

MODU Ocean Patriot

DRILLING RIG POSITION

Location – Pecten East-1

PRELIMINARY NOTIFICATION

To: Peter Devine
Rodney Dotson
SANTOS Senior Drilling Engineer
OIM Ocean Patriot

From: John Tighe
SANTOS/RPS Energy Survey Rep

Date: 24 June 2008
Time: 1100 Hrs

DGPS Position Fix

On completion of anchor pre-tensioning, during ballasting down and cementing the 30" conductor, Differential GPS position fixes were recorded at 5 second intervals from 1537 hrs on 23 June and 1034 hrs on 24 June 2008.

Drillstem Location:

Latitude: 38° 38' 42.568 " South

Longitude: 142° 42' 44.649 " East

Easting: 649 022.64 m E

Northing: 5 721 208.50 mN

Datum: GDA 94 Spheroid GRS80

Projection: MGA Zone 54 CM 141° East

Rig Heading: 215.3° (T)

This position is 1.28 metres on a bearing of 287° (T) from the intended location

Pecten East-1 Intended Location:-

Latitude: 38° 38' 42.58" South

Longitude: 142° 42' 44.70" East

Easting: 649 023.86 m E

Northing: 5 721 208.11 m N

Datum: GDA 94 Spheroid GRS80

Projection: MGA Zone 54S CM 141° East

Rig Heading: 215.0° (T)



John Tighe
RPS Energy



Geoffrey Marshall
FUGRO-BTW Survey

Geodetic Parameters

Geodetic Datum GDA94-ITRF2008.50
Spheroid GRS80
Semi-Major Axis 6378137.000
Inverse Flattening 298.2572221010
Eccentricity² 0.006694380022901
DX 0.0174m **RX** 1.0176 arc seconds
DY -0.0484m **RY** 0.0151 arc seconds
DZ -0.1035m **RZ** 0.0182 arc seconds
D Scale 0.0034ppm
Rotation Convention +RZ=-RLongitude
Projection Universal Transverse Mercator Zone: 54
Grid Name MGA
Latitude of Origin 0°00'00.0000"N
Longitude of Origin 141°00'00.0000"E
False Easting 500000.000m
False Northing 1000000.000m
Convergence 1°04'10.0662"

Final Primary Antenna Position (NMEA GPS 1.GGA)

13547 observations used out of a total of 13547

Primary Antenna Offset from CRP

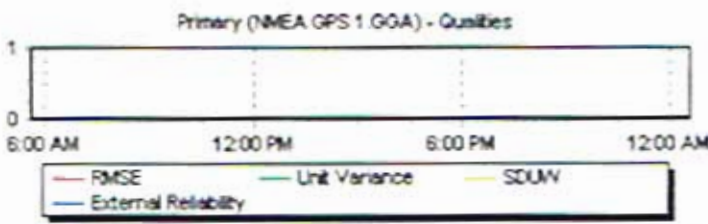
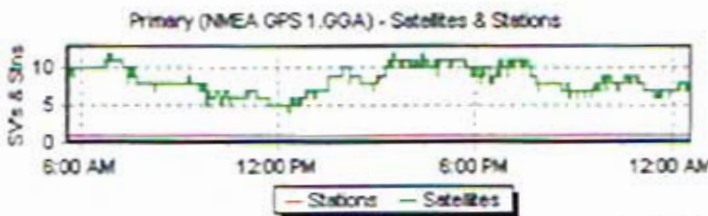
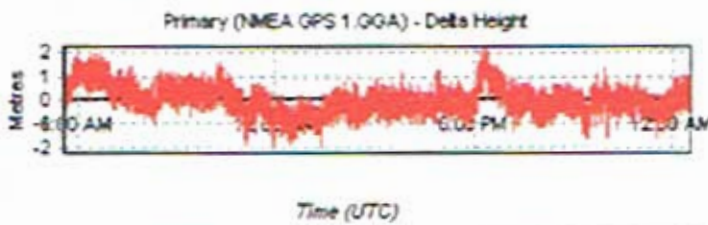
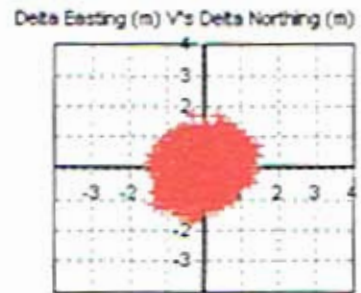
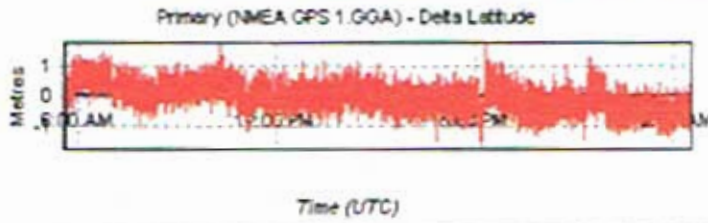
Starboard -9.020 m
 Forward 44.010 m
 Up 27.000 m

Mean

Geodetic Datum WGS84
 Latitude 38°38'43.8757"S
 Longitude 142°42'43.9139"E
 Spheroidal Ht 24.34 m
Geodetic Datum GDA94-ITRF2008.50
 Latitude 38°38'43.9019"S
 Longitude 142°42'43.9007"E
 Spheroidal Ht 24.39 m
Projection Universal Transverse Mercator Zone: 54
 Easting 649003.780 m
 Northing 5721167.723 m
 HDOP 1.15
 Heading 215.34 °T
 Age Of Corrections 10.6 s
 Satellites 8

Standard Deviation

Latitude or Northing 0.43 m
 Longitude or Easting 0.38 m
 Spheroidal Height 0.58 m
 HDOP 0.33
 Heading 0.31 °T



Final Secondary Antenna Position (NMEA GPS 2.GGA)
13643 observations used out of a total of 13643

Secondary Antenna Offset from CRP

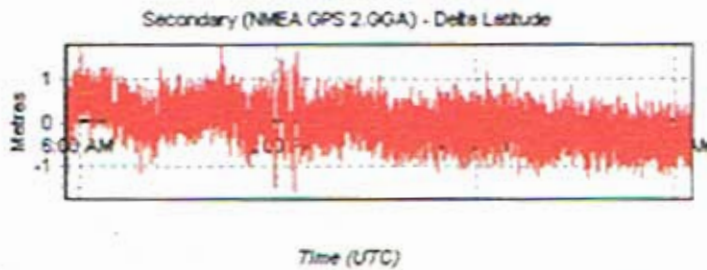
Starboard -9.750 m
Forward 42.010 m
Up 27.000 m

Mean

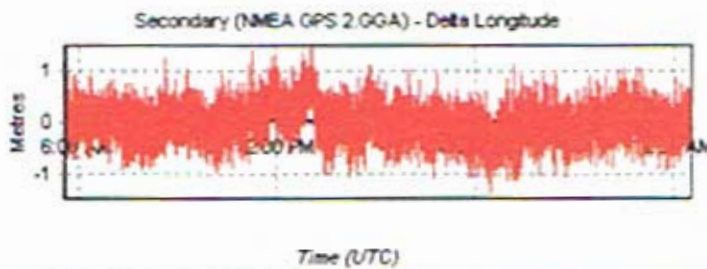
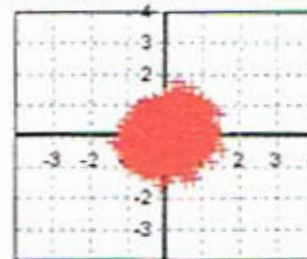
Geodetic Datum	WGS84
Latitude	38°38'43.8301"S
Longitude	142°42'43.9829"E
Spheroidal Ht	24.20 m
Geodetic Datum	GDA94-ITRF2008.50
Latitude	38°38'43.8563"S
Longitude	142°42'43.9698"E
Spheroidal Ht	24.26 m
Projection	Universal Transverse Mercator Zone: 54
Easting	649005.476 m
Northing	5721169.097 m
HDOP	1.17
Age Of Corrections	12.6 s
Satellites	8

Standard Deviation

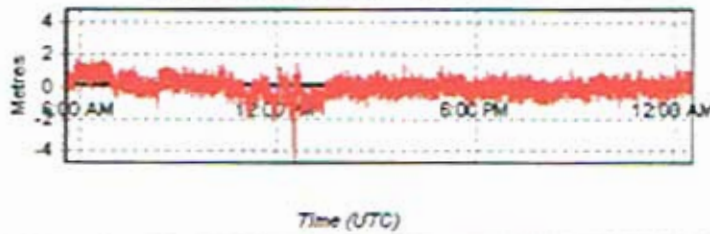
Latitude or Northing	0.41 m
Longitude or Easting	0.35 m
Spheroidal Height	0.50 m
HDOP	0.33



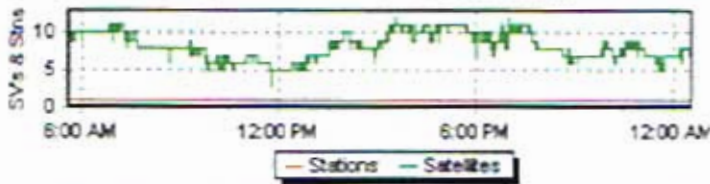
Delta Easting (m) v's Delta Northing (m)



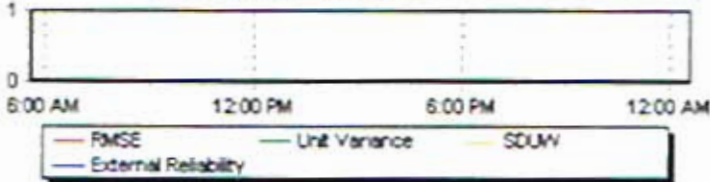
Secondary (NMEA GPS 2.GGA) - Delta Height



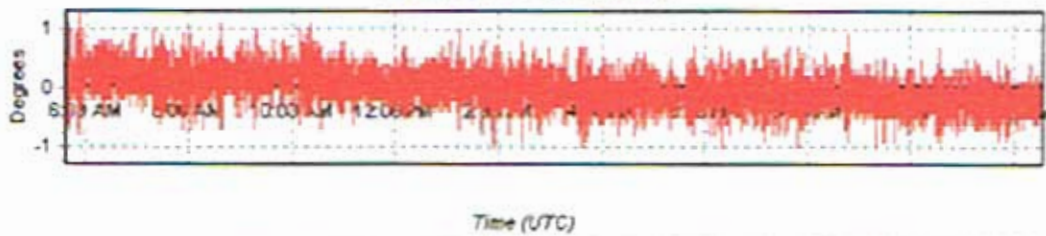
Secondary (NMEA GPS 2.GGA) - Satellites & Stations



Secondary (NMEA GPS 2.GGA) - Qualities



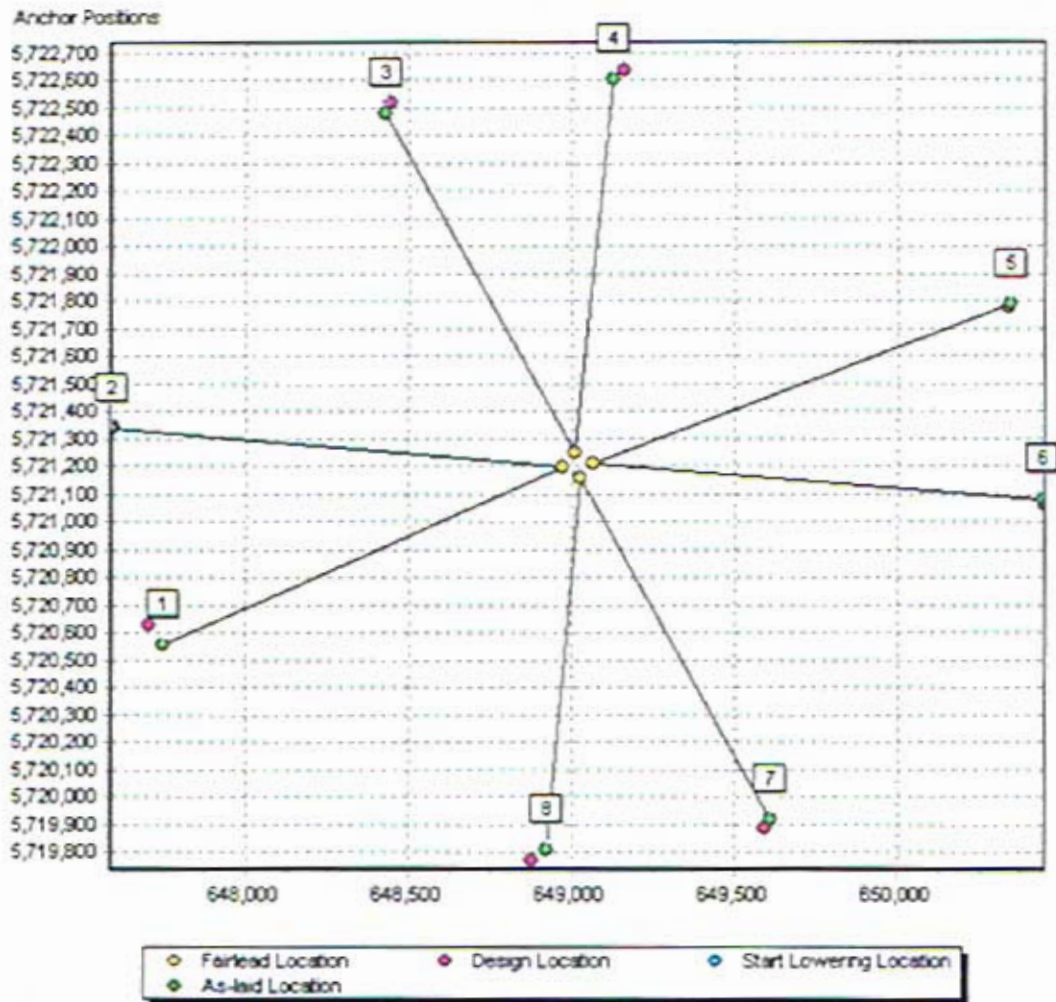
TSS Meridian.HDT - Delta Heading





Anchors of Ocean Patriot

Fairlead	Status	Universal Transverse Mercator Zone: 54		
1	Laid	38°39'02.1694"S	142°41'50.3349"E	(Design)
		647698.395 m	5720628.669 m	
2	Laid	38°38'39.0498"S	142°41'45.2309"E	(Design)
		647588.191 m	5721343.648 m	
3	Laid	38°38'00.3579"S	142°42'19.7834"E	(Design)
		648445.696 m	5722520.892 m	
4	Laid	38°37'56.2166"S	142°42'49.2274"E	(Design)
		649160.016 m	5722635.286 m	
5	Laid	38°38'23.3824"S	142°43'38.7006"E	(Design)
		650340.493 m	5721775.427 m	
6	Laid	38°38'46.5004"S	142°43'43.8144"E	(Design)
		650450.697 m	5721060.449 m	
7	Laid	38°39'25.1990"S	142°43'09.2688"E	(Design)
		649593.193 m	5719883.204 m	
8	Laid	38°39'29.3419"S	142°42'39.8150"E	(Design)
		648878.873 m	5719768.809 m	
1		38°39'04.4409"S	142°41'52.2255"E	(As-Laid)
		647742.800 m	5720557.800 m	
		83.631 m @	327°55'47.0108"	(TO design:Grid)
2		38°38'39.2958"S	142°41'45.1461"E	(As-Laid)
		647586.000 m	5721336.100 m	
		7.859 m @	16°11'23.5854"	(TO design:Grid)
3		38°38'01.5994"S	142°42'18.9362"E	(As-Laid)
		648424.500 m	5722483.000 m	
		43.417 m @	29°13'18.6910"	(TO design:Grid)
4		38°37'57.3033"S	142°42'47.8713"E	(As-Laid)
		649126.600 m	5722602.400 m	
		46.884 m @	45°27'28.8537"	(TO design:Grid)
5		38°38'22.9132"S	142°43'38.9006"E	(As-Laid)
		650345.600 m	5721789.800 m	
		15.253 m @	199°33'39.4806"	(TO design:Grid)
6		38°38'45.8434"S	142°43'43.6001"E	(As-Laid)
		650445.900 m	5721080.800 m	
		20.909 m @	166°44'11.5944"	(TO design:Grid)
7		38°39'24.0692"S	142°43'09.9991"E	(As-Laid)
		649611.500 m	5719917.700 m	
		39.053 m @	207°57'15.8365"	(TO design:Grid)
8		38°39'28.0092"S	142°42'41.5717"E	(As-Laid)
		648922.100 m	5719809.100 m	
		59.093 m @	227°00'49.3058"	(TO design:Grid)





Fugro Job Number 08008
 Job Name Rig Move from Jarver-1 to Pecten East-1
 Fugro Personnel G. Marshall - Surveyor in Charge
 S. Pullam - Surveyor
 Client Name SANTOS Ltd
 Client Representative J. Tighe
 Sampling Started 23 Jun 2008 5:37:16 AM UTC
 Sampling Ended 24 Jun 2008 12:34:11 AM UTC
 Output File Name "176 00 34 11.pdf"
 Comment Pecten East-1 Final Fix Report

Ocean Patriot At Otway Basin - Final DGPS Position Fix Summary for Drill Stem

Drill Stem Offset From CRP

Starboard 0.000 m
 Forward 0.000 m
 Up 0.000 m

Geodetic Datum GDA94-ITRF2008.50

Latitude 38°38'42.5683"S
 Longitude 142°42'44.6493"E

Projection Universal Transverse Mercator Zone: 54

Easting 649022.644 m
 Northing 5721208.496 m

Final Rig Heading 215.34 °T (Convergence 1.07° Aust/NZ)

Gyro C-0 0.14 °

Drill Stem Position is 1.28 m on a bearing of 286.52 °T (287.59 °G) FROM intended location

Intended Offset / Well Location

Geodetic Datum GDA94-ITRF2008.50

Latitude 38°38'42.5800"S
 Longitude 142°42'44.6998"E

Projection Universal Transverse Mercator Zone: 54

Easting 649023.860 m
 Northing 5721208.110 m

Intended Rig Heading 0.00 °T

Team Leader / Surveyor: _____

Client Representative: _____