> Switchboard	11 444			000 (24hrs)	
<b><u>Port Authorities</u></b> <b><u>Melbourne (IDD ++ 61 3)</u></b> <b>Port Protective Services</b> Cropley, Ben	(03) 9629 7994				(03) 9629 8656
National Parks and Reserves Branch	(03) 9412 4011	(03) 9412 4166			
<b>Fisheries Branch</b> Reilly, Steve	(03) 9412 4011	(03) 9412 4623			

# Emergency Response Plan CONTACT DIRECTORY

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## 2 Government Authorities, Australia

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>2.4 Victorian State Authorities</b>					
<b>State Emergency Service</b>					
<b>Geelong (IDD ++ 61 3)</b>					
Switchboard	(03) 5226 4771				
<b>Melbourne (IDD ++ 61 3)</b>					
State Headquarters	(03) 9684 6659				
Switchboard	(03) 9890 0069				
Switchboard	(03) 9890 0069				
<b>Victorian Channels Authority</b>					
<b>Melbourne (IDD ++ 61 3)</b>					
Emergency/ Oil Pollution	(03) 9614 2861 (24hrs)				
Head Office	(03) 9612 3512				
<b>Navigation Services Manager</b>					
Muir, Tim	(03) 9612 3540	(03) 9808 5105	016 030 # 372 881	018 358 301	(03) 9612 3550
Paulusz, Charles	(03) 9612 3542	(03) 9580 5082		018 345 496	(03) 9612 3350
<b>2.5 Victorian Local Authorities (Police &amp; Shire Councils)</b>					
<b>City of Greater Geelong</b>					
<b>(IDD ++ 61 3)</b>					
Switchboard	(03) 5227 0270				
<b>Police Headquarters</b>					
<b>Geelong (IDD ++ 61 3)</b>					
District Office	(03) 5225 3245		000 (24hrs)		
<b>Melbourne (IDD ++ 61 3)</b>					
Switchboard	(03) 9247 6666		000 (24hrs)		
<b>Surfcoast Council</b>					
<b>Torquay (IDD ++ 61 3)</b>					
Switchboard	(03) 5261 0600	0418 524 429 (24hrs)			

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**3 Oil Spill Agencies & Specialists**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>3.1 National Plan / State Combat Committee</b>					
<b><u>Australian Maritime Safety Authority</u></b>					
<b><u>Australia Search &amp; Rescue (AusSAR) (IDD ++ 61 2)</u></b>					
RCC - Aviation	(02) 6230 6899 (24 hrs)		1800 815 257 (24 hrs)		(02) 6230 6868 1800 622 153
RCC - Maritime	(02) 6230 6811 (24 hrs)		1800 641 792 (24 hrs)		(02) 6230 6868 1800 622 153
<b><u>Marine Environment Protection Unit - Canberra (IDD ++ 61 2)</u></b>					
<b>General Manager</b>					
Baird, David	(02) 6279 5935		(02) 6269 0843	0418 622 824	(02) 6279 5076
<b>Operations Coordinator</b>					
Beck, Greg	(02) 6279 5868		(02) 6269 0799	0418 623 353	(02) 6279 5076
<b>Manager Operations</b>					
Lipscombe, Ray	(02) 6279 5929		(02) 6269 0800	0418 633 107	(02) 6279 5076
<b>Admin Clerk/PA</b>					
Stillier, Cheryl	(02) 6279 5069				(02) 6279 5076
Switchboard	(02) 6279 5000		1800 641 792 (24 hrs)		(02) 6279 5757
<b>Senior Project &amp; Environmental Officer</b>					
Wilde, Shayne	(02) 6279 5873			0419 484 446	(02) 6279 5076
<b><u>Melbourne (IDD ++ 61 3)</u></b>					
MacKay, Bob	(03) 9685 5757				
<b><u>Geelong Port Geelong (IDD ++ 61 3)</u></b>					
Marine Controllers			(03) 5226 6300 (24hrs) (03) 5226 6341 (24hrs)		
Switchboard	(03) 5221 5855				
<b>Marine Supervisor</b>					
Treaise, Ian	(03) 5226 6220			0417 391 794	(03) 5221 6883
<b>3.2 AMOSPlan</b>					
<b><u>Apache Energy Ltd Perth (IDD ++ 61 8)</u></b>					
Lake, Bruce	(08) 9422 7206		(08) 9480 9999 #62296	0419 936 527	(08) 9422 7445
<b><u>BHP GEMCO Groote Eylandt (IDD ++ 61 8)</u></b>					
Murgatroyd, David	(08) 8987 4272				(08) 8987 4202

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**3 Oil Spill Agencies & Specialists**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>3.2 AMOSPlan</b>					
<b><u>BHP Petroleum</u></b>					
<b><u>Darwin (IDD ++ 61 8)</u></b>					
Shine, Mike	(08) 8922 1143	(08) 8985 5542	016 080 # 819 174	0418 894 637	(08) 8984 4139
<b><u>Perth (IDD ++ 61 8)</u></b>					
Beverley, Colin	(08) 9278 4766	(08) 9368 0219		0417 332 600	(08) 9278 4880
<b><u>BP</u></b>					
<b><u>Brisbane (IDD ++ 61 7)</u></b>					
Donaldson, Daryl	(07) 3243 7212				
<b><u>Broome (West Kimberley Fuels) (IDD ++ 61 8)</u></b>					
Fuel Emergency Distributor Manager			1800 093 313		
Power, David	(08) 9192 1357	(08) 9193 6115		0417 959 192	(08) 9192 1450
<b><u>Darwin (IDD ++ 61 8)</u></b>					
<b><u>Operations Manager</u></b>					
Neelands, Larry	(08) 8946 8901			0418 327 284	(08) 8946 8940
<b><u>Geraldton (IDD ++ 61 8)</u></b>					
Bishop, Alan	(08) 9921 1266			0419 332 690	(08) 9921 8449
<b><u>Kwinana (IDD ++ 61 8)</u></b>					
Skelton, Mark	(08) 9419 0402			0419 907 989	(08) 9439 2110
<b><u>Port Hedland (IDD ++ 61 8)</u></b>					
Edwards, Brett	(08) 9173 1422		016 944 081 #016 090	019 376 324	(08) 9173 2030
<b><u>BP (South East Petroleum)</u></b>					
<b><u>Esperance (IDD ++ 61 8)</u></b>					
Harris, Grant	(08) 9071 1065			0418 935 266	(08) 9071 4413
<b><u>Caltex</u></b>					
<b><u>Albany (IDD ++ 61 8)</u></b>					
Hamilton, Chris	(08) 9842 2905			014 905 752	(08) 9842 2704
<b><u>Brisbane (IDD ++ 61 7)</u></b>					
Snell, Alan	(07) 3362 7221			0411 336 635	(07) 3362 7310
<b><u>Esso Australia Ltd (EAL)</u></b>					
<b><u>Melbourne (IDD ++ 61 3)</u></b>					
Borghesi, Gerry	(03) 9270 3637		016 030 #581 894	0418 514 867	(03) 9270 3794
Fields, Charles	(03) 9270 3413			0419 390 060	(03) 9270 3495
Grundy, Stu	(03) 9270 2623		016 030 #581 895	0418 514 857	(03) 9270 3972
Nolan, Mark	(03) 9270 3613	(03) 9813 4778	016 030 # 335 236	0418 548 343	(03) 9270 3692
Sikkel, Mark	(03) 9270 3409			0419 309 063	(03) 9270 3495

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**3 Oil Spill Agencies & Specialists**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>3.2 AMOSPlan</b>					
<b><u>Mobil Exploration Australia (Wandoo Production Lines) Perth (IDD ++ 61 8)</u></b>					
Wilson, George	(08) 9480 0301		(08) 9480 4053	018 162 258	(08) 9480 0318
<b><u>Mobil Oil Australia Darwin (IDD ++ 61 8)</u></b>					
<b>Chief Engineer</b>					
Winton, David	(08) 8981 5199			0418 803 231	(08) 8981 3236
<b><u>Melbourne (IDD ++ 61 3)</u></b>					
Williams, Michael	(03) 9286 5520		(03) 9483 0083		(03) 9286 5577
<b><u>Wyndham (IDD ++ 61 8)</u></b>					
McClymans, Peter	(08) 9161 1070				(08) 9161 1338
<b><u>Nabalco Pty Ltd Darwin (IDD++ 61 8)</u></b>					
Grimmond, Doug	(08) 8987 5375				(08) 8987 5215
Switchboard	(08) 8987 5211				
<b><u>Novus West Australia Pty Ltd Perth (IDD ++ 61 8)</u></b>					
Herrera, Glen	(08) 9486 7700	(08) 9306 0979	(08) 9324 4813	0411 757 874	(08) 9486 9800
<b><u>Santos Ltd Darwin (IDD++ 61 8)</u></b>					
Wood, Alex	(08) 8947 2373				(08) 8947 2385
<b><u>Shell (Burrows Petroleum) Geraldton (IDD ++ 61 8)</u></b>					
Burrows, Mike	(08) 9964 2642			018 939 844	(08) 9964 2288
<b><u>Shell (BW Cole) Broome (IDD ++ 61 8)</u></b>					
Higgins, Paul	(08) 9192 1314			0417 321 411	(08) 9192 1586
<b><u>Shell (Great Western Petroleum) Albany (IDD ++ 61 8)</u></b>					
Sutherland, Jeremy	(08) 9842 2333			014 409 839	(08) 9842 2355

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**3 Oil Spill Agencies & Specialists**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>3.2 AMOSPlan</b>					
<b>Shell Company of Australia Ltd</b>					
<b>Brisbane (IDD ++ 61 7)</b>					
Thick, Phil	(07) 3364 5330			0418 103 343	(07) 3334 5471
<b>Dampier (IDD ++ 61 8)</b>					
Kozjak, Gary	(08) 9183 1688	(08) 9144 2829		015 190 780	(08) 9183 1739
<b>Darwin (IDD ++ 61 8)</b>					
Anderson, Peter	(08) 8946 1223		(08) 8980 7111 #70214	018 892 906	(08) 8981 3960
<b>Esperance (IDD ++ 61 8)</b>					
Carland, Jane	(08) 9071 2114			0417 512 585	(08) 9071 3788
<b>Geelong (IDD ++ 61 3)</b>					
Grose, Ian	(03) 5273 8466			0417 394 175	(03) 5273 8215
<b>Groote Eylandt (IDD ++ 61 8)</b>					
Anderson, Ron	(08) 8987 4239				(08) 8987 6732
<b>North Fremantle (IDD ++ 61 8)</b>					
McIntyre, Archie	(08) 9432 1411				(08) 9432 1497
<b>Wyndham (IDD ++ 61 8)</b>					
Middap, Lindsay	(08) 9161 1360				(08) 9161 1149
<b>WAPET</b>					
<b>Barrow Island (IDD ++ 61 8)</b>					
Charko, Ben	(08) 9184 3730	(08) 9184 3762		(08) 9324 4745	(08) 9184 3799
<b>Thevenard Island (IDD ++ 61 8)</b>					
Latto, Alan	(08) 9184 3822				(08) 9184 3899
<b>Woodside Offshore Petroleum Pty Ltd</b>					
<b>Karratha (IDD ++ 61 8)</b>					
<b>Marine Superintendent Karratha</b>					
Ramshaw, George	(08) 9158 7110		016 943 759	0419 042 016	(08) 9158 7012
Switchboard	(08) 9158 8100 (24 hrs)				(08) 9158 8000
<b>3.3 AMOSC</b>					
<b>AMOSC (Australia Marine Oil Spill Centre)</b>					
<b>Geelong (IDD ++ 61 3)</b>					
Switchboard	(03) 5272 1555				(03) 5272 1839
<b>Manager / Overall Industry Coordinator</b>					
Blackmore, Don	(03) 5272 1555		016 379 328	0418 398 363	(03) 5272 1839
Duty Officer	(03) 5272 1555		016 379 328 (24 hr)		(03) 5272 1839

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**3 Oil Spill Agencies & Specialists**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>3.4 Oilmap Spill Trajectory Model</b>					
<b><u>Australian Institute of Marine Science (AIMS)</u> Townsville (IDD ++ 61 7) Experimental Scientist King, Dr. Brian</b>	(07) 4753 4268			0419 763 060 (24hrs)	(07) 4772 5852
<b>Experimental Scientist McAllister, Felicity</b>	(07) 4753 4381			0417 624 570	(07) 4772 5852
<b><u>BHP Petroleum</u> Melbourne (IDD ++ 61 3) Environmental Officer Wilson, Darren</b>	(03) 9652 7323	(03) 9531 7743			(03) 9652 6723
<b><u>BHP Transport</u> Melbourne (IDD ++ 61 3) Principal Environmental Officer Wilson, Lynda</b>	(03) 9609 2989	(03) 9337 6635	132 222 # 373 000	0419 363 549	(03) 9609 2268
<b><u>GEMS</u> Melbourne (IDD ++ 61 3) Oil Spill Trajectory Modelling Consultant Hubbert, Dr. Graeme</b>	(03) 9712 0016			0418 366 336 (24 hrs)	(03) 9712 0017
<b><u>Perth (IDD ++ 61 8)</u> Oil Spill Trajectory Modelling Consultant Langtry, Scott</b>	(08) 9378 3136			0414 827 754	(08) 9378 3136
<b>3.5 Oil Spill Operations &amp; Management Specialists</b>					
<b><u>Altona Marine</u> Melbourne (IDD ++ 61 3) Manager Pelns, Alf</b>	(03) 9398 2026			0419 566 250 (24hrs)	(03) 9389 2026
<b><u>Capricorn Environmental Consultants</u> Yeppoon (IDD ++ 61 7) Switchboard</b>	(07) 4939 4711 (24hrs)				(07) 4939 4769
<b>Principle Consultant Hayes, Terry</b>	(07) 4939 4711			019 631 206	(07) 4939 4769
<b><u>Esso Australia Ltd (EAL)</u> Offshore (IDD ++ 61 3) Relief Supervisor Southbank Chable, Lou</b>	(03) 5142 2700 (03) 5142 2705	(03) 9840 1419		0411 489 272	

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## 3 Oil Spill Agencies & Specialists

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>3.5 Oil Spill Operations &amp; Management Specialists</b>					
<b><u>Oops Inc</u></b>					
<b><u>Louisiana USA (IDD ++ 1 504)</u></b>					
Switchboard	(504) 368 9845				(504) 368 0630
<b>Managing Director</b> O'Brien, Jim	(504) 368 9845 (24 hrs)				(504) 368 0630
<b><u>Qest Consulting Group</u></b>					
<b><u>Melbourne (IDD ++ 61 3)</u></b>					
Switchboard	(03) 9614 4133				(03) 9614 5133
<b>Director</b> Rigby, Gary	(03) 9614 4133	(03) 5278 3121		0417 313 610	(03) 9614 5133 (03) 5277 2303 (a/h)
<b>3.6 Oil Spill Environment &amp; Cleanup Specialists</b>					
<b><u>Dames &amp; Moore</u></b>					
<b><u>Melbourne (IDD ++ 61 3)</u></b>					
<b>Ecology Adviser</b> Gwyther, David	(03) 9510 5050	(03) 5250 1070		015 840 993	(03) 9510 5850
<b><u>Esso Australia Ltd (EAL)</u></b>					
<b><u>Melbourne (IDD ++ 61 3)</u></b>					
Switchboard	(03) 9270 3333				(03) 9270 3995 (mail room)
<b>Environmental Advisor</b> Terrens, Greg	(03) 9270 3509	(03) 9584 5550	016 030 # 312 023		(03) 9270 3590
<b><u>Jenifer Baker</u></b>					
<b><u>United Kingdom (IDD ++ 44 1)</u></b>					
Baker, Jenifer	delete				743 360 201
Switchboard	delete				743 360 201
<b><u>OCC</u></b>					
<b><u>Seattle, Washington.</u></b>					
<b><u>USA (IDD ++ 1 206)</u></b>					
<b>President</b> Owens, Ed	(206) 842 2951	(206) 842 6255			(206) 842 2861
Switchboard	(206) 842 2951				(206) 842 2861
<b><u>Wardrop Consulting</u></b>					
<b><u>Melbourne (IDD ++ 61 3)</u></b>					
Wardrop, John		(03) 5282 4074 (03) 5282 3075		0417 536 162	(03) 5282 5076

**Emergency Response Plan  
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**3 Oil Spill Agencies & Specialists**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>3.7 Other Agencies</b>					
<b><u>EARL (East Asia Response Ltd)</u></b> <b><u>Singapore (IDD ++65)</u></b> 2 Jalan Samulun Singapore 2262 Switchboard / Duty Officer	266 1566 (24hrs)				266 2312
<b><u>Oil Spill Response (OSR) Ltd</u></b> <b><u>Southampton UK</u></b> <b><u>(IDD ++ 44 1703)</u></b> Lower William Street Southampton SO14 5 QE England Switchboard	(1703) 331 551 (24hrs)				(1703) 331 972 (24hrs)
<b>3.8 Bird Rehabilitation</b>					
<b><u>Fauna Rehabilitation</u></b> <b><u>Foundation</u></b> <b><u>Perth (IDD ++ 61 8)</u></b> Switchboard	(08) 9249 3434 (24hrs)				
<b><u>Penguin Parade</u></b> <b><u>Phillip Island (IDD ++ 61 3)</u></b> Switchboard	(03) 5956 8300				(03) 5956 8394
<b><u>Torong Park Zoo</u></b> <b><u>Sydney (IDD ++ 61 2)</u></b> Switchboard	(02) 9969 2777		Security (02) 9925 3911 # 299 011		(02) 9969 7515
<b>Senior Curator</b> Waldraven, Erna	(02) 9978 4609	(02) 9807 3558		019 129 956	(02) 9978 4613
<b>Alternate</b> Hall, Libbi	(02) 9978 4751	(02) 9907 9496			(02) 9978 4516

**Emergency Response Plan  
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**4 Medical Services**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>4.1 Ambulances</b>					
<b>Ambulance Melbourne (IDD ++ 61 3)</b> Emergency			000 (24hrs)		
<b>4.2 Hospitals</b>					
<b>Hospital Alfred Hospital (IDD ++ 61 3)</b> Commercial Road, Prahan. Switchboard Admitting Officer	(03) 9276 2000 (03) 9276 2053 (03) 9276 2065		(03) 9276 3405		(03) 9276 6063
<b>Melbourne Coordinator Trauma Centre Epworth, Melbourne (IDD ++ 61 3)</b> Switchboard	(03) 9276 2001 (03) 9426 6666		(03) 9426 6302		
<b>Geelong (IDD ++ 61 3)</b> Ryrie Street, Geelong Switchboard	(03) 5226 7111		(03) 5226 7564		
<b>Launceston General (IDD ++ 61 3)</b> Switchboard	(03) 6332 7111				
<b>North West Regional, Burnie (IDD ++ 61 3)</b> Switchboard	(03) 6430 6666				
<b>St John of God Hospital. Geelong (IDD ++ 61 3)</b> Switchboard	(03) 5226 8888				
<b>4.3 Doctors</b>					
<b>Doctors Geelong (IDD ++ 61 3)</b> TBA	TBA				
<b>Melbourne (IDD ++ 61 3)</b> 73 Erin St, Richmond, VIC. 3121 Freeman, Dr. Bella	(03) 9428 1645	(03) 9853 2269		0418 548 914	(03) 9428 1645 (03) 9853 2501
<b>Health Centre Wynyard (IDD ++ 61 3)</b> Switchboard	(03) 6442 2282				

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**5 Contractor & Service Companies**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>5.1 Drilling Contractors - Offshore</b>					
<b><u>Atwood Oceanics Australia Pty Ltd</u></b>					
<b>Perth (IDD ++ 61 8)</b>					
Switchboard	(08) 9331 2099				(08) 9337 1383
<b>Manager</b>					
Vinton, Terry	(08) 9331 2099	(08) 9284 4848		0418 948 120	(08) 9337 1383 (08) 9284 4849 (a/h)
<b><u>Deep Sea Drilling Pty Ltd</u></b>					
<b>Darwin (IDD ++ 61 8)</b>					
<b>Operations Administrator</b>					
McDonald, Peter	(08) 8947 1335				
<b>Regional Manager</b>					
Pittman, Evert	(08) 8947 1335	(08) 89823724			
<b>Operations Superintendent</b>					
Smith, Terry	(08) 8947 1335	(08) 8945 4251		018 514 412	
Switchboard	(08) 8947 1335				(08) 8947 2076
<b><u>Diamond Offshore General Company Pty Ltd</u></b>					
<b>Darwin (IDD ++ 61 8)</b>					
<b>Materials Logistics</b>					
Jacob, Darryl	(08) 8984 3313			0419 821 986	(08) 8984 3958
<b>Inmarsat (IDD ++)</b>					
Ocean Epoch	872 135 4362 873 135 4362				872 135 4362 873 135 4362
<b>Perth (IDD ++ 61 8)</b>					
<b>Area Manager</b>					
Dew, Lyndol	(08) 9481 8333	(08) 9332 5257		0419 808 657	(08) 9481 8103
<b>Materials Manager</b>					
Mouton, Avery	(08) 9481 8333	(08) 9331 6006		0418 942 331	(08) 9321 2282
<b>Rig Manager (Ocean Bounty)</b>					
O'Neill, Tom	(08) 9481 8333	(08) 9445 9736		0418 587 844	(08) 9481 8103
<b>Rig Manager (Ocean Epoch)</b>					
Phil, Toby	(08) 9481 8333				(08) 9481 8103
Switchboard	(08) 9481 8333				(08) 9481 8103
<b>Rig Engineer</b>					
Watson, Jim	(08) 9426 9146	(08) 9414 7294		0416 326 303	(08) 9481 8103
<b>Occupational Health and Safety Coordinator</b>					
Webster, Nick	(08) 9481 8333	(08) 9371 1549		0417 901 116	(08) 9481 8131
<b><u>Reading and Bates</u></b>					
<b>Perth (IDD ++ 61 8)</b>					
<b>Drilling Superintendent</b>					
O'Shea, Blue	(08) 9481 7233			0409 089 941	(08) 9481 7244
Switchboard	(08) 9481 7233				(08) 9481 7244

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**5 Contractor & Service Companies**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>5.1 Drilling Contractors - Offshore</b>					
<b>Sedco Forex Australia Pty Ltd Perth (IDD ++ 61 8)</b>					
<b>Technical / Operations Manager</b>					
Burr, Gordon	(08) 9360 4832	(08) 9367 6908		0412 154 606	(08) 9322 3110
<b>Rig Manager (Sedco 703)</b>					
Civiello, Tom	(08) 9360 4829	(08) 9319 2534		0412 245 517	(08) 9322 3110
<b>Manager - Australia Division</b>					
Munro, Don	(08) 9360 4831	(08) 9316 8891		0412 126 458	(08) 9322 3110
<b>Rig Manager (Sedco 702)</b>					
Myers, Richard	(08) 9360 4828	(08) 9364 4574	016 983 300	015 384 920	(08) 9322 3110 (08) 9364 4752 (a/h)
<b>Personnel Administrator</b>					
Nelson, Jaqui	(08) 9360 4827	(08) 9434 1185	(08) 9357 9582		(08) 9322 3110
<b>Materials Supervisor</b>					
Pereira, Joseph	(08) 9360 4837	(08) 9310 7522	016 983 829	0412 329 639	(08) 9322 3110
Switchboard	(08) 9321 5477 (24hrs)				(08) 9322 3110

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**6 Aircraft Services**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>6.1 Helicopters</b>					
<b>Apache Energy Ltd Vuranus Island (IDD ++ 61 8)</b>					
Switchboard	(08) 9422 7222	(08) 9422 7300 (24hrs)			(08) 9422 7318
<b>Argyle Diamond Mines (IDD ++ 61 8)</b>					
Switchboard	(08) 9167 1452	(for Pearl Aviation)			(08) 9167 1398 (08) 9167 1399 (admin)
<b>Bristow Helicopters Darwin (IDD ++ 61 8)</b>					
<b>Engineer in Charge</b>					
Cameron, Mal	delete	(08) 8941 8383		019 106 671	(08) 8945 4274
Hanger	(08) 8945 4310	(08) 8981 7180			(08) 8945 4274
<b>Engineer in Charge</b>					
Jones, Dick	(08) 8945 4310	(08) 8941 8383		019 106 671	(08) 8945 4274
<b>Pilot in Charge</b>					
Pullford, Rod	(08) 8945 4310	(08) 8981 7180		0419 822 133	(08) 8945 4274
<b>Karratha (IDD ++ 61 8)</b>					
Check in	delete				(08) 9144 2028
Switchboard	(08) 9185 2022				(08) 9144 2028 (08) 9185 6550 (Heliport)
<b>Perth (IDD ++ 61 8)</b>					
<b>General Manager</b>					
Johns, Phil	(08) 9478 3388	(08) 9277 3030		0419 930 081	(08) 9478 3844
Switchboard	(08) 9478 3388				(08) 9478 3844
<b>Fishermans Co-op Geraldton (IDD ++ 61 8)</b>					
<b>Radio Operator</b>					
Reynolds, Brett	(08) 9921 1022				(08) 9921 8019
Switchboard	(08) 9921 1022				(08) 9921 8019
<b>Helicopter Resources Pyap, VIC (IDD ++ 61 3)</b>					
Switchboard	(03) 5977 4506 (24 hrs)				(03) 5977 4491
<b>Helicopters Australia Perth (IDD ++ 61 8)</b>					
Switchboard	(08) 9277 8399 (24 hrs)				(08) 9479 1008
<b>Manager</b>					
Troup, Dennis	(08) 9277 8399 (24hrs)			0408 428 658	(08) 9479 1008

# Emergency Response Plan CONTACT DIRECTORY

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## 6 Aircraft Services

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>6.1 Helicopters</b>					
<b><u>Hellwork</u></b> <b><u>Kununurra (IDD ++ 61 8)</u></b>					
<b>Operations Manager</b> James, Howard	(08) 9168 1811 (24hrs)				(08) 9168 1422
<b>Managing Director</b> Slingsby, Kerry	(08) 9168 1811 (24 hrs)				(08) 9168 1422
<b><u>Jayrow Helicopters</u></b> <b><u>Karratha (IDD ++ 61 8)</u></b>					
<b>Manager</b> Rowsell, Mel	(08) 9143 1313	(08) 9183 0014		0418 937 379	(08) 9143 1188
Switchboard	(08) 9143 1313				(08) 9143 1188
<b><u>Lloyd Helicopters Group</u></b> <b><u>Adelaide Head Office</u></b> <b><u>(IDD ++ 61 8)</u></b>					
<b>Operations Logistics Manager</b> Martin, Doug	(08) 8373 0700	(08) 8270 5381		0418 855 195	(08) 8373 1119
Switchboard	(08) 8373 0700				(08) 8373 3366
<b>Operations Logistics Officer</b> TBA	(08) 8373 0700				(08) 8373 1119
<b><u>Darwin (IDD ++ 61 8)</u></b>					
<b>Base Manager</b>					
Spann, Carl	(08) 8945 3888	(08) 8945 6445		0417 832 169	(08) 8945 3852
Switchboard	(08) 8945 3888				(08) 8945 3852
<b><u>Karratha (IDD ++ 61 8)</u></b>					
<b>Base Manager</b>					
Boaden, Craig	(08) 9144 4559	(08) 9185 2558		0417 875 433	
<b>Senior Base Engineer</b>					
Clifford, Peter	(08) 9144 4559	(08) 9144 4572		0417 903 305	
Duty Operations			016 080 # 849 248		
Emergency Operations		(08) 9185 3355		0417 900 063	
Switchboard	(08) 9144 4559				(08) 9185 3777
<b>Logistics Supervisor / Senior Pilot</b>					
Toms, Mike	(08) 9144 4559	(08) 9144 4087	016 080 # 684 7756	0418 815 368	
<b><u>Rossy Rotor Aviation</u></b> <b><u>(IDD ++ 61 8)</u></b>					
<b>Pilot</b>					
McDowell, Ross	(08) 9173 2696 (24 hrs)			014 46 25 89	(08) 9173 2416

**Emergency Response Plan  
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**6 Aircraft Services**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>6.1 Helicopters</b>					
<b>Toll Energy</b> <b>Dampier (IDD ++ 61 8)</b> <b>Dampier Representative</b> Neenan, Wayne	Delete			0419 949 051	(08) 9144 3533
<b>WAPET</b> <b>Barrow Island (IDD ++ 61 8)</b> Switchboard	(08) 9184 3723 (08) 9184 3700	(08) 9184 3762			(08) 9184 3799 (08) 9184 3731 (a/h)
<b>Dampier (IDD ++ 61 8)</b> Switchboard (through Toll Energy)	delete				(08) 9144 3533
<b>Woodside Offshore Petroleum Pty Ltd</b> <b>Karratha (IDD ++ 61 8)</b> <b>Marine Superintendent Karratha</b> Ramshaw, George Switchboard	(08) 9158 7110 (08) 9158 8100 (24 hrs)		016 943 759	0419 042 016	(08) 9158 7012 (08) 9158 8000
<b>6.2 Fixed Wing Aircraft</b>					
<b>TNT Air Charter</b> Switchboard	1800 023 661 (24 hrs)				(02) 9313 2088
<b>6.3 Airports / Air Traffic</b>					
<b>Airservices Australia - Flight Services</b> <b>Adelaide (IDD ++ 61 8)</b> Switchboard	(08) 8238 7838 (24 hrs)				(08) 8234 4174
<b>Melbourne (IDD ++ 61 3)</b> Air Traffic Services	(03) 9339 2666				
<b>Essendon Airport</b> <b>Melbourne (IDD ++ 61 3)</b> Switchboard <b>Operations Logistics Officer</b> TBA	(03) 9379 9077 (03) 9374 2100			0419 826 643	(03) 9374 2177

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**6 Aircraft Services**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>6.3 Airports / Air Traffic</b>					
<u>Flinders Island Aerodrome</u> <u>Flinders Island (IDD ++ 61 3)</u> Aerodrome Manager Barnewall, Brian	(03) 6359 2144		016 181 582 (24hrs)		
<u>King Island Airport</u> <u>King Island (IDD ++ 61 3)</u> Manager Robins, Alan	(03) 6462 1509	(03) 6462 1354			
<u>Launceston Airport</u> <u>Launceston (IDD ++ 61 3)</u> Switchboard	(03) 6391 6996		(03) 6391 6966		

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**7 Marine Services**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b><u>Australian Offshore Services</u></b> <b><u>Melbourne (IDD ++ 61 3)</u></b>					
Butt, Neil Operations Manager	(03) 9254 1547	(03) 9859 5474		0412 569 787	(03) 9686 9279
Hall, Richard	(03) 9254 1666	(03) 9844 1857		0412 568 780	(03) 9686 9279
Hall, Richard	(03) 9254 1666	(03) 9844 1857		0412 568 780	(03) 9686 9279
Homsey, Joe	(03) 9254 1666	(03) 9458 4237		0412 458 423	(03) 9686 9268
Switchboard	(03) 9254 1666		016 376 434 (a/h Duty Manager)		(03) 9686 9279 (Operations)
Switchboard	(03) 9254 1666		016 376 434 (a/h Duty Manager)		(03) 9686 9279 (Operations)
<b><u>Barge Express</u></b> <b><u>Darwin (IDD ++ 61 8)</u></b>					
Coastal Manager Helms, Klaus	delete				(08) 8941 3355
<b><u>Burns Philp</u></b> <b><u>Darwin (IDD ++ 61 8)</u></b>					
Darwin Manager Beagley, Ron	(08) 8981 2901	(08) 8927 3569		0418 895 872	(08) 8941 1981
Switchboard	(08) 8981 2901				(08) 8941 1981
<b><u>Lewmarine Geelong</u></b> <b><u>(IDD ++ 61 3)</u></b>					
Switchboard	(03) 5221 1577				
<b><u>Mermaid Marine</u></b> <b><u>Dampier (IDD ++ 61 8)</u></b>					
General Manager Board, Dal	(08) 9144 4099	(08) 9185 4194		0418 937 518	(08) 9144 4088
Switchboard	(08) 9144 4099				(08) 9144 4088
<b><u>Northern Territory Shipping</u></b> <b><u>Darwin (IDD ++ 61 8)</u></b>					
Assistant Manager Dickson, Mark	delete			0417 819 593	(08) 8941 1670
Manager Mules, Peter	(08) 8981 2541	(08) 8927 9550		0418 895 410	(08) 8941 1670
Switchboard	(08) 8981 2541				(08) 8941 1670

**Emergency Response Plan  
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**7 Marine Services**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>Perkins Shipping Darwin (IDD ++ 61 8)</b>					
<b>Marine Superintendent</b> Gratz, Capt. Wolf	(08) 8982 2080			0419 858 514	(08) 8941 0412
<b>Coastal Manager</b> Helms, Klaus	(08) 8982 2020 (24 hrs)			0419 847 985	(08) 8941 3355
Switchboard	(08) 8982 2000				(08) 8941 0412
<b>Sterling Marine Freemantle (IDD ++ 61 8)</b>					
<b>General Manager</b> Sheerer, Graeme	(08) 9335 8444		(08) 9357 5519	0417 990 968	(08) 9335 3286
Switchboard	(08) 9335 8444				
<b>Port Hedland (IDD ++ 61 8)</b>					
Switchboard	(08) 9173 1651				
<b>Supervisor</b> Telfer, John	(08) 9173 1651	(08) 9173 1150		018 919 266	(08) 9173 1343
<b>Swire Pacific Offshore Pty Ltd Perth (IDD ++ 61 8)</b>					
<b>Operations Manager</b> Del Rosso, Ian	(08) 9430 5434	(08) 9337 8906		0412 928 275	(08) 9430 7849 (08) 9337 6357 (a/h)
<b>Technical Manager</b> Marren, David	(08) 9430 5434	(08) 9339 2319		0412 923 509	(08) 9430 7849 (08) 9339 2417 (a/h)
<b>General Manager</b> Pullan, Sam	(08) 9430 5434	(08) 9339 8148		0411 430 669	(08) 9430 7849 (08) 9339 8158 (a/h)
Switchboard	(08) 9430 5434				(08) 9430 7849

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## 7 Marine Services

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b><u>Tidewater Port Jackson</u></b>					
<b><u>Melbourne (IDD ++ 61 3)</u></b>					
<b>Marine Operations Manager</b>					
Mitchell, Robert	delete	(03) 9499 5854		019 384 747	(03) 9428 9772
Switchboard	delete				(03) 9428 9772
<b><u>Perth (IDD ++ 61 8)</u></b>					
<b>Financial Controller</b>					
Bloch, Harry	(08) 9221 2822	(08) 9275 4272		0419 424 272	(08) 9221 3510
<b>Safety and Quality Assurance Manager</b>					
Johnson, Sean	(08) 9221 2822			0417 939 731	(08) 9221 3865
<b>Technical Superintendent</b>					
King, Chris	(08) 9221 2822	(08) 9345 1198		0419 042 422	(08) 9221 3443
<b>Technical Administrator</b>					
Lovi, Nick	(08) 9221 2822	(08) 9247 5658		0419 637 061	(08) 9221 3865
<b>Personnel Manager</b>					
Pleass, Alan	(08) 9221 2822	(08) 9345 1198		0419 192 011	(08) 9221 3865
<b>General Manager</b>					
Seay, Austin	(08) 9221 2822			0418 335 242	(08) 9221 3510
<b>Technical Manager</b>					
Steele, Alan	(08) 9221 2822	(08) 9455 3759		0419 916 132	(08) 9221 3443
<b>Office Manager</b>					
Switchboard	(08) 9221 2822				(08) 9221 3865
<b><u>Total Marine</u></b>					
<b><u>Perth (IDD ++ 61 8)</u></b>					
Switchboard	(08) 9430 5595				(08) 9430 5199
<b>Managing Director</b>					
Wardle, M.	(08) 9430 5595	(08) 9332 4206		0418 940 767	(08) 9430 5199

**Emergency Response Plan  
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**8 Petroleum Exploration, Production Companies & Associations**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>AIP</b> <b>Melbourne (IDD ++ 61 3)</b> <b>Executive Director</b> Starkey, Jim					
	(03) 9614 1466				(03) 9614 1416
<b>Ampolex Limited</b> <b>Perth (IDD ++ 61 8)</b> 26th Floor, 250 St Georges Terrace, Perth, WA 9000 <b>Operations Manager</b> Goodacre, Jack					
	delete				(08) 9429 3544
<b>Apache Energy Ltd</b> <b>Perth (IDD ++ 61 8)</b> Level 3, 256 St. Georges Terrace Perth WA 6000 <b>Operations Manager</b> Lake, Bruce					
	(08) 9422 7206		(08) 9480 9999 #62296	0419 936 527	(08) 9422 7445
	Switchboard	(08) 9422 7222			(08) 9422 7444
<b>APPEA</b> <b>Canberra (IDD ++ 61 2)</b> <b>Deputy Executive Director</b> Cochrane, Peter					
	(02) 6247 0960			041 221 5100	(02) 6247 0548
<b>Assistant Director - Public Affairs</b> Gordon, Linda					
	(02) 6247 0960				(02) 6247 0548
<b>Executive Director</b> Jones, Barry					
	(02) 6247 0960			041 221 5099	(02) 6247 0548

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**8 Petroleum Exploration, Production Companies & Associations**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b><u>BHP Petroleum</u></b>					
<b><u>Darwin (IDD ++ 61 8)</u></b>					
Lot 4233 Pruen Road, Berrimah, NT, 0828					
PO Box 37871, Winnellie, NT, 0821					
Darwin Operations Base	(08) 8922 1122	Chubb Security (08) 8984 3430			(08) 8984 4139 or (08) 8984 3565
<b>Radio Room</b>					
Duty Communications Officer	(08) 8922 1126		016 080 # 818 929		(08) 8984 4139
<b>Timor Sea Operations Manager</b>					
Paton, Mark	delete	(08) 8981 6403	016 080 # 819 174	0418 895 913	(08) 8984 4139
Radio Room Receptionist (as per Duty Roster)	(08) 8922 1122	Chubb Security (08) 8946 0999	016 080 # 818 929		(08) 8984 4139 (08) 8984 3565
<b><u>Melbourne (IDD ++ 61 3)</u></b>					
120 Collins Street, Melbourne, Vic. 3000					
<b>Drilling Manager</b>					
Berean, Doug	(03) 9652 6322	(03) 9439 2603	132 222 # 254 133	0419 523 208	(03) 9652 6124 (03) 9431 3902 (a/h)
<b>Group Gen. Manager, BHPP Ops. &amp; Technology</b>					
Hunter, Keith	(03) 9652 6010	(03) 9589 3678	132 222 # 851 395	0419 870 053	(03) 9652 7211
<b>Drilling Superintendent</b>					
Oliver, Rob	(03) 9652 7035	(03) 888 6130			(03) 9652 6124
Switchboard	(03) 9652 6666				
<b><u>Boral Energy Resources Ltd</u></b>					
<b><u>Adelaide (IDD ++ 61 8)</u></b>					
3rd Floor, Hospitality House 60 Hindmarsh Square Adelaide SA 5000					
<b>Manager for Exploration NWS</b>					
Bauer, Jennie	(08) 8235 3828				(08) 8223 1851
<b>Manager for Exploration</b>					
Lovibond, Rod	(08) 8235 3737				(08) 8223 1851
<b>Drilling Manager</b>					
Roberts, Doug	(08) 8235 3737				(08) 8223 1851
Switchboard	(08) 8235 3737				(08) 8223 1851
<b>Manager of Oil &amp; Gas Production</b>					
Wearne, Geoff	(08) 8235 3737				(08) 8223 1851

**Emergency Response Plan  
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**8 Petroleum Exploration, Production Companies & Associations**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>BP</b>					
<b><u>Kwinana (IDD ++ 61 8)</u></b>					
BP Refinery Mason Road, Kwinana, WA 6167					
<b>Fire and Safety Officer</b>					
Lothian, Tommy	(08) 9419 0437				(08) 9419 0340 (08) 9439 2003 (mail room)
<b><u>Melbourne (IDD ++ 61 3)</u></b>					
360 Elizabeth Street Melbourne VIC 3000					
<b>Logistics &amp; Facilities Manager</b>					
Lumb, Adrian	(03) 9268 4964			0419 754 055	(03) 9268 3524
<b>Terminals &amp; Distribution Manager</b>					
Watton, Mike	(03) 9268 3858				(03) 9268 3587
<b><u>British Gas Exploration &amp; Production Ltd</u></b>					
<b><u>Islamabad - IDD (++ 92 51)</u></b>					
<b>Resident Manager</b>					
Bowles, Edwin	(051) 270446				
<b><u>Conoco Pakistan Exploration &amp; Production B.V.</u></b>					
<b><u>Islamabad - IDD (++ 92 51)</u></b>					
<b>General Manager</b>					
Henderson, John	(051) 277584 (051) 277585				
<b><u>Edison International</u></b>					
<b><u>Islamabad - IDD (++ 92 51)</u></b>					
<b>General Manager</b>					
La Sorsa, Angelo	(051) 815921 (051) 818258 (051) 824309				
<b><u>Esso Australia Ltd (EAL)</u></b>					
<b><u>Melbourne (IDD ++ 61 3)</u></b>					
12 Riverside Quay Melbourne Vic 3006					
<b>Area Drilling Manager</b>					
Jenkins, Bob	(03) 9270 3422	(03) 9889 7443	016 030 # 312 607	0417 347 499	(03) 9270 3593
Switchboard	(03) 9270 3333				(03) 9270 3995 (mail room)
<b>Drilling Operations Manager</b>					
To Be Advised	delete				(03) 9270 3593

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**8 Petroleum Exploration, Production Companies & Associations**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b><u>Lasmo Oil Pakistan Ltd</u></b> <b><u>Islamabad - IDD (++ 92 51)</u></b> <b>General Manager</b> Summers, R. (051) 812002					
<b><u>Mermaid Sound Port &amp; Marine Services</u></b> <b><u>Karratha (IDD ++ 61 8)</u></b> <b>Marine Superintendent</b> Ramshaw, George (08) 9158 7110      016 943 759      0419 042 016      (08) 9158 7012 <b><u>Perth (IDD ++ 61 8)</u></b> <b>Port Operations Superintendent</b> Jones, Winn (08) 9224 5600      (08) 9348 5621      0417 840 060					
<b><u>Mobil Exploration &amp; Producing Australia Pty Ltd</u></b> <b><u>Perth (IDD ++ 61 8)</u></b> 29th Floor, QV1 Building, 250 St. Georges Terrace Perth, WA, 6000 <b>Wandoo Asset Team Leader</b> Goodacre, Jack (08) 9424 9273      (08) 9389 1585      018 951 429      (08) 9424 9544 <b>Drilling Team Leader</b> Honore, Royal (08) 9424 9403      (08) 9424 9566 Switchboard (08) 9424 9200      (08) 9424 9203					

**Emergency Response Plan  
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**8 Petroleum Exploration, Production Companies & Associations**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b><u>Novus West Australia Pty Ltd</u></b>					
<b><u>Dampier Supply Base</u></b>					
<b>(IDD ++ 61 8)</b>					
<b>General Manager</b>					
Board, Dal	delete	(08) 9185 4194		018 937 518	(08) 9144 4088
Switchboard	delete				(08) 9144 4088
<b><u>Onslow Supply Base</u></b>					
<b>(IDD ++ 61 8)</b>					
Mazneiu, Peter	(08) 9184 6092	(08) 9184 6192		0417 185 063	(08) 9184 6092
Switchboard	(08) 9184 6092				(08) 9184 6092
<b><u>Perth (IDD ++ 61 8)</u></b>					
<b>Field Superintendant</b>					
Adams, D.	delete		(08) 9324 4813		(08) 9486 9800
<b>Field Superintendant</b>					
Crosbie, P.	delete		(08) 9324 4813		(08) 9486 9800
<b>Maintenance Engineer</b>					
Douglas, G.	delete	(08) 9310 4664	(08) 9324 4813		(08) 9486 9800
Emergency Response Centre	delete				(08) 9420 0748
<b>Production Superintendent</b>					
Herrera, Glen	(08) 9486 7700	(08) 9306 0979	(08) 9324 4813	0411 757 874	(08) 9486 9800
Switchboard	(08) 9486 7700				(08) 9486 9800
<b>Drilling Manager</b>					
TBA	(08) 9486 7700				(08) 9486 9800
<b>Safety Manager</b>					
TBA	(08) 9486 7700				(08) 9486 9800
<b><u>Occidental Petroleum Pakistan Inc</u></b>					
<b><u>Islamabad - IDD (++ 92 51)</u></b>					
<b>VP &amp; Resident Manager</b>					
Smith, Gordon	(051) 276290-93				
<b><u>OMV Pakistan Exploration GmbH</u></b>					
<b><u>Islamabad - IDD (++ 92 51)</u></b>					
<b>General Manager</b>					
Meister, Siegfried	(051) 273620-31				
<b><u>Orient Petroleum Inc</u></b>					
<b><u>Islamabad - IDD (++ 92 51)</u></b>					
<b>President &amp; G. M.</b>					
Noriega, A.	(051) 274261-68				

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**8 Petroleum Exploration, Production Companies & Associations**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b>Phillips Petroleum Company</b>					
<b>ZOC</b>					
<b>Melbourne (IDD ++ 61 3)</b>					
<b>Staff Drilling Director</b>					
Curry, Bill	(03) 9652 6537	(08) 9873 5684			(03) 9652 6124
<b>West Perth (IDD ++ 61 8)</b>					
Level 1, HPPL House, 28 - 42 Ventnor Avenue West Perth, WA 6005					
<b>President</b>					
Brand, Dr. Steven	(08) 9423 6650				(08) 9423 6677
Switchboard	(08) 9423 6666				(08) 9423 6677
<b>Santos Ltd</b>					
<b>Adelaide (IDD ++ 61 8)</b>					
Santos House, 91 King William St, Adelaide, SA. 5001					
<b>Manager of Drilling Services Australasia</b>					
Gamblen, Jeff	(08) 8224 7195		(08) 8239 8444 # 9274	0417 810 377	(08) 8224 7141
<b>Shell Company of Australia Ltd</b>					
<b>Melbourne (IDD ++ 61 3)</b>					
1 Spring Street Melbourne Vic 3000					
<b>Asset Manager</b>					
Burn, John	(03) 9666 5123				(03) 9666 5895
<b>Technical Manager</b>					
Strobl, Wolfgang	(03) 9666 2147	(03) 9889 5494		0419 303 307	(03) 9666 5895
Switchboard	(03) 9666 5444				(03) 9666 5008
<b>Drilling Manager</b>					
Veenema, Jan	(03) 9666 5506			0419 118 508	(03) 9666 5225
<b>Shell Exploration Pakistan B.V.</b>					
<b>Islamabad - IDD (++ 92 51)</b>					
<b>Exploration Manager</b>					
Birch, Roger	(051) 826136				
<b>Union Texas Pakistan</b>					
<b>Islamabad - IDD (++ 92 51)</b>					
<b>Vice President</b>					
Hasan, M.	(051) 815921				
	(051) 818258				
	(051) 824 309				
<b>Unocal Pakistan B.V.</b>					
<b>Islamabad - IDD (++ 92 51)</b>					
<b>President &amp; General Manager</b>					
Keller, Richard	(051) 278995-96				

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**8 Petroleum Exploration, Production Companies & Associations**

	Work	After Hours	Emergency / Pager	Mobile	Facsimile
<b><u>West Australian Petroleum Pty Ltd</u></b>					
<b><u>Perth (IDD ++ 61 8)</u></b>					
QV1, 24th Floor 250 St Georges Terrace Perth WA 6001					
<b>Drilling Manager</b>					
Springer, Kent	(08) 9263 6000			018 092 817	(08) 9263 6223
Switchboard	(08) 9263 6000				(08) 9263 6699
<b><u>Woodside Offshore Petroleum Pty Ltd</u></b>					
<b><u>Darwin (IDD ++ 61 8)</u></b>					
<b>Darwin Area Manager</b>					
Aquino, Frank	(08) 8980 2701			0419 045 172	(08) 8980 2710
<b>Receptionist</b>					
Brown, Katrina	(08) 8980 2700			0419 853 120	(08) 8980 2710
<b>Workshop Supervisor Hudson Creek</b>					
Smith, Billy	(08) 8922 1861	(08) 8985 4295		0417 913 926	(08) 8922 1870
<b><u>Perth (IDD ++ 61 8)</u></b>					
1 Adelaide Terrace Perth WA 6000					
<b>Well Construction Manager</b>					
Hodson, Doug	(08) 9244 4078	(08) 9284 2710		0417 938 596	(08) 9348 4853
Switchboard	(08) 9244 4000 (24hrs)				(08) 9325 8178
<b>Technical Services Manager</b>					
Woodall-Mason, Nick	delete				(08) 9348 5082