

SANTOS – STRIKE OIL

COMPILED FOR

SANTOS LIMITED

(A.B.N. 80 007 550 923)

CASINO-1

BASIC DATA REPORT

**PREPARED BY:
R. Subramanian
(Consultant)
October 2002**

CASINO-1

BASIC DATA REPORT

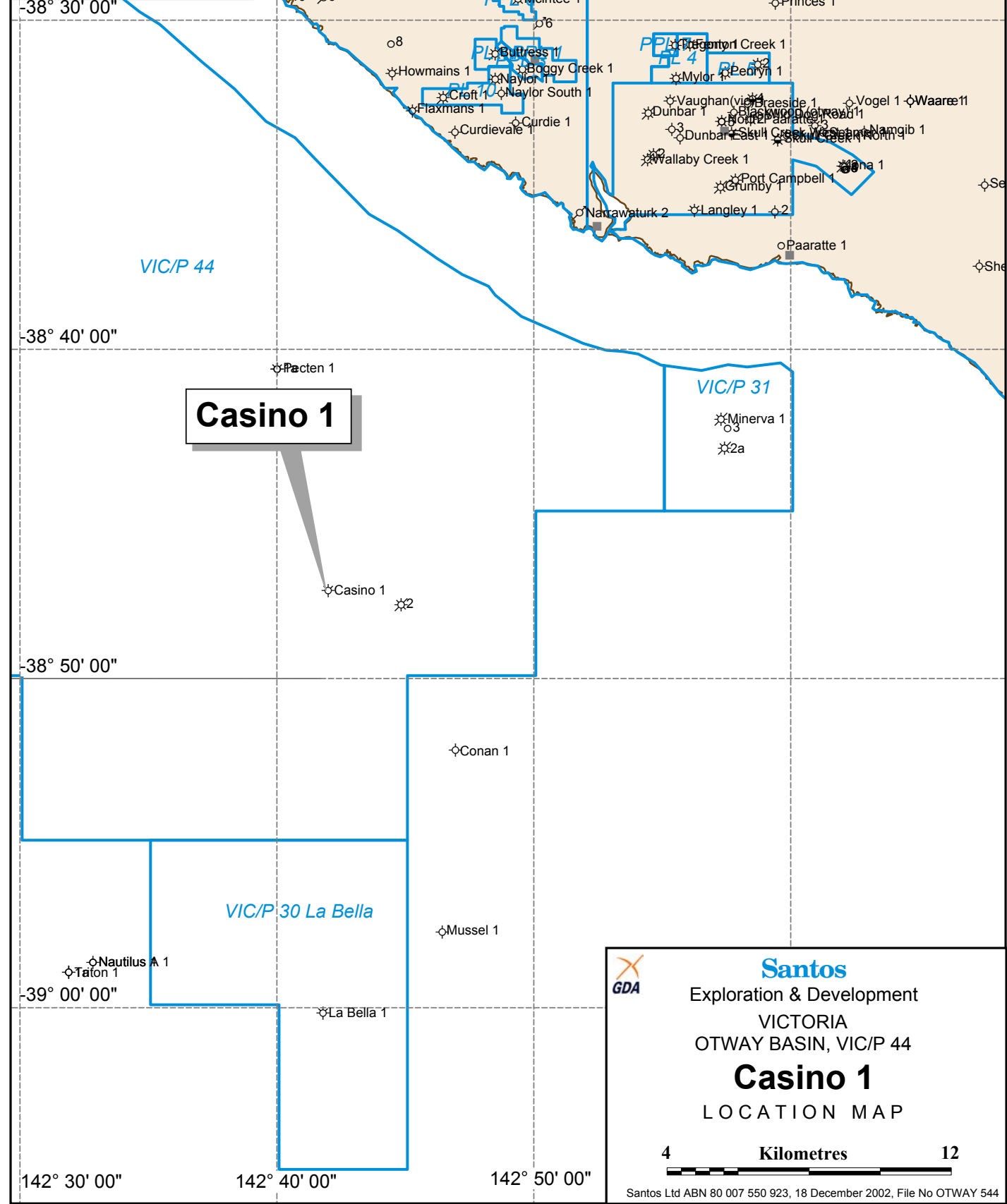
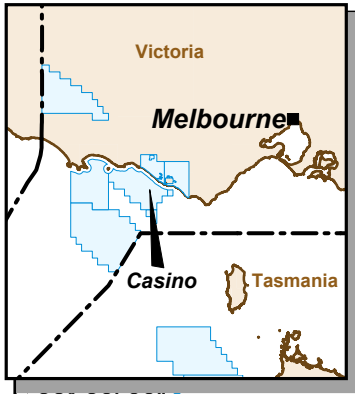
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LOCATION MAP



Casino 1


Santos
 Exploration & Development
 VICTORIA
 OTWAY BASIN, VIC/P 44
Casino 1
 LOCATION MAP

4 **Kilometres** 12


Santos Ltd ABN 80 007 550 923, 18 December 2002, File No OTWAY 544

SECTION 1:- WELL HISTORY

1.1 INTRODUCTION

Casino-1 was drilled as an Otway Basin gas exploration well in the Victoria Offshore VIC/P44 licence. The Surface Location is Latitude: 38° 47' 18.502" S Longitude: 142° 42' 00.287" E (GDA94), Northing: 5705323.87m Easting: 647654.91m (MGA-94). The Seismic Reference is Inline 6066, CDP 2726. The location lies approximately 29 km south west of the town of Port Campbell, 24 km WSW of the Minerva gas field and 22 km North of the LaBella gas field (see Location Map). The Casino prospect is situated towards the western limit of the productive Waarre Sandstone play fairway of the Port Campbell Embayment. The water depth at the well location was 70.5m.

The Casino prospect is a tilted fault block closure defined by the 2001 Casino 3D seismic dataset and the proposed location will crestally test the structure. The primary objective in the well is the Late Cretaceous Waarre Sandstone, with a prognosed mean average pay of 45m across the structure. The critical risk on the prospect is related to the nature of updip cross fault seal. The prospect exhibits a significant full stack amplitude anomaly at the Waarre Sandstone with significant increase in amplitude with offset over the prospect. The prospect is currently interpreted as containing 2 separate Waarre sands, the older of which will be tested in the updip location by this wildcat well. The aims of this well are:

- Intersect the Waarre sand high on the structure, within the high amplitude zone, and at a location of minimum geologic complexity, to confirm the presence of hydrocarbons and calibrate the remaining seismic data set (including the younger Waarre sand not intersected in the wellbore).
- To obtain pressure data to confirm column height and gas samples to determine composition.
- To drill high enough on structure to maximise the intersection of possible gas charged Waarre sandstone section.

Casino-1 was drilled by the semi-submersible drilling rig "Diamond Offshore Ocean Bounty".

1.2 GENERAL DATA

Well Name:	CASINO-1	
Well Classification:	Offshore Gas Exploration	
Interest Holders:	Santos Ltd	50%
	Strike Oil NL	50%
Participating Interests:	Santos Ltd	50%
	Strike Oil NL	50%
Operator:	Santos Ltd.	
Location:	Offshore Victoria – Otway Basin VIC/P44.	
Surveyed Location (GDA94)	Latitude: 38° 47' 18.502" South Longitude: 142° 42' 00.287" East Northing: 5705323.87m Easting: 647654.91m	
Seismic Location:	Inline 6066, CDP 2726	
Seismic Survey:	2001 Casino 3D	

Elevations:	Water Depth -70.5m AHD (Australian Height Datum) Rotary Table +25.0m LAT
Total Depth:	Driller : 2118m RT Logger : 2098.5m RT (fill in hole)
Status:	Plugged and Abandoned
License:	VIC/P44 Offshore Victoria
Date Drilling Commenced:	18:30 hours on 25 th August 2002.
Date Drilling Completed:	11:00 hours on 14 th September 2002.
Date Rig Released:	12:00 hours on 23 rd September 2002.
Total Well Time:	28 days
Contractor:	Diamond Offshore
Rig:	Ocean Bounty (semi-submersible)

1.3 **DRILLING SUMMARY**

(a) **Drilling Summary** (All Depths Driller's RT)

Casino-1 was spudded at 18:30 hrs on 25th August 2002 utilising the semi-submersible drilling facility "Ocean Bounty".

Bit 1, a 660mm (26") Smith DSJC, run in conjunction with a 914mm (36") hole opener, drilled the 914mm (36") phase from seafloor at 95.5m to section total depth at 130m. Returns were to the seafloor. A string of 762mm (30") (461 kg/m X56) casing was run and set at 128m. The casing running tool and 914mm (36") BHA were laid out.

Bit 2, a Smith MGSSH-C was run in hole to tag the cement top at 124.5m and was used to drill the entire 445mm (17.5") hole section from 130m to 752m. The hole was circulated clean and displaced with gel. A string of 340mm (13.375") (101 kg/m L80) casing was run and set at 743m and pressure tested to 20600kPa (3000psi). The casing running tool was released and laid out along with the cement head. The blowout preventers were installed on the marine riser and function tested. The 445 mm (17.5") BHA was laid out.

Thereafter, the 311 mm (12.25") BHA with Bit 3, Reed DSX195 was run in hole to tag top of cement at 718m. The cement plugs, cement, casing shoe, rathole and 3m of new hole from 752m to 755 m were drilled. The hole was displaced to 1.04 SG (8.7ppg) and circulated clean. A Leak-off Test was performed to 2.07 SG EMW. The 311mm (12.25") hole was then drilled from 755m to 1053m with partial losses which varied between 8.0 to 11.1 m³/hr (50 to 70 bbls/hr). The mud loss situation was remedied with LCM to ensure complete returns. Drilling continued to 1057m where poor penetration rates required a bit change. Bit #4, Reed HP51 HFKPRDH was run in hole. However, the bit had to be pulled at 1059m after drilling only 2m due to plugged nozzles. A new tricone Bit #5, a Smith 10GF was run in hole and drilling continued from 1059m to 1400m. The bit was tripped out of hole and Bit #6, a PDC Smith MA74BPX was run in hole and drilled from 1400m to 1797m where poor penetration rates

required a bit change. The 311mm (12 ¼") section from 752m to 1797m was logged while drilling with Anadrill Schlumberger MWD/LWD CDR/Isonic tools to record Gamma Ray, Resistivity, Sonic and Deviation Survey data.

A tricone insert Bit #7, a Hughes MXR09D was run in hole, and the hole was circulated clean. However due to adverse weather conditions, the drillstring was pulled back into the casing shoe and further operations were suspended while waiting on weather. After the weather conditions worsened, the drillstring was hung-off inside the wellhead the riser was disconnected from the Lower Marine Riser Package. As the weather abated, the Lower Marine Riser Package was reconnected and further operations resumed.

The bit nozzles were found to be plugged which required a bit trip to change the plugged bit. MWD/LWD tools were laid out at this stage for a clean-out trip due to the well being idle. After reaming to bottom, it was decided to drill ahead from 1797m to total depth of 2118m. This section was drilled without the MWD/LWD tools. Total depth was reached at 11:00hrs on 14/09/02.

At Total Depth, the hole was circulated clean and the drillstring was pulled out of hole to run wireline logs. Baker Atlas was rigged up and wireline logs were run as summarised in Table 1. After rigging down Baker Atlas, a cement stinger was run in the hole to set cement abandonment plugs as per program, Plug 1: 1840m-1690m, Plug 2: 1620m-1470m, Plug 3: 780m-630m and Plug 4: 183m-133m. Weather conditions worsened and further abandonment/rig release operations were temporarily suspended.

The rig was released at 12:00 hours on September 23, 2002.

(b) Mudlogging Services

Mudlogging services were provided by Baker Hughes Inteq Unit 503 with the following parameters monitored:

1. Total Gas
2. Chromatographic Gas Breakdown
3. Hydrogen Sulphide Levels
4. Depth/Rate of Penetration.
5. Pipe Speed/Block Position
6. Top drive RPM
7. Top drive Torque
8. Hook Load/Weight On Bit
9. Standpipe Pressure
10. Casing Shut-in Pressure
11. Mud Pump Rate (3 pumps)
12. Mud Flow Out
13. Mud Pit Levels (6 pits)
14. Mud Weight In and Out
15. Mud Temperature In and Out
16. Carbon Dioxide Detectors

Ditch cuttings were collected at 3m intervals over most of the 311mm (12-1/4") phase from 752m to total depth of 2118m. However very fast drilling rates required the sampling interval to be increased to 6m when necessary. In the zones of interest, sampling was done at 3m intervals. In addition to microscopic examination of all drilled cuttings, samples were subjected to fluoroscope examination. Since no significant carbonate section was intersected in the 311mm (12-1/4") phase, calcimetry was not performed on a regular basis, but as required.

A catalogue of all wellsite samples is found in Section 4.3.

(c) **MWD Data**

Measurement while drilling (MWD) was acquired by Anadrill-Schlumberger in Casino-1. The CDR / Powerpulse was used in the 311mm (12.25") section from 752m to 1797m, where operations were temporarily suspended while waiting-on-weather. Gamma Ray, Resistivity and Deviation Surveys data were acquired in this phase in 4 runs. Anadrill Schlumberger's detailed report is attached in Section 3.5: MWD/LWD END OF WELL REPORT

(d) **Testing**

No production tests were conducted at the Casino-1 location.

(e) **Coring**

No full hole cores were cut at the Casino-1 location.

(f) **Biostratigraphy**

Micro-palaeontology studies were not conducted in Casino-1.

(g) **Electric Logging**

Electric Logging Services were provided by Schlumberger Wireline Services. One suite of electric logs were attempted at Casino-1 as follows:

TABLE 1

LOG	SUITE/ RUN	INTERVAL	BHT/TIME	OTHER
<u>PEX-DSI</u> GR Spectral GR Resistivity SP HCAL Sonic (Upper Dipole) Dt (Full waveforms) Neutron-Density	1 / 1	(** Note: PEX Hi-Res to 1650m. Standard Res above 1650m) TD to 95 TD to 1650 TD to 742 TD to 742 TD to 742 TD to 1650 TD to 500 TD to 742	80°C / 10.33 hrs	
<u>MDT-GR</u> (TOTAL : 29, 8 Good, 10 Valid but tight, 5 Lost Seals, 2 bad data, 5 curtailed, 3 samples collected)	1 / 2	1524 to 2016		
<u>CST-GR</u> (30 of 30 shots recovered)	1 / 3	1520 to 2030		

(h) **MDT Pressure Data**

An MDT pressure survey was conducted at the Casino-1 location. A total of 29 pre-tests were attempted of which 8 were good tests, 10 were valid but tight, 5 were lost seals, 2 were bad data, 5 were curtailed. In addition 3 samples were collected. Two sample chambers were sent for PVT analysis while one chamber was opened at the rigsite. The MDT Pressure Survey data are presented in Section 3.4: MDT PRESSURE SURVEY RESULTS

(i) Hole Deviation

Casino-1 was drilled as a vertical hole. Deviation Surveys were recorded using MWD/LWD tools in most of the 311mm (12.25") section while drilling, with the last survey being recorded at 1775.86m. Below 1797m, MWD/LWD tools were not included in the drillstring. Hence reliable survey data are not available below that depth. However, an estimate of inclination (without direction) was obtained with the magnetometer in the wireline PEX toolstring and are included for completeness, in the data presented in Section 18: Deviation Surveys.

At Total Depth, the estimated displacement was 74m towards 191.5°T direction. At total depth it is estimated that the TVD would be 2113m.

(j) Velocity Surveys

A planned Velocity Survey was not cancelled. No velocity survey was conducted at the Casino-1 location.

(k) Casing & Cementing Summary

The following Table-3 summarises casing sizes, depths and cementing details for Casino-1. Casing and Cementing Reports for each casing run are detailed in Section 11: CASING & CEMENTING SUMMARY.

TABLE 3

HOLE SIZE	DEPTH	CASING SIZE	CASING DEPTH	JOINTS	CASING TYPE	CEMENT
914mm (36")	130m	762mm (30")	128.23m	3	461 kg/m X56 HD90	823 sacks class "G" cement of total volume 174 bbl, 1% CaCl ₂ BWOC, mixed to a slurry weight of 1.9sg.
445mm (17.5")	752m	340 mm (13.375")	743.15m	55	101kg/m L80 BTC	Lead: 1032 sacks class "G" cement of total volume 65.19m ³ , mixed to a slurry weight of 1.497-1.509sg. Tail: 686 sacks class "G" cement of total volume 22.74m ³ , mixed to a slurry weight of 1.893-1.917sg.

SECTION 2:- LITHOLOGICAL DESCRIPTIONS

SECTION 2.1: CUTTINGS DESCRIPTIONS

2.1 CASINO-1 - LITHOLOGICAL DESCRIPTIONS

<u>From (m)</u>	<u>To (m)</u>	<u>%</u>	<u>Description</u>
752	755	100	CALCAREOUS CLAYSTONE : Light brown, medium brown grey, common fossil fragments (10%), firm to moderately hard, subblocky to blocky. (Sample cement contaminated)
755	758	100	CALCAREOUS CLAYSTONE : Light brown, medium brown grey, common fossil fragments (10%), firm to moderately hard, grading to marl, subblocky to blocky. (Sample cement contaminated)
758	761	100	CALCAREOUS CLAYSTONE : Light brown, medium brown grey, common fossil fragments (echinoid spines, bryozoa fragments, trace forams?), firm to moderately hard, grading to marl, trace pyrite, trace quartz grains, subblocky to blocky. (Sample cement contaminated)
761	764	100	CALCAREOUS CLAYSTONE : Light to predominantly medium brown, medium brown grey, common fossil fragments (echinoid spines, bryozoa fragments), firm to moderately hard, grading to marl, trace pyrite, trace quartz grains, subblocky to blocky.
764	767	70	CALCAREOUS CLAYSTONE : Medium brown, medium brown grey, common fossil fragments (echinoid spines, bryozoa fragments), firm to moderately hard, grading to marl, trace pyrite, trace quartz grains, subblocky to blocky.
		30	MARL: Light grey, occasionally light green grey, argillaceous in part, very calcareous, grading to calcareous claystone, soft to firm, subblocky
767	770	60	CALCAREOUS CLAYSTONE : Medium brown, medium brown grey, common fossil fragments (echinoid spines, bryozoa fragments), firm to moderately hard, grading to marl, trace pyrite, trace glauconite, trace quartz grains, subblocky to blocky.
		30	MARL: Light grey, occasionally light green grey, argillaceous in part, very calcareous, grading to calcareous claystone, soft to firm, subblocky
		10	CALCARENITE: Off white, pale brown, fine grained, weak to moderately strong cement, trace lithic fragments, trace glauconite, firm to moderate hard, occasionally hard.
770	773	80	CALCAREOUS CLAYSTONE : Medium brown, medium brown grey, common fossil fragments, moderately hard, grading to marl, trace pyrite, trace glauconite, trace quartz grains, subblocky to blocky.

		20	MARL: Light grey, occasionally light green grey, argillaceous in part, very calcareous, grading to calcareous claystone, soft to firm, subblocky
773	776	60	SANDSTONE: Clear to translucent, pale yellow to pale brown, medium to coarse, moderately well sorted, subrounded to rounded, subangular to angular, common yellow brown staining on grains, weak siliceous and calcareous cement, trace glauconite, friable to moderate hard, common loose, poor visual porosity, no hydrocarbon fluorescence.
		40	CALCAREOUS CLAYSTONE : Medium brown, medium brown grey, common fossil fragments, moderately hard, grading to marl, trace pyrite, trace glauconite, trace quartz grains, subblocky to blocky.
776	779	80	SANDSTONE: Pale yellow to pale brown, pale red brown, minor clear to translucent, medium to coarse, occasionally fine, moderately well sorted, subrounded to rounded, subangular to angular, common yellow brown to red brown Fe-staining on grains, weak siliceous and calcareous cement, trace pyrite, trace glauconite, friable to moderate hard, common loose, poor visual porosity, no hydrocarbon fluorescence.
		20	CALCAREOUS CLAYSTONE : Medium brown, medium brown grey, common fossil fragments, moderately hard, grading to marl, trace pyrite, trace glauconite, trace quartz grains, subblocky to blocky.
779	782	100	SANDSTONE: Medium brown, medium yellow brown, medium to very coarse grained, moderately poorly sorted, subrounded, occasionally rounded, minor subangular, weak siliceous cement, common Fe-staining, trace glauconite, trace pyrite, friable in part, loose in part, moderately hard in part, fair inferred porosity, no hydrocarbon fluorescence.
782	785	100	SANDSTONE: Medium brown, medium yellow brown, medium to very coarse grained, moderately poorly sorted, subrounded to minor subangular, weak siliceous cement, common Fe-staining, trace glauconite, trace pyrite, friable in part, loose in part, moderately hard in part, fair inferred porosity, no hydrocarbon fluorescence.
785	788	100	SANDSTONE: Medium brown, occasionally dark brown, medium yellow brown, coarse to very coarse grained, minor medium grained, moderately well sorted, subrounded, occasionally rounded, minor subangular, weak siliceous cement, common Fe-staining, trace glauconite, trace pyrite, friable in part, loose in part, moderately hard in part, fair inferred porosity, no hydrocarbon fluorescence.
788	791	80	SANDSTONE: Medium brown, occasionally dark brown,

			medium yellow brown, coarse to very coarse grained, minor medium grained, moderately well sorted, subrounded, occasionally rounded, minor subangular, weak siliceous cement, common Fe-staining, trace glauconite, trace pyrite, friable in part, loose in part, moderately hard in part, fair inferred porosity, no hydrocarbon fluorescence.
		20	CALCAREOUS CLAYSTONE: Medium to dark grey to minor grey brown, moderately hard, grading to marl, trace pyrite, trace glauconite, trace quartz grains, subblocky to blocky, minor amorphous.
791	794	100	SANDSTONE: Medium brown, occasionally dark brown, medium yellow brown, predominantly medium grained, minor coarse to very coarse grained, well sorted, subrounded to subangular, weak siliceous cement, common Fe-staining, trace pyrite, friable in part, loose in part, moderately hard in part, poor to fair inferred porosity, no hydrocarbon fluorescence.
794	797	100	SANDSTONE: Medium brown, occasionally dark brown, medium yellow brown, medium to coarse grained, minor very coarse grained, moderately well sorted, subrounded to subangular, weak siliceous cement, common Fe-staining, trace pyrite, friable in part, loose in part, moderately hard in part, poor to fair inferred porosity, no hydrocarbon fluorescence.
797	800	100	SANDSTONE: Medium brown, occasionally dark brown, medium to dark yellow brown, medium to coarse grained, minor very coarse grained, moderately well sorted, subrounded to subangular, weak siliceous cement, common Fe-staining, trace pyrite, friable in part, loose in part, moderately hard in part, poor to fair inferred porosity, no hydrocarbon fluorescence.
800	803	50	SANDSTONE: Medium brown, occasionally dark brown, medium to dark yellow brown, medium to coarse grained, minor very coarse grained, moderately well sorted, subrounded to subangular, weak siliceous cement, common Fe-staining, trace pyrite, friable in part, loose in part, moderately hard in part, poor to fair inferred porosity, no hydrocarbon fluorescence.
		50	MARL: Light grey, occasionally light green grey, argillaceous in part, very calcareous, grading to calcareous claystone, soft to firm, dispersive, minor subblocky to predominantly amorphous.
803	806	90	SANDSTONE: Medium brown, occasionally dark brown, medium to dark yellow brown, predominantly medium to coarse grained, moderately well sorted, subrounded to subangular, weak siliceous cement, common Fe-staining, trace pyrite, friable in part, loose in part, moderately hard in part, poor to fair inferred porosity, no hydrocarbon fluorescence.
		10	MARL: Light grey, occasionally light green grey, argillaceous in part, very calcareous, grading to calcareous claystone, soft to

			firm, dispersive, minor subblocky to predominantly amorphous.
806	809	90	SANDSTONE: Medium brown, occasionally dark brown, medium to dark yellow brown, predominantly medium to coarse grained, moderately well sorted, subrounded to subangular, weak siliceous cement, common Fe-staining, trace pyrite, friable in part, loose in part, moderately hard in part, poor to fair inferred porosity, no hydrocarbon fluorescence.
		10	MARL: Light grey, occasionally light green grey, argillaceous in part, very calcareous, grading to calcareous claystone, soft to firm, dispersive, minor subblocky to predominantly amorphous.
809	812	100	SANDSTONE: Medium brown, occasionally dark brown, medium to dark yellow brown, predominantly medium to coarse grained, moderately well sorted, subrounded to subangular, weak siliceous cement, common Fe-staining, trace very dark brown to black brown rounded lithic fragments, trace pyrite, friable in part, loose in part, moderately hard in part, poor to fair inferred porosity, no hydrocarbon fluorescence.
812	815	100	SANDSTONE: Medium brown, occasionally dark brown, medium to dark yellow brown, predominantly medium to coarse grained, moderately well sorted, subrounded to subangular, weak siliceous cement, common Fe-staining, trace very dark brown to black brown rounded lithic fragments, trace pyrite, friable in part, loose in part, moderately hard in part, poor to fair inferred porosity, no hydrocarbon fluorescence.
815	818	100	SANDSTONE: Medium brown, occasionally dark brown, medium to dark yellow brown, predominantly medium to coarse grained, moderately well sorted, subrounded to subangular, weak siliceous cement, common Fe-staining, common (10%) very dark brown to black brown rounded lithic fragments, trace pyrite, friable in part, loose in part, moderately hard in part, poor to fair inferred porosity, no hydrocarbon fluorescence.
818	821	100	SANDSTONE: Medium brown, occasionally dark brown, medium to dark yellow brown, predominantly medium to coarse grained, moderately well sorted, subrounded to subangular, weak siliceous cement, common Fe-staining, common (10%) very dark brown to black brown rounded lithic fragments, trace pyrite, friable in part, loose in part, moderately hard in part, poor to fair inferred porosity, no hydrocarbon fluorescence.
821	824	100	SANDSTONE: Medium brown, occasionally dark brown, medium to dark yellow brown, medium to coarse grained, occasionally very coarse, moderately well sorted, subrounded to subangular, weak to occasionally moderately strong siliceous cement, common Fe-staining, common (10%) very dark brown to black brown rounded lithic fragments, trace pyrite, friable in part, loose in part, moderately hard in part, poor to fair inferred

			porosity, no hydrocarbon fluorescence.
824	827	100	SANDSTONE: Medium brown, occasionally dark brown, medium to dark yellow brown, medium to coarse grained, occasionally very coarse, moderately well sorted, subrounded to subangular, weak to occasionally moderately strong siliceous cement, common Fe-staining, common (10%) very dark brown to black brown rounded lithic fragments, trace pyrite, friable in part, loose in part, moderately hard in part, poor to fair inferred porosity, no hydrocarbon fluorescence.
827	836	100	SANDSTONE: Medium brown, red brown, pale pink, medium to occasionally coarse grained, moderately well sorted, subrounded, subangular in part, common to abundant light brown to pale red brown moderate strong calcareous matrix (10 to 30%), moderately hard to hard, poor visual porosity, no hydrocarbon fluorescence, trace mineral fluorescence.
836	839	100	SANDSTONE: Medium brown, red brown, pale pink, 1 occasionally coarse grained, moderately well sorted, subrounded, in part, common to abundant light brown to pale red brown mod calcareous matrix (10 to 30%), moderately hard to hard, 1 porosity, no hydrocarbon fluorescence, trace mineral fluorescence.
839	842	100	SANDSTONE: Medium brown, red brown, pale pink, 1 occasionally coarse grained, moderately well sorted, subrounded, in part, common to abundant light brown to pale red brown mod calcareous matrix (10 to 30%), moderately hard to hard, 1 porosity, no hydrocarbon fluorescence, trace mineral fluorescence.
842	845	100	SANDSTONE: Clear, translucent, pale yellow, frosted, occasional Fe-staining, predominantly medium to coarse grained, occasionally very coarse, moderately well sorted, rounded to subrounded, generally loose and clean, good porosity, no hydrocarbon fluorescence.
845	848	100	SANDSTONE: Clear, translucent, pale yellow, frosted, occasional Fe-staining, predominantly medium to coarse grained, occasionally very coarse, moderately well sorted, rounded to subrounded, generally loose and clean, good visual porosity, no hydrocarbon fluorescence.
848	851	100	SANDSTONE: Clear, translucent, pale yellow, frosted, occasional Fe-staining, predominantly medium to coarse grained, occasionally very coarse, moderately well sorted, rounded to subrounded, generally loose and clean, good porosity, no hydrocarbon fluorescence.
851	854	100	SANDSTONE: Clear, translucent, very pale yellow to pale yellow brown, frosted, occasional Fe-staining, predominantly coarse to very coarse grained, medium grained in part, moderately well sorted, rounded to subrounded, generally loose and clean, good l porosity, no hydrocarbon fluorescence.

854	857	100	SANDSTONE: Clear, translucent, very pale yellow to pale yellow brown, frosted, occasional Fe-staining, predominantly coarse to very coarse grained, medium grained in part, moderately well sorted, rounded to subrounded, generally loose and clean, good porosity, no hydrocarbon fluorescence.
857	860	100	SANDSTONE: Predominantly clear to translucent, minor very pale yellow to yellow brown, frosted, occasional Fe-staining, predominantly coarse to very coarse grained, well sorted, rounded to subrounded, generally loose and clean, good porosity, no hydrocarbon fluorescence.
860	863	100	SANDSTONE: Predominantly clear to translucent, minor very pale yellow to yellow brown, frosted, occasional Fe-staining, predominantly coarse to very coarse grained, well sorted, rounded to subrounded, generally loose and clean, good porosity, no hydrocarbon fluorescence.
863	866	100	SANDSTONE: Predominantly clear to translucent, minor very pale yellow to yellow brown, frosted, occasional Fe-staining, predominantly coarse to very coarse grained, well sorted, rounded to subrounded, generally loose and clean, good porosity, no hydrocarbon fluorescence.
866	869	100	SANDSTONE: Predominantly clear to translucent, minor very pale yellow to yellow brown, frosted, occasional Fe-staining, predominantly coarse to very coarse grained, well sorted, rounded to subrounded, generally loose and clean, good porosity, no hydrocarbon fluorescence.
869	872	100	SANDSTONE: Clear to translucent, minor very pale yellow to yellow brown, frosted, waxy in part, vitreous in part, medium to predominantly coarse, minor very coarse grained, well sorted, rounded to subrounded, generally loose and clean, good porosity, no hydrocarbon fluorescence.
872	875	100	SANDSTONE: Clear to translucent, minor very pale yellow to yellow brown, frosted, waxy in part, vitreous in part, medium to predominantly coarse, minor very coarse grained, well sorted, rounded to subrounded, generally loose and clean, good porosity, no hydrocarbon fluorescence.
875	878	100	SANDSTONE: Clear to translucent, pale grey, occasionally very pale brown, medium to coarse grained, occasionally very coarse, moderately sorted, subrounded, subangular in part, trace disseminated pyrite, generally clean, loose, good porosity, no hydrocarbon fluorescence.
878	881	100	SANDSTONE: Clear to translucent, pale grey, occasionally very pale brown, medium to coarse grained, occasionally very coarse, moderately sorted, subrounded, subangular in part, trace disseminated pyrite, generally clean, loose, good porosity, no hydrocarbon fluorescence.

881	884	100	SANDSTONE: Clear to translucent, pale grey, occasionally very pale brown, coarse grained to very coarse, moderately well sorted, subrounded, subangular in part, trace very weak siliceous cement, generally clean, loose, good inferred porosity, no hydrocarbon fluorescence.
884	887	100	SANDSTONE: Clear to translucent, pale grey, occasionally very pale brown, coarse grained to very coarse, moderately well sorted, subrounded, subangular in part, trace very weak siliceous cement, generally clean, loose, good inferred porosity, no hydrocarbon fluorescence.
887	890	100	SANDSTONE: Clear to translucent, pale grey, occasionally very pale brown, coarse grained to very coarse, moderately well sorted, subrounded, subangular in part, rounded in part, trace very weak siliceous cement, generally clean, loose, good inferred porosity, no hydrocarbon fluorescence.
890	893	100	SANDSTONE: Clear to translucent, pale grey, occasionally very pale brown, coarse grained to very coarse, moderately well sorted, subrounded, subangular in part, rounded in part, trace very weak siliceous cement, generally clean, loose, good inferred porosity, no hydrocarbon fluorescence.
893	896	100	SANDSTONE: Clear to translucent, pale grey, medium to coarse grained, minor very coarse, moderately well sorted, subrounded, subangular in part, rounded in part, trace very weak siliceous cement, generally clean, loose, good inferred porosity, no hydrocarbon fluorescence.
896	899	100	SANDSTONE: Clear to translucent, pale grey, medium to coarse grained, minor very coarse, moderately well sorted, subrounded, subangular in part, rounded in part, trace very weak siliceous cement, generally clean, loose, good inferred porosity, no hydrocarbon fluorescence.
899	902	100	SANDSTONE: Clear to translucent, pale grey, rare pale green grey, coarse to very coarse, moderately well sorted, predominantly subrounded, minor subangular, rounded in part, trace very weak siliceous cement, generally clean, loose, good inferred porosity, no hydrocarbon fluorescence.
902	905	100	SANDSTONE: Clear to translucent, pale grey, rare pale green grey, coarse to very coarse, moderately well sorted, predominantly subrounded, minor subangular, rounded in part, trace very weak siliceous cement, generally clean, loose, good inferred porosity, no hydrocarbon fluorescence.
905	908	90	SANDSTONE: Clear to translucent, pale grey, rare pale green grey, coarse to very coarse, moderately well sorted, predominantly subrounded, minor subangular, rounded in part, trace very weak siliceous cement, generally clean, loose, good inferred porosity, no hydrocarbon fluorescence.

		10	CLAYSTONE: Medium grey, medium to light brown grey, slightly arenaceous, firm to moderate hard, partly soft and dispersive, subblocky.
908	911	90	SANDSTONE: Clear to translucent, pale grey, rare pale green grey, coarse to very coarse, moderately well sorted, predominantly subrounded, minor subangular, rounded in part, trace very weak siliceous cement, generally clean, loose, good inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium grey, medium to light brown grey, slightly arenaceous, firm to moderate hard, partly soft and dispersive, subblocky.
911	914	90	SANDSTONE: Clear to translucent, pale grey, rare pale green grey, coarse to very coarse, moderately well sorted, predominantly subrounded, minor subangular, rounded in part, trace very weak siliceous cement, trace pyrite, generally clean, loose, good inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium grey, medium to light brown grey, slightly arenaceous, firm to moderate hard, partly soft and dispersive, subblocky.
914	917	90	SANDSTONE: Clear to translucent, pale grey, rare pale green grey, coarse to very coarse, moderately well sorted, predominantly subrounded, minor subangular, rounded in part, trace very weak siliceous cement, trace pyrite, generally clean, loose, good inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium grey, medium to light brown grey, slightly arenaceous, firm to moderate hard, partly soft and dispersive, subblocky.
917	920	100	SANDSTONE: Clear to predominantly translucent, pale grey, fine to coarse grained, poorly sorted, subangular to predominantly subrounded, trace weak siliceous cement, trace medium grey argillaceous matrix, rarely moderate hard, generally loose, fair to good inferred porosity, no hydrocarbon fluorescence.
920	923	100	SANDSTONE: Clear to predominantly translucent, pale grey, fine to coarse grained, poorly sorted, subangular to predominantly subrounded, trace weak siliceous cement, trace medium grey argillaceous matrix, rarely moderate hard, generally loose, fair to good inferred porosity, no hydrocarbon fluorescence.
923	926	70	SANDSTONE: Clear to predominantly translucent, pale yellow, medium to coarse grained, minor fine grained, moderately poorly sorted, subangular to predominantly subrounded, trace weak siliceous cement, trace pyrite, minor moderate hard, generally loose, fair inferred porosity, no hydrocarbon fluorescence.
		30	CLAYSTONE: Medium to occasionally dark grey to brown

			grey, slightly arenaceous, soft to firm, partly dispersive, amorphous.
926	929	70	SANDSTONE: Clear to predominantly translucent, pale yellow, medium to coarse grained, minor fine grained, moderately poorly sorted, subangular to predominantly subrounded, trace weak siliceous cement, trace pyrite, minor moderate hard, generally loose, fair inferred porosity, no hydrocarbon fluorescence.
		30	CLAYSTONE: Medium to occasionally dark grey to brown grey, slightly arenaceous, soft to firm, partly dispersive, amorphous.
929	932	90	SANDSTONE: Clear to predominantly translucent, medium grey, medium to coarse grained, moderately well sorted, subangular to predominantly subrounded, locally common pyrite cement, hard in pyritised aggregates, common loose, poor visual porosity, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark grey to brown grey, slightly arenaceous, soft to firm, partly dispersive, amorphous.
932	935	90	SANDSTONE: Clear to predominantly translucent, medium grey, medium to coarse grained, moderately well sorted, predominantly subrounded, locally common pyrite cement, hard in pyritised aggregates, common loose, poor visual porosity, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark grey to brown grey, slightly arenaceous, soft to firm, partly dispersive, amorphous.
935	938	90	SANDSTONE: Clear to translucent, pale grey, medium to coarse grained, moderately well sorted, predominantly subrounded, common pyrite cement, hard in pyritised aggregates, common loose, poor visual porosity, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark grey to brown grey, slightly arenaceous, soft to firm, partly dispersive, amorphous.
938	941	90	SANDSTONE: Clear to translucent, pale grey, medium to coarse grained, moderately well sorted, predominantly subrounded, common pyrite cement, hard in pyritised aggregates, common loose, poor visual porosity, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark grey to brown grey, slightly arenaceous, soft to firm, partly dispersive, amorphous.
941	944	90	SANDSTONE: Clear to translucent, pale grey, medium to coarse grained, moderately well sorted, predominantly subrounded, trace pyrite cement, hard in pyritised aggregates, common loose, poor visual porosity, fair inferred porosity, no

			hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark grey to brown grey, dark brown, soft to firm, occasionally hard, partly dispersive, amorphous.
944	947	90	SANDSTONE: Clear to translucent, pale grey, medium to coarse grained, moderately well sorted, predominantly subrounded, trace pyrite cement, hard in pyritised aggregates, common loose, poor visual porosity, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark grey to brown grey, dark brown, soft to firm, occasionally hard, partly dispersive, amorphous.
947	950	90	SANDSTONE: Translucent, pale grey, medium to coarse grained, moderately well sorted, predominantly subrounded to rounded, trace pyrite cement, hard in pyritised aggregates, common loose, poor visual porosity, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark grey to brown grey, dark brown, soft to firm, occasionally hard, partly dispersive, amorphous.
950	953	90	SANDSTONE: Translucent, pale grey, medium to coarse grained, moderately well sorted, predominantly subrounded to rounded, trace pyrite cement, hard in pyritised aggregates, common loose, poor visual porosity, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark grey to brown grey, dark brown, soft to firm, occasionally hard, partly dispersive, amorphous.
953	956	90	SANDSTONE: Translucent, pale grey, medium to coarse grained, moderately well sorted, predominantly subrounded to rounded, trace pyrite, common loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark grey to brown grey, dark brown, soft to firm, occasionally hard, partly dispersive, amorphous.
956	959	90	SANDSTONE: Translucent, pale grey, medium to coarse grained, moderately well sorted, predominantly subrounded to rounded, trace pyrite cement, common loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark grey to brown grey, dark brown, soft to firm, occasionally hard, partly dispersive, amorphous.

959	962	90	SANDSTONE: Translucent, pale to medium grey, minor pale yellow, medium to coarse grained, moderately well sorted, predominantly subrounded to rounded, trace pyrite cement, common loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark grey to brown grey, dark brown, soft to firm, occasionally moderately hard, partly dispersive, amorphous.
962	965	90	SANDSTONE: Translucent, pale to medium grey, minor pale yellow, medium to coarse grained, moderately well sorted, predominantly subrounded to rounded, trace pyrite cement, common loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark grey to brown grey, dark brown, soft to firm, occasionally moderately hard, partly dispersive, amorphous.
965	968	90	SANDSTONE: Translucent, pale to medium grey, minor pale yellow, medium to coarse grained, moderately well sorted, predominantly subrounded to rounded, trace pyrite cement, trace lithic fragments, common loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark grey to brown grey, dark brown, soft to firm, occasionally moderately hard, partly dispersive, amorphous.
968	971	90	SANDSTONE: Translucent, pale to medium grey, minor pale yellow, medium to coarse grained, moderately well sorted, predominantly subrounded to rounded, trace pyrite cement, trace lithic fragments, common loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark grey to brown grey, dark brown, soft to firm, occasionally moderately hard, partly dispersive, amorphous.
971	974	90	SANDSTONE: Translucent, pale to medium grey, minor pale yellow, medium to coarse grained, moderately well sorted, predominantly subrounded to rounded, subangular in part, trace pyrite cement, trace lithic fragments, common loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark grey to brown grey, dark brown, soft to firm, occasionally moderately hard, partly dispersive, amorphous.
974	977	90	SANDSTONE: Translucent, pale to medium grey, minor pale yellow, medium to coarse grained, moderately well sorted, predominantly subrounded to rounded, subangular in part, trace pyrite cement, trace lithic fragments, common loose, fair

inferred porosity, no hydrocarbon fluorescence.

		10	CLAYSTONE: Medium to dark grey to brown grey, dark brown, soft to firm, occasionally moderately hard, partly dispersive, amorphous.
977	980	90	SANDSTONE: Translucent, pale to medium green grey, medium to coarse grained, moderately well sorted, predominantly subrounded to rounded, polished surface in part, subangular in part, trace pyrite cement, common loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark grey to brown grey, dark brown, soft to firm, occasionally moderately hard, partly dispersive, amorphous.
980	983	90	SANDSTONE: Translucent, pale to medium green grey, medium to coarse grained, moderately well sorted, predominantly subrounded to rounded, polished surface in part, subangular in part, trace pyrite cement, common loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark grey to brown grey, dark brown, soft to firm, occasionally moderately hard, partly dispersive, amorphous.
983	986	90	SANDSTONE: Translucent, pale to medium green grey, medium to coarse grained, moderately well sorted, predominantly subrounded to rounded, polished surface in part, subangular in part, trace pyrite cement, common loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium brown, medium to dark brown grey, soft to firm, occasionally moderately hard, partly dispersive, amorphous.
986	989	90	SANDSTONE: Translucent, pale to medium green grey, medium to coarse grained, moderately well sorted, predominantly subrounded to rounded, polished surface in part, subangular in part, trace pyrite cement, common loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium brown, medium to dark brown grey, soft to firm, occasionally moderately hard, partly dispersive, amorphous.
989	992	80	SANDSTONE: Translucent, pale to medium grey, pale yellow in part, medium to coarse grained, very coarse in part, moderately poorly sorted, predominantly subrounded to rounded, polished surface in part, subangular in part, trace pyrite cement, trace Fe-staining, trace grey lithic fragments, common loose, fair inferred porosity, no hydrocarbon fluorescence.

		20	CLAYSTONE: Light to medium grey, soft to firm, very finely arenaceous, calcareous, slightly dispersive, subblocky.
992	995	80	SANDSTONE: Translucent, pale to medium grey, pale yellow in part, medium to coarse grained, very coarse in part, moderately poorly sorted, predominantly subrounded to rounded, polished surface in part, subangular in part, trace pyrite cement, trace Fe-staining, trace grey lithic fragments, common loose, fair inferred porosity, no hydrocarbon fluorescence.
		20	CLAYSTONE: Light to medium grey, soft to firm, very finely arenaceous, calcareous, slightly dispersive, subblocky.
995	998	90	SANDSTONE: Translucent, pale grey, pale yellow in part, coarse to very coarse grained, moderately sorted, predominantly subrounded to commonly rounded, trace pyrite cement, trace Fe-staining, trace grey rounded lithic fragments, common loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark brown, soft to firm, very finely arenaceous, slightly dispersive, subblocky to amorphous.
998	1001	90	SANDSTONE: Translucent, pale grey, pale yellow in part, coarse to very coarse grained, moderately sorted, predominantly subrounded to commonly rounded, trace pyrite cement, trace Fe-staining, trace grey rounded lithic fragments, common loose, good inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark brown, soft to firm, very finely arenaceous, slightly dispersive, subblocky to amorphous.
1001	1004	90	SANDSTONE: Translucent, pale grey, minor pale yellow, medium to very coarse grained, poorly sorted, predominantly subrounded to commonly rounded, common pyrite cement, trace pyrite nodules, trace grey rounded lithic fragments, commonly loose, good inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark brown, soft to firm, very finely arenaceous, slightly dispersive, subblocky to amorphous.
1004	1007	90	SANDSTONE: Translucent, pale grey, minor pale yellow, medium to very coarse grained, poorly sorted, predominantly subrounded to commonly rounded, common pyrite cement, trace pyrite nodules, trace grey rounded lithic fragments, commonly loose, good inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark brown, soft to firm, very finely arenaceous, slightly dispersive, subblocky to amorphous.

1007	1010	100	SANDSTONE: Translucent, pale grey, coarse to very coarse grained, occasionally medium grained, moderately poorly sorted, subrounded to commonly rounded, common pyrite cement, trace pyrite nodules, generally loose and clean, good inferred porosity, no hydrocarbon fluorescence.
1010	1013	100	SANDSTONE: Translucent, pale grey, coarse to very coarse grained, occasionally medium grained, moderately poorly sorted, subrounded to commonly rounded, common pyrite cement, trace pyrite nodules, generally loose and clean, good inferred porosity, no hydrocarbon fluorescence.
1013	1016	90	SANDSTONE: Translucent, pale grey, coarse to very coarse grained, occasionally medium grained, minor fine grained, poorly sorted, rounded to subrounded, trace pyrite cement, trace pyrite nodules, generally loose and clean, good inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark brown, soft to firm, very finely arenaceous, slightly dispersive, subblocky to amorphous.
1016	1019	90	SANDSTONE: Translucent, pale grey, coarse to very coarse grained, occasionally medium grained, minor fine grained, poorly sorted, rounded to subrounded, trace pyrite cement, trace pyrite nodules, generally loose and clean, good inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark brown, soft to firm, very finely arenaceous, slightly dispersive, subblocky to amorphous.
1019	1022	80	SANDSTONE: Translucent, pale grey, medium to very coarse grained, moderately poorly sorted, rounded to subrounded, trace pyrite cement, trace pyrite nodules, generally loose and clean, poorly consolidated, good inferred porosity, no hydrocarbon fluorescence.
		20	CLAYSTONE: Medium to dark brown, soft to firm, very finely arenaceous, slightly dispersive, subblocky to amorphous.
1022	1025	80	SANDSTONE: Translucent, pale grey, medium to very coarse grained, moderately poorly sorted, rounded to subrounded, trace pyrite cement, trace pyrite nodules, generally loose and clean, poorly consolidated, good inferred porosity, no hydrocarbon fluorescence.
		20	CLAYSTONE: Medium to dark brown, soft to firm, very finely arenaceous, slightly dispersive, subblocky to amorphous.
1025	1028	90	SANDSTONE: Translucent, pale grey, medium to very coarse grained, moderately poorly sorted, rounded to subrounded, trace pyrite cement, trace pyrite nodules, generally loose and clean, good inferred porosity, no hydrocarbon fluorescence.

		10	CLAYSTONE: Medium to predominantly dark brown, occasionally very dark brown, soft to firm, slightly dispersive, subblocky to amorphous.
1028	1031	90	SANDSTONE: Translucent, pale grey, medium to very coarse grained, moderately poorly sorted, rounded to subrounded, trace pyrite cement, trace pyrite nodules, generally loose and clean, good inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to predominantly dark brown, occasionally very dark brown, soft to firm, slightly dispersive, subblocky to amorphous.
1031	1034	90	SANDSTONE: Translucent, pale grey, medium to very coarse grained, moderately poorly sorted, rounded to subrounded, trace moderately strong siliceous cement, trace pyrite cement, trace light grey argillaceous matrix, moderately hard aggregates, common loose and clean, poor visual porosity, poor to fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to predominantly dark brown, occasionally very dark brown, soft to firm, slightly dispersive, subblocky to amorphous.
1034	1037	90	SANDSTONE: Translucent, pale grey, medium to very coarse grained, moderately poorly sorted, rounded to subrounded, trace moderately strong siliceous cement, trace pyrite cement, trace light grey argillaceous matrix, moderately hard aggregates, common loose and clean, poor visual porosity, poor to fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to predominantly dark brown, occasionally very dark brown, soft to firm, slightly dispersive, subblocky to amorphous.
1037	1040	90	SANDSTONE: Translucent, pale grey, coarse to very coarse grained, minor medium grained, moderately poorly sorted, rounded to subrounded, trace moderately strong siliceous cement, trace pyrite cement, trace light grey argillaceous matrix, moderately hard aggregates, common loose and clean, poor visual porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to predominantly dark brown, occasionally very dark brown, soft to firm, slightly dispersive, subblocky to amorphous.
1040	1043	90	SANDSTONE: Translucent, pale grey, coarse to very coarse grained, minor medium grained, moderately poorly sorted, rounded to subrounded, trace moderately strong siliceous cement, trace pyrite cement, trace light grey argillaceous matrix, moderately hard to hard aggregates, common loose and clean, poor visual porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to predominantly dark brown, occasionally very dark brown, soft to firm, slightly dispersive,

			subblocky to amorphous.
1043	1046	90	SANDSTONE: Translucent, pale grey, coarse to very coarse grained, minor medium grained, moderately poorly sorted, rounded to subrounded, trace moderately strong siliceous cement, rare light grey argillaceous matrix, moderately hard to hard aggregates, loose and clean in part, poor visual porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to predominantly dark brown, occasionally very dark brown, soft to firm, slightly dispersive, subblocky to amorphous.
1046	1049	90	SANDSTONE: Translucent, pale grey, coarse to very coarse grained, minor medium grained, moderately poorly sorted, rounded to subrounded, trace moderately strong siliceous cement, rare light grey argillaceous matrix, moderately hard to hard aggregates, loose and clean in part, poor visual porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to predominantly dark brown, occasionally very dark brown, soft to firm, slightly dispersive, subblocky to amorphous.
1049	1052	100	SANDSTONE: Translucent, pale grey, minor green grey, coarse to very coarse grained, minor medium grained, moderately poorly sorted, rounded to subrounded, trace moderately strong to strong siliceous cement, rare light grey argillaceous matrix, moderately hard to hard aggregates, loose and clean in part, poor visual porosity, no hydrocarbon fluorescence.
1052	1055	100	SANDSTONE: Translucent, pale grey, minor green grey, coarse to very coarse grained, minor medium grained, moderately poorly sorted, rounded to subrounded, trace moderately strong to strong siliceous cement, minor calcareous cement, rare light grey argillaceous matrix, moderately hard to hard aggregates, loose and clean in part, poor visual porosity, no hydrocarbon fluorescence.
1055	1061	100	SANDSTONE: Translucent, pale grey, minor pale brown, predominantly medium to very coarse grained, minor fine grained, poorly sorted, subangular, minor subrounded, trace moderately strong to strong siliceous cement, minor calcareous cement, rare pyrite cement, trace medium to dark brown silty matrix, moderately hard to hard aggregates, loose in part, poor visual porosity, no hydrocarbon fluorescence.
1061	1064	100	SANDSTONE: Translucent, pale grey, minor pale brown, predominantly medium to very coarse grained, minor fine grained, poorly sorted, subangular, minor subrounded, trace moderately strong to strong siliceous cement, minor calcareous cement, rare pyrite cement, trace medium to dark brown silty

			matrix, moderately hard to hard aggregates, loose in part, poor visual porosity, no hydrocarbon fluorescence.
		Trace	CLAYSTONE: Dark brown, carbonaceous, silty, moderate hard, subblocky.
1064	1067	100	SANDSTONE: Translucent, pale grey, minor pale brown, predominantly medium to coarse grained, very coarse grained in part, moderately poorly sorted, predominantly subrounded, partly subangular, trace weak to strong siliceous cement, minor calcareous cement, trace pyrite, trace medium brown silty matrix, moderately hard to hard aggregates, loose in part, poor visual porosity, no hydrocarbon fluorescence.
		Trace	CLAYSTONE: Dark brown, calcareous, carbonaceous, silty, moderate hard, subblocky
1067	1070	100	SANDSTONE: Translucent, pale grey, minor pale brown, predominantly medium to coarse grained, very coarse grained in part, moderately poorly sorted, predominantly subrounded, partly subangular, trace weak to strong siliceous cement, minor calcareous cement, trace pyrite, trace medium brown silty matrix, moderately hard to hard aggregates, loose in part, poor visual porosity, no hydrocarbon fluorescence.
		Trace	CLAYSTONE: Dark brown, carbonaceous, calcareous, silty, moderate hard, subblocky
1070	1073	90	SANDSTONE: Pale brown, translucent, dominantly medium to coarse grained, very coarse grained and fine in part, poorly sorted, predominantly subrounded, partly subangular, trace weak to strong siliceous cement, trace medium brown silty matrix, moderately hard to hard aggregates, loose in part, poor visual porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark brown, calcareous, silty, moderate hard, subblocky
1073	1076	90	SANDSTONE: Pale brown, translucent, dominantly medium to coarse grained, very coarse grained and fine in part, poorly sorted, predominantly subrounded, partly subangular, trace weak to strong siliceous cement, trace medium brown silty matrix, moderately hard to hard aggregates, loose in part, poor visual porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark brown, calcareous, silty, moderate hard, subblocky
1076	1079	80	SANDSTONE: Pale brown, translucent, dominantly medium to coarse grained, very coarse grained and fine in part, poorly sorted, predominantly subrounded, partly subangular, trace weak to strong siliceous cement, trace medium brown silty

			matrix, moderately hard to hard aggregates, loose in part, poor visual porosity, no hydrocarbon fluorescence.
		20	CLAYSTONE: Medium to dark brown, calcareous, silty, firm to moderate hard, subblocky
1079	1082	80	SANDSTONE: Pale brown, translucent, dominantly medium to coarse grained, very coarse grained and fine in part, poorly sorted, predominantly subrounded, partly subangular, trace weak to strong siliceous cement, trace medium brown silty matrix, moderately hard to hard aggregates, loose in part, poor visual porosity, no hydrocarbon fluorescence.
		20	CLAYSTONE: Medium to dark brown, calcareous, silty, firm to moderate hard, subblocky
1082	1085	70	SANDSTONE: Pale brown, translucent, medium to coarse grained, very coarse grained and fine in part, poorly sorted, predominantly subrounded, partly subangular, trace weak to strong siliceous cement, trace medium brown silty matrix, moderately hard to hard aggregates, loose in part, poor visual porosity, no hydrocarbon fluorescence.
		30	CLAYSTONE: Medium to dark brown, slightly calcareous, silty, soft to firm, minor moderately hard, dispersive, amorphous to subblocky
1085	1088	60	SANDSTONE: Pale brown, translucent, medium to coarse grained, very coarse grained and fine in part, poorly sorted, predominantly subrounded, partly subangular, trace weak to strong siliceous cement, trace medium brown silty matrix, moderately hard to hard aggregates, loose in part, poor visual porosity, no hydrocarbon fluorescence.
		40	CLAYSTONE: Medium to dark brown, slightly calcareous, silty, soft to firm, minor moderately hard, dispersive, amorphous to subblocky
1088	1091	40	SANDSTONE: Pale brown, translucent, minor clear, fine to predominantly medium grained, coarse to very coarse grained in part, moderately poorly sorted, subrounded to subangular, trace moderately strong to strong siliceous cement, trace medium brown silty matrix, moderately hard to hard aggregates, loose in part, poor visual porosity, no hydrocarbon fluorescence.
		60	CLAYSTONE: Medium to dark brown, slightly arenaceous, silty, predominantly soft to firm, minor moderately hard, dispersive, amorphous to subblocky.
1091	1094	60	CLAYSTONE: Medium to dark brown, slightly arenaceous, silty, predominantly soft to firm, minor moderately hard, dispersive, amorphous to subblocky.
		40	SANDSTONE: Pale brown, translucent, minor clear, fine to

			predominantly medium grained, coarse to very coarse grained in part, moderately poorly sorted, subrounded to subangular, trace moderately strong to strong siliceous cement, trace medium brown silty matrix, moderately hard to hard aggregates, loose in part, poor visual porosity, no hydrocarbon fluorescence.
1094	1097	90	CLAYSTONE: Medium to dark brown, slightly arenaceous, silty, predominantly soft, minor firm, dispersive, amorphous to subblocky.
		10	SANDSTONE: Pale brown, translucent, predominantly coarse grained, well sorted, subrounded, trace moderately strong to strong siliceous cement, trace silty matrix, moderately hard to hard aggregates, loose in part, poor visual porosity, no hydrocarbon fluorescence.
1097	1100	90	CLAYSTONE: Medium to dark brown, slightly arenaceous, silty, predominantly soft, minor firm, dispersive, amorphous to subblocky.
		10	SANDSTONE: Pale brown, translucent, predominantly coarse grained, well sorted, subrounded, trace moderately strong to strong siliceous cement, trace silty matrix, moderately hard to hard aggregates, loose in part, poor visual porosity, no hydrocarbon fluorescence.
1100	1103	30	CLAYSTONE: Medium to dark brown, slightly arenaceous, silty, predominantly soft, minor firm, dispersive, amorphous to subblocky.
		70	SANDSTONE: Pale brown, translucent, predominantly coarse grained, well sorted, subrounded, trace moderately strong to strong siliceous cement, moderately hard to hard aggregates, loose in part, poor visual porosity, no hydrocarbon fluorescence.
1103	1106	30	CLAYSTONE: Medium to dark brown, slightly arenaceous, silty, predominantly soft, minor firm, dispersive, amorphous to subblocky
		70	SANDSTONE: Pale brown, translucent, predominantly coarse grained, well sorted, subrounded, trace moderately strong to strong siliceous cement, moderately hard to hard aggregates, loose in part, poor visual porosity, no hydrocarbon fluorescence.
1106	1109	80	SANDSTONE: Light grey, trace pale brown, translucent, trace green grey, predominantly medium grained, minor coarse and occasionally fine grained, moderately well sorted, subrounded, trace weak siliceous cement, trace glauconite ?, rare friable to moderately hard aggregates, loose, fair inferred porosity, no hydrocarbon fluorescence.
		20	CLAYSTONE: Medium to dark brown, slightly arenaceous,

			silty, predominantly soft, minor firm, dispersive, amorphous to subblocky.
1109	1112	80	SANDSTONE: Light grey, trace pale brown, translucent, trace green grey, predominantly medium grained, minor coarse and occasionally fine grained, moderately well sorted, subrounded, trace weak siliceous cement, trace glauconite ?, rare friable to moderately hard aggregates, loose, fair inferred porosity, no hydrocarbon fluorescence.
		20	CLAYSTONE: Medium to dark brown, slightly arenaceous, silty, predominantly soft, minor firm, dispersive, amorphous to subblocky
1112	1115	90	SANDSTONE: Pale brown, clear to translucent, predominantly medium grained, minor coarse and occasionally fine grained, moderately well sorted, subrounded, trace weak siliceous cement, trace pyrite, rare friable to moderately hard aggregates, generally loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark brown, slightly arenaceous, silty, predominantly soft, minor firm, dispersive, amorphous to subblocky
1115	1118	90	SANDSTONE: Pale brown, clear to translucent, predominantly medium grained, minor coarse and occasionally fine grained, moderately well sorted, subrounded, trace weak siliceous cement, trace pyrite, rare friable to moderately hard aggregates, generally loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium to dark brown, medium grey, slightly arenaceous, silty, predominantly soft, minor firm, dispersive, amorphous to subblocky.
1118	1121	90	SANDSTONE: Pale grey, clear to translucent, predominantly medium grained, minor coarse grained, moderately well sorted, subangular to minor subrounded, trace weak siliceous cement, rare friable to moderately hard aggregates, generally loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium grey, medium to dark brown, slightly arenaceous, siliceous in part, minor silty, soft to firm, occasionally very hard, dispersive, amorphous to subblocky.
1121	1124	90	SANDSTONE: Pale grey, clear to translucent, predominantly medium grained, minor coarse grained, moderately well sorted, subangular to minor subrounded, trace weak siliceous cement, rare friable to moderately hard aggregates, generally loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium grey, medium to dark brown, slightly arenaceous, siliceous in part, minor silty, soft to firm,

occasionally very hard, dispersive, amorphous to subblocky.

1124	1127	90	SANDSTONE: Pale grey, clear to translucent, predominantly medium grained, minor coarse grained, moderately well sorted, subangular to subangular, occasionally subrounded, trace weak siliceous cement, rare friable to moderately hard aggregates, generally loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium grey, medium to dark brown, slightly arenaceous, siliceous in part, minor silty, soft to firm, occasionally very hard, dispersive, amorphous to subblocky.
1127	1130	90	SANDSTONE: Pale grey, clear to translucent, predominantly medium grained, minor coarse grained, moderately well sorted, subangular to minor angular, occasionally subrounded, trace weak to moderately hard siliceous cement, minor friable to moderately hard aggregates, generally loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium grey, medium to dark brown, slightly arenaceous, siliceous in part, minor silty, soft to firm, occasionally very hard, dispersive, amorphous to subblocky
1130	1133	90	SANDSTONE: Pale grey, clear to translucent, medium grained to coarse grained, moderately well sorted, subangular to minor angular, minor Fe-staining, occasionally subrounded, trace pyrite, moderately hard siliceous cement, minor friable to moderately hard aggregates, partly loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium grey, medium to dark brown, slightly arenaceous, siliceous in part, minor silty, soft to firm, occasionally very hard, dispersive, amorphous to subblocky.
1133	1136	90	SANDSTONE: Pale grey, clear to translucent, medium grained to coarse grained, moderately well sorted, subangular to minor angular, minor Fe-staining, occasionally subrounded, moderately hard siliceous cement, minor friable to moderately hard aggregates, trace pyrite, partly loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium grey, medium to dark brown, slightly arenaceous, siliceous in part, minor silty, soft to firm, occasionally very hard, dispersive, amorphous to subblocky
1136	1139	90	SANDSTONE: Pale grey, clear to translucent, medium grained to coarse grained, moderately well sorted, subangular to minor angular, occasionally subrounded, moderately hard siliceous cement, minor friable to moderately hard aggregates, trace pyrite, partly loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium grey, medium to dark brown, slightly

			arenaceous, siliceous in part, minor silty, soft to firm, occasionally very hard, dispersive, amorphous to subblocky.
1139	1142	90	SANDSTONE: Pale grey, clear to translucent, medium grained to coarse grained, moderately well sorted, subangular to minor angular, occasionally subrounded, moderately hard siliceous cement, minor friable to moderately hard aggregates, trace pyrite, partly loose, fair inferred porosity, no hydrocarbon fluorescence.
		10	CLAYSTONE: Medium grey, medium to dark brown, slightly arenaceous, siliceous in part, minor silty, soft to firm, occasionally very hard, dispersive, amorphous to subblocky.
1142	1145	60	SANDSTONE: Pale grey, clear to translucent, off white, minor medium grey, medium grained to very coarse grained, occasional very coarse polished bit-fractured quartz fragments, moderately poorly sorted, subangular to minor angular, occasionally subrounded, moderately hard siliceous cement, occasional medium grey silty matrix, minor friable to moderately hard aggregates, occasionally very hard, partly loose, poor visual porosity, no hydrocarbon fluorescence.
		40	CLAYSTONE: Medium grey, medium to dark brown, slightly arenaceous, siliceous in part, minor silty, soft to firm, occasionally very hard, dispersive, amorphous to subblocky.
1145	1148	60	SANDSTONE: Pale grey, clear to translucent, off white, minor medium grey, medium grained to very coarse grained, occasional very coarse polished bit-fractured quartz fragments, moderately poorly sorted, subangular to minor angular, occasionally subrounded, moderately hard siliceous cement, occasional medium grey silty matrix, minor friable to moderately hard aggregates, occasionally very hard, partly loose, poor visual porosity, no hydrocarbon fluorescence.
		40	CLAYSTONE: Medium grey, medium to dark brown, slightly arenaceous, siliceous in part, minor silty, soft to firm, occasionally very hard, dispersive, amorphous to subblocky.
1148	1151	80	SANDSTONE: Pale grey, clear to translucent, off white, minor medium grey, medium grained to very coarse grained, occasional very coarse polished bit-fractured quartz fragments, moderately poorly sorted, subangular to minor angular, occasionally subrounded, moderately hard siliceous cement, occasional medium grey silty matrix, minor friable to moderately hard aggregates, occasionally very hard, partly loose, poor visual porosity, no hydrocarbon fluorescence.
		20	CLAYSTONE: Medium grey, medium to dark brown, slightly arenaceous, siliceous in part, minor silty, soft to firm, occasionally very hard, dispersive, amorphous to subblocky.

1151	1154	80	SANDSTONE: Pale grey, clear to translucent, off white, medium grey, medium grained to very coarse grained, occasional very coarse polished bit-fractured quartz fragments, moderately poorly sorted, subangular to minor angular, occasionally subrounded, moderately hard siliceous cement, occasional medium grey silty matrix, com disseminated pyrite, moderate hard to hard aggregates, occasionally very hard, partly loose, poor visual porosity, no hydrocarbon fluorescence.
		20	SILTSTONE: Medium grey, medium to dark brown, arenaceous, grades to sandstone, siliceous in part, soft to firm, occasionally very hard, minor dispersive, amorphous to subblocky
1154	1157	60	SANDSTONE: Pale to medium grey, clear to translucent, off white, fine to medium grained, partly coarse grained, occasional very coarse polished bit-fractured quartz fragments, poorly sorted, subangular to minor angular, occasionally subrounded, common moderate strong siliceous and slightly calcareous cement, locally common white argillaceous matrix, occasional medium grey silty matrix, common disseminated pyrite, rare glauconite(?), moderate hard to hard aggregates, occasionally very hard, no hydrocarbon fluorescence.
		40	SILTSTONE: Medium grey, medium to dark brown, arenaceous, grades to sandstone, carbonaceous in part, rare white argillaceous laminations, common disseminated pyrite, moderately hard occasionally very hard, subblocky.
1157	1160	60	SANDSTONE: Pale to medium grey, clear to translucent, off white, fine to medium grained, partly coarse grained, occasional very coarse polished bit-fractured quartz fragments, poorly sorted, subangular to minor angular, occasionally subrounded, common moderate strong siliceous and slightly calcareous cement, locally common white argillaceous matrix, occasional medium grey silty matrix, common disseminated pyrite, rare glauconite ?, moderate hard to hard aggregates, occasionally very hard, no hydrocarbon fluorescence.
		40	SILTSTONE: Medium grey, medium to dark brown, arenaceous, grades to sandstone, carbonaceous in part, rare white argillaceous laminations, common disseminated pyrite, moderately hard occasionally very hard, subblocky.
1160	1163	70	SANDSTONE: Pale to medium grey, clear to translucent, off white, medium to coarse grained, occasional very coarse subrounded polished bit-fractured quartz fragments, moderately poorly sorted, subangular to minor angular, common moderate strong calcareous and dolomitic cement, minor white argillaceous matrix, occasional medium grey silty matrix, common disseminated pyrite, hard to occasionally very hard aggregates, party loose, no hydrocarbon fluorescence.

		30	SILTSTONE: Light to medium grey, medium brown, arenaceous, grades to sandstone in part, trace carbonaceous specks, minor disseminated pyrite, moderately hard, subblocky.
1163	1166	70	SANDSTONE: Pale to medium grey, clear to translucent, off white, medium to coarse grained, occasional very coarse subrounded polished bit-fractured quartz fragments, moderately poorly sorted, subangular to minor angular, common moderate strong calcareous and dolomitic cement, minor white argillaceous matrix, occasional medium grey silty matrix, common disseminated pyrite, hard to occasionally very hard aggregates, loose in part, no hydrocarbon fluorescence.
		30	SILTSTONE: Light to medium grey, medium brown, arenaceous, grades to sandstone in part, trace carbonaceous specks, minor disseminated pyrite, moderately hard, subblocky.
1166	1169	60	SANDSTONE: Pale grey, clear to translucent, off white, medium to very coarse grained, poorly sorted, subangular to subrounded, common moderately strong calcareous and dolomitic cement, minor white argillaceous matrix, occasional medium grey silty matrix, common disseminated pyrite, hard to occasionally very hard aggregates, loose in part, no hydrocarbon fluorescence.
		40	SILTSTONE: Light to medium grey, medium brown, arenaceous, grades to sandstone in part, trace carbonaceous specks, minor disseminated pyrite, moderately hard, subblocky.
1169	1172	60	SANDSTONE: Pale grey, clear to translucent, off white, medium to very coarse grained, poorly sorted, subangular to subrounded, common moderately strong calcareous and dolomitic cement, minor white argillaceous matrix, occasional medium grey silty matrix, common disseminated pyrite, hard to occasionally very hard aggregates, loose in part, no hydrocarbon fluorescence.
		40	SILTSTONE: Light to medium grey, medium brown, arenaceous, grades to sandstone in part, trace carbonaceous specks, minor disseminated pyrite, moderately hard, subblocky.
1172	1175	60	SANDSTONE: Pale grey, clear to translucent, medium to coarse grained, moderately poorly sorted, subangular to subrounded, rounded in part, common strong calcareous and dolomitic cement, minor to locally common white argillaceous matrix, common disseminated and nodular pyrite, hard to occasionally very hard aggregates, minor loose, no hydrocarbon fluorescence.
		40	SILTSTONE: Light to medium grey, medium brown, arenaceous, grades to sandstone in part, calcareous in part, trace carbonaceous specks, minor disseminated pyrite, moderately hard, subblocky.
		Trace	DOLOMITE: Dark brown, hard, subblocky.

1175	1178	60	SANDSTONE: Pale grey, clear to translucent, medium to coarse grained, moderately poorly sorted, subangular to subrounded, rounded in part, common strong calcareous and dolomitic cement, minor to locally common white argillaceous matrix, common disseminated and nodular pyrite, hard to occasionally very hard aggregates, minor loose, no hydrocarbon fluorescence.
		40	SILTSTONE: Light to medium grey, medium brown, arenaceous, grades to sandstone in part, calcareous in part, trace carbonaceous specks, minor disseminated pyrite, moderately hard, subblocky.
		Trace	DOLOMITE: Dark brown, hard, subblocky.
1178	1184	60	SANDSTONE: Pale grey, grey, green grey in part, clear to translucent, medium grained, coarse and fine grained in part, moderately sorted, subangular to angular, common glauconite, common strong calcareous and dolomitic cement, minor to locally common white argillaceous matrix, common nodular pyrite, hard to occasionally very hard aggregates, minor loose, no hydrocarbon fluorescence.
		40	SILTSTONE: Light to medium brown to brown grey, arenaceous, grades to sandstone in part, calcareous in part, minor disseminated pyrite, firm to moderately hard, subblocky.
1184	1190	50	SANDSTONE: Pale grey, grey, clear to translucent, medium grained, coarse and fine grained in part, moderately sorted, subangular to angular, common strong calcareous and dolomitic cement, minor to locally common white argillaceous matrix, common nodular pyrite, hard to occasionally very hard aggregates, minor loose, no hydrocarbon fluorescence.
		50	SILTSTONE: Light to medium brown to brown grey, arenaceous, grades to sandstone in part, calcareous in part, minor disseminated pyrite, firm to moderately hard, subblocky.
1190	1196	90	SANDSTONE: Pale grey, grey, clear to translucent, medium to coarse grained, moderately sorted, subangular, common strong calcareous and dolomitic cement, minor to locally common white argillaceous matrix, common nodular pyrite, hard to occasionally very hard aggregates, minor loose, no hydrocarbon fluorescence.
		10	SILTSTONE: Light to medium brown to brown grey, arenaceous, grades to sandstone in part, calcareous in part, minor disseminated pyrite, firm to moderately hard, subblocky.
1196	1202	80	SANDSTONE: Pale grey, grey, clear to translucent, predominantly medium, minor coarse grained, moderately well sorted, subrounded, subangular in part, weak siliceous cement, trace lithic fragments, friable to occasionally moderately hard

			aggregates, loose, no hydrocarbon fluorescence.
		20	SILTSTONE: Light to medium brown to brown grey, arenaceous, slightly calcareous, minor disseminated pyrite, firm to moderately hard, subblocky.
1202	1208	70	SANDSTONE: Pale grey, grey, clear to translucent, predominantly medium, minor coarse grained, moderately well sorted, subrounded, subangular in part, weak siliceous cement, trace lithic fragments, friable to occasionally moderately hard aggregates, loose, no hydrocarbon fluorescence.
		30	SILTSTONE: Light to medium brown to brown grey, arenaceous, slightly calcareous, minor disseminated pyrite, firm to moderately hard, subblocky.
1208	1214	80	SANDSTONE: Pale grey, grey, clear to translucent, pale green grey, predominantly medium to coarse grained, moderately well sorted, subangular, moderately strong siliceous cement, trace glauconite, locally common white argillaceous matrix, trace lithic fragments, moderately hard to hard aggregates, no hydrocarbon fluorescence.
		20	SILTSTONE: Light to medium brown to brown grey, arenaceous, slightly calcareous, minor disseminated pyrite, firm to moderately hard, subblocky.
1214	1220	90	SANDSTONE: Pale grey, grey, clear to translucent, rare pale green grey, predominantly medium to coarse grained, moderately well sorted, subangular to subangular, moderately strong siliceous cement, trace dolomitic cement, trace glauconite, trace pyrite, locally common white argillaceous matrix, trace lithic fragments, moderately hard to hard aggregates, no hydrocarbon fluorescence.
		10	SILTSTONE: Light to medium brown to brown grey, arenaceous, slightly calcareous, minor disseminated pyrite, firm to moderately hard, subblocky.
1220	1226	50	SANDSTONE: Pale grey, grey, clear to translucent, rare pale green grey, predominantly medium to coarse grained, fine to medium in part, poorly sorted, subangular to subangular, moderately strong siliceous cement, trace calcareous cement, locally common white argillaceous matrix, trace glauconite, trace pyrite, trace lithic fragments, moderately hard to hard aggregates, no hydrocarbon fluorescence.
		50	SILTSTONE: Light brown to brown grey, arenaceous, slightly calcareous, trace carbonaceous specks, minor disseminated pyrite, firm to moderately hard, subblocky.
1226	1232	80	SANDSTONE: Pale grey, grey, clear to translucent, pale to medium green, green grey, predominantly fine to very coarse grained, fine to medium in part, poorly sorted, subangular to subangular, moderately strong siliceous cement, trace

			calcareous cement, locally common white argillaceous matrix, common glauconite, trace pyrite, trace lithic fragments, moderately hard to hard aggregates, no hydrocarbon fluorescence.
		20	SILTSTONE: Light brown to brown grey, arenaceous, slightly calcareous, trace carbonaceous specks, minor disseminated pyrite, firm to moderately hard, subblocky.
1232	1238	80	SANDSTONE: Pale grey, grey, clear to translucent, pale to medium green, green grey, predominantly fine to very coarse grained, fine to medium in part, poorly sorted, subangular to subangular, moderately strong siliceous cement, trace calcareous cement, locally common white argillaceous matrix, common glauconite, trace pyrite, trace lithic fragments, moderately hard to hard aggregates, no hydrocarbon fluorescence.
		20	SILTSTONE: Light brown to brown grey, arenaceous, slightly calcareous, trace carbonaceous specks, minor disseminated pyrite, firm to moderately hard, subblocky.
1238	1244	80	SANDSTONE: Pale grey, clear to translucent, predominantly medium to coarse, moderately poorly sorted, subangular, weak to moderately strong siliceous cement, trace lithic fragments, friable to moderately hard aggregates, no hydrocarbon fluorescence.
		20	SILTSTONE: Light brown to brown grey, arenaceous, slightly calcareous, trace carbonaceous specks, minor disseminated pyrite, firm to moderately hard, subblocky.
1244	1250	70	SANDSTONE: Pale grey, minor green grey, clear to translucent, fine to predominantly medium, moderately well sorted, subrounded to subangular, weak to moderately strong siliceous cement, trace lithic fragments, common pyrite, friable to moderately hard aggregates, no hydrocarbon fluorescence.
		30	SILTSTONE: Light brown to brown grey, light grey, arenaceous, slightly calcareous, trace lithic fragments, minor disseminated pyrite, firm to moderately hard, subblocky.
1250	1256	80	SANDSTONE: Pale grey, minor green grey, clear to translucent, fine to predominantly medium, moderately well sorted, subrounded to subangular, weak to moderately strong siliceous cement, trace lithic fragments, common pyrite, friable to moderately hard aggregates, no hydrocarbon fluorescence.
		20	SILTSTONE: Light brown to brown grey, light grey, arenaceous, slightly calcareous, trace lithic fragments, minor disseminated pyrite, firm to moderately hard, subblocky.
1256	1262	30	SANDSTONE: Pale grey, minor green grey, clear to

			translucent, fine to predominantly medium, moderately well sorted, subrounded to subangular, weak to moderately strong siliceous cement, trace lithic fragments, common pyrite, friable to moderately hard aggregates, no hydrocarbon fluorescence.
		70	SILTSTONE: Light brown to brown grey, light grey, arenaceous, slightly calcareous, trace lithic fragments, common nodular and disseminated pyrite, firm to moderately hard, subblocky
1262	1268	20	SANDSTONE: Pale grey, minor green grey, clear to translucent, fine to predominantly medium, moderately well sorted, subrounded to subangular, weak to moderately strong siliceous cement, trace lithic fragments, common pyrite, friable to moderately hard aggregates, no hydrocarbon fluorescence.
		80	SILTSTONE: Medium to dark brown to brown grey, minor light grey, arenaceous, slightly calcareous, trace lithic fragments, common pyrite, soft to firm, amorphous to subblocky
1268	1274	10	SANDSTONE: Pale grey, minor green grey, clear to translucent, fine to predominantly medium, moderately well sorted, subrounded to subangular, weak to moderately strong siliceous cement, trace lithic fragments, common pyrite, friable to moderately hard aggregates, no hydrocarbon fluorescence.
		90	SILTSTONE: Medium to dark brown to brown grey, minor light grey, arenaceous, slightly calcareous, trace lithic fragments, common pyrite, soft to firm, amorphous to subblocky.
1274	1280	10	SANDSTONE: Pale grey, minor green grey, clear to translucent, fine to predominantly medium, moderately well sorted, subrounded to subangular, weak to moderately strong siliceous cement, trace lithic fragments, common pyrite, friable to moderately hard aggregates, no hydrocarbon fluorescence.
		90	SILTSTONE: Medium to dark brown to brown grey, minor light grey, arenaceous, slightly calcareous, trace lithic fragments, common pyrite, soft to firm, amorphous to subblocky.
1280	1286	100	SILTSTONE: Medium to dark brown to brown grey, minor light grey, arenaceous, slightly calcareous, trace lithic fragments, common pyrite, soft to firm, amorphous to subblocky.
1286	1292	100	SILTSTONE: Medium to dark brown to brown grey, minor light grey, arenaceous, slightly calcareous, trace lithic fragments, common pyrite, soft to firm, amorphous to subblocky.
1292	1298	100	SILTSTONE: Medium to dark brown to brown grey, minor

			light grey, arenaceous, slightly calcareous, trace lithic fragments, common pyrite, soft to firm, amorphous to subblocky.
1298	1304	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, trace glauconite, soft to firm, amorphous to subblocky.
1304	1310	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, trace glauconite, soft to firm, amorphous to subblocky.
1310	1313	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, trace glauconite, soft to firm, amorphous to subblocky.
1313	1316	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, trace glauconite, soft to firm, amorphous to subblocky.
1316	1319	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, trace glauconite, soft to firm, amorphous to subblocky.
1319	1322	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, trace glauconite, soft to firm, amorphous to subblocky.
1322	1325	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, trace glauconite, soft to firm, amorphous to subblocky.
1325	1328	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, trace glauconite, soft to firm, amorphous to subblocky.
1328	1331	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, trace glauconite, soft to firm, amorphous to subblocky.
1331	1334	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, trace glauconite, soft to firm, amorphous to subblocky.
1334	1337	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, trace glauconite, rare fossil fragments, soft to firm, amorphous to subblocky.
1337	1340	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky.
1340	1343	100	SILTSTONE: Medium to dark brown to brown grey,

			arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky.
1343	1346	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky.
1346	1349	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky.
1349	1352	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky.
1352	1355	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky.
1355	1358	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky.
1358	1361	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky.
1361	1364	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky.
1364	1367	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky.
1367	1370	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky.
1370	1373	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky.
1373	1376	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky.
1376	1379	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky.
1379	1382	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky.

1382	1385	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky.
1385	1391	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky.
1391	1394	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky.
1394	1397	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky.
1397	1400	100	SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky.
1400	1406	100	SILTSTONE: Medium to dark brown to grey brown, minor green grey, arenaceous, trace lithic fragments, trace pyrite, common glauconite, soft to firm, amorphous to subblocky.
1406	1412	100	SILTSTONE: Medium to dark brown to grey brown, minor green grey, arenaceous, trace lithic fragments, trace pyrite, common glauconite, soft to firm, amorphous to subblocky.
1412	1418	100	SILTSTONE: Medium to dark brown to grey brown, minor green grey, arenaceous, trace lithic fragments, trace pyrite, common glauconite, soft to firm, amorphous to subblocky.
1418	1424	100	SILTSTONE: Medium to dark brown to grey brown, minor green grey, arenaceous, trace lithic fragments, trace pyrite, common glauconite, soft to firm, amorphous to subblocky.
1424	1430	100	SILTSTONE: Medium to dark brown to grey brown, minor green grey, arenaceous, trace loose coarse subrounded quartz grains, trace to common glauconite, calcareous, soft to firm, amorphous to subblocky.
1430	1436	100	SILTSTONE: Medium to dark brown to grey brown, minor green grey, arenaceous, trace loose coarse subrounded quartz grains, trace to common glauconite, calcareous, soft to firm, amorphous to subblocky.
1436	1442	100	SILTSTONE: Medium to dark brown to grey brown, minor green grey, arenaceous, trace loose coarse subrounded quartz grains, trace pyrite, trace to common glauconite, calcareous, soft to firm, amorphous to subblocky.
1442	1448	100	SILTSTONE: Medium to dark brown to grey brown, minor green grey, arenaceous, trace loose coarse subrounded quartz

			grains, trace pyrite, trace to common glauconite, calcareous, soft to firm, amorphous to subblocky.
1448	1454	100	SILTSTONE: Medium to dark brown to grey brown, minor green grey, arenaceous, trace loose coarse subrounded quartz grains, trace pyrite, trace to common glauconite, calcareous, soft to firm, amorphous to subblocky.
1454	1460	50	SANDSTONE: Clear to translucent, locally pale to medium green, fine to medium, occasionally coarse, moderate well sorted, subangular to subrounded, trace Fe-staining, weak siliceous cement, trace white argillaceous matrix, common glauconite, friable, loose in part, poor to fair inferred porosity, no hydrocarbon fluorescence.
		50	SILTSTONE: Medium to dark brown to grey brown, minor green grey, arenaceous, trace loose coarse subrounded quartz grains, trace pyrite, trace to common glauconite, calcareous, soft to firm, amorphous to subblocky (** Sample may be contaminated due to cleaning of header box).
1460	1466	90	SILTSTONE: Medium to dark brown to grey brown, minor green grey, arenaceous, trace loose subrounded quartz grains, trace pyrite, trace to common glauconite, calcareous, soft to firm, amorphous to subblocky.
		10	SANDSTONE: Clear to translucent, locally pale to medium green, fine to medium, occasionally coarse, moderate well sorted, subangular to subrounded, trace Fe-staining, weak siliceous cement, trace white argillaceous matrix, common glauconite, friable, loose in part, poor to fair inferred porosity, no hydrocarbon fluorescence.
1466	1472	100	SILTSTONE: Medium to dark brown to grey brown, arenaceous, trace loose quartz grains, trace fossil fragments, trace glauconite, calcareous, soft to firm, amorphous to subblocky.
1472	1478	100	SILTSTONE: Medium to dark brown to grey brown, arenaceous, trace loose quartz grains, trace fossil fragments, trace glauconite, calcareous, soft to firm, amorphous to subblocky.
1478	1484	100	SILTSTONE: Medium to dark brown to grey brown, arenaceous, trace loose quartz grains, trace fossil fragments, trace glauconite, calcareous, soft to firm, amorphous to subblocky.
1484	1490	100	SILTSTONE: Medium to dark brown to grey brown, arenaceous, trace loose quartz grains, trace fossil fragments, trace (increasing) glauconite, calcareous, soft to firm, amorphous to subblocky.
1490	1496	100	SILTSTONE: Medium to dark brown to grey brown,

			arenaceous, trace loose quartz grains, trace fossil fragments, common glauconite, trace calcite, soft to firm, amorphous to subblocky.
1496	1502	40	SANDSTONE: Light to medium brown, mottled green brown, light brown, fine to medium grained, occasionally coarse, moderate poorly sorted, subangular, common weak to moderate strong calcareous cement, common glauconite, moderate hard to friable, poor visual porosity, no hydrocarbon fluorescence.
		60	SILTSTONE: Medium to dark brown to grey brown, arenaceous, trace loose quartz grains, trace fossil fragments, common glauconite, trace calcite, soft to firm, amorphous to subblocky.
1502	1508	10	SANDSTONE: Light to medium brown, mottled green brown, light brown, fine to medium grained, occasionally coarse, moderate poorly sorted, subangular, common weak to moderate strong calcareous cement, common glauconite, moderate hard to friable, poor visual porosity, no hydrocarbon fluorescence.
		90	SILTSTONE: Medium to dark brown to grey brown, arenaceous, trace loose quartz grains, trace fossil fragments, common glauconite, trace calcite, soft to firm, amorphous to subblocky.
1508	1514	100	SILTSTONE: Medium to dark brown, medium to dark grey brown, slightly arenaceous, trace loose quartz grains, trace fossil fragments, common dispersed glauconite, trace calcite, soft to firm, amorphous to subblocky.
1514	1517	100	SILTSTONE: Medium to dark brown, medium to dark grey brown, slightly arenaceous, trace loose quartz grains, trace fossil fragments, common dispersed glauconite, trace calcite, soft to firm, amorphous to subblocky.
1517	1520	10	SANDSTONE: Clear to translucent, light green, light grey, green, fine to medium, moderately sorted, subangular, weak calcareous cement, common glauconite, locally common white argillaceous matrix, moderate hard, poor visual porosity, no hydrocarbon fluorescence.
		90	SILTSTONE: Medium to dark brown, medium to dark grey brown, slightly arenaceous, trace loose quartz grains, trace fossil fragments, common dispersed glauconite, trace calcite, soft to firm, amorphous to subblocky.
1520	1523	10	SANDSTONE: Clear to translucent, light green, light grey, green, fine to medium, moderately sorted, subangular, moderately strong siliceous cement in part, weak calcareous cement, common glauconite, locally common white argillaceous matrix, moderate hard, poor visual porosity, no hydrocarbon fluorescence.

		90	SILTSTONE: Medium to dark brown, medium to dark grey brown, slightly arenaceous, trace loose quartz grains, common dispersed glauconite, trace calcite, soft to firm, amorphous to subblocky.
1523	1526	70	SANDSTONE: Clear to translucent, light green, light grey, green, fine to medium, moderately sorted, subangular, moderately strong siliceous cement in part, weak calcareous cement, common glauconite, grades to glauconitic sandstone, locally common white argillaceous matrix, moderate hard, poor visual porosity, no hydrocarbon fluorescence.
		30	SILTSTONE: Medium to dark brown, medium to dark grey brown, slightly arenaceous, trace loose quartz grains, common dispersed glauconite, trace calcite, soft to firm, amorphous to subblocky.
1526	1529	90	SANDSTONE: Clear to translucent, light green, light grey, green, fine to medium, occasionally coarse, moderately poorly sorted, subangular to subrounded in part, weak calcareous cement, moderately strong siliceous cement in part, common glauconite, grades to glauconitic sandstone, locally common white argillaceous matrix, moderate hard, poor visual porosity, no hydrocarbon fluorescence.
		10	SILTSTONE: Medium to dark brown, medium to dark grey brown, slightly arenaceous, trace loose quartz grains, common dispersed glauconite, trace calcite, soft to firm, amorphous to subblocky.
1529	1532	50	SANDSTONE: Clear to translucent, light green, light grey, light brown to brown grey, fine to medium, occasionally coarse, moderately poorly sorted, subangular to subrounded in part, weak calcareous cement, moderately strong siliceous cement in part, common glauconite, grades to glauconitic sandstone, locally common white argillaceous matrix, moderate hard, poor visual porosity, no hydrocarbon fluorescence.
		50	SILTSTONE: Medium to dark brown, medium to dark grey brown, slightly arenaceous, trace loose quartz grains, common dispersed glauconite, trace calcite, soft to firm, amorphous to subblocky.
1535	1535	50	SANDSTONE: Clear to translucent, light green, light grey, light brown to brown grey, fine to medium, occasionally coarse, moderately poorly sorted, subangular to subrounded in part, weak calcareous cement, moderately strong siliceous cement in part, common glauconite, grades to glauconitic sandstone, locally common white argillaceous matrix, moderate hard, poor visual porosity, no hydrocarbon fluorescence.
		50	SILTSTONE: Medium to dark brown, medium to dark grey brown, slightly arenaceous, trace loose quartz grains, common

			dispersed glauconite, trace calcite, soft to firm, amorphous to subblocky.
1532	1538	10	SANDSTONE: Clear to translucent, light green, light grey, light brown to brown grey, fine to medium, occasionally coarse, moderately poorly sorted, subangular to subrounded in part, weak calcareous cement, moderately strong siliceous cement in part, common glauconite, grades to glauconitic sandstone, locally common white argillaceous matrix, moderate hard, poor visual porosity, no hydrocarbon fluorescence.
		90	SILTSTONE: Medium to dark brown, medium to dark grey brown, slightly arenaceous, trace loose quartz grains, common dispersed glauconite, trace calcite, soft to firm, amorphous to subblocky.
1538	1544	10	SANDSTONE: Clear to translucent, light green, light grey, light brown to brown grey, fine to medium, occasionally coarse, moderately poorly sorted, subangular to subrounded in part, weak calcareous cement, moderately strong siliceous cement in part, common glauconite, grades to glauconitic sandstone, locally common white argillaceous matrix, moderate hard, poor visual porosity, no hydrocarbon fluorescence.
		90	SILTSTONE: Medium to dark brown, medium to dark grey brown, slightly arenaceous, trace loose quartz grains, common dispersed glauconite, trace calcite, soft to firm, amorphous to subblocky.
1544	1550	20	SANDSTONE: Clear to translucent, light green, light grey, light brown to brown grey, fine to medium, occasionally coarse, moderately poorly sorted, subangular to subrounded in part, weak calcareous cement, moderately strong siliceous cement in part, common glauconite, grades to glauconitic sandstone, locally common white argillaceous matrix, moderate hard, poor visual porosity, no hydrocarbon fluorescence.
		80	SILTSTONE: Medium to dark brown, medium to dark grey brown, slightly arenaceous, trace loose quartz grains, common dispersed glauconite, trace calcite, soft to firm, amorphous to subblocky.
1550	1556	30	SANDSTONE: Clear to translucent, light green, light grey, light brown to brown grey, fine to medium, occasionally coarse, moderately poorly sorted, subangular to subrounded in part, moderately strong calcareous cement, moderately strong siliceous cement in part, trace glauconite, locally common white argillaceous matrix, moderate hard, poor visual porosity, no hydrocarbon fluorescence.
		70	SILTSTONE: Medium to dark brown, medium to dark grey brown, slightly arenaceous, trace loose quartz grains, common dispersed glauconite, trace calcite, soft to firm, amorphous to

			subblocky.
1556	1562	20	SANDSTONE: Clear to translucent, light grey, light brown grey, fine to medium, moderately sorted, subangular to subrounded in part, moderately strong calcareous cement, moderately strong siliceous cement in part, trace glauconite, locally common white argillaceous matrix, moderate hard, poor visual porosity, no hydrocarbon fluorescence.
		80	SILTSTONE: Medium to dark brown, medium to dark grey brown, slightly arenaceous, trace loose quartz grains, common dispersed glauconite, trace calcite, soft to firm, amorphous to subblocky.
1562	1568	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, soft to firm, dispersive, amorphous to subblocky.
1568	1574	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, soft to firm, dispersive, amorphous to subblocky.
1574	1580	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, soft to firm, dispersive, amorphous to subblocky.
1580	1586	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, soft to firm, dispersive, amorphous to subblocky.
1586	1592	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, soft to firm, dispersive, amorphous to subblocky.
1592	1598	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, soft to firm, dispersive, amorphous to subblocky.
1598	1604	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, firm to moderately hard, minor soft and dispersive, amorphous to subblocky.
1604	1610	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, firm to moderately hard, minor soft and dispersive, subblocky.
1610	1616	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, firm to moderately hard, subblocky.
1616	1622	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, firm to moderately

			hard, occasionally hard, subblocky.
1622	1628	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, firm to moderately hard, occasionally hard, subblocky.
1628	1634	10	SANDSTONE: Clear to translucent, pale grey, fine to medium, occasionally coarse, moderately well sorted, weak siliceous cement, locally common argillaceous matrix, trace glauconite, moderate hard to friable, poor visual porosity, no hydrocarbon fluorescence.
		90	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, firm to moderately hard, occasionally hard, subblocky.
1634	1640	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, firm to moderately hard, occasionally hard, subblocky.
1640	1646	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, firm to moderately hard, occasionally hard, subblocky.
1646	1652	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, firm to moderately hard, occasionally hard, subblocky.
1652	1658	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, firm to moderately hard, occasionally hard, subblocky.
1658	1664	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, calcareous, firm to moderately hard, occasionally hard, subblocky.
1664	1670	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, calcareous, firm to moderately hard, occasionally hard, subblocky.
1670	1676	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, calcareous, firm to moderately hard, occasionally hard, subblocky.
1676	1682	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, calcareous, firm to moderately hard, occasionally hard, subblocky.
1682	1688	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, calcareous, trace pyrite, firm to moderately hard, occasionally hard, subblocky.
1688	1694	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, calcareous, trace pyrite, firm to moderately hard, occasionally hard, subblocky.

1694	1700	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, calcareous, trace pyrite, firm to moderately hard, occasionally hard, subblocky.
1700	1706	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, calcareous, trace pyrite, firm to moderately hard, occasionally hard, subblocky.
1706	1712	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, calcareous, trace pyrite, firm to moderately hard, occasionally hard, subblocky.
1712	1718	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, trace loose quartz, calcareous, trace pyrite, firm to moderately hard, occasionally hard, subblocky.
1718	1724	100	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, trace loose quartz, calcareous, trace pyrite, firm to moderately hard, occasionally hard, subblocky.
1724	1730	100	SILTSTONE: Dark to medium brown to grey brown, minor glauconite, trace calcite, trace loose quartz, calcareous, trace pyrite, firm to moderately hard, occasionally hard, subblocky.
1730	1736	100	SILTSTONE: Medium to dark brown to grey brown, minor glauconite, trace calcite, trace loose quartz, calcareous, trace pyrite, moderately hard to hard, blocky to subblocky.
1736	1742	100	SILTSTONE: Medium to dark brown to grey brown, minor glauconite, trace calcite, trace loose quartz, calcareous, trace pyrite, moderately hard to hard, blocky to subblocky.
1742	1748	60	SANDSTONE: Light grey, light brown grey, clear to translucent quartz sand, fine to medium, moderately well sorted, subangular to subrounded, weak siliceous and calcareous cement, trace glauconite, common to abundant argillaceous matrix, (common rock flour), silty, friable to moderately hard, poor visual porosity, no hydrocarbon fluorescence.
		40	SILTSTONE: Light to medium grey brown, minor green brown, locally common glauconite, soft to firm, occasionally moderately hard, blocky to subblocky.
1748	1751	70	SANDSTONE: Light grey, light brown grey, clear to translucent quartz sand, fine to medium, moderately well sorted, subangular to subrounded, weak siliceous and calcareous cement, trace glauconite, common to abundant argillaceous matrix, (common rock flour), silty, friable to moderately hard, poor visual porosity, no hydrocarbon fluorescence.

		30	SILTSTONE: Light to medium grey brown, minor green brown, locally common glauconite, soft to firm, occasionally moderately hard, blocky to subblocky.
1751	1754	70	SANDSTONE: Light grey, light brown grey, clear to translucent, fine to medium, occasional coarse loose grains, moderately sorted, subangular to subrounded, moderately strong siliceous cement, trace calcareous cement, com white to light grey argillaceous matrix, silty, poor visual porosity, no hydrocarbon fluorescence.
		30	SILTSTONE: Light to medium grey brown, minor green brown, locally common glauconite, soft to firm, occasionally moderately hard, blocky to subblocky.
1754	1757	60	SANDSTONE: Light grey, light brown grey, clear to translucent, fine to medium, occasional coarse loose grains, moderately sorted, subangular to subrounded, moderately strong siliceous cement, trace calcareous cement, com white to light grey argillaceous matrix, silty, poor visual porosity, no hydrocarbon fluorescence.
		40	SILTSTONE: Light to medium grey brown, minor green brown, locally common glauconite, soft to firm, occasionally moderately hard, blocky to subblocky.
1757	1760	90	SANDSTONE: Light brown grey, light grey, fine to medium grained, minor coarse grained, moderate well sorted, weak siliceous cement, common white to light grey argillaceous matrix, trace glauconite, trace lithic fragments, friable to occasionally moderately hard, poor visual porosity, poor to fair inferred porosity, no hydrocarbon fluorescence.
		10	SILTSTONE: Light to medium grey brown, minor green brown, locally common glauconite, soft to firm, occasionally moderately hard, blocky to subblocky.
1760	1763	70	SANDSTONE: Light brown grey, light grey, fine to medium grained, minor coarse grained, moderate well sorted, weak siliceous cement, common white to light grey argillaceous matrix, trace glauconite, trace lithic fragments, friable to occasionally moderately hard, poor visual porosity, poor to fair inferred porosity, no hydrocarbon fluorescence.
		30	SILTSTONE: Light to medium grey brown, minor green brown, locally common glauconite, soft to firm, trace carbonaceous specks, occasionally moderately hard, blocky to subblocky.
1763	1766	60	SANDSTONE: Light brown grey, light grey, fine to medium grained, minor coarse grained, moderate well sorted, weak siliceous cement, common white to light grey argillaceous matrix, trace glauconite, trace lithic fragments, friable to occasionally moderately hard, poor visual porosity, poor to fair inferred porosity, no hydrocarbon fluorescence.

		40	SILTSTONE: Light to medium grey brown, minor green brown, locally common glauconite, soft to firm, trace carbonaceous specks, occasionally moderately hard, blocky to subblocky.
1766	1769	40	SANDSTONE: Light brown grey, light grey, fine to medium grained, minor coarse grained, moderate well sorted, weak siliceous cement, common white to light grey argillaceous matrix, trace glauconite, trace lithic fragments, friable to occasionally moderately hard, poor visual porosity, poor to fair inferred porosity, no hydrocarbon fluorescence.
		60	SILTSTONE: Light to medium grey brown, minor green brown, locally common glauconite, soft to firm, trace carbonaceous specks, occasionally moderately hard, blocky to subblocky.
1769	1772	80	SANDSTONE: Light brown grey, light grey, medium to coarse grained, moderate well sorted, weak siliceous cement, common white to light grey argillaceous matrix, trace glauconite, trace lithic fragments, friable to predominantly moderately hard, poor visual porosity, poor to fair inferred porosity, no hydrocarbon fluorescence.
		20	SILTSTONE: Light to medium grey brown, minor green brown, trace to common glauconite, soft to firm, trace carbonaceous specks, occasionally moderately hard, blocky to subblocky.
1772	1775	80	SANDSTONE: Light brown grey, light grey, medium to coarse grained, moderate well sorted, weak siliceous cement, common white to light grey argillaceous matrix, becoming cleaner, trace glauconite, trace lithic fragments, friable to predominantly moderately hard, poor visual porosity, poor to fair inferred porosity, no hydrocarbon fluorescence.
		20	SILTSTONE: Light to medium grey brown, minor green brown, trace to common glauconite, trace carbonaceous specks, soft to firm, occasionally moderately hard, blocky to subblocky.
1775	1778	90	SANDSTONE: Light brown grey, light grey, medium to coarse grained, moderate well sorted, weak siliceous cement, trace white to light grey argillaceous matrix, becoming cleaner, trace glauconite, trace lithic fragments, friable to predominantly moderately hard, poor visual porosity, poor to fair inferred porosity, no hydrocarbon fluorescence.
		10	SILTSTONE: Light to medium grey brown, minor green brown, trace to common glauconite, soft to firm, trace carbonaceous specks, occasionally moderately hard, blocky to subblocky.

1778	1781	90	SANDSTONE: Light brown grey, light grey, medium to coarse grained, moderate well sorted, weak siliceous cement, trace to locally common white to light grey argillaceous matrix, becoming cleaner, trace glauconite, trace lithic fragments, friable to predominantly moderately hard, poor visual porosity, poor to fair inferred porosity, no hydrocarbon fluorescence.
		10	SILTSTONE: Light to medium grey brown, minor green brown, trace to common glauconite, trace carbonaceous specks, soft to firm, occasionally moderately hard, blocky to subblocky.
1781	1784	70	SANDSTONE: Light brown grey, light grey, medium to coarse grained, moderate well sorted, weak siliceous cement, trace to locally common white to light grey argillaceous matrix, becoming cleaner, trace glauconite, trace lithic fragments, friable to predominantly moderately hard, poor visual porosity, poor to fair inferred porosity, no hydrocarbon fluorescence.
		30	SILTSTONE: Light to medium grey brown, minor green brown, trace to common glauconite, trace carbonaceous specks, soft to firm, occasionally moderately hard, blocky to subblocky.
1784	1787	90	SANDSTONE: Light brown grey, light grey, medium to coarse grained, moderate well sorted, weak siliceous cement, trace to locally common white to light grey argillaceous matrix, becoming cleaner, trace glauconite, trace lithic fragments, friable to predominantly moderately hard, poor visual porosity, poor to fair inferred porosity, no hydrocarbon fluorescence.
		10	SILTSTONE: Light to medium grey brown, minor green brown, trace to common glauconite, trace carbonaceous specks, soft to firm, occasionally moderately hard, blocky to subblocky.
1787	1790	70	SANDSTONE: Light brown grey, light grey, medium to very coarse grained, poorly sorted, subangular, weak siliceous cement, common white to light grey argillaceous matrix, trace lithic fragments, rare pyrite, friable to predominantly moderately hard, loose in part, poor visual porosity, poor to fair inferred porosity, no hydrocarbon fluorescence.
		30	SILTSTONE: Light to medium grey brown, minor green brown, trace to common glauconite, calcareous, trace carbonaceous specks, soft to firm, occasionally moderately hard, blocky to subblocky.
1790	1793	60	SANDSTONE: Light grey, medium to very coarse grained, poorly sorted, subangular to angular, weak siliceous cement, common white to light grey calcareous and argillaceous matrix, trace Fe-staining, trace lithic fragments, predominantly

			moderately hard, loose in part, poor visual porosity, no hydrocarbon fluorescence.
		40	SILTSTONE: Medium to dark grey, minor grey brown, rare disseminated pyrite, moderate hard to hard, calcareous, trace carbonaceous specks, blocky to subblocky.
1793	1797	60	SANDSTONE: Light grey, fine to coarse, predominantly medium grained, moderate poorly sorted, subangular to subrounded, weak siliceous cement, common white to light grey calcareous and argillaceous matrix, trace Fe-staining, trace lithic fragments, trace glauconite, predominantly moderately hard, loose in part, poor visual porosity, no hydrocarbon fluorescence.
		40	SILTSTONE: Medium to dark grey, minor grey brown, rare disseminated pyrite, moderate hard to hard, calcareous, trace carbonaceous specks, blocky to subblocky.
1797	1799	60	SILTSTONE: Medium to dark grey, minor grey brown, rare disseminated pyrite, moderate hard to hard, slightly arenaceous, trace carbonaceous specks, blocky to subblocky.
		40	SANDSTONE: Pale grey, white to off-white, very pale green grey, very fine to very coarse grained, poorly sorted, subangular, moderately strong calcareous cement, locally common white argillaceous matrix, minor quartzose appearance, trace lithic fragments, trace carbonaceous occasionally grades to coal, hard to very hard, poor visual porosity, no hydrocarbon fluorescence.
1799	1802	60	SANDSTONE: Pale grey, white to off-white, very pale green grey, minor Fe-staining, rare pale yellow, predominantly very fine, grading to arenaceous siltstone, medium to coarse grained in part, moderately well sorted, subangular to subrounded, moderately strong calcareous cement, locally common white argillaceous matrix, well cemented, generally quartzose appearance, trace lithic fragments, trace carbonaceous, hard to very hard, poor visual porosity, no hydrocarbon fluorescence.
		40	SILTSTONE: Medium to dark grey, minor grey brown, rare disseminated pyrite, moderate hard to hard, slightly arenaceous, trace carbonaceous specks, blocky to subblocky.
1802	1805	80	SANDSTONE: Pale grey, white to off-white, very pale green grey, minor Fe-staining, rare pale yellow, clear to translucent in part, predominantly very fine, grading to arenaceous siltstone, medium grained in part, moderately well sorted, subangular to subrounded, moderately strong calcareous cement, locally common white argillaceous matrix, well cemented, common quartzose appearance in fine grained aggregates, trace green (glauconite?) and black lithic fragments, trace carbonaceous, trace pyrite (pyritised fossils?), hard to very hard, poor visual porosity, no hydrocarbon fluorescence.

		20	SILTSTONE: Medium to dark brown grey, minor disseminated and occasionally nodular pyrite, moderate hard to hard, subblocky.
1805	1808	80	SANDSTONE: Pale grey, white to off-white, very pale green grey, occasionally red to pink red, minor Fe-staining, rare pale yellow, clear to translucent in part, predominantly very fine, grading to arenaceous siltstone, medium to very coarse grained in part, moderately sorted, subangular to subrounded, occasionally angular coarse bit fractured quartz, moderately strong calcareous cement, locally common white argillaceous matrix, well cemented, common quartzose appearance in fine grained aggregates, trace green and black lithic fragments, trace carbonaceous, trace pyrite, hard to very hard, poor visual porosity, no hydrocarbon fluorescence.
		20	SILTSTONE: Medium to dark brown grey, minor disseminated and occasionally nodular pyrite, moderate hard to hard, subblocky.
1808	1811	80	SANDSTONE: Pale grey, white to off-white, very pale green grey, occasionally red to pink red, minor Fe-staining, rare pale yellow, clear to translucent in part, predominantly very fine, grading to arenaceous siltstone, medium to very coarse grained in part, moderately sorted, subangular to subrounded, occasionally angular coarse bit fractured quartz, moderately strong calcareous cement, locally common white argillaceous matrix, well cemented, common quartzose appearance in fine grained aggregates, trace green and black lithic fragments, trace carbonaceous, trace pyrite, hard to very hard, poor visual porosity, no hydrocarbon fluorescence.
		20	SILTSTONE: Medium to dark brown grey, minor disseminated and occasional nodular pyrite, moderate hard to hard, subblocky.
1811	1814	80	SANDSTONE: Pale grey, white to off-white, very pale green grey, common pale pink to pink red, minor Fe-staining, rare pale yellow, clear to translucent in part, commonly very fine, grading to arenaceous siltstone, medium to very coarse grained in part, moderately poorly sorted, subangular to subrounded, occasionally angular coarse bit fractured quartz, moderately strong calcareous cement, locally common white argillaceous matrix, well cemented, common quartzose appearance in fine grained aggregates, trace black lithic fragments, trace carbonaceous, trace pyrite, hard to very hard, poor visual porosity, no hydrocarbon fluorescence.
		20	SILTSTONE: Medium to dark brown grey, minor disseminated and occasional nodular pyrite, moderate hard to hard, subblocky.
1814	1817	70	SANDSTONE: Pale grey, white to off-white, pale green grey,

			occasionally pale pink, minor Fe-staining, rare pale yellow brown, clear to translucent in part, very fine grained in part, grading to arenaceous siltstone, medium to very coarse grained in part, moderately poorly sorted, subangular to subrounded, occasionally angular coarse bit fractured quartz, moderately strong calcareous cement, locally common white argillaceous matrix, well cemented, common quartzose appearance in fine grained aggregates, trace black lithic fragments, trace carbonaceous, trace pyrite, hard to very hard, poor visual porosity, no hydrocarbon fluorescence.
		30	SILTSTONE: Medium to dark brown grey, minor disseminated and occasional nodular pyrite, moderate hard to hard, subblocky.
1817	1820	80	SANDSTONE: Pale grey, white to off-white, pale green grey, occasionally pale pink, minor Fe-staining, rare pale yellow brown, clear to translucent in part, very fine grained in part, grading to arenaceous siltstone, medium to very coarse grained in part, moderately poorly sorted, subangular to subrounded, occasionally angular coarse bit fractured quartz, moderately strong calcareous cement, locally common white argillaceous matrix, well cemented, common quartzose appearance in fine grained aggregates, trace black, green lithic fragments, trace carbonaceous, trace pyrite, hard to very hard, poor visual porosity, no hydrocarbon fluorescence.
		20	SILTSTONE: Medium to dark brown grey, light grey in part, argillaceous, trace pyrite, trace carbonaceous specks and occasional micro-lamination, moderate hard to hard, subblocky.
1820	1823	90	SANDSTONE: Pale grey, white to off-white, pale green grey, occasionally pale pink, minor Fe-staining, rare pale yellow brown, clear to translucent in part, very fine grained in part, grading to arenaceous siltstone, medium to very coarse grained in part, moderately poorly sorted, subangular to subrounded, occasionally angular coarse bit fractured quartz, moderately strong calcareous cement, locally common white argillaceous matrix, well cemented, common quartzose appearance in fine grained aggregates, trace lithic fragments, trace carbonaceous, trace glauconite, trace pyrite, hard to very hard, poor visual porosity, no hydrocarbon fluorescence.
		10	SILTSTONE: Medium to dark brown grey, light grey in part, argillaceous, trace pyrite, trace carbonaceous specks and occasional micro-lamination, moderate hard to hard, subblocky.
1823	1826	90	SANDSTONE: Pale grey, off-white, pale green grey, rare pink, clear to translucent in part, fine grained in part, medium grained in part, moderately sorted, subangular to subrounded, moderately strong calcareous cement, locally common white argillaceous matrix, quartzose appearance in fine grained aggregates, trace lithic fragments, trace carbonaceous, trace pyrite cemented glauconite aggregates, trace pyrite, hard to

			very hard, poor visual porosity, no hydrocarbon fluorescence.
		10	SILTSTONE: Medium to dark brown grey, light grey in part, argillaceous, trace pyrite, trace carbonaceous specks and occasional micro-lamination, moderate hard to hard, subblocky.
1826	1829	80	SANDSTONE: Light grey, light green grey, medium to very coarse grained, moderately sorted, occasionally loose coarse bit fractured clear quartz, subangular, common moderately strong calcareous cement, common white argillaceous matrix, trace multi-coloured lithic fragments, grades to lithic sandstone, trace pyrite, hard, poor visual porosity, no hydrocarbon fluorescence.
		20	SILTSTONE: Light to medium grey, occasionally dark grey, arenaceous, trace carbonaceous specks, trace finely disseminated pyrite, hard, subblocky to occasionally subfissile.
1829	1832	80	SANDSTONE: Light grey, light green grey, rare yellow, trace Fe-staining, fine to medium grained, moderately sorted, subangular, common moderately strong calcareous cement, common white argillaceous matrix, trace multi-coloured lithic fragments, grades to lithic sandstone, trace pyrite, hard, poor visual porosity, no hydrocarbon fluorescence.
		20	SILTSTONE: Light to medium grey, occasionally dark grey, arenaceous, trace carbonaceous specks, trace finely disseminated pyrite, hard, subblocky to occasionally subfissile.
1832	1835	80	SANDSTONE: Light grey, light green grey, trace pink, medium to coarse grained, moderately sorted, subangular, common moderately strong calcareous cement, common white argillaceous matrix, trace multi-coloured lithic fragments, hard, poor visual porosity, no hydrocarbon fluorescence.
		20	SILTSTONE: Light to medium grey, occasionally dark grey, arenaceous, trace carbonaceous specks, trace finely disseminated pyrite, hard, subblocky to occasionally subfissile.
1835	1838	70	SANDSTONE: Light grey, light green grey, trace pink, medium to coarse grained, moderately sorted, subangular, common moderately strong calcareous cement, common white argillaceous matrix, trace multi-coloured lithic fragments, hard, poor visual porosity, no hydrocarbon fluorescence.
		30	SILTSTONE: Light to medium grey, occasionally dark grey, arenaceous, trace carbonaceous specks, trace finely disseminated pyrite, hard, subblocky to occasionally subfissile.
		Trace	COAL: Black, subvitreous, brittle, moderate hard, subfissile.
1838	1841	90	SANDSTONE: Light grey, light green grey, medium to coarse grained, predominantly medium, moderately sorted, subangular, common moderately strong calcareous cement, common white argillaceous matrix, trace multi-coloured lithic

			fragments, common glauconite (?), moderately hard to hard, poor visual porosity, no hydrocarbon fluorescence.
		10	SILTSTONE: Light to medium grey, occasionally dark grey, medium brown grey, siliceous, slightly arenaceous, trace carbonaceous specks, trace finely disseminated pyrite, hard, subblocky to occasionally subfissile.
1841	1844	90	SANDSTONE: Light grey, light to minor medium green to green grey, medium to coarse grained, predominantly medium, moderately sorted, subangular, common moderately strong calcareous cement, common white argillaceous matrix, trace lithic fragments, trace glauconite, moderately hard to hard, poor visual porosity, no hydrocarbon fluorescence.
		10	SILTSTONE: Light to medium grey, occasionally dark grey, medium brown grey, siliceous, slightly arenaceous, trace carbonaceous specks, trace finely disseminated pyrite, hard, subblocky to occasionally subfissile.
1844	1847	100	SANDSTONE: Light green, light green grey, light grey, off white, translucent, rare pink, medium, moderate well sorted, subangular, common calcite cement, common argillaceous matrix, common lithic fragments, grades to lithic sandstone in part, trace micro-micaceous specks, poor visual porosity, no hydrocarbon fluorescence.
1847	1850	90	SANDSTONE: Light green, light green grey, light grey, off white, translucent, rare pink, medium, moderately well sorted, subangular, common calcite cement, common argillaceous matrix, common lithic fragments, grades to lithic sandstone in part, trace micro-micaceous specks, poor visual porosity, no hydrocarbon fluorescence.
		10	SILTSTONE: Light to medium grey, occasionally dark grey, medium brown grey, siliceous, slightly arenaceous, trace carbonaceous specks, trace finely disseminated pyrite, hard, subblocky to occasionally subfissile.
1850	1853	90	SANDSTONE: Light green, light green grey, light grey, off white, translucent, rare pink to red, medium to coarse, moderately well sorted, subangular, common calcite cement, common argillaceous matrix, common lithic fragments, grades to lithic sandstone in part, trace micro-micaceous specks, poor visual porosity, no hydrocarbon fluorescence.
		10	SILTSTONE: Light to medium grey, occasionally dark grey, medium brown grey, siliceous, slightly arenaceous, trace carbonaceous specks, trace finely disseminated pyrite, hard, subblocky to occasionally subfissile.
1853	1856	100	SANDSTONE: Light green, light green grey, light grey, off white, translucent, rare pink to red, medium to coarse, moderately well sorted, subangular, common calcite cement,

			common argillaceous matrix, common lithic fragments, grades to lithic sandstone in part, trace micro-micaceous specks, poor visual porosity, no hydrocarbon fluorescence.
1856	1862	90	SANDSTONE: Light grey, light green grey, off white, translucent, occasionally pink to red, medium to coarse, moderately well sorted, subangular, common calcite cement, common argillaceous matrix, common lithic fragments, grades to lithic sandstone in part, trace micro-micaceous specks, poor visual porosity, no hydrocarbon fluorescence.
		10	SILTSTONE: Light to medium grey, occasionally dark grey, medium brown grey, siliceous, trace carbonaceous specks, hard, subblocky to occasionally subfissile.
1862	1868	90	SANDSTONE: Light grey, light green grey, off white, translucent, occasionally pink to red, medium to coarse, moderately well sorted, subangular, common calcite cement, common argillaceous matrix, common lithic fragments, grades to lithic sandstone in part, trace micro-micaceous specks, poor visual porosity, no hydrocarbon fluorescence.
		10	SILTSTONE: Light to medium grey, occasionally dark grey, medium brown grey, siliceous, trace carbonaceous specks, hard, subblocky to occasionally subfissile.
1868	1874	90	SANDSTONE: Light grey, light green grey, off white, translucent, occasionally pink to red, medium to coarse, moderately well sorted, subangular, weak siliceous cement, trace calcareous cement, common argillaceous matrix, common lithic fragments, grades to lithic sandstone in part, trace micro-micaceous specks, poor visual porosity, no hydrocarbon fluorescence.
		10	SILTSTONE: Light to medium grey, occasionally dark grey, medium brown grey, siliceous, trace carbonaceous specks, hard, subblocky to occasionally subfissile.
1874	1880	90	SANDSTONE: Light grey, light green grey, off white, translucent, occasionally pink to red, medium to coarse, moderately well sorted, subangular, weak siliceous cement, trace calcareous cement, common argillaceous matrix, common lithic fragments, grades to lithic sandstone in part, trace micro-micaceous specks, poor visual porosity, no hydrocarbon fluorescence.
		10	SILTSTONE: Light to medium grey, occasionally dark grey, medium brown grey, siliceous, trace carbonaceous specks, hard, subblocky to occasionally subfissile.
1880	1886	70	SANDSTONE: Light grey, light green grey, off white, translucent, occasionally pink to red, medium to coarse, moderately well sorted, subangular, weak siliceous cement, trace calcareous cement, common argillaceous matrix,

			common lithic fragments, grades to lithic sandstone in part, trace micro-micaceous specks, poor visual porosity, no hydrocarbon fluorescence.
		30	SILTSTONE: Medium to dark grey brown, light grey, very finely arenaceous, trace carbonaceous specks, trace glauconite, firm to moderate hard, soft and dispersive, subblocky.
1886	1892	60	SANDSTONE: Light grey, light green grey, off white, translucent, occasionally pink to red, medium to coarse, moderately well sorted, subangular, weak siliceous cement, trace calcareous cement, common argillaceous matrix, common lithic fragments, grades to lithic sandstone in part, trace micro-micaceous specks, poor visual porosity, no hydrocarbon fluorescence.
		40	SILTSTONE: Medium to dark grey brown, increasing light grey, very finely arenaceous, trace carbonaceous specks, trace glauconite, firm to moderate hard, soft and dispersive, subblocky.
1892	1898	60	SANDSTONE: Light grey, light green grey, off white, translucent, occasionally pink to red, medium to coarse, moderately well sorted, subangular, weak siliceous cement, trace calcareous cement, common argillaceous matrix, common lithic fragments, grades to lithic sandstone in part, trace micro-micaceous specks, poor visual porosity, no hydrocarbon fluorescence.
		40	SILTSTONE: Medium to dark grey brown, increasing light grey, very finely arenaceous, trace carbonaceous specks, trace glauconite, firm to moderate hard, soft and dispersive, subblocky.
1898	1904	60	SANDSTONE: Light grey, light green grey, off white, translucent, occasionally pink, medium to coarse, moderately well sorted, subangular to subrounded, weak siliceous cement, trace calcareous cement, common argillaceous matrix, common lithic fragments, grades to lithic sandstone in part, trace micro-micaceous specks, poor visual porosity, no hydrocarbon fluorescence.
		40	SILTSTONE: Medium to dark grey brown, increasing light grey, very finely arenaceous, trace carbonaceous specks, trace glauconite, firm to moderate hard, occasionally very hard, soft and dispersive, subblocky.
1904	1907	70	SANDSTONE: Light grey, light green grey, off white, translucent, occasionally pink, medium to coarse, moderately well sorted, subangular to subrounded, weak siliceous cement, trace calcareous cement, minor light green to light grey argillaceous matrix, common lithic fragments, grades to lithic sandstone in part, trace micro-micaceous specks, poor visual porosity, no hydrocarbon fluorescence.

		30	SILTSTONE: Medium to dark grey brown, commonly light grey, trace carbonaceous specks, trace glauconite, firm to moderate hard, occasionally very hard, soft and dispersive, subblocky.
1907	1910	80	SANDSTONE: Light grey, light green grey, off white, translucent, medium to coarse, moderately well sorted, subangular to occasionally subrounded, weak siliceous cement, trace calcareous cement, minor light green argillaceous matrix, common lithic fragments, trace micro-micaceous specks, poor visual porosity, no hydrocarbon fluorescence.
		20	SILTSTONE: Medium to dark grey brown, commonly light grey, trace carbonaceous specks, trace glauconite, firm to moderate hard, commonly soft and dispersive, subblocky.
1910	1916	70	SANDSTONE: Light grey, light green grey, pale pink, off white, translucent, fine to coarse, poorly sorted, subangular to subrounded, weak siliceous cement, common calcareous cement, minor to locally common light green grey argillaceous matrix, common lithic fragments, hard to very hard, poor visual porosity, no hydrocarbon fluorescence.
		30	SILTSTONE: Medium to dark grey brown, commonly light grey, trace carbonaceous specks, trace glauconite, firm to moderate hard, commonly soft and dispersive, subblocky.
1916	1919	70	SANDSTONE: Light grey, light to medium green grey, pale pink, off white, translucent, fine to coarse, poorly sorted, subangular to subrounded, weak siliceous cement, common calcareous cement, minor to locally common light green grey argillaceous matrix, common lithic fragments, hard to very hard, poor visual porosity, no hydrocarbon fluorescence.
		30	SILTSTONE: Medium to dark grey brown, commonly light grey, trace carbonaceous specks, trace glauconite, firm to moderate hard, commonly soft and dispersive, subblocky.
1919	1922	80	SANDSTONE: Light grey, light to medium green grey, off white, clear to translucent, medium to coarse grained, moderately poorly sorted, subangular to subrounded, strong siliceous cement, trace calcareous cement, minor to locally common light grey argillaceous matrix, common lithic fragments, hard, poor visual porosity, no hydrocarbon fluorescence.
		20	SILTSTONE: Medium to dark grey brown, commonly light grey, trace carbonaceous specks, trace glauconite, firm to moderate hard, commonly soft and dispersive, subblocky.
1922	1925	50	SANDSTONE: Light grey, light to medium green grey, off

			white, clear to translucent, medium to coarse grained, moderately poorly sorted, subangular to subrounded, strong siliceous cement, trace calcareous cement, minor to locally common light grey argillaceous matrix, common lithic fragments, hard, poor visual porosity, no hydrocarbon fluorescence.
		50	SILTSTONE: Light grey, light to medium brown, argillaceous, trace carbonaceous specks, trace lithic fragments, firm to moderate hard, soft and dispersive in part, subblocky.
1925	1928	40	SANDSTONE: Light grey, light to medium green grey, off white, clear to translucent, medium to coarse grained, moderately poorly sorted, subangular to subrounded, strong siliceous cement, trace calcareous cement, minor to locally common light grey argillaceous matrix, common lithic fragments, hard, poor visual porosity, no hydrocarbon fluorescence.
		60	SILTSTONE: Light grey, light to medium brown, argillaceous, trace carbonaceous specks, trace lithic fragments, firm to moderate hard, soft and dispersive in part, subblocky.
1928	1931	30	SANDSTONE: Light grey, light to medium green grey, off white, clear to translucent, medium to coarse grained, moderately poorly sorted, subangular to subrounded, moderate strong siliceous cement, trace calcareous cement, minor to locally common light grey argillaceous matrix, common lithic fragments, hard, poor visual porosity, no hydrocarbon fluorescence.
		70	SILTSTONE: Light grey, light to medium brown, argillaceous, trace carbonaceous specks, trace lithic fragments, firm to moderate hard, soft and dispersive in part, subblocky.
1931	1934	30	SANDSTONE: Light grey, light to medium green grey, off white, clear to translucent, medium to coarse grained, moderately poorly sorted, subangular to subrounded, strong siliceous cement, trace calcareous cement, minor to locally common light grey argillaceous matrix, common lithic fragments, hard, poor visual porosity, no hydrocarbon fluorescence.
		70	SILTSTONE: Light grey, light to occasionally medium grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, firm to moderate hard, soft and dispersive in part, subblocky.
1934	1940	50	SANDSTONE: Light grey, minor light green grey, off white, clear to translucent, medium to coarse grained, occasionally fine grained, moderately poorly sorted, subangular to subrounded, strong siliceous cement, trace calcareous cement, minor to locally common light grey argillaceous matrix, common lithic fragments, hard, poor visual porosity, no

hydrocarbon fluorescence.

		50	SILTSTONE: Light grey, light to occasionally medium grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, firm to moderate hard, soft and dispersive in part, subblocky.
1940	1946	70	SANDSTONE: Light grey, minor light green grey, off white, clear to translucent, medium to coarse grained, occasionally fine grained, moderately poorly sorted, subangular, strong siliceous cement, trace calcareous cement, minor to locally common light grey argillaceous matrix, common lithic fragments, hard, poor visual porosity, no hydrocarbon fluorescence.
		30	SILTSTONE: Light grey, light to occasionally medium grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, firm to moderate hard, soft and dispersive in part, subblocky.
1946	1952	50	SANDSTONE: Light grey, minor light green grey, off white, clear to translucent, medium to coarse grained, occasionally fine grained, moderately poorly sorted, subangular, strong siliceous cement, trace calcareous cement, minor to locally common light grey argillaceous matrix, common lithic fragments, hard, poor visual porosity, no hydrocarbon fluorescence.
		50	SILTSTONE: Light grey, light to occasionally medium grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, firm to moderate hard, soft and dispersive in part, subblocky.
1952	1958	60	SANDSTONE: Light grey, minor light green grey, off white to minor pale brown, clear to translucent, medium to coarse grained, moderately poorly sorted, subangular, strong siliceous cement, trace calcareous cement, minor to locally common light grey argillaceous matrix, common lithic fragments, hard, poor visual porosity, no hydrocarbon fluorescence.
		40	SILTSTONE: Light grey, light to occasionally medium grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, firm to moderate hard, soft and dispersive in part, subblocky.
1958	1961	70	SANDSTONE: Light grey to minor light green grey, off white to minor pale brown, clear to translucent, medium to coarse grained, moderately sorted, subangular to subrounded, strong siliceous cement, trace calcareous cement, minor to locally common light grey argillaceous matrix, common lithic fragments, trace glauconite, trace pyrite, hard, poor visual porosity, no hydrocarbon fluorescence.
		30	SILTSTONE: Light grey, light to occasionally medium grey brown, argillaceous, trace carbonaceous specks, trace lithic

fragments, firm to moderate hard, soft in part, subblocky.

1961	1967	70	SANDSTONE: Light grey to minor light green grey, off white to minor pale brown, clear to translucent, medium to coarse grained, moderately sorted, subangular to subrounded, strong siliceous cement, trace calcareous cement, minor to locally common light grey argillaceous matrix, common lithic fragments, trace glauconite, trace pyrite, hard, poor visual porosity, no hydrocarbon fluorescence.
		30	SILTSTONE: Light grey, light to occasionally medium grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, firm to moderate hard, soft in part, subblocky.
1967	1973	40	SANDSTONE: Light grey, light green grey, mottled green grey, trace pink, clear to translucent, medium to coarse grained, moderately sorted, subangular to subrounded, strong siliceous cement, trace calcareous cement, minor to locally common light green grey argillaceous matrix, common lithic fragments, trace glauconite, trace mica, trace pyrite, hard, poor visual porosity, no hydrocarbon fluorescence.
		60	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, firm to moderate hard, soft in part, subblocky.
1973	1979	50	SANDSTONE: Light grey, light green grey, mottled green grey, trace pink, clear to translucent, medium to coarse grained, moderately sorted, subangular to subrounded, strong siliceous cement, trace calcareous cement, minor to locally common light green grey argillaceous matrix, common lithic fragments, grades to lithic sandstone, trace glauconite, trace mica, trace pyrite, hard, poor visual porosity, no hydrocarbon fluorescence.
		50	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace carbonaceous detritus, trace lithic fragments, firm to moderate hard, soft in part, subblocky.
1979	1985	50	SANDSTONE: Light grey, light green grey, mottled green grey, trace pink, clear to translucent, medium to coarse grained, moderately sorted, subangular to subrounded, strong siliceous cement, trace calcareous cement, minor to locally common light green grey argillaceous matrix, common lithic fragments, grades to lithic sandstone, trace glauconite, trace mica, trace pyrite, hard, poor visual porosity, no hydrocarbon fluorescence.
		50	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace carbonaceous detritus, trace lithic fragments, firm to moderate hard, soft in part, subblocky.
1985	1991	40	SANDSTONE: Light grey, light green grey, mottled green grey, trace pink, clear to translucent, medium to coarse grained, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, minor to locally common light

			grey argillaceous matrix, common lithic fragments, grades to lithic sandstone, trace mica, trace pyrite, hard, poor visual porosity, no hydrocarbon fluorescence.
		60	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace carbonaceous detritus, trace lithic fragments, firm to moderate hard, soft in part, subblocky.
1991	1997	40	SANDSTONE: Light grey, light green grey, mottled green grey, trace pink, clear to translucent, medium to coarse grained, predominantly medium, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, minor to locally common light grey argillaceous matrix, common lithic fragments, grades to lithic sandstone, trace mica, trace pyrite, hard, poor visual porosity, no hydrocarbon fluorescence.
		60	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace carbonaceous detritus, trace lithic fragments, firm to moderate hard, soft in part, subblocky.
1997	2003	40	SANDSTONE: Light grey, light green grey, mottled green grey, trace pink, clear to translucent, medium to coarse grained, predominantly medium, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, minor to locally common light grey argillaceous matrix, common lithic fragments, grades to lithic sandstone, trace mica, trace pyrite, hard, poor visual porosity, no hydrocarbon fluorescence.
		60	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace carbonaceous detritus, trace lithic fragments, firm to moderate hard, soft in part, subblocky.
2003	2009	40	SANDSTONE: Light grey, light green grey, mottled green grey, trace pink, clear to translucent, medium to coarse grained, predominantly medium, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, minor to locally common light grey argillaceous matrix, common lithic fragments, grades to lithic sandstone, trace mica, trace pyrite, hard, poor visual porosity, no hydrocarbon fluorescence.
		60	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace carbonaceous detritus, trace lithic fragments, trace glauconite, firm to moderate hard, soft in part, subblocky.
2009	2015	40	SANDSTONE: Light grey, light green grey, mottled green grey, trace pink, translucent, medium to coarse grained, predominantly medium, minor fine grained, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, minor to locally common light grey argillaceous matrix, common lithic fragments, grades to lithic sandstone, trace mica, trace pyrite, hard, poor visual porosity, no hydrocarbon fluorescence.

		60	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace carbonaceous detritus, trace lithic fragments, trace glauconite, firm to moderate hard, soft in part, subblocky.
2015	2021	40	SANDSTONE: Light grey, light green grey, mottled green grey, trace pink, minor red brown, translucent, medium to coarse grained, predominantly medium, partly fine grained, moderately sorted, subangular to subrounded, strong siliceous cement, trace calcite, minor to locally common light grey argillaceous matrix, common lithic fragments, grades to lithic sandstone, trace mica, trace pyrite, hard, poor visual porosity, no hydrocarbon fluorescence.
		60	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace carbonaceous detritus, trace lithic fragments, trace glauconite, firm to moderate hard, soft in part, subblocky.
2021	2027	40	SANDSTONE: Light grey, light green grey, mottled green grey, trace pink, minor red brown, translucent, medium to coarse grained, predominantly coarse, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, trace quartz overgrowths, minor to locally common light grey argillaceous matrix, common lithic fragments, grades to lithic sandstone, trace mica, trace pyrite, hard, poor visual porosity, no hydrocarbon fluorescence.
		60	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, trace glauconite, firm to moderate hard, soft in part, subblocky.
2027	2030	40	SANDSTONE: Light grey, light green grey, mottled green grey, trace pink, minor red brown, translucent, medium to coarse grained, predominantly coarse, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, trace quartz overgrowths, minor to locally common light grey argillaceous matrix, common lithic fragments, grades to lithic sandstone, trace mica, trace pyrite, hard, poor visual porosity, no hydrocarbon fluorescence.
		60	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, trace glauconite, firm to moderate hard, soft in part, subblocky.
2030	2033	40	SANDSTONE: Light grey, light green grey, mottled green grey, trace pink, minor red brown, translucent, medium to coarse grained, predominantly coarse, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, trace quartz overgrowths, minor to locally common light grey argillaceous matrix, common lithic fragments, grades to lithic sandstone, trace mica, trace pyrite, hard, poor visual porosity, no hydrocarbon fluorescence.

		60	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, trace glauconite, firm to moderate hard, soft in part, subblocky.
2033	2036	60	SANDSTONE: Light grey, light green grey, mottled green grey, trace pink, minor red brown, translucent, medium to coarse grained, predominantly coarse, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, trace quartz overgrowths, minor to locally common light grey argillaceous matrix, common lithic fragments, grades to lithic sandstone, trace mica, trace pyrite, hard, poor visual porosity, no hydrocarbon fluorescence.
		40	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, trace glauconite, firm to moderate hard, soft in part, subblocky.
2036	2039	60	SANDSTONE: Light grey, light brown grey, light green grey, trace pink, minor red brown, translucent, fine to coarse grained, predominantly fine to medium, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, locally common light grey argillaceous matrix, trace lithic fragments, trace mica, hard, poor visual porosity, no hydrocarbon fluorescence.
		40	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, trace glauconite, firm to moderate hard, soft in part, subblocky.
2039	2042	70	SANDSTONE: Light grey, light brown grey, light green grey, trace pink, minor red brown, translucent, fine to coarse grained, predominantly fine to medium, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, locally common light grey argillaceous matrix, trace lithic fragments, trace mica, hard, poor visual porosity, no hydrocarbon fluorescence.
		30	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, trace glauconite, firm to moderate hard, soft in part, subblocky.
2042	2045	60	SANDSTONE: Light grey, light brown grey, light green grey, common pink to red brown, translucent, fine to coarse grained, predominantly fine to medium, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, locally common light grey argillaceous matrix, trace lithic fragments, trace glauconite?, trace mica, hard, poor visual porosity, no hydrocarbon fluorescence.
		40	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, trace glauconite, firm to moderate hard, soft in part, subblocky.
2045	2048	40	SANDSTONE: Light grey, light brown grey, light green grey,

			common pink to red brown, translucent, fine to coarse grained, predominantly fine to medium, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, locally common light grey argillaceous matrix, trace lithic fragments, trace glauconite?, trace mica, hard, poor visual porosity, no hydrocarbon fluorescence.
		60	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, trace glauconite, firm to moderate hard, soft in part, subblocky.
2048	2054	60	SANDSTONE: Light grey, light brown grey, light green grey, rare pink to red brown, translucent, fine to coarse grained, predominantly medium, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, locally common light grey argillaceous matrix, trace lithic fragments, trace glauconite?, trace mica, hard, poor visual porosity, no hydrocarbon fluorescence.
		40	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, trace glauconite, firm to moderate hard, soft in part, subblocky.
2054	2060	50	SANDSTONE: Light grey, light brown grey, light green grey, light green, rare pink to red brown, translucent, fine to coarse grained, predominantly medium, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, locally common light grey argillaceous matrix, trace lithic fragments, trace mica, hard, poor visual porosity, no hydrocarbon fluorescence.
		50	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, trace glauconite, firm to moderate hard, soft in part, subblocky.
2060	2066	70	SANDSTONE: Light grey, predominantly off white, translucent, light green grey, trace pink red, fine to coarse grained, predominantly medium, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, locally common light grey argillaceous matrix, trace lithic fragments, trace mica, hard, poor visual porosity, no hydrocarbon fluorescence.
		30	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, trace glauconite, firm to moderate hard, soft in part, subblocky.
2066	2072	60	SANDSTONE: Light grey, predominantly off white, translucent, light green grey, trace pink red, fine to coarse grained, predominantly medium, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, locally common light grey argillaceous matrix, trace lithic fragments, trace mica, hard, poor visual porosity, no hydrocarbon fluorescence.

		40	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, trace glauconite, firm to moderate hard, soft in part, subblocky.
2072	2078	60	SANDSTONE: Light grey, predominantly off white, translucent, light green grey, trace pink red, fine to coarse grained, predominantly medium, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, locally common light grey argillaceous matrix, trace lithic fragments, trace mica, hard, poor visual porosity, no hydrocarbon fluorescence.
		40	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, firm to moderate hard, soft in part, subblocky.
2078	2081	60	SANDSTONE: Light grey, predominantly off white, translucent, light green grey, trace pink red, fine to coarse grained, predominantly medium, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, locally common light grey argillaceous matrix, trace lithic fragments, trace mica, hard, poor visual porosity, no hydrocarbon fluorescence.
		40	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, firm to moderate hard, soft in part, slightly dispersive, subblocky.
2081	2084	50	SANDSTONE: Light grey, predominantly off white, translucent, light green grey, trace pink red, fine to coarse grained, predominantly medium, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, locally common light grey argillaceous matrix, trace lithic fragments, trace mica, hard, poor visual porosity, no hydrocarbon fluorescence.
		50	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, firm to moderate hard, soft in part, slightly dispersive, subblocky.
2084	2090	40	SANDSTONE: Light grey, predominantly off white, translucent, light green grey, trace brown red, fine to coarse grained, predominantly medium, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, locally common light grey argillaceous matrix, trace lithic fragments, hard aggregates, poor visual porosity, no hydrocarbon fluorescence.
		60	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, firm to moderate hard, soft in part, slightly dispersive, subblocky.
2090	2093	40	SANDSTONE: Light grey, predominantly off white, translucent, light green grey, trace brown red, fine to coarse

			grained, predominantly medium, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, locally common light grey argillaceous matrix, trace lithic fragments, hard aggregates, poor visual porosity, no hydrocarbon fluorescence.
		60	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, firm to moderate hard, soft in part, slightly dispersive, subblocky.
2093	2096	40	SANDSTONE: Light to medium grey, translucent, occasionally light green grey, fine to predominantly medium, coarse in part, moderately sorted, subangular to subrounded, moderately strong siliceous cement, trace calcite, locally common light grey argillaceous matrix, trace lithic fragments, hard aggregates, poor visual porosity, no hydrocarbon fluorescence.
		60	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, firm to moderate hard, soft in part, slightly dispersive, subblocky.
2096	2102	40	SANDSTONE: Light to medium grey, translucent, occasionally light green grey, fine to predominantly medium, minor coarse, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, common light grey argillaceous matrix, trace lithic fragments, hard aggregates, poor visual porosity, no hydrocarbon fluorescence.
		60	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, siliceous in part, firm to moderate hard, soft in part, slightly dispersive, subblocky.
2102	2105	50	SANDSTONE: Light to medium grey, translucent, occasionally light green grey, fine to predominantly medium, minor coarse, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, common light grey argillaceous matrix, trace lithic fragments, hard aggregates, poor visual porosity, no hydrocarbon fluorescence.
		50	SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, siliceous in part, firm to moderate hard, soft in part, slightly dispersive, subblocky.
2105	2108	40	SANDSTONE: Light to increasing medium grey, translucent, occasionally light green grey, occasionally orange red, fine to predominantly medium, minor coarse, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, common light grey argillaceous matrix, trace lithic fragments, grades to lithic sandstone, hard aggregates, poor visual porosity, no hydrocarbon fluorescence.
		60	SILTSTONE: Light grey, light to medium grey brown,

argillaceous, trace carbonaceous specks, trace lithic fragments, siliceous in part, firm to moderate hard, soft in part, slightly dispersive, subblocky.

2108	2111	40	SANDSTONE: Light to medium grey, translucent, occasionally light green grey, occasionally orange red, fine to predominantly medium, minor coarse, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, common light grey argillaceous matrix, trace lithic fragments, grades to lithic sandstone, hard aggregates, poor visual porosity, no hydrocarbon fluorescence.
		60	SILTSTONE: Light grey, light to medium grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, siliceous in part, firm to moderate hard, soft in part, slightly dispersive, subblocky.
2111	2114	30	SANDSTONE: Light to medium grey, translucent, occasionally light green grey, occasionally orange red, fine to predominantly medium, minor coarse, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, common light grey argillaceous matrix, trace glauconite, trace lithic fragments, hard aggregates, poor visual porosity, no hydrocarbon fluorescence.
		70	SILTSTONE: Light to medium grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, siliceous in part, firm to moderate hard, soft in part, slightly dispersive, subblocky.
2114	2118	20	SANDSTONE: Light to medium grey, translucent, occasionally light green grey, occasionally orange red, fine to predominantly medium, minor coarse, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, common light grey argillaceous matrix, trace glauconite, trace lithic fragments, hard aggregates, poor visual porosity, no hydrocarbon fluorescence.
		80	SILTSTONE: Predominantly light grey, off white, light to medium grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, siliceous in part, firm to moderate hard, soft in part, slightly dispersive, subblocky.

TOTAL DEPTH DRILLER : 2118m

TOTAL DEPTH LOGGER : 2098.5m (Fill in hole)

SECTION 2.2:- SIDEWALL CORES DESCRIPTIONS

SANTOS LIMITED

SIDEWALL CORE DESCRIPTIONS

WELL:	CASINO-1	DATE	16-09-02	PAGES	8
GUN NO.:	1	SHOTS FIRED	30	SHOTS PURCHASED	30
		GEOLOGIST:	M. D'Cruz		

CORE NO.	DEPTH (m)	REC. (cm)	PALYN. EVAL. REJECT	LITH.	COLOUR	GRAIN SIZE	HYDR. INDIC. (Y/N)	SUPPLEMENTARY INFORMATION
1	2030	2.25		SLTST	Light grey	Arg	N	SILTSTONE: Light grey, argillaceous, trace carbonaceous specks, trace lithic fragments, trace glauconite, soft to firm, subblocky.
2	1990	2.5		SLTST	Light grey	Arg	N	SILTSTONE: Light grey, argillaceous, trace carbonaceous specks, trace lithic fragments, trace glauconite, soft to firm, subblocky.
3	1960	2.0		SST 40% SLTST 60%	Light grey	Fine	N	SANDSTONE: Light grey to minor light green grey, off white to minor pale brown, clear to translucent, fine grained, well sorted, subangular to subrounded, weak siliceous cement, trace calcareous cement, minor to locally common light grey argillaceous matrix, common lithic fragments, trace glauconite, friable, poor visual porosity, no hydrocarbon fluorescence. SILTSTONE: Light grey, argillaceous, trace carbonaceous specks, trace lithic fragments, firm to moderate hard, soft in part, subblocky.
4	1937	2.25		SLTST	Light grey	Arg	N	SILTSTONE: Light grey, argillaceous, trace carbonaceous specks, trace lithic fragments, firm to moderate hard, soft and dispersive in part, subblocky.

5	1921	1.0		SST	White to light grey	Fine	N	SANDSTONE: White to light grey, fine grained, well sorted, subangular to subrounded, weak calcareous cement, common white to light grey argillaceous matrix, trace glauconite and lithics, trace carbonaceous fragments, friable aggregates, poor visual porosity, no hydrocarbon fluorescence.
6	1885	3.0		SST 80% SLTST 20%	Light grey to green grey	Medium to coarse	N	SANDSTONE: Light grey, light green grey, off white, translucent, occasionally pink to red, medium to coarse, moderately well sorted, subangular, weak siliceous cement, trace calcareous cement, common argillaceous matrix, common lithic fragments, grades to lithic sandstone in part, trace micro-micaceous specks, poor visual porosity, no hydrocarbon fluorescence. SILTSTONE: Light grey to light green, argillaceous, trace carbonaceous specks, trace lithic fragments, firm to moderate hard, soft and dispersive in part, subblocky.
7	1833	4.0		SLTST	Light grey to medium grey brown	Arg	N	SILTSTONE: Light to medium grey, occasionally dark grey, medium brown grey, argillaceous, trace carbonaceous specks, common plant remnants, firm, subblocky to occasionally subfissile.
8	1823	2.5		CLYST	Off white to light grey	Arg	N	CLAYSTONE: Off white to light grey, rare carbonaceous micro-specks, firm to moderately hard, blocky to subblocky.

9	1804	2.5		SST 80% SLTST 20%	Off white to light grey	Fine	N	<p>SANDSTONE: Pale grey, white to off-white, minor Fe-staining, rare pale yellow, clear to translucent in part, predominantly very fine, grading to arenaceous siltstone, well sorted, subangular to subrounded, moderately strong calcareous cement, locally common white argillaceous matrix, well cemented, common quartzose appearance in fine grained aggregates, trace green (glauconite?) and black lithic fragments, trace carbonaceous, friable to hard, poor visual porosity, no hydrocarbon fluorescence.</p> <p>SILTSTONE: Medium to dark brown grey, com carbonaceous fragments and plant remnants, firm, subblocky.</p>
10	1800	2.0		SST	Off white to light grey	Fine	N	<p>SANDSTONE: Pale grey, white to off-white, minor Fe-staining, rare pale yellow, clear to translucent in part, predominantly very fine, grading to arenaceous siltstone, well sorted, subangular to subrounded, moderately strong calcareous cement, locally common white argillaceous matrix, well cemented, common quartzose appearance in fine grained aggregates, trace black lithic fragments, trace carbonaceous, hard to very hard, poor visual porosity, no hydrocarbon fluorescence.</p>

11	1792.5	2.0		SLTST 80% SST 20%	Medium to dark grey	Arg	N	SILTSTONE: Medium to dark grey, minor grey brown, rare disseminated pyrite, moderate hard to hard, calcareous, trace carbonaceous specks, blocky to subblocky SANDSTONE: Light grey, medium to very coarse grained, poorly sorted, subangular to angular, weak siliceous cement, common white to light grey calcareous and argillaceous matrix, trace Fe-staining, trace lithic fragments, predominantly moderately hard, loose in part, poor visual porosity, no hydrocarbon fluorescence.
12	1783	3.25		SST	Light grey to green grey	Medium to coarse	N	SANDSTONE: Light grey, medium to coarse grained, moderate well sorted, weak siliceous cement, common white to light grey argillaceous matrix, trace glauconite, trace lithic fragments, friable to predominantly moderately hard, poor visual porosity, poor to fair inferred porosity, no hydrocarbon fluorescence.
13	1779	3.75		SST	Light grey to green grey	Medium to coarse	N	SANDSTONE: Light grey, medium to coarse grained, moderate well sorted, weak siliceous cement, common white to light grey argillaceous matrix, trace glauconite, trace lithic fragments, friable to predominantly moderately hard, poor visual porosity, poor to fair inferred porosity, no hydrocarbon fluorescence.
14	1773	4.0		SST	Light grey to brown grey	Medium to coarse	N	SANDSTONE: Light brown grey, light grey, medium to coarse grained, moderate well sorted, weak siliceous cement, common white to light grey argillaceous matrix, becoming cleaner, trace glauconite, trace lithic fragments, friable to predominantly moderately hard, poor visual porosity, poor to fair inferred porosity, no hydrocarbon fluorescence.

15	1769	3.0		SST	Light grey to brown grey	Fine to medium to coarse	N	SANDSTONE: Light brown grey, light grey, fine to medium grained, minor coarse grained, moderate well sorted, weak siliceous cement, common white to light grey argillaceous matrix, trace glauconite, trace lithic fragments, friable to occasionally moderately hard, poor visual porosity, poor to fair inferred porosity, no hydrocarbon fluorescence.
16	1758	2.25		SST 90% SLTST 10%	Light grey to light brown grey	Fine to medium	N	SANDSTONE: Light brown grey, light grey, fine to medium grained, minor coarse grained, moderate well sorted, weak siliceous cement, common white to light grey argillaceous matrix, trace glauconite, trace lithic fragments, friable to occasionally moderately hard, poor visual porosity, poor to fair inferred porosity, no hydrocarbon fluorescence. SILTSTONE: Medium to dark grey brown, argillaceous, soft to firm, trace carbonaceous specks, blocky to subblocky
17	1753	3.5		SST	Light grey to light brown grey	Fine to coarse	N	SANDSTONE: Light grey, light brown grey, clear to translucent, fine to coarse grains, moderately sorted, subangular to subrounded, moderately strong siliceous cement, trace calcareous cement, com white to light grey argillaceous matrix, silty, poor visual porosity, no hydrocarbon fluorescence.
18	1751	3.0		SST	Light grey to light brown grey	Fine to coarse	N	SANDSTONE: Light grey, light brown grey, clear to translucent, fine to medium, occasional coarse loose grains, moderately sorted, subangular to subrounded, moderately strong siliceous cement, trace calcareous cement, com white to light grey argillaceous matrix, silty, poor visual porosity, no hydrocarbon fluorescence.

19	1742	2.0		SLTST	Medium to dark brown	Arg	N	SILTSTONE: Medium to dark brown to grey brown, minor glauconite, trace calcite, trace loose quartz, calcareous, trace pyrite, moderately hard, blocky to subblocky.
20	1736	3.75		SLTST	Medium to dark brown	Arg	N	SILTSTONE: Medium to dark brown to grey brown, common large glauconite fragments and nodules, trace calcite, trace loose quartz, calcareous, trace pyrite, moderately hard, blocky to subblocky.
21	1723	2.0 (Crushed)		SLTST	Medium to dark brown	Arg	N	SILTSTONE: Medium to dark brown to grey brown, common glauconite, trace calcite, trace loose quartz, calcareous, trace pyrite, moderately hard, blocky to subblocky.
22	1715	4.0		SLTST	Medium to dark brown	Arg	N	SILTSTONE: Medium to dark brown to grey brown, common glauconite, trace calcite, trace loose quartz, calcareous, trace pyrite, moderately hard, blocky to subblocky.
23	1707	2.75		SLTST	Light to medium brown	Arg	N	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, calcareous, trace pyrite, firm to moderately hard, occasionally hard, subblocky.
24	1685	3.75		SLTST	Light to medium brown	Arg	N	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, calcareous, trace pyrite, firm to moderately hard, occasionally hard, subblocky.
25	1665	3.25		SLTST	Light to medium brown	Arg	N	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, calcareous, firm to moderately hard, occasionally hard, subblocky.
26	1600	2.25		SLTST	Light to medium brown	Arg	N	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, firm to moderately hard, minor soft and dispersive, subblocky.

27	1570	3.0		SLTST	Light to medium brown	Arg	N	SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, soft to firm, dispersive, amorphous to subblocky.
28	1534	1.75		SLTST	Medium to dark brown	Arg	N	SILTSTONE: Medium to dark brown, medium to dark grey brown, slightly arenaceous, trace loose quartz grains, common dispersed glauconite, trace calcite, soft to firm, amorphous to subblocky.
29	1527	2.5		SLTST 90% SST 10%	Medium to dark brown	Arg to aren	N	SILTSTONE: Medium to dark brown, medium to dark grey brown, slightly arenaceous, trace loose quartz grains, common dispersed glauconite, trace calcite, soft to firm, amorphous to subblocky. SANDSTONE: Clear to translucent, light green, light grey, green, fine to medium, occasionally coarse, moderately poorly sorted, subangular to subrounded in part, weak calcareous cement, moderately strong siliceous cement in part, common glauconite, grades to glauconitic sandstone, locally common white argillaceous matrix, moderate hard, poor visual porosity, no hydrocarbon fluorescence.
30	1520	2.0		SLTST	Medium to dark brown	Arg	N	SILTSTONE: Medium to dark brown, medium to dark grey brown, slightly arenaceous, trace loose quartz grains, common dispersed glauconite, trace calcite, soft to firm, amorphous to subblocky.

COMMENTS:

30 sidewall cores were attempted. 30 were recovered.
3 correlation passes were performed.

SECTION 2.3:- CATALOGUE OF WELLSITE SAMPLES



INTEQ

Shipping Manifest

Santos: Casino-1

From: BHI Unit 503

Location: *Ocean Bounty*

Telephone: 08 8218 5740

Shipped in Container No: OPC200

SAMPLE TYPE	No. Of Sets	COMPOSITION			PACKING DETAILS
		Sample	Depth Interval (m)		
		Box No.	From	To	
Sets A,B,C: Washed & Air Dried Samples (100 g)	3	1	752	818	Small boxes 1 – 8 packed in large box 1 of 3
		2	818	875	
		3	875	956	
		4	956	1037	
		5	1037	1124	
		6	1124	1211	
		7	1211	1298	
		8	1298	1379	
		9	1379	1451	Small boxes 9 – 12 packed in large box 2 of 3
		10	1451	1541	
		11	1541	1625	
		12	1625	1700	
		13	1700	1781	Small boxes 13-17 packed in large box 3 of 3
		14	1781	1862	
		15	1862	1955	
		16	1955	2036	
		17	2036	2118	
Sets D,E: Washed & Air Dried Samples (200 g)	2	1	752	806	Small boxes 1 – 8 packed in large box 1 of 5
		2	806	875	
		3	875	929	
		4	929	986	
		5	986	1040	
		6	1040	1094	
		7	1094	1154	
		8	1154	1226	
		9	1226	1298	Small boxes 9-12 packed in large box 2 of 5
		10	1298	1355	
		11	1355	1412	
		12	1412	1487	
		13	1487	1556	Small boxes 13 – 16 packed in large box 3 of 5
		14	1556	1625	
		15	1625	1685	
		16	1685	1745	
		17	1745	1808	Small boxes 17-20 packed in large box 4 of 5
		18	1808	1865	
		19	1865	1931	
		20	1931	1985	
		21	1985	2042	Small boxes 21-23 packed in large box 5 of 5
		22	2042	2090	
		23	2090	2118	

Set F: Samplex Trays	1	1 2 3 4 5	752 1052 1352 1652 1817	1052 1352 1652 1817 2118	5 Small boxes packed into 1 Large box.
Set G: Samplex Trays	1	1 2	752 2012	2012 2118	Box 1 Couriered to Strike oil on 14/09/02 Box 2: 1 small box
Set H: Mud Samples and Mud Filtrate sample. MDT fluid sample	1	1	755 1408 1529 1748 1757 1799 1870 2118		Packed in 1 Large Box. Also included a Mud Filtrate Sample (glass jar). Mud Sample and MDT sample in plastic 500ml bottles
Set I: Misc paper work, logs and charts	1	1	-	-	1 Large box

Samplex trays (Set G) from 752 to 2012m have been forwarded to Strike Oil on 14/09/02

DISTRIBUTION	Destination & Address	Attention of:
Set A and B: Santos Washed & Dried (100g)	C/- Santos Core Library Ascot Transport Francis Street Gillman SA 5013	Attn: Troy Prosser (Santos Core Librarian)
Set C: Strike Oil Washed & Dried (100g)	C/- Santos Core Library Ascot Transport Francis Street Gillman SA 5013	Attn: Troy Prosser (Santos Core Librarian)
Set D: Vic DRNE Washed & Dried (200g)	C/- Santos Core Library Ascot Transport Francis Street Gillman SA 5013 Fwd to Vic DNRE	Attn: Troy Prosser (Santos Core Librarian)
Set E: Geoscience Australia Washed & Dried (200g)	C/- Santos Core Library Ascot Transport Francis Street Gillman SA 5013 Fwd to AGSO	Attn: Troy Prosser (Santos Core Librarian)
Set F, G: Santos and Strike Oil Samplex Trays	C/- Santos Core Library Ascot Transport Francis Street Gillman SA 5013 Fwd to AGSO	Attn: Santos Core Library, Gillman
Set H: Mud Samples	C/- Santos Core Library Ascot Transport Francis Street Gillman SA 5013 Fwd to AGSO	Attn: Troy Prosser (Santos Core Librarian)
Set I: Misc paper work, logs and charts	C/- Santos Core Library Ascot Transport Francis Street Gillman SA 5013 Fwd to AGSO	Attn: Attn: Troy Prosser (Santos Core Librarian)

SECTION 3: WIRELINE LOGGING REPORTS

SECTION 3.1:- SUITE 1 - LOGGING ORDER FORM

Santos
A.C.N. 007 550 923

LOGGING ORDER

COMPANY: <u>SANTOS – STRIKE OIL</u>	
WELL: <u>CASINO-1</u>	FIELD: <u>EXPLORATION</u>
RIG: <u>OCEAN BOUNTY</u>	STATE: <u>VICTORIA</u>
LOCATION: <u>OTWAY BASIN</u>	BLOCK: <u>VIC/P44</u>
LATITUDE: <u>38° 47' 18.502" S</u>	LONGITUDE: <u>142° 42' 0.287" E</u>
ELEVATIONS: <u>Water Depth: 70.5m</u> <u>RT-Seabed : 95.5m</u>	RT: <u>25.0m LAT</u> DF: <u>25.0m</u>
914mm HOLE: <u>130m</u>	762mm CSG: <u>128m</u> 310 ppf X-52
445mm HOLE: <u>752m</u>	340mm CSG: <u>743m</u> 68 ppf L-80
311mm HOLE: <u>2118m</u>	244mm CSG: <u> </u>
MUD SYSTEM: <u>KCI / PHPA / GLYCOL</u>	CIRCULATION STOPPED: 12:40 hrs on 14/09/02
WT: VISC: PV/YP:	PH: FLUID LOSS: CHL:
** See attached Mud report for mud properties	
GEOLOGIST: <u>R. Subramanian / M. D'Cruz</u>	

INFORMATION GIVEN ABOVE IS TO BE USED ON LOG HEADING SHEETS.

HOLE CONDITIONS: (TIGHT SPOTS, DEVIATION, COALS, BARITE IN MUD, ETC)

Good hole conditions expected.

Barite in mud = ppb

DRILL STEM TESTS/CORED INTERVALS:

No DSTs were conducted. No open hole cores were cut.

COMMENTS: (TO BE INCLUDED IN REMARKS SECTION ON HEADER SHEET)

LOGS:

PROGRAM CONFIRMED WITH OPERATIONS GEOLOGIST AT 18:00 hrs ON 14-09-02

PROGRAM VARIES FROM PRE-SPUD NOTES:

YES: NO:

LOG	INTERVAL	REPEAT SECTION / Comments
<u>RUN 1: PEX-DSI</u> Resistivity-Caliper-SP Sonic (P&S WFT) Sonic (Dipole shear) Neutron Density Spectral Gamma GR	TD to casing shoe TD to 500m (expected top cement) TD to 1650m TD to casing shoe TD to 1650m TD to Seafloor	No repeat section required, check repeatability with down log.
<u>RUN 2: MDT-GR</u>	20 points (TBA) Sampling. PVT module with resistivity monitoring required.	
<u>RUN 3: VSP</u>	Zero offset. TD to 500m. (expected top cement) 20m levels.	
<u>RUN 4: SWC</u>	30 cores. Points to be advised	Extra gun contingent

REMARKS: (ALL OPERATIONS AS PER CURRENT SANTOS OPERATING PROCEDURES)

1. TENSION CURVE - TO BE DISPLAYED ON LOG FROM T.D. TO CASING SHOE.
2. ALL CALIBRATIONS IN CASING MUST BE VERSUS DEPTH.
3. ALL THERMOMETER READINGS TO BE RECORDED ON LOG
4. ALL SCALES AND PRESENTATIONS TO CONFIRM TO STANDARDS UNLESS OTHERWISE ADVISED.
5. THE FIELD/EDIT TAPE MUST BE A MERGED COPY OF ALL LOGS RUN. SEPARATE TAPES ARE ONLY ACCEPTABLE AS AN INTERIM MEASURE.
6. ANY CHANGE FROM STANDARD PROCEDURES/SCALES TO BE NOTED IN REMARKS SECTION.
7. RM, RMF, RMC AND BHT MUST BE ANNOTATED ON FAXED LOGS. FAXED LOGS SHOULD ALSO INDICATE IF ON DEPTH OR NOT.
8. LOG DATA IS TO BE TRANSMITTED AS SOON AS POSSIBLE AFTER ACQUISITION. IF ANY DELAYS ARE LIKELY OR IF DATA TRANSMISSION WILL ADVERSELY EFFECT THE OPERATION THEN THE WELLSITE GEOLOGIST MUST BE IMMEDIATELY INFORMED.
9. THE WELLSITE GEOLOGIST MUST BE INFORMED IMMEDIATELY OF ANY TOOL OR HOLE PROBLEMS, LOST TIME OR ANY OTHER EVENT WHICH MAY AFFECT THE LOGGING OPERATIONS.

SECTION 3.2:- SUITE 1 - ELECTRIC LOGGING TIME SUMMARY

ELECTRIC LOGGING TIME SUMMARY

LOGGING UNIT:	OSU-25
START DATE:	14-09-2002
END DATE:	16-09-2002
DEPTH DRILLER:	2118
DEPTH LOGGER:	2098.5 (fill)

LEFT BASE:	13-09-2002
ARRIVED AT THE WELLSITE:	14-09-2002
INITIAL RIG UP:	14-09-2002
FINAL RIG DOWN:	16-09-2002
RETURN TO BASE:	17-09-2002

WELL NAME:	Casino-1
TRIP NUMBER:	1
WELLSITE GEOLOGIST:	R.Subra / M.D'Cruz
LOGGING ENGINEER:	Meshary / Ismail
PAGE / DATE:	1A 14/09/2002

DATE / TIME	RIG UP / DOWN	TOOL CHECK	RIH / POOH	LOGGING	DATA TX	LOST TIME SLB	I. O.	WIPER TRIP	LOST TIME OTHERS	OTHERS	COMMENTS / REMARKS
0:00											
:30											
1:00											
:30											
2:00											
:30											
3:00											
:30											
4:00											
:30											
5:00											
:30											
6:00											
:30											
7:00											
:30											
8:00											
:30											
9:00											
:30											
10:00											
:30											
11:00											
:30											

TOTALS

WSG (SIGN) ENGINEER(SIGN)

--	--	--	--	--	--	--	--	--	--	--

TOOLS RUN:

--	--	--	--	--	--	--	--	--	--	--

TOOLS RUN:

--	--	--	--	--	--	--	--	--	--	--

TOOLS RUN:

DATE / TIME	RIG UP / DOWN	TOOL CHECK	RIH / POOH	LOGGING	DATA TX	LOST TIME SLB	I. O.	WIPER TRIP	LOST TIME OTHERS	OTHERS	COMMENTS / REMARKS
12:00											
:30											
13:00											
:30											
14:00											
:30											
15:00											
:30											
16:00											
:30											
17:00											
:30											
18:00											
:30											
19:00											
:30											<u>RUN 1: PEX-DSI</u>
20:00										X	Safety meeting
	X									X	
:30	X										Rig Up
		X									Tool Check
21:00			X								21:00 RIH, compensate
			X								
:30			X								Casing checks - caliper & sonic
				X							Down Log
22:00				X							
				X							
:30				X							
				X							
23:00				X							23:00 On bottom. 2098.5m. Tag fill
				X							23:10 main log up. Hi-res PEX to 1650m
:30				X							
				X							

TOTALS

TOTAL	4.25	0.50	0.25	0.75	2.25					0.50	TOOLS RUN: PEX-DSI
											TOOLS RUN:
											TOOLS RUN:

SERVICE QUALITY SUMMARY

CLIENT WSG					ENGINEER					
1	2	3	4	5	1	2	3	4	5	
										SAFETY
										PROMPTNESS
										TOOL & SURFACE SYSTEM PERFORMANCE
										ATTITUDE & CO-OPERATION
										WELLSITE PRODUCTS / LOG QUALITY
										COMMUNICATIONS / TX PERFORMANCE
										OTHER (PLEASE SPECIFY)

1: Excellent - 2 - 3: Normal - 4 - 5: Very Poor

SECTION 3.3:- SUITE 1 – FIELD ELECTRIC LOGGING REPORT

SANTOS LIMITED**FIELD ELECTRIC LOG REPORT**

WELL:	Casino-1	GEOLOGIST:	R. Subramanian and M. D'Cruz
LOGGING Engr:	Meshary / Ismail	DATE LOGGED:	14-09-02 to 16-09-02
RUN NO:	Suite 1 / Run 1 to 3	LOGGERS DEPTH:	2098.5m (Fill in hole)
DRILLERS DEPTH:	2118m	LOST TIME LOGGER:	2 hrs 30 mins
ARRIVED ON SITE:	14-09-02	LOST TIME OTHER:	-
ACTUAL LOG TIME:	16 hrs 15 mins		
TOTAL TIME:	30 hrs 15 mins		

TYPE OF LOG	PEX-DSI (Run 1)	MDT (Run 2A-Tool Failed)	MDT-GR (Run 2B-Re-run)	CST-GR (Run 3)
TIME CIRC. STOPPED	12:40 14/09/02	12:40 14/09/02	12:40 14/09/02	12:40 14/09/02
TIME TOOL RIG UP	19:45 14/09/02	03:00 15/09/02	13:30 15/09/02	20:45 15/09/02
TIME TOOL RIH	21:00 14/09/02	04:30 15/09/02	13:30 15/09/02	21:45 15/09/02
TIME TOOL RIG DOWN	03:00 15/09/02	13:30 15/09/02	20:45 15/09/02	02:00 16/09/02
TOTAL TIME	7 hrs 15 mins	10 hrs 30 mins	7 hrs 15 mins	5 hrs 15 mins

TYPE OF LOG	FROM (m)	TO (m)	REPEAT SECTION	TIME SINCE LAST CIRC	BHT
PEX-DSI	(** Note: PEX Hi-Res to 1650m. Standard Res above 1650m)				
GR	TD	95	Down log	10.33 hrs	80°C
Spectral GR	TD	1650			
Resistivity	TD	742			
SP	TD	742			
HCAL	TD	742			
Sonic (Upper Dipole)	TD	1650			
Dt (Full waveforms)	TD	500			
Neutron-Density	TD	742			
MDT-GR (TOTAL : 29, 8 Good, 10 Valid but tight, 5 Lost Seals, 2 bad data, 5 curtailed, 3 samples collected)	1524	2016		-	-
CST-GR (30 of 30 shots recovered)	1520	2030		-	-

MUD SYSTEM: KCl – PHPA – GLYCOL

WEIGHT: 1.22 SG

HOLE CONDITIONS: Good

WELLSITE LOG QUALITY CONTROL CHECKS

LOG ORDER FORM	OK	MUD SAMPLE RESISTIVITY	OK	TOOL NO. / CODE CHECK	OK
OFFSET WELL DATA	OK	CABLE DATA CARD	OK	LOG SEQUENCE CONFIRM.	OK

LOG TYPE	Run 1 PEX- HALS	Run 2 MDT	Run 3 CST-GR	REMARKS
CASING CHECK	Y			
SCALE CHECK	Y			
DEPTH Casing	Y			L=742m D=743'
CALIBRATIONS OK	Y		Y	
REPEATABILITY	Y			
LOGGING SPEED	1700/300 0			
OFFSET WELL REPEATABILITY	Y			Compares with MWD/LWD
NOISY/MISSING DATA	Y			
CURVES/LOGS Depth Matched	Y	Y		
Rm MEASUREMENT	Y			
LLS/LLD/CHECK	Y			
PERF/RHOB CHECK	Y			
LOG HEADER/TAIL	Y			OK
PRINT/FILM QUALITY				To be sent from town
CORRELATION PASSES		Y	Y	OK

COMMENTS:

Run 1 PEX-HALS failed to reach bottom due to fill. Logger TD: 2098.5m vs Drillers TD 2118m

Run 2 MDT tool failed and had to be replaced .
2 x PVT samples collected for forwarding to town.
1 x 1-gal chamber opened at the site.

Run 3 CST. 100% recovery.

ENGINEERS COMMENTS (If this report has not been discussed with the Engineer state reason)

SECTION 3.4: MDT PRESSURE SURVEY RESULTS

Santos

PRESSURE SURVEY

WELL: **Casino 1**

WITNESS: R Subramanian / M. D'Cruz

RT: 25.0 metres

Time since last circ : 17.0 hrs

Gauge Type : Quartz

Probe/Packer Type : Standard

Page : 1 OF 2

Date : 15/09/2002

	FORMATION	DEPTH RT MD m	DEPTH SUBSEA m	EXPECT FORM PRESS PSIA	EXPECT TEMP deg C	FILE NO	TEST RESULTS					INTERPRETATION			COMMENTS FLUID TYPE
							HYDRO BEFORE PSIA	FORM PRESS PSIA	HYDRO AFTER PSIA	TEMP deg C	D/D MOB MD/CP	TYPE D/D	TYPE BUILD UP	DEPL S/C	
															CORRELATION
1	Nullawarre	1524.0	1499.0		66	69	2715.96	2192.00	2715.60	70.80	50.50	N	Rapid		GOOD
2	Nullawarre	1526.0	1501.0		66	71	2719.22	2192.25	2718.75	71.35	179.80	N	Rapid		GOOD
3	Nullawarre	1527.5	1502.5		66	72	2721.72	2192.64	2721.56	71.45	256.70	N	Rapid		GOOD
4	Nullawarre	1529.5	1504.5		66	73	2725.44	2199.80	2725.16	71.55	29.70	N	Slow		CURTAILED
5	Belfast	1552.5	1527.5		67	74	2766.16	2230.34	2766.71	71.77	284.00	N	Rapid		GOOD
6	Belfast	1557.5	1532.5		68	75	2774.61	811.37	2774.81	71.88	19.70	N	Very Slow		TIGHT
															CORRELATION
7	Warre 'C'	1739.5	1714.5		75	77	3097.13	-		76.01	-				LOST SEAL
8	Warre 'C'	1739.0	1714.0		75	78	3095.92	-	3095.14	76.19	-				LOST SEAL
9	Warre 'C'	1741.0	1716.0		75	79	3099.40	-		76.43	-				LOST SEAL
10	Warre 'C'	1746.0	1721.0		75	80	3108.45	2825.33	3108.87	76.47	8.00	N	Slow		BAD (Unstable)
11	Warre 'C'	1751.0	1726.0	2770	75	81	3117.41	2817.60	3116.64	76.50	7.70	N	Very Slow		CURTAILED
12	Warre 'C'	1759.0	1734.0		76	82	3131.50	-	-	76.58	-				LOST SEAL
13	Warre 'C'	1761.5	1736.5		76	83	3135.72	-	-	76.96	-				BAD (Plugging)
14	Warre 'C'	1761.0	1736.0		76	84	3135.13	2850.36	3134.71	76.72	2.40	N	Very Slow		CURTAILED
15	Warre 'C'	1763.0	1738.0		76	85	3138.37	2835.95	3137.93	77.20	0.80	N	Very Slow		CURTAILED
															TOOL PROBLEM, PULL OUT OF HOLE & CHANGE TOOL, CORRELATION
16	Paarate	1454.0	1429.0		63	90	2594.52	-	2594.02	68.89		N	Slow		TIGHT
17	Paarate	1456.0	1431.0		63	91	2597.74	2121.73	2597.50	69.17	0.20	N	Slow		CURTAILED
															CORRELATION
18	Warre 'C'	1769.0	1744.0		76	93	3150.72	2812.13	3150.44	77.14	47.80	N	Rapid		GOOD
19	Warre 'C'	1773.0	1748.0		76	94	3158.04	-	3157.78	77.27	0.20	N	Slow		TIGHT
20	Warre 'C'	1773.0	1748.0		76	95	3158.20	-	3157.75	77.20	0.20	N	Slow		TIGHT (Reset)

Expected Temp Gradient: 0.04

Expected Water Gradient: 0.43

Mud Weight : 1.22 sg

Normal Drawdown : Pressure does not drop to zero

Limited Drawdown : Pressure drops to zero

Build Up types: Immediate, Rapid, Good, Slow.

Santos

PRESSURE SURVEY

WELL: **Casino 1**

RT: 25.0 metres

Gauge Type : Quartz

Page : 2 OF 2

WITNESS: R Subramanian/ M. D'Cruz

Time since last circ : 17.0 hrs

Probe/Packer Type : Standard

Date : 15/09/2002

	FORMATION	DEPTH RT MD m	DEPTH SUBSEA m	EXPECT FORM PRESS PSIA	EXPECT TEMP deg C	FILE NO	TEST RESULTS					INTERPRETATION			COMMENTS FLUID TYPE
							HYDRO BEFORE PSIA	FORM PRESS PSIA	HYDRO AFTER PSIA	TEMP deg C	D/D MOB MD/CP	TYPE D/D	TYPE BUILD UP	DEPL S/C	
21	Warre 'C'	1779.0	1754.0		76	96	3168.50	2813.85	3168.20	77.70	141.40	N	Rapid		GOOD
22	Warre 'C'	1782.5	1757.5		77	97	3174.73	2814.82	3174.72	77.80	9.40	N	Rapid		GOOD (2 PVT+1 gal)
23	Warre 'C'	1785.0	1760.0		77	98	3179.50	2817.83	3179.22	78.12	1.20	N	Very Slow		TIGHT
24	Warre 'C'	1787.5	1762.5		77	99	3184.08	2822.22	3183.60	78.20	14.40	N	Slow		TIGHT
25	Warre 'A'	1806.0	1781.0		77	100	3217.13	-	-		-	N	-		LOST SEAL
26	Warre 'A'	1806.0	1781.0		77	100	3217.13	-	3216.40	78.50	-	N	Very Slow		TIGHT (reset)
27	Warre 'A'	1813.0	1788.0		78	101	3229.50	-	3228.30	79.10	-	N	Very Slow		TIGHT
28	Warre 'A'	1870.0	1845.0		80	102	3332.60	-	3329.60	79.40	-	N	Very Slow		TIGHT
CORRELATION															
29	Eumeralla ?	2016.0	1991.0		86	104	3586.80	-	3585.30	80.90	-	N	Very Slow		TIGHT
CORRELATION															
30	Warre 'C'	1776.5	1751.5		76	105	3163.40	2815.93	3163.30	80.60	10.50	N	Good		GOOD
TOTAL : 30 PRE-TESTS: 8-Good, 10-Valid Tests but Tight, 5 Lost Seals, 2-Bad Tests, 5 curtailed															

* Note: Above readings noted real-time. Software picks could vary slightly. Refer final log presentation.

Expected Temp Gradient: 0.04

Normal Drawdown : Pressure does not drop to zero

Expected Water Gradient: 0.43

Limited Drawdown : Pressure drops to zero

Mud Weight : 1.22 sg

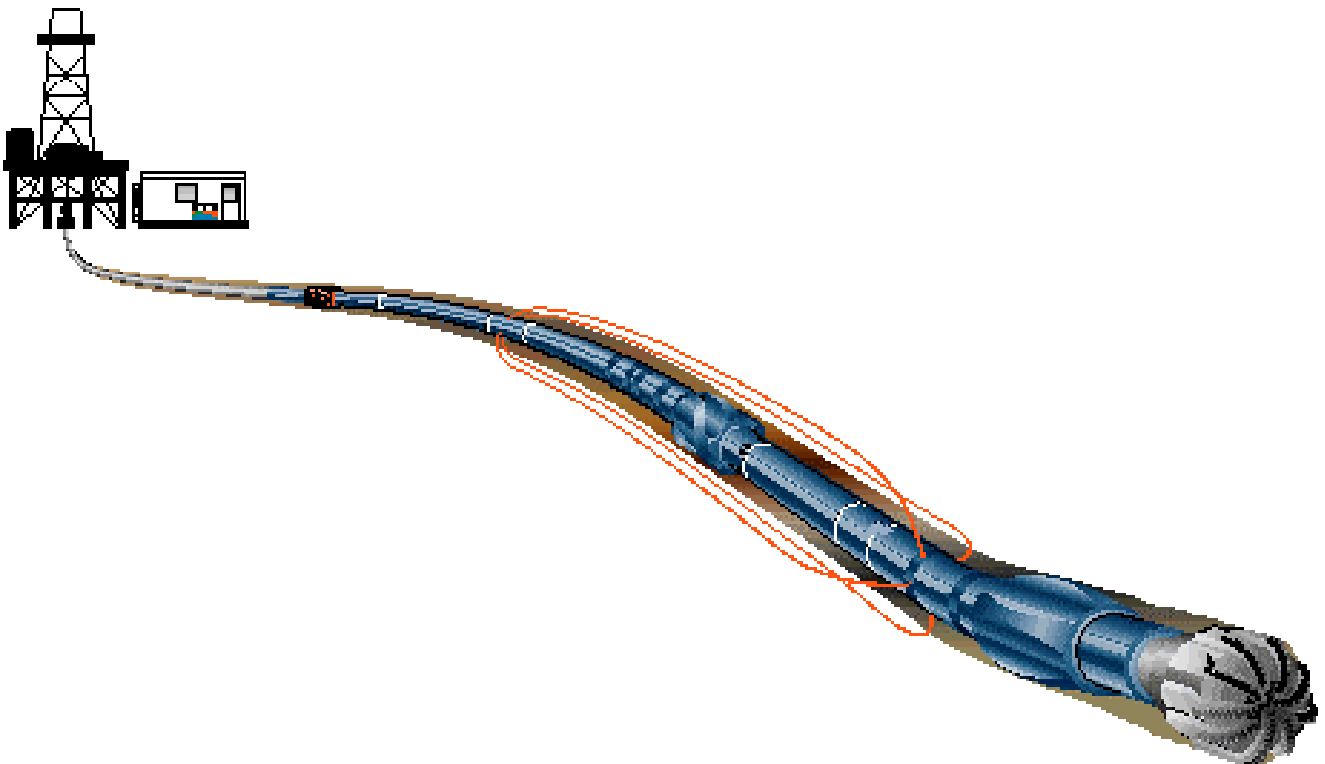
Build Up types: Immediate, Rapid, Good, Slow.

**SECTION 3.5:- MWD – LWD END OF WELL REPORT
(Anadrill Schlumberger)**

Santos

Casino - 1

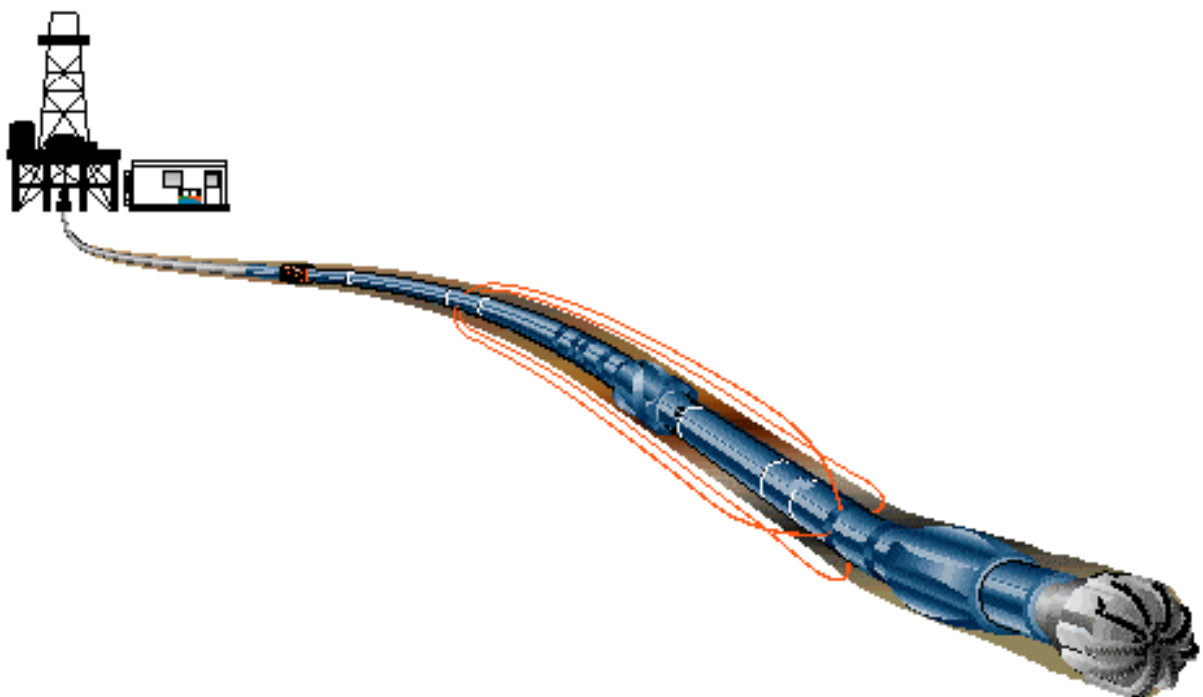
MWD – LWD End of Well Report



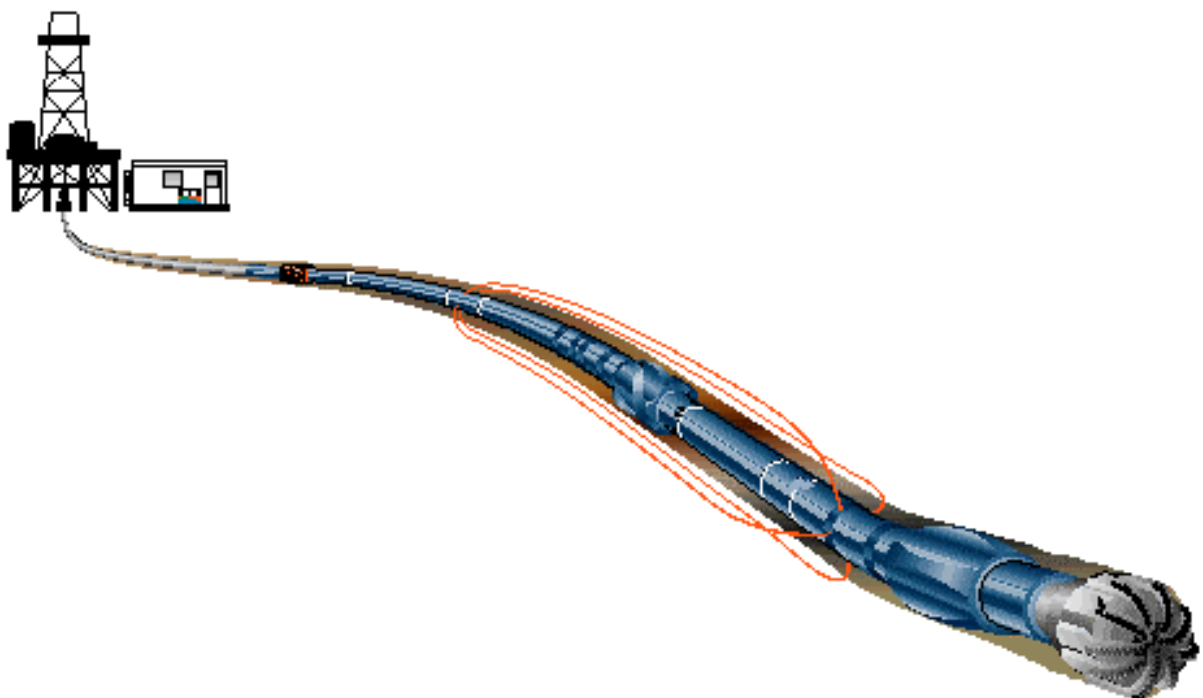
End of Well Report for Casino - 1

Contents

- * Logging Overview
- General Information
- Geomagnetic and Survey Reference Criteria
- Survey Report
- Bit Run Summary



Logging Overview



Logging Overview Casino - 1

Schlumberger Drilling and Measurements provided LWD and MWD services in the 12 ¼ in. section of the Casino- 1 well.

In the 12 ¼ in. section, the following formation evaluation measurements were delivered in real time and memory modes:

- Phase Shift Resistivity (CDR)
- Attenuation Resistivity (CDR)
- Formation Gamma Ray (CDR)
- Compressional Delta-T (ISONIC)

Furthermore survey data were transmitted in real time by the PowerPulse tool for both hole sizes. This information is not recorded in the tool memory.

Run	Hole Size (in.)	Service	Start Depth (m)	Stop Depth (m)
1	12 ¼	PowerPulse / CDR / ISONIC	752	1056
2	12 ¼	PowerPulse / CDR / ISONIC	1056	1400
3	12 ¼	PowerPulse / CDR / ISONIC	1400	1797
4	12 ¼	PowerPulse / CDR / ISONIC	1797	1797

12 ¼ in. Section (Runs 1 to 4, 752 to 1797 mMD):

The CDR / PowerPulse / ISONIC combination was used for correlation purposes and to evaluate a seismic data. The MWD tool was programmed to transmit real time information at 6.4 bits per second and this allowed obtaining a good quality log in real time.

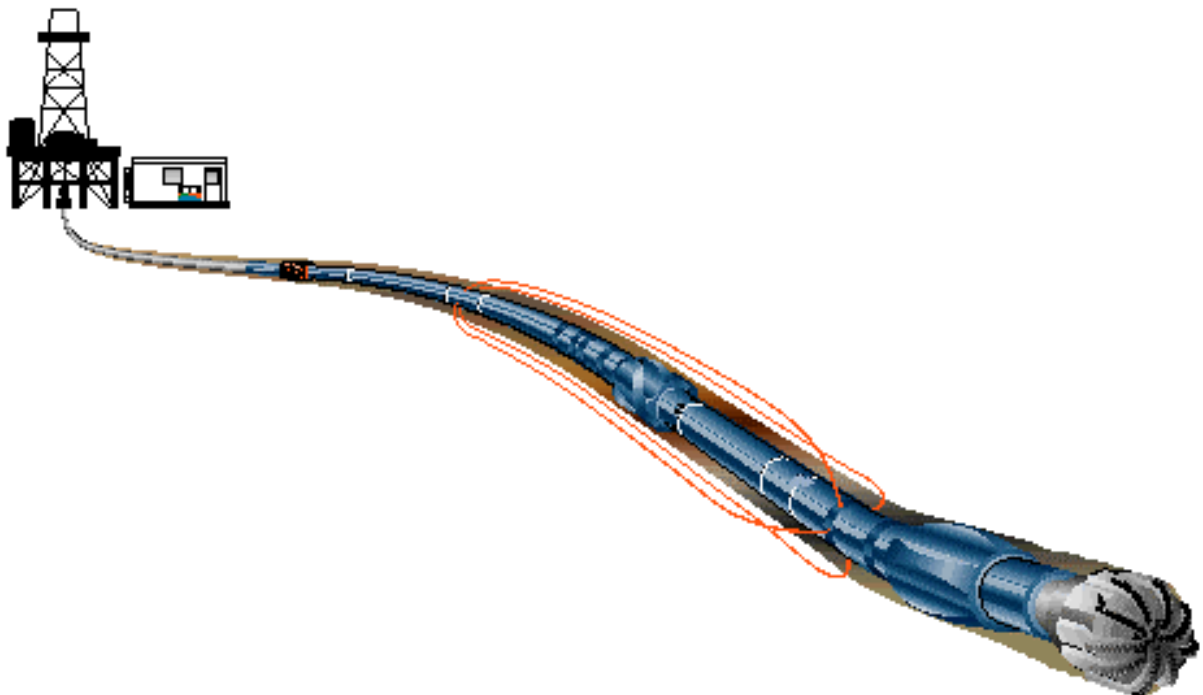
The ISONIC had been programmed to pick compressional Delta-T. Top interval of the ISONIC log, from 752 m to 950 m MD, was spiky due to high level of shocks in this section and due to high rate of penetration. Client was informed of high shock but no action was taken.

After run 3 the ISONIC recorded data for all the runs was reprocessed without receiver 4. Receiver 4 of the ISONIC was found to get a very weak signal back. The reprocessed memory logs without receiver 4 showed a much higher Delta-T coherence and were therefore presented on the final logs.

While running in the hole with next BHA gale force wind and high swells forced rig to hang off BHA in BOP' s and disconnect the riser. That led to well being suspended for a week. When riser was reconnected drillstring was pulled out of the hole and one without Schlumberger LWD/MWD tools was run in to assess hole condition. Hole was found to be in good condition and decision was made to drill ahead without trip to pick up Schlumberger tools.

Hole TD, at 2118 m, was reached and wireline logging commenced.

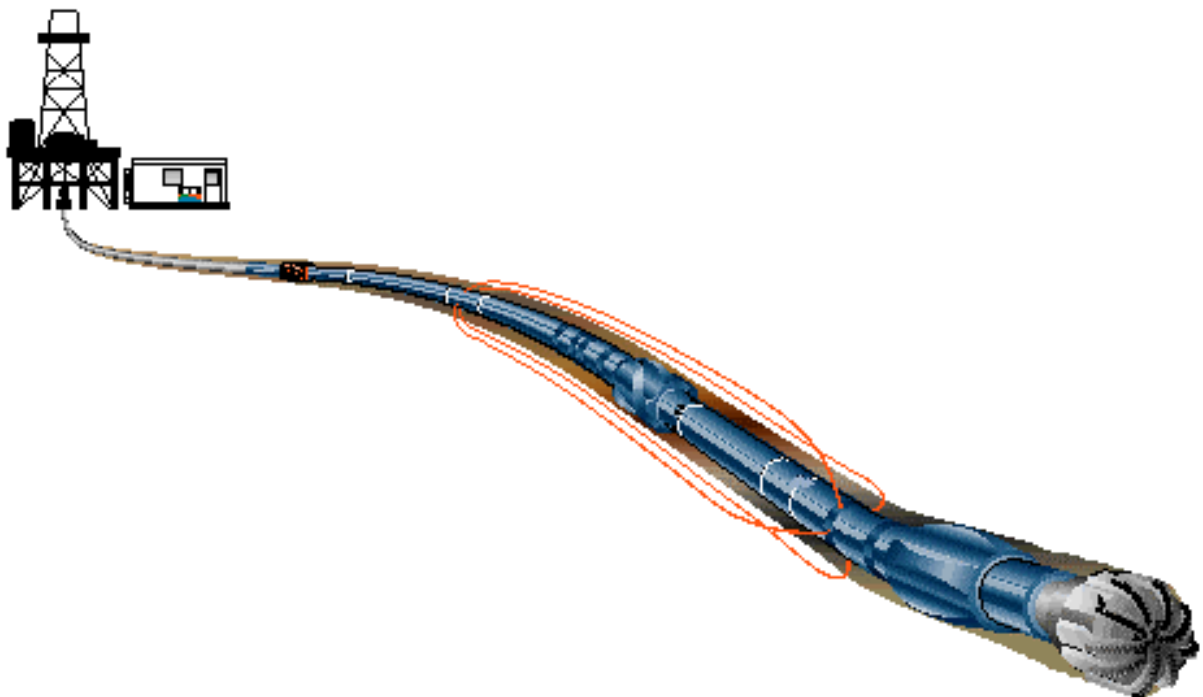
General Information



General Information

Well Name:	Casino - 1	
Rig:	DOGC Ocean Bounty	
Field:	VIC – P – 44	
Location:	Otway Basin	
Country:	Australia	
Cell Members:	Willem Bertheux Chu Mihn Tue Ozren Radicevic	LWD Engineer LWD Engineer LWD Engineer
Town Contacts:	Raymond Nanan Go Ching Lian Hrvoje Spoljaric	Location Manager Engineer In Charge – WA District Technical and SQR manager
Company Representatives:	Henry Flink Steve Hodgetts R. Subramanian	

Geomagnetic and Survey Reference Criteria



Geomagnetic and Survey Reference Criteria

Geomagnetic Data

Magnetic Model:	BGGM version 2002
Magnetic Date:	29 September 2002
Magnetic Field Strength:	1220.31 HCNT
Magnetic Declination:	10.87 degrees
Magnetic Dip:	-70.06 degrees

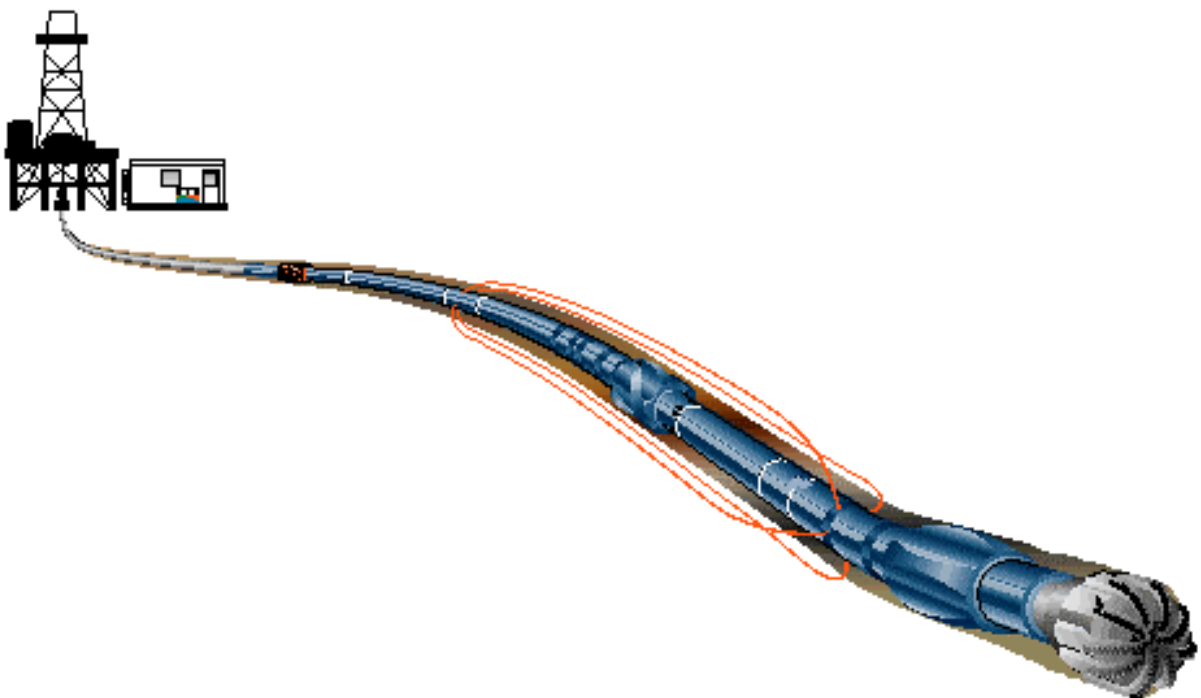
Survey Reference Criteria

Reference G:	1000.08 mgal
Reference H:	1220.31 HCNT
Reference Dip:	-70.06 degrees
G value Tolerance:	2.50 mgal
H value Tolerance:	6.00 HCNT
Dip Tolerance:	0.45 degrees

Survey Corrections Applied

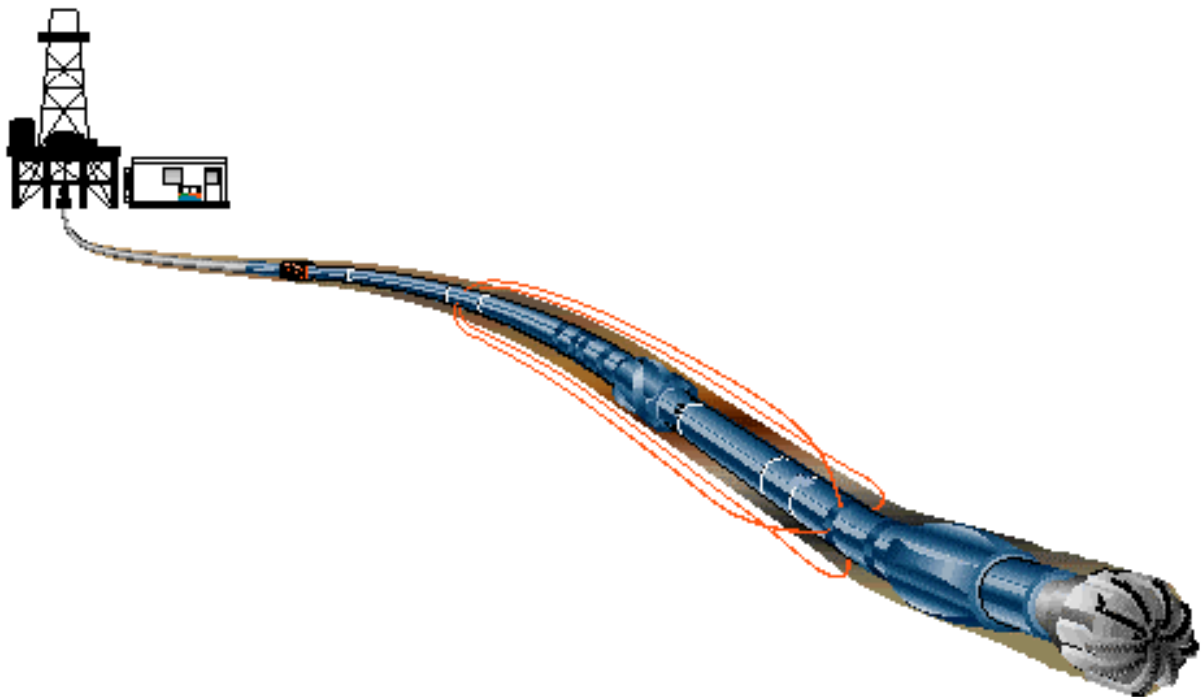
Reference North:	Grid North
Magnetic Declination:	10.87 degrees
Grid Convergence:	-1.07 degrees
Total Azimuth Correction:	11.94 degrees
Vertical Section Azimuth:	0.00 degrees

Survey Report



Seq #	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/10m)	Srvy tool type	Tool qual type
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIP	-
2	766.75	0.60	342.17	766.75	766.74	3.82	3.82	-1.23	4.01	342.17	0.01	MWD	6-axis
3	855.00	0.26	216.64	88.25	854.98	4.10	4.10	-1.49	4.36	340.03	0.09	MWD	6-axis
4	912.40	0.54	155.43	57.40	912.38	3.75	3.75	-1.46	4.02	338.79	0.08	MWD	6-axis
5	969.94	0.83	135.97	57.54	969.92	3.20	3.20	-1.05	3.37	341.81	0.06	MWD	6-axis
6	1041.08	1.20	191.94	71.14	1041.05	2.11	2.11	-0.85	2.27	338.03	0.14	MWD	6-axis
7	1084.57	1.29	209.06	43.49	1084.53	1.23	1.23	-1.18	1.71	316.20	0.09	MWD	6-axis
8	1170.44	0.93	192.51	85.87	1170.38	-0.29	-0.29	-1.80	1.83	260.74	0.06	MWD	6-axis
9	1256.72	1.44	181.17	86.28	1256.64	-2.06	-2.06	-1.98	2.85	223.78	0.06	MWD	6-axis
10	1382.12	1.87	182.17	125.40	1381.99	-5.68	-5.68	-2.08	6.05	200.15	0.03	MWD	6-axis
11	1458.48	2.13	183.87	76.36	1458.31	-8.34	-8.34	-2.23	8.63	194.95	0.03	MWD	6-axis
12	1546.07	2.74	185.63	87.59	1545.82	-12.05	-12.05	-2.54	12.31	191.92	0.07	MWD	6-axis
13	1605.53	3.09	184.83	59.46	1605.20	-15.06	-15.06	-2.82	15.32	190.60	0.06	MWD	6-axis
14	1690.72	3.44	188.91	85.19	1690.25	-19.87	-19.87	-3.41	20.16	189.73	0.05	MWD	6-axis
15	1775.86	4.38	192.34	85.14	1775.19	-25.57	-25.57	-4.50	25.97	189.97	0.11	MWD	6-axis

Bit Run Summary



Job Number AWA-02-15		Company Rep. Henry Flink, S.Hodgetts		Date In 30-Aug-02		Date Out 31-Aug-02		D&M Run Number 1		Rig Run Number 3				
Company SANTOS Ltd			Grid Corr -1.07			Brief Run Summary Good Run			Bit Run Number 1		Cell Manager Willem Bertheux			
Rig Name Ocean Bounty			Well Name Casino-1			Tot Corr 11.94			Hole Depth From 752 m To 1056 m			D&M Crew W.Bertheux, C.Tue, C.Borbas		
Location Otway Basin			Mapfile			Mag Dec 10.86			PP Slot ID			Inclination (Drift) From 0 deg To 1.2 deg		
BPS 6.4		Frequency 16		Mod Type OPSK		Azimuth From 135.97 deg To 342.17 deg		Rotary Hours 14.8 hrs.		Rotary Distance 304 m				
Pump Type 12-P-160		Pump Output 603		Pump Strk Len. 12		True Vertical Depth From 752 m To 1056 m		Slide Hours 0 hrs.		Slide Distance 0 m				
Pump Liner ID 6		Min DLS 0.01		Max DLS 0.14		Hole Size 12.25 in		Water Depth 70.5 m		Air Gap 25 m		Drilling Hours 14.8 hrs.		
Bent Sub Angle deg		Bent HSG Ang deg		Depth Max DLS m		RKB Height 0 m		Ground Elev. m		Mod Gap 0.12 in		Reaming Hours 0 hrs.		
Pulse Ht Thresh		Min Pulse Wdt		Max Pulse Wdt		Digit Time		T/F Arc in		T/F Angle 0 deg		On Bottom Hours 14.8 hrs.		
Conn Phase Ang deg		Rise Const		Fall Const		H2S In Well <input type="checkbox"/>		Damp Press psi		Signal Streng. 95		Last Casing Size 13.375 in Depth 743 m		
Directional Driller(s)						Turbine RPM @ Min Flow Rate RPM 2700 FR			Turbine RPM @ Max Flow Rate RPM 2700 FR			RPM 900 gpm		
Run Objective														
Equipment Code		Pump Hrs Start		SW Cum		Tool Vers		Equipment Code		Pump Hrs Start		SW Cum		
MDC-DC-231		0		21.9		6.1C00				0		8.25		
RGS9-AA-9556		0		21.9		5.0B05				0		9.50		
SWD8-BA-857		0		21.9		6.0B12				0		8.25		
Sensors Code		Real Time Hrs		Fail		Drilled Hrs		Fail		Recorded Time Hrs		Fail		
MDC-DC-231		21.9		<input type="checkbox"/>		304		<input type="checkbox"/>		0				
RGS9-AA-9556		21.9		<input type="checkbox"/>		304		<input type="checkbox"/>		40		304		
SWD8-BA-857		21.9		<input type="checkbox"/>		304		<input type="checkbox"/>		40		304		
Surface Sys Version		IDEAL/SPM ID7_OC_02												
Manufacturer		Stage Length		m		Bit to Bend Dist.		m		Bearing Gap In				
Type		Rubber				RSS Mfr				Bearing Gap Out				
Size		Sleeve Position				RSS Type				Radial Bearing Play				
Serial Number		Sleeve Size		in		RSS Size				Thrust Bearing Play				
Lobe Config.		Motor Fail		<input type="checkbox"/>		RSS SN								
Max Circ Temp		45.00 C		Avg ROP		30.00 m/hr		Min Actl FlowRt		800.00 gpm		Max Shock Dur		
Min Circ Temp		21.00 C		Max ROP		120.00 m/hr		Avg PmpPres		2500.00 psi		Total DH Shocks (k)		
End Mud Wt		8.80 lb/gal		Avg Surf RPM		100.00		PmpPres On Bot		2600.00 psi		CHECK SHOT		
End Funnel Vis		40.00 CPS		Min RPM		80.00		PmpPres Off Bot		2300.00 psi		Type		
End Plastic Vis		7.00 CPS		Max RPM		125.00		Avg Surf WOB		8.00 lbs		Depth		
End Yield Point		15.00 CPS		Avg FlowRate		825.00 gpm		Avg Surf Torq		3.00 ft-lbs		Inclination		
End Mud Resist		0.132		Max Actl FlowRt		900.00 gpm		Max Shock Lev		3		Azimuth		
Company		IDFS		PH		10.00		Percent Sand		2.00 %		Additives		
Brand		KCI/PHPA/Glycd		Chlorides		29000		Percent Solids		1.63 %		Clean		
Type		KCI		Other				Percent Oil		0.00 %				
LCM Type		Sandseal sweep		LCM Size		fine		LCM Concentation		50				
BHA Type		Rotary		Tur Rotor Prt #				Turbine Config		Surface Screen				
Int TF Offset				Stator Prt #				Pulser Config		DFS Used				
Low Oil Flag		<input type="checkbox"/>		Hrs @ Low Oil		hrs.		Stab Spacing		in				
DD Objectives Achieved		<input type="checkbox"/>		If not, why?										
BIT Type		PDC		Other										
Manufacturer		Hycalog		Model		DSX195CUW		IADC Code		No. of Jets		5		
Inner Row		Outer Row		Dull Char		Location		Brng/Seals		Gauge (1/16")		Other Char		
8		8		RO		S		X		1		WT		
Trans Fail		<input type="checkbox"/>		Jamming		<input type="checkbox"/>		Client Inconv.		<input type="checkbox"/>		Surface Noise		
Pres Incr @ Fail		<input type="checkbox"/>		Jamming Time		hrs.		Lost Time		hrs.		Down Hole Noise		
Trip Due to D&M		<input type="checkbox"/>		Sync Hours		hrs.		Surface Vib		<input type="checkbox"/>		Surface Sys Failure		
SUMMARY														
Good run, rop dropped below 1 m/hr. Pulled for bit														



DRILLING & MEASUREMENTS - BHA DATA

Job Number AWA-02-15
 Run Number 1
 BHA Number

Item	Description	Vendor	Material	Serial Number	Fishing Neck		Stab OD	OD	ID	Bot Connection		Top Connection		Len	Cum Len	TIME/DEPTH DETAILS						
					OD	Length				Size	Type	Size	Type			1	2	3	4	5		
UNITS																Date/Time	8/31/2002					
1	12 1/4" PDC Bit					0.1		12 1/4				6 5/8	Reg	0.32	0.32	Field Engineer	Chu/Willem					
2	12 1/4" NB R/R			C1U2151		0.59	12 1/4	8	3	6 5/8	Reg	6 5/8	Reg	2.44	2.76	Depth	1055					
3	CDR			9556		4.01		9 7/16		6 5/8	Reg	7 5/8	H90	7.54	10.3	Average ROP	1.94					
4	PowerPulse			231		7.92		8 3/8		7 5/8	H90	6 5/8	FH	8.38	18.68	Avg. Std. Pres.	2900					
5	ILS			313272-2		0.88	12 1/4	8 1/2		6 5/8	FH	6 5/8	FH	1.71	20.39	Desurger 1	1800					
6	Isonic			857		1.65		8 3/8		6 5/8	FH	6 5/8	Reg	7.2	27.59	Desurger 2	1800					
7	12 1/4" Stabiliser R/R			C1U2143		0.95	12 1/4	8	2 15/16	6 5/8	Reg	6 5/8	Reg	2.44	30.03	Tur. RPM @ FR	2773					
8	8" DC			144-22		0.56		8	2 3/4	6 5/8	Reg	6 5/8	Reg	9.24	39.27	FR @ Tur. RPM	666					
9	12 1/4" Stabiliser R/R			C1U2144		0.96	12 1/4	8	2 15/16	6 5/8	Reg	6 5/8	Reg	2.44	41.71	Avg. RPM	82					
10	9 x 8" DC			144		0.5		8	2 15/16	6 5/8	Reg	6 5/8	Reg	83.29	125	Max RPM	100					
11	Jar			48907C		0.61		8	3	6 5/8	Reg	6 5/8	Reg	9.71	134.71	Total Shocks	832.448					
12	2 x 8" DC			144		0.59		8	2 3/4	6 5/8	Reg	6 5/8	Reg	18.75	153.46	Max Shock	60					
13	X/O			144-025		0.66		8 1/4	2 7/8	6 5/8	Reg	4 1/2	IF	1.17	154.63	Avg. Surf. WOB	20					
14	HWDP									4 1/2	IF	4 1/2	IF	110.72	265.35	Max Surf. WOB	30					
15																Avg. DH WOB						
16																Max DH WOB						
17																Avg. Surf. Torq.	2.5					
18																Max Surf. Torq.	6					
19																Avg. DH Torq.						
20																Max DH Torq.						
21																Formation Type	Coarse SS1					
22																Friction						
23																Drag Up						
24																Drag Down						
PREDICTED BHA TENDENCY										Hookload		lbs	Wt. Below Jars	60000	lbs	Mud Weight	8.8					
										Pickup Wt.		lbs	Wt. Above Jars		lbs	Funnel Vis.	40					
										Slack Wt.		lbs	Total Air Wt.		lbs	Plastic Vis.	7					
																Circ. Temp	45					
																Signal Strength	40					
																Bit Deviation	0.83					
																Differential Pres.						
Stabilizer Description		Mid Pt To Bit	BLADE		GAUGE			Bit To Read Out Port		Bit To Measurement Port		BATTERY		Unloaded (V)		Loaded (V)		Run Hrs		Cum Hrs		
UNITS		m	Type	Length	Width	Length	In	Out	PPL	12.16 m	D&I PPL	14.55 m	Tool	Before	After	Before	After	BOT	AMP	BOT	AMP	
				in	in	in	in	in	CDR	6.34 m	GR PPL	13.94 m										
									ISONIC	25.34 m	GR LWD	8.65 m										
										m	RES LWD	5.17 m										
										m	SON LWD	25.73 m										
										m		m										
										m		m										

Job Number	Company Rep.	Date In	Date Out	D&M Run Number	Rig Run Number
AWA-02-15	Henry Flink, S.Hodgetts	31-Aug-02	2-Sep-02	2	4
Company	SANTOS Ltd	Grid Corr	Brief Run Summary	Bit Run Number	Cell Manager
Rig Name	Ocean Bounty	-1.07	Good Run	2	Willem Bertheux
Well Name	Casino-1	Tot Corr	Hole Depth	D&M Crew	
Location	Otway Basin	11.94	From 1056 m To 1400.00 m	W.Bertheux, C.Tue, C.Borbas	
Mapfile	Mag Dec	PP Slot ID	Inclination (Drift)	Pumping Hours	Below Rotary Tbl Hrs
	10.86		From 1.2 deg To 1.87 deg	18.50 hrs.	36.00 hrs.
BPS	Frequency	Mod Type	Azimuth	Rotary Hours	Rotary Distance
6.4	16	OPSK	From 191.94 deg To 209.06 deg	15.70 hrs.	344.00 m
Pump Type	Pump Output	Pump Strk Len.	True Vertical Depth	Slide Hours	Slide Distance
12-P-160	603	12	From 1056 m To 1400.00 m	0 hrs.	0 m
Pump Liner ID	Min DLS	Max DLS	Hole Size	Water Depth	Air Gap
6	0.03	0.14	12.25 in	70.5 m	25 m
Bent Sub Angle	Bent HSG Ang	Depth Max DLS	RKB Height	Ground Elev.	Mod Gap
0.00 deg		1041.08 m	0 m		0.12 in
Pulse Ht Thresh	Min Pulse Wdt	Max Pulse Wdt	Digit Time	T/F Arc	T/F Angle
				in	0 deg
Conn Phase Ang	Rise Const	Fall Const	H2S In Well	Damp Press	Signal Streng.
deg			<input type="checkbox"/>	psi	95
Directional Driller(s)	Turbine RPM @ Min Flow Rate		Turbine RPM @ Max Flow Rate		
	RPM 2700.00 FR 845.00 gpm		RPM 2950.00 FR 880.00 gpm		
Run Objective					
Equipment Code	Pump Hrs Start	SW Cum	Tool Size	Equipment Code	Pump Hrs Start
MDC-DC-231	21.9	40.4	6.1C00	8.25	
RGS9-AA-9556	21.9	40.4	5.0B05	9.50	
SWD8-BA-857	21.9	40.4	6.0B12	8.25	
Sensors					
MDC-DC-231		RGS9-AA-9556		SWD8-BA-857	
Real Time					
Hrs		Fail		Drilled	
18.5		<input type="checkbox"/>		344	
Recorded Time					
Hrs		Fail		Drilled	
18.5		<input type="checkbox"/>		344	
Surface Sys					
Version IDEAL/SPM ID7_OC_02					
DH MOTOR					
Manufacturer	Stage Length	m	Bit to Bend Dist.	m	Bearing Gap In
Type	Rubber		RSS Mfr		Bearing Gap Out
Size	Sleeve Position		RSS Type		Radial Bearing Play
Serial Number	Sleeve Size	in	RSS Size		Thrust Bearing Play
Lobe Config.	Motor Fail	<input type="checkbox"/>	RSS SN		
Max Circ Temp	58.00 C	Avg ROP	20.00 m/hr	Min Actl FlowRt	845.00 gpm
Min Circ Temp	44.00 C	Max ROP	35.00 m/hr	Avg PmpPres	3350.00 psi
End Mud Wt	8.80 lb/gal	Avg Surf RPM	95.00	PmpPres On Bot	3390.00 psi
End Funnel Vis	48.00 CPS	Min RPM	80.00	PmpPres Off Bot	3300.00 psi
End Plastic Vis	11.00 CPS	Max RPM	100.00	Avg Surf WOB	25.00 lbs
End Yield Point	23.00 CPS	Avg FlowRate	860.00 gpm	Avg Surf Torq	2.90 ft-lbs
End Mud Resist	0.123	Max Actl FlowRt	880.00 gpm	Max Shock Lev	3
CHECK SHOT					
Type	Anderdrift				
Depth	m				
Inclination	deg				
Azimuth	deg				
MUD					
Company	IDFS	PH	10.00	Percent Sand	0.50 %
Brand	KCI/PHPA/Glycd	Chlorides	29000	Percent Solids	2.01 %
Type	KCI	Other		Percent Oil	0.00 %
LCM Type	Sandseal sweep		LCM Size	fine	LCM Concentation
					50
BHA					
BHA Type	Rotary	Tur Rotor Prt #		Turbine Config	Surface Screen
Int TF Offset		Stator Prt #		Pulser Config	DFS Used
Low Oil Flag	<input type="checkbox"/>	Hrs @ Low Oil	hrs.	Stab Spacing	in
DD Objectives Achieved	<input type="checkbox"/>	If not, why?			
BIT					
Bit Type	Other				
Manufacturer	Model	IADC Code	No. of Jets	Size of Jets	Bit TFA
Smith	MJ3163		3	16	
Inner Row	Outer Row	Dull Char	Location	Brng/Seals	Gauge (1/16")
1	1	WT	A	E	1/16
Other Char	ER				
Reason Pulled	15				
Trans Fail	<input type="checkbox"/>	Jamming	<input type="checkbox"/>	Client Inconv.	<input type="checkbox"/>
Pres Incr @ Fail	<input type="checkbox"/>	Jamming Time	hrs.	Lost Time	hrs.
Trip Due to D&M	<input type="checkbox"/>	Sync Hours	hrs.	Surface Vib	<input type="checkbox"/>
Surface Sys Failure					
Good run Pooh for ROP's					



DRILLING & MEASUREMENTS - BHA DATA

Job Number AWA-02-15
 Run Number 2
 BHA Number

Item	Description	Vendor	Material	Serial Number	Fishing Neck		Stab			Bot Connection		Top Connection		Len	Cum Len	TIME/DEPTH DETAILS											
					OD	Length	OD	OD	ID	Size	Type	Size	Type			1	2	3	4	5							
UNITS																Date/Time	9/1/2002	9/1/2002									
1	12 1/4" PDC Bit					0.1		12 1/4				6 5/8	Reg	0.32	0.32	Field Engineer	Chu	C.Borbas									
2	12 1/4" NB R/R			C1U2151		0.59	12 1/4	8	3	6 5/8	Reg	6 5/8	Reg	2.44	2.76	Depth		1125	1340								
3	CDR			9556		4.01		9 7/16		6 5/8	Reg	7 5/8	H90	7.54	10.3	Average ROP		16	20								
4	PowerPulse			231		7.92		8 3/8		7 5/8	H90	6 5/8	FH	8.38	18.68	Avg. Std. Pres.		2861	3200								
5	ILS			313272-2		0.88	12 1/4	8 1/2		6 5/8	FH	6 5/8	FH	1.71	20.39	Desurger 1		1800	1800								
6	Isonic			857		1.65		8 3/8		6 5/8	FH	6 5/8	Reg	7.2	27.59	Desurger 2		1800	1800								
7	12 1/4" Stabiliser R/R			C1U2143		0.95	12 1/4	8	2 15/16	6 5/8	Reg	6 5/8	Reg	2.44	30.03	Tur. RPM @ FR		2812	2929								
8	8" DC			144-22		0.56		8	2 3/4	6 5/8	Reg	6 5/8	Reg	9.24	39.27	FR @ Tur. RPM		846	860								
9	12 1/4" Stabiliser R/R			C1U2144		0.96	12 1/4	8	2 15/16	6 5/8	Reg	6 5/8	Reg	2.44	41.71	Avg. RPM		95	90								
10	9 x 8" DC			144		0.5		8	2 15/16	6 5/8	Reg	6 5/8	Reg	83.29	125	Max RPM		110	110								
11	Jar			48907C		0.61		8	3	6 5/8	Reg	6 5/8	Reg	9.71	134.71	Total Shocks		0	0								
12	2 x 8" DC			144		0.59		8	2 3/4	6 5/8	Reg	6 5/8	Reg	18.75	153.46	Max Shock		0	0								
13	X/O			144-025		0.66		8 1/4	2 7/8	6 5/8	Reg	4 1/2	IF	1.17	154.63	Avg. Surf. WOB		15	32								
14	HWDP									4 1/2	IF	4 1/2	IF	110.72	265.35	Max Surf. WOB		32	45								
15																Avg. DH WOB											
16																Max DH WOB											
17																Avg. Surf. Torq.		2.8	3								
18																Max Surf. Torq.		5.1	5.5								
19																Avg. DH Torq.											
20																Max DH Torq.											
21																Formation Type											
22																Friction											
23																Drag Up											
24																Drag Down											
PREDICTED BHA TENDENCY										Hookload		lbs	Wt. Below Jars	70000	lbs	Mud Weight		8.8	8.8								
										Pickup Wt.		lbs	Wt. Above Jars		lbs	Funnel Vis.		48	48								
										Slack Wt.		lbs	Total Air Wt.		lbs	Plastic Vis.		12	12								
																Circ. Temp		44	55								
																Signal Strength		37	25								
																Bit Deviation		1.29	1.29								
Stabilizer Description										Bit To Read Out Port		Bit To Measurement Port		BATTERY		Unloaded (V)		Loaded (V)		Run Hrs		Cum Hrs					
										Mid Pt To Bit	Type	Length	Width	Length	In	Out	PPL	12.03	m	D&I PPL	14.42	m	Tool	Before	After	Before	After
UNITS										m		in	in	in	in	in											
																CDR	6.21	m	GR PPL	13.81	m						
																ISONIC	25.21	m	GR LWD	8.52	m						
																		RES LWD	5.04	m							
																		SON LWD	25.6	m							

Job Number	Company Rep.	Date In	Date Out	D&M Run Number	Rig Run Number									
AWA-02-15	Henry Flink, S.Hodgetts	2-Sep-02	3-Sep-02	3	5									
Company	SANTOS Ltd	Grid Corr	Brief Run Summary	Bit Run Number	Cell Manager									
Rig Name	Ocean Bounty	-1.07	Good Run	3	Willem Bertheux									
Well Name	Casino-1	Tot Corr	Hole Depth	D&M Crew										
Location	Otway Basin	11.94	From 1400 m To 1797.00 m	W.Bertheux, C.Tue, C.Borbas										
Mapfile	Mag Dec	PP Slot ID	Inclination (Drift)	Pumping Hours	Below Rotary Tbl Hrs									
	10.86		From 1.87 deg To 4.38 deg	26.20 hrs.	40.30 hrs.									
BPS	Frequency	Mod Type	Azimuth	Rotary Hours	Rotary Distance									
6.4	16	OPSK	From 182.17 deg To 192.34 deg	16.18 hrs.	397.00 m									
Pump Type	Pump Output	Pump Strk Len.	True Vertical Depth	Slide Hours	Slide Distance									
12-P-160	603	12	From 1400 m To 1796.27 m	0.00 hrs.	0.00 m									
Pump Liner ID	Min DLS	Max DLS	Hole Size	Water Depth	Air Gap									
6	0.03	0.11	12.25 in	70.5 m	25 m									
Bent Sub Angle	Bent HSG Ang	Depth Max DLS	RKB Height	Ground Elev.	Mod Gap									
deg	deg	1775.86 m	0 m	m	0.12 in									
Pulse Ht Thresh	Min Pulse Wdt	Max Pulse Wdt	Digit Time	T/F Arc	T/F Angle									
				in	deg									
Conn Phase Ang	Rise Const	Fall Const	H2S In Well	Damp Press	Signal Streng.									
deg			<input type="checkbox"/>	psi										
Directional Driller(s)	Turbine RPM @ Min Flow Rate		Turbine RPM @ Max Flow Rate											
	RPM 2600.00 FR 800.00 gpm		RPM 2700.00 FR 830.00 gpm											
Run Objective														
Equipment Code	Pump Hrs Start	SW Cum	Tool Vers	Equipment Code	Pump Hrs Start	SW Cum	Tool Vers	Sensors Code	Real Time Hrs	Fail	Drilled	Recorded Time Hrs	Fail	Drilled
MDC-DC-231	40.4	66.6	6.1C00	8.25				MDC-DC-231	26.2	<input type="checkbox"/>	397		<input type="checkbox"/>	
RGS9-AA-9556	40.4	66.6	5.0B05	9.50				RGS9-AA-9556	26.2	<input type="checkbox"/>	397	40.3	<input type="checkbox"/>	397
SWD8-BA-857	40.4	66.6	6.0B12	8.25				SWD8-BA-857	26.2	<input type="checkbox"/>	397	40.3	<input type="checkbox"/>	397
Surface Sys Version														
Manufacturer	Stage Length		m	Bit to Bend Dist.		m	Bearing Gap In							
Type	Rubber			RSS Mfr			Bearing Gap Out							
Size	Sleeve Position			RSS Type			Radial Bearing Play							
Serial Number	Sleeve Size		in	RSS Size			Thrust Bearing Play							
Lobe Config.	Motor Fail		<input type="checkbox"/>	RSS SN										
Max Circ Temp	59.00 C	Avg ROP		25.00 m/hr	Min Actl FlowRt	800.00 gpm	Max Shock Dur	0.00 sec.						
Min Circ Temp	58.00 C	Max ROP		45.00 m/hr	Avg PmpPres	3200.00 psi	Total DH Shocks (k)	0.00 k						
End Mud Wt	9.90 lb/gal	Avg Surf RPM		140.00	PmpPres On Bot	3400.00 psi	CHECK SHOT							
End Funnel Vis	54.00 CPS	Min RPM		110.00	PmpPres Off Bot	3100.00 psi	Type							
End Plastic Vis	18.00 CPS	Max RPM		170.00	Avg Surf WOB	14.00 lbs	Depth	m						
End Yield Point	32.00 CPS	Avg FlowRate		810.00 gpm	Avg Surf Torq	7.00 ft-lbs	Inclination	deg						
End Mud Resist	0.165	Max Actl FlowRt		830.00 gpm	Max Shock Lev	0	Azimuth	deg						
Company	IDFS	PH		9.50	Percent Sand	0.00 %	Additives							
Brand	KCI/PHPA/Glyc	Chlorides		29000	Percent Solids	5.67 %	Clean	<input type="checkbox"/>						
Type	KCI	Other			Percent Oil	0.00 %								
LCM Type				LCM Size			LCM Concentation							
BHA Type	Rotary	Tur Rotor Prt #			Turbine Config		Surface Screen	<input type="checkbox"/>						
Int TF Offset		Stator Prt #			Pulser Config		DFS Used	<input type="checkbox"/>						
Low Oil Flag	<input type="checkbox"/>	Hrs @ Low Oil		hrs.	Stab Spacing		Formation							
DD Objectives Achieved	<input type="checkbox"/>	If not, why?												
Bit Type	Other													
Manufacturer	Model	IADC Code	No. of Jets	Size of Jets	Bit TFA	Total Revs	Stick/Slip							
Smith	MJ3163		3	16										
Inner Row	Outer Row	Dull Char	Location	Brng/Seals	Gauge (1/16")	Other Char	Reason Pulled							
1	8	LT	S	X	Gauge (1/16")	CT	15							
Trans Fail	<input type="checkbox"/>	Jamming	<input type="checkbox"/>	Client Inconv.	<input type="checkbox"/>	Surface Noise	<input type="checkbox"/>							
Pres Incr @ Fail	<input type="checkbox"/>	Jamming Time	hrs.	Lost Time	hrs.	Down Hole Noise	<input type="checkbox"/>							
Trip Due to D&M	<input type="checkbox"/>	Sync Hours	hrs.	Surface Vib	<input type="checkbox"/>	Surface Sys Failure	<input type="checkbox"/>							
Good run Pulled bit for ROP's, expecting a hard formation. Layed out the ISONIC after the run because of a possible weak receiver 4. Reprocessed all the ISONIC Data without receiver 4.														



DRILLING & MEASUREMENTS - BHA DATA

Job Number AWA-02-15
 Run Number 3
 BHA Number

Item	Description	Vendor	Material	Serial Number	Fishing Neck		Stab			Bot Connection		Top Connection		Len	Cum Len	TIME/DEPTH DETAILS											
					OD	Length	OD	OD	ID	Size	Type	Size	Type			1	2	3	4	5							
UNITS																Date/Time	9/2/2002	9/2/2002	3-Sep								
1	12 1/4" PDC Bit					0.1		12 1/4				6 5/8	Reg	0.37	0.37	Field Engineer	ChuWB	C.Borbas	Chu								
2	12 1/4" NB R/R			C1U2151		0.59	12 1/4	8	3	6 5/8	Reg	6 5/8	Reg	2.44	2.81	Depth	1408	1707	1770								
3	CDR			9556		4.01		9 7/16		6 5/8	Reg	7 5/8	H90	7.54	10.35	Average ROP	13	30	26								
4	PowerPulse			231		7.92		8 3/8		7 5/8	H90	6 5/8	FH	8.38	18.73	Avg. Std. Pres.	2997	3400	3261								
5	ILS			313272-2		0.88	12 1/4	8 1/2		6 5/8	FH	6 5/8	FH	1.71	20.44	Desurger 1	1800	1800	2200								
6	Isonic			857		1.65		8 3/8		6 5/8	FH	6 5/8	Reg	7.2	27.64	Desurger 2	1800	1800	2200								
7	12 1/4" Stabiliser R/R			C1U2143		0.95	12 1/4	8	2 15/16	6 5/8	Reg	6 5/8	Reg	2.44	30.08	Tur. RPM @ FR	2812	2695	2695								
8	8" DC			144-22		0.56		8	2 3/4	6 5/8	Reg	6 5/8	Reg	9.24	39.32	FR @ Tur. RPM		808	828								
9	12 1/4" Stabiliser R/R			C1U2144		0.96	12 1/4	8	2 15/16	6 5/8	Reg	6 5/8	Reg	2.44	41.76	Avg. RPM	154	135	155								
10	9 x 8" DC			144		0.5		8	2 15/16	6 5/8	Reg	6 5/8	Reg	83.29	125.05	Max RPM	160	150	177								
11	Jar			48907C		0.61		8	3	6 5/8	Reg	6 5/8	Reg	9.71	134.76	Total Shocks	0	0	0								
12	2 x 8" DC			144		0.59		8	2 3/4	6 5/8	Reg	6 5/8	Reg	18.75	153.51	Max Shock	0	0	0								
13	X/O			144-025		0.66		8 1/4	2 7/8	6 5/8	Reg	4 1/2	IF	1.17	154.68	Avg. Surf. WOB	7	21	12.8								
14	HWDP									4 1/2	IF	4 1/2	IF	110.72	265.4	Max Surf. WOB	8.1	26	18.3								
15																Avg. DH WOB											
16																Max DH WOB											
17																Avg. Surf. Torq.	5	12.2	6.4								
18																Max Surf. Torq.	7.19	14	11.7								
19																Avg. DH Torq.											
20																Max DH Torq.											
21																Formation Type											
22																Friction											
23																Drag Up											
24																Drag Down											
PREDICTED BHA TENDENCY							Hookload				Wt. Below Jars				Mud Weight					9.9	9.9						
							Pickup Wt.				Wt. Above Jars				70000				Funnel Vis.					54	54		
							Slack Wt.				Total Air Wt.				Plastic Vis.					18	18						
															Circ. Temp					59	59						
															Signal Strength					25	22						
															Bit Deviation												
											Differential Pres.																
Stabilizer Description		Mid Pt To Bit	BLADE		GAUGE			Bit To Read Out Port		Bit To Measurement Port		BATTERY		Unloaded (V)		Loaded (V)		Run Hrs		Cum Hrs							
UNITS		m	Type	Length	Width	Length	In	Out	PPL	11.2 m	D&I PPL	13.47 m	Tool	Before	After	Before	After	BOT	AMP	BOT	AMP						
									CDR	6.06 m	GR PPL	13.86 m															
									ISONIC	25.26 m	GR LWD	8.2 m															
										m	RES LWD	4.72 m															
										m	SON LWD	25.28 m															
										m		m															
										m		m															

Job Number	Company Rep.	Date In	Date Out	D&M Run Number	Rig Run Number
AWA-02-15	Henry Flink, S.Hodgetts	3-Sep-02	12-Sep-02	4	6
Company	SANTOS Ltd	Grid Corr	Brief Run Summary		Bit Run Number
Rig Name	Ocean Bounty	-1.07	Bad weather (see comments)		Cell Manager
Well Name	Casino-1	Tot Corr	Hole Depth		D&M Crew
Location	Otway Basin	11.94	From 1797 m	To 1797 m	W.Bertheux, C.Tue
Mapfile	Mag Dec	PP Slot ID	Inclination (Drift)		Pumping Hours
	10.86		From 4.38 deg	To 4.38 deg	6.2 hrs.
BPS	Frequency	Mod Type	Azimuth		Rotary Hours
6.4	16	QPSK	From deg	To deg	0 hrs.
Pump Type	Pump Output	Pump Strk Len.	True Vertical Depth		Slide Hours
12-P-160	603	12	From 1796.27 m	To m	0 hrs.
Pump Liner ID	Min DLS	Max DLS	Hole Size	Water Depth	Air Gap
6			12.25 in	70.5 m	25 m
Bent Sub Angle	Bent HSG Ang	Depth Max DLS	RKB Height	Ground Elev.	Mod Gap
deg	deg	m	0 m	m	0.12 in
Pulse Ht Thresh	Min Pulse Wdt	Max Pulse Wdt	Digit Time	T/F Arc	T/F Angle
				in	deg
Conn Phase Ang	Rise Const	Fall Const	H2S In Well	Damp Press	Signal Streng.
deg			<input type="checkbox"/>	psi	
Directional Driller(s)			Turbine RPM @ Min Flow Rate	Turbine RPM @ Max Flow Rate	
			RPM	FR	gpm
Run Objective	TD				
Equipment Code	Pump Hrs Start	SW Cum	Tool Vers	Equipment Code	Pump Hrs Start
MDC-DC-231	66.6	72.8	6.1C00	8.25	
RGS9-AA-9556	66.6	72.8	5.0B05	9.50	
SWD8-BA-829	0	6.2	5.0B10	8.25	
Sensors					
Code		Hrs		Fail	
MDC-DC-231		6.2		<input type="checkbox"/>	
RGS9-AA-9556		6.2		<input type="checkbox"/>	
SWD8-BA-829		6.2		<input type="checkbox"/>	
Real Time					
Hrs		Fail		Drilled	
6.2		<input type="checkbox"/>		0	
Recorded Time					
Hrs		Fail		Drilled	
6.2		<input type="checkbox"/>		0	
Surface Sys					
Version		IDEAL/SPM			
ID7_OC_02					
Manufacturer	Stage Length	m	Bit to Bend Dist.	m	Bearing Gap In
Type	Rubber		RSS Mfr		Bearing Gap Out
Size	Sleeve Position		RSS Type		Radial Bearing Play
Serial Number	Sleeve Size	in	RSS Size		Thrust Bearing Play
Lobe Config.	Motor Fail	<input type="checkbox"/>	RSS SN		
Max Circ Temp	43.00 C	Avg ROP	m/hr	Min Actl FlowRt	gpm
Min Circ Temp	37.00 C	Max ROP	m/hr	Avg PmpPres	psi
End Mud Wt	10.30 lb/gal	Avg Surf RPM		PmpPres On Bot	psi
End Funnel Vis	64.00 CPS	Min RPM		PmpPres Off Bot	psi
End Plastic Vis	23.00 CPS	Max RPM		Avg Surf WOB	lbs
End Yield Point	32.00 CPS	Avg FlowRate	600.00 gpm	Avg Surf Torq	ft-lbs
End Mud Resist		Max Actl FlowRt	650.00 gpm	Max Shock Lev	0
Company	IDFS	PH	9.50	Percent Sand	1.00 %
Brand		Chlorides	30000	Percent Solids	7.28 %
Type	KCl	Other		Percent Oil	%
LCM Type				LCM Size	
BHA Type	Rotary	Tur Rotor Prt #		Turbine Config	Surface Screen
Int TF Offset		Stator Prt #		Pulser Config	DFS Used
Low Oil Flag	<input type="checkbox"/>	Hrs @ Low Oil	hrs.	Stab Spacing	Formation
DD Objectives Achieved	<input type="checkbox"/>	If not, why?			
Bit Type	Other				
Manufacturer	Model	IADC Code	No. of Jets	Size of Jets	Bit TFA
Smith	MJ3163		3	16	
Inner Row	Outer Row	Dull Char	Location	Brng/Seals	Gauge (1/16")
1	8	LT	S	X	Gauge (1/16")
Trans Fail	<input type="checkbox"/>	Jamming	<input type="checkbox"/>	Client Inconv.	<input type="checkbox"/>
Pres Incr @ Fail	<input type="checkbox"/>	Jamming Time	hrs.	Lost Time	hrs.
Trip Due to D&M	<input type="checkbox"/>	Sync Hours	hrs.	Surface Vib	<input type="checkbox"/>
Gale force wind and high swell forced rig to stop running in hole and hang off BHA in BOP and disconnect from riser. After weather get better, POOH due to blockage of the bit.					



DRILLING & MEASUREMENTS - BHA DATA

Job Number	AWA-02-15
Run Number	4
BHA Number	

Item	Description	Vendor	Material	Serial Number	Fishing Neck		Stab OD	OD	ID	Bot Connection		Top Connection		Len	Cum Len	TIME/DEPTH DETAILS						
					OD	Length				Size	Type	Size	Type			1	2	3	4	5		
UNITS																Date/Time						
					in	m	in	in	in	in			m	m								
1	12 1/4" PDC Bit					0.1		12 1/4				6 5/8	Reg	0.34	0.34	Field Engineer						
2	12 1/4" NB R/R			C1U2151		0.59	12 1/4	8	3	6 5/8	Reg	6 5/8	Reg	2.44	2.78	Depth						
3	CDR			9556		4.01		9 7/16		6 5/8	Reg	7 5/8	H90	7.54	10.32	Average ROP						
4	PowerPulse			231		7.92		8 3/8		7 5/8	H90	6 5/8	FH	8.38	18.7	Avg. Std. Pres.						
5	ILS			313272-2		0.88	12 1/4	8 1/2		6 5/8	FH	6 5/8	FH	1.71	20.41	Desurger 1						
6	Isonic			857		1.65		8 3/8		6 5/8	FH	6 5/8	Reg	7.28	27.69	Desurger 2						
7	12 1/4" Stabiliser R/R			C1U2143		0.95	12 1/4	8	2 15/16	6 5/8	Reg	6 5/8	Reg	2.44	30.13	Tur. RPM @ FR						
8	8" DC			144-22		0.56		8	2 3/4	6 5/8	Reg	6 5/8	Reg	9.24	39.37	FR @ Tur. RPM						
9	12 1/4" Stabiliser R/R			C1U2144		0.96	12 1/4	8	2 15/16	6 5/8	Reg	6 5/8	Reg	2.44	41.81	Avg. RPM						
10	9 x 8" DC			144		0.5		8	2 15/16	6 5/8	Reg	6 5/8	Reg	83.29	125.1	Max RPM						
11	Jar			48907C		0.61		8	3	6 5/8	Reg	6 5/8	Reg	9.71	134.81	Total Shocks						
12	2 x 8" DC			144		0.59		8	2 3/4	6 5/8	Reg	6 5/8	Reg	18.75	153.56	Max Shock						
13	X/O			144-025		0.66		8 1/4	2 7/8	6 5/8	Reg	4 1/2	IF	1.17	154.73	Avg. Surf. WOB						
14	HWDP									4 1/2	IF	4 1/2	IF	110.72	265.45	Max Surf. WOB						
15																Avg. DH WOB						
16																Max DH WOB						
17																Avg. Surf. Torq.						
18																Max Surf. Torq.						
19																Avg. DH Torq.						
20																Max DH Torq.						
21																Formation Type						
22																Friction						
23																Drag Up						
24																Drag Down						
PREDICTED BHA TENDENCY								Hookload			Wt. Below Jars	70000				Mud Weight						
								Pickup Wt.			Wt. Above Jars					Funnel Vis.						
								Slack Wt.			Total Air Wt.					Plastic Vis.						
													Circ. Temp									
													Signal Strength									
													Bit Deviation									
													Differential Pres.									
Stabilizer Description		Mid Pt To Bit	BLADE		GAUGE			Bit To Read Out Port		Bit To Measurement Port		BATTERY		Unloaded (V)		Loaded (V)		Run Hrs		Cum Hrs		
UNITS		m	Type	Length	Width	Length	In	Out	PPL	12.05 m	D&I PPL	14.44 m	Tool	Before	After	Before	After	BOT	AMP	BOT	AMP	
									CDR	6.23 m	GR PPL	13.83 m										
									ISONIC	25.19 m	GR LWD	8.54 m										
										m	RES LWD	5.06 m										
										m	SON LWD	25.58 m										
										m		m										
										m		m										

SECTION 4:- PRODUCTION TEST REPORTS

No production tests were conducted at the Casino-1 location.

SECTION 5:- DAILY GEOLOGICAL REPORTS

Santos

A.C.N. 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 27/08/02

REPORT NO: 1

DEPTH : 220 m
(As at 2400 hours EST, 26/08/02)

PROGRESS: 90 m

DAYS FROM SPUD: 1.25

OPERATION : DRILLING 445mm (17.5") HOLE @ 415m @ AVERAGE 40m/hr.
(0600 hours EST, 27/08/02)

AFE COST

CUMULATIVE COST

CASING DEPTH: 128m (762mm- 30")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5m

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	Gel Sweeps	1.06	130		12.0		1500	18 / 54	-

BIT DATA		No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	PRESENT	2	SMITH	MGSSH-C	445	1.3	90	IN HOLE
	LAST	1	SMITH	DSJC	660	1.0	35	1-1-NO-A-1-I-NO-TD

SURVEYS:	MD (m)	INC	AZIM (T)
	95	0.5	-
	135	2.0	-

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

WAIT ON CEMENT. LAYOUT CASING RUNNING TOOL AND CEMENT STINGER. LAYOUT 914mm (36") BOTTOM HOLE ASSEMBLY. MAKE UP 445mm (17.5") BOTTOM HOLE ASSEMBLY, DRIFTING ALL TOOLS. RUN IN HOLE TO 120m. CONTINUE TO PICK UP 5" DRILLPIPE WHILE WAITING ON SUPPLY VESSEL FOR CASING. RUN IN HOLE, TAG CEMENT @ 124.5m. DRILL SHOE TRACK & RATHOLE TO 130m. DRILL 445mm (17.5") HOLE TO 140m. SECTION. WAIT ON SUPPLY VESSEL FOR CASING. DRILL 445mm (17.5") HOLE FROM 140m TO 220m AT 24:00 HRS.

00:00 – 06:00 HOURS 27/08/02:

DRILL AHEAD 445mm (17.5") HOLE FROM 220m TO 415m WITH RETURNS TO SEAFLOOR. PUMP 8 m3 (50BBL) HI-VISCOSITY SWEEPS EACH SINGLE.

ANTICIPATED OPERATIONS:

DRILL AHEAD TO APPROX. 800m. PULL OUT OF HOLE. RIG TO AND RUN 340mm (13 3/8") CASING.

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A.C.N. 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 27/08/02

REPORT NO: 1

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	02:00	2.00	Made up 30" housing to Permanent Guide Base (PGB). Ran 30" conductor to sealevel, filled casing with seawater. Attempted to stab into hole, re-positioned string. Stabbed into hole and RIH to setting depth, no drag.
02:00	03:00	1.00	PGB slope indicator 1.25deg. Repositioned rig on anchors to correct angle to 0.75deg port/forward.
03:00	03:30	0.50	Circulated hole with 21 m3 (130bbls) seawater. Observed good returns.
03:30	04:30	1.00	Rigged up cement lines and pumped 0.8m3 (5 bbls) of seawater with Fluorescence dye ahead. Closed line at drill floor and tested lines to 6.9kPa (1000 psi), held OK. Pumped remaining 0.8m3 (5 bbls) of seawater with Fluorescence dye. Mixed and pumped 27.7 m3 (174bbls) 1.9sg tail slurry at 954 lpm (6bpm), 832sxs class 'G' cement in 16.5 m3 (104bbls) mix water with 1% CaCl2. Displaced with 4.6 m3 (28.7bbls) seawater at 800 lpm (5bpm), final pressure 1380kPa (200psi). Bled off pressure, float held. Good returns throughout job.
04:30	09:00	4.50	WOC, slope indicator remained on .75 deg port/forward. Picked up DP and racked in derrick.
09:00	10:00	1.00	Released R/T, POOH and laid out R/T and cement stinger.
10:00	11:30	1.50	Picked up 476mm (18.75") R/T and made up single, x/o, pup. Laid out assembly. Drifted to 66.7mm (2.625").
11:30	14:00	2.50	Make up 445mm (17.5") BHA, gauge and drift all tools. RIH to 120m.
14:00	19:00	5.00	Wait on supply vessel with casing. P/U DP and racked back in derrick.
19:00	20:30	1.50	RIH and tagged top of cement at 124.5m. Drilled shoetrack and cleaned rathole to 130m.
20:30	21:00	0.50	Drilled 445mm (17.5") to 140m.
21:00	22:30	1.50	Wait on supply vessel with casing.
22:30	24:00	1.50	Drilled 445mm (17.5") to 220m. Swept hole with 8 m3 (50bbls) hi-vis each single. Hole good.

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WELL PROGRESS REPORT

CASINO 1

DATE: 27/08/02

REPORT NO: 1

FORMATION TOPS:	MD RT	TVD RT	Subsea	H/L to Prognosis	H/L to Pecten 1A

HYDROCARBON SHOW SUMMARY		
<u>INTERVAL</u>	<u>LITHOLOGY</u>	<u>GAS</u>
	Nil	

GEOLOGICAL SUMMARY		
<u>INTERVAL</u>	<u>LITHOLOGY</u>	<u>GAS</u>
96 – 415m	RETURNS TO SEAFLOOR	

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WELL PROGRESS REPORT

CASINO 1

DATE: 28/08/02

REPORT NO: 2

DEPTH : 713 m
(As at 2400 hours EST, 27/08/02)

PROGRESS: 493 m

DAYS FROM SPUD: 2.25

OPERATION : PULLING OUT OF HOLE TO RUN 340mm (13 3/8") CASING. TOTAL DEPTH 752m.
(0600 hours EST, 28/08/02)

AFE COST

CUMULATIVE COST

CASING DEPTH: 128m (762mm- 30")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5m

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	Gel Sweeps	1.06	90		12.0		1700	12 / 61	-

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	LAST	1	SMITH	DSJC	660	1.0	35	1-1-NO-A-1-I-NO-TD

SURVEYS:	MD (m)	INC	AZIM (T)
	538	0.5°	-
	568	1°	-
	597	0.5°	-
	655	0.5°	-
	687	0°	-
	750	0°	-

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

DRILL 445mm (17.5") HOLE FROM 220m TO 713m AT 24:00 HRS; PUMP 8 m3 (50BBLS) HI-VISCOSITY SWEEPS EACH SINGLE.

00:00 – 06:00 HOURS 28/08/02:

DRILL AHEAD 445mm (17.5") HOLE FROM 713m TO 752m WITH RETURNS TO SEAFLOOR; PUMP 8 m3 (50BBLS) HI-VISCOSITY SWEEPS EACH SINGLE. TOTAL DEPTH FOR 445mm (17.5") SECTION REACHED AT 02:00 HRS ON 28/02/02. SWEEP HOLE WITH 24m3 (150BBLS) HI-VISCOSITY GEL MUD. DISPLACE HOLE WITH 111m3 (700BBLS) HI-VISCOSITY GEL MUD. PULL OUT OF HOLE TO RUN 340mm (13 3/8") CASING. WIPE TIGHT SPOTS BETWEEN 629m AND 396m (9-18T, 20-40KIPS OVERPULL).

ANTICIPATED OPERATIONS:

RIG TO AND RUN 340mm (13 3/8") CASING (54 JOINTS). CEMENT SAME. RIG UP TO RUN BLOWOUT PREVENTERS.

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A.C.N. 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 28/08/02

REPORT NO: 2

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	06:00	6.00	Drilled 445mm (17.5") 220m to 415m. Swept hole with 8 m3 (50bbls) hi-vis each single. Hole good.
06:00	12:00	6.00	Drilled 445mm (17.5") to 515m. Swept hole with 8 m3 (50bbls) hi-vis each single. Hole good. Last survey 1 deg.
12:00	18:00	6.00	Drilled 445mm (17.5") to 626m. Swept hole with 8 m3 (50bbls) hi-vis each single. Hole good. Last survey 0.5 deg.
18:00	24:00	6.00	Drilled 445mm (17.5") to 713m. Swept hole with 8 m3 (50bbls) hi-vis each single. Hole good. Last survey 0 deg.

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WELL PROGRESS REPORT

CASINO 1

DATE: 28/08/02

REPORT NO: 2

FORMATION TOPS:	MD RT	Subsea	H/L to Prognosis	H/L to Pecten 1A

HYDROCARBON SHOW SUMMARY		
<u>INTERVAL</u>	<u>LITHOLOGY</u>	<u>GAS</u>
	Nil	

GEOLOGICAL SUMMARY		
<u>INTERVAL</u>	<u>LITHOLOGY</u>	<u>GAS</u>
415 – 752m	RETURNS TO SEAFLOOR	

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A.C.N. 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 29/08/02

REPORT NO: 3

DEPTH : 752 m
(As at 2400 hours EST, 28/08/02)

PROGRESS: 39 m

DAYS FROM SPUD: 3.25

OPERATION : RUNNING BLOWOUT PREVENTERS STACK
(0600 hours EST, 29/08/02)

AFE COST

CUMULATIVE COST

CASING DEPTH: 743m (340mm- 13 3/8")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5m

MUD DATA	Type: (in Pits)	Wt:	Vis:	FL:	PH:	KCl	Cl:	PV / YP:	Rmf:
(2400 Hours)	KCL/PHPA	1.04	38		10.0	37800	28000	7 / 2	

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	LAST	2	SMITH	MGSSH-C	445	23.4	1205	1-1-NO-A-E-0-NO-TD
		1	SMITH	DSJC	660	1.0	35	1-1-NO-A-1-I-NO-TD

SURVEYS: MD (m) INC AZIM (T)

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

DRILL 445mm (17.5") HOLE FROM 713m TO 752m. TOTAL DEPTH FOR 445mm (17.5") SECTION REACHED AT 02:00 HRS ON 28/02/02. SWEEP HOLE WITH 24m³ (150BBLS) HI-VISCOSITY GEL MUD. DISPLACE HOLE WITH 111m³ (700BBLS) HI-VISCOSITY GEL MUD. PULL OUT OF HOLE TO RUN 340mm (13 3/8") CASING. WIPE TIGHT SPOTS 629m TO 425m. RIG TO AND RUN 54 JOINTS OF 340mm (13 3/8") CASING. MAKE UP WELLHEAD ASSEMBLY, RUN IN HOLE WITH 340mm (13 3/8") CASING ON 5" DRILLPIPE. LAND WELLHEAD WITH CASING SHOE AT 743m. CONFIRM LATCHING WITH 20.4T (45 KIPS) OVERPULL. CIRCULATE CASING & HOLE CLEAN. DISPLACE CASING TO 89 m³ (560BBLS) GEL MUD. CEMENT CASING AS PER PROGRAM WITH 59.6 m³ (375BBLS) OF 1.51 SG (12.6PPG) LEAD SLURRY AND 21.4 m³ (135BBLS) OF 1.9 SG (15.8PPG) TAIL SLURRY. DISPLACE CASING WITH SEAWATER. BUMP PLUG TO 8.3 MPa (1200 PSI). PRESSURE TEST CASING TO 20.6 MPa (3000 PSI) FOR 10 MINS – OKAY. LAYOUT CEMENT HEAD AND WELLHEAD RUNNING TOOL. PREPARE TO RUN BOP STACK.

00:00 – 06:00 HOURS 29/08/02:

MAKE UP MARINE RISER. MOVE BLOWOUT PREVENTERS TO MOONPOOL, LATCH AND TEST LOWER MARINE RISER PACKAGE.

ANTICIPATED OPERATIONS:

COMPLETE RUNNING BLOWOUT PREVENTERS STACK. FUNCTION TEST SAME. LAYOUT 445mm (17.5") BOTTOM HOLE ASSEMBLY. PICKUP 311mm (12.25") BIT & BOTTOM HOLE ASSEMBLY.

Santos

A.C.N. 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 29/08/02

REPORT NO: 3

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	02:00	2.00	Drilled 445mm (17.5") to 752m. Swept hole with 8 m3 (50bbls) hi-vis each single. Hole good. Last survey 0 deg at 744m.
02:00	03:00	1.00	Swept hole with 24 m3 (150bbls) hi vis. Displaced hole with 111 m3 (700bbls) hivis gel mud.
03:00	06:00	3.00	POOH to run casing from 752 to 628m, no drag. Wiped tight spots between 629m and 425m, 9-18 tonne (20-40kips) OP. No drag from 425m. Break off bit.
06:00	07:00	1.00	Held JSA. Rigged up to run 340mm (13.375") casing.
07:00	14:00	7.00	RIH with 54 joints of 340mm (13.375") 101 kg/m (68ppf), L-80 BTC casing and made up 476mm (18-3/4") wellhead assembly OK.
14:00	14:30	0.50	Release 476mm (18-3/4") wellhead running tool and attempt to load Weatherford plugs, difficulty running in plug assembly (plugs holding up/binding in 340mm casing).
14:30	16:00	1.50	RIH with 476mm (18-3/4") wellhead and 340mm (13.375") casing on 127mm (5") DP (pick up wt. 295k). Made up cement head assembly (darts loaded). Landed wellhead with casing shoe at 743m. Took 20.4 tonne (45kip) overpull and confirmed engagement. Checked PGB bullseye at 3/4deg port/forward.
16:00	17:00	1.00	Circulated casing and hole clean, displaced casing to 89 m3 (560bbls) gel mud. Pressured pods and prepared to cement.
17:00	17:30	0.50	Pumped ahead .8 m3 (10 bbls) seawater (with dye). Attempted to pressure test surface lines, no-go. Changed out leaking Low-torq valve on cement head.
17:30	19:30	2.00	Re-tested surface lines to 20.6 MPa (3000 psi), held OK. Dropped bottom dart, mixed and pumped 59.6 m3 (375 bbls) of 1.51sg (12.6 ppg) lead slurry and 21.4 m3 (135 bbls) of 1.9sg (15.8 ppg) tail slurry.
19:30	20:30	1.00	Dropped top dart and displaced casing with 48.3 m3 (304 bbls) of seawater. Bumped plug to 8.3 MPa (1200 psi).
20:30	21:00	0.50	Pressure tested casing to 20.6 MPa (3000 psi) for 10 mins - solid. Bled back .8 m3 (5bbls), floats held OK.
21:00	22:30	1.50	Broke and laid out cement head. POOH with wellhead running tool and laid out.
22:30	24:00	1.50	Prepared drillfloor to run BOP.

Santos

A.C.N. 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 29/08/02

REPORT NO: 3

FORMATION TOPS:	MD RT	Subsea	H/L to Prognosis	H/L to Pecten 1A

HYDROCARBON SHOW SUMMARY		
<u>INTERVAL</u>	<u>LITHOLOGY</u>	<u>GAS</u>
	Nil	

GEOLOGICAL SUMMARY		
<u>INTERVAL</u>	<u>LITHOLOGY</u>	<u>GAS</u>

Santos

A.C.N. 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 30/08/02

REPORT NO: 4

DEPTH : 752 m
(As at 2400 hours EST, 29/08/02)

PROGRESS: 0 m

DAYS FROM SPUD: 4.25

OPERATION : MAKING UP 311mm (12.25") BOTTOM HOLE ASSEMBLY
(0600 hours EST, 30/08/02)

AFE COST

CUMULATIVE COST

CASING DEPTH: 743m (340mm- 13 3/8")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5m

MUD DATA	Type: (in Pits)	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCL/PHPA	1.04	40		10.0	37800	23000	7 / 7	

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	LAST	3	REED	DSX195	311	-	-	-
		2	SMITH	MGSSH-C	445	23.4	1205	1-1-NO-A-E-0-NO-TD
		1	SMITH	DSJC	660	1.0	35	1-1-NO-A-1-I-NO-TD

SURVEYS: MD (m) INC AZIM (T)

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

MAKE UP MARINE RISER. MOVE BLOWOUT PREVENTERS TO MOONPOOL, LATCH AND TEST LOWER MARINE RISER PACKAGE. COMPLETE RUNNING BOP STACK & MARINE RISER. PRESSURE TEST CHOKE & KILL LINES. INSTALL SLIP JOINT & LANDING JOINT. LAND AND TEST BOP STACK & SURFACE EQUIPMENT

00:00 – 06:00 HOURS 30/08/02:

MAKE UP 311mm (12.25") PDC BIT & BOTTOM HOLE ASSEMBLY ALONG WITH MWD TOOLS. SHALLOW TEST MWD TOOLS – OKAY. CONTINUE TO MAKE UP 311mm (12.25") BOTTOM HOLE ASSEMBLY

ANTICIPATED OPERATIONS:

COMPLETE RUNNING IN HOLE WITH 311mm (12.25") BOTTOM HOLE ASSEMBLY. DRILL SHOE TRACK AND 3m FORMATION. DISPLACE HOLE TO MUD. CONDUCT LEAK-OFF TEST. DRILL 311mm (12.25") HOLE.

Santos

A.C.N. 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 30/08/02

REPORT NO: 4

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	07:50	7.50	Made up double marine riser. Moved BOP to moonpool and made up LMRP to BOP. Made up double and rigged up pod lines. Ran BOP on marine riser. Pressure tested choke and kill lines 1.4/34.5 MPa (200/5000psi) for 5/15 mins.
07:50	10:00	2.50	Ran riser slip jt and landing jt. Nipped up Choke and kill hoses. Pressure tested choke and kill lines/hoses to 1.4/34.5 MPa (200/5000psi) for 5/15 mins, OK.
10:00	14:00	4.00	Nipped up MRT lines and pod hose saddles. Re-positioned rig over PGB. Ballasted rig to 21.3m (70') and landed BOP. Set down 13.6 tonne (30kip), confirmed latched with ROV and took 22.6 tonne (50kip) O/P. LMRP and BOP between 1-0.5deg (rolling).
14:00	15:30	1.50	Installed diverter and rigged down drill floor.
15:30	22:30	7.00	Ran wearbushing. Made up test tool and RIH. Pressure tested BOP connector to 34.5MPa (5000psi) and LMRP connector to 20.7MPa (3000psi), OK. Function tested BOP on both pods and performed accumulator test. POOH with test tool and function tested diverter system.
22:30	24:00	1.50	Broke out and laid out cement head, 241mm (9.5") DC and 445mm (17.5") BHA.

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WELL PROGRESS REPORT

CASINO 1

DATE: 30/08/02

REPORT NO: 4

FORMATION TOPS:	MD RT	Subsea	H/L to Prognosis	H/L to Pecten 1A

HYDROCARBON SHOW SUMMARY		
<u>INTERVAL</u>	<u>LITHOLOGY</u>	<u>GAS</u>
	Nil	

GEOLOGICAL SUMMARY		
<u>INTERVAL</u>	<u>LITHOLOGY</u>	<u>GAS</u>

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WELL PROGRESS REPORT

CASINO 1

DATE: 31/08/02

REPORT NO: 5

DEPTH : 1016 m
(As at 2400 hours EST, 30/08/02)

PROGRESS: 264 m

DAYS FROM SPUD: 5.25

OPERATION : DRILLING 311mm (12.25") HOLE @ 1053m
(0600 hours EST, 31/08/02)

AFE COST

CUMULATIVE COST

CASING DEPTH: 743m (340mm- 13 3/8")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5m

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCL/PHPA	1.06	40	7.0	10.0	37800	29000	7 / 15	0.125 @ 22.4°C

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	LAST	3	REED	DSX195	311	4.5	264	-
		2	SMITH	MGSSH-C	445	23.4	1205	1-1-NO-A-E-0-NO-TD
		1	SMITH	DSJC	660	1.0	35	1-1-NO-A-1-I-NO-TD

SURVEYS:	MD (m)	INC	AZIM (T)
	766	0.6°	342°
	855	0.26°	216°
	912	0.54°	155°
	970	0.83°	136°

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

COMPLETE MAKING UP 311mm (12.25") BOTTOM HOLE ASSEMBLY AND RUN IN HOLE TO 690m. TAG TOP OF CEMENT AT 717.6m. DRILL CEMENT, PLUGS & SHOE TRACK (SHOE AT 743m). CLEAN OUT RATHOLE, DRILL 3m FORMATION TO 755m, DISPLACING HOLE TO 1.04 SG (8.7PPG) KCL/PHPA MUD. CIRCULATE HOLE CLEAN. CONDUCT LEAK-OFF TEST (EQUIVALENT MUD WEIGHT= 2.07SG (17.3PPG). DRILL 311mm (12.25") HOLE FROM 755m TO 1016m. OBSERVE INTERMITTENT PARTIAL MUD LOSSES 50-70 BBL/HOUR FROM 784m

00:00 – 06:00 HOURS 31/08/02:

DRILL 311mm (12.25") HOLE FROM 1016m TO 1053m. (SLOW PENETRATION RATE FROM 1051m TO 1053m) TREATED MUD WITH LCM TO STOP LOSSES.

ANTICIPATED OPERATIONS:

DRILL AHEAD 311mm (12.25") HOLE.

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WELL PROGRESS REPORT

CASINO 1

DATE: 31/08/02

REPORT NO: 5

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	01:30	1.50	Continued laying out 445mm (17.5") BHA.
01:30	05:00	3.50	Held JSA and made up 311mm (12.25") BHA. Shallow tested MWD/FEWD tools, OK, 156 spm = 9.3 MPa (1350psi).
05:00	09:00	4.00	Continued making up 311mm (12.25") BHA and RIH to 690m.
09:00	09:30	0.50	Serviced TDS and repaired loggers RPM sensor.
09:30	14:30	5.00	Continued RIH. Tagged TOC at 717.6m. Drilled cement and plugs at 718m. Drilled float and shoetrack. Cleaned out rathole to 752m and displaced hole to 1.04sg (8.7ppg) KCl/PHPA mud.
14:30	15:00	0.50	Drilled 3 m to 755m.
15:00	16:30	1.50	Circulated 1.5 times bottoms up and performed LOT. EMW = 2.07sg (17.3ppg).
16:30	24:00	7.50	Drilled ahead 311mm (12.25") hole from 755 to 1016m.

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WELL PROGRESS REPORT

CASINO 1

DATE: 31/08/02

REPORT NO: 5

FORMATION TOPS:	MD RT	Subsea	H/L to Prognosis	H/L to Pecten 1A
Nirranda Group: Mepunga Fm	774	749	8m High	128m Low
Wangerrip Group	843	818	12m High	68m Low

HYDROCARBON SHOW SUMMARY

<u>INTERVAL</u>	<u>LITHOLOGY</u>	<u>GAS</u>
	Nil	

GEOLOGICAL SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
752 – 774 ROP: 20-130 Ave: 60	<p>CALCAREOUS CLAYSTONE INTERGRADING WITH MARL CALCAREOUS CLAYSTONE : Medium brown, medium brown grey, common fossil fragments (echinoid spines, bryozoa fragments), firm to moderately hard, grading to marl, trace pyrite, trace quartz grains, subblocky to blocky. MARL: Light grey, occasionally light green grey, argillaceous in part, very calcareous, grading to calcareous claystone, soft to firm, subblocky</p>	< 1 unit 100% C1
774 – 843 ROP: 21-150 Ave: 70	<p><u>MEPUNGA FORMATION</u> SANDSTONE INTERBEDDED WITH MINOR CALCAREOUS CLAYSTONE SANDSTONE: Medium brown, occasionally dark brown, medium yellow brown, coarse to very coarse grained, minor medium grained, moderately well sorted, subrounded, occasionally rounded, minor subangular, weak siliceous cement, common Fe-staining, trace glauconite, trace pyrite, friable in part, loose in part, moderately hard in part, fair inferred porosity, no hydrocarbon fluorescence. CALCAREOUS CLAYSTONE: Medium to dark grey to minor grey brown, moderately hard, grading to marl, trace pyrite, trace glauconite, trace quartz grains, subblocky to blocky, minor amorphous.</p>	< 1 unit 100% C1

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A.C.N. 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 31/08/02

REPORT NO: 5

GEOLOGICAL SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
843 – 878 ROP: 12-160 Ave: 70	<u>WANGERRIP GROUP</u> MASSIVE SANDSTONE SANDSTONE: Clear, translucent, very pale yellow to pale yellow brown, frosted, occasional Fe-staining, predominantly coarse to very coarse grained, medium grained in part, moderately well sorted, rounded to subrounded, generally loose and clean, good visual porosity, no hydrocarbon fluorescence.	< 1 unit 100% C1
878 – 902 ROP: 20-200 Ave: 70	MASSIVE SANDSTONE SANDSTONE: Clear to translucent, pale grey, medium to coarse grained, minor very coarse, moderately well sorted, subrounded, subangular in part, rounded in part, trace very weak siliceous cement, generally clean, loose, good inferred porosity, no hydrocarbon fluorescence.	< 1 unit 100% C1
902 – 958 ROP: 12-155 Ave: 75	SANDSTONE THIN MINOR CLAYSTONE INTERBEDS SANDSTONE: Clear to translucent, pale grey, rare pale green grey, coarse to very coarse, moderately well sorted, predominantly subrounded, minor subangular, rounded in part, trace very weak siliceous cement, generally clean, loose, good inferred porosity, no hydrocarbon fluorescence. CLAYSTONE: Medium grey, medium to light brown grey, slightly arenaceous, firm to moderate hard, partly soft and dispersive, subblocky.	< 1 unit 100% C1
958 – 979 ROP: 50 – 175 Ave: 100	SANDSTONE WITH THIN CLAYSTONE INTERBEDS SANDSTONE: Translucent, pale grey, medium to coarse grained, moderately well sorted, predominantly subrounded to rounded, trace pyrite cement, hard in pyritised aggregates, common loose, poor visual porosity, fair inferred porosity, no hydrocarbon fluorescence. CLAYSTONE: Medium to dark grey to brown grey, dark brown, soft to firm, occasionally hard, partly dispersive, amorphous.	< 1 unit 100% C1
979 – 1008 ROP: 25-170 Ave: 70	SANDSTONE WITH THIN CLAYSTONE INTERBEDS SANDSTONE: Translucent, pale grey, minor pale yellow, medium to very coarse grained, poorly sorted, predominantly subrounded to commonly rounded, common pyrite cement, trace pyrite nodules, trace grey rounded lithic fragments, commonly loose, good inferred porosity, no hydrocarbon fluorescence. CLAYSTONE: Medium to dark grey to brown grey, dark brown, soft to firm, occasionally moderately hard, partly dispersive, amorphous.	< 1 unit 100% C1

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A.C.N. 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 31/08/02

REPORT NO: 5

GEOLOGICAL SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
1008 – 1051 ROP: <1 – 110 Ave: 25	<p>MASSIVE SANDSTONE: SANDSTONE: Translucent, pale grey, coarse to very coarse grained, minor medium grained, moderately poorly sorted, rounded to subrounded, trace moderately strong siliceous cement, rare light grey argillaceous matrix, moderately hard to hard aggregates, loose and clean in part, poor visual porosity, no hydrocarbon fluorescence.</p> <p>CLAYSTONE: Medium to predominantly dark brown, occasionally very dark brown, soft to firm, slightly dispersive, subblocky to amorphous.</p>	< 1 unit 100% C1
1051-1053 ROP: <1	<p>SANDSTONE: Translucent, pale grey, minor green grey, coarse to very coarse grained, minor medium grained, moderately poorly sorted, rounded to subrounded, trace moderately strong to strong siliceous cement, rare light grey argillaceous matrix, moderately hard to hard aggregates, loose and clean in part, poor visual porosity, no hydrocarbon fluorescence.</p>	< 1 unit 100% C1

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WELL PROGRESS REPORT

CASINO 1

DATE: 01/09/02

REPORT NO: 6

DEPTH : 1059 m
(As at 2400 hours EST, 31/08/02)

PROGRESS: 43 m

DAYS FROM SPUD: 6.25

OPERATION : DRILLING 311mm (12.25") HOLE @ 1076m IN THE BASAL DILWYN/PEBBLE POINT
(0600 hours EST, 01/09/02) (WANGERRIP GROUP)

AFE COST

CUMULATIVE COST

CASING DEPTH: 743m (340mm- 13 3/8")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5m

MUD DATA (2400 Hours)	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl:	PV / YP:	Rmf:
	KCL/PHPA	1.06	48	6.0	8.0	37800	28000	12 / 21	0.125 @ 22.4°C

BIT DATA (2400 Hours)	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
	PRESENT	5	SMITH	10GF	311	-	-	-
	LAST	4	REED	EHP51	311	0.2	2	0-2-CT-G-F3-I-PN-PP
		3	REED	DSX195	311	14.8	305	8-8-RO-S-X-1-WT-PR

SURVEYS:	<u>MD</u> (m)	<u>INC</u>	<u>AZIM</u> (T)
	1041	1.2°	192°

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

DRILL 311mm (12.25") HOLE FROM 1016m TO 1057m. POOR PENETRATION RATE FROM 1051m TO 1057m. POOH, DOWNLOAD MWD DATA, CHANGE TO TRICONE INSERT BIT, RUN IN HOLE TO 1016m. WASH TO BOTTOM. OBSERVE ABNORMALLY HIGH CIRCULATING PRESSURE. ATTEMPT TO CLEAR BLOCKAGE. DRILL 311mm (12.25") HOLE FROM 1057m TO 1059m WITH REDUCED FLOW RATE. PULL OUT OF HOLE TO CHECK BIT.

00:00 – 06:00 HOURS 01/09/02:

BREAK OUT DAMAGED PLUGGED BIT, CHANGE TO NEW TRICONE INSERT BIT. RUN IN HOLE AFTER SHALLOW TESTING MWD TOOLS. RUN IN HOLE to 1012m. WASH TO BOTTOM. DRILL 311mm (12.25") HOLE FROM 1059m TO 1076m.

ANTICIPATED OPERATIONS:

DRILL AHEAD 311mm (12.25") HOLE.

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A.C.N. 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 01/09/02

REPORT NO: 6

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	06:00	6.00	Continued drilling 311mm (12.25") hole from 1016m to 1053m. Treated losses with LCM, gained full returns.
06:00	10:30	4.50	Continued drilling 311mm (12.25") hole from 1053m to 1057m, ROP poor.
10:30	14:00	3.50	Flow checked, hole static. POOH to change bit, no drag. Flow checked at shoe, static.
14:00	14:30	0.50	Commenced downloading MWD data.
14:30	18:00	3.50	Broke and changed bit while continuing to download MWD data. RIH to shoe picking up additional stand of DC. Broke circulation at shoe and shallow tested MWD, OK. 156spm = 11.7MPa (1700psi).
18:00	18:30	0.50	Serviced TDS and travelling blocks.
18:30	19:00	0.50	Continued RIH to 1016m, no drag.
19:00	20:30	1.50	Broke circulation at 1016m, abnormally high circulating pressure, 82spm = 18.6 MPa (2700psi). Attempted to clear blockage, no success. Washed to bottom, hole good.
20:30	21:00	0.50	Drilled ahead 311mm (12.25") hole to 1059m at reduced mud flow rate (90spm = 20.7 MPa (3000psi).
21:00	24:00	3.00	Flow checked on bottom and at shoe, hole static. POOH to check bit, no drag. At shoe 80spm = 18.9 MPa (2750psi). Continued POOH.

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WELL PROGRESS REPORT

CASINO 1

DATE: 01/09/02

REPORT NO: 6

FORMATION TOPS:	MD RT	Subsea	H/L to Prognosis	H/L to Pecten 1A
Nirranda Group: Mepunga Fm	774	749	8m High	128m Low
Wangerrip Group	843	818	12m High	68m Low

HYDROCARBON SHOW SUMMARY

<u>INTERVAL</u>	<u>LITHOLOGY</u>	<u>GAS</u>
	Nil	

GEOLOGICAL SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
1053-1061 ROP: <1	SANDSTONE: Translucent, pale grey, minor green grey, coarse to very coarse grained, minor medium grained, moderately poorly sorted, rounded to subrounded, trace moderately strong to strong siliceous cement, minor calcareous cement, rare light grey argillaceous matrix, moderately hard to hard aggregates, loose and clean in part, poor visual porosity, no hydrocarbon fluorescence.	< 1 unit 100% C1

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WELL PROGRESS REPORT

CASINO 1

DATE: 02/09/02

REPORT NO: 7

DEPTH : 1400 m
(As at 2400 hours EST, 01/09/02)

PROGRESS: 341 m

DAYS FROM SPUD: 7.25

OPERATION : RUNNING IN HOLE WITH NEW PDC BIT TO DRILL AHEAD 311mm HOLE IN THE
(0600 hours EST, 02/09/02) SKULL CREEK MUDSTONE (?)

AFE COST

CUMULATIVE COST

CASING DEPTH: 743m (340mm- 13 3/8")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5m

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl:	PV / YP:	Rmf:
(2400 Hours)	KCL/PHPA	1.06	48	6.0	9.5	32400	29000	11 / 23	0.125 @ 22.4°C

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	LAST	5	SMITH	10GF	311	14.7	341	-
		4	REED	EHP51	311	0.2	2	0-2-CT-G-F3-I-PN-PP
		3	REED	DSX195	311	14.8	305	8-8-RO-S-X-1-WT-PR

SURVEYS:	MD (m)	INC	AZIM (T)
	1084.57	1.29°	209.06°
	1170.44	0.93°	192.51°
	1256.72	1.44°	181.17°
	1382.1	1.87°	182.17°

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

BREAK OUT DAMAGED PLUGGED BIT, CHANGE TO NEW TRICONE INSERT BIT (No 5). RUN IN HOLE AFTER SHALLOW TESTING MWD TOOLS. RUN IN HOLE to 1012m. WASH TO BOTTOM. DRILL 311mm (12.25") HOLE FROM 1059m TO 1400m. CIRCULATE PRIOR TO PULLING OUT OF HOLE FOR BIT CHANGE.

00:00 – 06:00 HOURS 02/09/02:

PULL OUT OF HOLE, WORK INTERMITTENT TIGHT HOLE TO 1180m. COMPLETE PULLING OUT OF HOLE. CHANGE BIT WHILE DOWNLOADING MWD DATA. COMMENCE RUNNING IN HOLE.

ANTICIPATED OPERATIONS:

RUN IN HOLE. DRILL AHEAD 311mm (12.25") HOLE FROM 1400m.

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WELL PROGRESS REPORT

CASINO 1

DATE: 02/09/02

REPORT NO: 7

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	04:30	4.50	Broke out plugged bit (chipped teeth and suspect bearing cone #3) and changed to new TCI bit. RIH shallow testing MWD at first stand of HWDP, OK. RIH. Broke circulation at shoe, tested MWD OK. Pump pressures normal, 2.9 m3pm = 12.1 MPa (770gpm = 1750psi), OK. Continued RIH to 1044m.
04:30	04:45	0.25	Washed and reamed to bottom, precautionary. Logged with MWD.
04:45	06:00	1.25	Drilled ahead to 1076m.
06:00	12:00	6.00	Drilled ahead to 1218m.
12:00	18:00	6.00	Drilled ahead to 1332m.
18:00	22:30	4.50	Drilled ahead 311mm (12.25") hole to 1400m. No drag on connections.
22:30	24:00	1.50	Circulated bottoms up prior to POOH for bit change. Boosted riser to clear cuttings.

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WELL PROGRESS REPORT

CASINO 1

DATE: 02/09/02

REPORT NO: 7

FORMATION TOPS:	MD RT	Subsea	H/L to Prognosis	H/L to Pecten 1A
Nirranda Group: Mepunga Fm	774	749	8m High	128m Low
Wangerrip Group: Dilwyn Fm	843	818	12m High	68m Low
Pebble Point Fm	1102	1077	-	-
Massacre Shale	1154	1129	-	-
Sherbrook Group: Curdies Fm	1177	1152	12m High	52m Low
Sherbrook Group: Timboon Sst	1190	1165	-	-
Skull Creek Mudstone	1259	1234	-	-

HYDROCARBON SHOW SUMMARY

<u>INTERVAL</u>	<u>LITHOLOGY</u>	<u>GAS</u>
	Nil	

GEOLOGICAL SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
1061-1102 ROP: 7-140 Ave: 40	<p>SANDSTONE WITH MINOR SILTSTONE INTERBEDS</p> <p>SANDSTONE: Pale brown, translucent, dominantly medium to coarse grained, very coarse grained and fine in part, poorly sorted, predominantly subrounded, partly subangular, trace weak to strong siliceous cement, trace medium brown silty matrix, moderately hard to hard aggregates, loose in part, poor visual porosity, no hydrocarbon fluorescence.</p> <p>CLAYSTONE: Medium to dark brown, calcareous, silty, firm to moderate hard, subblocky</p>	<p>3 – 7 units</p> <p>100% C1</p> <p>Ave CO²: 150</p>
1102-1154 ROP: 8-190 Ave: 60	<p><u>PEBBLE POINT FORMATION</u></p> <p>SANDSTONE WITH MINOR SILTSTONE INTERBEDS</p> <p>SANDSTONE: Light grey, trace pale brown, translucent, trace green grey, predominantly medium grained, minor coarse and occasionally fine grained, moderately well sorted, subrounded, trace weak siliceous cement, trace glauconite, rare friable to moderately hard aggregates, loose, fair inferred porosity, no hydrocarbon fluorescence.</p> <p>CLAYSTONE: Medium to dark brown, slightly arenaceous, silty, predominantly soft, minor firm, dispersive, amorphous to subblocky</p>	<p>3 – 6 units</p> <p>100% C1</p> <p>Ave CO²: 150ppm</p>

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WELL PROGRESS REPORT

CASINO 1

DATE: 02/09/02

REPORT NO: 7

GEOLOGICAL SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
1154-1177 ROP: 8-85 Ave: 50	<p><u>MASSACRE SHALE (?)</u> SILTSTONE INTERBEDDED WITH SANDSTONE SILTSTONE: Medium grey, medium to dark brown, arenaceous, grades to sandstone, carbonaceous in part, rare white argillaceous laminations, common disseminated pyrite, moderately hard occasionally very hard, subblocky SANDSTONE: Pale to medium grey, clear to translucent, off white, fine to medium grained, partly coarse grained, occasional very coarse polished bit-fractured quartz fragments, poorly sorted, subangular to minor angular, occasionally subrounded, common moderate strong siliceous and slightly calcareous cement, locally common white argillaceous matrix, occasional medium grey silty matrix, common disseminated pyrite, rare glauconite ?, moderate hard to hard aggregates, occasionally very hard, no hydrocarbon fluorescence.</p>	3 – 5 units 100% C1 Ave CO ² : 150ppm
1177-1190 ROP: 9-100 Ave: 80	<p><u>SHERBROOK GROUP: CURDIES FORMATION</u> INTERBEDDED SANDSTONE AND SILTSTONE SANDSTONE: Pale grey, grey, green grey in part, clear to translucent, medium grained, coarse and fine grained in part, moderately sorted, subangular to angular, common glauconite, common strong calcareous and dolomitic cement, minor to locally common white argillaceous matrix, common nodular pyrite, hard to occasionally very hard aggregates, minor loose, no hydrocarbon fluorescence. SILTSTONE: Light to medium brown to brown grey, arenaceous, grades to sandstone in part, calcareous in part, minor disseminated pyrite, firm to moderately hard, subblocky</p>	3 – 5 units 100% C1 Ave CO ² : 160ppm
1190-1224 ROP: 7-180 Ave: 40	<p><u>SHERBROOK GROUP: TIMBOON SANDSTONE</u> SANDSTONE INTERBEDDED WITH MINOR SILTSTONE SANDSTONE: Pale grey, grey, clear to translucent, rare pale green grey, predominantly medium to coarse grained, moderately well sorted, subangular to subangular, moderately strong siliceous cement, trace dolomitic cement, trace glauconite, trace pyrite, locally common white argillaceous matrix, trace lithic fragments, moderately hard to hard aggregates, no hydrocarbon fluorescence. SILTSTONE: Light to medium brown to brown grey, arenaceous, slightly calcareous, minor disseminated pyrite, firm to moderately hard, subblocky</p>	3 – 5 units 100% C1 Ave CO ² : 150ppm

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WELL PROGRESS REPORT

CASINO 1

DATE: 02/09/02

REPORT NO: 7

GEOLOGICAL SUMMARY

<u>INTERVAL ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
1224-1259 ROP: 9-104 Ave: 50	<p>SANDSTONE INTERBEDDED WITH MINOR SILTSTONE</p> <p>SANDSTONE: Pale grey, grey, clear to translucent, pale to medium green, green grey, predominantly fine to very coarse grained, fine to medium in part, poorly sorted, subangular to subangular, moderately strong siliceous cement, trace calcareous cement, locally common white argillaceous matrix, common glauconite, trace pyrite, trace lithic fragments, moderately hard to hard aggregates, no hydrocarbon fluorescence.</p> <p>SILTSTONE: Light brown to brown grey, arenaceous, slightly calcareous, trace carbonaceous specks, minor disseminated pyrite, firm to moderately hard, subblocky</p>	<p>2 – 7 units 100% C1</p> <p>Ave CO²: 140ppm</p>
1259-1287 ROP: 7-40 Ave: 10	<p><u>SHERBROOK GROUP: SKULL CREEK MUDSTONE (?)</u></p> <p>MASSIVE SILTSTONE WITH MINOR SANDSTONE</p> <p>SILTSTONE: Medium to dark brown to brown grey, minor light grey, arenaceous, slightly calcareous, trace lithic fragments, common pyrite, soft to firm, amorphous to subblocky</p> <p>SANDSTONE: Pale grey, minor green grey, clear to translucent, fine to predominantly medium, moderately well sorted, subrounded to subangular, weak to moderately strong siliceous cement, trace lithic fragments, common pyrite, friable to moderately hard aggregates, no hydrocarbon fluorescence.</p>	<p>2 – 4 units 100% C1</p> <p>Ave CO²: 150ppm</p>
1287-1340 ROP: 8-60 Ave: 15	<p>MASSIVE SILTSTONE</p> <p>SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, trace glauconite, soft to firm, amorphous to subblocky</p>	<p>2 – 3 units 100% C1</p> <p>Ave CO²: 140ppm</p>
1340-1400 ROP: 9-30 Ave: 11	<p>MASSIVE SILTSTONE</p> <p>SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky</p>	<p>2 – 4 units 100% C1</p> <p>Ave CO²: 130ppm</p>

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A.C.N. 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 03/09/02

REPORT NO: 8

DEPTH : 1750m

PROGRESS: 350m

DAYS FROM SPUD: 8.25

(As at 2400 hours EST, 02/09/02)

OPERATION : DRILLING AHEAD 311mm (12 1/4") HOLE IN THE WAARRE FORMATION AT 1792 M.
(0600 hours EST,
03/09/02)

AFE COST
CUMULATIVE COST

CASING DEPTH: 743m (340mm- 13 3/8")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5 m

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCL/PHPA	1.18	54	4.5	9.5	32400	29000	18 / 32	0.125 @ 22.4°C

BIT DATA		No.	Make	Type	Size (mm)	Hours	Drilled	Condition
	PRESENT	6	SMIT	MA74BPX	311	10.2	350	-
(2400 Hours)	LAST	5	SMIT	10GF	311	14.7	341	

SURVEYS:	<u>MD (m)</u>	<u>INC</u>	<u>AZIM (T)</u>
	1605	3.09	185
	1691	3.44	189

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

FLOW CHECK WELL, HOLE STATIC. PULL OUT OF HOLE WORKING TIGHT SPOTS, FLOW CHECK AT SHOE, HOLE STATIC. CONTINUE PULLING OUT OF HOLE. DOWNLOAD MWD DATA. CHANGE OUT BIT. RUN IN HOLE WITH NEW BIT. DRILL AHEAD 311MM (12.25") HOLE TO 1750M. FLOW CHECK DRILLING BREAK AT 1750M.

00:00 – 06:00 HOURS 03/09/02:

DRILL AHEAD 311MM (12.25") HOLE TO 1764M, CIRCULATE OUT GAS (MAX 22.4%), DRILL AHEAD TO 1792M.

ANTICIPATED OPERATIONS:

DRILL AHEAD 311MM (12.25") HOLE.

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A.C.N. 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 03/09/02

REPORT NO: 8

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	05:30	5.50	Flow checked, hole static. POOH, worked tight spots, 13.6-22.7 tonne (30-50 kip) O/P. No drag after 1180m. Flow checked at shoe, hole static. Continued POOH. Commenced downloading MWD data.
05:30	08:00	2.50	Changed bit while downloading MWD data. Commenced RIH. Shallow tested MWD, OK.
08:00	08:30	0.50	Serviced rig, TDS and travelling blocks.
08:30	10:30	2.00	Continued RIH to 1400m. Washed from 1382m to bottom.
10:30	12:00	1.50	Drilled 311mm (12.25") hole from 1400m to 1440m. No drag.
12:00	18:00	6.00	Drilled ahead 311mm (12.25") hole to 1605m. No drag.
18:00	24:00	6.00	Drilled ahead 311mm (12.25") hole to 1750m. No drag. Flow checked drilling break at 1750m.

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WELL PROGRESS REPORT

CASINO 1

DATE: 03/09/02

REPORT NO: 8

FORMATION TOPS:	MD RT	Subsea	H/L to Prognosis	H/L to Pecten 1A
NULLAWARRE GREENSAND	1522	1497	-	-
BELFAST MUDSTONE	1561	1536	27m High	37m High
WAARRE FORMATION	1743	1718	6m High	19m High

HYDROCARBON SHOW SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
1522-1531 Ave: 70	<p><u>NULLAWARRE GREENSAND</u> GLAUCONITIC SANDSTONE INTERBEDDED WITH SILTSTONE SANDSTONE: Clear to translucent, light green, light grey, green, fine to medium, occasionally coarse, moderately poorly sorted, subangular to subrounded in part, weak calcareous cement, moderately strong siliceous cement in part, common glauconite, grades to glauconitic sandstone, locally common white argillaceous matrix, moderate hard, poor visual porosity, no hydrocarbon fluorescence.</p>	153 / 20 units 96/2/1/1 %
1743-1790 ROP: 9-95 Ave: 40	<p><u>WAARRE FORMATION</u> SANDSTONE INTERBEDDED WITH SILTSTONE SANDSTONE: Light grey, light brown grey, clear to translucent quartz sand, fine to medium, becoming coarser with depth, moderately well sorted, subangular to subrounded, weak siliceous and calcareous cement, trace glauconite, common to abundant argillaceous matrix, (common rock flour), silty, friable to moderately hard, poor visual porosity, no hydrocarbon fluorescence.</p>	1120/ 15 units 93/3/2/1/1 % Max CO ² : 400ppm

GEOLOGICAL SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
1400-1522 ROP: 9-90 Ave: 40	<p>MASSIVE SILTSTONE WITH MINOR SANDSTONE SILTSTONE: Medium to dark brown to brown grey, arenaceous, trace lithic fragments, common pyrite, common glauconite, soft to firm, amorphous to subblocky SANDSTONE: Clear to translucent, locally pale to medium green, fine to medium, occasionally coarse, moderate well sorted, subangular to subrounded, trace Fe-staining, weak siliceous cement, trace white argillaceous matrix, common glauconite, friable, loose in part, poor to fair inferred porosity, no hydrocarbon fluorescence.</p>	4 – 24 units 100/tr % Ave CO ² : 130ppm

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A.C.N. 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 03/09/02

REPORT NO: 8

GEOLOGICAL SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
1522-1561 ROP: 8-80 Ave: 70	<p><u>NULLAWARRE GREENSAND</u> GLAUCONITIC SANDSTONE INTERBEDDED WITH SILTSTONE SANDSTONE: Clear to translucent, light green, light grey, green, fine to medium, occasionally coarse, moderately poorly sorted, subangular to subrounded in part, weak calcareous cement, moderately strong siliceous cement in part, common glauconite, grades to glauconitic sandstone, locally common white argillaceous matrix, moderate hard, poor visual porosity, no hydrocarbon fluorescence. SILTSTONE: Medium to dark brown, medium to dark grey brown, slightly arenaceous, trace loose quartz grains, common dispersed glauconite, trace calcite, soft to firm, amorphous to subblocky</p>	<p>8 – 153 units 96/2/1/1 % Ave CO²: 30ppm</p>
1561-1630 ROP:10-90 Ave: 40	<p><u>BELFAST MUDSTONE</u> MASSIVE SILTSTONE WITH TRACE SANDSTONE SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, soft to firm, dispersive, amorphous to subblocky SANDSTONE: Clear to translucent, pale grey, fine to medium, occasionally coarse, moderately well sorted, weak siliceous cement, locally common argillaceous matrix, trace glauconite, moderate hard to friable, poor visual porosity, no hydrocarbon fluorescence.</p>	<p>7 – 30 units 100/trace % Ave CO² : 30 ppm</p>
1630-1743 ROP: 10-87 Ave: 50	<p>MASSIVE SILTSTONE WITH TRACE SANDSTONE SILTSTONE: Light to medium brown to grey brown, minor glauconite, trace calcite, minor arenaceous, firm to moderately hard, occasionally hard, subblocky SANDSTONE: Clear to translucent, pale grey, fine to medium, occasionally coarse, moderately well sorted, weak siliceous cement, locally common argillaceous matrix, trace glauconite, moderate hard to friable, poor visual porosity, no hydrocarbon fluorescence.</p>	<p>15 – 30 units 96/3/2 % Ave CO² : 35 ppm</p>
1743-1760 ROP: 9-95 Ave: 40	<p><u>WAARRE FORMATION</u> SANDSTONE INTERBEDDED WITH SILTSTONE SANDSTONE: Light grey, light brown grey, clear to translucent quartz sand, fine to medium, moderately well sorted, subangular to subrounded, weak siliceous and calcareous cement, trace glauconite, common to abundant argillaceous matrix, (common rock flour), silty, friable to moderately hard, poor visual porosity, no hydrocarbon fluorescence. SILTSTONE: Light to medium grey brown, minor green brown, locally common glauconite, soft to firm, occasionally moderately hard, blocky to subblocky</p>	<p>30 – 1120 units 93/3/2/1/1 % Max CO² : 400 ppm</p>

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A.C.N. 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 03/09/02

REPORT NO: 8

GEOLOGICAL SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
1760-1790 ROP: 9-85 Ave: 45	<p>SANDSTONE INTERBEDDED WITH SILTSTONE</p> <p>SANDSTONE: Light brown grey, light grey, medium to very coarse grained, poorly sorted, subangular, weak siliceous cement, common white to light grey argillaceous matrix, trace lithic fragments, rare pyrite, friable to predominantly moderately hard, loose in part, poor visual porosity, poor to fair inferred porosity, no hydrocarbon fluorescence.</p> <p>SILTSTONE: Light to medium grey brown, minor green brown, trace common glauconite, soft to firm, trace carbonaceous specks, occasionally moderately hard, blocky to subblocky</p>	<p>90 – 1120 units 93/3/2/1/1 %</p> <p>Max CO² : 400 ppm</p>

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A.C.N. 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 04/09/02

REPORT NO: 9

DEPTH : 1797 m
(As at 2400 hours EST, 03/09/02)

PROGRESS: 47 m

DAYS FROM SPUD: 9.25

OPERATION : RUNNING IN HOLE WITH NEW TRICONE BIT TO DRILL AHEAD 311mm HOLE
(0600 hours EST, 04/09/02)

AFE COST

CUMULATIVE COST

CASING DEPTH: 743m (340mm- 13 3/8")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5m

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCL/PHPA	1.18	54	4.5	9.5	32400	29000	18 / 32	0.125 @ 22.4°C

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	LAST	7	HTC	MXR09D	311	-	-	-
		6	SMITH	MA74BPX	311	16.2	397	1-6-LT-S-X-I-CT-PR
		5	SMITH	10GF	311	14.7	341	1-1-WT-A-E-I-ER-PR

SURVEYS:	<u>MD</u> (m)	<u>INC</u>	<u>AZIM</u> (T)
	1775.86	4.38°	192.34°

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

DRILL AHEAD 311mm (12.25") HOLE TO 1766m, CIRCULATE OUT GAS (MAX 1120 UNITS), DRILL AHEAD TO 1790m. CIRCULATE & INCREASE MUD WEIGHT TO 1.2 SG (10.0 PPG). DRILL AHEAD TO 1797m. FLOW CHECK – WELL STATIC. PULL OUT OF HOLE TO 1610m, PUMP OUT TO 1498m, OBSERVE 27T (60 KIPS) OVERPULL & HIGH TORQUE. RUN BACK TO BOTTOM (9m FILL). CIRCULATE OUT GAS (MAX 1405 UNITS). BOOST RISER, OBSERVE LARGE VOLUME OF CAVINGS AT SHAKERS. RAISE MUD WEIGHT TO 1.24 SG (10.3 PPG) PRIOR TO BIT TRIP. PUMP OUT OF HOLE TO CHANGE BIT. DOWNLOAD MWD DATA.

00:00 – 06:00 HOURS 04/09/02:

CHANGE TO TRICONE BIT. CHANGE CDR MODULE ON ANADRILL MWD TOOLS, RUN IN HOLE TO CASING SHOE AFTER SHALLOW TESTING MWD TOOLS. SERVICE TOP DRIVE SYSTEM.

ANTICIPATED OPERATIONS:

RUN IN HOLE TO BOTTOM. CIRCULATE GAS OUT. DRILL AHEAD 311mm (12.25") HOLE AFTER OFFLOADING BARITE FROM SUPPLY BOAT (WEATHER PERMITTING); ELSE PULL BACK INTO CASING SHOE AND WAIT ON WEATHER.

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A.C.N. 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 04/09/02

REPORT NO: 9

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	00:30	0.50	Drilled 311mm (12.25") hole to 1766m.
00:30	01:30	1.00	Circulated out gas, flow checked, well static.
01:30	03:00	1.50	Drilled ahead to 1790m.
03:00	04:00	1.00	Circulated and increased mud weight to 1.2sg (10ppg).
04:00	08:30	4.50	Drilled ahead to 1797m.
08:30	12:30	4.00	Flow checked, hole static and POOH to 1610m, pumped out to 1498m, 27.2 tonne (60kips) overpull and high torque. Ran back to bottom, no drag, 9m fill.
12:30	16:00	3.50	Circulated out gas. Boosted riser observed cavings at shakers. Raised mud weight to 1.24sg (10.3ppg).
16:00	24:00	8.00	Pumped out of hole to 1074m, 23 tonne (50kips) overpull reduced to 0-7 tonne (0-15kips). Flow check static, pumped slug and POOH, no drag. B/O bit and download MWD data.

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WELL PROGRESS REPORT

CASINO 1

DATE: 04/09/02

REPORT NO: 9

FORMATION TOPS:	MD RT	Subsea	H/L to Prognosis	H/L to Pecten 1A
NULLAWARRE GREENSAND	1522	1497	-	-
BELFAST MUDSTONE	1561	1536	27m High	37m High
WAARRE FORMATION	1743	1718	6m High	19m High

HYDROCARBON SHOW SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

GEOLOGICAL SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
1790-1797 ROP: <1-9 Ave: 4	<p>SANDSTONE INTERBEDDED WITH SILTSTONE</p> <p>SANDSTONE: Light grey, fine to coarse, predominantly medium grained, moderate poorly sorted, subangular to subrounded, weak siliceous cement, common white to light grey calcareous and argillaceous matrix, trace Fe-staining, trace lithic fragments, trace glauconite, predominantly moderately hard, loose in part, poor visual porosity, no hydrocarbon fluorescence.</p> <p>SILTSTONE: Medium to dark grey, minor grey brown, rare disseminated pyrite, moderate hard to hard, calcareous, trace carbonaceous specks, blocky to subblocky</p>	<p>5 – 1000 units</p> <p>93/3/2/1/1 %</p> <p>Ave CO²: 40 ppm</p>

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WELL PROGRESS REPORT

CASINO 1

DATE: 05/09/02

REPORT NO: 10

DEPTH : 1797 m
(As at 2400 hours EST, 04/09/02)

PROGRESS: 0 m

DAYS FROM SPUD: 10.25

OPERATION : WAITING ON WEATHER – OPERATIONS SUSPENDED.
(0600 hours EST, 05/09/02)

AFE COST

CUMULATIVE COST

CASING DEPTH: 743m (340mm- 13 3/8")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5m

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCL/PHPA	1.24	64	5.0	9.5	32400	30000	18 / 32	0.125 @ 22.4°C

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	PRESENT	7	HTC	MXR09D	311	-	-	-
	LAST	6	SMITH	MA74BPX	311	16.2	397	1-6-LT-S-X-I-CT-PR
		5	SMITH	10GF	311	14.7	341	1-1-WT-A-E-I-ER-PR

SURVEYS:	<u>MD</u> (m)	<u>INC</u>	<u>AZIM</u> (T)
	1775.86	4.38°	192.34°

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

CHANGE TO TRICONE BIT. CHANGE ISONIC MODULE ON ANADRILL MWD TOOLS, RUN IN HOLE TO CASING SHOE AFTER SHALLOW TESTING MWD TOOLS. SERVICE TOP DRIVE SYSTEM. CONTINUE TO RUN IN HOLE, TAG FILL @ 1750m. CIRCULATE HOLE CLEAN, PULL OUT OF HOLE TO CASING SHOE. SUSPEND OPERATIONS DUE TO DETERIORATING WEATHER CONDITIONS. PICK UP HANG-OFF TOOL, RACK IN DERRICK. PICK UP ADDITIONAL DRILLPIPE, RACK IN DERRICK. MAKE UP HANG-OFF TOOL, RUN IN HOLE, LAND OUT IN WELLHEAD. BACK OUT LANDING STRING. PULL OUT OF HOLE.

00:00 – 06:00 HOURS 05/09/02:

PREPARE DRILL FLOOR TO PULL DIVERTER IF REQUIRED. WAIT ON WEATHER, CONTINUE TO MONITOR CONDITIONS. (HEAVE: 4-5m, ROLL: 1°, COMBINED WAVE HEIGHT: 7.6m)

ANTICIPATED OPERATIONS:

CONTINUE TO WAIT ON WEATHER. DRILL AHEAD 311mm (12.25") HOLE OR POSSIBLY RUN WIRELINE LOGS.

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A.C.N. 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 05/09/02

REPORT NO: 10

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	04:30	4.50	Changed bit and ISONIC module on MWD. RIH shallow testing MWD at HWDP. Flowchecked at shoe.
04:30	05:00	0.50	Serviced Top Drive System.
05:00	07:30	2.50	Continued RIH tagged fill at 1750m.
07:30	09:00	1.50	Circulated bottoms up through chokeline to degasser.
09:00	12:30	3.50	Washed and reamed to bottom at 1797m. Boosted riser.
12:30	16:00	2.50	Circulated bottoms up, continued until shakers clean. Made flowcheck, static.
16:00	19:00	3.00	Suspended operations due to degrading weather conditions. Heave 7m, Roll 1.5 deg, Pitch 1.8 deg, Combined wave height 8.5m. POOH to shoe, made flowcheck, static. De-ballasted rig to storm draft 19.81m (65ft) at 17:45hrs.
19:00	21:00	3.00	Picked up hangoff tool and racked in derrick. Picked up additional DP to TD well and racked in derrick.
21:00	24:00	3.00	Made up hangoff tool, RIH and landed out in wellhead. Backed out landing string, POOH. Heave 8m, Roll 1.2 deg, Pitch 2.5 deg, Combined wave height 8.5m.

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A.C.N. 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 05/09/02

REPORT NO: 10

FORMATION TOPS:	MD RT	Subsea	H/L to Prognosis	H/L to Pecten 1A
NULLAWARRE GREENSAND	1522	1497	-	-
BELFAST MUDSTONE	1561	1536	27m High	37m High
WAARRE FORMATION	1743	1718	6m High	19m High

HYDROCARBON SHOW SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

GEOLOGICAL SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

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A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 06/09/02

REPORT NO: 11

DEPTH : 1797 m
(As at 2400 hours EST, 05/09/02)

PROGRESS: 0 m

DAYS FROM SPUD: 11.25

OPERATION : WAITING ON WEATHER – OPERATIONS SUSPENDED.
(0600 hours EST, 06/09/02)

AFE COST

CUMULATIVE COST

CASING DEPTH: 743m (340mm- 13 3/8")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5m

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCL/PHPA	1.24	71	5.0	8.5	32400	31000	20 / 29	0.125 @ 22.4°C

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	PRESENT	7	HTC	MXR09D	311	-	-	-
	LAST	6	SMITH	MA74BPX	311	16.2	397	1-6-LT-S-X-I-CT-PR
		5	SMITH	10GF	311	14.7	341	1-1-WT-A-E-I-ER-PR

SURVEYS:	<u>MD (m)</u>	<u>INC</u>	<u>AZIM (T)</u>
	1775.86	4.38°	192.34°

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

PREPARE DRILL FLOOR TO PULL DIVERter IF REQUIRED. WAIT ON WEATHER, CONTINUE TO MONITOR CONDITIONS. OFFLOAD BARITE FROM SUPPLY BOAT.

00:00 – 06:00 HOURS 06/09/02:

WAIT ON WEATHER, CONTINUE TO MONITOR CONDITIONS. (06:00HRS - HEAVE: 4m, ROLL: 1°, COMBINED WAVE HEIGHT: 5.5m)

ANTICIPATED OPERATIONS:

CONTINUE TO WAIT ON WEATHER. OFFLOAD SUPPLY BOATS WHEN POSSIBLE.

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A.C.N. 08 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 06/09/02

REPORT NO: 11

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	00:30	0.50	Rigged drill floor to pull diverter.
00:30	06:00	5.50	Waiting on weather, continue to monitor conditions. Pitch 2 deg, roll 1 deg, heave 6m, combined wave height 7.5m.
06:00	12:00	6.00	Waiting on weather, continue to monitor conditions. Pitch 1.5 deg, roll 1 deg, heave 5m, combined wave height 7.5m.
12:00	18:00	6.00	Waiting on weather, continue to monitor conditions. Pitch 1.2 deg, roll 0.8 deg, heave 4m, combined wave height 6m.
18:00	24:00	6.00	Waiting on weather, continue to monitor conditions. Pitch 1.8 deg, roll 1.2 deg, heave 3m, combined wave height 6.5m.

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WELL PROGRESS REPORT

CASINO 1

DATE: 06/09/02

REPORT NO: 11

FORMATION TOPS:	MD RT	Subsea	H/L to Prognosis	H/L to Pecten 1A
WAARRE FORMATION	1743	1718	6m High	19m High

HYDROCARBON SHOW SUMMARY		
<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

GEOLOGICAL SUMMARY		
<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

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WELL PROGRESS REPORT

CASINO 1

DATE: 07/09/02

REPORT NO: 12

DEPTH : 1797 m
(As at 2400 hours EST, 06/09/02)

PROGRESS: 0 m

DAYS FROM SPUD: 12.25

OPERATION : WAITING ON WEATHER – OPERATIONS SUSPENDED.
(0600 hours EST, 07/09/02)

AFE COST

CUMULATIVE COST

CASING DEPTH: 743m (340mm- 13 3/8")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5m

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCL/PHPA	1.24	71	5.0	8.5	32400	31000	20 / 29	0.125 @ 22.4°C

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	PRESENT	7	HTC	MXR09D	311	-	-	-
	LAST	6	SMITH	MA74BPX	311	16.2	397	1-6-LT-S-X-I-CT-PR
		5	SMITH	10GF	311	14.7	341	1-1-WT-A-E-I-ER-PR

SURVEYS:	<u>MD</u> (m)	<u>INC</u>	<u>AZIM</u> (T)
	1775.86	4.38°	192.34°

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

WAIT ON WEATHER, CONTINUE TO MONITOR CONDITIONS. PERFORM GENERAL MAINTENANCE. OFFLOAD SUPPLY BOAT.

00:00 – 06:00 HOURS 07/09/02:

WAIT ON WEATHER, CONTINUE TO MONITOR CONDITIONS. (06:00HRS - HEAVE: 7-7.5m, ROLL: 2.5°, COMBINED WAVE HEIGHT: 9.75-10.5m)

ANTICIPATED OPERATIONS:

CONTINUE TO WAIT ON WEATHER.

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A.C.N. 08 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 07/09/02

REPORT NO: 12

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	06:00	6.00	Waiting on weather, continue to monitor conditions. Pitch 1.5 deg, roll 1 deg, heave 4.5m, combined wave height 6.5m.
06:00	12:00	6.00	Waiting on weather, continue to monitor conditions. Pitch 1.5 deg, roll 1 deg, heave 4.5m, combined wave height 6.5m.
12:00	18:00	6.00	Waiting on weather, continue to monitor conditions. Pitch 1.8 deg, roll 1.2 deg, heave 4.8m, combined wave height 7.3m.
18:00	24:00	6.00	Waiting on weather, continue to monitor conditions. Pitch 2.2 deg, roll 1.8 deg, heave 5.8m, combined wave height 9.7m.

Santos

A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 07/09/02

REPORT NO: 12

FORMATION TOPS:	MD RT	Subsea	H/L to Prognosis	H/L to Pecten 1A
WAARRE FORMATION	1743	1718	6m High	19m High

HYDROCARBON SHOW SUMMARY		
<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

GEOLOGICAL SUMMARY		
<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

Santos

A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 08/09/02

REPORT NO: 13

DEPTH : 1797 m
(As at 2400 hours EST, 07/09/02)

PROGRESS: 0 m

DAYS FROM SPUD: 13.25

OPERATION : WAITING ON WEATHER – OPERATIONS SUSPENDED.
(0600 hours EST, 08/09/02)

AFE COST

CUMULATIVE COST

CASING DEPTH: 743m (340mm- 13 3/8")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5m

MUD DATA	Type:	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCL/PHPA	1.24	70	4.0	8.5	32400	30000	19 / 29	0.125 @ 22.4°C

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	PRESENT	7	HTC	MXR09D	311	-	-	-
	LAST	6	SMITH	MA74BPX	311	16.2	397	1-6-LT-S-X-I-CT-PR
		5	SMITH	10GF	311	14.7	341	1-1-WT-A-E-I-ER-PR

SURVEYS:	<u>MD</u> (m)	<u>INC</u>	<u>AZIM</u> (T)
	1775.86	4.38°	192.34°

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

WAIT ON WEATHER, CONTINUE TO MONITOR CONDITIONS. PERFORM GENERAL MAINTENANCE. OFFLOAD SUPPLY BOAT.

00:00 – 06:00 HOURS 08/09/02:

WAIT ON WEATHER, CONTINUE TO MONITOR CONDITIONS. (06:00HRS - HEAVE: 6m, ROLL: 1°, COMBINED WAVE HEIGHT: 6.7m)

ANTICIPATED OPERATIONS:

CONTINUE TO WAIT ON WEATHER TO ABATE TO PULL HANGOFF TOOL.

Santos

A.C.N. 08 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 08/09/02

REPORT NO: 13

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	06:00	6.00	Waiting on weather, continue to monitor conditions. Pitch 2.5 deg, roll 2.5 deg, heave 7-7.5m, combined wave height 9.75-10.5m.
06:00	12:00	6.00	Waiting on weather, continue to monitor conditions. Pitch 2.5 deg, roll 2 deg, heave 7m, combined wave height 12m.
12:00	18:00	6.00	Waiting on weather, continue to monitor conditions. Pitch 2.5 deg, roll 2 deg, heave 6.1m, combined wave height 10.8m.
18:00	24:00	6.00	Waiting on weather, continue to monitor conditions. Pitch 2 deg, roll 1 deg, heave 4.9m, combined wave height 8.5m.

Santos

A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 08/09/02

REPORT NO: 13

FORMATION TOPS:	MD RT	Subsea	H/L to Prognosis	H/L to Pecten 1A
WAARRE FORMATION	1743	1718	6m High	19m High

HYDROCARBON SHOW SUMMARY		
<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

GEOLOGICAL SUMMARY		
<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

Santos

A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 09/09/02

REPORT NO: 14

DEPTH : 1797 m
(As at 2400 hours EST, 08/09/02)

PROGRESS: 0 m

DAYS FROM SPUD: 14.25

OPERATION : WAITING ON WEATHER – OPERATIONS SUSPENDED.
(0600 hours EST, 09/09/02)

AFE COST

CUMULATIVE COST

CASING DEPTH: 743m (340mm- 13 3/8")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5m

MUD DATA	Type: (Pits)	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCL/PHPA	1.22	59	4.0	9.0	32400	31000	14 / 25	0.125 @ 22.4°C

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	PRESENT	7	HTC	MXR09D	311	-	-	-
	LAST	6	SMITH	MA74BPX	311	16.2	397	1-6-LT-S-X-I-CT-PR
		5	SMITH	10GF	311	14.7	341	1-1-WT-A-E-I-ER-PR

SURVEYS:	<u>MD (m)</u>	<u>INC</u>	<u>AZIM (T)</u>
	1775.86	4.38°	192.34°

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

WAIT ON WEATHER, CONTINUE TO MONITOR CONDITIONS. PERFORM GENERAL MAINTENANCE.

00:00 – 06:00 HOURS 09/09/02:

WAIT ON WEATHER, CONTINUE TO MONITOR CONDITIONS. (06:00HRS - HEAVE: 6m, ROLL: 2.5°, PITCH: 3°, COMBINED WAVE HEIGHT: 8.5m)

ANTICIPATED OPERATIONS:

CONTINUE TO WAIT ON WEATHER TO ABATE TO PULL HANGOFF TOOL.

Santos

A.C.N. 08 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 09/09/02

REPORT NO: 14

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	06:00	6.00	Waiting on weather, continue to monitor conditions. Pitch 2 deg, roll 1 deg, heave 6m, wind 20/25 knots, combined wave height 6.7m.
06:00	12:00	6.00	Waiting on weather, continue to monitor conditions. Pitch 2 deg, roll 1 deg, heave 5 m, wind 20/25 knots, combined wave height 5.8 m.
12:00	18:00	6.00	Waiting on weather, continue to monitor conditions. Pitch 2.5 deg, roll 2 deg, heave 5 m, wind 35/45 knots, combined wave height 9.4 m.
18:00	24:00	6.00	Waiting on weather, continue to monitor conditions. Pitch 2.2 deg, roll 2 deg, heave 6 m, wind 25/40 knots, combined wave height 8.5 m.

Santos

A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 09/09/02

REPORT NO: 14

FORMATION TOPS:	MD RT	Subsea	H/L to Prognosis	H/L to Pecten 1A
WAARRE FORMATION	1743	1718	6m High	19m High

HYDROCARBON SHOW SUMMARY		
<u>INTERVAL ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

GEOLOGICAL SUMMARY		
<u>INTERVAL ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

Santos

A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 10/09/02

REPORT NO: 15

DEPTH : 1797 m
(As at 2400 hours EST, 09/09/02)

PROGRESS: 0 m

DAYS FROM SPUD: 15.25

OPERATION : WAITING ON WEATHER, HAVING DETACHED LOWER MARINE RISER PACKAGE.
(0600 hours EST, 10/09/02)

AFE COST

CUMULATIVE COST

CASING DEPTH: 743m (340mm- 13 3/8")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5m

MUD DATA	Type: (Pits)	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCL/PHPA	1.22	59	4.0	9.0	32400	31000	14 / 25	0.125 @ 22.4°C

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	PRESENT	7	HTC	MXR09D	311	-	-	-
	LAST	6	SMITH	MA74BPX	311	16.2	397	1-6-LT-S-X-I-CT-PR
		5	SMITH	10GF	311	14.7	341	1-1-WT-A-E-I-ER-PR

SURVEYS:	<u>MD</u> (m)	<u>INC</u>	<u>AZIM</u> (T)
	1775.86	4.38°	192.34°

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

WAIT ON WEATHER. CONTINUE TO MONITOR CONDITIONS. PERFORM GENERAL MAINTENANCE. UNLATCH LOWER MARINE RISER PACKAGE DUE TO DETERIORATING WEATHER CONDITIONS. CONTINUE TO WAIT ON WEATHER.

00:00 – 06:00 HOURS 10/09/02:

WAIT ON WEATHER.

(06:00HRS - HEAVE: 6.1m, ROLL: 1°, PITCH: 1.5°, WIND 30-35 KNOTS, COMBINED WAVE HEIGHT: 6.1m)

ANTICIPATED OPERATIONS:

CONTINUE TO WAIT ON WEATHER TO ABATE TO PULL HANGOFF TOOL.

Santos

A.C.N. 08 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 10/09/02

REPORT NO: 15

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	06:00	6.00	Waiting on weather, continue to monitor conditions. Pitch 3 deg, roll 2.5 deg, heave 6 m, wind 30/45 knots, combined wave height 8.5 m.
06:00	12:00	6.00	Waiting on weather, continue to monitor conditions. Pitch 3 deg, roll 2.5 deg, heave 5.5 m, wind 40/45 knots, combined wave height 8.2 m.
12:00	13:30	1.50	Waiting on weather. Weather conditions deteriorated rapidly. 12:55:- Pitch 4 deg, heave 10m, roll 2 deg, heave 10 m, wind 30/45 knts, combined wave height 12.1 m. Situation:- Blue pod hose off saddle, tangled in slip jt; #4 Rucker, some strands parted at sheave; slip jt extreme lateral movement, violent heave of 8-10m; #8 Rucker, line chafed on sheave mounting support. Attempted to re-position Rig, - #2 anchor not holding, #3 anchor reported max 289kN (650 Kips). 12:53: OIM informed Santos Rep of decision to unlatch. 12:54: Disconnected at LMRP, commenced de-ballasting Rig. 13:05: Slacked leeward chains #: 5,6,7 & 8 and guidelines. 13:20: Completed slacking chains, propulsion ready for use. 13:23: Rig at 60 feet draft.
13:30	14:00	0.50	Waiting on weather. Weather conditions continued to deteriorate. Pitch 4 deg, roll 1.8 deg, heave 10m, wind 30/45 knots, combined wave height 13.4 m.
14:00	18:00	4.00	Waiting on weather, continue to monitor conditions. Pitch 3.5 deg, roll 1.8 deg, heave 9.1m, wind 30/40 knots, combined wave height 11.3 m.
18:00	24:00	6.00	Waiting on weather, continue to monitor conditions. Pitch 2 deg, roll 1.8 deg, heave 6.1m, wind 30/35 knots, combined wave height 8.8 m.

Santos

A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 10/09/02

REPORT NO: 15

FORMATION TOPS:	MD RT	Subsea	H/L to Prognosis	H/L to Pecten 1A
WAARRE FORMATION	1743	1718	6m High	19m High

HYDROCARBON SHOW SUMMARY		
<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

GEOLOGICAL SUMMARY		
<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

Santos

A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 11/09/02

REPORT NO: 16

DEPTH : 1797 m
(As at 2400 hours EST, 10/09/02)

PROGRESS: 0 m

DAYS FROM SPUD: 15.25

OPERATION : WAITING ON WEATHER TO RECONNECT LOWER MARINE RISER PACKAGE.
(0600 hours EST, 11/09/02)

AFE COST

CUMULATIVE COST

CASING DEPTH: 743m (340mm- 13 3/8")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5m

MUD DATA	Type: (Pits)	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCL/PHPA	1.23	57	5.0	9.0	32400	30500	15 / 24	0.125 @ 22.4°C

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	PRESENT	7	HTC	MXR09D	311	-	-	-
	LAST	6	SMITH	MA74BPX	311	16.2	397	1-6-LT-S-X-I-CT-PR
		5	SMITH	10GF	311	14.7	341	1-1-WT-A-E-I-ER-PR

SURVEYS:	<u>MD (m)</u>	<u>INC</u>	<u>AZIM (T)</u>
	1775.86	4.38°	192.34°

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

WAIT ON WEATHER. PERFORM GENERAL MAINTENANCE. TENSION UP ANCHOR #2. PRESSURE TEST SURFACE EQUIPMENT. CONTINUE TO WAIT ON WEATHER.

00:00 – 06:00 HOURS 11/09/02:

WAIT ON WEATHER TO RECONNECT LOWER MARINE RISER PACKAGE

(06:00HRS - HEAVE: 1.8m, ROLL: 0.8°, PITCH: 1°, WIND 15-20 KNOTS, COMBINED WAVE HEIGHT: 3.4m)

ANTICIPATED OPERATIONS:

CONTINUE TO WAIT ON WEATHER. AT FIRST OPPORTUNITY, RECONNECT LOWER MARINE RISER PACKAGE AND RESUME OPERATIONS.

Santos

A.C.N. 08 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 11/09/02

REPORT NO: 16

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	06:00	6.00	Waiting on weather, continue to monitor conditions. Pitch 1.5 deg, roll 1 deg, heave 6.1 m, wind 20/30 knots, combined wave height 6.1 m.
06:00	12:00	6.00	Waiting on weather, continue to monitor conditions. Pitch 1.5 deg, roll 1 deg, heave 6.1 m, wind 25/28 knots, combined wave height 6.4 m.
12:00	18:00	6.00	Waiting on weather, continue to monitor conditions. Pitch .8 deg, roll .6 deg, heave 2.4 m, wind 15/25 knots, combined wave height 4.3 m.
18:00	24:00	6.00	Waiting on weather, continue to monitor conditions. Pitch 1 deg, roll .8 deg, heave 2.4 m, wind 15/20 knots, combined wave height 3.7 m. Completed pressure testing surface equipment.

Santos

A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 11/09/02

REPORT NO: 16

FORMATION TOPS:	MD RT	Subsea	H/L to Prognosis	H/L to Pecten 1A
WAARRE FORMATION	1743	1718	6m High	19m High

HYDROCARBON SHOW SUMMARY		
<u>INTERVAL ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

GEOLOGICAL SUMMARY		
<u>INTERVAL ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

Santos

A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 12/09/02

REPORT NO: 17

DEPTH : 1797 m
(As at 2400 hours EST, 11/09/02)

PROGRESS: 0 m

DAYS FROM SPUD: 17.25

OPERATION : RUNNING IN HOLE TO CASING SHOE, PRIOR TO PRESSURE TESTING BOP STACK.
(0600 hours EST, 12/09/02)

AFE COST

CUMULATIVE COST

CASING DEPTH: 743m (340mm- 13 3/8")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5m

MUD DATA	Type: (Pits)	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCL/PHPA	1.23	54	4.0	9.0	32400	30000	14 / 23	0.125 @ 22.4°C

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	PRESENT	7	HTC	MXR09D	311	-	-	-
	LAST	6	SMITH	MA74BPX	311	16.2	397	1-6-LT-S-X-I-CT-PR
		5	SMITH	10GF	311	14.7	341	1-1-WT-A-E-I-ER-PR

SURVEYS:	<u>MD</u> (m)	<u>INC</u>	<u>AZIM</u> (T)
	1775.86	4.38°	192.34°

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

WAIT ON WEATHER. PERFORM GENERAL MAINTENANCE. TENSION UP ANCHOR #2. LAND LOWER MARINE RISER PACKAGE ON NEW GASKET, CONFIRM LATCH WITH 22.6T (50KIPS) OVERPULL. RUN IN HOLE TO SHEAR RAMS. DISPLACE RISER TO 1.24SG (10.3PPG) MUD. STAB INTO HANG-OFF TOOL. ATTEMPT TO CIRCULATE – PRESSURED UP TO 27 MPa (3900 PSI). PULL OUT OF HOLE TO CLEAR STRING BLOCKAGE.

00:00 – 06:00 HOURS 12/09/02:

PULL OUT OF HOLE. LAYOUT MWD/LWD TOOLS. SERVICE BIT, BOTTOM HOLE ASSEMBLY & RUN IN HOLE TO CASING SHOE.

ANTICIPATED OPERATIONS:

MAKE UP & RUN IN HOLE WITH BOP TEST TOOL. PRESSURE TEST BOP STACK. PULL OUT BOP TEST TOOL. RUN IN HOLE TO BOTTOM FOR CLEAN-OUT TRIP, CONDITION HOLE. DISPLACE TO FRESH MUD. POOH TO PICK UP MWD/LWD TOOLS. RUN IN HOLE. DRILL AHEAD 311mm (12 1/4") HOLE.

Santos

A.C.N. 08 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 12/09/02

REPORT NO: 17

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	07:30	7.50	Waiting on weather, continue to monitor conditions. Pitch 1 deg, roll 0.8 deg, heave 1.8 m, wind 15/20 knots, combined wave height 3.4 m.
07:30	08:30	1.00	Laid out diverter, picked up landing joint. Released VX gasket from LMRP, ROV confirmed release.
08:30	13:30	5.00	Repositioned rig to land LMRP. ROV installed new VX gasket on BOP. Ballasted rig to 19.8m (65') draft, moved rig to free # 4 guideline
13:30	16:30	3.00	Waited on weather in position to land LMRP, heave over 2 m. Attempted landing, unsuccessful due to heave too large. Ballasted rig to drilling draft and ROV installed temporary (threaded hook) #2 guideline.
16:30	17:30	1.00	Landed and latched LMRP with 13.6 tonne (30kip), took overpull 22.6 tonne (50kip) O/P to confirm latched. Pressure tested Choke & Kill lines to 1.7/34.5 MPa (250/5000 psi) for 5/15 mins.
17:30	19:30	2.00	Laid out riser landing joint and rigged up diverter, took 9 tonne (20(kip) O/P. Rigged down riser handling equipment.
19:30	20:15	0.75	RIH with landing string to above blind/shear rams and circulated riser to 1.24 sg (10.3 ppg) mud. Checked pressure between rams.
20:15	22:00	1.75	Opened B/S rams and made up recovery string. Opened Lower Pipe Ram and lost 4 m3 (25bbls) to hole, before hole static. Attempted to circulate without success, pressured up to 27 MPa (3900 psi). Drill string blocked.
22:00	24:00	2.00	POOH from 616m with Emergency Hang-off Tool, racked in derrick. Depressured and laid out Inside Gray and TIW valves.

Santos

A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 12/09/02

REPORT NO: 17

FORMATION TOPS:	MD RT	Subsea	H/L to Prognosis	H/L to Pecten 1A
WAARRE FORMATION	1743	1718	6m High	19m High

HYDROCARBON SHOW SUMMARY		
<u>INTERVAL ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

GEOLOGICAL SUMMARY		
<u>INTERVAL ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

Santos

A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 13/09/02

REPORT NO: 18

DEPTH : 1804 m
(As at 2400 hours EST, 12/09/02)

PROGRESS: 7 m

DAYS FROM SPUD: 18.25

OPERATION : DRILLING 311mm (12 ¼") HOLE IN THE WAARRE FORMATION @ 6 m/hr.
(0600 hours EST, 13/09/02)

AFE COST

CUMULATIVE COST

CASING DEPTH: 743m (340mm- 13 3/8")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5m

MUD DATA	Type: (Pits)	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCL/PHPA	1.24	61	5.0	9.5	32400	30000	19 / 28	0.125 @ 22.4°C

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	PRESENT	7	HTC	MXR09D	311	1.5	7	-
	LAST	6	SMITH	MA74BPX	311	16.2	397	1-6-LT-S-X-I-CT-PR
		5	SMITH	10GF	311	14.7	341	1-1-WT-A-E-I-ER-PR

SURVEYS:	<u>MD (m)</u>	<u>INC</u>	<u>AZIM (T)</u>
	1775.86	4.38°	192.34°

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

PULL OUT OF HOLE WITH PLUGGED BIT. LAYOUT MWD/LWD TOOLS. SERVICE BIT, BOTTOM HOLE ASSEMBLY & RUN IN HOLE TO 663m. MAKE UP & RUN IN HOLE WITH BOP TEST TOOL. CIRCULATE HOLE CLEAN. PRESSURE TEST BOP STACK. LAYOUT BOP TEST TOOL. PRESSURE TEST SURFACE EQUIPMENT AND UPPER/LOWER INSIDE BLOWOUT PREVENTERS IN THE TOP DRIVE SYSTEM. RUN IN HOLE TO 950m. CIRCULATE HOLE CLEAN. RUN IN HOLE TO 1717m. WASH & REAM FROM 1717m TO 1770m (TAG FILL). REAM TO BOTTOM (27m FILL). DRILL AHEAD 311mm (12 ¼") HOLE FROM 1797m TO 1804m AT 24:00HRS.

00:00 – 06:00 HOURS 13/09/02:

DRILL AHEAD 311mm (12 ¼") HOLE FROM 1804m TO 1838m

ANTICIPATED OPERATIONS:

DRILL AHEAD 311mm (12 ¼") HOLE.

Santos

A.C.N. 08 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 13/09/02

REPORT NO: 18

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	02:30	2.50	Attempted to circulate, unsuccessfully. POOH for plugged bit. Broke and cleaned bit.
02:30	06:00	3.50	Laid out MWD/LWD tools. Made up serviced bit, BHA and RIH. Broke circulation at HWDP (268 mts / 880ft)
06:00	07:30	1.50	Continued RIH on drill pipe, made up BOP test tool and RIH to 663m (2175 ft)
07:30	08:30	1.00	Circulated bottoms up via choke @ 80spm 5175 kpa (750 psi).
08:30	09:30	1.00	Circulated bottoms up 100spm 5865 kpa (850 psi.)
09:30	14:00	4.50	Pressure tested BOPs 1380kpa / 20700kpa (200 / 3000 psi). Annulars 1380 kpa / 34500 kpa (200 / 5000 psi) for 5 / 10 min. Rams & failsafes.
14:00	14:30	0.50	POOH and laid out BOP test tool.
14:30	16:00	1.50	Pressure tested mud hose, upper and lower IBOP valves 1380 / 34500 kpa (200 / 5000 psi) Function tested Diverter.
16:00	17:00	1.00	Continued RIH to 743m (2437 ft) Broke circulation at (340mm) 13-3/8 Casing shoe.
17:00	18:00	1.00	RIH to 950m (3117 ft) Circulated bottoms up via choke line.
18:00	20:00	2.00	Continued RIH to 1717m (5633 ft)
20:00	22:00	2.00	Took weight @ 1717m (5633ft) Washed and reamed down from 1717m to 1770 m. Intermittently taking 10 kips with erratic torque up to 15,000 ft/lbs. Tagged firm fill @ 1770m and reamed down to 1797m (5807ft to 5896ft) 10-15 kips required to ream.
22:00	24:00	2.00	Drilled 12-1/4" hole from 1797m to 1804m. (5896ft to 5919ft)

Santos

A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 13/09/02

REPORT NO: 18

FORMATION TOPS:	MD RT	Subsea	H/L to Prognosis	H/L to Pecten 1A
WAARRE FORMATION	1743	1718	6m High	19m High

HYDROCARBON SHOW SUMMARY		
<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
	No shows	

GEOLOGICAL SUMMARY		
<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
1797-1832 ROP: 5-10 Ave: 5.5	<p>SANDSTONE WITH INTERBEDDED SILTSTONE</p> <p>SANDSTONE: Pale grey, white to off-white, very pale green grey, occasional pale pink to pink red, minor Fe-staining, rare pale yellow, clear to translucent in part, commonly very fine, grading to arenaceous siltstone in part, medium to very coarse grained in part, moderately poorly sorted, subangular to subrounded, occasional angular coarse bit fractured quartz, moderately strong calcareous cement, locally common white argillaceous matrix, generally well cemented, commonly quartzose appearance in the fine grained aggregates, coarser aggregates occasionally contain multi-coloured lithic fragments, trace carbonaceous specks, trace pyrite, hard to very hard, poor visual porosity, no hydrocarbon fluorescence.</p> <p>SILTSTONE: Medium to dark brown grey, minor disseminated and occasional nodular pyrite, trace carbonaceous specks, moderately hard to hard, subblocky.</p>	<p>3 – 11 units 100 / tr / tr %</p> <p>CO₂: 30-40 ppm</p>

Santos

A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 14/09/02

REPORT NO: 19

DEPTH : 2043 m
(As at 2400 hours EST, 12/09/02)

PROGRESS: 239 m

DAYS FROM SPUD: 19.25

OPERATION : DRILLING 311mm (12 ¼") HOLE @ 2093m (ROP : 8 m/hr).
(0600 hours EST, 14/09/02)

AFE COST

CUMULATIVE COST

CASING DEPTH: 743m (340mm- 13 3/8")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5m

MUD DATA	Type: (Pits)	Wt:	Vis:	FL:	PH:	KCl	Cl:	PV / YP:	Rmf:
(2400 Hours)	KCL/PHPA	1.24	56	4.4	9.5	37800	31400	22 / 26	

BIT DATA	PRESENT	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	PRESENT	7	HTC	MXR09D	311	22.9	246	-
	LAST	6	SMITH	MA74BPX	311	16.2	397	1-6-LT-S-X-I-CT-PR
		5	SMITH	10GF	311	14.7	341	1-1-WT-A-E-I-ER-PR

SURVEYS:	MD (m)	INC	AZIM (T)
	1775.86	4.38°	192.34°

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

DRILL AHEAD 311mm (12 ¼") HOLE FROM 1804m TO 2043m AT 24:00HRS.

00:00 – 06:00 HOURS 14/09/02:

DRILL AHEAD 311mm (12 ¼") HOLE FROM 2043m TO 2093m

ANTICIPATED OPERATIONS:

DRILL AHEAD 311mm (12 ¼") HOLE TO TOTAL DEPTH.

Santos

A.C.N. 08 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 14/09/02

REPORT NO: 19

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	24:00	24.0	Continued drilling 311mm (12-1/4") hole from 1804m to 2043m (5919ft to 6703ft)

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A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 14/09/02

REPORT NO: 19

FORMATION TOPS:	MD RT	Subsea	H/L to Prognosis	H/L to Pecten 1A
WAARRE FORMATION	1743	1718	6m High	19m High

HYDROCARBON SHOW SUMMARY		
<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
1862-1872 Ave: 45	SANDSTONE: Light grey, light green grey, off white, translucent, occasionally pink to red, medium to coarse, moderately well sorted, subangular, common calcite cement, common argillaceous matrix, common lithic fragments, grades to lithic sandstone in part, trace micro-micaceous specks, poor visual porosity, no hydrocarbon fluorescence.	82 units / 10 bg 98.5 / 1 / 0.5 / tr %

GEOLOGICAL SUMMARY		
<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
1832-1862 ROP: 7-11 Ave: 9	SANDSTONE INTERBEDDED WITH SILTSTONE, TRACES OF COAL SANDSTONE: Light grey, light green grey, trace pink, medium to coarse grained, moderately sorted, subangular, common moderately strong calcareous cement, common white argillaceous matrix, trace multi-coloured lithic fragments, hard, poor visual porosity, no hydrocarbon fluorescence. SILTSTONE: Light to medium grey, occasionally dark grey, arenaceous, trace carbonaceous specks, trace finely disseminated pyrite, hard, subblocky to occasionally subfissile. COAL: (Traces) Black, subvitreous, brittle, moderate hard, subfissile.	4 – 20 units 100/tr/tr % CO ₂ : 30-50 ppm
1862-1872 ROP: 40-55 Ave: 45	SANDSTONE: Light grey, light green grey, off white, translucent, occasionally pink to red, medium to coarse, moderately well sorted, subangular, common calcite cement, common argillaceous matrix, common lithic fragments, grades to lithic sandstone in part, trace micro-micaceous specks, poor visual porosity, no hydrocarbon fluorescence.	82 units 98.5 / 1 / 0.5 / tr % CO ₂ : <30 ppm

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A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 14/09/02

REPORT NO: 19

GEOLOGICAL SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
1872-1905 ROP: 9-45 Ave: 20	<p>INTERBEDDED SANDSTONE AND SILTSTONE</p> <p>SANDSTONE: Light grey, light green grey, off white, translucent, occasionally pink to red, medium to coarse, moderately well sorted, subangular, weak siliceous cement, trace calcareous cement, common argillaceous matrix, common lithic fragments, grades to lithic sandstone in part, trace micro-micaceous specks, poor visual porosity, no hydrocarbon fluorescence.</p> <p>SILTSTONE: Light to medium grey, occasionally dark grey, medium brown grey, siliceous, trace carbonaceous specks, hard, subblocky to occasionally subfissile.</p>	<p>11 – 30 units 100 / tr / tr %</p> <p>CO2: 40-50 ppm</p>
1905-1940 ROP: 8-20 Ave: 10	<p>INTERBEDDED SANDSTONE AND SILTSTONE</p> <p>SANDSTONE: Light grey, light green grey, pale pink, off white, translucent, fine to coarse, poorly sorted, subangular to subrounded, weak siliceous cement, common calcareous cement, minor to locally common light green grey argillaceous matrix, common lithic fragments, hard to very hard, poor visual porosity, no hydrocarbon fluorescence.</p> <p>SILTSTONE: Medium to dark grey brown, commonly light grey, trace carbonaceous specks, trace glauconite, firm to moderate hard, commonly soft and dispersive, subblocky.</p>	<p>7 – 15 units 100 / tr / tr % to 97 / 3 %</p> <p>CO2: <40 ppm</p>
1940-1982 ROP: 8 – 22 Ave: 9.5	<p>INTERBEDDED SANDSTONE AND SILTSTONE</p> <p>SANDSTONE: Light grey, minor light green grey, off white to minor pale brown, clear to translucent, medium to coarse grained, moderately poorly sorted, subangular, strong siliceous cement, trace calcareous cement, minor to locally common light grey argillaceous matrix, common lithic fragments, hard, poor visual porosity, no hydrocarbon fluorescence.</p> <p>SILTSTONE: Light grey, light to occasionally medium grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, firm to moderate hard, soft and dispersive in part, subblocky.</p>	<p>6 - 15 units 100 / tr / tr %</p> <p>CO2: <40 ppm</p>
1982-2042 ROP: 5-20 Ave: 9	<p>SANDSTONE INTERBEDDED WITH SILTSTONE</p> <p>SANDSTONE: Light grey, light green grey, mottled green grey, trace pink, minor red brown, translucent, medium to coarse grained, predominantly coarse, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, trace quartz overgrowths, minor to locally common light grey argillaceous matrix, common lithic fragments, grades to lithic sandstone, trace mica, trace pyrite, hard, poor visual porosity, no hydrocarbon fluorescence.</p> <p>SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace plant fragments, trace lithic fragments, trace glauconite, firm to moderate hard, soft in part, subblocky.</p>	<p>7 – 14 units 100 / tr %</p> <p>CO2: 40-50 ppm</p>

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A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 14/09/02

REPORT NO: 19

GEOLOGICAL SUMMARY

<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
2042-2088 ROP: 5-20 Ave: 8	<p>SANDSTONE INTERBEDDED WITH SILTSTONE</p> <p>SANDSTONE: Light grey, predominantly off white, translucent, light green grey, trace pink red, fine to coarse grained, predominantly medium, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, locally common light grey argillaceous matrix, trace lithic fragments, trace mica, hard, poor visual porosity, no hydrocarbon fluorescence.</p> <p>SILTSTONE: Light grey, light grey brown, argillaceous, trace carbonaceous specks, trace plant fragments, trace lithic fragments, rare glauconite, firm to moderate hard, soft in part, subblocky.</p>	<p>4 – 12 units 100 / tr %</p> <p>CO₂: 30–40 ppm</p>

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A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 15/09/02

REPORT NO: 20

DEPTH : 2118 m
(As at 2400 hours EST, 14/09/02)

PROGRESS: 75 m

DAYS FROM SPUD: 20.25

OPERATION : RUNNING WIRELINE LOGS (RUN 2: MDT-GR)
(0600 hours EST, 15/09/02)

AFE COST

CUMULATIVE COST

CASING DEPTH: 743m (340mm- 13 3/8")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5m

MUD DATA	Type: (Pits)	Wt:	Vis:	FL:	PH:	KCl	Cl:	PV / YP:	Rmf:
(2400 Hours)	KCL/PHPA	1.22	54	5.2	9.0	43200	31400	21 / 26	0.1137 @ 24°C

BIT DATA	LAST	No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)		7	HTC	MXR09D	311	33.9	321	2-2-BT-A-E-I-CT-TD
		6	SMITH	MA74BPX	311	16.2	397	1-6-LT-S-X-I-CT-PR

SURVEYS:	MD (m)	INC	AZIM (T)
	1775.86	4.38°	192.34°

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

DRILL AHEAD 311mm (12 1/4") HOLE FROM 2043m TO 2118m. LOGGING DEPTH REACHED AT 11:00 HRS ON 14-09-02. CIRCULATE HOLE CLEAN. STRAP OUT OF HOLE TO RUN WIRELINE LOGS (WORKED TIGHT HOLE AT 1805m & 1760m). RIG UP SCHLUMBERGER AND RECORD RUN 1: PEX-DSI.

00:00 – 06:00 HOURS 15/09/02:

COMPLETE RUN 1: PEX-DSI. RIG UP & RUN IN HOLE WITH RUN 2: MDT-GR

ANTICIPATED OPERATIONS:

COMPLETE MDT PRESSURE SURVEY (TOTAL 39 TESTS). RUN 3: SIDEWALL CORES.

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A.C.N. 08 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 15/09/02

REPORT NO: 20

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	11:00	11.00	Continued drilling 311mm (12-1/4") Hole from 2043m to 2118m
11:00	13:00	2.00	Circulated bottoms up @ 2118m. Shakers clean, flow checked.
13:00	19:30	6.50	POOH F /- 2118m (60 kips O-Pull @ 1805m & 1760m Worked clean)
19:30	20:00	0.50	Held JSA and rigged up Schlumberger wire line.
20:00	24:00	4.00	Made up and RIH with Log # 1 (PEX / DSI / HALS)

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A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 15/09/02

REPORT NO: 20

FORMATION TOPS:	MD RT	Subsea	H/L to Prognosis	H/L to Pecten 1A
WAARRE FORMATION	1743	1718	6m High	19m High

HYDROCARBON SHOW SUMMARY		
<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

GEOLOGICAL SUMMARY		
<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>
2088-2118 ROP: 7-9 Ave: 8	<p>SILTSTONE INTERBEDDED WITH SANDSTONE</p> <p>SILTSTONE: Light grey, light to medium grey brown, argillaceous, trace carbonaceous specks, trace lithic fragments, siliceous in part, firm to moderate hard, soft in part, slightly dispersive, subblocky.</p> <p>SANDSTONE: Light to medium grey, translucent, occasionally light green grey, occasionally orange red, fine to predominantly medium, minor coarse, moderately well sorted, subangular to subrounded, strong siliceous cement, trace calcite, common light grey argillaceous matrix, trace lithic fragments, grades to lithic sandstone, hard aggregates, poor visual porosity, no hydrocarbon fluorescence.</p>	<p>3-6 units 100% C1</p> <p>CO₂: 40 ppm</p>

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A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 16/09/02

REPORT NO: 21

DEPTH : 2118 m
(As at 2400 hours EST, 15/09/02)

PROGRESS: 0 m

DAYS FROM SPUD: 21.25

OPERATION : RUNNING IN HOLE WITH CEMENT STINGER TO SET ABANDONMENT PLUGS.
(0600 hours EST, 16/09/02)

AFE COST

CUMULATIVE COST

CASING DEPTH: 743m (340mm- 13 3/8")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5m

MUD DATA	Type: (Pits)	Wt:	Vis:	FL:	PH:	KCl	Cl :	PV / YP:	Rmf:
(2400 Hours)	KCL/PHPA	1.24	57	5.0	9.0	40500	33000	21 / 25	0.1137 @ 24°C

BIT DATA		No.	Make	Type	Size (mm)	Hours	Drilled	Condition
(2400 Hours)	LAST	7	HTC	MXR09D	311	33.9	321	2-2-BT-A-E-I-CT-TD

SURVEYS:	<u>MD</u> (m)	<u>INC</u>	<u>AZIM</u> (T)
	1775.86	4.38°	192.34°

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

RECORD WIRELINE LOGGING RUN 1: PEX-DSI. RIG UP & RUN IN HOLE WITH RUN 2: MDT-GR. RECORD 15 PRE-TESTS. PULL OUT OF HOLE TO SWAP FAILED MDT TOOL. RUN IN HOLE WITH REPLACEMENT MDT TOOL. COMPLETE PRESSURE SURVEY (TOTAL 30 PRE-TESTS, 18 VALID TESTS, 5 LOST SEALS, 5 CURTAILED, 2 INVALID TESTS). RIG UP & RUN IN HOLE WITH SIDEWALL CORE GUN. SHOOT 30 SIDEWALL CORES.

00:00 – 06:00 HOURS 15/09/02:

UNLOAD SIDEWALL CORES – RECOVER 30 OF 30 SHOTS. RIG DOWN SCHLUMBERGER. MAKE UP CEMENT STINGER WITH 89mm (3 1/2") TUBING. RUN IN HOLE TO 560m AT 06:00 HRS

ANTICIPATED OPERATIONS:

SET ABANDONMENT PLUGS AS PER PROGRAM.

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A.C.N. 08 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 16/09/02

REPORT NO: 21

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	02:30	2.50	Continue Logging Run # 1 (Depth tools reached 2098.5 mts)
02:30	11:30	9.00	Tools on surface Made up Log # 2 (MDT) RIH @ 04:30hrs.
11:30	14:00	2.50	Tools on surface, changed out hydraulic unit due to failure of tool. Re - run Log # 2 (MDT)
14:00	20:00	6.00	Continued Log # 2 (MDT)
20:00	21:30	1.50	Laid out MDT tools, and made up Log tools # 3 (CST)
21:30	24:00	2.50	RIH Log # 2 (CST)

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A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 16/09/02

REPORT NO: 21

FORMATION TOPS:	MD RT	Subsea	H/L to Prognosis	H/L to Pecten 1A

HYDROCARBON SHOW SUMMARY		
<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

GEOLOGICAL SUMMARY		
<u>INTERVAL</u> <u>ROP (m/hr)</u>	<u>LITHOLOGY</u>	<u>GAS</u>

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A.C.N. 80 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 17/09/02

REPORT NO: 22

DEPTH : 2118 m
(As at 2400 hours EST, 15/09/02)

PROGRESS: 0 m

DAYS FROM SPUD: 22.25

OPERATION : RUNNING IN HOLE TO TAG CEMENT PLUG #3.
(0600 hours EST, 17/09/02)

AFE COST

CUMULATIVE COST

CASING DEPTH: 743m (340mm- 13 3/8")

RIG: OCEAN BOUNTY

RT – SEAFLOOR: 95.5m

PROGRAMMED TD: 2276m

ROTARY TABLE: 25m LAT

WATER DEPTH: 70.5m

MUD DATA (2400 Hours)	Type: (Pits) KCL/PHPA	Wt: 1.24	Vis: 57	FL: 5.0	PH: 9.0	KCl 40500	Cl : 33000	PV / YP: 21 / 25	Rmf: 0.1137 @ 24°C
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BIT DATA (2400 Hours)		No.	Make	Type	Size (mm)	Hours	Drilled	Condition
LAST		7	HTC	MXR09D	311	33.9	321	2-2-BT-A-E-I-CT-TD

SURVEYS:	<u>MD</u> (m)	<u>INC</u>	<u>AZIM</u> (T)
	1775.86	4.38°	192.34°

PREVIOUS 24 HOURS OPERATIONS SUMMARY:

UNLOAD SIDEWALL CORES (30 SHOTS - 100% RECOVERY). RIG DOWN SCHLUMBERGER. MAKE UP CEMENT STINGER WITH 89mm (3 1/2") TUBING, RUN IN HOLE TO BOTTOM, CIRCULATE BOTTOMS UP. SET CEMENT PLUG #1: 1840-1690m. PULL BACK TO 1500m. CIRCULATE BOTTOMS UP. RUN IN HOLE TO 1620m. SET CEMENT PLUG #2: 1620-1470m. PULL BACK TO 1300m. CIRCULATE BOTTOMS UP. PULL BACK TO 599m. RECOVER WEAR BUSHING. RUN IN HOLE, TAG CEMENT PLUG @ 1361m. PULL BACK TO 850m. SPOT 6.3 m³ (40BBLS) HI-VIS PILL. PULL BACK TO 780m.

00:00 – 06:00 HOURS 15/09/02:

CIRCULATE BOTTOMS UP @ 780m. SET CEMENT PLUG #3: 780-630m. PULL BACK TO 550m. CIRCULATE BOTTOMS UP, DISPLACE TO INHIBITED MUD. PULL OUT OF HOLE, LAYOUT TUBING WHILST WAITING ON CEMENT. RUN IN HOLE TO TAG CEMENT PLUG #3.

ANTICIPATED OPERATIONS:

TAG CEMENT PLUG #3. RUN BRIDGE PLUG. SET CEMENT PLUG #4: 183-133m. POOH. PULL BOP STACK.

Santos

A.C.N. 08 007 550 923

WELL PROGRESS REPORT

CASINO 1

DATE: 17/09/02

REPORT NO: 22

SUMMARY OF OPERATIONS (0000 hours - 2400 hours):

FROM	TO	HRS	ACTIVITY DESCRIPTION
00:00	01:30	1.50	Continued Log # 3 (CST) Laid out tools. (30 Shots 100% Recovery)
01:30	02:00	0.50	Rigged down wire line.
02:00	02:30	0.50	Made up cement side entry sub and TIW valve, racked stand in derrick.
02:30	06:30	4.00	Picked up 20 joints of 88.9mm tubing. RIH to 743m (Shoe)
06:30	07:00	0.50	Serviced TDS & Blocks.
07:00	10:00	3.00	Continued RIH. Washed to bottom tagged @ 2094m.
10:00	11:30	1.50	Circulated bottoms up @ 2094m.
11:30	12:00	0.50	Pulled back to 1920m
12:00	13:00	1.00	Spotted 6.3 M3 (40 bbls) Hi-vis @ 1920m. Pulled back to 1840m.
13:00	14:30	1.50	Set cement plug # 1 F/- 1840m to 1690m. Rigged up & pumped 1.5 M3 (10 bbls) of drill water, tested cement line 7000 Kpa (1000 psi) Pumped 1.5 M3 (10 bbls) of drill water. Mixed and pumped 18.2 M3 (115 bbls) 557sx of tail slurry @ 1.89sg with 10.8 M3 (68 bbls) of mix water. Displaced cement with 14.4 M3 (91 bbls) of mud.
14:30	16:00	1.50	Pulled back F/- 1840m to 1500m and circulated bottoms up.
16:00	16:30	0.50	RIH to 1620m.
16:30	17:00	0.50	Set cement plug # 2 F/- 1620m to 1470m. Rigged up and pumped 1.5 M3 (10 bbls) of drill water tested lines to 7000 Kpa (1000 psi) Pumped 1.5 M3 (10 bbls) of drill water. Mixed and pumped 18.2 M3 (115 bbls) of 1.89sg cement (557sx) with 10.8 M3 (68.3 bbls) of mix water. Displaced with 12.4 M3 (78 bbls) of mud.
17:00	19:00	2.00	Pulled back F/- 1620m to 1300m and circulated bottoms up.
19:00	20:00	1.00	Pulled back to 599m.
20:00	21:30	1.50	Installed wear bushing running tool, RIH and recovered wear bushing.
21:30	23:00	1.50	RIH and tagged cement @ 1361m.
23:00	23:30	0.50	Pulled back to 850m.
23:30	24:00	0.50	Spotted 6.3 M3 (40 bbls) of Hi-vis pill, POOH to 780m.

SECTION 6:- DAILY DRILLING REPORTS

DATE : Aug 21, 2002

FROM : H. Flink / S. Hodgetts
TO : O. Moller

CASINO #1

Well Data		M.DEPTH (m BRT)	0.0	CUR.HOLE SIZE (mm)	0	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	0.0	CASING OD (mm)	0	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	0.0	SHOE TVD (m BRT)	0	DAILY COST :	\$517,531
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	-3.75	FIT (sg)	0.00	CUM COST :	\$517,531
RIG	Ocean Bounty	DAYS +/- CURVE		LOT (sg)	0.00		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 Undertow by P. Conqueror & P. Sentinel to Casino location.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Continue tow.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs
Rig released to Santos at last anchor racked. Underway to Casino-1 location.

FORMATION	TOP(m BRT)
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ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Aug 21, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
PS	P		MOV	22:30	24:00	1.50	0	Released rig from OMV's Sole-2 @ 22:30 hrs last anchor racked. Commenced tow to Casino-1 location with Pacific Sentinel & Pacific Conqueror on tow bridles. Current position Lat 38deg 11'S, Long 148deg 54.4'E, course 226deg, av speed 4.53kts, dist travelled 6.8nm, DTG 325nm, ETA 23:45 24/8/02.

ACTIVITY FOR PERIOD 0000 HRS TO 04:00 HRS ON Aug 22, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
PS	P		MOV	00:00	06:00	6.00	0	Continued tow. Current position Lat 38deg 32.6'S, Long 148deg 25.9'E, course 228deg, av speed 5.0kts, dist travelled 37.6nm, DTG 294.2nm, ETA 14:20 24/8/02.
PS	P		MOV	06:00	12:00	6.00	0	Continued tow. Current position Lat 38deg 48.5'S, Long 147deg 47.5'E, course 251deg, av speed 5.3kts, dist travelled 72nm, DTG 259.9nm, ETA 13:00 24/8/02.

Survey (Method : Min Curvature)	MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type :										
Magnetic Declination :	0.00									

Bulk Stocks On Rig	STOCK TYPE & UNITS				STOCK TYPE & UNITS						
	START	USED	REC'D	STOCK	START	USED	REC'D	STOCK			
Fuel Oil - Rig	M3	0.0	0.1	395.5	395.4	Drill Water - Rig	MT	0.0	435.0	435.0	
Pot Water - Rig	MT	0.0		98.0	98.0	Cement 'G' - Rig	sxs	0.0	782.0	782.0	
Cement HTB - Rig	sxs	0.0			0.0	Bentonite - Rig	sxs	0.0	626.0	626.0	
Barite - Rig	sxs	0.0		2115.0	2115.0	Brine - Rig	MT	0.0		0.0	
Helifuel - Rig	ltr	0.0		5055.0	5055.0	Fuel Oil - Conqueror	M3	0.0	1.7	250.1	248.4
Drill Water - Conqueror	MT	0.0		520.0	520.0	Pot Water - Conqueror	MT	0.0		135.0	135.0
Cement 'G' - Conqueror	sxs	0.0		0.0	0.0	Cement HTB - Conqueror	sxs	0.0		0.0	0.0
Bentonite - Conqueror	sxs	0.0		635.0	635.0	Barite - Conqueror	sxs	0.0		1146.0	1146.0
Brine - Conqueror	MT	0.0		0.0	0.0	Fuel Oil - Sentinel	M3	0.0	10.5	366.7	356.2
Drill Water - Sentinel	MT	0.0		585.0	585.0	Pot Water - Sentinel	MT	0.0		230.0	230.0
Cement 'G' - Sentinel	sxs	0.0		1736.0	1736.0	Cement HTB - Sentinel	sxs	0.0		0.0	0.0
Bentonite - Sentinel	sxs	0.0		740.0	740.0	Barite - Sentinel	sxs	0.0		1000.0	1000.0
Brine - Sentinel	MT	0.0		0.0	0.0						

Casing						
DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)	SHOE TVD (plan/Actual)	LOT (pl/Act)	FIT (pl/Act)	COMMENT

Personnel : on Site =72			
2 Santos	36 DOGC	1 DOGC extra	22 TMT (marine)
3 TMT (ROV)	2 BHI	1 Halliburton	1 ECL QA surveyor
2 Thales	1 Marconi	1 OMV	

Safety, Inspections and Drills Summary

2 days since last	Fire and Abandon Ship Drill
days since last	Lost Workday Case
days since last	Medical Treatment Case
days since last	First Aid Case
days since last	Environmental Issue

Anchors	Anc 1 : 0	Anc 2 : 0	Anc 3 : 0	Anc 4 : 0	Anc 5 : 0	RIS. TENS. (MT) :	0
	Anc 6 : 0	Anc 7 : 0	Anc 8 : 0	Anc 9 : 0	Anc 10 : 0	RISER ANGLE (deg):	
Workboats	Arrived @ Rig (Date)(Time)	Depart from Rig (Date)(Time)	EstimatedArrival (Port) (Date)(Time)	Weather		STACK ANGLE(deg):	
Pacific Sentinel	21/8/02 22:30			VISIBILITY(nm) :	12	V.D.L. (MT) :	
Pacific Conqueror	21/8/02 22:30			WIND SP. (kts) :	10.0	AVE HEAVE (m) :	
				WIND DIR (deg) :	020	MAX HEAVE (m) :	
				PRES.(mbars):	1020	AVE PITCH (deg) :	0.3
				AIR TEMP (C) :	11.0	MAX PITCH (deg) :	
COMMENTS :	Pax on / off : Flt #1, 8 / 8; Flt #2, 6 / 7					AVE ROLL (deg) :	0.2
						MAX ROLL (deg) :	

DATE : Aug 22, 2002

FROM : H. Flink / S. Hodgetts
TO : O. Moller

CASINO #1

Well Data		M.DEPTH (m BRT)	0.0	CUR.HOLE SIZE (mm)	0	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	0.0	CASING OD (mm)	0	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	0.0	SHOE TVD (m BRT)	0	DAILY COST :	\$241,349
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	-2.75	FIT (sg)	0.00	CUM COST :	\$758,880
RIG	Ocean Bounty	DAYS +/- CURVE		LOT (sg)	0.00		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 Undertow by P. Conqueror & P. Sentinel to Casino location.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Continue tow.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

Underway to Casino-1 location.

FORMATION	TOP(m BRT)

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Aug 22, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
PS	P		MOV	00:00	06:00	6.00	0	Continued tow. Current position Lat 38deg 32.6'S, Long 148deg 25.9'E, course 228deg, av speed 5.0kts, dist travelled 37.6nm, DTG 294.2nm, ETA 14:20 24/8/02.
PS	P		MOV	06:00	12:00	6.00	0	Continued tow. Current position Lat 38deg 48.5'S, Long 147deg 47.5'E, course 251deg, av speed 5.3kts, dist travelled 72nm, DTG 259.9nm, ETA 13:00 24/8/02.
PS	P		MOV	12:00	18:00	6.00	0	Continued tow. Current position Lat 38deg 54.6'S, Long 147deg 21.3'E, course 251deg, av speed 4.8kts, dist travelled 93.9nm, DTG 238nm, ETA 18:00 24/8/02.
PS	P		MOV	18:00	24:00	6.00	0	Continued tow. Current position Lat 39deg 2.2'S, Long 146deg 55.2'E, course 240deg, av speed 4.5kts, dist travelled 115.8nm, DTG 216.1nm, ETA 23:30 24/8/02.

ACTIVITY FOR PERIOD 0000 HRS TO 04:00 HRS ON Aug 23, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
PS	P		MOV	00:00	06:00	6.00	0	Continued tow. Current position Lat 39deg 8.2'S, Long 146deg 34.9'E, course 251deg, av speed 4.2kts, dist travelled 132.7nm, DTG 199.2nm, ETA 05:00 25/8/02.
PS	P		MOV	06:00	12:00	6.00	0	Continued tow. Current position Lat 39deg 12.2'S, Long 146deg 5'E, course 268deg, av speed 4.17kts, dist travelled 156.5nm, DTG 175.4nm, ETA 06:00 25/8/02.

Survey (Method : Min Curvature)

Last Tool Type :

Magnetic Declination : 0.00

MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE

Bulk Stocks On Rig

STOCK TYPE & UNITS	START	USED	REC'D	STOCK	STOCK TYPE & UNITS	START	USED	REC'D	STOCK
Fuel Oil - Rig M3	395.4	6.0		389.4	Drill Water - Rig MT	435.0	39.0		395.0
Pot Water - Rig MT	98.0	22.0	22.0	98.0	Cement 'G' - Rig sxs	782.0			782.0
Cement HTB - Rig sxs	0.0			0.0	Bentonite - Rig sxs	626.0			626.0
Barite - Rig sxs	2115.0			2115.0	Brine - Rig MT	0.0			0.0
Helifuel - Rig ltr	5055.0			5055.0	Fuel Oil - Conqueror M3	248.4	22.2		226.2
Drill Water - Conqueror MT	520.0			520.0	Pot Water - Conqueror MT	135.0	5.0		130.0
Cement 'G' - Conqueror sxs	0.0			0.0	Cement HTB - Conqueror sxs	0.0			0.0
Bentonite - Conqueror sxs	635.0			635.0	Barite - Conqueror sxs	1146.0			1146.0
Brine - Conqueror MT	0.0			0.0	Fuel Oil - Sentinel M3	356.2	16.3		339.9
Drill Water - Sentinel MT	585.0			585.0	Pot Water - Sentinel MT	230.0	5.0		225.0
Cement 'G' - Sentinel sxs	1736.0			1736.0	Cement HTB - Sentinel sxs	0.0			0.0
Bentonite - Sentinel sxs	740.0			740.0	Barite - Sentinel sxs	1000.0			1000.0
Brine - Sentinel MT	0.0			0.0					

Casing						
DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)	SHOE TVD (plan/Actual)	LOT (pl/Act)	FIT (pl/Act)	COMMENT

Personnel : on Site =72			
2 Santos	36 DOGC	1 DOGC extra	22 TMT (marine)
3 TMT (ROV)	2 BHI	1 Halliburton	1 ECL QA surveyor
2 Thales	1 Marconi	1 OMV	

Safety, Inspections and Drills	Summary
3 days since last	Fire and Abandon Ship Drill
days since last	Lost Workday Case
days since last	Medical Treatment Case
days since last	First Aid Case
days since last	Environmental Issue

Anchors						RIS. TENS. (MT) : 0	
Anc 1 : 0	Anc 2 : 0	Anc 3 : 0	Anc 4 : 0	Anc 5 : 0		RISER ANGLE (deg):	
Anc 6 : 0	Anc 7 : 0	Anc 8 : 0	Anc 9 : 0	Anc 10 : 0		STACK ANGLE(deg):	
Workboats	Arrived @ Rig (Date)(Time)	Depart from Rig (Date)(Time)	EstimatedArrival (Port) (Date)(Time)	Weather		V.D.L. (MT) :	
Pacific Sentinel	21/8/02 22:30			VISIBILITY(nm) :	11	AVE HEAVE (m) :	
Pacific Conqueror	21/8/02 22:30			WIND SP. (kts) :	35.0	MAX HEAVE (m) :	
				WIND DIR (deg) :	250	AVE PITCH (deg) :	0.8
				PRES.(mbars):	1020	MAX PITCH (deg) :	
				AIR TEMP (C) :	10.0	AVE ROLL (deg) :	0.5
COMMENTS : Pax on / off : no flt.						MAX ROLL (deg) :	

DATE : Aug 23, 2002

FROM : H. Flink / S. Hodgetts
TO : O. Moller

CASINO #1

Well Data		M.DEPTH (m BRT)	0.0	CUR.HOLE SIZE (mm)	0	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	0.0	CASING OD (mm)	0	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	0.0	SHOE TVD (m BRT)	0	DAILY COST :	\$368,852
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	-1.75	FIT (sg)	0.00	CUM COST :	\$1,127,732
RIG	Ocean Bounty	DAYS +/- CURVE		LOT (sg)	0.00		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 Undertow by P. Conqueror & P. Sentinel to Casino location.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Continue tow.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

Underway to Casino-1 location.

FORMATION	TOP(m BRT)

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Aug 23, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
PS	P		MOV	00:00	06:00	6.00	0	Continued tow. Current position Lat 39deg 8.2'S, Long 146deg 34.9'E, course 251deg, av speed 4.2kts, dist travelled 132.7nm, DTG 199.2nm, ETA 05:00 25/8/02.
PS	P		MOV	06:00	12:00	6.00	0	Continued tow. Current position Lat 39deg 12.2'S, Long 146deg 5'E, course 268deg, av speed 4.17kts, dist travelled 156.5nm, DTG 175.4nm, ETA 06:00 25/8/02.
PS	P		MOV	12:00	18:00	6.00	0	Continued tow. Current position Lat 39deg 12.7'S, Long 145deg 32.3'E, course 268deg, av speed 4.2kts, dist travelled 182.5nm, DTG 149.4nm, ETA 05:00 25/8/02.
PS	P		MOV	18:00	24:00	6.00	0	Continued tow. Current position Lat 39deg 12.8'S, Long 144deg 57.8'E, course 268deg, av speed 4.2kts, dist travelled 207.9nm, DTG 123nm, ETA 05:00 25/8/02.

ACTIVITY FOR PERIOD 0000 HRS TO 04:00 HRS ON Aug 24, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
PS	P		MOV	00:00	06:00	6.00	0	Continued tow. Current position Lat 39deg 13.6'S, Long 144deg 18.6'E, course 268deg, av speed 4.3kts, dist travelled 238.4nm, DTG 92.5nm, ETA 03:00 25/8/02.
PS	P		MOV	06:00	12:00	6.00	0	Continued tow. Current position Lat 39deg 13.4'S, Long 143deg 45.4'E, course 269deg, av speed 4.3kts, dist travelled 265.2nm, DTG 66.7nm, ETA 03:10 25/8/02.

Survey (Method : Min Curvature)

Last Tool Type :

Magnetic Declination : 0.00

MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE

Bulk Stocks On Rig

STOCK TYPE & UNITS	START	USED	REC'D	STOCK	STOCK TYPE & UNITS	START	USED	REC'D	STOCK
Fuel Oil - Rig M3	389.4	4.8		384.6	Drill Water - Rig MT	395.0	20.0		375.0
Pot Water - Rig MT	98.0	22.0	22.0	98.0	Cement 'G' - Rig sxs	782.0			782.0
Cement HTB - Rig sxs	0.0			0.0	Bentonite - Rig sxs	626.0			626.0
Barite - Rig sxs	2115.0			2115.0	Brine - Rig MT	0.0			0.0
Helifuel - Rig ltr	5055.0	675.0		4380.0	Fuel Oil - Conqueror M3	226.2	26.6		199.6
Drill Water - Conqueror MT	520.0			520.0	Pot Water - Conqueror MT	130.0	5.0		125.0
Cement 'G' - Conqueror sxs	0.0			0.0	Cement HTB - Conqueror sxs	0.0			0.0
Bentonite - Conqueror sxs	635.0			635.0	Barite - Conqueror sxs	1146.0			1146.0
Brine - Conqueror MT	0.0			0.0	Fuel Oil - Sentinel M3	339.9	27.0		312.9
Drill Water - Sentinel MT	585.0			585.0	Pot Water - Sentinel MT	225.0	5.0		220.0
Cement 'G' - Sentinel sxs	1736.0			1736.0	Cement HTB - Sentinel sxs	0.0			0.0
Bentonite - Sentinel sxs	740.0			740.0	Barite - Sentinel sxs	1000.0			1000.0
Brine - Sentinel MT	0.0			0.0					

Casing						
DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)	SHOE TVD (plan/Actual)	LOT (pl/Act)	FIT (pl/Act)	COMMENT

Personnel : on Site =77			
2 Santos	37 DOGC	1 DOGC extra	22 TMT (marine)
3 TMT (ROV)	2 BHI	1 Halliburton	1 ECL QA surveyor
2 Thales	1 Marconi	2 DOGC Conoco/Veritas	2 IDFS
1 DrillQuip			

Safety, Inspections and Drills	Summary
4 days since last	Fire and Abandon Ship Drill
1788 days since last	Lost Workday Case

Anchors						RIS. TENS. (MT) : 0	RISER ANGLE (deg):	STACK ANGLE(deg):	V.D.L. (MT) : 1,663.4							
Anc 1 : 0	Anc 2 : 0	Anc 3 : 0	Anc 4 : 0	Anc 5 : 0	Anc 6 : 0											
Anc 6 : 0	Anc 7 : 0	Anc 8 : 0	Anc 9 : 0	Anc 10 : 0												
Workboats			Arrived @ Rig (Date)(Time)	Depart from Rig (Date)(Time)	EstimatedArrival (Port) (Date)(Time)	Weather										
Pacific Sentinel	21/8/02	22:30				VISIBILITY(nm) : 12	WIND SP. (kts) : 35.0	WIND DIR (deg) : 250	PRES.(mbars): 1029	AIR TEMP (C) : 10.0	AVE HEAVE (m) :	MAX HEAVE (m) :	AVE PITCH (deg) : 0.6	MAX PITCH (deg) : 0.8	AVE ROLL (deg) : 0.3	MAX ROLL (deg) : 0.5
Pacific Conqueror	21/8/02	22:30														
COMMENTS : Pax on / off : Flt #1, 7 / 8; Flt #2, 9 / 3																

Bulk Stocks On Rig	STOCK TYPE & UNITS					STOCK	STOCK TYPE & UNITS				
		START	USED	REC'D				START	USED	REC'D	STOCK
	Fuel Oil - Rig	M3	384.6	6.0		378.6	Drill Water - Rig	MT	375.0		375.0
	Pot Water - Rig	MT	98.0	32.0	22.0	88.0	Cement 'G' - Rig	sxs	782.0		782.0
	Cement HTB - Rig	sxs	0.0			0.0	Bentonite - Rig	sxs	626.0		626.0
	Barite - Rig	sxs	2115.0			2115.0	Brine - Rig	MT	0.0		0.0
	Helifuel - Rig	ltr	4380.0			4380.0	Fuel Oil - Conqueror	M3	199.6	24.3	175.3
	Drill Water - Conqueror	MT	520.0			520.0	Pot Water - Conqueror	MT	125.0	5.0	120.0
	Cement 'G' - Conqueror	sxs	0.0			0.0	Cement HTB - Conqueror	sxs	0.0		0.0
	Bentonite - Conqueror	sxs	635.0			635.0	Barite - Conqueror	sxs	1146.0		1146.0
	Brine - Conqueror	MT	0.0			0.0	Fuel Oil - Sentinel	M3	312.9	28.4	284.5
	Drill Water - Sentinel	MT	585.0			585.0	Pot Water - Sentinel	MT	220.0	5.0	215.0
	Cement 'G' - Sentinel	sxs	1736.0			1736.0	Cement HTB - Sentinel	sxs	0.0		0.0
	Bentonite - Sentinel	sxs	740.0			740.0	Barite - Sentinel	sxs	1000.0		1000.0
	Brine - Sentinel	MT	0.0			0.0					

Casing

DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)	SHOE TVD (plan/Actual)	LOT (pl/Act)	FIT (pl/Act)	COMMENT

Personnel : on Site =83

3 Santos	38 DOGC	4 DOGC extra	22 TMT (marine)
6 TMT (ROV)	2 BHI	1 Halliburton	1 ECL QA surveyor
2 Thales	1 Marconi	2 IDFS	1 DrillQuip

Safety, Inspections and Drills Summary

0 days since last	Fire and Abandon Ship Drill
1789 days since last	Lost Workday Case
days since last	Medical Treatment Case
0 days since last	First Aid Case
days since last	Environmental Issue

Anchors				Weather		RIS. TENS. (MT) :	
Anc 1 : 0	Anc 2 : 0	Anc 3 : 0	Anc 4 : 0	Anc 5 : 0			0
Anc 6 : 0	Anc 7 : 0	Anc 8 : 0	Anc 9 : 0	Anc 10 : 0			
Workboats		Arrived @ Rig (Date)(Time)	Depart from Rig (Date)(Time)	EstimatedArrival (Port) (Date)(Time)	RISER ANGLE (deg):		
Pacific Sentinel	21/8/02	22:30			STACK ANGLE(deg):		
Pacific Conqueror	21/8/02	22:30			V.D.L. (MT) :	1,680.3	
COMMENTS : Pax on / off : Flt #1, 6/-				VISIBILITY(nm) :		12	
				WIND SP. (kts) :		15.0	
				WIND DIR (deg) :		190	
				PRES.(mbars):		1030	
				AIR TEMP (C) :		11.0	
				AVE HEAVE (m) :			
				MAX HEAVE (m) :			
				AVE PITCH (deg) :		0.8	
				MAX PITCH (deg) :		2.0	
				AVE ROLL (deg) :		0.6	
				MAX ROLL (deg) :		1.0	

DATE : Aug 25, 2002

FROM : H. Flink / S. Hodgetts
TO : O. Moller

CASINO #1

Well Data		M.DEPTH (m BRT)	130.0	CUR.HOLE SIZE (mm)	914	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	130.0	CASING OD (mm)	0	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	34.0	SHOE TVD (m BRT)	0	DAILY COST :	\$500,816
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	0.25	FIT (sg)	0.00	CUM COST :	\$1,946,450
RIG	Ocean Bounty	DAYS +/- CURVE	-1.00	LOT (sg)	0.00		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 WOC.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Make up 17.5" BHA, RIH and drill to section TD approximately 785m.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

Ran anchors only #1 had to be rolled as flukes inverted. Positioned rig on location 3.22m @ 20.6 degT from intended location. Made up 36" BHA, RIH and tagged seabed at 70.5 m water depth. Spudded well @ 18:30 hrs 25/8/02. Drilled 26"/36" hole to 130m with seawater and hi-vis sweeps. Displaced hole to hi-vis mud, POOH. Hole good. Rigged to run 30" conductor. Made up RT and stinger.

FORMATION	TOP(m BRT)
Undescribed	96

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Aug 25, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
PS	P		MOV	00:00	01:30	1.50	0	Continued tow, lowered #6 during approach to location.
PS	P		ANC	01:30	10:30	9.00	0	Rig positioned #6 on bottom @ 01:30 during approach to location. P. Conqueror returned Port tow wire to rig, P. Sentinel remained on static tow. Anchor #2, on bottom @ 04:05 (P.C.), # 3 on bottom @ 5:25 (P.C.), # 7 on bottom @ 6:30 (P.C.). P. Sentinel disconnected from Stbd tow wire. Anchor #8 on bottom @7:46 (P.C.), #4 on bottom @8:25 (P.S.). Re-ran #1 as flukes upside down, #5 on bottom @ 9:30 (P.S.), #1 on bottom @9:45 (P.C.).
PS	P		ANC	10:30	16:30	6.00	0	Commenced cross tensioning anchors, ballasted rig to drilling draft. Tensioned anchors to 186 tonne (410kips).
PS	P		TI	16:30	18:30	2.00	96	Made up 36" BHA & RIH. Tagged seabed at 95.5m. Water Depth 70.5m.
CH	P		D	18:30	20:00	1.50	130	Spudded Casino-1 at 18:30 hrs, 25/8/02. Drilled 36" hole from 95.5m to 130m with seawater and 4.8 m3 (30 bbls) hi-vis sweeps every 1/2 single. Final Position Lat 38deg 47' 18.502"S, long 142deg 42' 0.287"E, Easting 647 654.91 m, Northing 5 705 323.87 m. Location 3.22m at 20.6deg T from intended location.
CH	P		CIR	20:00	20:30	0.50	130	Swept hole with 8 m3 (50 bbls) hi-vis mud, took survey with Anderdrift (2deg). Displaced hole with 35 m3 (220 bbls) hi-vis mud.
CH	P		TO	20:30	21:30	1.00	130	POOH and racked back BHA. Hole good.
CON	P		RC	21:30	23:00	1.50	130	Rigged up and ran 20" / 30" conductor.
CON	P		RC	23:00	24:00	1.00	130	Made up cement stinger / running tool. Installed 30" in PGB.

ACTIVITY FOR PERIOD 0000 HRS TO 04:00 HRS ON Aug 26, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
CON	P		CAT	00:00	06:00	6.00	130	Ran 30" conductor / PGB to seabed. Attempted to enter hole, repositioned string. RIH with 30" conductor. Re-aligned rig over hole. Circulated hole, pumped dye, tested cement lines. Cemented 30" conductor. WOC.

WBM Data		COST TODAY : \$11,243	CUM. WB MUD COST: \$11,243	CUM. WBM+OBM COST: \$11,243
Type :		VISCOCITY (sec/ltr) :	100	API FLUID LOSS (cm3/30min) :
	Spud	PV (Pa.s) :	0	FILTER CAKE (mm) :
FROM :	pit	YP (Pa.s) :	16	HTHPFL (cm3/30min) :
TIME :	20:30	GEL10s/10m/100m (Pa.s) :	11 12 0	HTHP CAKE (mm) :
WEIGHT (sg):	1.04	Fann 3/6/100 :	22 23 38	
TEMP (C) :				
COMMENT:	Mixed spud mud.			

Bit Data for Bit # 1 IADC # 1 1 1				Wear											
				I	O1	D	L	B	G	O2	R				
				1	1	NO	A	1	I	NO	TD				
SIZE ("):	26.00			NOZZLES				Drilled over the last 24 hrs				Calculated over the bit run			
MANUFACTURER :	SM	AVE WOB (MT) :	3	3 X 18	METERAGE (m) :				35	CUM.METERAGE (m) :				35	
TYPE :	DSJC	AVE RPM :	65	4 X 22	ON BOTTOM HRS :				1.0	CUM. ON BOT. HRS :				1.0	
SERIAL # :	KP2374	FLOW (lpm) :	3,274	X 0	IADC DRILL. HRS :				1.5	CUM.IADC DR. HRS :				1.5	
DEPTH IN (mRT):	96	PUMP PRESS.(Kpa):	6,709	X 0	TOTAL REVS :				3,900	CUM.TOT. REVS :				3,900	
DEPTH OUT (mRT):	130	HSI (kW/cm2) :	0.013	X 0	ROP (m/hr) :				34.5	ROP (m/hr) :				34.5	

BHA # 1	Length (m): 83.2											
WT BLW JAR (MT):	0	STRING WT (MT):	91	TRQE MAX (Nm):	4	D.C. (1) ANN. VELOCITY (mpm):						6
BHA WT (MT) :	0	PICK UP WT (MT):	0	TRQE ON (Nm):	3	D.C. (2) ANN VELOCITY (mpm):						6
		SLK OFF WT (MT):	0	TRQE OFF (Nm):	0	H.W.D.P. ANN VELOCITY (mpm):						6
						D.P. ANN VELOCITY (mpm) :						6

BHA DESCRIPTION : 26" bit, 36" H/O, bit sub, 9.5" Anderdrift, 3 x 9.5" DC, x/o, 5 x 8" DC x/o, 6 x 5" HWDP

TOOL DESCRIPTION	LENGTH	OD	ID	SERIAL #	HRS	COMMENT
36" hole opener				203A7		4 x 22 nozzles
9.5" Anderdrift tool				ADB905		Survey flask ASF 8171TOTC

Survey (Method : Min Curvature)	MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type :										
Magnetic Declination :	0.00									datum
	0.0	0.0	0.00	0.0	0.0					Anderdrift 2 s
	95.0	95.0	0.50	0.0	0.0	0.4	0.2	0.4	0.0	
	130.0	130.0	2.00	0.0	0.0	1.2	1.3	1.2	0.0	

Bulk Stocks On Rig	STOCK TYPE & UNITS				START USED REC'D STOCK				STOCK TYPE & UNITS				START USED REC'D STOCK									
	Fuel Oil - Rig	M3	378.6	9.5	369.1	Drill Water - Rig	MT	375.0	470.0	585.0	490.0	Pot Water - Rig	MT	88.0	25.0	25.0	88.0	Cement 'G' - Rig	sxs	782.0		1736.0
Cement HTB - Rig	sxs	0.0		0.0	Bentonite - Rig	sxs	626.0	581.0	635.0	680.0	Barite - Rig	sxs	1146.0			1146.0	Brine - Rig	MT	0.0			0.0
Helifuel - Rig	ltr	4380.0		4380.0	Fuel Oil - Conqueror	M3	175.3	12.1		163.2	Drill Water - Conqueror	MT	520.0			520.0	Pot Water - Conqueror	MT	120.0	5.0		115.0
					Cement 'G' - Conqueror	sxs	0.0			0.0	Cement HTB - Conqueror	sxs	0.0			0.0	Barite - Conqueror	sxs	1146.0			1146.0
					Bentonite - Conqueror	sxs	635.0			635.0	Brine - Conqueror	MT	0.0			0.0	Fuel Oil - Sentinel	M3	284.5	16.2		268.3
					Drill Water - Sentinel	MT	585.0			585.0	Pot Water - Sentinel	MT	215.0	5.0		210.0	Cement 'G' - Sentinel	sxs	1736.0			1736.0
					Cement 'G' - Sentinel	sxs	1736.0			1736.0	Bentonite - Sentinel	sxs	740.0			740.0	Barite - Sentinel	sxs	1000.0			1000.0
					Bentonite - Sentinel	sxs	740.0			740.0	Brine - Sentinel	MT	0.0			0.0						

Pump Data										
Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152	80	97	1293	8963		0		
2	Nat'l 12-P-160	152	80	97	1293	8963		0		
3	Nat'l 12-P-160	152	80	97	1293	8963		0		

DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)	SHOE TVD (plan/Actual)	LOT (pl/Act)	FIT (pl/Act)	COMMENT

Personnel : on Site =83			
3 Santos	38 DOGC	4 DOGC extra	22 TMT (marine)
6 TMT (ROV)	2 BHI	1 Halliburton	1 ECL QA surveyor
2 Thales	1 Marconi	2 IDFS	1 DrillQuip

Safety, Inspections and Drills	Summary
1 days since last	Fire and Abandon Ship Drill
1790 days since last	Lost Workday Case

days since last	Medical Treatment Case
1 days since last	First Aid Case
days since last	Environmental Issue

Shakers, Volumes and Losses Data						ENGINEER M. Docherty / J. Singh		
SHAKER 1	VOLUME AVAILABLE (m3) =				310	LOSSES (m3) =	50	COMMENTS
SHAKER 2	ACTIVE	180.6	MIXING	0.0	DOWNHOLE	50.39		
SHAKER 3	HOLE	22.4	SLUG	0.0	SURF.+EQUIP	0.00		
SHAKER 4	RESERVE	106.8	HEAVY	0.0	DUMPED	0.00		
SHAKER 5								

Anchors						Weather						
Anc 1 :	143	Anc 2 :	159	Anc 3 :	159	Anc 4 :	150	Anc 5 :	145	RIS. TENS. (MT) :	0	
Anc 6 :	138	Anc 7 :	136	Anc 8 :	211	Anc 9 :	0	Anc 10 :	0	RISER ANGLE (deg):		
Workboats	Arrived @ Rig (Date)(Time)	Depart from Rig (Date)(Time)	EstimatedArrival (Port) (Date)(Time)									
Pacific Sentinel		26/8/02 2:05	26/8/02	7:00	VISIBILITY(nm) :	12	STACK ANGLE(deg):					
Pacific Conqueror	21/8/02 22:30				WIND SP. (kts) :	10.0	V.D.L. (MT) :	2,020.1				
						WIND DIR (deg) :	080	AVE HEAVE (m) :				
						PRES.(mbars):	1030	MAX HEAVE (m) :				
						AIR TEMP (C) :	10.0	AVE PITCH (deg) :	0.4			
COMMENTS : Pax on / off : no flt.						MAX PITCH (deg) :						0.8
						AVE ROLL (deg) :						0.2
						MAX ROLL (deg) :						0.6

DATE : Aug 26, 2002

FROM : H. Flink / S. Hodgetts
TO : O. Moller

CASINO #1

Casino #1

Well Data		M.DEPTH (m BRT)	220.0	CUR.HOLE SIZE (mm)	445	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	220.0	CASING OD (mm)	762	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	90.0	SHOE TVD (m BRT)	128	DAILY COST :	\$346,062
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	1.25	FIT (sg)	0.00	CUM COST :	\$2,292,512
RIG	Ocean Bounty	DAYS +/- CURVE	-1.00	LOT (sg)	0.00		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 Drilling ahead 445mm (17.5") hole at 415m.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Drill ahead 445mm (17.5") to Scsg TD. POOH and run 340mm (13.3/8") casing.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

Made up running tool to housing and ran 762mm (30") conductor and PGB. Cemented conductor and waited on cement. Laid out 914mm (36") BHA and running tools. Picked up DP. Made up 445mm (17.5") BHA and RIH. Waited on supply vessel. Drilled shoetrack and cleaned rathole to 130m. Drilled hole to 140m. Waited on supply vessel. Drilled ahead to 220m.

FORMATION	TOP(m BRT)
Undescribed	96

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Aug 26, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
CON	P		CAT	00:00	02:00	2.00	130	Made up 30" hsg to PGB. Ran 30" conductor to sealevel, filled casing with seawater. Attempted to stab into hole, re-positioned string. Stabbed into hole and RIH to setting depth, no drag.
CON	P		CAT	02:00	03:00	1.00	130	PGB slope indicator 1.25deg. Repositioned rig on anchors to correct angle to 0.75deg port/forward.
CON	P		CIC	03:00	03:30	0.50	130	Circulated hole with 21 m3 (130bbbls) seawater. Observed good returns.
CON	P		CMC	03:30	04:30	1.00	130	Rigged up cement lines and pumped 0.8m3 (5 bbls) of seawater with Fluorescence dye ahead. Closed line at drill floor and tested lines to 6.9kPa (1000 psi), held OK. Pumped remaining 0.8m3 (5 bbls) of seawater with Fluorescence dye. Mixed and pumped 27.7 m3 (174bbbls) 1.9sg tail slurry at 954 lpm (6bpm), 832sxs class 'G' cement in 16.5 m3 (104bbbls) mix water with 1% CaCl2. Displaced with 4.6 m3 (28.7bbbls) seawater at 800 lpm (5bpm), final pressure 1380kPa (200psi). Bled off pressure, float held. Good returns throughout job.
CON	P		WOC	04:30	09:00	4.50	130	WOC, slope indicator remained on .75 deg port/forward. Picked up DP and racked in derrick.
CON	P		TO	09:00	10:00	1.00	130	Released R/T, POOH and laid out R/T and cement stinger.
SH	P		LDP	10:00	11:30	1.50	130	Picked up 476mm (18.75") R/T and made up single, x/o, pup. Laid out assembly. Drifted to 66.7mm (2.625").
SH	P		TI	11:30	14:00	2.50	130	Make up 445mm (17.5") BHA, gauge and drift all tools. RIH to 120m.
SH	U		WO	14:00	19:00	5.00	130	Wait on supply vessel with casing. P/U DP and racked back in derrick.
SH	P		DFS	19:00	20:30	1.50	130	RIH and tagged top of cement at 124.5m. Drilled shoetrack and cleaned rathole to 130m.
SH	P		D	20:30	21:00	0.50	140	Drilled 445mm (17.5") to 140m.
SH	U		WO	21:00	22:30	1.50	140	Wait on supply vessel with casing.
SH	P		D	22:30	24:00	1.50	220	Drilled 445mm (17.5") to 220m. Swept hole with 8 m3 (50bbbls) hi-vis each single. Hole good.

ACTIVITY FOR PERIOD 0000 HRS TO 04:00 HRS ON Aug 27, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
SH	P			00:00	06:00	6.00	415	Drilled 445mm (17.5") 220m to 415m. Swept hole with 8 m3 (50bbbls) hi-vis each single. Hole good.

WBM Data		COST TODAY : \$4,754	CUM. WB MUD COST: \$15,997	CUM. WBM+OBM COST: \$15,997
Type :	Gel Sweeps	VISCOCITY (sec/ltr) : 130	API FLUID LOSS (cm3/30min) : 0	Cl : 1,500
FROM :	pit	PV (Pa.s) : 0	FILIER CAKE (mm) : 0	K+C*1000 : 60
TIME :	23:30	YP (Pa.s) : 26	HHPFL (cm3/30min) : 0	HARD/Ca : 25.0
WEIGHT (sg) :	1.06	GEL10s/10m/100m (Pa.s) : 19 20 0	HHP CAKE (mm) : 0	MBT (ppb) : 25.0
TEMP (C) :		Fann 3/6/100 : 35 40 55		PM : .6
				SOLIDS (%vol) : 3.4
				H2O (%vol) : 96.6
				OIL (%vol) :
				SAND :
				PH : 12.0
				PHPA (ppb) :

Bit Data for Bit # 2		IADC # 1 1 5	Wear								
SIZE (") :	17.50		NOZZLES	I	O1	D	L	B	G	O2	R
MANUFACTURER :	SM	AVE WOB (MT) : 4	3 X 20	Drilled over the last 24 hrs				Calculated over the bit run			
TYPE :	MGSSH-C	AVE RPM : 86	1 X 18	METERAGE (m) :	90	CUM.METERAGE (m) : 90					
SERIAL # :	MM0005	FLOW (lpm) : 3,554	X 0	ON BOTTOM HRS :	1.3	CUM. ON BOT. HRS : 1.3					
DEPTH IN (mRT) :	130	PUMP PRESS.(Kpa): 10,411	X 0	IADC DRILL. HRS :	2.0	CUM.IADC DR. HRS: 2.0					
DEPTH OUT (mRT) :		HSI (kW/cm2) : 0.016	X 0	TOTAL REVS :	6,708	CUM.TOT. REVS : 6,708					
				ROP (m/hr) :	69.2	ROP (m/hr) : 69.2					

BHA # 2	Length (m): 215.2				D.C. (1) ANN. VELOCITY (mpm): 32
WT BLW JAR (MT): 0	STRING WT (MT): 102	TRQE MAX (Nm): 3	D.C. (2) ANN VELOCITY (mpm): 35		
BHA WT (MT) : 0	PICK UP WT (MT): 0	TRQE ON (Nm): 2	H.W.D.P. ANN VELOCITY (mpm): 27		
	SLK OFF WT (MT): 0	TRQE OFF (Nm): 1	D.P. ANN VELOCITY (mpm) : 27		

BHA DESCRIPTION : 17.5" bit, NB stab, 9.5" Anderdrift, 17.5" stab, 1 x 9.5" DC, 17.5" stab, 2 x 9.5" DC, x/o, 6 x 8" DC, 8" Jar, 4 x 8" DC, x/o, 8 x 5" HWDP

TOOL DESCRIPTION	LENGTH	OD	ID	SERIAL #	HRS	COMMENT
9.5" Anderdrift tool				ADB905	8.3	Survey flask ASF 8171TOTC
8" Jar				DAH 3434	5.2	

Survey (Method : Min Curvature)	MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type :										
Magnetic Declination : 0.00	0.0	0.0	0.00	0.0	0.0					datum
	95.0	95.0	0.50	0.0	0.0	0.4	0.2	0.4	0.0	Anderdrift 2 s
	130.0	130.0	2.00	0.0	0.0	1.2	1.3	1.2	0.0	

Bulk Stocks On Rig	STOCK TYPE & UNITS				STOCK TYPE & UNITS					
	START	USED	REC'D	STOCK	START	USED	REC'D	STOCK		
Fuel Oil - Rig	M3	369.1	10.8	358.3	Drill Water - Rig	MT	490.0	238.0	520.0	772.0
Pot Water - Rig	MT	88.0	23.0	23.0	88.0	Cement 'G' - Rig	sxs	2518.0	978.0	1540.0
Cement HTB - Rig	sxs	0.0		0.0	Bentonite - Rig	sxs	680.0	328.0	740.0	1092.0
Barite - Rig	sxs	2115.0		2115.0	Brine - Rig	MT	0.0			0.0
Helifuel - Rig	ltr	4380.0	273.0	4107.0	Fuel Oil - Conqueror	M3	163.2	6.5		156.7
Drill Water - Conqueror	MT	520.0		0.0	Pot Water - Conqueror	MT	115.0	5.0		110.0
Cement 'G' - Conqueror	sxs	0.0		0.0	Cement HTB - Conqueror	sxs	0.0			0.0
Bentonite - Conqueror	sxs	0.0		0.0	Barite - Conqueror	sxs	1146.0			1146.0
Brine - Conqueror	MT	0.0		0.0	Fuel Oil - Sentinel	M3	268.3	30.3	260.0	498.0
Drill Water - Sentinel	MT	0.0	335.0	335.0	Pot Water - Sentinel	MT	210.0	5.0	35.0	240.0
Cement 'G' - Sentinel	sxs	0.0	874.0	874.0	Cement HTB - Sentinel	sxs	0.0			0.0
Bentonite - Sentinel	sxs	740.0		0.0	Barite - Sentinel	sxs	1000.0			1000.0
Brine - Sentinel	MT	0.0		0.0						

Pump Data										
Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152	80	97	1293	13100		0		
2	Nat'l 12-P-160	152	80	97	1293	13100		0		
3	Nat'l 12-P-160	152	75	97	1210	13100		0		

Casing								
DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)		SHOE TVD (plan/Actual)		LOT (pl/Act)	FIT (pl/Act)	COMMENT
30.0	762	128.0	128.0	128.0	128.0			
TYPE		LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD		
30" Wellhead + extn		11.92	0	.0				
30"		11.57	0	.0				
30" /20" shoe		11.17	0	.0				

Personnel : on Site =82				
4 Santos	38 DOGC	2 DOGC extra	22 TMT (marine)	
6 TMT (ROV)	2 BHI	1 Halliburton	1 Marconi	
2 IDFS	1 DrilQuip	3 Weatherford		

Safety, Inspections and Drills		Summary
2 days since last	Fire and Abandon Ship Drill	
1791 days since last	Lost Workday Case	
days since last	Medical Treatment Case	
2 days since last	First Aid Case	
days since last	Environmental Issue	

Shakers, Volumes and Losses Data				ENGINEER M. Docherty / J. Singh			
SHAKER 1	VOLUME AVAILABLE (m3) =			426	LOSSES (m3) =	51	COMMENTS
SHAKER 2	ACTIVE	191.7	MIXING	0.0	DOWNHOLE	50.55	
SHAKER 3	HOLE	16.7	SLUG	0.0	SURF.+EQUIP	0.00	
SHAKER 4	RESERVE	217.8	HEAVY	0.0	DUMPED	0.00	
SHAKER 5							

Anchors						RIS. TENS. (MT) :	
Anc 1 : 129	Anc 2 : 125	Anc 3 : 143	Anc 4 : 154	Anc 5 : 150	Anc 6 : 150	0	
Anc 6 : 132	Anc 7 : 107	Anc 8 : 170	Anc 9 : 0	Anc 10 : 0	RISER ANGLE (deg):		
Workboats						Weather	
Arrived @ Rig (Date)(Time)	Depart from Rig (Date)(Time)	EstimatedArrival (Port) (Date)(Time)				VISIBILITY(nm) :	12
Pacific Sentinel 26/8/02 23:00						WIND SP. (kts) :	15.0
Pacific Conqueror 21/8/02 22:30						WIND DIR (deg) :	020
						PRES.(mbars):	1028
						AIR TEMP (C) :	10.0
COMMENTS : Pax on / off : Flt #1, 8/9						STACK ANGLE(deg):	
						V.D.L. (MT) :	
						2,027.2	
						AVE HEAVE (m) :	
						MAX HEAVE (m) :	
						AVE PITCH (deg) :	
						0.3	
						MAX PITCH (deg) :	
						0.4	
						AVE ROLL (deg) :	
						0.2	
						MAX ROLL (deg) :	
						0.2	

DATE : Aug 27, 2002

FROM : H. Flink / S. Hodgetts
TO : O. Moller

CASINO #1

Casino #1

Well Data		M.DEPTH (m BRT)	713.0	CUR.HOLE SIZE (mm)	445	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	712.9	CASING OD (mm)	762	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	493.0	SHOE TVD (m BRT)	128	DAILY COST :	\$392,001
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	2.25	FIT (sg)	0.00	CUM COST :	\$2,684,513
RIG	Ocean Bounty	DAYS +/- CURVE	-1.00	LOT (sg)	0.00		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 POOH for casing.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Continue drilling ahead 445mm (17.5") to csg TD (752m). Displace hole to hivis gel mud. POOH and run 340mm (13.3/8") casing. Cement same and rig up to run BOP.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs
Drilled ahead 445mm (17.5") hole from 220 to 713m. Hole good. Swept hole each single. Good returns to seabed.

FORMATION	TOP(m BRT)
Undescribed	96

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Aug 27, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
SH	P		D	00:00	06:00	6.00	415	Drilled 445mm (17.5") 220m to 415m. Swept hole with 8 m3 (50bbbls) hi-vis each single. Hole good.
SH	P		D	06:00	12:00	6.00	515	Drilled 445mm (17.5") to 515m. Swept hole with 8 m3 (50bbbls) hi-vis each single. Hole good. Last survey 1 deg.
SH	P		D	12:00	18:00	6.00	626	Drilled 445mm (17.5") to 626m. Swept hole with 8 m3 (50bbbls) hi-vis each single. Hole good. Last survey 0.5 deg.
SH	P		D	18:00	24:00	6.00	713	Drilled 445mm (17.5") to 713m. Swept hole with 8 m3 (50bbbls) hi-vis each single. Hole good. Last survey 0 deg.

ACTIVITY FOR PERIOD 0000 HRS TO 04:00 HRS ON Aug 28, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
SH	P		D	00:00	02:00	2.00	752	Drilled 445mm (17.5") to 752m. Swept hole with 8 m3 (50bbbls) hi-vis each single. Hole good. Last survey 0 deg at 744m.
SH	P		CIR	02:00	03:00	1.00	752	Swept hole with 24 m3 (150bbbls) hi vis. Displaced hole with 111 m3 (700bbbls) hivi gel mud.
SH	P		TO	03:00	06:00	3.00	752	POOH to run casing. Wiped tight spots between 629m and 396 m, 9-18 tonne (20-40kips) OP.

00:00 TO 24:00 HRS ON : 27/08/2002		
Comments	Recommendations	Rig Requirements
Held Safety meetings. First Aid Case - Floorman pinched middle finger right hand.		

WBM Data	COST TODAY : \$11,388	CUM. WB MUD COST: \$27,385	CUM. WBM+OBM COST: \$27,385
Type :	VISCOACITY (sec/ltr) : 90	API FLUID LOSS (cm3/30min) : 0	CI : 1,700
Gel Sweeps	PV (Pa.s) : 0	FILTER CAKE (mm) : 0	K+C*1000 : 60
FROM : pit	YP (Pa.s) : 29	HTHPFL (cm3/30min) : 0	HARD/Ca : 25.0
TIME : 22:30	GEL10s/10m/100m (Pa.s) : 7 8 0	HTHP CAKE (mm) : 0	MBT (ppb) : 25.0
WEIGHT (sg): 1.06	Fann 3/6/100 : 18 30 60		PM : 12.0
TEMP (C) :			PF : .6
			SOLIDS (%vol) : 3.4
			H2O (%vol) : 96.6
			OIL (%vol) :
			SAND :
			PH :
			PHPA (ppb) :

Bit Data for Bit # 2 IADC # 1 1 5				Wear								
SIZE (") :	17.50	AVE WOB (MT) :	9	NOZZLES	I	O1	D	L	B	G	O2	R
MANUFACTURER :	SM	AVE RPM :	100	3 x 20	Drilled over the last 24 hrs				Calculated over the bit run			
TYPE :	MGSSH-C	FLOW (lpm) :	3,826	1 x 18	METERAGE (m) :	493	CUM.METERAGE (m) :	583	ON BOTTOM HRS :	21.8	CUM. ON BOT. HRS :	23.1
SERIAL # :	MM0005	PUMP PRESS.(Kpa):	14,638	X 0	IADC DRILL. HRS :	24.0	CUM.IADC DR. HRS:	26.0	TOTAL REVS :	130,800	CUM.TOT. REVS :	138,600
DEPTH IN (mRT):	130	HSI (kW/cm2) :	0.020	X 0	ROP (m/hr) :	22.6	ROP (m/hr) :	25.2				

BHA # 2 Length (m): 215.2

WT BLW JAR (MT):	23	STRING WT (MT):	113	TRQE MAX (Nm):	7	D.C. (1) ANN. VELOCITY (mpm):	31
BHA WT (MT) :	32	PICK UP WT (MT):	116	TRQE ON (Nm):	4	D.C. (2) ANN VELOCITY (mpm):	35
		SLK OFF WT (MT):	112	TRQE OFF (Nm):	1	H.W.D.P. ANN VELOCITY (mpm):	27
						D.P. ANN VELOCITY (mpm) :	27

BHA DESCRIPTION : 17.5" bit, NB stab, 9.5" Anderdrift, 17.5" stab, 1 x 9.5" DC, 17.5" stab, 2 x 9.5" DC, x/o, 6 x 8" DC, 8" Jar, 4 x 8" DC, x/o, 8 x 5" HWDP

TOOL DESCRIPTION	LENGTH	OD	ID	SERIAL #	HRS	COMMENT
9.5" Anderdrift tool				ADB905	32.3	Survey flask ASF 8171TOTC
8" Jar				DAH 3434	27.5	

Survey (Method : Min Curvature)

MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type : Anderdrift									
Magnetic Declination : 0.00									
538.0	537.9	0.50	0.0	0.0	7.7	0.5	7.7	0.0	Anderdrift
568.0	567.9	1.00	0.0	0.0	8.1	0.5	8.1	0.0	Anderdrift
597.0	596.9	0.50	0.0	0.0	8.4	0.5	8.4	0.0	Anderdrift
626.0	625.9	0.50	0.0	0.0	8.7	0.0	8.7	0.0	Anderdrift
655.0	654.9	0.50	0.0	0.0	9.0	0.0	9.0	0.0	Anderdrift
687.0	686.9	0.00	0.0	0.0	9.1	0.5	9.1	0.0	Anderdrift
720.0	719.9	0.00	0.0	0.0	9.1	0.0	9.1	0.0	Anderdrift
750.0	749.9	0.00	0.0	0.0	9.1	0.0	9.1	0.0	Anderdrift

Bulk Stocks On Rig	STOCK TYPE & UNITS				STOCK TYPE & UNITS					
	START	USED	REC'D	STOCK	START	USED	REC'D	STOCK		
Fuel Oil - Rig	M3	358.3	18.0	340.3	Drill Water - Rig	MT	772.0	89.0	683.0	
Pot Water - Rig	MT	88.0	26.0	26.0	88.0	Cement 'G' - Rig	sxs	1540.0	874.0	2414.0
Cement HTB - Rig	sxs	0.0		0.0	Bentonite - Rig	sxs	1092.0	284.0	808.0	
Barite - Rig	sxs	2115.0		2115.0	Brine - Rig	MT	0.0		0.0	
Helifuel - Rig	ltr	4107.0		4107.0	Fuel Oil - Conqueror	M3	156.7	7.1	149.6	
Drill Water - Conqueror	MT	0.0		0.0	Pot Water - Conqueror	MT	110.0	5.0	105.0	
Cement 'G' - Conqueror	sxs	0.0		0.0	Cement HTB - Conqueror	sxs	0.0		0.0	
Bentonite - Conqueror	sxs	0.0		0.0	Barite - Conqueror	sxs	1146.0		1146.0	
Brine - Conqueror	MT	0.0		0.0	Fuel Oil - Sentinel	M3	498.0	6.1	491.9	
Drill Water - Sentinel	MT	335.0		335.0	Pot Water - Sentinel	MT	240.0	5.0	235.0	
Cement 'G' - Sentinel	sxs	874.0		0.0	Cement HTB - Sentinel	sxs	0.0		0.0	
Bentonite - Sentinel	sxs	0.0		0.0	Barite - Sentinel	sxs	1000.0		1000.0	
Brine - Sentinel	MT	0.0		0.0						

Pump Data

Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152	79	97	1277	14824		0		
2	Nat'l 12-P-160	152	79	97	1278	14824		0		
3	Nat'l 12-P-160	152	79	97	1278	14824		0		

Casing

DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)	SHOE TVD (plan/Actual)	LOT (pl/Act)	FIT (pl/Act)	COMMENT
30.0	762	128.0 128.0	128.0 128.0			

TYPE	LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD
30" Wellhead + extn jt	11.92	711	461.3	X-52	HD90
30" int jt	11.57	711	461.3	X-52	HD90
30" /20" shoe jt	11.17	483	197.9	X-52	HD90
		0	.0		

Personnel : on Site =82

4 Santos	39 DOGC	2 DOGC extra	21 TMT (marine)
6 TMT (ROV)	2 BHI	1 Halliburton	1 Marconi
2 IDFS	1 DrilQuip	3 Weatherford	

Safety, Inspections and Drills Summary

3 days since last Fire and Abandon Ship Drill

1792 days since last	Lost Workday Case
days since last	Medical Treatment Case
0 days since last	First Aid Case
days since last	Environmental Issue

Shakers, Volumes and Losses Data						ENGINEER	M. Docherty / J. Singh	
SHAKER 1	VOLUME AVAILABLE (m3) =				491	LOSSES (m3) =	289	COMMENTS
SHAKER 2	ACTIVE	224.1	MIXING	0.0	DOWNHOLE	289.48		
SHAKER 3	HOLE	88.2	SLUG	0.0	SURF.+EQUIP	0.00		
SHAKER 4	RESERVE	178.8	HEAVY	0.0	DUMPED	0.00		
SHAKER 5								

Anchors							RIS. TENS. (MT) :		0
Anc 1 :	127	Anc 2 :	125	Anc 3 :	141	Anc 4 :	154	Anc 5 :	147
Anc 6 :	136	Anc 7 :	109	Anc 8 :	177	Anc 9 :	0	Anc 10 :	0
Workboats							Weather		
	Arrived @ Rig (Date)(Time)		Depart from Rig (Date)(Time)		EstimatedArrival (Port) (Date)(Time)		VISIBILITY(nm) :	12	RISER ANGLE (deg):
Pacific Sentinel	26/8/02 23:00						WIND SP. (kts) :	25.0	STACK ANGLE(deg):
Pacific Conqueror	21/8/02 22:30	27/8/02	22:00	28/8/02	7:00		WIND DIR (deg) :	030	V.D.L. (MT) :
							PRES.(mbars):	1024	2,216.3
							AIR TEMP (C) :	10.0	AVE HEAVE (m) :
									2.0
									MAX HEAVE (m) :
									0.4
									AVE PITCH (deg) :
									0.4
									MAX PITCH (deg) :
									0.3
									AVE ROLL (deg) :
									0.3
									MAX ROLL (deg) :
									0.3
COMMENTS : Pax on / off : no flt									

DATE : Aug 28, 2002

FROM : H. Flink / S. Hodgetts

TO : O. Moller

CASINO #1

Casino #1

Well Data		M.DEPTH (m BRT)	752.0	CUR.HOLE SIZE (mm)	445	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	751.9	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	39.0	SHOE TVD (m BRT)	743	DAILY COST :	\$795,946
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	3.25	FIT (sg)	0.00	CUM COST :	\$3,480,459
RIG	Ocean Bounty	DAYS +/- CURVE	-0.50	LOT (sg)	0.00		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 Running BOP stack.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Continue running BOP and test. L/O 445mm (17.5") BHA and P/U 311mm (12.25") bit & BHA. RIH.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

Drilled ahead 445mm (17.5") hole to section TD 752m. Hole good. Swept hole each single. Good returns to seabed. Rigged up and ran 340mm (13.375") casing. Landed wellhead and cemented casing with shoe at 743m. Rigged to run BOP.

FORMATION	TOP(m BRT)
Undescribed	96

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Aug 28, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
SH	P		D	00:00	02:00	2.00	752	Drilled 445mm (17.5") to 752m. Swept hole with 8 m3 (50bbls) hi-vis each single. Hole good. Last survey 0 deg at 744m.
SH	P		CIR	02:00	03:00	1.00	752	Swept hole with 24 m3 (150bbls) hi vis. Displaced hole with 111 m3 (700bbls) hivi gel mud.
SH	P		TO	03:00	06:00	3.00	752	POOH to run casing from 752 to 628m, no drag. Wiped tight spots between 629m and 425m, 9-18 tonne (20-40kips) OP. No drag from 425m. Break off bit.
IH1	P		RC	06:00	07:00	1.00	752	Held JSA. Rigged up to run 340mm (13.375") casing.
SC	P		RC	07:00	14:00	7.00	752	RIH with 54 joints of 340mm (13.375") 101 kg/m (68ppf), L-80 BTC casing and made up 476mm (18-3/4") wellhead assembly OK.
SC	TP	CMT	CAT	14:00	14:30	0.50	752	Release 476mm (18-3/4") wellhead running tool and attempt to load Weatherford plugs, difficulty running in plug assembly (plugs holding up/binding in 340mm casing).
SC	P		CAT	14:30	16:00	1.50	752	RIH with 476mm (18-3/4") wellhead and 340mm (13.375") casing on 127mm (5") DP (pick up wt. 295k). Made up cement head assembly (darts loaded). Landed wellhead with casing shoe at 743m. Took 20.4 tonne (45kip) overpull and confirmed engagement. Checked PGB bullseye at 3/4deg port/forward.
SC	P		CIC	16:00	17:00	1.00	752	Circulated casing and hole clean, displaced casing to 89 m3 (560bbls) gel mud. Pressured pods and prepared to cement.
SC	TP	PTF	CMC	17:00	17:30	0.50	752	Pumped ahead .8 m3 (10 bbls) seawater (with dye). Attempted to pressure test surface lines, no-go. Changed out leaking Low-torq valve on cement head.
SC	P		CMC	17:30	19:30	2.00	752	Re-tested surface lines to 20.6 MPa (3000 psi), held OK. Dropped bottom dart, mixed and pumped 59.6 m3 (375 bbls) of 1.51sg (12.6 ppg) lead slurry and 21.4 m3 (135 bbls) of 1.9sg (15.8 ppg) tail slurry.
SC	P		CMT	19:30	20:30	1.00	752	Dropped top dart and displaced casing with 48.3 m3 (304 bbls) of seawater. Bumped plug to 8.3 MPa (1200 psi).
SC	P		CMT	20:30	21:00	0.50	752	Pressure tested casing to 20.6 MPa (3000 psi) for 10 mins - solid. Bled back .8 m3 (5bbls), floats held OK.
SC	P		TO	21:00	22:30	1.50	752	Broke and laid out cement head. POOH with wellhead running tool and laid out.
SC	P		BOP	22:30	24:00	1.50	752	Prepared drillfloor to run BOP.

ACTIVITY FOR PERIOD 0000 HRS TO 04:00 HRS ON Aug 29, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
SC	P		BOP	00:00	06:00	6.00	752	Made up double marine riser. Moved BOP to moonpool and latched and tested LMRP. Made up double and rigged up pod lines.

WBM Data		COST TODAY : \$26,947		CUM. WB MUD COST: \$54,331		CUM. WBM+OBM COST: \$54,331			
Type :	KCI PHPA	VISCOCITY (sec/ltr) :	38	API FLUID LOSS (cm3/30min) :	0	CI :	28,000	SOLIDS (%vol) :	.55
FROM :	pit	PV (Pa.s) :	0	FILIER CAKE (mm) :	0	K+C*1000 :	37800	H2O (%vol) :	99.5
TIME :	22:00	YP (Pa.s) :	1	HTHPFL (cm3/30min) :	0	HARD/Ca :	720	OIL (%vol) :	
WEIGHT (sg):	1.04	GEL10s/10m/100m (Pa.s) :	0 0 1	HTHP CAKE (mm) :	0	MBT (ppb) :		SAND :	
TEMP (C) :		Fann 3/6/100 :	1 1 4			PM :		PH :	10.0
						PF :	.2	PHPA (ppb) :	.7

Bit Data for Bit # 2 IADC # 1 1 5				Wear								
				I	O1	D	L	B	G	O2	R	
				1	1	NO	A	E	0	NO	TD	
SIZE (") :	17.50			NOZZLES	Drilled over the last 24 hrs				Calculated over the bit run			
MANUFACTURER :	SM	AVE WOB (MT) :	10	3 X 20	METERAGE (m) :	39	CUM.METERAGE (m) :					622
TYPE :	MGSSH-C	AVE RPM :	100	1 X 18	ON BOTTOM HRS :	1.8	CUM. ON BOT. HRS :					23.4
SERIAL # :	MM0005	FLOW (lpm) :	3,815	X 0	IADC DRILL. HRS :	2.0	CUM.IADC DR. HRS:					28.0
DEPTH IN (mRT):	130	PUMP PRESS.(Kpa):	16,906	X 0	TOTAL REVS :	10,800	CUM.TOT. REVS :					140,400
DEPTH OUT (mRT):	752	HSI (kW/cm2) :	0.167	X 0	ROP (m/hr) :	21.7	ROP (m/hr) :					26.6

BHA # 2 Length (m): 215.2					D.C. (1) ANN. VELOCITY (mpm):	31	
WT BLW JAR (MT):	23	STRING WT (MT):	119	TRQE MAX (Nm):	5	D.C. (2) ANN VELOCITY (mpm):	35
BHA WT (MT) :	32	PICK UP WT (MT):	120	TRQE ON (Nm):	4	H.W.D.P. ANN VELOCITY (mpm):	27
		SLK OFF WT (MT):	118	TRQE OFF (Nm):	3	D.P. ANN VELOCITY (mpm) :	27

BHA DESCRIPTION : 17.5" bit, NB stab, 9.5" Anderdrift, 17.5" stab, 1 x 9.5" DC, 17.5" stab, 2 x 9.5" DC, x/o, 6 x 8" DC, 8" Jar, 4 x 8" DC, x/o, 8 x 5" HWDP

TOOL DESCRIPTION	LENGTH	OD	ID	SERIAL #	HRS	COMMENT
9.5" Anderdrift tool				ADB905	35.3	Survey flask ASF 8171TOTC
8" Jar				DAH 3434	30.5	

Survey (Method : Min Curvature)	MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type : Anderdrift										
Magnetic Declination : 0.00	538.0	537.9	0.50	0.0	0.0	7.7	0.5	7.7	0.0	Anderdrift
	568.0	567.9	1.00	0.0	0.0	8.1	0.5	8.1	0.0	Anderdrift
	597.0	596.9	0.50	0.0	0.0	8.4	0.5	8.4	0.0	Anderdrift
	626.0	625.9	0.50	0.0	0.0	8.7	0.0	8.7	0.0	Anderdrift
	655.0	654.9	0.50	0.0	0.0	9.0	0.0	9.0	0.0	Anderdrift
	687.0	686.9	0.00	0.0	0.0	9.1	0.5	9.1	0.0	Anderdrift
	720.0	719.9	0.00	0.0	0.0	9.1	0.0	9.1	0.0	Anderdrift
	750.0	749.9	0.00	0.0	0.0	9.1	0.0	9.1	0.0	Anderdrift

Bulk Stocks On Rig	STOCK TYPE & UNITS				START USED REC'D STOCK				STOCK TYPE & UNITS				START USED REC'D STOCK			
	Fuel Oil - Rig	M3	340.3	10.8	329.5	Drill Water - Rig	MT	683.0	142.0	541.0	Cement 'G' - Rig	sxs	2414.0	1914.0	500.0	
Pot Water - Rig	MT	88.0	24.0	88.0	Cement HTB - Rig	sxs	0.0	0.0	670.0	Brine - Rig	MT	0.0	0.0	0.0		
Cement HTB - Rig	sxs	0.0	0.0	2115.0	Helifuel - Rig	ltr	4107.0	683.0	3424.0	Fuel Oil - Conqueror	M3	149.6	19.5	320.0	450.1	
Barite - Rig	sxs	2115.0	0.0	360.0	Drill Water - Conqueror	MT	0.0	360.0	360.0	Pot Water - Conqueror	MT	105.0	5.0	110.0	210.0	
Helifuel - Rig	ltr	4107.0	683.0	0.0	Cement 'G' - Conqueror	sxs	0.0	0.0	0.0	Cement HTB - Conqueror	sxs	0.0	0.0	0.0		
Drill Water - Conqueror	MT	0.0	360.0	0.0	Bentonite - Conqueror	sxs	0.0	0.0	1146.0	Barite - Conqueror	sxs	1146.0	0.0	1146.0		
Cement 'G' - Conqueror	sxs	0.0	0.0	0.0	Brine - Conqueror	MT	0.0	0.0	487.2	Fuel Oil - Sentinel	M3	491.9	4.7	487.2		
Bentonite - Conqueror	sxs	0.0	0.0	0.0	Drill Water - Sentinel	MT	335.0	0.0	335.0	Pot Water - Sentinel	MT	235.0	5.0	230.0		
Brine - Conqueror	MT	0.0	0.0	0.0	Cement 'G' - Sentinel	sxs	0.0	0.0	0.0	Cement HTB - Sentinel	sxs	0.0	0.0	0.0		
Drill Water - Sentinel	MT	335.0	0.0	0.0	Bentonite - Sentinel	sxs	0.0	0.0	1000.0	Barite - Sentinel	sxs	1000.0	0.0	1000.0		
Cement 'G' - Sentinel	sxs	0.0	0.0	0.0	Brine - Sentinel	MT	0.0	0.0	0.0							

Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152	80	97	1293	16547		0		
2	Nat'l 12-P-160	152	80	97	1293	16547		0		
3	Nat'l 12-P-160	152	80	97	1293	16547		0		

Casing								
DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)		SHOE TVD (plan/Actual)		LOT (pl/Act)	FIT (pl/Act)	COMMENT
13.375	340	785.0	743.0	785.0	742.9			
TYPE		LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD		
340mm (13.375") shoe jt 107 kg/m, cent mid		12.52	316	107.1	L-80	BTC		
340mm (13.375") int jt 107 kg/m, cent mid jt		12.13	316	107.1	L-80	BTC		
340mm (13.375") int jt 107 kg/m, cent mid jt		12.64	316	107.1	L-80	BTC		
50 x 340mm (13.375") jt 101 kg/m		590.73	316	101.2	L-80	BTC		
340mm (13.375") No-cross jt 101 kg/m		11.84	316	101.2	L-80	BTC		
476mm (18.75") wellhead + extension jt		10.71	316	101.2	L-80	BTC		
RT to Wellhead top		92.58	0	.0				

Personnel : on Site =88			
4 Santos	39 DOGC	2 DOGC extra	21 TMT (marine)
6 TMT (ROV)	6 BHI	1 Halliburton	2 IDFS
1 DrillQuip	3 Weatherford	3 Anadrill	

Safety, Inspections and Drills		Summary
4 days since last	Fire and Abandon Ship Drill	
1793 days since last	Lost Workday Case	
days since last	Medical Treatment Case	
1 days since last	First Aid Case	
days since last	Environmental Issue	

Shakers, Volumes and Losses Data				ENGINEER M. Docherty / J. Singh			
SHAKER 1	VOLUME AVAILABLE (m3) =			175	LOSSES (m3) = 491	COMMENTS	
SHAKER 2	ACTIVE	50.9	MIXING	0.0	DOWNHOLE		430.65
SHAKER 3	HOLE	0.0	SLUG	0.0	SURF.+EQUIP		0.00
SHAKER 4	RESERVE	124.3	HEAVY	0.0	DUMPED		60.41
SHAKER 5							

Anchors						RIS. TENS. (MT) :					
Anc 1 :	111	Anc 2 :	132	Anc 3 :	147	Anc 4 :	154	Anc 5 :	145	RISER ANGLE (deg):	
Anc 6 :	132	Anc 7 :	109	Anc 8 :	163	Anc 9 :	0	Anc 10 :	0	STACK ANGLE(deg):	
Workboats						Weather					
Arrived @ Rig (Date)(Time)		Depart from Rig (Date)(Time)		EstimatedArrival (Port) (Date)(Time)		VISIBILITY(nm) :		8		V.D.L. (MT) :	1,769.3
Pacific Sentinel 26/8/02 23:00		Pacific Conqueror 29/8/02 0:55				WIND SP. (kts) :		40.0		AVE HEAVE (m) :	2.0
						WIND DIR (deg) :		030		MAX HEAVE (m) :	
						PRES.(mbars):		1020		AVE PITCH (deg) :	0.4
						AIR TEMP (C) :		10.0		MAX PITCH (deg) :	0.4
COMMENTS : Pax on / off : Flt #1, 8 / 7; Flt #2, 5 / 0										AVE ROLL (deg) :	0.3
										MAX ROLL (deg) :	0.3

DATE : Aug 29, 2002

FROM : H. Flink / S. Hodgetts
TO : O. Moller

CASINO #1

Casino #1

Well Data		M.DEPTH (m BRT)	752.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	751.9	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	0.0	SHOE TVD (m BRT)	743	DAILY COST :	\$445,673
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	4.25	FIT (sg)	0.00	CUM COST :	\$3,926,132
RIG	Ocean Bounty	DAYS +/- CURVE	-0.50	LOT (sg)	0.00		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 Making up and running 311mm (12.25") BHA in hole to tag cement.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Continue RIH. Drill shoetrack, clean rathole and displace hole to new mud.					
RT TO SEABED (m)	95.5	Conduct LOT. Drill 311mm (12.25") hole to TD.					

Summary of period 00:00 to 24:00 hrs
Continued running BOP. Tested BOP and surface equipment. Laid out 445mm (17.5") BHA and made up 311mm (12.25") BHA. RIH.

FORMATION	TOP(m BRT)
Undescribed	96

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Aug 29, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
SC	P		BOP	00:00	07:30	7.50	752	Made up double marine riser. Moved BOP to moonpool and made up LMRP to BOP. Made up double and rigged up pod lines. Ran BOP on marine riser. Pressure tested choke and kill lines 1.4/34.5 MPa (200/5000psi) for 5/15 mins.
SC	P		BOP	07:30	10:00	2.50	752	Ran riser slip jt and landing jt. Nippled up Choke and kill hoses. Pressure tested choke and kill lines/hoses to 1.4/34.5 MPa (200/5000psi) for 5/15 mins, OK.
SC	P		BOP	10:00	14:00	4.00	752	Nippled up MRT lines and pod hose saddles. Re-positioned rig over PGB. Ballasted rig to 21.3m (70') and landed BOP. Set down 13.6 tonne (30kip), confirmed latched with ROV and took 22.6 tonne (50kip) O/P. LMRP and BOP between 1-0.5deg (rolling).
SC	P		BOP	14:00	15:30	1.50	752	Installed divertor and rigged down drill floor.
SC	P		BOP	15:30	22:30	7.00	752	Ran wearbushing. Made up test tool and RIH. Pressure tested BOP connector to 34.5MPa (5000psi) and LMRP connector to 20.7MPa (3000psi), OK. Function tested BOP on both pods and performed accumulator test. POOH with test tool and function tested divertor system.
SC	P		TO	22:30	24:00	1.50	752	Broke out and laid out cement head, 241mm (9.5") DC and 445mm (17.5") BHA.

ACTIVITY FOR PERIOD 0000 HRS TO 04:00 HRS ON Aug 30, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		TI	00:00	06:00	6.00	752	Held JSA and made up 311mm (12.25") BHA. Checked MWD on surface and RIH.

WBM Data	COST TODAY : \$17,508	CUM. WB MUD COST: \$71,839	CUM. WBM+OBM COST: \$71,839						
Type :	KCI PHPA	VISCOCITY (sec/ltr) :	40	API FLUID LOSS (cm3/30min) :	0	Cl :	23,000	SOLIDS (%vol) :	.88
FROM :	pit	PV (Pa.s) :	0	FILTER CAKE (mm) :	0	K+C*1000 :	37800	H2O (%vol) :	99.1
TIME :	23:00	YP (Pa.s) :	3	HTHPFL (cm3/30min) :	0	HARD/Ca :	440	OIL (%vol) :	
WEIGHT (sg):	1.04	GEL10s/10m/100m (Pa.s) :	1 1 1	HTHP CAKE (mm) :	0	MBT (ppb) :		SAND :	
TEMP (C) :		Fann 3/6/100 :	1 2 7			PM :		PH :	10.0
						PF :	.2	PHPA (ppb) :	.7

Bit Data for Bit # 3 IADC #				Wear							
SIZE (") :	12.25			I	O1	D	L	B	G	O2	R
MANUFACTURER :	RE	AVE WOB (MT) :	0	NOZZLES				Drilled over the last 24 hrs			
TYPE :	DSX 195	AVE RPM :	0	5 X 12				Calculated over the bit run			
SERIAL # :		FLOW (lpm) :	0	X 0				METERAGE (m) :			
DEPTH IN (mRT):	752	PUMP PRESS.(Kpa):	0	X 0				ON BOTTOM HRS :			
DEPTH OUT (mRT):		HSI (kW/cm2) :	0.000	X 0				IADC DRILL. HRS :			
				X 0				TOTAL REVS :			
				X 0				ROP (m/hr) :			
				X 0				CUM.METERAGE (m) :			
				X 0				CUM. ON BOT. HRS :			
				X 0				CUM.IADC DR. HRS:			
				X 0				CUM.TOT. REVS :			
				X 0				ROP (m/hr) :			

BHA # 3		Length (m):				D.C. (1) ANN. VELOCITY (mpm):		0	
WT BLW JAR (MT):	0	STRING WT (MT):	0	TRQE MAX (Nm):	0	D.C. (2) ANN VELOCITY (mpm):	0		
BHA WT (MT) :	0	PICK UP WT (MT):	0	TRQE ON (Nm):	0	H.W.D.P. ANN VELOCITY (mpm):	0		
		SLK OFF WT (MT):	0	TRQE OFF (Nm):	0	D.P. ANN VELOCITY (mpm) :	0		
BHA DESCRIPTION : 12.25" bit, NB stab, 8.25" MWD/FEWD, 12.25" RR, 1 x 8" DC, 12.25" RR, 9 x 8" DC, 8" Jar, 2 x 8" DC, x/o, 12 x 5" HWDP									
TOOL DESCRIPTION	LENGTH	OD	ID	SERIAL #	HRS	COMMENT			
NB RR				GU 2151					
CDR				9556					
Pulser				231					
ILS				313272-2					
ISONIC				857					
Str RR				GU 2143					
Str RR				GU2144					
Jars				48907C					

Survey (Method : Min Curvature)		MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type :	Anderdrift	538.0	537.9	0.50	0.0	0.0	7.7	0.5	7.7	0.0	Anderdrift
Magnetic Declination :	0.00	568.0	567.9	1.00	0.0	0.0	8.1	0.5	8.1	0.0	Anderdrift
		597.0	596.9	0.50	0.0	0.0	8.4	0.5	8.4	0.0	Anderdrift
		626.0	625.9	0.50	0.0	0.0	8.7	0.0	8.7	0.0	Anderdrift
		655.0	654.9	0.50	0.0	0.0	9.0	0.0	9.0	0.0	Anderdrift
		687.0	686.9	0.00	0.0	0.0	9.1	0.5	9.1	0.0	Anderdrift
		720.0	719.9	0.00	0.0	0.0	9.1	0.0	9.1	0.0	Anderdrift
		750.0	749.9	0.00	0.0	0.0	9.1	0.0	9.1	0.0	Anderdrift

Bulk Stocks On Rig	STOCK TYPE & UNITS	START	USED	REC'D	STOCK	STOCK TYPE & UNITS	START	USED	REC'D	STOCK	
	Fuel Oil - Rig	M3	329.5	9.5	320.0	Drill Water - Rig	MT	541.0	144.0	270.0	667.0
	Pot Water - Rig	MT	88.0	23.0	23.0	88.0	Cement 'G' - Rig	sxs	500.0		500.0
	Cement HTB - Rig	sxs	0.0		0.0	Bentonite - Rig	sxs	670.0		670.0	
	Barite - Rig	sxs	2115.0		2115.0	Brine - Rig	MT	0.0		0.0	
	Helifuel - Rig	ltr	3424.0	102.0	3322.0	Fuel Oil - Conqueror	M3	450.1	4.0	446.1	
	Drill Water - Conqueror	MT	360.0	270.0	90.0	Pot Water - Conqueror	MT	210.0	5.0	205.0	
	Cement 'G' - Conqueror	sxs	0.0		0.0	Cement HTB - Conqueror	sxs	0.0		0.0	
	Bentonite - Conqueror	sxs	0.0		0.0	Barite - Conqueror	sxs	1146.0		1146.0	
	Brine - Conqueror	MT	0.0		0.0	Fuel Oil - Sentinel	M3	487.2	7.3	479.9	
	Drill Water - Sentinel	MT	335.0		335.0	Pot Water - Sentinel	MT	230.0	5.0	225.0	
	Cement 'G' - Sentinel	sxs	0.0		0.0	Cement HTB - Sentinel	sxs	0.0		0.0	
	Bentonite - Sentinel	sxs	0.0		0.0	Barite - Sentinel	sxs	1000.0		1000.0	
	Brine - Sentinel	MT	0.0		0.0						

Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152		97	0	0		0		
2	Nat'l 12-P-160	152		97	0	0		0		
3	Nat'l 12-P-160	152		97	0	0		0		

DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)	SHOE TVD (plan/Actual)	LOT (pl/Act)	FIT (pl/Act)	COMMENT
13.375	340	785.0 743.0	785.0 742.9			

TYPE	LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD
340mm (13.375") shoe jt 107 kg/m, cent mid	12.52	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt	12.13	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt	12.64	316	107.1	L-80	BTC
50 x 340mm (13.375") jt 101 kg/m	590.73	316	101.2	L-80	BTC
340mm (13.375") No-cross jt 101 kg/m	11.84	316	101.2	L-80	BTC
476mm (18.75") wellhead + extension jt	10.71	316	101.2	L-80	BTC
RT to Wellhead top	92.58	0	.0		

Personnel : on Site =90			
5 Santos	39 DOGC	2 DOGC extra	21 TMT (marine)
6 TMT (ROV)	6 BHI	2 Halliburton	2 IDFS
1 DrilQuip	3 Weatherford	3 Anadrill	

Safety, Inspections and Drills		Summary
5 days since last	Fire and Abandon Ship Drill	
1794 days since last	Lost Workday Case	
days since last	Medical Treatment Case	
2 days since last	First Aid Case	
days since last	Environmental Issue	

Shakers, Volumes and Losses Data				ENGINEER M. Docherty / J. Singh			
SHAKER 1 4 x 84	VOLUME AVAILABLE (m3) =			311	LOSSES (m3) =	0	COMMENTS
SHAKER 2 4 x 84	ACTIVE	221.3	MIXING	0.0	DOWNHOLE	0.00	Completed mixing new mud.
SHAKER 3 4 x 84	HOLE	70.9	SLUG	0.0	SURF.+EQUIP	0.00	
SHAKER 4 4 x 84	RESERVE	19.1	HEAVY	0.0	DUMPED	0.00	
SHAKER 5							

Anchors							RIS. TENS. (MT) :	101
Anc 1 : 141	Anc 2 : 136	Anc 3 : 181	Anc 4 : 147	Anc 5 : 129			RISER ANGLE (deg):	0.0
Anc 6 : 125	Anc 7 : 91	Anc 8 : 118	Anc 9 : 0	Anc 10: 0			STACK ANGLE(deg):	0.0
Workboats							V.D.L. (MT) :	1,898.€
	Arrived @ Rig (Date)(Time)	Depart from Rig (Date)(Time)	EstimatedArrival (Port) (Date)(Time)	Weather		VISIBILITY(nm) :	5	
Pacific Sentinel	26/8/02 23:00			WIND SP. (kts) :		40.0	AVE HEAVE (m) :	1.2
Pacific Conqueror	29/8/02 0:55	29/8/02 19:45	30/8/02 7:00	WIND DIR (deg) :		320	MAX HEAVE (m) :	1.2
							PRES.(mbars):	1011
							AIR TEMP (C) :	9.0
COMMENTS : Pax on / off : Flt #1, 3 / 1							AVE PITCH (deg) :	1.0
							MAX PITCH (deg) :	1.0
							AVE ROLL (deg) :	0.8
							MAX ROLL (deg) :	0.8

DATE : Aug 30, 2002

FROM : H. Flink / S. Hodgetts
TO : O. Moller

CASINO #1

Casino #1

Well Data		M.DEPTH (m BRT)	1,016.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	1,015.9	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	264.0	SHOE TVD (m BRT)	743	DAILY COST :	\$308,601
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	5.25	FIT (sg)	0.00	CUM COST :	\$4,234,733
RIG	Ocean Bounty	DAYS +/- CURVE	-0.50	LOT (sg)	0.00		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 Drilling ahead 311mm (12.25") hole at 1053m.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Continue drilling 311mm (12.25") hole to TD (2276m).					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

Made up 311mm (12.25") BHA, RIH. Drilled cement and shoetrack, cleaned rathole and displaced hole to new mud. Drilled 3m to 758m and performed LOT to 2.07sg (17.3ppg). Drilled ahead to 1016m.

FORMATION	TOP(m BRT)
Undescribed	96
Merpunga	774
Wangerrip Grp	850

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Aug 30, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
SC	P		LDP	00:00	01:30	1.50	752	Continued laying out 445mm (17.5") BHA.
IH1	P		TI	01:30	05:00	3.50	752	Held JSA and made up 311mm (12.25") BHA. Shallow tested MWD/FEWD tools, OK, 156 spm = 9.3 MPa (1350psi).
IH1	P		TI	05:00	09:00	4.00	752	Continued making up 311mm (12.25") BHA and RIH to 690m.
IH1	P		RS	09:00	09:30	0.50	752	Serviced TDS and repaired loggers RPM sensor.
IH1	P		DFS	09:30	14:30	5.00	752	Continued RIH. Tagged TOC at 717.6m. Drilled cement and plugs at 718m. Drilled float eqt and shoetrack. Cleaned out rathole to 752m and displaced hole to 1.04sg (8.7ppg) KCI/PHPA mud.
IH1	P		D	14:30	15:00	0.50	755	Drilled 3 m to 755m.
IH1	P		LOT	15:00	16:30	1.50	755	Circulated 1.5 times bottoms up and performed LOT to 7.5 MPa (1090psi). EMW = 2.07sg (17.3ppg).
IH1	P		D	16:30	24:00	7.50	1,016	Drilled ahead 311mm (12.25") hole from 755 to 1016m. Partial losses commenced at 784m, losses varied from 11.1- 8 m3ph (70-50bph).

ACTIVITY FOR PERIOD 0000 HRS TO 04:00 HRS ON Aug 31, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		D	00:00	06:00	6.00	1,053	Continued drilling 311mm (12.25") hole from 1016m to 1053m. Treated losses with LCM, regained full returns.

00:00 TO 24:00 HRS ON :	30/08/2002	
Comments	Recommendations	Rig Requirements
Mud losses from 784m.		

WBM Data	COST TODAY : \$26,907	CUM. WB MUD COST: \$98,746	CUM. WBM+OBM COST: \$98,746					
Type :	VISCOACITY (sec/ltr) :	40	API FLUID LOSS (cm3/30min) :	7	Cl :	29,000	SOLIDS (%vol) :	1.6
KCI PHPA	PV (Pa.s) :	0	FILTER CAKE (mm) :	1	K+C*1000 :	37800	H2O (%vol) :	98.4
FROM :	YP (Pa.s) :	7	HTHPFL (cm3/30min) :	0	HARD/Ca :	640	OIL (%vol) :	
TIME :	GEL10s/10m/100m (Pa.s) :	2 2 1	HTHP CAKE (mm) :	0	MBT (ppb) :	2.5	SAND :	2
WEIGHT (sg):	Fann 3/6/100 :	3 4 12			PM :		PH :	10.0
TEMP (C) :					PF :	.1	PHPA (ppb) :	1.1
COMMENT: Making additions of LCM material to manage losses.								

Bit Data for Bit # 3 IADC #				Wear											
				I	O1	D	L	B	G	O2	R				
SIZE (") :	12.25			NOZZLES				Drilled over the last 24 hrs				Calculated over the bit run			
MANUFACTURER :	RE	AVE WOB (MT) :	3	5 X 12	METERAGE (m) :				264	CUM.METERAGE (m) :				264	
TYPE :	DSX 195	AVE RPM :	104	X 0	ON BOTTOM HRS :				4.5	CUM. ON BOT. HRS :				4.5	
SERIAL # :	103894	FLOW (lpm) :	2,721	X 0	IADC DRILL. HRS :				8.0	CUM.IADC DR. HRS :				8.0	
DEPTH IN (mRT):	752	PUMP PRESS.(Kpa):	17,409	X 0	TOTAL REVS :				28,080	CUM.TOT. REVS :				28,080	
DEPTH OUT (mRT):		HSI (kW/cm2) :	0.067	X 0	ROP (m/hr) :				58.7	ROP (m/hr) :				58.7	

BHA # 3	Length (m): 265.4						D.C. (1) ANN. VELOCITY (mpm):	73
WT BLW JAR (MT):	36	STRING WT (MT):	127	TRQE MAX (Nm):	13	D.C. (2) ANN VELOCITY (mpm):	77	
BHA WT (MT) :	36	PICK UP WT (MT):	0	TRQE ON (Nm):	7	H.W.D.P. ANN VELOCITY (mpm):	51	
		SLK OFF WT (MT):	0	TRQE OFF (Nm):	3	D.P. ANN VELOCITY (mpm) :	51	

BHA DESCRIPTION : 12.25" bit, NB stab, 8.25" MWD/FEWD, 12.25" RR, 1 x 8" DC, 12.25" RR, 9 x 8" DC, 8" Jar, 2 x 8" DC, x/o, 12 x 5" HWDP

TOOL DESCRIPTION	LENGTH	OD	ID	SERIAL #	HRS	COMMENT
NB RR				GU 2151	11.0	
CDR				9556	11.0	
Pulser				231	11.0	
ILS				313272-2	11.0	
ISONIC				857	11.0	
Str RR				GU 2143	11.0	
Str RR				GU2144	11.0	
Jars				48907C	11.0	

Survey (Method : Min Curvature)	MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type :										
Magnetic Declination :	0.00									
	655.0	654.9	0.50	0.0	0.0	9.0	0.0	9.0	0.0	Anderdrift
	687.0	686.9	0.00	0.0	0.0	9.1	0.5	9.1	0.0	Anderdrift
	720.0	719.9	0.00	0.0	0.0	9.1	0.0	9.1	0.0	Anderdrift
	750.0	749.9	0.00	0.0	0.0	9.1	0.0	9.1	0.0	Anderdrift
	766.8	766.7	0.60	342.2	342.2	9.2	1.1	9.2	-0.0	MWD
	855.0	854.9	0.26	216.0	216.0	9.5	0.3	9.5	-0.3	MWD
	912.0	911.9	0.54	155.4	155.4	9.1	0.2	9.1	-0.3	MWD
	969.9	969.9	0.83	136.0	136.0	8.6	0.2	8.6	0.2	

Bulk Stocks On Rig	STOCK TYPE & UNITS				START USED REC'D STOCK				STOCK TYPE & UNITS				START USED REC'D STOCK							
	Fuel Oil - Rig	M3	320.0	10.9	309.1	Drill Water - Rig	MT	667.0	33.0	634.0	Pot Water - Rig	MT	88.0	23.0	23.0	88.0	Cement 'G' - Rig	sxs	500.0	
Cement HTB - Rig	sxs	0.0		0.0	Bentonite - Rig	sxs	670.0		670.0	Barite - Rig	sxs	2115.0		2115.0	Brine - Rig	MT	0.0		0.0	
Helifuel - Rig	ltr	3322.0	326.0	2996.0	Fuel Oil - Conqueror	M3	446.1		446.1	Drill Water - Conqueror	MT	90.0		90.0	Pot Water - Conqueror	MT	205.0		205.0	
Cement 'G' - Conqueror	sxs	0.0		0.0	Cement HTB - Conqueror	sxs	0.0		0.0	Bentonite - Conqueror	sxs	0.0		0.0	Barite - Conqueror	sxs	1146.0		1146.0	
Bentonite - Conqueror	sxs	0.0		0.0	Brine - Conqueror	MT	0.0		0.0	Fuel Oil - Sentinel	M3	479.9	7.4	472.5	Drill Water - Sentinel	MT	335.0		335.0	
Brine - Conqueror	MT	0.0		0.0	Pot Water - Sentinel	MT	225.0	5.0	220.0	Cement 'G' - Sentinel	sxs	0.0		0.0	Bentonite - Sentinel	sxs	0.0		0.0	
Drill Water - Sentinel	MT	335.0		335.0	Cement HTB - Sentinel	sxs	0.0		0.0	Barite - Sentinel	sxs	1000.0		1000.0	Brine - Sentinel	MT	0.0		0.0	
Cement 'G' - Sentinel	sxs	0.0		0.0																
Bentonite - Sentinel	sxs	0.0		0.0																
Brine - Sentinel	MT	0.0		0.0																

Pump Data										
Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152	66	97	1066	18271		0		
2	Nat'l 12-P-160	152	66	97	1066	18271		0		
3	Nat'l 12-P-160	152	66	97	1066	18271		0		

Casing								
DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)		SHOE TVD (plan/Actual)		LOT (pl/Act)	FIT (pl/Act)	COMMENT
13.375	340	785.0	743.0	785.0	742.9			
TYPE		LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD		
340mm (13.375") shoe jt 107 kg/m, cent mid		12.52	316	107.1	L-80	BTC		
340mm (13.375") int jt 107 kg/m, cent mid jt		12.13	316	107.1	L-80	BTC		
340mm (13.375") int jt 107 kg/m, cent mid jt		12.64	316	107.1	L-80	BTC		
50 x 340mm (13.375") jt 101 kg/m		590.73	316	101.2	L-80	BTC		
340mm (13.375") No-cross jt 101 kg/m		11.84	316	101.2	L-80	BTC		
476mm (18.75") wellhead + extension jt		10.71	316	101.2	L-80	BTC		
RT to Wellhead top		92.58	0	.0				

Personnel : on Site =89			
5 Santos	39 DOGC	4 DOGC extra	21 TMT (marine)
3 TMT (ROV)	6 BHI	2 Halliburton	2 IDFS
1 DrillQuip	3 Weatherford	3 Anadrill	

Safety, Inspections and Drills		Summary
6 days since last	Fire and Abandon Ship Drill	
1795 days since last	Lost Workday Case	
days since last	Medical Treatment Case	
3 days since last	First Aid Case	
days since last	Environmental Issue	

Shakers, Volumes and Losses Data			ENGINEER M. Docherty / J. Singh		
SHAKER 1 4 x 84	VOLUME AVAILABLE (m3) = 200 ACTIVE 68.7 MIXING 0.0 HOLE 83.9 SLUG 0.0 RESERVE 47.7 HEAVY 0.0	LOSSES (m3) = 187 DOWNHOLE 91.57 SURF.+EQUIP 24.00 DUMPED 71.54	COMMENTS		
SHAKER 2 4 x 84					
SHAKER 3 4 x 84					
SHAKER 4 4 x 84					
SHAKER 5					

Anchors						RIS. TENS. (MT) : 101	
Anc 1 : 150	Anc 2 : 127	Anc 3 : 154	Anc 4 : 113	Anc 5 : 118	Anc 6 : 113	Anc 7 : 107	RISER ANGLE (deg): 0.0
Anc 8 : 145	Anc 9 : 0	Anc 10 : 0					STACK ANGLE(deg): 0.0
Workboats						Weather	
Arrived @ Rig (Date)(Time)		Depart from Rig (Date)(Time)		EstimatedArrival (Port) (Date)(Time)			
Pacific Sentinel	26/8/02 23:00					VISIBILITY(nm) : 12	V.D.L. (MT) : 1,787.6
Pacific Conqueror	29/8/02 0:55	29/8/02 19:45	30/8/02 7:00			WIND SP. (kts) : 25.0	AVE HEAVE (m) : 0.6
						WIND DIR (deg) : 320	MAX HEAVE (m) : 1.2
						PRES.(mbars): 1014	AVE PITCH (deg) : 0.4
						AIR TEMP (C) : 10.0	MAX PITCH (deg) : 1.0
COMMENTS : Pax on / off : Flt #1, 7 / 7; Flt #2, 3 / 4							AVE ROLL (deg) : 0.3
							MAX ROLL (deg) : 0.8

DATE : Aug 31, 2002

FROM : H. Flink / S. Hodgetts

TO : O. Moller

CASINO #1

Casino #1

Well Data		M.DEPTH (m BRT)	1,059.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	1,058.9	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	43.0	SHOE TVD (m BRT)	743	DAILY COST :	\$494,648
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	6.25	FIT (sg)	0.00	CUM COST :	\$4,729,381
RIG	Ocean Bounty	DAYS +/- CURVE	0.50	LOT (sg)	2.07		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 Drilling ahead 311mm (12.25") hole at 1076m.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Continue drilling 311mm (12.25") hole to TD (2276m).					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

Drilled ahead 311mm (12.25") hole from 1016m to 1057m. Flow checked, hole static and POOH due to low ROP. Changed bits while downloading MWD data. RIH to shoe and broke circulation shallow testing MWD, OK. 156spm = 11.7MPa (1700psi). Serviced TDS. Continued RIH to 1016m, no drag. Broke circulation, abnormally high circulating pressure, 82spm = 18.6 MPa (2700psi). Attempted to clear blockage, no success. Washed to bottom hole good. Drilled to 1059m at reduced flow rate. Flow checked and POOH to check bit.

FORMATION	TOP(m BRT)
Undescribed	96
Merpunga	774
Wangerrip Grp	843

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Aug 31, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		D	00:00	06:00	6.00	1,053	Continued drilling 311mm (12.25") hole from 1016m to 1053m. Treated losses with LCM, gained full returns.
IH1	P		D	06:00	10:30	4.50	1,057	Continued drilling 311mm (12.25") hole from 1053m to 1057m, ROP poor.
IH1	P		TO	10:30	14:00	3.50	1,057	Flow checked, hole static. POOH to change bit, no drag. Flow checked at shoe, static.
IH1	P		TO	14:00	14:30	0.50	1,057	Commenced downloading MWD data.
IH1	P		TI	14:30	18:00	3.50	1,057	Broke and changed bit while continuing to download MWD data. RIH to shoe picking up additional stand of DC. Broke circulation at shoe and shallow tested MWD, OK. 156spm = 11.7MPa (1700psi).
IH1	P		RS	18:00	18:30	0.50	1,057	Serviced TDS and travelling blocks.
IH1	P		TI	18:30	19:00	0.50	1,057	Continued RIH to 1016m, no drag.
IH1	TP	BIT	CIR	19:00	20:30	1.50	1,057	Broke circulation at 1016m, abnormally high circulating pressure, 82spm = 18.6 MPa (2700psi). Attempted to clear blockage, no success. Washed to bottom, hole good.
IH1	P		D	20:30	21:00	0.50	1,059	Drilled ahead 311mm (12.25") hole to 1059m at reduced mud flow rate (90spm = 20.7 MPa (3000psi).
IH1	P		TO	21:00	24:00	3.00	1,059	Flow checked on bottom and at shoe, hole static. POOH to check bit, no drag. At shoe 80spm = 18.9 MPa (2750psi). Continued POOH.

ACTIVITY FOR PERIOD 0000 HRS TO 04:00 HRS ON Sep 01, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		TI	00:00	04:30	4.50	1,059	Broke out plugged bit (chipped teeth and suspect bearing cone #3) and changed to new TCI bit. RIH shallow testing MWD at first stand of HWDP, OK. RIH. Broke circulation at shoe, tested MWD OK. Pump pressures normal. Continued RIH to 1044m.
IH1	P		TI	04:30	05:00	0.50	1,059	Washed and reamed to bottom, precautionary.
IH1	P		D	05:00	06:00	1.00	1,076	Drilled ahead to 1076m.

WBM Data		COST TODAY : \$16,006	CUM. WB MUD COST: \$114,752	CUM. WBM+OBM COST: \$114,752					
Type :	KCI PHPA	VISCOCITY (sec/ltr) :	48	API FLUID LOSS (cm3/30min) :	6	CI :	28,000	SOLIDS (%vol) :	1.7
FROM :	pit	PV (Pa.s) :	0	FILTER CAKE (mm) :	1	K+C*1000 :	37800	H2O (%vol) :	98.3
TIME :	21:00	YP (Pa.s) :	10	HTHPFL (cm3/30min) :	22	HARD/Ca :	360	OIL (%vol) :	
WEIGHT (sg):	1.06	GEL10s/10m/100m (Pa.s) :	3	HTHP CAKE (mm) :	2	MBT (ppb) :	2.5	SAND :	.5
TEMP (C) :		Fann 3/6/100 :	6			PM :		PH :	8.0
			8			PF :	.1	PHPA (ppb) :	.9

Bit Data for Bit # 3 IADC #				Wear											
				I	O1	D	L	B	G	O2	R				
				8	8	RO	S	X	1	WT	PR				
SIZE ("):	12.25			NOZZLES				Drilled over the last 24 hrs				Calculated over the bit run			
MANUFACTURER :	RE	AVE WOB (MT) :	3	5 X 12				METERAGE (m) :	41	CUM.METERAGE (m) :			305		
TYPE :	DSX 195	AVE RPM :	114	X 0				ON BOTTOM HRS :	10.3	CUM. ON BOT. HRS :			14.8		
SERIAL # :	103894	FLOW (lpm) :	2,400	X 0				IADC DRILL. HRS :	10.5	CUM.IADC DR. HRS:			18.5		
DEPTH IN (mRT):	752	PUMP PRESS.(Kpa):	17,892	X 0				TOTAL REVS :	70,452	CUM.TOT. REVS :			101,232		
DEPTH OUT (mRT):	1057	HSI (kW/cm2) :	0.046	X 0				ROP (m/hr) :	4.0	ROP (m/hr) :			20.6		

Bit Data for Bit # 4 IADC #				Wear											
				I	O1	D	L	B	G	O2	R				
				0	2	CT	G	F3	I	PN	PP				
SIZE ("):	12.25			NOZZLES				Drilled over the last 24 hrs				Calculated over the bit run			
MANUFACTURER :	RE	AVE WOB (MT) :	3	3 X 16				METERAGE (m) :	2	CUM.METERAGE (m) :			2		
TYPE :	HP51HFKPRDH	AVE RPM :	86	X 0				ON BOTTOM HRS :	.2	CUM. ON BOT. HRS :			.2		
SERIAL # :	KA4914	FLOW (lpm) :	1,453	X 0				IADC DRILL. HRS :	.5	CUM.IADC DR. HRS:			.5		
DEPTH IN (mRT):	1057	PUMP PRESS.(Kpa):	20,643	X 0				TOTAL REVS :	1,032	CUM.TOT. REVS :			1,032		
DEPTH OUT (mRT):	1059	HSI (kW/cm2) :	0.009	X 0				ROP (m/hr) :	10.0	ROP (m/hr) :			10.0		
COMMENT: Chipped cutters and seal failure cone #3.															

BHA # 3 Length (m): 265.4				D.C. (1) ANN. VELOCITY (mpm):				
WT BLW JAR (MT):	23	STRING WT (MT):	127	TRQE MAX (Nm):	8	D.C. (2) ANN VELOCITY (mpm):		77
BHA WT (MT) :	36	PICK UP WT (MT):	0	TRQE ON (Nm):	4	H.W.D.P. ANN VELOCITY (mpm):		51
		SLK OFF WT (MT):	0	TRQE OFF (Nm):	2	D.P. ANN VELOCITY (mpm) :		51
BHA DESCRIPTION : 12.25" bit, NB stab, 8.25" MWD/FEWD, 12.25" RR, 1 x 8" DC, 12.25" RR, 9 x 8" DC, 8" Jar, 2 x 8" DC, x/o, 12 x 5" HWDP								

TOOL DESCRIPTION	LENGTH	OD	ID	SERIAL #	HRS	COMMENT
NB RR				GU 2151	21.5	
CDR				9556	21.5	
Pulser				231	21.5	
ILS				313272-2	21.5	
ISONIC				857	21.5	
Str RR				GU 2143	21.5	
Str RR				GU2144	21.5	
Jars				48907C	21.5	

BHA # 4 Length (m): 293.0				D.C. (1) ANN. VELOCITY (mpm):				
WT BLW JAR (MT):	32	STRING WT (MT):	132	TRQE MAX (Nm):	2	D.C. (2) ANN VELOCITY (mpm):		77
BHA WT (MT) :	41	PICK UP WT (MT):	0	TRQE ON (Nm):	2	H.W.D.P. ANN VELOCITY (mpm):		51
		SLK OFF WT (MT):	0	TRQE OFF (Nm):	1	D.P. ANN VELOCITY (mpm) :		51
BHA DESCRIPTION : 12.25" bit, NB stab, 8.25" MWD/FEWD, 12.25" RR, 1 x 8" DC, 12.25" RR, 12 x 8" DC, 8" Jar, 2 x 8" DC, x/o, 12 x 5" HWDP								

TOOL DESCRIPTION	LENGTH	OD	ID	SERIAL #	HRS	COMMENT
NB RR				GU 2151	23.5	
CDR				9556	23.5	
Pulser				231	23.5	
ILS				313272-2	23.5	
ISONIC				857	23.5	
Str RR				GU 2143	23.5	
Str RR				GU2144	23.5	
Jars				48907C	23.5	

Survey (Method : Min Curvature)		MD	TVD	INCL	AZ	CORR.	'V'	DOGLEG	N/S	E/W	TOOL TYPE
Last Tool Type :		(mBRT)	(mBRT)	DEG	(deg)	AZ	SECT	(deg/30m)	(m)	(m)	
Magnetic Declination :						(deg)	(m)				
		687.0	686.9	0.00	0.0	0.0	9.1	0.5	9.1	0.0	Anderdrift
		720.0	719.9	0.00	0.0	0.0	9.1	0.0	9.1	0.0	Anderdrift
		750.0	749.9	0.00	0.0	0.0	9.1	0.0	9.1	0.0	Anderdrift
		766.8	766.7	0.60	342.2	342.2	9.2	1.1	9.2	-0.0	MWD
		855.0	854.9	0.26	216.0	216.0	9.5	0.3	9.5	-0.3	MWD
		912.0	911.9	0.54	155.4	155.4	9.1	0.2	9.1	-0.3	MWD
		969.9	969.9	0.83	136.0	136.0	8.6	0.2	8.6	0.2	MWD
		1041.1	1041.0	1.20	191.9	191.9	7.5	0.4	7.5	0.4	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS						STOCK TYPE & UNITS					
			START	USED	REC'D	STOCK			START	USED	REC'D	STOCK
	Fuel Oil - Rig	M3	309.1	17.8	158.0	449.3	Drill Water - Rig	MT	634.0	68.0		566.0
	Pot Water - Rig	MT	88.0	25.0	25.0	88.0	Cement 'G' - Rig	sxs	500.0		930.0	1430.0
	Cement HTB - Rig	sxs	0.0			0.0	Bentonite - Rig	sxs	670.0			670.0
	Barite - Rig	sxs	2115.0	174.0		1941.0	Brine - Rig	MT	0.0			0.0
	Helifuel - Rig	ltr	2996.0			2996.0	Fuel Oil - Conqueror	M3	446.1	12.1		276.0
	Drill Water - Conqueror	MT	90.0			90.0	Pot Water - Conqueror	MT	205.0	10.0		195.0
	Cement 'G' - Conqueror	sxs	0.0		930.0	0.0	Cement HTB - Conqueror	sxs	0.0			0.0
	Bentonite - Conqueror	sxs	0.0			0.0	Barite - Conqueror	sxs	1146.0			1146.0
	Brine - Conqueror	MT	0.0			0.0	Fuel Oil - Sentinel	M3	472.5	11.0		461.5
	Drill Water - Sentinel	MT	335.0			335.0	Pot Water - Sentinel	MT	220.0	5.0		215.0
	Cement 'G' - Sentinel	sxs	0.0			0.0	Cement HTB - Sentinel	sxs	0.0			0.0
	Bentonite - Sentinel	sxs	0.0			0.0	Barite - Sentinel	sxs	1000.0			1000.0
	Brine - Sentinel	MT	0.0			0.0						

Pump Data

Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152	90	97	1452	20684		0		
2	Nat'l 12-P-160	152		97	0	0		0		
3	Nat'l 12-P-160	152		97	0	0		0		

Casing

DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)	SHOE TVD (plan/Actual)	LOT (pl/Act)	FIT (pl/Act)	COMMENT
13.375	340	785.0 743.0	785.0 742.9	1.68 2.07		

TYPE	LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD
340mm (13.375") shoe jt 107 kg/m, cent mid	12.52	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt	12.13	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt	12.64	316	107.1	L-80	BTC
50 x 340mm (13.375") jt 101 kg/m	590.73	316	101.2	L-80	BTC
340mm (13.375") No-cross jt 101 kg/m	11.84	316	101.2	L-80	BTC
476mm (18.75") wellhead + extension jt	10.71	316	101.2	L-80	BTC
RT to Wellhead top	92.58	0	.0		

Personnel : on Site =91

5 Santos	39 DOGC	2 DOGC extra	21 TMT (marine)
3 TMT (ROV)	6 BHI	2 Halliburton	2 IDFS
1 DrillQuip	3 Weatherford	3 Anadrill	4 Schlum

Safety, Inspections and Drills Summary

7 days since last	Fire and Abandon Ship Drill
1796 days since last	Lost Workday Case
days since last	Medical Treatment Case
4 days since last	First Aid Case
days since last	Environmental Issue

Shakers, Volumes and Losses Data

SHAKER	VOLUME AVAILABLE (m3) =	238	LOSSES (m3) =	23	COMMENTS
SHAKER 1 4 x 84	ACTIVE	87.4	MIXING	0.0	D/H losses < 5 bph.
SHAKER 2 4 x 115	HOLE	86.5	SLUG	0.0	
SHAKER 3 4 x 84	RESERVE	63.6	HEAVY	0.0	
SHAKER 4 4 x 84					
SHAKER 5					

ENGINEER M. Docherty / J. Singh

Anchors	Anc 1 : 145	Anc 2 : 127	Anc 3 : 152	Anc 4 : 113	Anc 5 : 116	RIS. TENS. (MT) :	101
	Anc 6 : 113	Anc 7 : 109	Anc 8 : 145	Anc 9 : 0	Anc 10 : 0	RISER ANGLE (deg):	0.0
Workboats	Arrived @ Rig (Date)(Time)	Depart from Rig (Date)(Time)	EstimatedArrival (Port) (Date)(Time)	Weather		STACK ANGLE(deg):	0.0
	Pacific Sentinel	26/8/02 23:00		VISIBILITY(nm) :	12	V.D.L. (MT) :	1,849.7
Pacific Conqueror	31/8/02 5:05			WIND SP. (kts) :	20.0	AVE HEAVE (m) :	0.3
				WIND DIR (deg) :	300	MAX HEAVE (m) :	0.6
				PRES.(mbars):	1017	AVE PITCH (deg) :	0.3
				AIR TEMP (C) :	10.0	MAX PITCH (deg) :	0.4
COMMENTS : Pax on / off : Flt #1, 4 / 2						AVE ROLL (deg) :	0.2
						MAX ROLL (deg) :	0.3

DATE : Sep 01, 2002

FROM : H. Flink / S. Hodgetts

TO : O. Moller

CASINO #1

Casino #1

Well Data		M.DEPTH (m BRT)	1,400.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	1,399.9	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	341.0	SHOE TVD (m BRT)	743	DAILY COST :	\$366,968
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	7.25	FIT (sg)	0.00	CUM COST :	\$4,601,701
RIG	Ocean Bounty	DAYS +/- CURVE	-2.50	LOT (sg)	2.07		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 RIH with new bit.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Continue drilling 311mm (12.25") hole to TD (2276m).					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

Broke out bit (2 blocked jets), made up new bit. RIH to 1044m and shallow tested MWD at surface and shoe, (770gpm = 1750psi), OK. Logged with MWD while washing to bottom. Drilled ahead 311 mm (12.25") hole from 1059m to 1400m. Circulated bottoms up, boosted riser.

FORMATION	TOP(m BRT)
Wangerrip Grp	843
Pebble Point	1,102
Sherbrook Group	1,177
Skull Creek (?)	1,259

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 01, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		TI	00:00	04:30	4.50	1,059	Broke out plugged bit (chipped teeth and suspect bearing cone #3) and changed to new TCI bit. RIH shallow testing MWD at first stand of HWDP, OK. RIH. Broke circulation at shoe, tested MWD OK. Pump pressures normal, 2.9 m3pm = 12.1 MPa (770gpm = 1750psi), OK. Continued RIH to 1044m.
IH1	P		TI	04:30	04:45	0.25	1,059	Washed and reamed to bottom, precautionary. Logged with MWD.
IH1	P		D	04:45	06:00	1.25	1,076	Drilled ahead to 1076m.
IH1	P		D	06:00	12:00	6.00	1,218	Drilled ahead to 1218m.
IH1	P		D	12:00	18:00	6.00	1,332	Drilled ahead to 1332m.
IH1	P		D	18:00	22:30	4.50	1,400	Drilled ahead 311mm (12.25") hole to 1400m. No drag on connections.
IH1	P		CIR	22:30	24:00	1.50	1,400	Circulated bottoms up prior to POOH for bit change. Boosted riser to clear cuttings.

ACTIVITY FOR PERIOD 0000 HRS TO 04:00 HRS ON Sep 02, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		TO	00:00	05:30	5.50	1,400	POOH, worked tight spots, 13.6-22.7 tonne (30-50 kip) O/P. No drag after 1180m. Continued POOH. Commenced downloading MWD data.
IH1	P		TI	05:30	06:00	0.50	1,400	Changed bit while downloading MWD data. Commenced RIH.

00:00 TO 24:00 HRS ON : 1/09/2002		
Comments	Recommendations	Rig Requirements
Conducted fire & abandonment drills.		

WBM Data	COST TODAY : \$16,805	CUM. WB MUD COST: \$131,558	CUM. WBM+OBM COST: \$131,558
Type :	VISCOCITY (sec/ltr) : 48 PV (Pa.s) : 0 YP (Pa.s) : 11 GEL10s/10m/100m (Pa.s) : 4 6 1 Fann 3/6/100 : 6 9 21	API FLUID LOSS (cm3/30min) : 6 FILTER CAKE (mm) : 1 HTHPFL (cm3/30min) : 20 HTHP CAKE (mm) : 2	CI : 29,000 K+C*1000 : 32400 HARD/Ca : 280 MBT (ppb) : 7.0 PM : PF : .2
FROM : pit			SOLIDS (%vol) : 2.0
TIME : 20:00			H2O (%vol) : 98.0
WEIGHT (sg): 1.06			OIL (%vol) :
TEMP (C) : 120			SAND : tr
			PH : 9.5
			PHPA (ppb) : 1.2

Bit Data for Bit # 5 IADC # 4 3 7 X				Wear											
				I	O1	D	L	B	G	O2	R				
								PR							
SIZE (") :	12.25			NOZZLES				Drilled over the last 24 hrs				Calculated over the bit run			
MANUFACTURER :	SM	AVE WOB (MT) :	15	3 X 16	METERAGE (m) :				341	CUM.METERAGE (m) :				341	
TYPE :	10GF	AVE RPM :	99	X 0	ON BOTTOM HRS :				14.7	CUM. ON BOT. HRS :				14.7	
SERIAL # :	MJ3163	FLOW (lpm) :	3,244	X 0	IADC DRILL. HRS :				18.0	CUM.IADC DR. HRS :				18.0	
DEPTH IN (mRT):	1059	PUMP PRESS.(Kpa):	21,167	X 0	TOTAL REVS :				87,318	CUM.TOT. REVS :				87,318	
DEPTH OUT (mRT):	1400	HSI (kW/cm2) :	0.843	X 0	ROP (m/hr) :				23.2	ROP (m/hr) :				23.2	

BHA # 4	Length (m): 293.0				D.C. (1) ANN. VELOCITY (mpm):				76				
WT BLW JAR (MT):	32	STRING WT (MT):	141	TRQE MAX (Nm):	9	D.C. (2) ANN VELOCITY (mpm):				80			
BHA WT (MT) :	41	PICK UP WT (MT):	0	TRQE ON (Nm):	5	H.W.D.P. ANN VELOCITY (mpm):				52			
		SLK OFF WT (MT):	0	TRQE OFF (Nm):	1	D.P. ANN VELOCITY (mpm) :				52			

BHA DESCRIPTION : 12.25" bit, NB stab, 8.25" MWD/FEWD, 12.25" RR, 1 x 8" DC, 12.25" RR, 12 x 8" DC, 8" Jar, 2 x 8" DC, x/o, 12 x 5" HWDP

TOOL DESCRIPTION	LENGTH	OD	ID	SERIAL #	HRS	COMMENT
NB RR				GU 2151	43.0	
CDR				9556	43.0	
Pulser				231	43.0	
ILS				313272-2	43.0	
ISONIC				857	43.0	
Str RR				GU 2143	43.0	
Str RR				GU2144	43.0	
Jars				48907C	43.0	

Survey (Method : Min Curvature)	MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type :	MWD									
Magnetic Declination :	0.00									
	855.0	854.9	0.26	216.0	216.0	9.5	0.3	9.5	-0.3	MWD
	912.0	911.9	0.54	155.4	155.4	9.1	0.2	9.1	-0.3	MWD
	969.9	969.9	0.83	136.0	136.0	8.6	0.2	8.6	0.2	MWD
	1041.1	1041.0	1.20	191.9	191.9	7.5	0.4	7.5	0.4	MWD
	1084.6	1084.5	1.29	191.9	191.9	6.5	0.1	6.5	0.2	MWD
	1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
	1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
	1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS				START	USED	REC'D	STOCK	STOCK TYPE & UNITS				START	USED	REC'D	STOCK
	Fuel Oil - Rig	M3	449.3	14.3	435.0	Drill Water - Rig	MT	566.0	74.0	492.0						
Pot Water - Rig	MT	98.0	26.0	26.0	98.0	Cement 'G' - Rig	sxs	1430.0	1430.0							
Cement HTB - Rig	sxs	0.0	0.0	0.0	Bentonite - Rig	sxs	670.0	670.0								
Barite - Rig	sxs	1941.0	70.0	1871.0	Brine - Rig	MT	0.0	0.0								
Helifuel - Rig	ltr	2996.0	2996.0	Fuel Oil - Conqueror	M3	276.0	1.2	274.8								
Drill Water - Conqueror	MT	90.0	90.0	Pot Water - Conqueror	MT	195.0	5.0	190.0								
Cement 'G' - Conqueror	sxs	0.0	0.0	Cement HTB - Conqueror	sxs	0.0	0.0									
Bentonite - Conqueror	sxs	0.0	0.0	Barite - Conqueror	sxs	1146.0	1146.0									
Brine - Conqueror	MT	0.0	0.0	Fuel Oil - Sentinel	M3	461.5	4.5	457.0								
Drill Water - Sentinel	MT	335.0	335.0	Pot Water - Sentinel	MT	215.0	5.0	210.0								
Cement 'G' - Sentinel	sxs	0.0	0.0	Cement HTB - Sentinel	sxs	0.0	0.0									
Bentonite - Sentinel	sxs	0.0	0.0	Barite - Sentinel	sxs	1000.0	1000.0									
Brine - Sentinel	MT	0.0	0.0													

Pump Data										
Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152	68	97	1100	22753	30	862	1215.0	1.07
		0			0	40	1379			
		0			0	50	1724			
2	Nat'l 12-P-160	152	68	97	1100	22753	30	862	1215.0	1.07
		0			0	40	1379			
		0			0	50	1724			
3	Nat'l 12-P-160	152	68	97	1100	22753	0		1215.0	1.07

Casing								
DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)		SHOE TVD (plan/Actual)		LOT (pl/Act)	FIT (pl/Act)	COMMENT
13.375	340	785.0	743.0	785.0	742.9	1.68	2.07	
TYPE		LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD		
340mm (13.375") shoe jt 107 kg/m, cent mid		12.52	316	107.1	L-80	BTC		
340mm (13.375") int jt 107 kg/m, cent mid jt		12.13	316	107.1	L-80	BTC		
340mm (13.375") int jt 107 kg/m, cent mid jt		12.64	316	107.1	L-80	BTC		
50 x 340mm (13.375") jt 101 kg/m		590.73	316	101.2	L-80	BTC		
340mm (13.375") No-cross jt 101 kg/m		11.84	316	101.2	L-80	BTC		
476mm (18.75") wellhead + extension jt		10.71	316	101.2	L-80	BTC		
RT to Wellhead top		92.58	0	.0				

Personnel : on Site =96			
7 Santos	35 DOGC	6 DOGC other	21 TMT (marine)
3 TMT (ROV)	6 BHI	2 Halliburton	2 IDFS
1 DrillQuip	3 Weatherford	3 Anadrill	7 Schlum

Safety, Inspections and Drills		Summary
0 days since last	Fire and Abandon Ship Drill	
1797 days since last	Lost Workday Case	
days since last	Medical Treatment Case	
5 days since last	First Aid Case	
days since last	Environmental Issue	

Shakers, Volumes and Losses Data				ENGINEER M. Docherty / J. Singh	
SHAKER 1 4 x 115	VOLUME AVAILABLE (m3) =		228	LOSSES (m3) =	46
SHAKER 2 4 x 115	ACTIVE	91.4	MIXING	0.0	DOWNHOLE 13.35
SHAKER 3 4 x 115	HOLE	112.4	SLUG	0.0	SURF.+EQUIP 32.27
SHAKER 4 4 x 84	RESERVE	23.8	HEAVY	0.0	DUMPED 0.00
SHAKER 5					

Anchors						RIS. TENS. (MT) :	
Anc 1 : 150	Anc 2 : 118	Anc 3 : 145	Anc 4 : 111	Anc 5 : 113			101
Anc 6 : 116	Anc 7 : 109	Anc 8 : 147	Anc 9 : 0	Anc 10 : 0			0.0
Workboats						Weather	
Arrived @ Rig (Date)(Time)		Depart from Rig (Date)(Time)		EstimatedArrival (Port) (Date)(Time)			
Pacific Sentinel	26/8/02 23:00	1/9/02 16:50	1/9/02 21:00			VISIBILITY(nm) :	12
Pacific Conqueror	31/8/02 5:05					WIND SP. (kts) :	20.0
						WIND DIR (deg) :	360
						PRES.(mbars):	1019
						AIR TEMP (C) :	11.0
COMMENTS : Pax on / off : Flt #1, 5 / -						RISER ANGLE (deg): 0.0	
						STACK ANGLE(deg): 0.0	
						V.D.L. (MT) : 1,780.5	
						AVE HEAVE (m) : 0.3	
						MAX HEAVE (m) : 0.3	
						AVE PITCH (deg) : 0.3	
						MAX PITCH (deg) : 0.3	
						AVE ROLL (deg) : 0.2	
						MAX ROLL (deg) : 0.2	

DATE : Sep 02, 2002

FROM : H. Flink / S. Hodgetts
TO : O. Moller

CASINO #1

Casino #1

Well Data		M.DEPTH (m BRT)	1,750.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	1,649.8	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	350.0	SHOE TVD (m BRT)	743	DAILY COST :	\$508,889
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	8.25	FIT (sg)	0.00	CUM COST :	\$5,677,238
RIG	Ocean Bounty	DAYS +/- CURVE	-3.00	LOT (sg)	2.07		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 Drilling ahead 311mm (12.25") hole at 1792m.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Continue drilling 311mm (12.25") hole to TD (2276m).					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs
Made flow check at 1400m. POOH, made flow check at shoe. Downloaded MWD data and made up new PDC bit. Serviced rig and continued RIH. Drilled 311mm (12.25") hole to 1750m.

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,561
Warre	1,743

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 02, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		TO	00:00	05:30	5.50	1,400	Flow checked, hole static. POOH, worked tight spots, 13.6-22.7 tonne (30-50 kip) O/P. No drag after 1180m. Flow checked at shoe, hole static. Continued POOH. Commenced downloading MWD data.
IH1	P		TI	05:30	08:00	2.50	1,400	Changed bit while downloading MWD data. Commenced RIH. Shallow tested MWD, OK.
IH1	P		RS	08:00	08:30	0.50	1,400	Serviced rig, TDS and travelling blocks.
IH1	P		TI	8:30	10:30	2.00	1,440	Continued RIH to 1400m. Washed from 1382m to bottom.
IH1	P		D	10:30	12:00	1.50	1,440	Drilled 311 mm (12.25") hole from 1400m to 1440m. No drag.
IH1	P		D	12:00	18:00	6.00	1,605	Drilled ahead 311mm (12.25") hole to 1605m. No drag.
IH1	P		D	18:00	24:00	6.00	1,750	Drilled ahead 311mm (12.25") hole to 1750m. No drag. Flow checked drilling break at 1750m.

ACTIVITY FOR PERIOD 0000 HRS TO 04:00 HRS ON Sep 03, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		D	00:00	06:00	6.00	1,792	Drilled to 1764m, gas increased. Circulated out gas, lag depth 1746m. Drilled ahead.

WBM Data		COST TODAY : \$30,289	CUM. WB MUD COST: \$161,847	CUM. WBM+OBM COST: \$161,847					
Type :	KCI PHPA	VISCOCITY (sec/ltr) :	54	API FLUID LOSS (cm3/30min) :	5	Cl :	29,000	SOLIDS (%vol) :	5.6
FROM :	pit	PV (Pa.s) :	0	FILTER CAKE (mm) :	1	K+C*1000 :	32400	H2O (%vol) :	94.3
TIME :	20:00	YP (Pa.s) :	15	HTHPFL (cm3/30min) :	17	HARD/Ca :	320	OIL (%vol) :	
WEIGHT (sg):	1.18	GEL10s/10m/100m (Pa.s) :	5 7 1	HTHP CAKE (mm) :	2	MBT (ppb) :	11.0	SAND :	tr
TEMP (C) :	54	Fann 3/6/100 :	9 12 32			PM :		PH :	9.5
						PF :	.2	PHPA (ppb) :	1.8

Bit Data for Bit # 5 IADC # 4 3 7 X				Wear							
SIZE (") :	12.25			I	O1	D	L	B	G	O2	R
MANUFACTURER :	SM	AVE WOB (MT) :	15	1	1	WT	A	E	1	ER	PR
TYPE :	10GF	AVE RPM :	99	NOZZLES				Drilled over the last 24 hrs			
SERIAL # :	MJ3163	FLOW (lpm) :	3,244	3 X 16	METERAGE (m) :			0			Calculated over the bit run
DEPTH IN (mRT):	1059	PUMP PRESS.(Kpa):	21,167	X 0	ON BOTTOM HRS :			.0			CUM.METERAGE (m) :
DEPTH OUT (mRT):	1400	HSI (kW/cm2) :	0.099	X 0	IADC DRILL. HRS :			.0			CUM. ON BOT. HRS :
				X 0	TOTAL REVS :			0			CUM.IADC DR. HRS:
				X 0	ROP (m/hr) :						CUM.TOT. REVS :
											87,318
											ROP (m/hr) :
											23.2

Bit Data for Bit # 6 IADC #				Wear							
				I	O1	D	L	B	G	O2	R
SIZE ("):	12.25			NOZZLES				Drilled over the last 24 hrs Calculated over the bit run METERAGE (m) : 350 CUM.METERAGE (m) : 350 ON BOTTOM HRS : 10.2 CUM. ON BOT. HRS : 10.2 IADC DRILL. HRS : 13.5 CUM.IADC DR. HRS: 13.5 TOTAL REVS : 94,860 CUM.TOT. REVS : 94,860 ROP (m/hr) : 34.3 ROP (m/hr) : 34.3			
MANUFACTURER :	SM	AVE WOB (MT) :	6	6 X 12							
TYPE :	MA74BPX	AVE RPM :	155	X 0							
SERIAL # :	JS6343	FLOW (lpm) :	3,134	X 0							
DEPTH IN (mRT):	1400	PUMP PRESS.(Kpa):	21,960	X 0							
DEPTH OUT (mRT):		HSI (kW/cm2) :	0.071	X 0							

BHA # 6 Length (m): 293.1							
WT BLW JAR (MT):	32	STRING WT (MT):	149	TRQE MAX (Nm):	16	D.C. (1) ANN. VELOCITY (mpm):	76
BHA WT (MT) :	41	PICK UP WT (MT):	0	TRQE ON (Nm):	9	D.C. (2) ANN VELOCITY (mpm):	80
		SLK OFF WT (MT):	0	TRQE OFF (Nm):	4	H.W.D.P. ANN VELOCITY (mpm):	52
						D.P. ANN VELOCITY (mpm) :	52

BHA DESCRIPTION : 12.25" bit, NB stab, 8.25" MWD/FEWD, 12.25" RR, 1 x 8" DC, 12.25" RR, 12 x 8" DC, 8" Jar, 2 x 8" DC, x/o, 12 x 5" HWDP

TOOL DESCRIPTION	LENGTH	OD	ID	SERIAL #	HRS	COMMENT
NB RR				GU 2151	57.5	
CDR				9556	57.5	
Pulser				231	57.5	
ILS				313272-2	57.5	
ISONIC				857	57.5	
Str RR				GU 2143	57.5	
Str RR				GU2144	57.5	
Jars				48907C	57.5	

Survey (Method : Min Curvature)		MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type :	MWD	1084.6	1084.5	1.29	191.9	191.9	6.5	0.1	6.5	0.2	MWD
Magnetic Declination :	0.00	1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
		1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
		1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
		1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
		1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
		1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
		1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS				START	USED	REC'D	STOCK	STOCK TYPE & UNITS				START	USED	REC'D	STOCK
	Fuel Oil - Rig	M3	435.0	14.5	420.5	Drill Water - Rig	MT	492.0	96.0	396.0						
Pot Water - Rig	MT	98.0	25.0	25.0	98.0	Cement 'G' - Rig	sxs	1430.0	1430.0							
Cement HTB - Rig	sxs	0.0	0.0	0.0	0.0	Bentonite - Rig	sxs	670.0	670.0							
Barite - Rig	sxs	1871.0	988.0	883.0	883.0	Brine - Rig	MT	0.0	0.0							
Helifuel - Rig	ltr	2996.0		2996.0	2996.0	Fuel Oil - Conqueror	M3	274.8	7.7	267.1						
Drill Water - Conqueror	MT	90.0		90.0	90.0	Pot Water - Conqueror	MT	190.0	5.0	185.0						
Cement 'G' - Conqueror	sxs	0.0		0.0	0.0	Cement HTB - Conqueror	sxs	0.0		0.0						
Bentonite - Conqueror	sxs	0.0		0.0	0.0	Barite - Conqueror	sxs	1146.0		1146.0						
Brine - Conqueror	MT	0.0		0.0	0.0	Fuel Oil - Sentinel	M3	457.0	8.4	448.6						
Drill Water - Sentinel	MT	335.0	149.0	484.0	484.0	Pot Water - Sentinel	MT	210.0	5.0	19.0	224.0					
Cement 'G' - Sentinel	sxs	0.0		0.0	0.0	Cement HTB - Sentinel	sxs	0.0		0.0						
Bentonite - Sentinel	sxs	0.0		0.0	0.0	Barite - Sentinel	sxs	1000.0		1000.0						
Brine - Sentinel	MT	0.0		0.0	0.0											

Pump Data										
Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152	63	97	1009	22063	30	1379	1707.0	1.18
		0			0	40	1896			
		0			0	50	2241			
2	Nat'l 12-P-160	152	63	97	1009	22063	30	1551	1707.0	1.18
		0			0	40	1896			
		0			0	50	2413			
3	Nat'l 12-P-160	152	63	97	1009	22063		0	1707.0	1.18

Casing								
DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)		SHOE TVD (plan/Actual)		LOT (pl/Act)	FIT (pl/Act)	COMMENT
13.375	340	785.0	743.0	785.0	742.9	1.68	2.07	
TYPE		LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD		
340mm (13.375") shoe jt 107 kg/m, cent mid		12.52	316	107.1	L-80	BTC		
340mm (13.375") int jt 107 kg/m, cent mid jt		12.13	316	107.1	L-80	BTC		
340mm (13.375") int jt 107 kg/m, cent mid jt		12.64	316	107.1	L-80	BTC		
50 x 340mm (13.375") jt 101 kg/m		590.73	316	101.2	L-80	BTC		
340mm (13.375") No-cross jt 101 kg/m		11.84	316	101.2	L-80	BTC		
476mm (18.75") wellhead + extension jt		10.71	316	101.2	L-80	BTC		
RT to Wellhead top		92.58	0	.0				

Personnel : on Site =95			
7 Santos	35 DOGC	6 DOGC other	21 TMT (marine)
3 TMT (ROV)	6 BHI	1 Halliburton	2 IDFS
1 DrillQuip	3 Weatherford	3 Anadrill	7 Schlum

Safety, Inspections and Drills		Summary
1 days since last	Fire and Abandon Ship Drill	
1798 days since last	Lost Workday Case	
days since last	Medical Treatment Case	
6 days since last	First Aid Case	
days since last	Environmental Issue	

Shakers, Volumes and Losses Data			ENGINEER M. Docherty / J. Singh		
SHAKER 1 4 x 115	VOLUME AVAILABLE (m3) = 273 ACTIVE 79.5 MIXING 0.0 HOLE 139.6 SLUG 0.0 RESERVE 54.0 HEAVY 0.0	LOSSES (m3) = 29 DOWNHOLE 12.56 SURF.+EQUIP 16.53 DUMPED 0.00	COMMENTS		
SHAKER 2 4 x 115					
SHAKER 3 4 x 115					
SHAKER 4 4 x 84					
SHAKER 5					

Anchors						RIS. TENS. (MT) : 101	
Anc 1 : 147	Anc 2 : 125	Anc 3 : 147	Anc 4 : 116	Anc 5 : 116		RISER ANGLE (deg): 0.0	
Anc 6 : 118	Anc 7 : 107	Anc 8 : 145	Anc 9 : 0	Anc 10 : 0		STACK ANGLE(deg): 0.0	
Workboats						Weather	
Arrived @ Rig (Date)(Time)		Depart from Rig (Date)(Time)		EstimatedArrival (Port) (Date)(Time)		VISIBILITY(nm) : 5	V.D.L. (MT) : 1,923.5
Pacific Sentinel	2/9/02 20:45					WIND SP. (kts) : 45.0	AVE HEAVE (m) : 0.6
Pacific Conqueror	31/8/02 5:05					WIND DIR (deg) : 1.5	MAX HEAVE (m) : 0.6
						PRES.(mbars): 997	AVE PITCH (deg) : 0.4
						AIR TEMP (C) : 10.0	MAX PITCH (deg) : 0.4
COMMENTS : Pax on / off : Flt #1, 4 / 5							AVE ROLL (deg) : 0.3
							MAX ROLL (deg) : 0.3

DATE : Sep 03, 2002

FROM : H. Flink / S. Hodgetts
TO : O. Moller

CASINO #1

Casino #1

Well Data		M.DEPTH (m BRT)	1,797.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	1,796.5	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	47.0	SHOE TVD (m BRT)	743	DAILY COST :	\$431,343
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	9.25	FIT (sg)	0.00	CUM COST :	\$6,108,581
RIG	Ocean Bounty	DAYS +/- CURVE	-4.00	LOT (sg)	2.07		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 Running in hole with new bit.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Continue drilling 311mm (12.25") hole to TD (2276m).					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs
 Drilled 311mm (12.25") hole from 1750m to 1797m. Circulated out gas at 1766m, flow checked well static. Increased mud weight to 1.2sg (10ppg) at 1790m. Flow checked, hole static and POOH to 1610m, pumped out to 1498m, 27.2 tonne (60kips) overpull and high torque. Ran back to bottom, no drag, 9m fill and circulated out gas. Boosted riser observed cavings at shakers. Raised mud weight to 1.24sg (10.3ppg). Pumped out of hole to 1074m, 23 tonne (50kips) overpull reduced to 0-7 tonne (0-15kips). Flow check static, pumped slug and POOH, no drag. B/O bit and D/L data.

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,561
Warre	1,743

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 03, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		D	00:00	00:30	0.50	1,766	Drilled 311mm (12.25") hole to 1766m.
IH1	P		CIR	00:30	01:30	1.00	1,766	Circulated out gas, flow checked, well static.
IH1	P		D	01:30	03:00	1.50	1,790	Drilled ahead to 1790m.
IH1	P		CIR	03:00	04:00	1.00	1,790	Circulated and increased mud weight to 1.2sg (10ppg).
IH1	P		D	04:00	08:30	4.50	1,797	Drilled ahead to 1797m.
PS	P		WT	08:30	12:30	4.00	1,797	Flow checked, hole static and POOH to 1610m, pumped out to 1498m, 27.2 tonne (60kips) overpull and high torque. Ran back to bottom, no drag, 9m fill.
PS	P		CIR	12:30	16:00	3.50	1,797	Circulated out gas. Boosted riser observed cavings at shakers. Raised mud weight to 1.24sg (10.3ppg).
PS	P		TO	16:00	24:00	8.00	1,797	Pumped out of hole to 1074m, 23 tonne (50kips) overpull reduced to 0-7 tonne (0-15kips). Flow check static, pumped slug and POOH, no drag. B/O bit and download MWD data.

ACTIVITY FOR PERIOD 0000 HRS TO 04:00 HRS ON Sep 04, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
PS	P		TI	00:00	06:00	6.00	1,797	Changed bit and CDR module on MWD. RIH shallow testing MWD at HWDP. Flowchecked at shoe and serviced TDS.

00:00 TO 24:00 HRS ON : 3/09/2002		
Comments	Recommendations	Rig Requirements
Conducted Safety meetings for all crews.		P. Conqueror requires 250m3 fuel next call at port.

WBM Data		COST TODAY : \$18,195	CUM. WB MUD COST: \$180,042	CUM. WBM+OBM COST: \$180,042					
Type :	KCI PHPA	VISCOCITY (sec/ltr) :	64	API FLUID LOSS (cm3/30min) :	4	CI :	31,200	SOLIDS (%vol) :	7.4
FROM :	pit	PV (Pa.s) :	0	FILTER CAKE (mm) :	1	K+C*1000 :	32400	H2O (%vol) :	92.6
TIME :	20:00	YP (Pa.s) :	16	HTHPFL (cm3/30min) :	16	HARD/Ca :	300	OIL (%vol) :	
WEIGHT (sg):	1.24	GEL10s/10m/100m (Pa.s) :	6 8 1	HTHP CAKE (mm) :	2	MBT (ppb) :	12.0	SAND :	1
TEMP (C) :	43	Fann 3/6/100 :	10 12 43			PM :		PH :	9.5
						PF :	.2	PHPA (ppb) :	1.8

Bit Data for Bit # 6 IADC #				Wear											
				I	O1	D	L	B	G	O2	R				
				1	8	LT	S	X	I	CT	PR				
SIZE (") :	12.25			NOZZLES				Drilled over the last 24 hrs				Calculated over the bit run			
MANUFACTURER :	SM	AVE WOB (MT) :	5	6 X 12	METERAGE (m) :				47	CUM.METERAGE (m) :				397	
TYPE :	MA74BPX	AVE RPM :	147	X 0	ON BOTTOM HRS :				6.0	CUM. ON BOT. HRS :				16.2	
SERIAL # :	JS6343	FLOW (lpm) :	3,047	X 0	IADC DRILL. HRS :				6.5	CUM.IADC DR. HRS :				20.0	
DEPTH IN (mRT):	1400	PUMP PRESS.(Kpa):	22,222	X 0	TOTAL REVS :				52,920	CUM.TOT. REVS :				142,884	
DEPTH OUT (mRT):	1797	HSI (kW/cm2) :	0.646	X 0	ROP (m/hr) :				7.8	ROP (m/hr) :				24.5	

BHA # 6 Length (m): 293.1				D.C. (1) ANN. VELOCITY (mpm):				70	
WT BLW JAR (MT):	32	STRING WT (MT):	149	TRQE MAX (Nm):	15	D.C. (2) ANN VELOCITY (mpm):		73	
BHA WT (MT) :	41	PICK UP WT (MT):	0	TRQE ON (Nm):	7	H.W.D.P. ANN VELOCITY (mpm):		48	
				SLK OFF WT (MT):	0	TRQE OFF (Nm):	1	D.P. ANN VELOCITY (mpm) :	48

BHA DESCRIPTION : 12.25" bit, NB stab, 8.25" MWD/FEWD, 12.25" RR, 1 x 8" DC, 12.25" RR, 12 x 8" DC, 8" Jar, 2 x 8" DC, x/o, 12 x 5" HWDP

TOOL DESCRIPTION	LENGTH	OD	ID	SERIAL #	HRS	COMMENT
NB RR				GU 2151	71.0	
CDR				9556	71.0	
Pulser				231	71.0	
ILS				313272-2	71.0	
ISONIC				857	71.0	
Str RR				GU 2143	71.0	
Str RR				GU2144	71.0	
Jars				48907C	71.0	

Survey (Method : Min Curvature)		MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type :	MWD	1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
Magnetic Declination :	0.00	1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
		1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
		1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
		1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
		1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
		1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD
		1775.9	1775.1	4.38	192.3	192.3	-20.4	0.3	-20.4	-2.9	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS				START USED REC'D STOCK				STOCK TYPE & UNITS				START USED REC'D STOCK							
	Fuel Oil - Rig	M3	420.5	15.6	404.9	Drill Water - Rig	MT	396.0	95.0	301.0	Pot Water - Rig	MT	98.0	24.0	24.0	98.0	Cement 'G' - Rig	sxs	1430.0	
Cement HTB - Rig	sxs	0.0		0.0	Bentonite - Rig	sxs	670.0		670.0	Barite - Rig	sxs	883.0	443.0		440.0	Brine - Rig	MT	0.0		0.0
Helifuel - Rig	ltr	2996.0		2996.0	Fuel Oil - Conqueror	M3	267.1	10.0	257.1	Drill Water - Conqueror	MT	90.0		90.0	Pot Water - Conqueror	MT	185.0	5.0	180.0	
Cement 'G' - Conqueror	sxs	0.0		0.0	Cement HTB - Conqueror	sxs	0.0		0.0	Cement 'G' - Conqueror	sxs	0.0		0.0	Cement HTB - Conqueror	sxs	0.0		0.0	
Bentonite - Conqueror	sxs	0.0		0.0	Barite - Conqueror	sxs	1146.0		1146.0	Brine - Conqueror	MT	0.0		0.0	Fuel Oil - Sentinel	M3	448.6	8.5	440.1	
Brine - Conqueror	MT	0.0		0.0	Fuel Oil - Sentinel	M3	448.6	8.5	440.1	Drill Water - Sentinel	MT	484.0		484.0	Pot Water - Sentinel	MT	224.0	5.0	219.0	
Drill Water - Sentinel	MT	484.0		484.0	Cement 'G' - Sentinel	sxs	0.0		0.0	Cement 'G' - Sentinel	sxs	0.0		0.0	Cement HTB - Sentinel	sxs	0.0		0.0	
Cement 'G' - Sentinel	sxs	0.0		0.0	Bentonite - Sentinel	sxs	0.0		0.0	Bentonite - Sentinel	sxs	0.0		0.0	Barite - Sentinel	sxs	1000.0		1000.0	
Bentonite - Sentinel	sxs	0.0		0.0	Barite - Sentinel	sxs	1000.0		1000.0	Brine - Sentinel	MT	0.0		0.0						

Pump Data										
Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152	63	97	1009	22408	30	1379	1707.0	1.18
		0			0	40	1896			
		0			0	50	2241			
2	Nat'l 12-P-160	152	63	97	1009	22408	30	1551	1707.0	1.18
		0			0	40	1896			
		0			0	50	2413			
3	Nat'l 12-P-160	152	63	97	1009	22408	30	1551	1707.0	1.18
		0			0	40	1896			
		0			0	50	2413			

Casing								
DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)		SHOE TVD (plan/Actual)		LOT (pl/Act)	FIT (pl/Act)	COMMENT
13.375	340	785.0	743.0	785.0	742.9	1.68	2.07	
TYPE		LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD		
340mm (13.375") shoe jt 107 kg/m, cent mid		12.52	316	107.1	L-80	BTC		
340mm (13.375") int jt 107 kg/m, cent mid jt		12.13	316	107.1	L-80	BTC		
340mm (13.375") int jt 107 kg/m, cent mid jt		12.64	316	107.1	L-80	BTC		
50 x 340mm (13.375") jt 101 kg/m		590.73	316	101.2	L-80	BTC		
340mm (13.375") No-cross jt 101 kg/m		11.84	316	101.2	L-80	BTC		
476mm (18.75") wellhead + extension jt		10.71	316	101.2	L-80	BTC		
RT to Wellhead top		92.58	0	.0				

Personnel : on Site =93			
5 Santos	35 DOGC	6 DOGC other	21 TMT (marine)
3 TMT (ROV)	6 BHI	1 Halliburton	2 IDFS
1 DrillQuip	3 Weatherford	3 Anadrill	7 Schlum

Safety, Inspections and Drills		Summary
2 days since last	Fire and Abandon Ship Drill	
1799 days since last	Lost Workday Case	
days since last	Medical Treatment Case	
7 days since last	First Aid Case	
days since last	Environmental Issue	

Shakers, Volumes and Losses Data			ENGINEER M. Docherty / J. Singh		
SHAKER 1 4 x 115	VOLUME AVAILABLE (m3) = 286 ACTIVE 82.7 MIXING 0.0 HOLE 142.4 SLUG 0.0 RESERVE 60.4 HEAVY 0.0	LOSSES (m3) = 19 DOWNHOLE 9.22 SURF.+EQUIP 10.17 DUMPED 0.00	COMMENTS		
SHAKER 2 4 x 115					
SHAKER 3 4 x 115					
SHAKER 4 4 x 84					
SHAKER 5					

Anchors						RIS. TENS. (MT) : 101	
Anc 1 : 140	Anc 2 : 113	Anc 3 : 159	Anc 4 : 143	Anc 5 : 116		RISER ANGLE (deg): 0.0	
Anc 6 : 118	Anc 7 : 102	Anc 8 : 131	Anc 9 : 0	Anc 10 : 0		STACK ANGLE(deg): 0.0	
Workboats						Weather	
Arrived @ Rig (Date)(Time)		Depart from Rig (Date)(Time)		EstimatedArrival (Port) (Date)(Time)		VISIBILITY(nm) : 6	V.D.L. (MT) : 1,921.0
Pacific Sentinel 2/9/02 20:45						WIND SP. (kts) : 50.0	AVE HEAVE (m) : 3.0
Pacific Conqueror 31/8/02 5:05						WIND DIR (deg) : 310	MAX HEAVE (m) : 3.0
						PRES.(mbars): 1002	AVE PITCH (deg) : 1.5
						AIR TEMP (C) : 10.0	MAX PITCH (deg) : 1.5
							AVE ROLL (deg) : 1.0
							MAX ROLL (deg) : 1.0
COMMENTS : Pax on / off : Flt #1, - / 2							

DATE : Sep 04, 2002

FROM : H. Flink / S. Hodgetts
TO : O. Moller

CASINO #1

Casino #1

Well Data		M.DEPTH (m BRT)	1,797.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	1,796.5	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	0.0	SHOE TVD (m BRT)	743	DAILY COST :	\$376,338
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	10.25	FIT (sg)	0.00	CUM COST :	\$6,484,919
RIG	Ocean Bounty	DAYS +/- CURVE	4.00	LOT (sg)	2.07		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 WOW. Heave 4-5m, Roll 1 deg, Pitch 2 deg, Combined wave height 7.6m.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Continue WOW. RIH and drill ahead 311mm (12.25") hole to TD (2276m).					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

Changed out MWD. RIH to 1750m, circulated bottoms up. Washed and reamed to TD. Circulated hole clean. WOW - POOH to shoe and hung off.

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,561
Warre	1,743

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 04, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		TI	00:00	04:30	4.50	1,797	Changed bit and ISONIC module on MWD. RIH shallow testing MWD at HWDP. Flowchecked at shoe.
IH1	P		RS	04:30	05:00	0.50	1,797	Serviced TDS.
IH1	P		TI	05:00	07:30	2.50	1,797	Continued RIH tagged fill at 1750m.
IH1	TP	WCN	CIR	07:30	09:00	1.50	1,797	Circulated bottoms up through chokeline to degasser.
IH1	P		RW	09:00	12:30	3.50	1,797	Washed and reamed to bottom at 1797m. Boosted riser.
IH1	P		CIR	12:30	15:00	2.50	1,797	Circulated bottoms up, continued until shakers clean. Made flowcheck, static.
IH1	TP	WEA	TO	15:00	18:00	3.00	1,797	Suspended operations due to degrading weather conditions. Heave 7m, Roll 1.5 deg, Pitch 1.8 deg, Combined wave height 8.5m. POOH to shoe, made flowcheck, static. De-ballasted rig to storm draft 19.81m (65ft) at 17:45hrs.
IH1	TP	WEA	TO	18:00	21:00	3.00	1,797	Picked up hangoff tool and racked in derrick. Picked up additional DP to TD well and racked in derrick.
IH1	TP	WEA	O	21:00	24:00	3.00	1,797	Made up hangoff tool, RIH and landed out in wellhead. Backed out landing string, displaced riser to seawater. POOH. Heave 8m, Roll 1.2 deg, Pitch 2.5 deg, Combined wave height 8.5m. Well secured at 22:30hrs

ACTIVITY FOR PERIOD 0000 HRS TO 04:00 HRS ON Sep 05, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	TP	WEA	BOP	00:00	00:30	0.50	1,797	Rigged drill floor to pull divertor.
IH1	TP	WEA	WO	00:30	06:00	5.50	1,797	Waiting on weather, continue to monitor conditions.

00:00 TO 24:00 HRS ON : 4/09/2002	
Comments	Recommendations
De-ballasted rig to storm draft 19.81m (65ft) at 17:45hrs.	Rig Requirements

WBM Data	COST TODAY : \$9,276	CUM. WB MUD COST: \$189,318	CUM. WBM+OBM COST: \$189,318					
Type :	VISCOACITY (sec/ltr) :	64	API FLUID LOSS (cm3/30min) :	5	Cl :	300,000	SOLIDS (%vol) :	7.3
KCI PHPA	PV (Pa.s) :	0	FILTER CAKE (mm) :	1	K+C*1000 :	32400	H2O (%vol) :	91.7
FROM :	YP (Pa.s) :	15	HTHPFL (cm3/30min) :	16	HARD/Ca :	280	OIL (%vol) :	
TIME :	GEL10s/10m/100m (Pa.s) :	5 7 1	HTHP CAKE (mm) :	2	MBT (ppb) :	13.0	SAND :	1
WEIGHT (sg):	Fann 3/6/100 :	10 12 33			PM :		PH :	9.5
TEMP (C) :					PF :	.1	PHPA (ppb) :	1.8

Bit Data for Bit # 7 IADC # 5 1 7				Wear											
				I	O1	D	L	B	G	O2	R				
SIZE (") :	12.25			NOZZLES				Drilled over the last 24 hrs				Calculated over the bit run			
MANUFACTURER :	HU			3 X 16				METERAGE (m) :				0			
TYPE :	MXR09D			X 0				ON BOTTOM HRS :				.0			
SERIAL # :	L11DK			X 0				IADC DRILL. HRS :				.0			
DEPTH IN (mRT):	1797			X 0				TOTAL REVS :				0			
DEPTH OUT (mRT):				X 0				ROP (m/hr) :				ROP (m/hr) :			
	AVE WOB (MT) :			5				CUM.METERAGE (m) :				0			
	AVE RPM :			147				CUM. ON BOT. HRS :				.0			
	FLOW (lpm) :			3,047				CUM.IADC DR. HRS :				.0			
	PUMP PRESS.(Kpa):			22,222				CUM.TOT. REVS :				0			
	HSI (kW/cm2) :			0.817				ROP (m/hr) :				ROP (m/hr) :			

BHA # 7 Length (m): 293.1				D.C. (1) ANN. VELOCITY (mpm):				34							
WT BLW JAR (MT): 32				STRING WT (MT): 149				TRQE MAX (Nm): 0				D.C. (2) ANN VELOCITY (mpm): 36			
BHA WT (MT) : 41				PICK UP WT (MT): 0				TRQE ON (Nm): 0				H.W.D.P. ANN VELOCITY (mpm): 24			
				SLK OFF WT (MT): 0				TRQE OFF (Nm): 0				D.P. ANN VELOCITY (mpm) : 24			

BHA DESCRIPTION : 12.25" bit, NB stab, 8.25" MWD/FEWD, 12.25" RR, 1 x 8" DC, 12.25" RR, 12 x 8" DC, 8" Jar, 2 x 8" DC, x/o, 12 x 5" HWDP

TOOL DESCRIPTION	LENGTH	OD	ID	SERIAL #	HRS	COMMENT
NB RR				GU 2151	77.0	
CDR				9556	77.0	
Pulser				231	77.0	
ILS				313272-2	77.0	
ISONIC				829	6.0	
Str RR				GU 2143	77.0	
Str RR				GU2144	77.0	
Jars				48907C	77.0	

Survey (Method : Min Curvature)		MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type : MWD		1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
Magnetic Declination : 0.00		1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
		1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
		1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
		1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
		1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
		1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD
		1775.9	1775.1	4.38	192.3	192.3	-20.4	0.3	-20.4	-2.9	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS				START USED REC'D STOCK				STOCK TYPE & UNITS				START USED REC'D STOCK							
	Fuel Oil - Rig	M3	404.9	18.0	386.9	Drill Water - Rig	MT	301.0	63.0	238.0	Pot Water - Rig	MT	98.0	25.0	25.0	98.0	Cement 'G' - Rig	sxs	1430.0	
Cement HTB - Rig	sxs	0.0		0.0	Bentonite - Rig	sxs	670.0		670.0	Barite - Rig	sxs	0.0			0.0	Brine - Rig	MT	0.0		0.0
Helifuel - Rig	ltr	2996.0	419.0	2577.0	Fuel Oil - Conqueror	M3	257.1	10.7	246.4	Drill Water - Conqueror	MT	90.0		90.0	Pot Water - Conqueror	MT	180.0	5.0	175.0	
Cement 'G' - Conqueror	sxs	0.0		0.0	Cement HTB - Conqueror	sxs	0.0		0.0	Cement 'G' - Conqueror	sxs	0.0		0.0	Cement HTB - Conqueror	sxs	0.0		0.0	
Bentonite - Conqueror	sxs	0.0		0.0	Barite - Conqueror	sxs	1146.0		1146.0	Brine - Conqueror	MT	0.0		0.0	Fuel Oil - Sentinel	M3	440.1	8.5	431.6	
Brine - Conqueror	MT	0.0		0.0	Fuel Oil - Sentinel	M3	440.1	8.5	431.6	Drill Water - Sentinel	MT	484.0		484.0	Pot Water - Sentinel	MT	219.0	5.0	214.0	
Drill Water - Sentinel	MT	484.0		484.0	Pot Water - Sentinel	MT	219.0	5.0	214.0	Cement 'G' - Sentinel	sxs	0.0		0.0	Cement HTB - Sentinel	sxs	0.0		0.0	
Cement 'G' - Sentinel	sxs	0.0		0.0	Cement HTB - Sentinel	sxs	0.0		0.0	Bentonite - Sentinel	sxs	0.0		0.0	Barite - Sentinel	sxs	1000.0		1000.0	
Bentonite - Sentinel	sxs	0.0		0.0	Barite - Sentinel	sxs	1000.0		1000.0	Brine - Sentinel	MT	0.0		0.0						

Pump Data										
Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152	93	97	1501	7239	30	1379	1707.0	1.18
		0			0	40	1896			
		0			0	50	2241			
2	Nat'l 12-P-160	152	97	97	0	0	30	1551	1707.0	1.18
		0			0	40	1896			
		0			0	50	2413			
3	Nat'l 12-P-160	152	97	97	0	0	0	0	1707.0	1.18
		0			0	40	1896			
		0			0	50	2413			

Casing								
DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)		SHOE TVD (plan/Actual)		LOT (pl/Act)	FIT (pl/Act)	COMMENT
13.375	340	785.0	743.0	785.0	742.9	1.68	2.07	
TYPE		LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD		
340mm (13.375") shoe jt 107 kg/m, cent mid		12.52	316	107.1	L-80	BTC		
340mm (13.375") int jt 107 kg/m, cent mid jt		12.13	316	107.1	L-80	BTC		
340mm (13.375") int jt 107 kg/m, cent mid jt		12.64	316	107.1	L-80	BTC		
50 x 340mm (13.375") jt 101 kg/m		590.73	316	101.2	L-80	BTC		
340mm (13.375") No-cross jt 101 kg/m		11.84	316	101.2	L-80	BTC		
476mm (18.75") wellhead + extension jt		10.71	316	101.2	L-80	BTC		
RT to Wellhead top		92.58	0	.0				

Personnel : on Site =93			
4 Santos	35 DOGC	7 DOGC other/extra	21 TMT (marine)
3 TMT (ROV)	6 BHI	1 Halliburton	2 IDFS
1 DrillQuip	3 Weatherford	3 Anadrill	7 Schlum

Safety, Inspections and Drills		Summary
3 days since last	Fire and Abandon Ship Drill	
1800 days since last	Lost Workday Case	
days since last	Medical Treatment Case	
8 days since last	First Aid Case	
days since last	Environmental Issue	

Shakers, Volumes and Losses Data			ENGINEER M. Docherty / J. Singh		
SHAKER 1 4 x 115	VOLUME AVAILABLE (m3) = 289 ACTIVE 82.7 MIXING 0.0 HOLE 142.4 SLUG 0.0 RESERVE 63.6 HEAVY 0.0	LOSSES (m3) = 29 DOWNHOLE 14.78 SURF.+EQUIP 13.83 DUMPED 0.00	COMMENTS		
SHAKER 2 4 x 115					
SHAKER 3 4 x 115					
SHAKER 4 4 x 84					
SHAKER 5					

Anchors						RIS. TENS. (MT) : 109	
Anc 1 : 137	Anc 2 : 75	Anc 3 : 145	Anc 4 : 118	Anc 5 : 109		RISER ANGLE (deg): 0.0	
Anc 6 : 104	Anc 7 : 68	Anc 8 : 91	Anc 9 : 0	Anc 10 : 0		STACK ANGLE(deg): 0.0	
Workboats						Weather	
Arrived @ Rig (Date)(Time)		Depart from Rig (Date)(Time)		EstimatedArrival (Port) (Date)(Time)		VISIBILITY(nm) : 5	V.D.L. (MT) : 1,921.0
Pacific Sentinel 2/9/02 20:45						WIND SP. (kts) : 45.0	AVE HEAVE (m) : 5.5
Pacific Conqueror 31/8/02 5:05		4/9/02 19:20		5/9/02		WIND DIR (deg) : 310	MAX HEAVE (m) : 6.1
						PRES.(mbars): 1015	AVE PITCH (deg) : 2.5
						AIR TEMP (C) : 12.0	MAX PITCH (deg) : 3.0
COMMENTS : Pax on / off : Flt #1, 7 / 4; Flt #2, 3/6.						AVE ROLL (deg) : 1.2	
						MAX ROLL (deg) : 1.8	

DATE : Sep 05, 2002

FROM : H. Flink / S. Hodgetts
TO : O. Moller

CASINO #1

Casino #1

Well Data		M.DEPTH (m BRT)	1,797.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	1,796.5	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	0.0	SHOE TVD (m BRT)	743	DAILY COST :	\$338,543
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	11.25	FIT (sg)	0.00	CUM COST :	\$6,823,462
RIG	Ocean Bounty	DAYS +/- CURVE	5.00	LOT (sg)	2.07		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 WOW.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Continue waiting on weather to abate. Offload supply vessels as windows of opportunity prevail.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

Continued waiting on weather. General maintenance. Transferred bulk from P. Sentinel.

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,561
Warre	1,743

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 05, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	TP	WEA	BOP	00:00	00:30	0.50	1,797	Rigged drill floor to pull divertor.
IH1	TP	WEA	WO	00:30	06:00	5.50	1,797	Waiting on weather, continue to monitor conditions. Pitch 2 deg, roll 1 deg, heave 6m, combined wave height 7.5m.
IH1	TP	WEA	WO	06:00	12:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 1.5 deg, roll 1 deg, heave 5m, combined wave height 7.5m.
IH1	TP	WEA	WO	12:00	18:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 1.2 deg, roll 0.8 deg, heave 4m, combined wave height 6m.
IH1	TP	WEA	WO	18:00	24:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 1.8 deg, roll 1.2 deg, heave 3m, combined wave height 6.5m.

ACTIVITY FOR PERIOD 0000 HRS TO 04:00 HRS ON Sep 06, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	TP	WEA	WO	00:00	06:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 1.8 deg, roll 1 deg, heave 4m, combined wave height 5.5m.

00:00 TO 24:00 HRS ON : 5/09/2002

Comments	Recommendations	Rig Requirements
Whilst offloading drillwater a squawl approached OB postponing offtake. The P. Sentinel was disconnected and let go. When clear of the rig PS experienced a total electrical power failure (notified at 21:15). PS regained partial power (1 generator). Has no spares to repair and requires dockside work on return of the P. Conqueror.		

WBM Data	COST TODAY : \$1,950	CUM. WB MUD COST: \$191,268	CUM. WBM+OBM COST: \$191,268
Type :	VISCOCITY (sec/ltr) : 71	API FLUID LOSS (cm3/30min) : 5	CI : 31,000
KCI PHPA	PV (Pa.s) : 0	FILTER CAKE (mm) : 1	K+C*1000 : 32400
FROM : pit	YP (Pa.s) : 14	HTHPFL (cm3/30min) : 19	HARD/Ca : 360
TIME : 21:00	GEL10s/10m/100m (Pa.s) : 5 7 1	HTHP CAKE (mm) : 2	MBT (ppb) : 11.0
WEIGHT (sg): 1.24	Fann 3/6/100 : 9 11 30		PM : 8.5
TEMP (C) :			PF : .1
			SOLIDS (%vol) : 11.
			H2O (%vol) : 88.4
			OIL (%vol) :
			SAND : 1
			PH : 8.5
			PHPA (ppb) : 1.8

Bit Data for Bit # 7 IADC # 5 1 7				Wear											
				I	O1	D	L	B	G	O2	R				
SIZE (") :	12.25			NOZZLES				Drilled over the last 24 hrs				Calculated over the bit run			
MANUFACTURER :	HU	AVE WOB (MT) :	0	3 X 16	METERAGE (m) :				0	CUM.METERAGE (m) :				0	
TYPE :	MXR09D	AVE RPM :		X 0	ON BOTTOM HRS :				.0	CUM. ON BOT. HRS :				.0	
SERIAL # :	L11DK	FLOW (lpm) :	0	X 0	IADC DRILL. HRS :				.0	CUM.IADC DR. HRS :				.0	
DEPTH IN (mRT):	1797	PUMP PRESS.(Kpa):	0	X 0	TOTAL REVS :				0	CUM.TOT. REVS :				0	
DEPTH OUT (mRT):		HSI (kW/cm2) :	0.000	X 0	ROP (m/hr) :					ROP (m/hr) :					

Survey (Method : Min Curvature)		MD	TVD	INCL	AZ	CORR.	'V'	DOGLEG	N/S	E/W	TOOL TYPE
Last Tool Type :	MWD	(mBRT)	(mBRT)	DEG	(deg)	AZ	SECT	(deg/30m)	(m)	(m)	
Magnetic Declination :	0.00					(deg)	(m)				
		1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
		1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
		1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
		1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
		1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
		1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
		1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD
		1775.9	1775.1	4.38	192.3	192.3	-20.4	0.3	-20.4	-2.9	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS		START USED REC'D STOCK			STOCK TYPE & UNITS		START USED REC'D STOCK			
	Fuel Oil - Rig	M3	386.9	8.4	378.5	Drill Water - Rig	MT	238.0	48.0	200.0	390.0
	Pot Water - Rig	MT	98.0	24.0	24.0	98.0	Cement 'G' - Rig	sxs	1430.0		1430.0
	Cement HTB - Rig	sxs	0.0		0.0	Bentonite - Rig	sxs	670.0		670.0	
	Barite - Rig	sxs	200.0	1000.0	1200.0	Brine - Rig	MT	0.0		0.0	
	Helifuel - Rig	ltr	2577.0		2577.0	Fuel Oil - Conqueror	M3	246.4		246.4	
	Drill Water - Conqueror	MT	90.0		90.0	Pot Water - Conqueror	MT	175.0		175.0	
	Cement 'G' - Conqueror	sxs	0.0		0.0	Cement HTB - Conqueror	sxs	0.0		0.0	
	Bentonite - Conqueror	sxs	0.0		0.0	Barite - Conqueror	sxs	1146.0		1146.0	
	Brine - Conqueror	MT	0.0		0.0	Fuel Oil - Sentinel	M3	431.6	7.7	423.9	
	Drill Water - Sentinel	MT	484.0		284.0	Pot Water - Sentinel	MT	214.0	5.0	209.0	
	Cement 'G' - Sentinel	sxs	0.0		0.0	Cement HTB - Sentinel	sxs	0.0		0.0	
	Bentonite - Sentinel	sxs	0.0		0.0	Barite - Sentinel	sxs	1000.0		0.0	
	Brine - Sentinel	MT	0.0		0.0						

Pump Data										
Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152		97	0	0	30	1379	1707.0	1.18
		0			0	0	40	1896		
		0			0	0	50	2241		
2	Nat'l 12-P-160	152		97	0	0	30	1551		
		0			0	0	40	1896		
		0			0	0	50	2413		
3	Nat'l 12-P-160	152		97	0	0		0		

Casing										
DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)		SHOE TVD (plan/Actual)		LOT (pl/Act)		FIT (pl/Act)		COMMENT
13.375	340	785.0	743.0	785.0	742.9	1.68	2.07			
TYPE		LENGTH (m)		CSG ID (mm)		WT (kg/m)		GRADE		THREAD
340mm (13.375") shoe jt 107 kg/m, cent mid		12.52		316		107.1		L-80		BTC
340mm (13.375") int jt 107 kg/m, cent mid jt		12.13		316		107.1		L-80		BTC
340mm (13.375") int jt 107 kg/m, cent mid jt		12.64		316		107.1		L-80		BTC
50 x 340mm (13.375") jt 101 kg/m		590.73		316		101.2		L-80		BTC
340mm (13.375") No-cross jt 101 kg/m		11.84		316		101.2		L-80		BTC
476mm (18.75") wellhead + extension jt		10.71		316		101.2		L-80		BTC
RT to Wellhead top		92.58		0		.0				

Personnel : on Site =81			
4 Santos	35 DOGC	7 DOGC other/extra	21 TMT (marine)
3 TMT (ROV)	4 BHI	2 Halliburton	2 IDFS
1 DrilQuip	2 Anadrill		

Safety, Inspections and Drills Summary	
4 days since last	Fire and Abandon Ship Drill
1801 days since last	Lost Workday Case
days since last	Medical Treatment Case
0 days since last	First Aid Case
days since last	Environmental Issue

Shakers, Volumes and Losses Data				ENGINEER M. Docherty / J. Singh			
SHAKER 1 4 x 115	VOLUME AVAILABLE (m3) =			301	LOSSES (m3) =	11	COMMENTS
SHAKER 2 4 x 115	ACTIVE	79.5	MIXING	0.0	DOWNHOLE	0.00	
SHAKER 3 4 x 115	HOLE	142.4	SLUG	0.0	SURF.+EQUIP	0.00	
SHAKER 4 4 x 84	RESERVE	79.5	HEAVY	0.0	DUMPED	11.13	
SHAKER 5							

Anchors						RIS. TENS. (MT) :	109
Anc 1 :	95	Anc 2 :	68	Anc 3 :	145	RISER ANGLE (deg):	0.0
Anc 4 :	98	Anc 5 :	88	Anc 6 :	88	STACK ANGLE(deg):	0.0
Anc 7 :	70	Anc 8 :	107	Anc 9 :	0	V.D.L. (MT) :	2,019.0
Anc 10 :	0					AVE HEAVE (m) :	3.0
Workboats						Weather	
	Arrived @ Rig (Date)(Time)	Depart from Rig (Date)(Time)	EstimatedArrival (Port) (Date)(Time)				
Pacific Sentinel	2/9/02 20:45			VISIBILITY(nm) :	8	AVE HEAVE (m) :	3.0
Pacific Conqueror			5/9/02	WIND SP. (kts) :	40.0	MAX HEAVE (m) :	6.1
				WIND DIR (deg) :	315	AVE PITCH (deg) :	1.8
				PRES.(mbars):	1012	MAX PITCH (deg) :	2.5
				AIR TEMP (C) :	13.0	AVE ROLL (deg) :	1.2
COMMENTS : Pax on / off : Flt #1, 0 / 8; Flt #2, 3/7.						MAX ROLL (deg) :	1.5

DATE : Sep 06, 2002

FROM : H. Flink / S. Hodgetts
TO : O. Moller

CASINO #1

Casino #1

Well Data		M.DEPTH (m BRT)	1,797.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	1,796.5	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	0.0	SHOE TVD (m BRT)	743	DAILY COST :	\$329,759
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	12.25	FIT (sg)	0.00	CUM COST :	\$7,153,221
RIG	Ocean Bounty	DAYS +/- CURVE	6.50	LOT (sg)	2.07		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 WOW.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Continue waiting on weather to abate to pull hangoff tool.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

Continued waiting on weather. General maintenance. Offloaded P. Conqueror.

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,561
Warre	1,743

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 06, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	TP	WEA	WOW	00:00	06:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 1.5 deg, roll 1 deg, heave 4.5m, combined wave height 6.5m.
IH1	TP	WEA	WOW	06:00	12:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 1.5 deg, roll 1 deg, heave 4.5m, combined wave height 6.5m.
IH1	TP	WEA	WOW	12:00	18:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 1.8 deg, roll 1.2 deg, heave 4.8m, combined wave height 7.3m.
IH1	TP	WEA	WOW	18:00	24:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 2.2 deg, roll 1.8 deg, heave 5.8m, combined wave height 9.7m.

ACTIVITY FOR PERIOD 0000 HRS TO 04:00 HRS ON Sep 07, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	TP	WEA	WOW	00:00	06:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 2.5 deg, roll 2.5 deg, heave 7-7.5m, combined wave height 9.75-10.5m.

WBM Data	COST TODAY : \$672	CUM. WB MUD COST: \$191,940	CUM. WBM+OBM COST: \$191,940
Type :	VISCOCITY (sec/ltr) : 72	API FLUID LOSS (cm3/30min) : 5	CI : 29,800
KCI PHPA	PV (Pa.s) : 0	FILTER CAKE (mm) : 1	K+C*1000 : 32400
FROM : pit	YP (Pa.s) : 14	HTHPFL (cm3/30min) : 20	HARD/Ca : 300
TIME : 20:00	GEL10s/10m/100m (Pa.s) : 4 6 1	HTHP CAKE (mm) : 2	MBT (ppb) : 12.0
WEIGHT (sg): 1.24	Fann 3/6/100 : 8 10 29		PM : .1
TEMP (C) :			PF : .1
			SOLIDS (%vol) : 11.
			H2O (%vol) : 88.8
			OIL (%vol) :
			SAND : 1
			PH : 8.5
			PHPA (ppb) : 1.8

Survey (Method : Min Curvature)	MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	"V" SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type :	MWD									
Magnetic Declination :	0.00									
	1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
	1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
	1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
	1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
	1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
	1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
	1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD
	1775.9	1775.1	4.38	192.3	192.3	-20.4	0.3	-20.4	-2.9	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS					STOCK	STOCK TYPE & UNITS					STOCK
	START	USED	REC'D	START	USED		REC'D	START	USED	REC'D	START	
Fuel Oil - Rig	M3	378.5	7.2		371.3	Drill Water - Rig	MT	390.0	11.0		379.0	
Pot Water - Rig	MT	98.0	21.0	21.0	98.0	Cement 'G' - Rig	sxs	1430.0			1430.0	
Cement HTB - Rig	sxs	0.0			0.0	Bentonite - Rig	sxs	670.0			670.0	
Barite - Rig	sxs	1200.0			1200.0	Brine - Rig	MT	0.0			0.0	
Helifuel - Rig	ltr	2577.0			2577.0	Fuel Oil - Conqueror	M3	246.4	2.3	285.8	529.9	
Drill Water - Conqueror	MT	90.0		480.0	570.0	Pot Water - Conqueror	MT	175.0	5.0	75.0	245.0	
Cement 'G' - Conqueror	sxs	0.0			0.0	Cement HTB - Conqueror	sxs	0.0			0.0	
Bentonite - Conqueror	sxs	0.0			0.0	Barite - Conqueror	sxs	1146.0			1146.0	
Brine - Conqueror	MT	0.0			0.0	Fuel Oil - Sentinel	M3	423.9	6.3		417.6	
Drill Water - Sentinel	MT	284.0			284.0	Pot Water - Sentinel	MT	209.0	3.0		206.0	
Cement 'G' - Sentinel	sxs	0.0			0.0	Cement HTB - Sentinel	sxs	0.0			0.0	
Bentonite - Sentinel	sxs	0.0			0.0	Barite - Sentinel	sxs	0.0			0.0	
Brine - Sentinel	MT	0.0			0.0							

Pump Data

Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNDR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152		97	0	0	30	1379	1707.0	1.18
		0			0	0	40	1896		
		0			0	0	50	2241		
2	Nat'l 12-P-160	152		97	0	0	30	1551		
		0			0	0	40	1896		
		0			0	0	50	2413		
3	Nat'l 12-P-160	152		97	0	0		0		

Casing

DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)	SHOE TVD (plan/Actual)	LOT (pl/Act)	FIT (pl/Act)	COMMENT
13.375	340	785.0 743.0	785.0 742.9	1.68 2.07		

TYPE	LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD
340mm (13.375") shoe jt 107 kg/m, cent mid	12.52	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt	12.13	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt	12.64	316	107.1	L-80	BTC
50 x 340mm (13.375") jt 101 kg/m	590.73	316	101.2	L-80	BTC
340mm (13.375") No-cross jt 101 kg/m	11.84	316	101.2	L-80	BTC
476mm (18.75") wellhead + extension jt	10.71	316	101.2	L-80	BTC
RT to Wellhead top	92.58	0	.0		

Personnel : on Site =80

4 Santos	36 DOGC	6 DOGC other/extra	21 TMT (marine)
3 TMT (ROV)	4 BHI	2 Halliburton	2 IDFS
2 Anadrill			

Safety, Inspections and Drills Summary

5 days since last	Fire and Abandon Ship Drill
1802 days since last	Lost Workday Case
35 days since last	Medical Treatment Case
1 days since last	First Aid Case
days since last	Environmental Issue

Shakers, Volumes and Losses Data

ENGINEER M. Docherty / J. Singh

SHAKER	VOLUME AVAILABLE (m3) =	301	LOSSES (m3) =	0	COMMENTS
SHAKER 1 4 x 115	ACTIVE	79.5	MIXING	0.0	
SHAKER 2 4 x 115	HOLE	142.4	SLUG	0.0	
SHAKER 3 4 x 115	RESERVE	79.5	HEAVY	0.0	
SHAKER 4 4 x 84					
SHAKER 5					

Anchors	Anc 1 : 86	Anc 2 : 68	Anc 3 : 154	Anc 4 : 113	Anc 5 : 104	RIS. TENS. (MT) :	109	
	Anc 6 : 91	Anc 7 : 68	Anc 8 : 98	Anc 9 : 0	Anc 10 : 0	RISER ANGLE (deg):	0.0	
Workboats	Arrived @ Rig (Date)(Time)		Depart from Rig (Date)(Time)		EstimatedArrival (Port) (Date)(Time)		STACK ANGLE(deg):	0.0
	Pacific Sentinel		6/9/02	15:50	6/9/02	23:00	V.D.L. (MT) :	2,058.6
Pacific Conqueror	6/9/02	15:50					AVE HEAVE (m) :	3.0
							Weather	
							VISIBILITY(nm) :	8
							WIND SP. (kts) :	45.0
							WIND DIR (deg) :	315
							PRES.(mbars):	1009
							AIR TEMP (C) :	13.0
COMMENTS : Pax on / off : Flt #1, 2/3.							MAX HEAVE (m) :	6.1
							AVE PITCH (deg) :	1.8
							MAX PITCH (deg) :	2.5
							AVE ROLL (deg) :	1.2
							MAX ROLL (deg) :	1.5

DATE : Sep 07, 2002

FROM : H. Flink / S. Hodgetts
TO : O. Moller

CASINO #1

Casino #1

Well Data		M.DEPTH (m BRT)	1,797.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	1,796.5	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	0.0	SHOE TVD (m BRT)	743	DAILY COST :	\$320,452
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	13.25	FIT (sg)	0.00	CUM COST :	\$7,473,673
RIG	Ocean Bounty	DAYS +/- CURVE	7.00	LOT (sg)	2.07		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 WOW.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Continue waiting on weather to abate to pull hangoff tool.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

Continued waiting on weather. General maintenance.

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,561
Warre	1,743

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 07, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	TP	WEA	WOW	00:00	06:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 2.5 deg, roll 2.5 deg, heave 7-7.5m, combined wave height 9.75-10.5m.
IH1	TP	WEA	WOW	06:00	12:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 2.5 deg, roll 2 deg, heave 7m, combined wave height 12m.
IH1	TP	WEA	WOW	12:00	18:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 2.5 deg, roll 2 deg, heave 6.1m, combined wave height 10.8m.
IH1	TP	WEA	WOW	18:00	24:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 2 deg, roll 1 deg, heave 4.9m, combined wave height 8.5m.

ACTIVITY FOR PERIOD 0000 HRS TO 04:00 HRS ON Sep 08, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	TP	WEA	WOW	00:00	06:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 2 deg, roll 1 deg, heave 4m, wind 20/25kts, combined wave height 6.7m.

WBM Data	COST TODAY :	CUM. WB MUD COST: \$191,940	CUM. WBM+OBM COST: \$191,940						
Type :	KCI PHPA	VISCOCITY (sec/ltr) :	70	API FLUID LOSS (cm3/30min) :	4	CI :	30,000	SOLIDS (%vol) :	11.
FROM :	pit	PV (Pa.s) :	0	FILTER CAKE (mm) :	1	K+C*1000 :	32400	H2O (%vol) :	88.8
TIME :	20:00	YP (Pa.s) :	14	HTHPFL (cm3/30min) :	21	HARD/Ca :	300	OIL (%vol) :	
WEIGHT (sg):	1.24	GEL10s/10m/100m (Pa.s) :	4	HTHP CAKE (mm) :	2	MBT (ppb) :	12.5	SAND :	.5
TEMP (C) :		Fann 3/6/100 :	7			PM :		PH :	8.5
						PF :	.1	PHPA (ppb) :	1.8

Bit Data for Bit # 7 IADC # 4 3 7	Wear	I	O1	D	L	B	G	O2	R
SIZE (") :	12.25								
MANUFACTURER :	HU	NOZZLES	Drilled over the last 24 hrs		Calculated over the bit run				
TYPE :	MXR09D	3 X 16	METERAGE (m) :	0	CUM.METERAGE (m) :	0			
SERIAL # :	L11DK	X 0	ON BOTTOM HRS :	.0	CUM. ON BOT. HRS :	.0			
DEPTH IN (mRT):	1797	X 0	IADC DRILL. HRS :	.0	CUM.IADC DR. HRS:	.0			
DEPTH OUT (mRT):		X 0	TOTAL REVS :	0	CUM.TOT. REVS :	0			
		X 0	ROP (m/hr) :		ROP (m/hr) :				

BHA # 7 Length (m): 293.1

WT BLW JAR (MT):	32	STRING WT (MT):	149	TRQE MAX (Nm):	0	D.C. (1) ANN. VELOCITY (mpm):	0
BHA WT (MT) :	41	PICK UP WT (MT):	0	TRQE ON (Nm):	0	D.C. (2) ANN VELOCITY (mpm):	0
		SLK OFF WT (MT):	0	TRQE OFF (Nm):	0	H.W.D.P. ANN VELOCITY (mpm):	0
						D.P. ANN VELOCITY (mpm) :	0

BHA DESCRIPTION : 311mm bit, NB RR (solid float), 210mm MWD/FEWD, 311mm RR (totco ring), 1 x 203mm DC, 311mm RR, 12 x 203mm DC, 203mm Jar, 2 x 203mm DC, x/o, 12 x 127mm HWDP

TOOL DESCRIPTION	LENGTH	OD	ID	SERIAL #	HRS	COMMENT
NB RR				GU 2151	77.0	
CDR				9556	77.0	
Pulser				231	77.0	
ILS				313272-2	77.0	
ISONIC				829	6.0	
Str RR				GU 2143	77.0	
Str RR				GU2144	77.0	
Jars				48907C	77.0	

COMMENT: Hung-off at wellhead, riser displaced to seawater and landing string racked.

Survey (Method : Min Curvature)

Last Tool Type : MWD

Magnetic Declination : 0.00

MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD
1775.9	1775.1	4.38	192.3	192.3	-20.4	0.3	-20.4	-2.9	MWD

Bulk Stocks On Rig

STOCK TYPE & UNITS	START	USED	REC'D	STOCK	STOCK TYPE & UNITS	START	USED	REC'D	STOCK
Fuel Oil - Rig M3	371.3	7.2		364.1	Drill Water - Rig MT	379.0	21.0		357.0
Pot Water - Rig MT	98.0	25.0	25.0	98.0	Cement 'G' - Rig sxs	1430.0			1430.0
Cement HTB - Rig sxs	0.0			0.0	Bentonite - Rig sxs	670.0			670.0
Barite - Rig sxs	1200.0			1200.0	Brine - Rig MT	0.0			0.0
Helifuel - Rig ltr	2577.0			2577.0	Fuel Oil - Conqueror M3	529.9	8.1		521.8
Drill Water - Conqueror MT	570.0			570.0	Pot Water - Conqueror MT	245.0	5.0		240.0
Cement 'G' - Conqueror sxs	0.0			0.0	Cement HTB - Conqueror sxs	0.0			0.0
Bentonite - Conqueror sxs	0.0			0.0	Barite - Conqueror sxs	1146.0			1146.0
Brine - Conqueror MT	0.0			0.0	Fuel Oil - Sentinel M3	417.6			417.6
Drill Water - Sentinel MT	284.0			284.0	Pot Water - Sentinel MT	206.0			206.0
Cement 'G' - Sentinel sxs	0.0			0.0	Cement HTB - Sentinel sxs	0.0			0.0
Bentonite - Sentinel sxs	0.0			0.0	Barite - Sentinel sxs	0.0			0.0
Brine - Sentinel MT	0.0			0.0					

Pump Data

#	TYPE	Pump Data - last 24 hrs					Slow Pump Data			
		LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152		97	0	0	30	1379	1707.0	1.18
		0			0	0	40	1896		
		0			0	0	50	2241		
2	Nat'l 12-P-160	152		97	0	0	30	1551		
		0			0	0	40	1896		
		0			0	0	50	2413		
3	Nat'l 12-P-160	152		97	0	0		0		

Casing								
DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)		SHOE TVD (plan/Actual)		LOT (pl/Act)	FIT (pl/Act)	COMMENT
13.375	340	785.0	743.0	785.0	742.9	1.68	2.07	
TYPE		LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD		
340mm (13.375") shoe jt 107 kg/m, cent mid		12.52	316	107.1	L-80	BTC		
340mm (13.375") int jt 107 kg/m, cent mid jt		12.13	316	107.1	L-80	BTC		
340mm (13.375") int jt 107 kg/m, cent mid jt		12.64	316	107.1	L-80	BTC		
50 x 340mm (13.375") jt 101 kg/m		590.73	316	101.2	L-80	BTC		
340mm (13.375") No-cross jt 101 kg/m		11.84	316	101.2	L-80	BTC		
476mm (18.75") wellhead + extension jt		10.71	316	101.2	L-80	BTC		
RT to Wellhead top		92.58	0	.0				

Personnel : on Site =80			
4 Santos	36 DOGC	6 DOGC other/extra	21 TMT (marine)
3 TMT (ROV)	4 BHI	2 Halliburton	2 IDFS
2 Anadrill			

Safety, Inspections and Drills		Summary
6 days since last	Fire and Abandon Ship Drill	
1803 days since last	Lost Workday Case	
36 days since last	Medical Treatment Case	
2 days since last	First Aid Case	
days since last	Environmental Issue	

Shakers, Volumes and Losses Data			ENGINEER M. Docherty / J. Singh		
SHAKER 1 4 x 115	VOLUME AVAILABLE (m3) = 301 ACTIVE 79.5 MIXING 0.0 HOLE 142.4 SLUG 0.0 RESERVE 79.5 HEAVY 0.0	LOSSES (m3) = 0 DOWNHOLE 0.00 SURF.+EQUIP 0.00 DUMPED 0.00	COMMENTS		
SHAKER 2 4 x 115					
SHAKER 3 4 x 115					
SHAKER 4 4 x 84					
SHAKER 5					

Anchors						RIS. TENS. (MT) : 104	
Anc 1 : 100	Anc 2 : 70	Anc 3 : 132	Anc 4 : 86	Anc 5 : 84	Anc 6 : 98	Anc 7 : 77	Anc 8 : 104
						Anc 9 : 0	Anc 10 : 0
Workboats			Weather			RISER ANGLE (deg): 0.0	
Arrived @ Rig (Date)(Time)		Depart from Rig (Date)(Time)	EstimatedArrival (Port) (Date)(Time)		STACK ANGLE(deg): 0.0		V.D.L. (MT) : 2,058.6
Pacific Sentinel		6/9/02 15:50	6/9/02 15:50	6/9/02 23:00	VISIBILITY(nm) : 5		AVE HEAVE (m) : 6.1
Pacific Conqueror		6/9/02 15:50			WIND SP. (kts) : 50.0		MAX HEAVE (m) : 7.5
					WIND DIR (deg) : 270		AVE PITCH (deg) : 2.0
					PRES.(mbars): 1016		MAX PITCH (deg) : 2.5
					AIR TEMP (C) : 11.0		AVE ROLL (deg) : 1.0
							MAX ROLL (deg) : 1.5
COMMENTS : Pax on / off : no flt							

DATE : Sep 08, 2002

FROM : H. Flink / S. Hodgetts
TO : O. Moller

CASINO #1

Casino #1

Well Data		M.DEPTH (m BRT)	1,797.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	1,796.5	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	0.0	SHOE TVD (m BRT)	743	DAILY COST :	\$324,346
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	14.25	FIT (sg)	0.00	CUM COST :	\$7,798,019
RIG	Ocean Bounty	DAYS +/- CURVE	8.00	LOT (sg)	2.07		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 WOW.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Continue waiting on weather to abate to pull hangoff tool.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs
Continued waiting on weather. General maintenance.

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,561
Warre	1,743

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 08, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	TP	WEA	WOW	00:00	06:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 2 deg, roll 1 deg, heave 6m, wind 20/25knts, combined wave height 6.7m.
IH1	TP	WEA	WOW	06:00	12:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 2 deg, roll 1 deg, heave 5 m, wind 20/25 knts, combined wave height 5.8 m.
IH1	TP	WEA	WOW	12:00	18:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 2.5 deg, roll 2 deg, heave 5 m, wind 35/45 knts, combined wave height 9.4 m.
IH1	TP	WEA	WOW	18:00	24:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 2.2 deg, roll 2 deg, heave 6 m, wind 25/40 knts, combined wave height 8.5 m.

ACTIVITY FOR PERIOD 0000 HRS TO 04:00 HRS ON Sep 09, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	TP	WEA	WOW	00:00	06:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 3 deg, roll 2.5 deg, heave 6 m, wind 30/45 knts, combined wave height 8.5 m.

WBM Data	COST TODAY : \$3,789	CUM. WB MUD COST: \$195,729	CUM. WBM+OBM COST: \$195,729
Type :	VISCOACITY (sec/ltr) : 59	API FLUID LOSS (cm3/30min) : 4	CI : 31,000
KCI PHPA	PV (Pa.s) : 0	FILTER CAKE (mm) : 1	K+C*1000 : 32400
FROM : pit	YP (Pa.s) : 12	HTHPFL (cm3/30min) : 21	HARD/Ca : 320
TIME : 19:00	GEL10s/10m/100m (Pa.s) : 3 5 1	HTHP CAKE (mm) : 2	MBT (ppb) : 11.0
WEIGHT (sg): 1.22	Fann 3/6/100 : 6 8 25		PM : .1
TEMP (C) :			SOLIDS (%vol) : 11.0
			H2O (%vol) : 89.2
			OIL (%vol) :
			SAND : .5
			PH : 9.0
			PHPA (ppb) : 1.8

Survey (Method : Min Curvature)	MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	"V" SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type : MWD										
Magnetic Declination : 0.00	1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
	1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
	1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
	1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
	1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
	1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
	1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD
	1775.9	1775.1	4.38	192.3	192.3	-20.4	0.3	-20.4	-2.9	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS					STOCK	STOCK TYPE & UNITS					STOCK
	START	USED	REC'D	START	USED		REC'D	START	USED	REC'D	START	
Fuel Oil - Rig	M3	364.1	8.4		355.7	Drill Water - Rig	MT	357.0	46.0		311.0	
Pot Water - Rig	MT	98.0	24.0	24.0	98.0	Cement 'G' - Rig	sxs	1430.0			1430.0	
Cement HTB - Rig	sxs	0.0			0.0	Bentonite - Rig	sxs	670.0			670.0	
Barite - Rig	sxs	1200.0			1200.0	Brine - Rig	MT	0.0			0.0	
Helifuel - Rig	ltr	2577.0			2577.0	Fuel Oil - Conqueror	M3	521.8	9.8		512.0	
Drill Water - Conqueror	MT	570.0			570.0	Pot Water - Conqueror	MT	240.0	5.0		235.0	
Cement 'G' - Conqueror	sxs	0.0			0.0	Cement HTB - Conqueror	sxs	0.0			0.0	
Bentonite - Conqueror	sxs	0.0			0.0	Barite - Conqueror	sxs	1146.0			1146.0	
Brine - Conqueror	MT	0.0			0.0	Fuel Oil - Sentinel	M3	417.6			417.6	
Drill Water - Sentinel	MT	284.0			284.0	Pot Water - Sentinel	MT	206.0			206.0	
Cement 'G' - Sentinel	sxs	0.0			0.0	Cement HTB - Sentinel	sxs	0.0			0.0	
Bentonite - Sentinel	sxs	0.0			0.0	Barite - Sentinel	sxs	0.0			0.0	
Brine - Sentinel	MT	0.0			0.0							

Pump Data

Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152		97	0	0	30	1379	1707.0	1.18
		0			0	0	40	1896		
		0			0	0	50	2241		
2	Nat'l 12-P-160	152		97	0	0	30	1551		
		0			0	0	40	1896		
		0			0	0	50	2413		
3	Nat'l 12-P-160	152		97	0	0		0		

Casing

DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)	SHOE TVD (plan/Actual)	LOT (pl/Act)	FIT (pl/Act)	COMMENT
13.375	340	785.0 743.0	785.0 742.9	1.68 2.07		

TYPE	LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD
340mm (13.375") shoe jt 107 kg/m, cent mid	12.52	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt	12.13	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt	12.64	316	107.1	L-80	BTC
50 x 340mm (13.375") jt 101 kg/m	590.73	316	101.2	L-80	BTC
340mm (13.375") No-cross jt 101 kg/m	11.84	316	101.2	L-80	BTC
476mm (18.75") wellhead + extension jt	10.71	316	101.2	L-80	BTC
RT to Wellhead top	92.58	0	.0		

Personnel : on Site =80

4 Santos	36 DOGC	6 DOGC other/extra	21 TMT (marine)
3 TMT (ROV)	4 BHI	2 Halliburton	2 IDFS
2 Anadrill			

Safety, Inspections and Drills Summary

0 days since last	Fire and Abandon Ship Drill
1804 days since last	Lost Workday Case
37 days since last	Medical Treatment Case
3 days since last	First Aid Case
days since last	Environmental Issue

Shakers, Volumes and Losses Data

ENGINEER M. Docherty / J. Singh

SHAKER	VOLUME AVAILABLE (m3) =	327	LOSSES (m3) =	0	COMMENTS
SHAKER 1 4 x 115	ACTIVE	79.5	MIXING	0.0	Prepared premix.
SHAKER 2 4 x 115	HOLE	139.1	SLUG	0.0	
SHAKER 3 4 x 115	RESERVE	108.1	HEAVY	0.0	
SHAKER 4 4 x 84					
SHAKER 5					

Anchors	Anc 1 : 100	Anc 2 : 91	Anc 3 : 156	Anc 4 : 127	Anc 5 : 82	RIS. TENS. (MT) :	18
	Anc 6 : 86	Anc 7 : 68	Anc 8 : 95	Anc 9 : 0	Anc 10 : 0	RISER ANGLE (deg):	0.0
Workboats	Arrived @ Rig (Date)(Time)	Depart from Rig (Date)(Time)	EstimatedArrival (Port) (Date)(Time)		Weather	STACK ANGLE(deg):	0.0
	Pacific Sentinel	6/9/02 15:50	6/9/02 15:50	6/9/02 23:00		VISIBILITY(nm) :	5
Pacific Conqueror	6/9/02 15:50				WIND SP. (kts) :	40.0	
					WIND DIR (deg) :	250	
					PRES.(mbars):	1016	
					AIR TEMP (C) :	13.0	
COMMENTS : Pax on / off : no ft						MAX HEAVE (m) :	6.0
						MAX HEAVE (m) :	6.0
						AVE PITCH (deg) :	2.2
						MAX PITCH (deg) :	2.5
						AVE ROLL (deg) :	2.0
						MAX ROLL (deg) :	2.2

DATE : Sep 09, 2002

FROM : H. Flink / S. Hodgetts
TO : O. Moller

CASINO #1

Well Data		M.DEPTH (m BRT)	1,797.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	1,796.5	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	0.0	SHOE TVD (m BRT)	743	DAILY COST :	\$297,045
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	15.25	FIT (sg)	0.00	CUM COST :	\$8,095,064
RIG	Ocean Bounty	DAYS +/- CURVE	10.00	LOT (sg)	2.07		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 WOW.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Continue waiting on weather to abate to reconnect LMRP.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

Continued waiting on weather. General maintenance. Unlatched LMRP @12:54 due to deteriorating weather contitions.

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,561
Warre	1,743

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 09, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	TP	WEA	WOW	00:00	06:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 3 deg, roll 2.5 deg, heave 6 m, wind 30/45 knts, combined wave height 8.5 m.
IH1	TP	WEA	WOW	06:00	12:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 3 deg, roll 2.5 deg, heave 5.5 m, wind 40/45 knts, combined wave height 8.2 m.
IH1	TP	WEA	WOW	12:00	13:30	1.50	1,797	Waiting on weather. Weather conditions deteriorated rapidly. 12:55:- Pitch 4 deg, roll 2 deg, heave 10 m, wind 30/45 knts, combined wave height 12.1 m. Situation:- Blue pod hose off saddle, tangled in slip jt; #4 Rucker, some strands parted at sheave; slip jt extreme lateral movement, violent heave of 8-10m; #8 Rucker, line chafed on sheave mounting support. Attempted to re-position Rig, - #2 anchor not holding, #3 anchor reported max 289kN (650 Kips). 12:53: OIM informed Santos Rep of decision to unlatch. 12:54: Disconnected at LMRP, commenced de-ballasting Rig. 13:05: Slacked leeward chains #: 5,6,7 & 8 and guidelines. 13:20: Completed slacking chains, propulsion ready for use. 13:23: Rig at 60 feet draft.
IH1	TP	WEA	WOW	13:30	14:00	0.50	1,797	Waiting on weather. Weather conditions continued to deteriorate. Pitch 4 deg, roll 1.8 deg, heave 10 m, wind 30/45 knts, combined wave height 13.4 m.
IH1	TP	WEA	WOW	14:00	18:00	4.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 3.5 deg, roll 1.8 deg, heave 9.1 m, wind 30/40 knts, combined wave height 11.3 m.
IH1	TP	WEA	WOW	18:00	24:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 2 deg, roll 1.8 deg, heave 6.1 m, wind 30/35 knts, combined wave height 8.8 m.

ACTIVITY FOR PERIOD 0000 HRS TO 06:00 HRS ON Sep 10, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	TP	WEA	WOW	00:00	06:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 1.5 deg, roll 1 deg, heave 6.1 m, wind 20/30 knts, combined wave height 6.1 m.

WBM Data		COST TODAY :		CUM. WB MUD COST: \$195,729		CUM. WBM+OBM COST: \$195,729	
Type :		VISCOACITY (sec/ltr) :	58	API FLUID LOSS (cm3/30min) :	1	CI :	30,500
	KCI PHPA	PV (Pa.s) :	0	FILTER CAKE (mm) :	1	K+C*1000 :	32400
FROM :	pit	YP (Pa.s) :	12	HTHPFL (cm3/30min) :	22	HARD/Ca :	300
TIME :	19:00	GEL10s/10m/100m (Pa.s) :	3 5 1	HTHP CAKE (mm) :	2	MBT (ppb) :	12.0
WEIGHT (sg):	1.22	Fann 3/6/100 :	6 8 26			PM :	
TEMP (C) :						PF :	.1
						SOLIDS (%vol) :	10.
						H2O (%vol) :	89.5
						OIL (%vol) :	.5
						SAND :	
						PH :	9.0
						PHPA (ppb) :	1.8

Survey (Method : Min Curvature) Last Tool Type : MWD Magnetic Declination : 0.00	MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
	1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
	1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
	1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
	1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
	1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
	1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
	1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD
	1775.9	1775.1	4.38	192.3	192.3	-20.4	0.3	-20.4	-2.9	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS				START USED REC'D STOCK				STOCK TYPE & UNITS				START USED REC'D STOCK			
	Fuel Oil - Rig	M3	355.7	10.8	345.0	Drill Water - Rig	MT	311.0	15.0	296.0	Cement 'G' - Rig	sxs	1430.0		1430.0	
Pot Water - Rig	MT	98.0	24.0	24.0	98.0	Cement HTB - Rig	sxs	0.0	0.0	Bentonite - Rig	sxs	670.0		670.0		
Barite - Rig	sxs	1200.0		1200.0	Brine - Rig	MT	0.0		0.0	Fuel Oil - Conqueror	M3	512.0	7.2	504.8		
Helifuel - Rig	ltr	2577.0	385.0	2192.0	Fuel Oil - Conqueror	M3	512.0	7.2	504.8	Pot Water - Conqueror	MT	235.0	5.0	230.0		
Drill Water - Conqueror	MT	570.0		570.0	Pot Water - Conqueror	MT	235.0	5.0	230.0	Cement HTB - Conqueror	sxs	0.0		0.0		
Cement 'G' - Conqueror	sxs	0.0		0.0	Cement HTB - Conqueror	sxs	0.0		0.0	Bentonite - Conqueror	sxs	0.0		0.0		
Bentonite - Conqueror	sxs	0.0		0.0	Bentonite - Conqueror	sxs	0.0		0.0	Barite - Conqueror	sxs	1146.0		1146.0		
Brine - Conqueror	MT	0.0		0.0	Brine - Conqueror	MT	0.0		0.0	Fuel Oil - Sentinel	M3	417.6		417.6		
Drill Water - Sentinel	MT	284.0		284.0	Fuel Oil - Sentinel	M3	417.6		417.6	Pot Water - Sentinel	MT	206.0		206.0		
Cement 'G' - Sentinel	sxs	0.0		0.0	Pot Water - Sentinel	MT	206.0		206.0	Cement HTB - Sentinel	sxs	0.0		0.0		
Bentonite - Sentinel	sxs	0.0		0.0	Cement HTB - Sentinel	sxs	0.0		0.0	Barite - Sentinel	sxs	0.0		0.0		
Brine - Sentinel	MT	0.0		0.0	Barite - Sentinel	sxs	0.0		0.0							

Pump Data										
Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152		97	0	0	30	1379	1707.0	1.18
		0			0	0	40	1896		
		0			0	0	50	2241		
2	Nat'l 12-P-160	152		97	0	0	30	1551		
		0			0	0	40	1896		
		0			0	0	50	2413		
3	Nat'l 12-P-160	152		97	0	0		0		

Casing										
DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)		SHOE TVD (plan/Actual)		LOT (pl/Act)		FIT (pl/Act)		COMMENT
13.375	340	785.0	743.0	785.0	742.9	1.68	2.07			
TYPE		LENGTH (m)		CSG ID (mm)		WT (kg/m)		GRADE		THREAD
340mm (13.375") shoe jt 107 kg/m, cent mid		12.52		316		107.1		L-80		BTC
340mm (13.375") int jt 107 kg/m, cent mid jt		12.13		316		107.1		L-80		BTC
340mm (13.375") int jt 107 kg/m, cent mid jt		12.64		316		107.1		L-80		BTC
50 x 340mm (13.375") jt 101 kg/m		590.73		316		101.2		L-80		BTC
340mm (13.375") No-cross jt 101 kg/m		11.84		316		101.2		L-80		BTC
476mm (18.75") wellhead + extension jt		10.71		316		101.2		L-80		BTC
RT to Wellhead top		92.58		0		.0				

Personnel : on Site =80			
4 Santos	36 DOGC	6 DOGC other/extra	21 TMT (marine)
3 TMT (ROV)	4 BHI	2 Halliburton	2 IDFS
2 Anadrill			

Safety, Inspections and Drills	Summary
1 days since last	Fire and Abandon Ship Drill
1805 days since last	Lost Workday Case
38 days since last	Medical Treatment Case
4 days since last	First Aid Case
days since last	Environmental Issue

Shakers, Volumes and Losses Data				ENGINEER M. Docherty / J. Singh				
SHAKER 1	4 x 115	VOLUME AVAILABLE (m3) =		327	LOSSES (m3) =	0	COMMENTS Periodically truning over mud via header box and SCE.	
SHAKER 2	4 x 115	ACTIVE	79.5	MIXING	0.0	DOWNHOLE		0.00
SHAKER 3	4 x 115	HOLE	139.1	SLUG	0.0	SURF.+EQUIP		0.00
SHAKER 4	4 x 84	RESERVE	108.1	HEAVY	0.0	DUMPED		0.00
SHAKER 5								

Anchors						Weather						
Anc 1 :	82	Anc 2 :	50	Anc 3 :	95	Anc 4 :	86	Anc 5 :	43	RIS. TENS. (MT) :	18	
Anc 6 :	43	Anc 7 :	43	Anc 8 :	63	Anc 9 :	0	Anc 10 :	0	RISER ANGLE (deg):	0.0	
										STACK ANGLE(deg):	0.0	
Workboats	Arrived @ Rig (Date)(Time)	Depart from Rig (Date)(Time)	EstimatedArrival (Port) (Date)(Time)									
Pacific Sentinel							VISIBILITY(nm) :	5	V.D.L. (MT) :		2,114.1	
Pacific Conqueror	6/9/02 15:50	6/9/02 15:50	6/9/02	23:00			WIND SP. (kts) :	45.0	AVE HEAVE (m) :		10.1	
								WIND DIR (deg) :	235	MAX HEAVE (m) :		10.1
								PRES.(mbars):	1008	AVE PITCH (deg) :		2.5
								AIR TEMP (C) :	9.0	MAX PITCH (deg) :		3.8
										AVE ROLL (deg) :		1.8
										MAX ROLL (deg) :		2.2
COMMENTS : Pax on / off : Flt #1, 7/7.												

DATE : Sep 10, 2002

FROM : H. Flink / S. Hodgetts
TO : O. Moller

CASINO #1

Well Data		M.DEPTH (m BRT)	1,797.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	1,796.5	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	0.0	SHOE TVD (m BRT)	743	DAILY COST :	\$296,929
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	16.25	FIT (sg)	0.00	CUM COST :	\$8,391,993
RIG	Ocean Bounty	DAYS +/- CURVE	10.00	LOT (sg)	2.07		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 WOW.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Continue waiting on weather to abate to reconnect LMRP.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

Continued waiting on weather. General maintenance. Repaired APV bottle #7 and installed #3 & #7 rucker wires to riser tension ring. Slipped & cut riser tension wires as needed.

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,561
Warre	1,743

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 10, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	TP	WEA	WOW	00:00	06:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 1.5 deg, roll 1 deg, heave 6.1 m, wind 20/30 knts, combined wave height 6.1 m.
IH1	TP	WEA	WOW	06:00	12:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 1.5 deg, roll 1 deg, heave 6.1 m, wind 25/28 knts, combined wave height 6.4 m.
IH1	TP	WEA	WOW	12:00	18:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch .8 deg, roll .6 deg, heave 2.4 m, wind 15/25 knts, combined wave height 4.3 m.
IH1	TP	WEA	WOW	18:00	24:00	6.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 1 deg, roll .8 deg, heave 2.4 m, wind 15/20 knts, combined wave height 3.7 m. Completed pressure testing surface equipment.

ACTIVITY FOR PERIOD 0000 HRS TO 06:00 HRS ON Sep 11, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	TP	WEA	WOW	00:00	00:00	0.00	1,797	Waiting on weather, continue to monitor conditions. Pitch 1 deg, roll .8 deg, heave 1.8 m, wind 15/20 knts, combined wave height 3.4 m.

00:00 TO 24:00 HRS ON : 10/09/2002		
Comments	Recommendations	Rig Requirements
ROV prepared to run new AX gasket. Pulled in on #2 anchor, holding at 163 tonne (360kips), after 29.9m (98').		

WBM Data	COST TODAY : \$5,418	CUM. WB MUD COST: \$201,147	CUM. WBM+OBM COST: \$201,147
Type :	VISCOCITY (sec/ltr) : 57	API FLUID LOSS (cm3/30min) : 5	CI : 30,500
KCI PHPA	PV (Pa.s) : 0	FILTER CAKE (mm) : 1	K+C*1000 : 32400
FROM : pit	YP (Pa.s) : 11	HTHPFL (cm3/30min) : 22	HARD/Ca : 280
TIME : 19:00	GEL10s/10m/100m (Pa.s) : 3 5 1	HTHP CAKE (mm) : 2	MBT (ppb) : 12.0
WEIGHT (sg): 1.23	Fann 3/6/100 : 6 8 23		PM : .2
TEMP (C) :			SOLIDS (%vol) : 10.
			H2O (%vol) : 89.4
			OIL (%vol) :
			SAND : .5
			PH : 9.0
			PHPA (ppb) : 1.8

Survey (Method : Min Curvature) Last Tool Type : MWD Magnetic Declination : 0.00	MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
	1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
	1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
	1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
	1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
	1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
	1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
	1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD
	1775.9	1775.1	4.38	192.3	192.3	-20.4	0.3	-20.4	-2.9	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS				START USED REC'D STOCK				STOCK TYPE & UNITS				START USED REC'D STOCK			
	Fuel Oil - Rig	M3	345.0	7.2	337.8	Drill Water - Rig	MT	296.0	39.0	482.0	739.0	Cement 'G' - Rig	sxs	1430.0	1430.0	
Pot Water - Rig	MT	98.0	18.0	18.0	98.0	Cement HTB - Rig	sxs	0.0	0.0	670.0	Bentonite - Rig	sxs	670.0	670.0		
Barite - Rig	sxs	1200.0	339.0	900.0	1761.0	Brine - Rig	MT	0.0	0.0	0.0	Fuel Oil - Conqueror	M3	504.8	8.2	496.6	
Helifuel - Rig	ltr	2192.0	2192.0	88.0	88.0	Pot Water - Conqueror	MT	230.0	230.0	230.0	Cement 'G' - Conqueror	sxs	0.0	0.0	0.0	
Drill Water - Conqueror	MT	570.0	482.0	0.0	0.0	Cement HTB - Conqueror	sxs	0.0	0.0	0.0	Bentonite - Conqueror	sxs	0.0	0.0	0.0	
Cement 'G' - Conqueror	sxs	0.0	0.0	0.0	0.0	Barite - Conqueror	sxs	1146.0	1146.0	246.0	Brine - Conqueror	MT	0.0	0.0	0.0	
Bentonite - Conqueror	sxs	0.0	0.0	0.0	0.0	Fuel Oil - Sentinel	M3	417.6	417.6	417.6	Drill Water - Sentinel	MT	284.0	284.0	284.0	
Brine - Conqueror	MT	0.0	0.0	0.0	0.0	Pot Water - Sentinel	MT	206.0	206.0	206.0	Cement 'G' - Sentinel	sxs	0.0	0.0	0.0	
Drill Water - Sentinel	MT	284.0	284.0	0.0	0.0	Cement HTB - Sentinel	sxs	0.0	0.0	0.0	Bentonite - Sentinel	sxs	0.0	0.0	0.0	
Cement 'G' - Sentinel	sxs	0.0	0.0	0.0	0.0	Barite - Sentinel	sxs	0.0	0.0	0.0	Brine - Sentinel	MT	0.0	0.0	0.0	
Bentonite - Sentinel	sxs	0.0	0.0	0.0	0.0											
Brine - Sentinel	MT	0.0	0.0	0.0	0.0											

Pump Data										
Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152		97	0	0	30	1379	1707.0	1.18
		0			0	0	40	1896		
		0			0	0	50	2241		
2	Nat'l 12-P-160	152		97	0	0	30	1551		
		0			0	0	40	1896		
		0			0	0	50	2413		
3	Nat'l 12-P-160	152		97	0	0		0		

Casing										
DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)		SHOE TVD (plan/Actual)		LOT (pl/Act)		FIT (pl/Act)		COMMENT
13.375	340	785.0	743.0	785.0	742.9	1.68	2.07			
TYPE		LENGTH (m)		CSG ID (mm)		WT (kg/m)		GRADE		THREAD
340mm (13.375") shoe jt 107 kg/m, cent mid		12.52		316		107.1		L-80		BTC
340mm (13.375") int jt 107 kg/m, cent mid jt		12.13		316		107.1		L-80		BTC
340mm (13.375") int jt 107 kg/m, cent mid jt		12.64		316		107.1		L-80		BTC
50 x 340mm (13.375") jt 101 kg/m		590.73		316		101.2		L-80		BTC
340mm (13.375") No-cross jt 101 kg/m		11.84		316		101.2		L-80		BTC
476mm (18.75") wellhead + extension jt		10.71		316		101.2		L-80		BTC
RT to Wellhead top		92.58		0		.0				

Personnel : on Site =80			
4 Santos	36 DOGC	6 DOGC other/extra	21 TMT (marine)
3 TMT (ROV)	4 BHI	2 Halliburton	2 IDFS
2 Anadrill			

Safety, Inspections and Drills		Summary
2 days since last	Fire and Abandon Ship Drill	
1806 days since last	Lost Workday Case	
39 days since last	Medical Treatment Case	
5 days since last	First Aid Case	
days since last	Environmental Issue	

Shakers, Volumes and Losses Data				ENGINEER M. Docherty / J. Singh			
SHAKER 1	4 x 115	VOLUME AVAILABLE (m3) =		327	LOSSES (m3) =	3	COMMENTS
SHAKER 2	4 x 115	ACTIVE	79.5	MIXING	0.0	DOWNHOLE	0.00
SHAKER 3	4 x 115	HOLE	139.1	SLUG	0.0	SURF.+EQUIP	0.00
SHAKER 4	4 x 84	RESERVE	108.1	HEAVY	0.0	DUMPED	3.18
SHAKER 5							Periodically turning over mud via header box and surface eqt. Raised MW pit # 3 to 1.24g.

Anchors						Weather					
Anc 1 :	5	Anc 2 :	107	Anc 3 :	109	Anc 4 :	75	Anc 5 :	68	RIS. TENS. (MT) :	18
Anc 6 :	77	Anc 7 :	73	Anc 8 :	127	Anc 9 :	0	Anc 10 :	0	RISER ANGLE (deg):	0.0
Workboats						VISIBILITY(nm) :		8		STACK ANGLE(deg):	0.0
Arrived @ Rig (Date)(Time)		Depart from Rig (Date)(Time)		EstimatedArrival (Port) (Date)(Time)		WIND SP. (kts) :		25.0		V.D.L. (MT) :	2,087.8
Pacific Sentinel	10/9/02 23:25					WIND DIR (deg) :		240		AVE HEAVE (m) :	1.8
Pacific Conqueror	6/9/02 15:50					PRES.(mbars):		1026		MAX HEAVE (m) :	6.7
COMMENTS : Pax on / off : no flt						AIR TEMP (C) :		11.0		AVE PITCH (deg) :	1.2
										MAX PITCH (deg) :	2.2
										AVE ROLL (deg) :	0.8
										MAX ROLL (deg) :	1.5

DATE : Sep 11, 2002

FROM : H. Flink / G. Othen

TO : O. Moller

CASINO #1

Well Data		M.DEPTH (m BRT)	1,797.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	1,796.5	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	0.0	SHOE TVD (m BRT)	743	DAILY COST :	\$321,791
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	17.25	FIT (sg)	0.00	CUM COST :	\$8,713,784
RIG	Ocean Bounty	DAYS +/- CURVE	11.00	LOT (sg)	1.88		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 Continue RIH with drill pipe					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Make up/run test tool and test BOPs. Pull test tool, RIH and condition hole and mud. Displace hole to new mud. RIH and drill ahead to 12.25" TD.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

Continued waiting on weather. General maintenance. Rigged up and landed LMRP on new AX Gasket. RIH to BSR and circulated riser to mud. Stabbed into and MU to EHOT. Attempted to circulate without success. POOH with plugged bit.

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,561
Warre	1,743

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 11, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	TP	WEA	WOW	00:00	07:30	7.50	1,797	Waiting on weather, continue to monitor conditions. Pitch 1 deg, roll 0.8 deg, heave 1.8 m, wind 15/20 knts, combined wave height 3.4 m.
IH1	TP	WEA	BOP	07:30	08:30	1.00	1,797	Laid out divertor, picked up landing jt. Released VX gasket from LMRP, ROV confirmed release.
IH1	TP	WEA	BOP	08:30	13:30	5.00	1,797	Repositioned rig to land LMRP. ROV installed new VX gasket on BOP. Ballasted rig to 19.8m (65') draft, moved rig to free # 4 guideline
IH1	TP	WEA	WOW	13:30	16:30	3.00	1,797	Waited on weather in position to land LMRP, heave over 2 m. Attempted landing, unsuccessful due to heave too large. Ballasted rig to drilling draft and ROV installed temporary (threaded hook) #2 guideline.
IH1	TP	WEA	BOP	16:30	17:30	1.00	1,797	Landed and latched LMRP with 13.6 tonne (30kip), took overpull 22.6 tonne (50kip) O/P to confirm latched. Pressure tested Choke & Kill lines to 1.7/34.5 MPa (250/5000 psi) for 5/15 mins.
IH1	TP	WEA	BOP	17:30	19:30	2.00	1,797	Laid out riser landing joint and rigged up divertor, took 9 tonne (20(kip) O/P. Rigged down riser handling equipment.
IH1	TP	WEA	TI	19:30	20:15	0.75	1,797	RIH with landing string to above blind/shear rams and circulated riser to 1.24 sg (10.3 ppg) mud. Checked pressure between rams.
IH1	TU	MSC	CIR	20:15	22:00	1.75	1,797	Opened B/S rams and made up recovery string. Opened LPR and lost 4 m3 (25bbbls) to hole, before hole static. Attempted to circulate without success, pressured up to 27 MPa (3900 psi). Drillstring blocked.
IH1	TU	MSC	TO	22:00	24:00	2.00	1,797	POOH from 616m with Emergency Hang-off Tool, racked in derrick. Depressured and layed out Inside Gray and TIW valves.

ACTIVITY FOR PERIOD 0000 HRS TO 06:00 HRS ON Sep 12, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	TU	MSC	TO	00:00	02:30	2.50	1,797	Attempted to circulate, unsuccessfully. POOH for plugged bit. Broke off bit.
IH1	TU	MSC	TI	02:30	06:00	3.50	1,797	Laid out MWD/LWD tools. Made up serviced bit, BHA and RIH. Broke circulation at HWDP.

WBM Data		COST TODAY : \$548		CUM. WB MUD COST: \$201,695		CUM. WBM+OBM COST: \$201,695			
Type :	KCI PHPA	VISCOCITY (sec/ltr) :	54	API FLUID LOSS (cm3/30min) :	4	CI :	30,000	SOLIDS (%vol) :	11
FROM :	pit	PV (Pa.s) :	0	FILTER CAKE (mm) :	1	K+C*1000 :	32400	H2O (%vol) :	89.2
TIME :	19:00	YP (Pa.s) :	11	HTHPFL (cm3/30min) :	22	HARD/Ca :	320	OIL (%vol) :	.5
WEIGHT (sg) :	1.23	GEL10s/10m/100m (Pa.s) :	3 4 1	HTHP CAKE	2	MBT (ppb) :	11.0	SAND :	.5
TEMP (C) :		Fann 3/6/100 :	6 7 22			PM :		PH :	9.0
						PF :	.2	PHPA (ppb) :	1.8

Bit Data for Bit # 7 IADC # 4 3 7				Wear								
SIZE (") :	12.25			NOZZLES	I	O1	D	L	B	G	O2	R
MANUFACTURER :	HU	AVE WOB (MT) :	0	3 X 16	Drilled over the last 24 hrs				Calculated over the bit run			
TYPE :	MXR09D	AVE RPM :		X 0	METERAGE (m) :	0	CUM.METERAGE (m) :				0	
SERIAL # :	L11DK	FLOW (lpm) :	0	X 0	ON BOTTOM HRS :	.0	CUM. ON BOT. HRS :				.0	
DEPTH IN (mRT) :	1797	PUMP PRESS.(Kpa):	0	X 0	IADC DRILL. HRS :	.0	CUM.IADC DR. HRS:				.0	
DEPTH OUT (mRT):		HSI (kW/cm2) :	0.000	X 0	TOTAL REVS :	0	CUM.TOT. REVS :				0	
					ROP (m/hr) :		ROP (m/hr) :					

BHA # 7 Length (m): 293.1				D.C. (1) ANN. VELOCITY (mpm):				0
WT BLW JAR (MT):	32	STRING WT (MT):	149	TRQE MAX (Nm):	0	D.C. (2) ANN VELOCITY (mpm):	0	
BHA WT (MT) :	41	PICK UP WT (MT):	0	TRQE ON (Nm):	0	H.W.D.P. ANN VELOCITY (mpm):	0	
		SLK OFF WT (MT):	0	TRQE OFF (Nm):	0	D.P. ANN VELOCITY (mpm) :	0	

BHA DESCRIPTION : 311mm bit, NB RR (solid float), 210mm MWD/FEWD, 311mm RR (totco ring), 1 x 203mm DC, 311mm RR, 12 x 203mm DC, 203mm Jar, 2 x 203mm DC, x/o, 12 x 127mm HWDP

TOOL DESCRIPTION	LENGTH	OD	ID	SERIAL #	HRS	COMMENT
NB RR				GU 2151	77.0	
CDR				9556	77.0	
Pulser				231	77.0	
ILS				313272-2	77.0	
ISONIC				829	6.0	
Str RR				GU 2143	77.0	
Str RR				GU2144	77.0	
Jars				48907C	77.0	

COMMENT: Hung-off at wellhead, riser displaced to seawater and landing string racked.

Survey (Method : Min Curvature)	MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type :	MWD									
Magnetic Declination :	0.00									
	1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
	1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
	1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
	1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
	1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
	1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
	1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD
	1775.9	1775.1	4.38	192.3	192.3	-20.4	0.3	-20.4	-2.9	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS				STOCK TYPE & UNITS						
	START	USED	REC'D	STOCK	START	USED	REC'D	STOCK			
Fuel Oil - Rig	M3	337.8	8.7	150.0	479.1	Drill Water - Rig	MT	739.0	61.0	88.0	765.0
Pot Water - Rig	MT	98.0	22.0	22.0	98.0	Cement 'G' - Rig	sxs	1430.0			1430.0
Cement HTB - Rig	sxs	0.0			0.0	Bentonite - Rig	sxs	670.0			670.0
Barite - Rig	sxs	1761.0		246.0	2007.0	Brine - Rig	MT	0.0			0.0
Helifuel - Rig	ltr	2192.0	308.0		1884.0	Fuel Oil - Conqueror	M3	496.6	6.1		340.5
Drill Water - Conqueror	MT	88.0	88.0		0.0	Pot Water - Conqueror	MT	230.0			230.0
Cement 'G' - Conqueror	sxs	0.0			0.0	Cement HTB - Conqueror	sxs	0.0			0.0
Bentonite - Conqueror	sxs	0.0			0.0	Barite - Conqueror	sxs	246.0			246.0
Brine - Conqueror	MT	0.0			0.0	Fuel Oil - Sentinel	M3	417.6	21.8		395.8
Drill Water - Sentinel	MT	284.0		305.0	589.0	Pot Water - Sentinel	MT	206.0	5.0	31.0	232.0
Cement 'G' - Sentinel	sxs	0.0			0.0	Cement HTB - Sentinel	sxs	0.0			0.0
Bentonite - Sentinel	sxs	0.0			0.0	Barite - Sentinel	sxs	0.0		1453.0	1453.0
Brine - Sentinel	MT	0.0			0.0						

Pump Data										
Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152		97	0	0	30	1379	1707.0	1.18
		0			0	0	40	1896		
		0			0	0	50	2241		
2	Nat'l 12-P-160	152		97	0	0	30	1551		
		0			0	0	40	1896		
		0			0	0	50	2413		
3	Nat'l 12-P-160	152		97	0	0		0		

Casing										
DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)		SHOE TVD (plan/Actual)		LOT (pl/Act)		FIT (pl/Act)		COMMENT
13.375	340	785.0	743.0	785.0	742.9	1.68	1.88			
TYPE			LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD			
340mm (13.375") shoe jt 107 kg/m, cent mid			12.52	316	107.1	L-80	BTC			
340mm (13.375") int jt 107 kg/m, cent mid jt			12.13	316	107.1	L-80	BTC			
340mm (13.375") int jt 107 kg/m, cent mid jt			12.64	316	107.1	L-80	BTC			
50 x 340mm (13.375") jt 101 kg/m			590.73	316	101.2	L-80	BTC			
340mm (13.375") No-cross jt 101 kg/m			11.84	316	101.2	L-80	BTC			
476mm (18.75") wellhead + extension jt			10.71	316	101.2	L-80	BTC			
RT to Wellhead top			92.58	0	.0					

Personnel : on Site =80				
4 Santos	36 DOGC	5 DOGC other/extra	21 TMT (marine)	
3 TMT (ROV)	4 BHI	2 Halliburton	2 IDFS	
2 Anadrill	1 DrilQuip			

Safety, Inspections and Drills		Summary
3 days since last	Fire and Abandon Ship Drill	
1807 days since last	Lost Workday Case	
40 days since last	Medical Treatment Case	
6 days since last	First Aid Case	
days since last	Environmental Issue	

Shakers, Volumes and Losses Data					ENGINEER M. Docherty / J. Singh
SHAKER 1 4 x 115	VOLUME AVAILABLE (m3) = 318			LOSSES (m3) = 9	COMMENTS Over displaced riser by 30 bbls to remove contamination.
SHAKER 2 4 x 115	ACTIVE 71.1	MIXING 0.0	DOWNHOLE 3.97		
SHAKER 3 4 x 115	HOLE 139.1	SLUG 0.0	SURF.+EQUIP 0.00		
SHAKER 4 4 x 84	RESERVE 108.1	HEAVY 0.0	DUMPED 4.77		
SHAKER 5					

Anchors						RIS. TENS. (MT) : 102	
Anc 1 : 132	Anc 2 : 143	Anc 3 : 118	Anc 4 : 116	Anc 5 : 111	Anc 6 : 122	Anc 7 : 113	RISER ANGLE (deg): 0.0
Anc 8 : 129	Anc 9 : 0	Anc 10 : 0					STACK ANGLE(deg): 0.0
Workboats			EstimatedArrival (Port)		Weather		
Arrived @ Rig (Date)(Time)		Depart from Rig (Date)(Time)		(Date)(Time)		VISIBILITY(nm) : 6	
Pacific Sentinel	10/9/02 23:25	11/9/02 18:30	11/9/02 23:30			WIND SP. (kts) : 20.0	
Pacific Conqueror						WIND DIR (deg) : 250	
COMMENTS : Pax on / off : Flt #1, 9/9.						PRES.(mbars): 1029	
						AIR TEMP (C) : 13.0	
						AVE HEAVE (m) : 1.2	
						MAX HEAVE (m) : 2.4	
						AVE PITCH (deg) : 0.4	
						MAX PITCH (deg) : 1.2	
						AVE ROLL (deg) : 0.3	
						MAX ROLL (deg) : 0.8	

DATE : Sep 12, 2002

FROM : H. Flink / G. Othen
TO : O. Moller

CASINO #1

Well Data		M.DEPTH (m BRT)	1,804.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	1,804.0	CASING OD (mm)	340	AFE BASIS :	UNKNOWN
FIELD	Casino	PROGRESS (m)	7.0	SHOE TVD (m BRT)	743	DAILY COST :	\$316,960
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	18.25	FIT (sg)	0.00	CUM COST :	\$9,030,744
RIG	Ocean Bounty	DAYS +/- CURVE	11.50	LOT (sg)	1.88		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 Drilling 12-1/4" Hole. (06:00hr Depth 1838m / 6030 ft)					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Continue to drill 12-1/4" Hole section to TD.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

POOH with plugged bit / RIH and tested BOP / Continued RIH washed and reamed to TD 1797m (5896ft) Drilled 12-1/4" Hole

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,561
Warre	1,743

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 12, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	TU	MSC	TO	00:00	02:30	2.50	1,797	Attempted to circulate, unsuccessfully. POOH for plugged bit. Broke and cleaned bit.
IH1	TU	MSC	TI	02:30	06:00	3.50	1,797	Laid out MWD/LWD tools. Made up serviced bit, BHA and RIH. Broke circulation at HWDP (268 mts / 880ft)
IH1	TU	MSC	TI	06:00	07:30	1.50	1,797	Continued RIH on drill pipe, made up BOP test tool and RIH to 663m (2175 ft)
IH1	TU	MSC	CIC	07:30	08:30	1.00	1,797	Circulated bottoms up via choke @ 80spm 5175 kpa (750 psi).
IH1	TU	MSC	CIC	08:30	09:30	1.00	1,797	Circulated bottoms up 100spm 5865 kpa (850 psi.)
IH1	TU	MSC	BOP	09:30	14:00	4.50	1,797	Pressure tested BOPs 1380kpa / 20700kpa (200 / 3000 psi). Annulars 1380 kpa / 34500 kpa (200 / 5000 psi) for 5 / 10 min. Rams & failsafes.
IH1	TU	MSC	BOP	14:00	14:30	0.50	1,797	POOH and laid out BOP test tool.
IH1	TU	MSC	BOP	14:30	16:00	1.50	1,797	Pressure tested mud hose, upper and lower IBOP valves 1380 / 34500 kpa (200 / 5000 psi) Function tested Diverter.
IH1	TU	MSC	TI	16:00	17:00	1.00	1,797	Continued RIH to 743m (2437 ft) Broke circulation at (340mm) 13-3/8 Casing shoe.
IH1	TU	MSC	CIR	17:00	18:00	1.00	1,797	RIH to 950m (3117 ft) Circulated bottoms up via choke line.
IH1	TU	MSC	TI	18:00	20:00	2.00	1,797	Continued RIH to 1717m (5633 ft)
IH1	TU	MSC	TIT	20:00	22:00	2.00	1,797	Took weight @ 1717m (5633ft) Washed and reamed down from 1717m to 1770 m. Intermittently taking 4.5 mt (10 kips) with erratic torque up to 15,000 ft/lbs. Tagged firm fill @ 1770m and reamed down to 1797m (5807ft to 5896ft) 4.5 - 6.8 mt (10-15 kips) Required to ream.
IH1	P		D	22:00	24:00	2.00	1,804	Drilled 12-1/4" hole from 1797m to 1804m. (5896ft to 5919ft)

ACTIVITY FOR PERIOD 0000 HRS TO 06:00 HRS ON Sep 13, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		D	00:00	06:00	6.00	1,838	Continued drilling 311mm (12-1/4") hole from 1804m to 1838m (6030 ft)

WBM Data		COST TODAY : \$12,848		CUM. WB MUD COST: \$214,543		CUM. WBM+OBM COST: \$214,543			
Type :	KCI PHPA	VISCOCITY (sec/ltr) :	61	API FLUID LOSS (cm3/30min) :	5	CI :	30,000	SOLIDS (%vol) :	11
FROM :	pit	PV (Pa.s) :	0	FILTER CAKE (mm) :	1	K+C*1000 :	32400	H2O (%vol) :	89.0
TIME :	22:00	YP (Pa.s) :	13	HTHPFL (cm3/30min) :	20	HARD/Ca :	280	OIL (%vol) :	.5
WEIGHT (sg) :	1.24	GEL10s/10m/100m (Pa.s) :	4 6 1	HTHP CAKE	2	MBT (ppb) :	11.0	SAND :	.5
TEMP (C) :	22	Fann 3/6/100 :	8 10 29			PM :		PH :	9.5
						PF :	.2	PHPA (ppb) :	1.6

Bit Data for Bit # 7 IADC # 4 3 7				Wear											
				I	O1	D	L	B	G	O2	R				
SIZE (") :	12.25			NOZZLES				Drilled over the last 24 hrs				Calculated over the bit run			
MANUFACTURER :	HU	AVE WOB (MT) :	11	3 X 16	METERAGE (m) :				7	CUM.METERAGE (m) :				7	
TYPE :	MXR09D	AVE RPM :	100	X 0	ON BOTTOM HRS :				1.5	CUM. ON BOT. HRS :				1.5	
SERIAL # :	L11DK	FLOW (lpm) :	3,043	X 0	IADC DRILL. HRS :				2.0	CUM.IADC DR. HRS:				2.0	
DEPTH IN (mRT):	1797	PUMP PRESS.(Kpa):	26,083	X 0	TOTAL REVS :				9,000	CUM.TOT. REVS :				9,000	
DEPTH OUT (mRT):		HSI (kW/cm2) :	0.814	X 0	ROP (m/hr) :				4.7	ROP (m/hr) :				4.7	

BHA # 8	Length (m): 268.2						D.C. (1) ANN. VELOCITY (mpm):	70
WT BLW JAR (MT):	25	STRING WT (MT):	77	TRQE MAX (Nm):	8,135	D.C. (2) ANN VELOCITY (mpm):	73	
BHA WT (MT) :	34	PICK UP WT (MT):	82	TRQE ON (Nm):	5,423	H.W.D.P. ANN VELOCITY (mpm):	48	
		SLK OFF WT (MT):	77	TRQE OFF (Nm):	5,423	D.P. ANN VELOCITY (mpm) :	48	

BHA DESCRIPTION : Bit, NB RR (solid float), 3 x 8" DC, RR, 1 x 8" DC, RR, 9 X 8"dc, Jar, 2 x 8" DC, x/o, 12 x 5" HWDP.

TOOL DESCRIPTION	LENGTH	OD	ID	SERIAL #	HRS	COMMENT
NB RR				GU 2151	84.0	
Str RR				GU 2143	84.0	
Str RR				GU2144	84.0	
Jars				48907C	84.0	

Survey (Method : Min Curvature)	MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type :	MWD									
Magnetic Declination :	0.00									
	1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
	1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
	1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
	1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
	1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
	1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
	1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD
	1775.9	1775.1	4.38	192.3	192.3	-20.4	0.3	-20.4	-2.9	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS				START USED REC'D STOCK				STOCK TYPE & UNITS				START USED REC'D STOCK			
	Fuel Oil - Rig	M3	479.1	10.7	115.0	583.4	Drill Water - Rig	MT	765.0	46.0	220.0	939.0	Cement 'G' - Rig	sxs	1430.0	
Pot Water - Rig	MT	98.0			98.0	Bentonite - Rig	sxs	670.0			670.0	Barite - Rig	sxs	2007.0	272.0	1453.0
Cement HTB - Rig	sxs	0.0			0.0	Brine - Rig	MT	0.0			0.0	Helifuel - Rig	ltr	1884.0		1539.0
Barite - Rig	sxs	2007.0	272.0	1453.0	3188.0	Fuel Oil - Conqueror	M3	340.5			340.5	Drill Water - Conqueror	MT	0.0		0.0
Helifuel - Rig	ltr	1884.0			3423.0	Pot Water - Conqueror	MT	230.0			230.0	Cement 'G' - Conqueror	sxs	0.0		0.0
Drill Water - Conqueror	MT	0.0			0.0	Cement HTB - Conqueror	sxs	0.0			0.0	Bentonite - Conqueror	sxs	0.0		0.0
Cement 'G' - Conqueror	sxs	0.0			0.0	Barite - Conqueror	sxs	246.0			246.0	Brine - Conqueror	MT	0.0		0.0
Bentonite - Conqueror	sxs	0.0			0.0	Fuel Oil - Sentinel	M3	395.8	118.0		277.8	Drill Water - Sentinel	MT	589.0	220.0	369.0
Brine - Conqueror	MT	0.0			0.0	Pot Water - Sentinel	MT	232.0	5.0		227.0	Cement 'G' - Sentinel	sxs	0.0		0.0
Drill Water - Sentinel	MT	589.0	220.0		369.0	Cement HTB - Sentinel	sxs	0.0			0.0	Bentonite - Sentinel	sxs	0.0		0.0
Cement 'G' - Sentinel	sxs	0.0			0.0	Barite - Sentinel	sxs	1453.0	1453.0		0.0	Brine - Sentinel	MT	0.0		0.0
Bentonite - Sentinel	sxs	0.0			0.0											

Pump Data

Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152	71	97	1013	8694	30	1379	1804.0	1.23
		0			0	0	40	2068	1804.0	1.23
		0			0	0	50	2758	1804.0	1.23
2	Nat'l 12-P-160	152	62	97	1013	8694	30	1551	1804.0	1.23
		0			0	0	40	2068	1804.0	1.23
		0			0	0	50	2758	1804.0	1.23
3	Nat'l 12-P-160	152	59	97	1013	8694		0		

Casing

DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)	SHOE TVD (plan/Actual)	LOT (pl/Act)	FIT (pl/Act)	COMMENT
13.375	340	785.0 743.0	785.0 742.9	1.68 1.88		

TYPE	LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD
340mm (13.375") shoe jt 107 kg/m, cent mid	12.52	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt	12.13	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt	12.64	316	107.1	L-80	BTC
50 x 340mm (13.375") jt 101 kg/m	590.73	316	101.2	L-80	BTC
340mm (13.375") No-cross jt 101 kg/m	11.84	316	101.2	L-80	BTC
476mm (18.75") wellhead + extension jt	10.71	316	101.2	L-80	BTC
RT to Wellhead top	92.58	0	.0		

Personnel : on Site =79

4 Santos	36 DOGC	4 DOGC other/extra	21 TMT (marine)
3 TMT (ROV)	4 BHI	2 Halliburton	2 IDFS
2 Anadrill	1 DrilQuip		

Safety, Inspections and Drills Summary

4 days since last	Fire and Abandon Ship Drill
1808 days since last	Lost Workday Case
41 days since last	Medical Treatment Case
7 days since last	First Aid Case
days since last	Environmental Issue

Shakers, Volumes and Losses Data

ENGINEER M. Docherty / J. Singh

SHAKER	VOLUME AVAILABLE (m3) =	315	LOSSES (m3) =	24	COMMENTS
SHAKER 1 4 x 115	ACTIVE	71.5	MIXING	0.0	Dumped 120 bbls of bottoms up mud, due to being dehydrated.
SHAKER 2 4 x 115	HOLE	140.2	SLUG	0.0	
SHAKER 3 4 x 115	RESERVE	103.3	HEAVY	0.0	
SHAKER 4 4 x 84					
SHAKER 5					

Anchors

Anc 1 : 129	Anc 2 : 141	Anc 3 : 118	Anc 4 : 118	Anc 5 : 113
Anc 6 : 125	Anc 7 : 118	Anc 8 : 134	Anc 9 : 0	Anc 10 : 0

RIS. TENS. (MT) :	102
RISER ANGLE (deg):	0.0
STACK ANGLE(deg):	0.0
V.D.L. (MT) :	2,143.0
AVE HEAVE (m) :	0.3
MAX HEAVE (m) :	1.2
AVE PITCH (deg) :	0.3
MAX PITCH (deg) :	0.4
AVE ROLL (deg) :	0.2
MAX ROLL (deg) :	0.3

Workboats

Arrived @ Rig (Date)(Time)	Depart from Rig (Date)(Time)	EstimatedArrival (Port) (Date)(Time)
Pacific Sentinel 10/9/02 23:25		
Pacific Conqueror	11/9/02 18:30	11/9/02 23:30

Weather

VISIBILITY(nm) :	15
WIND SP. (kts) :	18.0
WIND DIR (deg) :	45
PRES.(mbars):	1023
AIR TEMP (C) :	15.0

COMMENTS : Pax on / off : Flt #1, 4/5.

DATE : Sep 13, 2002

FROM : H. Flink / G. Othen
TO : O. Moller

CASINO #1

Well Data		M.DEPTH (m BRT)	2,043.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	2,043.0	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	239.0	SHOE TVD (m BRT)	743	DAILY COST :	\$317,616
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	19.25	FIT (sg)	0.00	CUM COST :	\$9,348,360
RIG	Ocean Bounty	DAYS +/- CURVE	11.00	LOT (sg)	1.88		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 Drilling 311mm (12-1/4") Hole @ 2093m					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Continue to drill 311mm (12-1/4") Hole section to TD.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs
Drilled 311mm (12-1/4") Hole.

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,561
Warre	1,743

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 13, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		D	00:00	24:00	24.00	2,043	Continued drilling 311mm (12-1/4") hole from 1804m to 2043m

ACTIVITY FOR PERIOD 0000 HRS TO 06:00 HRS ON Sep 14, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		D	00:00	06:00	6.00	2,093	Continued drilling 311mm (12-1/4") Hole from 2043m to 2093m

WBM Data	COST TODAY : \$18,351	CUM. WB MUD COST: \$232,894	CUM. WBM+OBM COST: \$232,894
Type :	VISCOCITY (sec/ltr) : 56	API FLUID LOSS (cm3/30min) : 4	CI : 31,400
KCI PHPA	PV (Pa.s) : 0	FILTER CAKE (mm) : 1	K+C*1000 : 37800
FROM : pit	YP (Pa.s) : 12	HTHPFL (cm3/30min) : 18	HARD/Ca : 240
TIME : 22:00	GEL10s/10m/100m (Pa.s) : 3 6 1	HTHP CAKE (mm) : 2	MBT (ppb) : 11.0
WEIGHT (sg): 1.24	Fann 3/6/100 : 7 9 28		PM : .2
TEMP (C) : 54			PF : .2
			SOLIDS (%vol) : 12
			H2O (%vol) : 88.0
			OIL (%vol) : .5
			SAND : 9.5
			PH : 1.8
			PHPA (ppb) : 1.8

Bit Data for Bit # 7 IADC # 4 3 7				Wear											
				I	O1	D	L	B	G	O2	R				
SIZE (") :	12.25			NOZZLES				Drilled over the last 24 hrs				Calculated over the bit run			
MANUFACTURER :	HU	AVE WOB (MT) :	14	3 X 16	METERAGE (m) :			239	CUM.METERAGE (m) :			246			
TYPE :	MXR09D	AVE RPM :	100	X 0	ON BOTTOM HRS :			21.4	CUM. ON BOT. HRS :			22.9			
SERIAL # :	L11DK	FLOW (lpm) :	3,043	X 0	IADC DRILL. HRS :			24.0	CUM.IADC DR. HRS:			26.0			
DEPTH IN (mRT):	1797	PUMP PRESS.(Kpa):	26,379	X 0	TOTAL REVS :			128,400	CUM.TOT. REVS :			137,400			
DEPTH OUT (mRT):		HSI (kW/cm2) :	0.814	X 0	ROP (m/hr) :			11.2	ROP (m/hr) :			10.7			

BHA # 8	Length (m): 268.2							D.C. (1) ANN. VELOCITY (mpm):	70
WT BLW JAR (MT):	25	STRING WT (MT):	84	TRQE MAX (Nm):	8,135	D.C. (2) ANN VELOCITY (mpm):	73		
BHA WT (MT) :	34	PICK UP WT (MT):	86	TRQE ON (Nm):	5,423	H.W.D.P. ANN VELOCITY (mpm):	48		
		SLK OFF WT (MT):	86	TRQE OFF (Nm):	5,423	D.P. ANN VELOCITY (mpm) :	48		

BHA DESCRIPTION : Bit, NB RR (solid float), 3 x 8" DC, RR, 1 x 8" DC, RR, 9 X 8"dc, Jar, 2 x 8" DC, x/o, 12 x 5" HWDP.

TOOL DESCRIPTION	LENGTH	OD	ID	SERIAL #	HRS	COMMENT
NB RR				GU 2151	108.0	
Str RR				GU 2143	108.0	
Str RR				GU2144	108.0	
Jars				48907C	108.0	

Survey (Method : Min Curvature)	MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type : MWD										
Magnetic Declination : 0.00										
	1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
	1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
	1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
	1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
	1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
	1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
	1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD
	1775.9	1775.1	4.38	192.3	192.3	-20.4	0.3	-20.4	-2.9	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS				START USED REC'D STOCK				STOCK TYPE & UNITS				START USED REC'D STOCK			
	Fuel Oil - Rig	M3	583.4	23.0	560.4	Drill Water - Rig	MT	939.0	120.0	819.0	Cement 'G' - Rig	sxs	1430.0		1430.0	
Pot Water - Rig	MT	98.0		98.0	Bentonite - Rig	sxs	670.0		670.0	Brine - Rig	MT	0.0		0.0		
Cement HTB - Rig	sxs	0.0		0.0	Fuel Oil - Conqueror	M3	340.5		340.5	Pot Water - Conqueror	MT	230.0		230.0		
Barite - Rig	sxs	3188.0	361.0	2827.0	Cement 'G' - Conqueror	sxs	0.0		0.0	Cement HTB - Conqueror	sxs	0.0		0.0		
Helifuel - Rig	ltr	3423.0	154.0	3269.0	Bentonite - Conqueror	sxs	0.0		0.0	Barite - Conqueror	sxs	246.0		246.0		
Drill Water - Conqueror	MT	0.0		0.0	Brine - Conqueror	MT	0.0		0.0	Fuel Oil - Sentinel	M3	277.8	4.0	273.8		
Cement 'G' - Conqueror	sxs	0.0		0.0	Drill Water - Sentinel	MT	369.0		369.0	Pot Water - Sentinel	MT	227.0	5.0	222.0		
Bentonite - Conqueror	sxs	0.0		0.0	Cement 'G' - Sentinel	sxs	0.0		0.0	Cement HTB - Sentinel	sxs	0.0		0.0		
Brine - Conqueror	MT	0.0		0.0	Bentonite - Sentinel	sxs	0.0		0.0	Barite - Sentinel	sxs	0.0		0.0		
Drill Water - Sentinel	MT	369.0		369.0	Brine - Sentinel	MT	0.0		0.0							

Pump Data														
Pump Data - last 24 hrs							Slow Pump Data							
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)				
1	Nat'l 12-P-160	152	71	97	1013	8791	30	1551	2001.0	1.23				
		0									40	1896	2001.0	1.23
		0									50	2586	2001.0	1.23
2	Nat'l 12-P-160	152	62	97	1013	8791	30	1379	2001.0	1.23				
		0									40	2068	2001.0	1.23
		0									50	2758	2001.0	1.23
3	Nat'l 12-P-160	152	59	97	1013	8791		0						

Casing										
DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)		SHOE TVD (plan/Actual)		LOT (pl/Act)		FIT (pl/Act)		COMMENT
13.375	340	785.0	743.0	785.0	742.9	1.68	1.88			
TYPE		LENGTH (m)		CSG ID (mm)		WT (kg/m)		GRADE		THREAD
340mm (13.375") shoe jt 107 kg/m, cent mid		12.52		316		107.1		L-80		BTC
340mm (13.375") int jt 107 kg/m, cent mid jt		12.13		316		107.1		L-80		BTC
340mm (13.375") int jt 107 kg/m, cent mid jt		12.64		316		107.1		L-80		BTC
50 x 340mm (13.375") jt 101 kg/m		590.73		316		101.2		L-80		BTC
340mm (13.375") No-cross jt 101 kg/m		11.84		316		101.2		L-80		BTC
476mm (18.75") wellhead + extension jt		10.71		316		101.2		L-80		BTC
RT to Wellhead top		92.58		0		.0				

Personnel : on Site =79			
4 Santos	36 DOGC	5 DOGC other/extra	21 TMT (marine)
3 TMT (ROV)	4 BHI	1 Halliburton	2 IDFS
2 Anadrill	1 DrilQuip		

Safety, Inspections and Drills		Summary
5 days since last	Fire and Abandon Ship Drill	
1809 days since last	Lost Workday Case	
42 days since last	Medical Treatment Case	
8 days since last	First Aid Case	
2 days since last	Pre-Job Meetings	
1 days since last	Trip/Pit Drill	
days since last	Fire Drill	
days since last	Heavy Lift Meeting	

Shakers, Volumes and Losses Data		ENGINEER M. Docherty / J. Singh			
SHAKER 1 4 x 115	VOLUME AVAILABLE (m3) = 325 ACTIVE 79.5 MIXING 0.0 HOLE 157.7 SLUG 0.0 RESERVE 87.4 HEAVY 0.0	LOSSES (m3) = 54 DOWNHOLE 12.88 SURF.+EQUIP 41.33 DUMPED 0.00	COMMENTS		
SHAKER 2 4 x 115					
SHAKER 3 4 x 115					
SHAKER 4 4 x 84					
SHAKER 5					

Anchors		Anc 1 : 116	Anc 2 : 143	Anc 3 : 102	Anc 4 : 107	Anc 5 : 118	RIS. TENS. (MT) : 105	
		Anc 6 : 88	Anc 7 : 122	Anc 8 : 145	Anc 9 : 0	Anc 10 : 0	RISER ANGLE (deg): 0.0	
							STACK ANGLE(deg): 0.0	
							V.D.L. (MT) : 2,155.0	
							AVE HEAVE (m) : 0.9	
							MAX HEAVE (m) : 1.2	
							AVE PITCH (deg) : 0.3	
							MAX PITCH (deg) : 0.3	
							AVE ROLL (deg) : 0.2	
							MAX ROLL (deg) : 0.3	

Workboats	Arrived @ Rig (Date)(Time)	Depart from Rig (Date)(Time)	EstimatedArrival (Port) (Date)(Time)	Weather
Pacific Sentinel	10/9/02 23:25	11/9/02 18:30	11/9/02 23:30	VISIBILITY(nm) : 16 WIND SP. (kts) : 25.0 WIND DIR (deg) : 25 PRES.(mbars): 1020 AIR TEMP (C) : 18.0
Pacific Conqueror				

COMMENTS : Pax on / off : Flt #1, 7/7. Flt #2, 5/5.

DATE : Sep 14, 2002

**FROM : H. Flink / G. Othen
TO : O. Moller**

CASINO #1

Well Data		M.DEPTH (m BRT)	2,118.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	2,118.0	CASING OD (mm)	340	AFE BASIS :	UNKNOWN
FIELD	Casino	PROGRESS (m)	75.0	SHOE TVD (m BRT)	743	DAILY COST :	\$326,139
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	20.25	FIT (sg)	0.00	CUM COST :	\$9,674,499
RIG	Ocean Bounty	DAYS +/- CURVE	11.00	LOT (sg)	1.88		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 Logging Run # 2 (MDT)					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Continue Logging program.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

Drilled 311mm (12-1/4") Hole to 2118m. POOH. Rigged up and ran Wire line logs.

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,561
Warre	1,743

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 14, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		D	00:00	11:00	11.00	2,118	Continued drilling 311mm (12-1/4") Hole from 2043m to 2118m
IH1	P		CIR	11:00	13:00	2.00	2,118	Circulated bottoms up @ 2118m. Shakers clean, flow checked.
IH1	P		TO	13:00	19:30	6.50	2,118	POOH F/- 2118m (60 kips O-Pull @ 1805m & 1760m Worked clean)
IH1	P		WL	19:30	20:00	0.50	2,118	Held JSA and rigged up Schlumberger wire line.
IH1	P		WL	20:00	24:00	4.00	2,118	Made up and RIH with Log # 1 (PEX / DSI / HALS)

ACTIVITY FOR PERIOD 0000 HRS TO 06:00 HRS ON Sep 15, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		WL	00:00	02:30	2.50	2,118	Continue Logging Run # 1 (Depth tools reached 2098.5 mts)
IH1	P		WL	02:30	06:00	3.50	2,118	Tools on surface Made up Log # 2 (MDT) RIH @ 04:30hrs

WBM Data		COST TODAY : \$5,652	CUM. WB MUD COST: \$238,546	CUM. WBM+OBM COST: \$238,546					
Type :	KCI PHPA	VISCOCITY (sec/ltr) :	54	API FLUID LOSS (cm3/30min) :	5	CI :	32,500	SOLIDS (%vol) :	10
FROM :	pit	PV (Pa.s) :	0	FILTER CAKE (mm) :	1	K+C*1000 :	40500	H2O (%vol) :	89.6
TIME :	22:00	YP (Pa.s) :	13	HTHPFL (cm3/30min) :	18	HARD/Ca :	400	OIL (%vol) :	
WEIGHT (sg):	1.22	GEL10s/10m/100m (Pa.s) :	3	HTHP CAKE (mm) :	2	MBT (ppb) :	10.0	SAND :	.5
TEMP (C) :	54	Fann 3/6/100 :	6			PM :		PH :	9.0
			8			PF :	.1	PHPA (ppb) :	1.9

Bit Data for Bit # 7 IADC # 4 3 7				Wear		I	O1	D	L	B	G	O2	R
SIZE (") :	12.25	AVE WOB (MT) :	16	NOZZLES	3 X 16	2	2	BT	A	E	I	CT	TD
MANUFACTURER :	HU	AVE RPM :	100	Drilled over the last 24 hrs				Calculated over the bit run					
TYPE :	MXR09D	FLOW (lpm) :	3,043	METERAGE (m) :	75	CUM.METERAGE (m) :						321	
SERIAL # :	L11DK	PUMP PRESS.(Kpa):	26,821	ON BOTTOM HRS :	10.3	CUM. ON BOT. HRS :						33.2	
DEPTH IN (mRT):	1797	HSI (kW/cm2) :	0.814	IADC DRILL. HRS :	11.0	CUM.IADC DR. HRS:						37.0	
DEPTH OUT (mRT):	2118			TOTAL REVS :	61,800	CUM.TOT. REVS :						199,200	
				ROP (m/hr) :	7.3	ROP (m/hr) :						9.7	

BHA # 8	Length (m): 268.2				D.C. (1) ANN. VELOCITY (mpm):	70	
WT BLW JAR (MT):	25	STRING WT (MT):	86	TRQE MAX (Nm):	8,135	D.C. (2) ANN VELOCITY (mpm):	73
BHA WT (MT) :	34	PICK UP WT (MT):	86	TRQE ON (Nm):	5,423	H.W.D.P. ANN VELOCITY (mpm):	48
		SLK OFF WT (MT):	86	TRQE OFF (Nm):	5,423	D.P. ANN VELOCITY (mpm) :	48

BHA DESCRIPTION : Bit, NB RR (solid float), 3 x 8" DC, RR, 1 x 8" DC, RR, 9 X 8"dc, Jar, 2 x 8" DC, x/o, 12 x 5" HWDP.

TOOL DESCRIPTION	LENGTH	OD	ID	SERIAL #	HRS	COMMENT
NB RR				GU 2151	120.5	
Str RR				GU 2143	120.5	
Str RR				GU2144	120.5	
Jars				48907C	120.5	

Survey (Method : Min Curvature)		MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type :	MWD										
Magnetic Declination :	0.00										
		1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
		1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
		1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
		1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
		1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
		1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
		1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD
		1775.9	1775.1	4.38	192.3	192.3	-20.4	0.3	-20.4	-2.9	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS				STOCK TYPE & UNITS					
	START	USED	REC'D	STOCK	START	USED	REC'D	STOCK		
	Fuel Oil - Rig	M3	560.4	16.0	544.4	Drill Water - Rig	MT	819.0	85.0	734.0
	Pot Water - Rig	MT	98.0		98.0	Cement 'G' - Rig	sxs	1430.0		1430.0
	Cement HTB - Rig	sxs	0.0		0.0	Bentonite - Rig	sxs	670.0		670.0
	Barite - Rig	sxs	2827.0	76.0	2751.0	Brine - Rig	MT	0.0		0.0
	Helifuel - Rig	ltr	3269.0	462.0	2807.0	Fuel Oil - Conqueror	M3	340.5		340.5
	Drill Water - Conqueror	MT	0.0		0.0	Pot Water - Conqueror	MT	230.0		230.0
	Cement 'G' - Conqueror	sxs	0.0		0.0	Cement HTB - Conqueror	sxs	0.0		0.0
	Bentonite - Conqueror	sxs	0.0		0.0	Barite - Conqueror	sxs	246.0		246.0
	Brine - Conqueror	MT	0.0		0.0	Fuel Oil - Sentinel	M3	273.8	2.6	271.2
	Drill Water - Sentinel	MT	369.0		369.0	Pot Water - Sentinel	MT	222.0	5.0	217.0
	Cement 'G' - Sentinel	sxs	0.0		0.0	Cement HTB - Sentinel	sxs	0.0		0.0
	Bentonite - Sentinel	sxs	0.0		0.0	Barite - Sentinel	sxs	0.0		0.0
	Brine - Sentinel	MT	0.0		0.0					

Pump Data										
Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152	71	97	1013	8936	30	1551	2116.0	1.23
		0					40	1896	2116.0	1.23
		0					50	2758	2116.0	1.23
2	Nat'l 12-P-160	152	62	97	1013	8936	30	1551	2116.0	1.23
		0					40	2068	2116.0	1.23
		0					50	2758	2116.0	1.23
3	Nat'l 12-P-160	152	59	97	1013	8936	0			

Casing										
DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)		SHOE TVD (plan/Actual)		LOT (pl/Act)		FIT (pl/Act)		COMMENT
13.375	340	785.0	743.0	785.0	742.9	1.68	1.88			
TYPE		LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD				
340mm (13.375") shoe jt 107 kg/m, cent mid		12.52	316	107.1	L-80	BTC				
340mm (13.375") int jt 107 kg/m, cent mid jt		12.13	316	107.1	L-80	BTC				
340mm (13.375") int jt 107 kg/m, cent mid jt		12.64	316	107.1	L-80	BTC				
50 x 340mm (13.375") jt 101 kg/m		590.73	316	101.2	L-80	BTC				
340mm (13.375") No-cross jt 101 kg/m		11.84	316	101.2	L-80	BTC				
476mm (18.75") wellhead + extension jt		10.71	316	101.2	L-80	BTC				
RT to Wellhead top		92.58	0	.0						

Personnel : on Site =85			
4 Santos	35 DOGC	4 DOGC other/extra	22 TMT (marine)
3 TMT (ROV)	4 BHI	1 Halliburton	2 IDFS
9 Schlumberger	1 DrilQuip		

Safety, Inspections and Drills	Summary
6 days since last	Fire and Abandon Ship Drill
1810 days since last	Lost Workday Case
43 days since last	Medical Treatment Case
9 days since last	First Aid Case
4 days since last	Weekly Safety Meeting
0 days since last	Trip/Pit Drill
3 days since last	BOP Test

Shakers, Volumes and Losses Data	ENGINEER M. Docherty / J. Singh				
SHAKER 1 4 x 115	VOLUME AVAILABLE (m3) =	313	LOSSES (m3) =	43	COMMENTS
SHAKER 2 4 x 115	ACTIVE	92.2	MIXING	0.0	DOWNHOLE 3.66
SHAKER 3 4 x 115	HOLE	163.1	SLUG	0.0	SURF.+EQUIP 24.96
SHAKER 4 4 x 84	RESERVE	58.0	HEAVY	0.0	DUMPED 14.31
SHAKER 5					

Anchors	Anc 1 : 113	Anc 2 : 127	Anc 3 : 111	Anc 4 : 100	Anc 5 : 120	RIS. TENS. (MT) :	105
	Anc 6 : 88	Anc 7 : 118	Anc 8 : 118	Anc 9 : 0	Anc 10 : 0	RISER ANGLE (deg):	0.0
Workboats	Arrived @ Rig (Date)(Time)	Depart from Rig (Date)(Time)	EstimatedArrival (Port) (Date)(Time)	Weather		STACK ANGLE(deg):	0.0
Pacific Sentinel	10/9/02 23:25			VISIBILITY(nm) :	16	V.D.L. (MT) :	2,136.C
Pacific Conqueror		11/9/02 18:30	11/9/02 23:30	WIND SP. (kts) :	32.0	AVE HEAVE (m) :	2.4
				WIND DIR (deg) :	20	MAX HEAVE (m) :	2.4
				PRES.(mbars):	1015	AVE PITCH (deg) :	0.6
				AIR TEMP (C) :	19.0	MAX PITCH (deg) :	0.6
						AVE ROLL (deg) :	0.3
						MAX ROLL (deg) :	0.3
COMMENTS : Pax on / off : Flt #1, 8/2.							

DATE : Sep 15, 2002

**FROM : H. Flink / G. Othen
TO : O. Moller**

CASINO #1

Well Data		M.DEPTH (m BRT)	2,118.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	2,118.0	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	75.0	SHOE TVD (m BRT)	743	DAILY COST :	\$807,796
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	21.25	FIT (sg)	0.00	CUM COST :	\$10,482,295
RIG	Ocean Bounty	DAYS +/- CURVE	11.00	LOT (sg)	1.88		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 RIH with tubing for Cement pulg # 1 (06:00 Depth 560 mts)					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Complete Logging program / RIH & Commence Abandonment program.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs
Continued with Logging program.

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,561
Warre	1,743

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 15, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		WL	00:00	02:30	2.50	2,118	Continue Logging Run # 1 (Depth tools reached 2098.5 mts)
IH1	P		WL	02:30	11:30	9.00	2,118	Tools on surface Made up Log # 2 (MDT) RIH @ 04:30hrs.
IH1	U		WL	11:30	14:00	2.50	2,118	Tools on surface, changed out hydraulic unit due to failure of tool. Re - run Log # 2 (MDT)
IH1	P		WL	14:00	20:00	6.00	2,118	Continued Log # 2 (MDT)
IH1	P		WL	20:00	21:30	1.50	2,118	Laid out MDT tools, and made up Log tools # 3 (CST)
IH1	P		WL	21:30	24:00	2.50	2,118	RIH Log # 2 (CST)

ACTIVITY FOR PERIOD 0000 HRS TO 06:00 HRS ON Sep 16, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		WL	00:00	01:30	1.50	2,118	Continued Log # 3 (CST) Laid out tools.
IH1	P		WL	01:30	02:00	0.50	2,118	Rigged down wire line.
IH1	P		TI	02:00	02:30	0.50	2,118	Made up cement side entry sub and TIW valve, racked stand in derrick.
IH1	P		TI	02:30	06:00	3.50	2,118	Picked up 20 joints of 88.9mm tubing. RIH in preparation for cmt plug. (06:00 hr Depth 560 mts)

WBM Data	COST TODAY :	CUM. WB MUD COST: \$238,546	CUM. WBM+OBM COST: \$238,546						
Type :	KCI PHPA	VISCOCITY (sec/ltr) :	57	API FLUID LOSS (cm3/30min) :	5	CI :	33,000	SOLIDS (%vol) :	11
FROM :	pit	PV (Pa.s) :	0	FILTER CAKE (mm) :	1	K+C*1000 :	40500	H2O (%vol) :	89.6
TIME :	22:00	YP (Pa.s) :	12	HTHPFL (cm3/30min) :	18	HARD/Ca :	300	OIL (%vol) :	.5
WEIGHT (sg):	1.24	GEL10s/10m/100m (Pa.s) :	3	HTHP CAKE (mm) :	2	MBT (ppb) :	11.0	SAND :	9.0
TEMP (C) :	57	Fann 3/6/100 :	6			PM :	.1	PH :	1.9
			8			PF :		PHPA (ppb) :	

Bit Data for Bit # 7 IADC # 4 3 7				Wear								
SIZE (") :	12.25	AVE WOB (MT) :	16	NOZZLES	I	O1	D	L	B	G	O2	R
MANUFACTURER :	HU	AVE RPM :	100		2	2	BT	A	E	I	CT	TD
TYPE :	MXR09D	FLOW (lpm) :	3,043	3 X 16	Drilled over the last 24 hrs				Calculated over the bit run			
SERIAL # :	L11DK	PUMP PRESS.(Kpa):	26,821	X 0	METERAGE (m) :	0	CUM.METERAGE (m) :	321	ON BOTTOM HRS :	.0	CUM. ON BOT. HRS :	33.2
DEPTH IN (mRT):	1797	HSI (kW/cm2) :	0.814	X 0	ON BOTTOM HRS :	.0	CUM.IADC DR. HRS:	37.0	IADC DRILL. HRS :	.0	CUM.TOT. REVS :	199,200
DEPTH OUT (mRT):	2118			X 0	TOTAL REVS :	0	ROP (m/hr) :	9.7	TOTAL REVS :	0		
				X 0	ROP (m/hr) :							

BHA # 8	Length (m): 268.2				D.C. (1) ANN. VELOCITY (mpm):	70	
WT BLW JAR (MT):	25	STRING WT (MT):	86	TRQE MAX (Nm):	8,135	D.C. (2) ANN VELOCITY (mpm):	73
BHA WT (MT) :	34	PICK UP WT (MT):	86	TRQE ON (Nm):	5,423	H.W.D.P. ANN VELOCITY (mpm):	48
		SLK OFF WT (MT):	86	TRQE OFF (Nm):	5,423	D.P. ANN VELOCITY (mpm) :	48

BHA DESCRIPTION : Bit, NB RR (solid float), 3 x 8" DC, RR, 1 x 8" DC, RR, 9 X 8"dc, Jar, 2 x 8" DC, x/o, 12 x 5" HWDP.

TOOL DESCRIPTION	LENGTH	OD	ID	SERIAL #	HRS	COMMENT
NB RR				GU 2151	120.5	
Str RR				GU 2143	120.5	
Str RR				GU2144	120.5	
Jars				48907C	120.5	

Survey (Method : Min Curvature)		MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type :	MWD										
Magnetic Declination :	0.00										
		1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
		1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
		1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
		1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
		1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
		1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
		1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD
		1775.9	1775.1	4.38	192.3	192.3	-20.4	0.3	-20.4	-2.9	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS				STOCK TYPE & UNITS					
	START	USED	REC'D	STOCK	START	USED	REC'D	STOCK		
	Fuel Oil - Rig	M3	544.4	9.5	534.9	Drill Water - Rig	MT	734.0	22.0	712.0
	Pot Water - Rig	MT	98.0		98.0	Cement 'G' - Rig	sxs	1430.0		1430.0
	Cement HTB - Rig	sxs	0.0		0.0	Bentonite - Rig	sxs	670.0		670.0
	Barite - Rig	sxs	2751.0		2751.0	Brine - Rig	MT	0.0		0.0
	Helifuel - Rig	ltr	2807.0		2807.0	Fuel Oil - Conqueror	M3	340.5		340.5
	Drill Water - Conqueror	MT	0.0		0.0	Pot Water - Conqueror	MT	230.0		230.0
	Cement 'G' - Conqueror	sxs	0.0		0.0	Cement HTB - Conqueror	sxs	0.0		0.0
	Bentonite - Conqueror	sxs	0.0		0.0	Barite - Conqueror	sxs	246.0		246.0
	Brine - Conqueror	MT	0.0		0.0	Fuel Oil - Sentinel	M3	271.2	5.5	265.7
	Drill Water - Sentinel	MT	369.0		369.0	Pot Water - Sentinel	MT	217.0	5.0	212.0
	Cement 'G' - Sentinel	sxs	0.0		0.0	Cement HTB - Sentinel	sxs	0.0		0.0
	Bentonite - Sentinel	sxs	0.0		0.0	Barite - Sentinel	sxs	0.0		0.0
	Brine - Sentinel	MT	0.0		0.0					

Pump Data										
Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152	71	97	1013	8936	30	1551	2116.0	1.23
		0			0	0	40	1896	2116.0	1.23
		0			0	0	50	2758	2116.0	1.23
2	Nat'l 12-P-160	152	62	97	1013	8936	30	1551	2116.0	1.23
		0			0	0	40	2068	2116.0	1.23
		0			0	0	50	2758	2116.0	1.23
3	Nat'l 12-P-160	152	59	97	1013	8936		0		

Casing						
DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)	SHOE TVD (plan/Actual)	LOT (pl/Act)	FIT (pl/Act)	COMMENT
13.375	340	785.0 743.0	785.0 742.9	1.68 1.88		
TYPE		LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD
340mm (13.375") shoe jt 107 kg/m, cent mid		12.52	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt		12.13	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt		12.64	316	107.1	L-80	BTC
50 x 340mm (13.375") jt 101 kg/m		590.73	316	101.2	L-80	BTC
340mm (13.375") No-cross jt 101 kg/m		11.84	316	101.2	L-80	BTC
476mm (18.75") wellhead + extension jt		10.71	316	101.2	L-80	BTC
RT to Wellhead top		92.58	0	.0		

Personnel : on Site =85			
4 Santos	35 DOGC	4 DOGC other/extra	22 TMT (marine)
3 TMT (ROV)	4 BHI	1 Halliburton	2 IDFS
9 Schlumberger	1 DrilQuip		

Safety, Inspections and Drills	Summary
7 days since last	Fire and Abandon Ship Drill
1811 days since last	Lost Workday Case
44 days since last	Medical Treatment Case
10 days since last	First Aid Case
5 days since last	Weekly Safety Meeting
1 days since last	Trip/Pit Drill
4 days since last	BOP Test

Shakers, Volumes and Losses Data	ENGINEER M. Docherty / J. Singh				
SHAKER 1 4 x 115	VOLUME AVAILABLE (m3) =	312	LOSSES (m3) =	2	COMMENTS
SHAKER 2 4 x 115	ACTIVE	90.6	MIXING	0.0	DOWNHOLE 1.59
SHAKER 3 4 x 115	HOLE	163.1	SLUG	0.0	SURF.+EQUIP 0.00
SHAKER 4 4 x 84	RESERVE	58.0	HEAVY	0.0	DUMPED 0.00
SHAKER 5					

Anchors	Anc 1 : 102	Anc 2 : 118	Anc 3 : 113	Anc 4 : 104	Anc 5 : 127	RIS. TENS. (MT) :	105
	Anc 6 : 102	Anc 7 : 113	Anc 8 : 113	Anc 9 : 0	Anc 10: 0	RISER ANGLE (deg):	0.0
Workboats	Arrived @ Rig (Date)(Time)	Depart from Rig (Date)(Time)	EstimatedArrival (Port) (Date)(Time)	Weather		STACK ANGLE(deg):	0.0
Pacific Sentinel	10/9/02 23:25			VISIBILITY(nm) :	12	V.D.L. (MT) :	1,971.0
Pacific Conqueror		11/9/02 18:30	11/9/02 23:30	WIND SP. (kts) :	50.0	AVE HEAVE (m) :	2.4
				WIND DIR (deg) :	10	MAX HEAVE (m) :	2.4
				PRES.(mbars):	1014	AVE PITCH (deg) :	0.6
				AIR TEMP (C) :	22.0	MAX PITCH (deg) :	0.6
COMMENTS :	No Helicopter.					AVE ROLL (deg) :	0.4
						MAX ROLL (deg) :	0.4

DATE : Sep 16, 2002

FROM : H. Flink / G. Othen

TO : O. Moller

CASINO #1

Well Data		M.DEPTH (m BRT)	2,118.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	2,118.0	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)	75.0	SHOE TVD (m BRT)	743	DAILY COST :	\$334,987
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	22.25	FIT (sg)	0.00	CUM COST :	\$10,817,282
RIG	Ocean Bounty	DAYS +/- CURVE	11.00	LOT (sg)	1.88		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 RIH to tag # 3 Cement plug.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Run 13 3/8" EZSV & cement plug # 4. POOH prepare to pull BOP.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

Complete logging / Picked up tubing RIH & set two abandonment plugs.

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,561
Warre	1,743

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 16, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		WL	00:00	01:30	1.50	2,118	Continued Log # 3 (CST) Laid out tools. (30 Shots 100% Recovery)
IH1	P		WL	01:30	02:00	0.50	2,118	Rigged down wire line.
IH1	P		TI	02:00	02:30	0.50	2,118	Made up cement side entry sub and TIW valve, racked stand in derrick.
IH1	P		TI	02:30	06:30	4.00	2,118	Picked up 20 joints of 88.9mm tubing. RIH to 743m (Shoe)
IH1	P		RS	06:30	07:00	0.50	2,118	Serviced TDS & Blocks.
IH1	P		TI	07:00	10:00	3.00	2,118	Continued RIH. Washed to bottom tagged @ 2094m.
IH1	P		CIR	10:00	11:30	1.50	2,118	Circulated bottoms up @ 2094m.
IH1	P		TO	11:30	12:00	0.50	2,118	Pulled back to 1920m
IH1	P		CIR	12:00	13:00	1.00	2,118	Spotted 6.3 M3 (40 bbls) Hi-vis @ 1920m. Pulled back to 1840m.
IH1	P		CMP	13:00	14:30	1.50	2,118	Set cement plug # 1 F/- 1840m to 1690m. Rigged up & pumped 1.5 M3 (10 bbls) of drill water, tested cement line 7000 Kpa (1000 psi) Pumped 1.5 M3 (10 bbls) of drill water. Mixed and pumped 18.2 M3 (115 bbls) 557sx of tail slurry @ 1.89sg with 10.8 M3 (68 bbls) of mix water. Displaced cement with 14.4 M3 (91 bbls) of mud.
IH1	P		TO	14:30	16:00	1.50	2,118	Pulled back F/- 1840m to 1500m and circulated bottoms up.
IH1	P		TI	16:00	16:30	0.50	2,118	RIH to 1620m.
IH1	P		CMP	16:30	17:00	0.50	2,118	Set cement plug # 2 F/- 1620m to 1470m. Rigged up and pumped 1.5 M3 (10 bbls) of drill water tested lines to 7000 Kpa (1000 psi) Pumped 1.5 M3 (10 bbls) of drill water. Mixed and pumped 18.2 M3 (115 bbls) of 1.89sg cement (557sx) with 10.8 M3 (68.3 bbls) of mix water. Displaced with 12.4 M3 (78 bbls) of mud.
IH1	P		TO	17:00	19:00	2.00	2,118	Pulled back F/- 1620m to 1300m and circulated bottoms up.
IH1	P		TO	19:00	20:00	1.00	2,118	Pulled back to 599m.
IH1	P		WH	20:00	21:30	1.50	2,118	Installed wear bushing running tool, RIH and recovered wear bushing.
IH1	P		TI	21:30	23:00	1.50	2,118	RIH and tagged cement @ 1361m.
IH1	P		TO	23:00	23:30	0.50	2,118	Pulled back to 850m.
IH1	P		CIR	23:30	24:00	0.50	2,118	Spotted 6.3 M3 (40 bbls) of Hi-vis pill, POOH to 780m.

ACTIVITY FOR PERIOD 0000 HRS TO 06:00 HRS ON Sep 17, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		CIR	00:00	00:30	0.50	2,118	Circulated bottoms up @ 780m.

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		CMP	00:30	01:30	1.00	2,118	Set cement plug # 3 F /- 780m to 630m. Rigged up cement line, pumped 1.5 M3 (10 bbls) of drill water tested cement line to 7000 Kpa (1000 psi) Pumped 1.5 M3 (10 bbls) of drill water. Mixed and pumped 15.5 M3 (98 bbls) of 1.89sg cement (475sx) with 9.2 M3 (58 bbls) of mix water. Displaced with 4.7 M3 (30 bbls) of mud.
IH1	P		TO	01:30	02:00	0.50	2,118	Pulled back F /- 780m to 550m.
IH1	P		CIR	02:00	02:30	0.50	2,118	Circulated bottoms up & displaced well to corrosion inhibited mud @ 550m.
IH1	P		TO	02:30	05:00	2.50	2,118	POOH F /- 550m, laid out tubing whilst waiting on cement.
IH1	P		TI	05:00	06:00	1.00	2,118	RIH to tag cement plug # 3

WBM Data		COST TODAY : \$1,646		CUM. WB MUD COST: \$240,191		CUM. WBM+OBM COST: \$240,191			
Type :	KCI PHPA	VISCOCITY (sec/ltr) :	62	API FLUID LOSS (cm3/30min) :	6	CI :	32,500	SOLIDS (%vol) :	10
		PV (Pa.s) :	0	FILTER CAKE (mm) :	1	K+C*1000 :	40500	H2O (%vol) :	89.6
FROM :	pit	YP (Pa.s) :	13	HTHPFL (cm3/30min) :	22	HARD/Ca :	560	OIL (%vol) :	
TIME :	22:00	GEL10s/10m/100m (Pa.s) :	3	HTHP CAKE (mm) :	2	MBT (ppb) :	11.0	SAND :	.5
WEIGHT (sg):	1.22	Fann 3/6/100 :	6			PM :	1.4	PH :	10.5
TEMP (C) :	0					PF :	.3	PHPA (ppb) :	1.8

Bit Data for Bit # 7 IADC # 4 3 7				Wear											
				I	O1	D	L	B	G	O2	R				
				2	2	BT	A	E	I	CT	TD				
SIZE (") :	12.25	NOZZLES		3 x 16				Drilled over the last 24 hrs				Calculated over the bit run			
MANUFACTURER :	HU	AVE WOB (MT) :	16	METERAGE (m) :	0	CUM.METERAGE (m) :				321					
TYPE :	MXR09D	AVE RPM :	100	ON BOTTOM HRS :	.0	CUM. ON BOT. HRS :				33.2					
SERIAL # :	L11DK	FLOW (lpm) :	3,043	IADC DRILL. HRS :	.0	CUM.IADC DR. HRS:				37.0					
DEPTH IN (mRT):	1797	PUMP PRESS.(Kpa):	26,821	TOTAL REVS :	0	CUM.TOT. REVS :				199,200					
DEPTH OUT (mRT):	2118	HSI (kW/cm2) :	0.814	ROP (m/hr) :		ROP (m/hr) :				9.7					

BHA # 8 Length (m): 268.2				D.C. (1) ANN. VELOCITY (mpm):				70					
WT BLW JAR (MT):	25	STRING WT (MT):	86	TRQE MAX (Nm):	8,135	D.C. (2) ANN VELOCITY (mpm):				73			
BHA WT (MT) :	34	PICK UP WT (MT):	86	TRQE ON (Nm):	5,423	H.W.D.P. ANN VELOCITY (mpm):				48			
		SLK OFF WT (MT):	86	TRQE OFF (Nm):	5,423	D.P. ANN VELOCITY (mpm) :				48			

BHA DESCRIPTION : Bit, NB RR (solid float), 3 x 8" DC, RR, 1 x 8" DC, RR, 9 X 8"dc, Jar, 2 x 8" DC, x/o, 12 x 5" HWDP.

TOOL DESCRIPTION	LENGTH	OD	ID	SERIAL #	HRS	COMMENT
NB RR				GU 2151	120.5	
Str RR				GU 2143	120.5	
Str RR				GU2144	120.5	
Jars				48907C	120.5	

Survey (Method : Min Curvature)		MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	"V" SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type :	MWD										
Magnetic Declination :	0.00										
		1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
		1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
		1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
		1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
		1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
		1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
		1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD
		1775.9	1775.1	4.38	192.3	192.3	-20.4	0.3	-20.4	-2.9	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS					STOCK	STOCK TYPE & UNITS				
	START	USED	REC'D	STOCK	START		USED	REC'D	STOCK		
Fuel Oil - Rig	M3	534.9	10.8	524.1	Drill Water - Rig	MT	712.0	120.0	592.0		
Pot Water - Rig	MT	98.0		98.0	Cement 'G' - Rig	sxs	1430.0	1145.0	1300.0		
Cement HTB - Rig	sxs	0.0		0.0	Bentonite - Rig	sxs	670.0		670.0		
Barite - Rig	sxs	2751.0		2751.0	Brine - Rig	MT	0.0		0.0		
Helifuel - Rig	ltr	2807.0	307.0	2500.0	Fuel Oil - Conqueror	M3	499.0	3.0	496.0		
Drill Water - Conqueror	MT	660.0		660.0	Pot Water - Conqueror	MT	225.0	5.0	220.0		
Cement 'G' - Conqueror	sxs	1350.0	1350.0	0.0	Cement HTB - Conqueror	sxs	0.0		0.0		
Bentonite - Conqueror	sxs	0.0		0.0	Barite - Conqueror	sxs	246.0		246.0		
Brine - Conqueror	MT	0.0		0.0	Fuel Oil - Sentinel	M3	265.7	7.2	258.5		
Drill Water - Sentinel	MT	369.0		369.0	Pot Water - Sentinel	MT	212.0	3.0	209.0		
Cement 'G' - Sentinel	sxs	0.0		0.0	Cement HTB - Sentinel	sxs	0.0		0.0		
Bentonite - Sentinel	sxs	0.0		0.0	Barite - Sentinel	sxs	0.0		0.0		
Brine - Sentinel	MT	0.0		0.0							

Pump Data

Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNRR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152	71	97	1013	8936	30	1551	2116.0	1.23
		0			0	40	1896	2116.0	1.23	
		0			0	50	2758	2116.0	1.23	
2	Nat'l 12-P-160	152	62	97	1013	8936	30	1551	2116.0	1.23
		0			0	40	2068	2116.0	1.23	
		0			0	50	2758	2116.0	1.23	
3	Nat'l 12-P-160	152	59	97	1013	8936		0		

Casing

DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)	SHOE TVD (plan/Actual)	LOT (pl/Act)	FIT (pl/Act)	COMMENT
13.375	340	785.0 743.0	785.0 742.9	1.68 1.88		

TYPE	LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD
340mm (13.375") shoe jt 107 kg/m, cent mid	12.52	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt	12.13	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt	12.64	316	107.1	L-80	BTC
50 x 340mm (13.375") jt 101 kg/m	590.73	316	101.2	L-80	BTC
340mm (13.375") No-cross jt 101 kg/m	11.84	316	101.2	L-80	BTC
476mm (18.75") wellhead + extension jt	10.71	316	101.2	L-80	BTC
RT to Wellhead top	92.58	0	.0		

Personnel : on Site =84

4 Santos	35 DOGC	4 DOGC other/extra	22 TMT (marine)
3 TMT (ROV)	4 BHI	1 Halliburton	2 IDFS
6 Schlumberger	1 DrilQuip	2 Smith Tools	

Safety, Inspections and Drills Summary

0 days since last	Fire and Abandon Ship Drill
1812 days since last	Lost Workday Case
45 days since last	Medical Treatment Case
11 days since last	First Aid Case
6 days since last	Weekly Safety Meeting
2 days since last	Trip/Pit Drill
5 days since last	BOP Test

Shakers, Volumes and Losses Data

SHAKER	VOLUME AVAILABLE (m3) =	292	LOSSES (m3) =	20	COMMENTS
SHAKER 1 4 x 115	ACTIVE	71.5	MIXING	0.0	DOWNHOLE
SHAKER 2 4 x 115	HOLE	167.7	SLUG	0.0	SURF.+EQUIP
SHAKER 3 4 x 115	RESERVE	52.5	HEAVY	0.0	DUMPED
SHAKER 4 4 x 84					
SHAKER 5					

ENGINEER M. Docherty / J. Singh

Anchors	Anc 1 : 116	Anc 2 : 127	Anc 3 : 127	Anc 4 : 107	Anc 5 : 113	RIS. TENS. (MT) :	105
	Anc 6 : 86	Anc 7 : 109	Anc 8 : 116	Anc 9 : 0	Anc 10 : 0	RISER ANGLE (deg):	0.0
Workboats	Arrived @ Rig (Date)(Time)	Depart from Rig (Date)(Time)	EstimatedArrival (Port) (Date)(Time)		Weather	STACK ANGLE(deg):	0.0
	Pacific Sentinel	16/9/02 12:25	16/9/02 17:48	16/9/02 23:55		VISIBILITY(nm) :	8
Pacific Conqueror	16/9/02 12:25	16/9/02 17:48	16/9/02 23:55		WIND SP. (kts) :	50.0	
					WIND DIR (deg) :	340	
					PRES.(mbars):	1016	
					AIR TEMP (C) :	19.0	
COMMENTS :	Pax on / off : Flt #1, 7/8. Pacific Conqueror reported lost 50 sx Cement due to problem with discharge point on boat.					MAX HEAVE (m) :	3.7
						MAX HEAVE (m) :	3.7
						AVE PITCH (deg) :	1.8
						MAX PITCH (deg) :	1.8
						AVE ROLL (deg) :	1.0
						MAX ROLL (deg) :	1.0

DATE : Sep 17, 2002

FROM : H. Flink / G. Othen

TO : O. Moller

CASINO #1

Well Data		M.DEPTH (m BRT)	2,118.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	2,118.0	CASING OD (mm)	340	AFE BASIS :	UNKNOWN
FIELD	Casino	PROGRESS (m)		SHOE TVD (m BRT)	743	DAILY COST :	\$315,487
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	23.25	FIT (sg)	0.00	CUM COST :	\$11,132,769
RIG	Ocean Bounty	DAYS +/- CURVE	11.00	LOT (sg)	1.88		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 Waiting on Weather.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Wait on Weather / Pull BOP					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

Set Abandonment plugs & Mechanical surface plug / Prepared to pull BOP / Wait on Weather.

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,531
Warre	1,739

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 17, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		CIR	00:00	00:30	0.50	2,118	Circulated bottoms up @ 780m.
IH1	P		CMP	00:30	01:30	1.00	2,118	Set cement plug # 3 F /- 780m to 630m. Rigged up cement line, pumped 1.5 M3 (10 bbls) of drill water tested cement line to 7000 Kpa (1000 psi) Pumped 1.5 M3 (10 bbls) of drill water. Mixed and pumped 15.5 M3 (98 bbls) of 1.89sg cement (475sx) with 9.2 M3 (58 bbls) of mix water. Displaced with 4.7 M3 (30 bbls) of mud.
IH1	P		TO	01:30	02:00	0.50	2,118	Pulled back F /- 780m to 550m.
IH1	P		CIR	02:00	02:30	0.50	2,118	Circulated bottoms up & displaced well to corrosion inhibited mud @ 550m.
IH1	P		TO	02:30	05:00	2.50	2,118	POOH F /- 550m, laid out tubing whilst waiting on cement.
IH1	P		TI	05:00	08:30	3.50	2,118	RIH to tag cement plug # 3 @ 642m, POOH.
IH1	P		TI	08:30	10:30	2.00	2,118	Made up EZSV packer and RIH to 185m. Set packer and pressure tested packer to 6800 Kpa (1000 psi)
IH1	P		CMP	10:30	11:30	1.00	2,118	Displaced hole to sea water and flushed choke & kill lines. Rigged up & tested cement line to 6800 Kpa (1000 psi) Set # 4 Cement plug F /- 183m to 133m. Pumped 1M3 (5 bbls) of sea water, Mixed and pumped 4M3 (25 bbls) of 1.89sg (120sx) of cement and displaced with 1.1M3 (6 bbls) of sea water.
IH1	P		TO	11:30	12:00	0.50	2,118	Pulled back F /- 183m to 120m.
IH1	P		CIR	12:00	12:30	0.50	2,118	Reverse circulated @ 120m
IH1	P		TO	12:30	13:00	0.50	2,118	POOH F /- 120m, laid out EZSV running tool.
IH1	P		BOP	13:00	15:30	2.50	2,118	Rigged up to pull BOP. Removed diverter and installed handling joint.
IH1	U		BOP	15:30	24:00	8.50	2,118	W.O.W. Unable to colapse and secure slip joint prior to unlatch BOP due to inclement weather. Conditions @ Midnight Heave 4.3m / Roll 2deg / Wind 45-50 knots / Swell 5.5m

ACTIVITY FOR PERIOD 0000 HRS TO 06:00 HRS ON Sep 18, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	U		BOP	00:00	06:00	6.00	2,118	Waiting on weather conditions to subside enough to recover BOP. Conditions @ 06:00hrs Heave 6.5m / Roll 3.2deg / Wind 55-60 knots / Swell 6.7m

WBM Data		COST TODAY : \$279		CUM. WB MUD COST: \$240,470		CUM. WBM+OBM COST: \$240,470			
Type :	KCI PHPA	VISCOCITY (sec/ltr) :	66	API FLUID LOSS (cm3/30min) :	7	Cl :	33,000	SOLIDS (%vol) :	10
FROM :	pit	PV (Pa.s) :	0	FILTER CAKE (mm) :	1	K+C*1000 :	40500	H2O (%vol) :	89.6
TIME :	22:00	YP (Pa.s) :	13	HTHPFL (cm3/30min) :	24	HARD/Ca :	640	OIL (%vol) :	.5
WEIGHT (sg) :	1.22	GEL10s/10m/100m (Pa.s) :	4 7 1	HTHP CAKE	2	MBT (ppb) :	12.0	SAND :	.5
TEMP (C) :	0	Fann 3/6/100 :	7 9 31			PM :	2.6	PH :	11.5
						PF :	.7	PHPA (ppb) :	1.8

Survey (Method : Min Curvature)	MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type :	MWD									
Magnetic Declination :	0.00									
	1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
	1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
	1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
	1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
	1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
	1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
	1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD
	1775.9	1775.1	4.38	192.3	192.3	-20.4	0.3	-20.4	-2.9	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS				STOCK TYPE & UNITS				
	START	USED	REC'D	STOCK	START	USED	REC'D	STOCK	
Fuel Oil - Rig	M3	524.1	8.4	515.7	Drill Water - Rig	MT	592.0	71.0	521.0
Pot Water - Rig	MT	98.0		98.0	Cement 'G' - Rig	sxs	1585.0	684.0	901.0
Cement HTB - Rig	sxs	0.0		0.0	Bentonite - Rig	sxs	670.0		670.0
Barite - Rig	sxs	2751.0		2751.0	Brine - Rig	MT	0.0		0.0
Helifuel - Rig	ltr	2500.0		2500.0	Fuel Oil - Conqueror	M3	496.0	7.8	488.2
Drill Water - Conqueror	MT	660.0		660.0	Pot Water - Conqueror	MT	220.0	5.0	215.0
Cement 'G' - Conqueror	sxs	0.0		0.0	Cement HTB - Conqueror	sxs	0.0		0.0
Bentonite - Conqueror	sxs	0.0		0.0	Barite - Conqueror	sxs	246.0		246.0
Brine - Conqueror	MT	0.0		0.0	Fuel Oil - Sentinel	M3	258.5		258.5
Drill Water - Sentinel	MT	369.0		369.0	Pot Water - Sentinel	MT	209.0		209.0
Cement 'G' - Sentinel	sxs	0.0		0.0	Cement HTB - Sentinel	sxs	0.0		0.0
Bentonite - Sentinel	sxs	0.0		0.0	Barite - Sentinel	sxs	0.0		0.0
Brine - Sentinel	MT	0.0		0.0					

Pump Data										
Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152		97	0	0	30	0		
		0			0	0	40	0		
		0			0	0	50	0		
2	Nat'l 12-P-160	152		97	0	0	30	0		
		0			0	0	40	0		
		0			0	0	50	0		
3	Nat'l 12-P-160	152		97	0	0				

Casing										
DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)		SHOE TVD (plan/Actual)		LOT (pl/Act)		FIT (pl/Act)		COMMENT
13.375	340	785.0	743.0	785.0	742.9	1.68	1.88			
TYPE		LENGTH (m)		CSG ID (mm)		WT (kg/m)		GRADE		THREAD
340mm (13.375") shoe jt 107 kg/m, cent mid		12.52		316		107.1		L-80		BTC
340mm (13.375") int jt 107 kg/m, cent mid jt		12.13		316		107.1		L-80		BTC
340mm (13.375") int jt 107 kg/m, cent mid jt		12.64		316		107.1		L-80		BTC
50 x 340mm (13.375") jt 101 kg/m		590.73		316		101.2		L-80		BTC
340mm (13.375") No-cross jt 101 kg/m		11.84		316		101.2		L-80		BTC
476mm (18.75") wellhead + extension jt		10.71		316		101.2		L-80		BTC
RT to Wellhead top		92.58		0		.0				

Personnel : on Site =78			
2 Santos	36 DOGC	4 DOGC other/extra	22 TMT (marine)
3 TMT (ROV)	2 BHI	1 Halliburton	1 IDFS
4 Schlumberger	1 DrilQuip	2 Smith Tools	

Safety, Inspections and Drills	Summary
1 days since last	Fire and Abandon Ship Drill
1813 days since last	Lost Workday Case
46 days since last	Medical Treatment Case
12 days since last	First Aid Case
7 days since last	Weekly Safety Meeting
3 days since last	Trip/Pit Drill
6 days since last	BOP Test

Shakers, Volumes and Losses Data				ENGINEER M. Docherty			
SHAKER 1 4 x 115	VOLUME AVAILABLE (m3) =			175	LOSSES (m3) =	169	COMMENTS
SHAKER 2 4 x 115	ACTIVE	0.0	MIXING	0.0	DOWNHOLE	0.00	
SHAKER 3 4 x 115	HOLE	174.7	SLUG	0.0	SURF.+EQUIP	0.00	
SHAKER 4 4 x 84	RESERVE	0.0	HEAVY	0.0	DUMPED	169.46	
SHAKER 5							

Anchors	Anc 1 : 113	Anc 2 : 88	Anc 3 : 125	Anc 4 : 120	Anc 5 : 109	RIS. TENS. (MT) :	105
	Anc 6 : 91	Anc 7 : 82	Anc 8 : 88	Anc 9 : 0	Anc 10 : 0	RISER ANGLE (deg):	0.0
Workboats	Arrived @ Rig (Date)(Time)	Depart from Rig (Date)(Time)	EstimatedArrival (Port) (Date)(Time)	Weather		STACK ANGLE(deg):	0.0
Pacific Sentinel				VISIBILITY(nm) :	8	V.D.L. (MT) :	1,751.0
Pacific Conqueror	16/9/02 12:25	16/9/02 17:48	16/9/02 23:55	WIND SP. (kts) :	35.0	AVE HEAVE (m) :	3.7
				WIND DIR (deg) :	270	MAX HEAVE (m) :	3.7
				PRES.(mbars):	1010	AVE PITCH (deg) :	2.2
				AIR TEMP (C) :	14.0	MAX PITCH (deg) :	2.2
COMMENTS : Pax on / off : Flt #1, 2/8.						AVE ROLL (deg) :	2.0
						MAX ROLL (deg) :	2.0

DATE : Sep 18, 2002

FROM : H. Flink / G. Othen
TO : O. Moller

CASINO #1

Well Data		M.DEPTH (m BRT)	2,118.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	2,118.0	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)		SHOE TVD (m BRT)	743	DAILY COST :	\$305,369
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	24.25	FIT (sg)	0.00	CUM COST :	\$11,438,138
RIG	Ocean Bounty	DAYS +/- CURVE		LOT (sg)	1.88		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 Waiting on Weather.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Wait on Weather.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

Wait on Weather / Disconnected LMRP @ 07:00hrs.

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,531
Warre	1,739

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 18, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	TP	WEA	BOP	00:00	24:00	24.00	2,118	W.O.W Conditions @ 06:00hrs Heave 6.5m / Roll 3.2deg / Wind 55-60 knots / Swell 6.7m. De-ballast rig to 65ft draft. Disconnected LMRP @ 07:05 De-ballast rig to 60ft draft. Weather conditions @ 12:00hrs Heave 6m / Roll 3.0deg / Wind 55-60 knots / Swell 6.7m. Weather conditions @ Midnight Heave 6.7m / Roll 3.0deg / Wind 35-45 knots / Swell 8.5m.

ACTIVITY FOR PERIOD 0000 HRS TO 06:00 HRS ON Sep 19, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	TP	WEA	BOP	00:00	06:00	6.00	2,118	W.O.W. Conditions @ 06:00hrs. Heave 6m / Roll 3deg / Wind 35-45 / Swell 7.5m

WBM Data	COST TODAY : \$0	CUM. WB MUD COST: \$240,470	CUM. WBM+OBM COST: \$240,470
Type :	Sea Water	VISCOCITY (sec/ltr) :	API FLUID LOSS (cm3/30min) :
FROM :	pit	PV (Pa.s) :	0
TIME :		YP (Pa.s) :	0
WEIGHT (sg):		GEL10s/10m/100m (Pa.s) :	0 0 0
TEMP (C) :		Fann 3/6/100 :	
			HTHPFL (mm) :
			HTHP CAKE (mm) :
			0
			CI :
			K+C*1000 :
			HARD/Ca :
			MBT (ppb) :
			PM :
			PF :
			SOLIDS (%vol) :
			H2O (%vol) :
			OIL (%vol) :
			SAND :
			PH :
			PHPA (ppb) :

Survey (Method : Min Curvature)	MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type :	MWD									
Magnetic Declination :	0.00									
	1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
	1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
	1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
	1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
	1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
	1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
	1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD
	1775.9	1775.1	4.38	192.3	192.3	-20.4	0.3	-20.4	-2.9	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS					STOCK TYPE & UNITS						
			START	USED	REC'D	STOCK			START	USED	REC'D	STOCK
	Fuel Oil - Rig	M3	515.7	7.0		508.7	Drill Water - Rig	MT	521.0	19.0		502.0
	Pot Water - Rig	MT	98.0			98.0	Cement 'G' - Rig	sxs	1585.0	684.0		901.0
	Cement HTB - Rig	sxs	0.0			0.0	Bentonite - Rig	sxs	670.0			670.0
	Barite - Rig	sxs	2751.0			2751.0	Brine - Rig	MT	0.0			0.0
	Helifuel - Rig	ltr	2500.0	308.0		2192.0	Fuel Oil - Conqueror	M3	488.2	8.0		480.2
	Drill Water - Conqueror	MT	660.0			660.0	Pot Water - Conqueror	MT	215.0	5.0		210.0
	Cement 'G' - Conqueror	sxs	0.0			0.0	Cement HTB - Conqueror	sxs	0.0			0.0
	Bentonite - Conqueror	sxs	0.0			0.0	Barite - Conqueror	sxs	246.0			246.0
	Brine - Conqueror	MT	0.0			0.0	Fuel Oil - Sentinel	M3	496.0			496.0
	Drill Water - Sentinel	MT	610.0			610.0	Pot Water - Sentinel	MT	245.0			245.0
	Cement 'G' - Sentinel	sxs	1338.0			1338.0	Cement HTB - Sentinel	sxs	0.0			0.0
	Bentonite - Sentinel	sxs	873.0			873.0	Barite - Sentinel	sxs	0.0			0.0
	Brine - Sentinel	MT	0.0			0.0						

Pump Data

Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152		97	0	0	30	0		
		0			0	0	40	0		
		0			0	0	50	0		
2	Nat'l 12-P-160	152		97	0	0	30	0		
		0			0	0	40	0		
		0			0	0	50	0		
3	Nat'l 12-P-160	152		97	0	0		0		

Casing

DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)	SHOE TVD (plan/Actual)	LOT (pl/Act)	FIT (pl/Act)	COMMENT
13.375	340	785.0 743.0	785.0 742.9	1.68 1.88		

TYPE	LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD
340mm (13.375") shoe jt 107 kg/m, cent mid	12.52	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt	12.13	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt	12.64	316	107.1	L-80	BTC
50 x 340mm (13.375") jt 101 kg/m	590.73	316	101.2	L-80	BTC
340mm (13.375") No-cross jt 101 kg/m	11.84	316	101.2	L-80	BTC
476mm (18.75") wellhead + extension jt	10.71	316	101.2	L-80	BTC
RT to Wellhead top	92.58	0	.0		

Personnel : on Site =78

2 Santos	35 DOGC	22 TMT (marine)	4 DOGC (other)
1 Anadrill	4 Schlumberger	2 BHI	1 DrilQuip
1 Halliburton	1 IDFS	2 Smith Tools	3 TMT (ROV)

Safety, Inspections and Drills Summary

2 days since last	Fire and Abandon Ship Drill
1814 days since last	Lost Workday Case
47 days since last	Medical Treatment Case
13 days since last	First Aid Case
8 days since last	Weekly Safety Meeting
4 days since last	Trip/Pit Drill
7 days since last	BOP Test

Shakers, Volumes and Losses Data

SHAKER	VOLUME AVAILABLE (m3) =	LOSSES (m3) =	COMMENTS
SHAKER 1 4 x 115	ACTIVE 0.0 MIXING	DOWNHOLE 0.00	
SHAKER 2 4 x 115	HOLE 174.7 SLUG	SURF.+EQUIP 0.00	
SHAKER 3 4 x 115	RESERVE 0.0 HEAVY	DUMPED 0.00	
SHAKER 4 4 x 84			
SHAKER 5			

ENGINEER M. Docherty

Anchors	Anc 1 : 84	Anc 2 : 79	Anc 3 : 145	Anc 4 : 79	Anc 5 : 77	RIS. TENS. (MT) :	0
	Anc 6 : 48	Anc 7 : 50	Anc 8 : 54	Anc 9 : 0	Anc 10 : 0	RISER ANGLE (deg):	0.0
Workboats	Arrived @ Rig (Date)(Time)	Depart from Rig (Date)(Time)	EstimatedArrival (Port) (Date)(Time)		Weather	STACK ANGLE(deg):	0.0
	Pacific Sentinel	16/9/02 12:25	16/9/02 17:48	16/9/02 23:55		VISIBILITY(nm) :	3
Pacific Conqueror	16/9/02 12:25	16/9/02 17:48	16/9/02 23:55		WIND SP. (kts) :	50.0	
						WIND DIR (deg) :	300
						PRES.(mbars):	1007
						AIR TEMP (C) :	13.0
COMMENTS : Pax on / off : Flt #1, 6/6.						MAX HEAVE (m) :	6.7
						MAX HEAVE (m) :	6.7
						AVE PITCH (deg) :	4.0
						MAX PITCH (deg) :	4.0
						AVE ROLL (deg) :	3.0
						MAX ROLL (deg) :	4.0

DATE : Sep 19, 2002

FROM : R.King / G. Othen
TO : O. Moller

CASINO #1

Well Data		M.DEPTH (m BRT)	2,118.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	2,118.0	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)		SHOE TVD (m BRT)	743	DAILY COST :	\$336,353
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	25.25	FIT (sg)	0.00	CUM COST :	\$11,774,491
RIG	Ocean Bounty	DAYS +/- CURVE		LOT (sg)	1.88		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 Waiting on Weather.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Wait on Weather. Position Rig and Deballast in preparation to latch BOP.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs
Wait on Weather, Rig at storm draft.

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,531
Warre	1,739

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 19, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	TP	WEA	BOP	00:00	24:00	24.00	2,118	W.O.W. Conditions @ 06:00hrs. Heave 6m / Roll 3deg / Wind 35-45 / Swell 7.5m. Conditions @ 12:00hrs Heave 3.6m / Roll 2deg / Wind 25-35 / Swell 6m Conditions @ Midnight Heave 3.3 / Roll 1.8deg / Wind 10-20 / Swell 4.2m

ACTIVITY FOR PERIOD 0000 HRS TO 06:00 HRS ON Sep 20, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	TP	WEA	BOP	00:00	06:00	6.00	2,118	W.O.W. Conditions @ 06:00hrs. Heave 2.5m / Roll 1deg / Pitch 1.5deg / Wind 12 / Swell 4.2m /

WBM Data	COST TODAY : \$0	CUM. WB MUD COST: \$240,470	CUM. WBM+OBM COST: \$240,470		
Type :	Sea Water	VISCOCITY (sec/ltr) : PV (Pa.s) : 0 YP (Pa.s) : 0 GEL10s/10m/100m (Pa.s) : 0 0 0 Fann 3/6/100 :	API FLUID LOSS (cm3/30min) : FILTER CAKE (mm) : 0 HTHPFL (cm3/30min) : HTHP CAKE (mm) : 0	CI : K+C*1000 : HARD/Ca : MBT (ppb) : PM : PF :	SOLIDS (%vol) : H2O (%vol) : OIL (%vol) : SAND : PH : PHPA (ppb) :

Survey (Method : Min Curvature)		MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type :	MWD	1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
Magnetic Declination :	0.00	1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
		1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
		1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
		1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
		1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
		1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD
		1775.9	1775.1	4.38	192.3	192.3	-20.4	0.3	-20.4	-2.9	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS					STOCK TYPE & UNITS				
	START	USED	REC'D	STOCK	START	USED	REC'D	STOCK		
Fuel Oil - Rig	M3	508.7	6.0	502.7	Drill Water - Rig	MT	502.0	12.0	490.0	
Pot Water - Rig	MT	98.0		98.0	Cement 'G' - Rig	sxs	901.0		901.0	
Cement HTB - Rig	sxs	0.0		0.0	Bentonite - Rig	sxs	670.0		670.0	
Barite - Rig	sxs	2751.0		2751.0	Brine - Rig	MT	0.0		0.0	
Helifuel - Rig	ltr	2192.0	154.0	2038.0	Fuel Oil - Conqueror	M3	480.2	7.0	473.2	
Drill Water - Conqueror	MT	660.0		660.0	Pot Water - Conqueror	MT	210.0	5.0	205.0	
Cement 'G' - Conqueror	sxs	0.0		0.0	Cement HTB - Conqueror	sxs	0.0		0.0	
Bentonite - Conqueror	sxs	0.0		0.0	Barite - Conqueror	sxs	246.0		246.0	
Brine - Conqueror	MT	0.0		0.0	Fuel Oil - Sentinel	M3	490.6	1.0	489.6	
Drill Water - Sentinel	MT	610.0		610.0	Pot Water - Sentinel	MT	245.0		245.0	
Cement 'G' - Sentinel	sxs	1338.0		1338.0	Cement HTB - Sentinel	sxs	0.0		0.0	
Bentonite - Sentinel	sxs	873.0		873.0	Barite - Sentinel	sxs	0.0		0.0	
Brine - Sentinel	MT	0.0		0.0						

Pump Data

Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNRR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152		97	0	0	30	0		
		0			0	0	40	0		
		0			0	0	50	0		
2	Nat'l 12-P-160	152		97	0	0	30	0		
		0			0	0	40	0		
		0			0	0	50	0		
3	Nat'l 12-P-160	152		97	0	0	30	0		
		0			0	0	40	0		
		0			0	0	50	0		

Casing

DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)	SHOE TVD (plan/Actual)	LOT (pl/Act)	FIT (pl/Act)	COMMENT
13.375	340	785.0 743.0	785.0 742.9	1.68 1.88		

TYPE	LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD
340mm (13.375") shoe jt 107 kg/m, cent mid	12.52	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt	12.13	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt	12.64	316	107.1	L-80	BTC
50 x 340mm (13.375") jt 101 kg/m	590.73	316	101.2	L-80	BTC
340mm (13.375") No-cross jt 101 kg/m	11.84	316	101.2	L-80	BTC
476mm (18.75") wellhead + extension jt	10.71	316	101.2	L-80	BTC
RT to Wellhead top	92.58	0	.0		

Personnel : on Site =73

2 Santos	35 DOGC	22 TMT (marine)	3 DOGC (other)
1 Anadrill	2 BHI	1 DrilQuip	1 Halliburton
1 IDFS	2 Smith Tools	3 TMT (ROV)	

Safety, Inspections and Drills Summary

3 days since last	Fire and Abandon Ship Drill
1815 days since last	Lost Workday Case
48 days since last	Medical Treatment Case
14 days since last	First Aid Case
1 days since last	Weekly Safety Meeting
5 days since last	Trip/Pit Drill
8 days since last	BOP Test

Shakers, Volumes and Losses Data

SHAKER	VOLUME AVAILABLE (m3) =	LOSSES (m3) =	COMMENTS
SHAKER 1 4 x 115	ACTIVE 0.0	DOWNHOLE 0.00	
SHAKER 2 4 x 115	HOLE 174.7	SURF.+EQUIP 0.00	
SHAKER 3 4 x 115	RESERVE 0.0	DUMPED 0.00	
SHAKER 4 4 x 84			
SHAKER 5			

ENGINEER M. Docherty

Anchors	Anc 1 : 79	Anc 2 : 75	Anc 3 : 118	Anc 4 : 75	Anc 5 : 77	RIS. TENS. (MT) :	0
	Anc 6 : 48	Anc 7 : 61	Anc 8 : 63	Anc 9 : 0	Anc 10 : 0	RISER ANGLE (deg):	0.0
Workboats	Arrived @ Rig (Date)(Time)		Depart from Rig (Date)(Time)		EstimatedArrival (Port) (Date)(Time)	STACK ANGLE(deg):	0.0
	Pacific Sentinel	19/09/02 20:00	19/09/02 20:10	20/09/02 8:00		V.D.L. (MT) :	1,664.C
Pacific Conqueror						AVE HEAVE (m) :	4.7
						MAX HEAVE (m) :	6.0
						AVE PITCH (deg) :	3.0
						MAX PITCH (deg) :	3.5
						AVE ROLL (deg) :	2.5
						MAX ROLL (deg) :	3.0
Weather							
						VISIBILITY(nm) :	6
						WIND SP. (kts) :	45.0
						WIND DIR (deg) :	250
						PRES.(mbars):	1018
						AIR TEMP (C) :	12.0
COMMENTS : Pax on / off : Flt #1, 3/8.							

DATE : Sep 20, 2002

FROM : R.King / G. Othen
TO : O. Moller

CASINO #1

Well Data		M.DEPTH (m BRT)	2,118.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	2,118.0	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)		SHOE TVD (m BRT)	743	DAILY COST :	\$324,317
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	26.25	FIT (sg)	0.00	CUM COST :	\$12,098,808
RIG	Ocean Bounty	DAYS +/- CURVE		LOT (sg)	1.88		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 Waiting on Weather. (Reconnected @08:00)					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Wait on Weather / Attempt to latch LMRP & pull BOP.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

W.O.W. Rig lowered to 65 ft draft in preparation to latch LMRP.

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,531
Warre	1,739

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 20, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	U		WOW	00:00	24:00	24.00	2,118	W.O.W. (Rig at 65ft Draft) Conditions @ 06:00hrs. Heave 2.5m / Roll 1deg / Pitch 1.5deg / Wind 12 / Swell 4.2m / Conditions @ 12:00hrs Heave 4.2m / Roll 1.5deg / Pitch 2deg / Wind 20 / Swell 4.8m Conditions @ Midnight. Heave 3m / Roll .4deg / Pitch .4deg / Wind 20 / Swell 1m.

ACTIVITY FOR PERIOD 0000 HRS TO 06:00 HRS ON Sep 21, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	U		WOW	00:00	00:00	0.00	2,118	W.O.W Conditions @ 06:00hrs Heave 2.4m / Roll .5deg / Pitch .75deg / Wind 25 / Swell 3m (Jumped ROV and inspected LMRP Swell movment)

WBM Data

COST TODAY : \$0

CUM. WB MUD COST: \$240,470

CUM. WBM+OBM COST: \$240,470

Type :	Sea Water	VISCOCITY (sec/ltr) :		API FLUID LOSS (cm3/30min) :		CI :		SOLIDS (%vol) :	
FROM :	pit	PV (Pa.s) :	0	FILTER CAKE (mm) :	0	K+C*1000 :		H2O (%vol) :	
TIME :		YP (Pa.s) :	0	HTHPFL (cm3/30min) :		HARD/Ca :		OIL (%vol) :	
WEIGHT (sg):		GEL10s/10m/100m (Pa.s) :	0 0 0	HTHP CAKE (mm) :	0	MBT (ppb) :		SAND :	
TEMP (C) :		Fann 3/6/100 :				PM :		PH :	
						PF :		PHPA (ppb) :	

Survey (Method : Min Curvature)

Last Tool Type :	MWD	MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Magnetic Declination :	0.00	1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
		1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
		1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
		1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
		1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
		1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
		1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD
		1775.9	1775.1	4.38	192.3	192.3	-20.4	0.3	-20.4	-2.9	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS					STOCK TYPE & UNITS				
		START	USED	REC'D	STOCK		START	USED	REC'D	STOCK
	Fuel Oil - Rig	M3	502.7	6.0	496.7	Drill Water - Rig	MT	490.0	7.0	483.0
	Pot Water - Rig	MT	98.0		98.0	Cement 'G' - Rig	sxs	901.0		901.0
	Cement HTB - Rig	sxs	0.0		0.0	Bentonite - Rig	sxs	670.0		670.0
	Barite - Rig	sxs	2751.0		2751.0	Brine - Rig	MT	0.0		0.0
	Helifuel - Rig	ltr	2038.0	461.0	1577.0	Fuel Oil - Conqueror	M3	473.2		473.2
	Drill Water - Conqueror	MT	660.0		660.0	Pot Water - Conqueror	MT	205.0		205.0
	Cement 'G' - Conqueror	sxs	0.0		0.0	Cement HTB - Conqueror	sxs	0.0		0.0
	Bentonite - Conqueror	sxs	0.0		0.0	Barite - Conqueror	sxs	246.0		246.0
	Brine - Conqueror	MT	0.0		0.0	Fuel Oil - Sentinel	M3	489.6	9.0	480.6
	Drill Water - Sentinel	MT	610.0		610.0	Pot Water - Sentinel	MT	245.0	5.0	240.0
	Cement 'G' - Sentinel	sxs	1338.0		1338.0	Cement HTB - Sentinel	sxs	0.0		0.0
	Bentonite - Sentinel	sxs	873.0		873.0	Barite - Sentinel	sxs	0.0		0.0
	Brine - Sentinel	MT	0.0		0.0					

Pump Data

Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNRR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152		97	0	0	30	0		
		0			0	0	40	0		
		0			0	0	50	0		
2	Nat'l 12-P-160	152		97	0	0	30	0		
		0			0	0	40	0		
		0			0	0	50	0		
3	Nat'l 12-P-160	152		97	0	0	30	0		
		0			0	0	40	0		
		0			0	0	50	0		

Casing

DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)	SHOE TVD (plan/Actual)	LOT (pl/Act)	FIT (pl/Act)	COMMENT
13.375	340	785.0 743.0	785.0 742.9	1.68 1.88		

TYPE	LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD
340mm (13.375") shoe jt 107 kg/m, cent mid	12.52	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt	12.13	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt	12.64	316	107.1	L-80	BTC
50 x 340mm (13.375") jt 101 kg/m	590.73	316	101.2	L-80	BTC
340mm (13.375") No-cross jt 101 kg/m	11.84	316	101.2	L-80	BTC
476mm (18.75") wellhead + extension jt	10.71	316	101.2	L-80	BTC
RT to Wellhead top	92.58	0	.0		

Personnel : on Site =76

2 Santos	33 DOGC	22 TMT (marine)	4 DOGC (other)
1 Anadrill	2 BHI	1 DrilQuip	1 Halliburton
1 IDFS	2 Smith Tools	3 TMT (ROV)	4 Expro

Safety, Inspections and Drills Summary

4 days since last	Fire and Abandon Ship Drill
1816 days since last	Lost Workday Case
49 days since last	Medical Treatment Case
15 days since last	First Aid Case
2 days since last	Weekly Safety Meeting
6 days since last	Trip/Pit Drill
9 days since last	BOP Test

Shakers, Volumes and Losses Data

SHAKER	VOLUME AVAILABLE (m3) =	LOSSES (m3) =	COMMENTS
SHAKER 1 4 x 115	175	0	
SHAKER 2 4 x 115			
SHAKER 3 4 x 115	ACTIVE 0.0 MIXING	DOWNHOLE 0.00	
SHAKER 4 4 x 84	HOLE 174.7 SLUG	SURF.+EQUIP 0.00	
SHAKER 5	RESERVE 0.0 HEAVY	DUMPED 0.00	

ENGINEER M. Docherty

Anchors	Anc 1 : 109	Anc 2 : 45	Anc 3 : 120	Anc 4 : 66	Anc 5 : 77	RIS. TENS. (MT) : 0
	Anc 6 : 91	Anc 7 : 61	Anc 8 : 79	Anc 9 : 0	Anc 10 : 0	
Workboats	Arrived @ Rig (Date)(Time)		Depart from Rig (Date)(Time)		EstimatedArrival (Port) (Date)(Time)	STACK ANGLE(deg): 0.0
	Pacific Sentinel	19/09/02 20:00	19/09/02 20:10	20/09/02 8:00		V.D.L. (MT) : 1,689.0
Pacific Conqueror						AVE HEAVE (m) : 3.0
						MAX HEAVE (m) : 4.2
						AVE PITCH (deg) : 1.5
						MAX PITCH (deg) : 2.0
						AVE ROLL (deg) : 1.2
						MAX ROLL (deg) : 1.5
COMMENTS : Pax on / off : Flt #1, 8/8. Flt #2, 7/4						

DATE : Sep 21, 2002

FROM : R.King / G. Othen
TO : O. Moller

CASINO #1

Well Data		M.DEPTH (m BRT)	2,118.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	2,118.0	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)		SHOE TVD (m BRT)	743	DAILY COST :	\$295,897
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	27.25	FIT (sg)	0.00	CUM COST :	\$12,394,705
RIG	Ocean Bounty	DAYS +/- CURVE		LOT (sg)	1.88		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 POOH with PGB, & Casing					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Cut 762mm (30") Casing & recover / Pull secondary anchors.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs

Latch LMRP & Pull BOP / Cut & Recover Casing.

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,531
Warre	1,739

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 21, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	U		WOW	00:00	06:30	6.50	2,118	W.O.W Conditions @ 06:00hrs Heave 2.4m / Roll .5deg / Pitch .75deg / Wind 25 / Swell 3m (Jumped ROV and inspected LMRP Swell movment)
IH1	U		O	06:30	07:30	1.00	2,118	ROV untangled Guide line # 1 from BOP.
IH1	U		BOP	07:30	08:00	0.50	2,118	Rigged up to latch LMRP.
IH1	U		BOP	08:00	08:30	0.50	2,118	Latched LMRP and confirmed with 50 kips O-Pull.
IH1	P		BOP	08:30	10:00	1.50	2,118	Closed slip joint & unlatched BOP. Deballasted rig to 60ft.
IH1	P		BOP	10:00	12:00	2.00	2,118	Rigged down Ckoke & kill lines, Riser tensioners and storm loops.
IH1	P		BOP	12:00	15:30	3.50	2,118	Pulled BOP & Rigged down handling equipment.
IH1	P		BOP	15:30	17:30	2.00	2,118	Jetted BOP, split and secured.
IH1	P		TI	17:30	19:00	1.50	2,118	Made up Casing cutting assembly & RIH
IH1	P		WH	19:00	21:30	2.50	2,118	Cut 508mm x 762mm (20" x 30" Casing) Observed 476mm (18-3/4") housing rotating. Well head housing free. POOH & laid out 476mm (18-3/4") well head housing.
IH1	P		WH	21:30	23:30	2.00	2,118	Changed cutting assembly to 762mm (30") & RIH.
IH1	P		WH	23:30	24:00	0.50	2,118	Cut 762mm (30") casing.

ACTIVITY FOR PERIOD 0000 HRS TO 06:00 HRS ON Sep 22, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		WH	00:00	04:30	4.50	2,118	Continued cutting 762mm (30") casing. (Continual torque range whilst cutting 6-8,000ft/lbs)
IH1	P		TO	04:30	06:00	1.50	2,118	POOH with PGB, & 762mm (30") Casing. Released cutting tool. (O-Pull 100kips to free casing)

WBM Data		COST TODAY : \$0	CUM. WB MUD COST: \$240,470	CUM. WBM+OBM COST: \$240,470
Type :	Sea Water	VISCOACITY (sec/ltr) :	API FLUID LOSS (cm3/30min) :	CL :
FROM :	pit	PV (Pa.s) :	FILTER CAKE (mm) :	K+C*1000 :
TIME :		YP (Pa.s) :	HTHPFL (cm3/30min) :	HARD/Ca :
WEIGHT (sg):		GEL10s/10m/100m (Pa.s) :	HTHP CAKE :	MBT (ppb) :
TEMP (C) :		Fann 3/6/100 :		PM :
				PF :
				SOLIDS (%vol) :
				H2O (%vol) :
				OIL (%vol) :
				SAND :
				PH :
				PHPA (ppb) :

Survey (Method : Min Curvature) Last Tool Type : MWD Magnetic Declination : 0.00	MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
	1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
	1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
	1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
	1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
	1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
	1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
	1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD
	1775.9	1775.1	4.38	192.3	192.3	-20.4	0.3	-20.4	-2.9	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS				START USED REC'D STOCK				STOCK TYPE & UNITS				START USED REC'D STOCK			
	Fuel Oil - Rig	M3	496.7	4.3	492.4	Drill Water - Rig	MT	483.0	7.0	476.0	Cement 'G' - Rig	sxs	901.0		901.0	
Pot Water - Rig	MT	98.0		98.0	Bentonite - Rig	sxs	670.0		670.0	Brine - Rig	MT	0.0		0.0		
Cement HTB - Rig	sxs	0.0		0.0	Fuel Oil - Conqueror	M3	473.2		473.2	Pot Water - Conqueror	MT	205.0		205.0		
Barite - Rig	sxs	2751.0		2751.0	Cement 'G' - Conqueror	sxs	0.0		0.0	Cement HTB - Conqueror	sxs	0.0		0.0		
Helifuel - Rig	ltr	1577.0		1577.0	Bentonite - Conqueror	sxs	0.0		0.0	Barite - Conqueror	sxs	246.0		246.0		
Drill Water - Conqueror	MT	660.0		660.0	Brine - Conqueror	MT	0.0		0.0	Fuel Oil - Sentinel	M3	480.6	6.0	474.6		
Cement 'G' - Conqueror	sxs	0.0		0.0	Drill Water - Sentinel	MT	610.0		610.0	Pot Water - Sentinel	MT	240.0	7.0	233.0		
Bentonite - Conqueror	sxs	0.0		0.0	Cement 'G' - Sentinel	sxs	1338.0		1338.0	Cement HTB - Sentinel	sxs	0.0		0.0		
Brine - Conqueror	MT	0.0		0.0	Bentonite - Sentinel	sxs	873.0		873.0	Barite - Sentinel	sxs	0.0		0.0		
Drill Water - Sentinel	MT	610.0		610.0	Brine - Sentinel	MT	0.0		0.0							

Pump Data										
Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152		97	0	0	30	0		
		0			0	0	40	0		
		0			0	0	50	0		
2	Nat'l 12-P-160	152		97	0	0	30	0		
		0			0	0	40	0		
		0			0	0	50	0		
3	Nat'l 12-P-160	152		97	0	0		0		

Casing										
DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)		SHOE TVD (plan/Actual)		LOT (pl/Act)		FIT (pl/Act)		COMMENT
13.375	340	785.0	743.0	785.0	742.9	1.68	1.88			
TYPE		LENGTH (m)		CSG ID (mm)		WT (kg/m)		GRADE		THREAD
340mm (13.375") shoe jt 107 kg/m, cent mid		12.52		316		107.1		L-80		BTC
340mm (13.375") int jt 107 kg/m, cent mid jt		12.13		316		107.1		L-80		BTC
340mm (13.375") int jt 107 kg/m, cent mid jt		12.64		316		107.1		L-80		BTC
50 x 340mm (13.375") jt 101 kg/m		590.73		316		101.2		L-80		BTC
340mm (13.375") No-cross jt 101 kg/m		11.84		316		101.2		L-80		BTC
476mm (18.75") wellhead + extension jt		10.71		316		101.2		L-80		BTC
RT to Wellhead top		92.58		0		.0				

Personnel : on Site =76			
2 Santos	33 DOGC	22 TMT (marine)	4 DOGC (other)
1 Anadrill	2 BHI	1 DrilQuip	1 Halliburton
1 IDFS	2 Smith Tools	3 TMT (ROV)	4 Expro

Safety, Inspections and Drills		Summary
5 days since last	Fire and Abandon Ship Drill	
1817 days since last	Lost Workday Case	
50 days since last	Medical Treatment Case	
16 days since last	First Aid Case	
3 days since last	Weekly Safety Meeting	
7 days since last	Trip/Pit Drill	
10 days since last	BOP Test	

Shakers, Volumes and Losses Data		ENGINEER M. Docherty						
SHAKER 1	4 x 115	VOLUME AVAILABLE (m3) =		175	LOSSES (m3) =		0	COMMENTS
SHAKER 2	4 x 115	ACTIVE	0.0	MIXING	0.0	DOWNHOLE	0.00	
SHAKER 3	4 x 115	HOLE	174.7	SLUG	0.0	SURF.+EQUIP	0.00	
SHAKER 4	4 x 84	RESERVE	0.0	HEAVY	0.0	DUMPED	0.00	
SHAKER 5								

Anchors						Weather					
Anc 1 :	118	Anc 2 :	61	Anc 3 :	118	Anc 4 :	66	Anc 5 :	79	RIS. TENS. (MT) :	0
Anc 6 :	88	Anc 7 :	73	Anc 8 :	93	Anc 9 :	0	Anc 10 :	0	RISER ANGLE (deg):	0.0
Workboats						Weather					
Arrived @ Rig (Date)(Time)		Depart from Rig (Date)(Time)		EstimatedArrival (Port) (Date)(Time)		VISIBILITY(nm) :		STACK ANGLE(deg):			
Pacific Sentinel 19/09/02 20:00						WIND SP. (kts) :		V.D.L. (MT) :			
Pacific Conqueror		19/09/02 20:10		20/09/02 8:00		WIND DIR (deg) :		AVE HEAVE (m) :			
						PRES.(mbars):		MAX HEAVE (m) :			
						AIR TEMP (C) :		AVE PITCH (deg) :			
COMMENTS : No Helicopters.								MAX PITCH (deg) :			
								AVE ROLL (deg) :			
								MAX ROLL (deg) :			

DATE : Sep 22, 2002

FROM : R.King / G. Othen
TO : O. Moller

CASINO #1

Well Data		M.DEPTH (m BRT)	2,118.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	2,118.0	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)		SHOE TVD (m BRT)	743	DAILY COST :	\$330,406
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	28.25	FIT (sg)	0.00	CUM COST :	\$12,725,111
RIG	Ocean Bounty	DAYS +/- CURVE		LOT (sg)	1.88		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400 Anchor Handling.					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Discharge cargo from P.Conqueror & pull primary anchors. Rig move to Casino # 2, Run Anchors.					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs
Cut & Recover Casing / Commenced Anchor handling.

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,531
Warre	1,739

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 22, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		WH	00:00	04:30	4.50	2,118	Continued cutting 762mm (30") casing. (Continual torque range whilst cutting 6-8,000ft/lbs)
IH1	P		TO	04:30	06:30	2.00	2,118	POOH with PGB, & 762mm (30") Casing. Released cutting tool, laid out cutting assembly. (O-Pull 100kips to free casing)
IH1	P		HT	06:30	07:30	1.00	0	Made up 762mm (30") Running tool and laid out.
IH1	P		HBH	07:30	09:30	2.00	0	Made up 660mm & 914mm (26" & 36") BHA and racked in derrick. (ROV conducted sea bed survey) Loaded darts in cement head.
IH1	P		ANC	09:30	19:00	9.50	0	Anchor Handling. (Pacific Sentinel) Start # 4 @09:40hrs finished @ 11:45hrs / Start # 8 @12:35hrs finished @ 14:45hrs / Start # 1 @14:58hrs finished @ 16:55hrs / Start # 5 @17:06hrs finished @ 19:00hrs
IH1	P		O	19:00	23:30	4.50	0	Pressure tested Choke manifold, mud manifold & surface equipment 1,724 / 34,475Kpa (250 / 5,000 psi) Serviced TDS & Blocks, Broke out 762mm (30") Cutting assembly & Made up 476mm (18-3/4") Casing cutting assembly in preparation for Casino#2. Prepared PGB and guide lines.
IH1	P		O	23:30	24:00	0.50	0	Pacific Conqueror arrived on location @ 22:30hrs. Discharged cargo & strapped 340mm (13-3/8") Casing.

ACTIVITY FOR PERIOD 0000 HRS TO 06:00 HRS ON Sep 23, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		O	00:00	03:30	3.50	0	Continued to discharge cargo from Pacific Conqueror.
IH1	P		ANC	03:30	04:00	0.50	0	Pacific Conqueror completed discharge of cargo. Rigged up deck for Anchor handling operations.
IH1	P		ANC	04:00	06:00	2.00	0	Tow bridle passed to P.Sentinel @ 04:10hrs. 'Anchor handling' (Pacific Conqueror) Start #3 @ 04:15hrs.

WBM Data		COST TODAY : \$0	CUM. WB MUD COST: \$240,470	CUM. WBM+OBM COST: \$240,470
Type :	Sea Water	VISCOCITY (sec/ltr) :	API FLUID LOSS (cm3/30min) :	CI :
FROM :	pit	PV (Pa.s) :	FILTER CAKE (mm) :	K+C*1000 :
TIME :		YP (Pa.s) :	HTHPFL (cm3/30min) :	HARD/Ca :
WEIGHT (sg):		GEL10s/10m/100m (Pa.s) :	HTHP CAKE (mm) :	MBT (ppb) :
TEMP (C) :		Fann 3/6/100 :		PM :
				PF :
				SOLIDS (%vol) :
				H2O (%vol) :
				OIL (%vol) :
				SAND :
				PH :
				PHPA (ppb) :

Survey (Method : Min Curvature) Last Tool Type : MWD Magnetic Declination : 0.00	MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
	1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
	1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
	1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
	1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
	1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
	1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
	1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD
	1775.9	1775.1	4.38	192.3	192.3	-20.4	0.3	-20.4	-2.9	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS				START USED REC'D STOCK				STOCK TYPE & UNITS				START USED REC'D STOCK			
	Fuel Oil - Rig	M3	492.4	6.0	486.4	Drill Water - Rig	MT	476.0	7.0	469.0	Cement 'G' - Rig	sxs	901.0		901.0	
Pot Water - Rig	MT	98.0		98.0	Bentonite - Rig	sxs	670.0		670.0	Brine - Rig	MT	0.0		0.0		
Cement HTB - Rig	sxs	0.0		0.0	Fuel Oil - Conqueror	M3	460.5		460.5	Pot Water - Conqueror	MT	215.0		215.0		
Barite - Rig	sxs	2751.0	364.0	2387.0	Cement 'G' - Conqueror	sxs	0.0		0.0	Cement HTB - Conqueror	sxs	0.0		0.0		
Helifuel - Rig	ltr	1577.0		1577.0	Bentonite - Conqueror	sxs	0.0		0.0	Barite - Conqueror	sxs	246.0		246.0		
Drill Water - Conqueror	MT	640.0		640.0	Brine - Conqueror	MT	0.0		0.0	Fuel Oil - Sentinel	M3	474.6	15.2	459.4		
Cement 'G' - Conqueror	sxs	0.0		0.0	Drill Water - Sentinel	MT	610.0		610.0	Pot Water - Sentinel	MT	233.0	5.0	228.0		
Bentonite - Conqueror	sxs	0.0		0.0	Cement 'G' - Sentinel	sxs	1338.0		1338.0	Cement HTB - Sentinel	sxs	0.0		0.0		
Brine - Conqueror	MT	0.0		0.0	Bentonite - Sentinel	sxs	873.0		873.0	Barite - Sentinel	sxs	364.0		364.0		
Drill Water - Sentinel	MT	610.0		610.0	Brine - Sentinel	MT	0.0		0.0							

Pump Data										
Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152		97	0	0	30	0		
		0			0	0	40	0		
		0			0	0	50	0		
2	Nat'l 12-P-160	152		97	0	0	30	0		
		0			0	0	40	0		
		0			0	0	50	0		
3	Nat'l 12-P-160	152		97	0	0	0	0		

Casing										
DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)	SHOE TVD (plan/Actual)	LOT (pl/Act)	FIT (pl/Act)	COMMENT				
13.375	340	785.0 743.0	785.0 742.9	1.68 1.88						
TYPE		LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD				
340mm (13.375") shoe jt 107 kg/m, cent mid		12.52	316	107.1	L-80	BTC				
340mm (13.375") int jt 107 kg/m, cent mid jt		12.13	316	107.1	L-80	BTC				
340mm (13.375") int jt 107 kg/m, cent mid jt		12.64	316	107.1	L-80	BTC				
50 x 340mm (13.375") jt 101 kg/m		590.73	316	101.2	L-80	BTC				
340mm (13.375") No-cross jt 101 kg/m		11.84	316	101.2	L-80	BTC				
476mm (18.75") wellhead + extension jt		10.71	316	101.2	L-80	BTC				
RT to Wellhead top		92.58	0	.0						

Personnel : on Site =76			
2 Santos	33 DOGC	22 TMT (marine)	4 DOGC (other)
1 Anadrill	2 BHI	1 DrilQuip	1 Halliburton
1 IDFS	2 Smith Tools	3 TMT (ROV)	4 Expro

Safety, Inspections and Drills	Summary
0 days since last	Fire and Abandon Ship Drill
1818 days since last	Lost Workday Case
51 days since last	Medical Treatment Case
17 days since last	First Aid Case
4 days since last	Weekly Safety Meeting
8 days since last	Trip/Pit Drill
11 days since last	BOP Test

Anchors				Weather		RIS. TENS. (MT) :					
Anc 1 :	0	Anc 2 :	48	Anc 3 :	70	Anc 4 :	0	Anc 5 :	0	RISER ANGLE (deg):	0.0
Anc 6 :	23	Anc 7 :	63	Anc 8 :	0	Anc 9 :	0	Anc 10 :	0	STACK ANGLE(deg):	0.0
Workboats	Arrived @ Rig (Date)(Time)	Depart from Rig (Date)(Time)	EstimatedArrival (Port) (Date)(Time)	VISIBILITY(nm) :		V.D.L. (MT) :				1,817.0	
Pacific Sentinel	19/09/02 20:00			WIND SP. (kts) :		AVE HEAVE (m) :				0.0	
Pacific Conqueror	22/09/02 22:30			WIND DIR (deg) :		MAX HEAVE (m) :				0.0	
				PRES.(mbars):		AVE PITCH (deg) :				0.7	
				AIR TEMP (C) :		MAX PITCH (deg) :				0.8	
						AVE ROLL (deg) :				0.5	
COMMENTS : No Helicopters.						MAX ROLL (deg) :				0.6	

DATE : Sep 23, 2002

FROM : R.King / G. Othen
TO : O. Moller

CASINO #1

Well Data		M.DEPTH (m BRT)	2,118.0	CUR.HOLE SIZE (mm)	311	AFE COST \$	12,129,000
COUNTRY	Australia	TVD (m BRT)	2,118.0	CASING OD (mm)	340	AFE BASIS :	P&A
FIELD	Casino	PROGRESS (m)		SHOE TVD (m BRT)	743	DAILY COST :	\$116,261
DRILL CO.	Diamond Offshore	DAYS FROM SPUD	29.25	FIT (sg)	0.00	CUM COST :	\$12,841,372
RIG	Ocean Bounty	DAYS +/- CURVE		LOT (sg)	1.88		
RT ABOVE SL (m)	25.0	CURRENT OP @ 0400					
WATER DEPTH (m) LAT	70.5	PLANNED OP. Rig move to Casino #2					
RT TO SEABED (m)	95.5						

Summary of period 00:00 to 24:00 hrs
Anchor handling. Rig nReleased 12:00 hrs.

FORMATION	TOP(m BRT)
Skull Creek (?)	1,259
Nullawarre	1,522
Belfast	1,531
Warre	1,739

ACTIVITY FOR PERIOD 00:00 HRS TO 24:00 HRS ON Sep 23, 2002

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION
IH1	P		O	00:00	03:30	3.50	0	Continued to discharge cargo from Pacific Conqueror.
IH1	P		ANC	03:30	04:00	0.50	0	Pacific Conqueror completed discharge of cargo. Rigged up deck for Anchor handling operations.
IH1	P		ANC	04:00	12:00	8.00	0	Tow bridle passed to P.Sentinel @ 04:10hrs. 'Anchor handling' (Pacific Conqueror) Start #3 @ 04:15hrs finished @ 06:15hrs / Start #7 @ 06:24hrs finished @ 08:10hrs / Start #2 @ 08:16hrs finished @ 09:53hrs / Start hauling # 6 @ 10:00hrs Anchor racked @ 12:00. Tow to Casino #2

ACTIVITY FOR PERIOD 0000 HRS TO 06:00 HRS ON

PHS	CL	RC	OP	FROM	TO	HRS	DEPTH	ACTIVITY DESCRIPTION

WBM Data	COST TODAY : \$0	CUM. WB MUD COST: \$240,470	CUM. WBM+OBM COST: \$240,470
Type :	Sea Water	VISCOCITY (sec/ltr) :	API FLUID LOSS (cm3/30min) :
FROM :	pit	PV (Pa.s) :	FILTER CAKE (mm) :
TIME :		YP (Pa.s) :	HTHPFL (cm3/30min) :
WEIGHT (sg):		GEL10s/10m/100m (Pa.s) :	HTHP CAKE (mm) :
TEMP (C) :		Fann 3/6/100 :	
			CI :
			K+C*1000 :
			HARD/Ca :
			MBT (ppb) :
			PM :
			PF :
			SOLIDS (%vol) :
			H2O (%vol) :
			OIL (%vol) :
			SAND :
			PH :
			PHPA (ppb) :

Survey (Method : Min Curvature)	MD (mBRT)	TVD (mBRT)	INCL DEG	AZ (deg)	CORR. AZ (deg)	'V' SECT (m)	DOGLEG (deg/30m)	N/S (m)	E/W (m)	TOOL TYPE
Last Tool Type :	MWD									
Magnetic Declination :	0.00									
	1170.4	1170.3	0.93	192.5	192.5	4.9	0.1	4.9	-0.2	MWD
	1256.7	1256.6	1.44	181.2	181.2	3.1	0.2	3.1	-0.4	MWD
	1382.1	1381.9	1.87	182.2	182.2	-0.5	0.1	-0.5	-0.5	MWD
	1458.5	1458.2	2.13	183.9	183.9	-3.1	0.1	-3.1	-0.6	MWD
	1546.1	1545.7	2.74	185.6	185.6	-6.9	0.2	-6.9	-0.9	MWD
	1605.5	1605.1	3.09	184.8	184.8	-9.9	0.2	-9.9	-1.2	MWD
	1690.7	1690.2	3.44	188.9	188.9	-14.7	0.1	-14.7	-1.8	MWD
	1775.9	1775.1	4.38	192.3	192.3	-20.4	0.3	-20.4	-2.9	MWD

Bulk Stocks On Rig	STOCK TYPE & UNITS					STOCK TYPE & UNITS				
		START	USED	REC'D	STOCK		START	USED	REC'D	STOCK
	Fuel Oil - Rig	M3	486.4	3.0	483.4	Drill Water - Rig	MT	469.0		469.0
	Pot Water - Rig	MT	98.0		98.0	Cement 'G' - Rig	sxs	901.0		901.0
	Cement HTB - Rig	sxs	0.0		0.0	Bentonite - Rig	sxs	670.0		670.0
	Barite - Rig	sxs	2387.0		2387.0	Brine - Rig	MT	0.0		0.0
	Helifuel - Rig	ltr	1577.0	231.0	1346.0	Fuel Oil - Conqueror	M3	460.5	3.8	456.7
	Drill Water - Conqueror	MT	640.0		640.0	Pot Water - Conqueror	MT	215.0	2.0	213.0
	Cement 'G' - Conqueror	sxs	0.0		0.0	Cement HTB - Conqueror	sxs	0.0		0.0
	Bentonite - Conqueror	sxs	0.0		0.0	Barite - Conqueror	sxs	246.0	246.0	0.0
	Brine - Conqueror	MT	0.0		0.0	Fuel Oil - Sentinel	M3	459.4	5.4	454.0
	Drill Water - Sentinel	MT	610.0	10.0	600.0	Pot Water - Sentinel	MT	228.0	5.0	223.0
	Cement 'G' - Sentinel	sxs	1338.0		1338.0	Cement HTB - Sentinel	sxs	0.0		0.0
	Bentonite - Sentinel	sxs	873.0		873.0	Barite - Sentinel	sxs	364.0		364.0
	Brine - Sentinel	MT	0.0		0.0					

Pump Data

Pump Data - last 24 hrs							Slow Pump Data			
#	TYPE	LNRR(mm)	SPM	EFF (%)	Flow (lpm)	SPP (kPa)	SPM	SPP (kPa)	DEPTH (m)	MW (sg)
1	Nat'l 12-P-160	152		97	0	0	30	0		
		0			0	0	40	0		
		0			0	0	50	0		
2	Nat'l 12-P-160	152		97	0	0	30	0		
		0			0	0	40	0		
		0			0	0	50	0		
3	Nat'l 12-P-160	152		97	0	0				

Casing

DIAM.	CSG OD (mm)	SHOE MD (plan/Actual)	SHOE TVD (plan/Actual)	LOT (pl/Act)	FIT (pl/Act)	COMMENT
13.375	340	785.0 743.0	785.0 742.9	1.68 1.88		

TYPE	LENGTH (m)	CSG ID (mm)	WT (kg/m)	GRADE	THREAD
340mm (13.375") shoe jt 107 kg/m, cent mid	12.52	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt	12.13	316	107.1	L-80	BTC
340mm (13.375") int jt 107 kg/m, cent mid jt	12.64	316	107.1	L-80	BTC
50 x 340mm (13.375") jt 101 kg/m	590.73	316	101.2	L-80	BTC
340mm (13.375") No-cross jt 101 kg/m	11.84	316	101.2	L-80	BTC
476mm (18.75") wellhead + extension jt	10.71	316	101.2	L-80	BTC
RT to Wellhead top	92.58	0	.0		

Personnel : on Site =76

2 Santos	33 DOGC	22 TMT (marine)	4 DOGC (other)
1 Anadrill	2 BHI	1 DrilQuip	1 Halliburton
1 IDFS	2 Smith Tools	3 TMT (ROV)	4 Expro

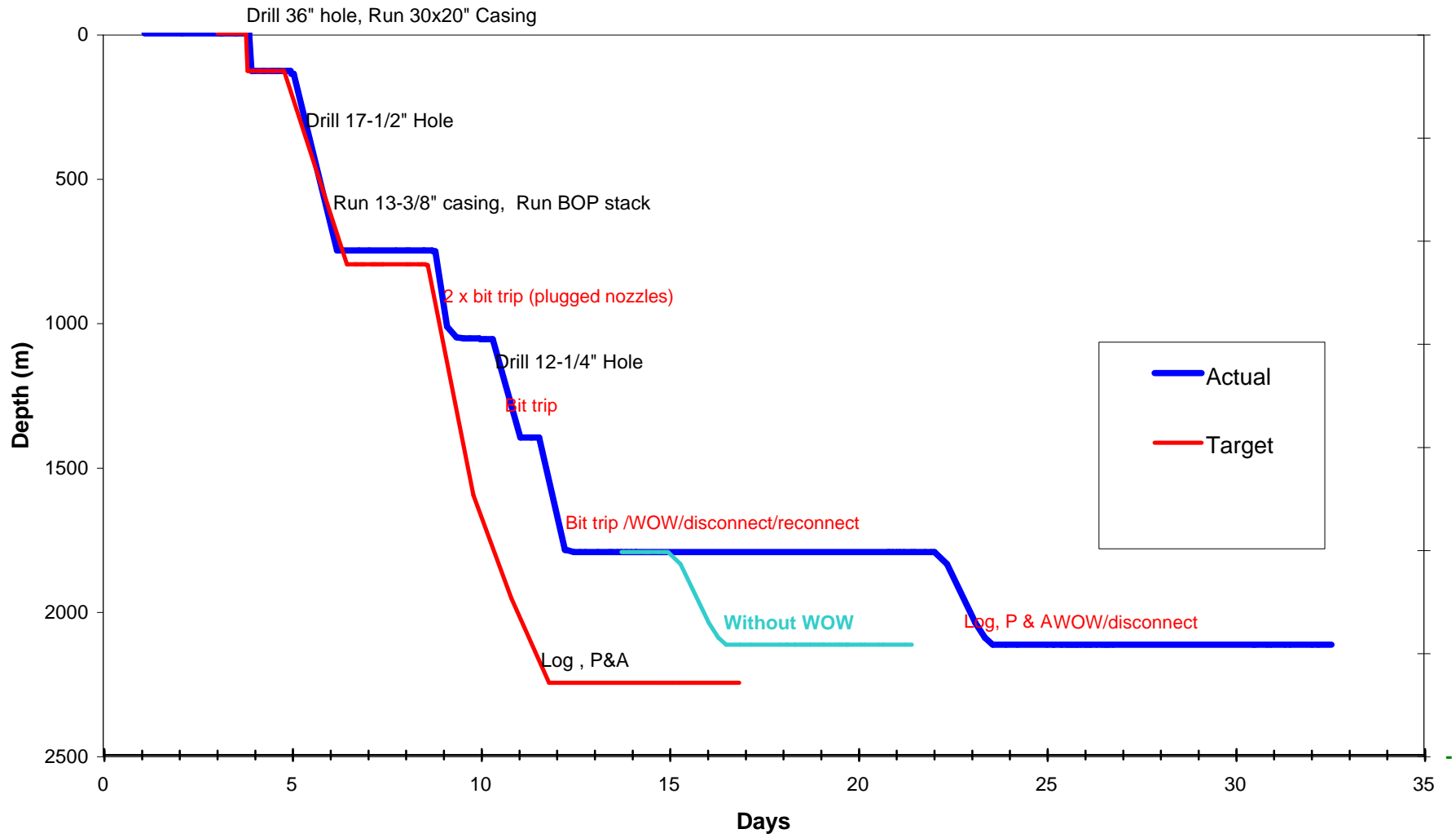
Safety, Inspections and Drills Summary

1 days since last	Fire and Abandon Ship Drill
1819 days since last	Lost Workday Case
52 days since last	Medical Treatment Case
18 days since last	First Aid Case
5 days since last	Weekly Safety Meeting
9 days since last	Trip/Pit Drill
12 days since last	BOP Test

Anchors	Anc 1 : 0	Anc 2 : 0	Anc 3 : 0	Anc 4 : 0	Anc 5 : 0	RIS. TENS. (MT) :	0
	Anc 6 : 0	Anc 7 : 0	Anc 8 : 0	Anc 9 : 0	Anc 10 : 0	RISER ANGLE (deg):	0.0
Workboats	Arrived @ Rig (Date)(Time)	Depart from Rig (Date)(Time)	EstimatedArrival (Port) (Date)(Time)	Weather		STACK ANGLE(deg):	0.0
	Pacific Sentinel	19/09/02 20:00		VISIBILITY(nm) :	0	V.D.L. (MT) :	0.0
Pacific Conqueror	22/09/02 22:30			WIND SP. (kts) :	.0	AVE HEAVE (m) :	0.0
				WIND DIR (deg) :	0	MAX HEAVE (m) :	0.0
				PRES.(mbars):	0	AVE PITCH (deg) :	0.7
				AIR TEMP (C) :	.0	MAX PITCH (deg) :	0.8
COMMENTS : Pax on/off 8/8						AVE ROLL (deg) :	0.5
						MAX ROLL (deg) :	0.6

SECTION 7:- TIME / DEPTH CURVE

Days vs Depth - Casino 1



SECTION 8:- BHA SUMMARY

BHA SUMMARY

WELL:

CASINO #1

#	LENGTH	BHA WT.	WT. BELOW JAR	STRNG WT.	P/UP WT.	S/OFF WT.	TRQE MAX	TRQE ON BOT	TRQE OFF BOT	HRS	BHA DESCRIPTION
1	83.24			200			3	2			660mm bit, 914mm holeopener, bit sub (solid float), 241mm Anderdrift, 3 x 241mm DC, x/o, 5 x 203mm DC x/o, 6 x 127mm HWDP
2	215.20			225			2	1	1		445mm bit, 445mm NB stab (solid float), 241mm Anderdrift, 445mm stab, 1 x 241mm DC, 445mm stab, 2 x 241mm DC, x/o, 6 x 203mm DC, 203mm Jar, 4 x 203mm DC, x/o, 8 x 127mm HWDP
2	215.20	70	50	250	255	247	5	3	1		445mm bit, 445mm NB stab (solid float), 241mm Anderdrift, 445mm stab, 1 x 241mm DC, 445mm stab, 2 x 241mm DC, x/o, 6 x 203mm DC, 203mm Jar, 4 x 203mm DC, x/o, 8 x 127mm HWDP
2	215.20	70	50	262	264	260	4	3	2		445mm bit, 445mm NB stab (solid float), 241mm Anderdrift, 445mm stab, 1 x 241mm DC, 445mm stab, 2 x 241mm DC, x/o, 6 x 203mm DC, 203mm Jar, 4 x 203mm DC, x/o, 8 x 127mm HWDP
3	265.35	80	50	280			9	5	2		311mm bit, NB RR (ported float), 210mm MWD/FEWD, 311mm RR (totco ring), 1 x 203mm DC, 311mm RR, 9 x 203mm DC, 203mm Jar, 2 x 203mm DC, x/o, 12 x 127mm HWDP
3	265.35	80	50	280			6	3	1		311mm bit, NB RR (ported float), 210mm MWD/FEWD, 311mm RR (totco ring), 1 x 203mm DC, 311mm RR, 9 x 203mm DC, 203mm Jar, 2 x 203mm DC, x/o, 12 x 127mm HWDP
4	293.03	90	70	290			2	1	1		311mm bit, NB RR (ported float), 210mm MWD/FEWD, 311mm RR (totco ring), 1 x 203mm DC, 311mm RR, 12 x 203mm DC, 203mm Jar, 2 x 203mm DC, x/o, 12 x 127mm HWDP
5	293.03	90	70	310			7	4	1		311mm bit, NB RR (solid float), 210mm MWD/FEWD, 311mm RR (totco ring), 1 x 203mm DC, 311mm RR, 12 x 203mm DC, 203mm Jar, 2 x 203mm DC, x/o, 12 x 127mm HWDP
6	293.08	90	70	328			12	6	3		311mm bit, NB RR (solid float), 210mm MWD/FEWD, 311mm RR (totco ring), 1 x 203mm DC, 311mm RR, 12 x 203mm DC, 203mm Jar, 2 x 203mm DC, x/o, 12 x 127mm HWDP
6	293.08	90	70	328			11	6	0		311mm bit, NB RR (solid float), 210mm MWD/FEWD, 311mm RR (totco ring), 1 x 203mm DC, 311mm RR, 12 x 203mm DC, 203mm Jar, 2 x 203mm DC, x/o, 12 x 127mm HWDP
7	293.08	90	70	328							311mm bit, NB RR (solid float), 210mm MWD/FEWD, 311mm RR (totco ring), 1 x 203mm DC, 311mm RR, 12 x 203mm DC, 203mm Jar, 2 x 203mm DC, x/o, 12 x 127mm HWDP
7	293.08	90	70	328							311mm bit, NB RR (solid float), 210mm MWD/FEWD, 311mm RR (totco ring), 1 x 203mm DC, 311mm RR, 12 x 203mm DC, 203mm Jar, 2 x 203mm DC, x/o, 12 x 127mm HWDP
7	293.08	90	70	328							311mm bit, NB RR (solid float), 210mm MWD/FEWD, 311mm RR (totco ring), 1 x 203mm DC, 311mm RR, 12 x 203mm DC, 203mm Jar, 2 x 203mm DC, x/o, 12 x 127mm HWDP
8	268.22	75	55	170	180	170	6,000	4,000	4,000		Bit, NB RR (solid float), 3 x 8" DC, RR, 1 x 8" DC, RR, 9 X 8"dc, Jar, 2 x 8" DC, x/o, 12 x 5" HWDP.
8	268.22	75	55	185	190	190	6,000	4,000	4,000		Bit, NB RR (solid float), 3 x 8" DC, RR, 1 x 8" DC, RR, 9 X 8"dc, Jar, 2 x 8" DC, x/o, 12 x 5" HWDP.
8	268.22	75	55	190	190	190	6,000	4,000	4,000		Bit, NB RR (solid float), 3 x 8" DC, RR, 1 x 8" DC, RR, 9 X 8"dc, Jar, 2 x 8" DC, x/o, 12 x 5" HWDP.
8	268.22	75	55	190	190	190	6,000	4,000	4,000		Bit, NB RR (solid float), 3 x 8" DC, RR, 1 x 8" DC, RR, 9 X 8"dc, Jar, 2 x 8" DC, x/o, 12 x 5" HWDP.
8	268.22	75	55	190	190	190	6,000	4,000	4,000		Bit, NB RR (solid float), 3 x 8" DC, RR, 1 x 8" DC, RR, 9 X 8"dc, Jar, 2 x 8" DC, x/o, 12 x 5" HWDP.

SECTION 9:- BIT RECORD & PERFORMANCE SUMMARY

CASINO #1

Drilling Co.: Diamond Offshore

Rig : Ocean Bounty

RT above GL : 25 mtrs

Lat : 38 deg 47 min 18.50 sec

Spud Date: 25/08/2002

Release Date: 23/09/2002

GL above MSL : 70 mtrs

Long : 142 deg 42 min 0.24 sec

Spud Time: 18:30:00

Release Time: 12:00:00

BIT RECORD

BIT#	IADC	SIZE "	SER	MFR	TYPE	JETS	D.IN mtrs	D.OUT mtrs	MTRG	HRS o/b	SPP psi	FLW gpm	WOB k-lbs	RPM	MW kgm3	TFA sq.in	VEL mps	HHP /sq"	ROP m/hr	I	O1	D	L	B	G	O2	R
1	111	26.00	KP2374	SMITH	DSJC	3x18,4x22	96	130	35	1.0	973	865	6.4	65	1.04	2.231	38	0.11	34.5	1	1	NO	A	1	I	NO	TD
2	115	17.50	MM0005	SMITH	MGSSH-C	3x20.1x18	130	752	622	24.9	2452	1011	18.1	98	1.06	1.169	84	1.45	25.0	1	1	NO	A	E	0	NO	TD
3		12.25	103894	REED	DSX 195	5x12	752	1,057	305	14.8	2595	719	7.3	105	1.06	0.552	112	0.40	20.6	8	8	RO	S	X	1	WT	PR
4		12.25	KA4914	REED	EHP51HFKPRDH	3x16	1,057	1,059	2	0.2	2994	384	6.2	86	1.06	0.589	64	0.08	10.0	0	2	CT	G	F3	I	PN	PP
5	437X	12.25	MJ3163	SMITH	10GF	3x16	1,059	1,400	341	14.7	3070	857	32.1	99	1.06	0.589	142	0.86	23.2	1	1	WT	A	E	1	ER	PR
6		12.25	JS6343	SMITH	MA74BPX	6x12	1,400	1,797	397	16.2	3223	828	12.5	154	1.19	0.663	118	5.59	24.5	1	8	LT	S	X	I	CT	PR
7	437	12.25	L11DK	HUGHES	MXR09D	3x16	1,797	2,118	321	33.2	3890	804	31.1	100	1.24	0.589	133	7.04	9.7	2	2	BT	A	E	I	CT	TD

CASINO #1

Drill. Co : Diamond Offshore

Rig: Ocean Bounty

RT ABOVE MSL (m) 25.0
 WATER DEPTH (m) 70.5

Lat : 38 deg 47 min 18.50 sec
 Long : 142 deg 42 min 0.24 sec

Spud Date: 25/08/2002
 Spud Time: 18:30

Release Date: 23/09/2002
 Release Time: 12:00

BHA SUMMARY

#	Length (m)	Weight (MT)	Weight blw/Jars (MT)	String Weight (MT)	Pick-Up Weight (MT)	Slack-Off Weight (MT)	Torque Max (kNm)	Torque on bottom (kNm)	Torque off bottom (kNm)	BHA DESCRIPTION
1	83.2	0.0	0.0	90.7	0.0	0.0	4.20	2.58	.00	26" bit, 36" H/O, bit sub. 9.5" Anderdrift. 3 x 9.5" DC, x/o, 5 x 8" DC x/o, 6 x 5" HWDP
2	215.2	31.8	22.7	118.8	119.7	117.9	5.42	4.34	2.71	17.5" bit, NB stab, 9.5" Anderdrift, 17.5" stab, 1 x 9.5" DC, 17.5" stab, 2 x 9.5" DC, x/o, 6 x 8" DC, 8" Jar, 4 x 8" DC, x/o, 8 x 5" HWDP
3	265.4	36.3	22.7	127.0	0.0	0.0	7.59	3.80	1.63	12.25" bit, NB stab, 8.25" MWD/FEWD, 12.25" RR, 1 x 8" DC, 12.25" RR, 9 x 8" DC, 8" Jar, 2 x 8" DC, x/o, 12 x 5" HWDP
4	293.0	40.8	31.8	140.6	0.0	0.0	9.22	5.29	1.49	12.25" bit, NB stab, 8.25" MWD/FEWD, 12.25" RR, 1 x 8" DC, 12.25" RR, 12 x 8" DC, 8" Jar, 2 x 8" DC, x/o, 12 x 5" HWDP
6	293.1	40.8	31.8	148.8	0.0	0.0	15.32	7.46	.54	12.25" bit, NB stab, 8.25" MWD/FEWD, 12.25" RR, 1 x 8" DC, 12.25" RR, 12 x 8" DC, 8" Jar, 2 x 8" DC, x/o, 12 x 5" HWDP
7	293.1	40.8	31.8	148.8	0.0	0.0	.00	.00	.00	12.25" bit, NB stab, 8.25" MWD/FEWD, 12.25" RR, 1 x 8" DC, 12.25" RR, 12 x 8" DC, 8" Jar, 2 x 8" DC, x/o, 12 x 5" HWDP
8	268.2	34.0	24.9	86.2	86.2	86.2	8.13	5.42	5.42	12.25" Bit, NB RR (solid float), 3 x 8" DC, RR, 1 x 8" DC, RR, 9 X 8"dc, Jar, 2 x 8" DC, x/o, 12 x 5" HWDP.

BIT RECAP

WELL :

CASINO #1

From : 25/08/2002

To : 16/09/2002

DATE	BIT#	SIZE	SER#	MF	IADC	TYPE	JETS	OUT	MTRG	HRS o/b	HRS IADC	SPP psi	FLW gpm	WOB k-lbs	RPM	VEL mps	HHP sq"	ROP m/hr	I	O1	D	L	B	G	O2	R
25/08/2002	1	26.00	KP2374	SM	111	DSJC	3x18, 4x22	130	35	1.0	1.5	973	865	6.4	65	37.8	0.114	34.5	1	1	WT	A	E	I	NO	TD
26/08/2002	2	17.50	MM0005	SM	115	MGSSH-C	3x20, 1x18		90	1.3	2.0	1510	939	9.4	86	78.4	0.140	69.2								
27/08/2002	2	17.50	MM0005	SM	115	MGSSH-C	3x20, 1x18		493	20.3	24.0	2123	1011	19.4	100	84.4	0.175	24.3								
28/08/2002	2	17.50	MM0005	SM	115	MGSSH-C	3x20, 1x18	752	39	1.8	2.0	2452	1008	22.0	100	84.1	1.449	21.7	1	1	NO	A	E	0	NO	TD
29/08/2002	3	12.25	103894	SM		DSX 195	5x12									.0	0.000									
30/08/2002	3	12.25	103894	RE		DSX 195	5x12		264	4.5	8.0	2525	719	7.4	104	127.0	0.576	58.7								
31/08/2002	3	12.25	103894	RE		DSX 195	5x12	1,057	41	10.3	10.5	2595	634	6.5	114	112.0	0.395	4.0	8	8	RO	S	X	1	WT	PR
31/08/2002	4	12.25	KA4914	RE		EHP51HFKPRDH	3x16	1,059	2	.2	.5	2994	384	6.2	86	63.6	0.077	10.0	0	2	CT	G	F3	I	PN	PP
1/09/2002	5	12.25	MJ3163	SM	437X	10GF	3x16	1,400	341	14.7	18.0	3070	857	32.0	99	141.9	7.293	23.2								PR
2/09/2002	5	12.25	MJ3163	SM	437X	10GF	3x16	1,400	0	.0	.0	3070	857	32.0	99	141.9	0.858		1	1	WT	A	E	1	ER	PR
2/09/2002	6	12.25	JS6343	SM		MA74BPX	6x12		350	10.2	13.5	3185	828	12.8	155	121.9	0.611	34.3								
3/09/2002	6	12.25	JS6343	SM		MA74BPX	6x12	1,797	47	6.0	6.5	3223	805	10.6	147	118.5	5.587	7.8	1	8	LT	S	X	I	CT	PR
4/09/2002	7	12.25	L11DK	HU	437	MXR09D	3x16		0	.0	.0	3223	805	10.6	147	133.3	7.070									
5/09/2002	7	12.25	L11DK	HU	437	MXR09D	3x16		0	.0	.0					.0	0.000									
7/09/2002	7	12.25	L11DK	HU	437	MXR09D	3x16		0	.0	.0					.0	0.000									
11/09/2002	7	12.25	L11DK	HU	437	MXR09D	3x16		0	.0	.0					.0	0.000									
12/09/2002	7	12.25	L11DK	HU	437	MXR09D	3x16		7	1.5	2.0	3783	804	25.0	100	133.1	7.044	4.7								
13/09/2002	7	12.25	L11DK	HU	437	MXR09D	3x16		239	21.4	24.0	3826	804	30.0	100	133.1	7.044	11.2								
14/09/2002	7	12.25	L11DK	HU	437	MXR09D	3x16	2,118	75	10.3	11.0	3890	804	35.0	100	133.1	7.044	7.3	2	2	BT	A	E	I	CT	TD
15/09/2002	7	12.25	L11DK	HU	437	MXR09D	3x16	2,118	0	.0	.0	3890	804	35.0	100	133.1	7.044		2	2	BT	A	E	I	CT	TD
16/09/2002	7	12.25	L11DK	HU	437	MXR09D	3x16	2,118	0	.0	.0	3890	804	35.0	100	133.1	7.044		2	2	BT	A	E	I	CT	TD

SECTION 10:- DRILLING FLUIDS REPORT

MUD RECAP

WELL : CASINO - 1

R#	DATE	TYPE	DEPTH	TMP C	MW ppg	VIS cps	PV cps	YP	GEL 10s	GEL 10M	F.L. API	CAKE	SOL %	H2O %	Oil %	SND %	MBT ppb	PH	PM	PF	CI	HARD /CA	PHPA ppb	KCl%	K+	COST
5	25/08/2002	Suid	128		1.0	100	18	34	23	26			2.6	97.4			30.0	10.0		0	1.600	80				11.243
6	26/08/2002	Gel Sweeps	200		1.1	130	18	54	40	42			3.4	96.6			25.0	12.0		1	1.500	60				4.754
7	27/08/2002	Gel Sweeps	675		1.1	90	12	61	15	17			3.4	96.6			25.0	12.0		1	1.700	60				11.388
8	28/08/2002	KCl PHPA	752		1.0	38	7	2	1	1			.55	99.5				10.0		0	28.000	720	.7	7	37.800	26.947
9	29/08/2002	KCl PHPA	752		1.0	40	7	7	2	2			.88	99.1				10.0		0	23.000	440	.7	7	37.800	17.508
10	30/08/2002	KCl PHPA	947		1.1	40	7	15	4	4	6.5	1.0	1.6	98.4		2	2.5	10.0		0	29.000	640	1.1	7	37.800	26.907
11	31/08/2002	KCl PHPA	1.059		1.1	48	12	21	6	8	6.2	1.0	1.7	98.3		.5	2.5	8.0		0	28.000	360	.9	7	37.800	16.006
12	1/09/2002	KCl PHPA	1.360	120	1.1	48	11	23	8	12	6.2	1.0	2.0	98.0		tr	7.0	9.5		0	29.000	280	1.2	6	32.400	16.805
13	2/09/2002	KCl PHPA	1.672	130	1.2	54	18	32	11	15	4.5	1.0	5.6	94.3		tr	11.0	9.5		0	29.000	320	1.8	6	32.400	30.289
14	3/09/2002	KCl PHPA	1.797	110	1.2	64	21	33	12	16	4.3	1.0	7.4	92.6		1	12.0	9.5		0	31.200	300	1.8	6	32.400	18.195
15	4/09/2002	KCl PHPA	1.797	38	1.2	64	23	32	11	15	4.6	1.0	7.3	91.7		1	13.0	9.5		0	30.000	280	1.8	6	32.400	9.276
16	5/09/2002	KCl PHPA	1.797		1.2	71	20	29	10	15	4.8	1.0	11.	88.4		1	11.0	8.5		0	31.000	360	1.8	6	32.400	1.950
17	6/09/2002	KCl PHPA	1.797		1.2	72	19	29	9	13	4.7	1.0	11.	88.8		1	12.0	8.5		0	29.800	300	1.8	6	32.400	672
18	7/09/2002	KCl PHPA	1.797		1.2	70	19	29	8	12	4.4	1.0	11.	88.8		.5	12.5	8.5		0	30.000	300	1.8	6	32.400	
19	8/09/2002	KCl PHPA	1.797		1.2	59	15	25	7	11	4.4	1.0	11.	89.2		.5	11.0	9.0		0	31.000	320	1.8	6	32.400	3.789
20	9/09/2002	KCl PHPA	1.797		1.2	58	17	25	7	10	1.4	1.0	10.	89.5		.5	12.0	9.0		0	30.500	300	1.8	6	32.400	
21	10/09/2002	KCl PHPA	1.797		1.2	57	15	24	7	10	4.6	1.0	10.	89.4		.5	12.0	9.0		0	30.500	280	1.8	6	32.400	5.418
22	11/09/2002	KCl PHPA	1.797		1.2	54	14	23	6	9	4.4	1.0	11	89.2		.5	11.0	9.0		0	30.000	320	1.8	6	32.400	548
23	12/09/2002	KCl PHPA	1.797	22	1.2	61	19	28	8	12	4.6	1.0	11	89.0		.5	11.0	9.5		0	30.000	280	1.6	6	32.400	12.848
24	13/09/2002	KCl PHPA	2.043	54	1.2	56	22	26	7	12	4.4	1.0	12	88.0		.5	11.0	9.5		0	31.400	240	1.8	7	37.800	18.351
25	14/09/2002	KCl PHPA	2.118	54	1.2	54	20	28	7	11	5.2	1.0	10	89.6		.5	10.0	9.0		0	32.500	400	1.9	8	40.500	5.652
26	15/09/2002	KCl PHPA	2.118	57	1.2	57	21	25	7	11	4.6	1.0	11	89.6		.5	11.0	9.0		0	33.000	300	1.9	8	40.500	
27	16/09/2002	KCl PHPA	2.118	0	1.2	62	22	28	7	14	6.0	1.0	10	89.6		.5	11.0	10.5	1	0	32.500	560	1.8	8	40.500	1.646

DRILLING FLUID SUMMARY

FOR: *SANTOS Ltd*

WELL: CASINO 1

Otway Basin

Offshore Victoria

Engineered by: Jasdeep Singh and Mike Docherty
Prepared by: Jasdeep Singh, Mike Docherty and Mark Scheide
Spud Date: 25th August 2002

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1. Summary of Operations
2. Observations, Recommendations and Well Analysis
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Operator : SANTOS
Well : Casino 1
Rig : Ocean Bounty
Spud : 25th August 2002

1. SUMMARY OF OPERATIONS

Casino 1 was an Offshore Victoria exploration well in Otway basin, drilled to evaluate the gas bearing Waare formation as a primary target. It lies 24 km WSW of the Minerva gas field and 22 km North of LaBella gas field. The Casino prospect is situated towards the western limit of the productive Waare Sandstone.

HOLE SIZE : 36"
MUD TYPE : Seawater Gel Sweeps
INTERVAL : 95.5metres (Seabed) to 130metres
CASING : 20" and 30"

The Ocean Bounty was towed on to location and anchors run on 25th August 2002. Field analysis of the initial Drill Water supply showed the following results:

pH:	8.0	Chlorides:	900 mg/l
Pf:	0.1	Total Hardness:	240 mg/l
Mf:	0.15		

After the primary anchors were run, the tanks were filled with water and mud preparation commenced. 230 barrels of 1.9 ppb Guar Gum and 970 barrels of 25 ppb prehydrated bentonite (Trugel 13A) were initially mixed. This was flocculated with lime prior to use. A further 330 barrels of 33 ppb prehydrated bentonite were mixed for the mud to be spotted in the hole.

The well was spudded at 1830 hours on the 25th August 2002 and a total of 6 x 50 barrels of sweep mud was used to clean the hole to a TD of 130 metres. The unflocculated mud was then spotted in the hole and the string pulled out.

After running the 20" x 30" casing, the cement stinger was made up and installed in the PGB. The string was run in the hole to bottom without problems. The rig was then moved to be central over the hole. During this time, the mud pits were filled to full capacity with 25 ppb prehydrated bentonite.

After circulating 130 barrels of seawater with good returns, the cement job was then conducted displacing the slurry with seawater. After waiting on cement, the 30" running tool was released and laid out. This was laid down along with the cement stinger and 36" bottom hole assembly.

Operator : SANTOS
Well : Casino 1
Rig : Ocean Bounty
Spud : 25th August 2002

HOLE SIZE : 17 ½”
MUD TYPE : Seawater Gel / Guar Gum Sweeps
INTERVAL : 130 - 752 metres
CASING : 13 3/8” @ 743 metres

The 17 ½” drill bit and bottom hole assembly were made up and run in to 112 metres. The cement was drilled out using seawater with two 30 barrel Guar Gum sweeps and a 50 barrel gel sweep to aid hole cleaning.

While drilling 17 ½” hole with seawater, sweeps were pumped, three 50 barrel lots each stand drilled. Two Guar Gum sweeps at 2 ppb were pumped at 10 metres and 20 metres, while the flocculated gel sweep was spotted around the collars for the connection.

The Guar Gum sweep mud typically had a funnel viscosity of 65 seconds/quart and a yield point of 25 lb/100ft², while the flocculated prehydrated bentonite sweeps had a funnel viscosity in excess of 100 seconds/quart, and a yield point of 55 lb/100ft².

The bentonite mud preparation was 0.2 ppb Caustic Soda, 25 ppg Bentonite and then flocculated with 0.5 ppb Lime. Mud to be left in the casing was mixed at 35 ppb Bentonite and not flocculated.

At casing point of 752 metres the hole was swept with 150 barrels of flocculated bentonite mud and then the hole was put back on seawater. The hole was then displaced with 750 barrels of unflocculated bentonite mud, filling the string with water. The string was pulled out of the hole, working through tight hole between 628 - 425 metres.

The floor was rigged up, and 13 3/8” casing run in the hole, filling each joint with prehydrated bentonite. The casing was run without problems and displaced with 460 barrels of prehydrated bentonite.

The cement job was conducted and the slurry displaced with seawater. The casing was pressure tested to 3000 psi and the float checked. The cement head and wellhead running tool were laid out, and the floor prepared to run BOPs.

Operator : SANTOS
Well : Casino 1
Rig : Ocean Bounty
Spud : 25th August 2002

HOLE SIZE : 12.25"
MUD TYPE : KCl Polymer Glycol
INTERVAL : 752 metres to 2118 metres
CASING : P & A

During the running of casing and running of the BOPs, the new mud was mixed up and sheared. A total of 1392 barrels was mixed with 0.1ppb Soda Ash, 0.3ppb Xanthan Gum, 0.8ppb PAC LV, 0.7ppb JK261, 20ppb KCl, and 3% Glycol in four active pits.

All four shakers were dressed with s84 mesh screens for initial drilling.

After shearing new mud for 8 hours, 120 barrels of it was transferred to two settling pits on the shaker deck. The sandtrap was left empty. 120 barrels of 1.5ppb Xanthan Gum mud was also mixed for a high viscosity sweep prior to conducting the LOT.

At 740 metres while drilling the cement and float using sea water, 20 barrel of this high viscosity sweep was pumped to clean hole. At 752 metres, just before drilling the shoe, 50 barrels of the same high viscosity sweep was pumped, followed by the new mud to displace the hole.

The system was closed in after dumping 30 barrels of contaminated returns. Then further 3 metres of formation were drilled with new mud with returns through sandtrap and settling pits. The hole was circulated one and half times the bottoms up volume before conducting LOT. A value of 17.3 ppg Mud Weight equivalent was obtained for the leak off test.

Drilling resumed after the LOT and during first two hours a total of 140 barrels was lost. It was initially suspected that dump valves on surface lines are leaking but by stepping through various possibilities, isolating tanks one by one, no cause was found.

It was concluded that these losses were in the loose sands from 760 to 900 metres. The volume was maintained by bleeding in premix. A 12 ppb Sandseal mix of 60 bbl was prepared and pumped downhole on the run to combat losses. No appreciable results were obtained from this Sandseal sweep on this occasion.

On speaking to the Santos Drilling Supervisor, it was evident that due to MWD tools in the string, any LCM sweeps have to be carefully regulated. 4 ppb of Sandseal was mixed in the premix and this was bled across into active system over 1.5 hours at 1030 metres.

As the drilling rate was slow at 1050 metres, the losses healed to less than 10 barrels per hour before pulling the bit at 1057 metres. On an average while drilling from casing shoe to 1000 metres the downhole losses were 60 barrels per hour.

After the bit trip drilling resumed, however due to plugged nozzles only 2 metres was drilled, before pulling out of the hole at 1059 metres.

Operator : SANTOS
Well : Casino 1
Rig : Ocean Bounty
Spud : 25th August 2002

Drilling resumed with the new bit. The desander and desilter were run however due to excessive underflow volume from the desander, this was shut down. The desilter was discharging about 12 barrels per hour. No centrifuge was made available for this well.

As drilling progressed at approximately 20 metres per hour, more silt was encountered and as a result PHPA concentration was bumped up with direct addition of 0.2 ppb JK-261. Direct Glycol addition was also made at 0.15%.

Premix was added to maintain properties and volume at this stage and was made up of 1.2ppb Xanthan Gum, 6 –9% KCl, 3% Glycol, 1.5ppb PHPA. At this stage all screens was dressed with s115 mesh screens, with cuttings removal being fairly wet.

At 1400 metres, bottoms up was circulated one and a half times and the pipe slugged. The string was pulled out the hole to run a PDC bit. The hole was found to be in good condition.

On resuming drilling, the mud weight was increased from 8.9 ppg to 9.6 ppg with 54 ppb barite while drilling from 1450 metres to 1550 metres. The system was treated with PHPA and Glycol while waiting for mud to get homogenised with barite. The mud weight was further increased to 9.8 ppg with 13 ppb barite at 1650 m as per the program.

Due to excessive gas levels while drilling the top of the Waare Formation, it was necessary to circulate out the peaks. After two large peaks and gas levels remaining above 20% while drilling, the mud weight was raised with 8ppb barite to 10 ppg at 1790 metres, while the mud was treated with a premix containing 1.5ppb PAC-L, 6% KCl and 1.7 ppb JK-261.

Drilling was halted at 1797 metres due to the poor rate of penetration. While pulling out for bit change at 1797 metres, tight hole was encountered at 1610 metres to 1498 metres and it was necessary to back ream. It appeared that the hole was swabbing as gas levels recorded were up to 20%. It was decided to run back in and condition the well.

Once on bottom, the hole was circulated clean but due to gas levels reported, the mud weight was increased from 10 ppg to 10.3 ppg with 40 ppb barite as per the Santos Drilling Supervisors instruction over 2 hours.

The string was pumped out from 1797 metres to 1420 metres with no drag and from 1420 metres to 1074 metres with 20 – 50K overpull. It was established that the wellbore was stable and a heavy weight Baryte slug was pumped. The string was pulled out the hole, a new bit made up and run in to the shoe.

At this stage, 440 sacks of barite were left on board, which were not enough to raise system mud weight by 1 ppg. Due to rough weather conditions, the supply boat could not deliver barite to the rig and so drilling ahead was put on hold.

On running in the hole, at 1750 metres fill was encountered. The hole was circulated via the choke and degasser and at this time downhole losses were noticed to be 60 barrels per hour receding to 5 barrels per hour as mud weight was reduced from 10.5 to 10.3 ppg and pump rate reduced. 8 ppb Sandseal was introduced to the premix being added at this time.

Operator : SANTOS
Well : Casino 1
Rig : Ocean Bounty
Spud : 25th August 2002

With no significant gas reported, the hole was circulated back up through the riser and the mud weight reduced with the addition of premix as the fill was reamed out.

The desilter was run to increase solids removal, as there was a high level of solids entrainment due to the repeated wiping of the hole. Bottoms up was circulated and a flow check made. A heavy weight slug was pumped and the string pulled out the hole with only 10 – 15Klbs overpull recorded.

The string was hung off in the casing and the blind rams closed. The riser was displaced to seawater and operations put on hold, waiting on weather and preparing to hang off, with swells up to 12 metres.

During this time a 150 barrel premix with 12.5% KCl and 1.3 ppb PAC-LV was prepared and the sandtrap cleaned out. The desander and desilter were serviced with the limited parts available. The mud in the settling tanks was turned over periodically and the surface mud circulated. 0.1 ppb Caustic Soda and 0.2 ppb Idcide were added while circulating.

A 180 barrel premix was mixed with 1 ppb Xanthan Gum, 1.5 ppb PAC-L and 4% KCl, to have additional volume to treat the dehydrating mud in the hole. When the boat was able to unload barite, the premix was weighted up.

After eight days of waiting on weather, the LMPR was latched and the riser was displaced to mud, dumping 30 barrels of seawater contaminated mud. When opening the shear rams, 25 barrels of mud was required to fill the hole.

The hole was observed to be static and the drill string reconnected via the EHOT. Attempts to circulate were thwarted due to the string being plugged. The string was pulled out of the hole and the MWD tool laid out. The bit was full of cuttings.

On running in the hole the BOP test tool was picked up. At 663 metres the hole was circulated via the choke line, as weighted premix was bled in to build surface volume. The hole was flow checked and the circulation reverted to the riser. After performing the BOP tests and the necessary surface line tests, the BOP test tool was laid out and the drill string run in the hole to 950 metres.

The mud was circulated via the choke line and was found to be in reasonable shape. The drill string was then run in to 1717 metres where the hole was reamed with 10 – 20K drag. 27 metres of fill were encountered. The gel breaks were done regularly while running in.

The bottoms up mud from 1700 metres was assessed and an on the spot and decision was made to dump as the Funnel Viscosity was 80 seconds per quart. A total of 120 barrels were dumped and volume built up by weighted premix. 2% gas was also recorded from this sample of mud.

The mud was further conditioned with the addition of weighted premixes typically, 1.3 ppb Xanthan Gum, 1.3 ppb PAC-L, 6% KCl, 1.5 ppb JK261 and weighted with barite. The desilter was run intermittently, since the output was only 11.3 ppg at 15 gpm.

Operator : SANTOS
Well : Casino 1
Rig : Ocean Bounty
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The primary property that had deteriorated during this extended stagnant time on bottom was the fluid loss and this was soon improved with the addition of premix. The level of PHPA was increased by 0.3 ppb to 1.8 ppb with direct JK261 addition and also via concentrated premixes.

The rate of penetration in the Waare Sandstone varied between 8 and 50 metres per hour. Downhole losses were negligible. The degasser was run continuously from 1900 to 2000 metres to minimise aeration, when the desilter was not in use. The mud weight was maintained between 10.2 to 10.3 ppg as requested by the operator. The shakers were upgraded to 145 mesh at 1850 metres as fine sands were drilled.

At 2000 meters, the mud weight increased to 10.4 ppg, as fine solids became entrained in the mud. To control the increasing mud weight, the desilter was kicked in and unweighted premix was bled in. The desilter underflow was 12.3 ppg with discharge of 15 barrels per hour. The desander was also briefly run, but the discharge was only 0.3 ppg heavier than the mud, so it was turned off. The sand trap was dumped of settled solids and un-weighted premix continued to be added, at between 20 and 40 barrels per hour. The dilution successfully achieved a mud weight of 10.2 ppg.

Premix with 1.3 ppb PAC-L and 6% KCl was then added to curb rising rheology. This was added at 25 barrels per hour over two complete circulations, to establish the yield point at 25 – 30 lb/100ft².

At 11:00 am on the 14th September 2002, a TD of 2118 metres was reached and bottoms up circulated.

On pulling out the hole, 60K overpull was experienced at 1805 metres and at 1760 metres. Otherwise the hole was in good shape.

POST TD.

The first logging run reached 2096 metres, indicating 22 metres of fill. The subsequent two runs were completed without hole problems. Deviation at TD was recorded as 13°.

The cement stinger was run in the hole and a plug and abandon program followed. High viscosity pills were spotted below the cement plugs. The mud to be left in the casing was treated with 0.5 ppb Caustic Soda, and 0.4 ppb Idcide.

After displacing the riser to sea water, all the tanks were dumped and cleaned. The unlatching of the BOPs was delayed by rough weather.

Operator : SANTOS
Well : Casino 1
Rig : Ocean Bounty
Spud : 25th August 2002

2. OBSERVATIONS, RECOMMENDATIONS AND WELL ANALYSIS

Casino 1 was drilled to 2118 metres for a total cost of \$238,546. A further \$1,925 was spent on post TD operations.

A total of \$43,764 was spent on weighting up the mud, on Barite.

<i>HOLE SIZE</i>	<i>INTERVAL</i>	<i>METERAGE</i>	<i>COST</i>	<i>COST / M</i>
36"	95 - 130 metres	35 metres	\$ 4,330	127
17 ½ "	130 – 752 metres	622 metres	\$ 29,693	48
12 ¼ "	743 – 2118 metres	1375 metres	\$ 204,523	149
TOTAL DRILLING COST			\$ 238,546	118
POST TD COSTS (logging / completion)			\$ 1,925	
TOTAL WELL COST			\$240,471	

36" Conductor Hole

There were no problems associated with this section, which was drilled for a mud cost of \$4,330 or \$127/metre. Seawater was not as effective as a flocculant and as a result, 0.5 ppb lime was used to good effect to attain Funnel Viscosity of 100 sec/quart.

17 ½" Surface Hole

The 17 ½" section was drilled for a mud cost of \$29,693 or \$48/metre. There were no hole problems encountered when drilling the hole, however some tight hole was experienced while pulling out of the hole after reaching casing point. Casing was run without problems.

12 ¼" Production Hole

This hole interval was drilled for a mud cost of \$ 204,523, or 149 \$/metre.

The initial drilling out of the shoe was plagued with downhole losses, which did gradually reduce. It would seem likely that the leak off test may have fractured the formation from discussions with the Santos Drilling Supervisor.

Poor hole conditions prevailed when tripping out of the hole from 1797 metres through the top of the Belfast Formation. It was necessary to pump out and back ream through this section. On repeated trips past this section, the hole conditions did gradually improve, however fill was encountered each time.

Operator : SANTOS
Well : Casino 1
Rig : Ocean Bounty
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Extended periods of static conditions due to poor weather and high swells resulted in the mud in the hole being untreated for eight days. Despite this, the mud was in relatively good shape. The first circulation of mud in the casing required weighting up due to barite sag. The mud at the bottom of the hole was showing signs of dehydration and degradation and 120 barrels was dumped when bottoms up was circulated. The mud was easily and quickly brought back in to shape, primarily improving the fluid loss.

Some tight hole was experienced at 1805 and 1760 metres through sands of the Waare Formation when pulling the drill string out of the hole for logging. Perhaps a short wiper trip through this section of new hole would have rectified this and resulted in less fill on bottom for logging.

Solids Control and Mixing Equipment

The rig had a Desander with 3 cones and a Desilter with 20 cones installed on the mud system.

The desander was only used briefly in 12.25" hole, as the underflow discharge rate was excessive at 18 barrels per hour. During the shut down period the one cone was rebuilt. The performance of this unit was still very poor.

The desilter was run selectively through the 12.25" hole section, with discharge rates prior to weighting up in the order of 12 barrels per hour, with 12.2 ppg mud. The cones were replaced as the availability of spare parts dictated. Its performance on weighted mud fluctuated between 12 and 15 ppg, but was always extravagant on mud losses.

The shale shakers were gradually dressed up from s84 mesh screens to s115 mesh to 120 mesh. They were changed to 145 mesh at 1850 m. These s145 screens lasted for 24 hours before they had to be replaced.

The s115 screens that were used were made by Varco and were of poor quality. There was a considerable reduction in open area, and the wear happened quickly. They were shorter than the Thule screens and as a result some cuttings returned to the mud. They appear to have been left on the rig by a previous operator and as such, do not appear in the screen inventory.

There was no Centrifuge on the rig.

The shear hopper was satisfactory at shearing up the PHPA, however care had to be made not to overshear the Xanthan Gum and thus reduce its hole cleaning ability.

Mud Weight

The Gel sweeps pumped during surface hole drilling and spotted in the hole prior to pull out for casings, were not weighted with Barite and the hole stability was not compromised at any stage.

Operator : SANTOS
Well : Casino 1
Rig : Ocean Bounty
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The mud weight was raised ahead of the Belfast Formation as per the program, to 9.8 ppg over three circulations. Subsequent gas level in the mud while drilling the Waare Formation resulted in the mud weight being further raised with barite to 10 ppg and then 10.3 ppg.

After waiting on weather, the section drilled to TD required a dump and dilute regime to keep the mud weight in the range 10.2 – 10.3 ppg.

The solids control equipment on this rig were in need of an overhaul and as a result higher dilution rates than programmed were required to maintain the desired mud weight.

Mud Losses

During surface hole drilling with the returns dumped on bottom, no loss circulation material was used in sweeps as good returns were seen as monitored with ROV. However, contingency stock of Quickseal was kept on the rig.

In the 12¼ inch section of hole, massive downhole losses were encountered below casing shoe to 1050 metres of the order of 70 barrels per hour over a 7 hour drilling period. A 50 barrel Sandseal sweep loaded with 12 ppb was pumped and then 4 ppb was mixed in the premix and bled into system in an effort to combat these losses.

It was observed that there were no static losses and dynamic losses were exacerbated at a pump discharge of 600 gpm and to a lesser extent below this. Mud weight was kept low at 8.7-8.8 ppg to minimise effective ECD and thus downhole losses during this interval.

Downhole losses recurred briefly when circulating out gas via the choke, when the mud weight was 10.5 ppg and pump rate was 600 gpm. Sandseal was bled in at 8 ppb, and as the mud weight was reduced to 10.4 ppg and the strokes reduced, the losses abated.

Mud Properties

Mud properties were kept closely in line with the programmed parameters.

At 1760 metres the PHPA concentration was raised to over 1.5 ppb as requested by the operator, due to receding levels of Glycol and the sticky nature of the cuttings. However, rheology levels at that time indicated that PHPA levels were in excess.

Fluid loss properties were able to be kept in close control primarily with PAC-LV, but assisted with the presence of Glycol in the circulating system. Concentration levels of these products can be seen in the key polymer concentration section of this recap.

Initial rheology had to be built with Xanthan Gum, thereafter with higher solids content of the mud as a result of barite, drill solids incorporation and with PHPA concentrations up over 1.5 ppb, there was minimal requirement for further additions of Xanthan Gum.

Operator : SANTOS
Well : Casino 1
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Hole Gauge

The calliper log indicated a 31% by volume overgauge hole. This averaged out to 14". Factors affecting hole enlargement are strongly related to the formations being drilled, however the hydraulics and related rheology also must be considered in future planning if improved hole gauge is required.

Program Analysis

The programmed quantities of mud chemicals were predicted lean for the 36" and 17 1/2" hole sections with the levels of surface volume required underestimated.

The 12 1/4" hole was also predicted very lean as well, with the dilution volumes required to maintain the desired weight underestimated. The ability of the solids control equipment to efficiently remove drill solids was not of the highest standard and as such the cost of maintaining the desired properties were elevated.

There is a need to have a good yield point right from the outset of this interval and not rely on sweeps to build rheology during production hole drilling. This will be factored into future programs in this region.

The loss of 600 – 700 barrels early in this interval, the amount of time waiting on weather and continual dilution required to maintain the desired mud weight with the less than efficient solids control equipment, created a shortfall in product, namely Glycol, also giving rise to extra cost.

Due to the nature of the location of this well and not having a continued drilling program exit Portland, stock was ordered based upon the program plus a minimum of 20% excess for this well. Due to the above added consumption requirements; the contingent level of Glycol available within Australia was not able to be met.

The non usage of Glycol in the sand bearing reservoir formations was not at the detriment to the hole with the levels of Glycol maintained throughout the whole of the Belfast formation at the programmed spec.

CASINO 1	CONDUCTOR	SURFACE HOLE	MAIN PRODUCTION HOLE	CEMENT CHEMICALS & POST TD	TOTAL WELL
PROGRAMMED	\$ 3,705.00	\$ 22,047.00	\$ 114,771.00		\$ 140,524.00
ACTUAL	\$ 4,330.00	\$ 29,693.00	\$ 204,523.00	\$ 1,925.00	\$ 240,471.00
%VARIANCE	16.9%	34.7%	78.2%		71.1%

Operator : **SANTOS**
Well : **Casino 1**
Rig : **Ocean Bounty**
Spud : **25th August 2002**

Safety & Environment

A thorough and serious approach to safety exists on the Ocean Bounty. This is strongly backed up with the proactive “Stop Card” regime. IDFS mud engineers actively participated in improving safety on the rig through Stop Card system.

As the rig crew was new to IDFS products, they were told about the safe handling of various products at every stage. MSDS were made available and Safe Handling of chemical reference charts was displayed.

All toxic laboratory reagents were collected in a separate container after each testing and transported to shore to dispose in an appropriate manner as per company’s corporate environment policy.

Features of the IDFS chemical packaging were highlighted in so much that there was no metal strapping, which is a regular cause of hand injuries. The cardboard and shrink-wrap packaging enabled the sack room to stay clean and tidy, minimise damaged stock and chemical spills.

3. Interval Costs

Product	Interval :		36" Conductor Hole			17 1/2" Surface Hole			12 1/4" Main Production Hole			Post TD			Total Well Consumption		
	Interval :		Seabed - 130 metres			130 - 752 metres			752 - 2118 metres						2118 metres		
	Cost	Unit Size	Used	Cost	%Cost	Used	Cost	%Cost	Used	Cost	%Cost	Used	Cost	%Cost	Used	Cost	%Cost
Barite Bulk	\$ 14.77	100 lb							2963	\$43,763.51	21.40%				2963	\$43,763.51	18.2%
Caustic Soda	\$ 36.60	55 lb	3	\$109.80	2.5%	11	\$402.60	1.4%	24	\$878.40	0.43%	2	\$73.20	3.8%	40	\$1,464.00	0.6%
Citric Acid	\$ 51.06	55 lb							2	\$102.12	0.05%				2	\$102.12	0.0%
Defoamer-A	\$ 245.33	55 lb							4	\$981.32	0.48%				4	\$981.32	0.4%
Glychem MC	\$ 590.00	440 lb							80	\$47,200.00	23.08%				80	\$47,200.00	19.6%
Guar Gum	\$ 125.00	55 lb	8	\$1,000.00	23.1%	72	\$9,000.00	30.3%							80	\$10,000.00	4.2%
Idcide-20	\$ 103.00	55 lb							53	\$5,459.00	2.67%	2	\$206.00	10.7%	55	\$5,665.00	2.4%
JK-261	\$ 109.70	55 lb							137	\$15,028.90	7.35%				137	\$15,028.90	6.2%
KCl BB Fine	\$ 650.00	2240 lb							50	\$32,500.00	15.89%				50	\$32,500.00	13.5%
Lime	\$ 7.80	44 lb	9	\$70.20	1.6%	19	\$148.20	0.5%							28	\$218.40	0.1%
PAC-L	\$ 168.00	55 lb							111	\$18,648.00	9.12%				111	\$18,648.00	7.8%
Sandseal Fine	\$ 98.00	55 lb							58	\$5,684.00	2.78%				58	\$5,684.00	2.4%
Soda Ash	\$ 13.56	55 lb							2	\$27.12	0.01%				2	\$27.12	0.0%
Sodium Sulphite	\$ 25.02	55 lb							37	\$925.74	0.45%				37	\$925.74	0.4%
Trugel-13A Bulk	\$ 17.50	100 lb	180	\$3,150.00	72.7%	1151	\$20,142.50	67.8%							1331	\$23,292.50	9.7%
Xanthan Gum P	\$ 411.42	55 lb							81	\$33,325.02	16.29%	4	\$1,645.68	85.5%	85	\$34,970.70	14.5%
Totals	Totals :			\$4,330.00	100.0%		\$29,693.30	100.0%		\$204,523.13	100.0%		\$1,924.88	100.0%		\$240,471.31	100.0%
Costings	Cost per metre :			\$127.35			\$47.74			\$148.74						\$118.40	

4. MUD MATERIALS RECONCILIATION

Previous Well :

Well : **Casino 1**

Transferred to : **Casino 2**

PRODUCT	SIZE / lb	UNIT	TRANSFER FROM PREVIOUS WELL	RETURNED STORES	STORES ISSUE	STORES ISSUE VALUE	TRANSFERRED	TOTAL ISSUED	TOTAL ISSUED VALUE	DAMAGED	DAMAGED VALUE	TOTAL USED	TOTAL USED VALUE	TRANSFER QUANTITY	UNIT PRICE	TRANSFER VALUE
IDFS STOCK																
Barite	55	Sack													\$ 8.25	\$ -
Barite Bulk	100	Bulk	2115		1000	\$14,770.00		5714	\$84,395.78			2963	\$43,763.51	2751	\$ 14.77	\$ 40,632.27
Bicarb Soda	55	Sack			48	\$686.88		48	\$686.88					48	\$ 14.31	\$ 686.88
Caustic Soda	55	Drum			65			65				40	\$1,464.00	25	\$ 36.60	\$ 915.00
Citric Acid	55	Sack			40	\$2,042.40		40	\$2,042.40			2	\$102.12	38	\$ 51.06	\$ 1,940.28
Cronox 2100	440	Drum													\$ 795.00	
Defoamer-A	55	Drum			32	\$7,850.56		32	\$7,850.56			4	\$981.32	28	\$ 245.33	\$ 6,869.24
Enerseal C	55	Sack														\$ -
Enerseal F	55	Sack														\$ -
Frac Seal	25	Sack													\$ 52.38	\$ -
Glychem MC	440	Drum			96	\$56,640.00		96	\$56,640.00			80	\$47,200.00	16	\$ 590.00	\$ 9,440.00
Guar Gum	55	Sack			80			80	\$10,000.00			80	\$10,000.00		\$ 125.00	\$ -
Idcide-20	55	Drum			64	\$6,592.00		64	\$6,592.00			55	\$5,665.00	9	\$ 103.00	\$ 927.00
JK-261	55	Sack			180	\$19,746.00		180	\$19,746.00			137	\$15,028.90	43	\$ 109.70	\$ 4,717.10
KCI BB Fine	2240	Bulk			60	\$39,000.00		60	\$39,000.00			50	\$32,500.00	10	\$ 650.00	\$ 6,500.00
KCI Fine	55	Sack													\$ 16.00	\$ -
Lime	44	Sack			108	\$842.40		108	\$842.40			28	\$218.40	80	\$ 7.80	\$ 624.00
Mag Oxide	55	Sack						50	\$1,475.00					50	\$ 29.50	\$ 1,475.00
PAC-L	55	Sack			160	\$26,880.00		160	\$26,880.00			111	\$18,648.00	49	\$ 168.00	\$ 8,232.00
PAC-R	55	Sack			40	\$6,720.00		40	\$6,720.00					40	\$ 168.00	\$ 6,720.00
PipeFree (W)	440	Drum			4	\$3,980.00		4	\$3,980.00					4	\$ 995.00	\$ 3,980.00
Quik Seal	55	Sack			223	\$10,481.00		223	\$10,481.00					223	\$ 47.00	\$ 10,481.00
Salt	55	Sack														\$ -
Sandseal Fine	55	Sack			120	\$11,760.00		120	\$11,760.00			58	\$5,684.00	62	\$ 98.00	\$ 6,076.00
SAPP	55	Sack													\$ 53.18	\$ -
Small Torque	200	Sack														\$ -
Soda Ash	55	Sack			48	\$650.88		48	\$650.88			2	\$27.12	46	\$ 13.56	\$ 623.76
Sodium Sulphite	55	Sack			80	\$2,001.60		80	\$2,001.60			37	\$925.74	43	\$ 25.02	\$ 1,075.86
Sulscav-50	450	Drum						4	\$5,792.00					4	\$ 1,448.00	\$ 5,792.00
Trugel-13A	55	Sack													\$ 10.89	\$ -
Trugel-13A Bulk	100	Bulk	626		1375	\$24,062.50		2001	\$35,017.50			1331	\$23,292.50	670	\$ 17.50	\$ 11,725.00
Xanthan Gum P	55	Sack			140	\$57,598.80		140	\$57,598.80			85	\$34,970.70	55	\$ 411.42	\$ 22,628.10
TOTAL VALUES						\$ 292,305.02			\$ 390,152.80		\$ -		\$ 240,471.31			\$ 152,060.49

5. Fluid Properties Summary

Date	Day	Mud Type	Daily Cost	Temp.	Gels							Filtrate				Solids							pH	Pm	Pf	Mf	Cl-	Ca++	SO ₃ ²⁻	K ⁺	KCl	PHPA	
					Depth	Weight	Vis	PV	YP	10 sec	10 min	API	Cake	HPHT	@Temp	Solids	Water	Oil	MBT														
25-Aug-02	1	Gel Sweeps	\$11,243		93	8.6	100	15	70	15	20	-	-	-	-	1.8	98.2	Nil	25	12	0.35	0.45	2400	60	-								
		Guar Gum			93	8.55	65	13	30	4	7	-	-	-	-	0.0	100.0	Nil	8	0.1	0.3	24200	3200	-									
		Gel Sweeps			130	8.8	100	18	34	23	28	-	-	-	-	3.4	96.6	Nil	30	10	0.26	0.47	1600	80	-								
26-Aug-02	2	Gel Sweeps	\$4,754		130	8.8	135	17	57	42	45	-	-	-	-	3.4	96.6	Nil	25	11.5	0.6	0.8	1600	40	-								
		Guar Gum			130	8.55	60	15	23	3	3	-	-	-	-	0.3	99.7	Nil	7.5	0.15	0.35	21000	3600	-									
		Gel Sweeps			200	8.8	130	18	54	40	44	-	-	-	-	3.4	96.6	Nil	25	11.5	0.6	0.8	1500	60	-								
27-Aug-02	3	Gel Sweeps	\$11,388		356	8.8	110	16	53	37	40	-	-	-	-	3.4	96.6	Nil	25	12	0.65	0.8	1600	40	-								
		Guar Gum			556	8.55	67	15	35	7	5	-	-	-	-	0.1	99.9	Nil	8	0.15	0.3	24000	3400	-									
		Gel Sweeps			675	8.8	90	12	61	15	19	-	-	-	-	3.4	96.6	Nil	25	12	0.6	0.9	1700	60	-								
28-Aug-02	4	Gel Sweeps	\$26,947		752	8.8	120	13	32	22	26	-	-	-	-	3.4	96.6	Nil	33	10	0.4	0.65	1600	60	-								
		Gel Sweeps			752	8.8	85	10	41	10	12	-	-	-	-	3.4	96.6	Nil	22.5	12	0.58	1.58	2300	60	-								
		KCl/PHPA/Glycol			752	8.65	38	7	2	1	1	-	-	-	-	0.6	99.4	Nil	10	0.24	0.88	28000	720	-		37800	7	0.7					
29-Aug-02	5	KCl/PHPA/Glycol	\$17,508		752	8.65	40	7	7	2	2	-	-	-	-	0.9	99.1	Nil	9.5	0.14	0.8	23000	460	-		37800	7	0.65					
		KCl/PHPA/Glycol			752	8.65	39	7	8	2	2	-	-	-	-	0.9	99.1	Nil	9.5	0.15	0.8	23000	480	-		37800	7.5	0.65					
		KCl/PHPA/Glycol			752	8.65	40	7	7	2	2	-	-	-	-	0.9	99.1	Nil	9.5	0.15	0.8	23000	440	-		37800	7	0.65					
30-Aug-02	6	KCl/PHPA/Glycol	\$26,907		752	8.65	39	6	8	2	2	-	-	-	-	0.8	99.2	Nil	9.5	0.15	0.75	23500	360	-		40500	7.5	0.65					
		KCl/PHPA/Glycol			755	8.7	36	6	5	1	1	-	-	-	-	1.0	99.0	Nil	9.5	0.2	0.8	27000	800	-		40500	7.5	0.65					
		KCl/PHPA/Glycol			947	8.8	40	7	15	4	4	6.5	1	-	-	1.6	98.4	2	2.5	10	0.1	0.4	29000	640	-		37800	7	1.06				
31-Aug-02	7	KCl/PHPA/Glycol	\$16,006		1052	8.8	39	8	15	3	4	6	1	-	-	1.7	98.3	1.75	2.5	9.5	0.15	0.4	28500	400	-		37800	7	1.16				
		KCl/PHPA/Glycol			1054	8.7	41	9	16	3	4	5.5	1	22	250	1.0	99.0	1.5	2.5	9.5	0.1	0.4	27500	440	-		37800	7	0.96				
		KCl/PHPA/Glycol			1059	8.8	48	12	21	6	10	6.2	1.2	22	250	1.7	98.3	0.5	2.5	8.5	0.05	0.32	28000	360	100		37800	7	0.89				
1-Sep-02	8	KCl/PHPA/Glycol	\$16,805		1129	8.8	44	10	19	5	9	6.4	1	-	-	1.7	98.3	0.75	5	9	0.1	0.55	28000	360	80		37800	7	1.05				
		KCl/PHPA/Glycol		115	1260	8.8	47	10	20	8	12	6.4	1.2	22	250	1.7	98.3	0.5	4	9.5	0.15	0.65	28000	400	80		37800	7	1.15				
		KCl/PHPA/Glycol		120	1360	8.85	48	11	23	8	14	6.2	1.2	20	250	2.0	98.0	TR	7	9.5	0.18	0.68	29000	280	80		32400	6	1.19				
2-Sep-02	9	KCl/PHPA/Glycol	\$30,289		1400	8.9	48	11	25	9	15	6	1.2	21	250	2.4	97.6	TR	6	9.5	0.15	0.7	29500	320	80		35100	6.5	1.2				
		KCl/PHPA/Glycol		120	1450	9.3	52	16	28	11	17	6.2	1.2	22	250	5.5	94.5	TR	7	9.5	0.12	0.52	28500	400	80		32400	6	1.3				
		KCl/PHPA/Glycol		130	1672	9.85	54	18	32	11	19	4.5	1.2	17	250	7.0	93.0	TR	11	9.5	0.15	0.7	29000	320	100		32400	6	1.77				
3-Sep-02	10	KCl/PHPA/Glycol	\$18,195		130	1791	10.05	58	17	33	11	17	5	1.2	17	250	8.0	92.0	2	12	9	0.1	0.65	30000	300	80		32400	6	1.7			
		KCl/PHPA/Glycol		130	1797	10	55	18	29	9	16	5	1.2	16	250	8.0	92.0	1.5	12	9	0.1	0.65	29000	320	80		27000	5	1.78				
		KCl/PHPA/Glycol		110	1797	10.3	64	21	33	12	18	4.3	1.2	16	250	9.0	91.0	1	12	9.5	0.15	0.7	31200	300	80		32400	6	1.78				
4-Sep-02	11	KCl/PHPA/Glycol	\$9,276		110	1750	10.5	68	24	38	12	20	5	1.2	16	250	11.0	89.0	1.5	15	9	0.1	0.8	30000	320	60		35100	6.5	1.8			
		KCl/PHPA/Glycol		110	1781	10.3	58	18	33	10	18	5	1.2	16	250	10.0	90.0	1	12.5	9	0.1	0.8	30000	300	60		35100	6.5	1.8				
		KCl/PHPA/Glycol		100	1797	10.3	64	23	32	11	18	4.6	1.3	16	250	10.0	90.0	1	13	9.5	0.12	0.7	30000	280	40		32400	6	1.8				
5-Sep-02	12	KCl/PHPA/Glycol	\$1,950		1797	10.3	68	22	31	8	17	4.8	1.2	17	250	10.5	89.5	1	12.5	9	0.15	0.75	29500	300	20		32400	6	1.8				
		KCl/PHPA/Glycol		1797	10.35	70	20	30	9	18	4.6	1.3	18	250	11.6	88.4	1	12	8.5	0.1	0.7	31000	320			32400	6	1.8					
		KCl/PHPA/Glycol		1797	10.35	71	20	29	10	18	4.8	1.3	19	250	11.6	88.4	1	11	8.5	0.06	0.66	31000	360			32400	6	1.8					
6-Sep-02	13	KCl/PHPA/Glycol	\$672		1797	10.35	73	20	29	8	16	4.6	1.3	19	250	11.0	89.0	1	12	8.5	0.01	0.75	30000	280			32400	6	1.8				
		KCl/PHPA/Glycol		1797	10.35	72	20	29	9	15	4.8	1.3	20	250	11.2	88.8	1	12	8.5	0.05	0.7	30000	300			32400	6	1.8					
		KCl/PHPA/Glycol		1797	10.35	72	19	29	9	15	4.7	1.3	20	250	11.2	88.8	1	12	8.5	0.05	0.7	29800	300			32400	6	1.8					
7-Sep-02	14	KCl/PHPA/Glycol			1797	10.35	73	20	29	8	15	4.8	1.3	21	250	11.0	89.0	1	12.5	8.5	0.1	0.85	30500	280			32400	6	1.8				
		KCl/PHPA/Glycol		1797	10.35	70	20	28	8	16	4.6	1.3	21	250	11.2	88.8	1	13	8.5	0.1	0.85	30000	300			32400	6	1.8					
		KCl/PHPA/Glycol		1797	10.35	70	19	29	8	15	4.4	1.3	21	250	11.2	88.8	0.5	12.5	8.5	0.1	0.85	30000	300			32400	6	1.8					
8-Sep-02	15	KCl/PHPA/Glycol	\$3,789		1797	10.35	67	18	28	7	14	4.4	1.3	20	250	11.0	89.0	0.75	12.5	8.5	0.1	0.9	29500	280			32400	6	1.8				
		KCl/PHPA/Glycol		1797	10.25	64	18	27	7	14	4.4	1.3	21	250	10.5	89.5	0.5	12.5	9	0.15	0.95	30000	280			32400	6	1.8					
		KCl/PHPA/Glycol		1797	10.2	59	15	25	7	13	4.4	1.3	21	250	10.8	89.2	0.5	11	9	0.1	0.7	31000	320			32400	6	1.8					
9-Sep-02	16	KCl/PHPA/Glycol			1797	10.3	60	17	25	7	13	4.4	1.3	21	250	11.0	89.0	0.5	12	9	0.1	0.7	30500	300			32400	6	1.8				
		KCl/PHPA/Glycol		1797	10.25	59	15	26	7	13	4.4	1.3	22	250	10.5	89.5	0.5	12	9	0.1	0.85	30000	280			32400	6	1.8					
		KCl/PHPA/Glycol		1797	10.2	58	17	25	7	13	4.2	1.3	22	250	10.5	89.5	0.5	12	9	0.1	0.8	30500	300			32400	6	1.8					
10-Sep-02	17	KCl/PHPA/Glycol	\$5,418		1797	10.25	59	15	26	7	13	4.4	1.3	22	250	10.5	89.5	0.5	12	9	0.1	0.85	30000	280			32400	6	1.8				
		KCl/PHPA/Glycol		1797	10.25	59	15	25	7	13	4.6	1.3	22	250	10.5	89.5	0.5	12	9	0.1	0.85	30500	280			32400	6	1.8					
		KCl/PHPA/Glycol		1797	10.25	57	15	24	7	13	4.6	1.3	22	250	10.6	89.4	0.5	12	9	0.2	0.9	30500	280			32400	6	1.8					
11-Sep-02	18	KCl/PHPA/Glycol	\$549		1797	10.25	58	15	24	6	13	4.6	1.3	22	250	10.5	89.5	0.5	12	9	0.2	1	29000										

		KCl/PHPA/Glycol		118	1837	10.2	55	19	26	8	13	4.8	1:3	20	250	10.0	90.0		1.25	12	9.5		0.1	0.9	31000	320	60	35100	6.5	1.74
		KCl/PHPA/Glycol		130	2001	10.3	56	22	26	7	15	4.4	1:3	18	250	12.0	88.0		0.5	11	9.5		0.18	1	31400	240	100	37800	7	1.83
14-Sep-02	21	KCl/PHPA/Glycol	\$5,652	135	2065	10.4	59	19	29	7	14	4.6	1:3	18	250	12.0	88.0		0.5	12.5	9		0.1	0.85	31000	280	100	37800	7	1.9
		KCl/PHPA/Glycol		140	2118	10.2	54	17	26	7	12	4.8	1:3	18	250	10.5	89.5		0.5	12	9		0.1	0.9	31500	380	80	37800	7	1.8
		KCl/PHPA/Glycol		2118	2118	10.2	54	20	28	7	13	5.2	1:3	18	250	10.4	89.6		0.5	10	9		0.13	0.85	32500	400	80	40500	7.5	1.86
15-Sep-02	22	KCl/PHPA/Glycol		2118	2118	10.3	59	21	29	7	14	4.6	1:3	18	250	11.0	89.0		0.5	12	9		0.1	0.85	33000	400	80	40500	7.5	1.86
		KCl/PHPA/Glycol		2118	2118	10.3	57	20	27	8	14	4.6	1:3	18	250	10.8	89.2		0.5	11	9		0.15	0.9	33000	300	80	40500	7.5	1.86
		KCl/PHPA/Glycol		2118	2118	10.3	57	21	25	7	14	4.6	1:3	18	250	11.0	89.0		0.5	11	9		0.13	0.9	33000	300	80	40500	7.5	1.86
16-Sep-02	23	KCl/PHPA/Glycol	\$1,646	2118	2118	10.3	58	22	24	7	13	4.8	1:3	20	250	11.0	89.0		0.5	12	9		0.1	0.9	32500	360		40500	7.5	1.8
		KCl/PHPA/Glycol		120	2118	10.25	57	20	27	7	14	4.6	1:3	20	250	10.8	89.2		0.5	11	8.5	0	0.02	0.6	33000	560		40500	7.5	1.8
		KCl/PHPA/Glycol		2118	2118	10.2	62	22	28	7	16	6	1:3	22	250	10.4	89.6		0.5	11	10.5	1.4	0.3	1	32500	560		40500	7.5	1.8
17-Sep-02	24	KCl/PHPA/Glycol	\$279	2118	2118	10.2	63	22	29	8	17	6	1:3	22	250	10.4	89.6		0.5	12	11	2	0.4	1.1	33000	640		40500	7.5	1.8
		KCl/PHPA/Glycol		2118	2118	10.2	66	24	28	9	18	6.6	1:3	24	250	10.5	89.5		0.5	12	11.5	2.6	0.7	1.4	33000	640		40500	7.5	1.8

Santos Ltd.

6.1 Mud Volume Analysis

Casino 1

36" Conductor Hole

Date	Hole Size	Interval		Mud Type	Fluid Built & Received					Fluid Disposed					Summary			
		From	To		Fresh Premix	Sump Premix	Direct Recirc	Water	Other	De-sander	De-silter	Centrifuge	Down-hole	Dumped	Other	Initial	Received	Disposed
25-Aug-02	36.00	93	130	Gel Sweeps	2265							316				2265	316	1949
				Gel Sweeps														
				Gel Sweeps														
Sub Total				Gel Sweeps	2265							316				2265	316	

Dilution Factors			
	Interval Length	Dilution Vol	Dilution Factor
36" Conductor Hole	34 metres		

Santos Ltd.

6.2 Mud Volume Analysis

Casino 1

17 1/2" Surface Hole

Date	Hole Size	Interval		Mud Type	Fluid Built & Received					Fluid Disposed					Summary				
		From	To		Fresh Premix	Sump Premix	Direct Recirc	Water	Other	De-sander	De-silter	Centrifuge	Down-hole	Dumped	Other	Initial	Received	Disposed	Final
26-Aug-02	17.50	130	220	Gel Sweeps	1050								318			1949	1050	318	2681
27-Aug-02	17.50	220	713	Gel Sweeps	2230								1821			2681	2230	1821	3090
28-Aug-02	12.25	713	752	Gel Sweeps				320					2710	380		3090	1102	3090	1102
Sub Total				Gel Sweeps	3280			320					4849	380			4382	5229	

Dilution Factors			
	Interval Length	Dilution Vol	Dilution Factor
17 1/2" Surface Hole	622 metres	3332 bbls	5.36 bbls/metre

Santos Ltd.

6.3 Mud Volume Analysis

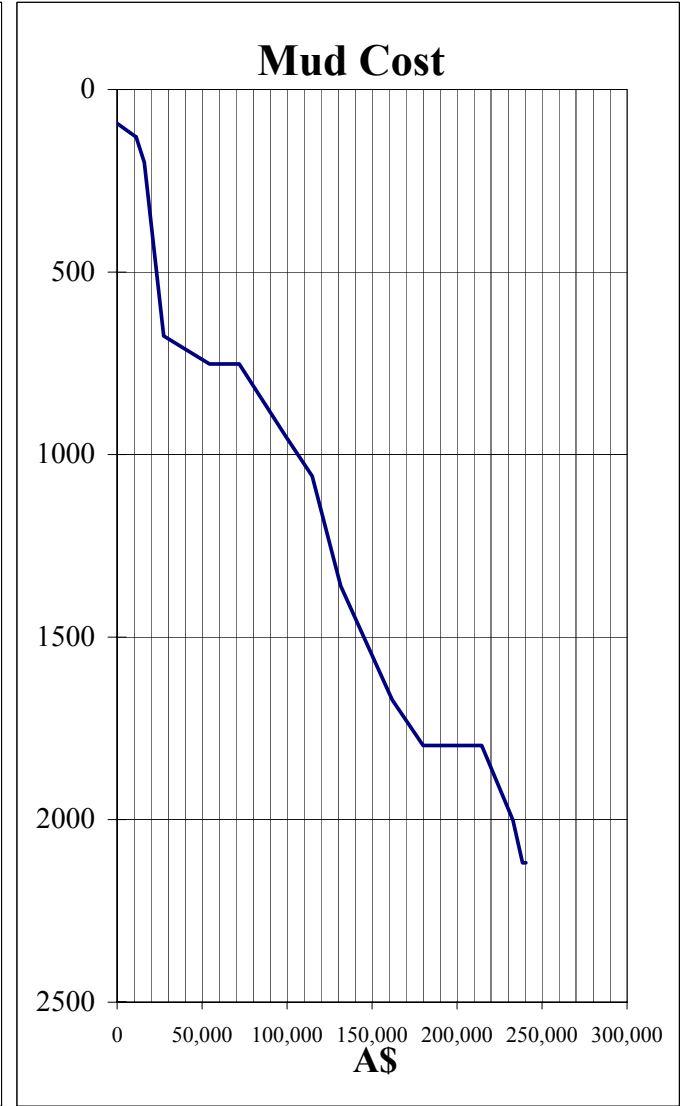
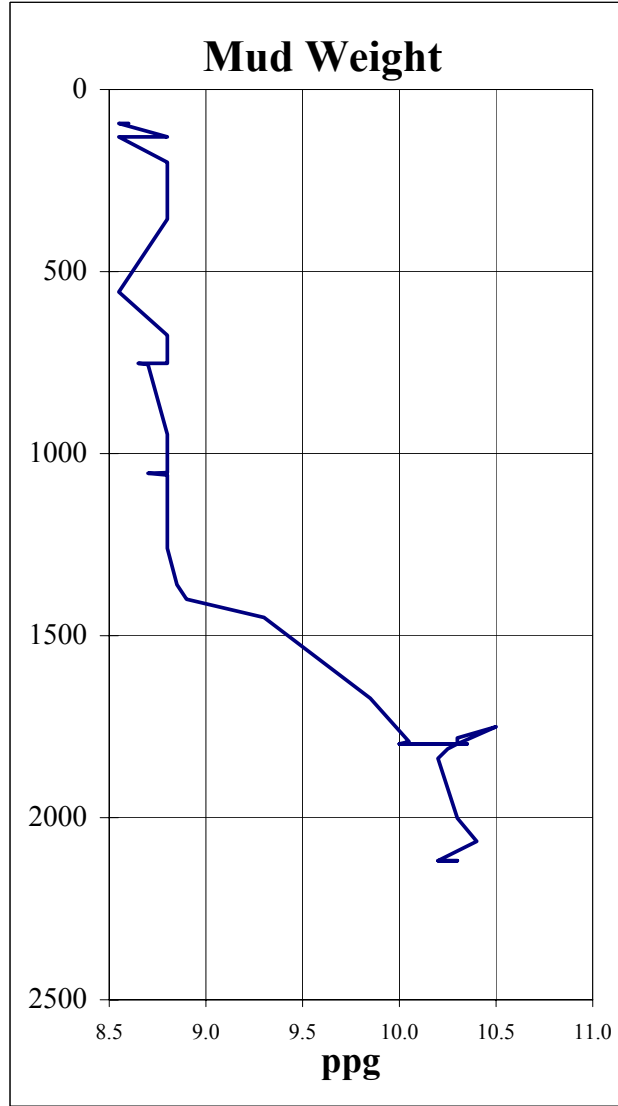
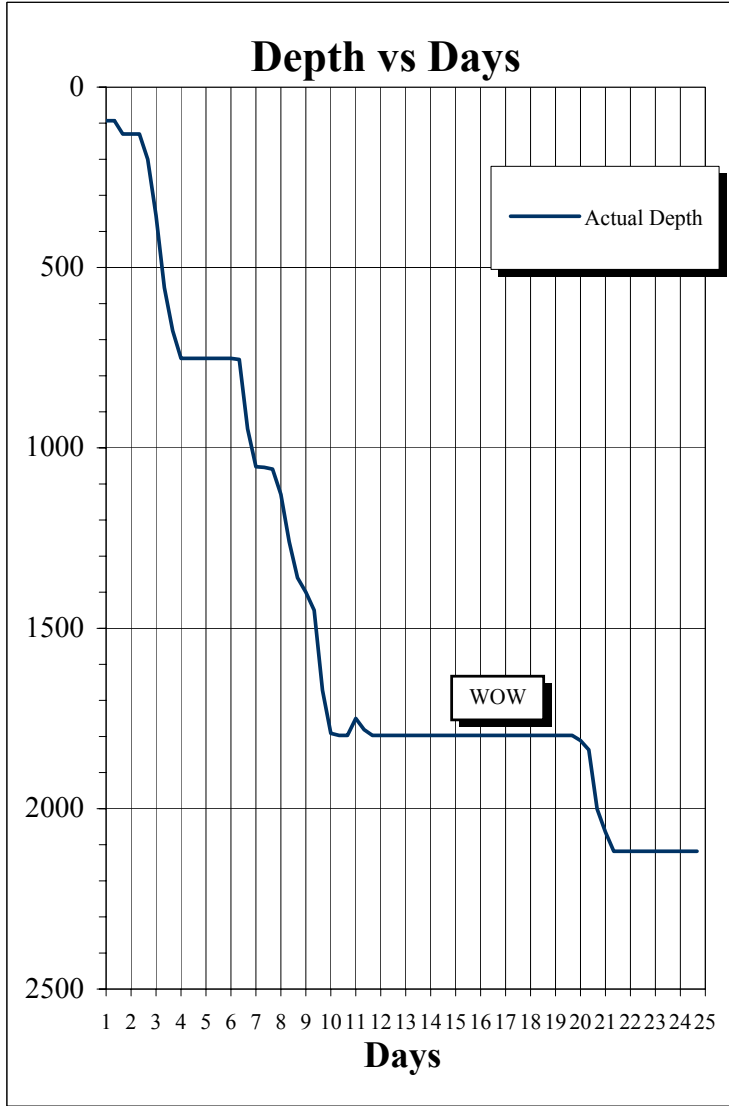
Casino 1

12 1/4" Main Production Hole

Date	Hole Size	Interval	Mtrs	Mud Type	Fluid Built & Received						Fluid Disposed				Summary				
					Fresh Premix	Sump Premix	Direct Recirc	Water	Other	De-sander	De-silter	Centrifuge	Down-hole	Dumped	Other	Initial	Received	Disposed	Final
29-Aug-02	12.25	752	752	KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol	782 755			100					0			1102	855	0	1958
30-Aug-02	12.25	752	1016	KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol	480					14	7		582	450	130	1958	480	1183	1255
31-Aug-02	12.25	1016	1059	KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol	380						29		98		20	1255	380	147	1488
1-Sep-02	12.25	1059	1400	KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol	225					21	143		91		40	1488	225	294	1419
2-Sep-02	12.25	1400	1760	KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol	470								86		40	1419	470	190	1698
3-Sep-02	12.25	1760	1797	KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol	200						14		59		50	1698	200	123	1775
4-Sep-02	12.25	1797	1797	KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol	200								93		30	1775	200	180	1795
5-Sep-02	12.25	1797	1797	KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol	150									70		1795	150	70	1875
6-Sep-02	12.25	1797	1797	KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol												1875			1875
7-Sep-02	12.25	1797	1797	KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol												1875			1875
8-Sep-02	12.25	1797	1797	KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol	180											1875	180		2055
9-Sep-02	12.25	1797	1797	KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol												2055			2055
10-Sep-02	12.25	1797	1797	KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol				20							20	2055	20	20	2055
11-Sep-02	12.25	1797	1797	KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol									25	30		2055		55	2000
12-Sep-02	12.25	1797	1804	KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol	200							64	14	120	20	2000	200	218	1982
13-Sep-02	12.25	1804	2043	KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol	400								81	60	1982	400	341	2042	
14-Sep-02	12.25	2043	2118	KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol	200					17	110		24	90	30	2042	200	271	1971
15-Sep-02	12.25	2118	2118	KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol										10		1971		10	1961
16-Sep-02	12.25	2118	2118	KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol									6	120		1961		126	1835
17-Sep-02	12.25	2118	2118	KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol KCl/PHPA/Glycol				330						0	1066	1835	330	1066	1099
Sub Total				KCl/PHPA/Glycol	4622			120	330	52	689		1166	1946	440	36074	4290	4293	36071

Dilution Factors			
	Interval Length	Dilution Vol	Dilution Factor
12 1/4" Main Production Hole	1375 ft	2778 bbls	2.02 bbls/metre

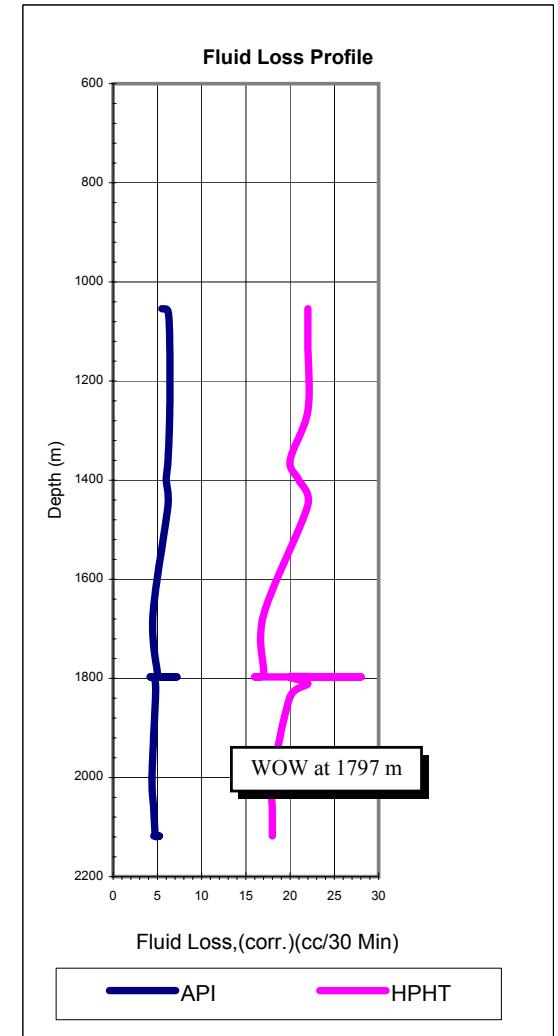
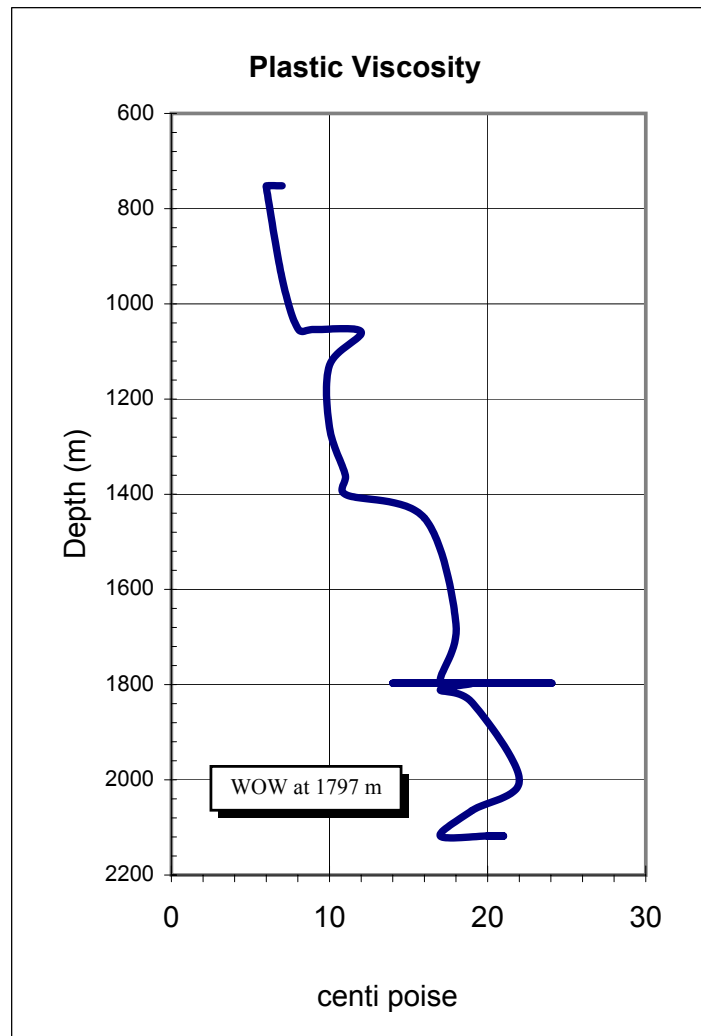
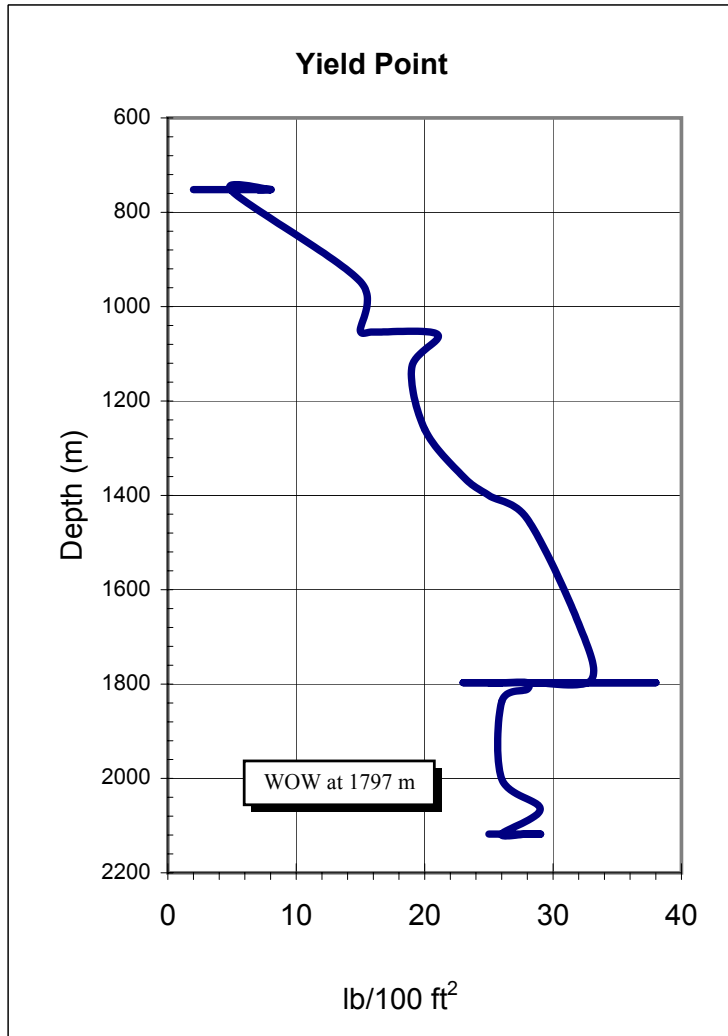
7.1 Graphs



7.2 Graphs

Santos Ltd.

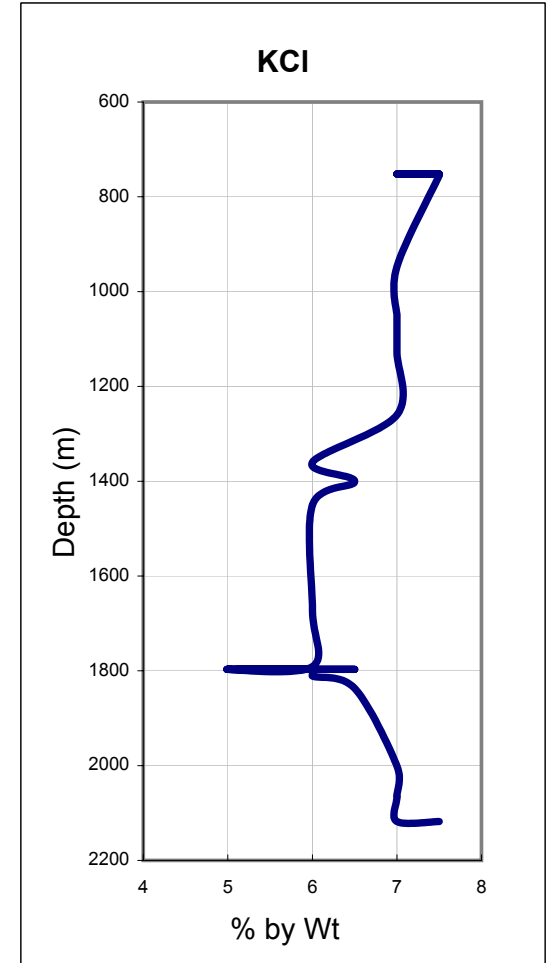
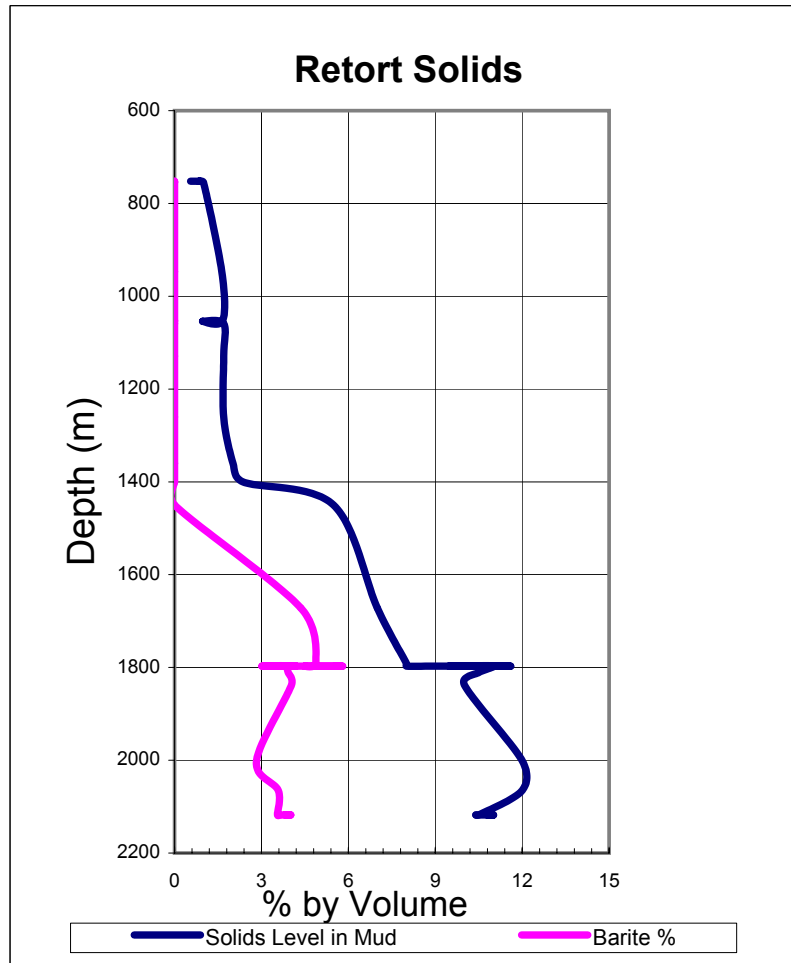
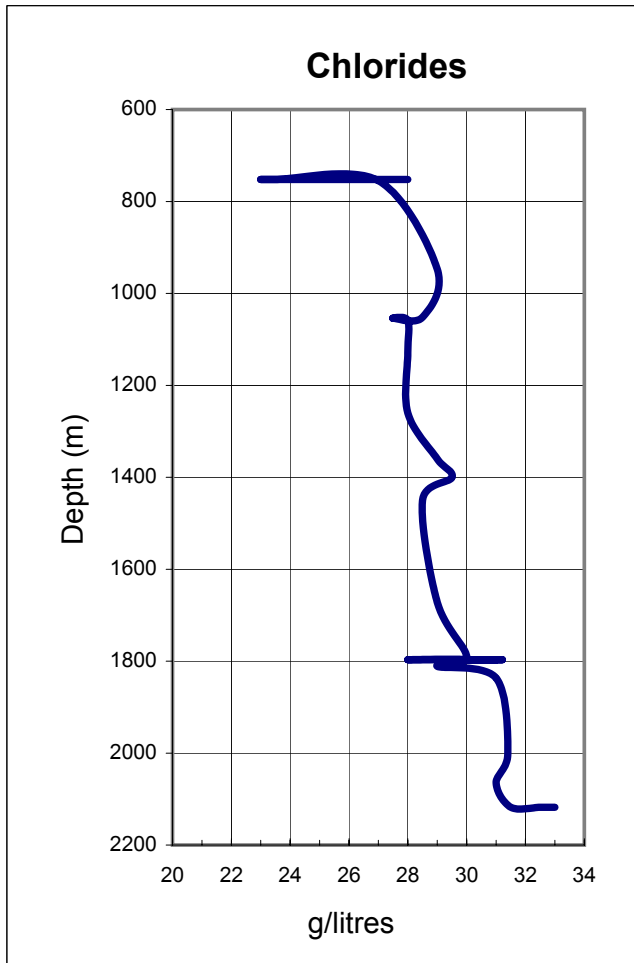
Casino 1

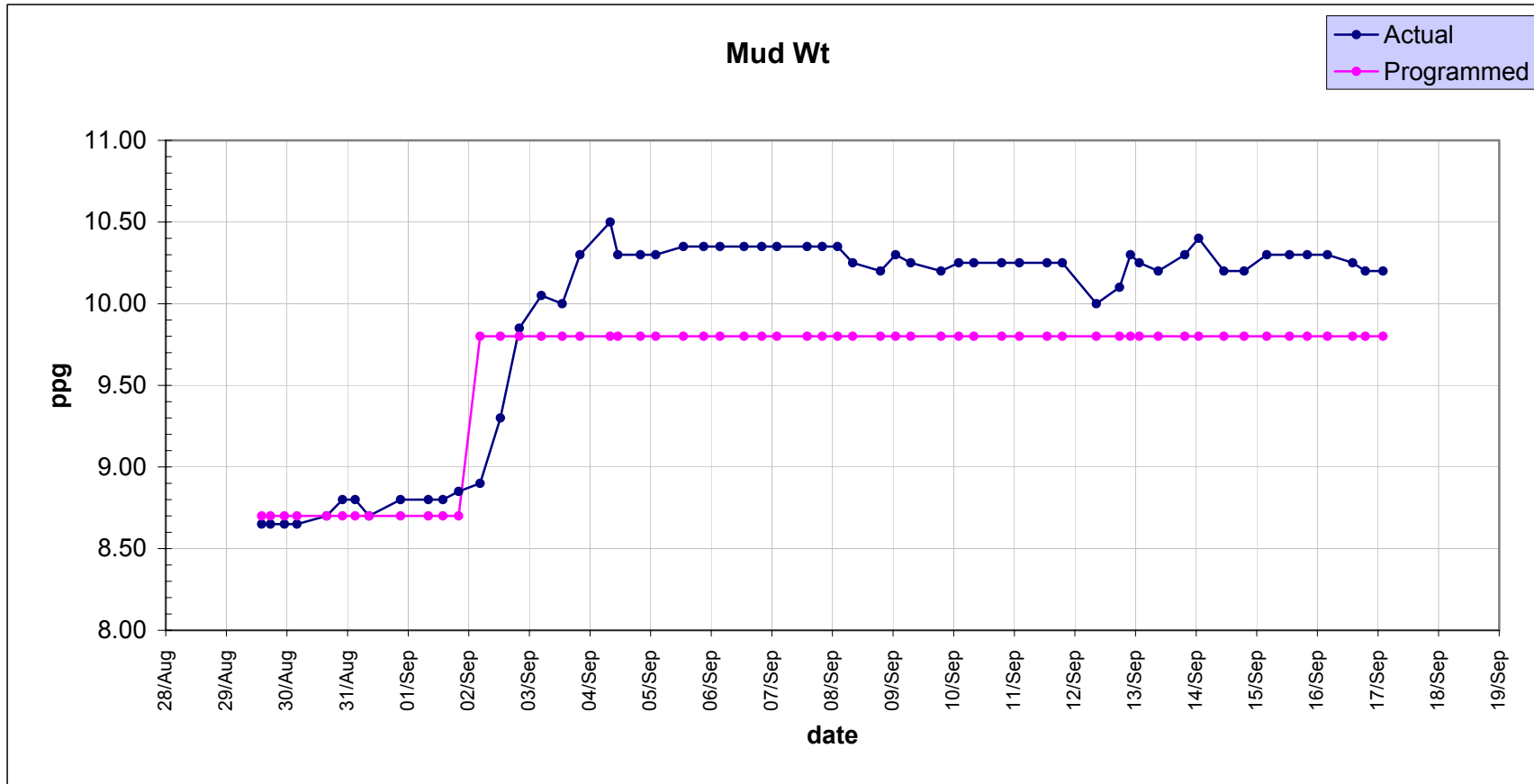


7.3 Graphs

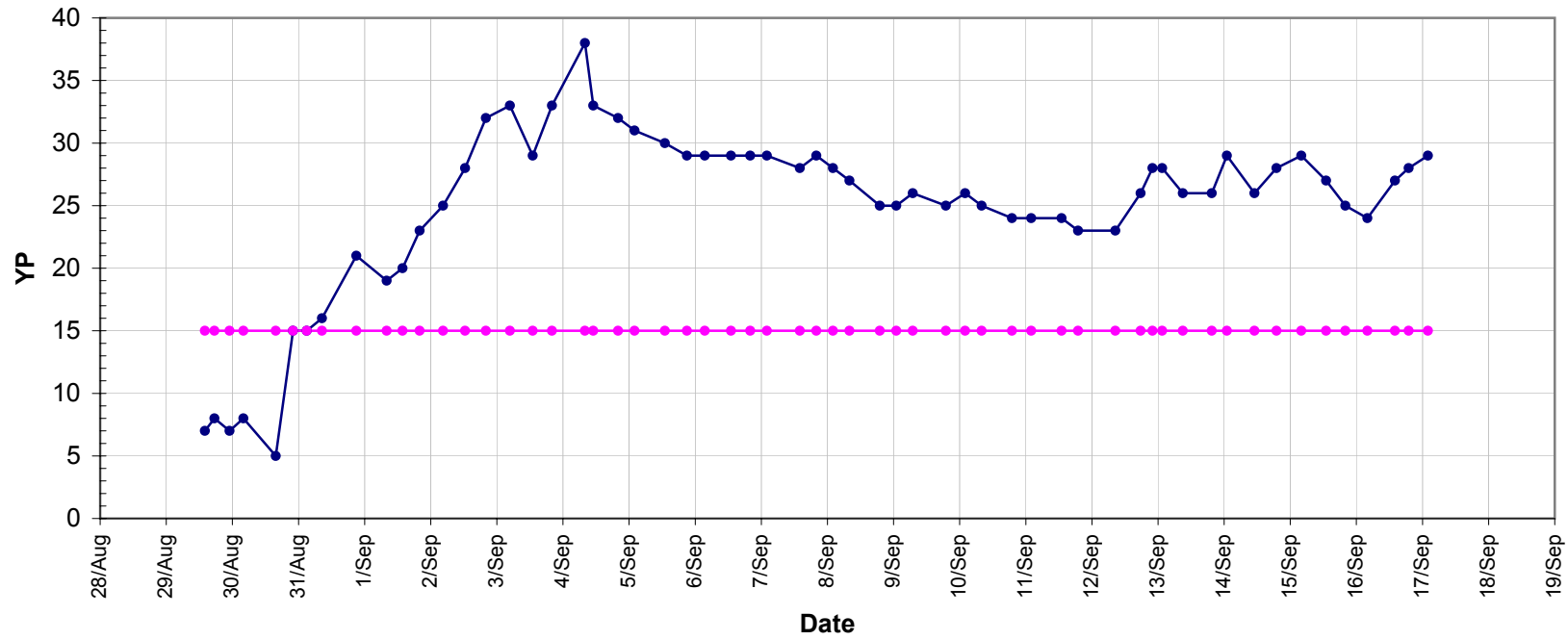
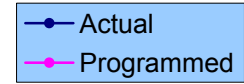
Santos Ltd.

Casino #1

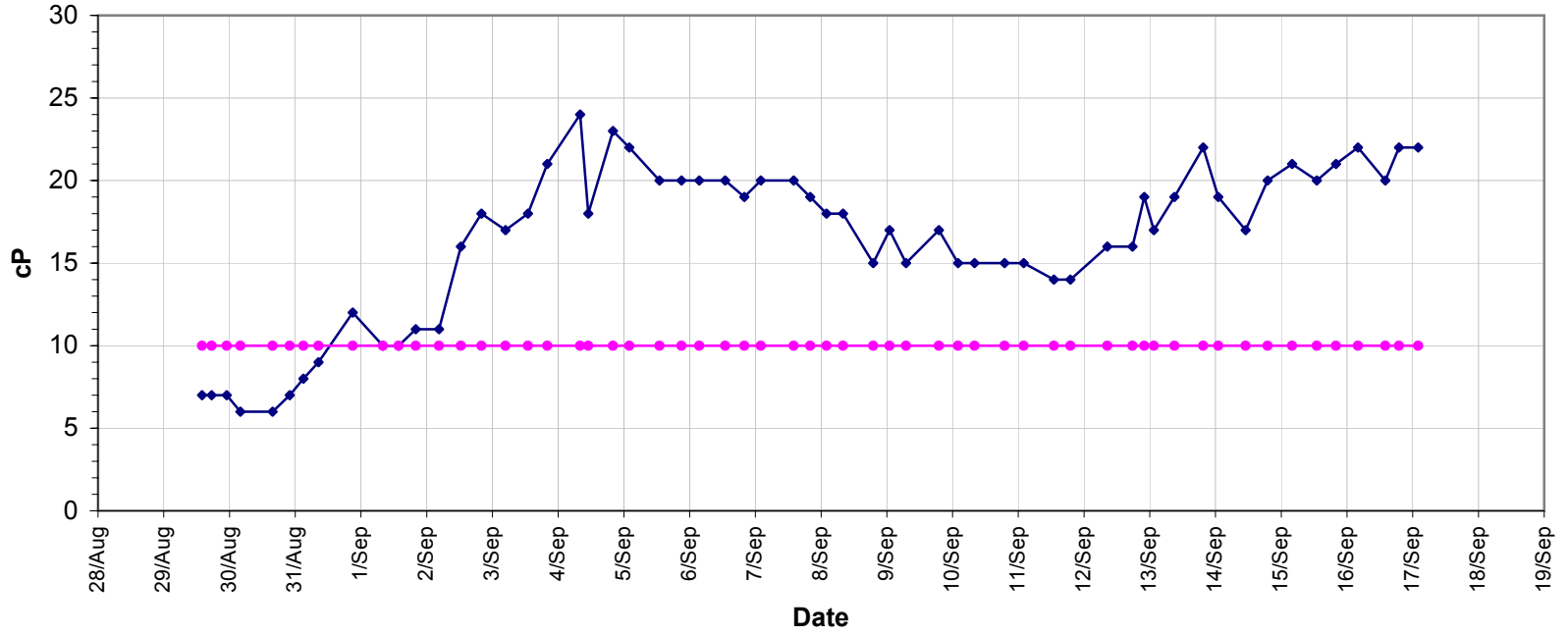
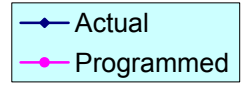




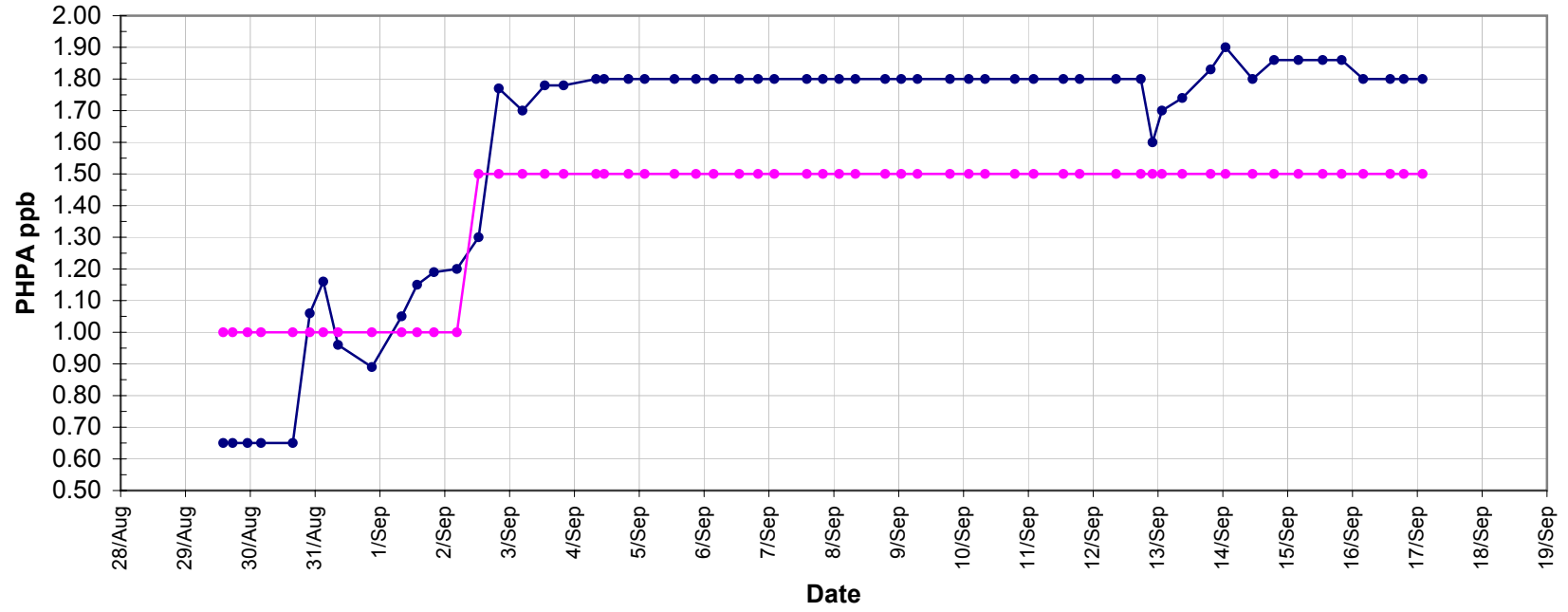
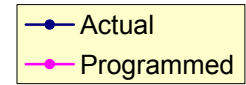
Yield Point



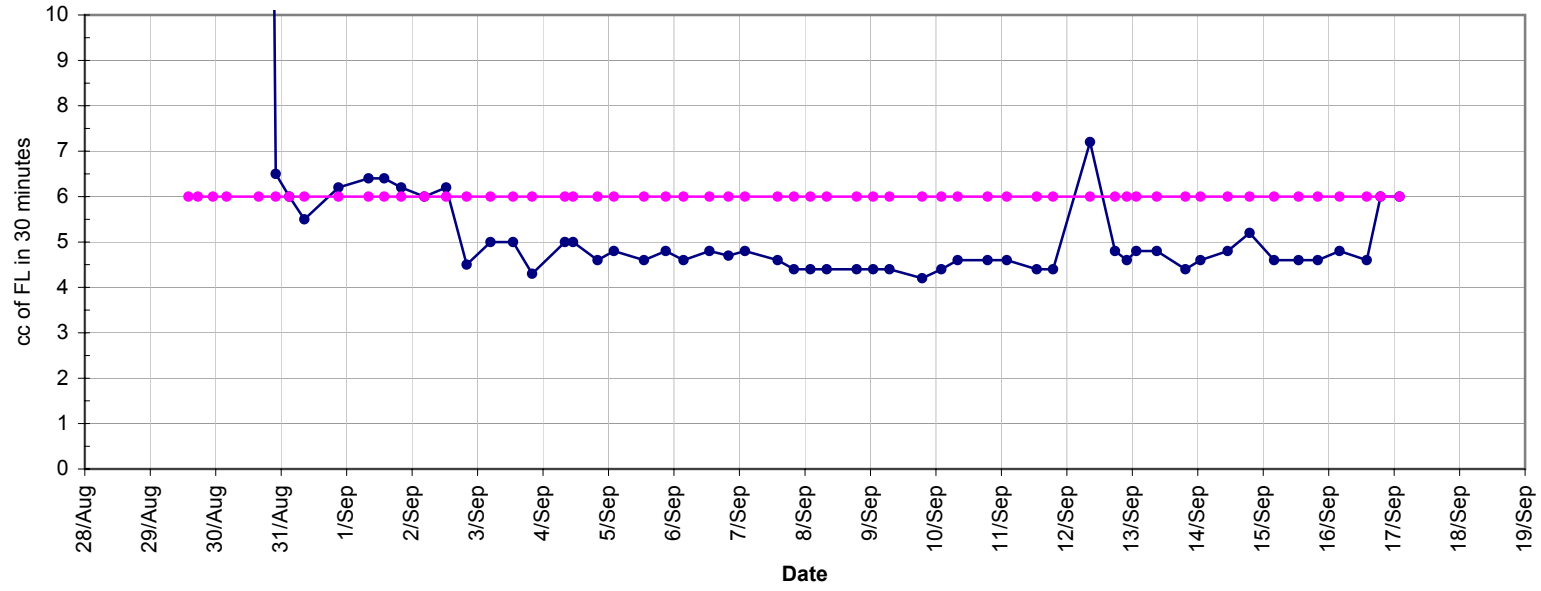
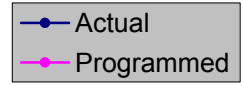
Plastic Viscosity



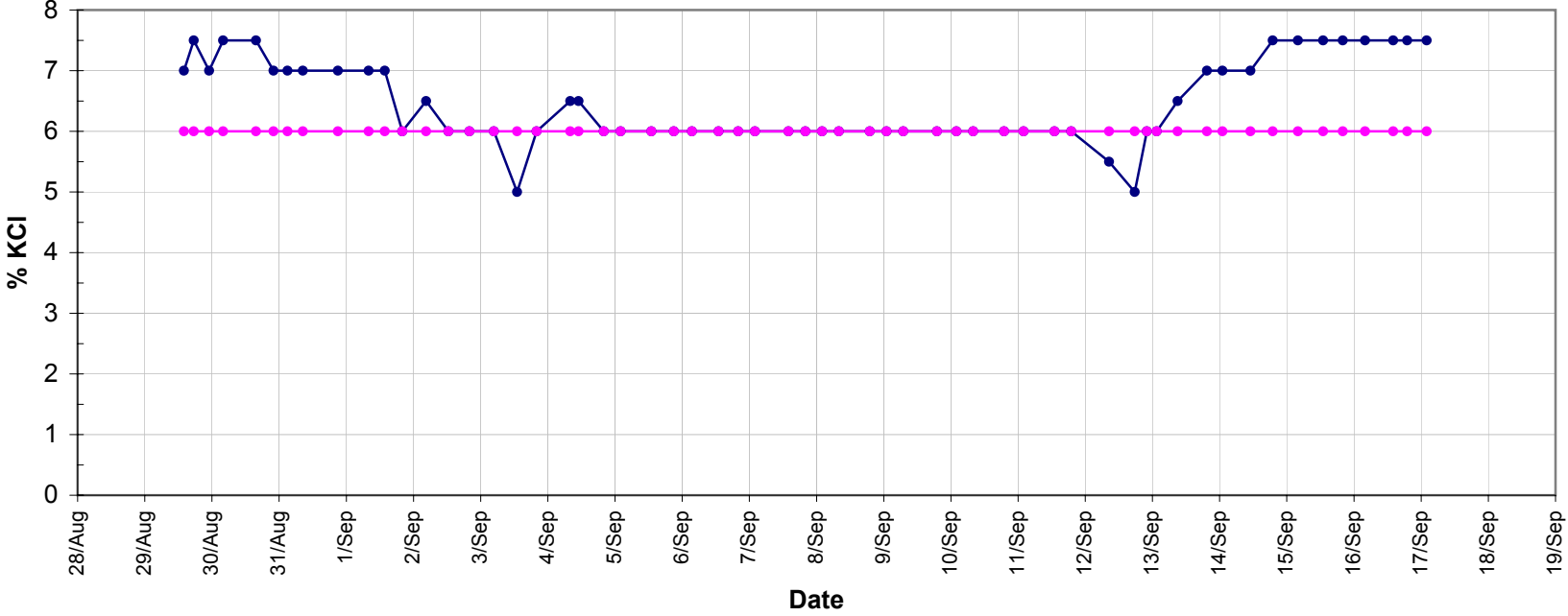
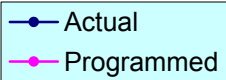
PHPA



API Fluid Loss



KCI



8. Bit Record

Operator : Santos Ltd.				Well : Casino 1				Contractor : DOGC				Supervisors : Henry Flink & Steve Hodgetts										Gavin Othen					
Spud Date : 25-Aug-02				TD Date : 14-Sep-02				Surface Csg : 30" & 20" @130m				Intermediate Csg : 13 3/8" @743m						Production Csg :									
Bit #	Size (in)	Make	Type	Jets (1/32)				Reason Pulled	Depth Out	Depth Drilled	Hours	Cumm Hours	Gauge	GPM	Mud Wt	n	Ø300	Annular Flow Properties						Jet Vel	HHP	HHP/ in ²	Impact Force
																		Drill Pipe	Q _{CRIT dp}	Flow	Drill Collars	Q _{CRIT dc}	Flow				
1	26.00	Varel	DSJC	18	18	18												5		Turbulen	9.5		Turbulent	370	525	1.0	1400
2	17.50	Smith	MGSSHC	20	20	20	18											5		Turbulen	9.5		Turbulent	275	337	1.4	1211
3	12.25	Hycalog	DSX195C,UW	12	12	12	12	12										5	859.4	Laminar	8.25	654	Laminar	349	340	2.9	961
4	12.25	Reed	EHP51HFKPRI	16	16	16												5	1039	Laminar	8.25	810	Laminar	209	78	0.7	367
5	12.25	Smith	10 GF	16	16	16												5	1128	Laminar	8.25	858	Turbulent	474	903	7.6	1883
6	12.25	Smith	MA74BPX	16	16	16	16	16										5	1222	Laminar	8.25	962	Laminar	221	207	1.8	928
7	12.25	Hughes	MXRO9D	16	16	16												5	1072	Laminar	8.25	876	Laminar	437	821	6.9	1856

HYDRAULICS

Date	Drilling Parameters												Fluid Properties						Annular Pressure Loss (If Laminar)				Annular Pressure Loss (If Turbulent)				Ann. Pressure losses	
	Bbl/Stk @ 100%	%Eff	Total Stks	GPM	Hole Size	Casing ID	D/C size	D/P size	Depth m	TVD m	Casing Depth m	Length D/C m	Mw ppg	rpm 600	rpm 300	n	k	k (dynes...)	LPr. Loss (dh-dc)	LPr loss (dcas-dc)	LPr loss (dh-dp)	LPr loss (dcas-dp)	Tu Pr loss (dh-dc)	Tu Pr loss (dcas-dc)	Tu pr loss (dh-dp)	Tu pr loss (dcas-dp)	Total Pressure loss	ppg ECD
	psi																		psi				psi					
25-Aug-02	0.1049	97	202	863	36.00		9.5	5	130	130		50	8.5	2	1	0.999	0.010	0.01					0.00		0.00		0.00	8.45
26-Aug-02	0.1049	97	220	940	17.50	25.6	9.5	5	220	220	130.0	142	8.5	2	1	0.999	0.010	0.01					0.17	0.01		0.01	0.18	8.50
27-Aug-02	0.1049	97	236	1009	17.50	25.6	9.5	5	715	715	130.0	142	8.5	2	1	0.999	0.010	0.01					0.30		0.33	0.01	0.64	8.51
28-Aug-02	0.1049	97	236	1009	17.50	25.6	9.5	5	752	752	130.0	142	8.5	2	1	0.999	0.010	0.01					0.30		0.36	0.01	0.67	8.51
30-Aug-02	0.1049	97	141	603	12.25	12.42	8.25	5	1016	1016	743.0	155	8.8	29	22	0.398	9.378	9.38	6.30		1.77	10.62					18.69	8.91
31-Aug-02	0.1049	97	90	385	12.25	12.515	8	5	1059	1059	743.0	182	8.8	44	33	0.415	12.693	12.69	8.06		2.39	12.32					22.76	8.93
1-Sep-02	0.1049	97	200	855	12.25	12.515	8	5	1400	1400	743.0	182	8.9	45	34	0.404	13.975	13.97	11.75		12.45	18.14					42.34	9.03
2-Sep-02	0.1049	97	200	855	12.25	12.515	8	5	1760	1760	743.0	182	9.9	68	50	0.443	16.095	16.09	16.30		29.31	24.21					69.83	10.08
3-Sep-02	0.1049	97	198	846	12.25	12.515	8	5	1797	1797	743.0	182	10.3	75	54	0.474	14.389	14.39	16.74		30.59	24.13					71.46	10.53
4-Sep-02	0.1049	97	178	761	12.25	12.515	8	5	1797	1797	743.0	182	10.3	78	55	0.504	12.148	12.15	15.43		27.44	21.59					64.46	10.46
12-Sep-02	0.104915	97	190	812	12.25	12.515	8	5	1804	1804	743.0	182	10.3	66	47	0.490	11.344	11.34	13.94		25.30	19.77					59.02	10.49
13-Sep-02	0.104915	97	191	816	12.25	12.515	8	5	2043	2041	743.0	182	10.3	70	48	0.544	8.248	8.25	13.10		28.78	17.60					59.47	10.47
14-Sep-02	0.104915	97	191	816	12.25	12.515	8	5	2118	2116	743.0	182	10.3	68	48	0.502	10.704	10.70	13.99		34.08	19.60					67.67	10.49

11. KEY POLYMER CONCENTRATIONS

Santos Ltd.

Casino 1

Date	Depth metres	Initial Vol bbls	Vol Addition bbls	Usage					Concentration ppb				
				PHPA (55 lb Sx)	PAC L (55 lb Sx)	Glychem (200 Lit Drums)	KCl (BB) 1 Tons	Xanthan Gum (55 lb Sx)	PHPA	PAC L	Glychem %	KCl %	Xanthan Gum
28-Aug-02	752	0	1355	16	21	32	13		0.65	0.85	2.97%	6.03%	0.00
29-Aug-02	752	1355	62				1	8	0.62	0.82	2.84%	6.21%	0.31
30-Aug-02	1016	1415	460	20	15	11	7	19	1.06	1.06	2.88%	7.03%	0.79
31-Aug-02	1059	1260	350	2	6	1	1	20	0.89	1.03	2.33%	5.89%	1.30
1-Sep-02	1260	1494	225	13		16	3	5	1.19	0.90	3.20%	6.22%	1.29
2-Sep-02	1533	1432	470	30	18	8	4	4	1.77	1.19	2.94%	6.01%	1.09
3-Sep-02	1797	1718	200	6	6	12	2		1.75	1.24	3.42%	6.03%	0.98
4-Sep-02	1797	1796	200	8	6		2		1.80	1.28	3.08%	6.06%	0.88
5-Sep-02	1797	1816	150				3		1.66	1.19	2.84%	6.56%	0.81
6-Sep-02	1797	1896			4				1.66	1.30	2.84%	6.56%	0.81
7-Sep-02	1797	1896							1.66	1.30	2.84%	6.56%	0.81
8-Sep-02	1797	1875	180		6		1	4	1.52	1.35	2.59%	6.29%	0.85
9-Sep-02	1797	2055							1.52	1.35	2.59%	6.29%	0.85
10-Sep-02	1797	2035	20					1	1.50	1.33	2.57%	6.23%	0.87
11-Sep-02	1797	2055		4					1.61	1.33	2.57%	6.23%	0.87
12-Sep-02	1804	2000	200	5	6		4	11	1.59	1.36	2.33%	6.80%	1.06
13-Sep-02	1920	1982	400	22	17		6	6	1.83	1.53	1.94%	7.24%	1.02
14-Sep-02	2118	2042	200	8	6		2		1.86	1.54	1.77%	7.16%	0.93

12. FIELD ENGINEERING LOG

Santos Ltd.

Previous Well:	Beardie 1 with Esso
Rig Release date of:	
Mud Engineer(s) on Rig Move:	1st Engineer: Mike Docherty 2nd Engineer: Jasdeep Singh
Dates of Rig Move:	23 Aug 02 , 24 Aug 02
Engineering Days on Rig Move:	4

Day #	Date	Engineer(s) Name
Day 1	25-Aug-02	Mike Docherty / Jasdeep Singh
Day 2	26-Aug-02	Mike Docherty / Jasdeep Singh
Day 3	27-Aug-02	Mike Docherty / Jasdeep Singh
Day 4	28-Aug-02	Mike Docherty / Jasdeep Singh
Day 5	29-Aug-02	Mike Docherty / Jasdeep Singh
Day 6	30-Aug-02	Mike Docherty / Jasdeep Singh
Day 7	31-Aug-02	Mike Docherty / Jasdeep Singh
Day 8	1-Sep-02	Mike Docherty / Jasdeep Singh
Day 9	2-Sep-02	Mike Docherty / Jasdeep Singh
Day 10	3-Sep-02	Mike Docherty / Jasdeep Singh
Day 11	4-Sep-02	Mike Docherty / Jasdeep Singh
Day 12	5-Sep-02	Mike Docherty / Jasdeep Singh
Day 13	6-Sep-02	Mike Docherty / Jasdeep Singh
Day 14	7-Sep-02	Mike Docherty / Jasdeep Singh
Day 15	8-Sep-02	Mike Docherty / Jasdeep Singh
Day 16	9-Sep-02	Mike Docherty / Jasdeep Singh
Day 17	10-Sep-02	Mike Docherty / Jasdeep Singh
Day 18	11-Sep-02	Mike Docherty / Jasdeep Singh
Day 19	12-Sep-02	Mike Docherty / Jasdeep Singh
Day 20	13-Sep-02	Mike Docherty / Jasdeep Singh
Day 21	14-Sep-02	Mike Docherty / Jasdeep Singh
Day 22	15-Sep-02	Mike Docherty / Jasdeep Singh
Day 23	16-Sep-02	Mike Docherty / Jasdeep Singh
Day 24	17-Sep-02	Mike Docherty / Jasdeep Singh
Day 25	18-Sep-02	Mike Docherty
Day 26	19-Sep-02	Mike Docherty
Day 27		
Day 28		
Day 29	Rig Release -	
TOTAL:		



INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	1	Date	25-Aug-02
Rig #	Ocean Bounty	Spud Date	25-Aug-02
Total MD	93	to	130
Total VD		to	130

OPERATOR	Santos Ltd.	CONTRACTOR	DOGC
REPORT FOR	Henry Flink & Steve Hodgetts	REPORT FOR	Pedro Johns & Ronnie Safar
WELL NAME AND No	Casino 1	FIELD	VIC - P - 44
		LOCATION	STATE
		Otway Basin	Victoria

BHA	BIT TYPE	JET SIZE	CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE 36	Varel DSJC	18 18 18 22 22 22	CONDUCTOR SET @	HOLE 141	PUMPS 6 x 12
DRILL PIPE SIZE 5	S	Length 130 Mtrs	SURFACE SET @	TOTAL CIRCULATING VOL. 1277	PUMP MODEL National 12-P-160
DRILL PIPE SIZE 5	TYPE HW	Length Mtrs	PROD. or LNR Set @	IN STORAGE 672	% EFFICIENCY 97
DRILL COLLAR SIZE ("") 8 1/4	9 1/2	Length Mtrs	MUD TYPES Gel Sweeps	BBL/STK 0.1018	STK / MIN 202
				BBL/MIN 20.56	GAL / MIN 863

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM	Pit	Pit	Pit	Mud Wt	1.03-1.0	Glycol	API
TIME SAMPLE TAKEN	17:00	17:00	20:30	Vis	100	Yield Point	pH
FLOWLINE TEMPERATURE	°F/°C			KCl	PHPA excess		Sulphites
TOTAL MEASURED DEPTH (TMD)	Feet	93	93	OBSERVATIONS			

WEIGHT	ppg / SG	8.60	1.03	8.55	1.03	8.80	1.06	Drill Water Analysis: Hardness 240 ppm; Cl 900 ppm
FUNNEL VISCOSITY(sec/qt) API @	°C °F	100	65	100		100		Pf/Mf 0.1/0.15, pH 7.7
RHEOLOGY 600 : 300 RPM	16 °C 60 °F	100	85	56	43	70	52	Sea Water analysis: Hardness: 3200 ppm; Cl 24200 ppm
RHEOLOGY 200 : 100 RPM	16 °C 60 °F	75	65	34	24	45	38	Pf/Mf 0.1/0.3, pH 8
RHEOLOGY 6 : 3 RPM	16 °C 60 °F	35	25	10	8	23	22	Prepare 230 bbls Guar Gum at 2 ppb.
PLASTIC VISCOSITY cP @	16 °C 60 °F	15	13	18		18		Prepare 1735 barrels of 25 ppb PHG and flocc with lime.
YIELD POINT (lb/100FT ²)	16 °C 60 °F	70	30	34		34		Prepare 300 barrels of 33 ppb PHG to fill hole at TD.
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.		15/18/20	4/6/7	23/26/28				
API FILTRATE (cm ³ /30 min.)		-	-	-		-		
HPHT FILTRATE (cm ³ /30 min.)	##### °C - °F	-	-	-		-		
API : HPHT (Cake/32nd in.)		-	-	-		-		

OPERATIONS SUMMARY			
PH	12.0	8.0	10.0
ALKALINITY MUD (Pm)			
ALKALINITY FILTRATE (Pf / Mf)	0.35	0.45	0.10 0.30 0.26 0.47
CHLORIDE (mg/L)	2400	24200	1600
TOTAL HARDNESS (mg/L)	60	3200	80
SULPHITE (mg/L)	-	-	-
PHPA (Calc ppb)			
GLYCOL CONTENT (% V/V)			
K+ (mg/L)			
KCL (% by Wt.)			
BARYTES (Calc ppb)			

MUD ACCOUNTING (BBLs)			
METHYLENE BLUE CAPACITY (ppb equivalent)	25.0	30.0	
SOLIDS CONTENT (% by volume) Retort	1.85	0.04	3.40
LIQUID CONTENT (% by volume) Calc	98.15	99.96	96.60
CUTTINGS OIL RATIO (% oil)			
SAND CONTENT (% by volume)	Nil	Nil	Nil

PRODUCT USAGE								SOLIDS CONTROL EQUIPMENT							
Product	Price	Start	Received	Damage	Used	Close	Cost	SHAPE SHAKERS	Hrs	#	Size	Hrs		Hrs	
Caustic Soda	\$ 36.60	33			8	25	\$ 292.80	# 1		Desander	3		Centrifuge		
Guar Gum	\$ 125.00	40			8	32	\$ 1,000.00	# 2		Desilter	20	2	Centrifuge		
Lime	\$ 7.80	108			8	100	\$ 62.40	# 3		Mud Cleaner 1			Degasser		
Trugel-13A Bulk	\$ 17.50	626	635		565	696	\$ 9,887.50	# 4		Mud Cleaner 2			Poorboy		
										Overflow (ppg)	Underflow (ppg)		Output (Gal/Min.)		
										Desander	0				
										Desilter	0				
										Cleaner 1	0				
										Cleaner 2	0				
										Centrifuge1					
										Centrifuge2					
										CURRENCY	DAILY COST		CUMULATIVE COST		
										AUD	\$11,242.70		\$11,242.70		

I.D.F.S. Engineer: M.Docherty & J. Singh Office: BRISBANE Telephone: 07 3806-0160 Fax: 07 3806-0165

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	1	Date	25-Aug-02
Rig #	Ocean Bounty	Spud Date	25-Aug-02
Total MD	93	to	130
Total VD		to	130

OPERATOR	Santos Ltd.	CONTRACTOR	DOGC
REPORT FOR	Henry Flink & Steve Hodgetts	REPORT FOR	Pedro Johns & Ronnie Safar
WELL NAME AND No	Casino 1	FIELD	VIC - P - 44
		LOCATION	STATE
		Otway Basin	Victoria

BHA	BIT TYPE	JET SIZE				CASING		MUD VOLUME (BBL)		CIRCULATION DATA						
BIT SIZE	Varel DSJC	18	18	18		CONDUCTOR SET @	ft	HOLE	PITS	PUMP SIZE		CIRCULATION				
36		22	22	22			m	141	1136	6	x	12	Inches	PRESS	923	psi
DRILL PIPE	Length					SURFACE SET @	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	% EFFICIENCY		BOTTOMS			
SIZE 5	S	130 Mtrs					m	1277		National 12-P-160	97		UP	7	min	
DRILL PIPE	TYPE					PROD. or LNR Set @	ft	IN STORAGE		BBL/STK	STK / MIN		SURFACE			
SIZE 5	HW						m	672		0.1018	202		TO BIT	0.4	min	
DRILL COLLAR SIZE (")	Length					MUD TYPES								TOTAL CIRC. TIME	95	min
8 1/4	9 1/2					Gel Sweeps										

MUD PROPERTIES

SAMPLE FROM	Pit	Pit	Pit	Mud Wt	1.03-1.0	Glycol	API					
TIME SAMPLE TAKEN	17:00	17:00	20:30	Vis	100	Yield Point	pH					
FLOWLINE TEMPERATURE	°F/°C			KCl	PHPA excess			Sulphites				
TOTAL MEASURED DEPTH (TMD)	Feet			93	93	130	OBSERVATIONS					
WEIGHT	ppg / SG			8.60	1.03	8.55	1.03	8.80	1.06	Drill Water Analysis: Hardness 240 ppm; Cl 900 ppm		
FUNNEL VISCOSITY(sec/qt) API @	°C °F			100	65			100	Pf/Mf 0.1/0.15, pH 7.7			
RHEOLOGY 600 : 300 RPM	16 °C 60 °F			100	85	56	43	70	52	Sea Water analysis: Hardness: 3200 ppm; Cl 24200 ppm		
RHEOLOGY 200 : 100 RPM	16 °C 60 °F			75	65	34	24	45	38	Pf/Mf 0.1/0.3, pH 8		
RHEOLOGY 6 : 3 RPM	16 °C 60 °F			35	25	10	8	23	22	Prepare 230 bbls Guar Gum at 2 ppb.		
PLASTIC VISCOSITY cP @	16 °C 60 °F			15	13			18	Prepare 1735 barrels of 25 ppb PHG and flocc with lime.			
YIELD POINT (lb/100FT ²)	16 °C 60 °F			70	30			34	Prepare 300 barrels of 33 ppb PHG to fill hole at TD.			
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.				15/18/20	4/6/7			23/26/28				
API FILTRATE (cm ³ /30 min.)				-				-				
HPHT FILTRATE (cm ³ /30 min.)	##### °C - °F			-				-				
API : HPHT (Cake/32nd in.)				-				-				

OPERATIONS SUMMARY

PH	12.0	8.0	10.0	Run anchors.			
ALKALINITY MUD (Pm)	Make up bit and BHA.						
ALKALINITY FILTRATE (Pf / Mf)	0.35	0.45	0.10	0.30	0.26	0.47	RIH. Spud well at 1830 hrs.
CHLORIDE (mg/L)	2400	24200	1600	Drill 36" hole to 34m sweeping hole with 6 x 50 bbl sweeps.			
TOTAL HARDNESS (mg/L)	60	3200	80	Spot 160 barrels of unflocc gel mud in hole.			
SULPHITE (mg/L)	-	-	-	POOH			
PHPA (Calc ppb)							
GLYCOL CONTENT (% V/V)							
K+ (mg/L)							
KCL (% by Wt.)							

MUD ACCOUNTING (BBLs)

METHYLENE BLUE CAPACITY (ppb equivalent)	25.0	30.0	FLUID BUILT	FLUID DISPOSED	SUMMARY	
SOLIDS CONTENT (% by volume) Retort	1.85	0.04	3.40	Premix - Water	### S.C.E	INITIAL
LIQUID CONTENT (% by volume) Calc	98.15	99.96	96.60	Premix - Recyc	Dumped	+ Rcd 2,265
CUTTINGS OIL RATIO (% oil)				Drill Water	Downhole	316 - Lost 316
SAND CONTENT (% by volume)	Nil	Nil	Nil	Other	Other	Surface 1,808
			RECEIVED	### LOST	316 FINAL	1,949

PRODUCT USAGE

Product	Price	Start	Received	Damage	Used	Close	Cost	SOLIDS CONTROL EQUIPMENT							
Caustic Soda	\$ 36.60	33			8	25	\$ 292.80	SHAPE SHAKERS	Hrs	#	Size	Hrs			
Guar Gum	\$ 125.00	40			8	32	\$ 1,000.00	# 1		Desander	3		Centrifuge		
Lime	\$ 7.80	108			8	100	\$ 62.40	# 2		Desilter	20	2	Centrifuge		
Trugel-13A Bulk	\$ 17.50	626	635		565	696	\$ 9,887.50	# 3		Mud Cleaner 1			Degasser		
								# 4		Mud Cleaner 2			Poorboy		
										Overflow (ppg)	Underflow (ppg)		Output (Gal/Min.)		
										Desander	0				
										Desilter	0				
										Cleaner 1	0				
										Cleaner 2	0				
										Centrifuge1					
										Centrifuge2					
								CURRENCY	DAILY COST		CUMULATIVE COST				
								AUD	\$11,242.70		\$11,242.70				

I.D.F.S. Engineer: M.Docherty & J. Singh Office: BRISBANE Telephone: 07 3806-0160 Fax: 07 3806-0165

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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	2	Date	26-Aug-02
Rig #	Ocean Bounty	Spud Date	25-Aug-02
Total MD	130	to	220
Total VD	130	to	220

OPERATOR	Santos Ltd.	CONTRACTOR	DOGC
REPORT FOR	Henry Flink & Steve Hodgetts	REPORT FOR	Pedro Johns & Ronnie Safar
WELL NAME AND No	Casino 1	FIELD	VIC - P - 44
		LOCATION	STATE Otway Basin Victoria

BHA	BIT TYPE	JET SIZE				CASING				MUD VOLUME (BBL)				CIRCULATION DATA			
BIT SIZE 17 1/2	SMITH MGSSHC	18	20	20		20" & CONDUCTOR 30" SET @	427	ft	HOLE		PITS		PUMP SIZE 6 x 12 Inches		CIRCULATION PRESS 1860 psi		
DRILL PIPE SIZE 5	S	Length 32 Mtrs				SURFACE SET @				TOTAL CIRCULATING VOL. 1311				PUMP MODEL National 12-P-160		% EFFICIENCY 97	
DRILL PIPE SIZE 5	TYPE HW	Length 111 Mtrs				PROD. or LNR Set @				IN STORAGE 1370				BBL/STK 0.1018		STK / MIN 220	
DRILL COLLAR SIZE ("") 8 1/4	9 1/2	103	39	Mtrs		MUD TYPES Gel Sweeps				BBL/MIN 22.40				GAL / MIN 941		TOTAL CIRC. TIME 120 min	

MUD PROPERTIES	MUD PROPERTY SPECIFICATIONS
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SAMPLE FROM	Pit	Pit	Pit	Mud Wt	1.03-1.0	Glycol	API
TIME SAMPLE TAKEN	08:00	18:00	23:30	Vis	100	Yield Point	pH
FLOWLINE TEMPERATURE	°F/°C			KCl	PHPA excess Sulphites		
TOTAL MEASURED DEPTH (TMD)	Feet	130	130	OBSERVATIONS			
WEIGHT	ppg / SG	8.80	1.06	8.55	1.03	8.80	1.06
FUNNEL VISCOSITY(sec/qt) API @	°C °F	135	60	130	Build surface mud volume to max with 25 ppg PHG.		
RHEOLOGY 600 : 300 RPM	16 °C 60 °F	91	74	53	38	90	72
RHEOLOGY 200 : 100 RPM	16 °C 60 °F	65	57	31	22	62	55
RHEOLOGY 6 : 3 RPM	16 °C 60 °F	41	38	5	3	40	35
PLASTIC VISCOSITY cP @	16 °C 60 °F	17	15	18	Pumped two sweeps of 30 bbl each of Guar Gum while drilling shoe track. Finally hole swepted with 50 bbl Gel.		
YIELD POINT (lb/100FT ²)	16 °C 60 °F	57	23	54	Pumping 2 x 50 bbls 2ppb Guar Gum sweeps and 50 bbls of 25 ppb flocculated PHG per stand.		
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.		42/44/45	3/3/3	40/42/44	Replenish surface volume.		
API FILTRATE (cm ³ /30 min.)							
HPHT FILTRATE (cm ³ /30 min.)	°C °F						
API : HPHT (Cake/32nd in.)							

OPERATIONS SUMMARY

PH	11.5	7.5	11.5	Rig up and run 20" x 30" casing. Fill with seawater at sea level. Stab into 36" hole and RIH to settling depth.			
ALKALINITY MUD (Pm)				Move rig to correct angle. Circulate 130 bbls seawater.			
ALKALINITY FILTRATE (Pf / Mf)	0.60	0.80	0.15	0.35	0.60	0.80	Good returns. Conduct cement job with good returns. WOC.
CHLORIDE (mg/L)	1600	21000	1500	Release 30" RT and L/O. L/O cement stinger and 36" BHA.			
TOTAL HARDNESS (mg/L)	40	3600	60	M/U 17.5" BHA and RIH to 112m. Pick up stands while waiting on casing. Drill out cement, and Drill 17.5" hole with seawater using gel and Guar Gum sweeps.			
SULPHITE (mg/L)							
PHPA (Calc ppb)							
GLYCOL CONTENT (% V/V)							
K+ (mg/L)							
KCL (% by Wt.)							
BARYTES (Calc ppb)							

MUD ACCOUNTING (BBLs)

METHYLENE BLUE CAPACITY (ppb equivalent)	25.0	25.0	FLUID BUILT		FLUID DISPOSED		SUMMARY	
SOLIDS CONTENT (% by volume) Retort	3.40	0.25	3.41	Premix - Water	###	S.C.E	INITIAL	1949
LIQUID CONTENT (% by volume) Calc	96.60	99.75	96.59	Premix - Recyc		Dumped	+ Rcd	1,050
CUTTINGS OIL RATIO (% oil)				Drill Water		Downhole	318	- Lost 318
SAND CONTENT (% by volume)	Nil	Nil	Nil	Other		Other	Surface	2,576
				RECEIVED	###	LOST	318	FINAL 2,681

PRODUCT USAGE	SOLIDS CONTROL EQUIPMENT
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Product	Price	Start	Received	Damage	Used	Close	Cost	SOLIDS CONTROL EQUIPMENT							
Caustic Soda	\$ 36.60	25			2	23	\$ 73.20	SHALES SHAKERS	Hrs	#	Size	Hrs			
Guar Gum	\$ 125.00	32			12	20	\$ 1,500.00	# 1		Desander	3		Centrifuge		
Lime	\$ 7.80	100			4	96	\$ 31.20	# 2		Desilter	20	2	Centrifuge		
Trugel-13A Bulk	\$ 17.50	696	740		180	1256	\$ 3,150.00	# 3		Mud Cleaner 1			Degasser		
								# 4		Mud Cleaner 2			Poorboy		
										Overflow (ppg)	Underflow (ppg)		Output (Gal/Min.)		
										Desander	0				
										Desilter	0				
										Cleaner 1	0				
										Cleaner 2	0				
										Centrifuge1					
										Centrifuge2					
										CURRENCY		DAILY COST		CUMULATIVE COST	
										AUD		\$4,754.40		\$15,997.10	

I.D.F.S. Engineer: M.Docherty & J. Singh Office: BRISBANE Telephone: 07 3806-0160 Fax: 07 3806-0165

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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	3	Date	27-Aug-02
Rig #	Ocean Bounty	Spud Date	25-Aug-02
Total MD	220	to	713
Total VD	220	to	713

OPERATOR	Santos Ltd.	CONTRACTOR	DOGC
REPORT FOR	Henry Flink & Steve Hodgetts	REPORT FOR	Pedro Johns & Ronnie Safar
WELL NAME AND No	Casino 1	FIELD	VIC - P - 44
		LOCATION	STATE
		Otway Basin	Victoria

BHA	BIT TYPE	JET SIZE	CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE 17 1/2	SMITH MGSSHC	18 20 20	20" & CONDUCTOR 30" SET @ 427 ft 130 m	HOLE 555 PITS 1410	PUMP SIZE 6 x 12 Inches CIRCULATION PRESS 2450 psi
DRILL PIPE SIZE 5	S	Length 461 Mtrs	SURFACE SET @ ft m	TOTAL CIRCULATING VOL. 1965	PUMP MODEL National 12-P-160 % EFFICIENCY 97 BOTTOMS UP 22 min
DRILL PIPE SIZE 5	TYPE HW	Length 111 Mtrs	PROD. or LNR Set @ ft m	IN STORAGE 1125	BBL/STK 0.1018 STK / MIN 235 SURFACE TO BIT 1.4 min
DRILL COLLAR SIZE (") 8 1/4	9 1/2	Length 103 39 Mtrs	MUD TYPES Gel Sweeps		BBL/MIN 23.92 GAL / MIN 1005 TOTAL CIRC. TIME 129 min

MUD PROPERTIES

SAMPLE FROM	Pit	Pit	Pit	Mud Wt	1.03-1.0	Glycol	API
TIME SAMPLE TAKEN	04:00	13:00	22:30	Vis	100	Yield Point	pH
FLOWLINE TEMPERATURE	°F/°C			KCl	PHPA excess Sulphites		
TOTAL MEASURED DEPTH (TMD)	356	556	675	OBSERVATIONS			
WEIGHT	8.80	1.06	8.55	1.03	8.80	1.06	Built 2 ppb Guar Gum premixes to use for sweeps.
FUNNEL VISCOSITY(sec/qt) API @	110	67	90	Consumed all Guar Gum on board at 22:00 hrs.			
RHEOLOGY 600 : 300 RPM	85	69	65	50	85	73	Pumping 50 bbl Gel sweeps on connections, to spot around BHA. Replenish volume with 25 ppb PHG flocculated with Lime.
RHEOLOGY 200 : 100 RPM	56	50	43	33	68	60	Prepare 700 barrels of unflocculated PHG mud to use to displace the hole at casing point.
RHEOLOGY 6 : 3 RPM	38	34	10	8	30	18	
PLASTIC VISCOSITY cP @	16	15	12				
YIELD POINT (lb/100FT ²)	53	35	61				
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.	37/39/40	7/7/5	15/17/19				
API FILTRATE (cm ³ /30 min.)							
HPHT FILTRATE (cm ³ /30 min.)							
API : HPHT (Cake/32nd in.)							

OPERATIONS SUMMARY

PH	12.0	8.0	12.0	Drill 17.5" hole with seawater and pumping 2 ppb Guar Gum and 25 ppb Gel sweeps every 10 m.			
ALKALINITY MUD (Pm)							
ALKALINITY FILTRATE (Pf / Mf)	0.65	0.80	0.15	0.30	0.60	0.90	
CHLORIDE (mg/L)	1600	24000	1700				
TOTAL HARDNESS (mg/L)	40	3400	60				
SULPHITE (mg/L)							
PHPA (Calc ppb)							
GLYCOL CONTENT (% V/V)							
K+ (mg/L)							
KCL (% by Wt.)							
BARYTES (Calc ppb)							

MUD ACCOUNTING (BBLs)

METHYLENE BLUE CAPACITY (ppb equivalent)	25.0	25.0	FLUID BUILT	FLUID DISPOSED	SUMMARY
SOLIDS CONTENT (% by volume) Retort	3.40	0.05	3.39	Premix - Water	### S.C.E INITIAL 2681
LIQUID CONTENT (% by volume) Calc	96.60	99.95	96.61	Premix - Recyc	Dumped + Rcd 2,230
CUTTINGS OIL RATIO (% oil)					
SAND CONTENT (% by volume)	Nil	Nil	Nil	Drill Water	Downhole 1821 - Lost 1,821
				Other	Other Surface 2,535
				RECEIVED	### LOST 1821 FINAL 3,090

PRODUCT USAGE

Product	Price	Start	Received	Damage	Used	Close	Cost	SOLIDS CONTROL EQUIPMENT							
Caustic Soda	\$ 36.60	23			4	19	\$ 146.40	SHALES SHAKERS	Hrs	#	Size	Hrs			
Guar Gum	\$ 125.00	20	40		60		\$ 7,500.00	# 1	4 x 84	Desander	3		Centrifuge		
Lime	\$ 7.80	96			13	83	\$ 101.40	# 2	4 x 84	Desilter	20	2	Centrifuge		
Trugel-13A Bulk	\$ 17.50	###			208	1048	\$ 3,640.00	# 3	4 x 84	Mud Cleaner 1			Degasser		
								# 4	4 x 84	Mud Cleaner 2			Poorboy		
								Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)			
								Desander		0					
								Desilter		0					
								Cleaner 1		0					
								Cleaner 2		0					
								Centrifuge1							
								Centrifuge2							
								CURRENCY		DAILY COST		CUMULATIVE COST			
								AUD		\$11,387.80		\$27,384.90			

I.D.F.S. Engineer: M.Docherty & J. Singh Office: BRISBANE Telephone: 07 3806-0160 Fax: 07 3806-0165

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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	4	Date	28-Aug-02
Rig #	Ocean Bounty	Spud Date	25-Aug-02
Total MD	713	to	752
Total VD	713	to	752

OPERATOR Santos Ltd.	CONTRACTOR DOGC
REPORT FOR Henry Flink & Steve Hodgetts	REPORT FOR Pedro Johns & Ronnie Safar
WELL NAME AND No Casino 1	FIELD VIC - P - 44
	LOCATION Otway Basin
	STATE Victoria

BHA	BIT TYPE	JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE 12 1/4		1		20" & CONDUCTOR 30" SET @	427 ft 130 m	HOLE 320	PITS	PUMP SIZE 6 x 12 Inches		CIRCULATION PRESS psi
DRILL PIPE SIZE		Length 752 Mtrs		13 3/8 SURFACE SET @	2438 ft 743 m	TOTAL CIRCULATING VOL. 320		PUMP MODEL National 12-P-160	% EFFICIENCY 97	BOTTOMS UP min
DRILL PIPE SIZE	TYPE HW	Length Mtrs		PROD. or LNR Set @	ft m	IN STORAGE 782		BBL/STK 0.1018	STK / MIN	SURFACE TO BIT min
DRILL COLLAR SIZE ("") 8 1/4		Length Mtrs		MUD TYPES Gel Sweeps				BBL/MIN	GAL / MIN	TOTAL CIRC. TIME min

MUD PROPERTIES						MUD PROPERTY SPECIFICATIONS						
SAMPLE FROM						Pit	Pit	Pit	Mud Wt	1.03-1.0	Glycol	API
TIME SAMPLE TAKEN						04:00	14:00	22:00	Vis	100	Yield Point	pH
FLOWLINE TEMPERATURE						°F/°C			KCl		PHPA excess	Sulphites
TOTAL MEASURED DEPTH (TMD)						Feet	752	752	752	OBSERVATIONS		

WEIGHT	ppg / SG	8.80	1.06	8.80	1.06	8.65	1.04	Prepare 850 bbls of 35 ppb PHG mud utilising the PHG mud from reserve pits. Gel usage to correct inventory as per Ballast Control. Start preparing mud for next section, with 0.15 ppb Soda Ash, 0.8 ppb PAC-LV, 20ppb KCl, 0.6 ppb PHPA, and 3% Glychem			
FUNNEL VISCOSITY(sec/qt) API @	°C °F	120		85		38					
RHEOLOGY 600 : 300 RPM	16 °C 60 °F	58	45	61	51	16	9				
RHEOLOGY 200 : 100 RPM	16 °C 60 °F	33	27	47	41	7	4				
RHEOLOGY 6 : 3 RPM	16 °C 60 °F	22	21	27	11	1	1				
PLASTIC VISCOSITY cP @	16 °C 60 °F	13		10		7					
YIELD POINT (lb/100FT ²)	16 °C 60 °F	32		41		2					
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.		22/25/26		10/10/12		1/1/1					
API FILTRATE (cm ³ /30 min.)											
HPHT FILTRATE (cm ³ /30 min.)	°C °F										

OPERATIONS SUMMARY											
PH	10.0	12.0	10.0	Drill 17.5" hole to 752m. Circulate 150 barrel sweep.							
ALKALINITY MUD (Pm)				Circulate with seawater. Spot 750 bbls unflocculated PHG mud in the hole. POOH. 0 - 40K drag from 628 - 425 m.							
ALKALINITY FILTRATE (Pf / Mf)	0.40	0.65	0.58	1.58	0.24	0.88	Rig up and run 13 3/8" casing filling each joint with PHG.				
CHLORIDE (mg/L)	1600	2300	28000	M/U wellhead assembly. Land wellhead. 50K overpull.							
TOTAL HARDNESS (mg/L)	60	60	720	Displace casing with 560 bbls PHG. Conduct cement job.							
SULPHITE (mg/L)				Displace with seawater. P/T casing 3000 psi and check float							
PHPA (Calc ppb)			0.7	holding. B/O, L/O cement head. POOH wellhead and R/T,							
GLYCOL CONTENT (% V/V)			3.0	and L/O. Prepare floor and rig to run BOPs.							
K+ (mg/L)			37800								
KCL (% by Wt.)			7.0								

MUD ACCOUNTING (BBLs)											
METHYLENE BLUE CAPACITY (ppb equivalent)	33.0	22.5	FLUID BUILT		FLUID DISPOSED		SUMMARY				
SOLIDS CONTENT (% by volume) Retort	3.40	3.35	0.55	Premix - Water	782	S.C.E		INITIAL	3090		
LIQUID CONTENT (% by volume) Calc	96.60	96.65	99.45	Premix - Recyc		Dumped	380	+ Rcd	1,102		
CUTTINGS OIL RATIO (% oil)				Drill Water	320	Downhole	2710	- Lost	3,090		
SAND CONTENT (% by volume)	Nil	Nil	Nil	Other		Other		Surface	782		
				RECEIVED	###	LOST	3090	FINAL	1,102		

PRODUCT USAGE								SOLIDS CONTROL EQUIPMENT								
Product	Price	Start	Received	Damage	Used	Close	Cost	SHALES SHAKERS	Hrs	#	Size	Hrs				
Glychem MC	\$ 590.00	32			20	12	\$ 11,800.00	# 1	4 x 84	Desander	3		Centrifuge			
JK-261	\$ 109.70	108			10	98	\$ 1,097.00	# 2	4 x 84	Desilter	20	2	Centrifuge			
KCl BB Fine	\$ 650.00	19			8	11	\$ 5,200.00	# 3	4 x 84	Mud Cleaner 1			Degasser			
Lime	\$ 7.80	83			3	80	\$ 23.40	# 4	4 x 84	Mud Cleaner 2			Poorboy			
PAC-L	\$ 168.00	40			13	27	\$ 2,184.00			Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)				
Soda Ash	\$ 13.56	48			2	46	\$ 27.12	Desander				0				
Trugel-13A Bulk	\$ 17.50	###			378	670	\$ 6,615.00	Desilter				0				
								Cleaner 1				0				
								Cleaner 2				0				
								Centrifuge1								
								Centrifuge2								
								CURRENCY		DAILY COST		CUMULATIVE COST				
								AUD		\$26,946.52		\$54,331.42				

I.D.F.S. Engineer: **M.Docherty & J. Singh** Office: **BRISBANE** Telephone: **07 3806-0160** Fax: **07 3806-0165**

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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	5	Date	29-Aug-02
Rig #	Ocean Bountey	Spud Date	25-Aug-02
Total MD	752	to	752
Total VD	752	to	752

OPERATOR	Santos Ltd.	CONTRACTOR	DOGC
REPORT FOR	Henry Flink & Steve Hodgetts	REPORT FOR	Pedro Johns & Ronnie Safar
WELL NAME AND No	Casino 1	FIELD	VIC - P - 44
		LOCATION	STATE Otway Basin Victoria

BHA	BIT TYPE	JET SIZE	CASING				MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE 12 1/4		1	20" & CONDUCTOR 30" SET @	427 130	ft m	HOLE 446	PITS 1392	PUMP SIZE 6 x 12 Inches		CIRCULATION PRESS psi		
DRILL PIPE SIZE		Length	13 3/8 SURFACE SET @	2438 743	ft m	TOTAL CIRCULATING VOL. 1838		PUMP MODEL National 12-P-160	% EFFICIENCY 97	BOTTOMS UP min		
DRILL PIPE SIZE	TYPE HW	Length	PROD. or LNR Set @		ft m	IN STORAGE 120		BBL/STK 0.1018	STK / MIN	SURFACE TO BIT min		
DRILL COLLAR SIZE ("") 8 1/4		Length	MUD TYPES KCI/PHPA/Glycol				BBL/MIN		GAL / MIN	TOTAL CIRC. TIME min		

MUD PROPERTIES						MUD PROPERTY SPECIFICATIONS					
SAMPLE FROM		Pit	Pit	Pit		Mud Wt	1.1-1.3	Glycol	3 - 5%	API	6.0
TIME SAMPLE TAKEN		14:00	17:30	23:00		Vis	45-55	Yield Point	15	pH	9-10
FLOWLINE TEMPERATURE		°F/°C				KCI	6-8	PHPA excess	1-1.5	Sulphites	>100
TOTAL MEASURED DEPTH (TMD)		Feet	752	752	752	OBSERVATIONS					

WEIGHT	ppg / SG	8.65	1.04	8.65	1.04	8.65	1.04	Complete mixing of new mud and blend. Total 1392 bbls.			
FUNNEL VISCOSITY(sec/qt) API @	°C °F	40	39	40	Prepare 120 barrels high viscosity sweep, with 1.5 ppb Xanthan Gum.						
RHEOLOGY 600 : 300 RPM	16 °C 60 °F	21	14	22	15	21	14				
RHEOLOGY 200 : 100 RPM	16 °C 60 °F	10	7	10	7	10	7				
RHEOLOGY 6 : 3 RPM	16 °C 60 °F	2	1	2	1	2	1				
PLASTIC VISCOSITY cP @	16 °C 60 °F	7	7	7							
YIELD POINT (lb/100FT ²)	16 °C 60 °F	7	8	7							
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.		2/2/2	2/2/2	2/2/2							
API FILTRATE (cm ³ /30 min.)											
HPHT FILTRATE (cm ³ /30 min.)	°C °F										
API : HPHT (Cake/32nd in.)											

OPERATIONS SUMMARY											
PH		9.5	9.5	9.5	M/U riser and move BOPs in to run position, M/U LMPCR to BOPs. Function test. Run BOPs and marine riser.						
ALKALINITY MUD (Pm)					Pressure test Choke and kill lines. Centralise rig.						
ALKALINITY FILTRATE (Pf / Mf)		0.14	0.80	0.15	0.80	0.15	0.80	Latch BOPs. Install diverter and run wear bushing.			
CHLORIDE (mg/L)		23000	23000	23000	Pressure and function test BOPs.						
TOTAL HARDNESS (mg/L)		460	480	440	B/O. L/O cement head assembly and 17.5" BHA.						
SULPHITE (mg/L)											
PHPA (Calc ppb)		0.7	0.7	0.7							
GLYCOL CONTENT (% V/V)		3.0	3.0	3.0							
K+ (mg/L)		37800	40500	37800							
KCL (% by Wt.)		7.0	7.5	7.0							

MUD ACCOUNTING (BBLs)											
METHYLENE BLUE CAPACITY (ppb equivalent)					FLUID BUILT		FLUID DISPOSED		SUMMARY		
SOLIDS CONTENT (% by volume) Retort		0.88	0.88	0.88	Premix - Water	755	S.C.E		INITIAL	1102	
LIQUID CONTENT (% by volume) Calc		99.12	99.12	99.12	Premix - Recyc		Dumped		+ Rcd	855	
CUTTINGS OIL RATIO (% oil)					Drill Water	100	Downhole	0	- Lost	0	
SAND CONTENT (% by volume)		Nil	Nil	Nil	Other		Other		Surface	1,512	
					RECEIVED	855	LOST	0	FINAL	1,958	

PRODUCT USAGE								SOLIDS CONTROL EQUIPMENT							
Product	Price	Start	Received	Damage	Used	Close	Cost	SHALE SHAKERS	Hrs	#	Size	Hrs		Hrs	
Glychem MC	\$ 590.00	12	48		12	48	\$ 7,080.00	# 1	4 x 84	Desander	3		Centrifuge		
JK-261	\$ 109.70	98			6	92	\$ 658.20	# 2	4 x 84	Desilter	20	2	Centrifuge		
KCI BB Fine	\$ 650.00	11	21		6	26	\$ 3,900.00	# 3	4 x 84	Mud Cleaner 1			Degasser		
PAC-L	\$ 168.00	27	80		8	99	\$ 1,344.00	# 4	4 x 84	Mud Cleaner 2			Poorboy		
Xanthan Gum P	\$ 411.42		80		11	69	\$ 4,525.62	Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)			
								Desander		0					
								Desilter		0					
								Cleaner 1		0					
								Cleaner 2		0					
								Centrifuge1							
								Centrifuge2							
				CURRENCY				DAILY COST				CUMULATIVE COST			
				AUD				\$17,507.82				\$71,839.24			

I.D.F.S. Engineer: M.Docherty & J. Singh Office: BRISBANE Telephone: 07 3806-0160 Fax: 07 3806-0165

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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	6	Date	30-Aug-02
Rig #	Ocean Bounty	Spud Date	25-Aug-02
Total MD	752	to	1016
Total VD	752	to	1016

OPERATOR	Santos Ltd.	CONTRACTOR	DOGC
REPORT FOR	Henry Flink & Steve Hodgetts	REPORT FOR	Pedro Johns & Ronnie Safar
WELL NAME AND No	Casino 1	FIELD	VIC - P - 44
		LOCATION	STATE
		Otway Basin	Victoria

BHA	BIT TYPE	JET SIZE	CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE 12 1/4	Hycalog DSX195C	12 12 12	20" & CONDUCTOR 30" SET @ 427 ft 130 m	HOLE 523 PITS 432	PUMP SIZE 6 x 12 Inches CIRCULATION PRESS 2650 psi
DRILL PIPE SIZE 5	S	Length 750 Mtrs	13 3/8 SURFACE SET @ 2438 ft 743 m	TOTAL CIRCULATING VOL. 955	PUMP MODEL National 12-P-160 % EFFICIENCY 97
DRILL PIPE SIZE 5	HW	Length 111 Mtrs	PROD. or LNR Set @ ft m	IN STORAGE 300	BBL/STK 0.1018 STK / MIN 141
DRILL COLLAR SIZE ("") 8		Length 155 Mtrs	MUD TYPES KCI/PHPA/Glycol		BBL/MIN 14.35 GAL / MIN 603

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM	Pit	Pit	Pit	Mud Wt	1.1-1.3	Glycol	3 - 5% API 6.0
TIME SAMPLE TAKEN	04:00	15:45	22:00	Vis	45-55	Yield Point	15 pH 9-10
FLOWLINE TEMPERATURE	°F/°C			KCI	6-8	PHPA excess	1-1.5 Sulphites >100
TOTAL MEASURED DEPTH (TMD)	Feet	752	755	947	OBSERVATIONS		

WEIGHT	ppg / SG	8.65	1.04	8.70	1.04	8.80	1.06	Sweepled hole with 20 bbl 1.8 ppb Xan Gum HiVis at 740m and 50 bbl at 752m. Changed over to new mud.
FUNNEL VISCOSITY(sec/qt) API @	°C °F	39	36	40	Observed losses of 60 bbl/hr in sands. Checked on surface.			
RHEOLOGY 600 : 300 RPM	21 °C 70 °F	20	14	17	11	29	22	Pumped 50 bbl of 12 ppb Sandseal sweep. No good effect.
RHEOLOGY 200 : 100 RPM	21 °C 70 °F	10	7	8	6	16	12	Build up PHPA concentration with direct additions to suction pit.
RHEOLOGY 6 : 3 RPM	21 °C 70 °F	2	1	1	1	4	3	Keeping up volume with fresh premixes, with 5 - 10 ppb LCM.
PLASTIC VISCOSITY cP @	21 °C 70 °F	6	6	7				
YIELD POINT (lb/100FT ²)	21 °C 70 °F	8	5	15				
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.		2/2/2	1/1/1	4/4/4				
API FILTRATE (cm ³ /30 min.)				6.5				
HPHT FILTRATE (cm ³ /30 min.)	°C °F							
API : HPHT (Cake/32nd in.)				1				

OPERATIONS SUMMARY							
PH	9.5	9.5	10.0	M/U 12.25" bit and BHA. RIH. Function test MWD.			
ALKALINITY MUD (Pm)				RIH. Service Top Drive. RIH. Tag cement plug at 717.6 m.			
ALKALINITY FILTRATE (Pf / Mf)	0.15	0.75	0.20	0.80	0.10	0.40	Drill plugs,float, cement and shoe. Displaced to new mud at 752m. Circulate 1.5x B/U.
CHLORIDE (mg/L)	23500	27000	29000	conduct LOT to 15.0 ppg. Drill ahead.			
TOTAL HARDNESS (mg/L)	360	800	640				
SULPHITE (mg/L)							
PHPA (Calc ppb)	0.7	0.7	1.1				
GLYCOL CONTENT (% V/V)	3.0	3.0	3.0				
K+ (mg/L)	40500	40500	37800				
KCL (% by Wt.)	7.5	7.5	7.0				

MUD ACCOUNTING (BBLs)									
METHYLENE BLUE CAPACITY (ppb equivalent)			2.5	FLUID BUILT	FLUID DISPOSED	SUMMARY			
SOLIDS CONTENT (% by volume) Retort	0.85	1.00	1.63	Premix - Water	480	S.C.E	21	INITIAL	1958
LIQUID CONTENT (% by volume) Calc	99.15	99.00	98.37	Premix - Recyc		Dumped	450	+ Rcd	480
CUTTINGS OIL RATIO (% oil)				Drill Water		Downhole	582	- Lost	1,183
SAND CONTENT (% by volume)	Nil	Nil	2.00	Other		Other	130	Surface	732
				RECEIVED	480	LOST	1183	FINAL	1,255

PRODUCT USAGE								SOLIDS CONTROL EQUIPMENT							
Product	Price	Start	Received	Damage	Used	Close	Cost	SHALES SHAKERS	Hrs	#	Size	Hrs		Hrs	
Citric Acid	\$ 51.06	40			2	38	\$ 102.12	# 1	4 x 84	8	Desander	3	5	Centrifuge	
Glychem MC	\$ 590.00	48			11	37	\$ 6,490.00	# 2	4 x 84	8	Desilter	20	2	5	Centrifuge
JK-261	\$ 109.70	92			20	72	\$ 2,194.00	# 3	4 x 84	8	Mud Cleaner 1			Degasser	
KCI BB Fine	\$ 650.00	26			7	19	\$ 4,550.00	# 4	4 x 84	8	Mud Cleaner 2			Poorboy	
PAC-L	\$ 168.00	99			15	84	\$ 2,520.00				Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)		
Sandseal Fine	\$ 98.00	80			33	47	\$ 3,234.00	Desander		8.6		10.9	2.00		
Xanthan Gum P	\$ 411.42	69			19	50	\$ 7,816.98	Desilter		8.6		14.2	1.00		
								Cleaner 1				0			
								Cleaner 2				0			
								Centrifuge1							
								Centrifuge2							
								CURRENCY		DAILY COST		CUMULATIVE COST			
								AUD		\$26,907.10		\$98,746.34			

I.D.F.S. Engineer: M.Docherty & J. Singh Office: BRISBANE Telephone: 07 3806-0160 Fax: 07 3806-0165

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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	7	Date	31-Aug-02
Rig #	Ocean Bounty	Spud Date	25-Aug-02
Total MD	1016	to	1059
Total VD	1016	to	1059

OPERATOR		Santos Ltd.		CONTRACTOR		DOGC	
REPORT FOR		Henry Flink & Steve Hodgetts		REPORT FOR		Pedro Johns & Ronnie Safar	
WELL NAME AND No		Casino 1		FIELD		LOCATION	
				VIC - P - 44		STATE	
						Victoria	

BHA		BIT TYPE		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA	
BIT SIZE	REED	16	16	16	20" & CONDUCTOR	427	ft	HOLE	PITS	PUMP SIZE	
12 1/4	EHP51				30" SET @	130	m	538	550	6	x 12
DRILL PIPE	Length			13 3/8 SURFACE	2438	ft	TOTAL CIRCULATING VOL.	PUMP MODEL		% EFFICIENCY	
SIZE 5	S	766		SET @	743	m	1088	National 12-P-160		97	
DRILL PIPE	TYPE			PROD. or		ft	IN STORAGE	BBL/STK		STK / MIN	
SIZE 5	HW	111		LNR Set @		m	400	0.1018		90	
DRILL COLLAR SIZE (")	Length			MUD TYPES				BBL/MIN		GAL / MIN	
8	182	Mtrs		KCI/PHPA/Glycol				9.16		385	
										TOTAL CIRC. TIME	
										162 min	

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM	Pit	Pit	Pit	Mud Wt	1.1-1.3	Glycol	3 - 5% API
TIME SAMPLE TAKEN	03:00	08:30	21:00	Vis	45-55	Yield Point	15 pH
FLOWLINE TEMPERATURE	°F/°C			KCI	6-8	PHPA excess	1-1.5 Sulphites
TOTAL MEASURED DEPTH (TMD)	Feet	1052	1054	1059	OBSERVATIONS		

WEIGHT	ppg / SG	8.80	1.06	8.70	1.04	8.80	1.06	Replenish volume lost downhole with premix containing 1.5 ppb Xanthan Gum, 1.5 ppb PAC-L, 3% Glycol, 6% KCI, 1 ppb JK261, with 5 ppb Sandseal added. Prepare a further 230 barrels in case of further losses, and 150 bbls of high viscosity sweep (1.5 ppb XG). Downhole losses receded to less than 5 bbl/hr at 1052m. Treated active system with 0.4 ppb Xanthan Gum, to boost yield point. Barite usage for slug & correct inventory as per Ballast Control.
FUNNEL VISCOSITY(sec/qt) API @	°C °F	39	41	48				
RHEOLOGY 600 : 300 RPM	21 °C 70 °F	31	23	34	25	45	33	
RHEOLOGY 200 : 100 RPM	21 °C 70 °F	17	12	18	13	27	20	
RHEOLOGY 6 : 3 RPM	21 °C 70 °F	4	3	4	3	8	6	
PLASTIC VISCOSITY cP @	21 °C 70 °F	8	9	12				
YIELD POINT (lb/100FT ²)	21 °C 70 °F	15	16	21				
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.		3/4/4	3/4/4	6/8/10				
API FILTRATE (cm ³ /30 min.)		6.0	5.5	6.2				
HPHT FILTRATE (cm ³ /30 min.)	121 °C 250 °F		22.0	22.0				

OPERATIONS SUMMARY			
PH	9.5	9.5	8.5
ALKALINITY MUD (Pm)			
ALKALINITY FILTRATE (Pf / Mf)	0.15	0.40	0.10
CHLORIDE (mg/L)	28500	27500	28000
TOTAL HARDNESS (mg/L)	400	440	360
SULPHITE (mg/L)			100
PHPA (Calc ppb)	1.2	1.0	0.9
GLYCOL CONTENT (% V/V)	2.8	2.9	2.5
K+ (mg/L)	37800	37800	37800
KCL (% by Wt.)	7.0	7.0	7.0

MUD ACCOUNTING (BBLs)			
METHYLENE BLUE CAPACITY (ppb equivalent)	2.5	2.5	2.5
SOLIDS CONTENT (% by volume) Retort	1.66	0.97	1.70
LIQUID CONTENT (% by volume) Calc	98.34	99.03	98.30
CUTTINGS OIL RATIO (% oil)			
SAND CONTENT (% by volume)	1.75	1.50	0.50

PRODUCT USAGE								SOLIDS CONTROL EQUIPMENT							
Product	Price	Start	Received	Damage	Used	Close	Cost	SHALES SHAKERS	Hrs	#	Size	Hrs		Hrs	
Barite Bulk	\$ 14.77	###			174	1941	\$ 2,569.98	# 1	4 x 84	10	Desander	3		Centrifuge	
Caustic Soda	\$ 36.60	19			1	18	\$ 36.60	# 2	4 x 115	10	Desilter	20	2	10	
Defoamer-A	\$ 245.33	32			2	30	\$ 490.66	# 3	4 x 84	10	Mud Cleaner 1			Degasser	
Glychem MC	\$ 590.00	37			1	36	\$ 590.00	# 4	4 x 84	10	Mud Cleaner 2			Poorboy	
Idcide-20	\$ 103.00	32			11	21	\$ 1,133.00			Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)	
JK-261	\$ 109.70	72			2	70	\$ 219.40								
KCI BB Fine	\$ 650.00	19			1	18	\$ 650.00			Desander		0			
PAC-L	\$ 168.00	84			6	78	\$ 1,008.00			Desilter		8.7		10.5	
Sandseal Fine	\$ 98.00	47			10	37	\$ 980.00			Cleaner 1		0			
Sodium Sulphite	\$ 25.02	40			4	36	\$ 100.08			Cleaner 2		0			
Xanthan Gum P	\$ 411.42	50			20	30	\$ 8,228.40			Centrifuge1					
										Centrifuge2					
								CURRENCY		DAILY COST		CUMULATIVE COST			
								AUD		\$16,006.12		\$114,752.46			

I.D.F.S. Engineer: M.Docherty & J. Singh Office: BRISBANE Telephone: 07 3806-0160 Fax: 07 3806-0165

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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	8	Date	1-Sep-02
Rig #	Ocean Bounty	Spud Date	25-Aug-02
Total MD	1059	to	1400
Total VD	1059	to	1400

OPERATOR		Santos Ltd.		CONTRACTOR		DOGC	
REPORT FOR		Henry Flink & Steve Hodgetts		REPORT FOR		Pedro Johns & Ronnie Safar	
WELL NAME AND No		Casino 1		FIELD		LOCATION	
				VIC - P - 44		STATE	
						Otway Basin	
						Victoria	

BHA	BIT TYPE	JET SIZE			CASING			MUD VOLUME (BBL)			CIRCULATION DATA			
BIT SIZE	SMITH	16	16	16	20" & CONDUCTOR	427	ft	HOLE	PITS	PUMP SIZE				
12 1/4	10GF				30" SET @	130	m	694	575	6	x	12	Inches	CIRCULATION
DRILL PIPE		Length			13 3/8 SURFACE	2438	ft	TOTAL CIRCULATING VOL.			PUMP MODEL	% EFFICIENCY	BOTTOMS	
SIZE 5	S	1107 Mtrs			SET @	743	m	1269			National 12-P-160	97	UP	
DRILL PIPE	TYPE	Length			PROD. or		ft	IN STORAGE			BBL/STK	STK / MIN	SURFACE	
SIZE 5	HW	111 Mtrs			LNR Set @		m	150			0.1018	204	TO BIT	
DRILL COLLAR SIZE (")		Length			MUD TYPES						BBL/MIN	GAL / MIN	TOTAL CIRC.	
8		182 Mtrs			KCl/PHPA/Glycol						20.77	872	TIME	
													68 min	

MUD PROPERTIES						MUD PROPERTY SPECIFICATIONS												
SAMPLE FROM						Pit		Pit		Pit		Mud Wt	1.1-1.3	Glycol	3 - 5%	API	6.0	
TIME SAMPLE TAKEN						08:00		13:45		20:00		Vis	45-55	Yield Point	15	pH	9-10	
FLOWLINE TEMPERATURE						°F/°C		115 46		120 49		KCl	6-8	PHPA excess	1-1.5	Sulphites	>100	
TOTAL MEASURED DEPTH (TMD)						Feet		1129		1260		OBSERVATIONS						
WEIGHT						ppg / SG		8.80 1.06		8.80 1.06		Treated system with 0.2 ppb PHPA while drilling through mudstones. Cuttings discrete.						
FUNNEL VISCOSITY(sec/qt) API @						43 °C 110 °F		44		47		Added Glycol to keep 3 % conc.						
RHEOLOGY 600 : 300 RPM						49 °C 120 °F		39 29		40 30		Maintain properties and volume with premix addition						
RHEOLOGY 200 : 100 RPM						49 °C 120 °F		24 18		25 20		containing,1.2 ppb Xanthan Gum, 9% KCl, 3% Glycol,						
RHEOLOGY 6 : 3 RPM						49 °C 120 °F		7 5		8 7		1.5 ppb PHPA. Upgrade screens to s115s mesh.						
PLASTIC VISCOSITY cP @						49 °C 120 °F		10		10								
YIELD POINT (lb/100FT ²)						49 °C 120 °F		19		20								
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.								5/7/9		8/10/12								
API FILTRATE (cm ³ /30 min.)								6.4		6.4								
HPHT FILTRATE (cm ³ /30 min.)						121 °C 250 °F				22.0								
API : HPHT (Cake/32nd in.)								1		1:2								
PH								9.0		9.5		OPERATIONS SUMMARY						
ALKALINITY MUD (Pm)												RIH with new bit.						
ALKALINITY FILTRATE (Pf / Mf)						0.10 0.55		0.15 0.65		0.18 0.68		Drill 12.25" hole to 1400 m.						
CHLORIDE (mg/L)						28000		28000		29000		Circulated hole clean. Pumped slug.						
TOTAL HARDNESS (mg/L)						360		400		280		POOH for bit change.						
SULPHITE (mg/L)						80		80		80								
PHPA (Calc ppb)						1.1		1.2		1.2								
GLYCOL CONTENT (% V/V)						3.0		3.0		3.0								
K+ (mg/L)						37800		37800		32400								
KCL (% by Wt.)						7.0		7.0		6.0								
BARYTES (Calc ppb)												MUD ACCOUNTING (BBLs)						
METHYLENE BLUE CAPACITY (ppb equivalent)						5.0		4.0		7.0		FLUID BUILT		FLUID DISPOSED		SUMMARY		
SOLIDS CONTENT (% by volume) Retort						1.70		1.70		2.01		Premix - Water		225	S.C.E	163	INITIAL	1488
LIQUID CONTENT (% by volume) Calc						98.30		98.30		97.99		Premix - Recyc			Dumped		+ Rcd	225
CUTTINGS OIL RATIO (% oil)												Drill Water			Downhole	91	- Lost	294
SAND CONTENT (% by volume)						0.75		0.50		TR		Other			Other	40	Surface	725
												RECEIVED		225	LOST	294	FINAL	1,419

PRODUCT USAGE								SOLIDS CONTROL EQUIPMENT									
Product	Price	Start	Received	Damage	Used	Close	Cost	SHALES SHAKERS	Hrs	#	Size	Hrs					
Barite Bulk	\$ 14.77	###			70	1871	\$ 1,033.90	# 1	4 x 115	20	Desander	3	6	8	Centrifuge		
Caustic Soda	\$ 36.60	18			5	13	\$ 183.00	# 2	4 x 115	20	Desilter	20	2	20	Centrifuge		
Glychem MC	\$ 590.00	36			16	20	\$ 9,440.00	# 3	4 x 115	20	Mud Cleaner 1				Degasser		
Idcide-20	\$ 103.00	21			5	16	\$ 515.00	# 4	4 x 84	20	Mud Cleaner 2				Poorboy		
JK-261	\$ 109.70	70			13	57	\$ 1,426.10			Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)			
KCl BB Fine	\$ 650.00	18			3	15	\$ 1,950.00			Desander		8.7		10.6		1.80	
Sodium Sulphite	\$ 25.02	36			8	28	\$ 200.16			Desilter		8.7		12.2		5.00	
Xanthan Gum P	\$ 411.42	30			5	25	\$ 2,057.10			Cleaner 1		0					
										Cleaner 2		0					
										Centrifuge1							
										Centrifuge2							
								CURRENCY		DAILY COST		CUMULATIVE COST					
								AUD		\$16,805.26		\$131,557.72					

I.D.F.S. Engineer: M.Docherty & J. Singh Office: BRISBANE Telephone: 07 3806-0160 Fax: 07 3806-0165

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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd

ACN 070 415 593

Drilling Fluid Report

Report #	9	Date	2-Sep-02
Rig #	Ocean Bounty	Spud Date	25-Aug-02
Total MD	1400	to	1760
Total VD	1400	to	1760

OPERATOR	Santos Ltd.	CONTRACTOR	DOGC
REPORT FOR	Henry Flink & Steve Hodgetts	REPORT FOR	Pedro Johns & Ronnie Safar
WELL NAME AND No	Casino 1	FIELD	VIC - P - 44
		LOCATION	STATE
		Otway Basin	Victoria

BHA	BIT TYPE	JET SIZE	CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE 12 1/4	SMITH MA74BPX	16 16 16	20" & CONDUCTOR 30" SET @ 427 ft 130 m	HOLE 858 PITS 500	PUMP SIZE 6 x 12 Inches CIRCULATION PRESS 3000 psi
DRILL PIPE SIZE 5	S	Length 1467 Mtrs	13 3/8 SURFACE SET @ 2438 ft 743 m	TOTAL CIRCULATING VOL. 1358	PUMP MODEL National 12-P-160 % EFFICIENCY 97 BOTTOMS UP 38 min
DRILL PIPE SIZE 5	TYPE HW	Length 111 Mtrs	PROD. or LNR Set @ ft m	IN STORAGE 340	BBL/STK 0.1018 STK / MIN 200 SURFACE TO BIT 4.6 min
DRILL COLLAR SIZE ("") 8		Length 182 Mtrs	MUD TYPES KCI/PHPA/Glycol		BBL/MIN 20.36 GAL / MIN 855 TOTAL CIRC. TIME 83 min

MUD PROPERTIES			MUD PROPERTY SPECIFICATIONS		
SAMPLE FROM	Pit	Pit	FL	Mud Wt 1.1-1.3	Glycol 3 - 5% API 6.0
TIME SAMPLE TAKEN	04:30	12:30	20:00	Vis 45-55	Yield Point 15 pH 9-10
FLOWLINE TEMPERATURE	°F/°C	120 49	130 54	KCl 6-8	PHPA excess 1-1.5 Sulphites >100
TOTAL MEASURED DEPTH (TMD)	Feet	1400	1450	OBSERVATIONS	

WEIGHT	ppg / SG	8.90	1.07	9.30	1.12	9.85	1.18	Prepare 220 bbl premix with 0.5 ppb Xanthan Gum, 2 ppb PAC-L, 6% KCl, 2ppb JK 261.
FUNNEL VISCOSITY(sec/qt) API @	49 °C 120 °F	48	52	54	Raise mud weight from 8.9 to 9.9 ppg with 53 ppb Barite as per program before entering into Belfast Fm.			
RHEOLOGY 600 : 300 RPM	49 °C 120 °F	47	36	60	44	68	50	Increased PHPA conc above 1.5 ppb via Premixes and direct additions. As a result, increase in rheology.
RHEOLOGY 200 : 100 RPM	49 °C 120 °F	31	23	36	27	43	32	
RHEOLOGY 6 : 3 RPM	49 °C 120 °F	10	8	11	9	12	9	
PLASTIC VISCOSITY cP @	49 °C 120 °F	11	16	18				
YIELD POINT (lb/100FT ²)	49 °C 120 °F	25	28	32				
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.		9/13/15	11/15/17	11/15/19				
API FILTRATE (cm ³ /30 min.)		6.0	6.2	4.5				
HPHT FILTRATE (cm ³ /30 min.)	121 °C 250 °F	21.0	22.0	17.0				
API : HPHT (Cake/32nd in.)		1:2	1:2	1:2				

OPERATIONS SUMMARY		
PH	9.5	9.5
ALCALINITY MUD (Pm)		
ALCALINITY FILTRATE (Pf / Mf)	0.15 0.70	0.12 0.52
CHLORIDE (mg/L)	29500	28500
TOTAL HARDNESS (mg/L)	320	400
SULPHITE (mg/L)	80	80
PHPA (Calc ppb)	1.2	1.3
GLYCOL CONTENT (% V/V)	3.5	3.0
K+ (mg/L)	35100	32400
KCL (% by Wt.)	6.5	6.0

MUD ACCOUNTING (BBLs)		
METHYLENE BLUE CAPACITY (ppb equivalent)	6.0	7.0
SOLIDS CONTENT (% by volume) Retort	2.36	5.49
LIQUID CONTENT (% by volume) Calc	97.64	94.51
CUTTINGS OIL RATIO (% oil)		
SAND CONTENT (% by volume)	TR	TR

PRODUCT USAGE								SOLIDS CONTROL EQUIPMENT							
Product	Price	Start	Received	Damage	Used	Close	Cost	SHALE SHAKERS	Hrs	#	Size	Hrs	Hrs		
Barite Bulk	\$ 14.77	###			988	883	\$ 14,592.76	# 1	4 x 115	20	Desander	3	6	Centrifuge	
Caustic Soda	\$ 36.60	13			3	10	\$ 109.80	# 2	4 x 115	20	Desilter	20	2	15	Centrifuge
Glychem MC	\$ 590.00	20			8	12	\$ 4,720.00	# 3	4 x 115	12	Mud Cleaner 1				Degasser
Idcide-20	\$ 103.00	16			2	14	\$ 206.00	# 4	4 x 84	16	Mud Cleaner 2				Poorboy
JK-261	\$ 109.70	57	36		30	63	\$ 3,291.00	Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)			
KCl BB Fine	\$ 650.00	15			4	11	\$ 2,600.00	Desander		0					
PAC-L	\$ 168.00	78	40		18	100	\$ 3,024.00	Desilter		9.5		10.3		3.00	
Sodium Sulphite	\$ 25.02	28			4	24	\$ 100.08	Cleaner 1		0					
Xanthan Gum P	\$ 411.42	25	60		4	81	\$ 1,645.68	Cleaner 2		0					
								Centrifuge1							
								Centrifuge2							
								CURRENCY		DAILY COST		CUMULATIVE COST			
								AUD		\$30,289.32		\$161,847.04			

I.D.F.S. Engineer: M.Docherty & J. Singh Office: BRISBANE Telephone: 07 3806-0160 Fax: 07 3806-0165

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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	10	Date	3-Sep-02
Rig #	Ocean Bounty	Spud Date	25-Aug-02
Total MD	1760	to	1797
Total VD	1760	to	1795

OPERATOR	Santos Ltd.	CONTRACTOR	DOGC
REPORT FOR	Henry Flink & Steve Hodgetts	REPORT FOR	Pedro Johns & Ronnie Safar
WELL NAME AND No	Casino 1	FIELD	VIC - P - 44
		LOCATION	STATE
		Otway Basin	Victoria

BHA	BIT TYPE	JET SIZE			CASING			MUD VOLUME (BBL)			CIRCULATION DATA			
BIT SIZE 12 1/4	SMITH MA74BPX	16	16	16	20" & CONDUCTOR 30" SET @	427	ft	HOLE 875	PITS 520	PUMP SIZE 6 x 12 Inches		CIRCULATION PRESS 3250 psi		
DRILL PIPE SIZE 5	S	Length 1504 Mtrs			13 3/8 SURFACE SET @	2438	ft	TOTAL CIRCULATING VOL. 1395		PUMP MODEL National 12-P-160	% EFFICIENCY 97	BOTTOMS UP 40 min		
DRILL PIPE SIZE 5	TYPE HW	Length 111 Mtrs			PROD. or LNR Set @		ft	IN STORAGE 380		BBL/STK 0.1018	STK / MIN 190	SURFACE TO BIT 4.9 min		
DRILL COLLAR SIZE (") 8		Length 182 Mtrs			MUD TYPES KCl/PHPA/Glycol					BBL/MIN 19.34	GAL / MIN 812	TOTAL CIRC. TIME 92 min		

MUD PROPERTIES						MUD PROPERTY SPECIFICATIONS					
SAMPLE FROM			Pit	Pit	Pit	Mud Wt	10.3	Glycol	3 - 5%	API	6.0
TIME SAMPLE TAKEN			04:45	13:00	20:00	Vis	45-55	Yield Point	>15	pH	9-10
FLOWLINE TEMPERATURE			°F/°C		130 54	130 54	110 43	KCl	6-8	PHPA excess	>1.5 Sulphites >100
TOTAL MEASURED DEPTH (TMD)			Feet		1791	1797	1797	OBSERVATIONS			

WEIGHT	ppg / SG	10.05	1.21	10.00	1.20	10.30	1.24	Increased mud weight further to 10 ppg at 1790m, and then to 10.3 ppg with barite after trip, due to high gas levels.			
FUNNEL VISCOSITY(sec/qt) API @	38 °C 100 °F	58	55	64	Add premix containing 1.5 ppb PAC-L, 6% KCl, 1.7 ppb JK261 to maintain properties.						
RHEOLOGY 600 : 300 RPM	49 °C 120 °F	67	50	65	47	75	54	Desilter could not be run while Degasser in operation.			
RHEOLOGY 200 : 100 RPM	49 °C 120 °F	43	32	40	29	46	34	Added Glychem and KCl into system before POOH.			
RHEOLOGY 6 : 3 RPM	49 °C 120 °F	12	10	11	8	12	10	Barite Potential: 10.65 ppg, assuming 1700 bbls.			
PLASTIC VISCOSITY cP @	49 °C 120 °F	17	18	21	OPERATIONS SUMMARY						
YIELD POINT (lb/100FT ²)	49 °C 120 °F	33	29	33	Drill 12.25" hole in Waare Fm, circulating out gas peaks. Run degasser. Drill 12.25" hole to 1797 metres. POOH due to low ROP. Pump out at tight section at top of Belfast Formation 1610m to 1498m. RIH to bottom. 9m fill.						
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.		11/16/17	9/14/16	12/16/18	Circulate out gas and weight up to 10.3 ppg. Flow check, Pump out of hole from 1797 - 1420m no drag, from 1420 - 1074m 20-50K drag. Flow check, static. Pump slug. POOH to shoe. Flow check, static. POOH.						
API FILTRATE (cm ³ /30 min.)		5.0	5.0	4.3	MUD ACCOUNTING (BBLs)						
HPHT FILTRATE (cm ³ /30 min.)	121 °C 250 °F	17.0	16.0	16.0	FLUID BUILT						
API : HPHT (Cake/32nd in.)		1:2	1:2	1:2	FLUID DISPOSED						
PH		9.0	9.0	9.5	SUMMARY						
ALKALINITY MUD (Pm)					Premix - Water 200 S.C.E 14 INITIAL 1698						
ALKALINITY FILTRATE (Pf / Mf)		0.10	0.65	0.10	0.65	0.15	0.70	Premix - Recyc			
CHLORIDE (mg/L)		30000	29000	31200	Dumped						
TOTAL HARDNESS (mg/L)		300	320	300	Drill Water						
SULPHITE (mg/L)		80	80	80	Downhole 59 - Lost 123						
PHPA (Calc ppb)		1.7	1.8	1.8	Other						
GLYCOL CONTENT (% V/V)		3.0	3.0	3.0	Other 50 Surface 900						
K+ (mg/L)		32400	27000	32400	RECEIVED 200 LOST 123 FINAL 1,775						
KCL (% by Wt.)		6.0	5.0	6.0	PRODUCT USAGE						
BARYTES (Calc ppb)		71.7	66.2	84.8	Product						
METHYLENE BLUE CAPACITY (ppb equivalent)		12.0	12.0	12.0	Price						
SOLIDS CONTENT (% by volume) Retort		8.00	8.00	9.00	Start						
LIQUID CONTENT (% by volume) Calc		92.00	92.00	91.00	Received						
CUTTINGS OIL RATIO (% oil)					Damage						
SAND CONTENT (% by volume)		2.00	1.50	1.00	Used						

PRODUCT USAGE								SOLIDS CONTROL EQUIPMENT							
Product	Price	Start	Received	Damage	Used	Close	Cost	SHALES SHAKERS	Hrs	#	Size	Hrs	Hrs		
Barite Bulk	\$ 14.77	883			443	440	\$ 6,543.11	# 1	4 x 115	12	Desander	3	6		
Caustic Soda	\$ 36.60	10			1	9	\$ 36.60	# 2	4 x 115	12	Desilter	20	2		
Glychem MC	\$ 590.00	12			12		\$ 7,080.00	# 3	4 x 115	12	Mud Cleaner 1		2		
Idcide-20	\$ 103.00	14			5	9	\$ 515.00	# 4	4 x 84	2	Mud Cleaner 2		2		
JK-261	\$ 109.70	63			9	54	\$ 987.30	Desander		Overflow (ppg)		Underflow (ppg)			
KCl BB Fine	\$ 650.00	11			3	8	\$ 1,950.00	Desilter		Output (Gal/Min.)					
PAC-L	\$ 168.00	100			6	94	\$ 1,008.00	Cleaner 1							
Sodium Sulphite	\$ 25.02	24			3	21	\$ 75.06	Cleaner 2							
								Centrifuge1							
								Centrifuge2							
CURRENCY								DAILY COST		CUMULATIVE COST					
AUD								\$18,195.07		\$180,042.11					

I.D.F.S. Engineer: M.Docherty & J. Singh Office: BRISBANE Telephone: 07 3806-0160 Fax: 07 3806-0165

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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	11	Date	4-Sep-02
Rig #	Coast Bounty	Spud Date	25-Aug-02
Total MD	1797	to	1797
Total VD	1795	to	1795

OPERATOR	Santos Ltd.	CONTRACTOR	DOGC
REPORT FOR	Henry Flink & Steve Hodgetts	REPORT FOR	Pedro Johns & Ronnie Safar
WELL NAME AND No	Casino 1	FIELD	VIC - P - 44
		LOCATION	STATE
		Otway Basin	Victoria

BHA	BIT TYPE	JET SIZE			CASING			MUD VOLUME (BBL)			CIRCULATION DATA			
BIT SIZE 12 1/4	Hughes MXR09D	16	16	16	20" & CONDUCTOR 30" SET @	427	ft	HOLE 875	PITS 520	PUMP SIZE 6 x 12 Inches		CIRCULATION PRESS 3300 psi		
DRILL PIPE SIZE 5	S	Length 1504 Mtrs			13 3/8 SURFACE SET @	2438	ft	TOTAL CIRCULATING VOL. 1395		PUMP MODEL National 12-P-160	% EFFICIENCY 97	BOTTOMS UP 43 min		
DRILL PIPE SIZE 5	HW	Length 111 Mtrs			PROD. or LNR Set @		ft	IN STORAGE 400		BBL/STK 0.1018	STK / MIN 178	SURFACE TO BIT 5.3 min		
DRILL COLLAR SIZE ("") 8		Length 182 Mtrs			MUD TYPES KCl/PHPA/Glycol					BBL/MIN 18.12	GAL / MIN 761	TOTAL CIRC. TIME 99 min		

MUD PROPERTIES						MUD PROPERTY SPECIFICATIONS					
SAMPLE FROM			Pit	Pit	Pit	Mud Wt	10.3	Glycol	3 - 5%	API	6.0
TIME SAMPLE TAKEN			08:00	11:00	20:00	Vis	45-55	Yield Point	>15	pH	9-10
FLOWLINE TEMPERATURE			°F/°C		110 43	110 43	100 38	KCl	6-8	PHPA excess	>1.5 Sulphites >100
TOTAL MEASURED DEPTH (TMD)			Feet		1750	1781	1797	OBSERVATIONS			

WEIGHT	ppg / SG	10.50	1.26	10.30	1.24	10.30	1.24	Bleed in premix to cut weight back to 10.25 ppg			
FUNNEL VISCOSITY(sec/qt) API @	41 °C 105 °F	68	58	64	Treat active mud with Sandseal after hole taking mud at						
RHEOLOGY 600 : 300 RPM	49 °C 120 °F	86	62	69	51	78	55	MW of 10.5 ppg and 600 gpm, initially at 60 bph.			
RHEOLOGY 200 : 100 RPM	49 °C 120 °F	53	40	41	31	45	33	At reduced strokes and 10.4 ppg losses receded.			
RHEOLOGY 6 : 3 RPM	49 °C 120 °F	14	12	12	10	12	10	Treated system with Idcide.			
PLASTIC VISCOSITY cP @	49 °C 120 °F	24	18	23							
YIELD POINT (lb/100FT ²)	49 °C 120 °F	38	33	32							
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.		12/17/20	10/13/18	11/15/18							
API FILTRATE (cm ³ /30 min.)		5.0	5.0	4.6							
HPHT FILTRATE (cm ³ /30 min.)	121 °C 250 °F	16.0	16.0	16.0	Barite Potential: 10.45 ppg, assuming 1700 bbls.						

OPERATIONS SUMMARY											
PH	9.0	9.0	9.5	M/U bit, RIH to 1750m. Circulate via choke after 5000 strokes							
ALKALINITY MUD (Pm)				Minimal gas to surface. Start reaming 47 m fill.							
ALKALINITY FILTRATE (Pf / Mf)	0.10	0.80	0.10	0.80	0.12	0.70	Circulated hole clean and pumped slug.				
CHLORIDE (mg/L)	30000	30000	30000	POOH to shoe.							
TOTAL HARDNESS (mg/L)	320	300	280	Waiting on weather.							
SULPHITE (mg/L)	60	60	40	Hanged string in wellhead. Displaced riser mud volume.							
PHPA (Calc ppb)	1.8	1.8	1.8								
GLYCOL CONTENT (% V/V)	2.5	2.5	2.5								
K+ (mg/L)	35100	35100	32400								
KCL (% by Wt.)	6.5	6.5	6.0								

MUD ACCOUNTING (BBLs)											
METHYLENE BLUE CAPACITY (ppb equivalent)	15.0	12.5	13.0	FLUID BUILT		FLUID DISPOSED		SUMMARY			
SOLIDS CONTENT (% by volume) Retort	11.00	10.00	10.00	Premix - Water	200	S.C.E	57	INITIAL	1775		
LIQUID CONTENT (% by volume) Calc	89.00	90.00	90.00	Premix - Recyc		Dumped		+ Rcd	200		
CUTTINGS OIL RATIO (% oil)				Drill Water		Downhole	93	- Lost	180		
SAND CONTENT (% by volume)	1.50	1.00	1.00	Other		Other	30	Surface	920		
				RECEIVED	200	LOST	180	FINAL	1,795		

PRODUCT USAGE								SOLIDS CONTROL EQUIPMENT							
Product	Price	Start	Received	Damage	Used	Close	Cost	SHALES SHAKERS	Hrs	#	Size	Hrs			
Barite Bulk	\$ 14.77	440			240	200	\$ 3,544.80	# 1	4 x 115	3	Desander	3	6	Centrifuge	
Caustic Soda	\$ 36.60	9			2	7	\$ 73.20	# 2	4 x 115	3	Desilter	20	2	4	Centrifuge
Icdide-20	\$ 103.00	9			9		\$ 927.00	# 3	4 x 115	3	Mud Cleaner 1				Degasser
JK-261	\$ 109.70	54			8	46	\$ 877.60	# 4	4 x 84		Mud Cleaner 2				Poorboy
KCl BB Fine	\$ 650.00	8			2	6	\$ 1,300.00	Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)			
PAC-L	\$ 168.00	94			6	88	\$ 1,008.00	Desander			0				
Sandseal Fine	\$ 98.00	37			15	22	\$ 1,470.00	Desilter	10.3		13.2		10.00		
Sodium Sulphite	\$ 25.02	21			3	18	\$ 75.06	Cleaner 1			0				
								Cleaner 2			0				
								Centrifuge1							
								Centrifuge2							
				CURRENCY				DAILY COST				CUMULATIVE COST			
				AUD				\$9,275.66				\$189,317.77			

I.D.F.S. Engineer: M.Docherty & J. Singh Office: BRISBANE Telephone: 07 3806-0160 Fax: 07 3806-0165

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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	12	Date	5-Sep-02
Rig #	Ocean Bounty	Spud Date	25-Aug-02
Total MD	1797	to	1797
Total VD	1795	to	1795

OPERATOR	Santos Ltd.	CONTRACTOR	DOGC
REPORT FOR	Henry Flink & Steve Hodgetts	REPORT FOR	Pedro Johns & Ronnie Safar
WELL NAME AND No	Casino 1	FIELD	VIC - P - 44
		LOCATION	STATE
		Otway Basin	Victoria

BHA	BIT TYPE	JET SIZE	CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE 12 1/4	Hughes MXR09D	16 16 16	20" & CONDUCTOR 30" SET @ 427 ft 130 m	HOLE 875 PITS 500	PUMP SIZE 6 x 12 Inches CIRCULATION PRESS psi
DRILL PIPE SIZE 5	S	Length 1504 Mtrs	13 3/8 SURFACE SET @ 2438 ft 743 m	TOTAL CIRCULATING VOL. 1375	PUMP MODEL National 12-P-160 % EFFICIENCY 97 BOTTOMS UP min
DRILL PIPE SIZE 5	HW	Length 111 Mtrs	PROD. or LNR Set @ ft m	IN STORAGE 500	BBL/STK 0.1018 STK / MIN SURFACE TO BIT min
DRILL COLLAR SIZE ("") 8		Length 182 Mtrs	MUD TYPES KCl/PHPA/Glycol		BBL/MIN GAL / MIN TOTAL CIRC. TIME min

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM	Pit	Pit	Pit	Mud Wt	10.3	Glycol	3 - 5% API 6.0
TIME SAMPLE TAKEN	02:00	13:00	21:00	Vis	45-55	Yield Point	>15 pH 9-10
FLOWLINE TEMPERATURE	°F/°C			KCl	6-8	PHPA excess	>1.5 Sulphites >100
TOTAL MEASURED DEPTH (TMD)	Feet			1797	1797	1797	

OBSERVATIONS							
WEIGHT	ppg / SG	10.30	1.24	10.35	1.24	10.35	1.24
FUNNEL VISCOSITY(sec/qt) API @	27 °C 80 °F	68	70	71	Correct solids analysis so that the retort solids is not corrected for salt.		
RHEOLOGY 600 : 300 RPM	49 °C 120 °F	75	53	70	50	69	49
RHEOLOGY 200 : 100 RPM	49 °C 120 °F	45	32	42	31	41	30
RHEOLOGY 6 : 3 RPM	49 °C 120 °F	11	9	11	9	11	9
PLASTIC VISCOSITY cP @	49 °C 120 °F	22	20	20	Volume analysis assumes riser is full of mud and not in pit.		
YIELD POINT (lb/100FT ²)	49 °C 120 °F	31	30	29	Prepared 150 bbl of 12.5% KCl brine.		
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.		8/12/17	9/14/18	10/15/18	Cleaned out Sandtrap.		
API FILTRATE (cm ³ /30 min.)		4.8	4.6	4.8	Drill water taken tested as:		
HPHT FILTRATE (cm ³ /30 min.)	121 °C 250 °F	17.0	18.0	19.0	pH: 8.3, Hardness: 180 mg/l, Pf/Mf 0.02/0.32, Cl 620 mg/l		
API : HPHT (Cake/32nd in.)		1:2	1:3	1:3	Barite Potential: 11.4 ppg, assuming 1700 bbls.		

OPERATIONS SUMMARY							
PH		9.0	8.5	8.5	Wait on weather.		
ALKALINITY MUD (Pm)							
ALKALINITY FILTRATE (Pf / Mf)		0.15	0.75	0.10	0.70	0.06	0.66
CHLORIDE (mg/L)		29500	31000	31000			
TOTAL HARDNESS (mg/L)		300	320	360			
SULPHITE (mg/L)		20					
PHPA (Calc ppb)		1.8	1.8	1.8			
GLYCOL CONTENT (% V/V)		2.2	2.2	2.2			
K+ (mg/L)		32400	32400	32400			
KCL (% by Wt.)		6.0	6.0	6.0			

MUD ACCOUNTING (BBLs)							
BARYTES (Calc ppb)		63.2	52.9	52.9			
METHYLENE BLUE CAPACITY (ppb equivalent)		12.5	12.0	11.0			
SOLIDS CONTENT (% by volume) Retort		10.50	11.60	11.60	FLUID BUILT	FLUID DISPOSED	SUMMARY
LIQUID CONTENT (% by volume) Calc		89.50	88.40	88.40	Premix - Water	150	S.C.E
CUTTINGS OIL RATIO (% oil)					Premix - Recyc		Dumped
SAND CONTENT (% by volume)		1.00	1.00	1.00	Drill Water		Downhole
					Other		Other
					RECEIVED	150	LOST
						70	FINAL
							1,875

PRODUCT USAGE								SOLIDS CONTROL EQUIPMENT							
Product	Price	Start	Received	Damage	Used	Close	Cost	SHALE SHAKERS	Hrs	#	Size	Hrs		Hrs	
KCl BB Fine	\$ 650.00	6			3	3	\$ 1,950.00	# 1	4 x 115	Desander	3	6	Centrifuge		
								# 2	4 x 115	Desilter	20	2	Centrifuge		
								# 3	4 x 115	Mud Cleaner 1			Degasser		
								# 4	4 x 84	Mud Cleaner 2			Poorboy		
										Overflow (ppg)	Underflow (ppg)		Output (Gal/Min.)		
										Desander		0			
										Desilter		0			
										Cleaner 1		0			
										Cleaner 2		0			
										Centrifuge1					
										Centrifuge2					
										CURRENCY		DAILY COST		CUMULATIVE COST	
										AUD		\$1,950.00		\$191,267.77	

I.D.F.S. Engineer: M.Docherty & J. Singh Office: BRISBANE Telephone: 07 3806-0160 Fax: 07 3806-0165

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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	13	Date	6-Sep-02
Rig #	Bounty	Spud Date	25-Aug-02
Total MD	1797	to	1797
Total VD	1795	to	1795

OPERATOR	Santos Ltd.	CONTRACTOR	DOGC
REPORT FOR	Henry Flink & Steve Hodgetts	REPORT FOR	Pedro Johns & Ronnie Safar
WELL NAME AND No	Casino 1	FIELD	VIC - P - 44
		LOCATION	STATE Otway Basin Victoria

BHA	BIT TYPE	JET SIZE			CASING			MUD VOLUME (BBL)			CIRCULATION DATA		
BIT SIZE 12 1/4	Hughes MXR09D	16	16	16	20" & 30" CONDUCTOR SET @	427	ft	HOLE 875	PITS 500	PUMP SIZE 6 x 12 Inches		CIRCULATION PRESS	psi
DRILL PIPE SIZE 5	S	Length 1504 Mtrs			13 3/8 SURFACE SET @	2438	ft	TOTAL CIRCULATING VOL. 1375		PUMP MODEL National 12-P-160	% EFFICIENCY 97	BOTTOMS UP	min
DRILL PIPE SIZE 5	HW	Length 111 Mtrs			PROD. or LNR Set @		ft	IN STORAGE 500		BBL/STK 0.1018	STK / MIN	SURFACE TO BIT	min
DRILL COLLAR SIZE ("") 8		Length 182 Mtrs			MUD TYPES KCl/PHPA/Glycol					BBL/MIN	GAL / MIN	TOTAL CIRC. TIME	min

MUD PROPERTIES						MUD PROPERTY SPECIFICATIONS					
SAMPLE FROM			Pit	Pit	Pit	Mud Wt	10.3	Glycol	3 - 5%	API	6.0
TIME SAMPLE TAKEN			03:30	13:00	20:00	Vis	45-55	Yield Point	>15	pH	9-10
FLOWLINE TEMPERATURE			°F/°C			KCl	6-8	PHPA excess	>1.5	Sulphites	>100
TOTAL MEASURED DEPTH (TMD)			Feet	1797	1797	OBSERVATIONS					

WEIGHT	ppg / SG	10.35	1.24	10.35	1.24	10.35	1.24	Service desilter and desander			
FUNNEL VISCOSITY(sec/qt) API @	21 °C 70 °F	73		72		72		Added 1.45 ppb PAC L to KCl brine in preparation for circulation.			
RHEOLOGY 600 : 300 RPM	49 °C 120 °F	69	49	69	49	67	48	Barite Potential: 11.4 ppg, assuming 1700 bbls.			
RHEOLOGY 200 : 100 RPM	49 °C 120 °F	41	29	40	29	40	29				
RHEOLOGY 6 : 3 RPM	49 °C 120 °F	10	8	10	8	10	8				
PLASTIC VISCOSITY cP @	49 °C 120 °F	20		20		19					
YIELD POINT (lb/100FT ²)	49 °C 120 °F	29		29		29		OPERATIONS SUMMARY			
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.		8/12/16		9/12/15		9/13/15					
API FILTRATE (cm ³ /30 min.)		4.6		4.8		4.7					
HPHT FILTRATE (cm ³ /30 min.)	121 °C 250 °F	19.0		20.0		20.0					
API : HPHT (Cake/32nd in.)		1:3		1:3		1:3					
PH		8.5		8.5		8.5					
ALKALINITY MUD (Pm)											
ALKALINITY FILTRATE (Pf / Mf)		0.01	0.75	0.05	0.70	0.05	0.70				
CHLORIDE (mg/L)		30000		30000		29800					
TOTAL HARDNESS (mg/L)		280		300		300					
SULPHITE (mg/L)											
PHPA (Calc ppb)		1.8		1.8		1.8					
GLYCOL CONTENT (% V/V)		2.2		2.2		2.2					
K+ (mg/L)		32400		32400		32400					
KCL (% by Wt.)		6.0		6.0		6.0					
BARYTES (Calc ppb)		61.5		58.6		58.6					

MUD ACCOUNTING (BBLs)						FLUID BUILT				FLUID DISPOSED				SUMMARY	
METHYLENE BLUE CAPACITY (ppb equivalent)		12.0		12.0		12.0		Premix - Water		S.C.E		INITIAL	1875		
SOLIDS CONTENT (% by volume) Retort		11.00		11.20		11.20		Premix - Recyc		Dumped		+ Rcd			
LIQUID CONTENT (% by volume) Calc		89.00		88.80		88.80		Drill Water		Downhole		- Lost			
CUTTINGS OIL RATIO (% oil)								Other		Other		Surface	1,000		
SAND CONTENT (% by volume)		1.00		1.00		1.00		RECEIVED		LOST		FINAL	1,875		

PRODUCT USAGE								SOLIDS CONTROL EQUIPMENT							
Product	Price	Start	Received	Damage	Used	Close	Cost	SHALES SHAKERS	Hrs	#	Size	Hrs			
PAC-L	\$ 168.00	88			4	84	\$ 672.00	# 1	4 x 115	Desander	3	6	Centrifuge		
								# 2	4 x 115	Desilter	20	2	Centrifuge		
								# 3	4 x 115	Mud Cleaner 1			Degasser		
								# 4	4 x 84	Mud Cleaner 2			Poorboy		
										Overflow (ppg)	Underflow (ppg)		Output (Gal/Min.)		
										Desander		0			
										Desilter		0			
										Cleaner 1		0			
										Cleaner 2		0			
										Centrifuge1					
										Centrifuge2					
										CURRENCY	DAILY COST	CUMULATIVE COST			
										AUD	\$672.00	\$191,939.77			

I.D.F.S. Engineer: M.Docherty & J. Singh Office: BRISBANE Telephone: 07 3806-0160 Fax: 07 3806-0165

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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	14	Date	7-Sep-02
Rig #	Ocean Bounty	Spud Date	25-Aug-02
Total MD	1797	to	1797
Total VD	1795	to	1795

OPERATOR	Santos Ltd.	CONTRACTOR	DOGC
REPORT FOR	Henry Flink & Steve Hodgetts	REPORT FOR	Pedro Johns & Ronnie Safar
WELL NAME AND No	Casino 1	FIELD	VIC - P - 44
		LOCATION	STATE
		Otway Basin	Victoria

BHA	BIT TYPE	JET SIZE	CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE 12 1/4	Hughes MXR09D	16 16 16	20" & CONDUCTOR 30" SET @ 427 ft 130 m	HOLE 875 PITS 500	PUMP SIZE 6 x 12 Inches CIRCULATION PRESS psi
DRILL PIPE SIZE 5	S	Length 1504 Mtrs	13 3/8 SURFACE SET @ 2438 ft 743 m	TOTAL CIRCULATING VOL. 1375	PUMP MODEL National 12-P-160 % EFFICIENCY 97 BOTTOMS UP min
DRILL PIPE SIZE 5	TYPE HW	Length 111 Mtrs	PROD. or LNR Set @ ft m	IN STORAGE 500	BBL/STK 0.1018 STK / MIN SURFACE TO BIT min
DRILL COLLAR SIZE ("") 8		Length 182 Mtrs	MUD TYPES KCI/PHPA/Glycol		BBL/MIN GAL / MIN TOTAL CIRC. TIME min

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM	Pit	Pit	Pit	Mud Wt	10.2	Glycol	3 - 5% API 6.0
TIME SAMPLE TAKEN	02:00	14:00	20:00	Vis	45-55	Yield Point	>15 pH 9-10
FLOWLINE TEMPERATURE	°F/°C			KCI	6-8	PHPA excess	>1.5 Sulphites >100
TOTAL MEASURED DEPTH (TMD)	Feet	1797	1797	OBSERVATIONS			

WEIGHT	ppg / SG	10.35	1.24	10.35	1.24	10.35	1.24	Mud properties quite stable. Barite Potential: 11.4 ppg, assuming 1700 bbls.
FUNNEL VISCOSITY(sec/qt) API @	21 °C 70 °F	73	70	70				
RHEOLOGY 600 : 300 RPM	49 °C 120 °F	69	49	68	48	67	48	
RHEOLOGY 200 : 100 RPM	49 °C 120 °F	40	29	40	30	40	30	
RHEOLOGY 6 : 3 RPM	49 °C 120 °F	10	7	9	7	9	7	
PLASTIC VISCOSITY cP @	49 °C 120 °F	20	20	19				
YIELD POINT (lb/100FT ²)	49 °C 120 °F	29	28	29				
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.		8/12/15	8/13/16	8/12/15				
API FILTRATE (cm ³ /30 min.)		4.8	4.6	4.4				
HPHT FILTRATE (cm ³ /30 min.)	121 °C 250 °F	21.0	21.0	21.0				

OPERATIONS SUMMARY					
PH	8.5	8.5	8.5	Wait on weather.	
ALKALINITY MUD (Pm)					
ALKALINITY FILTRATE (Pf / Mf)	0.10	0.85	0.10		0.85
CHLORIDE (mg/L)	30500	30000	30000		
TOTAL HARDNESS (mg/L)	280	300	300		
SULPHITE (mg/L)					
PHPA (Calc ppb)	1.8	1.8	1.8		
GLYCOL CONTENT (% V/V)	2.2	2.2	2.2		
K+ (mg/L)	32400	32400	32400		
KCL (% by Wt.)	6.0	6.0	6.0		

MUD ACCOUNTING (BBLs)						
METHYLENE BLUE CAPACITY (ppb equivalent)	12.5	13.0	12.5	FLUID BUILT	FLUID DISPOSED	SUMMARY
SOLIDS CONTENT (% by volume) Retort	11.00	11.20	11.20	Premix - Water	S.C.E	INITIAL 1875
LIQUID CONTENT (% by volume) Calc	89.00	88.80	88.80	Premix - Recyc	Dumped	+ Rcd
CUTTINGS OIL RATIO (% oil)				Drill Water	Downhole	- Lost
SAND CONTENT (% by volume)	1.00	1.00	0.50	Other	Other	Surface 1,000
				RECEIVED	LOST	FINAL 1,875

PRODUCT USAGE								SOLIDS CONTROL EQUIPMENT							
Product	Price	Start	Received	Damage	Used	Close	Cost	SHALES SHAKERS	Hrs	#	Size	Hrs		Hrs	
								# 1	4 x 115	Desander	3	6	Centrifuge		
								# 2	4 x 115	Desilter	20	2	Centrifuge		
								# 3	4 x 115	Mud Cleaner 1		Degasser			
								# 4	4 x 84	Mud Cleaner 2		Poorboy			
										Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)			
										Desander	0				
										Desilter	0				
										Cleaner 1	0				
										Cleaner 2	0				
										Centrifuge1					
										Centrifuge2					
										CURRENCY	DAILY COST	CUMULATIVE COST			
										AUD		\$191,939.77			

I.D.F.S. Engineer: M.Docherty & J. Singh Office: BRISBANE Telephone: 07 3806-0160 Fax: 07 3806-0165

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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd

ACN 070 415 593

Drilling Fluid Report

Report #	15	Date	8-Sep-02
Rig #	Crown Bounty	Spud Date	25-Aug-02
Total MD	1797	to	1797
Total VD	1795	to	1795

OPERATOR	Santos Ltd.	CONTRACTOR	DOGC
REPORT FOR	Henry Flink & Steve Hodgetts	REPORT FOR	Pedro Johns & Ronnie Safar
WELL NAME AND No	Casino 1	FIELD	VIC - P - 44
		LOCATION	STATE Otway Basin Victoria

BHA	BIT TYPE	JET SIZE	CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE 12 1/4	Hughes MXR09D	16 16 16	20" & CONDUCTOR 30" SET @ 427 ft 130 m	HOLE 875 PITS 500	PUMP SIZE 6 x 12 Inches CIRCULATION PRESS psi
DRILL PIPE SIZE 5	S	Length 1504 Mtrs	13 3/8 SURFACE SET @ 2438 ft 743 m	TOTAL CIRCULATING VOL. 1375	PUMP MODEL National 12-P-160 % EFFICIENCY 97 BOTTOMS UP min
DRILL PIPE SIZE 5	TYPE HW	Length 111 Mtrs	PROD. or LNR Set @ ft m	IN STORAGE 680	BBL/STK 0.1018 STK / MIN SURFACE TO BIT min
DRILL COLLAR SIZE ("") 8		Length 182 Mtrs	MUD TYPES KCI/PHPA/Glycol		BBL/MIN GAL / MIN TOTAL CIRC. TIME min

MUD PROPERTIES			MUD PROPERTY SPECIFICATIONS				
SAMPLE FROM	Pit	Pit	Pit	Mud Wt	10.2 Glycol	3 - 5% API	6.0
TIME SAMPLE TAKEN	02:00	08:00	19:00	Vis	45-55	Yield Point	>15 pH 9-10
FLOWLINE TEMPERATURE	°F/°C			KCl	6-8	PHPA excess	>1.5 Sulphites >100
TOTAL MEASURED DEPTH (TMD)	Feet	1797	1797	OBSERVATIONS			

WEIGHT	ppg / SG	10.35	1.24	10.25	1.23	10.20	1.22	Turn over mud in settling and sand trap.
FUNNEL VISCOSITY(sec/qt) API @	18 °C 65 °F	67	64	59	Run desilter, desander briefly to stir up Settling tanks.			
RHEOLOGY 600 : 300 RPM	49 °C 120 °F	64	46	63	45	55	40	And 0.1 ppb Caustic Soda and 0.2 ppb Idcide
RHEOLOGY 200 : 100 RPM	49 °C 120 °F	38	28	37	27	33	25	to surface mud.
RHEOLOGY 6 : 3 RPM	49 °C 120 °F	10	7	10	7	8	6	Prepare 200 barrel premix with 1 ppb Xanthan Gum,
PLASTIC VISCOSITY cP @	49 °C 120 °F	18	18	15	1.5 ppb PAC-L, 4% KCl and wait on barite to weight up.			
YIELD POINT (lb/100FT ²)	49 °C 120 °F	28	27	25	Increasing premix volume due to extended static period			
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.		7/11/14	7/11/14	7/11/13	of mud in the hole and expected associated high solids			
API FILTRATE (cm ³ /30 min.)		4.4	4.4	4.4	content.			
HPHT FILTRATE (cm ³ /30 min.)	121 °C 250 °F	20.0	21.0	21.0	Barite Potential: 11.3 ppg, assuming 1700 bbls.			

OPERATIONS SUMMARY						
PH	8.5	9.0	9.0	Wait on weather.		
ALKALINITY MUD (Pm)						
ALKALINITY FILTRATE (Pf / Mf)	0.10	0.90	0.15	0.95	0.10	0.70
CHLORIDE (mg/L)	29500	30000	31000			
TOTAL HARDNESS (mg/L)	280	280	320			
SULPHITE (mg/L)						
PHPA (Calc ppb)	1.8	1.8	1.8			
GLYCOL CONTENT (% V/V)	2.2	2.2	2.2			
K+ (mg/L)	32400	32400	32400			
KCL (% by Wt.)	6.0	6.0	6.0			
BARYTES (Calc ppb)	61.5	57.7	47.9			

MUD ACCOUNTING (BBLs)								
METHYLENE BLUE CAPACITY (ppb equivalent)	12.5	12.5	11.0	FLUID BUILT	FLUID DISPOSED	SUMMARY		
SOLIDS CONTENT (% by volume) Retort	11.00	10.50	10.80	Premix - Water	180	S.C.E	INITIAL	1875
LIQUID CONTENT (% by volume) Calc	89.00	89.50	89.20	Premix - Recyc		Dumped	+ Rcd	180
CUTTINGS OIL RATIO (% oil)				Drill Water		Downhole	- Lost	
SAND CONTENT (% by volume)	0.75	0.50	0.50	Other		Other	Surface	1,180
				RECEIVED	180	LOST	FINAL	2,055

PRODUCT USAGE								SOLIDS CONTROL EQUIPMENT							
Product	Price	Start	Received	Damage	Used	Close	Cost	SHALES SHAKERS	Hrs	#	Size	Hrs		Hrs	
Caustic Soda	\$ 36.60	39			2	37	\$ 73.20	# 1	4 x 115	Desander	3	6	Centrifuge		
Idcide-20	\$ 103.00	32			4	28	\$ 412.00	# 2	4 x 115	Desilter	20	2	Centrifuge		
KCl BB Fine	\$ 650.00	23			1	22	\$ 650.00	# 3	4 x 115	Mud Cleaner 1			Degasser		
PAC-L	\$ 168.00	84			6	78	\$ 1,008.00	# 4	4 x 84	Mud Cleaner 2			Poorboy		
Xanthan Gum P	\$ 411.42	81			4	77	\$ 1,645.68			Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)			
										Desander	0				
										Desilter	0				
										Cleaner 1	0				
										Cleaner 2	0				
										Centrifuge1					
										Centrifuge2					
								CURRENCY	DAILY COST		CUMULATIVE COST				
								AUD	\$3,788.88		\$195,728.65				

I.D.F.S. Engineer: M.Docherty & J. Singh Office: BRISBANE Telephone: 07 3806-0160 Fax: 07 3806-0165

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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	16	Date	9-Sep-02
Rig #	Ocean Bounty	Spud Date	25-Aug-02
Total MD	1797	to	1797
Total VD	1795	to	1795

OPERATOR	Santos Ltd.	CONTRACTOR	DOGC
REPORT FOR	Henry Flink & Steve Hodgetts	REPORT FOR	Pedro Johns & Ronnie Safar
WELL NAME AND No	Casino 1	FIELD	VIC - P - 44
		LOCATION	STATE
		Otway Basin	Victoria

BHA	BIT TYPE	JET SIZE	CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE 12 1/4	Hughes MXR09D	16 16 16	20" & CONDUCTOR 30" SET @ 427 ft 130 m	HOLE 875 PITS 500	PUMP SIZE 6 x 12 Inches CIRCULATION PRESS psi
DRILL PIPE SIZE 5	S	Length 1504 Mtrs	13 3/8 SURFACE SET @ 2438 ft 743 m	TOTAL CIRCULATING VOL. 1375	PUMP MODEL National 12-P-160 % EFFICIENCY 97 BOTTOMS UP min
DRILL PIPE SIZE 5	TYPE HW	Length 111 Mtrs	PROD. or LNR Set @ ft m	IN STORAGE 680	BBL/STK 0.1018 STK / MIN SURFACE TO BIT min
DRILL COLLAR SIZE ("") 8		Length 182 Mtrs	MUD TYPES KCI/PHPA/Glycol		BBL/MIN GAL / MIN TOTAL CIRC. TIME min

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM	Pit	Pit	Pit	Mud Wt	10.2	Glycol	3 - 5% API 6.0
TIME SAMPLE TAKEN	01:00	07:00	19:00	Vis	45-55	Yield Point	>15 pH 9-10
FLOWLINE TEMPERATURE	°F/°C			KCI	6-8	PHPA excess	>1.5 Sulphites >100
TOTAL MEASURED DEPTH (TMD)	Feet	1797	1797	OBSERVATIONS			

WEIGHT	ppg / SG	10.30	1.24	10.25	1.23	10.20	1.22	Periodically turn over mud via header box, and desilter and desander.
FUNNEL VISCOSITY(sec/qt) API @	18 °C 65 °F	60	59	58				
RHEOLOGY 600 : 300 RPM	49 °C 120 °F	59	42	56	41	59	42	
RHEOLOGY 200 : 100 RPM	49 °C 120 °F	35	26	34	24	35	26	
RHEOLOGY 6 : 3 RPM	49 °C 120 °F	9	7	9	7	8	6	
PLASTIC VISCOSITY cP @	49 °C 120 °F	17	15	17				
YIELD POINT (lb/100FT ²)	49 °C 120 °F	25	26	25				
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.		7/10/13	7/10/13	7/10/13				
API FILTRATE (cm ³ /30 min.)		4.4	4.4	4.2				
HPHT FILTRATE (cm ³ /30 min.)	121 °C 250 °F	21.0	22.0	22.0				

OPERATIONS SUMMARY				
PH	9.0	9.0	9.0	Wait on wild weather. Disconnect LMPR at 1330 hours due to increased swell.
ALKALINITY MUD (Pm)				
ALKALINITY FILTRATE (Pf / Mf)	0.10	0.70	0.10 0.85 0.10 0.80	
CHLORIDE (mg/L)	30500	30000	30500	
TOTAL HARDNESS (mg/L)	300	280	300	
SULPHITE (mg/L)				
PHPA (Calc ppb)	1.8	1.8	1.8	
GLYCOL CONTENT (% V/V)	2.2	2.2	2.2	
K+ (mg/L)	32400	32400	32400	
KCL (% by Wt.)	6.0	6.0	6.0	

MUD ACCOUNTING (BBLs)						
BARYTES (Calc ppb)	56.0	57.7	52.2	FLUID BUILT	FLUID DISPOSED	SUMMARY
METHYLENE BLUE CAPACITY (ppb equivalent)	12.0	12.0	12.0			
SOLIDS CONTENT (% by volume) Retort	11.00	10.50	10.50	Premix - Water	S.C.E	INITIAL 2055
LIQUID CONTENT (% by volume) Calc	89.00	89.50	89.50	Premix - Recyc	Dumped	+ Rcd
CUTTINGS OIL RATIO (% oil)				Drill Water	Downhole	- Lost
SAND CONTENT (% by volume)	0.50	0.50	0.50	Other	Other	Surface 1,180
				RECEIVED	LOST	FINAL 2,055

PRODUCT USAGE							SOLIDS CONTROL EQUIPMENT							
Product	Price	Start	Received	Damage	Used	Close	Cost	SHALE SHAKERS	Hrs	#	Size	Hrs		Hrs
								# 1	4 x 115	Desander	3	6	Centrifuge	
								# 2	4 x 115	Desilter	20	2	Centrifuge	
								# 3	4 x 115	Mud Cleaner 1		Degasser		
								# 4	4 x 84	Mud Cleaner 2		Poorboy		
										Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)		
										Desander	0			
										Desilter	0			
										Cleaner 1	0			
										Cleaner 2	0			
										Centrifuge1				
										Centrifuge2				
								CURRENCY		DAILY COST		CUMULATIVE COST		
								AUD				\$195,728.65		

I.D.F.S. Engineer: M.Docherty & J. Singh Office: BRISBANE Telephone: 07 3806-0160 Fax: 07 3806-0165

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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	17	Date	10-Sep-02
Rig #	Ocean Bounty	Spud Date	25-Aug-02
Total MD	1797	to	1797
Total VD	1795	to	1795

OPERATOR	Santos Ltd.	CONTRACTOR	DOGC
REPORT FOR	Henry Flink & Steve Hodgetts	REPORT FOR	Pedro Johns & Ronnie Safar
WELL NAME AND No	Casino 1	FIELD	VIC - P - 44
		LOCATION	STATE
		Otway Basin	Victoria

BHA	BIT TYPE	JET SIZE	CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE 12 1/4	Hughes MXR09D	16 16 16	20" & CONDUCTOR 30" SET @ 427 ft 130 m	HOLE 875 PITS 500	PUMP SIZE 6 x 12 Inches CIRCULATION PRESS psi
DRILL PIPE SIZE 5	S	Length 1504 Mtrs	13 3/8 SURFACE SET @ 2438 ft 743 m	TOTAL CIRCULATING VOL. 1375	PUMP MODEL National 12-P-160 % EFFICIENCY 97 BOTTOMS UP min
DRILL PIPE SIZE 5	HW	Length 111 Mtrs	PROD. or LNR Set @ ft m	IN STORAGE 680	BBL/STK 0.1018 STK / MIN SURFACE TO BIT min
DRILL COLLAR SIZE (") 8		Length 182 Mtrs	MUD TYPES KCI/PHPA/Glycol		BBL/MIN GAL / MIN TOTAL CIRC. TIME min

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM	Pit	Pit	Pit	Mud Wt	10.2	Glycol	3 - 5% API 6.0
TIME SAMPLE TAKEN	02:00	08:00	19:00	Vis	45-55	Yield Point	>15 pH 9-10
FLOWLINE TEMPERATURE	°F/°C			KCI	6-8	PHPA excess	>1.5 Sulphites >100
TOTAL MEASURED DEPTH (TMD)	Feet	1797	1797	OBSERVATIONS			

WEIGHT	ppg / SG	10.25	1.23	10.25	1.23	10.25	1.23	Periodically turn over mud via header box, and desilter and desander. Raised mud wt of Pit 3 premix to 10.3 ppb with Barite. Barite figures adjusted as per Ballast Control. Barite Potential: 11.9 ppg, assuming 1700 bbls.
FUNNEL VISCOSITY(sec/qt) API @	16 °C 60 °F	59	59	57				
RHEOLOGY 600 : 300 RPM	49 °C 120 °F	56	41	55	40	54	39	
RHEOLOGY 200 : 100 RPM	49 °C 120 °F	34	25	33	25	32	23	
RHEOLOGY 6 : 3 RPM	49 °C 120 °F	8	7	8	7	8	6	
PLASTIC VISCOSITY cP @	49 °C 120 °F	15	15	15				
YIELD POINT (lb/100FT ²)	49 °C 120 °F	26	25	24				
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.		7/10/13	7/10/13	7/10/13				
API FILTRATE (cm ³ /30 min.)		4.4	4.6	4.6				
HPHT FILTRATE (cm ³ /30 min.)	121 °C 250 °F	22.0	22.0	22.0				

OPERATIONS SUMMARY				
PH	9.0	9.0	9.0	Wait on weather Run ROV.
ALKALINITY MUD (Pm)				
ALKALINITY FILTRATE (Pf / Mf)	0.10	0.85	0.10 0.85 0.20 0.90	
CHLORIDE (mg/L)	30000	30500	30500	
TOTAL HARDNESS (mg/L)	280	280	280	
SULPHITE (mg/L)				
PHPA (Calc ppb)	1.8	1.8	1.8	
GLYCOL CONTENT (% V/V)	2.2	2.2	2.2	
K+ (mg/L)	32400	32400	32400	
KCL (% by Wt.)	6.0	6.0	6.0	

MUD ACCOUNTING (BBLs)																						
BARYTES (Calc ppb)	57.7	57.7	56.3	<table border="1"> <thead> <tr> <th>FLUID BUILT</th> <th>FLUID DISPOSED</th> <th>SUMMARY</th> </tr> </thead> <tbody> <tr> <td>Premix - Water</td> <td>S.C.E</td> <td>INITIAL 2055</td> </tr> <tr> <td>Premix - Recyc</td> <td>Dumped</td> <td>+ Rcd 20</td> </tr> <tr> <td>Drill Water</td> <td>20 Downhole</td> <td>- Lost 20</td> </tr> <tr> <td>Other</td> <td>Other</td> <td>20 Surface 1,180</td> </tr> <tr> <td>RECEIVED</td> <td>20 LOST</td> <td>20 FINAL 2,055</td> </tr> </tbody> </table>	FLUID BUILT	FLUID DISPOSED	SUMMARY	Premix - Water	S.C.E	INITIAL 2055	Premix - Recyc	Dumped	+ Rcd 20	Drill Water	20 Downhole	- Lost 20	Other	Other	20 Surface 1,180	RECEIVED	20 LOST	20 FINAL 2,055
FLUID BUILT	FLUID DISPOSED	SUMMARY																				
Premix - Water	S.C.E	INITIAL 2055																				
Premix - Recyc	Dumped	+ Rcd 20																				
Drill Water	20 Downhole	- Lost 20																				
Other	Other	20 Surface 1,180																				
RECEIVED	20 LOST	20 FINAL 2,055																				
METHYLENE BLUE CAPACITY (ppb equivalent)	12.0	12.0	12.0																			
SOLIDS CONTENT (% by volume) Retort	10.50	10.50	10.60																			
LIQUID CONTENT (% by volume) Calc	89.50	89.50	89.40																			
CUTTINGS OIL RATIO (% oil)																						
SAND CONTENT (% by volume)	0.50	0.50	0.50																			

PRODUCT USAGE								SOLIDS CONTROL EQUIPMENT									
Product	Price	Start	Received	Damage	Used	Close	Cost	SHALES SHAKERS	Hrs	#	Size	Hrs					
Barite Bulk	\$ 14.77	###	900		339	1761	\$ 5,007.03	# 1	4 x 115	Desander	3	6	Centrifuge				
Xanthan Gum P	\$ 411.42	77			1	76	\$ 411.42	# 2	4 x 115	Desilter	20	2	Centrifuge				
								# 3	4 x 115	Mud Cleaner 1			Degasser				
								# 4	4 x 84	Mud Cleaner 2			Poorboy				
								Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)					
								Desander		0							
								Desilter		0							
								Cleaner 1		0							
								Cleaner 2		0							
								Centrifuge1									
								Centrifuge2									
								CURRENCY		DAILY COST		CUMULATIVE COST					
								AUD		\$5,418.45		\$201,147.10					

I.D.F.S. Engineer: M.Docherty & J. Singh Office: BRISBANE Telephone: 07 3806-0160 Fax: 07 3806-0165

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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	18	Date	11-Sep-02
Rig #	Ocean Bounty	Spud Date	25-Aug-02
Total MD	1797	to	1797
Total VD	1795	to	1795

OPERATOR Santos Ltd.	CONTRACTOR DOGC
REPORT FOR Henry Flink & Steve Hodgetts	REPORT FOR Pedro Johns & Ronnie Safar
WELL NAME AND No Casino 1	FIELD VIC - P - 44
	LOCATION Otway Basin
	STATE Victoria

BHA	BIT TYPE	JET SIZE			CASING			MUD VOLUME (BBL)			CIRCULATION DATA		
BIT SIZE 12 1/4	Hughes MXR09D	16	16	16	20" & CONDUCTOR 30" SET @	427	ft	HOLE 875	PITS 445	PUMP SIZE 6 x 12 Inches		CIRCULATION PRESS	psi
DRILL PIPE SIZE 5	S	Length 1504 Mtrs			13 3/8 SURFACE SET @	2438	ft	TOTAL CIRCULATING VOL. 1320		PUMP MODEL National 12-P-160	% EFFICIENCY 97	BOTTOMS UP	min
DRILL PIPE SIZE 5	TYPE HW	Length 111 Mtrs			PROD. or LNR Set @		ft	IN STORAGE 680		BBL/STK 0.1018	STK / MIN	SURFACE TO BIT	min
DRILL COLLAR SIZE ("") 8		Length 182 Mtrs			MUD TYPES KCI/PHPA/Glycol					BBL/MIN	GAL / MIN	TOTAL CIRC. TIME	min

MUD PROPERTIES						MUD PROPERTY SPECIFICATIONS								
SAMPLE FROM						Pit	Pit	Pit	Mud Wt	10.2	Glycol	3 - 5%	API	6.0
TIME SAMPLE TAKEN						02:00	13:00	19:00	Vis	45-55	Yield Point	>15	pH	9-10
FLOWLINE TEMPERATURE						°F/°C			KCI	6-8	PHPA excess	>1.5	Sulphites	>100
TOTAL MEASURED DEPTH (TMD)						Feet			1797	1797	1797	OBSERVATIONS		

WEIGHT	ppg / SG	10.25	1.23	10.25	1.23	10.25	1.23	Displaced sea water in riser with mud at 20:00 Hrs.					
FUNNEL VISCOSITY(sec/qt) API @	16 °C 60 °F	58		55		54		Overdisplaced by 30 bbl to eliminate any contamination.					
RHEOLOGY 600 : 300 RPM	49 °C 120 °F	54	39	52	38	51	37	Observed loss of 25 bbl to hole on opening rams.					
RHEOLOGY 200 : 100 RPM	49 °C 120 °F	32	23	31	22	31	22						
RHEOLOGY 6 : 3 RPM	49 °C 120 °F	8	6	7	6	7	6						
PLASTIC VISCOSITY cP @	49 °C 120 °F	15		14		14							
YIELD POINT (lb/100FT ²)	49 °C 120 °F	24		24		23		Barite Potential: 12.1 ppg, assuming 1700 bbls.					
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.		6/10/13		6/10/12		6/9/12		OPERATIONS SUMMARY					
API FILTRATE (cm ³ /30 min.)		4.6		4.4		4.4		Reposition rig over well head.					
HPHT FILTRATE (cm ³ /30 min.)	121 °C 250 °F	22.0		22.0		22.0		Land and latch LMRP and test.					
API : HPHT (Cake/32nd in.)		1:3		1:3		1:3		Connected Slip Joint and Diverter.					
PH		9.0		9.0		9.0		RIH to top of BSRs, displace riser to mud.					
ALKALINITY MUD (Pm)								Open LPR and top up hole with mud. Well static.					
ALKALINITY FILTRATE (Pf / Mf)		0.20	1.00	0.20	1.00	0.20	1.00	Attempt to circulate. String plugged.					
CHLORIDE (mg/L)		29000		30000		30000		POOH.					
TOTAL HARDNESS (mg/L)		260		280		320		MUD ACCOUNTING (BBLs)					
SULPHITE (mg/L)								FLUID BUILT					
PHPA (Calc ppb)		1.8		1.8		1.8		FLUID DISPOSED					
GLYCOL CONTENT (% V/V)		2.2		2.2		2.2		SUMMARY					
K+ (mg/L)		32400		32400		32400		Premix - Water					
KCL (% by Wt.)		6.0		6.0		6.0		S.C.E					
BARYTES (Calc ppb)		57.7		50.5		53.4		Dumped					
METHYLENE BLUE CAPACITY (ppb equivalent)		12.0		11.0		11.0		30 + Rcd					
SOLIDS CONTENT (% by volume) Retort		10.50		11.00		10.80		Drill Water					
LIQUID CONTENT (% by volume) Calc		89.50		89.00		89.20		Downhole					
CUTTINGS OIL RATIO (% oil)								25 - Lost					
SAND CONTENT (% by volume)		0.50		0.50		0.50		Other					
								Surface					
								1,125					
								RECEIVED					
								LOST					
								55 FINAL					
								2,000					

PRODUCT USAGE								SOLIDS CONTROL EQUIPMENT							
Product	Price	Start	Received	Damage	Used	Close	Cost	SHALES SHAKERS	Hrs	#	Size	Hrs			Hrs
Caustic Soda	\$ 36.60	37			3	34	\$ 109.80	# 1	4 x 115	Desander	3	6	Centrifuge		
JK-261	\$ 109.70	82			4	78	\$ 438.80	# 2	4 x 115	Desilter	20	2	Centrifuge		
								# 3	4 x 115	Mud Cleaner 1			Degasser		
								# 4	4 x 84	Mud Cleaner 2			Poorboy		
								Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)			
								Desander		0					
								Desilter		0					
								Cleaner 1		0					
								Cleaner 2		0					
								Centrifuge1							
								Centrifuge2							
								CURRENCY		DAILY COST		CUMULATIVE COST			
								AUD		\$548.60		\$201,695.70			

I.D.F.S. Engineer:		M.Docherty & J. Singh		Office:		BRISBANE		Telephone:		07 3806-0160		Fax:		07 3806-0165	
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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	19	Date	12-Sep-02
Rig #	Bounty	Spud Date	25-Aug-02
Total MD	1797	to	1804
Total VD	1795	to	1802

OPERATOR		Santos Ltd.		CONTRACTOR		DOGC	
REPORT FOR		Henry Flink & Gavin Othen		REPORT FOR		Pedro Johns & Ronnie Safar	
WELL NAME AND No		Casino 1		FIELD		LOCATION	
				VIC - P - 44		STATE	
						Otway Basin	
						Victoria	

BHA	BIT TYPE	JET SIZE			CASING			MUD VOLUME (BBL)			CIRCULATION DATA		
BIT SIZE 12 1/4	Hughes MXR09D	16	16	16	20" & 30" CONDUCTOR SET @	427	ft	HOLE 882	PITS 450	PUMP SIZE 6 x 12 Inches			CIRCULATION PRESS 3550 psi
DRILL PIPE SIZE 5	S	Length 1536 Mtrs			13 3/8 SURFACE SET @	2438	ft	TOTAL CIRCULATING VOL. 1332		National 12-P-160	% EFFICIENCY 97	BOTTOMS UP 41 min	
DRILL PIPE SIZE 5	HW	Length 111 Mtrs			PROD. or LNR Set @		ft	IN STORAGE 650		BBL/STK 0.1018	STK / MIN 190	SURFACE TO BIT 5.0 min	
DRILL COLLAR SIZE (") 8		Length 157 Mtrs			MUD TYPES KCl/PHPA/Glycol					BBL/MIN 19.34	GAL / MIN 812	TOTAL CIRC. TIME 102 min	

MUD PROPERTIES						MUD PROPERTY SPECIFICATIONS					
SAMPLE FROM			Pit	FL	Pit	Mud Wt 10.2	Glycol 3 - 5%	API 6.0			
TIME SAMPLE TAKEN			08:30	17:40	22:00	Vis 45-55	Yield Point >15	pH 9-10			
FLOWLINE TEMPERATURE			°F/°C 70 21 70 21 72 22		KCl 6-8	PHPA excess >1.5	Sulphites >100				
TOTAL MEASURED DEPTH (TMD)			Feet 1797 1797 1797		OBSERVATIONS						

WEIGHT			ppg / SG	10.00	1.20	10.10	1.21	10.30	1.24	Build 240 bbls of new mud with 0.4 ppb Caustic Soda, 1.3 ppb Xanthan Gum, 1.3 PAC-L, 6% KCl and weight up to 10.2 ppg.		
FUNNEL VISCOSITY(sec/qt) API @			18 °C 65 °F	54	52	61				Some mud losses on surface due to wet trip.		
RHEOLOGY 600 : 300 RPM			49 °C 120 °F	55	39	58	42	66	47	Bottoms Up mud at 950 m was in satisfactory condition.		
RHEOLOGY 200 : 100 RPM			49 °C 120 °F	33	24	35	25	39	29	Bottoms Up mud at 1650 m was showing signs of degradation and 120 bbl was dumped.		
RHEOLOGY 6 : 3 RPM			49 °C 120 °F	8	6	8	6	10	8	Treating system with weighted premixes to re-establish mud properties.		
PLASTIC VISCOSITY cP @			49 °C 120 °F	16	16	19				Barite Potential: 13.8 ppg, assuming gauge hole.		
YIELD POINT (lb/100FT ²)			49 °C 120 °F	23	26	28				OPERATIONS SUMMARY		
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.				6/8/12	7/10/13	8/12/13						
API FILTRATE (cm ³ /30 min.)				7.2	4.8	4.6						
HPHT FILTRATE (cm ³ /30 min.)			121 °C 250 °F	28.0	24.0	20.0						
API : HPHT (Cake/32nd in.)				1:3	1:3	1:3						
PH				9.0	9.5	9.5						
ALKALINITY MUD (Pm)												
ALKALINITY FILTRATE (Pf / Mf)				0.20	1.00	0.25	1.20	0.22	1.00			
CHLORIDE (mg/L)				30000	28000	30000				RIH to 663m. Circulate B/U through choke. Flow check static.		
TOTAL HARDNESS (mg/L)				280	240	280				Circulate B/U via riser. Flow Check. Pressure test BOPs and surface lines. Function test diverter. RIH. Circulate B/U through choke at 950 m. RIH to 1717m. Wash and ream with 10 -20K drag. 27m of fill on bottom.		
SULPHITE (mg/L)										Drill 12.25" hole. Pump 30 bbl high viscosity sweep.		
PHPA (Calc ppb)				1.8	1.8	1.6				Barite figures as per Ballast Control.		
GLYCOL CONTENT (% V/V)				2.0	1.5	1.5				MUD ACCOUNTING (BBLs)		
K+ (mg/L)				29700	27000	32400						
KCL (% by Wt.)				5.5	5.0	6.0						
BARYTES (Calc ppb)				44.5	48.3	56.0						
METHYLENE BLUE CAPACITY (ppb equivalent)				12.0	11.0	11.0				FLUID BUILT		
SOLIDS CONTENT (% by volume) Retort				9.50	10.00	11.00	Premix - Water	200	S.C.E	64	INITIAL	2000
LIQUID CONTENT (% by volume) Calc				90.50	90.00	89.00	Premix - Recyc		Dumped	120	+ Rcd	200
CUTTINGS OIL RATIO (% oil)							Drill Water		Downhole	14	- Lost	218
SAND CONTENT (% by volume)				0.50	0.50	0.50	Other		Other	20	Surface	1,100
							RECEIVED	200	LOST	218	FINAL	1,982

PRODUCT USAGE								SOLIDS CONTROL EQUIPMENT							
Product	Price	Start	Received	Damage	Used	Close	Cost	SHALES SHAKERS	Hrs	#	Size	Hrs			
Barite Bulk	\$ 14.77	###	###		272	3188	\$ 4,017.44	# 1	4 x 115	6	Desander	3	6	Centrifuge	
Caustic Soda	\$ 36.60	34			2	32	\$ 73.20	# 2	4 x 115	6	Desilter	20	2	3	Centrifuge
JK-261	\$ 109.70	78			5	73	\$ 548.50	# 3	4 x 115	6	Mud Cleaner 1		Degasser		
KCl BB Fine	\$ 650.00	22			4	18	\$ 2,600.00	# 4	4 x 84		Mud Cleaner 2		Poorboy		
PAC-L	\$ 168.00	78			6	72	\$ 1,008.00				Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)		
Sodium Sulphite	\$ 25.02	58			3	55	\$ 75.06				Desander	0			
Xanthan Gum P	\$ 411.42	76			11	65	\$ 4,525.62				Desilter	10.1	11.3	15.00	
											Cleaner 1	0			
											Cleaner 2	0			
											Centrifuge1				
											Centrifuge2				
								CURRENCY		DAILY COST		CUMULATIVE COST			
								AUD		\$12,847.82		\$214,543.52			

I.D.F.S. Engineer:	M.Docherty & J. Singh	Office:	BRISBANE	Telephone:	07 3806-0160	Fax:	07 3806-0165
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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	20	Date	13-Sep-02
Rig #	0000	Spud Date	25-Aug-02
Total MD	1804	to	2043
Total VD	1802	to	2041

OPERATOR	Santos Ltd.	CONTRACTOR	DOGC
REPORT FOR	Henry Flink & Gavin Othen	REPORT FOR	Ricky Graham & Ronnie Safar
WELL NAME AND No	Casino 1	FIELD	VIC - P - 44
		LOCATION	STATE
		Otway Basin	Victoria

BHA	BIT TYPE	JET SIZE	CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE 12 1/4	Hughes MXR09D	16 16 16	20" & CONDUCTOR 30" SET @ 427 ft 130 m	HOLE 992 PITS 500	PUMP SIZE 6 x 12 Inches CIRCULATION PRESS 3900 psi
DRILL PIPE SIZE 5	S	Length 1775 Mtrs	13 3/8 SURFACE SET @ 2438 ft 743 m	TOTAL CIRCULATING VOL. 1492	PUMP MODEL National 12-P-160 % EFFICIENCY 97
DRILL PIPE SIZE 5	HW	Length 111 Mtrs	PROD. or LNR Set @ ft m	IN STORAGE 550	BOTTOMS UP 46 min
DRILL COLLAR SIZE ("") 8		Length 157 Mtrs	MUD TYPES KCI/PHPA/Glycol		SURFACE TO BIT 5.8 min
					TOTAL CIRC. TIME 107 min

MUD PROPERTIES			MUD PROPERTY SPECIFICATIONS		
SAMPLE FROM	Pit	Pit	Pit	Mud Wt 10.2	Glycol 3 - 5% API 6.0
TIME SAMPLE TAKEN	01:30	09:00	19:30	Vis 45-55	Yield Point >15 pH 9-10
FLOWLINE TEMPERATURE °F/°C	118 48	118 48	130 54	KCl 6-8	PHPA excess >1.5 Sulphites >100
TOTAL MEASURED DEPTH (TMD) Feet	1811	1837	2001	OBSERVATIONS	

WEIGHT ppg / SG	10.25 1.23	10.20 1.22	10.30 1.24	Bleed in premix with 1 ppb Xanthan Gum, 1.3 ppb PAC-L, 6% KCl 1,6ppb JK261, 0.6 ppb Idcide weighted with barite. Selectively use desilter, upgrade shaker screens to 145 mesh.	
FUNNEL VISCOSITY(sec/qt) API @ 49 °C 120 °F	60	55	56	Added dry PHPA (0.3 ppb)	
RHEOLOGY 600 : 300 RPM 49 °C 120 °F	62 45	64 45	70 48	Barite figures as per Ballast Control.	
RHEOLOGY 200 : 100 RPM 49 °C 120 °F	37 28	38 28	39 28	Observed increase in Mud Wt to 10.4 ppg. Started Desilter at 20:30 Hrs and bleeding unweighted premix.	
RHEOLOGY 6 : 3 RPM 49 °C 120 °F	9 7	9 7	9 7	Barite Potential: 13.18 ppg, assuming gauge hole.	
PLASTIC VISCOSITY cP @ 49 °C 120 °F	17	19	22	OPERATIONS SUMMARY	
YIELD POINT (lb/100FT ²) 49 °C 120 °F	28	26	26	Drill 12.25" hole to 2043 m.	
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.	7/11/13	8/11/13	7/12/15		
API FILTRATE (cm ³ /30 min.)	4.8	4.8	4.4		
HPHT FILTRATE (cm ³ /30 min.) 121 °C 250 °F	22.0	20.0	18.0		
API : HPHT (Cake/32nd in.)	1:3	1:3	1:3		
PH	9.5	9.5	9.5		

ALKALINITY MUD (Pm)						
ALKALINITY FILTRATE (Pf / Mf)	0.15 0.90	0.10 0.90	0.18 1.00			
CHLORIDE (mg/L)	29000	31000	31400			
TOTAL HARDNESS (mg/L)	320	320	240			
SULPHITE (mg/L)	60	60	100			
PHPA (Calc ppb)	1.7	1.7	1.8			
GLYCOL CONTENT (% V/V)	1.8	1.5	1.5			
K+ (mg/L)	32400	35100	37800			
KCL (% by Wt.)	6.0	6.5	7.0			
BARYTES (Calc ppb)	57.7	59.4	41.6	MUD ACCOUNTING (BBLs)		
METHYLENE BLUE CAPACITY (ppb equivalent)	12.0	12.0	11.0	FLUID BUILT	FLUID DISPOSED	SUMMARY
SOLIDS CONTENT (% by volume) Retort	10.50	10.00	12.00	Premix - Water 400	S.C.E 200	INITIAL 1982
LIQUID CONTENT (% by volume) Calc	89.50	90.00	88.00	Premix - Recyc	Dumped	+ Rcd 400
CUTTINGS OIL RATIO (% oil)				Drill Water	Downhole 81	- Lost 341
SAND CONTENT (% by volume)	1.00	1.25	0.50	Other	Other 60	Surface 1,050
				RECEIVED 400	LOST 341	FINAL 2,042

PRODUCT USAGE								SOLIDS CONTROL EQUIPMENT							
Product	Price	Start	Received	Damage	Used	Close	Cost	SHALES SHAKERS	Hrs	#	Size	Hrs		Hrs	
Barite Bulk	\$ 14.77	###			361	2827	\$ 5,331.97	# 1	4 x 145	24	Desander	3	6	Centrifuge	
Caustic Soda	\$ 36.60	32			2	30	\$ 73.20	# 2	4 x 145	24	Desilter	20	2	14 Centrifuge	
Icdide-20	\$ 103.00	28			11	17	\$ 1,133.00	# 3	4 x 145	24	Mud Cleaner 1		Degasser	17	
JK-261	\$ 109.70	73			22	51	\$ 2,413.40	# 4	4 x 84		Mud Cleaner 2		Poorboy		
KCl BB Fine	\$ 650.00	18			6	12	\$ 3,900.00	Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)			
PAC-L	\$ 168.00	72			17	55	\$ 2,856.00	Desander		0					
Sodium Sulphite	\$ 25.02	55			7	48	\$ 175.14	Desilter		10.1		14.1 10.00			
Xanthan Gum P	\$ 411.42	65			6	59	\$ 2,468.52	Cleaner 1		0					
								Cleaner 2		0					
								Centrifuge1							
								Centrifuge2							
								CURRENCY		DAILY COST		CUMULATIVE COST			
								AUD		\$18,351.23		\$232,894.75			

I.D.F.S. Engineer: M.Docherty & J. Singh Office: BRISBANE Telephone: 07 3806-0160 Fax: 07 3806-0165

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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	21	Date	14-Sep-02
Rig #	Ocean Bounty	Spud Date	25-Aug-02
Total MD	2043	to	2118
Total VD	2041	to	2116

OPERATOR	Santos Ltd.	CONTRACTOR	DOGC
REPORT FOR	Henry Flink & Gavin Othen	REPORT FOR	Ricky Graham & Ronnie Safar
WELL NAME AND No	Casino 1	FIELD	VIC - P - 44
		LOCATION	STATE
		Otway Basin	Victoria

BHA	BIT TYPE	JET SIZE	CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE 12 1/4	Hughes MXR09D	16 16 16	20" & CONDUCTOR 30" SET @ 427 ft 130 m	HOLE 1026 PITS 580	PUMP SIZE 6 x 12 Inches CIRCULATION PRESS 3900 psi
DRILL PIPE SIZE 5	S	Length 1850 Mtrs	13 3/8 SURFACE SET @ 2438 ft 743 m	TOTAL CIRCULATING VOL. 1606	PUMP MODEL National 12-P-160 % EFFICIENCY 97
DRILL PIPE SIZE 5	HW	Length 111 Mtrs	PROD. or LNR Set @ ft m	IN STORAGE 365	BBL/STK 0.1018 STK / MIN 190
DRILL COLLAR SIZE ("") 8		Length 157 Mtrs	MUD TYPES KCl/PHPA/Glycol		BBL/MIN 19.34 GAL / MIN 812 TOTAL CIRC. TIME 102 min

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM	Pit	Pit	Pit	Mud Wt	10.2	Glycol	3 - 5% API 6.0
TIME SAMPLE TAKEN	01:00	11:00	19:00	Vis	45-55	Yield Point	>15 pH 9-10
FLOWLINE TEMPERATURE	°F/°C 135 57 140 60			KCl	6-8	PHPA excess	>1.5 Sulphites >100
TOTAL MEASURED DEPTH (TMD)	Feet 2065 2118 2118			OBSERVATIONS			

WEIGHT	ppg / SG	10.40	1.25	10.20	1.22	10.20	1.22	Run desander and desilter and bleed in unweighted premix to lower mud weight from 10.4 - 10.2ppg. Dump sand trap.
FUNNEL VISCOSITY(sec/qt) API @	43 °C 110 °F	59	54	54	Add premix with 1.3 ppb PAC-L and 6% KCl to kerb rising rheology.			
RHEOLOGY 600 : 300 RPM	49 °C 120 °F	67	48	60	43	68	48	Replace worn 10 x s145 shaker screens after 24 hours use.
RHEOLOGY 200 : 100 RPM	49 °C 120 °F	38	28	35	23	38	27	Hole taking less than half a barrel/hour while logging.
RHEOLOGY 6 : 3 RPM	49 °C 120 °F	8	6	8	6	8	6	Barite Potential:12.84 ppg, assuming gauge hole.
PLASTIC VISCOSITY cP @	49 °C 120 °F	19	17	20	OPERATIONS SUMMARY			
YIELD POINT (lb/100FT ²)	49 °C 120 °F	29	26	28	Drill 12.25" hole to 2118 m.			
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.		7/11/14	7/10/12	7/11/13	Circulate bottoms up. Boost riser till clean.			
API FILTRATE (cm ³ /30 min.)		4.6	4.8	5.2	Flow check. POOH from 2118m, 60K overpull at 1805m and at 1760m. Flow check at shoe. POOH. B/O bit.			
HPHT FILTRATE (cm ³ /30 min.)	121 °C 250 °F	18.0	18.0	18.0	RIH with log 1 PEX-DSI-HALS. Monitor well on trip tank.			
API : HPHT (Cake/32nd in.)		1:3	1:3	1:3	OPERATIONS SUMMARY			
PH		9.0	9.0	9.0	Drill 12.25" hole to 2118 m.			
ALKALINITY MUD (Pm)					Circulate bottoms up. Boost riser till clean.			
ALKALINITY FILTRATE (Pf / Mf)		0.10	0.85	0.10	0.90	0.13	0.85	Flow check. POOH from 2118m, 60K overpull at 1805m and at 1760m. Flow check at shoe. POOH. B/O bit.
CHLORIDE (mg/L)		31000	31500	32500	RIH with log 1 PEX-DSI-HALS. Monitor well on trip tank.			
TOTAL HARDNESS (mg/L)		280	380	400	OPERATIONS SUMMARY			
SULPHITE (mg/L)		100	80	80	Drill 12.25" hole to 2118 m.			
PHPA (Calc ppb)		1.9	1.8	1.9	Circulate bottoms up. Boost riser till clean.			
GLYCOL CONTENT (% V/V)		1.5	1.5	1.5	Flow check. POOH from 2118m, 60K overpull at 1805m and at 1760m. Flow check at shoe. POOH. B/O bit.			
K+ (mg/L)		37800	37800	40500	RIH with log 1 PEX-DSI-HALS. Monitor well on trip tank.			
KCL (% by Wt.)		7.0	7.0	7.5	OPERATIONS SUMMARY			
BARYTES (Calc ppb)		52.6	52.2	53.7	Drill 12.25" hole to 2118 m.			
METHYLENE BLUE CAPACITY (ppb equivalent)		12.5	12.0	10.0	Circulate bottoms up. Boost riser till clean.			

MUD ACCOUNTING (BBLs)				MUD ACCOUNTING (BBLs)			
				FLUID BUILT	FLUID DISPOSED		SUMMARY
SOLIDS CONTENT (% by volume) Retort	12.00	10.50	10.40	Premix - Water	200	S.C.E	127 INITIAL 2042
LIQUID CONTENT (% by volume) Calc	88.00	89.50	89.60	Premix - Recyc		Dumped	90 + Rcd 200
CUTTINGS OIL RATIO (% oil)				Drill Water		Downhole	24 - Lost 271
SAND CONTENT (% by volume)	0.50	0.50	0.50	Other		Other	30 Surface 945
				RECEIVED	200	LOST	271 FINAL 1,971

PRODUCT USAGE								SOLIDS CONTROL EQUIPMENT											
Product	Price	Start	Received	Damage	Used	Close	Cost	SHALES SHAKERS	Hrs	#	Size	Hrs							
Barite Bulk	\$ 14.77	###			76	2751	\$ 1,122.52	# 1	4 x 145	14	Desander	3	6	3	Centrifuge				
Caustic Soda	\$ 36.60	30			3	27	\$ 109.80	# 2	4 x 145	14	Desilter	20	2	7	Centrifuge				
Defoamer-A	\$ 245.33	30			2	28	\$ 490.66	# 3	4 x 145	14	Mud Cleaner 1		Degasser 3						
Idcide-20	\$ 103.00	17			6	11	\$ 618.00	# 4	4 x 84	14	Mud Cleaner 2		Poorboy						
JK-261	\$ 109.70	51			8	43	\$ 877.60			Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)							
KCl BB Fine	\$ 650.00	12			2	10	\$ 1,300.00			Desander	10.3	10.7	4.00						
PAC-L	\$ 168.00	55			6	49	\$ 1,008.00			Desilter	10.2	12.9	11.00						
Sodium Sulphite	\$ 25.02	48			5	43	\$ 125.10			Cleaner 1			0						
										Cleaner 2			0						
										Centrifuge1									
										Centrifuge2									
								CURRENCY	DAILY COST				CUMULATIVE COST						
								AUD	\$5,651.68				\$238,546.43						

I.D.F.S. Engineer: M.Docherty & J. Singh Office: BRISBANE Telephone: 07 3806-0160 Fax: 07 3806-0165

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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	22	Date	15-Sep-02
Rig #	Ocean Bounty	Spud Date	25-Aug-02
Total MD	2118	to	2118
Total VD	2116	to	2116

OPERATOR	Santos Ltd.	CONTRACTOR	DOGC
REPORT FOR	Henry Flink & Gavin Othen	REPORT FOR	Ricky Graham & Ronnie Safar
WELL NAME AND No	Casino 1	FIELD	VIC - P - 44
		LOCATION	STATE Otway Basin Victoria

BHA	BIT TYPE	JET SIZE			CASING			MUD VOLUME (BBL)			CIRCULATION DATA		
BIT SIZE 12 1/4	Hughes MXR09D	16	16	16	20" & 30" CONDUCTOR SET @	427	ft	HOLE 1026	PITS 570	PUMP SIZE 6 x 12 Inches		CIRCULATION PRESS	psi
DRILL PIPE SIZE 5	S	Length 1850 Mtrs			13 3/8 SURFACE SET @	2438	ft	TOTAL CIRCULATING VOL. 1596		PUMP MODEL National 12-P-160	% EFFICIENCY 97	BOTTOMS UP	min
DRILL PIPE SIZE 5	TYPE HW	Length 111 Mtrs			PROD. or LNR Set @		ft	IN STORAGE 365		BBL/STK 0.1018	STK / MIN	SURFACE TO BIT	min
DRILL COLLAR SIZE ("") 8		Length 157 Mtrs			MUD TYPES KCI/PHPA/Glycol					BBL/MIN	GAL / MIN	TOTAL CIRC. TIME	min

MUD PROPERTIES						MUD PROPERTY SPECIFICATIONS					
SAMPLE FROM			Pit	Pit	Pit	Mud Wt	10.2	Glycol	3 - 5%	API	6.0
TIME SAMPLE TAKEN			04:00	13:00	20:00	Vis	45-55	Yield Point	>15	pH	9-10
FLOWLINE TEMPERATURE			°F/°C			KCI	6-8	PHPA excess	>1.5	Sulphites	>100
TOTAL MEASURED DEPTH (TMD)			Feet	2118	2118	OBSERVATIONS Open Hole 31% overgauge as per Caliper data. Hole taking about 0.4 bbl an hour during logging. Barite Potential: 12.94 ppg, assuming gauge hole.					
WEIGHT			ppg / SG	10.30	1.24						
FUNNEL VISCOSITY(sec/qt) API @			32 °C 90 °F	59	57						
RHEOLOGY 600 : 300 RPM			49 °C 120 °F	71	50						
RHEOLOGY 200 : 100 RPM			49 °C 120 °F	41	29						
RHEOLOGY 6 : 3 RPM			49 °C 120 °F	9	7						
PLASTIC VISCOSITY cP @			49 °C 120 °F	21	20						
YIELD POINT (lb/100FT ²)			49 °C 120 °F	29	27						
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.				7/11/14	8/12/14						
API FILTRATE (cm ³ /30 min.)				4.6	4.6						
HPHT FILTRATE (cm ³ /30 min.)			121 °C 250 °F	18.0	18.0						
API : HPHT (Cake/32nd in.)				1:3	1:3						
PH				9.0	9.0						
ALKALINITY MUD (Pm)											
ALKALINITY FILTRATE (Pf / Mf)				0.10	0.85						
CHLORIDE (mg/L)				33000	33000						
TOTAL HARDNESS (mg/L)				400	300						
SULPHITE (mg/L)				80	80						
PHPA (Calc ppb)				1.9	1.9						
GLYCOL CONTENT (% V/V)				1.5	1.5						
K+ (mg/L)				40500	40500						
KCL (% by Wt.)				7.5	7.5						
BARYTES (Calc ppb)				56.1	59.0						

OPERATIONS SUMMARY					
Logging tools reached 2098m.					
Conducted Following runs:					
# 1: PEX-DSI					
# 2: MDT-GR					
# 3: CSD-GR					

MUD ACCOUNTING (BBLs)					
METHYLENE BLUE CAPACITY (ppb equivalent)				12.0	11.0
SOLIDS CONTENT (% by volume) Retort				11.00	10.80
LIQUID CONTENT (% by volume) Calc				89.00	89.20
CUTTINGS OIL RATIO (% oil)					
SAND CONTENT (% by volume)				0.50	0.50

PRODUCT USAGE							SOLIDS CONTROL EQUIPMENT							
Product	Price	Start	Received	Damage	Used	Close	Cost	SHALE SHAKERS	Hrs	#	Size	Hrs		Hrs
								# 1	4 x 145	14	Desander	3	6	Centrifuge
								# 2	4 x 145	14	Desilter	20	2	Centrifuge
								# 3	4 x 145	14	Mud Cleaner 1		Degasser	
								# 4	4 x 84		Mud Cleaner 2		Poorboy	
										Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)		
								Desander			0			
								Desilter			0			
								Cleaner 1			0			
								Cleaner 2			0			
								Centrifuge1						
								Centrifuge2						
								CURRENCY	DAILY COST			CUMULATIVE COST		
								AUD				\$238,546.43		

I.D.F.S. Engineer: M.Docherty & J. Singh Office: BRISBANE Telephone: 07 3806-0160 Fax: 07 3806-0165

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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	23	Date	16-Sep-02
Rig #	Ocean Bounty	Spud Date	25-Aug-02
Total MD	2118	to	2118
Total VD	2116	to	2116

OPERATOR	Santos Ltd.	CONTRACTOR	DOGC
REPORT FOR	Henry Flink & Gavin Othen	REPORT FOR	Ricky Graham & Ronnie Safar
WELL NAME AND No	Casino 1	FIELD	VIC - P - 44
		LOCATION	STATE
		Otway Basin	Victoria

BHA	BIT TYPE	JET SIZE	CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE 12 1/4		52 52 52	20" & CONDUCTOR 30" SET @ 427 ft 130 m	HOLE 1055 PITS 450	PUMP SIZE 6 x 12 Inches CIRCULATION PRESS 1000 psi
DRILL PIPE SIZE 5	S	Length 1928 Mtrs	13 3/8 SURFACE SET @ 2438 ft 743 m	TOTAL CIRCULATING VOL. 1505	PUMP MODEL National 12-P-160 % EFFICIENCY 97 BOTTOMS UP 49 min
DRILL PIPE SIZE 3 1/2	HW	Length 190 Mtrs	PROD. or LNR Set @ ft m	IN STORAGE 330	BBL/STK 0.1018 STK / MIN 190 SURFACE TO BIT 6.1 min
DRILL COLLAR SIZE (")		Length Mtrs	MUD TYPES KCl/PHPA/Glycol		BBL/MIN 19.34 GAL / MIN 812 TOTAL CIRC. TIME 95 min

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM	Pit	Pit	Pit	Mud Wt	10.2	Glycol	3 - 5% API 6.0
TIME SAMPLE TAKEN	04:00	14:00	19:00	Vis	45-55	Yield Point	>15 pH 9-10
FLOWLINE TEMPERATURE	°F/°C		120 49	KCl	6-8	PHPA excess	>1.5 Sulphites >100
TOTAL MEASURED DEPTH (TMD)	Feet	2118	2118	OBSERVATIONS			

WEIGHT	ppg / SG	10.30	1.24	10.25	1.23	10.20	1.22	Prepare 120 bbls high viscosity pill with 1.6 ppb Xanthan Gum Dumped 120 bbl of contaminated mud at 18:30 Hrs while circulating as indicated by high pH. Barite Potential: 13 ppg, assuming gauge hole.
FUNNEL VISCOSITY(sec/qt) API @	38 °C 100 °F	58	57	62				
RHEOLOGY 600 : 300 RPM	49 °C 120 °F	68	46	67	47	72	50	
RHEOLOGY 200 : 100 RPM	49 °C 120 °F	37	26	38	27	41	29	
RHEOLOGY 6 : 3 RPM	49 °C 120 °F	8	6	8	6	8	6	
PLASTIC VISCOSITY cP @	49 °C 120 °F	22	20	22				
YIELD POINT (lb/100FT ²)	49 °C 120 °F	24	27	28				
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.		7/10/13	7/12/14	7/14/16				
API FILTRATE (cm ³ /30 min.)		4.8	4.6	6.0				
HPHT FILTRATE (cm ³ /30 min.)	121 °C 250 °F	20.0	20.0	22.0				

OPERATIONS SUMMARY							
PH	9.0	8.5	10.5	RIH with cement stinger.			
ALKALINITY MUD (Pm)		0	1.4	Circulated hole clean.			
ALKALINITY FILTRATE (Pf / Mf)	0.10	0.90	0.02	0.60	0.30	1.00	Placed cement plugs as per P & A program.
CHLORIDE (mg/L)	32500	33000	32500				
TOTAL HARDNESS (mg/L)	360	560	560				
SULPHITE (mg/L)							
PHPA (Calc ppb)	1.8	1.8	1.8				
GLYCOL CONTENT (% V/V)	1.5	1.5	1.5				
K+ (mg/L)	40500	40500	40500				
KCL (% by Wt.)	7.5	7.5	7.5				

MUD ACCOUNTING (BBLs)						
BARYTES (Calc ppb)	56.1	53.4	53.7	FLUID BUILT	FLUID DISPOSED	SUMMARY
METHYLENE BLUE CAPACITY (ppb equivalent)	12.0	11.0	11.0	Premix - Water	S.C.E	INITIAL 1961
SOLIDS CONTENT (% by volume) Retort	11.00	10.80	10.40	Premix - Recyc	Dumped 120	+ Rcd
LIQUID CONTENT (% by volume) Calc	89.00	89.20	89.60	Drill Water	Downhole 6	- Lost 126
CUTTINGS OIL RATIO (% oil)				Other	Other	Surface 780
SAND CONTENT (% by volume)	0.50	0.50	0.50	RECEIVED	LOST	126 FINAL 1,835

PRODUCT USAGE								SOLIDS CONTROL EQUIPMENT							
Product	Price	Start	Received	Damage	Used	Close	Cost	SHALES SHAKERS	Hrs	#	Size	Hrs		Hrs	
Xanthan Gum P	\$ 411.42	59			4	55	\$ 1,645.68	# 1	4 x 145	18	Desander	3	6	Centrifuge	
								# 2	4 x 145	18	Desilter	20	2	Centrifuge	
								# 3	4 x 145	18	Mud Cleaner 1		Degasser		
								# 4	4 x 84		Mud Cleaner 2		Poorboy		
											Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)		
											Desander	0			
											Desilter	0			
											Cleaner 1	0			
											Cleaner 2	0			
											Centrifuge1				
											Centrifuge2				
											CURRENCY	DAILY COST	CUMULATIVE COST		
											AUD	\$1,645.68	\$240,192.11		

I.D.F.S. Engineer: M.Docherty & J. Singh Office: BRISBANE Telephone: 07 3806-0160 Fax: 07 3806-0165

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INDEPENDENT DRILLING FLUID SERVICES

A Division of Rheochem Pty Ltd ACN 070 415 593

Drilling Fluid Report

Report #	24	Date	17-Sep-02
Rig #	Bounty	Spud Date	25-Aug-02
Total MD	2118	to	2118
Total VD	2116	to	2116

OPERATOR Santos Ltd.	CONTRACTOR DOGC
REPORT FOR Henry Flink & Gavin Othen	REPORT FOR Ricky Graham & Ronnie Safar
WELL NAME AND No Casino 1	FIELD VIC - P - 44
	LOCATION Otway Basin
	STATE Victoria

BHA	BIT TYPE	JET SIZE			CASING			MUD VOLUME (BBL)			CIRCULATION DATA		
BIT SIZE 12 1/4		52	52	52	20" & CONDUCTOR 30" SET @	427	ft	HOLE 1099	PITS	PUMP SIZE 6 x 12 Inches		CIRCULATION PRESS	psi
DRILL PIPE SIZE		Length 2118 Mtrs			13 3/8 SURFACE SET @	2438	ft	TOTAL CIRCULATING VOL. 1099		PUMP MODEL National 12-P-160	% EFFICIENCY 97	BOTTOMS UP	min
DRILL PIPE SIZE	TYPE HW	Length Mtrs			PROD. or LNR Set @		ft	IN STORAGE		BBL/STK 0.1018	STK / MIN	SURFACE TO BIT	min
DRILL COLLAR SIZE (")		Length Mtrs			MUD TYPES KCI/PHPA/Glycol					BBL/MIN	GAL / MIN	TOTAL CIRC. TIME	min

MUD PROPERTIES						MUD PROPERTY SPECIFICATIONS								
SAMPLE FROM			Pit			Pit			Mud Wt	10.2	Glycol	3 - 5%	API	6.0
TIME SAMPLE TAKEN			02:00			08:00			Vis	45-55	Yield Point	>15	pH	9-10
FLOWLINE TEMPERATURE			°F/°C						KCl	6-8	PHPA excess	>1.5	Sulphites	>100
TOTAL MEASURED DEPTH (TMD)			Feet			2118			OBSERVATIONS					

WEIGHT	ppg / SG	10.20	1.22			10.20	1.22	Spot 40 bbl High vis pills below cement plugs.					
FUNNEL VISCOSITY(sec/qt) API @	29 °C 85 °F	63				66		Treat mud to be left in casing with 0.5 ppb Caustic Soda and 0.4 ppb Iddcide.					
RHEOLOGY 600 : 300 RPM	49 °C 120 °F	73	51			76	52	Dump and clean tanks after displacing riser to seawater.					
RHEOLOGY 200 : 100 RPM	49 °C 120 °F	41	29			43	31						
RHEOLOGY 6 : 3 RPM	49 °C 120 °F	8	6			9	7						
PLASTIC VISCOSITY cP @	49 °C 120 °F	22				24							
YIELD POINT (lb/100FT ²)	49 °C 120 °F	29				28		Mud received is cement slurries.					
GEL STRENGTH (lb/100ft ²) 10 sec/10 min/30 min.		8/15/17		//		9/15/18							
API FILTRATE (cm ³ /30 min.)		6.0				6.6							
HPHT FILTRATE (cm ³ /30 min.)	121 °C 250 °F	22.0				24.0							

OPERATIONS SUMMARY														
PH			11.0			11.5			Follow P & A program					
ALKALINITY MUD (Pm)			2.0			2.6			Wait on weather					
ALKALINITY FILTRATE (Pf / Mf)			0.40 1.10			0.70 1.40								
CHLORIDE (mg/L)			33000			33000								
TOTAL HARDNESS (mg/L)			640			640								
SULPHITE (mg/L)														
PHPA (Calc ppb)			1.8			1.8								
GLYCOL CONTENT (% V/V)			1.5			1.5								
K+ (mg/L)			40500			40500								
KCL (% by Wt.)			7.5			7.5								
BARYTES (Calc ppb)			53.7			52.2								

MUD ACCOUNTING (BBLs)														
METHYLENE BLUE CAPACITY (ppb equivalent)			12.0			12.0			FLUID BUILT		FLUID DISPOSED		SUMMARY	
SOLIDS CONTENT (% by volume) Retort			10.40			10.50			Premix - Water		S.C.E		INITIAL 1835	
LIQUID CONTENT (% by volume) Calc			89.60			89.50			Premix - Recyc		Dumped		1066 + Rcd 330	
CUTTINGS OIL RATIO (% oil)									Drill Water		Downhole		0 - Lost 1,066	
SAND CONTENT (% by volume)			0.50			0.50			Other		330 Other		Surface	
									RECEIVED		330 LOST		1066 FINAL 1,099	

PRODUCT USAGE								SOLIDS CONTROL EQUIPMENT							
Product	Price	Start	Received	Damage	Used	Close	Cost	SHALES SHAKERS	Hrs	#	Size	Hrs		Hrs	
Caustic Soda	\$ 36.60	27			2	25	\$ 73.20	# 1	4 x 145	4	Desander	3	6	Centrifuge	
Iddcide-20	\$ 103.00	11			2	9	\$ 206.00	# 2	4 x 145	4	Desilter	20	2	Centrifuge	
								# 3	4 x 145	4	Mud Cleaner 1			Degasser	
								# 4	4 x 84		Mud Cleaner 2			Poorboy	
											Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)		
											Desander	0			
											Desilter	0			
											Cleaner 1	0			
											Cleaner 2	0			
											Centrifuge1				
											Centrifuge2				
								CURRENCY		DAILY COST		CUMULATIVE COST			
								AUD		\$279.20		\$240,471.31			

I.D.F.S. Engineer: **M.Docherty & J. Singh** Office: **BRISBANE** Telephone: **07 3806-0160** Fax: **07 3806-0165**

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LEARNINGS FROM CASINO 1

Some of the learning's related to the drilling fluid system run on Casino 1 in the Otway Basin September 2002 for Santos Ltd.

Seawater Gel / Guar Gum Sweeps

- 2ppb Guar Gum sweeps were prepared and utilized for added hole cleaning and viscosity. Properties of this fluid had typically a funnel viscosity of 65 seconds / quart and a yield point of 25lb/100ft².
- The 80 sacks of Guar Gum provided to location for this well, will be increased to 120 sacks for any subsequent wells in this area.
- Flocculated prehydrated bentonite (Trugel 13A) was prepared using 0.2ppb Caustic Soda, 25ppb Bentonite and then flocculated with 0.5ppb Lime after hydration in the rigs drill water. Properties of this fluid typically had a funnel viscosity of above 100 seconds / quart and a yield point of 55lb/100ft².
- Once casing point had been reached the hole was displaced with 33ppb prehydrated bentonite (un-flocculated).
- Guar Gum sweeps were used to good effect in hole cleaning to save on drill water levels. Guar Gum sweeps could also have Potassium Chloride additions to provide inhibition during the drilling of reactive clays.
- Some tight hole was experienced whilst pulling out after reaching the 17 ½" casing point however the casing was run in without any obstruction.
- The spotting of high viscosity flocculated bentonite sweeps around the collars for connections is also recommended on any future wells.
- LCM's such as Quickseal or Enerseal were not required during either interval as good returns were seen as monitored with the ROV. The levels of bentonite we deemed sufficient to bridge of pore throats to reduce the amount of fluid lost to the surrounding wellbore.
- The programmed fluid requirements for these two intervals were underestimated due to the increased usage of sweeps and greater level of surface volume required to run the system. Adjustments will be made on future programs in this area with this drill rig.

KCI / PHPA / Glycol System

- A shearing unit was made available to good effect in this interval, especially whilst building the levels of PHPA in the active system.
- The requirement of a shearing unit is however reduced once Pac and Xanthan Gum has been added to the premixes or if added viscosity is required from the PHPA.



- Initial hole cleaning properties of the circulating fluid were low and adjustments on the run are not recommended on future wells. The properties of the circulating fluid from the initial stages of the production interval will be increased to ensure adequate hole cleaning and inhibition at all times.
- The levels of Xanthan Gum in the initial premix will be increased to provide the desired yield point of greater than 20lb/100ft² from the onset of the production interval through until section TD.
- A large quantity of downhole losses were experienced below the casing shoe. Losses were not observed when static, however were exacerbated at a pump discharge rate of 600 gpm.
- The usage of Glycol in future wells in the initial stages of this interval (Below 1050 meters) is discouraged due to the non requirement of this added inhibition and increased cost of replacement fluid, especially if large downhole losses are possible as with this well. The drilling fluid program for any subsequent wells in this area will not commence Glycol addition until after 1050 meters.
- The mud weight should be kept to a minimum to reduce equivalent circulating densities and thus downhole losses, especially through the initial stages of the production interval prior to the Belfast formation.
- Usage of LCM's to treat downhole losses must be discussed with the Santos Company Man before usage.
- The usage of Quickseal and / or Enerseal is preferred in non-producing formations over LCM's such as Sandseal and Fracseal due to their courser particle size and reduced cost.
- Optimal inhibition levels in the circulating fluid were seen as 1.8ppb PHPA, 3% Glycol and 6-8% KCl through the Belfast formation with a mud weight in the order of 9.6 – 10.3ppg to aid wellbore stability and reduce background gas levels.
- Yield points are recommended to be above 20lb/100ft² from the commencement of this interval through until TD and increased depending upon the mud weight requirements of the well. The primary source of hole cleaning should be from the addition of Xanthan Gum.
- The levels of bentonite incorporated in the system whilst drilling (MBC) were higher than predicted and close attention to the dilution rates should be made to keep this property as low as possible without sufficient solids control equipment on the rig site to treat out.
- If tight hole is experienced whilst pulling out or running in, inhibition levels within the circulating system will be depleted rapidly from the fresh formation exposed. Close attention to depletion rates will need to be undertaken to ensure that adequate inhibition levels is maintained.
- Recording of the results of high viscosity sweeps returning to the system is paramount for accurate assessment of the benefits of such sweeps is to be analysed.
- Iocide was used to good effect to prevent any biological contamination to the circulating system even after extended delays in drilling due to the weather conditions.



- Overgauged hole can be expected in future wells and downhole volumes and calculations of treatment requirements should take this into consideration. LCM usage to seal thief zones and aid wellbore stability in unconsolidated formations may help in reducing hole gauge.

Solids Control Equipment

- No centrifuge on location and as such, higher reliance on the primary and other secondary solids control equipment was required.
- Desilter (20 cones) and Desander (3 cones) worked well, however high underflow discharge of fluid meant that the equipment was used selectively to reduce replacement fluid costs and requirements.
- The finest screen size available to handle the flow during the production interval was seen as 145 mesh.

Stock Levels

- Whilst drilling programs in this area are not regular and the maintenance of a regular warehouse in Portland is not an option at this stage, adequate stock levels and contingent plans should be agreed upon with the Operator prior to the commencement of drilling.
- Logistical arrangements of Bulk material from Adelaide to Portland worked well and all supply vessels were met with the required product on time.

Safety and the Environment

- IDFS mud engineers actively participated in improving safety on the rig through the stop card system.
- As the rig crews were new to the IDFS products, they were told about the safe handling of various products at every stage. MSDS were made available and Safe Handling posters for chemical reference were prominently displayed.
- All toxic laboratory reagents were collected in a separate container after each testing and transported to shore to dispose of in an appropriate manner.
- IDFS chemical packaging was highlighted in so much as there was no metal strapping, which is a regular cause of hand related injuries. The cardboard and shrink wrap packaging enabled the sack room to stay clean and tidy minimizing damaged stock and chemical spills.

Daily Reporting

- Additional daily reporting, in graph format, of the properties both required and tested, was seen as a good monitoring tool and will be incorporated on a daily basis in future wells.

Rheochem Limited



A B N 1 1 - 0 9 9 - 9 4 9 - 4 5 2

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- The ability to receive electronic copies of the daily drilling fluid reports was seen as a huge advantage in communication with the field based engineers.
- IDFS to receive a daily copy of the 10 day forecast to help plan movements of products and personnel as required.

SECTION 11:- CASING & CEMENTING SUMMARY

CASING AND CEMENTING REPORT

WELL: Casino 1 DATE: 28/08/2002
 ELEVATIONS: RT to seabed (m): 95.5 T.D (m): 752
 RT to MSL (m) : 25 PBTD (m):
 CASING BOWL SIZE: SERIES: Drill Quip SS-10 REPORT BY: Chris Wise
 STRING TYPE: 13.375" (13-3/8") Surface Casing

CASING AND EQUIPMENT RECORD AS RUN FROM BOTTOM TO TOP

SIZE OD. (mm)	WEIGHT (kg/m)	GRADE	No. of JOINTS	THREAD	LENGTH (m)	FROM (m)	TO (m)	REMARKS
762 (top) to 340	267	X-60	1	BTC	10.71	92.58	103.29	476 x 340 mm Wellhead Assembly
340	101.18	L-80	1 x No-cross	BTC	11.84	103.29	115.13	
340	101.18	L-80	50	BTC	590.73	115.13	705.86	
340	101.18	L-80	Float	BTC	12.64	705.86	718.50	
340	101.18	L-80	Intermediate	BTC	12.13	718.50	730.63	
340	101.18	L-80	Shoe	BTC	12.52	730.63	743.15	

TALLY TOTAL 650.57

CASING LANDED AT :- 743.15 m

RT TO TOP OF CONDUCTOR HOUSING :- 92.58 m

CENTRALIZER PLACEMENT Bow spring centralisers, placed in the middle of the shoe, intermediate and float joints (three total).

PREFLUSH: Seawater Volume (m3): 3.33 Density (SG): 1.018
 Additive: Fluorescence Dye Amount Used: 10 kg Additive: % Amount Used

CEMENT:				Additive	litre/sx	Amount Used (litre)
LEAD SLURRY						
Brand: Adelaide Brighton Cement	Class: G (1032 sacks)	MT:		Ecconolite	0.231	7407
Mixwater litr/sk: 45.44	Yield litr/sk: 63.15	Density sg: 1.497 - 1.509				
Volume pumped 65.19 m3	Excess: 100 %					
TAIL SLURRY (mixed with seawater)						
Brand: Adelaide Brighton Cement	Class: G (686 sacks)	MT:				
Mixwater litr/sk: 18.77	Yield litr/sk: 33.13	Density sg: 1.893 - 1.917				
Volume pumped 22.74 m3	Excess: 50 %					

DISPLACEMENT

Fluid: Seawater Calc. Displacement (m3): 48.326 Plug Bump: 5722 kPa Pressure Tested to 20700 kPa
 Density sg: 1.03 Actual Displacement (m3): 49.6 at Rate: 1.271 m3/min Bleed Back: 0.794 m3

ACTIVITY	Time	Returns to Surface:	Reciprocate/Rotate Casing:	During;	Cementing	Displacing	Wiper Plugs:	Weatherford	Type	SSR
Start Running Casing	28/8/02 6:30	Poor	No	Circulating			Bottom			
Finish Running Casing	28/8/02 13:00						Top			
Start Circulating	28/8/02 16:00									
Start Surface Eqpt. Pressure Test	28/8/02 17:10									
Pump Preflush	28/8/02 18:00									
Start Mixing/Pumping Cement	28/8/02 18:04									
Finish Mixing/Pumping Cement	28/8/02 19:38									
Start Displacement	28/8/02 19:40									
Stop Displacement/Bump Plug	28/8/02 20:40									
Top Up Job	NA									

CEMENT JOB DETAIL/REMARKS

The casing and hole were circulated clean over 1 hr, Halliburton then pumped 1.58 m3 (10 bbl) seawater spacer (with dye) and attempted to pressure test surface lines. The cement head Lo-torq valve had to be replaced before a successful test was obtained (0.5 hrs). Bottom dart was displaced and sheared out the bottom plug with 7336 kPa (1064psi), a further .794 m3 (5 bbls) of water was pumped to chase the plug prior to mixing cement. The lead slurry was pumped at a constant rate of 1.017 m3/m (6.4 bpm) with a SG of 1.497 to 1.509 (12.5 - 12.6 ppg) followed by the tail slurry pumped at .794 to .890 m3/m (15.8 - 16 ppg) with a SG of 1.893 to 1.917 (15.8 to 16 ppg). The top dart was displaced and the top plug sheared at 13100 - 14479 kPa (indicated). The cement was then displaced with 49.6 m3 (312 bbls) and the plug bumped at 5722 kPa (830 psi) pump pressure, increasing to 8274 kPa (1200 psi). A further .445 m3 (2.8 bbls) were pumped to increase pressure to 20700 kPa and test the casing. Held pressure for 10 minutes - solid. Bled back .794 m3 (5 bbls) to zero, floats held OK.

WELL: Casino 1
 ELEVATIONS: RT to seabed (m): 95.5 DATE: 26/08/2002
 RT to MSL (m): 25 T.D (m): 129
 CASING BOWL SIZE: SERIES: Drill Quip SS-10 PBDT (m):
 STRING TYPE: Conductor Casing REPORT BY: Steve Hodgetts

CASING AND EQUIPMENT RECORD AS RUN FROM BOTTOM TO TOP

SIZE OD. (mm)	WEIGHT (kg/m)	GRADE	No. of JOINTS	THREAD	LENGTH (m)	FROM (m)	TO (m)	REMARKS
762	461	X52	1	HD90	11.92	93.50	105.42	30" Conductor Housing
762	461	X52	1	HD90	11.57	105.42	116.99	30" Intermediate Joint
508	140	X52	1	HD90	11.24	116.99	128.23	30" x 20" Shoe Joint Davis Lynch shoe
						#VALUE!		
						#VALUE!		
TALLY TOTAL					34.73			

CASING LANDED AT :- 128.23 m
 RT TO TOP OF CONDUCTOR HOUSING :- 93.50 m

CENTRALIZER PLACEMENT Nil.

PREFLUSH: Seawater Volume (m3): 0.795 Density (SG): 1.03
 Additive: Fluorescence Dye % Amount Used: Additive: % Amount Used

CEMENT:		NO LEAD SLURRY		Additive	litre/sx	Amount Used (litre)
Brand: Adelaide Brighton Cement	Class:	MT:				420
Mixwater litr/sk:	Yield litr/sk:	Density sg:				136
Volume pumped m3	Excess: %					16
TAIL SLURRY (mixed with seawater)		Class: G (832 Sacks)		MT:		
Brand: Adelaide Brighton Cement						
Mixwater litr/sk:	Yield litr/sk:	Density sg:		1% BWOC CaCl2	litre/sx	Amount Used (litre)
Volume pumped m3	Excess: 200 %					

DISPLACEMENT
 Fluid: Seawater Calc. Displacement (m3): Plug Bump: @ 0.5 m3/min kPa Pressure Tested to N/A kPa
 Density sg: 1.03 Actual Displacement (m3): 4.6 at Rate: 0.795 m3/min Bleed Back: m3

ACTIVITY	Time	Returns to Surface:	Yes	bbls cement	146
Start Running Casing	25/8/02 21:30	Reciprocate/Rotate Casing:	No		
Finish Running Casing	26/8/02 0:00	During; Circulating		Top Up Job run:	No
Start Circulating	26/8/02 3:15	Cementing		sacks of Class	
Start Surface Eqpt. Pressure Test	26/8/02 3:26	Displacing			
Pump Preflush	26/8/02 3:32	Wiper Plugs:	Make	Type	
Start Mixing/Pumping Cement	26/8/02 3:45	Bottom	N/A		
Finish Mixing/Pumping Cement	26/8/02 3:26	Top			
Start Displacement	26/8/02 4:26	Cementing Contractor:	Halliburton		
Stop Displacement/Bump Plug	26/8/02 4:33				
Top Up Job	NA				

CEMENT JOB DETAIL/REMARKS
 Ran 762mm (30") casing to 1.5m from 660mm (26") hole TD. Circulated annulus to seawater (150% annulua). Rigged up cement lines and pumped 0.8m3 (5 bbls) of seawater with Fluorescence dye ahead. Closed line at drill floor and tested lines to 6.9kPa (1000 psi), held OK. Pumped remaining 0.8m3 (5 bbls) of seawater with Fluorescence dye. Mixed and pumped 27.7 m3 (174bbls) 1.9sg tail slurry at 954 lpm (6bpm), 832sxs class 'G' cement in 16.5 m3 (104bbls) mix water with 1% CaCl2. Displaced with 4.6 m3 (28.7bbls) seawater at 800 lpm (5bpm), final pressure 1380kPa (200psi). Bleed off pressure, float held.

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ABANDONMENT CEMENT # 1

WELL: Casino 1
 ELEVATIONS: RT to seabed (m): 95.5 DATE: 16/09/2002
 RT to MSL (m): 25 T.D (m): 2118
 SERIES: Dril Quip SS-10 REPORT BY: Gavin Othen

Cmt Plug # 1 F /- 1840m to 1690m

PREFLUSH: Drillwater Volume (m3): 1.5 Density (SG): 1
 Additive: Amount Used: Additive: % Amount Used

CEMENT:
TAIL SLURRY
 Class: G (557 sacks) MT: Additive HR 6-L Amount Used (litre) 265
 Dair 3000L 7.5
 Mixwater litr/sk: Yield litr/sk: 1.16 Density sg: 1.89
 Volume pumped 18.2 m3 Excess: 10 % Oped hole

TAIL SLURRY (mixed with seawater)
 Brand: Adelaide Brighton Cement Class: MT:
 Mixwater litr/sk: Yield litr/sk: Density sg:
 Volume pumped m3 Excess: %

DISPLACEMENT
 Fluid: Mud Calc. Displacement (m3): 14.4 kPa 6000 Pressure Tested to kPa
 Density sg: 1.22 Actual Displacement (m3): 14.4 at Rate: 1.4 m3/min Bleed Back: m3

ACTIVITY	Time	Returns to Surface:	Yes	bbbs cement	0
Pump Drill water spacer	16/9/02 12:55	Reciprocate/Rotate Casing:			
Test Lines	16/9/02 13:00				
Pump Drill water spacer	16/9/02 13:08	During; Circulating	Top Up Job run: No	sacks of Clas	N/A
Mix & Pump Tail Slurry	16/9/02 13:26	Cementing			
Pump Drill water	16/9/02 13:53	Displacing			
Displace Slurry	16/9/02 13:54	Wiper Plugs:	Type		
		Bottom			
		Top			
		Cementing Contractor: Halliburton			

CEMENT JOB DETAIL/REMARKS
 Pumped 1.5 M3 (10bbbs) of Drill water, tested lines to 7000 Kpa (1000psi) Pumped 1.5 M3 (10bbbs) of Drill water.
 Mixed & pumped 18.2 M3 (115bbbs) 557sx of tail slurry @ 1.89sg with 10.8M3 (68bbbs) of mix water.
 Displaced with 14.4M3 (91bbbs) of mud.

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ABANDONMENT CEMENT # 2

WELL: Casino 1
 ELEVATIONS: RT to seabed (m): 95.5
 RT to MSL (m): 25
 SERIES: Dril Quip SS-10
 DATE: 16/09/2002
 T.D (m): 2118
 PBTD (m):
 REPORT BY: Gavin Othen

Cmt Plug # 2 F/- 1620m to 1470m

PREFLUSH: Drillwater Volume (m3): 1.5 Density (SG): 1
 Additive: Amount Used: Additive: % Amount Used

CEMENT:				Additive		
TAIL SLURRY				litre/sx	Amount Used (litre)	
Mixwater litr/sk:	Yield litr/sk:	Density sg:	Class: G (557 sacks) MT:			
Volume pumped 18.2 m3	Excess: 10	% Oped hole				
TAIL SLURRY (mixed with seawater)				Additive		
Brand: Adelaide Brighton Cement				litre/sx	Amount Used (litre)	
Mixwater litr/sk:	Yield litr/sk:	Density sg:	Class: MT:			
Volume pumped m3	Excess:	%				

DISPLACEMENT
 Fluid: Mud Calc. Displacement (m3): 12.4 kPa 5500 Pressure Tested to kPa
 Density sg: 1.22 Actual Displacement (m3): 12.4 at Rate: 1.2 m3/min Bleed Back: m3

ACTIVITY	Time	Returns to Surface:	Yes	bbbs cement	0
Pump Drill water spacer	16/9/02 16:10	Reciprocate/Rotate Casing:			
Test Lines	16/9/02 16:12	During; Circulating	Top Up Job run: No	sacks of Clas:	N/A
Pump Drill water spacer	16/9/02 16:16	Cementing			
Mix & Pump Tail Slurry	16/9/02 16:25	Displacing			
Pump Drill water	16/9/02 16:50	Wiper Plugs:	Type		
Displace Slurry	16/9/02 16:51	Bottom			
		Top			
		Cementing Contractor: Halliburton			

CEMENT JOB DETAIL/REMARKS

Pumped 1.5 M3 (10bbbs) of Drill water, tested lines to 7000 Kpa (1000psi) Pumped 1.5 M3 (10bbbs) of Drill water.
 Mixed & pumped 18.2 M3 (115bbbs) 557sx of tail slurry @ 1.89sg with 10.8M3 (68bbbs) of mix water.
 Displaced with 12.4M3 (78bbbs) of mud.
 Note: after setting plug, picked up to 1300m and circulated clean, picked up to 599m, pulled wear bushing then RIH and tagged up at 1361m.

Santos OABU		ABANDONMENT CEMENT # 3				
WELL: Casino 1		RT to seabed (m): 95.5		DATE: 17/09/2002		
ELEVATIONS:		RT to MSL (m): 25		T.D (m): 2118		
		SERIES: Dril Quip SS-10		PBTD (m):		
				REPORT BY: Gavin Othen		
Cmt Plug # 3 F/- 780m to 642m.						
PREFLUSH: Drillwater		Volume (m3): 1.5		Density (SG): 1		
Additive:		Amount Used:		Additive: % Amount Used		
CEMENT:						
TAIL SLURRY				Additive litre/sx Amount Used (litre)		
		Class: G (475 sacks) MT:				
Mixwater litr/sk:		Yield litr/sk: 1.16		Density sg: 1.89		
Volume pumped 15.5 m3		Excess: 10		% Oped hole		
TAIL SLURRY (mixed with seawater)				Additive litre/sx Amount Used (litre)		
Brand: Adelaide Brighton Cement		Class:		MT:		
Mixwater litr/sk:		Yield litr/sk:		Density sg:		
Volume pumped m3		Excess: %				
DISPLACEMENT						
Fluid: Mud		Calc. Displacement (m3): 4.7		kPa 5500 Pressure Tested to kPa		
Density sg: 1.22		Actual Displacement (m3): 4.7		at Rate: 7 m3/min Bleed Back: m3		
ACTIVITY						
		Time				
Pump Drill water spacer		17/9/02 0:45		Returns to Surface: Yes bbbs cement 0		
Test Lines		17/9/02 0:48		Reciprocate/Rotate Casing:		
Pump Drill water spacer		17/9/02 0:51		During: Circulating Top Up Job run: No sacks of Clas N/A		
Mix & Pump Tail Slurry		17/9/02 1:00		Cementing		
Pump Drill water		17/9/02 1:17		Displacing		
Displace Slurry		17/9/02 1:18		Wiper Plugs: Type		
				Bottom		
				Top		
				Cementing Contractor: Halliburton		
CEMENT JOB DETAIL/REMARKS						
Pumped 1.5 M3 (10bbbs) of Drill water, tested lines to 7000 Kpa (1000psi) Pumped 1.5 M3 (10bbbs) of Drill water.						
Mixed & pumped 15.5M3 (98bbbs) 475sx of tail slurry @ 1.89sg with 9.2M3 (58bbbs) of mix water.						
Displaced with 4.7M3 (30bbbs) of mud.						
Note: after setting plug, picked up to 550m, circulated clean and displaced to inhibited mud. RIH and tagged up at 642m.						

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ABANDONMENT CEMENT # 4

WELL: Casino 1 DATE: 17/09/2002
 ELEVATIONS: RT to seabed (m): 95.5 T.D (m): 2118
 RT to MSL (m): 25 PBTD (m):
 SERIES: Drill Quip SS-10 REPORT BY: Gavin Othen

Set EZSV at 185m, cement Plug # 4 set F /- 183m to 133m

PREFLUSH: Sea Water Volume (m3): 1 Density (SG): 1
 Additive: Amount Used: Additive: % Amount Used

CEMENT:

TAIL SLURRY				Additive	litre/sx	Amount Used (litre)
	Class: G (120 sacks)	MT:				
Mixwater litr/sk:	Yield litr/sk: 1.16	Density sg: 1.89				
Volume pumped 4 m3	Excess: 10	% Oped hole				

TAIL SLURRY (mixed with seawater)				Additive	litre/sx	Amount Used (litre)
Brand: Adelaide Brighton Cement	Class:	MT:				
Mixwater litr/sk:	Yield litr/sk:	Density sg:				
Volume pumped m3	Excess:	%				

DISPLACEMENT

Fluid: Sea Water Calc. Displacement (m3): 1.1 kPa 5500 Pressure Tested to kPa
 Density sg: 1 Actual Displacement (m3): 1.1 at Rate: 7 m3/min Bleed Back: m3

ACTIVITY

Activity	Time	Returns to Surface:	Yes	bbbs cement	0
Pump Sea water spacer	17/9/02 11:18	Reciprocate/Rotate Casing:			
Test Lines	17/9/02 11:20	During; Circulating	Top Up Job run: No	sacks of Class	N/A
Pump Drill water spacer	17/9/02 11:22	Cementing			
Mix & Pump Tail Slurry	17/9/02 11:28	Displacing			
Displace Slurry	17/9/02 11:32	Wiper Plugs:	Type		
		Bottom			
		Top			
		Cementing Contractor: Halliburton			

CEMENT JOB DETAIL/REMARKS Set EZSV Packer @ 185 mts

Tested lines to 7000 Kpa (1000psi) Pumped 1M3 (5bbbs) of Sea water.
 Mixed & pumped 4M3 (25bbbs) 120sx of tail slurry @ 1.89sg
 Displaced with 1.1M3 (6bbbs) of mud.

Note: after pumping cement to place top of the plug at 133m, the string was picked up to 120m and the casing/string reverse circulated clean.

SECTION 12:- MUDLOGGING WELL REPORT
(Including Mudlog 1:500 & D-Exponent Log)



INTEQ

Santos

END OF WELL REPORT

SANTOS

Casino-1

25 August - 14 September 2002

by

BAKER HUGHES INTEQ

The information, interpretations, recommendations, or opinions contained herein are advisory only and may be rejected. Consultant does not warrant their accuracy or correctness. Nothing contained herein shall be deemed to be inconsistent with, nor expand, modify or alter consultant's obligation of performance as provided for in a written agreement between the parties, or, if none, in consultant's most recent price list.

Casino-1

Final Well Report

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SECTION 1

WELL SUMMARY

1 Well Data Summary

Well Name	Casino-1
Rig Name:	MODU Ocean Bounty
Rig Type:	Semi-submersible
Drilling Contractor:	Diamond Offshore General Company
Drilling Datum:	Rotary Table
Drill Floor Elevation:	25.0m
Water Depth:	70.5m
Surface Coordinates:	038° 47' 18.502" S Lat 142° 42' 00.287" E Long
Block:	VIC/P44
Well Type:	Exploration
Spud Date:	25 August 2002
Total Depth:	2118m
TD Date:	14 September 2002
Well Status:	Plugged & Abandoned
Baker Hughes INTEQ Crew:	
Data Engineers:	Romeo Tena Rommel Tadiar Jamie McLeod Jeff Wilson
Logging Geologists:	Elaine Spence Tomasz Zelski Malcolm Dixon Trent Liang

1.1 Well Summary

The well Casino-1 was located in VIC/P44, approximately 29km southwest of Port Campbell, 24km west southwest of the Minerva gas field and 22km north of the LaBella gas field. The main objective of the well was to evaluate the hydrocarbon potential of the Waare Formation in a tilted fault block closure within the Casino Prospect Area. All depths in this report unless otherwise stated refer to depths in metres below the rotary table – RT.

Casino-1 was spudded at 1830hrs on 25 August 2002, using a 26" bit with a 36" hole opening assembly. The 36" hole was drilled from the seabed at 95.5m to 130.0m using seawater and pre-hydrated gel mud. A 30" x 20" casing was run and set at 128.0mRT.

The 17.5" section was drilled using a Smith MGSSHC type bit. The cement tagged at 124.5m was drilled and the shoe track was cleaned out. New hole was drilled averaging 27m/hr during 23 hours of drilling time, reaching the casing point at 752m without problems. At section TD, the hole was circulated clean and displaced to 700bbbls of gel mud. During the trip out, tight intervals were recorded from 628m to 425m. The subsequent 13.375" casing run however was conducted smoothly and the BOPs were run, landed and pressure-tested successfully.

Drilling the 12.25" hole section commenced from 752m using a Reed PDC bit. The cement tagged at 717.6m and the shoe track were drilled and cleaned out. The hole was then displaced to a KCI/PHPA/Glycol mud system initially weighted to 8.7ppg and three metres of new formation was drilled to 755m. A Leak Off Test (LOT) was performed yielding a formation strength of 17.3ppg EMW below the casing shoe. Drilling resumed with penetration rates averaged at 60m/hr with surveys taken as required. Hard stringers slowed the bit down at 1051m until it was pulled out at 1057m. NB4, an insert bit was run in but when circulation was attempted prior to drilling, unusual high pressures were observed. Two metres of new formation were drilled to 1059m before the bit was pulled out for inspection. On surface, two bit jets were completely sealed with cuttings and a bearing seal have failed. NB5, a new insert bit was then made up with the previous BHA and run in hole. NB5 drilled from 1059m to 1400m at an average of 23m hour.

NB6, a Smith PDC bit was then run in to drill to the programmed hole TD. In anticipation of abnormal pore pressure within the Belfast formation, the mud weight was incremented to 9.8ppg by 1650m. Gas bearing sands below 1740m recorded a maximum gas peak of 23.1%. The gas was circulated out before drilling ahead. At 1790m, the mud weight was further increased to 10.0ppg. Slow penetration rates ensued from 1791 to 1797m dropping to less than 4.5m/hr from an average of 41m/hr. The bit was then tripped out with the hole noted tight at 1610m requiring a force of up to 60klbs overpull. The bit was backreamed from 1610m to 1498m and tripped back to bottom to condition the hole. 28% of total gas lagged from about 1761m was recorded. The mud weight was raised to 10.3ppg and the bit was pulled to surface smoothly.

NB7 was made up with the same assembly and RIH. Before reaching bottom, the onset of inclement weather prevented the commencement of normal drilling operations and the bit was pulled inside the casing shoe. The string was then spaced out and hung at the well head. Due to worsening weather conditions the riser was unlatched from the BOP's. After waiting weather for 6 days the rig re-attached to the BOP'S and NB7 was pulled out of the hole. After a full BOP test the same bit was run back in the hole on the same BHA minus the MWD tools. The bit was washed down from 1717m and 24m of fill was recorded. Drilling resumed from 1797m to a total depth of 2118m. After circulating the hole clean the bit was pulled out to run a suite of wireline logs.

After the wireline logging was complete the decision was made to plug and abandon Casino-1. The MODU Ocean Bounty was towed off location on 23 September 2002.

SECTION 2

DRILLING & ENGINEERING

2.1 Bit Run Summaries

Casino-1

**36" 914mm Hole Section
25 August 2002**

Bit Run No. 1 Summary

Bit Number	NB 1
Bit Size	26" 660mm w/ Hole Opener
Bit Type	36" 914mm, 4 x 22 jets
S/N	Smith DSJC
Jets	KP2374
Depth In (m)	3 x 18
Depth Out (m)	95.5
Metres Drilled	130.0
Drilling Hours	34.5
TBR (krevs)	1.0
Circulating Hours	3.8
Average ROP (m/hr)	1.6
API Condition	34.4
	Not Graded

Drilling Parameters

WOB (klbs)	2.9	-	10.0
RPM	24	-	75
Torque (kft-lbs)	1.93	-	3.09
Pump Pressure (psi)	167	-	1332
Flow In (gpm)	66	-	1073

Mud System

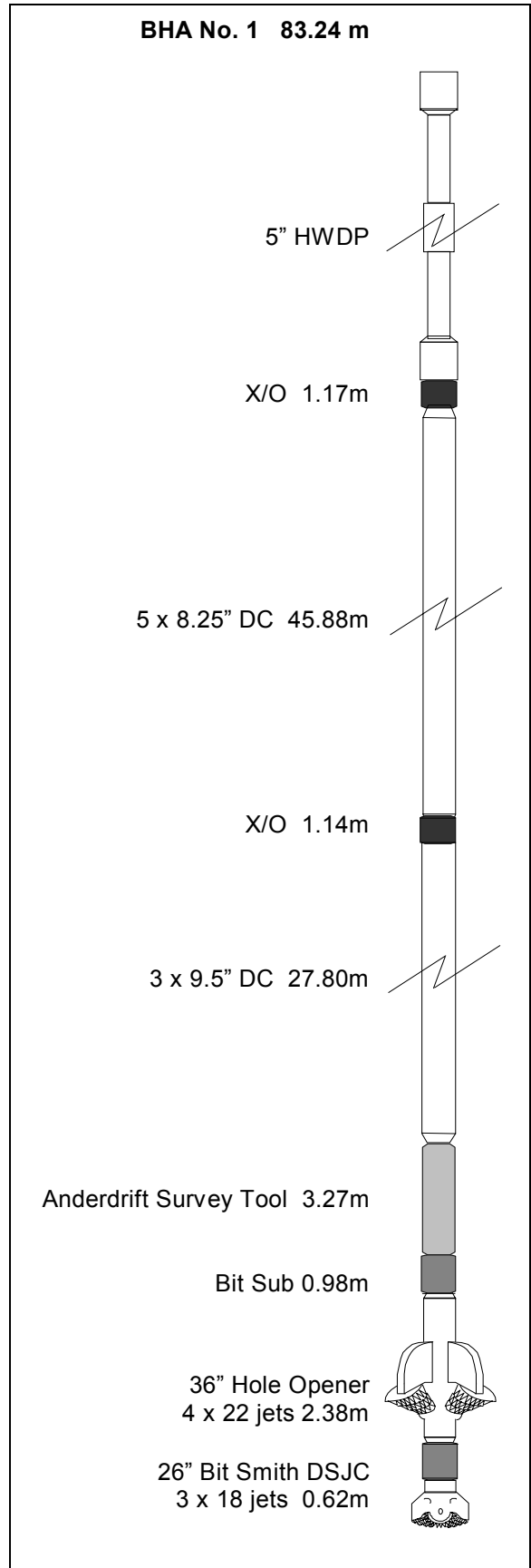
Seawater & hi-viscosity Gel	8.60ppg
Sweeps	

Lithology

Returns to seabed

Drilling Summary

A 26" bit with a 36" hole opener was made up on a rotary BHA. The bit tagged seabed at 95.5mRT. Casino-1 was spudded at 1830hrs on 25 August 2002. The 36" hole was drilled to 130.0mRT with seawater and PHG sweeps pumped every 15 metres. The hole was displaced with 220bbls of gel mud before pulling the bit to surface. The hole was found to be in good condition. The BHA was racked in the derrick before running the 30"/20" 762mm /508mm conductor casing.



**17.5" Hole Section
26 - 28 August 2002**

Bit Run No. 2 Summary

Bit Number	NB 2
Bit Size	17.5
Bit Type	Smith MGSSHC
S/N	MM0005
Jets	3 x 20, 1 x 18
Depth In (m)	130
Depth Out (m)	752
Metres Drilled	622
Drilling Hours	23.4
TBR (krevs)	143.1
Circulating Hours	28.7
Average ROP (m/hr)	26.6
API Condition	1-1-NO-A-E-I-NO-TD

Drilling Parameters

WOB (klbs)	3.4	-	33.5
RPM	60	-	108
Torque (kft-lbs)	0.6	-	5.1
Pump Pressure (psi)	1002	-	2543
Flow In (gpm)	798	-	1122

Mud System

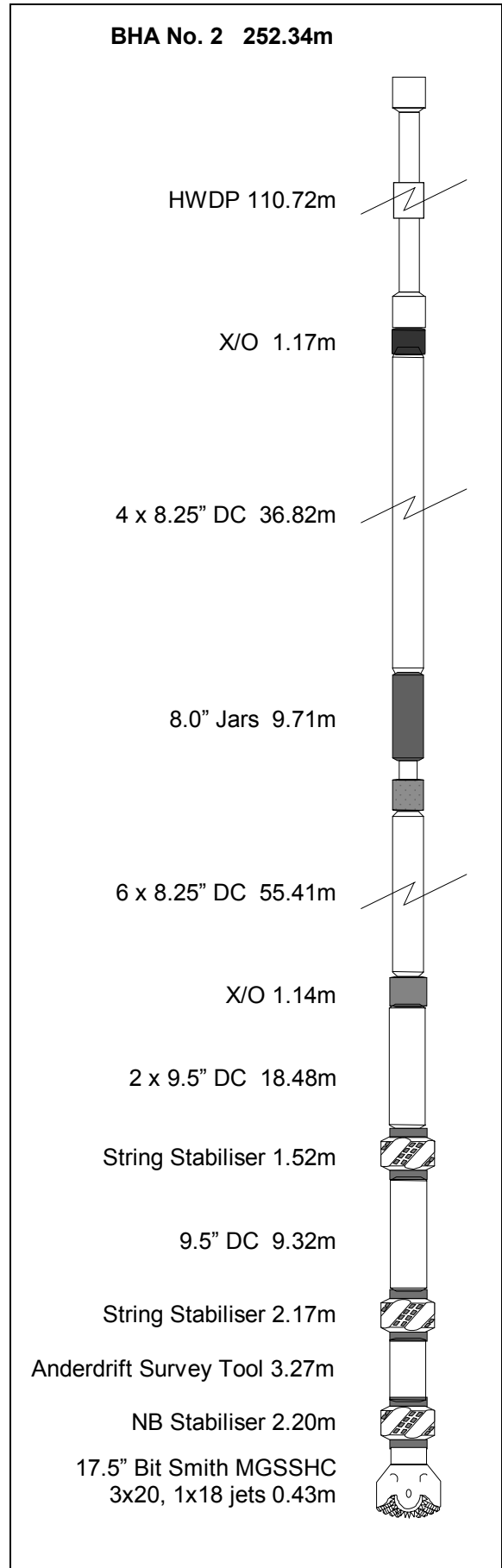
Seawater & hi-viscosity Gel	8.60ppg
Sweeps	

Lithology

Returns to seabed

Drilling Summary

NB2, a 17.5" milled tooth tricone bit was made up on a rotary BHA and run in hole. Hard cement was tagged at 124.5m. The shoe track was cleaned out and the 20" casing shoe was drilled out at 128m. New formation was drilled from 130m using seawater. High-viscosity guar gum sweeps of 50bbbls volume were pumped every 9 metres drilled, with 50bbbls pre-hydrated gel (PHG) sweeps pumped prior to every connection. Returns at seabed were monitored by the ROV. Inclination surveys were taken with the in-string Anderdrift tool at each connection. At section TD of 752m, the hole was circulated clean and displaced to 700bbbls PHG mud before pulling out of hole. The bit was tripped out with tight intervals encountered from 628 to 425m. The subsequent 13.375" casing run, however, proceeded without any hole problems.



**12.25" Hole Section
30 - 31 August 2002**

Bit Run No. 3 Summary

Bit Number	NB 3
Bit Size	12.25
Bit Type	Reed DSX195GUW
S/N	103894
Jets	5 x 12
Depth In (m)	752
Depth Out (m)	1057
Metres Drilled	305
Drilling Hours	14.8
TBR (krevs)	100.6
Circulating Hours	21.9
Average ROP (m/hr)	20.6
API Condition	8-8-RO-S-X-I-WT-PR

Drilling Parameters

WOB (klbs)	1.3	-	17.8
RPM	78	-	131
Torque (kft-lbs)	0.62	-	9.32
Pump Pressure (psi)	1684	-	2982
Flow In (gpm)	499	-	1214

Mud System

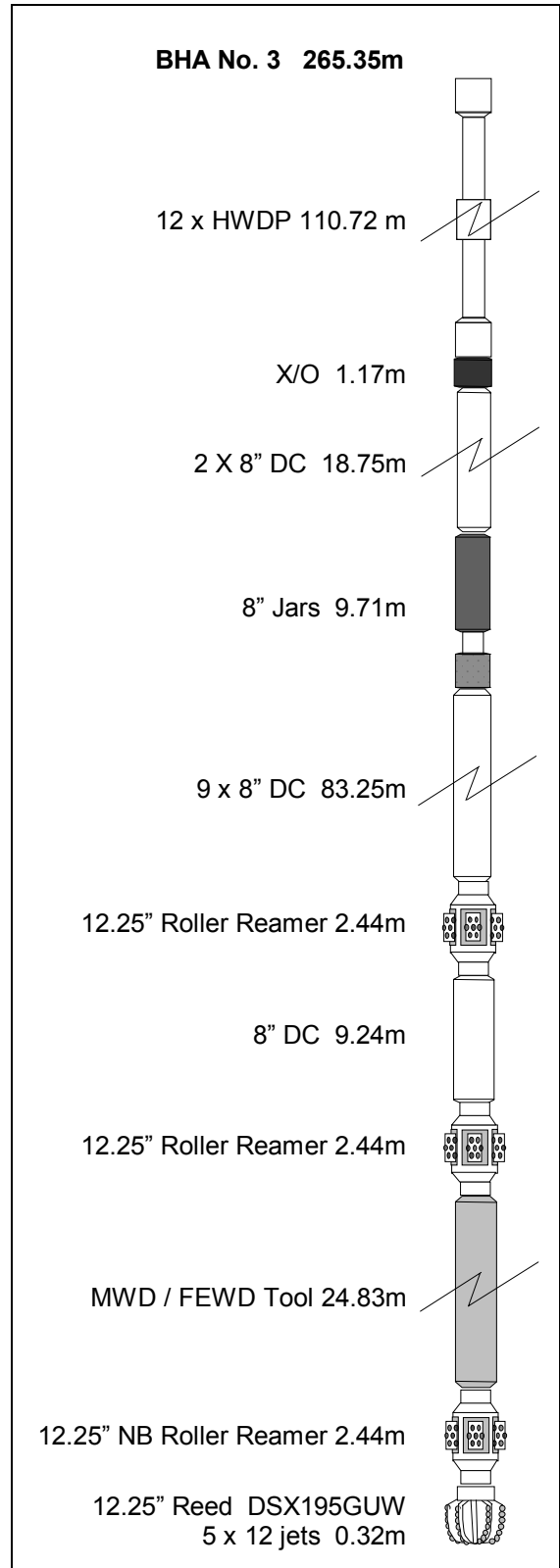
KCI / PHPA / Glycol 8.7–8.8 ppg

Lithology

Claystone & Sandstone

Drilling Summary

A 12.25" fixed cutter bit was made up to a packed drilling assembly with FEWD/MWD tools and run in hole, tagging cement at 717.6m. The float plugs, cement and shoe track were drilled out before the hole was displaced to a KCI/PHPA/ Glycol mud system, initially weighted at 8.7ppg. Three metres of new formation were drilled. The bit was pulled back into the shoe at 743m and a Leak-Off Test (LOT) was subsequently conducted, with an applied surface force of 1090 psi on 8.7ppg mud yielding a formation strength of 17.3 ppg EMW. Drilling resumed at a fast penetration rate of about 60m/hr, with surveys taken as required. The penetration rate at 1051m slowed significantly to below 1m/hr as hard pyrite-cemented coarse sandstone stringers were encountered. At 1057m, the decision was made to change the bit due to the low penetration rate.



31 August 2002

Bit Run No. 4 Summary

Bit Number	NB 4
Bit Size	12.25
Bit Type	Reed
	EHP51HFKPRDH
S/N	KA4914
Jets	3 x 16
Depth In (m)	1057
Depth Out (m)	1059
Metres Drilled	2
Drilling Hours	0.2
TBR (krevs)	2.5
Circulating Hours	1.6
Average ROP (m/hr)	10
API Condition	0-2-CT-G-F-I-PN-PP

Drilling Parameters

WOB (klbs)	5	16
RPM	86	- 87
Torque (kft-lbs)	1.08	- 1.49
Pump Pressure (psi)	2983	- 3006
Flow In (gpm)	384	- 385

Mud System

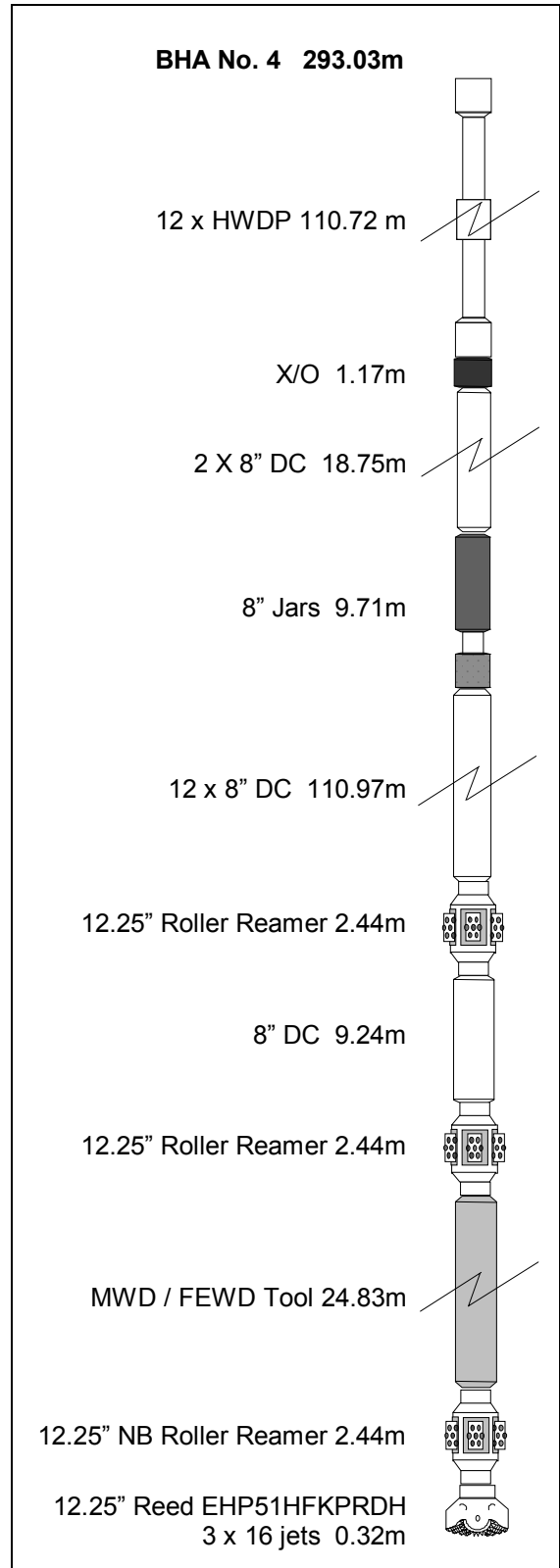
KCI / PHPA / Glycol 8.8 ppg

Lithology

Claystone & Sandstone

Drilling Summary

A 12.25" insert bit and three additional 8" drill collars were made up with the previous drilling assembly and run in hole. While circulating before drilling commenced, high pressures at low pump rates were noted. Two metres of new formation were drilled at these low flow rates before it was decided to pull the bit to surface for inspection. At surface it was found that the bit had two jets completely blocked with cuttings. The bearing seal on one of the roller cones had also failed.



01 - 02 September 2002

Bit Run No. 5 Summary

Bit Number	NB 5
Bit Size	12.25
Bit Type	Smith 10GF
S/N	MJ3163
Jets	3 x 16
Depth In (m)	1059
Depth Out (m)	1400
Metres Drilled	341
Drilling Hours	14.7
TBR (krevs)	86.2
Circulating Hours	18.5
Average ROP (m/hr)	23.2
API Condition	1-1-WT-A-E-I-ER-PR

Drilling Parameters

WOB (klbs)	1	-	48
RPM	53	-	125
Torque (kft-lbs)	0.74	-	6.81
Pump Pressure (psi)	2860	-	3445
Flow In (gpm)	701	-	874

Mud System

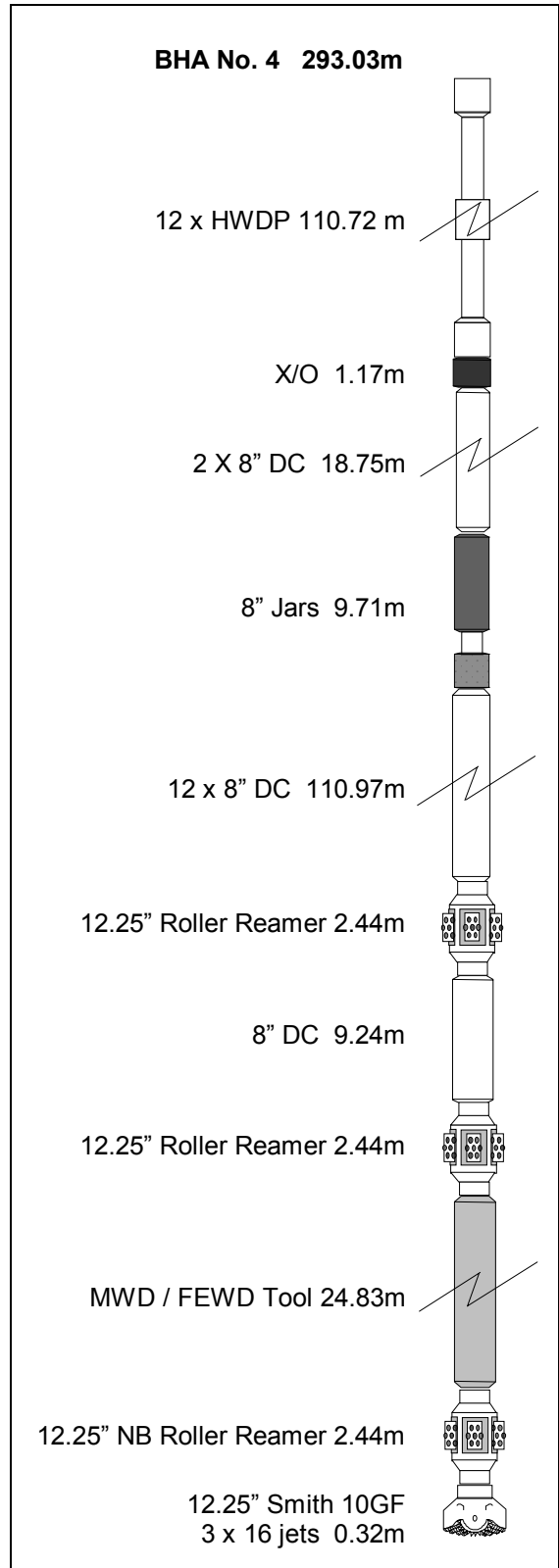
KCI / PHPA / Glycol 8.8 ppg

Lithology

Claystone, Siltstone & Sandstone

Drilling Summary

A new 12.25" insert bit was made up to the previous drilling assembly and run in hole. The open hole was lightly reamed from 1044 – 1059m to allow for the collection of MWD data. Once on bottom, drilling rates averaged about 23m/hr, with penetration rates slowing at several hard sandstone stringers. At 1400m, the bit was pulled to surface, once it was likely that no more hard stringers would be encountered while drilling to the target zone. The hole was found to be in good condition on the trip out.



02 – 03 September 2002

Bit Run No. 6 Summary

Bit Number	NB 6
Bit Size	12.25
Bit Type	Smith MA74BPX
S/N	JS6343
Jets	6 x 12
Depth In (m)	1400
Depth Out (m)	1797
Metres Drilled	397
Drilling Hours	16.2
TBR (krevs)	140.2
Circulating Hours	26.2
Average ROP (m/hr)	24.5
API Condition	1-8-LT-S-X-I-CT-PR

Drilling Parameters

WOB (klbs)	2.5	-	23.1
RPM	114	-	177
Torque (kft-lbs)	0.4	-	11.7
Pump Pressure (psi)	2785	-	3445
Flow In (gpm)	788	-	864

Mud System

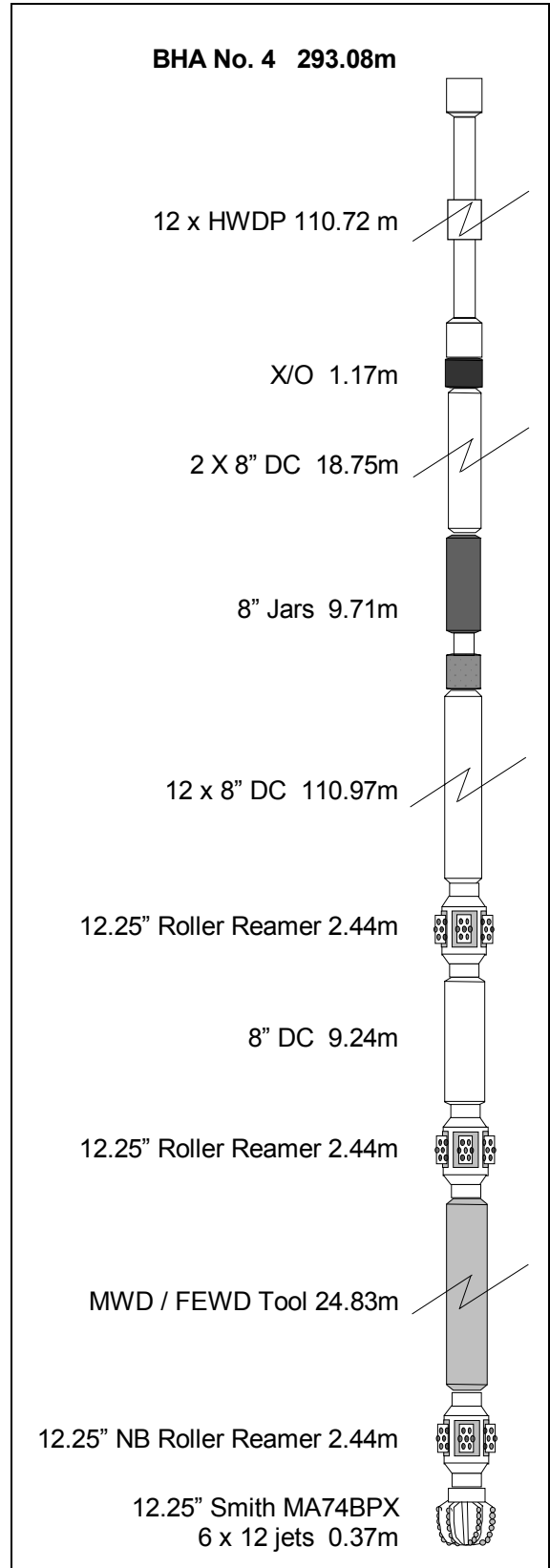
KCI / PHPA / Glycol	8.8	-	10.3 ppg
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Lithology

Siltstone & Sandstone

Drilling Summary

A 12.25" fixed cutter bit was made up with the previous drilling assembly and run in hole. Penetration rates were relatively high from 1400 to 1750m, averaging about 41m/hr. The mud weight was increased to 9.8ppg by 1650m. Gas-bearing formations were encountered below 1740m, with a maximum gas peak of 23.1% Total Gas recorded at 1766m. The well was circulated until gas levels had dropped to background levels before drilling ahead. At 1790m, the mud weight was increased further to 10.0ppg. Drilling rates dropped markedly from 1791 to 1797m, averaging less than 4.5m/hr, probably due to the reappearance of hard sandstone stringers. The decision was made to pull the bit due to the poor penetration rate. On the trip out, the hole was found to be tight above 1610m with up to 60klbs overpull recorded. The bit was backreamed out of the hole from 1610 – 1498m. The bit was then run back to bottom to condition the hole. While circulating from 1797m, a gas peak of 28% Total Gas was recorded, lagged back to 1761m, indicating that some gas had been swabbed into the well on the trip out. The well was circulated until gas levels had fallen to 0.06%. Blocky and trace splintery cavings were seen at the shakers. Flow checks indicated that the fluid levels in the well were static. The bit was pumped and backreamed out of the hole from 1797-1420m, with 20-50klbs drag recorded from 1420-1160m. The mud weight was further increased to 10.3ppg. The bit was pulled to surface with no further problems from 1160m.



04 - 12 September 2002

Bit Run No. 7 Summary

Bit Number	NB 7
Bit Size	12.25
Bit Type	Hughes MXR09D
S/N	L11DK
Jets	3 x 16
Depth In (m)	1797
Depth Out (m)	1797
Metres Drilled	-
Drilling Hours	-
TBR (krevs)	-
Circulating Hours	-
Average ROP (m/hr)	-
API Condition	-

Drilling Parameters

WOB (klbs)	-	-	-
RPM	-	-	-
Torque (kft-lbs)	-	-	-
Pump Pressure (psi)	-	-	-
Flow In (gpm)	-	-	-

Mud System

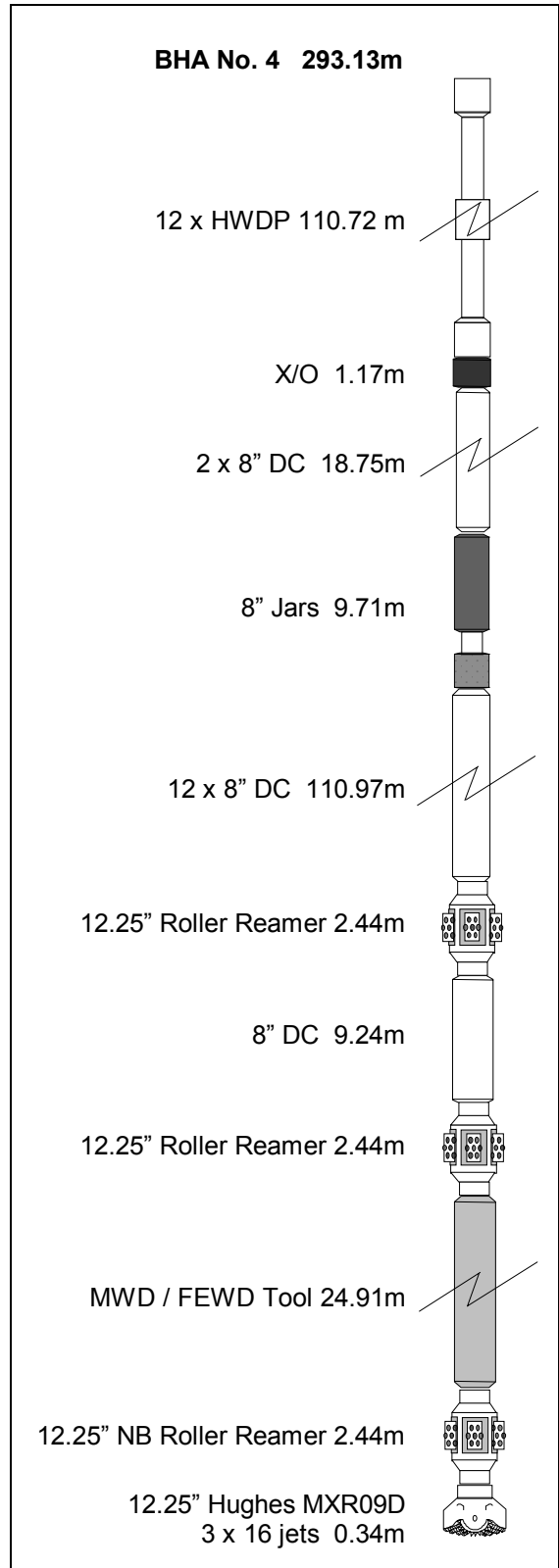
KCI / PHPA / Glycol	10.3	-	10.3 ppg
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Lithology

Claystone, Siltstone & Sandstone

Drilling Summary

An insert bit was made up to the previous drilling assembly and run in hole to 1750m. The hole was circulated out with minimal gas vented out of the drilling fluid. Due to inclement weather a decision to pull back inside the shoe was made. The hole was circulated clean and a slug was pumped before pulling inside the shoe. The weather however worsened and the lower drill string was hung off below the well head and the riser was unlatched. After 7 days waiting on weather, the LMRP was landed back on, and the drill string re-attached. The hole was circulated from inside the casing shoe, a static flow check was made and the bit was pulled to surface to conduct a full stack test.



12 - 14 September 2002

Bit Run No. 8 Summary

Bit Number	RR 7.1
Bit Size	12.25
Bit Type	Hughes MXR09D
S/N	L11DK
Jets	3 x 16
Depth In (m)	1797
Depth Out (m)	2118
Metres Drilled	321
Drilling Hours	33.2
TBR (krevs)	203.1
Circulating Hours	39
Average ROP (m/hr)	9.67
API Condition	2-2-BT-A-E-I-CT-TD

Drilling Parameters

WOB (klbs)	8.3	-	42.2
RPM	67	-	115
Torque (kft-lbs)	1.5	-	6.4
Pump Pressure (psi)	3400	-	3988
Flow In (gpm)	756	-	825

Mud System

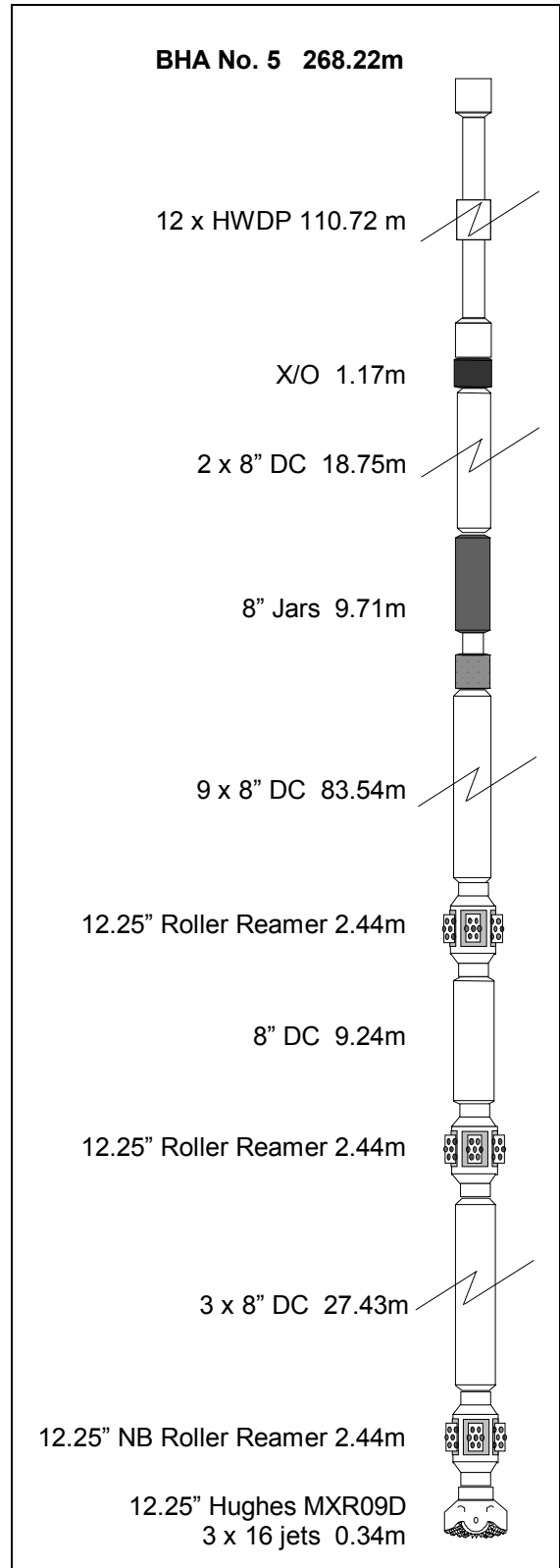
KCI / PHPA / Glycol	10.2	-	10.3 ppg
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Lithology

Claystone, Siltstone, Sandstone & minor Coal

Drilling Summary

After a full BOP test the MWD tools were removed from the BHA and bit #7 was re-run in the hole to 1717m. The bit was washed and reamed from 1717m to bottom with 27m of fill recorded. A maximum trip gas of 125 units (2.5%) was recorded. New 12.25" hole was drilled from 1797m to a Total Depth of 2118m. The hole was circulated clean and the bit pulled out of the hole to run wireline logs. Two tight spots at 1805m and 1760m recorded 60klbs overpull on the trip out. Static flowchecks were recorded prior to pulling out, at the shoe and at the BOP's.



2.2 Casing / Cementing Summary

30" Conductor

25 August 2002

Hole Size 36"
Depth 130.0mRT

Casing 1 30" x 20" Shoe joint
1 30" Intermediate Joint
1 x 30" Well Head

ID 28" (18.75" on 20" casing)
Weight 310 lb/ft
Grade X-52 x 30", K55 x 20"
Shoe Depth 128.0mRT

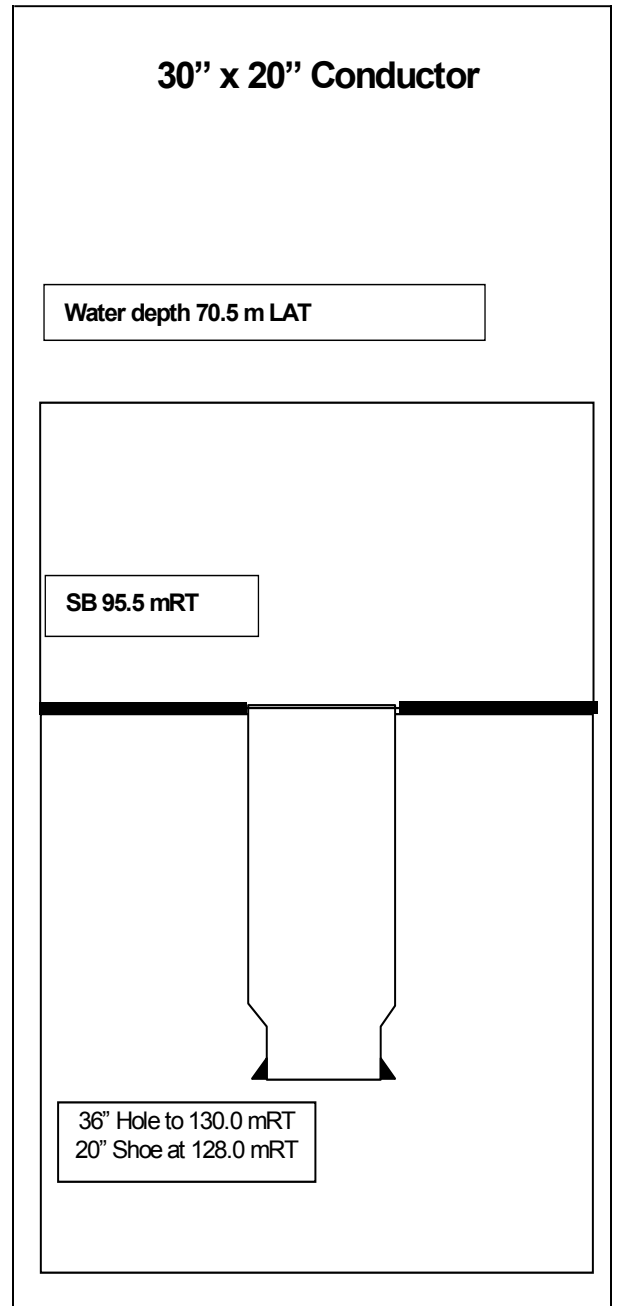
Cement Details:

Sacks 832
Type Class "G"
Mix water 104 bbls
Additives CaCl₂

Weight 15.8 ppg
Volume 174 bbls

Summary

Two joints of conductor casing, the swedged 30"/20" shoe joint and PGB were made up and landed on the seabed. The hole was circulated using 130bbls of seawater with good returns observed. Cement operation was then conducted as per Santos program. Good cement returns were noted throughout the procedure. After pressure was bled off, it was found that the float had held and the running tool was disengaged and pulled to surface.



13.375" Casing**28 August 2002**

Hole Size 17.5"
Depth 752mRT

Casing 1 x Shoe Joint
1 x Intermediate Joint
1 x Float collar joint
50 x 13.375" Casing
1 x 18.75" WH"

ID 12.44"
Weight 68 / 72 lb/ft, BTC
Grade L80
Shoe Depth 743mRT

Cement Details:**Lead Slurry**

Sacks 944
Type Class "G"
Mix water seawater
Additives 20 gal/10 bbl Econolite

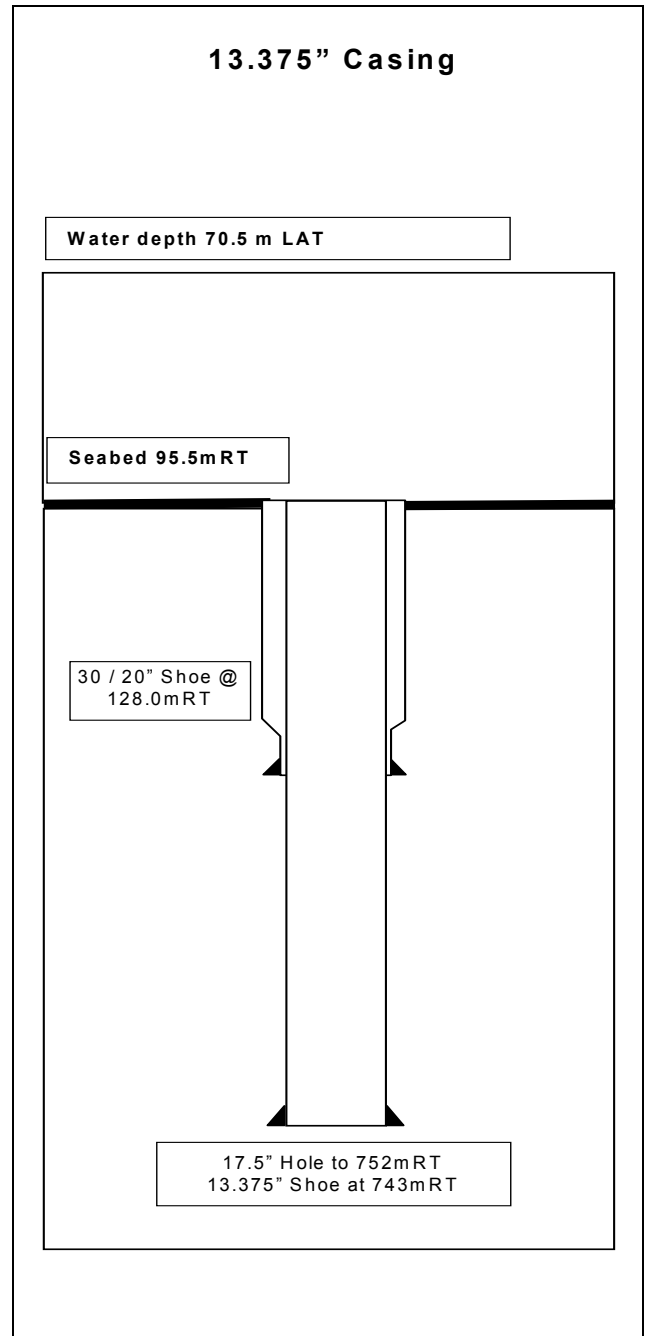
Weight 12.5 ppg (1.5 sg)
Yield 2.23 cuft/sx
Volume 375 bbls

Tail Slurry

Sacks 646
Type Class "G"
Mix water seawater
Additives Neat
Weight 15.8 ppg (1.9 sg)
Yield 1.17 cuft/sx
Volume 135 bbls

Summary

The 13.375" casing string was made up, landed and latched onto the wellhead in the 30" housing, and tested with 45klbs overpull. The casing was circulated clean and displaced with 560bbls of gel mud. After a leak was fixed, the surface lines were re-tested ok to 3000psi. Cement operation was then performed. The casing was pressure tested to 3000psi for 10 minutes and was bled out with the float held in place. The running tool was then released and pulled to surface.



SECTION 3

SURVEY

SANTOS

SURVEY DATA

Casino-1

Seq No.	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/10m)	Srvy tool type	Tool qual type
1	0	0	0	0	0	0	0	0	0	0	0	TIP	-
2	766.75	0.6	342.17	766.75	766.74	3.82	3.82	-1.23	4.01	342.17	0.01	MWD	6-axis
3	855	0.26	216.64	88.25	854.98	4.1	4.1	-1.49	4.36	340.03	0.09	MWD	6-axis
4	912.4	0.54	155.43	57.4	912.38	3.75	3.75	-1.46	4.02	338.79	0.08	MWD	6-axis
5	969.94	0.83	135.97	57.54	969.92	3.2	3.2	-1.05	3.37	341.81	0.06	MWD	6-axis
6	1041.08	1.2	191.94	71.14	1041.05	2.11	2.11	-0.85	2.27	338.03	0.14	MWD	6-axis
7	1084.57	1.29	209.06	43.49	1084.53	1.23	1.23	-1.18	1.71	316.2	0.09	MWD	6-axis
8	1170.44	0.93	192.51	85.87	1170.38	-0.29	-0.29	-1.8	1.83	260.74	0.06	MWD	6-axis
9	1256.72	1.44	181.17	86.28	1256.64	-2.06	-2.06	-1.98	2.85	223.78	0.06	MWD	6-axis
10	1382.12	1.87	182.17	125.4	1381.99	-5.68	-5.68	-2.08	6.05	200.15	0.03	MWD	6-axis
11	1458.48	2.13	183.87	76.36	1458.31	-8.34	-8.34	-2.23	8.63	194.95	0.03	MWD	6-axis
12	1546.07	2.74	185.63	87.59	1545.82	-12.05	-12.05	-2.54	12.31	191.92	0.07	MWD	-
13	1605.53	3.09	184.83	59.46	1605.2	-15.06	-15.06	-2.82	15.32	190.6	0.06	MWD	6-axis
14	1690.72	3.44	188.91	85.19	1690.25	-19.87	-19.87	-3.41	20.16	189.73	0.05	MWD	6-axis
15	1775.86	4.38	192.34	85.14	1775.19	-25.57	-25.57	-4.5	25.97	189.97	0.11	MWD	-
16	1797	4.38	192.34	21.14	1796.27	-27.15	-27.15	-4.84	27.58	190.11	0	MWD Projection To TD	

SECTION 4

GEOLOGY & SHOWS

4.1 GEOLOGY AND SHOWS

Formation Evaluation for Casino - 1 commenced from below the 339.72mm (13.375") casing shoe at 743mRT to the well's Total Depth of 2118mRT.

During the course of the well, all gas equipment was checked and calibrated before drilling. Carbide was run at 1100mRT and 1447mRT to ensure lag times were correct.

The lithological units observed during the drilling of Casino- 1 are described below. For more detailed descriptions, see Appendix-1, Formation Evaluation Log.

SAMPLING INTERVALS

Depth	Sampling Interval
752-2114m	3m
2114-2118m	4m

914mm (36") HOLE SECTION

Seabed to 130m: Returns to Seabed

445mm (17.5") HOLE SECTION

130m to 752m: Returns to Seabed

311mm (12.25") HOLE SECTION

752m to 776m: CALCAREOUS CLAYSTONE and MARL

CALCAREOUS CLAYSTONE: Medium light grey to medium dark grey, occasionally very light grey to light grey. Soft, occasionally firm, dispersive in parts, subblocky, rarely blocky with rare fossils, rare Echinoid spines, rare Foraminifera, trace disseminated pyrite and trace very fine carbonaceous specks.

MARL: Medium light grey to medium dark grey, occasionally dark grey, mottled in parts. Soft, occasionally firm, dispersive in parts with rare fossils, rare Echinoid spines, rare Foraminifera, trace disseminated pyrite and trace very fine carbonaceous specks.

There were no oil shows in this interval.

776m to 845m: SANDSTONE with minor interbedded CALCAREOUS CLAYSTONE, MARL and CALCILUTITE

SANDSTONE: Moderate brown to medium yellowish brown, translucent to opaque quartz grains, common Fe (iron) staining. Medium to coarse grained, occasionally very coarse, moderately to poorly sorted, subrounded, occasionally rounded, minor subangular, poorly consolidated, occasional moderately hard aggregates with trace weak siliceous cement, trace glauconite, trace pyrite, trace lithic fragments. Poor visible porosity, fair inferred porosity.

CALCAREOUS CLAYSTONE: Medium light grey to medium dark grey, occasionally very light grey to light grey. Soft, occasionally firm, dispersive in parts, subblocky, rarely blocky containing rare fossils, rare Echinoid spines, rare Foraminifera, trace disseminated pyrite and trace very fine carbonaceous specks.

MARL: Medium light grey to medium dark grey, occasionally dark grey, mottled in parts. Soft, occasionally firm, dispersive in parts with rare fossils, rare Echinoid spines, rare Foraminifera, trace disseminated pyrite and trace very fine carbonaceous specks.

CALCILUTITE: White to very light grey, firm to moderately hard, occasionally dispersive, subblocky to blocky. Grades to CALCARENITE in parts.

There were no oil shows in this interval.

845m to 1405m: SANDSTONE with minor interbedded CLAYSTONE

SANDSTONE: Moderate brown to medium yellowish brown, white to very light grey, translucent to opaque, rare milky quartz grains. Medium to coarse, occasionally very coarse, moderately to poorly sorted, subrounded occasionally rounded, minor subangular. Poorly consolidated with minor to common moderately hard calcite, common iron staining, trace glauconite, trace pyrite and trace lithic fragments. Poor visible porosity, fair inferred porosity.

CLAYSTONE: Brownish grey to olive grey, medium grey to medium dark grey, soft, dispersive in parts, subblocky. Trace disseminated pyrite, trace very fine carbonaceous specks, grades to CALCAREOUS CLAYSTONE in parts.

There were no oil shows in this interval.

1405m to 1555m: SANDSTONE with interbedded COAL, SILTSTONE and minor CARBONACEOUS SILTSTONE

SANDSTONE: Clear to translucent and occasionally grey and orange stained quartz grains, fine to coarse grained, predominantly medium to coarse, rare pebbles, loose, angular to subrounded, occasionally rounded, subelongate to subspherical, rare to trace fractured grains, moderately well sorted containing trace white argillaceous matrix, rare to trace pyrite cement and trace glauconite. Poor to good inferred porosity.

COAL: Greyish black to black, brownish black to olive black. Firm to moderately hard, vitreous, blocky, sub-conchoidal to conchoidal fracture. Grading to a CARBONACEOUS SILTSTONE in places.

SILTSTONE: Moderate yellowish brown to light pale brown, greyish orange pink, pale yellowish orange, greyish brown, mottled texture in parts. Soft to firm, occasionally moderately hard, subblocky to subfissile with carbonaceous microlaminations, common carbonaceous material, trace nodular and disseminated pyrite, trace mica. Grading to a CARBONACEOUS SILTSTONE.

CARBONACEOUS SILTSTONE: Brownish grey to dark yellowish brown, moderate yellowish brown. Soft, subfissile, subblocky to blocky, with carbonaceous microlaminations and trace disseminated pyrite. Grading to SILTSTONE in parts.

There were no oil shows in this interval.

1555m to 1625m: SANDSTONE and CONGLOMERATIC SANDSTONE with Interbedded COAL and SILTSTONE

SANDSTONE: Clear to translucent quartz grains, fine to very coarse grained, subrounded to subangular, common to abundant fractured grains, subspherical, poorly sorted, loose, common very hard aggregates with common hard dolomite cement, trace pyrite and trace glauconite. Poor visual porosity. Dolomite fluorescence: light yellowish green.

CONGLOMERATIC SANDSTONE: Clear to translucent quartz grains, loose, fine to very coarse with occasional granules, predominantly medium to coarse, subangular occasionally subrounded, common fractured grains, subelongate to subspherical, poorly sorted. Contains common hard, dolomite cement, which is medium grey to dark grey, greyish orange in colour, trace pyrite cement, trace nodular pyrite and trace glauconite pellets. Poor visual porosity. Dolomite fluorescence: Bright greenish yellow.

COAL: Greyish black to black, brownish black to olive black. Firm to moderately hard, vitreous, blocky, sub-conchoidal to conchoidal fracture. Grading to a CARBONACEOUS SILTSTONE in parts.

SILTSTONE: Moderate yellowish brown to light pale brown, greyish orange pink, pale yellowish orange, greyish brown, mottled texture in parts. Soft to firm, occasionally moderately hard, subblocky to sub-fissile with carbonaceous microlaminations, common carbonaceous material, trace nodular and disseminated pyrite and trace mica. Grading to a CARBONACEOUS SILTSTONE.

There were no oil shows in this interval.

845m to 1147m: SANDSTONE with minor interbedded CLAYSTONE

SANDSTONE: Moderate brown to moderate yellowish brown, dark yellowish orange, white to very light grey, translucent to opaque, common iron staining, rare milky quartz grains. Medium to coarse grained, occasionally fine to very coarse, moderately to poorly sorted, subrounded occasionally rounded, minor subangular, poorly consolidated with common pyrite cement, rare siliceous cement, minor to common moderately hard calcite cement, common argillaceous matrix. Trace glauconite, trace pyrite, trace mica and trace lithic fragments. Poor visible porosity, fair inferred porosity.

CLAYSTONE: Brownish grey to olive grey, medium grey to medium dark grey, dusky yellowish brown to brownish black. Soft to firm, dispersive in parts, subblocky, amorphous with trace disseminated pyrite and trace very fine carbonaceous specks. Grades to CALCAREOUS CLAYSTONE in parts.

There were no oil shows in this interval.

1147m to 1270m: SANDSTONE interbedded with SILTSTONE

SANDSTONE: Dark yellowish brown, light brownish grey, brownish black, clear to translucent, occasionally milky quartz grains, occasional orange iron staining. Fine to coarse, predominantly medium grained, occasionally very fine, moderately well sorted, angular to subrounded, predominantly subangular, rare friable aggregates, predominantly poorly consolidated, common pyrite cement, rare siliceous cement, trace dolomite cement and common glauconite matrix with rare glauconite pellets, trace disseminated pyrite and trace mica flakes. Poor visible porosity, poor inferred porosity.

SILTSTONE: Dusky yellowish brown, brownish black to olive black, light brownish grey, medium light grey to medium grey. Soft to firm, occasionally very soft, subblocky to blocky, occasionally amorphous with trace carbonaceous specks, trace disseminated pyrite and trace glauconite. Grades to very fine SANDSTONE in parts.

There were no oil shows in this interval.

1270m to 1454m: SILTSTONE

SILTSTONE: Brownish black to olive black, dusky brown to dusky yellowish brown, light brownish grey to brownish grey, light olive grey, dark grey. Dispersive, very soft to firm, amorphous to subblocky with occasional very fine to coarse quartz grains, rare to trace glauconite nodules and trace pyrite nodules.

There were no oil shows in this interval.

1454m to 1562m: SILTSTONE with minor interbedded SANDSTONE

SILTSTONE: Brownish black to olive black, brownish grey to olive grey, dusky yellowish brown. Dispersive, very soft to firm, occasionally moderately hard, amorphous to subblocky, with trace predominantly very fine to medium quartz grains, occasionally very coarse, minor to trace glauconite pellets and rare pyrite nodules.

SANDSTONE: Clear to translucent, trace opaque quartz grains, occasionally orange to yellowish stained. Very fine to medium grained, occasionally very coarse, subangular to subrounded, occasionally rounded, poorly to well sorted. Loose, poorly consolidated, friable with trace weak silica cement, common to trace glauconite pellets and rare pyrite nodules. Poor visual porosity, fair inferred porosity.

There were no oil shows in this interval.

1562m to 1743m: SILTSTONE with rare interbedded SANDSTONE

SILTSTONE: Dusky yellowish brown, brownish black to olive black, brownish grey to olive grey. Predominantly very soft to firm, occasionally moderately hard, dispersive in parts, amorphous to subblocky. Rare to trace glauconite nodules, rare to trace pyrite nodules, trace disseminated pyrite, trace very fine to fine quartz grains and trace calcite.

SANDSTONE: Clear to translucent quartz grains, occasionally yellowish to orange iron staining. Predominantly fine to medium, occasionally very coarse, moderately sorted, subangular to subrounded, loose, rare glauconite and trace pyrite. Fair inferred porosity.

There were no oil shows in this interval.

1743m to 1860m: SANDSTONE with interbedded SILTSTONE and trace COAL

SANDSTONE: Medium light grey to light olive grey, light brown grey to very light grey with clear to translucent quartz grains, occasionally pink to reddish brown. Very fine to medium grained, occasionally very coarse, poor to well sorted, subangular to subrounded, friable to hard aggregates, quartzose in parts and occasionally poorly consolidated with abundant white to very light grey argillaceous matrix, weak silica cement, trace to common hard calcareous cement, rare to minor pyrite cement. Contains trace lithic fragments, trace glauconite and glauconite pellets, trace pyrite nodules and trace carbonaceous material. Poor to fair inferred porosity, poor visual porosity.

SILTSTONE: Brownish grey to medium dark grey, medium light grey to olive grey. Soft to firm, occasionally very soft, sticky in parts, amorphous to subblocky. Trace lithics, trace pyrite, trace glauconite.

COAL: (Trace): Greyish black to brownish black, sub vitreous to earthy, silty in parts, subblocky to angular fracture.

There were no oil shows in this interval.

1860m to 2118m: SILTSTONE with interbedded SANDSTONE

SILTSTONE: Medium light grey to medium dark grey, light brownish grey to brownish grey, light olive grey to olive grey, occasionally white to very light grey. Very soft to soft, dispersive, amorphous with trace carbonaceous specks, trace pyrite and trace glauconite.

SANDSTONE: White to light grey, medium light grey to greenish grey with clear, translucent and opaque quartz grains, occasionally pink, reddish brown, trace orange, trace iron staining and trace milky. Very fine to coarse grained, predominantly fine to medium, moderately to moderately well sorted, subrounded to angular, subelongate to subspherical. Moderately hard to hard aggregates, quartzose in parts, occasionally loose with minor to abundant white to light grey argillaceous matrix, trace to common hard calcareous cement, rare silica cement, trace pyrite cement. Contains trace to common glauconite, rare mica flakes, rare siderite, trace pyrite nodules, trace lithic fragments and trace carbonaceous specks. Poor visual porosity, poor inferred porosity.

There were no oil shows in this interval.

Drilling Rate Summary for All Lithology Intervals on Casino-1			
Depth Interval (m)	RATE OF PENETRATION (m/hr)		
	Minimum	Maximum	Average
752 - 776	14.2	125.1	62.9
776 - 845	22.4	149.0	77.7
845 - 1147	0.5	226.1	72.5
1147 - 1270	4.9	192.8	63.1
1270 - 1454	8.8	95.4	25.5
1454 - 1562	7.6	88.5	43.0
1562 - 1743	16.2	79.6	41.4
1743 - 1860	0.7	93.1	21.5
1860 - 2118	4.4	36.1	14.6

Summary of Gas Readings Recorded for All Lithology Intervals on Casino-1													
Interval (m)		Total Gas (units)				Chromatograph Analysis (ppm)							
From	To	Range		Max Gas at (m)	Av. Total Gas		C1	C2	C3	iC4	NC4	IC5	nC5
		From	To										
0	752	Returns to Seabed				Min	-	-	-	-	-	-	-
					Max								
752	776	0.0	0.3	757-776	0.3	Min	40	-	-	-	-	-	-
						Max	71	-	-	-	-	-	-
776	845	0.2	0.3	776-845	0.3	Min	37	-	-	-	-	-	-
						Max	87	-	-	-	-	-	-
845	1147	0.3	6.8	1055-1056	1.5	Min	41	-	-	-	-	-	-
						Max	752	-	-	-	-	-	-
1147	1270	1.9	7.3	1256	3.7	Min	97	-	-	-	-	-	-
						Max	1020	-	-	-	-	-	-
1270	1454	2.3	12.9	1453	4.7	Min	83	-	-	-	-	-	-
						Max	1894	-	19	-	-	-	-
1454	1562	7.8	153.0	1528	23.5	Min	612	-	-	-	-	-	-
						Max	28601	216	134	24	22	6	-
1562	1743	3.2	52.5	1741	19.0	Min	459	-	-	-	-	-	-
						Max	5350	118	48	-	6	-	-
1743	1860	3.0	1150	1761	333.0	Min	322	0	0	0	0	0	0
						Max	134997	2448	1329	232	235	73	75
1860	2118	4.0	88.0	1870	12.1	Min	485	0	0	0	0	0	0
						Max	14892	140	64	13	13	8	29



INTEQ

4.2 Sampling Summary

Santos: Casino-1

From:

BHI Unit 503

Location: **Ocean Bounty**

Telephone: 08 8218 5740

Shipped in Container No: OPC200

SAMPLE TYPE	No. Of Sets	COMPOSITION			PACKING DETAILS	
		Sample Box No.	Depth Interval (m)			
			From	To		
Sets A,B,C: Washed & Air Dried Samples (100 g)	3	1	752	818	Small boxes 1 – 8 packed in large box 1 of 3	
		2	818	875		
		3	875	956		
		4	956	1037		
		5	1037	1124		
		6	1124	1211		
		7	1211	1298		
		8	1298	1379		
	9	2	9	1379	1451	Small boxes 9 – 12 packed in large box 2 of 3
			10	1451	1541	
			11	1541	1625	
			12	1625	1700	
	13	3	13	1700	1781	Small boxes 13-17 packed in large box 3 of 3
			14	1781	1862	
			15	1862	1955	
			16	1955	2036	
			17	2036	2118	
Sets D,E: Washed & Air Dried Samples (200 g)	2	1	752	806	Small boxes 1 – 8 packed in large box 1 of 5	
		2	806	875		
		3	875	929		
		4	929	986		
		5	986	1040		
		6	1040	1094		
		7	1094	1154		
		8	1154	1226		
	9	2	9	1226	1298	Small boxes 9-12 packed in large box 2 of 5
			10	1298	1355	
			11	1355	1412	
			12	1412	1487	
	13	3	13	1487	1556	Small boxes 13 – 16 packed in large box 3 of 5
			14	1556	1625	
			15	1625	1685	
			16	1685	1745	
	17	4	17	1745	1808	Small boxes 17-20 packed in large box 4 of 5
			18	1808	1865	
			19	1865	1931	
			20	1931	1985	
	21	5	21	1985	2042	Small boxes 21-23 packed in large box 5 of 5
			22	2042	2090	
			23	2090	2118	
Set F: Samplex Trays	1	1	752	1052	5 Small boxes packed into 1 Large box.	
		2	1052	1352		
		3	1352	1652		
		4	1652	1817		
		5	1817	2118		

Set G: Samplex Trays	1	1 2	752 2012	2012 2118	Box 1 Couriered to Strike oil on 14/09/02 Box 2: 1 small box
Set H: Mud Samples and Mud Filtrate sample. MDT fluid sample	1	1	755 1408 1529 1748 1757 1799 1870 2118		Packed in 1 Large Box. Also included a Mud Filtrate Sample (glass jar). Mud Sample and MDT sample in plastic 500ml bottles
Set I: Misc paper work, logs and charts	1	1	-	-	1 Large box

Samplex trays (Set G) from 752 to 2012m have been forwarded to Strike Oil on 14/09/02

DISTRIBUTION	Destination & Address	Attention of:
Set A and B: Santos Washed & Dried (100g)	C/- Santos Core Library Ascot Transport Francis Street Gillman SA 5013	Attn: Troy Prosser (Santos Core Librarian)
Set C: Strike Oil Washed & Dried (100g)	C/- Santos Core Library Ascot Transport Francis Street Gillman SA 5013	Attn: Troy Prosser (Santos Core Librarian)
Set D: Vic DRNE Washed & Dried (200g)	C/- Santos Core Library Ascot Transport Francis Street Gillman SA 5013 Fwd to Vic DNRE	Attn: Troy Prosser (Santos Core Librarian)
Set E: Geoscience Australia Washed & Dried (200g)	C/- Santos Core Library Ascot Transport Francis Street Gillman SA 5013 Fwd to AGSO	Attn: Troy Prosser (Santos Core Librarian)
Set F, G: Santos and Strike Samplex Trays	C/- Santos Core Library Ascot Transport Francis Street Gillman SA 5013 Fwd to AGSO	Attn: Santos Core Library, Gillman
Set H: Mud Samples	C/- Santos Core Library Ascot Transport Francis Street Gillman SA 5013 Fwd to AGSO	Attn: Troy Prosser (Santos Core Librarian)
Set I: Misc paper work, logs and charts	C/- Santos Core Library Ascot Transport Francis Street Gillman SA 5013 Fwd to AGSO	Attn: Attn: Troy Prosser (Santos Core Librarian)

SECTION 5

PRESSURE EVALUATION

5.1 Pore Pressure Evaluation

An average sea water density of 8.6 ppg was assumed as the normal saline pressure gradient for all calculations for Casino-1. Using real time data, such as the hydrocarbon gas trend, lithology, flowline temperature, corrected Drilling Exponent (Dxc) data for conventional roller bits, constant drilling fluid parameters, pore pressure estimates were made during the drilling of Casino-1. For more details, please refer to Appendix 3, "Pressure Summary Plot".

36" Hole Section

The 36" hole was drilled from 95.5mRT to 130.0mRT. The section was short, characterised largely by unconsolidated sediments with returns dumped at the seabed. With an average penetration rate of about 30m/hr and low weight-on-bit, the plotted Dxc data curve projected a leftward general trend consistent with bit jet washing action on soft, unconsolidated sediments. However, it is unlikely that pore pressure would have increased over this shallow interval. The pore pressure was estimated to have remained normal at 8.6 ppg EMW down to 130.0mRT.

17.5" Hole Section

The 17.5" hole was drilled riserless from 130.0mRT to 752.0mRT with returns dumped at the seabed. As in the 36" section, pore pressure estimates were based on the DxC curve, penetration rate and the behaviour of available drilling parameters. The Dxc scatter from below the casing shoe to 400m was indicative of a probably more than gradual sediment consolidation as recorded by Dxc points ranging from 0.21 to 1.31 averaging a slope of 0.71 for the interval. Below 400m to the section total depth of 752m, the trend was closer to vertical inferring a more consistent sediment consolidation with depth. The whole section however was estimated to have remained normal at 8.6ppg EMD down to 752mRT.

12.25" Hole Section

The 12.25" hole section was drilled using a KCl/PHPA/Glycol mud system initially weighted at 8.7ppg. After a successful leak off test (17.3ppg EMW) drilling progressed smoothly averaging 29.2m per hour from 752m to 1797m and 9.7m per hour from 1797m to 2118m TD. In anticipation of higher than normal formation pressure, the mud weight was incremented to 9.8ppg at about 1650m. Drilling continued until gas sands were penetrated below 1740m. High gas with a peak of 23% was circulated out before drilling was resumed. Due to the appearance of trace splintery cavings at the shakers, the mud density was incremented to 10.0ppg at 1790m. The drilling rate then slowed down to less than 4.5m/hr from 1791m to 1797m. It was then decided to pull the bit due to poor rate of penetration. The hole was tight above 1610m requiring a force of up to 60klbs overpull. The section was backreamed from 1610m to 1480m before the bit was run back in to condition the hole. The wiper trip gas recorded rose to 28%. The mud weight was further incremented to 10.3ppg and the bit was pumped and backreamed out of the hole from bottom to 1420m. 20 to 50klbs drag were recorded from 1420m to 1160m before the bit was finally pulled to surface without problems.

An insert bit was made up with the previous assembly and RIH but before tagging bottom, a decision to pull back inside the casing shoe was made due to inclement weather. The string was then spaced out and the BHA and some drill pipe joints were hung up below the seabed. The weather worsened further and the riser was unlatched from the wellhead to prevent damage. Six days were spent waiting on weather.

Aside from a few pieces of splintery cavings noted from 1680m, there was no other indication of abnormal pore pressure while drilling to 1797m. The background gas slowly rose from trace to 2 units with the mud weight maintained at 8.9ppg. Gas background further increased to about 10 units from 1450m to 1740m while the mud weight was measured at 9.9ppg. The temperature curve maintained its gradual increments, however it did shift slightly lower when the reservoir sandstones were drilled from about 1740m as did the DxC trend, increased and stayed high from this point too averaging 676 units (13.5%) between 1740 and 1797m. Whilst the gas peak of 1150 units (23%) below 1740m was considered to have come from a permeable sandstone formation while and the wiper trip gas of 28% was thought to have been swabbed by the bit it is likely that a pore pressure increase had occurred at around 1740m. Offset data from other wells suggested a pore pressure of around 9.2ppg to be present here, but with the high wiper trip gas with 9.9ppg MW, the pore pressure on Casino-1 is likely to be around 9.7ppg EMW. The mud weight was increased to 10.3ppg before the well was shutdown due to inclement weather, the EMW resisting the formation was reduced from 10.3ppg to 10.2ppg. When the well was re-entered, circulation was broken at 950m before continuing to run in the hole to 1717m. From this point the bit was washed and reamed into the hole to

1797m, encountering 27m of fill on bottom, and a maximum trip gas of 125 units (2.5%). This trip gas is relatively low compared to the wiper trip gas prior to waiting on weather. This would indicate that the increase in MW from 9.9 to 10.3ppg stabilised the well and that the pore pressure was fairly close to balance at around 9.7ppg before the MW increase. New 12.25" hole was then drilled from 1797m to 2118m, with a mud weight of 10.3 ppg, which fell to 10.2 ppg by TD at 2118m. The background gas for this section ranged from 4-14 units (0.08-0.28%), with the only significant peak at 1870m of 88 units (1.76%). On pulling out of hole tight spots were encountered at 1805m and 1760m with 60 klbs of overpull.

As discussed above, the maximum trip gas circulated out after 6 days of waiting on weather with an EMW of 10.2ppg was 2.5%. The Dxc trended lower from 1830m to 1860m before maintaining a normal inclination towards TD at 2118m. The temperature gradient increased at a higher than normal rate from 1797m to 1850m before returning to a normal trend higher from 1850m to TD. There were, however, no further pressure cavings observed from 1797m to 2118m. These factors, in conjunction with the increasing background gas as this section was drilled, indicates that the maximum pore pressure may have been around 9.7ppg EMW. Once the Mud Weight was increased to 10.3ppg gas levels were significantly reduced. The Trip gas produced after waiting on weather for 6 days was much lower than the wiper trip gas produced with when the mud weight was 9.9%. This suggests a pore pressure of around 9.7ppg EMW. No further evidence of increasing pore pressure was seen whilst drilling to TD. So the maximum pore pressure at TD was around 9.7ppg.

5.2 Fracture Pressure Evaluation

12.25" hole section

After drilling out the 13.375" casing shoe at 743m, rathole to 752m and three metres of 12.25" hole to 755mRT, a Leak Off Test (LOT) was performed. An applied force of 1090psi at the surface using mud weighted at 8.7ppg recorded an equivalent mud weight (EMW) of 17.29ppg formation strength at the casing shoe. This section was drilled with a KCl/PHPA/Glycol mud system weighted from 8.7 to 10.3ppg. While drilling, an ECD range of 8.9 to 10.5ppg was recorded. At no time did ECD values approach the LOT result. No downhole mud losses were seen in this section.

The following is a summary of the Leak Off Test conducted in this well:

Hole Section	Hole MD	Casing	Shoe MD	Pressure	Mud Weight	EMW
12.25"	755 m	13.375"	743m	1090 psi	8.7 sg	17.29ppg

TABLES


Table 1: Bit Run Summary

Tables

BAKER HUGHES		Bit Run Summary																		Santos									
INTEQ		Operator										Well Name				Location				Drilling Contractor				Rig					
		SANTOS										Casino-1				VIC/P44				Diamond Offshore				Ocean Bounty					
Bit No.	Bit Make, Type Serial No. / IADC Code	Bit Size in	Jets x 1/32"	TFA in ²	Depth In m	Depth Out m	Metres Drilled Metres	On Btm Hours Drilled Hours	ROP Avg m/hr	TBR x1000	Drilling parameter range										Grading								Remarks
											WOB klbs	SPP psi	RPM	Flow gpm	Jet Vel m/sec	DC/OH Vel m/min	MD ppg	Hyd Power hhp	Bit Loss %	I	O	D	L	B	G	O	R		
36" Hole Section																													
NB1	Smith DSJC	26	3 x 18	2.2304	95.5	130	34.5	1.0	34.5	4.1	2-10	1332	65	870	38	5	8.6	61	38.0	Not Graded								36" Hole Section T.D.	
w/ 36" Hole Opener		36" HO, 4 x 22 jets																											
17.5" Hole Section																													
NB2	Smith MGSSHC	17.5	3 x 20, 1 x 18	1.1689	130	752	622	23.4	26.6	143.1	3.4-33.5	2057	60-108	1000	85	35	8.6	349	43.6	1	1	NO	A	E	I	NO	TD	17.5" Hole Section TD	
12.25" Hole Section																													
NB3	Reed DSX195GUW	12.25	5 x 12	0.5522	752	1057	305	4.7	64.9	100.6	1.3-17.8	2533	78-131	499-1214	112.3	37	8.8	394.7	62.2	8	8	RO	S	X	1	WT	PR	MWD,FEWD	
NB4	Reed EHP51HFKPRDH	12.25	3 x 16	0.5890	1057	1059	2	0.2	10.0	2.5	5.3-7.1	2994	86	384	3.0	35.60	8.8	77.7	52.5	0	2	CT	G	F	I	PN	PP	MWD,FEWD	
NB5	Smith 10GF	12.25	3 x 16	0.5890	1059	1400	341	14.7	23.2	86.2	1-48	3070	53-125	857	141.0	78.90	8.8	843.0	55.3	1	1	WT	A	E	I	ER	PR	MWD,FEWD	
NB6	Smith MA74BPX	12.25	6 x 12	0.6627	1400	1797	397	16.2	24.5	140.2	2.5-23.1	3189	114-117	825	118.9	74.50	24.0	637.0	43.6	1	8	LT	S	X	I	CT	PR	MWD,FEWD	
NB7	Hughes MXR09D	12.25	3 x 16	0.5890	1797	1797	0	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	RIH, WOW, POOH	
RR7.1	Hughes MXR09D	12.25	3 x 16	0.5890	1797	2118.0	321	33.2	9.7	203.1	8-42	3840	67-115	802	134.2	70.80	10.2-10.3	7.2	52.4	2	2	BT	A	E	I	CT	TD	Drill to TD	

Table 2: Bit Hydraulics Summary

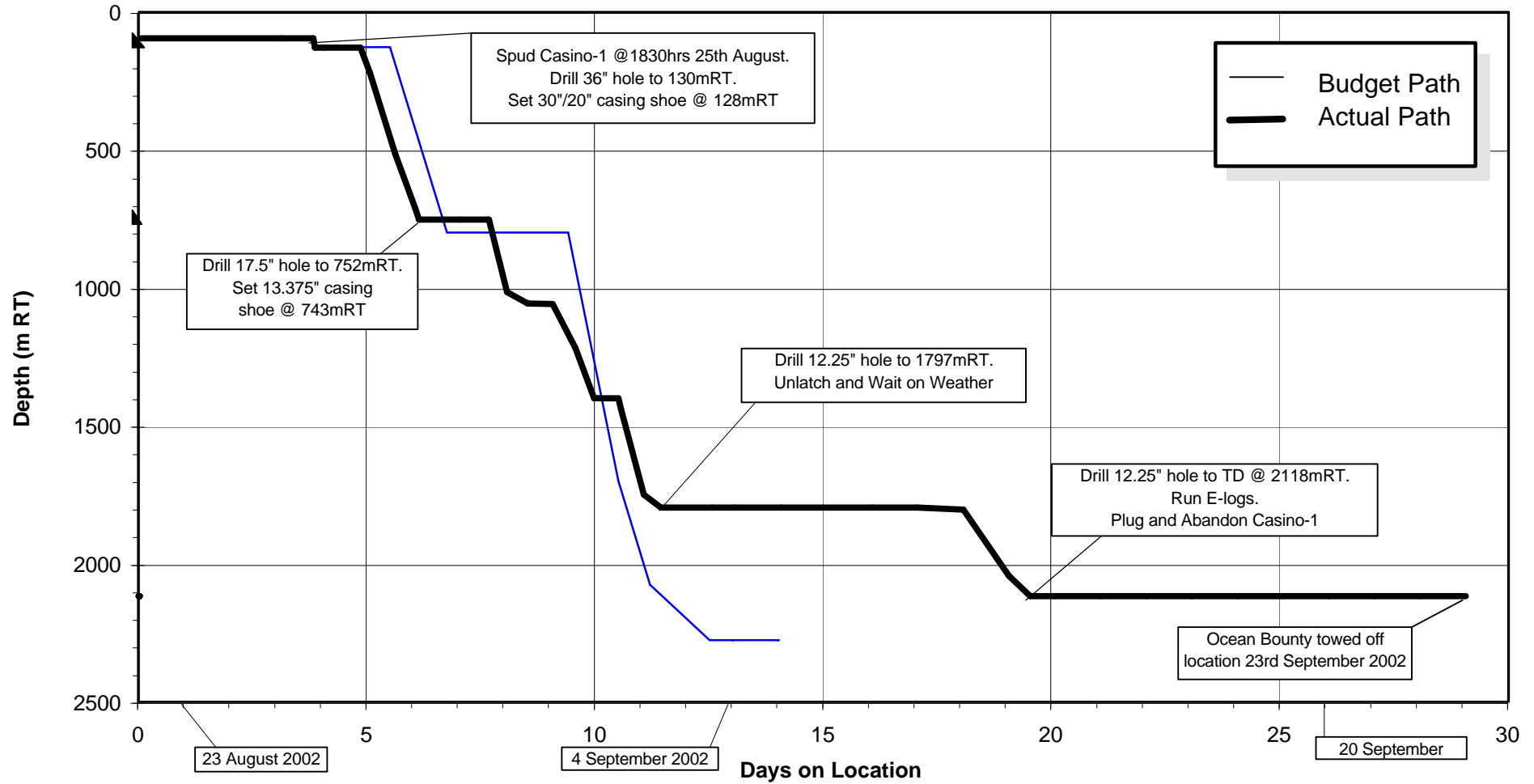
Tables

 Santos																					
Operator					Well Name					Location			Drilling Contractor				Rig				
SANTOS					Casino-1					VIC/P44			Diamond Offshore				Ocean Bounty				
Drillstring Abbreviations										Hydraulics Models											
N Normal		P Positive Displacement Motor			T Halliburton TRACS Tool					Power Law Model used for drilling with Mud											
M MWD		A Adjustable Gauge Stabilizer			C Core					Bingham Model used for coring and drilling with sea water											
Bit No.	Depth (m)	Hole Size in	Jets x 1/32"	Drill String Type	Mud Type	Mud Density ppg	PV cP	YP lbs/100 ft sq	Flow Rate gpm	Jet Vel m/sec	Impact Force lbf	Hydraulic Power hhp	Power/Area hp/sq in	Bit Loss Psi	Bit Loss %	Pipe Loss Psi	ECD ppg	Annular Velocities			
																		DP OH m/min	DC OH m/min	DC Critical m/min	
36" Hole Section																					
NB1	130	36"	3 x 18, 4 x 22	N	SW/hi-vis sweeps	8.60	1	1	870	38.1	485.0	61.1	0.1	120	38.0	167	8.60	-	5.4	25.2	
17.5" Hole Section																					
NB2	752	17.50	3 x 20, 1 x 18	N	SW/hi-vis sweeps	8.60	1	1	1011	84.6	1249.8	349.1	1.5	592	43.6	725	8.60	26.9	35.0	25.5	
12.25" Hole Section																					
NB3	1057	12.25"	5 x 12	M	KCL/PHPA/Glycol	8.80	7	15	707	125.0	1323.0	547.0	4.7	1328	64.7	684	8.90	42.0	65.4	103.9	
NB4	1059	12.25"	3 x 16	M	KCL/PHPA/Glycol	8.80	7	15	385	63.9	368.0	78.0	0.7	346	52.5	297	8.89	22.0	35.6	105.6	
NB5	1400	12.25"	3 x 16	M	KCL/PHPA/Glycol	8.80	12	21	852	141.0	1804.0	843.0	7.3	1697	55.3	1319	8.93	51.1	78.9	131.0	
NB6	1797	12.25"	6 x 12	M	KCL/PHPA/Glycol	10.00	18	32	805	118.9	1625.0	637.0	5.5	1359	43.6	1651	10.20	48.3	74.5	158.1	
RR7.1	2118.0	12.25"	3 x 16	M	KCL/PHPA/Glycol	10.2 - 10.3	20	28	808	134.2	1879.0	832.4	7.2	1767	52.4	1504	10.40	48.5	70.8	142.1	



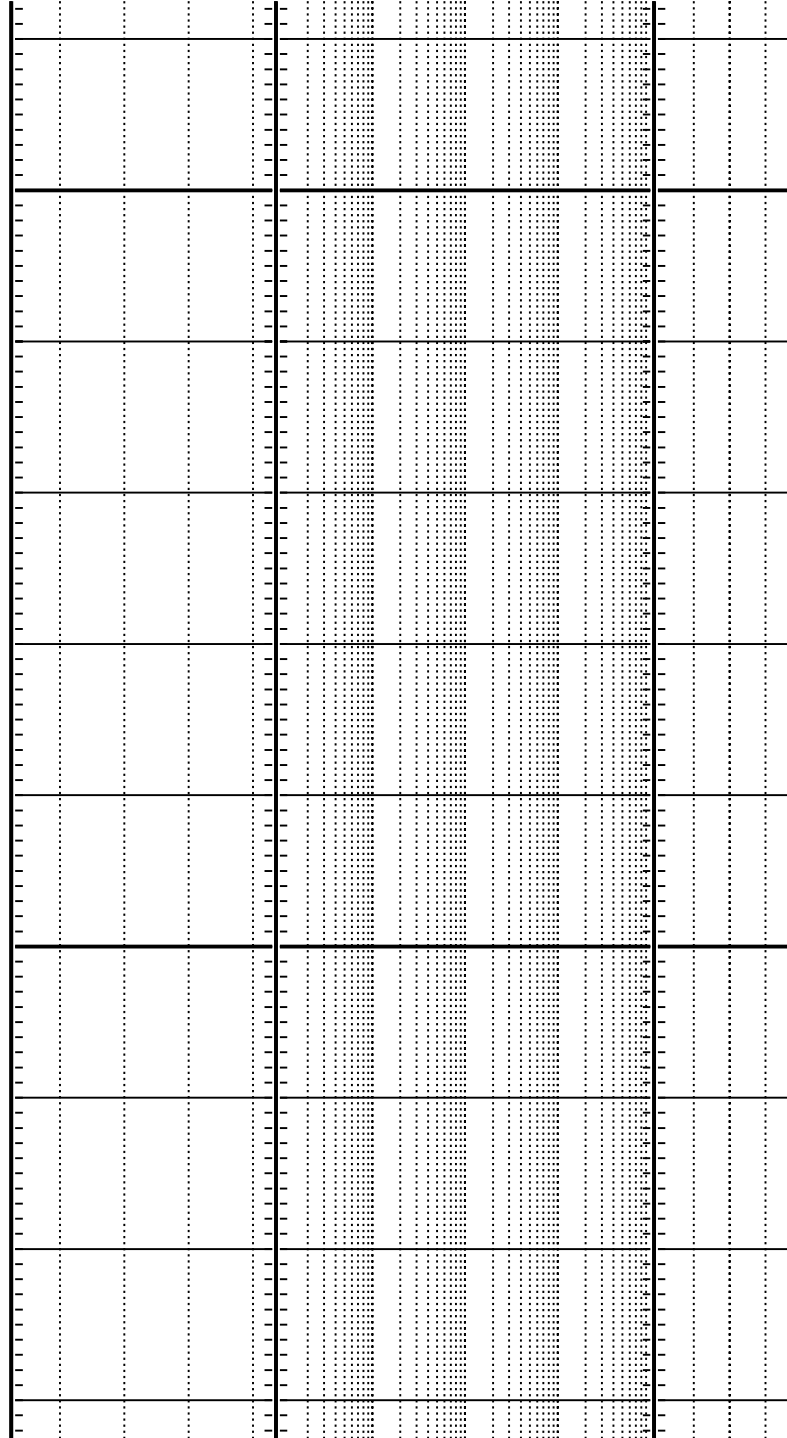
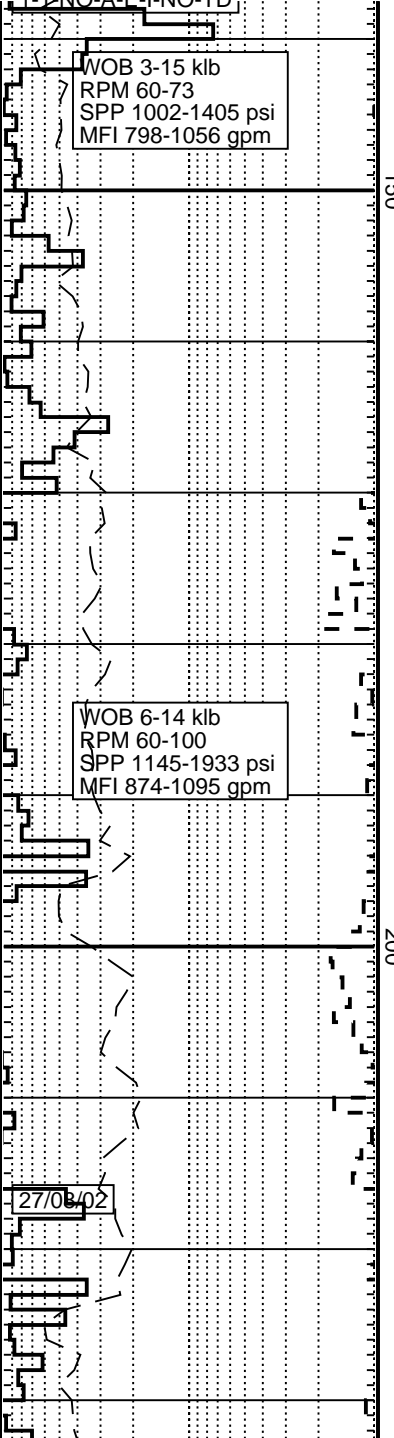
INTEQ

SANTOS Casino-1 Time vs. Depth Curve



APPENDICES

FORMATION EVALUATION LOG
1:500



Drill with seawater & hi-vis sweeps.
Returns to seabed

Drill with seawater & hi-vis sweeps.
Returns to seabed

WOB 4-15 klb
RPM 91-108
SPP 1520-1994 psi
MFI 937-1106 gpm

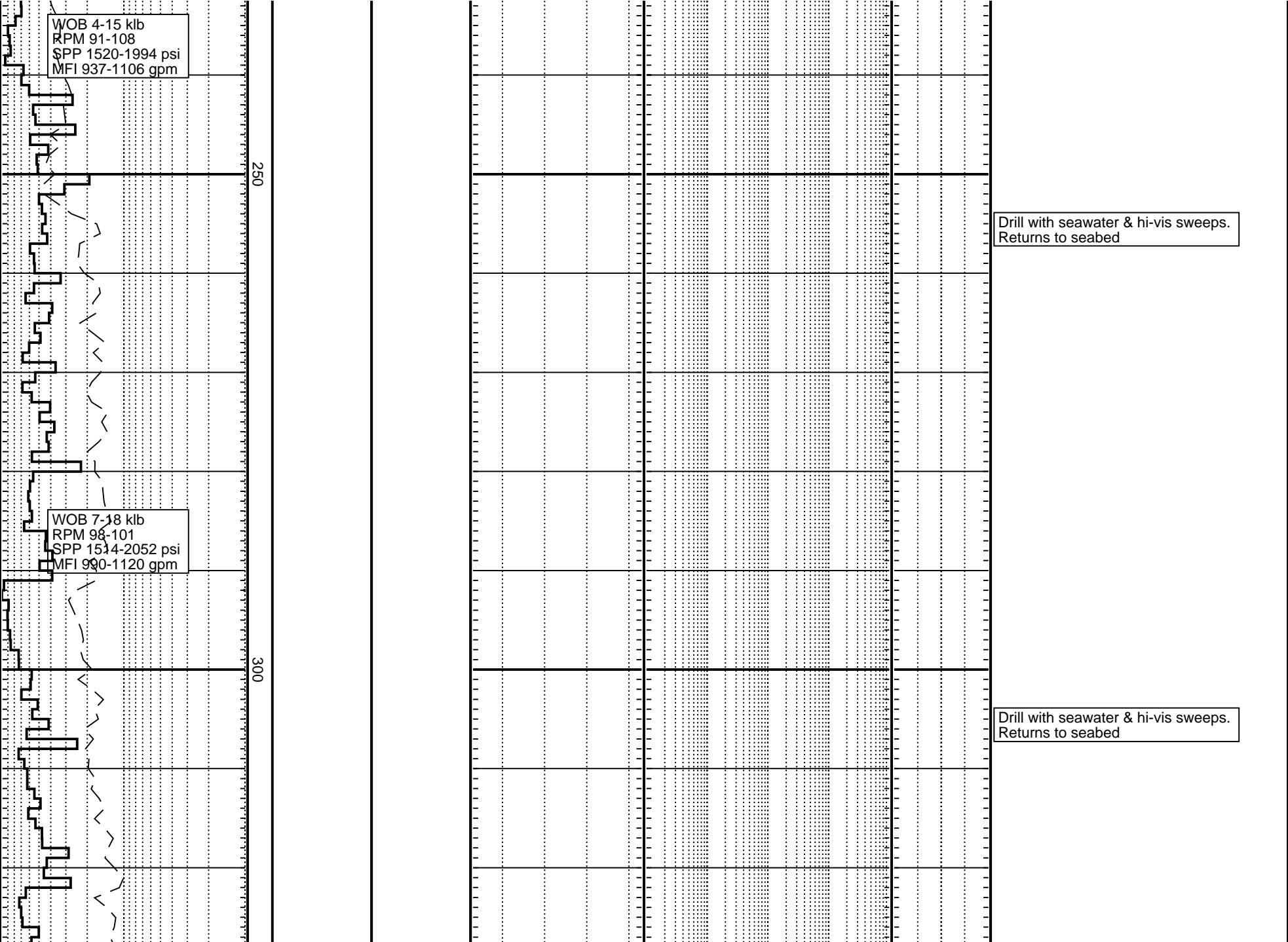
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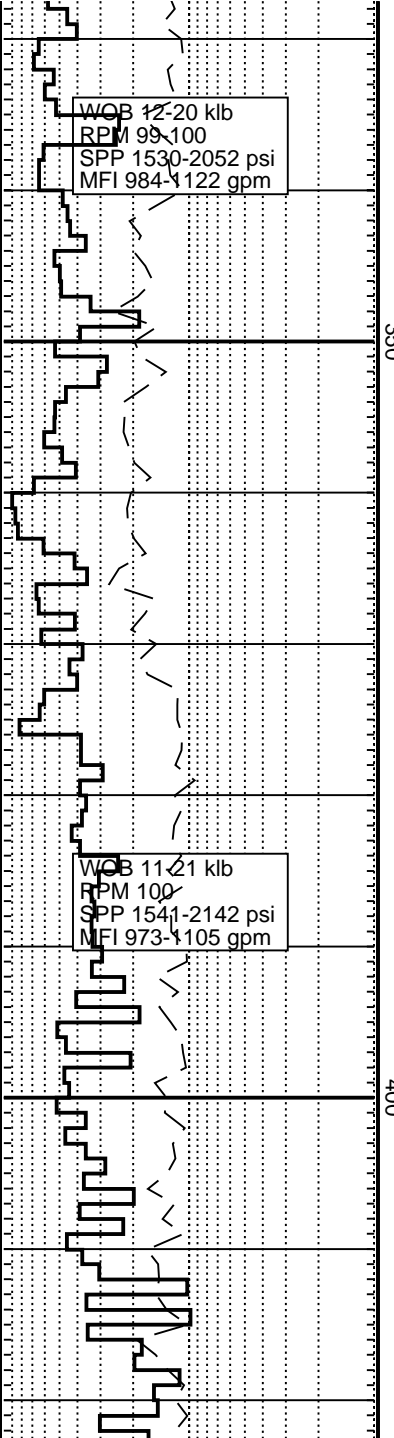
WOB 7-18 klb
RPM 98-101
SPP 1514-2052 psi
MFI 930-1120 gpm

300

Drill with seawater & hi-vis sweeps.
Returns to seabed

Drill with seawater & hi-vis sweeps.
Returns to seabed





WOB 12-20 klb
RPM 99-100
SPP 1530-2052 psi
MFI 984-1122 gpm

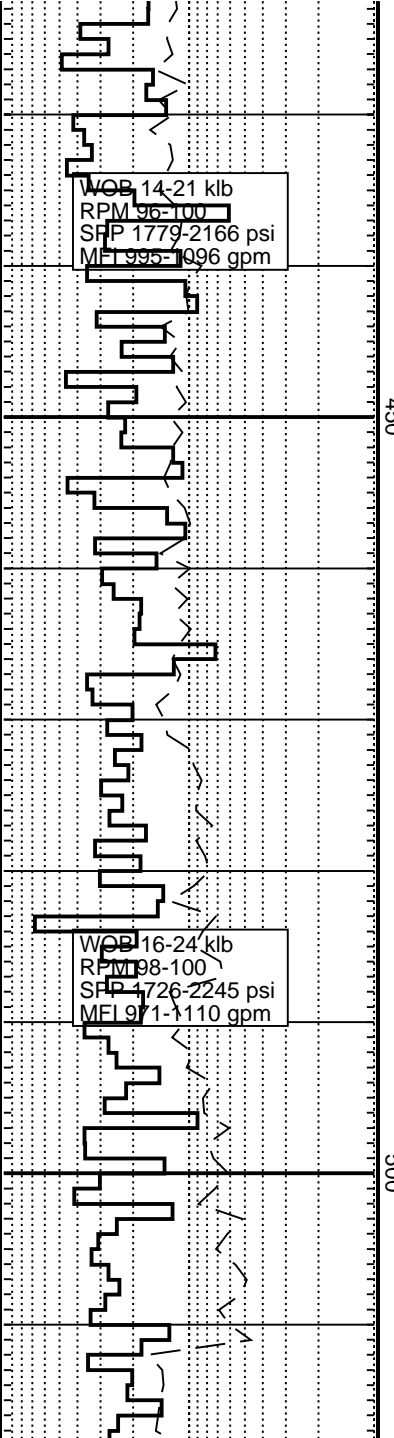
350

WOB 11-21 klb
RPM 100
SPP 1541-2142 psi
MFI 973-1105 gpm

400

Drill with seawater & hi-vis sweeps.
Returns to seabed

Drill with seawater & hi-vis sweeps.
Returns to seabed

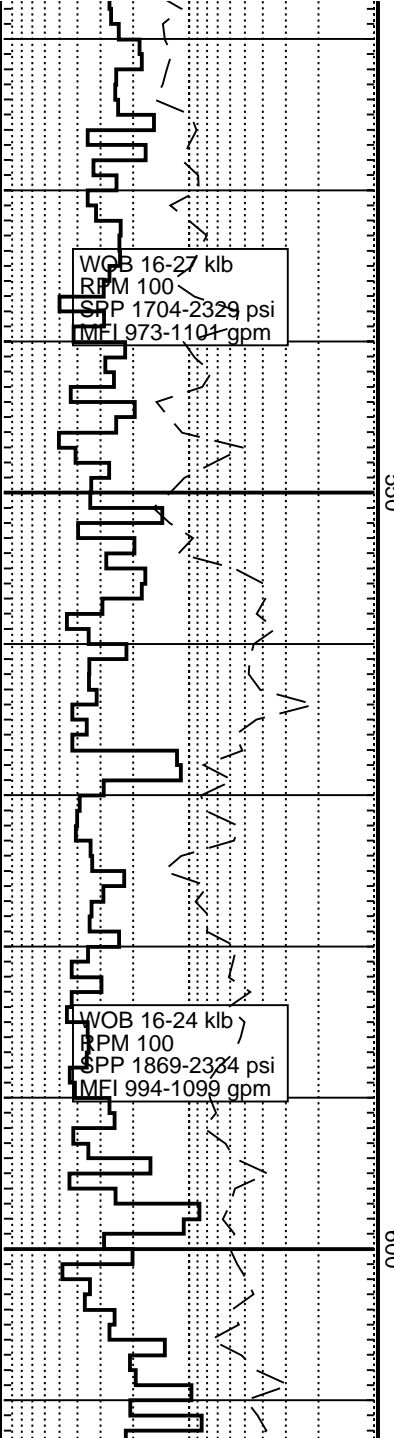


450

500

Drill with seawater & hi-vis sweeps.
Returns to seabed

Drill with seawater & hi-vis sweeps.
Returns to seabed



550

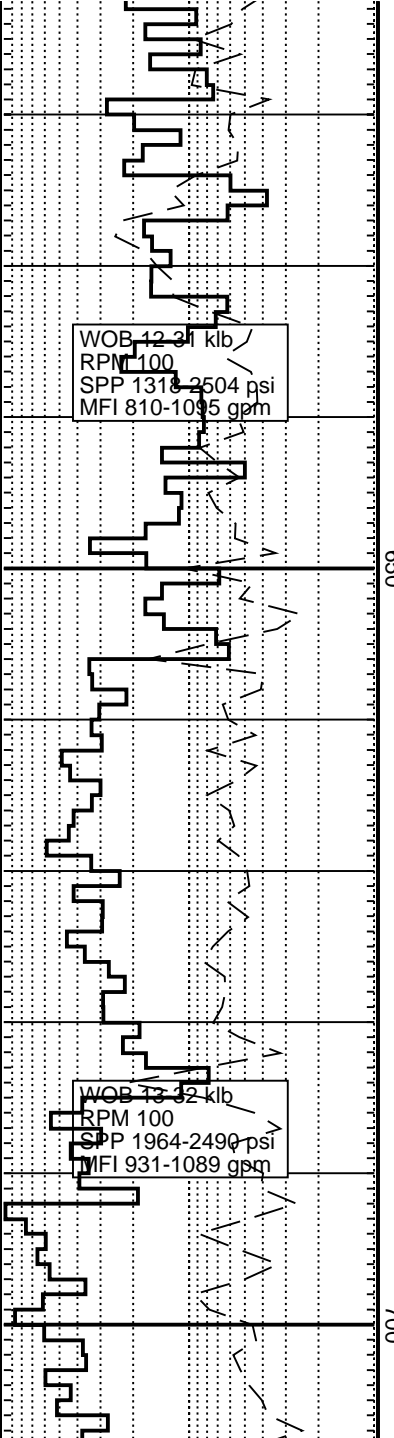
600

WOB 16-27 klb
RPM 100
SPP 1704-2329 psi
MFI 973-1104 gpm

WOB 16-24 klb
RPM 100
SPP 1869-2334 psi
MFI 994-1099 gpm

Drill with seawater & hi-vis sweeps.
Returns to seabed

Drill with seawater & hi-vis sweeps.
Returns to seabed



WOB 42-31 kb
RPM 100
SPP 1318-2504 psi
MFI 810-1095 gpm

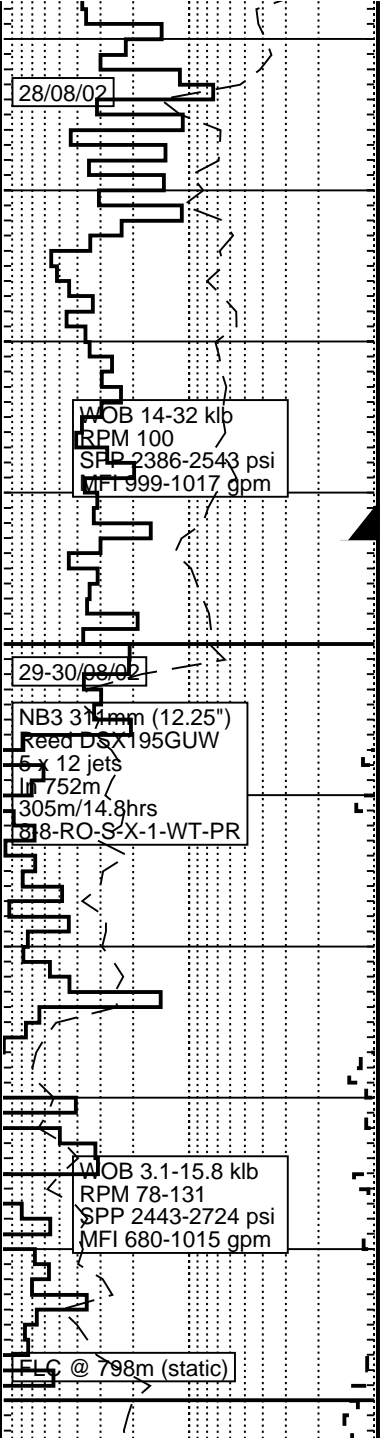
WOB 33-32 kb
RPM 100
SPP 1964-2490 psi
MFI 931-1089 gpm

650

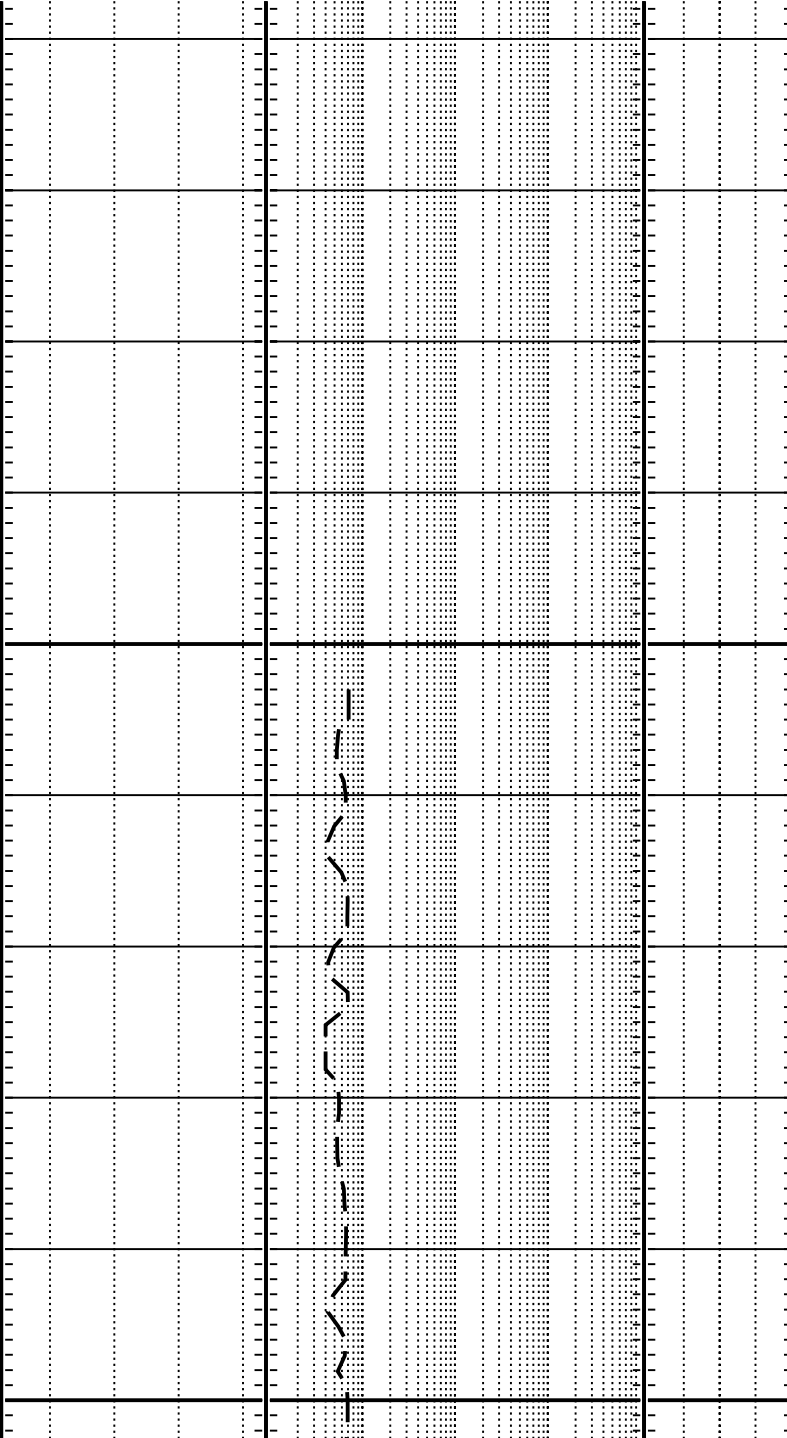
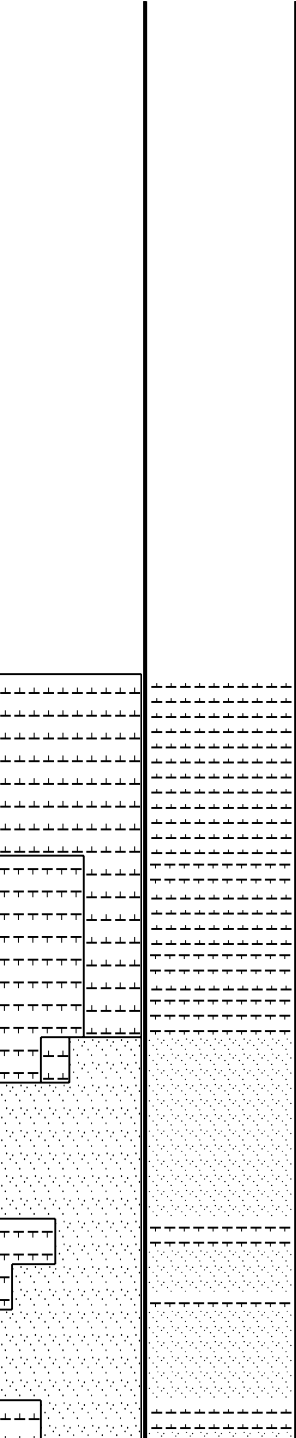
700

Drill with seawater & hi-vis sweeps.
Returns to seabed

Drill with seawater & hi-vis sweeps.
Returns to seabed



750
800



Drill 445mm (17.5") hole to 752m. Set 340mm (13.375") casing shoe @ 743.15m. Drill ahead 311mm (12.25") hole

LOT @ 743m
MW = 8.7ppg, EMW = 17.3ppg

CALCAREOUS CLAYSTONE: med lt gry-med dk gry, occ v lt gry-lt gry, rr foss, rr Ech, rr Foram, tr dissep pyr, tr vf carb spks, sft, occ frm, disp i/p, sbblky, rr blk

MARL: med lt gry-med dk gry, occ dk gry, mott i/p, rr foss, rr Ech, rr Foram, tr dissep pyr, tr vf carb spks, sft, occ frm, disp i/p, sbblky

MEPUNGA FORMATION
@ 774m (-749m SS)

SANDSTONE: mod brn-mod yelsh brn, clr-trnsl qtz grs, med-crs, mod-pr srt, sbrnd, occ rnd, mnr sbang, tr wk sil cmt, com Fe stn, tr glauc, tr pyr, rr mod hd aggs, pr cons, pr vis por, fr inf por, no show

Survey @ 766.75m
Dev: 0.60deg
Azi: 342.17deg
TVD: 766.74m

CALCAREOUS CLAYSTONE: med lt gry-med dk gry, occ v lt gry-lt gry, rr foss, rr Ech,

28/08/02

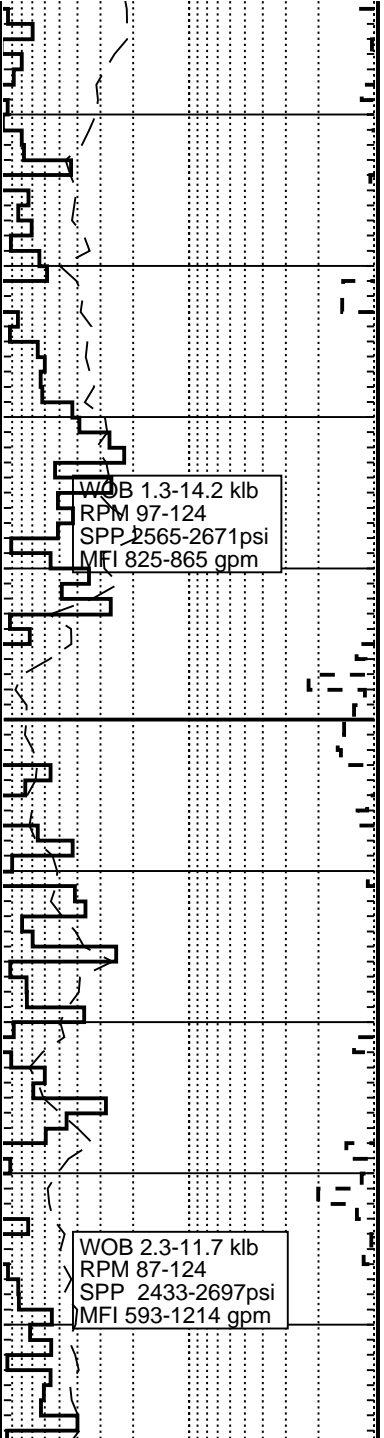
WOB 14-32 klb
RPM 100
SPP 2386-2543 psi
MFI 999-1017 gpm

29-30/08/02

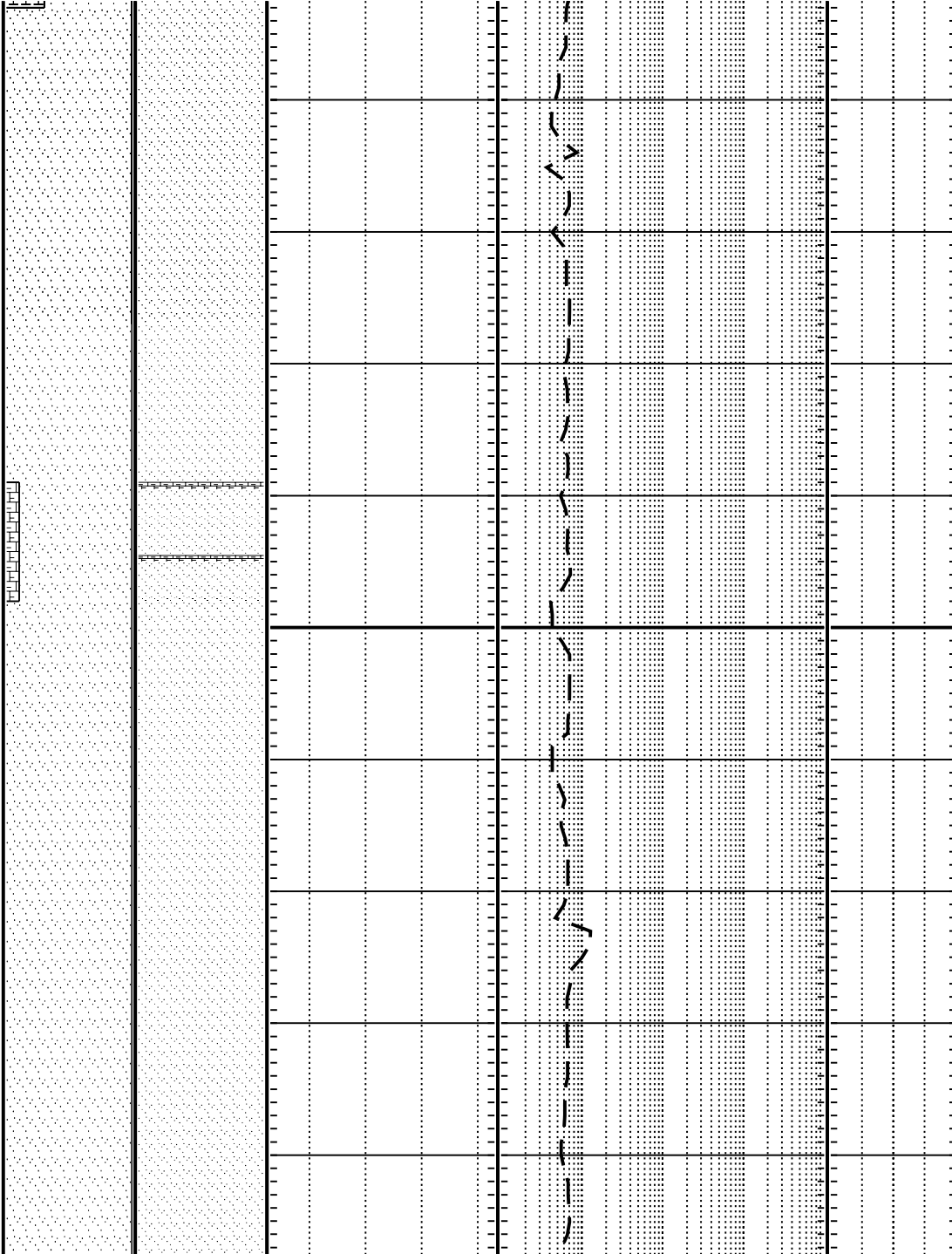
NB3 311mm (12.25")
Reed Sox 195GUW
5 x 12 jets
752m/
305m/14.8hrs
8-RO-S-X-1-WT-PR

WOB 3.1-15.8 klb
RPM 78-131
SPP 2443-2724 psi
MFI 680-1015 gpm

LOT @ 798m (static)



850



rr Foram, tr dissem pyr, tr vf carb spks, sft-
occ frm, disp i/p, sbblky, rr blkly

SANDSTONE: mod brn, mod yelsh brn, trnsl-
opq qtz grs, med-crs, occ v crs, mod-pr srt,
sbrnd, occ rnd, mnr sbang, tr wk sil cmt, com
Fe stn, tr glauc, tr pyr, tr lith frags, pr cons, fr
inf por, no show

WANGERRIP GROUP
@ 843m (-818m SS)

CALCILUTITE: wh-v lt gry, frm-mod hd, occ
disp, sbblky-blky, grd to CALCARENITE i/p

SANDSTONE: mod brn, mod yelsh brn, trnsl-
opq qtz grs, med-crs, occ v crs, mod-pr srt,
sbrnd, occ rnd, mnr sbang, min-com mod hd
calc cmt, com Fe stn, tr glauc, tr pyr, tr lith
frags, pr cons, fr inf por, no show

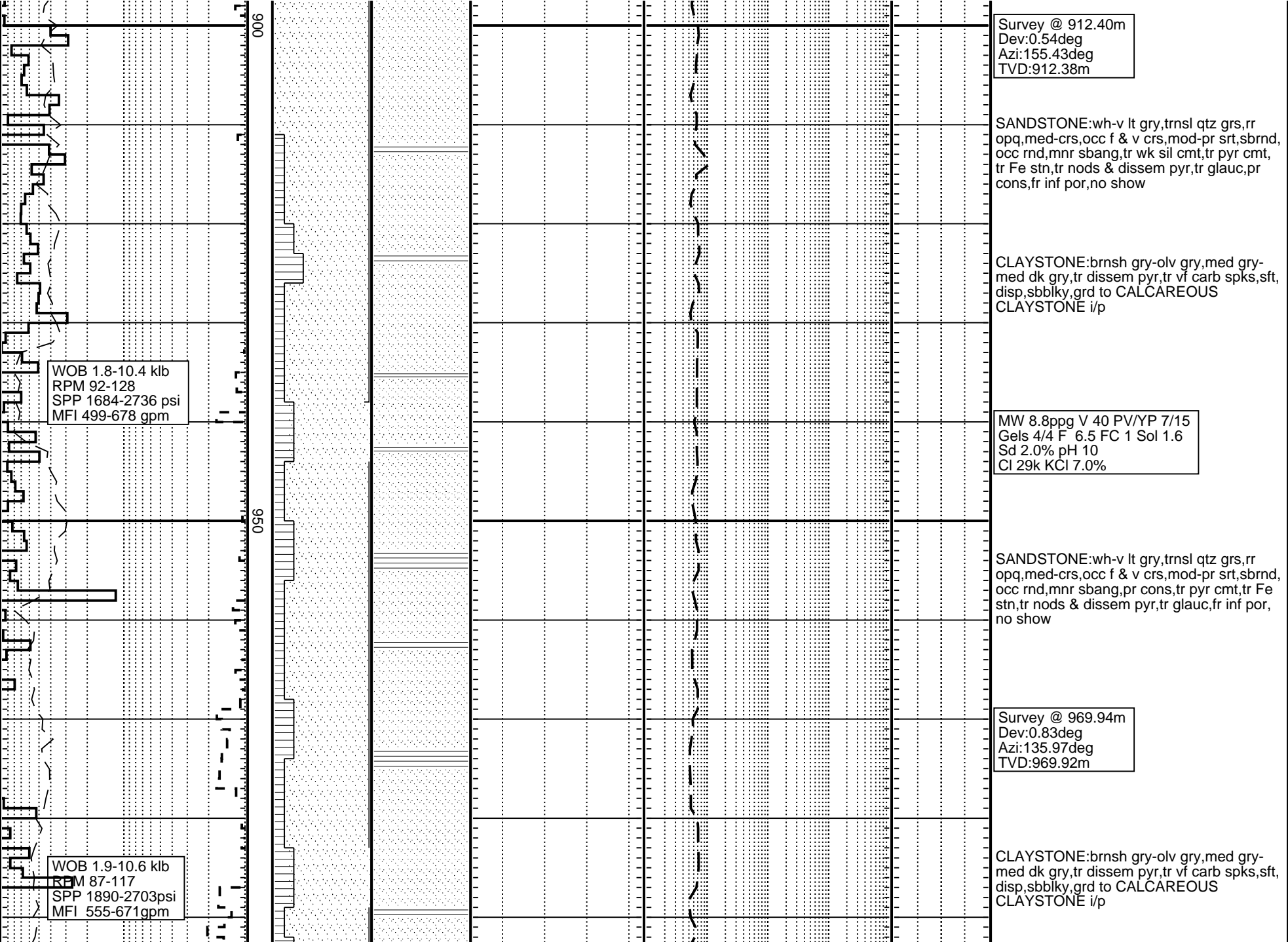
Survey @ 855.00m
Dev: 0.26deg
Azi: 216.64deg
TVD: 854.98m

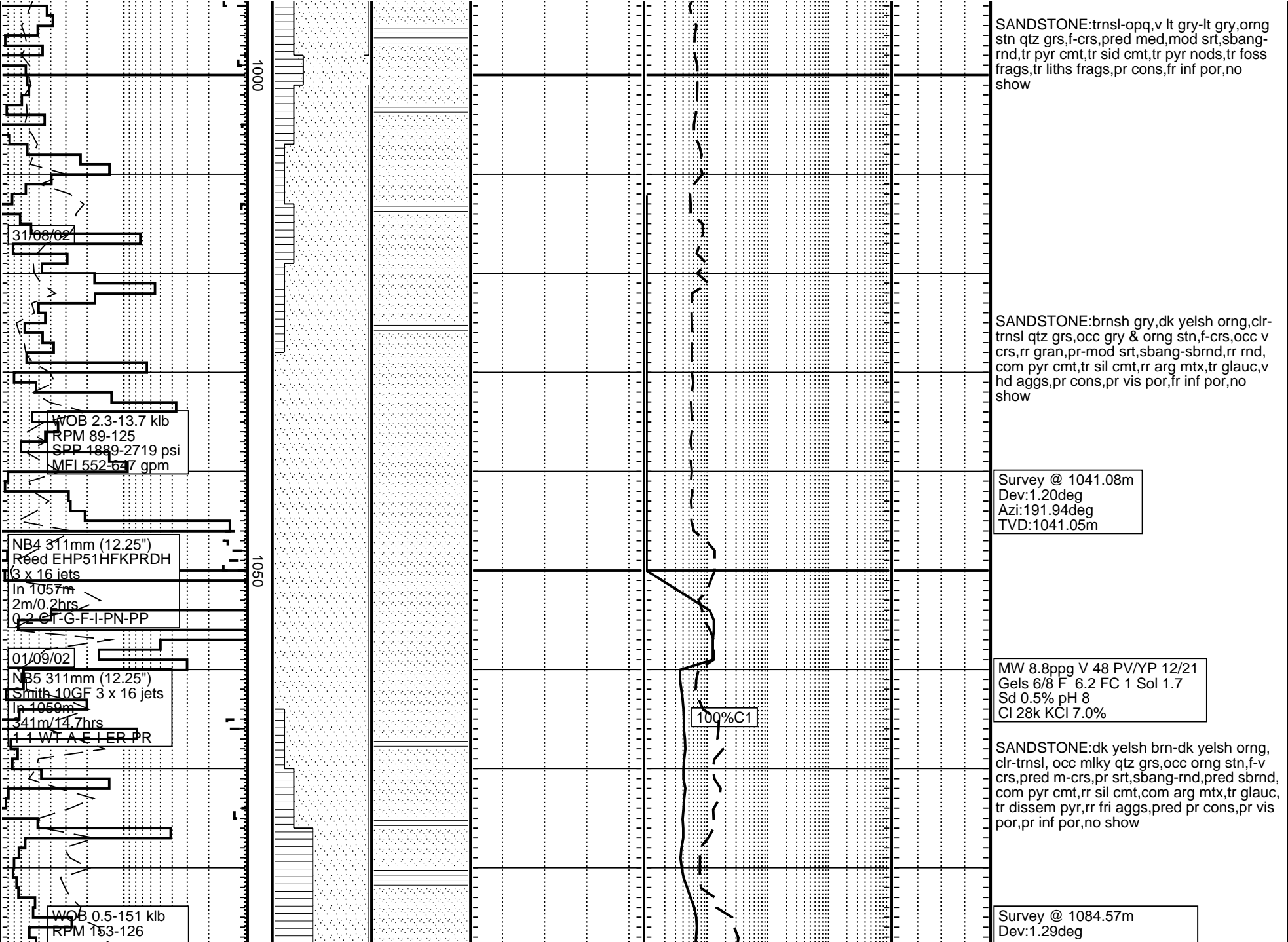
SANDSTONE: wh-v lt gry, mod brn, mod
yelsh brn, trnsl qtz gr, occ opq, rr mlky, med-
crs, occ v crs, mod-pr srt, sbrnd, occ rnd, mnr
sbang, tr mod hd calc cmt, rr Fe stn, tr glauc,
tr pyr, tr liths frags, pr cons, fr inf por, no
show

Pump 50bbl LCM pill @ 889m

WOB 1.3-14.2 klb
RPM 97-124
SPP 2565-2671psi
MFI 825-865 gpm

WOB 2.3-11.7 klb
RPM 87-124
SPP 2433-2697psi
MFI 593-1214 gpm





1000

1050

31/08/02

01/09/02

WOB 2.3-13.7 klb
RPM 89-125
SPP 1889-2719 psi
MFI 552-647 gpm

NB4 311mm (12.25")
Reed EHP51HFKPRDH
3 x 16 jets
In 1057m
2m/0.2hrs
0.2 Cf-G-F-I-PN-PP

NB5 311mm (12.25")
Smith 10GF 3 x 16 jets
In 1059m
341m/14.7hrs
1.1 WT A E I E R PR

WOB 0.5-151 klb
RPM 153-126

SANDSTONE:trnsl-opq,v lt gry-lt gry,org stn qtz grs,f-crs,pred med,mod srt,sbang-rnd,rr pyr cmt,rr sid cmt,rr pyr nods,rr foss frags,rr liths frags,pr cons,fr inf por,no show

SANDSTONE:brnsh gry,dk yelsh org,clr-trnsl qtz grs,occ gry & org stn,f-crs,occ v crs,rr gran,pr-mod srt,sbang-sbrnd,rr rd,com pyr cmt,rr sil cmt,rr arg mtx,rr glauc,v hd aggs,pr cons,pr vis por,fr inf por,no show

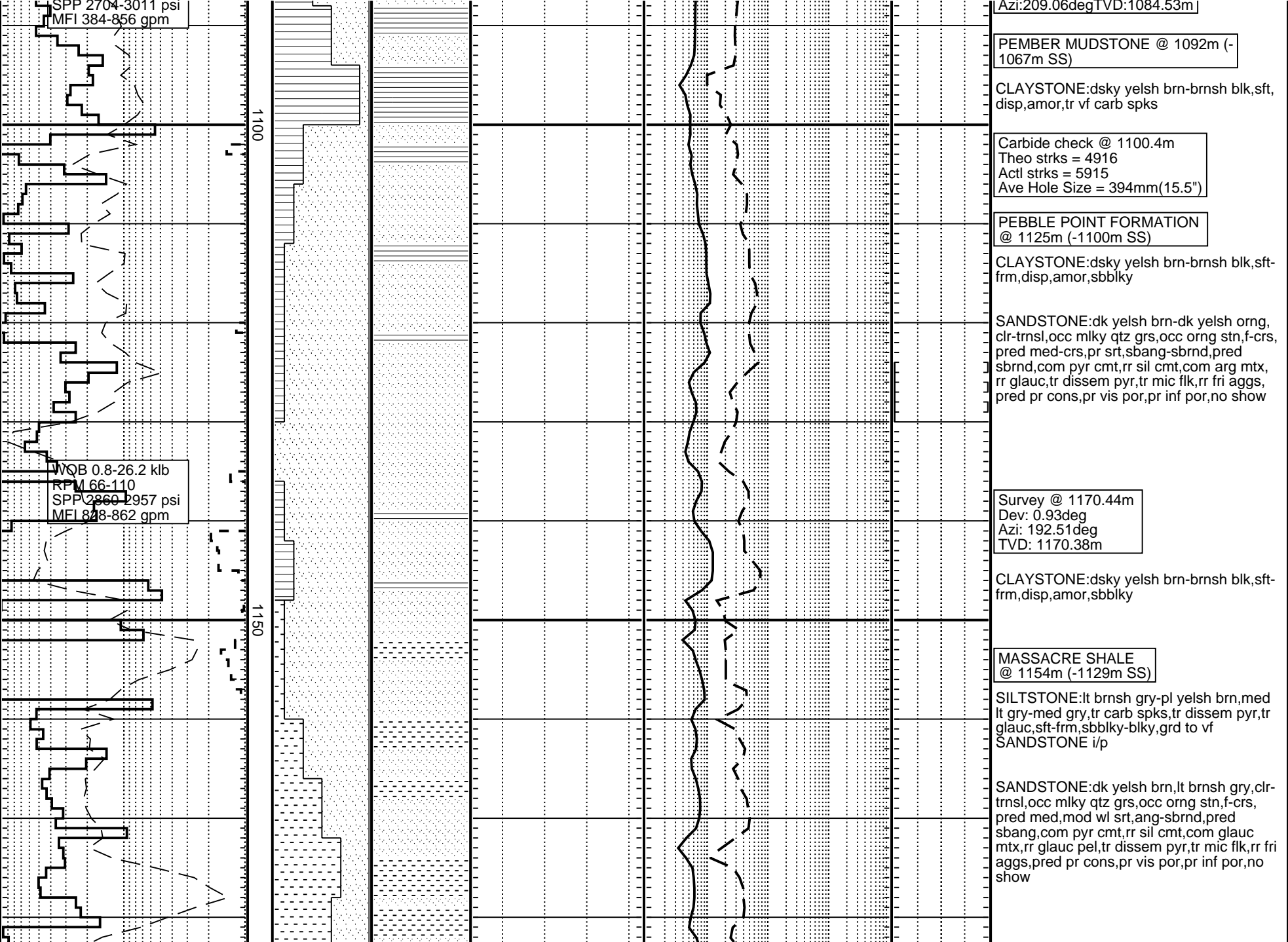
Survey @ 1041.08m
Dev:1.20deg
Azi:191.94deg
TVD:1041.05m

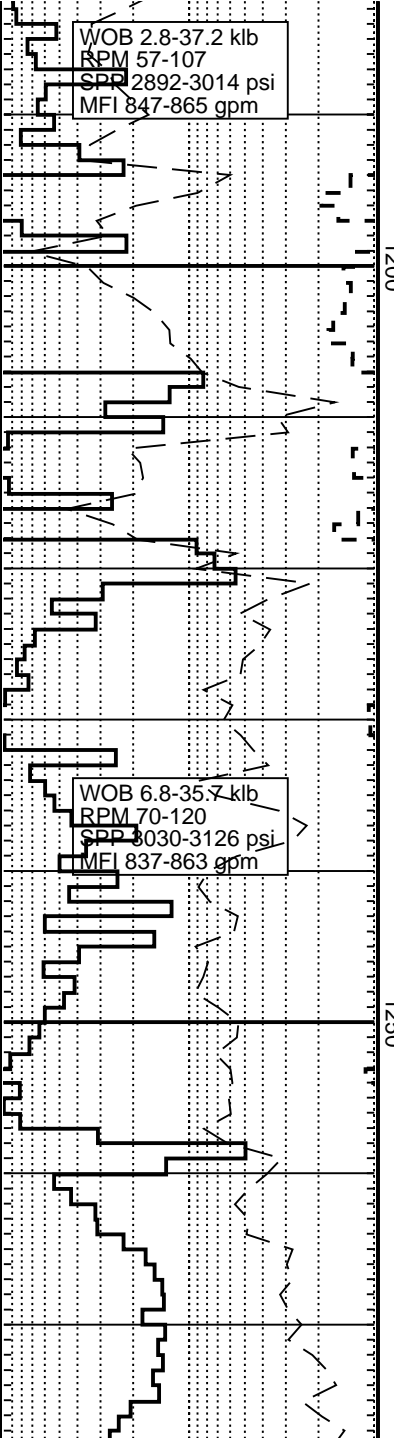
MW 8.8ppg V 48 PV/YP 12/21
Gels 6/8 F 6.2 FC 1 Sol 1.7
Sd 0.5% pH 8
Cl 28k KCl 7.0%

SANDSTONE:dk yelsh brn-dk yelsh org,clr-trnsl, occ mlky qtz grs,occ org stn,f-v crs,pred m-crs,pr srt,sbang-rnd,pred sbrnd,com pyr cmt,rr sil cmt,com arg mtx,rr glauc,rr dissep pyr,rr fri aggs,pred pr cons,pr vis por,pr inf por,no show

Survey @ 1084.57m
Dev:1.29deg

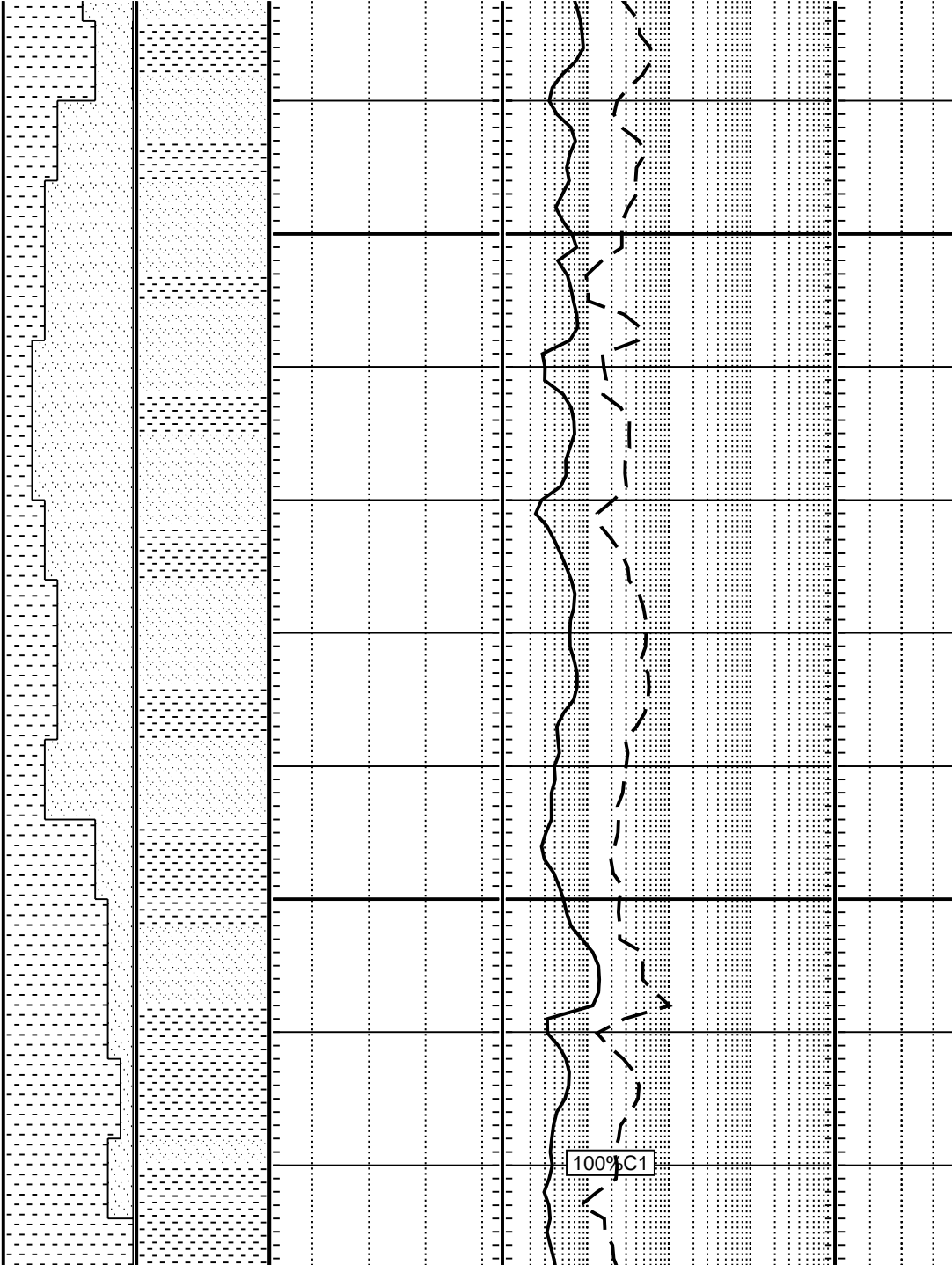
100% C1





1200

1250



SHERBROOK GROUP
@ 1177m (-1152m SS)

SANDSTONE:dsky yelsh brn,brnsh blk-olv blk,clr-trnsl qtz grs,vf-f,mod-wl srt,sbang-sbrnd,tr pyr cmt,tr calc cmt,arg mtx,tr dissemin pyr,tr glauc,tr mic flks,tr carb spks, pred lse,occ fri-hd aggs,pr vis por,pr inf por,no show

SILTSTONE:dsky brn-dsky yelsh brn, brnsh blk,tr dissemin pyr,tr glauc,sft,amor

SANDSTONE:dsky yelsh brn,brnsh blk, brnsh gry,clr-trnsl qtz grs,vf-f,mod-wl srt, sbang-sbrnd,tr pyr cmt,tr dol cmt,arg mtx, mnr glauc nods,tr dissemin pyr,pred lse,occ hd aggs,pr vis por,pr inf por,no show

Survey @ 1256.72m
Dev: 1.44deg
Azi: 181.17deg
TVD: 1256.64m

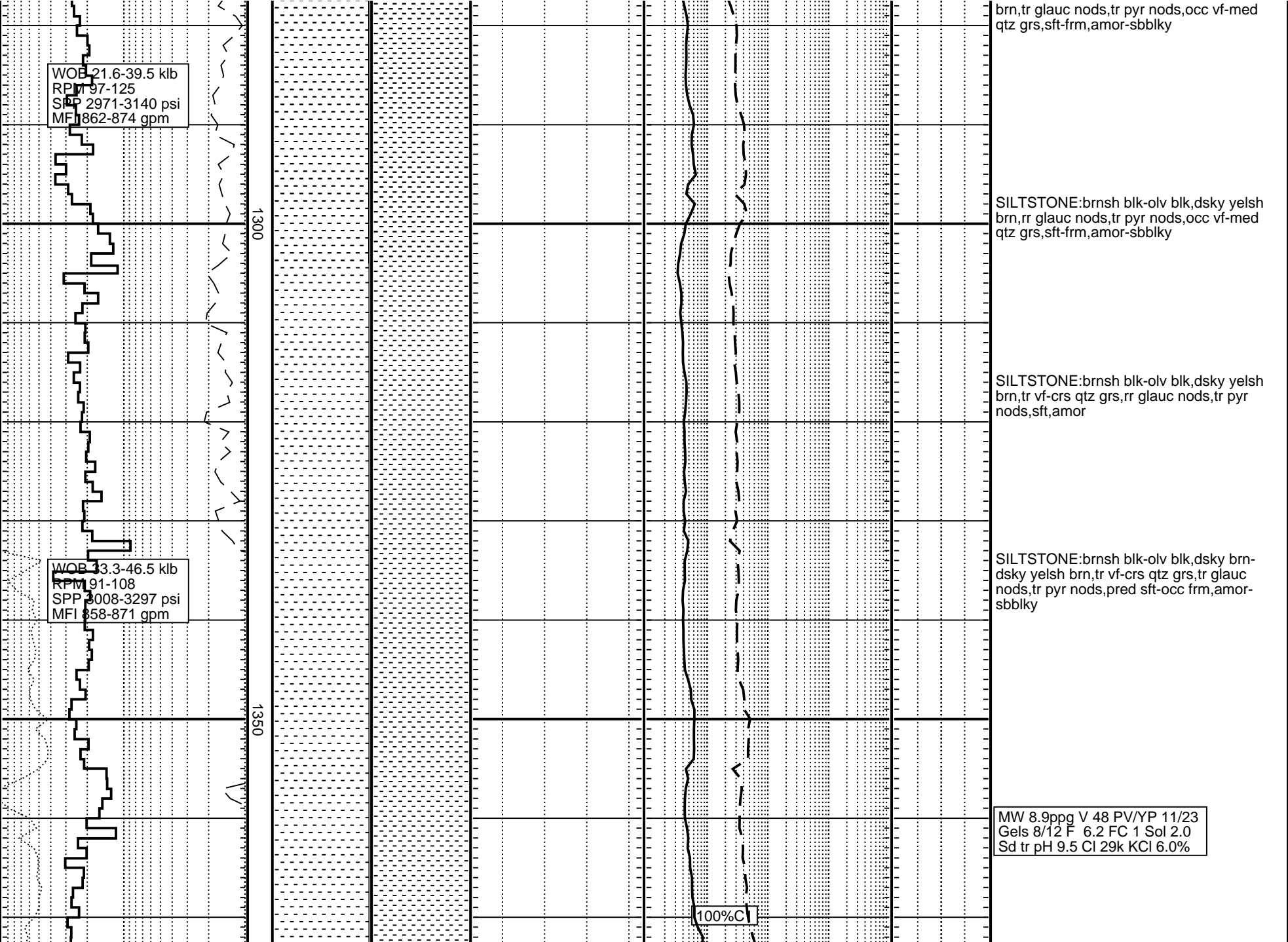
PAARATE FORMATION @ 1259m(-1234m SS)

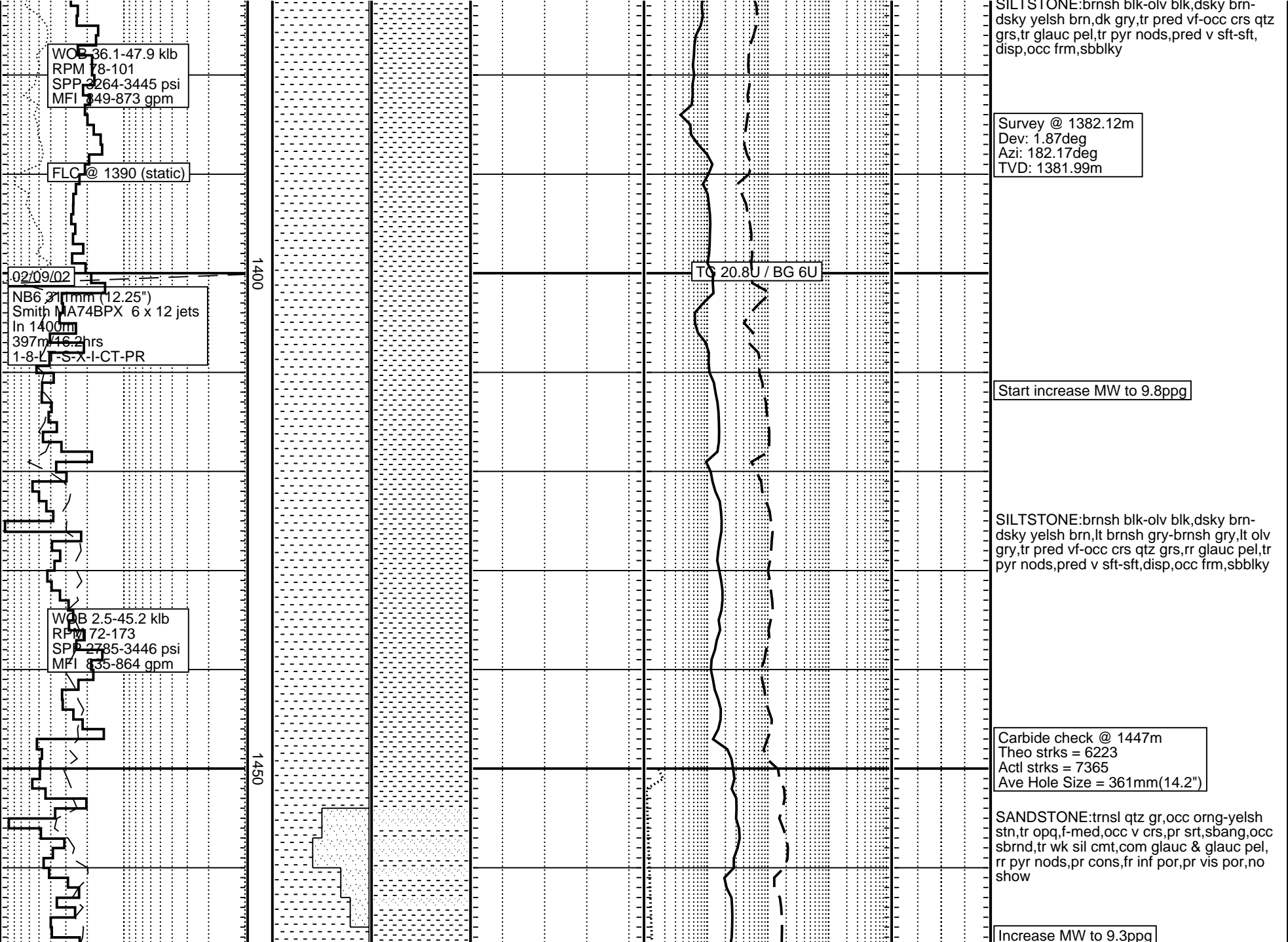
SILTSTONE:dsky yelsh brn,brnsh blk-olv blk,tr glauc nods,tr dissemin pyr,v sft-sft, amor

SANDSTONE:dsky yelsh brn,brnsh blk-brnsh gry,clr-trnsl qtz grs,vf-med,pred f, mod srt,sbang-sbrnd,tr pyr cmt,tr dol cmt, arg mtx,rr glauc nods,tr dissemin pyr,pred lse,occ hd aggs,pr vis por,pr inf por,no show

100% C1

SILTSTONE:brnsh blk-olv blk,dsky yelsh





WOB 36.1-47.9 klb
RPM 78-101
SPP 3264-3445 psi
MFI 349-873 gpm

FLC @ 1390 (static)

02/09/02
NB6 311mm (12.25")
Smith MA74BPX 6 x 12 jets
In 1400m
397m / 46.2hrs
1-8-V-S-X-I-CT-PR

WOB 2.5-45.2 klb
RPM 72-173
SPP 2785-3446 psi
MFI 835-864 gpm

SILTSTONE:brnsh blk-olv blk,dsky brn-
dsky yelsh brn,dk gry,tr pred vf-occ crs qtz
grs,tr glauc pel,tr pyr nods,pred v sft-sft,
disp,occ frm,sbbiky

Survey @ 1382.12m
Dev: 1.87deg
Azi: 182.17deg
TVD: 1381.99m

TO 20.8U / BG 6U

Start increase MW to 9.8ppg

SILTSTONE:brnsh blk-olv blk,dsky brn-
dsky yelsh brn,lt brnsh gry-brnsh gry,lt olv
gry,tr pred vf-occ crs qtz grs,rr glauc pel,tr
pyr nods,pred v sft-sft,disp,occ frm,sbbiky

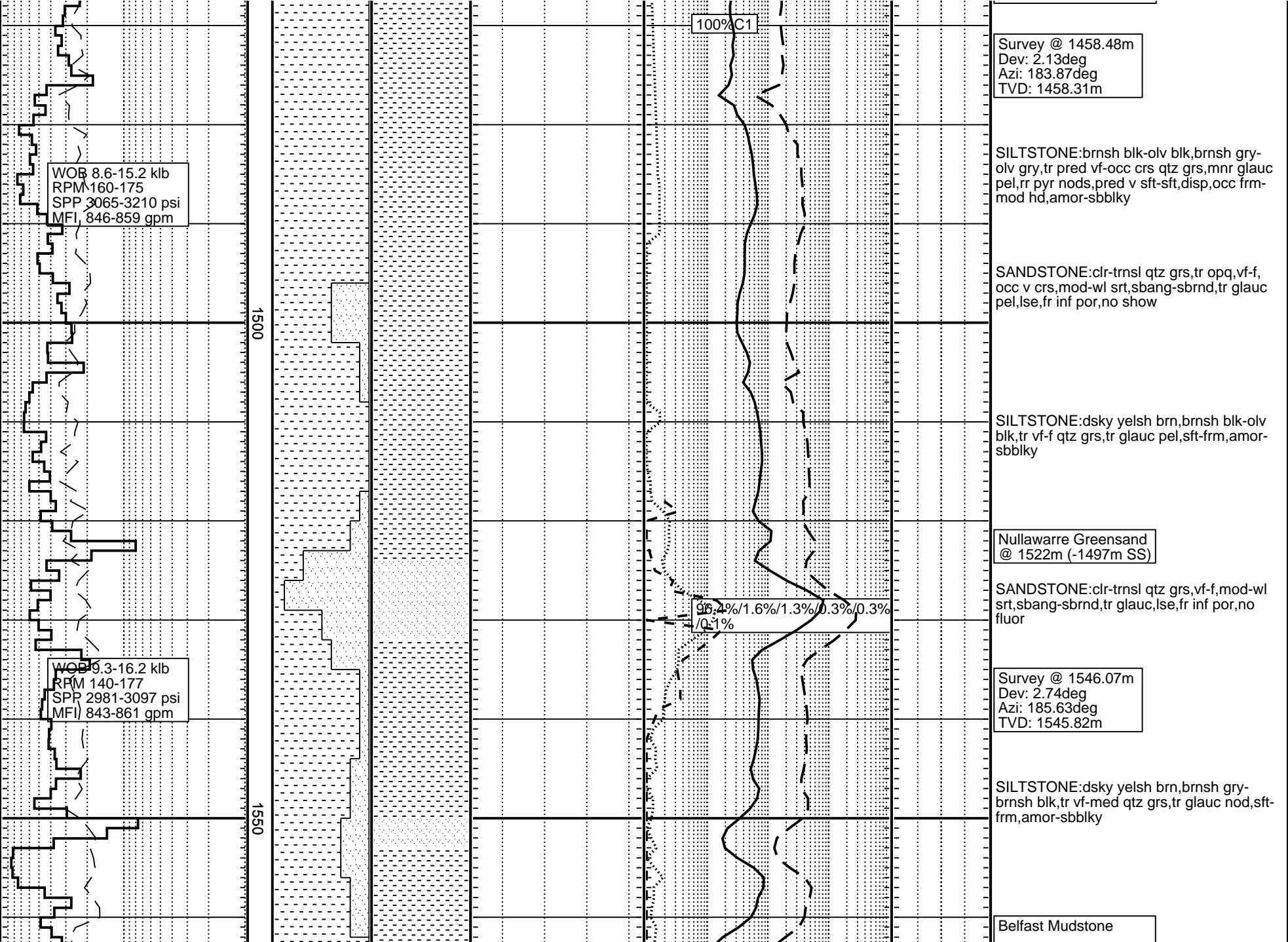
Carbide check @ 1447m
Theo strks = 6223
Actl strks = 7365
Ave Hole Size = 361mm(14.2")

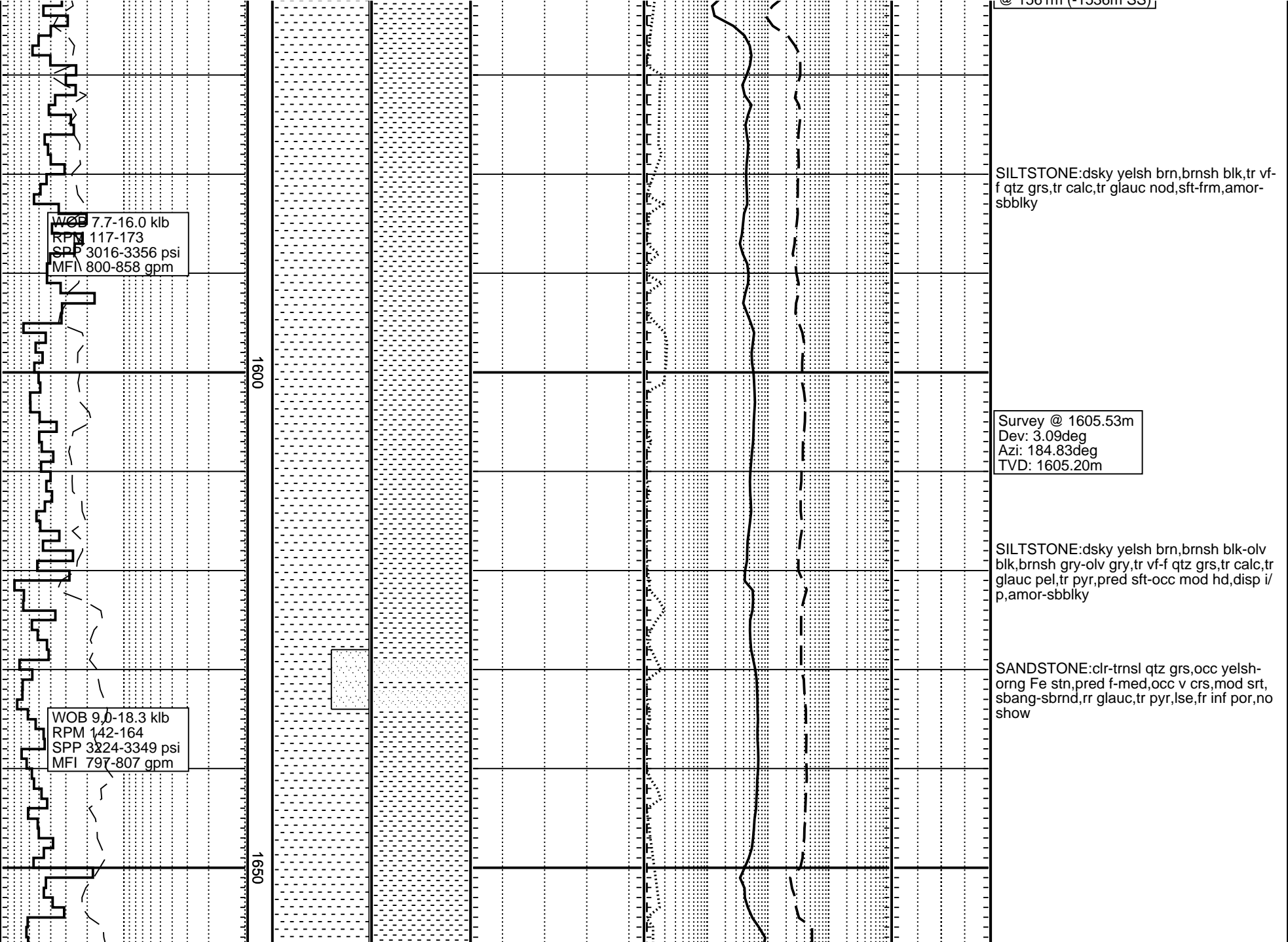
SANDSTONE:trnsl qtz gr,occ orng-yelsh
stn,tr opq,f-med,occ v crs,pr srt,sbang,occ
sbrnd,tr wk sil cmt,com glauc & glauc pel,
rr pyr nods,pr cons,fr inf por,pr vis por,no
show

Increase MW to 9.3ppg

1400

1450





© 1561m (-1556m SS)

SILTSTONE: dsky yelsh brn, brnsh blk, tr vf-f qtz grs, tr calc, tr glauc nod, sft frm, amor-sbbiky

WOB 7.7-16.0 klb
RPM 117-173
SPP 3016-3356 psi
MFI 800-858 gpm

Survey @ 1605.53m
Dev: 3.09deg
Azi: 184.83deg
TVD: 1605.20m

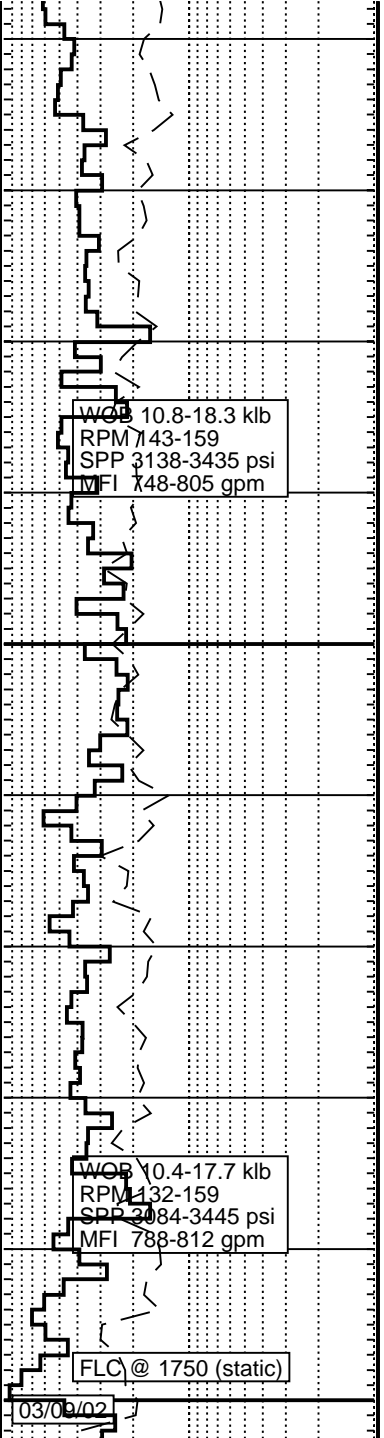
SILTSTONE: dsky yelsh brn, brnsh blk-olv blk, brnsh gry-olv gry, tr vf-f qtz grs, tr calc, tr glauc pel, tr pyr, pred sft-occ mod hd, disp i/p, amor-sbbiky

WOB 9.0-18.3 klb
RPM 142-164
SPP 3224-3349 psi
MFI 797-807 gpm

SANDSTONE: clr-trnsl qtz grs, occ yelsh-org Fe stn, pred f-med, occ v crs, mod srt, sbang-sbrnd, rr glauc, tr pyr, lse, fr inf por, no show

1600

1650



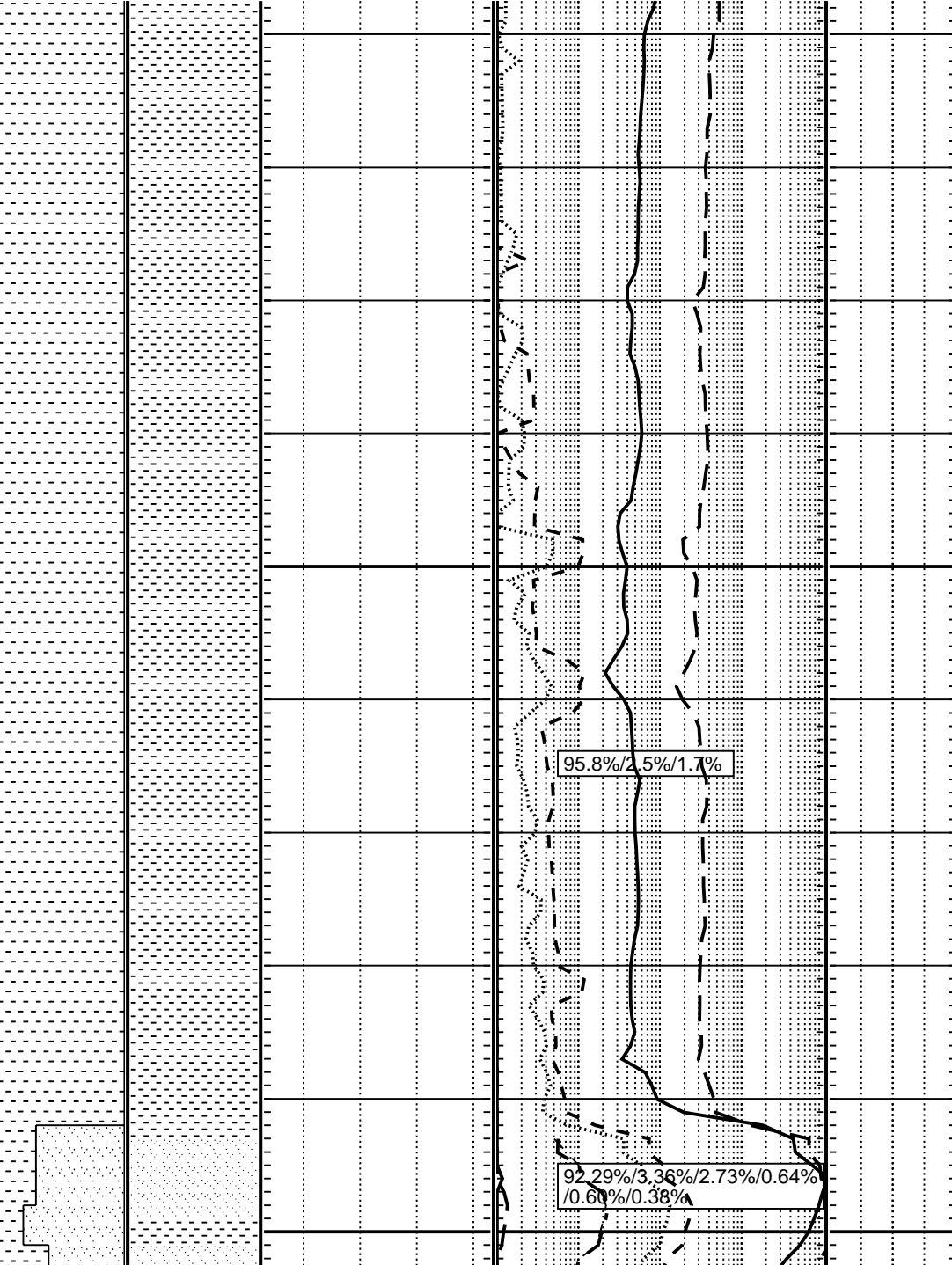
WOB 10.8-18.3 klb
 RPM 143-159
 SPP 3138-3435 psi
 MFI 748-805 gpm

WOB 10.4-17.7 klb
 RPM 132-159
 SPP 3084-3445 psi
 MFI 788-812 gpm

FLC @ 1750 (static)

1700

1750



95.8%/2.5%/1.7%

92.29%/3.36%/2.73%/0.64%
 /0.60%/0.38%

SILTSTONE:dsky yelsh brn,brnsh blk-olv
 blk,brnsh gry-olv gry,tr vf-f qtz grs,tr calc,rr
 glauc pel,tr dissem & nod pyr,pred sft-frm.
 occ mod hd,disp i/p,amor-sbbiky

MW 9.9ppg V 54 PV/YP 18/32
 Gels 11/15 F 4.5 FC 1 Sol 5.67
 Sd tr pH 9.5 Cl 29k KCl 6.0%

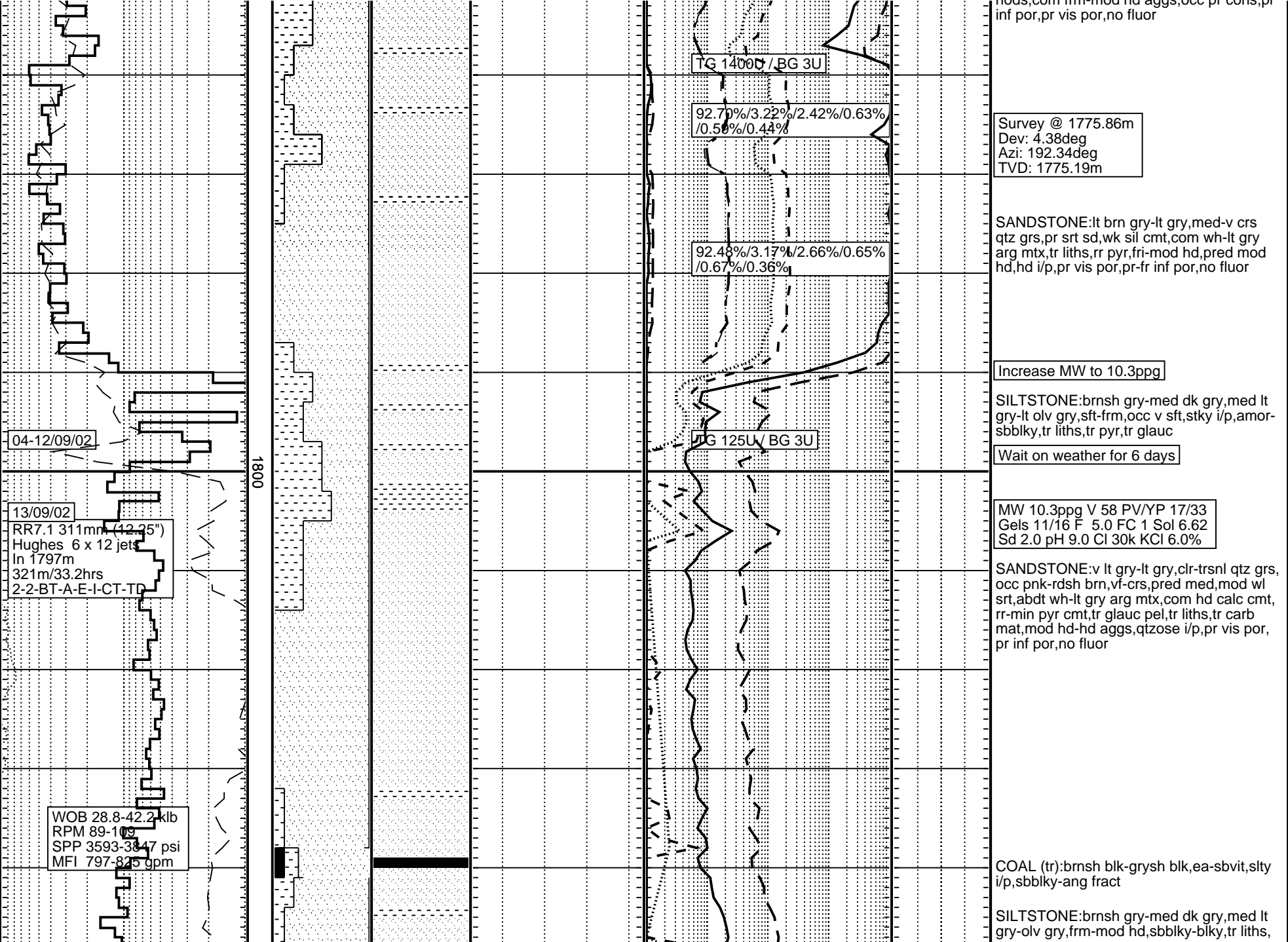
Survey @ 1690.72m
 Dev: 3.44deg
 Azi: 188.91deg
 TVD: 1690.25m

SILTSTONE:brnsh blk-olv blk,brnsh gry-
 olv gry,tr vf qtz grs,tr glauc pel,rr pyr nods,
 pred v sft-sft,disp,occ frm-mod hd,amor-
 sbbiky

Waarre Formation
 @ 1743m (-1718m SS)

SANDSTONE:med lt gry-lt olv gry,clr-trnsl
 qtz gr,f-med,occ crs,wl srt,sbang-sbrnd,
 abdt wh arg mtx,tr cal cmt,tr glauc,tr pyr

03/09/02



hd,com fm-mod hd aggs,occ pr cons,pr inf por,pr vis por,no fluor

TG 1400U / BG 3U

92.70%/3.22%/2.42%/0.63%
/0.50%/0.44%

Survey @ 1775.86m
Dev: 4.38deg
Azi: 192.34deg
TVD: 1775.19m

92.48%/3.17%/2.66%/0.65%
/0.67%/0.36%

SANDSTONE:lt brn gry-lt gry,med-v crs qtz grs,pr srt sd,wk sil cmt,com wh-lt gry arg mtx,tr liths,rr pyr,fri-mod hd,pred mod hd,hd i/p,pr vis por,pr-fr inf por,no fluor

Increase MW to 10.3ppg

TG 125U / BG 3U

SILTSTONE:brnsh gry-med dk gry,med lt gry-lt olv gry,sft-fm,occ v sft,stky i/p,amor-sbbly,tr liths,tr pyr,tr glauc

Wait on weather for 6 days

MW 10.3ppg V 58 PV/YP 17/33
Gels 11/16 F 5.0 FC 1 Sol 6.62
Sd 2.0 pH 9.0 Cl 30k KCl 6.0%

SANDSTONE:v lt gry-lt gry,clr-trsnl qtz grs,occ pnk-rdsh brn,vf-crs,pred med,mod wl srt,abdt wh-lt gry arg mtx,com hd calc cmt,rr-min pyr cmt,tr glauc pel,tr liths,tr carb mat,mod hd-hd aggs,qtzose i/p,pr vis por,pr inf por,no fluor

COAL (tr):brnsh blk-grysh blk,ea-sbvit,slty i/p,sbbly-ang fract

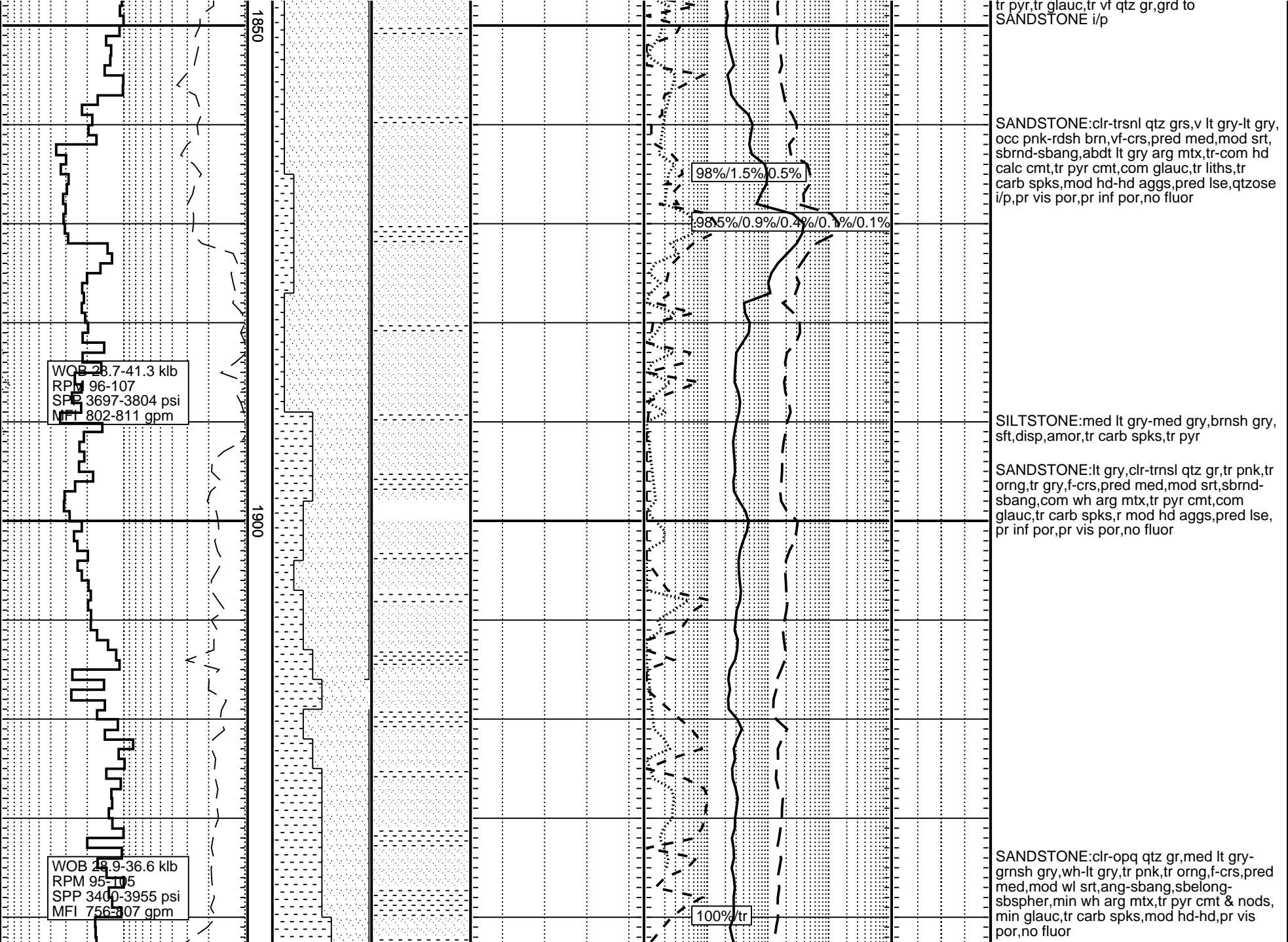
SILTSTONE:brnsh gry-med dk gry,med lt gry-olv gry,frm-mod hd,sbbly-blky,tr liths,

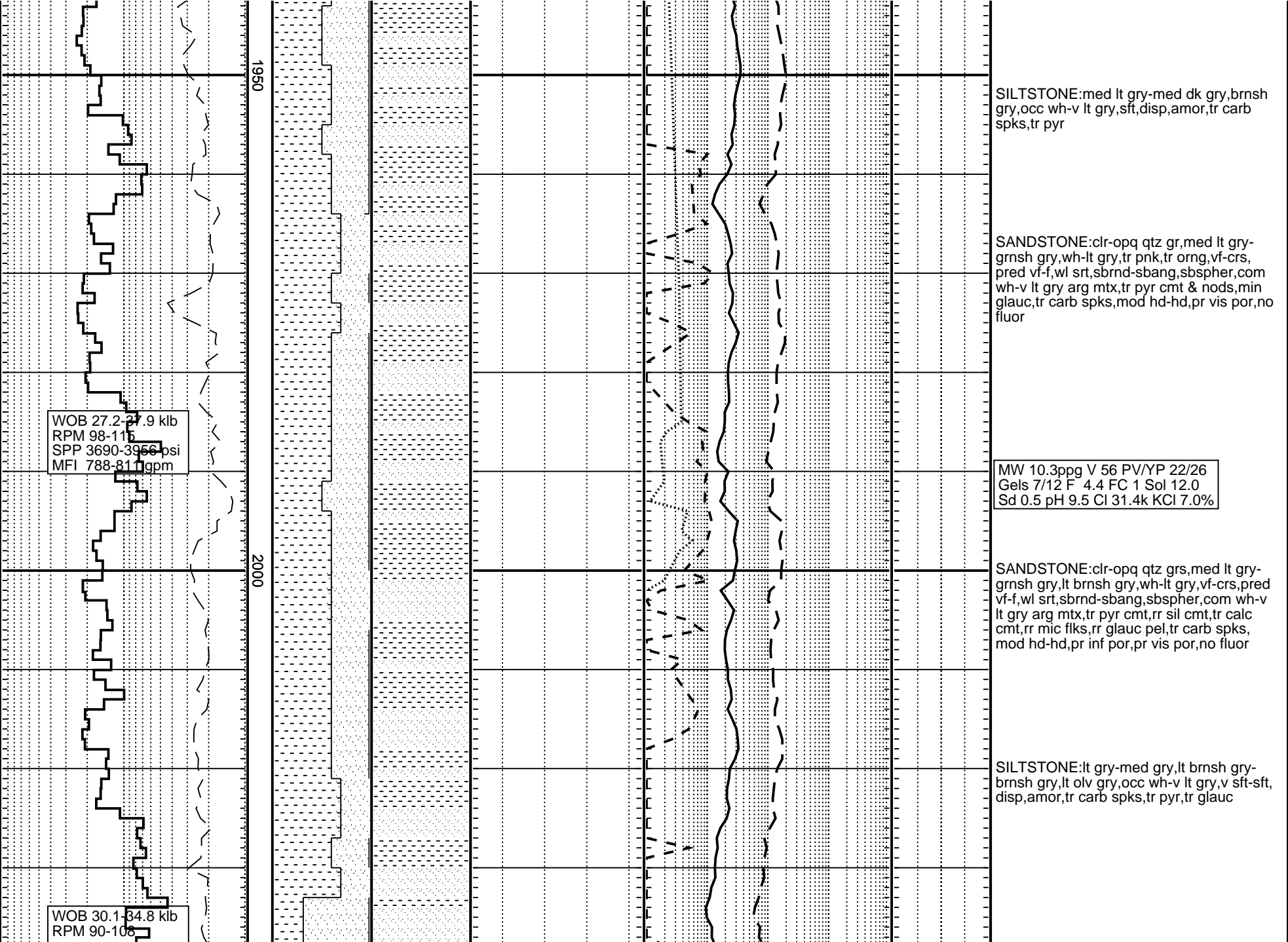
1800

04-12/09/02

13/09/02
RR7.1 311mm (42.35")
Hughes 6 x 12 jets
In 1797m
321m/33.2hrs
2-2-BT-A-E-I-CT-TP

WOB 28.8-42.2 klb
RPM 89-109
SPP 3593-3847 psi
MFI 797-825 gpm





1950

2000

WOB 27.2-27.9 klb
RPM 98-115
SPP 3690-3956 psi
MFI 788-811 gpm

WOB 30.1-34.8 klb
RPM 90-108

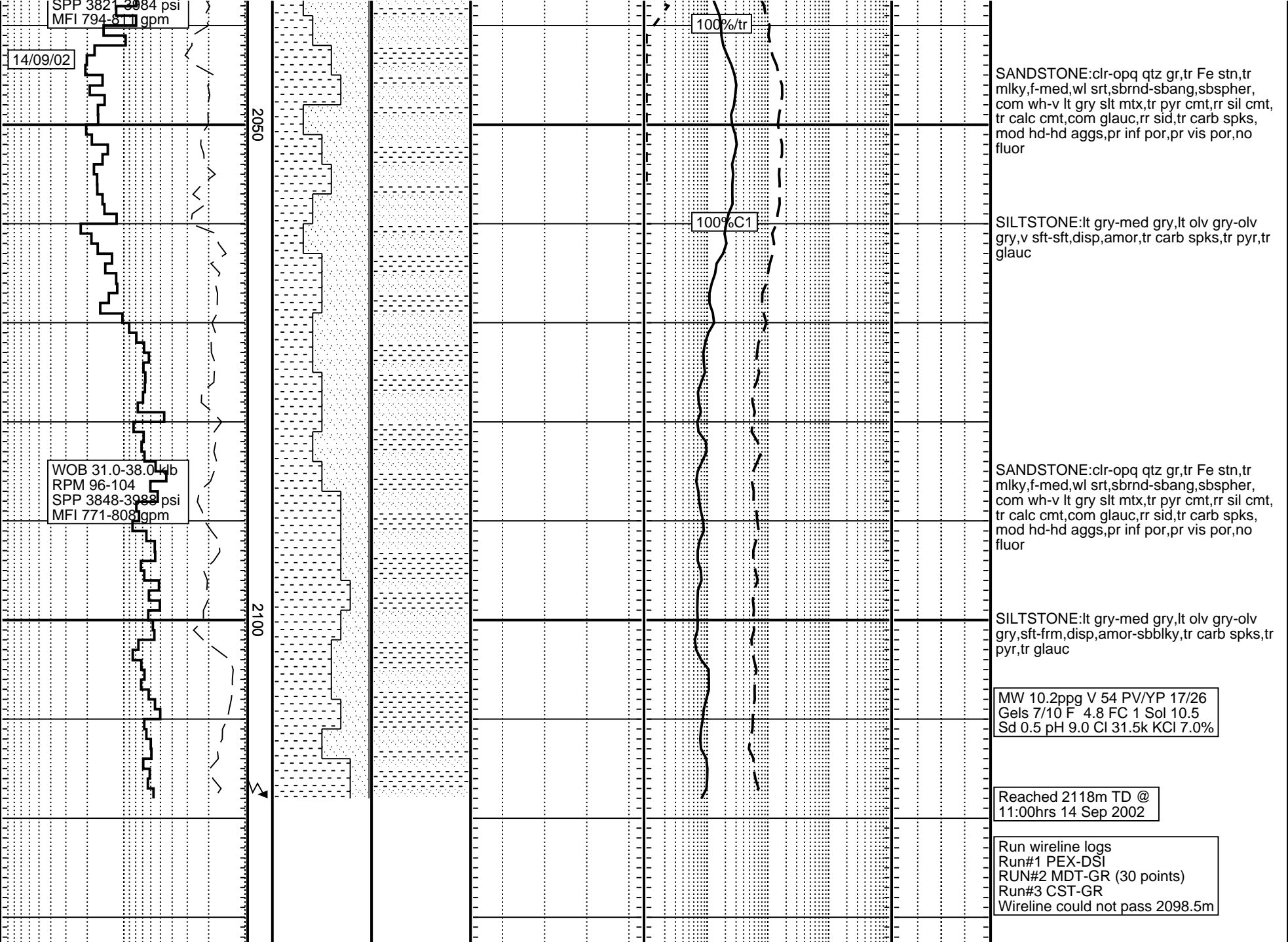
SILTSTONE: med lt gry-med dk gry, brnsh gry, occ wh-v lt gry, sft, disp, amor, tr carb spks, tr pyr

SANDSTONE: clr-opq qtz gr, med lt gry-grnsh gry, wh-lt gry, tr pnk, tr orng, vf-crs, pred vf-f, wl srt, sbrnd-sbang, sbspher, com wh-v lt gry arg mtx, tr pyr cmt & nods, min glauc, tr carb spks, mod hd-hd, pr vis por, no fluor

MW 10.3ppg V 56 PV/YP 22/26
Gels 7/12 F 4.4 FC 1 Sol 12.0
Sd 0.5 pH 9.5 Cl 31.4k KCl 7.0%

SANDSTONE: clr-opq qtz grs, med lt gry-grnsh gry, lt brnsh gry, wh-lt gry, vf-crs, pred vf-f, wl srt, sbrnd-sbang, sbspher, com wh-v lt gry arg mtx, tr pyr cmt, rr sil cmt, tr calc cmt, rr mic flks, rr glauc pel, tr carb spks, mod hd-hd, pr inf por, pr vis por, no fluor

SILTSTONE: lt gry-med gry, lt brnsh gry-brnsh gry, lt olv gry, occ wh-v lt gry, v sft-sft, disp, amor, tr carb spks, tr pyr, tr glauc



SPP 382-384 psi
MFI 794-811 gpm

14/09/02

2050

100%/tr

SANDSTONE: clr-opq qtz gr, tr Fe stn, tr mlky, f-med, wl srt, sbrnd-sbang, sbspher, com wh-v lt gry slt mtx, tr pyr cmt, rr sil cmt, tr calc cmt, com glauc, rr sid, tr carb spks, mod hd-hd aggs, pr inf por, pr vis por, no fluor

100%C1

SILTSTONE: lt gry-med gry, lt olv gry-olv gry, v sft-sft, disp, amor, tr carb spks, tr pyr, tr glauc

WOB 31.0-38.0 kb
RPM 96-104
SPP 3848-3989 psi
MFI 771-808 gpm

2100

SANDSTONE: clr-opq qtz gr, tr Fe stn, tr mlky, f-med, wl srt, sbrnd-sbang, sbspher, com wh-v lt gry slt mtx, tr pyr cmt, rr sil cmt, tr calc cmt, com glauc, rr sid, tr carb spks, mod hd-hd aggs, pr inf por, pr vis por, no fluor

SILTSTONE: lt gry-med gry, lt olv gry-olv gry, sft frm, disp, amor-sbbkly, tr carb spks, tr pyr, tr glauc

MW 10.2ppg V 54 PV/YP 17/26
Gels 7/10 F 4.8 FC 1 Sol 10.5
Sd 0.5 pH 9.0 Cl 31.5k KCl 7.0%

Reached 2118m TD @
11:00hrs 14 Sep 2002

Run wireline logs
Run#1 PEX-DSI
Run#2 MDT-GR (30 points)
Run#3 CST-GR
Wireline could not pass 2098.5m

RATE OF PENETRATION			DEPTH (m)	CUTTINGS LITHOLOGY	INTERPRETED LITHOLOGY	TOTAL GAS IN UNITS				CALCIMETRY			REMARKS			
GAMMA (API)	WOB (MT)	WOB (klb)				ROP (m/hr)	1	10	100	1k	Methane (ppm)	Ethane (ppm)		Propane (ppm)	Iso Butane (ppm)	Normal Butane (ppm)
1	10	100	200													
0	4.5	9	13.5	18										0	50	100
0	10	20	30	40												
100	10		1											100	50	0

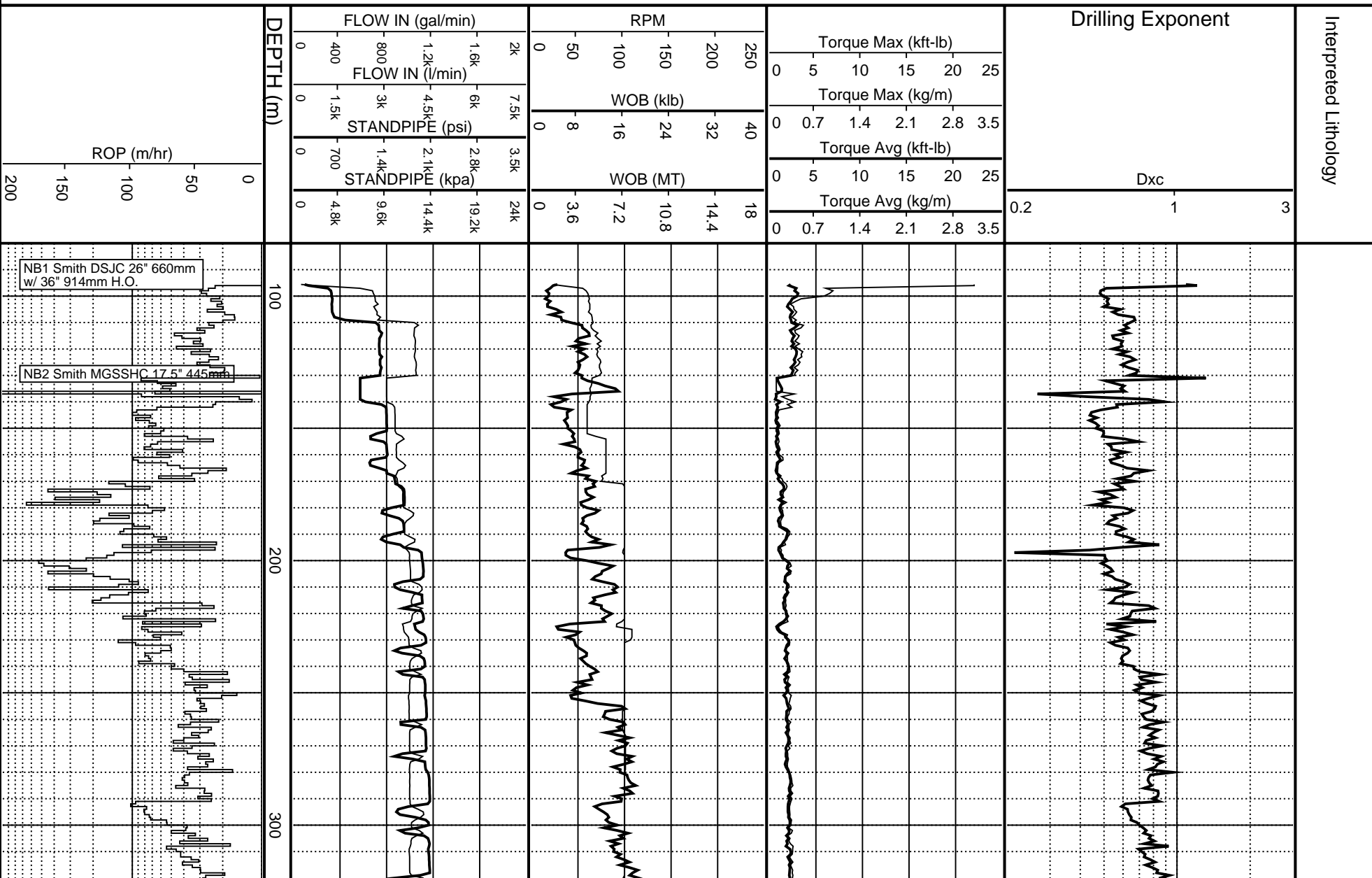
DRILLING DATA PLOT
1:2000

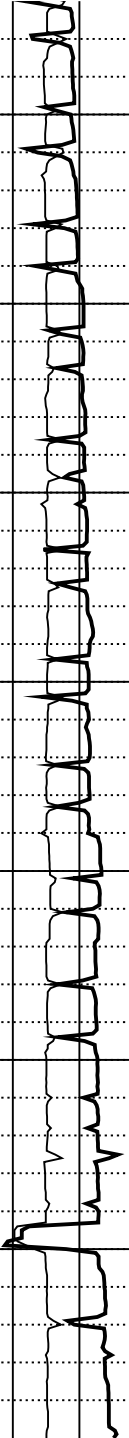
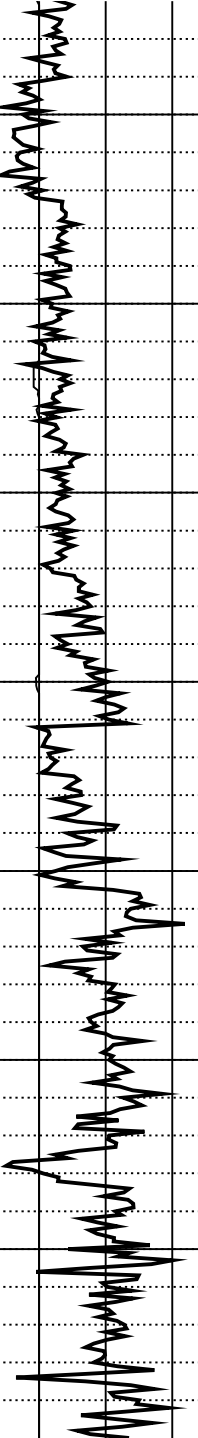
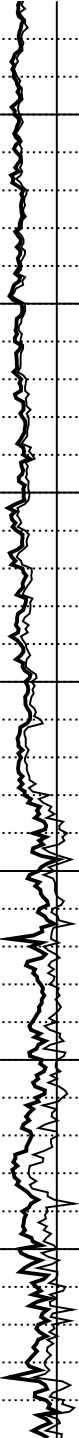
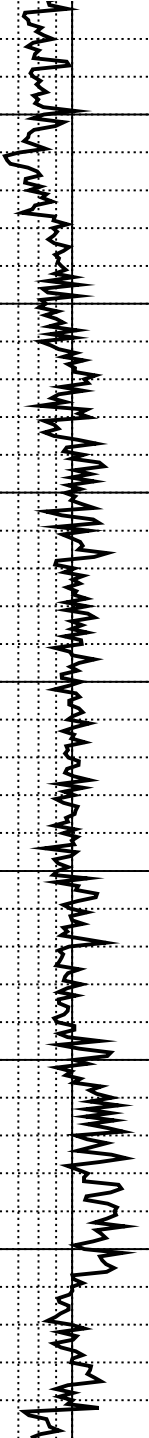
Drilling Data Plot

Casino-1

SCALE 1 : 2000.0

Santos



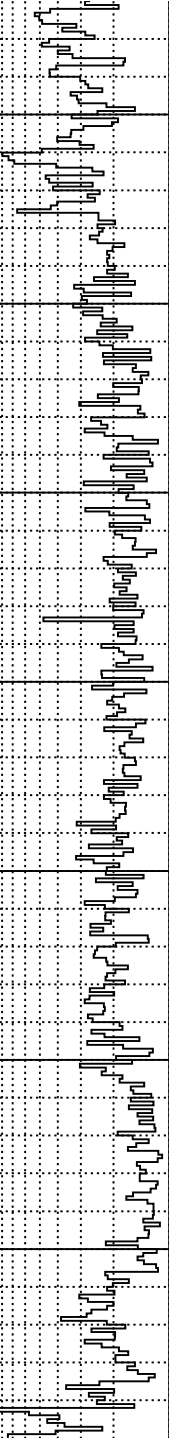


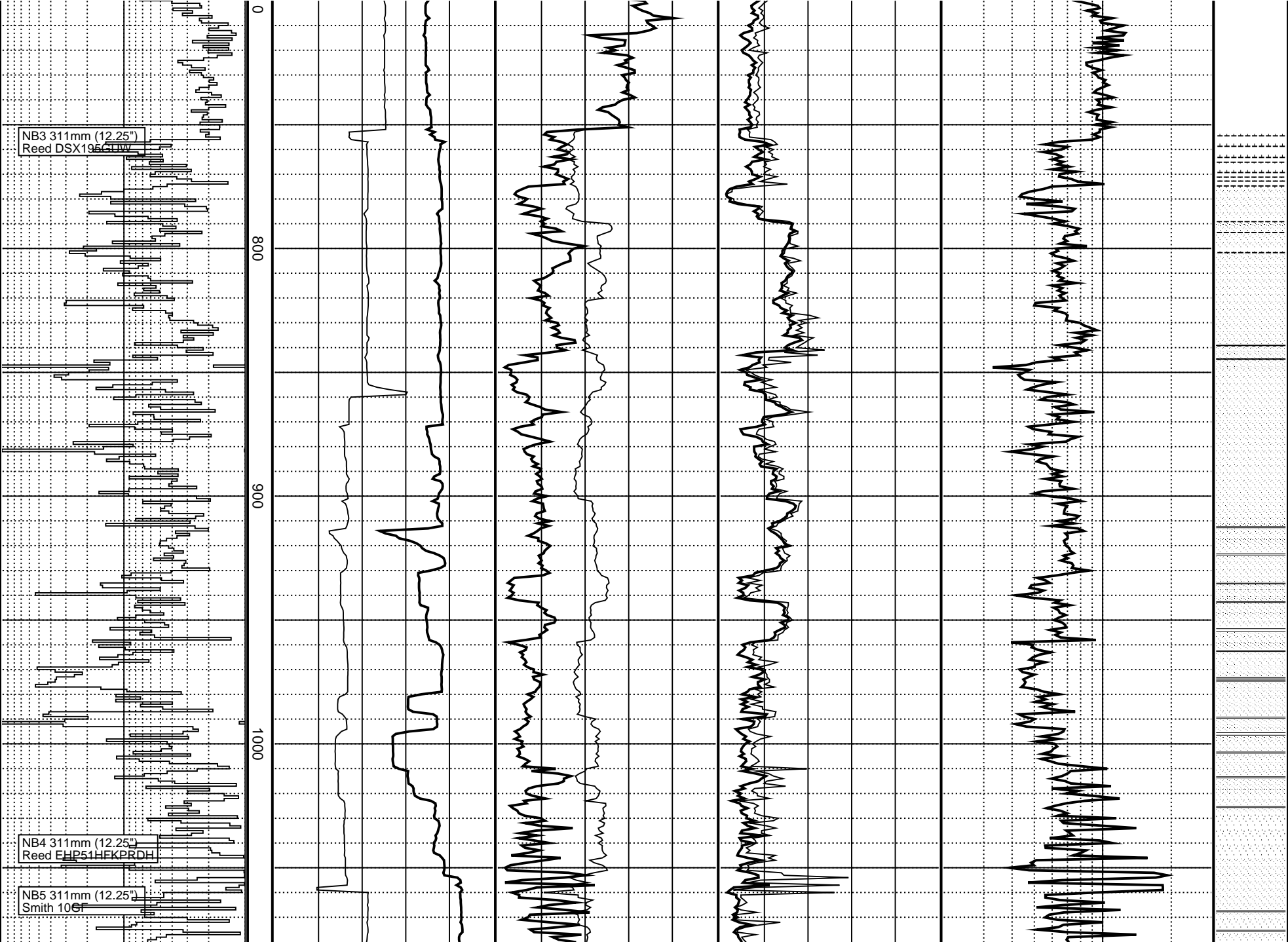
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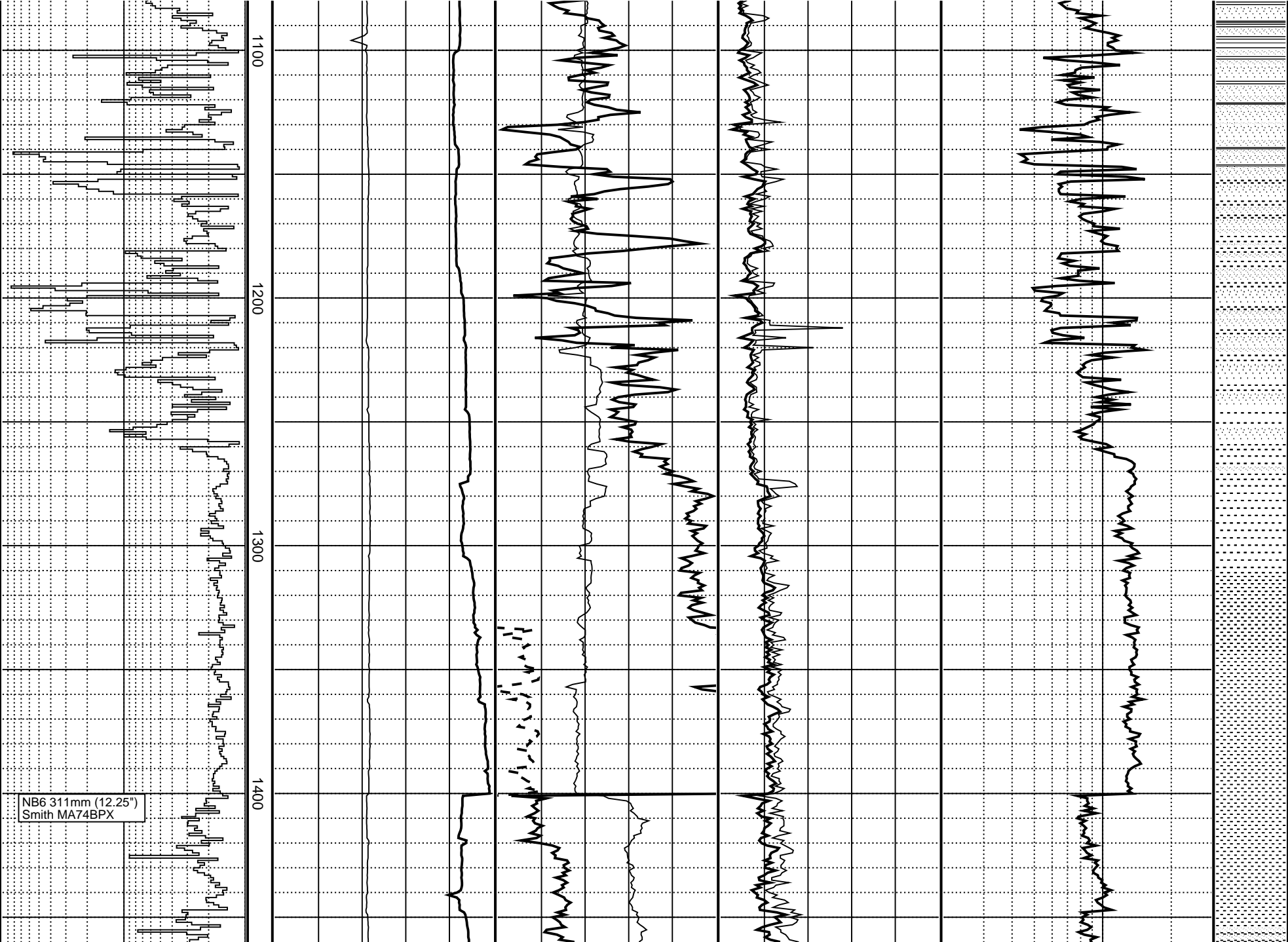
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600

700







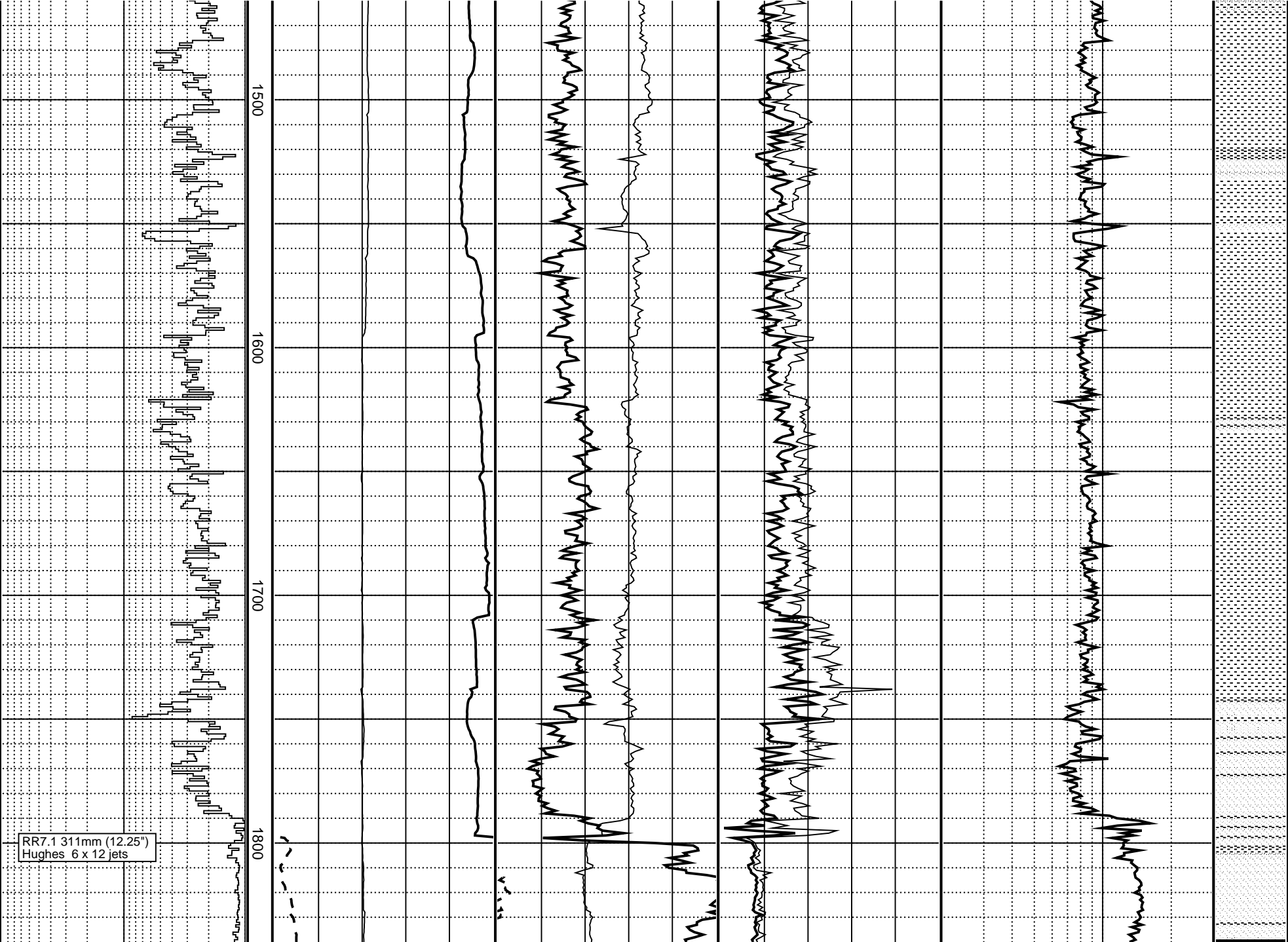
1100

1200

1300

1400

NB6 311mm (12.25")
Smith MA74BPX



RR7.1 311mm (12.25")
Hughes 6 x 12 jets

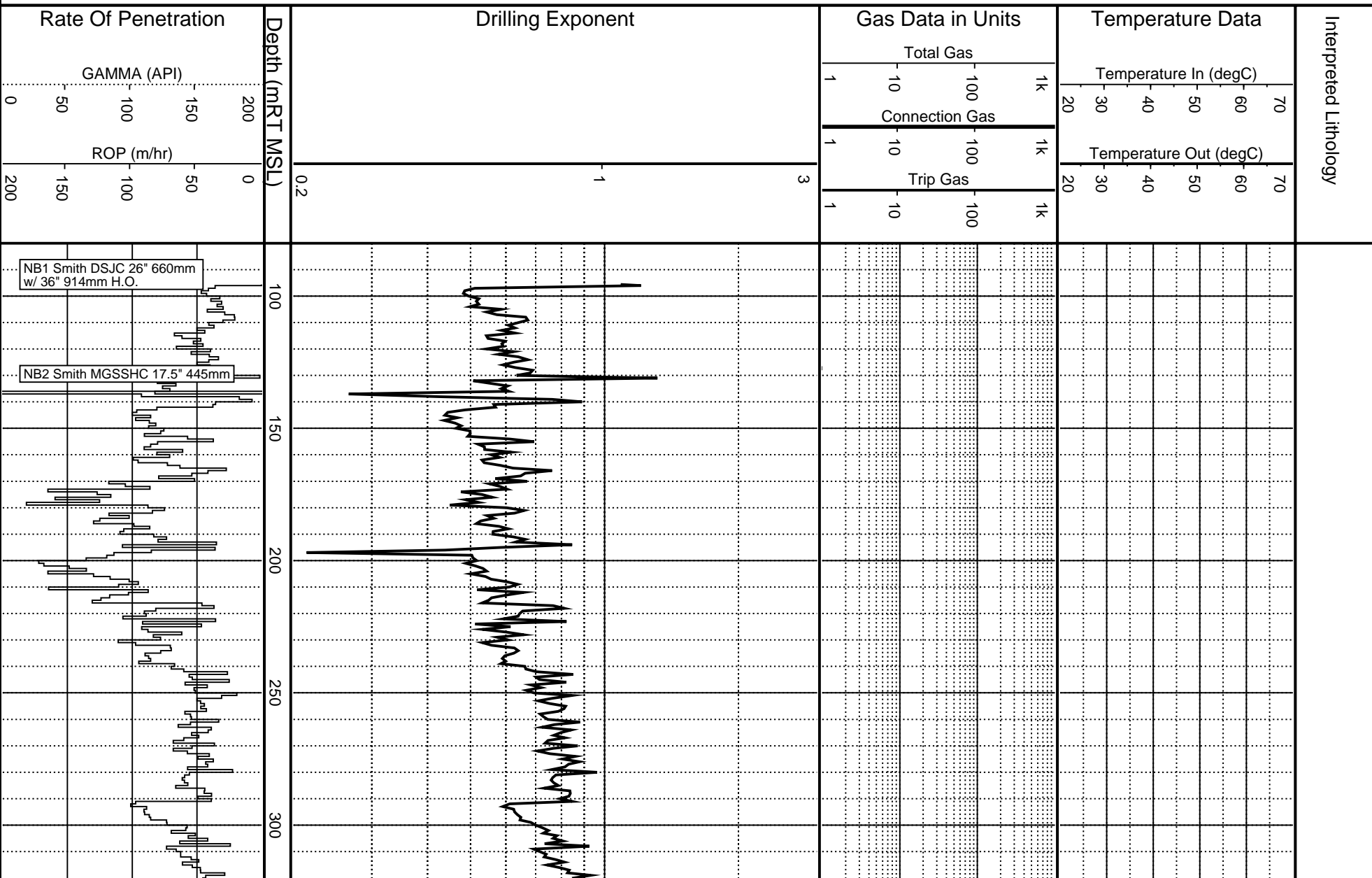
PRESSURE EVALUATION PLOT

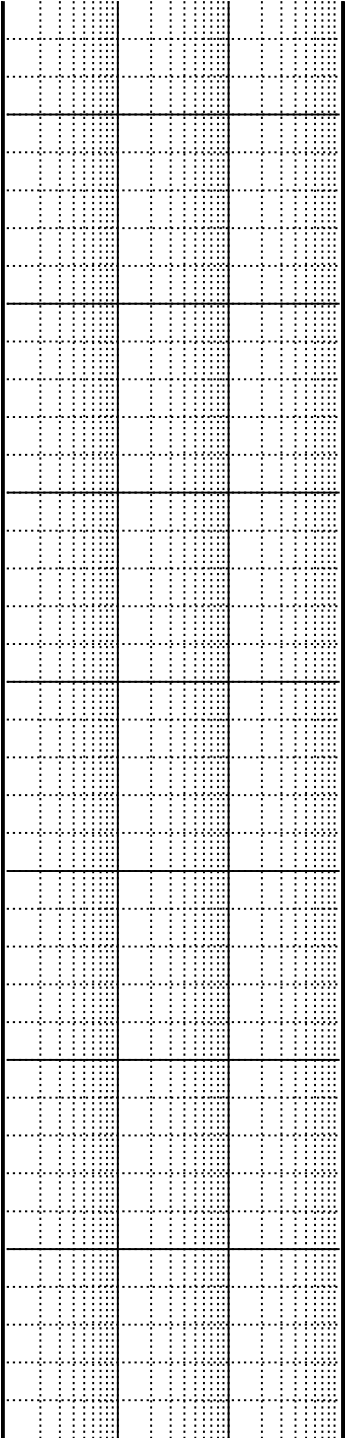
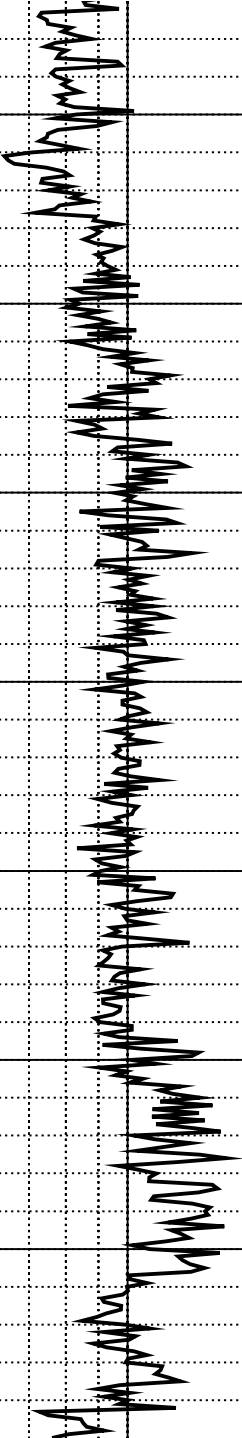
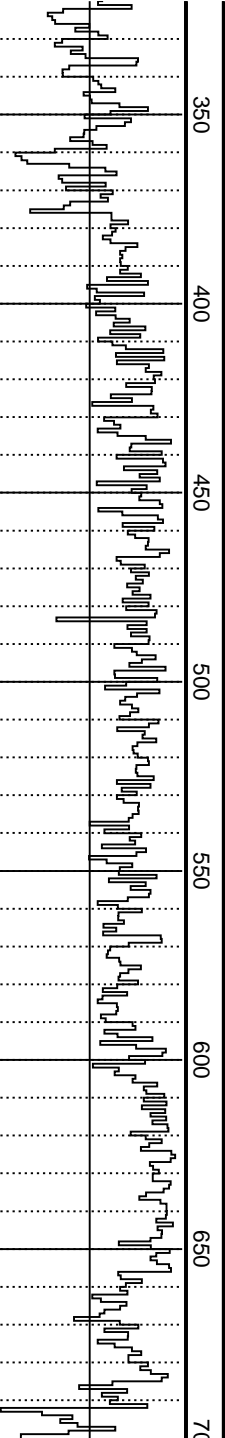
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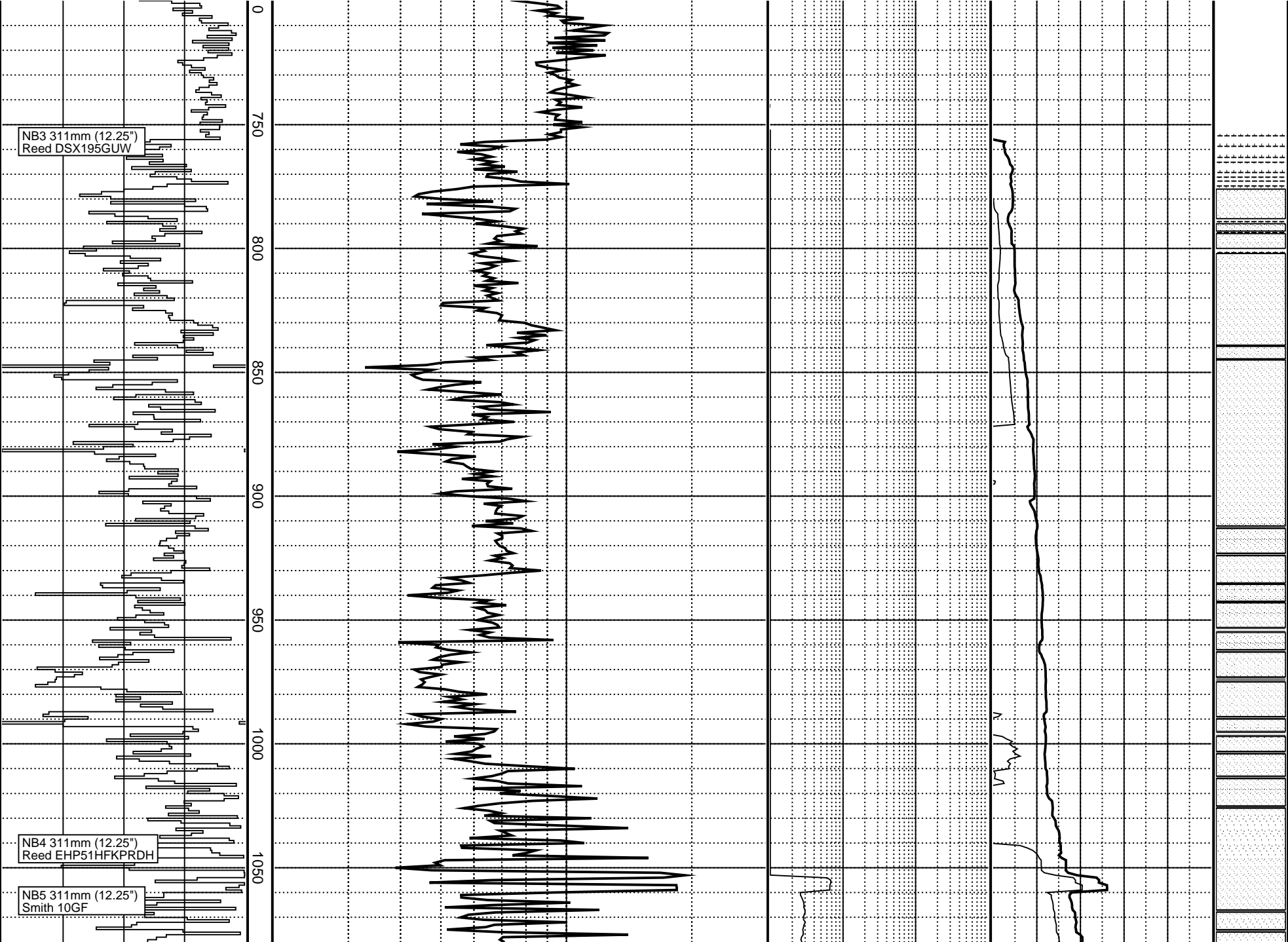
Pressure Data Plot

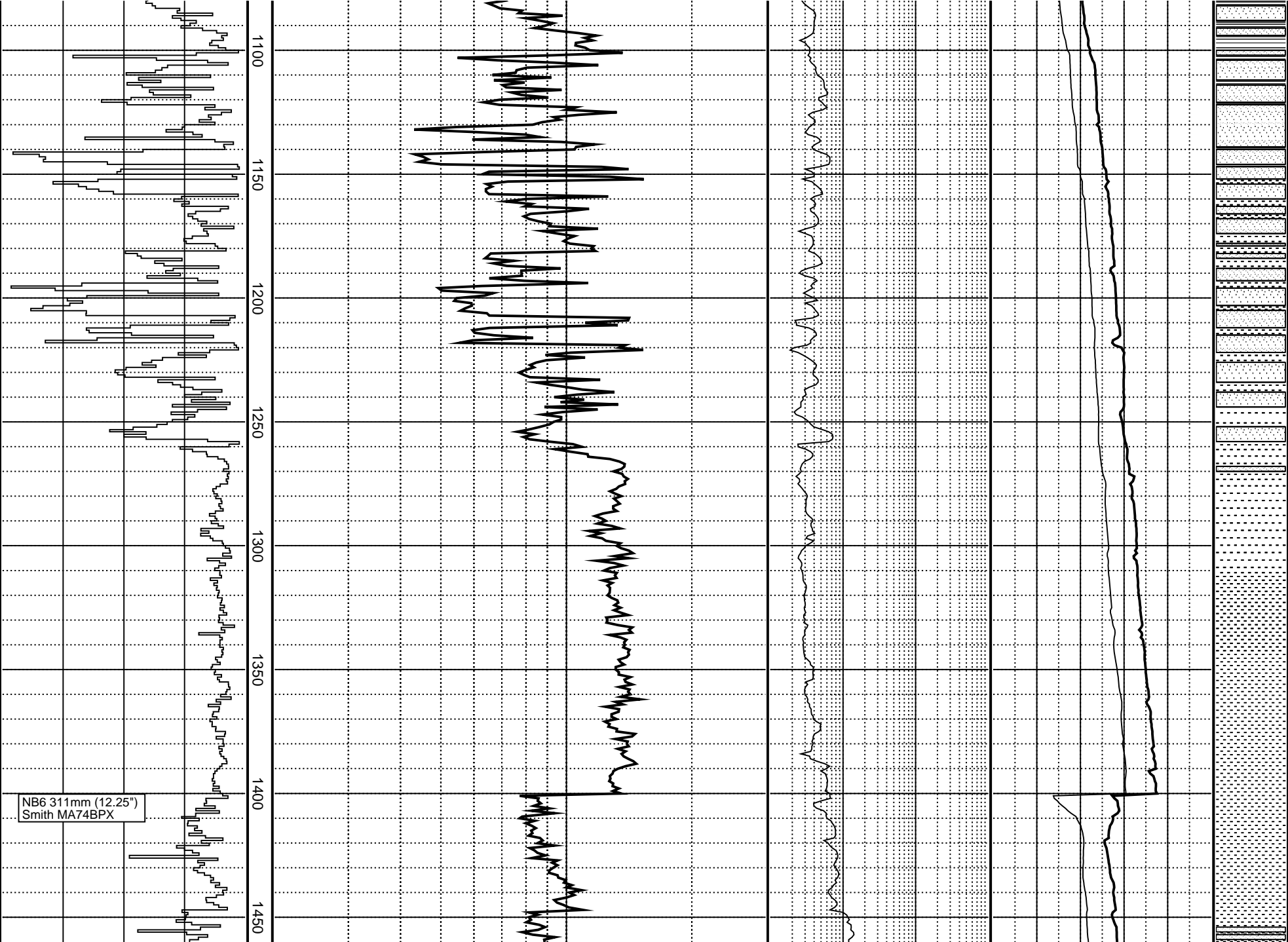
Casino-1

Scale 1 : 2500

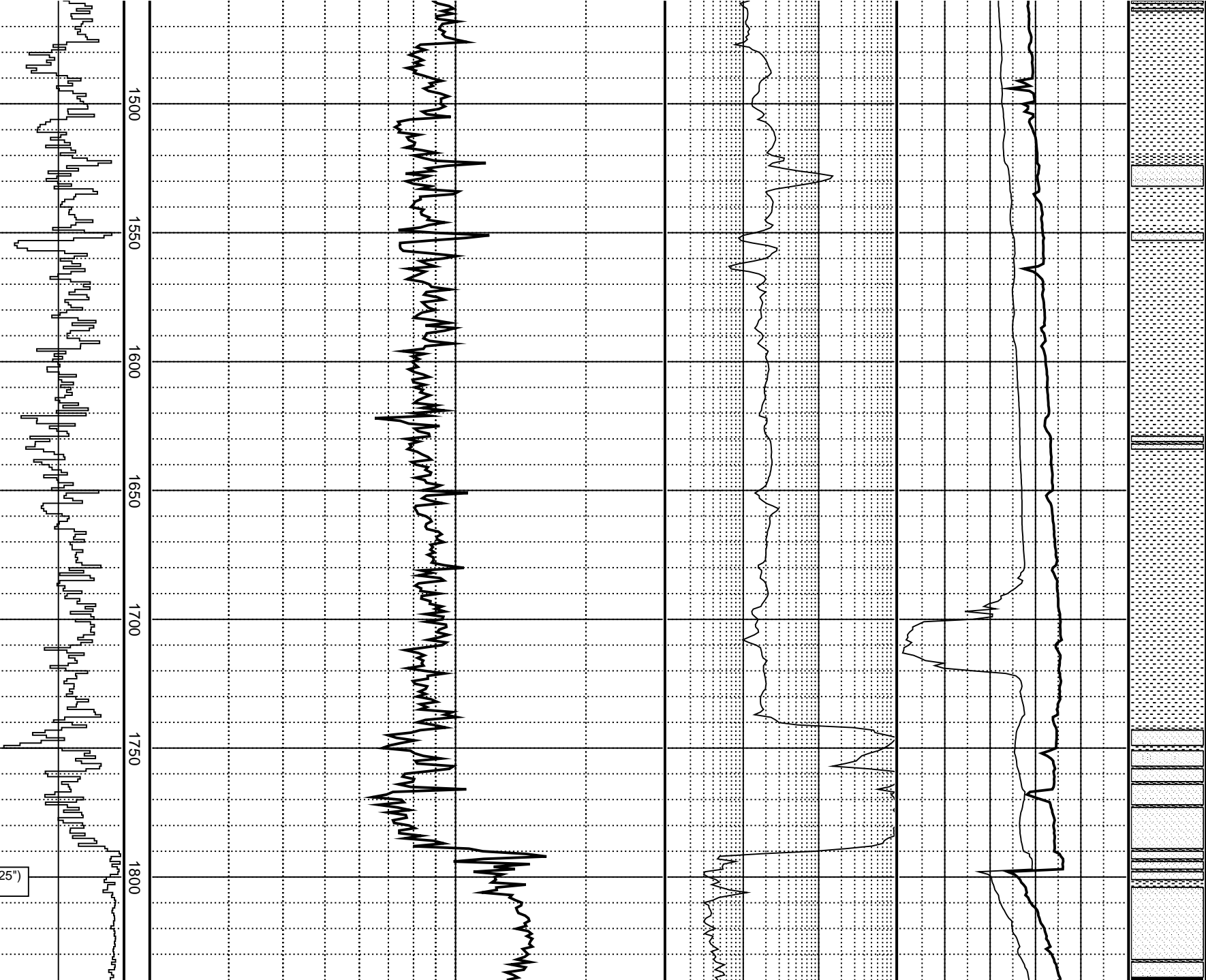


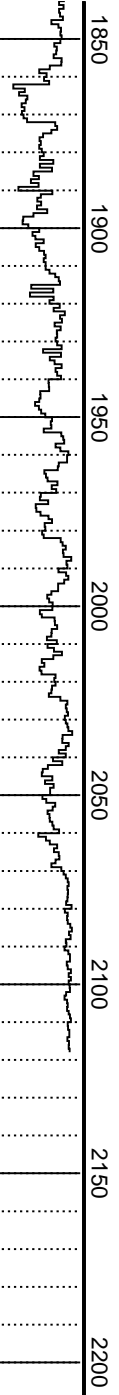
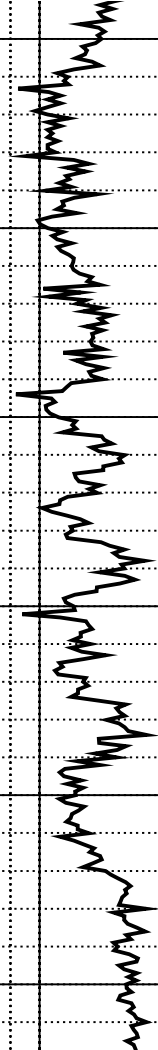
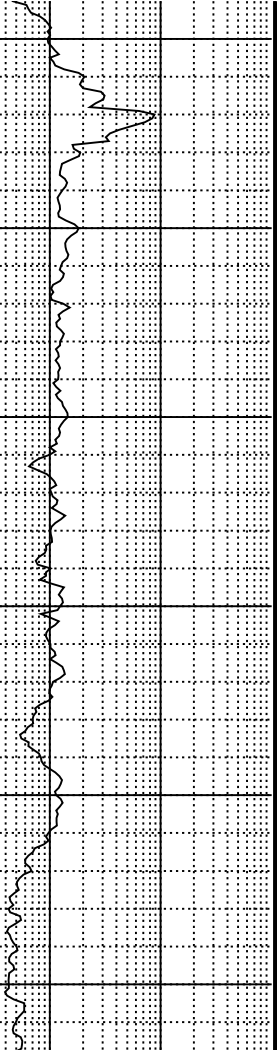
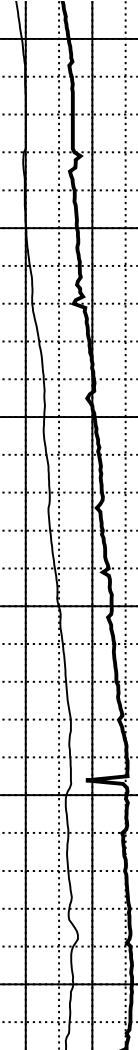
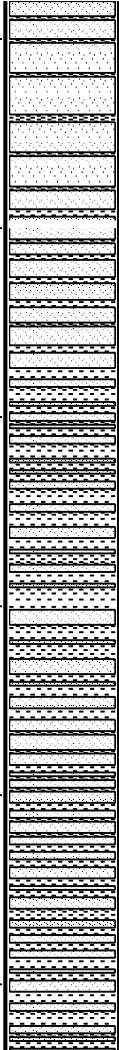






RR7.1 311mm (12.25")
Hughes 6 x 12 jets

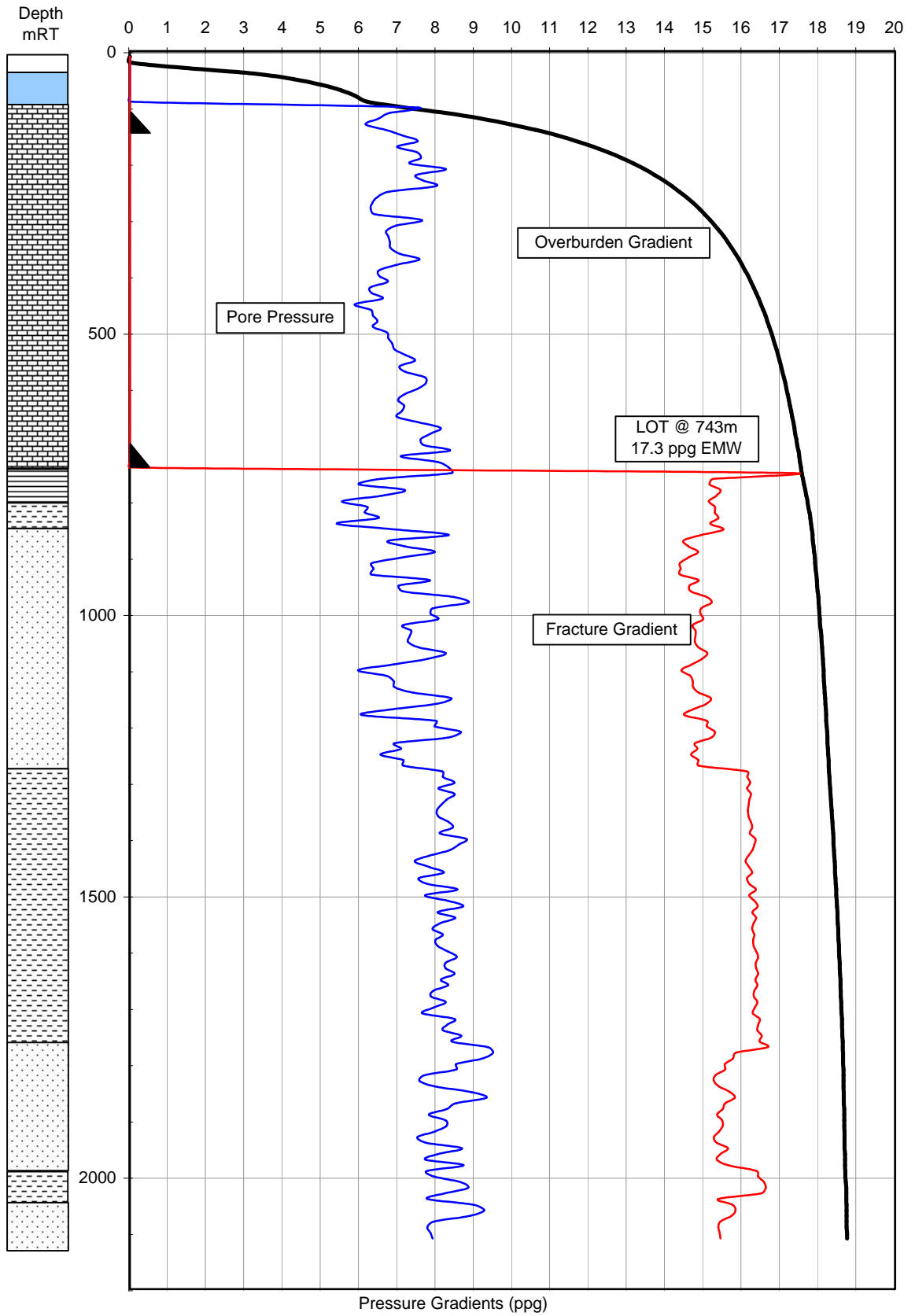




1850 1900 1950 2000 2050 2100 2150 2200

PRESSURE SUMMARY PLOT

Pressure Summary Plot Casino - 1



GAS RATIO PLOT

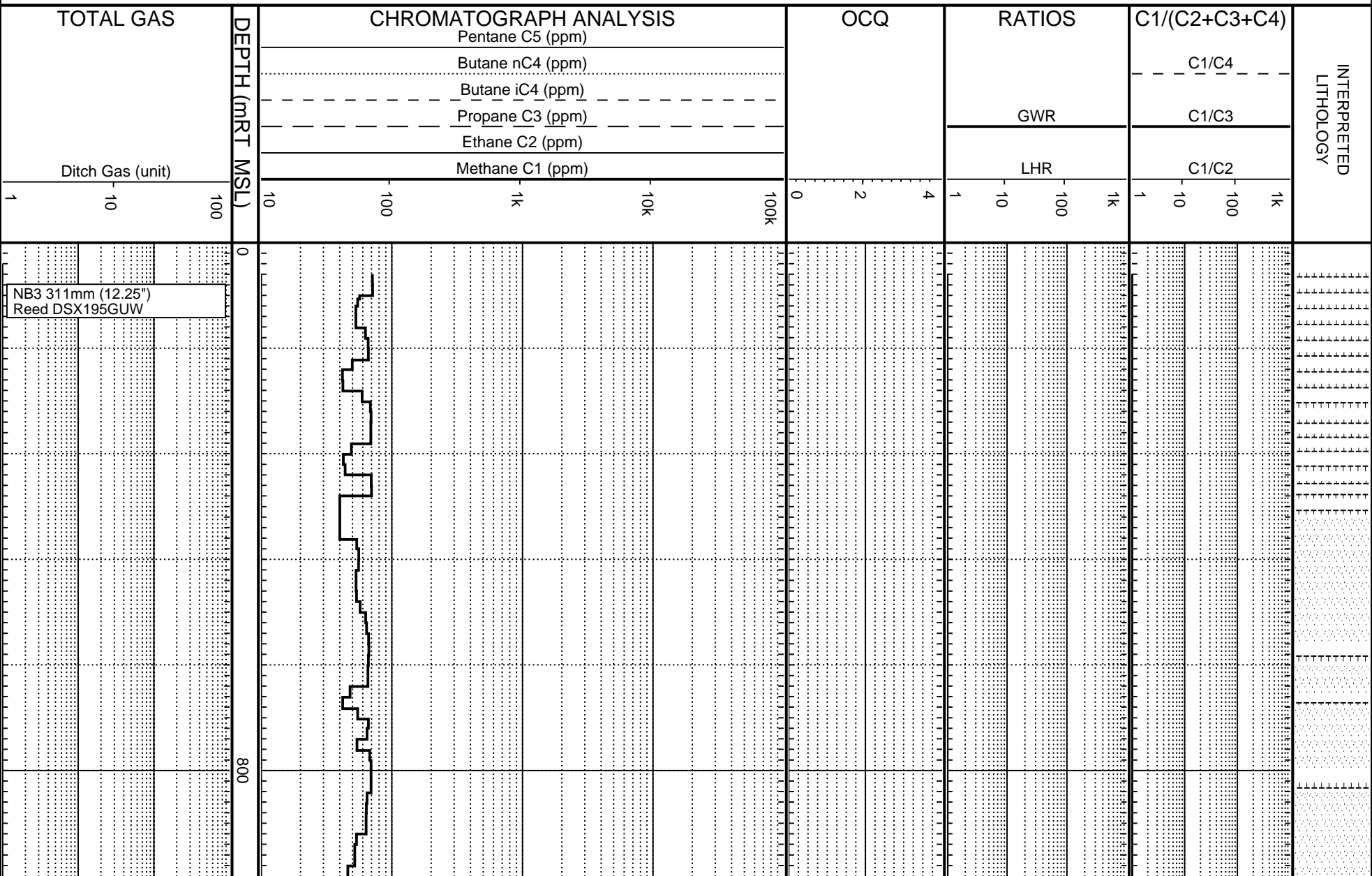
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GAS RATIO ANALYSIS PLOT

Casino-1

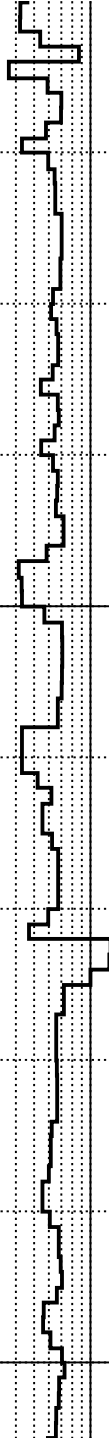
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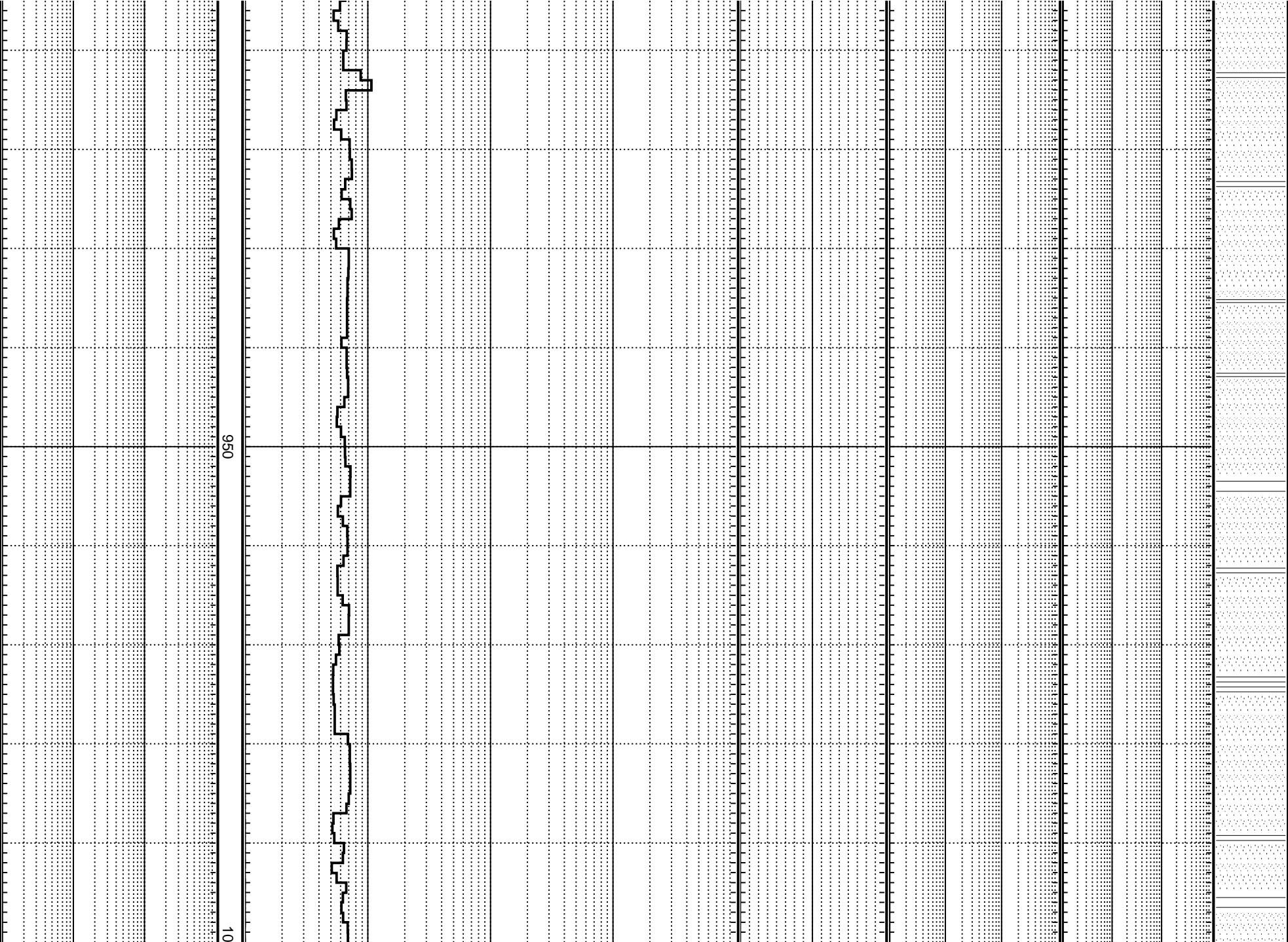
Santos

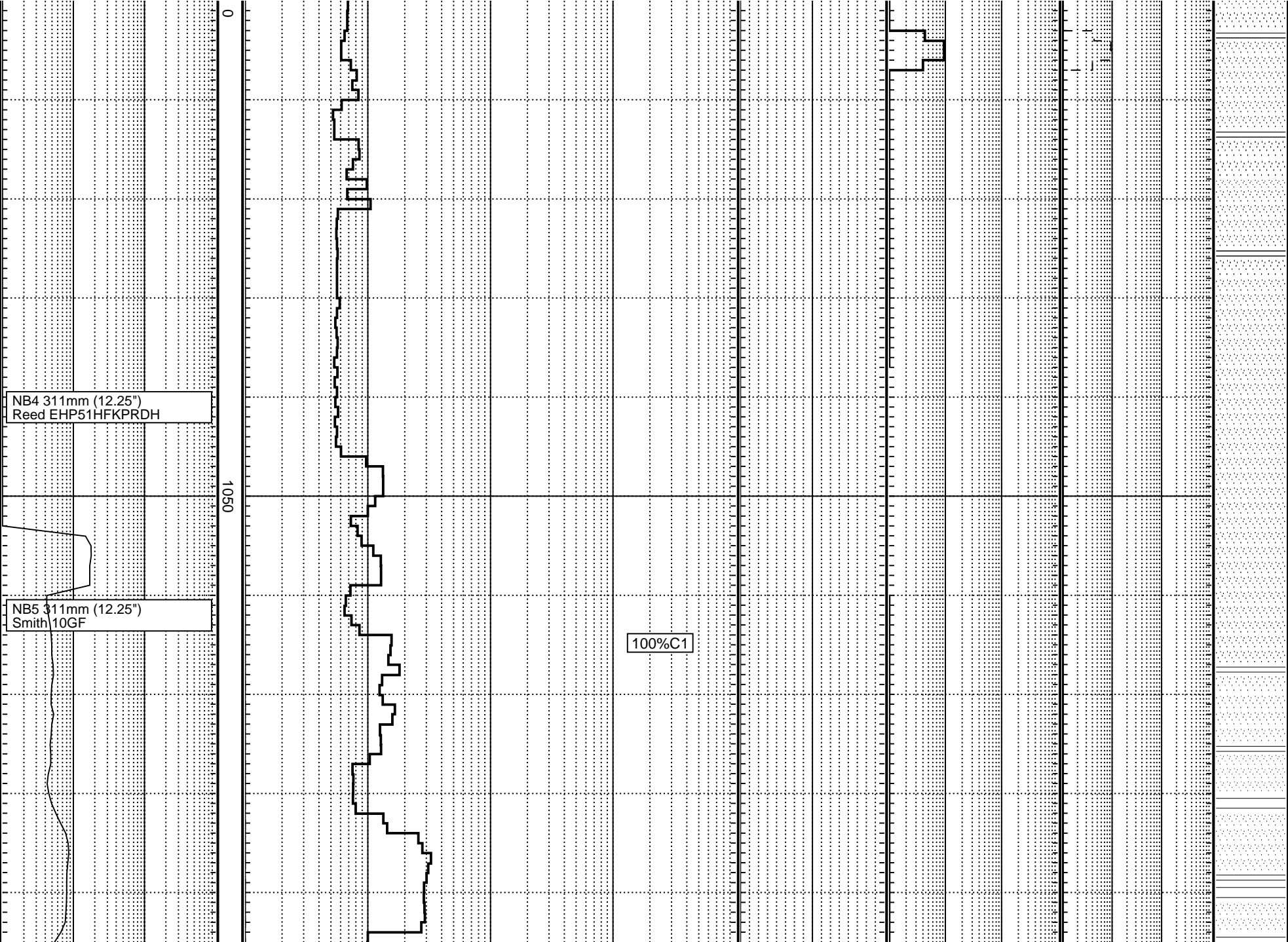


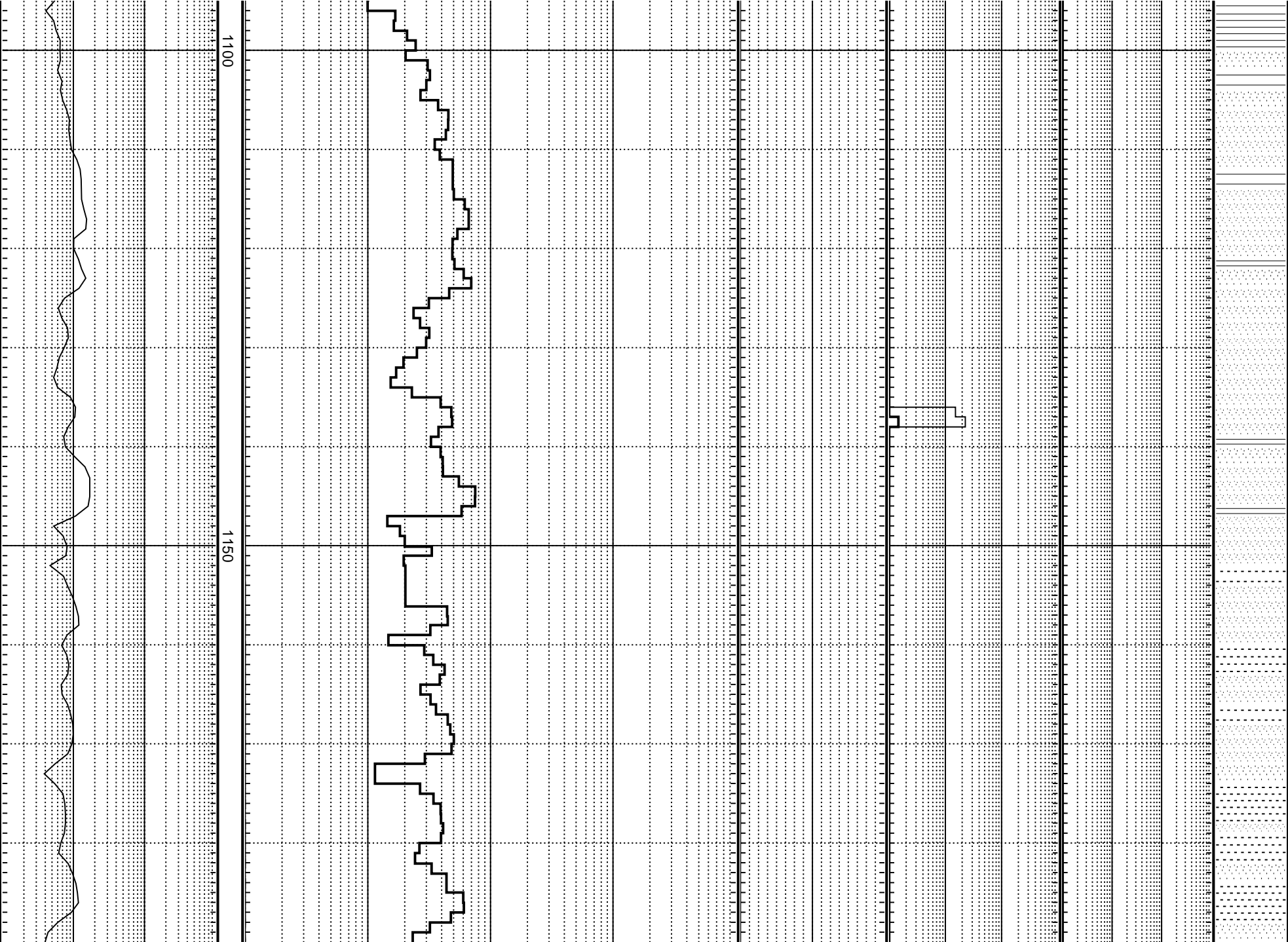
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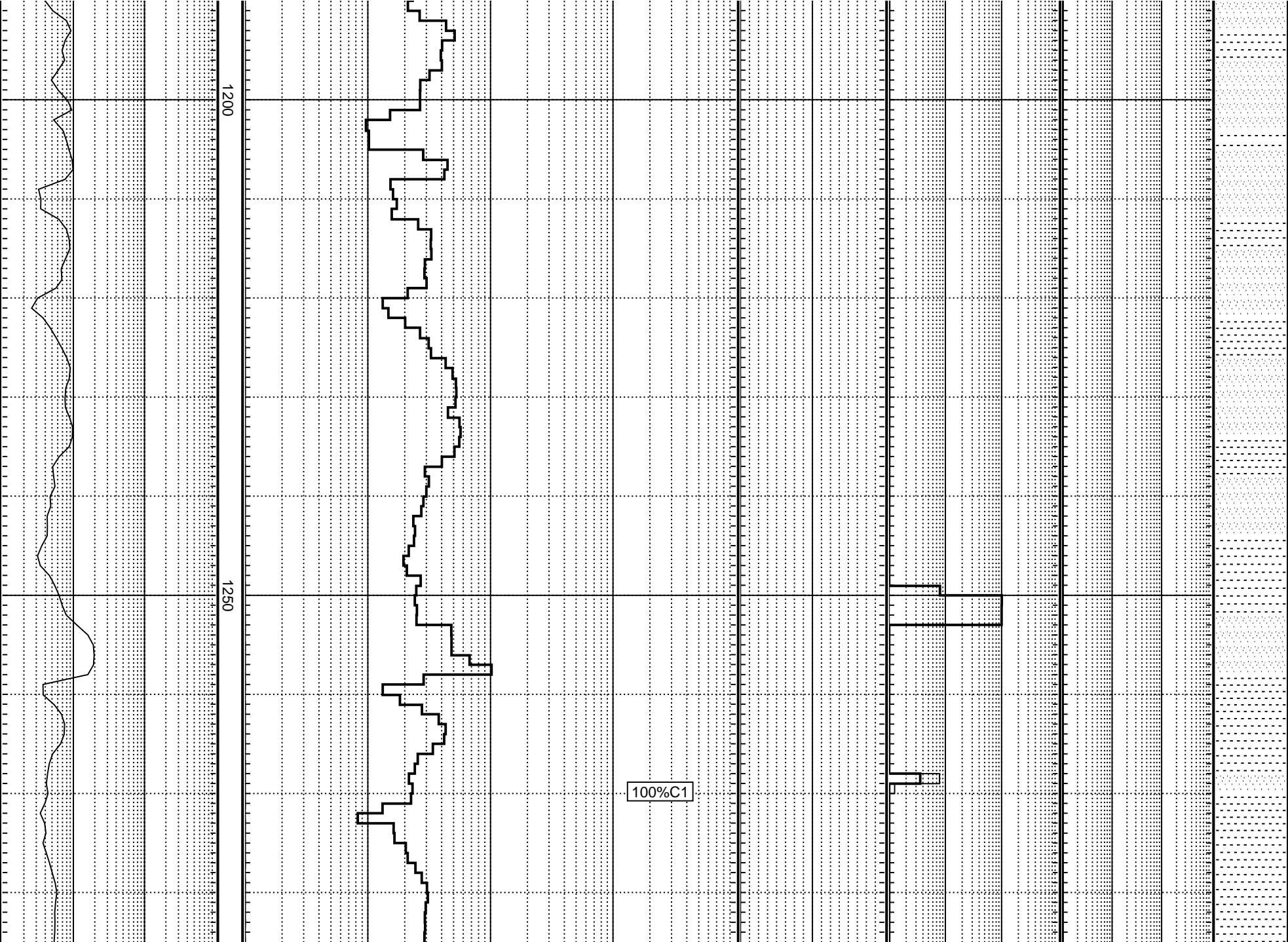
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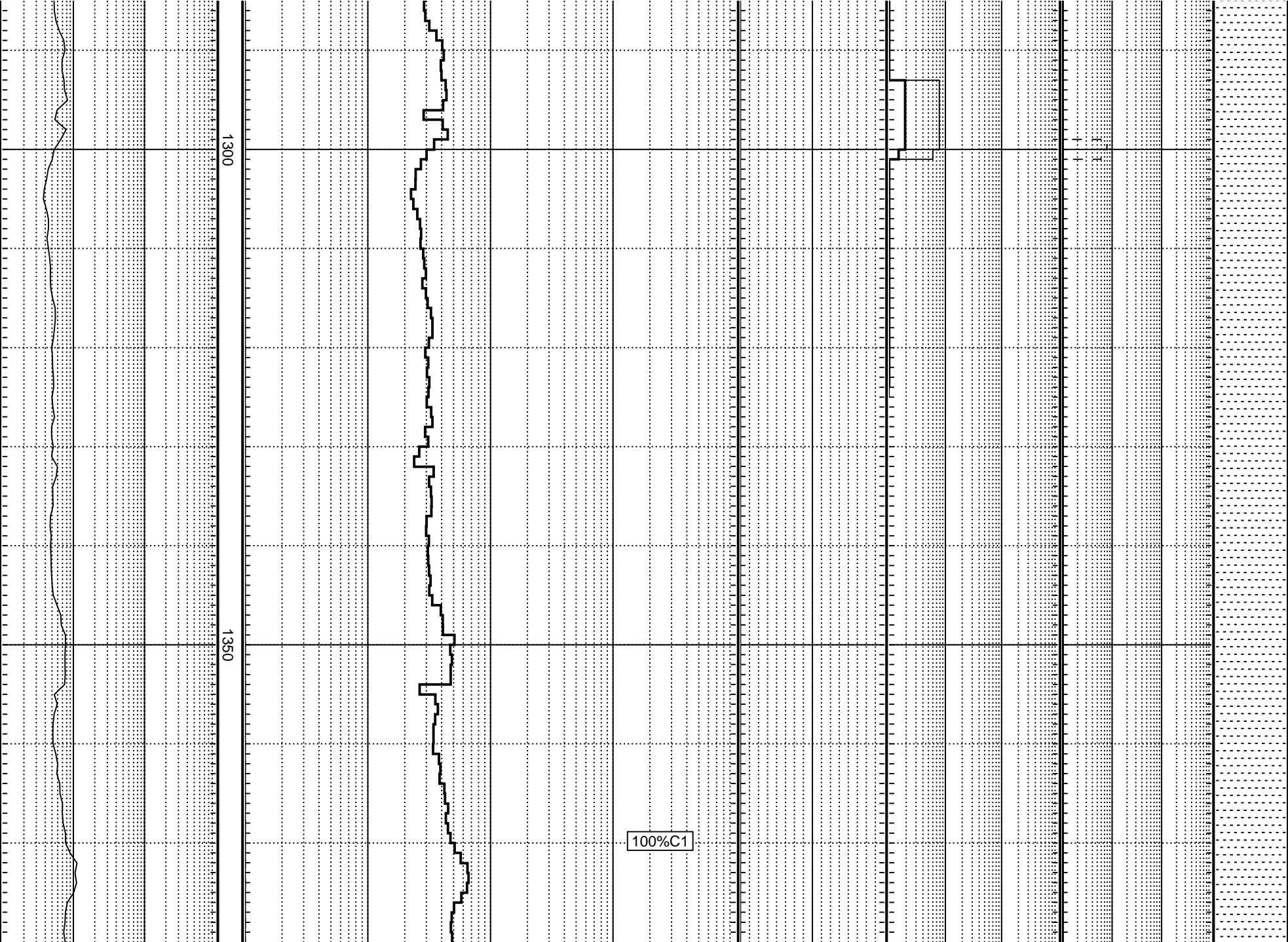


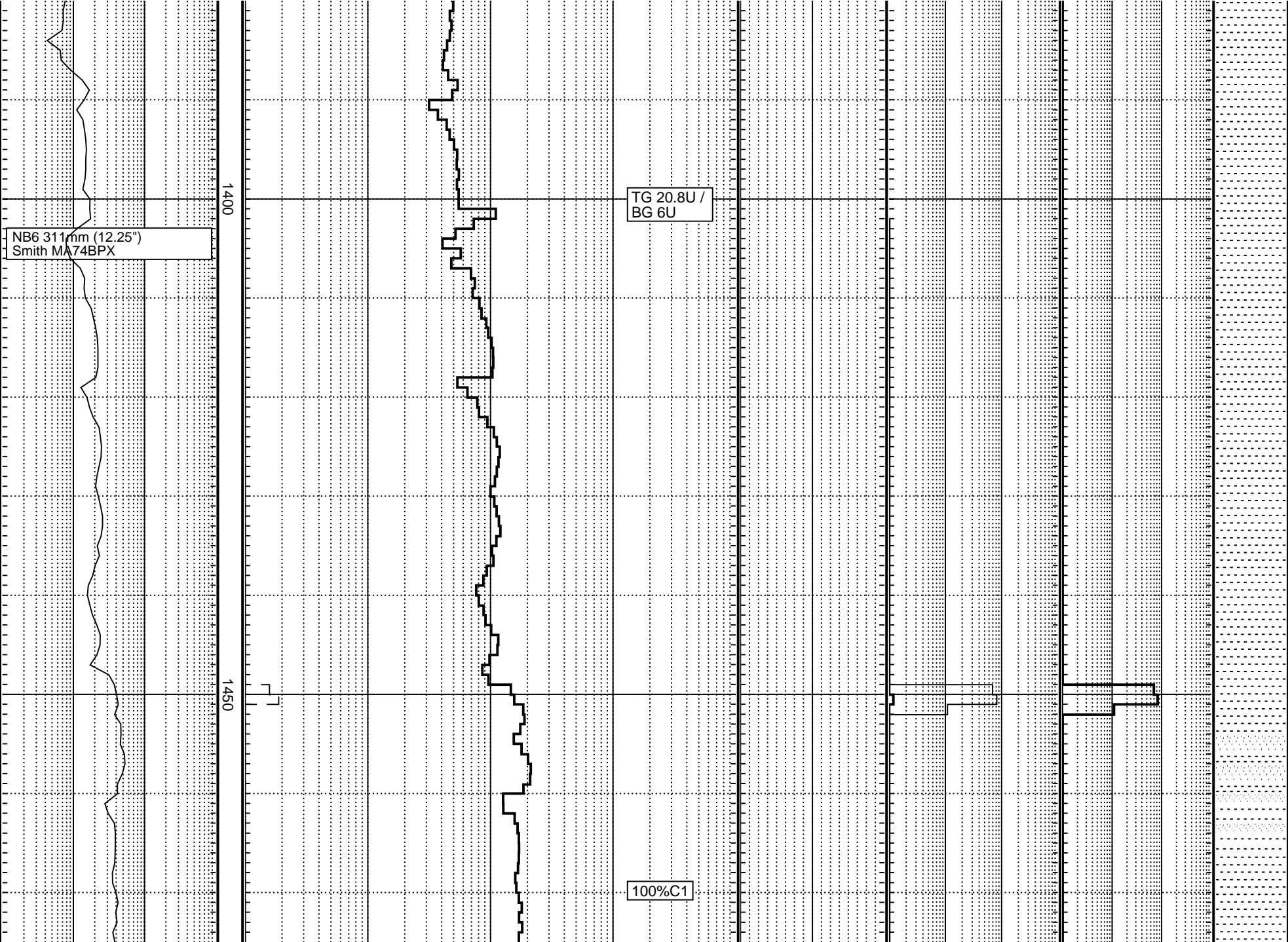


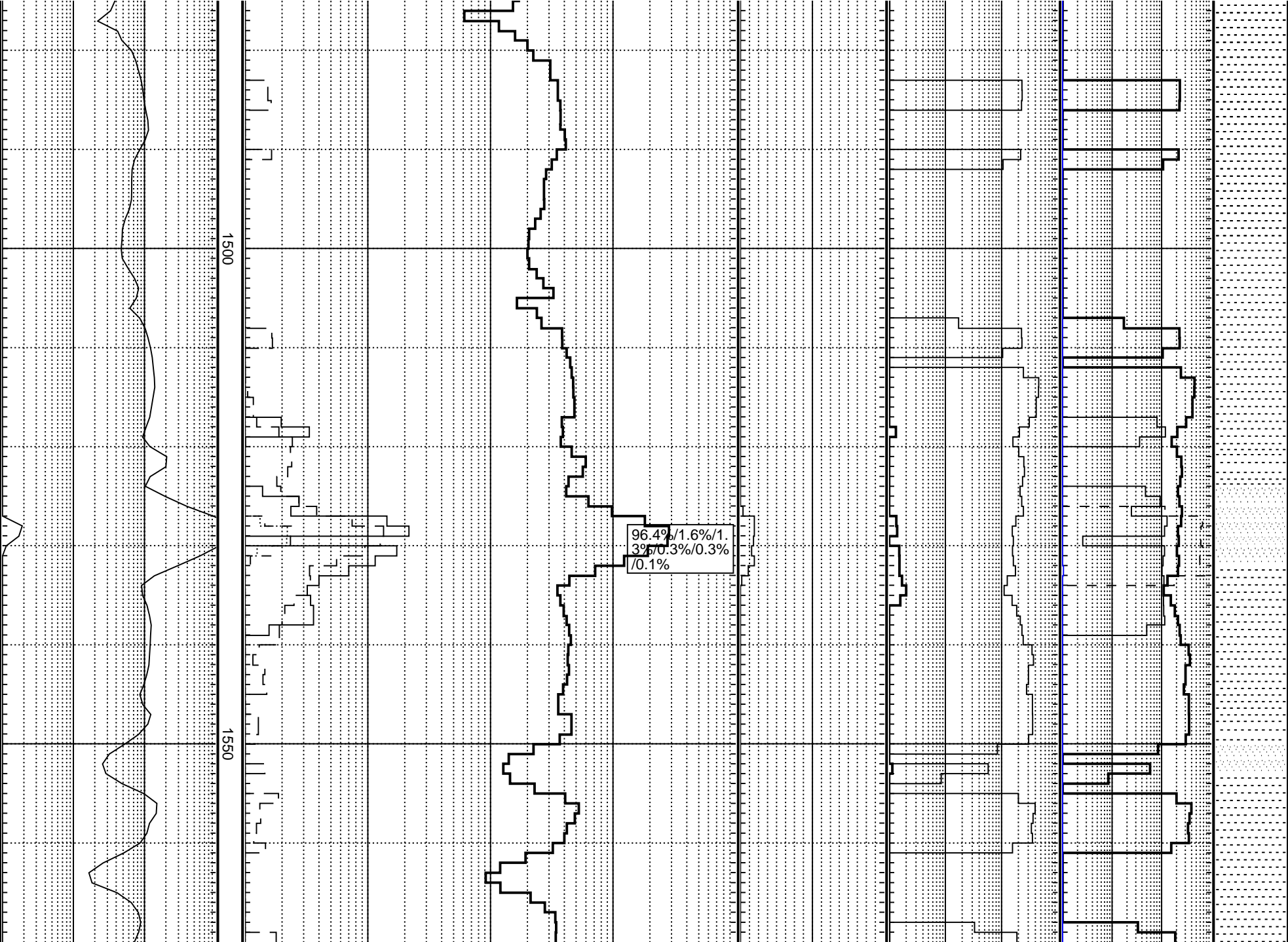


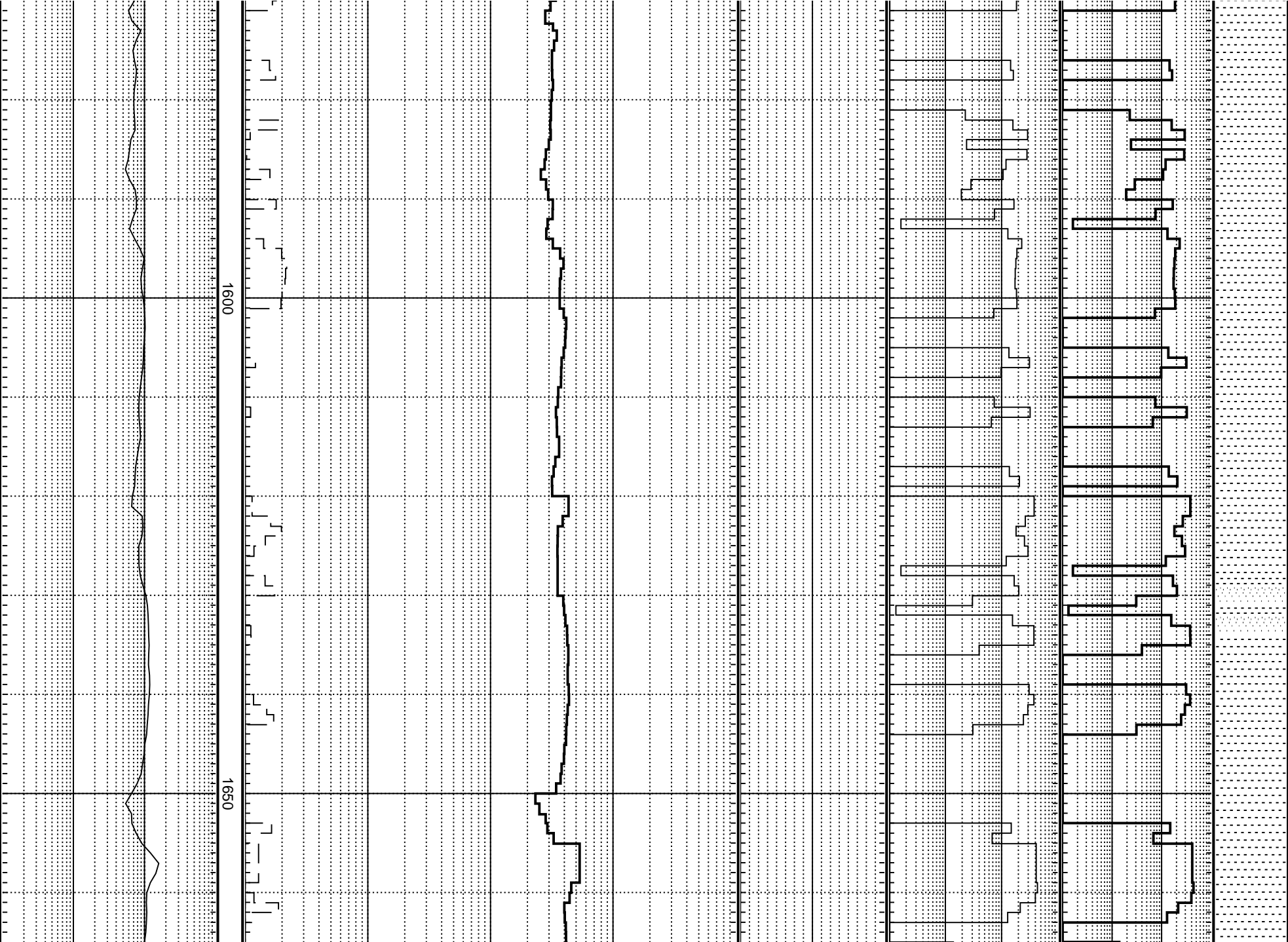


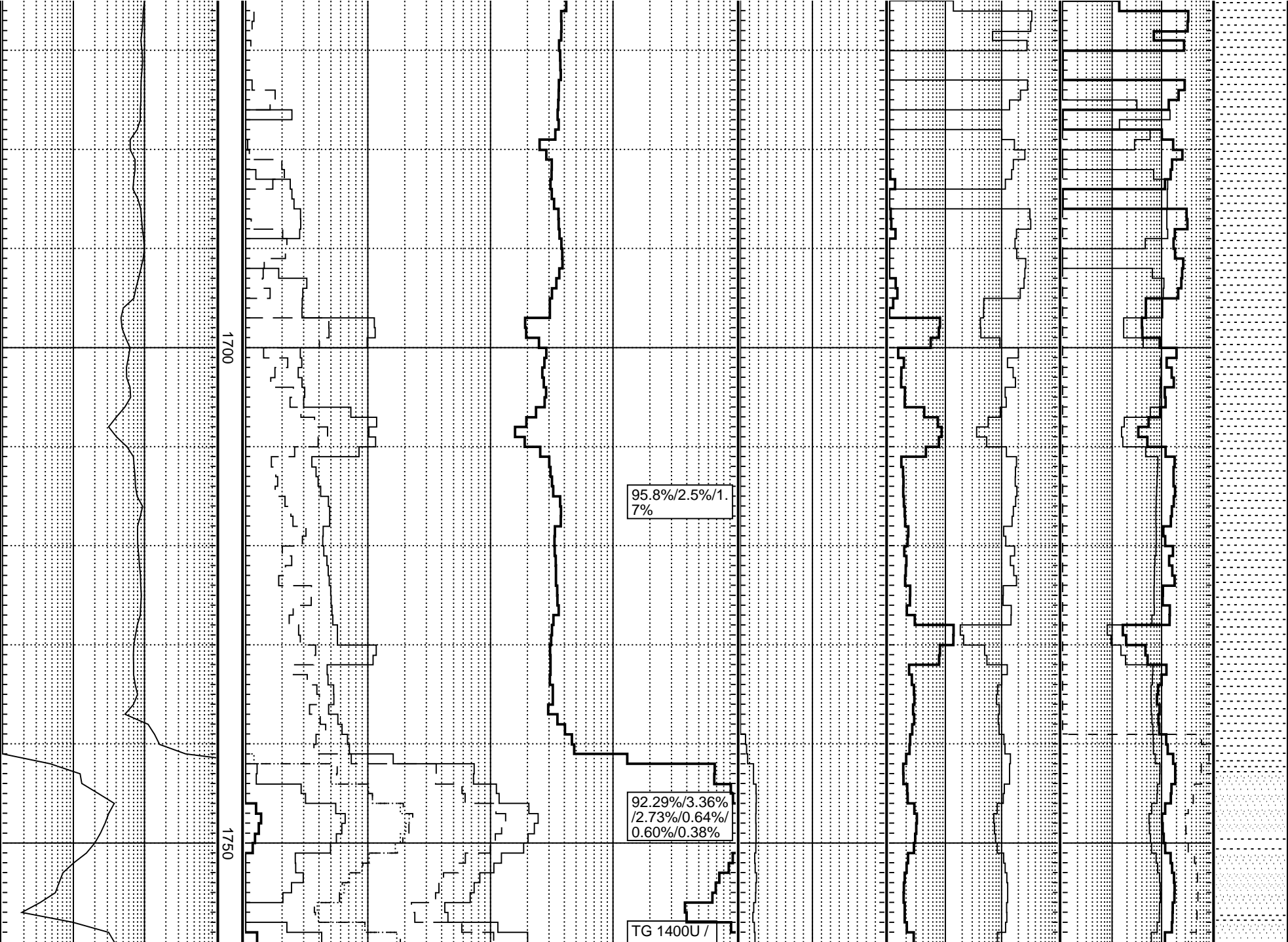












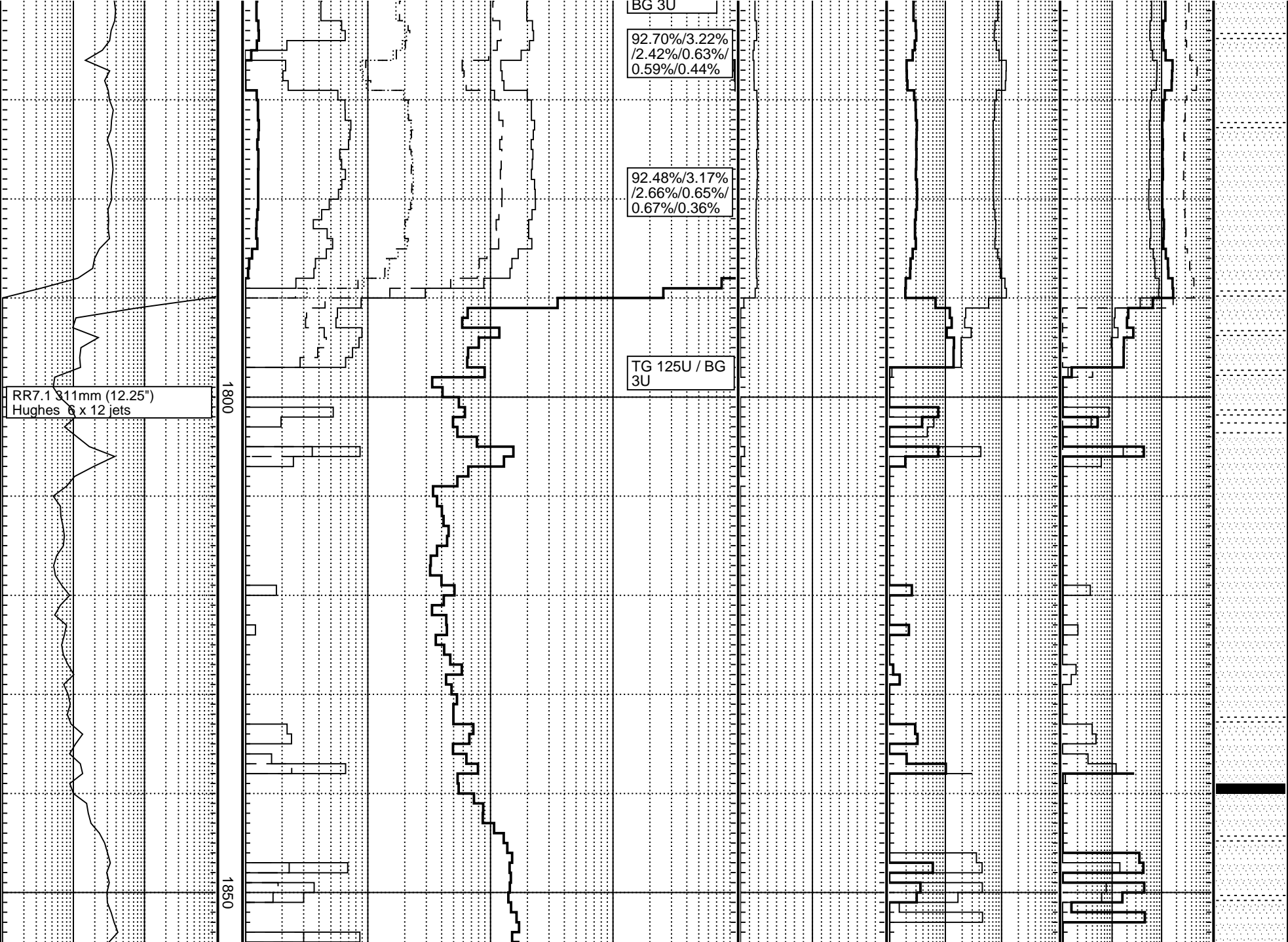
1700

1750

95.8%/2.5%/1.7%

92.29%/3.36%/2.73%/0.64%/0.60%/0.38%

TG 1400U /



BG 3U

92.70%/3.22%
/2.42%/0.63%
0.59%/0.44%

92.48%/3.17%
/2.66%/0.65%
0.67%/0.36%

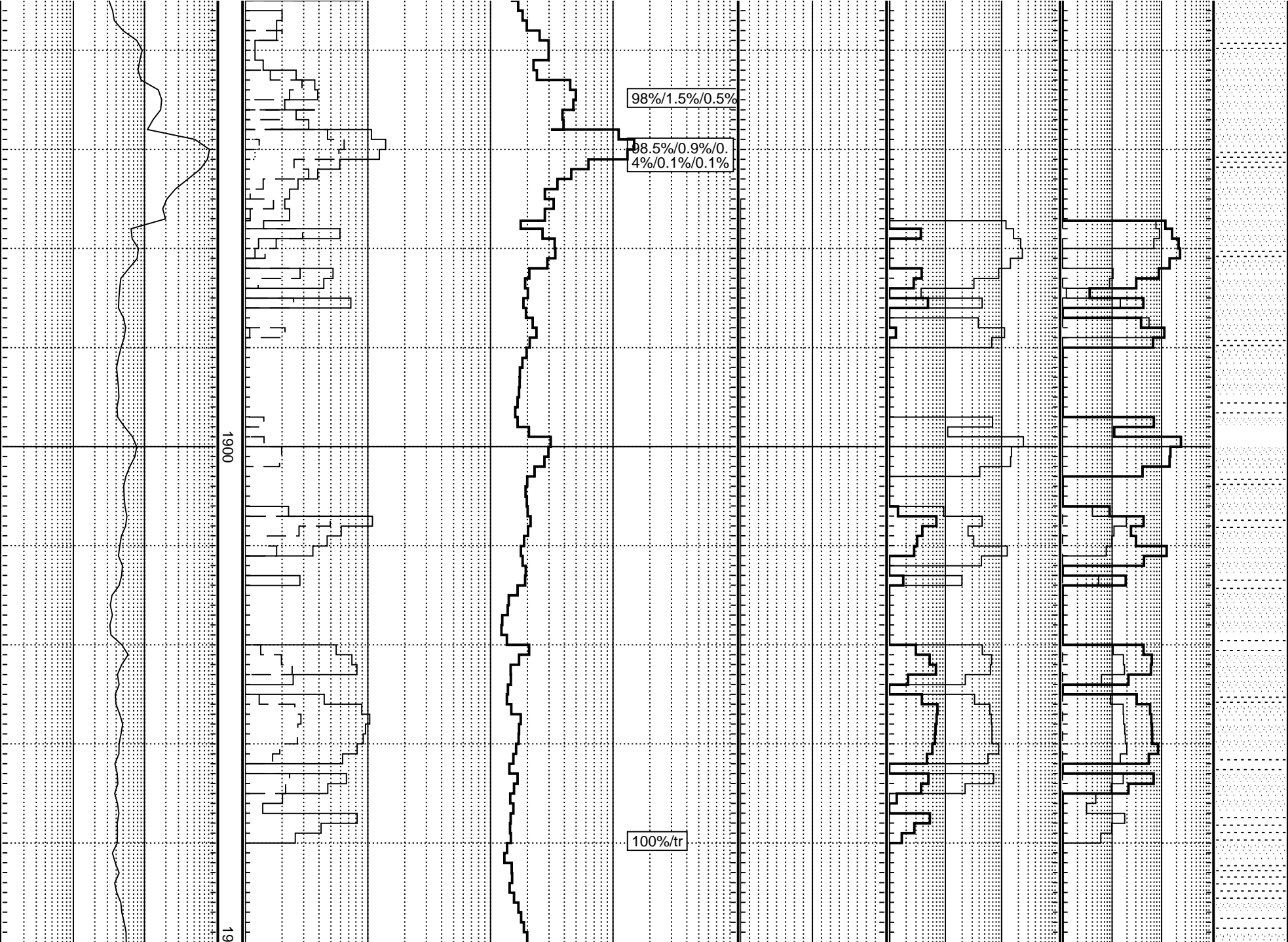
TG 125U / BG
3U

RR7.1 11mm (12.25')
Hughes 6 x 12 jets

1800

1850





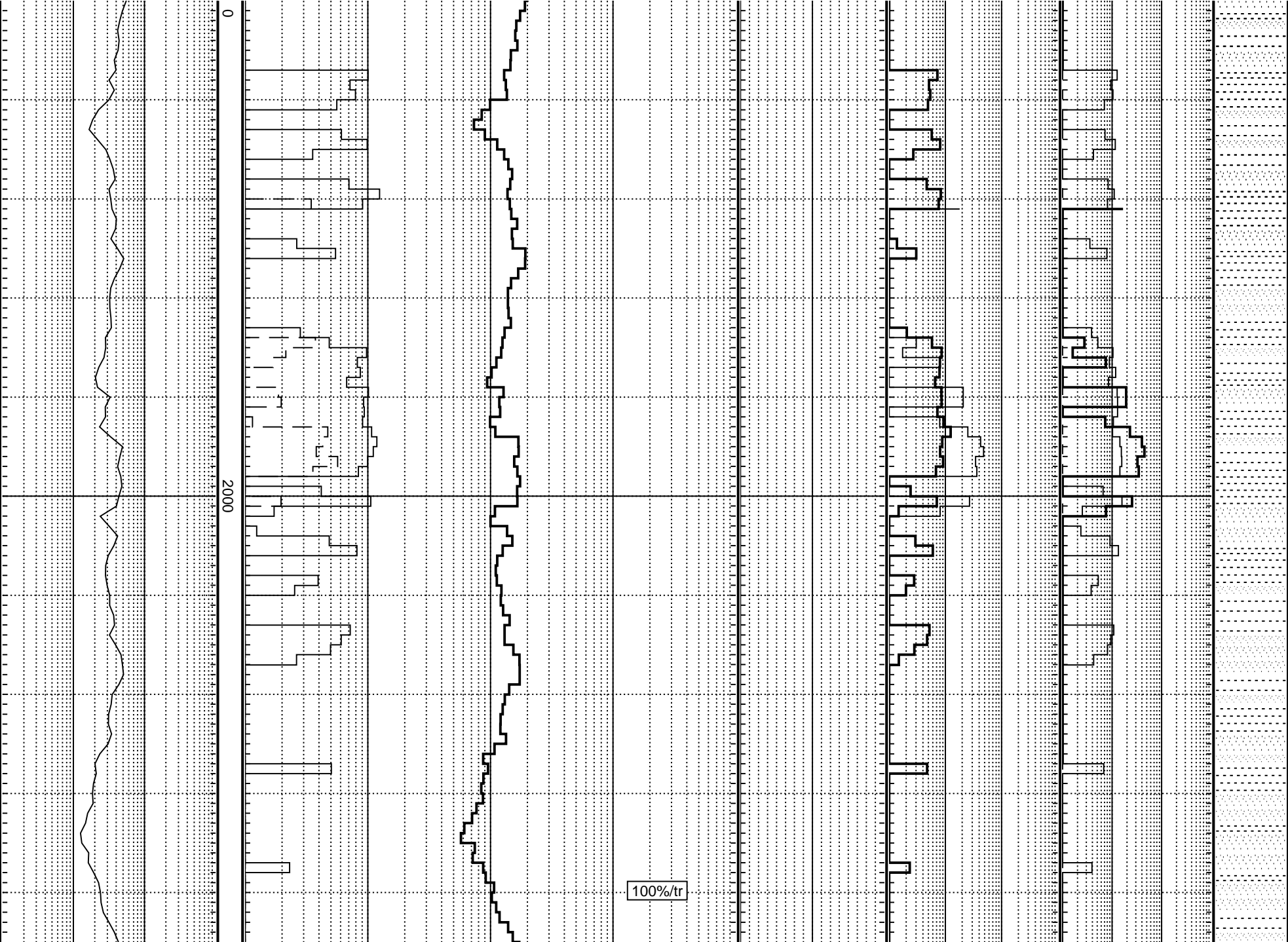
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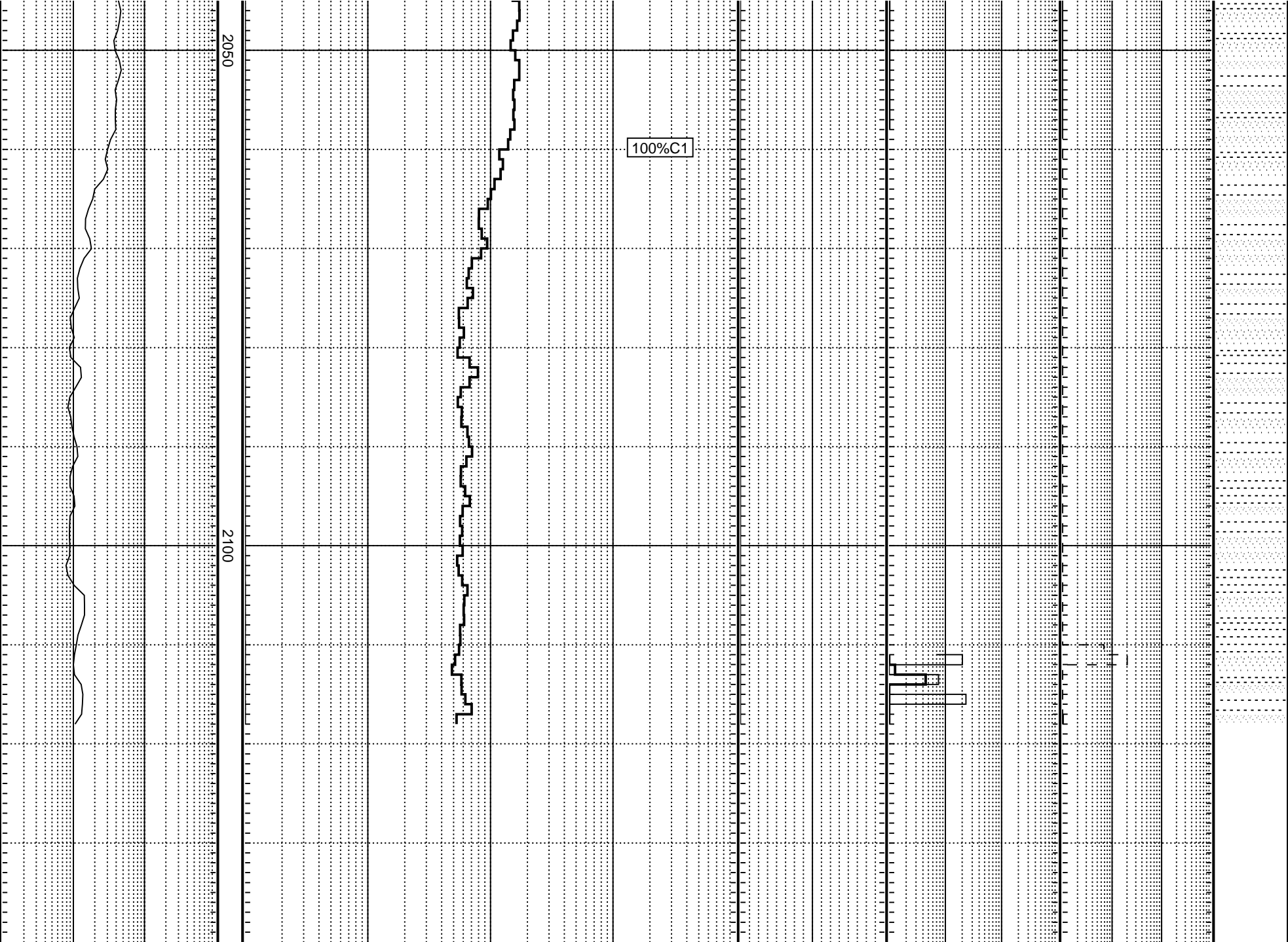
19

98%/1.5%/0.5%

98.5%/0.9%/0.4%/0.1%/0.1%

100%/tr





SECTION 13:- RIG POSITIONING REPORT

The Thales logo is displayed in white, uppercase letters on a dark blue rectangular background. The letter 'A' is stylized with a small teal dot above it. The background of the entire page is a blue-tinted satellite map of an ocean area, with a specific location circled in orange on the left side.

THALES

**Casino-1 Positioning Report of
the Ocean Bounty**

**Prepared for
Santos Offshore Pty Ltd**

Report No: 3429A3

Thales GeoSolutions (Australasia) Limited

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Prepared for

Santos

SANTOS OFFSHORE PTY LTD

DOCUMENT TITLE : CASINO-1 POSITIONING REPORT OF THE OCEAN BOUNTY

CLIENT : SANTOS OFFSHORE PTY LTD

LOCATION : OTWAY BASIN, BASS STRAIT

PERMIT : VIC-P-44

REPORT REF. : 3429A3

REPORT REV NO. : 0

REPORT ISSUE DATE : 2 SEPTEMBER 2002

SURVEY DATE : 19 – 26 AUGUST 2002

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- I - PACIFIC SENTINEL AND PACIFIC CONQUEROR OFFSET DIAGRAMS
- J - GNS2 CONFIGURATION FILE PRINTOUT
- K - DAILY REPORT SHEETS



ABSTRACT

This report details the positioning services provided by Thales GeoSolutions (Australasia) Limited (Thales), prior to and during the positioning of the semi-submersible drilling rig Ocean Bounty at the Casino-1 location for Santos Offshore Pty Ltd (Santos).

Positioning of the Ocean Bounty during the approach to and at the Casino-1 location was provided by Thales' SkyFix/SkyFix Spot Differential GPS (Differential GPS) interfaced to Thales' Multifix 3 multiple reference station positioning software and Thales' GNS2 rig move software. The two anchor handling vessels (AHVs), Pacific Sentinel and Pacific Conqueror were positioned using Thales' Tracs/Tug Display Vessel Tracking System (VTS). The Ocean Bounty was positioned at the Casino-1 location at 0145 on 25 August 2002.

Intended Casino-1 Location

The co-ordinates of the intended Casino-1 location were provided by Santos as follows:

Datum: GDA94

Latitude : 38° 47' 18.600" South
Longitude : 142° 42' 00.240" East

Projection: MGA Zone 54, CM 141° East

Easting : 647 653.72m
Northing : 5 705 320.87m

Rig Positioning Tolerance : ± 20m

Intended Rig Heading : 240.0° (T)

Final Differential GPS Drillstem Position at the Casino-1 Location

The final Differential GPS Position of the Ocean Bounty drillstem at the Casino-1 location was computed from data observed between 2111 and 2211 on 25 August 2002. The final position is as follows:

Datum: GDA94

Latitude : 38° 47' 18.502" South
Longitude : 142° 42' 00.287" East

Projection: MGA Zone 54, CM 141° East

Easting : 647 654.91m
Northing : 5 705 323.87m

The final Differential GPS drillstem position is 3.22m on a bearing of 20.6° (T) from the intended Casino-1 location.

Final Rig Heading : 237.7° (T)

All times quoted in this report are Eastern Standard Time (UTC + 10.0 hours).

1. RESULTS

1.1 FINAL DIFFERENTIAL GPS POSITION OF THE OCEAN BOUNTY DRILLSTEM AT THE CASINO-1 LOCATION

The Ocean Bounty was positioned at the Casino-1 location at 0145 on 25 August 2002.

The final Differential GPS position of the Ocean Bounty drillstem at the Casino-1 location, was determined using Thales' MultiFix 3 positioning software interfaced to a Trimble 4000 DS GPS receiver, with differential corrections being provided by Thales' SkyFix Spot Differential GPS services.

The final fix routine, within Thales' GNS2 rig move software version 2.35, was used to compute the final Differential GPS position of the drillstem at the Casino-1 location. A total of 720 position fixes were recorded at 5 second intervals between 2111 and 2211 on 25 August 2002.

Refer to Appendix A for the GNS2 final Differential GPS position printouts at the Casino-1 location. Associated graphs are located in Appendix B.

Differential corrections from the SkyFix Spot reference stations in Melbourne, Sydney and Adelaide were used in the MultiFix 3 software computations to derive the final Differential GPS position.

The final surface co-ordinates for the Casino-1 Ocean Bounty drillstem location, determined from Differential GPS observations are as follows:

Total number of samples used = 694.

The computed antenna position is as follows:

GPS Antenna Position

Datum: WGS84

Latitude	:	38° 47' 19.081" South	(S.D. 0.28m)
Longitude	:	142° 41' 59.093" East	(S.D. 0.41m)
Ellipsoidal Height	:	32.83m	(S.D. 0.62m)

Transforming the above WGS84 co-ordinates to GDA94 co-ordinates using the parameters in section 6, gives the following antenna co-ordinates:

GPS Antenna Position

Datum: GDA94

Latitude	:	38° 47' 19.081" South
Longitude	:	142° 41' 59.083" East
Ellipsoidal Height	:	32.83m

By applying a distance of 33.90m on a bearing of 58.2° (T) from the antenna position, the following drillstem co-ordinates are calculated:

Final Differential GPS Position of the Drillstem at the Casino-1 Location

Datum: GDA94

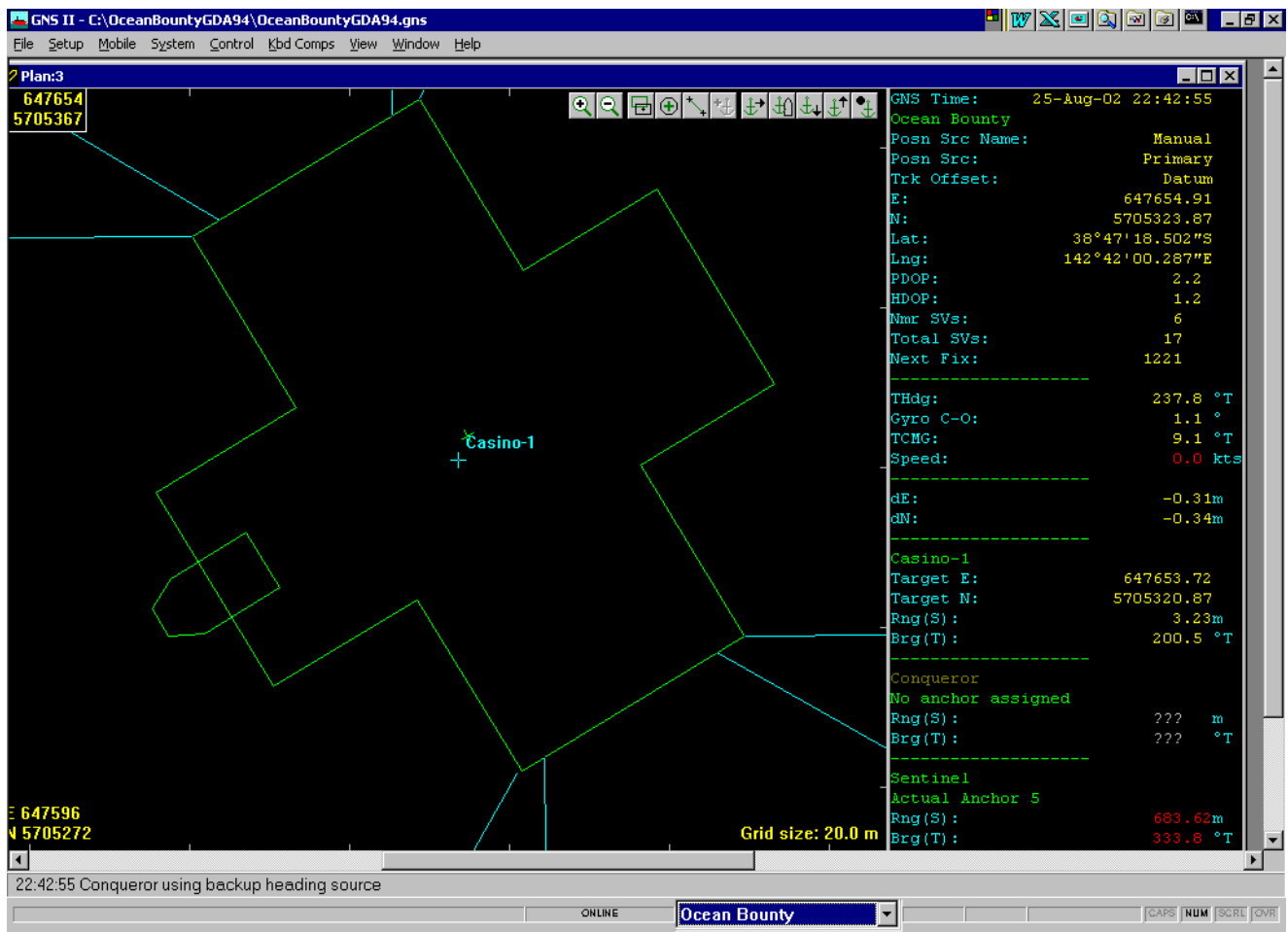
Latitude : 38° 47' 18.502" South
Longitude : 142° 42' 00.287" East

Projection: MGA Zone 54, CM 141° East

Easting : 647 654.91m
Northing : 5 705 323.87m

This final Differential GPS position of the drillstem is 3.22m on a bearing of 20.6° (T) from the intended Casino-1 location.

Final Rig Heading : 237.7° (T)



Skyfix Spot Differential GPS Position and Intended Position at the Casino-1 Location

1.2 OCEAN BOUNTY ANCHOR POSITIONS

Deployed anchor positions were derived from the computed anchor function within the GNS2 software. The function takes into account the length of anchor chain out, water depth, anchor tension and the wet weight of anchor chain to compute the deployed anchor positions. The final anchor positions are tabulated below:

Datum: AGD66 Projection: MGA Zone 54, CM 141° East

Anchor	Intended Anchor Position		Final Anchor Position	
	Easting (m)	Northing (m)	Easting (m)	Northing (m)
Anchor 1	647 662.44	5 704 070.47	647 676.46	5 704 152.47
Anchor 2	647 053.97	5 704 230.57	647 141.56	5 704 380.81
Anchor 3	646 409.67	5 705 346.53	646 400.89	5 705 342.76
Anchor 4	646 575.25	5 705 953.53	646 615.82	5 705 948.43
Anchor 5	647 644.96	5 706 571.13	647 669.46	5 706 469.04
Anchor 6	648 253.43	5 706 411.03	648 285.18	5 706 469.88
Anchor 7	648 897.73	5 705 295.07	648 767.16	5 705 306.09
Anchor 8	648 732.15	5 704 688.07	648 752.37	5 704 695.11

Difference of final anchor positions from the intended anchor positions.

Anchor	Dropped by	Easting (m)	Northings (m)
Anchor 1	P.Conqueror	-14.02	-82.00
Anchor 2	P.Conqueror	-87.59	-150.24
Anchor 3	P.Conqueror	+8.78	+3.77
Anchor 4	P.Sentinel	-40.57	+5.10
Anchor 5	P.Sentinel	-24.50	+102.09
Anchor 6	Ocean Bounty	-31.75	-58.85
Anchor 7	P.Conqueror	+130.57	-11.02
Anchor 8	P.Conqueror	-20.22	-7.04

Horizontal distance and bearing from the Ocean Bounty fairleads to the final anchor positions.

Anchor	Bearing (T)	Horizontal Distance (ft)
Anchor 1	178.3°	3712
Anchor 2	208.9°	3412
Anchor 3	268.6°	4001
Anchor 4	299.6°	3855
Anchor 5	0.2°	3627
Anchor 6	28.9°	4181
Anchor 7	88.6°	3536
Anchor 8	118.4°	4017

Ocean Bounty anchor details are located in Appendices C, D and E of this report.

2. SAFETY

A pre-rig move meeting was held at Thales' Perth offices on 16 August 2002. Thales personnel B. O'Brien, S. Bradley and L. Kercheval were present. During the meeting safety procedures were discussed including correct operation and handling of equipment. It was also confirmed that personnel had been issued with the appropriate safety equipment.

On arrival at the Ocean Bounty L. Kercheval attended a rig induction incorporating:

- Rig Safety
- Emergency Response
- General Management
- Rig Tour

All Thales personnel attended DOGC's daily pre-tour meetings. A weekly fire/abandon rig drill was held on 24 August 2002, in which Thales personnel participated

Should an incident occur, Thales' procedures require the incident to be recorded on the appropriate forms and Thales' QA & Safety Manager to be notified immediately. The QA & Safety Manager will initiate a full and thorough investigation with corrective action being introduced to prevent further incidents.

There were no incidents involving Thales personnel during this project. Thales personnel carried out their duties at all times in accordance with Company and Statutory Regulations and Guidelines.

When demobilising the Ocean Bounty, all equipment was packed securely in the designated area where it would not cause obstructions. All heavy or fragile boxes were clearly labelled to avoid accidents during handling.

A project debrief was also held at Thales' Perth offices on 27 August 2002. During the meeting the safety procedures that had been undertaken were discussed and reviewed. It was noted that all personnel had taken due care and as a result there had been no incidents.

3. SUMMARY

3.1 REQUIREMENTS

Thales GeoSolutions (Australasia) Limited were contracted by Santos Offshore Pty Ltd (Santos) to provide personnel and positioning equipment consisting of Thales' SkyFix/SkyFix Spot Differential GPS for the rig move of the Ocean Bounty to the Casino-1 location.

The project requirements were as follows:

- (a) Provide real-time positioning of the semi-submersible drilling rig Ocean Bounty and the anchor handling vessels Pacific Sentinel and Pacific Conqueror during the anchor recovery at the Sole-2 location.
- (b) Provide real-time positioning of the semi-submersible drilling rig Ocean Bounty and the anchor handling vessels Pacific Sentinel and Pacific Conqueror, during transit to the Casino-1 location.
- (c) Differential GPS Positioning of the Ocean Bounty at the Casino-1 location.
- (d) Real-time positioning (including GNS2 fixing/logging/streaming) of the Ocean Bounty, Pacific Sentinel and Pacific Conqueror during anchor deployment operations at the Casino-1 location.
- (e) Determine the final Differential GPS position of the Ocean Bounty drillstem at the Casino-1 location using a Multiple Reference Station Differential GPS solution.
- (f) The provision of a comprehensive positioning report containing the final Differential GPS position of the Ocean Bounty drillstem and anchors at the Casino-1 location.

The positioning requirements were as follows:

- (a) Intended Casino-1 location:

Datum: GDA94

Latitude : 38° 47' 18.600" South
Longitude : 142° 42' 00.240" East

Projection: MGA Zone 54, CM 141° East

Easting : 647 653.72m
Northing : 5 705 320.87m

- (b) Positioning tolerance : ± 20m
- (c) Intended rig heading : 240.0° (T)

3.2 SUMMARY OF EVENTS

All times quoted are in Eastern Standard Time (UTC + 10.0 hours).

19 August 2002

0950 Thales personal arrive Perth Domestic Airport (UTC +8).
1130 Thales personnel depart Perth for Melbourne (UTC +8).
1630 Thales personnel arrive Melbourne.
1730 Thales personnel checkin Holiday Inn Spencer St.
Standby

20 August 2002

0610 Thales personnel check out Holiday Inn Spencer St.
0630 Arrive Bristow Helicopters, Essendon Airport.
0730 Depart Essendon Airport for Ocean Bounty.
0900 Arrive Ocean Bounty.
0915 L. Kercheval begins Rig Induction. S. Bradley begins Equipment Mobilisation.
1115 L. Kercheval finished Rig Induction and Assists with Equipment Mobilisation.
1345 Meeting held for Rig Move Procedures.
0700 GDA94 configuration file running and check fixes at Sole-2 for MGA Zones 54, 55 complete.
AGD66 co-ordinates checked and no significant errors detected.
1845 Survey Equipment tested and running for anchor recovery (standing by).

21 August 2002

0001 Standby for anchor recovery.
0830 Commence anchor recovery. Deballasting completed.
0829 #1 PCC passed to Conqueror.
0838 #5 PCC passed to Sentinel.
1007 #1 PCC returned to rig.
1020 #8 PCC passed to Conqueror.
1039 #5 PCC returned to rig.
1055 #4 PCC to Sentinel.
1101 #4 Chase out.
1217 #8 PCC Returned to Rig.
1246 #4 PCC returned to rig, Sentinel preparing deck for towing.
1257 #6 PCC passed to Conqueror.
1402 Sentinel connected to Tow Bridle.
1510 Adjust rig position to keep Fairlead 6 clear of the wellhead.
1558 #6 PCC returned to rig.
1617 #3 PCC passed to Conqueror.
1826 #3 PCC returned to rig.
1835 Tracs frozen on Sentinel.

21 August 2002 (continued)

1901 Sentinel updating.
1905 #2 PCC passed to Conqueror.
1915 #2 Chase out.
2000 #7 recover by rig during winch in #2.
2108 #2 PCC returned to rig.
2152 Conqueror connected to port Tow Bridle.
2158 #7 Recovery continues by rig.
2210 #7 Off the bottom.
2230 #7 Racked.
2230 Tow commences to Casino-1 location.

22 August 2002

0001 Continue on tow to Casino-1 location.
1130 Tracs operational on vessels, computer hang ups cleared, Running on GDA94 Configuration File.
1530 ETA to Casino-1 26 August 0700.
2400 Tow continues 215 miles to go, speed down to 2.6kts due weather.

23 August 2002

0001 Continue on tow to Casino-1 location.
1015 Approx 3.5km West of waypoint Citadel, current ETA Casino-1: 0700 25/08/02.
2200 Approx 163km East of waypoint Otway, current ETA Casino-1: 1800 24/08/02.

24 August 2002

0001 Continue on tow to Casino-1 location.
1030 Crew attends Fire/Abandon rig drill.
1130 Crew attends Pre-Tow safety meeting followed by Clients Pre-Spud meeting.
1600 Continue on tow to Casino-1. Speed 5 knots 45 nautical miles to location.
1715 Complete Anchor assign test to vessels, Sentinel fluxgate input ok.

25 August 2002

0001 Continue on tow to Casino-1 location.
0041 Begin final run in.
0046 5km to intended Anchor 6.
0130 Anchor 6 lowered 100m from intended E:648271 N:5706445.
0145 Finish chain payout on Anchor 6, rig at location.
0233 Conqueror disconnected from tow bridle.
0312 #2 PCC passed to Conqueror.
0352 #2 Run out.
0400 #2 Lowered to bottom E: 647091 N: 5704293.

25 August 2002 (continued)

0428 #2 PCC passed back to Bounty.
0445 #3 PCC passed to Conqueror.
0510 #3 Run out.
0517 #3 Lowered to bottom E:646427 N:5705343.
0544 #3 PCC passed back to Bounty.
0600 #7 PCC passed to Conqueror.
0620 #7 Run out.
0626 #7 Lowered to bottom E:648842 N:5705307.
0658 #7 PCC passed to Bounty.
0708 #8 PCC passed to Conqueror.
0724 Sentinel disconnected from tow bridle.
0732 #8 Run out.
0739 #8 Lowered to bottom E:648749 N:5704697.
0800 #4 PCC passed to Sentinel.
0811 #8 passed back to Bounty.
0812 #4 Run out.
0821 #4 Lowered to bottom E:646626 N:5705943.
0828 #1 PCC passed to Conqueror.
0842 #4 PCC returned to Bounty.
0847 #1 Run out halted, anchor turned, winch back to rig.
0854 #5 PCC passed to Sentinel.
0920 #5 Run out.
0928 #5 Lowered to bottom E:647670 N:5706470.
0932 #1 Run out.
0938 #1 Lowered to bottom E:647677 N:704074.
0952 #5 PCC returned to Bounty.
1003 #1 PCC returned to Bounty.
1010 Begin pre-tensioning.
1115 Stop pre-tensioning and continue ballast rig.
1500 Ballast operations complete, anchor tensioning continues.
1601 Rig at 70' draft.
1621 Maneuvering onto location.
1724 Pre-tensioning complete, rig in location.
1800 Begin spud-in.
2111 Commence Final Position fix.
2211 Complete Final Fix.
2300 Demob equipment for storage onboard rig.

26 August 2002

0100 Complete De-mobilisation and storage of equipment.

0845 Thales personnel Depart Ocean Bounty for Essendon airport on Bristow helicopter.

1000 Arrive Essendon airport, transit to Melbourne domestic airport.

1030 Arrive Melbourne domestic airport, check in.

1150 Depart Melbourne domestic airport for Perth.

1400 Arrive Perth domestic airport. (UTC +8.00).

4. EQUIPMENT ANALYSIS

4.1 EQUIPMENT PERFORMANCE

During the positioning of the semi-submersible drilling rig Ocean Bounty from the Sole-2 location to the Casino-1 location, no significant problems were encountered with Thales' equipment or software.

5. EQUIPMENT CHECKS AND CALIBRATIONS

5.1 DIFFERENTIAL GPS CHECK FIX

A Differential GPS check fix of the drillstem position of the Ocean Bounty at the Sole-2 location was computed using SkyFix Spot Differential GPS. 100 fixes were taken. Appendix G contains the results of the check fix of the Ocean Bounty drillstem position at the Sole-2 location.

The published Differential GPS co-ordinates of the Ocean Bounty drillstem position at the Sole-2 location are as follows:

Datum : GDA94

Latitude : 38° 06' 12.987" South
Longitude : 149° 00' 33.451" East

Projection : MGA Zone 54, CM 141° East

Easting : 1 202 750.10m
Northing : 5 752 267.46m

The computed Differential GPS check fix co-ordinates of the Ocean Bounty drillstem position is as follows:

Datum : GDA94

Latitude : 38° 06' 13.083" South
Longitude : 149° 00' 33.511" East

Projection : MGA Zone 54, CM 141° East

Easting : 1 202 751.30m
Northing : 5 752 264.37m

The Differential GPS check fix of the Ocean Bounty drillstem position is 3.32m on a bearing of 153.8°(T) from the published Sole-2 location.

The client representative reviewed all geodetic parameters and antenna offsets at which time Thales' equipment was accepted as operating correctly.

5.2 GYROCOMPASS CALIBRATION

The S.G. Brown 1000S gyrocompass installed onboard the Ocean Bounty was calibrated on 24 August 2002 using a marine sextant. A series of measurements of the horizontal angle between the centreline of the rig and the sun was observed while accurately recording local time at the instant of each observation. The gyrocompass heading was simultaneously recorded within GNS2 data files.

Thales' Solar Observation software was used to determine the azimuth of the sun for each observation. The observed horizontal angle was applied to the sun's azimuth to determine the true heading of the rig. Each Computed (C) true heading was then compared with the Observed (O) gyrocompass heading to determine the Computed minus Observed (C-O) value for the gyrocompass. The C-O value in GNS2 was set to zero prior to conducting the gyrocompass calibration.

Observation Date : 24 August 2002

Average Local Time (HMS)	Average Horizontal Angle (DMS)	Azimuth Sun (DMS)	Azimuth RO (DMS)	Calculated (C) True Heading (D.D)	Observed (O) True Heading (D.D)	C-O (D.D)
07:13:00	163° 03' 42"	073° 51' 19"	270° 47' 37"	270.79°	270.30°	0.49°
07:15:00	164° 11' 18"	073° 32' 08"	269° 20' 50"	269.35°	268.30°	1.05°
07:16:00	165° 49' 30"	073° 22' 32"	267° 33' 02"	267.55°	266.30°	1.25°
07:17:00	166° 09' 00"	073° 12' 55"	267° 03' 55"	267.07°	266.20°	0.87°
07:18:00	165° 58' 24"	073° 03' 17"	267° 04' 53"	267.08°	265.80°	1.28°
07:20:00	166° 21' 24"	072° 43' 59"	266° 22' 35"	266.38°	264.70°	1.68°

Mean C-O = +1.1°

The mean C-O of +1.1° was input into the GNS2 navigation software. See Appendix F for the gyrocompass calibration results.

6. GEODETIC PARAMETERS

Co-ordinates listed in this report are referenced to the Geocentric Datum of Australia 1994 (GDA94). The Global Positioning System (GPS) is referenced to the World Geodetic System 1984 (WGS84).

6.1 DATUMS

Datum : **GDA94**
Spheroid : Geodetic Reference System 1980 (GRS80)
Semi-major Axis (a) : 6 378 137.000m
Semi-minor Axis (b) : 6 356 752.314m
Eccentricity Squared (e^2) : 0.006 694 380
Flattening ($1/f$) : 298.257 222 101

Datum : **ITRF92 (Epoch 1994.0) WGS84 G730**
Spheroid : WGS84
Semi-major Axis (a) : 6 378 137.000m
Semi-minor Axis (b) : 6 356 752.314m
Eccentricity Squared (e^2) : 0.006 694 380
Flattening ($1/f$) : 298.257 223 563

The GRS80 and WGS84 ellipsoids have a very small difference in the inverse flattening. On a UTM projection this difference is at the centimetre level. WGS84 and GDA94 can be considered the same for most practical applications.

6.2 PROJECTION

Projection Name : **Map Grid of Australia 1994 (MGA94)**
Projection Type : Universal Transverse Mercator (UTM)
MGA Zone : Zone 54
Central Meridian (CM) : 141° East
Scale factor on the CM : 0.9996
False Easting : 500 000m
False Northing : 10 000 000m
Latitude of Origin : 0° (Equator)
Unit of Measure : International Metre

6.3 DATUM TRANSFORMATIONS

The following 7-parameter datum transformation was used by the GNS2 software to convert WGS84 co-ordinates to GDA94 co-ordinates:

Dx	=	0m
Dy	=	0m
Dz	=	0m
Rx	=	0"
Ry	=	0"
Rz	=	0"
Scale	=	0.0 p.p.m.

The sign convention in Thales' GNS2 survey software used is that used by the US Department of Defense where a positive rotation about the Z axis is an anti-clockwise movement of the X and Y axes (when viewed from the North Pole looking towards the center of the Earth).

7. EQUIPMENT DESCRIPTIONS

7.1 GNS2

GNS2 (General Navigation System) is Thales' third generation of On-line Navigation Survey Control software. It has been written by Thales' Software Support Group in C++ for operation under Windows® 95 or Windows® 98 or Windows® NT. GNS2 adheres to the operation and dialogue conventions of the Microsoft Windows® environment. Attention has been paid to preserving a consistent operator interface, while at the same time modifying individual dialogue boxes to reflect specific logical circumstances. It has been designed for operation with a pointing device such as a mouse or a tracker ball but control can still be effected in case of the absence or failure of such a device.

The program has the ability to accommodate a large number and variety of mobiles, including surface vessels/ships, anchor handling vessels, tugs, barges, ROVs, towfish, aircraft, vehicles and submersibles etc. The only limiting factors on the number of mobiles that can be tracked in GNS2 are the number of input/output serial communication ports available on the computer and the computer's memory.

For the input/output (I/O) of navigation and sensor data, GNS2 employs intelligent multi-channel serial communications boards to expand a computer's serial input/output facility. Currently GNS2 can support up to 26 communication (Comm) ports, which would consist of the computer's two internal Comm ports and three 8 channel serial communications boards fitted in the computer's internal expansion slots.

If Least Squares Computations (LSCs) are employed for positional calculations, whether two-dimensional (2D), three-dimensional (3D) or altitude aided, GNS2 uses standard iteration routines for the minimisation of residuals using 'variation of co-ordinate' algorithms. The number of positioning systems/computations that GNS2 can handle, is only limited by the number of I/O serial communication ports available on the computer and the computer's memory.

All input observables are accepted on interrupt. Screen updates and other internal triggers are paced to once per second but time critical activities occur at discrete moments as required.

The GNS2 application workspace can extend beyond the display area, which is normally restricted to a single monitor connected to the computer. By using one or more multiple VGA cards, an enlarged display area can spread across multiple monitors.

Currently GNS2 can display 14 different types of view windows. Several copies of the same type of view window can be invoked at any one time. This may be required when several mobiles are being tracked and a Plan, Helmsman's or Bullseye display are required for each one or when the data on several Comm ports are to be viewed simultaneously. Each window can be individually sized to optimise use of the available display area.

GNS2 can be operated in 2 modes; GNS2 Master or GNS2 Remote. GNS2 Master has the full functionality of GNS2. GNS2 Remote is run on a separate computer and allows independent configuration of the graphics display and its associated numeric information. GNS2 Remote is operated on Anchor Handling Vessels or anywhere where positional information is required. (eg. Vessel Masters, ROV Pilots, Winch Control Stations). The link between GNS2 Master and GNS2 Remote can be via a telemetry link or hard wired cable.

7.2 GLOBAL POSITIONING SYSTEM (GPS)

System Description

The NAVSTAR GPS (Navigational Satellite Timing and Ranging Global Positioning System) is a USA Military all-weather, space-based positioning system that transmits signals from a constellation of satellites orbiting the Earth. It is capable of providing suitably equipped users worldwide with accurate three-dimensional positions on, or near, the Earth's surface. The accuracy of these determined positions can vary from a few millimetres to several 10's of metres depending on the GPS receiver and on the method of data acquisition and processing. System design consists of three integrated parts: the Ground Control Segment, the Space Segment and the User Segment.

The operational space segment consists of 24 production satellites and 3 active spares; the term Space Vehicle (SV) is used as a synonym for satellite. The satellites are in high orbits, at approximately 20,200km, having an orbit period of 12 hours. They are arranged in 6 orbital planes, inclined at 55 degrees with near circular orbits. The configuration provides complete 4-satellite (3D) coverage worldwide.

GPS Observations

There are two important types of GPS observations (observables): Pseudo-range and Carrier Phase. Carrier phase is sometimes also referred to as carrier beat phase. Pseudo-range techniques are generally used for navigation. In high-precision baseline surveying the carrier phase is used. Although the (undifferenced) phase can be used directly, it has become common practice, at least in surveying applications, to process certain linear combinations of the original carrier phase observations (double differences and triple differences).

Pseudo-ranges

The pseudo-range is a measure of the distance between the satellite and the receiver at the epochs of transmission and reception of the signals. The transit time of the signals is measured by comparing (correlating) identical pseudo-random noise (PRN) codes generated by the satellite and by the receiver. A code-tracking loop within the receiver shifts the internal replica of the PRN code in time until maximum correlation occurs. The codes generated at the receiver are derived from the receiver's own clock, and the codes of the satellite transmissions are generated by the satellite system of clocks. It follows that unavoidable timing errors in both the satellite and the receiver clock will cause the measured quantity (pseudo-range) to differ from the geometric distance.

Where instantaneous positions are required, pseudo-range is the preferred observable. Given the satellite ephemeris (i.e. the position of the satellite at the epoch of transmission), there are seven unknowns: two clock errors, three receiver co-ordinates and the ionospheric and tropospheric delays. The effect of the satellite clock error is negligible for the typical navigation solution, particularly considering that the time errors are indistinguishable from the ionospheric and tropospheric delays. The satellite clocks are constantly monitored and synchronised with GPS time as maintained by the control centre. Actual offsets of the satellite clocks are approximated by polynomials in time and transmitted as part of the navigation message to the user for the correction of the measured pseudo-ranges. The ionospheric and tropospheric delays can be computed on the basis of ionospheric and tropospheric models, thus there are four unknowns left X, Y, Z and receiver clock error. These can be determined from four pseudo-ranges measured simultaneously to four GPS satellites.

Carrier Phase

The phase observable is the difference between the phase of the carrier signal of the satellite, measured at the receiver, and the phase of the local oscillator within the receiver at the epoch of measurement. This can be regarded as a biased range measurement of the satellite-receiver distance with the integer number of carrier waves being unknown. The wavelength of the L1 carrier is about 19cm. Because of the fraction of the carrier phase is measured, the term "interferometry" is often used to describe carrier phase techniques.

7.3 SKYFIX/SKYFIX SPOT DIFFERENTIAL GPS (DGPS)

Differential GPS (DGPS)

GPS is primarily a USA Defence space-based positioning system capable of operating worldwide and in all weather conditions. The USA Military can degrade the accuracy of GPS with the use of Selective Availability (SA) to control the accuracy of Pseudo-range measurements. Essentially, the user is given a false Pseudo-range for each satellite so that the resulting measurement is in error by a controlled amount. On the 1 May 2000 SA was discontinued conditionally and coincided with the successful demonstration of the ability to selectively deny GPS signals on a regional basis. SA has been set to zero and can be reinstated during periods of heightened global tension.

GPS signals are affected by several sources of positional bias, the largest of which was SA. The remaining biases of the ionosphere, the troposphere, time, satellite ephemeris and inherent receiver noise also give rise to substantial bias of position.

Differential GPS is a means by which the civil user can improve the accuracy and quality of GPS to the 1-3 metre level. It requires a receiver be located at a precisely known point from which pseudo-range corrections for each satellite can be determined and monitored. These pseudo-range corrections are then communicated by means of a telecommunications link to users at unknown locations. In the relative mode, most of the important systematic errors common to the known station and at the unknown location cancel out to improve the accuracy of the computed position.

SkyFix/SkyFix Spot Differential

SkyFix

Thales GeoSolutions (Australasia) Limited introduced its SkyFix Differential GPS System in Australia in February 1991, using the Inmarsat Pacific and Indian Ocean marine communications satellites as the differential data broadcast link. Extensive performance trials and projects undertaken to date have shown SkyFix to meet the best industry expectations in terms of quality of service and accuracy.

Satellite communications systems, particularly at the Inmarsat L-band frequencies of 1.5 GHz are reliable and free of the interference associated with the crowded MF/HF bands. This high data integrity gives users confidence that the corrections will be continuously received without interference.

The SkyFix Australian network comprises of reference stations at Dampier, Broome, Perth, Adelaide, Melbourne, Sydney, Cairns and Darwin.

SkyFix Spot

The SkyFix Spot Differential GPS System was launched in Australia in December 1994, using the OPTUS high powered focused communications satellite as the differential data broadcast link. Projects undertaken to date have shown SkyFix Spot to meet the industry expectations in terms of quality of service and accuracy.

The SkyFix Spot system has a link capacity of 1200 bits per second, similar to the SkyFix system but because it is only transmitting corrections from the Australian network an update rate of better than five seconds is achieved.

The OPTUS satellite uses the L-band frequencies of 1.5586 GHz and are very reliable and free of interference avoiding data loss associated with the crowded MF/HF bands.

The SkyFix Spot network comprises of reference stations at Dampier, Broome, Perth, Adelaide, Melbourne, Sydney, Cairns, Darwin, Alice Springs and also Ujung Pandang and Jakarta in Indonesia and Wellington, New Zealand.

The differential corrections generated at each reference station are brought via landline links to the data hub and control centre in Singapore, where the system is monitored for performance and quality. From there, a composite message containing full RTCM 104 version 2 formatted data from all reference stations are sent via dual redundant links to Satellite Earth Stations at Sentosa Island, Singapore, O.T.C. Perth, Western Australia and OPTUS, Perth, Western Australia, for uplink and broadcast over the Inmarsat Pacific and Indian Ocean Region satellites and the OPTUS Satellite.

The SkyFix/SkyFix Spot system includes a 24 hour monitoring facility to ensure the validity of data received at the control centre from the Differential GPS reference stations, and that the same data are received over the SkyFix/SkyFix Spot satellite data link.

7.4 TRIMBLE SERIES 4000 GPS RECEIVER

The Trimble Series 4000 GPS receiver is designed for moderate precision static and dynamic positioning applications. The GPS receiver provides time and three-dimensional station co-ordinates at a once-per-second update rate.

The receiver receives the civilian coded signal (C/A) from the GPS NAVSTAR satellites. The receiver automatically acquires and simultaneously tracks GPS satellites and precisely measures code phase and computes position and velocity.

Latitude, longitude and height values are output on the World Geodetic System (WGS84) Earth-centred, Earth-fixed co-ordinate system.

The receiver is designed to measure the following observables:

- Coarse/Acquisition (C/A) code Pseudo-ranges
- Rate of change of Pseudo-range
- Integrated Carrier

C/A code correlation techniques measure the propagation time of the signal from the satellite to the antenna. Latitude, longitude, height and time can be determined from measurements made from at least 4 satellites, by a process similar to triangulation.

To determine speed and heading, the receiver calculates the rate of change of Range (the range-rate) by measuring the Doppler shift of the carrier.

It is capable of receiving and processing differential corrections from other reference sources using the standard format of the Radio Technical Commission for Maritime Services, Special Committee 104 (RTCM SC-104), Version 1.0 or 2.0 protocols.

The Trimble Series 4000 GPS receiver has several options available, including internal data logging memory, event marker logging etc. and therefore may be used alone or as part of a more extensive navigation system.

7.5 MULTIFIX 3

7.5.1 System Overview

MultiFix 3 is Thales GeoSolutions third generation *multiple reference station* differential GPS (DGPS) real time position computation and quality control program. It is an integral part of the Thales SkyFix Premier service but can also be used with the standard SkyFix service. MultiFix 3 has more advanced features than its predecessor, MultiFix 2, including being able to use dual frequency receivers and form real time 'Iono-Free DGPS position solutions'.

MultiFix 3 is one of a series of programs available under the group name Zero, which includes other tools and utilities with a similar user interface and layout structure, like static and dynamic position comparison programs, a correction monitor program, a terminal program and a replay utility.

MultiFix 3 takes in Almanac, Ephemeris and Raw Code and Carrier measurements from a single or dual frequency GPS receiver (or, for replay, from logged files). It takes in RTCM SC104 Version 2 differential correction messages from one or more RTCM correction delivery systems. It also takes in RTCM Type 15 or Thales Proprietary RTCM Type 55 Ionospheric range corrections generated at selected SkyFix Premier reference stations and broadcast via the Thales global network of high (SkyFix Spot-Optus) and low (SkyFix-Inmarsat) power satellite based L-Band beams.

Key features of the program are:

- No limit on the number of RTCM correction delivery systems (data links)
- No limit on the number of RTCM differential reference stations
- No limit on the number of computations (solutions)
- Each computation can employ corrections from any combination of reference stations available
- Computations are weighted least squares with statistical evaluation based upon the UKOOA recommendations
- No limit on the number of outputs
- No limit on the number of view windows
- View windows can be customised
- Extra NMEA outputs can be defined
- TCP/IP communication via sockets for GPS, RTCM and position data transfer between networked computers

MultiFix 3 has been designed in a modular fashion such that data is passed between modules as if over a computer network. The core module MultiFix 3 performs the computation of position. Additional modules are available and more will be made available in the future. While a single computer can be used, the various modules will equally be able to be run on different computers, provided there is a network interconnection.

MultiFix 3 uses the EGM96 geoid/spheroid separation model.

The RTCM corrections that are generated at reference stations are contaminated by a variety of error components, one of which is ionospheric delay. The ionospheric delay is currently more variable because of greater sun spot activity. MultiFix 2 and MultiFix 3's standard computation uses the Klobuchar ionospheric delay model. This model is updated periodically but is not responsive to the current short-term variability. MultiFix 3 has an additional calculation option when working with dual frequency receivers and in receipt of Type 15 or 55 RTCM messages. With dual frequency receivers, estimates can be made of the ionospheric delay by examining the differences between the measurements from the two frequencies. If the same procedure for estimation of ionospheric delay is performed at the reference stations and on the mobile, both the RTCM corrections and the pseudo-ranges can have the ionospheric delay removed, effectively providing an Iono-Free DGPS position solution.

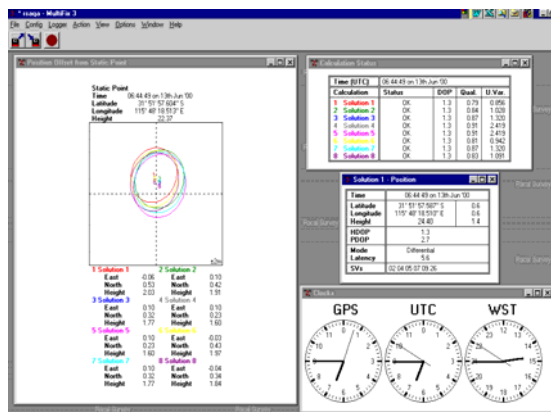
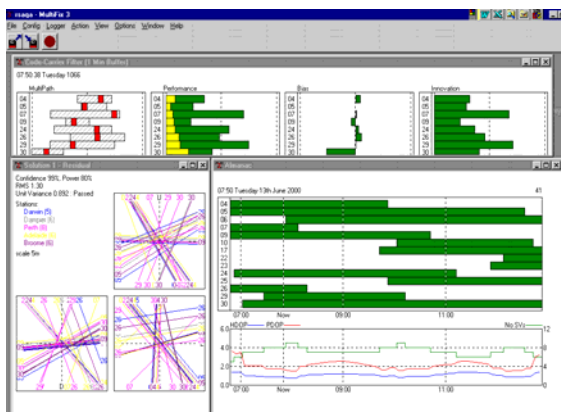
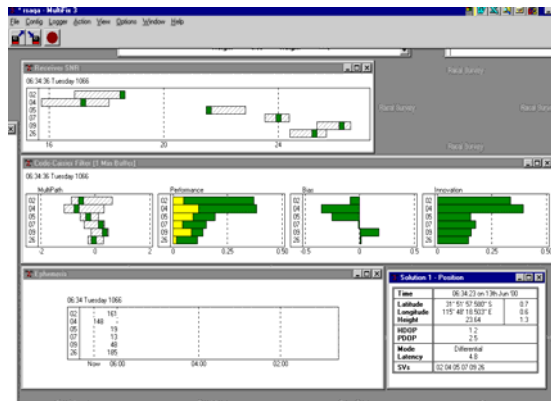
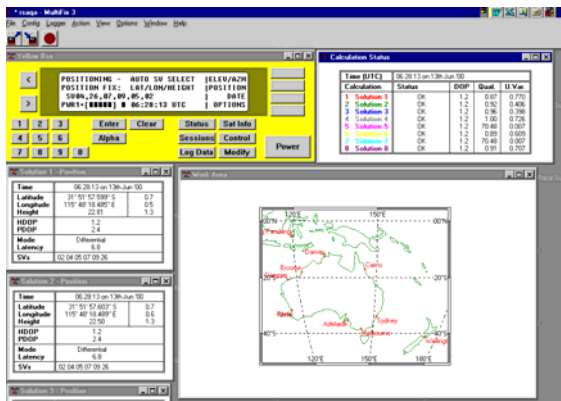
7.5.2 Hardware Requirements

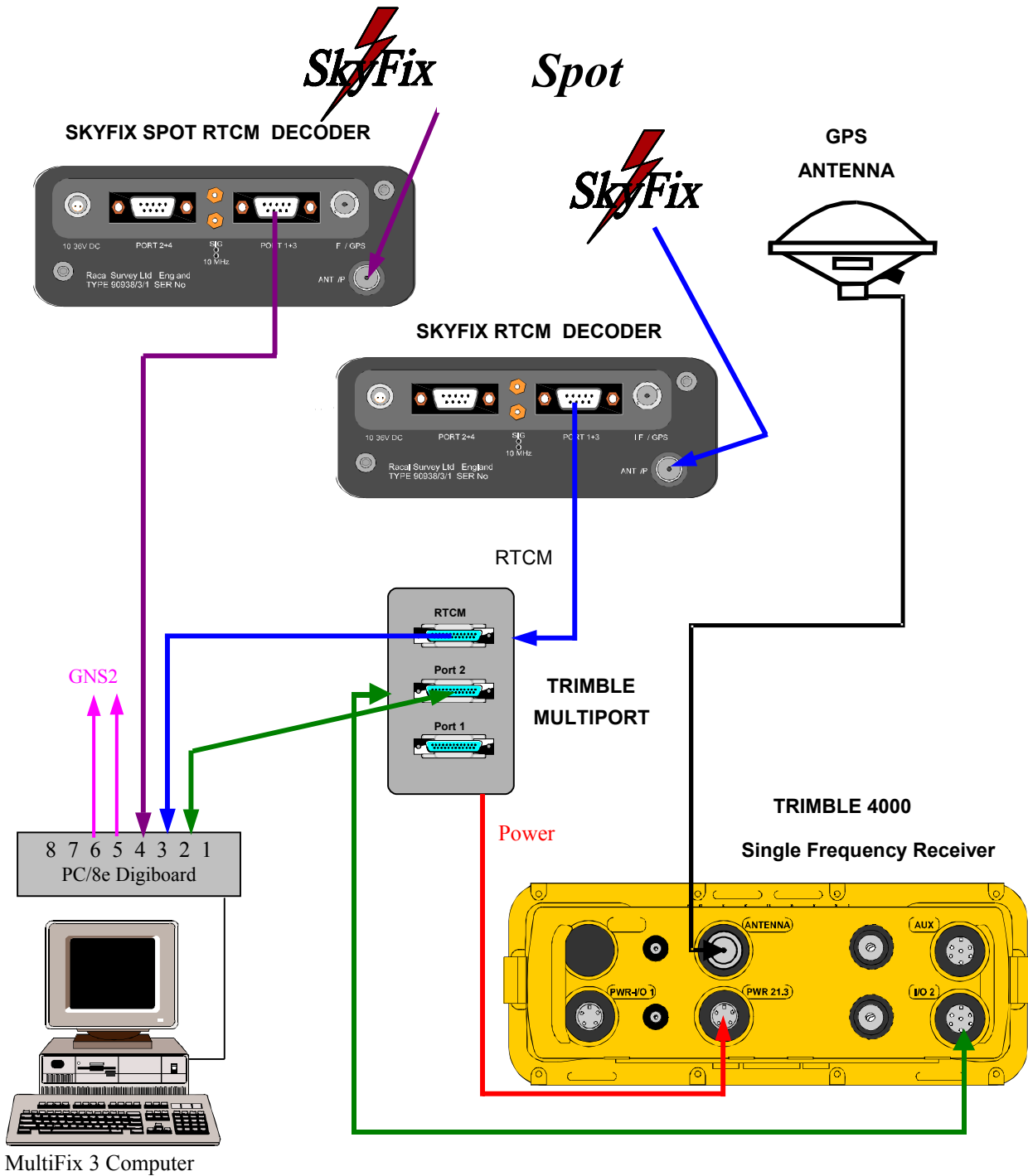
Optimum requirements for MultiFix 3 are:

- 350 MHz Pentium II computer
- 32 Mb RAM
- Windows 95, 98 or NT operating system
- Graphics resolution of at least 800 x 600 pixels
- Intelligent multi-port serial I/O board

7.5.3 Positioning and Quality Control Displays

MultiFix 3 has a large number of features to accommodate the user requirements of highly accurate positions with quality control (QC) information and outputs in different formats. MultiFix 3 runs in a Windows environment, which allows the user to design a preferred screen layout by opening, sizing and placing the numerous displays that are available. Examples of the various displays can be found below.





Typical MultiFix 3 Interconnection With Trimble 4000 GPS Receiver

7.6 TRACS TDMA

Tracs TDMA (Time Division Multiple Access) is a high speed, intelligent network radio datalink which can operate in the VHF or UHF bands to provide an addressable network with integrated position reporting from an integrated/internal GPS receiver. The standard Tracs units are fitted with a Trimble SK8 GPS receiver, or a Trimble DSM GPS receiver.

Each unit in the network is assigned a unique address (1 to 255) enabling messages can be specifically addressed to that unit. A broadcast address (0) is provided to allow multiple units to receive a message, for example RTCM corrections. The system manages the data bandwidth by dividing it into timeslots synchronised by means of GPS 1PPS (pulse per second) timing pulse from an internal GPS receiver.

The standard Tracs system has a frequency band of 455.0MHz to 465.0MHz (frequency module 53R). The channel frequencies can be selected in 25kHz steps and the units are equipped with the facility to pre-store 10 selected frequencies within the 10MHz band. Units for use in Australia are fitted with 471MHz radios.

There are four types of messages that can be transmitted in a Tracs network.

- Position Reports automatically generated from the SK8 or DSM GPS receiver as a NMEA type or Raw Pseudo Range information.
- Transparent messages used to send unformatted data across the network eg. RTCM corrections.
- Open messages used to provide a general-purpose data link between units. This format is used by GNS to transfer information.
- Configuration messages used for remote configuration of units using the Destination ID to identify which unit is being configured.

7.7 S.G. BROWN 1000S GYROCOMPASS

The S.G. Brown 1000S Gyrocompass is a compact, simple-to-operate master heading reference instrument employing the effect of gravity and the earth's rotation to produce a True North reference. This reference may be read off the compass card or from a digital display and can be interfaced to the GNS2 navigation system.

The normal starting cycle of the instrument is fully automatic and is initiated when the system power supply is switched on. A fail safe control circuit is incorporated which ensures that the compass is not damaged after a power failure when power is restored; the compass will restart automatically and carry out its normal settling program.

8. PERSONNEL AND EQUIPMENT

8.1 PERSONNEL

The following personnel were employed on this project:

For : Thales GeoSolutions (Australasia) Limited

L. Kercheval	:	Surveyor/Team Leader
S. Bradley	:	Senior Engineer

For : Santos Offshore Pty Ltd

K. O'Halloran	:	Client Representative
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8.2 EQUIPMENT

The following equipment was provided for this project:

Ocean Bounty

2 x Compaq Computer, inc monitor, keyboard (for GNS2 / MultiFix 3)

1 x Thales SkyFix Mini Rig Portable

3 x SkyFix/SkyFix Spot MK II Receivers

1 x Compaq Computer, inc. monitor, keyboard (for GNS2 Remote)

1 x S.G. Brown 1000S gyrocompass

1 x Uninterruptable Power Supply (UPS)

2 x Epson LX300 Printers

2 x SkyFix Spot Whip Antennae

1 x SkyFix Spot Antenna 90962/3/1

2 x Trimble 4000DS GPS Receivers

2 x SkyFix Spot Antennae

2 x Tracs Bricks

2 x Tracs Multiplexer

2 x UHF Antennae

1 x Marine Sextant

Pacific Sentinel and Pacific Conqueror (Each)

1 x Tracs Geopod

1 x Fluxgate compasses

1 x Tracs Box and Interface Box

1 x Compaq computer, inc. monitor, keyboard (GNS2 Tug Display)

1 x Uninterruptable Power Supply (UPS)

plus all associated software (GNS 2 version 2.35, MultiFix 3 version 1.24) c/w cables, consumables, software dongles etc.

9. DISTRIBUTION

Copies of this report have been distributed as follows:

Santos Offshore Pty Ltd : 3 copies
Attn: Mr Ole Moller

Thales GeoSolutions (Australasia) Limited : 1 copy



Lee Kercheval
Surveyor



Anthony Kerr
Survey Manager

APPENDIX A

**FINAL DIFFERENTIAL GPS DRILLSTEM POSITION AT
CASINO-1**

FINAL POSITION FIX – DIFFERENTIAL GPS

Job Description: Ocean Bounty to Casino-1
Job Number: 3429A3
Thales Surveyor: L.Kercheval
Client: Santos
Client Representative:

Sampling started: 25 Aug 2002 21:11:35
Sampling end: 25 Aug 2002 22:11:30

Ocean Bounty

Intended datum location

Datum: GDA94
Latitude: 38°47'18.600"S Longitude: 142°42'00.240"E
Projection: MGA94 Zone 54
Easting: 647653.72 m Northing: 5705320.87 m

Final Antenna Position (T1 Thales UKOOA):

Sample size: 694 fixes used out of a total of 720.

Antenna offset

X: 0.28m Y: 33.90m Z: 0.00m
Range: 33.90m Rel Brg from datum to antenna: 0.5°

Datum: WGS 84
Latitude: 38°47'19.081"S Longitude: 142°41'59.093"E Spheroidal Ht: 32.83m
Datum: GDA94
Latitude: 38°47'19.081"S Longitude: 142°41'59.093"E Spheroidal Ht: 32.83m
Projection: MGA94 Zone 54
Easting: 647625.77 Northing: 5705306.55 Spheroidal Ht: 32.83m

Standard deviations

Long or E: 0.41m
Lat or N: 0.28m
Height: 0.62m
Position: 0.49m

Final Datum Position

Datum: GDA94
Latitude: 38°47'18.502"S Longitude: 142°42'00.287"E

Projection: MGA94 Zone 54
Easting: 647654.91 m Northing: 5705323.87 m

Mean corrected heading: 237.7°T
SD heading: 0.1°T
Intended heading: 240.0°T
Difference from intended: -2.3°
Gyro C-O: 1.1°
Convergence: -1.07°

Final Datum Position is 3.22m on a bearing of 20.6°T (21.7°G) from the intended location.

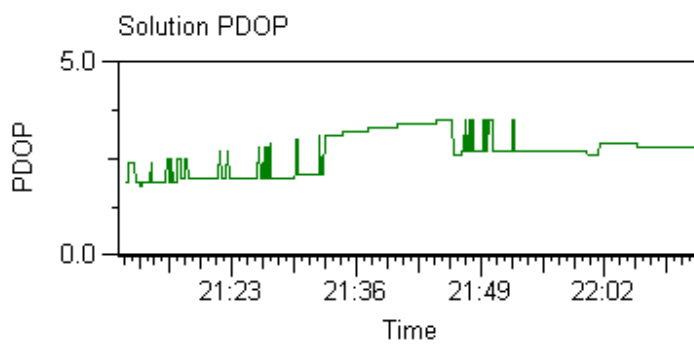
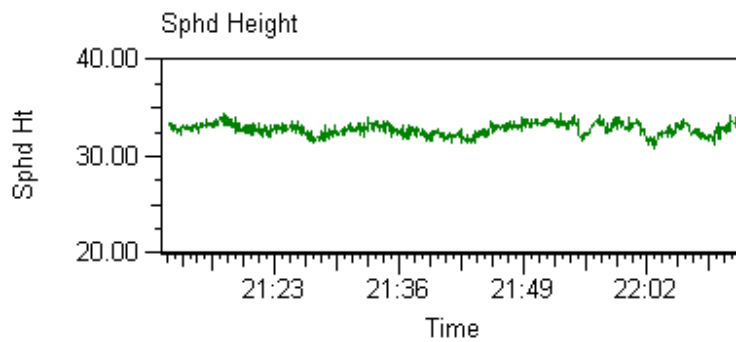
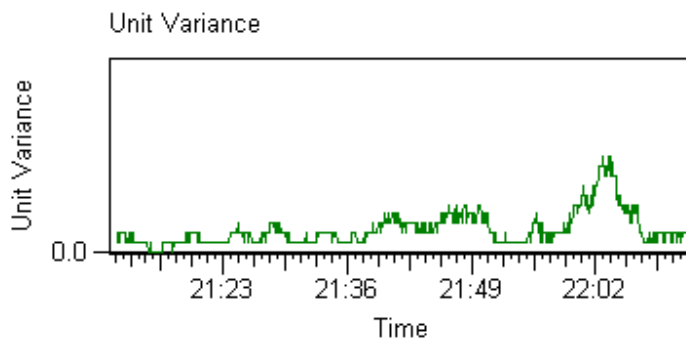
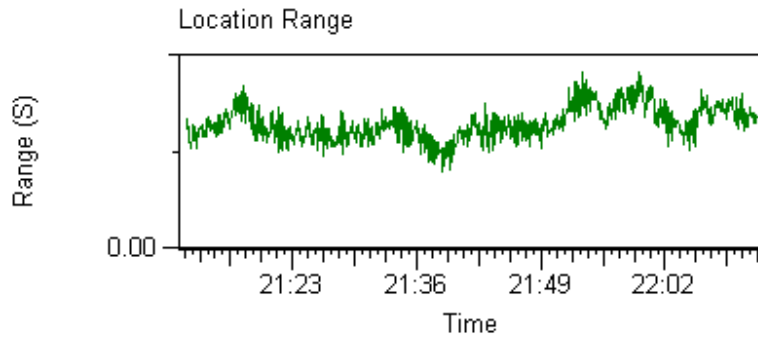
APPENDIX B

GNS2 STATIC DIFFERENTIAL GPS FIX GRAPHS

THALES Thales GeoSolutions (Australasia) Limited

Project: Casino-1 Positioning Report of the Ocean Bounty

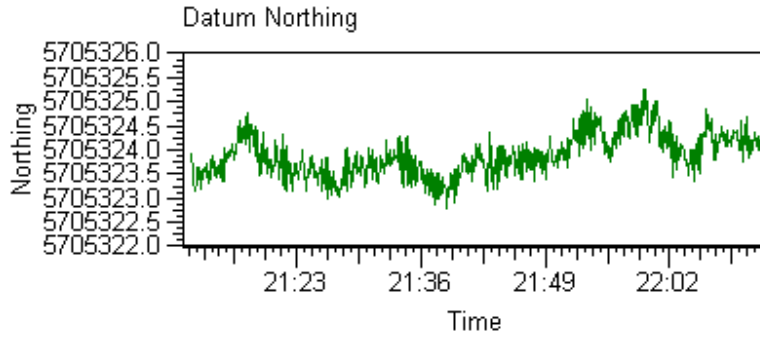
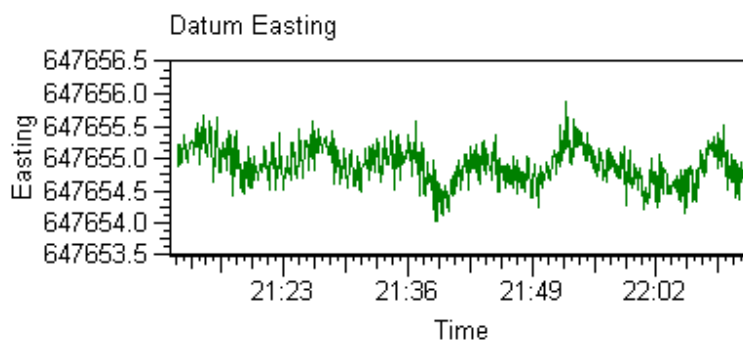
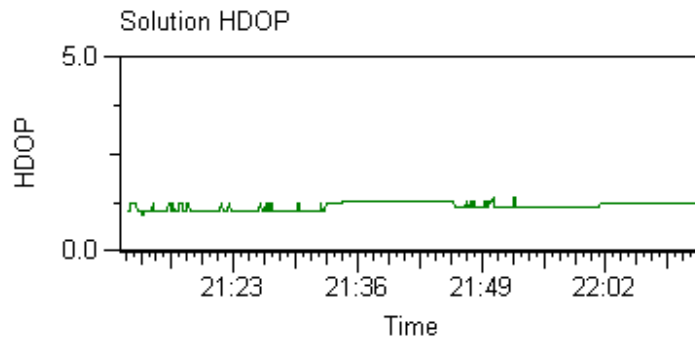
Client: Santos Australia



THALES Thales GeoSolutions (Australasia) Limited

Project: Casino-1 Positioning Report of the Ocean Bounty

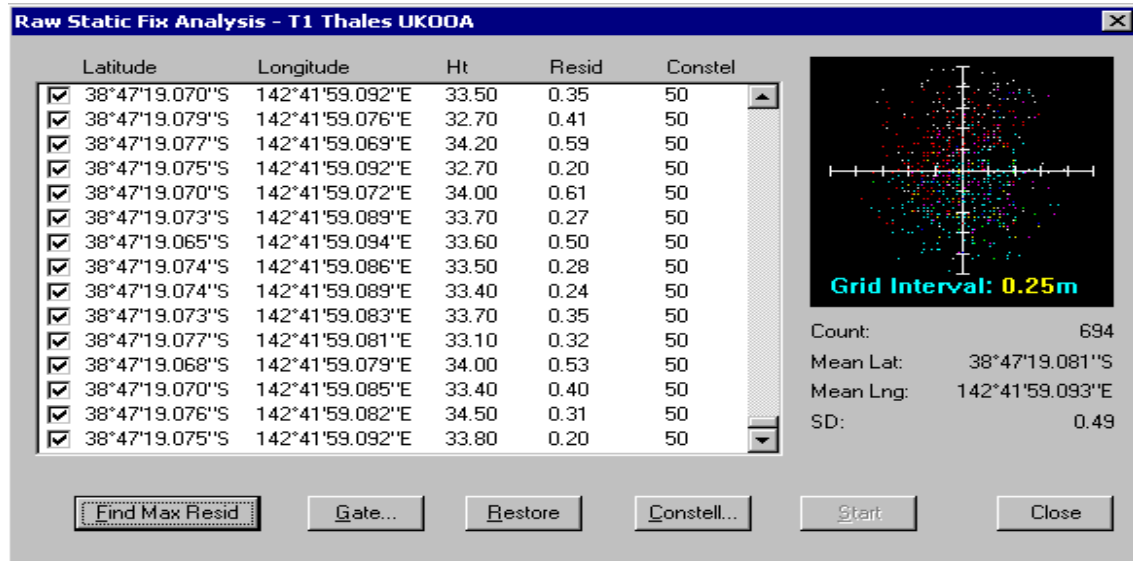
Client: Santos Australia



THALES Thales GeoSolutions (Australasia) Limited

Project: Casino-1 Positioning Report of the Ocean Bounty

Client: Santos Australia



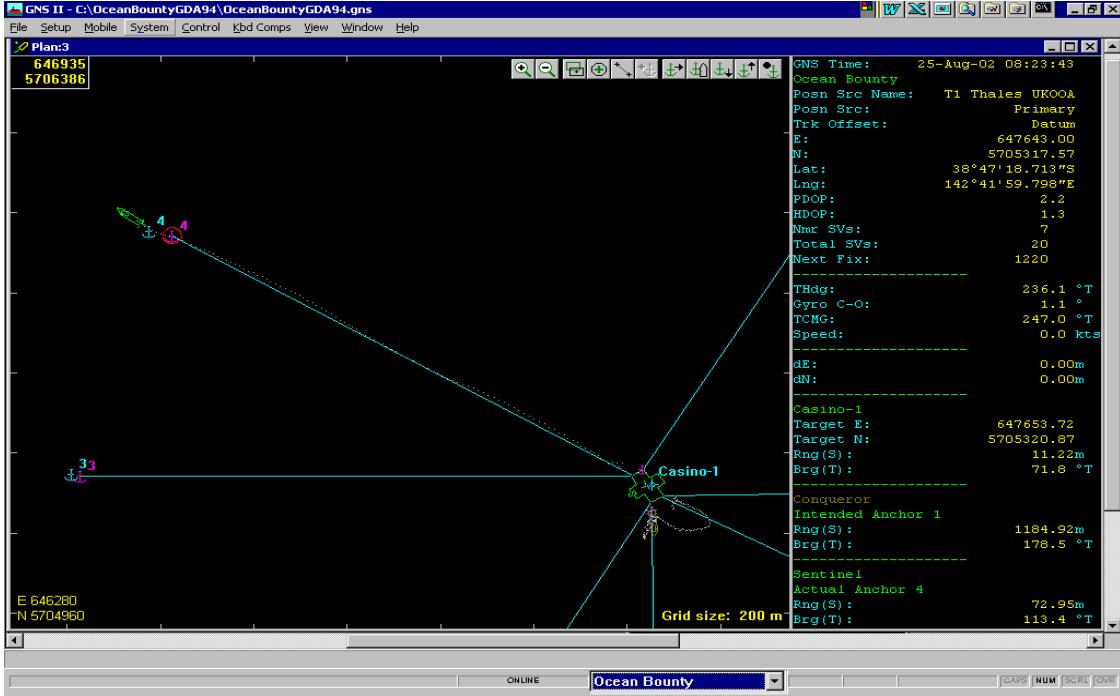
APPENDIX C

RUN LINE GRAPHICS OF ANCHOR HANDLING VESSELS

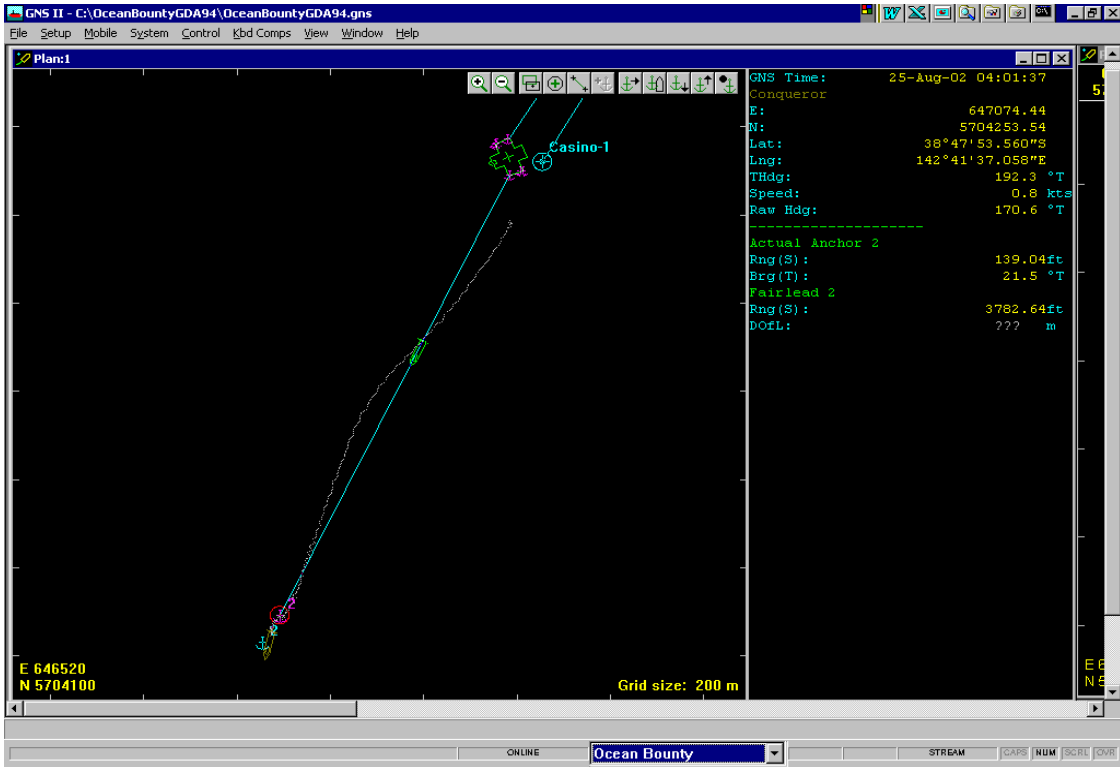
THALES Thales GeoSolutions (Australasia) Limited

Project: Casino-1 Positioning Report of the Ocean Bounty
Client: Santos Australia

Anchor 1 – Pacific Conqueror



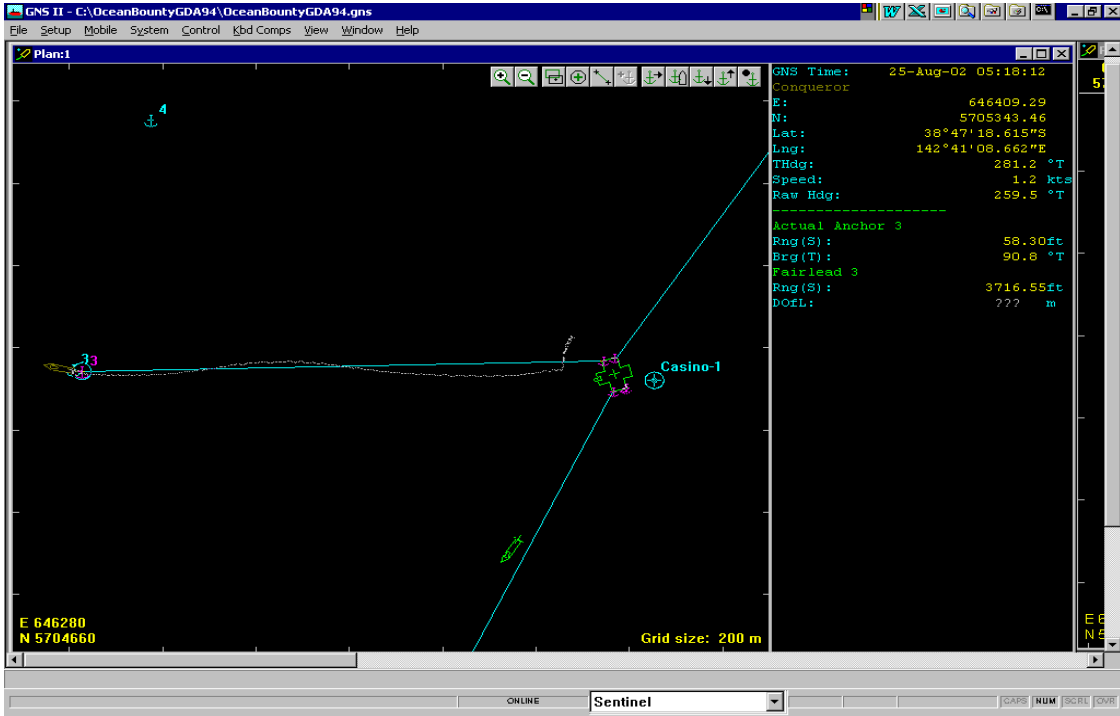
Anchor 2 – Pacific Conqueror



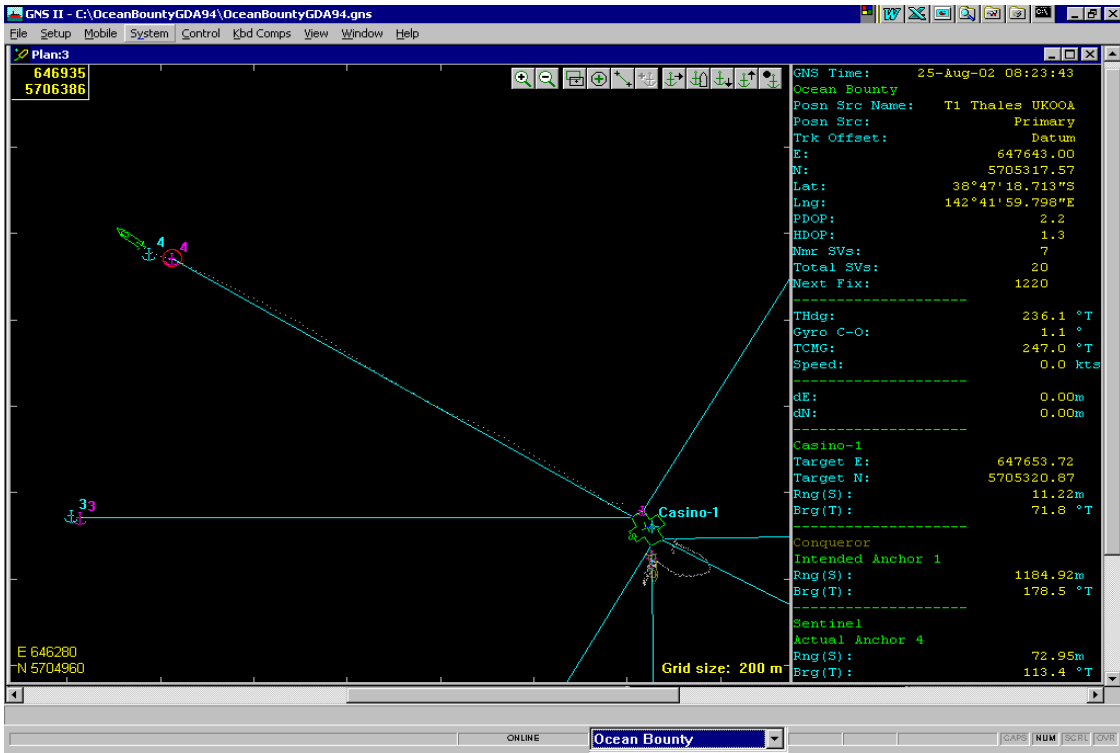
THALES Thales GeoSolutions (Australasia) Limited

Project: Casino-1 Positioning Report of the Ocean Bounty
 Client: Santos Australia

Anchor 3 – Pacific Conquerer



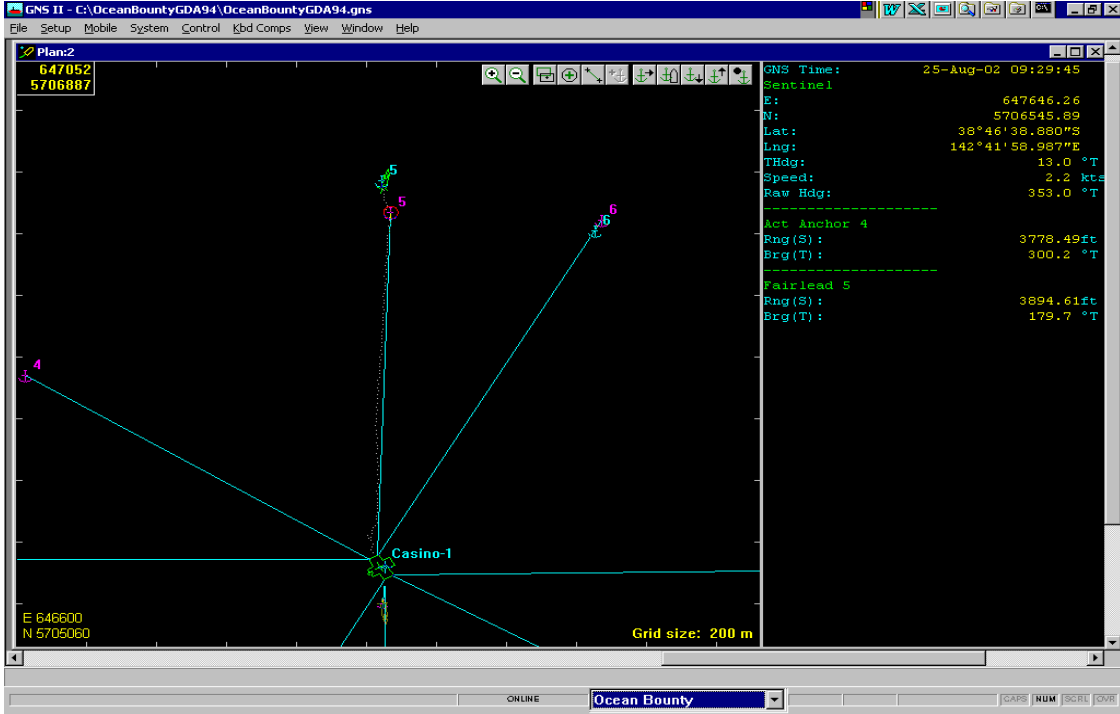
Anchor 4 – Pacific Sentinel



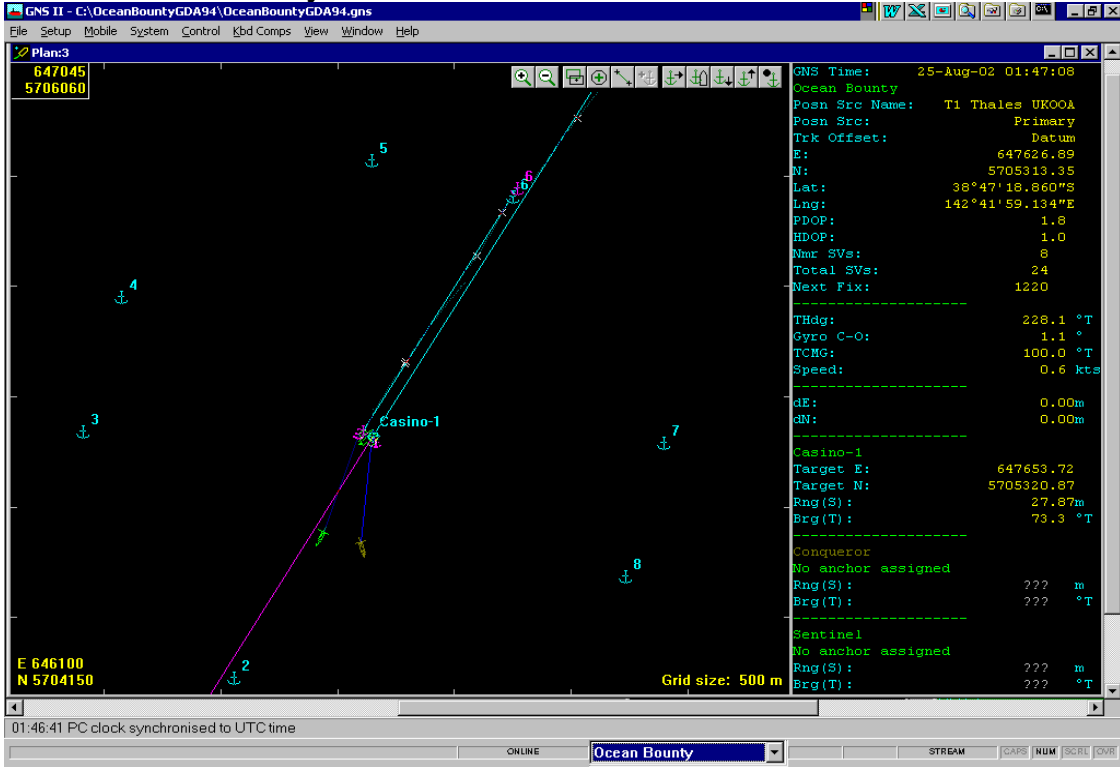
THALES Thales GeoSolutions (Australasia) Limited

Project: Casino-1 Positioning Report of the Ocean Bounty
 Client: Santos Australia

Anchor 5 – Pacific Sentinel



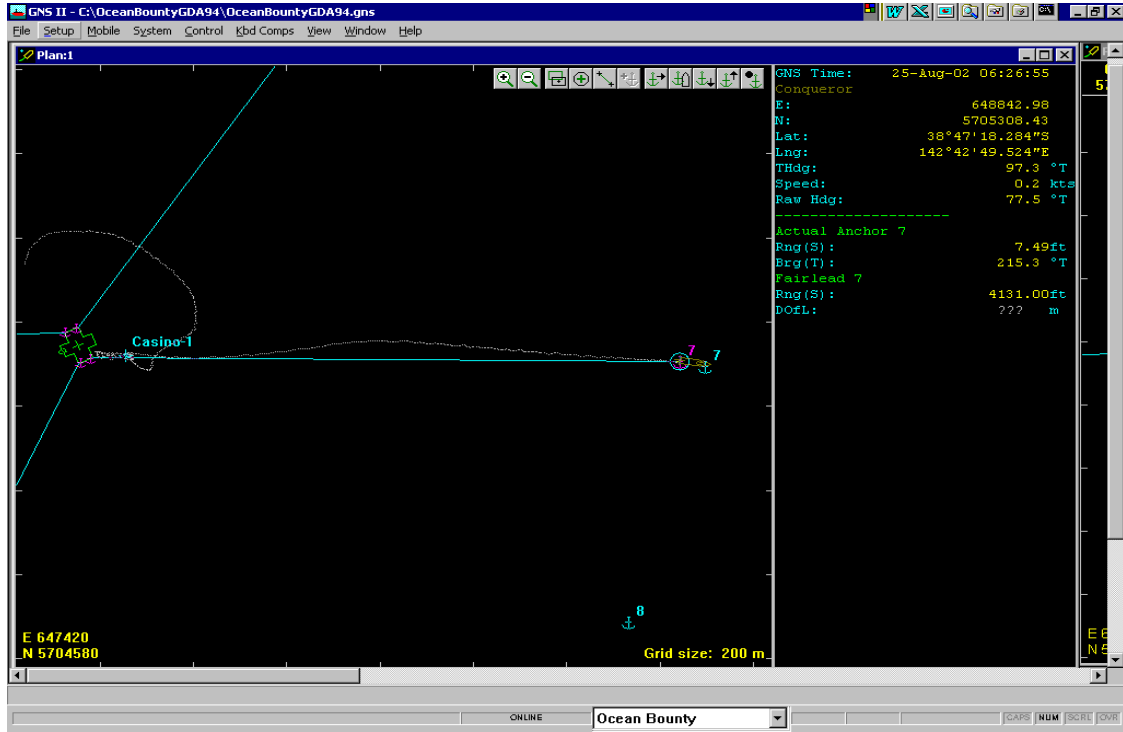
Anchor 6 – Ocean Bounty



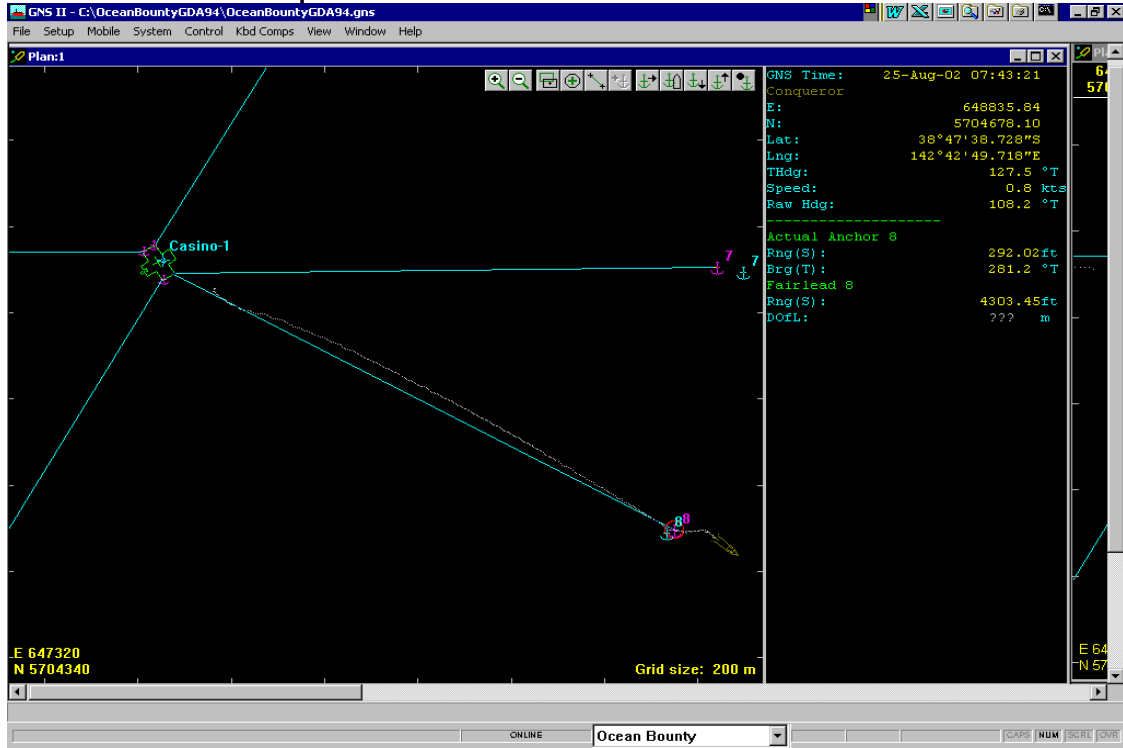
THALES Thales GeoSolutions (Australasia) Limited

Project: Casino-1 Positioning Report of the Ocean Bounty
Client: Santos Australia

Anchor 7 – Pacific Conquerer



Anchor 8 – Pacific Conquerer



APPENDIX D

OCEAN BOUNTY ANCHOR PATTERN DETAILS AT CASINO-1

THALES

OCEAN BOUNTY ANCHOR POSITIONS

30 Aug 2002 10:34

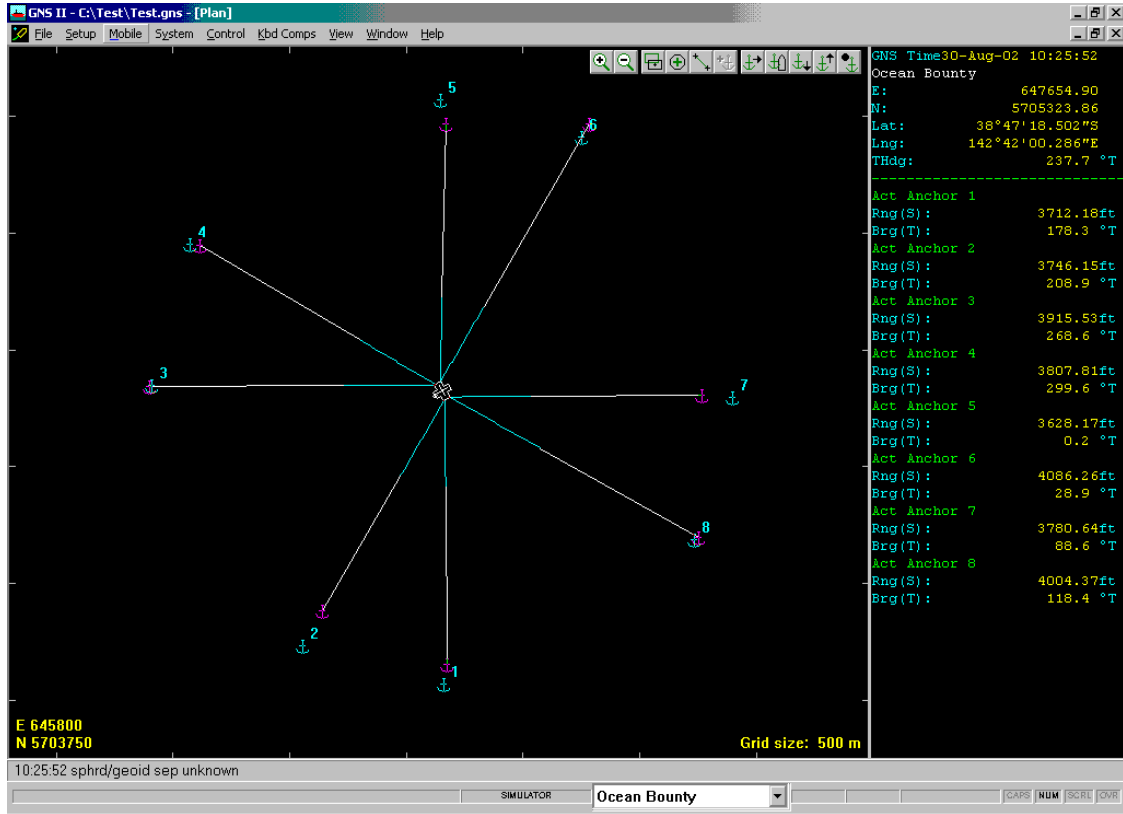
Main Anchors

Name	Intended E	Intended N	Dropped E	Dropped N
Anchor 1	647662.44	5704070.47	647676.46	5704152.47
Anchor 2	647053.97	5704230.57	647141.56	5704380.81
Anchor 3	646409.67	5705346.53	646400.89	5705342.76
Anchor 4	646575.25	5705953.53	646615.82	5705948.43
Anchor 5	647644.96	5706571.13	647669.46	5706469.04
Anchor 6	648253.43	5706411.03	648285.18	5706469.88
Anchor 7	648897.73	5705295.07	648767.16	5705306.09
Anchor 8	648732.15	5704688.07	648752.37	5704695.11

THALES Thales GeoSolutions (Australasia) Limited

Project: Casino-1 Positioning Report of the Ocean Bounty
Client: Santos Australia

Ocean Bounty Anchor Pattern at Casino-1



APPENDIX E

OCEAN BOUNTY ANCHOR CATENARY CALCULATIONS

THALES Thales GeoSolutions (Australasia) Limited

Project: Casino-1 Positioning Report of the Ocean Bounty
Client: Santos Australia

ob Catenary Control

Anchor 1 DEPLOYED

Fairlead Cable

Out

Winch Counter Reading

Manual: 3739 ft

Counter: Not Available

Corr to Fairlead... 0.00 ft

Total (corrected): 3739.00 ft

On Seabed: 2494.73 ft

Suspended: 1244.27 ft

Tension

Manual: 326 kips

Tensionometer: Not Available

Current Value: 326.00 kips

Cable Components

	Length	Wt (wt/L)
Fairlead		
F'lead Seg 1	3739.00	91.00
Anchor	0.00	0.00
AHV to Anc	0.00	0.00

Add... Edit... Delete Last

Anchor Handling Vessel Cable

Weight/Length... Out: 0 ft

Depth(MSL)... 223.00 ft View Section...

Enable Comp Update Catenary

Anchor

	Computed	Actual
E:	647676.46	647677.29
N:	5704152.47	5704073.73
Depth(MSL):	223.02 ft	0.00 ft
Horizontal Range From Fairlead		
Comp:	3712.18 ft	Act: 3970.56 ft
Computed Minus Actual:	-258.38 ft	

Brg From Fairlead

Comp: 178.3 °T Act: 178.3 °T

Use Intended (Planning Only)

Transfer Comp --> Actual

Touchdown Points

Point: 1 Down Total: 1

E: 647668.42 N: 5704912.72

Horiz Rng From F'lead: 1217.44 ft

Units... Close

ob Catenary Control

Anchor 2 DEPLOYED

Fairlead Cable

Out

Winch Counter Reading

Manual: 3439 ft

Counter: Not Available

Corr to Fairlead... 0.00 ft

Total (corrected): 3439.00 ft

On Seabed: 2188.06 ft

Suspended: 1250.94 ft

Tension

Manual: 329 kips

Tensionometer: Not Available

Current Value: 329.00 kips

Cable Components

	Length	Wt (wt/L)
Fairlead		
F'lead Seg 1	3439.00	91.00
Anchor	0.00	0.00
AHV to Anc	0.00	0.00

Add... Edit... Delete Last

Anchor Handling Vessel Cable

Weight/Length... Out: 0 ft

Depth(MSL)... 223.00 ft View Section...

Enable Comp Update Catenary

Anchor

	Computed	Actual
E:	647141.56	647090.72
N:	5704380.81	5704292.66
Depth(MSL):	223.31 ft	0.00 ft
Horizontal Range From Fairlead		
Comp:	3412.25 ft	Act: 3746.16 ft
Computed Minus Actual:	-333.91 ft	

Brg From Fairlead

Comp: 208.9 °T Act: 208.9 °T

Use Intended (Planning Only)

Transfer Comp --> Actual

Touchdown Points

Point: 1 Down Total: 1

E: 647474.70 N: 5704958.47

Horiz Rng From F'lead: 1224.19 ft

Units... Close

ob Catenary Control

Anchor 3 DEPLOYED

Fairlead Cable

Out

Winch Counter Reading

Manual: 4027 ft

Counter: Not Available

Corr to Fairlead... 0.00 ft

Total (corrected): 4027.00 ft

On Seabed: 2725.01 ft

Suspended: 1301.99 ft

Tension

Manual: 356 kips

Tensionometer: Not Available

Current Value: 356.00 kips

Cable Components

	Length	Wt (wt/L)
Fairlead		
F'lead Seg 1	4027.00	91.00
Anchor	0.00	0.00
AHV to Anc	0.00	0.00

Add... Edit... Delete Last

Anchor Handling Vessel Cable

Weight/Length... Out: 0 ft

Depth(MSL)... 223.00 ft View Section...

Enable Comp Update Catenary

Anchor

	Computed	Actual
E:	646400.89	646427.05
N:	5705342.76	5705342.89
Depth(MSL):	223.01 ft	0.00 ft
Horizontal Range From Fairlead		
Comp:	4001.38 ft	Act: 3915.54 ft
Computed Minus Actual:	85.85 ft	

Brg From Fairlead

Comp: 268.6 °T Act: 268.6 °T

Use Intended (Planning Only)

Transfer Comp --> Actual

Touchdown Points

Point: 1 Down Total: 1

E: 647231.35 N: 5705346.91

Horiz Rng From F'lead: 1276.37 ft

Units... Close

THALES Thales GeoSolutions (Australasia) Limited

Project: Casino-1 Positioning Report of the Ocean Bounty
Client: Santos Australia

Job Catenary Control

Anchor: **Anchor 4 DEPLOYED**

Fairlead Cable
 Out
 Winch Counter Reading
 Manual: 3871 ft
 Counter: Not Available
 Corr to Fairlead... 0.00 ft
 Total (corrected): 3871.00 ft
 On Seabed: 2601.94 ft
 Suspended: 1269.06 ft

Tension
 Manual: 339 kips
 Tensionometer: Not Available
 Current Value: 339.00 kips

Cable Components

	Length	Wt (Wt/L)
Fairlead		
F'lead Seg 1	3871.00	91.00
Anchor	0.00	0.00
AHV to Anc	0.00	0.00

Anchor Handling Vessel Cable
 Weight/Length... Out: 0 ft
 Depth(MSL)... 223.00 ft View Section...
 Enable Comp Update Catenary

Anchor

	Computed	Actual
E:	646615.82	646625.50
N:	5705948.43	5705942.69
Depth(MSL):	222.82 ft	0.00 ft
Horizontal Range From Fairlead		
Comp:	3844.75 ft	Act: 3807.82 ft
Computed Minus Actual: 36.94 ft		
Brg From Fairlead		
Comp:	299.6 °T	Act: 299.6 °T
<input type="checkbox"/> Use Intended (Planning Only)		

Transfer Comp -> Actual

Touchdown Points
 Point: 1 Down Total: 1
 E: 647297.94 N: 5705544.07
 Horiz Rng From F'lead: 1242.81 ft

Units... Close

Job Catenary Control

Anchor: **Anchor 5 DEPLOYED**

Fairlead Cable
 Out
 Winch Counter Reading
 Manual: 3654 ft
 Counter: Not Available
 Corr to Fairlead... 0.00 ft
 Total (corrected): 3654.00 ft
 On Seabed: 2428.13 ft
 Suspended: 1225.87 ft

Tension
 Manual: 317 kips
 Tensionometer: Not Available
 Current Value: 317.00 kips

Cable Components

	Length	Wt (Wt/L)
Fairlead		
F'lead Seg 1	3654.00	91.00
Anchor	0.00	0.00
AHV to Anc	0.00	0.00

Anchor Handling Vessel Cable
 Weight/Length... Out: 0 ft
 Depth(MSL)... 223.00 ft View Section...
 Enable Comp Update Catenary

Anchor

	Computed	Actual
E:	647669.46	647669.47
N:	5706469.04	5706469.45
Depth(MSL):	222.82 ft	0.00 ft
Horizontal Range From Fairlead		
Comp:	3626.82 ft	Act: 3628.17 ft
Computed Minus Actual: -1.35 ft		
Brg From Fairlead		
Comp:	0.2 °T	Act: 0.2 °T
<input type="checkbox"/> Use Intended (Planning Only)		

Transfer Comp -> Actual

Touchdown Points
 Point: 1 Down Total: 1
 E: 647653.28 N: 5705729.22
 Horiz Rng From F'lead: 1198.69 ft

Units... Close

Job Catenary Control

Anchor: **Anchor 6 DEPLOYED**

Fairlead Cable
 Out
 Winch Counter Reading
 Manual: 4208 ft
 Counter: Not Available
 Corr to Fairlead... 0.00 ft
 Total (corrected): 4208.00 ft
 On Seabed: 2975.11 ft
 Suspended: 1232.89 ft

Tension
 Manual: 320 kips
 Tensionometer: Not Available
 Current Value: 320.00 kips

Cable Components

	Length	Wt (Wt/L)
Fairlead		
F'lead Seg 1	4208.00	91.00
Anchor	0.00	0.00
AHV to Anc	0.00	0.00

Anchor Handling Vessel Cable
 Weight/Length... Out: 0 ft
 Depth(MSL)... 223.00 ft View Section...
 Enable Comp Update Catenary

Anchor

	Computed	Actual
E:	648285.18	648270.78
N:	5706469.88	5706444.90
Depth(MSL):	223.21 ft	0.00 ft
Horizontal Range From Fairlead		
Comp:	4180.88 ft	Act: 4086.26 ft
Computed Minus Actual: 94.62 ft		
Brg From Fairlead		
Comp:	28.9 °T	Act: 28.9 °T
<input type="checkbox"/> Use Intended (Planning Only)		

Transfer Comp -> Actual

Touchdown Points
 Point: 1 Down Total: 1
 E: 647832.27 N: 5705684.41
 Horiz Rng From F'lead: 1205.77 ft

Units... Close

THALES Thales GeoSolutions (Australasia) Limited

Project: Casino-1 Positioning Report of the Ocean Bounty

Client: Santos Australia

Job Catenary Control

Anchors
Anchor 7 DEPLOYED

Fairlead Cable
Out
Winch Counter Reading
 Manual: 3565 ft
 Counter: Not Available

Corr to Fairlead... 0.00 ft
 Total (corrected): 3565.00 ft
 On Seabed: 2399.41 ft
 Suspended: 1165.59 ft

Tension
 Manual: 287 kips
 Tensionometer: Not Available
 Current Value: 287.00 kips

Cable Components

	Length	Wt (Wt/L)
Fairlead		
Flead Seg 1	3565.00	91.00
Anchor		0.00
AHV to Anc	0.00	0.00

Add... Edit... Delete Last

Anchor Handling Vessel Cable
 Weight/Length... Out: 0 ft

Depth(MSL)... 223.00 ft View Section...

Enable Comp Update Catenary

Anchor

	Computed	Actual
E:	648767.16	648841.63
N:	5705306.09	5705306.59
Depth(MSL):	223.29 ft	0.00 ft
Horizontal Range From Fairlead		
Comp:	3536.27 ft	Act: 3780.63 ft
Computed Minus Actual:	-244.36 ft	
Brig From Fairlead		
Comp:	88.6 °T	Act: 88.6 °T
<input type="checkbox"/> Use Intended (Planning Only)		

Transfer Comp --> Actual

Touchdown Points
 Point: 1 Down Total: 1
 E: 648035.93 N: 5705301.19
 Horiz Rng From Flead: 1136.86 ft

Units... Close

Job Catenary Control

Anchors
Anchor 8 DEPLOYED

Fairlead Cable
Out
Winch Counter Reading
 Manual: 4040 ft
 Counter: Not Available

Corr to Fairlead... 0.00 ft
 Total (corrected): 4040.00 ft
 On Seabed: 2559.65 ft
 Suspended: 1480.35 ft

Tension
 Manual: 457 kips
 Tensionometer: Not Available
 Current Value: 457.00 kips

Cable Components

	Length	Wt (Wt/L)
Fairlead		
Flead Seg 1	4040.00	91.00
Anchor		0.00
AHV to Anc	0.00	0.00

Add... Edit... Delete Last

Anchor Handling Vessel Cable
 Weight/Length... Out: 0 ft

Depth(MSL)... 223.00 ft View Section...

Enable Comp Update Catenary

Anchor

	Computed	Actual
E:	648752.37	648748.89
N:	5704695.11	5704697.07
Depth(MSL):	223.14 ft	0.00 ft
Horizontal Range From Fairlead		
Comp:	4017.47 ft	Act: 4004.36 ft
Computed Minus Actual:	13.11 ft	
Brig From Fairlead		
Comp:	118.4 °T	Act: 118.4 °T
<input type="checkbox"/> Use Intended (Planning Only)		

Transfer Comp --> Actual

Touchdown Points
 Point: 1 Down Total: 1
 E: 648072.99 N: 5705078.46
 Horiz Rng From Flead: 1457.83 ft

Units... Close

APPENDIX F

GYROCOMPASS CALIBRATION REPORT



Thales GeoSolutions (Australasia) Limited

ABN 82 000 601 909

Solar Observation for Azimuth (Hour Angle) 2002

Thales Job Number: 3429A3
 Job Description: Ocean Bounty Rig Move to Casino-1
 Client: Santos
 Party Chief: L.Kercheval
 Surveyor: L.Kercheval
 Rig Name: Ocean Bounty
 Date: 24August 2002

Control Point Co-ordinates

Datum: WGS84 Projection: UTM Zone 55S CM 147° East

Latitude (DMS): -039 13 33
 Longitude (DMS): 144 09 19
 UTC Correction (HMS): 10.00

Total Station Observations:

Face	Local Time (HMS)			Observed Direction to R.O. (DMS)			Observed Direction to Sun (DMS)			Observed (O) True Heading (D.D)
Left	07	13	00	000	00	00	163	03	42	270.30
Right	07	13	00	180	00	00	343	03	42	
Left	07	15	00	000	00	00	164	11	18	268.30
Right	07	15	00	180	00	00	344	11	18	
Left	07	16	00	000	00	00	165	49	30	266.30
Right	07	16	00	180	00	00	345	49	30	
Left	07	17	00	000	00	00	166	09	00	266.20
Right	07	17	00	180	00	00	346	09	00	
Left	07	18	00	000	00	00	165	58	24	265.80
Right	07	18	00	180	00	00	345	58	24	
Left	07	20	00	000	00	00	166	21	24	264.70
Right	07	20	00	180	00	00	346	21	24	
Left										
Right										
Left										
Right										
Left										
Right										
Left										
Right										
Left										
Right										
Left										
Right										

Signature

 SURVEYOR/PARTY CHIEF

 CLIENT SURVEY REPRESENTATIVE

APPENDIX G

DIFFERENTIAL GPS CHECK

CHECK POSITION FIX – DIFFERENTIAL GPS

Job Description: Ocean Bounty to Casino-1
Job Number: 3429A3
Thales Surveyor: L.Kercheval
Client: Santos
Client Representative:

Sampling started: 20 Aug 2002 14:26:48
Sampling end: 20 Aug 2002 14:36:45

Ocean Bounty

Published datum location

Datum: GDA94
Latitude: 38°06'12.987"S Longitude: 149°00'33.451"E
Projection: MGA94 Zone 54
Easting: 1202750.10 m Northing: 5752267.46 m

Final Antenna Position (T1 Thales UKOOA):

Sample size: 120 fixes used out of a total of 120.

Antenna offset

X: 0.28m Y: 33.90m Z: 0.00m
Range: 33.90m Rel Brg from datum to antenna: 0.5°

Datum: GDA94
Latitude: 38°06'13.204"S Longitude: 149°00'32.136"E Spheroidal Ht: 42.38m
Datum: GDA94
Latitude: 38°06'13.204"S Longitude: 149°00'32.136"E Spheroidal Ht: 42.38m
Projection: MGA94 Zone 54
Easting: 1202717.41 Northing: 5752263.56 Spheroidal Ht: 42.38m

Standard deviations

Long or E: 0.00m
Lat or N: 0.00m
Height: 0.52m
Position: 0.00m

Final Datum Position

Datum: GDA94
Latitude: 38°06'13.083"S Longitude: 149°00'33.511"E
Projection: MGA94 Zone 54
Easting: 1202751.30 m Northing: 5752264.37 m

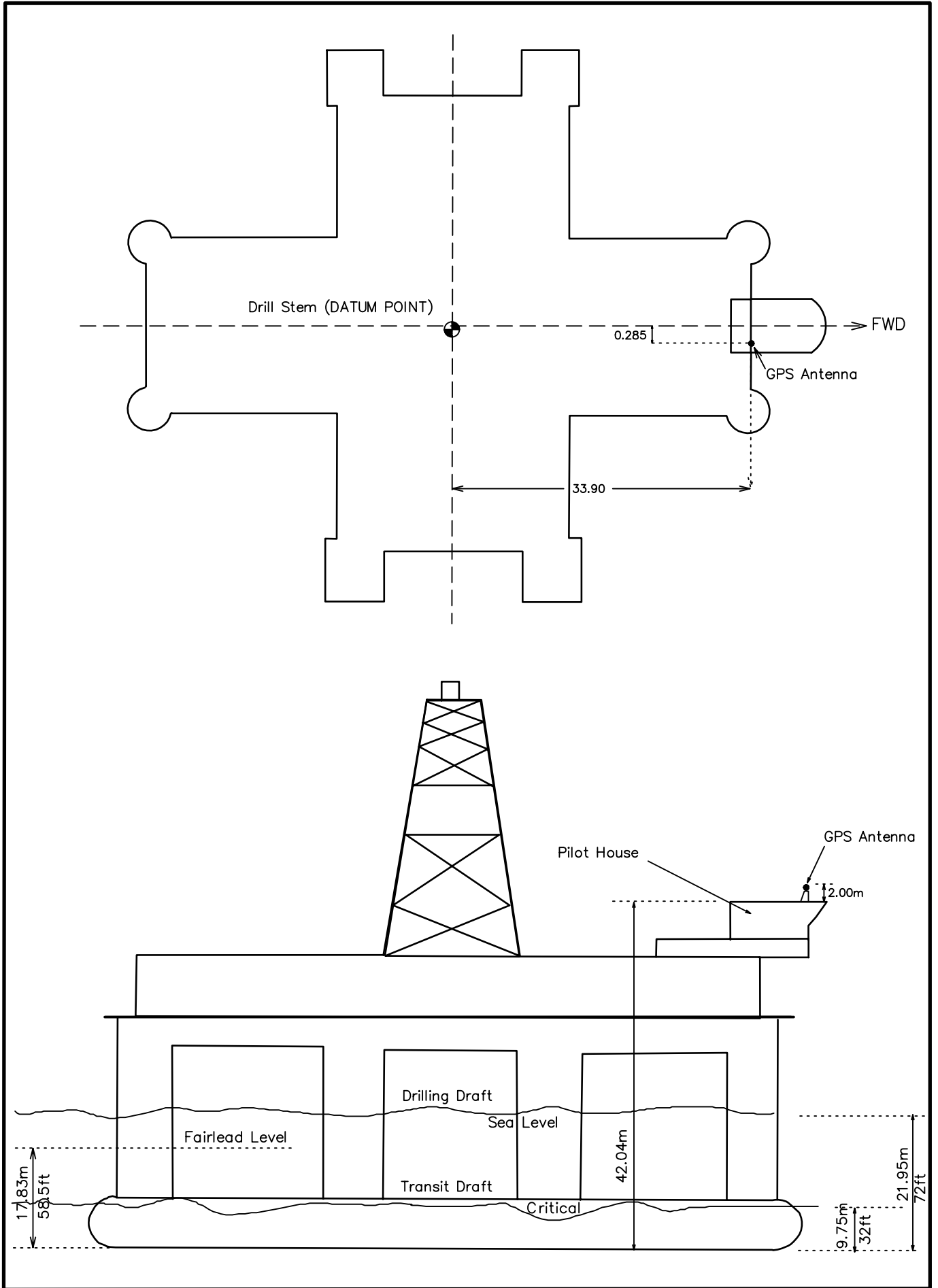
Mean corrected heading: 263.2°T
SD heading: 0.2°T
Intended heading: 260.2°T
Difference from intended: 3.0°
Gyro C-O: 0.0°
Convergence: -4.96°

Final Datum Position is 3.32m on a bearing of 153.8°T (158.8°G) from the published location.

APPENDIX H

OCEAN BOUNTY OFFSET DIAGRAM

OCEAN BOUNTY OFFSET DIAGRAM

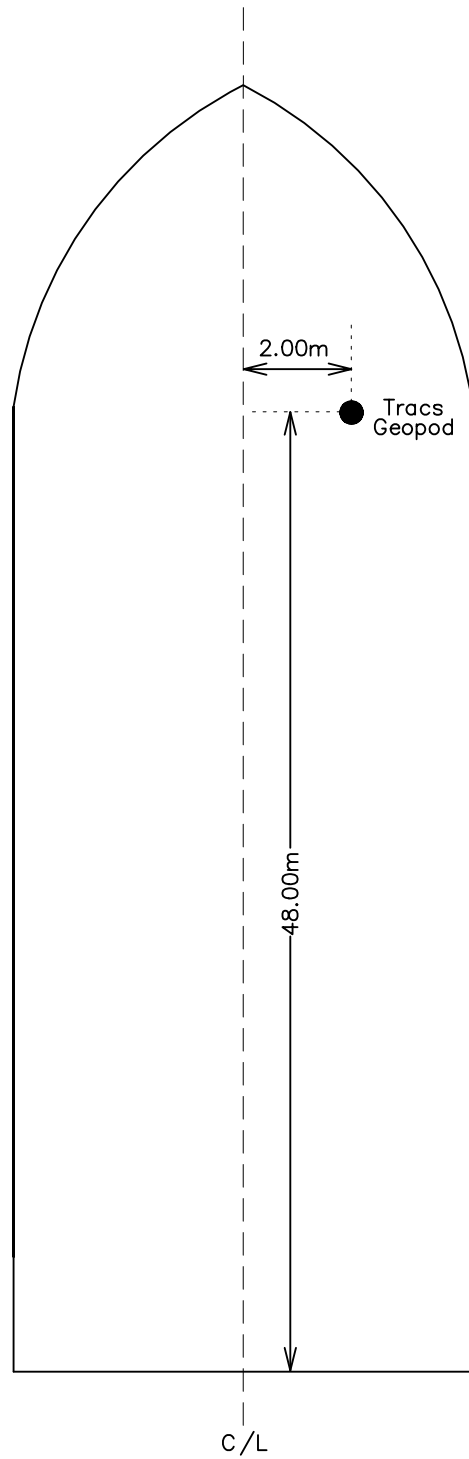


NOT TO SCALE

APPENDIX I

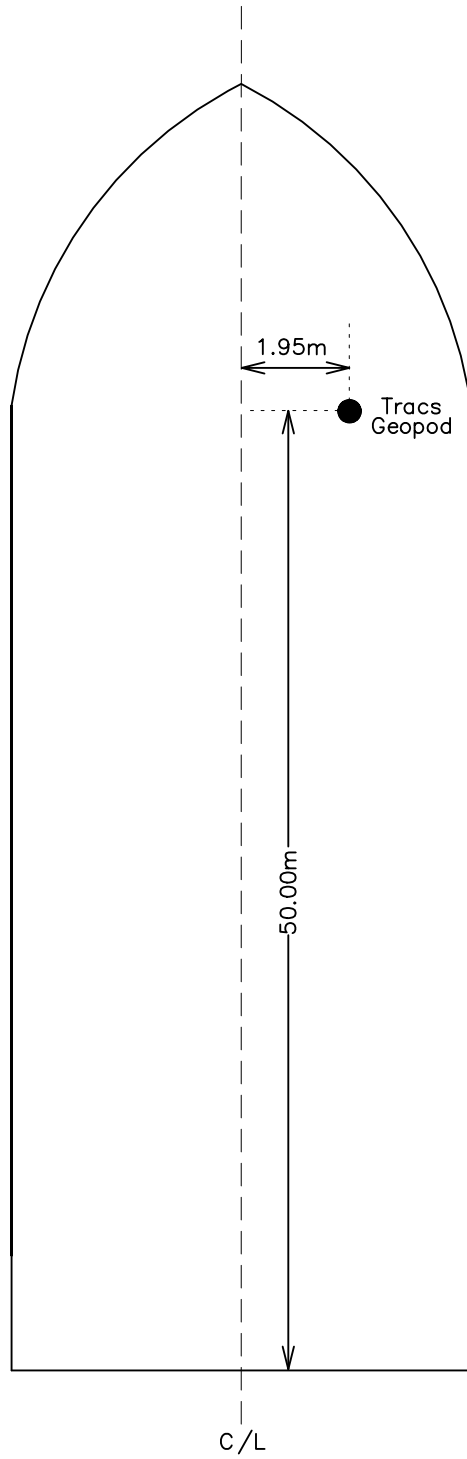
PACIFIC SENTINEL AND PACIFIC CONQUEROR OFFSET DIAGRAMS

PACIFIC CONQUEROR



(NOT TO SCALE)

PACIFIC SENTINEL



(NOT TO SCALE)

APPENDIX J

GNS2 CONFIGURATION FILE PRINTOUT

GNS II CONFIGURATION FILE C:\OceanBountyGDA94\OceanBountyGDA94.gns

JOB DETAILS

Job Number : 3429A3
Job Description : Ocean Bounty to Casino-1
Company : Thales GeoSolutions Group Ltd
Client : Santos
Time Zone : GMT +8:00

WORKING SPHEROID

GDA94
Semi-major : 6378137.000 m
e Squared : 0.006694380023

WORKING PROJECTION

MGA94 Zone 54
Lat of Origin : 00°00'00.000"N
Long of Origin : 141°00'00.000"E
False Easting : 500000.00
False Northing : 10000000.00
Scale Factor : 0.999600
Units : Metres

GPS TRANSFORMATION

From : WGS 84
Semi-major : 6378137.000 m
e Squared : 0.006694380067
To : GDA94
Dx : 0.000 m
Dy : 0.000 m
Dz : 0.000 m
Rot x : 0.0000 secs
Rot y : 0.0000 secs
Rot z : 0.0000 secs
Scale : 0.0000 ppm

WAYPOINTS

Sole-2 MGAZ55	E: 1202750.09	N: 5752267.47	Ht: 0.00 m	Toll: 5.00 m	Tol:
Casino-1	E: 647653.72	N: 5705320.87	Ht: 0.00 m	Toll: 5.00 m	Tol:
Mack	E: 1202766.15	N: 5752296.79	Ht: 0.00 m		
Mackeral	E: 1149235.02	N: 5708463.45	Ht: 0.00 m		
Kings	E: 1128032.76	N: 5691892.12	Ht: 0.00 m		
Cleft	E: 961769.62	N: 5647576.36	Ht: 0.00 m		
Citadel	E: 953559.34	N: 5648057.61	Ht: 0.00 m		
Otway	E: 693028.90	N: 5655100.51	Ht: 0.00 m		
Run In	E: 651362.33	N: 5711529.73	Ht: 0.00 m		

TRACK GUIDANCE

None defined

MOBILES

Ocean Bounty (semi-sub rig)
Shape Definition: Ocean Bounty
Line:-

Verified by: (sign) K. O'Hall (print) K. O'HALLORAN

GNS II CONFIGURATION FILE C:\OceanBountyGDA94\OceanBountyGDA94.gns

X: 14.20 m Y: 37.00 m
X: 14.20 m Y: 16.60 m
X: 39.30 m Y: 16.60 m
X: 39.30 m Y: -16.60 m
X: 14.20 m Y: -16.60 m
X: 14.20 m Y: -36.20 m
X: -14.20 m Y: -36.20 m
X: -14.20 m Y: -16.60 m
X: -39.30 m Y: -16.60 m
X: -39.30 m Y: 16.00 m
X: -14.20 m Y: 16.00 m
X: -14.20 m Y: 37.00 m
X: 14.20 m Y: 37.00 m

Line:-

X: -4.00 m Y: 30.00 m
X: 4.00 m Y: 30.00 m
X: 4.00 m Y: 41.00 m
X: 2.00 m Y: 45.00 m
X: -2.00 m Y: 45.00 m
X: -4.00 m Y: 41.00 m
X: -4.00 m Y: 30.00 m

Tracking Point : Datum
Pitch and Roll Centre: Datum

Selected Sources:-

Primary Position : T1 Thales UKOOA (Using Antenna Offset : GPS Ae)
Backup Position : T2 Thales UKOOA (Using Antenna Offset : GPS Ae)
Primary Heading : S1 SGB 1000S
Primary Height : Datum Displacement
Pitch and Roll : G1 Ocean Bounty
Heave Sensor : G1 GNS II Master
Soundings : G1 Ocean Bounty
Speed : Position Filter
Course Made Good : Posn Filter CMG

Equipment:-

T3 Tracs TDMA Master

Status: ON Interface: COM10
Antenna Offset Selected: Datum

X: 0.00 m Y: 0.00 m Z: 0.00 m Rng: 0.00 m Brg: 0.0°

T1 Thales UKOOA

Status: ON Interface: Sock1
Antenna Offset Selected: GPS Ae

X: 0.28 m Y: 33.90 m Z: 0.00 m Rng: 33.90 m Brg: 0.5°

Apply Pitch Roll: Off Stale Time: 5.0 s Posn SD: 3.0 m Ht SD: 1.0 m

Update posn regardless of whether diff corrected

Filter: Off Time Constant: 60.0 s Sample Dwell: 0.5 s

Gate: Off Gate Width: 9.0 xSD Minimum Gate: 0.0 m

T2 Thales UKOOA

Status: ON Interface: Sock2
Antenna Offset Selected: GPS Ae

Verified by: (sign) _____ (print) _____

GNS II CONFIGURATION FILE C:\OceanBountyGDA94\OceanBountyGDA94.gns

X: 0.28 m Y: 33.90 m Z: 0.00 m Rng: 33.90 m Brg: 0.5°
Apply Pitch Roll: Off Stale Time: 5.0 s Posn SD: 3.0 m Ht SD: 1.0 m
Update posn regardless of whether diff corrected
Filter: Off Time Constant: 60.0 s Sample Dwell: 0.5 s
Gate: Off Gate Width: 2.0 xSD Minimum Gate: 0.0 m

S1 SGB 1000S

Status: ON Interface: COM6
C-O: 1.1 degs Stale Time: 5.0 s SD: 0.1 degs
Filter: Off Gate: Off Time Constant: 5.0 s Sample Dwell: 0.5 s

Defined Offsets:-

Datum
X: 0.00 m Y: 0.00 m Z: 0.00 m Rng: 0.00 m Brg: 0.0°
GPS Ae
X: 0.28 m Y: 33.90 m Z: 0.00 m Rng: 33.90 m Brg: 0.5°
Fairlead 1
X: -39.30 m Y: 12.60 m Z: -4.11 m Rng: 41.27 m Brg: 287.8°
Fairlead 2
X: -39.30 m Y: 16.60 m Z: -4.11 m Rng: 42.66 m Brg: 292.9°
Fairlead 3
X: 39.30 m Y: 16.60 m Z: -4.11 m Rng: 42.66 m Brg: 67.1°
Fairlead 4
X: 39.30 m Y: 12.60 m Z: -4.11 m Rng: 41.27 m Brg: 72.2°
Fairlead 5
X: 39.30 m Y: -12.60 m Z: -4.11 m Rng: 41.27 m Brg: 107.8°
Fairlead 6
X: 39.30 m Y: -16.60 m Z: -4.11 m Rng: 42.66 m Brg: 112.9°
Fairlead 7
X: -39.30 m Y: -16.60 m Z: -4.11 m Rng: 42.66 m Brg: 247.1°
Fairlead 8
X: -39.30 m Y: -12.60 m Z: -4.11 m Rng: 41.27 m Brg: 252.2°

Sentinel (ship)

Shape Definition: Pac Sentinel

Line:-

X: -6.80 m Y: 0.00 m
X: -6.80 m Y: 49.40 m
X: 0.00 m Y: 65.00 m
X: 6.80 m Y: 49.40 m
X: 6.80 m Y: 0.00 m
X: -6.80 m Y: 0.00 m

Line:-

X: -1.50 m Y: 35.00 m
X: -3.50 m Y: 37.00 m
X: -3.50 m Y: 45.00 m
X: -6.00 m Y: 45.00 m
X: -6.00 m Y: 47.00 m
X: -3.50 m Y: 47.00 m
X: -3.50 m Y: 49.00 m
X: -2.00 m Y: 51.00 m
X: 2.00 m Y: 51.00 m
X: 3.50 m Y: 49.00 m
X: 3.50 m Y: 47.00 m

Verified by: (sign) K. O'Halloran (print) K O'HALLORAN

GNS II CONFIGURATION FILE C:\OceanBountyGDA94\OceanBountyGDA94.gns

X: 6.00 m Y: 47.00 m
X: 6.00 m Y: 45.00 m
X: 3.50 m Y: 45.00 m
X: 3.50 m Y: 37.00 m
X: 1.50 m Y: 35.00 m
X: -1.50 m Y: 35.00 m

Tracking Point : Datum
Pitch and Roll Centre: Datum

Selected Sources:-

Primary Position : T4 Tracs TDMA Remote (Using Antenna Offset : Pod)
Primary Heading : T4 Tracs TDMA Remote
Primary Height : Datum Displacement
Pitch and Roll : Manual
Soundings : Manual
Speed : Position Filter
Course Made Good : Posn Filter CMG

Equipment:-

T4 Tracs TDMA Remote
Status: ON Interface: Not defined
Antenna Offset Selected: Pod
X: 1.95 m Y: 50.00 m Z: 0.00 m Rng: 50.04 m Brg: 2.2°

Defined Offsets:-

Datum
X: 0.00 m Y: 0.00 m Z: 0.00 m Rng: 0.00 m Brg: 0.0°
delete
X: 2.00 m Y: 2.00 m Z: 0.00 m Rng: 2.83 m Brg: 45.0°
Pod
X: 1.95 m Y: 50.00 m Z: 0.00 m Rng: 50.04 m Brg: 2.2°

Conqueror (ship)

Shape Definition: Pac Conquerer

Line:-

X: -6.80 m Y: 0.00 m
X: -6.80 m Y: 49.40 m
X: 0.00 m Y: 65.00 m
X: 6.80 m Y: 49.40 m
X: 6.80 m Y: 0.00 m
X: -6.80 m Y: 0.00 m

Line:-

X: -1.50 m Y: 35.00 m
X: -3.50 m Y: 37.00 m
X: -3.50 m Y: 45.00 m
X: -6.00 m Y: 45.00 m
X: -6.00 m Y: 47.00 m
X: -3.50 m Y: 47.00 m
X: -3.50 m Y: 49.00 m
X: -2.00 m Y: 51.00 m
X: 2.00 m Y: 51.00 m
X: 3.50 m Y: 49.00 m
X: 3.50 m Y: 47.00 m

Verified by: (sign) _____ (print) _____

GNS II CONFIGURATION FILE C:\OceanBountyGDA94\OceanBountyGDA94.gns

X: 6.00 m Y: 47.00 m
 X: 6.00 m Y: 45.00 m
 X: 3.50 m Y: 45.00 m
 X: 3.50 m Y: 37.00 m
 X: 1.50 m Y: 35.00 m
 X: -1.50 m Y: 35.00 m

Tracking Point : Datum
 Pitch and Roll Centre: Datum

Selected Sources:-

Primary Position : T5 Tracs TDMA Remote (Using Antenna Offset : Pod)
 Primary Heading : T5 Tracs TDMA Remote
 Primary Height : Datum Displacement
 Pitch and Roll : Manual
 Soundings : Manual
 Speed : Position Filter
 Course Made Good : Posn Filter CMG

Equipment:-

T5 Tracs TDMA Remote
 Status: ON Interface: Not defined
 Antenna Offset Selected: Pod
 X: 2.00 m Y: 48.00 m Z: 0.00 m Rng: 48.04 m Brg: 2.4°

Defined Offsets:-

Datum
 X: 0.00 m Y: 0.00 m Z: 0.00 m Rng: 0.00 m Brg: 0.0°
 Pod
 X: 2.00 m Y: 48.00 m Z: 0.00 m Rng: 48.04 m Brg: 2.4°

ANCHORS

Ocean Bounty

Fairleads:-

Name	X	Y	Z	Rng	Brg
Fairlead 1	-39.30 m	12.60 m	-4.11 m	41.27 m	287.8°
Fairlead 2	-39.30 m	16.60 m	-4.11 m	42.66 m	292.9°
Fairlead 3	39.30 m	16.60 m	-4.11 m	42.66 m	67.1°
Fairlead 4	39.30 m	12.60 m	-4.11 m	41.27 m	72.2°
Fairlead 5	39.30 m	-12.60 m	-4.11 m	41.27 m	107.8°
Fairlead 6	39.30 m	-16.60 m	-4.11 m	42.66 m	112.9°
Fairlead 7	-39.30 m	-16.60 m	-4.11 m	42.66 m	247.1°
Fairlead 8	-39.30 m	-12.60 m	-4.11 m	41.27 m	252.2°

Main Intended Positions:-

Name	Easting	Northing	Depth	Tolerance
Anchor 1	647662.44	5704070.47	68.00 m	20.00 m
Anchor 2	647053.97	5704230.57	68.00 m	20.00 m
Anchor 3	646409.67	5705346.53	68.00 m	20.00 m
Anchor 4	646575.25	5705953.53	68.00 m	20.00 m
Anchor 5	647644.96	5706571.13	68.00 m	20.00 m
Anchor 6	648253.43	5706411.03	68.00 m	20.00 m

Verified by: (sign) Ki O'Halloran (print) K O'HALLORAN

GNS II CONFIGURATION FILE C:\OceanBountyGDA94\OceanBountyGDA94.gns

Anchor 7	648897.73	5705295.07	68.00 m	20.00 m
Anchor 8	648732.15	5704688.07	68.00 m	20.00 m

Main Actual Positions:-

Name	Easting	Northing	Depth	Tolerance
Anchor 1	647677.29	5704073.73	0.00 m	20.00 m
Anchor 2	647090.72	5704292.66	0.00 m	20.00 m
Anchor 3	646427.05	5705342.89	0.00 m	20.00 m
Anchor 4	646625.50	5705942.69	0.00 m	20.00 m
Anchor 5	647669.47	5706469.45	0.00 m	20.00 m
Anchor 6	648270.78	5706444.90	0.00 m	20.00 m
Anchor 7	648841.63	5705306.59	0.00 m	20.00 m
Anchor 8	648748.89	5704697.07	0.00 m	20.00 m

Verified by: (sign) Ki O'Halla (print) K O'HALLORAN

APPENDIX K

DAILY REPORT SHEETS



THALES GEOSOLUTIONS (AUSTRALASIA) LIMITED DAILY RECORD SHEET

Date: 21-Aug-2002 Client: Santos Job No.: 3429A3 Vessel: Ocean Bounty Location: Bass Strait/Otway Basin

Equipment	Op	
Ocean Bounty		
SkyFix	1	
SkyFix Spot	2	
Gyro	1	
GNS 2	1	1
MultiFix 3	1	1
Remote Disp	1	1
Tracs	1	1

Equipment	Op	
AHV's		
Tug Display	2	
Tracs	2	
Fluxgate gyro	2	

Racal Personnel
L. Kercheval
S. Bradley
Client Personnel
K.O'Halloran

WX	Sea State	Swell	Wind Dir.
0000			
0600		1	
1200		1	
1800		1	

DIARY OF OPERATIONS

PAGE 3 OF 10

TIME	Time Zone=UTC+10.00	Wednesday, 21 August 2002
0001	Standby for anchor recovery	
0830	Commence anchor recovery. deballasting completed	
0829	#1 PCC passed to Conqueror	
0838	#5 PCC passed to Sentinel	
1007	#1 PCC returned to rig	
1020	#8 PCC passed to Conqueror	
1039	#5 PCC returned to rig	
1055	#4 PCC to Sentinel	
1101	#4 Chase out	
1217	#8 PCC Returned to Rig	
1246	#4 PCC returned to rig, Sentinel preparing deck for towing	
1257	#6 PCC passed to Conqueror	
1402	Sentinel connected to Tow Bridle	
1510	Adjust rig position to keep Fairlead 6 clear of the wellhead	
1558	#6 PCC returned to rig	
1617	#3 PCC passed to Conqueror	
1826	#3 PCC returned to rig	
1835	Tracs frozen on Sentinel	
1901	Sentinel updating	
1905	#2 PCC passed to Conqueror	
1915	#2 Chase out	
2000	#7 recover by rig during winch in #2	
2108	#2 PCC returned to rig	

Forms are to be completed daily in duplicate on all vessels. Each form should be countersigned by the Clients Representative, the original being retained on board until the next crew change or at the end of job, whichever is the earlier, when they should be returned to the PERTH office.

Signature _____
SURVEYOR/ENGINEER

WHITE	: Accounts Department
BLUE	: Operations Department
YELLOW	: Clients Representative

Signature _____
CLIENT REPRESENTATIVE



THALES GEOSOLUTIONS (AUSTRALASIA) LIMITED DAILY RECORD SHEET

Date: 25-Aug-2002 Client: Santos Job No.: 3429A3 Vessel: Ocean Bounty Location: Bass Strait/Otway Basin

Equipment	Op	
Ocean Bounty		
SkyFix	1	
SkyFix Spot	2	
Gyro	1	
GNS 2	1	1
MultiFix 3	1	1
Remote Disp	1	1
Tracs	1	1

Equipment	Op	
AHV's		
Tug Display	2	
Tracs	2	
Fluxgate gyro	2	

Racal Personnel
L. Kercheval
S. Bradley
Client Personnel
K. O'Halloran

WX	Sea State	Swell	Wind Dir.
0000			
0600		1	
1200		1	
1800		1	

DIARY OF OPERATIONS

PAGE 8 OF 10

TIME	Time Zone=UTC+10.00	Saturday, 25 August 2002
0001	Continue on tow to Casino-1 location	
0041	Begin final run in	
0046	5km to intended Anchor 6	
0130	Anchor 6 lowered 100m from intended E:648271 N:5706445	
0145	Finish chain payout on Anchor 6, rig at location	
0233	Conqueror disconnected from tow bridle	
0312	#2 PCC passed to Conqueror	
0352	#2 Run out	
0400	#2 Lowered to bottom E: 647091 N: 5704293	
0428	#2 PCC passed back to Bounty	
0445	#3 PCC passed to Conqueror	
0510	#3 Run out	
0517	#3 Lowered to bottom E:646427 N:5705343	
0544	#3 PCC passed back to Bounty	
0600	#7 PCC passed to Conqueror	
0620	#7 Run out	
0626	#7 Lowered to bottom E:648842 N:5705307	
0658	#7 PCC passed to Bounty	
0708	#8 PCC passed to Conqueror	
0724	Sentinel disconnected from tow bridle	
0732	#8 Run out	
0739	#8 Lowered to bottom E:648749 N:5704697	
0800	#4 PCC passed to Sentinel	

Forms are to be completed daily in duplicate on all vessels. Each form should be countersigned by the Clients Representative, the original being retained on board until the next crew change or at the end of job, whichever is the earlier, when they should be returned to the PERTH office.

Signature _____
SURVEYOR/ENGINEER

WHITE	: Accounts Department
BLUE	: Operations Department
YELLOW	: Clients Representative

Signature _____
CLIENT REPRESENTATIVE



THALES GEOSOLUTIONS (AUSTRALASIA) LIMITED DAILY RECORD SHEET

Date: 25-Aug-2002 Client: Santos Job No.: 3429A3 Vessel: Ocean Bounty Location: Otway Basin

Equipment	Op	
Ocean Bounty		
SkyFix	1	
SkyFix Spot	2	
Gyro	1	
GNS 2	1	1
MultiFix 3	1	1
Remote Disp	1	1
Tracs	1	1

Equipment	Op	
AHV's		
Tug Display	2	
Tracs	2	
Fluxgate gyro	2	

Racal Personnel
L. Kercheval
S. Bradley
Client Personnel
K. O'Halloran

WX	Sea State	Swell	Wind Dir.
0000			
0600		1	
1200		1	
1800		1	

DIARY OF OPERATIONS

PAGE 9 OF 10

TIME	Time Zone=UTC+10.00	Saturday, 25 August 2002(Continued)
0811	#8 passed back to Bounty	
0812	#4 Run out	
0821	#4 Lowered to bottom E:646626 N:5705943	
0828	#1 PCC passed to Conqueror	
0842	#4 PCC returned to Bounty	
0847	#1 Run out halted, anchor turned, winch back to rig	
0854	#5 PCC passed to Sentinel	
0920	#5 Run out	
0928	#5 Lowered to bottom E:647670 N:5706470	
0932	#1 Run out	
0938	#1 Lowered to bottom E:647677 N:704074	
0952	#5 PCC returned to Bounty	
1003	#1 PCC returned to Bounty	
1010	Begin pre-tensioning	
1115	Stop pre-tensioning and continue ballast rig	
1500	Ballast operations complete, anchor tensioning continues	
1601	Rig at 70' draft	
1621	Manoeuvring onto location	
1724	Pre-tensioning complete, rig in location	
1800	Begin spud-in	
2111	Commence Final Position fix	
2211	Complete Final Fix.	
2300	Demob equipment for storage onboard rig.	

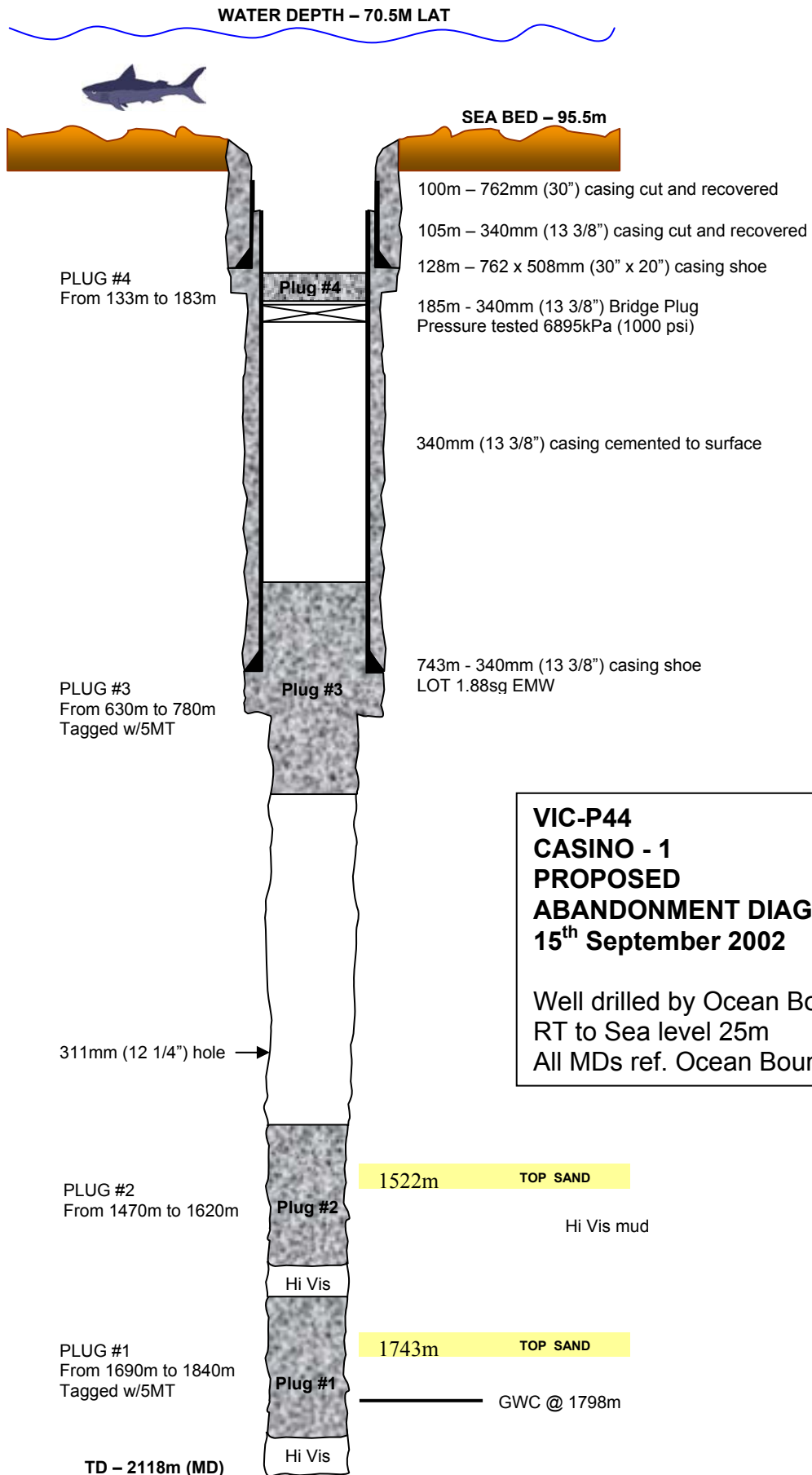
Forms are to be completed daily in duplicate on all vessels. Each form should be countersigned by the Clients Representative, the original being retained on board until the next crew change or at the end of job, whichever is the earlier, when they should be returned to the PERTH office.

Signature _____
SURVEYOR/ENGINEER

WHITE	: Accounts Department
BLUE	: Operations Department
YELLOW	: Clients Representative

Signature _____
CLIENT REPRESENTATIVE

SECTION 14:- WELL ABANDONMENT AND PLUG REPORT



**VIC-P44
CASINO - 1
PROPOSED
ABANDONMENT DIAGRAM
15th September 2002**

Well drilled by Ocean Bounty
RT to Sea level 25m
All MDs ref. Ocean Bounty RT

SECTION 15:- DEVIATION SUMMARY

Surveys and schematics are presented overleaf.

SURVEY CALCULATION METHOD USED : MINIMUM CURVATURE

WELLNAME: Casino-1

ALL BEARINGS CORRECTED TO TRUE NORTH. DEPTHS IN FEET (MDRT)

REFERENCED TO WELLHEAD COORDINATES

No.	MD	INC	AZ	+E/-W	+N/-S	Closure	Direction	TVD	Build/30m	Walk /30m	Dog Leg	V.Sect.
1	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00				0.0
2	766.75	0.60	342.17	-1.23	3.82	4.0	342.17	766.74	0.078	0.000	0.078	-3.8
3	855.00	0.26	216.64	-1.49	4.10	4.4	340.03	854.98	-0.385	-142.244	1.135	-4.1
4	912.40	0.54	155.43	-1.46	3.75	4.0	338.79	912.38	0.488	-106.638	0.890	-3.8
5	969.94	0.83	135.97	-1.05	3.20	3.4	341.81	969.92	0.504	-33.820	0.646	-3.2
6	1041.08	1.20	191.94	-0.85	2.11	2.3	338.03	1041.05	0.520	78.676	1.488	-2.1
7	1084.57	1.29	209.06	-1.18	1.23	1.7	316.20	1084.53	0.207	39.365	0.880	-1.2
8	1170.44	0.93	192.51	-1.80	-0.29	1.8	260.74	1170.38	-0.419	-19.273	0.561	0.3
9	1256.72	1.44	181.17	-1.98	-2.06	2.9	223.78	1256.64	0.591	-13.143	0.651	2.1
10	1382.12	1.87	182.17	-2.08	-5.68	6.1	200.15	1381.99	0.343	0.797	0.344	5.7
11	1458.48	2.13	183.87	-2.23	-8.34	8.6	194.95	1458.31	0.340	2.226	0.349	8.3
12	1546.07	2.74	185.63	-2.54	-12.05	12.3	191.92	1545.82	0.696	2.009	0.702	12.0
13	1605.53	3.09	184.83	-2.82	-15.06	15.3	190.60	1605.20	0.589	-1.345	0.593	15.1
14	1690.72	3.44	188.91	-3.41	-19.87	20.2	189.73	1690.25	0.411	4.789	0.493	19.9
15	1775.86	4.38	192.34	-4.50	-25.57	26.0	189.97	1775.19	1.104	4.029	1.138	25.6
16	1850.00	6.67	192.34	-6.02	-32.55	33.1	190.48	1848.98	3.089	0.000	3.089	32.5
17	1900.00	8.00	192.34	-7.39	-38.78	39.5	190.78	1898.57	2.660	0.000	2.660	38.8
18	1950.00	9.34	192.34	-9.00	-46.14	47.0	191.03	1948.00	2.680	0.000	2.680	46.1
19	2000.00	10.57	192.34	-10.84	-54.59	55.7	191.24	1997.25	2.460	0.000	2.460	54.6
20	2050.00	11.74	192.34	-12.91	-64.04	65.3	191.40	2046.30	2.340	0.000	2.340	64.0
21	2090.00	13.17	192.34	-14.76	-72.47	74.0	191.51	2085.36	3.575	0.000	3.575	72.5
Note: Surveys #16 to #21 are from the PEX tool. Azimuth is assumed.												