

Company: Esso Australia Pty. Ltd.

Well: A7

Field: Tuna

Rig: Rig 22 / Prod 2 Country: Australia

RST-C Sigma Survey  
2809m to 2100m MDKB  
Reservoir Saturation Log

Rig 22 / Prod 2

Field: Tuna

Location: Gippsland

Well: A7

Company: Esso Australia Pty. Ltd.

LOCATION

Gippsland  
Basin  
Bass Strait

Elev.: K.B. 32.1 m  
G.L. -59 m  
D.F. 32.1 m

Permanent Datum: \_\_\_\_\_  
Log Measured From: \_\_\_\_\_  
Drilling Measured From: \_\_\_\_\_

Mean Sea Level \_\_\_\_\_  
Kelly Bushing \_\_\_\_\_  
Kelly Bushing \_\_\_\_\_

Elev.: 0 m  
32.1 m above Perm. Datum

State: Victoria

Max. Well Deviation  
57 deg

Longitude  
148°25' 05.29"E

Latitude  
38°10' 16.00"S

Logging Date	11-Apr-2006		
Run Number	2		
Depth Driller	2825 m		
Schlumberger Depth	2809 m		
Bottom Log Interval	2804 m		
Top Log Interval	2090 m		
Casing Fluid Type	Sea Water		
Salinity	120000 ppm		
Density	1 g/cm3		
Fluid Level	0 m		
BIT/CASING/TUBING STRING			
Bit Size	8.500 in		
From	1897 m		
To	2968.1 m		
Casing/Tubing Size	4.500 in		
Weight	12.6 lbm/ft		
Grade	L-80		
From	1750 m		
To	2825 m		
Maximum Recorded Temperatures	102 degC		
Logger On Bottom	11-Apr-2006	7:24	
Unit Number	3827	AUSL	
Recorded By	S. Pottsuwan, O. Tahmiscic		
Witnessed By	Don Broomfield, Jimmy Dean		

PVT DATA				Run 1	Run 2
Oil Density					
Water Salinity		120000 ppm			
Gas Gravity					
Bo					
Bw					
1/Bg					
Bubble Point Pressure					
Bubble Point Temperature					
Solution GOR					
Maximum Deviation	57 deg				
CEMENTING DATA					
Primary/Squeeze	Primary				
Casing String No					
Lead Cement Type					
Volume					
Density					
Water Loss					
Additives					
Tail Cement Type					
Volume					
Density					
Water Loss					
Additives					
Expected Cement Top					
Logging Date					
Run Number					
Depth Driller					
Schlumberger Depth					
Bottom Log Interval					
Top Log Interval					
Casing Fluid Type					
Salinity					
Density					
Fluid Level					
BIT/CASING/TUBING STRING					
Bit Size					
From					
To					
Casing/Tubing Size					
Weight					
Grade					
From					
To					
Maximum Recorded Temperatures					
Logger On Bottom					
Unit Number					
Recorded By					
Witnessed By					

## Date Created: 16-APR-2006 22:08:05

## Logging Cable

Type:	2-32ZT
Serial Number:	4202
Length:	6274.92 M
Conveyance Method:	Wireline
Rig Type:	Offshore Fixed

Log Sequence:	Subsequent Log In the Well
Reference Log Name:	TUNA A7 Petrophysical Analysis
Reference Log Run Number:	
Reference Log Date:	

1. All Schlumberger Depth Control Policies followed.
2. Gamma Ray response used for correlation.
3. Correlated to reference log provided by Esso.
4. IDW used as Primary Depth Control.
5. Z-Chart used as Secondary Depth Control.
- 6.

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OTHER SERVICES2  
OS1:  
OS2:  
OS3:  
OS4:  
OS5:

REMARKS: RUN NUMBER 2

Correlated to "TUNA A7 Petrophysical Analysis". (Note: logs correlate to depth between 2700m and 2800m MDKB only)

Pressure and temperature data gathered from PBMS sensors

Performed by Schlumberger.

SERVICE ORDER #:  
PROGRAM VERSION:  
FLUID LEVEL:

STOP

RUN 2

## WITM-A 415

## KSA-C 101

RSC-A Far  
RSC-A PNG  
RSC-A Nea  
RSX-A PNG

4.32  
4.16

AH-BNS      Tension HV      0.00      0.08  
TOOL ZERO

MAXIMUM STRING DIAMETER 1.72 IN  
MEASUREMENTS RELATIVE TO TOOL ZERO  
ALL LENGTHS IN METERS

Client:    Esso Australia Pty. Ltd.

Well:    A7

Field:    Tuna

State:    Victoria

Country: Australia

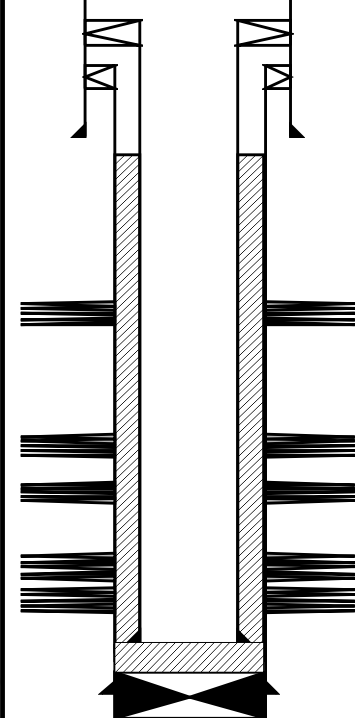
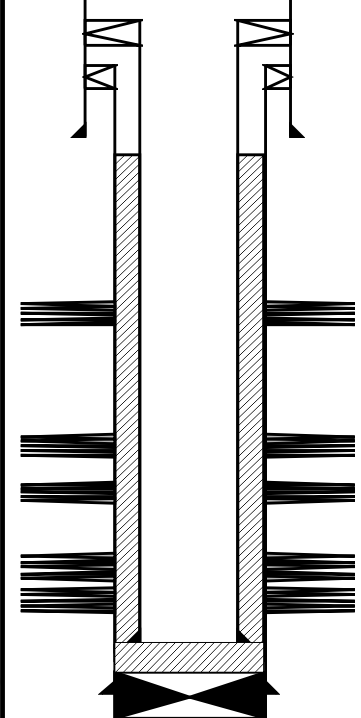
Rig Name:    Rig 22

Reference Datum: Kelly Bushing

Elevation:    32.9    m

7/4/2006

Production String	(in)			Well Schematic	(in)			Casing String
	OD	ID	MD		MD	OD	ID	
					14.4	9.625	8.835	Casing String, 40.00 lbs/ft, K-55
					14.8	13.375	12.615	Casing String, 54.50 lbs/ft, K-55
					735.5	13.375	12.615	Casing Shoe

<div>Bridge Plug</div>	<div>7.000</div>	<div>0.000</div>	<div>2890.0</div>		<div>1750.0</div>	<div>4.500</div>	<div>3.950</div>	<div>Casing String, 12.6 lbs/ft, L-80</div>
					<div>1750.0</div>	<div>9.625</div>	<div>4.500</div>	<div>Tie Back Extension</div>
					<div>1765.2</div>	<div>7.000</div>	<div>6.366</div>	<div>Casing String, 23.00 lbs/ft, K-55</div>
					<div>1765.2</div>	<div>9.625</div>	<div>7.000</div>	<div>Liner Hanger</div>
					<div>1897.0</div>	<div>9.625</div>	<div>8.835</div>	<div>Casing Shoe</div>
					<div>2305.0</div>			<div>Old Perforation, 2,305.0–2,309.0 mKB</div>
					<div>2709.0</div>			<div>Old Perforation, 2,709.0–2,715.0 mKB</div>
					<div>2791.5</div>			<div>Old Perforation, 2,791.5–2,794 mKB</div>
					<div>2803.5</div>			<div>Old Perforation, 2,803.5–2,806.0 mKB</div>
					<div>2809.0</div>			<div>Old Perforation, 2,809.0–2,815.5 mKB</div>
	<div>7.000</div>	<div>0.000</div>	<div>2890.0</div>		<div>2825.0</div>	<div>4.500</div>	<div>3.950</div>	<div>Casing Shoe</div>
					<div>2825.0</div>			<div>Isolation, 2,050.0–2,825.0 mKB</div>
					<div>2918.1</div>	<div>7.000</div>	<div>6.366</div>	<div>Casing Shoe</div>