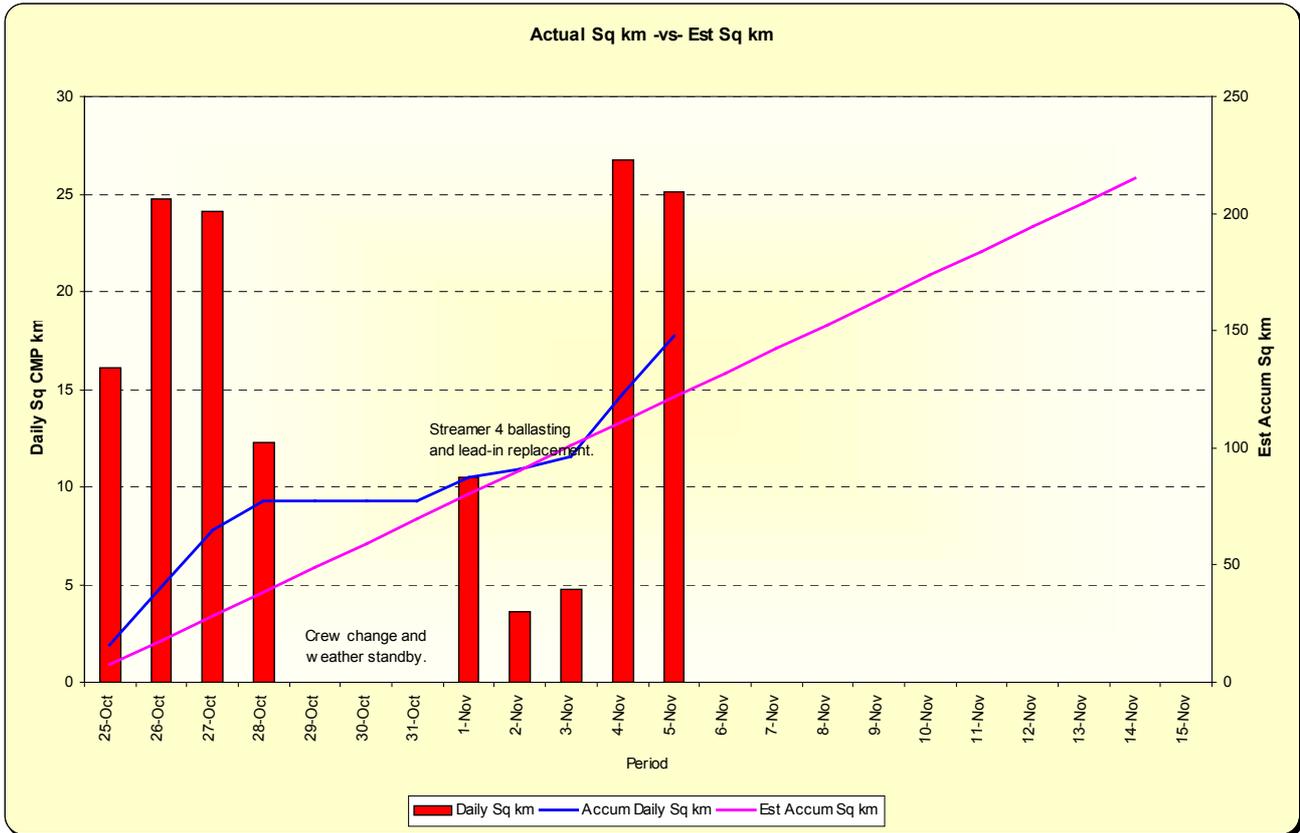


DAILY OPERATIONS REPORT # 20

ANTARES 3D MARINE SEISMIC SURVEY

Contractor: PGS
Woodside Reps: Ken Haig, Stephen Burt
WEL project Manager: Ralph Weiss
Vessel: Orient Explorer
Party Chief: E. Jettestad
Date: Wednesday 05th Nov 2003



Estimated Completion : 11th November 2002

1. PRODUCTION SUMMARY

November 5th, 2003

Seq	Line Name	Hdg	Line Type	Line Status	FcSP	LcSP	Ch Sailed
021	WO3ANT-1180P1	305.0	Prime	Completed	1355	893	8.68125
022	WO3ANT-1052P1	126.0	Prime	Completed	1001	2944	36.45000
023	WO3ANT-1188P1	305.0	Prime	Completed	2658	893	33.11250
024	WO3ANT-1028P1	125.0	Prime	Completed	1001	2944	36.45000
025	WO3ANT-1196P1	305.0	Prime	End of Day	2634	2062	10.74375
						Total 11/5/2003 :	125.43750

2. STATISTICAL ANALYSIS (DECIMAL HOURS)

		<u>Line Type Analysis</u>		
	Period	(%)	Survey	(%)
Prime	125.43750	100	739.57500	100
Total :	125.43750	100	739.57500	100

		<u>Line Charge Analysis</u>		
	Period	(%)	Survey	(%)
<u>Sailed Kms</u>				
Prime	125.43750	100	742.93125	100
N/C Reshoot	0.00000	0	1.16250	0
Total :	125.43750	100	744.09375	100

		<u>Charged Sailed Kms</u>		
	Period	(%)	Survey	(%)
Prime	125.43750	100	739.57500	100
Total :	125.43750	100	739.57500	100

		<u>CMP Kms</u>		
	Period	(%)	Survey	(%)
Prime	1,003.50000	100	5,916.60000	100
Total :	1,003.50000	100	5,916.60000	100

		<u>Square Kms</u>		
	Period	(%)	Survey	(%)
Prime	25.08750	100	147.91500	100
Total :	25.08750	100	147.91500	100

		<u>Fullfold Sailed Kms</u>		
	Period	(%)	Survey	(%)
Prime	117.33750	100	697.05000	100
Total :	117.33750	100	697.05000	100

		<u>Fullfold CMP Kms</u>		
	Period	(%)	Survey	(%)
Prime	938.70000	100	5,576.40000	100
Total :	938.70000	100	5,576.40000	100

		<u>Fullfold Square Kms</u>		
	Period	(%)	Survey	(%)
Prime	23.46750	100	139.41000	100
Total :	23.46750	100	139.41000	100

Time Activity Analysis

	Period	(%)	Survey	(%)
Recording	16.233	68	96.800	21
Line Change	7.717	32	44.217	9
Extended L/C	0.000	0	1.900	0
Weather	0.000	0	65.733	14
Instrument	0.050	0	3.033	1
Source	0.000	0	5.200	1
Streamer	0.000	0	36.450	8
Ship	0.000	0	0.500	0
Travel t/f Port	0.000	0	4.250	1
Port/Crew Change	0.000	0	71.917	15
Contractor	0.000	0	3.000	1
Mobilisation	0.000	0	136.000	29
Total :	24.000	100	469.000	100

Time Cause/Reason Analysis

	Period	(%)	Survey	(%)
Production	23.950	100	141.017	30
Weather	0.000	0	65.733	14
Equip.Fail	0.050	0	45.183	10
MOB/DeMOB	0.000	0	140.250	30
Wside.Req	0.000	0	35.950	8
Crew Change	0.000	0	35.967	8
PGS	0.000	0	3.000	1
Survey Shape	0.000	0	1.900	0
Total :	24.000	100	469.000	100

Time Charge Analysis

	Period	(%)	Survey	(%)
Prime	16.233	68	96.800	21
Operations	7.717	32	44.217	9
Standby	0.000	0	103.583	22
Contractor	0.050	0	84.150	18
Mob/Demob	0.000	0	140.250	30
Total :	24.000	100	469.000	100

3. TIME SUMMARY

November 5th, 2003

Start	End	Hours	Description / Comments	Charge
00:00	01:06	1.100	Seq 021 : Line WO3ANT-1180P1	Prime
01:06	03:06	2.000	Production (Line Change)	Operations
03:06	07:46	4.667	Seq 022 : Line WO3ANT-1052P1	Prime
07:46	10:01	2.250	Production (Line Change)	Operations
10:01	10:04	0.050	Equip.Fail (Instrument)	Contractor
			Miss the SOL due to a Syntrak lock-up at the SOL.	
10:04	14:16	4.200	Seq 023 : Line WO3ANT-1188P1	Prime
14:16	16:10	1.900	Production (Line Change)	Operations
16:10	21:03	4.883	Seq 024 : Line WO3ANT-1028P1	Prime
21:03	22:37	1.567	Production (Line Change)	Operations
22:37	24:00	1.383	Seq 025 : Line WO3ANT-1196P1	Prime
	Total :	24.000		

Chase/Supply Vessel Status:

Southern Salvor and Perfect Lady on site.

Comments/Problems:

Continue acquisition in fair weather and sea conditions. Cable balance and control has been acceptable throughout the day. Source performance, volume, pressure and timing has been maintained on all lines.

Random extraction errors on cable 3 persist – we are still unable to ascertain the actual location of the problem as it is very intermittent – continuing to monitor.

Semac-1

Still on location near Port Cambell.

Cetacean Report:

No sightings reported. During the time in question we had no less than 5 persons on the bridge and we moved the Perfect Lady ahead scouting 3-4 kms ahead of our location.

Weather Comments:

Swell increased to 2.5m but winds eased to less than 5 knots at time. Swell is expected to be with us till at least Friday.

Close of the day and local time updates.

SEQ	COMMENTS
022 Dir 125°	W03ANT1052 P1 SP 1001 - 2944 Complete Data Tape Nos 35688 - 35691 Weather: Winds 3-5 knots , Sea and Swell: 2 metres at times. Noise at SOL: 4-5µB, EOL: 4-5µB (6Hz lo-cut filter applied) Water Depth: SOL: 27.3m, EOL: 54.7m Feather at SOL: -1.8°, EOL : -1.1°, Max: 1.8 ° Streamer Depth: 7.5 to 8 metres - acceptable. Noisy Traces: 204, 300, 299, 312, 13 noisy and 254 intermeittent spiking Extraction Errors: NIL Gun Volume SOL: 2500 , EOL: 2500. Timing errors above 1.5ms: SP 1088, 2007 Missed Shots: 2678, 2679 to be verified by OBP
023 Dir 305°	W03ANT1188 P1 SP 2658-893 Complete Data Tape Nos 35692-35696 Weather: Winds W 5 knots , Sea and Swell: 2 to 3 metres at times. Noise at SOL: 4-6µB, EOL: 4-6µB (6Hz lo-cut filter applied) Water Depth: SOL: 40.7m, EOL: 34 m Feather at SOL: 1.2°, EOL : 0.6 °, Max: 1.2° Streamer Depth: 7.5 to 8 metres - acceptable. Noisy Traces: 204, 300, 299, 312, 13 noisy and 254 intermeittent spiking Gun Volume SOL: 2500 , EOL: 2500. Gun edits logged : Delta errors over 2.1ms : 976 Timing errors above 1.5ms: NIL 2574 Missed Shots: SP 2656, 2655, 2513, 1314,1307, 1306, 1305, 1116-1091 (to be confirmed by OBP) ExtractionErrors: 1912, 1908, 1643
024 Dir 125°	W03ANT 1028 P1 1001 – 2944 Incomplete – Syntrak Lock-up SP 2239-2282 Data Tape Nos 35697 - 35703 Weather: Winds 4-9 knots , Sea and Swell: 2 metres at times. Noise at SOL: 4-6µB, EOL: 4-6µB (6Hz lo-cut filter applied) Water Depth: SOL: 29.2m, EOL: 54.1m Feather at SOL: -1.5°, EOL : -0.6 °, Max: -1.5 ° Streamer Depth: 7.5 to 8 metres - acceptable. Noisy Traces: 204, 300, 299, 312, 13 noisy and 254 intermeittent spiking Gun Volume SOL: 2500 , EOL: 2500. Gun edits logged : Delta errors over 2.1ms : 1491, 1545, 1683, 1818, 2291, 2413, 2809, Timing errors above 1.5ms: 1977, Missed Shots: SP 1027, 2373, 2380,2586 Extraction Errors: SP 1120,1121,1189, 1669,2169,2170,2177,2310,2455 Tape Errors: SP 2239, 2240.2254.2431. Syntrak lock-up at SP 2239-2282 – data to be reshot. (The above tape and extraction errors are to be checked and confirmed by OBP QC)

<p>025 Dir 305°</p>	<p>W03ANT1096 SP 2634 - 893Complete Data Tape Nos 35704 - 35707 Weather: Winds 4-9 knots , Sea and Swell: 1.5 metres at times. Noise at SOL: 4-6µB, EOL: 4-6µB (6Hz lo-cut filter applied) Water Depth: SOL: 54.8m, EOL: 39.2 m Feather at SOL: -5.0°, EOL : 0 °, Max: -5.6 ° Streamer Depth: 7.5 to 8 metres - acceptable. Noisy Traces: 204, 300, 299, 312, 13 noisy and 254 intermittent spiking Gun Volume SOL: 2500 , EOL: 2500. Gun edits logged : Delta errors over 2.1ms : 2577,2515,2452,2168,1486,1222 Timing errors above 1.5ms: NIL Missed Shots: SP 2380, 2229, 2152,2151,2073,2055.2054, 2051, 2050, 1976-1959, 1097 ExtractionErrors: 2385,2363,24343,2274,2155,2153,2150,2149,2096,2084,2083,2079,2078,2074,2056,2049,2048,2047, 2046 Syntrak Crash at SP 1975 – 1959 subject to confirmation by OBP QC,</p>

HSE Comments

A Near Miss was reported today where corroded Lithium batteries were found on the deck. On completion of any work involving these batteries they should be correctly stored and placed in the battery locker. This was not the case for these particular batteries. The batteries in question has since been recovered and is now correctly stored. The crew will be made aware of the procedures again concerning Lithium batteries. No injury, no lost time and no damage resulted. The incident as per PGS reporting system is CLOSED.

Permit to Work – a person was observed working up the mast this afternoon. On checking, he had applied for the correct Permit to Work and this has since been closed after completion of the job. He also was wearing correct PPE and had an assistant standing by at deck level, in case of problems.

HSE Daily Statistics - 05/11/2003**Comments:**

No accidents or lost time incidents reported. No spillage of oil or loss of containment overboard. Whale watches have been maintained - no sighting

HSE Items:

Stop Card Issued - 8 issued.

09:00 - 09:45

Emergency Boat /Towing Drill [EBD]

Extreme Weather Drill - tabletop exercise with PC, Captains and Chief Officer.

10:30 - 11:10

Audit/Inspection/Training/Safety . [HSE]

JSA and Incident Report Training Module by PGS HSE Adviser.

11:47

Near Miss Incident [NMI] - Report #1

A Lithium battery was found on the back deck following cable work and depth controller replacement. The unit should have been correctly stored. No injury, no damage and no lost time. The unit was retrieved and correctly stored. The matter will be brought to the attention of all crew.

Description	Day	Month	Survey
Incidents			
Near Miss Incident (NMI)	1	1	1
First Aid Case (FAC)	0	0	0
Medical Treatment Case (MTC)	0	0	0
Restricted Work Case (RWC)	0	0	0
Fatality (FT)	0	0	0
Lost time Injury (LTI)	0	0	0
Oil Spill (OS)	0	0	0
Illness/Ailment (IA)	0	0	0
Environmental Incident (EI)	0	0	0
Hazard Report (HR)	0	0	0
Positive Observation (PO)	0	0	3
Equipment Loss/Damage (ELD)	0	0	0
Non work related illness (NWR)	0	0	1
Events			
Stop Cards Issued ()	8	18	25
Small Boat Launches ()	0	4	6
Helicopter Landing/Takeoff (HL)	0	0	0
MOB Drill (MD)	0	0	0
Fire Drill (FD)	0	1	1
Emergency Boat /Towing Drill (EBD)	1	1	8
Safety Meeting (SM)	0	0	2
HSE Induction-Inspection (IT)	0	1	4
Safety Committee Meeting (SCM)	0	1	1
Audit/Inspection/Training/Safety . (HSE)	1	3	8
Toolbox Meeting/Debrief (TB)	0	6	17
Cetacean Sighting (CS)	0	0	0
Bunker and Resupply (BR)	0	0	0
Oil Spill Drill (OR)	0	0	0
Personnel transfer at sea (PT)	0	0	0
Totals			
No. Marine Crew	35	175	696
No. Seismic Crew	22	110	428
No. Contractors	3	15	60
No. Lost Time Injuries	0	0	0
Exposure Hours *	720	3600	14208
Small Boat Hours (Decimal hours)	0.00	3.90	8.38
Small Boat Exposure Hours (Dec. hours)	0.00	15.60	33.53
Fuel Usage (Cubic Metres)	10	47	202

* Exposure hours calculated at 12hrs per day per person.

Navigation report submitted by Stephen Burt for Wednesday 05th November 2003

Lines at the irregular shaped SW edge of the block commenced earlier than planned to obtain all the coverage.

Acoustic and compass data remains acceptable despite the large swell conditions and with the streamer set at 8m this has improved the quality of the data.

Following the crew change the front end separations between S2 and S3 have been around 88m -90m prior to the port call the separations were around 100m. The following table lists the front separations from Sequence 014:

SEQUENC E	Front 1-2	Front 2-3	Front 3-4
No	avg	avg	avg
14	100.3	80.7	97.1
15	100.9	87.8	98.1
16	101.2	96.6	100.8
17	101.3	90.0	100.5
18	101.8	87.4	100.4
19	101.9	93.2	101.0
20	101.9	95.7	100.9
21	100.2	87.2	100.6
22	101.0	88.6	100.6

(The current separations are around 93m which is acceptable)

The current navigation processor is using more ranges than the previously was the case and the Degrees of Freedom has increased from 150 to 190 following sequence 014. However the External Reliability on a number of pods has increased as a result. A test line was processed with the previous and the current setup that resulted in differences <1m. Requested the extra ranges to be maintained as increased the ranges available will aid the final network solution.

Progress:

Shot to Sequence Number 24 Processed to Sequence Number 023 QC'd to Sequence Number 023, sequence 019 was successfully processed after deleting troublesome ranges from the vessel and the guns.

NTBP Sequences:

001

Dead/Bad Units:

RGPS: - Port inner gun pod was intermittent during sequence 023

Acoustics – Operational

Regards,

Ken Haig and Stephen Burt

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