PREPARED BY

ON BEHALF OF

CRC-1
WELL COMPLETION REPORT

PPL 13

CONTROLLED DOCUMENT NO. 34632-DR-05-0006

Revision 0, 25 July 2008

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1 DISTRIBUTION LIST

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2 APPROVALS

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3 DOCUMENT REVISION HISTORY

Revision	Date	Sections	Details
Rev 0	25 July 2008	All	Release of Document to DPI & CPPL

4 EXECUTIVE SUMMARY

CRC-1 was drilled 300m east of former producing gas well Naylor 1 as a vertical well of monobore design using Century 11, a rotary drive land rig, as part of CO2CRC Pilot Project Limited (CPPL)'s CO_2 geosequestration program in the onshore Otway Basin. The primary aim was to intersect the Waarre C formation below the Gas-Water-Contact.

The move from Karoon Gas' Megascolides-2 site location commenced on February 9 2007 and CRC-1 was spudded @ 11:00 hrs on February 15 2007

An extensive coring program was conducted. ROPs on most zones, other than the Waarre C, were very low and recoveries much less than expected. Tripping times were much longer than expected due to hole problems. The planned core of the Eumeralla formation was not attempted to minimize well time and to ensure the hole did not deteriorate during the logging program.

An extensive logging program was also conducted. The CMR run was cut short after the tool string was temporarily stuck. Because of this, the MDT (mini-frac) run was reduced and ultimately cancelled after tool failures. The planned post MDT (minifrac) MDI log was therefore not required.

TD was 2249mMDRT. Production casing (4.5", 12.6 lb / ft, 13Cr80, JFE Bear premium thread) was run to 2238mMDRT and cemented in place. The tail slurry was prepared with a special CO_2 resistant cement blend. An 11" x 4-1/16" 5000psi Wood Group monobore wellhead was installed. The wetted surfaces on the Xmas tree are coated with xylan to prevent corrosion.

The well was cased and suspended for future completion as a CO2 injection well and the rig was released @ 21:00 hrs on March 15 2007. Time on location was 28.42 days.

5 WELL SUMMARY & OVERVIEW

5.1 WELL SUMMARY

Well Name	CRC-1		
Designation	Vertical Well (proposed CO2 Injection Well)		
Licence	PPL 13		
Geographic Surface Location Co-ordinates (GDA94, GRS80, MGA, UTM Zone 55)	Latitude Longitude	38º 31' 50.06" S 142º 48' 41.44" E	657,899.1 mE 5,733,759.0 mN
Lease Holder	CO2CRC Pilot Project Limited		
Project Manager	Upstream Petroleum Pty Ltd (since renamed AGR Asia Pacific)		
Rig Released by Prior Operator	February 3 2007 @ 1800hrs		
Rig on Contract	February 8 2007 @ 1600 hrs		
Rig Arrived Location	February 10 2007 @ 1800hrs		
Spud	February 15 2007 @ 1100hrs		
Reach TD of 2249mMD	March 8 2007 @ 2200hrs		
Rig off Contract	March 15 2007 @ 2100hrs		
Total Days – Rig Release (Meg 2) to Spud	11.70 days		
Total Days – Drilling & Evaluation Phases	28.42 days		
Total Days	40.12 days		
RT-GL	5.20m		
GL-MSL	44.46m		
Drilling Contractor / Rig Name and Type	Century Energy Services Pty Ltd *Rig 11* – Land Rig Rotary Drive		
Well Status	Cased & Suspended		
Total Depth	2249mMD		
Bottom Hole Location	657,920.17 mE 5,733,729.14 mN		
Maximum Deviation	2.0º		
9-7/8" Hole / 7-5/8" Surface Casing	516m / 512m		
6¾ " Hole / 4½ " Production Casing	2249m / 2238m		
Mud: Surface Hole	Bentonite spud mud with 10% KCl sweeps below 400m		
Mud: Production Hole	KCl / PHPA / Polymer		

5.2 Drilling & Completions Operations Summary

CRC-1 was drilled 300m east of Naylor 1 as a vertical well of monobore design using Century 11, a rotary drive land rig, as part of CO2CRC Pilot Project Limited (CPPL)'s CO_2 geosequestration program in the onshore Otway Basin. The primary aim was to intersect the Naylor – CRC field Waarre C formation below the Gas-Water-Contact and to later inject CO2 at that horizon. Naylor 1 formerly produced gas from the Waarre C & Waarre A. CRC-1 was also to evaluate several other aquifers and seals.

Rig 11 and the drilling camp facilities were mobilized in late October 2006 from Roma, Brisbane & Jackson in Queensland where they had been stacked since earlier in 2006 to the Gippsland Basin for the first in a series of wells in Victoria for several different Operators. After a period of maintenance, inspection, recommissioning & upgrade ensued Rig 11 was accepted by the first Operator, Karoon Gas Pty Ltd, on behalf of a group of operators including CPPL.

The rig was released at Karoon Gas' Megascolides-2 site location at 1800 hrs on February 3, 2007. The rig underwent a washdown to meet DPI requirements and was prepared for the move to the CRC-1 location which commenced on February 9 2007 after approval to move was received from CPPL at 16:00hrs on February 8 2007. The first rig components and the camp arrived at the CRC-1 site on February 10 2007 and rigging up commenced. A pre-spud briefing was held on February 14 at Nullawarre Hall.

CRC-1 was spudded on February 15 2007 @ 11:00hrs using a bentonite spud mud. 9-7/8" surface hole was drilled to section TD of 516mMDRT with a single bit run, using a Stealth JST11XC mill tooth rock bit with a 60ft pendulum BHA. Sweeps of 10% KCL were added below 400mMDRT after sticky clay agglomerations were seen on shakers. Totco drift record surveys were taken regularly via wireline with a maximum angle of 1 degree recorded. Two misruns occurred. As well as standard mud logging gas samples were collected throughout the well into isotubes. A wiper trip was conducted at section TD. Fill was tagged at 503mMDRT after running back in hole and the drillstring was subsequently washed to bottom and the hole circulated clean. The programmed surface logging run was cancelled by CPPL. Approximately 2 hours was lost until the 7-5/8" cement head & circulating swage missing in transit from Perth was located. The 7-5/8" L80, 26.4 lb / ft, BTC surface casing was then run in hole and cemented in place with 67bbls of 12.5ppg Class G cement lead slurry and 33.5bbls of 15.8ppg Class G tail slurry, displaced with 79.1bbls of 8.9ppg drilling mud at a rate of 6.6bpm. Circulation was maintained throughout and 20bbls of good cement returns were recorded at the shakers.

After waiting on cement, a Wood Group 11" 5000 psi x 7-5/8" BTC casing head was installed and the BOPs were rigged up and pressure tested to 300psi (low) / 3000psi (high). Over 4 hours was lost as the pipe rams and annular BOP failed to test. The ram blocks were turned and successful testing completed. A 6-3/4" 5 blade Stealth M56S PDC bit was made up to a packed BHA and run in hole to drill out the shoe track. After drilling new 6-3/4" production hole to 522mMDRT, an extended leak off test was conducted to 13.3ppg EMW. Drilling continued without incident to 915mMDRT, where the first core point in the Pember Mudstone was reached.

A 40' x 6-3/4" x 4-3/4" x 2-9/16" Corpro core barrel & Corpro MCP662 PDC corehead (used on all core runs) was run in hole for a planned 12 m core. While RIH an obstruction was tagged at 825mMDRT and the core barrel was washed and lightly reamed to bottom. After space out, core #1 was cut from 915mMDRT to 918.5mMDRT in the Pember Mudstone. After a good initial ROP (6m/hr for the first 2m), the ROP dropped to 1m/hr with a corresponding increase in pump pressure. The core barrel was tripped out, as it was suspected the barrel had jammed. Of the 3.5m of core cut, 2.1m was recovered (60% recovery). 4 of the 6 jets in the core head were found to be plugged.

The 6-3/4" M56S PDC bit and packed drilling BHA was rerun and drilling continued from 918.5mMDRT to the next core point at 1245mMDRT (three magnetic single shot misruns). After minor issues in assembly a longer 80 ft core barrel assembly was run in hole to 1232mMDRT. The kelly was picked up and the core barrel was washed and reamed to bottom.

Core #2 was cut from 1245mMDRT to 1246mMDRT in the Paaratte Formation, with very low ROP and high pump pressure observed. The string was pulled out of hole and small pieces of pyrite were found to be blocking the ports at the top of the core barrel. The core assembly was then run back in hole and coring continued in the Paaratte Formation with Core #3 cut from 1246mMDRT to 1270mMDRT. There was a loss of rig power which briefly interrupted coring at 1247m MDRT. After cutting 24m of core pulled out of the hole and recovered 8.13m (34% recovery).

The 6-3/4" M56S PDC bit and packed BHA were again rerun. After washing to bottom drilling continued from 1270m MDRT to the next core point in the Belfast Mudstone at 1900mMDRT (one survey misrun). Through this section of the hole, ROP was good but failed to completely match those in the Naylor 1 offset well. After circulating the hole clean, a wiper trip was required with the drillstring having to be worked out of the hole to 1206m. The drillstring was run back to bottom at 1900mMDRT. No fill was encountered. After circulating bottoms up, a wireline survey was taken and the drillstring pulled out of hole. No tight spots were encountered while pulling out. The drilling BHA was laid down and a 40 ft coring assembly was made up and spaced out. After conducting a rig service and slipping & cutting of the drill line, the coring assembly was run in hole to 1172mMDRT, where tight hole was again encountered. The kelly was picked up and the string washed and reamed to 1250mMDRT. Running in hole continued to 1749mMDRT, where the kelly was again picked up to wash and ream the string to 1767mMDRT, and again from 1880mMDRT to bottom.

Core #4 was cut from 1900mMDRT to 1904.2mMDRT in the Belfast Mudstone. Excessively slow ROP prompted 9.0ppg 12% KCl mud sweeps to be pumped downhole in an attempt to improve the ROP. It was also decided to increase the overall KCL content to 5 – 6% to improve hole stability especially when tripping. The core length target was 12m, however due to the slow ROP and inability to improve on it, the decision was made to stop the coring, circulate and pull out of hole. 2.65m of core was recovered (63%).

A new 6-3/4" 4 bladed M46H4 PDC bit was picked up and made up to the same packed BHA. With one less jet than the previous 5 blade PDC bit, higher pressure, better hydraulics and improved ROP could be obtained. The trip back in the hole was problem-free with good hole condition. At 1886mMDRT the kelly was picked up and the string washed and reamed to bottom. 5.5m of soft fill was encountered.

Drilling new hole continued from 1904.2m MDRT to the next core point in the Flaxmans Formation at 2033mMDRT. The hole was circulated clean and a wireline survey was conducted prior to pulling out of hole. The trip out of the hole encountered no tight spots

A 60' coring assembly was made up and run in hole. Broke circulation at 1000mMDRT, 1500mMDRT and 1700mMDRT. Some back flow seen due to an uneven mud system from KCL sweeps so additional circulation was required. After a tight spot was encountered at 1966mMDRT the kelly was picked up to wash and ream to bottom at 2033mMDRT. The hole was circulated clean and the core barrel spaced out in preparation for core #5.

Core #5 was cut from 2033mMDRT in the Flaxmans Formation. While making a connection at 2042.5mMDRT, was unable to get the kelly bushing in so laid down one joint of drillpipe and picked up 2 pup joints and worked the core barrel back to bottom and continued coring. Because of the pup joints a further connection was required at 2046.5m MDRT. At times, eg 2046m & 2049m, it appeared as if the corehead stopped making any ROP. After adjustments to flowrate ROP appeared to be established and coring continued to 2051mMDRT. After pulling out the core assembly to surface, 6.59m of core was recovered (37%).

An 80' core assembly was then made up to continue coring the Flaxmans Formation and continue through to the upper Waarre C (target reservoir sands). There were no problems in the trip back in the hole. The last 2 singles of drill pipe were washed down to bottom. After space out of the core assembly, Core #6 commenced. There were no problems with the coring and a full core barrel was cut from 2051mMDRT to 2075.5MDRT (24.5m) in 6 hrs. The hole was in good condition on the trip out and 23.53m of core from the Flaxmans & Waarre C formation was recovered (96%).

The M46H4 PDC bit & a packed drilling assembly was made up and run in hole to drill ahead. The decision was made to not core the Eumeralla Formation (the final planned coring run) and drilling continued from 2075.5mMDRT to the well TD of 2249mMDRT. After circulating the hole clean and taking a wireline survey a 15 stand wiper trip was made to 1960mMDRT with tight hole encountered from 2236mMDRT to 2071mMDRT. After running back to bottom, circulating the hole clean and spotting a high viscosity pill at TD the bit was pulled up to 1900mMDRT and a high viscosity weighted pill was spotted. Pulled out of hole and laid out core barrel..

Schlumberger then rigged up to run the following logs:

Run 1: HALS-PEX-GR-SP (from TD to surface casing shoe)
Run 2: FMI-MSIP-GR (MSIP-GR from TD to surface; FMI from TD to surface casing shoe)
Run 3: MDT (pressures) [32 stations from 35 attempts]
Run 4: MDT (sampling) [6 samples]
Run 5: CMR-ECS-GR (2190-2015mRT; 1540 – 810mRT; 5 MRF stations in Waarre C)
Run 6: MDT (mini-frac) [misrun]
Note: A Velocity Survey was to be run independently after rig release.

Run 1 (HALS-PEX-GR-SP) tagged TD at 2239.5mRT (possible 10m of fill on bottom). Upon reaching surface, a small piece of rock was found jammed in the tool, suspected to be from the lower Belfast. Platform Express was run in high resolution mode from 1340 – 1240mRT and on repeat section from 2085 – 2025mRT.

Run 2 (FMI-MSIP-GR) tagged TD at 2236.5mRT a further 3m of fill on bottom but otherwise ran smoothly.

The CMR tool was originally planned to be run next, however the tool couldn't be calibrated correctly during surface testing resulting in the MDT (pressures) tool being run first.

Run 3 [MDT (pressures)] came across a few tight spots while running in hole but otherwise ran smoothly. 32 requested pretest stations completed with 34 attempts (31 normal tests, 1 dry test, 2 lost seals). See summary below.

Run 4 [MDT (samples)] recovered 6 out of 6 samples; the sample at 2049.2mRT (Flaxmans) was gas, not water as expected.; water samples were recovered from the Dilwyn, Paaratte, Waarre C (x2), Waarre A . See summary below.

The MDT (mini-frac) tool was then made up. However, due to a wiring fault, failed to test and calibrate. The CMR-ECS-GR tool was made up instead and run in hole.

Run 5 (CMR-ECS-GR) ran smoothly to bottom before logging up the hole. During the log the tool became stuck at 2043mMDRT while pulling out of hole at the completion of the log. The tool was worked and pulled to the maximum safe-pull. The tool still did not release and the attempt was made to drop the tool to zero tension. After waiting for 30mins, the tool slowly released

downwards. The tool was worked a few times before becoming unstuck. There were no further problems on the way out of the hole.

Due to the hole problems on Run 5 & concerns about potential hole deterioration it was decided to run the MDT (mini-frac) on the upper zones only. A wiper trip was decided against with priority given to getting the well cased and cemented.

Run 6 [MDT (mini-frac)] was run in hole to the first station before an attempt was made to inflate the packers. There was no indication of whether the valve was opened or closed from the software in the logging unit. The tool was pulled out of hole to physically check the valve status. The tool was run back in hole to the first station and the packer inflated. However it could not be inflated to its normal inflation pressure. The decision was made to pull out of hole and abandon the run.

The last proposed run, the FMI (post mini-frac) was also abandoned since its intent was to obtain data after the MDT (mini-frac) run for comparison with earlier data.

After the logging operations were completed, a wiper trip was made to bottom with a slick BHA. There was no hole problems.. After circulating the well a high viscosity pill was spotted on the bottom 300m of the hole before pulling out sideways. Drill pipe & the BHA was laid out in preparation for running 4½" production casing.

4½ " pipe rams were installed in the BOPs and pressure tested to 1500psi successfully. The stabbing board was rigged up and secured in the derrick before the Premium Casing Services casing running equipment was rigged up on the rig floor.

186 joints of 4½" 13Cr80 12.6lb/ft R3, JFE Bear production casing was run in hole with 59 centralisers. The casing string included 3 marker joints and 6 x 4½" X landing nipples to facilitate the completions & testing phase to follow. Bottom was tagged at 2245mMDRT, with approximately 4m of fill before spacing out to a setting depth of 2238mMDRT. The hole was circulated while waiting for the special tail cement slurry to be pre-blended. Dowell Schlumberger then pumped 20 bbls drill water, 60 bbl of 11.0 ppg Mudpush II followed by 148bbls of 12.5ppg Class G cement lead slurry and 40bbls of 15.8ppg CO2 resistant tail slurry. The cement was displaced with 1 bbl unweighted Mudpush II and 110bbls of 2% KCl brine. The plug was bumped at 2000 psi and the casing pressure tested to 3000psi for 10mins. Bled back 1.1bbls of brine. Circulation was maintained throughout the job and Mudpush II returns were seen over the shakers.

After WOC for 7½ hrs the 11" x 4½" casing slips were installed and the casing landed in 40 000 lb tension. The BOPs were lifted, the casing was cut and the BOPs rigged down. The Christmas tree was nippled up and pressure tested to 5000psi for 15mins successfully. After laying out the kelly and cleaning mud tanks the rig was released on March 15 2007 @ 21:00hrs. The rig then continued rigging down in preparation for rig move to the next operator (Lakes Oil).

The total time spent on CRC-1 drilling operations was 28.42 days. An additional 11.7 days was spent on the rig move in, including waiting for approval to move, the rig washdown, the rig move and setting up prior to spud.

CRC-1 has subsequently been perforated over selected intervals of the Waarre C (in December 2007 & February 2008) and used for CO2 injection.

5.3 MDT Samples / Pressures

Six MDT well fluid samples were taken as follows

Depth MD RT	Zone	Bottle Position	Bottle Serial No.	Formation Pressure (psia)	Temperature (deg C)	Volume (cc)	Fluid Type
700.0	Dilwyn	1	2779	966.8	45	450	Water
1278.6	Paaratte	2	2780	1791.7	57	450	Water
2138.3	Waarre A	3	2741	2944.8	86	450	Water
2075.5	Waarre C	4	2740	2598.8	85	450	Water
2054.5	Waarre C	5	2750	2569.3	83	450	Water
2049.2	Flaxmans	6	2375	2564.0	82	450	Gas

In addition a total of 34 pre-tests (volumetric limited draw-downs) were attempted of 32 requested stations using the MDT tool. This resulted in:

- 31 normal tests
- 1 dry test
- 2 lost seals

The Waarre C pressure of 2567.7 psia at 2053.7 m MDRT is depleted from the original (2847 psi at 2029m RT [Naylor 1 RFS, May 2001]).

The Waarre A pressure of 2064.6 psia at 2101.1 m MDRT is more heavily depleted despite only a short time on production (cf 2975 psi at 2101m RT [Naylor 1 RFS, May 2001]).

In the lower Waarre A the pressure of 2941.9 psia at 2137.2m MDRT appears to have little depletion.

Test	File	Formation	MD / TVD (m RT)	Drawdown Mobility (md / cp)	Mud Pressure (psia)		Last BU Reading (psia)	Formation Pressure (psia)
					Before	After		
3	51	Dilwyn	700.91	293.94	1154.92	1154.36	969.00	969.00
6	52	Dilwyn	746.99	2127.36	1230.06	1230.93	1036.39	1036.39
8	54	Dilwyn	847.02	197.10	1394.57	1392.56	1179.69	1179.69
10	55	Dilwyn	847.02	418.45	1396.86	1393.37	1180.43	1180.43
12	56	Dilwyn	858.19	657.34	1413.19	1411.01	1194.85	1194.85
14	58	Timboon	1027.02	4397.26	1688.96	1688.22	1438.47	1438.47
15	59	Timboon	1102.11	7098.27	1812.41	1811.47	1544.23	1544.23
17	61	Paaratte	1274.97	4290.45	2094.64	2093.89	1786.81	1786.81
19	62	Paaratte	1278.61	1989.28	2101.21	2100.49	1792.15	1792.15
21	63	Paaratte	1293.29	2460.17	2125.03	2124.57	1812.61	1812.61
23	64	Paaratte	1306.48	1583.99	2146.59	2145.99	1831.53	1831.53
25	66	Paaratte	1492.32	Lost Seal	2450.70	2450.98	N/A	N/A
26	67	Paaratte	1492.17	Lost Seal	2451.02	2451.12	N/A	N/A
27	68	Paaratte	1493.54	1919.54	2452.70	2452.26	2094.05	2094.05
29	70	Flaxmans	2049.21	49.05	3359.95	3360.20	2564.86	2564.86
31	71	Waarre C	2053.69	468.62	3367.44	3367.64	2567.66	2567.66
33	72	Waarre C	2054.50	460.19	3368.97	3369.09	2568.87	2568.87
35	73	Waarre C	2057.19	1058.89	3373.44	3373.50	2572.59	2572.59
37	74	Waarre C	2058.01	658.51	3374.79	3374.89	2573.72	2573.72
39	75	Waarre C	2061.00	122.80	3379.66	3379.65	2577.94	2577.94
41	76	Waarre C	2061.51	105.52	3380.56	3380.57	2578.66	2578.66
43	77	Waarre C	2063.64	30.06	3384.08	3384.09	2581.86	2581.86
45	78	Waarre C	2071.65	68.02	3396.96	3397.00	2597.53	2597.53
47	79	Waarre C	2073.52	9.96	3400.04	3400.08	2958.21	2958.21
49	80	Waarre C	2075.50	83.63	3403.29	3403.39	2599.26	2599.26
51	81	Waarre C	2076.41	258.14	3404.81	3404.95	2599.86	2599.86
53	82	Waarre C	2077.31	799.73	3406.34	3406.39	2601.18	2601.18
55	83	Waarre C	2081.01	3.59	3412.27	3412.41	2607.30	2607.30
57	84	Waarre A	2101.01	0.85	3444.65	3444.76	2064.58	2064.58
59	85	Waarre A	2135.77	7.48	3501.11	3501.31	2939.95	2939.95
61	86	Waarre A	2137.21	9.39	3503.82	3503.96	2941.86	2941.86
63	87	Waarre A	2138.33	13.98	3505.81	3505.91	2943.15	2943.15
64	88	Eumeralla	2145.84	Dry Test	3518.14	3518.18	598.64	Dry Test
67	91	Waarre C	2066.74	0.40	3388.37	3388.60	2589.40	2589.40

5.4 Health, Safety & Environmental Summary

There were no major incidents during the CRC-1 operations. One First Aid incident, three Near Miss incidents & one Environment non-conformance occurred. Additionally a number of hazards were observed.

The First Aid incident occurred when a leasehand stepped back into a hole around a waste water tank. The tank was buried to allow gravity drainage of waste water. When the tank was installed the hole around the tank wasn't backfilled. The leasehand was refuelling the camp genset in an adjacent poorly lit area at night when the incident occurred.

The first Near Miss occurred during the transfer of cement from a third party bulk tanker to the Schlumberger tanker. A leg support on the Schlumberger bulk tanker broke through the lease surface, causing the tanker to tilt forward and tip 35deg to the right. There were no injuries to personnel. No prime mover was attached to the bulk tanker during the transfer operation and the support legs had a very small bearing area and were not designed to support the weight of a fully loaded tanker. After a risk assessment cranes were used to right the tanker and move it to a safe area. The tanker was later transported offsite so the cement could be removed under controlled conditions.

The second Near Miss incident occurred during a power blackout at night, when one of the service company personnel tripped over material stored on the ground at the end of the catwalk, causing him to fall to his knees. He did not suffer any significant injury. Limited emergency lighting around were automatically activated by the blackout however was not fully effective.

The third Near Miss incident occurred when an alignment key fell out of the hydromatic brake. No loss of control occurred however this was a repeat of an incident on a preceding well.

The Environmental non-conformance occurred when damaged sacks of barite were added to the mud system contrary to the approved Environmental Plan.

A total of 46 hazard observations were also handed in.and 17 JSAs conducted.

Additionally a number of tests & drills were performed during the well operations including BOP drills, muster drills, fire drills and daily alcohol screenings.

5.5 Highlights / Lowlights

Highlights during the drilling of CRC-1 included:

- No major incidents and no recorded lost-time or medical treatment incidents.
- A special blend of CO2 resistant cement, supplied by Schlumberger, was used in the production casing tail slurry and successfully placed. Cementing of both surface & production strings was troublefree with full circulation.
- The lost circulation on the Naylor 1 surface hole did not recur at CRC-1
- An extensive coring program was completed. ROP and recovery from the Waarre C were excellent.
- A lengthy logging program was completed without the need for a wiper trip.
- The well was drilled vertically with a maximum deviation of 2 degrees.
- A rig washdown completed prior to mobilisation to meet DPI requirements.
- A trouble free rig move completed by Century contractor, Spikin Engineering.
- A successful pre-spud briefing of crews held at Nullewarre Hall
- A large number of visitors to site successfully managed including personnel from CPPL, various Universities, CSIRO, Geoscience Australia and the Victorian Minister for Minerals & Energy.
- Fluoroscein was used in mud as a tracer. Extensive testing and trialling conducted by the RMN mud engineer and Geoscience Australia.
- Isotubes were used to sample mud gases.
- An Extended Leak Off Test was run.
- The hole sizes (9-7/8" & 6-3/4") and casing sizes (7-5/8" & 4-1/2") were unconventional for the Century 11 rig and a 3.5" drillstring & 4-3/4" drill collars and handling tools had to be mobilised by Century. CPPL also had to mobilise some specialised tools (eg, jars, bits, stabilisers). While there was a cost, no issues were experienced with availability or functionality of this equipment.
- Premium Casing Services were used to monitor the make up of the 3.5" 13Cr80 JFE Bear casing & accessories. The casing string included a number of X – nipples (mainly for deployment of gauges during the injection phase).

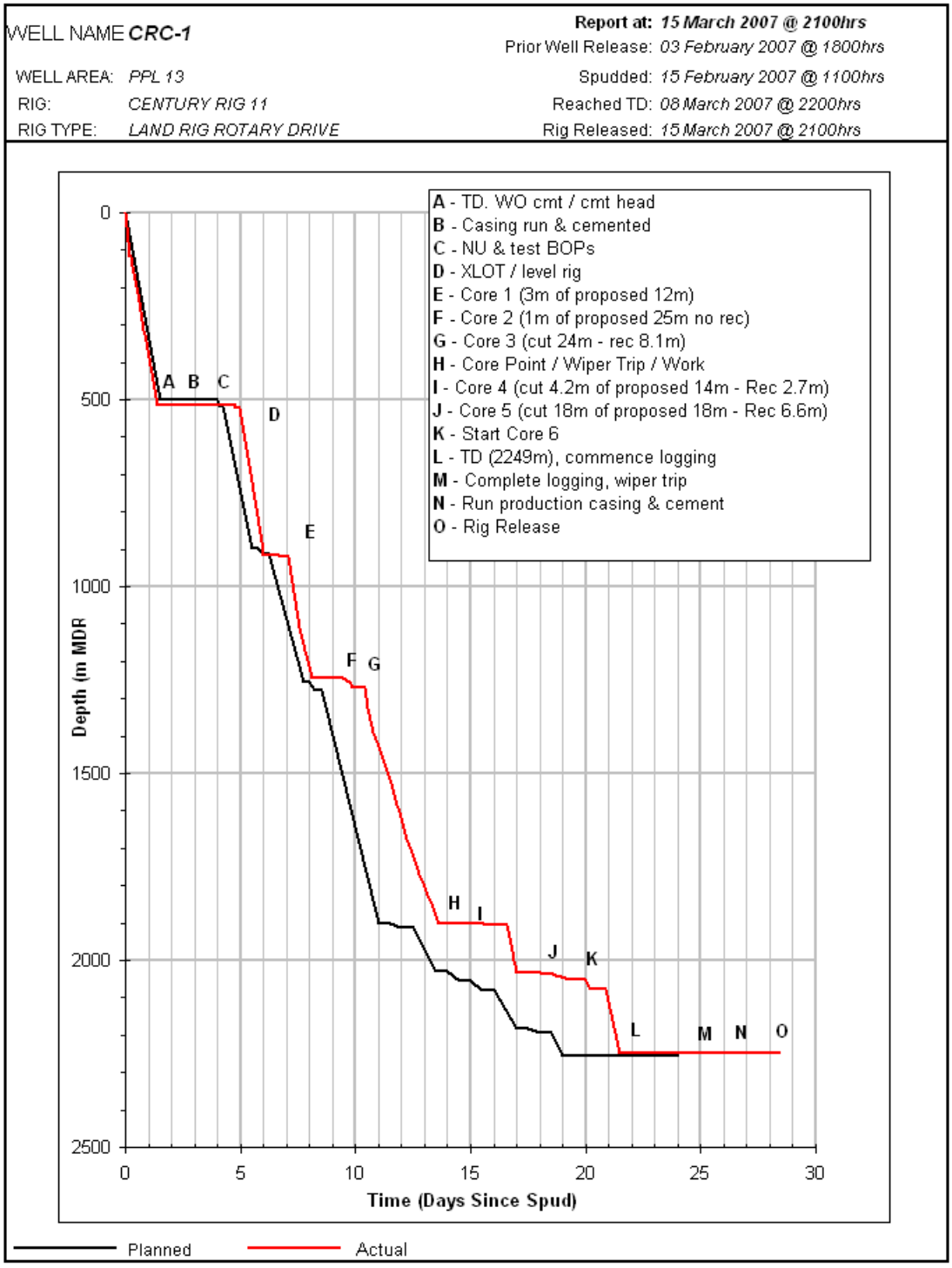
Lowlights during the drilling of CRC-1 included

- Drill time for CRC-1 was 4.4 days over the estimate. This was mostly due to:
    - Hole problems experienced while tripping to core
    - Low Rate of Penetration (ROP) while coring
    - Logging taking longer than estimated plus logging tools failures
    - Nipple up & testing of BOP's taking longer than expected.

  Other minor delays were due to:

    - Delay pulling out to run casing until located missing 7-5/8" cement head & swage
- While an extensive core program was completed there was a low ROP while coring the upper zones. The recovery for these zones was also poor and it was difficult to tell whether the core barrel was jammed. Some trips with the core barrel were slow due to hole problems and because of these delays and concern over potential hole deterioration it was decided not to core the Eumeralla.
- While an extensive logging program was completed there were several delays & malfunctions which resulted in rearrangement of the logging program. This included:
    - Delays in importing some of the tools (CMR-ECS)
    - Delay calibrating the CMR
    - Failure of the MDT (minifrac mode) leading to abandonment of attempts to run.
    - The CMR being stuck in hole for a brief period.
- A high mud disposal cost complicated by the non-approved addition of small quantities of barite to the mud. Delays in mud analysis led to the mud pit restoration being delayed until after the winter.
- Several misruns of the directional magnetic single shot (MSS) survey tool. The tool was rented by CPPL, operated by the rig crew with reporting by the wellsite supervisor. There was also an error in azimuth being reported. The tool face direction was initially reported erroneously in lieu of the azimuth. Once the error was identified readings were checked and corrected.
- A lower than expected EMW obtained from Extended Leak Off test.
- While drilling rate tracked the time-depth curve, the ROP was slightly behind the ROP seen at Naylor 1. Hydraulics should be reviewed in subsequent wells.

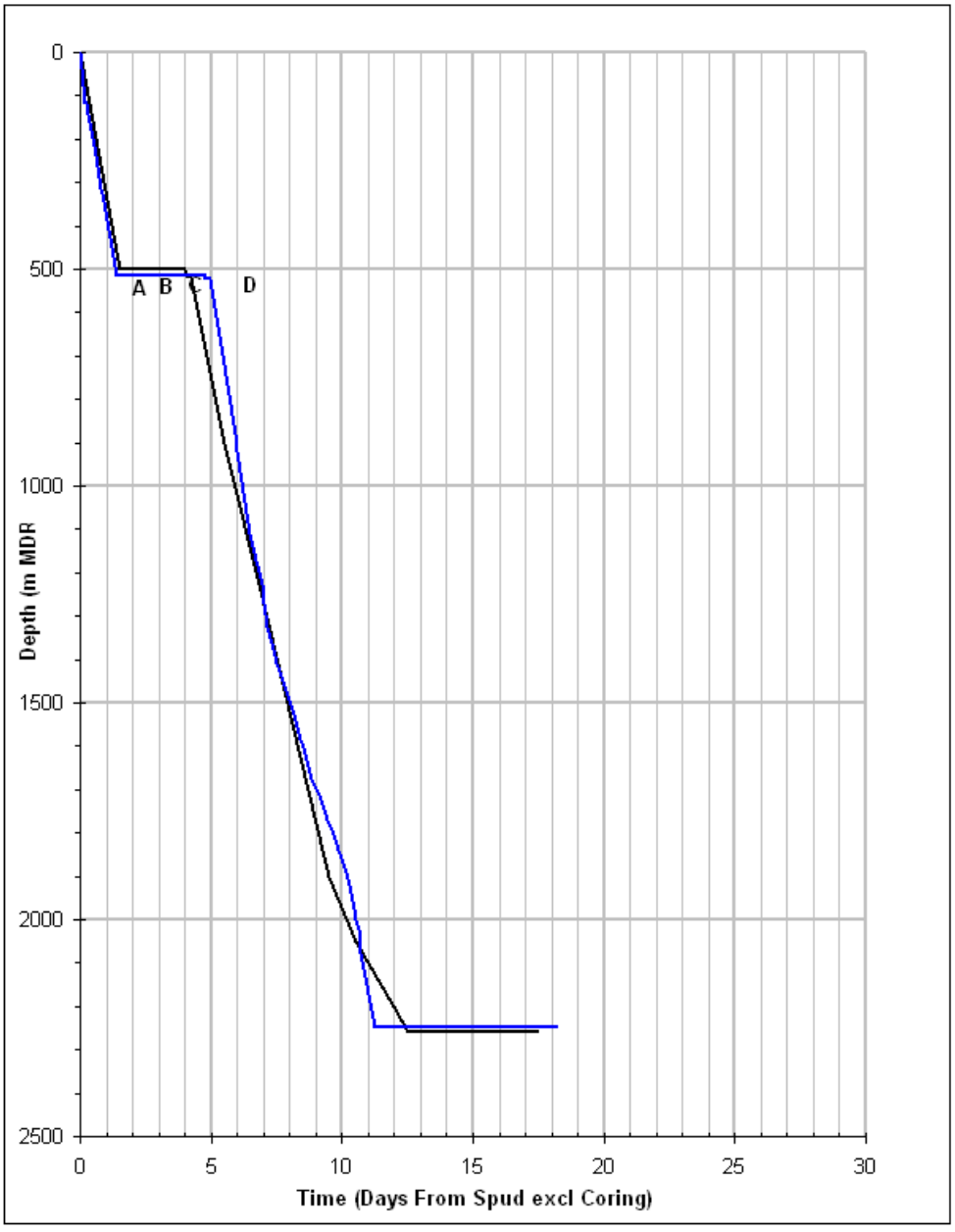
5.6 TIME-DEPTH CURVE



WELL NAME *CRC-1 (Excl Coring)*

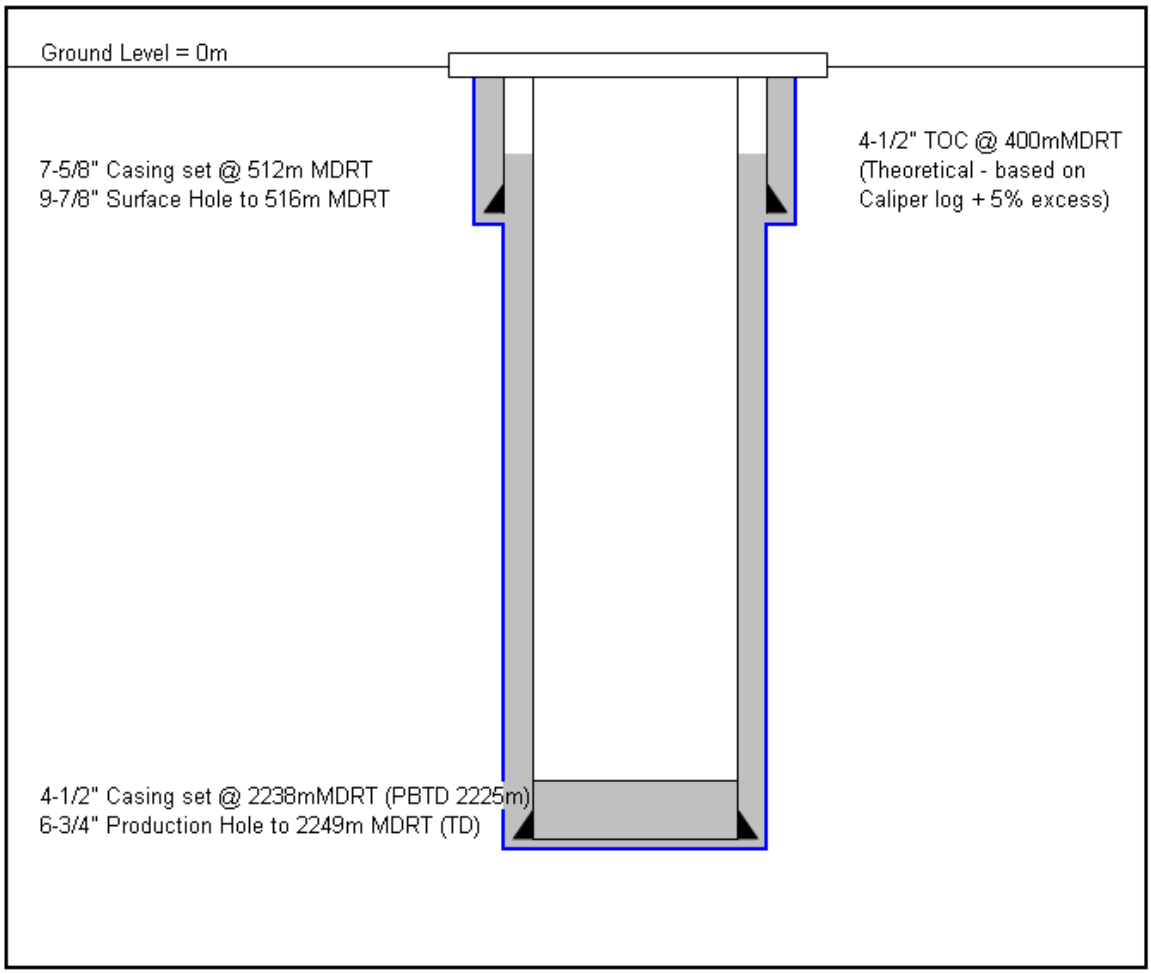
WELL AREA: *PPL 13*
RIG: *CENTURY RIG 11*
RIG TYPE: *LAND RIG ROTARY DRIVE*

Report at: *15 March 2007 @ 2100hrs*
Prior Well Release: *03 February 2007 @ 1800hrs*
Spudded: *15 February 2007 @ 1100hrs*
Reached TD: *08 March 2007 @ 2200hrs*
Rig Released: *15 March 2007 @ 2100hrs*



6 WELL SCHEMATICS

6.1 WELL SCHEMATIC AT END OF DRILLING OPERATIONS

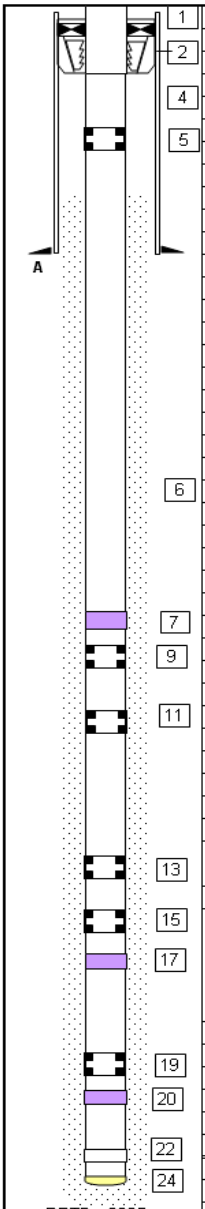


6.2 FINAL DOWNHOLE DIAGRAM

4-1/2" 12.6 # / Ft 13Cr80, R3, JFE Bear Production Csg

WELL: CRC-1 **DATE: 15/03/07**

LAST ACTIVITY: CASE & SUSPEND WELL **Page 1 of 1**



ITEM No.	DESCRIPTION	LENGTH (m)	DEPTH RT (m)	MIN. ID (inch)
1	R.T. to top of Casing Head spool	5.10	0.00	
2	Csg hgr, 11" x 4-1/2" , (4" BPV Profile in Adaptor Flange)	0.50	5.10	
3	Cut Off Landing Joint, 4.5" #/ft, 13Cr80, 12.6 #/ft, R3, JFE Bear Csg	0.50	5.60	
4	Tubing, 4 joint, 4.5" #/ft, 13Cr80, 12.6 #/ft, R3, JFE Bear Csg	47.92	6.10	
5	4.5" X Landing Nipple	0.49	54.02	3.81
6	Tubing, 100 joints, 4.5#/ft, 13Cr80, 12.6 #/ft R3, JFE Bear Csg	1193.16	54.51	
7	Marker Jt 4.5" 13Cr80, 12.6#/ft, R3, JFE, Bear Csg	3.15	1247.67	
8	Tubing, 4 joints, 4.5" 13Cr80, 12.6 #/ft R3, JFE Bear Csg	47.92	1250.82	
9	4.5" X Landing Nipple	0.49	1298.74	3.81
10	Tubing, 19 joints, 4.5" 13Cr80, 12.6 #/ft R3, JFE Bear Csg	226.84	1299.23	
11	4.5" X Landing Nipple	0.49	1526.07	3.81
12	Tubing, 32 joints, 4.5" 13Cr80, 12.6 #/ft R3, JFE Bear Csg	380.00	1526.56	
13	4.5" X Landing Nipple	0.75	1906.56	3.81
14	Tubing, 15 joints, 4.5" 13Cr80, 12.6 #/ft R3, JFE Bear Csg	178.74	1907.31	
15	4.5" X Landing Nipple	0.49	2086.05	3.81
16	Tubing, 1 joint, 4.5" 13Cr80, 12.6 #/ft R3, JFE Bear Csg	11.98	**2086.54**	
17	Marker Jt 4.5" 13Cr80, 12.6#/ft, R3, JFE, Bear Csg	3.15	**2098.52**	
18	Tubing, 8 joints, 4.5" 13Cr80, 12.6 #/ft R3, JFE Bear Csg	95.83	**2101.67**	
19	4.5" X Landing Nipple	0.49	**2197.50**	3.813
20	Marker Jt 4.5" 13Cr80, 12.6#/ft, R3, JFE, Bear Csg	3.15	**2197.99**	
21	Tubing, 2 joints, 4.5" 13Cr80, 12.6 #/ft R3, JFE Bear Csg	23.97	**2201.14**	
22	Float Collar	0.78	**2225.11**	No Go
23	Tubing, 1 joint, 4.5" 13Cr80, 12.6 #/ft R3, JFE Bear Csg	11.74	**2225.89**	
24	Float Shoe	0.75	**2237.63**	
	End of Casing		**2238.38**	
A	7-5/8" Casing Shoe		512m	

PERFORATION INTERVALS:		GUN:				CHARGES:		FRAC:
FORMATION	INTERVAL (m RT)	SIZE	TYPE	PHASE	SPF	TYPE	WT(g)	Y ?
Waarre C	TBA							N

REMARKS:	
ANNULUS FLUID:	11ppg Mud Push II weighted with CaCO3
INDICATED STRING WEIGHT:	72 000 LB
CALCULATED STRG WEIGHT:	77 318 LB (in Fluid)
LANDED WEIGHT:	122 000 LB (50 000 LB Tension)
Comments: Theoretical TOC 412m	

NOT TO SCALE		WELLSITE SUPERVISOR		Roy Dunne	
CASE & SUSPEND	X	DATE OF INSTALLATION		15-Mar-07	
RE-COMPLETION:		DRAFTED BY:	Roy Dunne	DATE:	15/03/2007
COMPLETION:		REVISED BY:		DATE:	
OTHER:		CHECKED BY:	Terry Greaney	DATE:	20/03/2007

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ATTACHMENTS

Attachment 1 : Bit Record

Attachment 2 : BHA Record

Attachment 3 : Mud Recap

Attachment 4 : Survey Reports

Attachment 5 : Location Survey Report

Attachment 6 : Activity Summary

Attachment 7 : Well Time Summary

Attachment 8 : Wellhead Information

Attachment 9 : Casing Information

Attachment 10 : Cementing Reports

Attachment 11: Production Casing Make Up Report

Attachment 12 : Extended Leak Off Reports

Attachment 13 : MDT Information

Attachment 14 : Coring Report

Attachment 15 : Core Description

Attachment 16 : Daily Geological Reports

Attachment 17 : Cuttings Description

Attachment 18 : Mud Loggers Daily Report

Attachment 19 : Rig Acceptance Report

Attachment 20 : Mobilisation Daily Reports

Attachment 21 : Daily Drilling Reports

Attachment 22 : Demobilisation Daily Reports

Attachment 23 : Rig Inventory

Attachment 24 : BHI Final Well Report

Attachment 25 : Petrophysics Reports

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ATTACHMENT 1 : BIT RECORD

RT above GL : 5.20m | UTM North: 5733759.0 | Spud Date : 15 Feb 2007 | Release Date : 15 Mar 2007

G.L. Elevation : 44.50m | UTM East: 657899.1 | Spud Time : 11:00 | Release Time : 21:00

Bit Record

Well: CRC-1

Bit#	Date In/Out	IADC	Size (in)	Serial No.	Make	Type	Jets	In (m)	Out (m)	Metre (m)	Hrs O/B	ROP (m/hr)	WOB (klb)	RPM	RPM (DH)	Flow (gpm)	SPP (psi)	MW (ppg)	Bitwear I-O1-D-L-B-G-O2-R
1	15 Feb 2007 / 17 Feb 2007	1-1-7	9.875	402437	Stealth Tools	JST11XC	4 x 14	15.0	516.0	501	23	21.78	5.0	120	120	504.6	1600.0	8.93	2- 2- NO- A- 1- I- RR- TD
	Bit Run Comment:															Bit Wear Comment:			
2	19 Feb 2007 / 21 Feb 2007		6.750	6972	Stealth Tools	M56S	5 x 12	516.0	915.0	399	14.9	26.78	4.0	110	110	250.0	450.0	8.74	1- 1- NO- A- X- I- NO- CP
	Bit Run Comment:															Bit Wear Comment:			
3	21 Feb 2007 / 22 Feb 2007	Core	6.750	083719	Corpro System	MCP662		915.0	918.5	3.5	1.2	2.92	5.0	80	80	250.0	550.0	8.77	0- 0- NO- A- X- I- NO- HP
	Bit Run Comment:Core bit - jammed after cutting 3.5m. Recover 2.1m core. 4 of 6 jets plugged. Corehead - as new.															Bit Wear Comment:			
2RR1	22 Feb 2007 / 23 Feb 2007		6.750	6972	Stealth Tools	M565	5 x 12	918.5	1245.0	326.5	12.8	25.51	5.0	120	120	250.0	600.0	8.78	2- 1- NO- A- X- I- NO- CP
	Bit Run Comment:2RR1 RIH after Core #1, pulled to cut Core #2															Bit Wear Comment:			
3RR1	23 Feb 2007 / 24 Feb 2007	Core	6.750	083719	Corpro System	MCP662		1245.0	1246.0	1	1.4	0.71	5.0	80		160.0	1300.0	8.78	1- 2- NO- A- X- I- NO- PR
	Bit Run Comment:															Bit Wear Comment:			
3RR2	24 Feb 2007 / 25 Feb 2007		6.750	083719	Corpro System	MCP662		1246.0	1270.0	24	9.7	2.47	5000.0	80		120.0	650.0	8.79	1- 2- NO- A- X- I- NO- BHA
	Bit Run Comment:Full core barrel cut (24.0 m). Recovered 8.13m (34%).															Bit Wear Comment:			
2RR2	25 Feb 2007 / 02 Mar 2007		6.750	6972	Stealth Tools	M565	5 x 12	1270.0	1900.0	630	55.1	11.43	8.0	130	120	315.0	1250.0	8.90	2- 2- NO- A- X- I- NO- CP
	Bit Run Comment:															Bit Wear Comment: Bit in good condition. Gauge OK. One cutter chipped.			
3RR3	02 Mar 2007 / 03 Mar 2007		6.750	083719	Corpro System	MCP662		1900.0	1904.2	4.2	10.2	0.41	10.0	80	80	150.0	1050.0	8.92	1- 2- PN- A- X- I- NO- PR
	Bit Run Comment:Cut core #4 in Belfast Mudstone. Cut 4.2m, recover 2.65m.															Bit Wear Comment:			
4	03 Mar 2007 / 04 Mar 2007		6.750	6904	Stealth Tools	M46H4	4 x 12	1904.2	2033.0	128.8	6.9	18.67	5000.0	110	110	250.0	1200.0	8.96	1- 1- NO- A- X- I- NO- CP
	Bit Run Comment:Pulled due to core point #5.															Bit Wear Comment: One plugged jet. One minor chip on one PDC face.			
3RR4	05 Mar 2007 / 07 Mar 2007		6.750	083719	Corpro System	MCP662		2033.0	2051.0	18	24.1	0.75	15.0	80	85	150.0	1000.0	9.03	1- 2- NO- A- X- I- NO- BHA
	Bit Run Comment:Cut core #5 in Flaxmans Formation. Cut 18m, recover 6.59 (37%).															Bit Wear Comment: Reason pulled: Full core barrel cut.			
3RR5	07 Mar 2007 / 07 Mar 2007		6.750	083719	Corpro System	MCP662		2051.0	2075.5	24.5	5	4.90	10.0	80	80	120.0	550.0	9.03	1- 2- NO- A- X- I- NO- BHA
	Bit Run Comment:Cut core #5 in Flaxman's Formation/Uppper Waarre C. Cut 24.5m, recover 23.53m (96%).															Bit Wear Comment: Reason pulled: Full core barrel cut.			
4RR1	07 Mar 2007 / 09 Mar 2007		6.750	6904	Stealth Tools	M46H4	4 x 12	2075.5	2249.0	173.5	10	17.35	10.0	110	110	250.0	1300.0	9.18	1- 1- NO- A- X- I- NO- TD
	Bit Run Comment:TD POOH TO Log															Bit Wear Comment:			

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ATTACHMENT 2 : BHA RECORD

BHA Record for CRC-1

Rig : CDL Rig 11 | Spud : 15 Feb 2007 / 11:00 | Rig Release : 15 Mar 2007 / 21:00

BHA No.: 1

Parameters	
Date In/ Date Out	15 Feb 2007 / 17 Feb 2007
Depth In/ Depth Out (m)	15.0/516.0
Length (m)	204.8
Weight (Dry/ Wet) (klb)	/ 25.0
Weight Blw/Jar (Dry/Wet) (klb)	/ 20.0
String Weight (Avg) (klb)	59
Pick-Up Weight (Avg) (klb)	60
Slack-Off Weight (Avg) (klb)	59
Torque Max (Avg) (ft-lbs)	3335
Torque on Bottom (Avg) (ft-lbs)	3334
Torque off Bottom (Avg) (ft-lbs)	667
BHA Description:	
BHA Run Comment:	

BHA Detail

Equipment	Length (m)	Total Joints	OD (in)	ID (in)	Serial #	Comment
Bit	0.26	1	9.88		402437	
Bit Sub	0.74	1	7.99			
X/O	0.69	1	6.22	2.87		
6.5" DC	9.07	2	6.22	2.87		
Stabiliser	1.42	1	9.88	2.87		
6.5" DC	9.11	10	6.22	2.87		
6 1/2in Jars	9.84	1	6.50	2.87	DJ012	
6.5" DC	9.17	3	6.22	2.87		
X/O	0.27	1	6.22			
3 1/2" HWDP	9.14	6	3.50	2.17		

BHA No.: 2

Parameters	
Date In/ Date Out	19 Feb 2007 /
Depth In/ Depth Out (m)	516.0/
Length (m)	260.6
Weight (Dry/ Wet) (klb)	/ 25.0
Weight Blw/Jar (Dry/Wet) (klb)	/ 20.0
String Weight (Avg) (klb)	62
Pick-Up Weight (Avg) (klb)	64
Slack-Off Weight (Avg) (klb)	62
Torque Max (Avg) (ft-lbs)	5000
Torque on Bottom (Avg) (ft-lbs)	5000
Torque off Bottom (Avg) (ft-lbs)	1000
BHA Description: Packed.	
BHA Run Comment:	

BHA Detail

Equipment	Length (m)	Total Joints	OD (in)	ID (in)	Serial #	Comment
Bit	0.26	1	6.75		6972	
Near Bit Stab	1.51	1	6.75	2.43	5475-1	
Pony DC	2.90	1	4.75	2.25	502-A32	
String Stabiliser	1.54	1	6.75	2.06	5415-2	
NMDC	9.19	1	4.75	2.31		
4.75" DC	9.49	1	4.75	2.31		
String Stabiliser	1.54	1	6.75	2.00	475-3	
4.75" DC	9.43	15	4.75	2.31		
Drilling Jars	9.37	1	4.75	2.31	380-47763-03	
4.75" DC	9.50	3	4.75	2.31		
3 1/2" HWDP	9.14	6	3.50	2.12		

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BHA Record for CRC-1

Rig : CDL Rig 11 | Spud : 15 Feb 2007 / 11:00 | Rig Release : 15 Mar 2007 / 21:00

BHA No.: 3

Parameters	
Date In/ Date Out	21 Feb 2007 / 22 Feb 2007
Depth In/ Depth Out (m)	915.0/
Length (m)	269.5
Weight (Dry/ Wet) (klb)	/ 25.0
Weight Blw/Jar (Dry/Wet) (klb)	/ 20.0
String Weight (Avg) (klb)	76
Pick-Up Weight (Avg) (klb)	78
Slack-Off Weight (Avg) (klb)	78
Torque Max (Avg) (ft-lbs)	5000
Torque on Bottom (Avg) (ft-lbs)	3000
Torque off Bottom (Avg) (ft-lbs)	2000
BHA Description:	
BHA Run Comment: Core #1 in Pember Mudstone	

BHA Detail

Equipment	Length (m)	Total Joints	OD (in)	ID (in)	Serial #	Comment
Core Bit	0.26	1	6.75	2.75	083719	
Core Barrel	13.53	1	4.75	2.75		6-3/4 stabs at btm, mid , top
Pony DC	2.90	1	4.75	2.25	502-A32	
NMDC	9.19	1	4.75	2.31	471-1	
4.75" DC	9.43	16	4.75	2.31		
Drilling Jars	9.37	1	4.75	2.31	380-4773-03	
4.75" DC	9.50	3	4.75	2.31		
3 1/2" HWDP	9.14	6	3.50	2.12		

BHA No.: 4

Parameters	
Date In/ Date Out	22 Feb 2007 / 23 Feb 2007
Depth In/ Depth Out (m)	918.5/1245.0
Length (m)	260.6
Weight (Dry/ Wet) (klb)	/ 25.0
Weight Blw/Jar (Dry/Wet) (klb)	/ 20.0
String Weight (Avg) (klb)	78
Pick-Up Weight (Avg) (klb)	78
Slack-Off Weight (Avg) (klb)	76
Torque Max (Avg) (ft-lbs)	5000
Torque on Bottom (Avg) (ft-lbs)	3000
Torque off Bottom (Avg) (ft-lbs)	2000
BHA Description:	
BHA Run Comment: POOH due to reaching core point #2.	

BHA Detail

Equipment	Length (m)	Total Joints	OD (in)	ID (in)	Serial #	Comment
Bit	0.26	1	6.75		6972	
Near Bit Stab	1.51	1	6.75	2.43	5475-1	
Pony DC	2.90	1	4.75	2.25	502-A32	
String Stabiliser	1.54	1	6.75	2.06	5415-2	
NMDC	9.19	1	4.75	2.31		
4.75" DC	9.49	1	4.75	2.31		
String Stabiliser	1.54	1	6.75	2.00	475-3	
4.75" DC	9.43	15	4.75	2.31		
Drilling Jars	9.37	1	4.75	2.31	380-47763-03	
4 3/4 DC	9.50	3	4.75	2.31		
3 1/2" HWDP	9.14	6	3.50	2.12		

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BHA Record for CRC-1

Rig : CDL Rig 11 | Spud : 15 Feb 2007 / 11:00 | Rig Release : 15 Mar 2007 / 21:00

BHA No.: 5

Parameters	
Date In/ Date Out	24 Feb 2007 / 25 Feb 2007
Depth In/ Depth Out (m)	1246.0/1270.0
Length (m)	283.0
Weight (Dry/ Wet) (klb)	/ 25.0
Weight Blw/Jar (Dry/Wet) (klb)	/ 20.0
String Weight (Avg) (klb)	85
Pick-Up Weight (Avg) (klb)	87
Slack-Off Weight (Avg) (klb)	85
Torque Max (Avg) (ft-lbs)	3000
Torque on Bottom (Avg) (ft-lbs)	3000
Torque off Bottom (Avg) (ft-lbs)	2000
BHA Description:	
BHA Run Comment: Core #2 in Paaratte Formation	

BHA Detail

Equipment	Length (m)	Total Joints	OD (in)	ID (in)	Serial #	Comment
Core Bit	0.26	1	6.75	2.75	083719	
Core Barrel	27.06	1	4.75	2.75		6-3/4 stabs at btm, mid 6m, mid 13m, mid 20m , top 27m
Pony DC	2.90	1	4.75	2.25	502-A32	
NMDC	9.19	1	4.75	2.31	471-1	
4.75" DC	9.43	16	4.75	2.31		
Drilling Jars	9.37	1	4.75	2.31	380-4773-03	
4.75" DC	9.50	3	4.75	2.31		
3 1/2" HWDP	9.14	6	3.50	2.12		

BHA No.: 6

Parameters	
Date In/ Date Out	25 Feb 2007 /
Depth In/ Depth Out (m)	1270.0/
Length (m)	260.6
Weight (Dry/ Wet) (klb)	/ 25.0
Weight Blw/Jar (Dry/Wet) (klb)	/ 20.0
String Weight (Avg) (klb)	101
Pick-Up Weight (Avg) (klb)	102
Slack-Off Weight (Avg) (klb)	98
Torque Max (Avg) (ft-lbs)	11833
Torque on Bottom (Avg) (ft-lbs)	9000
Torque off Bottom (Avg) (ft-lbs)	3500
BHA Description:	
BHA Run Comment: Units for torque not ft-lbs	

BHA Detail

Equipment	Length (m)	Total Joints	OD (in)	ID (in)	Serial #	Comment
Bit	0.26	1	6.75		6972	
Near Bit Stab	1.51	1	6.75	2.43	5475-1	
Pony DC	2.90	1	4.75	2.25	502-A32	Tasman
String Stabiliser	1.54	1	6.75	2.06	5415-2	
NMDC	9.19	1	4.75	2.31		
4.75" DC	9.49	1	4.75	2.31		
String Stabiliser	1.54	1	6.75	2.00	475-3	
4.75" DC	9.43	15	4.75	2.31		
Drilling Jars	9.37	1	4.75	2.31	380-47763-03	
4 3/4 DC	9.50	3	4.75	2.31		
3 1/2" HWDP	9.14	6	3.50	2.12		

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BHA Record for CRC-1

Rig : CDL Rig 11 | Spud : 15 Feb 2007 / 11:00 | Rig Release : 15 Mar 2007 / 21:00

BHA No.: 7

Parameters	
Date In/ Date Out	02 Mar 2007 /
Depth In/ Depth Out (m)	1900.0/
Length (m)	257.4
Weight (Dry/ Wet) (klb)	/ 20.0
Weight Blw/Jar (Dry/Wet) (klb)	/ 25.0
String Weight (Avg) (klb)	105
Pick-Up Weight (Avg) (klb)	115
Slack-Off Weight (Avg) (klb)	105
Torque Max (Avg) (ft-lbs)	5000
Torque on Bottom (Avg) (ft-lbs)	5000
Torque off Bottom (Avg) (ft-lbs)	1000
BHA Description:	
BHA Run Comment: Core #4 in Belfast Mudstone	

BHA Detail

Equipment	Length (m)	Total Joints	OD (in)	ID (in)	Serial #	Comment
Core Bit	0.26	1	6.75	2.56	083719	
Core Barrel	13.53	1	6.75			3 x 6.75" fixed stabilizers
4.75" DC	9.43	16	4.75	2.88		
Drilling Jars	9.37	1	4.75	2.88		
4.75" DC	9.50	3	4.75	2.88		
3 1/2" HWDP	9.14	6	3.50	2.31		

BHA No.: 8

Parameters	
Date In/ Date Out	02 Mar 2007 / 03 Mar 2007
Depth In/ Depth Out (m)	1900.0/1904.0
Length (m)	257.4
Weight (Dry/ Wet) (klb)	/ 20.0
Weight Blw/Jar (Dry/Wet) (klb)	/ 25.0
String Weight (Avg) (klb)	105
Pick-Up Weight (Avg) (klb)	115
Slack-Off Weight (Avg) (klb)	105
Torque Max (Avg) (ft-lbs)	5000
Torque on Bottom (Avg) (ft-lbs)	5000
Torque off Bottom (Avg) (ft-lbs)	1000
BHA Description:	
BHA Run Comment: Core #4 in Belfast Mudstone	

BHA Detail

Equipment	Length (m)	Total Joints	OD (in)	ID (in)	Serial #	Comment
Core Bit	0.26	1	6.75	2.56	083719	
Core Barrel	13.53	1	6.75			3 x 6.75" fixed stabilizers
4.75" DC	9.43	16	4.75	2.88		
Drilling Jars	9.37	1	4.75	2.88		
4.75" DC	9.50	3	4.75	2.88		
3 1/2" HWDP	9.14	6	3.50	2.31		

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Rig : CDL Rig 11 Spud : 15 Feb 2007 / 11:00 Rig Release : 15 Mar 2007 / 21:00

BHA No.: 9

Parameters	
Date In/ Date Out	03 Mar 2007 / 04 Mar 2007
Depth In/ Depth Out (m)	1904.0/2033.0
Length (m)	260.5
Weight (Dry/ Wet) (klb)	/ 25.0
Weight Blw/Jar (Dry/Wet) (klb)	/ 20.0
String Weight (Avg) (klb)	117
Pick-Up Weight (Avg) (klb)	118
Slack-Off Weight (Avg) (klb)	116
Torque Max (Avg) (ft-lbs)	7000
Torque on Bottom (Avg) (ft-lbs)	5000
Torque off Bottom (Avg) (ft-lbs)	2000
BHA Description:	
BHA Run Comment: Units for torque not ft-lbs	

BHA Detail

Equipment	Length (m)	Total Joints	OD (in)	ID (in)	Serial #	Comment
Bit	0.18	1	6.75		6904	
Near Bit Stab	1.51	1	6.75	2.43	5475-1	
Pony DC	2.90	1	4.75	2.25	502-A32	Tasman
String Stabiliser	1.54	1	6.75	2.06	5415-2	
NMDC	9.19	1	4.75	2.31		
4.75" DC	9.49	1	4.75	2.31		
String Stabiliser	1.54	1	6.75	2.00	475-3	
4.75" DC	9.43	15	4.75	2.31		
Drilling Jars	9.37	1	4.75	2.31	380-47763-03	
4 3/4 DC	9.50	3	4.75	2.31		
3 1/2" HWDP	9.14	6	3.50	2.12		

BHA No.: 10

Parameters	
Date In/ Date Out	04 Mar 2007 / 07 Mar 2007
Depth In/ Depth Out (m)	2051.0/2075.5
Length (m)	272.7
Weight (Dry/ Wet) (klb)	/ 20.0
Weight Blw/Jar (Dry/Wet) (klb)	/ 25.0
String Weight (Avg) (klb)	115
Pick-Up Weight (Avg) (klb)	117
Slack-Off Weight (Avg) (klb)	114
Torque Max (Avg) (ft-lbs)	7000
Torque on Bottom (Avg) (ft-lbs)	5000
Torque off Bottom (Avg) (ft-lbs)	1000
BHA Description:	
BHA Run Comment: Core #5 in Flaxman's Formation/Upper Waarre C.	

BHA Detail

Equipment	Length (m)	Total Joints	OD (in)	ID (in)	Serial #	Comment
Core Bit	0.26	1	6.75	2.56	083719	
Core Barrel	19.63	1	6.75			4 x 6.75" fixed stabilizers
NMDC	9.19	1	4.75	2.31		
4.75" DC	9.43	16	4.75	2.88		
Drilling Jars	9.37	1	4.75	2.88	380-47763-03	
4.75" DC	9.50	3	4.75	2.88		
3 1/2" HWDP	9.14	6	3.50	2.31		

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BHA Record for CRC-1

Rig : CDL Rig 11 | Spud : 15 Feb 2007 / 11:00 | Rig Release : 15 Mar 2007 / 21:00

BHA No.: 11

Parameters	
Date In/ Date Out	07 Mar 2007 / 07 Mar 2007
Depth In/ Depth Out (m)	2051.0/2075.5
Length (m)	272.7
Weight (Dry/ Wet) (klb)	/ 20.0
Weight Blw/Jar (Dry/Wet) (klb)	/ 25.0
String Weight (Avg) (klb)	
Pick-Up Weight (Avg) (klb)	
Slack-Off Weight (Avg) (klb)	
Torque Max (Avg) (ft-lbs)	
Torque on Bottom (Avg) (ft-lbs)	
Torque off Bottom (Avg) (ft-lbs)	
BHA Description:	
BHA Run Comment: Core #5 in Flaxman's Formation/Upper Waarre C.	

BHA Detail

Equipment	Length (m)	Total Joints	OD (in)	ID (in)	Serial #	Comment
Core Bit	0.26	1	6.75	2.56	083719	
Core Barrel	19.63	1	6.75			4 x 6.75" fixed stabilizers
NMDC	9.19	1	4.75	2.31		
4.75" DC	9.43	16	4.75	2.88		
Drilling Jars	9.37	1	4.75	2.88	380-47763-03	
4.75" DC	9.50	3	4.75	2.88		
3 1/2" HWDP	9.14	6	3.50	2.31		

BHA No.: 12

Parameters	
Date In/ Date Out	08 Mar 2007 /
Depth In/ Depth Out (m)	2075.5/2249.0
Length (m)	260.5
Weight (Dry/ Wet) (klb)	/ 25.0
Weight Blw/Jar (Dry/Wet) (klb)	/ 20.0
String Weight (Avg) (klb)	120
Pick-Up Weight (Avg) (klb)	121
Slack-Off Weight (Avg) (klb)	116
Torque Max (Avg) (ft-lbs)	15000
Torque on Bottom (Avg) (ft-lbs)	10000
Torque off Bottom (Avg) (ft-lbs)	4000
BHA Description:	
BHA Run Comment: Units for torque not ft-lbs	

BHA Detail

Equipment	Length (m)	Total Joints	OD (in)	ID (in)	Serial #	Comment
Bit	0.18	1	6.75		6904	
Near Bit Stab	1.51	1	6.75	2.43	5475-1	
Pony DC	2.90	1	4.75	2.25	502-A32	Tasman
String Stabiliser	1.54	1	6.75	2.06	5415-2	
NMDC	9.19	1	4.75	2.31		
4.75" DC	9.49	1	4.75	2.31		
String Stabiliser	1.54	1	6.75	2.00	475-3	
4.75" DC	9.43	15	4.75	2.31		
Drilling Jars	9.37	1	4.75	2.31	380-47763-03	
4 3/4 DC	9.50	3	4.75	2.31		
3 1/2" HWDP	9.14	6	3.50	2.12		

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ATTACHMENT 3 : MUD RECAP

RT above GL : 5.20m | UTM North: 5733759.0 | Spud Date : 15 Feb 2007 | Release Date : 15 Mar 2007

G.L. Elevation : 44.50m | UTM East: 657899.1 | Spud Time : 11:00 | Release Time : 21:00

Mud Recap

Well: CRC-1

WBM

Day	Chk.	Date - Time	Type	Depth m	Tmp C°	MW ppg	VIS sec/qt	PV cp	YP lb/100ft²	Gel10s (lb/100ft²) / 10m (lb/100ft²)	F.L. API cm³/30min	F.L. hthp cm³/30min	Sols	Sand	MBT	PH	Cl mg/l	Hard mg/l	KCl %	Daily Cost $
1	1	15 Feb 2007 - 23:20	BENTONITE Spud Mud	208.0	38.2	8.90	45	7	15	11 / 21	19.5		3.90	.25	25.00	9	1500	80	0.0	2387.27
		Mud Description: BENTONITE Spud Mud					Comment: Prepare 200bbls 22ppb Bentonite spud mud to drill Rat and Mouse holes. All solids control equipment put on line soon after spud. Drilling through mud-making formations, thus maintaining SFC volume w/- water additions. Prepare 120bbls 10% KCl brine, standing by for addition to system, if and when soft, sticky clay is being encountered, to minimise occurrence of mud rings.										
2	2	16 Feb 2007 - 22:15	BENTONITE Spud Mud	516.0	47.1	9.00	49	12	38	25 / 37	50.0		4.40	0.2	20.00	8	6900	400	1.0	609.90
		Mud Description: BENTONITE Spud Mud					Comment: Maintain substantial (15-20bbls/hr) water additions while drilling. At around 400m sticky clay agglomerations begin to show on shakers. Also observe cavings up to 1.5" in length w/- ½-¾" thickness. Mud-rings were not encountered, Fluid-loss control no longer evident. Start pumping 10bbl batches of previously prepared KCl brine direct from mixing tank. Observe expected increase in fluid viscosity and decrease of clay balls. Add a total of 70bbls of 10% KCl brine to system. Prepare 30bbls of XTRA SWEEP (0.4ppb) and pump before check trip.										
3	3	17 Feb 2007 - 11:30	BENTONITE Spud Mud	516.0	44.9	8.90	44	4	30	21 / 30	50.0		3.20	.25	15.00	8	6800	320	0.9	1123.13
		Mud Description: BENTONITE Spud Mud					Comment: Add remaining KCl brine to system, as tank had to be MT for repairs. Prepare 30bbls XTRA SWEEP. Treat SFC volume with SAPP to reduce rheology prior to cement job. Cont treatment w/- SAPP while circulating CSG. AUS-BEN and CaCl2 supplied to DOWELL-SLB for CMT job.										
4	4	18 Feb 2007 - 18:00	KCl / PHPA / POLYMER	516.0		8.45	54	9	11	2 / 2	18.0		0.30	0	0.00	10	9000	40	2.0	6395.43
		Mud Description: KCl / PHPA / POLYMER					Comment: After cementation, dump all remaining spud mud SFC volume+clean pits. Prepare 615bbls 1.7% KCl / PHPA / POLYMER fluid. Keep circulating through mud guns, to even out and shear PHPA. This volume is held in reserve, to be used for displacement after drilling out shoe track. Pill tank is only ACTIVE tank (MT at this time), to be used with remaining spud mud to drill out cement and make new hole for LOT. Carry out laboratory work, to establish Fluoresceine additions required, to give acceptable results.										
5	5	19 Feb 2007 - 22:00	KCl / PHPA / POLYMER	516.0		8.40	54	8	10	1 / 1	17.0		0.00	0	0.00	10	11500	40	1.7	0.00
		Mud Description: KCl / PHPA / POLYMER					Comment: No circulation or mud chemical additions last 24 hours. 20bbls water added. Continue shearing newly mixed volume by pumping through all tanks, using gun lines.										

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RT above GL : 5.20m | UTM North: 5733759.0 | Spud Date : 15 Feb 2007 | Release Date : 15 Mar 2007

G.L. Elevation : 44.50m | UTM East: 657899.1 | Spud Time : 11:00 | Release Time : 21:00

Day	Chk.	Date - Time	Type	Depth m	Tmp C°	MW ppg	VIS sec/qt	PV cp	YP lb/100ft²	Gel10s (lb/100ft²) / 10m (lb/100ft²)	F.L. API cm³/30min	F.L. hthp cm³/30min	Sols	Sand	MBT	PH	Cl mg/l	Hard mg/l	KCl %	Daily Cost $
6	6	20 Feb 2007 - 22:20	KCl / PHPA / POLYMER	720.0	33.6	8.65	46	8	11	1 / 1	15.0		1.50	1	2.50	9.5	10000	160	2.1	4122.44
		Mud Description: KCl / PHPA / POLYMER					Comment: FIT carried out w/- remaining Bentonite spud mud (9.1 ppg). At completion of test, displace to newly mixed KCl/PHPA/POLYMER fluid. Despite extensive shearing of PHPA, run-off over shakers. Cause being penetrated sand with widely varying grainsize, which plugs screens. De-sander and de-silter full on-line, underflow up to 13.8ppg. Prepare 375bbls new volume; commence recycling fluid from sump. Start FLUORESCEINE additions. Final mesured F/C concentration as measured with HACH Spectrometer.														
7	7	21 Feb 2007 - 12:00	KCl / PHPA / POLYMER	915.0	32.6	8.60	52	9	13	2 / 2	12.8		1.10	0.8	1.50	10.2	10000	120	2.2	4187.24
		Mud Description: KCl / PHPA / POLYMER					Comment: Experience difficulties with blinding of shaker screens with sand grains. Change back to 84-mesh acreens, same problem, change to 50-mesh screens. Prepare 500bbls new volume, partially to make up for run-off @ shakers. Prepare heavy pill, using CaCO3.												
8	8	22 Feb 2007 - 22:30	KCl / PHPA / POLYMER	1098.0	37.1	8.95	53	12	16	3 / 3	8.5		3.80	1.5	2.50	11	11800	140	2.0	2524.85
		Mud Description: KCl / PHPA / POLYMER					Comment: Continue operating with 50-mesh screens on both shakers. Instructions to maintain KCl concentration at its present level, i.e.~2% Building PHPA concentration, Fluid-loss now at specified level. pH higher than required, of account of recycled fluid having a high pH. Soda Ash treatment to reduce high calcium intake from same source. Instructions received to increase Fluoresceine concentration to 10ppm - as tested. Although 300g dye had been added, impact on concentration not immediately apparent.												
9	9	23 Feb 2007 - 16:55	KCl / PHPA / POLYMER	1245.0	40.2	8.80	56	12	18	3 / 3	8.8		2.90	.75	2.00	11.2	11300	100	1.6	1209.97
		Mud Description: KCl / PHPA / POLYMER					Comment: Continue fluid recycling from sump to maintain SFC volume. Fluoresceine addition stopped with start of check trip @ 1300 hrs.												
10	10	24 Feb 2007 - 22:50	KCl / PHPA / POLYMER	1247.0	33.2	8.80	52	12	15	2 / 2	8.5		2.70	0.6	2.00	10.5	10500	200	2.0	1515.65
		Mud Description: KCl / PHPA / POLYMER					Comment: Continue experiments w/- Fluoresceine in liquid form. Add 4 US pts to 125bbls pre-mixed polymers, resulting HACH readings average 9.5ppm. Remaining stock of 16x1pt insufficient to treat entire system up to 10ppm. Will continue to use both liquid and dry powder form of F/C dye. Suspect that F/C dye might be depleting, as calculated values for the concentration of the total added material so far indicate a value between 4.5 and 6.5 ppm												
11	11	25 Feb 2007 - 22:50	KCl / PHPA / POLYMER	1304.0	34.7	8.95	52	12	15	2 / 2	7.5		3.60	1.0	3.00	10.8	13000	320	2.5	2568.98
		Mud Description: KCl / PHPA / POLYMER					Comment: Continue to increase Fluoresceine concentration, with the aim to reach 10ppm. Resume running Hydrocyclone solids control equipment, when back on bottom w/- drill bit. Pump pressure higher than expected and calculated; have to assume some plugged jets.												

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RT above GL : 5.20m | UTM North: 5733759.0 | Spud Date : 15 Feb 2007 | Release Date : 15 Mar 2007

G.L. Elevation : 44.50m | UTM East: 657899.1 | Spud Time : 11:00 | Release Time : 21:00

Day	Chk.	Date - Time	Type	Depth m	Tmp C°	MW ppg	VIS sec/qt	PV cp	YP lb/100ft²	Gel10s (lb/100ft²) / 10m (lb/100ft²)	F.L. API cm³/30min	F.L. hthp cm³/30min	Sols	Sand	MBT	PH	Cl mg/l	Hard mg/l	KCl %	Daily Cost $
12	12	26 Feb 2007 - 22:10	KCl / PHPA / POLYMER	1526.0	42.5	8.90	50	12	17	3 / 3	7.0		3.20	0.5	2.50	11	12000	160	2.4	3715.13
		Mud Description: KCl / PHPA / POLYMER					Comment: Maintain fluid system along established lines, adding Fluoresceine now through Chemical barrel at Suction Tk. Added 700g last 24 hrs, barely maintained concentration just above 4ppm. Suggest order for another 5kg of Dry powder F/C to be initiated. 2kg left on location. Suspect PHPA might depress F/C readings, but have no way of ascertaining that. Adsorption mechanism of reactive clays (akin to MBT) also a possibility											
13	13	27 Feb 2007 - 22:15	KCl / PHPA / POLYMER	1723.0	44.7	8.90	54	13	20	4 / 4	6.5		3.10	.75	3.50	10.8	12800	140	2.6	2271.68
		Mud Description: KCl / PHPA / POLYMER					Comment: Fluid recycled from sump begins to resemble more closely fluid discharged earlier in this interval. This allows a reduction of chemical addition. Working towards a 10ppm Fluoresceine concentration, when advice was received from Chris Boreham (GA) to allow F/C to level out at 5ppm. After 800g this morning, no further F/C additions today, final HACH reading is 7.875ppm. Receive advice from geologist, that a request to increase fluid density can be expected any time soon.											
14	14	28 Feb 2007 - 22:05	KCl / PHPA / POLYMER	1878.0	47.1	9.15	55	15	26	5 / 5	6.5		5.10	.5	4.50	10	12500	50	2.2	4317.77
		Mud Description: KCl / PHPA / POLYMER					Comment: Received orders to increase fluid density to ~9.2ppg. Adding 4plts CaCO3 to system. Final WT 9.2-, pills required for trip(s) will add a further 48sx (one pallet). Because of these additions, de-silter has been shut down. Fluoresceine content has tapered off to 5.150ppm.											
15	15	01 Mar 2007 - 19:30	KCl / PHPA / POLYMER	1900.0	43.2	9.20	57	15	27	5 / 6	6.3		5.60	0.75	4.50	9.8	12400	40	2.0	652.40
		Mud Description: KCl / PHPA / POLYMER					Comment: No treatment of fluid system last 24 hours. CaCO3 addition only for 2 heavy pills. No Fluoresceine additions as no ongoing circulation - and product level at 6.4ppm. Received 2x5kg Fluoresceine fm SCHLUMBERGER, Dampier, WA. Dispatched 2x2.4lt mud samples to DOWELL-SLB, Welshpool, WA No signs of receipt of 50x50lb MILGEL.											
16	16	02 Mar 2007 - 23:20	KCl / PHPA / POLYMER	1901.0	41.7	9.45	56	17	26	4 / 5	6.8		7.50	0.75	4.00	9.5	11000	50	1.4	2272.94
		Mud Description: KCl / PHPA / POLYMER					Comment: While RIH w/- C/bbl, received orders to raise MW to 9.4ppg. Adding CaCO3 to system. When low coring rates prevail, decision to pump KCl sweeps to flush possible balled bit & increase clay stability while coring. During mixing an extra 40bbls water found their way into the active system. Filled pre-mix tank with fluid reclaimed from sump. Pill tank contains remaining 9ppg(12%) sweep. Jet sizes+nos reported are assumed figures, to give a TFA of 0.796in²											
17	17	03 Mar 2007 - 07:30	KCl / PHPA / POLYMER	1904.0	40.6	9.25	46	13	12	1 / 3	9.2		5.10	0.75	5.00	9.5	18000	80	3.9	3686.91
		Mud Description: KCl / PHPA / POLYMER					Comment: Mix+pump further KCl sweeps, the effect of cumulative KCl pills begins to reflect on fluid properties: Lower rheology and density, higher filtrate. Higher KCl content not a problem, as 6% have now been specified. Conditioned reclaimed fluid in P/Mix tank to spec, add 10ppm F/C, bleed into remaining SFC system for full SFC volume.											

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RT above GL : 5.20m | UTM North: 5733759.0 | Spud Date : 15 Feb 2007 | Release Date : 15 Mar 2007

G.L. Elevation : 44.50m | UTM East: 657899.1 | Spud Time : 11:00 | Release Time : 21:00

Day	Chk.	Date - Time	Type	Depth m	Tmp C°	MW ppg	VIS sec/qt	PV cp	YP lb/100ft²	Gel10s (lb/100ft²) / 10m (lb/100ft²)	F.L. API cm³/30min	F.L. hthp cm³/30min	Sols	Sand	MBT	PH	Cl mg/l	Hard mg/l	KCl %	Daily Cost $
18	18	04 Mar 2007 - 13:15	KCl / PHPA / POLYMER	2033.0	44.0	9.50	43	12	9	1 / 2	6.5		6.50	0.7	5.50	9	30000	100	5.8	4269.74
		Mud Description: KCl / PHPA / POLYMER					Comment: Trying to regain fluid properties, which degraded after use of KCl sweeps. Reduced F/L to 6.5ml, density at 9.5ppg marginally above specified 9.4ppg. Rheology and viscosity at the lower end of spec range F/C content also lower at 4.35ppm. Adding last 4 remaining 1US pt bottles of Fluoresceine to SFC volume (2ppm equiv).												
19	19	05 Mar 2007 - 22:15	KCl / PHPA / POLYMER	2038.0	40.5	9.45	48	13	16	2 / 3	5.8		6.50	0.6	5.00	9.8	30500	50	5.1	3171.85
		Mud Description: KCl / PHPA / POLYMER					Comment: Continue treatment of fluid system to bring properties back to specifications. Record an unexplained 5bbl gain (both visually and electronically), but no further occurrence.												
20	20	06 Mar 2007 - 18:15	KCl / PHPA / POLYMER	2051.0	42.1	9.45	56	15	20	3 / 4	5.7		6.40	0.5	7.00	9.5	29500	60	5.2	1753.29
		Mud Description: KCl / PHPA / POLYMER					Comment: Maintaining fluid system after regaining all specified properties. Taking delivery of contingency fluid chemicals (KCl+CaCO3 and LIQUI-SPERSE, being a Polymer De-flocculant/Thinner). Also received: 50x50lb MIL-GEL, Wyoming Bentonite for next CMT job. Flouresceine Addition: 150g; Estimated dry powder F/C remaining: 1200g, plus 2x5kg-unopened tubs). Liquid product(1 US pt bottles) used up.												
21	21	07 Mar 2007 - 16:30	KCl / PHPA / POLYMER	2075.0	40.2	9.45	54	15	19	3 / 4	6.1		6.40	0.5	6.00	9.8	27500	40	5.0	765.36
		Mud Description: KCl / PHPA / POLYMER					Comment: Maintaining SFC volume and fluid properties.												
22	22	08 Mar 2007 - 21:45	KCl / PHPA / POLYMER	2249.0	44.5	9.45	52	15	17	3 / 4	5.9		6.50	1.0	6.50	9.8	27300	40	5.2	4047.93
		Mud Description: KCl / PHPA / POLYMER					Comment: Recycled last 80bbls of fluid from sump for this interval, to make up D/Fluid volume. Total for this interval: 2465bbls.												
23	23	09 Mar 2007 - 09:30	KCl / PHPA / POLYMER	2249.0	44.0	9.50	54	16	19	3 / 5	6.0		6.70	0.9	7.00	9.8	31800	40	5.5	1077.05
		Mud Description: KCl / PHPA / POLYMER					Comment: Prepare pills as required. Located an extra 3 cans of defoamer & restocked (neg. usage entry).												
24	24	10 Mar 2007 - 21:45	KCl / PHPA / POLYMER	2249.0	26.8	9.60	58	16	19	3 / 5	5.5		7.40	0.60	6.50	9.5	32500	30	5.6	0.00
		Mud Description: KCl / PHPA / POLYMER					Comment: Hole taking fluid at an average rate of 1.5bbls/hr. Total 37bbls in 24 hrs. Circulating across the top of the well, using fill-up pump+trip tank. No full circulation or chemical treatment last 24 hours.												
25	25	11 Mar 2007 - 22:30	KCl / PHPA / POLYMER	2249.0	27.1	9.60	59	16	19	3 / 5	5.5		7.40	0.60	6.50	9.5	32200	30	5.6	0.00
		Mud Description: KCl / PHPA / POLYMER					Comment: Hole taking fluid at an average rate of 0.9bbls/hr. Total 21bbls in 24 hrs. Circulating across the top of the well, using fill-up pump+trip tank. No full circulation or chemical treatment last 24 hours.												

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RT above GL : 5.20m | UTM North: 5733759.0 | Spud Date : 15 Feb 2007 | Release Date : 15 Mar 2007

G.L. Elevation : 44.50m | UTM East: 657899.1 | Spud Time : 11:00 | Release Time : 21:00

Day	Chk.	Date - Time	Type	Depth m	Tmp C°	MW ppg	VIS sec/qt	PV cp	YP lb/100ft²	Gel10s (lb/100ft²) / 10m (lb/100ft²)	F.L. API cm³/30min	F.L. hthp cm³/30min	Sols	Sand	MBT	PH	Cl mg/l	Hard mg/l	KCl %	Daily Cost $
26	26	12 Mar 2007 - 21:45	KCl / PHPA / POLYMER	2249.0	25.3	9.60	60	15	18	3 / 4	5.6		7.50	0.60	6.50	9.5	32000	30	5.3	570.61
		Mud Description: KCl / PHPA / POLYMER					Comment: Treated SFC System with 1 can of Biocide. 19sx KCl used for mixing 120bbls Displacement fluid f CSG CMT job. Circulating across the top of the well, using fill-up pump+trip tank. No full circulation for 78 hours. FLUORESCEINE: Total dry powder equivalent used for entire project: ~5.5kg 2 unopened 5kg tubs ready to be returned to: SCHLUMBERGER @ DAMPIER,WA. ~900g remaining in one tub passed on to Dr Chris BOREHAM, GA, Canberra.										
27	27	13 Mar 2007 - 08:30	KCl / PHPA / POLYMER	2249.0	37.1	9.55	58	16	19	3 / 6	5.6		7.20	0.5	6.50	9	31000	60	5.0	1430.51
		Mud Description: KCl / PHPA / POLYMER					Comment: With fluid in hole not having been moved for 80hrs+, observe bacterial activity, when circulating out. Treat system w/- 2 cans Biocide. No further treatment carried out.													
28	28	14 Mar 2007 - 19:30	KCl / PHPA / POLYMER	2249.0	33.9	9.60	60	19	18	3 / 5	5.7		7.60	0.5	6.50	9	30500	80	5.0	2641.15
		Mud Description: KCl / PHPA / POLYMER					Comment: Supply Calcium Carbonate to SCHLUMBERGER for 11.0ppg spacer. Charge out 10 damaged sx of CaCO3 and 2 damaged sx of Barite. DFE to be released 15th of March, 0500 hrs. As this will be the final DF report for this well, RMN DRILLING Fluids and AMC wish to thank you for your business and are looking forward to be called upon, to provide their services for future projects!										
29	28	15 Mar 2007 - 19:30	KCl / PHPA / POLYMER	2249.0	33.9	9.60	60	19	18	3 / 5	5.7		7.60	0.5	6.50	9	30500	80	5.0	2641.15
		Mud Description: KCl / PHPA / POLYMER					Comment: Supply Calcium Carbonate to SCHLUMBERGER for 11.0ppg spacer. Charge out 10 damaged sx of CaCO3 and 2 damaged sx of Barite. DFE to be released 15th of March, 0500 hrs. As this will be the final DF report for this well, RMN DRILLING Fluids and AMC wish to thank you for your business and are looking forward to be called upon, to provide their services for future projects!										

Total Cost: 65,930.33

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DRILLING FLUID SUMMARY

CRC – CO_2 PILOT PROJECT P/L

WELL : CRC 1 (NIRRANDA Sth)

OTWAY BASIN

VICTORIA

Prepared by : Peter Aronetz
Andre Skujins

Date : March 2007

Operator : **CRC CO_2**
Well : **CRC # 1**
Rig : **Century Rig 11**
Spud : **15th February 2007**

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Operator : CRC CO_2
Well : CRC # 1
Rig : Century Rig 11
Spud : 15th February 2007

1. WELL DATA & SUMMARY OF OPERATIONS

WELL DATA:

Operator:	CRC - CO2 Pilot Project P/L - UPSTREAM Petroleum	
Contractor:	CENTURY	Rig 11
Well type:	Investigation	
Eng. Arrival Date:	14 February 2007	18:00 hrs
Spud Date:	15 February 2007	11:00 hrs
TD Date:	08 March 2007	22:00 hrs
Rig Release Date:	15 March 2007	21:00 hrs
Eng. Release Date:	15 March 2007	04:00 hrs
Total Days on Well:	30	

Interval		Hole Depth (m)	Casing Size (inch)	Interval Depth (m)	Mud Wt. (lb/gal)	Mud Type
9 7/8" Hole		516	7 5/8"	501	9.0	GEL / Native Clays
6 3/4 " Hole		2249	4 1/2"	1733	9.4	KCl / PHPA / Polymer
				Total	Chemicals:	$63,281.08

Operator : CRC CO_2
Well : CRC # 1
Rig : Century Rig 11
Spud : 15th February 2007

SUMMARY:

After the move from Megascolides 2 and with rig-up and repairs completed, the well was spudded at 11:00 hrs on the 15th of February 2007, utilising Century Rig 11.

With the conductor set at 15m below the rotary table, 9-7/8" surface hole was drilled to 516m. 7-5/8" casing was set and cemented at 512m. 6-3/4" hole was drilled to 2249m. That depth was reached at 22:00 hrs on the 8th of March 2007.

Drill water for this well was sourced from a Fire Hydrant of the local shire water supply system and trucked in. A sample taken direct from one of the water tankers had the following properties:

pH	:	7.0
Pf/Mf	:	0.0 / 0.1
Chlorides	:	375 mg/l
Hardness	:	120 mg/l

Several cores were cut during this interval. Fluorescence tracer dye at ~ 5 ppm was used throughout the entire interval, under guidance from "Geoscience Australia".

An extended suite of Schlumberger logs were run. After a clean-out trip, the well was cased with 4½" casing. This was cemented with the shoe @ 2240m, using CO_2 resistant cement.

The rig was released on the 15th of March 2007.

CONDUCTOR : 16" @ 15 metres
HOLE SIZE : 9-7/8"
MUD TYPE : Freshwater / Bentonite / Native Clays
INTERVAL : 0 – 516 metres
CASING : 7-5/8" @ 512 metres

As a shortened system had been envisaged to drill the surface hole, two batches of 20 ppb Bentonite were pre-hydrated in the pre-mix tank while rigging up. This fluid was transferred to the solids control tank for the drilling of the rat and mouse holes. Eventually this was topped up to give a starting mud volume of 250 bbls.

During the final phase of the rig up, a new 9-7/8" milled tooth bit was made up to a bit sub and Kelly in readiness for the well spud. This occurred at 11:00 hrs on the 15th of February 2007.

Operator : **CRC CO_2**
Well : **CRC # 1**
Rig : **Century Rig 11**
Spud : **15th February 2007**

Drilled ahead while picking up the BHA. This consisted of a string stabiliser after the first two collars, a total of 15x6¼" DC with and 6 lengths of 3½" HWDP, the entire BHA having a length of 204.8m.

All of the solids control equipment was used right from the start; the DFE Linear Motion shale shakers had been fitted with 3 x 84 mesh screens each and the hydro-cyclone solids equipment used from the first circulation on. They worked well and discarded for most of the time an underflow weighing between 9.5 ppg and 12.0 ppg and on occasion up to 13.8 ppg.

Surface volume was maintained with additions of lease water, without any further additions of Drilling Fluid chemicals. However, very sticky clays, conducive to the forming of mud-rings had been expected. To be prepared for that event, 120 bbls of a 10% KCl brine had been prepared and kept on hand in the pre-mix tank - should this happen.

In the event, these clays did materialise, although at a depth much lower than anticipated and not as severe as was expected. At 400m the first indications were seen and at 460m the addition of the KCl brine in 10 bbl batches was initiated. A total of 70 bbls were added in that fashion with the remaining 50 bbls incorporated into the system at casing depth.

Drilling progressed to the planned casing point of 516m. At this depth 30 bbls of a 0.4 ppb Xtra-Sweep pill was circulated around to check on the hole cleaning. No extra cuttings were brought up during that procedure. Mixed and pumped a Barite-based heavy pill and POOH to surface. Laid out the 9-7/8" string stabiliser and 6¼" drill collars.

Rigged up for running casing and 43 lengths of 7-5/8" casing were run in the hole without problems. The landing joint did not require washing down to the setting depth of 512m. Circulated hole clean, while rigging up Dowell-Schlumberger.

Pumped 10 bbls of water to flush and pressure test lines. A further 60 bbls water spacer were then pumped. Cemented casing, dropped plug and displaced cement with mud remaining from drilling surface hole. 20 bbls of good cement were returned at the flow-line. Rigged down cementing equipment and waited on cement to set.

Operator : **CRC CO_2**
Well : **CRC # 1**
Rig : **Century Rig 11**
Spud : **15th February 2007**

HOLE SIZE : **6 3/4"**
MUD TYPE : **KCl / PHPA / Polymer**
INTERVAL : **516 – 2249 metres**
CASING : **4½" @ 2240m**

After waiting for cement, installed Bradenhead and nippled up BOP. Prepared for and carried out function and pressure tests.

All tanks were dumped, cleaned and filled with 615 bbls of lease water. To this, the following were added :

Biocide	:	3 drums
KCl	:	5.5 ppb (for 1.7% concentration)
Pac-R	:	0.8 ppb
Xanthan Gum	:	0.4 ppb
PHPA	:	0.4 ppb
Caustic Soda	:	0.15 ppb

Made up the 6-3/4" BHA. For this a Stealth PDC bit with 5 x 12 jets installed was made up to a NB stabiliser and a 3m, 4¾" Pony DC. This was followed by a second stabiliser, a 4¾" Monel DC and one conventional 4¾" DC, and a third stabiliser. 15 conventional, spiral-grooved 4¾" Drill Collars were run, before the jars were made up, followed by 3 x 4¾" DC. These were followed by 6 lengths of 3½" HWDP. The total length of the entire BHA came to 260.6m.

RIH to tag the top of the cement, which was found at 483m. At this stage a casing pressure test to 2500 psi was carried out successfully. Drilled out shoe track with the remaining spud mud using a short system incorporating only the shakers, trough and pill tank, and then made new hole to 522m.

Circulated hole clean and evened out mud system with a final density of 9.1 ppg. Carried out a Formation Integrity test with this fluid. Leak-off pressure was established at 365 psi, giving a calculated fracture rating of the casing seat of 13.3 ppg equivalent fluid density. Resumed drilling and displaced well to 1.7% KCl PHPA Polymer fluid. At this point Sodium Sulphite was phased in to act as an oxygen scavenger to assist with corrosion control.

The beginning of this interval also saw the introduction of Fluorescence (F/C) tracer to the system. Its use is detailed in a separate paragraph at the end of this section.

The first step of the actual fluid treatment was to increase the PHPA concentration. The 1.0 ppb mark was not reached until about 1500m. Additions were scaled back after a level of 1.3 ppb had been reached at around 1800m. At the same time steps were taken, to reduce the filtrate, which was achieved by adding Pac-R to the system. A fluid loss of 8.5 ml's was first recorded at 1098m. Xanthan Gum was used to raise the low-end rheology and carrying capacity of the fluid.

For this interval the shakers had initially been fitted with 2 x 140 mesh and 1 x 84 mesh screens. Although forewarned by the geologist, that the presence of poorly sorted sands would cause severe blinding of the shaker screens, regardless of what size screens were fitted, it was attempted to persevere with this screen configuration.

However, past 745m it became necessary to revert to 84-mesh screens. Despite constant cleaning of the screens using high pressure hoses and nylon-bristled brooms, run-off over the shakers persisted and was eventually only reduced with the installation of 50-mesh shaker screens at a depth of 900m. An estimated 280 bbls of drilling fluid were lost at the shakers during this period. This fluid was however recycled later in the well.

The KCl content was maintained in close consultation with the well-site geologist and was eventually allowed to increase to 2.2%. At 915m the first core point had been reached. Circulated hole clean and prepared a Calcium Carbonate-based heavy pill. Pumped pill and POH. The initial 4 stands pulled tight, with 3-5000 lbs over-pull being observed. The remainder of the hole was clear.

Made up the first coring BHA, utilising all components of the previous BHA, with the exception of the three stabilisers. Total length of BHA came to 269.5m and this was RIH to 825m, when the string began to take weight. Picked up Kelly, washed and reamed to bottom, with up to 5000 lbs WOB. Dropped ball and commenced coring at 915m. At a depth of 918.5m the core barrel jammed and coring was halted.

Mixed and pumped a Calcium Carbonate-based heavy pill and POH. Recovered 2.5m of core # 1, from a total of 3.5m cut.

Laid out coring equipment and made up drilling BHA, utilising the same components as in the previous and first drilling BHA for this interval. RIH to bottom at 915m without problems, broke circulation and resumed drilling.

Drilled to 1245m, when the next core point was reached. Circulated a sample, mixed and pumped a heavy $CaCO_3$ pill and pulled drill string from the hole. Laid out all stabilisers and the Pony drill collar.

Made up 24m core barrel and RIH, breaking circulation at 863 and 1232m, reamed and washed to bottom. Dropped ball and upon seating, recorded excessive pump pressure. It was attempted to proceed coring, but the ROP was unsatisfactory and the coring was aborted after one metre being cut.

Mixed and pumped a heavy $CaCO_3$ pill and pulled drill string from the hole. None of the core cut was recovered.

Serviced core barrel and ran back in the hole to 1235m, washed to bottom at 1246m and started cutting core 3. Recorded widely fluctuating ROP's, with some

sections drilling very well indeed. While cutting the first metre of the core and experiencing a very slow penetration rate, a 10% KCl flush was made up with water and pumped out of the bit, too alleviate any possible bit balling. The procedure had only limited effect.

Core # 3 was cut to 1270m as planned, a heavy pill pumped and the string POH. Of the 24 m cored, 8.1m (34%) were recovered, with the consensus of opinion being, that it was not a contiguous section, which had been recovered.

Made up the previously used drilling bit and BHA and ran back in the hole to 1253m. When putting on the Kelly and starting the mud-pumps a pressure in excess of 1000 psi was observed. This compared to 600 psi prior to coring. It was assumed, that one or more of the five bit jets were plugged.

Washed to bottom at 1270m and resumed drilling. The pump pressure did drop a little as time wore on, but did not return to the previously observed level of 600 psi – while drilling with the same bit configuration.

At 1900m the well was pronounced to be at core point. The hole was circulated clean and a heavy Calcium Carbonate mixed and pumped. Pulled drill string from the hole for core # 4. This trip proved to be quite slow, with substantial over-pull being observed between 1711m - 1700m, 1633m, 1467m, 1380m - 1321m. These intervals required the picking up of the Kelly and working the string with circulation. Continued to POH to 1206m.

Ran back in the hole from that point to 1900m and work a tight spot at 1700m. Picked up single joints of drill pipe with Kelly. Reached bottom at 1900m and found no fill. Circulated hole clean. Mixed and pumped a heavy Calcium Carbonate pill and POH.

Made up core barrel and RIH with coring BHA to 491m. At this time orders were received to raise the fluid density further to 9.4 ppg; started to weigh up Surface system with Calcium Carbonate. Continued in the hole to 1172m, when the string took weight.

Picked up Kelly, reamed and washed to 1250m. Continued in the hole. Washed and reamed fro 1749m to 1767m. Continued RIH from 1767m to 1880m. Picked up kelly and washed to bottom, which was tagged at 1900m. Circulated, dropped ball and started to cut core # 4.

Coring rates were exceedingly slow and bit-balling was suspected. Several 12% - 9.0 ppg - KCl pills were prepared and used to flush the bit. Success was minimal and after 4.2m at 1904m coring was abandoned. Mixed and pumped a heavy Calcium Carbonate pill and pulled out of the hole with the coring string.

Most of the string pulled freely with only minor tight spots. Laid out core barrel and recovered 2.6m (63% of cut core). Serviced core barrel and racked in derrick.

Operator : CRC CO_2
Well : CRC # 1
Rig : Century Rig 11
Spud : 15th February 2007

Made up new PDC bit with 4x12 jets installed to previously used drilling BHA, which included a Near Bit and two String stabilisers, with a total length of 260.6m. RIH and broke circulation at 1000 and 1506 metres. Hole conditions were generally good and bottom at 1904m was reached with 5.5m of soft fill having been washed. Assumed that to be settled out of $CaCO_3$, after the pumping of the KCl sweeps, which could be expected to – and indeed did - reduce the fluid viscosity substantially.

Drilling resumed and the next 129m were drilled in 10.5 hours. Core point was called at 2033m, the hole circulated clean and the drill sting pulled from the hole.

Made up the core barrel, which had been lengthened to 19m (60ft) overall and RIH with coring BHA, breaking circulation at 1000, 1500 and 1730m. At a depth of 1945m the string started taking weight and required light to substantial reaming with the core bit to get back to bottom at 2033m. An increasing amount of small, blocky cavings were observed at the shakers. This did not clear up until well into the coring process.

The coring rate was again quite slow. At 2042.5m the Kelly had been drilled down and a connection had to be made. However after the connection was made, it proved to be impossible to get far enough back to bottom, to engage the Kelly bushing. Took the single joint of DP out again and replaced with two pup joints. Resumed coring and made a further connection at 2046.5m without problems.

Once the maximum possible interval had been cut, coring was halted at 2051m and the hole briefly circulated. A heavy $CaCO_3$ pill was mixed & pumped and the coring string pulled from the hole. Of the 23m of core cut 6.6m or 37% were recovered.

Serviced the core barrel, increase its length to 24.5m (80ft) and RIH for core # 6 to 2031m. Picked up Kelly, reamed and washed to 2051m, dropped ball and cored to 2075m. Coring rates were good and no problems were experienced making the required connections. After cutting 24.5m and reaching a depth of 2075m, the well was flow-checked and found to be static. Mixed and pumped a heavy $CaCO_3$ pill. POH with and recovered 23.5m or 96% of core # 6. Serviced the core barrel and stood in derrick for the anticipated 7th and last core.

Made up the drilling BHA using the same components as for the previous drilling BHA's, including one Near-Bit and two string stabilisers and the jars. RIH, breaking circulation at 1500m and RIH to 2032m, when the string took weight. Picked up Kelly, reamed and washed to bottom at 2075m.

Resumed drilling and continued to 2249m, when TD was called. During this period, core # 7, to be cut in the Eumeralla formation, was cancelled. Circulated the hole clean and pumped a heavy $CaCO_3$ pill. Started a wiper trip and experienced quite tight hole conditions until the bit had reached 2035m. The string then pulled freely

and at 1940m POH was halted and the string run back in the hole, without problems or fill being found on bottom.

While tripping, 30 bbls of Xtra-Sweep with a product concentration of 0.4 ppb had been mixed and this was now circulated around. While waiting for the sweep to be returned, 45 bbls of a very high viscosity pill was prepared and when the sweep had been circulated out, this Hi Vis pill was spotted on bottom. Pulled back to 1900m, mixed and pumped a heavy $CaCO_3$ pill and came out of the hole for logs.

Rigged up Schlumberger and carried out an extensive logging program. While logging, the hole took initially an average of 1.5 bbls of fluid per hour. This tapered off to 0.5 bbls/hr towards the end of the logging sequence. This had lasted a total of just under 80 hours and completed without the need for a wiper-trip being seen.

The final two planned runs had to be cancelled, the second-last run because of difficulties with the tool and the last run, as its application depended on the previous run being successful.

Made up a clean-out BHA, using the last run Stealth PDC bit and all components of the previous BHA, except the stabilisers. RIH and passed through some tight spots, but found only 3m soft fill on bottom. At this point it was decided, because of the better than expected hole conditions, to dispense with the wiper trip. Mixed and pumped 30 bbls of a 0.6 ppb Xtra-Sweep and circulated out.

A 45 bbls Hi Vis pill, made up with Xanthan Gum was spotted on bottom and the process of laying down the drill string begun. With the bit at 1900m, a heavy KCl / $CaCO_3$ pill was pumped to facilitate the laying down of the drill pipe and BHA. No adverse hole conditions were observed while doing so.

With the 3½" drill string laid down, the pipe rams of the BOP were changed to 4½" and pressure tested to 1100 psi. Proceeded to rig up to run 4½" casing. The casing was run to setting depth of 2240m without any difficulties having been encountered or circulation required.

While the casing was being run, Schlumberger cementers prepared the various fluids required for this job. For the 90 bbls of mud/cement spacer, 225 sx of 40 micron Calcium Carbonate were supplied to increase the spacer density to 11.0 ppg.

The casing was cemented as per program and after dropping the bottom plug, the cement was displaced to a previously prepared 2% KCl brine. The plug was bumped and the casing tested with 3000 psi. After waiting on cement the casing slips were set, the casing cut and the wellhead installed.

The rig was released at 21:00 hours on the 15th of March 2007.

Operator : **CRC CO_2**
Well : **CRC # 1**
Rig : **Century Rig 11**
Spud : **15th February 2007**

2. OBSERVATIONS & RECOMMENDATIONS

This well was drilled as programmed to a TD of 2249m. No major deviations from the program were necessary. E-logs reached 2239m, 10m short of TD without difficulties and the extensive logging program proceeded without hole problems being an issue.

The density of the fluid at the end of the drilling phase of this well (9.4 ppg) was as requested by the geology department, to counteract the tectonic stresses experienced. Had it not been for that component, lower fluid densities would have been possible.

KCl concentration was maintained in close consultation with the geological supervision on site, until overriding orders were received from the operator's offices in town. 1.5 – 2% was the preferred level to maintain inhibition and optimal hole conditions, until increases up to 6% were ordered.

The shale shakers worked well, but unlike for the previous wells, the preferred combination of 2x175 + 1x140 mesh screens did not come into use. 2x140 plus 1x84 mesh did not handle the flow too well and after several other configurations 1x84 and 2x50-mesh screens had to be relied upon for first-line-of-defence solids control.

Assisting the solids control was the way the shale shakers were operated. Allowing for a relatively wet cuttings discharge from the screens, 'Surface equipment' mud losses were incurred. However a good part of the fluid so discharged was allowed to drop it drilled solids in the sump and was then re-cycled and used for the preparation of premixed polymers. A total of 2465 bbls of fluid were thus recycled from the sump while drilling the 6¾" hole on this location.

In the main, the tank system and the associated equipment worked well. The passage area on the top of the solids-control tank would benefit from the relocation of the 6" line, which supplies the desander. It does constitute a real obstacle.

9-7/8" Surface Hole

This section of hole was drilled to 516m for a mud cost of $4112.20 or $7.97 per metre. A simple gel based spud mud was used to commence drilling, with KCl additions being made deeper in the interval when the Gellibrand Marl was finally intersected.

The Gellibrand Marl often creates problems as the very sticky cuttings easily adhere to other cuttings, thereby forming mud rings down hole (which can and have in the past led to lost circulation and considerable down time) and blocking off the flow line and possum belly.

As it turned out, the Gellibrand was deeper than expected and as a consequence, seemed to be not as reactive as previous experience showed.

6-3/4" Main Hole

This section of hole was drilled with a KCl PHPA Polymer based drilling fluid for a cost of $54,526.61 or $33.39 per metre. This hole section took 20 days from drill out to TD, and 6 cores were cut, or attempted to be cut.

Fluid treatment after displacement of the fluid used for the leak-off test, consisted initially of pushing up the PHPA content to better than 1 ppb, eventually reaching 1.5 ppb. Then the fluid loss was reduced to 7.5 cc's, with a level of just under 6 cc's having been reached at TD. Increasing and then maintaining the low-end rheology with additions of Xanthan Gum was the next priority.

A total of 3319 bbls of fluid were prepared during this interval. With the exception of the initial 615 bbls of drilling fluid, all but 80 bbls of new volume made up during this interval were based on fluid recycled from the sump. Included in the total are also 159 bbls of drill water, which were added, when making high-speed additions of PHPA. This amount also includes a 5 bbl unexplained gain recorded when coring between 2033 and 2038m.

As at the end of the surface hole all excess cement as well as the water used for flushing out the cementing equipment had been directed into the sump, the recycled fluid did show signs of cement contamination. This was indicated by high pH and Total Hardness readings. However no real problems were caused by either.

The higher than usual pH was originally tolerated and later treated out with additions of Citric Acid. The high Total Hardness readings were successfully reduced with Soda Ash. There seemed to be little tendency for the fluid to foam, thus de-foamer was used only sparingly.

Biocide and Sodium Sulphite additions rounded up the daily fluid treatment. KCl was originally maintained at ~2%, while the fluid density was kept between 8.8 and 9.0 ppg. To that end de-sander and de-silter were being kept on line continuously while drilling and circulating, but also during enforced breaks in circulation, like during surveys.

Part of the solids control involved allowing a relatively wet discharge of solids at the shale shakers. This was however not of concern, as the fluid - after it had dropped its solids - was recycled, treated and fed back into the system.

Below 1700m it was expected that the density level might have to be raised and in due course that did happen. The first step was an increase to 9.2 ppg below

1750m. 40µ Calcium Carbonate was used for that purpose. With that component in the system, the use of the hydro-cyclone solids-control appliances was scaled back. The de-silter was first put on intermittent duty and once the fluid density was evenly 9.2 ppg throughout the system, it's use was suspended for lengthy periods of time.

With the start of core # 4, a request was received to increase the fluid density further to 9.4 ppg and with the end of this core in sight, it was decided by the operator, to increase the KCl content as well and bring it up to a level of 6%. On account of the KCl sweeps used in attempts to clear suspected the bit-balling, the KCl concentration had already risen to 3.9% at 1904m.

When trying to cut core # 4, coring rates were painfully slow. Various approaches were considered to remedy the situation, reducing the fluid viscosity was one them. The Drilling Fluids Engineer advised against that, as the reduced viscosity in the Polymer-based mud would affect the carrying capacity of the fluid and settling-out of the Calcium Carbonate could occur.

In the end the use of KCl sweeps was decided upon, with two being planned. In the event five were pumped. By necessity they consisted of untreated 12% KCl brine. The effect of this procedure on the fluid properties was pronounced. The funnel viscosity dropped from 56 seconds to as low as 41, the rheology dropping at a comparable rate. The Filtrate increased from 6.5 to 9.2 cc's. However little headway was made in improving the coring rate.

When RIH, after the core had been pulled and retrieved - while enjoying good hole conditions, 5.5m of soft fill were found on the bottom of the hole. That washed away easily enough, but this did show that the carrying and suspending capacity of the fluid had been impacted upon.

The ensuing, rather short period of drilling was used, to bring the fluid system back into an acceptable condition. The de-sander was allowed to run for limited periods. One cone was plugged off as its function discharged too much fluid, while the other continued to produce a small quantity of heavy underflow. This weighed up to 14.5 ppg and was very gritty. The underflow consisted predominantly of cuttings, which had somehow found a way to bypass the shale-shaker screens.

The de-silter was run occasionally to assist with keeping the sand content down. Treatment to alleviate the effects of the thinning back of the drilling fluid continued, once back on bottom and cutting core # 5.

After core # 6 had been cut, the fluid treatment was aimed to bring the fluid system in the best possible condition for the electric logging program. However, the raising of the KCl content to 6%, which had been resisted by the geological department – based on extensive experience in the area - had began to show its effect in an increasing instability of the hole. A result which had been expected and is not uncommon for the Otway basin – although not in a uniform way.

Once the calliper log was available, it could be seen, that many sections which had required over-pull, when tripping through for the first time, had by now enlarged by between one and three inches. A substantial amount of fill had thought to have accumulated on bottom, stopping the logging tools 10m short of the official TD. This was reported as building as logging went on. That level of fill was later revised, as the clean-out trip after logging found only about 3m of soft fill. The assumption can be made, that the logging tools had hung up in the hole, rather than stopped on the top of hard fill.

Schlumberger reported however, that logging conditions in general were good and it was decided to dispense with a wiper-trip prior to the lengthy MDT runs.

At the completion of the logging runs (with two tool runs having been cancelled) a clean-out trip was made. With the first full circulation of the fluid in nearly 80 hours, it became evident, that bacterial degradation has begun to set in. A total of three cans of Biocide were used to treat that condition. This was basically the last fluid treatment, prior to running and cementing the casing string.

Application of the FLUORESCENCE (F/C) Marker Dye:

The initial concept called for addition of the dye in liquid form to a concentration of 20 ppm in the drilling fluid system. However the liquid dye, sourced from the USA, was not expected to arrive in time for the start of the 6¾" hole interval. It was also learned, that the liquid might contain only 2% of the active ingredient.

F/C dye, C.I. Acid Yellow 73 (Uranine) in its dry form, was obtained from the Dampier, WA base of Schlumberger instead and a series of tests were carried out to establish suitable concentrations and addition regimes.

After several trials, the method decided upon, required a 5% w/w solution of F/C, needing 100 gram dry powder F/C made up to 2 lt batches with lease water. In the event, making up and adding the dye this way was found to be too time consuming and cumbersome.

The alternative method devised, required 400g (loosely filled to the 900 ml mark of a 1 lt Viscosity cup) of the F/C dye to be added to 200 lt of water in the Chemical Barrel. This device is located on the upper level of the mud tanks and incorporates a hand-crank paddle which agitates the contents well and ensures the material added is fully dissolved. The resulting solution was then being added via a valve, which is set to allow a fast trickle of the dye into the active suction tank.

In consultation with Geoscience Australia in Canberra, the target level for F/C in the drilling fluid was then revised to 10 ppm. This occurred, after the dye in its liquid form had arrived on location, and was tested with 4 US pints (4 bottles) being

added to 125 bbls drilling fluid. The calculated value for the final concentration was 9.5 ppm and this level was confirmed, using a Hach Spectrophotometer.

This test also allowed to calculate the usage of the liquid product. Had it been available and had the originally planned 20 ppm level sought to be obtained, this would have required 133 1-pint bottles at $75 each, to treat the fluid made during the first 730m of this interval, namely 2084 bbls. With more than 1500m of this well still to be drilled, that approach would not have been sustainable.

With a combination of dry and liquid F/C dye having been added to the system, a concentration of 6.375 ppm was reached at 1304m. At this time a more detailed specification sheet of the material was obtained. This showed several, previously not known facts about this product:

1.) The liquid contains 7.5% of active ingredient, the dry powder 75%.

2.) A fluoro-metric measurement can be used to discern active ingredient levels of less than 0.1 ppm.

Based on that information, GA decided, that a tested level of 5 ppm in the filtrate would suffice for the purposes of this investigation. This level was then maintained until the end of the drilling operations, using both the liquid and dry powder forms of the product.

Separate filtrate samples of ~20 ml were prepared during each drilling fluid analysis, placed in screw-capped glass containers and set aside for the attention of Geoscience Australia in Canberra, along with other specially collected and stored drilling fluid samples.

A final calculation of the usage showed, that on a dry-powder equivalent basis a total of ~5.5 kg of Fluorescence had been used for this project, with a ~5 ppm concentration having been maintained in the filtrate for most of the time. The overall rate of addition (total F/C added divided by the total amount of drilling fluid prepared) calculated as 1.5 gram of dry powder equivalent per barrel. The tests required to determine the F/C level in the filtrate were carried out with a HACH Spectro-photometer with the light source set to 490 nano meter.

The cost of the Fluorescence dye (an estimated $ 1400 for the dry material and the same amount of the liquid product) was not included in the mud chemical cost, as was used for a different aspect of the project and its use did not in any way effect the fluid properties.

3.1 INTERVAL COSTS

Product	Cost	Unit Size	9-7/8" Surface Hole Interval : 0 - 516 m Used	Cost	%Cost	8-1/2" Production Hole 516 m - 2249 m Used	Cost	%Cost	Post TD & Cementing Used	Cost	%Cost	Total Well Consumption 0 - 2249 m (TD) Used	Cost	%Cost
AMC Biocide G	$ 188.33	25 lt				10	$1,883.30	3.5%	3	$564.99	12.2%	13	$2,448.29	3.9%
AMC Defoamer	$ 146.40	25 lt				4	$585.60	1.1%				4	$585.60	0.9%
AMC Pac-R	$ 162.49	25 kg				54	$8,774.46	16.1%				54	$8,774.46	13.9%
AMC PHPA	$ 120.61	25 kg				66	$7,960.26	14.6%				66	$7,960.26	12.6%
Aus-Ben	$ 10.89	25 kg	10	$108.90	2.6%	4	$43.56	0.1%				14	$152.46	0.2%
Aus-Gel	$ 12.19	25 kg	80	$975.20	23.7%	3	$36.57	0.1%				83	$1,011.77	1.6%
Baryte	$ 9.95	25 kg	80	$796.00	19.4%				2	$19.90	0.4%	82	$815.90	1.3%
Calcium Chloride	$ 19.65	25 kg	6	$117.90	2.9%							6	$117.90	0.2%
Caustic Soda	$ 50.73	25 kg				7	$355.11	0.7%				7	$355.11	0.6%
Citric Acid	$ 73.25	25 kg				3	$219.75	0.4%				3	$219.75	0.3%
Calcium Carbonate	$ 11.65	25 kg				723	$8,422.95	15.4%	235	$2,737.75	59.0%	958	$11,160.70	17.6%
Lime	$ 9.35	25 kg				2	$18.70	0.0%				2	$18.70	0.0%
Potassium Chloride (TG)	$ 20.12	25 kg	72	$1,448.64	35.2%	588	$11,830.56	21.7%	42	$845.04	18.2%	702	$14,124.24	22.3%
SAPP	$ 73.46	25 kg	6	$440.76	10.7%	6	$440.76	0.8%				12	$881.52	1.4%
Soda Ash	$ 18.30	25 kg				58	$1,061.40	1.9%				58	$1,061.40	1.7%
Sodium Sulphite	$ 37.68	25 kg				22	$828.96	1.5%				22	$828.96	1.3%
Xanthan Gum	$ 362.19	25 kg				33	$11,952.27	21.9%	1	$362.19	7.8%	34	$12,314.46	19.5%
Xtra - Sweep	$ 112.40	12 lb	2	$224.80	5.5%	1	$112.40	0.2%	1	$112.40	2.4%	4	$449.60	0.7%
Totals :				**$4,112.20**	**100.0%**		**$54,526.61**	**100.0%**		**$4,642.27**	**100.0%**		**$63,281.08**	**100.0%**
Cost per Metre :				**$7.97**			**$33.39**						**$28.14**	

3.2 COST ANALYSIS by INTERVAL

INTERVAL	9-7/8" HOLE	8½" HOLE	Post TD	WELL TOTAL
	SFC- 516m	516-2249m	E-LOGS & CSG	
Total Cost - Interval	$4,120.30	$54,526.61	$4,642.27	$63,289.18
Interval days	3	20	7	30
Metres drilled	516.0 m	1733.0 m		2249.0 m
Mud mixed	950 bbls	3314 bbls		4264 bbls
Cost per day	$1,373.43	$2,726.33	$663.18	$2,109.64
Cost per metre	$7.99	$31.46		$28.14
Drilling fluid mixed per m hole drilled	1.84 bbls	1.91 bbls		1.90 bbls
Cost per bbl	$4.34	$16.45		$14.84

4. MATERIALS RECONCILIATION

Well : CRC - 1

		TRANSFERRED TO:			LAKES OIL - HAZELWOOD 1
PRODUCT	lbs per UNIT	MEGA-SCOLIDES 2	TOTAL Received	TOTAL Used	FINAL BALANCE
AMC Biocide G	50	15	15	13	2
AMC Defoamer	55	18	18	4	14
AMC PAC-R	55	56	120	54	66
AMC PHPA	55	18	108	66	42
AUS-BEN	55		48	14	34
AUS-GEL	55	251	251	83	168
Baryte	55	446	766	82	684
Calcium Carbonate - 40µ	55	354	1554	958	596
Caustic Soda	55	7	39	7	32
Citric Acid	55	37	37	3	34
Calcium Chloride	55		8	6	2
KWIKSEAL - C	40	30	30		30
KWIKSEAL - F	40	32	32		32
KWIKSEAL - M	40	32	32	3	29
Lime	44	10	10	2	8
Potassium Chloride (TG)	55	198	1038	702	336
ROD-FREE 205Lt	450	1	1		1
SAPP	55		42	12	30
Soda Ash	55	16	102	58	44
Sodium Sulphite	55	12	54	22	32
Tracer-Fluoresceine	11		3	1	2
Xanthan Gum	55	24	54	34	20
XTRA - Sweep	12	7	7	4	3
LIQUI-SPERSE	55		32	0	32

5. FLUID PROPERTIES SUMMARY

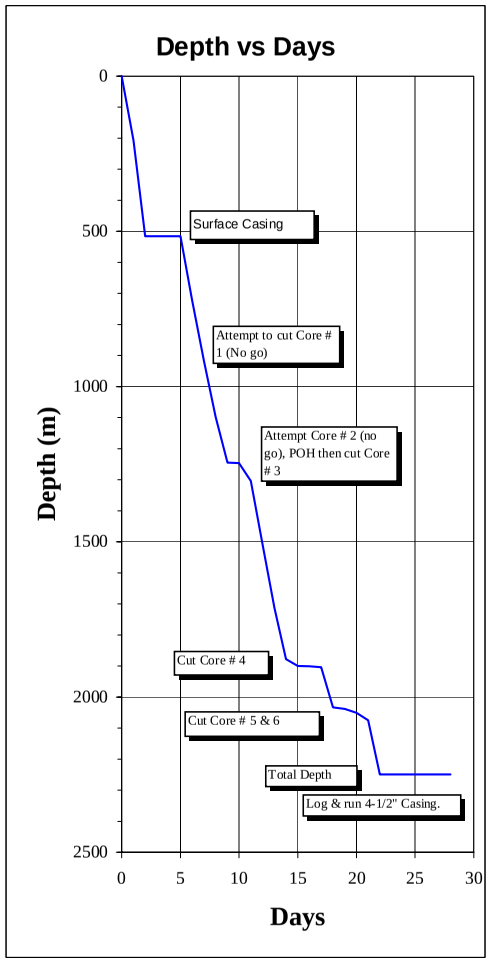
								Gels		Filtrate		Solids													
Date	Mud Type	Temp	Depth	Weight	Vis	PV	YP	10 sec	10 min	API	Cake	Solids	Water	Sand	MBT	pH	Pf	Mf	Pm	Cl-	Ca++	SO3=	K+	KCl
15-Feb-07	BENTONITE SPUD MUD	28	125	9.05	50	10	18	13	15	18.7	2	5.0	95.0	0.5	20.0	8.5	0.08	0.04	0.34	1,100	50	--	0	
		38.2	208	8.90	45	7	15	11	21	19.5	2	3.9	96.1	0.3	25.0	9.0	0.06	0.06	0.32	1,500	80	--	0	
16-Feb-07	BENTONITE SPUD MUD	41.3	380	8.95	47	5	21	20	31	21.5	2	4.3	95.7	0.2	17.5	8.3	0.02	0.02	0.26	1,000	80	--	0	
	BENTONITE SPUD MUD	47.1	516	9.00	49	12	38	25	37	50.0	4	4.4	95.6	0.2	20.0	8.0	0.00	0.00	0.22	6,900	400	--	5,400	1.0
17-Feb-07	BENTONITE SPUD MUD	44.9	516	8.90	44	4	30	21	23	50.0	4	3.2	96.8	0.3	15.0	7.8	0.00	0.00	0.16	6,800	320	--	4,900	0.9
18-Feb-07	KCl / PHPA / POLYMER	--	516	8.45	54	9	11	2	2	18.0	1	0.3	99.7	0	0	10.0	0.37	0.37	1.42	11,500	40	--	9,200	1.7
19-Feb-07	KCl / PHPA / POLYMER	--	516	8.40	50	8	10	1	1	17.0	1	0.0	100.0	0	0	10.0	0.37	0.37	1.42	11,500	40	--	9,200	1.7
20-Feb-07	KCl / PHPA / POLYMER	31.9	558	8.45	48	9	10	1	1	16.5	1	0.3	99.7	0.2	0	10.0	0.35	0.35	1.33	11,200	60	--	9,200	1.7
	KCl / PHPA / POLYMER	33.6	720	8.65	46	9	11	1	1	15.0	1	1.5	98.5	1.0	2.5	9.5	0.26	0.18	0.65	10,000	160	--	11,300	2.1
21-Feb-07	KCl / PHPA / POLYMER	32.6	916	8.60	52	9	13	2	2	12.8	1	1.1	98.9	0.8	1.5	10.2	0.44	0.35	1.55	10,000	120	200	11,900	2.2
22-Feb-07	KCl / PHPA / POLYMER	31.9	931	8.65	48	9	11	2	2	12.0	1	1.7	98.3	0.8	2.0	10.8	0.82	0.85	2.58	12,000	200	250	10,300	1.9
	KCl / PHPA / POLYMER	37.1	1098	8.95	53	12	16	3	3	8.5	1	3.8	96.2	1.5	2.5	11.0	1.05	0.58	2.80	11,800	140	250	10,800	2.0
23-Feb-07	KCl / PHPA / POLYMER	40.2	1245	8.80	56	12	18	3	3	8.8	1	2.9	97.1	0.8	2.0	11.2	1.10	0.98	3.35	11,300	100	200	8,600	1.6
24-Feb-07	KCl / PHPA / POLYMER	33.2	1247	8.80	52	12	15	2	2	8.5	1	2.7	97.3	0.6	2.0	10.5	0.85	0.55	2.35	11,000	200	150	10,800	2.0
25-Feb-07	KCl / PHPA / POLYMER	34.7	1304	8.95	51	12	12	2	2	7.5	1	3.6	96.4	1.0	3.0	10.8	1.20	1.00	3.40	13,000	320	200	13,500	2.5
26-Feb-07	KCl / PHPA / POLYMER	39	1403	8.90	52	12	15	3	3	7.5	1	3.3	96.7	0.8	3.0	11.0	1.12	1.05	3.50	11,600	260	200	12,400	2.3
	KCl / PHPA / POLYMER	42.5	1510	8.90	50	12	17	3	3	7.0	1	3.2	96.8	0.5	2.5	11.0	1.40	1.32	3.94	12,000	160	250	13,000	2.4
27-Feb-07	KCl / PHPA / POLYMER	44	1643	8.95	54	13	20	4	4	6.8	1	3.6	96.4	0.8	3.0	10.5	1.29	1.20	3.35	12,400	180	150	13,500	2.5
	KCl / PHPA / POLYMER	44.7	1713	8.90	54	13	20	4	4	6.5	1	3.1	96.9	0.8	3.5	10.8	1.75	1.30	3.86	12,800	140	180	14,100	2.6
28-Feb-07	KCl / PHPA / POLYMER	45.9	1799	9.00	53	13	22	4	4	7.2	1	4.1	95.9	0.5	4.0	10.2	0.89	1.00	4.05	12,000	40	250	11,300	2.1
	KCl / PHPA / POLYMER	47.1	1878	9.15	55	15	26	5	5	6.5	1	5.1	94.9	0.5	4.5	10.0	0.78	0.85	4.75	12,500	50	200	11,900	2.2
1-Mar-07	KCl / PHPA / POLYMER	43.2	1900	9.20	57	15	27	5	6	6.3	1	5.6	94.4	0.8	4.5	9.8	0.68	0.80	3.95	12,400	40	180	10,800	2.0
2-Mar-07	KCl / PHPA / POLYMER	41.7	1901	9.45	56	17	26	4	5	6.8	2	7.5	92.5	0.8	4.0	9.5	0.55	0.55	3.85	11,000	50	180	7,600	1.4
3-Mar-07	KCl / PHPA / POLYMER	40.6	1904	9.25	46	13	12	1	3	9.2	2	5.1	94.9	0.8	5.0	9.5	0.50	0.42	3.42	18,000	80	100	21,100	3.9
4-Mar-07	KCl / PHPA / POLYMER	44	2033	9.50	43	12	9	1	2	6.5	1	6.5	93.5	0.7	5.5	9.0	0.15	0.30	3.20	30,000	100	250	31,300	5.8
5-Mar-07	KCl / PHPA / POLYMER	36.5	2033	9.55	45	13	12	1	3	6.2	1	6.9	93.1	0.9	5.5	9.5	0.44	0.42	3.20	34,000	80	200	32,400	6.0
	KCl / PHPA / POLYMER	40.5	2038	9.45	48	13	16	2	3	5.8	1	6.5	93.5	0.6	5.0	9.8	0.52	0.65	3.52	30,500	50	180	27,600	5.1
6-Mar-07	KCl / PHPA / POLYMER	42	2044	9.45	53	15	19	3	4	5.6	1	6.3	93.7	0.5	6.5	10.0	0.62	0.58	3.55	30,000	40	100	29,700	5.5
	KCl / PHPA / POLYMER	42.1	2051	9.45	56	15	20	3	4	5.7	1	6.4	93.6	0.5	7.0	9.5	0.35	0.45	3.60	29,500	60	250	28,100	5.2
7-Mar-07	KCl / PHPA / POLYMER	40.2	2075	9.45	54	15	19	3	4	6.1	1	6.4	93.6	0.5	6.0	9.8	0.55	0.62	3.55	27,500	40	200	27,000	5.0
8-Mar-07	KCl / PHPA / POLYMER	40.7	2105	9.40	54	15	18	2	4	5.8	1	6.3	93.7	0.6	5.5	10.0	0.58	0.68	3.65	30,000	70	250	24,300	4.5
	KCl / PHPA / POLYMER	44.5	2249	9.45	52	15	17	3	4	5.9	1	6.5	93.5	1.0	6.5	9.8	0.40	0.52	3.48	31,500	40	250	28,100	5.2
9-Mar-07	KCl / PHPA / POLYMER	44	2249	9.50	54	16	19	3	5	6.0	1	6.7	93.3	0.9	7.0	9.8	0.42	0.40	3.42	31,800	40	200	29,700	5.5
10-Mar-07	KCl / PHPA / POLYMER	26.8	2249	9.60	58	16	19	3	5	5.5	1	7.4	92.6	0.6	6.5	9.5	0.38	0.45	3.30	32,500	30	250	30,300	5.6
11-Mar-07	KCl / PHPA / POLYMER	27.1	2249	9.60	59	16	19	3	5	5.5	1	7.4	92.6	0.6	6.5	9.5	0.35	0.44	3.28	32,200	30	250	30,300	5.6
12-Mar-07	KCl / PHPA / POLYMER	25.3	2249	9.60	60	15	18	3	4	5.6	1	7.5	92.5	0.6	6.5	9.5	0.33	0.40	3.50	32,000	30	100	28,600	5.3
13-Mar-07	KCl / PHPA / POLYMER	37.1	2249	9.55	58	16	19	3	6	5.6	1	7.2	92.8	0.5	6.5	9.0	0.10	0.18	3.20	31,000	60	80	27,000	5.0
14-Mar-07	KCl / PHPA / POLYMER	33.9	2249	9.60	60	19	18	3	5	5.7	1	7.6	92.4	0.5	6.5	9.0	0.08	0.15	3.18	30,500	80	50	27,000	5.0

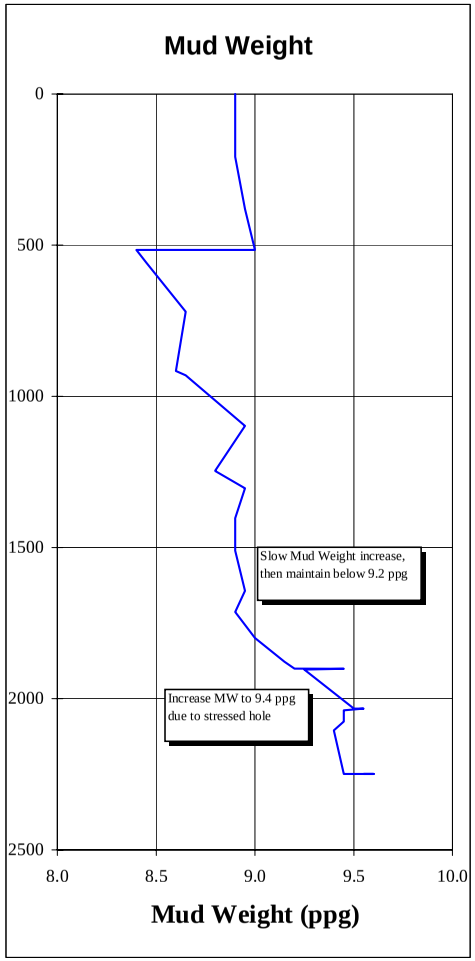
6. Mud Volume Analysis

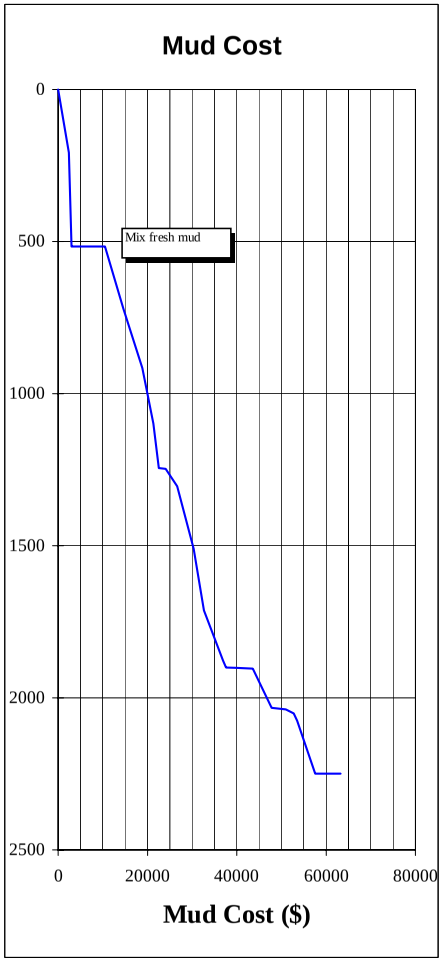
		Interval			Fluid Built & Received					Fluid Disposed						Summary			
Date	Hole Size	From	To	Mud Type	Fresh Premix	Sump Premix	Direct Recirc	Water	Other	De-sander	De-silter	Surface Losses	Down-hole	Dumped	Other	Initial	Received	Disposed	Final
15-Feb-06	9-7/8"		216 m	Spud Mud	250			300		45	19		19	40			550	124	426
16-Feb-06	9-7/8"	216 m	516 m	Spud Mud				360		27	62		12	180		426	360	281	505
17-Feb-06	9-7/8"	516 m	516 m	Spud Mud				40		68	17		11	40		505	40	136	409
Sub Total					**250**			**700**		**140**	**99**		**42**	**260**			**950**	**541**	
18-Feb-06	6-3/4"	516 m	516 m	KCl Polymer	615									329		409	615	329	695
19-Feb-06	6-3/4"	516 m	516 m	KCl Polymer				24								695	24		719
20-Feb-06	6-3/4"	516 m	745 m	KCl Polymer		375				27	23	150		15		719	375	65	1029
21-Feb-06	6-3/4"	745 m	915 m	KCl Polymer	80	420				68	68	284	1	15		1029	500	152	1377
22-Feb-06	6-3/4"	915 m	1109 m	KCl Polymer		250				51	41	105				1377	250	92	1536
23-Feb-06	6-3/4"	1109 m	1245 m	KCl Polymer		250				43	27	99		10		1536	250	80	1706
24-Feb-06	6-3/4"	1245 m	1247 m	KCl Polymer		50		20				30		20		1706	70	20	1756
25-Feb-06	6-3/4"	1247 m	1323 m	KCl Polymer		80				11	6	5	3	15		1756	80	36	1800
26-Feb-06	6-3/4"	1323 m	1526 m	KCl Polymer		240				65	25	80	6	15		1800	240	112	1929
27-Feb-06	6-3/4"	1526 m	1723 m	KCl Polymer		200				21	35	110	5	30		1929	200	90	2038
28-Feb-06	6-3/4"	1723 m	1889 m	KCl Polymer		160				4	12	50	35	20		2038	160	71	2127
1-Mar-06	6-3/4"	1889 m	1900 m	KCl Polymer								50	22	25		2127		47	2080
2-Mar-06	6-3/4"	1900 m	1901 m	KCl Polymer		120		80				20	12	15		2080	200	27	2252
3-Mar-06	6-3/4"	1901 m	1904 m	KCl Polymer		40				2		25	16	25		2252	40	43	2249
4-Mar-06	6-3/4"	1904 m	2033 m	KCl Polymer		40				2		35	26	20		2249	40	48	2241
5-Mar-06	6-3/4"	2033 m	2038 m	KCl Polymer		80		10	5	2	2		26	15		2241	95	45	2291
6-Mar-06	6-3/4"	2038 m	2051 m	KCl Polymer		40				9	10	10	38	20		2291	40	77	2254
7-Mar-06	6-3/4"	2051 m	2075 m	KCl Polymer		40		10		4	13	20	28	5		2254	50	50	2255
8-Mar-06	6-3/4"	2075 m	2249 m	KCl Polymer		80		10		10		15	21	5		2255	90	36	2309
9-Mar-06	6-3/4"	2249 m	2249 m	KCl Polymer						4		18	32	25		2309		62	2247
10-Mar-06	6-3/4"	2249 m	2249 m	KCl Polymer									37			2247		37	2210
11-Mar-06	6-3/4"	2249 m	2249 m	KCl Polymer									21			2210		21	2189
12-Mar-06	6-3/4"	2249 m	2249 m	KCl Polymer									14			2189		14	2175
13-Mar-06	6-3/4"	2249 m	2249 m	KCl Polymer									29	10		2175		39	2136
14-Mar-06	6-3/4"	2249 m	2249 m	KCl Polymer									41			2136		41	2095
Sub Total					**695**	**2465**		**154**	**5**	**323**	**261**	**1106**	**415**	**634**			**3319**	**1632**	
Well Total					**945**	**2465**		**854**	**5**	**463**	**359**	**1106**	**457**	**894**			**4269**	**2174**	

Dilution Factors			
	Interval Length	**Dilution Vol**	**Dilution Factor**
9-7/8" Surface Hole	516 m	700 bbls	1.4 bbls/m
6-3/4" Hole	1733 m	2704 bbls	1.6 bbls/m

7. Graphs


Depth vs Days
Depth (m)
0
500
1000
1500
2000
2500
0
5
10
15
20
25
30
Days
Surface Casing
Attempt to cut Core # 1 (No go)
Attempt Core # 2 (no go), POH then cut Core # 3
Cut Core # 4
Cut Core # 5 & 6
Total Depth
Log & run 4-1/2" Casing.

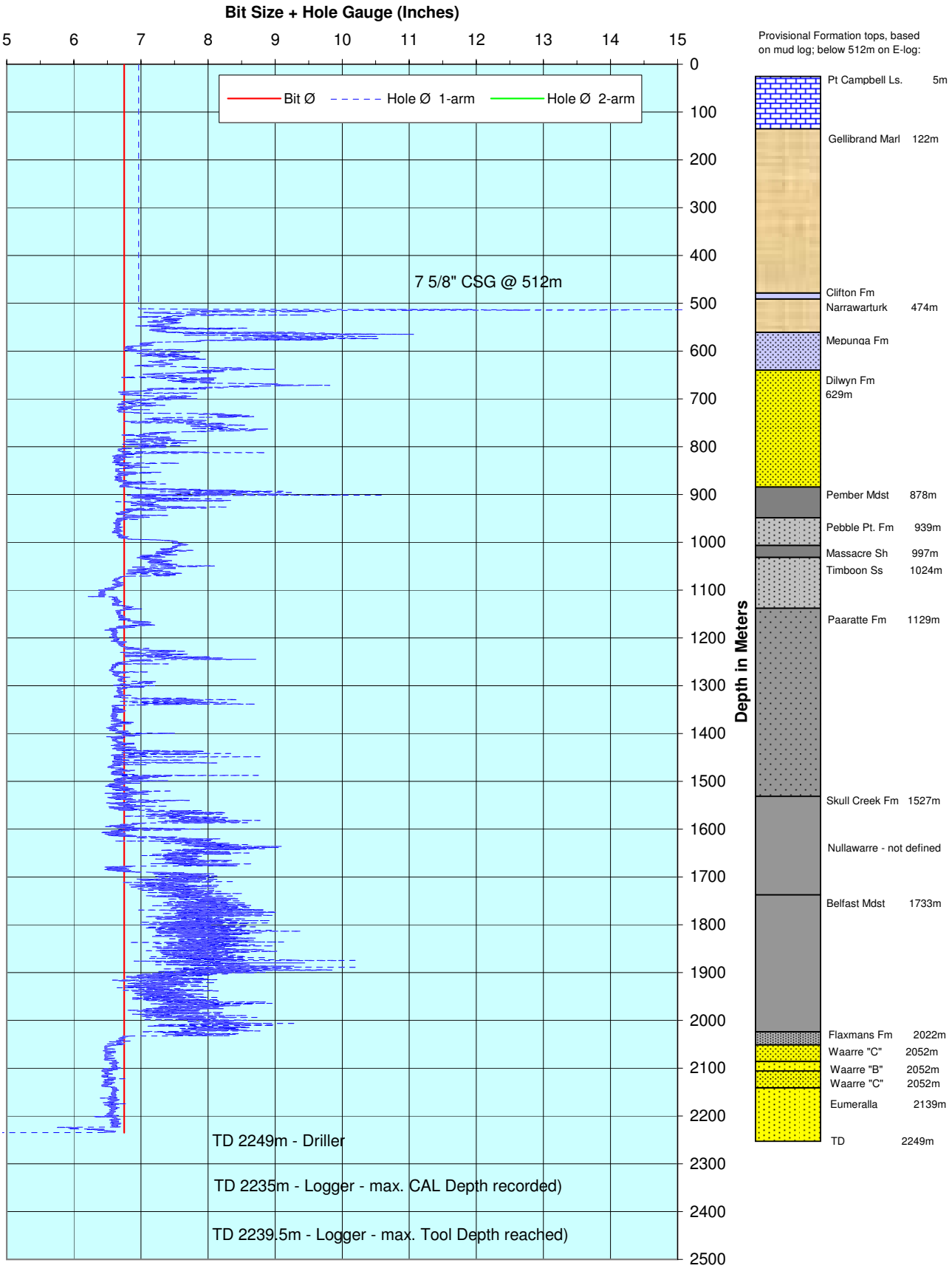

Mud Weight
0
500
1000
1500
2000
2500
8.0
8.5
9.0
9.5
10.0
Mud Weight (ppg)
Slow Mud Weight increase, then maintain below 9.2 ppg
Increase MW to 9.4 ppg due to stressed hole


Mud Cost
0
500
1000
1500
2000
2500
0
20000
40000
60000
80000
Mud Cost ($)
Mix fresh mud

8. Bit & Hydraulics Record

Bit #	Size	Make	Type	Jets						Depth Out	Depth Drilled	Hours	Cumm Hours	WOB	RPM	GPM	Mud Wt	Jet Vel	HHPb/sq"	Impact Force
1	9 7/8"	STEALTH	JST11X	14	14	14	14			516	516	44.5	44.5	5	120	500	9.1	266	169	627
2	6 3/4"	STEALTH	M56S	12	12	12	12	12		915	399	25	25	4	110	250	8.6	145	24	161
3	6 3/4"	CORPRO	MCP 662	13	13	13	13	13	14	918.5	3.5	1.2	26.2	5	80	250	8.65	100	11	112
4	6 3/4"	STEALTH	M56S	12	12	12	12	12		1245	326.5	21	47.2	5	120	250	8.8	145	24	165
5	6 3/4"	CORPRO	MCP 662	13	13	13	13	13	14	1246	1	1.5	48.7	5	80	160	8.8	64	3	47
6	6 3/4"	CORPRO	MCP 662	13	13	13	13	13	14	1270	24	10	58.7	5	80	120	8.95	48	1	27
7	6 3/4"	STEALTH	M56S	12	12	12	12	12		1900	630	75	133.7	8	110	315	9.2	183	51	274
8	6 3/4"	CORPRO	MCP 662	13	13	13	13	13	14	1904	4	15	148.7	10	80	150	9.25	60	3	43
9	6 3/4"	STEALTH	M46HY	12	12	12	12			2033	129	10.5	159.2	5	110	250	9.5	181	41	223
10	6 3/4"	CORPRO	MCP 662	13	13	13	13	13	14	2051	18	26.5	185.7	13	80	135	9.45	54	2	36
11	6 3/4"	CORPRO	MCP 662	13	13	13	13	13	14	2075	24	6	191.7	13.5	85	115	9.45	46	1	26
12	6 3/4"	STEALTH	M46HY	12	12	12	12			2249	174	14	205.7	10	110	250	9.45	181	41	222

CRC-CO2 Pilot Proj.
CRC 1 Caliper



10. DAILY DRILLING FLUIDS REPORTS

DRILLING FLUID REPORT

Report #	1	Date :	15-Feb-2007
Rig No	11	Spud :	15-Feb-2007
Depth	0 to 216	Metres	

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Agus NUGROHO
WELL NAME AND No	CRC - 1	FIELD: Investigation	LOCATION: OTWAY Basin / STATE: VICTORIA

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	14	14	14	16 CONDUCTOR	49	ft	HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION	
9.88	JST11X	14			SET @	15	M	56	250	5.5 X 7	Inches	PRESSURE	1100 psi
DRILL PIPE SIZE 3.5	TYPE G105-16.5#	Length 11	Mtrs		INTERMEDIATE SET @		ft M	TOTAL CIRCULATING VOL. 306		PUMP MODEL GD PZ-7	ASSUMED EFF 97 %	BOTTOMS UP	2 min
DRILL PIPE SIZE 4.50	TYPE HW	Length 54.8	Mtrs		PRODUCTION/ LINER Set @		ft M	IN STORAGE 120	10% KCl Brine	BBL/STK@ 100% 0.0514	STK / MIN 360	TOTAL CIRC. TIME	24 min
D/Collars 6.25	Tools 6.25	Length 136.8	13.2	Mtrs	MUD TYPE	BENTONITE SPUD MUD				BBL/MIN 17.96	GAL / MIN 754	ANN VEL. (ft/min) DP 217 DCs 316	316

MUD PROPERTIES					MUD PROPERTY SPECIFICATIONS					
SAMPLE FROM			Past Shaker	Past Shaker	Mud Weight	MIN	API Filtrate	NC	HPHT Filtrate	--
TIME SAMPLE TAKEN			17:00	23:20	Plastic Vis	MIN	Yield Point		pH	9.0 - 10.0
DEPTH (ft) - (m)		Metres	125	208	KCl	NIL	PHPA	NIL	Sulphites	NIL
FLOWLINE TEMPERATURE	^{0}C	^{0}F	28.0 / 83	38.2 / 102						
WEIGHT	ppg	SG	9.05 / 1.086	8.90 / 1.067						
FUNNEL VISCOSITY (sec/qt) API @	38 ^{0}C		50	45						
PLASTIC VISCOSITY cP @	50 ^{0}C		10	7						
YIELD POINT (lb/100ft^2)			18	15						
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min			13 / 15	11 / 21						
RHEOLOGY	θ 600	θ 300	38 / 28	29 / 22						
RHEOLOGY	θ 200	θ 100	25 / 21	18 / 15						
RHEOLOGY	θ 6	θ 3	15 / 12	10 / 7						
FILTRATE API (cc's/30 min)			18.7	19.5						
HPHT FILTRATE (cc's/30 min) @	-- ^{0}F		--	--						
CAKE THICKNESS API : HPHT (32nd in)			2 / --	2 / --						
SOLIDS CONTENT (% by Volume)			5.0	3.9						
LIQUID CONTENT (% by Volume) OIL/WATER			0 / 95.0	0 / 96.1						
SAND CONTENT (% by Vol.)			0.50	0.25						
METHYLENE BLUE CAPACITY (ppb equiv.)			20.0	25.0						
pH			8.5	9.0						
ALKALINITY MUD (Pm)			0.08	0.06						
ALKALINITY FILTRATE (Pf / Mf)			0.04 / 0.34	0.06 / 0.32						
CHLORIDE (mg/L)			1,100	1,500						
TOTAL HARDNESS AS CALCIUM (mg/L)			50	80						
SULPHITE (mg/L)			--	--						
K+ (mg/L)										
KCl (% by Wt.)			0.0	0.0						
PHPA (ppb)										
FLUORESCEINE (parts/million)			--	--						

OBSERVATIONS

Prepare 200bbls 22ppb Bentonite spud mud to drill Rat and mouse holes.
All solids control equipment put on line soon after spud.
Drilling through mud-making formations, thus maintaining SFC volume w/- water additions.
Prepare 120bbls 10% KCl brine, standing by for addition to system, if and when soft, sticky clay is being encountered, to minimise occurrence of mud rings.

OPERATIONS SUMMARY

Spud well @ 11:00 hrs, using a 9 7/8"" STEALTH JST11X milled tooth bit, 4x14, S/N 402437, IADC Code 117. P/U BHA, consisting of bit sub, XO, string stab and 6¼" DC. Jar between DC #12+13, plus 6 lengths 4½"HWDP followed by 3½", 16.6# DP. Bit at 216mm @ 24:00 hrs. DS @ 103m - Misrun, DS @ 131m - ¼°.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)	250	Desander	45	INITIAL VOLUME	0
Premix (recirc from sump)		Desilter	19		
Drill Water	300	Downhole	19	+ FLUID RECEIVED	550
Direct Recirc Sump		Dumped	40	- FLUID LOST	124
Other (Recycled from M-1 RE)		Surface		FLUID in STORAGE	120
TOTAL RECEIVED	550	TOTAL LOST	124	FINAL VOLUME	426

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	10	Shaker #1	3x84	18
Degasser	Po'Boy	0	Desilter	12	6	Shaker #2	3x84	18

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	8.9	12.6	3.17
Desilter	8.9	10.0	2.26

Product	Price	Start	Received	Used	Close	Cost
AUS-GEL	$ 12.19	251		77	174	$ 938.63
Potassium Chloride (	$ 20.12	198		72	126	$ 1,448.64

Solids Analysis

	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	3.9	37.0
Calcium Carbonate		NIL
Bentonite equiv.	2.6	24.0
Drilled Solids	1.3	11.5
Salt - based on Cl-	0.1	0.9
n @ 23:20 Hrs	0.40	
K @ 23:20 Hrs	9.38	

Bit Hydraulics & Pressure Data

Jet Velocity	401 ft/sec
Impact force	1396 lbs
HHP	567
HHP/in²	7.4
Bit Press. Loss	1289 psi
CSG Seat Frac Press.	
Equiv. Mud Wt.	
ECD	9.14 ppg

DAILY COST	CUMULATIVE COST
$2,387.27	$2,387.27

RMN ENGINEER	Peter ARONETZ	CITY	Adelaide Office	TELEPHONE	08 8338 7266

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DRILLING FLUID REPORT

Report #	2	Date :	16-Feb-2007
Rig No	11	Spud :	15-Feb-2007
Depth	216 to 516		Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Agus NUGROHO
WELL NAME AND No	CRC - 1	FIELD: Investigation	LOCATION: OTWAY Basin / STATE: VICTORIA

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	14	14	14	16 CONDUCTOR	49	ft	HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION	
9.88	JST11X	14			SET @	15	M	145	310	5.5 X 7	Inches	PRESSURE	1600 psi
DRILL PIPE	TYPE	Length			INTERMEDIATE		ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS	
SIZE 3.5	G105-13.3#	311	Mtrs		SET @		M	455		GD PZ-7	97 %	UP	10 min
DRILL PIPE	TYPE	Length			PRODUCTION/		ft	IN STORAGE		BBL/STK@ 100%	STK / MIN	TOTAL CIRC.	
SIZE 4.50	HW	54.8	Mtrs		LINER Set @		M	50	10% KCl Brine	0.0514	240	TIME	42 min
D/Collars	Tools	Length			MUD TYPE					BBL/MIN	GAL / MIN	ANN VEL. DP	144
6.25	6.25	136.8	13.2	Mtrs	BENTONITE SPUD MUD					11.97	503	(ft/min) DCs	211 211

	MUD PROPERTIES			
SAMPLE FROM	Past Shaker		Past Shaker	
TIME SAMPLE TAKEN	10:30		22:15	
DEPTH (ft) - (m) Metres	380		516	
FLOWLINE TEMPERATURE ^{0}C ^{0}F	41.3	107	47.1	118
WEIGHT ppg SG	8.95	1.074	9.00	1.079
FUNNEL VISCOSITY (sec/qt) API @ 47 ^{0}C	47		49	
PLASTIC VISCOSITY cP @ 50 ^{0}C	5		12	
YIELD POINT (lb/100ft^2)	21		38	
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min	20	31	25	37
RHEOLOGY θ 600 θ 300	31	26	62	50
RHEOLOGY θ 200 θ 100	24	22	45	41
RHEOLOGY θ 6 θ 3	18	15	35	32
FILTRATE API (cc's/30 min)	21.5		50.0	
HPHT FILTRATE (cc's/30 min) @ -- ^{0}F	--		--	
CAKE THICKNESS API : HPHT (32nd in)	2	--	2	--
SOLIDS CONTENT (% by Volume)	4.3		4.4	
LIQUID CONTENT (% by Volume) OIL/WATER	0	95.7	0	95.6
SAND CONTENT (% by Vol.)	0.15		0.20	
METHYLENE BLUE CAPACITY (ppb equiv.)	17.5		20.0	
pH	8.3		8.0	
ALKALINITY MUD (Pm)	0.02		0.00	
ALKALINITY FILTRATE (Pf / Mf)	0.02	0.26	0.00	0.22
CHLORIDE (mg/L)	1,000		6,900	
TOTAL HARDNESS AS CALCIUM (mg/L)	80		400	
SULPHITE (mg/L)	--		--	
K+ (mg/L)			5,300	
KCl (% by Wt.)	0.0		1.0	
PHPA (ppb)				
FLUORESCEINE (parts/million)	--		--	

MUD PROPERTY SPECIFICATIONS					
Mud Weight	MIN	API Filtrate	NC	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point		pH	9.0 - 10.0
KCl	NIL	PHPA	NIL	Sulphites	NIL

OBSERVATIONS

Maintain substantial (15-20bbls/hr) water additions while drilling.
At around 400m sticky clay agglomerations begin to show on shakers.
Also observe cavings up to 1.5" in length w/- ½-¾" thickness.
Mud-rings were not encountered, Fluid-loss control no longer evident.
Start pumping 10bbl batches of previously prepared KCl brine direct from mixing tank. Observe expected increase in fluid viscosity and decrease of clay balls. Add a total of 70bbls of 10% KCl brine to system.
Prepare 30bbls of XTRA SWEEP (0.4ppb) and pump before check trip.
PLS note adjustment of 3½"DP type from G105-16.5 to 13.3#.

OPERATIONS SUMMARY

Drill to 324m, DS @ 312m - ½°. Drill to CSG depth @ 516m.
Mix+pump XTRA SWEEP+CO. Run DS @ 506m:
Prepare to make check trip to SFC.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	27	INITIAL VOLUME	426
Premix (recirc from sump)		Desilter	62		
Drill Water	360	Downhole	12	+ FLUID RECEIVED	360
Direct Recirc Sump		Dumped	180	- FLUID LOST	281
Other (Recycled from M-1 RE)		Surface		FLUID in STORAGE	50
TOTAL RECEIVED	360	TOTAL LOST	281	FINAL VOLUME	505

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	24	Shaker #1	3x84	23
Degasser	Po'Boy	0	Desilter	12	22	Shaker #2	3x84	23

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	9.0	11.5	0.79
Desilter	9.0	9.9	1.98

Product	Price	Start	Received	Used	Close	Cost
AMC PAC-R	$ 162.49	56	32	0	88	$ 0.00
AMC PHPA	$ 120.61	18	30	0	48	$ 0.00
AUS-BEN	$ 10.89		42	0	42	$ 0.00
Baryte	$ 9.95	446	320	50	716	$ 497.50
Caustic Soda	$ -	7	32	0	39	
Calcium Chloride	$ -		8	0	8	
Potassium Chloride (T	$ 20.12	126	294	0	420	$ 0.00
SAPP	$ 73.46		42	0	42	$ 0.00
Soda Ash	$ 18.30	16	38	0	54	$ 0.00
Sodium Sulphite	$ 37.68	12	42	0	54	$ 0.00
Xanthan Gum	$ 362.19	24	30	0	54	$ 0.00
XTRA - Sweep	$ 112.40	7		1	6	$ 112.40

Solids Analysis	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	4.4	42.0
Calcium Carbonate		NIL
Bentonite equiv.	2.2	20.0
Drilled Solids	2.4	22.0
Salt - based on Cl-	0.4	4.0
n @ 22:15 Hrs	0.31	
K @ 22:15 Hrs	36.93	

Bit Hydraulics & Pressure Data	
Jet Velocity	268 ft/sec
Impact force	627 lbs
HHP	170
HHP/in²	2.2
Bit Press. Loss	579 psi
CSG Seat Frac Press.	
Equiv. Mud Wt.	
ECD	9.43 ppg

DAILY COST	CUMULATIVE COST
$609.90	$2,997.17

RMN ENGINEER	Peter ARONETZ	CITY	Adelaide Office	TELEPHONE	08 8338 7266

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DRILLING FLUID REPORT

RMN drilling fluids

Report #	3	Date :	17-Feb-2007
Rig No	11	Spud :	15-Feb-2007
Depth	516 to 516		Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Agus NUGROHO
WELL NAME AND No	CRC - 1	FIELD: Investigation	LOCATION: OTWAY Basin / STATE: VICTORIA

DRILLING ASSEMBLY			JET SIZE	CASING	MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE 9.88	TYPE			16 CONDUCTOR SET @ 49 ft / 15 M	HOLE 151	ACTIVE PITS 230	PUMP SIZE 5.5 X 7 Inches		CIRCULATION PRESSURE 200 psi
DRILL PIPE SIZE	TYPE	Length Mtrs		INTERMEDIATE SET @ ft / M	TOTAL CIRCULATING VOL. 381		PUMP MODEL GD PZ-7	ASSUMED EFF 97 %	BOTTOMS UP 23 min
DRILL PIPE SIZE	TYPE HW	Length Mtrs		PRODUCTION/ LINER Set @ ft / M	IN STORAGE 28		BBL/STK@ 100% 0.0514	STK / MIN 120	TOTAL CIRC. TIME 68 min
D/Collars	CSG run 7.63	Length 512 Mtrs		MUD TYPE BENTONITE SPUD MUD			BBL/MIN 5.99	GAL / MIN 251	ANN VEL. (ft/min) DP N/A / CSG/OH 156

	MUD PROPERTIES		
	Past Shaker	Past Shaker	
SAMPLE FROM			
TIME SAMPLE TAKEN		11:30	
DEPTH (ft) - (m) Metres		516	
FLOWLINE TEMPERATURE ^{0}C / ^{0}F		44.9	114
WEIGHT ppg / SG		8.90	1.067
FUNNEL VISCOSITY (sec/qt) API @ 45 ^{0}C		44	
PLASTIC VISCOSITY cP @ 50 ^{0}C		4	
YIELD POINT (lb/100ft^2)		30	
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		21	23
RHEOLOGY θ 600 / θ 300		38	34
RHEOLOGY θ 200 / θ 100		32	30
RHEOLOGY θ 6 / θ 3		26	22
FILTRATE API (cc's/30 min)		50.0	
HPHT FILTRATE (cc's/30 min) @ -- ^{0}F		--	
CAKE THICKNESS API : HPHT (32nd in)	--	4	--
SOLIDS CONTENT (% by Volume)		3.2	
LIQUID CONTENT (% by Volume) OIL/WATER		0	96.8
SAND CONTENT (% by Vol.)		0.25	
METHYLENE BLUE CAPACITY (ppb equiv.)		15.0	
pH		7.8	
ALKALINITY MUD (Pm)		0.00	
ALKALINITY FILTRATE (Pf / Mf)		0.00	0.16
CHLORIDE (mg/L)		6,800	
TOTAL HARDNESS AS CALCIUM (mg/L)		320	
SULPHITE (mg/L)		--	
K+ (mg/L)		4,700	
KCl (% by Wt.)		0.9	
PHPA (ppb)			
FLUORESCEINE (parts/million)		0	

MUD PROPERTY SPECIFICATIONS					
Mud Weight	MIN	API Filtrate	NC	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point		pH	9.0 - 10.0
KCl	NIL	PHPA	NIL	Sulphites	NIL

OBSERVATIONS

Add remaining KCl brine to system, as tank had to be MT for repairs.
Prepare 30bbls XTRA SWEEP.
Treat SFC volume with SAPP to reduce rheology prior to cement job.
Cont treatment w/- SAPP while circulating CSG.

AUS-BEN and CaCl2 supplied to DOWELL-SLB for CMT job.

OPERATIONS SUMMARY

Result of DS @ 506m - 1°.
POH to SFC, Run back in the hole, break circ. @ 216 + 402m, tag fill at 503m. P/U kelly & wash to bottom. Circulate hole clean and cont. circulation until arrival of 7-5/8" Cementing head on loc. is confirmed.
Mix+pump heavy barite pill, using material from damaged pallet.
POH to SFC, laying down 6¼" DC+Stab. Rig to run CSG.
Run 43lengths 7-5/8" 26.4# CSG (+LDG jt) to setting depth of 512m.
Install cementing head. Circulate w/- 120SPM @ 200PSI.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	68	INITIAL VOLUME	505
Premix (recirc from sump)		Desilter	17		
Drill Water	40	Downhole	11	+ FLUID RECEIVED	40
Direct Recirc Sump		Dumped	40	- FLUID LOST	136
		Surface		FLUID in STORAGE	28
TOTAL RECEIVED	40	TOTAL LOST	136	FINAL VOLUME	409

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	18	Shaker #1	3x84	11
Degasser	Po'Boy	0	Desilter	12	18	Shaker #2	3x84	11

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	8.9	9.4	2.64
Desilter	8.9	11.0	0.66

Product	Price	Start	Received	Used	Close	Cost
AUS-BEN	$ 10.89	42		10	32	$ 108.90
AUS-GEL	$ 12.19	174		3	171	$ 36.57
Baryte	$ 9.95	716		30	686	$ 298.50
Calcium Chloride	$ 21.00	8		6	2	$ 126.00
SAPP	$ 73.46	42		6	36	$ 440.76
XTRA - Sweep	$ 112.40	6		1	5	$ 112.40

Solids Analysis

	% Vol	PPB
High Grav Solids	0.6	9.47
Total LGS	2.6	24.3
Calcium Carbonate		NIL
Bentonite equiv.	1.6	15.0
Drilled Solids	1.0	9.3
Salt - based on Cl-	0.4	3.9
n @ 11:30 Hrs	0.16	
K @ 11:30 Hrs	63.91	

Bit Hydraulics & Pressure Data

Jet Velocity	
Impact force	
HHP	
HHP/in²	
Bit Press. Loss	
CSG Seat Frac Press.	
Equiv. Mud Wt.	
ECD	9.06 ppg

DAILY COST	CUMULATIVE COST
$1,123.13	$4,120.30

RMN ENGINEER Peter ARONETZ CITY Adelaide Office TELEPHONE 08 8338 7266

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DRILLING FLUID REPORT

RMN drilling fluids

Report #	4	Date :	18-Feb-2007
Rig No	11	Spud :	15-Feb-2007
Depth	516 to 516		Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Agus NUGROHO
WELL NAME AND No	CRC - 1	FIELD: Investigation	LOCATION: OTWAY Basin / STATE: VICTORIA

DRILLING ASSEMBLY		JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	12	12	12	16 CONDUCTOR SET @	49 ft / 15 M		HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION PRESSURE
6.75	M56S	12	12					80	0	5.5 X 7 Inches		psi
DRILL PIPE SIZE 3.50	TYPE G105-13.3#	Length		Mtrs	7 5/8 INTERMEDIATE SET @	1680 ft / 512 M		TOTAL CIRCULATING VOL.		PUMP MODEL: GD PZ-7	ASSUMED EFF: 97 %	BOTTOMS UP min
DRILL PIPE SIZE 3.50	TYPE HWDP	Length		Mtrs	PRODUCTION/ LINER Set @	ft / M		IN STORAGE		BBL/STK@ 100%: 0.0514	STK / min	TOTAL CIRC. TIME min
D/Collars	Tools	Length			MUD TYPE					BBL/min	GAL / min	ANN VEL. DP / DC ft/min
4.75	4.75			Mtrs	KCl / PHPA / POLYMER							

	MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
SAMPLE FROM	Past Shaker	Past Shaker	Mud Weight	MIN	API Filtrate	6 - 10	HPHT Filtrate	--
TIME SAMPLE TAKEN		18:00	Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
DEPTH (ft) - (m) Metres		516	KCl	<2	PHPA	>2	Sulphites	>80
FLOWLINE TEMPERATURE ^{0}C / ^{0}F		-- --						
WEIGHT ppg / SG		8.45 1.013						
FUNNEL VISCOSITY (sec/qt) API @ -- ^{0}C		54						
PLASTIC VISCOSITY cP @ 50 ^{0}C		9						
YIELD POINT (lb/100ft^2)		11						
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		2 2						
RHEOLOGY θ 600 / θ 300		29 20						
RHEOLOGY θ 200 / θ 100		16 11						
RHEOLOGY θ 6 / θ 3		2 1						
FILTRATE API (cc's/30 min)		18.0						
HPHT FILTRATE (cc's/30 min) @ -- ^{0}F		--						
CAKE THICKNESS API : HPHT (32nd in)	--	1 --						
SOLIDS CONTENT (% by Volume)		0.3						
LIQUID CONTENT (% by Volume) OIL/WATER		0 99.7						
SAND CONTENT (% by Vol.)		0						
METHYLENE BLUE CAPACITY (ppb equiv.)		0						
pH		10.0						
ALKALINITY MUD (Pm)		0.37						
ALKALINITY FILTRATE (Pf / Mf)		0.37 1.42						
CHLORIDE (mg/L)		11,500						
TOTAL HARDNESS AS CALCIUM (mg/L)		40						
SULPHITE (mg/L)		--						
K+ (mg/L)		8,900						
KCl (% by Wt.)		1.7						
PHPA (ppb)		0.40						
FLUORESCEINE (parts/million)		0						

OBSERVATIONS

After cementation, dump all remaining spud mud SFC volume+clean pits. Prepare 615bbls 1.7% KCl / PHPA / POLYMER fluid. Keep circulating through mud guns, to even out and shear PHPA. This volume is held in reserve, to be used for displacement after drilling out shoe track. Pill tank is only ACTIVE tank (MT at this time), to be used with remaining spud mud to drill out cement and make new hole for LOT.

Carry out laboratory work, to establish Fluoresceine additions required, to give acceptable results.

OPERATIONS SUMMARY

Cement 7-5/8"CSG as per program: Pump 60bbls water pre-flush, 67bbls - 12.5ppg lead; 33.5bbls 15.8ppg tail-in, drop plug, displace w/- 79bbls 8.9ppg mud, 20bbls good CMT to SFC, bump plug w/- 540psi, press.test CSG w/- 3000psi. Back-flow 1bbl; WOC.

@11:00 hrs, back out LDG jt, commence BOP installation.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)	615	Desander		INITIAL VOLUME	409
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	0	+ FLUID RECEIVED	615
Direct Recirc Sump		Dumped	329	- FLUID LOST	329
		Surface		FLUID in STORAGE	615
TOTAL RECEIVED	615	TOTAL LOST	329	FINAL VOLUME	695

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	0	Shaker #1	2x140 1x84	0
Degasser	Po'Boy	0	Desilter	12	0	Shaker #2	2x140 1x84	0

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
AMC Biocide G	$ 188.33	15		3	12	$ 564.99
AMC PAC-R	$ 162.49	88		10	78	$ 1,624.90
AMC PHPA	$ 120.61	48		5	43	$ 603.05
Caustic Soda	$ 21.00	39		2	37	$ 42.00
Potassium Chloride (	$ 20.12	420		84	336	$ 1,690.08
Xanthan Gum	$ 362.19	54		5	49	$ 1,810.95

Solids Analysis	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	0.3	3.2
Calcium Carbonate		NIL
Bentonite equiv.		0
Drilled Solids	0.4	3.2
Salt - based on Cl-	0.7	6.7
n @ 18:00 Hrs	0.54	
K @ 18:00 Hrs	3.62	

Bit Hydraulics & Pressure Data
Jet Velocity
Impact force
HHP
HHP/in²
Bit Press. Loss
CSG Seat Frac Press.
Equiv. Mud Wt.
ECD

DAILY COST	CUMULATIVE COST
$6,395.43	$10,515.73

RMN ENGINEER: Peter ARONETZ CITY: Adelaide Office TELEPHONE: 08 8338 7266

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DRILLING FLUID REPORT

RMN drilling fluids

Report #	5	Date :	19-Feb-2007
Rig No	11	Spud :	15-Feb-2007
Depth	516 to 516		Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Agus NUGROHO
WELL NAME AND No	CRC - 1	FIELD: Investigation	LOCATION: OTWAY Basin / STATE: VICTORIA

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	12	12	12	16 CONDUCTOR	49	ft	HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION	
6.75	M56S	12	12		SET @	15	M	64	20	5.5 X 7	Inches	PRESSURE	psi
DRILL PIPE	TYPE	Length			7 5/8 INTERMEDIATE	1680	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS	
SIZE 3.50	G105-13.3#	223	Mtrs		SET @	512	M	84		GD PZ-7	97 %	UP	min
DRILL PIPE	TYPE	Length			PRODUCTION/		ft	IN STORAGE		BBL/STK@ 100%	STK / min	TOTAL CIRC.	
SIZE 3.50	HWDP	54.8	Mtrs		LINER Set @		M	635		0.0514		TIME	min
D/Collars	Tools	Length			MUD TYPE					BBL/min	GAL / min	ANN VEL. DP	ft/
4.75	4.75	179.4	26.3	Mtrs	KCl / PHPA / POLYMER							DC	min

MUD PROPERTIES	SUCTION Tk	SUCTION Tk
SAMPLE FROM		
TIME SAMPLE TAKEN		22:00
DEPTH (ft) - (m) Metres		516
FLOWLINE TEMPERATURE ^{0}C ^{0}F		-- --
WEIGHT ppg SG		8.40 1.007
FUNNEL VISCOSITY (sec/qt) API @ -- ^{0}C		50
PLASTIC VISCOSITY cP @ 50 ^{0}C		8
YIELD POINT (lb/100ft^2)		10
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		1 1
RHEOLOGY θ 600 θ 300		26 18
RHEOLOGY θ 200 θ 100		14 10
RHEOLOGY θ 6 θ 3		2 1
FILTRATE API (cc's/30 min)		17.0
HPHT FILTRATE (cc's/30 min) @ -- ^{0}F		--
CAKE THICKNESS API : HPHT (32nd in)	--	1 --
SOLIDS CONTENT (% by Volume)		
LIQUID CONTENT (% by Volume) OIL/WATER		0 100.0
SAND CONTENT (% by Vol.)		0
METHYLENE BLUE CAPACITY (ppb equiv.)		0
pH		10.0
ALKALINITY MUD (Pm)		0.37
ALKALINITY FILTRATE (Pf / Mf)		0.37 1.42
CHLORIDE (mg/L)		11,500
TOTAL HARDNESS AS CALCIUM (mg/L)		40
SULPHITE (mg/L)		--
K+ (mg/L)		8,900
KCl (% by Wt.)		1.7
PHPA (ppb)		0.38
FLUORESCEINE (parts/million)		0

MUD PROPERTY SPECIFICATIONS					
Mud Weight	MIN	API Filtrate	6 - 10	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
KCl	<2	PHPA	>2	Sulphites	>80

OBSERVATIONS

No circulation or mud chemical additions last 24 hours. 20bbls water added. Continue shearing newly mixed volume by pumping through all tanks, using gun lines.

OPERATIONS SUMMARY

BOP installation, function and pressure tests.
Make up new BHA, using a 6¾" STEALTH M56S PDC bit, 5x12, S/N 6972, IADC Code N/A. P/U BHA, consisting of NB Stab (ported, float), Pony DC, string stab and one 4½"Monel DC. Continue w/- 1x4¾"DC, 2nd string stab and 18x4½"DC, Jar between DC #16+17, followed w/- 6 lengths 3½"HWDP. Total BHA length: 260.57m
RIH on 3½"DP to 483m, tag TOC, Lay down excess DP.
Level mast, prepare to drill out cement.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander		INITIAL VOLUME	695
Premix (recirc from sump)		Desilter			
Drill Water	24	Downhole	0	+ FLUID RECEIVED	24
Direct Recirc Sump		Dumped		- FLUID LOST	0
		Surface		FLUID in STORAGE	635
TOTAL RECEIVED	24	TOTAL LOST	0	FINAL VOLUME	719

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	0	Shaker #1	2x140 1x84	
Degasser	Po'Boy	0	Desilter	12	0	Shaker #2	2x140 1x84	

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost

Solids Analysis

	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	0.0	-0.1
Calcium Carbonate		NIL
Bentonite equiv.		0
Drilled Solids	0.0	-0.1
Salt - based on Cl-	0.7	6.7
n @ 22:00 Hrs	0.53	
K @ 22:00 Hrs	3.37	

Bit Hydraulics & Pressure Data

Jet Velocity	
Impact force	
HHP	
HHP/in²	
Bit Press. Loss	
CSG Seat Frac Press.	
Equiv. Mud Wt.	
ECD	

DAILY COST	CUMULATIVE COST
	$10,515.73

RMN ENGINEER	Peter ARONETZ	CITY	Adelaide Office	TELEPHONE	08 8338 7266

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DRILLING FLUID REPORT

Report #	6	Date :	20-Feb-2007
Rig No	11	Spud :	15-Feb-2007
Depth	516 to 745		Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Agus NUGROHO
WELL NAME AND No	CRC - 1	FIELD: Investigation	LOCATION: OTWAY Basin / STATE: VICTORIA

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	12	12	12	16 CONDUCTOR	49	ft	HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION	
6.75	M56S	12	12		SET @	15	M	93	446	5.5 X 7	Inches	PRESSURE	450 psi
DRILL PIPE	TYPE	Length			7 5/8 INTERMEDIATE	1680	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS	
SIZE 3.50	G105-13.3#	485	Mtrs		SET @	512	M	539		GD PZ-7	97 %	UP	12 min
DRILL PIPE	TYPE	Length			PRODUCTION/		ft	IN STORAGE		BBL/STK@ 100%	STK / min	TOTAL CIRC.	
SIZE 3.50	HWDP	54.8	Mtrs		LINER Set @		M	0		0.0514	120	TIME	90 min
D/Collars	Tools	Length			MUD TYPE					BBL/min	GAL / min	ANN VEL. DP	185 ft/
4.75	4.75	179.4	26.3	Mtrs	KCl / PHPA / POLYMER					5.99	251	DC	268 268 min

MUD PROPERTIES				
SAMPLE FROM	Past Shaker		Past Shaker	
TIME SAMPLE TAKEN	13:30		22:20	
DEPTH (ft) - (m) Metres	558		720	
FLOWLINE TEMPERATURE ^{0}C ^{0}F	31.9	90	33.6	93
WEIGHT ppg SG	8.45	1.014	8.65	1.037
FUNNEL VISCOSITY (sec/qt) API @ 34 ^{0}C	48		46	
PLASTIC VISCOSITY cP @ 50 ^{0}C	9		9	
YIELD POINT (lb/100ft^2)	10		11	
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min	1	1	1	1
RHEOLOGY θ 600 θ 300	28	19	29	20
RHEOLOGY θ 200 θ 100	15	11	17	12
RHEOLOGY θ 6 θ 3	2	1	2	1
FILTRATE API (cc's/30 min)	16.5		15.0	
HPHT FILTRATE (cc's/30 min) @ -- ^{0}F	--		--	
CAKE THICKNESS API : HPHT (32nd in)	1	--	1	--
SOLIDS CONTENT (% by Volume)	0.3		1.5	
LIQUID CONTENT (% by Volume) OIL/WATER	0	99.7	0	98.5
SAND CONTENT (% by Vol.)	0.20		1.00	
METHYLENE BLUE CAPACITY (ppb equiv.)	0		2.5	
pH	10.0		9.5	
ALKALINITY MUD (Pm)	0.35		0.26	
ALKALINITY FILTRATE (Pf / Mf)	0.35	1.33	0.18	0.65
CHLORIDE (mg/L)	11,200		10,000	
TOTAL HARDNESS AS CALCIUM (mg/L)	60		160	
SULPHITE (mg/L)	--		--	
K+ (mg/L)	8,900		11,000	
KCl (% by Wt.)	1.7		2.1	
PHPA (ppb)	0.29		0.54	
FLUORESCEINE HACH TEST (parts/million)	1.004		3.075	

MUD PROPERTY SPECIFICATIONS					
Mud Weight	MIN	API Filtrate	6 - 10	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
KCl	<2	PHPA	>2	Sulphites	>80

OBSERVATIONS

FIT carried out w/- remaining Bentonite spud mud. At completion of test, diplace to newly mixed KCl/PHPA/POLYMER fluid.
Despite extensive shearing of PHPA, run-off over shakers. Cause being penetrated sand with widely varying grainsize, which plugs screens.
De-sander and de-silter full on-line, underflow up to 13.8ppg.
Prepare 375bbls new volume; commence recycling fluid from sump.

Start FLUORESCEINE additions.
Final mesured F/C concentration as measured with HACH Spectrometer.

OPERATIONS SUMMARY

Drill out shoe track, make new hole to 522m. Rig up for FIT, leak-off occurs at 365psi - CSG seat rating 13.3ppg Equiv MW. Resume drilling.
Drill to 745m at 24:00 hrs.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	27	INITIAL VOLUME	719
Premix (recirc from sump)	375	Desilter	23		
Drill Water		Downhole	0	+ FLUID RECEIVED	375
Direct Recirc Sump		Dumped	15	- FLUID LOST	215
		Surface	150	FLUID in STORAGE	0
TOTAL RECEIVED	375	TOTAL LOST	215	FINAL VOLUME	879

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	12	Shaker #1	2x140 1x84	24
Degasser	Po'Boy	0	Desilter	12	12	Shaker #2	2x140 1x84	24

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	8.6	12.7	1.58
Desilter	8.6	12.5	1.32

Product	Price	Start	Received	Used	Close	Cost
AMC PAC-R	$ 162.49	78		6	72	$ 974.94
AMC PHPA	$ 120.61	43		5	38	$ 603.05
Potassium Chloride (T	$ 20.12	336		36	300	$ 724.32
SAPP	$ 73.46	36		6	30	$ 440.76
Soda Ash	$ 18.30	54		16	38	$ 292.80
Xanthan Gum	$ 362.19	49		3	46	$ 1,086.57

Solids Analysis	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	1.5	14.4
Calcium Carbonate		NIL
Bentonite equiv.	0.3	2.5
Drilled Solids	1.3	11.9
Salt - based on Cl-	0.6	5.8
n @ 22:20 Hrs	0.54	
K @ 22:20 Hrs	3.62	

Bit Hydraulics & Pressure Data	
Jet Velocity	146 ft/sec
Impact force	
HHP	24
HHP/in^2	0.7
Bit Press. Loss	165 psi
CSG Seat Frac Press.	
Equiv. Mud Wt.	
ECD	8.94 ppg

DAILY COST	CUMULATIVE COST
$4,122.44	$14,638.17

RMN ENGINEER Peter ARONETZ CITY Adelaide Office TELEPHONE 08 8338 7266

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DRILLING FLUID REPORT

Report #	7	Date :	21-Feb-2007
Rig No	11	Spud :	15-Feb-2007
Depth	745 to 915		Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Agus NUGROHO

WELL NAME AND No	FIELD	LOCATION	STATE
CRC - 1	Investigation	OTWAY Basin	VICTORIA

DRILLING ASSEMBLY		JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE	TYPE	13	13	13	16 CONDUCTOR	49	ft	HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION	
6.75	MCP 662	13	14	14	SET @	15	M	115	488	5.5 X 7	Inches	PRESSURE	400 psi
DRILL PIPE	TYPE	Length			7 5/8 INTERMEDIATE	1680	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS	
SIZE 3.50	G105-13.3#	655	Mtrs		SET @	512	M	603		GD PZ-7	97 %	UP	21 min
DRILL PIPE	TYPE	Length			PRODUCTION/		ft	IN STORAGE		BBL/STK@ 100%	STK / min	TOTAL CIRC.	
SIZE 3.50	HWDP	54.8	Mtrs		LINER Set @		M	0		0.0514	90	TIME	134 min
D/Collars	Tools	Length			MUD TYPE					BBL/min	GAL / min	ANN VEL. DP	139 ft/
4.75	4.75	179.4	26.3	Mtrs	KCl / PHPA / POLYMER					4.49	189	DC	201 201 min

		MUD PROPERTIES	
SAMPLE FROM		Past Shaker	Past Shaker
TIME SAMPLE TAKEN			12:00
DEPTH (ft) - (m)	Metres		915
FLOWLINE TEMPERATURE	^{0}C / ^{0}F		32.6 / 92
WEIGHT	ppg / SG		8.60 / 1.031
FUNNEL VISCOSITY (sec/qt) API @	33 ^{0}C		52
PLASTIC VISCOSITY cP @	59 ^{0}C		9
YIELD POINT (lb/100ft^2)			13
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min			2 / 2
RHEOLOGY	θ 600 / θ 300		31 / 22
RHEOLOGY	θ 200 / θ 100		18 / 13
RHEOLOGY	θ 6 / θ 3		3 / 2
FILTRATE API (cc's/30 min)			12.8
HPHT FILTRATE (cc's/30 min) @	-- ^{0}F		--
CAKE THICKNESS API : HPHT (32nd in)		--	1 / --
SOLIDS CONTENT (% by Volume)			1.1
LIQUID CONTENT (% by Volume) OIL/WATER			0 / 98.9
SAND CONTENT (% by Vol.)			0.80
METHYLENE BLUE CAPACITY (ppb equiv.)			1.5
pH			10.2
ALKALINITY MUD (Pm)			0.44
ALKALINITY FILTRATE (Pf / Mf)			0.35 / 1.55
CHLORIDE (mg/L)			10,000
TOTAL HARDNESS AS CALCIUM (mg/L)			120
SULPHITE (mg/L)			200
K+ (mg/L)			11,600
KCl (% by Wt.)			2.2
PHPA (ppb)			0.54
FLUORESCEINE HACH TEST	(parts/million)		3.850

MUD PROPERTY SPECIFICATIONS					
Mud Weight	MIN	API Filtrate	6 - 10	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
KCl	<2	PHPA	>2	Sulphites	>80

OBSERVATIONS

Experience difficulties with blinding of shaker screens with sand grains. Change back to 84-mesh screens, same problem, change to 50-mesh screens. Prepare 500bbls new volume, partially to make up for run-off @ shakers. Prepare heavy pill, using CaCO3.

Pump pressure recorded while drilling w/- 120spm (250gpm): 975psi.
Jet sizes+nos reported are assumed figures, to give a TFA of 0.796in^2

OPERATIONS SUMMARY

Drill to 915m, core-point being called. CO, run DS @ 906m - 1°N31E. Mix+pump heavy pill, POH for core. M/U 13.8m core bbl, using CORPRO core bit, Type MCP662, SN 083719, TFA 0.8in^2. Run BHA w/out stabilisers, new length 269.51m. RIH to 825m, P/U kelly, ream+wash at 854m @ 24:00 hrs.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)	80	Desander	68	INITIAL VOLUME	539
Premix (recirc from sump)	420	Desilter	68		
Drill Water		Downhole	1	+ FLUID RECEIVED	500
Direct Recirc Sump		Dumped	15	- FLUID LOST	436
		Surface	284	FLUID in STORAGE	0
TOTAL RECEIVED	500	TOTAL LOST	436	FINAL VOLUME	603

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	12	Shaker #1	3x50	18
Degasser	Po'Boy	0	Desilter	12	12	Shaker #2	3x50	18

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	8.6	9.1	3.96
Desilter	8.6	9.8	3.96

Product	Price	Start	Received	Used	Close	Cost
AMC PAC-R	$ 162.49	72		8	64	$ 1,299.92
AMC PHPA	$ 120.61	38		8	30	$ 964.88
Calcium Carbonate - 4	$ 11.65	354		24	330	$ 279.60
Caustic Soda	$ 21.00	37		1	36	$ 21.00
Potassium Chloride (T	$ 20.12	300		50	250	$ 1,006.00
Soda Ash	$ 18.30	38		4	34	$ 73.20
Sodium Sulphite	$ 37.68	54		4	50	$ 150.72
Xanthan Gum	$ 362.19	46		1	45	$ 362.19

Solids Analysis

	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	1.1	10.3
Calcium Carbonate		1.1
Bentonite equiv.	0.2	1.5
Drilled Solids	0.8	7.7
Salt - based on Cl-	0.6	5.8
n @ 12:00 Hrs	0.49	
K @ 12:00 Hrs	5.15	

Bit Hydraulics & Pressure Data

Jet Velocity	74 ft/sec
Impact force	62 lbs
HHP	5
HHP/in^2	0.1
Bit Press. Loss	42 psi
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	8.89 ppg

DAILY COST	CUMULATIVE COST
$4,187.24	$18,825.41

RMN ENGINEER	Peter ARONETZ	CITY	Adelaide Office	TELEPHONE	08 8338 7266

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DRILLING FLUID REPORT

Report #	8	Date :	22-Feb-2007
Rig No	11	Spud :	15-Feb-2007
Depth	915 to 1109		Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Agus NUGROHO
WELL NAME AND No	CRC - 1	FIELD: Investigation	LOCATION: OTWAY Basin / STATE: VICTORIA

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	12	12	12	16 CONDUCTOR	49	ft	HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION	
6.75	M56S	12	12		SET @	15	M	141	516	5.5 X 7	Inches	PRESSURE	550 psi
DRILL PIPE	TYPE	Length			7 5/8 INTERMEDIATE	1680	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS	
SIZE 3.50	G105-13.3#	849	Mtrs		SET @	512	M	657		GD PZ-7	97 %	UP	19 min
DRILL PIPE	TYPE	Length			PRODUCTION/		ft	IN STORAGE		BBL/STK@ 100%	STK / min	TOTAL CIRC.	
SIZE 3.50	HWDP	54.8	Mtrs		LINER Set @		M	0		0.0514	120	TIME	110 min
D/Collars	Tools	Length			MUD TYPE					BBL/min	GAL / min	ANN VEL. DP	185 ft/
4.75	4.75	179.4	26.3	Mtrs	KCl / PHPA / POLYMER					5.99	251	DC	268 268 min

		MUD PROPERTIES			
SAMPLE FROM		Past Shaker		Past Shaker	
TIME SAMPLE TAKEN		13:45		22:30	
DEPTH (ft) - (m)	Metres	931		1,098	
FLOWLINE TEMPERATURE	^{0}C / ^{0}F	31.9	90	37.1	100
WEIGHT	ppg / SG	8.65	1.038	8.95	1.073
FUNNEL VISCOSITY (sec/qt) API @	37 ^{0}C	48		53	
PLASTIC VISCOSITY cP @	50 ^{0}C	9		12	
YIELD POINT (lb/100ft^2)		11		16	
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		2	2	3	3
RHEOLOGY	θ 600 / θ 300	29	20	40	28
RHEOLOGY	θ 200 / θ 100	18	13	23	16
RHEOLOGY	θ 6 / θ 3	3	3	4	3
FILTRATE API (cc's/30 min)		12.0		8.5	
HPHT FILTRATE (cc's/30 min) @	-- ^{0}F	--		--	
CAKE THICKNESS API : HPHT (32nd in)		1	--	1	--
SOLIDS CONTENT (% by Volume)		1.7		3.8	
LIQUID CONTENT (% by Volume) OIL/WATER		0	98.3	0	96.2
SAND CONTENT (% by Vol.)		0.80		1.50	
METHYLENE BLUE CAPACITY (ppb equiv.)		2.0		2.5	
pH		10.8		11.0	
ALKALINITY MUD (Pm)		0.82		1.05	
ALKALINITY FILTRATE (Pf / Mf)		0.85	2.58	0.58	2.80
CHLORIDE (mg/L)		12,000		11,800	
TOTAL HARDNESS AS CALCIUM (mg/L)		200		140	
SULPHITE (mg/L)		250		250	
K+ (mg/L)		10,000		10,500	
KCl (% by Wt.)		1.9		2.0	
PHPA (ppb)		0.52		0.67	
FLUORESCEINE HACH TEST	(parts/million)	1.900		3.550	

MUD PROPERTY SPECIFICATIONS					
Mud Weight	MIN	API Filtrate	6 - 10	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
KCl	<2	PHPA	>2	Sulphites	>80

OBSERVATIONS

Continue operating with 50-mesh screens on both shakers. Instructions to maintain KCl concentration at its present level, i.e.~2%
Building PHPA concentration, Fluid-loss now at specified level.
pH higher than required, of account of recycled fluid having a high pH.
Soda Ash treatment to reduce high calcium intake from same source.

Instructions received to increase Fluoresceine concentration to 10ppm - as tested. Although 300g dye had been added, impact on concentration not immediately apparent.

OPERATIONS SUMMARY

Ream+wash to bottom, drop ball+start coring @ 915m. C/bbl jams @ 918.8m. Abort coring, Flow-check, Mix+pump heavy pill, POH w/- Core 1, recover 2.5m. Stand C/bbl in derrick+make up prev. drilling BHA RIH to 610m, run DS - ¼¨-S79E. Cont RIH to BTM no hole problems. Resume drilling. Reach 1109m @ 23:30hrs, run WL-DS. Result TBA.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	51	INITIAL VOLUME	603
Premix (recirc from sump)	250	Desilter	41		
Drill Water		Downhole	0	+ FLUID RECEIVED	250
Direct Recirc Sump		Dumped		- FLUID LOST	197
		Surface	105	FLUID in STORAGE	0
TOTAL RECEIVED	250	TOTAL LOST	197	FINAL VOLUME	657

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	18	Shaker #1	3x50	20
Degasser	Po'Boy	0	Desilter	12	18	Shaker #2	3x50	20

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	8.9	12.5	1.98
Desilter	8.9	13.3	1.58

Product	Price	Start	Received	Used	Close	Cost
AMC PAC-R	$ 162.49	64		3	61	$ 487.47
AMC PHPA	$ 120.61	30		4	26	$ 482.44
Calcium Carbonate - 4	$ 11.65	330		24	306	$ 279.60
Potassium Chloride (T	$ 20.12	250		20	230	$ 402.40
Soda Ash	$ 18.30	34		4	30	$ 73.20
Sodium Sulphite	$ 37.68	50		2	48	$ 75.36
Xanthan Gum	$ 362.19	45		2	43	$ 724.38

Solids Analysis	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	3.8	35.8
Calcium Carbonate		2.4
Bentonite equiv.	0.3	2.5
Drilled Solids	3.4	30.9
Salt - based on Cl-	0.7	6.8
n @ 22:30 Hrs	0.51	
K @ 22:30 Hrs	5.79	

Bit Hydraulics & Pressure Data	
Jet Velocity	146 ft/sec
Impact force	170 lbs
HHP	25
HHP/in^2	0.7
Bit Press. Loss	171 psi
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	9.36 ppg

DAILY COST	CUMULATIVE COST
$2,524.85	$21,350.26

RMN ENGINEER: Peter ARONETZ CITY: Adelaide Office TELEPHONE: 08 8338 7266

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DRILLING FLUID REPORT

Report #	9	Date :	23-Feb-2007
Rig No	11	Spud :	15-Feb-2007
Depth	1109 to 1245		Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Agus NUGROHO
WELL NAME AND No	CRC - 1	FIELD: Investigation / LOCATION: OTWAY Basin / STATE: VICTORIA	

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	12	12	12	16 CONDUCTOR	49	ft	HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION	
6.75	M56S	12	12		SET @	15	M	186	486	5.5 X 7	Inches	PRESSURE	600 psi
DRILL PIPE	TYPE	Length			7 5/8 INTERMEDIATE	1680	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS	
SIZE 3.50	G105-13.3#	985	Mtrs		SET @	512	M	672		GD PZ-7	97 %	UP	31 min
DRILL PIPE	TYPE	Length			PRODUCTION/		ft	IN STORAGE		BBL/STK@ 100%	STK / min	TOTAL CIRC.	
SIZE 3.50	HWDP	54.8	Mtrs		LINER Set @		M	56		0.0514	120	TIME	122 min
D/Collars	Tools	Length			MUD TYPE					BBL/min	GAL / min	ANN VEL. DP	185 ft/
4.75	4.75	179.4	26.3	Mtrs	KCl / PHPA / POLYMER					5.99	251	DC 268	268 min

		MUD PROPERTIES	
		Past Shaker	Past Shaker
SAMPLE FROM			
TIME SAMPLE TAKEN			16:55
DEPTH (ft) - (m)	Metres		1,245
FLOWLINE TEMPERATURE	^{0}C / ^{0}F		40.2 / 105
WEIGHT	ppg / SG		8.80 / 1.055
FUNNEL VISCOSITY (sec/qt) API @	40 ^{0}C		56
PLASTIC VISCOSITY cP @	50 ^{0}C		12
YIELD POINT (lb/100ft^2)			18
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min			3 / 3
RHEOLOGY	θ 600 / θ 300		42 / 30
RHEOLOGY	θ 200 / θ 100		24 / 17
RHEOLOGY	θ 6 / θ 3		4 / 3
FILTRATE API (cc's/30 min)			8.8
HPHT FILTRATE (cc's/30 min) @	-- ^{0}F		--
CAKE THICKNESS API : HPHT (32nd in)		--	1 / --
SOLIDS CONTENT (% by Volume)			2.9
LIQUID CONTENT (% by Volume) OIL/WATER			0 / 97.1
SAND CONTENT (% by Vol.)			0.75
METHYLENE BLUE CAPACITY (ppb equiv.)			2.0
pH			11.2
ALKALINITY MUD (Pm)			1.10
ALKALINITY FILTRATE (Pf / Mf)			0.98 / 3.35
CHLORIDE (mg/L)			11,300
TOTAL HARDNESS AS CALCIUM (mg/L)			100
SULPHITE (mg/L)			200
K+ (mg/L)			8,400
KCl (% by Wt.)			1.6
PHPA (ppb)			0.67
FLUORESCEINE HACH TEST	(parts/million)		3.850

MUD PROPERTY SPECIFICATIONS					
Mud Weight	MIN	API Filtrate	6 - 10	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
KCl	<2	PHPA	>2	Sulphites	>80

OBSERVATIONS

Continue fluid recycling from sump to maintain SFC volume.
Fluoresceine addition stopped with start of check trip @ 1300 hrs.
Pit volumes recorded without drill string in hole.

AUS-BEN received: Adjustment of amount received: 48 instead of 42sx.

OPERATIONS SUMMARY

DS @ 1107+1126m-Misruns; drill to 1177m, DS @ 1165m - 1°S64E.
Drill to 1245m, reach core point. CO, run DS @ 1238m - 1¾°N22E.
Mix+pump heavy pill, POH to 951m; observe tight hole initial stands.
RIH to bottom without problems. CO, prepare+pump 2nd heavy pill
POH to SFC. Lay out stabs+Pony DC. Make up core barrel.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	43	INITIAL VOLUME	657
Premix (recirc from sump)	250	Desilter	27		
Drill Water		Downhole	0	+ FLUID RECEIVED	250
Direct Recirc Sump		Dumped	10	- FLUID LOST	179
		Surface	99	FLUID in STORAGE	56
TOTAL RECEIVED	250	TOTAL LOST	179	FINAL VOLUME	728

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	13	Shaker #1	3x50	17
Degasser	Po'Boy	0	Desilter	12	13	Shaker #2	3x50	17

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	8.8	11.9	2.30
Desilter	8.8	12.9	1.45

Product	Price	Start	Received	Used	Close	Cost
AMC Biocide G	$ 188.33	12		1	11	$ 188.33
AMC PHPA	$ 120.61	26		4	22	$ 482.44
AUS-BEN	$ 10.89	32	6	0	38	$ 0.00
Calcium Carbonate - A	$ 11.65	306		40	266	$ 466.00
Soda Ash	$ 18.30	30		4	26	$ 73.20

Solids Analysis	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	2.9	27.0
Calcium Carbonate		4.3
Bentonite equiv.	0.2	2.0
Drilled Solids	2.3	20.7
Salt - based on Cl-	0.7	6.5
n @ 13:55 Hrs	0.49	
K @ 13:55 Hrs	7.44	

Bit Hydraulics & Pressure Data	
Jet Velocity	146 ft/sec
Impact force	167 lbs
HHP	25
HHP/in²	0.7
Bit Press. Loss	168 psi
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	9.25 ppg

DAILY COST	CUMULATIVE COST
$1,209.97	$22,560.23

RMN ENGINEER	Peter ARONETZ	CITY	Adelaide Office	TELEPHONE	08 8338 7266

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DRILLING FLUID REPORT

RMN drilling fluids

Report #	10	Date :	24-Feb-2007
Rig No	11	Spud :	15-Feb-2007
Depth	1245 to 1247		Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Agus NUGROHO

WELL NAME AND No	FIELD	LOCATION	STATE
CRC - 1	Investigation	OTWAY Basin	VICTORIA

DRILLING ASSEMBLY		JET SIZE			CASING		MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	13	13	13	16 CONDUCTOR	49 ft	HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION PRESSURE
6.75	MCP 662	13	14	14	SET @	15 M	158	458	5.5 X 7 Inches		650 psi
DRILL PIPE SIZE 3.50	TYPE G105-13.3#	Length 980 Mtrs			7 5/8 INTERMEDIATE SET @	1680 ft 512 M	TOTAL CIRCULATING VOL. 616		PUMP MODEL GD PZ-7	ASSUMED EFF 97 %	BOTTOMS UP 48 min
DRILL PIPE SIZE 3.50	TYPE HWDP	Length 54.8 Mtrs			PRODUCTION/ LINER Set @	ft M	IN STORAGE 131		BBL/STK@ 100% 0.0514	STK / min 55	TOTAL CIRC. TIME 272 min
D/Collars 4.75	Tools 4.75	Length 179.4	32.4	Mtrs	MUD TYPE KCl / PHPA / POLYMER				BBL/min 2.74	GAL / min 115	ANN VEL. DP 85 ft/min; DC 123 123

	MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
SAMPLE FROM	Past Shaker	Past Shaker	Mud Weight	MIN	API Filtrate	6 - 10	HPHT Filtrate	--
TIME SAMPLE TAKEN		22:50	Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
DEPTH (ft) - (m) Metres		1,247	KCl	<2	PHPA	>2	Sulphites	>80
FLOWLINE TEMPERATURE ^{0}C ^{0}F		33.2 93						
WEIGHT ppg SG		8.80 1.055						
FUNNEL VISCOSITY (sec/qt) API @ 33 ^{0}C		52						
PLASTIC VISCOSITY cP @ 50 ^{0}C		12						
YIELD POINT (lb/100ft^2)		15						
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		2 2						
RHEOLOGY θ 600 θ 300		39 27						
RHEOLOGY θ 200 θ 100		21 15						
RHEOLOGY θ 6 θ 3		3 2						
FILTRATE API (cc's/30 min)		8.5						
HPHT FILTRATE (cc's/30 min) @ -- ^{0}F		--						
CAKE THICKNESS API : HPHT (32nd in)	--	1 --						
SOLIDS CONTENT (% by Volume)		2.7						
LIQUID CONTENT (% by Volume) OIL/WATER		0 97.3						
SAND CONTENT (% by Vol.)		0.60						
METHYLENE BLUE CAPACITY (ppb equiv.)		2.0						
pH		10.5						
ALKALINITY MUD (Pm)		0.85						
ALKALINITY FILTRATE (Pf / Mf)		0.55 2.35						
CHLORIDE (mg/L)		11,000						
TOTAL HARDNESS AS CALCIUM (mg/L)		200						
SULPHITE (mg/L)		150						
K+ (mg/L)		10,500						
KCl (% by Wt.)		2.0						
PHPA (ppb)		0.65						
FLUORESCEINE HACH TEST (parts/million)		2.225						

OBSERVATIONS

Continue experiments w/- Fluoresceine in liquid form. Add 4 US pts to 125bbls pre-mixed polymers, resulting HACH readings average 9.5ppm. Remaining stock of 16x1pt insufficient to treat entire system up to 10ppm. Will continue to use both liquid and dry powder form of F/C dye. Suspect that F/C dye might be depleting, as calculated values for the concentration of the total added material so far indicate a value between 4.5 and 6.5 ppm. The corresponding HACH test shows a value of just above 2ppm.

OPERATIONS SUMMARY

RIH to CSG shoe, slip+cut drilling line. Cont RIH for Core # 1
Break circulation at 862m + at 1232m. Ream+wash to BTM @ 1245m.
Drop ball, record excessive pump pressure after seating of ball.
Attempt coring, reach 1246m, ROP unsatisfactory. Mix+pump heavy CaCO3 pill. POH to SFC. Cored 1m, recovered NIL. Service core barrel, RIH to 1235m, wash to bottom, Start cutting core # 3. Low ROP.
Mix+pump 20bbls 10% KCl pill to flush bit.
Reach 1247 @ 24:00 hrs.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander		INITIAL VOLUME	728
Premix (recirc from sump)	50	Desilter			
Drill Water	20	Downhole	0	+ FLUID RECEIVED	70
Direct Recirc Sump		Dumped	20	- FLUID LOST	50
		Surface	30	FLUID in STORAGE	131
TOTAL RECEIVED	70	TOTAL LOST	50	FINAL VOLUME	747

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	0	Shaker #1	3x50	8
Degasser	Po'Boy	0	Desilter	12	0	Shaker #2	3x50	8

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
AMC PAC-R	$ 162.49	61		3	58	$ 487.47
AMC PHPA	$ 120.61	22		1	21	$ 120.61
Calcium Carbonate - 4	$ 11.65	266	768	33	1001	$ 384.45
Potassium Chloride (1	$ 20.12	230	168	26	372	$ 523.12

Solids Analysis

	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	2.7	25.5
Calcium Carbonate		6.4
Bentonite equiv.	0.2	2.0
Drilled Solids	1.9	17.1
Salt - based on Cl-	0.7	6.4
n @ 22:50 Hrs	0.53	
K @ 22:50 Hrs	5.06	

Bit Hydraulics & Pressure Data

Jet Velocity	45 ft/sec
Impact force	24 lbs
HHP	1
HHP/in^2	0.0
Bit Press. Loss	16 psi
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	9.05 ppg

DAILY COST	CUMULATIVE COST
$1,515.65	$24,075.88

RMN ENGINEER	Peter ARONETZ	CITY	Adelaide Office	TELEPHONE	08 8338 7266

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DRILLING FLUID REPORT

Report #	11	Date :	25-Feb-2007
Rig No	11	Spud :	15-Feb-2007
Depth	1247 to 1323		Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Agus NUGROHO

WELL NAME AND No	FIELD	LOCATION	STATE
CRC - 1	Investigation	OTWAY Basin	VICTORIA

DRILLING ASSEMBLY		JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	12	12	12	16 CONDUCTOR	49	ft	HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION
6.75	M56S	12	12		SET @	15	M	169	569	5.5 X 7	Inches	PRESSURE 1000 psi
DRILL PIPE	TYPE	Length			7 5/8 INTERMEDIATE	1680	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS
SIZE 3.50	G105-13.3#	1063	Mtrs		SET @	512	M	738		GD PZ-7	97 %	UP 23 min
DRILL PIPE	TYPE	Length			PRODUCTION/		ft	IN STORAGE		BBL/STK@ 100%	STK / min	TOTAL CIRC.
SIZE 3.50	HWDP	54.8	Mtrs		LINER Set @		M	49		0.0514	120	TIME 131 min
D/Collars	Tools	Length			MUD TYPE					BBL/min	GAL / min	ANN VEL. DP 185 ft/
4.75	4.75	179.4	26.3	Mtrs	KCl / PHPA / POLYMER					5.99	251	DC 268 268 min

	MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM	Past Shaker	Past Shaker	Mud Weight MIN	API Filtrate 6 - 10	HPHT Filtrate --	
TIME SAMPLE TAKEN		22:30	Plastic Vis MIN	Yield Point >12	pH 9.0 - 10.0	
DEPTH (ft) - (m) Metres		1,304	KCl <2	PHPA >2	Sulphites >80	
FLOWLINE TEMPERATURE ^{0}C ^{0}F		34.7 95				
WEIGHT ppg SG		8.95 1.073				
FUNNEL VISCOSITY (sec/qt) API @ 35 ^{0}C		51				
PLASTIC VISCOSITY cP @ 50 ^{0}C		12				
YIELD POINT (lb/100ft^2)		12				
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		2 2				
RHEOLOGY θ 600 θ 300		36 24				
RHEOLOGY θ 200 θ 100		20 14				
RHEOLOGY θ 6 θ 3		3 2				
FILTRATE API (cc's/30 min)		7.5				
HPHT FILTRATE (cc's/30 min) @ -- ^{0}F		--				
CAKE THICKNESS API : HPHT (32nd in)	--	1 --				
SOLIDS CONTENT (% by Volume)		3.6				
LIQUID CONTENT (% by Volume) OIL/WATER		0 96.4				
SAND CONTENT (% by Vol.)		1.00				
METHYLENE BLUE CAPACITY (ppb equiv.)		3.0				
pH		10.8				
ALKALINITY MUD (Pm)		1.20				
ALKALINITY FILTRATE (Pf / Mf)		1.00 3.40				
CHLORIDE (mg/L)		13,000				
TOTAL HARDNESS AS CALCIUM (mg/L)		320				
SULPHITE (mg/L)		200				
K+ (mg/L)		13,100				
KCl (% by Wt.)		2.5				
PHPA (ppb)		0.76				
FLUORESCEINE HACH TEST (parts/million)		6.375				

OBSERVATIONS

Continue to increase Fluoresceine concentration, with the aim to reach 10ppm. Resume running Hydrocyclone solids control equipment, when back on bottom w/- drill bit.
Pump pressure higher than expected and calculated; have to assume some plugged jets.

OPERATIONS SUMMARY

Cut core # 3 to 1270m as per program, Mix+pump heavy CaCO3 pill, POH+recover core. SVC core barrel and stand in derrick. M/U previous drilling BHA, RIH to 1253m, Ream+wash to bottom @ 1270m.
Resume drilling, reach 1323m @ 24hrs.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	11	INITIAL VOLUME	747
Premix (recirc from sump)	80	Desilter	6		
Drill Water		Downhole	3	+ FLUID RECEIVED	80
Direct Recirc Sump		Dumped	15	- FLUID LOST	41
		Surface	5	FLUID in STORAGE	49
TOTAL RECEIVED	80	TOTAL LOST	41	FINAL VOLUME	787

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	4	Shaker #1	3x50	16
Degasser	Po'Boy	0	Desilter	12	4	Shaker #2	3x50	16

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	8.9	10.5	1.98
Desilter	8.9	13.0	1.13

Product	Price	Start	Received	Used	Close	Cost
AMC Defoamer	$ 146.40	18		2	16	$ 292.80
AMC PAC-R	$ 162.49	58		1	57	$ 162.49
AMC PHPA	$ 120.61	21		3	18	$ 361.83
AUS-GEL	$ 12.19	171		3	168	$ 36.57
Calcium Carbonate - A	$ 11.65	1001		30	971	$ 349.50
Lime	$ 9.35	10		2	8	$ 18.70
Soda Ash	$ 18.30	26		6	20	$ 109.80
Sodium Sulphite	$ 37.68	48		4	44	$ 150.72
Xanthan Gum	$ 362.19	43		3	40	$ 1,086.57

Solids Analysis

	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	3.6	33.9
Calcium Carbonate		7.3
Bentonite equiv.	0.3	3.0
Drilled Solids	2.6	23.6
Salt - based on Cl-	0.8	7.5
n @ 22:30 Hrs	0.58	
K @ 22:30 Hrs	3.20	

Bit Hydraulics & Pressure Data

Jet Velocity	146 ft/sec
Impact force	170 lbs
HHP	25
HHP/in^2	0.7
Bit Press. Loss	171 psi
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	9.25 ppg

DAILY COST	CUMULATIVE COST
$2,568.98	$26,644.86

RMN ENGINEER	Peter ARONETZ	CITY	Adelaide Office	TELEPHONE	08 8338 7266

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DRILLING FLUID REPORT

Report #	12	Date :	26-Feb-2007
Rig No	11	Spud :	15-Feb-2007
Depth	1323 to 1526		Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Agus NUGROHO

WELL NAME AND No	FIELD	LOCATION	STATE
CRC - 1	Investigation	OTWAY Basin	VICTORIA

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	12	12	12	16 CONDUCTOR	49	ft	HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION	
6.75	M56S	12	12		SET @	15	M	195	590	5.5 X 7	Inches	PRESSURE	900 psi
DRILL PIPE	TYPE	Length			7 5/8 INTERMEDIATE	1680	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS	
SIZE 3.50	G105-13.3#	1266	Mtrs		SET @	512	M	785		GD PZ-7	97 %	UP	27 min
DRILL PIPE	TYPE	Length			PRODUCTION/		ft	IN STORAGE		BBL/STK@ 100%	STK / min	TOTAL CIRC.	
SIZE 3.50	HWDP	54.8	Mtrs		LINER Set @		M	50		0.0514	120	TIME	140 min
D/Collars	Tools	Length			MUD TYPE					BBL/min	GAL / min	ANN VEL. DP	185 ft/
4.75	4.75	179.4	26.3	Mtrs	KCl / PHPA / POLYMER					5.99	251	DC 268	268 min

		MUD PROPERTIES			
SAMPLE FROM		Past Shaker		Past Shaker	
TIME SAMPLE TAKEN		11:00		22:10	
DEPTH (ft) - (m)	Metres	1,403		1,510	
FLOWLINE TEMPERATURE	^{0}C / ^{0}F	39.0	103	42.5	110
WEIGHT	ppg / SG	8.90	1.068	8.90	1.067
FUNNEL VISCOSITY (sec/qt) API @	43 ^{0}C	52		50	
PLASTIC VISCOSITY cP @	50 ^{0}C	12		12	
YIELD POINT (lb/100ft^2)		15		17	
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		3	3	3	3
RHEOLOGY	θ 600 / θ 300	39	27	41	29
RHEOLOGY	θ 200 / θ 100	22	15	24	17
RHEOLOGY	θ 6 / θ 3	3	2	4	3
FILTRATE API (cc's/30 min)		7.5		7.0	
HPHT FILTRATE (cc's/30 min) @	-- ^{0}F	--		--	
CAKE THICKNESS API : HPHT (32nd in)		1	--	1	--
SOLIDS CONTENT (% by Volume)		3.3		3.2	
LIQUID CONTENT (% by Volume) OIL/WATER		0	96.7	0	96.8
SAND CONTENT (% by Vol.)		0.80		0.50	
METHYLENE BLUE CAPACITY (ppb equiv.)		3.0		2.5	
pH		11.0		11.0	
ALKALINITY MUD (Pm)		1.12		1.40	
ALKALINITY FILTRATE (Pf / Mf)		1.05	3.50	1.32	3.94
CHLORIDE (mg/L)		11,600		12,000	
TOTAL HARDNESS AS CALCIUM (mg/L)		260		160	
SULPHITE (mg/L)		200		250	
K+ (mg/L)		12,100		12,600	
KCl (% by Wt.)		2.3		2.4	
PHPA (ppb)		0.92		1.05	
FLUORESCEINE HACH TEST	(parts/million)	4.625		4.250	

MUD PROPERTY SPECIFICATIONS

Mud Weight	MIN	API Filtrate	6 - 10	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
KCl	~2	PHPA	>2	Sulphites	>80

OBSERVATIONS

Maintain fluid system along established lines, adding Fluoresceine now through Chemical barrel at Suction Tk. Added 700g last 24 hrs, barely maintained concentration just above 4ppm. Suggest order for another 5kg of Dry powder F/C to be initiated. 2kg left on location. Suspect PHPA might depress F/C readings, but have no way of ascertaining that. Adsorption mechanism of reactive clays (akin to MBT) also a possibility

OPERATIONS SUMMARY

Drill to 1382m, run DS @ 1370m - 1¾°-N18E.
Drill to 1479m, run DS @ 1467m - 2°-N37E.
Drill to 1526m @ 24:00 hrs.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	65	INITIAL VOLUME	787
Premix (recirc from sump)	240	Desilter	25		
Drill Water		Downhole	6	+ FLUID RECEIVED	240
Direct Recirc Sump		Dumped	15	- FLUID LOST	192
		Surface	80	FLUID in STORAGE	50
TOTAL RECEIVED	240	TOTAL LOST	192	FINAL VOLUME	835

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	20	Shaker #1	1x84 + 2x50	24
Degasser	Po'Boy	0	Desilter	12	20	Shaker #2	1x84 + 2x50	24

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	8.9	9.5	2.28
Desilter	8.9	10.4	0.88

Product	Price	Start	Received	Used	Close	Cost
AMC Biocide G	$ 188.33	11		1	10	$ 188.33
AMC PAC-R	$ 162.49	57		4	53	$ 649.96
AMC PHPA	$ 120.61	18		8	10	$ 964.88
Potassium Chloride (T	$ 20.12	372		12	360	$ 241.44
Soda Ash	$ 18.30	20		8	12	$ 146.40
Sodium Sulphite	$ 37.68	44		2	42	$ 75.36
Xanthan Gum	$ 362.19	40		4	36	$ 1,448.76

Solids Analysis

	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	3.2	30.6
Calcium Carbonate		5.4
Bentonite equiv.	0.3	2.5
Drilled Solids	2.5	22.7
Salt - based on Cl-	0.7	6.9
n @ 22:10 Hrs	0.50	
K @ 22:10 Hrs	6.59	

Bit Hydraulics & Pressure Data

Jet Velocity	146 ft/sec
Impact force	169 lbs
HHP	25
HHP/in²	0.7
Bit Press. Loss	170 psi
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	9.31 ppg

DAILY COST	CUMULATIVE COST
$3,715.13	$30,359.99

RMN ENGINEER	Peter ARONETZ	CITY	Adelaide Office	TELEPHONE	08 8338 7266

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DRILLING FLUID REPORT

RMN drilling fluids

Report #	13	Date :	27-Feb-2007
Rig No	11	Spud :	15-Feb-2007
Depth	1526 to 1723		Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Agus NUGROHO
WELL NAME AND No	CRC - 1	FIELD: Investigation	LOCATION: OTWAY Basin / STATE: VICTORIA

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	12	12	12	16 CONDUCTOR	49	ft	HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION PRESSURE	1100 psi
6.75	M56S	12	12		SET @	15	M	221	563	5.5 X 7	Inches		
DRILL PIPE SIZE 3.50	TYPE G105-13.3#	Length 1463 Mtrs			7 5/8 INTERMEDIATE SET @	1680 / 512	ft / M	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP	25 min
								784		GD PZ-7	97 %		
DRILL PIPE SIZE 3.50	TYPE HWDP	Length 54.8 Mtrs			PRODUCTION/ LINER Set @		ft / M	IN STORAGE		BBL/STK@ 100%	STK / min	TOTAL CIRC. TIME	112 min
								51		0.0514	150		
D/Collars	Tools	Length			MUD TYPE					BBL/min	GAL / min	ANN VEL. DP	231 ft/min
4.75	4.75	179.4	26.3	Mtrs	KCl / PHPA / POLYMER					7.48	314	DC	335 335

		MUD PROPERTIES			
SAMPLE FROM		Past Shaker		Past Shaker	
TIME SAMPLE TAKEN		12:50		22:15	
DEPTH (ft) - (m)	Metres	1,643		1,713	
FLOWLINE TEMPERATURE	^{0}C / ^{0}F	44.0	112	44.7	113
WEIGHT	ppg / SG	8.95	1.074	8.90	1.067
FUNNEL VISCOSITY (sec/qt) API @	45 ^{0}C	54		54	
PLASTIC VISCOSITY cP @	50 ^{0}C	13		13	
YIELD POINT (lb/100ft^2)		20		20	
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		4	4	4	4
RHEOLOGY	θ 600 / θ 300	46	33	46	33
RHEOLOGY	θ 200 / θ 100	28	20	28	21
RHEOLOGY	θ 6 / θ 3	5	4	5	4
FILTRATE API (cc's/30 min)		6.8		6.5	
HPHT FILTRATE (cc's/30 min) @	-- ^{0}F	--		--	
CAKE THICKNESS API : HPHT (32nd in)		1	--	1	--
SOLIDS CONTENT (% by Volume)		3.6		3.1	
LIQUID CONTENT (% by Volume) OIL/WATER		0	96.4	0	96.9
SAND CONTENT (% by Vol.)		0.75		0.75	
METHYLENE BLUE CAPACITY (ppb equiv.)		3.0		3.5	
pH		10.5		10.8	
ALKALINITY MUD (Pm)		1.29		1.75	
ALKALINITY FILTRATE (Pf / Mf)		1.20	3.35	1.30	3.86
CHLORIDE (mg/L)		12,400		12,800	
TOTAL HARDNESS AS CALCIUM (mg/L)		180		140	
SULPHITE (mg/L)		150		180	
K+ (mg/L)		13,100		13,700	
KCl (% by Wt.)		2.5		2.6	
PHPA (ppb)		1.19		1.24	
FLUORESCEINE HACH TEST	(parts/million)	5.950		7.875	

MUD PROPERTY SPECIFICATIONS

Mud Weight	MIN	API Filtrate	6 - 10	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
KCl	~2%	PHPA	>2	Sulphites	>80

OBSERVATIONS

Fluid recycled from sump begins to resemble more closely fluid discharged earlier in this interval. This allows a reduction of chemical addition.
Working towards a 10ppm Fluoresceine concentration, when advice was received from Chris Boreham (GA) to allow F/C to level out at 5ppm.
After 800g this morning, no further F/C additions today,
final HACH reading is 7.875ppm.
Receive advice from geologist, that a request to increase fluid density can be expected any time soon.

OPERATIONS SUMMARY

Drill to 1587m, run DS @ 1574m - 1¾°-S34E.
Drill to 1703m, run DS @ 1691m - 2°-S62E.
Drill to 1526m @ 24:00 hrs.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	21	INITIAL VOLUME	835
Premix (recirc from sump)	200	Desilter	35		
Drill Water		Downhole	5	+ FLUID RECEIVED	200
Direct Recirc Sump		Dumped	30	- FLUID LOST	200
		Surface	110	FLUID in STORAGE	51
TOTAL RECEIVED	200	TOTAL LOST	200	FINAL VOLUME	835

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	24	Shaker #1	1x84 + 2x50	24
Degasser	Po'Boy	0	Desilter	12	24	Shaker #2	1x84 + 2x50	24

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	8.9	10.0	0.60
Desilter	8.9	9.5	1.02

Product	Price	Start	Received	Used	Close	Cost
AMC PAC-R	$ 162.49	53		2	51	$ 324.98
AMC PHPA	$ 120.61	10		7	3	$ 844.27
Citric Acid	$ 21.00	37		1	36	$ 21.00
Potassium Chloride (T	$ 20.12	360		6	354	$ 120.72
Soda Ash	$ 18.30	12		8	4	$ 146.40
Sodium Sulphite	$ 37.68	42		1	41	$ 37.68
Xanthan Gum	$ 362.19	36		2	34	$ 724.38

Solids Analysis

	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	3.1	29.8
Calcium Carbonate		4.1
Bentonite equiv.	0.4	3.5
Drilled Solids	2.4	22.2
Salt - based on Cl-	0.8	7.4
n @ 22:15 Hrs	0.48	
K @ 22:15 Hrs	8.51	

Bit Hydraulics & Pressure Data

Jet Velocity	182 ft/sec
Impact force	264 lbs
HHP	49
HHP/in^2	1.4
Bit Press. Loss	265 psi
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	9.40 ppg

DAILY COST	CUMULATIVE COST
$2,271.68	$32,631.67

RMN ENGINEER: Peter ARONETZ — CITY: Adelaide Office — TELEPHONE: 08 8338 7266

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DRILLING FLUID REPORT

RMN drilling fluids

Report #	14	Date :	28-Feb-2007
Rig No	11	Spud :	15-Feb-2007
Depth	1723 to 1889	Metres	

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Agus NUGROHO
WELL NAME AND No	CRC - 1	FIELD: Investigation	LOCATION: OTWAY Basin / STATE: VICTORIA

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	12	12	12	16 CONDUCTOR	49	ft	HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION PRESSURE	1500 psi
6.75	M56S	12	12		SET @	15	M	242	605	5.5 X 7	Inches		
DRILL PIPE SIZE 3.50	TYPE G105-13.3#	Length 1629 Mtrs			7 5/8 INTERMEDIATE SET @	1680 / 512	ft / M	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP	27 min
								847		GD PZ-7	97 %		
DRILL PIPE SIZE 3.50	TYPE HWDP	Length 54.8 Mtrs			PRODUCTION/ LINER Set @		ft / M	IN STORAGE		BBL/STK@ 100%	STK / min	TOTAL CIRC. TIME	117 min
								26		0.0514	150		
D/Collars	Tools	Length			MUD TYPE					BBL/min	GAL / min	ANN VEL. DP	231 ft/min
4.75	4.75	179.4	26.3	Mtrs	KCl / PHPA / POLYMER					7.48	314	DC	335 335

		MUD PROPERTIES			
SAMPLE FROM		Past Shaker		Past Shaker	
TIME SAMPLE TAKEN		11:00		22:05	
DEPTH (ft) - (m)	Metres	1,799		1,878	
FLOWLINE TEMPERATURE	^{0}C / ^{0}F	45.9	116	47.1	118
WEIGHT	ppg / SG	9.00	1.080	9.15	1.097
FUNNEL VISCOSITY (sec/qt) API @	47 ^{0}C	53		55	
PLASTIC VISCOSITY cP @	50 ^{0}C	13		15	
YIELD POINT (lb/100ft^2)		22		26	
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		4	4	5	5
RHEOLOGY	θ 600 / θ 300	48	35	56	41
RHEOLOGY	θ 200 / θ 100	29	21	34	26
RHEOLOGY	θ 6 / θ 3	5	4	7	5
FILTRATE API (cc's/30 min)		7.2		6.5	
HPHT FILTRATE (cc's/30 min) @	-- ^{0}F	--		--	
CAKE THICKNESS API : HPHT (32nd in)		1	--	1	--
SOLIDS CONTENT (% by Volume)		4.1		5.1	
LIQUID CONTENT (% by Volume) OIL/WATER		0	95.9	0	94.9
SAND CONTENT (% by Vol.)		0.50		0.50	
METHYLENE BLUE CAPACITY (ppb equiv.)		4.0		4.5	
pH		10.2		10.0	
ALKALINITY MUD (Pm)		0.89		0.78	
ALKALINITY FILTRATE (Pf / Mf)		1.00	4.05	0.85	4.75
CHLORIDE (mg/L)		12,000		12,500	
TOTAL HARDNESS AS CALCIUM (mg/L)		40		50	
SULPHITE (mg/L)		250		200	
K+ (mg/L)		11,000		11,600	
KCl (% by Wt.)		2.1		2.2	
PHPA (ppb)		1.32		1.33	
FLUORESCEINE HACH TEST	(parts/million)	12.525		5.150	

MUD PROPERTY SPECIFICATIONS					
Mud Weight	9.2	API Filtrate	6 - 10	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
KCl	~2%	PHPA	>1.5	Sulphites	>80

OBSERVATIONS

Received orders to increase fluid density to ~9.2ppg. Adding 4plts CaCO3 to system. Final WT 9.2-, pills required for trip(s) will add a further 48sx (one pallet).
Because of these additions, de-silter has been shut down.
Fluoresceine content has tapered off to 5.150ppm.

Visual discharge of drilling fluid at surface has decreased, but there were still 160bbls fluid recycled from the sump to maintain SFC volume.
The conslusion has to be, that downhole losses have increased; although there is the possibility of hole enlargement - or a combination of the two.

OPERATIONS SUMMARY

Drill to 1820m, run DS @ 1808m - 2°-S05E.
Drill to 1889m @ 24:00 hrs.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	4	INITIAL VOLUME	835
Premix (recirc from sump)	160	Desilter	12		
Drill Water		Downhole	35	+ FLUID RECEIVED	160
Direct Recirc Sump		Dumped	20	- FLUID LOST	121
		Surface	50	FLUID in STORAGE	26
TOTAL RECEIVED	160	TOTAL LOST	121	FINAL VOLUME	873

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	12	Shaker #1	1x84 + 2x50	24
Degasser	Po'Boy	0	Desilter	12	6	Shaker #2	1x84 + 2x50	24

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	8.9	9.7	0.25
Desilter	8.9	9.6	1.45

Product	Price	Start	Received	Used	Close	Cost
AMC Biocide G	$ 188.33	10		1	9	$ 188.33
AMC Defoamer	$ 146.40	16		1	15	$ 146.40
AMC PAC-R	$ 162.49	51	32	2	81	$ 324.98
AMC PHPA	$ 120.61	3	60	5	58	$ 603.05
Calcium Carbonate - A	$ 11.65	971		192	779	$ 2,236.80
Citric Acid	$ 21.00	36		2	34	$ 42.00
Potassium Chloride (T	$ 20.12	354		8	346	$ 160.96
Soda Ash	$ 18.30	4	48	4	48	$ 73.20
Sodium Sulphite	$ 37.68	41		2	39	$ 75.36
Xanthan Gum	$ 362.19	34		1	33	$ 362.19

Solids Analysis

	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	5.1	48.6
Calcium Carbonate		15.5
Bentonite equiv.	0.5	4.5
Drilled Solids	3.1	28.6
Salt - based on Cl-	0.7	7.2
n @ 22:05 Hrs	0.45	
K @ 22:05 Hrs	12.70	

Bit Hydraulics & Pressure Data

Jet Velocity	182 ft/sec
Impact force	271 lbs
HHP	50
HHP/in^2	1.4
Bit Press. Loss	273 psi
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	9.82 ppg

DAILY COST	CUMULATIVE COST
$4,317.77	$36,949.44

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DRILLING FLUID REPORT

RMN drilling fluids

Report #	15	Date :	1-Mar-2007
Rig No	11	Spud :	15-Feb-2007
Depth	1889 to 1900		Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Agus NUGROHO

WELL NAME AND No	FIELD	LOCATION	STATE
CRC - 1	Investigation	OTWAY Basin	VICTORIA

DRILLING ASSEMBLY

	TYPE	JET SIZE			Length	
BIT SIZE 6.75	M56S	12	12	12		
		12	12			
DRILL PIPE SIZE 3.50	TYPE G105-13.3#				613	Mtrs
DRILL PIPE SIZE 3.50	TYPE HWDP				54.8	Mtrs
D/Collars 4.75	Tools 4.75				179.4	26.3 Mtrs

CASING

16	CONDUCTOR SET @	49	ft
		15	M
7 5/8	INTERMEDIATE SET @	1680	ft
		512	M
	PRODUCTION/ LINER Set @		ft
			M

MUD TYPE: KCl / PHPA / POLYMER

MUD VOLUME (BBL)

HOLE	ACTIVE PITS
259	507

TOTAL CIRCULATING VOL.: 766

IN STORAGE: 10

CIRCULATION DATA

PUMP SIZE	5.5 X 7 Inches	CIRCULATION PRESSURE	1400 psi
PUMP MODEL	GD PZ-7	ASSUMED EFF	97 %
BBL/STK@ 100%	0.0514	STK / min	150
BBL/min	7.48	GAL / min	314

BOTTOMS UP	32 min		
TOTAL CIRC. TIME	104 min		
ANN VEL.	DP	231	ft/ min
	DC	335	335

	MUD PROPERTIES		
	Past Shaker	Past Shaker	
SAMPLE FROM			
TIME SAMPLE TAKEN		19:30	
DEPTH (ft) - (m)		1,900	Metres
FLOWLINE TEMPERATURE		43.2	111 (^{0}C / ^{0}F)
WEIGHT		9.20	1.103 (ppg / SG)
FUNNEL VISCOSITY (sec/qt) API @ 43 ^{0}C		57	
PLASTIC VISCOSITY cP @ 50 ^{0}C		15	
YIELD POINT (lb/100ft^2)		27	
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		5	6
RHEOLOGY θ 600 / θ 300		57	42
RHEOLOGY θ 200 / θ 100		35	26
RHEOLOGY θ 6 / θ 3		7	5
FILTRATE API (cc's/30 min)		6.3	
HPHT FILTRATE (cc's/30 min) @ -- ^{0}F		--	
CAKE THICKNESS API : HPHT (32nd in)	--	1	--
SOLIDS CONTENT (% by Volume)		5.6	
LIQUID CONTENT (% by Volume) OIL/WATER		0	94.4
SAND CONTENT (% by Vol.)		0.75	
METHYLENE BLUE CAPACITY (ppb equiv.)		4.5	
pH		9.8	
ALKALINITY MUD (Pm)		0.68	
ALKALINITY FILTRATE (Pf / Mf)		0.80	3.95
CHLORIDE (mg/L)		12,400	
TOTAL HARDNESS AS CALCIUM (mg/L)		40	
SULPHITE (mg/L)		180	
K+ (mg/L)		10,500	
KCl (% by Wt.)		2.0	
PHPA (ppb)		1.33	
FLUORESCEINE HACH TEST (parts/million)		6.400	

MUD PROPERTY SPECIFICATIONS

Mud Weight	9.2	API Filtrate	6 - 10	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
KCl	~2%	PHPA	>1.5	Sulphites	>80

OBSERVATIONS

No treatment of fluid system last 24 hours. CaCO3 addition only for 2 heavy pills. No Fluoresceine additions as no ongoing circulation - and product level at 6.4ppm.

Received 2x5kg Fluoresceine fm SCHLUMBERGER, Dampier, WA.
Dispatched 2x2.4lt mud samples to DOWELL-SLB, Welshpool, WA
No signs, visual or documentary, of receipt of 50x50lb MILGEL.
Cost of F/C not officially advised yet and in any case not part of fluid system treatment to maintain specifications and/or volume.

OPERATIONS SUMMARY

Drill to 1900m, CO, WL-DS @ 1896m - Misrun. Mix+pump heavy CaCO3 pill, POH for core # 4.
Tight hole @ 1706m, P/U kelly, work tight spot, Cont. POH to 1633m, work tight hole and again at 1467m and 1321m. Cont. POH to 1206m, Run back in the hole, wash last three singles to bottom. Circulate hole clean, and run WL-DS @ 1896m - 2°N15W. Mix+pump heavy CaCO3 pill, POH for core # 4. Bit @ 873m at 24:00 hrs.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander		INITIAL VOLUME	873
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	22	+ FLUID RECEIVED	
Direct Recirc Sump		Dumped	25	- FLUID LOST	97
		Surface	50	FLUID in STORAGE	10
TOTAL RECEIVED		TOTAL LOST	97	FINAL VOLUME	776

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	0	Shaker #1	1x84 + 2x50	15
Degasser	Po'Boy	0	Desilter	12	0	Shaker #2	1x84 + 2x50	15

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
Calcium Carbonate - 4	$ 11.65	779		56	723	$ 652.40
Tracer-Fluoresceine	$ -	1	2	1	2	

Solids Analysis

	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	5.6	52.7
Calcium Carbonate		19.3
Bentonite equiv.	0.5	4.5
Drilled Solids	3.2	28.9
Salt - based on Cl-	0.7	7.2
n @ 19:30 Hrs	0.44	
K @ 19:30 Hrs	13.78	

Bit Hydraulics & Pressure Data

Jet Velocity	182 ft/sec
Impact force	273 lbs
HHP	50
HHP/in^2	1.4
Bit Press. Loss	274 psi
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	9.90 ppg

DAILY COST	CUMULATIVE COST
$652.40	$37,601.84

RMN ENGINEER: Peter ARONETZ CITY: Adelaide Office TELEPHONE: 08 8338 7266

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DRILLING FLUID REPORT

RMN drilling fluids

Report #	16	Date :	2-Mar-2007
Rig No	11	Spud :	15-Feb-2007
Depth	1900 to 1901		Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Agus NUGROHO
WELL NAME AND No	CRC - 1	FIELD: Investigation	LOCATION: OTWAY Basin / STATE: VICTORIA

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	13	13	13	16 CONDUCTOR	49	ft	HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION PRESSURE	750 psi
6.75	MCP 662	13	14	14	SET @	15	M	244	525	5.5 X 7	Inches		
DRILL PIPE	TYPE	Length			7 5/8 INTERMEDIATE	1680	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP	59 min
SIZE 3.50	G105-13.3#	1634	Mtrs		SET @	512	M	769		GD PZ-7	97 %		
DRILL PIPE	TYPE	Length			PRODUCTION/ LINER Set @		ft	IN STORAGE		BBL/STK@ 100%	STK / min	TOTAL CIRC. TIME	266 min
SIZE 3.50	HWDP	54.8	Mtrs				M	160		0.0514	70		
D/Collars	Tools	Length			MUD TYPE			BBL/min		GAL / min		ANN VEL. DP	108 ft/min
4.75	4.75	179.4	32.4	Mtrs	KCl / PHPA / POLYMER			3.49		147		DC	156 156

MUD PROPERTIES	TRIPPING	Past Shaker
SAMPLE FROM		
TIME SAMPLE TAKEN		23:20
DEPTH (ft) - (m) Metres		1,901
FLOWLINE TEMPERATURE ^{0}C ^{0}F		41.7 108
WEIGHT ppg SG		9.45 1.133
FUNNEL VISCOSITY (sec/qt) API @ 42 ^{0}C		56
PLASTIC VISCOSITY cP @ 50 ^{0}C		17
YIELD POINT (lb/100ft^2)		26
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		4 5
RHEOLOGY θ 600 θ 300		60 43
RHEOLOGY θ 200 θ 100		36 26
RHEOLOGY θ 6 θ 3		6 4
FILTRATE API (cc's/30 min)		6.8
HPHT FILTRATE (cc's/30 min) @ -- ^{0}F		--
CAKE THICKNESS API : HPHT (32nd in)	--	2 --
SOLIDS CONTENT (% by Volume)		7.5
LIQUID CONTENT (% by Volume) OIL/WATER		0 92.5
SAND CONTENT (% by Vol.)		0.75
METHYLENE BLUE CAPACITY (ppb equiv.)		4.0
pH		9.5
ALKALINITY MUD (Pm)		0.55
ALKALINITY FILTRATE (Pf / Mf)		0.55 3.85
CHLORIDE (mg/L)		11,000
TOTAL HARDNESS AS CALCIUM (mg/L)		50
SULPHITE (mg/L)		180
K+ (mg/L)		7,400
KCl (% by Wt.)		1.4
PHPA (ppb)		0.92
FLUORESCEINE HACH TEST (parts/million)		5.550

MUD PROPERTY SPECIFICATIONS					
Mud Weight	9.4	API Filtrate	6 - 10	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
KCl	~2%	PHPA	>1.5	Sulphites	>80

OBSERVATIONS

While RIH w/- C/bbl, received orders to raise MW to 9.4ppg. Adding CaCO3 to system. When low coring rates prevail, decision to pump KCl sweeps to flush suspected balled bit. During mixing an extra 40bbls water found their way into the active system.

Filled pre-mix tank with fluid reclaimed from sump. Pill tank contains remaining 9ppg(12%) sweep.

Jet sizes+nos reported are assumed figures, to give a TFA of 0.796in^2

OPERATIONS SUMMARY

POH to SFC. Lay out stabs+Pony DC. Make up core barrel. RIH to 491m, Slip 50m, cut 100m drlg line. RIH to 1172m, P/U kelly, Ream+wash to 1250m, RIH stands to 1749m, P/U 2 DP pup joints, Ream+wash to 1767m. RIH to BTM, drop ball, start core # 4. Observe very low coring rate, bit @ 1901m @ 24:00 hrs.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander		INITIAL VOLUME	776
Premix (recirc from sump)	120	Desilter			
Drill Water	80	Downhole	12	+ FLUID RECEIVED	200
Direct Recirc Sump		Dumped	15	- FLUID LOST	47
		Surface	20	FLUID in STORAGE	160
TOTAL RECEIVED	200	TOTAL LOST	47	FINAL VOLUME	929

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	0	Shaker #1	1x84 + 2x50	18
Degasser	Po'Boy	0	Desilter	12	0	Shaker #2	1x84 + 2x50	18

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
AMC Defoamer	$ 146.40	15		1	14	$ 146.40
Calcium Carbonate - 4	$ 11.65	723		110	613	$ 1,281.50
Potassium Chloride (1	$ 20.12	346		42	304	$ 845.04

Solids Analysis	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	7.5	71.0
Calcium Carbonate		19.9
Bentonite equiv.	0.4	4.0
Drilled Solids	5.2	47.1
Salt - based on Cl-	0.7	6.4
n @ 23:20 Hrs	0.48	
K @ 23:20 Hrs	10.99	

Bit Hydraulics & Pressure Data	
Jet Velocity	57 ft/sec
Impact force	41 lbs
HHP	2
HHP/in^2	0.1
Bit Press. Loss	28 psi
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	9.92 ppg

DAILY COST	CUMULATIVE COST
$2,272.94	$39,874.78

RMN ENGINEER	Peter ARONETZ	CITY	Adelaide Office	TELEPHONE	08 8338 7266

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DRILLING FLUID REPORT

Report #	17	Date :	3-Mar-2007
Rig No	11	Spud :	15-Feb-2007
Depth	1901 to 1904		Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Agus NUGROHO
WELL NAME AND No	CRC - 1	FIELD: Investigation / LOCATION: OTWAY Basin / STATE: VICTORIA	

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	12	12	12	16 CONDUCTOR	49	ft	HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION	
6.75	M46HY	12			SET @	15	M	244	620	5.5 X 7	Inches	PRESSURE	psi
DRILL PIPE	TYPE	Length			7 5/8 INTERMEDIATE	1680	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS	
SIZE 3.50	G105-13.3#	1644	Mtrs		SET @	512	M	864		GD PZ-7	97 %	UP	min
DRILL PIPE	TYPE	Length			PRODUCTION/		ft	IN STORAGE		BBL/STK@ 100%	STK / min	TOTAL CIRC.	
SIZE 3.50	HWDP	54.8	Mtrs		LINER Set @		M	36		0.0514		TIME	min
D/Collars	Tools	Length			MUD TYPE					BBL/min	GAL / min	ANN VEL. DP	ft/
4.75	4.75	179.4	26.3	Mtrs	KCl / PHPA / POLYMER							DC	min

	MUD PROPERTIES		
SAMPLE FROM	TRIPPING	Past Shaker	
TIME SAMPLE TAKEN		07:45	
DEPTH (ft) - (m)		1,904	Metres
FLOWLINE TEMPERATURE		40.6	106 (^{0}C / ^{0}F)
WEIGHT		9.25	1.109 (ppg / SG)
FUNNEL VISCOSITY (sec/qt) API @ 41 ^{0}C		46	
PLASTIC VISCOSITY cP @ 50 ^{0}C		13	
YIELD POINT (lb/100ft^2)		12	
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		1	3
RHEOLOGY θ 600 / θ 300		38	25
RHEOLOGY θ 200 / θ 100		20	14
RHEOLOGY θ 6 / θ 3		2	2
FILTRATE API (cc's/30 min)		9.2	
HPHT FILTRATE (cc's/30 min) @ -- ^{0}F		--	
CAKE THICKNESS API : HPHT (32nd in)	--	2	--
SOLIDS CONTENT (% by Volume)		5.1	
LIQUID CONTENT (% by Volume) OIL/WATER		0	94.9
SAND CONTENT (% by Vol.)		0.75	
METHYLENE BLUE CAPACITY (ppb equiv.)		5.0	
pH		9.5	
ALKALINITY MUD (Pm)		0.50	
ALKALINITY FILTRATE (Pf / Mf)		0.42	3.42
CHLORIDE (mg/L)		18,000	
TOTAL HARDNESS AS CALCIUM (mg/L)		80	
SULPHITE (mg/L)		100	
K+ (mg/L)		20,500	
KCl (% by Wt.)		3.9	
PHPA (ppb)		0.86	
FLUORESCEINE HACH TEST (parts/million)		5.775	

MUD PROPERTY SPECIFICATIONS					
Mud Weight	9.4	API Filtrate	6 - 10	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
KCl	~6%	PHPA	~1.5	Sulphites	>80

OBSERVATIONS

Mix+pump further KCl sweeps, the effect of cumulative KCl pills begins to reflect on fluid properties: Lower rheology and density, higher filtrate. Higher KCl content not a problem, as 6% have now been specified.

Conditioned reclaimed fluid in P/Mix tank to spec, add 10ppm F/C, bleed into remaining SFC system for full SFC volume.

OPERATIONS SUMMARY

Cut core # 4 to 1904m, terminate core, mix+pump heavey CaCO3 pill, POH w/- core and recover 2.6m (62%) of core cut.
Make up NB 4, 6¾" STEALTH PDC bit, type M46HY, SN 6904, w/- 4x12 32nd jets, to previoulsly used drilling BHA, including NB + 2 string stabilisers. RIH and break circulation @ 1000 and 1506m, hole condition good, RIH to 1857m @ 24:00 hrs.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	2	INITIAL VOLUME	929
Premix (recirc from sump)	40	Desilter			
Drill Water		Downhole	16	+ FLUID RECEIVED	40
Direct Recirc Sump		Dumped	25	- FLUID LOST	68
		Surface	25	FLUID in STORAGE	36
TOTAL RECEIVED	40	TOTAL LOST	68	FINAL VOLUME	900

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	6	Shaker #1	1x84 + 2x50	12
Degasser	Po'Boy	0	Desilter	12	0	Shaker #2	1x84 + 2x50	12

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	8.9	9.7	0.25
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
AMC Biocide G	$ 188.33	9		1	8	$ 188.33
AMC Defoamer	$ 146.40	14		1	13	$ 146.40
AMC PAC-R	$ 162.49	81		1	80	$ 162.49
Calcium Carbonate - 4	$ 11.65	613		70	543	$ 815.50
Potassium Chloride (1	$ 20.12	304		100	204	$ 2,012.00
Xanthan Gum	$ 362.19	33		1	32	$ 362.19

Solids Analysis	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	5.1	48.7
Calcium Carbonate		22.6
Bentonite equiv.	0.5	5.0
Drilled Solids	2.3	21.1
Salt - based on Cl-	1.1	10.4
n @ 07:45 Hrs	0.60	
K @ 07:45 Hrs	2.96	

Bit Hydraulics & Pressure Data	
Jet Velocity	
Impact force	
HHP	
HHP/in^2	
Bit Press. Loss	
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	

DAILY COST	CUMULATIVE COST
$3,686.91	$43,561.69

RMN ENGINEER	Peter ARONETZ	CITY	Adelaide Office	TELEPHONE	08 8338 7266

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DRILLING FLUID REPORT

Report #	18	Date :	4-Mar-2007
Rig No	11	Spud :	15-Feb-2007
Depth	1904 to 2033		Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Agus NUGROHO

WELL NAME AND No	FIELD	LOCATION	STATE
CRC - 1	Investigation	OTWAY Basin	VICTORIA

DRILLING ASSEMBLY		JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE	TYPE	13	13	13	16 CONDUCTOR	49	ft	HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION	
6.75	MCP 662	13	14	14	SET @	15	M	300	541	5.5 X 7	Inches	PRESSURE	1200 psi
DRILL PIPE	TYPE	Length			7 5/8 INTERMEDIATE	1680	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS	
SIZE 3.50	G105-13.3#	1766	Mtrs		SET @	512	M	841		GD PZ-7	97 %	UP	50 min
DRILL PIPE	TYPE	Length			PRODUCTION/		ft	IN STORAGE		BBL/STK@ 100%	STK / min	TOTAL CIRC.	
SIZE 3.50	HWDP	54.8	Mtrs		LINER Set @		M	16		0.0514	120	TIME	143 min
D/Collars	Tools	Length			MUD TYPE					BBL/min	GAL / min	ANN VEL. DP	185 ft/
4.75	4.75	179.4	32.4	Mtrs	KCl / PHPA / POLYMER					5.99	251	DC 268	268 min

		MUD PROPERTIES	
		TRIPPING	Past Shaker
SAMPLE FROM			
TIME SAMPLE TAKEN			13:15
DEPTH (ft) - (m)	Metres		2,033
FLOWLINE TEMPERATURE	^{0}C / ^{0}F		44.0 / 112
WEIGHT	ppg / SG		9.50 / 1.139
FUNNEL VISCOSITY (sec/qt) API @	44 ^{0}C		43
PLASTIC VISCOSITY cP @	50 ^{0}C		12
YIELD POINT (lb/100ft^2)			9
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min			1 / 2
RHEOLOGY	θ 600 / θ 300		33 / 21
RHEOLOGY	θ 200 / θ 100		17 / 11
RHEOLOGY	θ 6 / θ 3		2 / 1
FILTRATE API (cc's/30 min)			6.5
HPHT FILTRATE (cc's/30 min) @	-- ^{0}F		--
CAKE THICKNESS API : HPHT (32nd in)		--	1 / --
SOLIDS CONTENT (% by Volume)			6.5
LIQUID CONTENT (% by Volume) OIL/WATER			0 / 93.5
SAND CONTENT (% by Vol.)			0.70
METHYLENE BLUE CAPACITY	ppb equiv.		5.5
pH			9.0
ALKALINITY MUD Pm			0.15
ALKALINITY FILTRATE Pf / Mf			0.30 / 3.20
CHLORIDE	mg/l		30,000
TOTAL HARDNESS AS CALCIUM	mg/l		100
SULPHITE	mg/l		250
K+	mg/l		30,500
KCl	(% by Wt.) / ppb		5.8 / 21.0
PHPA	ppb		0.93
FLUORESCEINE HACH TEST	ppm		4.350

MUD PROPERTY SPECIFICATIONS					
Mud Weight	9.4	API Filtrate	6 - 10	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
KCl	~6%	PHPA	~1.5	Sulphites	>80

OBSERVATIONS

Trying to regain fluid properties, which degraded after use of KCl sweeps. Reduced F/L to 6.5ml, density at 9.5ppg marginally above specified 9.4ppg. Rheology and viscosity at the lower end of spec range F/C content also lower at 4.35ppm. Adding last 4 remaining 1US pt bottles of Fluoresceine to SFC volume (2ppm equiv).

Tank levels recorded with drill string out of hole.
Jetsizes reported are assumed figures to give a calculated TFA of .796in² for hydraulics calculations.

OPERATIONS SUMMARY

RIH to BTM, tag 5.5m soft fill, which washes away easily. Resume drilling and cover 130m in 10 hours. CO, run WLS @ 2022m, ¾°N75E
POH w/- good hole conditions, no drag or over-pull. Lay out all stabs.
Make up 19m C/bbl, RIH on BHA without stabilisers to @508m at 24:00 hrs.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	2	INITIAL VOLUME	900
Premix (recirc from sump)	40	Desilter			
Drill Water		Downhole	26	+ FLUID RECEIVED	40
Direct Recirc Sump		Dumped	20	- FLUID LOST	83
		Surface	35	FLUID in STORAGE	16
TOTAL RECEIVED	40	TOTAL LOST	83	FINAL VOLUME	857

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	14	Shaker #1	1x84 + 2x50	18
Degasser	Po'Boy	0	Desilter	12	0	Shaker #2	1x84 + 2x50	18

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	9.5	14.4	0.11
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
AMC PAC-R	$ 162.49	80		9	71	$ 1,462.41
AMC PHPA	$ 120.61	58		2	56	$ 241.22
Calcium Carbonate - 4	$ 11.65	543		48	495	$ 559.20
Potassium Chloride (1	$ 20.12	204		78	126	$ 1,569.36
Sodium Sulphite	$ 37.68	39		2	37	$ 75.36
Xanthan Gum	$ 362.19	32		1	31	$ 362.19

Solids Analysis

	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	6.5	61.4
Calcium Carbonate		24.2
Bentonite equiv.	0.6	5.5
Drilled Solids	3.5	31.7
Salt - based on Cl-	1.8	17.4
n @ 13:15 Hrs	0.65	
K @ 13:15 Hrs	1.84	

Bit Hydraulics & Pressure Data

Jet Velocity	98 ft/sec
Impact force	122 lbs
HHP	12
HHP/in²	0.3
Bit Press. Loss	82 psi
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	9.72 ppg

DAILY COST	CUMULATIVE COST
$4,269.74	$47,831.43

RMN ENGINEER	Peter ARONETZ	CITY	Adelaide Office	TELEPHONE	08 8338 7266

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DRILLING FLUID REPORT

Report #	19	Date :	5-Mar-2007
Rig No	11	Spud :	15-Feb-2007
Depth	2033 to 2038	Metres	

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Agus NUGROHO
WELL NAME AND No	CRC - 1	FIELD: Investigation	LOCATION: OTWAY Basin / STATE: VICTORIA

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	13	13	13	16 CONDUCTOR	49	ft	HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION	
6.75	MCP 662	13	14	14	SET @	15	M	262	638	5.5 X 7	Inches	PRESSURE	1000 psi
DRILL PIPE	TYPE	Length			7 5/8 INTERMEDIATE	1680	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS	
SIZE 3.50	G105-13.3#	1771	Mtrs		SET @	512	M	900		GD PZ-7	97 %	UP	64 min
DRILL PIPE	TYPE	Length			PRODUCTION/		ft	IN STORAGE		BBL/STK@ 100%	STK / min	TOTAL CIRC.	
SIZE 3.50	HWDP	54.8	Mtrs		LINER Set @		M	8		0.0514	70	TIME	260 min
D/Collars	Tools	Length			MUD TYPE					BBL/min	GAL / min	ANN VEL. DP	108 ft/
4.75	4.75	179.4	32.4	Mtrs	KCl / PHPA / POLYMER					3.49	147	DC 156	156 min

		MUD PROPERTIES			
SAMPLE FROM		Past Shaker		Past Shaker	
TIME SAMPLE TAKEN		11:30		22:15	
DEPTH (ft) - (m)	Metres	2,033		2,038	
FLOWLINE TEMPERATURE	^{0}C / ^{0}F	36.5	99	40.5	106
WEIGHT	ppg / SG	9.55	1.146	9.45	1.133
FUNNEL VISCOSITY (sec/qt) API @	41 ^{0}C	45		48	
PLASTIC VISCOSITY cP @	50 ^{0}C	13		13	
YIELD POINT (lb/100ft^2)		12		16	
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		1	3	2	3
RHEOLOGY	θ 600 / θ 300	38	25	42	29
RHEOLOGY	θ 200 / θ 100	20	13	23	16
RHEOLOGY	θ 6 / θ 3	2	1	3	2
FILTRATE API (cc's/30 min)		6.2		5.8	
HPHT FILTRATE (cc's/30 min) @	-- ^{0}F	--		--	
CAKE THICKNESS API : HPHT (32nd in)		1	--	1	--
SOLIDS CONTENT (% by Volume)		6.9		6.5	
LIQUID CONTENT (% by Volume) OIL/WATER		0	93.1	0	93.5
SAND CONTENT (% by Vol.)		0.90		0.60	
METHYLENE BLUE CAPACITY	ppb equiv.	5.5		5.0	
pH		9.5		9.8	
ALKALINITY MUD Pm		0.44		0.52	
ALKALINITY FILTRATE Pf / Mf		0.42	3.20	0.65	3.52
CHLORIDE	mg/l	34,000		30,500	
TOTAL HARDNESS AS CALCIUM	mg/l	80		50	
SULPHITE	mg/l	200		180	
K+	mg/l	31,500		26,800	
KCl	(% by Wt.) / ppb	6.0		5.1	18.5
PHPA	ppb	1.00		1.19	
FLUORESCEINE HACH TEST	ppm	5.450		5.050	

MUD PROPERTY SPECIFICATIONS

Mud Weight	9.4	API Filtrate	6 - 10	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
KCl	~6%	PHPA	~1.5	Sulphites	>80

OBSERVATIONS

Continue treatment of fluid system to bring properties back to specifications.

Record an unexplained 5bbl gain (both visually and electronically), but no further occurrence.

OPERATIONS SUMMARY

Slip Drlg.line, RIH, break circulation @ 1000, 1500m+1730m, Hole tight 1409-1594m. At 1945m put on kelly, ream+wash to 2033m, start cutting core # 5. Bit @ 2038m at 24:00hrs.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	2	INITIAL VOLUME	857
Premix (recirc from sump)	80	Desilter	2		
Drill Water	10	Downhole	26	+ FLUID RECEIVED	95
Direct Recirc Sump		Dumped	15	- FLUID LOST	45
Unexplained Pit Gain	5	Surface		FLUID in STORAGE	8
TOTAL RECEIVED	95	TOTAL LOST	45	FINAL VOLUME	908

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	11	Shaker #1	2x84 + 1x50	24
Degasser	Po'Boy		Desilter	12	3	Shaker #2	1x84 + 2x50	24

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	9.5	14.4	0.11
Desilter	9.5	14.0	0.37

Product	Price	Start	Received	Used	Close	Cost
AMC Biocide G	$ 188.33	8		1	7	$ 188.33
AMC PAC-R	$ 162.49	71		2	69	$ 324.98
AMC PHPA	$ 120.61	56		6	50	$ 723.66
Caustic Soda	$ 21.00	36		1	35	$ 21.00
Soda Ash	$ 18.30	48		4	44	$ 73.20
Xanthan Gum	$ 362.19	31		5	26	$ 1,810.95

Solids Analysis

	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	6.5	61.4
Calcium Carbonate		21.7
Bentonite equiv.	0.5	5.0
Drilled Solids	3.8	34.7
Salt - based on Cl-	1.8	17.7
n @ 22:15 Hrs	0.53	
K @ 22:15 Hrs	5.30	

Bit Hydraulics & Pressure Data

Jet Velocity	57 ft/sec
Impact force	41 lbs
HHP	2
HHP/in^2	0.1
Bit Press. Loss	28 psi
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	9.74 ppg

DAILY COST	CUMULATIVE COST
$3,171.85	$51,003.28

RMN ENGINEER Peter ARONETZ CITY Adelaide Office TELEPHONE 08 8338 7266

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DRILLING FLUID REPORT

Report #	20	Date :	6-Mar-2007
Rig No	11	Spud :	15-Feb-2007
Depth	2038 to 2051		Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Agus NUGROHO
WELL NAME AND No	CRC - 1	FIELD: Investigation	LOCATION: OTWAY Basin / STATE: VICTORIA

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	13	13	13	16 CONDUCTOR	49	ft	HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION	
6.75	MCP 662	13	14	14	SET @	15	M	303	539	5.5 X 7	Inches	PRESSURE	1000 psi
DRILL PIPE	TYPE	Length			7 5/8 INTERMEDIATE	1680	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS	
SIZE 3.50	G105-13.3#	1784	Mtrs		SET @	512	M	842		GD PZ-7	97 %	UP	84 min
DRILL PIPE	TYPE	Length			PRODUCTION/		ft	IN STORAGE		BBL/STK@ 100%	STK / min	TOTAL CIRC.	
SIZE 3.50	HWDP	54.8	Mtrs		LINER Set @		M	19		0.0514	72	TIME	240 min
D/Collars	Tools	Length			MUD TYPE					BBL/min	GAL / min	ANN VEL. DP	111 ft/
4.75	4.75	179.4	32.4	Mtrs	KCl / PHPA / POLYMER					3.59	151	DC	161 161 min

		MUD PROPERTIES			
SAMPLE FROM		Past Shaker		Past Shaker	
TIME SAMPLE TAKEN		11:15		18:15	
DEPTH (ft) - (m)	Metres	2,044		2,051	
FLOWLINE TEMPERATURE	^{0}C / ^{0}F	42.0	109	42.1	109
WEIGHT	ppg / SG	9.45	1.134	9.45	1.134
FUNNEL VISCOSITY (sec/qt) API @	42 ^{0}C	53		56	
PLASTIC VISCOSITY cP @	50 ^{0}C	15		15	
YIELD POINT (lb/100ft^2)		19		20	
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		3	4	3	4
RHEOLOGY	θ 600 / θ 300	49	34	50	35
RHEOLOGY	θ 200 / θ 100	28	20	29	21
RHEOLOGY	θ 6 / θ 3	4	3	5	3
FILTRATE API (cc's/30 min)		5.6		5.7	
HPHT FILTRATE (cc's/30 min) @	-- ^{0}F	--		--	
CAKE THICKNESS API : HPHT (32nd in)		1	--	1	--
SOLIDS CONTENT (% by Volume)		6.3		6.4	
LIQUID CONTENT (% by Volume) OIL/WATER		0	93.7	0	93.6
SAND CONTENT (% by Vol.)		0.50		0.50	
METHYLENE BLUE CAPACITY	ppb equiv.	6.5		7.0	
pH		10.0		9.5	
ALKALINITY MUD Pm		0.62		0.35	
ALKALINITY FILTRATE Pf / Mf		0.58	3.55	0.45	3.60
CHLORIDE	mg/l	30,000		29,500	
TOTAL HARDNESS AS CALCIUM	mg/l	40		60	
SULPHITE	mg/l	100		250	
K+	mg/l	28,900		27,300	
KCl	(% by Wt.) / ppb	5.5	19.9	5.2	18.8
PHPA	ppb	1.41		1.51	
FLUORESCEINE HACH TEST	ppm	3.975		5.100	

MUD PROPERTY SPECIFICATIONS

Mud Weight	9.4	API Filtrate	6 - 10	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
KCl	~6%	PHPA	~1.5	Sulphites	>80

OBSERVATIONS

Maintaining fluid system after regaining all specified properties.

Taking delivery of contingency fluid chemicals (KCl+CaCO3 and LIQUI-SPERSE, being a Polymer de-flocculant/Thinner).

Also received: 50x50lb MIL-GEL, Wyoming Bentonite for next CMT job.

Flouresceine Addition: 150g;

Estimated dry powder F/C remaining: 1200g, plus 2x5kg-unopened tubs).

Liquid product(1 US pt bottles) used up.

OPERATIONS SUMMARY

Core to 2042.5m, make connection, but have problems to get string far enough in the hole to engage RKB. Take out single and replace with two pup jts. Resume coring, continue to maximum depth allowable by C/bbl length, i.e. 2051m. Circulate, Flow-check (Well static), POH w/- C/bbl with good hole conditions all the way to SFC.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	9	INITIAL VOLUME	908
Premix (recirc from sump)	40	Desilter	10		
Drill Water		Downhole	38	+ FLUID RECEIVED	40
Direct Recirc Sump		Dumped	20	- FLUID LOST	87
Unexplained Pit Gain		Surface	10	FLUID in STORAGE	19
TOTAL RECEIVED	40	TOTAL LOST	87	FINAL VOLUME	861

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	8	Shaker #1	2x84 + 1x50	18
Degasser	Po'Boy	0	Desilter	12	6	Shaker #2	1x84 + 2x50	18

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	9.5	12.5	0.78
Desilter	9.5	10.3	1.12

Product	Price	Start	Received	Used	Close	Cost
AMC Defoamer	$ 146.40	13		1	12	$ 146.40
AMC PHPA	$ 120.61	50		6	44	$ 723.66
Calcium Carbonate - 4	$ 11.65	495	432	24	903	$ 279.60
Potassium Chloride (1	$ 20.12	126	378	12	492	$ 241.44
Xanthan Gum	$ 362.19	26		1	25	$ 362.19
LIQUI-SPERSE	##		32	0	32	$ 0.00

Solids Analysis

	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	6.4	60.7
Calcium Carbonate		20.7
Bentonite equiv.	0.8	7.0
Drilled Solids	3.6	33.0
Salt - based on Cl-	1.8	17.1
n @ 18:15 Hrs	0.51	
K @ 18:15 Hrs	7.24	

Bit Hydraulics & Pressure Data

Jet Velocity	59 ft/sec
Impact force	44 lbs
HHP	3
HHP/in^2	0.1
Bit Press. Loss	29 psi
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	9.81 ppg

DAILY COST	CUMULATIVE COST
$1,753.29	$52,756.57

RMN ENGINEER: Peter ARONETZ CITY: Adelaide Office TELEPHONE: 08 8338 7266

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DRILLING FLUID REPORT

Report #	21	Date :	7-Mar-2007
Rig No	11	Spud :	15-Feb-2007
Depth	2051 to 2075	Metres	

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Agus NUGROHO
WELL NAME AND No	CRC - 1	FIELD: Investigation	LOCATION: OTWAY Basin / STATE: VICTORIA

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	13	13	13	16 CONDUCTOR	49	ft	HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION	
6.75	MCP 662	13	14	14	SET @	15	M	306	518	5.5 X 7	Inches	PRESSURE	550 psi
DRILL PIPE	TYPE	Length			7 5/8 INTERMEDIATE	1680	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS	
SIZE 3.50	G105-13.3#	1808	Mtrs		SET @	512	M	824		GD PZ-7	97 %	UP	112 min
DRILL PIPE	TYPE	Length			PRODUCTION/		ft	IN STORAGE		BBL/STK@ 100%	STK / min	TOTAL CIRC.	
SIZE 3.50	HWDP	54.8	Mtrs		LINER Set @		M	17		0.0514	55	TIME	307 min
D/Collars	Tools	Length			MUD TYPE			BBL/min		GAL / min		ANN VEL. DP	85 ft/min
4.75	4.75	179.4	32.4	Mtrs	KCl / PHPA / POLYMER			2.74		115		DC	123 123

MUD PROPERTIES			
	CORING	Past Shaker	
SAMPLE FROM		16:30	
TIME SAMPLE TAKEN		2,075	
DEPTH (ft) - (m) Metres		40.2	105
FLOWLINE TEMPERATURE ^{0}C ^{0}F		9.45	1.134
WEIGHT ppg SG		54	
FUNNEL VISCOSITY (sec/qt) API @ 40 ^{0}C		15	
PLASTIC VISCOSITY cP @ 50 ^{0}C		19	
YIELD POINT (lb/100ft^2)		3	4
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		49	34
RHEOLOGY θ 600 θ 300		28	20
RHEOLOGY θ 200 θ 100		4	3
RHEOLOGY θ 6 θ 3		6.1	
FILTRATE API (cc's/30 min)		--	
HPHT FILTRATE (cc's/30 min) @ -- ^{0}F		1	--
CAKE THICKNESS API : HPHT (32nd in)	--	6.4	
SOLIDS CONTENT (% by Volume)		0	93.6
LIQUID CONTENT (% by Volume) OIL/WATER		0.50	
SAND CONTENT (% by Vol.)		6.0	
METHYLENE BLUE CAPACITY ppb equiv.		9.8	
pH		0.55	
ALKALINITY MUD Pm		0.62	3.55
ALKALINITY FILTRATE Pf / Mf		27,500	
CHLORIDE mg/l		40	
TOTAL HARDNESS AS CALCIUM mg/l		200	
SULPHITE mg/l		26,300	
K+ mg/l		5.0	18.1
KCl % by wt ppb		1.44	
PHPA ppb		4.425	
FLUORESCEINE HACH TEST ppm			

MUD PROPERTY SPECIFICATIONS					
Mud Weight	9.4	API Filtrate	6 - 10	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
KCl	~6%	PHPA	~1.5	Sulphites	>80

OBSERVATIONS

Maintaining SFC volume and fluid properties.

OPERATIONS SUMMARY

Core # 5: Cut 23m, Rec. 6.6m - 37%. SVC+MU 80ft C/bbl, RIH to 1500m, Break circulation, Cont. RIH to 2031m, P/U kelly, ream+wash to 2051m. Core to 2075m, F/C well static, pump heavy pill, POH w/- C/bbl to SFC under good hole conditions. Core # 6: Cut 24.5m, Rec. 23.5m - 96%. SVC C/bbl+stand in derrick. Start M/U Drlg. BHA.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	4	INITIAL VOLUME	861
Premix (recirc from sump)	40	Desilter	13		
Drill Water	10	Downhole	28	+ FLUID RECEIVED	50
Direct Recirc Sump		Dumped	5	- FLUID LOST	70
Unexplained Pit Gain		Surface	20	FLUID in STORAGE	17
TOTAL RECEIVED	50	TOTAL LOST	70	FINAL VOLUME	841

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	10	Shaker #1	2x84 + 1x50	18
Degasser	Po'Boy	0	Desilter	12	10	Shaker #2	1x84 + 2x50	18

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	9.4	10.3	0.25
Desilter	9.4	9.7	0.88

Product	Price	Start	Received	Used	Close	Cost
AMC Biocide G	$ 188.33	7		1	6	$ 188.33
AMC PHPA	$ 120.61	44		1	43	$ 120.61
Calcium Carbonate - 4	$ 11.65	903		24	879	$ 279.60
Caustic Soda	$ 21.00	35		2	33	$ 42.00
Sodium Sulphite	$ 37.68	37		2	35	$ 75.36

Solids Analysis	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	6.4	61.0
Calcium Carbonate		21.9
Bentonite equiv.	0.7	6.0
Drilled Solids	3.6	33.1
Salt - based on Cl-	1.7	15.9
n @ 16:30 Hrs	0.53	
K @ 16:30 Hrs	6.50	

Bit Hydraulics & Pressure Data	
Jet Velocity	45 ft/sec
Impact force	25 lbs
HHP	1
HHP/in^2	0.0
Bit Press. Loss	17 psi
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	9.75 ppg

DAILY COST	CUMULATIVE COST
$765.36	$53,521.93

RMN ENGINEER Peter ARONETZ CITY Adelaide Office TELEPHONE 08 8338 7266

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DRILLING FLUID REPORT

Report #	22	Date :	8-Mar-2007
Rig No	11	Spud :	15-Feb-2007
Depth	2075 to 2249		Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Brian ASSELS	REPORT FOR	Cesar MIACO
WELL NAME AND No	CRC - 1	FIELD: Investigation	LOCATION: OTWAY Basin / STATE: VICTORIA

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	12	12	12	16 CONDUCTOR	49	ft	HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION	
6.75	M46HY	12			SET @	15	M	289	531	5.5 X 7	Inches	PRESSURE	1350 psi
DRILL PIPE	TYPE	Length			7 5/8 INTERMEDIATE	1680	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS	
SIZE 3.50	G105-13.3#	1989	Mtrs		SET @	512	M	820		GD PZ-7	97 %	UP	41 min
DRILL PIPE	TYPE	Length			PRODUCTION/		ft	IN STORAGE		BBL/STK@ 100%	STK / min	TOTAL CIRC.	
SIZE 3.50	HWDP	54.8	Mtrs		LINER Set @		M	60		0.0514	120	TIME	147 min
D/Collars	Tools	Length			MUD TYPE					BBL/min	GAL / min	ANN VEL. DP	185 ft/
4.75	4.75	179.4	26.3	Mtrs	KCl / PHPA / POLYMER					5.99	251	DC 268	268 min

MUD PROPERTIES				
SAMPLE FROM			Past Shaker	Past Shaker
TIME SAMPLE TAKEN			11:15	21:45
DEPTH (ft) - (m)		Metres	2,105	2,249
FLOWLINE TEMPERATURE	^{0}C	^{0}F	40.7 / 106	44.5 / 113
WEIGHT	ppg	SG	9.40 / 1.128	9.45 / 1.134
FUNNEL VISCOSITY (sec/qt) API @	45 ^{0}C		54	52
PLASTIC VISCOSITY cP @	50 ^{0}C		15	15
YIELD POINT (lb/100ft^2)			18	17
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min			2 / 4	3 / 4
RHEOLOGY	θ 600	θ 300	48 / 33	47 / 32
RHEOLOGY	θ 200	θ 100	27 / 18	26 / 18
RHEOLOGY	θ 6	θ 3	4 / 2	4 / 3
FILTRATE API (cc's/30 min)			5.8	5.9
HPHT FILTRATE (cc's/30 min) @	-- ^{0}F		--	--
CAKE THICKNESS API : HPHT (32nd in)			1 / --	1 / --
SOLIDS CONTENT (% by Volume)			6.3	6.5
LIQUID CONTENT (% by Volume) OIL/WATER			0 / 93.7	0 / 93.5
SAND CONTENT (% by Vol.)			0.60	1.00
METHYLENE BLUE CAPACITY		ppb equiv.	5.5	6.5
pH			10.0	9.8
ALKALINITY MUD Pm			0.58	0.40
ALKALINITY FILTRATE Pf / Mf			0.68 / 3.65	0.52 / 3.48
CHLORIDE		mg/l	30,000	31,500
TOTAL HARDNESS AS CALCIUM		mg/l	70	40
SULPHITE		mg/l	250	250
K+		mg/l	23,600	27,300
KCl	% by wt	ppb	4.5 / 16.3	5.2 / 18.8
PHPA		ppb	1.37	1.36
FLUORESCEINE HACH TEST		ppm	5.325	4.950

MUD PROPERTY SPECIFICATIONS					
Mud Weight	9.4	API Filtrate	6 - 10	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
KCl	~6%	PHPA	~1.5	Sulphites	>80

OBSERVATIONS

Recycled last 80bbls of fluid from sump for this interval, to make up D/Fluid volume. Total for this interval: 2465bbls.

OPERATIONS SUMMARY

RIH to 490m, Slip 36ft D/Line, RIH w/- bit 4RR1 to 1500m+break circ., Cont RIH to 2032m, PU kelly, ream+wash to 2075m, Resume drilling. Reach TD at 2249m at 22:00 hrs. Circulate hole, cond. Drlg fluid.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	10	INITIAL VOLUME	841
Premix (recirc from sump)	80	Desilter			
Drill Water	10	Downhole	21	+ FLUID RECEIVED	90
Direct Recirc Sump		Dumped	5	- FLUID LOST	51
Unexplained Pit Gain		Surface	15	FLUID in STORAGE	60
TOTAL RECEIVED	90	TOTAL LOST	51	FINAL VOLUME	880

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	18	Shaker #1	1x84 + 2x50	24
Degasser	Po'Boy	0	Desilter	12	0	Shaker #2	1x84 + 2x50	24

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	9.4	12.5	0.38
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
AMC Biocide G	$ 188.33	6		1	5	$ 188.33
AMC Defoamer	$ 146.40	12		1	11	$ 146.40
AMC PAC-R	$ 162.49	69		3	66	$ 487.47
AMC PHPA	$ 120.61	43		1	42	$ 120.61
AUS-BEN	$ 10.89	38		4	34	$ 43.56
Calcium Carbonate - A	$ 11.65	879		24	855	$ 279.60
Caustic Soda	$ 21.00	33		1	32	$ 21.00
Potassium Chloride (T	$ 20.12	492		114	378	$ 2,293.68
Sodium Sulphite	$ 37.68	35		2	33	$ 75.36
Xanthan Gum	$ 362.19	25		1	24	$ 362.19

Solids Analysis	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	6.5	61.2
Calcium Carbonate		21.2
Bentonite equiv.	0.7	6.5
Drilled Solids	3.7	33.5
Salt - based on Cl-	1.9	18.2
n @ 21:45 Hrs	0.55	
K @ 21:45 Hrs	5.16	

Bit Hydraulics & Pressure Data	
Jet Velocity	182 ft/sec
Impact force	224 lbs
HHP	41
HHP/in^2	1.2
Bit Press. Loss	282 psi
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	9.86 ppg

DAILY COST	CUMULATIVE COST
$4,047.93	$57,569.86

RMN ENGINEER	Peter ARONETZ	CITY	Adelaide Office	TELEPHONE	08 8338 7266

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DRILLING FLUID REPORT

RMN drilling fluids

Report #	23	Date :	9-Mar-2007
Rig No	11	Spud :	15-Feb-2007
Depth		2249	Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Roy DUNNE	REPORT FOR	Cesar MIACO
WELL NAME AND No	CRC - 1	FIELD: Investigation	LOCATION: OTWAY Basin / STATE: VICTORIA

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	12	12	12	16 CONDUCTOR	49	ft	HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION	
6.75	M46HY	12			SET @	15	M	332	437	5.5 X 7	Inches	PRESSURE	1300 psi
DRILL PIPE	TYPE	Length			7 5/8 INTERMEDIATE	1680	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS	
SIZE 3.50	G105-13.3#	1989	Mtrs		SET @	512	M	769		GD PZ-7	97 %	UP	55 min
DRILL PIPE	TYPE	Length			PRODUCTION/		ft	IN STORAGE		BBL/STK@ 100%	STK / min	TOTAL CIRC.	
SIZE 3.50	HWDP	54.8	Mtrs		LINER Set @		M	32		0.0514	120	TIME	134 min
D/Collars	CSG Run	Length			MUD TYPE					BBL/min	GAL / min	ANN VEL. DP	185 ft/
4.75	4.75	179.4	26	Mtrs	KCl / PHPA / POLYMER					5.99	251	DC 268	268 min

		MUD PROPERTIES	
SAMPLE FROM		Past Shaker	Past Shaker
TIME SAMPLE TAKEN			09:30
DEPTH	Metres		2,249
FLOWLINE TEMPERATURE	^{0}C / ^{0}F		44.0 / 112
WEIGHT	ppg / SG		9.50 / 1.140
FUNNEL VISCOSITY (sec/qt) API @	44 ^{0}C		54
PLASTIC VISCOSITY cP @	50 ^{0}C		16
YIELD POINT (lb/100ft^2)			19
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min			3 / 5
RHEOLOGY	θ 600 / θ 300		51 / 35
RHEOLOGY	θ 200 / θ 100		29 / 20
RHEOLOGY	θ 6 / θ 3		4 / 3
FILTRATE API (cc's/30 min)			6.0
HPHT FILTRATE (cc's/30 min) @	-- ^{0}F		--
CAKE THICKNESS API : HPHT (32nd in)		--	1 / --
SOLIDS CONTENT (% by Volume)			6.7
LIQUID CONTENT (% by Volume)	OIL : WATER		0 / 93.3
SAND CONTENT (% by VolUME)			0.90
METHYLENE BLUE CAPACITY	ppb equiv.		7.0
pH			9.8
ALKALINITY MUD Pm			0.42
ALKALINITY FILTRATE Pf / Mf			0.40 / 3.42
CHLORIDE	mg/l		31,800
TOTAL HARDNESS AS CALCIUM	mg/l		40
SULPHITE	mg/l		200
K+	mg/l		28,900
KCl	% by wt / ppb		5.5 / 19.9
PHPA	ppb		1.36
FLUORESCEINE HACH TEST	ppm		4.575

MUD PROPERTY SPECIFICATIONS					
Mud Weight	9.4	API Filtrate	6 - 10	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
KCl	~6%	PHPA	~1.5	Sulphites	>80

OBSERVATIONS

Prepare pills as required.
Located an extra 3 cans of defoamer & restocked (neg. usage entry).

Hole taking 7bbls fluid over 6 hours, while logging.

OPERATIONS SUMMARY

Mix+pump heavy CaCO3 pill, start wiper-trip to 1940m, Hole tight to 2035m, then clear. RIH to BTM without problems, no fill. Mix+pump 30bbls XTRA-SWEEP, CO; mix+spot on BTM 40bbls+ HiVis pill, POH to 1900m, mix+pump heavy CaCO3 pill and POH to SFC under good hole conditions. Lay out stabs & racked C/bbl. Rig up SCHLUMBERGER and commence E-Logs.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	4	INITIAL VOLUME	880
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	32	+ FLUID RECEIVED	
Direct Recirc Sump		Dumped	25	- FLUID LOST	80
		Surface	18	FLUID in STORAGE	32
TOTAL RECEIVED		TOTAL LOST	80	FINAL VOLUME	801

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	12	Shaker #1	1x84 + 2x50	12
Degasser	Po'Boy	0	Desilter	12	0	Shaker #2	1x84 + 2x50	12

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	9.4	11.2	0.25
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
Calcium Carbonate - A	$ 11.65	855		24	831	$ 279.60
Sodium Sulphite	$ 37.68	33		1	32	$ 37.68
Xanthan Gum	$ -	24		3	21	
XTRA - Sweep	$ 362.19	5		1	4	$ 362.19
	$ 112.40					

Solids Analysis

	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	6.7	63.5
Calcium Carbonate		24.4
Bentonite equiv.	0.8	7.0
Drilled Solids	3.5	32.0
Salt - based on Cl-	1.9	18.4
n @ 09:30 Hrs	0.54	
K @ 09:30 Hrs	6.06	

Bit Hydraulics & Pressure Data

Jet Velocity	182 ft/sec
Impact force	225 lbs
HHP	42
HHP/in^2	1.2
Bit Press. Loss	283 psi
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	9.95 ppg

DAILY COST	CUMULATIVE COST
$1,077.05	$58,646.91

RMN ENGINEER: Peter ARONETZ CITY: Adelaide Office TELEPHONE: 08 8338 7266

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DRILLING FLUID REPORT

Report #	24	Date :	10-Mar-2007
Rig No	11	Spud :	15-Feb-2007
Depth	2249 to 2249		Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Roy DUNNE	REPORT FOR	Cesar MIACO
WELL NAME AND No	CRC - 1	FIELD: Investigation	LOCATION: OTWAY Basin / STATE: VICTORIA

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE 6.75	TYPE					16 CONDUCTOR SET @	49 ft / 15 M		HOLE 332	ACTIVE PITS 405	PUMP SIZE 5.5 X 7 Inches		CIRCULATION PRESSURE psi
DRILL PIPE SIZE 3.50	TYPE G105-13.3#	Length 1989 Mtrs				7 5/8 INTERMEDIATE SET @	1680 ft / 512 M		TOTAL CIRCULATING VOL. 737		PUMP MODEL GD PZ-7	ASSUMED EFF 97 %	BOTTOMS UP min
DRILL PIPE SIZE 3.50	TYPE HWDP	Length 54.8 Mtrs				PRODUCTION/ LINER Set @	ft / M		IN STORAGE 27		BBL/STK@ 100% 0.0514	STK / min	TOTAL CIRC. TIME min
D/Collars 4.75	Tools 4.75	Length 179.4	26.3 Mtrs			MUD TYPE KCl / PHPA / POLYMER					BBL/min	GAL / min	ANN VEL. DP / DC ft/ min

MUD PROPERTIES	LOGGING	SUCTION Tk
SAMPLE FROM		
TIME SAMPLE TAKEN		21:45
DEPTH (ft) - (m) Metres		2,249
FLOWLINE TEMPERATURE ^{0}C / ^{0}F		26.8 / 81
WEIGHT ppg / SG		9.60 / 1.152
FUNNEL VISCOSITY (sec/qt) API @ 27 ^{0}C		58
PLASTIC VISCOSITY cP @ 50 ^{0}C		16
YIELD POINT (lb/100ft^2)		19
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		3 / 5
RHEOLOGY θ 600 / θ 300		51 / 35
RHEOLOGY θ 200 / θ 100		28 / 20
RHEOLOGY θ 6 / θ 3		4 / 3
FILTRATE API (cc's/30 min)		5.5
HPHT FILTRATE (cc's/30 min) @ -- ^{0}F		--
CAKE THICKNESS API : HPHT (32nd in)	--	1 / --
SOLIDS CONTENT (% by Volume)		7.4
LIQUID CONTENT (% by Volume) OIL/WATER		0 / 92.6
SAND CONTENT (% by Vol.)		0.60
METHYLENE BLUE CAPACITY ppb equiv.		6.5
pH		9.5
ALKALINITY MUD Pm		0.38
ALKALINITY FILTRATE Pf / Mf		0.45 / 3.30
CHLORIDE mg/l		32,500
TOTAL HARDNESS AS CALCIUM mg/l		30
SULPHITE mg/l		250
K+ mg/l		29,400
KCl % by wt / ppb		5.6 / 20.3
PHPA ppb		1.36
FLUORESCEINE HACH TEST ppm		4.800

MUD PROPERTY SPECIFICATIONS					
Mud Weight	9.4	API Filtrate	6 - 10	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
KCl	~6%	PHPA	~1.5	Sulphites	>80

OBSERVATIONS

Hole taking fluid at an average rate of 1.5bbls/hr. Total 37bbls in 24 hrs.

Circulating across the top of the well, using fill-up pump+trip tank.
No full circulation or chemical treatment last 24 hours.

OPERATIONS SUMMARY

Continue w/- SCHLUMBERGER logging runs.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander		INITIAL VOLUME	801
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	37	+ FLUID RECEIVED	
Direct Recirc Sump		Dumped		- FLUID LOST	37
		Surface		FLUID in STORAGE	27
TOTAL RECEIVED		TOTAL LOST	37	FINAL VOLUME	764

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	0	Shaker #1	1x84 + 2x50	0
Degasser	Po'Boy	0	Desilter	12	0	Shaker #2	1x84 + 2x50	0

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost

Solids Analysis

	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	7.4	70.0
Calcium Carbonate		24.4
Bentonite equiv.	0.7	6.5
Drilled Solids	4.3	39.1
Salt - based on Cl-	2.0	18.8
n @ 21:45 Hrs	0.54	
K @ 21:45 Hrs	6.06	

Bit Hydraulics & Pressure Data

Jet Velocity	
Impact force	
HHP	
HHP/in^2	
Bit Press. Loss	
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	

DAILY COST	CUMULATIVE COST
	$58,646.91

RMN ENGINEER: Peter ARONETZ CITY: Adelaide Office TELEPHONE: 08 8338 7266

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DRILLING FLUID REPORT

Report #	25	Date :	11-Mar-2007
Rig No	11	Spud :	15-Feb-2007
Depth		2249	Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Roy DUNNE	REPORT FOR	Cesar MIACO
WELL NAME AND No	CRC - 1	FIELD: Investigation	LOCATION: OTWAY Basin / STATE: VICTORIA

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE 6.75	TYPE					16 CONDUCTOR SET @	49 ft / 15 M		HOLE 332	ACTIVE PITS 370	PUMP SIZE 5.5 X 7 Inches		CIRCULATION PRESSURE psi
DRILL PIPE SIZE 3.50	TYPE G105-13.3#	Length		Mtrs		7 5/8 INTERMEDIATE SET @	1680 ft / 512 M		TOTAL CIRCULATING VOL. 702		PUMP MODEL GD PZ-7	ASSUMED EFF 97 %	BOTTOMS UP min
DRILL PIPE SIZE 3.50	TYPE HWDP	Length		Mtrs		PRODUCTION/ LINER Set @	ft / M		IN STORAGE 41		BBL/STK@ 100% 0.0514	STK / min	TOTAL CIRC. TIME min
D/Collars 4.75	Tools 4.75	Length		Mtrs		MUD TYPE KCl / PHPA / POLYMER					BBL/min	GAL / min	ANN VEL. DP / DC ft/ min

MUD PROPERTIES			MUD PROPERTY SPECIFICATIONS					
	LOGGING	SUCTION Tk	Mud Weight	9.4	API Filtrate	6 - 10	HPHT Filtrate	--
SAMPLE FROM			Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
TIME SAMPLE TAKEN		22:30	KCl	~6%	PHPA	~1.5	Sulphites	>80
DEPTH (ft) - (m) Metres		2,249						
FLOWLINE TEMPERATURE ^{0}C / ^{0}F		27.1 / 82						
WEIGHT ppg / SG		9.60 / 1.152						
FUNNEL VISCOSITY (sec/qt) API @ 27 ^{0}C		59						
PLASTIC VISCOSITY cP @ 50 ^{0}C		16						
YIELD POINT (lb/100ft^2)		19						
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		3 / 5						
RHEOLOGY θ 600 / θ 300		51 / 35						
RHEOLOGY θ 200 / θ 100		28 / 20						
RHEOLOGY θ 6 / θ 3		4 / 3						
FILTRATE API (cc's/30 min)		5.5						
HPHT FILTRATE (cc's/30 min) @ -- ^{0}F		--						
CAKE THICKNESS API : HPHT (32nd in)	--	1 / --						
SOLIDS CONTENT (% by Volume)		7.4						
LIQUID CONTENT (% by Volume) OIL/WATER		0 / 92.6						
SAND CONTENT (% by Vol.)		0.60						
METHYLENE BLUE CAPACITY ppb equiv.		6.5						
pH		9.5						
ALKALINITY MUD Pm		0.35						
ALKALINITY FILTRATE Pf / Mf		0.44 / 3.28						
CHLORIDE mg/l		32,200						
TOTAL HARDNESS AS CALCIUM mg/l		30						
SULPHITE mg/l		250						
K+ mg/l		29,400						
KCl % by wt / ppb		5.6 / 20.3						
PHPA ppb		1.36						
FLUORESCEINE HACH TEST ppm		4.725						

OBSERVATIONS

Hole taking fluid at an average rate of 0.9bbls/hr. Total 21bbls in 24 hrs.

Circulating across the top of the well, using fill-up pump+trip tank.
No full circulation or chemical treatment last 24 hours.

OPERATIONS SUMMARY

Continue w/- SCHLUMBERGER logging runs.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander		INITIAL VOLUME	764
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	21	+ FLUID RECEIVED	
Direct Recirc Sump		Dumped		- FLUID LOST	21
		Surface		FLUID in STORAGE	41
TOTAL RECEIVED		TOTAL LOST	21	FINAL VOLUME	743

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	0	Shaker #1	1x84 + 2x50	0
Degasser	Po'Boy	0	Desilter	12	0	Shaker #2	1x84 + 2x50	0

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost

Solids Analysis

	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	7.4	70.0
Calcium Carbonate		24.4
Bentonite equiv.	0.7	6.5
Drilled Solids	4.3	39.0
Salt - based on Cl-	2.0	18.6
n @ 22:30 Hrs	0.54	
K @ 22:30 Hrs	6.06	

Bit Hydraulics & Pressure Data

Jet Velocity	
Impact force	
HHP	
HHP/in^2	
Bit Press. Loss	
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	

DAILY COST	CUMULATIVE COST
	$58,646.91

RMN ENGINEER Peter ARONETZ CITY Adelaide Office TELEPHONE 08 8338 7266

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DRILLING FLUID REPORT

Report #	26	Date :	12-Mar-2007
Rig No	11	Spud :	15-Feb-2007
Depth		2249	Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Roy DUNNE	REPORT FOR	Cesar MIACO
WELL NAME AND No	CRC - 1	FIELD: Investigation	LOCATION: OTWAY Basin / STATE: VICTORIA

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE 6.75	TYPE					16 CONDUCTOR SET @	49 ft / 15 M		HOLE 332	ACTIVE PITS 370	PUMP SIZE 5.5 X 7 Inches		CIRCULATION PRESSURE psi
DRILL PIPE SIZE 3.50	TYPE G105-13.3#	Length		Mtrs		7 5/8 INTERMEDIATE SET @	1680 ft / 512 M		TOTAL CIRCULATING VOL. 702		PUMP MODEL GD PZ-7	ASSUMED EFF 97 %	BOTTOMS UP min
DRILL PIPE SIZE 3.50	TYPE HWDP	Length		Mtrs		PRODUCTION/ LINER Set @	ft / M		IN STORAGE 27		BBL/STK@ 100% 0.0514	STK / min	TOTAL CIRC. TIME min
D/Collars 4.75	Tools 4.75	Length		Mtrs		MUD TYPE KCl / PHPA / POLYMER					BBL/min	GAL / min	ANN VEL. DP / DC ft/ min

		MUD PROPERTIES		
		LOGGING	SUCTION Tk	
SAMPLE FROM				
TIME SAMPLE TAKEN			21:45	
DEPTH	Metres		2,249	
FLOWLINE TEMPERATURE	°C / °F		25.3 / 79	
WEIGHT	ppg / SG		9.60 / 1.152	
FUNNEL VISCOSITY (sec/qt) API @	25 °C		60	
PLASTIC VISCOSITY cP @	50 °C		15	
YIELD POINT (lb/100ft²)			18	
GEL STRENGTHS (lb/100ft²) 10 sec/10 min			3 / 4	
RHEOLOGY	θ 600 / θ 300		48 / 33	
RHEOLOGY	θ 200 / θ 100		27 / 18	
RHEOLOGY	θ 6 / θ 3		4 / 3	
FILTRATE API (cc's/30 min)			5.6	
HPHT FILTRATE (cc's/30 min) @	-- °F		--	
CAKE THICKNESS API : HPHT (32nd in)		--	1 / --	
SOLIDS CONTENT (% by Volume)			7.5	
LIQUID CONTENT (% by Volume)	OIL : WATER		0 / 92.5	
SAND CONTENT (% by VolUME)			0.60	
METHYLENE BLUE CAPACITY	ppb equiv.		6.5	
pH			9.5	
ALKALINITY MUD Pm			0.33	
ALKALINITY FILTRATE Pf / Mf			0.40 / 3.50	
CHLORIDE	mg/l		32,000	
TOTAL HARDNESS AS CALCIUM	mg/l		30	
SULPHITE	mg/l		100	
K+	mg/l		27,800	
KCl	% by wt / ppb		5.3 / 19.2	
PHPA	ppb		1.36	
FLUORESCEINE HACH TEST	ppm		No Test	

MUD PROPERTY SPECIFICATIONS

Mud Weight	9.4	API Filtrate	6 - 10	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
KCl	~6%	PHPA	~1.5	Sulphites	>80

OBSERVATIONS

Treated SFC System with 1 can of Biocide.
19sx KCl used for mixing 120bbls Displacement fluid f CSG CMT job.
Circulating across the top of the well, using fill-up pump+trip tank.
No full circulation for 78 hours.
Hole taking 14bbls fluid during the last 24hours.

FLUORESCEINE:
Total dry powder equivalent used for entire project: ~5.5kg
2 unopened 5kg tubs ready to be returned to:
SCHLUMBERGER @ DAMPIER,WA.
~900g remaining in one tub passed on to Dr Chris BOREHAM, GA, Canberra.

OPERATIONS SUMMARY

Continue w/- SCHLUMBERGER logging runs.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander		INITIAL VOLUME	743
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	14	+ FLUID RECEIVED	
Direct Recirc Sump		Dumped		- FLUID LOST	14
		Surface		FLUID in STORAGE	27
TOTAL RECEIVED		TOTAL LOST	14	FINAL VOLUME	729

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	0	Shaker #1	1x84 + 2x50	0
Degasser	Po'Boy	0	Desilter	12	0	Shaker #2	1x84 + 2x50	0

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
AMC Biocide G	$ 188.33	5		1	4	$ 188.33
Potassium Chloride (	$ 20.12	378		19	359	$ 382.28

Solids Analysis

	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	7.5	71.1
Calcium Carbonate		24.4
Bentonite equiv.	0.7	6.5
Drilled Solids	4.4	40.2
Salt - based on Cl-	1.9	18.5
n @ 21:45 Hrs	0.54	
K @ 21:45 Hrs	5.80	

Bit Hydraulics & Pressure Data

Jet Velocity	
Impact force	
HHP	
HHP/in²	
Bit Press. Loss	
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	

DAILY COST	CUMULATIVE COST
$570.61	$59,217.52

RMN ENGINEER	Peter ARONETZ	CITY	Adelaide Office	TELEPHONE	08 8338 7266

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.

DRILLING FLUID REPORT

Report #	27	Date :	13-Mar-2007
Rig No	11	Spud :	15-Feb-2007
Depth		2249	Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Roy DUNNE	REPORT FOR	Cesar MIACO
WELL NAME AND No	CRC - 1	FIELD: Investigation	LOCATION: OTWAY Basin / STATE: VICTORIA

DRILLING ASSEMBLY		JET SIZE			CASING		MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	12	12	12	16 CONDUCTOR SET @	49 ft / 15 M	HOLE	ACTIVE PITS	PUMP SIZE		CIRCULATION PRESSURE
6.75	M46HY	12					332	346	5.5 X 7 Inches		1500 psi
DRILL PIPE SIZE 3.50	TYPE G105-13.3#	Length		Mtrs	7 5/8 INTERMEDIATE SET @	1680 ft / 512 M	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP
							678		GD PZ-7	97 %	67 min
DRILL PIPE SIZE 3.50	TYPE HWDP	Length		Mtrs	PRODUCTION/ LINER Set @	ft / M	IN STORAGE		BBL/STK@ 100%	STK / min	TOTAL CIRC. TIME
							12		0.0514	99	140 min
D/Collars	Tools	Length			MUD TYPE		BBL/min		GAL / min		ANN VEL. DP / DC ft/min
4.75	4.75			Mtrs	KCl / PHPA / POLYMER		4.94		207		

MUD PROPERTIES			
SAMPLE FROM		Past Shaker	
TIME SAMPLE TAKEN		08:30	
DEPTH	Metres	2,249	
FLOWLINE TEMPERATURE	^{0}C / ^{0}F	37.1	100
WEIGHT	ppg / SG	9.55	1.146
FUNNEL VISCOSITY (sec/qt) API @	37 ^{0}C	58	
PLASTIC VISCOSITY cP @	50 ^{0}C	16	
YIELD POINT (lb/100ft^2)		19	
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		3	6
RHEOLOGY	θ 600 / θ 300	51	35
RHEOLOGY	θ 200 / θ 100	28	19
RHEOLOGY	θ 6 / θ 3	4	3
FILTRATE API (cc's/30 min)		5.6	
HPHT FILTRATE (cc's/30 min) @	-- ^{0}F	--	
CAKE THICKNESS API : HPHT (32nd in)		-- / 1	--
SOLIDS CONTENT (% by Volume)		7.2	
LIQUID CONTENT (% by Volume)	OIL : WATER	0	92.8
SAND CONTENT (% by VolUME)		0.50	
METHYLENE BLUE CAPACITY	ppb equiv.	6.5	
pH		9.0	
ALKALINITY MUD Pm		0.10	
ALKALINITY FILTRATE Pf / Mf		0.18	3.20
CHLORIDE	mg/l	31,000	
TOTAL HARDNESS AS CALCIUM	mg/l	60	
SULPHITE	mg/l	80	
K+	mg/l	26,300	
KCl	% by wt / ppb	5.0	18.1
PHPA	ppb	1.36	
FLUORESCEINE HACH TEST	ppm	No Test	

MUD PROPERTY SPECIFICATIONS					
Mud Weight	9.4	API Filtrate	6 - 10	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
KCl	~6%	PHPA	~1.5	Sulphites	>80

OBSERVATIONS

With fluid in hole not having been moved for 80hrs+, observe bacterial activity, when circulating out. Treat system w/- 2 cans Biocide. No further treatment carried out.

OPERATIONS SUMMARY

With logging completed, rig down SCHLUMBERGER.
Make up Clean-out BHA, starting with RR STEALTH PDC bit, all DC, HWDP & jars. RIH, break circ. @ 1500m. Cont RIH to 2246m, Find 3m soft fill. Pick up kelly, wash to bottom, mix+pump 30bbls 0.6ppb XTRA SWEEP, cancel wiper trip because of good hole condition. CO, mix+spot on BTM 45bbls HiViS pill, Start laying down DP. With bit @ 1900m mix+pump heavy KCl/CaCO3 pill, continue laying down DP and BHA. Change pipe rams to 4½"+test to 1100psi. Rig up to run casing. (4½" 12.6# 13Cr80 JFE BEAR TBG).

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander		INITIAL VOLUME	729
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	29	+ FLUID RECEIVED	
Direct Recirc Sump		Dumped	10	- FLUID LOST	39
		Surface		FLUID in STORAGE	12
TOTAL RECEIVED		TOTAL LOST	39	FINAL VOLUME	690

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	0	Shaker #1	1x84 + 2x50	9
Degasser	Po'Boy	0	Desilter	12	0	Shaker #2	1x84 + 2x50	9

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
AMC Biocide G	$ 188.33	4		2	2	$ 376.66
Calcium Carbonate - 4	$ 11.65	831		10	821	$ 116.50
Potassium Chloride (T	$ 20.12	359		23	336	$ 462.76
Xanthan Gum	$ 362.19	21		1	20	$ 362.19
XTRA - Sweep	$ 112.40	4		1	3	$ 112.40

Solids Analysis	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	7.2	68.6
Calcium Carbonate		25.2
Bentonite equiv.	0.7	6.5
Drilled Solids	4.0	36.8
Salt - based on Cl-	1.9	17.9
n @ 08:30 Hrs	0.54	
K @ 08:30 Hrs	6.06	

Bit Hydraulics & Pressure Data	
Jet Velocity	150 ft/sec
Impact force	154 lbs
HHP	23
HHP/in^2	0.7
Bit Press. Loss	194 psi
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	9.91 ppg

DAILY COST	CUMULATIVE COST
$1,430.51	$60,648.03

RMN ENGINEER	Peter ARONETZ	CITY	Adelaide Office	TELEPHONE	08 8338 7266

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DRILLING FLUID REPORT

Report #	28	Date :	14-Mar-2007
Rig No	11	Spud :	15-Feb-2007
Depth		2249	Metres

OPERATOR	CO2 - CRC PILOT PROJECT P/L	CONTRACTOR	CENTURY Resources
REPORT FOR	Kevin MURPHY / Roy DUNNE	REPORT FOR	Cesar MIACO
WELL NAME AND No	CRC - 1	FIELD: Investigation / LOCATION: OTWAY Basin / STATE: VICTORIA	

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE					16 CONDUCTOR SET @	49	ft	HOLE	ACTIVE PITS	PUMP SIZE	CIRCULATION PRESSURE	
6.75							15	M	299	330	5.5 X 7 Inches		450 psi
DRILL PIPE SIZE	TYPE	Length			Mtrs	7 5/8 INTERMEDIATE SET @	1680	ft	TOTAL CIRCULATING VOL.		PUMP MODEL / ASSUMED EFF	BOTTOMS UP	
							512	M	629		GD PZ-7 / 97 %		52 min
DRILL PIPE SIZE	TYPE HWDP	Length			Mtrs	PRODUCTION/ LINER Set @		ft	IN STORAGE		BBL/STK@ 100% / STK / min	TOTAL CIRC. TIME	
								M	20		0.0514 / 103		126 min
D/Collars	CSG Run	Length				MUD TYPE			BBL/min	GAL / min		ANN VEL. DP	ft/ min
	4.50		2240		Mtrs	KCl / PHPA / POLYMER			5.14	216		DC 209	

MUD PROPERTIES			
SAMPLE FROM		Past Shaker	
TIME SAMPLE TAKEN		19:30	
DEPTH	Metres	2,249	
FLOWLINE TEMPERATURE	^{0}C / ^{0}F	33.9	94
WEIGHT	ppg / SG	9.60	1.152
FUNNEL VISCOSITY (sec/qt) API @	34 ^{0}C	60	
PLASTIC VISCOSITY cP @	50 ^{0}C	19	
YIELD POINT (lb/100ft^2)		18	
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		3	5
RHEOLOGY	θ 600 / θ 300	56	37
RHEOLOGY	θ 200 / θ 100	29	20
RHEOLOGY	θ 6 / θ 3	5	3
FILTRATE API (cc's/30 min)		5.7	
HPHT FILTRATE (cc's/30 min) @	-- ^{0}F	--	
CAKE THICKNESS API : HPHT (32nd in)		1	--
SOLIDS CONTENT (% by Volume)		7.6	
LIQUID CONTENT (% by Volume)	OIL : WATER	0	92.4
SAND CONTENT (% by VolUME)		0.50	
METHYLENE BLUE CAPACITY	ppb equiv.	6.5	
pH		9.0	
ALKALINITY MUD Pm		0.08	
ALKALINITY FILTRATE Pf / Mf		0.15	3.18
CHLORIDE	mg/l	30,500	
TOTAL HARDNESS AS CALCIUM	mg/l	80	
SULPHITE	mg/l	50	
K+	mg/l	26,300	
KCl	% by wt / ppb	5.0	18.1
PHPA	ppb	1.36	
FLUORESCEINE HACH TEST	ppm	No Test	

MUD PROPERTY SPECIFICATIONS					
Mud Weight	9.4	API Filtrate	6 - 10	HPHT Filtrate	--
Plastic Vis	MIN	Yield Point	>12	pH	9.0 - 10.0
KCl	~6%	PHPA	~1.5	Sulphites	>80

OBSERVATIONS

Supply Calcium Carbonate to SCHLUMBERGER for 11.0ppg spacer.
Charge out 10 damaged sx of CaCO3 and 2 damaged sx of Barite.

DFE to be released 15th of March, 0500 hrs.

As this will be the final DF report for this well, RMN DRILLING Fluids and AMC wish to thank you for your business and are looking forward to be called upon, to provide their services for future projects!

OPERATIONS SUMMARY

Run 186 jts of 4½" 12.6# 13Cr80 JFE BEAR TBG, plus landing nipples and marker joints. Run casing all the way to BTM without problems.
Tag 4m fill 5m below setting depth of 2240m. Rig up cementing lines, Circulate hole while preparing for cementation.

HUNTERS Waste beginning to empty out sump to provide space for fluid volumes expected to be dumped during cement job.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander		INITIAL VOLUME	690
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	41	+ FLUID RECEIVED	
Direct Recirc Sump		Dumped		- FLUID LOST	41
		Surface		FLUID in STORAGE	20
TOTAL RECEIVED		TOTAL LOST	41	FINAL VOLUME	649

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Screens	Hrs
Centrifuge	N/A		Desander	2	0	Shaker #1	1x84 + 2x50	6
Degasser	Po'Boy	0	Desilter	12	0	Shaker #2	1x84 + 2x50	6

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
Baryte	$ 9.95	686		2	684	$ 19.90
Calcium Carbonate - 4	$ 11.65	821		225	596	$ 2,621.25

Solids Analysis	% Vol	PPB
High Grav Solids	NIL	NIL
Total LGS	7.6	71.9
Calcium Carbonate		25.2
Bentonite equiv.	0.7	6.5
Drilled Solids	4.4	40.1
Salt - based on Cl-	1.8	17.7
n @ 19:30 Hrs	0.60	
K @ 19:30 Hrs	4.55	

Bit Hydraulics & Pressure Data	
Jet Velocity	
Impact force	#VALUE!
HHP	
HHP/in^2	
Bit Press. Loss	
CSG Seat Frac Press.	1160 psi
Equiv. Mud Wt.	13.30 ppg
ECD	9.69 ppg

DAILY COST	CUMULATIVE COST
$2,641.15	$63,289.18

RMN ENGINEER: Peter ARONETZ CITY: Adelaide Office TELEPHONE: 08 8338 7266

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ATTACHMENT 4 : SURVEY REPORTS

Australian Geomagnetic Reference Field Computation

CRC-1

Requested: Latitude **-38° 31' 50''**, Longitude **142° 48' 42''**, Elevation **0 km**, Date **2007/02/1**
Calculated: Latitude **-38.5306°**, Longitude **+142.8117°**, Elevation **0.00 km**, Epoch **2007.0849**

Magnetic Field Components

D = 10.727 deg

[back to top]

Wellname :	CRC-1	Operator: CO2CRC Pilot Project Ltd (CPPL)	Rig : Century Drilling Ltd - CDL Rig 11
RT above GL : 5.20m	UTM North: 5733759.0	Spud Date : 15 Feb 2007	Release Date : 15 Mar 2007
G.L. Elevation : 44.50m	UTM East: 657899.1	Spud Time : 11:00	Release Time : 21:00

Survey Data

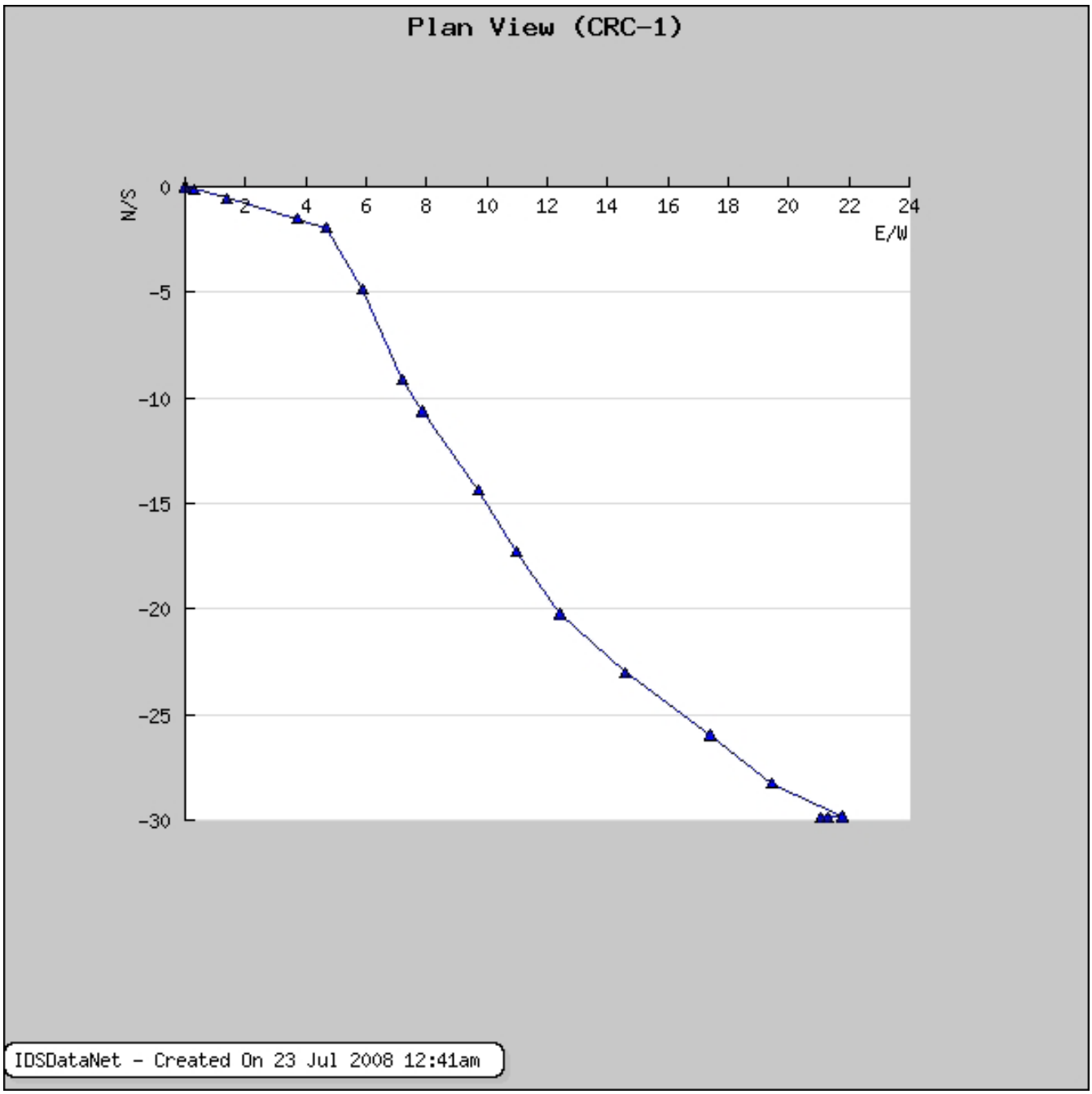
Well: CRC-1

Mag Dec: 11 Sidetrack # 0

MD m	TVD m	INCL deg	CORR. AZ deg	DOGLEG deg/30m	'V' SECT m	N/S m	E/W m	TOOLTYPE
0.00	0.0	0.00	112.00	0.00	0.00	0.00	0.00	Datum
131.00	131.0	0.25	112.00	0.06	0.11	-0.11	0.27	Single shot
312.00	312.0	0.50	112.00	0.04	0.55	-0.55	1.36	Single shot
506.00	506.0	1.00	112.00	0.08	1.50	-1.50	3.72	Single shot
603.00	603.0	0.25	121.00	0.23	1.93	-1.93	4.68	Hofco single shot
908.00	908.0	1.00	166.00	0.08	4.85	-4.85	5.90	Hofco single shot
1165.00	1164.9	1.00	161.00	0.01	9.15	-9.15	7.17	Hofco single shot
1233.00	1232.9	1.75	152.00	0.34	10.63	-10.63	7.85	Hofco single shot
1370.00	1369.8	1.75	156.00	0.03	14.39	-14.39	9.69	Hofco single shot
1467.00	1466.8	2.00	156.00	0.08	17.29	-17.29	10.98	Hofco single shot
1574.00	1573.7	1.50	151.00	0.15	20.22	-20.22	12.41	Hofco single shot
1691.00	1690.7	2.00	135.00	0.18	23.00	-23.00	14.60	Hofco single shot
1808.00	1807.6	2.00	139.00	0.04	25.98	-25.98	17.38	Hofco single shot
1896.00	1895.5	2.00	137.00	0.02	28.27	-28.27	19.44	Hofco single shot
2022.00	2021.5	0.75	86.00	0.39	29.82	-29.82	21.76	Hofco single shot
2236.00	2235.5	1.00	266.00	0.25	29.85	-29.85	21.29	Hofco single shot
2249.00	2248.5	1.00	266.00	0.00	29.86	-29.86	21.07	Extrapolation to TD

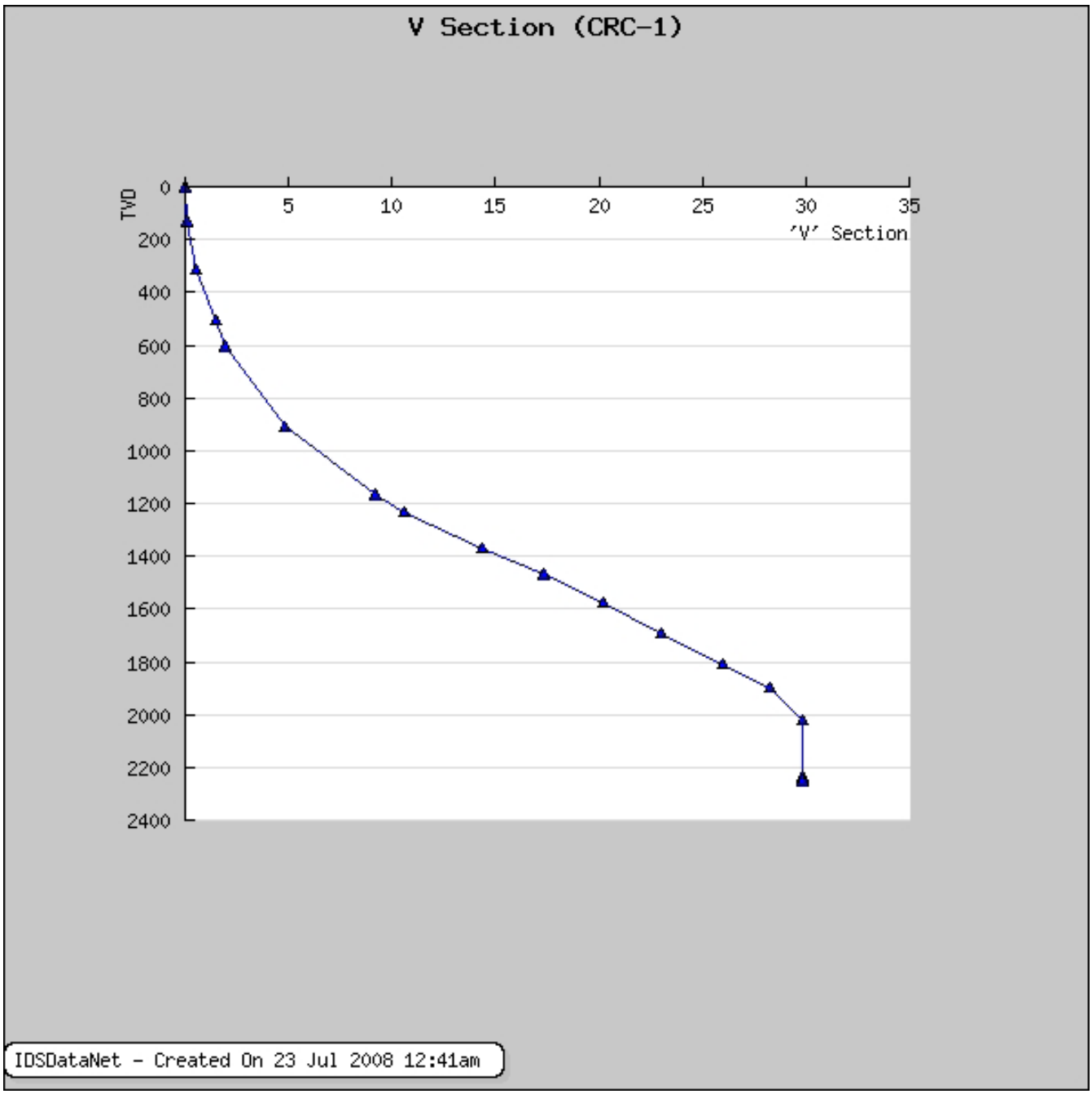
'Copyright IDS 2006', (KS&JG&RW),
CPPL_AU_ON_FWR.xsl (parent/child V1.2)

Wellname :	CRC-1	Operator: CO2CRC Pilot Project Ltd (CPPL)	Rig : Century Drilling Ltd - CDL Rig 11
RT above GL : 5.20m	UTM North: 5733759.0	Spud Date : 15 Feb 2007	Release Date : 15 Mar 2007
G.L. Elevation : 44.50m	UTM East: 657899.1	Spud Time : 11:00	Release Time : 21:00



'Copyright IDS 2006', (KS&JG&RW),
CPPL_AU_ON_FWR.xsl (parent/child V1.2)

Wellname : CRC-1	Operator: CO2CRC Pilot Project Ltd (CPPL)	Rig : Century Drilling Ltd - CDL Rig 11	
RT above GL : 5.20m	UTM North: 5733759.0	Spud Date : 15 Feb 2007	Release Date : 15 Mar 2007
G.L. Elevation : 44.50m	UTM East: 657899.1	Spud Time : 11:00	Release Time : 21:00



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CPPL_AU_ON_FWR.xsl (parent/child V1.2)

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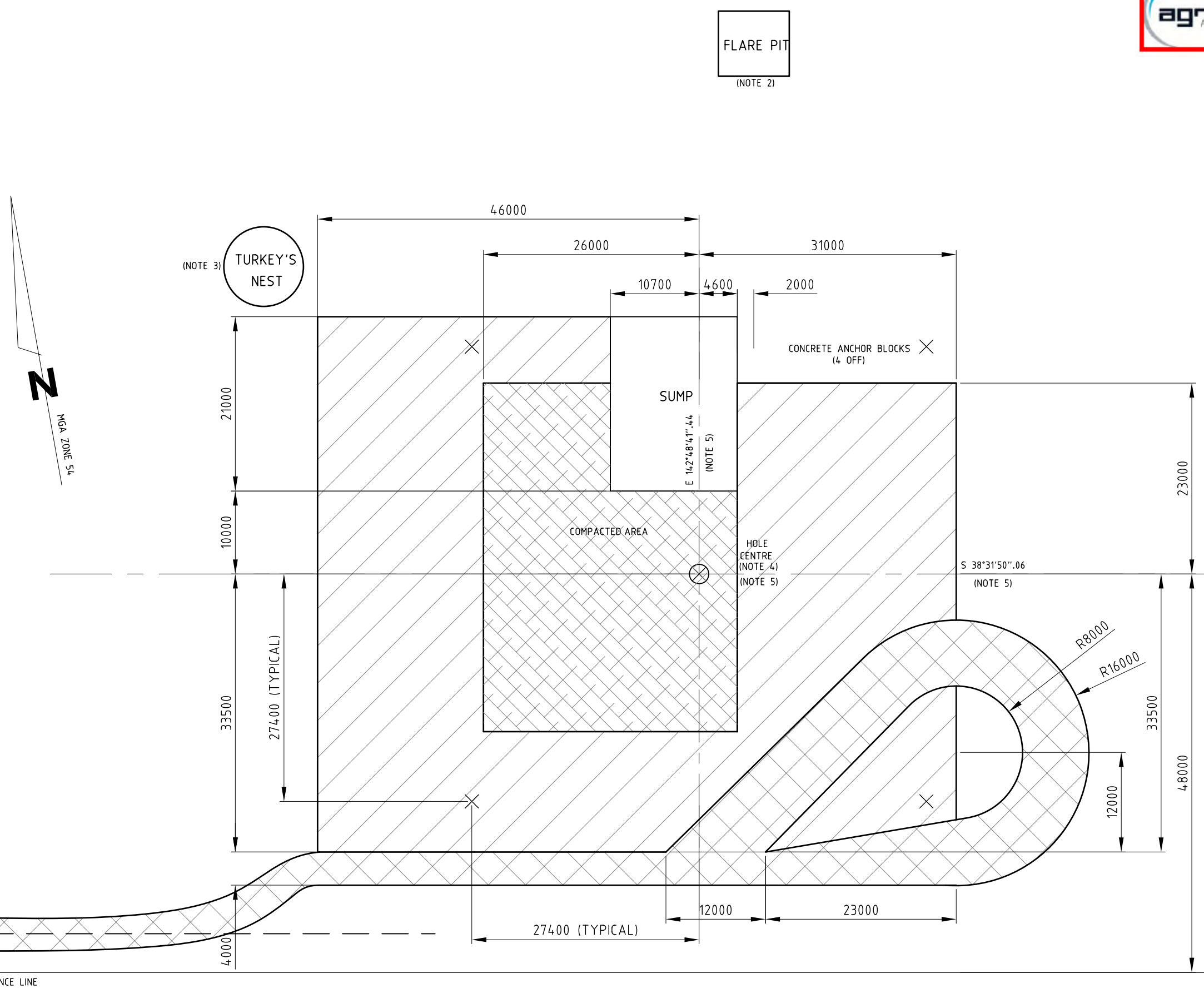
ATTACHMENT 5 : LOCATION SURVEY REPORT



LEGEND

200mm CRUSHED VOLCANIC TUFF ON LEVEL GRADED AREA

300mm CRUSHED VOLCANIC TUFF ON DRIVING AREA AND TRACK. LEVELLED TO MATCH SITE AND COMPACTED.

200mm CRUSHED VOLCANIC TUFF ON LEVEL, GRADED AND COMPACTED AREA.

NOTE:

1. FOR SITE LAYOUT REFER TO DWG. 34632-DE-10-0018.
2. FLARE PIT TO BE LOCATED 60m TO PLAN NORTH OF HOLE CENTRE ALIGNED AS SHOWN.
3. TURKEY'S NEST TO BE LOCATED CLOSE TO THE NW CORNER OF THE HARD STAND.
4. HOLE CENTRE POSITION IS 48m FROM SOUTHERN FENCE LINE AND 92m FROM EASTERN FENCE LINE.
5. PEGGED BY SURVEYOR
6. DOTTED LINE SHOWS ALIGNMENT OF EXISTING TRACK FORMATION.

											SIGNATURE:	
											DATE:	
		B	24.01.07	RE-ISSUED FOR TENDER	LS		MM		MM		IB	-
		A	14.01.07	ISSUED FOR TENDER	LS		MM		MM		IB	
JOB DIRECTORY	FILE NAME	DRAWING No.	REFERENCE DRAWINGS	No.	DATE	REVISION	ORIGINATOR		DESIGN CHECKED		ENGINEER CHECKED		PROJECT APPROVED	CLIENT APPROVED
-	-													

(CAD) A1

C02CRC
PROPOSED DRILLING PAD AND ACCESS ROAD LAYOUT

PILOT PROJECT LTD

SCALE: 1:250

DRG.NO. 34632-DE-10-SK-0001

REV. B

CO2CRC Pilot Project Ltd

CRC-1 Drilling Site

Specification for Site Preparatory Works

Onshore Otway Basin 2007

AGR Upstream Petroleum PTY LTD Controlled Document No. 34632-DR-05-0005

Revision 2, 2nd February 2007

I: DOCUMENT CONTROL

This is a controlled document. Should the recipient (user) become aware of any changes or corrections that are required please photocopy this page and the relevant page(s) to be changed, note the corrections and deliver them to:

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II: DOCUMENT REVISIONS

The CPPL Project Manager at AGR Upstream Petroleum PTY LTD is responsible for controlling and ensuring any revision of this document. Responsibility for managing change in this document is detailed within the UP Document and Data Control Procedure *(UP/00/SP/DOC/PC01)*.

This document shall be revised in the following circumstances:

- On discovery of a significant new health or safety risk;
- Significant change in the site requirements of the proposed drilling & completion program or operations.

REVISION HISTORY

Rev	Date	Description	By	Chkd	App
2	2/2/07	Re-issued for Construction	MM	IB	IB
1	31/1/07	Re-issued for Construction	MM	IB	IB
0	29/1/07	Issued for Construction	MM	IB	IB
C	23/1/07	Re-issued for tender	MM	IB	IB
B	9/1/07	Issued for Tender	MM	IB	IB
A	2/1/07	Draft for Review	TG		

III: APPROVALS

This document has been reviewed by AGR Upstream Petroleum PTY LTD and CRCCO2 Pilot Project Ltd and is approved for construction of the CRC-1 site for site preparatory works, proposed to be carried out in January and February 2007.

Acceptance: CRCCO2 Pilot Project Ltd

NAME	Signature	Date
Mark Metelmann		

Approval: AGR Upstream Petroleum PTY LTD

NAME	Signature	Date
Ian Black AGR Upstream Petroleum PTY LTD CPPL Project Manager		
Terry Greaney AGR Upstream Petroleum PTY LTD Drilling & Completions Superintendent		

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Appendix Technical Clarifications and Changes

1 INTRODUCTION

The Cooperative Research Centre for Greenhouse Gas Technologies (CO2CRC) is currently embarking on a project known as the Otway Basin Pilot Project for Demonstration of Geological Storage of CO2 under Australian Conditions. The project involves the utilisation of an abandoned CO2 source well (Buttress 1) with a CO2 content of approximately 79% located in the Otway Basin in south western Victoria Australia, and re-injecting it, via a 2.25km, DN50 stainless steel pipeline, into a newly drilled exploratory well (CRC 1) which will be strategically located to sequest the CO2 into another nearby depleted gas reservoir (Naylor). Extensive reservoir, sub surface and surface monitoring equipment operated by the CSIRO will provide a wealth of data regarding the migration of the CO2 "plume" in the reservoir over time and ensure the CO2 injected remains "contained" within the designated depleted gas reservoir.
AGR Upstream Petroleum PTY LTD is the nominated Detailed Design consultant to progress this work from the preliminary design and Detailed Design stage to construction and commissioning.

The point of contact for technical enquiries is:

Ian Black

AGR Upstream Petroleum PTY LTD

3rd Level, 342 Flinders St, Melbourne

Phone (03) 8625 8526

Mobile (0412) 617 233

2 SCOPE OF WORK

The Scope of Work is as shown in drawing no 34632-DE-10-SK 0001 Rev 0 – "Proposed Drill Pad and Access Road Layout" and as detailed below:

- Provide a schedule
- On the first 780m of the access track fill any potholes that exist.
- On the next 250m of the access track add material, grade and compact.
- On the third section of the track, which is partly on the hardstand area, the topsoil shall be removed, it shall be levelled to match the hardstand area, and crushed stone (volcanic tuff) shall be spread and compacted.
- Set out the site as shown in drawing no 34632-DE-10-SK 0001 Rev 0. (the hole centre peg is placed by others)
- On the drill pad and hard stand area, an area of approximately 65m x 77m, remove the topsoil, level and grade, proof roll, spread and compact crushed stone. Drill pad to be level, hard stand area to be sloping for rain water run-off.
- Excavate three pits.
- Supply and install temporary fencing around the large pit.
- Supply and install a temporary water tight plastic liner in the 22m diameter pit.

- Re-instatement work – to be advised later.

The change is rev 2 is the stone size, up from 40mm to 75mm.

3 GENERAL REQUIREMENTS

3.1 Dial Before You Dig

A de-commissioned gas pipeline runs across the proposed construction area. No permits to work are required to excavate in the vicinity, however the Contractor is still required to "Dial Before You Dig" as advised on the warning signs on site.

3.2 Access Track

3.2.1 General

Brumby's lane runs generally east from the Great Ocean road towards Sodas road, and shall be prepared in order to form the access track to the drill pad. The lane is intended to be two way, such that traffic terminates at the proposed drill pad hard stand, and does not continue to Sodas road. The access track shall have a maximum grade of 10%. Cut works to level site shall be battered to a maximum of 2 horizontal to 1 vertical. Refer to drawings for details.

3.2.2 First Section of Access Track

The first section of the track from the Great Ocean road to the double gate leading off the side of the track north to Naylor 1 well, a distance of approximately 780m, is in very good condition and will only require the filling in of a small number of pot holes.

3.2.3 Second section of Access Track

The second section of the track from the double gates to the point where the proposed track leaves the line of the existing track, a distance of approximately 250m, has also previously been formed, although only to a width of 2.5m. It passes through a gate. Material shall be placed and compacted along the northern edge of this section to make up the width to 4m. The existing track may be graded slightly to obtain some material for the fill. Material may also be taken from the section of track that lies to the south of the proposed drill pad hard stand, (refer to drawings) as it is not proposed to utilise this section of the track. No material shall be placed on the southern side of the track, as there is a drain on that side. Crushed volcanic tuff shall be spread over the prepared surface to a depth of 200mm, and shall be compacted.

Care shall be taken when compacting over the concrete drain pipe under the track on this second section so as to avoid damaging it.

3.2.4 Third section of Access Track

The third section of track runs to the drill pad hard stand area, along its southern edge, across a part of it, and terminates in a turning loop that is half on and half off the pad. All of this section is on undisturbed ground. It will require:

- Top soil removal
- Grading to levels to match the hardstand levels
- proof rolling of the sub-grade with two passes of the roller (or equivalent) prior to placing stone to consolidate the surface and to highlight any soft areas that may need attention.
- Spreading and compacting of crushed volcanic tuff over the prepared surface to a depth of 300mm.

3.3 Drill Pad and Hard Stand

A compacted, level drill pad and a surrounding hard stand area, also compacted, shall be prepared. Refer to drawings for details. The following activities shall be undertaken:

- Top soil shall be removed and stockpiled adjacent to the prepared area.
- Level and grade the drill pad. The surrounding hard stand area shall be graded with a rainwater run-off slope of 100mm per 25m, generally away from the pad.
- Proof roll the sub-grade with two passes of the roller (or equivalent) prior to placing crushed stone to consolidate the surface and to highlight any soft areas that may need attention.
- Spread the crushed volcanic tuff
- If required, any surplus spoil shall be stockpiled adjacent to the prepared area, separate from the top soil.
- Confirmation shall be provided of the stock pile area required for top-soil and excess cut material not used for filling.
- Cut & fill batters, where required, to be 2 horizontal to 1 vertical.
- Install adequate diversion drains to direct run-off away from the drill site. Contractor to propose drain design.

- Construct adequate erosion and sediment control structures to prevent silt run-off leaving the drill site. Contractor to propose design of structure.

Note that the access track passes over parts of the hardstand area and it has 300mm of volcanic tuff as opposed to the 200mm of volcanic tuff. The sub grade shall be prepared such that this variation in thickness shall result in not more that 50mm difference in finished height.

3.4 Compaction

All areas of the drill pad, surrounding hard stand and access track shall be spread with crushed volcanic tuff. Compaction shall be to >98% MDD in finished layers not exceeding 150mm thick. AGR Upstream Petroleum PTY LTD may independently check achieved levels of compaction to AS 1289. Backfill that fails to achieve this dry density ratio shall be removed, replaced and re-compacted by the contractor.

3.5 Crushed Volcanic Tuff

The crushed volcanic tuff shall be 75 mm maximum size.

3.6 Pits

Three pits shall be excavated:

- a drilling mud sump (21m x 15m x 1.8m deep). A temporary personnel security fence shall be supplied and installed. Minimum standard shall be star spike with two wires.
- a flare pit (6m x 5m x 1m deep)
- a “turkey’s nest” of conical shape, 250 cu m volume, 22m diameter and 2m deep in the middle.

It is important that the drilling mud sump shall be accurately located. The “turkey’s nest” shall be lined with plastic sheeting (low density polyethylene) to render the pit capable of holding water without leaking. The contractor shall supply and install the plastic sheeting. One such supplier of this material is Fabtech, 1300 664 776, contact name Paul.

Both the flare pit and the turkey’s nest, as an alternative to a below ground excavation, may be built as a bunded area above ground of the same dimensions as the pit, using excavated materials. The contractor shall advise which method he proposes to use and shall advise general dimensions of the bund walls if that construction is chosen.

3.7 Top Soil

The top soil shall be carefully handled such that it does not mix with the subsoil.

3.8 Site Reinstatement

Following the drilling work by others the Contractor shall perform re-instatement work. The scope of this work has not yet been clearly defined, however it will possibly involve the back filling of all pits using an approved back filling procedure, site tidy-up, rubbish removal and the spreading of topsoil.
The scope will be advised later and the work performed according to the schedule of rates provided.

4 TENDER BASIS

4.1 General

Contractor shall quote:

- Lump sum price for the completion of works detailing the components of the Works.
- A schedule of rates for equipment and labour
- Costs for mobilisation and de-mobilisation.

AGR Upstream Petroleum PTY LTD may seek clarification of pricing. Upon acceptance the pricing will be fixed and firm for the duration of the project and not subject to variation unless the scope is changed by AGR Upstream Petroleum PTY LTD. The schedule of rates shall govern in the event that the scope is changed. The costs for mobilisation and de-mobilisation shall be utilised in the event that additional works are required at a time when the Contractor is not mobilised to site.

4.2 Daily Reporting

Contractor will provide AGR Upstream Petroleum PTY LTD with a daily update of site construction progress by 0800 hrs the next day.

5 DRAWINGS

- AGR Upstream Petroleum PTY LTD Drawing 34632-DE-10-CW-0008 Rev A “CRC-1 Temporary Construction Lease Contour Plan”, 9/1/07
- AGR Upstream Petroleum PTY LTD Drawing 34632-CW-10-0011 Rev 0 “CRC-1 Temporary Construction Lease”, 7/9/06

- AGR Upstream Petroleum PTY LTD Drawing 34632-DE-10-0018 Rev F "D. G. Dumesny Land", 21/11/06
- AGR Upstream Petroleum PTY LTD Sketch 34632-DE-10-SK 0001 Rev 0 – "Proposed Drill Pad and Access Road Layout"

6 TRAFFIC MANAGEMENT PLAN

Traffic management shall be the responsibility of the Contractor. Signs shall be placed on the Great Ocean road warning of trucks turning and men at work. The Contractor shall communicate with local authorities as required.

7 HEALTH, SAFETY AND ENVIRONMENT (HSE)

7.1 Safety

All site construction personnel must undergo a site induction. This will consist of a Contractor or UP site induction at site.

Visitors to site must also undergo a visitor induction.

Contractor shall submit HS&E plan (job safety analysis and site safety and management plan) for approval.

Contractor is to have communications (eg mobile phones) and a list of emergency services numbers are to available onsite.

Contractor is to immediately report all injuries, and serious near misses to AGR Upstream Petroleum PTY LTD. All site hazards are to be reported to AGR Upstream Petroleum PTY LTD.

AGR Upstream Petroleum PTY LTD may inspect Contractor equipment and work practices.

7.2 Environmental

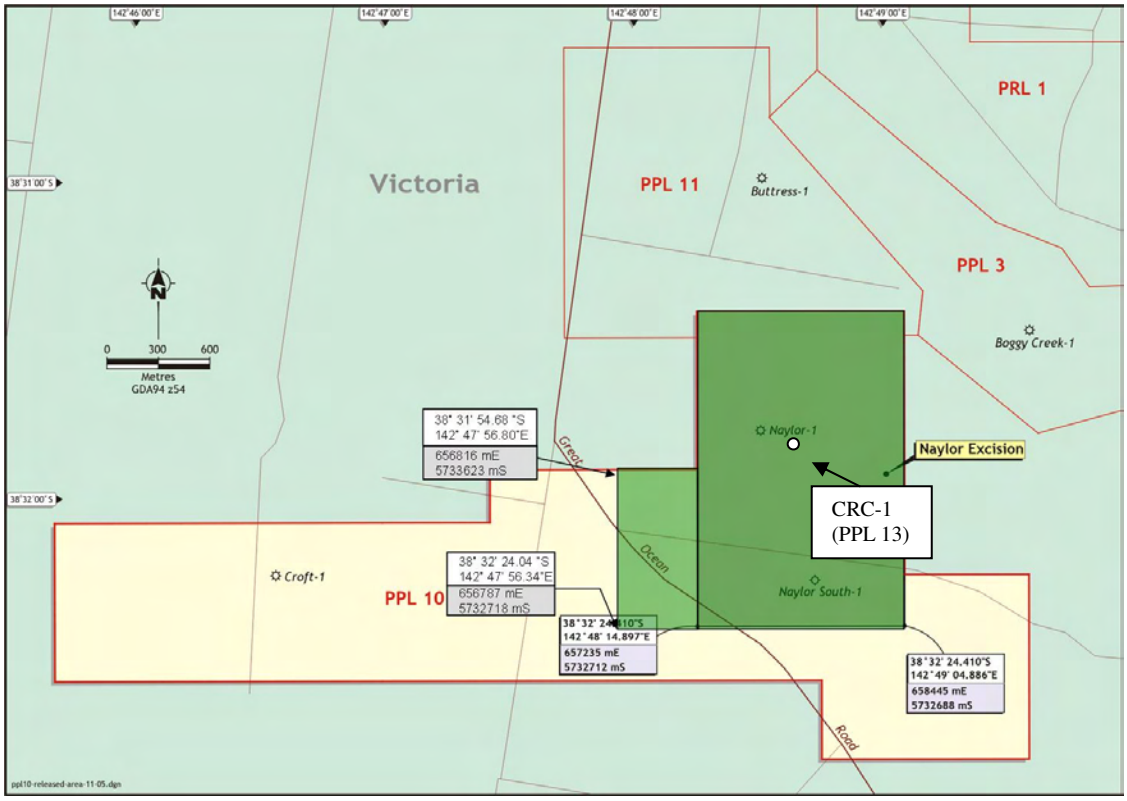
Contractor will arrange for a Cultural Heritage monitor to be present during removal of topsoil and excavation of new ground.

Also refer to CRC-1 Site Environmental Management Plan. 34632-HS-03-00xx

8 LOCATION

CRC-1 will be located in South West Victoria in the onshore portion of the Otway Basin (Port Campbell Embayment) at Lat: 38 31' 50" Long: 142 48' 42" approx 308 metres ESE from Naylor 1. It is approximately 10 km north west of the town of Peterborough and 2 km south west of the Boggy Creek CO2 field and will be drilled in PPL-13.

The diagram below shows existing well locations for the project.



Appendix

The following technical clarifications and changes were issued to all bidders on Monday the 29th of January 2007 and form a part of this specification.

1. **The turkey's nest dimensions**. This is a clarification. The dimensions may be 22m in diameter and 2m deep in the middle (conical shape). It may also be built using cut and fill rather than dug entirely below ground. The two main points are that it needs to be conical so that the pump suction hose can easily get all the water out and that it needs to be able to hold 250 cubic metres.
2. **Compaction**. This is a change. The entire hardstand area shall be proof rolled and compacted, not just the drill pad area as stated in previous revisions of this specification.
3. **Levels.** This is a change. The drill pad area shall be level. The hard stand area shall have a slope of approximately 100mm over 25m, generally away from the pad, to facilitate rain water run-off.
4. **Crushed stone material**. This is a change. Section 3.5 "Crushed Volcanic Tuff" shall now read as follows:

   The crushed volcanic tuff shall have a maximum stone size of 40 mm.
5. **Crushed stone material**. This is a change. Change dated 1/2/07. Section 3.5 "Crushed Volcanic Tuff" shall now read as follows:

   The crushed volcanic tuff shall have a maximum stone size of 75 mm.

BRUMBY PROPERTY

DUMSNEY PROPERTY

N MGA ZONE 54

FENCELINE

240000

2000

NOTE 1

NOTE 2

NOTE 3

43.50

FENCELINE

MONITORING STATION

44.00

43.75

PROPOSED 10m WIDE CO2CRC PIPELINE EASEMENT (OPTION 1)

15000

EXISTING 15m WIDE PRIVATE PIPELINE EASEMENT.(WE HAVE NO RIGHTS OVER ANY PART OF IT CURRENTLY)

10000

44.00

43.50

43.50

43.75

PIPELINE (OPTION 2)

221121

15000

5000 OVERLAP 5m

44.00

45.25

45.00

44.25

44.50

44.00

45.50

RIG CAMP

SEPTIC x2

45.75

SOIL

FLARE PIT

TOP SOIL

MUD SUMP

RIG SITE

FENCELINE

PIPELINE TOP (OPTION 2)

TURKEYS NEST

PROPOSED CRC WELL

INITIAL FACILITY REFER DRAWING 0010

37000

NOTE 4

SEPTIC x2

SODAS ROAD

43.75

43.75

44.00

44.50

44.25

20000

46.25

45.75

46.50

46.00

45.25

45.00

BRUMBY'S LANE

PROPOSED ROAD

NOTE 5

15000

EXISTING 15m WIDE PRIVATE PIPELINE EASEMENT.(WE HAVE NO RIGHTS OVER ANY PART OF IT CURRENTLY)

EXISTING GATE USED FOR EGRESS BY HEAVY TRANSPORT

NOTES:

1. 5m TEMPORARY CO2CRC CONSTRUCTION EASEMENT.
2. 5m PERMANENT CO2CRC EASEMENT.
3. 5m TEMPORARY CO2CRC CONSTRUCTION EASEMENT. OVERLAP OF EXISTING ORIGIN EASEMENT.
4. REDUNDANT PIPELINE IN CO2CRC EASEMENT FROM ORIGIN CAGE TO NAYLOR 1 TO BE BLANKED AND MADE SAFE.
5. EXISTING ORIGIN EASEMENT. SUITABILITY OF PROPOSED SITE EGRESS OVER THIS EASEMENT & ASSOCIATED CONSTRAINTS TO BE CONFIRMED. LIKELY TO BE REDUNDANT/UNUSED PIPELINE.
6. TEMPORARY CONSTRUCTION LEASE = 221121 x 240000 = 53069m2

SCALE
0 5 10 15 20
METRES

LEGEND

- PERMANENT LEASE
- BOUNDARY
- ROAD
- EASEMENT
- PIPE ROUTE (OPTION 1)
- PIPE ROUTE (OPTION 2)
- TEMPORARY CONSTRUCTION LEASE
- CO2CRC EASEMENT
- GOVERNMENT ROAD RESERVE
- PERMANENT LEASE
- GUY ANCHOR POINT (HOLE)

No.	DATE	REVISION	ORIGINATOR	DESIGN CHECKED	ENGINEER CHECKED	PROJECT APPROVED
1	09.01.07	ADDED SURVEY CONTOURS	RG	JLS	MH	IB
0	07.09.06	ISSUED FOR CLIENT APPROVAL	LS	MH	MH	IB

SIGNATURE:

DATE:

CLIENT APPROVED

Upstream Petroleum

(CAD) A1

JOB DIRECTORY | FILE NAME | DRAWING No. | REFERENCE DRAWINGS

CO2CRC PILOT PROJECT LTD

CO2CRC
TEMPORARY CONSTRUCTION LEASE

SCALE: 1:600 | DRG.NO. 34632-CW-10-0011 | REV. 1

VICTORIA

GAS WELL LOCATION

REFERENCE MARKS SKETCH PLAN

AS BUILT

Well Name CO2CRC (NIRRANDA)

Map

Spheroid GDA94

Latitude S 38°31'50·06"

Longitude E 142°48'41·44"

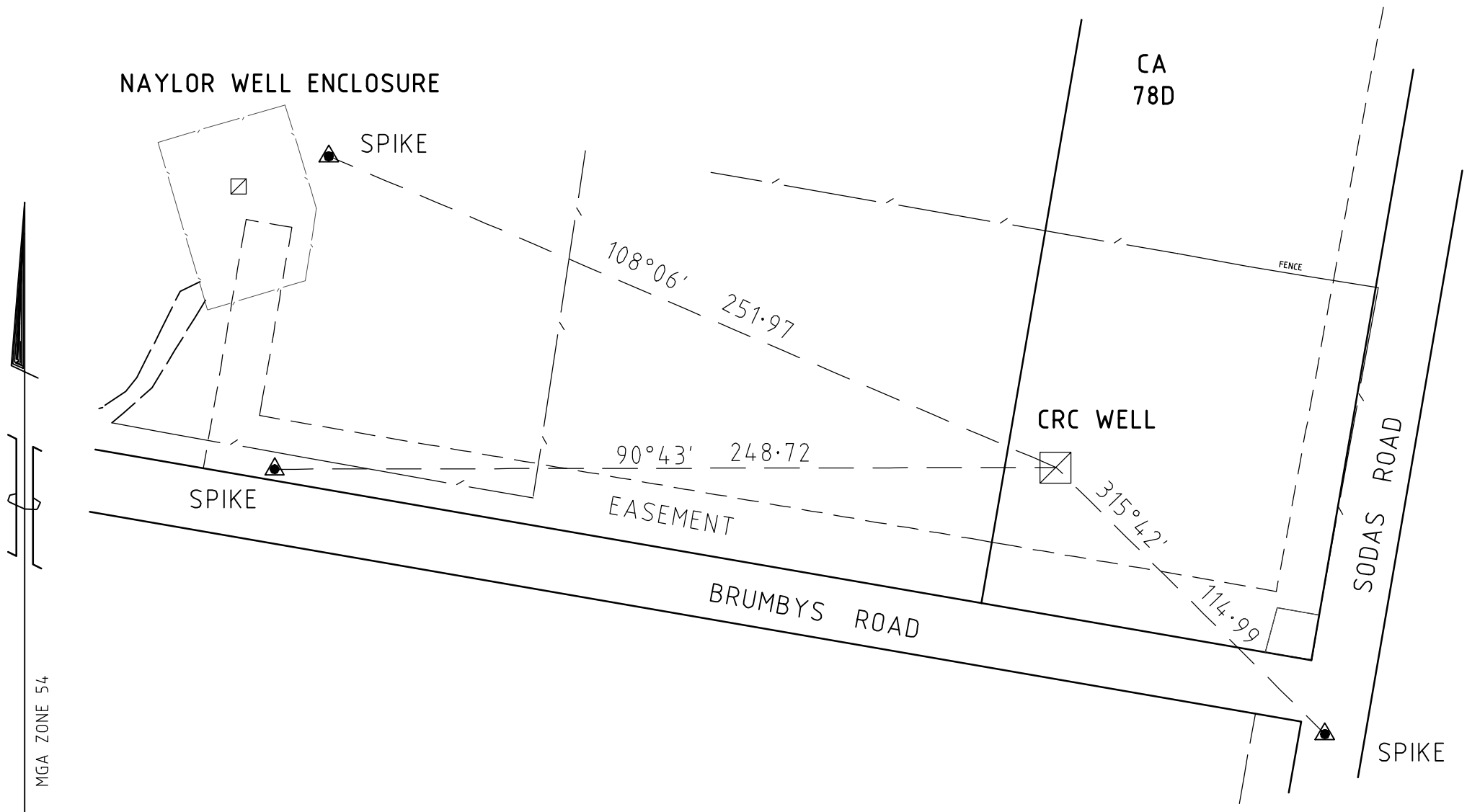
MGA 94 ZONE 54

Measurement units(metres)

Easting 657 899·1

Northing 5 733 759·0

Elevation 44·46 (AHD) GROUND LEVEL



NOTES : This sketch plan is not to scale

Bearings shown are computed grid bearings

DATUM : GDA94 vide Peg 1 and Peg 2

Datum coordinates determined by Fyfe

Surveyors 22 / 10 / 2001 (NEAR BUTTRESS WELL)

Height datum is to AHD vide Peg 1 and Peg 2

Date of Survey : 22 / 2 / 2007

Paul Crowe Surveyor

ABN 59521601183

Box 6094

HAWTHORN 3122

Ph. 0419 515 422

crowe@ansonic.com.au

REF

1369F

Date 27 / 2 / 2007

PAUL CROWE

LICENSED SURVEYOR

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ATTACHMENT 6 : ACTIVITY SUMMARY

Wellname :	CRC-1	Operator: CO2CRC Pilot Project Ltd (CPPL)	Rig : Century Drilling Ltd - CDL Rig 11
RT above GL : 5.20m	UTM North: 5733759.0	Spud Date : 15 Feb 2007	Release Date : 15 Mar 2007
G.L. Elevation : 44.50m	UTM East: 657899.1	Spud Time : 11:00	Release Time : 21:00

Activity Report For CRC-1

Date : 15 Feb 2007 **Daily Cost : $ 0** **Report Number : 1**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
115.0	SH	P	DA		5	Spud well at 11:00 on 15 Feb/07. Drill 9-7/8" hole from surface to 115m
115.0	SH	TP	SVY	DTF	0.5	Conduct wireline survey at 103m. - misrun.
143.0	SH	P	DA		1.5	Drill 9-7/8" hole f/ 115m to 143m.
143.0	SH	P	SVY		0.5	Conduct WLS at 131m - 1/4 deg.
216.0	SH	P	DA		5.5	Drill 9-7/8" hole f/ 143 m to 216m.

Date : 16 Feb 2007 **Daily Cost : $ 0** **Report Number : 2**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
314.0	SH	P	DA		6	Drill 9-7/8" hole from 216m to 314m.
314.0	SH	TP	SVY	DTF	0.5	RIH with WLS. No go, hung up in HWDP. Re-run survey line to crown.
324.0	SH	P	DA		0.5	Con't drill 9-7/8" hole f/ 314 m to 324m.
324.0	SH	P	SVY		0.5	Run WLS at 312m - 1/2 deg.
516.0	SH	P	DA		13.5	Drill 9-7/8" hole f/ 324m to 516m.
516.0	SH	P	CMD		1.5	Pump hi-vis sweep. Circ to clean hole.
516.0	SH	P	SVY		0.5	Run WLS at 506m - 1 deg.
516.0	SH	P	WT		1	Pump pill, rack back kelly & POH on wiper trip.

Date : 17 Feb 2007 **Daily Cost : $ 0** **Report Number : 3**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
516.0	SH	P	WT		6.5	Con't POH Bit #1 on wiper trip. Inspect bit - OK. Clean work floor. RIH with Bit #1. Break circ on trip in at 200 m & 400 m.
516.0	SH	TP	WO	WOE	4.5	Tag fill at 503m. Pick up kelly and wash to bottom. Circ and WO cement / cement head.
516.0	SH	P	TO		5	POH f/ 516m. LO 6-1/4" DC's & Jars.
516.0	SH	P	HT		0.5	Clean & clear drill floor.
516.0	SC	P	RRD		1.5	RU casing running equipment and stabbing board.
516.0	SC	P	SAF		0.5	PU shoe joint. Hold pre-job safety meeting.
516.0	SC	P	CRN		4.5	RIH with Float Shoe (7-5/8" buttress), 1 jt 7-5/8" 26.4 #/ft L80 Buttress casing, Float Collar (7-5/8" buttress), 42 jts 7-5/8" 26.4 #/ft L80 Buttress casing, & 7-5/8" 26.4 #/ft L80 Buttress landing joint. Install centralizers middle of shoe joint, then top of every joint for next 6 joints. Install centralizers on 3 top joints.
516.0	SC	P	RRD		1	Install cement head and lines to floor. Rig to circ casing.

Date : 18 Feb 2007 **Daily Cost : $ 0** **Report Number : 4**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
516.0	SC	P	CIC		1.5	Circ casing and condition hole. Mix cement chemicals. Hold pre-job safety meeting.
516.0	SC	P	CMC		1	Pump 10 bls water ahead. P/test treating lines - fix leaks. P/test to 3500 psi. Pump 50 bbls water. Drop bottom plug.
516.0	SC	P	CMC		2	Mix cement. Pump 67 bbls Class G lead cement at 12.5 ppg with 2.5% Bentonite BWOC, 1% CaCl2 BWOC. Mix and pump 33.5 bbls Class G lead cement at 15.8 ppg with 0.5 % CaCl2 BWOC. Release top plug. Displace cement with 79.1 bbls drilling mud at 6.6 bpm. Slow pump rate to 1.0 bpm for last 5 bbls. Bump plug & test casing to 3000 psi for 5 min. Held OK. Bleed off - 1 bbl back. Record 20 bbls of good cement returns at shakers. Bump plug at 04:05 hrs.
516.0	SC	P	RRD		6.5	W.O.C. Clean cement unit. Flush flow line. Clean up work floor. Flush flowline ,Lift Conductor, Press test choke manifold. Prepare for BOP nipple up

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CPPL_AU_ON_FWR.xsl (parent/child V1.2)

RT above GL : 5.20m | UTM North: 5733759.0 | Spud Date : 15 Feb 2007 | Release Date : 15 Mar 2007

G.L. Elevation : 44.50m | UTM East: 657899.1 | Spud Time : 11:00 | Release Time : 21:00

Date : 18 Feb 2007 **Daily Cost : $ 0** **Report Number : 4**

516.0	SC	P	BOP		13	Rig down Schlumberger cement head,Back out landing joint and lay out, lay out conductor barrel. Install braden head & nipple up BOPs

Date : 19 Feb 2007 **Daily Cost : $ 0** **Report Number : 5**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
516.0	PH1	P	BOP		3	NU Choke line to manifold. PU test plug, MU x/overs and RIH on 3-1/2" DP. Seat test plug.
516.0	PH1	TP	BOP	RE	4	Close pipe rams and pressure up - no good. Concurrent RU flare line and degasser line to pit. Fix leaking check valve. Repeat pipe ram test - no-go. Attempt to test annular - leaking past rubber.
516.0	PH1	TP	RR	RE	4	Rig Repair: Open BOP doors, turn ram blocks, close doors.
516.0	PH1	P	BOP		3.5	PU cup tester and pressure test rams and HCR 300/3000 psi OK. Test choke line valve Hi/lo- OK. Pressure test annular and inner HCR valve -OK. LO cup tester.
516.0	PH1	P	RD		2.5	NU Bell nipple.
516.0	PH1	P	HT		1	Install wear bushing.
516.0	PH1	P	BOP		5	PU and MU 6-3/4" bit and RIH on BHA #2. LO excess DP f/ derrick as necessary.
516.0	PH1	P	HT		0.5	PU kelly and Re-adjust derrick.
516.0	PH1	P	BOP		0.5	Flush BOP's thru choke manifold & poor boy degasser to prove LP pipe connections to poor boy.

Date : 20 Feb 2007 **Daily Cost : $ 0** **Report Number : 6**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
516.0	PH1	P	BOP		0.5	Flush to poor boy degasser to prove pipe work and choke.
516.0	PH1	TP	OTH	RE	0.5	Adjust mast to center over hole.
516.0	PH1	P	PT		1	Hold PSJM with Schlumberger and rig crew. P/test treating line tie in at annulus. Top up DP and SI rams. Pressure test casing recording 0.7 bbls water pumped to max of 2531 psi @ 0.5 bpm. Monitor pressure for 15 min. Note: Mud logger pressure 7 psi lower than Schlumberger pressure. Bleed off, open rams.
516.0	PH1	P	DFS		3.5	Drill out shoe track.
522.0	PH1	P	DA		0.5	Drill 6-3/4" hole f/ 516m to 522m.
522.0	PH1	P	CMD		0.5	Circ to condition hole and mud.
522.0	PH1	P	FIT		2.5	RU hardline and conduct Extended LOT. (13.3 ppg EMW). RD Schlumberger.
522.0	PH1	TP	RR	RE	1.5	Rig Repair - adjust jackshaft & V-drive.
522.0	PH1	P	DA		13.5	Drill 6-3/4" hole f/ 522m to 745m.

Date : 21 Feb 2007 **Daily Cost : $ 0** **Report Number : 7**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
915.0	PH1	P	DA		11	Drill 6-3/4" hole 745m to 915m.
915.0	PH1	P	CS		1	Geologist call core point. Circ BH sample.
915.0	PH1	P	SVY		1	Flow check. Rack kelly and run WLS. 1deg @ S25E (uncorrected) / 166deg (corrected)
915.0	PH1	P	TO		3.5	Pump slug, rack kelly and POOH.
915.0	PH1	P	HBHA		0.5	LO 6-3/4" stabilizers, pony DC, NBS & 6-3/4" bit.
915.0	PH1	P	DA		2	Hold pre-job safety meeting. PU core barrel.
915.0	PH1	P	TI		3	MU and RIH coring BHA.
915.0	PH1	TP	RW	HC	2	Tag obstruction. Wash/light ream f/ 825m to 854m.

Date : 22 Feb 2007 **Daily Cost : $ 0** **Report Number : 8**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity

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CPPL_AU_ON_FWR.xsl (parent/child V1.2)

RT above GL : 5.20m | UTM North: 5733759.0 | Spud Date : 15 Feb 2007 | Release Date : 15 Mar 2007

G.L. Elevation : 44.50m | UTM East: 657899.1 | Spud Time : 11:00 | Release Time : 21:00

Date : 22 Feb 2007 **Daily Cost : $ 0** **Report Number : 8**

915.0	PH1	TP	RW	HC	1.5	Con't wash/light ream f/ 854m to 915m.
915.0	PH1	P	COR		0.5	Space out to core. Drop ball. Observe 250 psi pressure incr when ball landed.
918.5	PH1	P	COR		1.5	Cut core #1 in Pember Mudstone f/ 915m to 918.5m. Cut total of 3.5m core, with circ pressures incr by 200 psi after 2 m cut. Initial ROP 6 m/hr for first 2 m, then dropping to 1 m/hr with corresponding incr in pressure. PU off bottom - no overpull.
918.5	PH1	P	PS		0.5	Mix slug, f/check, pump slug and rack kelly.
918.5	PH1	P	TO		4	POOH.
918.5	PH1	P	COR		1	Break down core barrel and recover 2.1m of core. Rack core barrel. Inspect core head - ok (4 of 6 jets plugged).
918.5	PH1	P	TI		2.5	PU & MU Bit #2RR and RIH on BHA #2.
918.5	PH1	P	SVY		0.5	With bit at 603m, conduct WLS. 0.25deg @ S70E (uncorrected) / 121deg (corrected)
918.5	PH1	P	TI		0.5	Con't RIH f/ 610m to 893m.
918.5	PH1	P	RW		0.5	Wash/ream f/ 893m to 918.5m.
1109.0	PH1	P	DA		10.5	Drill 6-3/4" hole f/ 918.5m to 1109m.
1109.0	PH1	TP	SVY	DTF	0.5	Circulate, SCR, f/check and conduct WLS - misrun

Date : 23 Feb 2007 **Daily Cost : $ 0** **Report Number : 9**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
1119.0	PH1	P	DA		1	Drill 6-3/4" hole f/ 1109m - 1119m.
1119.0	PH1	TP	SVY	DTF	0.5	Circ and WLS @ 1107m - misrun (part exposed - cant read deviation)
1138.0	PH1	P	DA		1.5	Drill 6-3/4" hole f/ 1119m - 1138m.
1138.0	PH1	TP	SVY	DTF	0.5	Circ and WLS @ 1126m - misrun (part exposed - cant read deviation)
1177.0	PH1	P	DA		3.5	Drill 6-3/4" hole f/ 1138m - 1177m.
1177.0	PH1	P	SVY		0.5	Circ and WLS @ 1165m - 1deg @ S30E (uncorrected) / 161deg (corrected)
1196.0	PH1	P	DA		1	Drill 6-3/4" hole f/ 1177m - 1196m.
1196.0	PH1	P	RS		0.5	Conduct rig service.
1240.0	PH1	P	DA		3	Drill 6-3/4" hole f/ 1196m - 1240m.
1240.0	PH1	P	CS		0.5	Circ BH sample.
1245.0	PH1	P	DA		0.5	Drill 6-3/4" hole f/ 1240m - 1245m.
1245.0	PH1	P	SVY		0.5	Circ Bottoms up - conduct WLS @ 1233m. 1.75deg @ S39E (uncorrected) / 152deg (corrected)
1245.0	PH1	P	WT		3	Pump slug, rack kelly, POH on wiper trip to 951m (up to 15k overpull). RIH to 1233m. PU kelly and wash to 1245m.
1245.0	PH1	P	CMD		0.5	Circulate bottoms up.
1245.0	PH1	P	TO		4	Pump slug, rack kelly, POOH. Hole good.
1245.0	PH1	P	DA		0.5	BO Bit, LO stabilizers and pony DC.
1245.0	PH1	P	COR		2.5	MU R core bit on 80 ft core barrel. Space out inner barrel - problems with space out.

Date : 24 Feb 2007 **Daily Cost : $ 0** **Report Number : 10**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
1245.0	PH1	TP	HBHA	DTF	1.5	PU and MU core barrel. Problems with space out - necessitated moving lower stabilizer to top of barrel. (Lost ~1.5 hrs)
1245.0	PH1	P	TI		2.5	RIH core barrel on coring BHA and 3-1/2" DP. RIH to 500m.
1245.0	PH1	P	SC		0.5	Hang blocks, Slip drilling line.
1245.0	PH1	P	TI		2.5	Con't RIH with core barrel. Break circ at 862m. Con't RIH.
1245.0	PH1	P	TI		1	PU kelly, wash and ream f/ 1232m to 1245m.
1245.0	PH1	P	COR		1.5	Circulate, space out string, drop ball.

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Wellname :	CRC-1	Operator: CO2CRC Pilot Project Ltd (CPPL)	Rig : Century Drilling Ltd - CDL Rig 11
RT above GL : 5.20m	UTM North: 5733759.0	Spud Date : 15 Feb 2007	Release Date : 15 Mar 2007
G.L. Elevation : 44.50m	UTM East: 657899.1	Spud Time : 11:00	Release Time : 21:00

Date : 24 Feb 2007 **Daily Cost : $ 0** **Report Number : 10**

1246.0	PH1	TP	COR	DTF	1.5	Cut core #2 f/ 1245m - 1246m. Low ROP -
1246.0	PH1	TP	CMD	DTF	0.5	Circ, flow check, pump pill.
1246.0	PH1	TP	TO	DTF	3	POOH with core barrel.
1246.0	PH1	TP	HBHA	DTF	1.5	Layout NMDC. Break out & inspect core barrel & corehead. Seem Ok. Suspect small pieces pyrite blocking ports at top of core barrel.
1246.0	PH1	P	RS		0.5	Rig Service
1246.0	PH1	TP	HBHA	DTF	1	MU core bit and core barrel.
1246.0	PH1	TP	TI	DTF	3.5	RIH w/ core barrel. Break circ at 580m. Con't RIH to 1235m.
1246.0	PH1	TP	TI	DTF	0.5	PU & MU kelly. Tag bottom at 1246m.
1246.0	PH1	TP	COR	DTF	0.5	Circ and establish parameters.
1247.0	PH1	P	COR		2	Commence cutting core #3. (Rig lost power at 23:30 hrs - lights out. PU on core barrel and observe slight overpull off bottom. Rig power out for 5 min. Went back to cutting core immed.) Core f/ 1246m to 1247m.

Date : 25 Feb 2007 **Daily Cost : $ 0** **Report Number : 11**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
1270.0	PH1	P	COR		8	Con't cut core #3 f/ 1247m to 1270m.
1270.0	PH1	P	PS		1	Rack kelly, LO 1 jt DP & pup jt. POOH 3-1/2" DP to 1141m (5 stds). PU kelly, pump slug, rack kelly.
1270.0	PH1	P	TO		3.5	POOH with coring assembly.
1270.0	PH1	P	COR		2	Break out core barrel and recover core. Cut 24m, recovered 8.13m (34%).
1270.0	PH1	P	HBHA		0.5	Clean work floor, MU PDC drill bit and BHA.
1270.0	PH1	P	TI		4.5	RIH to 1253m.
1270.0	PH1	P	COR		0.5	PU & MU kelly. Wash to bottom, Tag at 1270m.
1323.0	PH1	P	DA		4	Drill 6-3/4" hole f/ 1270m to 1323m.

Date : 26 Feb 2007 **Daily Cost : $ 0** **Report Number : 12**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
1382.0	PH1	P	DA		5	Drill 6-3/4" hole f/ 1323m to 1382m.
1382.0	PH1	P	SVY		0.5	Circ and conduct WLS @ 1370m. 1.75deg @ S35E (uncorrected) / 156deg (corrected)
1411.0	PH1	P	DA		3.5	Drill 6-3/4" hole f/ 1382m to 1411m.
1411.0	PH1	P	RS		0.5	Rig Service.
1479.0	PH1	P	DA		6.5	Drill 6-3/4" hole f/ 1411m to 1479m.
1479.0	PH1	P	SVY		0.5	Circ and conduct WLS @ 1467m. 2deg @ S35E (uncorrrected) / 156deg (corrected)
1526.0	PH1	P	DA		7.5	Drill 6-3/4" hole f/ 1479m to 1526m.

Date : 27 Feb 2007 **Daily Cost : $ 0** **Report Number : 13**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
1587.0	PH1	P	DA		6.5	Drill 6-3/4" f/ 1526m to 1587m.
1587.0	PH1	P	SVY		0.5	Circ, flow check and run WLS @ 1574m. 1.5deg @ S40E (uncorrected) / 151deg (corrected)
1606.0	PH1	P	DA		2	Con't drill 6-3/4" hole f/ 1587m to 1606m.
1606.0	PH1	P	RS		0.5	Rig service
1703.0	PH1	P	DA		11	Con't drill 6-3/4" hole f/ 1606m to 1703m.
1703.0	PH1	P	SVY		0.5	Circ, flow check and run WLS @ 1691m. 2deg @ S56E (uncorrected) / 135deg (corrected)
1723.0	PH1	P	DA		3	Con't drill 6-3/4" hole f/ 1703m to 1723m.

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Wellname : CRC-1	Operator: CO2CRC Pilot Project Ltd (CPPL)	Rig : Century Drilling Ltd - CDL Rig 11

RT above GL : 5.20m	UTM North: 5733759.0	Spud Date : 15 Feb 2007	Release Date : 15 Mar 2007
G.L. Elevation : 44.50m	UTM East: 657899.1	Spud Time : 11:00	Release Time : 21:00

Date : 28 Feb 2007 **Daily Cost : $ 0** **Report Number : 14**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
1791.0	PH1	P	DA		9	Drill 6 3/4" hole f/- 1723m To 1791m.
1791.0	PH1	P	RS		0.5	Rig service.
1820.0	PH1	P	DA		4	Con't drill 6-3/4" hole f/ 1791m to 1820 m.
1820.0	PH1	P	SVY		0.5	Circ, f/check and run WLS. Survey depth 1808m. 2deg @ S52E (uncorrected) / 139deg (corrected)
1889.0	PH1	P	DA		10	Con't drill 6-3/4" hole f/ 1820m to 1889 m.

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RT above GL : 5.20m | UTM North: 5733759.0 | Spud Date : 15 Feb 2007 | Release Date : 15 Mar 2007

G.L. Elevation : 44.50m | UTM East: 657899.1 | Spud Time : 11:00 | Release Time : 21:00

Activity Report For CRC-1

Date : 01 Mar 2007 **Daily Cost : $ 0** **Report Number : 15**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
1900.0	PH1	P	DA		2	Drill 6-3/4" hole f/ 1889m to 1900m.
1900.0	PH1	P	CMD		1.5	Circ hole clean.
1900.0	PH1	TP	SVY	DTF	0.5	Flow check, rack kelly, run WLS at 1896m. - misrun.
1900.0	PH1	P	WT		0.5	MU kelly, pump slug, rack kelly.
1900.0	PH1	TP	WT	HC	11	POOH. Tight hole at 1711m - 1700m, 1633m, 1467m, 1380m - 1321m. PU kelly, circ and work tight spots. Con't POH to 1206m.
1900.0	PH1	TP	WT	HC	3	RIH f/ 1206m to 1900m. Work tight spot at 1700m. PU singles with kelly, Tag bottom at 1900m - no fill.
1900.0	PH1	P	CMD		1	Circ bottoms up.
1900.0	PH1	P	SVY		0.5	Run WLS - 2deg S54E (uncorrected) / 137 deg azimuth (corrected)
1900.0	PH1	P	TO		4	Pump pill, flow check, rack kelly and POOH f/ 1900m to 873m.

Date : 02 Mar 2007 **Daily Cost : $ 0** **Report Number : 16**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
1900.0	PH1	P	TO		2.5	Continue POOH f/ 873m to surface
1900.0	PH1	P	HBHA		1	Break and lay out Bit,Stabs, Pony DC and Monel DC
1900.0	PH1	P	HT		1	Make up and space out Core Barrel
1900.0	PH1	P	TI		2	RIH w/- Core Barrel To 491m.
1900.0	PH1	P	RS		0.5	Rig service.
1900.0	PH1	P	SC		1	Slip and cut drilling line.
1900.0	PH1	TP	RR	RE	0.5	Rig Repair: extra cut on drilling line, adjust d-line clamp.
1900.0	PH1	TP	TI	HC	7	RIH f/ 491m to 1172m. Wash and ream f/ 1172m - 1250m. RIH f/ 1250m to 1749m. Wash and ream f/ 1749m - 1767m. RIH f/ 1767m to 1880m. PU kelly and wash to bottom. Tag bottom at 1900m.
1900.0	PH1	P	COR		2	Space out core barrel. Set coring parameters.
1901.0	PH1	P	COR		6.5	Drop ball and commence cut core #4 from 1900 to 1901m. Pump 20 bbl 9.0 ppg 12% KCl mud sweep to improve ROP.

Date : 03 Mar 2007 **Daily Cost : $ 0** **Report Number : 17**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
1904.2	PH1	P	COR		7.5	Continue to cut core #4 1901 - 1904.2m. (total 4.2m cut from 1900m). In 1.5 hrs intervals, pump 10 bbl 9.0 ppg 12% KCl mud sweeps to attempt to improve ROP.
1904.2	PH1	P	COR		0.5	Pull core free. Circ and prepare for POH.
1904.2	PH1	P	TO		7.5	Pump HW slug, POOH.
1904.2	PH1	P	COR		1.5	Recover core from 1900m - 1902.65m (2.65m recovered = 63%).
1904.2	PH1	P	RS		0.5	Rig Service
1904.2	PH1	P	HBHA		1.5	MU new Bit # 4 and RIH on BHA #9.
1904.2	PH1	P	TI		4	RIH Bit #4 to 1000m, PU kelly and break circ. Con't RIH to 1500m, PU kelly and break circ.
1904.2	PH1	P	TI		1	Con't RIH to 1857m. Hole good.

Date : 04 Mar 2007 **Daily Cost : $ 0** **Report Number : 18**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
1904.2	PH1	P	TI		0.5	RIH F/- 1857m To 1886m.

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Wellname :	CRC-1	Operator: CO2CRC Pilot Project Ltd (CPPL)	Rig : Century Drilling Ltd - CDL Rig 11
RT above GL : 5.20m	UTM North: 5733759.0	Spud Date : 15 Feb 2007	Release Date : 15 Mar 2007
G.L. Elevation : 44.50m	UTM East: 657899.1	Spud Time : 11:00	Release Time : 21:00

Date : 04 Mar 2007 **Daily Cost : $ 0** **Report Number : 18**

1904.2	PH1	P	RW	0.5	Pick up kelly ,Wash F/- 1886m To 1904.2m . 5.5m soft fill on bottom.
2033.0	PH1	P	DA	10.5	Drill 6 3/4" Hole F/- 1904.2m To 2033m.
2033.0	PH1	P	CMD	1	Circ Hole Clean.
2033.0	PH1	P	SVY	0.5	Run wireline survey @2022m. 0.75deg @ N75E (uncorrected) / 86deg (corrected)
2033.0	PH1	P	TO	6.5	Pump slug, f/check, rack kelly, POOH to pick up core barrel. F/check at shoe & BHA.
2033.0	PH1	P	HBHA	1.5	PU and MU core bit and core barrel.
2033.0	PH1	P	TI	2.5	RIH coring BHA on DP to 508m.
2033.0	PH1	P	RS	0.5	Rig Service.

Date : 05 Mar 2007 **Daily Cost : $ 0** **Report Number : 19**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
2033.0	PH1	TP	RR	RE	0.5	Rig Repair Crown-o-matic
2033.0	PH1	P	RS		0.5	Rig Service
2033.0	PH1	P	SC		0.5	Slip 30' Drill Line
2033.0	PH1	P	TI		4	RIH F/- 508m To 1966m. Pick up kelly to break circ @ 1000m, 1500m & 1700m. Extra circ due to flowback from uneven mud.
2033.0	PH1	TP	RW	HC	5	Work tight hole F/- 1966m to 1976m Pick up kelly wash and ream to 2033m.
2033.0	PH1	P	CMD		1.5	Circ hole clean.Space out kelly.
2038.0	PH1	P	COR		12	Cut core # 5 F/- 2033 To 2038m (at 23:00, conduct flow check after reported pit gain - well dead, con't coring).

Date : 06 Mar 2007 **Daily Cost : $ 0** **Report Number : 20**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
2042.5	PH1	P	COR		6.5	Cut Core # 5 F/- 2038m To 2042.5m (kelly down).
2042.5	PH1	TP	RW	HC	3.5	During connection, unable to get kelly bushing in or go back to bottom. Pull back, LO single of DP. PU 2 x DP pup jts. Work back to bottom from 2041.0 to 2042.5m.
2051.0	PH1	P	COR		8	Con't cut core #5 f/ 2042.5m to 2051m with a further connection at 2046.5m. Stopped coring at times, eg 2046.0m & 2049.0m. Adjusted flow rate and appeared to start making hole again.
2051.0	PH1	P	TO		4	Flow check, pump slug, rack kelly and POOH f/ 2051m to 422m.
2051.0	PH1	P	RS		0.5	Rig service.
2051.0	PH1	P	TO		1.5	Con't POH f/ 422m. Flow check at shoe and BHA.

Date : 07 Mar 2007 **Daily Cost : $ 0** **Report Number : 21**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
2051.0	PH1	P	TO		0.5	Con't POOH with core #5.
2051.0	PH1	P	COR		1	BO & LO core barrel. Recover 6.59m core from 2044.41m - 2051m. (37%).
2051.0	PH1	P	WO		0.5	Clean and clear work floor while WOO.
2051.0	PH1	P	HBHA		1.5	MU core bit and 80ft core barrel BHA #11 (25.99m LOA).
2051.0	PH1	P	TI		5.5	RIH core barrel. Break circ at 1500m. Con't RIH to 2031m.
2051.0	PH1	P	RW		1	PU kelly, wash f/ 2031m to 2051m.
2051.0	PH1	P	COR		0.5	Circulate and drop ball.
2075.5	PH1	P	COR		6	Cut core #6 f/ 2051 - 2075.5 m.
2075.5	PH1	P	TO		5	Pump slug, flow check, rack kelly and POH f/ 2075.5m. Flow check at shoe and BHA. Hole good on trip out.
2075.5	PH1	P	COR		2	Recover and LD core. Recover 23.53m (96%) from 2051m - 2075.50m. Stand 18m empty barrel in

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RT above GL : 5.20m | UTM North: 5733759.0 | Spud Date : 15 Feb 2007 | Release Date : 15 Mar 2007
G.L. Elevation : 44.50m | UTM East: 657899.1 | Spud Time : 11:00 | Release Time : 21:00

Date : 07 Mar 2007 **Daily Cost : $ 0** **Report Number : 21**

					derrick.
2075.5	PH1	P	HBHA	0.5	MU PDC drill bit #4RR1 on drilling BHA #11.

Date : 08 Mar 2007 **Daily Cost : $ 0** **Report Number : 22**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
2075.5	PH1	P	TI		2.5	Continue RIH W/- Drilling BHA To 490m
2075.5	PH1	P	RS		0.5	Rig Service
2075.5	PH1	P	SC		0.5	Slip 38' Drill Line
2075.5	PH1	P	TI		3.5	Continue RIH. Break circ @ 1500m. RIH to 2032m.
2075.5	PH1	P	RW		1	PU kelly and wash f/ 2032m to 2075.5m.
2249.0	PH1	P	DA		14	Drill 6-3/4" hole f/ 2075.5 to 2249m (TD).
2249.0	PH1	P	CMD		2	Circ hole clean.

Date : 09 Mar 2007 **Daily Cost : $ 0** **Report Number : 23**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
2249.0	PH1	P	CMD		0.5	Circ & clean hole
2249.0	PH1	P	SVY		0.5	Run wireline survey @ 2236m. 1.0deg @ S75W (uncorrected) / 266deg (corrected)
2249.0	PH1	P	TO		5.5	Pooh 15 stand wiper trip, tight 2170m, 2150m, 2137m, 2165m, 2071m. P/U kelly, rotate and work new drill section, L/O kelly, pull to 2049m to 1965m.
2249.0	PH1	P	TI		1	RIH, tight from 2071m to 2236m, P/U kelly and wash down to 2249m. L/O kelly.
2249.0	PH1	P	PS		2.5	Pump hi vis pill around and circulate clean. Spot hi vis pill from 2248m to 1970m. POOH to 1900m. Pump hi vis weighted slug.
2249.0	PH1	P	TO		6.5	POOH 1900m to surface. L/O drilling assembly & core barrel.
2249.0	E1	P	LOG		1.5	Hold safety meeting with Schlumberger and day crew. R/U logging tools.
2249.0	E1	P	LOG		4.5	Run #1, RIH with PEX-HALS logging tool and tag 10m higher than driller's depth @ 2239m. Log well in Hi resolution mode.
2249.0	E1	P	LOG		1.5	L/O run #1 logging tools, M/U tools for run #2 FMI-MCIP.

Date : 10 Mar 2007 **Daily Cost : $ 0** **Report Number : 24**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
2249.0	E1	P	LOG		10	Continue Logging Run #2 FMI-MCIP
2249.0	E1	TP	LOG	LTF	6	M/U CMR logging tool on catwalk, ops test failed. No run.
2249.0	E1	P	LOG		8	Run #3, M/U and RIH with basic MDT (pressures).

Date : 11 Mar 2007 **Daily Cost : $ 0** **Report Number : 25**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
2249.0	E1	P	LOG		3.25	Continue with the run #3 MDT (pressures).
2249.0	E1	P	LOG		1.75	POOH with MDT (pressures) tool string.
2249.0	E1	P	LOG		2.75	MDT (pressures) tool string at surface.
2249.0	E1	P	LOG		1	PU MDT (samples) tool string.
2249.0	E1	P	LOG		0.25	RIH with run #4 MDT (samples) tool string.
2249.0	E1	P	LOG		11	Log #4 MDT (samples).
2249.0	E1	P	LOG		1.5	POOH with MDT (samples) tool string.
2249.0	E1	P	LOG		1	MDT (samples) tool string at surface. Commence rigging down tool.

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RT above GL : 5.20m | UTM North: 5733759.0 | Spud Date : 15 Feb 2007 | Release Date : 15 Mar 2007
G.L. Elevation : 44.50m | UTM East: 657899.1 | Spud Time : 11:00 | Release Time : 21:00

Date : 11 Mar 2007 **Daily Cost : $ 0** **Report Number : 25**

2249.0	E1	TP	LOG	LTF	0.25	PU MDT (mini-frac) tool string.
2249.0	E1	TP	LOG	LTF	1	Power up / check tool string on rig floor. Could not test / calibrate tool due to wiring fault.
2249.0	E1	TP	LOG	LTF	0.25	Rig down MDT (mini-frac) tool string.

Date : 12 Mar 2007 **Daily Cost : $ 0** **Report Number : 26**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
2249.0	E1	TP	LOG	LTF	2	Continue rigging down MDT (mini-frac) tool string.
2249.0	E1	TP	LOG	WOE	0.5	PU CMR-ECS tool string.
2249.0	E1	TP	LOG	WOE	0.25	Power up / check tool string on rig floor.
2249.0	E1	TP	LOG	WOE	2	RIH with log #5 CMR-ECS tool string. Tune tools.
2249.0	E1	TP	LOG	WOE	8.75	Commence log #5 CMR-ECS.
2249.0	E1	TP	LOG	HC	0.5	Tool stuck @ 2043m. Pulled free by adding weight to string and taking string out of tension.
2249.0	E1	TP	LOG	WOE	3.25	Complete CMR-ECS log. POOH.
2249.0	E1	TP	LOG	LTF	1.25	MU MDT (mini-frac) tools and check operation.
2249.0	E1	TP	LOG	LTF	4.25	RIH with log #6 MDT (mini-frac) string. Packers failed to inflate properly. POOH.
2249.0	E1	TP	LOG	LTF	0.75	R/D MDT (mini-frac) string and logging tools.
2249.0	PC	P	HBHA		0.5	MU BHA for wiper trip.

Date : 13 Mar 2007 **Daily Cost : $ 0** **Report Number : 27**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
2249.0	PC	P	HBHA		1.5	Continue to MU wiper trip BHA.
2249.0	PC	P	WT		6	RIH with drill string, make wiper trip, P/U kelly and wash to bottom.
2249.0	PC	P	WT		1.5	Pump sweep and circulate hole clean from 2249m.
2249.0	PC	P	HBHA		10.5	POOH sideways and lay down drill string and BHA. Remove from pipe racks, clean and load into baskets.
2249.0	PC	P	BOP		3	M/U test tool, recover wear bushing, land test tool in spool. Open BOP doors and change out pipe rams to 4-1/2". Close bonnet doors and P/T to 1500psi OK. R/U Stab board and secure in derrick. R/U PCS tong and casing running equipment.
2249.0	PC	P	PT		1	Function rams, P/T pipe rams & bonnet door to 1500 psi OK. Pull test plug and L/O. P/U PCS casing handling equipment.
2249.0	PC	P	SAF		0.5	Hold safety & ops meeting with PCS operators & rig crew.

Date : 14 Mar 2007 **Daily Cost : $ 0** **Report Number : 28**

Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
2249.0	PC	P	CRN		6	M/U 4-1/2" casing string with marker joints and X nipples at depth required, install stabilizers and RIH.
2249.0	PC	P	CRN		12	Continue running 4-1/2" 13Cr80, 12.6 #/ft R3, JFE Casing. Install Marker joints and 4-1/2" X nipples as per down hole diagram. Tag at 2245 FT.
2249.0	PC	P	CIC		0.5	R/U Schlumberger cement head on 4-1/2" Csg. Rig in Schlumberger pump line.
2249.0	PC	P	CIC		2.5	Start circulation with rig pump, retune back over shakers. Schlumberger continue R/U.
2249.0	PC	P	SAF		0.5	Hold pre cementing TBM opps briefing with rig crews and Schlumberger cementers.
2249.0	PC	P	CIC		2.5	Schlumberger pressure test pump line to 3500 psi and hold fror 10 min OK. Start mixing cement.

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Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity

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Wellname : CRC-1	Operator: CO2CRC Pilot Project Ltd (CPPL)	Rig : Century Drilling Ltd - CDL Rig 11

RT above GL : 5.20m	UTM North: 5733759.0	Spud Date : 15 Feb 2007	Release Date : 15 Mar 2007
G.L. Elevation : 44.50m	UTM East: 657899.1	Spud Time : 11:00	Release Time : 21:00

Date : 15 Mar 2007 **Daily Cost : $ 0** **Report Number : 29**

2249.0	PC	P	CMC	2.5	Start cement job. Flush lines, pump 20 bbl of drill water, pump 60 bbl of 11.0 ppg MUDPUSH 11. Drop bottom plug from wellhead. Pump lead cement slurry 12.5 ppg then (taking samples). Pump 40 bbls of 15.84 ppg CO2 resistant tail slurry. Release trop plug from cement head. Displace with 111.2 bbl of brine, reduce pump rate for final 10.1 bbls to min imize ECD. Bump plug and pressure to 3000 psi and hold for 10 min. Bleed pressure , 1.1 bbl Returns
2249.0	PC	P	WOC	7.5	Wait On Cement. Break pump lines at rig floor. Wash bown BOP and empty cellar. R/D PCS tong, L/O remaing 4-1/2" csg, move pipe racks. N/D flow nipple.
2249.0	PC	P	WH	1	Install 11" x 4-1/2" casing slips on casing, lower through BOP
2249.0	SUS	P	BOP	2	Raise BOPs, rough cut casing, nipple down and remove BOPs
2249.0	SUS	P	XT	7	Final cut casing, nipple up Xmas tree, energise seals and pressure test. Install BPV, pressure test Xmas tree to 5000 psi / 15 min OK.
2249.0	RMO	P	RD	1	Rig down kelly spinner, remove kelly bushings, lay out kelly. Clean mud tanks. Rig released @ 2100 hrs 15/03/07

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Wellname : CRC-1	Operator: CO2CRC Pilot Project Ltd (CPPL)	Rig : Century Drilling Ltd - CDL Rig 11

RT above GL : 5.20m	UTM North: 5733759.0	Spud Date : 15 Feb 2007	Release Date : 15 Mar 2007
G.L. Elevation : 44.50m	UTM East: 657899.1	Spud Time : 11:00	Release Time : 21:00

Well History

Well: CRC-1

#	Date	Depth	24 Hour Summary
1	15 Feb 2007	216.0m	Rig up to spud. Spud well at 11:00 hrs on 15 Feb/07. Drill 9-7/8" hole.
2	16 Feb 2007	516.0m	Drill 9-7/8" hole from 216 to 324m. Conduct survey at 312m. Con't drill ahead to 516m. Circ hole clean. Conduct WLS. POH on wiper trip.
3	17 Feb 2007	516.0m	Conduct wiper trip to bit. RIH - 13 m soft fill. Circ well while WO cement head. POOH, LD 6-1/4" DC's. RIH 7-5/8" casing.
4	18 Feb 2007	516.0m	Cement 7-5/8" surface casing. WOC, cut conductor, install A-section, NU BOP.
5	19 Feb 2007	516.0m	Install test plug. Pressure test BOP's. Rig Repair (leaking ram blocks). NU bell nipple. Adjust derrick Install wear bushing. RIH 6-3/4" bit on BHA #2.
6	20 Feb 2007	745.0m	P/test casing prior to ELOT. Drill shoe track, drill 6-3/4" hole to 522m. Conduct ELOT. Rig Repair - adjust jackshaft/v-drive. Drill 6-3/4" hole 522 - 745m
7	21 Feb 2007	915.0m	Drill 6-3/4" hole f/ 745m to 915m. Circ BH sample, drop survey, POOH. RIH core barrel assembly.
8	22 Feb 2007	1109.0m	Wash/ream to bottom. Cut core #1 in Pember Mudstone 915 - 918.5m. Core barrel jammed after 3.5m cut. POH and recover 2.1m core. RIH with RR #2 PDC drill bit and drill 6-3/4" hole 918.5 - 1109m.
9	23 Feb 2007	1245.0m	Drill 6-3/4" hole with WLS from 1109m to 1245m. Circ BH sample, WLS, Wiper trip, RIH, POH to core. LO bit and MU core barrel.
10	24 Feb 2007	1247.0m	RIH. Cut core #2 f/ 1245m to 1246m. POH - no recovery. RIH core barrel to cut core #3.
11	25 Feb 2007	1323.0m	Continue coring 1247 - 1270m. Cut 24.0 m of core #3 in Paaratte Formation. POH and recover 8.13m (34%). RIH PDC RR bit and drill 6-3/4" hole 1270m to 1323m.
12	26 Feb 2007	1526.0m	Drill 6-3/4" hole f/ 1323m to 1526m.
13	27 Feb 2007	1723.0m	Drill 6-3/4" hole with WLS f/ 1526m to 1723m.
14	28 Feb 2007	1889.0m	Drill 6-3/4" hole with WLS to f/ 1723m to 1889m.
15	01 Mar 2007	1900.0m	Drill 6-3/4" hole 1889m to 1900m. Circ and conduct WLS - misrun. Wiper trip to 1200m working tight spots. RIH, circ and repeat WLS. POOH.
16	02 Mar 2007	1901.0m	POH with PDC bit #2RR2. MU core barrel and RIH, washing to bottom as necessary. Cut core #4 in Belfast Mudstone 1900 - 1901m.
17	03 Mar 2007	1904.2m	Continue to cut core #4 in Belfast Mudstone f/ 1901m to 1904.2m - total 4.2m cut. POH and reocover 2.65m core (63%). RIH bit #4.
18	04 Mar 2007	2033.0m	Drill 6-3/4" hole f/ 1904.2m to 2033m. POH PDC drill bit. RIH 60 ft core barrel.
19	05 Mar 2007	2038.0m	Rig repair, rig service, Slip drilling line, Con't RIH with coring assembly. Ream f/ 1966m to bottom. Cut core #5.
20	06 Mar 2007	2051.0m	Cut 18m core #5 in Flaxman's Formation f/ 2033m to 2051m. POOH with coring assembly.
21	07 Mar 2007	2075.5m	RIH with coring assembly and cut core #6. POH. Recover core 23.53m (96%). RIH drilling BHA.
22	08 Mar 2007	2249.0m	RIH PDC drilling BHA to 490m. SCDL. Con't RIH and drill 6-3/4" hole f/ 2075.5m to 2249m (TD). Circ hole clean prior to wiper trip.
23	09 Mar 2007	2249.0m	Circulated hole clean, took wireline survey, POOH. Rig up Schlumberger logging tools.
24	10 Mar 2007	2249.0m	Run logs #1 PEX and #2 FMI. CMR tool failure. MDT Run #1.
25	11 Mar 2007	2249.0m	Run loggs, MDT run #2, taking samples. MDT run #3 for mini frac, tools failed, Pooh and L/O tools.
26	12 Mar 2007	2249.0m	MU tools for MDT (mini-frac), tool failure. MU tools and log CMR-ECS. MU & RIH with MDT (mini-frac) tool. Tool failure. R/D Schlumberger logging tools, MU BHA and run wiper trip to bottom. Circulate hole clean.
27	13 Mar 2007	2249.0m	M/U BHA & make wiper trip. Circulate hole clean. POOH and L/O drill string. Change BOP rams and P/T bonnet seals. P/U PCS equipment and place on rig floor. Hold safety meeting. M/U and RIH with 4-1/2" production casing string.
28	14 Mar 2007	2249.0m	Continue to RIH with the 4-1/2" Production string. R/U cement head and pump lines. Circulate to lower temp and clean hole. Pre-job TBM and ops briefing. P/T lines, mix cement.
29	15 Mar 2007	2249.0m	Waited on cement, set casing slips, installed xmas tree, nippled down BOPs, commenced rig down.

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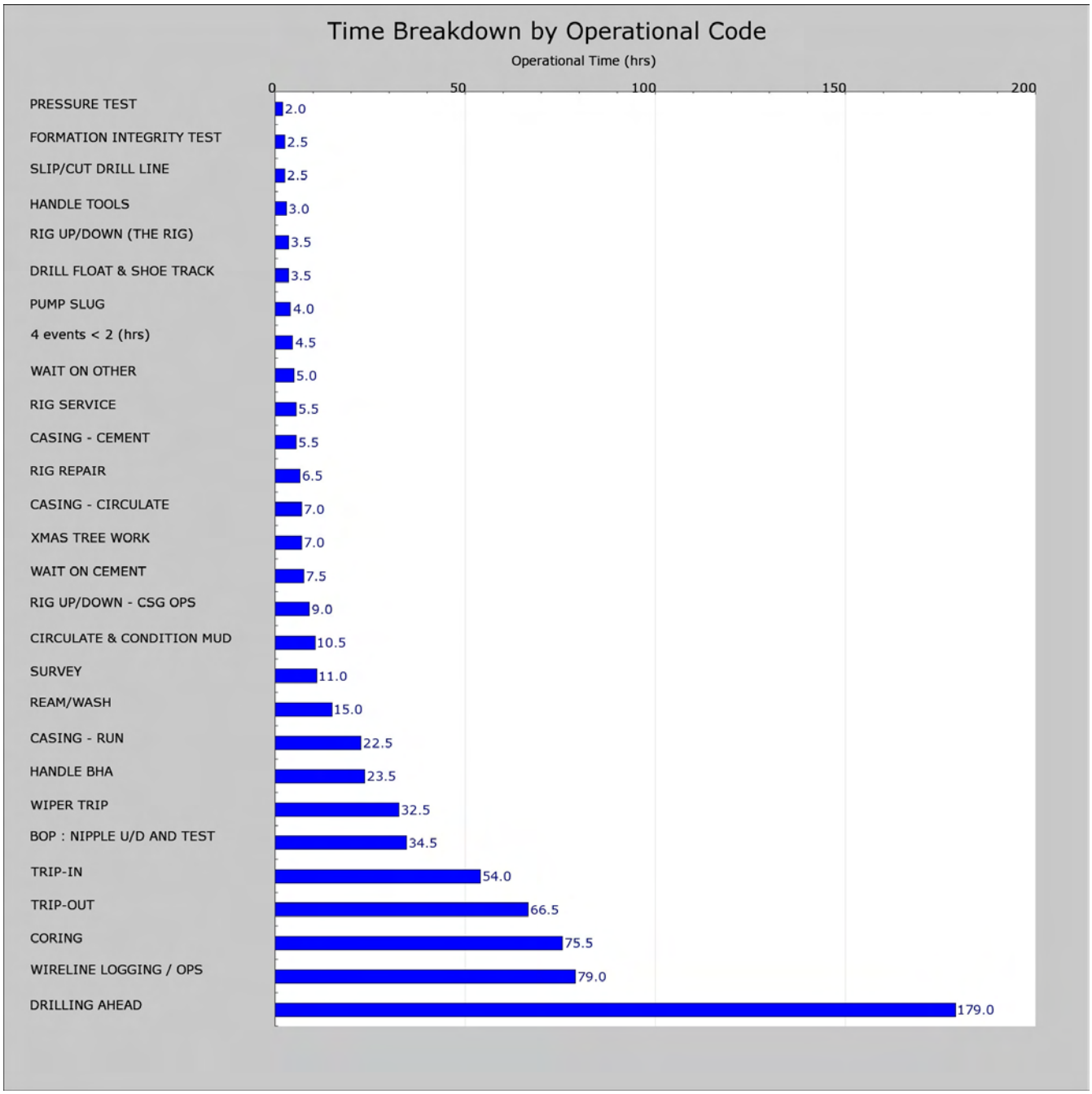
ATTACHMENT 7 : WELL TIME SUMMARY

Wellname : CRC-1	Operator: CO2CRC Pilot Project Ltd (CPPL)	Rig : Century Drilling Ltd - CDL Rig 11

RT above GL : 5.20m	UTM North: 5733759.0	Spud Date : 15 Feb 2007	Release Date : 15 Mar 2007
G.L. Elevation : 44.50m	UTM East: 657899.1	Spud Time : 11:00	Release Time : 21:00

Time Analysis

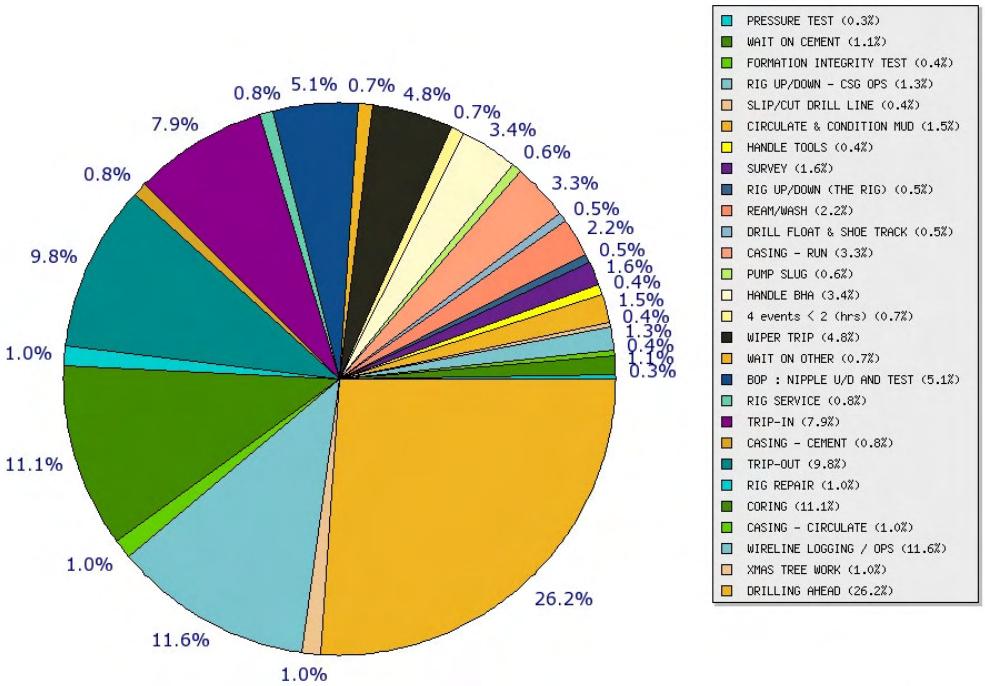


'Copyright IDS 2006', (KS&JG&RW),
CPPL_AU_ON_FWR.xsl (parent/child V1.2)

Wellname : CRC-1	Operator: CO2CRC Pilot Project Ltd (CPPL)	Rig : Century Drilling Ltd - CDL Rig 11

RT above GL : 5.20m	UTM North: 5733759.0	Spud Date : 15 Feb 2007	Release Date : 15 Mar 2007
G.L. Elevation : 44.50m	UTM East: 657899.1	Spud Time : 11:00	Release Time : 21:00

Time Analysis by Operational Code (% of 682 hrs)



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CPPL_AU_ON_FWR.xsl (parent/child V1.2)

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ATTACHMENT 8 : WELLHEAD INFORMATION

Wood Group Pressure Control Australia Pty Ltd

148 Francis Road, Wingfield, South Australia 5013
Tel +61 (0)8 8243 1700
Fax +61 (0)8 8243 1999
www.woodgroup.com

PACKING SLIP

Order #: B001705
Page: 1
Ship Via:
Date Ordered: 18/10/06
Cust. PO: 3463-00-50062

Branch: WGPC Brisbane
Phone: 07 3889 7782

BILL TO

C000074
Upstream Petroleum
PO Box 36294
Att: Mrs Susan Lantzke
Winnellie NT 0821
Australia

Currency: AUD

SHIP TO

8
IAN SPIKEN
UPSTREAM - CRC-1 WELLSITE
BRUMBY'S LANE
NIRRANDAH
C/- SPIKIN ENGINEERING
96 RYOT STREET
WARRNAMBOOL VIC 3280

Currency: AUD

L#	QTY ORD	DESCRIPTION	LIST PRICE	EXT NET
530	2.00	83-201-008-86 SEAL,P,4-1/2 ID,NITRILE 90,MS-522-02	0.00	0.00
540	4.00	83-202-008-01 RING NON EXT,P,4-1/2 ID,SPRING STEEL	0.00	0.00
590	1.00	RX54-S RING GASKET,RX-54,316SS,API 6A PSL 1-4	0.00	0.00
600	1.00	362410 ADPT,TBGHD,WG,A4-PP,4-1/2,11 5M X 4-1/16 5M,W/4 HBPV THD,4140 80K NON-NACE,INTERNALLY COATED WITH CS 701-07,6A-PU-AA-1-2	0.00	0.00
610	2.00	362371 VLV,WG,2200T,4-1/16 5M FE C02/WATERFLOOD ,XYLAN COATING & 17-4PH INTERNALS EE-0,5 (6A PU EE-0,5 PSL2 PR2)	0.00	0.00
620	1.00	362427 CRSS,STD,4-1/16 5M RUN X 4-1/16 5M X 2-1/16 5M OUTLETS,INTERNALLY COATED W/XYLAN ,6A-U-EE-NL-2-2	0.00	0.00
630	1.00	362539 FLG,BLIND,4-1/16 5M X 1/2 LP,4140 80K NON-NACE,CS 701-07 COATED,6A-PU-AA-1	0.00	0.00
640	1.00	84-010-004-04 PLUG PIPE,HEX HD,1/2 NPT,AISI 316 SOLUTION ANNEALED(W/SOLID NOSE)	0.00	0.00
650	1.00	353461 VLV,WG,2200CT,2-1/16 3/5M FE C02/ WATERFLOOD XYLAN CTD & 17-4PH INTERNALS EE-0,5 (6A N EE-0,5 PSL2 PR2)	0.00	0.00
660	1.00	362428	0.00	0.00

Wood Group Pressure Control Australia Pty Ltd

148 Francis Road, Wingfield, South Australia 5013

Tel +61 (0)8 8243 1700
Fax +61 (0)8 8243 1999
www.woodgroup.com

PACKING SLIP

Order #: B001705
Page: 2
Ship Via:
Date Ordered: 18/10/06
Cust. PO: 3463-00-50062

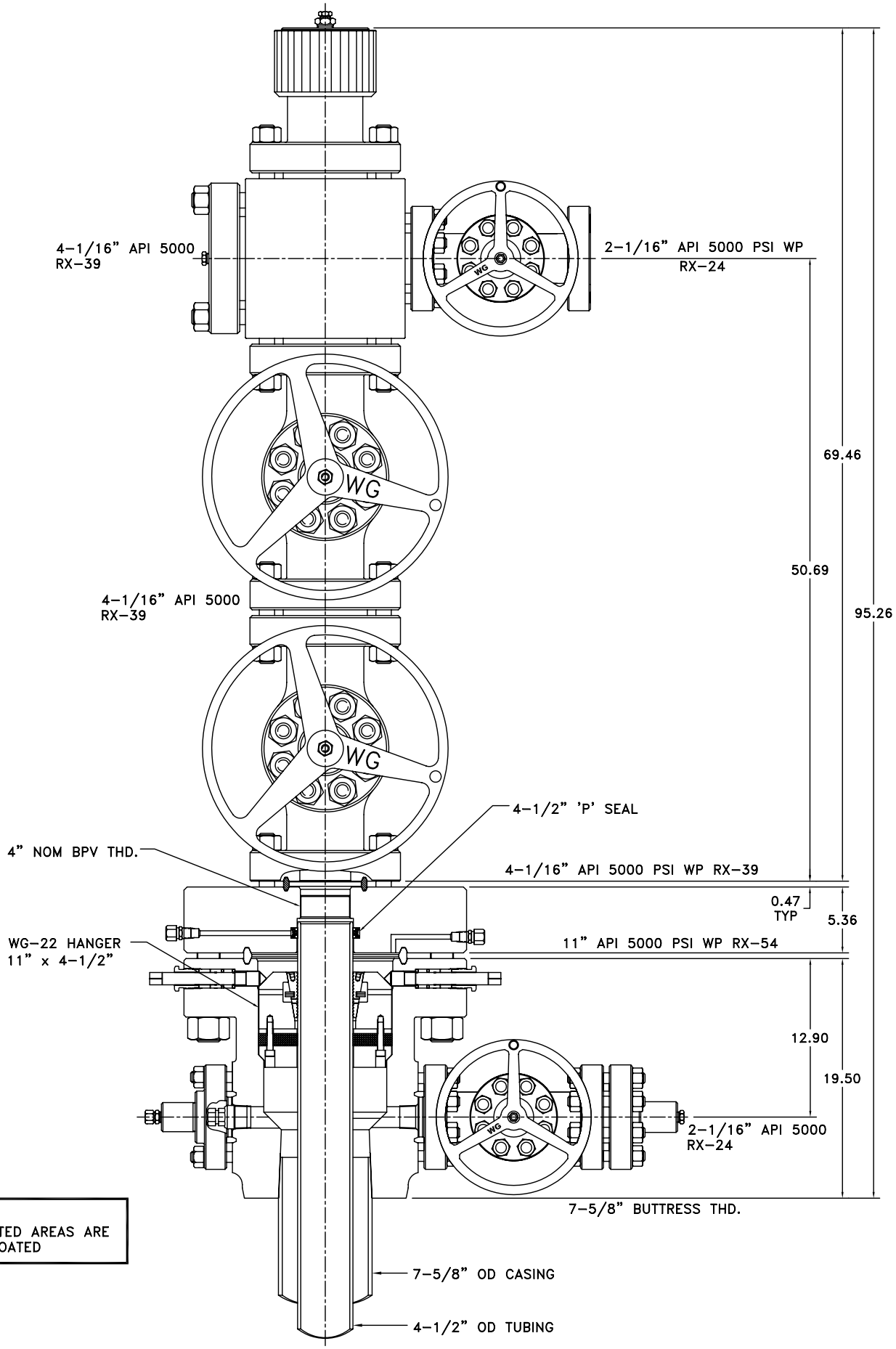
Branch: WGPC Brisbane
Phone: 07 3889 7782

L#	QTY ORD	DESCRIPTION	LIST PRICE	EXT NET
		TREECAP,WG,OTIS,4-1/16 5M X 4-1/2 EU ILT ,W/6.188 SEAL BORE,8.250-4 ACME-2G THD & 1 LP PORT,INTERNALLY COATED W/XYLAN,6A-U -EE-NL-2-2		
670	1.00	310242 REDUCER,PIPE THREAD 1" NPT MALE X 1/2" NPT FEMALE 316 SS(REF. # SS16-RB-8)	0.00	0.00
680	2.00	24-125 NEEDLE VALVE MFS 10M 1/2" NPT STRAIGHT SS	0.00	0.00
690	2.00	65776 VATRIX GAUGE PLUG, TAYLOR, 1/2" NPT 304 ST/STL	0.00	0.00
700	8.00	SN114-0812B7 STUDS WITH NUTS, 1-1/4" x 8-1/2"	0.00	0.00
710	5.00	RX39-S RING GASKET,RX-39,304SS,API 6A PSL 1-4	0.00	0.00
720	2.00	RX24-S RING GASKET,RX-24,304SS,API 6A PSL 1-4	0.00	0.00
730	8.00	SN078-0614B7 STUDS WITH NUTS, 7/8" x 6-1/4"	0.00	0.00
735	1.00	PACKING LIST NOTE CARRIER: TOLL EXPRESS	0.00	0.00

CON NOTE: _____

DELIVERY NUMBER: D2597

WGPC FINAL INSPECTION BY ***DATE*** ***DRIVER SIGNATURE DATE***



NOTE:
ALL WETTED AREAS ARE
XYLAN COATED

CAD

CAD FILE NAME: PD142603

WOOD GROUP
Wood Group Pressure Control

CO2/CRC
MONOBORE 5000 PSI WP
CASING PROGRAM: 7-5/8" X 4-1/2"

Drawn by:	Date:	Scale:	Drawing Number SHT 1 OF 1	Rev.
R.C.	02-10-06	N.T.S.	PD-001426-03	1

Upstream

Well Report

CRC 1 Wellhead installation

Service Hand Assistant	Craig Baran	**Company Rep.**	Kevin Murphy / Adelaide Iam
		Location/Rig	CRC 1

PO No. **FSR No.** **3339**

Date	Time	Comments
14/03/07	0830	Arrive Adelaide Workshop
		Review job and Journey management with supervisor
		Check & load vehicle
	0900	Depart for Century Rig 11 @ CRC 1
	1730	Arrive @ CRC 1 wellsite
		Depart for Buttress 1 wellsite
		Meet with Upstream Company Rep.(Kevin Murphy)
		Conduct Rig Induction
		Kevin Informed me that the Xmas Tree assembly had been accidently sent on a truck to Adelaide and would be back on site at approx midnight and I wouldn't be needed until approx 0630 next day
		Stand Down. Book into camp
		Secure
15/03/07	0630	Meet with Kevin and he told me that we were still waiting on cement and will reasses at 0830
	0830	Cement still not set correctly so will wait until 1000
		Locate all equipment and inspect. All ok
		Clean upper ring groove on DSA and install 4" TWC
		Using Forklift landout Xmas tree on DSA and nipple up using New RX 39
		Install new RX 24 to wing valve and nipple up 2-1/16" 5k companion flange
	1000	Locate casing hanger on rig floor and inspect. All ok
		Setup casing hanger with handling lines and wrap around casing. Remove slip segment retaining screws and lower hanger through BOP Stack
		Unsure whether hanger landed properly so rig opened lower BOP door
		Door open and measurement taken inside BOP's. hanger landed properly.
		Lift BOP stack and rough cut 4-1/2" casing at 8".
		remove excess casing and lower Stack onto Trolley
		Remove BOP stack from cellar area and final cut 4-1/2" casing at 4-3/4"
		Dress casing stub to WG procedure.
		Blow out void area and fill with test fluid
		Install new RX 54 ring gasket
		Pick up Xmas Tree assembly with winch and land out on Casing head
		Nipple up Xmas tree assembly.
		Complete wellsite permit to work for pressure testing
		Check with Adelaide (co rep) to confirm casing collapse. Casing collapse 7500 psi so pack off and pressure test to be 5000 psi
		Nipple up packing gun to Upper "P" seal injection port and PRT to opposite side and inject packing until returns.
		Remove PRT and continue to inject packing until 5000 psi reached and maintained.
		Monitor for 15 mins OK
		Nipple up packing gun to Lower "P" seal injection port and PRT to opposite side and inject packing until returns.
		Remove PRT and continue to inject packing until 5000 psi reached and maintained.
		Monitor for 15 mins OK
		Nipple up Enerpac pressure test pack to "P" seal void test port.
		Pressure up void to 5000 psi and monitor for 15mins. Test OK
		Nipple up Enerpac pressure test pack to DSA/Casing Head void test port.
		Pressure up void to 5000 psi and monitor for 15mins. Test OK
		Remove Tree cap and fill tree with test fluid
		Nipple up Rig test package to xmas tree and pressure up to 5000 psi.
		Test Dropped off but no visible signs of external leakage noted.
		Discuss with Kevin and test called good with no external leaks.
		Depressure tree

Upstream

Well Report

Service Hand Assistant	Craig Baran	**Company Rep.**	Kevin Murphy / Adelaide Iam
		Location/Rig	CRC 1

BCR No. **FSR No.** **3339**

Date	Time	Comments
		Re-install Tree cap and fit needle valve and Vaetrix nipple.
		Clean and pack away tools
		Sign off permit
		Obtain Co-man signature on FSR
		Book out of camp
	2100	Depart
	2300	Stop at Mount gambier for the night.
16/03/07	0500	Depart
	1130	Arrive Adelaide
		Prepare report
		Secure.

Upstream

Wellhead Service Report

16-03-07

TG 24-07-08

CRC-1

Components

Xmas Tree Assembly No.				Serial No.	
Description	**Manufacturer**	**Part No.**	**Size/Rating**	**Model**	**Serial No.**
Tree Cap	Wood Group	362428	4-1/16"5k	Bowen Union	
Flow Cross	Wood Group	362427	4-1/16"5k x2-1/16"5k	Studded	
Companion Flange	Wood Group	362539	4-1/16"5k	CS701-07	
Production Wing Valve	Wood Group	353461	2-1/16"5k	FE	J 2616-1
Companion Flange	Wood Group	306230	2-1/16"5k	EE	
Upper Master Valve	Wood Group	362371	4-1/16"5k	FE	J 2615-1
Lower Master Valve	Wood Group	362371	4-1/16"5k	FE	J 2615-2
Adaptor Flange	Wood Group	362410	11"5k X 4-1/16" 5k	AA	J 2657-1
Casing Head	Wood Group	362425	11"5Kx7-5/8"BTC	WG22	
Slip & Seal	Wood Group	324311	11"X4-1/2"	WG22	
Surface Annulus Valve	Wood Group	338300	2-1/16"5K	FE	
Companion Flange	Wood Group	306230	2-1/16"5K		

General Comments :-

"H" Type BPV Prep, 'P' seals energised

Note:- Adaptor Flange, Lower Master Valve, Upper Master Valve, Flow Cross Tree Cap, Blind Flange and Wing Valve are Xylan Coated on wetted surfaces for protection in High C02 Service (C02 Waterflood)

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ATTACHMENT 9 : CASING INFORMATION

Schlumberger

CemCADE* centraliser recommendation for CRC-1 4 1/2" Casing

Operator	**: CO2CRC**	**Well**	**: CRC-1**
Country	: Australia	Field	: Otway Basin
State	: Victoria		

Prepared for	**: Terry Greaney**	**Location**	**: Otway Basin**
Proposal No.	: rev 7	Service Point	: PAS
Date Prepared	: 03-13-2007	Business Phone	: +61 8 9420 4800
		FAX No.	: +61 8 9322 3110

Prepared by : Pam Kosarek
Phone : +61 8 9420 4639
E-Mail Address : pkosarek@perth.oilfield.slb.com

Disclaimer Notice:

This information is presented in good faith, but no warranty is given by and Schlumberger assumes no liability for advice or recommendations made concerning results to be obtained from the use of any product or service. The results given are estimates based on calculations produced by a computer model including various assumptions on the well, reservoir and treatment. The results depend on input data provided by the Operator and estimates as to unknown data and can be no more accurate than the model, the assumptions and such input data. The information presented is Schlumberger's best estimate of the actual results that may be achieved and should be used for comparison purposes rather than absolute values. The quality of input data, and hence results, may be improved through the use of certain tests and procedures which Schlumberger can assist in selecting.

The Operator has superior knowledge of the well, the reservoir, the field and conditions affecting them. If the Operator is aware of any conditions whereby a neighboring well or wells might be affected by the treatment proposed herein it is the Operator's responsibility to notify the owner or owners of the well or wells accordingly.

Prices quoted are estimates only and are good for 30 days from the date of issue. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services.

Freedom from infringement of patents of Schlumberger or others is not to be inferred.

* Mark of Schlumberger

Client : CO2CRC
Well : CRC-1
String : 4 1/2
District : PAS
Country : Australia
Loadcase : 4 1/2 -- 3.0

Section 1: centralizer placement

Top of centralization :400.0 m
Bottom Cent. MD :2229.9 m
Casing Shoe :2236.0 m
NB of Cent. Used :59
NB of Floating Cent. :58

Centralizer Placement

Bottom MD (m)	Nbr.	Cent. / Joint	Cent. Name	Code	Min. STO (%)	@ Depth (m)
794.8	7	1/5	HINGED IMPERIAL 4.5 (API SPEC 10D)	BS	32.4	697.3
977.7	5	1/3	HINGED IMPERIAL 4.5 (API SPEC 10D)	BS	59.1	880.1
1294.7	13	1/2	HINGED IMPERIAL 4.5 (API SPEC 10D)	BS	59.6	1203.2
1795.0	14	1/3	HINGED IMPERIAL 4.5 (API SPEC 10D)	BS	34.1	1489.7
2236.0	20	1/2	HINGED IMPERIAL 4.5 (API SPEC 10D)	BS	52.8	1935.7

Centralizer Description

Cent. Name	Code	Casing OD (in)	Max. OD (in)	Min. OD (in)	Rigid	Origin
HINGED IMPERIAL 4.5 (API SPEC 10D)	BS	4 1/2	6.750	6.250	No	Halliburton

Centralizer Tests

Hole Size (in)	Running Force (lbf)	Restoring Force (lbf)
6.750	0.00	1366.00

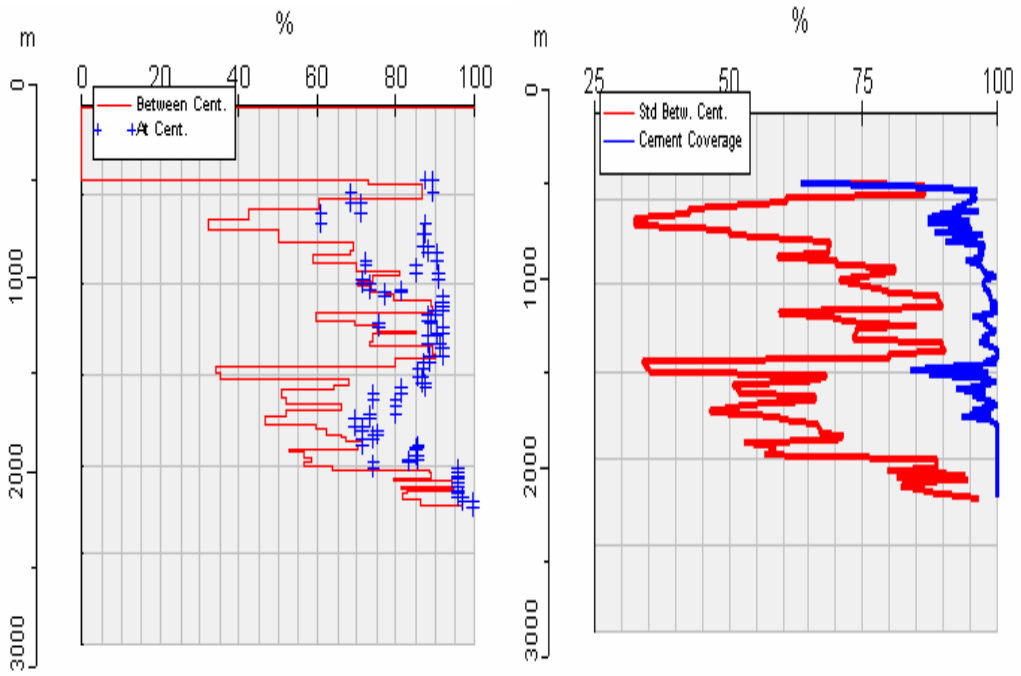
(1) - Centralizer performance data is based on tests by WEATHERFORD as per the current API 10D specifications

Running Force Calculations:

Travelling Block Weight :6 ton
Friction Factor Centralizer/Formation :0
Total Drag Force :0 ton
Hook load Down Stroke :46 ton
Hook load Up Stroke :46 ton

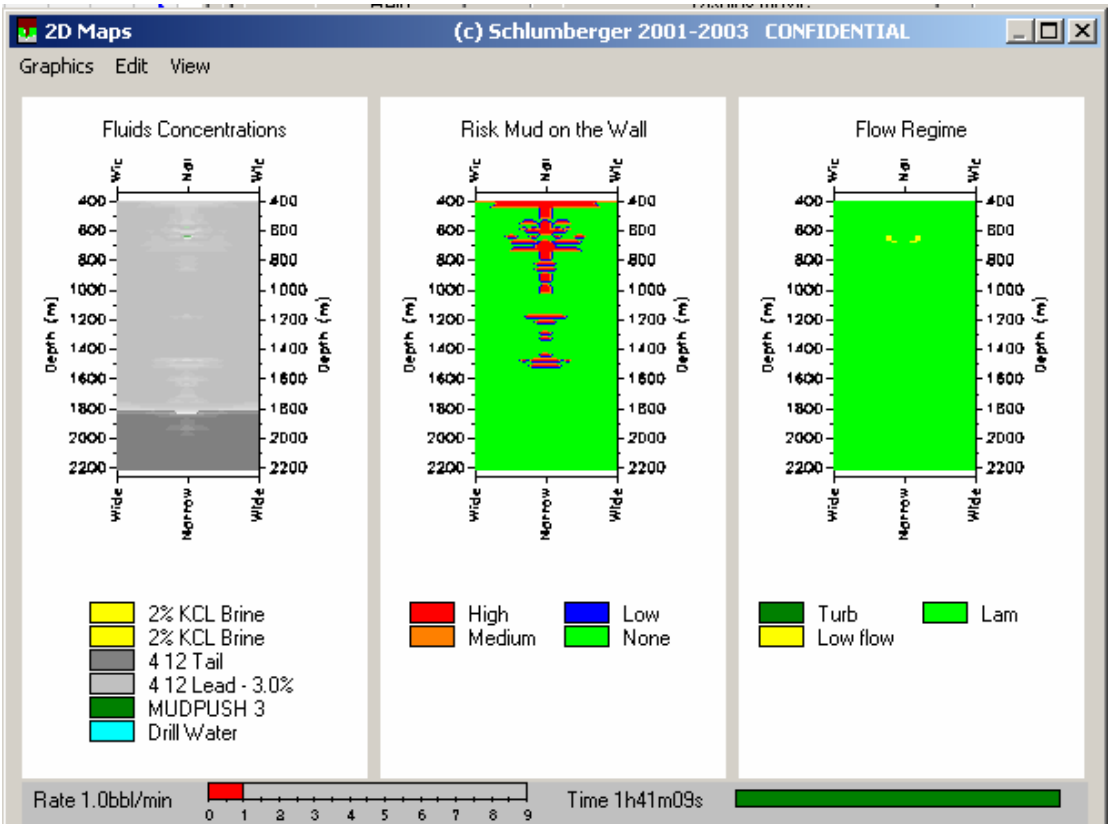
Top MD m	Bottom MD m	Nb. Of Joints	Casing OD in	Min. STO Req'd	Cent. Per Joint	Cent. Name	Nbr. of Cent.	Min. STO. %	Found At Depth	Cent. Code	Min. OH Size in	Max. OH Size in
368.1	794.8	35	4 1/2		1/5	HINGED IMPERIAL 4.5 (API	7	32.4	697.3	BS	6.964	14.907
794.8	977.7	15	4 1/2		1/3	HINGED IMPERIAL 4.5 (API	5	59.1	880.1	BS	6.932	9.066
977.7	1294.7	26	4 1/2		1/2	HINGED IMPERIAL 4.5 (API	13	59.6	1203.2	BS	6.929	8.193
1294.7	1795.0	42	4 1/2		1/3	HINGED IMPERIAL 4.5 (API	14	34.1	1489.7	BS	6.943	7.984
1795.0	2236.0	40	4 1/2		1/2	HINGED IMPERIAL 4.5 (API	20	52.8	1935.7	BS	6.395	8.113

Client : CO2CRC
Well : CRC-1
String : 4 1/2
District : PAS
Country : Australia
Loadcase : 4 1/2 -- 3.0



Pipe Standoff

Cement Coverage



CASING TALLY RECORD

WELL: CRC-1 **DATE:** 14/03/2007

SIZE	WEIGHT	GRADE	THREADS	COUPLING O.D.
4-1/2"	12.60	13Cr80	Bear	

Expected Centraliser positions shaded yellow

JTS. DELIVERED	JTS. USED
199	187*

* includes landing joint

BHA ASSM. NO.	DESCRIPTION	LENGTH	CUM. TOTAL
1	RT	5.1	5.10
2	Csg Hgr	0.5	5.60
3	Landing Jt (net)	0.5	6.10
4			6.10
5			6.10
6			6.10
7			6.10
8			6.10
9			6.10
10			6.10
11			6.10
12			6.10
13			6.10
14			6.10
15			6.10
16			6.10
17			6.10
18			6.10
19			6.10
BHA TOTAL			**6.10**

No.	Length	Total
186	11.98	18.08
185	11.98	30.06
184	11.98	42.04
183	11.98	54.02
X	0.49	54.51
182	11.66	66.17
181	11.67	77.84
180	11.68	89.52
179	11.50	101.02
178	11.70	112.72
1st. TOTAL		**106.62**
177	11.51	124.23
176	11.97	136.20
175	11.98	148.18
174	11.98	160.16
173	11.98	172.14
172	11.98	184.12
171	11.99	196.11
170	11.87	207.98
169	11.73	219.71
168	11.67	231.38
2nd. TOTAL		**118.66**

No.	Length	Total
167	11.65	243.03
166	11.67	254.70
165	11.69	266.39
164	11.67	278.06
163	11.73	289.79
162	11.98	301.77
161	11.98	313.75
160	11.98	325.73
159	11.98	337.71
158	11.98	349.69
3rd. TOTAL		**118.31**
157	11.98	361.67
156	11.98	373.65
155	11.98	385.63
154	11.98	397.61
153	11.99	409.60
152	11.94	421.54
151	11.98	433.52
150	11.93	445.45
149	11.98	457.43
148	11.98	469.41
4th. TOTAL		**119.72**

JOINT NO.	LENGTH	CUM. TOTAL
147	11.99	481.40
146	11.98	493.38
145	11.99	505.37
144	11.98	517.35
143	11.98	529.33
142	11.97	541.30
141	11.96	553.26
140	11.76	565.02
139	11.96	576.98
138	11.47	588.45
5th. TOTAL		**119.04**
137	11.98	600.43
136	11.98	612.41
135	11.98	624.39
134	11.98	636.37
133	11.98	648.35
132	11.98	660.33
131	11.61	671.94
130	11.99	683.93
129	11.98	695.91
128	11.98	707.89
6th. TOTAL		**119.44**
127	11.68	719.57
126	11.98	731.55
125	11.51	743.06
124	11.98	755.04
123	11.98	767.02
122	11.98	779.00
121	11.96	790.96
120	11.98	802.94
119	11.98	814.92
118	11.99	826.91
7th. TOTAL		**119.02**
117	11.98	838.89
116	11.98	850.87
115	11.98	862.85
114	11.98	874.83
113	11.98	886.81
112	11.98	898.79
111	11.98	910.77
110	11.98	922.75
109	11.98	934.73
108	11.98	946.71
8th. TOTAL		**119.80**

JOINT NO.	LENGTH	CUM. TOTAL
107	11.98	958.69
106	11.98	970.67
105	11.98	982.65
104	11.98	994.63
103	11.98	1006.61
102	11.98	1018.59
101	11.98	1030.57
100	11.98	1042.55
99	11.98	1054.53
98	11.98	1066.51
9th TOTAL		**119.80**
97	11.98	1078.49
96	11.98	1090.47
95	11.98	1102.45
94	11.98	1114.43
93	11.98	1126.41
92	11.98	1138.39
91	11.98	1150.37
90	11.98	1162.35
89	11.98	1174.33
88	11.98	1186.31
10th. TOTAL		**119.80**
87	11.99	1198.30
86	11.98	1210.28
85	11.98	1222.26
84	11.98	1234.24
83	11.98	1246.22
Mk Jt	3.15	1249.37
82	11.98	1261.35
81	11.98	1273.33
80	11.98	1285.31
79	11.98	1297.29
11th. TOTAL		**110.98**
X	0.49	1297.78
78	11.74	1309.52
77	11.98	1321.50
76	11.98	1333.48
75	11.98	1345.46
74	11.74	1357.20
73	11.98	1369.18
72	11.74	1380.92
71	11.98	1392.90
70	11.98	1404.88
12th. TOTAL		**107.59**

CASING TALLY RECORD

WELL: CRC-1 **DATE:** 14/03/2007

JOINT NO.	JOINT LENGTH	CUM. TOTAL
69	11.98	1416.86
68	11.98	1428.84
67	11.72	1440.56
66	11.88	1452.44
65	11.98	1464.42
64	11.96	1476.38
63	11.98	1488.36
62	11.98	1500.34
61	11.97	1512.31
60	11.98	1524.29
13th. TOTAL		**119.41**
X	0.49	1524.78
59	11.98	1536.76
58	11.75	1548.51
57	11.98	1560.49
56	11.98	1572.47
55	11.98	1584.45
54	11.98	1596.43
53	11.97	1608.40
52	11.98	1620.38
51	11.95	1632.33
14th. TOTAL		**108.04**
50	11.98	1644.31
49	11.86	1656.17
48	11.74	1667.91
47	11.86	1679.77
46	11.87	1691.64
45	11.98	1703.62
44	11.98	1715.60
43	11.73	1727.33
42	11.98	1739.31
41	11.98	1751.29
15th. TOTAL		**118.96**
40	11.86	1763.15
39	11.80	1774.95
38	11.69	1786.64
37	11.61	1798.25
36	11.75	1810.00
35	11.87	1821.87
34	11.79	1833.66
33	11.98	1845.64
32	11.98	1857.62
31	11.98	1869.60
16th. TOTAL		**118.31**

JOINT NO.	JOINT LENGTH	CUM. TOTAL
30	11.76	1881.36
29	11.87	1893.23
28	11.58	1904.81
X	0.75	1905.56
27	11.95	1917.51
26	11.97	1929.48
25	11.98	1941.46
24	11.98	1953.44
23	11.99	1965.43
22	11.98	1977.41
17th. TOTAL		**107.81**
21	11.98	1989.39
20	11.65	2001.04
19	11.75	2012.79
18	11.74	2024.53
17	11.87	2036.40
16	11.93	2048.33
15	11.98	2060.31
14	11.98	2072.29
13	11.98	2084.27
X	0.49	2084.76
18th. TOTAL		**107.35**
12	11.98	2096.74
Mk Jt	3.15	2099.89
11	11.98	2111.87
10	11.98	2123.85
9	11.98	2135.83
8	11.98	2147.81
7	11.97	2159.78
6	11.98	2171.76
5	11.98	2183.74
4	11.98	2195.72
19th. TOTAL		**83.85**
X	0.49	2196.21
Mk Jt	3.15	2199.36
3	11.98	2211.34
2	11.98	2223.32
FC	0.78	2224.10
1	11.99	2236.09
FS	0.75	2236.84
20th. TOTAL		**41.12**

JOINT NO.	JOINT LENGTH	CUM. TOTAL
21st. TOTAL		**0.00**
22nd. TOTAL		**0.00**
23rd. TOTAL		**0.00**
Also Centraliser at 2230m		
24th. TOTAL		**0.00**

JOINT NO.	JOINT LENGTH	CUM. TOTAL
25th. TOTAL		**0.00**
26th. TOTAL		**0.00**
27th. TOTAL		**0.00**
28th. TOTAL		**0.00**

1 Bear joint damaged - failed to make up correctly on JAM. Bear Landing joint cut off 11m.

2 jts converted to Buttress. Ends made into Bear - BTC X/O's. 1 x BTC jt + X/O used to RIH and tag TD.

CASING TALLY RECORD

WELL: CRC-1 **DATE:** 14/03/2007

SIZE	WEIGHT	GRADE	THREADS	COUPLING O.D.
4-1/2"	12.60	13Cr80	Bear	

JTS. DELIVERED	JTS. USED
199	187*

* includes landing joint

BHA ASSM.			CUM.
NO.	DESCRIPTION	LENGTH	TOTAL
1	KB	5.46	5.46
2	Diff	0	5.46
3			5.46
4			5.46
5			5.46
6			5.46
7			5.46
8			5.46
9			5.46
10			5.46
11			5.46
12			5.46
13			5.46
14			5.46
15			5.46
16			5.46
17			5.46
18			5.46
19			5.46
BHA TOTAL			**5.46**

No.	Length	Total
1	11.99	17.45
2	11.98	29.43
3	11.98	41.41
4	11.98	53.39
5	11.98	65.37
6	11.98	77.35
7	11.97	89.32
8	11.98	101.30
9	11.98	113.28
10	11.98	125.26
1st. TOTAL		**119.80**
11	11.98	137.24
12	11.98	149.22
13	11.98	161.20
14	11.98	173.18
15	11.98	185.16
16	11.93	197.09
17	11.87	208.96
18	11.74	220.70
19	11.75	232.45
20	11.65	244.10
2nd. TOTAL		**118.84**

No.	Length	Total
21	11.98	256.08
22	11.98	268.06
23	11.99	280.05
24	11.98	292.03
25	11.98	304.01
26	11.97	315.98
27	11.95	327.93
28	11.58	339.51
29	11.87	351.38
30	11.76	363.14
3rd. TOTAL		**119.04**
31	11.98	375.12
32	11.98	387.10
33	11.98	399.08
34	11.79	410.87
35	11.87	422.74
36	11.75	434.49
37	11.61	446.10
38	11.69	457.79
39	11.80	469.59
40	11.86	481.45
4th. TOTAL		**118.31**

JOINT		CUM.
NO.	LENGTH	TOTAL
41	11.98	493.43
42	11.98	505.41
43	11.73	517.14
44	11.98	529.12
45	11.98	541.10
46	11.87	552.97
47	11.86	564.83
48	11.74	576.57
49	11.86	588.43
50	11.98	600.41
5th. TOTAL		**118.96**
51	11.95	612.36
52	11.98	624.34
53	11.97	636.31
54	11.98	648.29
55	11.98	660.27
56	11.98	672.25
57	11.98	684.23
58	11.75	695.98
59	11.98	707.96
60	11.98	719.94
6th. TOTAL		**119.53**
61	11.97	731.91
62	11.98	743.89
63	11.98	755.87
64	11.96	767.83
65	11.98	779.81
66	11.88	791.69
67	11.72	803.41
68	11.98	815.39
69	11.98	827.37
70	11.98	839.35
7th. TOTAL		**119.41**
71	11.98	851.33
72	11.74	863.07
73	11.98	875.05
74	11.74	886.79
75	11.98	898.77
76	11.98	910.75
77	11.98	922.73
78	11.74	934.47
79	11.98	946.45
80	11.98	958.43
8th. TOTAL		**119.08**

JOINT		CUM.
NO.	LENGTH	TOTAL
81	11.98	970.41
82	11.98	982.39
83	11.98	994.37
84	11.98	1006.35
85	11.98	1018.33
86	11.98	1030.31
87	11.99	1042.30
88	11.98	1054.28
89	11.98	1066.26
90	11.98	1078.24
9th TOTAL		**119.81**
91	11.98	1090.22
92	11.98	1102.20
93	11.98	1114.18
94	11.98	1126.16
95	11.98	1138.14
96	11.98	1150.12
97	11.98	1162.10
98	11.98	1174.08
99	11.98	1186.06
100	11.98	1198.04
10th. TOTAL		**119.80**
101	11.98	1210.02
102	11.98	1222.00
103	11.98	1233.98
104	11.98	1245.96
105	11.98	1257.94
106	11.98	1269.92
107	11.98	1281.90
108	11.98	1293.88
109	11.98	1305.86
110	11.98	1317.84
11th. TOTAL		**119.80**
111	11.98	1329.82
112	11.98	1341.80
113	11.98	1353.78
114	11.98	1365.76
115	11.98	1377.74
116	11.98	1389.72
117	11.98	1401.70
118	11.99	1413.69
119	11.98	1425.67
120	11.98	1437.65
12th. TOTAL		**119.81**

CASING TALLY RECORD

WELL: CRC-1 **DATE:** 14/03/2007

JOINT NO.	JOINT LENGTH	CUM. TOTAL
121	11.96	1449.61
122	11.98	1461.59
123	11.98	1473.57
124	11.98	1485.55
125	11.51	1497.06
126	11.98	1509.04
127	11.68	1520.72
128	11.98	1532.70
129	11.98	1544.68
130	11.99	1556.67
13th. TOTAL		**119.02**
131	11.61	1568.28
132	11.98	1580.26
133	11.98	1592.24
134	11.98	1604.22
135	11.98	1616.20
136	11.98	1628.18
137	11.98	1640.16
138	11.47	1651.63
139	11.96	1663.59
140	11.76	1675.35
14th. TOTAL		**118.68**
141	11.96	1687.31
142	11.97	1699.28
143	11.98	1711.26
144	11.98	1723.24
145	11.99	1735.23
146	11.98	1747.21
147	11.99	1759.20
148	11.98	1771.18
149	11.98	1783.16
150	11.93	1795.09
15th. TOTAL		**119.74**
151	11.98	1807.07
152	11.94	1819.01
153	11.99	1831.00
154	11.98	1842.98
155	11.98	1854.96
156	11.98	1866.94
157	11.98	1878.92
158	11.98	1890.90
159	11.98	1902.88
160	11.98	1914.86
16th. TOTAL		**119.77**

JOINT NO.	JOINT LENGTH	CUM. TOTAL
161	11.98	1926.84
162	11.98	1938.82
163	11.73	1950.55
164	11.67	1962.22
165	11.69	1973.91
166	11.67	1985.58
167	11.65	1997.23
168	11.67	2008.90
169	11.73	2020.63
170	11.87	2032.50
17th. TOTAL		**117.64**
171	11.99	2044.49
172	11.98	2056.47
173	11.98	2068.45
174	11.98	2080.43
175	11.98	2092.41
176	11.97	2104.38
177	11.51	2115.89
178	11.70	2127.59
179	11.50	2139.09
180	11.68	2150.77
18th. TOTAL		**118.27**
181	11.67	2162.44
182	11.66	2174.10
183	11.98	2186.08
184	11.98	2198.06
185	11.98	2210.04
186	11.98	2222.02
187	11.98	2234.00
188	11.99	2245.99
189	11.98	2257.97
190	11.91	2269.88
19th. TOTAL		**119.11**
191	11.93	2281.81
192	11.98	2293.79
193	11.68	2305.47
194	11.69	2317.16
195	11.67	2328.83
196	11.98	2340.81
197	11.74	2352.55
198BTC	10.52	2363.07
199BTC	10.36	2373.43
200		
20th. TOTAL		**103.55**

JOINT NO.	JOINT LENGTH	CUM. TOTAL
201		
202		
203		
204		
205		
206		
207		
208		
209		
210		
21st. TOTAL		**0.00**
211		
212		
213		
214		
215		
216		
217		
218		
219		
220		
22nd. TOTAL		**0.00**
221		
222		
223		
224		
225		
226		
227		
228		
229		
230		
23rd. TOTAL		**0.00**
231		
232		
233		
234		
235		
236		
237		
238		
239		
240		
24th. TOTAL		**0.00**

JOINT NO.	JOINT LENGTH	CUM. TOTAL
241		
242		
243		
244		
245		
246		
247		
248		
249		
250		
25th. TOTAL		**0.00**
251		
252		
253		
254		
255		
256		
257		
258		
259		
260		
26th. TOTAL		**0.00**
261		
262		
263		
264		
265		
266		
267		
268		
269		
270		
27th. TOTAL		**0.00**
271		
272		
273		
274		
275		
276		
277		
278		
279		
280		
28th. TOTAL		**0.00**

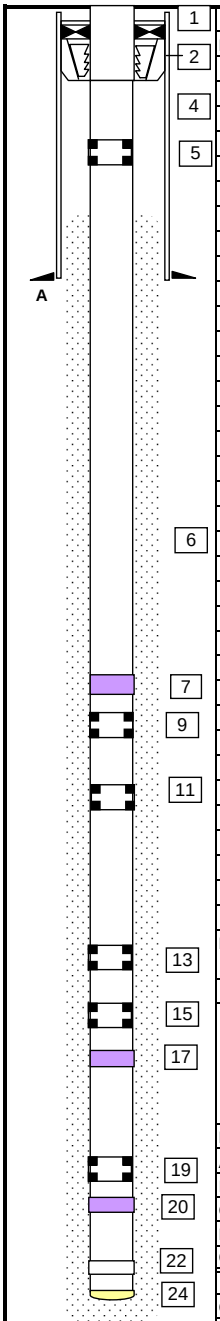
1 Bear joint damaged - failed to make up correctly on JAM. Bear Landing joint cut off 11m.

2 jts converted to Buttress. Ends made into Bear - BTC X/O's. 1 x BTC jt + X/O used to RIH and tag TD.

4-1/2" 12.6 # / Ft 13Cr80, R3, JFE Bear Production Csg

WELL: CRC-1 **DATE: 15/03/07**

LAST ACTIVITY: CASE & SUSPEND WELL



PBTD - 2225m
TD - 2239m Logger
TD - 2249m Driller

ITEM No.	DESCRIPTION	LENGTH (m)	DEPTH RT (m)	MIN. ID (inch)
1	R.T. to top of Casing Head spool	5.10	0.00	
2	Csg hgr, 11" x 4-1/2" , (4" BPV Profile in Adaptor Flange)	0.50	5.10	
3	Cut Off Landing Joint, 4.5" #/ft, 13Cr80, 12.6 #/ft, R3, JFE Bear Csg	0.50	5.60	
4	Tubing, 4 joint, 4.5" #/ft, 13Cr80, 12.6 #/ft, R3, JFE Bear Csg	47.92	6.10	
5	4.5" X Landing Nipple	0.49	54.02	3.813
6	Tubing, 100 joints, 4.5#/ft, 13Cr80, 12.6 #/ft R3, JFE Bear Csg	1193.16	54.51	
7	Marker Jt 4.5" 13Cr80, 12.6#/ft, R3, JFE, Bear Csg	3.15	1247.67	
8	Tubing, 4 joints, 4.5" 13Cr80, 12.6 #/ft R3, JFE Bear Csg	47.92	1250.82	
9	4.5" X Landing Nipple	0.49	1298.74	3.813
10	Tubing, 19 joints, 4.5" 13Cr80, 12.6 #/ft R3, JFE Bear Csg	226.84	1299.23	
11	4.5" X Landing Nipple	0.49	1526.07	3.813
12	Tubing, 32 joints, 4.5" 13Cr80, 12.6 #/ft R3, JFE Bear Csg	380.00	1526.56	
13	4.5" X Landing Nipple	0.75	1906.56	3.813
14	Tubing, 15 joints, 4.5" 13Cr80, 12.6 #/ft R3, JFE Bear Csg	178.74	1907.31	
15	4.5" X Landing Nipple	0.49	2086.05	3.813
16	Tubing, 1 joint, 4.5" 13Cr80, 12.6 #/ft R3, JFE Bear Csg	11.98	**2086.54**	
17	Marker Jt 4.5" 13Cr80, 12.6#/ft, R3, JFE, Bear Csg	3.15	**2098.52**	
18	Tubing, 8 joints, 4.5" 13Cr80, 12.6 #/ft R3, JFE Bear Csg	95.83	**2101.67**	
19	4.5" X Landing Nipple	0.49	**2197.50**	3.813
20	Marker Jt 4.5" 13Cr80, 12.6#/ft, R3, JFE, Bear Csg	3.15	**2197.99**	
21	Tubing, 2 joints, 4.5" 13Cr80, 12.6 #/ft R3, JFE Bear Csg	23.97	**2201.14**	
22	Float Collar	0.78	**2225.11**	No Go
23	Tubing, 1 joint, 4.5" 13Cr80, 12.6 #/ft R3, JFE Bear Csg	11.74	**2225.89**	
24	Float Shoe	0.75	**2237.63**	
	End of Casing		**2238.38**	
A	7-5/8" Casing Shoe		512m	

PERFORATION INTERVALS:

FORMATION	INTERVAL (m RT)	GUN: SIZE	GUN: TYPE	GUN: PHASE	GUN: SPF	CHARGES: TYPE	CHARGES: WT(g)	FRAC: Y ?
Paaratte Fm	Future Potential Zone							N
Waarre C	TBA							N
Eumeralla	TBA							N

REMARKS:

ANNULUS FLUID:	11ppg Mud Push II weighted with CaCO3
INDICATED STRING WEIGHT:	72 000 LB
CALCULATED STRG WEIGHT:	77 318 LB (in Fluid)
LANDED WEIGHT:	122 000 LB (50 000 LB Tension)
Comments: Theoretical TOC 412m	

NOT TO SCALE		WELLSITE SUPERVISOR		Roy Dunne	
CASE & SUSPEND	X	DATE OF INSTALLATION		15-Mar-07	
RE-COMPLETION:		DRAFTED BY:	Roy Dunne	DATE:	15/03/2007
COMPLETION:		REVISED BY:		DATE:	
OTHER:		CHECKED BY:	Terry Greaney	DATE:	20/03/2007

CASING TALLY

PAGE: 1 OF 1

WELL NAME & LOCATION: CRC1

DATE: February 17, 2007

TALLY DONE BY: Kevin Murphy / Brian Assels

FILE=

Section #	Num Jts	O.D. (mm)	I.D. (mm)	WT (kg/m)	GRADE	TYPE	LENGTH (m)	Top Set (m)	REMARKS
1	FS	7-5/8"					0.40		
2	1	7-5/8"		26.4 ppf	L80		11.82		CSG
3	FC	7-5/8"					0.33		
4	42	7-5/8"		26.4 ppf	L80		493.91		CSG
5	1	7-5/8"		26.4 ppf	L80		8.13		
6	1						0.00		
							0.00		

TOTAL LENGTH (m) =	**514.59**
SHOE LANDED DEPTH (m) =	**512.12**
STICK UP ABOVE K.B. (m) =	**2.47**

NOTE: 0=NOT RUN, 1=RUN (IN HOLE)

JT #	SECT #	IN/ OUT	TYPE	JOINT LGTH (M)	TOTAL RUN (M)	TOP SET AT (M)	REMARKS	JT #	SECT #	IN/ OUT	TYPE	JOINT LGTH (M)	TOTAL RUN (M)	TOP SET AT (M)	REMARKS
FS	1	1	FS	0.40	0.40	511.72		29	4	1	CSG	11.74	341.38	170.74	
1	2	1	CSG	11.82	12.22	499.90		30	4	1	CSG	11.80	353.18	158.94	
FC	3	1	FC	0.33	12.55	499.57		31	4	1	CSG	11.48	364.66	147.46	
2	4	1	CSG	11.80	24.35	487.77		32	4	1	CSG	11.81	376.47	135.65	
3	4	1	CSG	11.58	35.93	476.19		33	4	1	CSG	11.82	388.29	123.83	
4	4	1	CSG	11.82	47.75	464.37		34	4	1	CSG	11.83	400.12	112.00	
5	4	1	CSG	11.80	59.55	452.57		35	4	1	CSG	11.82	411.94	100.18	
6	4	1	CSG	11.57	71.12	441.00		36	4	1	CSG	11.83	423.77	88.35	
7	4	1	CSG	11.82	82.94	429.18		37	4	1	CSG	11.80	435.57	76.55	
8	4	1	CSG	11.80	94.74	417.38		38	4	1	CSG	11.80	447.37	64.75	
SUB TOTAL				94.74	94.74			SUB TOTAL				117.73	447.37		
9	4	1	CSG	11.56	106.30	405.82		39	4	1	CSG	11.82	459.19	52.93	
10	4	1	CSG	11.81	118.11	394.01		40	4	1	CSG	11.80	470.99	41.13	
11	4	1	CSG	11.60	129.71	382.41		41	4	1	CSG	11.83	482.82	29.30	
12	4	1	CSG	11.77	141.48	370.64		42	4	1	CSG	11.82	494.64	17.48	
13	4	1	CSG	11.80	153.28	358.84		43	4	1	CSG	11.79	506.43	5.69	
14	4	1	CSG	11.82	165.10	347.02		44	5	1	CSG	8.13	514.56	-2.44	landing joint
15	4	1	CSG	11.78	176.88	335.24		S/up	6	1	S/up	-2.47	512.09	0.03	stick up above RT
16	4	1	CSG	11.79	188.67	323.45		45		1	CSG		512.09	0.03	
17	4	1	CSG	11.80	200.47	311.65		46		1	CSG		512.09	0.03	
18	4	1	CSG	11.58	212.05	300.07		47		1	CSG		512.09	0.03	
SUB TOTAL				117.31	212.05			SUB TOTAL				64.72	512.09		
19	4	1	CSG	11.81	223.86	288.26		48		1	CSG		512.09	0.03	
20	4	1	CSG	11.80	235.66	276.46		49		1	CSG		512.09	0.03	
21	4	1	CSG	11.63	247.29	264.83		50		1	CSG		512.09	0.03	
22	4	1	CSG	11.79	259.08	253.04		51		1	CSG		512.09	0.03	
23	4	1	CSG	11.81	270.89	241.23		52		1	CSG		512.09	0.03	
24	4	1	CSG	11.80	282.69	229.43		53		1	CSG		512.09	0.03	
25	4	1	CSG	11.79	294.48	217.64		54		1	CSG		512.09	0.03	
26	4	1	CSG	11.82	306.30	205.82		55		1	CSG		512.09	0.03	
27	4	1	CSG	11.53	317.83	194.29		56		1	CSG		512.09	0.03	
28	4	1	CSG	11.81	329.64	182.48		57		1	CSG		512.09	0.03	
SUB TOTAL				117.59	329.64			SUB TOTAL				0.00	512.09		

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ATTACHMENT 10 : CEMENTING SUMMARY

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Cementing End Of Well Report

CRC-1

Rig : Century Rig 11
Well Type : Injector
Customer : CO2CRC Pilot Project Ltd
Prepared : Pam Kosarek
e- pkosarek@perth.oilfield.slb.com
Tel +61 8 9420 4639
Fax +61 8 9322 3080
Date : 11 April 2007

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Well Summary

Client Representative		
No	**Name**	**Position**
1	Kevin Murphy	Drilling Supervisor
2	Adelaide Lam	Drilling Engineer

Dowell Supervisor		
No	**Name**	**Position**
1	Mike Herrera	Field Specialist
2	Jason Nield	Helper
3	Lee Gregson	Helper
4	Pam Kosarek	Field Engineer
5	Shahul Hameed	Product Champion

Well Data							
Open Hole			Casing			Temperature	
Size	**MD**	**TVD**	**Size**	**Wt**	**Depth**	**BHST**	**BHCT**
(in)	(m)	(m)	(in)	(lb/ft)	(mMD)	degC	degC
9 7/8	516	516	7 5/8	26.4	512	35	27
6 3/4	2249	2249	4 1/2	12.6	2238	86	65

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Cement Job Summary

Date	Job Type	Material/Fluid Used			Cement Slurry		Displacement		Spacer		Cement	Plugs	
		Material	Concentration	Quantity	Density	Volume	Fluid	Volume	Type	Volume	Head	Top	
17-Feb-07	7 5/8" Casing	Class G Cement	–	190 sacks	12.5 ppg	67 bbl	DW	10 bbl	DW	60 bbl	SLB	Halliburton	H
		D047	0.01 gal/sk	3 gal									
		API Bentonite	2.5% BWOC	550 lbs			WBM	70 bbl					
		Calcium Chloride	1.0% BWOC	220 lbs									
		Class G Cement		180 sacks	15.8 ppg	34 bbl							
		D047	0.01 gal/sk	1 gal									
		Calcium Chloride	0.5% BWOC	85 lbs									
14-Mar-07	4 1/2" Casing	Class G Cement	–	400 sacks	12.5 ppg	148 bbl	MUDPUSH	1 bbl	DW	20 bbl	Halliburton	Halliburton	H
		D047	0.01 gal/sk	5 gal			WBM	111 bbl	MUDPUSH	60 bbl			
		D168	0.40 gal/sk	179 gal									
		Wyoming Bentonite	3.0% BWOC	1260 lbs									
		D081	0.03 gal/sk	14 gal									
		D095 CemNET	1.0 lb/bbl of slurry	100 lbs									
		CO2 Resistant Cement	–	230 sacks	15.8 ppg	39 bbl							
			0.03 gal/sk										
		D175	blend	10 gal									
		D153	0.10% BWOB	25 lbs									
		D176	1.48% BWOB	400 lbs									
			0.08 gal/sk										
		D168	blend	21 gal									
			0.08 gal/sk										
		D080	blend	21 gal									
			0.045 gal/sk										
		D081	blend	12 gal									

		MUDPUSH D047 D182 Calcium Carbonate	0.10 gal/bbl spacer 4.0 lbs/bbl spacer 176.90 lb/bbl spacer	10 gal 350 lbs									

Chemical Consumption

Chemical	Unit	Chemical Usage				
		7 5/8" Casing	4 1/2" Casing			Total
Class G cement	MT	16	17			33
CO2 Resistant Cement	MT		10.4			10.4
API Bentonite	lbs	550				550
Wyoming Bentonite	lbs		1260			1260
Calcium Chloride	lbs	305				305
D047 Antifoam	gal	4	15			19
D075 Extender	gal					
D080 Dispersant	gal		21			21
D081 Retarder	gal		26			26
D122A CW Concen.	gal					
D153 Anti-Settling Agent	lbs		25			25
D168 Fluid Loss	gal		200			200
D175 Defoamer	gal		10			10
D176 Expansion Agent	lbs		400			400
D182 MUDPUSH II	lbs		350			350
Dye	lbs	11				11

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Miscellaneous Pumping and Pressure Testing

Job	Job Started		Type of	Pressure	Job Finished	
	Date	Time	Fluid	Max, Psi	Date	Time
Pressure test surface line on 7 5/8" cement job	17/02/2007	23:50	DW	3500	18/02/2007	00:30
Pressure test 7 5/8" casing	18/02/2007	01:55	WBM	3000	18/02/2007	02:15
Pressure test surface lines	19/02/2007	23:30	DW	3000	19/02/2007	23:35
Pressure test casing prior to plug drill-out	19/02/2007	23:38	DW	2500	19/02/2007	23:59
Pressure test surface lines	20/02/2007	05:18	DW	2500	20/02/2007	05:25
MLOT#1	20/02/2007	05:28	WBM	348	20/02/2007	05:46
MLOT#2	20/02/2007	05:48	WBM	325	20/02/2007	06:04
MLOT#3	20/02/2007	06:06	WBM	316	20/02/2007	06:20
Pressure test pump	20/02/2007	06:25	WBM	407	20/02/2007	06:32
Pressure test surface line on 4 1/2" cement job	14/03/2007	21:17	DW	3500	14/03/2007	21:25
Pressure test 4 ½" casing	15/03/2007	02:30	Brine	3000	15/03/2007	02:42

END WELL REPORT
CRC-1
JOB DESIGN & EXECUTION SUMMARY

9 7/8" HOLE / 7 5/8" CASING

1.1 Drilling/Casing:

The 9 7/8" hole was drilled to a total depth of 516 m with a 8.45 ppg KCl/PHPA/Polymer water based mud system. At depth, 7 5/8" Casing was run and set at 512 m. Previous 16" conductor casing was in place on arrival at a depth of 10 m. Schlumberger cement head and Halliburton plugs were used for this string.

1.2 Design

A 12.5 ppg Class G lead slurry followed by a 15.8 ppg Class G tail slurry was planned to provide strong cement at the 7 5/8" casing shoe:

Lead Slurry	Tail Slurry
Class G Cement: 190 sks	Class G Cement: 180 sks
Drill water: 12.229 gal/sk	Drill water: 5.117 gal/sk
D047 (antifoam): 0.01 gal/sk	D047 (antifoam): 0.01 gal/sk
API bentonite: 2.5%BWOC	--
Calcium Chloride: 1.0%BWOC	Calcium Chloride: 0.5%BWOC
Density – 12.5 ppg	Density – 15.8 ppg
Yield – 2.13 cuft/sk	Yield – 1.16 cuft/sk
Slurry Volume – 67 bbl	Slurry Volume – 34 bbl

1.3 Execution

While circulating with water based mud after the casing was landed, a Job Hazard Analysis with the Rig Crew was performed to inform them of their job role and the potential hazards that may occur during execution.

Job Procedure:

1) Pump 10 bbl drill water
2) Pressure test surface lines to 3500 psi
3) Bleed off pressure; troubleshoot leaks on rig floor
4) Pressure test surface lines to 3500 psi – ok
5) Pump 46 bbl drill water
6) Release bottom plug
7) Mix & pump 67 bbl Class G lead slurry @ 12.5 ppg
8) Mix & pump 34 bbl Class G tail slurry @ 15.8 ppg
9) Release top plug
10) Displace with water based mud
11) Bump plug and pressure test casing to 3000 psi
12) Bleed off pressure and check returns

1.4 Evaluation

Job executed according to procedure. A few leaks were observed from the treating iron at rig floor during initial pressure test of surface lines. These items were changed out and surface line test was completed successfully. Otherwise, job was performed according to job procedure.

6 3/4" HOLE / 4 1/2" PRODUCTION CASING

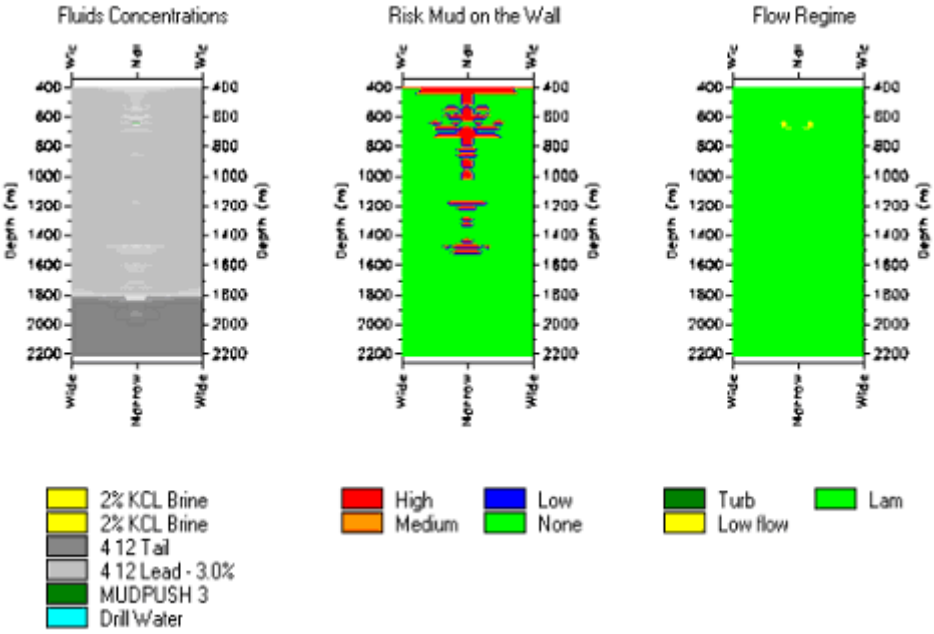
2.1 Drilling/Casing:

A 6 3/4" hole was drilled to a total depth of 2249 m with 9.6 ppg KCl/PHPA/Polymer water based mud system. 4 1/2" casing was run and set at 2238 m. Halliburton cement head / plugs were used for this string.

2.2 Design:

Lead Slurry	Tail Slurry	MUDPUSH
Class G Cement: 400 sks	CO2 Resistant Cement: 230 sks	--
Drill water: 11.897 gal/sk	Drill water: 3.231 gal/sk blend	Drill water / Spacer: 80.4%
D047 (antifoam): 0.01 gal/sk	D175 (defoamer): 0.03 gal/sk blend	D047: 0.10 gal/bbl spacer
--	D153 (antisettling): 0.10%BWOB	--
--	D176 (expanding): 1.48%BWOB	--
D168 (fluid loss): 0.40 gal/sk	D168 (fluid loss): 0.08 gal/sk blend	--
Wyoming Bentonite: 3.0%BWOC	--	--
--	D080 (dispersant): 0.08 gal/sk blend	--
D081 (retarder): 0.03 gal/sk	D081 (retarder): 0.045 gal/sk blend	--
--	--	D182 (MUDPUSH): 4.00 lbs/bbl spacer
--	--	Calcium Carbonate : 176.90 lbs/bbl spacer
Density – 12.5 ppg	Density – 15.8 ppg	--
Yield – 2.14 cuft/sk	Yield – 1.16 cuft/sk	--
Slurry Volume – 148 bbl	Slurry Volume – 39 bbl	Spacer Volume – 60 bbl

Centralisers were run as per CemCADE output to assist with mud removal. However, due to wash-out sections shown in wireline log, mud removal was not optimal. Simulations for mud removal utilising all of Halliburton centralizers showed the following:



2.3 Execution:

MUDPUSH was prepared prior to cement job in one of the mud pits. MUDPUSH was prepared as per designed 11.0 ppg lab test. Final spacer weight was ~11.0 ppg.

Lead mix fluid was prepared in Halliburton supplied tank and recirculated by cement unit. Mix fluid was circulated during mixing in order to assist with bentonite prehydration. Wyoming-grade bentonite was sourced for this job.

After the casing was landed and cement line rigged up, a Job Hazard Analysis with the Rig Crews and Barge Captain was performed to inform them of their job role and the potential hazards that may occur during execution.

Pressure testing of surface line was performed prior to batch mixing tail slurry to ensure no unexpected job delays once batch mixing commenced.

Tail slurry was prepared in one cell of the twin-50 bbl batch mixer. Mix fluid was prepared in front cell and a percentage removed for contingency to tote tank on top of batch mixer. Bulker-type bags of CO2 resistant cement were raised by crane onsite and added to batch mixer via hopper. Slurry weight was verified at 16.2 ppg with pressurised mud balance prior to execution.

Job Procedure:

1) Flush lines
2) Pressure test surface lines to 3500 psi
3) Circulate with rig pumps
4) Batch mix CO2 resistant cement slurry in batch mixer
5) Pump 20 bbl drill water spacer
6) Pump 60 bbl MUDPUSH weighted spacer with rig pumps
7) Release bottom plug
8) Mix & pump 148 bbl Class G lead slurry @ 12.5 ppg
    - Pump 10 bbl lead slurry
    - CemNET added at concentration of 1.0 lb/bbl slurry to next 100 bbl slurry
    - Pump remaining lead slurry

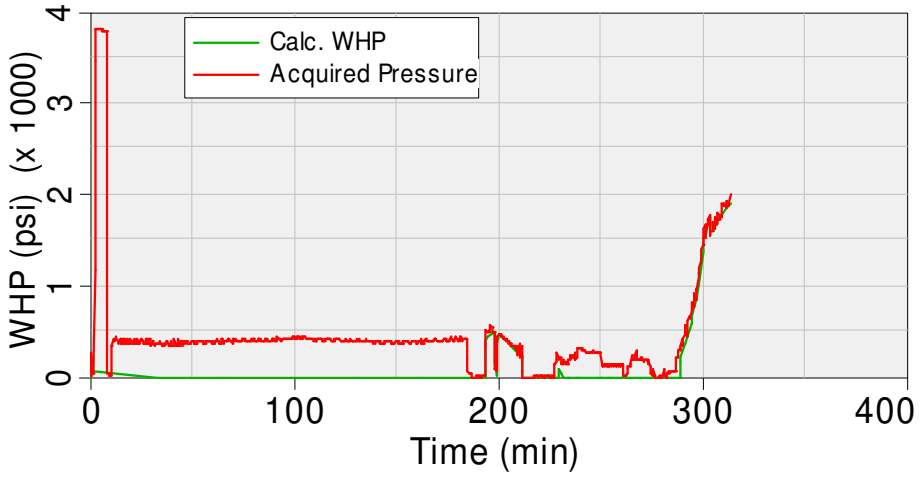
9) Pump 39 bbl CO2 resistant tail slurry @16.2 ppg from batch mixer
10) Release top plug
11) Pump 1 bbl unweighted MUDPUSH spacer
12) Displace with brine
13) Bump plug and pressure test casing to 3000 psi
14) Bleed off and check returns

2.4 Evaluation:

Slurry was in batch mixer for 3 hours prior to start of pumping program. Batch mix time with bulker bags took longer than expected to complete. Slurry was still pumpable at time to pump tail slurry and job continued as per procedure.

Cement unit pumped displacement brine and overdisplacement was agreed upon prior to the job to pump additional 1 – 1.5 bbl brine to bump plugs. Plugs were bumped within this margin and casing was successfully tested at job completion. Pressure was bled off and 1.0 bbl returns were observed at surface.

Post-job simulations show a close agreement between designed and acquired wellhead pressure during execution as seen in figure below:



Job was completed according to procedure. Logging program will occur at a later date – anticipated in May 2007.

Schlumberger

Laboratory Cement Test Report – CRC-1 7-5/8" Lead Slurry

						Signatures
Fluid No	: AUPT1010001	Client	: CO2CRC	Location / Rig	: Century Rig 11	
Date	: Feb-14-2007	Well Name	: CRC-1	Field	: Otway Basin	Jereme

Job Type	Tail	Depth	500.0 m	TVD	500.0 m
BHST	35 degC	BHCT	27 degC	BHP	1020 psi
Starting Temp.	27 degC	Time to Temp.	00:15 hr:mn	Heating Rate	0.37degF/min
Starting Pressure	282 psi	Time to Pressure	00:15 hr:mn	Schedule	( )

Composition

Density	**12.50 lb/gal**	**Yield**	**2.13 ft3/sk**	**Mix Fluid**	**12.409 gal/sk**
Porosity	76.8 %	Solid Fraction	23.2 %	Slurry type	Conventional

Code	Concentration	Sack Reference	Component	Absolute Density	Lot Number
G		94 lb of Class G Cmt	Class G Cement	199.77 lb/ft3	Lab
Fresh water	12.229 gal/sk		Base Fluid		Rig
D047	0.010 gal/sk		antifoam		Lab
Bentonite	2.500 %BWOC		extender		Rig
Calcium Chloride	1.000 %BWOC		accelerator		Lab

Rheology (Average readings)

(rpm)	(deg)	(deg)
300	51.0	
200	48.0	
100	45.0	
60	43.0	
30	41.0	
6	21.0	
3	18.0	
10 sec Gel	19	
10 min Gel	20	
Temperature	27 degC	(degC)
	Pv : 9.910 cP Ty : 41.29 lbf/100ft2	k : (lbf.s^n/ft2) n : ( ) Ty : (lbf/100ft2)

Thickening Time

Consistency	Time
40 Bc	07:32 hr:mn
70 Bc	09:59 hr:mn
100 Bc	12:21 hr:mn
Remark : Thickening time do not include batch time	

Free Fluid

3.0 mL/250mL At (degC) and (deg) incl. Sedimentation	in 2 hrs

Comments

General Comment :
Fann Reading Comment :
Thickening Time Comment :
Other test Comment : ; ; ; ;

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Laboratory Cement Test Report - CRC-1 7-5/8 Tail Slurry

						Signatures
Fluid No	: AUP1011001	Client	: CO2CRC	Location / Rig	: Century Rig 11	
Date	: Feb-14-2007	Well Name	: CRC-1	Field	: Otway Basin	Jereme

Job Type	Tail	Depth	500.0 m	TVD	500.0 m
BHST	35 degC	BHCT	27 degC	BHP	1020 psi
Starting Temp.	27 degC	Time to Temp.	00:15 hr:mn	Heating Rate	0.37 degF/min
Starting Pressure	282 psi	Time to Pressure	00:15 hr:mn	Schedule	9.3-2

Composition

Density	**15.80 lb/gal**	**Yield**	**1.16 ft3/sk**	**Mix Fluid**	**5.127 gal/sk**
Porosity	59.1 %	Solid Fraction	40.9 %	Slurry type	Conventional

Code	Concentration	Sack Reference	Component	Absolute Density	Lot Number
G		94 lb of Class G Cmt	Class G Cement	199.77 lb/ft3	Lab
Fresh water	5.117 gal/sk		Base Fluid		Rig
D047	0.010 gal/sk		antifoam		Lab
Calcium Chloride	0.500 %BWOC		accelerator		Rig

Rheology (Average readings)

(rpm)	(deg)	(deg)
300	112.0	
200	94.0	
100	73.5	
60	62.5	
30	51.5	
6	25.0	
3	17.0	
10 sec Gel	19	
10 min Gel	30	
Temperature	27 degC	(degC)
	Pv : 65.529 cP Ty : 48.76 lbf/100ft2	k : (lbf.s^n/ft2) n : ( ) Ty : (lbf/100ft2)

Thickening Time

Consistency	Time
40 Bc	03:42 hr:mn
70 Bc	04:24 hr:mn
100 Bc	05:07 hr:mn
Remark : Thickening time do not include batch time	

Free Fluid

3.0 mL/250mL At (degC) and (deg) incl. Sedimentation	in 2 hrs

Comments

General Comment :
Fann Reading Comment :
Thickening Time Comment :
Other test Comment : ; ; ; ;

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Laboratory Spacer Test Report – CRC-1 MUDPUSH Spacer 3

						Signatures
Fluid No	**: AUPT1034001**	Client	: CO2CRC	Location / Rig	: Century rig 11	
Date	: Feb-28-2007	Well Name	: CRC-1	Field	: Otway Basin	Paul

Job Type	Casing	Depth	2250.0 m	TVD	2250.0 m
BHST	86 degC	BHCT	65 degC	BHP	4467 psi
Starting Temp.	27 degC	Time to Temp.	00:38 hr:mn	Heating Rate	1.35 degF/min
Starting Pressure	519 psi	Time to Pressure	00:38 hr:mn	Schedule	9.6-4

Composition

Density	**11.00 lb/gal**	**Type**	**MUDPUSH II**	**Water/Spacer**	**80.4 %**
Porosity	80.4 %	Solid Fraction	19.6 %		

Code	Concentration	Component	Lot Number
Fresh water			Rig
D047	0.010 gal/bbl of spacer	antifoam	Lab
D182	4.000 lb/bbl of spacer	turb. Spacer	Lab
Calcium Carbonate	176.90 lb/bbl of spacer	weight agent	Lab

Rheology

(rpm)	(deg)	(deg)
300	51.0	42.0
200	43.5	36.5
100	33.5	29.5
60	29.0	25.5
30	24.0	21.0
6	16.5	13.0
3	14.5	11.0

10 sec Gel	16	13
1 min Stirring		

Temperature	27 degC	65 degC
Pressure	(psi)	(psi)
	Pv: 29.786 cP Ty: 22.56 lbf/100ft2	Pv: 21.795 cP Ty: 21.16 lbf/100ft2

Comments

General Comment :
Fann Reading Comment :
Thickening Time Comment :
Other test Comment : ; ; ; ;

Schlumberger

Laboratory Cement Test Report - CRC-1 4 12" Lead Slurry (12.5 ppg)

						Signatures
Fluid No	**: AUPT 1021003**	Client	: CO2CRC	Location / Rig	: Century Rig 11	
Date	: Mar-12-2007	Well Name	: CRC-1	Field	: Otway Basin	Paul

Job Type	Casing	Depth	2250.0 m	TVD	2250.0 m
BHST	86 degC	BHCT	65 degC	BHP	4467 psi
Starting Temp.	27 degC	Time to Temp.	00:38 hr:mn	Heating Rate	1.35 degF/min
Starting Pressure	519 psi	Time to Pressure	00:38 hr:mn	Schedule	9.6-4

Composition

Density	**12.50 lb/gal**	**Yield**	**2.14 ft3/sk**	**Mix Fluid**	**12.464 gal/sk**
Porosity	77.2 %	Solid Fraction	22.8 %	Slurry type	Conventional

Code	Concentration	Sack Reference	Component	Absolute Density	Lot Number
G		94 lb of Class G Cmt	Class G Cement	199.77 lb/ft3	Rig
Fresh water	11.897 gal/sk		Base Fluid		Rig
D047	0.010 gal/sk		antifoam		Lab
D168	0.400 gal/sk		fluid loss		Rig
D020	3.000 %BWOC		extender		Rig
D081	0.030 gal/sk		retarder		Rig

Rheology (Average readings)

(rpm)	(deg)	(deg)
300	69.0	52.0
200	56.5	43.0
100	44.5	33.0
60	38.0	27.5
30	33.0	20.5
6	26.0	15.5
3	26.0	14.5
10 sec Gel	34	18
10 min Gel	55	30
Temperature	27 degC	65 degC
	Pv : 39.585 cP Ty : 30.03 lbf/100ft2	Pv : 33.144 cP Ty : 20.41 lbf/100ft2

Thickening Time

Consistency	Time
40 Bc	05:42 hr:mn
70 Bc	05:55 hr:mn
100 Bc	05:59 hr:mn
Remark : Thickening Time do not include batch mix time	

Free Fluid

2.2 mL/250mL	in 2 hrs
At 27 degC and 90 deg incl.	
Sedimentation	None

Fluid Loss

API Fluid Loss			225	mL
65 mL in	10 min	at 65 degC		and 1000 psi

Comments

General Comment :
Fann Reading Comment :
Thickening Time Comment :
Other test Comment :

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Laboratory Cement Test Report – CRC-1 4 ½" Tail Slurry (Revised)

						Signatures
Fluid No	: AUPT 1022001	Client	: CO2CRC	Location / Rig	: Century Rig 11	
Date	: Feb-28-2007	Well Name	: CRC-1	Field	: Otway Basin	Jereme

Job Type	Casing	Depth	2250.0 m	TVD	2250.0 m
BHST	86 degC	BHCT	65 degC	BHP	4467 psi
Starting Temp.	27 degC	Time to Temp.	00:38 hr:mn	Heating Rate	1.35 degF/min
Starting Pressure	519 psi	Time to Pressure	00:38 hr:mn	Schedule	9.6-4

Composition

Density	**15.84 lb/gal**	**Yield**	**1.10 ft3/sk of blend**	**Mix Fluid**	**3.521 gal/sk of blend**
Porosity	42.0 %	Solid Fraction	58.0 %	Slurry type	Conventional

Code	Concentration	Sack Reference	Component	Blend Density	Lot Number
C02 CRC-1		100 lb of BLEND	Blend	158.08 lb/ft3	Rig
Fresh water	3.231 gal/sk of blend		Base Fluid		Rig
D175	0.030 gal/sk of blend		antifoam		Rig
D153	0.100 %BWOB		antisettling		Rig
D176	1.480 %BWOB		high tempera		Rig
D168	0.080 gal/sk of blend		fluid loss		Rig
D080	0.080 gal/sk of blend		dispersant		Rig
D081	0.045 gal/sk of blend		retarder		Rig

Rheology (Average readings)

(rpm)	(deg)	(deg)
300	88.0	127.0
200	57.0	86.0
100	34.0	51.5
60	24.5	36.0
30	15.5	24.0
6	8.0	10.0
3	6.5	9.0
10 sec Gel	11	9
10 min Gel	36	48
Temperature	27 degC	65 degC
	Pv: 176.815 cP Ty: 7.38 lbf/100ft2	Pv: 252.374cP Ty: 13.33 lbf/100ft2

Thickening Time

Consistency	Time
40 Bc	03:43 hr:mn
70 Bc	04:02 hr:mn
100 Bc	04:12 hr:mn
Remark : Thickening time do not include batch time	
Batch Mix Time : 03:00 hr:mn	at 27 degC

Free Fluid

1.2 mL/250mL	in 2 hrs
At 27 degC and 90 deg incl.	
Sedimentation	None

Fluid Loss

API Fluid Loss			48	mL
24 mL in	30 min	at 65 degC		and 1000 psi

UCA Compressive Strength

Time	CS
14:51 hr:mn	50 psi
15:49 hr:mn	500 psi
24:00 hr:mn	4424 psi

Comments

General Comment : Mixing as per LiteCRETE procedures with 4000 rpm for 5.5 min
Fann Reading Comment : Rheologies performed with R1B5 configuration. Slurry pressurised in HPHT consistometer before taking downhole rheologies.
Thickening Time Comment : Thickening times reported do not include 3 hour batch mix time
Other test Comment :

DISTRICT	STATION	TYPE SERVICE:	COMPANY	Schlumberger
CAS	PAS	7 5/8" Casing	CRC	
RIG	TYPE OF WELL	FIELD	WELL No.	SERVICE REPORT
CENTURY Rig 11	Development		CO2 CRC 1	

TIME AND DATE JOB STARTED	TOTAL DEPTH	SIZE HOLE	DEVIATION	BHST	BHCT	INVOICE NUMBER
23:45 Hr 17/02/2007	516 meters	9 7/8"	0.5 Deg	35 Deg "C"	27 Deg"C"	

TIME & DATE JOB COMPLETED	DRILL FLUID			FORMATION	SIR NUMBER
	HCL/PHPA/POLY	8.45 ppg	50		
02:15 Hr 18/02/2007	Type	Wt.	Vis		

CASING / LINER							PREVIOUS CASING		
7 5/8"	512 meters	BTC	26.4#			500 meters	16"	10 meters	
Size	Depth	Type	Wt.	Volume	Allowable Press.	Collar at	Size	Depth	Wt.

TUBING / DRILL PIPE					PACKER		BRIDGE PLUG		TAIL PIPE	
Size	Depth	Type	Wt.	Volume	Type	Depth	Type	Depth	Type	Depth

CASING EQUIPMENT USED								CEMENT HEAD	MUD CIRCULATION PRIOR TO JOB		
SHOE: Float	COLLAR: Float	PLUGS: yes	yes	CENT.	4	Solid		Double Plug	30		
Float Shoe	Float Shoe	Top	Bottom		Qty.	Type			Time - Min.	Vol. BBLS	Press - PSI

WASH			SPACER			LEAD SLURRY				TAIL SLURRY			
			8.32 ppg	60		12.5 ppg	67 bbls	pot	362 meters	15.8 ppg	33.5 bbls	pot	150 meters
Wt.	Vol. BBLS	Fill	Wt.	Vol. BBLS	Fill	Wt.	Vol.	Mix Water	Fill	Wt.	Vol.	Mix Water	Fill

EQUIPMENT						DURING JOB WAS PIPE		PARAMETERS RECORDED ON:					MUD RETURNS
	LAB 1	Pump	1	Batch	Compressor	Rotated	NO	Yes	Yes	Yes	Yes		LOST DURING JOB
1	LPJ	Unit		Mixer	1 RCM	Reciprocated	NO	Press	Rate	Vol	Qty	Recorder	BBLS

LEAD SLURRY	TAIL SLURRY	MATERIALS USED
190 sacks Class "G" Cement	180 sacks Class "G" Cement	
D-047 - 3 Gasl CaCl - 220 lbs	D-047 - 1 gals	
D-020 - 550 lbs	CaCl - 85 lbs	

TIME	PRESSURE Low	PRESSURE High	VOLUME BBL	VOLUME BPM	LT Time	RECORD OF SERVICE
23:45	300		10	4.5		Pump Drill Water.
23:50		3500				Test Lines.
23:55						Leak on Loop on Rig Floor. Change Out.
00:08	250		2	2.5		Flush Lines.
00:10		3500				Retest Lines.
00:13						Leak on 3 Way Chickase on Rig Floor. Change Out.
00:23	250		2	2.5		Flush Lines.
00:24		3500				Test Lines.
00:30	300		46	6		Pump Drill Water.
00:38						Release BOTTOM Plug.
00:46	300			5.6		Mix & Pump Lead Slurry @ 12.5 ppg.
01:12			67			End Lead Slurry.
01:14						Batch Mix Tail Slurry to 15.8 ppg.
01:26	300		33.5	5.5		Pump Tail Slurry.
01:27						Release TOP Plug.
01:39	500			7		Displace with Mid.
01:55		3000	80			Bump Plug & Test Casing.
02:15						Bleed Off & Check Floats.

No. OF DS PERSONNEL ON JOB				STEM1 DONE?	YES	X NO	TOTAL LOST TIME	H	TOTAL OPERATING TIME	2.5 H
SUP		S.S	1	CUSTOMER COMMENTS					DS REPRESENTATIVE	
TECH		F.E.	HEL 1						M.Herrera	
QUALITY OF SERVICE	GOOD		SATISFACTORY		POOR				CUSTOMER REPRESENTATIVE	
									Kevin Murphy	

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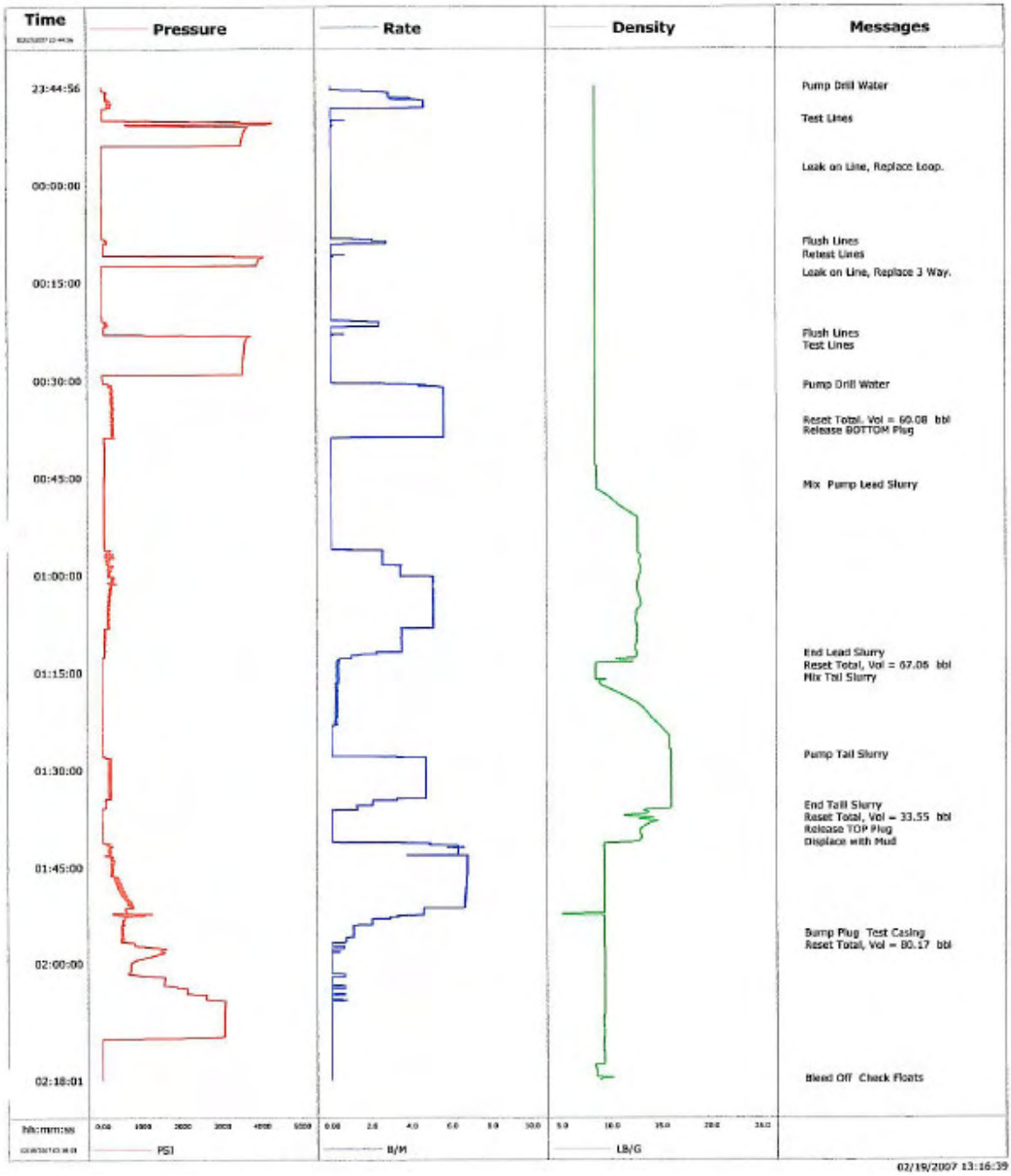
Cementing Job Report

CemCAT v1.0

Well	CO2 CRC 1	**Client**	CRC
Field	Naylor	**SIR No.**	
Engineer	M Herrera	**Job Type**	7 5/8" Casing
Country	Australia	**Job Date**	02-18-2007



02/19/2007 13:16:39

DISTRICT	STATION	TYPE SERVICE:	COMPANY	Schlumberger
CAS	PAS	MLOT 7 5/8" Shoe	CRC	
RIG	TYPE OF WELL	FIELD	WELL No.	SERVICE REPORT
CENTURY Rig 11	Development		CO2 CRC 1	

TIME AND DATE JOB STARTED	TOTAL DEPTH	SIZE HOLE	DEVIATION	BHST	BHCT	INVOICE NUMBER
23:30 Hr 19/02/2007	520 meters	6 3/4"	0.5 Deg			

TIME & DATE JOB COMPLETED	DRILL FLUID			FORMATION	SIR NUMBER
	KCL/PHPA/POLY (Type)	9.1 ppg (Wt.)	70 (Vis)		
05:32 Hr 20/02/2007					

CASING / LINER							PREVIOUS CASING		
Size	Depth	Type	Wt.	Volume	Allowable Press.	Collar at	Size	Depth	Wt.
7 5/8"	512 meters	BTC	26.4#			500 meters	16"	10 meters	

TUBING / DRILL PIPE					PACKER		BRIDGE PLUG		TAIL PIPE	
Size	Depth	Type	Wt.	Volume	Type	Depth	Type	Depth	Type	Depth
3 1/2"	510 meters									

CASING EQUIPMENT USED					CEMENT HEAD	MUD CIRCULATION PRIOR TO JOB		
SHOE (Float Stab)	COLLAR (Float Stab)	PLUGS (Top / Bottom)	CENT. (Qty / Type)			Time - Min.	Vol. BBLS	Press - PSI

WASH			SPACER			LEAD SLURRY				TAIL SLURRY			
Wt.	Vol. BBLS	Fit	Wt.	Vol. BBLS	Fit	Wt.	Vol.	Mix Water	Fit	Wt.	Vol.	Mix Water	Fit

EQUIPMENT							DURING JOB WAS PIPE		PARAMETERS RECORDED:				ON	MUD RETURNS
LAS / LPJ	1 Pump Unit	Batch Mixer	Compressor / RCM	Pump Unit S/Ns			Rotated	NO	Yes Press	Yes Rate	Yes Vol	Yes Qty	CemCat: Recorder	LOST DURING JOB: BBLS
							Reciprocated	NO						

LEAD SLURRY	TAIL SLURRY	MATERIALS USED

TIME	PRESSURE Low	PRESSURE High	VOLUME BBL	VOLUME BPM	LT Time	RECORD OF SERVICE
23:30		3000				Test Lines.
23:38		2500				Test Casing before Drilling Cement Plugs.
23:59						Bleed Off.
05:05	50		1	1.5		Flush Lines.
05:07						Plug Valve on Drill Pipe Frozen. Change Out.
05:16						Flush Lines.
05:18		2500				Test Lines.
05:26						Close Pipe Rams.
05:28	348		0.2	0.3		MLOT #1
05:46						Bleed Off (0.1 bbls returned)
05:48	325		0.5	0.3		MLOT #2
06:04						Bleed Off (0.2 bbls returned)
06:06	316		0.2	0.3		MLOT #3
06:20						Bleed Off (0.15 bbls returned)
06:25	407					Test Pump.
06:32						Bleed Off. End Job.

No. OF DS PERSONNEL ON JOB				STEM1 DONE?	TOTAL LOST TIME	H	TOTAL OPERATING TIME	2 H
SUP		SS	1	YES X NO				
MECH		F.E.	HEL 1					

CUSTOMER COMMENTS

DS REPRESENTATIVE: M Herrera

CUSTOMER REPRESENTATIVE: Kevin Murphy

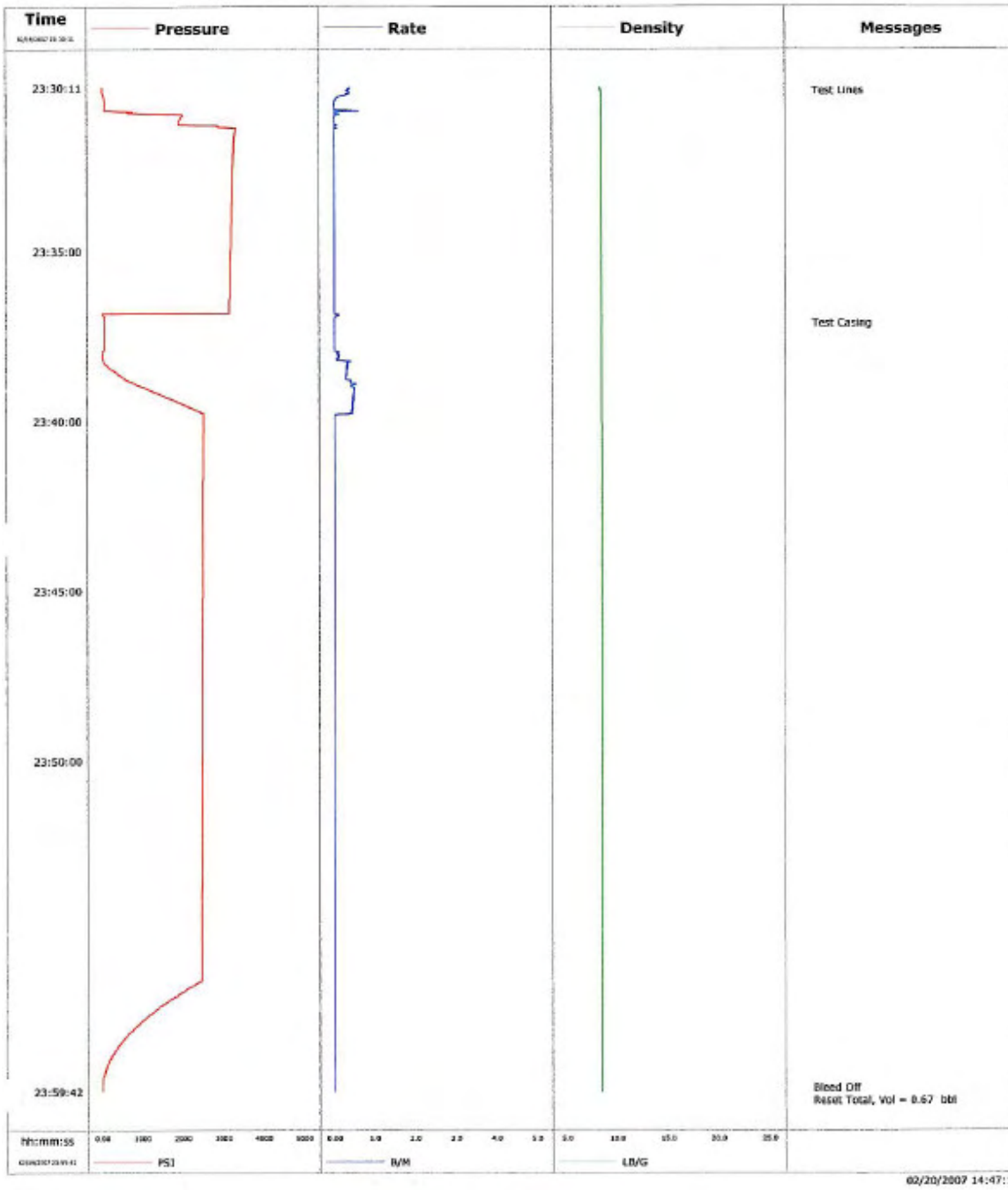
QUALITY OF SERVICE: GOOD ☐ SATISFACTORY ☐ POOR ☐

Schlumberger

Cementing Job Report

CemCAT v1.0

Well	CO2 CRC 1	**Client**	CRC
Field		**SIR No.**	
Engineer	M Herrera	**Job Type**	Casing Test 7 5/8" Casing
Country	Australia	**Job Date**	02-19-2007



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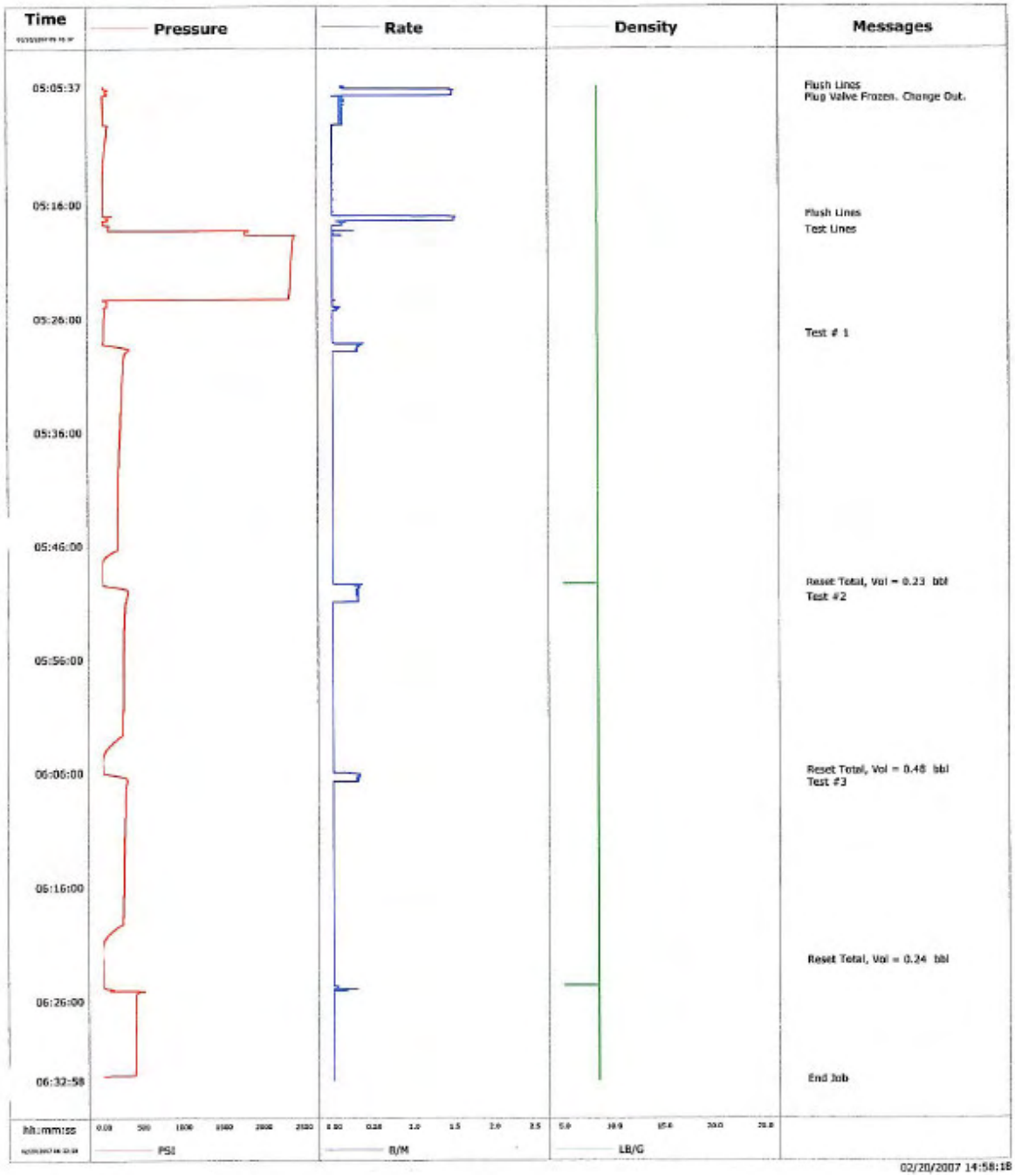
Schlumberger

Cementing Job Report

CemCAT v1.0

Well	CO2 CRC 1	**Client**	CRC
Field		**SIR No.**	
Engineer	N Herrera	**Job Type**	MLOT 7 5/8" Shoe
Country	Australia	**Job Date**	02-20-2007



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DISTRICT	STATION	TYPE SERVICE:	COMPANY	Schlumberger
CAS	PAS	4 1/2" Casing	CRC	

RIG	TYPE OF WELL	FIELD	WELL No.	SERVICE REPORT
CENTURY Rig 11	Development	NAYLOR Ottway Basin	CO2 CRC 1	

TIME AND DATE JOB STARTED	TOTAL DEPTH	SIZE HOLE	DEVIATION	BHST	BHCT	INVOICE NUMBER
21:15 Hr 14/03/2007	2249 meters	6 3/4"	2 Deg	56 Deg "C"	65 Deg"C"	

TIME & DATE JOB COMPLETED	DRILL FLUID			FORMATION	SR NUMBER
	KCL/PHPA/POLY	9.4 ppg	60		
02:44 Hr 15/03/2007	Type	Wt.	Vis		

CASING / LINER							PREVIOUS CASING		
4 1/2"	2238 meters	KS Bear	12.6#			2225.5 meters	7 5/8"	512 meters	26.4#
Size	Depth	Type	Wt.	Volume	Allowable Press.	Collar at	Size	Depth	Wt.

TUBING / DRILL PIPE					PACKER		BRIDGE PLUG		TAIL PIPE	
Size	Depth	Type	Wt.	Volume	Type	Depth	Type	Depth	Type	Depth

CASING EQUIPMENT USED								CEMENT HEAD	MUD CIRCULATION PRIOR TO JOB		
SHOE Float / Float Stab	COLLAR Float / Float Stab	PLUGS yes / yes Top / Bottom	CENT. 60 Qty.	Solid Type				Single Plug	180 Time - Min.	Vol. BBLS	500 Press - PSI

WASH			SPACER			LEAD SLURRY				TAIL SLURRY			
8.32 ppg	20		11 ppg	60		12.5 ppg	148.5 bbls	pot	1421 meters	16.2 ppg	38.5 bbls	pot	410 meters
Wt.	Vol. BBLS	Fill	Wt.	Vol. BBLS	Fill	Wt.	Vol.	Mix Water	Fill	Wt.	Vol.	Mix Water	Fill

EQUIPMENT						DURING JOB WAS PIPE		PARAMETERS RECORDED:				ON:	MUD RETURNS
	LAS	1 Pump	1 Batch	1 Compressor		Rotated	NO	Yes	Yes	Yes	Yes	CemCat	LOST DURING JOB
1	LPU	Unit	Mixer	1 RCM	Pump Unit S/No.	Reciprocated	yes	Press	Rate	Vol	Qty	Recorder	BBLS

LEAD SLURRY	TAIL SLURRY	MUDPUSH II
400 sacks Class "G" Cement	230 sacks CO2 Blend	D-176 - 400 lbs
D-047 - 4.5 Gal	D-168 - 21 gals	D-047 - 10 gals
D-168 - 179 gals	D-175 - 10 gals	D-080 - 21 gals
D-020 - 1260 lbs	D-153 - 25 lbs	D-182 - 350 lbs
D-081 -13.4 gals	D-081 - 12 gals	

TIME	PRESSURE Low	PRESSURE High	VOLUME BBL	VOLUME BPM	LT Time	RECORD OF SERVICE
21:15	275		1	1.5		Pump Drill Water.
21:17		3500				Test Lines.
21:26						Circulate with Rig Pumps.
21:30						Batch Mix Tail Slurry to 16.2 ppg.
00:28	500		20	4.6		Pump Drill Water Spacer.
00:33	450		60	4		Pump Weighted MUDPUSH II Spacer with Rig Pumps.
00:48						Load Plugs into Cement Head.
00:54						Mix first 30 bbls Lead Slurry @12.5 ppg.
01:02	250			5.5		Mix & Pump Lead Slurry @ 12.5 ppg.
01:06	250		10	5.5		Add CEMNET to Lead Slurry.
01:38	250		148			End Lead Slurry.
01:39	200		38.5	3		Pump Tail Slurry @ 16.2 ppg.
01:50	50		1	1.5		Pump Unweighted MUDPUSH II.
01:52						Release TOP Plug.
01:56	250	1900		4.6		Displace with Brine
02:29	1900		111	1		Bump Plug.
02:31		3000				Test Casing.
02:42						Bleed Off & Check Floats (1 bbl Returned).
02:44						End Job.

No. OF DS PERSONNEL ON JOB						STEM1 DONE?	YES X NO	TOTAL LOST TIME	H	TOTAL OPERATING TIME	2.5 H
SUP	1	S.S	1			CUSTOMER COMMENTS		DS REPRESENTATIVE			
TECH		F.E.	1	HEL	2			Al Herrera			

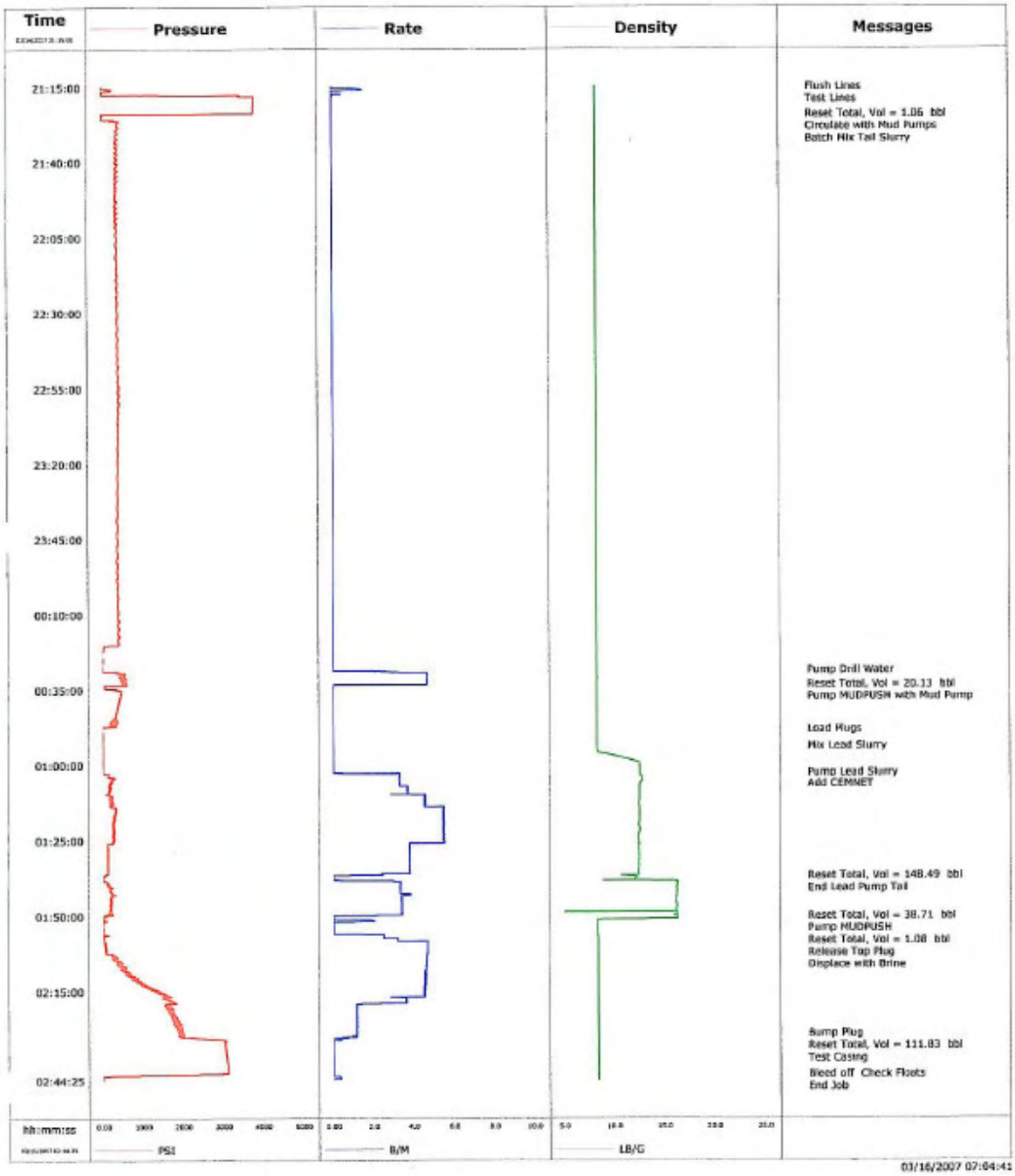
QUALITY OF SERVICE	GOOD	SATISFACTORY	POOR	CUSTOMER REPRESENTATIVE
				Kevin Murphy

Schlumberger

Cementing Job Report

CemCAT v1.0

Well	CO2 CRC1	**Client**	CRC
Field		**SIR No.**	
Engineer	M Herrera	**Job Type**	4 1/2" Casing
Country	Australia	**Job Date**	03-14-2007



03/16/2007 07:04:41

Schlumberger

Draft Cementing Programme: CRC-1 4 ½" Production Casing

Revision 3

13-March-2007

Contents:

1) Cement Program
2) CemCADE
3) Lab Tests

Prepared for: Terry Greaney
Drilling Engineer
Upstream Petroleum
CO2CRC Pilot Project Ltd

Prepared by: Pam Kosarek
Field Engineer
Schlumberger Well Services
Office – 08 9420 4639
Mobile – 0402 894 010
pkosarek@perth.oilfield.slb.com

Program for 4 1/2" (114mm) Production Casing Cementation, CRC-1

Objective:
To provide zonal isolation for any formation fluids, to allow for well testing / completion operations and provide a CO2 resistant cement to protect against CO2 corrosion through the injection life of the well.

Well Data:

MD / TVD	2238 mMD / 2238 mTVD
Open Hole Diameter	6 3/4 inch / 171 mm
Casing Size	4 1/2 inch / 114 mm
Temperature Gradient	2.95 deg / 100 m relative
BHST / BHCT	86 / 65 deg C
Drilling Fluid	1.15 SG WBM
Annular OH Excess	5% XS on caliper
Max Dynamic ECD	1.63 SG / 13.6 ppg
Hydrocarbons present	Yes

NOTE: BHCT temperatures run with a minimum of 120 min mud circulation at 4-5 bpm prior to cementation. Circulation must be performed prior to cement job to lower BHCT.

Centralisation:
Although the majority of this section is planned vertical, some centralizers should still be run to ensure sufficient standoff between casing and bore hole, and provide the best geometry to obtain a good bonding and hydraulic seal, that will prevent annular flows and/or pressures behind this casing. Based on a maximum deviation of 2 degrees from vertical based on drilling data, centralisers should be run at 2 per joint for the first joint (incl. Shoe Track), 1 per 2 joints to 1800m (40 joints), 1 per 3 joints to 1300m (42 joints), 1 per 2 to 980m (26 joints), 1 per 3 to 800m (15 joints), then 1 per 5 to 400m - TOC (35 joints) to ensure zonal isolation. See centraliser placement in CemCADE output following program.

Slurry Design:
A 12.5 ppg (1.50 SG) lead slurry followed by a 15.8 ppg (1.90 SG) tail slurry will be used for the cementation of the 4 ½" production casing. Due to uncertainty with fracture gradient for this area, it is recommended to pump 100 bbl of lead slurry with D095 CemNET at a 1 lb/bbl of slurry concentration (following first 10-bbl lead slurry pumped without CemNET) to assist with any potential losses that could occur during cementation. Slurry formulations are as follows:

Stage	**Lead Slurry**	**Tail Slurry**
Cement Class	Class G	CO2 Blend
Yield	2.14 cuft/sk	1.10 cuft/sk blend
Density	12.5 ppg / 1.50 SG	15.8 ppg / 1.90 SG
Mix Fluid	12.464 gal/sk	3.521 gal/sk
Drill Water	11.897 gal/sk	3.231 gal/sk
Anti-foam D047	0.01 gal/sk	
Bentonite	3.0% BWOC	
Anti-foam D175		0.03 gal/sk blend
Anti-settling D153		0.10 %BWOB
Expanding Agent D176		1.48 %BWOB
Fluid Loss D168	0.40 gal/sk cement	0.08 gal/sk blend
Dispersant D080		0.08 gal/sk blend
Retarder D081	0.03 gal/sk cement	0.045 gal/sk blend
CemNET D095	1 lb/bbl slurry	
TOC	400 mMD	1820 mMD
Job Time	1:45 hrs:min	0:55 hrs:min
Slurry Thickening Time (70BC)	5:55 hrs:min	4:02 hrs:min (not including 3:00 batch mix time)
Volume	147.5 bbl (5% XS)	40 bbl (5% XS)

Note: It is Schlumberger policy to have a thickening time of 2 hrs over job time as a safety margin. This policy will stand unless the client / operator gives specific, documented instructions otherwise.

Spacer considerations:

It is recommended to pump **20 bbl (3.2 m^3) drill water** to assist with casing clean-out followed by **60 bbl (9.5 m^3) of 11.0 ppg MUDPUSH II** weighted spacer ahead of the slurry. This should be sufficient to remove any remains of mud used while drilling, and leave a clean/water wet bonding surface for the cement.

It is required to pump **2 bbl (0.3 m^3) of unweighted MUDPUSH II (no calcium carbonate addition)** behind CO2 resistant cement slurry and top plug to maintain slurry stability. Newtonian fluids cannot be pumped as spacer with CO2 resistant cement slurry.

Pumping and Operational Program:

1. Check calculations including pump out calcs. Confirm with company man.
2. Prepare displacement brine in 124-bbl tank #2 onsite -- DONE
3. Prepare required amount of MUDPUSH II base fluid (60 bbl pumpable spacer volume + extra 5-10 bbl base fluid for spacer behind) in mud pit pre-mix tank #1 – to be pumped by rig pumps
4. After pre-hydration, remove 5-10-bbl from pit for use on cement unit as spacer behind
5. Prepare lead mix fluid in batches using 50-bbl mixing trailer to prehydrate bentonite and then transfer to 124-bbl tank #1 onsite
6. Prepare tail mix fluid (including 5-bbl contingency mix fluid) in front tank of 100-bbl batch mixer. Transfer 5-bbl of required mix fluid to one tote tank as well as 5-bbl contingency mix fluid to second tote tank to allow for adjustments to slurry density once all blend has been added.
7. Weigh up MUDPUSH spacer in pre-mix tank #1 with calcium carbonate to 11.0 ppg. Confirm density prior to cementation.
8. Rig up Halliburton cement head and surface lines plus line for mud circulation.
9. Hold pre-job safety meeting with all essential personnel for cement job
10. Break circulation with cement unit and pressure test surface lines
11. Circulate minimum of 120 min at 4-5 bpm with rig pumps to lower BHCT, ensure returns are clean and mud rheologies are achieved.
12. Batch mix CO2 resistant tail slurry in batch mixer
13. Pump 20 bbl (3.2 m^3) of drill water @ 6 bpm (950 lpm).
14. Switch to rig pumps to pump 60 bbl (9.5 m^3) of 11.0 ppg MUDPUSH II @ 6 bpm (950 lpm).
15. Release Bottom Plug from Cement Head.
16. Mix and pump 147.5 bbl (23.5 m^3) of 12.5 ppg (1.50 SG) lead slurry at 6 bpm (950 lpm) with 50-bbl mixing trailer.
    - Pump first 10-bbl lead slurry, then add CemNET to next 100 bbl of lead slurry (20-110 bbl pumped)
    - NRD measurements should be verified against pressurised mud balance regularly
    - Take samples of mix fluid / bulk cement / slurry during job
17. Pump 40 bbl (6.4 m^3) of 15.84 ppg (1.90 SG) CO2 resistant tail slurry at 5 bpm (800 lpm) from batch mixer.
    - NRD measurements should be verified against pressurised mud balance regularly
    - Collect samples of mix water / mix fluid / bulk cement / slurry
18. Release Top Plug from Cement Head
19. Displace with 2 bbl (0.3 m^3) of unweighted MUDPUSH II spacer
20. Displace with 99 bbl (15.7 m^3) of brine at 4 bpm (635 lpm).
21. Reduce pump rate to pump final 10.1 bbl (1.6 m^3) of brine at 1 bpm (159 lpm) in order to minimise ECD and to have a controlled bumping of the plug. (Total displacement is 109.1 bbl (17.3 m^3) excluding MUDPUSH behind)
22. Bump plug and pressure test casing as required
23. Bleed off pressure and check for returns.

Recommendations:

- It is recommended to perform a wiper trip prior to running casing to ensure hole integrity prior to cementation.
- Once casing is run, a minimum of 120 min mud circulation is required to reduce bottom hole circulating temp.
- While rig is circulating mud, mud rheologies will need to be confirmed prior to cementation.
- Surface lines will be pressure tested with cement unit prior to batch mixing CO2 resistant tail slurry. This will reduce any potential job delays following batch mixing.
- Designed theoretical density of tail slurry is 15.84 ppg; however, lab measurements show that actual density is 16.05 ppg. CO2 blend tail slurry will be measured to 16.05 ppg with pressurised mud balance prior to being pumped downhole.
- Utilise proper centralisation to ensure sufficient standoff in hole for mud removal

Schlumberger

CemCADE* well cementing recommendation for 4 1/2" Casing

Operator	**: CO2CRC**	**Well**	**: CRC-1**
Country	: Australia	Field	:
State	: Victoria		
Prepared for	**: Terry Greaney**	**Location**	**: Otway Basin**
Proposal No.	: rev 7	Service Point	: PAS
Date Prepared	: 03-11-2007	Business Phone	: +61 8 9420 4800
		FAX No.	: +61 8 9322 3110

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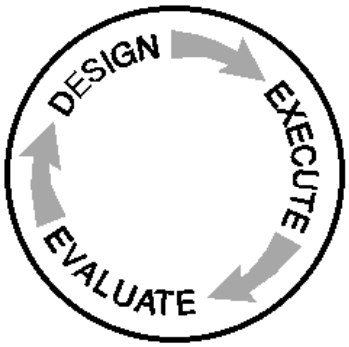
well description

Configuration	**Casing**	**Stage : Single**	**Rig Type : Land**
Prev.String	MD : 512.0 m	OD : 7 5/8 in	Weight : 26.4 lb/ft
Csg/Liner	MD : 2238.0 m	OD : 4 1/2 in	Weight : 12.6 lb/ft
Landing Collar MD		2225.5 m	
Casing/liner Shoe MD		2238.0 m	
Mud Line		10.0 m	
Total MD		2249.0 m	
BHST		86 degC	
Bit Size		6 3/4 in	
Mean OH Diameter		7.125 in	
Mean Annular Excess		5.0 %	
Mean OH Equivalent Diameter		7.231 in	
Total OH Volume		289.4 bbl (including excess)	



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Section 1: fluid sequence

Original fluid	Mud	9.60 lb/gal
Displacement Volume	111.1 bbl	
Total Volume	378.6 bbl	
TOC	400.0 m	

Fluid Sequence

Name	Volume (bbl)	Ann. Len (m)	Top (m)	Density (lb/gal)	Rheology		
Drill Water	20.0	0.0		8.32	viscosity:5.000 cP		
MUDPUSH 3	60.0	390.0		11.00	k:5.11E-2 lbf.s^n/ft2	n:0.329	Ty:2.89 lbf/100ft2
4 12 Lead	10.0	111.2	400.0	12.50	k:1.13E-2 lbf.s^n/ft2	n:0.581	Ty:11.05 lbf/100ft2
4 12 Lead with CemNET	100.0	945.4	511.2	12.50	k:1.13E-2 lbf.s^n/ft2	n:0.581	Ty:11.05 lbf/100ft2
4 12 Lead	37.5	364.3	1456.6	12.50	k:1.13E-2 lbf.s^n/ft2	n:0.581	Ty:11.05 lbf/100ft2
4 12 Tail	40.0	417.1	1820.9	15.84	k:7.49E-3 lbf.s^n/ft2	n:0.941	Ty:9.45 lbf/100ft2
MUDPUSH 3	2.0		2185.4	11.00	k:5.11E-2 lbf.s^n/ft2	n:0.329	Ty:2.89 lbf/100ft2
2% KCL Brine	99.0		202.4	8.45	viscosity:7.000 cP		
2% KCL Brine	10.1		0.0	8.45	viscosity:7.000 cP		

Static Security Checks :		
Frac	164 psi	at 947.0 m
Pore	314 psi	at 512.0 m
Collapse	5474 psi	at 2152.6 m
Burst	8416 psi	at 10.0 m
Csg.Pump out	27 ton	

Section 2: pumping schedule

Pumping Schedule

Name	Flow Rate (bbl/min)	Volume (bbl)	Stage Time (min)	Cum.Vol (bbl).	Inj. Temp. (degC)	Comments
Drill Water	6.0	20.0	3.3	20.0	27	Pump drill water ahead
MUDPUSH 3	6.0	60.0	10.0	60.0	27	Pump MUDPUSH ahead
Pause	0.0	0.0	10.0	0.0	27	Drop bottom plug
4 12 Lead	6.0	10.0			27	Mix & pump lead slurry
4 12 Lead with CemNET	6.0	100.0				Mix & pump lead with CemNET
4 12 Lead	6.0	37.5	24.6	147.5	27	Mix & pump lead slurry
4 12 Tail	5.0	40.0	8.0	40.0	27	Pump tail slurry
Pause	0.0	0.0	10.0	0.0	27	Drop top plug
MUDPUSH 3	4.0	2.0	0.5	2.0	27	Pump MUDPUSH behind
2% KCL Brine	4.0	99.0	24.8	99.0	27	Displace with brine
2% KCL Brine	1.0	10.1	10.1	109.1	27	
		Total	**01:41 hr:mn**	**378.6 bbl**		

Dynamic Security Checks :

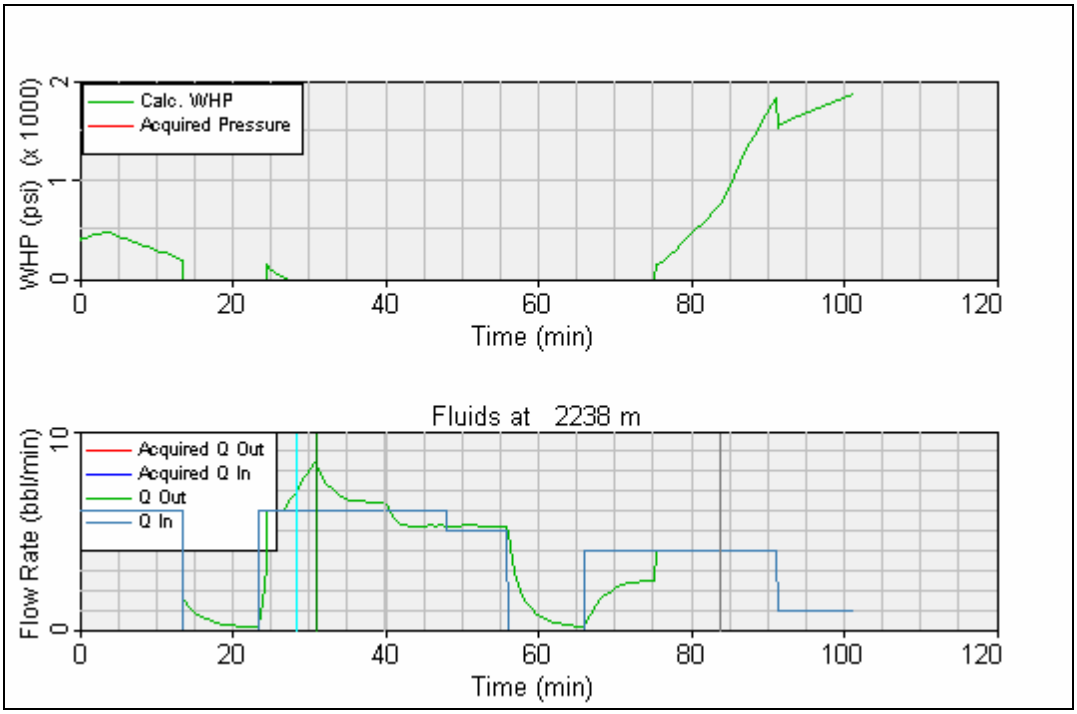
Frac	60 psi	at 947.0 m
Pore	118 psi	at 512.0 m
Collapse	5474 psi	at 2152.6 m
Burst	6540 psi	at 10.0 m

Temperature Results

BHCT	55 degC	Simulated Max HCT	69 degC
Simulated BHCT	68 degC	Max HCT Depth	2101.0 m
CT at TOC	35 degC	Max HCT Time	01:41:16 hr:mn:sc

Static temperatures :

At Time	Geo. Temp.
Top of Cement	32 degC
Bottom Hole	86 degC



Section 3: centralizer placement

Top of centralization :400.0 m
Bottom Cent. MD :2229.9 m
Casing Shoe :2236.0 m
NB of Cent. Used :59
NB of Floating Cent. :58

Centralizer Placement

Bottom MD (m)	Nbr.	Cent. / Joint	Cent. Name	Code	Min. STO (%)	@ Depth (m)
794.8	7	1/5	HINGED IMPERIAL 4.5 (API SPEC 10D)	BS	32.4	697.3
977.7	5	1/3	HINGED IMPERIAL 4.5 (API SPEC 10D)	BS	59.1	880.1
1294.7	13	1/2	HINGED IMPERIAL 4.5 (API SPEC 10D)	BS	59.6	1203.2
1795.0	14	1/3	HINGED IMPERIAL 4.5 (API SPEC 10D)	BS	34.1	1489.7
2236.0	20	1/2	HINGED IMPERIAL 4.5 (API SPEC 10D)	BS	52.8	1935.7

Centralizer Description / Centralizer Tests

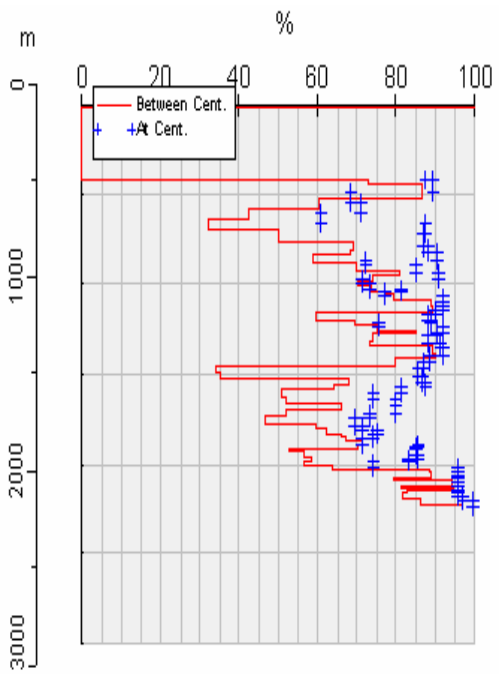
Cent. Name	Code	Casing OD (in)	Max. OD (in)	Min. OD (in)	Rigid	Origin	Hole Size (in)	Running Force (lbf)	Restoring Force (lbf)
HINGED IMPERIAL 4.5 (API SPEC 10D)	BS	4 1/2	6.750	6.250	No	Halliburton	6.750	0.00	1366.00

(1) - Centralizer performance data is based on tests by WEATHERFORD as per the current API 10D specifications

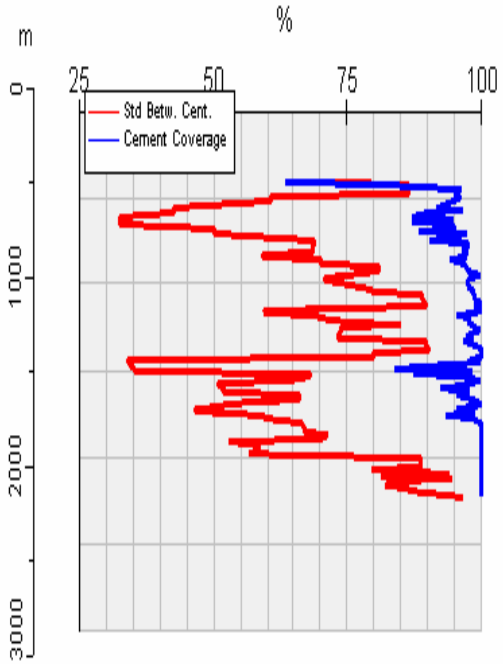
Running Force Calculations:

Travelling Block Weight :6 ton
Friction Factor Centralizer/Formation :0
Total Drag Force :0 ton
Hook load Down Stroke :46 ton
Hook load Up Stroke :46 ton

Top MD m	Bottom MD m	Nb. Of Joints	Casing OD in	Min. STO Req'd	Cent. Per Joint	Cent. Name	Nbr. of Cent.	Min. STO. %	Found At Depth	Cent. Code	Min. OH Size in	Max. OH Size in
368.1	794.8	35	4 1/2		1/5	HINGED IMPERIAL 4.5 (API	7	32.4	697.3	BS	6.964	14.907
794.8	977.7	15	4 1/2		1/3	HINGED IMPERIAL 4.5 (API	5	59.1	880.1	BS	6.932	9.066
977.7	1294.7	26	4 1/2		1/2	HINGED IMPERIAL 4.5 (API	13	59.6	1203.2	BS	6.929	8.193
1294.7	1795.0	42	4 1/2		1/3	HINGED IMPERIAL 4.5 (API	14	34.1	1489.7	BS	6.943	7.984
1795.0	2236.0	40	4 1/2		1/2	HINGED IMPERIAL 4.5 (API	20	52.8	1935.7	BS	6.395	8.113

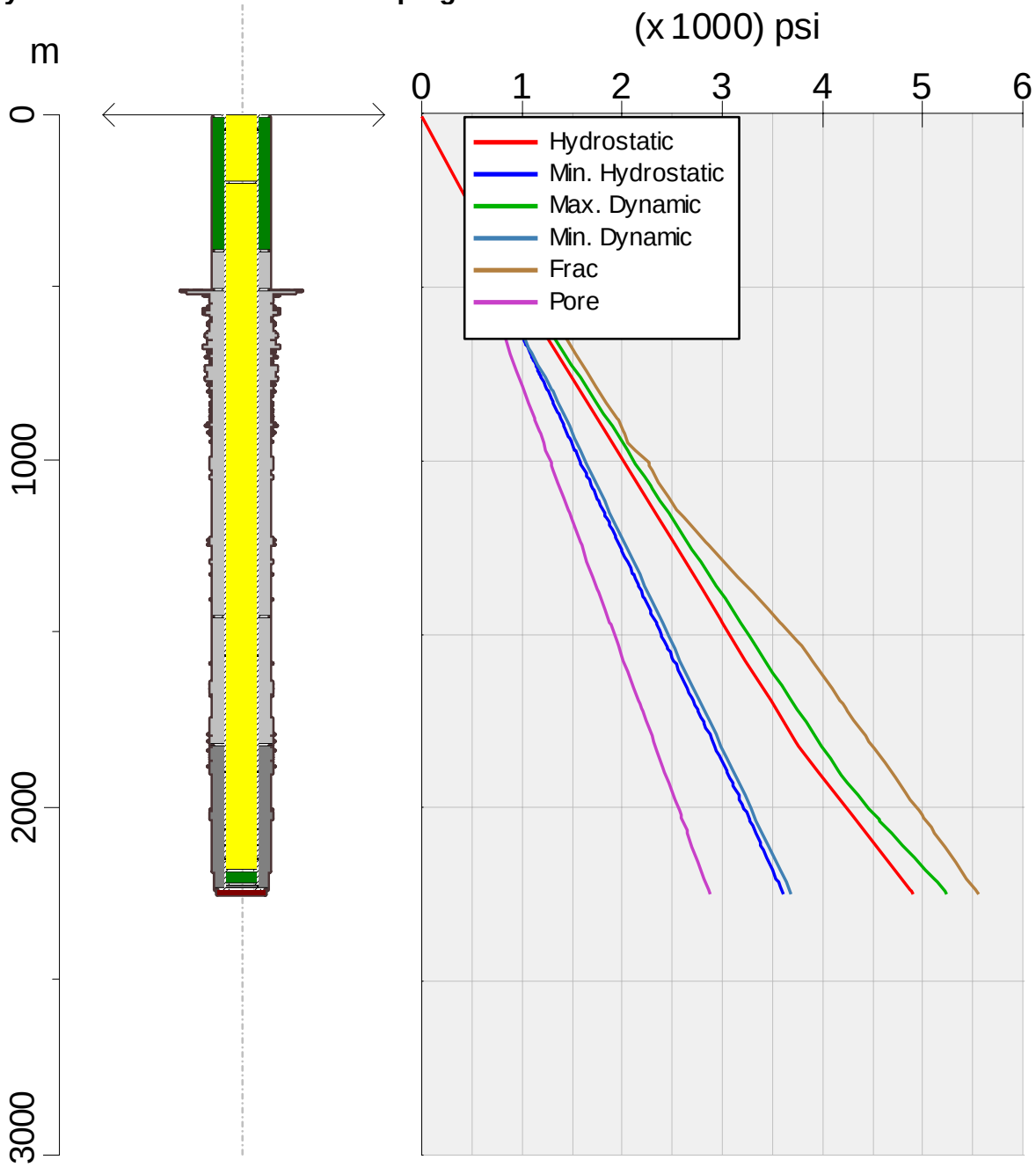


Pipe Standoff

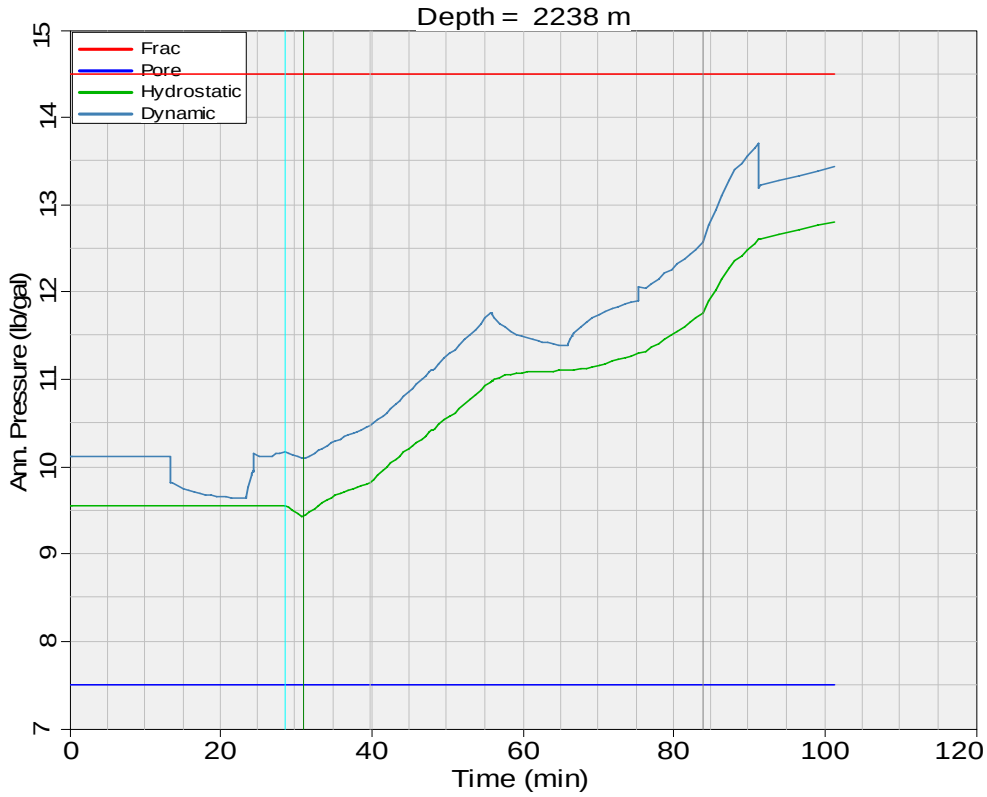


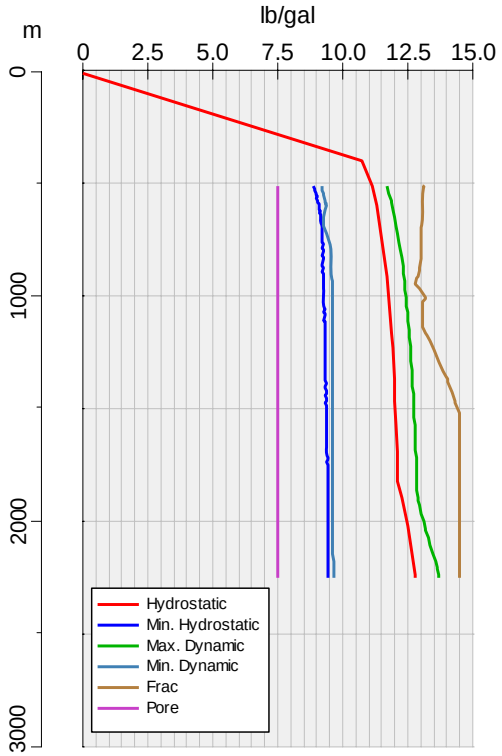
Cement Coverage

Dynamic Pressures While Pumping



ECD's – Equivalent Circulating Density While Pumping.





Dynamic Well Security

Laboratory Spacer Test Report – CRC-1 MUDPUSH Spacer 3

						Signatures
Fluid No	**: AUPT1034001**	Client	: CO2CRC	Location / Rig	: Century rig 11	
Date	: Feb-28-2007	Well Name	: CRC-1	Field	: Otway Basin	Paul

Job Type	Casing	Depth	2250.0 m	TVD	2250.0 m
BHST	86 degC	BHCT	65 degC	BHP	4467 psi
Starting Temp.	27 degC	Time to Temp.	00:38 hr:mn	Heating Rate	1.35 degF/min
Starting Pressure	519 psi	Time to Pressure	00:38 hr:mn	Schedule	9.6-4

Composition

Density	**11.00 lb/gal**	**Type**	**MUDPUSH II**	**Water/Spacer**	**80.4 %**
Porosity	80.4 %	Solid Fraction	19.6 %		

Code	Concentration	Component	Lot Number
Fresh water			Rig
D047	0.010 gal/bbl of spacer	antifoam	Lab
D182	4.000 lb/bbl of spacer	turb. Spacer	Lab
Calcium Carbonate	176.90 lb/bbl of spacer	weight agent	Lab

Rheology

(rpm)	(deg)	(deg)
300	51.0	42.0
200	43.5	36.5
100	33.5	29.5
60	29.0	25.5
30	24.0	21.0
6	16.5	13.0
3	14.5	11.0

10 sec Gel	16	13
1 min Stirring		

Temperature	27 degC	65 degC
Pressure	(psi)	(psi)
	P_v : 29.786 cP	P_v : 21.795 cP
	T_y : 22.56 lbf/100ft2	T_y : 21.16 lbf/100ft2

Comments

General Comment :
Fann Reading Comment :
Thickening Time Comment :
Other test Comment : ; ; ; ;

Laboratory Cement Test Report - CRC-1 4 12” Lead Slurry (12.5 ppg)

						Signatures
Fluid No : AUPT 1021003		Client	: CO2CRC	Location / Rig	: Century Rig 11	
Date	: Mar-12-2007	Well Name	: CRC-1	Field	: Otway Basin	Paul

Job Type	Casing	Depth	2250.0 m	TVD	2250.0 m
BHST	86 degC	BHCT	65 degC	BHP	4467 psi
Starting Temp.	27 degC	Time to Temp.	00:38 hr:mn	Heating Rate	1.35 degF/min
Starting Pressure	519 psi	Time to Pressure	00:38 hr:mn	Schedule	9.6-4

Composition

Density	**12.50 lb/gal**	**Yield**	**2.14 ft3/sk**	**Mix Fluid**	**12.464 gal/sk**
Porosity	77.2 %	Solid Fraction	22.8 %	Slurry type	**Conventional**

Code	Concentration	Sack Reference	Component	Absolute Density	Lot Number
G		94 lb of Class G Cmt	Class G Cement	199.77 lb/ft3	Rig
Fresh water	11.897 gal/sk		Base Fluid		Rig
D047	0.010 gal/sk		antifoam		Lab
D168	0.400 gal/sk		fluid loss		Rig
D020	3.000 %BWOC		extender		Rig
D081	0.030 gal/sk		retarder		Rig

Rheology (Average readings)

(rpm)	(deg)	(deg)
300	69.0	52.0
200	56.5	43.0
100	44.5	33.0
60	38.0	27.5
30	33.0	20.5
6	26.0	15.5
3	26.0	14.5
10 sec Gel	34	18
10 min Gel	55	30
Temperature	27 degC	65 degC
	P_v : 39.585 cP T_y : 30.03 lbf/100ft2	P_v : 33.144 cP T_y : 20.41 lbf/100ft2

Thickening Time

Consistency	Time
40 Bc	05:42 hr:mn
70 Bc	05:55 hr:mn
100 Bc	05:59 hr:mn
Remark : Thickening Time do not include batch mix time	

Free Fluid

2.2 mL/250mL	in 2 hrs
At 27 degC and 90 deg incl.	
Sedimentation	None

Fluid Loss

API Fluid Loss		225	mL
65 mL in	10 min	at 65 degC	and 1000 psi

Comments

General Comment :
Fann Reading Comment :
Thickening Time Comment :
Other test Comment :

Laboratory Cement Test Report – CRC-1 4 ½" Tail Slurry (Revised)

						Signatures
Fluid No	**: AUPT 1022001**	Client	: CO2CRC	Location / Rig	: Century Rig 11	
Date	: Feb-28-2007	Well Name	: CRC-1	Field	: Otway Basin	Jereme

Job Type	Casing	Depth	2250.0 m	TVD	2250.0 m
BHST	86 degC	BHCT	65 degC	BHP	4467 psi
Starting Temp.	27 degC	Time to Temp.	00:38 hr:mn	Heating Rate	1.35 degF/min
Starting Pressure	519 psi	Time to Pressure	00:38 hr:mn	Schedule	9.6-4

Composition

Density	**15.84 lb/gal**	**Yield**	**1.10 ft3/sk of blend**	**Mix Fluid**	**3.521 gal/sk of blend**
Porosity	42.0 %	Solid Fraction	58.0 %	Slurry type	**Conventional**

Code	Concentration	Sack Reference	Component	Blend Density	Lot Number
C02 CRC-1		100 lb of BLEND	Blend	158.08 lb/ft3	Rig
Fresh water	3.231 gal/sk of blend		Base Fluid		Rig
D175	0.030 gal/sk of blend		antifoam		Rig
D153	0.100 %BWOB		antisettling		Rig
D176	1.480 %BWOB		high tempera		Rig
D168	0.080 gal/sk of blend		fluid loss		Rig
D080	0.080 gal/sk of blend		dispersant		Rig
D081	0.045 gal/sk of blend		retarder		Rig

Rheology (Average readings)

(rpm)	(deg)	(deg)
300	88.0	127.0
200	57.0	86.0
100	34.0	51.5
60	24.5	36.0
30	15.5	24.0
6	8.0	10.0
3	6.5	9.0
10 sec Gel	11	9
10 min Gel	36	48
Temperature	27 degC	65 degC
	P_v : 176.815 cP	P_v : 252.374cP
	T_y : 7.38 lbf/100ft2	T_y : 13.33 lbf/100ft2

Thickening Time

Consistency	Time
40 Bc	03:43 hr:mn
70 Bc	04:02 hr:mn
100 Bc	04:12 hr:mn
Remark : Thickening time do not include batch time	
Batch Mix Time : 03:00 hr:mn	at 27 degC

Free Fluid

1.2 mL/250mL	in 2 hrs
At 27 degC and 90 deg incl.	
Sedimentation	None

Fluid Loss

API Fluid Loss		48	mL
24 mL in	30 min	at 65 degC	and 1000 psi

UCA Compressive Strength

Time	CS
14:51 hr:mn	50 psi
15:49 hr:mn	500 psi
24:00 hr:mn	4424 psi

Comments

General Comment : Mixing as per LiteCRETE procedures with 4000 rpm for 5.5 min
Fann Reading Comment : Rheologies performed with R1B5 configuration. Slurry pressurised in HPHT consistometer before taking downhole rheologies.
Thickening Time Comment : Thickening times reported do not include 3 hour batch mix time
Other test Comment :

4-1/2" CASING AND CEMENTING REPORT

Well Name: CRC # 1

Casing Type:	☐ Surface Casing	☐ Intermediate Casing	☑ Production Casing		
Rig Supervisor:	Kevin Murphy / Roy Dunne	**Report Checked by:**	Kevin Murphy	**Job Date:**	15-March-2007
Hole Size:	6-3/4" inch	**Section TD:**	2249m m RT	**Cementing Contractor:**	Schlumberger

PRE-FLUSH:	20	bbls @	8.33	ppg	**SPACER:**	60 bbls @	11.0 ppg
Additives	Water				MUDPUSH II weighted with CaCO3		
Water Source:							

CEMENT:			**Class**		**ADDITIVES:**	**gal / sack**	**% BWOC**	**Amount**	**Units**
Lead Slurry	490	sacks Class	G		Wyoming Bentonite (Mil-Gel)		3.0		
Slurry Yield	2.14	cu ft / sack			Anti-foam D047	0.01			
Mix Water Reqd	12.46	gal / sack			Fluid Loss D168	0.40			
Actual Slurry Pumped:	148.5	bbls @	12.5	ppg	Retarder D081	0.03			
Density (design):	12.5	ppg			CemNET D095	1 lb / bbl	in bbls 10 - 110		
Cement top (Design):	1421	m RT	Excess %	5					
Tail Slurry	195	sacks Class	CO2 resistant blend		Antifoam D175	0.03			
Slurry Yield	1.10	cu ft / sack			Anti-settling D153		0.10% BWOB		
Mix Water Reqd	3.52	gal / sack			Expanding Agent D176		1.46% BWOB		
Actual Slurry Pumped:	38.5	bbls @	16.2	ppg	Fluid Loss D168	0.08			
Density (design):	16.2	ppg			Dispersant D080	0.08			
Cement top (Design):	410	m RT	Excess %	5	Retarder D081	0.045			

DISPLACEMENT:		Fluid	1 bbl MudPUSH (unwt) + Brine	@	8.43	ppg		
Theoretical Displcmt:	111.1	bbl			Bumped Plug with		1910	psi
Actual Displcmt:	111.8	bbls (brine) @	4	bpm	Pressure tested to:		3050	psi
Displaced by: (select)	☐ Rig	☑ Pump Truck			Bleed back:		1.1	bbls

ACTIVITY:	**Time**
Start Running Csg	00:30
Casing on Bottom	18:00
Start Circulation	18:30
Start Pressure Test	21:30
Pump Preflush	0:33
Start Mixing	0:54
Finish Mixing	1:39
Start Displacing	1:56
Stop Displcmt / Bump	2:29
Pressure test	2:31

Returns to Surface:	All	bbls mud	35	bbls pre-fl/spcr	NIL	bbls cmt		
☑ Reciprocate Casing		☐ Rotate Casing						
Top Up Job 1 Run	☐ Yes	☑ No	N/A	sx	Class			
Top Up Job 2 Run	☐ Yes	☑ No	N/A	sx	Class			
Plug Set:	Make	Halliburton		Type:	4.5" HWE Std			
Centraliser Placement:	Make	Halliburton		Type:	4.5" x 6-3/4" Imperial Bow			
Depths	2 on 1st jt, 1/2 jts next 40 jts; 1/3 jts next 42 jts; 1/2 jts next 26 jts; 1/3 next 15 jts; 1/5 for 30 jts- 400m							
Lost Returns (time / volume):	☐ Yes	☑ No	Full returns					
Pressure Test to:	3050	psi	4.5" Howco Bear F/Shoe & Collar 2-3/4" valve P110 SSII					
Length of last joint run:	11.98	metres	Cement Basket:	Make / Type	NIL			
Length of Cut Off retrieved:	11.05	metres	Depths	N/A				

CASING & EQUIPMENT RECORD AS RUN FROM SURFACE					**METRES**	**FROM**	**TO**
Suspension Flange or Tubing Spool Size ie 11" 5k x 7-1/16" 5k	N/A						
Stick Up above Rotary Table (Enter as negative number ie: -4.43)					-5.10	-5.10	0.00
Rotary Table to top of bradenhead (for SC jobs only) or to top of cut on joint (IC & PC jobs)					6.10	0.00	6.10
Bradenhead - enter for SC only(description ie Wood 5000 psi)	Woods 5000 psi					6.10	6.10
No Joints	**Size OD**	**Weight (lb / ft)**	**Grade**	**Thread**			
4	4 1/2"	12.6	13Cr80	JFE Bear	47.92	6.10	54.02
X-nipple	4 1/2"	X-nipple	13Cr80	JFE Bear	0.49	54.02	54.51
100	4 1/2"	12.6	13Cr80	JFE Bear	1193.16	54.51	1247.67
Marker Joint	4 1/2"	12.6	13Cr80	JFE Bear	3.15	1247.67	1250.82
4	4 1/2"	12.6	13Cr80	JFE Bear	47.92	1250.82	1298.74
X	4 1/2"	X-nipple	13Cr80	JFE Bear	0.49	1298.74	1299.23
19	4 1/2"	12.6	13Cr80	JFE Bear	226.84	1299.23	1526.07
X-nipple	4 1/2"	X-nipple	13Cr80	JFE Bear	0.49	1526.07	1526.56
32	4 1/2"	12.6	13Cr80	JFE Bear	380.00	1526.56	1906.56
X-nipple	4 1/2"	X-nipple	13Cr80	JFE Bear	0.75	1906.56	1907.31
15	4 1/2"	12.6	13Cr80	JFE Bear	178.74	1907.31	2086.05
X-nipple	4 1/2"	X-nipple	13Cr80	JFE Bear	0.49	2086.05	2086.54
1	4 1/2"	12.6	13Cr80	JFE Bear	11.98	2086.54	2098.52
Marker Joint	4 1/2"	12.6	13Cr80	JFE Bear	3.15	2098.52	2101.67
8	4 1/2"	12.6	13Cr80	JFE Bear	95.83	2101.67	2197.50
X-nipple	4 1/2"	X-nipple	13Cr80	JFE Bear	0.49	2197.50	2197.99
Marker Joint	4 1/2"	12.6	13Cr80	JFE Bear	3.15	2197.99	2201.14
2	4 1/2"	12.6	13Cr80	JFE Bear	23.97	2201.14	2225.11
Float Collar	4 1/2"	Float Collar	13Cr80	JFE Bear	0.78	2225.11	2225.89
1	4 1/2"	12.6	13Cr80	JFE Bear	11.74	2225.89	2237.63
Float Shoe	4 1/2"	Float Shoe	13Cr80	JFE Bear	0.75	2237.63	2238.38

Theoretical Buoyed Weight of casing (lb):	77318	Top Bradenhead Height above (+) / below (-) GL	Top at GL	metres
Actual Wt of Casing (after last jt run less block wt, lb)	80000	Casing Wt just prior to landing casing & setting slips (lb)	122000	
Landed Wt (after cementing and pressure bleed off, lb)	72000	Landed casing in tension, lb	50000	

Cementing Job Remarks:

Job went well. CO2 Resistant Cement was pre blended over 3 hours. Full returns throughout job.

Samples reported set on 18/3/07

CASING AND CEMENTING REPORT

Well Name: C02 CRC # 1

Casing Type:	☑ Surface Casing	☐ Intermediate Casing	☐ Production Casing				
Rig Supervisor:	Kevin Murphy /Brian Assels	**Report Checked by:**	Kevin Murphy	**Job Date:**	17-February-2007		
Hole Size:	9 7/8" inch	**Section TD:**	516m m RT	**Cementing Contractor:**	Schlumberger		
PRE-FLUSH:	60 bbls @	8.3 ppg		**SPACER:**	bbls @	ppg	
Additives							
Water Source:							

CEMENT:			Class		**ADDITIVES:**	gal / 10 bbl	% BWOC	Amount	Units
Lead Slurry		sacks Class	G		2.5 % Bentonite BWOC				lbs
Slurry Yield		cu ft / sack			1 % CaCl2 BWOC				
Mix Water Reqd		gal / sack							
Actual Slurry Pumped:	67	bbls @	12.5	ppg					
Density (design):		ppg							
Cement top (Design):		m RT	Excess %	50					
Tail Slurry		sacks Class	G		0.5 % CaCl2 BWOC				lbs
Slurry Yield		cu ft / sack							
Mix Water Reqd		gal / sack							
Actual Slurry Pumped:	33.5	bbls @	15.8	ppg					
Density (design):		ppg							
Cement top (Design):		m RT	Excess %	50					

DISPLACEMENT:	Fluid	Drilling Mud (Spud)	@	8.9 ppg		
Theoretical Displcmt:	79	bbl		Bumped Plug with	540	psi
Actual Displcmt:	79.1	bbls @	6.6 bpm	Pressure tested to:	3000	psi
Displaced by: (select)	☐ Rig	☑ Pump Truck		Bleed back:	1	bbls

ACTIVITY:	**Time**
Start Running Csg	18:30
Casing on Bottom	23:00
Start Circulation	23:00
Start Pressure Test	01:30
Pump Preflush	02:00
Start Mixing	02:30
Finish Mixing	03:30
Start Displacing	03:30
Stop Displcmt / Bump	04:00
Pressure test	04:00

Returns to Surface:	Full	bbls mud		bbls pre-fl/spcr	60	bbls cmt	20
☐ Reciprocate Casing		☐ Rotate Casing					
Top Up Job 1 Run	☐ Yes	☑ No		sx Class			
Top Up Job 2 Run	☐ Yes	☑ No		sx Class			
Plug Set:	Make			Type:			
Centraliser Placement:	Make			Type:			
Depths	Mid shoe jt,over collar next 6 jts, over collar last 3 jts.						
Lost Returns (time / volume):	☐ Yes	☑ No		Full Returns			
Pressure Test to:	3000	psi					
Length of last joint run:	8.13	metres		Cement Basket:	Make / Type		
Length of Cut Off retrieved:	8.43	metres		Depths			

CASING & EQUIPMENT RECORD AS RUN FROM SURFACE	**METRES**	**FROM**	**TO**
Suspension Flange or Tubing Spool Size ie 11" 5k x 7-1/16" 5k			
Stick Up above Rotary Table (Enter as negative number ie: -4.43)	-2.43	-2.43	0.00
Rotary Table to top of bradenhead (for SC jobs only) or to top of cut joint (IC & PC jobs)	6.00	0.00	6.00
Bradenhead - enter for SC only(description ie Wood 5000 psi) Woods 5000 psi	0.50	6.00	6.50

No Joints	**Size OD**	**Weight (lb / ft)**	**Grade**	**Thread**			
43	7 5/8"	26.4	L 80	Buttress	505.73	6.50	512.23

Theoretical Buoyed Weight of casing (klb): 44,000 lbs		Bradenhead Height above (+) / below (-) GL	GL	metres
Actual Wt of Casing (after last jt run less block wt, klb)		Casing Wt just prior to landing casing & setting slips (klb)		klb
Landed Wt (after cementing and pressure bleed off, klb)		Landed casing in tension, klb		klb

Cementing Job Remarks: Full returns while cementing ,20 bbl Cement returns .Cement in place @ 04:05 18/02/07

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ATTACHMENT 11 : PRODUCTION CASING MAKE UP REPORT

Premium Casing Services

92 Barberry Way, Bibra Lake WA 6163 PO Box 1377, Bibra Lake DC 6965
Tel: (+61 8) 9434 6200 Fax: (+61 8) 9434 6211
ABN : 99 007 424 259

Customer	:	**CENTURY**
Well Name	:	CRC-1
Start Date & Time	:	Tuesday, 13 March 2007 12:03 PM
Rig	:	RIG 11
Area	:	NAYLOR
Type of Operation	:	COMPLETION
Thread Type	:	JFE BEAR Tubing
Special Clearance	:	NO
Size (")	:	4.5
Weight	:	12.6
Grade	:	13CR80
Thread Compound	:	BESTOLIFE 2000
Dope Friction Factor	:	1.0
Tubular Condition	:	GOOD
Max. Torque (ft/lb)	:	4950
Opt. Torque (ft/lb)	:	4500
Min. Torque (ft/lb)	:	4050
Trigger Torque (ft/lb)	:	4050
Thread Seal Torque (ft/lb)	:	3375
Reference Torque (ft/lb)	:	350
Maximum Turns	:	2.00
Minimum Turns	:	0.01
Speed Control Max RPM	:	10.0
Starting Joint No.	:	1.0
Computer Number	:	PCS-TTC-002
Pulses/Turn	:	120
Arm Length (")	:	32.0
Load Cell Area (sq ")	:	8.0
Transducer ID	:	1694
Torque/Turn Mode	:	YES
Technician No. 1	:	H. STEINER
Technician No. 2	:	R. POOLE
Printed On	:	Friday, 16 March 2007

Premium Casing Services

92 Barberry Way, Bibra Lake WA 6163 PO Box 1377, Bibra Lake DC 6965
Tel: (+61 8) 9434 6200 Fax: (+61 8) 9434 6211
ABN : 99 007 424 259

Summary Statistics for Job

Customer : **CENTURY** Well Name : CRC-1

Rig Name : RIG 11 Rig Area : NAYLOR Operation : COMPLETIO

Total Number of Makeup Joints : 198

	Minimum	Average	Maximum
Applied Torque (ft/lb)	4051	4381	4818
Top Turns	0.05	0.70	1.66
RPM	1.05	3.73	4.58
Joint Time (sec)	2.9	11.3	36.7
Thread Seal (ft/lb)	0	1166	2597
Delta Torque (ft/lb)	1470	3215	4549

Printed on: Friday, 16 March 2007

Customer: **CENTURY**

Well Name: **CRC-1**

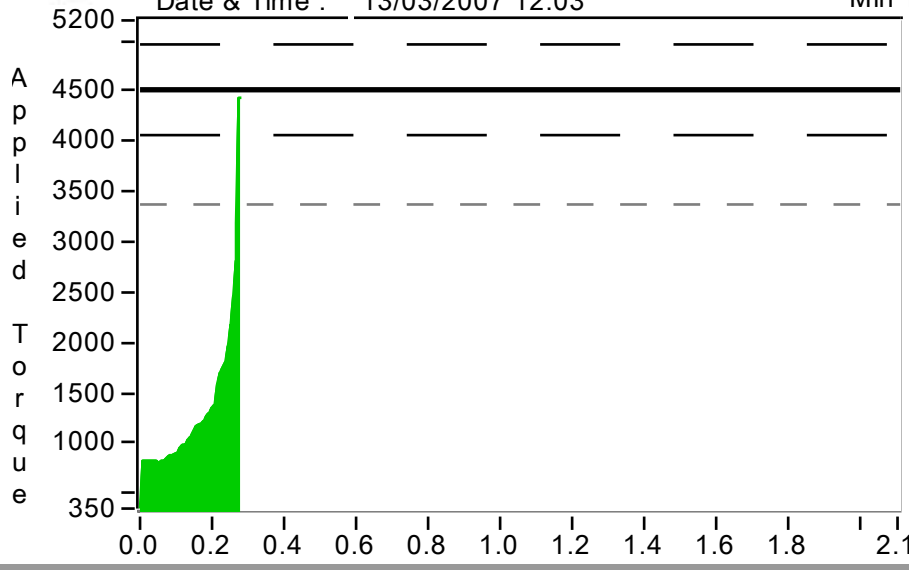
Printed on: Friday, 16 March 2007

JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR

Max Torque 4950 Optimum 4500

Min Torque 4050 Preset Shoulder 3375

Date & Time : 13/03/2007 12:03



Joint Number	1.0
Applied Torque	4423
Shoulder Torque	1030
Delta Torque	3393
Turn Counter	0.27
RP	2.07
Time Taken	7.7
Status	OK
Reason	Joint Makeup OK

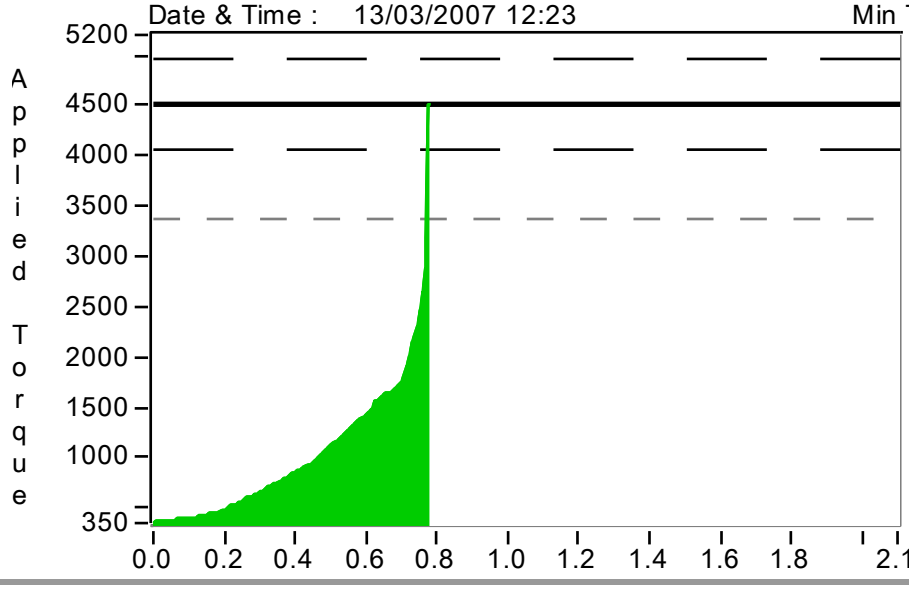
Comment:
/ HARRY:Shoe Joint

JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR

Max Torque 4950 Optimum 4500

Min Torque 4050 Preset Shoulder 3375

Date & Time : 13/03/2007 12:23



Joint Number	2.0
Applied Torque	4515
Shoulder Torque	1751
Delta Torque	2764
Turn Counter	0.77
RP	2.93
Time Taken	15.7
Status	OK
Reason	Joint Makeup OK

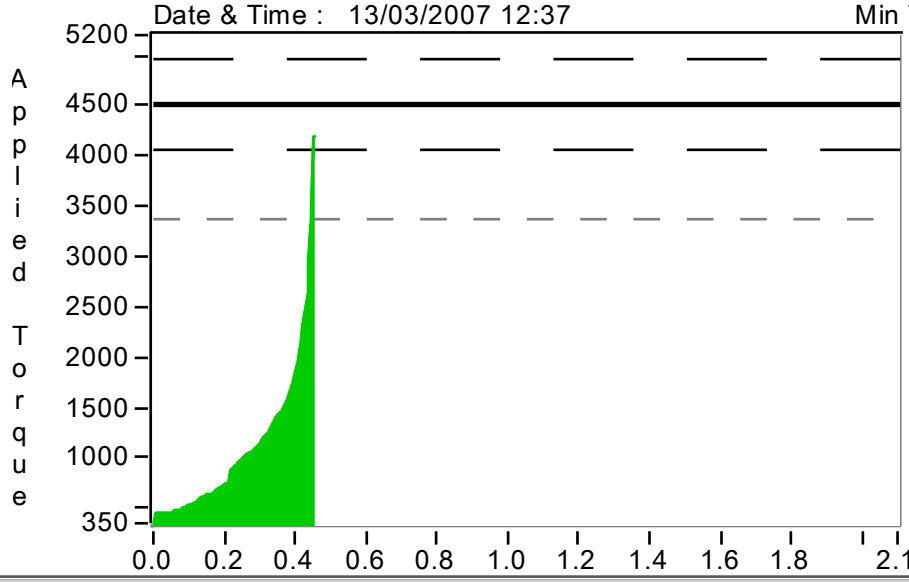
Comment:
/ HARRY:Float Collar Joint

JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR

Max Torque 4950 Optimum 4500

Min Torque 4050 Preset Shoulder 3375

Date & Time : 13/03/2007 12:37



Joint Number	3.0
Applied Torque	4181
Shoulder Torque	857
Delta Torque	3324
Turn Counter	0.44
RP	2.24
Time Taken	11.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

Customer: **CENTURY**

Well Name: **CRC-1**

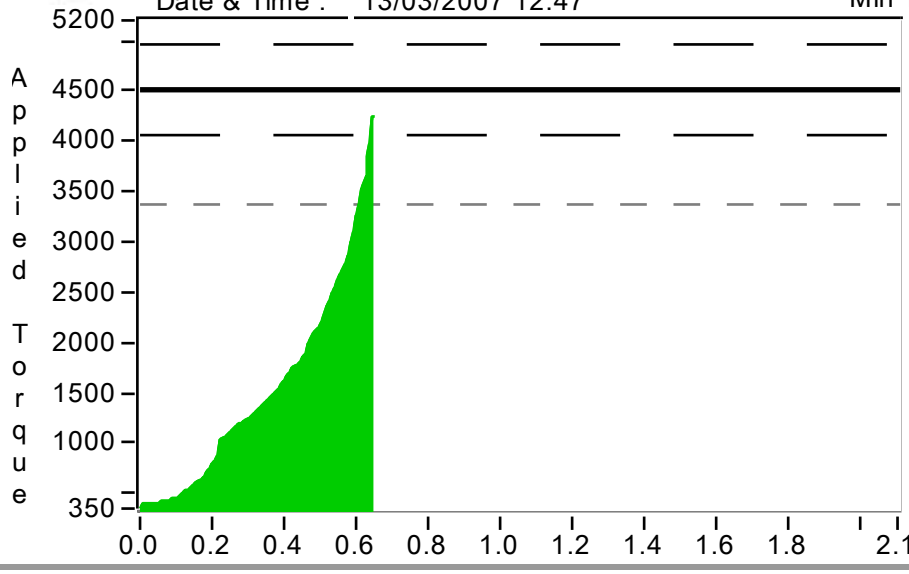
Printed on: Friday, 16 March 2007

JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR

Max Torque 4950 Optimum 4500

Min Torque 4050 Preset Shoulder 3375

Date & Time : 13/03/2007 12:47



Joint Number	4.0
Applied Torque	4254
Shoulder Torque	749
Delta Torque	3505
Turn Counter	0.63
RP	3.98
Time Taken	9.6
Status	OK
Reason	Joint Makeup OK

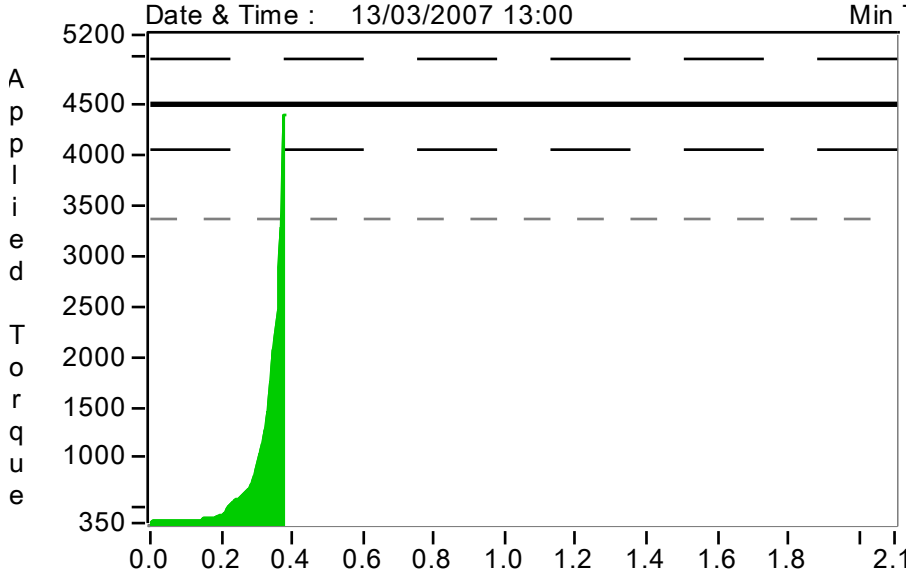
Comment:
/ HARRY

JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR

Max Torque 4950 Optimum 4500

Min Torque 4050 Preset Shoulder 3375

Date & Time : 13/03/2007 13:00



Joint Number	5.0
Applied Torque	4397
Shoulder Torque	648
Delta Torque	3749
Turn Counter	0.37
RP	3.42
Time Taken	6.4
Status	OK
Reason	Joint Makeup OK

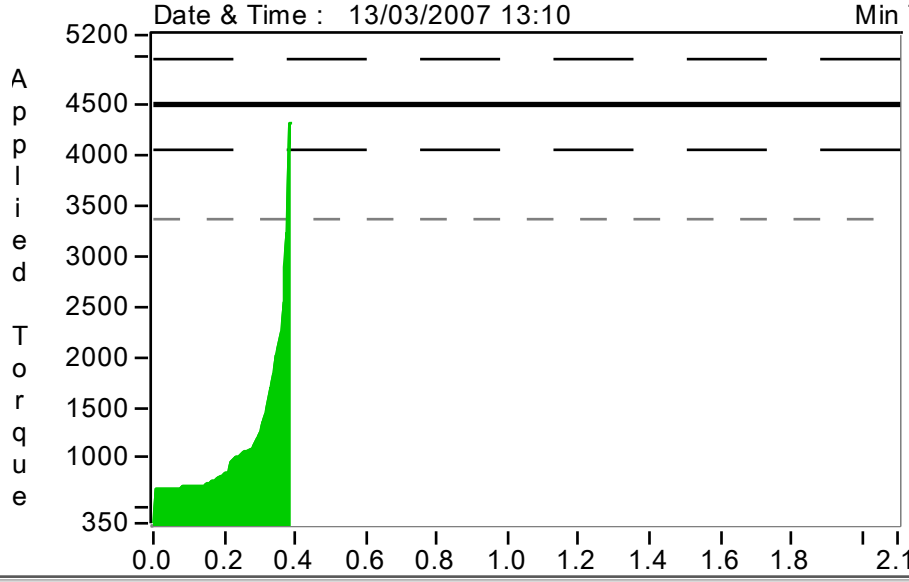
Comment:
/ HARRY

JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR

Max Torque 4950 Optimum 4500

Min Torque 4050 Preset Shoulder 3375

Date & Time : 13/03/2007 13:10



Joint Number	6.0
Applied Torque	4312
Shoulder Torque	1135
Delta Torque	3178
Turn Counter	0.37
RP	2.83
Time Taken	8.0
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY:X NIPPLE 1

Customer: **CENTURY**

Well Name: **CRC-1**

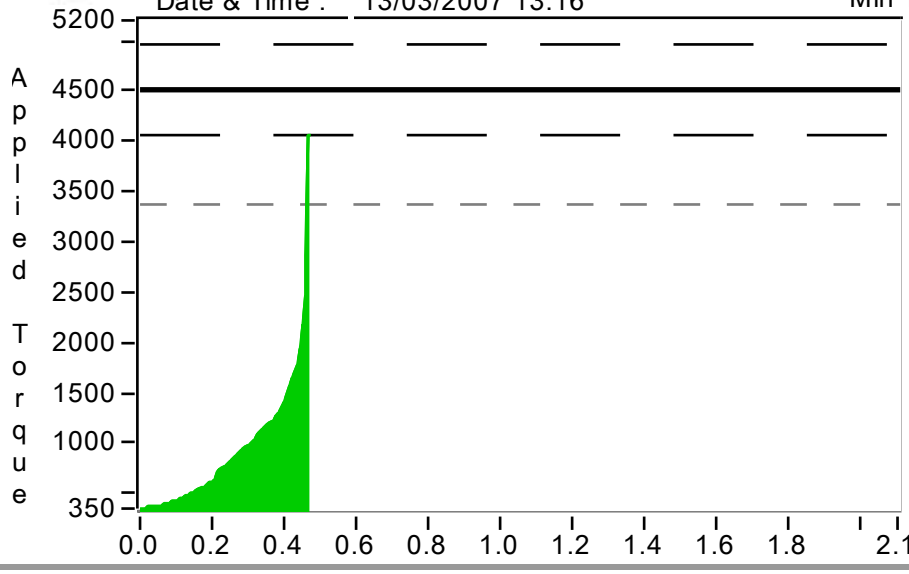
Printed on: Friday, 16 March 2007

JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR

Max Torque 4950 Optimum 4500

Min Torque 4050 Preset Shoulder 3375

Date & Time : 13/03/2007 13:16



Joint Number	7.0
Applied Torque	4061
Shoulder Torque	714
Delta Torque	3348
Turn Counter	0.46
RP	3.07
Time Taken	8.9
Status	OK
Reason	Joint Makeup OK

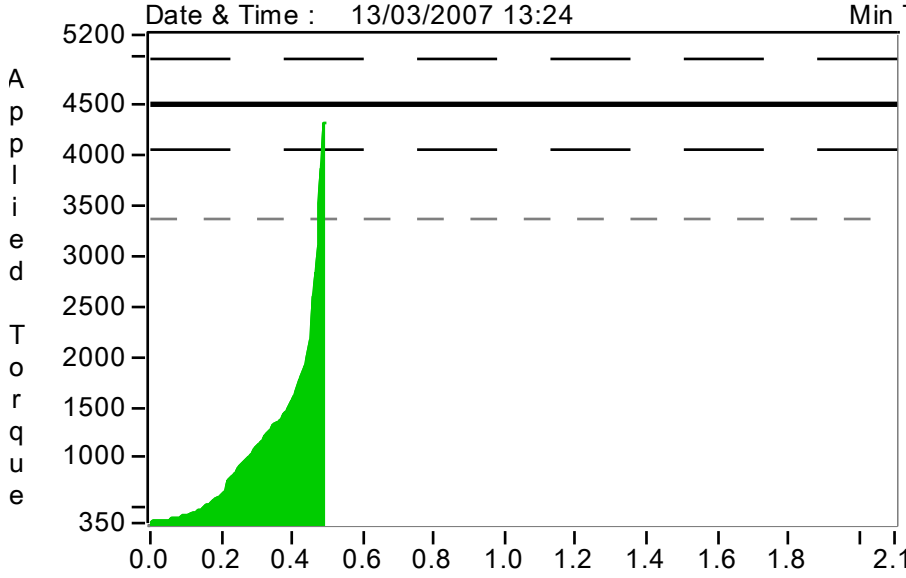
Comment:
/ HARRY

JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR

Max Torque 4950 Optimum 4500

Min Torque 4050 Preset Shoulder 3375

Date & Time : 13/03/2007 13:24



Joint Number	8.0
Applied Torque	4321
Shoulder Torque	595
Delta Torque	3726
Turn Counter	0.48
RP	3.30
Time Taken	8.8
Status	OK
Reason	Joint Makeup OK

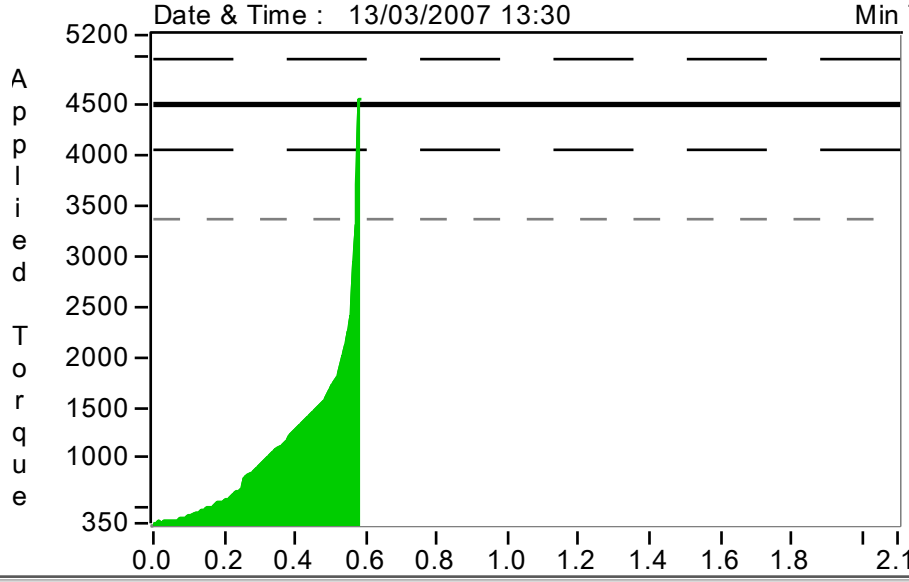
Comment:
/ HARRY

JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR

Max Torque 4950 Optimum 4500

Min Torque 4050 Preset Shoulder 3375

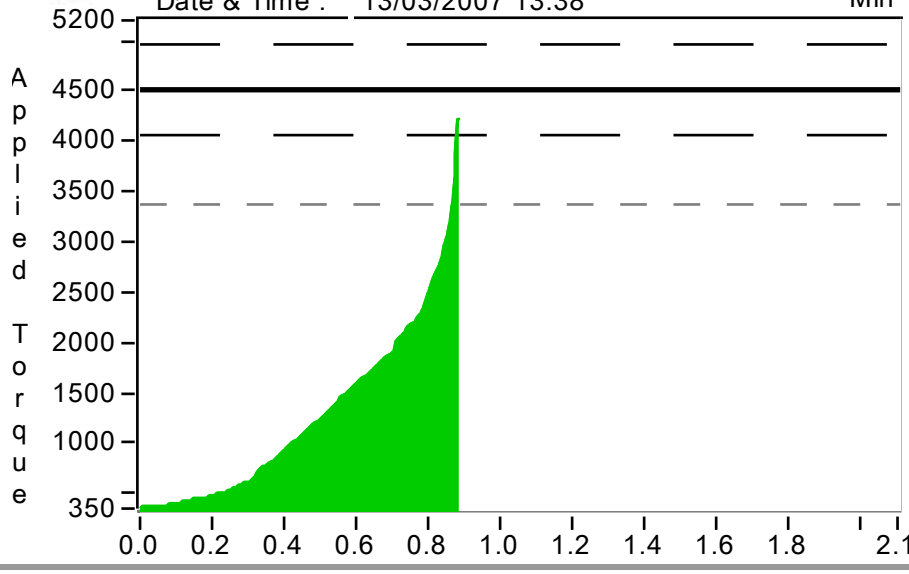
Date & Time : 13/03/2007 13:30



Joint Number	9.0
Applied Torque	4566
Shoulder Torque	742
Delta Torque	3824
Turn Counter	0.57
RP	3.57
Time Taken	9.7
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

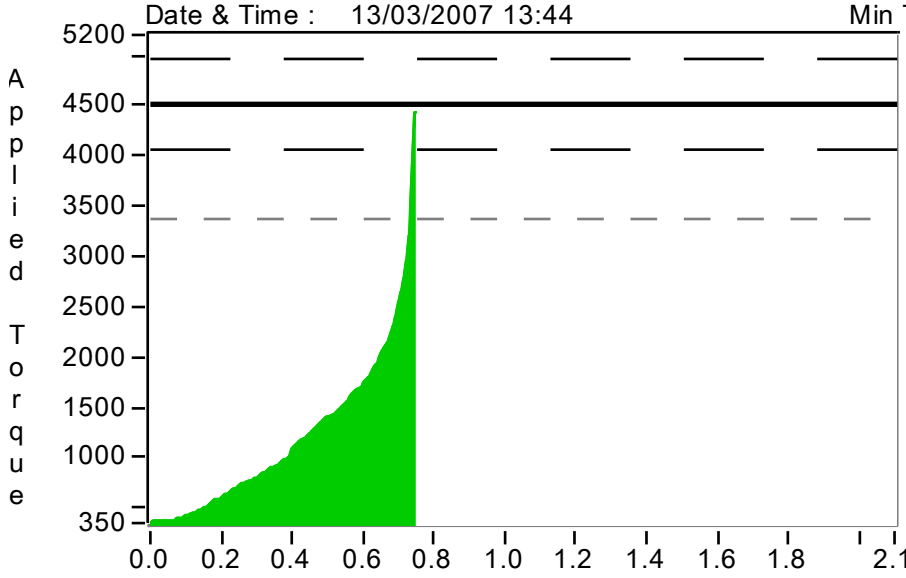
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 13:38
Min Torque 4050 Preset Shoulder 3375



Joint Number	10.0
Applied Torque	4228
Shoulder Torque	829
Delta Torque	3399
Turn Counter	0.87
RP	4.07
Time Taken	12.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

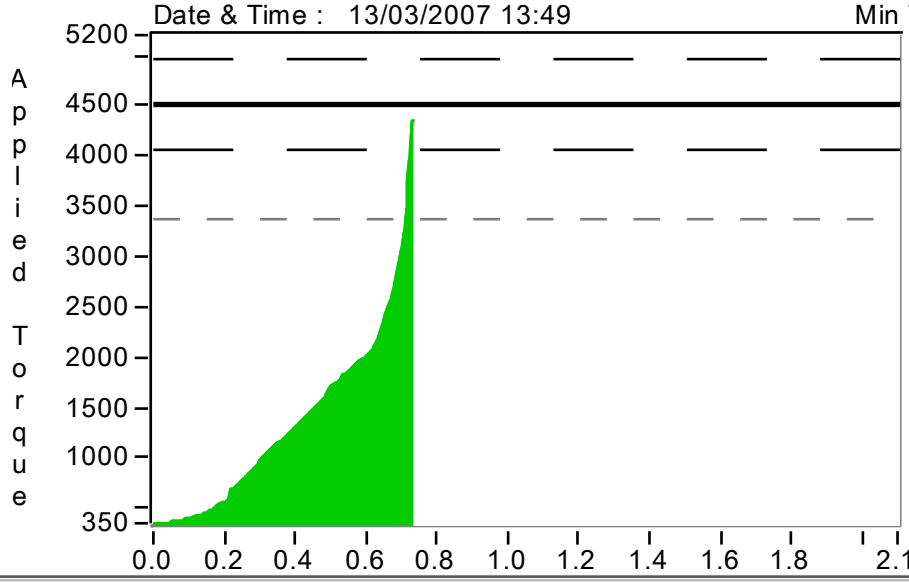
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 13:44
Min Torque 4050 Preset Shoulder 3375



Joint Number	11.0
Applied Torque	4420
Shoulder Torque	1172
Delta Torque	3248
Turn Counter	0.73
RP	4.06
Time Taken	10.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

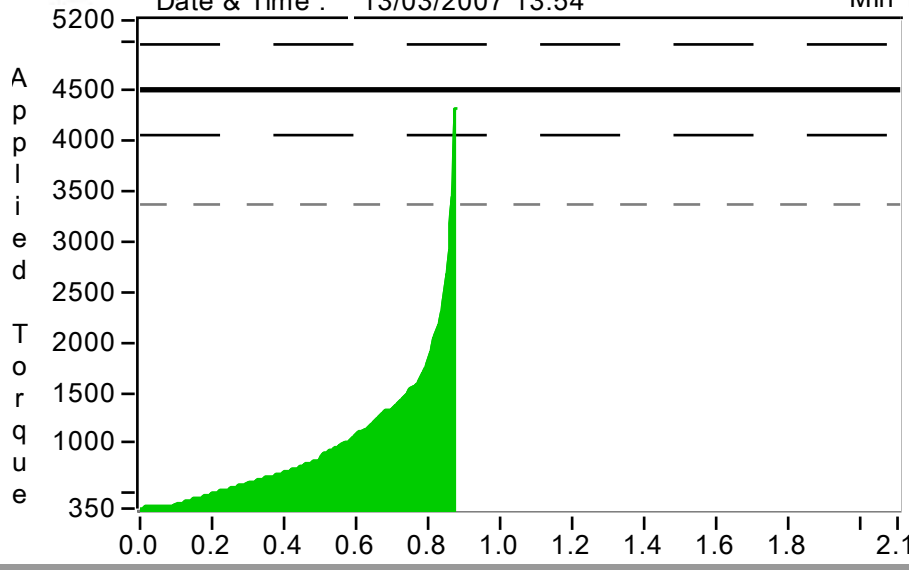
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 13:49
Min Torque 4050 Preset Shoulder 3375



Joint Number	12.0
Applied Torque	4343
Shoulder Torque	622
Delta Torque	3722
Turn Counter	0.72
RP	4.10
Time Taken	10.6
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

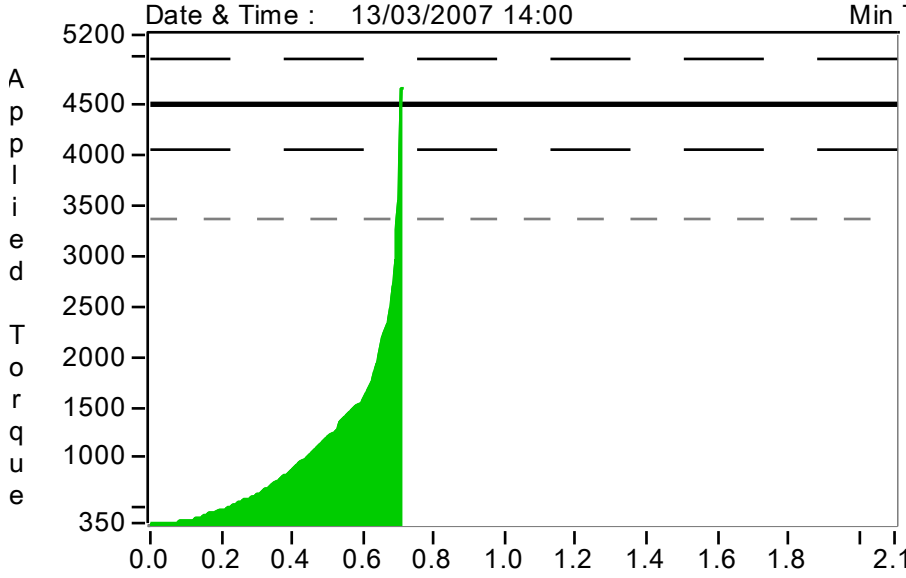
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 13:54
Min Torque 4050 Preset Shoulder 3375



Joint Number	13.0
Applied Torque	4312
Shoulder Torque	1191
Delta Torque	3121
Turn Counter	0.87
RP	4.06
Time Taken	12.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

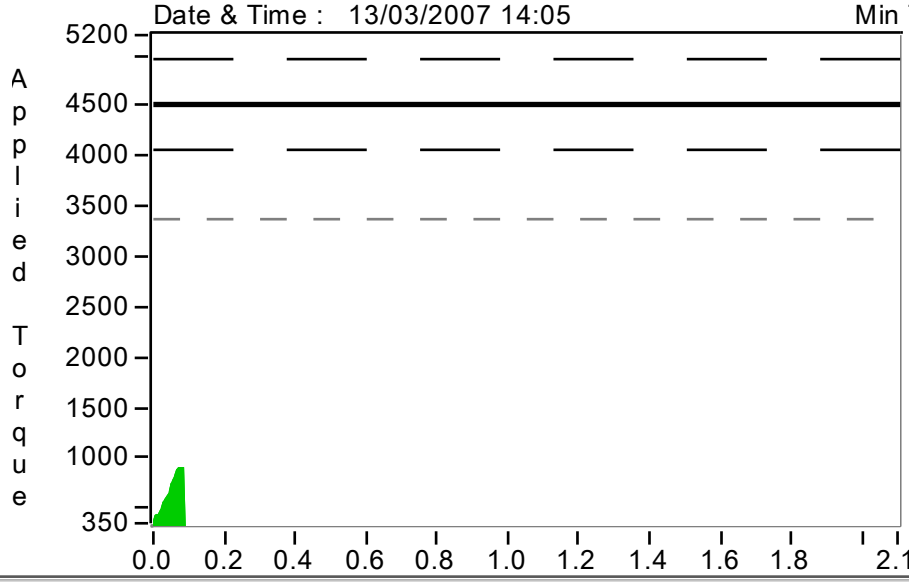
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 14:00
Min Torque 4050 Preset Shoulder 3375



Joint Number	14.0
Applied Torque	4660
Shoulder Torque	1360
Delta Torque	3300
Turn Counter	0.70
RP	3.92
Time Taken	10.7
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

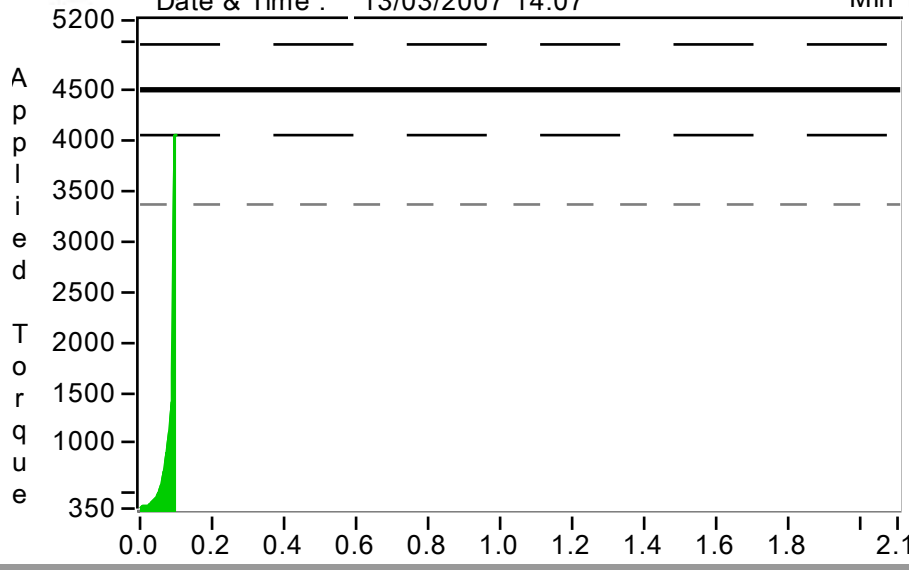
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 14:05
Min Torque 4050 Preset Shoulder 3375



Joint Number	15.0
Applied Torque	0
Shoulder Torque	0
Delta Torque	0
Turn Counter	0.08
RP	0.21
Time Taken	23.8
Status	ERROR
Reason	Manual Abort

Comment:
/ HARRY:Backup slipped

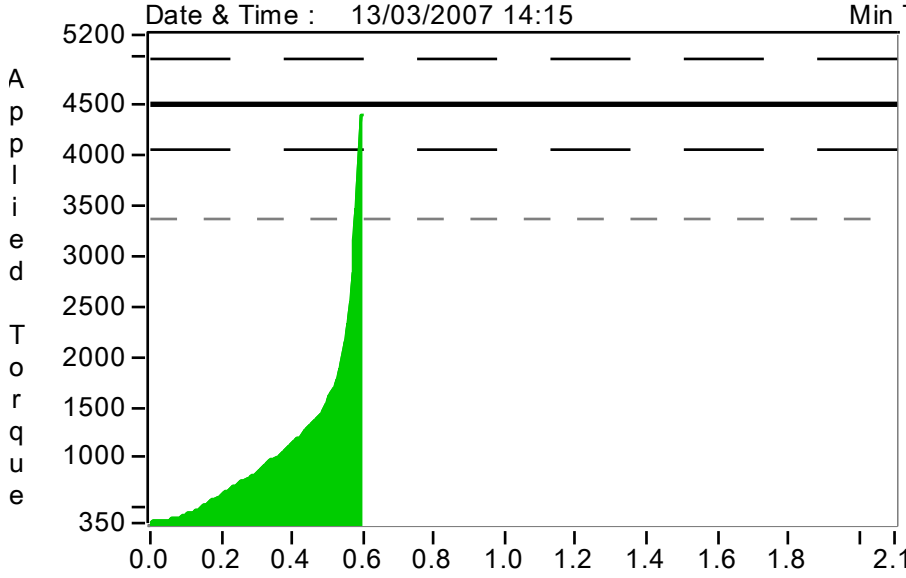
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 14:07



Joint Number	15.1
Applied Torque	4051
Shoulder Torque	0
Delta Torque	4051
Turn Counter	0.09
RP	1.74
Time Taken	3.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY:MARKER

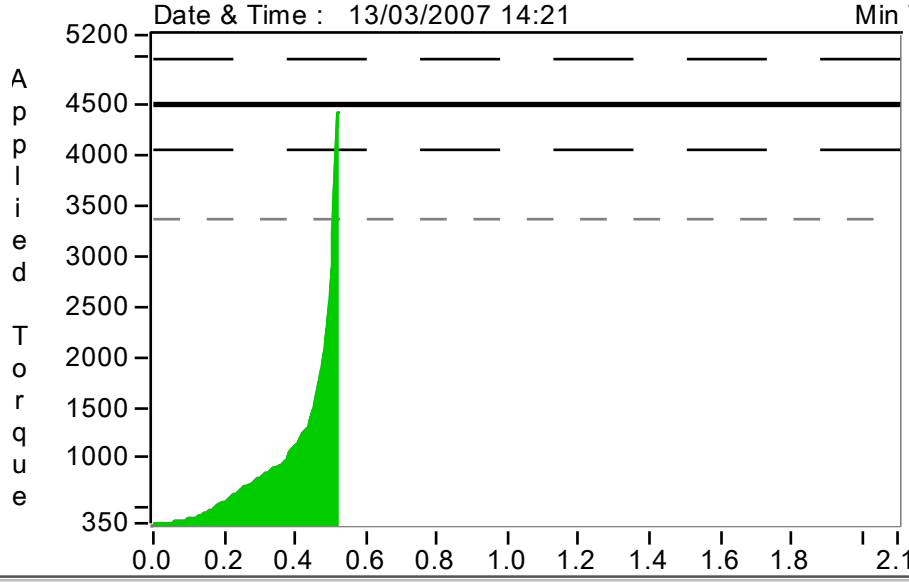
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 14:15



Joint Number	16.0
Applied Torque	4400
Shoulder Torque	1369
Delta Torque	3031
Turn Counter	0.58
RP	3.91
Time Taken	8.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

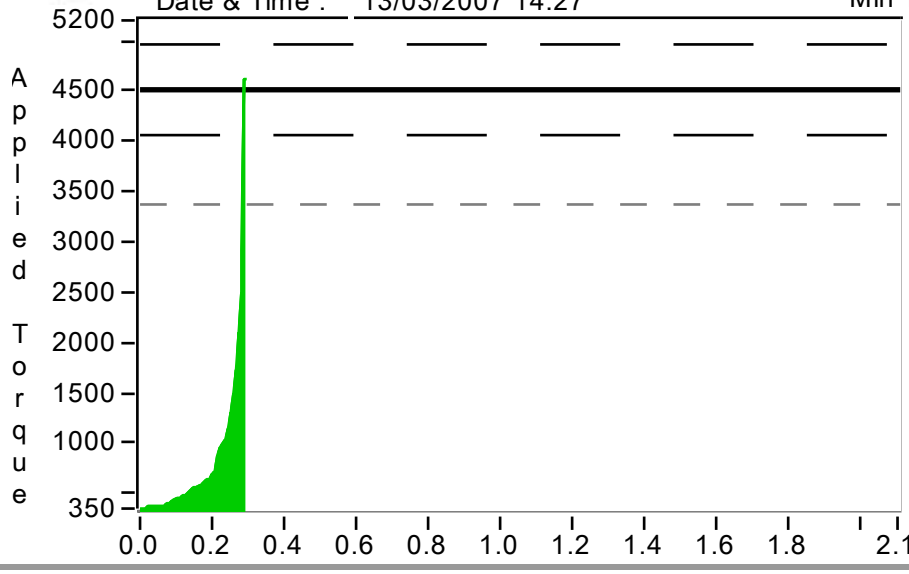
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 14:21



Joint Number	17.0
Applied Torque	4426
Shoulder Torque	1014
Delta Torque	3412
Turn Counter	0.51
RP	3.83
Time Taken	8.0
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY:X NIPPLE 2

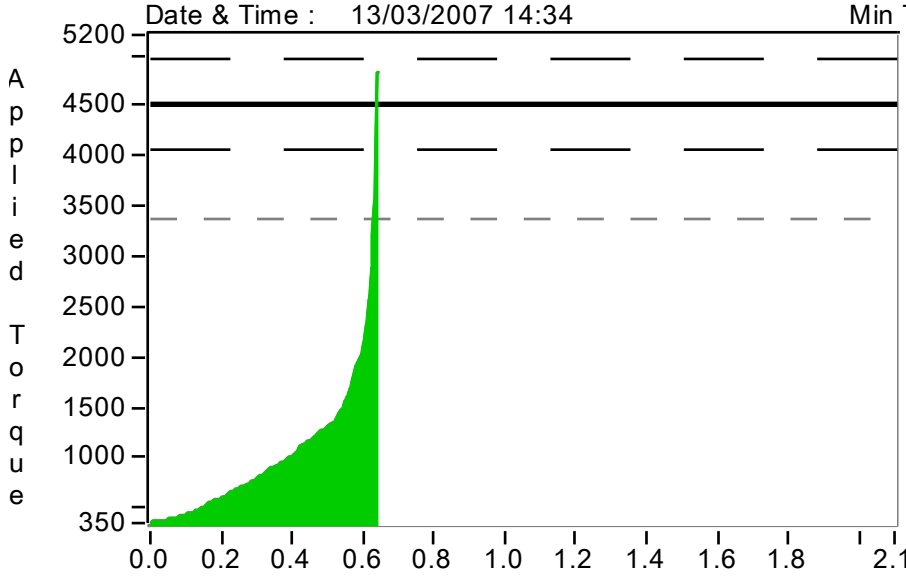
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 14:27



Joint Number	18.0
Applied Torque	4613
Shoulder Torque	690
Delta Torque	3923
Turn Counter	0.28
RP	3.52
Time Taken	4.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

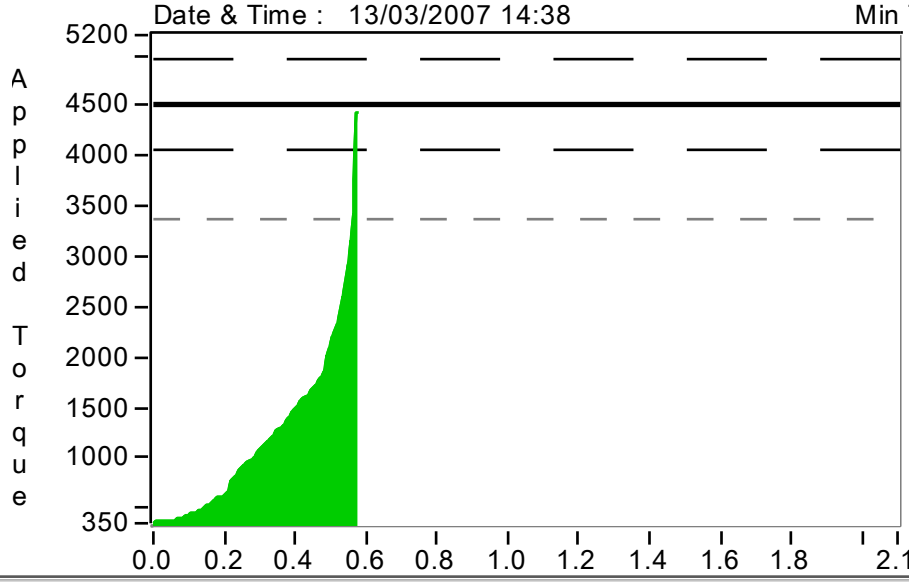
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 14:34



Joint Number	19.0
Applied Torque	4818
Shoulder Torque	1272
Delta Torque	3546
Turn Counter	0.63
RP	4.02
Time Taken	9.4
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

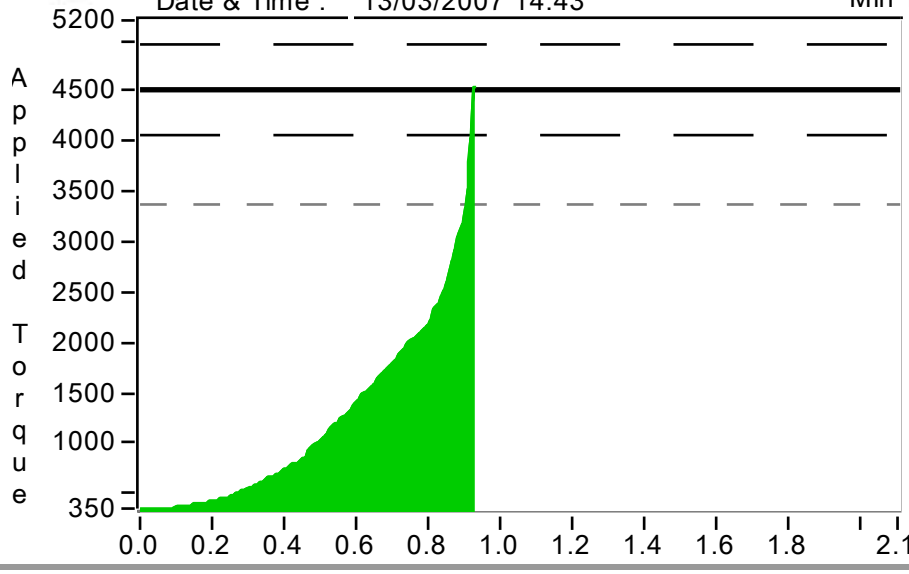
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 14:38



Joint Number	20.0
Applied Torque	4420
Shoulder Torque	675
Delta Torque	3745
Turn Counter	0.57
RP	3.99
Time Taken	8.5
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

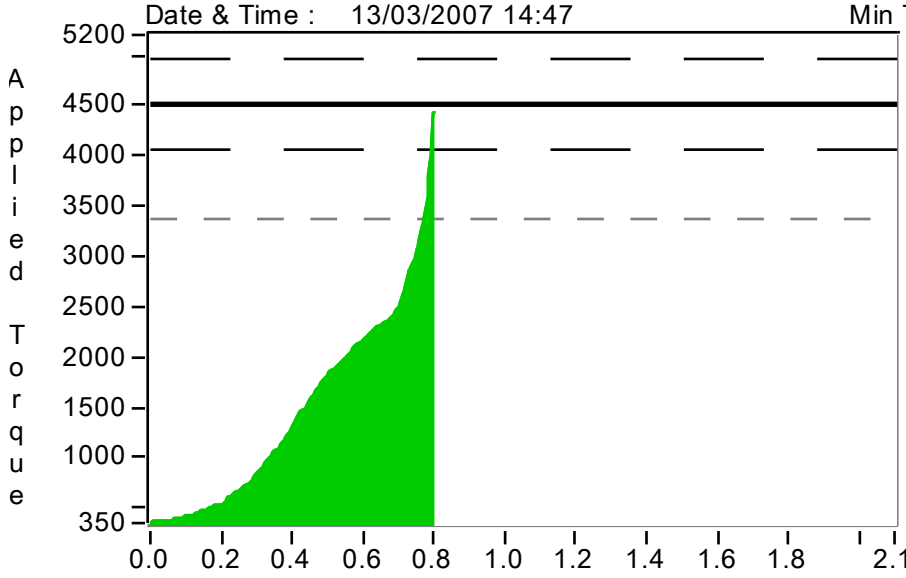
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 14:43
Min Torque 4050 Preset Shoulder 3375



Joint Number	21.0
Applied Torque	4536
Shoulder Torque	952
Delta Torque	3584
Turn Counter	0.92
RP	4.05
Time Taken	13.6
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

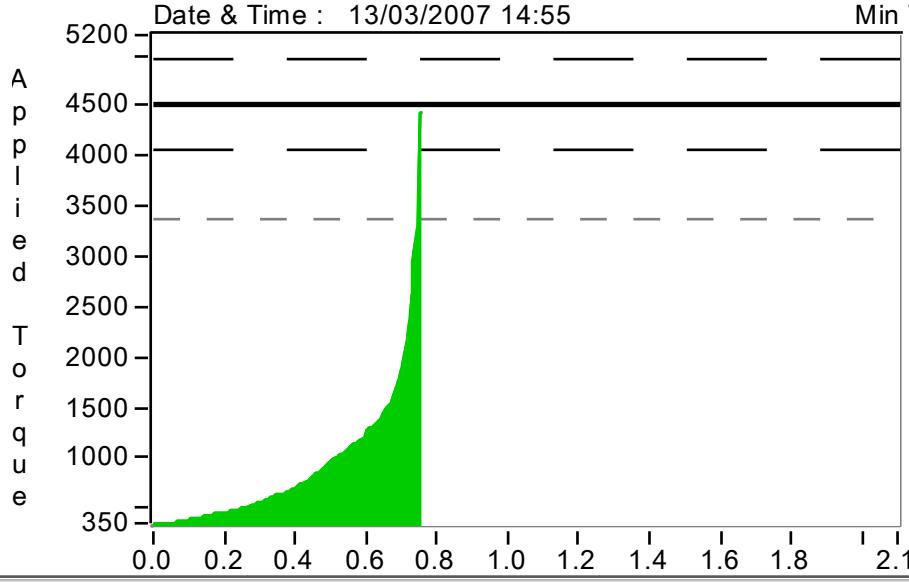
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 14:47
Min Torque 4050 Preset Shoulder 3375



Joint Number	22.0
Applied Torque	4429
Shoulder Torque	739
Delta Torque	3690
Turn Counter	0.79
RP	4.10
Time Taken	11.6
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

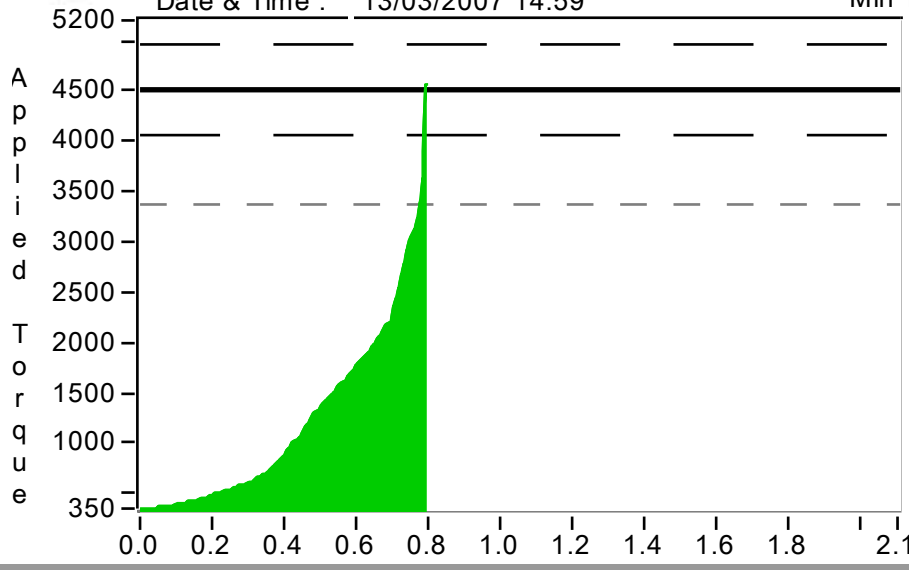
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 14:55
Min Torque 4050 Preset Shoulder 3375



Joint Number	23.0
Applied Torque	4441
Shoulder Torque	1368
Delta Torque	3072
Turn Counter	0.74
RP	3.99
Time Taken	11.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

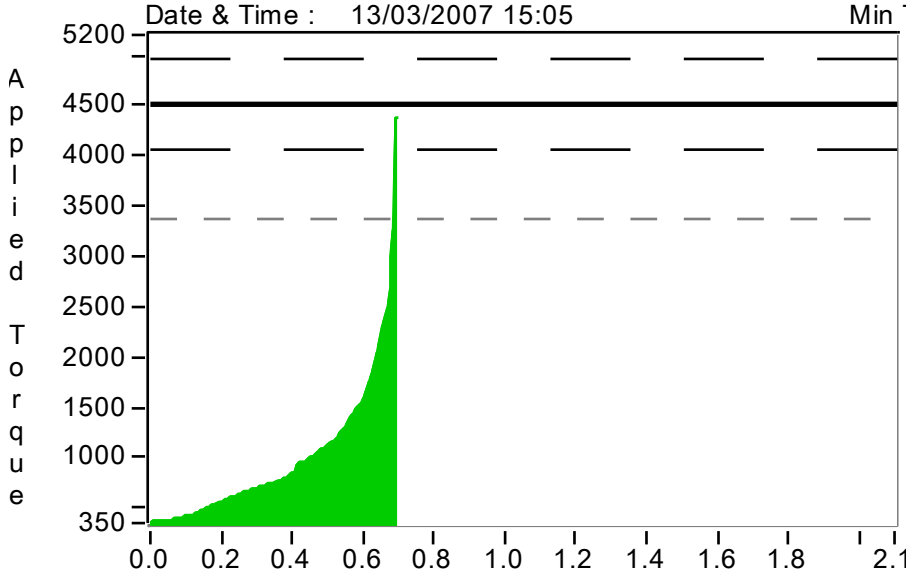
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 14:59



Joint Number	24.0
Applied Torque	4552
Shoulder Torque	869
Delta Torque	3683
Turn Counter	0.78
RP	4.07
Time Taken	11.5
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

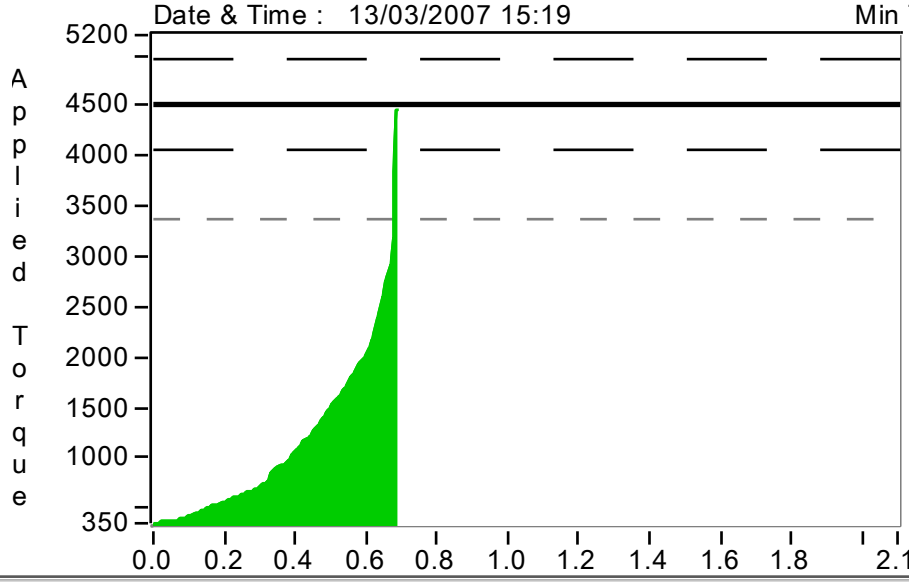
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 15:05



Joint Number	25.0
Applied Torque	4374
Shoulder Torque	1158
Delta Torque	3216
Turn Counter	0.68
RP	4.01
Time Taken	10.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

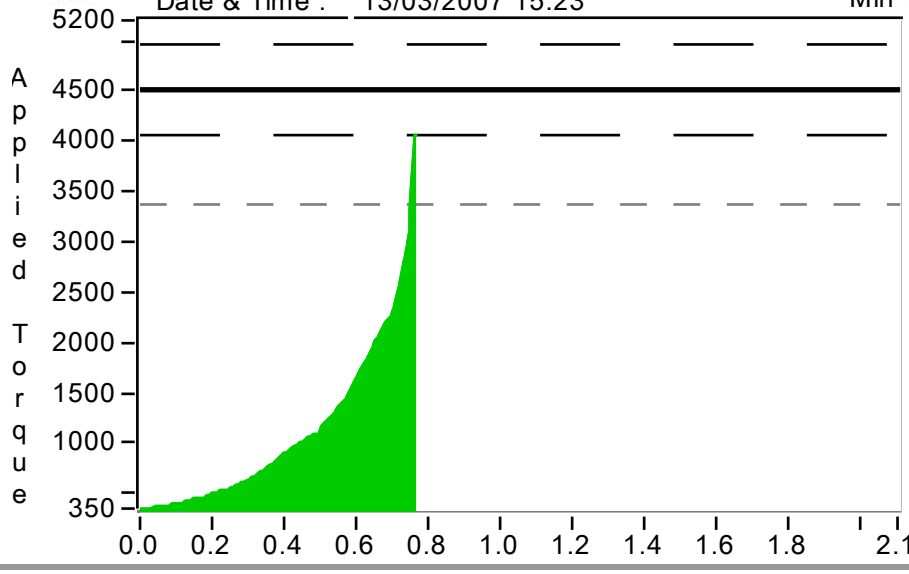
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 15:19



Joint Number	26.0
Applied Torque	4452
Shoulder Torque	904
Delta Torque	3548
Turn Counter	0.68
RP	4.01
Time Taken	10.1
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

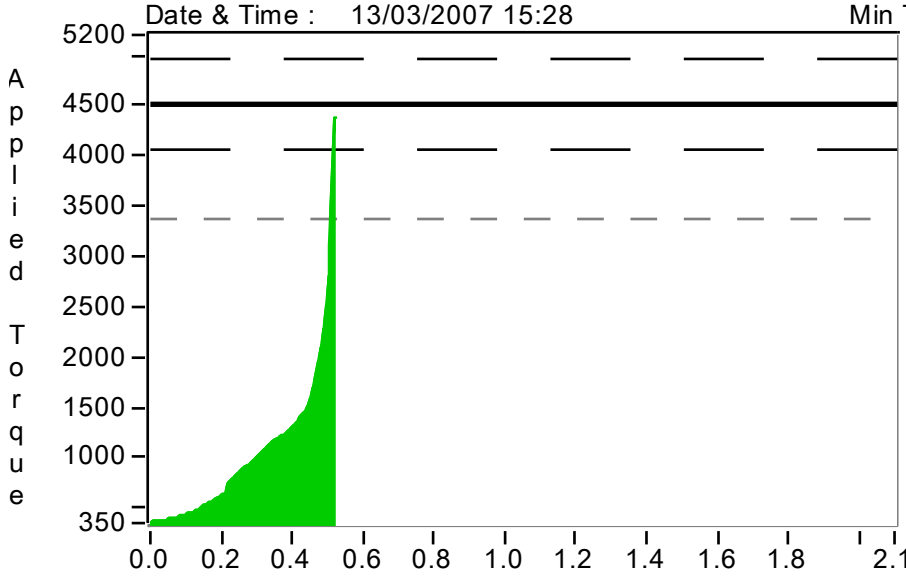
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 15:23



Joint Number	27.0
Applied Torque	4068
Shoulder Torque	1252
Delta Torque	2817
Turn Counter	0.75
RP	3.98
Time Taken	11.3
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

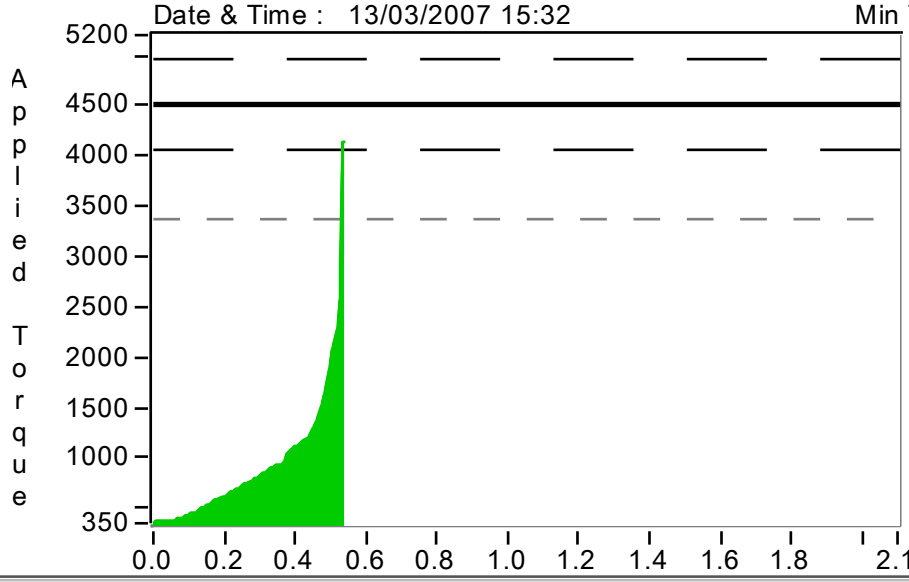
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 15:28



Joint Number	28.0
Applied Torque	4388
Shoulder Torque	727
Delta Torque	3661
Turn Counter	0.51
RP	3.99
Time Taken	7.6
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

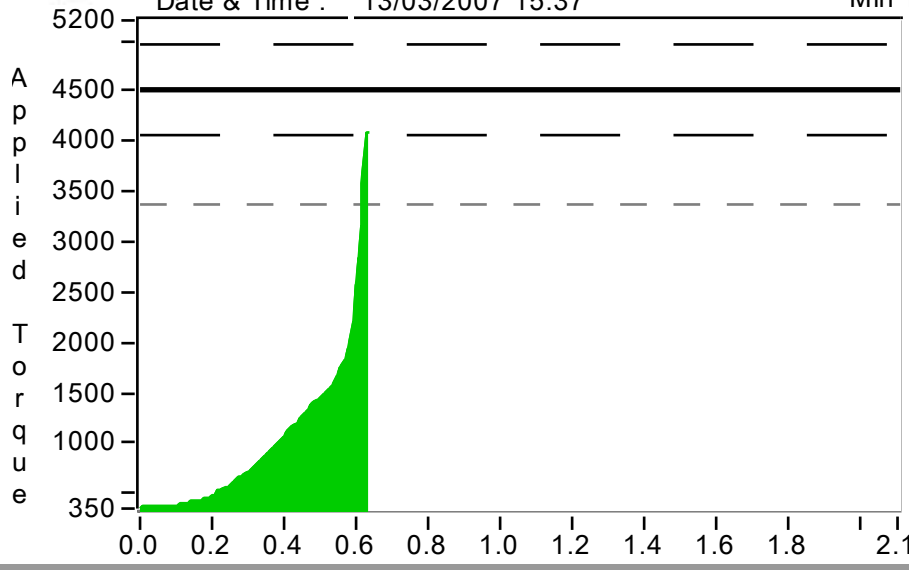
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 15:32



Joint Number	29.0
Applied Torque	4140
Shoulder Torque	1103
Delta Torque	3037
Turn Counter	0.53
RP	3.96
Time Taken	8.0
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

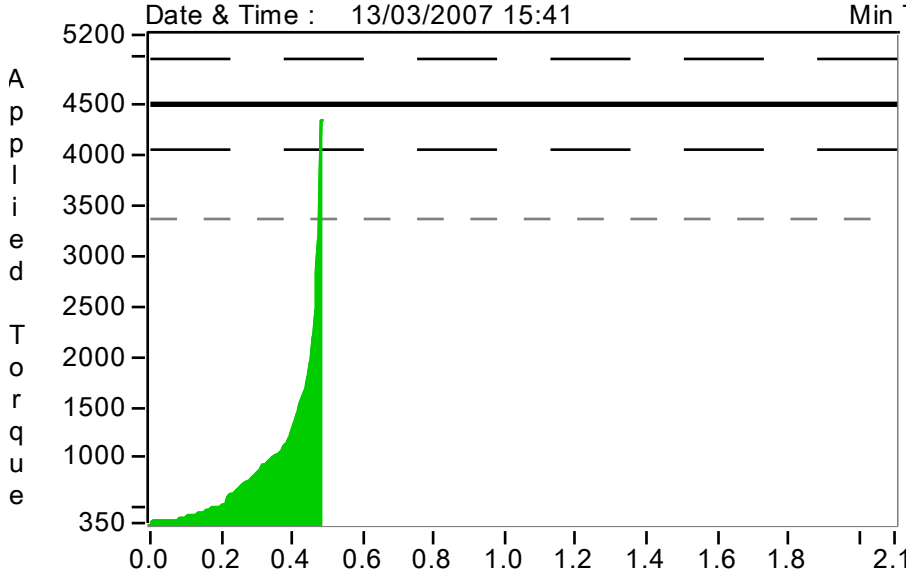
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 15:37
Min Torque 4050 Preset Shoulder 3375



Joint Number	30.0
Applied Torque	4093
Shoulder Torque	690
Delta Torque	3403
Turn Counter	0.62
RP	4.02
Time Taken	9.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

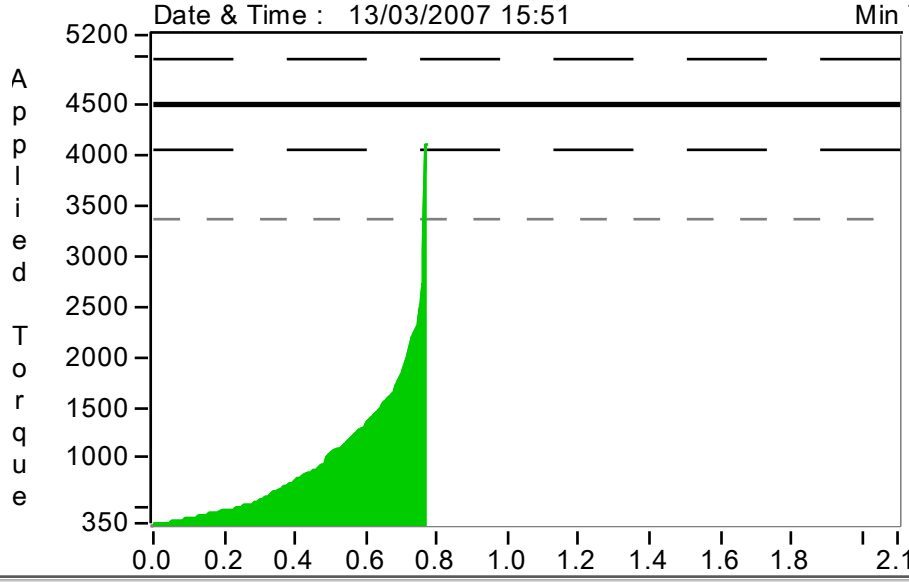
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 15:41
Min Torque 4050 Preset Shoulder 3375



Joint Number	31.0
Applied Torque	4355
Shoulder Torque	704
Delta Torque	3650
Turn Counter	0.47
RP	3.99
Time Taken	7.1
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

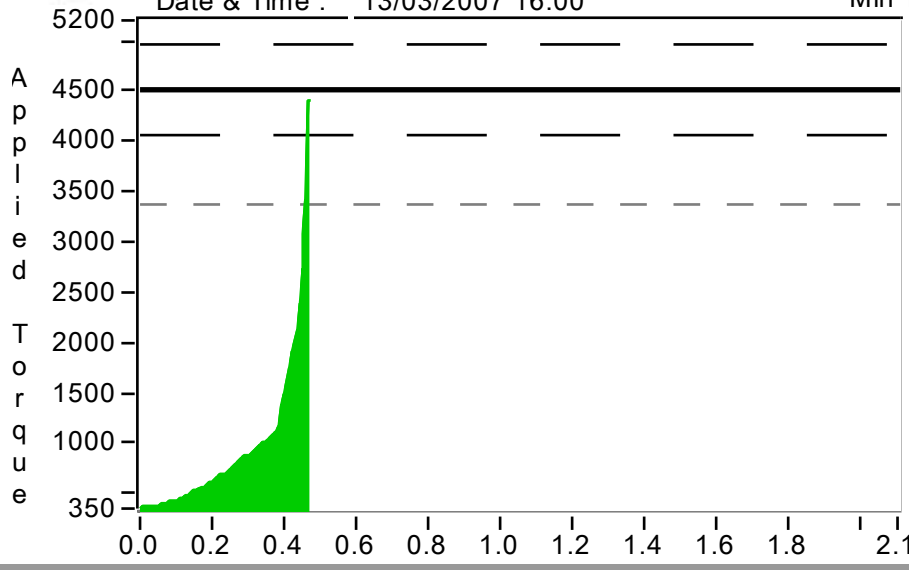
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 15:51
Min Torque 4050 Preset Shoulder 3375



Joint Number	32.0
Applied Torque	4114
Shoulder Torque	1088
Delta Torque	3025
Turn Counter	0.76
RP	3.98
Time Taken	11.4
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

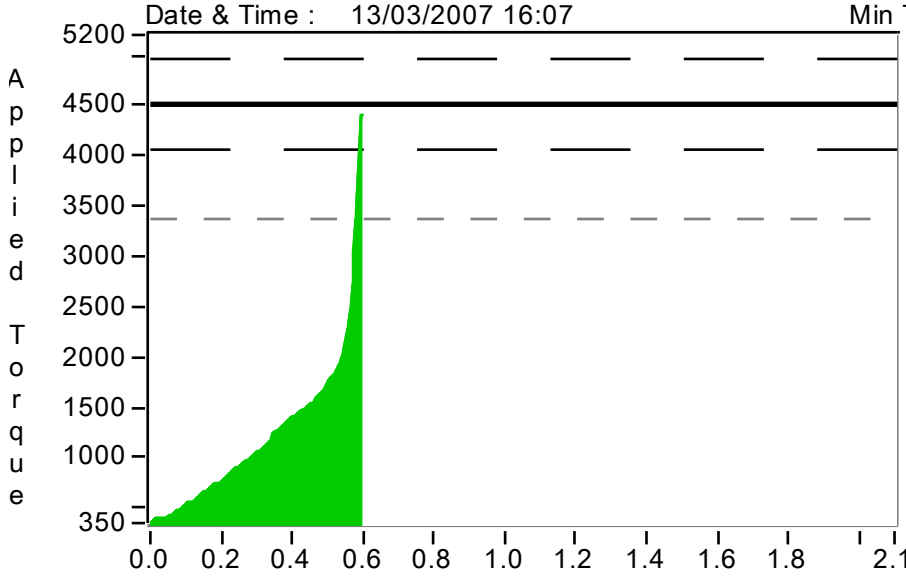
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 16:00



Joint Number	33.0
Applied Torque	4397
Shoulder Torque	1149
Delta Torque	3248
Turn Counter	0.46
RP	3.65
Time Taken	7.5
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY:X NIPPLE 3

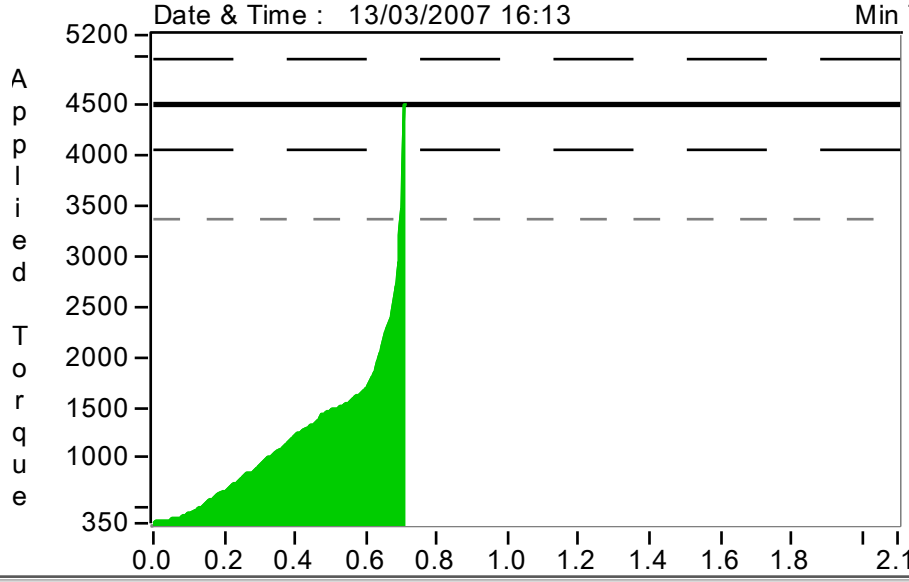
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 16:07



Joint Number	34.0
Applied Torque	4416
Shoulder Torque	1246
Delta Torque	3170
Turn Counter	0.58
RP	3.15
Time Taken	11.1
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

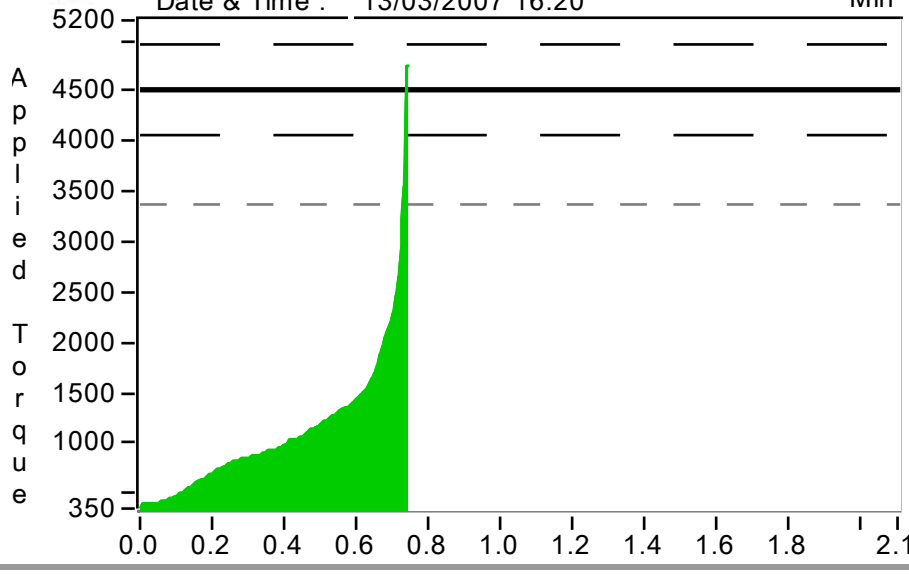
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 16:13



Joint Number	35.0
Applied Torque	4524
Shoulder Torque	1671
Delta Torque	2853
Turn Counter	0.70
RP	3.98
Time Taken	10.5
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

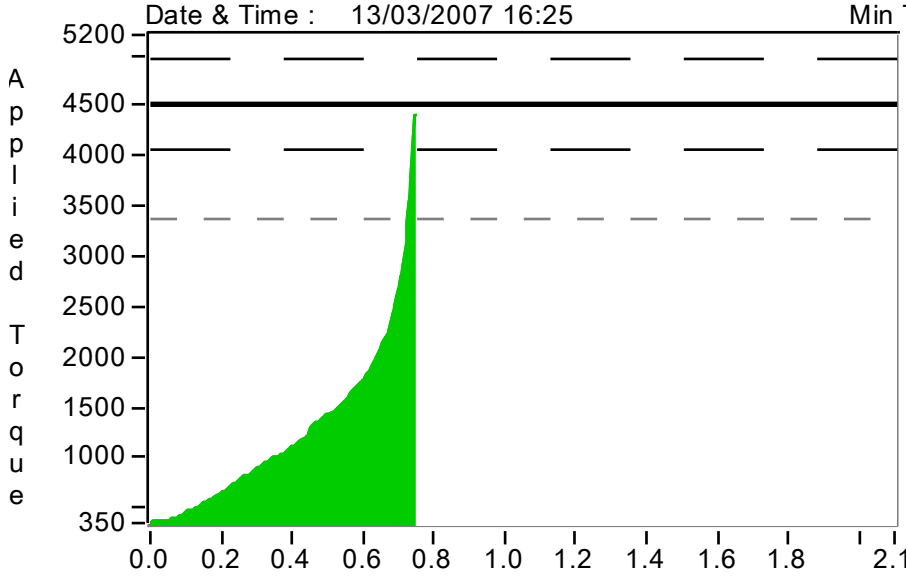
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Date & Time : 13/03/2007 16:20
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	36.0
Applied Torque	4745
Shoulder Torque	1441
Delta Torque	3304
Turn Counter	0.73
RP	3.98
Time Taken	11.0
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

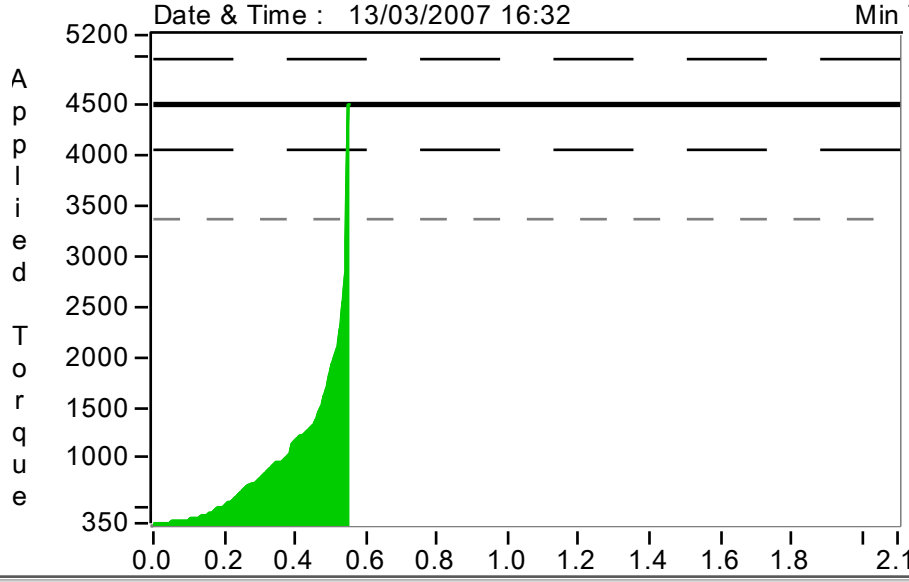
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Date & Time : 13/03/2007 16:25
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	37.0
Applied Torque	4397
Shoulder Torque	1498
Delta Torque	2899
Turn Counter	0.73
RP	4.06
Time Taken	10.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

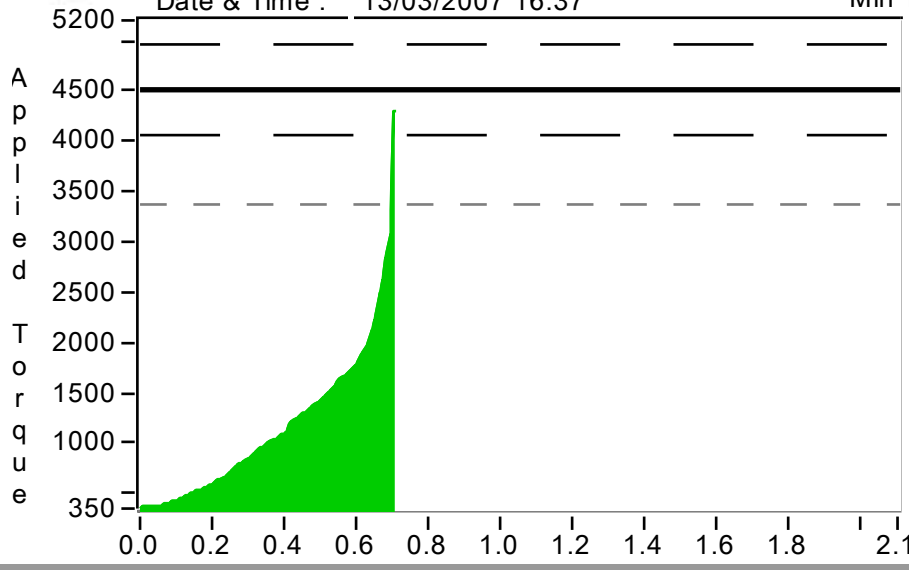
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Date & Time : 13/03/2007 16:32
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	38.0
Applied Torque	4508
Shoulder Torque	986
Delta Torque	3522
Turn Counter	0.54
RP	3.97
Time Taken	8.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

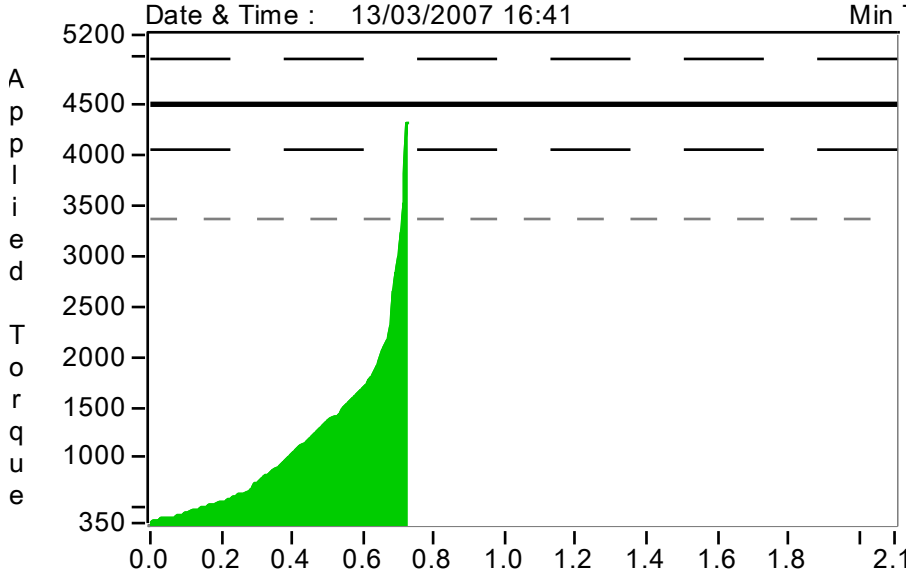
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 16:37



Joint Number	39.0
Applied Torque	4295
Shoulder Torque	1220
Delta Torque	3075
Turn Counter	0.69
RP	3.86
Time Taken	10.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

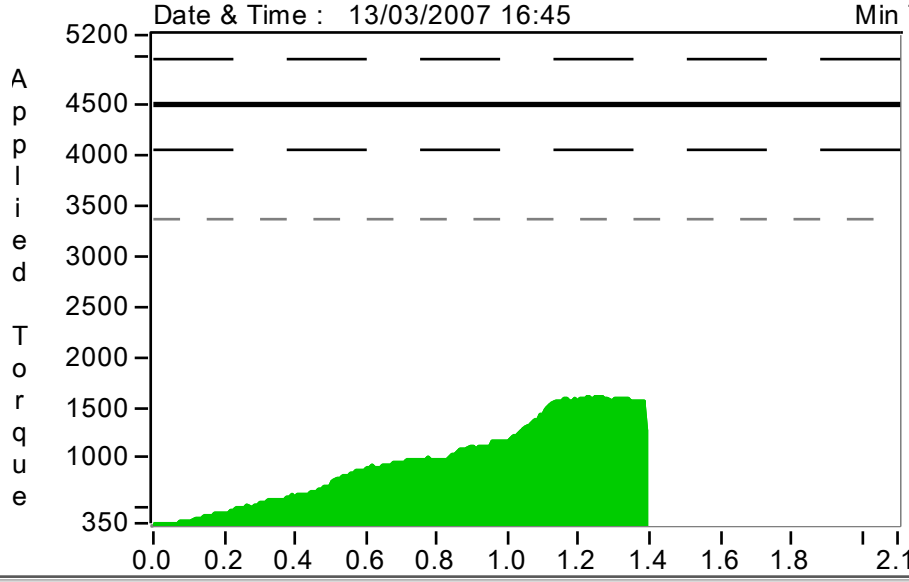
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 16:41



Joint Number	40.0
Applied Torque	4333
Shoulder Torque	848
Delta Torque	3484
Turn Counter	0.72
RP	3.98
Time Taken	10.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

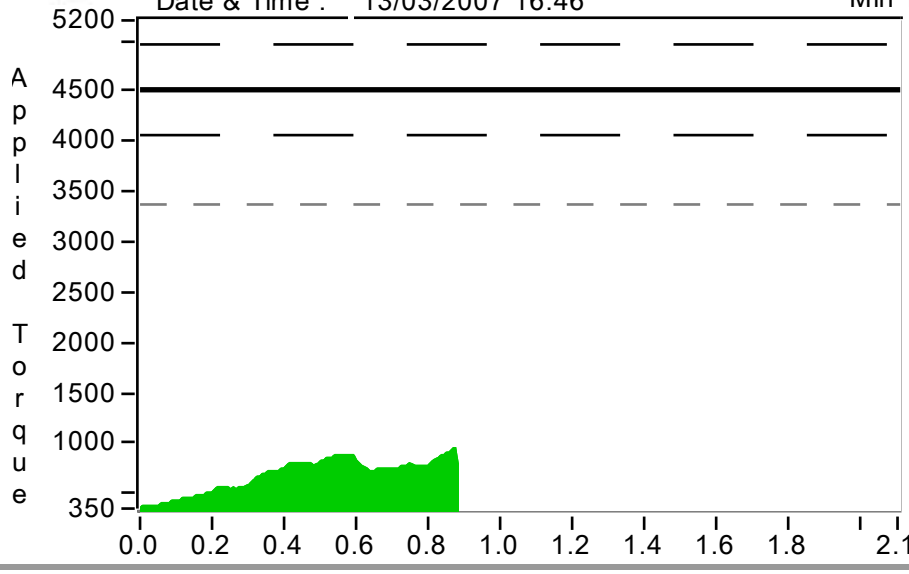
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 16:45



Joint Number	41.0
Applied Torque	159
Shoulder Torque	0
Delta Torque	159
Turn Counter	1.39
RP	2.80
Time Taken	29.9
Status	ERROR
Reason	Manual Abort

Comment:
/ HARRY:Re-Ran

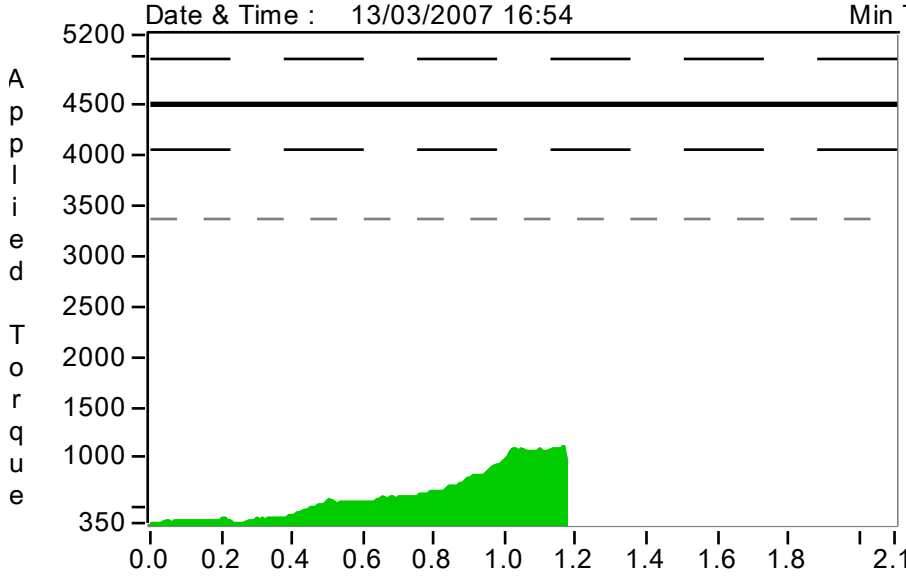
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 16:46
Min Torque 4050 Preset Shoulder 3375



Joint Number	41.1
Applied Torque	259
Shoulder Torque	0
Delta Torque	259
Turn Counter	0.88
RP	2.86
Time Taken	18.5
Status	ERROR
Reason	Manual Abort

Comment:
/ :::HARRY:INSPECTED:Re-Ran

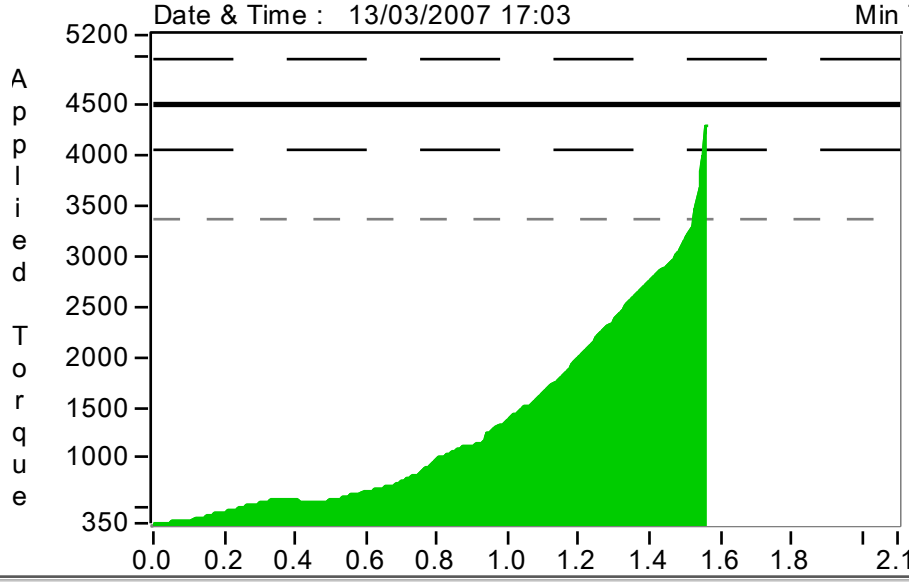
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 16:54
Min Torque 4050 Preset Shoulder 3375



Joint Number	41.2
Applied Torque	127
Shoulder Torque	0
Delta Torque	127
Turn Counter	1.18
RP	2.57
Time Taken	27.5
Status	ERROR
Reason	Manual Abort

Comment:
/ HARRY:LAYED OUT

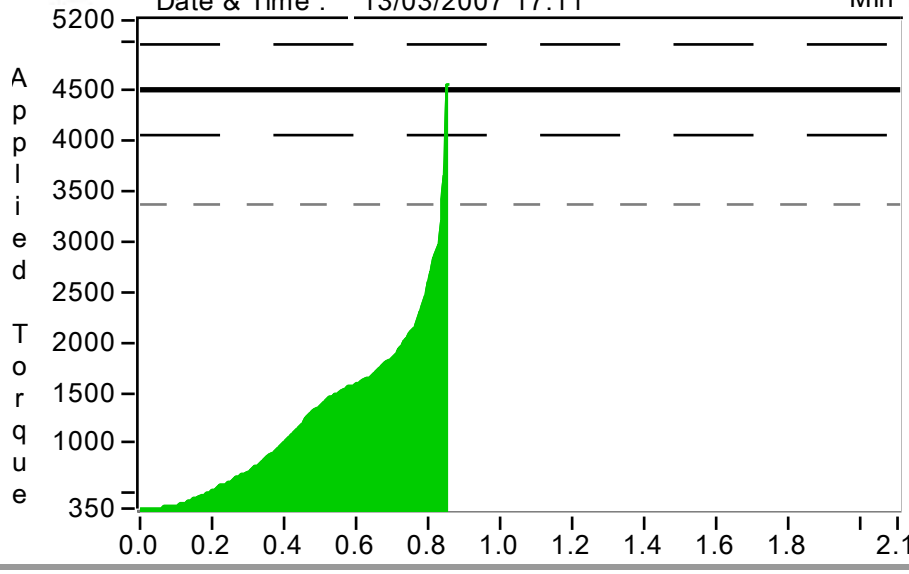
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 17:03
Min Torque 4050 Preset Shoulder 3375



Joint Number	41.3
Applied Torque	4286
Shoulder Torque	1623
Delta Torque	2663
Turn Counter	1.55
RP	4.16
Time Taken	22.4
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

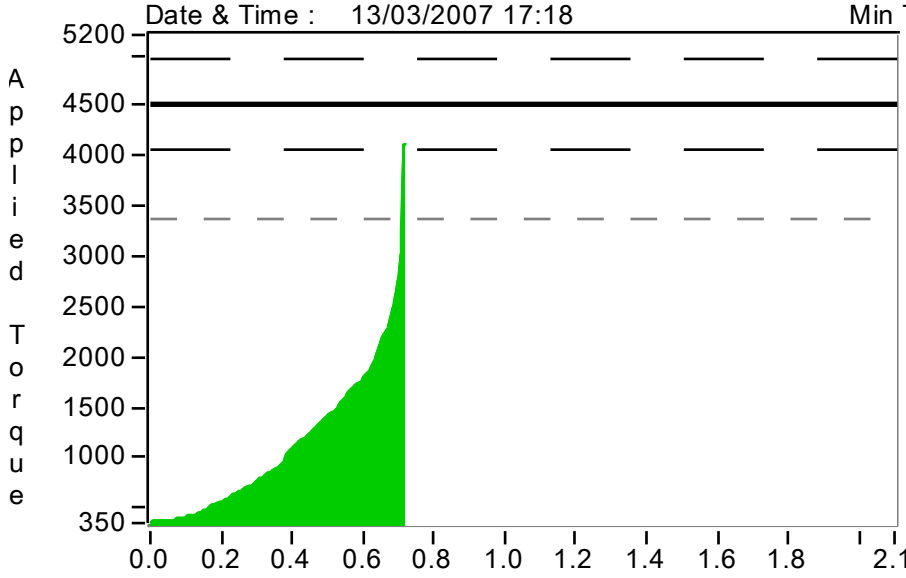
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 17:11



Joint Number	42.0
Applied Torque	4555
Shoulder Torque	1739
Delta Torque	2816
Turn Counter	0.84
RP	4.05
Time Taken	12.5
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

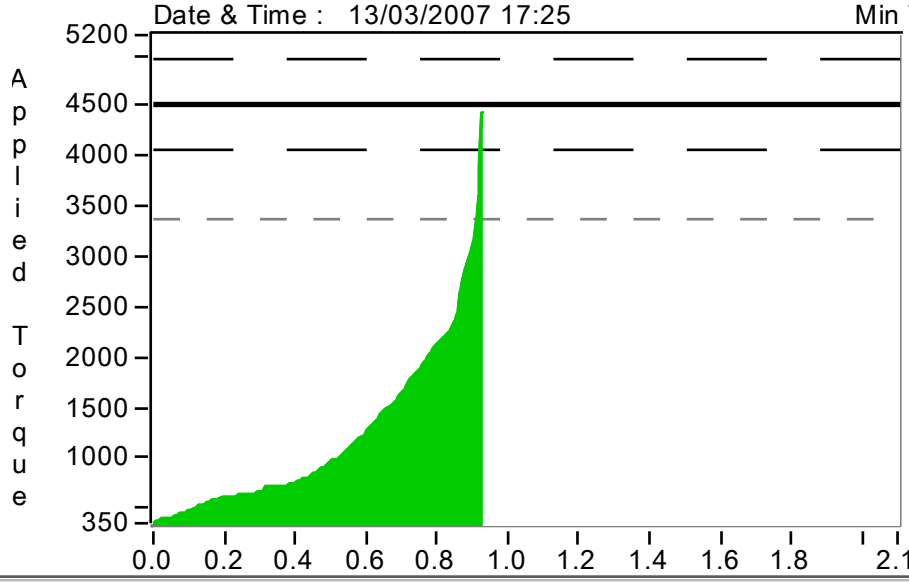
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 17:18



Joint Number	43.0
Applied Torque	4114
Shoulder Torque	1037
Delta Torque	3077
Turn Counter	0.71
RP	3.77
Time Taken	11.3
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

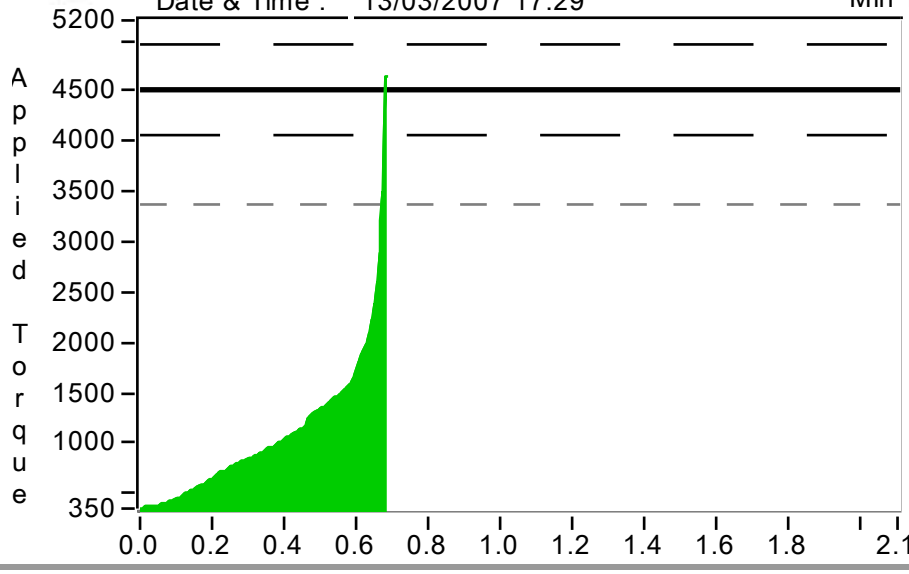
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 17:25



Joint Number	44.0
Applied Torque	4423
Shoulder Torque	990
Delta Torque	3434
Turn Counter	0.92
RP	4.00
Time Taken	13.7
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

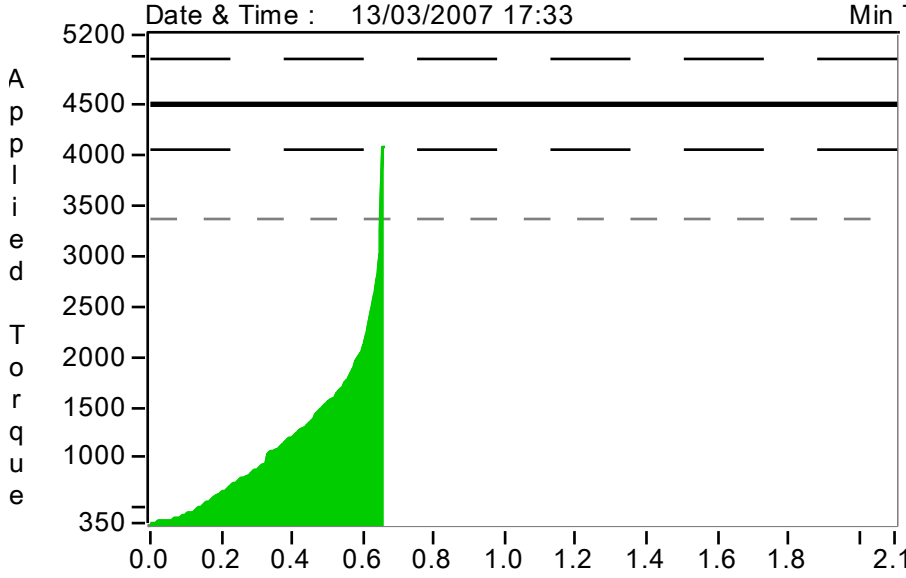
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 17:29



Joint Number	45.0
Applied Torque	4651
Shoulder Torque	1541
Delta Torque	3110
Turn Counter	0.68
RP	4.03
Time Taken	10.1
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

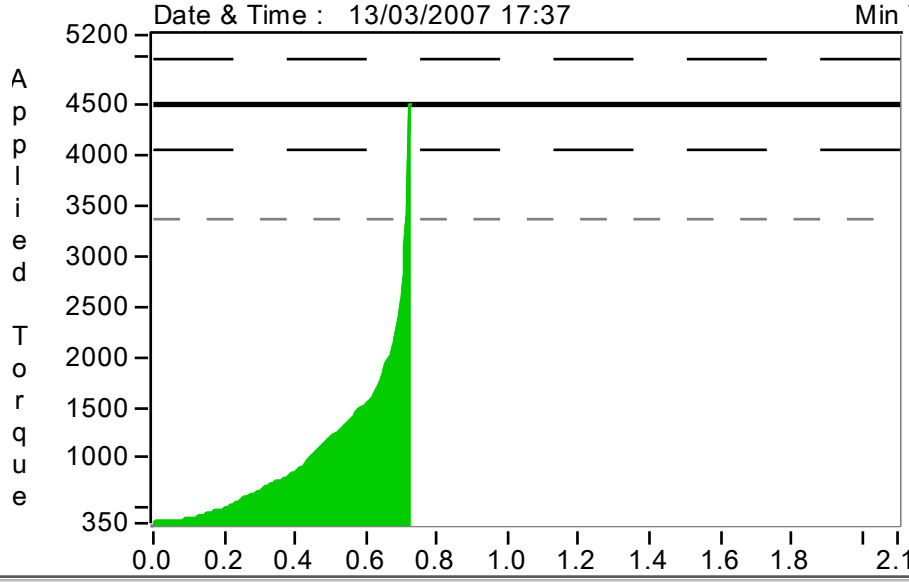
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 17:33



Joint Number	46.0
Applied Torque	4076
Shoulder Torque	957
Delta Torque	3119
Turn Counter	0.65
RP	4.01
Time Taken	9.7
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

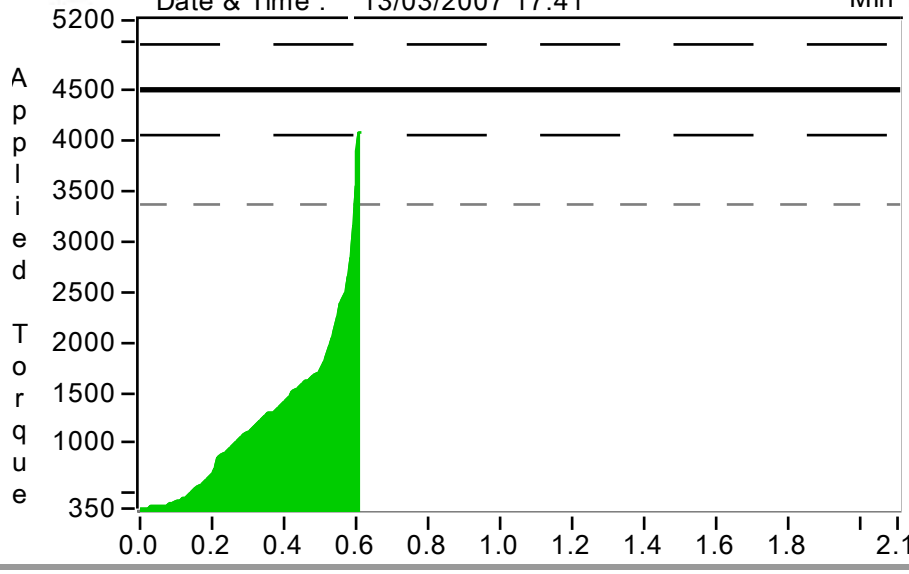
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 17:37



Joint Number	47.0
Applied Torque	4502
Shoulder Torque	1066
Delta Torque	3436
Turn Counter	0.72
RP	3.53
Time Taken	12.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

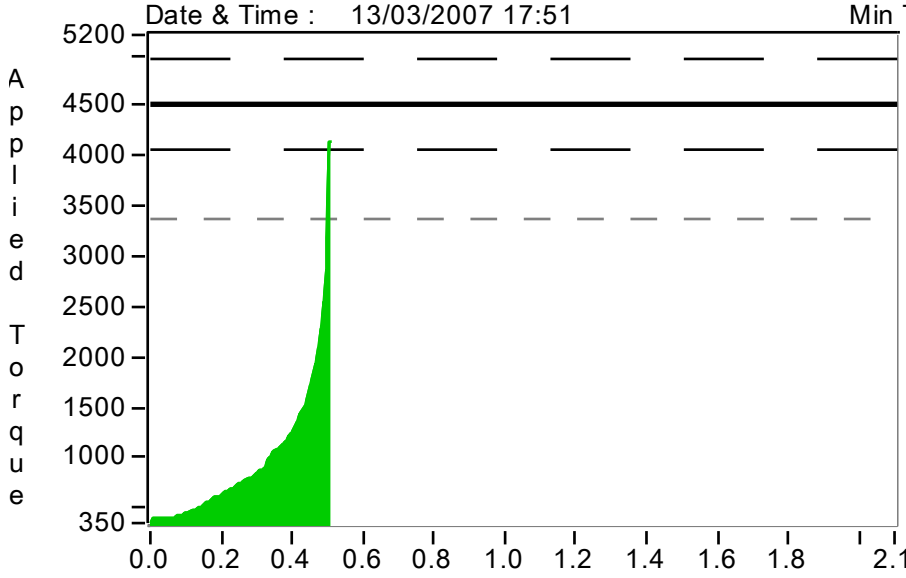
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 17:41
Min Torque 4050 Preset Shoulder 3375



Joint Number	48.0
Applied Torque	4099
Shoulder Torque	552
Delta Torque	3547
Turn Counter	0.60
RP	3.97
Time Taken	9.1
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

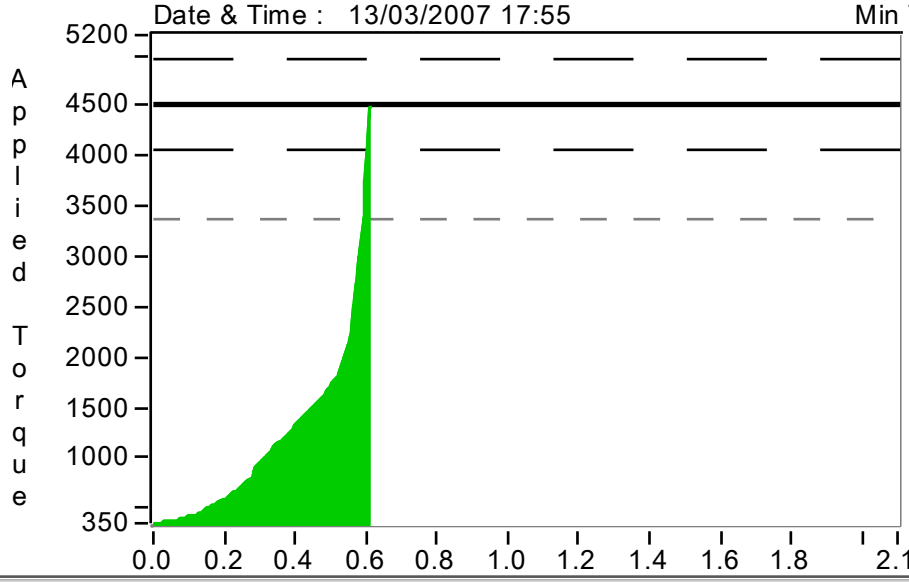
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 17:51
Min Torque 4050 Preset Shoulder 3375



Joint Number	49.0
Applied Torque	4140
Shoulder Torque	960
Delta Torque	3180
Turn Counter	0.50
RP	3.72
Time Taken	8.1
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

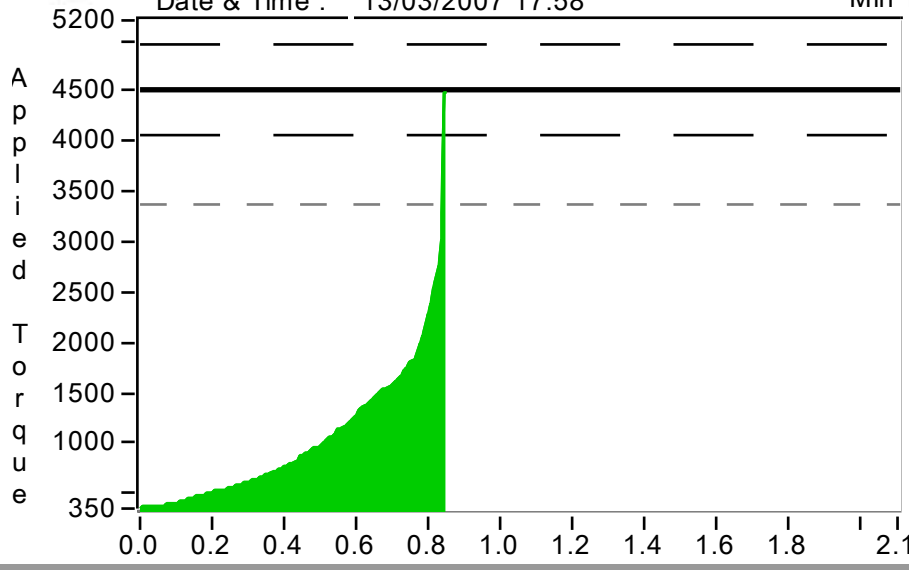
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 17:55
Min Torque 4050 Preset Shoulder 3375



Joint Number	50.0
Applied Torque	4474
Shoulder Torque	774
Delta Torque	3701
Turn Counter	0.60
RP	4.05
Time Taken	8.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

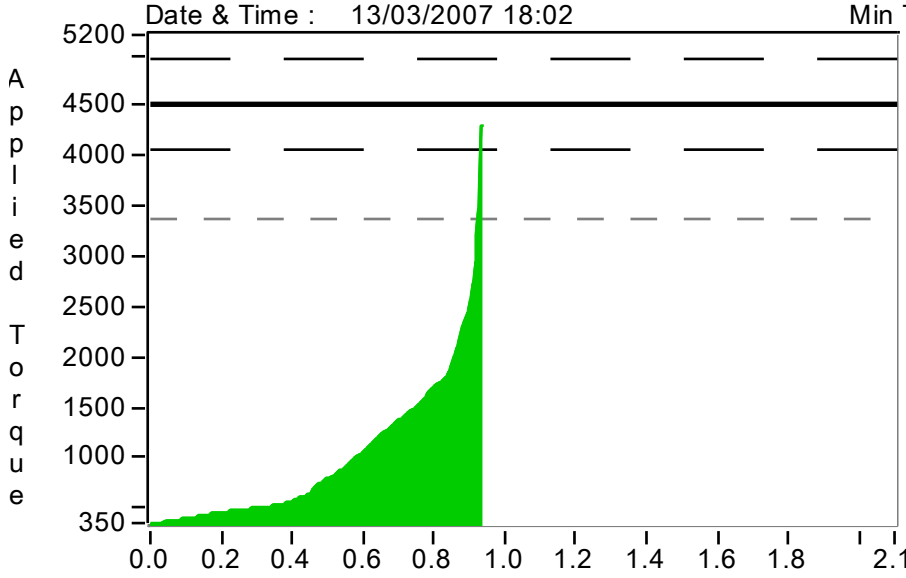
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 17:58



Joint Number	51.0
Applied Torque	4485
Shoulder Torque	1084
Delta Torque	3401
Turn Counter	0.83
RP	3.97
Time Taken	12.6
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

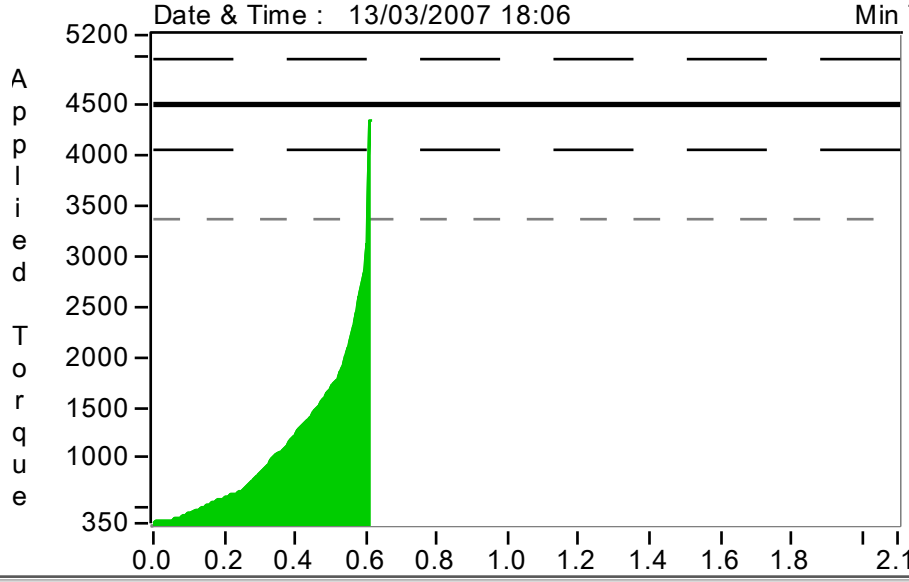
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 18:02



Joint Number	52.0
Applied Torque	4306
Shoulder Torque	965
Delta Torque	3342
Turn Counter	0.93
RP	4.04
Time Taken	13.7
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

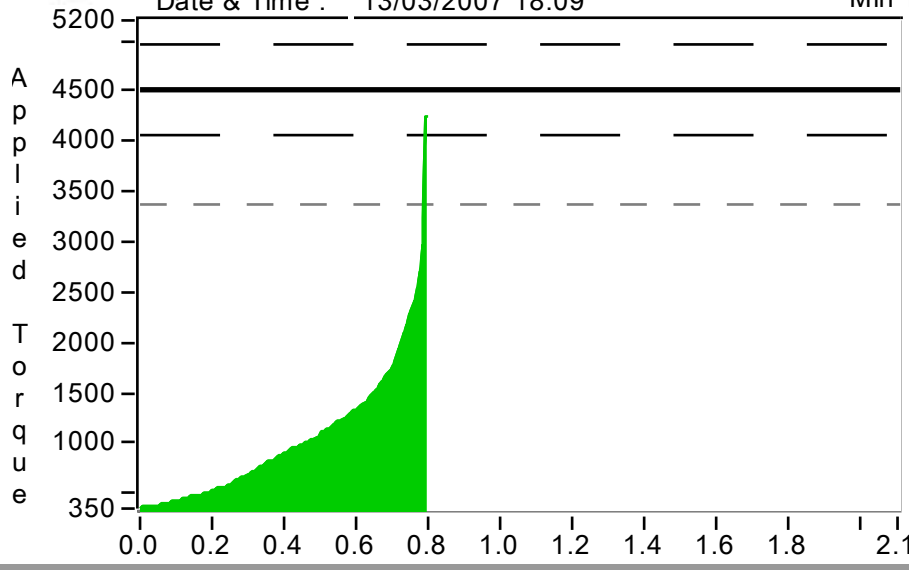
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 18:06



Joint Number	53.0
Applied Torque	4353
Shoulder Torque	803
Delta Torque	3550
Turn Counter	0.60
RP	4.02
Time Taken	8.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

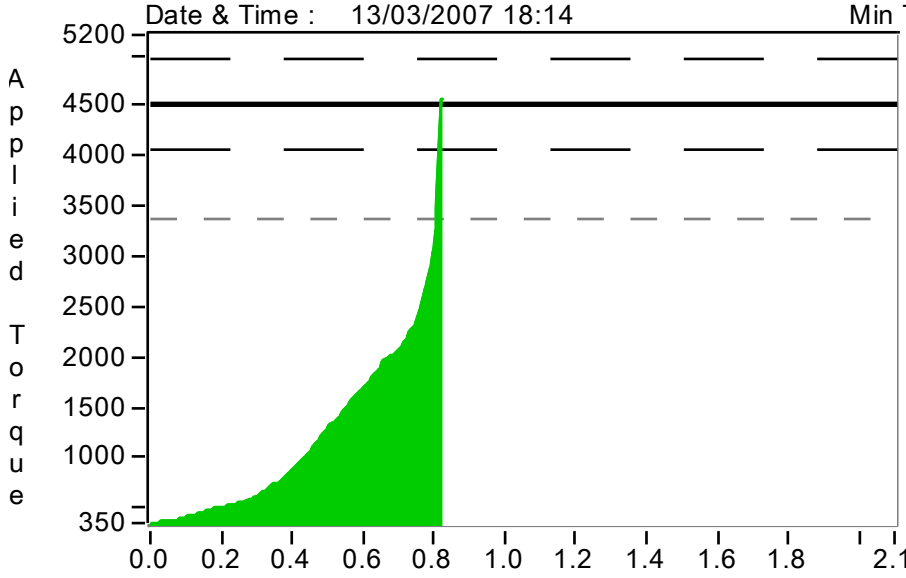
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 18:09



Joint Number	54.0
Applied Torque	4257
Shoulder Torque	1345
Delta Torque	2912
Turn Counter	0.78
RP	3.99
Time Taken	11.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

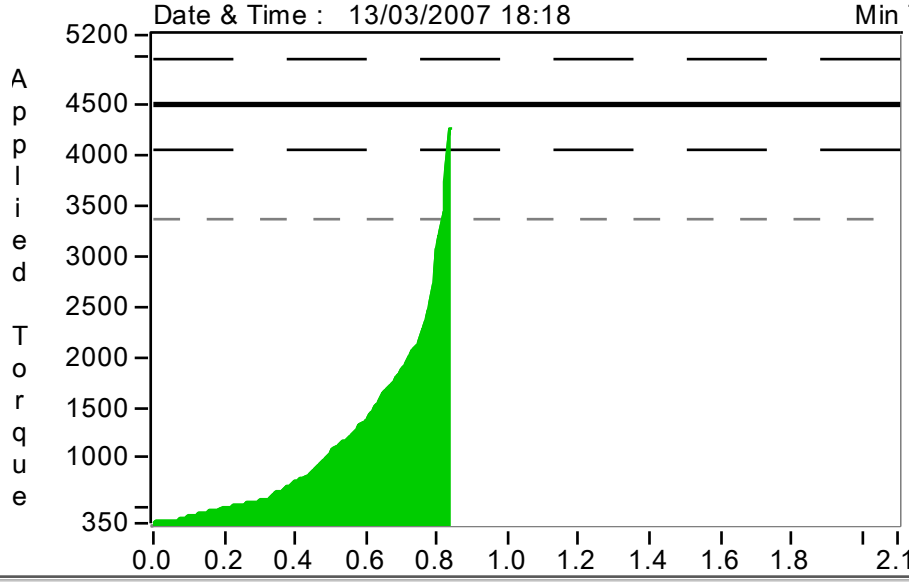
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 18:14



Joint Number	55.0
Applied Torque	4572
Shoulder Torque	2099
Delta Torque	2474
Turn Counter	0.81
RP	4.01
Time Taken	12.1
Status	OK
Reason	Joint Makeup OK

Comment:

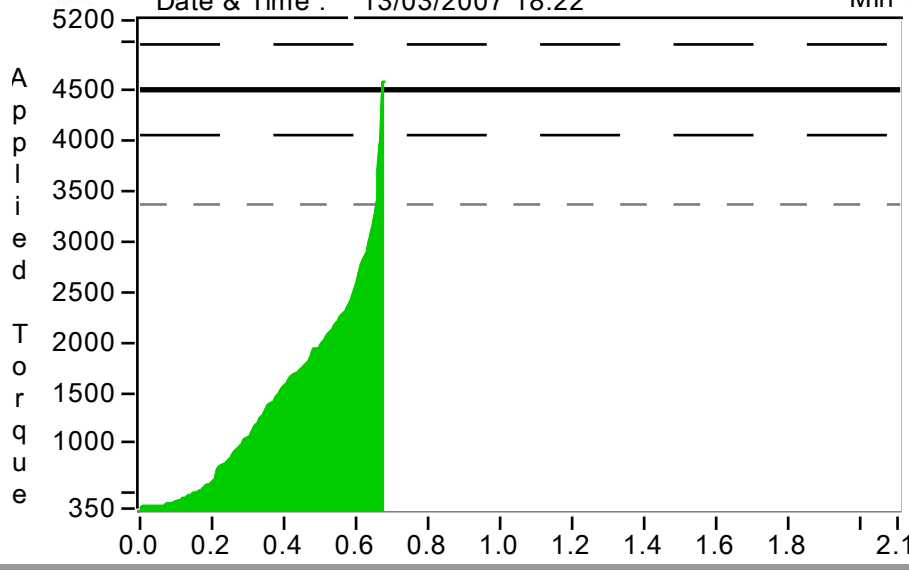
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 18:18



Joint Number	56.0
Applied Torque	4280
Shoulder Torque	894
Delta Torque	3386
Turn Counter	0.82
RP	4.00
Time Taken	12.4
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

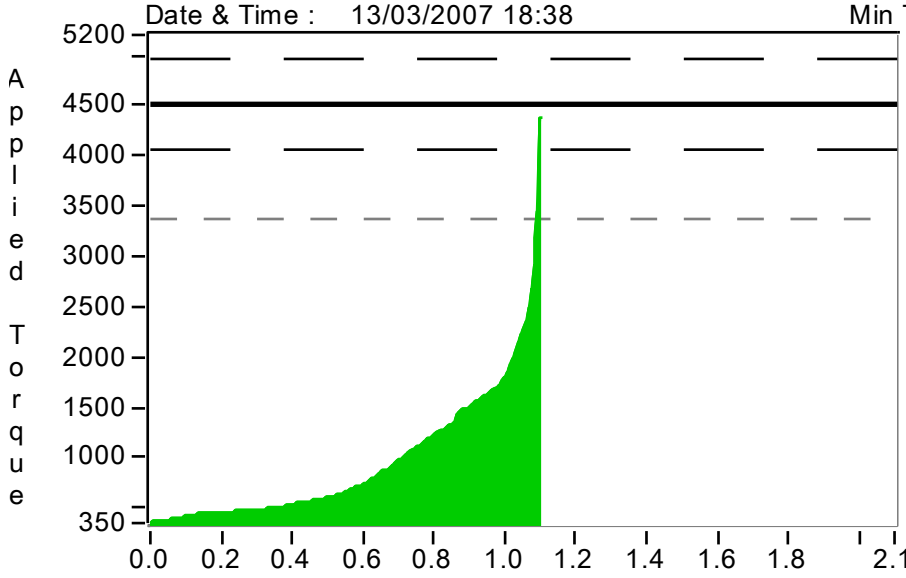
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 18:22



Joint Number	57.0
Applied Torque	4588
Shoulder Torque	626
Delta Torque	3962
Turn Counter	0.67
RP	4.07
Time Taken	9.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

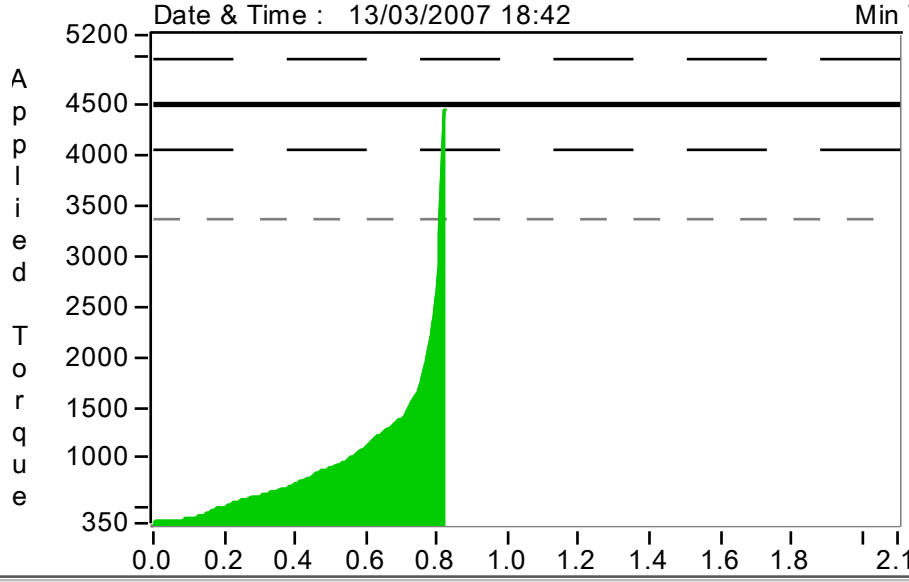
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 18:38



Joint Number	58.0
Applied Torque	4391
Shoulder Torque	1714
Delta Torque	2678
Turn Counter	1.09
RP	4.06
Time Taken	16.1
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

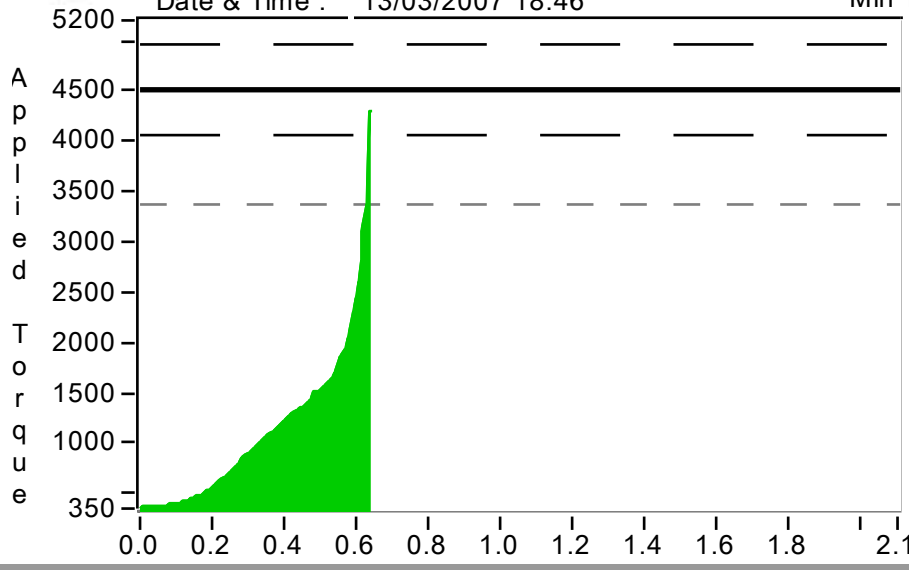
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 18:42



Joint Number	59.0
Applied Torque	4450
Shoulder Torque	1139
Delta Torque	3311
Turn Counter	0.81
RP	2.86
Time Taken	17.0
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

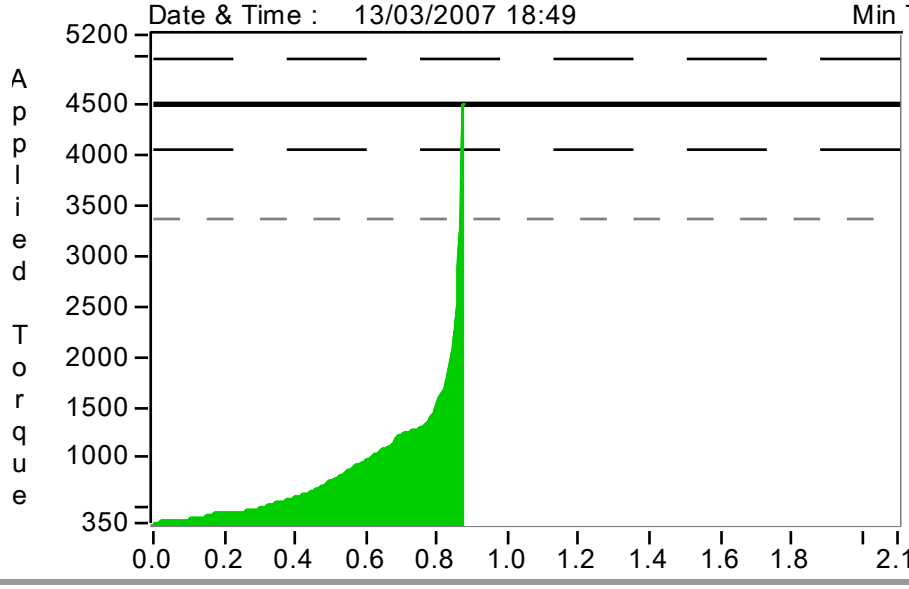
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 18:46
Min Torque 4050 Preset Shoulder 3375



Joint Number	60.0
Applied Torque	4290
Shoulder Torque	1597
Delta Torque	2694
Turn Counter	0.62
RP	3.97
Time Taken	9.4
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

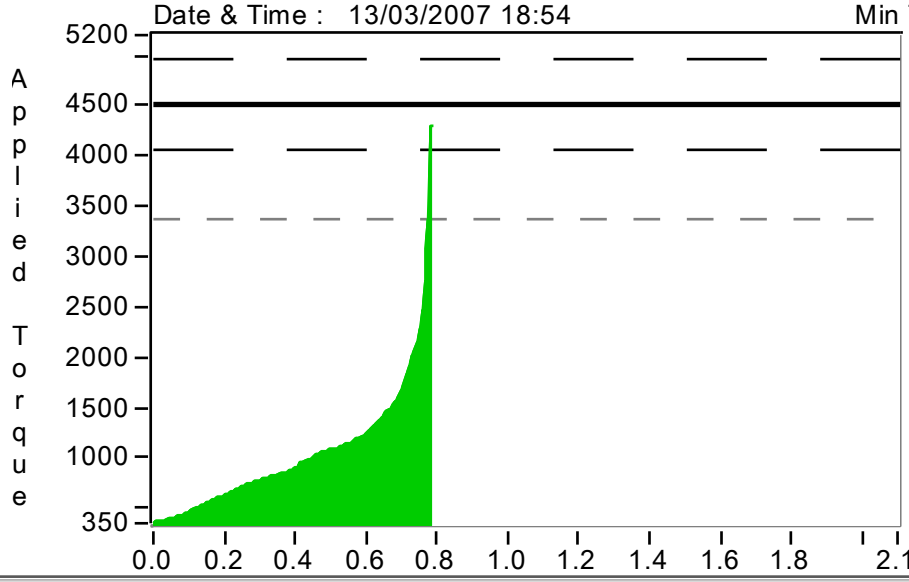
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 18:49
Min Torque 4050 Preset Shoulder 3375



Joint Number	61.0
Applied Torque	4511
Shoulder Torque	1407
Delta Torque	3104
Turn Counter	0.87
RP	3.80
Time Taken	13.7
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

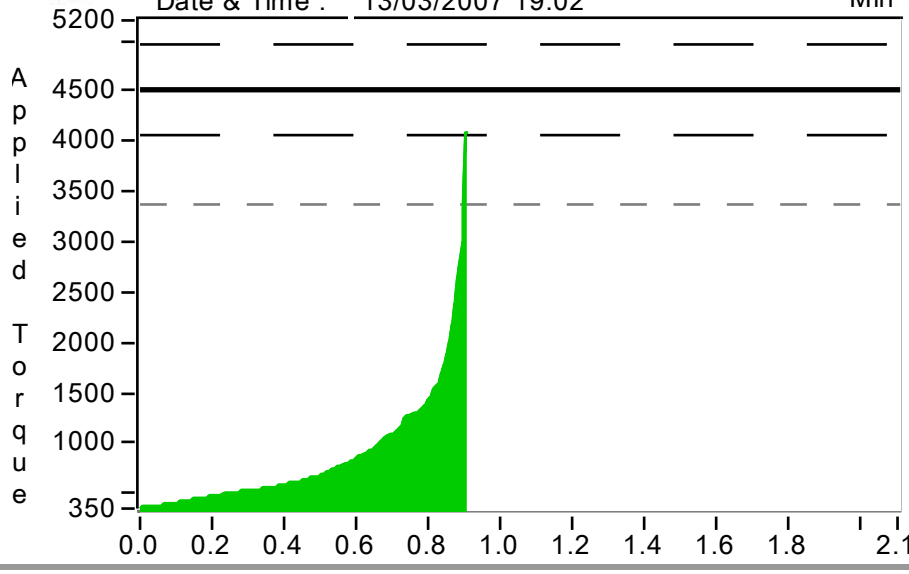
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 18:54
Min Torque 4050 Preset Shoulder 3375



Joint Number	62.0
Applied Torque	4295
Shoulder Torque	1281
Delta Torque	3014
Turn Counter	0.78
RP	3.94
Time Taken	11.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

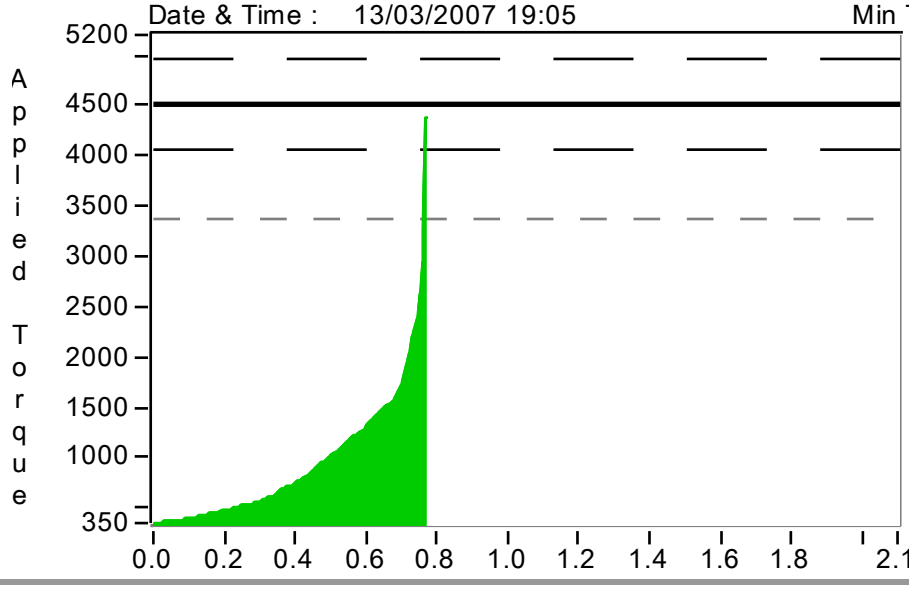
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 19:02
Min Torque 4050 Preset Shoulder 3375



Joint Number	63.0
Applied Torque	4088
Shoulder Torque	1441
Delta Torque	2646
Turn Counter	0.89
RP	4.05
Time Taken	13.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

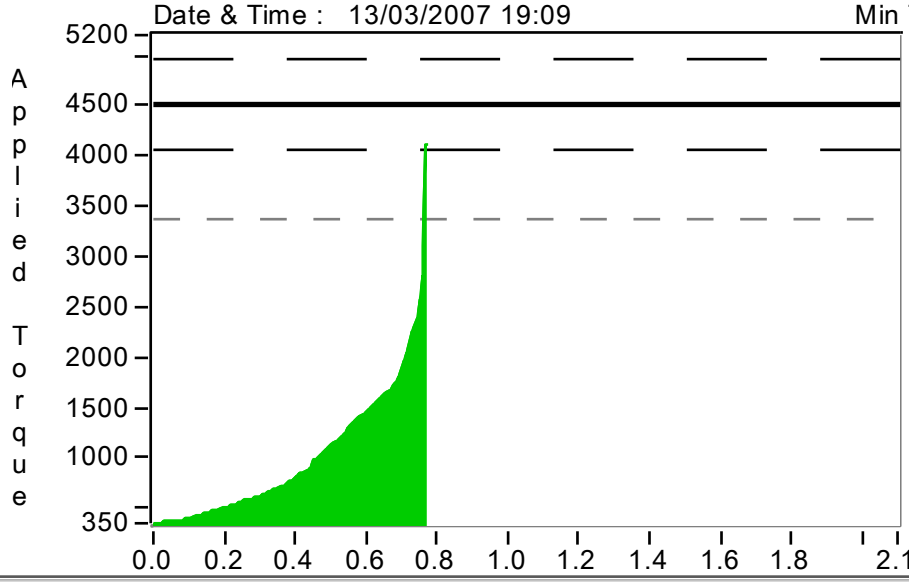
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 19:05
Min Torque 4050 Preset Shoulder 3375



Joint Number	64.0
Applied Torque	4377
Shoulder Torque	867
Delta Torque	3509
Turn Counter	0.76
RP	3.96
Time Taken	11.5
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

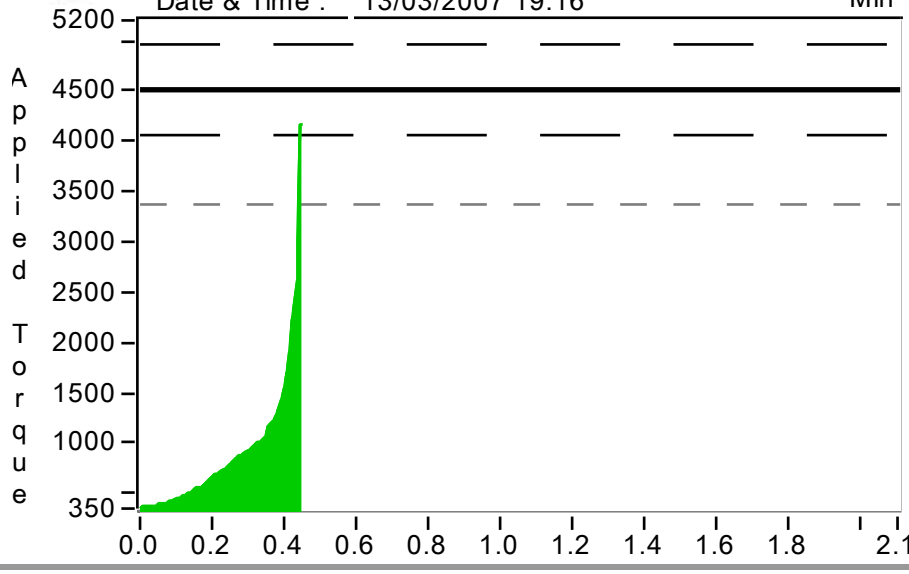
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 19:09
Min Torque 4050 Preset Shoulder 3375



Joint Number	65.0
Applied Torque	4111
Shoulder Torque	1106
Delta Torque	3005
Turn Counter	0.76
RP	3.90
Time Taken	11.7
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

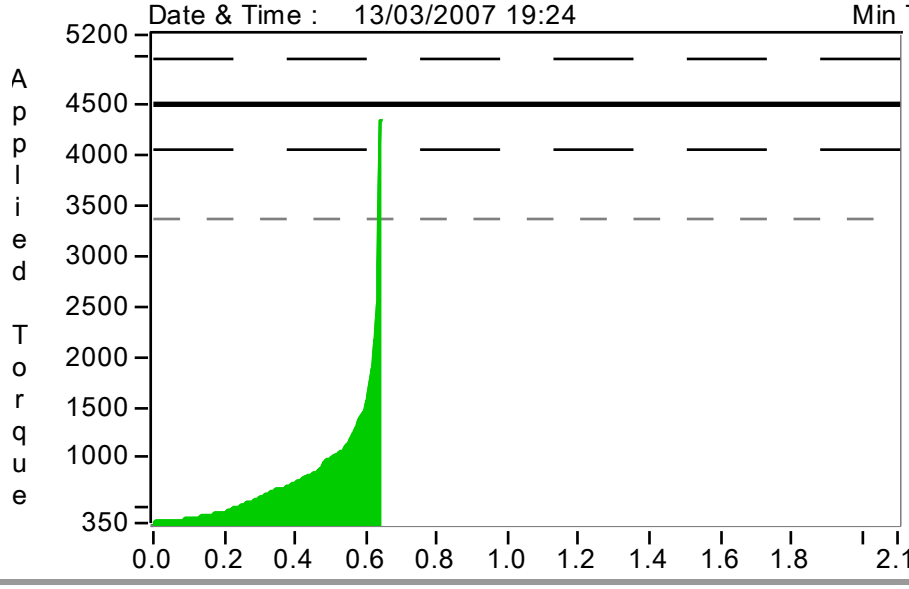
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 19:16
Min Torque 4050 Preset Shoulder 3375



Joint Number	66.0
Applied Torque	4180
Shoulder Torque	1050
Delta Torque	3129
Turn Counter	0.43
RP	3.38
Time Taken	7.7
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY:X NIPPLE 4

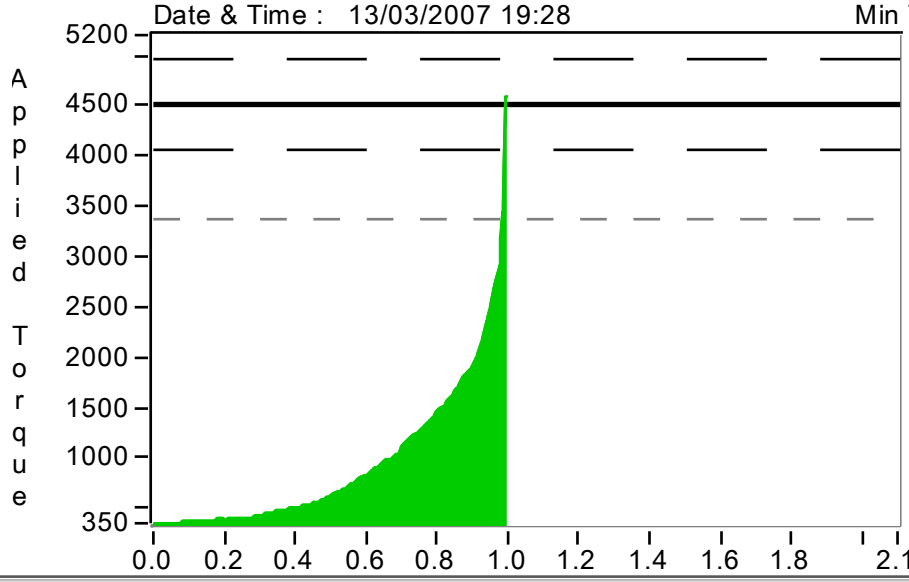
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 19:24
Min Torque 4050 Preset Shoulder 3375



Joint Number	67.0
Applied Torque	4353
Shoulder Torque	1126
Delta Torque	3227
Turn Counter	0.63
RP	3.97
Time Taken	9.6
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

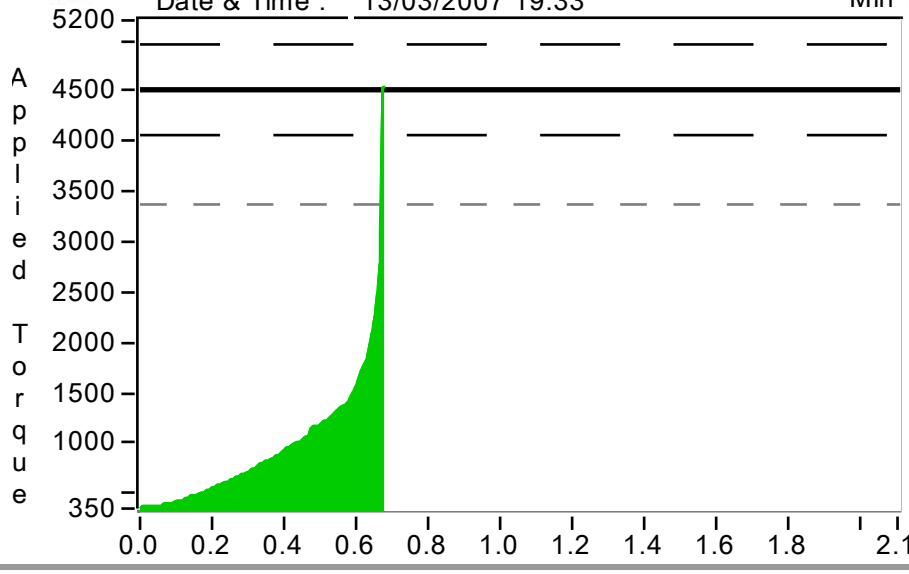
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 19:28
Min Torque 4050 Preset Shoulder 3375



Joint Number	68.0
Applied Torque	4581
Shoulder Torque	1223
Delta Torque	3358
Turn Counter	0.98
RP	4.08
Time Taken	14.4
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

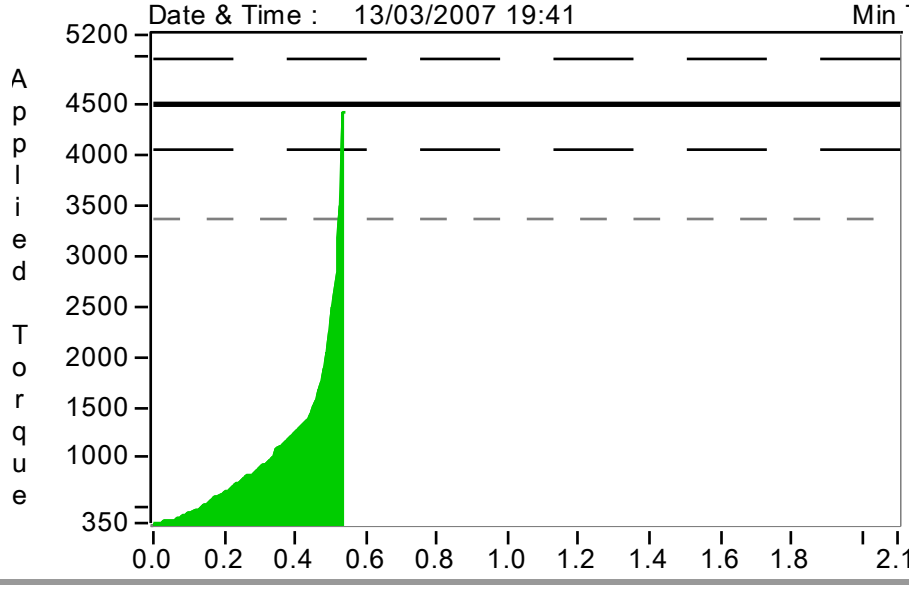
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 19:33
Min Torque 4050 Preset Shoulder 3375



Joint Number	69.0
Applied Torque	4527
Shoulder Torque	1309
Delta Torque	3218
Turn Counter	0.67
RP	3.98
Time Taken	10.1
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

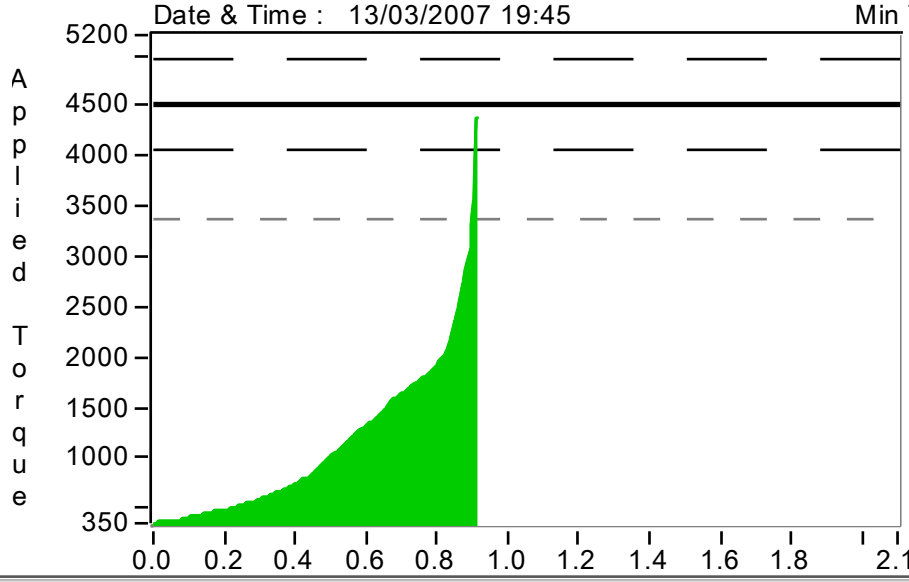
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 19:41
Min Torque 4050 Preset Shoulder 3375



Joint Number	70.0
Applied Torque	4444
Shoulder Torque	1052
Delta Torque	3392
Turn Counter	0.53
RP	4.10
Time Taken	7.7
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

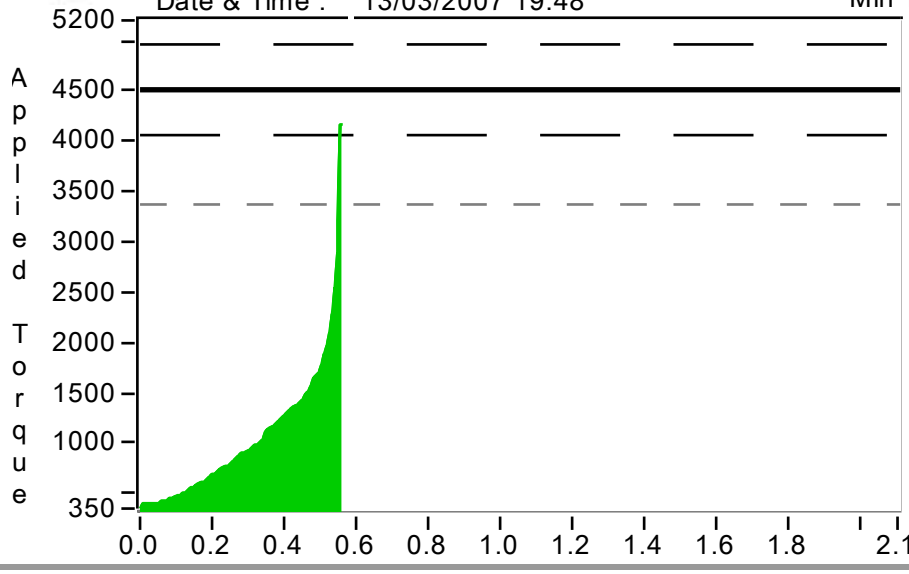
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 19:45
Min Torque 4050 Preset Shoulder 3375



Joint Number	71.0
Applied Torque	4371
Shoulder Torque	1728
Delta Torque	2643
Turn Counter	0.90
RP	4.06
Time Taken	13.3
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

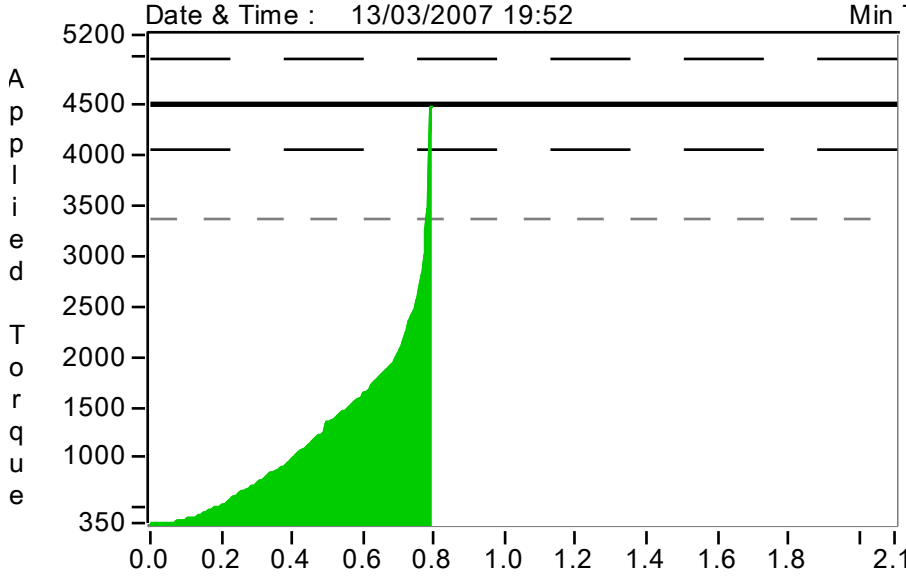
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 19:48
Min Torque 4050 Preset Shoulder 3375



Joint Number	72.0
Applied Torque	4175
Shoulder Torque	1106
Delta Torque	3069
Turn Counter	0.55
RP	3.62
Time Taken	9.1
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

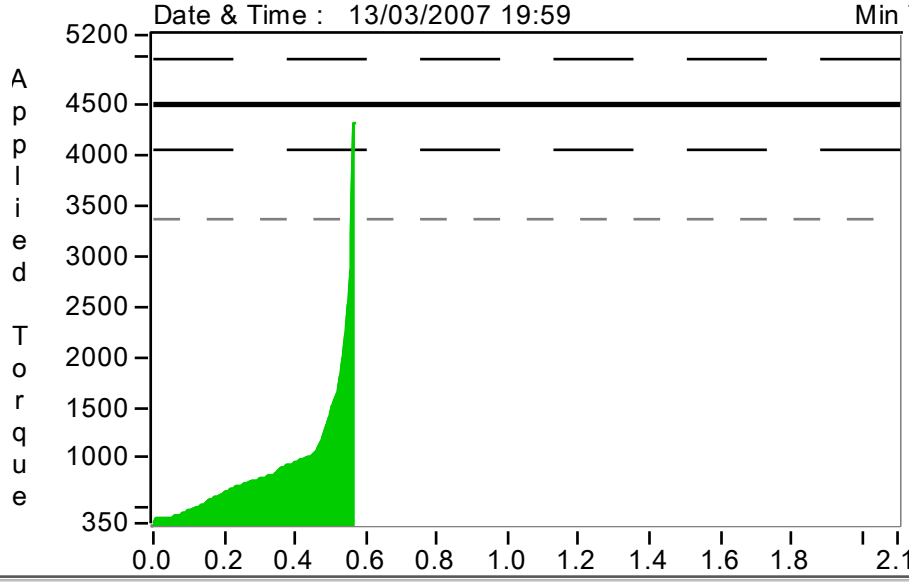
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 19:52
Min Torque 4050 Preset Shoulder 3375



Joint Number	73.0
Applied Torque	4473
Shoulder Torque	1456
Delta Torque	3017
Turn Counter	0.78
RP	3.78
Time Taken	12.4
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

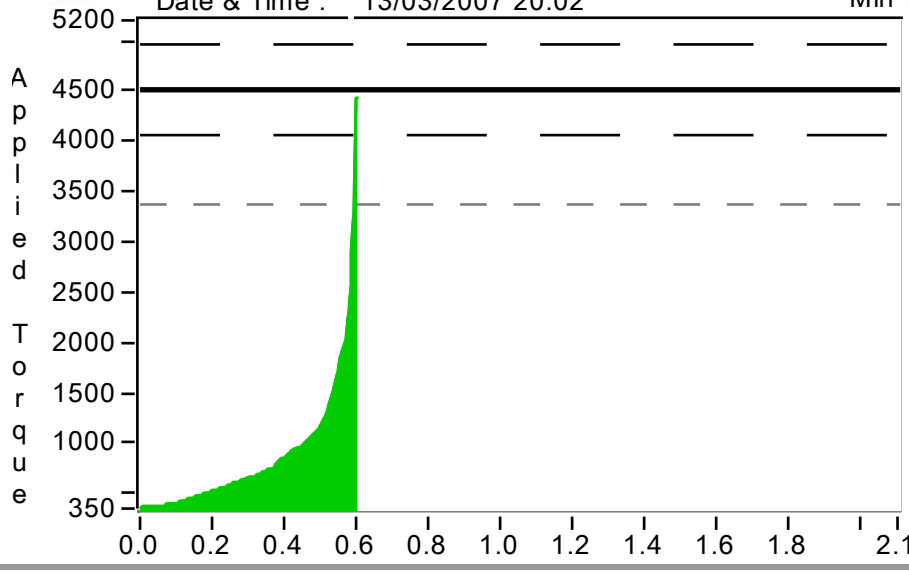
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 19:59
Min Torque 4050 Preset Shoulder 3375



Joint Number	74.0
Applied Torque	4324
Shoulder Torque	1129
Delta Torque	3195
Turn Counter	0.56
RP	4.01
Time Taken	8.3
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

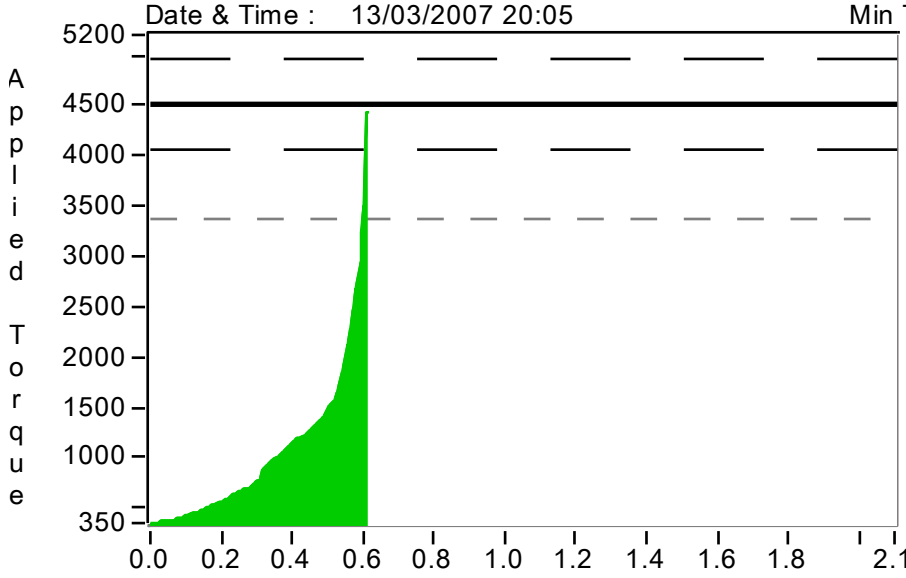
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 20:02



Joint Number	75.0
Applied Torque	4436
Shoulder Torque	957
Delta Torque	3479
Turn Counter	0.59
RP	4.02
Time Taken	8.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

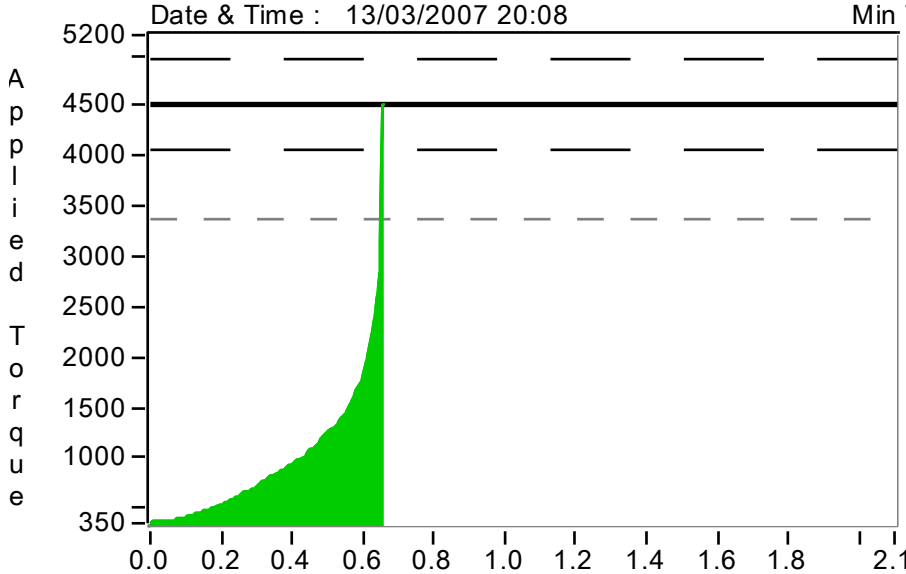
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 20:05



Joint Number	76.0
Applied Torque	4441
Shoulder Torque	864
Delta Torque	3577
Turn Counter	0.60
RP	4.04
Time Taken	8.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

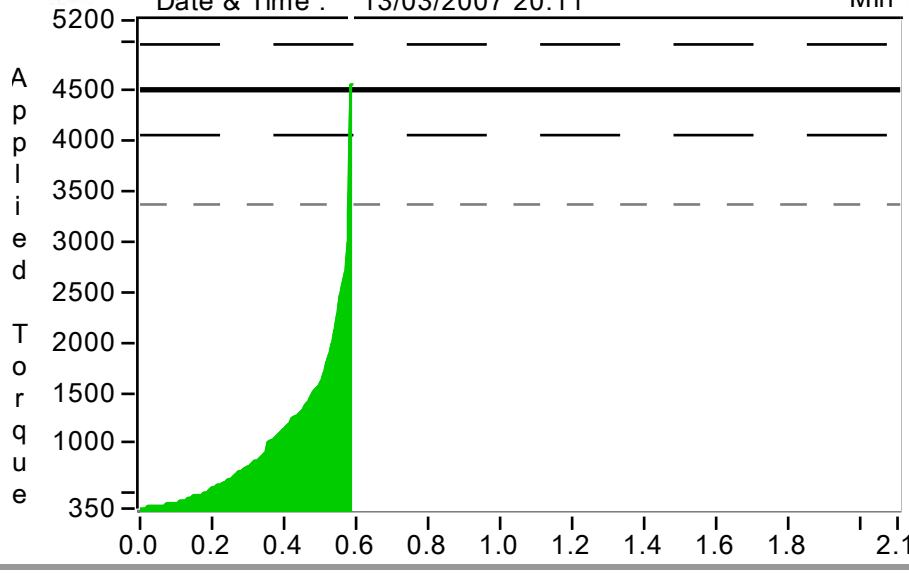
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 20:08



Joint Number	77.0
Applied Torque	4515
Shoulder Torque	1168
Delta Torque	3347
Turn Counter	0.65
RP	3.99
Time Taken	9.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

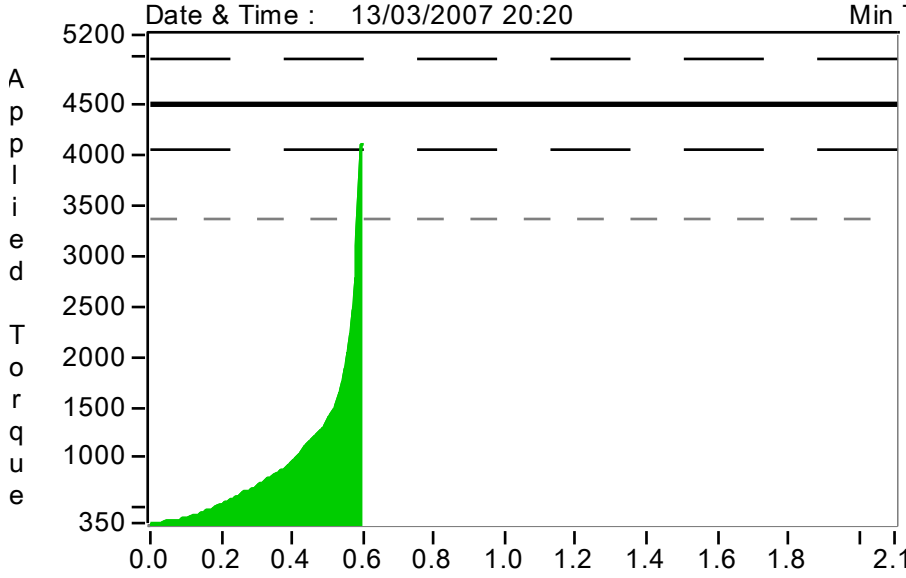
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 20:11



Joint Number	78.0
Applied Torque	4566
Shoulder Torque	934
Delta Torque	3633
Turn Counter	0.57
RP	3.49
Time Taken	9.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

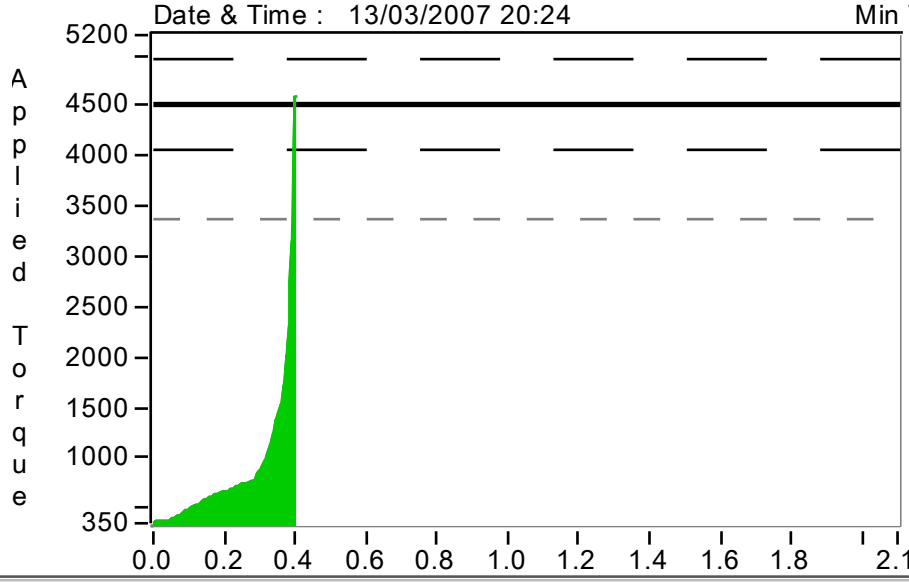
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 20:20



Joint Number	79.0
Applied Torque	4114
Shoulder Torque	1136
Delta Torque	2978
Turn Counter	0.58
RP	3.91
Time Taken	8.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

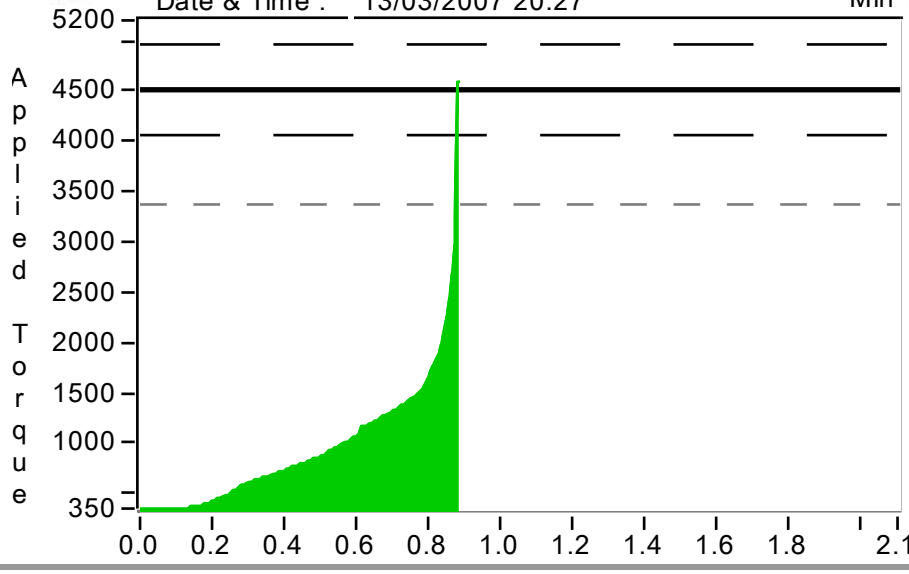
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 20:24



Joint Number	80.0
Applied Torque	4590
Shoulder Torque	888
Delta Torque	3702
Turn Counter	0.39
RP	3.45
Time Taken	6.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

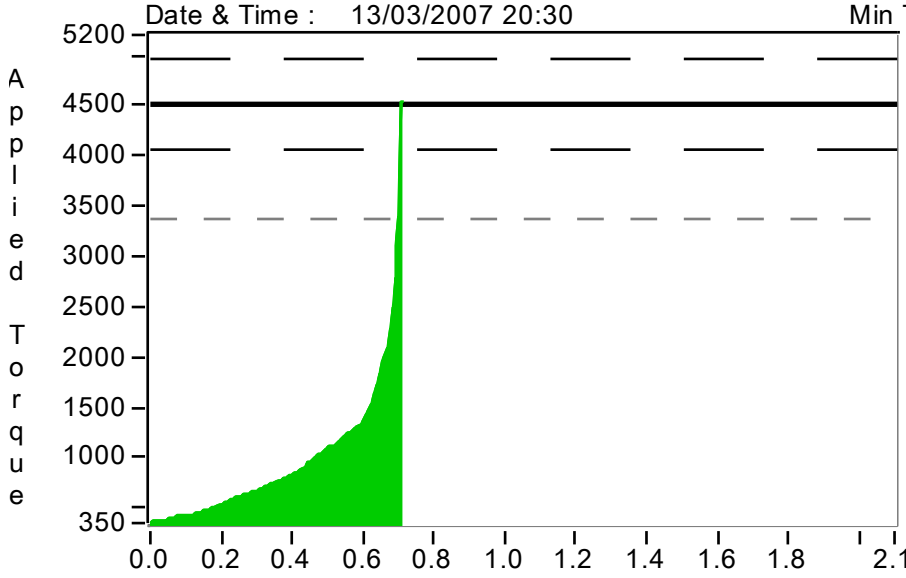
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 20:27



Joint Number	81.0
Applied Torque	4596
Shoulder Torque	1473
Delta Torque	3123
Turn Counter	0.87
RP	3.79
Time Taken	13.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

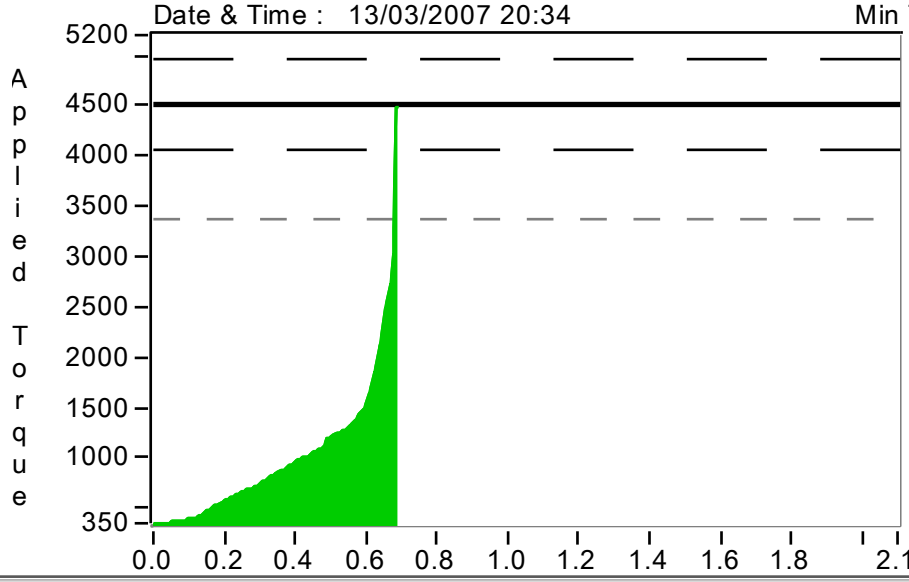
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 20:30



Joint Number	82.0
Applied Torque	4549
Shoulder Torque	1173
Delta Torque	3376
Turn Counter	0.70
RP	4.00
Time Taken	10.5
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

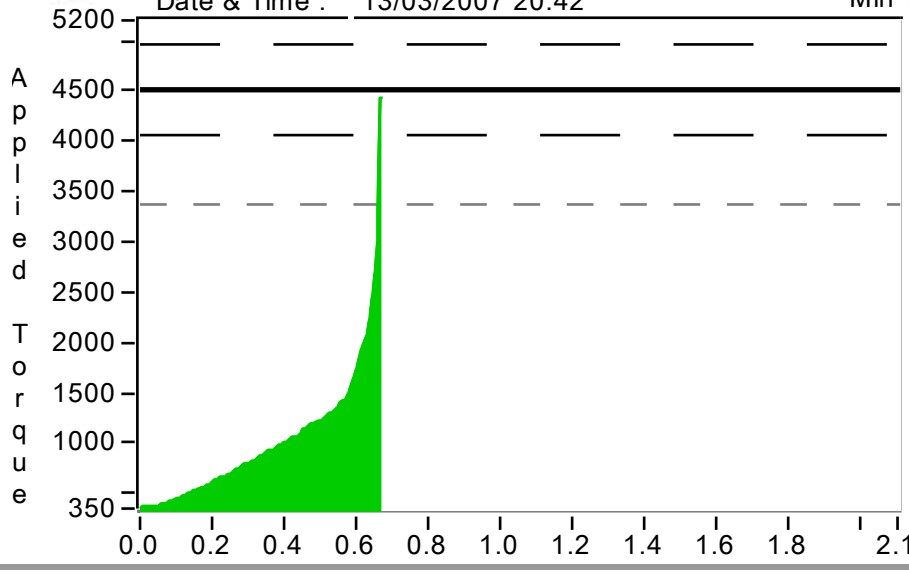
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 20:34



Joint Number	83.0
Applied Torque	4495
Shoulder Torque	1430
Delta Torque	3065
Turn Counter	0.68
RP	4.01
Time Taken	10.1
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

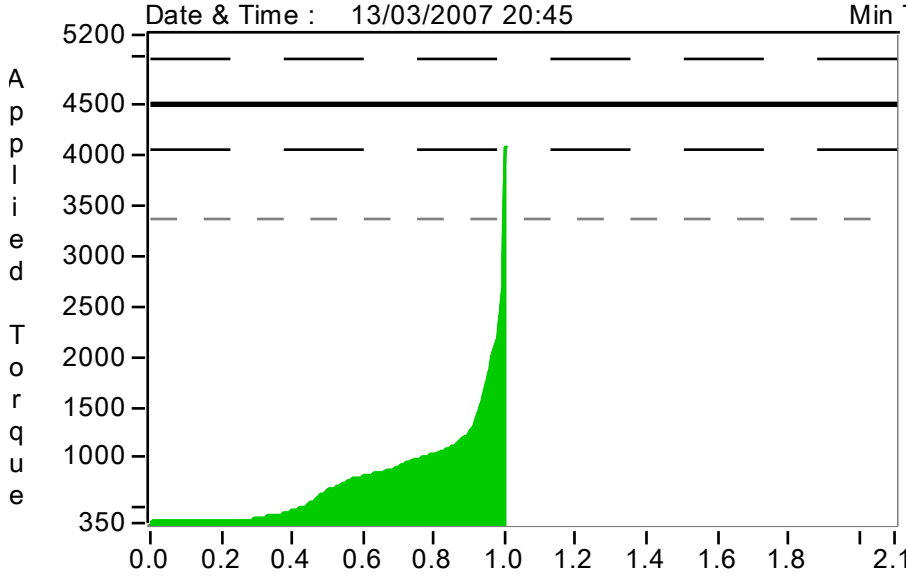
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 20:42



Joint Number	84.0
Applied Torque	4444
Shoulder Torque	1374
Delta Torque	3070
Turn Counter	0.66
RP	3.99
Time Taken	9.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

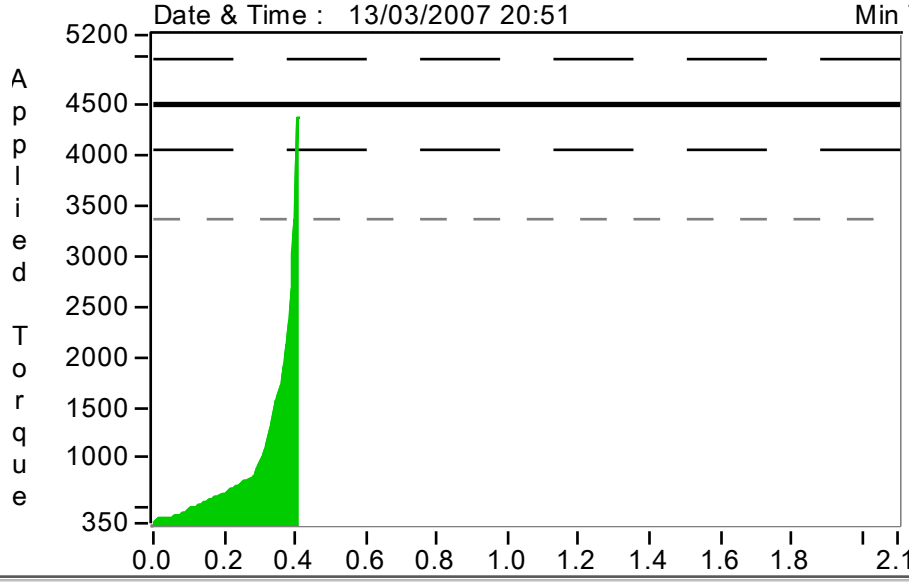
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 20:45



Joint Number	85.0
Applied Torque	4076
Shoulder Torque	1225
Delta Torque	2850
Turn Counter	0.99
RP	3.90
Time Taken	15.3
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

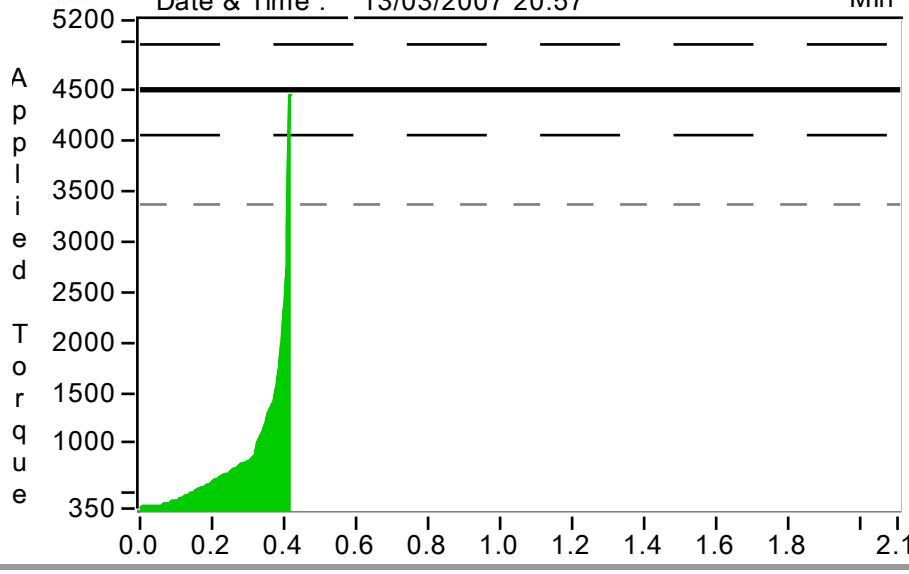
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 20:51



Joint Number	86.0
Applied Torque	4391
Shoulder Torque	907
Delta Torque	3484
Turn Counter	0.40
RP	4.04
Time Taken	5.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY:X NIPPLE 5

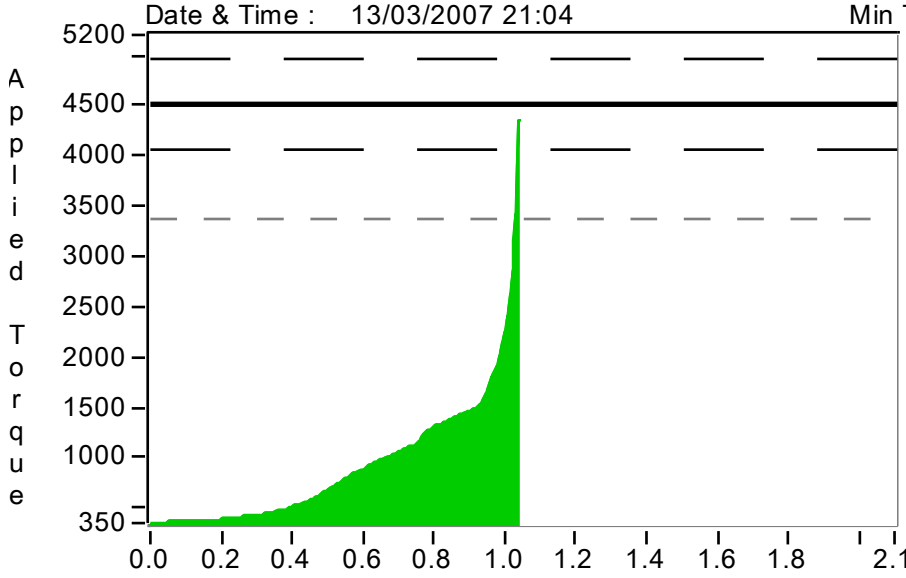
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 20:57



Joint Number	87.0
Applied Torque	4456
Shoulder Torque	922
Delta Torque	3533
Turn Counter	0.41
RP	3.81
Time Taken	6.4
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

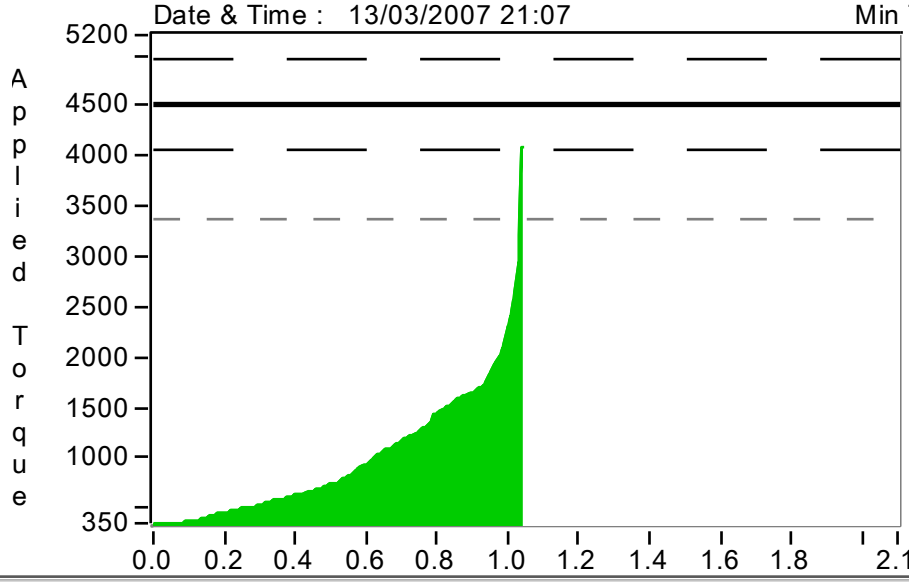
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 21:04



Joint Number	88.0
Applied Torque	4359
Shoulder Torque	1598
Delta Torque	2761
Turn Counter	1.03
RP	4.02
Time Taken	15.4
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

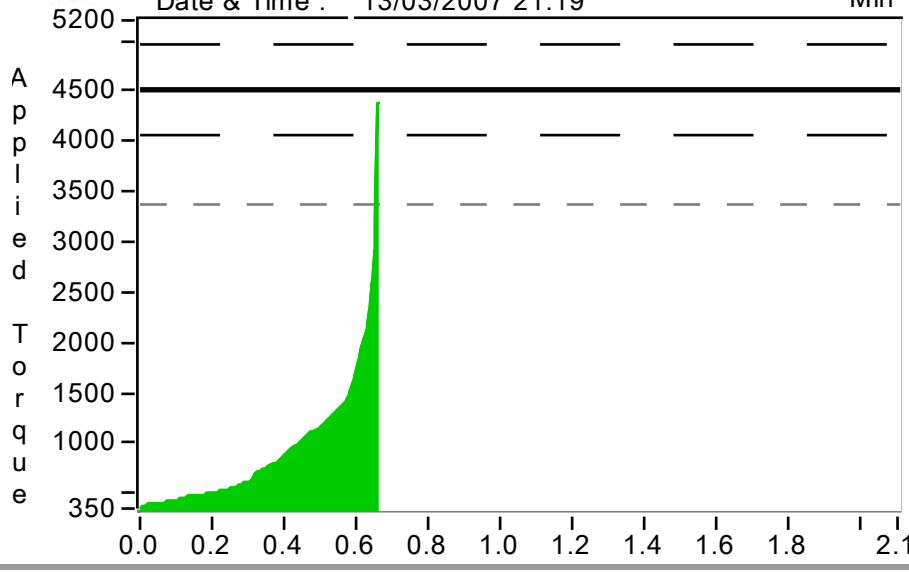
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 21:07



Joint Number	89.0
Applied Torque	4082
Shoulder Torque	1795
Delta Torque	2287
Turn Counter	1.03
RP	3.98
Time Taken	15.6
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

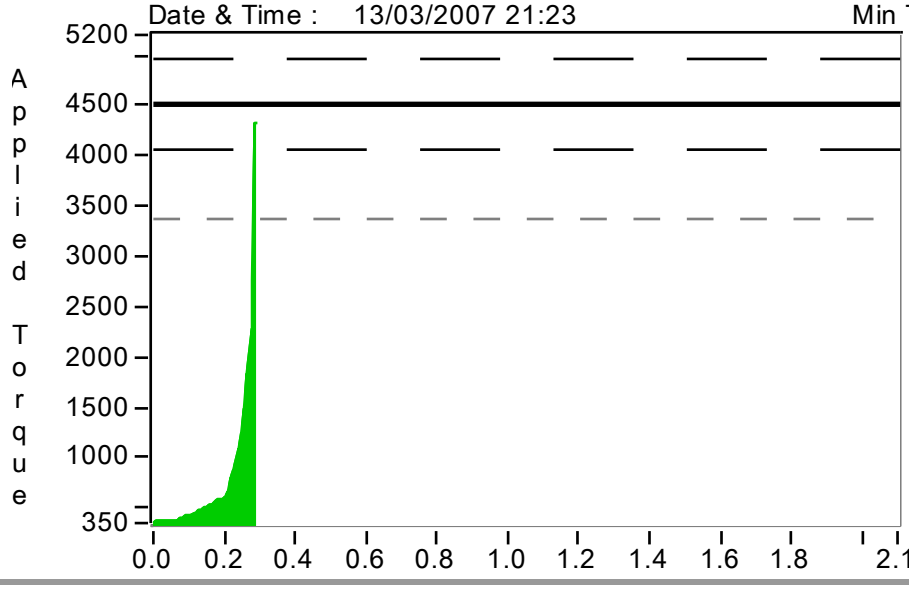
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 21:19
Min Torque 4050 Preset Shoulder 3375



Joint Number	90.0
Applied Torque	4380
Shoulder Torque	894
Delta Torque	3485
Turn Counter	0.65
RP	4.01
Time Taken	9.7
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

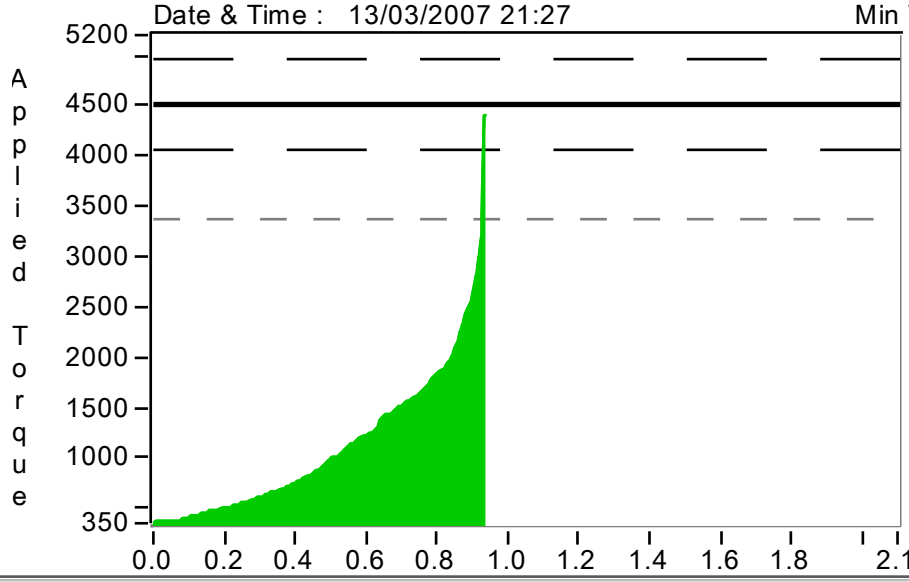
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 21:23
Min Torque 4050 Preset Shoulder 3375



Joint Number	91.0
Applied Torque	4326
Shoulder Torque	670
Delta Torque	3655
Turn Counter	0.28
RP	2.61
Time Taken	6.3
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY:MARKER

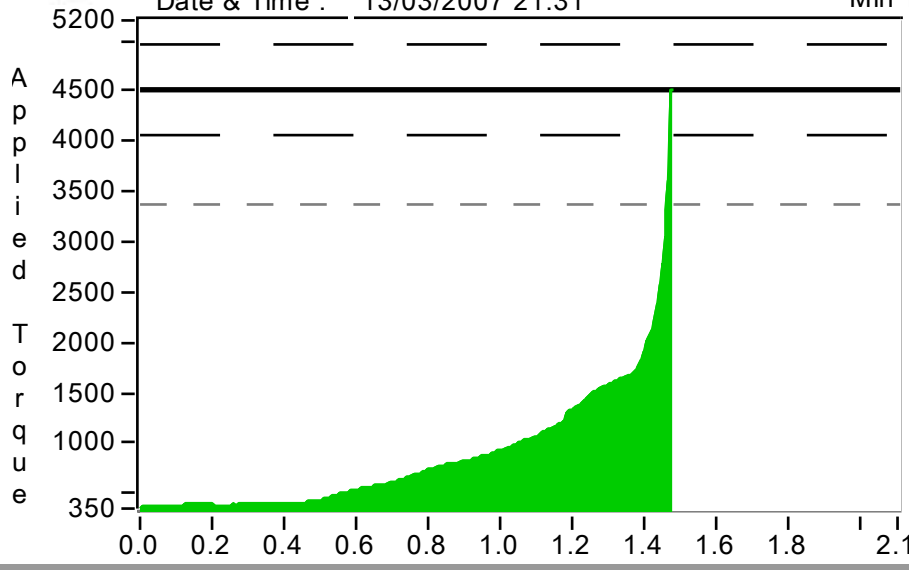
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 21:27
Min Torque 4050 Preset Shoulder 3375



Joint Number	92.0
Applied Torque	4397
Shoulder Torque	1628
Delta Torque	2769
Turn Counter	0.93
RP	3.58
Time Taken	15.5
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

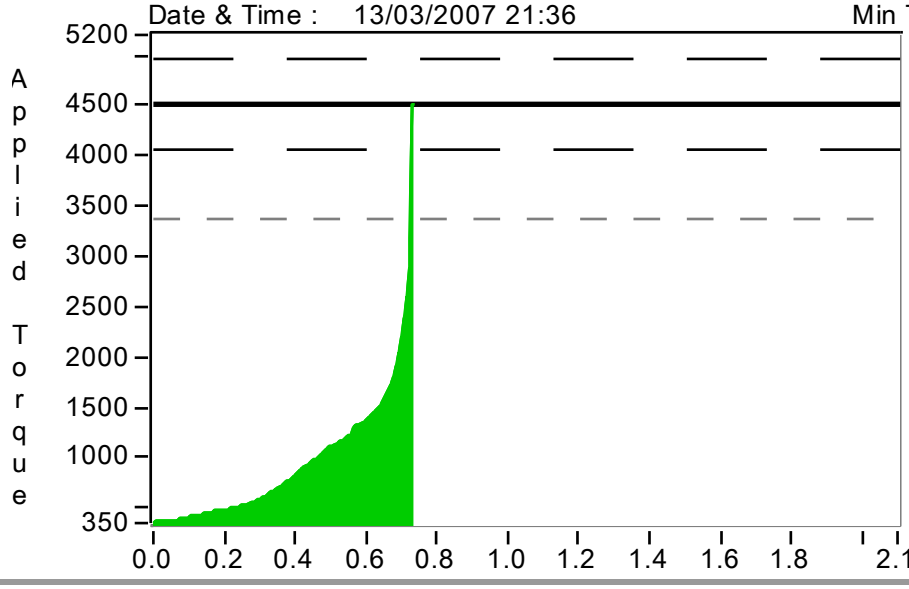
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 21:31
Min Torque 4050 Preset Shoulder 3375



Joint Number	93.0
Applied Torque	4508
Shoulder Torque	1782
Delta Torque	2726
Turn Counter	1.47
RP	4.04
Time Taken	21.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

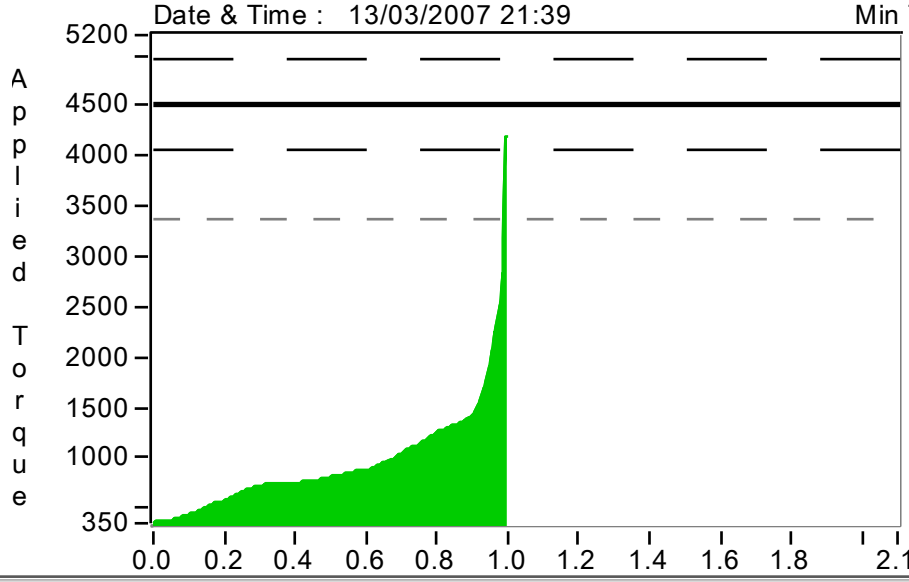
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 21:36
Min Torque 4050 Preset Shoulder 3375



Joint Number	94.0
Applied Torque	4508
Shoulder Torque	1420
Delta Torque	3088
Turn Counter	0.72
RP	3.98
Time Taken	10.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

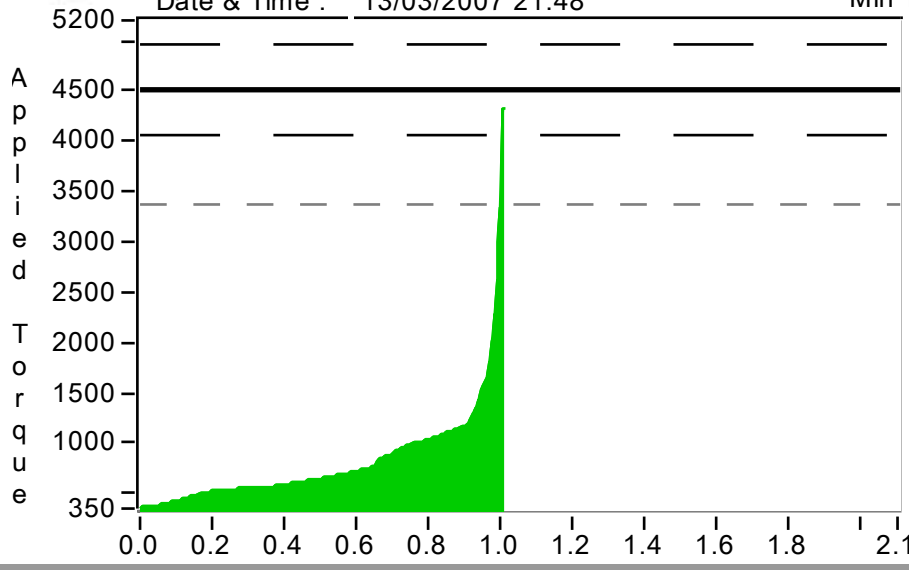
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 21:39
Min Torque 4050 Preset Shoulder 3375



Joint Number	95.0
Applied Torque	4194
Shoulder Torque	1512
Delta Torque	2682
Turn Counter	0.98
RP	4.01
Time Taken	14.7
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

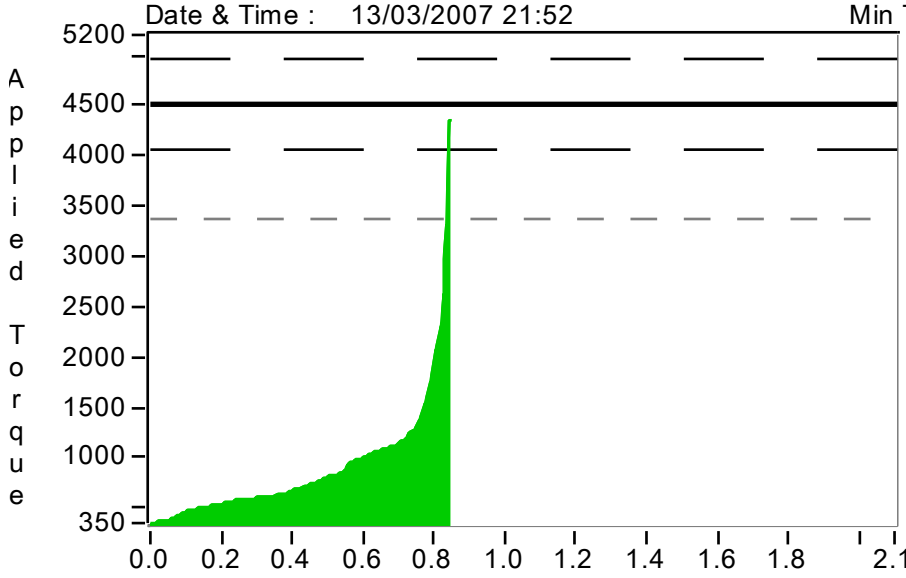
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 21:48



Joint Number	96.0
Applied Torque	4327
Shoulder Torque	1236
Delta Torque	3092
Turn Counter	1.00
RP	4.02
Time Taken	14.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

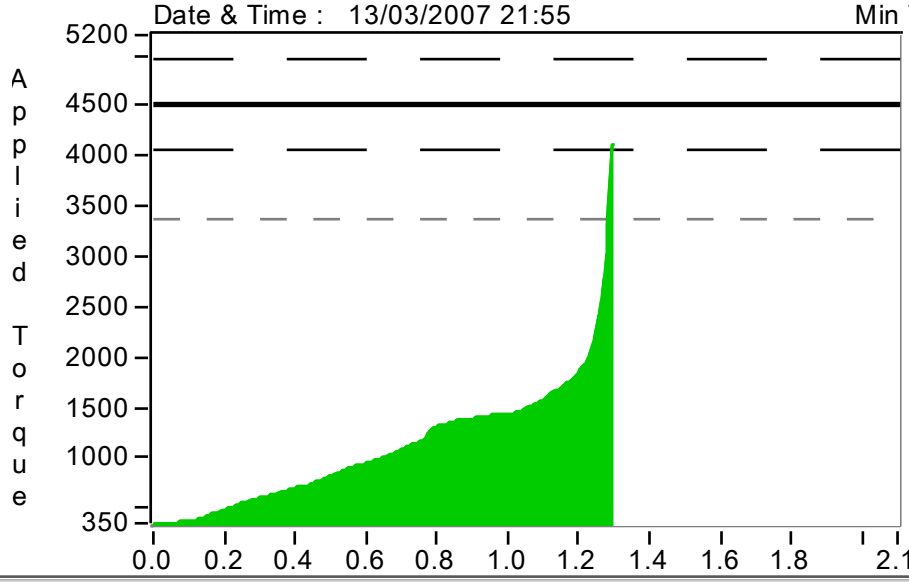
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 21:52



Joint Number	97.0
Applied Torque	4344
Shoulder Torque	1251
Delta Torque	3094
Turn Counter	0.83
RP	3.74
Time Taken	13.3
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

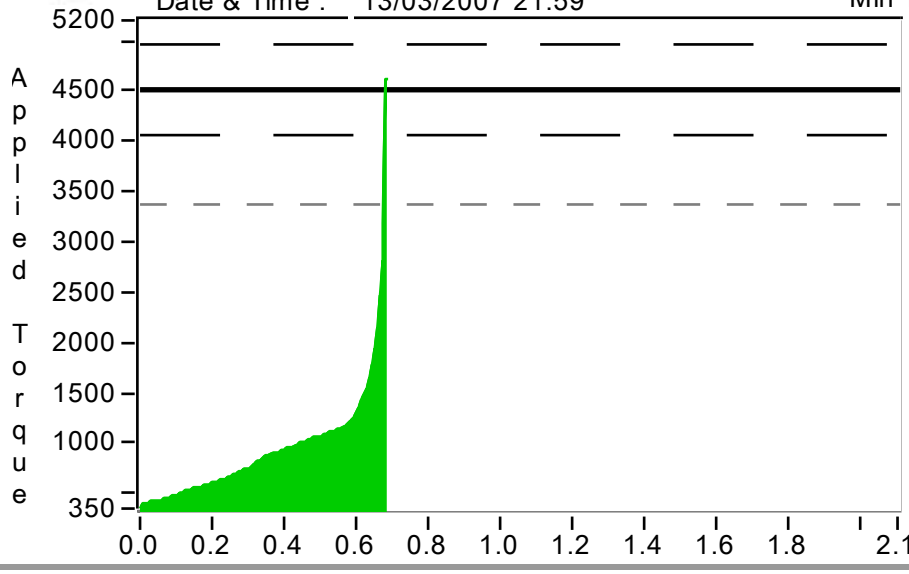
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 21:55



Joint Number	98.0
Applied Torque	4104
Shoulder Torque	1826
Delta Torque	2278
Turn Counter	1.28
RP	4.01
Time Taken	19.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

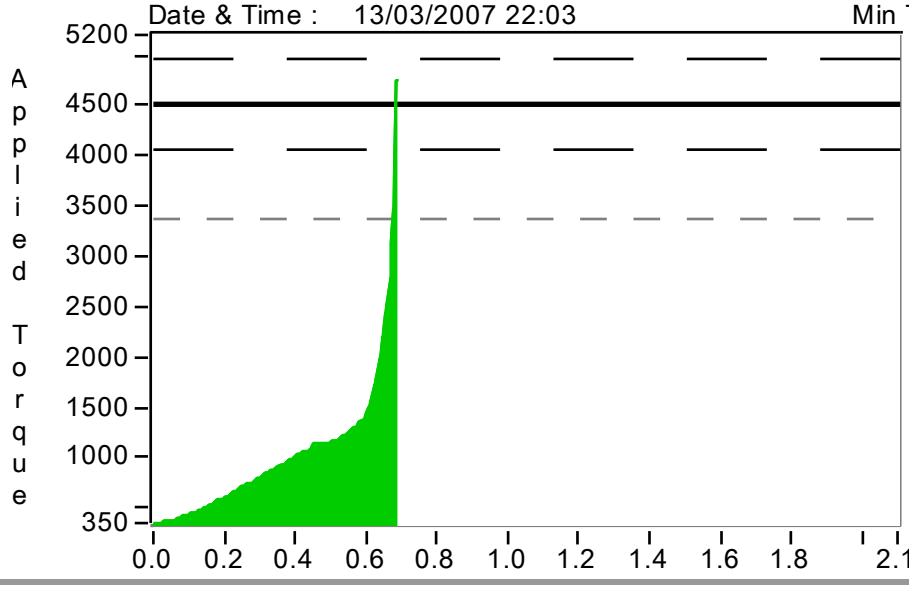
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 21:59



Joint Number	99.0
Applied Torque	4625
Shoulder Torque	1253
Delta Torque	3372
Turn Counter	0.68
RP	3.99
Time Taken	10.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

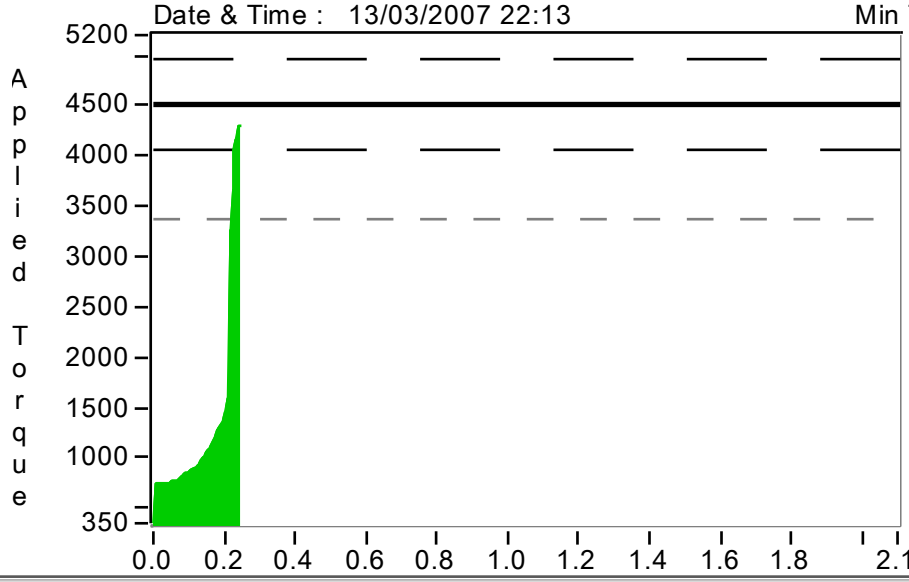
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 22:03



Joint Number	100.0
Applied Torque	4762
Shoulder Torque	1364
Delta Torque	3398
Turn Counter	0.68
RP	3.76
Time Taken	10.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

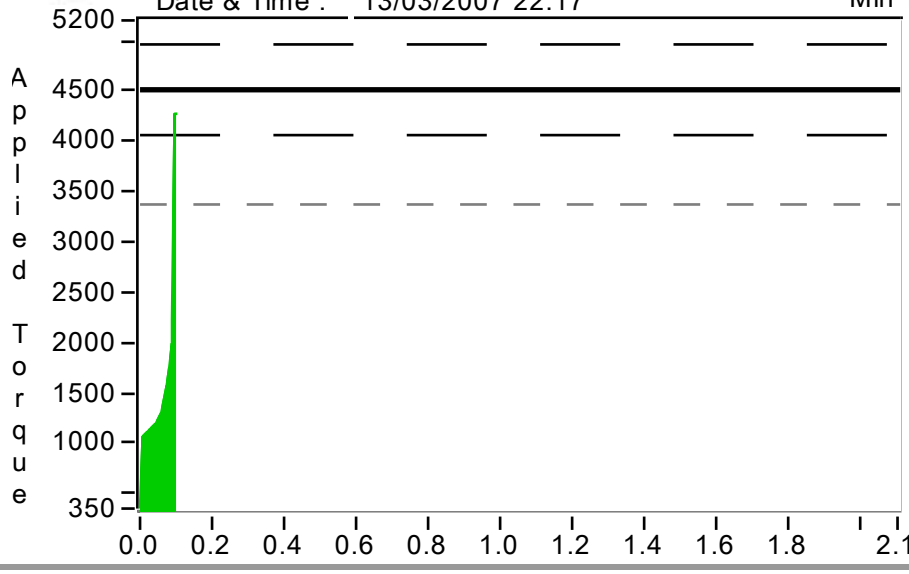
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 13/03/2007 22:13



Joint Number	101.0
Applied Torque	4308
Shoulder Torque	0
Delta Torque	4308
Turn Counter	0.23
RP	2.65
Time Taken	5.3
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

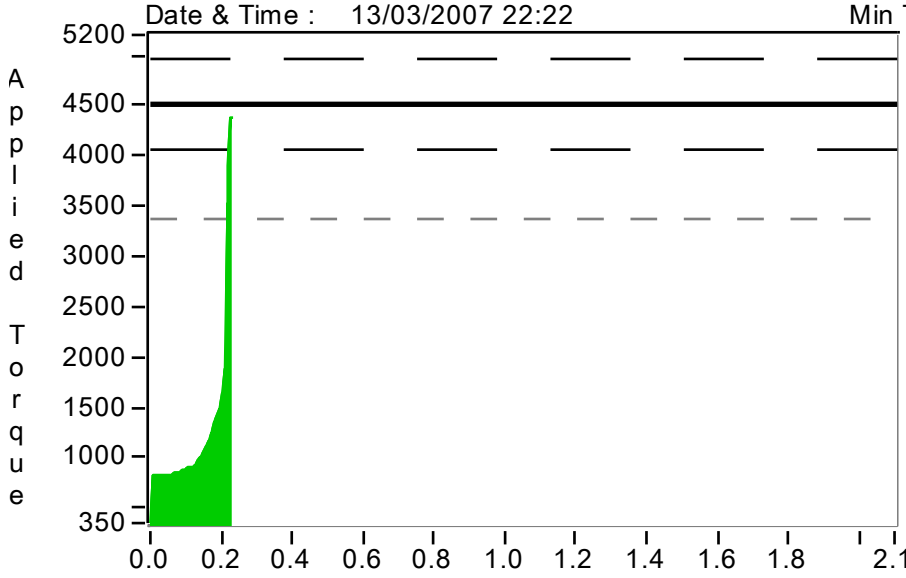
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 22:17
Min Torque 4050 Preset Shoulder 3375



Joint Number	102.
Applied Torque	4280
Shoulder Torque	0
Delta Torque	4280
Turn Counter	0.09
RP	1.65
Time Taken	3.4
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

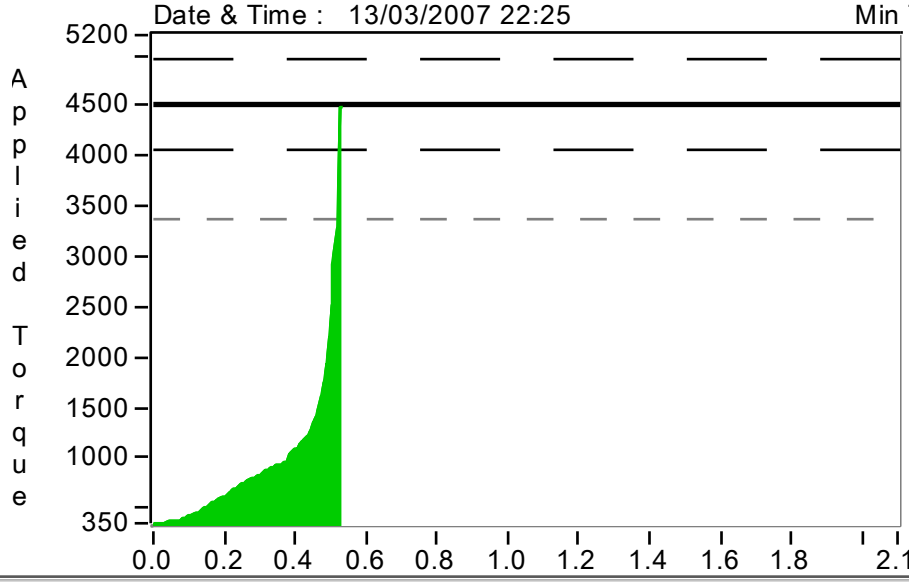
JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 22:22
Min Torque 4050 Preset Shoulder 3375



Joint Number	103.0
Applied Torque	4391
Shoulder Torque	1023
Delta Torque	3369
Turn Counter	0.22
RP	2.86
Time Taken	4.6
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 22:25
Min Torque 4050 Preset Shoulder 3375



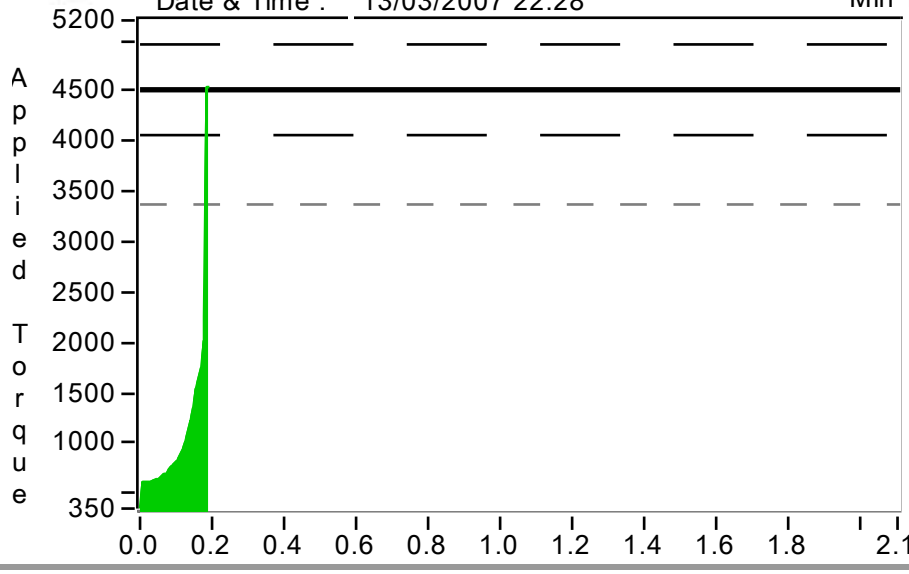
Joint Number	104.0
Applied Torque	4479
Shoulder Torque	1118
Delta Torque	3361
Turn Counter	0.52
RP	3.92
Time Taken	7.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

JFE BEAR Tubing 4.5" 12.6lb/ft L80 13CR

Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375

Date & Time : 13/03/2007 22:28



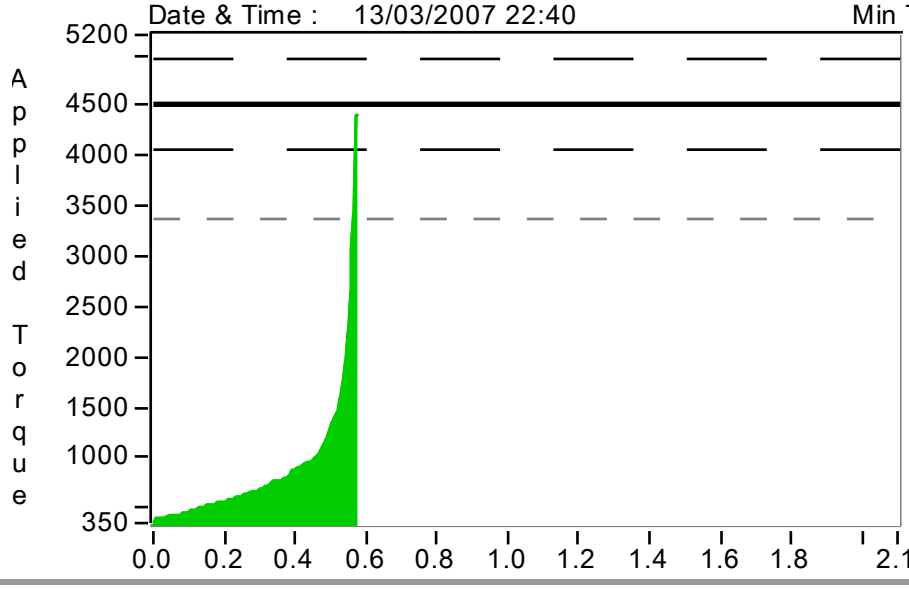
Joint Number	105.
Applied Torque	4549
Shoulder Torque	0
Delta Torque	4549
Turn Counter	0.17
RP	2.81
Time Taken	3.7
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

JFE BEAR Tubing 4.5" 12.6lb/ft Q

Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375

Date & Time : 13/03/2007 22:40



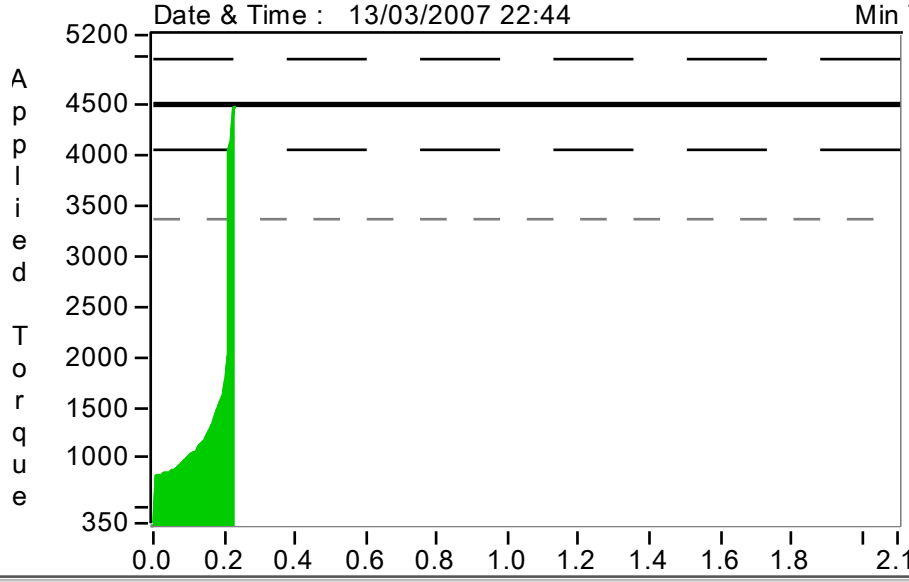
Joint Number	106.0
Applied Torque	4394
Shoulder Torque	1102
Delta Torque	3292
Turn Counter	0.57
RP	3.46
Time Taken	9.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

JFE BEAR Tubing 4.5" 12.6lb/ft Q

Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375

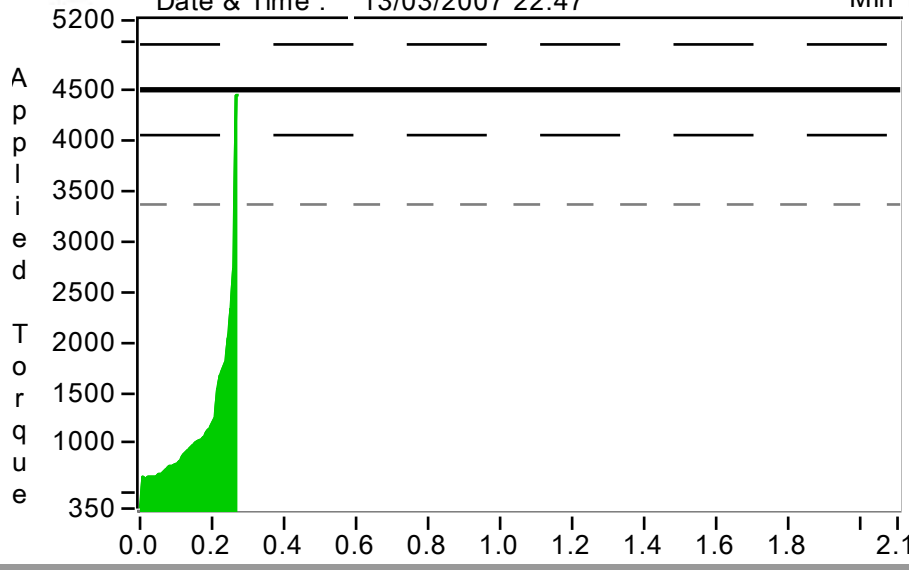
Date & Time : 13/03/2007 22:44



Joint Number	107.0
Applied Torque	4479
Shoulder Torque	0
Delta Torque	4479
Turn Counter	0.22
RP	2.93
Time Taken	4.5
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

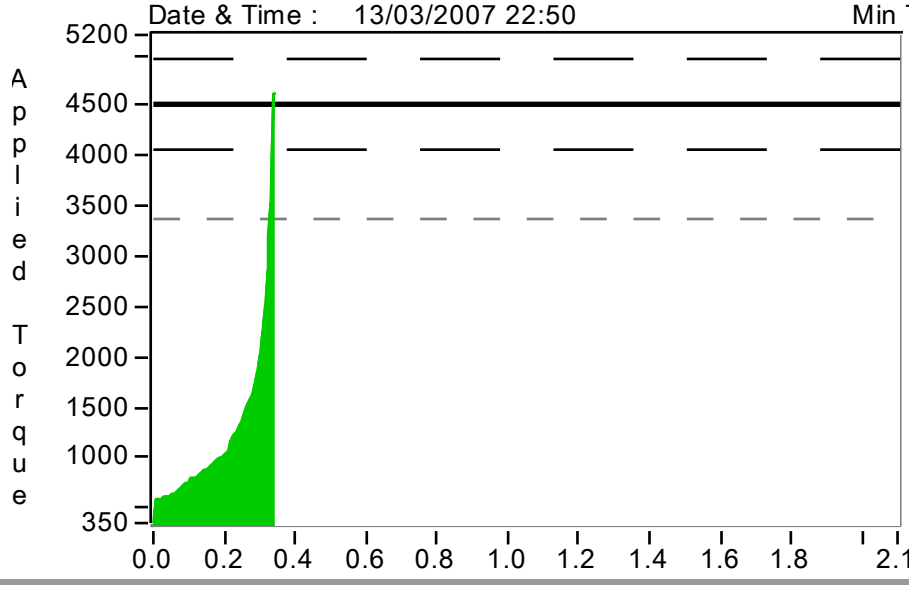
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 13/03/2007 22:47
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	108.
Applied Torque	4461
Shoulder Torque	1055
Delta Torque	3407
Turn Counter	0.26
RP	1.76
Time Taken	8.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

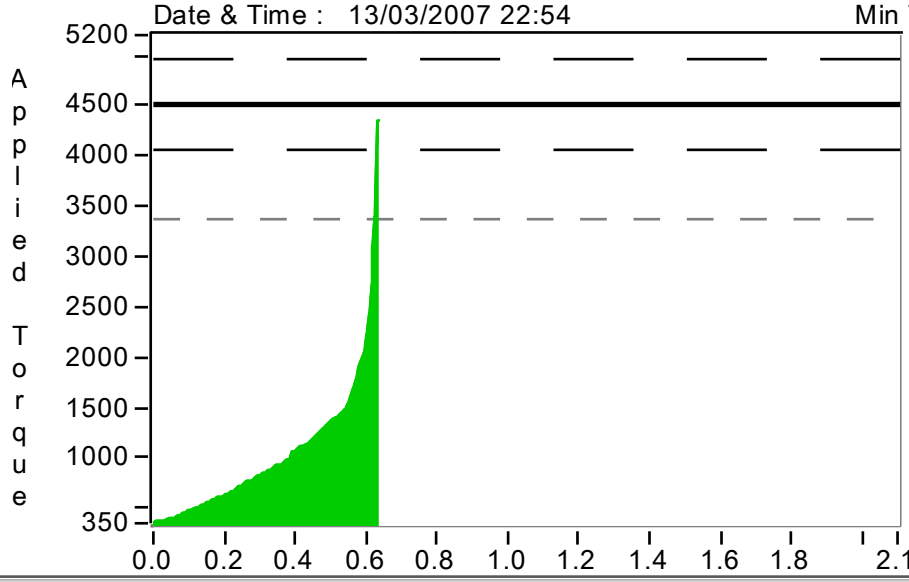
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 13/03/2007 22:50
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	109.0
Applied Torque	4613
Shoulder Torque	955
Delta Torque	3658
Turn Counter	0.33
RP	3.83
Time Taken	5.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

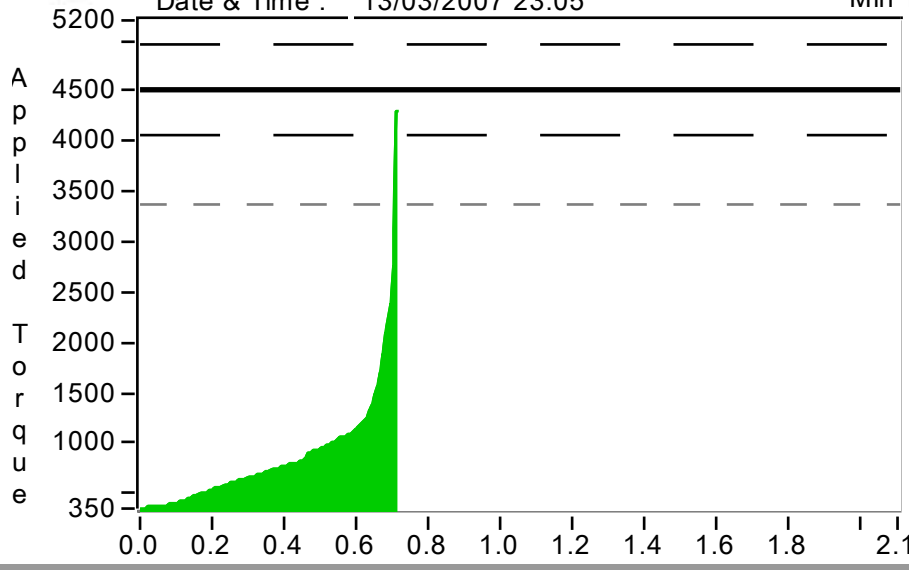
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 13/03/2007 22:54
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	110.0
Applied Torque	4350
Shoulder Torque	1184
Delta Torque	3166
Turn Counter	0.62
RP	3.97
Time Taken	9.4
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

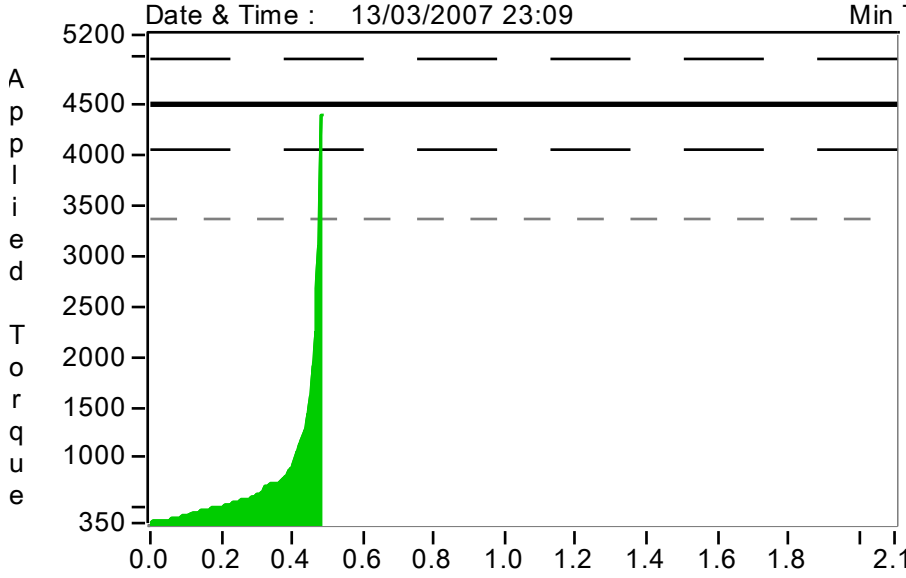
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 13/03/2007 23:05
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	111.
Applied Torque	4290
Shoulder Torque	1228
Delta Torque	3063
Turn Counter	0.70
RP	4.00
Time Taken	10.5
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

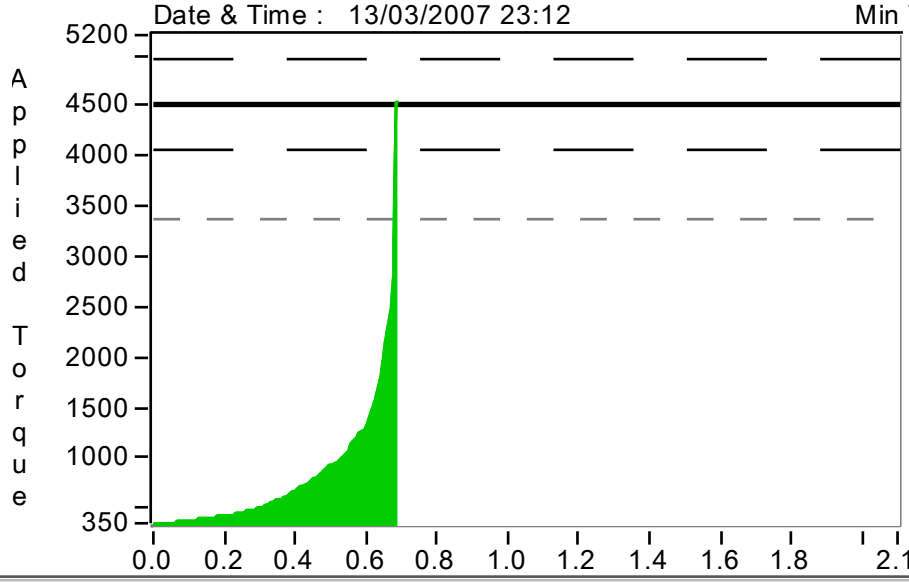
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 13/03/2007 23:09
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	112.0
Applied Torque	4400
Shoulder Torque	887
Delta Torque	3513
Turn Counter	0.47
RP	3.90
Time Taken	7.3
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

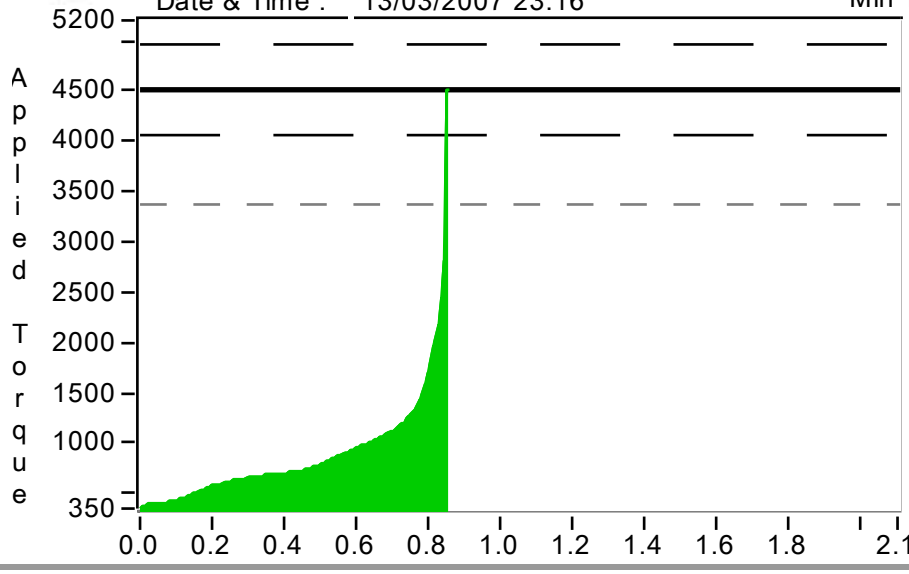
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 13/03/2007 23:12
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	113.0
Applied Torque	4531
Shoulder Torque	1140
Delta Torque	3392
Turn Counter	0.68
RP	3.92
Time Taken	10.3
Status	OK
Reason	Joint Makeup OK

Comment:

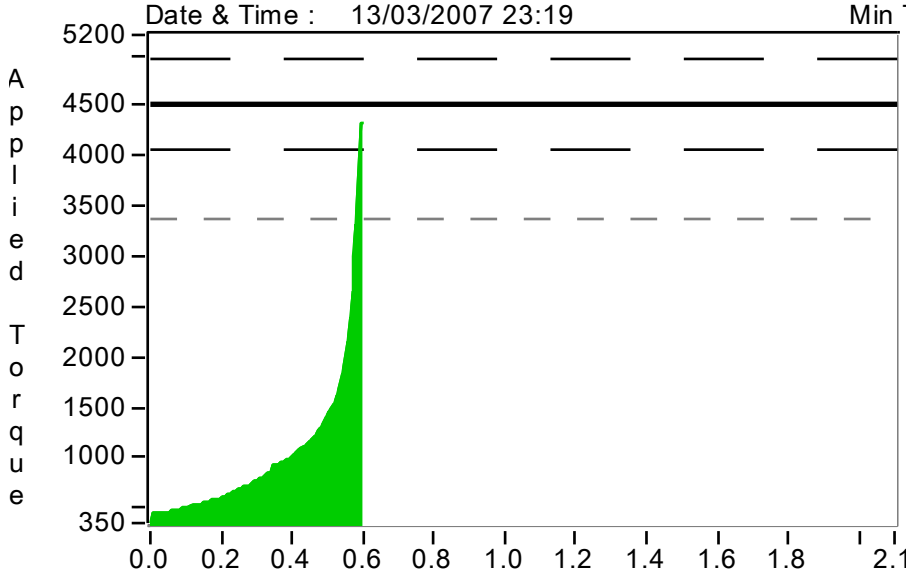
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 13/03/2007 23:16
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	114.
Applied Torque	4502
Shoulder Torque	1237
Delta Torque	3265
Turn Counter	0.84
RP	3.95
Time Taken	12.8
Status	OK
Reason	Joint Makeup OK

Comment:

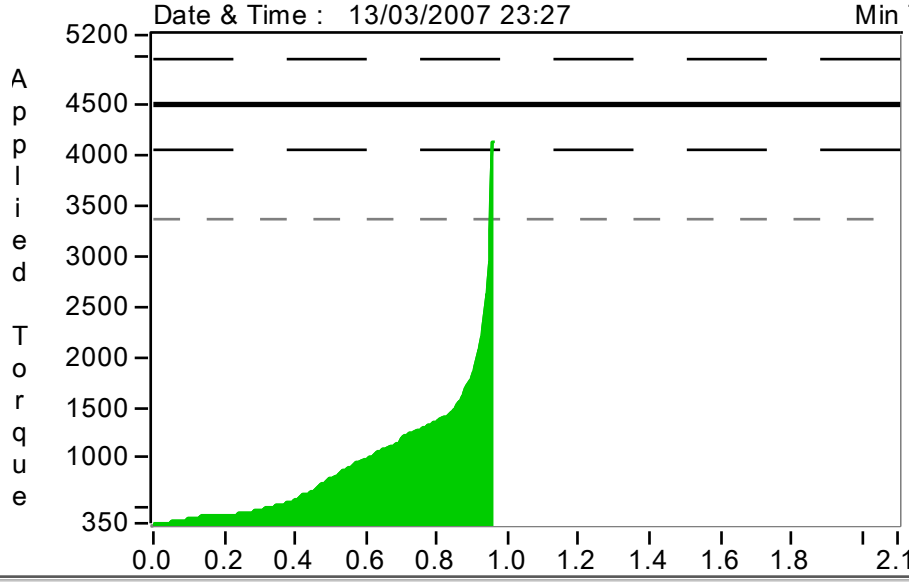
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 13/03/2007 23:19
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	115.0
Applied Torque	4336
Shoulder Torque	1084
Delta Torque	3252
Turn Counter	0.58
RP	3.90
Time Taken	9.0
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 13/03/2007 23:27
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	116.0
Applied Torque	4140
Shoulder Torque	1515
Delta Torque	2625
Turn Counter	0.95
RP	3.79
Time Taken	15.1
Status	OK
Reason	Joint Makeup OK

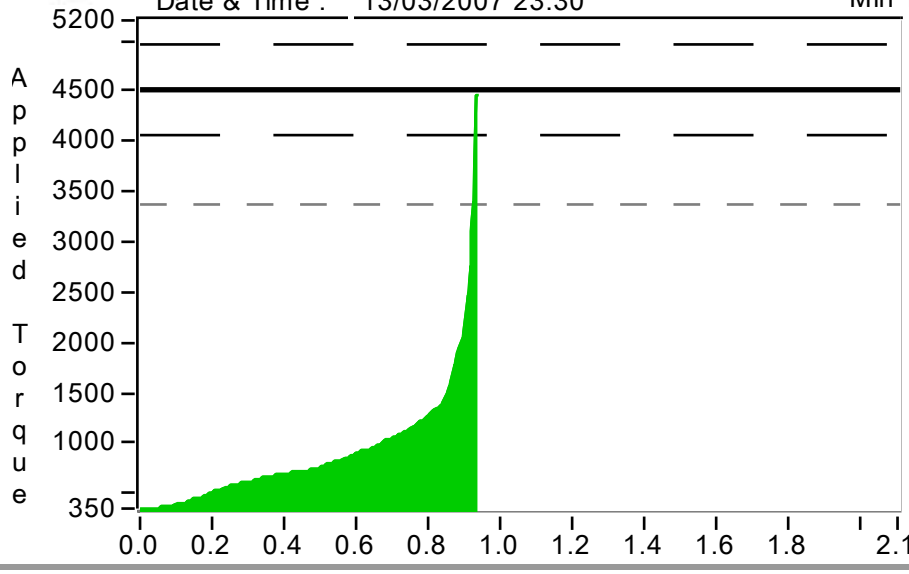
Comment:
/ HARRY

Customer: **CENTURY**
Well Name: **CRC-1**

Printed on: Friday, 16 March 2007

JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 13/03/2007 23:30

Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375

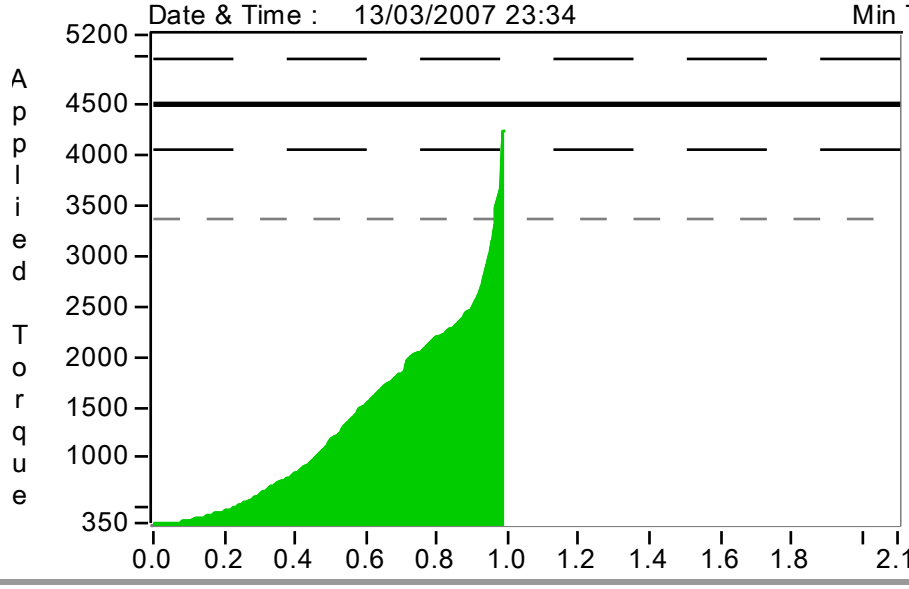


Joint Number	117.
Applied Torque	4452
Shoulder Torque	1224
Delta Torque	3229
Turn Counter	0.93
RP	3.99
Time Taken	13.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 13/03/2007 23:34

Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375

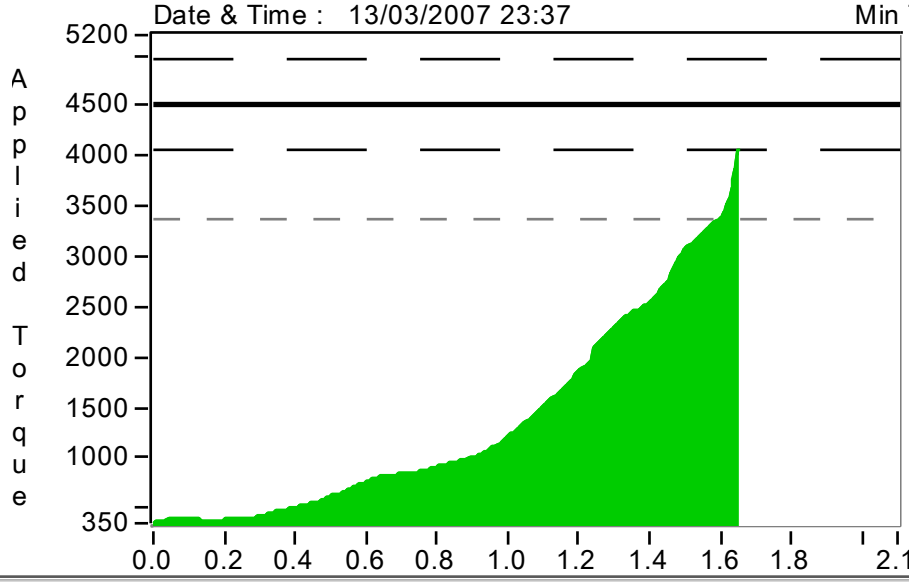


Joint Number	118.0
Applied Torque	4234
Shoulder Torque	2376
Delta Torque	1858
Turn Counter	0.97
RP	3.14
Time Taken	18.6
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 13/03/2007 23:37

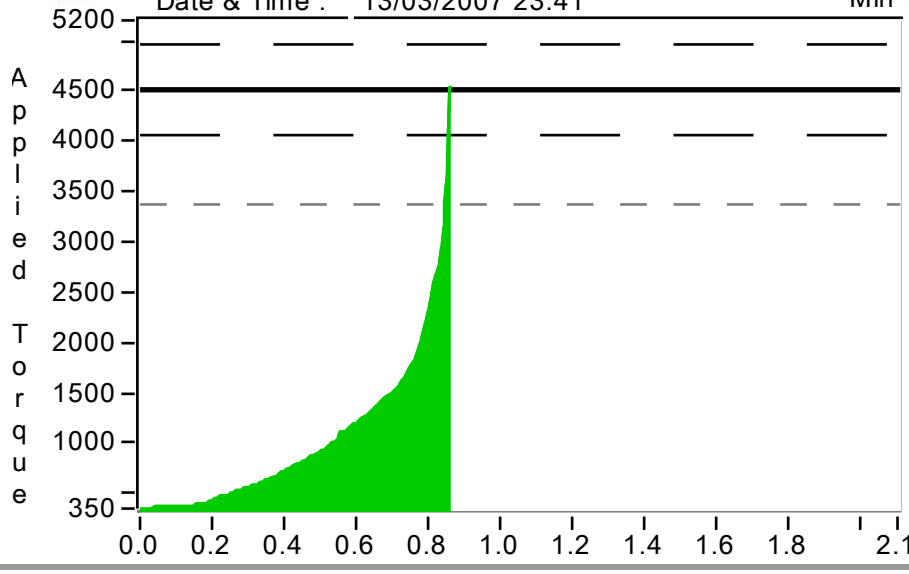
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	119.0
Applied Torque	4067
Shoulder Torque	2597
Delta Torque	1470
Turn Counter	1.64
RP	3.73
Time Taken	26.4
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

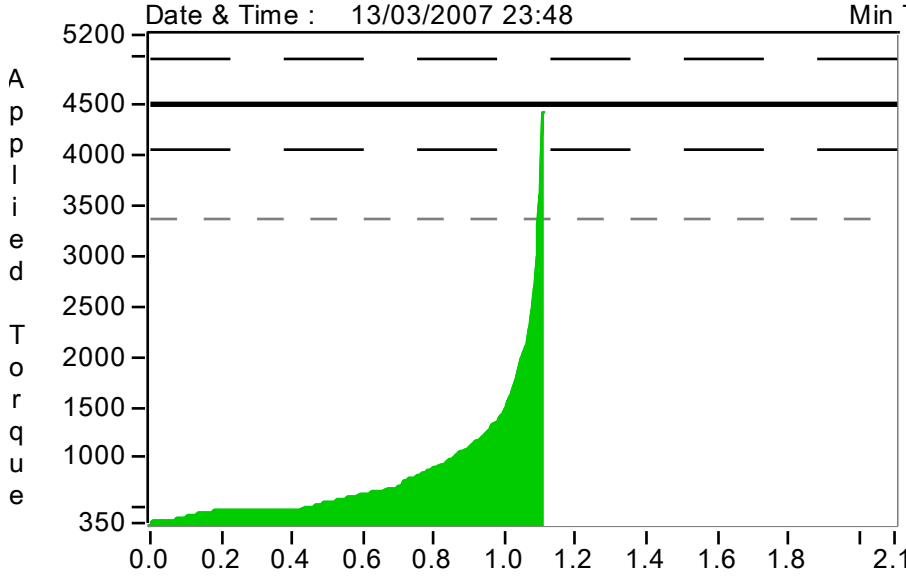
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 13/03/2007 23:41
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	120.
Applied Torque	4536
Shoulder Torque	1251
Delta Torque	3285
Turn Counter	0.85
RP	3.85
Time Taken	13.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

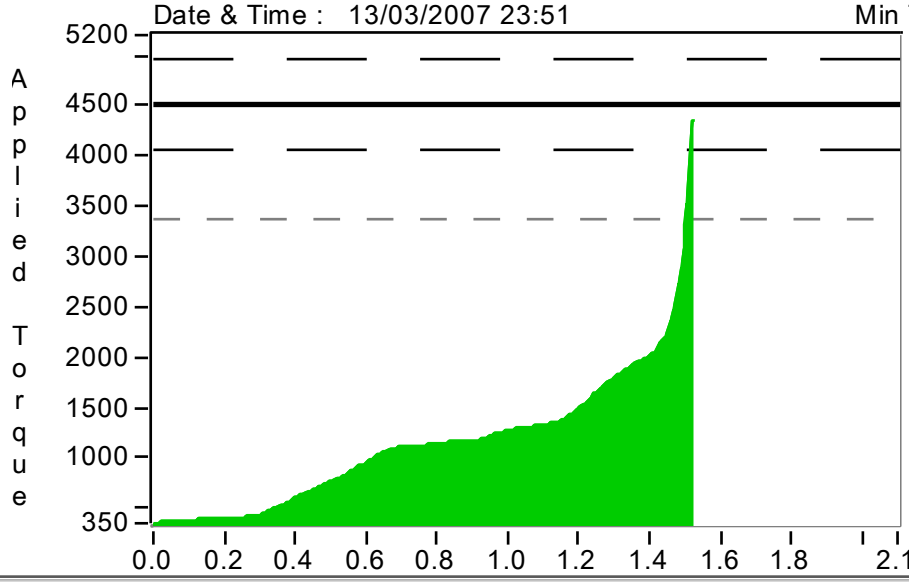
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 13/03/2007 23:48
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	121.0
Applied Torque	4426
Shoulder Torque	1127
Delta Torque	3299
Turn Counter	1.10
RP	3.86
Time Taken	17.1
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

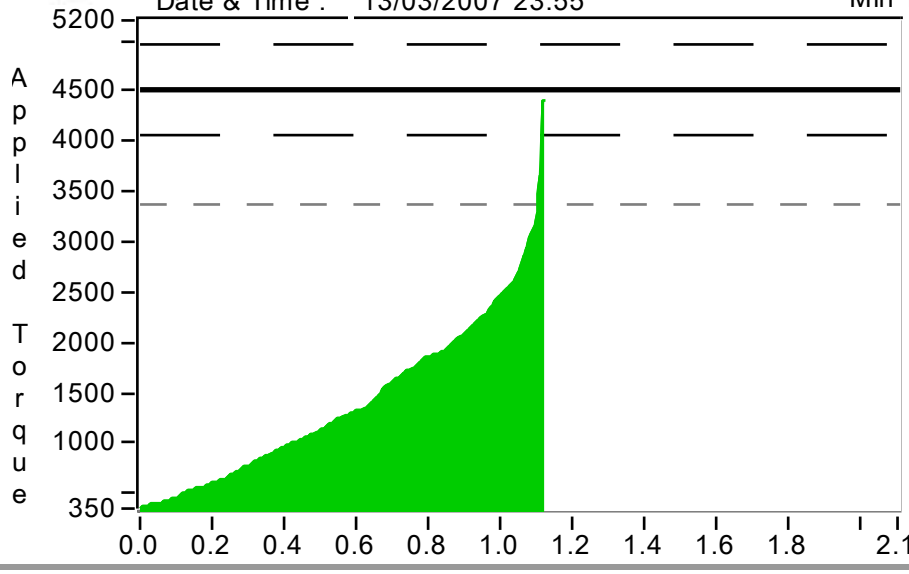
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 13/03/2007 23:51
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	122.0
Applied Torque	4350
Shoulder Torque	2125
Delta Torque	2225
Turn Counter	1.51
RP	3.84
Time Taken	23.6
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

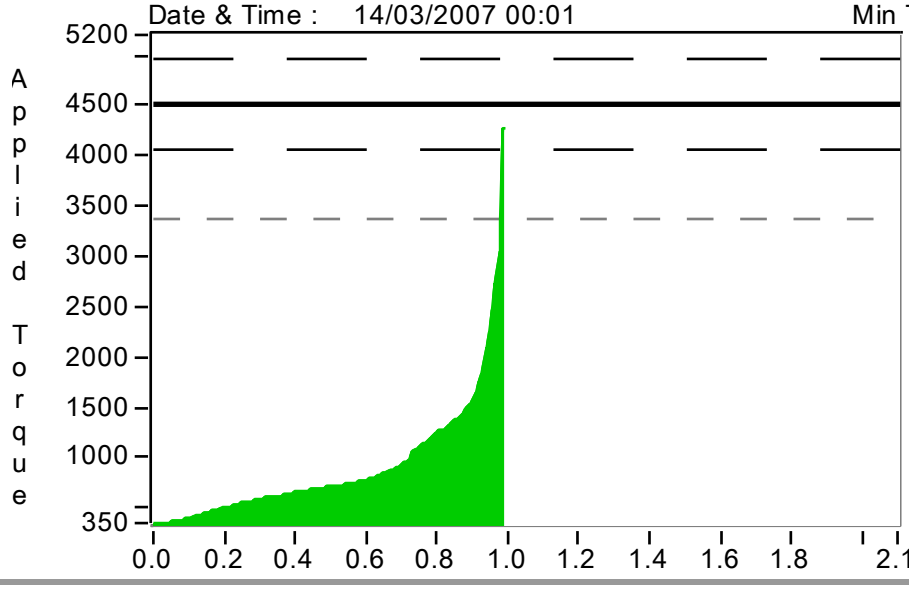
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Max Torque 4950 Optimum 4500
Date & Time : 13/03/2007 23:55
Min Torque 4050 Preset Shoulder 3375



Joint Number	123.
Applied Torque	4403
Shoulder Torque	1994
Delta Torque	2408
Turn Counter	1.11
RP	3.98
Time Taken	16.7
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

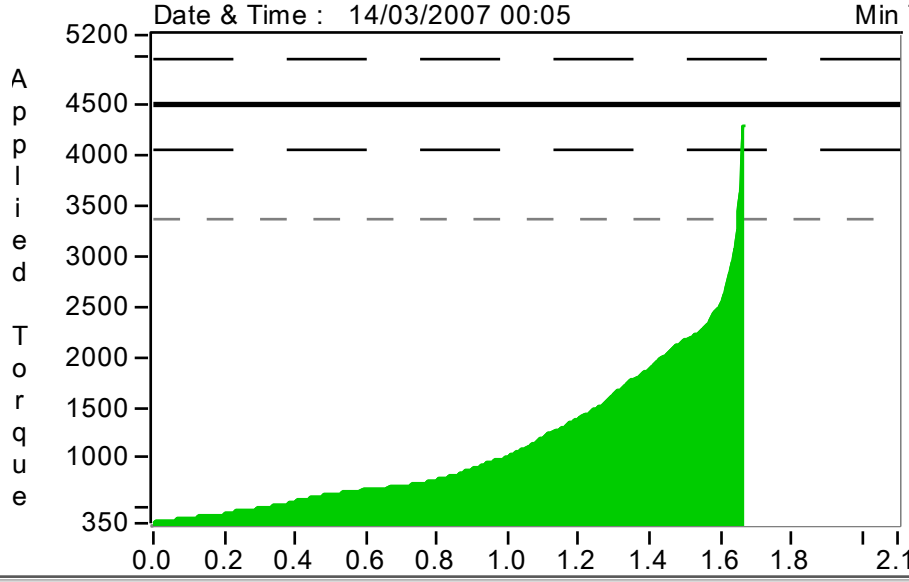
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 00:01
Min Torque 4050 Preset Shoulder 3375



Joint Number	124.0
Applied Torque	4272
Shoulder Torque	1453
Delta Torque	2818
Turn Counter	0.97
RP	4.02
Time Taken	14.6
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

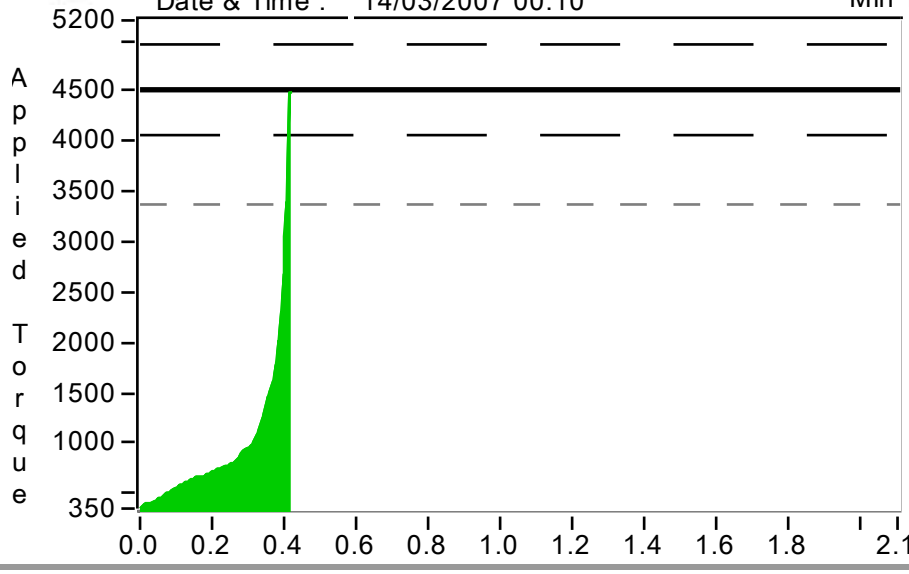
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 00:05
Min Torque 4050 Preset Shoulder 3375



Joint Number	125.0
Applied Torque	4286
Shoulder Torque	2318
Delta Torque	1968
Turn Counter	1.66
RP	4.00
Time Taken	24.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

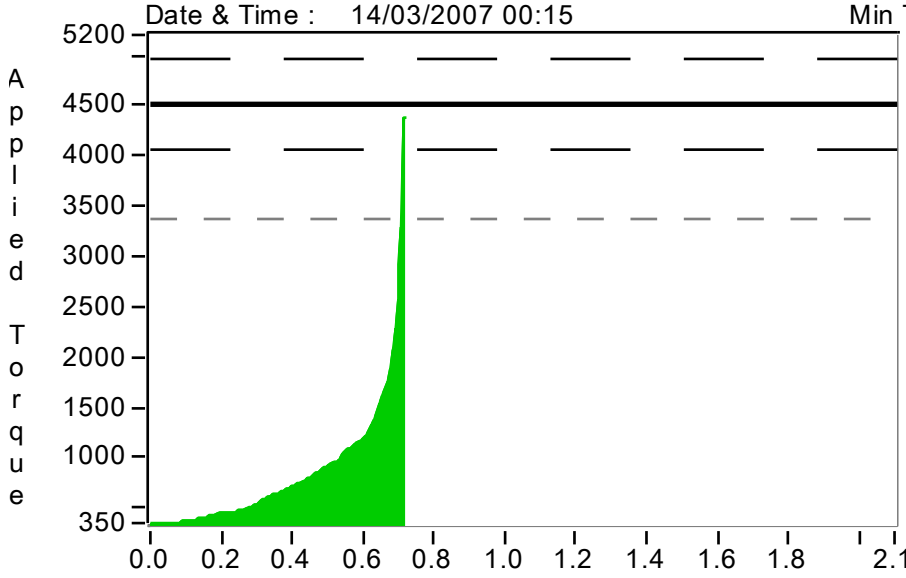
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 14/03/2007 00:10
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	126.
Applied Torque	4485
Shoulder Torque	986
Delta Torque	3498
Turn Counter	0.41
RP	4.02
Time Taken	6.1
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

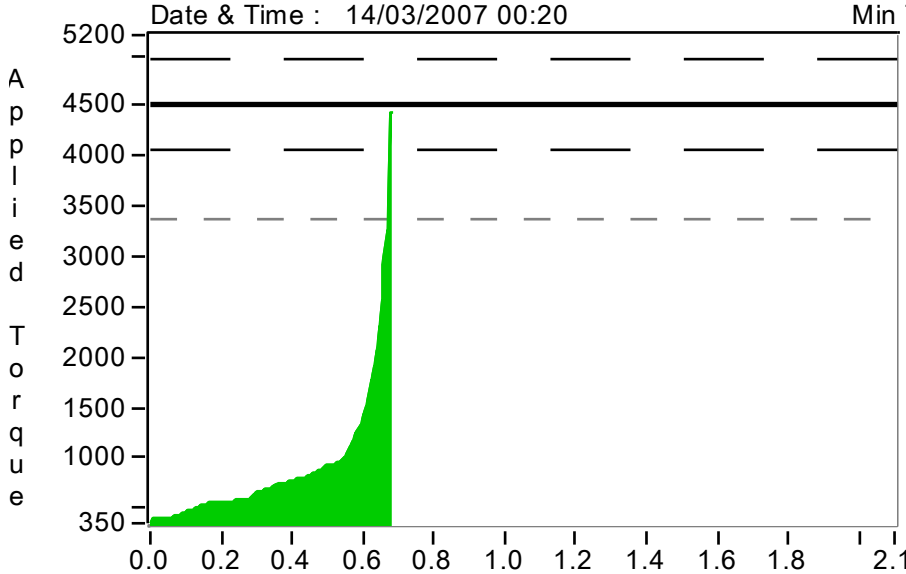
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 14/03/2007 00:15
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	127.0
Applied Torque	4388
Shoulder Torque	1198
Delta Torque	3190
Turn Counter	0.71
RP	3.91
Time Taken	10.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

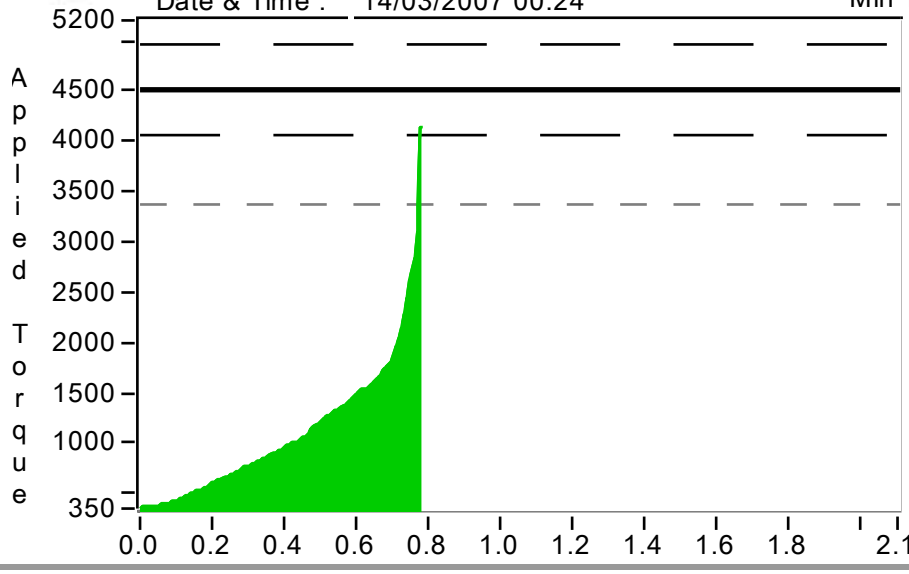
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 14/03/2007 00:20
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	128.0
Applied Torque	4420
Shoulder Torque	1054
Delta Torque	3367
Turn Counter	0.67
RP	4.09
Time Taken	9.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

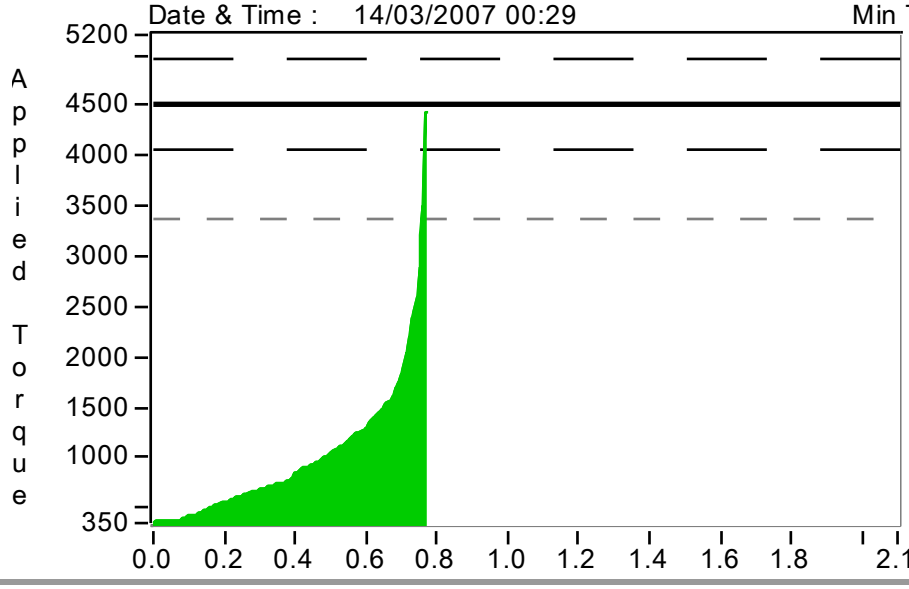
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 00:24
Min Torque 4050 Preset Shoulder 3375



Joint Number	129.
Applied Torque	4131
Shoulder Torque	1432
Delta Torque	2700
Turn Counter	0.77
RP	3.92
Time Taken	11.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

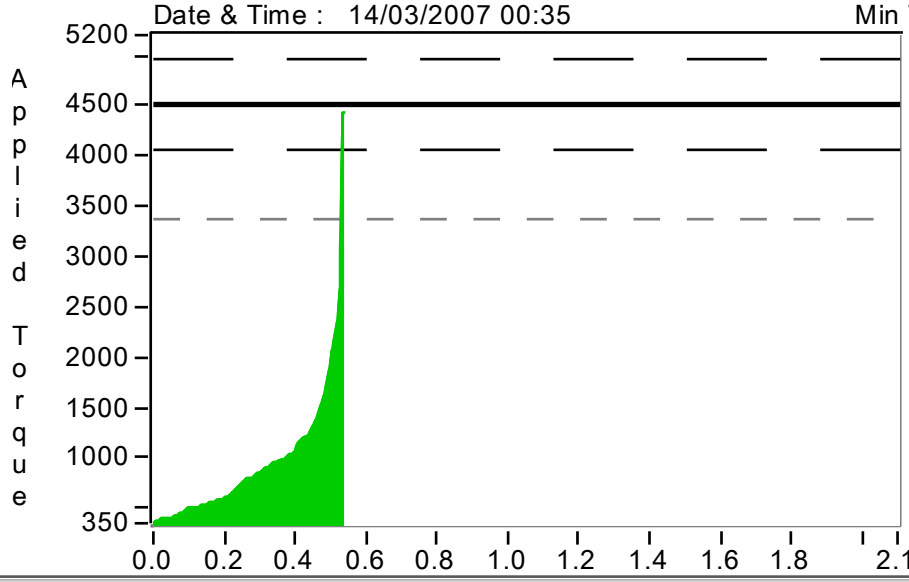
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 00:29
Min Torque 4050 Preset Shoulder 3375



Joint Number	130.0
Applied Torque	4436
Shoulder Torque	1097
Delta Torque	3339
Turn Counter	0.76
RP	3.46
Time Taken	13.1
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

JFE BEAR Tubing 4.5" 12.6lb/ft Q
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 00:35
Min Torque 4050 Preset Shoulder 3375



Joint Number	131.0
Applied Torque	4429
Shoulder Torque	1184
Delta Torque	3245
Turn Counter	0.53
RP	3.60
Time Taken	8.7
Status	OK
Reason	Joint Makeup OK

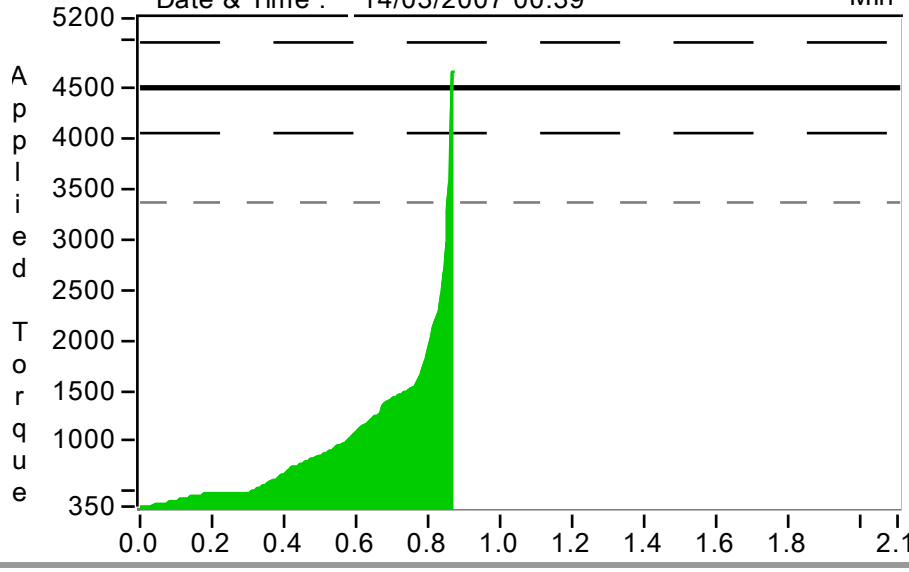
Comment:
/ HARRY

Customer: **CENTURY**
Well Name: **CRC-1**

Printed on: Friday, 16 March 2007

JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 14/03/2007 00:39

Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375

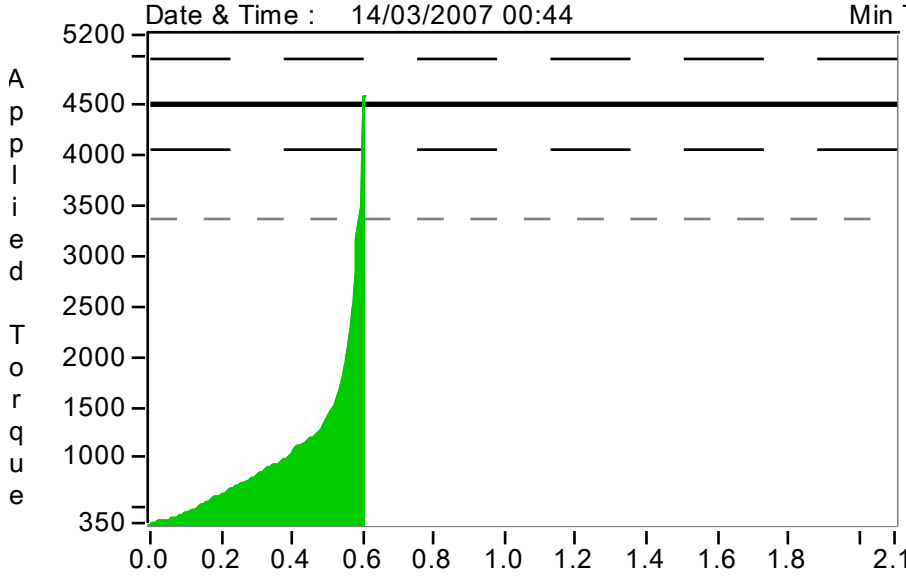


Joint Number	132.
Applied Torque	4660
Shoulder Torque	1604
Delta Torque	3055
Turn Counter	0.86
RP	4.30
Time Taken	12.0
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 14/03/2007 00:44

Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375

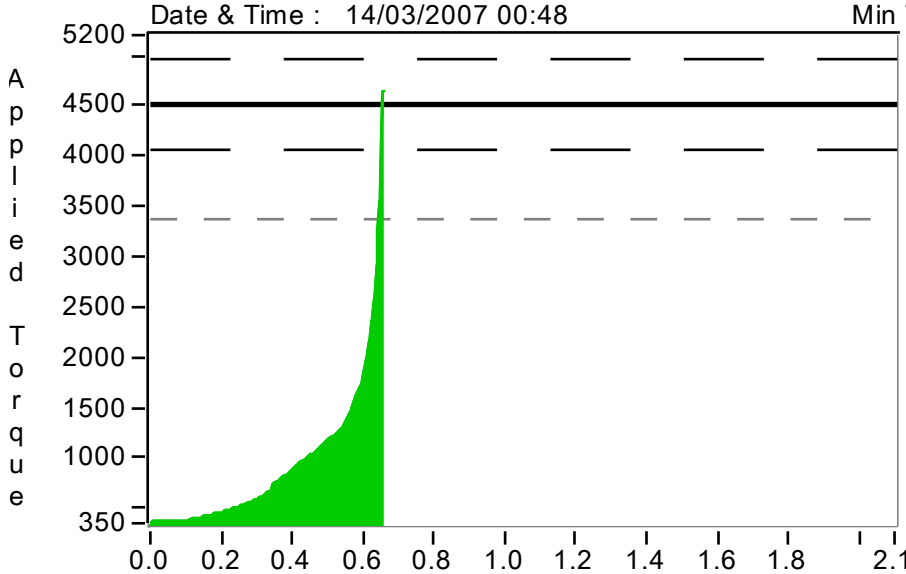


Joint Number	133.0
Applied Torque	4596
Shoulder Torque	1250
Delta Torque	3346
Turn Counter	0.59
RP	3.97
Time Taken	8.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 14/03/2007 00:48

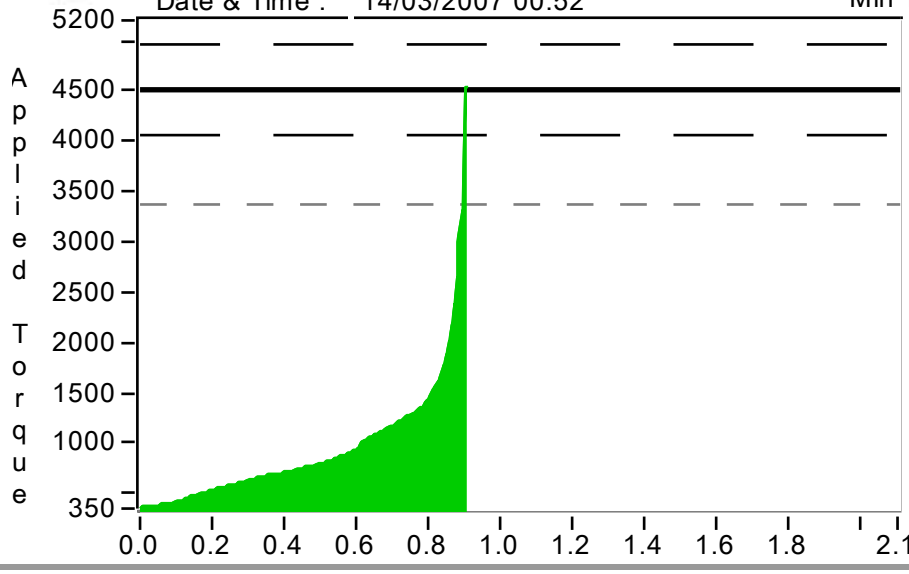
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	134.0
Applied Torque	4654
Shoulder Torque	822
Delta Torque	3832
Turn Counter	0.65
RP	3.43
Time Taken	11.4
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

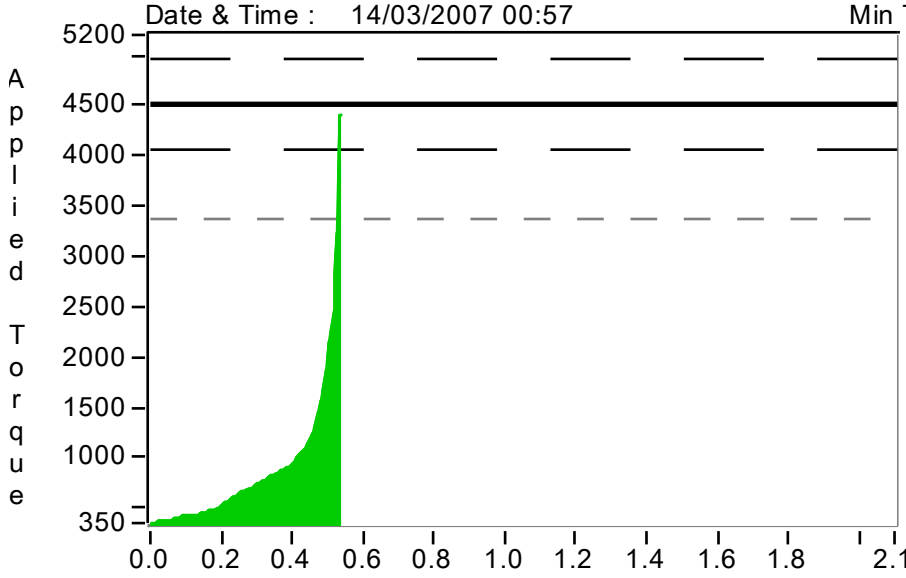
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 14/03/2007 00:52
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	135.
Applied Torque	4544
Shoulder Torque	1434
Delta Torque	3111
Turn Counter	0.89
RP	3.96
Time Taken	13.5
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

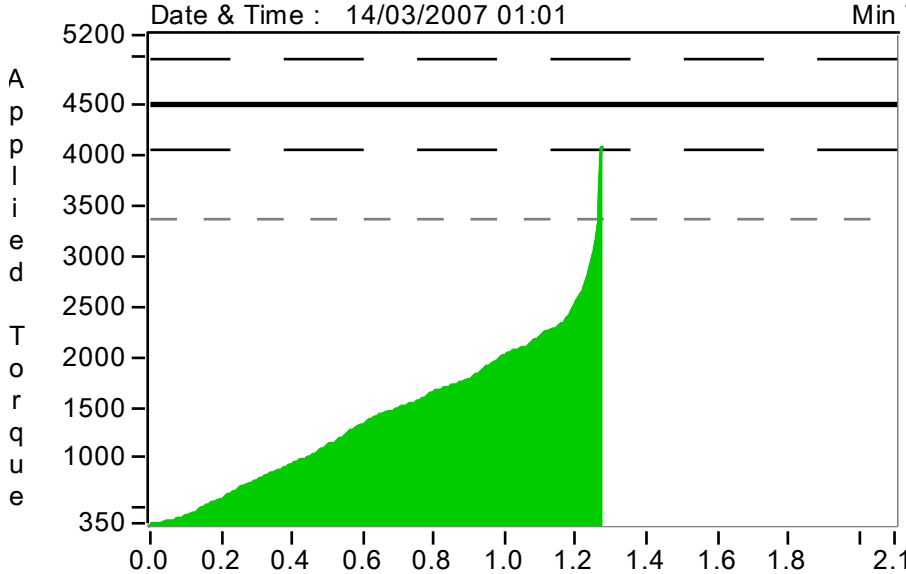
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 14/03/2007 00:57
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	136.0
Applied Torque	4415
Shoulder Torque	1076
Delta Torque	3338
Turn Counter	0.53
RP	3.80
Time Taken	8.3
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

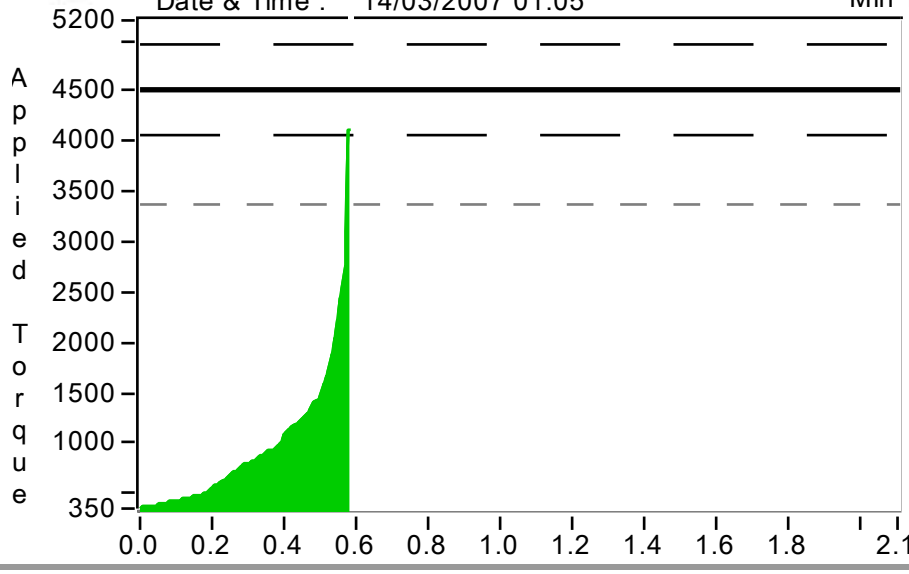
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 14/03/2007 01:01
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	137.0
Applied Torque	4093
Shoulder Torque	2400
Delta Torque	1693
Turn Counter	1.27
RP	3.77
Time Taken	20.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

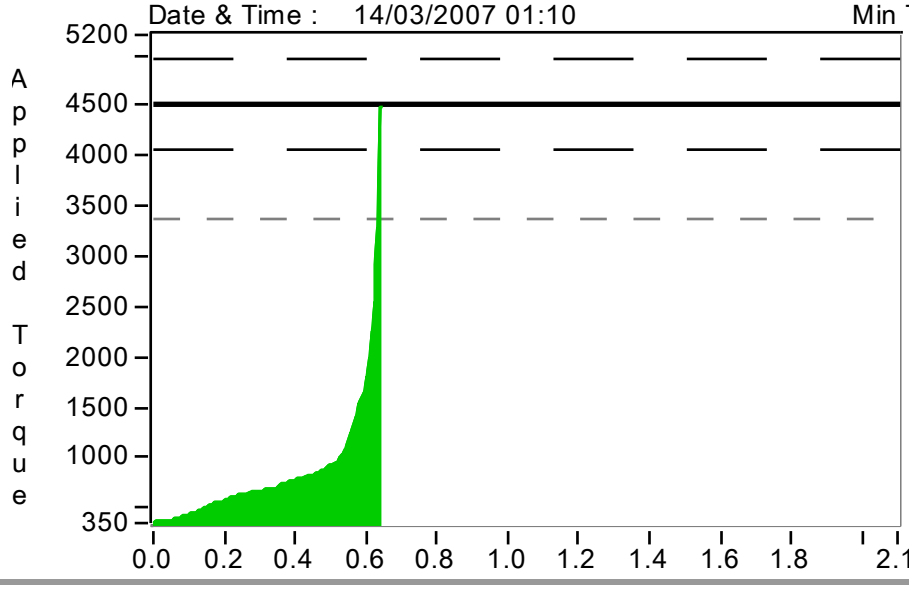
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 14/03/2007 01:05
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	138.
Applied Torque	4114
Shoulder Torque	1032
Delta Torque	3082
Turn Counter	0.57
RP	4.07
Time Taken	8.3
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

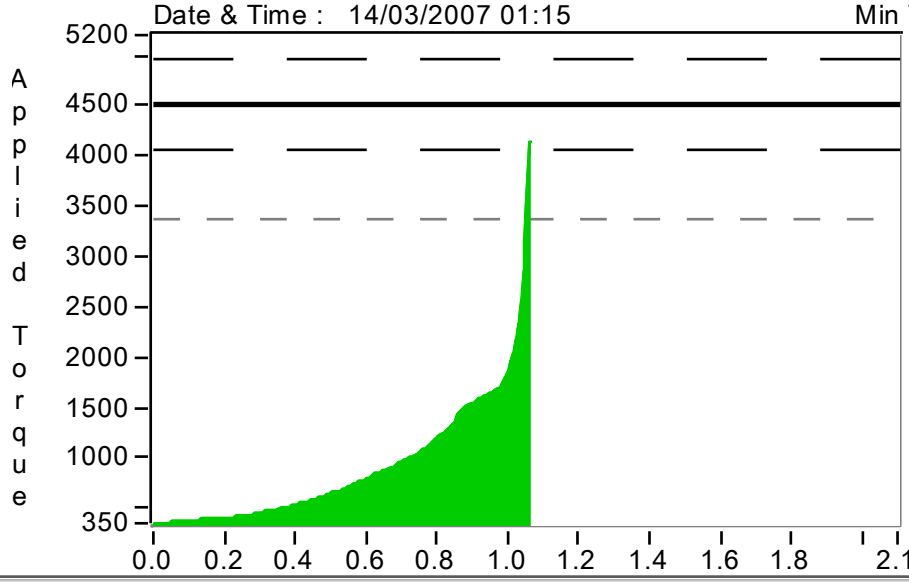
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 14/03/2007 01:10
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	139.0
Applied Torque	4473
Shoulder Torque	1008
Delta Torque	3465
Turn Counter	0.63
RP	3.47
Time Taken	10.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

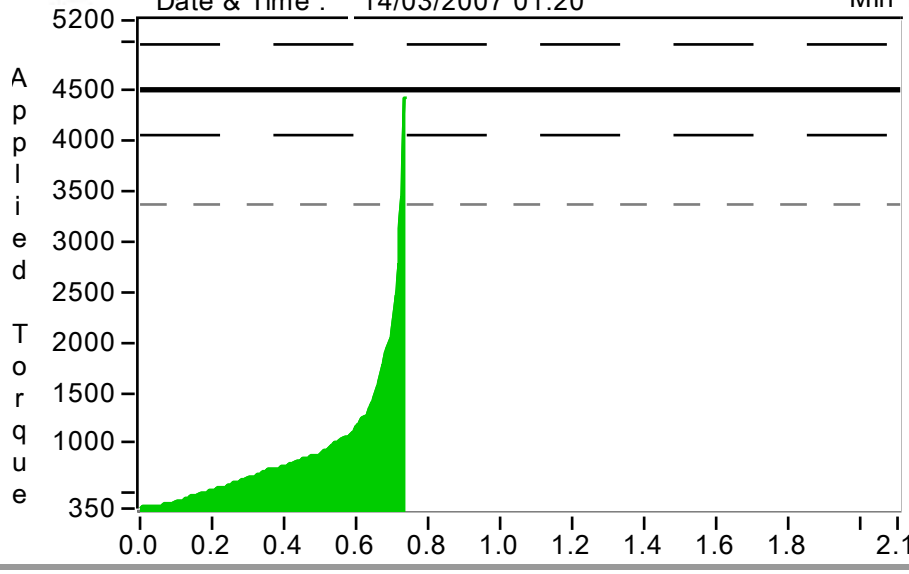
JFE BEAR Tubing 4.5" 12.6lb/ft Q
Date & Time : 14/03/2007 01:15
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375



Joint Number	140.0
Applied Torque	4139
Shoulder Torque	1749
Delta Torque	2390
Turn Counter	1.05
RP	3.34
Time Taken	18.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

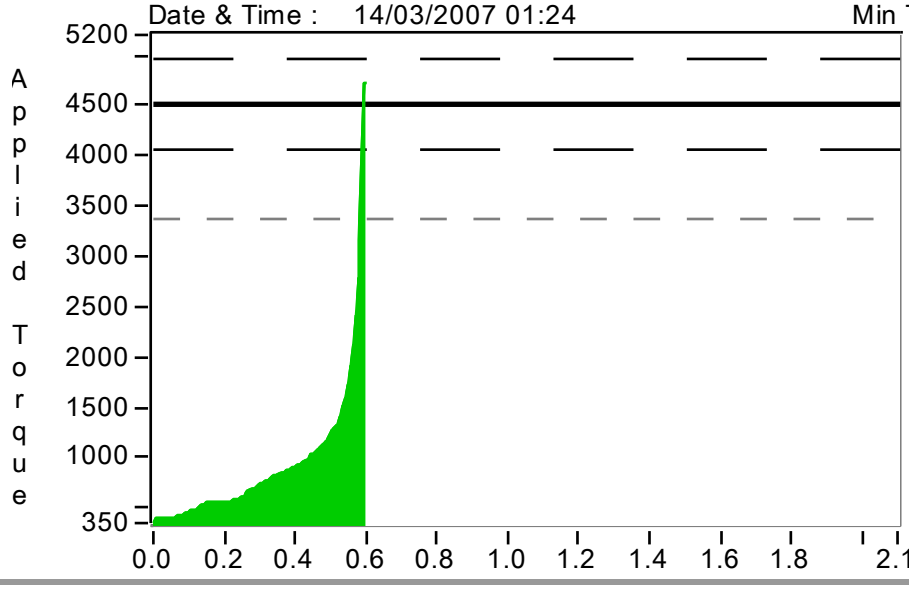
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 01:20
Min Torque 4050 Preset Shoulder 3375



Joint Number	141.
Applied Torque	4438
Shoulder Torque	1129
Delta Torque	3309
Turn Counter	0.72
RP	4.00
Time Taken	10.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

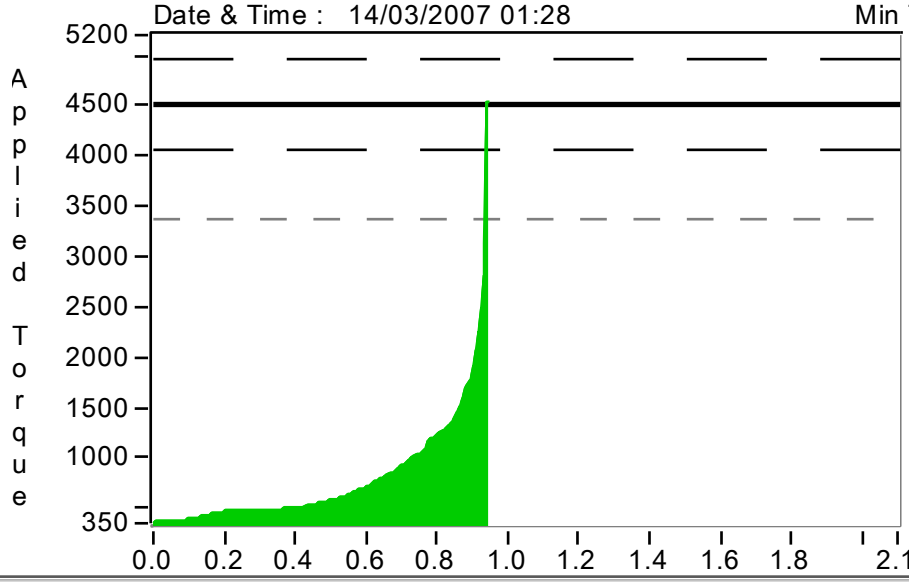
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 01:24
Min Torque 4050 Preset Shoulder 3375



Joint Number	142.0
Applied Torque	4715
Shoulder Torque	1170
Delta Torque	3545
Turn Counter	0.58
RP	4.58
Time Taken	7.6
Status	OK
Reason	Joint Makeup OK

Comment:

JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 01:28
Min Torque 4050 Preset Shoulder 3375



Joint Number	143.0
Applied Torque	4526
Shoulder Torque	1322
Delta Torque	3204
Turn Counter	0.93
RP	3.98
Time Taken	14.1
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

Customer: **CENTURY**

Well Name: **CRC-1**

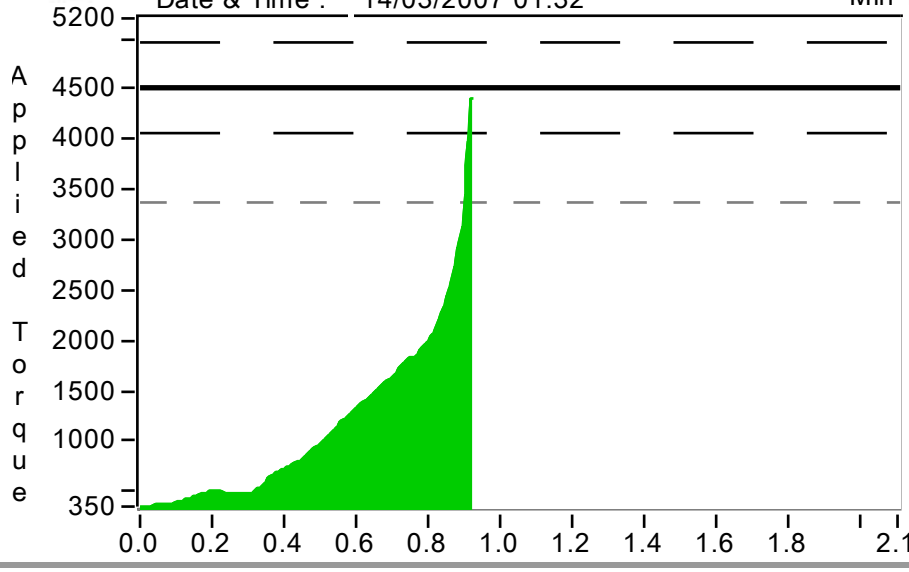
Printed on: Friday, 16 March 2007

JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80

Max Torque 4950 Optimum 4500

Min Torque 4050 Preset Shoulder 3375

Date & Time : 14/03/2007 01:32



Joint Number	144.
Applied Torque	4403
Shoulder Torque	905
Delta Torque	3498
Turn Counter	0.91
RP	4.37
Time Taken	12.5
Status	OK
Reason	Joint Makeup OK

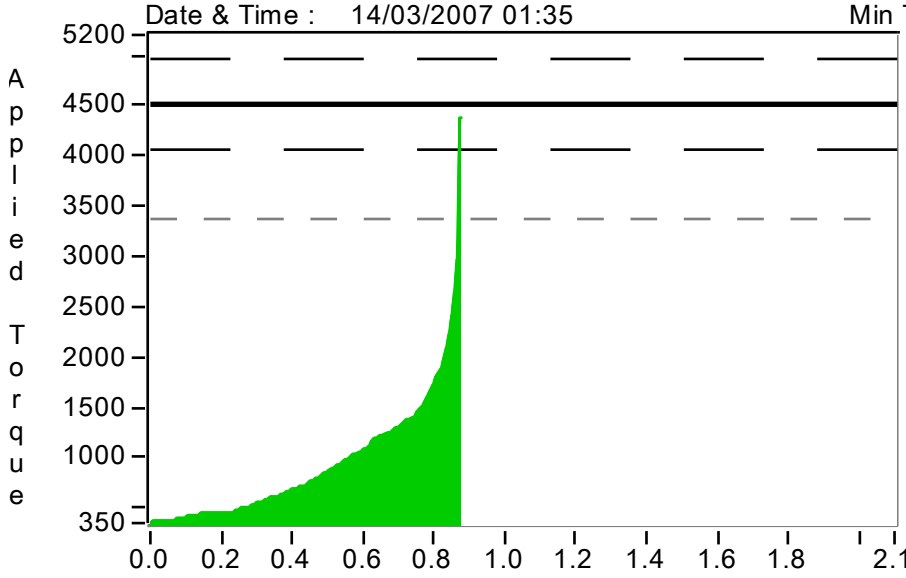
Comment:
/ HARRY

JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80

Max Torque 4950 Optimum 4500

Min Torque 4050 Preset Shoulder 3375

Date & Time : 14/03/2007 01:35



Joint Number	145.0
Applied Torque	4380
Shoulder Torque	1409
Delta Torque	2970
Turn Counter	0.87
RP	3.68
Time Taken	14.1
Status	OK
Reason	Joint Makeup OK

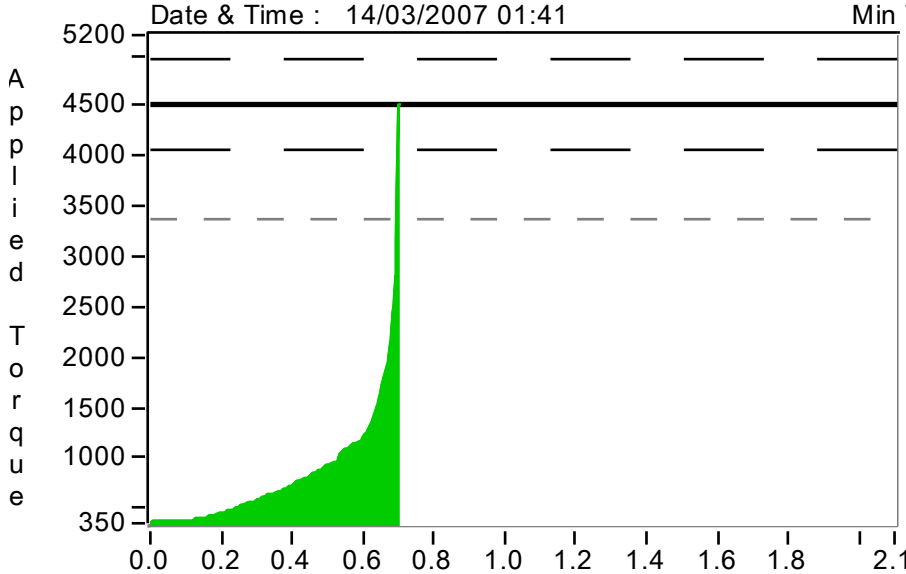
Comment:
/ HARRY

JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80

Max Torque 4950 Optimum 4500

Min Torque 4050 Preset Shoulder 3375

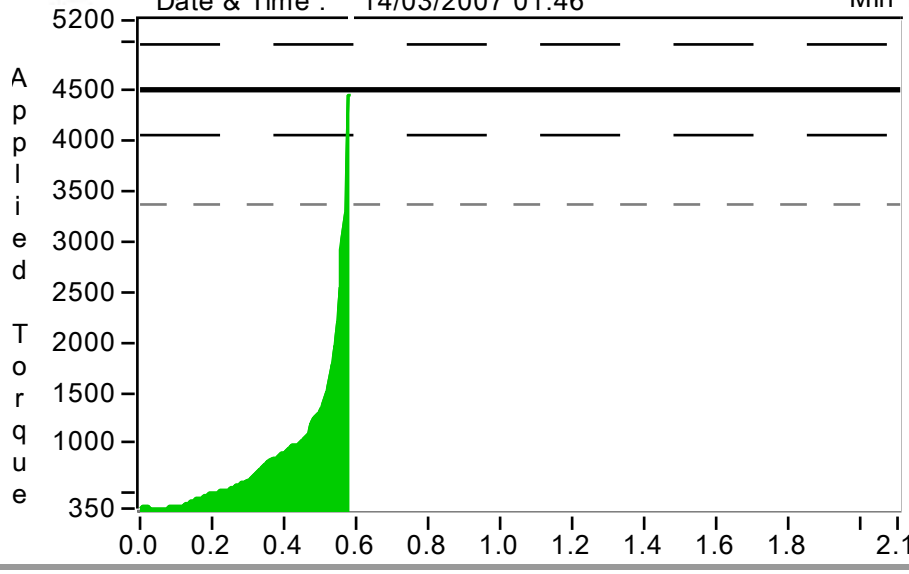
Date & Time : 14/03/2007 01:41



Joint Number	146.0
Applied Torque	4508
Shoulder Torque	1224
Delta Torque	3284
Turn Counter	0.69
RP	3.55
Time Taken	11.7
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

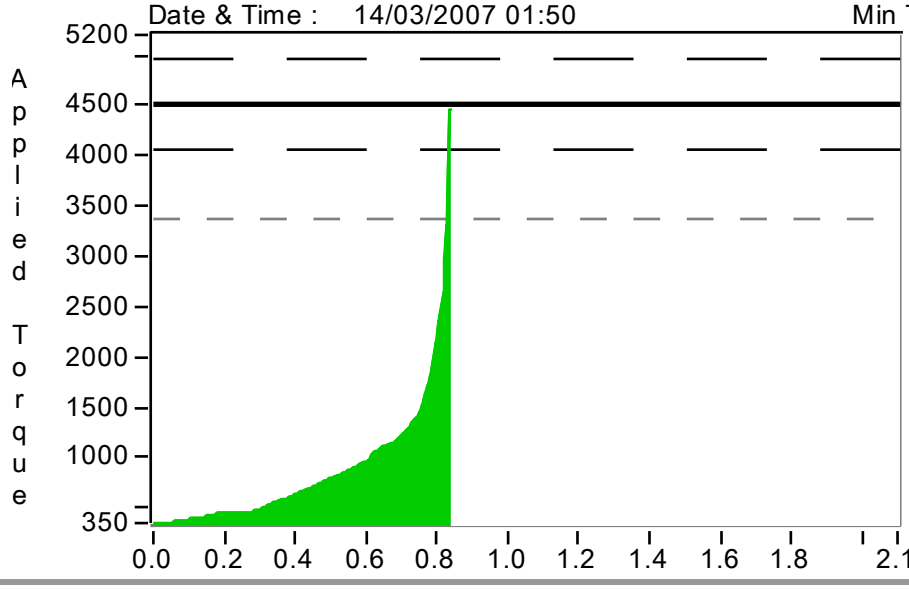
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 01:46
Min Torque 4050 Preset Shoulder 3375



Joint Number	147.
Applied Torque	4467
Shoulder Torque	1149
Delta Torque	3318
Turn Counter	0.57
RP	4.05
Time Taken	8.4
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

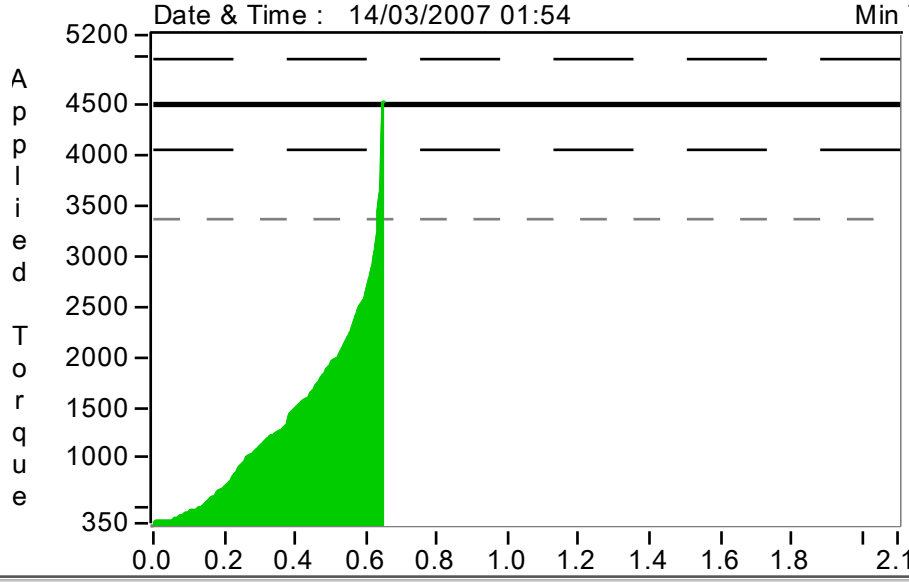
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 01:50
Min Torque 4050 Preset Shoulder 3375



Joint Number	148.0
Applied Torque	4464
Shoulder Torque	1269
Delta Torque	3195
Turn Counter	0.82
RP	4.11
Time Taken	12.0
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

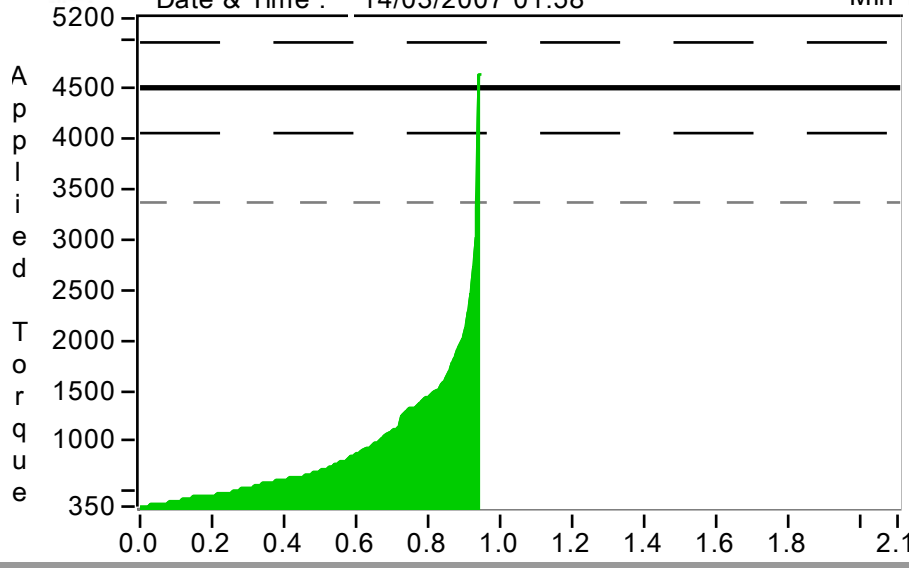
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 01:54
Min Torque 4050 Preset Shoulder 3375



Joint Number	149.0
Applied Torque	4544
Shoulder Torque	1208
Delta Torque	3336
Turn Counter	0.64
RP	4.20
Time Taken	9.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

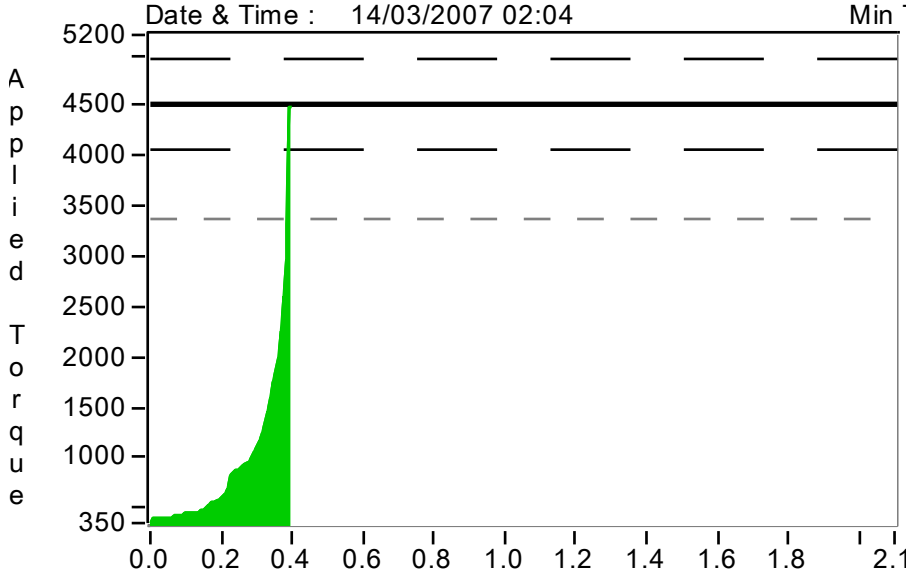
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 01:58
Min Torque 4050 Preset Shoulder 3375



Joint Number	150.
Applied Torque	4642
Shoulder Torque	1453
Delta Torque	3189
Turn Counter	0.93
RP	3.44
Time Taken	16.3
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

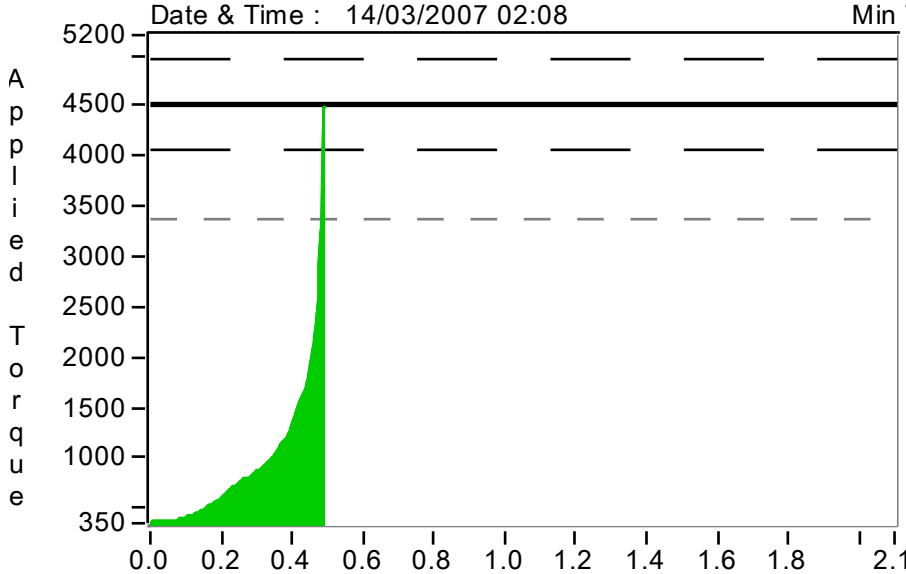
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 02:04
Min Torque 4050 Preset Shoulder 3375



Joint Number	151.0
Applied Torque	4473
Shoulder Torque	669
Delta Torque	3804
Turn Counter	0.38
RP	4.40
Time Taken	5.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

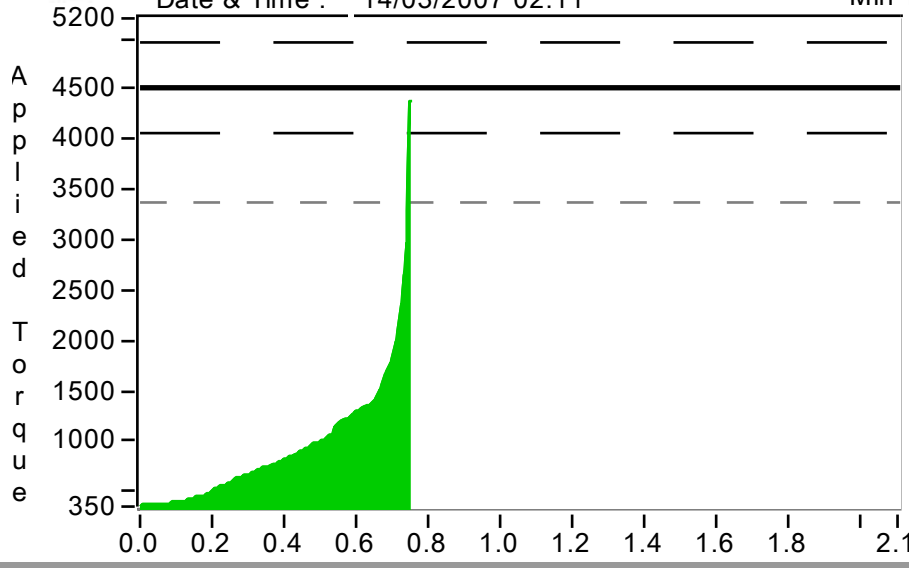
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 02:08
Min Torque 4050 Preset Shoulder 3375



Joint Number	152.0
Applied Torque	4495
Shoulder Torque	954
Delta Torque	3541
Turn Counter	0.48
RP	3.82
Time Taken	7.6
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

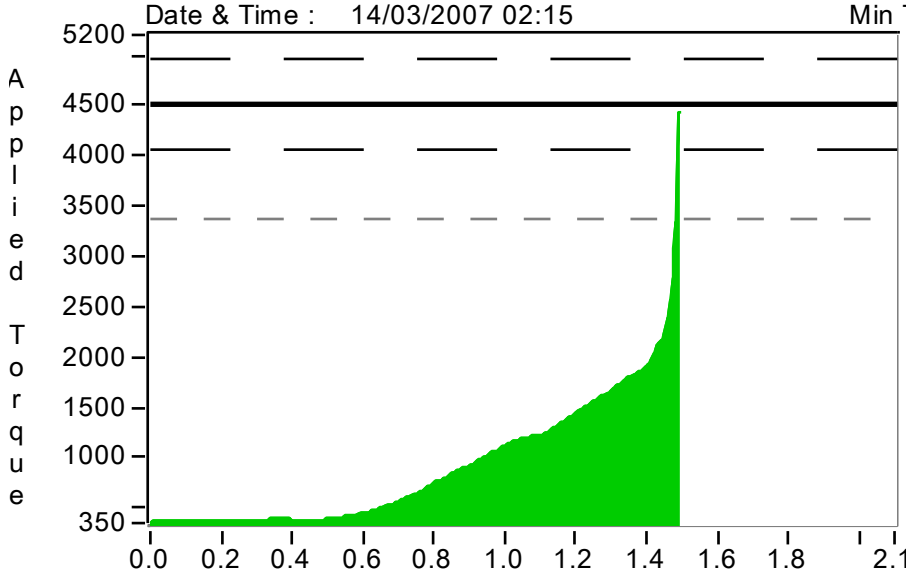
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 02:11
Min Torque 4050 Preset Shoulder 3375



Joint Number	153.
Applied Torque	4371
Shoulder Torque	1426
Delta Torque	2945
Turn Counter	0.74
RP	4.05
Time Taken	11.0
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

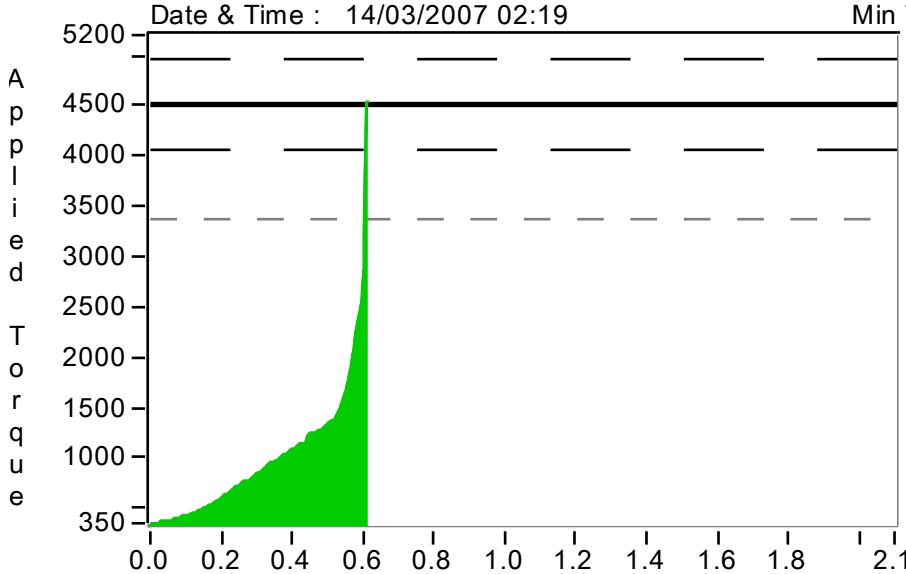
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 02:15
Min Torque 4050 Preset Shoulder 3375



Joint Number	154.0
Applied Torque	4426
Shoulder Torque	1942
Delta Torque	2484
Turn Counter	1.48
RP	3.81
Time Taken	23.3
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

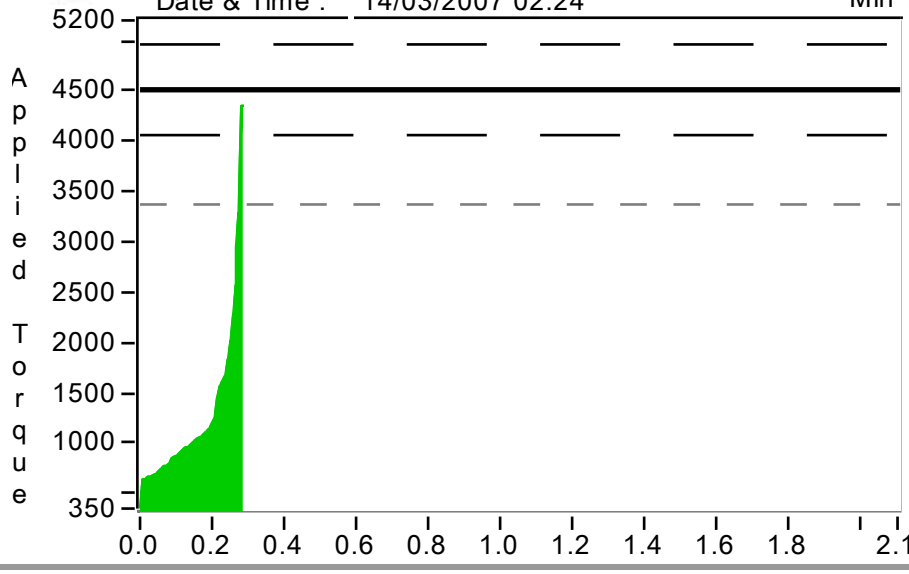
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 02:19
Min Torque 4050 Preset Shoulder 3375



Joint Number	155.0
Applied Torque	4548
Shoulder Torque	1389
Delta Torque	3159
Turn Counter	0.60
RP	3.72
Time Taken	9.7
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

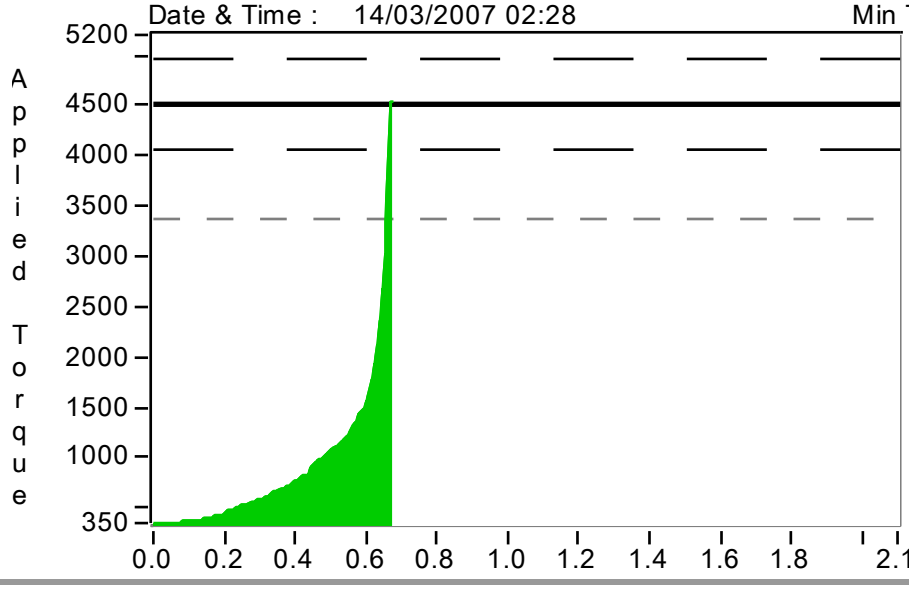
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 02:24
Min Torque 4050 Preset Shoulder 3375



Joint Number	156.
Applied Torque	4344
Shoulder Torque	1126
Delta Torque	3218
Turn Counter	0.28
RP	3.90
Time Taken	4.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

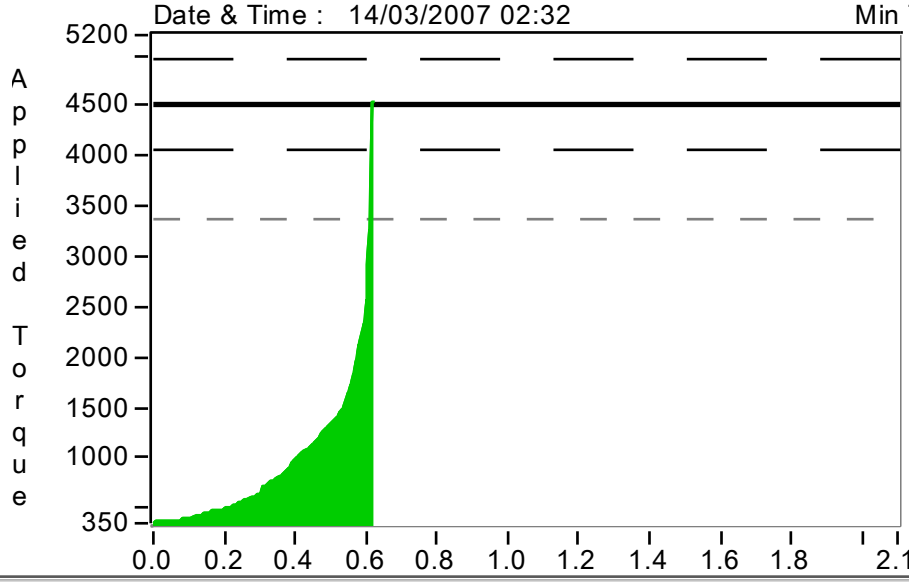
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 02:28
Min Torque 4050 Preset Shoulder 3375



Joint Number	157.0
Applied Torque	4528
Shoulder Torque	990
Delta Torque	3538
Turn Counter	0.66
RP	2.51
Time Taken	15.7
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

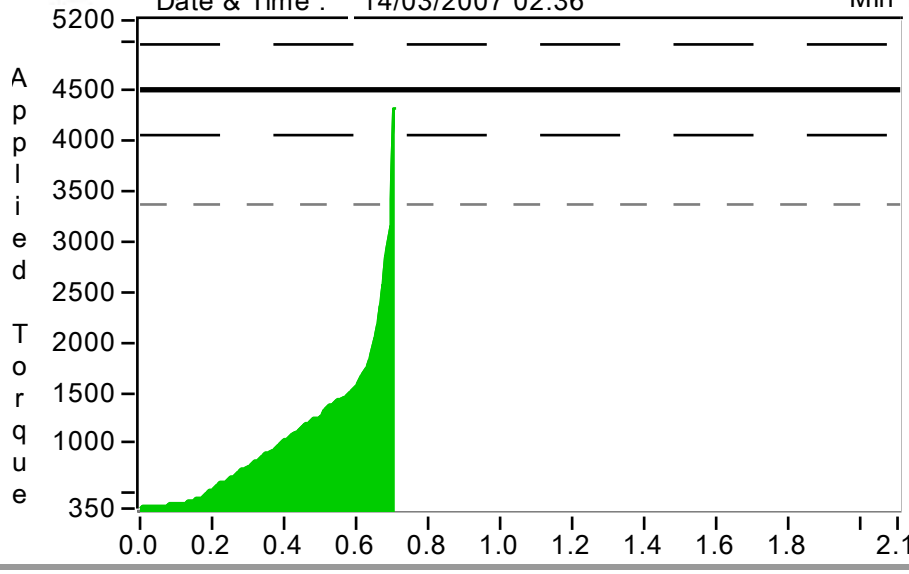
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 02:32
Min Torque 4050 Preset Shoulder 3375



Joint Number	158.0
Applied Torque	4542
Shoulder Torque	811
Delta Torque	3731
Turn Counter	0.61
RP	3.59
Time Taken	10.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

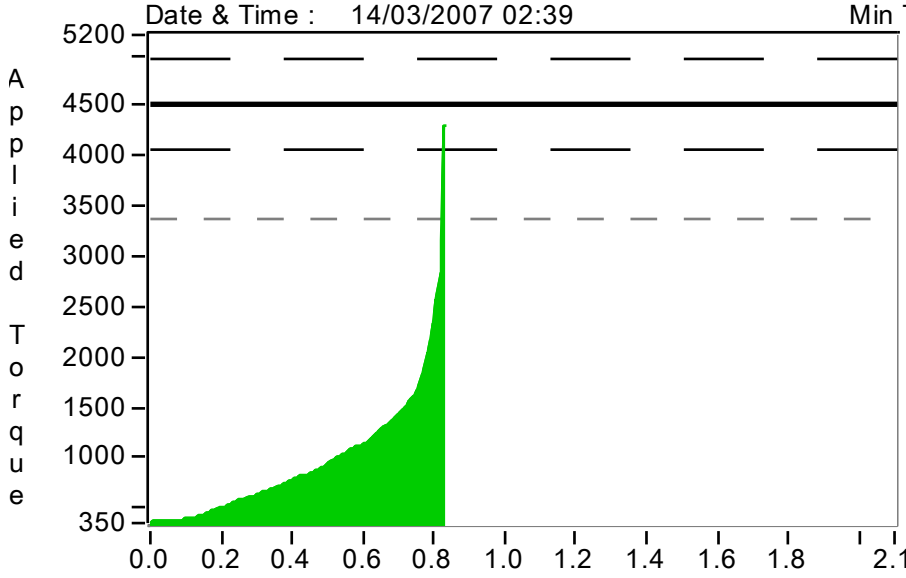
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 02:36
Min Torque 4050 Preset Shoulder 3375



Joint Number	159.
Applied Torque	4315
Shoulder Torque	1529
Delta Torque	2787
Turn Counter	0.69
RP	3.84
Time Taken	10.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

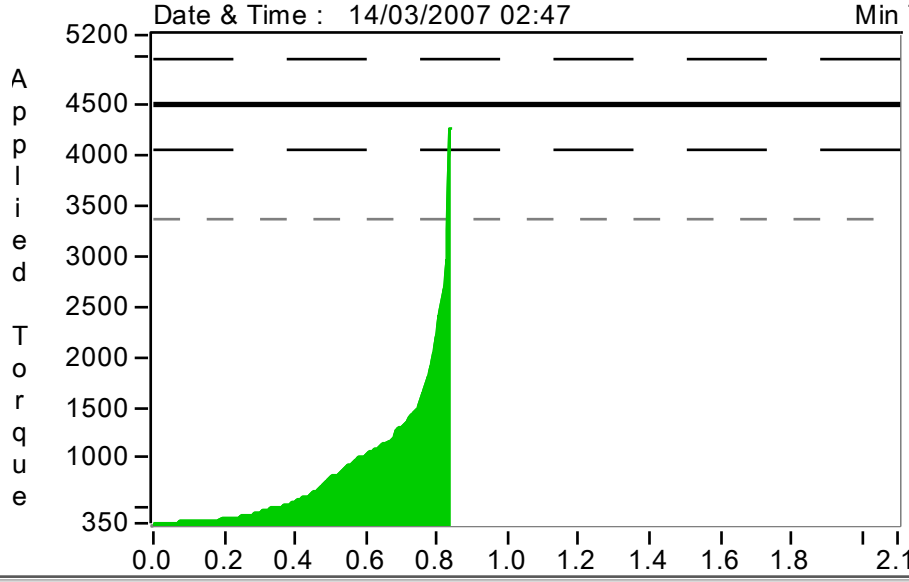
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 02:39
Min Torque 4050 Preset Shoulder 3375



Joint Number	160.0
Applied Torque	4286
Shoulder Torque	1267
Delta Torque	3019
Turn Counter	0.82
RP	3.98
Time Taken	12.3
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

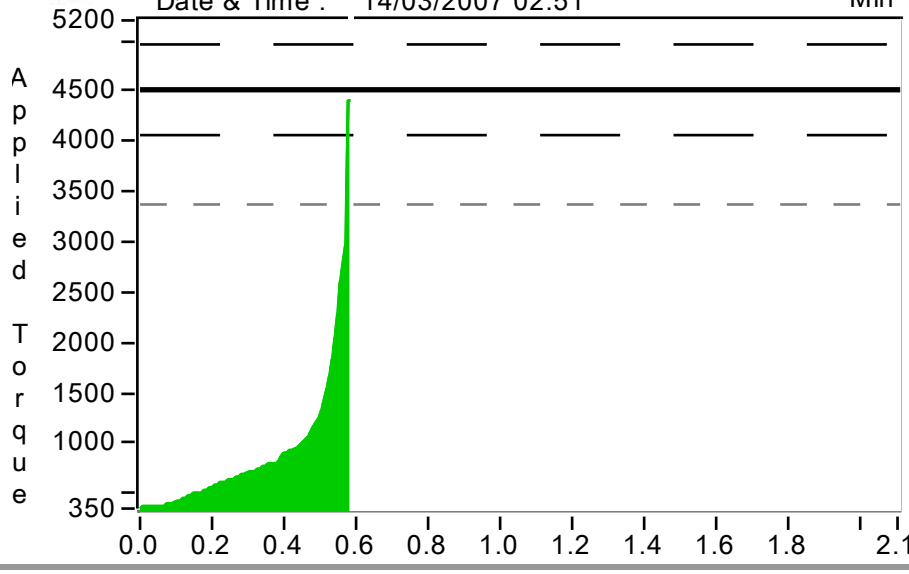
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 02:47
Min Torque 4050 Preset Shoulder 3375



Joint Number	161.0
Applied Torque	4273
Shoulder Torque	1400
Delta Torque	2873
Turn Counter	0.82
RP	3.62
Time Taken	13.7
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

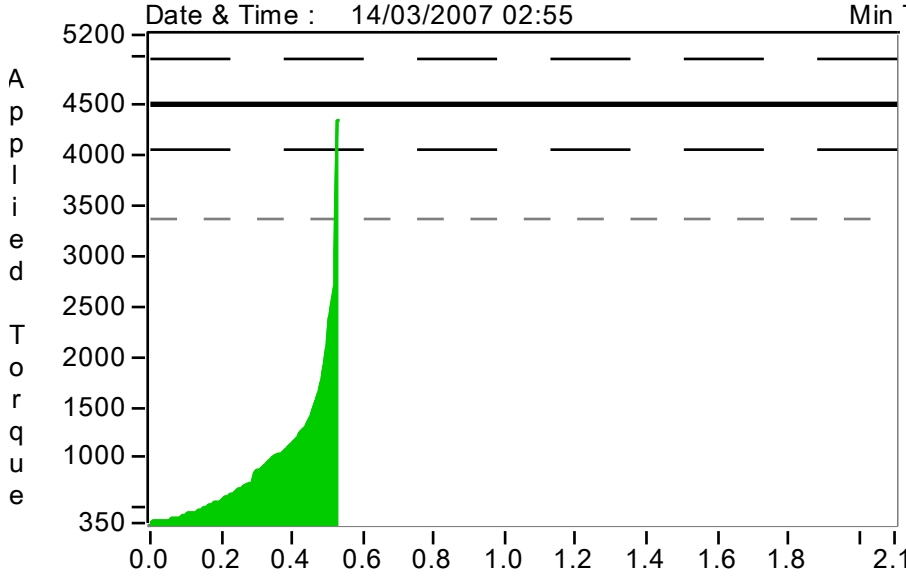
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 02:51
Min Torque 4050 Preset Shoulder 3375



Joint Number	162.
Applied Torque	4409
Shoulder Torque	1067
Delta Torque	3342
Turn Counter	0.57
RP	3.48
Time Taken	9.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ HARRY

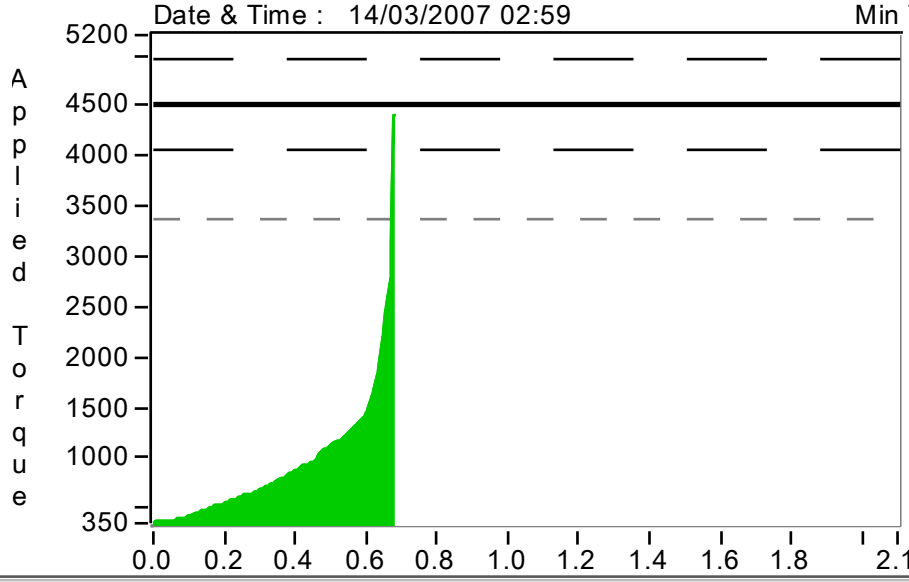
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 02:55
Min Torque 4050 Preset Shoulder 3375



Joint Number	163.0
Applied Torque	4353
Shoulder Torque	815
Delta Torque	3538
Turn Counter	0.52
RP	3.76
Time Taken	8.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

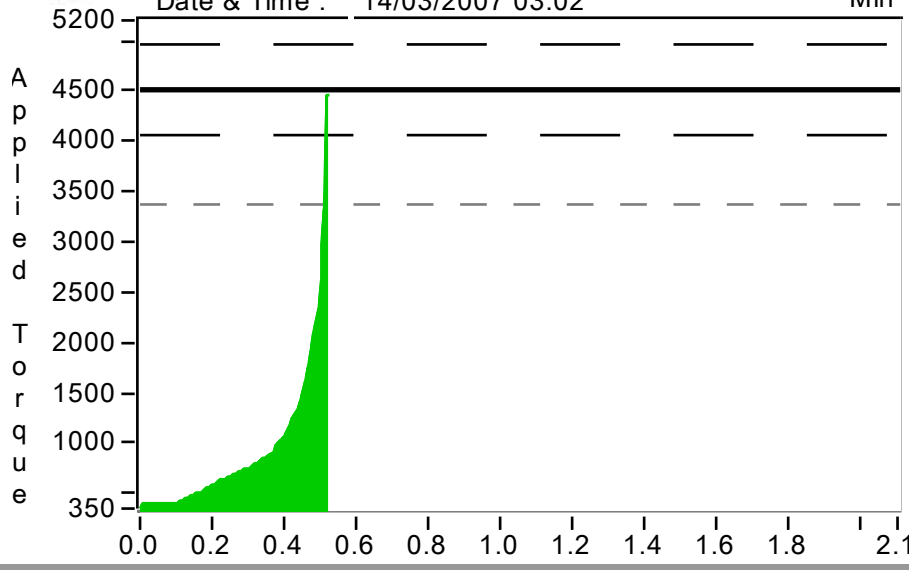
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 02:59
Min Torque 4050 Preset Shoulder 3375



Joint Number	164.0
Applied Torque	4415
Shoulder Torque	1240
Delta Torque	3175
Turn Counter	0.67
RP	3.96
Time Taken	10.1
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

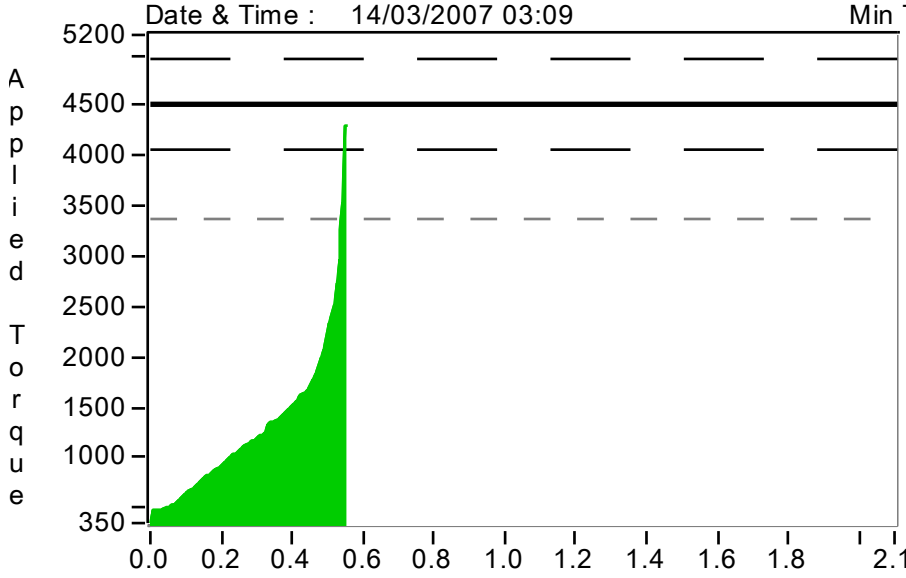
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 03:02
Min Torque 4050 Preset Shoulder 3375



Joint Number	165.
Applied Torque	4450
Shoulder Torque	1011
Delta Torque	3438
Turn Counter	0.51
RP	3.80
Time Taken	8.0
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

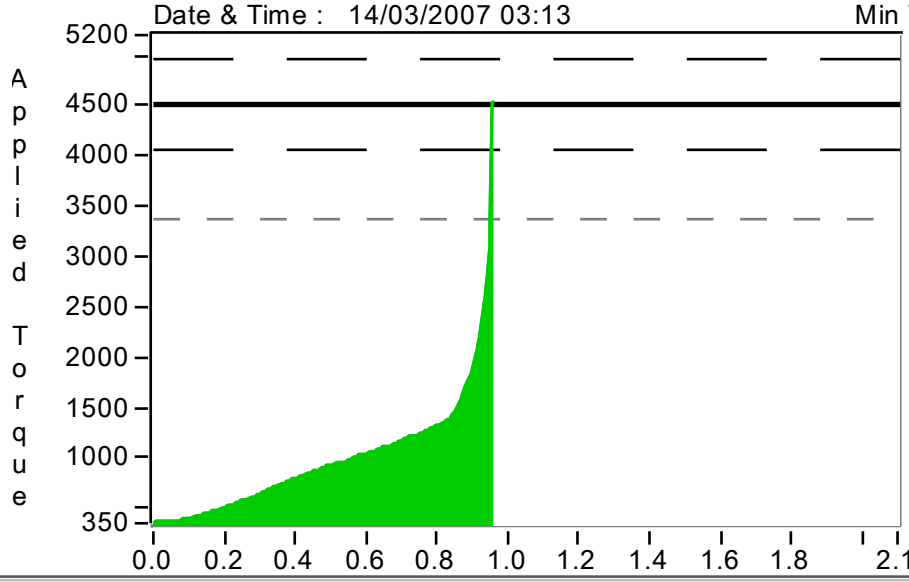
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 03:09
Min Torque 4050 Preset Shoulder 3375



Joint Number	166.0
Applied Torque	4304
Shoulder Torque	1424
Delta Torque	2880
Turn Counter	0.54
RP	3.82
Time Taken	8.5
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

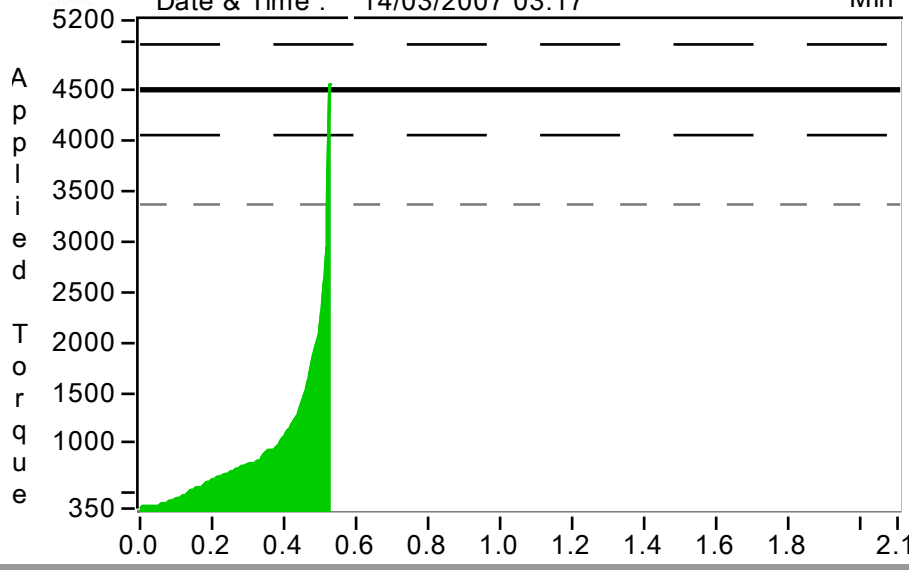
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 03:13
Min Torque 4050 Preset Shoulder 3375



Joint Number	167.0
Applied Torque	4526
Shoulder Torque	1467
Delta Torque	3059
Turn Counter	0.95
RP	3.97
Time Taken	14.3
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

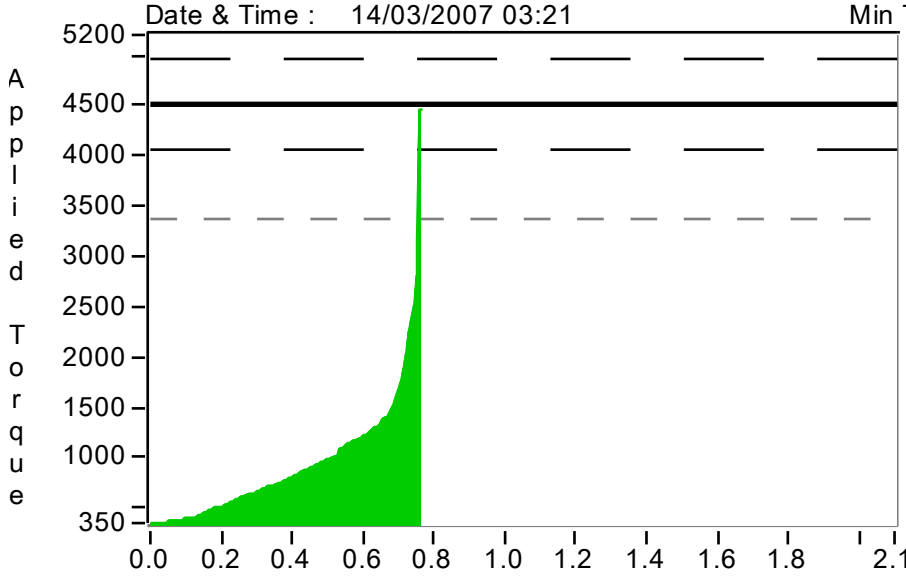
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 03:17
Min Torque 4050 Preset Shoulder 3375



Joint Number	168.
Applied Torque	4555
Shoulder Torque	999
Delta Torque	3556
Turn Counter	0.52
RP	3.62
Time Taken	8.6
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

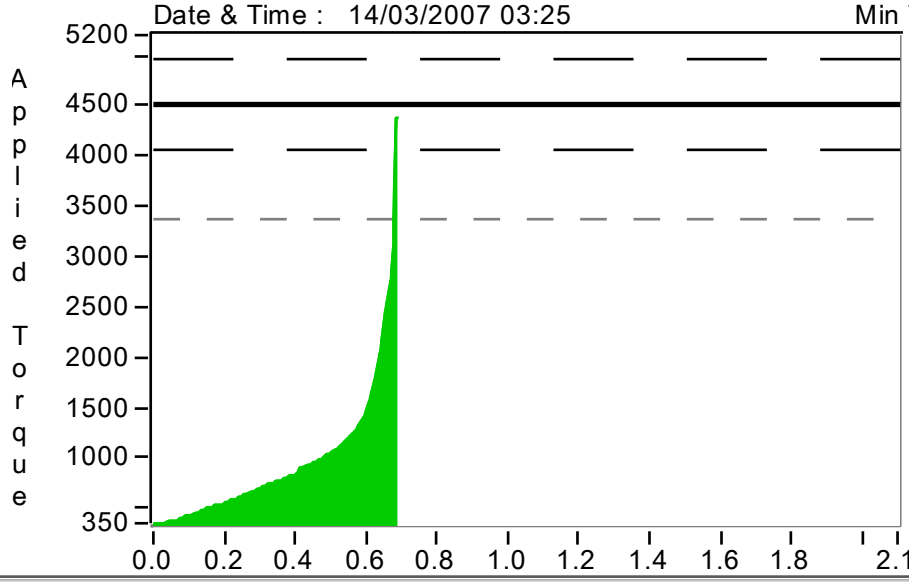
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 03:21
Min Torque 4050 Preset Shoulder 3375



Joint Number	169.0
Applied Torque	4461
Shoulder Torque	1380
Delta Torque	3081
Turn Counter	0.75
RP	3.96
Time Taken	11.4
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

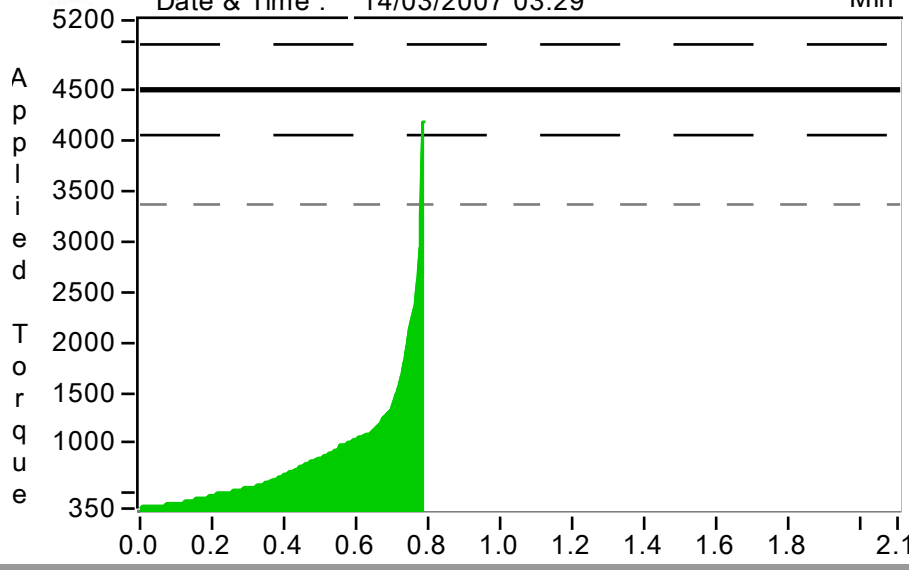
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 03:25
Min Torque 4050 Preset Shoulder 3375



Joint Number	170.0
Applied Torque	4391
Shoulder Torque	1128
Delta Torque	3263
Turn Counter	0.68
RP	4.01
Time Taken	10.1
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

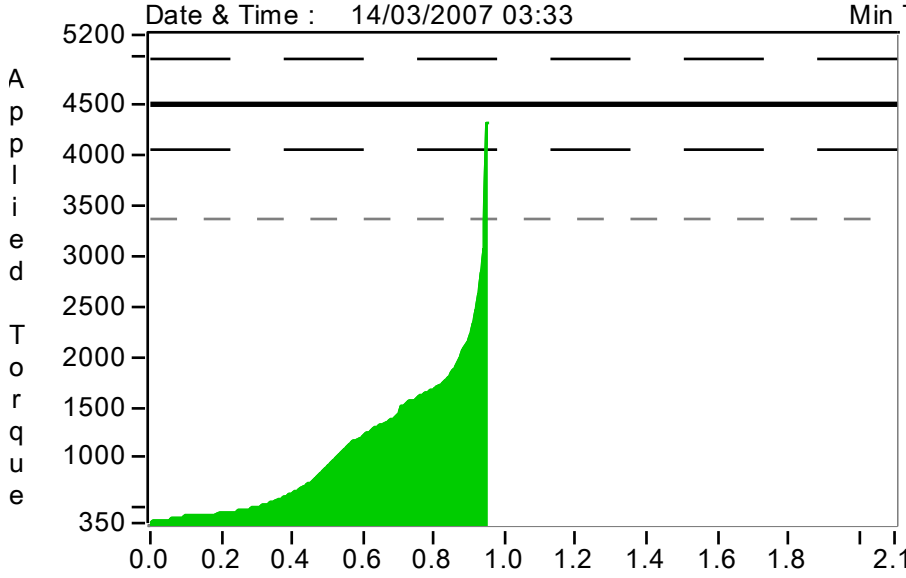
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 03:29
Min Torque 4050 Preset Shoulder 3375



Joint Number	171.
Applied Torque	4201
Shoulder Torque	1209
Delta Torque	2993
Turn Counter	0.78
RP	3.90
Time Taken	11.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

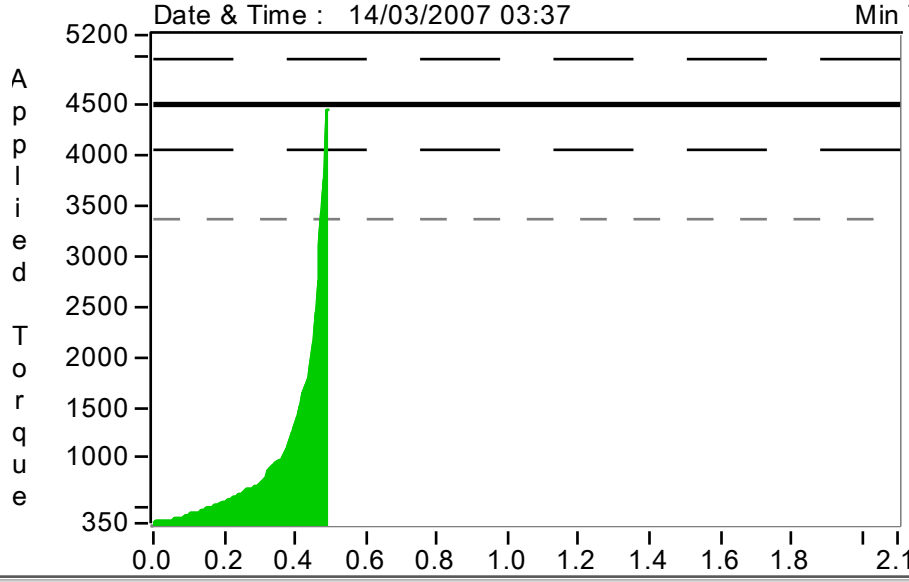
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 03:33
Min Torque 4050 Preset Shoulder 3375



Joint Number	172.0
Applied Torque	4327
Shoulder Torque	1801
Delta Torque	2526
Turn Counter	0.94
RP	3.80
Time Taken	14.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

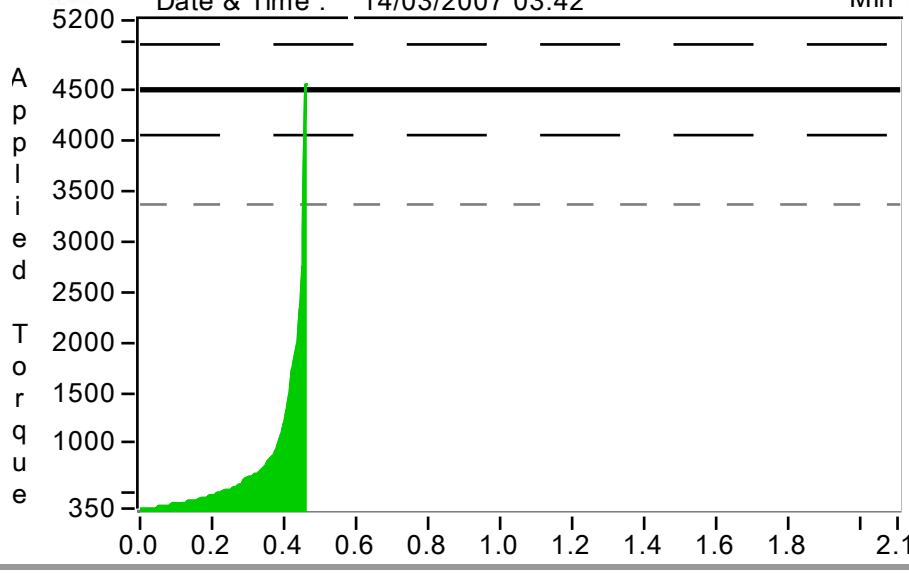
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 03:37
Min Torque 4050 Preset Shoulder 3375



Joint Number	173.0
Applied Torque	4464
Shoulder Torque	896
Delta Torque	3568
Turn Counter	0.48
RP	3.82
Time Taken	7.6
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

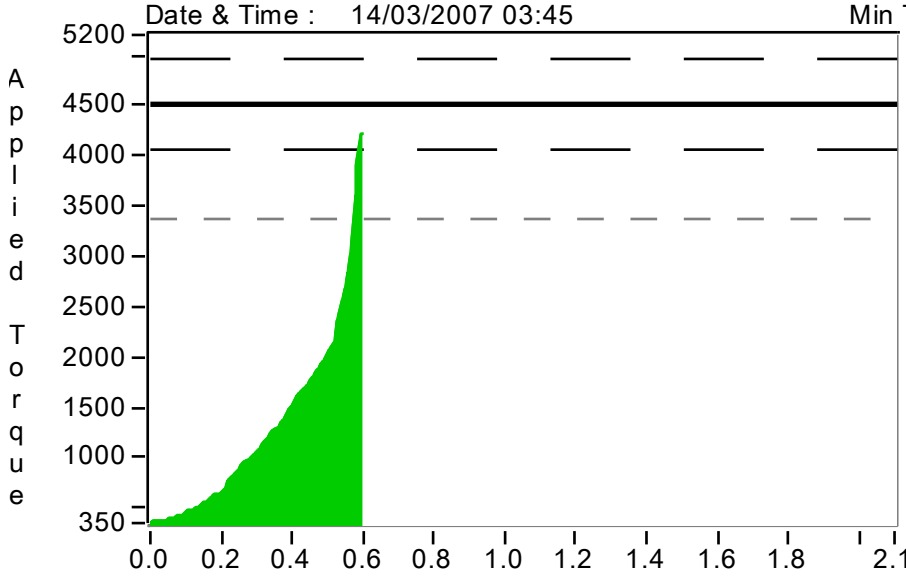
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 14/03/2007 03:42



Joint Number	174.
Applied Torque	4572
Shoulder Torque	768
Delta Torque	3805
Turn Counter	0.45
RP	3.87
Time Taken	7.0
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

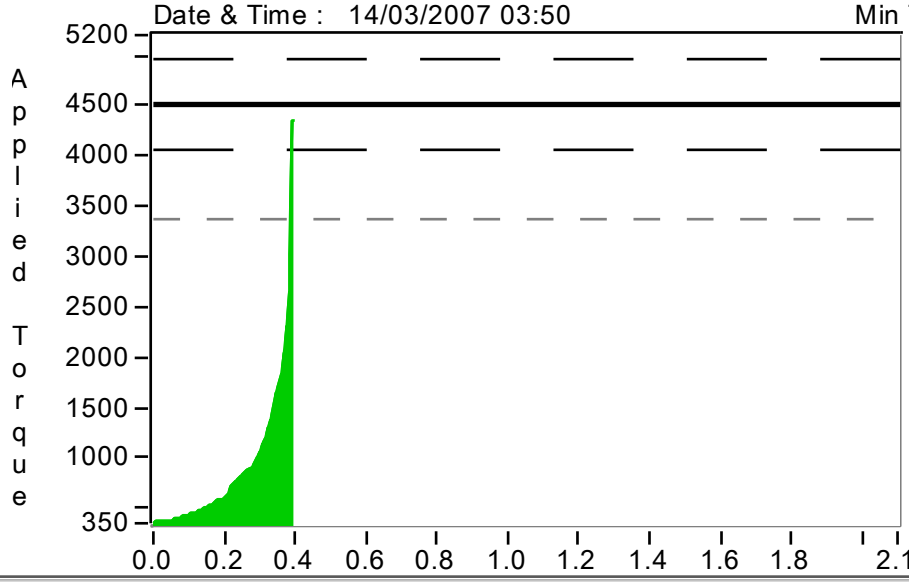
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 14/03/2007 03:45



Joint Number	175.0
Applied Torque	4216
Shoulder Torque	745
Delta Torque	3471
Turn Counter	0.58
RP	3.71
Time Taken	9.4
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

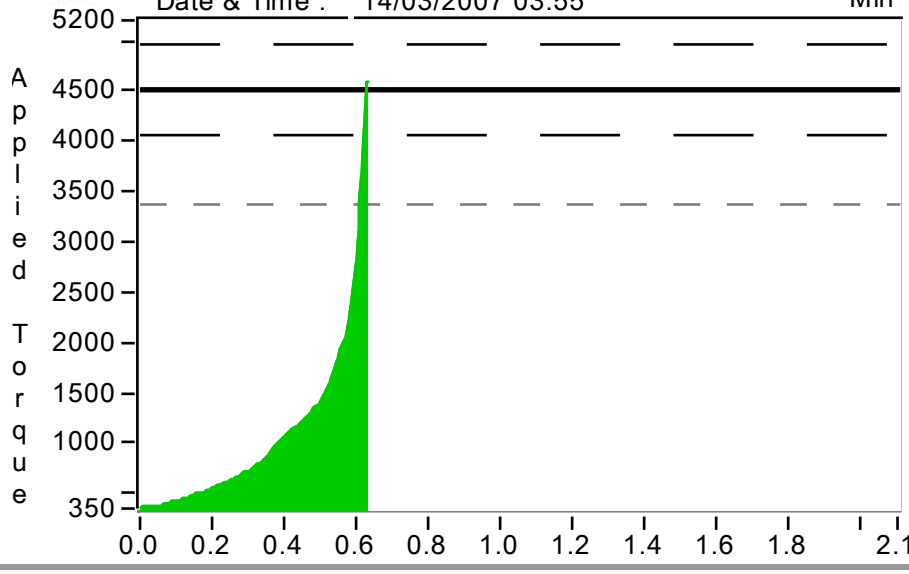
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 14/03/2007 03:50



Joint Number	176.0
Applied Torque	4353
Shoulder Torque	726
Delta Torque	3627
Turn Counter	0.38
RP	3.87
Time Taken	5.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

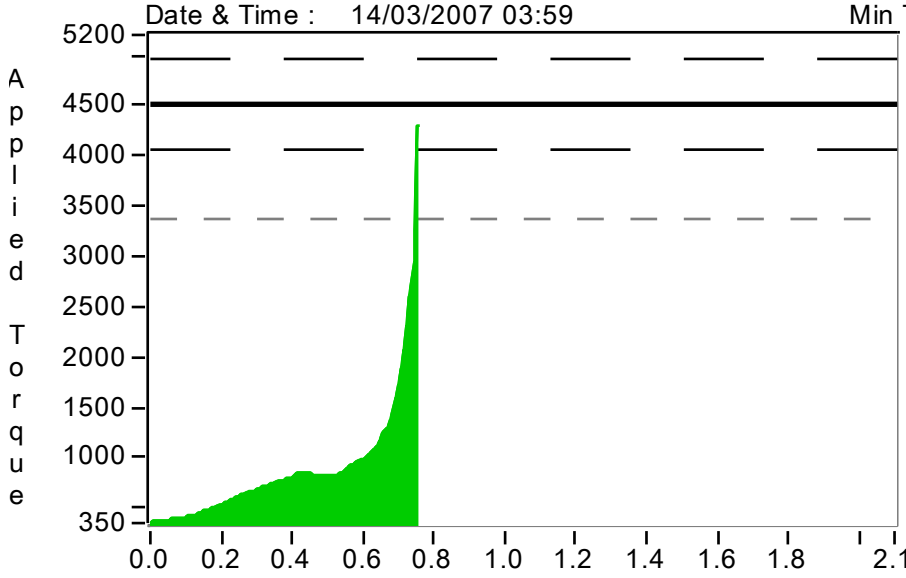
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 14/03/2007 03:55



Joint Number	177.
Applied Torque	4584
Shoulder Torque	990
Delta Torque	3594
Turn Counter	0.62
RP	3.96
Time Taken	9.3
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

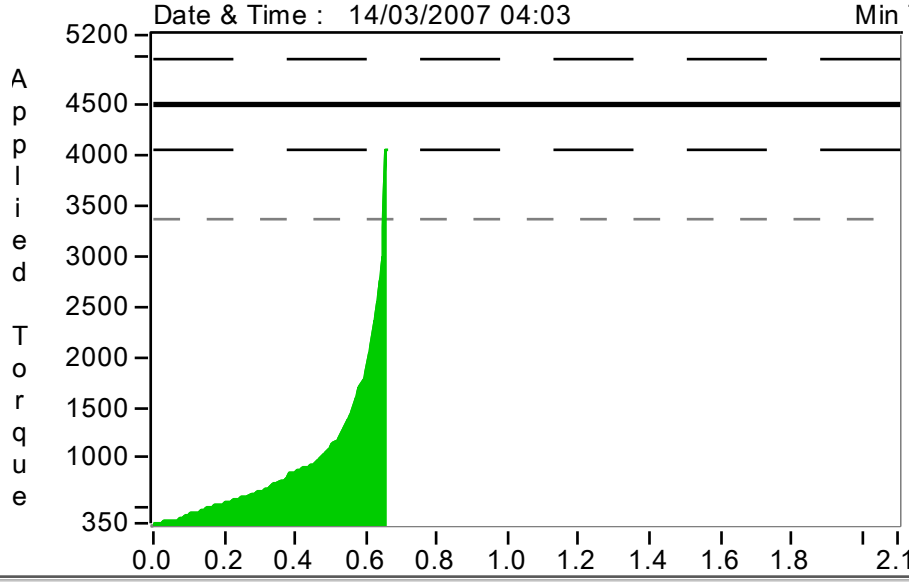
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 14/03/2007 03:59



Joint Number	178.0
Applied Torque	4289
Shoulder Torque	1090
Delta Torque	3198
Turn Counter	0.74
RP	3.98
Time Taken	11.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

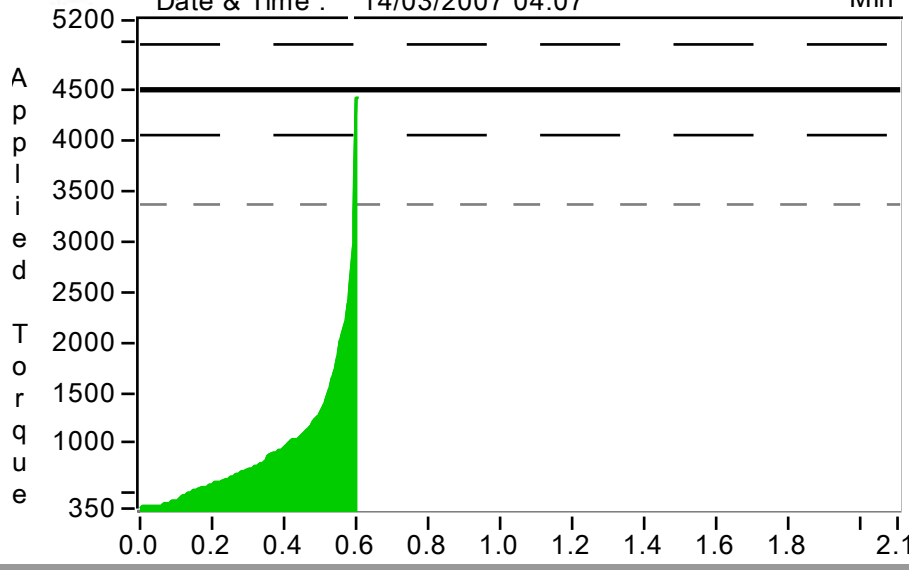
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 14/03/2007 04:03



Joint Number	179.0
Applied Torque	4070
Shoulder Torque	1052
Delta Torque	3018
Turn Counter	0.65
RP	3.53
Time Taken	11.0
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

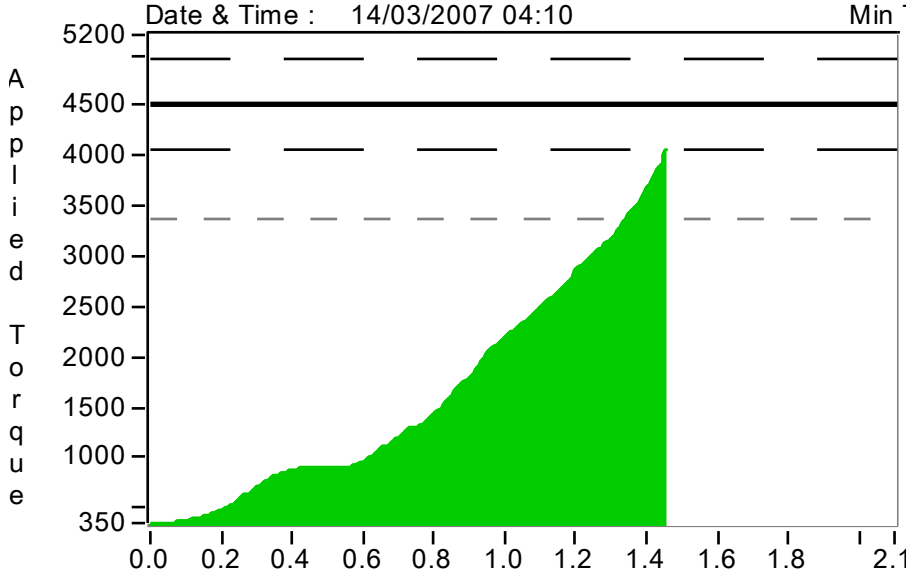
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 04:07
Min Torque 4050 Preset Shoulder 3375



Joint Number	180.
Applied Torque	4435
Shoulder Torque	1031
Delta Torque	3404
Turn Counter	0.59
RP	3.76
Time Taken	9.4
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

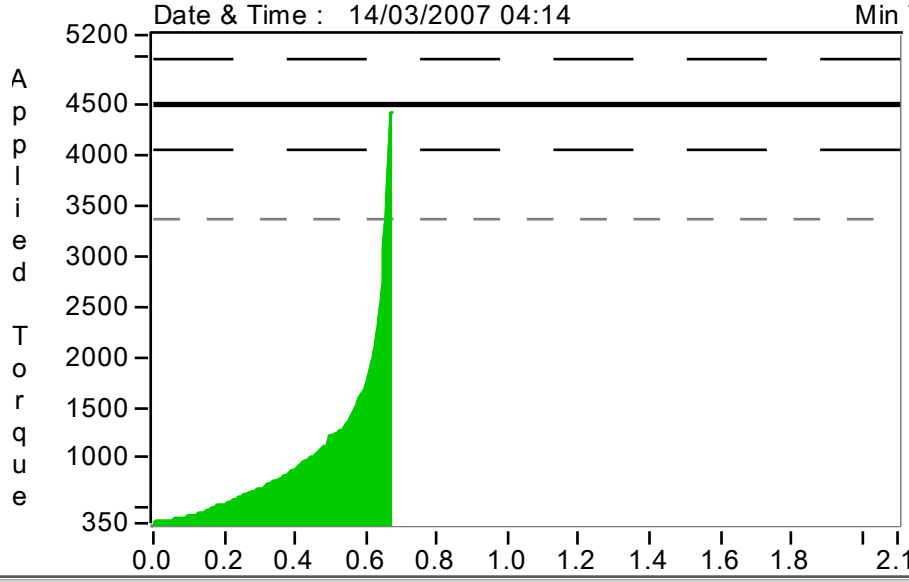
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 04:10
Min Torque 4050 Preset Shoulder 3375



Joint Number	181.0
Applied Torque	4055
Shoulder Torque	1449
Delta Torque	2607
Turn Counter	1.44
RP	3.05
Time Taken	28.4
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

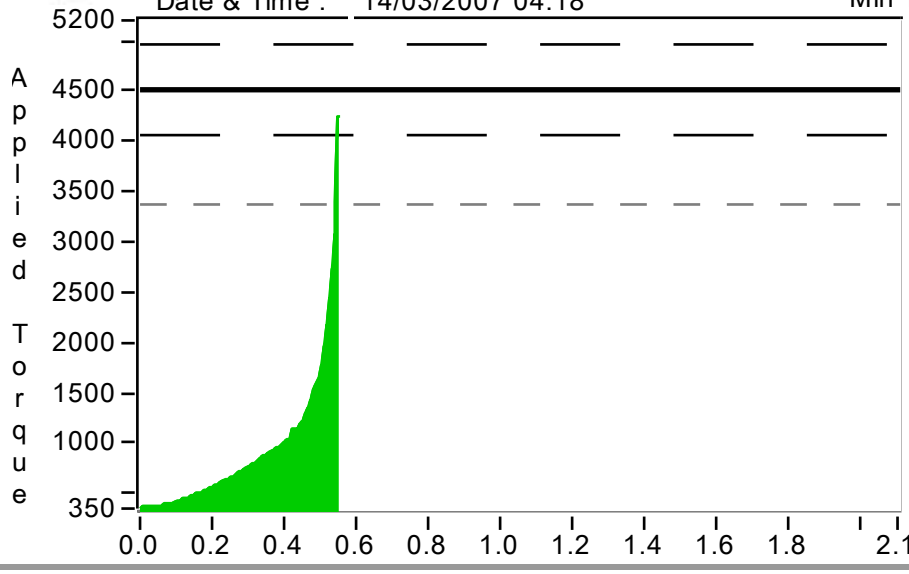
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 04:14
Min Torque 4050 Preset Shoulder 3375



Joint Number	182.0
Applied Torque	4436
Shoulder Torque	1356
Delta Torque	3081
Turn Counter	0.66
RP	3.99
Time Taken	9.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE:X NIPPLE 6

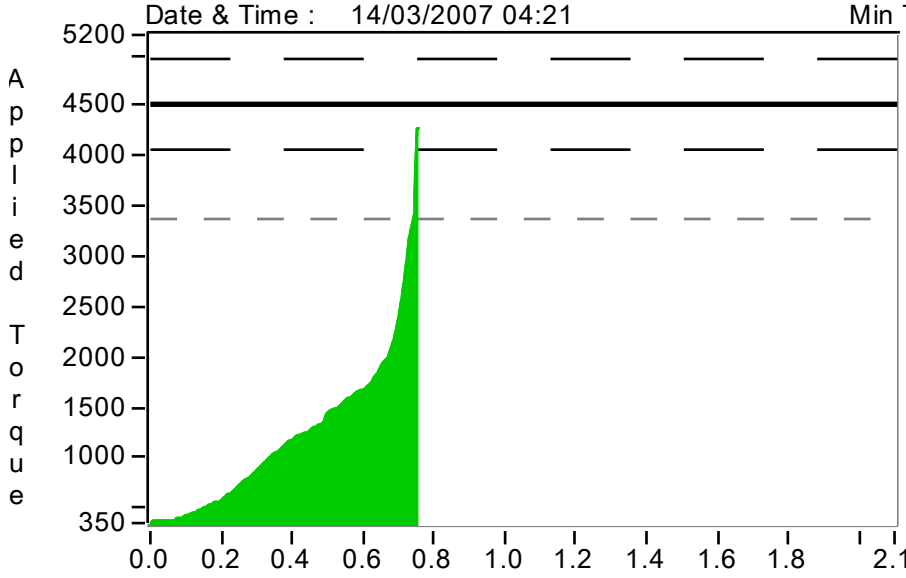
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 04:18
Min Torque 4050 Preset Shoulder 3375



Joint Number	183.
Applied Torque	4236
Shoulder Torque	1189
Delta Torque	3048
Turn Counter	0.54
RP	3.98
Time Taken	8.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

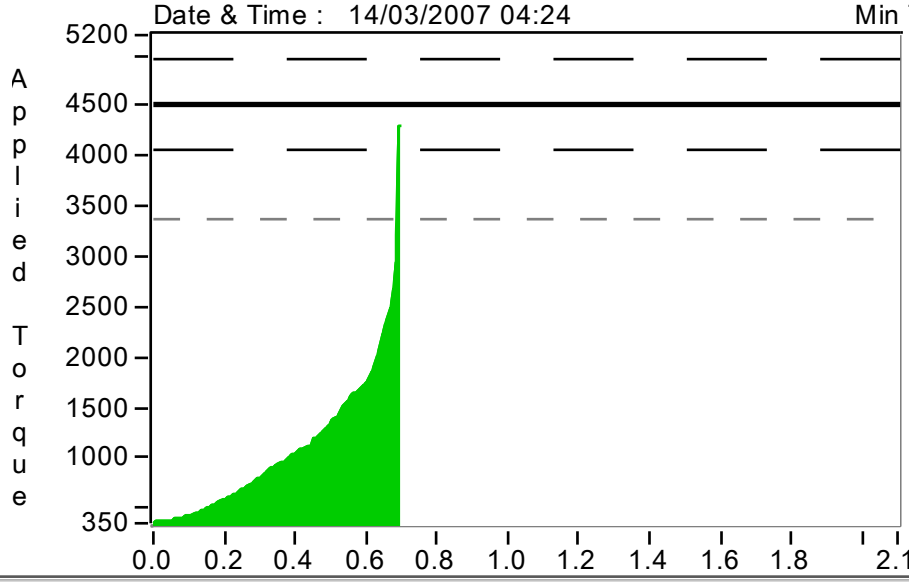
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 04:21
Min Torque 4050 Preset Shoulder 3375



Joint Number	184.0
Applied Torque	4280
Shoulder Torque	1704
Delta Torque	2576
Turn Counter	0.74
RP	4.05
Time Taken	11.0
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

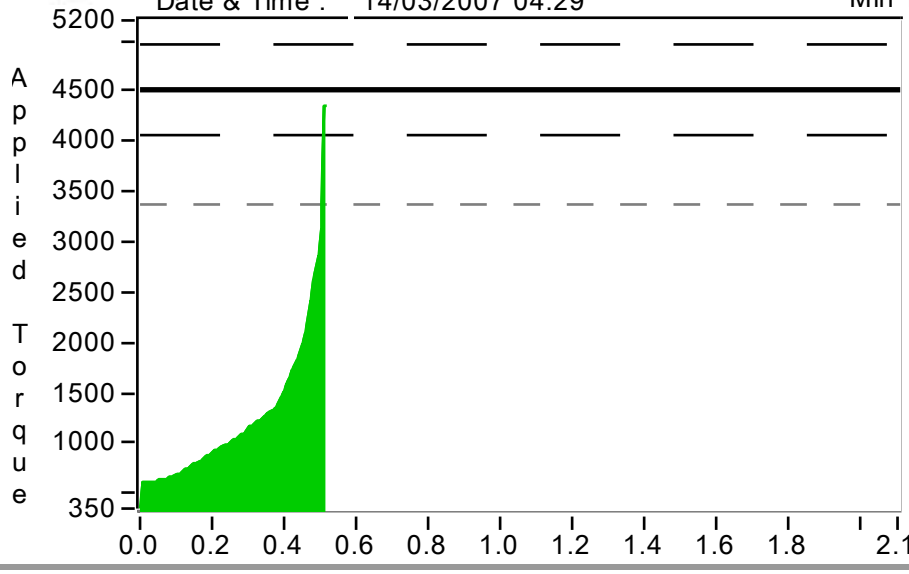
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 04:24
Min Torque 4050 Preset Shoulder 3375



Joint Number	185.0
Applied Torque	4286
Shoulder Torque	1314
Delta Torque	2972
Turn Counter	0.68
RP	3.93
Time Taken	10.4
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

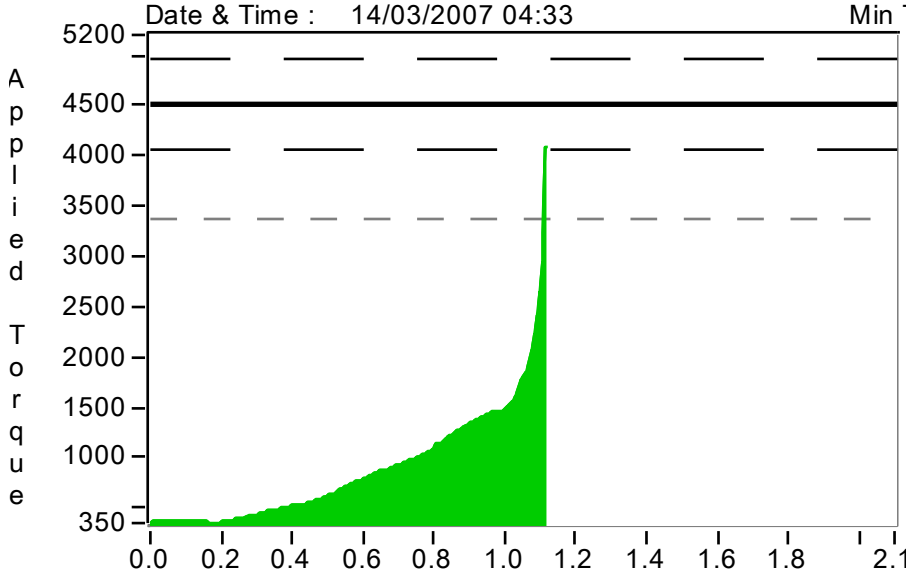
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 14/03/2007 04:29



Joint Number	186.
Applied Torque	4342
Shoulder Torque	1338
Delta Torque	3003
Turn Counter	0.50
RP	2.68
Time Taken	11.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

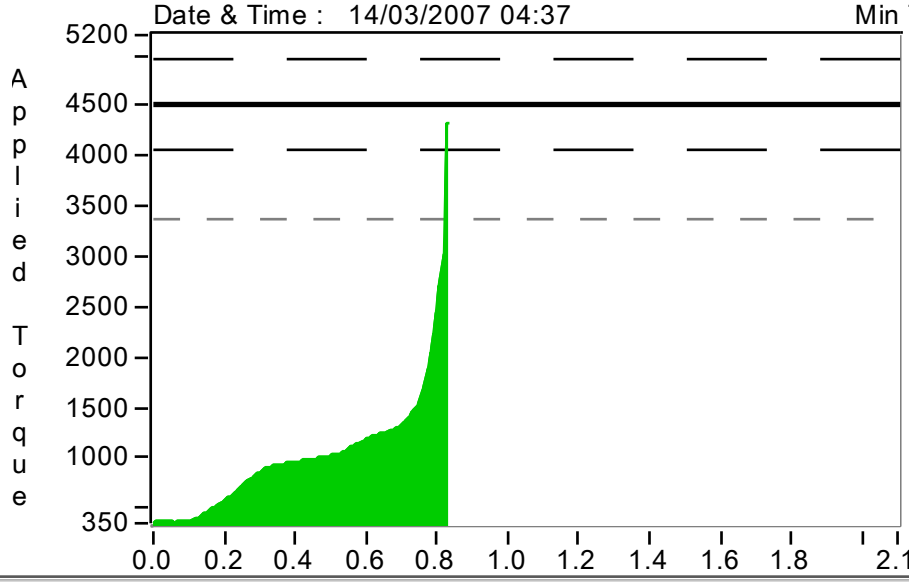
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 14/03/2007 04:33



Joint Number	187.0
Applied Torque	4093
Shoulder Torque	1576
Delta Torque	2517
Turn Counter	1.11
RP	2.94
Time Taken	22.6
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

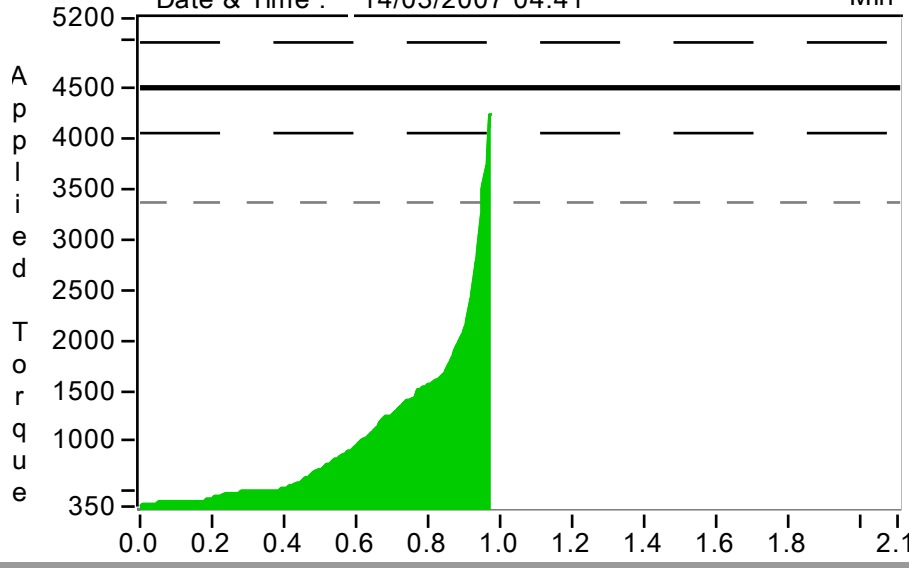
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Min Torque 4050 Preset Shoulder 3375
Date & Time : 14/03/2007 04:37



Joint Number	188.0
Applied Torque	4321
Shoulder Torque	1412
Delta Torque	2909
Turn Counter	0.82
RP	3.37
Time Taken	14.6
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

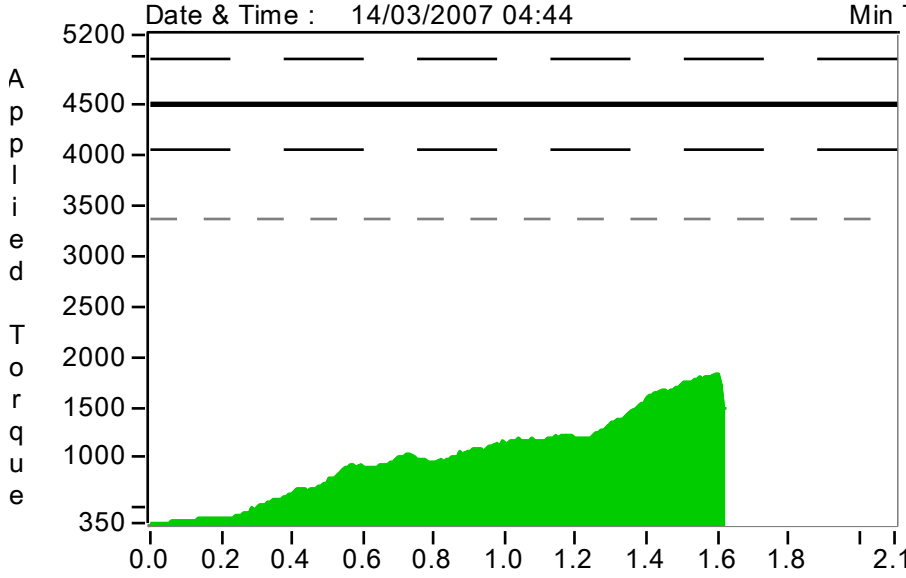
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 04:41
Min Torque 4050 Preset Shoulder 3375



Joint Number	189.
Applied Torque	4234
Shoulder Torque	1693
Delta Torque	2541
Turn Counter	0.96
RP	2.99
Time Taken	19.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

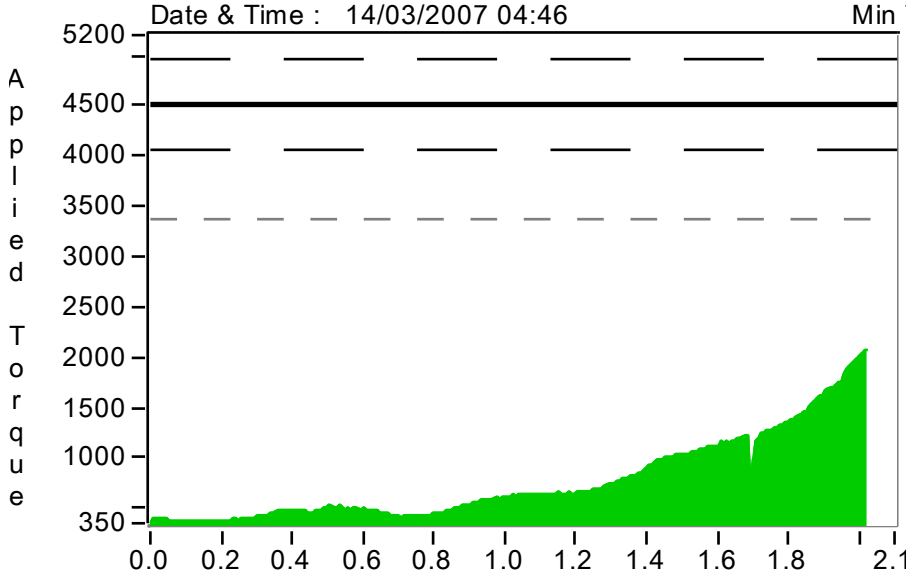
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 04:44
Min Torque 4050 Preset Shoulder 3375



Joint Number	190.0
Applied Torque	-31
Shoulder Torque	0
Delta Torque	-31
Turn Counter	1.62
RP	0.96
Time Taken	101.5
Status	ERROR
Reason	Manual Abort

Comment:
/ Re-Ran

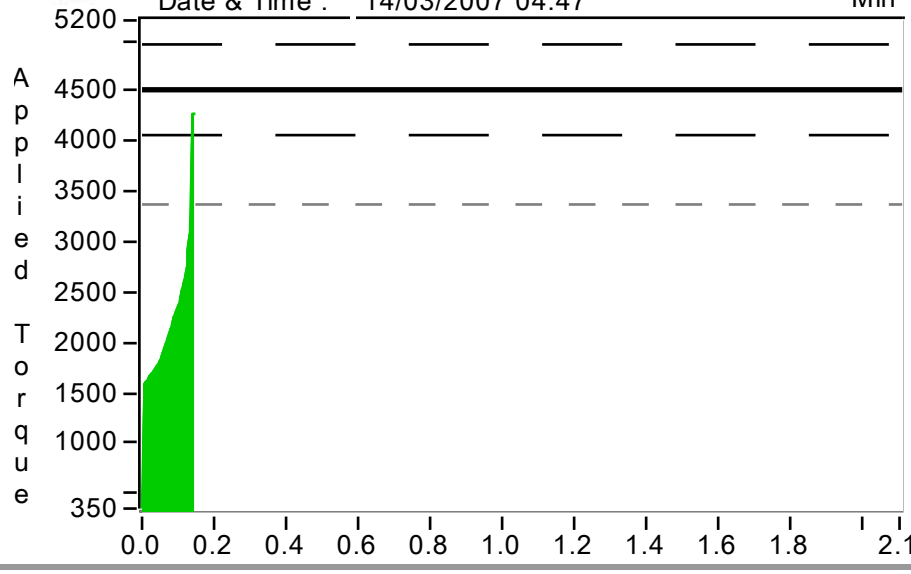
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 04:46
Min Torque 4050 Preset Shoulder 3375



Joint Number	190.1
Applied Torque	2060
Shoulder Torque	0
Delta Torque	2060
Turn Counter	2.01
RP	2.65
Time Taken	45.4
Status	ERROR
Reason	Max. Turns Exceeded

Comment:
/ SEE NEXT GRAPH

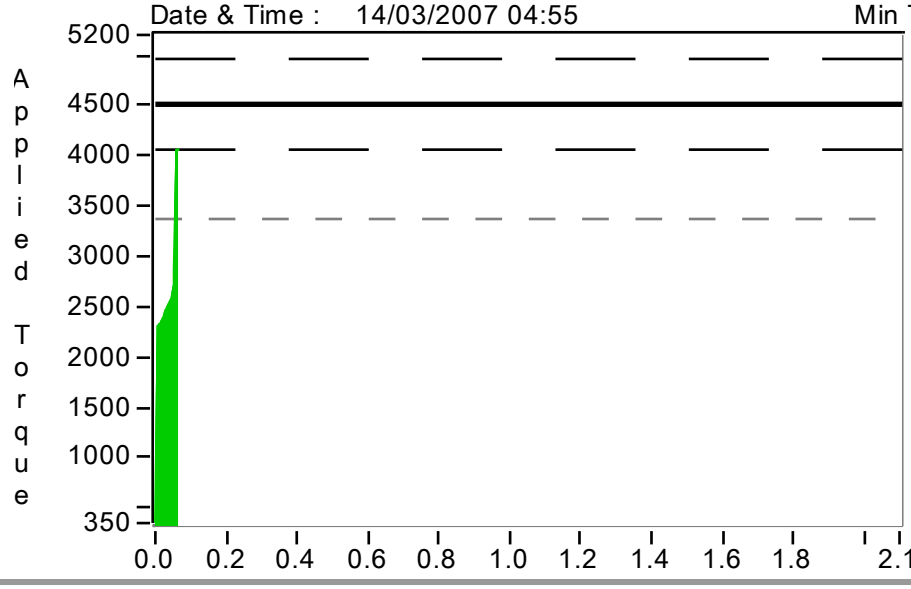
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 04:47
Min Torque 4050 Preset Shoulder 3375



Joint Number	190.
Applied Torque	4276
Shoulder Torque	0
Delta Torque	4276
Turn Counter	0.13
RP	2.80
Time Taken	2.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ Re-Ran

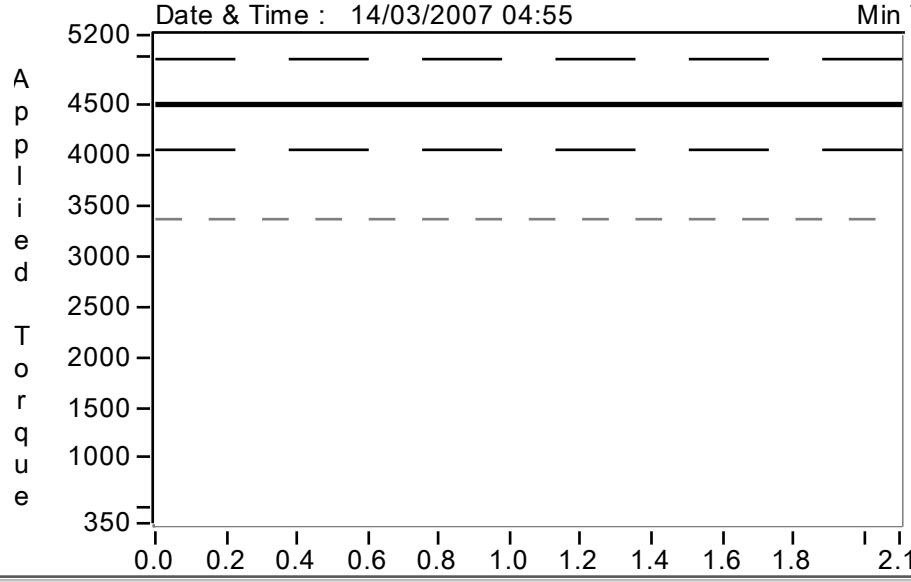
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 04:55
Min Torque 4050 Preset Shoulder 3375



Joint Number	191.0
Applied Torque	4064
Shoulder Torque	0
Delta Torque	4064
Turn Counter	0.05
RP	1.05
Time Taken	2.9
Status	OK
Reason	Joint Makeup OK

Comment:
/ Late Gear Change

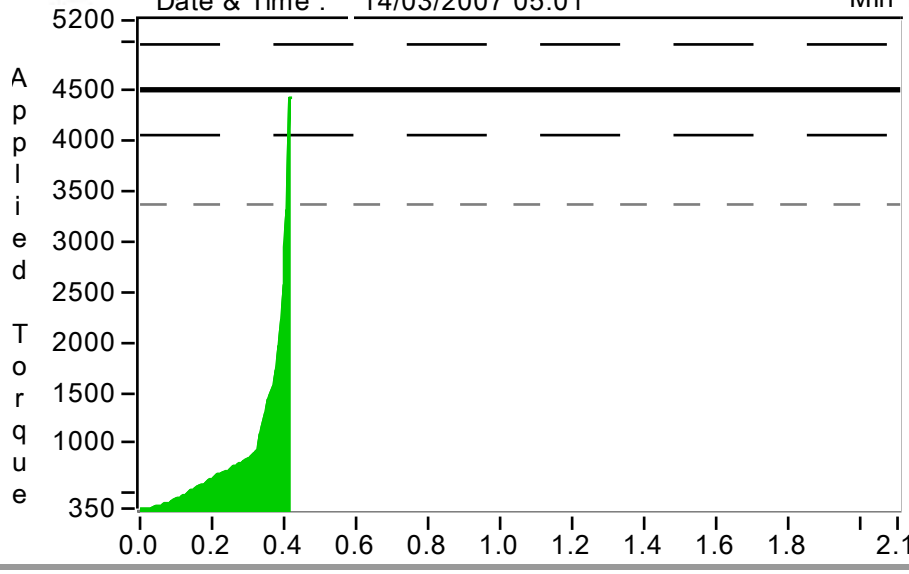
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 04:55
Min Torque 4050 Preset Shoulder 3375



Joint Number	192.0
Applied Torque	350
Shoulder Torque	0
Delta Torque	350
Turn Counter	0.00
RP	0.00
Time Taken	45.6
Status	ERROR
Reason	Manual Abort

Comment:
/ Galled Connection

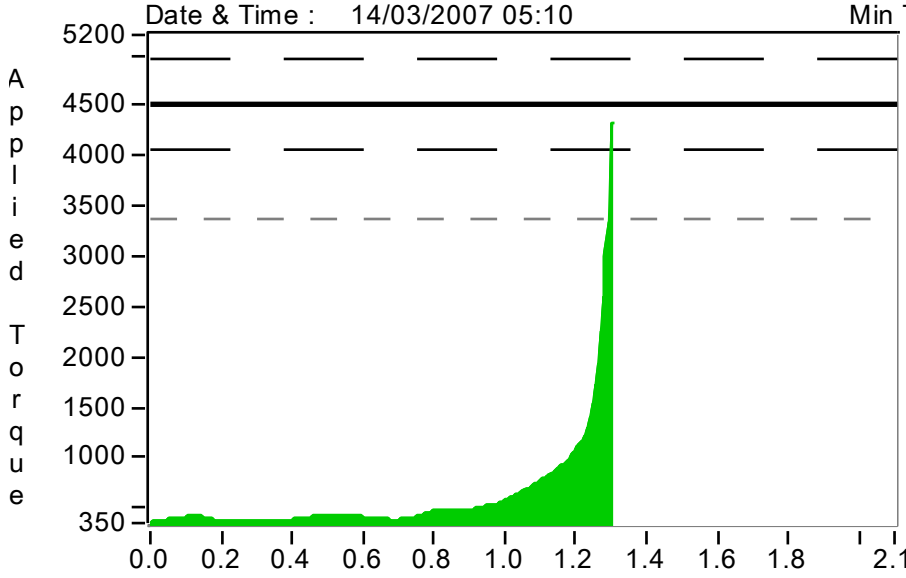
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 05:01
Min Torque 4050 Preset Shoulder 3375



Joint Number	192.
Applied Torque	4438
Shoulder Torque	962
Delta Torque	3475
Turn Counter	0.41
RP	3.98
Time Taken	6.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

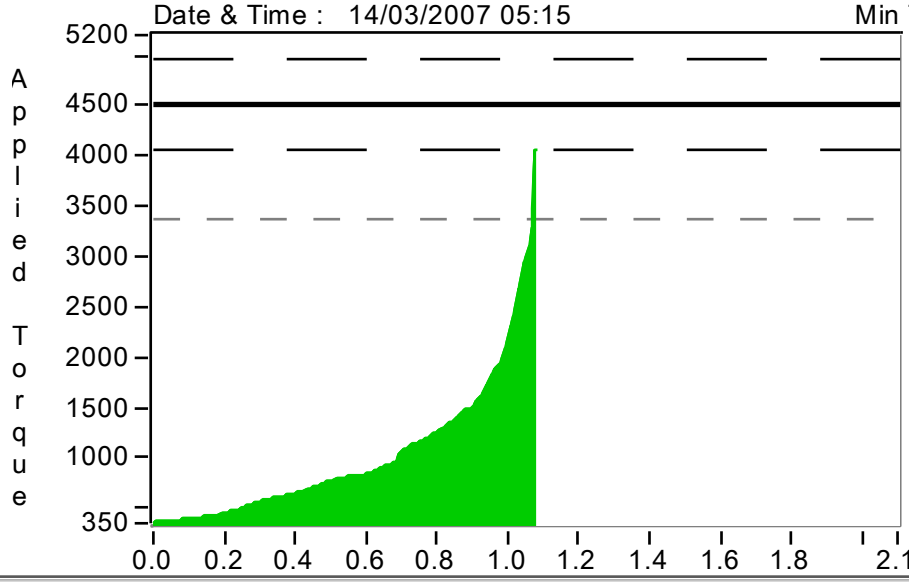
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 05:10
Min Torque 4050 Preset Shoulder 3375



Joint Number	193.0
Applied Torque	4312
Shoulder Torque	872
Delta Torque	3440
Turn Counter	1.29
RP	2.11
Time Taken	36.7
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

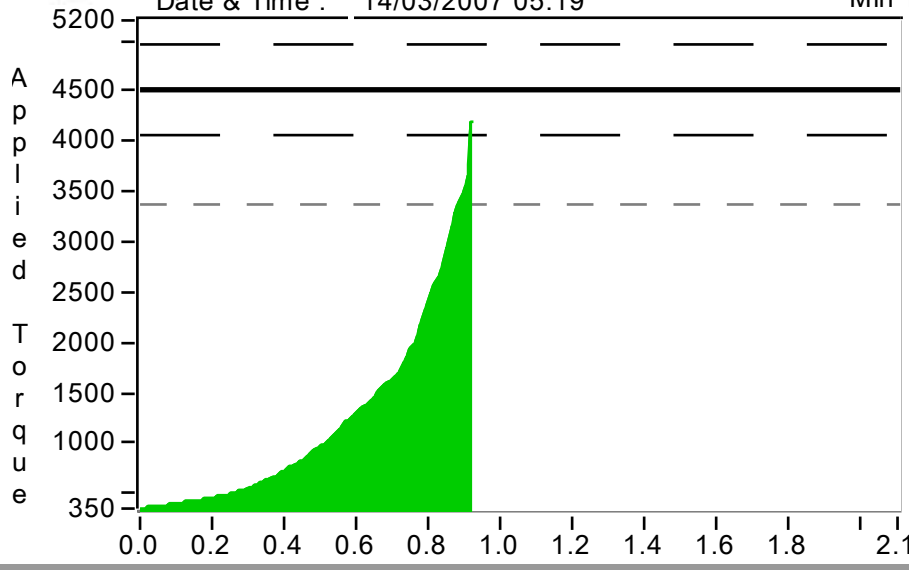
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 05:15
Min Torque 4050 Preset Shoulder 3375



Joint Number	194.0
Applied Torque	4051
Shoulder Torque	1491
Delta Torque	2560
Turn Counter	1.07
RP	4.00
Time Taken	16.0
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

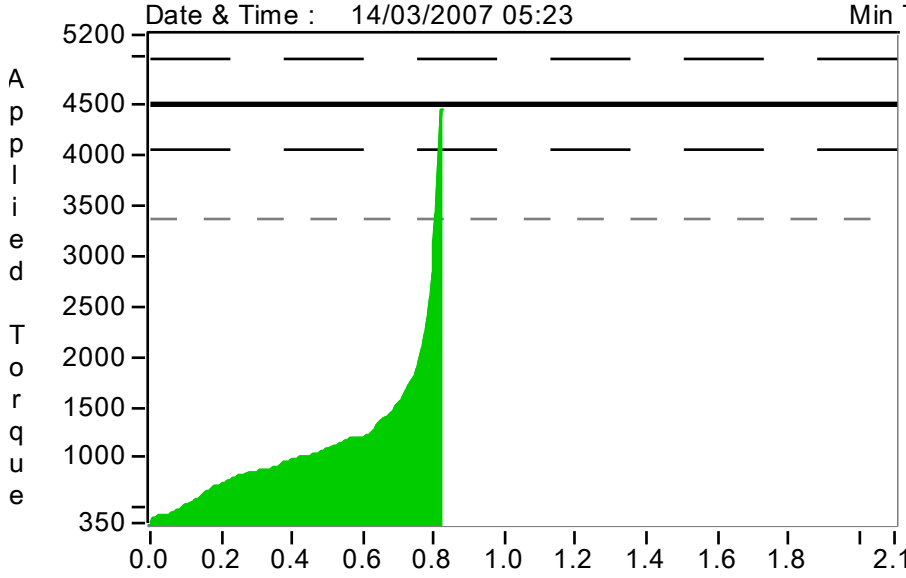
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 05:19
Min Torque 4050 Preset Shoulder 3375



Joint Number	195.
Applied Torque	4193
Shoulder Torque	1285
Delta Torque	2908
Turn Counter	0.91
RP	4.13
Time Taken	13.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

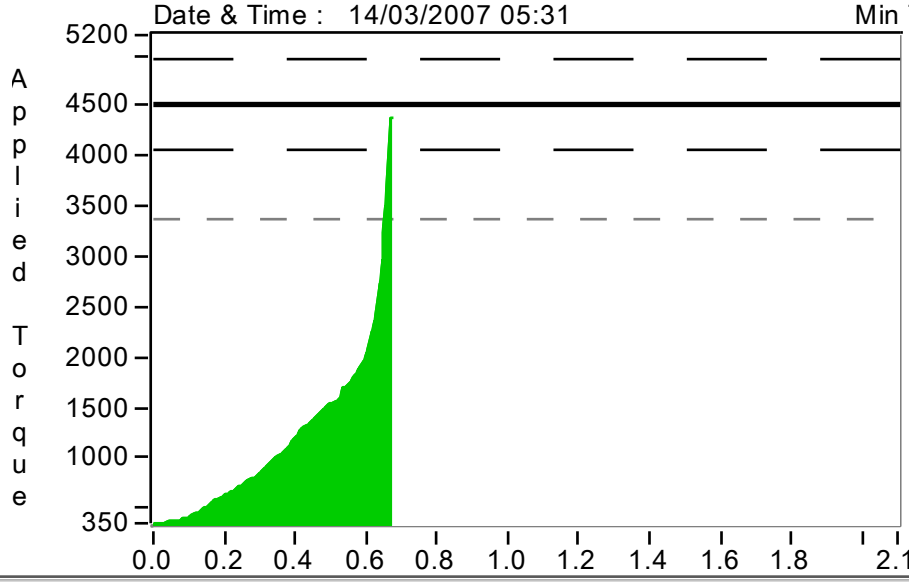
JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 05:23
Min Torque 4050 Preset Shoulder 3375



Joint Number	196.0
Applied Torque	4456
Shoulder Torque	1313
Delta Torque	3143
Turn Counter	0.81
RP	3.96
Time Taken	12.2
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80
Max Torque 4950 Optimum 4500
Date & Time : 14/03/2007 05:31
Min Torque 4050 Preset Shoulder 3375



Joint Number	197.0
Applied Torque	4366
Shoulder Torque	1815
Delta Torque	2552
Turn Counter	0.66
RP	4.02
Time Taken	9.8
Status	OK
Reason	Joint Makeup OK

Comment:
/ R.POOLE

Customer: **CENTURY**

Well Name: **CRC-1**

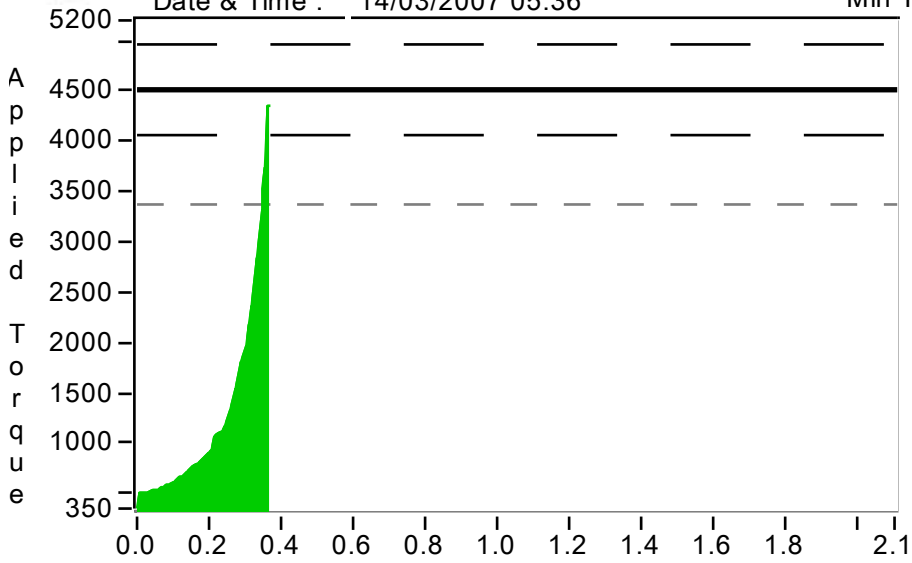
Printed on: Friday, 16 March 2007

JFE BEAR Tubing 4.5" 12.6lb/ft 13CR80

Max Torque 4950 Optimum 4500

Min Torque 4050 Preset Shoulder 3375

Date & Time : 14/03/2007 05:36



Joint Number	198.
Applied Torque	4362
Shoulder Torque	701
Delta Torque	3661
Turn Counter	0.36
RP	2.34
Time Taken	9.2
Status	OK
Reason	Joint Makeup OK

Comment:

/ R.POOLE

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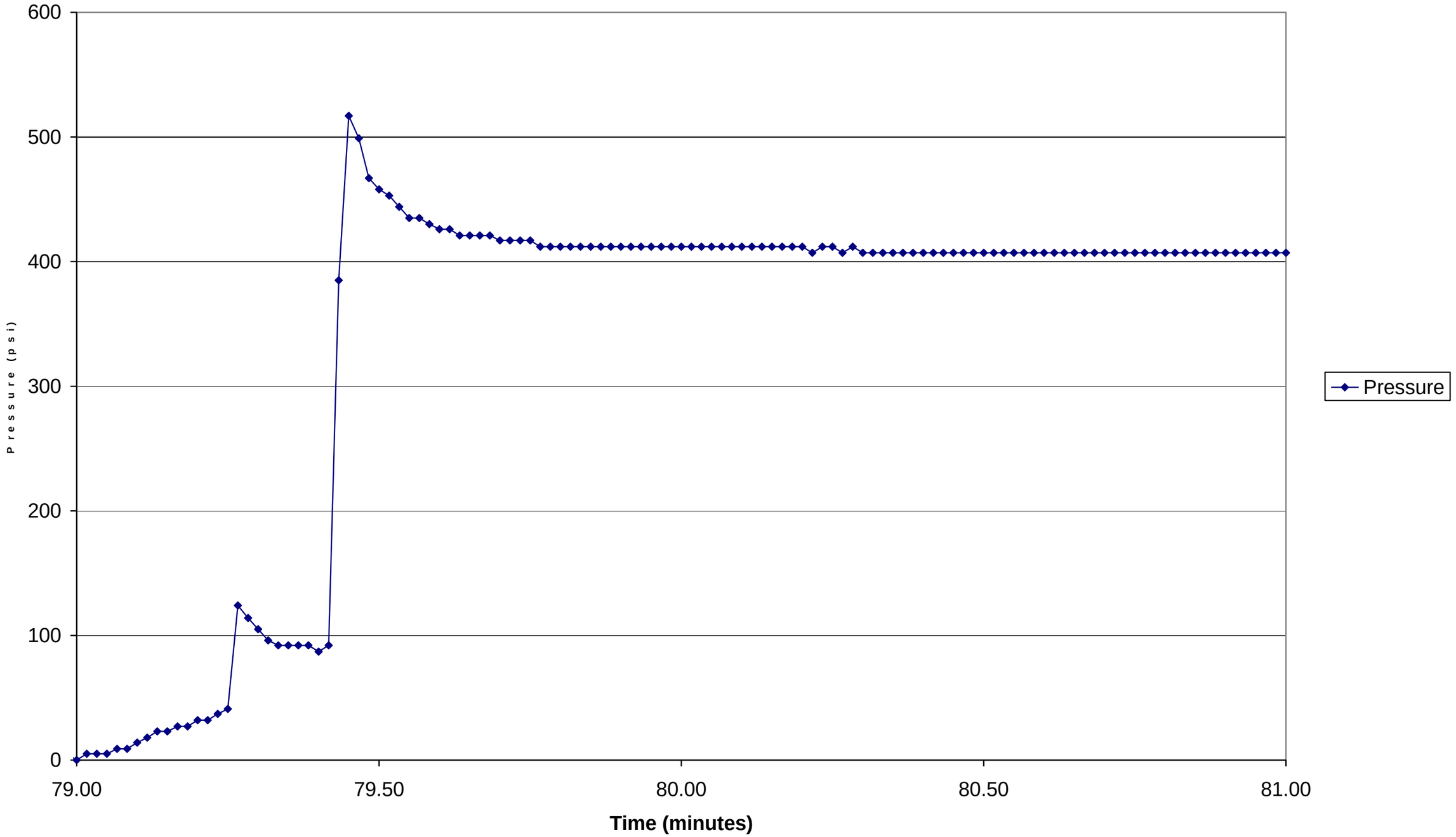
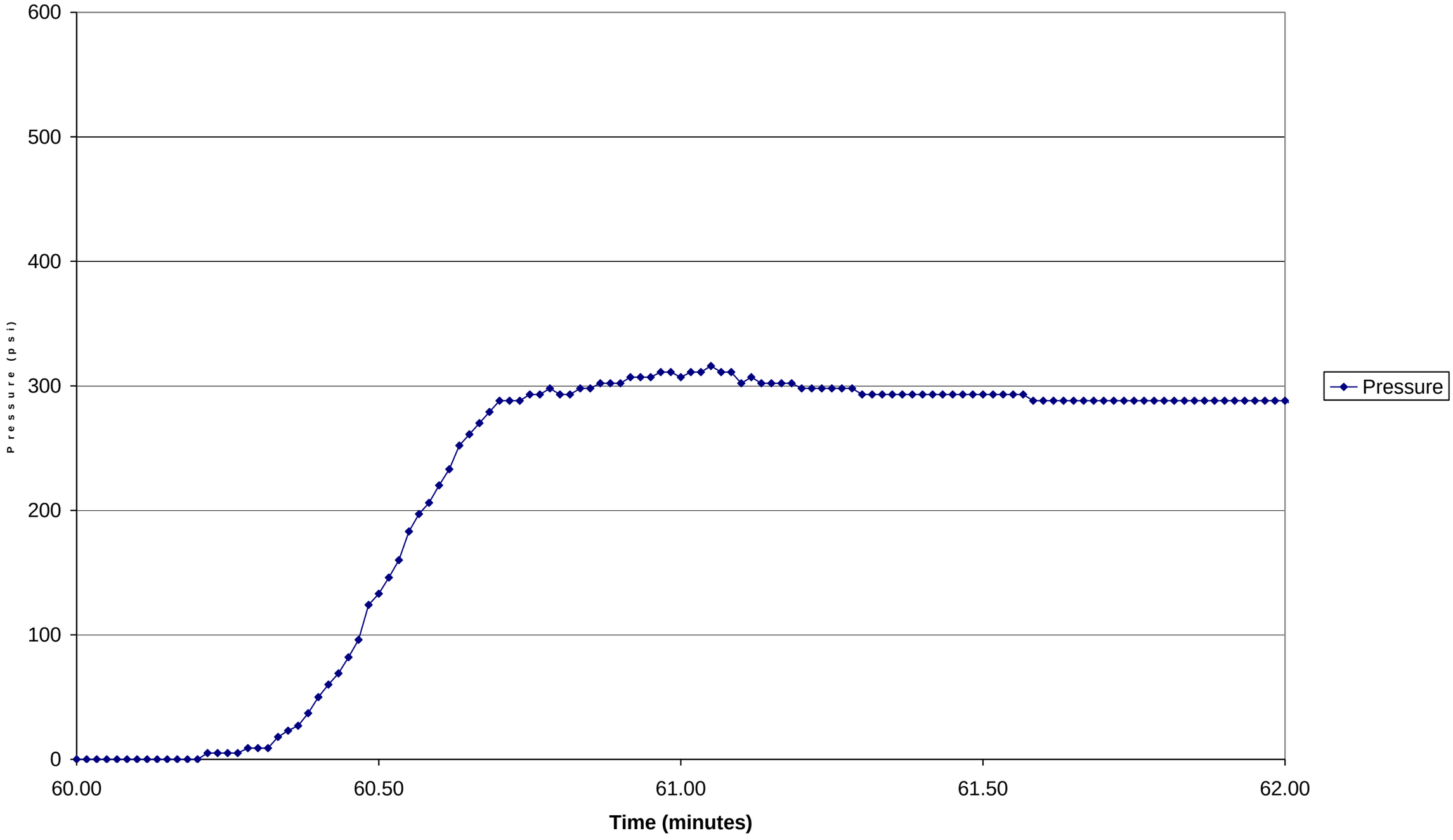
ATTACHMENT 12 : EXTENDED LEAK OFF TEST REPORTS

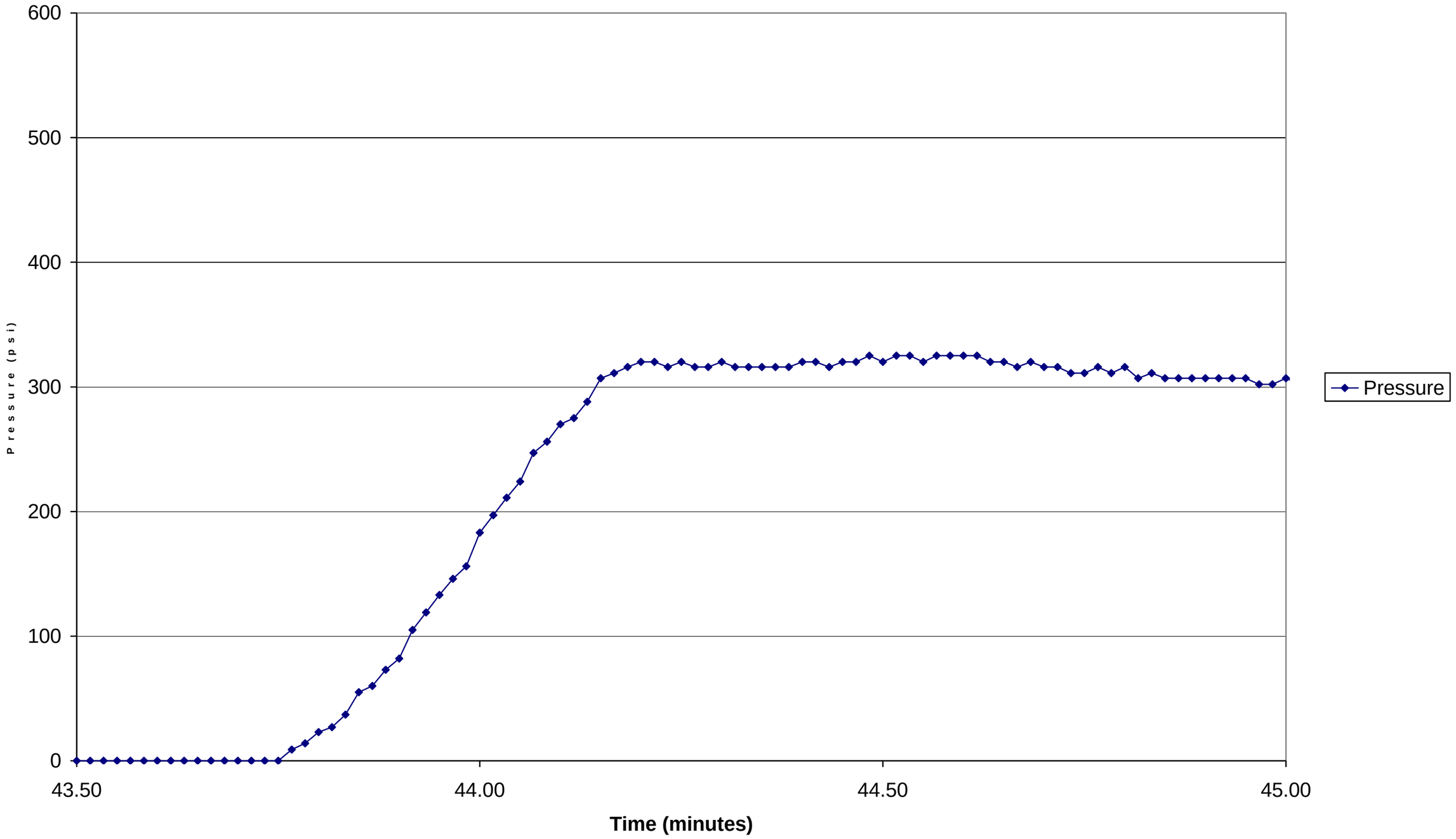
Time Plot CRC-1 LOT Bleed Back

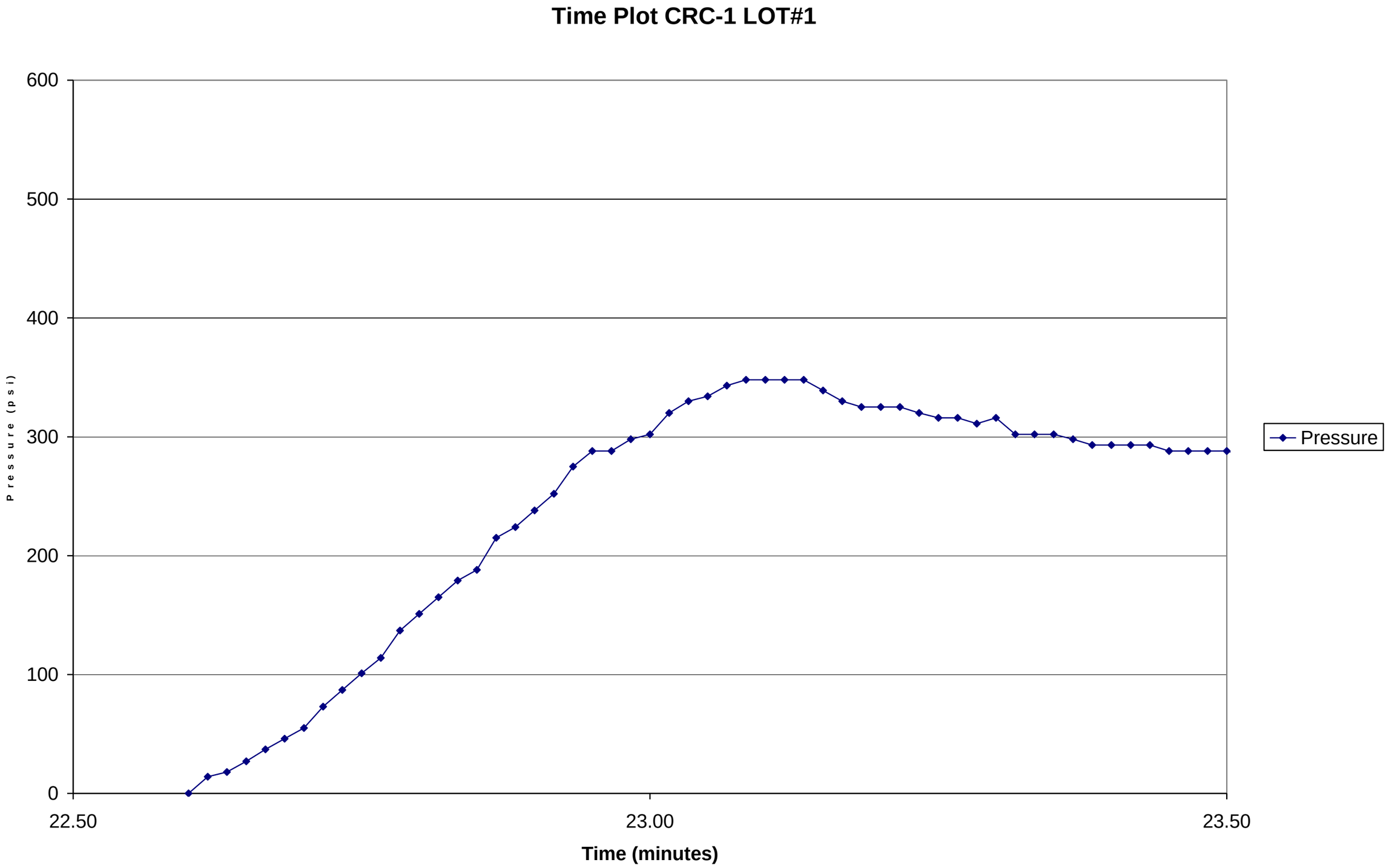


Time Plot CRC-1 LOT#3

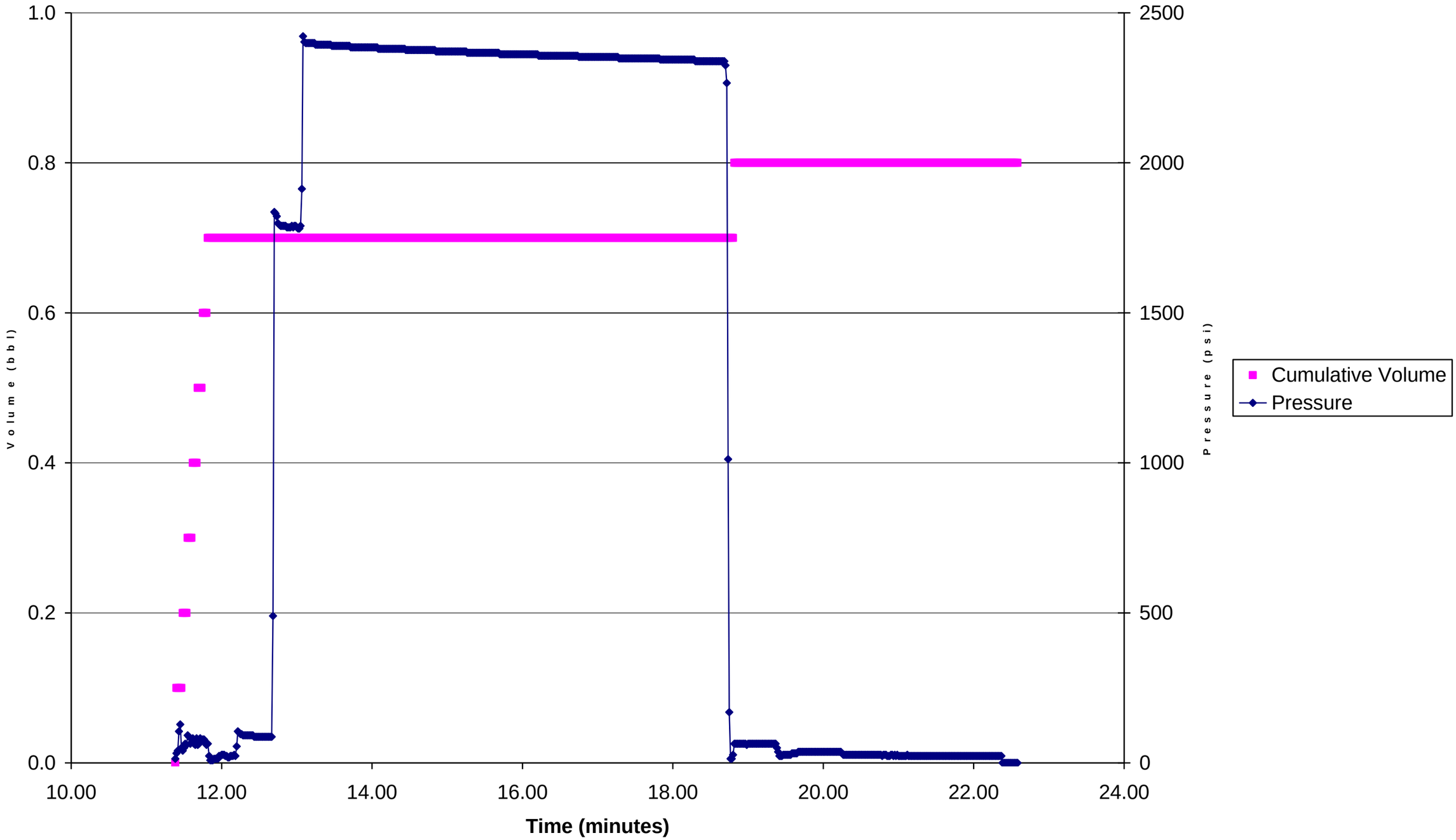


Time Plot CRC-1 LOT#2

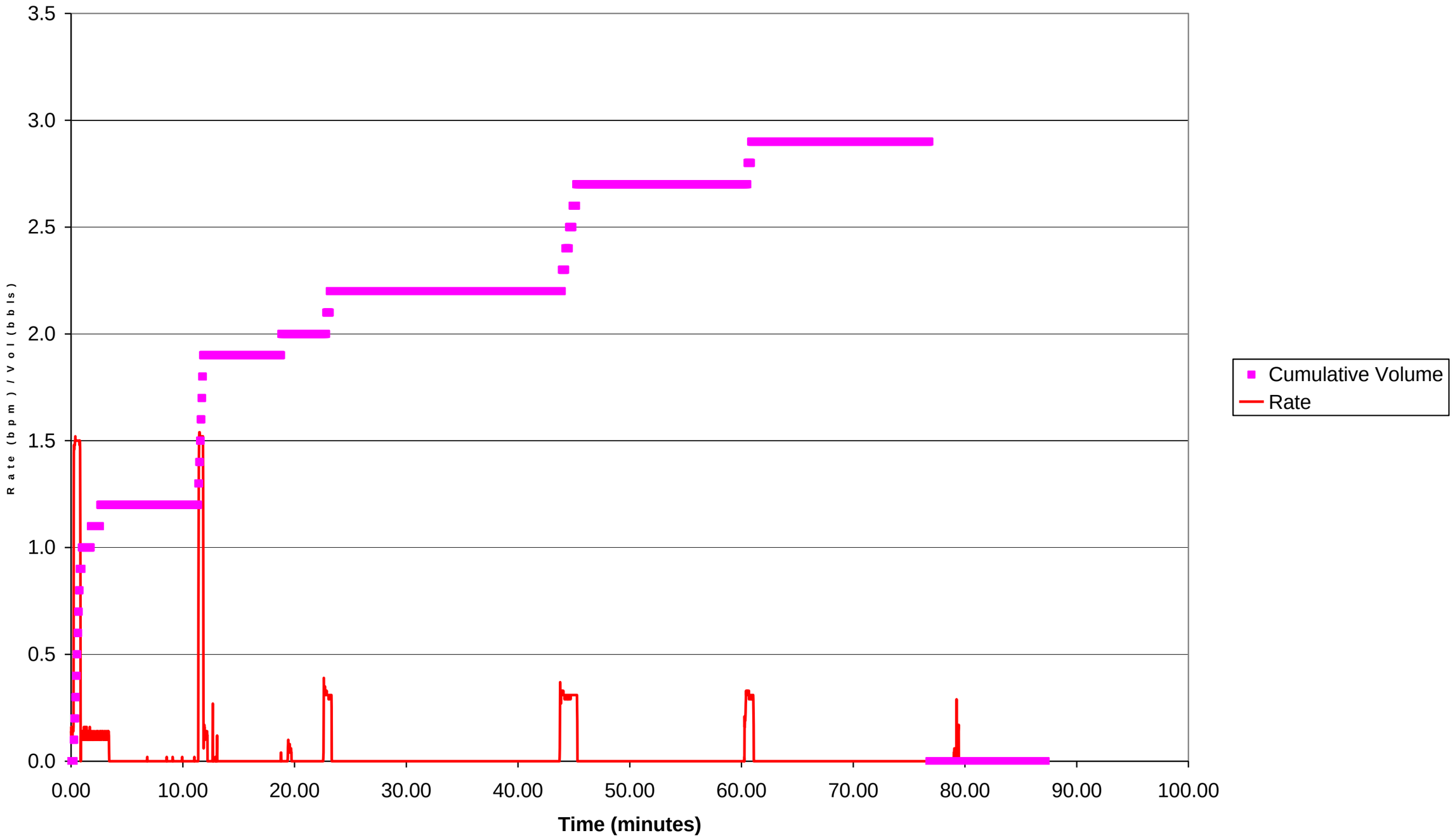



Time Plot CRC-1 LOT#1
600
500
400
300
200
100
0
Pressure (psi)
22.50
23.00
23.50
Time (minutes)
Pressure

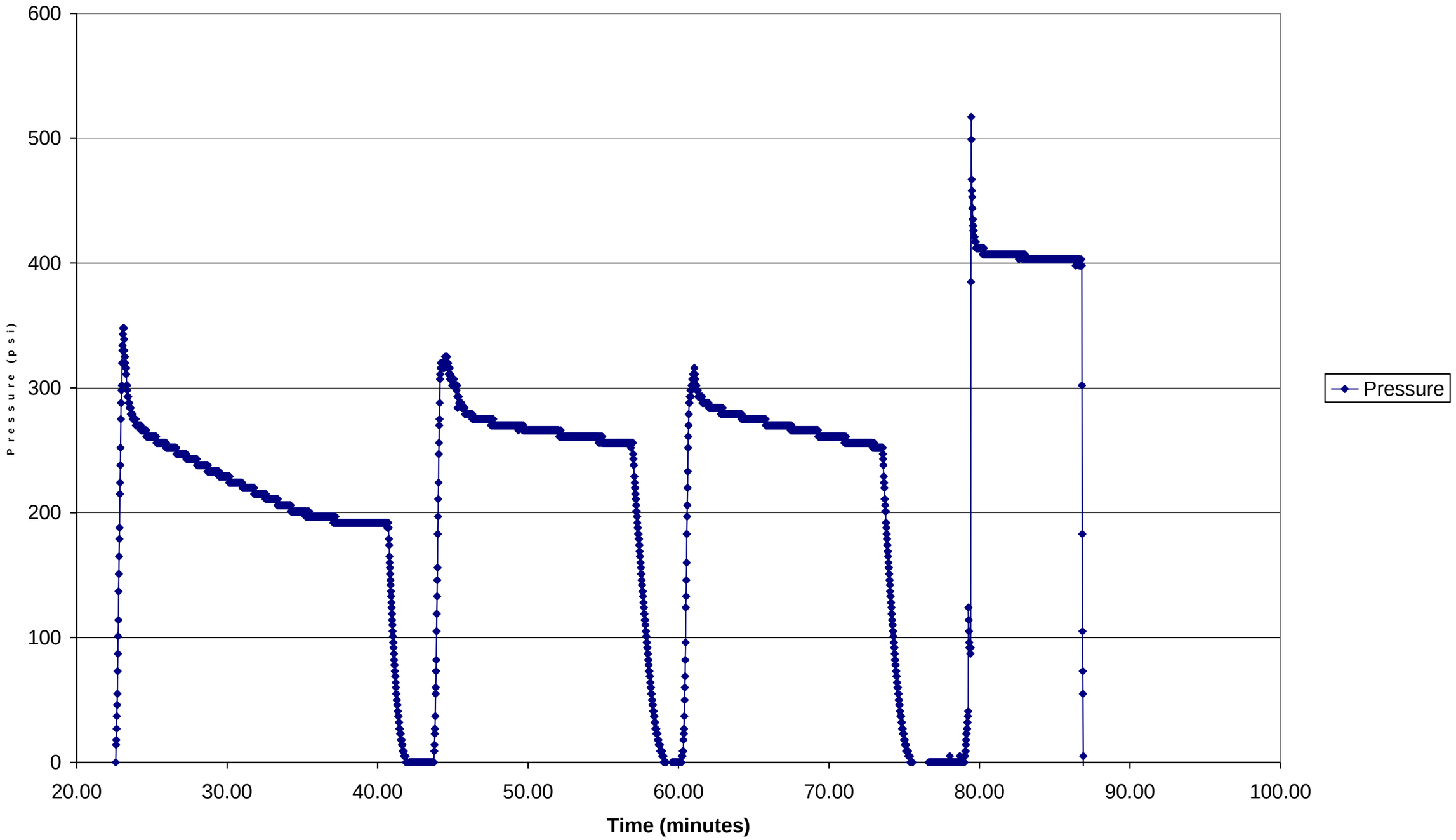
Time Plot CRC-1 Extended LOT



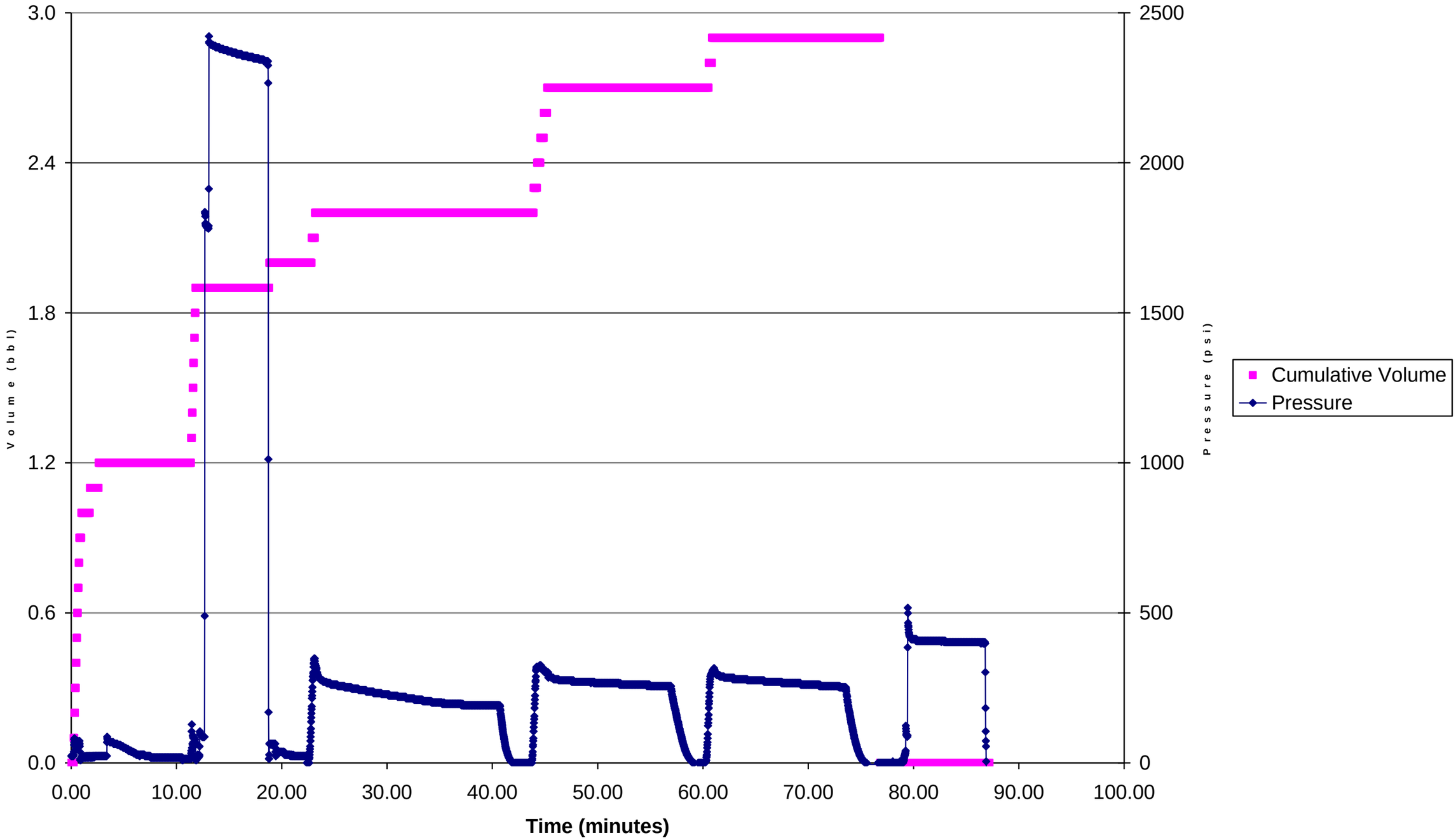
Time Plot CRC-1 X-LOT Volume & Rate



Time Plot CRC-1 Extended LOT

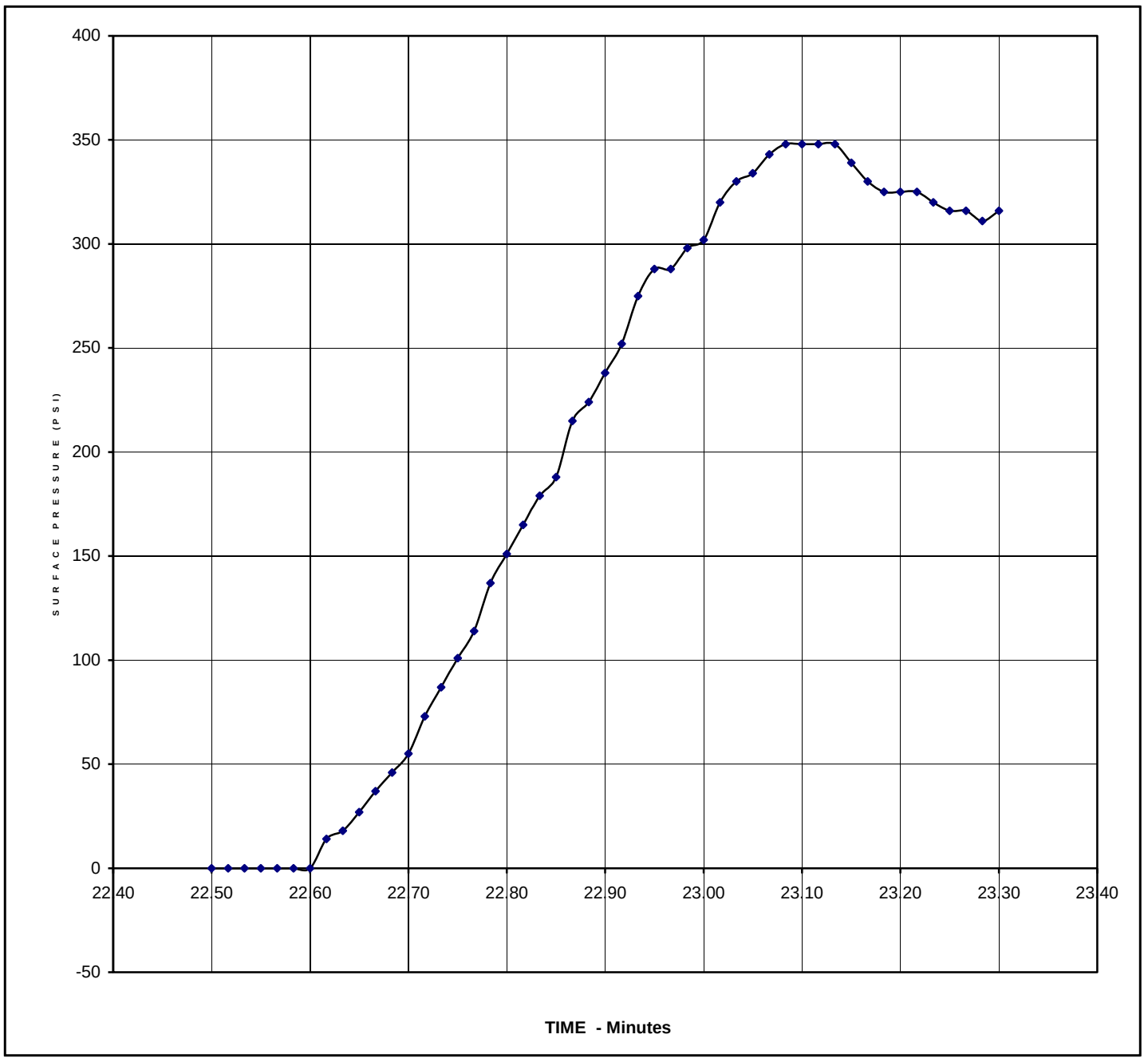


Time Plot CRC-1 Extended LOT



FORMATION LEAK OFF TEST

WELL:	CRC-1							
RIG:	Century 11							
TESTED BELOW:	9-5/8" Shoe				*DATE:*	20-Feb-07		
CASING SHOE DEPTH:	512.00	metres.MD	512.00	metres TVD	*VIS*	44.0	secs	
HOLE DEPTH:	519.00	metres MD	519.00	metres TVD	*P.V.*	4.0	cp	
MUD WEIGHT:	9.10	ppg			*Y.P.*	30.0	lb/100ft2	
FLUID PUMPED/RETURNED:	NR	BBL	NR	BBL	*GELS*	21/30		
FORMATION IN OPEN HOLE:	Narrawaturk Marl							



SURFACE LEAK OFF PRESSURE:	350.0	psi	
FORMATION STRENGTH:	1144.9	psi	Calculated
EQUIPVALENT MUD WT:	13.11	ppg	Calculated

REMARKS:	Fresh water in lines. Data recorded on DS unit. Also recorded by BHI mud loggers.

Time plotted - not barrels. DS data returned below zero line. BHI data gave 13.3 ppg. Old mud in hole. Mud Engineer confirmed as 9.1ppg

SUPERVISED BY:	Peter Van Ruth (Summary Terry Greaney)

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ATTACHMENT 13 : MDT INFORMATION

CO2 CRC

CRC-1 MDT Results

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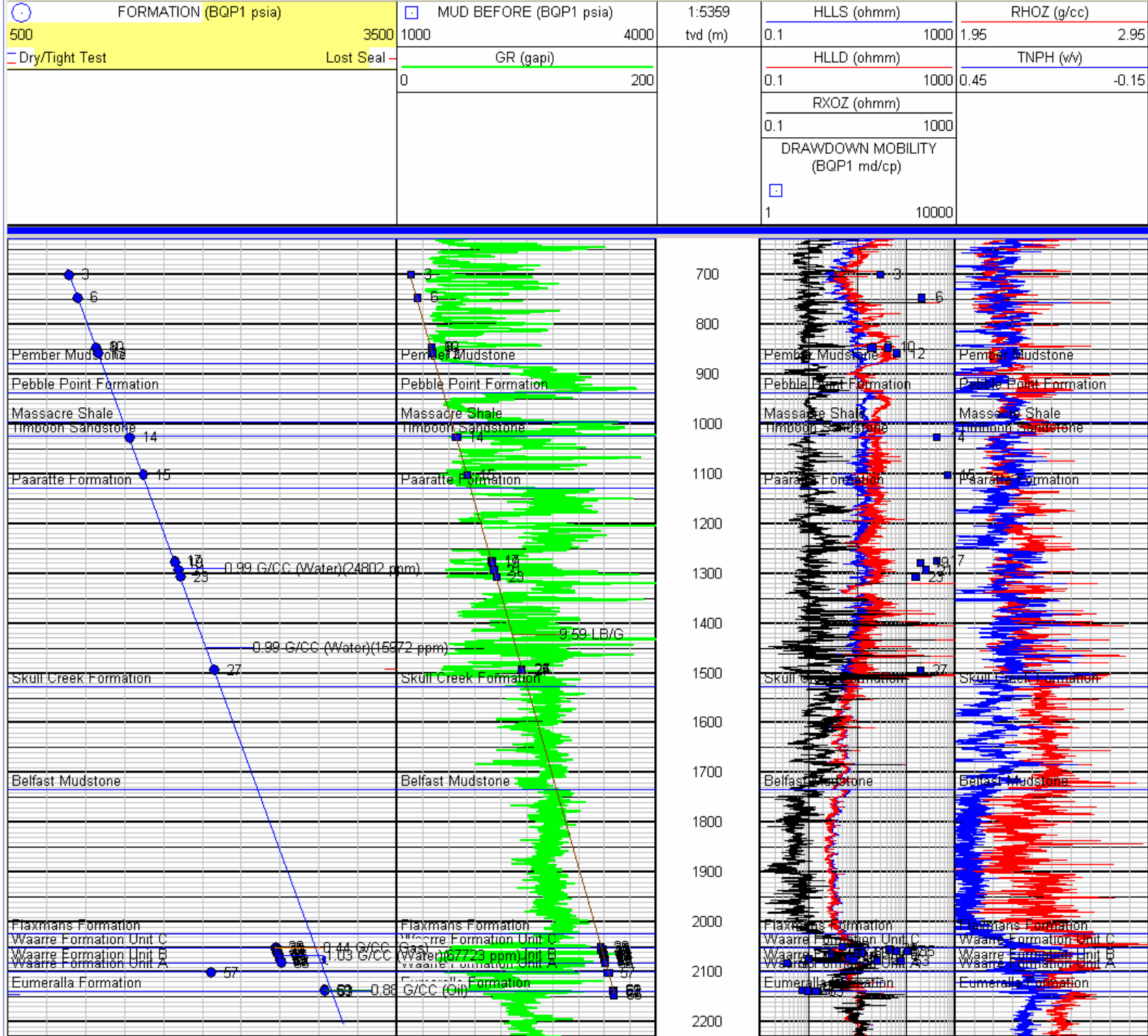
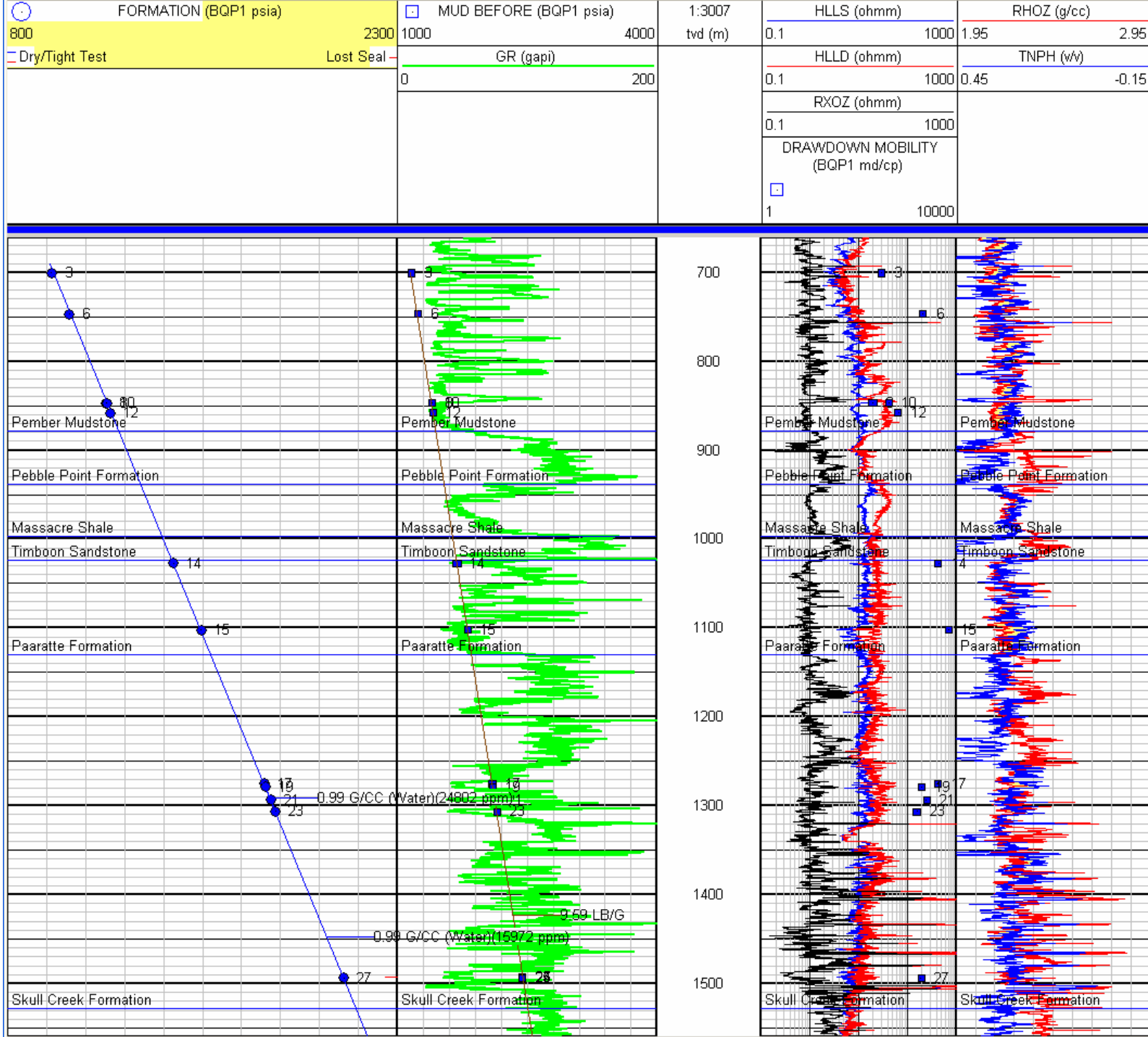
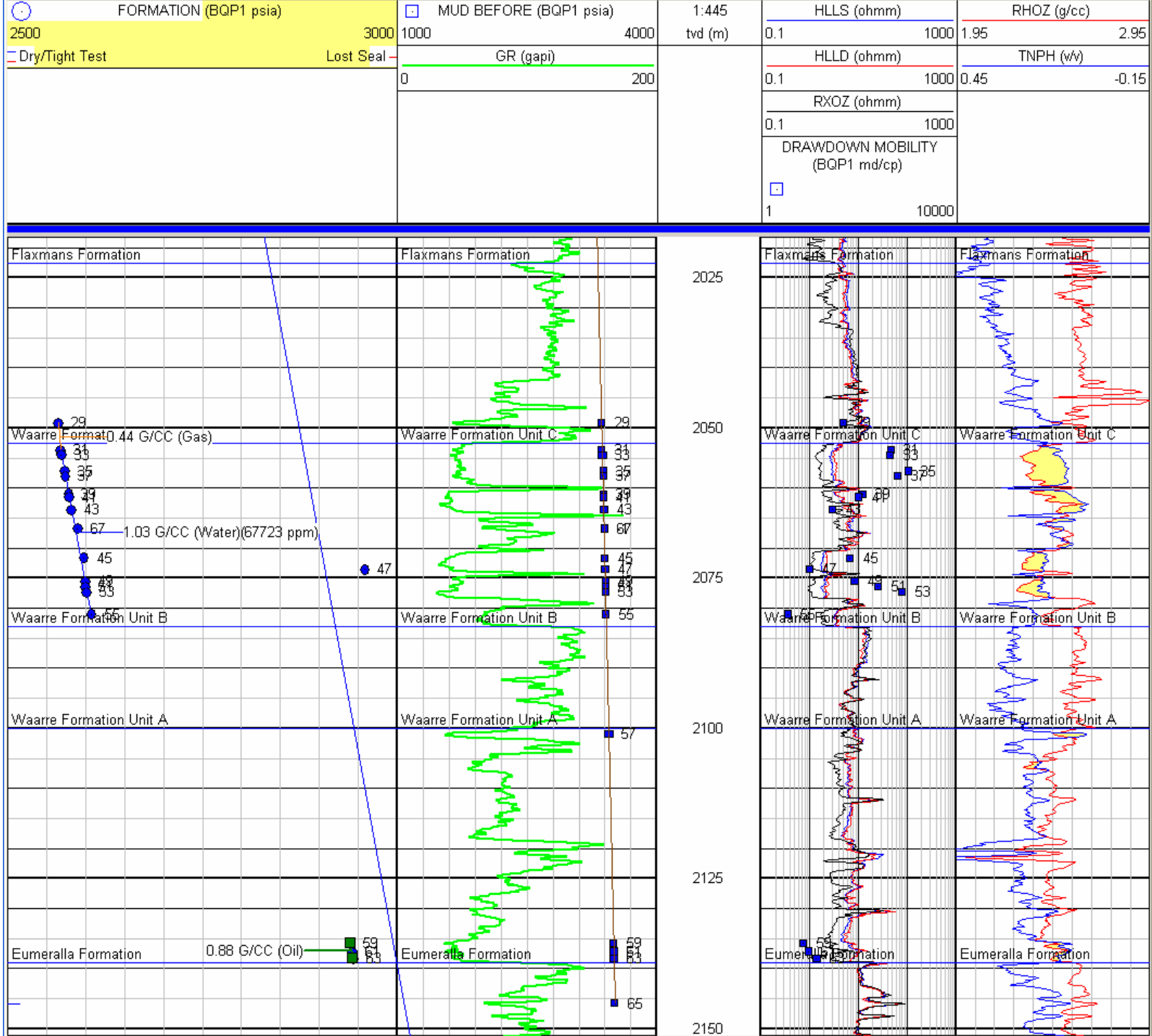
MDT Pretest Survey



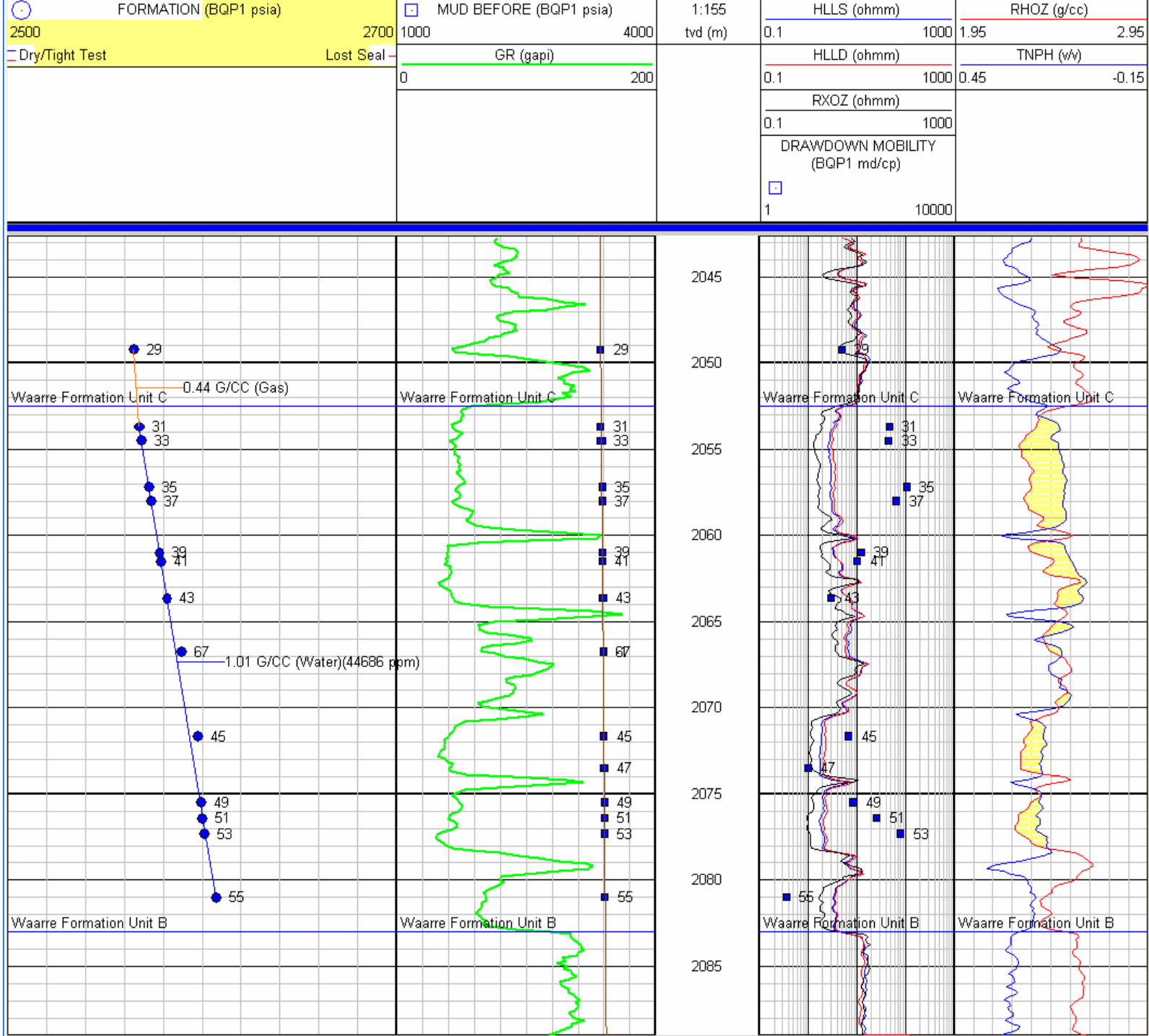
Dilwyn to Skull Creek Formations



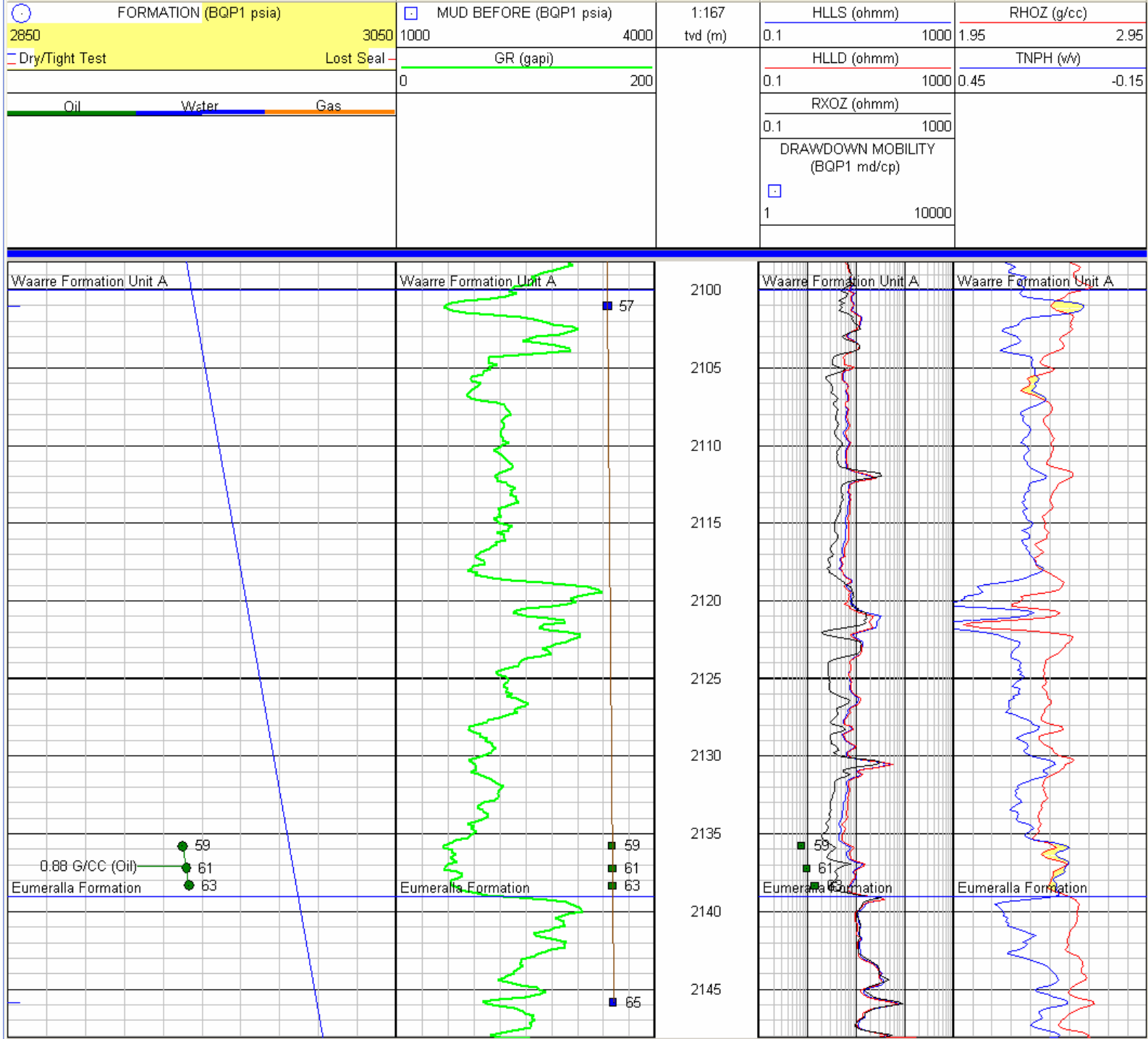
Flaxmans to Eumeralla Formations



Waarre Formation Unit “C”



Waarre Formation Unit “A”



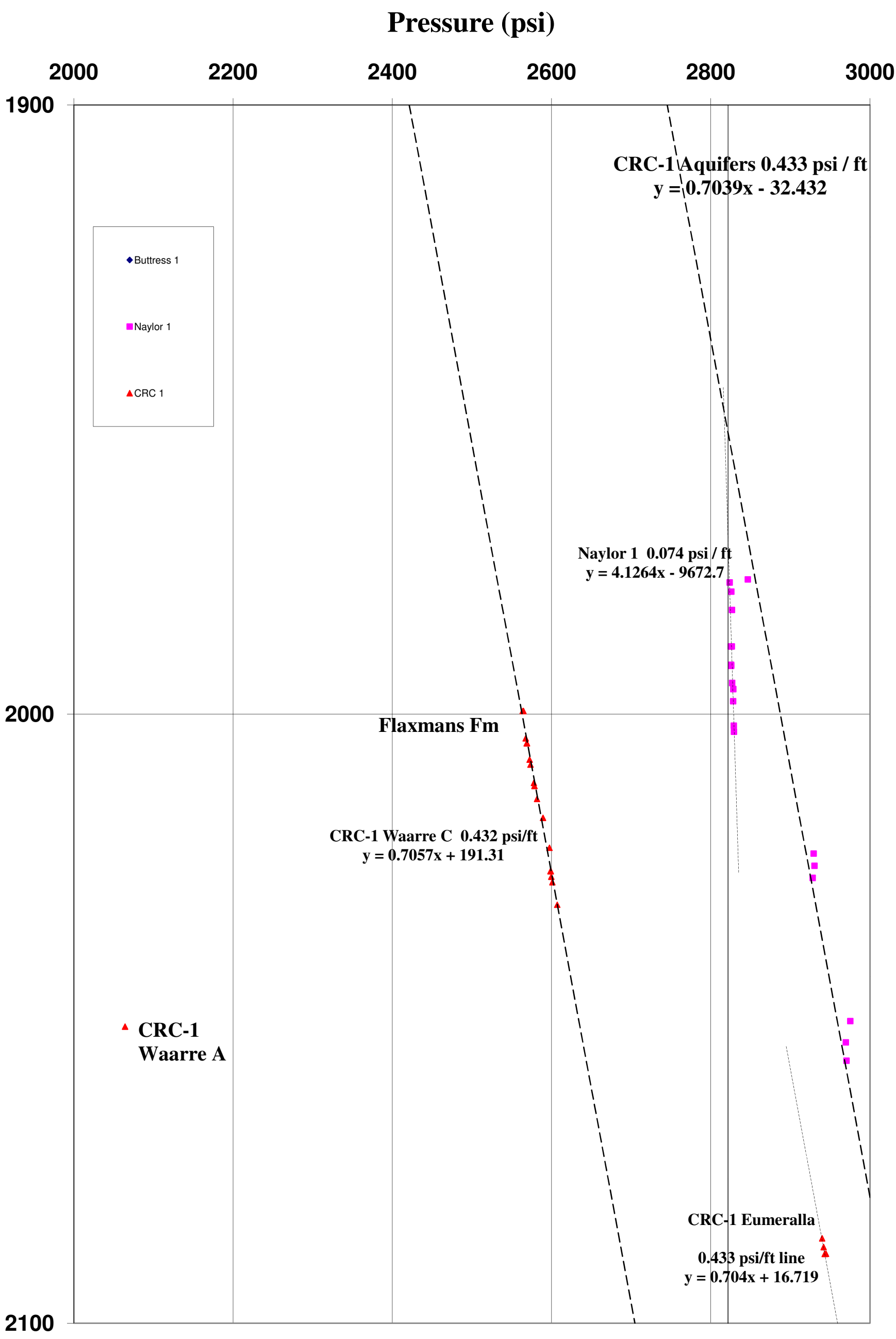
Sample Summary

File #	MD m	Sample Bottle #	Fluid Type (from LFA)	Pumped Volume litres	Temp * DegC	Rw * ohm-m
102	700.0	1	water	127.0	45.1	0.248
104	1278.6	2	water	92.0	57.2	0.750
110	2138.8	3	water	12.6	87.7	0.067
112	2075.5	4	water	43.0	84.5	0.090
113	2054.5	5	water	60.0	83.1	0.100
118	2049.2	6	gas	11.6	81.7	n/a

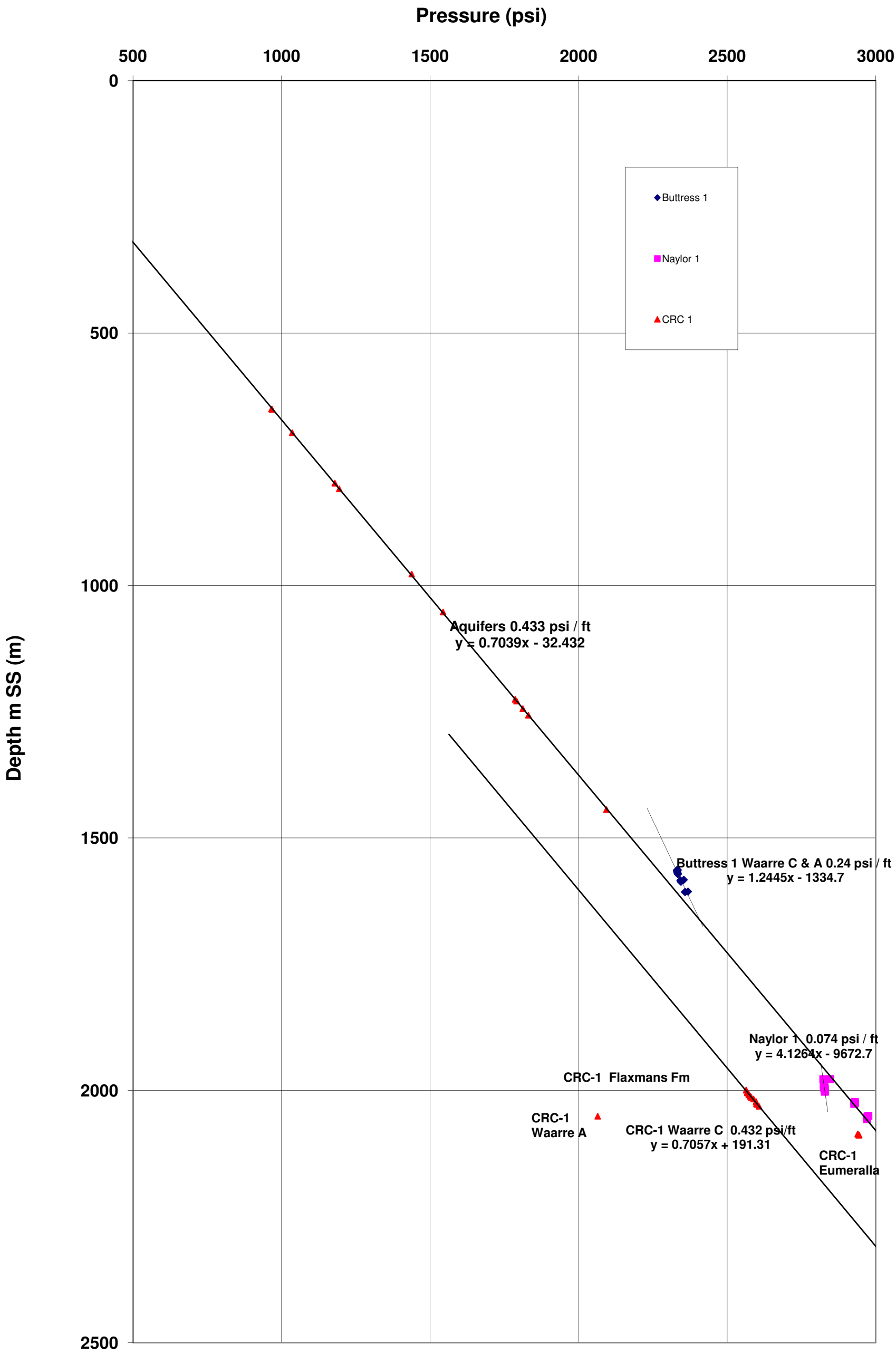
* Temperature and Rw measured by the MDT resistivity cell

Schlumberger

CRC-1 & Naylor 1 Pressure Data



CRC-1, Naylor 1 & Buttress 1 RFT Data



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ATTACHMENT 14 : CORING REPORT

Core Job Summary

Operator	CO2CRC
Contractor	Century
Rig	11
Well	CRC-1
Area	Otway Basin
Country	Australia

Hole Size		6-3/4"
Last Casing		7-5/8"
Shoe Depth	m	512
HTHP Well		No
Hole Angle		
Mud Type		Water Base
Mud Wt	ppg	8.95
Driver		Kelly

Field name	
Formation Age	
Formation Name	Pember
Lithology	Mudstone
Barrel Size	4-3/4 x 2-9/16

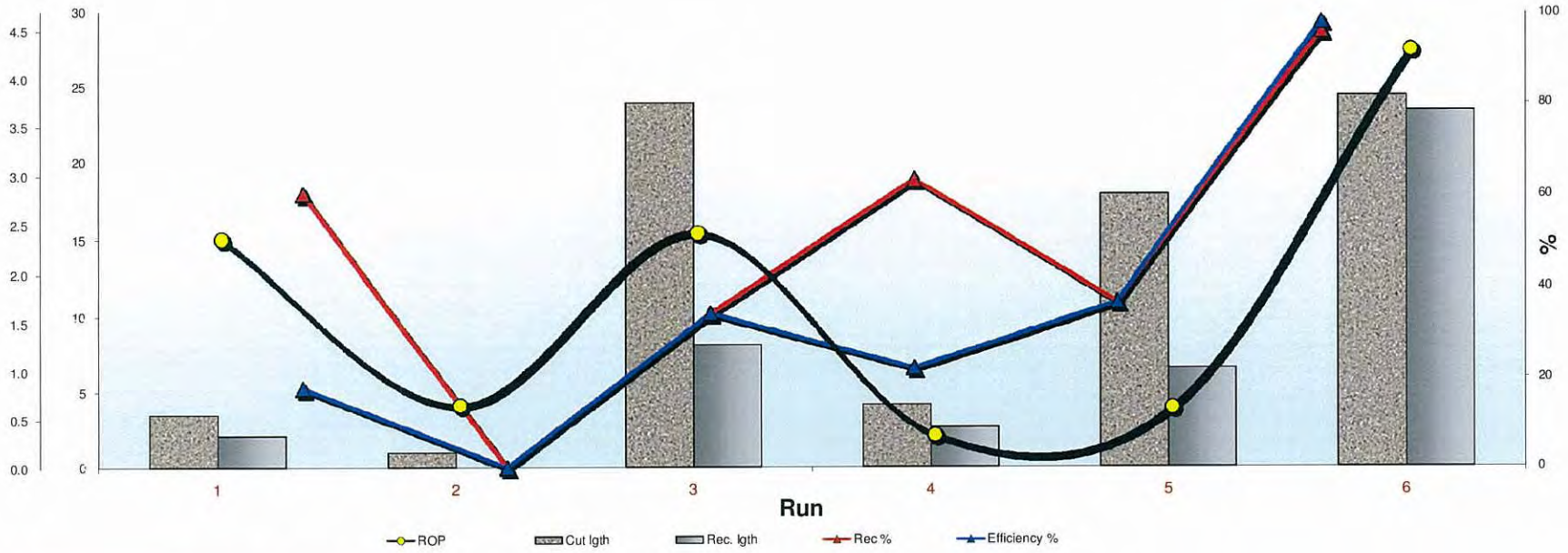
Job Number		35720	
Service Engineer		Service Engineer	
Date On		Blakeley	
Date Off			

Additionnal Services

Core Processing Module	
Gamma-Ray	
Corpro Core Container	X
Corias Core Imaging	
Plugging and Trimming	
Tracer Technologies	
Core Quick View (CQV)	

Preservation Services

Waxing	X
Gypsum	
Foam Injection	
Freezing	
Resination	



Total Cut	75.2	m
Total Recovered	43.1	m
Overall % Recovered	57.2	
Total Hours	62.3	
Overall ROP	1.2	

CORING SUMMARY

Operator	CO2CRC
Contractor	Century
RIG	11
Well #	CRC-1
Country	Australia
Area	Otway Basin

Hole size	6-3/4"	
Casing dia	7-5/8"	
Shoe depth	512	m
Well angle		
Mud type	Water Base	
Mud WT	8.95	ppg

Job # 35720

Service eng. names	
Blakeley	
Date On / Date Off	

Core#	Corehead		Corebarrel				Core							
	SN	Type	Size	Lgth	TSS	IT type	Depth in	Cut lgth	Rec. lgth	%	Hrs	Rop	Lithology	Formation
1	08-3719	MCP662	4-3/4 x 2-9/16	12	YES	On Ice	915.0	3.5	2.1	60	1.5	2.3	Mudstone	Pember, Mudstone
2	08-3719	MCP662	4-3/4 x 2-9/16	24	YES	On Ice	1245.0	1			1.6	0.6	Claystone	
3	08-3719	MCP662	4-3/4 x 2-9/16	24	YES	On Ice	1246.0	24	8.2	34	10.0	2.4		
4	08-3719	MCP662	4-3/4 x 2-9/16	12	YES	On Ice	1900.0	4.2	2.65	63	13.5	0.3	Mudstone	Belfast
5	08-3719	MCP662	4-3/4 x 2-9/16	18	YES	On Ice	2033.0	18	6.6	37	30.0	0.6	Silt / Shale	Flaxmans, Waare C
6	08-3719	MCP662	4-3/4 x 2-9/16	24	YES	On Ice	2051.0	24.5	23.5	96	5.7	4.3	Inter SST	Waare C
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														
26														
27														
28														
29														
30														

Total Cut	75.2	m
Total Recovered	43.1	m
Overall % Recovered	57.2	
Total Hours	62.3	
Overall ROP	1.2	

Remarks:

Customer	Corpro
K Murphy	Blakeley

PARAMETERS

JOB NUMBER	35720

Runs	2

Well information	
Country	Australia
Operator	CO2CRC
Contractor	Century
Customer Rep.	K Murphy
Corpro Office	FE
Well #	CRC-1
Rig	11
Field Name	
Area	Otway Basin
Quadran	
Block	
Sub/Block	
No	
Longitude	
Latitude	
Hole Data	
Angle	0
Hole diameter (in)	6-3/4"
Casing Diam. (in)	7-5/8"
Shoe depth	512 m
Drive	Kelly
Mud Type	Water Base
HTHP Well	No
Lithology	
Formation Age	

Barrel Size
4-3/4 x 2-9/16

Version 1.28

Client

RUN#	IT	TSS	Vented	Oriented	Motor	Rathole	Soft Catch	Easy Entry	Fast Ball Sub	Orenoc Catcher	Jam Show	Gyro-Head	Cocoon	Gas Trapper	Sealed Bearing	BHA DATA: Directional	BHA DATA: Circulating Sub	BHA DATA: Float Sub
1	On Ice	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐
2	On Ice	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐
3	On Ice	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐
4	On Ice	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐
5	On Ice	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐
6	On Ice	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐
7		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
8		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
9		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
10		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
11		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
12		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
13		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
14		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
15		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
16		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
17		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
18		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
19		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
20		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
21		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
22		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
23		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
24		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
25		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
26		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
27		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
28		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
29		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
30		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Additional Services					
x		☐	Plugging and Trimming		Core Quick View (CQV)
☐	Core Processing Module	☐	Corias Core Imaging		
☐	Gamma-Ray	☐	Tracer Technologies		
☐	Gypsum Preservation	☑	Corpro Core Container		
☑	Waxing Preservation	☐	Lithotharge Foam Injection	☐	

CORPRO

Job # 35720

Coring Data

Well information	
Operator	CO2CRC
Contractor	Century
Rig	11
Well #	CRC-1
Country	Australia
Area	Otway Basin

Core #	1	
Date	22/Feb/07	
Well angle	0	
Stat. temp.		
Drive	Kelly	
Torq off b	0	ft-lbf
OffBTM Press	400	psi

Core barrel	
Size	4-3/4 x 2-9/16
Length	12 m
Direct.Bar	No
TSS	Yes
IT Type	On Ice
Vented IT	No

Core head	
Type	MCP662
OD	6-3/4" x 2-9/16
S/N	O8-3719
IADC	
TFA (sq in)	
% Worn	

Mud properties		
Type	Water Base	
WT	8.95	ppg
PV	12	cP
YP	16	
GEL		
% sand	1.5	%
% Solid	3.8	%
Viscosity	53	cP

Corehead Condition									
At Run Start	1	1	WT	A	X	IN	NO	TD
At Run End	1	1	WT	A	X	I	No	TD

Previous Footage	0 m	Run Footage	3.5 m	Total Footage	3.5 m

CORPRO

BHA	
1	Corehead
2	Core Barrel
3	
4	
5	
6	
7	
8	
9	
10	

Background Parameters

String Weight	lb
⇧	73
⌒	71
⇩	70

Torque OffBottom			
60	rpm	0	ft-lbf
80	rpm	0	ft-lbf
100	rpm	0	ft-lbf

Bottom Pressure		
Flow Rate	150	gpm
On Bottom	480	psi
Off Bottom	400	psi

Ball Valve Information		
Flow Rate	150	gpm
SPP Ref 1	100	psi
SPP Ref 2	400	psi
Pres. Incr.	300	psi
Time	5	Min

Overpull Connection	1	2	3	4	5	6	7
lb	0						

Timing

Starting Date : 22/02/07

Pickup Barrel		
Start	18:00	
Stop	19:30	
Interval	1.50	hrs

Start in Hole		
Start	19:30	
Stop	1:00	
Interval	5.50	hrs

Coring		
Start	2:00	
Stop	3:30	
Interval	1.50	hrs

POOH		
Start	4:00	
Stop	8:00	
Interval	4.00	hrs

Core Rec./LD Brl		
Start	8:00	
Stop	9:00	
Interval	1.00	hrs

Performance

Depth In	Depth Out	Cored m	Rec. m	Rec. %	Eff. %	Hours hrs	ROP m/hrs
915.0	918.5	3.5	2.10	60%	29%	1.5	2.3

Customer	Corpro
K Murphy	B Duncan

Coring Log & Parameters

Job # 35720

CORE# 1

Formation name				Pember	Mudstone			Lithology		Mudstone						
m						ft-lbf						lb	gpm	psi	
Depth	# Cored	Minutes	m /Hr	ROP LOG (metre or feet / hours)		Torque Min	Torque Max	TORQUE LOG Off bottom	Maxi	Head RPM		WOB	Flow	SPP	Lithology
915.0	*Starting depth*			Graph Zoom:	20.0	*5*	*6*	Graph Zoom:	6.0	*80*		*2*	*110*	*510*	
916.0	1.0	13.0	4.6	IIIIIIII						80		2	150	480	Mudstone
917.0	2.0	7.0	8.6	IIIIIIIIIIIIII						80		2	150	505	Mudstone
918.0	3.0	20.0	3.0	IIIIII						80		5	150	660	Mudstone
918.5	3.5	60.0	0.5	I						80		8	150	610	Mudstone

From	To	Cored	Hrs On Btm	ROP	Recovery lgth	Recovery %	Fast ROP for first 2m then dropped off the near zero. No O/Pull.	POOH Reason
915.0	918.5	3.5	1.7	2.1	2.1	60		Jammed Off

Core Barrel Assembly - 12 m Core CORPRO

13.93 m
TOTAL LENGTH

Corebarrel Size 4-3/4 x 2-9/16

DATA			
DATA	Hole Size	in	6 3/4
	Core Size	in	2-9/16

Job # 35720

OUTER BARREL			
OUTER BARREL	OD x ID	in	4-3/4 x 2-9/16
	Stabiliser Diameter	in	6 11/16
	Fishing Neck Length	in	11 1/2
	Outer Head Top Connection		4 1/2 IF
	Overpull	Klbf	860
	Make-up Torque	ft-lbf	25000
	Maximum Torque	ft-lbf	70000
	Ball Size*(larger one used)*	in	1

COREHEAD			
COREHEAD	Type	MCP662	
	Size	in	6-3/4" x 2-9/16
	Serial Number	O8-3719	
	IADC / TFA		in²
	Make-up Torque	ft-lbf	20000

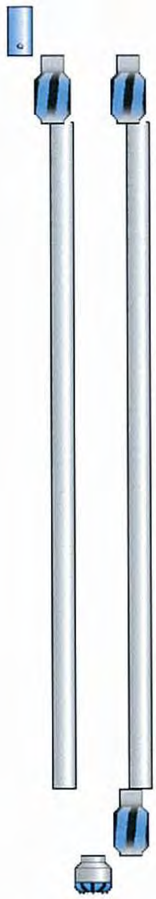
INNER BARREL			
INNER BARREL	Configuration	Thin Sleeve System	
	Inner Tube Type	On Ice	
	OD x ID Steel IT	in	5 x 4 1/2
	OD x ID Inner Sleeve	in	4.4 x 4 1/4

RANGE			
RANGE	Weight On Bit Max	lb	20
	Flow Rate Max	gpm	180
	Rotary Speed Max	RPM	120

DATA	
Date :	22/02/07
Operator :	CO2CRC
Country :	Australia
Well :	CRC-1
Rig :	11
Core#	1
Run#	

CONFIGURATION	
Bottom Section	
Standard Barrel	
Middle Section	
Qty	1
Additional ...	
Circulating Sub	N
Drop Ball Sub Top Connection	N

Recommendation



CORING BOTTOM HOLE ASSEMBLY

#	Description	Length		S/N	#	Description	Length	S/N
1	Top Head	0.61	m					
2	Stabiliser	0.76	m					
3	Outer Barrel	5.33	m					
4	Stabiliser	0.76	m					
5	Outer Barrel	5.33	m					
6	Stabiliser	0.76	m					
7	Corehead	0.37	m	O8-3719				

COMPLETE BHA

Description + Size	Length
Core Barrel	13.56 m
Corehead	0.37 m

Job # 35720

Coring Data

Well information	
Operator	CO2CRC
Contractor	Century
Rig	11
Well #	CRC-1
Country	Australia
Area	Otway Basin

Core #	2	
Date	24/Feb/07	
Well angle	0	
Stat. temp.	0	
Drive	Kelly	
Torq off b	2	ft-lbf
OffBTM Press	1,100	psi

Core barrel	
Size	4-3/4 x 2-9/16
Length	24 m
Direct.Bar	No
TSS	Yes
IT Type	On Ice
Vented IT	No

Core head	
Type	MCP662
OD	6-3/4 x 2-9/16
S/N	O8-3719
IADC	
TFA (sq in)	
% Worn	

Mud properties		
Type	Water Base	
WT	8.80	ppg
PV	12	cP
YP	18	
GEL		
% sand	0.75	%
% Solid	2.9	%
Viscosity	56	cP

Corehead Condition										
At Run Start	0	0	NO	A	X	I	No	PR
At Run End	0	0	NO	A	X	I	No	PR

Previous Footage	3.5 m	Run Footage	1 m	Total Footage	4.5 m

CORPRO

BHA	
1	Corehead
2	Core Barrel
3	
4	
5	
6	
7	
8	
9	
10	

Background Parameters

String Weight	lb
⇧	85
⌒	82
⇩	83

Torque OffBottom			
60	rpm	2	ft-lbf
80	rpm	2	ft-lbf
100	rpm		ft-lbf

Bottom Pressure		
Flow Rate	180	gpm
On Bottom	1,180	psi
Off Bottom	1,100	psi

Ball Valve Information		
Flow Rate	150	gpm
SPP Ref 1	280	psi
SPP Ref 2	910	psi
Pres. Incr.	630	psi
Time	6	Min

Overpull Connection	1	2	3	4	5	6	7
lb	0						

Timing

Starting Date : 24/02/07

Pickup Barrel		
Start	21:30	
Stop	1:30	
Interval	4.00	hrs

Start in Hole		
Start	2:00	
Stop	7:50	
Interval	5.83	hrs

Coring		
Start	9:30	
Stop	11:00	
Interval	1.50	hrs

POOH		
Start	11:30	
Stop	14:30	
Interval	3.00	hrs

Core Rec./LD Brl		
Start	14:30	
Stop	16:00	
Interval	1.50	hrs

Performance

Depth In	Depth Out	Cored m	Rec. m	Rec. %	Eff. %	Hours hrs	ROP m/hrs
1245.0	1246.0	1.0	0.00	0%	4%	1.6	0.6

Customer	Corpro
K Murphy	B Duncan

Coring Log & Parameters

Job # 35720

CORPRO

CORE# 2

Formation name						Lithology	Claystone						
m					ft-lbf					lb	gpm	psi	
Depth	# Cored	Minutes	m /Hr	ROP LOG (metre or feet / hours)	Torque Min	Torque Max	TORQUE LOG Off bottom / Maxi	Head RPM	WOB	Flow	SPP	Lithology
1245.0	*Starting depth*			Graph Zoom: 40.0	*5*	*6*	Graph Zoom: 4.0	*80*	*2*	*110*	*510*	
1246.0	1.0	100.0	0.6	II	2	6	IIIIIIIIIIIIIII	80	5	300	1100	

From	To	Cored	Hrs On Btm	ROP	Recovery lgth	Recovery %	POOH Reason
1245.0	1246.0	1.0	1.7	0.6			Jamming

High SPP on ball landing, suspected fill / obstruction in inner barrel head. ROP very low, recommend to POOH>

Core Barrel Assembly - 24 m Core

CORPRO

26.12 m

TOTAL LENGTH

Corebarrel Size 4-3/4 x 2-9/16

DATA			
	Hole Size	in	6 3/4
	Core Size	in	2-9/16

Job # 35720

OUTER BARREL			
	OD x ID	in	4-3/4 x 2-9/16
	Stabiliser Diameter	in	6 11/16
	Fishing Neck Length	in	11 1/2
	Outer Head Top Connection		4 1/2 IF
	Overpull	Klbf	860
	Make-up Torque	ft-lbf	25000
	Maximum Torque	ft-lbf	70000
	Ball Size*(larger one used)*	in	1

COREHEAD			
	Type		MCP662
	Size	in	6-3/4 x 2-9/16
	Serial Number		O8-3719
	IADC / TFA		in²
	Make-up Torque	ft-lbf	20000

INNER BARREL			
	Configuration		Thin Sleeve System
	Inner Tube Type		On Ice
	OD x ID Steel IT	in	5 x 4 1/2
	OD x ID Inner Sleeve	in	4.4 x 4 1/4

RANGE			
	Weight On Bit Max	lb	
	Flow Rate Max	gpm	
	Rotary Speed Max	RPM	

DATA	
Date :	24/02/07
Operator :	CO2CRC
Country :	Australia
Well :	CRC-1
Rig :	11
Core#	2
Run#	2

CONFIGURATION

Bottom Section

Standard Barrel

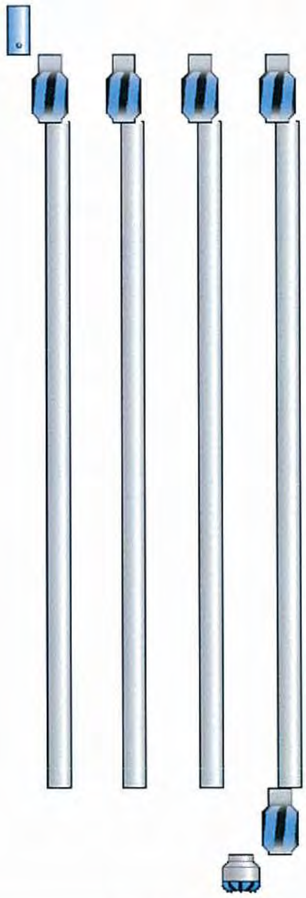
Middle Section

Qty 3

Additional ...

Circulating Sub	N
Drop Ball Sub Top Connection	N

Recommendation



CORING BOTTOM HOLE ASSEMBLY

#	Description	Length		S/N	#	Description	Length	S/N
1	Top Head	0.61	m	N/A				
2	Stabiliser	0.76	m					
3	Outer Barrel	5.33	m					
4	Stabiliser	0.76	m					
5	Outer Barrel	5.33	m					
6	Stabiliser	0.76	m					
7	Outer Barrel	5.33	m					
8	Stabiliser	0.76	m	730208S				
9	Outer Barrel	5.33	m	728071				
10	Stabiliser	0.76	m	730182S				
11	Corehead	0.37	m	O8-3719				

COMPLETE BHA

Description + Size	Length
Core Barrel	25.76 m
Corehead	0.37 m

Job # 35720

Coring Data

Well information	
Operator	CO2CRC
Contractor	Century
Rig	11
Well #	CRC-1
Country	Australia
Area	Otway Basin

Core #	3	
Date	24/Feb/07	
Well angle	0	
Stat. temp.		
Drive	Kelly	
Torq off b	2	ft-lbf
OffBTM Press	370	psi

Core barrel	
Size	4-3/4 x 2-9/16
Length	24 m
Direct.Bar	No
TSS	Yes
IT Type	On Ice
Vented IT	No

Core head	
Type	MCP662
OD	6-3/4 x 2-9/16
S/N	O8-3719
IADC	
TFA (sq in)	
% Worn	

Mud properties		
Type	Water Base	
WT	8.80	ppg
PV	12	cP
YP	15	
GEL		
% sand	0.75	%
% Solid	2.7	%
Viscosity	52	cP

Corehead Condition										
At Run Start	0	0	NO	A	X	IN	NO	PR
At Run End	1	1	WT	A	X	IN	NO	TD

Previous Footage	4.5 m	Run Footage	24 m	Total Footage	28.5 m

CORPRO

BHA	
1	Corehead
2	Core Barrel
3	
4	
5	
6	
7	
8	
9	
10	

Background Parameters

String Weight	lb
⇧	85
⌒	84
⇩	83

Torque OffBottom			
60	rpm		ft-lbf
80	rpm	9	ft-lbf
100	rpm	9	ft-lbf

Bottom Pressure		
Flow Rate	120	gpm
On Bottom	530	psi
Off Bottom	370	psi

Ball Valve Information		
Flow Rate	150	gpm
SPP Ref 1	330	psi
SPP Ref 2	450	psi
Pres. Incr.	120	psi
Time	6	Min

Overpull Connection	1	2	3	4	5	6	7
lb	0						

Timing

Starting Date : 24/02/07

Pickup Barrel		
Start	15:00	
Stop	16:00	
Interval	1.00	hrs

Start in Hole		
Start	16:20	
Stop	21:05	
Interval	4.75	hrs

Coring		
Start	22:00	
Stop	8:00	
Interval	10.00	hrs

POOH		
Start	8:30	
Stop		
Interval	15.50	hrs

Core Rec./LD Brl		
Start		
Stop		
Interval	0.00	hrs

Performance

Depth In	Depth Out	Cored m	Rec. m	Rec. %	Eff. %	Hours hrs	ROP m/hrs
1246.0	1270.0	24.0	8.20	34%	100%	10.0	2.4

Customer	Corpro
K Murphy	B Duncan

Coring Log & Parameters

Job # 35720

CORE# 3

Formation name						Lithology								
m					ft-lbf					lb	gpm	psi	
Depth	# Cored	Minutes	m /Hr	ROP LOG (metre or feet / hours)	Torque Min	Torque Max	TORQUE LOG Off bottom Maxi	Head RPM	WOB	Flow	SPP	Lithology
1246.0	*Starting depth*			Graph Zoom: 60.0	*5*	*6*	Graph Zoom: 6.0	*80*	*2*	*110*	*510*	
1247.0	1.0	85.0	0.7		3	4		80	2	120	626	
1248.0	2.0	75.0	0.8		3	4		80	2	120	610	
1249.0	3.0	47.0	1.3		3	4		80	2	120	530	
1250.0	4.0	25.0	2.4		3	4		80	2	120	620	
1251.0	5.0	37.0	1.6		4	5		80	2	120	580	
1252.0	6.0	23.0	2.6		4	5		80	2	120	570	
1253.0	7.0	27.0	2.2		4	5		80	2	120	570	
1254.0	8.0	18.0	3.3		4	5		80	2	120	570	
1255.0	9.0	77.0	0.8		4	5		80	2	120	600	
1256.0	10.0	27.0	2.2		4	5		80	2	120	600	
1257.0	11.0	22.0	2.7		4	5		80	2	120	600	
1258.0	12.0	15.0	4.0		4	5		80	2	120	560	
1259.0	13.0	12.0	5.0		4	5		80	2	140	500	
1260.0	14.0	10.0	6.0		4	5		80	2	140	500	
1261.0	15.0	20.0	3.0		4	5		80	2	140	540	
1262.0	16.0	20.0	3.0		4	5		80	2	140	560	
1263.0	17.0	10.0	6.0		4	5		80	2	140	560	
1264.0	18.0	6.0	10.0		4	5		80	2	140	530	
1265.0	19.0	6.0	10.0		4	5		80	2	140	520	
1266.0	20.0	18.0	3.3		4	5		80	2	140	520	
1267.0	21.0	6.0	10.0		4	5		80	2	140	540	
1268.0	22.0	6.0	10.0		4	4		80	2	140	500	
1269.0	23.0	8.0	7.5		4	4		80	2	140	500	
1270.0	24.0	10.0	6.0		4	4		80	2	140	500	

From	To	Cored	Hrs On Btm	ROP	Recovery lgth	Recovery %	Flat torque.	POOH Reason
1246.0	1270.0	24.0	10.2	2.4	8.2	34		

Core Barrel Assembly - 24 m Core

26.12 m
TOTAL LENGTH

Corebarrel Size 4-3/4 x 2-9/16

DATA			
	Hole Size	in	6 3/4
	Core Size	in	2-9/16

Job # 35720

OUTER BARREL			
	OD x ID	in	4-3/4 x 2-9/16
	Stabiliser Diameter	in	6 11/16
	Fishing Neck Length	in	11 1/2
	Outer Head Top Connection		4 1/2 IF
	Overpull	Klbf	860
	Make-up Torque	ft-lbf	25000
	Maximum Torque	ft-lbf	70000
	Ball Size*(larger one used)*	in	1

COREHEAD			
	Type		MCP662
	Size	in	6-3/4 x 2-9/16
	Serial Number		O8-3719
	IADC / TFA		in^2
	Make-up Torque	ft-lbf	20000

INNER BARREL			
	Configuration		Thin Sleeve System
	Inner Tube Type		On Ice
	OD x ID Steel IT	in	5 x 4 1/2
	OD x ID Inner Sleeve	in	4.4 x 4 1/4

RANGE			
	Weight On Bit Max	lb	
	Flow Rate Max	gpm	
	Rotary Speed Max	RPM	

DATA	
Date :	24/02/07
Operator :	CO2CRC
Country :	Australia
Well :	CRC-1
Rig :	11
Core#	3
Run#	

CONFIGURATION

Bottom Section
Standard Barrel

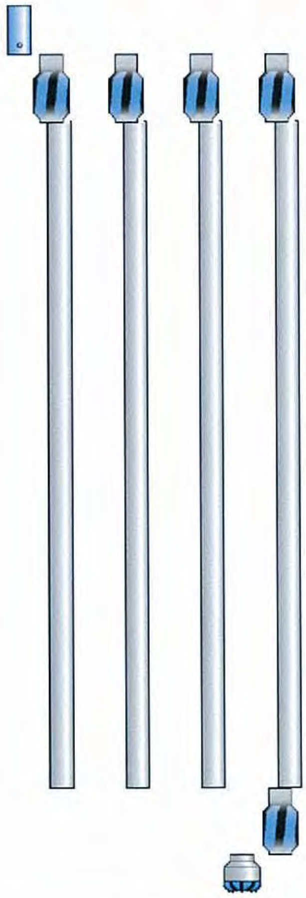
Middle Section
Qty 3

Additional ...

Circulating Sub N

Drop Ball Sub N
Top Connection

Recommendation



CORING BOTTOM HOLE ASSEMBLY

#	Description	Length		S/N	#	Description	Length	S/N
1	Top Head	0.61	m					
2	Stabiliser	0.76	m					
3	Outer Barrel	5.33	m					
4	Stabiliser	0.76	m					
5	Outer Barrel	5.33	m					
6	Stabiliser	0.76	m					
7	Outer Barrel	5.33	m					
8	Stabiliser	0.76	m					
9	Outer Barrel	5.33	m					
10	Stabiliser	0.76	m					
11	Corehead	0.37	m	O8-3719				

COMPLETE BHA

Description + Size	Length	
Core Barrel	25.76	m
Corehead	0.37	m

Job # 35720

Coring Data

Well information	
Operator	CO2CRC
Contractor	Century
Rig	11
Well #	CRC-1
Country	Australia
Area	Otway Basin

Core #	4	
Date	02/Mar/07	
Well angle	0	
Stat. temp.		
Drive	Kelly	
Torq off b	3	ft-lbf
OffBTM Press	580	psi

Core barrel	
Size	4-3/4 x 2-9/16
Length	12 m
Direct.Bar	No
TSS	Yes
IT Type	On Ice
Vented IT	No

Core head	
Type	MCP662
OD	6-3/4"
S/N	O8-3719
IADC	
TFA (sq in)	
% Worn	

Mud properties		
Type	Water Base	
WT	9.25	ppg
PV	13	cP
YP	12	
GEL		
% sand	0.75	%
% Solid	5.1	%
Viscosity	46	cP

Corehead Condition										
	At Run Start	1	1	WT	A	X	I	No	TD
	At Run End	1	1	WT	A	X	I	No	TD

Previous Footage	28.5 m	Run Footage	4.2 m	Total Footage	32.7 m

CORPRO

BHA	
1	Corehead
2	Core Barrel
3	
4	
5	
6	
7	
8	
9	
10	

Background Parameters

String Weight	lb
⇧	115
⌒	110
⇩	105

Torque OffBottom			
60	rpm	6	ft-lbf
80	rpm	6	ft-lbf
100	rpm	6	ft-lbf

Bottom Pressure		
Flow Rate	120	gpm
On Bottom	600	psi
Off Bottom	580	psi

Ball Valve Information		
Flow Rate	150	gpm
SPP Ref 1	520	psi
SPP Ref 2	980	psi
Pres. Incr.	460	psi
Time	9	Min

Overpull Connection	1	2	3	4	5	6	7
lb							

Timing

Starting Date : 02/03/07

Pickup Barrel		
Start	3:30	
Stop	4:30	
Interval	1.00	hrs

Start in Hole		
Start	4:30	
Stop	17:30	
Interval	13.00	hrs

Coring		
Start	18:00	
Stop	7:30	
Interval	13.50	hrs

POOH		
Start	7:50	
Stop	15:30	
Interval	7.67	hrs

Core Rec./LD Brl		
Start	15:30	
Stop	17:00	
Interval	1.50	hrs

Performance

Depth In	Depth Out	Cored m	Rec. m	Rec. %	Eff. %	Hours hrs	ROP m/hrs
1900.0	1904.2	4.2	2.65	63%	35%	13.5	0.3

Customer	Corpro
K Murphy	B Duncan

Coring Log & Parameters

Job # 35720

CORE# 4

Formation name				Belfast			Lithology		Mudstone						
m					ft-lbf						lb	gpm	psi	
Depth	# Cored	Minutes	m /Hr	ROP LOG (metre or feet / hours)	Torque Min	Torque Max	TORQUE LOG Off bottom	Maxi	Head RPM		WOB	Flow	SPP	Lithology
1900.0	*Starting depth*			Graph Zoom: 100.0	*5*	*6*	Graph Zoom: 6.0		*80*		*2*	*110*	*510*	
1901.0	1.0	60.0	1.0	IIIIIIIIII	6	7	IIIIIII		80		5	150	700	
1902.0	2.0	250.0	0.2	II	6	7	IIIIIII		80		15	150	800	
1903.0	3.0	90.0	0.7	IIIIII	6	7	IIIIIII		80		15	150	765	
1904.0	4.0	90.0	0.7	IIIIII	6	7	IIIIIII		80		15	150	840	
1905.0	5.0	180.0	0.3	III	6	7	IIIIIII		80		15	150	840	
1905.2	5.2	30.0	0.4	IIII	6	7	IIIIIII		80		15	150	765	

From	To	Cored	Hrs On Btm	ROP	Recovery lgth	Recovery %	POOH Reason
1900.0	1905.2	5.2	11.7	0.4	2.7	51	

Core Barrel Assembly - 12 m Core CORPRO

13.93 m TOTAL LENGTH

Corebarrel Size 4-3/4 x 2-9/16

DATA			
	Hole Size	in	6 3/4
	Core Size	in	6-3/4"

Job # 35720

OUTER BARREL			
	OD x ID	in	4-3/4 x 2-9/16
	Stabiliser Diameter	in	6 11/16
	Fishing Neck Length	in	11 1/2
	Outer Head Top Connection		4 1/2 IF
	Overpull	Klbf	860
	Make-up Torque	ft-lbf	25000
	Maximum Torque	ft-lbf	70000
	Ball Size*(larger one used)*	in	1

COREHEAD			
	Type	MCP662	
	Size	in	6-3/4"
	Serial Number	O8-3719	
	IADC / TFA		in²
	Make-up Torque	ft-lbf	20000

INNER BARREL			
	Configuration	Thin Sleeve System	
	Inner Tube Type	On Ice	
	OD x ID Steel IT	in	5 x 4 1/2
	OD x ID Inner Sleeve	in	4.4 x 4 1/4

RANGE			
	Weight On Bit Max	lb	
	Flow Rate Max	gpm	
	Rotary Speed Max	RPM	

DATA	
Date :	02/03/07
Operator :	CO2CRC
Country :	Australia
Well :	CRC-1
Rig :	11
Core#	4
Run#	

CONFIGURATION

Bottom Section

Standard Barrel

Middle Section

Qty 1

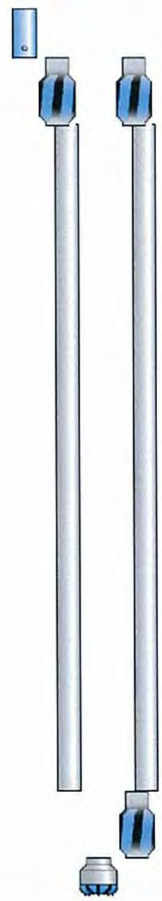
Additional ...

Circulating Sub N

Drop Ball Sub N

Top Connection

Recommendation



CORING BOTTOM HOLE ASSEMBLY

#	Description	Length		S/N	#	Description	Length	S/N
1	Top Head	0.61	m					
2	Stabiliser	0.76	m					
3	Outer Barrel	5.33	m					
4	Stabiliser	0.76	m					
5	Outer Barrel	5.33	m					
6	Stabiliser	0.76	m					
7	Corehead	0.37	m	O8-3719				

COMPLETE BHA

Description + Size	Length
Core Barrel	13.56 m
Corehead	0.37 m

Job # 35720

Coring Data

Well information	
Operator	CO2CRC
Contractor	Century
Rig	11
Well #	CRC-1
Country	Australia
Area	Otway Basin

Core #	5	
Date	04/Mar/07	
Well angle	0	
Stat. temp.		
Drive	Kelly	
Torq off b	4	ft-lbf
OffBTM Press	680	psi

Core barrel	
Size	4-3/4 x 2-9/16
Length	18 m
Direct.Bar	No
TSS	Yes
IT Type	On Ice
Vented IT	No

Core head	
Type	MCP662
OD	6-3/4"
S/N	O8-3719
IADC	
TFA (sq in)	
% Worn	

Mud properties		
Type	Water Base	
WT	9.50	ppg
PV	12	cP
YP	9	
GEL		
% sand	0.7	%
% Solid	6.5	%
Viscosity	43	cP

Corehead Condition		1	1	WT	A	X	IN	NO	TD
	At Run Start								
	At Run End	1	1	WT	A	X	IN	NO	TD

Previous Footage	32.7 m	Run Footage	18 m	Total Footage	50.7 m

CORPRO

BHA	
1	Corehead
2	Core Barrel
3	
4	
5	
6	
7	
8	
9	
10	

Background Parameters

String Weight	lb
⇧	120
⌒	118
⇩	115

Torque OffBottom			
60	rpm	3	ft-lbf
80	rpm	4	ft-lbf
100	rpm	4	ft-lbf

Bottom Pressure		
Flow Rate	150	gpm
On Bottom	880	psi
Off Bottom	680	psi

Ball Valve Information		
Flow Rate	150	gpm
SPP Ref 1	430	psi
SPP Ref 2	600	psi
Pres. Incr.	170	psi
Time	8	Min

Overpull Connection	1	2	3	4	5	6	7
lb	5						

Timing

Starting Date : 04/03/07

Pickup Barrel		
Start	19:00	
Stop	21:00	
Interval	2.00	hrs

Start in Hole		
Start	21:00	
Stop	12:00	
Interval	15.00	hrs

Coring		
Start	12:00	
Stop	18:10	
Interval	30.00	hrs

POOH		
Start	18:10	
Stop	0:30	
Interval	6.33	hrs

Core Rec./LD Brl		
Start	0:30	
Stop	1:30	
Interval	1.00	hrs

Performance

Depth In	Depth Out	Cored m	Rec. m	Rec. %	Eff. %	Hours hrs	ROP m/hrs
2033.0	2051.0	18.0	6.60	37%	100%	30.0	0.6

Customer	Corpro
K Murphy	B Duncan
	P Undeh

Coring Log & Parameters

Job # 35720

CORPRO

CORE# 5

Formation name				Flaxmans	Waare C	Lithology	Silt / Shale						
m						ft-lbf					lb	gpm	psi	
Depth	# Cored	Minutes	m /Hr	ROP LOG (metre or feet / hours)		Torque Min	Torque Max	TORQUE LOG Off bottom	Maxi	Head RPM	WOB	Flow	SPP	Lithology
2033.0	*Starting depth*			Graph Zoom:	200.0	*5*	*6*	Graph Zoom:	6.0	*80*	*2*	*110*	*510*	
2034.0	1.0	165.0	0.4			6	8			80	15	150	900	
2035.0	2.0	120.0	0.5			5	7			90	15	150	905	
2036.0	3.0	125.0	0.5			5	7			90	15	150	915	
2037.0	4.0	115.0	0.5			4	6			90	15	150	910	
2038.0	5.0	160.0	0.4			5	7			90	15	150	950	
2039.0	6.0	120.0	0.5			5	7			90	15	150	895	
2040.0	7.0	100.0	0.6			4	6			90	15	150	920	
2041.0	8.0	105.0	0.6			4	6			90	15	150	910	
2042.0	9.0	70.0	0.9			4	6			90	15	150	910	
2043.0	10.0	250.0	0.2			4	5			80	15	150	800	
2044.0	11.0	50.0	1.2			6	8			80	15	150	750	
2045.0	12.0	25.0	2.4			7	12			90	15	150	550	
2046.0	13.0	64.0	0.9			9	12			90	15	150	780	
2047.0	14.0	110.0	0.5			5	7			90	15	150	550	
2048.0	15.0	45.0	1.3			8	10			90	15	150	730	
2049.0	16.0	30.0	2.0			8	10			90	15	150	760	
2050.0	17.0	100.0	0.6			8	10			90	15	150	830	
2051.0	18.0	34.0	1.8			8	10			90	15	150	755	

From	To	Cored	Hrs On Btm	ROP	Recovery lgth	Recovery %	POOH Reason
2033.0	2051.0	18.0	29.8	0.6	6.6	37	

Core Barrel Assembly - 18 m Core

CORPRO

20.03 m
TOTAL LENGTH

Corebarrel Size 4-3/4 x 2-9/16

DATA	Hole Size	in	6 3/4
	Core Size	in	6-3/4"

Job # 35720

OUTER BARREL	OD x ID	in	4-3/4 x 2-9/16
	Stabiliser Diameter	in	6 11/16
	Fishing Neck Length	in	11 1/2
	Outer Head Top Connection		4 1/2 IF
	Overpull	Klbf	860
	Make-up Torque	ft-lbf	25000
	Maximum Torque	ft-lbf	70000
	Ball Size*(larger one used)*	in	1

COREHEAD	Type	MCP662	
	Size	in	6-3/4"
	Serial Number	O8-3719	
	IADC / TFA		in²
	Make-up Torque	ft-lbf	20000

INNER BARREL	Configuration	Thin Sleeve System	
	Inner Tube Type	On Ice	
	OD x ID Steel IT	in	5 x 4 1/2
	OD x ID Inner Sleeve	in	4.4 x 4 1/4

RANGE	Weight On Bit Max	lb	
	Flow Rate Max	gpm	
	Rotary Speed Max	RPM	

DATA

Date :	04/03/07
Operator :	CO2CRC
Country :	Australia
Well :	CRC-1
Rig :	11
Core#	5
Run#	

CONFIGURATION

Bottom Section

Standard Barrel

Middle Section

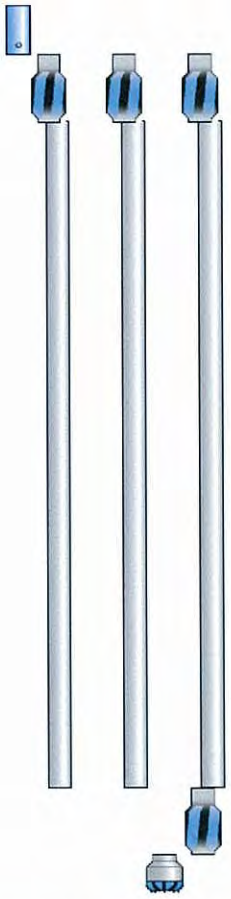
Qty 2

Additional ...

Circulating Sub	N
Drop Ball Sub	N

Top Connection

Recommendation



CORING BOTTOM HOLE ASSEMBLY

#	Description	Length		S/N	#	Description	Length	S/N
1	Top Head	0.61	m					
2	Stabiliser	0.76	m					
3	Outer Barrel	5.33	m					
4	Stabiliser	0.76	m					
5	Outer Barrel	5.33	m					
6	Stabiliser	0.76	m					
7	Outer Barrel	5.33	m					
8	Stabiliser	0.76	m					
9	Corehead	0.37	m	O8-3719				

COMPLETE BHA

Description + Size	Length	
Core Barrel	19.66	m
Corehead	0.37	m

Job # 35720

Coring Data

Well information	
Operator	CO2CRC
Contractor	Century
Rig	11
Well #	CRC-1
Country	Australia
Area	Otway Basin

Core #	6	
Date	07/Mar/07	
Well angle	0	
Stat. temp.		
Drive	Kelly	
Torq off b	4	ft-lbf
OffBTM Press	450	psi

Core barrel	
Size	4-3/4 x 2-9/16
Length	24 m
Direct.Bar	No
TSS	Yes
IT Type	On Ice
Vented IT	No

Core head	
Type	MCP662
OD	6-3/4"
S/N	O8-3719
IADC	
TFA (sq in)	
% Worn	

Mud properties		
Type	Water Base	
WT	9.45	ppg
PV	15	cP
YP	19	
GEL		
% sand	0.5	%
% Solid	6.4	%
Viscosity	54	cP

Corehead Condition									
At Run Start	1	1	WT	A	X	IN	NO	TD
At Run End	1	1	WT	A	X	IN	NO	TD

Previous Footage	50.7 m	Run Footage	24.5 m	Total Footage	75.2 m

BHA	
1	Corehead
2	Core Barrel
3	
4	
5	
6	
7	
8	
9	
10	

Background Parameters

String Weight	lb
⇧	
↷	
⇩	

Torque OffBottom			
60	rpm	4	ft-lbf
80	rpm	5	ft-lbf
100	rpm	5	ft-lbf

Bottom Pressure		
Flow Rate	110	gpm
On Bottom	510	psi
Off Bottom	450	psi

Ball Valve Information		
Flow Rate	120	gpm
SPP Ref 1	420	psi
SPP Ref 2	540	psi
Pres. Incr.	120	psi
Time	11	Min

Overpull Connection	1	2	3	4	5	6	7
lb							

Timing

Starting Date : 07/03/07

Pickup Barrel		
Start	2:30	
Stop	4:00	
Interval	1.50	hrs

Start in Hole		
Start	4:00	
Stop	10:00	
Interval	6.00	hrs

Coring		
Start	10:30	
Stop	16:12	
Interval	5.70	hrs

POOH		
Start	16:30	
Stop	21:30	
Interval	5.00	hrs

Core Rec./LD Brl		
Start	21:30	
Stop	23:30	
Interval	2.00	hrs

Performance

Depth In	Depth Out	Cored m	Rec. m	Rec. %	Eff. %	Hours hrs	ROP m/hrs
2051.0	2075.5	24.5	23.50	96%	102%	5.7	4.3

Customer	Corpro
K Murphy	B Duncan
	P Undeh

Coring Log & Parameters

Job # 35720

CORPRO

CORE# 6

Formation name	Waare C	Lithology	Inter SST

m					ft-lbf					lb	gpm	psi	
Depth	# Cored	Minutes	m /Hr	ROP LOG (metre or feet / hours)	Torque Min	Torque Max	TORQUE LOG Off bottom Maxi	Head RPM		WOB	Flow	SPP	Lithology
2051.0	*Starting depth*			Graph Zoom: 50.0	*5*	*6*	Graph Zoom: 3.0	*80*		*2*	*110*	*510*	
2052.0	1.0	30.0	2.0		5	6		80		6	130	600	
2053.0	2.0	60.0	1.0		12	15		80		11	130	720	
2054.0	3.0	7.0	8.6		11	20		80		5	130	690	
2055.0	4.0	5.0	12.0		10	15		80		5	130	690	
2056.0	5.0	6.0	10.0		10	15		80		5	130	710	
2057.0	6.0	5.0	12.0		10	15		80		5	130	710	
2058.0	7.0	9.0	6.7		10	15		80		8	110	710	
2059.0	8.0	6.0	10.0		9	11		90		7	110	710	
2060.0	9.0	7.0	8.6		9	11		90		6	110	540	
2061.0	10.0	11.0	5.5		9	11		90		5	110	540	
2062.0	11.0	27.0	2.2		8	10		90		5	110	520	
2063.0	12.0	9.0	6.7		8	10		90		5	110	530	
2064.0	13.0	7.0	8.6		8	10		90		6	110	530	
2065.0	14.0	11.0	5.5		8	10		90		6	110	530	
2066.0	15.0	10.0	6.0		8	10		90		4	110	520	
2067.0	16.0	6.0	10.0		8	10		90		4	110	540	
2068.0	17.0	18.0	3.3		8	10		90		4	110	520	
2069.0	18.0	10.0	6.0		8	10		90		4	110	520	
2070.0	19.0	11.0	5.5		8	10		90		4	110	520	
2071.0	20.0	28.0	2.1		8	10		90		4	110	520	
2072.0	21.0	9.0	6.7		8	10		90		4	110	520	
2073.0	22.0	9.0	6.7		8	10		90		5	110	530	
2074.0	23.0	22.0	2.7		6	10		90		4	110	530	
2075.0	24.0	15.0	4.0		6	10		90		4	110	540	
2075.5	24.5	4.0	7.5		6	10		90		4	110	540	

From	To	Cored	Hrs On Btm	ROP	Recovery lgth	Recovery %	POOH Reason
2051.0	2075.5	24.5	5.7	4.3	23.5	96	

Core Barrel Assembly - 24 m Core CORPRO

26.12 m
TOTAL LENGTH

Corebarrel Size 4-3/4 x 2-9/16

DATA	Hole Size	in	6 3/4
	Core Size	in	6-3/4"

Job # 35720

OUTER BARREL	OD x ID	in	4-3/4 x 2-9/16
	Stabiliser Diameter	in	6 11/16
	Fishing Neck Length	in	11 1/2
	Outer Head Top Connection		4 1/2 IF
	Overpull	Klbf	860
	Make-up Torque	ft-lbf	25000
	Maximum Torque	ft-lbf	70000
	Ball Size*(larger one used)*	in	1

COREHEAD	Type	MCP662	
	Size	in	6-3/4"
	Serial Number	O8-3719	
	IADC / TFA		in²
	Make-up Torque	ft-lbf	20000

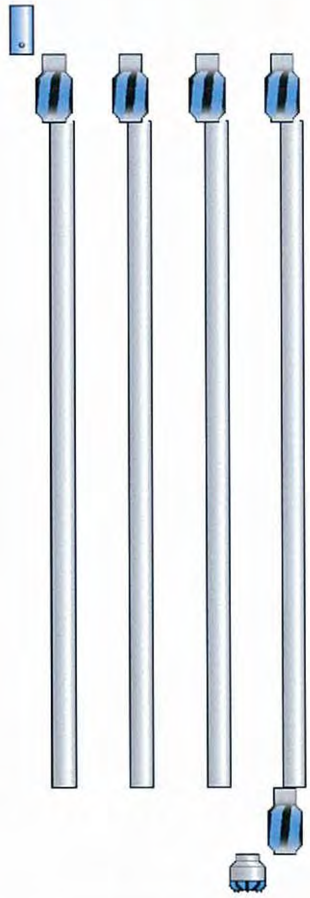
INNER BARREL	Configuration	Thin Sleeve System	
	Inner Tube Type	On Ice	
	OD x ID Steel IT	in	5 x 4 1/2
	OD x ID Inner Sleeve	in	4.4 x 4 1/4

RANGE	Weight On Bit Max	lb	
	Flow Rate Max	gpm	
	Rotary Speed Max	RPM	

DATA	
Date :	07/03/07
Operator :	CO2CRC
Country :	Australia
Well :	CRC-1
Rig :	11
Core#	6
Run#	

CONFIGURATION	
Bottom Section	
Standard Barrel	
Middle Section	
Qty	3
Additional ...	
Circulating Sub	N
Drop Ball Sub Top Connection	N

Recommendation



CORING BOTTOM HOLE ASSEMBLY

#	Description	Length		S/N	#	Description	Length	S/N
1	Top Head	0.61	m					
2	Stabiliser	0.76	m					
3	Outer Barrel	5.33	m					
4	Stabiliser	0.76	m					
5	Outer Barrel	5.33	m					
6	Stabiliser	0.76	m					
7	Outer Barrel	5.33	m					
8	Stabiliser	0.76	m					
9	Outer Barrel	5.33	m					
10	Stabiliser	0.76	m					
11	Corehead	0.37	m	O8-3719				

COMPLETE BHA

Description + Size	Length	
Core Barrel	25.76	m
Corehead	0.37	m

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ATTACHMENT 15 : CORE DESCRIPTION

LITHOLOGY STRIP LOG
WellSight Systems
Scale 1:50 Metric

Well Name:	CRC No.1		
Location:	Onshore, Otway Basin		
Licence Number:	PPL13	**Region:**	Victoria
Spud Date:	15th February, 2007	**Drilling Completed:**	
Surface Coordinates:	Latitude 38 deg 31' 50" Longitiude 142 deg 48' 42"		
Bottom Hole Coordinates:			
Ground Elevation (m):	44.8.0m	**K.B. Elevation (m):**	50.0m
Logged Interval (m):	915.0 **To:** 918.5	**Total Depth (m):**	
Formation:	Pember Mudstone		
Type of Drilling Fluid:	KCl/Polymer		

Printed by STRIP.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: CPPL
Address:

GEOLOGIST

Name: David Horner
Company:
Address:

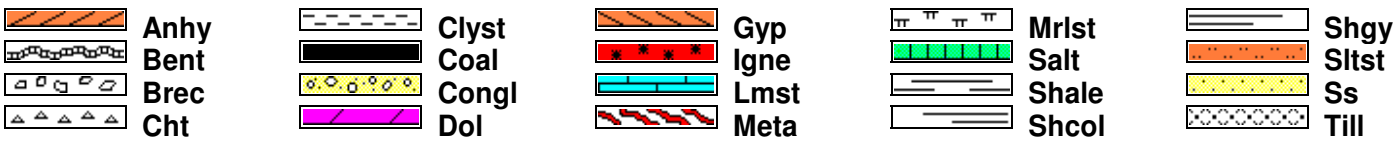
Cores

Core#1 915.0-918.5m, Cut: 3.5m, Rec: 2.03m, 58%.
Core#2, 1245.0-1246.0m, Cut: 1.0m, Rec: 0.0m, 0%.
Core#3, 1246.0-1270.0m, Cut: 24.0m, Rec: 8.13m, 34%.
Core#4, 1900.0-1904.2m, Cut 4.2m, Rec 2.65m, 63%.
Core#5, 2033.0-2051.0m, Cut 18.0m, Rec 6.59m, 37%.
Core#6, 2051.0-2075.5m, Cut 24.5m, Rec 23.53m, 96%.

DSTs

Comments

ROCK TYPES



ACCESSORIES

MINERAL
- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff

FOSSIL
- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom

STRINGER
- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg

TEXTURE
- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

OTHER SYMBOLS

POROSITY
- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

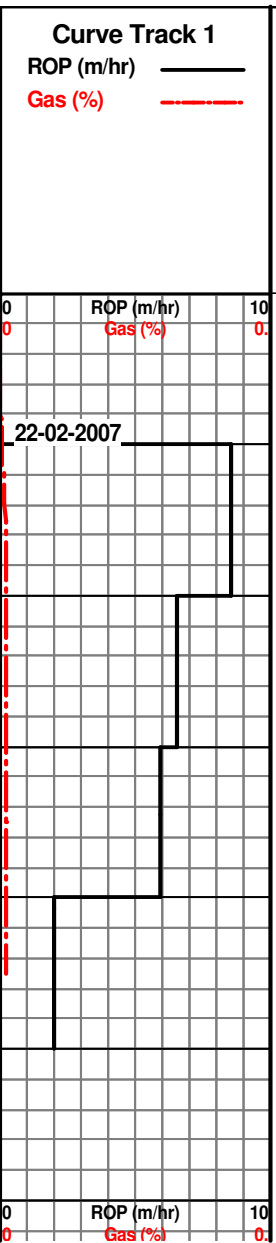
SORTING
- Well
- Moderate
- Poor

ROUNDING
- Rounded
- Subrnd
- Subang
- Angular

OIL SHOW
- Even
- Spotted
- Ques
- Dead

INTERVAL
- Core
- Dst

EVENT
- Rft
- Sidewall



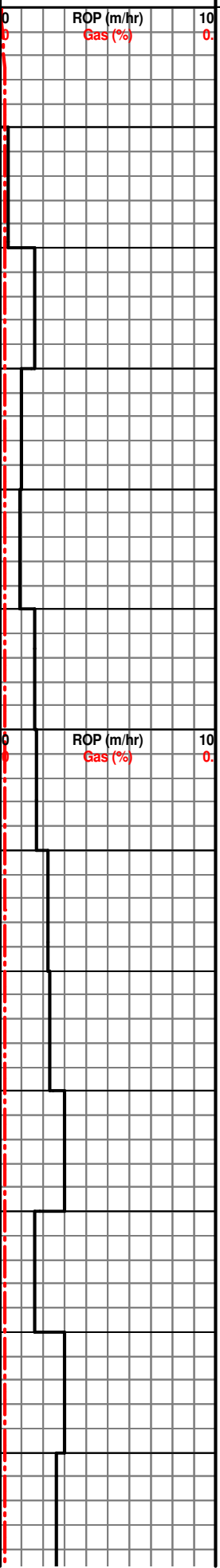
CRC No.1 CORE No.1 Cut 915.0-918.5m (3.5m), Recovered 915.0-917.03m (2.03m) 58%.

*915.00-917.03m Massive Claystone (100%).

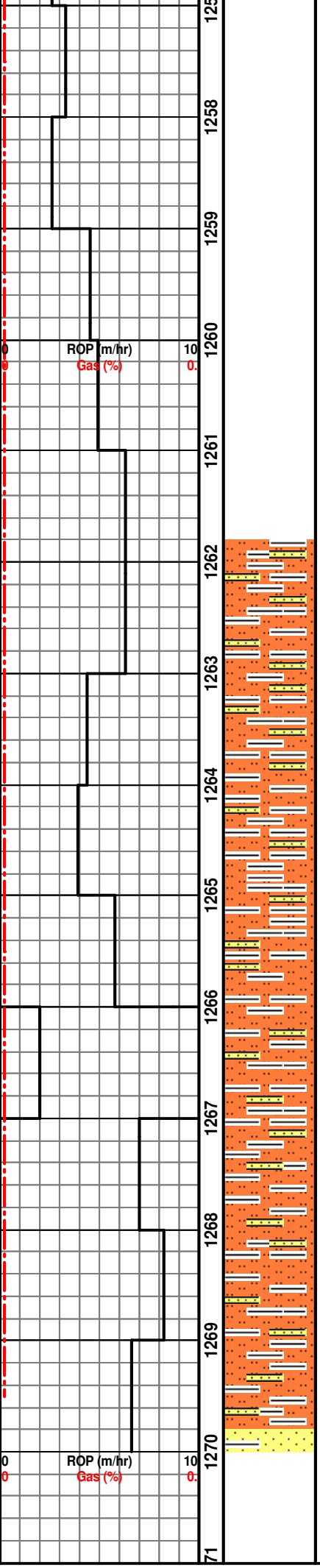
CLAYSTONE: dark brown grey, very silty, very finely arenaceous with angular to subangular clear to opaque quartz grains, trace fine brown and clear mica flakes, common disseminated marcasite, soft, non fissile.

STRUCTURE: No discernable bedding or structures.

*917.03-918.50m No Recovery



Depth	Lithology	Oil Shows	Geological Descriptions
1245			Core No.2, 1245.0-1246.0m (Cut 1.0m, Recovered 0.0m) 0%.
			*1245.0-1246.0m No Recovery
1246			Core No.3, 1246.0-1270.0m (Cut 24.0m, Recovered 1261.87-1270.0m (8.13m) 34%.
1247			*1246.0-1261.87m No Recovery - See Note Below.
1248			NOTE: The core was marked from the bottom up. From wellsite correlation of the cuttings and drill rate, the missing sections of core are from the more argillaceous section at the top of the core, intermittently through the section and also across the more sandier sections circa 1266m. This core will require gamma correlation to accurately determine the depths of the core sections.
1249			
1250			
1251			
1252			
1253			
1254			
1255			
1256			



*1246.0-1261.87m No Recovery - See Note Below.

NOTE: The core was marked from the bottom up. From wellsite correlation of the cuttings and drill rate, the missing sections of core are from the more argillaceous section at the top of the core, intermittently through the section and also across the more sandier sections circa 1266m. This core will require gamma correlation to accurately determine the depths of the core sections.

NOTE: Sample descriptions from spot chip samples only, no definitive bedding interchanges were observed. The core was not washed at the wellsite due to possible contamination, however some freshwater contamination may have occurred due to the leaking of the core pump-out seal.

*1261.9m SANDY CLAYSTONE: dark grey, moderately to very silty, abundant dispersed very fine to fine quartz and altered feldspar sand grains, common black coaly detritus, trace fine biotite flakes, trace to common micromica, firm, non fissile, intermixed with:
SANDSTONE: light to medium grey, very fine to fine, subangular to subrounded, poor to moderate sorting, weak silica cement, abundant medium grey argillaceous and silt matrix, quartzose with abundant altered feldspar grains, trace to common black coaly detritus, friable to moderately hard, very poor visual porosity, no oil fluorescence

*1263.7m ARGILLACEOUS SANDSTONE: dark grey, very fine to medium, occasional coarse to pebble grains, subangular to rounded, very poorly sorted, weak silica cement, abundant dark grey argillaceous and silt matrix, abundant dark grey clay clasts and grains, abundant altered feldspar and quartz grains, trace black carbonaceous detritus, common micromica, firm to moderately hard, very poor visual porosity, no oil fluorescence.

*1265.4m ARGILLACEOUS SANDSTONE: medium to dark grey, very fine to medium, occasional coarse to pebble grains, subangular to rounded, very poorly sorted, weak silica cement, abundant dark grey argillaceous and silt matrix, abundant fine black lithics, abundant very fine quartz grains, abundant very fine to fine altered feldspar grains, trace brown biotite flakes, trace black carbonaceous detritus, trace micromica, moderately hard, very poor visual porosity, no oil fluorescence.

*1266.7m SANDSTONE: very fine to medium, occasional coarse to pebble quartz grains, dominantly very fine, subangular to subrounded, very poorly sorted, weak silica cement, abundant medium grey argillaceous and silt matrix, quartzose with abundant altered feldspar sand grains, abundant dark grey clay clasts and grains, trace biotite flakes, trace black carbonaceous detritus, trace micromica, friable, very poor visual porosity, no oil fluorescence.

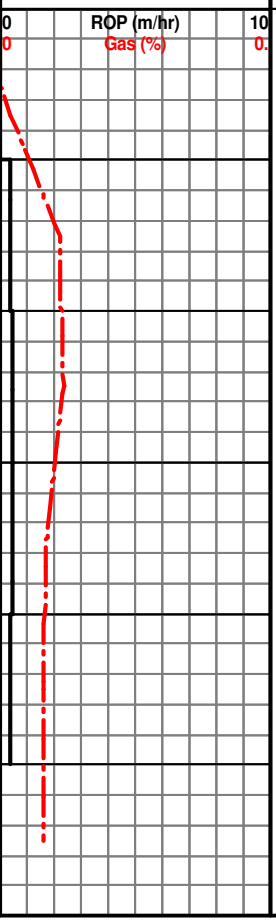
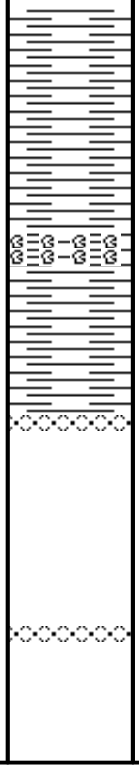
*1267.9m SANDSTONE: light to medium grey, very fine to fine, trace dispersed medium to pebble quartz grains, dominantly very fine, subangular to subrounded, very poorly sorted, weak silica cement, common medium grey argillaceous and silt matrix, quartzose with abundant altered feldspar grains, trace dark grey and green grey clay clasts and grains, trace fine black coaly detritus, trace micromica, friable to moderately hard, very poor visual porosity, no oil fluorescence.

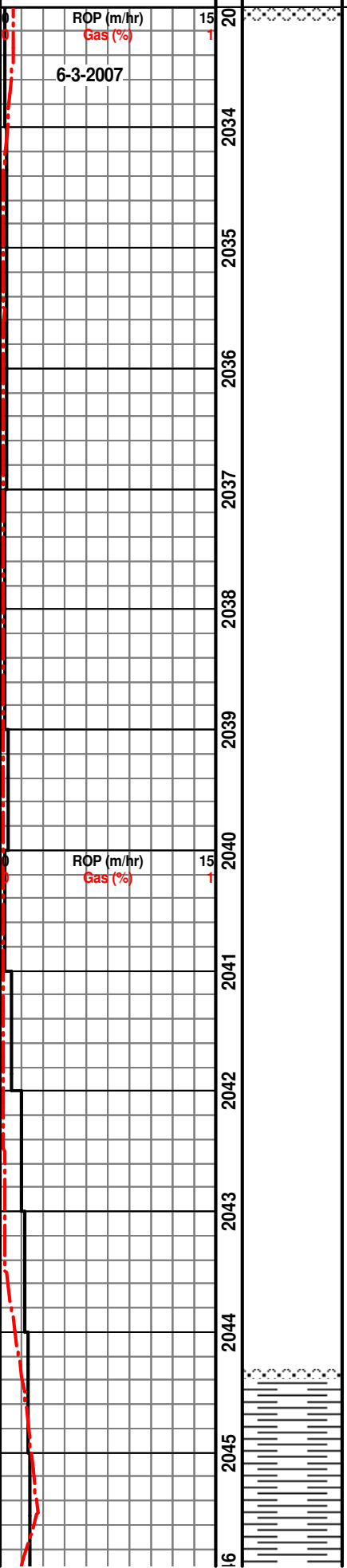
*1269.1m SANDY CLAYSTONE: very dark grey, abundant dispersed very fine occasionally very coarse quartz, altered feldspar and clay sand grains, trace black coaly detritus, moderately carbonaceous, non to very silty, common micromica, moderately hard, non fissile.

* 1268.7m ARGILLACEOUS SANDSTONE: medium to dark grey, very fine to fine with occasional dispersed medium to pebble quartz and clay grains, subangular to rounded, poorly sorted, weak silica cement, abundant dark grey argillaceous and silt matrix, quartzose with abundant altered feldspar grains, common clay clasts, common black coaly detritus, friable to moderately hard, very poor visual orosity, no oil fluorescence.

* 1268.9m SANDSTONE: light to medium grey, very fine to fine, occasional dispersed medium to pebble grains, dominantly fine, moderately sorted, very weak silica cement, trace off white silt matrix, quartzose, trace altered feldspar grains, trace biotite flakes, trace black carbonaceous detritus, trace micromica, weakly friable, fair to good visual porosity, no oil fluorescence.

SEDIMENTARY FATURES: the core has scattered rounded quartz pebblesand clay clasts to 30mm intermittently throughout the entire recovered section, bedding angle flat, no defined bedding intersections - lithologies tend to grade into each other, other features not examined in detail at wellsite due to the priority of proper preservation.

Curve Track 1 ROP (m/hr) Gas (%)	Depth	Lithology	Oil Shows	Geological Descriptions
	18 1900 1901 1902 1903 1904 05			CORE No.4, Cut 1900.0-1904.2m (4.2m), Recovered 1900.00-1902.65m, (2.65m) 63%. *1900.00-1902.65m. CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, nil to occasionally common dark green glauconite, common micromica, moderately hard, slightly subfissile. STRUCTURE: No discernable bedding planes. Abundant convoluted slickensiding at variable angles from 1901.54-1901.74m. *1900.65-1904.20m. No Recovery.



Geological Descriptions

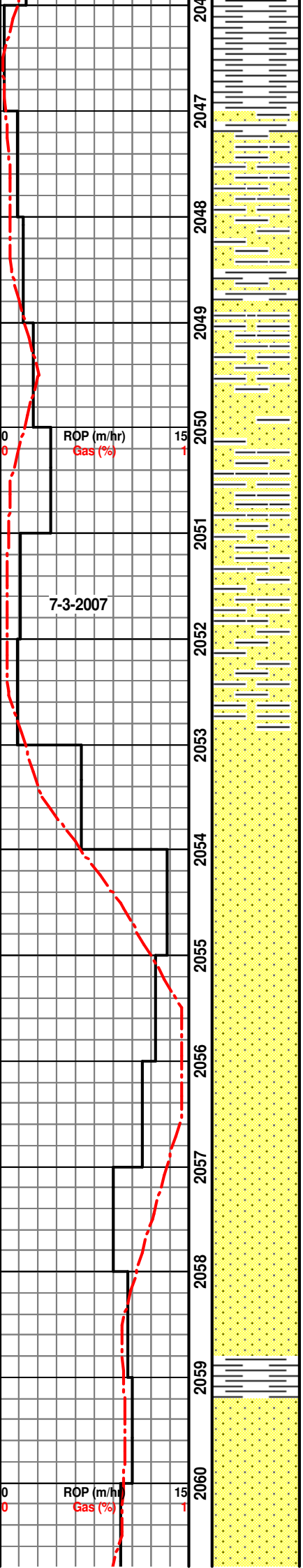
CORE No.5 Cut 2033.0-2051.0m (18.0m), Recovered 2044.41-2051.00m (6.59m) 37%.

NOTE: Core is marked from bottom up. Missing sections of core are from the top, from the bottom, and at 3.95m up from bottom (ie. at marked depth of 2047.05m). This core will require gamma correlation to accurately determine the depths of the recovered core sections.

*2033.00-2044.41m No Recovery

NOTE: Core is marked from bottom up. Missing sections of core are from the top, from the bottom, and at 3.95m up from bottom (ie. at marked depth of 2047.05m). This core will require gamma correlation to accurately determine the depths of the recovered core sections.

*2044.41-2047.05m CLAYSTONE: dark brown grey, very silty, trace very fine quartz and altered feldspar sand grains in part, trace glauconite, trace micromica, moderately hard, slightly subfissile.



*2047.05m CLAYSTONE: dark brown grey, very silty, common dispersed very fine to occasionally very coarse quartz sand grains, common very fine to fine off white altered feldspar grains, trace glauconite, trace micromica, moderately hard, slightly subfissile.

*2047.73m SANDSTONE: medium to dark brown grey, very fine to fine, occasional medium to very coarse grains, subangular to subrounded, very poorly sorted, weak silica cement, abundant medium to dark brown grey argillaceous and silt matrix - matrix supported, clear to opaque quartz grains, common altered feldspar grains, trace glauconite, friable, very poor visual porosity, no oil fluorescence.

*2048.84m CLAYSTONE: medium to dark brown grey, very silty, abundant dispersed very fine to fine quartz and glauconite grains, trace micromica, moderately hard, slightly subfissile.

*2049.80m SANDSTONE: light brown grey, very fine to very coarse, dominantly medium, subangular to subrounded, very poorly sorted, weak silica cement, abundant off white argillaceous matrix in part, abundant medium brown argillaceous and silt matrix in part, clear to opaque quartz grains, trace glauconite, friable, poor visual porosity, no oil fluorescence.

*2050.80m SANDSTONE: medium brown, very fine to fine, occasional medium to very coarse grains, subangular to subrounded, very poorly sorted, weak silica and calcareous cements, abundant medium brown argillaceous and silt matrix, clear to opaque quartz grains, trace glauconite, friable to hard, very poor visual porosity, no oil fluorescence.

*2051.00 SANDY CLAYSTONE: medium brown grey, very silty, common dispersed very fine to coarse quartz sand grains, slightly calcareous and dolomitic, trace calcite veining, trace micromica, hard, slightly subfissile.

CORE No.6 Cut 2051.0-2075.5m (24.5m), Recovered 2051.00-2074.53m (23.53m) 96%.

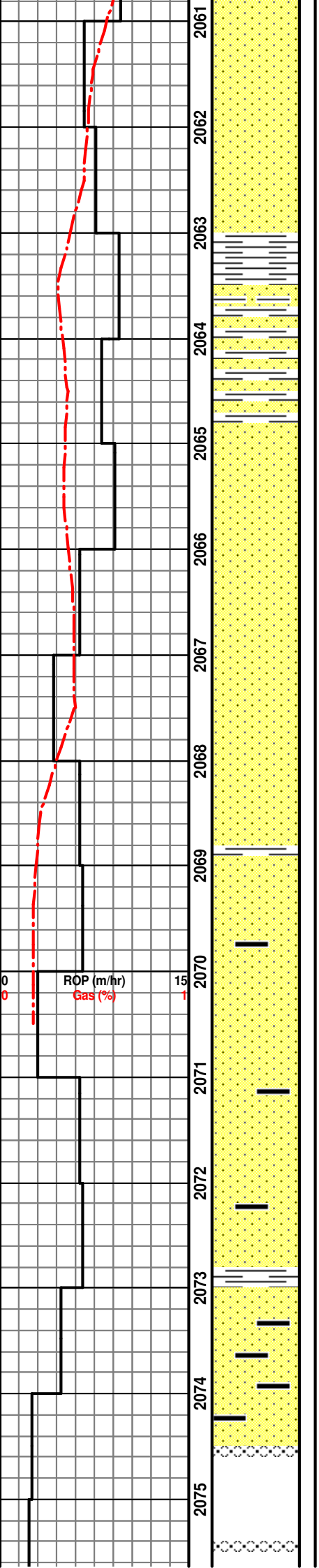
*2051.00-2152.84 SANDSTONE: light to medium grey, very fine to occasionally very coarse, dominantly fine, angular to subrounded, very poorly sorted, weak silica and calcareous cements, abundant dark grey argillaceous and silt matrix - matrix supported, quartzose with common altered feldspar grains, trace clay clasts, trace to common black carbonaceous detritus and laminae, friable, very poor to poor visual porosity, no oil fluorescence.

TOP WAARRE FORMATION UNIT "C" 2152.84m.

*2152.84-2058.85m Massive SANDSTONE: light grey, very fine to rarely pebble, dominantly coarse to very coarse, angular to subrounded, very poorly sorted, weak silica cement, trace white argillaceous matrix, clear to opaque quartz grains, trace black coaly detritus, friable, very good visual porosity, no oil fluorescence.

*2058.85-2059.21m. Massive CLAYSTONE: very dark grey, slightly silty, very carbonaceous, trace very fine to very coarse quartz sand grains in part, trace slickensides, common micromica, moderately hard, slightly subfissile.

*2059.21-2062.97m. Massive SANDSTONE: light grey, very fine to rarely pebble, dominantly coarse to very coarse, angular to subrounded, very poorly sorted, weak silica cement, trace white argillaceous matrix, clear to opaque quartz grains, trace black coaly detritus, friable, fair to very good visual porosity, no oil fluorescence.



*2062.97-2063.49m. Massive CLAYSTONE: very dark grey, slightly silty, very carbonaceous, trace slickensides, common micromica, moderately hard, slightly subfissile.

*2063.49-2064.74m. Thinly interbedded Sandstone (50%) and Claystone (50%).

SANDSTONE: light grey, very fine to rarely pebble, dominantly coarse to very coarse, angular to subrounded, very poorly sorted, moderate silica and calcareous cements, trace white argillaceous matrix, clear to opaque quartz grains, trace black coaly detritus, moderately hard, poor visual porosity, no oil fluorescence.

CLAYSTONE: very dark grey, slightly silty, very carbonaceous, trace slickensides, common micromica, moderately hard, slightly subfissile.

*2064.74-2068.78m. Massive SANDSTONE: light brown grey to medium grey, very fine to rarely very coarse, dominantly fine, angular to subrounded, poorly sorted, weak silica cement, common to abundant off white to dark grey argillaceous matrix and laminae, clear to opaque quartz grains, trace black coaly detritus and laminae, friable, very poor to poor visual porosity, no oil fluorescence.

*2068.78-2068.90m. Massive CLAYSTONE: very dark grey, slightly silty, very carbonaceous, trace slickensides, common micromica, moderately hard, slightly subfissile.

*2068.90-2072.78m. Massive SANDSTONE: light grey, very fine to pebble, dominantly very coarse, angular to subrounded, very poorly sorted, weak silica cement, trace to common off white argillaceous matrix, clear to opaque quartz grains, trace black coaly detritus and laminae, friable, good visual porosity, no oil fluorescence, with trace laminae of COAL: very dark grey to black, slightly to dominantly very argillaceous, trace micromica, common slickensides, soft to firm.

Bedding dip of approximately 20 degrees.

*2072.78-2073.02m. Massive CLAYSTONE: very dark grey, slightly silty, very carbonaceous, trace slickensides, common micromica, moderately hard, slightly subfissile.

*2073.02-2074.53m. Massive SANDSTONE: light grey, very fine to very coarse, dominantly medium to coarse, angular to subrounded, very poorly sorted, weak silica cement, trace to common off white argillaceous matrix, clear to opaque quartz grains, trace black coaly detritus and laminae, friable, fair visual porosity, no oil fluorescence, with common laminae of COAL: very dark grey to black, slightly to dominantly very argillaceous, trace micromica, common slickensides, soft to firm.

*2074.53-2075.50m. No Recovery.

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ATTACHMENT 16 : DAILY GEOLOGICAL REPORT

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 1 **DATE: 15/02/2007**

Depth: 216**m** **Progress:** 216**m** **Days from Spud:** 1

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	406 at 15.2m

0600 hrs Update: Drill ahead with 251mm hole to 312m. Current lithology 100% MARL: medium green grey to rarely medium brown grey, occasionally medium to dark grey, abundant fossil fragments including bryozoa, forams, bivalves, gastropods, sponge spicules and echinoid spines, very soft, sticky, non fissile, background gas 0.001-0.003% (C1 100%).

Comments:
Spud CRC No.1 at 1100hrs on 15th February 2007, drill ahead with 251mm hole to 216m. Survey at 131m = 0.25 degrees.

Interval (mRT)	Hydrocarbon Show Summary	Gas
15.2-122	Port Campbell Limestone - No Show	TG 0.001-0.002% C1 100% C2+ 0
122-216	Gellibrand Marl - No Show	TG 0.001-0.003% C1 100% C2+ 0

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462			
Narrawaturk Marl	476			
Mepunga Formation	550			
Dilwyn Formation	635			
Pember Mudstone	884			
Pebble Point Formation	946			
Massacre Shale	1004			
Timboon Sandstone	1026			
Paaratte Formation	1139			
Skull Creek Formation	1551			
Nullawarre Formation	1732			
Belfast Mudstone	1740			
Flaxmans Formation	2026			
Waarre Formation Unit "C"	2045			
Waarre Formation Unit "B"	2075			
Waarre Formation Unit "A"	2091			
Eumeralla Formation	2131			
Total Depth	2250			

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
15.2-122	PORT CAMPBELL LIMESTONE Massive Calcarenite (100%). CALCARENITE: light grey, yellow orange at top, very fine to medium, dominantly fine grained, abundant fossil fragments including bryozoa, echinoid spines, sponge spicules, gastropods, bivalves and forams - occasionally infilled with glauconite, trace black lithics, trace glauconite, rare medium grey marl, moderate calcareous cement, poor visual porosity, friable to moderately hard, grading with depth to: CALCARENITE: light grey, very fine to fine, dominantly very fine, slightly to moderately argillaceous, trace fossil fragments including bryozoa, echinoid spines, sponge spicules, gastropods, bivalves and forams, trace black lithics, trace glauconite, trace medium grey marl, moderate calcareous cement, poor visual porosity, friable to moderately hard.
122-216	GELLIBRAND MARL Massive Marl (100%). MARL: medium green grey to medium brown grey, occasionally medium to dark grey, abundant fossil fragments including bryozoa, forams, bivalves, gastropods, sponge spicules and echinoid spines, rare glauconite, rare pyrite, rare black coaly detritus, very soft, sticky, non fissile.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 2 **DATE: 16/02/2007**

Depth: 516**m** **Progress:** 300**m** **Days from Spud:** 2

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	406 at 15.2m

0600 hrs Update: Condition hole prior to running casing.

Comments:
Drill ahead with 251mm hole to 516m, condition hole prior to running casing. Deviation at 323m = 0.5 degrees, Carbide at 460m - average hole size 11.2 inches.

Interval (mRT)	Hydrocarbon Show Summary	Gas
216-457	Gellibrand Marl - No Show	TG 0.001-0.003% C1 100% C2+ 0
457-474	Clifton Formation - No Show	TG 0.001-0.003% C1 100% C2+ 0
474-516	Narrawaturk Marl - No Show	TG 0.001-0.002% C1 100% C2+ 0

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550			
Dilwyn Formation	635			
Pember Mudstone	884			
Pebble Point Formation	946			
Massacre Shale	1004			
Timboon Sandstone	1026			
Paaratte Formation	1139			
Skull Creek Formation	1551			
Nullawarre Formation	1732			
Belfast Mudstone	1740			
Flaxmans Formation	2026			
Waarre Formation Unit "C"	2045			
Waarre Formation Unit "B"	2075			
Waarre Formation Unit "A"	2091			
Eumeralla Formation	2131			
Total Depth	2250			

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
216-457	GELLIBRAND MARL Massive Marl (100%). MARL: medium green grey to rarely medium brown grey, occasionally medium to dark grey, abundant fossil fragments including bryozoa, forams, bivalves, gastropods, sponge spicules and echinoid spines, very soft, sticky, non fissile.
457-474	CLIFTON FORMATION CALCARENITE (100%). CALCARENITE: off white to yellow orange to dark red brown, very fine to very coarse, abundant fossil fragments often with yellow to red brown iron oxide staining, common dark brown iron oxide pellets, trace very fine to very coarse orange brown stained frosted quartz grains, very argillaceous and marly in part, friable to moderately hard, poor infered porosity.
474-516	NARRAWATURK MARL Massive Marl (100%). MARL: medium to dark brown grey, common medium green grey (cavings?), common green black glauconite, abundant fossil fragments, rare disseminated pyrite, soft, sticky, non fissile.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 3 **DATE: 17/02/2007**

Depth: 516**m** **Progress:** 0**m** **Days from Spud:** 3

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: Finish cementing casing - 7.625" casing set at 512m.

Comments:
Wiper trip to condition hole, Run 7 5/8" (194mm) casing to 512m, rig up to cement casing.

Interval (mRT)	Hydrocarbon Show Summary	Gas
	No new formation drilled.	

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550			
Dilwyn Formation	635			
Pember Mudstone	884			
Pebble Point Formation	946			
Massacre Shale	1004			
Timboon Sandstone	1026			
Paaratte Formation	1139			
Skull Creek Formation	1551			
Nullawarre Formation	1732			
Belfast Mudstone	1740			
Flaxmans Formation	2026			
Waarre Formation Unit "C"	2045			
Waarre Formation Unit "B"	2075			
Waarre Formation Unit "A"	2091			
Eumeralla Formation	2131			
Total Depth	2250			

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
	No new formation drilled.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 4 **DATE: 18/02/2007**

Depth: 516**m** **Progress:** 0**m** **Days from Spud:** 4

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: Nipple up BOP's, pressure test BOP's

Comments:
Cement 7 5/8" (194mm) casing to 512m, (20bbls clean cement returns to surface), WOC, install Braden Head, begin nipple up BOP's.

Interval (mRT)	Hydrocarbon Show Summary	Gas
	No new formation drilled.	

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550			
Dilwyn Formation	635			
Pember Mudstone	884			
Pebble Point Formation	946			
Massacre Shale	1004			
Timboon Sandstone	1026			
Paaratte Formation	1139			
Skull Creek Formation	1551			
Nullawarre Formation	1732			
Belfast Mudstone	1740			
Flaxmans Formation	2026			
Waarre Formation Unit "C"	2045			
Waarre Formation Unit "B"	2075			
Waarre Formation Unit "A"	2091			
Eumeralla Formation	2131			
Total Depth	2250			

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
	No new formation drilled.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 5 **DATE: 19/02/2007**

Depth: 516**m** **Progress:** 0**m** **Days from Spud:** 5

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: Adjust mast over hole, drill out shoe track and new 171mm hole to 519m, circulate hole clean prior to performing extended leak off test.

Comments:
Nipple up BOP's, pressure test BOP's, make up and RIH 6.75" (171mm) drilling assembly,

Interval (mRT)	Hydrocarbon Show Summary	Gas
	No new formation drilled.	

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550			
Dilwyn Formation	635			
Pember Mudstone	884			
Pebble Point Formation	946			
Massacre Shale	1004			
Timboon Sandstone	1026			
Paaratte Formation	1139			
Skull Creek Formation	1551			
Nullawarre Formation	1732			
Belfast Mudstone	1740			
Flaxmans Formation	2026			
Waarre Formation Unit "C"	2045			
Waarre Formation Unit "B"	2075			
Waarre Formation Unit "A"	2091			
Eumeralla Formation	2131			
Total Depth	2250			

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
	No new formation drilled.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 6 **DATE: 20/02/2007**

Depth: 745**m** **Progress:** 229**m** **Days from Spud:** 6

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: Drill ahead with 171mm hole at 836m. Current lithology: Dilwyn Formation, Sandstone (80%) interbedded with and grading to Claystone (20%), background gas 0.002-0.005%, C1 100%.

Comments:
Adjust mast over hole, drill out shoe track and new 171mm hole to 519m, circulate hole clean, perform extended leak off test to 13.3ppg mud weight equivalent, displace hole to new mud, drill ahead with 171mm hole to 745m.

NOTE: Revised "Prognosed Formation Tops".

Interval (mRT)	Hydrocarbon Show Summary	Gas
516-551	Narrawaturk Marl - No Show	TG 0.001-0.002% C1 100% C2+ 0
551-633	Mepunga Formation - No Show	TG 0.001-0.003% C1 100% C2+ 0
633-745	Dilwyn Formation - No Show	TG 0.001-0.004% C1 100% C2+ 0

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550	551	-501	1 Low
Dilwyn Formation	635	633	-583	2 High
Pember Mudstone	879			
Pebble Point Formation	936			
Massacre Shale	995			
Timboon Sandstone	1016			
Paaratte Formation	1129			
Skull Creek Formation	1521			
Nullawarre Formation	1712			
Belfast Mudstone	1715			
Flaxmans Formation	2026			
Waarre Formation Unit "C"	2045			
Waarre Formation Unit "B"	2075			
Waarre Formation Unit "A"	2091			
Eumeralla Formation	2131			
Total Depth	2250			

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
516-551	NARRAWATURK MARL Massive Marl (100%). MARL: medium to dark brown grey, trace to common green black glauconite, common fossil fragments, rare disseminated pyrite, soft, sticky, non fissile.
551-633	MEPUNGA FORMATION Claystone (60%) interbedded with and grading to Sandstone (40%). CLAYSTONE: off white to yellow to dark brown to dark brown grey, slightly to moderately silty, moderately to very calcareous, common to abundant dispersed very fine to grit brown iron oxide stained quartz grains, common glauconite, trace very fine black carbonaceous detritus, soft, moderately dispersive, non fissile. SANDSTONE: light yellow to dominantly medium brown, very fine to grit, dominantly coarse, subrounded to rounded, very poorly sorted, abundant off white to yellow to dark brown argillaceous matrix - grades to sandy claystone, abundant calcilutite matrix in part, weak to occasionally strong calcareous cement, brown iron oxide stained frosted quartz grains, trace to common dark brown iron oxide pellets, trace glauconite, unconsolidated to occasionally moderately hard, poor to fair visual porosity, no oil fluorescence.

633-715	DILWYN FORMATION Sandstone (70%) interbedded with and grading to Claystone (30%). SANDSTONE: light brown grey to medium brown, very fine to very coarse, dominantly medium, subangular to subrounded, poorly sorted, weak silica cement, abundant dark brown grey argillaceous matrix, clear to opaque quartz grains often with brown staining, trace marcasite, unconsolidated to friable, poor inferred porosity, no oil fluorescence. CLAYSTONE: dark brown to dark brown grey, moderately silty, common dispersed very fine to fine quartz sand grains in part, trace marcasite, moderately dispersive, soft, non fissile.
715-745	DILWYN FORMATION Sandstone (90%) interbedded with and grading to Claystone (10%). SANDSTONE: very light brown grey, very fine to very coarse, dominantly coarse, subangular to subrounded, poorly sorted, weak silica cement, common dark brown grey argillaceous matrix, clear to opaque quartz grains occasionally with yellow staining, trace coarse muscovite flakes, trace black coal detritus, trace marcasite, friable, good inferred porosity, no oil fluorescence. CLAYSTONE: medium brown to dark brown grey, moderately silty, common dispersed very fine to fine quartz sand grains in part, trace coarse muscovite flakes, trace marcasite, moderately dispersive, soft, non fissile.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 7 **DATE: 21/02/2007**

Depth: 915**m** **Progress:** 170**m** **Days from Spud:** 7

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: Cut Core No.1, 915.0-918.5m (3.5m), barrel jammed, POOH with Core No.1. Cuttings samples from core indicate Pember Mudstone (Claystone 100%).

Comments:
Drill ahead with 171mm hole to 915m, circulate hole clean, POOH, make up core barrel, RIH for Core No.1.

Interval (mRT)	Hydrocarbon Show Summary	Gas
745-878	Dilwyn Formation - No Show	TG 0.001-0.005% C1 100% C2+ 0
878-915	Pember Mudstone - No Show	TG 0.001-0.002% C1 100% C2+ 0

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550	551	-501	1 Low
Dilwyn Formation	635	633	-583	2 High
Pember Mudstone	879	878	-828	1 High
Pebble Point Formation	936			
Massacre Shale	995			
Timboon Sandstone	1016			
Paaratte Formation	1129			
Skull Creek Formation	1521			
Nullawarre Formation	1712			
Belfast Mudstone	1715			
Flaxmans Formation	2026			
Waarre Formation Unit "C"	2045			
Waarre Formation Unit "B"	2075			
Waarre Formation Unit "A"	2091			
Eumeralla Formation	2131			
Total Depth	2250			

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
745-878	DILWYN FORMATION Sandstone (65%) interbedded with and grading to Claystone (35%). SANDSTONE: very light brown grey, very fine to grit, dominantly coarse, subangular to subrounded, very poorly sorted, weak silica cement, common dark brown grey argillaceous matrix, common white argillaceous matrix in part, clear to opaque quartz grains occasionally with yellow staining, trace cryptocrystalline dolomite, trace coarse muscovite flakes, trace red rhyolite lithics, trace black coal detritus, trace marcasite, friable, good inferred porosity, no oil fluorescence. CLAYSTONE: medium to dark brown to dark brown grey, occasionally white, moderately silty, common dispersed very fine to fine quartz sand grains in part, trace coarse muscovite flakes, trace cryptocrystalline dolomite, trace marcasite, moderately dispersive, soft, non fissile.

878-915	PEMBER MUDSTONE Claystone (80%) grading to Sandstone (20%). CLAYSTONE: medium brown to medium to dark brown grey, moderately to occasionally very silty, abundant dispersed very fine to medium quartz sand grains in part, trace glauconite, common marcasite, moderately dispersive, soft, non fissile. SANDSTONE: very light brown grey, very fine to coarse, dominantly fine, subangular to subrounded, poorly sorted, weak silica cement, abundant dark brown grey argillaceous matrix, clear to opaque quartz grains, trace coarse mica flakes, trace black coal detritus, common marcasite, friable, poor inferred porosity, no oil fluorescence. Grading with depth to Claystone (100%) with Sandstone (Trace): CLAYSTONE: medium brown to dark brown grey, often dark green, moderately to occasionally very silty, abundant dispersed very fine to medium quartz sand grains in part, common to abundant glauconite, common marcasite, moderately dispersive, soft, non fissile. SANDSTONE: very light brown grey, very fine to occasionally medium, dominantly fine, subangular to subrounded, poorly sorted, weak silica cement, abundant dark brown grey argillaceous matrix, clear to opaque quartz grains, trace coarse mica flakes, trace black coal detritus, common glauconite, common marcasite, friable, poor inferred porosity, no oil fluorescence.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 8 **DATE: 22/02/2007**

Depth: 1109**m** **Progress:** 194**m** **Days from Spud:** 8

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: Drill ahead with 171mm hole to 1169m. Current lithology claystone (80%) laminated with very fine sandstone (20%), background gas 0.002% (C1 100%). Top Paaratte Formation at 1128m (1m High).

Comments:
Cut Core No.1, 915.0-918.5m (3.5m), barrel jammed, POOH with Core No.1, recovered 915.0-917.03m (58%), RIH, trip gas 0.002% (C1 100%), drill ahead with 171mm hole to 1109m.

Interval (mRT)	Hydrocarbon Show Summary	Gas
915-939	Pember Mudstone - No Show	TG 0.001-0.002% C1 100% C2+ 0
939-1002	Pebbble Point Formation - No Show	TG 0.001-0.003% C1 100% C2+ 0
1002-1022	Massacre Shale - No Show	TG 0.001-0.003% C1 100% C2+ 0
1022-1109	Timboon Sandstone - No Show	TG 0.001-0.003% C1 100% C2+ 0

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550	551	-501	1 Low
Dilwyn Formation	635	633	-583	2 High
Pember Mudstone	879	878	-828	1 High
Pebble Point Formation	936	939	-889	3 Low
Massacre Shale	995	1002	-952	7 Low
Timboon Sandstone	1016	1022	-972	6 Low
Paaratte Formation	1129			
Skull Creek Formation	1521			
Nullawarre Formation	1712			
Belfast Mudstone	1715			
Flaxmans Formation	2026			
Waarre Formation Unit "C"	2045			
Waarre Formation Unit "B"	2075			
Waarre Formation Unit "A"	2091			
Eumeralla Formation	2131			
Total Depth	2250			

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
915-939	PEMBER MUDSTONE Massive Claystone (100%). CLAYSTONE: dark brown grey to occasionally dark green grey, very silty, very finely arenaceous with angular to subangular clear to opaque quartz grains, trace fine brown and clear mica flakes, trace glauconite, common disseminated marcasite, soft, non fissile.
939-1002	PEBBLE POINT FORMATION Sandstone (50%) interbedded with and grading to Claystone (50%). SANDSTONE: medium orange brown, very fine to granular, dominantly coarse, subangular to subrounded, very poorly sorted, weak silica cement, abundant medium brown argillaceous and silt matrix, quartzose with yellow brown staining on quartz grains, rare iron oxide pellets, friable, fair to good inferred porosity, no oil fluorescence, grading to: SANDSTONE: light to brown, very fine to coarse, dominantly medium, subangular to subrounded, poorly sorted, weak silica cement, abundant dark brown grey argillaceous and silt matrix, clear to opaque quartz grains occasionally with brown staining, friable, very poor to poor inferred porosity, no oil fluorescence. CLAYSTONE: dark brown grey, moderately to very silty, abundant dispersed very fine to coarse quartz sand grains, soft, non fissile.

1002-1022	MASSACRE SHALE Massive Claystone (100%). CLAYSTONE: medium brown to dark brown grey, moderately to very silty, trace dispersed very fine to medium quartz sand grains, trace marcasite, soft, non fissile.
1022-1109	TIMBOON SANDSTONE Sandstone (50%) grading to Claystone (50%). SANDSTONE: light grey to light brown grey, very fine to grit, dominantly very fine and very coarse, angular to subrounded, very poorly sorted, weak silica cement, abundant off white to medium grey to dark brown grey argillaceous and silt matrix, clear to opaque quartz grains, trace yellow stained quartz grains, friable, poor inferred porosity, no oil fluorescence. CLAYSTONE: off white to medium grey, medium to dark brown grey, moderately to very silty, often abundant dispersed very fine to very coarse quartz sand grains, trace pyrite, soft, non fissile.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 9 **DATE: 23/02/2007**

Depth: 1245**m** **Progress:** 136**m** **Days from Spud:** 9

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: RIH with coring assembly for Core No.2

Comments:
Drill ahead with 171mm hole to 1240m, circulate geological sample, drill ahead to 1245m, wiper trip, POOH for Core No.2.

Interval (mRT)	Hydrocarbon Show Summary	Gas
1109-1128	Timboon Sandstone - No Show	TG 0.001-0.003% C1 100% C2+ 0
1128-1245	Paaratte Formation - No Show	TG 0.001-0.003% C1 100% C2+ 0

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550	551	-501	1 Low
Dilwyn Formation	635	633	-583	2 High
Pember Mudstone	879	878	-828	1 High
Pebble Point Formation	936	939	-889	3 Low
Massacre Shale	995	1002	-952	7 Low
Timboon Sandstone	1016	1022	-972	6 Low
Paaratte Formation	1129	1128	-1078	1 High
Skull Creek Formation	1521			
Nullawarre Formation	1712			
Belfast Mudstone	1715			
Flaxmans Formation	2026			
Waarre Formation Unit "C"	2045			
Waarre Formation Unit "B"	2075			
Waarre Formation Unit "A"	2091			
Eumeralla Formation	2131			
Total Depth	2250			

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
1109-1128	TIMBOON SANDSTONE Sandstone (80%) grading to Claystone (20%). SANDSTONE: light grey to light brown grey, very fine to grit, dominantly coarse, angular to subrounded, very poorly sorted, weak silica cement, abundant off white to medium grey to dark brown grey argillaceous and silt matrix, clear to opaque quartz grains, trace yellow stained quartz grains, trace black coal detritus, trace pyrite, friable, good inferred porosity, no oil fluorescence. CLAYSTONE: off white to medium grey to medium to dark brown grey, moderately to very silty, often abundant dispersed very fine to grit quartz sand grains, trace black coal detritus, trace pyrite, soft, non fissile.
1128-1245	PAARATTE FORMATION Claystone (80%) grading to and laminated with Sandstone (20%) CLAYSTONE: medium grey to medium brown grey, trace medium brown, moderately to very silty, often very fine to finely arenaceous, trace fine black coaly detritus, trace pyrite, soft, non fissile. SANDSTONE: light grey to light brown grey, very fine to fine, abundant dispersed medium to very coarse grains in part, dominantly very fine, subangular to subrounded, moderately sorted, weak silica cement, abundant off white to light grey argillaceous and silt matrix, clear to opaque quartz grains, trace fine black coaly detritus, trace pyrite, friable, very poor to poor visual porosity, no oil fluorescence.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 10 **DATE: 24/02/2007**

Depth: 1247**m** **Progress:** 2**m** **Days from Spud:** 10

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: Core ahead at 1257m. Current lithology (Interpreted from drill rate: Claystone 60% grading to, interbedded and laminated with Sandstone 40%), background gas 0.001-0.003%.

Comments:
Make up and RIH with coring assembly, Cut Core No.2 1245.0-1246.0m (cut 1.0m), POOH due to low coring rate and high pump pressure, no recovery, service core barrel, RIH for Core No.3. Cut Core No3 from 1246.0m to 1247m.

Interval (mRT)	Hydrocarbon Show Summary	Gas
1245-1247	Paaratte Formation - No Show	TG 0.001-0.002% C1 100% C2+ 0

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550	551	-501	1 Low
Dilwyn Formation	635	633	-583	2 High
Pember Mudstone	879	878	-828	1 High
Pebble Point Formation	936	939	-889	3 Low
Massacre Shale	995	1002	-952	7 Low
Timboon Sandstone	1016	1022	-972	6 Low
Paaratte Formation	1129	1128	-1078	1 High
Skull Creek Formation	1521			
Nullawarre Formation	1712			
Belfast Mudstone	1715			
Flaxmans Formation	2026			
Waarre Formation Unit "C"	2045			
Waarre Formation Unit "B"	2075			
Waarre Formation Unit "A"	2091			
Eumeralla Formation	2131			
Total Depth	2250			

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
1245-1247	PAARATTE FORMATION Massive Claystone (100%). CLAYSTONE: medium to dark grey to medium to dark brown grey to dark green grey, moderately to very silty, often very fine to finely arenaceous, trace fine black coaly detritus, trace pyrite, trace micromica, soft, non fissile.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 11 **DATE: 25/02/2007**

Depth: 1323**m** **Progress:** 76**m** **Days from Spud:** 11

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: Drill ahead with 171mm hole at 1392m. Current lithology Paaratte Formation, Sandstone (50%) grading to and interbedded with Claystone (50%), background gas 0.001% C1 100%.

Comments:
Cut Core No.3, Cut 1246.0-1270.0m (Cut 24.0m, Recovered 8.13m = 34%), RIH with rerun PDC bit, trip gas nil, drill ahead with 171mm hole to 1323m.

Interval (mRT)	Hydrocarbon Show Summary	Gas
1247-1323	Paaratte Formation - No Show	TG 0.001-0.003% C1 100% C2 Trace C3+ 0

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550	551	-501	1 Low
Dilwyn Formation	635	633	-583	2 High
Pember Mudstone	879	878	-828	1 High
Pebble Point Formation	936	939	-889	3 Low
Massacre Shale	995	1002	-952	7 Low
Timboon Sandstone	1016	1022	-972	6 Low
Paaratte Formation	1129	1128	-1078	1 High
Skull Creek Formation	1521			
Nullawarre Formation	1712			
Belfast Mudstone	1715			
Flaxmans Formation	2026			
Waarre Formation Unit "C"	2045			
Waarre Formation Unit "B"	2075			
Waarre Formation Unit "A"	2091			
Eumeralla Formation	2131			
Total Depth	2250			

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
1247-1323	PAARATTE FORMATION Claystone (50%) interbedded with and grading to Sandstone (50%). CLAYSTONE: medium to dark grey to medium to dark brown grey to dark green grey, moderately to very silty, often very fine to finely arenaceous, trace dispersed medium to pebble sized quartz grains, trace fine black coaly detritus, trace pyrite, trace micromica, soft, non fissile. SANDSTONE: light to medium grey, very fine to fine, dominantly very fine, abundant dispersed medium to pebble quartz grains, subangular to rounded, poorly sorted, weak silica cement, abundant medium grey argillaceous and silt matrix, clear to opaque quartz grains, trace fine black coaly detritus, trace biotite flakes, trace pyrite, friable, very poor visual porosity, no oil fluorescence.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 12 **DATE: 26/02/2007**

Depth: 1526**m** **Progress:** 203**m** **Days from Spud:** 12

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: Drill ahead with 171mm hole at 1586m. Top of Skull Creek Formation at 1528m (7m Low). Current Lithology Skull Creek Claystone (100%), background gas 0.003% (C1 100%).

Comments:
Drill ahead with 171mm hole to 1526m.

Interval (mRT)	Hydrocarbon Show Summary	Gas
1323-1503	Paaratte Formation - No Show	TG 0.001-0.003% C1 100% C2 Trace C3+ 0
1503-1507	Paaratte Formation - Oil Show From 1503-1507m the sandstone has 20% moderately bright patchy very pale yellow white fluorescence giving a weak milky white crush cut, thin ring residue. No gas or drill rate increase was noted across this interval. The cutting samples are very poor quality due to disaggregation by the drilling action of the PDC drill bit and subsequent encapsulation by the PHPA in the mud system. The best assessment is for this to be a light gravity mobile crude oil contained within tight very fine grained feldspathic sand lenses with insufficient porosity/permeability for economic oil recovery. Attention however should be paid to this interval during electric log evaluation.	TG 0.001-0.002% C1 100% C2+ 0
1507-1528	Paaratte Formation - No Show	TG 0.001-0.002% C1 100% C2+ 0

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550	551	-501	1 Low
Dilwyn Formation	635	633	-583	2 High
Pember Mudstone	879	878	-828	1 High
Pebble Point Formation	936	939	-889	3 Low
Massacre Shale	995	1002	-952	7 Low
Timboon Sandstone	1016	1022	-972	6 Low
Paaratte Formation	1129	1128	-1078	1 High
Skull Creek Formation	1521	1528	-1478	7 Low
Nullawarre Formation	1712			
Belfast Mudstone	1715			
Flaxmans Formation	2026			
Waarre Formation Unit "C"	2045			
Waarre Formation Unit "B"	2075			
Waarre Formation Unit "A"	2091			
Eumeralla Formation	2131			
Total Depth	2250			

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
1323-1450	PAARATTE FORMATION Claystone (50%) interbedded with and grading to Sandstone (50%). CLAYSTONE: light to dark grey to medium to dark brown grey, moderately to very silty, often very finely to finely arenaceous, trace to abundant dispersed medium to pebble sized quartz grains, trace black coaly detritus, trace pyrite, trace micromica, firm, non fissile. SANDSTONE: off white to medium grey, very fine to pebble quartz grains, dominantly very fine, occasionally dominantly very coarse, angular to rounded, very poorly sorted, weak silica cement, abundant off white to medium grey argillaceous and silt matrix, clear to opaque quartz grains, trace black coaly detritus, trace biotite flakes, trace pyrite, friable, very poor to occasionally good inferred porosity, no oil fluorescence.
1450-1528	PAARATTE FORMATION Claystone (70%) interbedded with and grading to Sandstone (30%). CLAYSTONE: light to dark grey to medium brown grey, moderately to very silty, often very finely arenaceous, rare medium to pebble rounded quartz grains, trace black coaly detritus, trace pyrite, trace micromica, firm, non fissile. SANDSTONE: off white to medium grey, very fine to rarely fine, trace dispersed medium to very coarse quartz grains, angular to rounded, poorly sorted, weak silica cement, abundant off white argillaceous matrix, clear to opaque quartz grains, abundant altered feldspar grains, trace black coaly detritus, friable, very poor inferred porosity. FLUORESCENCE: from 1503-1507m the sandstone has 20% moderately bright patchy very pale yellow white fluorescence giving a weak milky white crush cut, thin ring residue.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 13 **DATE: 27/02/2007**

Depth: 1723**m** **Progress:** 197**m** **Days from Spud:** 13

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: Drill ahead with 171mm hole at 1771m. Nullawarre Formation - not present, top Belfast Mudstone picked at 1728m, however pick reliability is poor due to the gradational nature of the change in cuttings samples from definite Skull Creek to definite Belfast. Current lithology dark grey claystone (100%), background gas 0.023% (C1 97%, C2 3%, C3+ 0).

Comments:
Drill ahead with 171mm hole to 1723m.

Interval (mRT)	Hydrocarbon Show Summary	Gas
1528-1728	Skull Creek Formation - No Show	TG 0.001-0.01% C1 97% C2 3% C3+ 0

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550	551	-501	1 Low
Dilwyn Formation	635	633	-583	2 High
Pember Mudstone	879	878	-828	1 High
Pebble Point Formation	936	939	-889	3 Low
Massacre Shale	995	1002	-952	7 Low
Timboon Sandstone	1016	1022	-972	6 Low
Paaratte Formation	1129	1128	-1078	1 High
Skull Creek Formation	1521	1528	-1478	7 Low
Nullawarre Formation	1712	n/p	n/p	n/p
Belfast Mudstone	1715	1728	-1678	13 Low
Flaxmans Formation	2026			
Waarre Formation Unit "C"	2045			
Waarre Formation Unit "B"	2075			
Waarre Formation Unit "A"	2091			
Eumeralla Formation	2131			
Total Depth	2250			

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
1528-1728	SKULL CREEK FORMATION Claystone (95%) laminated in part with Sandstone (5%) CLAYSTONE: light to dark grey to medium brown grey, often very silty, occasional abundant dispersed very fine quartz and altered feldspar grains, trace to common black coaly detritus and carbonaceous flecks, trace medium brown cryptocrystalline dolomite in part, trace pyrite, trace micromica, firm, slightly subfissile. SANDSTONE: off white to light grey, very fine, subangular to subrounded, moderately sorted, weak silica cement, abundant off white argillaceous matrix, quartzose with abundant altered feldspar grains, trace black coaly detritus, friable, very poor inferred porosity, no oil fluorescence.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 14 **DATE: 28/02/2007**

Depth: 1889**m** **Progress:** 166**m** **Days from Spud:** 14

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: Drill ahead with 171mm hole to 1900m, circulate hole clean, survey, condition hole for Core No.4.

Comments:
Drill ahead with 171mm hole to 1889m.

Interval (mRT)	Hydrocarbon Show Summary	Gas
1728-1889	Belfast Mudstone - No Show	TG 0.005-0.04% C1 97% C2 3% C3+ 0

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550	551	-501	1 Low
Dilwyn Formation	635	633	-583	2 High
Pember Mudstone	879	878	-828	1 High
Pebble Point Formation	936	939	-889	3 Low
Massacre Shale	995	1002	-952	7 Low
Timboon Sandstone	1016	1022	-972	6 Low
Paaratte Formation	1129	1128	-1078	1 High
Skull Creek Formation	1521	1528	-1478	7 Low
Nullawarre Formation	1712	n/p	n/p	n/p
Belfast Mudstone	1715	1728	-1678	13 Low
Flaxmans Formation	2026			
Waarre Formation Unit "C"	2045			
Waarre Formation Unit "B"	2075			
Waarre Formation Unit "A"	2091			
Eumeralla Formation	2131			
Total Depth	2250			

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
1728-1889	BELFAST MUDSTONE Massive Claystone (100%). CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, trace to common dark green glauconite, trace medium brown cryptocrystalline dolomite, trace Inoceramus, rare disseminated pyrite, common micromica, moderately hard, slightly subfissile.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 15 **DATE: 01/03/2007**

Depth: 1900**m** **Progress:** 11**m** **Days from Spud:** 15

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: POOH, make up 40ft core barrel, RIH for Core No.3.

Comments:
Drill ahead with 171mm hole to 1900m, circulate hole clean, survey, new hole tight, wiper trip to condition hole, POOH for Core No.3.

Interval (mRT)	Hydrocarbon Show Summary	Gas
1889-1900	Belfast Mudstone - No Show	TG 0.01-0.04% C1 97% C2 3% C3+ 0

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550	551	-501	1 Low
Dilwyn Formation	635	633	-583	2 High
Pember Mudstone	879	878	-828	1 High
Pebble Point Formation	936	939	-889	3 Low
Massacre Shale	995	1002	-952	7 Low
Timboon Sandstone	1016	1022	-972	6 Low
Paaratte Formation	1129	1128	-1078	1 High
Skull Creek Formation	1521	1528	-1478	7 Low
Nullawarre Formation	1712	n/p	n/p	n/p
Belfast Mudstone	1715	1728	-1678	13 Low
Flaxmans Formation	2026			
Waarre Formation Unit "C"	2045			
Waarre Formation Unit "B"	2075			
Waarre Formation Unit "A"	2091			
Eumeralla Formation	2131			
Total Depth	2250			

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
1889-1900	BELFAST MUDSTONE Massive Claystone (100%). CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, trace dark green glauconite, rare medium brown cryptocrystalline dolomite, trace Inocaramus, common micromica, moderately hard, slightly subfissile.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 16 **DATE: 02/03/2007**

Depth: 1901**m** **Progress:** 1**m** **Days from Spud:** 16

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: Cut Core No.3, core ahead at 1903.7m.

Comments:
POOH, make up 40ft core barrel, RIH for Core No.3, core ahead to 1901m.

Interval (mRT)	Hydrocarbon Show Summary	Gas
1900-1901	Belfast Mudstone - No Show	TG 0.01-0.03% C1 97% C2 3% C3+ 0

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550	551	-501	1 Low
Dilwyn Formation	635	633	-583	2 High
Pember Mudstone	879	878	-828	1 High
Pebble Point Formation	936	939	-889	3 Low
Massacre Shale	995	1002	-952	7 Low
Timboon Sandstone	1016	1022	-972	6 Low
Paaratte Formation	1129	1128	-1078	1 High
Skull Creek Formation	1521	1528	-1478	7 Low
Nullawarre Formation	1712	n/p	n/p	n/p
Belfast Mudstone	1715	1728	-1678	13 Low
Flaxmans Formation	2026			
Waarre Formation Unit "C"	2045			
Waarre Formation Unit "B"	2075			
Waarre Formation Unit "A"	2091			
Eumeralla Formation	2131			
Total Depth	2250			

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
1900-1901	BELFAST MUDSTONE Massive Claystone (100%). CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, trace dark green glauconite, rare medium brown cryptocrystalline dolomite, trace Inocaramus, common micromica, moderately hard, slightly subfissile.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 17 **DATE: 03/03/2007**

Depth: 1904**m** **Progress:** 3**m** **Days from Spud:** 17

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: RIH, trip gas 0.14%, drill ahead with 171mm hole to 1976m. Current lithology, 100% Claystone (Belfast Mudstone), background gas 0.10%-0.19% (C1 93.6%, C2 6%, C3 0.4%, C4+ 0).

Comments:
Cut Core No.3, 1900.0-1904.2m (4.2m), Recovered 1900.00-1902.65m (2.65m) 63%, Lay out core, RIH with new 4 blade PDC drill bit.

Interval (mRT)	Hydrocarbon Show Summary	Gas
1901-1904	Belfast Mudstone - No Show	TG 0.01-0.02% C1 97% C2 3% C3+ 0

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550	551	-501	1 Low
Dilwyn Formation	635	633	-583	2 High
Pember Mudstone	879	878	-828	1 High
Pebble Point Formation	936	939	-889	3 Low
Massacre Shale	995	1002	-952	7 Low
Timboon Sandstone	1016	1022	-972	6 Low
Paaratte Formation	1129	1128	-1078	1 High
Skull Creek Formation	1521	1528	-1478	7 Low
Nullawarre Formation	1712	n/p	n/p	n/p
Belfast Mudstone	1715	1728	-1678	13 Low
Flaxmans Formation	2026			
Waarre Formation Unit "C"	2045			
Waarre Formation Unit "B"	2075			
Waarre Formation Unit "A"	2091			
Eumeralla Formation	2131			
Total Depth	2250			

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
1901-1904	BELFAST MUDSTONE Massive Claystone (100%). CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, trace dark green glauconite, rare medium brown cryptocrystalline dolomite, trace Inocaramus, common micromica, moderately hard, slightly subfissile.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 18 **DATE: 04/03/2007**

Depth: 2033**m** **Progress:** 129**m** **Days from Spud:** 18

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: RIH with 60ft core barrel for Core No.5.

Comments:
RIH, trip gas 0.14%, drill ahead with 171mm hole to 2033m, circulate sample, survey 0.75 degrees at 86 degrees AZ., POOH for Core No.5.

Interval (mRT)	Hydrocarbon Show Summary	Gas
1904-2020	Belfast Mudstone - No Show	TG 0.05-0.19% C1 92% C2 7% C3 1% C4+ 0
2020-2033	Flaxmans Formation - No Show	TG 0.05-0.10% C1 89.5% C2 7% C3 3% C4 0.5%

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550	551	-501	1 Low
Dilwyn Formation	635	633	-583	2 High
Pember Mudstone	879	878	-828	1 High
Pebble Point Formation	936	939	-889	3 Low
Massacre Shale	995	1002	-952	7 Low
Timboon Sandstone	1016	1022	-972	6 Low
Paaratte Formation	1129	1128	-1078	1 High
Skull Creek Formation	1521	1528	-1478	7 Low
Nullawarre Formation	1712	n/p	n/p	n/p
Belfast Mudstone	1715	1728	-1678	13 Low
Flaxmans Formation	2026	2020	-1970	6 High
Waarre Formation Unit "C"	2045			
Waarre Formation Unit "B"	2075			
Waarre Formation Unit "A"	2091			
Eumeralla Formation	2131			
Total Depth	2250			

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
1904-2020	BELFAST MUDSTONE Massive Claystone (100%). CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, common to abundant dark green glauconite, rare Inoceramus in part, trace to rarely common pyrite, trace to common medium brown cryptocrystalline dolomite, rare calcite, common micromica, moderately hard, slightly subfissile.
2020-2033	FLAXMANS FORMATION Claystone (100%). CLAYSTONE: medium grey to medium to dark brown grey to medium brown, moderately silty, nil to rarely abundant very fine altered feldspar and quartz grains, trace glauconite, slightly calcareous in part, trace pyrite, trace to common slickensides, trace micromica, moderately hard, slightly subfissile.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 19 **DATE: 05/03/2007**

Depth: 2038**m** **Progress:** 5**m** **Days from Spud:** 19

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: Continue cutting Core No.5 at 2042m.

Comments:
RIH with 60ft core barrel, ream tight hole, trip gas 0.218%. Cut Core No.5 from 2033.0m, midnight depth 2038m.

Interval (mRT)	Hydrocarbon Show Summary	Gas
2033-2038	Flaxmans Formation - No Show	TG 0.02-0.04% C1 91% C2 7% C3 2% C4+ 0

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550	551	-501	1 Low
Dilwyn Formation	635	633	-583	2 High
Pember Mudstone	879	878	-828	1 High
Pebble Point Formation	936	939	-889	3 Low
Massacre Shale	995	1002	-952	7 Low
Timboon Sandstone	1016	1022	-972	6 Low
Paaratte Formation	1129	1128	-1078	1 High
Skull Creek Formation	1521	1528	-1478	7 Low
Nullawarre Formation	1712	n/p	n/p	n/p
Belfast Mudstone	1715	1728	-1678	13 Low
Flaxmans Formation	2026	2020	-1970	6 High
Waarre Formation Unit "C"	2045			
Waarre Formation Unit "B"	2075			
Waarre Formation Unit "A"	2091			
Eumeralla Formation	2131			
Total Depth	2250			

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
2033-2038	FLAXMANS FORMATION Claystone (100%). CLAYSTONE: light to dark grey to medium to dark brown grey to occasionally medium brown, moderately silty, occasionally abundant very fine altered feldspar and quartz grains, trace glauconite, slightly calcareous in part, trace pyrite, trace micromica, moderately hard, slightly subfissile.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 20 **DATE: 06/03/2007**

Depth: 2051**m** **Progress:** 13**m** **Days from Spud:** 20

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: POOH, recover Core No.5, cut 2033.0-2051.0m (18.0m), recovered 2044.41-2051.00m (6.59m), 37% recovery. (Core sections missing from top, middle and bottom). Make up 80ft core barrel, RIH for Core No.6.

Comments:
Cut Core No.5, 2033.0-2051.0m, cut 18.0m, POOH.

Interval (mRT)	Hydrocarbon Show Summary	Gas
2038-2050	Flaxmans Formation - Gas Show The sandstones within the Flaxmans Formation appear to be gas saturated. However, due to the abundance of white kaolin matrix visually appear to have insufficient porosity/permeability for significant gas flow rates.	TG 0.02-0.22% C1 91% C2 6% C3 2% C4 1%

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550	551	-501	1 Low
Dilwyn Formation	635	633	-583	2 High
Pember Mudstone	879	878	-828	1 High
Pebble Point Formation	936	939	-889	3 Low
Massacre Shale	995	1002	-952	7 Low
Timboon Sandstone	1016	1022	-972	6 Low
Paaratte Formation	1129	1128	-1078	1 High
Skull Creek Formation	1521	1528	-1478	7 Low
Nullawarre Formation	1712	n/p	n/p	n/p
Belfast Mudstone	1715	1728	-1678	13 Low
Flaxmans Formation	2026	2020	-1970	6 High
Waarre Formation Unit "C"	2045			
Waarre Formation Unit "B"	2075			
Waarre Formation Unit "A"	2091			
Eumeralla Formation	2131			
Total Depth	2250			

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
2038-2050	FLAXMANS FORMATION Claystone (80%) with interbedded Sandstone (20%). CLAYSTONE: light to dark grey to medium to dark brown grey to occasionally medium brown, moderately silty, abundant very fine altered feldspar and quartz grains in part, trace glauconite, slightly calcareous in part, trace pyrite, trace micromica, moderately hard, slightly subfissile. SANDSTONE: off white, very fine to fine, trace to common medium to very coarse grains, dominantly very fine, subangular to subrounded, moderately sorted, weak silica cement, abundant white argillaceous matrix, quartzose with abundant altered feldspar grains, trace black carbonaceous specks, friable, poor visual porosity, no oil fluorescence.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 21 **DATE: 07/03/2007**

Depth: 2075.5**m** **Progress:** 24.5**m** **Days from Spud:** 21

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: RIH with 171mm drilling assembly.

Comments:

POOH, recover Core No.5, cut 2033.0-2051.0m (18.0m), recovered 2044.41-2051.00m (6.59m), 37% recovery. (Core sections missing from top, middle and bottom). Make up 80ft core barrel, RIH for Core No.6, cut Core No.6 2051.0-2075.5m (24.5m), (cuttings from 2070-2075.5m not circulated out prior to POOH), POOH with core barrel, lay out Core No.5, recovered 2051.00-2174.53m (96%), make up 171mm drilling assembly with 4 blade PDC drill bit.

NOTE: The lower portion of the Belfast (approximately 1960-2020m) appears to be unstable. When drilling through this interval the sample cuttings had evidence of fault shearing and low level tectonic stresses. On RIH with core#5 this interval had considerable cavings and required reaming to bottom. Although no hole problems have been encountered since this time with the drill string, continuing caving of a sporadic nature from this interval has been present in the cutting samples - no reduction with time has been observed. Assessment at this stage would suggest this hole condition may progressively worsen with time. Hence a re-assessment of the evaluation program may be worthwhile, with a view to shorten the time this hole is to remain open before being cased.

Interval (mRT)	Hydrocarbon Show Summary	Gas
2050-2053.5	Flaxmans Formation - Gas Show The sandstones within the Flaxmans Formation appear to be gas saturated. However, due to the abundance of white kaolin matrix visually appear to have insufficient porosity/permeability for significant gas flow rates.	TG 0.02-0.22% C1 91% C2 6% C3 2% C4 1%
2053.5-2075.5	Waarre Formation Unit "C" - Gas Show From visual assessment of the gas character a residual gas column may be present from 2053.5-2058.0m, (-2003.5 to -2008.5SS) with a gas transition phase from 2058.0-2060.5m (-2008.0 to -2010.5mSS). Accurate delineation from drill gas is not totally reliable whilst coring due to the low circulation rate (long lag time) and the limited volume and poor quality of the cuttings produced by the core bit.	TG 0.03-0.97% C1 91% C2 6% C3 2% C4 1%

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550	551	-501	1 Low
Dilwyn Formation	635	633	-583	2 High
Pember Mudstone	879	878	-828	1 High
Pebble Point Formation	936	939	-889	3 Low
Massacre Shale	995	1002	-952	7 Low
Timboon Sandstone	1016	1022	-972	6 Low
Paaratte Formation	1129	1128	-1078	1 High
Skull Creek Formation	1521	1528	-1478	7 Low
Nullawarre Formation	1712	n/p	n/p	n/p
Belfast Mudstone	1715	1728	-1678	13 Low
Flaxmans Formation	2026	2020	-1970	6 High
Waarre Formation Unit "C"	2045	2053.5	-2003.5	8.5 Low
Waarre Formation Unit "B"	2075			
Waarre Formation Unit "A"	2091			
Eumeralla Formation	2131			
Total Depth	2250			

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
2050-2053.5	FLAXMANS FORMATION Claystone (80%) with interbedded Sandstone (20%). CLAYSTONE: light to dark grey to medium to dark brown grey to occasionally medium brown, moderately silty, abundant very fine altered feldspar and quartz grains in part, trace glauconite, slightly calcareous in part, trace pyrite, trace micromica, moderately hard, slightly subfissile. SANDSTONE: off white, very fine to fine, trace to common medium to very coarse grains, dominantly very fine, subangular to surrounded, moderately sorted, weak silica cement, abundant white argillaceous matrix, quartzose with abundant altered feldspar grains, trace black carbonaceous specks, friable, poor visual porosity, no oil fluorescence.
2053.5-2075.5	WAARRE FORMATION UNIT "C" Sandstone (90%) with minor interbedded Claystone (10%) and minor laminations of Coal (trace). SANDSTONE: light grey, very fine to pebble, dominantly very coarse, angular to subrounded, very poorly sorted, weak silica cement, trace to common off white argillaceous matrix, clear to opaque quartz grains, trace black coaly detritus and laminae, friable, good visual porosity, no oil fluorescence. CLAYSTONE: very dark grey, slightly silty, very carbonaceous, trace slickensides, common micromica, moderately hard, slightly subfissile. COAL: very dark grey to black, slightly to dominantly very argillaceous, trace micromica, common slickensides, soft to firm.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 22 **DATE: 08/03/2007**

Depth: 2249**m** **Progress:** 173.5**m** **Days from Spud:** 22

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Brian Assels	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: Work tight hole.

Comments:
RIH with 4 blade PDC bit, drill ahead with 171mm hole to 2249m, T.D. Reached at 2200hrs, 8th March, 2007, POOH to log.

Interval (mRT)	Hydrocarbon Show Summary	Gas
2075.5-2084	Waarre Formation Unit "C" - No Show	TG 0.02-0.43% C1 90% C2 6% C3 3% C4 1% C5 trace
2084-2103	Waarre Formation Unit "B" - No Show	TG 0.02-0.12% C1 90% C2 7% C3 2% C4 1%
2103-2140	Waarre Formation Unit "A" - Gas Show The Waarre sandstones appear to have some gas saturation but from cutting samples appear to have insufficient porosity/permeability to achieve significant gas flow rates.	TG 0.05-0.46% C1 92% C2 5% C3 2% C4 1% C5 trace
2140-2249	Eumeralla Formation - Gas Shows The Eumeralla appears to contain some gas saturation, however this has very limited porosity/permeability - too low for significant flow rates.	TG 0.01-0.24% C1 95% C2 4% C3 1% C4 trace

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550	551	-501	1 Low
Dilwyn Formation	635	633	-583	2 High
Pember Mudstone	879	878	-828	1 High
Pebble Point Formation	936	939	-889	3 Low
Massacre Shale	995	1002	-952	7 Low
Timboon Sandstone	1016	1022	-972	6 Low
Paaratte Formation	1129	1128	-1078	1 High
Skull Creek Formation	1521	1528	-1478	7 Low
Nullawarre Formation	1712	n/p	n/p	n/p
Belfast Mudstone	1715	1728	-1678	13 Low
Flaxmans Formation	2026	2020	-1970	6 High
Waarre Formation Unit "C"	2045	2053.5	-2003.5	8.5 Low
Waarre Formation Unit "B"	2075	2084	-2034	9 Low
Waarre Formation Unit "A"	2091	2103	-2053	12 Low
Eumeralla Formation	2131	2140	-2090	9 Low
Total Depth	2250	2249	-2199	1 High

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
2075.5-2084	WAARRE FORMATION UNIT "C" Sandstone (90%) with minor interbedded Claystone (10%) and minor laminations of Coal (trace). SANDSTONE: light grey, very fine to pebble, dominantly very coarse, angular to subrounded, very poorly sorted, weak silica cement, trace to common off white argillaceous matrix, clear to opaque quartz grains, trace black coaly detritus and laminae, friable, good visual porosity, no oil fluorescence. CLAYSTONE: very dark grey, slightly silty, very carbonaceous, trace slickensides, common micromica, moderately hard, slightly subfissile. COAL: very dark grey to black, slightly to dominantly very argillaceous, trace micromica, common slickensides, soft to firm.
2084-2103	WAARRE FORMATION UNIT "B" Claystone (80%) interlaminated and thinly interbedded with Sandstone (20%). CLAYSTONE: medium to dark grey to dark brown grey, very silty, often very finely arenaceous with quartz and altered feldspar grains, slightly to moderately carbonaceous, common black carbonaceous flecks and coaly detritus, trace pyrite, common micromica, moderately hard, slightly subfissile. SANDSTONE: off white to light grey, very fine to fine, dominantly very fine, angular to subrounded, moderately sorted, moderate silica cement, common to abundant white argillaceous matrix, quartzose with common altered feldspar grains, trace black carbonaceous specks and detritus, moderately hard, very poor visual porosity, no oil fluorescence.

2103-2140	WAARRE FORMATION UNIT "A" Sandstone (90%) interlaminated and thinly interbedded with Claystone (10%). SANDSTONE: off white to light grey, very fine to fine, common medium to very coarse grains, dominantly fine, angular to subrounded, moderately sorted, moderate silica cement, abundant white argillaceous matrix, quartzose with abundant altered feldspar grains, trace black carbonaceous specks and detritus, trace pyrite, moderately hard, very poor to poor visual porosity, no oil fluorescence. CLAYSTONE: medium to dark grey to medium brown grey, very silty, often very finely arenaceous with quartz and altered feldspar grains, slightly carbonaceous, common black carbonaceous flecks and coaly detritus, trace pyrite, common micromica, moderately hard, slightly subfissile.
2140-2249	EUMERALLA FORMATION Sandstone (90%) weathered at top becoming fresher with depth with interbedded Claystone (10%). SANDSTONE: light to medium green grey, very fine to medium, dominantly fine, subangular to subrounded, moderately to well sorted, moderate silica and occasional weak calcareous cement, abundant white argillaceous matrix, abundant altered feldspar and grey green lithic grains, trace red brown lithics, trace to common quartz grains, trace black carbonaceous detritus, friable, very poor visual porosity, no oil fluorescence. CLAYSTONE: medium green grey to medium brown grey, trace black carbonaceous flecks, soft, non fissile.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 23 **DATE: 09/03/2007**

Depth: 2249**m** **Progress:** 0**m** **Days from Spud:** 23

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Roy Dunne	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: Run Schlumberger run#2, FMI.

Comments:
TD (2249m) reached at 2200hrs 8th March, 2007, Survey at 2236m = 1 degree at 266 Azimuth, Condition hole, POOH to log, lay out core barrel, rig up Schlumberger - Run#1 Pex-Hals, Run#2 FMI.

Interval (mRT)	Hydrocarbon Show Summary	Gas
	No new formation drilled.	

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550	551	-501	1 Low
Dilwyn Formation	635	633	-583	2 High
Pember Mudstone	879	878	-828	1 High
Pebble Point Formation	936	939	-889	3 Low
Massacre Shale	995	1002	-952	7 Low
Timboon Sandstone	1016	1022	-972	6 Low
Paaratte Formation	1129	1128	-1078	1 High
Skull Creek Formation	1521	1528	-1478	7 Low
Nullawarre Formation	1712	n/p	n/p	n/p
Belfast Mudstone	1715	1728	-1678	13 Low
Flaxmans Formation	2026	2020	-1970	6 High
Waarre Formation Unit "C"	2045	2053.5	-2003.5	8.5 Low
Waarre Formation Unit "B"	2075	2084	-2034	9 Low
Waarre Formation Unit "A"	2091	2103	-2053	12 Low
Eumeralla Formation	2131	2140	-2090	9 Low
Total Depth	2250	2249	-2199	1 High

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
	No new formation drilled.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 24 **DATE: 10/03/2007**

Depth: 2249**m** **Progress:** 0**m** **Days from Spud:** 24

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Roy Dunne	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: Continue to run Schlumberger logs: Run#3 MDT, Rig up for Run#4 (MDT samples).

Comments:
Continue to run Schlumberger Logs: Run#2 FMI, Run#3 MDT (30 pressure points).

Interval (mRT)	**Hydrocarbon Show Summary**	**Gas**
	No new formation drilled.	

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550	551	-501	1 Low
Dilwyn Formation	635	633	-583	2 High
Pember Mudstone	879	878	-828	1 High
Pebble Point Formation	936	939	-889	3 Low
Massacre Shale	995	1002	-952	7 Low
Timboon Sandstone	1016	1022	-972	6 Low
Paaratte Formation	1129	1128	-1078	1 High
Skull Creek Formation	1521	1528	-1478	7 Low
Nullawarre Formation	1712	n/p	n/p	n/p
Belfast Mudstone	1715	1728	-1678	13 Low
Flaxmans Formation	2026	2020	-1970	6 High
Waarre Formation Unit "C"	2045	2053.5	-2003.5	8.5 Low
Waarre Formation Unit "B"	2075	2084	-2034	9 Low
Waarre Formation Unit "A"	2091	2103	-2053	12 Low
Eumeralla Formation	2131	2140	-2090	9 Low
Total Depth	2250	2249	-2199	1 High

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
	No new formation drilled.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 25 **DATE: 11/03/2007**

Depth: 2249**m** **Progress:** 0**m** **Days from Spud:** 25

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Roy Dunne	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: Continue to run Schlumberger logs: Run#5 CMR-ECS.

Comments:
Continue to run Schlumberger Logs: Run#4 MDT (samples), Run#5 CMR-ECS.

Interval (mRT)	**Hydrocarbon Show Summary**	**Gas**
	No new formation drilled.	

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550	551	-501	1 Low
Dilwyn Formation	635	633	-583	2 High
Pember Mudstone	879	878	-828	1 High
Pebble Point Formation	936	939	-889	3 Low
Massacre Shale	995	1002	-952	7 Low
Timboon Sandstone	1016	1022	-972	6 Low
Paaratte Formation	1129	1128	-1078	1 High
Skull Creek Formation	1521	1528	-1478	7 Low
Nullawarre Formation	1712	n/p	n/p	n/p
Belfast Mudstone	1715	1728	-1678	13 Low
Flaxmans Formation	2026	2020	-1970	6 High
Waarre Formation Unit "C"	2045	2053.5	-2003.5	8.5 Low
Waarre Formation Unit "B"	2075	2084	-2034	9 Low
Waarre Formation Unit "A"	2091	2103	-2053	12 Low
Eumeralla Formation	2131	2140	-2090	9 Low
Total Depth	2250	2249	-2199	1 High

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
	No new formation drilled.

WELL NAME: CRC No.1 **PERMIT: PPL 13**

DAILY GEOLOGICAL REPORT No. 26 **DATE: 12/03/2007**

Depth: 2249**m** **Progress:** 0**m** **Days from Spud:** 26

Rig:	Century Rig No.11	**GL*(AHD)*:**	44.8m
Drilling Rep:	Kevin Murphy/Roy Dunne	**RT:** *(datum)*	50.0m
Geologist:	David Horner	**Last Casing:**	194mm at 512m

0600 hrs Update: Make up slick BHA, RIH for cleanout trip prior to running completion casing.

Comments:
Continue to run Schlumberger Logs: Run#5 CMR-ECS, Run#6 MDT (minifrac) tool failed, Rig down Schlumberger.

Interval (mRT)	Hydrocarbon Show Summary	Gas
	No new formation drilled.	

Formation Tops:	Prognosed (mRT)	Actual* (mRT)	Actual* (mSS)	Difference* (High/Low)
Port Campbell Limestone	5.2	5.2	44.8	0
Gellibrand Marl	125	122	-72	3 High
Clifton Formation	462	457	-407	5 High
Narrawaturk Marl	476	474	-424	2 High
Mepunga Formation	550	551	-501	1 Low
Dilwyn Formation	635	633	-583	2 High
Pember Mudstone	879	878	-828	1 High
Pebble Point Formation	936	939	-889	3 Low
Massacre Shale	995	1002	-952	7 Low
Timboon Sandstone	1016	1022	-972	6 Low
Paaratte Formation	1129	1128	-1078	1 High
Skull Creek Formation	1521	1528	-1478	7 Low
Nullawarre Formation	1712	n/p	n/p	n/p
Belfast Mudstone	1715	1728	-1678	13 Low
Flaxmans Formation	2026	2020	-1970	6 High
Waarre Formation Unit "C"	2045	2053.5	-2003.5	8.5 Low
Waarre Formation Unit "B"	2075	2084	-2034	9 Low
Waarre Formation Unit "A"	2091	2103	-2053	12 Low
Eumeralla Formation	2131	2140	-2090	9 Low
Total Depth	2250	2249	-2199	1 High

Provisional, based on mudlog

Lithological and Fluorescence Description	
Interval (m)	**Description**
	No new formation drilled.

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ATTACHMENT 17 : CUTTINGS DESCRIPTION

CUTTINGS DESCRIPTIONS

WELL NAME: **CRC No.1** **DATE:**15-02-2007

GEOLOGIST: David Horner **PAGE:** 1

Interval (m)	%	Description
15.2-20	100	CALCARENITE: light grey to yellow orange, very fine to medium, dominantly fine grained, common fossil fragments including bryozoa, echinoid spines, sponge spicules, gastropods, bivalves and forams, trace black lithics, trace medium grey marl clasts, moderate calcareous cement, poor visual porosity, friable to moderately hard.
20-30	100	CALCARENITE: light grey to occasionally yellow orange, very fine to medium, dominantly fine grained, abundant fossil fragments including bryozoa, echinoid spines, sponge spicules, gastropods, bivalves and forams - occasionally infilled with glauconite, trace black lithics, trace glauconite, trace medium grey marl clasts, moderate calcareous cement, poor visual porosity, friable to moderately hard.
30-40	100	CALCARENITE: light grey, very fine to medium, dominantly fine grained, abundant fossil fragments including bryozoa, echinoid spines, sponge spicules, gastropods, bivalves and forams - occasionally infilled with glauconite, trace black lithics, trace glauconite, rare medium grey marl, moderate calcareous cement, poor visual porosity, friable to moderately hard.
40-60	100	CALCARENITE: light grey, very fine to occasionally medium, dominantly fine grained, slightly argillaceous, abundant fossil fragments including bryozoa, echinoid spines, sponge spicules, gastropods, bivalves and forams - occasionally infilled with glauconite, trace black lithics, trace glauconite, trace medium grey marl, moderate calcareous cement, poor visual porosity, friable to moderately hard.
60-80	100	CALCARENITE: light grey, very fine to rarely medium, slightly argillaceous, common fossil fragments including bryozoa, echinoid spines, sponge spicules, gastropods, bivalves and forams, trace black lithics, trace glauconite, trace medium grey marl, moderate calcareous cement, poor visual porosity, friable to moderately hard.
80-90	100	CALCARENITE: light grey, very fine to fine, dominantly fine, slightly to moderately argillaceous, trace to common fossil fragments including bryozoa, echinoid spines, sponge spicules, gastropods, bivalves and forams, trace black lithics, trace glauconite, trace medium grey marl, moderate calcareous cement, poor visual porosity, friable to moderately hard.
90-120	100	CALCARENITE: light grey, very fine to fine, dominantly very fine, slightly to moderately argillaceous, trace fossil fragments including bryozoa, echinoid spines, sponge spicules, gastropods, bivalves and forams, trace black lithics, trace glauconite, trace medium grey marl, moderate calcareous cement, poor visual porosity, friable to moderately hard.
120-130	10	CALCARENITE: as for 90-120m.
	90	MARL: medium green grey to medium brown grey, common to abundant fossil fragments including bryozoa, forams, bivalves, gastropods, sponge spicules and echinoid spines, rare glauconite, very soft, sticky, non fissile.
130-140	100	MARL: medium green grey to medium brown grey, abundant fossil fragments including bryozoa, forams, bivalves, gastropods, sponge spicules and echinoid spines, rare glauconite, rare pyrite, very soft, sticky, non fissile.
140-160	100	MARL: medium green grey to medium brown grey, occasionally medium to dark grey, abundant fossil fragments including bryozoa, forams, bivalves, gastropods, sponge spicules and echinoid spines, rare glauconite, rare pyrite, rare black coaly detritus, very soft, sticky, non fissile.

Interval (m)	%	Description	PAGE: 2

160-200	100	MARL: medium green grey to occasionally medium brown grey, occasionally medium to dark grey, abundant fossil fragments including bryozoa, forams, bivalves, gastropods, sponge spicules and echinoid spines, rare pyrite, rare black coaly detritus, very soft, sticky, non fissile.
200-230	100	MARL: medium to dark green grey to occasionally medium brown grey, medium to dark grey, abundant fossil fragments including bryozoa, forams, bivalves, gastropods, sponge spicules and echinoid spines, very soft, sticky, non fissile.
230-270	100	MARL: medium green grey to occasionally medium brown grey, occasionally medium to dark grey, abundant fossil fragments including bryozoa, forams, bivalves, gastropods, sponge spicules and echinoid spines, very soft, sticky, non fissile.
270-300	100	MARL: medium green grey to rarely medium brown grey, occasionally medium to dark grey, abundant fossil fragments including bryozoa, forams, bivalves, gastropods, sponge spicules and echinoid spines, very soft, sticky, non fissile.
300-330	100	MARL: medium green grey to occasionally medium to dark grey to medium brown grey, abundant fossil fragments including bryozoa, forams, bivalves, gastropods, sponge spicules and echinoid spines, very soft, sticky, non fissile.
330-360	100	MARL: medium green grey to occasionally medium to dark grey, occasionally medium brown grey, abundant fossil fragments including bryozoa, forams, bivalves, gastropods, sponge spicules and echinoid spines, very soft, sticky, non fissile.
360-400	100	MARL: medium green grey, rarely medium to dark grey to medium brown grey, abundant fossil fragments including bryozoa, forams, bivalves, gastropods, sponge spicules and echinoid spines, very soft, sticky, non fissile.
400-420	100	MARL: medium green grey to dark grey, occasionally medium brown grey, abundant fossil fragments including bryozoa, forams, bivalves, gastropods, sponge spicules and echinoid spines, very soft, sticky, non fissile.
420-450	100	MARL: medium green grey to occasionally medium to dark grey, occasionally medium brown grey, abundant fossil fragments including bryozoa, forams, bivalves, gastropods, sponge spicules and echinoid spines, very soft, sticky, non fissile.
450-460	40	MARL: as for 420-450m.
	60	CALCARENITE: off white to orange to dark red brown, very fine to very coarse, abundant fossil fragments often with red brown iron oxide staining, common dark brown iron oxide pellets, trace very fine to very coarse orange brown stained frosted quartz grains, very argillaceous and marly in part, friable to moderately hard, poor infered porosity.
460-470	40	MARL: as for 420-450m.
	60	CALCARENITE: off white to yellow orange to occasionally dark red brown, very fine to very coarse, abundant fossil fragments often with light yellow orange iron oxide staining, common dark brown iron oxide pellets, trace very fine to very coarse orange brown stained frosted quartz grains, very argillaceous and marly in part, friable to moderately hard, poor infered porosity.
470-480	10	MARL: as for 420-450m.
	20	CALCARENITE: as for 460-470m.
	70	MARL: medium to dark brown grey, common medium green grey (cavings?), common green black glauconite, abundant fossil fragments, soft, sticky, non fissile.
480-500	100	MARL: medium to dark brown grey, common medium green grey (cavings?), common green black glauconite, abundant fossil fragments, rare disseminated pyrite, soft, sticky, non fissile.
500-516	100	MARL: medium to dark brown grey, dominantly medium brown grey, trace medium green grey (cavings?), common green black glauconite, abundant fossil fragments, rare disseminated pyrite, soft, sticky, non fissile.
516-530	100	MARL: medium to dark brown grey, common green black glauconite, common fossil fragments, rare disseminated pyrite, soft, sticky, non fissile.

530-540	100	MARL: medium to dark brown grey, trace to common green black glauconite, common fossil fragments, rare disseminated pyrite, soft, sticky, non fissile.
540-550	100	MARL: as for 230-240m.
	Trace	CLAYSTONE: as for 550-560m.
550-560	20	MARL: as for 230-240m.
	80	CLAYSTONE: dark brown to dark brown grey, rarely off white, slightly silty, trace dispersed very fine to grit angular to subangular quartz sand grains, trace glauconite, trace fossil fragments, rare pyrite, trace very fine black carbonaceous detritus, soft, moderately dispersive, non fissile.
560-580	100	CLAYSTONE: dark brown to dark brown grey to occasionally off white, slightly silty, moderately to very calcareous, common dispersed very fine to grit quartz sand grains, common glauconite, trace very fine black carbonaceous detritus, soft, moderately dispersive, non fissile.
580-590	80	CLAYSTONE: off white to yellow to dark brown to dark brown grey, slightly to moderately silty, moderately to very calcareous, common to abundant dispersed very fine to grit brown iron oxide stained quartz grains, common glauconite, trace very fine black carbonaceous detritus, soft, moderately dispersive, non fissile.
	20	SANDSTONE: light yellow to medium brown, very fine to grit, dominantly coarse, subrounded to rounded, very poorly sorted, abundant off white to yellow to dark brown argillaceous matrix, abundant calcilutite matrix in part, weak to occasionally strong calcareous cement, brown iron oxide stained frosted quartz grains, common dark brown iron oxide pellets, trace glauconite, unconsolidated to occasionally moderately hard, poor visual porosity, no oil fluorescence.
590-600	60	CLAYSTONE: off white to yellow to dark brown to dark brown grey, slightly to moderately silty, moderately to very calcareous, abundant dispersed very fine to grit brown iron oxide stained quartz grains, common glauconite, trace very fine black carbonaceous detritus, soft, moderately dispersive, non fissile.
	40	SANDSTONE: light yellow to dominantly medium brown, very fine to grit, dominantly coarse, subrounded to rounded, very poorly sorted, abundant off white to yellow to dark brown argillaceous matrix, abundant calcilutite matrix in part, weak to occasionally strong calcareous cement, brown iron oxide stained frosted quartz grains, common dark brown iron oxide pellets, trace glauconite, unconsolidated to occasionally moderately hard, poor visual porosity, no oil fluorescence.
600-610	60	CLAYSTONE: medium to dark brown to dark brown grey, occasionally off white to yellow, slightly to moderately silty, slightly to moderately calcareous, abundant dispersed very fine to grit brown iron oxide stained quartz grains, trace glauconite, trace very fine black carbonaceous detritus, soft, moderately dispersive, non fissile.
	40	SANDSTONE: medium to dark brown, occasionally off white to yellow, very fine to grit, dominantly fine, subrounded to rounded, very poorly sorted, abundant off white to yellow to dark brown argillaceous matrix, rarely abundant calcilutite matrix, weak calcareous cement, abundant brown iron oxide stained frosted quartz grains, trace dark brown iron oxide pellets, trace glauconite, unconsolidated to rarely moderately hard, poor visual porosity, no oil fluorescence.
610-620	30	CLAYSTONE: medium to dark brown to dark brown grey, moderately silty, slightly to moderately calcareous, abundant dispersed very fine to grit brown iron oxide stained quartz grains - grades to sandstone, trace glauconite, trace very fine black carbonaceous detritus, soft, moderately dispersive, non fissile.
	70	SANDSTONE: medium brown, rarely off white to yellow, very fine to grit, dominantly medium, subrounded to rounded, very poorly sorted, abundant medium to dark brown argillaceous matrix - grades in part to sandy claystone, weak calcareous cement in part, clear to milky to brown iron oxide stained frosted quartz grains, trace dark brown iron oxide pellets, trace glauconite, unconsolidated, fair visual porosity, no oil fluorescence.

620-630	50	CLAYSTONE: medium to dark brown to dark brown grey, slightly to moderately silty, slightly to moderately calcareous, abundant dispersed very fine to grit brown iron oxide stained quartz grains in part - grades to sandstone, trace very fine black carbonaceous detritus, soft, moderately dispersive, non fissile.
	50	SANDSTONE: medium brown, rarely off white to yellow, very fine to grit, dominantly coarse, subrounded to rounded, very poorly sorted, abundant medium to dark brown argillaceous matrix - grades in part to sandy claystone, weak calcareous cement in part, clear to milky to brown iron oxide stained frosted quartz grains, unconsolidated, poor to fair visual porosity, no oil fluorescence.
630-640	40	CLAYSTONE: dark brown to dark brown grey, moderately silty, common dispersed very fine to medium quartz sand grains in part, trace marcasite, moderately dispersive, soft, non fissile.
	60	SANDSTONE: light brown grey, very fine to medium, occasional coarse to very coarse grains, dominantly medium, subangular to subrounded, poorly to moderately sorted, weak silica cement, abundant dark brown grey argillaceous matrix, clear to opaque quartz grains often with yellow to brown staining, unconsolidated to friable, poor inferred porosity, no oil fluorescence.
640-650	30	CLAYSTONE: as for 630-640m.
	70	SANDSTONE: light brown grey to medium brown, very fine to very coarse, dominantly medium, subangular to subrounded, poorly sorted, weak silica cement, abundant dark brown grey argillaceous matrix, clear to opaque quartz grains often with brown staining, trace marcasite, unconsolidated to friable, poor inferred porosity, no oil fluorescence.
650-660	80	CLAYSTONE: dark brown to dark brown grey, moderately silty, common dispersed very fine to fine quartz sand grains in part, trace marcasite, moderately dispersive, soft, non fissile.
	20	SANDSTONE: as for 640-650m.
660-680	60	CLAYSTONE: as for 650-660m.
	40	SANDSTONE: as for 640-650m.
680-690	50	CLAYSTONE: as for 650-660m.
	50	SANDSTONE: light brown grey to medium brown, very fine to very coarse, dominantly medium, subangular to subrounded, poorly sorted, weak silica cement, rare strong calcareous cement, abundant dark brown grey argillaceous matrix, clear to opaque quartz grains occasionally with yellowish brown staining, trace marcasite, friable, poor inferred porosity, no oil fluorescence.
690-700	40	CLAYSTONE: medium brown to dark brown grey, moderately silty, common dispersed very fine to fine quartz sand grains in part, trace marcasite, moderately dispersive, soft, non fissile.
	60	SANDSTONE: as for 680-690m.
700-710	60	CLAYSTONE: as for 690-700m.
	40	SANDSTONE: as for 680-690m.
710-720	20	CLAYSTONE: as for 690-700m.
	80	SANDSTONE: very light brown grey, very fine to very coarse, dominantly medium, subangular to subrounded, poorly sorted, weak silica cement, common dark brown grey argillaceous matrix, clear to opaque quartz grains occasionally with yellow staining, trace coarse muscovite flakes, trace marcasite, friable, fair to good inferred porosity, no oil fluorescence.
720-730	50	CLAYSTONE: medium brown to dark brown grey, moderately silty, common dispersed very fine to fine quartz sand grains in part, trace coarse muscovite flakes, trace marcasite, moderately dispersive, soft, non fissile.

	50	SANDSTONE: very light brown grey, very fine to very coarse, dominantly medium, subangular to subrounded, poorly sorted, weak silica cement, abundant dark brown grey argillaceous matrix, clear to opaque quartz grains occasionally with yellow staining, trace coarse muscovite flakes, trace marcasite, friable, poor inferred porosity, no oil fluorescence.
730-740	40	CLAYSTONE: as for 720-730m.
	60	SANDSTONE: as for 720-730m.
740-760	Trace	CLAYSTONE: as for 720-730m.
	100	SANDSTONE: very light brown grey, very fine to very coarse, dominantly coarse, subangular to subrounded, poorly sorted, weak silica cement, common dark brown grey argillaceous matrix, clear to opaque quartz grains occasionally with yellow staining, trace coarse muscovite flakes, trace black coal detritus, trace marcasite, friable, good inferred porosity, no oil fluorescence.
760-780	10	CLAYSTONE: as for 720-730m.
	90	SANDSTONE: as for 740-760m.
780-810	Trace	CLAYSTONE: as for 720-730m.
	100	SANDSTONE: very light brown grey, very fine to very coarse, dominantly coarse, subangular to subrounded, poorly sorted, weak silica cement, common dark brown grey argillaceous matrix, clear to opaque quartz grains occasionally with yellow staining, trace coarse muscovite flakes, trace red rhyolite lithics, trace black coal detritus, trace marcasite, friable, good inferred porosity, no oil fluorescence.
810-815	60	CLAYSTONE: medium to dark brown to dark brown grey, moderately silty, common dispersed very fine to fine quartz sand grains in part, trace coarse muscovite flakes, trace marcasite, moderately dispersive, soft, non fissile.
	40	SANDSTONE: very light brown grey, very fine to very coarse, dominantly coarse, subangular to subrounded, poorly sorted, weak silica cement, abundant dark brown grey argillaceous matrix, clear to opaque quartz grains occasionally with yellow staining, trace coarse muscovite flakes, trace red rhyolite lithics, trace black coal detritus, trace marcasite, friable, fair inferred porosity, no oil fluorescence.
815-820	40	CLAYSTONE: as for 810-815m.
	60	SANDSTONE: very light brown grey, very fine to very coarse, dominantly coarse, subangular to subrounded, poorly sorted, weak silica cement, common dark brown grey argillaceous matrix, clear to opaque quartz grains occasionally with yellow staining, trace coarse muscovite flakes, trace red rhyolite lithics, trace black coal detritus, trace marcasite, friable, good inferred porosity, no oil fluorescence.
820-830	60	CLAYSTONE: as for 810-815m.
	40	SANDSTONE: very light brown grey, very fine to very coarse, dominantly coarse, subangular to subrounded, poorly sorted, weak silica cement, abundant dark brown grey argillaceous matrix, clear to opaque quartz grains occasionally with yellow staining, trace coarse muscovite flakes, trace red rhyolite lithics, trace black coal detritus, trace marcasite, friable, fair inferred porosity, no oil fluorescence.
830-840	30	CLAYSTONE: as for 810-815m.
	70	SANDSTONE: very light brown grey, very fine to very coarse, dominantly coarse, subangular to subrounded, poorly sorted, weak silica cement, common dark brown grey argillaceous matrix, clear to opaque quartz grains occasionally with yellow staining, trace coarse muscovite flakes, trace red rhyolite lithics, trace black coal detritus, trace marcasite, friable, good inferred porosity, no oil fluorescence.
840-845	30	SANDSTONE: as for 830-840m.

	70	CLAYSTONE: medium to dark brown to dark brown grey, moderately silty, common dispersed very fine to fine quartz sand grains in part, trace coarse muscovite flakes, trace cryptocrystalline dolomite, trace marcasite, moderately dispersive, soft, non fissile.
845-850	60	CLAYSTONE: as for 840-845m.
	40	SANDSTONE: very light brown grey, very fine to grit, dominantly coarse, subangular to subrounded, poorly sorted, weak silica cement, common dark brown grey argillaceous matrix, common white argillaceous matrix in part, clear to opaque quartz grains occasionally with yellow staining, trace coarse muscovite flakes, trace red rhyolite lithics, trace black coal detritus, trace marcasite, friable, good inferred porosity, no oil fluorescence.
850-860	80	CLAYSTONE: medium to dark brown to dark brown grey, occasionally white, moderately silty, common dispersed very fine to fine quartz sand grains in part, trace coarse muscovite flakes, trace cryptocrystalline dolomite, trace marcasite, moderately dispersive, soft, non fissile.
	20	SANDSTONE: very light brown grey, very fine to grit, dominantly coarse, subangular to subrounded, very poorly sorted, weak silica cement, common dark brown grey argillaceous matrix, common white argillaceous matrix in part, clear to opaque quartz grains occasionally with yellow staining, trace cryptocrystalline dolomite, trace coarse muscovite flakes, trace red rhyolite lithics, trace black coal detritus, trace marcasite, friable, good inferred porosity, no oil fluorescence.
860-865	30	CLAYSTONE: as for 850-860m.
	70	SANDSTONE: as for 850-860m.
865-875	20	CLAYSTONE: as for 850-860m.
	80	SANDSTONE: as for 850-860m.
875-880	40	CLAYSTONE: medium to dark brown grey, moderately silty, abundant dispersed very fine to medium quartz sand grains in part, common marcasite, moderately dispersive, soft, non fissile.
	60	SANDSTONE: as for 850-860m.
880-885	70	CLAYSTONE: medium brown to medium to dark brown grey, moderately to occasionally very silty, abundant dispersed very fine to medium quartz sand grains in part, trace glauconite, common marcasite, moderately dispersive, soft, non fissile.
	30	SANDSTONE: very light brown grey, very fine to coarse, dominantly fine, subangular to subrounded, poorly sorted, weak silica cement, abundant dark brown grey argillaceous matrix, clear to opaque quartz grains, trace coarse mica flakes, trace black coal detritus, common marcasite, friable, poor inferred porosity, no oil fluorescence.
885-895	90	CLAYSTONE: medium brown to dark brown grey, moderately to occasionally very silty, abundant dispersed very fine to medium quartz sand grains in part, trace glauconite, common marcasite, moderately dispersive, soft, non fissile.
	10	SANDSTONE: as for 880-885m.
895-900	100	CLAYSTONE: medium brown to dark brown grey, occasionally dark green, moderately to occasionally very silty, abundant dispersed very fine to medium quartz sand grains in part, common glauconite, common marcasite, moderately dispersive, soft, non fissile.
	Trace	SANDSTONE: very light brown grey, very fine to occasionally medium, dominantly fine, subangular to subrounded, poorly sorted, weak silica cement, abundant dark brown grey argillaceous matrix, clear to opaque quartz grains, trace coarse mica flakes, trace black coal detritus, trace glauconite, common marcasite, friable, poor inferred porosity, no oil fluorescence.
900-915	100	CLAYSTONE: medium brown to dark brown grey, often dark green, moderately to occasionally very silty, abundant dispersed very fine to medium quartz sand grains in part, common to abundant glauconite, common marcasite, moderately dispersive, soft, non fissile.

	Trace	SANDSTONE: very light brown grey, very fine to occasionally medium, dominantly fine, subangular to subrounded, poorly sorted, weak silica cement, abundant dark brown grey argillaceous matrix, clear to opaque quartz grains, trace coarse mica flakes, trace black coal detritus, common glauconite, common marcasite, friable, poor inferred porosity, no oil fluorescence.
915-918.5	100	CLAYSTONE: medium brown to dark brown grey to dark grey, often dark green, moderately to occasionally very silty, abundant dispersed very fine to medium quartz sand grains in part, common to abundant glauconite, common marcasite, moderately dispersive, soft, non fissile.
918.5-920	100	CLAYSTONE: dark brown grey, very silty, very finely arenaceous with angular to subangular clear to opaque quartz grains, trace fine brown and clear mica flakes, common disseminated marcasite, soft, non fissile.
920-930	100	CLAYSTONE: dark brown grey to occasionally dark green grey, very silty, very finely arenaceous with angular to subangular clear to opaque quartz grains, trace fine brown and clear mica flakes, trace glauconite, common disseminated marcasite, soft, non fissile.
930-940	100	CLAYSTONE: dark brown grey to occasionally dark green grey, very silty, very finely arenaceous with angular to subangular clear to opaque quartz grains, trace fine brown and clear mica flakes, common glauconite, common disseminated marcasite, soft, non fissile.
940-945	30	CLAYSTONE: as for 930-940m.
	70	SANDSTONE: light brown, very fine to very coarse, dominantly medium to coarse, subangular to subrounded, poorly sorted, weak silica cement, abundant medium brown argillaceous and silt matrix, clear to opaque quartz grains occasionally with yellow brown staining, friable, poor to fair inferred porosity, no oil fluorescence.
945-950	90	CLAYSTONE: medium to dark brown grey, moderately to very silty, very finely arenaceous in part, trace glauconite, soft, non fissile.
	10	SANDSTONE: as for 940-945m.
950-955	80	CLAYSTONE: as for 945-950m.
	20	SANDSTONE: as for 940-945m.
955-965	20	CLAYSTONE: medium brown to dark brown grey, moderately to very silty, very finely arenaceous in part, trace glauconite, soft, non fissile.
	80	SANDSTONE: medium orange brown, very fine to very coarse, dominantly coarse, subangular to subrounded, very poorly sorted, weak silica cement, abundant medium brown argillaceous and silt matrix, quartzose with yellow brown staining on quartz grains, rare iron oxide pellets, friable, fair to good inferred porosity, no oil fluorescence.
965-970	30	CLAYSTONE: as for 955-965m.
	70	SANDSTONE: medium orange brown, very fine to granular, dominantly coarse, subangular to subrounded, very poorly sorted, weak silica cement, abundant medium brown argillaceous and silt matrix, quartzose with yellow brown staining on quartz grains, rare iron oxide pellets, friable, fair to good inferred porosity, no oil fluorescence.
970-975	20	CLAYSTONE: as for 955-965m.
	80	SANDSTONE: as for 965-970m.
975-980	50	CLAYSTONE: dark brown grey, moderately to very silty, abundant dispersed very fine to coarse quartz sand grains, soft, non fissile.
	50	SANDSTONE: light to brown, very fine to coarse, dominantly medium, subangular to subrounded, poorly sorted, weak silica cement, abundant dark brown grey argillaceous and silt matrix, clear to opaque quartz grains occasionally with brown staining, friable, very poor to poor inferred porosity, no oil fluorescence.
980-985	80	CLAYSTONE: as for 975-980m.

	20	SANDSTONE: as for 975-980m.
985-990	60	CLAYSTONE: as for 975-980m.
	40	SANDSTONE: as for 975-980m.
990-1000	30	CLAYSTONE: as for 975-980m.
	70	SANDSTONE: as for 975-980m.
1000-1010	100	CLAYSTONE: dark brown grey, moderately to very silty, trace dispersed very fine to medium quartz sand grains, trace marcasite, soft, non fissile.
	Trace	SANDSTONE: as for 975-980m.
1010-1020	100	CLAYSTONE: medium brown to dark brown grey, moderately to very silty, trace dispersed very fine to medium quartz sand grains, trace marcasite, soft, non fissile.
1020-1025	50	CLAYSTONE: as for 1010-1020m.
	50	SANDSTONE: light grey, very fine to grit, dominantly coarse, angular to subrounded, very poorly sorted, weak silica cement, abundant medium grey to dark brown grey argillaceous and silt matrix, clear to opaque quartz grains, trace yellow stained quartz grains, friable, poor inferred porosity, no oil fluorescence.
1025-1035	50	CLAYSTONE: medium grey to medium to dark brown grey, moderately to very silty, abundant dispersed very fine to very coarse quartz sand grains, soft, non fissile.
	50	SANDSTONE: as for 1020-1025m.
1035-1040	70	CLAYSTONE: as for 1025-1035m.
	30	SANDSTONE: as for 1020-1025m.
1040-1045	60	CLAYSTONE: medium grey, medium to dark brown grey, moderately to very silty, often abundant dispersed very fine sand grains, occasional dispersed very coarse quartz sand grains, trace pyrite, soft, non fissile.
	40	SANDSTONE: light grey, very fine to grit, bimodal dominantly very with occasional dispersed medium to grit sand grains, angular to subrounded, very poorly sorted, weak silica cement, abundant medium grey argillaceous and silt matrix, clear to opaque quartz grains, trace yellow stained quartz grains, friable, poor inferred porosity, no oil fluorescence.
1045-1060	70	CLAYSTONE: as for 1040-1045m.
	30	SANDSTONE: as for 1040-1045m.
1060-1075	30	CLAYSTONE: medium grey, medium to dark brown grey, moderately to very silty, often abundant dispersed very fine to very coarse quartz sand grains, trace pyrite, soft, non fissile.
	70	SANDSTONE: light grey to light brown grey, very fine to grit, dominantly very fine and very coarse, angular to subrounded, very poorly sorted, weak silica cement, abundant medium grey to dark brown grey argillaceous and silt matrix, clear to opaque quartz grains, trace yellow stained quartz grains, friable, fair inferred porosity, no oil fluorescence.
1075-1080	50	CLAYSTONE: as for 1060-1075m.
	50	SANDSTONE: as for 1060-1075m.
1080-1085	60	CLAYSTONE: off white to medium grey, medium to dark brown grey, moderately to very silty, often abundant dispersed very fine to very coarse quartz sand grains, trace pyrite, soft, non fissile.

	40	SANDSTONE: light grey to light brown grey, very fine to grit, dominantly very fine and very coarse, angular to subrounded, very poorly sorted, weak silica cement, abundant off white to medium grey to dark brown grey argillaceous and silt matrix, clear to opaque quartz grains, trace yellow stained quartz grains, friable, poor inferred porosity, no oil fluorescence.
1085-1090	80	CLAYSTONE: as for 1080-1085m.
	20	SANDSTONE: as for 1080-1085m.
1090-1095	60	CLAYSTONE: as for 1080-1085m.
	40	SANDSTONE: as for 1080-1085m.
1095-1100	40	CLAYSTONE: as for 1080-1085m.
	60	SANDSTONE: light grey to light brown grey, very fine to grit, dominantly coarse, angular to subrounded, very poorly sorted, weak silica cement, abundant off white to medium grey to dark brown grey argillaceous and silt matrix, clear to opaque quartz grains, trace yellow stained quartz grains, friable, fair inferred porosity, no oil fluorescence.
1100-1110	20	CLAYSTONE: as for 1080-1085m.
	80	SANDSTONE: light grey to light brown grey, very fine to grit, dominantly coarse, angular to subrounded, very poorly sorted, weak silica cement, abundant off white to medium grey to dark brown grey argillaceous and silt matrix, clear to opaque quartz grains, trace yellow stained quartz grains, trace black coal detritus, trace pyrite, friable, good inferred porosity, no oil fluorescence.
1110-1120	30	CLAYSTONE: off white to medium grey to medium to dark brown grey, moderately to very silty, often abundant dispersed very fine to grit quartz sand grains, trace black coal detritus, trace pyrite, soft, non fissile.
	70	SANDSTONE: as for 1100-1110m.
1120-1125	100	SANDSTONE: light grey to light brown grey, very fine to grit, dominantly very coarse, angular to subrounded, very poorly sorted, weak silica cement, trace to common off white to medium grey to dark brown grey argillaceous and silt matrix, clear to opaque quartz grains, trace yellow stained quartz grains, trace black coal detritus, trace pyrite, friable, very good inferred porosity, no oil fluorescence.
1125-1130	30	CLAYSTONE: as for 1110-1120m.
	70	SANDSTONE: light grey to light brown grey, very fine to grit, dominantly medium, angular to subrounded, very poorly sorted, weak silica cement, abundant off white to medium grey to dark brown grey argillaceous and silt matrix, clear to opaque quartz grains, trace yellow stained quartz grains, trace black coal detritus, trace pyrite, friable, poor inferred porosity, no oil fluorescence.
1130-1140	80	CLAYSTONE: medium grey to medium brown grey, moderately to very silty, often very fine to finely arenaceous, trace black coal detritus, trace pyrite, soft, non fissile.
	20	SANDSTONE: light grey to light brown grey, very fine to fine, dominantly very fine, subangular to subrounded, moderately sorted, weak silica cement, abundant light grey argillaceous and silt matrix, clear to opaque quartz grains, trace black coal detritus, trace pyrite, friable, very poor visual porosity, no oil fluorescence.
1140-1150	70	CLAYSTONE: as for 1130-1140m.
	30	SANDSTONE: as for 1130-1140m.
1150-1165	80	CLAYSTONE: as for 1130-1140m.
	20	SANDSTONE: as for 1130-1140m.

1165-1175	90	CLAYSTONE: medium grey to medium brown grey, moderately to very silty, often very fine to finely arenaceous, trace fine black coaly detritus, trace pyrite, soft, non fissile.
	10	SANDSTONE: light grey to light brown grey, very fine to fine, dominantly very fine, subangular to subrounded, moderately sorted, weak silica cement, abundant light grey argillaceous and silt matrix, clear to opaque quartz grains, trace fine black coaly detritus, trace pyrite, friable, very poor visual porosity, no oil fluorescence.
1175-1180	70	CLAYSTONE: as for 1165-1175m.
	30	SANDSTONE: as for 1165-1175m.
1180-1185	70	CLAYSTONE: medium grey to medium brown grey, trace medium brown, moderately to very silty, often very fine to finely arenaceous, trace fine black coaly detritus, trace pyrite, soft, non fissile.
	30	SANDSTONE: light grey to light brown grey, very fine to fine, occasional dispersed medium to very coarse grains, dominantly very fine, subangular to subrounded, moderately sorted, weak silica cement, abundant off white to light grey argillaceous and silt matrix, clear to opaque quartz grains, trace fine black coaly detritus, trace pyrite, friable, very poor visual porosity, no oil fluorescence.
1185-1195	50	CLAYSTONE: as for 1180-1185m.
	50	SANDSTONE: light grey to light brown grey, very fine to fine, abundant dispersed medium to very coarse grains, dominantly very fine, subangular to subrounded, moderately sorted, weak silica cement, abundant off white to light grey argillaceous and silt matrix, clear to opaque quartz grains, trace fine black coaly detritus, trace pyrite, friable, poor visual porosity, no oil fluorescence.
1195-1200	40	CLAYSTONE: medium grey to medium brown grey, trace medium brown, moderately to very silty, often very fine to finely arenaceous, trace fine black coaly detritus, trace medium brown cryptocrystalline dolomite, trace pyrite, soft, non fissile.
	60	SANDSTONE: light grey to light brown grey, very fine to fine, abundant dispersed medium to very coarse grains, dominantly very fine, subangular to subrounded, moderately sorted, weak silica cement, abundant off white to light grey argillaceous and silt matrix, clear to opaque quartz grains, trace fine black coaly detritus, trace medium brown cryptocrystalline dolomite, trace pyrite, friable, poor visual porosity, no oil fluorescence.
1200-1205	60	CLAYSTONE: medium grey to medium brown grey, trace medium brown, moderately to very silty, often very fine to finely arenaceous, trace fine black coaly detritus, trace pyrite, trace micromica, soft, non fissile.
	40	SANDSTONE: light grey to light brown grey, very fine to fine, trace dispersed medium to very coarse grains, dominantly very fine, subangular to subrounded, moderately sorted, weak silica cement, abundant off white to light grey argillaceous and silt matrix, clear to opaque quartz grains, trace fine black coaly detritus, trace pyrite, friable, poor visual porosity, no oil fluorescence.
1205-1220	60	CLAYSTONE: medium to dark grey to medium to dark brown grey, moderately to very silty, often very fine to finely arenaceous, trace fine black coaly detritus, trace pyrite, trace micromica, soft, non fissile.
	40	SANDSTONE: light grey to light brown grey, very fine to fine, dominantly very fine, subangular to subrounded, moderately sorted, weak silica cement, abundant off white to light grey argillaceous and silt matrix, clear to opaque quartz grains, trace fine black coaly detritus, trace pyrite, friable, poor visual porosity, no oil fluorescence.
1220-1230	80	CLAYSTONE: as for 1205-1220m.
	20	SANDSTONE: light grey to light brown grey, very fine, subangular to subrounded, moderately sorted, weak silica cement, abundant off white to light grey argillaceous and silt matrix, clear to opaque quartz grains, trace fine black coaly detritus, trace pyrite, friable, poor visual porosity, no oil fluorescence.

1230-1240	100	CLAYSTONE: medium to dark grey to medium to dark brown grey to dark green grey, moderately to very silty, often very fine to finely arenaceous, trace fine black coaly detritus, trace pyrite, trace micromica, soft, non fissile.
	Trace	SANDSTONE: as for 1220-1230m.
1240-1245	100	CLAYSTONE: as for 1230-1240m.
1245-1250	100	CLAYSTONE: medium to dark grey to medium to dark brown grey to dark green grey, moderately to very silty, often very fine to finely arenaceous, trace fine black coaly detritus, trace pyrite, trace micromica, soft, non fissile.
	Trace	SANDSTONE: light grey to light brown grey, very fine to fine, dominantly very fine, occasional medium to very coarse grains, subangular to subrounded, moderately sorted, weak silica cement, abundant off white to light grey argillaceous and silt matrix, clear to opaque quartz grains, trace fine black coaly detritus, trace pyrite, friable, very poor visual porosity, no oil fluorescence.
1250-1255	90	CLAYSTONE: as for 1245-1250m.
	10	SANDSTONE: as for 1245-1250m.
1255-1260	60	CLAYSTONE: as for 1245-1250m.
	40	SANDSTONE: light grey to light brown grey, very fine to fine, dominantly very fine, abundant medium to very coarse grains, subangular to subrounded, moderately sorted, weak silica cement, abundant off white to light grey argillaceous and silt matrix, clear to opaque quartz grains, trace fine black coaly detritus, trace pyrite, friable, very poor visual porosity, no oil fluorescence.
1260-1265	40	CLAYSTONE: medium to dark grey to medium to dark brown grey to dark green grey, moderately to very silty, often very fine to finely arenaceous, trace dispersed medium to pebble sized quartz grains, trace fine black coaly detritus, trace pyrite, trace micromica, soft, non fissile.
	60	SANDSTONE: light to medium grey, very fine to fine, dominantly very fine, abundant dispersed medium to pebble quartz grains, subangular to rounded, poorly sorted, weak silica cement, abundant medium grey argillaceous and silt matrix, clear to opaque quartz grains, trace fine black coaly detritus, trace biotite flakes, trace pyrite, friable, very poor visual porosity, no oil fluorescence.
1265-1280	30	CLAYSTONE: medium to dark grey to medium to dark brown grey, moderately to very silty, often very fine to finely arenaceous, trace dispersed medium to pebble sized quartz grains, trace fine black coaly detritus, trace pyrite, trace micromica, soft, non fissile.
	70	SANDSTONE: light to medium grey, very fine to pebble, dominantly very coarse, subangular to rounded, very poorly sorted, weak silica cement, abundant medium grey argillaceous and silt matrix, clear to opaque quartz grains, trace fine black coaly detritus, trace biotite flakes, trace pyrite, friable, poor inferred porosity, no oil fluorescence.
1280-1285	20	CLAYSTONE: as for 1265-1280m.
	80	SANDSTONE: as for 1265-1280m.
1285-1290	60	CLAYSTONE: as for 1265-1280m.
	40	SANDSTONE: as for 1265-1280m.
1290-1300	70	CLAYSTONE: medium to dark grey to medium to dark brown grey, moderately to very silty, occasionally very arenaceous, rare dispersed medium to pebble sized quartz grains, trace black coaly detritus, trace micromica, soft, non fissile.
	30	SANDSTONE: light to medium grey, very fine to pebble, dominantly very fine to fine, subangular to rounded, very poorly sorted, weak silica cement, abundant medium grey argillaceous and silt matrix, clear to opaque quartz grains, trace black coaly detritus, trace biotite flakes. friable, very poor inferred porosity, no oil fluorescence.

1300-1305	60	CLAYSTONE: as for 1290-1300m.
	40	SANDSTONE: as for 1290-1300m.
1305-1315	40	CLAYSTONE: as for 1290-1300m.
	60	SANDSTONE: as for 1290-1300m.
1315-1325	50	CLAYSTONE: medium to dark grey to medium to dark brown grey, moderately to very silty, often very finely arenaceous, rare dispersed medium to pebble sized quartz grains, common black coaly detritus, trace micromica, soft, non fissile.
	50	SANDSTONE: light to medium grey, very fine to pebble, dominantly very fine to fine, subangular to rounded, very poorly sorted, weak silica cement, abundant medium grey argillaceous and silt matrix, clear to opaque quartz grains, common black coaly detritus, trace biotite flakes. friable, very poor inferred porosity, no oil fluorescence.
1325-1330	80	CLAYSTONE: medium to dark grey to medium to dark brown grey, moderately to very silty, occasionally very finely arenaceous, rare dispersed medium to pebble sized quartz grains, trace black coaly detritus, trace micromica, soft, non fissile.
	20	SANDSTONE: light to medium grey, very fine to rarely pebble, dominantly very fine to fine, subangular to rounded, very poorly sorted, weak silica cement, abundant medium grey argillaceous and silt matrix, clear to opaque quartz grains, trace black coaly detritus, trace biotite flakes. friable, very poor inferred porosity, no oil fluorescence.
1330-1335	90	CLAYSTONE: as for 1325-1330m.
	10	SANDSTONE: as for 1325-1330m.
1335-1340	100	CLAYSTONE: as for 1325-1330m.
	Trace	SANDSTONE: as for 1325-1330m.
1340-1350	70	CLAYSTONE: medium to dark grey to medium to dark brown grey, moderately to very silty, occasionally very finely to finely arenaceous, trace dispersed medium to pebble sized quartz grains, trace black coaly detritus, trace micromica, soft, non fissile.
	30	SANDSTONE: light to medium grey, very fine to fine, occasional dispersed medium to pebble quartz grains, dominantly very fine, subangular to rounded, very poorly sorted, weak silica cement, abundant medium grey argillaceous and silt matrix, clear to opaque quartz grains, trace black coaly detritus, trace biotite flakes. friable, very poor inferred porosity, no oil fluorescence.
1350-1355	100	CLAYSTONE: as for 1340-1350m.
	Trace	SANDSTONE: as for 1340-1350m.
1355-1360	70	CLAYSTONE: as for 1340-1350m.
	30	SANDSTONE: as for 1340-1350m.
1360-1370	10	CLAYSTONE: as for 1340-1350m.
	90	SANDSTONE: light to medium grey, very fine to pebble quartz grains, dominantly very coarse, angular to rounded, very poorly sorted, weak silica cement, abundant medium grey argillaceous and silt matrix, clear to opaque quartz grains, trace black coaly detritus, trace biotite flakes. trace pyrite, friable, good inferred porosity, no oil fluorescence.
1370-1375	30	CLAYSTONE: light to dark grey to medium to dark brown grey, moderately to very silty, often very finely to finely arenaceous, trace dispersed medium to pebble sized quartz grains, trace black coaly detritus, trace micromica, soft, non fissile.
	70	SANDSTONE: as for 1360-1370m.

1375-1380	70	CLAYSTONE: as for 1370-1375m.
	30	SANDSTONE: light to medium grey, very fine to pebble quartz grains, dominantly fine, angular to rounded, very poorly sorted, weak silica cement, abundant medium grey argillaceous and silt matrix, clear to opaque quartz grains, trace black coaly detritus, trace biotite flakes, trace pyrite, friable, poor inferred porosity, no oil fluorescence.
1380-1390	50	CLAYSTONE: as for 1370-1375m.
	50	SANDSTONE: as for 1375-1380m.
1390-1400	70	CLAYSTONE: light to dark grey to medium brown grey, moderately to very silty, often very finely arenaceous, rare dispersed medium to pebble sized quartz grains, trace black coaly detritus, trace pyrite, trace micromica, firm, non fissile.
	30	SANDSTONE: off white to medium grey, very fine to rarely pebble quartz grains, dominantly very fine, angular to rounded, very poorly sorted, weak silica cement, abundant off white to medium grey argillaceous and silt matrix, clear to opaque quartz grains, trace black coaly detritus, trace pyrite, friable, very poor inferred porosity, no oil fluorescence.
1400-1405	70	CLAYSTONE: as for 1390-1400m.
	30	SANDSTONE: as for 1390-1400m.
1405-1410	60	CLAYSTONE: light to dark grey to medium brown grey, moderately to very silty, often very finely arenaceous, trace black coaly detritus, trace pyrite, trace micromica, firm, non fissile.
	40	SANDSTONE: off white to medium grey, very fine to fine, dominantly very fine, rare medium to pebble quartz grains, angular to rounded, very poorly sorted, weak silica cement, abundant off white to medium grey argillaceous and silt matrix, clear to opaque quartz grains, trace black coaly detritus, trace pyrite, friable, very poor inferred porosity, no oil fluorescence.
1410-1420	90	CLAYSTONE: as for 1405-1410m.
	10	SANDSTONE: as for 1405-1410m.
1420-1430	80	CLAYSTONE: as for 1405-1410m.
	20	SANDSTONE: off white to medium grey, very fine to fine, dominantly very fine, trace medium to pebble quartz grains, angular to rounded, very poorly sorted, weak silica cement, abundant off white to medium grey argillaceous and silt matrix, clear to opaque quartz grains, trace black coaly detritus, trace pyrite, friable, very poor inferred porosity, no oil fluorescence.
1430-1445	80	CLAYSTONE: as for 1405-1410m.
	20	SANDSTONE: off white to medium grey, very fine, angular to rounded, very poorly sorted, weak silica cement, abundant off white to medium grey argillaceous and silt matrix, clear to opaque quartz grains, trace black coaly detritus, trace pyrite, friable, very poor inferred porosity, no oil fluorescence.
1445-1450	60	CLAYSTONE: light to dark grey to medium brown grey, moderately to very silty, often very finely arenaceous, rare medium to pebble rounded quartz grains, trace black coaly detritus, trace pyrite, trace micromica, firm, non fissile.
	40	SANDSTONE: off white to medium grey, very fine to fine, dominantly very fine, trace medium to pebble quartz grains, angular to rounded, very poorly sorted, weak silica cement, abundant off white to medium grey argillaceous and silt matrix, clear to opaque quartz grains, trace black coaly detritus, trace pyrite, friable, very poor inferred porosity, no oil fluorescence.
1450-1455	80	CLAYSTONE: light to dark grey to medium brown grey, moderately to very silty, often very finely arenaceous, trace black coaly detritus, trace pyrite, trace micromica, firm, non fissile.
	20	SANDSTONE: as for 1445-1450m.
1455-1465	70	CLAYSTONE: as for 1450-1455m.

	30	SANDSTONE: as for 1445-1450m.
1465-1470	50	CLAYSTONE: off white to dark grey to medium brown grey, moderately to very silty, often very finely arenaceous, trace black coaly detritus, trace pyrite, trace micromica, firm, non fissile.
	50	SANDSTONE: off white to medium grey, very fine to fine, dominantly very fine, trace medium to pebble quartz grains, angular to rounded, very poorly sorted, weak silica cement, abundant off white to medium grey argillaceous matrix, clear to opaque quartz grains, trace black coaly detritus, trace pyrite, friable, very poor inferred porosity, no oil fluorescence.
1470-1480	60	CLAYSTONE: as for 1465-1470m.
	40	SANDSTONE: as for 1465-1470m.
1480-1490	80	CLAYSTONE: off white to dark grey to medium brown grey, moderately to very silty, often very finely arenaceous, trace black coaly detritus, trace pyrite, trace micromica, firm, non fissile.
	20	SANDSTONE: off white to medium grey, very fine to rarely fine, trace dispersed medium to very coarse quartz grains, angular to rounded, poorly sorted, weak silica cement, abundant off white argillaceous matrix, clear to opaque quartz grains, abundant altered feldspar grains, trace black coaly detritus, friable, very poor inferred porosity, no oil fluorescence.
1490-1500	70	CLAYSTONE: off white to medium brown grey to dark grey, moderately to very silty, often very finely arenaceous with quartz and altered feldspar grains, trace black coaly detritus, trace pyrite, trace micromica, firm, non fissile.
	30	SANDSTONE: as for 1480-1490m.
1500-1505	50	CLAYSTONE: as for 1490-1500m.
	50	SANDSTONE: off white to light grey, very fine to rarely fine, trace dispersed medium to very coarse quartz grains, angular to rounded, poorly sorted, weak silica cement, abundant off white argillaceous matrix, clear to opaque quartz grains, abundant altered feldspar grains, trace black coaly detritus, friable, poor inferred porosity.
FLUOR		FLUORESCENCE: the sandstone has 20% moderately bright patchy very pale yellow white fluorescence giving a weak milky white crush cut, thin ring residue.
1505-1515	60	CLAYSTONE: as for 1490-1500m.
	40	SANDSTONE: off white to light grey, very fine to rarely fine, trace dispersed medium to very coarse quartz grains, angular to rounded, poorly sorted, weak silica cement, abundant off white argillaceous matrix, clear to opaque quartz grains, abundant altered feldspar grains, trace black coaly detritus, friable, very poor inferred porosity, no oil fluorescence.
1515-1520	90	CLAYSTONE: medium grey to medium brown grey to dark grey, moderately to very silty, often very finely arenaceous with quartz and altered feldspar grains, trace black coaly detritus, trace pyrite, trace micromica, firm, non fissile.
	10	SANDSTONE: off white to light grey, very fine to rarely fine, angular to rounded, poorly sorted, weak silica cement, abundant off white argillaceous matrix, clear to opaque quartz grains, abundant altered feldspar grains, trace black coaly detritus, friable, very poor inferred porosity, no oil fluorescence.
1520-1530	100	CLAYSTONE: light to dark grey to medium brown grey, very silty in part, occasionally abundant very fine quartz and altered feldspar grains, trace black coaly detritus, common black carbonaceous flecks, trace medium brown cryptocrystalline dolomite, trace pyrite, trace micromica, firm, slightly subfissile.
	Trace	SANDSTONE: off white to light grey, very fine, subangular to subrounded, moderately sorted, weak silica cement, abundant off white argillaceous matrix, quartzose with abundant altered feldspar grains, trace black coaly detritus, friable, very poor inferred porosity, no oil fluorescence.
1530-1535	90	CLAYSTONE: as for 1520-1530m.

	10	SANDSTONE: as for 1520-1530m.
1535-1555	100	CLAYSTONE: as for 1520-1530m.
	Trace	SANDSTONE: as for 1520-1530m.
1555-1575	100	CLAYSTONE: light to dark grey to medium brown grey, often very silty, occasional abundant dispersed very fine quartz and altered feldspar grains, trace black coaly detritus, common black carbonaceous flecks, trace medium brown cryptocrystalline dolomite, trace pyrite, trace micromica, firm, slightly subfissile.
1575-1585	100	CLAYSTONE: light to dark grey to medium brown grey, often very silty, occasional abundant dispersed very fine quartz and altered feldspar grains, trace black coaly detritus and carbonaceous flecks, trace medium brown cryptocrystalline dolomite, trace pyrite, trace micromica, firm, slightly subfissile.
1585-1595	90	CLAYSTONE: as for 1575-1585m.
	10	SANDSTONE: off white to light grey, very fine, subangular to subrounded, moderately sorted, weak silica cement, abundant off white argillaceous matrix, quartzose with abundant altered feldspar grains, trace black coaly detritus, friable, very poor inferred porosity, no oil fluorescence.
1595-1600	100	CLAYSTONE: as for 1575-1585m.
	Trace	SANDSTONE: as for 1585-1595m.
1600-1605	80	CLAYSTONE: as for 1575-1585m.
	20	SANDSTONE: as for 1585-1595m.
1605-1615	70	CLAYSTONE: light to dark grey to medium brown grey, often very silty, occasional abundant dispersed very fine quartz and altered feldspar grains, common black coaly detritus and carbonaceous flecks, trace pyrite, trace micromica, firm, slightly subfissile.
	30	SANDSTONE: as for 1585-1595m.
1615-1630	100	CLAYSTONE: as for 1605-1615m.
	Trace	SANDSTONE: as for 1585-1595m.
1630-1635	100	CLAYSTONE: as for 1605-1615m.
1635-1650	100	CLAYSTONE: light to dark grey to medium brown grey, often very silty, occasional abundant dispersed very fine quartz and altered feldspar grains, common black coaly detritus and carbonaceous flecks, trace medium brown cryptocrystalline dolomite, trace pyrite, trace micromica, firm, slightly subfissile.
1650-1665	100	CLAYSTONE: light to dark grey to medium brown grey, often very silty, occasional dispersed very fine quartz and altered feldspar grains, common black coaly detritus and carbonaceous flecks, trace medium brown cryptocrystalline dolomite, trace pyrite, trace micromica, firm, slightly subfissile.
1665-1675	100	CLAYSTONE: light to dark grey to medium brown grey, often very silty, trace dispersed very fine quartz and altered feldspar grains, common black coaly detritus and carbonaceous flecks, trace medium brown cryptocrystalline dolomite, trace pyrite, trace micromica, firm, slightly subfissile.
1675-1680	100	CLAYSTONE: as for 1665-1675m.
	Trace	SANDSTONE: off white to light grey, very fine, subangular to subrounded, moderately sorted, weak silica cement, abundant off white argillaceous matrix, quartzose with abundant altered feldspar grains, trace black coaly detritus, friable, very poor inferred porosity, no oil fluorescence.

1680-1685	60	CLAYSTONE: as for 1665-1675m.
	40	SANDSTONE: off white to light grey, very fine, subangular to subrounded, moderately sorted, weak silica cement, abundant off white argillaceous matrix, quartzose with abundant altered feldspar grains, trace black coaly detritus, friable, very poor inferred porosity, no oil fluorescence.
1685-1690	90	CLAYSTONE: as for 1665-1675m.
	10	SANDSTONE: as for 1680-1685m.
1690-1700	100	CLAYSTONE: medium brown grey to light to dark grey, often very silty, trace to common dispersed very fine quartz and altered feldspar grains, common black coaly detritus and carbonaceous flecks, trace medium brown cryptocrystalline dolomite, trace pyrite, trace micromica, firm, slightly subfissile.
	Trace	SANDSTONE: as for 1680-1685m.
1700-1710	100	CLAYSTONE: as for 1690-1700m.
1710-1715	100	CLAYSTONE: as for 1690-1700m.
	Trace	SANDSTONE: as for 1680-1685m.
1715-1725	100	CLAYSTONE: as for 1690-1700m.
1725-1730	100	CLAYSTONE: medium brown grey to light to dark grey, very silty in part, trace dispersed very fine quartz and altered feldspar grains, common black coaly detritus and carbonaceous flecks, trace medium brown cryptocrystalline dolomite, trace micromica, firm, slightly subfissile.
1730-1735	100	CLAYSTONE: dark grey to medium brown grey, very silty in part, moderately carbonaceous in part, trace dispersed very fine quartz and altered feldspar grains, trace black coaly detritus and carbonaceous flecks, trace medium brown cryptocrystalline dolomite, trace micromica, firm, slightly subfissile.
1735-1740	100	CLAYSTONE: dark grey to medium brown grey, occasionally very silty, moderately carbonaceous in part, trace black carbonaceous flecks, trace medium brown cryptocrystalline dolomite, trace micromica, moderately hard, slightly subfissile.
1740-1745	100	CLAYSTONE: dark grey to rarely medium brown grey, rarely very silty, moderately carbonaceous in part, trace black carbonaceous flecks, trace medium brown cryptocrystalline dolomite, trace Inoceramus pyrite, trace micromica, moderately hard, slightly subfissile.
1745-1755	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, trace medium brown cryptocrystalline dolomite, trace Inoceramus, common micromica, moderately hard, slightly subfissile.
1755-1760	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, trace dark green glauconite, trace medium brown cryptocrystalline dolomite, trace Inoceramus, common micromica, moderately hard, slightly subfissile.
1760-1765	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, common dark green glauconite, trace medium brown cryptocrystalline dolomite, trace Inoceramus, common micromica, moderately hard, slightly subfissile.
1765-1780	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, trace dark green glauconite, trace medium brown cryptocrystalline dolomite, trace Inoceramus, common micromica, moderately hard, slightly subfissile.
1780-1800	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, common dark green glauconite, trace medium brown cryptocrystalline dolomite, trace Inoceramus, rare disseminated pyrite, common micromica, moderately hard, slightly subfissile.

1800-1805	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, trace dark green glauconite, trace medium brown cryptocrystalline dolomite, trace Inoceramus, rare disseminated pyrite, common micromica, moderately hard, slightly subfissile.
1805-1815	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, common dark green glauconite, trace medium brown cryptocrystalline dolomite, trace Inoceramus, rare disseminated pyrite, common micromica, moderately hard, slightly subfissile.
1815-1825	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, trace dark green glauconite, rare medium brown cryptocrystalline dolomite, rare Inoceramus, rare disseminated pyrite, common micromica, moderately hard, slightly subfissile.
1825-1840	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, common dark green glauconite, rare medium brown cryptocrystalline dolomite, rare Inoceramus, rare disseminated pyrite, common micromica, moderately hard, slightly subfissile.
1840-1855	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, common dark green glauconite, rare medium brown cryptocrystalline dolomite, rare disseminated pyrite, common micromica, moderately hard, slightly subfissile.
1855-1865	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, common to abundant dark green glauconite, rare medium brown cryptocrystalline dolomite, common micromica, moderately hard, slightly subfissile.
1865-1870	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, common dark green glauconite, rare medium brown cryptocrystalline dolomite, common micromica, moderately hard, slightly subfissile.
1870-1885	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, trace dark green glauconite, rare medium brown cryptocrystalline dolomite, common micromica, moderately hard, slightly subfissile.
1885-1900	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, trace dark green glauconite, rare medium brown cryptocrystalline dolomite, trace Inocaramus, common micromica, moderately hard, slightly subfissile.
1900-1905	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, trace dark green glauconite, rare medium brown cryptocrystalline dolomite, common micromica, moderately hard, slightly subfissile.
1905-1925	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, trace dark green glauconite, common micromica, moderately hard, slightly subfissile.
1925-1935	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, trace dark green glauconite, common micromica, trace slickensides, moderately hard, slightly subfissile.
1935-1945	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, trace dark green glauconite, common micromica, moderately hard, slightly subfissile.
1945-1955	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, common dark green glauconite, trace Inoceramus, common micromica, moderately hard, slightly subfissile.
1955-1965	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, common dark green glauconite, trace Inoceramus, trace pyrite, common micromica, moderately hard, slightly subfissile.
1965-1975	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, trace black carbonaceous flecks, common dark green glauconite, rare pyrite, common micromica, moderately hard, slightly subfissile.
1975-1985	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, common to abundant dark green glauconite, rare pyrite, trace Inoceramus, trace medium brown cryptocrystalline dolomite, trace calcite, common micromica, moderately hard, slightly subfissile.

1985-1995	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, common to abundant dark green glauconite, rare pyrite, trace medium brown cryptocrystalline dolomite, trace calcite, trace slickensides, common micromica, moderately hard, slightly subfissile.
1995-2000	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, abundant dark green glauconite, trace pyrite, trace medium brown cryptocrystalline dolomite, common slickensides, common micromica, moderately hard, slightly subfissile.
2000-2005	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, abundant dark green glauconite, trace pyrite, common medium brown cryptocrystalline dolomite, common slickensides, common micromica, moderately hard, slightly subfissile.
2005-2015	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, abundant dark green glauconite, trace to common pyrite, common medium brown cryptocrystalline dolomite, common slickensides, common micromica, moderately hard, slightly subfissile.
2015-2020	100	CLAYSTONE: dark grey, slightly silty, moderately carbonaceous, common to abundant dark green glauconite, trace to common pyrite, common medium brown cryptocrystalline dolomite, trace slickensides, common micromica, moderately hard, slightly subfissile.
2020-2025	30	CLAYSTONE: as for 2105-2020m.
	70	CLAYSTONE: light brown grey to medium grey to medium green grey to medium brown, slightly to moderately silty, nil to abundant very fine to fine quartz and altered feldspar sand grains in part, trace medium brown cryptocrystalline dolomite, trace black carbonaceous flecks, trace micromica, moderately hard, slightly subfissile.
2025-2033	100	CLAYSTONE: medium grey to medium to dark brown grey to medium brown, moderately silty, trace very fine altered feldspar and quartz grains in part, trace glauconite, slightly calcareous in part, trace pyrite, trace micromica, moderately hard, slightly subfissile.
2033-2035	100	CLAYSTONE: medium to dark grey to medium to dark brown grey to medium brown, moderately silty, rare very fine altered feldspar and quartz grains, trace glauconite, slightly calcareous in part, trace pyrite, trace micromica, moderately hard, slightly subfissile.
2035-2040	100	CLAYSTONE: light to dark grey to medium to dark brown grey to occasionally medium brown, moderately silty, occasionally abundant very fine altered feldspar and quartz grains, trace glauconite, slightly calcareous in part, trace pyrite, trace micromica, moderately hard, slightly subfissile.
2040-2045	60	CLAYSTONE: off white to medium brown to medium brown grey, rarely medium green grey, moderately silty, abundant very fine altered feldspar and quartz sand grains in part, trace glauconite, slightly calcareous in part, rare pyrite, trace micromica, moderately hard, slightly subfissile.
	40	SANDSTONE: off white, very fine to fine, rare medium to very coarse grains, dominantly very fine, subangular to surounded, moderately sorted, weak silica cement, abundant white argillaceous matrix, quartzose with abundant altered feldspar grains, trace black carbonaceous specks, friable, poor visual porosity, no oil fluorescence.
2045-2050	40	CLAYSTONE: off white to medium brown to medium brown grey, moderately silty, abundant very fine altered feldspar and quartz sand grains in part, trace glauconite, slightly calcareous in part, trace micromica, moderately hard, slightly subfissile.
	60	SANDSTONE: off white, very fine to fine, common medium to very coarse grains, dominantly very fine, subangular to surounded, moderately sorted, weak silica cement, abundant white argillaceous matrix, quartzose with abundant altered feldspar grains, trace black carbonaceous specks, friable, poor visual porosity, no oil fluorescence.
2050-2055	30	CLAYSTONE: as for 2045-2050m.
	30	SANDSTONE: as for 2045-2050m.
	40	SANDSTONE: light grey, very fine to pebble, dominantly coarse to very coarse, angular to subrounded, very poorly sorted, weak silica cement, trace white argillaceous matrix, clear to opaque quartz grains, trace black coaly detritus, friable, fair to very good visual porosity, no oil fluorescence

2055-2060	70	CLAYSTONE: Belfast cavings.
	30	SANDSTONE: as for 2050-2055m.
2060-2065	60	CLAYSTONE: Belfast cavings.
	40	SANDSTONE: as for 2050-2055m.
2065-2070	30	CLAYSTONE: very dark grey, slightly silty, very carbonaceous, trace slickensides, common micromica, moderately hard, slightly subfissile.
	70	SANDSTONE: light grey, very fine to pebble, dominantly very coarse, angular to subrounded, very poorly sorted, weak silica cement, trace to common off white argillaceous matrix, clear to opaque quartz grains, trace black coaly detritus and laminae, friable, good visual porosity, no oil fluorescence.
	Trace	COAL: very dark grey to black, slightly to dominantly very argillaceous, trace micromica, common slickensides, soft to firm.
2070-2080	20	CLAYSTONE: very dark grey, slightly silty, very carbonaceous, trace slickensides, common micromica, moderately hard, slightly subfissile.
	80	SANDSTONE: light grey, very fine to pebble, dominantly very coarse, angular to subrounded, very poorly sorted, weak silica cement, trace to common off white argillaceous matrix, clear to opaque quartz grains, trace black coaly detritus and laminae, friable, good visual porosity, no oil fluorescence.
2080-2085	70	CLAYSTONE: medium to dark grey to dark brown grey, very silty, often very finely arenaceous with quartz and altered feldspar grains, slightly to moderately carbonaceous, common black carbonaceous flecks and coaly detritus, common micromica, moderately hard, slightly subfissile.
	30	SANDSTONE: off white to light grey, very fine to fine, dominantly very fine, angular to subrounded, moderately sorted, moderate silica cement, common to abundant white argillaceous matrix, quartzose with common altered feldspar grains, trace black carbonaceous specks and detritus, moderately hard, very poor visual porosity, no oil fluorescence.
2085-2090	80	CLAYSTONE: medium to dark grey to dark brown grey, very silty, often very finely arenaceous with quartz and altered feldspar grains, slightly to moderately carbonaceous, common black carbonaceous flecks and coaly detritus, trace pyrite, common micromica, moderately hard, slightly subfissile.
	20	SANDSTONE: as for 2080-2085m.
2090-2095	90	CLAYSTONE: as for 2085-2090m.
	10	SANDSTONE: off white to light grey, very fine, angular to subrounded, moderately sorted, moderate silica cement, common to abundant white argillaceous matrix, quartzose with common altered feldspar grains, trace black carbonaceous specks and detritus, moderately hard, very poor visual porosity, no oil fluorescence.
2095-2100	80	CLAYSTONE: as for 2085-2090m.
	20	SANDSTONE: as for 2090-2095m.
2100-2105	50	CLAYSTONE: as for 2085-2090m.
	50	SANDSTONE: off white to light grey, very fine to fine, common medium to very coarse grains, dominantly fine, angular to subrounded, poorly sorted, moderate silica cement, common to abundant white argillaceous matrix, quartzose with abundant altered feldspar grains, trace black carbonaceous specks and detritus, moderately hard, poor visual porosity, no oil fluorescence.

2105-2110	20	CLAYSTONE: medium to dark grey to medium brown grey, very silty, often very finely arenaceous with quartz and altered feldspar grains, slightly carbonaceous, common black carbonaceous flecks and coaly detritus, trace pyrite, common micromica, moderately hard, slightly subfissile.
	80	SANDSTONE: off white to light grey, very fine to fine, trace medium to very coarse grains, dominantly fine, angular to subrounded, moderately sorted, moderate silica cement, abundant white argillaceous matrix, quartzose with abundant altered feldspar grains, trace black carbonaceous specks and detritus, trace pyrite, moderately hard, very poor to poor visual porosity, no oil fluorescence.
2110-2115	10	CLAYSTONE: as for 2105-2110m.
	90	SANDSTONE: off white to light grey, very fine to fine, common medium to very coarse grains, dominantly fine, angular to subrounded, moderately sorted, moderate silica cement, abundant white argillaceous matrix, quartzose with abundant altered feldspar grains, trace black carbonaceous specks and detritus, trace pyrite, moderately hard, very poor to poor visual porosity, no oil fluorescence.
2115-2120	80	CLAYSTONE: medium to dark brown grey to medium brown, very silty, often very finely arenaceous with quartz and altered feldspar grains, slightly carbonaceous, common black carbonaceous flecks and coaly detritus, trace pyrite, common micromica, moderately hard, slightly subfissile.
	20	SANDSTONE: off white to light grey, very fine to medium, dominantly fine, angular to subrounded, moderately sorted, moderate silica cement, abundant white argillaceous matrix, quartzose with abundant altered feldspar grains, trace black carbonaceous specks and detritus, trace pyrite, moderately hard, very poor to poor visual porosity, no oil fluorescence.
2120-2125	10	CLAYSTONE: as for 2115-2120m.
	90	SANDSTONE: off white to light grey, very fine to medium, dominantly fine, angular to subrounded, moderately sorted, moderate silica cement, abundant white argillaceous matrix, quartzose with abundant altered feldspar grains, trace black carbonaceous specks and detritus, trace pyrite, moderately hard, very poor visual porosity, no oil fluorescence.
2125-2130	Trace	CLAYSTONE: as for 2115-2120m.
	100	SANDSTONE: off white to light grey, very fine to medium, common coarse to grit grains, dominantly fine, angular to subrounded, moderately sorted, moderate silica cement, abundant white argillaceous matrix, quartzose with abundant altered feldspar grains, trace black carbonaceous specks and detritus, trace pyrite, moderately hard, poor visual porosity, no oil fluorescence.
2130-2135	10	CLAYSTONE: as for 2115-2120m.
	90	SANDSTONE: as for 2125-2130m.
2135-2140	40	CLAYSTONE: medium brown to medium to dark brown grey, very silty, often very finely arenaceous with quartz and altered feldspar grains, slightly carbonaceous, common black carbonaceous flecks and coaly detritus, trace pyrite, common micromica, moderately hard, slightly subfissile.
	60	SANDSTONE: as for 2125-2130m.
2140-2145	Trace	SANDSTONE: as for 2125-2130m.
	100	SANDSTONE: light to medium green grey, very fine to medium, dominantly fine, subangular to subrounded, moderately to well sorted, moderate silica and occasional weak calcareous cement, abundant white argillaceous matrix - matrix supported, abundant altered feldspar and grey green lithic grains, trace red brown lithics, trace to common quartz grains, trace black carbonaceous detritus, friable, very poor visual porosity, no oil fluorescence.
2145-2165	100	SANDSTONE: as for 2140-2145m.

2165-2180	100	SANDSTONE: light to medium green grey, very fine to medium, dominantly fine, subangular to subrounded, moderately to well sorted, moderate silica and occasional weak calcareous cement, abundant white argillaceous matrix, abundant altered feldspar and grey green lithic grains, trace red brown lithics, trace to common quartz grains, trace black carbonaceous detritus, friable, very poor visual porosity, no oil fluorescence.
2180-2200	Trace	CLAYSTONE: medium green grey to medium brown grey, trace black carbonaceous flecks, soft, non fissile.
	100	SANDSTONE: as for 2165-2180m.
2200-2220	100	SANDSTONE: as for 2165-2180m.
2220-2235	10	CLAYSTONE: as for 2180-2200m.
	90	SANDSTONE: as for 2165-2180m.
2235-2240	20	CLAYSTONE: as for 2180-2200m.
	80	SANDSTONE: light to medium green grey, very fine to medium, dominantly fine, subangular to subrounded, moderately to well sorted, moderate silica and occasional weak calcareous cement, abundant white argillaceous matrix - matrix supported, abundant altered feldspar and grey green lithic grains, trace red brown lithics, trace to common quartz grains, trace black carbonaceous detritus, friable, very poor visual porosity, no oil fluorescence.
2240-2245	30	CLAYSTONE: medium green grey to medium brown grey, trace black carbonaceous flecks, soft, non fissile.
	70	SANDSTONE: as for 2235-2240m.
2245-2249	80	CLAYSTONE: as for 2240-2245m.
	20	SANDSTONE: as for 2235-2240m.
Total Depth		Reached at 2200 hrs 8th March, 2007

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ATTACHMENT 18 : MUD LOGGERS DAILY REPORTS

BAKER HUGHES INTEQ

DATA LOGGING REPORT No. 24

Operator	CO2CRC Pilot Project Ltd. (CPPL)	**Well**	CRC-1
Date	10/3/2007	**Time**	24:00:00
Depth	2249 m	**Last Report Depth**	2249 m
Rig Operations	Running Wireline Logs		
Report By	Shaharizad / Rio Marasigan	**Report Received By**	Kevin Murphy/Roy Dunne

DRILLING REPORT (Rotary drilling)

Bit No.		**Type**		**Size**		**Jets**			
On Bit Dist (Run)		**Hrs (Run)**		**ROP (Run)**		**TBR (Run)**		**Circ Hrs (Run)**	
On Bit Dist (Day)		**Hrs (Day)**		**ROP (Day)**		**TBR (Day)**		**Rot Hrs (Run)**	
Pump Pressure(Day)		**Torque(day)**		**WOB(day)**		**Bit RPM**		**Surf RPM**	
GPM:									

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ 2249m — **Last Survey Posted** @2236m = 1.00 deg incl

80% Claystone, 20% Sandstone.

Comments:

DATA LOGGING REPORT No. 23

Operator	CO2CRC Pilot Project Ltd. (CPPL)	**Well**	CRC-1
Date	9/3/2007	**Time**	24:00:00
Depth	2249 m	**Last Report Depth**	2249 m
Rig Operations	Running Wireline Logs		
Report By	Shaharizad / Rio Marasigan	**Report Received By**	Kevin Murphy/Roy Dunne

DRILLING REPORT (Rotary drilling)

Bit No.		**Type**		**Size**		**Jets**			
On Bit Dist (Run)		**Hrs (Run)**		**ROP (Run)**		**TBR (Run)**		**Circ Hrs (Run)**	
On Bit Dist (Day)		**Hrs (Day)**		**ROP (Day)**		**TBR (Day)**		**Rot Hrs (Run)**	
Pump Pressure(Day)		**Torque(day)**		**WOB(day)**		**Bit RPM**		**Surf RPM**	
GPM:									

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ 2249m — **Last Survey Posted** @2236m = 1.00 deg incl

80% Claystone, 20% Sandstone.

Comments:

DATA LOGGING REPORT No. 22

Operator	CO2CRC Pilot Project Ltd. (CPPL)	**Well**	CRC-1
Date	8/3/2007	**Time**	24:00:00
Depth	2049 m	**Last Report Depth**	2075.5 m
Rig Operations	Circulate Hole Clean / Condition Mud		
Report By	Shaharizad / Rio Marasigan	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	4RR1	**Type**	PDC	**Size**	6-3/4"	**Jets**	4 x 12		
On Bit Dist (Run)	173.5	**Hrs (Run)**	10.0	**ROP (Run)**	17.35	**TBR (Run)**	65.3k	**Circ Hrs (Run)**	16.2
On Bit Dist (Day)	173.5	**Hrs (Day)**	10.0	**ROP (Day)**	17.35	**TBR (Day)**	65.3k	**Rot Hrs (Run)**	12.5
Pump Pressure(Day)	796-1240psi	**Torque(day)**	3-11kft.lb	**WOB(day)**	3-15klbft	**Bit RPM**	57-121	**Surf RPM**	57-121

GPM: 241-259

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ 2249m
10% Claystone, 90% Sandstone.

Last Survey Posted @2236m = 1.00 deg incl

Comments:
RIH, Slip Drill Line, resume RIH, Break circ, wash/ream down, drill ahead to Well TD at 2249m, circ/condition hole, take survey, wiper trip

BAKER HUGHES INTEQ

DATA LOGGING REPORT No. 21

Operator	CO2CRC Pilot Project Ltd. (CPPL)	**Well**	CRC-1
Date	7/3/2007	**Time**	24:00:00
Depth	2075.5 m	**Last Report Depth**	2051 m
Rig Operations	RIH w/drilling BHA		
Report By	Shaharizad / Rio Marasigan	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	3RR5	**Type**	Core Bit	**Size**	6-3/4"	**Jets**	5 x 12		
On Bit Dist (Run)	24.5	**Hrs (Run)**	5.0	**ROP (Run)**	4.90	**TBR (Run)**	24.2k	**Circ Hrs (Run)**	9.5
On Bit Dist (Day)	24.5	**Hrs (Day)**	5.0	**ROP (Day)**	4.90	**TBR (Day)**	24.2k	**Rot Hrs (Run)**	6.2
Pump Pressure(Day)	568-863psi	**Torque(day)**	5-8kft.lb	**WOB(day)**	5-15klbft	**Bit RPM**	67-96	**Surf RPM**	67-96

GPM: 106-142

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ 2070m — **Last Survey Posted** @2022m = 0.75 deg incl

20% Claystone, 80% Sandstone.

Comments: **cut 24.5m or core, recovered 23.53m (96% recovery)**

BAKER HUGHES INTEQ

DATA LOGGING REPORT No. 20

Operator	CO2CRC Pilot Project Ltd. (CPPL)	**Well**	CRC-1
Date	6/3/2007	**Time**	24:00:00
Depth	2051 m	**Last Report Depth**	2038.5 m
Rig Operations	POOH w/core#4		
Report By	Shaharizad / Rio Marasigan	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	3RR5	**Type**	Core Bit	**Size**	6-3/4"	**Jets**	5 x 12		
On Bit Dist (Run)	18	**Hrs (Run)**	24.1	**ROP (Run)**	0.75	**TBR (Run)**	127.7k	**Circ Hrs (Run)**	32.7
On Bit Dist (Day)	12.5	**Hrs (Day)**	12.6	**ROP (Day)**	0.99	**TBR (Day)**	65.8k	**Rot Hrs (Run)**	28.2
Pump Pressure(Day)	594-943psi	**Torque(day)**	6-7kft.lb	**WOB(day)**	12-15klbft			**Bit RPM** 73-96	**Surf RPM** 73-96

GPM: 109-147

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ 2050m
40% Claystone, 60% Sandstone.

Last Survey Posted @2022m = 0.75 deg incl

Comments:
POOH, recover core, RIH w/Coring BHA

BAKER HUGHES INTEQ

DATA LOGGING REPORT No. 19

Operator	CO2CRC Pilot Project Ltd. (CPPL)	**Well**	CRC-1
Date	5/3/2007	**Time**	24:00:00
Depth	2038.5 m	**Last Report Depth**	2033 m
Rig Operations	Coring (6-3/4")		
Report By	Shaharizad / Rio Marasigan	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	3RR5	**Type**	Core Bit	**Size**	6-3/4"	**Jets**	5 x 12				
On Bit Dist (Run)	5.5	**Hrs (Run)**	11.5	**ROP (Run)**	0.48	**TBR (Run)**	61.9k	**Circ Hrs (Run)**	16.8		
On Bit Dist (Day)	5.5	**Hrs (Day)**	11.5	**ROP (Day)**	0.48	**TBR (Day)**	61.9k	**Rot Hrs (Run)**	11.5		
Pump Pressure(Day)	581-935psi	**Torque(day)**	6-7kft.lb	**WOB(day)**	11-15klbft			**Bit RPM**	84-96	**Surf RPM**	84-96
GPM:	129-147										

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ 2035m
100% Claystone

Last Survey Posted @2022m = 0.75 deg incl

Comments:

BAKER HUGHES INTEQ

DATA LOGGING REPORT No. 18

Operator	CO2CRC Pilot Project Ltd. (CPPL)	**Well**	CRC-1
Date	4/3/2007	**Time**	24:00:00
Depth	2033 m	**Last Report Depth**	1904 m
Rig Operations	RIH w/coring BHA		
Report By	Shaharizad / Rio Marasigan	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	NB4	**Type**	PDC	**Size**	6-3/4"	**Jets**	4 x 12		
On Bit Dist (Run)	129	**Hrs (Run)**	6.9	**ROP (Run)**	18.70	**TBR (Run)**	41.8k	**Circ Hrs (Run)**	11.3
On Bit Dist (Day)	129	**Hrs (Day)**	6.9	**ROP (Day)**	18.70	**TBR (Day)**	41.8k	**Rot Hrs (Run)**	9
Pump Pressure(Day)	1024-1240ps	**Torque(day)**	3-7kft.lb	**WOB(day)**	3-9klbft	**Bit RPM**	29-124	**Surf RPM**	29-124

GPM: 244-253

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ 2030m
100% Claystone.

Last Survey Posted @2022m = 0.75 deg incl

Comments: **RIH, Rig Service, Slip Drill Line, resume RIH**

BAKER HUGHES INTEQ

DATA LOGGING REPORT No. 17

Operator	CO2CRC Pilot Project Ltd. (CPPL)	**Well**	CRC-1
Date	3/3/2007	**Time**	24:00:00
Depth	1904 m	**Last Report Depth**	1901 m
Rig Operations	RIH w/drilling BHA		
Report By	Shaharizad / Rio Marasigan	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	3RR4	**Type**	Core Bit	**Size**	6-3/4"	**Jets**	5 x 12		
On Bit Dist (Run)	4	**Hrs (Run)**	10.2	**ROP (Run)**	0.39	**TBR (Run)**	47.9k	**Circ Hrs (Run)**	17.3
On Bit Dist (Day)	3	**Hrs (Day)**	5.7	**ROP (Day)**	0.53	**TBR (Day)**	33k	**Rot Hrs (Run)**	13.3
Pump Pressure(Day)	816-1011psi	**Torque(day)**	3-4kft.lb	**WOB(day)**	9-15klbft	**Bit RPM**	82-86	**Surf RPM**	82-86

GPM: 148-152

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ 1900m — **Last Survey Posted** @1896m = 2.00 deg incl

100% Claystone, Trace Sandstone

Comments: **RIH, Break circ, ream down, drill ahead 6-3/4" hole.**

Max Trip Gas = 0.138%

BAKER HUGHES INTEQ

DATA LOGGING REPORT No. 16

Operator	CO2CRC Pilot Project Ltd. (CPPL)	**Well**	CRC-1
Date	2/3/2007	**Time**	24:00:00
Depth	1901 m	**Last Report Depth**	1900 m
Rig Operations	Coring		
Report By	Shaharizad / Rio Marasigan	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	3RR4	**Type**	Core Bit	**Size**	6-3/4"	**Jets**	5 x 12				
On Bit Dist (Run)	1	**Hrs (Run)**	4.5	**ROP (Run)**	0.22	**TBR (Run)**	14.9k	**Circ Hrs (Run)**	8.8		
On Bit Dist (Day)	1	**Hrs (Day)**	4.5	**ROP (Day)**	0.22	**TBR (Day)**	14.9k	**Rot Hrs (Run)**	5.6		
Pump Pressure(Day)	785psi	**Torque(day)**	2-3kft.lb	**WOB(day)**	11-14klbft			**Bit RPM**	29	**Surf RPM**	29
GPM:	176										

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ 1900m — **Last Survey Posted** @1896m = 2.00 deg incl

100% Claystone, Trace Sandstone

Comments:

BAKER HUGHES INTEQ

DATA LOGGING REPORT No. 15

Operator	CO2CRC Pilot Project Ltd. (CPPL)	**Well**	CRC-1
Date	1/3/2007	**Time**	24:00:00
Depth	1900 m	**Last Report Depth**	1889 m
Rig Operations	POOH to p/u coring BHA		
Report By	Shaharizad / Rio Marasigan	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	2RR2	**Type**	PDC 6972	**Size**	6-3/4"	**Jets**	5 x 12		
On Bit Dist (Run)	630	**Hrs (Run)**	55.1	**ROP (Run)**	11.43	**TBR (Run)**	360k	**Circ Hrs (Run)**	74.8
On Bit Dist (Day)	11	**Hrs (Day)**	1.2	**ROP (Day)**	9.17	**TBR (Day)**	7.6k	**Rot Hrs (Run)**	64.3
Pump Pressure(Day)	1320-1379psi	**Torque(day)**	6-7kft.lb	**WOB(day)**	3-4klbft	**Bit RPM**	89-110	**Surf RPM**	89-110

GPM: 297-305

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ 1900m

100% Claystone, Trace Sandstone

Last Survey Posted @1896m = 2.00 deg incl

Comments:

POOH & L/D Drilling BHA, P/U Coring BHA.

BAKER HUGHES INTEQ

DATA LOGGING REPORT No. 14

Operator	CO2CRC Pilot Project Ltd. (CPPL)	**Well**	CRC-1
Date	1/3/2007	**Time**	24:00:00
Depth	1889 m	**Last Report Depth**	1723 m
Rig Operations	Cont. drilling 6-3/4" hole		
Report By	Shaharizad / Rio Marasigan	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	2RR2	**Type**	PDC 6972	**Size**	6-3/4"	**Jets**	5 x 12		
On Bit Dist (Run)	619	**Hrs (Run)**	53.9	**ROP (Run)**	11.48	**TBR (Run)**	352.4k	**Circ Hrs (Run)**	68
On Bit Dist (Day)	166	**Hrs (Day)**	18.0	**ROP (Day)**	9.22	**TBR (Day)**	115.4k	**Rot Hrs (Run)**	63
Pump Pressure(Day)	959-1713psi	**Torque(day)**	4-8kft.lb	**WOB(day)**	4-12klbft	**Bit RPM**	81-121	**Surf RPM**	81-121
GPM:	248-315								

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ 1885m
100% Claystone, Trace Sandstone

Last Survey Posted @1808m = 2.00 deg incl

Comments:
Drill Down to core point at 1900m, circ hole clean

BAKER HUGHES INTEQ

DATA LOGGING REPORT No. 13

Operator	CO2CRC Pilot Project Ltd. (CPPL)	**Well**	CRC-1
Date	26/02/2007	**Time**	24:00:00
Depth	1723 m	**Last Report Depth**	1526 m
Rig Operations	Cont. drilling 6-3/4" hole		
Report By	Shaharizad / Rio Marasigan	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	2RR2	**Type**	PDC 6972	**Size**	6-3/4"	**Jets**	5 x 12		
On Bit Dist (Run)	453	**Hrs (Run)**	35.9	**ROP (Run)**	12.62	**TBR (Run)**	237k	**Circ Hrs (Run)**	45
On Bit Dist (Day)	197	**Hrs (Day)**	16.2	**ROP (Day)**	12.16	**TBR (Day)**	104.7k	**Rot Hrs (Run)**	41.9
Pump Pressure(Day)	891-1257psi	**Torque(day)**	6-8kft.lb	**WOB(day)**	3-11klbft	**Bit RPM**	87-121	**Surf RPM**	87-121

GPM: 250-297US gal/min

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ 1720m
100% Claystone, Trace Sandstone

Last Survey Posted @1691m = 2.00 deg incl

Comments:
Cont. drilling

BAKER HUGHES INTEQ

DATA LOGGING REPORT No. 12

Operator	CO2CRC Pilot Project Ltd. (CPPL)	**Well**	CRC-1
Date	26/02/2007	**Time**	24:00:00
Depth	1526 m	**Last Report Depth**	1323 m
Rig Operations	Cont. drilling 6-34" hole		
Report By	Bambang Budiarto/Shaharizad	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	2RR2	**Type**	PDC 6972	**Size**	6-3/4"	**Jets**	5 x 12		
On Bit Dist (Run)	256 m	**Hrs (Run)**	19.7 hrs	**ROP (Run)**	13.0 m/hrs	**TBR (Run)**	132300 rev	**Circ Hrs (Run)**	23.3 hrs
On Bit Dist (Day)	203 m	**Hrs (Day)**	16.9 hrs	**ROP (Day)**	12.0 m/hrs	**TBR (Day)**	113637 rev	**Rot Hrs (Run)**	22.5hrs
Pump Pressure(Day)	710-950 psi	**Torque(day)**	2.0-7.0 kft.lb	**WOB(day)**	2-10 klbft	**Bit RPM**	100-120	**Surf RPM**	100-120

GPM: 245-275 US gal/min

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ 1545m
Claystone=100%

Last Survey Posted @1467m = 2.00 deg incl

Comments: **Cont. drilling to 1382m, RIH ss survey @ 1370m = 1.75 deg incl, Cont. drilling to 1479m, RIH ss survey @ 1467m=2.00 deg incl, RIH ss survey @ 1467m=2.00 deg incl, Cont. drilling**

06:00 hrs update: Cont. drilling

DATA LOGGING REPORT No. 11

Operator	CO2CRC Pilot Project Ltd. (CPPL)	**Well**	CRC-1
Date	25/02/2007	**Time**	24:00:00
Depth	1323 m	**Last Report Depth**	1247 m
Rig Operations	Cont. drilling 6-3/4" hole		
Report By	Bambang Budiarto/Shaharizad	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	3RR2	**Type**	PDC Core MCP662	**Size**	6-3/4"	**Jets**	0.5522TFA		
On Bit Dist (Run)	24 m	**Hrs (Run)**	9.7 hrs	**ROP (Run)**	2.5 m/hrs	**TBR (Run)**	47520 rev	**Circ Hrs (Run)**	10.0 hrs
On Bit Dist (Day)	23 m	**Hrs (Day)**	8.5 hrs	**ROP (Day)**	2.7 m/hrs	**TBR (Day)**	41994 rev	**Rot Hrs (Run)**	9.9hrs
Pump Pressure(Day)	493-832 psi	**Torque(day)**	1.1-5.2 kft.lb	**WOB(day)**	2-5 klbft	**Bit RPM**	78-92	**Surf RPM**	78-92
GPM:	116-127								

DRILLING REPORT (Rotary drilling)

Bit No.	2RR2	**Type**	PDC M56S	**Size**	6-3/4"	**Jets**	5 x 12		
On Bit Dist (Run)	53 m	**Hrs (Run)**	2.8 hrs	**ROP (Run)**	19.0 m/hrs	**TBR (Run)**	18663 rev	**Circ Hrs (Run)**	3.2 hrs
On Bit Dist (Day)	53 m	**Hrs (Day)**	2.8 hrs	**ROP (Day)**	19.0 m/hrs	**TBR (Day)**	18663 rev	**Rot Hrs (Run)**	3.0hrs
Pump Pressure(Day)	892-984 psi	**Torque(day)**	2.3-2.7 kft.lb	**WOB(day)**	3-6 klbft	**Bit RPM**	100-120	**Surf RPM**	100-120
GPM:	251-355								

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ 1340 m
Claystone=90%
Sandstone=10%

Last Survey Posted @1233m = 1.75 deg incl

Comments: **Cont. coring # 3 from 1246m to 1270m, POOH & L/D core barrel - recovery 8.13m (34.0%), M/U 6-3/4" BHA & RIH to bttm, Cont. drilling from 1270m**

06:00 hrs update: Cont. drilling

DATA LOGGING REPORT No. 10

Operator	CO2CRC Pilot Project Ltd. (CPPL)	**Well**	CRC-1
Date	24/02/2007	**Time**	24:00:00
Depth	1247 m	**Last Report Depth**	1245 m
Rig Operations	Cont. coring # 3		
Report By	Bambang Budiarto/Shaharizad	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	CB#2	**Type**	MCP662	**Size**	6-3/4"	**Jets**	0.5522TFA				
On Bit Dist (Run)	1 m	**Hrs (Run)**	1.4 hrs	**ROP (Run)**	0.7 m/hrs	**TBR (Run)**	6524 rev	**Circ Hrs (Run)**	3.4 hrs		
On Bit Dist (Day)	1 m	**Hrs (Day)**	1.4 hrs	**ROP (Day)**	0.7 m/hrs	**TBR (Day)**	6524 rev	**Rot Hrs (Run)**	3.0hrs		
Pump Pressure(Day)	598-1370	**Torque(day)**	1.7-2.2 kft.lb	**WOB(day)**	3-6 klbft	**Bit RPM**	80-82	**Surf RPM**	80-82		
GPM:	175-178										

DRILLING REPORT (Rotary drilling)

Bit No.	CB#3	**Type**	MCP662	**Size**	6-3/4"	**Jets**	0.5522TFA				
On Bit Dist (Run)	1 m	**Hrs (Run)**	1.2 hrs	**ROP (Run)**	0.8 m/hrs	**TBR (Run)**	5526 rev	**Circ Hrs (Run)**	2.2 hrs		
On Bit Dist (Day)	1 m	**Hrs (Day)**	1.2 hrs	**ROP (Day)**	0.8 m/hrs	**TBR (Day)**	5526 rev	**Rot Hrs (Run)**	2.0hrs		
Pump Pressure(Day)	492-605	**Torque(day)**	2.0-2.5 kft.lb	**WOB(day)**	3-6 klbft	**Bit RPM**	80-82	**Surf RPM**	80-82		
GPM:	115-117										

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ 1245 m — **Last Survey Posted** @1233m = 1.75 deg incl

Claystone=100%

Comments: **Cont. M/U CB # 2 assy. & RIH to coring point 1245m, Start coring # 2 from 1245m to 1246m, POOH & L/D CB #2-0% recovery, M/U CB #3 assy. & RIH to bttm., Start coring # 3 from 1246m**

06:00 hrs update: Cont coring #3

BAKER HUGHES INTEQ

DATA LOGGING REPORT No. 9

Operator	CO2CRC Pilot Project Ltd. (CPPL)	**Well**	CRC-1
Date	23/02/2007	**Time**	24:00:00
Depth	1245 m	**Last Report Depth**	1109 m
Rig Operations	Cont. RIH core barrel # 2 assy.		
Report By	Bambang Budiarto/Shaharizad	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	2RR1	**Type**	PDC 6972	**Size**	6-3/4"	**Jets**	5 x 12		
On Bit Dist (Run)	326 m	**Hrs (Run)**	12.8 hrs	**ROP (Run)**	25.5 m/hrs	**TBR (Run)**	84520 rev	**Circ Hrs (Run)**	20.8 hrs
On Bit Dist (Day)	136 m	**Hrs (Day)**	6.6 hrs	**ROP (Day)**	20.6 m/hrs	**TBR (Day)**	42582 rev	**Rot Hrs (Run)**	19.1hrs
Pump Pressure(Day)	595-915 psi	**Torque(day)**	1.2-2.0 kft.lb	**WOB(day)**	3-6 klbft	**Bit RPM**	85-123	**Surf RPM**	85-123

GPM: 250-254 US gal/min

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ 1245m
Claystone=100%

Last Survey Posted @1233m = 1.75 deg incl

Comments: **Cont. drilling to 1109m-RIH ss survey-miss fire, Cont. drilling to 1118m-RIH ss survey-miss fire, Cont. drilling to 1138m-RIH ss survey-miss fire, Cont. drilling to 1176m-RIH ss survey @ 1165m = 1 deg, Cont. drilling to 1245m, Circ. samples @ 1245m, RIH ss survey @ 1233 = 1.75 deg, Wiper trip, POOH & L/D BHA, Prepare to RIH CB # 2 assy.**

06:00 hrs update: Cont M/U CB # 2 assy. & RIH to coring point 1245m, Start coring # 2

DATA LOGGING REPORT No. 8

Operator	CO2CRC Pilot Project Ltd. (CPPL)	**Well**	CRC-1
Date	22/02/2007	**Time**	24:00:00
Depth	1109 m	**Last Report Depth**	915 m
Rig Operations	Cont. drilling		
Report By	Bambang Budiarto/Shaharizad	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	3 (Core # 1)	**Type**	MCP662	**Size**	6-3/4"	**Jets**	-		
On Bit Dist (Run)	4	**Hrs (Run)**	1.2	**ROP (Run)**	3.33	**TBR (Run)**	6.384K	**Circ Hrs (Run)**	3.6
On Bit Dist (Day)	4	**Hrs (Day)**	1.2	**ROP (Day)**	3.33	**TBR (Day)**	6.384K	**Rot Hrs (Run)**	1.9
Pump Pressure(Day)	520-600	**Torque(day)**	1.2-1.7	**WOB(day)**	2-3	**Bit RPM**	80-100	**Surf RPM**	80-100
GPM:	232-252								

DRILLING REPORT (Rotary drilling)

Bit No.	2RR1	**Type**	PDC 6972	**Size**	6-3/4"	**Jets**	5 x 12		
On Bit Dist (Run)	190	**Hrs (Run)**	6.2	**ROP (Run)**	30.60	**TBR (Run)**	41.938K	**Circ Hrs (Run)**	9.7
On Bit Dist (Day)	190	**Hrs (Day)**	6.2	**ROP (Day)**	30.60	**TBR (Day)**	41.938K	**Rot Hrs (Run)**	8.4
Pump Pressure(Day)	532-710	**Torque(day)**	1.2-1.7	**WOB(day)**	2-8	**Bit RPM**	80-115	**Surf RPM**	80-115
GPM:	248-256								

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg
919	0.0002	0.0000	15	0	0	0	0	0	0	trip	8.7

Lithology @ 1130m
Claystone=20%
Sandstone=80%

Last Survey Posted @506m = 1.0 deg incl

Comments: **M/U & RIH core barrel ass. # 1, Coring from 915 to 918.5m, CBU & POOH w/ core barrel ass., M/U 6-3/4" BHA & RIH to bttm, Cont. drillng from 919m to 1109m, Run ss survey-miss shot, cont. drilling to 1118m, Run ss survey, cont drilling**

06:00 hrs update: Cont drilling

BAKER HUGHES INTEQ

DATA LOGGING REPORT No. 7

Operator	CO2CRC Pilot Project Ltd. (CPPL)	**Well**	CRC-1
Date	21/02/2007	**Time**	24:00:00
Depth	915 m	**Last Report Depth**	745 m
Rig Operations	Cont. Coring # 1		
Report By	Bambang Budiarto/Shaharizad	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	2	**Type**	PDC 6972	**Size**	6-3/4"	**Jets**	5 x 12		
On Bit Dist (Run)	399	**Hrs (Run)**	14.9	**ROP (Run)**	26.80	**TBR (Run)**	72.132K	**Circ Hrs (Run)**	37.5
On Bit Dist (Day)	170	**Hrs (Day)**	6.3	**ROP (Day)**	26.98	**TBR (Day)**	33.142	**Rot Hrs (Run)**	22.6
Pump Pressure(Day)	500-600	**Torque(day)**	0.85-2.10	**WOB(day)**	2-7	**Bit RPM**	90-111	**Surf RPM**	90-111
GPM:	230-255								

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ 915m
Claystone=100%

Last Survey Posted @506m = 1.0 deg incl

Comments: Cont. drilling 6-3/4" hole to coting point @ 915m, circ hole clean, POOH BHA # 2 ass.,
M/U & RIH core barrel ass. # 1, Coring from 915m

06:00 hrs update: Cont coring

BAKER HUGHES INTEQ

DATA LOGGING REPORT No. 6

Operator	CO2CRC Pilot Project Ltd. (CPPL)	**Well**	CRC-1
Date	20/02/2007	**Time**	24:00:00
Depth	745 m	**Last Report Depth**	516 m
Rig Operations	Cont. drilling 6-3/4" hole		
Report By	Bambang Budiarto/Shaharizad	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	2	**Type**	PDC 6972	**Size**	6-3/4"	**Jets**	5 x 12		
On Bit Dist (Run)	229	**Hrs (Run)**	8.6	**ROP (Run)**	26.60	**TBR (Run)**	38.990K	**Circ Hrs (Run)**	16.5
On Bit Dist (Day)	229	**Hrs (Day)**	8.6	**ROP (Day)**	26.60	**TBR (Day)**	38.990K	**Rot Hrs (Run)**	14
Pump Pressure(Day)	710-915	**Torque(day)**	0.85-3.90	**WOB(day)**	8-14	**Bit RPM**	80-111	**Surf RPM**	80-111
GPM:	220-252								

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ 750m
Sandstone=100%

Last Survey Posted @506m = 1.0 deg incl

Comments: Press up annulus to 2500psi/15mins, cont drill out cmt fro 483m to 519m (3m of new formation),
Circ. Hole clean, Prepare forextended LOT, Conduct extended LOT to 13.3ppg EMW,
Resume drilling 6-3/4" hole section

06:00 hrs update: Cont drilling

DATA LOGGING REPORT No. 5

Operator	CO2CRC Pilot Project Ltd. (CPPL)	**Well**	CRC-1
Date	19/02/2007	**Time**	24:00:00
Depth	516 m	**Last Report Depth**	516 m
Rig Operations	Drill out cement		
Report By	Bambang Budiarto/Shaharizad	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	2	**Type**	PDC 6972	**Size**	6-3/4"	**Jets**	5 x 12		
On Bit Dist (Run)	-	**Hrs (Run)**	-	**ROP (Run)**	-	**TBR (Run)**	-	**Circ Hrs (Run)**	-
On Bit Dist (Day)	-	**Hrs (Day)**	-	**ROP (Day)**	-	**TBR (Day)**	-	**Rot Hrs (Run)**	-
Pump Pressure(Day)	-	**Torque(day)**	-	**WOB(day)**	-	**Bit RPM**	-	**Surf RPM**	-
GPM:	-								

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ -

Last Survey Posted @506m = 1.0 deg incl

Comments: **N/U BOP & test, M/U & RIH 6-3/4" BHA # 2, Tag TOC @ 483m, Press up annulus to 2500psi/15mins, cont drill out cmt fro 483m**

06:00 hrs update: Cont drill out cmt to 3m of new formation (519m), Conditioning mud & circ. hole clean, Prepare & conduct extended LOT

BAKER HUGHES INTEQ

DATA LOGGING REPORT No. 4

Operator	CO2CRC Pilot Project Ltd. (CPPL)	**Well**	CRC-1
Date	18/02/2007	**Time**	24:00:00
Depth	516 m	**Last Report Depth**	516 m
Rig Operations	N/U BOP		
Report By	Bambang Budiarto/Shaharizad	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	-	**Type**	-	**Size**	-	**Jets**	-		
On Bit Dist (Run)	-	**Hrs (Run)**	-	**ROP (Run)**	-	**TBR (Run)**	-	**Circ Hrs (Run)**	-
On Bit Dist (Day)	-	**Hrs (Day)**	-	**ROP (Day)**	-	**TBR (Day)**	-	**Rot Hrs (Run)**	-
Pump Pressure(Day)	-	**Torque(day)**	-	**WOB(day)**	-	**Bit RPM**	-	**Surf RPM**	-
GPM:	-								

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ -

Last Survey Posted @506m = 1.0 deg incl

Comments: **Performing cmt job, WOC, N/D cmt lines & cut excess csg, N/U BOP**

06:00 hrs update: N/U BOP & test

BAKER HUGHES INTEQ

DATA LOGGING REPORT No. 3

Operator	CO2CRC	**Well**	CRC-1
Date	17/02/2007	**Time**	24:00:00
Depth	516 m	**Last Report Depth**	516 m
Rig Operations	Cementing job		
Report By	Bambang Budiarto/Shaharizad	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	-	**Type**	-	**Size**	-	**Jets**	-		
On Bit Dist (Run)	-	**Hrs (Run)**	-	**ROP (Run)**	-	**TBR (Run)**	-	**Circ Hrs (Run)**	-
On Bit Dist (Day)	-	**Hrs (Day)**	-	**ROP (Day)**	-	**TBR (Day)**	-	**Rot Hrs (Run)**	-
Pump Pressure(Day)	-	**Torque(day)**	-	**WOB(day)**	-	**Bit RPM**	-	**Surf RPM**	-
GPM:	-								

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ -

Last Survey Posted @506m = 1.0 deg incl

Comments: RIH to bttm, Pump Hi Vis sweep, CBU, Strap out of hole, strap all 6" DC & rack back HWDP & DP on derrick, R/U to RIH 7-5/8' csg, RIH 7-5/8" csg, R/U cmt line, Circ. hole clean

06:00 hrs update: Performing cmt job, WOC

BAKER HUGHES INTEQ

DATA LOGGING REPORT No. 2

Operator	CO2CRC	**Well**	CRC-1
Date	16/02/2007	**Time**	24:00:00
Depth	516 m	**Last Report Depth**	216 m
Rig Operations	Wiper trip to bttm		
Report By	Bambang Budiarto/Shaharizad	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	1	**Type**	JST11X	**Size**	9-7/8"	**Jets**	4x14		
On Bit Dist (Run)	496	**Hrs (Run)**	17.5	**ROP (Run)**	28.34	**TBR (Run)**	106.43K	**Circ Hrs (Run)**	27.4
On Bit Dist (Day)	280	**Hrs (Day)**	12.0	**ROP (Day)**	23.33	**TBR (Day)**	75.83K	**Rot Hrs (Run)**	24.4
Pump Pressure(Day)	535-1577	**Torque(day)**	4.9-8.5	**WOB(day)**	5-20	**Bit RPM**	105-113	**Surf RPM**	105-113
GPM:	485-520								

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ 516m
Marls: 100%

Last Survey Posted @506m = 1.0 deg incl

Comments: Cont. drill 9-7/8" surface Hole to csg point @ 516m,Pump Hi-vis sweep, Circ. hole clean, Run SS survey, Wiper trip to bit, RIH to bbtm

06:00 hrs update: RIH to bttm, Pump Hi Vis sweep, CBU, Strap out of hole, strap all 6" DC & rack back HWDP & DP on derrick, R/U to RIH 7-5/8' csg

BAKER HUGHES INTEQ

DATA LOGGING REPORT No. 1

Operator	CO2CRC	**Well**	CRC-1
Date	15/02/2007	**Time**	24:00:00
Depth	216 m	**Last Report Depth**	0 m
Rig Operations	Continue drilling 9-7/8" surface hole		
Report By	Bambang Budiarto/Shaharizad	**Report Received By**	Kevin Murphy/Brian Assels

DRILLING REPORT (Rotary drilling)

Bit No.	1	**Type**	JST11X	**Size**	9-7/8"	**Jets**	4x14		
On Bit Dist (Run)	196	**Hrs (Run)**	5.5	**ROP (Run)**	35.64	**TBR (Run)**	30.6K	**Circ Hrs (Run)**	8.1
On Bit Dist (Day)	196	**Hrs (Day)**	5.5	**ROP (Day)**	35.64	**TBR (Day)**	30.6K	**Rot Hrs (Run)**	6.3
Pump Pressure(Day)	720 - 1188	**Torque(day)**	2.1-5.8	**WOB(day)**	5-25	**Bit RPM**	80-120	**Surf RPM**	80-120
GPM:	350-510								

OTHER INFORMATION

Depth	Peak %	Bckgrnd %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	ic5 ppm	nC5 ppm	Type Trip,Cxn,Swab	Mud Wt ppg

Lithology @ 290m
Marls: 100%

Last Survey Posted @131m = 0.25 deg incl

Comments: Spud CRC-1 @ 1100hrs 15 feb 2007 from 20m below RT, cont drilling 9-7/8" surface hole

06:00 hrs update: Cont. drilling 9-7/8" surface hole

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ATTACHMENT 19 : RIG ACCEPTANCE REPORT

PRE SPUD CHECKLIST

RIG 11
WELL Megascolides # 1 RE
CONTRACTOR Century

Rating Definitions:

A – Must be addressed before rig acceptance/spud.

All "Critical", "Safety Critical" and "Environmental" items identified by the inspector shall be rectified and confirmed as such prior to acceptance to spud the first well.

B – Requires approval of schedule prior to acceptance

the Contractor and approved by Operator prior to acceptance to spud the first well. All items shall be rectified and confirmed as such prior to acceptance to spud the second well.

C – Minor. Must be addressed within 45 days of spudding 1st well.

A schedule for rectification of all "Minor" items identified by the inspector shall be prepared by the Contractor and approved by Operator prior to drilLing out surface casing on the first well. All items shall be rectified and confirmed as such within 45 days of spudding of the first well.

D – Fit for purpose. Suitable for immediate use.

Condition of equipment/systems is observed to be meeting current standards of practice.

Inspected by Chris Dann **Date 14/12/06**

No.	Item	Checked		Rate	Comments (black) Century (red) Upstream (blue)
		On	By		
1.0	**Derrick - Mast**				
1.1	Rig identification plate	13/12/06	CD	D	
1.2	Date of last certified expert inspection	12/11/06	CD	D	
1.3	Verticality	5/12/06	CD	D	
1.4	Safety pins in place & secured	5/12/06	CD	D	
1.5	No visible bent beams/braces	5/12/06	CD	D	
1.6	No visible corrosion/cracks	5/12/06	CD	D	
1.7	Electrical grounding onto sub-structure	5/12/06	CD	D	
1.8	Ladder bolting condition	5/12/06	CD	D	
1.9	Rig floor easy access on ladder	5/12/06	CD	D	
1.10	Counterweighted ladder safety belt cable condition	12/11/06	CD	D	N/A - static safety line installed
1.11	Mast raising line system	12/11/06	CD	D	N/A
1.12	Mast telescoping/folding system	12/11/06	CD	D	
1.13	Presence of spring loaded gates for any access to ladder	12/11/06	CD	D	N/A
1.14	Guylines (if any) properly anchored & tensioned	5/12/06	CD	D	
1.15	Guylines in good condition	5/12/06	CD	D	
1.16	No loose objects on the derrick	13/12/06	CD	D	
1.17	Stand pipes secured	5/12/06	CD	D	
1.18	Mud hoses secured at both ends with safety chains	10/12/06	CD	D	
	Casing stabbing board:	10/12/06	CD	D	
1.19	• Fastening	10/12/06	CD	D	

No.	Item	Checked		Rate	Comments (black) Century (red) Upstream (blue)
		On	By		
1.20	• Platform condition	10/12/06	CD	D	
1.21	• Lifting system condition	10/12/06	CD	D	
1.22	• Access ladder condition (spring closing gate)	10/12/06	CD	D	N/A
2.0	**Crown Block**				
	Proper fastening (safety slings) on to mast of:	12/11/06	CD	D	Crown block integral part of mast - other items not completely
2.1	• Crown block	12/11/06	CD	D	Current certification sighted
2.2	• Sand line sheave	12/11/06	CD	D	N/A
2.3	• Survey sheave	12/11/06	CD	D	
2.4	• Hyd winch #1 line sheave	12/11/06	CD	D	
2.5	• Hyd winch #2 line sheave	12/11/06	CD	D	
2.6	All auxiliary sheave turning freely	12/11/06	CD	D	
2.7	Fixed point to attach electrical logging pulley?	12/11/06	CD	D	N/A - Use travelling blocks
2.8	Fastening of platform gratings	5/12/06	CD	D	
2.9	Platform hand rails	5/12/06	CD	D	
2.10	Red flashing light working	5/12/06	CD	D	
2.11	Explosion proof electrical system	5/12/06	CD	D	
3.0	**Racking board**				
3.1	Fastening of platform gratings	5/12/06	CD	D	
3.2	Platform hand rails	5/12/06	CD	D	
3.3	Fastening to the mast	5/12/06	CD	D	
3.4	Level corresponding to stands length	8/12/06	CD	D	
3.5	Monkey board condition & stability	8/12/06	CD	D	
3.6	Monkey board slip-proof floor	12/11/06	CD	C	Monkey board to be reviewed during well & changes to be carried out as necessary We intend to make changes to the Monkey Board during the next rig move if the fabrication work is completed. Management of Change will be followed. Measurements and drawings have been completed by the rig on 12-12-2006. Drawings have been completed for the footboards. MOC will be completed for the work to commence. UP / KG accept Century assurance that can be operated safely. Century to have changes made next rig move incl MOC.

No.	Item	Checked		Rate	Comments (black) Century (red) Upstream (blue)
		On	By		
3.7	DP fingers condition	8/12/06	CD	D	
3.8	DC fingers condition	8/12/06	CD	D	
3.9	DP working rope condition	8/12/06	CD	D	
3.10	Sufficient lighting for safe work	8/12/06	CD	D	
3.11	Minimum two safety belts available	8/12/06	CD	D	
	Escape line	8/12/06	CD	D	
3.12	• Fastening to mast	8/12/06	CD	D	
3.13	• Condition, properly flagged	8/12/06	CD	D	
3.14	• Seat access	8/12/06	CD	D	
3.15	• Hand brake condition	8/12/06	CD	D	
3.16	• Slope/tension	10/12/06	CD	D	
3.17	• Speed regulator condition	8/12/06	CD	D	
4.0	**Rig Floor**				
4.1	Safety posters displayed	12/11/06	CD	D	
4.2	Anti skidding floor in critical area	10/12/06	CD	D	
4.3	Moving machinery (if any) properly guarded	13/12/06	CD	D	
4.4	Hand rails condition	8/12/06	CD	D	
4.5	Hand rails equipped w/kick plates	8/12/06	CD	D	
4.6	"V" door opening chained off or door closed when not in use	8/12/06	CD	D	
4.7	"V" door fastening onto rig	8/12/06	CD	D	
4.8	Rig floor holes protected	10/12/06	CD	D	
4.9	All stair steps are horizontal	10/12/06	CD	D	
4.10	Stair hand rails condition	10/12/06	CD	D	
4.11	Rig floor OBM drainage collector *(if applicable)*	12/11/06	CD	D	N/A for this programme
4.12	Mudcan seals and cable fastening	8/12/06	CD	D	
4.13	Set back mats condition	8/12/06	CD	D	
4.14	Minimum 3 exits from rig floor	8/12/06	CD	D	
5.0	**Dog House**				
5.1	Explosive gas portable detector	8/12/06	CD	D	
5.2	Toxic gas portable detector (if needed)	8/12/06	CD	D	
5.3	Drilling parameters recording Instrument condition	13/12/06	CD	D	
5.4	BOP drawings with all necessary relevant information	13/12/06	CD	D	
5.5	Well control procedures displayed in dog house	12/11/06	CD	D	
5.6	Trip control sheets, kick control worksheets daily updated	12/11/06	CD	D	
5.7	Hand tools in good condition	12/11/06	CD	D	
6.0	**Rotary, Tong & Slips**				
6.1	Rotary table master bushings & bowls: erosion & wear condition	12/11/06	CD	D	
6.2	Rotary lockdown system condition	8/12/06	CD	D	

No.	Item	Checked		Rate	Comments (black) Century (red) Upstream (blue)
		On	By		
6.3	Rotary gearbox condition	12/11/06	CD	D	
6.4	DP & DC elevator	12/11/06	CD	D	
6.5	Rotary Table driving chain protective case	12/11/06	CD	D	
6.6	Make-up & Brake-out tong back-post fastening on substructure	12/11/06	CD	D	
6.7	Driller protection rollers/guards	8/12/06	CD	D	
6.8	Cat-head roller guides & rope dividers	8/12/06	CD	D	
6.9	MU & BO tong wear	8/12/06	CD	D	
6.10	MU & BO tong suspension cable	8/12/06	CD	D	
6.11	MU & BO tong counter-weight system	8/12/06	CD	D	
6.12	Condition of break-out tongs hinge pins	8/12/06	CD	D	
6.13	Cleanliness of tongs dies & condition	8/12/06	CD	D	
6.14	Proper hard metal tong dies retainers	8/12/06	CD	D	
	Powered spinning wrench:				
6.15	• Suspension cable	8/12/06	CD	D	
6.16	• Retaining line	8/12/06	CD	D	
6.17	• Hoses	10/12/06	CD	D	
6.18	Rig floor air/hydraulic winches:	13/12/06	CD	D	
6.19	• Hand brakes	12/11/06	CD	D	Not fitted to hydraulic winches
6.20	• Automatic brakes	8/12/06	CD	D	
6.21	• Cables condition	8/12/06	CD	D	
6.22	• Spooling guides	13/12/06	CD	D	
6.23	• Safe working load marked	12/11/06	CD	D	
6.24	• Mud covers	12/11/06	CD	D	N/A
6.25	Man riding winch fitted with fail safe brake	8/12/06	CD	D	
6.26	Man riding winch marked "MANRIDING"	13/12/06	CD	D	
6.27	Any wire rope rubbing against structural members or rotary/hydraulic hose	8/12/06	CD	D	
6.28	All wire ropes, chains, & slings used for lifting tagged	8/12/06	CD	D	
7.0	**Well Control Equipment (on the floor)**				
7.1	Appropriate drill pipe float available & in good condition	12/11/06	CD	D	
7.2	BOP control panel w/painted BOP stack elements	8/12/06	CD	D	
7.3	BOP blind/shear ram control handle protected with quick release safety device	13/12/06	CD	D	

No.	Item	Checked		Rate	Comments (black) Century (red) Upstream (blue)
		On	By		
7.5	Stabbing kelly valve ready for use with adequate lifting device and proper X over	12/11/06	CD	D	
7.6	Kelly cock operation wrench available and in good condition	12/11/06	CD	D	
7.7	Date of last pressure test of above	12/11/06	CD	D	9/12/2006
7.8	X over subs for DC threads, available on rig floor	12/11/06	CD	D	N/A
7.9	Inside BOP with adequate lifting device, ready for use	13/12/06	CD	D	
7.10	Date of last pressure test	12/11/06	CD	D	Certified rental item
7.11	Kelly bushing locking device for backing off	12/11/06	CD	D	N/A
7.12	Date of last function test of choke Panel, gauges & controls gauges & controls	12/11/06	CD	D	9/12/2006
7.13	Wireline pneumatic or hydraulic cutter available at hand	12/11/06	CD	D	On site
7.14	MAASP properly displayed on choke panel	12/11/06	CD	D	To be displayed on kill sheets
7.15	Appropriate DSA & spacer spool available	12/11/06	CD	D	
8.0	**Driller Control Panel**				
8.1	Weight indicator condition & date of last test	12/11/06	CD	D	18/06/2006
8.2	Stand pipe pressure gauge condition	8/12/06	CD	D	
8.3	Pit Volume Totalizer calibrated & alarms functioning	13/12/06	CD	D	
8.4	Mud flow indicator	13/12/06	CD	D	
8.5	Electrical emergency stop	12/11/06	CD	D	N/A
8.6	Electrical control panel under air pressure	12/11/06	CD	D	N/A
8.7	Automatic driller condition	12/11/06	CD	D	Not installed
8.8	Pump stroke counter & totalizer	13/12/06	CD	D	
8.9	Make-up torque gauge	12/11/06	CD	D	
8.10	Rotary table speed gauge	13/12/06	CD	D	
8.11	Rotary table torque gauge	13/12/06	CD	D	
9.0	**Drawworks**				
9.1	Fastening onto substructure	12/11/06	CD	D	Drawworks integral on rig carrier
9.2	Vibrations in drawworks	12/11/06	CD	D	
9.3	Drawworks cooling water flow & temperature monitoring system	12/11/06	CD	D	Visual flow only
9.4	Mechanical hand brake adjustment & efficiency	8/12/06	CD	D	
9.5	NDT inspection records for brake band mounting lugs, eye bolts & linkage	12/11/06	CD	D	

No.	Item	Checked		Rate	Comments (black) Century (red) Upstream (blue)
		On	By		
9.6	Brake bands and rims condition	12/11/06	CD	D	
9.7	Hydromatic operation/condition/last inspection	12/11/06	CD	D	Hydromatic is new & operational
9.8	Crown-o-matic present adjustment	12/11/06	CD	D	
9.9	Date of last test	12/11/06	CD	D	10/12/2006
9.10	Cable condition of catheads line	12/11/06	CD	D	
9.11	Rope to cable connection	12/11/06	CD	D	N/A
9.12	Sandline function	12/11/06	CD	D	N/A
9.13	· Date of last utilization of above	12/11/06	CD	D	Not fitted
9.14	· Sandline cable guide	12/11/06	CD	D	Not fitted
9.15	· Sandline cable depth-meter	12/11/06	CD	D	Not fitted
9.16	Explosion proof slickline unit	12/11/06	CD	D	Hydraulic
9.17	• Spooling guide on above	12/11/06	CD	D	
9.18	• Hand brake condition on above	12/11/06	CD	D	
9.19	• Wireline condition on above	12/11/06	CD	D	New line installed
9.20	• Guarding	12/11/06	CD	D	
9.21	• Date of last utilization of slickline	12/11/06	CD	D	Functioned for installation of line
10.0	**Traveling Block Assembly**				
10.1	Upper bumper safely mounted	12/11/06	CD	D	Mounted below crown block
10.2	Sheave housings safely mounted	12/11/06	CD	D	See comment 10.9
10.3	Date of last sheaves greasing	12/11/06	CD	D	12/11/2006
10.4	Swivel bail hook function	12/11/06	CD	D	
10.5	Date of last X ray inspection of loops	12/11/06	CD	B	9th February 2006 (Catergory III due on 9th August 2006) Swivel has not been used since being rebuilt at Wacol. It was stripped and rebuilt for rig 11. Daniel Wood is writing a letter to confirm this. Letter will be sent through on 13-12-2006. 13-12-2006 - Daniel has issued and signed a letter regarding the Traveling Blocks(Ideco 265 Shorty S/N 355). All documentation is attached.(e-mail to Terry, Chris & Thommo) Subject to review of letter. *Letter supplied by Century*
10.6	Hook spring function	12/11/06	CD	D	
10.7	Elevator links condition	12/11/06	CD	D	
10.8	Date of last X ray inspection of links	12/11/06	CD	D	6th April 2006
10.9	Date of last traveling block and hook NDT test/overhaul	12/11/06	CD	D	9th February 2006 (Catergory III due on 9th August 2006)

No.	Item	Checked		Rate	Comments (black) Century (red) Upstream (blue)
		On	By		
11.0	**Drilling Line System**				
11.1	Date of last visual inspection	12/11/06	CD	D	12th December 2006
11.2	Present cumulated Ton/Mile work	12/11/06	CD	D	
11.3	Slipping/cutting sequences up to date	12/11/06	CD	D	
11.4	Winding/ Lebus grooving condition	12/11/06	CD	D	
11.5	Active line guiding/stabilizing system	12/11/06	CD	D	N/A
11.6	Drum turn-back rollers (kick back)	12/11/06	CD	D	Not required
11.7	Dead line stabilizers & fastening onto substructure	12/11/06	CD	D	Not required
11.8	Cable fastening device onto the drum	12/11/06	CD	B	MOC for anchor recess 12-12-2006 - MOC needs to be completed. Took photos today of the drum and knuckle area to put with the MOC. 13-12-2006 - MOC has been completed, Photos attached to document. Ok if adequate MOC completed.
11.9	Date of last inspection of above	12/11/06	CD	D	3rd December 2006
11.10	Cable fastening onto dead line anchor (all bolts in place)	12/11/06	CD	D	
11.11	Date of last weight indicator/dead line anchor sensor check	12/11/06	CD	D	12th December 2006
11.12	Length of spare cable left on reserve spool	12/11/06	CD	D	~1,500'
11.13	Type of drilling cable in use: greased or plasticized	12/11/06	CD	D	Greased
12.0	**Kelly, Power Swivel, Rotary Hose, Stand Pipe**				
12.1	Date of lower kelly cock last pressure test & last function test	9/12/06	CD	D	
12.2	Date of upper kelly cock last pressure test & last function test	9/12/06	CD	D	
12.3	Kelly spinner fastening with safety chain	9/12/06	CD	D	
12.4	Condition of kelly bushing	9/12/06	CD	D	
12.5	Condition of the kelly	9/12/06	CD	D	
12.6	Condition of kelly spinner	9/12/06	CD	D	
12.7	Condition of top drive (if any)	9/12/06	CD	D	N/A
12.8	Fastening of top drive power supply lines	9/12/06	CD	D	N/A
12.9	Date of top drive last survey/overhaul	9/12/06	CD	D	N/A
12.10	Date of last pressure and function test of gooseneck	9/12/06	CD	D	
12.11	Safety chain between swivel and rotary hose	9/12/06	CD	D	

No.	Item	Checked		Rate	Comments (black) Century (red) Upstream (blue)
		On	By		
12.12	Safety chain between Stand Pipe and rotary hose	9/12/06	CD	D	
12.13	Condition of Rotary Hose	9/12/06	CD	D	
12.14	Date of last pressure test of rotary hose, stand Pipe valves on rig floor manifold, etc.	12/12/06	CD	D	
12.15	Spare Kelly Hose available on site?	14/11/06	CD	C	Non-certified Will follow up with certification. Hose still looks almost new. Can read all the numbers and the hose data including WP and TP, Grade, etc. OK. Don't expect to require.
12.16	No 602 hammer unions on site (replaced with 1502's)	14/11/06	CD	D	No Fig 602 x 2" sighted
13.0	**Rig Substructure**				
13.1	Date of last certified inspection on substructure	14/11/06	CD	D	15/03/2004
13.2	No visible corrosion or damage to substructure beams	9/12/06	CD	D	
13.3	Electrical grounding to conductor pipe	9/12/06	CD	D	N/A
13.4	Hand rails condition	9/12/06	CD	D	
13.5	Hand rails equipped with kick plates	9/12/06	CD	D	
13.6	Cellar drainage in place & functioning	9/12/06	CD	D	
13.7	Cellar stability	9/12/06	CD	D	
13.8	Cellar ventilation	9/12/06	CD	D	
14.0	**BOP Accumulator Unit**				
14.1	Accumulator in working order and function tested	9/12/06	CD	D	
14.2	Date of last BOP accumulator bleed down test	9/12/06	CD	D	
14.3	Distance from wellhead, orientation with respect to BOP/Wellhead outlets	9/12/06	CD	D	
14.4	Explosion proof power source	9/12/06	CD	D	Yes
14.5	Date of last nitrogen pressure check (with accumulator at zero pressure)	2/12/06	CD	D	
14.6	All nitrogen and Koomey bottles have correct precharge pressure	9/12/06	CD	D	
14.7	Volume of accumulator hydraulic fluid at zero pressure	9/12/06	CD	D	170gallons
14.8	Volume of accumulator hydraulic fluid at maximum pressure	9/12/06	CD	D	98gallons
14.9	Active volume of hydraulic fluid in reserve in the accumulator at its maximum pressure 3 = 1 - 2	10/12/06	CD	D	Maximum volume = 170gallons Maximum accumulator pressured volume = 72gallons

No.	Item	Checked		Rate	Comments (black) Century (red) Upstream (blue)
		On	By		
14.10	Total closing + opening volume of all BOP elements	10/12/06	CD	D	56.5gallons
14.11	Volume ratio between accumulator and BOP 5 = 3/4	10/12/06	CD	D	Ratio 72 : 56.5
14.12	Date of last automatic switch ON/OFF test	10/12/06	CD	D	
14.13	Switch OFF pressure / ON pressure?	10/12/06	CD	D	
14.14	Accumulator controls labeled, gauges working, hydraulic lines protected?	10/12/06	CD	C	Lines between accumulator and subbase not covered Because of the tight lease the rig is packed in tighter than usual. Once the rig is set-up as per normal on a lease the right size we will look at what is required to cover the BOP control hoses and the best way to do it. OK.
15.0	**BOP System**				
15.1	Date of last pressure test	9/12/06	CD	D	9/12/2006
15.2	Date of last function test	10/12/06	CD	D	11th Dec 06
15.3	WP of rams BOP	9/12/06	CD	D	5000psi
15.4	WP of annular preventer	9/12/06	CD	D	5000psi
15.5	Guylines condition (to secure BOP to substructure)	9/12/06	CD	D	
15.6	No missing bolts on BOP, all bolts tight & secure?	9/12/06	CD	D	
15.7	Any rust on bolts or hubs or BOP bodies?	9/12/06	CD	D	
15.8	Control lines condition	9/12/06	CD	D	
18.9	Lines not in use blanked off?	9/12/06	CD	D	
15.10	Condition of BOP trolley & rails	9/12/06	CD	D	
15.11	Kill line fastening condition	9/12/06	CD	D	
15.12	Sufficient lighting	9/12/06	CD	D	
15.13	Flameproof shock hose / steel line to manifold	9/12/06	CD	C	To be reviewed by Terry Greany - Choke line hose is API 7K (not 16C) UP/KG accept 7K for present equipment. When replace, or if requested by Karron-CPPL-Lakes or DPI upgrade to 16C.
15.14	Choke lines fastening condition	9/12/06	CD	D	
15.15	Spare Pipe Ram Element for common tubulars run?	9/12/06	CD	D	
15.16	Internal Clearance through BOP equipment sufficient	9/12/06	CD	D	

No.	Item	Checked		Rate	Comments (black) Century (red) Upstream (blue)
		On	By		
16.0	**In Hole Equipment**				
16.1	Date of last tubular inspection made on: DP, DC, X overs, HWDP, Fishing tools	12/12/06	CD	D	Tubulars inspection completed 10/12/06
16.2	Type of float valve used while drilling	12/12/06	CD	D	Both types available
16.3	Survey tools are on site and have been demonstrated to be in working order	12/12/06	CD	D	
16.4	Fishing equipment for tubulars to be run down hole are on site	12/12/06	CD	C	11" OD reverse circulation basket due on site 20th Dec In transit from Tasman Oiltools. Left Perth on Monday on general freight. Will be here early next week. ok
17.0	**Choke Manifold**				
17.1	Date of last pressure test	9/12/06	CD	B	9/12/06 - Manual choke faulty Century to advise status Trying to source a H2, 3" Cameron choke body from MTQ in Singapore. Nothing available in Australia. Will have an update status regarding MTQ on Wednesday 13 12-2006. Current choke restricts fluid but doesn't not pressure test.14-12-2006 - Have sourced a Choke from MTQ in Singapore. It needs to be overhaud. Have asked for a quote to repair and time frame. MTQ are responding ASAP. Will keep Upstream up to date. Accept as is for Meg 1 & use remote operated choke however Century to follow up with suppliers. Choke body tests. While choke seat is not a pressure retaining device it needs to be able to restrict pressure in controlled manner and internal threads need to seal.
17.2	Choke diagram up to date?	9/12/06	CD	B	MGS valve shown incorrect
17.3	Choke manifold sufficient isolation paths?	9/12/06	CD	D	Yes
17.4	Pressure gauge for annular pressure reading	14/12/06	CD	D	
17.5	Fastening of piping between choke manifold & atmospheric degasser	9/12/06	CD	D	To be checked during nipple up or pre-acceptance pressure test

No.	Item	Checked		Rate	Comments (black) Century (red) Upstream (blue)
		On	By		
17.6	Fastening of mud dumping line to sump	9/12/06	CD	C	Not Fitted - Open drain to sump ok ex poorboy mgs.
17.7	Fastening of mud return line to shale shakers	9/12/06	CD	D	
17.8	Manifold ready for kick control (valves painted according to OPEN/CLOSE position)	9/12/06	CD	D	
17.9	Flare line secure and straight	13/12/06	CD	D	Discussed with David Wong. No specific DPI requirement. Due to lease size little option. Upstream / Karoon satisfied this does not cause unnecessary risk.
	Remote Choke Control Panel:				
17.11	• DP pressure gauge	9/12/06	CD	D	
17.12	• Annulus pressure gauge	9/12/06	CD	D	
17.13	• Pump No 2 stroke counter	9/12/06	CD	D	
17.14	• Choke position reading gauge	9/12/06	CD	D	
18.0	**Atmospheric Degasser**				
18.1	Fastening of mud return line to shale shakers	9/12/06	CD	D	
18.2	Diameter of vessel	14/11/06	CD	D	20"
18.3	Height of vessel	14/11/06	CD	D	20' (actual vessel height)
18.4	Diameter of exhaust line	14/11/06	CD	D	8"
18.5	Length of exhaust line	9/12/06	CD	D	To flare pit
18.6	Mud "free fall" distance inside degasser (in feet)	14/11/06	CD	D	~6.5'
18.7	Height of mud seal (in feet)	14/11/06	CD	D	~7'
19.0	**Shale shaker motor**				
19.1	Explosion proof motors	14/11/06	CD	D	Yes
19.2	Platform hand rails	9/12/06	CD	C	Hand rails has rust holes Order steel to repair. No material no-site at the moment. ok.
19.3	Platform gratings condition	9/12/06	CD	D	
19.4	Safe clearance on passage ways	9/12/06	CD	C	Restricted access on tank Will look at and discuss with crews, companyman, etc the best solution to get over these obstructions. ok
20.0	**Mud Chemicals Storage**				
20.1	Enough baryte reserve on rig?	9/12/06	CD	D	
20.2	Torn sacks kept to a minimum	9/12/06	CD	D	
20.3	Forklift condition	9/12/06	CD	D	
20.4	Chemical warning signs	9/12/06	CD	D	
20.5	Caustic soda & other hazardous chemicals properly labeled, stored, handled	9/12/06	CD	B	Waiting on Upstream / Karoon delivery of bunded pallets and covers Ok. Chasing up supplier. Should be onsite 14-12-06.
20.6	Liquid chemicals bunded	9/12/06	CD	B	Equipment ordered As for 20.5

No.	Item	Checked		Rate	Comments (black) Century (red) Upstream (blue)
		On	By		
21.0	**Mud Tanks**				
21.1	Hand rails condition	9/12/06	CD	C	Shale shaker walkway hand rails Order steel to repair. No material no-site at the moment. As per item 19.2. ok
21.2	Gratings and walkway condition	9/12/06	CD	D	Repairs being undertaken - to be
21.3	Workspace free of obstacles	9/12/06	CD	C	Lack of clear walk way due to pipe work on tanks Will look at and discuss with crews, companyman, etc the best solution to get over these obstructions. As per item 19.4. ok
21.4	Agitators working	9/12/06	CD	D	
21.5	Pit level indicators working properly and calibrated	9/12/06	CD	D	
21.6	Safety signs posted	9/12/06	CD	D	
21.7	Caustic soda protection goggles and gloves	9/12/06	CD	D	
21.8	Condition of Rig's mud testing equipment	9/12/06	CD	D	
22.0	**Trip Tank**				
22.1	Trip Tank condition	13/12/06	CD	D	
22.2	Size suitable for rig capacity	9/12/06	CD	D	
22.3	Pump operational	9/12/06	CD	D	
22.4	Trip tank mechanical level indicator operational, calibrated & visible from Driller's position	13/12/06	CD	D	
23.0	**Vacuum Degasser**				
23.1	Operational	9/12/06	CD	D	
23.2	Explosion proof electrical installation	9/12/06	CD	D	
23.3	Fastening of gas exhaust line	9/12/06	CD	D	
23.4	Gratings around degasser	9/12/06	CD	D	
23.5	Hand rails around degasser	9/12/06	CD	D	
23.6	Access stairs	9/12/06	CD	D	
24.0	**Mud Pumps Area**				
24.1	Pump pressure gauges	9/12/06	CD	D	
24.2	Emergency pump shut down switch available in pump area	9/12/06	CD	D	Rig floor & muster point "A"
24.3	Relief valves condition / adjustment / set point	9/12/06	CD	D	
24.4	Relief valves lines with self draining slope	9/12/06	CD	D	
24.5	Discharge lines fastening with safety chain/cable and clamps	9/12/06	CD	D	
24.6	Pumps input shaft protection	9/12/06	CD	D	
24.7	Pumps pulsation dampener precharge pressure	9/12/06	CD	D	700 to 800psi

No.	Item	Checked		Rate	Comments (black) Century (red) Upstream (blue)
		On	By		
24.8	Charge pump condition	9/12/06	CD	D	
24.9	Last fluid end inspection date	9/12/06	CD	B	TBA by Century
24.10	Spare mud manifold to standpipe	9/12/06	CD	D	N/A
24.11	Guards on all rotating equipment	9/12/06	CD	D	
25.0	**Mud Hopper/Mixing Barrel**				
25.1	Safe means of access & egress to & from mud hopper	9/12/06	CD	D	
25.2	Chemical barrel safely constructed & located	9/12/06	CD	D	
25.3	Personnel instructed in safe handling of chemicals/procedures in place & enforced	11/12/06	CD	D	
25.4	Personnel protective equipment available & used	9/12/06	CD	D	
25.5	Emergency shower station nearby, ready for use	9/12/06	CD	D	
25.6	Material Safety Data Sheets readily available for all mud chemicals	9/12/06	CD	D	
26.0	**Engine Area**				
26.1	Protection of moving machinery	13/12/06	CD	D	
26.2	Protection on exhausts	9/12/06	CD	D	
26.3	Spark arrestors on exhausts	9/12/06	CD	D	
26.4	Emergency stop to close fuel injection on engines (or 26.6)	9/12/06	CD	D	N/A
26.5	Emergency stop to close air intake on engines	9/12/06	CD	D	
26.6	Over speed control	9/12/06	CD	D	N/A
26.7	Date of last test	13/12/06	CD	D	12th December 2006
26.8	Cable end gland condition	9/12/06	CD	D	
26.9	Air vessels condition	9/12/06	CD	D	
26.10	Air vessels identification plates	9/12/06	CD	D	
26.11	Air vessels relief valves	9/12/06	CD	D	
26.12	Date of air vessel last pressure tests	9/12/06	CD	D	2004
27.0	**Generator/Electrical**				
27.1	Generator working condition	9/12/06	CD	D	
27.2	Date of last test	9/12/06	CD	D	May-06
27.3	Pressurized electrical panel	9/12/06	CD	D	N/A
27.4	Generator power adequate	9/12/06	CD	D	
27.5	Cables around rig properly elevated above ground	9/12/06	CD	C	Work on going to tidy up cables near mud tanks 100 new hooks have been fabricated and are no-site. They just need to be welded in place. Will be done as driller permits. ok
27.6	Cable to offices correctly buried	9/12/06	CD	D	Covered in traffic areas

No.	Item	Checked		Rate	Comments (black) Century (red) Upstream (blue)
		On	By		
27.7	Sufficient light to ensure safe working conditions	9/12/06	CD	D	
27.8	All electrical equipment in hazardous zones of correct Class/Zone rating (e.g. class 1 zone 1 etc)	9/12/06	CD	D	
27.9	Pre spud electrical report submitted	9/12/06	CD	D	
27.10	Electrical panel in dog house explosion proof	9/12/06	CD	D	
28.0	**Mechanical/Electrical Workshop**				
28.1	Electric tools condition	9/12/06	CD	D	
28.2	Electric tools protection	9/12/06	CD	D	
28.3	Pneumatic tools condition	9/12/06	CD	D	
28.4	Grinding machine condition with correct adjustment	9/12/06	CD	D	
28.5	Safety goggles and posters	9/12/06	CD	D	
28.6	Ear protection available	9/12/06	CD	D	
28.7	Cutting torch condition	9/12/06	CD	D	
28.8	Pressure reducer condition for above	9/12/06	CD	D	
28.9	Non return valves/hoses for above	9/12/06	CD	D	
28.10	Cables condition of above	9/12/06	CD	D	
28.11	Electric welding protection mask	9/12/06	CD	D	
28.12	Electric welding protection gloves	9/12/06	CD	D	
28.13	Acetylene, oxygen, nitrogen, freon and compressed air reserve bottles correctly stored in safe area and identified with official colour code	9/12/06	CD	D	
28.14	General grounding below 20 ohms	9/12/06	CD	D	
29.0	**Pipe Rack Area**				
29.1	Pipe racks level & in good condition	9/12/06	CD	D	
29.2	V door and ramp in good condition	9/12/06	CD	D	
29.3	Pipe stops provided	9/12/06	CD	D	Single end only
30.0	**Paint & Lubricant Stores**				
30.1	Storage bunding	9/12/06	CD	D	
30.2	Paint storage - cover and ventilation	9/12/06	CD	D	
30.3	Safety cans for paint thinner transportation	9/12/06	CD	D	
31.0	**Fuel Tanks/Fuel Transfer**				
31.1	Tanks content labeled	9/12/06	CD	B	Does not meet Australian Standards - expect be corrected by 15th Dec New signage is being ordered on 13-12-2006 from a local safety shop in Warragul. Signs take 2 days to get therefore this will be closed on the 15-12-2006. Signs are due on Friday 15-12-2006. ok

No.	Item	Checked		Rate	Comments (black) Century (red) Upstream (blue)
		On	By		
31.2	Tanks vented	9/12/06	CD	D	To be checked on location prior to rig acceptance
31.3	Fuel tanks electrical grounding	9/12/06	CD	D	To be checked on location prior
31.4	Safely located fuel tanks	9/12/06	CD	D	To be checked on location prior to rig acceptance
31.5	Adequate fuel transfer equipment	9/12/06	CD	D	
31.6	Overfill containment (gutters, retaining wall)	9/12/06	CD	D	
31.7	Any tank leaking?	9/12/06	CD	D	
31.8	Flammable liquids stored away from heat, oxygen bottles, oxidising agents	9/12/06	CD	D	
31.9	"No smoking " signs clearly visible	9/12/06	CD	D	
31.10	Transfer procedure posted and clearly visible	13/12/06	CD	D	
32.0	**Safety Drills & Meetings**				
	Date of last:				
32.1	• muster drill	12/12/06	CD	D	
32.2	• Trip drill	12/12/06	CD	D	N/A
32.3	• Well kill / BOP drill	12/12/06	CD	D	To be completed prior to drill out
32.4	• Fire drill	12/12/06	CD	B	To be completed prior to drill out
32.5	• Pit Volume Totalizer test	12/12/06	CD	D	
32.6	• Emergency shutdown test	12/12/06	CD	D	
32.7	• Rig crew safety meeting	12/12/06	CD	D	
32.8	Drills, test, meeting minutes recorded in safety log book?	13/12/06	CD	D	
33.0	**Safety Instructions To Be In Dog House & On Rig Floor**				
33.1	"Decision tree in case of emergency"	12/12/06	CD	D	
33.2	Kick control work sheet already filled in with standing parameters of the present hole phase	12/12/06	CD	D	N/A until after acceptance
33.3	Rig pump volumetric chart	12/12/06	CD	D	
33.4	Tubular make up tables	12/12/06	CD	D	
33.5	Hole/tubular volumetric tables	12/12/06	CD	D	
33.6	Tubular volumetric tables	12/12/06	CD	D	
33.7	General safety posters	12/12/06	CD	D	
33.8	Instruction book from the TP to the Driller	12/12/06	CD	D	Being implemented as operation begins
34.0	**Safety Documents To Be In Tool Pusher's Office**				
34.1	Safety meeting report file up to date	9/12/06	CD	D	
34.2	Accident report file up to date	9/12/06	CD	D	
34.3	Safety log book up to date	9/12/06	CD	D	
34.4	Hot work and other permits	9/12/06	CD	D	
34.5	up to date layout of fire fighting equipment, BA sets and stretchers locations	13/12/06	CD	D	

No.	Item	Checked		Rate	Comments (black) Century (red) Upstream (blue)
		On	By		
	Lifting register (last test date) of:	9/12/06	CD	D	

No.	Item	Checked		Rate	Comments (black) Century (red) Upstream (blue)
		On	By		
34.6	• Slings	9/12/06	CD	D	
34.7	• Guylines	9/12/06	CD	D	
34.8	• Harnesses & lanyards	9/12/06	CD	D	
34.9	• Monkey board safety line	9/12/06	CD	D	
34.10	• Fastening of safety cable/chain onto winch (racking Board)	9/12/06	CD	D	
34.11	• DC winch condition	9/12/06	CD	D	N/A
34.12	• Derrick safety belt condition	9/12/06	CD	D	
34.13	• MU & BO tong back-post main	9/12/06	CD	D	
34.14	• MU & BO tong back-post safety line condition	9/12/06	CD	D	
34.15	• MU & BO tong drawworks active line condition	9/12/06	CD	D	
34.16	• NDT inspection records available for elevators, tongs, slips, bails	12/12/06	CD	D	
34.17	• Wire rope loops secured with three clamps or pressed fittings, clamps on dead end	9/12/06	CD	D	
34.18	• Overall condition of all ropes, wire ropes, chains, slings & hooks used for lifting	9/12/06	CD	D	
34.19	• BOP lifting chains/cables & shackles inspection	9/12/06	CD	D	
34.20	Hazardous area drawing	9/12/06	CD	C	To be updated to include electric degasser zone Drawings have been updated by Century Plant department. Just need to be laminated and posted. Will be closed out by 15-12-2006 ok
34.21	Grounding circuit plan up to date	9/12/06	CD	C	To be provided Needs to be completed. Will be closed out before we spud Megascolides No.2. ok
34.22	Safety manual	9/12/06	CD	D	
34.23	Drilling line certificate up to date	9/12/06	CD	D	
34.24	Pressure vessel tests certificates up to date	9/12/06	CD	D	
34.25	Emergency audible codes	12/12/06	CD	D	
34.26	Rig contract	12/12/06	CD	D	
34.27	Up to date "people on site" situation	9/12/06	CD	D	
34.28	Updated well control certificates for key personnel	12/12/06	CD	D	

No.	Item	Checked		Rate	Comments (black) Century (red) Upstream (blue)
		On	By		
34.29	Training matrix	9/12/06	CD	C	Darren Thompson covering supervisor shortfalls as required Ongoing training and updating to get it correct. I'll be staying on-site until training issues closed out. 14-12-2006 - Elaine is going to start completing practical training with senior staff on JSA'a, man-rider, etc. Ok with Darren & current crew. Century need to ensure incoming crews have members with required competencies (PTW, CSE, manrider,etc). Century to investigate certificaste requirement by 15-12-06 and have necessary files onsite by 22-12-06.
34.30	Standard operating procedures	9/12/06	CD	D	Ongoing updates as per policy
34.31	Material Safety Data Sheets	9/12/06	CD	D	
35.0	**Safety Items To Be In Company Man's Office**				
35.1	Emergency Response Plan	9/12/06	CD	D	
35.2	The Petroleum and Gas (Production and Safety) Act (2004)	9/12/06	CD	D	
35.3	Operator's Health, Safety & Environment Bridging Document to the Upstream Petroleum Integrated Management System	9/12/06	CD	D	
35.4	Safety Management Plan	9/12/06	CD	D	
35.5	Environmental Management Plan	9/12/06	CD	D	
35.6	Drilling Contractor "HS&E Management Plan"	9/12/06	CD	D	
35.7	Upstream Petroleum Quality Assurance Plan	12/12/06	CD	B	Upstream to provide relevant Documents N/A. Certification information to be supplied where required.
35.8	Rig contract	9/12/06	CD	D	
35.10	Handover book / file between supervisors	12/12/06	CD	B	Upstream to provide relevant Documents N/A. Certification information to be supplied where required. TG to provide guidelines. Supervisors to ensure have written handover record.
35.11	Permit to work forms	9/12/06	CD	D	

No.	Item	Checked		Rate	Comments (black) Century (red) Upstream (blue)
		On	By		
36.0	**Communications**				
36.1	Radio/telephone between rig and town office	9/12/06	CD	D	
36.2	Intercom/telephone between following key posts: TP office, TP bedroom, office, wellsite representative bedroom, rig floor & mud logging unit	9/12/06	CD	D	
36.3	Visibility from TP office to rig floor?	9/12/06	CD	D	
36.4	Visibility from wellsite representative office to rig floor?	9/12/06	CD	D	
37.0	**Mudlogging & Electrical Logging Units**				
37.1	Is the location of Mud logging unit outside hazardous area	9/12/06	CD	D	
37.2	Is the location of Electrical Logging unit outside hazardous area	9/12/06	CD	D	
37.3	Explosion proof electrical system in Mud and Elect. Logging unit	9/12/06	CD	D	
37.4	Grounding of the Mudlogging units	9/12/06	CD	D	
37.5	Hydrocarbon and H_2S detectors (if needed) tested & functioning properly	13/12/06	CD	D	
37.6	Gas detector in the flowline	12/12/06	CD	D	
38.0	**Mud Engineers Laboratory**				
38.1	Is the mud testing area separate from sleeping quarters	14/12/06	CD	D	
38.2	Extractor fan?	14/12/06	CD	D	
38.3	Chemicals clearly marked and stored safely	14/12/06	CD	D	
38.4	Testing equipment condition	9/12/06	CD	D	
38.5	Testing equipment clearly marked for purpose to avoid contamination	9/12/06	CD	D	
39.0	**Rig Site**				
39.1	Access	9/12/06	CD	D	
39.2	Lease signs with rules of lease, speed limits and hazards signs displayed	9/12/06	CD	D	
39.3	Rig orientation according to main wind direction	9/12/06	CD	D	
39.4	Proper anchors/guylines (if any) flagged	9/12/06	CD	D	
39.5	No live overhead electrical lines closer than fall distance of derrick	9/12/06	CD	D	
39.6	Leveling	9/12/06	CD	D	
39.7	Drainage – gutters	9/12/06	CD	D	

No.	Item	Checked		Rate	Comments (black) Century (red) Upstream (blue)
		On	By		
39.8	Fencing/delimitation of safety perimeter	9/12/06	CD	D	
39.9	Car park outside of rig site	9/12/06	CD	D	
39.10	Waste skips/sump with sufficient capacity	13/12/06	CD	D	
39.11	Flare/burning pit 50m + from rig (flare line secured, with pilot light when potential for gas)	9/12/06	CD	B	~35m without pernament pilot light - Accept. Refer 17.9
39.12	Smoking permitted in designated areas only	9/12/06	CD	D	
40.0	**Vehicles**				
40.1	Light transport vehicle condition	9/12/06	CD	D	
40.2	Safety seat belts condition	9/12/06	CD	D	
40.3	Loading ramp for truck	9/12/06	CD	D	N/A
40.4	Cranes condition	9/12/06	CD	D	N/A
40.5	Forklift condition	9/12/06	CD	D	
40.6	Radio communications in light vehicles?	9/12/06	CD	D	N/A
41.0	**Camp Site**				
41.1	Distance from the rig	9/12/06	CD	D	
41.2	Condition of accommodation shacks	9/12/06	CD	C	Requires repairs in most rooms We have contacted 2 different local cabinent makers to come and quote on repairing the camp. No-one has shown up yet. Will continue to follow up. Century to confrim plan by 18-12-06
41.3	Kitchen cleanliness	9/12/06	CD	D	
41.4	Kitchen ventilation	9/12/06	CD	D	
41.5	Kitchen electrical system	9/12/06	CD	D	
41.6	Waste deposit area & garbage disposal	9/12/06	CD	D	
41.7	Potable water storage	13/12/06	CD	C	Water samples collected and tested - Wednesday 13th Dec Have ordered a bigger filter system for the camp that have finer filters than what is currently fitted. These were ordered from a local plumbing shop in Warragul. Should be arriving today for pick-up from Warraugal. It is a straight forward installation for the rig electrician. ok
41.8	Domestic water disposal	9/12/06	CD	D	
41.9	Food storage condition	9/12/06	CD	D	
41.1	Toilet/shower room condition	9/12/06	CD	D	
41.11	Laundry condition	9/12/06	CD	D	
41.12	Electrical distribution panel	9/12/06	CD	D	

No.	Item	Checked		Rate	Comments (black) Century (red) Upstream (blue)
		On	By		
41.13	Generator shelter	9/12/06	CD	D	
41.14	Fuel tank	9/12/06	CD	B	Signage does not meet Australian Standards - Signage issue which we are addressing as per item 31.1. To be completed 14-12-06
41.15	Emergency escape route poster	9/12/06	CD	D	
41.16	Smoke detectors	9/12/06	CD	D	
41.17	Air conditioners	12/12/06	CD	D	
41.18	Heating?	12/12/06	CD	D	
42.0	**Rescue/Sick Bay**				
42.1	Stretchers	12/12/06	CD	D	
42.2	Condition of sick bay	12/12/06	CD	D	Nearby hospital in Warragul
42.3	Stock status and condition of first aid medicine	12/12/06	CD	D	
42.4	Competent medic/first aider on the site	12/12/06	CD	D	
43.0	**General Preparedness**				
43.1	Adequate stocks of PPE available	12/12/06	CD	D	
43.2	Fire extinguishers charged, tagged & visible?	9/12/06	CD	D	
43.3	Date of last extinguishers inspection	12/12/06	CD	D	Aug & Dec 2006
43.4	Are BA sets available	9/12/06	CD	D	
43.5	Muster points identified & signed	9/12/06	CD	D	
43.6	Noise levels controlled adequately	9/12/06	CD	D	
43.7	General house keeping & tidiness of rig & camp	9/12/06	CD	D	
43.8	Presence of oil/wastes around the rig	12/12/06	CD	D	
43.1	Drainage system	12/12/06	CD	D	
43.11	Salvage drums/containers/bins available	13/12/06	CD	D	
43.12	Labels/markings for hazardous materials/wastes/equipment	12/12/06	CD	D	
43.13	Magna-board available & used correctly	9/12/06	CD	D	
43.14	Step Condition	9/12/06	CD	D	
43.15	Anti skid step condition	13/12/06	CD	D	
43.16	Eyewash station locations & condition	12/12/06	CD	C	~90% in place 2 more eye wash stations have been ordered. Will be fitted into place once they arrive. Currently have eye wash stations in the critical areas:- mud tanks, rig floor, mechanic shack. 14-12-2006 - Eye wash stations arrived today. Will have them put in place. Install 2 machines incl refuelling station by 16-12-06

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ATTACHMENT 20 : MOBILISATION DAILY REPORTS

DAILY DRILLING REPORT

Well	**CRC-1 Move In (from Megascolides 2 Rig Release to CRC-1 Spud)**				
Date	**14-Feb-07**	Drilling Rep Days	**Kevin Murphy**	Wellsite Gelogist	**Dave Horner**
Report No.	**RM # 12**	Drilling Rep Nights	**Brian Assels**	Toolpusher	**Cesar Miaco**

WELL DATA							
Country	**Australia**	Current Hole Size		Casing OD		AFE Cost	
Field	**Onshore Otway**	Measured Depth		Casing MD		AFE Number	
Drill Co.	**Century**	True Vertical Depth		Casing TVD		Daily Cost:	
Rig	**Rig 11**	Progress		LOT:		Cum Cost:	
GL - AMSL	**44.8m (tbc)**	Days From Spud		Last BOP Date:		Planned TD:	**2250m**
RT - GL	**5.2m**	Days on Well		Last LTI Date:	**4/01/2006**		

SUMMARY OF PERIOD 00:00 to 2400HRS: ----------

Continue with rig up. Pick up kelly and swivel. Rig up conductor and flow line. Dig rathole. RU mud loggers.

CURRENT OPERATION @ 06:00HRS: Rig up to spud

PLANNED OPERATIONS FOR NEXT 24HRS: Spud well and drill 9 7/8" Surface hole

OPERATIONS FOR PERIOD 00:00 to 24:00

From	To	Operation Description
0:00	9:30	Con't general rig up: p/swivel, manrider, p/spinner, busings, f/floor, kelly
9:30	13:00	Pre-spud meeting.
13:00	18:00	Con't general rig up: kelly spinner hoses, bit, bit sub prior to drill rat/mouse hole. Unload casing. RU BHI mud logging equipment.
18:00	20:00	Install shaker screens, RU mud pump, mix spud mud .
20:00	21:00	RU Century AOI instrumentation.
21:00	24:00	Drill rat hole. Install rathole sock.

WATER BASED MUD DETAILS							
Mud Type		Filter Cake		H2O		Viscosity	
Sample-From		Cl		Oil:		PV	
Time		Hard/Ca		Sand		YP	
Weight		MBT		Glycol		Gels 10sec	
Temp		PM		KCl		Gels 10min	
API FL		Solids		PHPA			

EQUIPMENT, VOLUMES AND LOSSES DATA							
Available (bbls)		Losses		Equipment	Decription	Mesh Size	Hours
Active (bbls)		Downhole		Shaker 1			
Mixing (bbls)		Surface		Shaker 2			
Hole (bbls)		Dumped		Desander			
Slug (bbls)		De-sander		Desilter			
Reserve (bbls)		De-silter					
Kill (bbls)		Centifuge					

DAILY DRILLING REPORT

Well	**CRC-1 Move In (from Megascolides 2 Rig Release to CRC - 1 Spud)**				
Date	**13-Feb-07**	Drilling Rep Days	**Kevin Murphy**	Wellsite Gelogist	
Report No.	**RM # 11**	Drilling Rep Nights	**Brian Assels**	Toolpusher	**Cesar Miaco**

WELL DATA							
Country	**Australia**	Current Hole Size		Casing OD		AFE Cost	
Field	**Onshore Otway**	Measured Depth		Casing MD		AFE Number	
Drill Co.	**Century**	True Vertical Depth		Casing TVD		Daily Cost:	
Rig	**Rig 11**	Progress		LOT:		Cum Cost:	
GL - AMSL	**44.8m (tbc)**	Days From Spud		Last BOP Date:		Planned TD:	**2250m**
RT - GL	**5.2m**	Days on Well		Last LTI Date:	**4/01/2006**		

SUMMARY OF PERIOD 18:00 to 2400HRS: ----------

Continue with rig up.Pick up kelly and swivel, Rig up conductor and flow line

OPERATIONS FOR PERIOD 00:00 to 24:00		
From	**To**	**Operation Description**
0:00	6:00	Wait on daylight
6:00	0:00	Prepare mast for scope out,Hold pre job safety meeting , Continue rig up mud tanks and mud pumps, Scope out mast, run guy lines
		Rig up drill floor , install v door and catwalk , Run lines and cables , Prepare to rig up to drill rat & mouse hole
		Rig 100% Moved - 80% Rigged up

WATER BASED MUD DETAILS							
Mud Type		Filter Cake		H2O		Viscosity	
Sample-From		Cl		Oil:		PV	
Time		Hard/Ca		Sand		YP	
Weight		MBT		Glycol		Gels 10sec	
Temp		PM		KCl		Gels 10min	
API FL		Solids		PHPA			

EQUIPMENT, VOLUMES AND LOSSES DATA							
Available (bbls)		Losses		Equipment	Decription	Mesh Size	Hours
Active (bbls)		Downhole		Shaker 1			
Mixing (bbls)		Surface		Shaker 2			
Hole (bbls)		Dumped		Desander			
Slug (bbls)		De-sander		Desilter			
Reserve (bbls)		De-silter					
Kill (bbls)		Centifuge					

DAILY DRILLING REPORT

Well	CRC-1 Move In (from Megascolides 2 Rig Release to CRC - 1 Spud)				
Date	12-Feb-07	Drilling Rep Days	Kevin Murphy	Wellsite Gelogist	
Report No.	RM # 10	Drilling Rep Nights		Toolpusher	Cesar Miaco

WELL DATA							
Country	Australia	Current Hole Size		Casing OD		AFE Cost	
Field	Onshore Otway	Measured Depth		Casing MD		AFE Number	
Drill Co.	Century	True Vertical Depth		Casing TVD		Daily Cost:	
Rig	Rig 11	Progress		LOT:		Cum Cost:	
GL - AMSL	44.8m (tbc)	Days From Spud		Last BOP Date:		Planned TD:	2250m
RT - GL	5.2m	Days on Well		Last LTI Date:	4/01/2006		

SUMMARY OF PERIOD 18:00 to 2400HRS: ----------

Wait on daylight

Rig up and prepare for spud

OPERATIONS FOR PERIOD 00:00 to 24:00		
From	To	Operation Description
0:00	6:00	Wait on daylight
6:00	18:00	Unload final 15 loads from old location.Spot rig equipment and rig up ,Raise lower section of mast, Spot rig camp, continue with rig up.
		Rig 100% Moved 60% Rigged up.
18:00	0:00	Wait on daylight

WATER BASED MUD DETAILS							
Mud Type		Filter Cake		H2O		Viscosity	
Sample-From		Cl		Oil:		PV	
Time		Hard/Ca		Sand		YP	
Weight		MBT		Glycol		Gels 10sec	
Temp		PM		KCl		Gels 10min	
API FL		Solids		PHPA			

EQUIPMENT, VOLUMES AND LOSSES DATA							
Available (bbls)		Losses		Equipment	Decription	Mesh Size	Hours
Active (bbls)		Downhole		Shaker 1			
Mixing (bbls)		Surface		Shaker 2			
Hole (bbls)		Dumped		Desander			
Slug (bbls)		De-sander		Desilter			
Reserve (bbls)		De-silter					
Kill (bbls)		Centifuge					

DAILY DRILLING REPORT

Well	**CRC-1 Move In (from Megascolides 2 Rig Release to CRC - 1 Spud)**				
Date	**11-Feb-07**	Drilling Rep Days	**Kevin Murphy**	Wellsite Gelogist	
Report No.	**RM # 9**	Drilling Rep Nights		Toolpusher	**Cesar Miaco**

WELL DATA							
Country	**Australia**	Current Hole Size		Casing OD		AFE Cost	
Field	**Onshore Otway**	Measured Depth		Casing MD		AFE Number	
Drill Co.	**Century**	True Vertical Depth		Casing TVD		Daily Cost:	
Rig	**Rig 11**	Progress		LOT:		Cum Cost:	
GL - AMSL	**44.8m (tbc)**	Days From Spud		Last BOP Date:		Planned TD:	**2250m**
RT - GL	**5.2m**	Days on Well		Last LTI Date:	**4/01/2006**		

SUMMARY OF PERIOD 18:00 to 2400HRS: ----------

Wait on daylight

Move rig F/- Megascolides # 2 To CRC-1

OPERATIONS FOR PERIOD 00:00 to 24:00		
From	**To**	**Operation Description**
0:00	6:00	Wait on daylight
6:00	18:00	Unload carrier from float, Install derrick on carrier, Restring blocks. Unload trucks .
		Total loads received 17. Loads remaining on old location 15.
18:00	0:00	Wait on daylight

WATER BASED MUD DETAILS							
Mud Type		Filter Cake		H2O		Viscosity	
Sample-From		Cl		Oil:		PV	
Time		Hard/Ca		Sand		YP	
Weight		MBT		Glycol		Gels 10sec	
Temp		PM		KCl		Gels 10min	
API FL		Solids		PHPA			

EQUIPMENT, VOLUMES AND LOSSES DATA							
Available (bbls)		Losses		Equipment	Decription	Mesh Size	Hours
Active (bbls)		Downhole		Shaker 1			
Mixing (bbls)		Surface		Shaker 2			
Hole (bbls)		Dumped		Desander			
Slug (bbls)		De-sander		Desilter			
Reserve (bbls)		De-silter					
Kill (bbls)		Centifuge					

DAILY DRILLING REPORT

Well	CRC-1 Move In (from Megascolides 2 Rig Release to CRC - 1 Spud)				
Date	10-Feb-07	Drilling Rep Days	Kevin Murphy	Wellsite Gelogist	
Report No.	RM # 8	Drilling Rep Nights		Toolpusher	Cesar Miaco

WELL DATA							
Country	Australia	Current Hole Size		Casing OD		AFE Cost	
Field	Onshore Otway	Measured Depth		Casing MD		AFE Number	
Drill Co.	Century	True Vertical Depth		Casing TVD		Daily Cost:	
Rig	Rig 11	Progress		LOT:		Cum Cost:	
GL - AMSL	44.8m (tbc)	Days From Spud		Last BOP Date:		Planned TD:	2250m
RT - GL	5.2m	Days on Well		Last LTI Date:	4/01/2006		

SUMMARY OF PERIOD 18:00 to 2400HRS: ----------

Wait on daylight

Move rig F/- Megascolides # 2 To CRC-1

OPERATIONS FOR PERIOD 00:00 to 24:00		
From	To	Operation Description
0:00	6:00	Wait on daylight
6:00	18:00	Load out camp F/- Megascolides camp site , Transport to CRC-1 Location , Set up camp.Spot matting at rig site.
		Total trucks available on move 16
18:00	0:00	Wait on daylight

WATER BASED MUD DETAILS							
Mud Type		Filter Cake		H2O		Viscosity	
Sample-From		Cl		Oil:		PV	
Time		Hard/Ca		Sand		YP	
Weight		MBT		Glycol		Gels 10sec	
Temp		PM		KCl		Gels 10min	
API FL		Solids		PHPA			

EQUIPMENT, VOLUMES AND LOSSES DATA							
Available (bbls)		Losses		Equipment	Decription	Mesh Size	Hours
Active (bbls)		Downhole		Shaker 1			
Mixing (bbls)		Surface		Shaker 2			
Hole (bbls)		Dumped		Desander			
Slug (bbls)		De-sander		Desilter			
Reserve (bbls)		De-silter					
Kill (bbls)		Centifuge					

DAILY DRILLING REPORT

Well	**CRC-1 Move In (from Megascolides 2 Rig Release to CRC - 1 Spud)**				
Date	**09-Feb-07**	Drilling Rep Days	**Kevin Murphy**	Wellsite Gelogist	
Report No.	**RM # 7**	Drilling Rep Nights		Toolpusher	**Cesar Miaco**

WELL DATA							
Country	**Australia**	Current Hole Size		Casing OD		AFE Cost	
Field	**Onshore Otway**	Measured Depth		Casing MD		AFE Number	
Drill Co.	**Century**	True Vertical Depth		Casing TVD		Daily Cost:	
Rig	**Rig 11**	Progress		LOT:		Cum Cost:	
GL - AMSL	**44.8m (tbc)**	Days From Spud		Last BOP Date:		Planned TD:	**2250m**
RT - GL	**5.2m**	Days on Well		Last LTI Date:	**4/01/2006**		

SUMMARY OF PERIOD 18:00 to 2400HRS: ----------

Wait on daylight

Move rig and camp F/- Megascolides # 2 To CRC-1

OPERATIONS FOR PERIOD 00:00 to 24:00		
From	**To**	**Operation Description**
0:00	6:00	Wait on daylight
6:00	18:00	Prepare rig and camp for move to CRC-1. Clean and tidy lease. Continue rig maintaince. Prepare back loads to Wacol.
		Continue washdown of equipment .
18:00	0:00	Wait on daylight

WATER BASED MUD DETAILS							
Mud Type		Filter Cake		H2O		Viscosity	
Sample-From		Cl		Oil:		PV	
Time		Hard/Ca		Sand		YP	
Weight		MBT		Glycol		Gels 10sec	
Temp		PM		KCl		Gels 10min	
API FL		Solids		PHPA			

EQUIPMENT, VOLUMES AND LOSSES DATA							
Available (bbls)		Losses		Equipment	Decription	Mesh Size	Hours
Active (bbls)		Downhole		Shaker 1			
Mixing (bbls)		Surface		Shaker 2			
Hole (bbls)		Dumped		Desander			
Slug (bbls)		De-sander		Desilter			
Reserve (bbls)		De-silter					
Kill (bbls)		Centifuge					

KAROON Gas Australia

DAILY DRILLING REPORT

Bpstream Petroleum

Well	RIG DOWN AT MEGASCOLIDES 2 (MOVE TO CRC1)				
Date	08-Feb-07	Drilling Rep Days	Bruce Pilat	Wellsite Gelogist	
Report No.	6	Drilling Rep Nights	Kevin Murphy	Toolpusher	Cesar Miaco

WELL DATA

Country	Australia	Current Hole Size		Casing OD		AFE Cost	
Field	Onshore Gippsland/Otway	Measured Depth		Casing MD		AFE Number	
Drill Co.	Century	True Vertical Depth		Casing TVD		Daily Cost:	
Rig	Rig 11	Progress		LOT:		Cum Cost:	
GL - AMSL		Days From Spud		Last BOP Date:		Planned TD:	
RT - GL		Days on Well		Last LTI Date:			

SUMMARY OF PERIOD 18:00 to 2400HRS: ---------- Continue to prepare & wash loads for transport

CURRENT OPERATION @ 06:00HRS: ---------- Wait on Daylight

PLANNED OPERATIONS FOR NEXT 24HRS: ---------- Work daylight hours and wash rig equipment

OPERATIONS FOR PERIOD 00:00 to 24:00

From	To	Operation Description
0:00	6:00	Wait on Daylight
6:00	18:00	Continue service and maintain rig equipmente while waiting on approval to move to new location.Continue with washdown for move.
		Approval received at 16:00 hrs. Order trucks & prepare for rig move
18:00	0:00	Wait on daylight

WATER BASED MUD DETAILS

Mud Type		Filter Cake		H2O		Viscosity	
Sample-From		Cl		Oil:		PV	
Time		Hard/Ca		Sand		YP	
Weight		MBT		Glycol		Gels 10sec	
Temp		PM		KCl		Gels 10min	
API FL		Solids		PHPA			

EQUIPMENT, VOLUMES AND LOSSES DATA

Available (bbls)		Losses		Equipment	Decription	Mesh Size	Hours
Active (bbls)		Downhole		Shaker 1			
Mixing (bbls)		Surface		Shaker 2			
Hole (bbls)		Dumped		Desander			
Slug (bbls)		De-sander		Desilter			
Reserve (bbls)		De-silter					
Kill (bbls)		Centifuge					

KAROON Gas Australia

DAILY DRILLING REPORT

Upstream Petroleum

Well	RIG DOWN AT MEGASCOLIDES 2 (MOVE TO CRC1)				
Date	07-Feb-07	Drilling Rep Days	Bruce Pilat	Wellsite Gelogist	
Report No.	5	Drilling Rep Nights	Kevin Murphy	Toolpusher	Cesar Miaco

WELL DATA

Country	Australia	Current Hole Size		Casing OD		AFE Cost	
Field	Onshore Gippsland/Otway	Measured Depth		Casing MD		AFE Number	
Drill Co.	Century	True Vertical Depth		Casing TVD		Daily Cost:	
Rig	Rig 11	Progress		LOT:		Cum Cost:	
GL - AMSL		Days From Spud		Last BOP Date:		Planned TD:	
RT - GL		Days on Well		Last LTI Date:			

SUMMARY OF PERIOD 18:00 to 2400HRS: ---------- Continue to prepare & wash loads for transport

CURRENT OPERATION @ 06:00HRS: ---------- Wait on Daylight

PLANNED OPERATIONS FOR NEXT 24HRS: ---------- Work daylight hours and wash rig equipment

OPERATIONS FOR PERIOD 00:00 to 24:00

From	To	Operation Description
0:00	6:00	Wait on Daylight
6:00		Continue to Wash & prepare loads for transport,Remove monkey board from mast. Remove mast from carrier and load on trailer. Load
	18:00	Carrier on float. (wait on orders to move to new location)
18:00	0:00	Wait on Daylight

WATER BASED MUD DETAILS

Mud Type		Filter Cake		H2O		Viscosity	
Sample-From		Cl		Oil:		PV	
Time		Hard/Ca		Sand		YP	
Weight		MBT		Glycol		Gels 10sec	
Temp		PM		KCl		Gels 10min	
API FL		Solids		PHPA			

EQUIPMENT, VOLUMES AND LOSSES DATA

Available (bbls)		Losses		Equipment	Decription	Mesh Size	Hours
Active (bbls)		Downhole		Shaker 1			
Mixing (bbls)		Surface		Shaker 2			
Hole (bbls)		Dumped		Desander			
Slug (bbls)		De-sander		Desilter			
Reserve (bbls)		De-silter					
Kill (bbls)		Centifuge					

KAROON Gas Australia

DAILY DRILLING REPORT

Upstream Petroleum

Well	RIG DOWN AT MEGASCOLIDES 2 (MOVE TO CRC1)				
Date	06-Feb-07	Drilling Rep Days	Bruce Pilat	Wellsite Gelogist	
Report No.	4	Drilling Rep Nights	Brian Assels	Toolpusher	Cesar Miaco

WELL DATA

Country	Australia	Current Hole Size		Casing OD		AFE Cost	
Field	Onshore Gippsland/Otway	Measured Depth		Casing MD		AFE Number	
Drill Co.	Century	True Vertical Depth		Casing TVD		Daily Cost:	
Rig	Rig 11	Progress		LOT:		Cum Cost:	
GL - AMSL		Days From Spud		Last BOP Date:		Planned TD:	
RT - GL		Days on Well		Last LTI Date:			

SUMMARY OF PERIOD 18:00 to 2400HRS: ---------- Continue to prepare & wash loads for transport

CURRENT OPERATION @ 06:00HRS: ---------- Wait on Daylight

PLANNED OPERATIONS FOR NEXT 24HRS: ---------- Work daylight hours and wash rig equipment

OPERATIONS FOR PERIOD 00:00 to 24:00

From	To	Operation Description
0:00	6:00	Wait on Daylight
6:00		Continue to Wash & prepare loads for transport,load 3 x sub base,repair # 3 mud pump power end,strip down shaker tank
	18:00	Change out Ram rubbers on 4.5" pipe rams,load mud chemicals onto mud trailers.
18:00	0:00	Wait on Daylight

WATER BASED MUD DETAILS

Mud Type		Filter Cake		H2O		Viscosity	
Sample-From		Cl		Oil:		PV	
Time		Hard/Ca		Sand		YP	
Weight		MBT		Glycol		Gels 10sec	
Temp		PM		KCl		Gels 10min	
API FL		Solids		PHPA			

EQUIPMENT, VOLUMES AND LOSSES DATA

Available (bbls)		Losses		Equipment	Decription	Mesh Size	Hours
Active (bbls)		Downhole		Shaker 1			
Mixing (bbls)		Surface		Shaker 2			
Hole (bbls)		Dumped		Desander			
Slug (bbls)		De-sander		Desilter			
Reserve (bbls)		De-silter					
Kill (bbls)		Centifuge					

KAROON Gas Australia

DAILY DRILLING REPORT

Upstream Petroleum

Well	RIG DOWN AT MEGASCOLIDES 2 (MOVE TO CRC1)				
Date	05-Feb-07	Drilling Rep Days	Bruce Pilat	Wellsite Gelogist	
Report No.	3	Drilling Rep Nights	Brian Assels	Toolpusher	Cesar Miaco

WELL DATA							
Country	Australia	Current Hole Size		Casing OD		AFE Cost	
Field	Onshore Gippsland/Otway	Measured Depth		Casing MD		AFE Number	
Drill Co.	Century	True Vertical Depth		Casing TVD		Daily Cost:	
Rig	Rig 11	Progress		LOT:		Cum Cost:	
GL - AMSL		Days From Spud		Last BOP Date:		Planned TD:	
RT - GL		Days on Well		Last LTI Date:			

SUMMARY OF PERIOD 18:00 to 2400HRS: ---------- Pre pare mast,wash down rig

CURRENT OPERATION @ 06:00HRS: ---------- Wait on Daylight

PLANNED OPERATIONS FOR NEXT 24HRS: ---------- Work daylight hours and was hrig equipment

OPERATIONS FOR PERIOD 00:00 to 24:00		
From	To	Operation Description
0:00	6:00	Wait on Daylight
6:00	11:30	Continue to remove drilling line from mast.prepare mast for removal from carrier
11:30	18:00	Wash down carrier,pony base and sub base
18:00	0:00	Wait on Daylight

WATER BASED MUD DETAILS							
Mud Type		Filter Cake		H2O		Viscosity	
Sample-From		Cl		Oil:		PV	
Time		Hard/Ca		Sand		YP	
Weight		MBT		Glycol		Gels 10sec	
Temp		PM		KCl		Gels 10min	
API FL		Solids		PHPA			

EQUIPMENT, VOLUMES AND LOSSES DATA							
Available (bbls)		Losses		Equipment	Decription	Mesh Size	Hours
Active (bbls)		Downhole		Shaker 1			
Mixing (bbls)		Surface		Shaker 2			
Hole (bbls)		Dumped		Desander			
Slug (bbls)		De-sander		Desilter			
Reserve (bbls)		De-silter					
Kill (bbls)		Centifuge					

DAILY DRILLING REPORT

Well	RIG DOWN AT MEGASCOLIDES 2 (MOVE TO CRC1)				
Date	04-Feb-07	Drilling Rep Days	Bruce Pilat	Wellsite Gelogist	
Report No.	2	Drilling Rep Nights	Brian Assels	Toolpusher	Cesar Miaco

WELL DATA							
Country	Australia	Current Hole Size		Casing OD		AFE Cost	
Field	Onshore Gippsland/Otway	Measured Depth		Casing MD		AFE Number	
Drill Co.	Century	True Vertical Depth		Casing TVD		Daily Cost:	
Rig	Rig 11	Progress		LOT:		Cum Cost:	
GL - AMSL		Days From Spud		Last BOP Date:		Planned TD:	
RT - GL		Days on Well		Last LTI Date:			

SUMMARY OF PERIOD 18:00 to 2400HRS: ---------- RD catwalk and v-door. Pack up same. Clean mud tanks for rig move.

CURRENT OPERATION @ 06:00HRS: ---------- Wait on Daylight

PLANNED OPERATIONS FOR NEXT 24HRS: ---------- Work daylight hours and rig down/pack up rig and camp

OPERATIONS FOR PERIOD 00:00 to 24:00

From	To	Operation Description
0:00	18:00	Rig down,Scope down top section,lower mast,remove carrier from pony base,pull cables,Remove drilling line from mast
0:00	0:00	Wait on Daylight

WATER BASED MUD DETAILS							
Mud Type		Filter Cake		H2O		Viscosity	
Sample-From		Cl		Oil:		PV	
Time		Hard/Ca		Sand		YP	
Weight		MBT		Glycol		Gels 10sec	
Temp		PM		KCl		Gels 10min	
API FL		Solids		PHPA			

EQUIPMENT, VOLUMES AND LOSSES DATA							
Available (bbls)		Losses		Equipment	Decription	Mesh Size	Hours
Active (bbls)		Downhole		Shaker 1			
Mixing (bbls)		Surface		Shaker 2			
Hole (bbls)		Dumped		Desander			
Slug (bbls)		De-sander		Desilter			
Reserve (bbls)		De-silter					
Kill (bbls)		Centifuge					

KAROON Gas Australia

DAILY DRILLING REPORT

Ipstream Petroleum

Well	RIG DOWN AFTER MEGASCOLIDES 2 (MOVE TO CRC1)				
Date	03-Feb-07	Drilling Rep Days	Bruce Pilat	Wellsite Gelogist	
Report No.	1	Drilling Rep Nights	Brian Assels	Toolpusher	Cesar Miaco

WELL DATA

Country	Australia	Current Hole Size		Casing OD		AFE Cost	
Field	Onshore Gippsland / Otway	Measured Depth		Casing MD		AFE Number	
Drill Co.	Century	True Vertical Depth		Casing TVD		Daily Cost:	
Rig	Rig 11	Progress		LOT:		Cum Cost:	
GL - AMSL		Days From Spud		Last BOP Date:		Planned TD:	
RT - GL		Days on Well		Last LTI Date:			

SUMMARY OF PERIOD 18:00 to 2400HRS: ---------- RD catwalk and v-door. Pack up same. Clean mud tanks for rig move.

CURRENT OPERATION @ 06:00HRS: ---------- Prepare to lower mast

PLANNED OPERATIONS FOR NEXT 24HRS: ---------- Work daylight hours and rig down/pack up rig and camp

OPERATIONS FOR PERIOD 00:00 to 24:00

From	To	Operation Description
18:00	0:00	RD catwalk and v-door. Pack up same. Clean mud tanks for rig move.

WATER BASED MUD DETAILS

Mud Type		Filter Cake		H2O		Viscosity	
Sample-From		Cl		Oil:		PV	
Time		Hard/Ca		Sand		YP	
Weight		MBT		Glycol		Gels 10sec	
Temp		PM		KCl		Gels 10min	
API FL		Solids		PHPA			

EQUIPMENT, VOLUMES AND LOSSES DATA

Available (bbls)		Losses		Equipment	Decription	Mesh Size	Hours
Active (bbls)		Downhole		Shaker 1			
Mixing (bbls)		Surface		Shaker 2			
Hole (bbls)		Dumped		Desander			
Slug (bbls)		De-sander		Desilter			
Reserve (bbls)		De-silter					
Kill (bbls)		Centifuge					

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ATTACHMENT 21 : DAILY DRILLING REPORTS

CRC-1

Date :	15 Mar 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Cesar Miaco
Report Number	29	**Drilling Supervisor :**	Kevin Murphy / Roy Dunne	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	4.500in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	2249.0m	Casing MD:	2238.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	2249.0m	Casing TVD:	2238.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	0.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	28.42	Liner MD:		LTI Free Days:	295
Datum:	GDA 94	Days On Well:	41.42	Liner TVD:			

Current Ops @ 0600:

Planned Operations:

Summary of Period 0000 to 2400 Hrs

Waited on cement, set casing slips, installed xmas tree, nippled down BOPs, commenced rig down.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	15 Mar 2007	0 Days	Personnel blow into alcoholizer
Hazard Observation (0)	13 Mar 2007	2 Days	
Inspection (2)	15 Mar 2007	0 Days	Visually inspect d/line, d/man, brakes, koomey, BOP stack and Koomey pressures.
Pre-Tour Meetings (2)	15 Mar 2007	0 Days	Review HSE doc on recent fork lift accident. Reiterate to report all accidents & incidents. Talk on recent number of hand injuries in the industry. Use PPE and plan operations to prevent injuries.

Operations For Period 0000 Hrs to 2400 Hrs on 15 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PC	P	CMC	0000	0230	2.50	2249.0m	Start cement job. Flush lines, pump 20 bbl of drill water, pump 60 bbl of 11.0 ppg MUDPUSH 11. Drop bottom plug from wellhead. Pump lead cement slurry 12.5 ppg then (taking samples). Pump 40 bbls of 15.84 ppg CO2 resistant tail slurry. Release trop plug from cement head. Displace with 111.2 bbl of brine, reduce pump rate for final 10.1 bbls to min imize ECD. Bump plug and pressure to 3000 psi and hold for 10 min. Bleed pressure , 1.1 bbl Returns
PC	P	WOC	0230	1000	7.50	2249.0m	Wait On Cement. Break pump lines at rig floor. Wash bown BOP and empty cellar. R/D PCS tong, L/O remaing 4-1/2" csg, move pipe racks. N/D flow nipple.
PC	P	WH	1000	1100	1.00	2249.0m	Install 11" x 4-1/2" casing slips on casing, lower through BOP
SUS	P	BOP	1100	1300	2.00	2249.0m	Raise BOPs, rough cut casing, nipple down and remove BOPs
SUS	P	XT	1300	2000	7.00	2249.0m	Final cut casing, nipple up Xmas tree, energise seals and pressure test. Install BPV, pressure test Xmas tree to 5000 psi / 15 min OK.
RMO	P	RD	2000	2100	1.00	2249.0m	Rig down kelly spinner, remove kelly bushings, lay out kelly. Clean mud tanks. Rig released @ 2100 hrs 15/03/07

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WBM Data

Daily Chemical Costs: $ 2641.15 | Cost To Date: $ 65930.33 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	33.9C°	pH:	9	Low Gravity Solids:	7.60%	Gels 10s	3
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	0.08	High Gravity Solids:	0.00%	Gels 10m	5
Sample From:	Past Shale Shakers	Sulphites:	50mg/l	PF:	0.15	Solids (corrected):	7.60%	Fann 003	3
Time:	19:30	API FL:	5.7cm³/30min	MF:	3.18	H2O:	92.4%	Fann 006	5
Weight:	9.60ppg	API Cake:	1/32nd"	Cl:	30500mg/l	Oil:	0.0%	Fann 100	20
ECD TD:	9.69ppg	PV	19cp	Hard/Ca:	80mg/l	Sand:	0.5 %	Fann 200	29
ECD Shoe:		YP	18lb/100ft²	MBT:	6.50	Barite:	0.00lb/bbl	Fann 300	37
Viscosity	60sec/qt			KCl Equiv:	5.0%	CaCO3 Added:	25.2ppb	Fann 600	56
				PHPA Added:	1.36ppb				
				Fluoresceine:					

Comment: Supply Calcium Carbonate to SCHLUMBERGER for 11.0ppg spacer.
Charge out 10 damaged sx of CaCO3 and 2 damaged sx of Barite.

DFE to be released 15th of March, 0500 hrs.

As this will be the final DF report for this well, RMN DRILLING Fluids and AMC wish to thank you for your business and are looking forward to be called upon, to provide their services for future projects!

Shakers, Volumes and Losses Data

Available	**649bbl**	**Losses**	**41bbl**
Active	330bbl	Downhole	41bbl
Hole	299bbl	Shakers & Equip.	0bbl
Slug		Dumped	0bbl
Reserve	20bbl	Centrifuges	
		Desander	
		De-Silter	0bbl
Built	0bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	1 x 84 & 2 x 50	6
2	Lin. Motion SHAKER	1 x 84 & 2 x 50	6
3	De-Sander	2 x 8" Cones	0
4	De-Silter	12 x 4" Cones	0

Comment: Supply Calcium Carbonate to SCHLUMBERGER for 11.0ppg spacer.
Charge out 10 damaged sx of CaCO3 and 2 damaged sx of Barite.

Bit Data

Bit # 4RR1

Wear	I	O1	D	L	B	G	O2	R
	1	1	NO	A	X	I	NO	TD

Size ("):	6.750	IADC#		**Nozzles**	**Drilled over last 24 hrs**		**Calculated over Bit Run**
Mfr:	Stealth Tools	WOB(avg)	10.0klb	4 x 12(/32nd")	Progress	0.0m	Cum. Progress	173.5m
Type:	PDC	RPM(avg)	110		On Bottom Hrs	0.00	Cum. On Btm Hrs	10.00
Serial No.:	6904	RPM (DH)(avg)	110		IADC Drill Hrs	0.00	Cum IADC Drill Hrs	14.00
Bit Model	M46H4	F.Rate	250.0gpm		Total Revs	0	Cum Total Revs	63500
Depth In	2075.5m	SPP	1300.0psi		OB-ROP(avg)		Cum. OB-ROP(avg)	17.35m/hr
Depth Out		TFA	0.442	HSI HSI				

Bit Run Comment: TD POOH TO Log

BHA Data

BHA # 12

Weight(Wet)	25.0klb	Length	260.5m	Torque(max)	15000.0ft-lbs	D.C. (1) Ann Velocity	266fpm
Wt Below Jar(Wet)	20.0klb	String	120.0klb	Torque(Off.Btm)	4000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	121.0klb	Torque(On.Btm)	10000.0ft-lbs	H.W.D.P. Ann Velocity	184fpm
		Slack-Off	116.0klb	Jar Hours	209.5	D.P. Ann Velocity	184fpm

BHA Run Comment: Units for torque not ft-lbs

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Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.18m	6.75in		6904	24.5	
Near Bit Stab	1 x 1.51m	6.75in	2.43in	5475-1	161.5	
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	161.5	Tasman
String Stabiliser	1 x 1.54m	6.75in	2.06in	5415-2	161.5	
NMDC	1 x 9.19m	4.75in	2.31in		161.5	
4.75" DC	1 x 9.49m	4.75in	2.31in		209.5	
String Stabiliser	1 x 1.54m	6.75in	2.00in	475-3	161.5	
4.75" DC	15 x 9.43m	4.75in	2.31in		209.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-47763-03	209.5	
4 3/4 DC	3 x 9.50m	4.75in	2.31in		209.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in		241.5	
Total Length:	260.51m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1896.00	2.00	137.00	1895.5	28.27	0.02	-28.27	19.44	Hofco single shot
2022.00	0.75	86.00	2021.5	29.82	0.39	-29.82	21.76	Hofco single shot
2236.00	1.00	266.00	2235.5	29.85	0.25	-29.85	21.29	Hofco single shot
2249.00	1.00	266.00	2248.5	29.86	0.00	-29.86	21.07	Extrapolation to TD

Summary

Company	Pax On
Upstream Petroleum	3
Century Drilling Ltd	23
BHI	2
Schlumberger Oilfield Australia	5
Wood Group	1
Premium Casing Services Pty Ltd	2
Total on Rig	36

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Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	0	0	2.0
AMC Defoamer	25L can	0	0	0	14.0
AMC PAC-R	25kg sack	0	0	0	66.0
AMC PHPA	25kg sack	0	0	0	42.0
AUS-BEN	25kg sack	0	0	0	34.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	168.0
Baryte	25kg sack	0	0	0	684.0
CaCl	25kg sack	0	0	0	2.0
Calcium Carbonate 40µ	25 kg sacks	0	0	0	596.0
Caustic Soda	25kg pail	0	0	0	32.0
Citric Acid	25kg sack	0	0	0	34.0
Cement - Class A	40kg sack	0	0	0	0.0
Fluoresceine (5 kg)	5 kg	0	0	0	2.0
Fluoresceine (1 pint)	1 pint	0	0	0	0.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	8.0
KCl	25kg sack	0	0	0	336.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	0	0	44.0
Sodium Sulfite	25kg sack	0	0	0	34.0
Xanthan Gum	25kg sack	0	0	0	20.0
Xtra-sweep	12lb box	0	0	0	3.0
Liqui-Sperse	25L can	0	0	0	32.0
Diesel fuel		0	0	0	8,200.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	9.40	97	120	1300.00	250.00
2	GD PZ-7	5.50	9.50	97			
3	GD PZ-7	5.51	9.50	97			

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
2083.0		1.	70	500.00	
		2.	100	740.00	
		1.			
		2.			
2083.0		1.	70	500.00	
		2.	100	700.00	

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CRC-1

Date :	14 Mar 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Cesar Miaco
Report Number	28	**Drilling Supervisor :**	Kevin Murphy / Roy Dunne	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	4.500in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	2249.0m	Casing MD:	2238.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	2249.0m	Casing TVD:	2238.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	0.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	27.54	Liner MD:		LTI Free Days:	294
Datum:	GDA 94	Days On Well:	40.54	Liner TVD:			

Current Ops @ 0600:	Wait on cement.
Planned Operations:	WOC for 6 hrs, pull tension and set slips, land casing in 50K tension. R/D cement head. N/D BOP and cut casing. N/U Xmas tree & pressure test. Release rig.

Summary of Period 0000 to 2400 Hrs

Continue to RIH with the 4-1/2" Production string. R/U cement head and pump lines. Circulate to lower temp and clean hole. Pre-job TBM and ops briefing. P/T lines, mix cement.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	14 Mar 2007	0 Days	Personnel blow into alcoholizer
Hazard Observation (0)	13 Mar 2007	1 Day	
Inspection (2)	14 Mar 2007	0 Days	Visually inspect d/line, d/man, brakes, koomey, BOP stack and Koomey pressures.
Pre-Tour Meetings (2)	14 Mar 2007	0 Days	Review HSE doc on recent fork lift accident. Reiterate to report all accidents & incidents. Talk on recent number of hand injuries in the industry. Use PPE and plan operations to prevent injuries.

Operations For Period 0000 Hrs to 2400 Hrs on 14 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PC	P	CRN	0000	0600	6.00	2249.0m	M/U 4-1/2" casing string with marker joints and X nipples at depth required, install stabilizers and RIH.
PC	P	CRN	0600	1800	12.00	2249.0m	Continue running 4-1/2" 13Cr80, 12.6 #/ft R3, JFE Casing. Install Marker joints and 4-1/2" X nipples as per down hole diagram. Tag at 2245 FT.
PC	P	CIC	1800	1830	0.50	2249.0m	R/U Schlumberger cement head on 4-1/2" Csg. Rig in Schlumberger pump line.
PC	P	CIC	1830	2100	2.50	2249.0m	Start circulation with rig pump, retune back over shakers. Schlumberger continue R/U.
PC	P	SAF	2100	2130	0.50	2249.0m	Hold pre cementing TBM opps briefing with rig crews and Schlumberger cementers.
PC	P	CIC	2130	2400	2.50	2249.0m	Schlumberger pressure test pump line to 3500 psi and hold fror 10 min OK. Start mixing cement.

Operations For Period 0000 Hrs to 0600 Hrs on 15 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PC	P	CMC	0000	0230	2.50	2249.0m	Start cement job. Flush lines, pump 20 bbl of drill water, pump 60 bbl of 11.0 ppg MUDPUSH 11. Drop bottom plug from wellhead. Pump lead cement slurry 12.5 ppg then (taking samples). Pump 40 bbls of 15.84 ppg CO2 resistant tail slurry. Release trop plug from cement head. Displace with 111.2 bbl of brine, reduce pump rate for final 10.1 bbls to min imize ECD. Bump plug and pressure to 3000 psi and hold for 10 min. Bleed pressure , 1.1 bbl Returns
PC	P	WOC	0230	0600	3.50	2249.0m	(IN PROGRESS) Wait On Cement. Break pump lines at rig floor. Wash bown BOP and empty cellar. R/D PCS tong, L/O remaing 4-1/2" csg, move pipe racks. N/D flow nipple.

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WBM Data

Daily Chemical Costs: $ 2641.15 | Cost To Date: $ 63289.18 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	33.9C°	pH:	9	Low Gravity Solids:	7.60%	Gels 10s	3
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	0.08	High Gravity Solids:	0.00%	Gels 10m	5
Sample From:	Past Shale Shakers	Sulphites:	50mg/l	PF:	0.15	Solids (corrected):	7.60%	Fann 003	3
Time:	19:30	API FL:	5.7cm³/30min	MF:	3.18	H2O:	92.4%	Fann 006	5
Weight:	9.60ppg	API Cake:	1/32nd"	Cl:	30500mg/l	Oil:	0.0%	Fann 100	20
ECD TD:	9.69ppg	PV	19cp	Hard/Ca:	80mg/l	Sand:	0.5 %	Fann 200	29
ECD Shoe:		YP	18lb/100ft²	MBT:	6.50	Barite:	0.00lb/bbl	Fann 300	37
Viscosity	60sec/qt			KCl Equiv:	5.0%	CaCO3 Added:	25.2ppb	Fann 600	56
				PHPA Added:	1.36ppb				
				Fluoresceine:					

Comment: Supply Calcium Carbonate to SCHLUMBERGER for 11.0ppg spacer.
Charge out 10 damaged sx of CaCO3 and 2 damaged sx of Barite.

DFE to be released 15th of March, 0500 hrs.

As this will be the final DF report for this well, RMN DRILLING Fluids and AMC wish to thank you for your business and are looking forward to be called upon, to provide their services for future projects!

Shakers, Volumes and Losses Data

Available	**649bbl**	**Losses**	**41bbl**
Active	330bbl	Downhole	41bbl
Hole	299bbl	Shakers & Equip.	0bbl
Slug		Dumped	0bbl
Reserve	20bbl	Centrifuges	
		Desander	
		De-Silter	0bbl
Built	0bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	1 x 84 & 2 x 50	6
2	Lin. Motion SHAKER	1 x 84 & 2 x 50	6
3	De-Sander	2 x 8" Cones	0
4	De-Silter	12 x 4" Cones	0

Comment: Supply Calcium Carbonate to SCHLUMBERGER for 11.0ppg spacer.
Charge out 10 damaged sx of CaCO3 and 2 damaged sx of Barite.

Bit Data

Bit # 4RR1

Wear	I	O1	D	L	B	G	O2	R
	1	1	NO	A	X	I	NO	TD

Size ("):	6.750	IADC#		**Nozzles**	**Drilled over last 24 hrs**		**Calculated over Bit Run**
Mfr:	Stealth Tools	WOB(avg)	10.0klb	4 x 12(/32nd")	Progress	0.0m	Cum. Progress	173.5m
Type:	PDC	RPM(avg)	110		On Bottom Hrs	0.00	Cum. On Btm Hrs	10.00
Serial No.:	6904	RPM (DH)(avg)	110		IADC Drill Hrs	0.00	Cum IADC Drill Hrs	14.00
Bit Model	M46H4	F.Rate	250.0gpm		Total Revs	0	Cum Total Revs	63500
Depth In	2075.5m	SPP	1300.0psi		OB-ROP(avg)		Cum. OB-ROP(avg)	17.35m/hr
Depth Out		TFA	0.442	HSI HSI				

Bit Run Comment: TD POOH TO Log

BHA Data

BHA # 12

Weight(Wet)	25.0klb	Length	260.5m	Torque(max)	15000.0ft-lbs	D.C. (1) Ann Velocity	266fpm
Wt Below Jar(Wet)	20.0klb	String	120.0klb	Torque(Off.Btm)	4000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	121.0klb	Torque(On.Btm)	10000.0ft-lbs	H.W.D.P. Ann Velocity	184fpm
		Slack-Off	116.0klb	Jar Hours	209.5	D.P. Ann Velocity	184fpm

BHA Run Comment: Units for torque not ft-lbs

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Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.18m	6.75in		6904	24.5	
Near Bit Stab	1 x 1.51m	6.75in	2.43in	5475-1	161.5	
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	161.5	Tasman
String Stabiliser	1 x 1.54m	6.75in	2.06in	5415-2	161.5	
NMDC	1 x 9.19m	4.75in	2.31in		161.5	
4.75" DC	1 x 9.49m	4.75in	2.31in		209.5	
String Stabiliser	1 x 1.54m	6.75in	2.00in	475-3	161.5	
4.75" DC	15 x 9.43m	4.75in	2.31in		209.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-47763-03	209.5	
4 3/4 DC	3 x 9.50m	4.75in	2.31in		209.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in		241.5	
Total Length:	260.51m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1896.00	2.00	137.00	1895.5	28.27	0.02	-28.27	19.44	Hofco single shot
2022.00	0.75	86.00	2021.5	29.82	0.39	-29.82	21.76	Hofco single shot
2236.00	1.00	266.00	2235.5	29.85	0.25	-29.85	21.29	Hofco single shot
2249.00	1.00	266.00	2248.5	29.86	0.00	-29.86	21.07	Extrapolation to TD

Summary

Company	Pax On
Upstream Petroleum	3
Century Drilling Ltd	22
BHI	2
Schlumberger Oilfield Australia	5
RMN Drilling Fluids	1
Wood Group	1
Premium Casing Services Pty Ltd	2
Total on Rig	36

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Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	0	0	2.0
AMC Defoamer	25L can	0	0	0	14.0
AMC PAC-R	25kg sack	0	0	0	66.0
AMC PHPA	25kg sack	0	0	0	42.0
AUS-BEN	25kg sack	0	0	0	34.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	168.0
Baryte	25kg sack	0	2	0	684.0
CaCl	25kg sack	0	0	0	2.0
Calcium Carbonate 40µ	25 kg sacks	0	225	0	596.0
Caustic Soda	25kg pail	0	0	0	32.0
Citric Acid	25kg sack	0	0	0	34.0
Cement - Class A	40kg sack	0	0	0	0.0
Fluoresceine (5 kg)	5 kg	0	0	0	2.0
Fluoresceine (1 pint)	1 pint	0	0	0	0.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	8.0
KCl	25kg sack	0	0	0	336.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	0	0	44.0
Sodium Sulfite	25kg sack	0	0	0	34.0
Xanthan Gum	25kg sack	0	0	0	20.0
Xtra-sweep	12lb box	0	0	0	3.0
Liqui-Sperse	25L can	0	0	0	32.0
Diesel fuel		0	1300	0	8,200.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	9.40	97	120	1300.00	250.00
2	GD PZ-7	5.50	9.50	97			
3	GD PZ-7	5.51	9.50	97			

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
2083.0		1.	70	500.00	
		2.	100	740.00	
		1.			
		2.			
2083.0		1.	70	500.00	
		2.	100	700.00	

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CRC-1

Date :	13 Mar 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Cesar Miaco
Report Number	27	**Drilling Supervisor :**	Kevin Murphy / Roy Dunne	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	2249.0m	Casing MD:	512.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	2249.0m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	0.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	26.54	Liner MD:		LTI Free Days:	293
Datum:	GDA 94	Days On Well:	39.54	Liner TVD:			

Current Ops @ 0600:	Continue to RIH with 4-1/2" production casing string.
Planned Operations:	Continue to RIH with 4-1/2" production casing string. Prepare for cement joib.

Summary of Period 0000 to 2400 Hrs

M/U BHA & make wiper trip. Circulate hole clean. POOH and L/O drill string. Change BOP rams and P/T bonnet seals. P/U PCS equipment and place on rig floor. Hold safety meeting. M/U and RIH with 4-1/2" production casing string.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	13 Mar 2007	0 Days	Personnel blow into alcoholizer
Hazard Observation (1)	13 Mar 2007	0 Days	Position of stab board.
Inspection (2)	13 Mar 2007	0 Days	Lease inspection. Dropped equipment and house keeping.
Pre-Tour Meetings (2)	13 Mar 2007	0 Days	Tripping pipe, running chrome casing.

Operations For Period 0000 Hrs to 2400 Hrs on 13 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PC	P	HBHA	0000	0130	1.50	2249.0m	Continue to MU wiper trip BHA.
PC	P	WT	0130	0730	6.00	2249.0m	RIH with drill string, make wiper trip, P/U kelly and wash to bottom.
PC	P	WT	0730	0900	1.50	2249.0m	Pump sweep and circulate hole clean from 2249m.
PC	P	HBHA	0900	1930	10.50	2249.0m	POOH sideways and lay down drill string and BHA. Remove from pipe racks, clean and load into baskets.
PC	P	BOP	1930	2230	3.00	2249.0m	M/U test tool, recover wear bushing, land test tool in spool. Open BOP doors and change out pipe rams to 4-1/2". Close bonnet doors and P/T to 1500psi OK. R/U Stab board and secure in derrick. R/U PCS tong and casing running equipment.
PC	P	PT	2230	2330	1.00	2249.0m	Function rams, P/T pipe rams & bonnet door to 1500 psi OK. Pull test plug and L/O. P/U PCS casing handling equipment.
PC	P	SAF	2330	2400	0.50	2249.0m	Hold safety & ops meeting with PCS operators & rig crew.

Operations For Period 0000 Hrs to 0600 Hrs on 14 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PC	P	CRN	0000	0600	6.00	2249.0m	M/U 4-1/2" casing string with marker joints and X nipples at depth required, install stabilizers and RIH.

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WBM Data

Daily Chemical Costs: $ 1430.51 | Cost To Date: $ 60648.03 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	37.1C°	pH:	9	Low Gravity Solids:	7.20%	Gels 10s	3
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	0.1	High Gravity Solids:	0.00%	Gels 10m	6
Sample From:	Past Shale Shakers	Sulphites:	80mg/l	PF:	0.18	Solids (corrected):	7.20%	Fann 003	3
Time:	08:30	API FL:	5.6cm³/30min	MF:	3.2	H2O:	92.8%	Fann 006	4
Weight:	9.55ppg	API Cake:	1/32nd"	Cl:	31000mg/l	Oil:	0.0%	Fann 100	19
ECD TD:	9.91ppg	PV	16cp	Hard/Ca:	60mg/l	Sand:	0.5 %	Fann 200	28
ECD Shoe:		YP	19lb/100ft²	MBT:	6.50	Barite:	0.00lb/bbl	Fann 300	35
Viscosity	58sec/qt			KCl Equiv:	5.0%	CaCO3 Added:	25.2ppb	Fann 600	51
				PHPA Added:	1.36ppb				
				Fluoresceine:					

Comment: With fluid in hole not having been moved for 80hrs+, observe bacterial activity, when circulating out. Treat system w/- 2 cans Biocide.
No further treatment carried out.

Shakers, Volumes and Losses Data

Available	**690bbl**	**Losses**	**39bbl**
Active	346bbl	Downhole	29bbl
Hole	332bbl	Shakers & Equip.	0bbl
Slug		Dumped	10bbl
Reserve	12bbl	Centrifuges	
		Desander	
		De-Silter	0bbl
Built	0bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	1 x 84 & 2 x 50	9
2	Lin. Motion SHAKER	1 x 84 & 2 x 50	9
3	De-Sander	2 x 8" Cones	0
4	De-Silter	12 x 4" Cones	0

Bit Data

Bit # 4RR1

Wear	I	O1	D	L	B	G	O2	R
	1	1	NO	A	X	I	NO	TD

Size ("):	6.750	IADC#		**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	Stealth Tools	WOB(avg)	10.0klb	4 x 12(/32nd")		Progress	0.0m	Cum. Progress	173.5m
Type:	PDC	RPM(avg)	110			On Bottom Hrs	0.00	Cum. On Btm Hrs	10.00
Serial No.:	6904	RPM (DH)(avg)	110			IADC Drill Hrs	0.00	Cum IADC Drill Hrs	14.00
Bit Model	M46H4	F.Rate	250.0gpm			Total Revs	0	Cum Total Revs	63500
Depth In	2075.5m	SPP	1300.0psi			OB-ROP(avg)		Cum. OB-ROP(avg)	17.35m/hr
Depth Out		TFA	0.442	HSI	HSI				
Bit Run Comment		TD POOH TO Log							

BHA Data

BHA # 12

Weight(Wet)	25.0klb	Length	260.5m	Torque(max)	15000.0ft-lbs	D.C. (1) Ann Velocity	266fpm
Wt Below Jar(Wet)	20.0klb	String	120.0klb	Torque(Off.Btm)	4000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	121.0klb	Torque(On.Btm)	10000.0ft-lbs	H.W.D.P. Ann Velocity	184fpm
		Slack-Off	116.0klb	Jar Hours	209.5	D.P. Ann Velocity	184fpm
BHA Run Comment		Units for torque not ft-lbs					

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Printed on 23 Jul 2008

Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.18m	6.75in		6904	24.5	
Near Bit Stab	1 x 1.51m	6.75in	2.43in	5475-1	161.5	
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	161.5	Tasman
String Stabiliser	1 x 1.54m	6.75in	2.06in	5415-2	161.5	
NMDC	1 x 9.19m	4.75in	2.31in		161.5	
4.75" DC	1 x 9.49m	4.75in	2.31in		209.5	
String Stabiliser	1 x 1.54m	6.75in	2.00in	475-3	161.5	
4.75" DC	15 x 9.43m	4.75in	2.31in		209.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-47763-03	209.5	
4 3/4 DC	3 x 9.50m	4.75in	2.31in		209.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in		241.5	
Total Length:	260.51m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1896.00	2.00	137.00	1895.5	28.27	0.02	-28.27	19.44	Hofco single shot
2022.00	0.75	86.00	2021.5	29.82	0.39	-29.82	21.76	Hofco single shot
2236.00	1.00	266.00	2235.5	29.85	0.25	-29.85	21.29	Hofco single shot
2249.00	1.00	266.00	2248.5	29.86	0.00	-29.86	21.07	Extrapolation to TD

Summary

Company	Pax On
Upstream Petroleum	3
Century Drilling Ltd	22
BHI	2
Schlumberger Oilfield Australia	3
RMN Drilling Fluids	1
Premium Casing Services Pty Ltd	2
Total on Rig	33

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Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	2	0	2.0
AMC Defoamer	25L can	0	0	0	14.0
AMC PAC-R	25kg sack	0	0	0	66.0
AMC PHPA	25kg sack	0	0	0	42.0
AUS-BEN	25kg sack	0	0	0	34.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	168.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Calcium Carbonate 40µ	25 kg sacks	0	10	0	821.0
Caustic Soda	25kg pail	0	0	0	32.0
Citric Acid	25kg sack	0	0	0	34.0
Cement - Class A	40kg sack	0	0	0	0.0
Fluoresceine (5 kg)	5 kg	0	0	0	2.0
Fluoresceine (1 pint)	1 pint	0	0	0	0.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	8.0
KCl	25kg sack	0	23	0	336.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	0	0	44.0
Sodium Sulfite	25kg sack	0	0	0	34.0
Xanthan Gum	25kg sack	0	1	0	20.0
Xtra-sweep	12lb box	0	1	0	3.0
Liqui-Sperse	25L can	0	0	0	32.0
Diesel fuel		0	1500	0	9,500.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	9.40	97	120	1300.00	250.00
2	GD PZ-7	5.50	9.50	97			
3	GD PZ-7	5.51	9.50	97			

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
2083.0		1.	70	500.00	
		2.	100	740.00	
		1.			
		2.			
2083.0		1.	70	500.00	
		2.	100	700.00	

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CRC-1

Date :	12 Mar 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Cesar Miaco
Report Number	26	**Drilling Supervisor :**	Kevin Murphy / Roy Dunne	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	2249.0m	Casing MD:	512.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	2249.0m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	0.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	25.54	Liner MD:		LTI Free Days:	292
Datum:	GDA 94	Days On Well:	38.54	Liner TVD:			

Current Ops @ 0600:	Run wiper trip and clean out hole.
Planned Operations:	Make a wiper trip to bottom. Circulate and clean hole out. POOH and L/O sideways. Remove wear bushing, change pipe rams.

Summary of Period 0000 to 2400 Hrs

MU tools for MDT (mini-frac), tool failure. MU tools and log CMR-ECS. MU & RIH with MDT (mini-frac) tool. Tool failure. R/D Schlumberger logging tools, MU BHA and run wiper trip to bottom. Circulate hole clean.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	12 Mar 2007	0 Days	Personnel blow into alcoholizer
Hazard Observation (0)	11 Mar 2007	1 Day	
Inspection (2)	12 Mar 2007	0 Days	Visually inspect d/line, d/man, brakes, koomey, BOP stack and Koomey pressures.
Pre-Tour Meetings (2)	12 Mar 2007	0 Days	Review HSE doc on recent fork lift accident. Reiterate to report all accidents & incidents. Talk on recent number of hand injuries in the industry. Use PPE and plan operations to prevent injuries.

Operations For Period 0000 Hrs to 2400 Hrs on 12 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
E1	TP (LTF)	LOG	0000	0200	2.00	2249.0m	Continue rigging down MDT (mini-frac) tool string.
E1	TP (WOE)	LOG	0200	0230	0.50	2249.0m	PU CMR-ECS tool string.
E1	TP (WOE)	LOG	0230	0245	0.25	2249.0m	Power up / check tool string on rig floor.
E1	TP (WOE)	LOG	0245	0445	2.00	2249.0m	RIH with log #5 CMR-ECS tool string. Tune tools.
E1	TP (WOE)	LOG	0445	1330	8.75	2249.0m	Commence log #5 CMR-ECS.
E1	TP (HC)	LOG	1330	1400	0.50	2249.0m	Tool stuck @ 2043m. Pulled free by adding weight to string and taking string out of tension.
E1	TP (WOE)	LOG	1400	1715	3.25	2249.0m	Complete CMR-ECS log. POOH.
E1	TP (LTF)	LOG	1715	1830	1.25	2249.0m	MU MDT (mini-frac) tools and check operation.
E1	TP (LTF)	LOG	1830	2245	4.25	2249.0m	RIH with log #6 MDT (mini-frac) string. Packers failed to inflate properly. POOH.
E1	TP (LTF)	LOG	2245	2330	0.75	2249.0m	R/D MDT (mini-frac) string and logging tools.
PC	P	HBHA	2330	2400	0.50	2249.0m	MU BHA for wiper trip.

Operations For Period 0000 Hrs to 0600 Hrs on 13 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PC	P	HBHA	0000	0130	1.50	2249.0m	Continue to MU wiper trip BHA.
PC	P	WT	0130	0600	4.50	2249.0m	(IN PROGRESS) RIH with drill string, make wiper trip, P/U kelly and wash to bottom.

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WBM Data

Daily Chemical Costs: $ 570.61	Cost To Date: $ 59217.52	Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	25.3C°	pH:	9.5	Low Gravity Solids:	7.50%	Gels 10s	3
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	0.33	High Gravity Solids:	0.00%	Gels 10m	4
Sample From:	Past Shale Shakers	Sulphites:	100mg/l	PF:	0.4	Solids (corrected):	7.50%	Fann 003	3
Time:	21:45	API FL:	5.6cm³/30min	MF:	3.5	H2O:	92.5%	Fann 006	4
Weight:	9.60ppg	API Cake:	1/32nd"	Cl:	32000mg/l	Oil:	0.0%	Fann 100	18
ECD TD:	0.00ppg	PV	15cp	Hard/Ca:	30mg/l	Sand:	0.60 %	Fann 200	27
ECD Shoe:		YP	18lb/100ft²	MBT:	6.50	Barite:	0.00lb/bbl	Fann 300	33
Viscosity	60sec/qt			KCl Equiv:	5.3%	CaCO3 Added:	24.4ppb	Fann 600	48
				PHPA Added:	1.36ppb				
				Fluoresceine:					

Comment: Treated SFC System with 1 can of Biocide. 19sx KCl used for mixing 120bbls Displacement fluid f CSG CMT job.
Circulating across the top of the well, using fill-up pump+trip tank.
No full circulation for 78 hours.

FLUORESCEINE:
Total dry powder equivalent used for entire project: ~5.5kg
2 unopened 5kg tubs ready to be returned to:
SCHLUMBERGER @ DAMPIER,WA.
~900g remaining in one tub passed on to Dr Chris BOREHAM, GA,
Canberra.

Shakers, Volumes and Losses Data

Available	**729bbl**	**Losses**	**14bbl**
Active	370bbl	Downhole	14bbl
Hole	332bbl	Shakers & Equip.	0bbl
Slug		Dumped	0bbl
Reserve	27bbl	Centrifuges	
		Desander	
		De-Silter	0bbl
Built	0bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	1 x 84 & 2 x 50	0
2	Lin. Motion SHAKER	1 x 84 & 2 x 50	0
3	De-Sander	2 x 8" Cones	0
4	De-Silter	12 x 4" Cones	0

Comment: Hole taking 14 bbls fluid over last 24 hours, while logging.

Bit Data

Bit # 4RR1

Wear	I	O1	D	L	B	G	O2	R
	1	1	NO	A	X	I	NO	TD

Size ("):	6.750	IADC#		**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	Stealth Tools	WOB(avg)	10.0klb	4 x 12(/32nd")		Progress	0.0m	Cum. Progress	173.5m
Type:	PDC	RPM(avg)	110			On Bottom Hrs	0.00	Cum. On Btm Hrs	10.00
Serial No.:	6904	RPM (DH)(avg)	110			IADC Drill Hrs	0.00	Cum IADC Drill Hrs	14.00
Bit Model	M46H4	F.Rate	250.0gpm			Total Revs	0	Cum Total Revs	63500
Depth In	2075.5m	SPP	1300.0psi			OB-ROP(avg)		Cum. OB-ROP(avg)	17.35m/hr
Depth Out		TFA	0.442	HSI	HSI				
Bit Run Comment		TD POOH TO Log							

BHA Data

BHA # 12

Weight(Wet)	25.0klb	Length	260.5m	Torque(max)	15000.0ft-lbs	D.C. (1) Ann Velocity	266fpm
Wt Below Jar(Wet)	20.0klb	String	120.0klb	Torque(Off.Btm)	4000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	121.0klb	Torque(On.Btm)	10000.0ft-lbs	H.W.D.P. Ann Velocity	184fpm
		Slack-Off	116.0klb	Jar Hours	209.5	D.P. Ann Velocity	184fpm
BHA Run Comment		Units for torque not ft-lbs					

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Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.18m	6.75in		6904	24.5	
Near Bit Stab	1 x 1.51m	6.75in	2.43in	5475-1	161.5	
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	161.5	Tasman
String Stabiliser	1 x 1.54m	6.75in	2.06in	5415-2	161.5	
NMDC	1 x 9.19m	4.75in	2.31in		161.5	
4.75" DC	1 x 9.49m	4.75in	2.31in		209.5	
String Stabiliser	1 x 1.54m	6.75in	2.00in	475-3	161.5	
4.75" DC	15 x 9.43m	4.75in	2.31in		209.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-47763-03	209.5	
4 3/4 DC	3 x 9.50m	4.75in	2.31in		209.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in		241.5	
Total Length:	260.51m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1896.00	2.00	137.00	1895.5	28.27	0.02	-28.27	19.44	Hofco single shot
2022.00	0.75	86.00	2021.5	29.82	0.39	-29.82	21.76	Hofco single shot
2236.00	1.00	266.00	2235.5	29.85	0.25	-29.85	21.29	Hofco single shot
2249.00	1.00	266.00	2248.5	29.86	0.00	-29.86	21.07	Extrapolation to TD

Summary

Company	Pax On
Upstream Petroleum	4
Century Drilling Ltd	22
BHI	2
Schlumberger Oilfield Australia	9
RMN Drilling Fluids	1
Total on Rig	38

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Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	1	0	4.0
AMC Defoamer	25L can	0	0	0	14.0
AMC PAC-R	25kg sack	0	0	0	66.0
AMC PHPA	25kg sack	0	0	0	42.0
AUS-BEN	25kg sack	0	0	0	34.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	168.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Calcium Carbonate 40µ	25 kg sacks	0	0	0	831.0
Caustic Soda	25kg pail	0	0	0	32.0
Citric Acid	25kg sack	0	0	0	34.0
Cement - Class A	40kg sack	0	0	0	0.0
Fluoresceine (5 kg)	5 kg	0	0	0	2.0
Fluoresceine (1 pint)	1 pint	0	0	0	0.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	8.0
KCl	25kg sack	0	19	0	359.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	0	0	44.0
Sodium Sulfite	25kg sack	0	0	0	34.0
Xanthan Gum	25kg sack	0	0	0	21.0
Xtra-sweep	12lb box	0	0	0	4.0
Liqui-Sperse	25L can	0	0	0	32.0
Diesel fuel		0	800	0	11,000.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	9.40	97	120	1300.00	250.00
2	GD PZ-7	5.50	9.50	97			
3	GD PZ-7	5.51	9.50	97			

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
2083.0		1.	70	500.00	
		2.	100	740.00	
		1.			
		2.			
2083.0		1.	70	500.00	
		2.	100	700.00	

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CRC-1

Date :	11 Mar 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Cesar Miaco
Report Number	25	**Drilling Supervisor :**	Kevin Murphy / Roy Dunne	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	2249.0m	Casing MD:	512.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	2249.0m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	0.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	24.54	Liner MD:		LTI Free Days:	291
Datum:	GDA 94	Days On Well:	37.54	Liner TVD:			

Current Ops @ 0600:	Run & log CMT/ECS, continue logging operation.
Planned Operations:	Continue with logging operation. Schlumberger attempt to repair MDT mini frac tool.

Summary of Period 0000 to 2400 Hrs

Run loggs, MDT run #2, taking samples. MDT run #3 for mini frac, tools failed, Pooh and L/O tools.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	11 Mar 2007	0 Days	Personnel blow into alcoholizer
Fire Drill (1)	11 Mar 2007	0 Days	All personnel attended
Hazard Observation (1)	11 Mar 2007	0 Days	Holes in grating on top of mud tank, may cause foot injury.
Hazard Observation (1)	11 Mar 2007	0 Days	Kick grail needed on pre-mix tank.
Hazard Observation (1)	11 Mar 2007	0 Days	Foot rail needed aroun shacker shutes before somebody falls down.
Inspection (2)	11 Mar 2007	0 Days	Visually inspect d/line, d/man, brakes, koomey, BOP stack and Koomey pressures.
Pre-Tour Meetings (2)	11 Mar 2007	0 Days	Review HSE doc on recent fork lift accident. Reiterate to report all accidents & incidents. Talk on recent number of hand injuries in the industiry. use PPE. and plan operation to prevent injuries.
Weekly Safety Meeting (1)	11 Mar 2007	0 Days	All personnel attended

Operations For Period 0000 Hrs to 2400 Hrs on 11 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
E1	P	LOG	0000	0315	3.25	2249.0m	Continue with the run #3 MDT (pressures).
E1	P	LOG	0315	0500	1.75	2249.0m	POOH with MDT (pressures) tool string.
E1	P	LOG	0500	0745	2.75	2249.0m	MDT (pressures) tool string at surface.
E1	P	LOG	0745	0845	1.00	2249.0m	PU MDT (samples) tool string.
E1	P	LOG	0845	0900	0.25	2249.0m	RIH with run #4 MDT (samples) tool string.
E1	P	LOG	0900	2000	11.00	2249.0m	Log #4 MDT (samples).
E1	P	LOG	2000	2130	1.50	2249.0m	POOH with MDT (samples) tool string.
E1	P	LOG	2130	2230	1.00	2249.0m	MDT (samples) tool string at surface. Commence rigging down tool.
E1	TP (LTF)	LOG	2230	2245	0.25	2249.0m	PU MDT (mini-frac) tool string.
E1	TP (LTF)	LOG	2245	2345	1.00	2249.0m	Power up / check tool string on rig floor. Could not test / calibrate tool due to wiring fault.
E1	TP (LTF)	LOG	2345	2400	0.25	2249.0m	Rig down MDT (mini-frac) tool string.

Operations For Period 0000 Hrs to 0600 Hrs on 12 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
E1	TP (LTF)	LOG	0000	0200	2.00	2249.0m	Continue rigging down MDT (mini-frac) tool string.
E1	TP (WOE)	LOG	0200	0230	0.50	2249.0m	PU CMR-ECS tool string.
E1	TP (WOE)	LOG	0230	0245	0.25	2249.0m	Power up / check tool string on rig floor.
E1	TP (WOE)	LOG	0245	0445	2.00	2249.0m	RIH with log #5 CMR-ECS tool string. Tune tools.

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Operations For Period 0000 Hrs to 0600 Hrs on 12 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
E1	TP (WOE)	LOG	0445	0600	1.25	2249.0m	(IN PROGRESS) Commence log #5 CMR-ECS.

WBM Data

Daily Chemical Costs: $ 0.00 | Cost To Date: $ 58646.91 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	27.1C°	pH:	9.5	Low Gravity Solids:	7.40%	Gels 10s	3
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	0.35	High Gravity Solids:	0.00%	Gels 10m	5
Sample From:	Past Shale Shakers	Sulphites:	250mg/l	PF:	0.44	Solids (corrected):	7.40%	Fann 003	3
Time:	22:30	API FL:	5.5cm³/30min	MF:	3.28	H2O:	92.6%	Fann 006	4
Weight:	9.60ppg	API Cake:	1/32nd"	Cl:	32200mg/l	Oil:	0.0%	Fann 100	20
ECD TD:	0.00ppg	PV	16cp	Hard/Ca:	30mg/l	Sand:	0.60 %	Fann 200	28
ECD Shoe:		YP	19lb/100ft²	MBT:	6.50	Barite:	0.00lb/bbl	Fann 300	35
Viscosity	59sec/qt			KCl Equiv:	5.6%	CaCO3 Added:	24.4ppb	Fann 600	51
				PHPA Added:	1.36ppb				
				Fluoresceine:	4.725ppm				

Comment: Hole taking fluid at an average rate of 0.9bbls/hr. Total 21bbls in 24 hrs.

Circulating across the top of the well, using fill-up pump+trip tank.
No full circulation or chemical treatment last 24 hours.

Shakers, Volumes and Losses Data

Available	**743bbl**	**Losses**	**21bbl**
Active	370bbl	Downhole	21bbl
Hole	332bbl	Shakers & Equip.	0bbl
Slug		Dumped	0bbl
Reserve	41bbl	Centrifuges	
		Desander	
		De-Silter	0bbl
Built	0bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	1 x 84 & 2 x 50	0
2	Lin. Motion SHAKER	1 x 84 & 2 x 50	0
3	De-Sander	2 x 8" Cones	0
4	De-Silter	12 x 4" Cones	0

Comment: Hole taking 21bbls fluid over 24 hours, while logging.

Bit Data

Bit # 4RR1

Wear	I	O1	D	L	B	G	O2	R
	1	1	NO	A	X	I	NO	TD

Size ("):	6.750	IADC#		**Nozzles**	**Drilled over last 24 hrs**		**Calculated over Bit Run**
Mfr:	Stealth Tools	WOB(avg)	10.0klb	4 x 12(/32nd")	Progress	0.0m	Cum. Progress	173.5m
Type:	PDC	RPM(avg)	110		On Bottom Hrs	0.00	Cum. On Btm Hrs	10.00
Serial No.:	6904	RPM (DH)(avg)	110		IADC Drill Hrs	0.00	Cum IADC Drill Hrs	14.00
Bit Model	M46H4	F.Rate	250.0gpm		Total Revs	0	Cum Total Revs	63500
Depth In	2075.5m	SPP	1300.0psi		OB-ROP(avg)		Cum. OB-ROP(avg)	17.35m/hr
Depth Out		TFA	0.442	HSI HSI				
Bit Run Comment		TD POOH TO Log						

BHA Data

BHA # 12

Weight(Wet)	25.0klb	Length	260.5m	Torque(max)	15000.0ft-lbs	D.C. (1) Ann Velocity	266fpm
Wt Below Jar(Wet)	20.0klb	String	120.0klb	Torque(Off.Btm)	4000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	121.0klb	Torque(On.Btm)	10000.0ft-lbs	H.W.D.P. Ann Velocity	184fpm
		Slack-Off	116.0klb	Jar Hours	209.5	D.P. Ann Velocity	184fpm
BHA Run Comment		Units for torque not ft-lbs					

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Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.18m	6.75in		6904	24.5	
Near Bit Stab	1 x 1.51m	6.75in	2.43in	5475-1	161.5	
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	161.5	Tasman
String Stabiliser	1 x 1.54m	6.75in	2.06in	5415-2	161.5	
NMDC	1 x 9.19m	4.75in	2.31in		161.5	
4.75" DC	1 x 9.49m	4.75in	2.31in		209.5	
String Stabiliser	1 x 1.54m	6.75in	2.00in	475-3	161.5	
4.75" DC	15 x 9.43m	4.75in	2.31in		209.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-47763-03	209.5	
4 3/4 DC	3 x 9.50m	4.75in	2.31in		209.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in		241.5	
Total Length:	260.51m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1896.00	2.00	137.00	1895.5	28.27	0.02	-28.27	19.44	Hofco single shot
2022.00	0.75	86.00	2021.5	29.82	0.39	-29.82	21.76	Hofco single shot
2236.00	1.00	266.00	2235.5	29.85	0.25	-29.85	21.29	Hofco single shot
2249.00	1.00	266.00	2248.5	29.86	0.00	-29.86	21.07	Extrapolation to TD

Summary

Company	Pax On
Upstream Petroleum	4
Century Drilling Ltd	22
BHI	2
Schlumberger Oilfield Australia	9
RMN Drilling Fluids	1
Total on Rig	38

'Copyright IDS 2006', AT 20060818, CPPL_AU_ON_drllg

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	0	0	5.0
AMC Defoamer	25L can	0	0	0	14.0
AMC PAC-R	25kg sack	0	0	0	66.0
AMC PHPA	25kg sack	0	0	0	42.0
AUS-BEN	25kg sack	0	0	0	34.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	168.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Calcium Carbonate 40µ	25 kg sacks	0	0	0	831.0
Caustic Soda	25kg pail	0	0	0	32.0
Citric Acid	25kg sack	0	0	0	34.0
Cement - Class A	40kg sack	0	0	0	0.0
Fluoresceine (5 kg)	5 kg	0	0	0	2.0
Fluoresceine (1 pint)	1 pint	0	0	0	0.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	8.0
KCl	25kg sack	0	0	0	378.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	0	0	44.0
Sodium Sulfite	25kg sack	0	0	0	34.0
Xanthan Gum	25kg sack	0	0	0	21.0
Xtra-sweep	12lb box	0	0	0	4.0
Liqui-Sperse	25L can	0	0	0	32.0
Diesel fuel		0	800	0	11,800.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	9.40	97	120	1300.00	250.00
2	GD PZ-7	5.50	9.50	97			
3	GD PZ-7	5.51	9.50	97			

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
2083.0		1.	70	500.00	
		2.	100	740.00	
		1.			
		2.			
2083.0		1.	70	500.00	
		2.	100	700.00	

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CRC-1

Date :	10 Mar 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Cesar Miaco
Report Number	24	**Drilling Supervisor :**	Kevin Murphy / Roy Dunne	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	2249.0m	Casing MD:	512.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	2249.0m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	0.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	23.54	Liner MD:		LTI Free Days:	290
Datum:	GDA 94	Days On Well:	36.54	Liner TVD:			

Current Ops @ 0600:	Logging Run #4 MDT #2 Sample
Planned Operations:	Continue Logging

Summary of Period 0000 to 2400 Hrs

Run logs #1 PEX and #2 FMI. CMR tool failure. MDT Run #1.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	10 Mar 2007	0 Days	Personnel blow into alcoholizer
Hazard Observation (1)	10 Mar 2007	0 Days	Housekeeping, empty bins before over flwing with rubbish.
Hazard Observation (1)	10 Mar 2007	0 Days	Man rider sheave is still squealing loudly when used. Bearing or complete sheave may need to be replaced.
Hazard Observation (1)	10 Mar 2007	0 Days	P/U and secure light stand.
Inspection (2)	10 Mar 2007	0 Days	Visually inspect d/line, d/man, brakes, koomey, BOP stack and Koomey pressures.
Pre-Tour Meetings (2)	10 Mar 2007	0 Days	Discuss logging operations with crew. What maintenance is required around rig.

Operations For Period 0000 Hrs to 2400 Hrs on 10 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
E1	P	LOG	0000	1000	10.00	2249.0m	Continue Logging Run #2 FMI-MCIP
E1	TP (LTF)	LOG	1000	1600	6.00	2249.0m	M/U CMR logging tool on catwalk, ops test failed. No run.
E1	P	LOG	1600	2400	8.00	2249.0m	Run #3, M/U and RIH with basic MDT (pressures).

Operations For Period 0000 Hrs to 0600 Hrs on 11 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
E1	P	LOG	0000	0315	3.25	2249.0m	Continue with the run #3 MDT (pressures).
E1	P	LOG	0315	0500	1.75	2249.0m	POOH with MDT (pressures) tool string.
E1	P	LOG	0500	0600	1.00	2249.0m	(IN PROGRESS) MDT (pressures) tool string at surface.

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WBM Data

Daily Chemical Costs: $ 0.00 | Cost To Date: $ 58646.91 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	26.8C°	pH:	9.5	Low Gravity Solids:	7.40%	Gels 10s	3
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	0.38	High Gravity Solids:	0.00%	Gels 10m	5
Sample From:	Past Shale Shakers	Sulphites:	250mg/l	PF:	0.45	Solids (corrected):	7.40%	Fann 003	3
Time:	21:45	API FL:	5.5cm³/30min	MF:	3.3	H2O:	92.6%	Fann 006	4
Weight:	9.60ppg	API Cake:	1/32nd"	Cl:	32500mg/l	Oil:	0.0%	Fann 100	20
ECD TD:	0.00ppg	PV	16cp	Hard/Ca:	30mg/l	Sand:	0.60 %	Fann 200	28
ECD Shoe:		YP	19lb/100ft²	MBT:	6.50	Barite:	0.00lb/bbl	Fann 300	35
Viscosity	58sec/qt			KCl Equiv:	5.6%	CaCO3 Added:	24.4ppb	Fann 600	51
				PHPA Added:	1.36ppb				
				Fluoresceine:	4.800ppm				

Comment: Hole taking fluid at an average rate of 1.5bbls/hr. Total 37bbls in 24 hrs.

Circulating across the top of the well, using fill-up pump+trip tank.
No full circulation or chemical treatment last 24 hours.

Shakers, Volumes and Losses Data

Available	**764bbl**	**Losses**	**37bbl**
Active	405bbl	Downhole	37bbl
Hole	332bbl	Shakers & Equip.	0bbl
Slug		Dumped	0bbl
Reserve	27bbl	Centrifuges	
		Desander	
		De-Silter	0bbl
Built	0bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	1 x 84 & 2 x 50	0
2	Lin. Motion SHAKER	1 x 84 & 2 x 50	0
3	De-Sander	2 x 8" Cones	0
4	De-Silter	12 x 4" Cones	0

Comment: Hole taking fluid at an average rate of 1.5bbls/hr. Total 37bbls in 24 hrs.

Circulating across the top of the well, using fill-up pump+trip tank.
No full circulation or chemical treatment last 24 hours.

Bit Data

Bit # 4RR1

Wear	I	O1	D	L	B	G	O2	R
	1	1	NO	A	X	I	NO	TD

				Nozzles	**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Size ("):	6.750	IADC#		4 x 12(/32nd")	Progress	0.0m	Cum. Progress	173.5m
Mfr:	Stealth Tools	WOB(avg)	10.0klb		On Bottom Hrs	0.00	Cum. On Btm Hrs	10.00
Type:	PDC	RPM(avg)	110		IADC Drill Hrs	0.00	Cum IADC Drill Hrs	14.00
Serial No.:	6904	RPM (DH)(avg)	110		Total Revs	0	Cum Total Revs	63500
Bit Model	M46H4	F.Rate	250.0gpm		OB-ROP(avg)		Cum. OB-ROP(avg)	17.35m/hr
Depth In	2075.5m	SPP	1300.0psi					
Depth Out		TFA	0.442	HSI HSI				

Bit Run Comment: TD POOH TO Log

BHA Data

BHA # 12

Weight(Wet)	25.0klb	Length	260.5m	Torque(max)	15000.0ft-lbs	D.C. (1) Ann Velocity	266fpm
Wt Below Jar(Wet)	20.0klb	String	120.0klb	Torque(Off.Btm)	4000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	121.0klb	Torque(On.Btm)	10000.0ft-lbs	H.W.D.P. Ann Velocity	184fpm
		Slack-Off	116.0klb	Jar Hours	209.5	D.P. Ann Velocity	184fpm

BHA Run Comment: Units for torque not ft-lbs

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Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.18m	6.75in		6904	24.5	
Near Bit Stab	1 x 1.51m	6.75in	2.43in	5475-1	161.5	
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	161.5	Tasman
String Stabiliser	1 x 1.54m	6.75in	2.06in	5415-2	161.5	
NMDC	1 x 9.19m	4.75in	2.31in		161.5	
4.75" DC	1 x 9.49m	4.75in	2.31in		209.5	
String Stabiliser	1 x 1.54m	6.75in	2.00in	475-3	161.5	
4.75" DC	15 x 9.43m	4.75in	2.31in		209.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-47763-03	209.5	
4 3/4 DC	3 x 9.50m	4.75in	2.31in		209.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in		241.5	
Total Length:	260.51m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1896.00	2.00	137.00	1895.5	28.27	0.02	-28.27	19.44	Hofco single shot
2022.00	0.75	86.00	2021.5	29.82	0.39	-29.82	21.76	Hofco single shot
2236.00	1.00	266.00	2235.5	29.85	0.25	-29.85	21.29	Hofco single shot
2249.00	1.00	266.00	2248.5	29.86	0.00	-29.86	21.07	Extrapolation to TD

Summary

Company	Pax On
Upstream Petroleum	4
Century Drilling Ltd	23
BHI	2
Schlumberger Oilfield Australia	7
RMN Drilling Fluids	1
Total on Rig	37

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Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	0	0	5.0
AMC Defoamer	25L can	0	0	0	14.0
AMC PAC-R	25kg sack	0	0	0	66.0
AMC PHPA	25kg sack	0	0	0	42.0
AUS-BEN	25kg sack	0	0	0	34.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	168.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Calcium Carbonate 40µ	25 kg sacks	0	0	0	831.0
Caustic Soda	25kg pail	0	0	0	32.0
Citric Acid	25kg sack	0	0	0	34.0
Cement - Class A	40kg sack	0	0	0	0.0
Fluoresceine (5 kg)	5 kg	0	0	0	2.0
Fluoresceine (1 pint)	1 pint	0	0	0	0.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	8.0
KCl	25kg sack	0	0	0	378.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	0	0	44.0
Sodium Sulfite	25kg sack	0	0	0	34.0
Xanthan Gum	25kg sack	0	0	0	21.0
Xtra-sweep	12lb box	0	0	0	4.0
Liqui-Sperse	25L can	32	0	0	32.0
Diesel fuel		0	1200	0	12,600.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	9.40	97	120	1300.00	250.00
2	GD PZ-7	5.50	9.50	97			
3	GD PZ-7	5.51	9.50	97			

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
2083.0		1.	70	500.00	
		2.	100	740.00	
		1.			
		2.			
2083.0		1.	70	500.00	
		2.	100	700.00	

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CRC-1

Date :	09 Mar 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Cesar Miaco
Report Number	23	**Drilling Supervisor :**	Kevin Murphy / Roy Dunne	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	2249.0m	Casing MD:	512.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	2249.0m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	0.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	22.54	Liner MD:		LTI Free Days:	289
Datum:	GDA 94	Days On Well:	35.54	Liner TVD:			

Current Ops @ 0600:	Continue logging Run #2 FMI-MCIP.
Planned Operations:	Continue logging program.

Summary of Period 0000 to 2400 Hrs

Circulated hole clean, took wireline survey, POOH. Rig up Schlumberger logging tools.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	09 Mar 2007	0 Days	Personnel blow into alcoholizer
Hazard Observation (0)	08 Mar 2007	1 Day	
Inspection (2)	09 Mar 2007	0 Days	Visually inspect d/line, d/man, brakes, koomey, BOP stack and Koomey pressures.
Pre-Tour Meetings (2)	09 Mar 2007	0 Days	Pooh and racking D/P on rig floor.Drifting 4-1/2" Csg and moving around on pipe racks.

Operations For Period 0000 Hrs to 2400 Hrs on 09 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	CMD	0000	0030	0.50	2249.0m	Circ & clean hole
PH1	P	SVY	0030	0100	0.50	2249.0m	Run wireline survey @ 2236m. 1.0deg @ S75W (uncorrected) / 266deg (corrected)
PH1	P	TO	0100	0630	5.50	2249.0m	Pooh 15 stand wiper trip, tight 2170m, 2150m, 2137m, 2165m, 2071m. P/U kelly, rotate and work new drill section, L/O kelly, pull to 2049m to 1965m.
PH1	P	TI	0630	0730	1.00	2249.0m	RIH, tight from 2071m to 2236m, P/U kelly and wash down to 2249m. L/O kelly.
PH1	P	PS	0730	1000	2.50	2249.0m	Pump hi vis pill around and circulate clean. Spot hi vis pill from 2248m to 1970m. POOH to 1900m. Pump hi vis weighted slug.
PH1	P	TO	1000	1630	6.50	2249.0m	POOH 1900m to surface. L/O drilling assembly & core barrel.
E1	P	LOG	1630	1800	1.50	2249.0m	Hold safety meeting with Schlumberger and day crew. R/U logging tools.
E1	P	LOG	1800	2230	4.50	2249.0m	Run #1, RIH with PEX-HALS logging tool and tag 10m higher than driller's depth @ 2239m. Log well in Hi resolution mode.
E1	P	LOG	2230	2400	1.50	2249.0m	L/O run #1 logging tools, M/U tools for run #2 FMI-MCIP.

Operations For Period 0000 Hrs to 0600 Hrs on 10 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
E1	P	LOG	0000	0600	6.00	2249.0m	(IN PROGRESS) Continue Logging Run #2 FMI-MCIP

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WBM Data

Daily Chemical Costs: $ 1077.05	Cost To Date: $ 58646.91	Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	44.0C°	pH:	9.8	Low Gravity Solids:	6.70%	Gels 10s	3
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	0.42	High Gravity Solids:	0.00%	Gels 10m	5
Sample From:	Past Shale Shakers	Sulphites:	200mg/l	PF:	0.4	Solids (corrected):	6.70%	Fann 003	3
Time:	09:30	API FL:	6.0cm³/30min	MF:	3.42	H2O:	93.3%	Fann 006	4
Weight:	9.50ppg	API Cake:	1/32nd"	Cl:	31800mg/l	Oil:	0.0%	Fann 100	20
ECD TD:	9.95ppg	PV	16cp	Hard/Ca:	40mg/l	Sand:	0.9 %	Fann 200	29
ECD Shoe:		YP	19lb/100ft²	MBT:	7.00	Barite:	0.00lb/bbl	Fann 300	35
Viscosity	54sec/qt			KCl Equiv:	5.5%	CaCO3 Added:	24.4ppb	Fann 600	51
				PHPA Added:	1.36ppb				
				Fluoresceine:	4.675ppm				

Comment: Prepare pills as required.
Located an extra 3 cans of defoamer & restocked (neg. usage entry).

Shakers, Volumes and Losses Data

Available	**801bbl**	**Losses**	**79bbl**
Active	437bbl	Downhole	32bbl
Hole	332bbl	Shakers & Equip.	18bbl
Slug		Dumped	25bbl
Reserve	32bbl	Centrifuges	
		Desander	4bbl
		De-Silter	0bbl
Built	0bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	1 x 84 & 2 x 50	12
2	Lin. Motion SHAKER	1 x 84 & 2 x 50	12
3	De-Sander	2 x 8" Cones	12
4	De-Silter	12 x 4" Cones	0

Comment: Hole taking 7bbls fluid over 6 hours, while logging.

Bit Data

Bit # 4RR1

Wear	I	O1	D	L	B	G	O2	R
	1	1	NO	A	X	I	NO	TD

				Nozzles		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Size ("):	6.750	IADC#		4 x 12(/32nd")		Progress	0.0m	Cum. Progress	173.5m
Mfr:	Stealth Tools	WOB(avg)	10.0klb			On Bottom Hrs	0.00	Cum. On Btm Hrs	10.00
Type:	PDC	RPM(avg)	110			IADC Drill Hrs	0.00	Cum IADC Drill Hrs	14.00
Serial No.:	6904	RPM (DH)(avg)	110			Total Revs	0	Cum Total Revs	63500
Bit Model	M46H4	F.Rate	250.0gpm			OB-ROP(avg)		Cum. OB-ROP(avg)	17.35m/hr
Depth In	2075.5m	SPP	1300.0psi						
Depth Out	2249.0m	TFA	0.442	HSI	HSI				

Bit Run Comment: TD POOH TO Log

BHA Data

BHA # 12

Weight(Wet)	25.0klb	Length	260.5m	Torque(max)	15000.0ft-lbs	D.C. (1) Ann Velocity	266fpm
Wt Below Jar(Wet)	20.0klb	String	120.0klb	Torque(Off.Btm)	4000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	121.0klb	Torque(On.Btm)	10000.0ft-lbs	H.W.D.P. Ann Velocity	184fpm
		Slack-Off	116.0klb	Jar Hours	209.5	D.P. Ann Velocity	184fpm

BHA Run Comment: Units for torque not ft-lbs

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Printed on 23 Jul 2008

Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.18m	6.75in		6904	24.5	
Near Bit Stab	1 x 1.51m	6.75in	2.43in	5475-1	161.5	
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	161.5	Tasman
String Stabiliser	1 x 1.54m	6.75in	2.06in	5415-2	161.5	
NMDC	1 x 9.19m	4.75in	2.31in		161.5	
4.75" DC	1 x 9.49m	4.75in	2.31in		209.5	
String Stabiliser	1 x 1.54m	6.75in	2.00in	475-3	161.5	
4.75" DC	15 x 9.43m	4.75in	2.31in		209.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-47763-03	209.5	
4 3/4 DC	3 x 9.50m	4.75in	2.31in		209.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in		241.5	
Total Length:	260.51m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1896.00	2.00	137.00	1895.5	28.27	0.02	-28.27	19.44	Hofco single shot
2022.00	0.75	86.00	2021.5	29.82	0.39	-29.82	21.76	Hofco single shot
2236.00	1.00	266.00	2235.5	29.85	0.25	-29.85	21.29	Hofco single shot
2249.00	1.00	266.00	2248.5	29.86	0.00	-29.86	21.07	Extrapolation to TD

Summary

Company	Pax On
Upstream Petroleum	4
Century Drilling Ltd	22
BHI	2
Schlumberger Oilfield Australia	7
RMN Drilling Fluids	1
Total on Rig	36

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Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	0	0	5.0
AMC Defoamer	25L can	0	-3	0	14.0
AMC PAC-R	25kg sack	0	0	0	66.0
AMC PHPA	25kg sack	0	0	0	42.0
AUS-BEN	25kg sack	0	0	0	34.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	168.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Calcium Carbonate 40µ	25 kg sacks	0	24	0	831.0
Caustic Soda	25kg pail	0	0	0	32.0
Citric Acid	25kg sack	0	0	0	34.0
Cement - Class A	40kg sack	0	0	0	0.0
Fluoresceine (5 kg)	5 kg	0	0	0	2.0
Fluoresceine (1 pint)	1 pint	0	0	0	0.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	8.0
KCl	25kg sack	0	0	0	378.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	0	0	44.0
Sodium Sulfite	25kg sack	0	1	0	34.0
Xanthan Gum	25kg sack	0	3	0	21.0
Xtra-sweep	12lb box	0	1	0	4.0
Diesel fuel		0	2100	0	13,800.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	9.40	97	120	1300.00	250.00
2	GD PZ-7	5.50	9.50	97			
3	GD PZ-7	5.51	9.50	97			

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
2083.0		1.	70	500.00	
		2.	100	740.00	
		1.			
		2.			
2083.0		1.	70	500.00	
		2.	100	700.00	

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CRC-1

Date :	08 Mar 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Cesar Miaco
Report Number	22	**Drilling Supervisor :**	Kevin Murphy / Brian Assels / Roy Dunne	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	2249.0m	Casing MD:	512.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	2249.0m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	173.5m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	21.54	Liner MD:		LTI Free Days:	288
Datum:	GDA 94	Days On Well:	34.54	Liner TVD:			

Current Ops @ 0600:

Planned Operations: POOH, log well.

Summary of Period 0000 to 2400 Hrs

RIH PDC drilling BHA to 490m. SCDL. Con't RIH and drill 6-3/4" hole f/ 2075.5m to 2249m (TD). Circ hole clean prior to wiper trip.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	08 Mar 2007	0 Days	Personnel blow into alcoholizer
Hazard Observation (1)	08 Mar 2007	0 Days	Crown saver reset does not function correctly requiring personnel to put themselves in unnecessary positon to manually reset.
Hazard Observation (1)	08 Mar 2007	0 Days	Man rider sheave is still squeeling loudly when used. Bearing or complete sheave may need to be replaced.
Hazard Observation (1)	08 Mar 2007	0 Days	Standpipe valve does not appear to open completely - may wash. Valve is considered to be a well control component and needs to be investigated at as operations permit.
Inspection (2)	08 Mar 2007	0 Days	Visually inspect d/line, d/man, brakes, koomey, BOP stack and Koomey pressures.
Pre-Tour Meetings (2)	08 Mar 2007	0 Days	Running in DP on the rig

Operations For Period 0000 Hrs to 2400 Hrs on 08 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	TI	0000	0230	2.50	2075.5m	Continue RIH W/- Drilling BHA To 490m
PH1	P	RS	0230	0300	0.50	2075.5m	Rig Service
PH1	P	SC	0300	0330	0.50	2075.5m	Slip 38' Drill Line
PH1	P	TI	0330	0700	3.50	2075.5m	Continue RIH. Break circ @ 1500m. RIH to 2032m.
PH1	P	RW	0700	0800	1.00	2075.5m	PU kelly and wash f/ 2032m to 2075.5m.
PH1	P	DA	0800	2200	14.00	2249.0m	Drill 6-3/4" hole f/ 2075.5 to 2249m (TD).
PH1	P	CMD	2200	2400	2.00	2249.0m	Circ hole clean.

Operations For Period 0000 Hrs to 0600 Hrs on 09 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	CMD	0000	0030	0.50	2249.0m	Circ & clean hole
PH1	P	SVY	0030	0100	0.50	2249.0m	Run wireline survey @ 2236m. 1.0deg @ S75W (uncorrected) / 266deg (corrected)
PH1	P	TO	0100	0600	5.00	2249.0m	(IN PROGRESS) Pooh 15 stand wiper trip, tight 2170m, 2150m, 2137m, 2165m, 2071m. P/U kelly, rotate and work new drill section, L/O kelly, pull to 2049m to 1965m.

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WBM Data

Daily Chemical Costs: $ 4047.93	Cost To Date: $ 57569.86	Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	44.5C°	pH:	9.8	Low Gravity Solids:	6.50%	Gels 10s	3
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	0.4	High Gravity Solids:	0.00%	Gels 10m	4
Sample From:	Past Shale Shakers	Sulphites:	250mg/l	PF:	0.52	Solids (corrected):	6.50%	Fann 003	3
Time:	21:45	API FL:	5.9cm³/30min	MF:	3.48	H2O:	93.5%	Fann 006	4
Weight:	9.45ppg	API Cake:	1/32nd"	Cl:	27300mg/l	Oil:	0.0%	Fann 100	18
ECD TD:	9.86ppg	PV	15cp	Hard/Ca:	40mg/l	Sand:	1.0 %	Fann 200	26
ECD Shoe:		YP	17lb/100ft²	MBT:	6.50	Barite:	0.00lb/bbl	Fann 300	32
Viscosity	52sec/qt			KCl Equiv:	5.2%	CaCO3 Added:	21.2ppb	Fann 600	47
				PHPA Added:	1.36ppb				
				Fluoresceine:	4.950ppm				

Comment: Recycled last 80bbls of fluid from sump for this interval, to make up D/Fluid volume. Total for this interval: 2465bbls.

Shakers, Volumes and Losses Data

Available	**880bbl**	**Losses**	**51bbl**
Active	531bbl	Downhole	21bbl
Hole	289bbl	Shakers & Equip.	15bbl
Slug		Dumped	5bbl
Reserve	60bbl	Centrifuges	
		Desander	10bbl
		De-Silter	0bbl
Built	90bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	1 x 84 & 2 x 50	24
2	Lin. Motion SHAKER	1 x 84 & 2 x 50	24
3	De-Sander	2 x 8" Cones	18
4	De-Silter	12 x 4" Cones	0

Comment: Recycled last 80bbls of fluid from sump for this interval, to make up D/Fluid volume. Total for this interval: 2465bbls.

Bit Data

Bit # 4RR1

				Nozzles	**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Size ("):	6.750	IADC#		4 x 12(/32nd")	Progress	173.5m	Cum. Progress	173.5m
Mfr:	Stealth Tools	WOB(avg)	10.0klb		On Bottom Hrs	10.00	Cum. On Btm Hrs	10.00
Type:	PDC	RPM(avg)	110		IADC Drill Hrs	14.00	Cum IADC Drill Hrs	14.00
Serial No.:	6904	RPM (DH)(avg)	110		Total Revs	63500	Cum Total Revs	63500
Bit Model	M46H4	F.Rate	250.0gpm		OB-ROP(avg)	17.35m/hr	Cum. OB-ROP(avg)	17.35m/hr
Depth In	2075.5m	SPP	1300.0psi					
Depth Out		TFA	0.442	HSI HSI				
Bit Run Comment		TD POOH TO Log						

BHA Data

BHA # 12

Weight(Wet)	25.0klb	Length	260.5m	Torque(max)	15000.0ft-lbs	D.C. (1) Ann Velocity	266fpm
Wt Below Jar(Wet)	20.0klb	String	120.0klb	Torque(Off.Btm)	4000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	121.0klb	Torque(On.Btm)	10000.0ft-lbs	H.W.D.P. Ann Velocity	184fpm
		Slack-Off	116.0klb	Jar Hours	209.5	D.P. Ann Velocity	184fpm
BHA Run Comment		Units for torque not ft-lbs					

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Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.18m	6.75in		6904	24.5	
Near Bit Stab	1 x 1.51m	6.75in	2.43in	5475-1	161.5	
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	161.5	Tasman
String Stabiliser	1 x 1.54m	6.75in	2.06in	5415-2	161.5	
NMDC	1 x 9.19m	4.75in	2.31in		161.5	
4.75" DC	1 x 9.49m	4.75in	2.31in		209.5	
String Stabiliser	1 x 1.54m	6.75in	2.00in	475-3	161.5	
4.75" DC	15 x 9.43m	4.75in	2.31in		209.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-47763-03	209.5	
4 3/4 DC	3 x 9.50m	4.75in	2.31in		209.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in		241.5	
Total Length:	260.51m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1896.00	2.00	137.00	1895.5	28.27	0.02	-28.27	19.44	Hofco single shot
2022.00	0.75	86.00	2021.5	29.82	0.39	-29.82	21.76	Hofco single shot
2236.00	1.00	266.00	2235.5	29.85	0.25	-29.85	21.29	Hofco single shot
2249.00	1.00	266.00	2248.5	29.86	0.00	-29.86	21.07	Extrapolation to TD

Summary

Company	Pax On
Upstream Petroleum	4
Century Drilling Ltd	25
BHI	2
RMN Drilling Fluids	1
Total on Rig	32

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Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	1	0	5.0
AMC Defoamer	25L can	0	1	0	11.0
AMC PAC-R	25kg sack	0	3	0	66.0
AMC PHPA	25kg sack	0	1	0	42.0
AUS-BEN	25kg sack	0	4	0	34.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	168.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Calcium Carbonate 40µ	25 kg sacks	0	24	0	855.0
Caustic Soda	25kg pail	0	1	0	32.0
Citric Acid	25kg sack	0	0	0	34.0
Cement - Class A	40kg sack	0	0	0	0.0
Fluoresceine (5 kg)	5 kg	0	0	0	2.0
Fluoresceine (1 pint)	1 pint	0	0	0	0.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	8.0
KCl	25kg sack	0	114	0	378.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	0	0	44.0
Sodium Sulfite	25kg sack	0	2	0	35.0
Xanthan Gum	25kg sack	0	1	0	24.0
Xtra-sweep	12lb box	0	0	0	5.0
Diesel fuel		0	1500	0	15,900.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	9.40	97	120	1300.00	250.00
2	GD PZ-7	5.50	9.50	97			
3	GD PZ-7	5.51	9.50	97			

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
2083.0		1.	70	500.00	
		2.	100	740.00	
		1.			
		2.			
2083.0		1.	70	500.00	
		2.	100	700.00	

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CRC-1

Date :	07 Mar 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Agus Nugroho
Report Number	21	**Drilling Supervisor :**	Kevin Murphy / Brian Assels	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	2075.5m	Casing MD:	512.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	2075.5m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	24.5m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	20.54	Liner MD:		LTI Free Days:	287
Datum:	GDA 94	Days On Well:	33.54	Liner TVD:			

Current Ops @ 0600:	RIH at 1575m.
Planned Operations:	Drill 6-3/4" hole to core point #7.

Summary of Period 0000 to 2400 Hrs

RIH with coring assembly and cut core #6. POH. Recover core 23.53m (96%). RIH drilling BHA.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	07 Mar 2007	0 Days	Personnel blow into alcoholizer
BOP Drill (1)	07 Mar 2007	0 Days	hold drill on trip out while inside shoe: 23 seconds to secure well - good crew response.
Hazard Observation (2)	07 Mar 2007	0 Days	No end chocks in 2nd tier of casing on pipe racks. HP pump trailer lift up doors require legs to be pinned to socket to prevent dislodgement.
Inspection (2)	07 Mar 2007	0 Days	Visually inspect d/line, d/man, brakes, koomey, BOP stack and Koomey pressures.
Permit To Work (1)	07 Mar 2007	0 Days	Cut core using electrical saw.
Permit To Work (1)	07 Mar 2007	0 Days	Pump out core using pressure pump.
Pre-Tour Meetings (2)	07 Mar 2007	0 Days	Correct use of pipe spinner, BOP drills.

Operations For Period 0000 Hrs to 2400 Hrs on 07 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	TO	0000	0030	0.50	2051.0m	Con't POOH with core #5.
PH1	P	COR	0030	0130	1.00	2051.0m	BO & LO core barrel. Recover 6.59m core from 2044.41m - 2051m. (37%).
PH1	P	WO	0130	0200	0.50	2051.0m	Clean and clear work floor while WOO.
PH1	P	HBHA	0200	0330	1.50	2051.0m	MU core bit and 80ft core barrel BHA #11 (25.99m LOA).
PH1	P	TI	0330	0900	5.50	2051.0m	RIH core barrel. Break circ at 1500m. Con't RIH to 2031m.
PH1	P	RW	0900	1000	1.00	2051.0m	PU kelly, wash f/ 2031m to 2051m.
PH1	P	COR	1000	1030	0.50	2051.0m	Circulate and drop ball.
PH1	P	COR	1030	1630	6.00	2075.5m	Cut core #6 f/ 2051 - 2075.5 m.
PH1	P	TO	1630	2130	5.00	2075.5m	Pump slug, flow check, rack kelly and POH f/ 2075.5m. Flow check at shoe and BHA. Hole good on trip out.
PH1	P	COR	2130	2330	2.00	2075.5m	Recover and LD core. Recover 23.53m (96%) from 2051m - 2075.50m. Stand 18m empty barrel in derrick.
PH1	P	HBHA	2330	2400	0.50	2075.5m	MU PDC drill bit #4RR1 on drilling BHA #11.

Operations For Period 0000 Hrs to 0600 Hrs on 08 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	TI	0000	0230	2.50	2075.5m	Continue RIH W/- Drilling BHA To 490m
PH1	P	RS	0230	0300	0.50	2075.5m	Rig Service
PH1	P	SC	0300	0330	0.50	2075.5m	Slip 38' Drill Line
PH1	P	TI	0330	0600	2.50	2075.5m	(IN PROGRESS) Continue RIH. Break circ @ 1500m. RIH to 2032m.

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WBM Data

Daily Chemical Costs: $ 765.36 | Cost To Date: $ 53521.93 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	40.2C°	pH:	9.8	Low Gravity Solids:	6.40%	Gels 10s	3
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	0.55	High Gravity Solids:	0.00%	Gels 10m	4
Sample From:	Past Shale Shakers	Sulphites:	200mg/l	PF:	0.62	Solids (corrected):	6.40%	Fann 003	3
Time:	16:30	API FL:	6.1cm³/30min	MF:	3.55	H2O:	93.6%	Fann 006	4
Weight:	9.45ppg	API Cake:	1/32nd"	Cl:	27500mg/l	Oil:	0.0%	Fann 100	20
ECD TD:	9.75ppg	PV	15cp	Hard/Ca:	40mg/l	Sand:	0.5 %	Fann 200	28
ECD Shoe:		YP	19lb/100ft²	MBT:	6.00	Barite:	0.00lb/bbl	Fann 300	34
Viscosity	54sec/qt			KCl Equiv:	5.0%	CaCO3 Added:	21.9ppb	Fann 600	49
				PHPA Added:	1.44ppb				
				Fluoresceine:	4.425ppm				

Comment: Maintaining SFC volume and fluid properties.

Shakers, Volumes and Losses Data

Available	**841bbl**	**Losses**	**70bbl**
Active	518bbl	Downhole	28bbl
Hole	306bbl	Shakers & Equip.	20bbl
Slug		Dumped	5bbl
Reserve	17bbl	Centrifuges	
		Desander	4bbl
		De-Silter	13bbl
Built	50bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	1 x 84 & 2 x 50	18
2	Lin. Motion SHAKER	1 x 84 & 2 x 50	18
3	De-Sander	2 x 8" Cones	10
4	De-Silter	12 x 4" Cones	10

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Bit Data

Bit # 3RR4

Wear	I	O1	D	L	B	G	O2	R
	1	2	NO	A	X	I	NO	BHA

Size (''):	6.750	IADC#		**Nozzles**	**Drilled over last 24 hrs**		**Calculated over Bit Run**
Mfr:	Corpro Systems Ltd	WOB(avg)	13.5klb		Progress	0.0m	Cum. Progress	18.0m
Type:	Core	RPM(avg)			On Bottom Hrs	0.10	Cum. On Btm Hrs	24.10
Serial No.:	083719	RPM (DH)(avg)	85		IADC Drill Hrs	NaN	Cum IADC Drill Hrs	26.50
Bit Model	MCP662	F.Rate	128.0gpm		Total Revs		Cum Total Revs	124800
Depth In	2033.0m	SPP	psi		OB-ROP(avg)		Cum. OB-ROP(avg)	0.75m/hr
Depth Out	2051.0m	TFA	0	HSI HSI				

Bit Wear Comment	Reason pulled: Full core barrel cut.
Bit Run Comment	Cut core #5 in Flaxmans Formation. Cut 18m, recover 6.59 (37%).

Bit Data

Bit # 4RR1

Size (''):	6.750	IADC#		**Nozzles**	**Drilled over last 24 hrs**		**Calculated over Bit Run**
Mfr:	Stealth Tools	WOB(avg)	klb	4 x 12(/32nd'')	Progress	m	Cum. Progress	0.0m
Type:	PDC	RPM(avg)			On Bottom Hrs	NaN	Cum. On Btm Hrs	0.00
Serial No.:	6904	RPM (DH)(avg)			IADC Drill Hrs	NaN	Cum IADC Drill Hrs	0.00
Bit Model	M46H4	F.Rate	gpm		Total Revs		Cum Total Revs	0
Depth In	2075.5m	SPP	psi		OB-ROP(avg)		Cum. OB-ROP(avg)	0.00m/hr
Depth Out		TFA	0.442	HSI HSI				

Bit Run Comment	TD POOH TO Log

Bit Data

Bit # 3RR5

Wear	I	O1	D	L	B	G	O2	R
	1	2	NO	A	X	I	NO	BHA

Size (''):	6.750	IADC#		**Nozzles**	**Drilled over last 24 hrs**		**Calculated over Bit Run**
Mfr:	Corpro Systems Ltd	WOB(avg)	10.0klb		Progress	24.5m	Cum. Progress	24.5m
Type:	Core	RPM(avg)	80		On Bottom Hrs	5.00	Cum. On Btm Hrs	5.00
Serial No.:	083719	RPM (DH)(avg)	80		IADC Drill Hrs	6.00	Cum IADC Drill Hrs	6.00
Bit Model	MCP662	F.Rate	120.0gpm		Total Revs	24200	Cum Total Revs	24200
Depth In	2051.0m	SPP	550.0psi		OB-ROP(avg)	4.90m/hr	Cum. OB-ROP(avg)	4.90m/hr
Depth Out	2075.5m	TFA	0	HSI HSI				

Bit Wear Comment	Reason pulled: Full core barrel cut.
Bit Run Comment	Cut core #5 in Flaxman's Formation/Uppper Waarre C. Cut 24.5m, recover 23.53m (96%).

BHA Data

BHA # 10

Weight(Wet)	20.0klb	Length	272.7m	Torque(max)	7000.0ft-lbs	D.C. (1) Ann Velocity	136fpm
Wt Below Jar(Wet)	25.0klb	String	118.0klb	Torque(Off.Btm)	1000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	119.0klb	Torque(On.Btm)	5000.0ft-lbs	H.W.D.P. Ann Velocity	94fpm
		Slack-Off	117.0klb	Jar Hours	6	D.P. Ann Velocity	94fpm

BHA Run Comment	Core #5 in Flaxman's Formation/Upper Waarre C.

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Equipment	Length	OD	ID	Serial #	Hours	Comment
Core Bit	1 x 0.26m	6.75in	2.56in	083719	35	
Core Barrel	1 x 19.63m	6.75in			36	4 x 6.75" fixed stabilizers
NMDC	1 x 9.19m	4.75in	2.31in		8	
4.75" DC	16 x 9.43m	4.75in	2.88in		208	
Drilling Jars	1 x 9.37m	4.75in	2.88in	380-47763-03	208	
4.75" DC	3 x 9.50m	4.75in	2.88in		208	
3 1/2" HWDP	6 x 9.14m	3.50in	2.31in		228	
Total Length:	272.67m					

BHA Data

BHA # 11

Weight(Wet)	20.0klb	Length	272.7m	Torque(max)		D.C. (1) Ann Velocity	128fpm
Wt Below Jar(Wet)	25.0klb	String		Torque(Off.Btm)		D.C. (2) Ann Velocity	0fpm
		Pick-Up		Torque(On.Btm)		H.W.D.P. Ann Velocity	88fpm
		Slack-Off		Jar Hours	153	D.P. Ann Velocity	88fpm

BHA Run Comment: Core #5 in Flaxman's Formation/Upper Waarre C.

Equipment	Length	OD	ID	Serial #	Hours	Comment
Core Bit	1 x 0.26m	6.75in	2.56in	083719	35	
Core Barrel	1 x 19.63m	6.75in			36	4 x 6.75" fixed stabilizers
NMDC	1 x 9.19m	4.75in	2.31in		8	
4.75" DC	16 x 9.43m	4.75in	2.88in		208	
Drilling Jars	1 x 9.37m	4.75in	2.88in	380-47763-03	208	
4.75" DC	3 x 9.50m	4.75in	2.88in		208	
3 1/2" HWDP	6 x 9.14m	3.50in	2.31in		228	
Total Length:	272.67m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1691.00	2.00	135.00	1690.7	23.00	0.18	-23.00	14.60	Hofco single shot
1808.00	2.00	139.00	1807.6	25.98	0.04	-25.98	17.38	Hofco single shot
1896.00	2.00	137.00	1895.5	28.27	0.02	-28.27	19.44	Hofco single shot
2022.00	0.75	86.00	2021.5	29.82	0.39	-29.82	21.76	Hofco single shot

Summary

Company	Pax On
Upstream Petroleum	4
Century Drilling Ltd	25
BHI	2
Corpro Systems Ltd	2
RMN Drilling Fluids	1
Total on Rig	34

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Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	1	0	6.0
AMC Defoamer	25L can	0	0	0	12.0
AMC PAC-R	25kg sack	0	0	0	69.0
AMC PHPA	25kg sack	0	1	0	43.0
AUS-BEN	25kg sack	0	0	0	38.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	168.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Calcium Carbonate 40µ	25 kg sacks	0	24	0	879.0
Caustic Soda	25kg pail	0	2	0	33.0
Citric Acid	25kg sack	0	0	0	34.0
Cement - Class A	40kg sack	0	0	0	0.0
Fluoresceine (5 kg)	5 kg	0	0	0	2.0
Fluoresceine (1 pint)	1 pint	0	0	0	0.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	8.0
KCl	25kg sack	0	0	0	492.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	0	0	44.0
Sodium Sulfite	25kg sack	0	0	0	37.0
Xanthan Gum	25kg sack	0	0	0	25.0
Xtra-sweep	12lb box	0	0	0	5.0
Diesel fuel		0	1400	0	17,400.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	9.40	97	55	550.00	120.00
2	GD PZ-7	5.50	9.50	97			
3	GD PZ-7	5.51	9.50	97			

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
1918.0		1.	70	460.00	
		2.	100	820.00	
		1.			
		2.			
1918.0		1.	70	460.00	
		2.	100	820.00	

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CRC-1

Date :	06 Mar 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Agus Nugroho
Report Number	20	**Drilling Supervisor :**	Kevin Murphy / Brian Assels	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	2051.0m	Casing MD:	512.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	2051.0m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	13.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	19.54	Liner MD:		LTI Free Days:	286
Datum:	GDA 94	Days On Well:	32.54	Liner TVD:			

Current Ops @ 0600:	RIH with core assembly to cut core #6
Planned Operations:	Cut Core #6 in Flaxmans Fm / Waarre C. POOH and recover core.

Summary of Period 0000 to 2400 Hrs

Cut 18m core #5 in Flaxman's Formation f/ 2033m to 2051m. POOH with coring assembly.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	06 Mar 2007	0 Days	Personnel blow into alcoholizer
Hazard Observation (1)	06 Mar 2007	0 Days	Swaco choke requires permanent all weather labels for controls to replace texta writing - ordered.
Inspection (2)	06 Mar 2007	0 Days	Visually inspect d/line, d/man, brakes, koomey, BOP stack and Koomey pressures.
Permit To Work (1)	06 Mar 2007	0 Days	Cut core using electrical saw.
Permit To Work (1)	06 Mar 2007	0 Days	Pump out core using pressure pump.
Pre-Tour Meetings (2)	06 Mar 2007	0 Days	Running coring tools, Correct use of non-powered tools.

Operations For Period 0000 Hrs to 2400 Hrs on 06 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	COR	0000	0630	6.50	2042.5m	Cut Core # 5 F/- 2038m To 2042.5m (kelly down).
PH1	TP (HC)	RW	0630	1000	3.50	2042.5m	During connection, unable to get kelly bushing in or go back to bottom. Pull back, LO single of DP. PU 2 x DP pup jts. Work back to bottom from 2041.0 to 2042.5m.
PH1	P	COR	1000	1800	8.00	2051.0m	Con't cut core #5 f/ 2042.5m to 2051m with a further connection at 2046.5m. Stopped coring at times, eg 2046.0m & 2049.0m. Adjusted flow rate and appeared to start making hole again.
PH1	P	TO	1800	2200	4.00	2051.0m	Flow check, pump slug, rack kelly and POOH f/ 2051m to 422m.
PH1	P	RS	2200	2230	0.50	2051.0m	Rig service.
PH1	P	TO	2230	2400	1.50	2051.0m	Con't POH f/ 422m. Flow check at shoe and BHA.

Operations For Period 0000 Hrs to 0600 Hrs on 07 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	TO	0000	0030	0.50	2051.0m	Con't POOH with core #5.
PH1	P	COR	0030	0130	1.00	2051.0m	BO & LO core barrel. Recover 6.59m core from 2044.41m - 2051m. (37%).
PH1	P	WO	0130	0200	0.50	2051.0m	Clean and clear work floor while WOO.
PH1	P	HBHA	0200	0330	1.50	2051.0m	MU core bit and 80ft core barrel BHA #11 (25.99m LOA).
PH1	P	TI	0330	0600	2.50	2051.0m	(IN PROGRESS) RIH core barrel. Break circ at 1500m. Con't RIH to 2031m.

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WBM Data

Daily Chemical Costs: $ 1753.29	Cost To Date: $ 52756.57	Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	42.1C°	pH:	9.5	Low Gravity Solids:	6.40%	Gels 10s	3
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	0.35	High Gravity Solids:	0.00%	Gels 10m	4
Sample From:	Past Shale Shakers	Sulphites:	250mg/l	PF:	0.45	Solids (corrected):	6.40%	Fann 003	3
Time:	18:15	API FL:	5.7cm³/30min	MF:	3.6	H2O:	93.6%	Fann 006	5
Weight:	9.45ppg	API Cake:	1/32nd"	Cl:	29500mg/l	Oil:	0.0%	Fann 100	21
ECD TD:	9.81ppg	PV	15cp	Hard/Ca:	60mg/l	Sand:	0.5 %	Fann 200	29
ECD Shoe:		YP	20lb/100ft²	MBT:	7.00	Barite:	0.00lb/bbl	Fann 300	35
Viscosity	56sec/qt			KCl Equiv:	5.2%	CaCO3 Added:	20.7ppb	Fann 600	50
				PHPA Added:	1.51ppb				
				Fluoresceine:	5.100ppm				

Comment: Maintaining fluid system after regaining all specified properties.

Taking delivery of contingency fluid chemicals (KCl+CaCO3 and LIQUI-SPERSE, being a Polymer De-flocculant/Thinner).
Also received: 50x50lb MIL-GEL, Wyoming Bentonite for next CMT job.
Flouresceine Addition: 150g;
Estimated dry powder F/C remaining: 1200g, plus 2x5kg-unopened tubs).
Liquid product(1 US pt bottles) used up.

Shakers, Volumes and Losses Data

Available	**861bbl**	**Losses**	**87bbl**
Active	539bbl	Downhole	38bbl
Hole	303bbl	Shakers & Equip.	10bbl
Slug		Dumped	20bbl
Reserve	19bbl	Centrifuges	
		Desander	9bbl
		De-Silter	10bbl
Built	40bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	1 x 84 & 2 x 50	18
2	Lin. Motion SHAKER	1 x 84 & 2 x 50	18
3	De-Sander	2 x 8" Cones	8
4	De-Silter	12 x 4" Cones	6

Bit Data

Bit # 3RR4

Size ("):	6.750	IADC#		**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	Corpro Systems Ltd	WOB(avg)	15.0klb			Progress	13.0m	Cum. Progress	18.0m
Type:	Core	RPM(avg)	80			On Bottom Hrs	12.50	Cum. On Btm Hrs	24.00
Serial No.:	083719	RPM (DH)(avg)	80			IADC Drill Hrs	14.50	Cum IADC Drill Hrs	26.50
Bit Model	MCP662	F.Rate	150.0gpm			Total Revs	65800	Cum Total Revs	124800
Depth In	2033.0m	SPP	1000.0psi			OB-ROP(avg)	1.04m/hr	Cum. OB-ROP(avg)	0.75m/hr
Depth Out		TFA	0	HSI	HSI				

Bit Wear Comment	Reason pulled: Full core barrel cut.
Bit Run Comment	Cut core #5 in Flaxmans Formation. Cut 18m, recover 6.59 (37%).

BHA Data

BHA # 10

Weight(Wet)	20.0klb	Length	272.7m	Torque(max)	7000.0ft-lbs	D.C. (1) Ann Velocity	160fpm
Wt Below Jar(Wet)	25.0klb	String	117.0klb	Torque(Off.Btm)	1000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	120.0klb	Torque(On.Btm)	5000.0ft-lbs	H.W.D.P. Ann Velocity	110fpm
		Slack-Off	117.0klb	Jar Hours	202	D.P. Ann Velocity	110fpm

BHA Run Comment	Core #5 in Flaxman's Formation/Upper Waarre C.

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Equipment	Length	OD	ID	Serial #	Hours	Comment
Core Bit	1 x 0.26m	6.75in	2.56in	083719	35	
Core Barrel	1 x 19.63m	6.75in			36	4 x 6.75" fixed stabilizers
NMDC	1 x 9.19m	4.75in	2.31in		8	
4.75" DC	16 x 9.43m	4.75in	2.88in		208	
Drilling Jars	1 x 9.37m	4.75in	2.88in	380-47763-03	208	
4.75" DC	3 x 9.50m	4.75in	2.88in		208	
3 1/2" HWDP	6 x 9.14m	3.50in	2.31in		228	
Total Length:	272.67m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1691.00	2.00	135.00	1690.7	23.00	0.18	-23.00	14.60	Hofco single shot
1808.00	2.00	139.00	1807.6	25.98	0.04	-25.98	17.38	Hofco single shot
1896.00	2.00	137.00	1895.5	28.27	0.02	-28.27	19.44	Hofco single shot
2022.00	0.75	86.00	2021.5	29.82	0.39	-29.82	21.76	Hofco single shot

Summary

Company	Pax On
Upstream Petroleum	4
Century Drilling Ltd	25
BHI	2
Corpro Systems Ltd	2
RMN Drilling Fluids	1
Total on Rig	34

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	0	0	7.0
AMC Defoamer	25L can	0	1	0	12.0
AMC PAC-R	25kg sack	0	0	0	69.0
AMC PHPA	25kg sack	0	6	0	44.0
AUS-BEN	25kg sack	0	0	0	38.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	168.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Calcium Carbonate 40µ	25 kg sacks	432	24	0	903.0
Caustic Soda	25kg pail	0	0	0	35.0
Citric Acid	25kg sack	0	0	0	34.0
Cement - Class A	40kg sack	0	0	0	0.0
Fluoresceine (5 kg)	5 kg	0	0	0	2.0
Fluoresceine (1 pint)	1 pint	0	0	0	0.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	8.0
KCl	25kg sack	378	12	0	492.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	0	0	44.0
Sodium Sulfite	25kg sack	0	0	0	37.0
Xanthan Gum	25kg sack	0	1	0	25.0
Xtra-sweep	12lb box	0	0	0	5.0
Diesel fuel		0	2200	0	18,800.0

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Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	9.40	97	70	1000.00	150.00
2	GD PZ-7	5.50	9.50	97			
3	GD PZ-7	5.51	9.50	97			

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
1918.0		1.	70	460.00	
		2.	100	820.00	
		1.			
		2.			
1918.0		1.	70	460.00	
		2.	100	820.00	

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CRC-1

Date :	05 Mar 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Agus Nugroho
Report Number	19	**Drilling Supervisor :**	Kevin Murphy / Brian Assels	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	2038.0m	Casing MD:	512.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	2038.0m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	5.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	18.54	Liner MD:		LTI Free Days:	285
Datum:	GDA 94	Days On Well:	31.54	Liner TVD:			

Current Ops @ 0600:	Con't cut core #5 in Flaxman's Formation at 2042 m (9 m cut).
Planned Operations:	Make`connection. Continue cut core #5, POH and recover core. RIH with coring assembly for core #6.

Summary of Period 0000 to 2400 Hrs

Rig repair, rig service, Slip drilling line, Con't RIH with coring assembly. Ream f/ 1966m to bottom. Cut core #5.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	05 Mar 2007	0 Days	Personnel blow into alcoholizer
Hazard Observation (1)	05 Mar 2007	0 Days	Housekeeping issue - 3-1/2" protector loose on floor and about to fall from rig floor - corrected immed.
Hazard Observation (1)	05 Mar 2007	0 Days	Tong post not pinned under rig floor - corrected immed.
Inspection (2)	05 Mar 2007	0 Days	Visually inspect d/line, d/man, brakes, koomey, BOP stack and Koomey pressures.
Permit To Work (2)	05 Mar 2007	0 Days	Deisel gurni within 45 m of well.
Pre-Tour Meetings (2)	05 Mar 2007	0 Days	Rig service & housekeeping

Operations For Period 0000 Hrs to 2400 Hrs on 05 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	TP (RE)	RR	0000	0030	0.50	2033.0m	Rig Repair Crown-o-matic
PH1	P	RS	0030	0100	0.50	2033.0m	Rig Service
PH1	P	SC	0100	0130	0.50	2033.0m	Slip 30' Drill Line
PH1	P	TI	0130	0530	4.00	2033.0m	RIH F/- 508m To 1966m. Pick up kelly to break circ @ 1000m, 1500m & 1700m. Extra circ due to flowback from uneven mud.
PH1	TP (HC)	RW	0530	1030	5.00	2033.0m	Work tight hole F/- 1966m to 1976m Pick up kelly wash and ream to 2033m.
PH1	P	CMD	1030	1200	1.50	2033.0m	Circ hole clean.Space out kelly.
PH1	P	COR	1200	2400	12.00	2038.0m	Cut core # 5 F/- 2033 To 2038m (at 23:00, conduct flow check after reported pit gain - well dead, con't coring).

Operations For Period 0000 Hrs to 0600 Hrs on 06 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	COR	0000	0600	6.00	2042.5m	(IN PROGRESS) Cut Core # 5 F/- 2038m To 2042.5m (kelly down).

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WBM Data

Daily Chemical Costs: $ 3171.85 | Cost To Date: $ 51003.28 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	40.5C°	pH:	9.8	Low Gravity Solids:	6.50%	Gels 10s	2
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	0.52	High Gravity Solids:	0.00%	Gels 10m	3
Sample From:	Past Shale Shakers	Sulphites:	180mg/l	PF:	0.65	Solids (corrected):	6.50%	Fann 003	2
Time:	22:15	API FL:	5.8cm³/30min	MF:	3.52	H2O:	93.5%	Fann 006	3
Weight:	9.45ppg	API Cake:	1/32nd"	Cl:	30500mg/l	Oil:	0.0%	Fann 100	16
ECD TD:	9.74ppg	PV	13cp	Hard/Ca:	50mg/l	Sand:	0.6 %	Fann 200	23
ECD Shoe:		YP	16lb/100ft²	MBT:	5.00	Barite:	0.00lb/bbl	Fann 300	29
Viscosity	48sec/qt			KCl Equiv:	5.1%	CaCO3 Added:	21.7ppb	Fann 600	42
				PHPA Added:	1.19ppb				
				Fluoresceine:	5.005ppm				

Comment: Continue treatment of fluid system to bring properties back to specifications.

Record an unexplained 5bbl gain (both visually and electronically), but no further occurrence.

Shakers, Volumes and Losses Data

Available	**908bbl**	**Losses**	**45bbl**
Active	638bbl	Downhole	26bbl
Hole	262bbl	Shakers & Equip.	0bbl
Slug		Dumped	15bbl
Reserve	8bbl	Centrifuges	
		Desander	2bbl
		De-Silter	2bbl
Built	95bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	1 x 84 & 2 x 50	24
2	Lin. Motion SHAKER	1 x 84 & 2 x 50	24
3	De-Sander	2 x 8" Cones	11
4	De-Silter	12 x 4" Cones	3

Comment: Record an unexplained 5bbl gain (both visually and electronically), but no further occurrence.

Bit Data

Bit # 3RR4

Size ("):	6.750	IADC#		**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	Corpro Systems Ltd	WOB(avg)	15.0klb			Progress	5.0m	Cum. Progress	5.0m
Type:	Core	RPM(avg)	80			On Bottom Hrs	11.50	Cum. On Btm Hrs	11.50
Serial No.:	083719	RPM (DH)(avg)	80			IADC Drill Hrs	12.00	Cum IADC Drill Hrs	12.00
Bit Model	MCP662	F.Rate	150.0gpm			Total Revs	59000	Cum Total Revs	59000
Depth In	2033.0m	SPP	1000.0psi			OB-ROP(avg)	0.43m/hr	Cum. OB-ROP(avg)	0.43m/hr
Depth Out		TFA	0	HSI	HSI				

Bit Wear Comment	Reason pulled: Full core barrel cut.
Bit Run Comment	Cut core #5 in Flaxmans Formation. Cut 18m, recover 6.59 (37%).

BHA Data

BHA # 10

Weight(Wet)	20.0klb	Length	272.7m	Torque(max)	7000.0ft-lbs	D.C. (1) Ann Velocity	160fpm
Wt Below Jar(Wet)	25.0klb	String	110.0klb	Torque(Off.Btm)	1000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	111.0klb	Torque(On.Btm)	5000.0ft-lbs	H.W.D.P. Ann Velocity	110fpm
		Slack-Off	108.0klb	Jar Hours	187.5	D.P. Ann Velocity	110fpm

BHA Run Comment	Core #5 in Flaxman's Formation/Upper Waarre C.

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Equipment	Length	OD	ID	Serial #	Hours	Comment
Core Bit	1 x 0.26m	6.75in	2.56in	083719	35	
Core Barrel	1 x 19.63m	6.75in			36	4 x 6.75" fixed stabilizers
NMDC	1 x 9.19m	4.75in	2.31in		8	
4.75" DC	16 x 9.43m	4.75in	2.88in		208	
Drilling Jars	1 x 9.37m	4.75in	2.88in	380-47763-03	208	
4.75" DC	3 x 9.50m	4.75in	2.88in		208	
3 1/2" HWDP	6 x 9.14m	3.50in	2.31in		228	
Total Length:	272.67m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1691.00	2.00	135.00	1690.7	23.00	0.18	-23.00	14.60	Hofco single shot
1808.00	2.00	139.00	1807.6	25.98	0.04	-25.98	17.38	Hofco single shot
1896.00	2.00	137.00	1895.5	28.27	0.02	-28.27	19.44	Hofco single shot
2022.00	0.75	86.00	2021.5	29.82	0.39	-29.82	21.76	Hofco single shot

Summary

Company	Pax On
Upstream Petroleum	4
Century Drilling Ltd	28
BHI	2
Corpro Systems Ltd	2
RMN Drilling Fluids	1
Total on Rig	37

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	1	0	7.0
AMC Defoamer	25L can	0	0	0	13.0
AMC PAC-R	25kg sack	0	2	0	69.0
AMC PHPA	25kg sack	0	6	0	50.0
AUS-BEN	25kg sack	0	0	0	38.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	168.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Calcium Carbonate 40µ	25 kg sacks	0	0	0	495.0
Caustic Soda	25kg pail	0	1	0	35.0
Citric Acid	25kg sack	0	0	0	34.0
Cement - Class A	40kg sack	0	0	0	0.0
Fluoresceine (5 kg)	5 kg	0	0	0	2.0
Fluoresceine (1 pint)	1 pint	0	0	0	0.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	8.0
KCl	25kg sack	0	0	0	126.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	4	0	44.0
Sodium Sulfite	25kg sack	0	0	0	37.0
Xanthan Gum	25kg sack	0	5	0	26.0
Xtra-sweep	12lb box	0	0	0	5.0
Diesel fuel		0	2200	0	21,000.0

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Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	9.40	97	70	1000.00	150.00
2	GD PZ-7	5.50	9.50	97			
3	GD PZ-7	5.51	9.50	97			

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
1918.0		1.	70	460.00	
		2.	100	820.00	
		1.			
		2.			
1918.0		1.	70	460.00	
		2.	100	820.00	

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CRC-1

Date :	04 Mar 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Agus Nugroho
Report Number	18	**Drilling Supervisor :**	Kevin Murphy / Brian Assels	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	2033.0m	Casing MD:	512.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	2032.5m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	128.8m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	17.54	Liner MD:		LTI Free Days:	284
Datum:	GDA 94	Days On Well:	30.54	Liner TVD:			

Current Ops @ 0600:	Work tight hole at 1966m - 1976m. PU kelly and ream hole.
Planned Operations:	Cut core #5 in Flaxmans Formation and Upper Waarre C.

Summary of Period 0000 to 2400 Hrs

Drill 6-3/4" hole f/ 1904.2m to 2033m. POH PDC drill bit. RIH 60 ft core barrel.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	04 Mar 2007	0 Days	Personnel blow into alcoholizer
Hazard Observation (1)	04 Mar 2007	0 Days	Manrider sheave requires checking for wear - to be inspected at daylight.
Hazard Observation (1)	04 Mar 2007	0 Days	Grease points on crown not taking grease - to be checked for blockage in daylight.
Hazard Observation (1)	04 Mar 2007	0 Days	Section of handrial not installed at back of carrier - reinstalled immed.
Inspection (2)	04 Mar 2007	0 Days	Visually inspect d/line, d/man, brakes, koomey, BOP stack and Koomey pressures.
Permit To Work (1)	04 Mar 2007	0 Days	Rig service, slip line, manrider winch
Pre-Tour Meetings (2)	04 Mar 2007	0 Days	SCDL, correct use of pipe spinner, running coring tools
Weekly Safety Meeting (1)	04 Mar 2007	0 Days	Daylight crew

Operations For Period 0000 Hrs to 2400 Hrs on 04 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	TI	0000	0030	0.50	1904.2m	RIH F/- 1857m To 1886m.
PH1	P	RW	0030	0100	0.50	1904.2m	Pick up kelly ,Wash F/- 1886m To 1904.2m . 5.5m soft fill on bottom.
PH1	P	DA	0100	1130	10.50	2033.0m	Drill 6 3/4" Hole F/- 1904.2m To 2033m.
PH1	P	CMD	1130	1230	1.00	2033.0m	Circ Hole Clean.
PH1	P	SVY	1230	1300	0.50	2033.0m	Run wireline survey @2022m. 0.75deg @ N75E (uncorrected) / 86deg (corrected)
PH1	P	TO	1300	1930	6.50	2033.0m	Pump slug, f/check, rack kelly, POOH to pick up core barrel. F/check at shoe & BHA.
PH1	P	HBHA	1930	2100	1.50	2033.0m	PU and MU core bit and core barrel.
PH1	P	TI	2100	2330	2.50	2033.0m	RIH coring BHA on DP to 508m.
PH1	P	RS	2330	2400	0.50	2033.0m	Rig Service.

Operations For Period 0000 Hrs to 0600 Hrs on 05 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	TP (RE)	RR	0000	0030	0.50	2033.0m	Rig Repair Crown-o-matic
PH1	P	RS	0030	0100	0.50	2033.0m	Rig Service
PH1	P	SC	0100	0130	0.50	2033.0m	Slip 30' Drill Line
PH1	P	TI	0130	0530	4.00	2033.0m	RIH F/- 508m To 1966m. Pick up kelly to break circ @ 1000m, 1500m & 1700m. Extra circ due to flowback from uneven mud.
PH1	TP (HC)	RW	0530	0600	0.50	2033.0m	(IN PROGRESS) Work tight hole F/- 1966m to 1976m Pick up kelly wash and ream to 2033m.

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WBM Data

Daily Chemical Costs: $ 4269.74 | Cost To Date: $ 47831.43 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	44.0C°	pH:	9	Low Gravity Solids:	6.50%	Gels 10s	1
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	0.15	High Gravity Solids:	0.00%	Gels 10m	2
Sample From:	Past Shale Shakers	Sulphites:	250mg/l	PF:	0.3	Solids (corrected):	6.50%	Fann 003	1
Time:	13:15	API FL:	6.5cm³/30min	MF:	3.2	H2O:	93.5%	Fann 006	2
Weight:	9.50ppg	API Cake:	1/32nd"	Cl:	30000mg/l	Oil:	0.0%	Fann 100	11
ECD TD:	9.72ppg	PV	12cp	Hard/Ca:	100mg/l	Sand:	0.7 %	Fann 200	17
ECD Shoe:		YP	9lb/100ft²	MBT:	5.50	Barite:	0.00lb/bbl	Fann 300	21
Viscosity	43sec/qt			KCl Equiv:	5.8%	CaCO3 Added:	24.2ppb	Fann 600	33
				PHPA Added:	0.93ppb				
				Fluoresceine:	4.350ppm				

Comment: Trying to regain fluid properties, which degraded after use of KCl sweeps. Reduced F/L to 6.5ml, density at 9.5ppg marginally above specified 9.4ppg. Rheology and viscosity at the lower end of spec range F/C content also lower at 4.35ppm. Adding last 4 remaining 1US pt bottles of Fluoresceine to SFC volume (2ppm equiv).

Shakers, Volumes and Losses Data

Available	**857bbl**	**Losses**	**83bbl**
Active	541bbl	Downhole	26bbl
Hole	300bbl	Shakers & Equip.	35bbl
Slug		Dumped	20bbl
Reserve	16bbl	Centrifuges	
		Desander	2bbl
		De-Silter	0bbl
Built	40bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	1 x 84 & 2 x 50	18
2	Lin. Motion SHAKER	1 x 84 & 2 x 50	18
3	De-Sander	2 x 8" Cones	14
4	De-Silter	12 x 4" Cones	0

Comment: Tank levels recorded with drill string out of hole.

Bit Data

Bit # 4

Wear	I	O1	D	L	B	G	O2	R
	1	1	NO	A	X	I	NO	CP

Size ("):	6.750	IADC#		**Nozzles**	**Drilled over last 24 hrs**		**Calculated over Bit Run**
Mfr:	Stealth Tools	WOB(avg)	5000.0klb	4 x 12(/32nd")	Progress	128.8m	Cum. Progress	128.8m
Type:	PDC	RPM(avg)	110		On Bottom Hrs	6.90	Cum. On Btm Hrs	6.90
Serial No.:	6904	RPM (DH)(avg)	110		IADC Drill Hrs	10.50	Cum IADC Drill Hrs	10.50
Bit Model	M46H4	F.Rate	250.0gpm		Total Revs	41800	Cum Total Revs	41800
Depth In	1904.2m	SPP	1200.0psi		OB-ROP(avg)	18.67m/hr	Cum. OB-ROP(avg)	18.67m/hr
Depth Out	2033.0m	TFA	0.442	HSI HSI				

Bit Wear Comment	One plugged jet. One minor chip on one PDC face.
Bit Run Comment	Pulled due to core point #5.

Bit Data

Bit # 3RR4

Size ("):	6.750	IADC#		**Nozzles**	**Drilled over last 24 hrs**		**Calculated over Bit Run**
Mfr:	Corpro Systems Ltd	WOB(avg)	klb		Progress	0.0m	Cum. Progress	0.0m
Type:	Core	RPM(avg)			On Bottom Hrs	0.00	Cum. On Btm Hrs	0.00
Serial No.:	083719	RPM (DH)(avg)			IADC Drill Hrs	0.00	Cum IADC Drill Hrs	0.00
Bit Model	MCP662	F.Rate	gpm		Total Revs		Cum Total Revs	0
Depth In	2033.0m	SPP	psi		OB-ROP(avg)		Cum. OB-ROP(avg)	0.00m/hr
Depth Out		TFA	0	HSI HSI				

Bit Wear Comment	Reason pulled: Full core barrel cut.
Bit Run Comment	Cut core #5 in Flaxmans Formation. Cut 18m, recover 6.59 (37%).

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BHA Data

BHA # 9

Weight(Wet)	25.0klb	Length	260.5m	Torque(max)	7000.0ft-lbs	D.C. (1) Ann Velocity	266fpm
Wt Below Jar(Wet)	20.0klb	String	117.0klb	Torque(Off.Btm)	2000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	118.0klb	Torque(On.Btm)	5000.0ft-lbs	H.W.D.P. Ann Velocity	184fpm
		Slack-Off	116.0klb	Jar Hours	163.5	D.P. Ann Velocity	184fpm

BHA Run Comment: Units for torque not ft-lbs

Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.18m	6.75in		6904	10.5	
Near Bit Stab	1 x 1.51m	6.75in	2.43in	5475-1	135.5	
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	135.5	Tasman
String Stabiliser	1 x 1.54m	6.75in	2.06in	5415-2	135.5	
NMDC	1 x 9.19m	4.75in	2.31in		135.5	
4.75" DC	1 x 9.49m	4.75in	2.31in		163.5	
String Stabiliser	1 x 1.54m	6.75in	2.00in	475-3	135.5	
4.75" DC	15 x 9.43m	4.75in	2.31in		163.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-47763-03	163.5	
4 3/4 DC	3 x 9.50m	4.75in	2.31in		163.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in		183.5	
Total Length:	260.51m					

BHA Data

BHA # 10

Weight(Wet)	20.0klb	Length	272.7m	Torque(max)		D.C. (1) Ann Velocity	0fpm
Wt Below Jar(Wet)	25.0klb	String		Torque(Off.Btm)		D.C. (2) Ann Velocity	0fpm
		Pick-Up		Torque(On.Btm)		H.W.D.P. Ann Velocity	0fpm
		Slack-Off		Jar Hours		D.P. Ann Velocity	0fpm

BHA Run Comment: Core #5 in Flaxman's Formation/Upper Waarre C.

Equipment	Length	OD	ID	Serial #	Hours	Comment
Core Bit	1 x 0.26m	6.75in	2.56in	083719	35	
Core Barrel	1 x 19.63m	6.75in			36	4 x 6.75" fixed stabilizers
NMDC	1 x 9.19m	4.75in	2.31in		8	
4.75" DC	16 x 9.43m	4.75in	2.88in		208	
Drilling Jars	1 x 9.37m	4.75in	2.88in	380-47763-03	208	
4.75" DC	3 x 9.50m	4.75in	2.88in		208	
3 1/2" HWDP	6 x 9.14m	3.50in	2.31in		228	
Total Length:	272.67m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1691.00	2.00	135.00	1690.7	23.00	0.18	-23.00	14.60	Hofco single shot
1808.00	2.00	139.00	1807.6	25.98	0.04	-25.98	17.38	Hofco single shot
1896.00	2.00	137.00	1895.5	28.27	0.02	-28.27	19.44	Hofco single shot
2022.00	0.75	86.00	2021.5	29.82	0.39	-29.82	21.76	Hofco single shot

Summary

Company	Pax On
Upstream Petroleum	4
Century Drilling Ltd	28
BHI	2
Corpro Systems Ltd	2
RMN Drilling Fluids	1
Total on Rig	37

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Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	0	0	8.0
AMC Defoamer	25L can	0	0	0	13.0
AMC PAC-R	25kg sack	0	9	0	71.0
AMC PHPA	25kg sack	0	2	0	56.0
AUS-BEN	25kg sack	0	0	0	38.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	168.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Calcium Carbonate 40µ	25 kg sacks	0	48	0	495.0
Caustic Soda	25kg pail	0	0	0	36.0
Citric Acid	25kg sack	0	0	0	34.0
Cement - Class A	40kg sack	0	0	0	0.0
Fluoresceine (5 kg)	5 kg	0	0	0	2.0
Fluoresceine (1 pint)	1 pint	0	4	0	0.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	8.0
KCl	25kg sack	0	78	0	126.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	0	0	48.0
Sodium Sulfite	25kg sack	0	2	0	37.0
Xanthan Gum	25kg sack	0	1	0	31.0
Xtra-sweep	12lb box	0	0	0	5.0
Diesel fuel		0	2300	0	23,200.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	9.50	97	120	1200.00	250.00
2	GD PZ-7	5.50	9.50	97			
3	GD PZ-7	5.51	9.50	97			

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
1918.0		1.	70	460.00	
		2.	100	820.00	
		1.			
		2.			
1918.0		1.	70	460.00	
		2.	100	820.00	

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CRC-1

Date :	03 Mar 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Agus Nugroho
Report Number	17	**Drilling Supervisor :**	Kevin Murphy / Brian Assels	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	1904.2m	Casing MD:	512.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	1904.2m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	3.2m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	16.54	Liner MD:		LTI Free Days:	283
Datum:	GDA 94	Days On Well:	29.54	Liner TVD:			

Current Ops @ 0600:	Con't drill 6-3/4" hole at 1976m. Average ROP = 13 m/hr.
Planned Operations:	Drill 6-3/4" hole to core point in Flaxmans Formation.

Summary of Period 0000 to 2400 Hrs

Continue to cut core #4 in Belfast Mudstone f/ 1901m to 1904.2m - total 4.2m cut. POH and reocover 2.65m core (63%). RIH bit #4.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	03 Mar 2007	0 Days	Personnel blow into alcoholizer
BOP Drill (1)	03 Mar 2007	0 Days	Hold drill while RIH - secure in 32 sec.
Hazard Observation (1)	03 Mar 2007	0 Days	Eyewash station outside mechanics shack is empty - to be actioned asap.
Hazard Observation (1)	03 Mar 2007	0 Days	Chain tong requires new jaws - none in stock - TBA
Hazard Observation (1)	03 Mar 2007	0 Days	Pump house cabinet doors hitting fluorescent light - tradesmen to alter - to be actioned.
Hazard Observation (1)	03 Mar 2007	0 Days	Gap between rig floor and doghouse to be repaired - TBA.
Hazard Observation (1)	03 Mar 2007	0 Days	Damaged slings with unreadable service tags removed from service, replaced with new.
Hazard Observation (1)	03 Mar 2007	0 Days	Combustible material near grinder - removed, to be discussed with tradesmen.
Hazard Observation (1)	03 Mar 2007	0 Days	Broken glass shield on bench grinder - TBA
Inspection (2)	03 Mar 2007	0 Days	Visually inspect d/line, d/man, brakes, koomey, BOP stack and Koomey pressures.
Permit To Work (1)	03 Mar 2007	0 Days	Digital camera
Pre-Tour Meetings (2)	03 Mar 2007	0 Days	Monkey board operations for POH.
Weekly Safety Meeting (1)	03 Mar 2007	0 Days	Graveyard crew

Operations For Period 0000 Hrs to 2400 Hrs on 03 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	COR	0000	0730	7.50	1904.2m	Continue to cut core #4 1901 - 1904.2m. (total 4.2m cut from 1900m). In 1.5 hrs intervals, pump 10 bbl 9.0 ppg 12% KCl mud sweeps to attempt to improve ROP.
PH1	P	COR	0730	0800	0.50	1904.2m	Pull core free. Circ and prepare for POH.
PH1	P	TO	0800	1530	7.50	1904.2m	Pump HW slug, POOH.
PH1	P	COR	1530	1700	1.50	1904.2m	Recover core from 1900m - 1902.65m (2.65m recovered = 63%).
PH1	P	RS	1700	1730	0.50	1904.2m	Rig Service
PH1	P	HBHA	1730	1900	1.50	1904.2m	MU new Bit # 4 and RIH on BHA #9.
PH1	P	TI	1900	2300	4.00	1904.2m	RIH Bit #4 to 1000m, PU kelly and break circ. Con't RIH to 1500m, PU kelly and break circ.
PH1	P	TI	2300	2400	1.00	1904.2m	Con't RIH to 1857m. Hole good.

Operations For Period 0000 Hrs to 0600 Hrs on 04 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	TI	0000	0030	0.50	1904.2m	RIH F/- 1857m To 1886m.
PH1	P	RW	0030	0100	0.50	1904.2m	Pick up kelly ,Wash F/- 1886m To 1904.2m . 5.5m soft fill on bottom.
PH1	P	DA	0100	0600	5.00	2033.0m	(IN PROGRESS) Drill 6 3/4" Hole F/- 1904.2m To 2033m.

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WBM Data

Daily Chemical Costs: $ 3686.91 | Cost To Date: $ 43561.69 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	40.6C°	pH:	9.5	Low Gravity Solids:	5.10%	Gels 10s	1
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	0.5	High Gravity Solids:	0.00%	Gels 10m	3
Sample From:	Past Shale Shakers	Sulphites:	100mg/l	PF:	0.42	Solids (corrected):	5.10%	Fann 003	2
Time:	07:30	API FL:	9.2cm³/30min	MF:	3.42	H2O:	94.9%	Fann 006	2
Weight:	9.25ppg	API Cake:	2/32nd"	Cl:	18000mg/l	Oil:	0.0%	Fann 100	14
ECD TD:		PV	13cp	Hard/Ca:	80mg/l	Sand:	0.75 %	Fann 200	20
ECD Shoe:		YP	12lb/100ft²	MBT:	5.00	Barite:	0.00lb/bbl	Fann 300	25
Viscosity	46sec/qt			KCl Equiv:	3.9%	CaCO3 Added:	22.6ppb	Fann 600	38
				PHPA Added:	0.86ppb				
				Fluoresceine:	5.775ppm				

Comment: Mix+pump further KCl sweeps, the effect of cumulative KCl pills begins to reflect on fluid properties: Lower rheology and density, higher filtrate. Higher KCl content not a problem, as 6% have now been specified.

Conditioned reclaimed fluid in P/Mix tank to spec, add 10ppm F/C, bleed into remaining SFC system for full SFC volume.

Shakers, Volumes and Losses Data

Available	**900bbl**
Active	620bbl
Hole	244bbl
Slug	
Reserve	36bbl
Built	40bbl

Losses	**68bbl**
Downhole	16bbl
Shakers & Equip.	25bbl
Dumped	25bbl
Centrifuges	
Desander	2bbl
De-Silter	0bbl

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	1 x 84 & 2 x 50	12
2	Lin. Motion SHAKER	1 x 84 & 2 x 50	12
3	De-Sander	2 x 8" Cones	6
4	De-Silter	12 x 4" Cones	0

Comment: Mix+pump further KCl sweeps, the effect of cumulative KCl pills begins to reflect on fluid properties: Lower rheology and density, higher filtrate. Higher KCl content not a problem, as 6% have now been specified.

Conditioned reclaimed fluid in P/Mix tank to spec, add 10ppm F/C, bleed into remaining SFC system for full SFC volume.

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Bit Data

Bit # 4

Size (''):	6.750	IADC#		**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	Stealth Tools	WOB(avg)	klb	4 x 12(/32nd'')		Progress	0.0m	Cum. Progress	0.0m
Type:	PDC	RPM(avg)				On Bottom Hrs	0.00	Cum. On Btm Hrs	0.00
Serial No.:	6904	RPM (DH)(avg)				IADC Drill Hrs	0.00	Cum IADC Drill Hrs	0.00
Bit Model	M46H4	F.Rate	gpm			Total Revs	0	Cum Total Revs	0
Depth In	1904.2m	SPP	psi			OB-ROP(avg)		Cum. OB-ROP(avg)	0.00m/hr
Depth Out		TFA	0.442	HSI	HSI				

Bit Wear Comment	One plugged jet. One minor chip on one PDC face.
Bit Run Comment	Pulled due to core point #5.

Bit Data

Bit # 3RR3

Wear	I	O1	D	L	B	G	O2	R
	1	2	PN	A	X	I	NO	PR

Size (''):	6.750	IADC#		**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	Corpro Systems Ltd	WOB(avg)	10.0klb			Progress	3.2m	Cum. Progress	4.2m
Type:	Core	RPM(avg)	80			On Bottom Hrs	5.70	Cum. On Btm Hrs	10.20
Serial No.:	083719	RPM (DH)(avg)	80			IADC Drill Hrs	7.50	Cum IADC Drill Hrs	14.00
Bit Model	MCP662	F.Rate	150.0gpm			Total Revs	33000	Cum Total Revs	33000
Depth In	1900.0m	SPP	1050.0psi			OB-ROP(avg)	0.56m/hr	Cum. OB-ROP(avg)	0.41m/hr
Depth Out	1904.2m	TFA	0	HSI	HSI				

Bit Run Comment	Cut core #4 in Belfast Mudstone. Cut 4.2m, recover 2.65m.

BHA Data

BHA # 9

Weight(Wet)	25.0klb	Length	260.5m	Torque(max)		D.C. (1) Ann Velocity	0fpm
Wt Below Jar(Wet)	20.0klb	String		Torque(Off.Btm)		D.C. (2) Ann Velocity	0fpm
		Pick-Up		Torque(On.Btm)		H.W.D.P. Ann Velocity	0fpm
		Slack-Off		Jar Hours	153	D.P. Ann Velocity	0fpm

BHA Run Comment	Units for torque not ft-lbs

Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.18m	6.75in		6904	10.5	
Near Bit Stab	1 x 1.51m	6.75in	2.43in	5475-1	135.5	
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	135.5	Tasman
String Stabiliser	1 x 1.54m	6.75in	2.06in	5415-2	135.5	
NMDC	1 x 9.19m	4.75in	2.31in		135.5	
4.75'' DC	1 x 9.49m	4.75in	2.31in		163.5	
String Stabiliser	1 x 1.54m	6.75in	2.00in	475-3	135.5	
4.75'' DC	15 x 9.43m	4.75in	2.31in		163.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-47763-03	163.5	
4 3/4 DC	3 x 9.50m	4.75in	2.31in		163.5	
3 1/2'' HWDP	6 x 9.14m	3.50in	2.12in		183.5	
Total Length:	260.51m					

BHA Data

BHA # 8

Weight(Wet)	20.0klb	Length	257.4m	Torque(max)	5000.0ft-lbs	D.C. (1) Ann Velocity	160fpm
Wt Below Jar(Wet)	25.0klb	String	105.0klb	Torque(Off.Btm)	1000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	115.0klb	Torque(On.Btm)	5000.0ft-lbs	H.W.D.P. Ann Velocity	94fpm
		Slack-Off	105.0klb	Jar Hours	145.5	D.P. Ann Velocity	110fpm

BHA Run Comment	Core #4 in Belfast Mudstone

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Printed on 23 Jul 2008

Equipment	Length	OD	ID	Serial #	Hours	Comment
Core Bit	1 x 0.26m	6.75in	2.56in	083719	12.5	
Core Barrel	1 x 13.53m	6.75in			12.5	3 x 6.75" fixed stabilizers
4.75" DC	16 x 9.43m	4.75in	2.88in		145.5	
Drilling Jars	1 x 9.37m	4.75in	2.88in		145.5	
4.75" DC	3 x 9.50m	4.75in	2.88in		145.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.31in		177.5	
Total Length:	257.38m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1574.00	1.50	151.00	1573.7	20.22	0.15	-20.22	12.41	Hofco single shot
1691.00	2.00	135.00	1690.7	23.00	0.18	-23.00	14.60	Hofco single shot
1808.00	2.00	139.00	1807.6	25.98	0.04	-25.98	17.38	Hofco single shot
1896.00	2.00	137.00	1895.5	28.27	0.02	-28.27	19.44	Hofco single shot

Summary

Company	Pax On
Upstream Petroleum	4
Century Drilling Ltd	28
BHI	2
Corpro Systems Ltd	2
RMN Drilling Fluids	1
Total on Rig	37

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	1	0	8.0
AMC Defoamer	25L can	0	1	0	13.0
AMC PAC-R	25kg sack	0	1	0	80.0
AMC PHPA	25kg sack	0	0	0	58.0
AUS-BEN	25kg sack	0	0	0	38.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	168.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Calcium Carbonate 40µ	25 kg sacks	0	70	0	543.0
Caustic Soda	25kg pail	0	0	0	36.0
Citric Acid	25kg sack	0	0	0	34.0
Cement - Class A	40kg sack	0	0	0	0.0
Fluoresceine (5 kg)	5 kg	0	0	0	2.0
Fluoresceine (1 pint)	1 pint	0	4	0	4.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	8.0
KCl	25kg sack	0	100	0	204.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	0	0	48.0
Sodium Sulfite	25kg sack	0	0	0	39.0
Xanthan Gum	25kg sack	0	1	0	32.0
Xtra-sweep	12lb box	0	0	0	5.0
Diesel fuel		17810	1410	0	25,500.0

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Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	9.40	97			
2	GD PZ-7	5.50	9.40	97			
3	GD PZ-7	5.51	9.40	97	0		

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
		1.			
		2.			
		1.			
		2.			
		1.			
		2.			

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CRC-1

Date :	02 Mar 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Agus Nugroho
Report Number	16	**Drilling Supervisor :**	Kevin Murphy / Brian Assels	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	1901.0m	Casing MD:	512.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	1901.0m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	1.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	15.54	Liner MD:		LTI Free Days:	282
Datum:	GDA 94	Days On Well:	28.54	Liner TVD:			

Current Ops @ 0600:	Cut core #4 at 1903.7m.
Planned Operations:	Continue cut core #4 to 1904m. POH, recover core. RIH with new PDC bit and drill 6-3/4" hole.

Summary of Period 0000 to 2400 Hrs

POH with PDC bit #2RR2. MU core barrel and RIH, washing to bottom as necessary. Cut core #4 in Belfast Mudstone 1900 - 1901m.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	02 Mar 2007	0 Days	Personnel blow into alcoholizer
Inspection (2)	02 Mar 2007	0 Days	Visually inspect d/line, d/man, brakes, koomey, BOP stack and Koomey pressures.
Permit To Work (1)	02 Mar 2007	0 Days	SCDL, manrider winch
Permit To Work (1)	02 Mar 2007	0 Days	Diesel gurni within 45m of well.
Pre-Tour Meetings (2)	02 Mar 2007	0 Days	Running coring tools SOP

Operations For Period 0000 Hrs to 2400 Hrs on 02 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	TO	0000	0230	2.50	1900.0m	Continue POOH f/ 873m to surface
PH1	P	HBHA	0230	0330	1.00	1900.0m	Break and lay out Bit,Stabs, Pony DC and Monel DC
PH1	P	HT	0330	0430	1.00	1900.0m	Make up and space out Core Barrel
PH1	P	TI	0430	0630	2.00	1900.0m	RIH w/- Core Barrel To 491m.
PH1	P	RS	0630	0700	0.50	1900.0m	Rig service.
PH1	P	SC	0700	0800	1.00	1900.0m	Slip and cut drilling line.
PH1	TP (RE)	RR	0800	0830	0.50	1900.0m	Rig Repair: extra cut on drilling line, adjust d-line clamp.
PH1	TP (HC)	TI	0830	1530	7.00	1900.0m	RIH f/ 491m to 1172m. Wash and ream f/ 1172m - 1250m. RIH f/ 1250m to 1749m. Wash and ream f/ 1749m - 1767m. RIH f/ 1767m to 1880m. PU kelly and wash to bottom. Tag bottom at 1900m.
PH1	P	COR	1530	1730	2.00	1900.0m	Space out core barrel. Set coring parameters.
PH1	P	COR	1730	2400	6.50	1901.0m	Drop ball and commence cut core #4 from 1900 to 1901m. Pump 20 bbl 9.0 ppg 12% KCl mud sweep to improve ROP.

Operations For Period 0000 Hrs to 0600 Hrs on 03 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	COR	0000	0600	6.00	1904.2m	(IN PROGRESS) Continue to cut core #4 1901 - 1904.2m. (total 4.2m cut from 1900m). In 1.5 hrs intervals, pump 10 bbl 9.0 ppg 12% KCl mud sweeps to attempt to improve ROP.

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WBM Data

Daily Chemical Costs: $ 2272.94 | Cost To Date: $ 39874.78 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	41.7C°	pH:	9.5	Low Gravity Solids:	7.50%	Gels 10s	4
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	0.55	High Gravity Solids:	0.00%	Gels 10m	5
Sample From:	Past Shale Shakers	Sulphites:	180mg/l	PF:	0.55	Solids (corrected):	7.50%	Fann 003	4
Time:	23:20	API FL:	6.8cm³/30min	MF:	3.85	H2O:	92.5%	Fann 006	6
Weight:	9.45ppg	API Cake:	2/32nd"	Cl:	11000mg/l	Oil:	0.0%	Fann 100	26
ECD TD:	9.92ppg	PV	17cp	Hard/Ca:	50mg/l	Sand:	0.75 %	Fann 200	36
ECD Shoe:		YP	26lb/100ft²	MBT:	4.00	Barite:	0.00lb/bbl	Fann 300	43
Viscosity	56sec/qt			KCl Equiv:	1.4%	CaCO3 Added:	19.9ppb	Fann 600	60
				PHPA Added:	0.92ppb				
				Fluoresceine:	5.550ppm				

Comment: While RIH w/- C/bbl, received orders to raise MW to 9.4ppg. Adding CaCO3 to system. When low coring rates prevail, decision to pump KCl sweeps to flush possible balled bit & increase clay stability while coring. During mixing an extra 40bbls water found their way into the active system. Filled pre-mix tank with fluid reclaimed from sump. Pill tank contains remaining 9ppg(12%) sweep.
Jet sizes+nos reported are assumed figures, to give a TFA of 0.796in²

Shakers, Volumes and Losses Data

Available	**929bbl**	**Losses**	**47bbl**
Active	525bbl	Downhole	12bbl
Hole	244bbl	Shakers & Equip.	20bbl
Slug		Dumped	15bbl
Reserve	141bbl	Centrifuges	
12% KCl Sweep	19bbl	Desander	
		De-Silter	0bbl
Built	200bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	1 x 84 & 2 x 50	18
2	Lin. Motion SHAKER	1 x 84 & 2 x 50	18
3	De-Sander	2 x 8" Cones	0
4	De-Silter	12 x 4" Cones	0

Comment: While RIH w/- C/bbl, received orders to raise MW to 9.4ppg. Adding CaCO3 to system. When low coring rates prevail, decision to pump KCl sweeps to flush possible balled bit & increase clay stability while coring. During mixing an extra 40bbls water found their way into the active system. Filled pre-mix tank with fluid reclaimed from sump. Pill tank contains remaining 9ppg(12%) sweep.

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Bit Data

Bit # 2RR2

Wear	I	O1	D	L	B	G	O2	R
	2	2	NO	A	X	I	NO	CP

Size (''):	6.750	IADC#		**Nozzles**	**Drilled over last 24 hrs**		**Calculated over Bit Run**
Mfr:	Stealth Tools	WOB(avg)	8.0klb	5 x 12(/32nd'')	Progress	0.0m	Cum. Progress	630.0m
Type:	PDC	RPM(avg)	110		On Bottom Hrs	0.00	Cum. On Btm Hrs	55.10
Serial No.:	6972	RPM (DH)(avg)	110		IADC Drill Hrs	0.00	Cum IADC Drill Hrs	75.00
Bit Model	M565	F.Rate	315.0gpm		Total Revs		Cum Total Revs	361570
Depth In	1270.0m	SPP	1250.0psi		OB-ROP(avg)		Cum. OB-ROP(avg)	11.43m/hr
Depth Out	1900.0m	TFA	0.552	HSI HSI				

Bit Wear Comment	Bit in good condition. Gauge OK. One cutter chipped.

Bit Data

Bit # 3RR3

Size (''):	6.750	IADC#		**Nozzles**	**Drilled over last 24 hrs**		**Calculated over Bit Run**
Mfr:	Corpro Systems Ltd	WOB(avg)	10.0klb		Progress	1.0m	Cum. Progress	1.0m
Type:	Core	RPM(avg)	80		On Bottom Hrs	4.50	Cum. On Btm Hrs	4.50
Serial No.:	083719	RPM (DH)(avg)	80		IADC Drill Hrs	6.50	Cum IADC Drill Hrs	6.50
Bit Model	MCP662	F.Rate	150.0gpm		Total Revs		Cum Total Revs	0
Depth In	1900.0m	SPP	1050.0psi		OB-ROP(avg)	0.22m/hr	Cum. OB-ROP(avg)	0.22m/hr
Depth Out		TFA	0	HSI HSI				

Bit Run Comment	Cut core #4 in Belfast Mudstone. Cut 4.2m, recover 2.65m.

BHA Data

BHA # 6

Weight(Wet)	25.0klb	Length	260.6m	Torque(max)	13000.0ft-lbs	D.C. (1) Ann Velocity	336fpm
Wt Below Jar(Wet)	20.0klb	String	107.0klb	Torque(Off.Btm)	2000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	112.0klb	Torque(On.Btm)	9000.0ft-lbs	H.W.D.P. Ann Velocity	232fpm
		Slack-Off	105.0klb	Jar Hours	134.5	D.P. Ann Velocity	232fpm

BHA Run Comment	Units for torque not ft-lbs

Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.26m	6.75in		6972	120	
Near Bit Stab	1 x 1.51m	6.75in	2.43in	5475-1	134.5	
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	134.5	Tasman
String Stabiliser	1 x 1.54m	6.75in	2.06in	5415-2	134.5	
NMDC	1 x 9.19m	4.75in	2.31in		134.5	
4.75'' DC	1 x 9.49m	4.75in	2.31in		134.5	
String Stabiliser	1 x 1.54m	6.75in	2.00in	475-3	134.5	
4.75'' DC	15 x 9.43m	4.75in	2.31in		134.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-47763-03	134.5	
4 3/4 DC	3 x 9.50m	4.75in	2.31in		134.5	
3 1/2'' HWDP	6 x 9.14m	3.50in	2.12in		166	
Total Length:	260.59m					

BHA Data

BHA # 7

Weight(Wet)	20.0klb	Length	257.4m	Torque(max)	5000.0ft-lbs	D.C. (1) Ann Velocity	160fpm
Wt Below Jar(Wet)	25.0klb	String	105.0klb	Torque(Off.Btm)	1000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	115.0klb	Torque(On.Btm)	5000.0ft-lbs	H.W.D.P. Ann Velocity	94fpm
		Slack-Off	105.0klb	Jar Hours	145.5	D.P. Ann Velocity	110fpm

BHA Run Comment	Core #4 in Belfast Mudstone

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Equipment	Length	OD	ID	Serial #	Hours	Comment
Core Bit	1 x 0.26m	6.75in	2.56in	083719	12.5	
Core Barrel	1 x 13.53m	6.75in			12.5	3 x 6.75" fixed stabilizers
4.75" DC	16 x 9.43m	4.75in	2.88in		145.5	
Drilling Jars	1 x 9.37m	4.75in	2.88in		145.5	
4.75" DC	3 x 9.50m	4.75in	2.88in		145.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.31in		177.5	
Total Length:	257.38m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1574.00	1.50	151.00	1573.7	20.22	0.15	-20.22	12.41	Hofco single shot
1691.00	2.00	135.00	1690.7	23.00	0.18	-23.00	14.60	Hofco single shot
1808.00	2.00	139.00	1807.6	25.98	0.04	-25.98	17.38	Hofco single shot
1896.00	2.00	137.00	1895.5	28.27	0.02	-28.27	19.44	Hofco single shot

Summary

Company	Pax On
Upstream Petroleum	4
Century Drilling Ltd	28
BHI	2
Corpro Systems Ltd	2
RMN Drilling Fluids	1
Total on Rig	37

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	0	0	9.0
AMC Defoamer	25L can	0	1	0	14.0
AMC PAC-R	25kg sack	0	0	0	81.0
AMC PHPA	25kg sack	0	0	0	58.0
AUS-BEN	25kg sack	0	0	0	38.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	168.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Calcium Carbonate 40µ	25 kg sacks	0	110	0	613.0
Caustic Soda	25kg pail	0	0	0	36.0
Citric Acid	25kg sack	0	0	0	34.0
Cement - Class A	40kg sack	0	0	0	0.0
Fluoresceine (5 kg)	5 kg	0	0	0	2.0
Fluoresceine (1 pint)	1 pint	0	0	0	8.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	8.0
KCl	25kg sack	0	42	0	304.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	0	0	48.0
Sodium Sulfite	25kg sack	0	0	0	39.0
Xanthan Gum	25kg sack	0	0	0	33.0
Xtra-sweep	12lb box	0	0	0	5.0
Diesel fuel		0	1300	0	9,100.0

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Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	9.40	97			
2	GD PZ-7	5.50	9.40	97	120	1050.00	140.00
3	GD PZ-7	5.51	9.40	97	0		

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
		1.			
		2.			
		1.			
		2.			
		1.			
		2.			

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CRC-1

Date :	01 Mar 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Agus Nugroho
Report Number	15	**Drilling Supervisor :**	Kevin Murphy / Brian Assels	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	1900.0m	Casing MD:	512.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	1900.0m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	11.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	14.54	Liner MD:		LTI Free Days:	281
Datum:	GDA 94	Days On Well:	27.54	Liner TVD:			

Current Ops @ 0600:	RIH at 450m with coring BHA.
Planned Operations:	Continue POH. RIH with coring assembly & cut core #4 in Belfast Mudstone. POH, recover core. RIH with new PDC bit.

Summary of Period 0000 to 2400 Hrs

Drill 6-3/4" hole 1889m to 1900m. Circ and conduct WLS - misrun. Wiper trip to 1200m working tight spots. RIH, circ and repeat WLS. POOH.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	01 Mar 2007	0 Days	Personnel blow into alcoholizer
Hazard Observation (1)	01 Mar 2007	0 Days	2nd fall arrest needed under sub base.
Hazard Observation (1)	01 Mar 2007	0 Days	kelly hose safety clamp has no split pin or lock nut to prevent nut backing out of bolt - awaiting action.
Hazard Observation (1)	01 Mar 2007	0 Days	Safety clamp on choke line of wrong size - not actioned yet.
Hazard Observation (1)	01 Mar 2007	0 Days	Wheeled fire extinguisher being stored near fuel tank (inaccessible in event of fuel fire) - moved to edge of lease.
Hazard Observation (1)	01 Mar 2007	0 Days	Dry chem spill (CaCO3) in chemical storage - cleaned up.
Inspection (2)	01 Mar 2007	0 Days	Visually inspect d/line, d/man, brakes, koomey, BOP stack and Koomey pressures.
Other (1)	01 Mar 2007	0 Days	Survey QC - Azimuth in magnetic surveys being re-read. Tool face was being reported.
Pre-Tour Meetings (2)	01 Mar 2007	0 Days	Racking back DP & RIH/POH SOP
PTW issued (2)	01 Mar 2007	0 Days	Digital photography & manrider for rig service

Operations For Period 0000 Hrs to 2400 Hrs on 01 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	DA	0000	0200	2.00	1900.0m	Drill 6-3/4" hole f/ 1889m to 1900m.
PH1	P	CMD	0200	0330	1.50	1900.0m	Circ hole clean.
PH1	TP (DTF)	SVY	0330	0400	0.50	1900.0m	Flow check, rack kelly, run WLS at 1896m. - misrun.
PH1	P	WT	0400	0430	0.50	1900.0m	MU kelly, pump slug, rack kelly.
PH1	TP (HC)	WT	0430	1530	11.00	1900.0m	POOH. Tight hole at 1711m - 1700m, 1633m, 1467m, 1380m - 1321m. PU kelly, circ and work tight spots. Con't POH to 1206m.
PH1	TP (HC)	WT	1530	1830	3.00	1900.0m	RIH f/ 1206m to 1900m. Work tight spot at 1700m. PU singles with kelly, Tag bottom at 1900m - no fill.
PH1	P	CMD	1830	1930	1.00	1900.0m	Circ bottoms up.
PH1	P	SVY	1930	2000	0.50	1900.0m	Run WLS - 2deg S54E (uncorrected) / 137 deg azimuth (corrected)
PH1	P	TO	2000	2400	4.00	1900.0m	Pump pill, flow check, rack kelly and POOH f/ 1900m to 873m.

Operations For Period 0000 Hrs to 0600 Hrs on 02 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	TO	0000	0230	2.50	1900.0m	Continue POOH f/ 873m to surface
PH1	P	HBHA	0230	0330	1.00	1900.0m	Break and lay out Bit,Stabs, Pony DC and Monel DC
PH1	P	HT	0330	0430	1.00	1900.0m	Make up and space out Core Barrel
PH1	P	TI	0430	0600	1.50	1900.0m	(IN PROGRESS) RIH w/- Core Barrel To 491m.

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WBM Data

Daily Chemical Costs: $ 652.40 | Cost To Date: $ 37601.84 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	43.2C°	pH:	9.8	Low Gravity Solids:	5.60%	Gels 10s	5
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	0.68	High Gravity Solids:	0.00%	Gels 10m	6
Sample From:	Past Shale Shakers	Sulphites:	180mg/l	PF:	0.8	Solids (corrected):	5.60%	Fann 003	5
Time:	19:30	API FL:	6.3cm³/30min	MF:	3.95	H2O:	94.4%	Fann 006	7
Weight:	9.20ppg	API Cake:	2/32nd"	Cl:	12400mg/l	Oil:	0.0%	Fann 100	26
ECD TD:	9.90ppg	PV	15cp	Hard/Ca:	40mg/l	Sand:	0.75 %	Fann 200	35
ECD Shoe:		YP	27lb/100ft²	MBT:	4.50	Barite:	0.00lb/bbl	Fann 300	42
Viscosity	57sec/qt			KCl Equiv:	2.0%	CaCO3 Added:	19.3ppb	Fann 600	56
				PHPA Added:	1.33ppb				
				Fluoresceine:	6.400ppm				

Comment: No treatment of fluid system last 24 hours. CaCO3 addition only for 2 heavy pills. No Fluoresceine additions as no ongoing circulation - and product level at 6.4ppm.
Received 2x5kg Fluoresceine fm SCHLUMBERGER, Dampier, WA.
Dispatched 2x2.4lt mud samples to DOWELL-SLB, Welshpool, WA
No signs of receipt of 50x50lb MILGEL.

Shakers, Volumes and Losses Data

Available	**776bbl**	**Losses**	**97bbl**
Active	507bbl	Downhole	22bbl
Hole	259bbl	Shakers & Equip.	50bbl
Slug		Dumped	25bbl
Reserve	10bbl	Centrifuges	
		Desander	
		De-Silter	0bbl
Built	0bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	1 x 84 & 2 x 50	15
2	Lin. Motion SHAKER	1 x 84 & 2 x 50	15
3	De-Sander	2 x 8" Cones	0
4	De-Silter	12 x 4" Cones	0

Comment: No treatment of fluid system last 24 hours. CaCO3 addition only for 2 heavy pills.

Bit Data

Bit # 2RR2

				Nozzles	**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Size ("):	6.750	IADC#		5 x 12(/32nd")	Progress	11.0m	Cum. Progress	630.0m
Mfr:	Stealth Tools	WOB(avg)	8.0klb		On Bottom Hrs	1.20	Cum. On Btm Hrs	55.10
Type:	PDC	RPM(avg)	110		IADC Drill Hrs	2.00	Cum IADC Drill Hrs	75.00
Serial No.:	6972	RPM (DH)(avg)	110		Total Revs	9170	Cum Total Revs	361570
Bit Model	M565	F.Rate	315.0gpm		OB-ROP(avg)	9.17m/hr	Cum. OB-ROP(avg)	11.43m/hr
Depth In	1270.0m	SPP	1250.0psi					
Depth Out		TFA	0.552	HSI HSI				

Bit Wear Comment: Bit in good condition. Gauge OK. One cutter chipped.

BHA Data

BHA # 6

Weight(Wet)	25.0klb	Length	260.6m	Torque(max)	13000.0ft-lbs	D.C. (1) Ann Velocity	336fpm
Wt Below Jar(Wet)	20.0klb	String	107.0klb	Torque(Off.Btm)	2000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	112.0klb	Torque(On.Btm)	9000.0ft-lbs	H.W.D.P. Ann Velocity	232fpm
		Slack-Off	105.0klb	Jar Hours	134.5	D.P. Ann Velocity	232fpm

BHA Run Comment: Units for torque not ft-lbs

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Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.26m	6.75in		6972	120	
Near Bit Stab	1 x 1.51m	6.75in	2.43in	5475-1	134.5	
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	134.5	Tasman
String Stabiliser	1 x 1.54m	6.75in	2.06in	5415-2	134.5	
NMDC	1 x 9.19m	4.75in	2.31in		134.5	
4.75" DC	1 x 9.49m	4.75in	2.31in		134.5	
String Stabiliser	1 x 1.54m	6.75in	2.00in	475-3	134.5	
4.75" DC	15 x 9.43m	4.75in	2.31in		134.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-47763-03	134.5	
4 3/4 DC	3 x 9.50m	4.75in	2.31in		134.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in		166	
Total Length:	260.59m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1574.00	1.50	151.00	1573.7	20.22	0.15	-20.22	12.41	Hofco single shot
1691.00	2.00	135.00	1690.7	23.00	0.18	-23.00	14.60	Hofco single shot
1808.00	2.00	139.00	1807.6	25.98	0.04	-25.98	17.38	Hofco single shot
1896.00	2.00	137.00	1895.5	28.27	0.02	-28.27	19.44	Hofco single shot

Summary

Company	Pax On
Upstream Petroleum	4
Century Drilling Ltd	28
BHI	2
Corpro Systems Ltd	2
RMN Drilling Fluids	1
Total on Rig	37

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Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	0	0	9.0
AMC Defoamer	25L can	0	0	0	15.0
AMC PAC-R	25kg sack	0	0	0	81.0
AMC PHPA	25kg sack	0	0	0	58.0
AUS-BEN	25kg sack	0	0	0	38.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	168.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Calcium Carbonate 40µ	25 kg sacks	0	56	0	723.0
Caustic Soda	25kg pail	0	0	0	36.0
Citric Acid	25kg sack	0	0	0	34.0
Cement - Class A	40kg sack	0	0	0	0.0
Fluoresceine (5 kg)	5 kg	2	0	0	2.0
Fluoresceine (1 pint)	1 pint	0	0	0	8.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	8.0
KCl	25kg sack	0	0	0	346.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	0	0	48.0
Sodium Sulfite	25kg sack	0	0	0	39.0
Xanthan Gum	25kg sack	0	0	0	33.0
Xtra-sweep	12lb box	0	0	0	5.0
Diesel fuel		0	2000	0	10,400.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	9.00	97	75	1250.00	157.00
2	GD PZ-7	5.50		97	75		
3	GD PZ-7	5.51	9.00	97	0	1250.00	157.00

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
1888.0		1.	70	460.00	
		2.	100	780.00	
		1.			
		2.			
1888.0		1.	70	460.00	
		2.	100	780.00	

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CRC-1

Date :	28 Feb 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Agus Nugroho
Report Number	14	**Drilling Supervisor :**	Kevin Murphy / Brian Assels	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	1889.0m	Casing MD:	512.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	1889.0m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	166.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	13.54	Liner MD:		LTI Free Days:	280
Datum:	GDA 94	Days On Well:	26.54	Liner TVD:			

Current Ops @ 0600:	POOH/RIH on wiper trip.
Planned Operations:	POOH with PDC drillbit. RIH core assembly and cut core #4 in Belfast Mudstone.

Summary of Period 0000 to 2400 Hrs

Drill 6-3/4" hole with WLS to f/ 1723m to 1889m.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	28 Feb 2007	0 Days	Personnel blow into alcoholizer
Inspection (2)	28 Feb 2007	0 Days	Visually inspect d/line, d/man, brakes, koomey, BOP stack and Koomey pressures.
Permit To Work (2)	28 Feb 2007	0 Days	Diesel gurney within 45m of wellhead.
Pre-Tour Meetings (2)	28 Feb 2007	0 Days	General housekeeping & Correct use of rig tongs

Operations For Period 0000 Hrs to 2400 Hrs on 28 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	DA	0000	0900	9.00	1791.0m	Drill 6 3/4" hole f/- 1723m To 1791m.
PH1	P	RS	0900	0930	0.50	1791.0m	Rig service.
PH1	P	DA	0930	1330	4.00	1820.0m	Con't drill 6-3/4" hole f/ 1791m to 1820 m.
PH1	P	SVY	1330	1400	0.50	1820.0m	Circ, f/check and run WLS. Survey depth 1808m. 2deg @ S52E (uncorrected) / 139deg (corrected)
PH1	P	DA	1400	2400	10.00	1889.0m	Con't drill 6-3/4" hole f/ 1820m to 1889 m.

Operations For Period 0000 Hrs to 0600 Hrs on 01 Mar 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	DA	0000	0200	2.00	1900.0m	Drill 6-3/4" hole f/ 1889m to 1900m.
PH1	P	CMD	0200	0330	1.50	1900.0m	Circ hole clean.
PH1	TP (DTF)	SVY	0330	0400	0.50	1900.0m	Flow check, rack kelly, run WLS at 1896m. - misrun.
PH1	P	WT	0400	0430	0.50	1900.0m	MU kelly, pump slug, rack kelly.
PH1	TP (HC)	WT	0430	0600	1.50	1900.0m	(IN PROGRESS) POOH. Tight hole at 1711m - 1700m, 1633m, 1467m, 1380m - 1321m. PU kelly, circ and work tight spots. Con't POH to 1206m.

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WBM Data

Daily Chemical Costs: $ 4317.77 | Cost To Date: $ 36949.44 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	47.1C°	pH:	10	Low Gravity Solids:	5.10%	Gels 10s	5
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	0.78	High Gravity Solids:	0.00%	Gels 10m	5
Sample From:	Past Shale Shakers	Sulphites:	200mg/l	PF:	0.85	Solids (corrected):	5.10%	Fann 003	5
Time:	22:05	API FL:	6.5cm³/30min	MF:	4.75	H2O:	94.9%	Fann 006	7
Weight:	9.15ppg	API Cake:	1/32nd"	Cl:	12500mg/l	Oil:	0.0%	Fann 100	26
ECD TD:	9.82ppg	PV	15cp	Hard/Ca:	50mg/l	Sand:	.5 %	Fann 200	34
ECD Shoe:		YP	26lb/100ft²	MBT:	4.50	Barite:	0.00lb/bbl	Fann 300	41
Viscosity	55sec/qt			KCl Equiv:	2.2%	CaCO3 Added:	15.5ppb	Fann 600	56
				PHPA Added:	1.33ppb				
				Fluoresceine:	5.150ppm				

Comment: Received orders to increase fluid density to ~9.2ppg. Adding 4plts CaCO3 to system. Final WT 9.2-, pills required for trip(s) will add a further 48sx (one pallet).
Because of these additions, de-silter has been shut down.
Fluoresceine content has tapered off to 5.150ppm.

Shakers, Volumes and Losses Data

Available	**873bbl**	**Losses**	**121bbl**
Active	605bbl	Downhole	35bbl
Hole	242bbl	Shakers & Equip.	50bbl
Slug		Dumped	20bbl
Reserve	26bbl	Centrifuges	
		Desander	4bbl
		De-Silter	12bbl
Built	160bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	1 x 84 & 2 x 50	24
2	Lin. Motion SHAKER	1 x 84 & 2 x 50	24
3	De-Sander	2 x 8" Cones	12
4	De-Silter	12 x 4" Cones	6

Comment: Visual discharge of drilling fluid at surface has decreased, but there were still 160bbls fluid recycled from the sump to maintain SFC volume.
The conslusion has to be, that downhole losses have increased; although there is the possibility of hole enlargement - or a combination of the two.

Bit Data

Bit # 2RR2

Size ("):	6.750	IADC#		**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	Stealth Tools	WOB(avg)	8.0klb	5 x 12(/32nd")		Progress	166.0m	Cum. Progress	619.0m
Type:	PDC	RPM(avg)	110			On Bottom Hrs	18.00	Cum. On Btm Hrs	53.90
Serial No.:	6972	RPM (DH)(avg)	110			IADC Drill Hrs	24.00	Cum IADC Drill Hrs	73.00
Bit Model	M565	F.Rate	315.0gpm			Total Revs	115400	Cum Total Revs	352400
Depth In	1270.0m	SPP	1250.0psi			OB-ROP(avg)	9.22m/hr	Cum. OB-ROP(avg)	11.48m/hr
Depth Out		TFA	0.552	HSI	HSI				

Bit Wear Comment: Bit in good condition. Gauge OK. One cutter chipped.

BHA Data

BHA # 6

Weight(Wet)	25.0klb	Length	260.6m	Torque(max)	13000.0ft-lbs	D.C. (1) Ann Velocity	336fpm
Wt Below Jar(Wet)	20.0klb	String	105.0klb	Torque(Off.Btm)	2000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	107.0klb	Torque(On.Btm)	9000.0ft-lbs	H.W.D.P. Ann Velocity	232fpm
		Slack-Off	103.0klb	Jar Hours	132.5	D.P. Ann Velocity	232fpm

BHA Run Comment: Units for torque not ft-lbs

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Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.26m	6.75in		6972	120	
Near Bit Stab	1 x 1.51m	6.75in	2.43in	5475-1	134.5	
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	134.5	Tasman
String Stabiliser	1 x 1.54m	6.75in	2.06in	5415-2	134.5	
NMDC	1 x 9.19m	4.75in	2.31in		134.5	
4.75" DC	1 x 9.49m	4.75in	2.31in		134.5	
String Stabiliser	1 x 1.54m	6.75in	2.00in	475-3	134.5	
4.75" DC	15 x 9.43m	4.75in	2.31in		134.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-47763-03	134.5	
4 3/4 DC	3 x 9.50m	4.75in	2.31in		134.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in		166	
Total Length:	260.59m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1467.00	2.00	156.00	1466.8	17.29	0.08	-17.29	10.98	Hofco single shot
1574.00	1.50	151.00	1573.7	20.22	0.15	-20.22	12.41	Hofco single shot
1691.00	2.00	135.00	1690.7	23.00	0.18	-23.00	14.60	Hofco single shot
1808.00	2.00	139.00	1807.6	25.98	0.04	-25.98	17.38	Hofco single shot

Summary

Company	Pax On
Upstream Petroleum	4
Century Drilling Ltd	26
BHI	2
Corpro Systems Ltd	2
RMN Drilling Fluids	1
Total on Rig	35

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Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	1	0	9.0
AMC Defoamer	25L can	0	1	0	15.0
AMC PAC-R	25kg sack	32	2	0	81.0
AMC PHPA	25kg sack	60	5	0	58.0
AUS-BEN	25kg sack	0	0	0	38.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	168.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Calcium Carbonate 40µ	25 kg sacks	0	192	0	779.0
Caustic Soda	25kg pail	0	0	0	36.0
Citric Acid	25kg sack	0	2	0	34.0
Cement - Class A	40kg sack	0	0	0	0.0
Fluoresceine (5 kg)	5 kg	0	0	0	0.0
Fluoresceine (1 pint)	1 pint	0	0	0	8.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	8.0
KCl	25kg sack	0	8	0	346.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	48	4	0	48.0
Sodium Sulfite	25kg sack	0	2	0	39.0
Xanthan Gum	25kg sack	0	1	0	33.0
Xtra-sweep	12lb box	0	0	0	5.0
Diesel fuel		0	3200	0	12,400.0

Pumps

Pump Data - Last 24 Hrs

Slow Pump Data

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)	Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	9.00	97	75	1250.00	157.00	1888.0		1.	70	460.00	
										2.	100	780.00	
2	GD PZ-7	5.50		97	75					1.			
										2.			
3	GD PZ-7	5.51	9.00	97	0	1250.00	157.00	1888.0		1.	70	460.00	
										2.	100	780.00	

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CRC-1

Date :	27 Feb 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Agus Nugroho
Report Number	13	**Drilling Supervisor :**	Kevin Murphy / Brian Assels	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	1723.0m	Casing MD:	512.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	1723.0m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	197.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	12.54	Liner MD:		LTI Free Days:	279
Datum:	GDA 94	Days On Well:	25.54	Liner TVD:			

Current Ops @ 0600:	Drill 6-3/4" hole at 1771m.
Planned Operations:	Drill ahead to core point (#4) in Belfast Mudstone.

Summary of Period 0000 to 2400 Hrs

Drill 6-3/4" hole with WLS f/ 1526m to 1723m.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	27 Feb 2007	0 Days	Personnel blow into alcoholizer
Equipment Incident (1)	26 Feb 2007	1 Day	Key from hydromatic sprocket fell out causing drill string control problem.
Hazard Observation (1)	27 Feb 2007	0 Days	One Haz-Ob: Gurni washing of accumulator unit presents electrical hazard to personnel as no wall between koomie and generators - not closed out.
Inspection (2)	27 Feb 2007	0 Days	Visually inspect d/line, d/man, brakes, koomey, BOP stack and Koomey pressures.
Permit To Work (1)	27 Feb 2007	0 Days	Diesel gurney within 45m of wellhead.
Pre-Tour Meetings (2)	27 Feb 2007	0 Days	Loading/unloading using forklift & Operating rig floor winch

Operations For Period 0000 Hrs to 2400 Hrs on 27 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	DA	0000	0630	6.50	1587.0m	Drill 6-3/4" f/ 1526m to 1587m.
PH1	P	SVY	0630	0700	0.50	1587.0m	Circ, flow check and run WLS @ 1574m. 1.5deg @ S40E (uncorrected) / 151deg (corrected)
PH1	P	DA	0700	0900	2.00	1606.0m	Con't drill 6-3/4" hole f/ 1587m to 1606m.
PH1	P	RS	0900	0930	0.50	1606.0m	Rig service
PH1	P	DA	0930	2030	11.00	1703.0m	Con't drill 6-3/4" hole f/ 1606m to 1703m.
PH1	P	SVY	2030	2100	0.50	1703.0m	Circ, flow check and run WLS @ 1691m. 2deg @ S56E (uncorrected) / 135deg (corrected)
PH1	P	DA	2100	2400	3.00	1723.0m	Con't drill 6-3/4" hole f/ 1703m to 1723m.

Operations For Period 0000 Hrs to 0600 Hrs on 28 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	DA	0000	0600	6.00	1791.0m	(IN PROGRESS) Drill 6 3/4" hole f/- 1723m To 1791m.

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WBM Data

Daily Chemical Costs: $ 2271.68 | Cost To Date: $ 32631.67 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	44.7C°	pH:	10.8	Low Gravity Solids:	3.10%	Gels 10s	4
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	1.75	High Gravity Solids:	0.00%	Gels 10m	4
Sample From:	Past Shale Shakers	Sulphites:	180mg/l	PF:	1.3	Solids (corrected):	3.10%	Fann 003	4
Time:	22:15	API FL:	6.5cm³/30min	MF:	3.86	H2O:	96.9%	Fann 006	5
Weight:	8.90ppg	API Cake:	1/32nd"	Cl:	12800mg/l	Oil:	0.0%	Fann 100	21
ECD TD:	9.40ppg	PV	13cp	Hard/Ca:	140mg/l	Sand:	.75 %	Fann 200	28
ECD Shoe:		YP	20lb/100ft²	MBT:	3.50	Barite:	0.00lb/bbl	Fann 300	33
Viscosity	54sec/qt			KCl Equiv:	2.6%	CaCO3 Added:	4.1ppb	Fann 600	46
				PHPA Added:	1.24ppb				
				Fluoresceine:	7.875ppm				

Comment: Fluid recycled from sump begins to resemble more closely fluid discharged earlier in this interval. This allows a reduction of chemical addition.
Working towards a 10ppm Fluoresceine concentration, when advice was received from Chris Boreham (GA) to allow F/C to level out at 5ppm.
After 800g this morning, no further F/C additions today,
final HACH reading is 7.875ppm.
Receive advice from geologist, that a request to increase fluid density can be expected any time soon.

Shakers, Volumes and Losses Data

Available	**835bbl**	**Losses**	**201bbl**
Active	563bbl	Downhole	5bbl
Hole	221bbl	Shakers & Equip.	110bbl
Slug		Dumped	30bbl
Reserve	51bbl	Centrifuges	
		Desander	21bbl
		De-Silter	35bbl
Built	200bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	1 x 84 & 2 x 50	24
2	Lin. Motion SHAKER	1 x 84 & 2 x 50	24
3	De-Sander	2 x 8" Cones	24
4	De-Silter	12 x 4" Cones	24

Bit Data

Bit # 2RR2

				Nozzles	**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Size ("):	6.750	IADC#		5 x 12(/32nd")	Progress	197.0m	Cum. Progress	453.0m
Mfr:	Stealth Tools	WOB(avg)	8.0klb		On Bottom Hrs	16.20	Cum. On Btm Hrs	35.90
Type:	PDC	RPM(avg)	110		IADC Drill Hrs	22.50	Cum IADC Drill Hrs	49.00
Serial No.:	6972	RPM (DH)(avg)	110		Total Revs	104700	Cum Total Revs	237000
Bit Model	M565	F.Rate	270.0gpm		OB-ROP(avg)	12.16m/hr	Cum. OB-ROP(avg)	12.62m/hr
Depth In	1270.0m	SPP	1100.0psi					
Depth Out		TFA	0.552	HSI HSI				
Bit Wear Comment		Bit in good condition. Gauge OK. One cutter chipped.						

BHA Data

BHA # 6

Weight(Wet)	25.0klb	Length	260.6m	Torque(max)	12000.0ft-lbs	D.C. (1) Ann Velocity	288fpm
Wt Below Jar(Wet)	20.0klb	String	102.0klb	Torque(Off.Btm)	2000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	98.0klb	Torque(On.Btm)		H.W.D.P. Ann Velocity	199fpm
		Slack-Off	94.0klb	Jar Hours	109.5	D.P. Ann Velocity	199fpm
BHA Run Comment		Units for torque not ft-lbs					

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Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.26m	6.75in		6972	120	
Near Bit Stab	1 x 1.51m	6.75in	2.43in	5475-1	134.5	
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	134.5	Tasman
String Stabiliser	1 x 1.54m	6.75in	2.06in	5415-2	134.5	
NMDC	1 x 9.19m	4.75in	2.31in		134.5	
4.75" DC	1 x 9.49m	4.75in	2.31in		134.5	
String Stabiliser	1 x 1.54m	6.75in	2.00in	475-3	134.5	
4.75" DC	15 x 9.43m	4.75in	2.31in		134.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-47763-03	134.5	
4 3/4 DC	3 x 9.50m	4.75in	2.31in		134.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in		166	
Total Length:	260.59m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1370.00	1.75	156.00	1369.8	14.39	0.03	-14.39	9.69	Hofco single shot
1467.00	2.00	156.00	1466.8	17.29	0.08	-17.29	10.98	Hofco single shot
1574.00	1.50	151.00	1573.7	20.22	0.15	-20.22	12.41	Hofco single shot
1691.00	2.00	135.00	1690.7	23.00	0.18	-23.00	14.60	Hofco single shot

Summary

Company	Pax On
Upstream Petroleum	4
Century Drilling Ltd	25
BHI	2
Corpro Systems Ltd	1
RMN Drilling Fluids	1
Total on Rig	33

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Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	0	0	10.0
AMC Defoamer	25L can	0	0	0	16.0
AMC PAC-R	25kg sack	0	2	0	51.0
AMC PHPA	25kg sack	0	7	0	3.0
AUS-BEN	25kg sack	0	0	0	38.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	168.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Calcium Carbonate 40µ	25 kg sacks	0	0	0	971.0
Caustic Soda	25kg pail	0	0	0	36.0
Citric Acid	25kg sack	0	1	0	36.0
Cement - Class A	40kg sack	0	0	0	0.0
Fluoresceine (5 kg)	5 kg	0	0	0	0.0
Fluoresceine (1 pint)	1 pint	0	0	0	8.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	8.0
KCl	25kg sack	0	6	0	354.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	8	0	4.0
Sodium Sulfite	25kg sack	0	1	0	41.0
Xanthan Gum	25kg sack	0	2	0	34.0
Xtra-sweep	12lb box	0	0	0	5.0
Diesel fuel		0	3200	0	15,600.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	9.00	97	75	1100.00	157.00
2	GD PZ-7	5.50	9.00	97	75	1100.00	157.00
3	GD PZ-7	5.51		97	0		

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
1713.0		1.	70	450.00	
		2.	100	680.00	
1713.0		1.	70	450.00	
		2.	100	700.00	
		1.			
		2.			

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CRC-1

Date :	26 Feb 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Agus Nugroho
Report Number	12	**Drilling Supervisor :**	Kevin Murphy / Brian Assels	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	1526.0m	Casing MD:	512.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	1526.0m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	203.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	11.54	Liner MD:		LTI Free Days:	278
Datum:	GDA 94	Days On Well:	24.54	Liner TVD:			

Current Ops @ 0600:	Drill 6-3/4" hole at 1584m.
Planned Operations:	Drill ahead to core point #4 (Belfast Mudstone).

Summary of Period 0000 to 2400 Hrs

Drill 6-3/4" hole f/ 1323m to 1526m.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	26 Feb 2007	0 Days	Personnel blow into alcoholizer
Hazard Observation (1)	26 Feb 2007	0 Days	One Haz-Ob: personnel on mud tanks and shaker area could not hear emergency siren - not closed out.
Muster Drill (1)	26 Feb 2007	0 Days	Fire/stretcher drill held with both crews involved.
Pre-Tour Meetings (2)	26 Feb 2007	0 Days	General housekeeping

Operations For Period 0000 Hrs to 2400 Hrs on 26 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	DA	0000	0500	5.00	1382.0m	Drill 6-3/4" hole f/ 1323m to 1382m.
PH1	P	SVY	0500	0530	0.50	1382.0m	Circ and conduct WLS @ 1370m. 1.75deg @ S35E (uncorrected) / 156deg (corrected)
PH1	P	DA	0530	0900	3.50	1411.0m	Drill 6-3/4" hole f/ 1382m to 1411m.
PH1	P	RS	0900	0930	0.50	1411.0m	Rig Service.
PH1	P	DA	0930	1600	6.50	1479.0m	Drill 6-3/4" hole f/ 1411m to 1479m.
PH1	P	SVY	1600	1630	0.50	1479.0m	Circ and conduct WLS @ 1467m. 2deg @ S35E (uncorrrected) / 156deg (corrected)
PH1	P	DA	1630	2400	7.50	1526.0m	Drill 6-3/4" hole f/ 1479m to 1526m.

Operations For Period 0000 Hrs to 0600 Hrs on 27 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	DA	0000	0600	6.00	1587.0m	(IN PROGRESS) Drill 6-3/4" f/ 1526m to 1587m.

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Printed on 23 Jul 2008

WBM Data

Daily Chemical Costs: $ 3715.13 | Cost To Date: $ 30359.99 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	42.5C°	pH:	11	Low Gravity Solids:	3.20%	Gels 10s	3
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	1.4	High Gravity Solids:	0.00%	Gels 10m	3
Sample From:	Past Shale Shakers	Sulphites:	250mg/l	PF:	1.32	Solids (corrected):	3.20%	Fann 003	3
Time:	22:10	API FL:	7.0cm³/30min	MF:	3.94	H2O:	96.8%	Fann 006	4
Weight:	8.90ppg	API Cake:	1/32nd"	Cl:	12000mg/l	Oil:	0.0%	Fann 100	17
ECD TD:	9.31ppg	PV	12cp	Hard/Ca:	160mg/l	Sand:	0.5 %	Fann 200	24
ECD Shoe:		YP	17lb/100ft²	MBT:	2.50	Barite:	0.00lb/bbl	Fann 300	29
Viscosity	50sec/qt			KCl Equiv:	2.4%	CaCO3 Added:	5.4ppb	Fann 600	41
				PHPA Added:	1.05ppb				
				Fluoresceine:	4.250ppm				

Comment: Maintain fluid system along established lines, adding Fluoresceine now through Chemical barrel at Suction Tk. Added 700g last 24 hrs, barely maintained concentration just above 4ppm. Suggest order for another 5kg of Dry powder F/C to be initiated. 2kg left on location. Suspect PHPA might depress F/C readings, but have no way of ascertaining that. Adsorption mechanism of reactive clays (akin to MBT) also a possibility

Shakers, Volumes and Losses Data

Available	**835bbl**	**Losses**	**191bbl**
Active	590bbl	Downhole	6bbl
Hole	195bbl	Shakers & Equip.	80bbl
Slug		Dumped	15bbl
Reserve	50bbl	Centrifuges	
		Desander	65bbl
		De-Silter	25bbl
Built	240bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	1 x 84 & 2 x 50	24
2	Lin. Motion SHAKER	1 x 84 & 2 x 50	24
3	De-Sander	2 x 8" Cones	20
4	De-Silter	12 x 4" Cones	20

Bit Data

Bit # 2RR2

Size ("):	6.750	IADC#		**Nozzles**	**Drilled over last 24 hrs**		**Calculated over Bit Run**
Mfr:	Stealth Tools	WOB(avg)	5.0klb	5 x 12(/32nd")	Progress	203.0m	Cum. Progress	256.0m
Type:	PDC	RPM(avg)	130		On Bottom Hrs	16.90	Cum. On Btm Hrs	19.70
Serial No.:	6972	RPM (DH)(avg)	120		IADC Drill Hrs	22.50	Cum IADC Drill Hrs	26.50
Bit Model	M565	F.Rate	270.0gpm		Total Revs	113637	Cum Total Revs	132300
Depth In	1270.0m	SPP	900.0psi		OB-ROP(avg)	12.01m/hr	Cum. OB-ROP(avg)	12.99m/hr
Depth Out		TFA	0.552	HSI HSI				

Bit Wear Comment: Bit in good condition. Gauge OK. One cutter chipped.

BHA Data

BHA # 6

Weight(Wet)	25.0klb	Length	260.6m	Torque(max)	10000.0ft-lbs	D.C. (1) Ann Velocity	288fpm
Wt Below Jar(Wet)	20.0klb	String	95.0klb	Torque(Off.Btm)	8000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	95.0klb	Torque(On.Btm)		H.W.D.P. Ann Velocity	199fpm
		Slack-Off	94.0klb	Jar Hours	22.5	D.P. Ann Velocity	199fpm

BHA Run Comment: Units for torque not ft-lbs

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Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.26m	6.75in		6972	120	
Near Bit Stab	1 x 1.51m	6.75in	2.43in	5475-1	134.5	
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	134.5	Tasman
String Stabiliser	1 x 1.54m	6.75in	2.06in	5415-2	134.5	
NMDC	1 x 9.19m	4.75in	2.31in		134.5	
4.75" DC	1 x 9.49m	4.75in	2.31in		134.5	
String Stabiliser	1 x 1.54m	6.75in	2.00in	475-3	134.5	
4.75" DC	15 x 9.43m	4.75in	2.31in		134.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-47763-03	134.5	
4 3/4 DC	3 x 9.50m	4.75in	2.31in		134.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in		166	
Total Length:	260.59m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1165.00	1.00	161.00	1164.9	9.15	0.01	-9.15	7.17	Hofco single shot
1233.00	1.75	152.00	1232.9	10.63	0.34	-10.63	7.85	Hofco single shot
1370.00	1.75	156.00	1369.8	14.39	0.03	-14.39	9.69	Hofco single shot
1467.00	2.00	156.00	1466.8	17.29	0.08	-17.29	10.98	Hofco single shot

Summary

Company	Pax On
Upstream Petroleum	4
Century Drilling Ltd	25
BHI	2
Corpro Systems Ltd	1
RMN Drilling Fluids	1
Total on Rig	33

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Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	1	0	10.0
AMC Defoamer	25L can	0	0	0	16.0
AMC PAC-R	25kg sack	0	4	0	53.0
AMC PHPA	25kg sack	0	8	0	10.0
AUS-BEN	25kg sack	0	0	0	38.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	168.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Calcium Carbonate 40µ	25 kg sacks	0	0	0	971.0
Caustic Soda	25kg pail	0	0	0	36.0
Citric Acid	25kg sack	0	0	0	37.0
Cement - Class A	40kg sack	0	0	0	0.0
Fluoresceine (5 kg)	5 kg	0	1	0	0.0
Fluoresceine (1 pint)	1 pint	0	12	0	8.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	8.0
KCl	25kg sack	0	12	0	360.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	8	0	12.0
Sodium Sulfite	25kg sack	0	2	0	42.0
Xanthan Gum	25kg sack	0	4	0	36.0
Xtra-sweep	12lb box	0	0	0	5.0
Diesel fuel		0	2200	0	18,800.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	8.90	97			
2	GD PZ-7	5.50	8.90	97	130	900.00	260.00
3	GD PZ-7	5.51		97	0		

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
1508.0		1.	70	350.00	
		2.	100	560.00	
1508.0		1.	70	350.00	
		2.	100	460.00	
		1.			
		2.			

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CRC-1

Date :	25 Feb 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Agus Nugroho
Report Number	11	**Drilling Supervisor :**	Kevin Murphy / Brian Assels	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	1323.0m	Casing MD:	512.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	1323.0m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	77.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	10.54	Liner MD:		LTI Free Days:	277
Datum:	GDA 94	Days On Well:	23.54	Liner TVD:			

Current Ops @ 0600:	Drill 6-3/4" hole at 1392m.
Planned Operations:	Drill ahead (next Core point ~1900m).

Summary of Period 0000 to 2400 Hrs

Continue coring 1247 - 1270m. Cut 24.0 m of core #3 in Paaratte Formation. POH and recover 8.13m (34%). RIH PDC RR bit and drill 6-3/4" hole 1270m to 1323m.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	25 Feb 2007	0 Days	Personnel blow into alcoholizer
First Aid Case (1)	25 Feb 2007	0 Days	Employee tripped in dark after power outage at rig. First aid only.
Hazard Observation (2)	25 Feb 2007	0 Days	Two Haz-Obs to be closed out: 1) forklift park brake actuator - temprary fix done, parts on order, 2) no emergency lighting on drillers console - parts ordered
Hazard Observation (2)	25 Feb 2007	0 Days	Two Haz-Obs to be closed out: 1) trip tank fill line too high on bell nipple, 2) short exhaust stacks causing fume exposure to people walking on passageway
Hazard Observation (4)	25 Feb 2007	0 Days	Four Haz-Obs noted and actioned - closed out.
Permit To Work (1)	25 Feb 2007	0 Days	Cut core using electrical saw.
Pre-Tour Meetings (2)	25 Feb 2007	0 Days	Running coring tools & Racking back DC's
Rig Inspection (2)	25 Feb 2007	0 Days	Visually inspect d/line, d/man, brakes, koomey, BOP stack, c/manifold.

Operations For Period 0000 Hrs to 2400 Hrs on 25 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	COR	0000	0800	8.00	1270.0m	Con't cut core #3 f/ 1247m to 1270m.
PH1	P	PS	0800	0900	1.00	1270.0m	Rack kelly, LO 1 jt DP & pup jt. POOH 3-1/2" DP to 1141m (5 stds). PU kelly, pump slug, rack kelly.
PH1	P	TO	0900	1230	3.50	1270.0m	POOH with coring assembly.
PH1	P	COR	1230	1430	2.00	1270.0m	Break out core barrel and recover core. Cut 24m, recovered 8.13m (34%).
PH1	P	HBHA	1430	1500	0.50	1270.0m	Clean work floor, MU PDC drill bit and BHA.
PH1	P	TI	1500	1930	4.50	1270.0m	RIH to 1253m.
PH1	P	COR	1930	2000	0.50	1270.0m	PU & MU kelly. Wash to bottom, Tag at 1270m.
PH1	P	DA	2000	2400	4.00	1323.0m	Drill 6-3/4" hole f/ 1270m to 1323m.

Operations For Period 0000 Hrs to 0600 Hrs on 26 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	DA	0000	0500	5.00	1382.0m	Drill 6-3/4" hole f/ 1323m to 1382m.
PH1	P	SVY	0500	0530	0.50	1382.0m	Circ and conduct WLS @ 1370m. 1.75deg @ S35E (uncorrected) / 156deg (corrected)
PH1	P	DA	0530	0600	0.50	1411.0m	(IN PROGRESS) Drill 6-3/4" hole f/ 1382m to 1411m.

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WBM Data

Daily Chemical Costs: $ 2568.98 | Cost To Date: $ 26644.86 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	34.7C°	pH:	10.8	Low Gravity Solids:	3.60%	Gels 10s	2
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	1.2	High Gravity Solids:	0.00%	Gels 10m	2
Sample From:	Past Shale Shakers	Sulphites:	250mg/l	PF:	1	Solids (corrected):	3.60%	Fann 003	2
Time:	22:50	API FL:	7.5cm³/30min	MF:	3.4	H2O:	96.4%	Fann 006	3
Weight:	8.95ppg	API Cake:	1/32nd"	Cl:	13000mg/l	Oil:	0.0%	Fann 100	14
ECD TD:	9.25ppg	PV	12cp	Hard/Ca:	320mg/l	Sand:	1.0 %	Fann 200	20
ECD Shoe:		YP	15lb/100ft²	MBT:	3.00	Barite:	0.00lb/bbl	Fann 300	24
Viscosity	52sec/qt			KCl Equiv:	2.5%	CaCO3 Added:	7.3ppb	Fann 600	36
				PHPA Added:	0.67ppb				
				Fluoresceine:	6.375ppm				

Comment: Continue to increase Fluoresceine concentration, with the aim to reach 10ppm. Resume running Hydrocyclone solids control equipment, when back on bottom w/- drill bit.
Pump pressure higher than expected and calculated; have to assume some plugged jets.

Shakers, Volumes and Losses Data

Available	**787bbl**	**Losses**	**40bbl**
Active	569bbl	Downhole	3bbl
Hole	169bbl	Shakers & Equip.	5bbl
Slug		Dumped	15bbl
Reserve	49bbl	Centrifuges	
		Desander	11bbl
		De-Silter	6bbl
Built	80bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	3 x 50	16
2	Lin. Motion SHAKER	3 x 50	16
3	De-Sander	2 x 8" Cones	4
4	De-Silter	12 x 4" Cones	4

Comment: Continue to increase Fluoresceine concentration, with the aim to reach 10ppm. Resume running Hydrocyclone solids control equipment, when back on bottom w/- drill bit.

Bit Data

Bit # 2RR2

				Nozzles	**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Size ("):	6.750	IADC#		5 x 12(/32nd")	Progress	53.0m	Cum. Progress	53.0m
Mfr:	Stealth Tools	WOB(avg)	5.0klb		On Bottom Hrs	2.80	Cum. On Btm Hrs	2.80
Type:	PDC	RPM(avg)	120		IADC Drill Hrs	4.00	Cum IADC Drill Hrs	4.00
Serial No.:	6972	RPM (DH)(avg)	120		Total Revs	18663	Cum Total Revs	18663
Bit Model	M565	F.Rate	250.0gpm		OB-ROP(avg)	18.93m/hr	Cum. OB-ROP(avg)	18.93m/hr
Depth In	1270.0m	SPP	1000.0psi					
Depth Out		TFA	0.552	HSI HSI				
Bit Wear Comment		Bit in good condition. Gauge OK. One cutter chipped.						

Bit Data

Bit # 3RR2

Wear	I	O1	D	L	B	G	O2	R
	1	2	NO	A	X	I	NO	BHA

				Nozzles	**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Size ("):	6.750	IADC#			Progress	24.0m	Cum. Progress	25.0m
Mfr:	Corpro Systems Ltd	WOB(avg)	5000.0klb		On Bottom Hrs	8.50	Cum. On Btm Hrs	9.70
Type:	Core	RPM(avg)	80		IADC Drill Hrs	8.00	Cum IADC Drill Hrs	10.00
Serial No.:	083719	RPM (DH)(avg)			Total Revs	5526	Cum Total Revs	11052
Bit Model	MCP662	F.Rate	120.0gpm		OB-ROP(avg)	2.82m/hr	Cum. OB-ROP(avg)	2.58m/hr
Depth In	1246.0m	SPP	600.0psi					
Depth Out	1270.0m	TFA	0	HSI HSI				
Bit Run Comment		Full core barrel cut (24.0 m). Recovered 8.13m (34%).						

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BHA Data

BHA # 5

Weight(Wet)	25.0klb	Length	283.0m	Torque(max)	3000.0ft-lbs	D.C. (1) Ann Velocity	128fpm
Wt Below Jar(Wet)	20.0klb	String	85.0klb	Torque(Off.Btm)	2000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	87.0klb	Torque(On.Btm)	3000.0ft-lbs	H.W.D.P. Ann Velocity	88fpm
		Slack-Off	85.0klb	Jar Hours	60.5	D.P. Ann Velocity	88fpm

BHA Run Comment: Core #2 in Paaratte Formation

Equipment	Length	OD	ID	Serial #	Hours	Comment
Core Bit	1 x 0.26m	6.75in	2.75in	083719	13	
Core Barrel	1 x 27.06m	4.75in	2.75in		13	6-3/4 stabs at btm, mid 6m, mid 13m, mid 20m , top 27m
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	60.5	
NMDC	1 x 9.19m	4.75in	2.31in	471-1	60.5	
4.75" DC	16 x 9.43m	4.75in	2.31in		60.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-4773-03	60.5	
4.75" DC	3 x 9.50m	4.75in	2.31in		60.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in		93	
Total Length:	283.00m					

BHA Data

BHA # 6

Weight(Wet)	25.0klb	Length	260.6m	Torque(max)	10000.0ft-lbs	D.C. (1) Ann Velocity	266fpm
Wt Below Jar(Wet)	20.0klb	String	89.0klb	Torque(Off.Btm)	5000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	89.0klb	Torque(On.Btm)		H.W.D.P. Ann Velocity	184fpm
		Slack-Off	88.0klb	Jar Hours	64.5	D.P. Ann Velocity	184fpm

BHA Run Comment: Units for torque not ft-lbs

Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.26m	6.75in		6972	120	
Near Bit Stab	1 x 1.51m	6.75in	2.43in	5475-1	134.5	
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	134.5	Tasman
String Stabiliser	1 x 1.54m	6.75in	2.06in	5415-2	134.5	
NMDC	1 x 9.19m	4.75in	2.31in		134.5	
4.75" DC	1 x 9.49m	4.75in	2.31in		134.5	
String Stabiliser	1 x 1.54m	6.75in	2.00in	475-3	134.5	
4.75" DC	15 x 9.43m	4.75in	2.31in		134.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-47763-03	134.5	
4 3/4 DC	3 x 9.50m	4.75in	2.31in		134.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in		166	
Total Length:	260.59m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
603.00	0.25	121.00	603.0	1.93	0.23	-1.93	4.68	Hofco single shot
908.00	1.00	166.00	908.0	4.85	0.08	-4.85	5.90	Hofco single shot
1165.00	1.00	161.00	1164.9	9.15	0.01	-9.15	7.17	Hofco single shot
1233.00	1.75	152.00	1232.9	10.63	0.34	-10.63	7.85	Hofco single shot

Summary

Company	Pax On
Upstream Petroleum	4
Century Drilling Ltd	26
BHI	2
Corpro Systems Ltd	1
RMN Drilling Fluids	1
Total on Rig	34

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Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	0	0	11.0
AMC Defoamer	25L can	0	2	0	16.0
AMC PAC-R	25kg sack	0	1	0	57.0
AMC PHPA	25kg sack	0	3	0	18.0
AUS-BEN	25kg sack	0	0	0	38.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	3	0	168.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Calcium Carbonate 40µ	25 kg sacks	0	30	0	971.0
Caustic Soda	25kg pail	0	0	0	36.0
Citric Acid	25kg sack	0	0	0	37.0
Cement - Class A	40kg sack	0	0	0	0.0
Fluoresceine (5 kg)	5 kg	1	0	0	1.0
Fluoresceine (1 pint)	1 pint	20	0	0	20.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	2	0	8.0
KCl	25kg sack	0	0	0	372.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	6	0	20.0
Sodium Sulfite	25kg sack	0	4	0	44.0
Xanthan Gum	25kg sack	0	3	0	40.0
Xtra-sweep	12lb box	0	0	0	5.0
Diesel fuel		0	1300	0	21,000.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	8.90	97	120	1000.00	250.00
2	GD PZ-7	5.50	8.90	97	0		
3	GD PZ-7	5.51		97	0		

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
1303.0		1.	70	400.00	
		2.	100	620.00	
1303.0		1.	70	400.00	
		2.	100	640.00	
		1.			
		2.			

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CRC-1

Date :	24 Feb 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Agus Nugroho
Report Number	10	**Drilling Supervisor :**	Kevin Murphy / Brian Assels	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	1247.0m	Casing MD:	512.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	1247.0m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	2.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	9.54	Liner MD:		LTI Free Days:	276
Datum:	GDA 94	Days On Well:	22.54	Liner TVD:			

Current Ops @ 0600:	Con't cutting core f/ 1247m to 1258m.
Planned Operations:	Complete cutting core #3. POH and recover core. RIH w/ 6-3/4" PDC bit and drill ahead.

Summary of Period 0000 to 2400 Hrs

RIH. Cut core #2 f/ 1245m to 1246m. POH - no recovery. RIH core barrel to cut core #3.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	24 Feb 2007	0 Days	Personnel blow into alcoholizer
Equipment Incident (1)	24 Feb 2007	0 Days	Power outage at rig - 80% of all rig lights out. Emergency back up lights working OK. Observed that no light for driller's panel/controls when lights go out. Hazob raised.
Other (12)	24 Feb 2007	0 Days	Visitor Site Inductions
Permit To Work (1)	24 Feb 2007	0 Days	Electronic photography.
Pre-Tour Meetings (2)	24 Feb 2007	0 Days	Running in hole & running coring tools
Rig Inspection (2)	24 Feb 2007	0 Days	Visually inspect d/line, d/man, brakes, koomey, BOP stack, c/manifold.

Operations For Period 0000 Hrs to 2400 Hrs on 24 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	TP (DTF)	HBHA	0000	0130	1.50	1245.0m	PU and MU core barrel. Problems with space out - necessitated moving lower stabilizer to top of barrel. (Lost ~1.5 hrs)
PH1	P	TI	0130	0400	2.50	1245.0m	RIH core barrel on coring BHA and 3-1/2" DP. RIH to 500m.
PH1	P	SC	0400	0430	0.50	1245.0m	Hang blocks, Slip drilling line.
PH1	P	TI	0430	0700	2.50	1245.0m	Con't RIH with core barrel. Break circ at 862m. Con't RIH.
PH1	P	TI	0700	0800	1.00	1245.0m	PU kelly, wash and ream f/ 1232m to 1245m.
PH1	P	COR	0800	0930	1.50	1245.0m	Circulate, space out string, drop ball.
PH1	TP (DTF)	COR	0930	1100	1.50	1246.0m	Cut core #2 f/ 1245m - 1246m. Low ROP -
PH1	TP (DTF)	CMD	1100	1130	0.50	1246.0m	Circ, flow check, pump pill.
PH1	TP (DTF)	TO	1130	1430	3.00	1246.0m	POOH with core barrel.
PH1	TP (DTF)	HBHA	1430	1600	1.50	1246.0m	Layout NMDC. Break out & inspect core barrel & corehead. Seem Ok. Suspect small pieces pyrite blocking ports at top of core barrel.
PH1	P	RS	1600	1630	0.50	1246.0m	Rig Service
PH1	TP (DTF)	HBHA	1630	1730	1.00	1246.0m	MU core bit and core barrel.
PH1	TP (DTF)	TI	1730	2100	3.50	1246.0m	RIH w/ core barrel. Break circ at 580m. Con't RIH to 1235m.
PH1	TP (DTF)	TI	2100	2130	0.50	1246.0m	PU & MU kelly. Tag bottom at 1246m.
PH1	TP (DTF)	COR	2130	2200	0.50	1246.0m	Circ and establish parameters.
PH1	P	COR	2200	2400	2.00	1247.0m	Commence cutting core #3. (Rig lost power at 23:30 hrs - lights out. PU on core barrel and observe slight overpull off bottom. Rig power out for 5 min. Went back to cutting core immed.) Core f/ 1246m to 1247m.

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Operations For Period 0000 Hrs to 0600 Hrs on 25 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	COR	0000	0600	6.00	1270.0m	(IN PROGRESS) Con't cut core #3 f/ 1247m to 1270m.

WBM Data

Daily Chemical Costs: $ 1515.65 | Cost To Date: $ 24075.88 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	33.2C°	pH:	10.5	Low Gravity Solids:	2.70%	Gels 10s	2
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	0.85	High Gravity Solids:	0.00%	Gels 10m	2
Sample From:	Past Shale Shakers	Sulphites:	150mg/l	PF:	0.55	Solids (corrected):	2.70%	Fann 003	2
Time:	22:50	API FL:	8.5cm³/30min	MF:	2.35	H2O:	97.3%	Fann 006	3
Weight:	8.80ppg	API Cake:	1/32nd"	Cl:	10500mg/l	Oil:	0.0%	Fann 100	15
ECD TD:	9.05ppg	PV	12cp	Hard/Ca:	200mg/l	Sand:	0.6 %	Fann 200	21
ECD Shoe:		YP	15lb/100ft²	MBT:	2.00	Barite:	0.00lb/bbl	Fann 300	27
Viscosity	52sec/qt			KCl Equiv:	2.0%	CaCO3 Added:	6.4ppb	Fann 600	39
				PHPA Added:	0.67ppb				
				Fluoresceine:	2.225ppm				

Comment: Continue experiments w/- Fluoresceine in liquid form. Add 4 US pts to 125bbls pre-mixed polymers, resulting HACH readings average 9.5ppm. Remaining stock of 16x1pt insufficient to treat entire system up to 10ppm. Will continue to use both liquid and dry powder form of F/C dye. Suspect that F/C dye might be depleting, as calculated values for the concentration of the total added material so far indicate a value between 4.5 and 6.5 ppm

Shakers, Volumes and Losses Data

Available	**747bbl**	**Losses**	**50bbl**
Active	458bbl	Downhole	0bbl
Hole	158bbl	Shakers & Equip.	30bbl
Slug		Dumped	20bbl
Reserve	131bbl	Centrifuges	
		Desander	
		De-Silter	0bbl
Built	70bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	3 x 50	8
2	Lin. Motion SHAKER	3 x 50	8
3	De-Sander	2 x 8" Cones	0
4	De-Silter	12 x 4" Cones	0

Comment: Continue experiments w/- Fluoresceine in liquid form. Add 4 US pts to 125bbls pre-mixed polymers, resulting HACH readings average 9.5ppm. Remaining stock of 16x1pt insufficient to treat entire system up to 10ppm. Will continue to use both liquid and dry powder form of F/C dye. Suspect that F/C dye might be depleting, as calculated values for the concentration of the total added material so far indicate a value between 4.5 and 6.5 ppm. The corresponding HACH test shows a value of just above 2ppm.

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Bit Data

Bit # 3RR1

Wear	I	O1	D	L	B	G	O2	R
	1	2	NO	A	X	I	NO	PR

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size (''):	6.750	IADC#	Core			Progress	1.0m	Cum. Progress	1.0m
Mfr:	Corpro Systems Ltd	WOB(avg)	5.0klb			On Bottom Hrs	1.40	Cum. On Btm Hrs	1.40
Type:	Core	RPM(avg)	80			IADC Drill Hrs	1.50	Cum IADC Drill Hrs	1.50
Serial No.:	083719	RPM (DH)(avg)				Total Revs	6524	Cum Total Revs	6524
Bit Model	MCP662	F.Rate	160.0gpm			OB-ROP(avg)	0.71m/hr	Cum. OB-ROP(avg)	0.71m/hr
Depth In	1245.0m	SPP	1300.0psi						
Depth Out	1246.0m	TFA	0	HSI	HSI				

Bit Data

Bit # 3RR2

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size (''):	6.750	IADC#				Progress	1.0m	Cum. Progress	1.0m
Mfr:	Corpro Systems Ltd	WOB(avg)	5000.0klb			On Bottom Hrs	1.20	Cum. On Btm Hrs	1.20
Type:	Core	RPM(avg)	80			IADC Drill Hrs	2.00	Cum IADC Drill Hrs	2.00
Serial No.:	083719	RPM (DH)(avg)				Total Revs	5526	Cum Total Revs	5526
Bit Model	MCP662	F.Rate	120.0gpm			OB-ROP(avg)	0.83m/hr	Cum. OB-ROP(avg)	0.83m/hr
Depth In	1246.0m	SPP	650.0psi						
Depth Out		TFA	0	HSI	HSI				

Bit Run Comment: Full core barrel cut (24.0 m). Recovered 8.13m (34%).

BHA Data

BHA # 5

Weight(Wet)	25.0klb	Length	283.0m	Torque(max)	3000.0ft-lbs	D.C. (1) Ann Velocity	171fpm
Wt Below Jar(Wet)	20.0klb	String	85.0klb	Torque(Off.Btm)	2000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	87.0klb	Torque(On.Btm)	3000.0ft-lbs	H.W.D.P. Ann Velocity	118fpm
		Slack-Off	85.0klb	Jar Hours	52.5	D.P. Ann Velocity	118fpm

BHA Run Comment: Core #2 in Paaratte Formation

Equipment	Length	OD	ID	Serial #	Hours	Comment
Core Bit	1 x 0.26m	6.75in	2.75in	083719	13	
Core Barrel	1 x 27.06m	4.75in	2.75in		13	6-3/4 stabs at btm, mid 6m, mid 13m, mid 20m , top 27m
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	60.5	
NMDC	1 x 9.19m	4.75in	2.31in	471-1	60.5	
4.75" DC	16 x 9.43m	4.75in	2.31in		60.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-4773-03	60.5	
4.75" DC	3 x 9.50m	4.75in	2.31in		60.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in		93	
Total Length:	283.00m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
603.00	0.25	121.00	603.0	1.93	0.23	-1.93	4.68	Hofco single shot
908.00	1.00	166.00	908.0	4.85	0.08	-4.85	5.90	Hofco single shot
1165.00	1.00	161.00	1164.9	9.15	0.01	-9.15	7.17	Hofco single shot
1233.00	1.75	152.00	1232.9	10.63	0.34	-10.63	7.85	Hofco single shot

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Summary

Company	Pax On
Upstream Petroleum	4
Century Drilling Ltd	26
BHI	2
Corpro Systems Ltd	1
RMN Drilling Fluids	1
Total on Rig	34

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	0	0	11.0
AMC Defoamer	25L can	0	0	0	18.0
AMC PAC-R	25kg sack	0	3	0	58.0
AMC PHPA	25kg sack	0	1	0	21.0
AUS-BEN	25kg sack	0	0	0	38.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	171.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Calcium Carbonate 40µ	25 kg sacks	768	33	0	1,001.0
Caustic Soda	25kg pail	0	0	0	36.0
Citric Acid	25kg sack	0	0	0	37.0
Cement - Class A	40kg sack	0	0	0	0.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	10.0
KCl	25kg sack	168	26	0	372.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	0	0	26.0
Sodium Sulfite	25kg sack	0	0	0	48.0
Xanthan Gum	25kg sack	0	0	0	43.0
Xtra-sweep	12lb box	0	0	0	5.0
Diesel fuel		0	900	0	22,300.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	8.90	97	120	600.00	250.00
2	GD PZ-7	5.50	8.90	97	0		
3	GD PZ-7	5.51		97	0		

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
1196.0		1.	70	250.00	
		2.	100	380.00	
1196.0		1.	70	260.00	
		2.	100	380.00	
		1.			
		2.			

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CRC-1

Date :	23 Feb 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Agus Nugroho
Report Number	9	**Drilling Supervisor :**	Kevin Murphy / Brian Assels	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	1245.0m	Casing MD:	512.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	1245.0m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	136.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	8.54	Liner MD:		LTI Free Days:	275
Datum:	GDA 94	Days On Well:	21.54	Liner TVD:			

Current Ops @ 0600:	RIH with core barrel.
Planned Operations:	Cut core #2, POH and recover core. RIH PDC drill bit and drill ahead.

Summary of Period 0000 to 2400 Hrs

Drill 6-3/4" hole with WLS from 1109m to 1245m. Circ BH sample, WLS, Wiper trip, RIH, POH to core. LO bit and MU core barrel.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	23 Feb 2007	0 Days	Personnel blow into alcoholizer
BOP Drill (1)	23 Feb 2007	0 Days	Hold drill while tripping out of hole.
Fire Drill (1)	23 Feb 2007	0 Days	Rig fire drill held.
Hazard Observation (1)	23 Feb 2007	0 Days	Metal stakes used to tie down flare line secured with rope - not resolved.
Hazard Observation (3)	23 Feb 2007	0 Days	1. Comms hut generator needs to be turned around for access - done, 2. light @ mud tank cent pump needs repair - to be actioned, 3. no reverse beeper on Century ute - to be ordered & installed
Permit To Work (2)	23 Feb 2007	0 Days	Various.
Pre-Tour Meetings (2)	23 Feb 2007	0 Days	Correct use of power tools & Racking back DP on rig floor

Operations For Period 0000 Hrs to 2400 Hrs on 23 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	DA	0000	0100	1.00	1119.0m	Drill 6-3/4" hole f/ 1109m - 1119m.
PH1	TP (DTF)	SVY	0100	0130	0.50	1119.0m	Circ and WLS @ 1107m - misrun (part exposed - cant read deviation)
PH1	P	DA	0130	0300	1.50	1138.0m	Drill 6-3/4" hole f/ 1119m - 1138m.
PH1	TP (DTF)	SVY	0300	0330	0.50	1138.0m	Circ and WLS @ 1126m - misrun (part exposed - cant read deviation)
PH1	P	DA	0330	0700	3.50	1177.0m	Drill 6-3/4" hole f/ 1138m - 1177m.
PH1	P	SVY	0700	0730	0.50	1177.0m	Circ and WLS @ 1165m - 1deg @ S30E (uncorrected) / 161deg (corrected)
PH1	P	DA	0730	0830	1.00	1196.0m	Drill 6-3/4" hole f/ 1177m - 1196m.
PH1	P	RS	0830	0900	0.50	1196.0m	Conduct rig service.
PH1	P	DA	0900	1200	3.00	1240.0m	Drill 6-3/4" hole f/ 1196m - 1240m.
PH1	P	CS	1200	1230	0.50	1240.0m	Circ BH sample.
PH1	P	DA	1230	1300	0.50	1245.0m	Drill 6-3/4" hole f/ 1240m - 1245m.
PH1	P	SVY	1300	1330	0.50	1245.0m	Circ Bottoms up - conduct WLS @ 1233m. 1.75deg @ S39E (uncorrected) / 152deg (corrected)
PH1	P	WT	1330	1630	3.00	1245.0m	Pump slug, rack kelly, POH on wiper trip to 951m (up to 15k overpull). RIH to 1233m. PU kelly and wash to 1245m.
PH1	P	CMD	1630	1700	0.50	1245.0m	Circulate bottoms up.
PH1	P	TO	1700	2100	4.00	1245.0m	Pump slug, rack kelly, POOH. Hole good.
PH1	P	DA	2100	2130	0.50	1245.0m	BO Bit, LO stabilizers and pony DC.
PH1	P	COR	2130	2400	2.50	1245.0m	MU R core bit on 80 ft core barrel. Space out inner barrel - problems with space out.

Operations For Period 0000 Hrs to 0600 Hrs on 24 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	TP	HBHA	0000	0130	1.50	1245.0m	PU and MU core barrel. Problems with space out - necessitated moving lower stabilizer

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Operations For Period 0000 Hrs to 0600 Hrs on 24 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
	(DTF)						to top of barrel. (Lost ~1.5 hrs)
PH1	P	TI	0130	0400	2.50	1245.0m	RIH core barrel on coring BHA and 3-1/2" DP. RIH to 500m.
PH1	P	SC	0400	0430	0.50	1245.0m	Hang blocks, Slip drilling line.
PH1	P	TI	0430	0600	1.50	1245.0m	(IN PROGRESS) Con't RIH with core barrel. Break circ at 862m. Con't RIH.

WBM Data

Daily Chemical Costs: $ 1209.97 | Cost To Date: $ 22560.23 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	40.2C°	pH:	11.2	Low Gravity Solids:	2.90%	Gels 10s	3
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	1.1	High Gravity Solids:	0.00%	Gels 10m	3
Sample From:	Past Shale Shakers	Sulphites:	200mg/l	PF:	0.98	Solids (corrected):	2.90%	Fann 003	3
Time:	16:55	API FL:	8.8cm³/30min	MF:	3.35	H2O:	97.1%	Fann 006	4
Weight:	8.80ppg	API Cake:	1/32nd"	Cl:	11300mg/l	Oil:	0.0%	Fann 100	17
ECD TD:	9.25ppg	PV	12cp	Hard/Ca:	100mg/l	Sand:	.75 %	Fann 200	24
ECD Shoe:		YP	18lb/100ft²	MBT:	2.00	Barite:	0.00lb/bbl	Fann 300	30
Viscosity	56sec/qt			KCl Equiv:	1.6%	CaCO3 Added:	4.3ppb	Fann 600	43
				PHPA Added:	0.67ppb				
				Fluoresceine:	3.850ppm				

Comment: Continue fluid recycling from sump to maintain SFC volume.
Fluoresceine addition stopped with start of check trip @ 1300 hrs.

Shakers, Volumes and Losses Data

Available	**728bbl**	**Losses**	**179bbl**
Active	486bbl	Downhole	0bbl
Hole	186bbl	Shakers & Equip.	99bbl
Slug		Dumped	10bbl
Reserve	56bbl	Centrifuges	
		Desander	43bbl
		De-Silter	27bbl
Built	250bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	3 x 50	17
2	Lin. Motion SHAKER	3 x 50	17
3	De-Sander	2 x 8" Cones	13
4	De-Silter	12 x 4" Cones	13

Comment: Continue fluid recycling from sump to maintain SFC volume.
Pit volumes recorded without drill string in hole.

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Bit Data

Bit # 3RR1

Size ("):	6.750	IADC#	Core	**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	Corpro Systems Ltd	WOB(avg)	klb			Progress	m	Cum. Progress	0.0m
Type:	Core	RPM(avg)				On Bottom Hrs	NaN	Cum. On Btm Hrs	0.00
Serial No.:	083719	RPM (DH)(avg)				IADC Drill Hrs	NaN	Cum IADC Drill Hrs	0.00
Bit Model	MCP662	F.Rate	gpm			Total Revs		Cum Total Revs	0
Depth In	1245.0m	SPP	psi			OB-ROP(avg)		Cum. OB-ROP(avg)	0.00m/hr
Depth Out		TFA	0	HSI	HSI				

Bit Data

Bit # 2RR1

Wear	I	O1	D	L	B	G	O2	R
	2	1	NO	A	X	I	NO	CP

Size ("):	6.750	IADC#		**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	Stealth Tools	WOB(avg)	5.0klb	5 x 12(/32nd")		Progress	136.0m	Cum. Progress	326.0m
Type:	PDC	RPM(avg)	120			On Bottom Hrs	6.60	Cum. On Btm Hrs	12.80
Serial No.:	6972	RPM (DH)(avg)	120			IADC Drill Hrs	10.50	Cum IADC Drill Hrs	21.00
Bit Model	M565	F.Rate	250.0gpm			Total Revs	42582	Cum Total Revs	84520
Depth In	918.5m	SPP	600.0psi			OB-ROP(avg)	20.61m/hr	Cum. OB-ROP(avg)	25.47m/hr
Depth Out	1245.0m	TFA	0.552	HSI	HSI				
Bit Run Comment		2RR1 RIH after Core #1, pulled to cut Core #2							

BHA Data

BHA # 5

Weight(Wet)	25.0klb	Length	283.0m	Torque(max)		D.C. (1) Ann Velocity	0fpm
Wt Below Jar(Wet)	20.0klb	String		Torque(Off.Btm)		D.C. (2) Ann Velocity	0fpm
		Pick-Up		Torque(On.Btm)		H.W.D.P. Ann Velocity	0fpm
		Slack-Off		Jar Hours	1.5	D.P. Ann Velocity	0fpm
BHA Run Comment		Core #2 in Paaratte Formation					

Equipment	Length	OD	ID	Serial #	Hours	Comment
Core Bit	1 x 0.26m	6.75in	2.75in	083719	13	
Core Barrel	1 x 27.06m	4.75in	2.75in		13	6-3/4 stabs at btm, mid 6m, mid 13m, mid 20m , top 27m
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	60.5	
NMDC	1 x 9.19m	4.75in	2.31in	471-1	60.5	
4.75" DC	16 x 9.43m	4.75in	2.31in		60.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-4773-03	60.5	
4.75" DC	3 x 9.50m	4.75in	2.31in		60.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in		93	
Total Length:	283.00m					

BHA Data

BHA # 4

Weight(Wet)	25.0klb	Length	260.6m	Torque(max)	5000.0ft-lbs	D.C. (1) Ann Velocity	266fpm
Wt Below Jar(Wet)	20.0klb	String	78.0klb	Torque(Off.Btm)	2000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	78.0klb	Torque(On.Btm)	3000.0ft-lbs	H.W.D.P. Ann Velocity	184fpm
		Slack-Off	76.0klb	Jar Hours	48.5	D.P. Ann Velocity	184fpm
BHA Run Comment		POOH due to reaching core point #2.					

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Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.26m	6.75in		6972	46	
Near Bit Stab	1 x 1.51m	6.75in	2.43in	5475-1		
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	48.5	
String Stabiliser	1 x 1.54m	6.75in	2.06in	5415-2		
NMDC	1 x 9.19m	4.75in	2.31in		48.5	
4.75" DC	1 x 9.49m	4.75in	2.31in		48.5	
String Stabiliser	1 x 1.54m	6.75in	2.00in	475-3		
4.75" DC	15 x 9.43m	4.75in	2.31in		48.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-47763-03	48.5	
4 3/4 DC	3 x 9.50m	4.75in	2.31in		48.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in		81	
Total Length:	260.59m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
603.00	0.25	121.00	603.0	1.93	0.23	-1.93	4.68	Hofco single shot
908.00	1.00	166.00	908.0	4.85	0.08	-4.85	5.90	Hofco single shot
1165.00	1.00	161.00	1164.9	9.15	0.01	-9.15	7.17	Hofco single shot
1233.00	1.75	152.00	1232.9	10.63	0.34	-10.63	7.85	Hofco single shot

Summary

Company	Pax On
Upstream Petroleum	4
Century Drilling Ltd	26
BHI	2
Corpro Systems Ltd	1
RMN Drilling Fluids	1
Total on Rig	34

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Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	1	0	11.0
AMC Defoamer	25L can	0	0	0	18.0
AMC PAC-R	25kg sack	0	0	0	61.0
AMC PHPA	25kg sack	0	4	0	22.0
AUS-BEN	25kg sack	6	0	0	38.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	171.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Caustic Soda	25kg pail	0	0	0	36.0
Citric Acid	25kg sack	0	0	0	37.0
Cement - Class A	40kg sack	0	0	0	0.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	10.0
KCl	25kg sack	0	0	0	230.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	4	0	26.0
Sodium Sulfite	25kg sack	0	0	0	48.0
Xanthan Gum	25kg sack	0	0	0	43.0
Xtra-sweep	12lb box	0	0	0	5.0
Diesel fuel		0	2600	0	23,200.0
Calcium Carbonate 40µ	25 kg sacks	0	40	0	266.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	8.90	97	120	600.00	250.00
2	GD PZ-7	5.50	8.90	97	0		
3	GD PZ-7	5.51		97	0		

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
1196.0		1.	70	250.00	
		2.	100	380.00	
1196.0		1.	70	260.00	
		2.	100	380.00	
		1.			
		2.			

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CRC-1

Date :	22 Feb 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Agus Nugroho
Report Number	8	**Drilling Supervisor :**	Kevin Murphy / Brian Assels	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	1109.0m	Casing MD:	512.0m	Last BOP Test:	19 Feb 2007
Rig:	CDL Rig 11	True Vertical Depth:	1109.0m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	193.5m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	7.54	Liner MD:		LTI Free Days:	274
Datum:	GDA 94	Days On Well:	20.54	Liner TVD:			

Current Ops @ 0600:	Drill 6-3/4" hole to 1170m.
Planned Operations:	Cut core #2 in Paaratte Fm. Recover core, drill ahead.

Summary of Period 0000 to 2400 Hrs

Wash/ream to bottom. Cut core #1 in Pember Mudstone 915 - 918.5m. Core barrel jammed after 3.5m cut. POH and recover 2.1m core. RIH with RR #2 PDC drill bit and drill 6-3/4" hole 918.5 - 1109m.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	22 Feb 2007	0 Days	Personnel blow into alcoholizer
Hazard Observation (2)	22 Feb 2007	0 Days	Metal stake in path of geronimo line & tie wraps around handrails could cut hands - both resolved.
Permit To Work (3)	22 Feb 2007	0 Days	Various.
Pre-Tour Meetings (2)	22 Feb 2007	0 Days	Running coring tools.

Operations For Period 0000 Hrs to 2400 Hrs on 22 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	TP (HC)	RW	0000	0130	1.50	915.0m	Con't wash/light ream f/ 854m to 915m.
PH1	P	COR	0130	0200	0.50	915.0m	Space out to core. Drop ball. Observe 250 psi pressure incr when ball landed.
PH1	P	COR	0200	0330	1.50	918.5m	Cut core #1 in Pember Mudstone f/ 915m to 918.5m. Cut total of 3.5m core, with circ pressures incr by 200 psi after 2 m cut. Initial ROP 6 m/hr for first 2 m, then dropping to 1 m/hr with corresponding incr in pressure. PU off bottom - no overpull.
PH1	P	PS	0330	0400	0.50	918.5m	Mix slug, f/check, pump slug and rack kelly.
PH1	P	TO	0400	0800	4.00	918.5m	POOH.
PH1	P	COR	0800	0900	1.00	918.5m	Break down core barrel and recover 2.1m of core. Rack core barrel. Inspect core head - ok (4 of 6 jets plugged).
PH1	P	TI	0900	1130	2.50	918.5m	PU & MU Bit #2RR and RIH on BHA #2.
PH1	P	SVY	1130	1200	0.50	918.5m	With bit at 603m, conduct WLS. 0.25deg @ S70E (uncorrected) / 121deg (corrected)
PH1	P	TI	1200	1230	0.50	918.5m	Con't RIH f/ 610m to 893m.
PH1	P	RW	1230	1300	0.50	918.5m	Wash/ream f/ 893m to 918.5m.
PH1	P	DA	1300	2330	10.50	1109.0m	Drill 6-3/4" hole f/ 918.5m to 1109m.
PH1	TP (DTF)	SVY	2330	2400	0.50	1109.0m	Circulate, SCR, f/check and conduct WLS - misrun

Operations For Period 0000 Hrs to 0600 Hrs on 23 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	DA	0000	0100	1.00	1119.0m	Drill 6-3/4" hole f/ 1109m - 1119m.
PH1	TP (DTF)	SVY	0100	0130	0.50	1119.0m	Circ and WLS @ 1107m - misrun (part exposed - cant read deviation)
PH1	P	DA	0130	0300	1.50	1138.0m	Drill 6-3/4" hole f/ 1119m - 1138m.
PH1	TP (DTF)	SVY	0300	0330	0.50	1138.0m	Circ and WLS @ 1126m - misrun (part exposed - cant read deviation)
PH1	P	DA	0330	0600	2.50	1177.0m	(IN PROGRESS) Drill 6-3/4" hole f/ 1138m - 1177m.

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WBM Data

Daily Chemical Costs: $ 2524.85 | Cost To Date: $ 21350.26 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	37.1C°	pH:	11	Low Gravity Solids:	3.80%	Gels 10s	3
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	1.05	High Gravity Solids:	0.00%	Gels 10m	3
Sample From:	Past Shale Shakers	Sulphites:	250mg/l	PF:	0.58	Solids (corrected):	3.80%	Fann 003	3
Time:	22:30	API FL:	8.5cm³/30min	MF:	2.8	H2O:	96.2%	Fann 006	4
Weight:	8.95ppg	API Cake:	1/32nd"	Cl:	11800mg/l	Oil:	0.0%	Fann 100	16
ECD TD:	9.36ppg	PV	12cp	Hard/Ca:	140mg/l	Sand:	1.5 %	Fann 200	23
ECD Shoe:		YP	16lb/100ft²	MBT:	2.50	Barite:	0.00lb/bbl	Fann 300	28
Viscosity	53sec/qt			KCl Equiv:	2.0%	CaCO3 Added:	2.4ppb	Fann 600	40
				PHPA Added:	0.70ppb				
				Fluoresceine:	3.550ppm				

Comment: Continue operating with 50-mesh screens on both shakers. Instructions to maintain KCl concentration at its present level, i.e.~2%
Building PHPA concentration, Fluid-loss now at specified level.
pH higher than required, of account of recycled fluid having a high pH.
Soda Ash treatment to reduce high calcium intake from same source.

Instructions received to increase Fluoresceine concentration to 10ppm - as tested. Although 300g dye had been added, impact on concentration not immediately apparent.

Shakers, Volumes and Losses Data

Available	**657bbl**	**Losses**	**197bbl**
Active	516bbl	Downhole	0bbl
Hole	141bbl	Shakers & Equip.	105bbl
Slug		Dumped	0bbl
Reserve	0bbl	Centrifuges	
		Desander	51bbl
		De-Silter	41bbl
Built	250bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	3 x 50	20
2	Lin. Motion SHAKER	3 x 50	20
3	De-Sander	2 x 8" Cones	18
4	De-Silter	12 x 4" Cones	18

Comment: None

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Bit Data

Bit # 3

Wear	I	O1	D	L	B	G	O2	R
	0	0	NO	A	X	I	NO	HP

Size (''):	6.750	IADC#	Core	**Nozzles**	**Drilled over last 24 hrs**		**Calculated over Bit Run**
Mfr:	Corpro Systems Ltd	WOB(avg)	5.0klb		Progress	3.5m	Cum. Progress 3.5m
Type:	PDC	RPM(avg)	80		On Bottom Hrs	1.20	Cum. On Btm Hrs 1.20
Serial No.:	083719	RPM (DH)(avg)	80		IADC Drill Hrs	1.50	Cum IADC Drill Hrs 1.50
Bit Model	MCP662	F.Rate	250.0gpm		Total Revs	6384	Cum Total Revs 6384
Depth In	915.0m	SPP	550.0psi		OB-ROP(avg)	2.92m/hr	Cum. OB-ROP(avg) 2.92m/hr
Depth Out	918.5m	TFA	0	HSI HSI			

Bit Run Comment: Core bit - jammed after cutting 3.5m. Recover 2.1m core. 4 of 6 jets plugged. Corehead - as new.

Bit Data

Bit # 2RR1

Size (''):	6.750	IADC#		**Nozzles**	**Drilled over last 24 hrs**		**Calculated over Bit Run**
Mfr:	Stealth Tools	WOB(avg)	5.0klb	5 x 12(/32nd'')	Progress	190.0m	Cum. Progress 190.0m
Type:	PDC	RPM(avg)	120		On Bottom Hrs	6.20	Cum. On Btm Hrs 6.20
Serial No.:	6972	RPM (DH)(avg)	120		IADC Drill Hrs	10.50	Cum IADC Drill Hrs 10.50
Bit Model	M565	F.Rate	250.0gpm		Total Revs	41938	Cum Total Revs 41938
Depth In	918.5m	SPP	550.0psi		OB-ROP(avg)	30.65m/hr	Cum. OB-ROP(avg) 30.65m/hr
Depth Out		TFA	0.552	HSI HSI			

Bit Run Comment: 2RR1 RIH after Core #1, pulled to cut Core #2

BHA Data

BHA # 3

Weight(Wet)	25.0klb	Length	269.5m	Torque(max)	5000.0ft-lbs	D.C. (1) Ann Velocity	266fpm
Wt Below Jar(Wet)	20.0klb	String	76.0klb	Torque(Off.Btm)	2000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	78.0klb	Torque(On.Btm)	3000.0ft-lbs	H.W.D.P. Ann Velocity	184fpm
		Slack-Off	78.0klb	Jar Hours	1.5	D.P. Ann Velocity	184fpm

BHA Run Comment: Core #1 in Pember Mudstone

Equipment	Length	OD	ID	Serial #	Hours	Comment
Core Bit	1 x 0.26m	6.75in	2.75in	083719	1.5	
Core Barrel	1 x 13.53m	4.75in	2.75in		1.5	6-3/4 stabs at btm, mid , top
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	27.5	
NMDC	1 x 9.19m	4.75in	2.31in	471-1	27.5	
4.75" DC	16 x 9.43m	4.75in	2.31in		27.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-4773-03	27.5	
4.75" DC	3 x 9.50m	4.75in	2.31in		27.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in		60	
Total Length:	269.47m					

BHA Data

BHA # 4

Weight(Wet)	25.0klb	Length	260.6m	Torque(max)	5000.0ft-lbs	D.C. (1) Ann Velocity	266fpm
Wt Below Jar(Wet)	20.0klb	String	78.0klb	Torque(Off.Btm)	2000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	78.0klb	Torque(On.Btm)	3000.0ft-lbs	H.W.D.P. Ann Velocity	184fpm
		Slack-Off	76.0klb	Jar Hours	38	D.P. Ann Velocity	184fpm

BHA Run Comment: POOH due to reaching core point #2.

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Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.26m	6.75in		6972	46	
Near Bit Stab	1 x 1.51m	6.75in	2.43in	5475-1		
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	48.5	
String Stabiliser	1 x 1.54m	6.75in	2.06in	5415-2		
NMDC	1 x 9.19m	4.75in	2.31in		48.5	
4.75" DC	1 x 9.49m	4.75in	2.31in		48.5	
String Stabiliser	1 x 1.54m	6.75in	2.00in	475-3		
4.75" DC	15 x 9.43m	4.75in	2.31in		48.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-47763-03	48.5	
4 3/4 DC	3 x 9.50m	4.75in	2.31in		48.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in		81	
Total Length:	260.59m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
312.00	0.50	112.00	312.0	0.55	0.04	-0.55	1.36	Single shot
506.00	1.00	112.00	506.0	1.50	0.08	-1.50	3.72	Single shot
603.00	0.25	121.00	603.0	1.93	0.23	-1.93	4.68	Hofco single shot
908.00	1.00	166.00	908.0	4.85	0.08	-4.85	5.90	Hofco single shot

Summary

Company	Pax On
Upstream Petroleum	4
Century Drilling Ltd	26
BHI	2
Corpro Systems Ltd	1
RMN Drilling Fluids	1
Total on Rig	34

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Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	0	0	12.0
AMC Defoamer	25L can	0	0	0	18.0
AMC PAC-R	25kg sack	0	3	0	61.0
AMC PHPA	25kg sack	0	4	0	26.0
AUS-BEN	25kg sack	0	0	0	32.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	171.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Caustic Soda	25kg pail	0	0	0	36.0
Citric Acid	25kg sack	0	0	0	37.0
Cement - Class A	40kg sack	0	0	0	0.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	10.0
KCl	25kg sack	0	20	0	230.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	4	0	30.0
Sodium Sulfite	25kg sack	0	2	0	48.0
Xanthan Gum	25kg sack	0	2	0	43.0
Xtra-sweep	12lb box	0	0	0	5.0
Diesel fuel		15700	1100	0	25,800.0
Calcium Carbonate 40µ	25 kg sacks	0	24	0	306.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	8.90	97	120	450.00	250.00
2	GD PZ-7	5.50	8.90	97	0		
3	GD PZ-7	5.51		97	0		

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
1109.0		1.	70	220.00	
		2.	100	380.00	
1109.0		1.	70	250.00	
		2.	100	380.00	
		1.			
		2.			

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CRC-1

Date :	21 Feb 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Agus Nugroho
Report Number	7	**Drilling Supervisor :**	Kevin Murphy / Brian Assels	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	915.0m	Casing MD:	512.0m	Last BOP Test:	-
Rig:	CDL Rig 11	True Vertical Depth:	915.0m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	170.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	6.54	Liner MD:		LTI Free Days:	273
Datum:	GDA 94	Days On Well:	19.54	Liner TVD:			

Current Ops @ 0600:	POOH with core barrel.
Planned Operations:	RIH w/ 6-3/4" bit RR #2. Drill 6-3/4" hole to core point #2.

Summary of Period 0000 to 2400 Hrs

Drill 6-3/4" hole f/ 745m to 915m. Circ BH sample, drop survey, POOH. RIH core barrel assembly.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	21 Feb 2007	0 Days	Personnel blow into alcoholizer
Pre-Job Meetings (1)	21 Feb 2007	0 Days	Hold PJSM prior to coring.
Pre-Tour Meetings (2)	21 Feb 2007	0 Days	General Housekeeping & Prepare rig floor for tripping

Operations For Period 0000 Hrs to 2400 Hrs on 21 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	DA	0000	1100	11.00	915.0m	Drill 6-3/4" hole 745m to 915m.
PH1	P	CS	1100	1200	1.00	915.0m	Geologist call core point. Circ BH sample.
PH1	P	SVY	1200	1300	1.00	915.0m	Flow check. Rack kelly and run WLS. 1deg @ S25E (uncorrected) / 166deg (corrected)
PH1	P	TO	1300	1630	3.50	915.0m	Pump slug, rack kelly and POOH.
PH1	P	HBHA	1630	1700	0.50	915.0m	LO 6-3/4" stabilizers, pony DC, NBS & 6-3/4" bit.
PH1	P	DA	1700	1900	2.00	915.0m	Hold pre-job safety meeting. PU core barrel.
PH1	P	TI	1900	2200	3.00	915.0m	MU and RIH coring BHA.
PH1	TP (HC)	RW	2200	2400	2.00	915.0m	Tag obstruction. Wash/light ream f/ 825m to 854m.

Operations For Period 0000 Hrs to 0600 Hrs on 22 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	TP (HC)	RW	0000	0130	1.50	915.0m	Con't wash/light ream f/ 854m to 915m.
PH1	P	COR	0130	0200	0.50	915.0m	Space out to core. Drop ball. Observe 250 psi pressure incr when ball landed.
PH1	P	COR	0200	0330	1.50	918.5m	Cut core #1 in Pember Mudstone f/ 915m to 918.5m. Cut total of 3.5m core, with circ pressures incr by 200 psi after 2 m cut. Initial ROP 6 m/hr for first 2 m, then dropping to 1 m/hr with corresponding incr in pressure. PU off bottom - no overpull.
PH1	P	PS	0330	0400	0.50	918.5m	Mix slug, f/check, pump slug and rack kelly.
PH1	P	TO	0400	0600	2.00	918.5m	(IN PROGRESS) POOH.

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WBM Data

Daily Chemical Costs: $ 4187.24 | Cost To Date: $ 18825.41 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	32.6C°	pH:	10.2	Low Gravity Solids:	1.10%	Gels 10s	2
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	0.44	High Gravity Solids:	0.00%	Gels 10m	2
Sample From:	Past Shale Shakers	Sulphites:	200mg/l	PF:	0.35	Solids (corrected):	1.10%	Fann 003	2
Time:	12:00	API FL:	12.8cm³/30min	MF:	1.55	H2O:	98.9%	Fann 006	3
Weight:	8.60ppg	API Cake:	1/32nd"	Cl:	10000mg/l	Oil:	0.0%	Fann 100	13
ECD TD:	8.89ppg	PV	9cp	Hard/Ca:	120mg/l	Sand:	0.8 %	Fann 200	18
ECD Shoe:		YP	13lb/100ft²	MBT:	1.50	Barite:	0.00lb/bbl	Fann 300	22
Viscosity	52sec/qt			KCl Equiv:	2.2%	CaCO3 Added:	1.1ppb	Fann 600	31
				PHPA Added:	0.50ppb				
				Fluoresceine:	3.850ppm				

Comment: Experience difficulties with blinding of shaker screens with sand grains.
Change back to 84-mesh acreens, same problem, change to 50-mesh screens.
Prepare 500bbls new volume, partially to make up for run-off @ shakers.
Prepare heavy pill, using CaCO3.

Shakers, Volumes and Losses Data

Available	**603bbl**	**Losses**	**435bbl**
Active	488bbl	Downhole	0bbl
Hole	115bbl	Shakers & Equip.	284bbl
Slug		Dumped	15bbl
Reserve	0bbl	Centrifuges	
		Desander	68bbl
		De-Silter	68bbl
Built	500bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	3 x 84	18
2	Lin. Motion SHAKER	3 x 84	18
3	De-Sander	2 x 8" Cones	12
4	De-Silter	12 x 4" Cones	12

Comment: Experience difficulties with blinding of shaker screens with sand grains.
Change back to 84-mesh acreens, same problem, change to 50-mesh screens.
Prepare 500bbls new volume, partially to make up for run-off @ shakers.
Prepare heavy pill, using CaCO3.

Bit Data

Bit # 2

Wear	I	O1	D	L	B	G	O2	R
	1	1	NO	A	X	I	NO	CP

Size ("):	6.750	IADC#		**Nozzles**	**Drilled over last 24 hrs**		**Calculated over Bit Run**
Mfr:	Stealth Tools	WOB(avg)	4.0klb	5 x 12(/32nd")	Progress	170.0m	Cum. Progress	399.0m
Type:	PDC	RPM(avg)	110		On Bottom Hrs	6.30	Cum. On Btm Hrs	14.90
Serial No.:	6972	RPM (DH)(avg)	110		IADC Drill Hrs	11.00	Cum IADC Drill Hrs	25.00
Bit Model	M56S	F.Rate	250.0gpm		Total Revs	33142	Cum Total Revs	72132
Depth In	516.0m	SPP	450.0psi		OB-ROP(avg)	26.98m/hr	Cum. OB-ROP(avg)	26.78m/hr
Depth Out	915.0m	TFA	0.552	HSI HSI				

BHA Data

BHA # 3

Weight(Wet)	25.0klb	Length	269.5m	Torque(max)		D.C. (1) Ann Velocity	
Wt Below Jar(Wet)	20.0klb	String		Torque(Off.Btm)		D.C. (2) Ann Velocity	
		Pick-Up		Torque(On.Btm)		H.W.D.P. Ann Velocity	
		Slack-Off		Jar Hours		D.P. Ann Velocity	

BHA Run Comment: Core #1 in Pember Mudstone

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Equipment	Length	OD	ID	Serial #	Hours	Comment
Core Bit	1 x 0.26m	6.75in	2.75in	083719	1.5	
Core Barrel	1 x 13.53m	4.75in	2.75in		1.5	6-3/4 stabs at btm, mid , top
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32	27.5	
NMDC	1 x 9.19m	4.75in	2.31in	471-1	27.5	
4.75" DC	16 x 9.43m	4.75in	2.31in		27.5	
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-4773-03	27.5	
4.75" DC	3 x 9.50m	4.75in	2.31in		27.5	
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in		60	
Total Length:	269.47m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
312.00	0.50	112.00	312.0	0.55	0.04	-0.55	1.36	Single shot
506.00	1.00	112.00	506.0	1.50	0.08	-1.50	3.72	Single shot
603.00	0.25	121.00	603.0	1.93	0.23	-1.93	4.68	Hofco single shot
908.00	1.00	166.00	908.0	4.85	0.08	-4.85	5.90	Hofco single shot

Summary

Company	Pax On
Upstream Petroleum	4
Century Drilling Ltd	26
BHI	2
Corpro Systems Ltd	1
RMN Drilling Fluids	1
Total on Rig	34

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	0	0	12.0
AMC Defoamer	25L can	0	0	0	18.0
AMC PAC-R	25kg sack	0	8	0	64.0
AMC PHPA	25kg sack	0	8	0	30.0
AUS-BEN	25kg sack	0	0	0	32.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	171.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Caustic Soda	25kg pail	0	1	0	36.0
Citric Acid	25kg sack	0	0	0	37.0
Cement - Class A	40kg sack	0	0	0	0.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	10.0
KCl	25kg sack	0	50	0	250.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	30.0
Soda Ash	25kg sack	0	4	0	34.0
Sodium Sulfite	25kg sack	0	4	0	50.0
Xanthan Gum	25kg sack	0	1	0	45.0
Xtra-sweep	12lb box	0	0	0	5.0
Diesel fuel		0	2000	0	11,200.0
Calcium Carbonate 40µ	25 kg sacks	0	24	0	330.0

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Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	8.80	97	120	450.00	250.00
2	GD PZ-7	5.50	8.80	97	0		
3	GD PZ-7	5.51		97	0		

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
915.0		1.	80	280.00	
		2.	100	390.00	
915.0		1.	80	270.00	
		2.	100	390.00	
		1.			
		2.			

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CRC-1

Date :	20 Feb 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Agus Nugroho
Report Number	6	**Drilling Supervisor :**	Kevin Murphy / Brian Assels	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	6.75in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	745.0m	Casing MD:	512.0m	Last BOP Test:	-
Rig:	CDL Rig 11	True Vertical Depth:	745.0m	Casing TVD:	512.0m	FIT/LOT:	/ 13.30ppg
RT - AMSL:	49.70m	24 Hr Progress:	229.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	5.54	Liner MD:		LTI Free Days:	272
Datum:	GDA 94	Days On Well:	18.54	Liner TVD:			

Current Ops @ 0600:	Drill 6-3/4" hole at 837m.
Planned Operations:	Drill 6-3/4" hole to core point. Circ, wiper trip, POH to core.

Summary of Period 0000 to 2400 Hrs

P/test casing prior to ELOT. Drill shoe track, drill 6-3/4" hole to 522m. Conduct ELOT. Rig Repair - adjust jackshaft/v-drive. Drill 6-3/4" hole 522 - 745m

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	20 Feb 2007	0 Days	Personnel blow into alcoholizer
Pre-Job Meetings (1)	20 Feb 2007	0 Days	Hold PJSM prior to ELOT.
Pre-Tour Meetings (2)	20 Feb 2007	0 Days	Drill out shoe track & General Housekeeping

Operations For Period 0000 Hrs to 2400 Hrs on 20 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	BOP	0000	0030	0.50	516.0m	Flush to poor boy degasser to prove pipe work and choke.
PH1	TP (RE)	OTH	0030	0100	0.50	516.0m	Adjust mast to center over hole.
PH1	P	PT	0100	0200	1.00	516.0m	Hold PSJM with Schlumberger and rig crew. P/test treating line tie in at annulus. Top up DP and SI rams. Pressure test casing recording 0.7 bbls water pumped to max of 2531 psi @ 0.5 bpm. Monitor pressure for 15 min. Note: Mud logger pressure 7 psi lower than Schlumberger pressure. Bleed off, open rams.
PH1	P	DFS	0200	0530	3.50	516.0m	Drill out shoe track.
PH1	P	DA	0530	0600	0.50	522.0m	Drill 6-3/4" hole f/ 516m to 522m.
PH1	P	CMD	0600	0630	0.50	522.0m	Circ to condition hole and mud.
PH1	P	FIT	0630	0900	2.50	522.0m	RU hardline and conduct Extended LOT. (13.3 ppg EMW). RD Schlumberger.
PH1	TP (RE)	RR	0900	1030	1.50	522.0m	Rig Repair - adjust jackshaft & V-drive.
PH1	P	DA	1030	2400	13.50	522.0m	Drill 6-3/4" hole f/ 522m to 745m.

Operations For Period 0000 Hrs to 0600 Hrs on 21 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	DA	0000	0600	6.00	915.0m	(IN PROGRESS) Drill 6-3/4" hole 745m to 915m.

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WBM Data

Daily Chemical Costs: $ 4122.44 | Cost To Date: $ 14638.17 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	33.6C°	pH:	9.5	Low Gravity Solids:	1.50%	Gels 10s	1
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	0.26	High Gravity Solids:	0.00%	Gels 10m	1
Sample From:	Past Shale Shakers	Sulphites:	0mg/l	PF:	0.18	Solids (corrected):	1.50%	Fann 003	1
Time:	22:20	API FL:	15.0cm³/30min	MF:	0.65	H2O:	98.5%	Fann 006	2
Weight:	8.65ppg	API Cake:	1/32nd"	Cl:	10000mg/l	Oil:	0.0%	Fann 100	12
ECD TD:	8.94ppg	PV	8cp	Hard/Ca:	160mg/l	Sand:	1 %	Fann 200	17
ECD Shoe:		YP	11lb/100ft²	MBT:	2.50	Barite:	0.00lb/bbl	Fann 300	20
Viscosity	46sec/qt			KCl Equiv:	2.1%	CaCO3 Added:	0.0ppb	Fann 600	29
				PHPA Added:	0.50ppb				
				Fluoresceine:	3.075ppm				

Comment: FIT carried out w/- remaining Bentonite spud mud (9.1 ppg). At completion of test, displace to newly mixed KCl/PHPA/POLYMER fluid.
Despite extensive shearing of PHPA, run-off over shakers. Cause being penetrated sand with widely varying grainsize, which plugs screens.
De-sander and de-silter full on-line, underflow up to 13.8ppg.
Prepare 375bbls new volume; commence recycling fluid from sump.

Start FLUORESCEINE additions.
Final mesured F/C concentration as measured with HACH Spectrometer.

Shakers, Volumes and Losses Data

Available	**539bbl**	**Losses**	**200bbl**
Active	446bbl	Downhole	0bbl
Hole	93bbl	Shakers & Equip.	75bbl
Slug		Dumped	75bbl
Reserve	0bbl	Centrifuges	
		Desander	27bbl
		De-Silter	23bbl
Built	375bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	3 x 84	24
2	Lin. Motion SHAKER	3 x 84	24
3	De-Sander	2 x 8" Cones	12
4	De-Silter	12 x 4" Cones	12

Comment: At completion of Leak-off test, diplace to newly mixed KCl/PHPA/POLYMER fluid.
Despite extensive shearing of PHPA, run-off over shakers. Cause being penetrated sand with widely varying grainsize, which plugs screens.
De-sander and de-silter full on-line, underflow up to 13.8ppg.
Prepare 375bbls new volume; commence recycling fluid from sump.

Bit Data

Bit # 2

				Nozzles	Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	6.750	IADC#		5 x 12(/32nd")	Progress	229.0m	Cum. Progress	229.0m
Mfr:	Stealth Tools	WOB(avg)	4.0klb		On Bottom Hrs	8.60	Cum. On Btm Hrs	8.60
Type:	PDC	RPM(avg)	110		IADC Drill Hrs	14.00	Cum IADC Drill Hrs	14.00
Serial No.:	6972	RPM (DH)(avg)	110		Total Revs	38990	Cum Total Revs	38990
Bit Model	M56S	F.Rate	250.0gpm		OB-ROP(avg)	26.63m/hr	Cum. OB-ROP(avg)	26.63m/hr
Depth In	516.0m	SPP	450.0psi					
Depth Out		TFA	0.552	HSI HSI				

BHA Data

BHA # 2

Weight(Wet)	25.0klb	Length	260.6m	Torque(max)	5000.0ft-lbs	D.C. (1) Ann Velocity	266fpm
Wt Below Jar(Wet)	20.0klb	String	62.0klb	Torque(Off.Btm)	1000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	64.0klb	Torque(On.Btm)	5000.0ft-lbs	H.W.D.P. Ann Velocity	184fpm
		Slack-Off	62.0klb	Jar Hours	14	D.P. Ann Velocity	184fpm
BHA Run Description		Packed.					

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Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.26m	6.75in		6972		
Near Bit Stab	1 x 1.51m	6.75in	2.43in	5475-1		
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32		
String Stabiliser	1 x 1.54m	6.75in	2.06in	5415-2		
NMDC	1 x 9.19m	4.75in	2.31in			
4.75" DC	1 x 9.49m	4.75in	2.31in			
String Stabiliser	1 x 1.54m	6.75in	2.00in	475-3		
4.75" DC	15 x 9.43m	4.75in	2.31in			
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-47763-03		
4.75" DC	3 x 9.50m	4.75in	2.31in			
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in			
Total Length:	260.59m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
131.00	0.25	112.00	131.0	0.11	0.06	-0.11	0.27	Single shot
312.00	0.50	112.00	312.0	0.55	0.04	-0.55	1.36	Single shot
506.00	1.00	112.00	506.0	1.50	0.08	-1.50	3.72	Single shot
603.00	0.25	121.00	603.0	1.93	0.23	-1.93	4.68	Hofco single shot

Summary

Company	Pax On
Upstream Petroleum	4
Century Drilling Ltd	26
Schlumberger Oilfield Australia Pty Ltd	2
BHI	2
Corpro Systems Ltd	1
RMN Drilling Fluids	1
Total on Rig	36

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Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	0	0	12.0
AMC Defoamer	25L can	0	0	0	18.0
AMC PAC-R	25kg sack	0	6	0	72.0
AMC PHPA	25kg sack	0	5	0	38.0
AUS-BEN	25kg sack	0	0	0	32.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	171.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Caustic Soda	25kg pail	0	0	0	37.0
Citric Acid	25kg sack	0	0	0	37.0
Cement - Class A	40kg sack	0	0	0	0.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	10.0
KCl	25kg sack	0	36	0	300.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	6	0	30.0
Soda Ash	25kg sack	0	16	0	38.0
Sodium Sulfite	25kg sack	0	0	0	54.0
Xanthan Gum	25kg sack	0	3	0	46.0
Xtra-sweep	12lb box	0	0	0	5.0
Diesel fuel		0	2400	0	13,200.0
Calcium Carbonate 40µ	25 kg sacks	0	0	0	354.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	8.80	97	120	450.00	250.00
2	GD PZ-7	5.50	8.80	97	0		
3	GD PZ-7	5.51		97	0		

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
714.0		1.	80	100.00	
		2.	100	280.00	
714.0		1.	80	100.00	
		2.	100	280.00	
		1.			
		2.			

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CRC-1

Date :	19 Feb 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Agus Nugroho
Report Number	5	**Drilling Supervisor :**	Kevin Murphy / Brian Assels	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	9.88in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	516.0m	Casing MD:	512.0m	Last BOP Test:	
Rig:	CDL Rig 11	True Vertical Depth:	516.0m	Casing TVD:	512.0m	FIT/LOT:	/
RT - AMSL:	49.70m	24 Hr Progress:	0.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	4.54	Liner MD:		LTI Free Days:	271
Datum:	GDA 94	Days On Well:	17.54	Liner TVD:			

Current Ops @ 0600:	Drill 6-3/4" hole to 519m.
Planned Operations:	Conduct XLOT. Con't drill 6-3/4" hole to core point.

Summary of Period 0000 to 2400 Hrs

Install test plug. Pressure test BOP's. Rig Repair (leaking ram blocks). NU bell nipple. Adjust derrick Install wear bushing. RIH 6-3/4" bit on BHA #2.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	19 Feb 2007	0 Days	Personnel blow into alcoholizer
Pre-Tour Meetings (2)	19 Feb 2007	0 Days	NU BOP's & P/test BOP's and choke

Operations For Period 0000 Hrs to 2400 Hrs on 19 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	BOP	0000	0300	3.00	516.0m	NU Choke line to manifold. PU test plug, MU x/overs and RIH on 3-1/2" DP. Seat test plug.
PH1	TP (RE)	BOP	0300	0700	4.00	516.0m	Close pipe rams and pressure up - no good. Concurrent RU flare line and degasser line to pit. Fix leaking check valve. Repeat pipe ram test - no-go. Attempt to test annular - leaking past rubber.
PH1	TP (RE)	RR	0700	1100	4.00	516.0m	Rig Repair: Open BOP doors, turn ram blocks, close doors.
PH1	P	BOP	1100	1430	3.50	516.0m	PU cup tester and pressure test rams and HCR 300/3000 psi OK. Test choke line valve Hi/lo- OK. Pressure test annular and inner HCR valve -OK. LO cup tester.
PH1	P	RD	1430	1700	2.50	516.0m	NU Bell nipple.
PH1	P	HT	1700	1800	1.00	516.0m	Install wear bushing.
PH1	P	BOP	1800	2300	5.00	516.0m	PU and MU 6-3/4" bit and RIH on BHA #2. LO excess DP f/ derrick as necessary.
PH1	P	HT	2300	2330	0.50	516.0m	PU kelly and Re-adjust derrick.
PH1	P	BOP	2330	2400	0.50	516.0m	Flush BOP's thru choke manifold & poor boy degasser to prove LP pipe connections to poor boy.

Operations For Period 0000 Hrs to 0600 Hrs on 20 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	BOP	0000	0030	0.50	516.0m	Flush to poor boy degasser to prove pipe work and choke.
PH1	TP (RE)	OTH	0030	0100	0.50	516.0m	Adjust mast to center over hole.
PH1	P	PT	0100	0200	1.00	516.0m	Hold PSJM with Schlumberger and rig crew. P/test treating line tie in at annulus. Top up DP and SI rams. Pressure test casing recording 0.7 bbls water pumped to max of 2531 psi @ 0.5 bpm. Monitor pressure for 15 min. Note: Mud logger pressure 7 psi lower than Schlumberger pressure. Bleed off, open rams.
PH1	P	DFS	0200	0530	3.50	516.0m	Drill out shoe track.
PH1	P	DA	0530	0600	0.50	522.0m	Drill 6-3/4" hole f/ 516m to 522m.

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WBM Data

Daily Chemical Costs: $ 0.00 | Cost To Date: $ 10515.73 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:		pH:	10	Low Gravity Solids:	0.00%	Gels 10s	1
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	0.37	High Gravity Solids:	0.00%	Gels 10m	1
Sample From:	RESERVE	Sulphites:	0mg/l	PF:	0.37	Solids (corrected):	0.00%	Fann 003	1
Time:	22:00	API FL:	17.0cm³/30min	MF:	1.42	H2O:	100.0%	Fann 006	1
Weight:	8.40ppg	API Cake:	1/32nd"	Cl:	11500mg/l	Oil:	0.0%	Fann 100	10
ECD TD:		PV	8cp	Hard/Ca:	40mg/l	Sand:	0 %	Fann 200	14
ECD Shoe:		YP	10lb/100ft²	MBT:	0.00	Barite:	0.00lb/bbl	Fann 300	18
Viscosity	54sec/qt			KCl Equiv:	1.7%	CaCO3 Added:	0.0ppb	Fann 600	26
				PHPA Added:	0.37ppb				
				Fluoresceine:	0.000ppm				

Comment: No circulation or mud chemical additions last 24 hours. 20bbls water added.
Continue shearing newly mixed volume by pumping through all tanks,
using gun lines.

Shakers, Volumes and Losses Data

Available	**719bbl**	**Losses**	**0bbl**
Active	20bbl	Downhole	0bbl
Hole	64bbl	Shakers & Equip.	0bbl
Slug		Dumped	0bbl
Reserve	635bbl	Centrifuges	
		Desander/silter	
		De-Silter	0bbl
Built	24bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	3 x 84	0
2	Lin. Motion SHAKER	3 x 84	0
3	De-Sander	2 x 8" Cones	0
4	De-Silter	12 x 4" Cones	0

Comment: No circulation or mud chemical additions last 24 hours. 20bbls water added.

Bit Data

Bit # 2

				Nozzles	Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	6.750	IADC#		5 x 12(/32nd")	Progress	0.0m	Cum. Progress	0.0m
Mfr:	Stealth Tools	WOB(avg)	klb		On Bottom Hrs	0.00	Cum. On Btm Hrs	0.00
Type:	PDC	RPM(avg)			IADC Drill Hrs	0.00	Cum IADC Drill Hrs	0.00
Serial No.:	6972	RPM (DH)(avg)			Total Revs	0	Cum Total Revs	0
Bit Model	M56S	F.Rate	gpm		OB-ROP(avg)		Cum. OB-ROP(avg)	0.00m/hr
Depth In	516.0m	SPP	psi					
Depth Out		TFA	0.552	HSI HSI				

BHA Data

BHA # 2

Weight(Wet)	25.0klb	Length	260.6m	Torque(max)		D.C. (1) Ann Velocity	0fpm
Wt Below Jar(Wet)	20.0klb	String		Torque(Off.Btm)		D.C. (2) Ann Velocity	0fpm
		Pick-Up		Torque(On.Btm)		H.W.D.P. Ann Velocity	0fpm
		Slack-Off		Jar Hours		D.P. Ann Velocity	0fpm

BHA Run Description: Packed.

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Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.26m	6.75in		6972		
Near Bit Stab	1 x 1.51m	6.75in	2.43in	5475-1		
Pony DC	1 x 2.90m	4.75in	2.25in	502-A32		
String Stabiliser	1 x 1.54m	6.75in	2.06in	5415-2		
NMDC	1 x 9.19m	4.75in	2.31in			
4.75" DC	1 x 9.49m	4.75in	2.31in			
String Stabiliser	1 x 1.54m	6.75in	2.00in	475-3		
4.75" DC	15 x 9.43m	4.75in	2.31in			
Drilling Jars	1 x 9.37m	4.75in	2.31in	380-47763-03		
4.75" DC	3 x 9.50m	4.75in	2.31in			
3 1/2" HWDP	6 x 9.14m	3.50in	2.12in			
Total Length:	260.59m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
0.00	0.00	112.00	0.0	0.00	0.00	0.00	0.00	Datum
131.00	0.25	112.00	131.0	0.11	0.06	-0.11	0.27	Single shot
312.00	0.50	112.00	312.0	0.55	0.04	-0.55	1.36	Single shot
506.00	1.00	112.00	506.0	1.50	0.08	-1.50	3.72	Single shot

Summary

Company	Pax On
Upstream Petroleum	3
Century Drilling Ltd	24
Schlumberger Oilfield Australia Pty Ltd	2
BHI	2
RMN Drilling Fluids	1
Total on Rig	32

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Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	0	0	12.0
AMC Defoamer	25L can	0	0	0	18.0
AMC PAC-R	25kg sack	0	0	0	78.0
AMC PHPA	25kg sack	0	0	0	43.0
AUS-BEN	25kg sack	0	0	0	32.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	171.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Caustic Soda	25kg pail	0	0	0	37.0
Citric Acid	25kg sack	0	0	0	37.0
Cement - Class A	40kg sack	0	0	0	0.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	10.0
KCl	25kg sack	0	0	0	336.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	36.0
Soda Ash	25kg sack	0	0	0	54.0
Sodium Sulfite	25kg sack	0	0	0	54.0
Xanthan Gum	25kg sack	0	0	0	49.0
Xtra-sweep	12lb box	0	0	0	5.0
Diesel fuel		0	1400	0	15,600.0
Calcium Carbonate 40µ	25 kg sacks	0	0	0	354.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	9.00	97			
2	GD PZ-7	5.50	9.00	97			
3	GD PZ-7	5.51		97			

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
		1.			
		2.			
		1.			
		2.			
		1.			
		2.			

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CRC-1

Date :	18 Feb 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Agus Nugroho
Report Number	4	**Drilling Supervisor :**	Kevin Murphy / Brian Assels	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	9.88in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	516.0m	Casing MD:	512.0m	Last BOP Test:	
Rig:	CDL Rig 11	True Vertical Depth:	516.0m	Casing TVD:	512.0m	FIT/LOT:	/
RT - AMSL:	49.70m	24 Hr Progress:	0.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	3.54	Liner MD:		LTI Free Days:	270
Datum:	GDA 94	Days On Well:	16.54	Liner TVD:			

Current Ops @ 0600:	Pressure test BOP.
Planned Operations:	RIH with Bit #2 on BHA #2. Drill shoe track and 10 m of new hole. Conduct XLOT. Con't drill 6-3/4" hole.

Summary of Period 0000 to 2400 Hrs

Cement 7-5/8" surface casing. WOC, cut conductor, install A-section, NU BOP.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	18 Feb 2007	0 Days	Personnel blow into alcoholizer
Pre-Tour Meetings (2)	18 Feb 2007	0 Days	Housekeeping & cement operations

Operations For Period 0000 Hrs to 2400 Hrs on 18 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
SC	P	CIC	0000	0130	1.50	516.0m	Circ casing and condition hole. Mix cement chemicals. Hold pre-job safety meeting.
SC	P	CMC	0130	0230	1.00	516.0m	Pump 10 bls water ahead. P/test treating lines - fix leaks. P/test to 3500 psi. Pump 50 bbls water. Drop bottom plug.
SC	P	CMC	0230	0430	2.00	516.0m	Mix cement. Pump 67 bbls Class G lead cement at 12.5 ppg with 2.5% Bentonite BWOC, 1% CaCl2 BWOC. Mix and pump 33.5 bbls Class G lead cement at 15.8 ppg with 0.5 % CaCl2 BWOC. Release top plug. Displace cement with 79.1 bbls drilling mud at 6.6 bpm. Slow pump rate to 1.0 bpm for last 5 bbls. Bump plug & test casing to 3000 psi for 5 min. Held OK. Bleed off - 1 bbl back. Record 20 bbls of good cement returns at shakers. Bump plug at 04:05 hrs.
SC	P	RRD	0430	1100	6.50	516.0m	W.O.C. Clean cement unit. Flush flow line. Clean up work floor. Flush flowline ,Lift Conductor, Press test choke manifold. Prepare for BOP nipple up
SC	P	BOP	1100	2400	13.00	516.0m	Rig down Schlumberger cement head,Back out landing joint and lay out, lay out conductor barrel. Install braden head & nipple up BOPs

Operations For Period 0000 Hrs to 0600 Hrs on 19 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
PH1	P	BOP	0000	0300	3.00	516.0m	NU Choke line to manifold. PU test plug, MU x/overs and RIH on 3-1/2" DP. Seat test plug.
PH1	TP (RE)	BOP	0300	0600	3.00	516.0m	(IN PROGRESS) Close pipe rams and pressure up - no good. Concurrent RU flare line and degasser line to pit. Fix leaking check valve. Repeat pipe ram test - no-go. Attempt to test annular - leaking past rubber.

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WBM Data

Daily Chemical Costs: $ 6395.43	Cost To Date: $ 10515.73	Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:		pH:	10	Low Gravity Solids:	0.30%	Gels 10s	2
Description:	KCl / PHPA / POLYMER	Nitrates:	0mg/l	PM:	0.37	High Gravity Solids:	0.00%	Gels 10m	2
		Sulphites:	0mg/l	PF:	0.37	Solids (corrected):	0.30%	Fann 003	1
Sample From:	RESERVE	API FL:	18.0cm³/30min	MF:	1.42	H2O:	100.0%	Fann 006	2
Time:	18:00	API Cake:	1/32nd"	Cl:	9000mg/l	Oil:	0.0%	Fann 100	11
Weight:	8.45ppg	PV	9cp	Hard/Ca:	40mg/l	Sand:	0 %	Fann 200	16
ECD TD:		YP	11lb/100ft²	MBT:	0.00	Barite:	0.00lb/bbl	Fann 300	20
ECD Shoe:				KCl Equiv:	2.0%	CaCO3 Added:	0.0ppb	Fann 600	29
Viscosity	54sec/qt			PHPA Added:	0.40ppb				
				Fluoresceine:					

Comment: After cementation, dump all remaining spud mud SFC volume+clean pits.
Prepare 615bbls 1.7% KCl / PHPA / POLYMER fluid. Keep circulating through mud guns, to even out and shear PHPA. This volume is held in reserve, to be used for displacement after drilling out shoe track.
Pill tank is only ACTIVE tank (MT at this time), to be used with remaining spud mud to drill out cement and make new hole for LOT.

Carry out laboratory work, to establish Fluoresceine additions required, to give acceptable results.

Shakers, Volumes and Losses Data

Available	**695bbl**	**Losses**	**0bbl**
Active	0bbl	Downhole	0bbl
Hole	80bbl	Shakers & Equip.	0bbl
Slug		Dumped	0bbl
Reserve	615bbl	Centrifuges	
		Desander/silter	
		De-Silter	0bbl
Built	615bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	3 x 84	0
2	Lin. Motion SHAKER	3 x 84	0
3	De-Sander	2 x 8" Cones	0
4	De-Silter	12 x 4" Cones	0

Comment: After cementation, dump all remaining spud mud SFC volume+clean pits.
Prepare 615bbls 1.7% KCl / PHPA / POLYMER fluid. Keep circulating through mud guns, to even out and shear PHPA. This volume is held in reserve, to be used for displacement after drilling out shoe track.
Pill tank is only ACTIVE tank (MT at this time), to be used with remaining spud mud to drill out cement and make new hole for LOT.

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
0.00	0.00	112.00	0.0	0.00	0.00	0.00	0.00	Datum
131.00	0.25	112.00	131.0	0.11	0.06	-0.11	0.27	Single shot
312.00	0.50	112.00	312.0	0.55	0.04	-0.55	1.36	Single shot
506.00	1.00	112.00	506.0	1.50	0.08	-1.50	3.72	Single shot

Summary

Company	Pax On
Upstream Petroleum	3
Century Drilling Ltd	24
Schlumberger Oilfield Australia Pty Ltd	2
BHI	2
RMN Drilling Fluids	1
Total on Rig	32

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Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	3	0	12.0
AMC Defoamer	25L can	0	0	0	18.0
AMC PAC-R	25kg sack	0	10	0	78.0
AMC PHPA	25kg sack	0	5	0	43.0
AUS-BEN	25kg sack	0	0	0	32.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	171.0
Baryte	25kg sack	0	0	0	686.0
CaCl	25kg sack	0	0	0	2.0
Caustic Soda	25kg pail	0	2	0	37.0
Citric Acid	25kg sack	0	0	0	37.0
Cement - Class A	40kg sack	0	0	0	0.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	10.0
KCl	25kg sack	0	84	0	336.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	36.0
Soda Ash	25kg sack	0	0	0	54.0
Sodium Sulfite	25kg sack	0	0	0	54.0
Xanthan Gum	25kg sack	0	5	0	49.0
Xtra-sweep	12lb box	0	0	0	5.0
Diesel fuel		0	1600	0	17,000.0
Calcium Carbonate 40µ	25 kg sacks	0	0	0	354.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	9.00	97		400.00	125.00
2	GD PZ-7	5.50	9.00	97		400.00	125.00
3	GD PZ-7	5.51		97			

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
		1.			
		2.			
		1.			
		2.			
		1.			
		2.			

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CRC-1

Date :	17 Feb 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Agus Nugroho
Report Number	3	**Drilling Supervisor :**	Kevin Murphy / Brian Assels	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	9.88in	Casing O.D.:	7.625in	Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	516.0m	Casing MD:	512.0m	Last BOP Test:	
Rig:	CDL Rig 11	True Vertical Depth:	516.0m	Casing TVD:	512.0m	FIT/LOT:	/
RT - AMSL:	49.70m	24 Hr Progress:	0.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	2.54	Liner MD:		LTI Free Days:	269
Datum:	GDA 94	Days On Well:	15.54	Liner TVD:			

Current Ops @ 0600:	WOC.
Planned Operations:	WOC, Cut conductor, MU A-section, NU BOP's & p/test. RIH 6-3/4" PDC Bit #2.

Summary of Period 0000 to 2400 Hrs

Conduct wiper trip to bit. RIH - 13 m soft fill. Circ well while WO cement head. POOH, LD 6-1/4" DC's. RIH 7-5/8" casing.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	17 Feb 2007	0 Days	Personnel blow into alcoholizer
First Aid Case (1)	17 Feb 2007	0 Days	Cook cut finger while cutting food. Not LTI.
Pre-Tour Meetings (2)	17 Feb 2007	0 Days	Housekeeping & Racking back DC's
Safety Meeting (1)	17 Feb 2007	0 Days	Pre-job cementing meeting.
Weekly Safety Meeting (2)	17 Feb 2007	0 Days	Meetings held for both crews.

Operations For Period 0000 Hrs to 2400 Hrs on 17 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
SH	P	WT	0000	0630	6.50	516.0m	Con't POH Bit #1 on wiper trip. Inspect bit - OK. Clean work floor. RIH with Bit #1. Break circ on trip in at 200 m & 400 m.
SH	TP (WOE)	WO	0630	1100	4.50	516.0m	Tag fill at 503m. Pick up kelly and wash to bottom. Circ and WO cement / cement head.
SH	P	TO	1100	1600	5.00	516.0m	POH f/ 516m. LO 6-1/4" DC's & Jars.
SH	P	HT	1600	1630	0.50	516.0m	Clean & clear drill floor.
SC	P	RRD	1630	1800	1.50	516.0m	RU casing running equipment and stabbing board.
SC	P	SAF	1800	1830	0.50	516.0m	PU shoe joint. Hold pre-job safety meeting.
SC	P	CRN	1830	2300	4.50	516.0m	RIH with Float Shoe (7-5/8" buttress), 1 jt 7-5/8" 26.4 #/ft L80 Buttress casing, Float Collar (7-5/8" buttress), 42 jts 7-5/8" 26.4 #/ft L80 Buttress casing, & 7-5/8" 26.4 #/ft L80 Buttress landing joint. Install centralizers middle of shoe joint, then top of every joint for next 6 joints. Install centralizers on 3 top joints.
SC	P	RRD	2300	2400	1.00	516.0m	Install cement head and lines to floor. Rig to circ casing.

Operations For Period 0000 Hrs to 0600 Hrs on 18 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
SC	P	CIC	0000	0130	1.50	516.0m	Circ casing and condition hole. Mix cement chemicals. Hold pre-job safety meeting.
SC	P	CMC	0130	0230	1.00	516.0m	Pump 10 bls water ahead. P/test treating lines - fix leaks. P/test to 3500 psi. Pump 50 bbls water. Drop bottom plug.
SC	P	CMC	0230	0430	2.00	516.0m	Mix cement. Pump 67 bbls Class G lead cement at 12.5 ppg with 2.5% Bentonite BWOC, 1% CaCl2 BWOC. Mix and pump 33.5 bbls Class G lead cement at 15.8 ppg with 0.5 % CaCl2 BWOC. Release top plug. Displace cement with 79.1 bbls drilling mud at 6.6 bpm. Slow pump rate to 1.0 bpm for last 5 bbls. Bump plug & test casing to 3000 psi for 5 min. Held OK. Bleed off - 1 bbl back. Record 20 bbls of good cement returns at shakers. Bump plug at 04:05 hrs.
SC	P	RRD	0430	0600	1.50	516.0m	(IN PROGRESS) W.O.C. Clean cement unit. Flush flow line. Clean up work floor. Flush flowline ,Lift Conductor, Press test choke manifold. Prepare for BOP nipple up

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WBM Data

Daily Chemical Costs: $ 1123.13 | Cost To Date: $ 4120.30 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	44.9C°	pH:	8	Low Gravity Solids:	2.60%	Gels 10s	21
Description:	BENTONITE Spud Mud	Nitrates:	0mg/l	PM:	0	High Gravity Solids:	0.60%	Gels 10m	30
Sample From:	Past Shaker	Sulphites:	0mg/l	PF:	0	Solids (corrected):	3.20%	Fann 003	22
Time:	11:30	API FL:	50.0cm³/30min	MF:	0.16	H2O:	96.8%	Fann 006	26
Weight:	8.90ppg	API Cake:	4/32nd"	Cl:	6800mg/l	Oil:	0.0%	Fann 100	30
ECD TD:	9.06ppg	PV	4cp	Hard/Ca:	320mg/l	Sand:	.25 %	Fann 200	32
ECD Shoe:		YP	30lb/100ft²	MBT:	15.00	Barite:	9.50lb/bbl	Fann 300	34
Viscosity	44sec/qt			KCl Equiv:	0.9%	CaCO3 Added:	0.0ppb	Fann 600	38
				PHPA Added:	0.00ppb				
				Fluoresceine:					

Comment: Add remaining KCl brine to system, as tank had to be MT for repairs.
Prepare 30bbls XTRA SWEEP.
Treat SFC volume with SAPP to reduce rheology prior to cement job.
Cont treatment w/- SAPP while circulating CSG.

AUS-BEN and CaCl2 supplied to DOWELL-SLB for CMT job.

Shakers, Volumes and Losses Data

Available	**409bbl**	**Losses**	**136bbl**
Active	230bbl	Downhole	11bbl
Hole	151bbl	Shakers & Equip.	0bbl
Slug		Dumped	40bbl
Reserve	28bbl	Centrifuges	
		Desander/silter	85bbl
		De-Silter	
Built	40bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	3 x 84	11
2	Lin. Motion SHAKER	3 x 84	11
3	De-Sander	2 x 8" Cones	18
4	De-Silter	12 x 4" Cones	18

Comment: Add remaining KCl brine to system, as tank had to be MT for repairs.
Prepare 30bbls XTRA SWEEP.
Treat SFC volume with SAPP to reduce rheology prior to cement job.
Cont treatment w/- SAPP while circulating CSG.

Bit Data

Bit # 1

Wear	I	O1	D	L	B	G	O2	R
	2	2	NO	A	1	I	RR	TD

				Nozzles		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Size ("):	9.875	IADC#	1-1-7	4 x 14(/32nd")		Progress	0.0m	Cum. Progress	516.0m
Mfr:	Stealth Tools	WOB(avg)	5.0klb			On Bottom Hrs	0.00	Cum. On Btm Hrs	23.00
Type:	Rock	RPM(avg)	120			IADC Drill Hrs	0.00	Cum IADC Drill Hrs	31.50
Serial No.:	402437	RPM (DH)(avg)	120			Total Revs	0	Cum Total Revs	106430
Bit Model	JST11XC	F.Rate	504.0gpm			OB-ROP(avg)		Cum. OB-ROP(avg)	22.43m/hr
Depth In	15.0m	SPP	1600.0psi						
Depth Out	516.0m	TFA	0.601	HSI	HSI				

BHA Data

BHA # 1

Weight(Wet)	25.0klb	Length	204.8m	Torque(max)	5000.0ft-lbs	D.C. (1) Ann Velocity	211fpm
Wt Below Jar(Wet)	20.0klb	String	63.0klb	Torque(Off.Btm)	1000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	65.0klb	Torque(On.Btm)	5000.0ft-lbs	H.W.D.P. Ann Velocity	145fpm
		Slack-Off	63.0klb	Jar Hours	32.5	D.P. Ann Velocity	145fpm

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Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.26m	9.88in		402437	32.5	
Bit Sub	1 x 0.74m	7.99in				
X/O	1 x 0.69m	6.22in	2.87in			
6.5" DC	2 x 9.07m	6.22in	2.87in		470.25	
Stabiliser	1 x 1.42m	9.88in	2.87in			
6.5" DC	10 x 9.11m	6.22in	2.87in		470.25	
6 1/2in Jars	1 x 9.84m	6.50in	2.87in	DJ012	32.5	
6.5" DC	3 x 9.17m	6.22in	2.87in		470.25	
X/O	1 x 0.27m	6.22in				
3 1/2" HWDP	6 x 9.14m	3.50in	2.17in		32.5	
Total Length:	204.81m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
0.00	0.00	112.00	0.0	0.00	0.00	0.00	0.00	Datum
131.00	0.25	112.00	131.0	0.11	0.06	-0.11	0.27	Single shot
312.00	0.50	112.00	312.0	0.55	0.04	-0.55	1.36	Single shot
506.00	1.00	112.00	506.0	1.50	0.08	-1.50	3.72	Single shot

Summary

Company	Pax On
Upstream Petroleum	3
Century Drilling Ltd	25
Schlumberger Oilfield Australia Pty Ltd	2
BHI	2
RMN Drilling Fluids	1
Total on Rig	33

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	0	0	15.0
AMC Defoamer	25L can	0	0	0	18.0
AMC PAC-R	25kg sack	0	0	0	88.0
AMC PHPA	25kg sack	0	0	0	48.0
AUS-BEN	25kg sack	0	10	0	32.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	3	0	171.0
Baryte	25kg sack	0	30	0	686.0
CaCl	25kg sack	0	6	0	2.0
Caustic Soda	25kg pail	0	0	0	39.0
Citric Acid	25kg sack	0	0	0	37.0
Cement - Class A	40kg sack	0	0	0	0.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	10.0
KCl	25kg sack	0	0	0	420.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	6	0	36.0
Soda Ash	25kg sack	0	0	0	54.0
Sodium Sulfite	25kg sack	0	0	0	54.0
Xanthan Gum	25kg sack	0	0	0	54.0
Xtra-sweep	12lb box	0	1	0	5.0
Diesel fuel		0	2400	0	18,600.0
Calcium Carbonate 40µ	25 kg sacks	0	0	0	354.0

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Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	9.00	97	120	1600.00	250.00
2	GD PZ-7	5.50	9.00	97	120	1600.00	250.00
3	GD PZ-7	5.51		97			

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
		1.			
		2.			
		1.			
		2.			
		1.			
		2.			

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CRC-1

Date :	16 Feb 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Agus Nugroho
Report Number	2	**Drilling Supervisor :**	Kevin Murphy / Brian Assels	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	9.88in	Casing O.D.:		Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	516.0m	Casing MD:		Last BOP Test:	
Rig:	CDL Rig 11	True Vertical Depth:	516.0m	Casing TVD:		FIT/LOT:	/
RT - AMSL:	49.70m	24 Hr Progress:	300.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	1.54	Liner MD:		LTI Free Days:	268
Datum:	GDA 94	Days On Well:	14.54	Liner TVD:			

Current Ops @ 0600:	Circ while WO Schlumberger cement head.
Planned Operations:	Circ while WO cement & cement head. POH laying down 6-1/2" DC. Rig to and run 7-5/8" surface casing. Cement same. WOC.

Summary of Period 0000 to 2400 Hrs

Drill 9-7/8" hole from 216 to 324m. Conduct survey at 312m. Con't drill ahead to 516m. Circ hole clean. Conduct WLS. POH on wiper trip.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	16 Feb 2007	0 Days	Personnel blow into alcoholizer
Equipment Incident (1)	16 Feb 2007	0 Days	Schlumberger bulk cement road tanker tilted over.
Pre-Tour Meetings (2)	16 Feb 2007	0 Days	Housekeeping & Correct use of non-powered tools

Operations For Period 0000 Hrs to 2400 Hrs on 16 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
SH	P	DA	0000	0600	6.00	314.0m	Drill 9-7/8" hole from 216m to 314m.
SH	TP (DTF)	SVY	0600	0630	0.50	314.0m	RIH with WLS. No go, hung up in HWDP. Re-run survey line to crown.
SH	P	DA	0630	0700	0.50	324.0m	Con't drill 9-7/8" hole f/ 314 m to 324m.
SH	P	SVY	0700	0730	0.50	324.0m	Run WLS at 312m - 1/2 deg.
SH	P	DA	0730	2100	13.50	516.0m	Drill 9-7/8" hole f/ 324m to 516m.
SH	P	CMD	2100	2230	1.50	516.0m	Pump hi-vis sweep. Circ to clean hole.
SH	P	SVY	2230	2300	0.50	516.0m	Run WLS at 506m - 1 deg.
SH	P	WT	2300	2400	1.00	516.0m	Pump pill, rack back kelly & POH on wiper trip.

Operations For Period 0000 Hrs to 0600 Hrs on 17 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
SH	P	WT	0000	0600	6.00	516.0m	(IN PROGRESS) Con't POH Bit #1 on wiper trip. Inspect bit - OK. Clean work floor. RIH with Bit #1. Break circ on trip in at 200 m & 400 m.

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WBM Data

Daily Chemical Costs: $ 609.90 | Cost To Date: $ 2997.17 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	47.1C°	pH:	8	Low Gravity Solids:	4.40%	Gels 10s	25
Description:	BENTONITE Spud Mud	Nitrates:	0mg/l	PM:	0	High Gravity Solids:	0.00%	Gels 10m	37
		Sulphites:	0mg/l	PF:	0	Solids (corrected):	4.40%	Fann 003	32
Sample From:	Past Shaker	API FL:	50.0cm³/30min	MF:	0.22	H2O:	95.6%	Fann 006	35
Time:	22:15	API Cake:	2/32nd"	Cl:	6900mg/l	Oil:	0.0%	Fann 100	41
Weight:	9.00ppg	PV	12cp	Hard/Ca:	400mg/l	Sand:	0.2 %	Fann 200	45
ECD TD:	9.43ppg	YP	38lb/100ft²	MBT:	20.00	Barite:	0.00lb/bbl	Fann 300	50
ECD Shoe:				KCl Equiv:	1.0%	CaCO3 Added:	0.0ppb	Fann 600	62
Viscosity	49sec/qt			PHPA Added:	0.00ppb				
				Fluoresceine:					

Comment: Maintain substantial (15-20bbls/hr) water additions while drilling.
At around 400m sticky clay agglomerations begin to show on shakers.
Also observe cavings up to 1.5" in length w/- ½-¾" thickness.
Mud-rings were not encountered, Fluid-loss control no longer evident.
Start pumping 10bbl batches of previously prepared KCl brine direct from mixing tank. Observe expected increase in fluid viscosity and decrease of clay balls. Add a total of 70bbls of 10% KCl brine to system.
Prepare 30bbls of XTRA SWEEP (0.4ppb) and pump before check trip.

Shakers, Volumes and Losses Data

Available	**505bbl**	**Losses**	**281bbl**
Active	310bbl	Downhole	12bbl
Hole	145bbl	Shakers & Equip.	0bbl
Slug		Dumped	180bbl
Reserve		Centrifuges	
10% KCl	50bbl	Desander/Silter	89bbl
		De-Silter	
Built	360bbl		

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	3 x 84	23
2	Lin. Motion SHAKER	3 x 84	23
3	De-Sander	2 x 8" Cones	24
4	De-Silter	12 x 4" Cones	22

Bit Data

Bit # 1

				Nozzles	**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Size ("):	9.875	IADC#	1-1-7	4 x 14(/32nd")	Progress	300.0m	Cum. Progress	516.0m
Mfr:	Stealth Tools	WOB(avg)	5.0klb		On Bottom Hrs	17.50	Cum. On Btm Hrs	23.00
Type:	Rock	RPM(avg)	120		IADC Drill Hrs	19.50	Cum IADC Drill Hrs	31.50
Serial No.:	402437	RPM (DH)(avg)	120		Total Revs	75830	Cum Total Revs	106430
Bit Model	JST11XC	F.Rate	504.0gpm		OB-ROP(avg)	17.14m/hr	Cum. OB-ROP(avg)	22.43m/hr
Depth In	15.0m	SPP	1600.0psi					
Depth Out		TFA	0.601	HSI HSI				

BHA Data

BHA # 1

Weight(Wet)	25.0klb	Length	204.8m	Torque(max)	5000.0ft-lbs	D.C. (1) Ann Velocity	211fpm
Wt Below Jar(Wet)	20.0klb	String	63.0klb	Torque(Off.Btm)	1000.0ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	65.0klb	Torque(On.Btm)	5000.0ft-lbs	H.W.D.P. Ann Velocity	145fpm
		Slack-Off	63.0klb	Jar Hours	32.5	D.P. Ann Velocity	145fpm

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Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.26m	9.88in		402437	32.5	
Bit Sub	1 x 0.74m	7.99in				
X/O	1 x 0.69m	6.22in	2.87in			
6.5" DC	2 x 9.07m	6.22in	2.87in		470.25	
Stabiliser	1 x 1.42m	9.88in	2.87in			
6.5" DC	10 x 9.11m	6.22in	2.87in		470.25	
6 1/2in Jars	1 x 9.84m	6.50in	2.87in	DJ012	32.5	
6.5" DC	3 x 9.17m	6.22in	2.87in		470.25	
X/O	1 x 0.27m	6.22in				
3 1/2" HWDP	6 x 9.14m	3.50in	2.17in		32.5	
Total Length:	204.81m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
0.00	0.00	112.00	0.0	0.00	0.00	0.00	0.00	Datum
131.00	0.25	112.00	131.0	0.11	0.06	-0.11	0.27	Single shot
312.00	0.50	112.00	312.0	0.55	0.04	-0.55	1.36	Single shot
506.00	1.00	112.00	506.0	1.50	0.08	-1.50	3.72	Single shot

Summary

Company	Pax On
Upstream Petroleum	3
Century Drilling Ltd	25
Schlumberger Oilfield Australia Pty Ltd	2
BHI	2
RMN Drilling Fluids	1
Total on Rig	33

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	0	0	0	15.0
AMC Defoamer	25L can	0	0	0	18.0
AMC PAC-R	25kg sack	32	0	0	88.0
AMC PHPA	25kg sack	30	0	0	48.0
AUS-BEN	25kg sack	42	0	0	42.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	0	0	0	174.0
Baryte	25kg sack	320	50	0	716.0
CaCl	25kg sack	8	0	0	8.0
Caustic Soda	25kg pail	32	0	0	39.0
Citric Acid	25kg sack	0	0	0	37.0
Cement - Class A	40kg sack	0	0	0	0.0
Kwik-seal C	40lb sack	0	0	0	30.0
Kwik-seal F	40lb sack	0	0	0	32.0
Kwik-seal M	40lb sack	0	0	0	32.0
Lime	20kg sack	0	0	0	10.0
KCl	25kg sack	294	0	0	420.0
Rod-free 205L	205L drum	0	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	42	0	0	42.0
Soda Ash	25kg sack	38	0	0	54.0
Sodium Sulfite	25kg sack	42	0	0	54.0
Xanthan Gum	25kg sack	30	0	0	54.0
Xtra-sweep	12lb box	0	1	0	6.0
Diesel fuel		0	3900	0	21,000.0
Calcium Carbonate 40µ	25 kg sacks	0	0	0	354.0

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Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.50	9.00	97	120	1600.00	250.00
2	GD PZ-7	5.50	9.00	97	120	1600.00	250.00
3	GD PZ-7	5.51		97			

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
		1.			
		2.			
		1.			
		2.			
		1.			
		2.			

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CRC-1

Date :	15 Feb 2007	**Well Site Manager :**	Kevin Murphy	**Rig Manager :**	Caesar Miaco / Agus Nugroho
Report Number	1	**Drilling Supervisor :**	Kevin Murphy / Brian Assels	**Drilling Company :**	Century Drilling Ltd
Easting	657899.1	**Northing**	5733759.0	**Geologist :**	Dave Horner

Well Details

Country:	Australia	Current Hole Size:	9.88in	Casing O.D.:		Planned TD:	2250.0m
Field:	Otway (Naylor)	Measured Depth:	216.0m	Casing MD:		Last BOP Test:	
Rig:	CDL Rig 11	True Vertical Depth:	216.0m	Casing TVD:		FIT/LOT:	/
RT - AMSL:	49.70m	24 Hr Progress:	216.0m	TOL MD:		Last LTI:	04 Jan 2006
RT - GL:	5.20m	Days From Spud:	0.54	Liner MD:		LTI Free Days:	267
Datum:	GDA 94	Days On Well:	13.54	Liner TVD:			

Current Ops @ 0600:	Drill 9-7/8" surface hole at 312m.
Planned Operations:	Drill ahead to surface casing TD (520m). Circ, conduct wiper trip, circ, POH to run casing.

Summary of Period 0000 to 2400 Hrs

Rig up to spud. Spud well at 11:00 hrs on 15 Feb/07. Drill 9-7/8" hole.

HSE Summary

Event (# Of)	Date of last	Days Since	Short Description
Alcohol & drug screening (2)	15 Feb 2007	0 Days	Personnel blow into alcoholizer
Pre-Tour Meetings (2)	15 Feb 2007	0 Days	Drilling mousehole and rathole & PU DC's

Operations For Period 0000 Hrs to 2400 Hrs on 15 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
SH	P	DA	1100	1600	5.00	115.0m	Spud well at 11:00 on 15 Feb/07. Drill 9-7/8" hole from surface to 115m
SH	TP (DTF)	SVY	1600	1630	0.50	115.0m	Conduct wireline survey at 103m. - misrun.
SH	P	DA	1630	1800	1.50	143.0m	Drill 9-7/8" hole f/ 115m to 143m.
SH	P	SVY	1800	1830	0.50	143.0m	Conduct WLS at 131m - 1/4 deg.
SH	P	DA	1830	2400	5.50	216.0m	Drill 9-7/8" hole f/ 143 m to 216m.

Operations For Period 0000 Hrs to 0600 Hrs on 16 Feb 2007

Phse	Cls	Op	From	To	Hrs	Depth	Activity Description
SH	P	DA	0000	0600	6.00	314.0m	Drill 9-7/8" hole from 216m to 314m.

WBM Data

Daily Chemical Costs: $ 2387.27 | Cost To Date: $ 2387.27 | Engineer : Peter N ARONETZ

Mud Type:	Water Based	Flowline Temp:	38.2C°	pH:	9	Low Gravity Solids:	3.90%	Gels 10s	11
Description:	BENTONITE Spud Mud	Nitrates:	0mg/l	PM:	0.06	High Gravity Solids:	0.00%	Gels 10m	21
Sample From:	Past Shaker	Sulphites:	0mg/l	PF:	0.06	Solids (corrected):	3.90%	Fann 003	7
Time:	23:20	API FL:	19.5cm³/30min	MF:	0.32	H2O:	96.1%	Fann 006	10
Weight:	8.90ppg	API Cake:	2/32nd"	Cl:	1500mg/l	Oil:	0.0%	Fann 100	15
ECD TD:	9.14ppg	PV	7cp	Hard/Ca:	80mg/l	Sand:	.25 %	Fann 200	18
ECD Shoe:		YP	15lb/100ft²	MBT:	25.00	Barite:	0.00lb/bbl	Fann 300	22
Viscosity	45sec/qt			KCl Equiv:	0.0%	CaCO3 Added:	0.0ppb	Fann 600	29
				PHPA Added:	0.00ppb				
				Fluoresceine:					

Comment: Prepare 200bbls 22ppb Bentonite spud mud to drill Rat and Mouse holes.
All solids control equipment put on line soon after spud.
Drilling through mud-making formations, thus maintaining SFC volume w/- water additions.
Prepare 120bbls 10% KCl brine, standing by for addition to system, if and when soft, sticky clay is being encountered, to minimise occurrence of mud rings.

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Shakers, Volumes and Losses Data

Available	426bbl
Active	250bbl
Hole	56bbl
Slug	
Reserve	
10% KCl	120bbl
Built	550bbl

Losses	123bbl
Downhole	19bbl
Shakers & Equip.	0bbl
Dumped	40bbl
Centrifuges	
De-Sander	45bbl
De-Silter	19bbl

Equip.	Descr.	Mesh Size	Hours
1	Lin. Motion SHAKER	3 x 84	18
2	Lin. Motion SHAKER	3 x 84	18
3	De-Sander	2 x 8" Cones	10
4	De-Silter	12 x 4" Cones	2

Comment: PLEASE NOTE:
Numerical entries have been made in traditional oilfield units, i.e. Bbls - NOT in m3. Please arrange for change of displayed units!!

Bit Data

Bit # 1

				Nozzles	Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	9.875	IADC#	1-1-7	4 x 14(/32nd")	Progress	216.0m	Cum. Progress	216.0m
Mfr:	Stealth Tools	WOB(avg)	4.9klb		On Bottom Hrs	5.50	Cum. On Btm Hrs	5.50
Type:	Rock	RPM(avg)	120		IADC Drill Hrs	12.00	Cum IADC Drill Hrs	12.00
Serial No.:	402437	RPM (DH)(avg)	120		Total Revs	30600	Cum Total Revs	30600
Bit Model	JST11XC	F.Rate	504.6gpm		OB-ROP(avg)	39.27m/hr	Cum. OB-ROP(avg)	39.27m/hr
Depth In	15.0m	SPP	11.0psi					
Depth Out		TFA	0.601	HSI HSI				

BHA Data

BHA # 1

Weight(Wet)	25.0klb	Length	204.8m	Torque(max)	4.9ft-lbs	D.C. (1) Ann Velocity	212fpm
Wt Below Jar(Wet)	20.0klb	String	50.0klb	Torque(Off.Btm)	0.4ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	50.9klb	Torque(On.Btm)	1.3ft-lbs	H.W.D.P. Ann Velocity	145fpm
		Slack-Off	50.0klb	Jar Hours	12	D.P. Ann Velocity	145fpm

Equipment	Length	OD	ID	Serial #	Hours	Comment
Bit	1 x 0.26m	9.88in		402437	32.5	
Bit Sub	1 x 0.74m	7.99in				
X/O	1 x 0.69m	6.22in	2.87in			
6.5" DC	2 x 9.07m	6.22in	2.87in		470.25	
Stabiliser	1 x 1.42m	9.88in	2.87in			
6.5" DC	10 x 9.11m	6.22in	2.87in		470.25	
6 1/2in Jars	1 x 9.84m	6.50in	2.87in	DJ012	32.5	
6.5" DC	3 x 9.17m	6.22in	2.87in		470.25	
X/O	1 x 0.27m	6.22in				
3 1/2" HWDP	6 x 9.14m	3.50in	2.17in		32.5	
Total Length:	204.81m					

Survey

MD (m)	Incl. (deg)	Corr. Az (deg)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
0.00	0.00	112.00	0.0	0.00	0.00	0.00	0.00	Datum
131.00	0.25	112.00	131.0	0.11	0.06	-0.11	0.27	Single shot

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Summary

Company	Pax On
Upstream Petroleum	3
Century Drilling Ltd	25
Schlumberger Oilfield Australia Pty Ltd	2
BHI	2
RMN Drilling Fluids	1
Total on Rig	33

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
AMC Biocide G	25L can	15	0	0	15.0
AMC Defoamer	25L can	18	0	0	18.0
AMC PAC-R	25kg sack	56	0	0	56.0
AMC PHPA	25kg sack	18	0	0	18.0
AUS-BEN	25kg sack	0	0	0	0.0
AUS-DEX	25kg sack	0	0	0	0.0
AUS-GEL	25kg sack	251	77	0	174.0
Baryte	25kg sack	446	0	0	446.0
CaCl	25kg sack	0	0	0	0.0
Caustic Soda	25kg pail	7	0	0	7.0
Citric Acid	25kg sack	37	0	0	37.0
Cement - Class A	40kg sack	0	0	0	0.0
Kwik-seal C	40lb sack	30	0	0	30.0
Kwik-seal F	40lb sack	32	0	0	32.0
Kwik-seal M	40lb sack	32	0	0	32.0
Lime	20kg sack	10	0	0	10.0
KCl	25kg sack	198	72	0	126.0
Rod-free 205L	205L drum	1	0	0	1.0
Rod-free 25L	25L can	0	0	0	0.0
NaCl	25kg sack	0	0	0	0.0
SAPP	25kg sack	0	0	0	0.0
Soda Ash	25kg sack	16	0	0	16.0
Sodium Sulfite	25kg sack	12	0	0	12.0
Xanthan Gum	25kg sack	24	0	0	24.0
Xtra-sweep	12lb box	7	0	0	7.0
Diesel fuel		0	1400	26300	24,900.0
Calcium Carbonate 40µ	25 kg sacks	354	0	0	354.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM	SPP (psi)	Flow (gpm)
1	GD PZ-7	5.51	8.90	97	120	10.88	250.96
2	GD PZ-7	5.51	8.90	97	120	10.88	250.96
3	GD PZ-7	5.51		97			

Slow Pump Data

Depth (m)	Ck. Line (psi)		SPM	SPP (psi)	Flow (gpm)
		1.			
		2.			
		1.			
		2.			
		1.			
		2.			

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ATTACHMENT 22 : DEMOBILISATION DAILY REPORTS

DAILY DRILLING REPORT

Well	**CRC-1 Move Out (from CRC-1 Rig Release to Lakes Oil)**				
Date	**21-Mar-07**	Drilling Rep Days	**Kevin Murphy**	Wellsite Gelogist	
Report No.	**RM # 7**	Drilling Rep Nights		Toolpusher	**Cesar Miaco**

WELL DATA							
Country	**Australia**	Current Hole Size	**6.75"**	Casing OD	**4.5"**	AFE Cost	
Field	**Onshore Otway**	Measured Depth	**2249m**	Casing MD	**2238m**	AFE Number	
Drill Co.	**Century**	True Vertical Depth	**2249m**	Casing TVD	**2238m**	Daily Cost:	
Rig	**Rig 11**	Progress		LOT:		Cum Cost:	
GL - AMSL	**44.8m**	Days From Spud		Last BOP Date:		Planned TD:	
RT - GL	**5.2m**	Days on Well		Last LTI Date:	**4/01/2006**		

SUMMARY OF PERIOD 00:00 to 2400HRS:

Wait on daylight,Load out final 14 loads Rig equipment.Final Report for C02CRC-1

CURRENT OPERATION @ 06:00HRS:

Wait on daylight

PLANNED OPERATIONS FOR NEXT 24HRS:

OPERATIONS FOR PERIOD 00:00 to 24:00

From	To	Operation Description
0:00	6:00	Wait on daylight
6:00	10:00	Load out final loads of Rig equipment . Total 14 Loads
		Final Report For C02CRC # 1

WATER BASED MUD DETAILS							
Mud Type		Filter Cake		H2O		Viscosity	
Sample-From		Cl		Oil:		PV	
Time		Hard/Ca		Sand		YP	
Weight		MBT		Glycol		Gels 10sec	
Temp		PM		KCl		Gels 10min	
API FL		Solids		PHPA			

EQUIPMENT, VOLUMES AND LOSSES DATA							
Available (bbls)		Losses		Equipment	Decription	Mesh Size	Hours
Active (bbls)		Downhole		Shaker 1			
Mixing (bbls)		Surface		Shaker 2			
Hole (bbls)		Dumped		Desander			
Slug (bbls)		De-sander		Desilter			
Reserve (bbls)		De-silter					
Kill (bbls)		Centifuge					

DAILY DRILLING REPORT

Well	CRC-1 Move Out (from CRC-1 Rig Release to Lakes Oil)				
Date	20-Mar-07	Drilling Rep Days	Kevin Murphy	Wellsite Gelogist	
Report No.	RM # 6	Drilling Rep Nights		Toolpusher	Cesar Miaco

WELL DATA							
Country	Australia	Current Hole Size	6.75"	Casing OD	4.5"	AFE Cost	
Field	Onshore Otway	Measured Depth	2249m	Casing MD	2238m	AFE Number	
Drill Co.	Century	True Vertical Depth	2249m	Casing TVD	2238m	Daily Cost:	
Rig	Rig 11	Progress		LOT:		Cum Cost:	
GL - AMSL	44.8m	Days From Spud		Last BOP Date:		Planned TD:	
RT - GL	5.2m	Days on Well		Last LTI Date:	4/01/2006		

SUMMARY OF PERIOD 00:00 to 2400HRS:

Wait on daylight,Load out Rig equipment .Wait on daylight

CURRENT OPERATION @ 06:00HRS:

Wait on daylight

PLANNED OPERATIONS FOR NEXT 24HRS:

Load out final loads of Rig equipment

OPERATIONS FOR PERIOD 00:00 to 24:00

From	To	Operation Description
0:00	6:00	Wait on daylight
6:00	18:00	Load out Rig equipment . Total 16 Loads
18:00	0:00	Wait on daylight

WATER BASED MUD DETAILS							
Mud Type		Filter Cake		H2O		Viscosity	
Sample-From		Cl		Oil:		PV	
Time		Hard/Ca		Sand		YP	
Weight		MBT		Glycol		Gels 10sec	
Temp		PM		KCl		Gels 10min	
API FL		Solids		PHPA			

EQUIPMENT, VOLUMES AND LOSSES DATA							
Available (bbls)		Losses		Equipment	Decription	Mesh Size	Hours
Active (bbls)		Downhole		Shaker 1			
Mixing (bbls)		Surface		Shaker 2			
Hole (bbls)		Dumped		Desander			
Slug (bbls)		De-sander		Desilter			
Reserve (bbls)		De-silter					
Kill (bbls)		Centifuge					

DAILY DRILLING REPORT

Well	**CRC-1 Move Out (from CRC-1 Rig Release to Lakes Oil)**				
Date	**19-Mar-07**	Drilling Rep Days	**Kevin Murphy**	Wellsite Gelogist	
Report No.	**RM # 5**	Drilling Rep Nights		Toolpusher	**Cesar Miaco**

WELL DATA							
Country	**Australia**	Current Hole Size	**6.75"**	Casing OD	**4.5"**	AFE Cost	
Field	**Onshore Otway**	Measured Depth	**2249m**	Casing MD	**2238m**	AFE Number	
Drill Co.	**Century**	True Vertical Depth	**2249m**	Casing TVD	**2238m**	Daily Cost:	
Rig	**Rig 11**	Progress		LOT:		Cum Cost:	
GL - AMSL	**44.8m**	Days From Spud		Last BOP Date:		Planned TD:	
RT - GL	**5.2m**	Days on Well		Last LTI Date:	**4/01/2006**		

SUMMARY OF PERIOD 00:00 to 2400HRS:

Wait on daylight,Load out Camp.Shaker tank,Suction tank,#1 & # 2 Mud Pumps,Guy Line Anchors.

CURRENT OPERATION @ 06:00HRS:

Wait on daylight

PLANNED OPERATIONS FOR NEXT 24HRS:

Continue load out Rig

OPERATIONS FOR PERIOD 00:00 to 24:00

From	To	Operation Description
0:00	6:00	Wait on daylight
6:00	18:00	Load out camp,Shaker Tank,# 1 & # 2 Mud Pumps,Guy Line Anchors. Total 16 Loads
18:00	0:00	Wait on daylight

WATER BASED MUD DETAILS							
Mud Type		Filter Cake		H2O		Viscosity	
Sample-From		Cl		Oil:		PV	
Time		Hard/Ca		Sand		YP	
Weight		MBT		Glycol		Gels 10sec	
Temp		PM		KCl		Gels 10min	
API FL		Solids		PHPA			

EQUIPMENT, VOLUMES AND LOSSES DATA							
Available (bbls)		Losses		Equipment	Decription	Mesh Size	Hours
Active (bbls)		Downhole		Shaker 1			
Mixing (bbls)		Surface		Shaker 2			
Hole (bbls)		Dumped		Desander			
Slug (bbls)		De-sander		Desilter			
Reserve (bbls)		De-silter					
Kill (bbls)		Centifuge					

DAILY DRILLING REPORT

Well	**CRC-1 Move Out (from CRC-1 Rig Release to Lakes Oil)**				
Date	**18-Mar-07**	Drilling Rep Days	**Kevin Murphy**	Wellsite Gelogist	
Report No.	**RM # 4**	Drilling Rep Nights		Toolpusher	**Cesar Miaco**

WELL DATA							
Country	**Australia**	Current Hole Size	**6.75"**	Casing OD	**4.5"**	AFE Cost	
Field	**Onshore Otway**	Measured Depth	**2249m**	Casing MD	**2245m**	AFE Number	
Drill Co.	**Century**	True Vertical Depth	**2249m**	Casing TVD	**2245m**	Daily Cost:	
Rig	**Rig 11**	Progress		LOT:		Cum Cost:	
GL - AMSL	**44.8m**	Days From Spud		Last BOP Date:		Planned TD:	
RT - GL	**5.2m**	Days on Well		Last LTI Date:	**4/01/2006**		

SUMMARY OF PERIOD 00:00 to 2400HRS:

Wait on daylight,Tidy up location and collect all rubbish,Continue with wash down of rig equipment,Store equipment for rig move.Wait on daylight.

CURRENT OPERATION @ 06:00HRS:

Wait on daylight

PLANNED OPERATIONS FOR NEXT 24HRS:

Load out camp.Wash rig & prepare rig for move to new location.

OPERATIONS FOR PERIOD 00:00 to 24:00

From	To	Operation Description
0:00	6:00	Wait on daylight
6:00	18:00	Tidy up location and collect all rubbish.Continue wash rig Store equipment for rig move.
18:00	0:00	Wait on daylight

WATER BASED MUD DETAILS							
Mud Type		Filter Cake		H2O		Viscosity	
Sample-From		Cl		Oil:		PV	
Time		Hard/Ca		Sand		YP	
Weight		MBT		Glycol		Gels 10sec	
Temp		PM		KCl		Gels 10min	
API FL		Solids		PHPA			

EQUIPMENT, VOLUMES AND LOSSES DATA							
Available (bbls)		Losses		Equipment	Decription	Mesh Size	Hours
Active (bbls)		Downhole		Shaker 1			
Mixing (bbls)		Surface		Shaker 2			
Hole (bbls)		Dumped		Desander			
Slug (bbls)		De-sander		Desilter			
Reserve (bbls)		De-silter					
Kill (bbls)		Centifuge					

DAILY DRILLING REPORT

Well	CRC-1 Move Out (from CRC-1 Rig Release to Lakes Oil)				
Date	17-Mar-07	Drilling Rep Days	Kevin Murphy	Wellsite Gelogist	
Report No.	RM # 3	Drilling Rep Nights		Toolpusher	Cesar Miaco

WELL DATA							
Country	Australia	Current Hole Size	6.75"	Casing OD	4.5"	AFE Cost	
Field	Onshore Otway	Measured Depth	2249m	Casing MD	2245m	AFE Number	
Drill Co.	Century	True Vertical Depth	2249m	Casing TVD	2245m	Daily Cost:	
Rig	Rig 11	Progress		LOT:		Cum Cost:	
GL - AMSL	44.8m	Days From Spud		Last BOP Date:		Planned TD:	
RT - GL	5.2m	Days on Well		Last LTI Date:	4/01/2006		

SUMMARY OF PERIOD 00:00 to 2400HRS:

Wait on daylight,Remove mast from carrier and load out,Load out sub base and filler base,Load carrier on float,Wash down equipment for load out,Wait on daylight

CURRENT OPERATION @ 06:00HRS:

Wait on daylight

PLANNED OPERATIONS FOR NEXT 24HRS:

Wash rig & prepare rig for move to new location.

OPERATIONS FOR PERIOD 00:00 to 24:00

From	To	Operation Description
0:00	6:00	Wait on daylight
6:00	18:00	Prepare and remove mast from carrier and load on trailer,Wash and load carrier on float,Wash and load subbase and filler base,
		Restack mud on trailers,Wash rig and prepare for load out to new location.
18:00	0:00	Wait on daylight.

WATER BASED MUD DETAILS

Mud Type		Filter Cake		H2O		Viscosity	
Sample-From		Cl		Oil:		PV	
Time		Hard/Ca		Sand		YP	
Weight		MBT		Glycol		Gels 10sec	
Temp		PM		KCl		Gels 10min	
API FL		Solids		PHPA			

EQUIPMENT, VOLUMES AND LOSSES DATA

Available (bbls)		Losses		Equipment	Decription	Mesh Size	Hours
Active (bbls)		Downhole		Shaker 1			
Mixing (bbls)		Surface		Shaker 2			
Hole (bbls)		Dumped		Desander			
Slug (bbls)		De-sander		Desilter			
Reserve (bbls)		De-silter					
Kill (bbls)		Centifuge					

DAILY DRILLING REPORT

Well	**CRC-1 Move Out (from CRC-1 Rig Release to Lakes Oil)**				
Date	**16-Mar-07**	Drilling Rep Days	**Kevin Murphy**	Wellsite Gelogist	
Report No.	**RM # 2**	Drilling Rep Nights		Toolpusher	**Cesar Miaco**

WELL DATA							
Country	**Australia**	Current Hole Size	**6.75"**	Casing OD	**4.5"**	AFE Cost	
Field	**Onshore Otway**	Measured Depth	**2249m**	Casing MD	**2245m**	AFE Number	
Drill Co.	**Century**	True Vertical Depth	**2249m**	Casing TVD	**2245m**	Daily Cost:	
Rig	**Rig 11**	Progress		LOT:		Cum Cost:	
GL - AMSL	**44.8m**	Days From Spud		Last BOP Date:		Planned TD:	
RT - GL	**5.2m**	Days on Well		Last LTI Date:	**4/01/2006**		

SUMMARY OF PERIOD 00:00 to 2400HRS:

Continue rig down Prepare for move to new location

CURRENT OPERATION @ 06:00HRS:

Wait on daylight

PLANNED OPERATIONS FOR NEXT 24HRS:

Rig down,wash rig & prepare rig for move to new location.

OPERATIONS FOR PERIOD 00:00 to 24:00

From	To	Operation Description
0:00	20:00	Continue rig down,Lower mast,Move carrier off well site ,Prepare to remove mast from carrier,Remove shakers & prepare mud tanks
		for move.Wash rig for move.
20:00	0:00	Wait on daylight

WATER BASED MUD DETAILS							
Mud Type		Filter Cake		H2O		Viscosity	
Sample-From		Cl		Oil:		PV	
Time		Hard/Ca		Sand		YP	
Weight		MBT		Glycol		Gels 10sec	
Temp		PM		KCl		Gels 10min	
API FL		Solids		PHPA			

EQUIPMENT, VOLUMES AND LOSSES DATA							
Available (bbls)		Losses		Equipment	Decription	Mesh Size	Hours
Active (bbls)		Downhole		Shaker 1			
Mixing (bbls)		Surface		Shaker 2			
Hole (bbls)		Dumped		Desander			
Slug (bbls)		De-sander		Desilter			
Reserve (bbls)		De-silter					
Kill (bbls)		Centifuge					

DAILY DRILLING REPORT

Well	CRC-1 Move Out (from CRC-1 Rig Release to Lakes Oil)				
Date	15-Mar-07	Drilling Rep Days	Kevin Murphy	Wellsite Gelogist	
Report No.	RM # 1	Drilling Rep Nights		Toolpusher	Cesar Miaco

WELL DATA							
Country	Australia	Current Hole Size	6.75"	Casing OD	4.5"	AFE Cost	
Field	Onshore Otway	Measured Depth	2249m	Casing MD	2245m	AFE Number	
Drill Co.	Century	True Vertical Depth	2249m	Casing TVD	2245m	Daily Cost:	
Rig	Rig 11	Progress		LOT:		Cum Cost:	
GL - AMSL	44.8m	Days From Spud		Last BOP Date:		Planned TD:	
RT - GL	5.2m	Days on Well		Last LTI Date:	4/01/2006		

SUMMARY OF PERIOD 00:00 to 2400HRS:

Continue rig down

CURRENT OPERATION @ 06:00HRS:

Rigging down

PLANNED OPERATIONS FOR NEXT 24HRS:

Rig down, rig move to new location

OPERATIONS FOR PERIOD 00:00 to 24:00

From	To	Operation Description
21:00	0:00	Rig down, prepare for rig move
0:00		
0:00		
0:00		
0:00		

WATER BASED MUD DETAILS							
Mud Type		Filter Cake		H2O		Viscosity	
Sample-From		Cl		Oil:		PV	
Time		Hard/Ca		Sand		YP	
Weight		MBT		Glycol		Gels 10sec	
Temp		PM		KCl		Gels 10min	
API FL		Solids		PHPA			

EQUIPMENT, VOLUMES AND LOSSES DATA							
Available (bbls)		Losses		Equipment	Decription	Mesh Size	Hours
Active (bbls)		Downhole		Shaker 1			
Mixing (bbls)		Surface		Shaker 2			
Hole (bbls)		Dumped		Desander			
Slug (bbls)		De-sander		Desilter			
Reserve (bbls)		De-silter					
Kill (bbls)		Centifuge					

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ATTACHMENT 23 : RIG INVENTORY

RIG INVENTORY
RIG # 11 : COOPER LTO 750

CARRIER:	Cooper LTO 750 Carrier with triple front and rear axles 54,000lb front and 70,000lb rear. All necessary highway equipment. Unit leveled with hydraulic jacks when stationary.	
SUBSTRUCTURE:	5.2 m Ground level to rotary table. 4.3 m Clear height under rotary beams. Maximum 350,000 lbs on rotary table and 200,000 lbs on setback.	
DRAWWORKS:	Cooper 750 HP Double Drum Drawworks	
ENGINES:	Driven by 2 each Caterpillar 3406 TA Diesel Engines	
BRAKE:	Parmac 202 Hydromatic	
ROTARY TABLE:	National Rotary Table Model C-175	
DERRICK:	Cooper Derrick Model 118-365. Ground height 118' Maximum rated static hook load 350,000 lbs with 10 lines. Mast raised, lowered and telescoped hydraulically. Pipe racking capacity of 2500m – 4-1/2" drill pipe.	
CROWN BLOCK:	Cooper Crown Block with 4 working sheaves. Fast line sheave and dead line sheave. All grooved for 1-1/8" line	
HOOK BLOCK:	Ideco 1 1/8" 265 Ton Shorty	
SWIVEL:	National P-200	
SLUSH PUMPS:	3 Gardner Denver PZ-7 Triplex Pumps driven by Cat 379TA Diesel Engines Rated 550 HP each.	
MUD SYSTEM:	2 × 300 bbl tanks incorporating 80 bbl pill tank and 54 bbl trip tank.	
SHAKERS:	2 x DFE SCR-01 Linear Motion.	
DEGASSER:	Drilco Atmospheric Degasser Standard Pit powered by $7^1/_2$ HP 60 Hz, 230v motor.	
MUD / GAS SEPARATOR	40" Poor Boy Degasser	
VENT LINE:	6" vent line from Separator to flare pit.	
DESANDER:	Harrisburg Model DSN 1000. 2 x 10" Cones with 6" × 8" Centrifugal pump driven by 60 HP Electric Motor.	
DESILTER:	Harrisburg 10 x 5" Cones and 6" x 8"Centrifugal pump, driven by a 60 HP Electric Motor.	
MUD MIXING PUMP:	Harrisburg 6" × 8" Centrifugal pump driven by a 50 HP Electric Motor	
MUD AGITATORS:	4 only Brandt Mud Agitator Model MA 7.5	
BOP:	Annular:	11" 5,000psi Hydril GK
	Rams:	11" 5,000psi Shaffer Double Gate Model 'LWS' Complete with $4^1/_2$", $5^1/_2$", 7" and Blind Rams
ACCUMULATOR:	Koomey Model 100-11S	

CHOKE MANIFOLD:	Cameron 3-1/8” 5,000 psi with one hydraulic and one manual choke complete with remote control panel.
DRILL PIPE SAFETY VALVE:	1 x 4” IF Inside BOP (Gray)
	1 x 4” IF full Operating Stab Valve
	(unit suitable for 3-1/2” drillpipe tro be supplied for CRC-1)
SPOOLS:	1-11” 5,000 psi Flanged Drilling Spool with $3^1/_8$” 5,000 psi Flanged Choke Line out and $2^1/_{16}$” 5,000 psi Kill Line Outlet
	1-11” 5,000 psi to 11” 3,000psi Kill Line Double Studded Adaptor
	1-11” 5,000 psi to $7^1/_{16}$” 5,000 psi Double Studded Adaptor
KILL LINE VALVES:	2-$2^1/_{16}$” 5,000 psi Manual Flanged Valves and MCM 2” – 5M Check Valve
CHOKE LINE VALVES:	1-$3^1/_8$” 5,000 psi Manual Flanged Valve
	1-$3^1/_8$” 5,000 psi HCR Flanged Valve
INSTRUMENTATION:	AOI Advanced Drillers Monitoring System Martin-Decker 6 pen Record-O-Graph
	Martin-Decker Weight Indicator Type FS
	Martin-Decker Mud Pressure Gauge
	Martin-Decker Rotary RPM Indicator
	Martin-Decker Pump Stroke Indicator (3 of)
	Martin-Decker Tong Torque Indicator
KELLY SPINNER:	Foster Model 77 (hydraulic)
KELLY:	1-$4^1/_4$”Hex Kelly 40' long with $6^5/_8$" API Reg LH Box up 3-1/2" IF Pin Down
UPPER KELLY VALVE:	Upper Kelly Cock. 10,000 test $6^5/_8$" API Reg LH Connections.
LOWER KELLY VALVE:	1 – Hydril Kelly Guard 4-3/4” OD 10,000 psi, 3-1/2” IF (NC46) Pin and Box Connection
KELLY DRIVE BUSHING:	Varco Type 4 KRS Kelly Drive Bushing
DRILL PIPE AND TOOLS:	12 joints $4^1/_2$” Range II Hevi Wate Drill Pipe with 18^0 Taper 4” IF (NC46) Connections.
	10,000 ft 4-1/2” G 105, 16.6 lb/ft Range ll Drill pipe with 4” IF (NC46) Connections
	(3-1/2” drillpipe will be used on the CRC-1 project)

DRILL COLLARS:

6 - 8” Drill Collars, Range II, with 6-5/8” Reg. Connections.

26 – 6-1/4” Drill Collars, Range II, with 4” IF (NC46) Connections.

35 – 4-3/4” drill collars will be used on the CRC-1 Project

FISHING TOOLS:

Fishing Tools to catch all Contractor’s Equipment

1- 9-5/8" Gotco FS Overshot Series 150
1- 8-1/8” FS Overshot Series 150

Note:

Contractor will provide Overshots, Grapples, Guides, Packoffs, etc. for each size of drill pipe, drill collars and downhole tools provided by Contractor.

JUNK RETRIEVERS:

1- 11" OD Gotco Rev/Circ Junk Basket
1- 7-7/8" OD Gotco Rev/Circ Junk Basket

HANDLING TOOLS:

Elevators:

1 Set 9-5/8” Casing

1 Set 7” Casing

1 Set 5-1/2” Casing

1 Set 9-5/8” Single Jt

1 Set 7” Single Jt

1 Set 5-1/2” Single Jt

2 Sets 4-1/2” 250 Ton

Additional equipment to be supplied for 7-5/8 casing / 3-1/2 drillpipe

Safety clamp

1 Safety clamp for 8” and 6-1/4” Drill Collars.

Slips:

1 Set 9-5/8” Casing

1 Set 7” Casing

1 Set 5-1/2” Casing

1 Set 8” Drill collar

1 Set 6-1/4” Drill collar

2 Sets 4-1/2” Drill pipe

Additional equipment to be supplied for 7-5/8 casing / 3-1/2 drillpipe

Tongs:

1 Set Foley 36” short lever with jaws to suit 3-1/2” to 13-3/8”

1 Set Farr Hydraulic Power Tongs

Jaws to suit 4-1/2” 5-1/2”, 7”, 7-5/8” 9-5/8” and 13-3/8”

PIPE SPINNER:	Air powered Weatherford Lamb Spinner Hawk to suit 3-1/2" to 5-1/2"
SUBS:	1 – 6-5/8" Reg. x 6-5/8" Reg. Bit Sub (Double Box)
	2 – 4-1/2" Reg. x 4" IF (NC46) Bit Subs
	1 – 6-5/8" Reg. x 4" IF (NC46) Crossover Sub (Pin x Box)
	3 – 6-5/8" Reg. Lift Nubbins
	11 – 4" IF (NC46) Lift Nubbins
	Subs for 3.5" drillstring also to be provided
CASING / TUBING DRIFTS:	1 – 9-5/8" 36 lb/ft
	1 - 7" 26 lb/ft
	1 - 7" 23 lb/ft
	1 – 5-1/2" 17 lb/ft
	1 – 5-1/2" 15.5 lb/ft
	Required for 4-1/2 & 7-5/8" casing
THREAD PROTECTORS:	3 – 9-5/8" Klampon Style
	3 - 7" Klampon Style
	3 – 5-1/2" Klampon Style
WELDING EQUIPMENT:	1 x Cig-weld 300A Electric Welder
	2 x Oxy/acetylene sets
AIR COMPRESSORS:	2 x Sullair Compressor Package Model 10-30L - 100 CFM @ 125 psi. 2 x Engine mounted 12 CFM CAT Compressors. 2 x Coldstart Compressors.
AC GENERATOR:	2 x Caterpillar 3408TA AC Generator Model SR-4. 1,800 rpm 60 hz 275 kw.
FUEL TANKS:	1 x 27,000 litre - Skid Mounted
WATER TANK:	400 BBL tank with two Warman 3 × 2 pumps driven by 20 HP electric motors
PIPE RACKS:	4 sets 30ft in length
CATWALKS:	2 piece Catwalk drill pipe construction 42" height
COMMUNICATION:	Gaitronics System
WIRELINE UNIT	1 x Mathey Slick line unit c/w 10,000 ft of 0.092" slick line
MUD LAB:	Baroid Rig Laboratory Model 821
RATHOLE DRILLER:	Manufactured Rat Hole Driller for $5^1/_4$" Kelly
MUD SAVER:	Harrisburg Unit with $4^1/_2$" Sealing Rubbers
CELLAR PUMP:	1 only 3" Pacific Diaphragm Unit
FIRE EXTINGUISHER:	1 lot as per State Mining Regulations for Rig and Camp
CUP TESTER:	Cameron Type 'F' Cup Tester Mandrel with 4-1/2" IF Connections. $9\ ^5/_{8"}$ 47- 36 lbs rubber for cup tester.

	(7-5/8” cup tester to be provided for CRC-1 project)
TRANSPORTATION:	One Cat 950F Loader or equivalent
RIG ACCOMMODATION:	1 Skid-Mounted Rig Manager/Company Man sleeper/office unit
	1 Century rig office/Electrician/Mechanic office
	1 Air conditioned smoko/ training Shack

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ATTACHMENT 24 : BHI FINAL WELL REPORT

END OF WELL REPORT

CO2CRC Pilot Project Ltd. (CPPL)

CRC 1

15/02/07 - 15/03/07

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 Consultants obligation of performance as provided for in a written agreement between the parties, or, if none, in Consultant's most recent price list.

CRC 1

Final Well Report

SECTION 1 Well Summary

SECTION 2 Drilling and Engineering

2.1 Bit Run Summaries (Bit Table)

2.2 Bit Run Hydraulic Summaries (Bit Hydraulics Table)

SECTION 3 Survey Summary

SECTION 4 Geology & Shows

4.1 Geology Summary and Shows

SECTION 5 Sampling Summary and Record of Distribution

SECTION 6 Time Depth Curve

SECTION 7 Appendices

Formation Evaluation Log 1 : 500

Drilling Data Plot 1 : 500

SECTION 1

Well Summary

1. WELL SUMMARY

Rig Name:	Century Rig 11
Rig Type:	Land Rig Rotary Drive
Drilling Contractor:	Century Energy Services Pty. Ltd
Drilling Datum:	44.5m AMSL
Drill Floor Elevation:	5.2m
Surface Co-ordinates:	Lat: 38° 31’ 50.06” S
	Long: 142° 48’ 41.44” E
	Datum: GDA 94
Block:	PPL 13
Well Type:	Vertical Exploration
Spud date:	11:00hrs, 15/02/07
Total Depth:	2249m
TD Date:	21:45hrs, 08/03/07
Rig Release Date:	21:00hrs, 15/03/07
Primary Objective:	Waarre C, 2053.5m RT
Well Status:	Set 4 ½” Production Casing at 2238m and Suspend
Data Engineers:	Shaharizad, Bambang Budiarto Rio Marasigan
CPPL Representatives:	Kevin Murphy, Brian Assels , Roy Dunne (Companyman), David Horner (Wellsite Geologist)

SECTION 2

Drilling and Engineering

BAKER HUGHES

INTEQ

LOCATION / WELL NAME

Otway Basin, Australia (Victoria)/ CRC 1

OPERATOR

CO2CRC Pilot Project Ltd. (CPPL)

CONTRACTOR / RIG

Century Energy Services Rig 11

Rotary Type Abbreviations

TS - Top Drive System
RT - Rotary Table
PD - Positive Displacement Motor
SB - Steerable PDM & Bent Sub
M - suffix designates MWD

Mud Type Abbreviations

PHG - Gel Sweeps AQ - Aquacol
G - Gel PHPA - Polyacrylamide
WB - Bentonite/polymer Mud

Geology Abbreviations

Sd : Sand
Sst : Sabdstone
Lst : Limestone
Slt : Silt
Sltst : Siltstone
Cl : Clay
Clst : Claystone
Volc : Volcanics
Sh : Shale
Dol : Dolomite

Dull Grade & Reason Pulled

A - All Rows
BC - Broken Cone
BHA - Bottomhole Assembly
BU - Balled Up Bit
CM - Condition Mud
CP - Core Point
DMF - Down Hole Motor Failure
DP - Drill Plug
DSF - Drill String Failure
DTF - Down Holw Tool Failure
E - Seals Effective
F - Seals Failed
FC - Flat Crested Wear
G - Gage Rows
H - Heel
HP - Hole Problems
HR - Hours on Bit
I - In Gauge
PR - Penetration rate
RG - Rounded Gauge
SD - Shirt Tail Damage
TD - Total / Csg Depth
TQ - Torque
TW - Twist Off
WC - Weather Condition
WT - Worn Teeth
JD - Junk Damage
LIH - Left In Hole
LOG - Run Logs
LT - Lost Teeth
M - Middle Rows
MH - Mid Heel
NO - No Dull Wear
O - Out of Gauge
PP - Pump Pressure

CO2CRC PILOT PROJECT LTD

BHA	Bit	Vendor	Type	Serial	Size	IADC	Nozzles	Depth		Drilled		ROP	WOB	RPM	TORQ.	TBR	RT	Pump Pr	Flow Rate	Dev	Geology	W	Mud		IADC Dull Grade (G in 1/16")							
No.	No.			Number	(in)	Code	(x 1/32")	In	Out	m	hrs	(m/hr)	(klb)	(at bit)	(kft-lb)	(x1000)		(psi)	(gpm)	(deg)	Formation	ppg	Type	PV,YP	I	O	D	L	B	G	O	R
9-7/8" HOLE SECTION																																
1	1	Stealth	JST11X	402437	9.875	117	4 x 14	20	516	496	17.5	28.3	2-25	80-120	2.1-8.5	106.43	Yes	720-1577	350-520	1.0	Calcarenit, marl	9	WB	12,38	2	2	NO	A	E	I	RR	TD
6-3/4" HOLE SECTION																																
2	2	Stealth	M56S	6972	6-3/4	-	5 x 12	516	915	399	14.9	26.8	2-10	90-110	0.85-3.90	72.132	Yes	220-600	220-255	1.0	Clst,Sst, marl	8.5-8.65	WB	9,13	1	1	NO	A	X	I	NO	CP
3	3	Corpro	MCP662	83719	6-3/4	-	TFA=0.8	915	919	4	1.2	3.3	2-7	80-100	1.2-1.7	6.384	Yes	520-600	232-252	1.0	Clst	8.6	WB	9,13	0	0	NO	A	X	I	NO	HP
4	2RR1	Stealth	M56S	6972	6-3/4	-	5 x 12	919	1245	326	12.8	25.5	2-8	80-123	1.2-2.0	84.52	Yes	532-912	248-256	1.75	Clst,Sst	8.6-8.95	WB	12,18	1	2	NO	A	X	I	NO	CP
5	3RR1	Corpro	MCP662	83719	6-3/4	-	TFA=0.8	1245	1246	1	1.4	0.7	2-6	80-82	1.7-2.2	6.524	Yes	598-1370	175-178	1.75	Clst,Sst	8.80	WB	12,18	0	0	NO	A	X	I	NO	HP
6	3RR2	Corpro	MCP662	83719	6-3/4	-	TFA=0.8	1246	1270	24	9.7	2.5	2-6	78-92	1.1-5.2	47.52	Yes	493-832	116-127	1.75	Clst,Sst,	8.8	WB	12,15	0	0	NO	A	X	I	NO	BHA
7	2RR2	Stealth	M56S	6972	6-3/4	-	5 x 12	1270	1900	630	55.1	11.4	2-12	80-120	2.3-8.5	360.167	Yes	718-1713	245-315	2	Cls, Sst	8.8-9.2	WB	15,26	2	2	NO	A	X	I	NO	CP
8	3RR3	Corpro	MCP662	83719	6-3/4	-	TFA=0.8	1900	1904	4	8.4	0.5	8-15	77-86	3.3-4.5	51.389	Yes	727-1011	123-152	2	Cls, Sst	9.40	WB	17,26	1	1	IN	A	X	I	NO	PR
9	4	Stealth	DSX173DGJW	446HY6904	6-3/4	-	4 x 12	1904	2033	129	6.9	18.7	3-15	100-125	2.6-6.7	41.885	Yes	781-1240	150-253	0.75	clst	9.25	WB	13,12	1	1	NO	A	X	I	NO	CP
10	3RR4	Corpro	MCP662	83719	6-3/4	-	TFA=0.8	2033	2051	18	24.1	0.75	12-15	72-97	6.0-7.2	127.65	Yes	594-943	108-147	0.75	Cls, Sst	9.45-9.5	WB	13,16	1	1	IN	A	X	I	NO	BHA
11	3RR5	Corpro	MCP662	83719	6-3/4	-	TFA=0.8	2051	2075.5	24.5	5.0	4.9	5-15	67-96	4.9-8.1	24.739	Yes	568-863	106-142	0.75	Cls, Sst	9.45	WB	15,20	1	1	IN	A	X	I	NO	BHA
12	4RR1	Stealth	DSX173DGJW	446HY6904	6-3/4	-	4 x 12	2075.5	2249	173.5	10	17.4	3-15	57-121	3.4-11.0	62.296	Yes	796-1240	240-258	1	Cls, Sst	9.4-9.5	WB	15,17	1	1	NO	A	X	I	NO	TD

BAKER HUGHES INTEQ

Hydraulics Summary Table
CRC 1 Otway Basin

CO2CRC PILOT PROJECT LTD

Drill String M – MWD T – Turbine C – Core **Power law used for hydraulics calculations.Robertson - Stiff Rheological Model**
N – Normal P – Posidrive Motor U – Under-Reamer

BHA No.	Depth m	Hole Size in	Calc Size Hole	Jets / TFA x 1/32"	Drill String Items	W ppg	MUD TYPE	Flow Rate gpm	ECD ppg	Annular Velocities ft/min DP Casing	DP OH	DC OH	Crit	Jet Vel ft/sec	HHP hhp	HHP /in² hp/in²	Impact Force lbf/in2	Bit Pr. Loss psi	%SPP Loss	Calc. SPP psi	Actual flowrate calc.
1	516	9.875	11.2	4 x 14	N	9.00	Waterbased	450–520	9.4	52.4	113.0	137.6	–	258.8	219.5	1.8	7.6	468	60.2	776	485
2	915	6.75	8	5x12	N	8.60	Waterbased	198–252	9	148.5	104.2	130.1	–	127.8	58.7	0.4	3.5	109	23.8	458	220
3	919	6.75	6.75	TFA=0.8	C	8.60	Waterbased	232–252	9	163.3	114.6	143.1	–	97.1	66.2	0.6	7.4	63	13.4	469	242
4	1245	6.75	6.75	5x12	N	8.95	Waterbased	248–256	9.8	168.7	183.9	266.4	–	145.2	112.2	0.6	4.6	144	18.7	770	250
5	1246	6.75	6.75	TFA=0.8	C	8.8	Waterbased	175–178	9.2	–	–	–	–	–	–	–	–	–	–	–	–
6	1270	6.75	6.75	TFA=0.8	C	8.8	Waterbased	115–117	9.2	82.3	89.8	130.0	–	48.9	16.7	0.1	1.9	16	7.0	235	122
7	1900	6.75	6.75	5x12	N	9.20	Waterbased	245–315	9.8	202.5	220.7	319.7	–	174.3	254.6	1.1	7.0	217	14.9	1456	300
8	1904	6.75	6.75	TFA=0.8	C	9.40	Waterbased	123–152	10.1	93.1	101.5	147.1	–	55.3	50.1	0.05	1.0	22	3.6	623	138
9	2033	6.75	6.75	4x12	N	9.25	Waterbased	150–253	9.5	168.7	183.9	266.4	–	181.6	183.4	0.98	6.1	237	18.8	1259	250
10	2051	6.75	6.75	TFA=0.8	C	9.50	Waterbased	108–147	9.7	99.2	108.2	156.7	–	58.9	46.6	0.06	1.2	26	4.7	544	147
11	2075.5	6.75	6.75	TFA=0.8	C	9.45	Waterbased	106–142	9.8	94.5	103.0	149.2	–	56.1	83.2	0.05	1.1	23	2.3	1020	140
12	2249	6.75	6.75	4x12	N	9.45	Waterbased	240–258	9.8	168.7	183.9	266.4	–	181.6	196.7	1.0	6.2	242	17.9	1350	250

SECTION 3

SURVEY SUMMARY

TOTCO SURVEYS

CRC 1

Survey Depth (m)	Inclination Degrees	Azimuth Degrees
131	0.25	121*
312	0.50	121*
506	1.00	121*
603	0.25	121
908	1.00	166
1165	1.00	161
1233	1.75	152
1370	1.75	156
1467	2.00	156
1575	1.50	151
1691	2.00	135
1808	2.00	139
1896	2.00	137
2022	0.75	86
2236	1.0	266

***- assumed azimuth**

SECTION 4

GEOLOGY & SHOWS

4.1 GEOLOGY AND SHOWS

Mudlogging Services for CRC-1 commenced from the start of the 9-7/8" surface hole section down to 516m. Prior to drilling and coring the 6-3/4" hole section to TD at 2249m, a 7-5/8" casing was set at 512m. Cuttings samples were collected at every 10m interval for the 9-7/8" hole section (15m to 516m) and part of the 6-3/4" hole section from 516m to 800m.For the remaining part of the 6-3/4" hole section, 5m samples were collected until reaching the TD of 2249m.

The main object of the well was to fully evaluate the Waarre Formation Unit "C" reservoir encountered in CRC-1. CRC-1 was spudded at 11:00 hrs on 15 February 2007. All depths were measured from the Rotary Table 5.2m from ground level. CRC-1 was drilled to a total depth of 2249m

Two sets of washed and dried, one set of unwashed and dried bulk samples and one set of samplex trays were collected. Below is a summary of sample distribution:

Set "A"
1 x 250 g washed & dried sample for CPPL:-

Cardboard box #1 (15m-310 m) 10 m interval
Cardboard box # 2 (310m-610m) 10 m interval
Cardboard box # 3 (610m-865m) 10m & 5 m interval
Cardboard box # 4 (865m-1005m) 5 m interval
Cardboard box # 5 (1005m-1285m) 5m interval
Cardboard box # 6 (1285m-1535m) 5m interval
Cardboard box # 7 (1535m-1800m) 5m interval
Cardboard box # 8 (1800m-1995m) 5m interval
Cardboard box # 9 (1995m-2135m) 5m interval
Cardboard box # 10 (2135m-2249m (TD)) 5m interval

Set "B"
1 x 250 g washed & dried sample for Department of Primary Industry (DPI):-

Cardboard box #1 (15m-310 m) 10 m interval
Cardboard box # 2 (310m-610m) 10 m interval
Cardboard box # 3 (610m-865m) 10m & 5 m interval
Cardboard box # 4 (865m-1005m) 5 m interval
Cardboard box # 5 (1005m-1285m) 5m interval
Cardboard box # 6 (1285m-1535m) 5m interval
Cardboard box # 7 (1535m-1800m) 5m interval
Cardboard box # 8 (1800m-19950m) 5m interval
Cardboard box # 9 (1995m-2135m) 5m interval
Cardboard box # 10 (2135m-2249m (TD)) 5m interval

Set "C"
1 x 250 g unwashed & dried sample for CPPL:

Cardboard box #1 (15m-310 m) 10 m interval
Cardboard box # 2 (310m-510m) 10 m interval
Cardboard box # 3 (510m-690m) 10 m interval
Cardboard box # 4 (690m-815m) 10m & 5 m interval
Cardboard box # 5 (815m-1005m) 5m interval
Cardboard box # 6 (1005m-1145m) 5m interval
Cardboard box # 7 (1145m-1285m) 5m interval
Cardboard box # 8 (1285m-1465m) 5m interval
Cardboard box # 9 (1465m-1655m) 5m interval
Cardboard box # 10 (1655m-1795m) 5m interval
Cardboard box # 11 (1795m-1905m) 5m interval
Cardboard box # 12 (1905m-1955m) 5m interval
Cardboard box # 13 (1995m-2085m) 5m interval
Cardboard box # 14 (2085m-2175m) 5m interval
Cardboard box # 15 (2175m-2249m (TD)) 5m interval

Set "D"

1x 50g Samplex Tray Set for CPPL:

Wooden box # 1: (20m-800m) 10 m interval.
: (805m-1750m) 5m interval.
Cardboard box # 1: (1755m- 2000m) 5m interval.
Cardboard box # 2: (2005m-2249m (TD)) 5m interval
Cardboard box # 3: Top of Formations

The lithology encountered at CRC-1 based on mudlog is summarized below starting from 15m. For more detailed descriptions of the cuttings, please refer to the appendix section (Formation Evaluation Log). Core descriptions were made by the Wellsite Geologist and they are not included in this report.

FORMATION TOPS (Based on Mud Log)

Formation Name	Actual (mRT)	Actual (mSS)
Port Campbell Limestone	5.2	+44.5
Gellibrand Marl	122	-72
Clifton formation	457	-407
Narrawaturk Marl	474	-424
Mepunga Formation	551	-501
Dilwyn Formation	633	-583
Pember Mudstone	878	-828
Pebble point formation	939	-889
Massacre Shale	1002	-952
Timboon Sandstone	1022	-972
Paaratte Formation	1128	-1078
Skull Creek Formation	1528	-1478
Nullawarre Formation	Not Found	-
Belfast Mudstone	1728	-1678
Flaxmans Formation	2020	-1970
Waarre Formation unit “C”	2053.5	-2003.5
Waarre Formation unit “B”	2084	-2034
Waarre Formation unit “A”	2103	-2053
Eumeralla Formation	2140	-2090
Total Depth	2249	-2199

Port Campbell Limestone (Surface – 122m approximately)

This section of the hole is composed of Calcarenite which is predominantly light grey, yellow orange at the top, very fine to medium, dominantly fine grained, has a poor visual porosity, generally friable to moderately hard and with trace black lithics and abundant fossil fragments including bryozoa, echinoid spines, sponge spicules, gastropods, bivalves and forams. It is occasionally in filled with Glauconite, also containing rare medium grey Marl, and moderate calcareous cement.

No significant gas peaks were observed. Chromatograph analysis ranged from 7-30ppm of methane.

Gellibrand Marl Limestone (122 – 457m approximately)

The Marl is predominantly medium green grey to medium brown grey and occasionally medium dark grey. It is very soft, sticky and non-fissile with rare Glauconite, rare Pyrite, rare black coaly detritus and abundant fossil fragments including, bryozoa, forams, bivalves, gastropod, sponge spicules and echinoid spines.

No significant gas peaks were recorded in this section. Chromatograph gas readings ranged from 0-21ppm of methane.

Clifton formation (457-474m approximately)

The Clifton Formation consists of Calcarenite which is predominantly off white to yellow orange, to occasionally dark red brown. It is very fine to very coarse, with abundant fossil fragments often with light yellow or iron oxidation stains, common dark brown iron oxidation pellets, and trace very fine to very coarse orange brown stained frosted quartz. Its very argillaceous and marly in part with a hardness that is friable to moderately hard. The inferred porosity is poor.

Narrawaturk Formation (474-551m approximately)

The Narrawaturk Formation consists of Marl that is medium green grey, rare medium to dark grey to medium brown grey, very soft, sticky, non-fissile and with abundant fossil fragments including bryozoa, forams, bivalves, gastropod, sponge spicules and echionoid spines.

No significant peaks were recorded. Chromatograph analysis ranged from 6 -15ppm of methane and 0-6ppm of ethane.

Mepunga Formation (551-633m approximately)

The Mepunga Formation is composed of interbedded Claystone and Sandstone. Claystone is dark brown to dark brown grey to occasionally off white, soft, moderately dispersive, non-fissile, slightly silty, very fine to grit, angular to sub-angular, with quartz sand grains, trace Glauconite, trace fossil fragments, rare Pyrite and trace very fine black carbonaceous detritus.

The Sandstone is light yellow to medium brown, very fine to grit, unconsolidated to occasionally moderately hard, dominantly coarse, sub-rounded to rounded, very poorly sorted, has poor visual porosity and no oil fluorescence. The matrix was made up of abundant off white to yellow dark brown argillaceous material, abundant Calcilutite matrix in part, weak to occasionally strong calcareous cement, brown iron oxide stained frosted quartz grains, common dark brown iron oxide pellets, and trace Glauconite.

No significant peaks were recorded. Chromatograph readings ranged from 8 -115ppm of methane.

Dilwyn Formation (633-878 m approximately)

Dilwyn Formation is made up of interbedded Sandstone and Claystone. The Sandstone is light brown grey, very fine to medium, occasionally coarse to very coarse grained, dominantly medium, unconsolidated to friable, sub-angular to sub-rounded, poor to moderately sorted, has weak silica cement, and contains a common dark brown grey argillaceous matrix. It also has clear to opaque quarts grains often with yellow to brown staining, inferred porosity was poor and it has no oil fluorescence.

The Claystone is dark brown to dark brown grey, moderately silty, soft, non-fissile, commonly dispersed, and has very fine to fine quarts sand grains in part and trace Marcasite.

No significant gas peaks were recorded in this section. Chromatograph gas readings ranged from 0-21ppm of methane.

Pember Mudstone (878-939m approximately)

The Pember Mudstone is composed of interbedded Sandstone and Claystone. The Sandstone is very light brown grey, very fine to grit, dominantly coarse in the upper part to dominantly fine in the lower part, sub-angular to sub-rounded, very poorly sorted, unconsolidated to friable, and has weak silica cement. The matrix was composed of common to abundant dark brown grey argillaceous material. It also has clear to opaque Quartz grains often with yellow to brown staining, traces of cryptocrystalline Dolomite, traces of coarse Muscovite flakes, traces of red Rhyolite lithics, traces of black coal detritus, traces to common Marcasite, and the inferred porosity was poor and has no oil fluorescence.

The Claystone is medium to dark brown grey, with occasional dark green grey, soft, non-fissile, moderate to very silty, common to abundantly dispersive, and has very fine to fine Quartz sand grains in part, traces to common disseminated Marcasite, traces to abundant of Glauconite, traces of fine to coarse brown and clear Mica flakes.

No significant gas peaks were recorded in this section. Chromatograph gas readings ranged from 6-15ppm of methane and 0-7ppm of ethane.

Pebble Point Formation (939-1002m approximately)

The Pebble Point Formation consists of interbedded Sandstone and Claystone. The Sandstone is light brown grey to medium orange brown, unconsolidated to friable, very fine to coarse, dominantly medium to coarse, very fine to granular in part, sub-angular to sub-rounded, poorly sorted, has good inferred porosity, no oil fluorescence, clear to opaque quarts grains with occasional yellow to brown staining, weak silica cement, and the matrix is abundant of medium brown argillaceous and silt matrix.

The Claystone is medium brown to dark brown grey, soft, non-fissile, angular to sub-angular, moderately to very silty, very fine arenaceous, has clear to opaque Quartz grains, trace of fine brown and clear Mica flakes, traces to common Glauconite, and common disseminated Marcasite.

No significant gas peaks were recorded in this section. Chromatograph gas readings ranged from 10-16ppm of methane and 0-8ppm of ethane.

Massacre Shale (1002-1022m approximately)

The Massacre Shale is composed predominantly of Claystone. The Claystone is medium brown to medium grey to dark brown grey, soft, non-fissile, moderately silty to very silty, with traces of dispersed fine to medium quarts sand grains and trace Marcasite.

No significant gas peaks were recorded in this section. Chromatograph gas readings ranged from 12-14ppm of methane.

Timboon Sandstone (1022-1128m approximately)

The Timboon Sandstone consists of interbedded Sandstone with Claystone. The Sandstone is light grey to light brown grey, very fine to grit, bimodal dominantly with occasionally dispersed medium to grit sand grains in part, angular to sub-rounded, friable, very poorly sorted, has poor inferred porosity, no oil fluorescence, weak silica cement, abundant medium grey argillaceous and silty matrix and clear to opaque Quartz grains with traces of yellow staining.

The Claystone is off white to medium grey to medium to dark brown grey, soft, non-fissile, moderately to very silty, often has abundant dispersed very fine to very coarse quarts sand grains, traces Pyrite, and traces of black coal detritus.

No significant gas peaks were recorded in this section. Chromatograph gas readings ranged from 7-16ppm of methane and 0-7ppm of ethane.

Paaratte Formation (1128-1528m approximately)

The Paaratte Formation is composed of interbedded Sandstone and Claystone.

The Sandstone is off white to light to medium grey to light brown grey to light to medium grey, very fine to grit, friable, with traces of coarse to very coarse grains in part, dominantly fine and medium in part, angular to rounded, poor to moderately sorted, has poor inferred porosity, no oil fluorescence to moderately bright patchy very pale yellow white fluorescence with a weak milky white crush cut with thin ring residue in part, has weak silica cement, abundant off white to light grey to medium grey to dark brown grey argillaceous and silt matrix, abundant of altered feldspar grains in part, occasionally dispersed medium to pebble quartz grains in part, and clear to opaque Quartz grains.

The Claystone is variable in color from medium grey to medium brown grey in part, medium dark grey to medium dark brown grey to dark green grey in part, light to dark grey to medium to dark brown grey in part, off white to dark grey to medium brown grey in part, soft to firm in upper section to firm to moderately hard in lower section, non fissile in upper section to slightly sub fissile in lower section, generally medium to very

silty, rare very silty in lower part, often very fine to finely arenaceous, moderately carbonaceous in part, occasionally abundant of very fine quartz and altered feldspar grains, with traces of dispersed medium to pebble size Quartz grains, common black carbonaceous flakes in part, traces of black coal detritus, traces of Pyrite, traces of micromica in part, and traces of medium brown cryptocrystalline Dolomite in part.

From 1503m - 1507m there appeared to be an oil show in the Paaratte Formation. The sandstone has 20% moderately bright patchy very pale yellow white fluorescence giving a weak milky white crush cut, thin ring residue. No gas or drill rate increase was noted across this interval. The cutting samples are very poor quality due to disaggregation by the drilling action of the PDC drill bit and subsequent encapsulation by the PHPA in the mud system. The best assessment is for this to be a light gravity mobile crude oil contained within tight very fine grained feldspathic sand lenses with insufficient porosity/permeability for economic oil recovery. Attention should be paid to this interval during electric log evaluation.

No significant gas peaks were recorded in this section. Chromatograph gas readings ranged from 7-20ppm of methane and 0-8ppm of ethane.

Skull Creek Formation (1528-1728m approximately)

The Skull Creek Formation is dominantly composed of Claystone interbedded with Sandstone. The Sandstone is off white to light grey, very fine, sub-angular to sub-rounded, friable, quartzose with abundant of altered feldspar grains, moderately sorted, has very poor inferred porosity, no oil fluorescence, has weak silica cement, and with traces of coaly black detritus.

The Claystone is light to dark grey to medium brown grey, firm, slightly sub-fissile, often very silty, has occasionally abundant of dispersed very fine quartz and altered feldspar grains, with traces to common of black coaly detritus, common black carbonaceous flecks, traces of medium brown cryptocrystalline Dolomite, traces of Pyrite, and traces of micro mica.

No significant gas peaks were recorded in this section. Chromatograph gas readings ranged from 10-126ppm of methane and 0-4ppm of ethane.

Belfast Mudstone (1728-2020m approximately)

The Belfast Mudstone is made up predominantly of Claystone with very rare traces of Sandstone.

The Claystone is variable in color from dark grey rare medium brown grey, medium brown grey to light to dark grey in part, dark grey to medium brown grey in part, moderately hard, slightly sub-fissile, generally slightly silty with rare very silty in part to very silty in part, moderately carbonaceous, with traces of carbonaceous flecks, traces to abundant of dark green disseminated Glauconite, rare to common Pyrite, rare to common medium brown cryptocrystalline Dolomite, traces of Inoceramus in part, common micro mica, traces of slickensides in part, and traces of Calcite in part.

Several gas peaks were noted in the Belfast Mudstone, which are listed below. Chromatograph gas readings ranged from 42-1661ppm of methane, 0-109ppm of ethane and 0-21ppm of propane.

Depth (m)	Total Gas (%)	Back Ground Gas (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	iC4 (ppm)	NC4 (ppm)	iC5 (ppm)	NC5 (ppm)
1904	0.1380	0.025	1341	54	14	4	0	0	0
1916	0.1426	0.025	1188	57	6	0	0	0	0
1948	0.1206	0.05	1271	71	7	0	0	0	0
1956	0.1247	0.05	1333	82	9	0	0	0	0
1963	0.1570	0.05	1661	109	12	0	0	0	0

Flaxmans Formation (2020-2053.5m approximately)

The Flaxmans Formation is composed predominantly of Claystone interbedded with minor Sandstone.

The Claystone is light brown grey to medium grey to medium green grey to medium brown in part, medium grey to medium to dark brown grey to medium brown in part, off white to medium brown to medium brown grey in part, moderately hard, slightly sub-fissile, slightly to moderately silty, nil to abundant of very fine to fine Quartz and altered feldspar grains in part, with traces of medium brown cryptocrystalline Dolomite, traces of black carbonaceous flecks in part, traces of micro mica, traces of Pyrite in part, slightly calcareous in part, and traces of Glauconite in part.

The Sandstone is off white, medium brown to medium dark brown grey, very fine to fine, rare to common medium to very coarse grains, dominantly very fine, friable, sub-angular to sub-rounded, poor to moderately sorted, has very poor visual porosity, no oil fluorescence, abundant medium to dark brown argillaceous and silty matrix, matrix supported in part, weak silica cement, abundant white argillaceous matrix in part, quartzose with abundant altered feldspar grain, and traces of black carbonaceous specks,.

Two significant gas peaks were recorded in the Flaxmans Formation their breakdown is listed below. Chromatograph gas readings ranged from 106-3687ppm of methane, 7-186ppm of ethane, 3-59ppm of propane, 0-9ppm of i-butane, 0-10ppm of n-butane and 0-2ppm of i-pentane.

Depth (m)	Total Gas (%)	Back Ground Gas (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	iC4 (ppm)	NC4 (ppm)	iC5 (ppm)	NC5 (ppm)
2045	0.1927	0.05	1780	107	36	6	6	0	0
2050	0.2090	0.05	2012	126	46	8	8	2	0

The Flaxmans Formation has a gas show from 2038m – 2053.5m. The sandstones within the Flaxmans Formation appear to be gas saturated. However, due to the abundance of white kaolin matrix visually appear to have insufficient porosity/permeability for significant gas flow rates.

Waarre Formation Unit “C” (2053.5-2084m approximately)

Waarre Formation Unit “C” is composed of interbedded Sandstone and Claystone. The Sandstone is light to medium grey in part, light brown grey to medium grey in part, very fine to rarely pebble, dominantly medium to coarse grains in part, dominantly fine in part, dominantly coarse to very coarse in part, angular to sub-rounded, generally friable, soft to firm in part, fair to very good visual porosity in part, very poor to poor visual porosity in part, no oil fluorescence, common abundant off white to dark grey argillaceous matrix and laminae, traces of white argillaceous in part, very poorly sorted, weak silica cement, common clear to opaque quartz grains, traces of black coaly detritus and laminae, traces of micromica in part, and common slickenside in part.

The Claystone is very dark grey, moderately hard, slightly sub-fissile, slightly silty, very carbonaceous, with traces of very fine to very coarse quartz grains in part, common micro mica, and traces of slickenside.

Several gas peaks were observed in this unit, the largest being 0.9736% @ 2056m.Thier breakdowns are listed in the table below. Chromatograph gas readings ranged from 141-9396ppm of methane, 12-569ppm of ethane, 7-195ppm of propane, 0-31ppm of i-butane, 2-33ppm of n-butane and 0-4ppm of i-pentane.

Depth (m)	Total Gas (%)	Back Ground Gas (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	iC4 (ppm)	NC4 (ppm)	iC5 (ppm)	NC5 (ppm)
2056	0.9736	0.2	9396	569	194	30	32	0	0
2067	0.4119	0.25	3865	252	83	12	14	0	0
2074	0.4464	0.15	4291	240	84	13	17	0	0

Waarre Formation Unit “B” (2084-2103m approximately)

Waarre Formation Unit “B” is made up of interbedded of Sandstone and Claystone. The Sandstone is off white to light grey, light grey in part, friable to moderately hard, very fine to fine with dominantly fine in part,

very fine to pebble with dominantly very coarse in part, very fine to medium with common coarse to grit grains, dominantly fine, angular to sub-rounded, poorly sorted in part, moderately sorted in part, moderate silica cement, with traces to common off white argillaceous matrix, common to abundant white argillaceous matrix in part, quartoze with common altered feldspar grains, traces of black carbonaceous specks and detritus, traces of coaly detritus and laminae in part, traces of Pyrite in part, has very poor to poor visual porosity in part, good visual porosity in part, and no oil fluorescence.

The Claystone is very predominantly medium to dark grey to dark brown grey with medium brown to medium to dark brown grey in part, very dark grey in part, moderately hard, slightly sub-fissile, slightly to very silty in part, often very fine arenaceous with Quartz and altered feldspar grains, slightly to moderately carbonaceous, common black carbonaceous flecks and coaly detritus, common micromica, traces of Pyrite, and traces of slickenside in part.

No significant gas peaks were recorded in this section. Chromatograph gas readings ranged from 126-990ppm of methane, 11-72ppm of ethane, 4-19ppm of propane, 0-3ppm of i-butane, 0-4ppm of n-butane.

Waarre Formation Unit “A” (2103-2140m approximately)

Waarre Formation Unit “A” is composed of interbedded Sandstone and Claystone. The Sandstone is off white to light grey, moderately hard, very fine to fine with dominantly fine, common medium to very coarse grains, angular to sub-rounded, poorly sorted in part, has moderate silica cement, common to abundant white argillaceous matrix, quartoze with common altered feldspar grains, with traces of black carbonaceous specks and detritus, traces of Pyrite in part, has very poor visual porosity, and no oil fluorescence.

The Claystone is variable in color from medium to dark grey to medium brown grey in part, medium to dark brown grey to medium brown in part, medium brown to medium dark brown grey in part, moderately hard, slightly sub-fissile, generally very silty, often with very fine arenaceous with Quartz and altered feldspar grains, slightly carbonaceous, with common black carbonaceous flecks and coaly detritus, common micro mica, and traces of Pyrite.

There was one significant gas peak recorded in this section, details in the table below. Chromatograph gas readings ranged from 432-4660ppm of methane, 30-254ppm of ethane, 10-72ppm of propane, 0-10ppm of i-butane, 2-1ppm of n-butane and 0-3ppm of i-pentane.

Depth (m)	Total Gas (%)	Back Ground Gas (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	iC4 (ppm)	NC4 (ppm)	iC5 (ppm)	NC5 (ppm)
2109	0.4649	0.2	4660	254	72	10	11	3	0

The Waarre Formation Unit “A” has a gas show from 2103m – 2140m. The sandstones appear to have some gas saturation but from cutting samples appear to have insufficient porosity/permeability to achieve significant gas flow rates.

Eumeralla Formation (2140-2249m TD)

The Eumeralla Formation is predominantly comprised of Sandstone and Claystone. The Sandstone is light to medium green grey, very fine to medium grains with dominantly fine grains, sub-angular to sub-rounded, moderately to well sorted, moderately silica and occasionally weak calcareous cement, abundant white argillaceous matrix with matrix supported, abundant altered feldspar and green grey lithic grains, traces of red brown lithic grains, traces to common quartz grains, traces of black carbonaceous detritus, friable, has very poor visual porosity, and no oil fluorescence.

The Claystone is medium green grey to medium brown grey, soft to slightly firm, non-fissile, silty in part, with traces of very fine arenaceous grains and black carbonaceous flecks.

There was one significant gas peak. Chromatograph gas readings ranged from 80-2516ppm of methane, 6-92ppm of ethane, 0-21ppm of propane, 0-2ppm of i-butane, 0-4ppm of n-butane.

Depth (m)	Total Gas (%)	Back Ground Gas (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	iC4 (ppm)	NC4 (ppm)	iC5 (ppm)	NC5 (ppm)
2186	0.2561	0.15	2516	92	21	2	4	0	0

SECTION 5

Sampling Summary

and

Record of Distribution

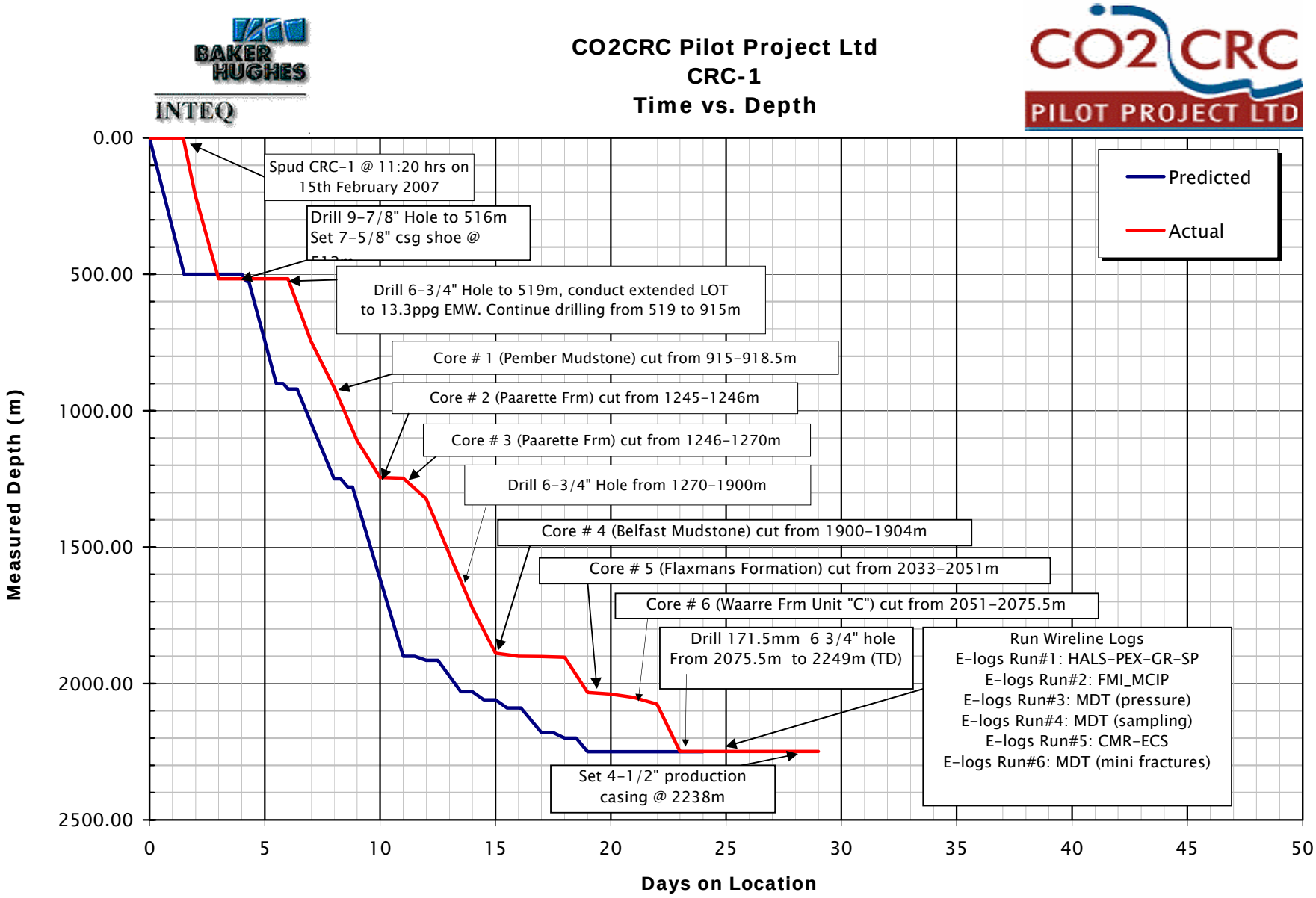
5.1 SAMPLING AND DISTRIBUTION

CRC 1 CO2CRC Pilot Project Ltd. (CPPL)		
Sample type	**Interval**	**Descriptions**
SET:A **Hubco bags (250g) washed and dried CPPL** **CO2CRC Pilot Project Ltd. (CPPL), Level 3, 24 Marcus Clarke St., Canberra City ACT.**	15m to 2249m (TD)	Box #1intvl : 15 - 310 m Box#2 intvl : 310 - 610 m Box #3 intvl : 610 - 865 m Box #4 intvl : 865 -1005 m Box #5 intvl : 1005 - 1285 m Box #6 intvl :1285 - 1535 m Box #7 intvl : 1535 - 1800 m Box #8 intvl : 1800 - 1995 m Box #9 intvl : 1995 - 2135 m Box #10 intvl : 2135 - 2249 m (TD)
SET:B **Hubco bags (250g) washed and dried Department of primary Industry (DPI) 1st Spring St., Melbourne, Victoria**	15m to 2249m (TD)	Box #1intvl : 15 - 310 m Box#2 intvl : 310 - 610 m Box #3 intvl : 610 - 865 m Box #4 intvl : 865 -1005 m Box #5 intvl : 1005 - 1285 m Box #6 intvl :1285 - 1535 m Box #7 intvl : 1535 - 1800 m Box #8 intvl : 1800 - 1995 m Box #9 intvl : 1995 - 2135 m Box #10 intvl : 2135 - 2249 m (TD)
SET:C **Calico bags (250g) unwashed and dried CPPL** **CO2CRC Pilot Project Ltd. (CPPL), Level 3, 24 Marcus Clarke St., Canberra City ACT.**	15m to 2249m (TD)	Box #1intvl : 15 - 310 m Box#2 intvl : 310 -510 m Box #3 intvl : 510 - 690 m Box #4 intvl : 690 - 815 m Box #5 intvl : 815 - 1005 m Box #6 intvl :1005 - 1145 m Box #7 intvl : 1145 - 1285 m Box #8 intvl : 1285 - 1465 m Box #9 intvl : 1465 - 1655 m Box #10 intvl : 1655 - 1795 m Box #11 intvl : 1795 - 1905 m Box #12 intvl : 1905 - 1995m Box #13 intvl : 1995 - 2085 m Box #14 intvl : 2085 - 2175 m Box #15 intvl : 2175 - 2249 m (TD)
SET: D **Samplex trays (50g) for CPPL** **CO2CRC Pilot Project Ltd. (CPPL), Level 3, 24 Marcus Clarke St., Canberra City ACT.**	15m to 2249m (TD)	In one small Wooden boxes & three small cupboard boxes Wooden Box 1: 20m - 1750m Small Cupboard Box 1: 1755m - 2000m Small Cupboard Box 2: 2000m - 2249m (TD) Small Cupboard Box 3: Top of Formations samples **(All Boxes are in one Big Cupboard Box)**

***The Isotubes samples were taken from surface to TD. Refer to Chris Boreham of Geosciences Australia for details of sampling frequency. All the isotubes samples were given to WSG or Dr. Chris Boreham of Geoscience Australia at rig site.**

SECTION 6

Time and depth Curve


CO2CRC Pilot Project Ltd
CRC-1
Time vs. Depth
BAKER HUGHES
INTEQ
CO2CRC
PILOT PROJECT LTD
Predicted
Actual
Spud CRC-1 @ 11:20 hrs on 15th February 2007
Drill 9-7/8" Hole to 516m
Set 7-5/8" csg shoe @
Drill 6-3/4" Hole to 519m, conduct extended LOT to 13.3ppg EMW. Continue drilling from 519 to 915m
Core # 1 (Pember Mudstone) cut from 915-918.5m
Core # 2 (Paarette Frm) cut from 1245-1246m
Core # 3 (Paarette Frm) cut from 1246-1270m
Drill 6-3/4" Hole from 1270-1900m
Core # 4 (Belfast Mudstone) cut from 1900-1904m
Core # 5 (Flaxmans Formation) cut from 2033-2051m
Core # 6 (Waarre Frm Unit "C") cut from 2051-2075.5m
Drill 171.5mm 6 3/4" hole From 2075.5m to 2249m (TD)
Run Wireline Logs
E-logs Run#1: HALS-PEX-GR-SP
E-logs Run#2: FMI_MCIP
E-logs Run#3: MDT (pressure)
E-logs Run#4: MDT (sampling)
E-logs Run#5: CMR-ECS
E-logs Run#6: MDT (mini fractures)
Set 4-1/2" production casing @ 2238m
Measured Depth (m)
0.00
500.00
1000.00
1500.00
2000.00
2500.00
0
5
10
15
20
25
30
35
40
45
50
Days on Location

APPENDIX

FORMATION EVALUATION LOG

1:500

BAKER HUGHES INTEQ

CO2CRC PILOT PROJECT LTD

Company	**CO2CRC Pilot Project Ltd. (CPPL)**
Well	**CRC-1**
Permit	**PPL 13**
Region	**Otway Basin, Port Campbell Embayment, Vic.**
Designation	**Vertical Exploration**
UTM Coord.	**Lat: 38° 31' 50.06" S Long: 142° 48' 41.44" E**
Ref Elevation	**44.5m RKB to AMSL**
Total Depth	**2249m MDRT**
Contractor	**Century Energy Services Pty. Ltd.**
Rig	**Century Rig 11**
Type	**Land Rig Rotary Drive**

LOG INTERVAL

Depth	**5.2 - 2249m MDRT**
Date	**15 February - 15 March 2007**
Scale	**1:500**
Data Engineers	**Shaharizad, B. Budiarto, R. Marasigan**

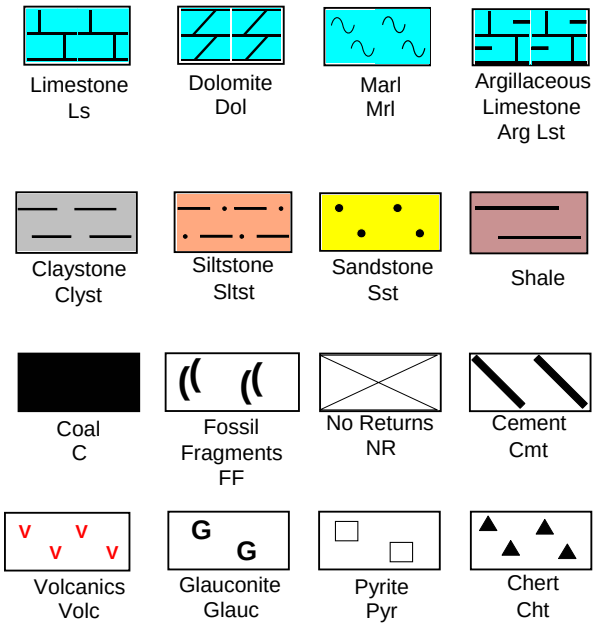
INTEQ LOG SUITE

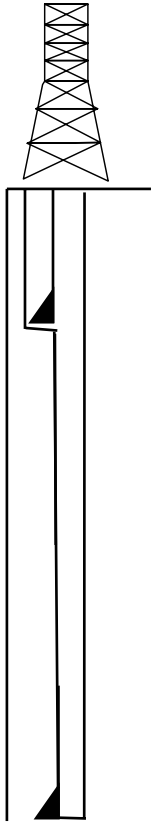
Formation Evaluation
Drilling Data Plot
Drilling Data Pressure Plot
Pressure Summary Plot

ABBREVIATIONS

NB	New Bit	MD	Measured Depth
RR	Rerun Bit	GPM	Gallons per Min
CB	Core Bit	PP	Pump Pressure
WOB	Weight on Bit	MW	Mud Weight sg
RPM	Revs per Minute	FV	Funnel Viscosity
FLC	Flow Check	F	Filtrate - API
FCG	Flow Check Gas	FC	Filter Cake
PR	Poor Returns	PV	Plastic Viscosity
NR	No Returns	YP	Yield Point
BG	Background Gas	Sol	Solids %
WTG	Wiper Trip Gas	Sd	Sand %
TG	Trip Gas	Cl	Chlorides
POG	Pumps Off Gas	RM	Mud Resistivity
CG	Connection Gas	RMF	Filtrate Resistivty
SWG	Swab Gas	TVD	True Vertical Depth

LITHOLOGY SYMBOLS





Datum, Rotary Table
GL 5.2 m RT

GL @ 44.5 m AMSL

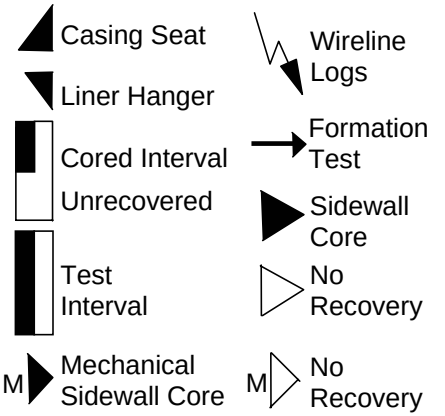
Drill 9-7/8" Hole Surface Hole to 516m

Drilling Fluid: 8.90ppg-9.05ppg

7-5/8" casing at 512m.
LOT @ 519m: 13.3ppg EMW
Drilling Fluid: 8.90ppg-9.05ppg
Drill 6-3/4" hole from 516m to 915m
Drilling Fluid: 8.60ppg-8.95ppg
Coring #1 915m-919m
Drill 6-3/4" hole from 919m to 1245m
Drilling Fluid: 8.65ppg-8.95ppg
Coring #2 1245m-1246m
Coring #3 1246m-1270m
Drill 6-3/4" hole from 1270m to 1900m
Drilling Fluid: 8.8ppg-9.2ppg
Coring #4 1900m-1904m
Drill 6-3/4" hole from 1904m to 2033m
Drilling Fluid: 9.25ppg
Coring #5 2033m-2051m
Coring #6 2051m-2075.5m
Drill 6-3/4" hole from 2075.5m to TD @ 2249m
Drilling Fluid: 9.45ppg

Run Wireline logs

4-1/2" production casings was set @ 2238m and suspended.



BAKER HUGHES INTEQ

Company : CO2CRC
Well : CRC-1
Interval : 1.00 - 2262.15 meters
Created : 7/5/2007 9:59:37 AM

CO2CRC PILOT PROJECT LTD

FORMATION EVALUATION LOG

RATE OF PENETRATION

ROP (0-100m/hr)
100 90 80 70 60 50 40 30 20 10
Backup ROP (100-200m/hr)
200 190 180 170 160 150 140 130 120 110
WOB (klb)
5 10 15 20 25 30 35 40 45 50
TORQUE AVG
5 10 15 20 25 30 35 40 45 50

INTERPRETED LITHOLOGY

MD meters 1:500

LITHOLOGY

CORE

OIL SHOWS

TOTAL GAS

TOTAL GAS
0.1 0.2 0.3 0.4 0.5
%
BACKUP TOTAL GAS
0.6 0.7 0.8 0.9 1
%

CHROMATOGRAPH

Methane ppm 1 10000
Ethane ppm 1 10000
Propane ppm 1 10000
iso-Butane ppm 1 10000
n-Butane ppm 1 10000
iso-Pentane ppm 1 10000
n-Pentane ppm
10 100 1000 10000

REMARKS

Formation Tops

Port Campbell Limestone

Spud date: 15 Feb 2007 @ 1100 hour
RT-GL: 5.2m (all depth on log ref.)

Bit #1: 9-7/8" JST11X
Jets: 4 x 14, In: 20m, Out: 516m
Drilled:496m in 17.5hrs
Bit Grade: 2-2-NO-A-E-I-RR-TD

Calcarenite: lt gy-yel orgn, v f-med, dom f grns, comm fossil frag incld bryozoa, echinoid spines, sponge spicules, gastropods, bivalves & forams, tr bk lith, tr med gy marl

clst, mod calc cmt, pr vis por, fri-mod hd

Calcarenite: lt gy, v f-med, dom f grns, abnt fossil frag incld bryozoa, echinoid spines, sponge spicules, gastropods, bivalves & forams-occ infill w glauc, tr blk lith, tr glauc,

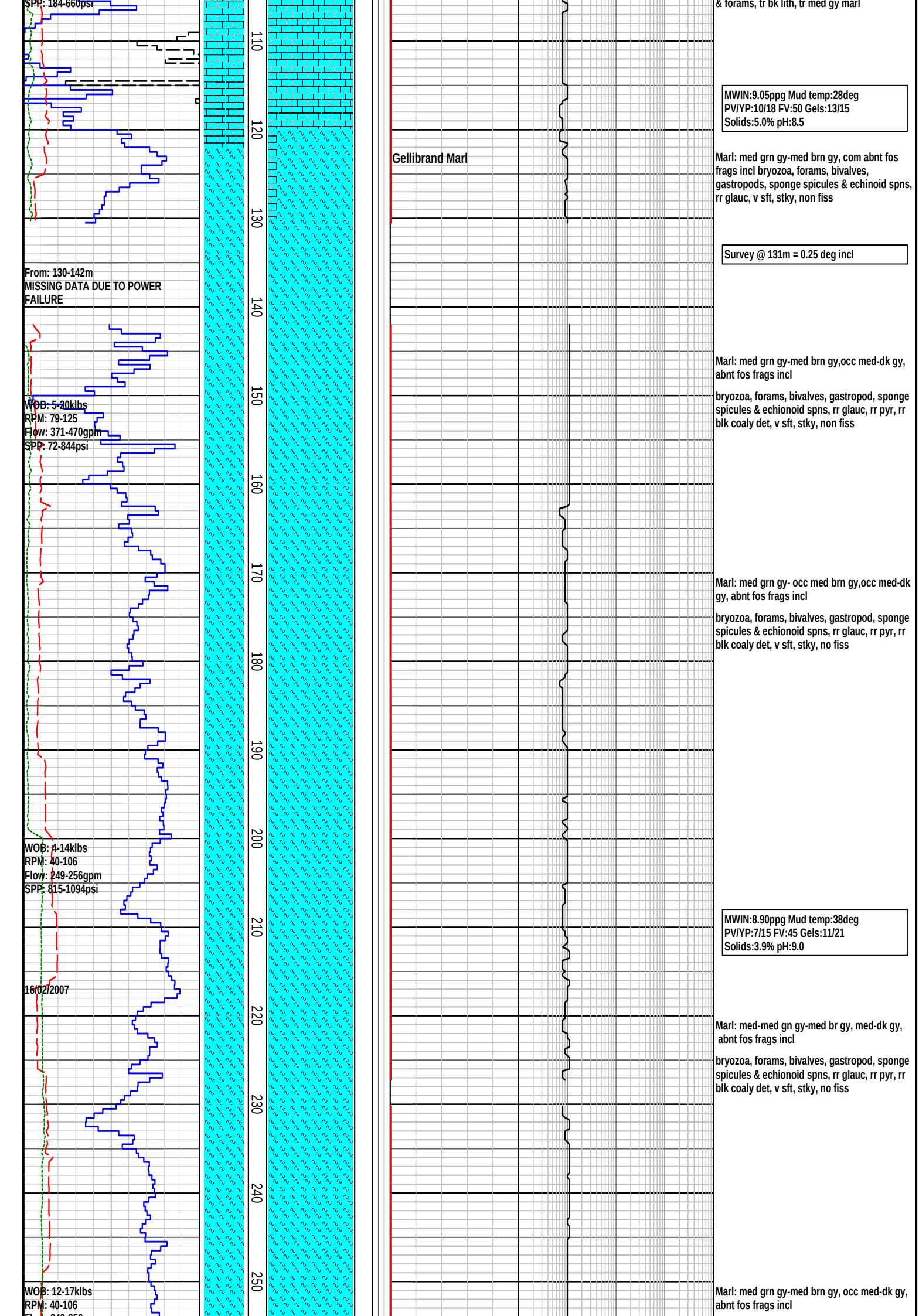
WOB: 5-8klbs
RPM: 45-115
Flow: 256-415gpm
SPP: 188-498psi

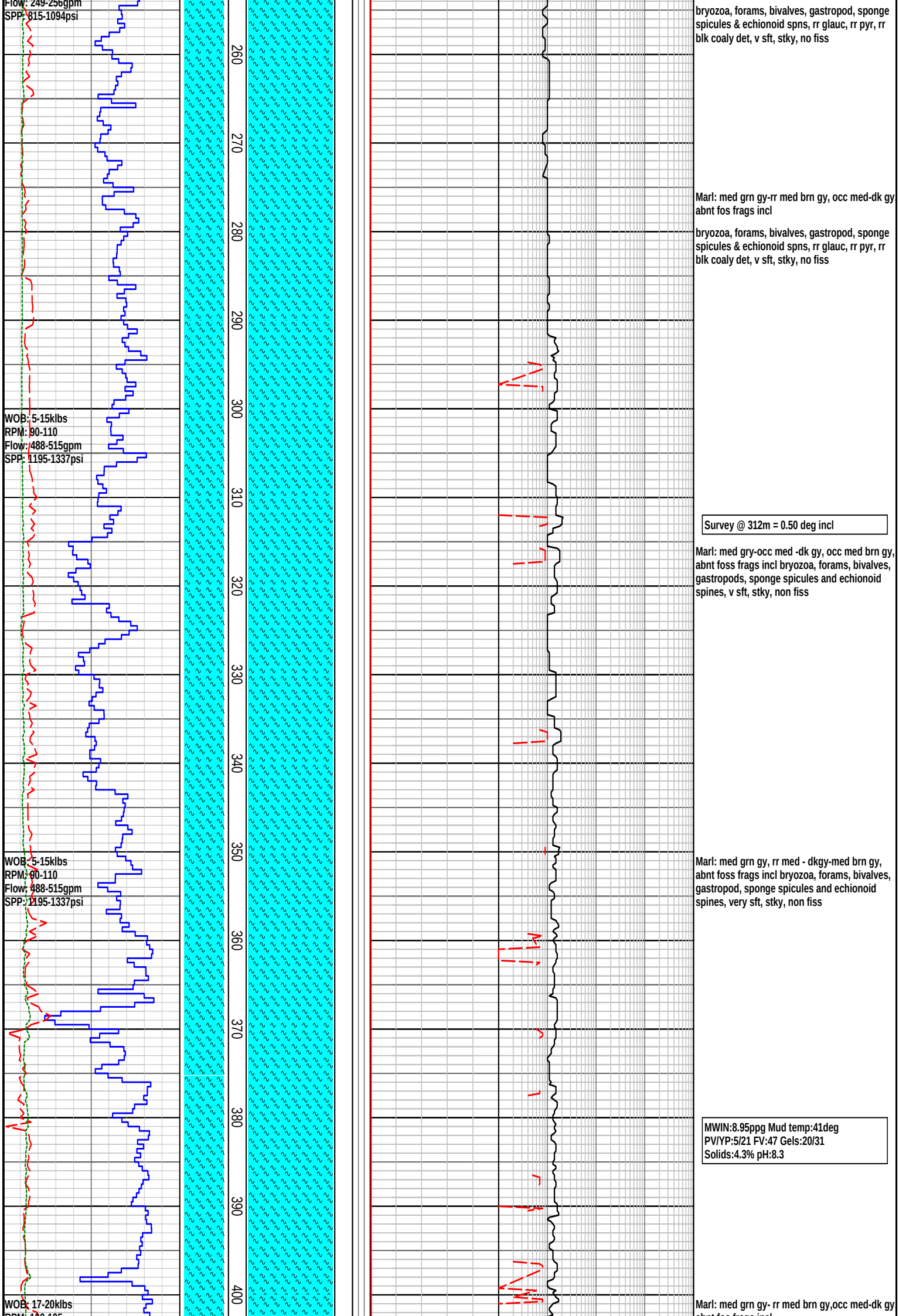
Calcarenite: lt gy-yel orgn, v f-med, dom f grns, comm fossil frag incld bryozoa, echinoid spines, sponge spicules, gastropods, bivalves & forams, tr bk lith, tr med gy marl

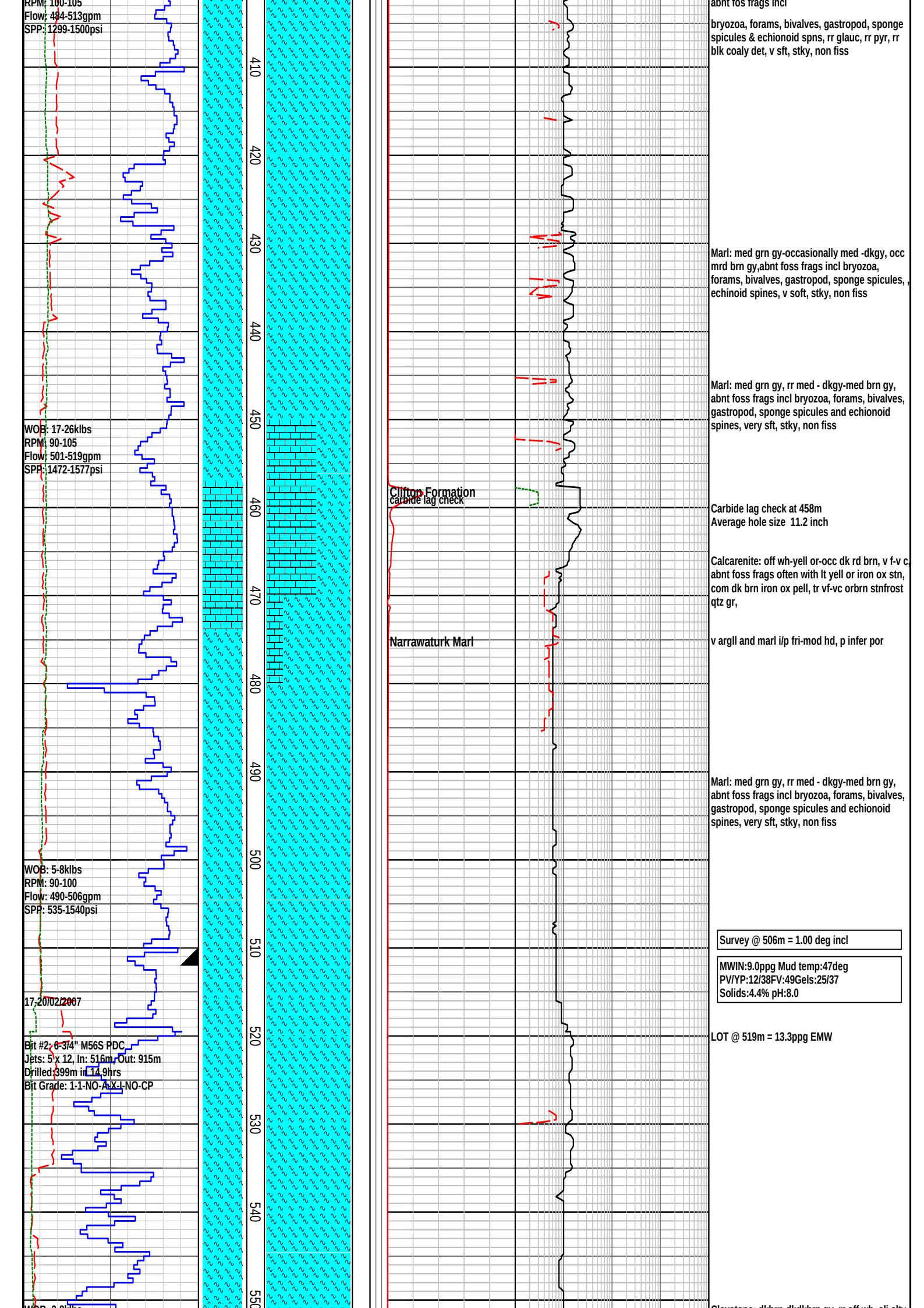
Calcarenite: lt gy, v f-med, dom f grns, abdn fossil frag incld bryozoa, echinoid spines, sponge spicules, gastropods, bivalves & forams-occ infill w glauc, tr bk lith, tr glauc,

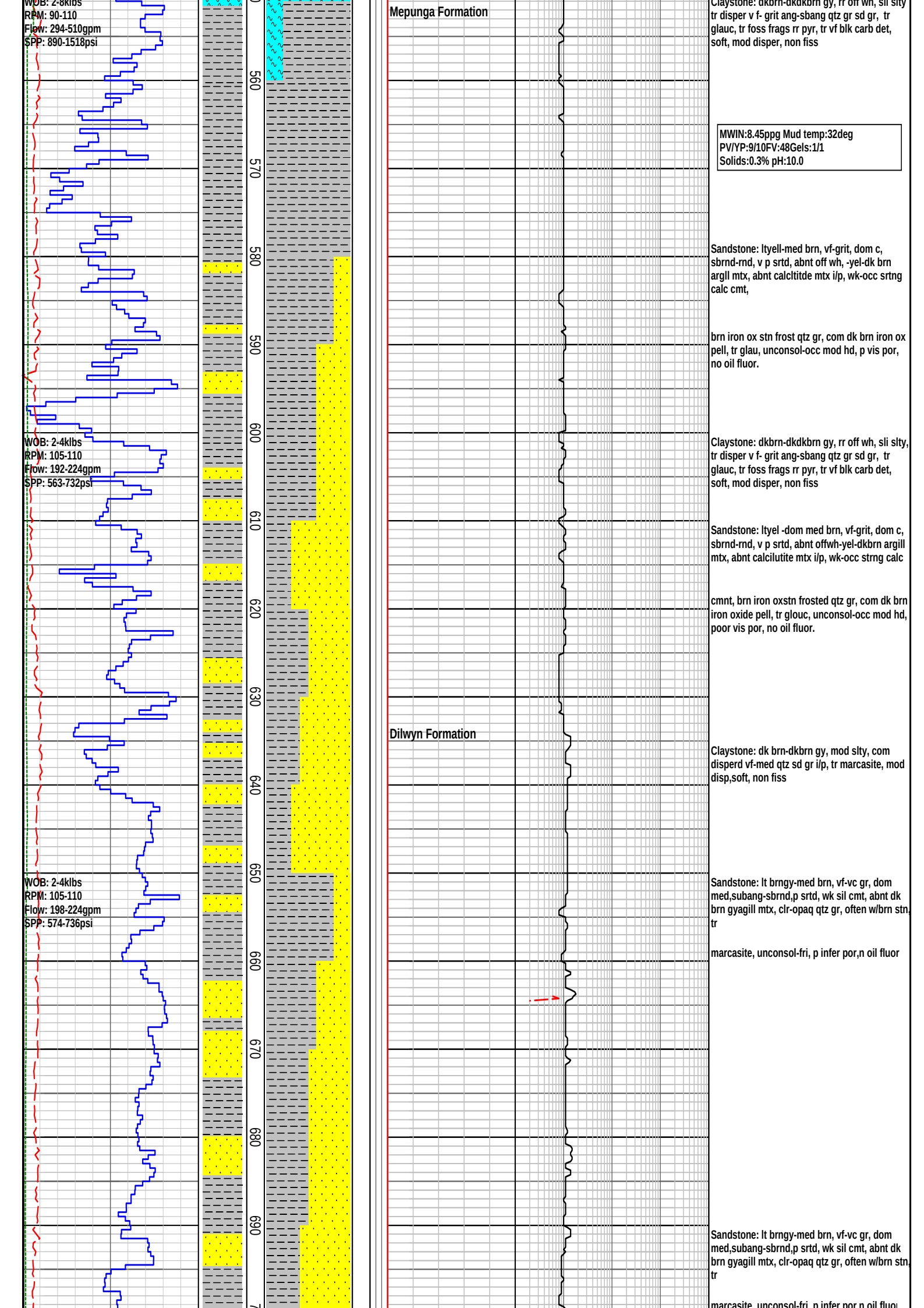
WOB: 6-20klbs
RPM: 65-130
Flow: 262-465gpm

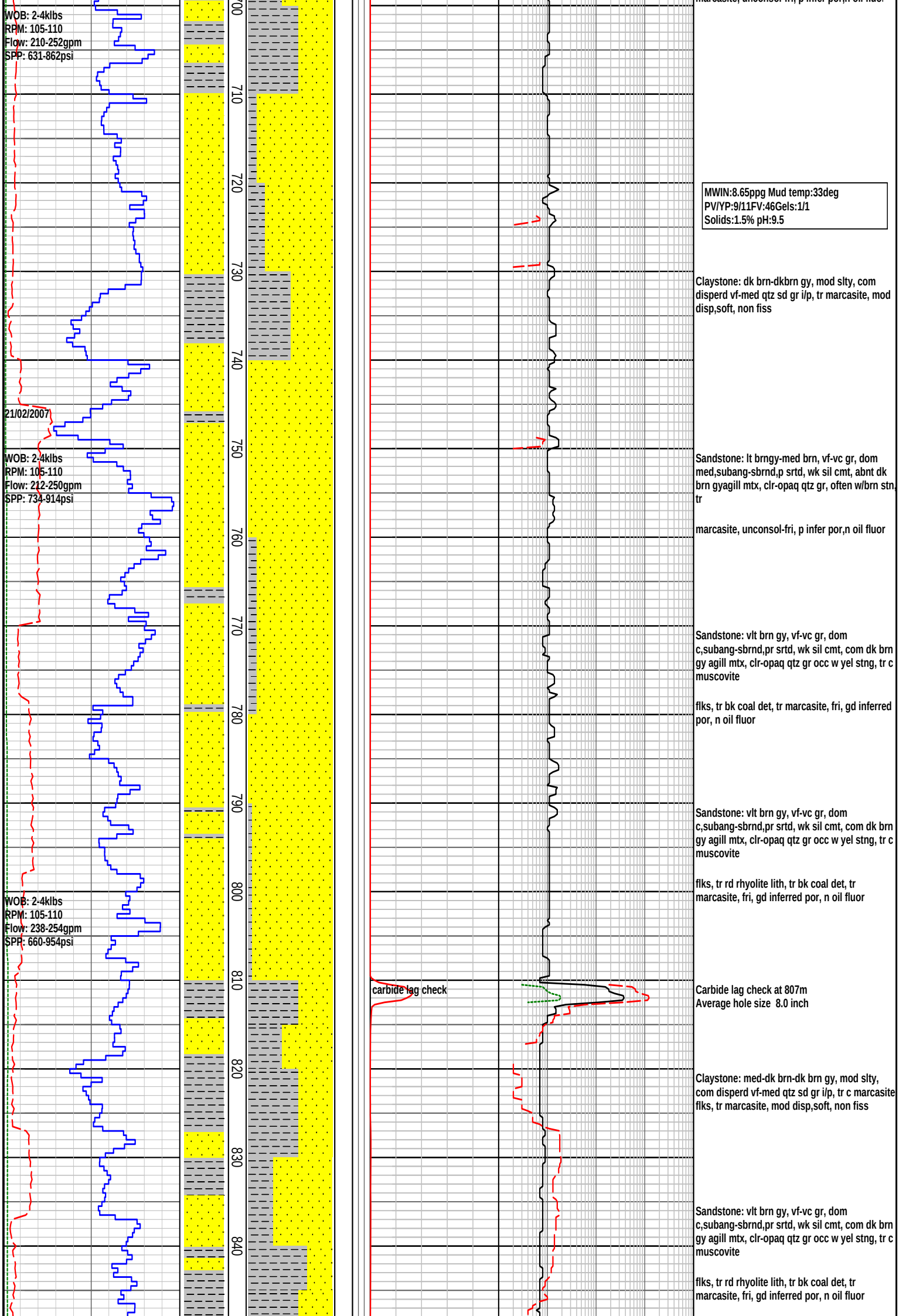
Calcarenite: lt gy-yel orgn, v f-med, dom f grns, comm fossil frag incld bryozoa, echinoid spines, sponge spicules, gastropods, bivalves

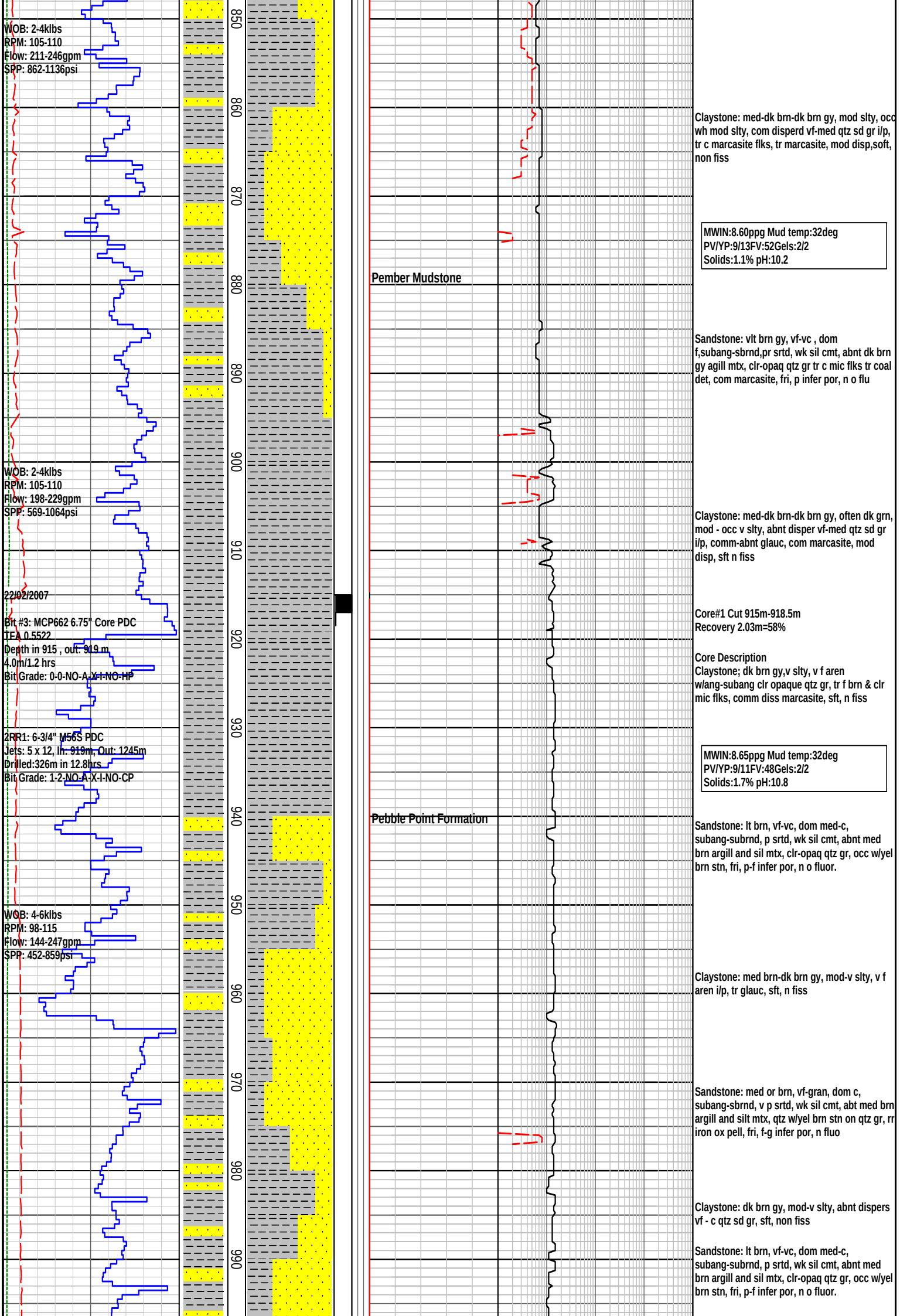

SPP: 184-660psi
110
120
130
140
150
160
170
180
190
200
210
220
230
240
250
From: 130-142m
MISSING DATA DUE TO POWER FAILURE
WOB: 5-20klbs
RPM: 79-125
Flow: 371-470gpm
SPP: 72-844psi
WOB: 4-14klbs
RPM: 40-106
Flow: 249-256gpm
SPP: 815-1094psi
16/02/2007
WOB: 12-17klbs
RPM: 40-106
& forams, tr bk lith, tr med gy marl
MWIN:9.05ppg Mud temp:28deg
PV/YP:10/18 FV:50 Gels:13/15
Solids:5.0% pH:8.5
Gellibrand Marl
Marl: med grn gy-med brn gy, com abnt fos frags incl bryozoa, forams, bivalves, gastropods, sponge spicules & echinoid spns, rr glauc, v sft, stky, non fiss
Survey @ 131m = 0.25 deg incl
Marl: med grn gy-med brn gy,occ med-dk gy, abnt fos frags incl
bryozoa, forams, bivalves, gastropod, sponge spicules & echinoid spns, rr glauc, rr pyr, rr blk coaly det, v sft, stky, non fiss
Marl: med grn gy- occ med brn gy,occ med-dk gy, abnt fos frags incl
bryozoa, forams, bivalves, gastropod, sponge spicules & echinoid spns, rr glauc, rr pyr, rr blk coaly det, v sft, stky, no fiss
MWIN:8.90ppg Mud temp:38deg
PV/YP:7/15 FV:45 Gels:11/21
Solids:3.9% pH:9.0
Marl: med-med gn gy-med br gy, med-dk gy, abnt fos frags incl
bryozoa, forams, bivalves, gastropod, sponge spicules & echinoid spns, rr glauc, rr pyr, rr blk coaly det, v sft, stky, no fiss
Marl: med grn gy-med brn gy, occ med-dk gy, abnt fos frags incl

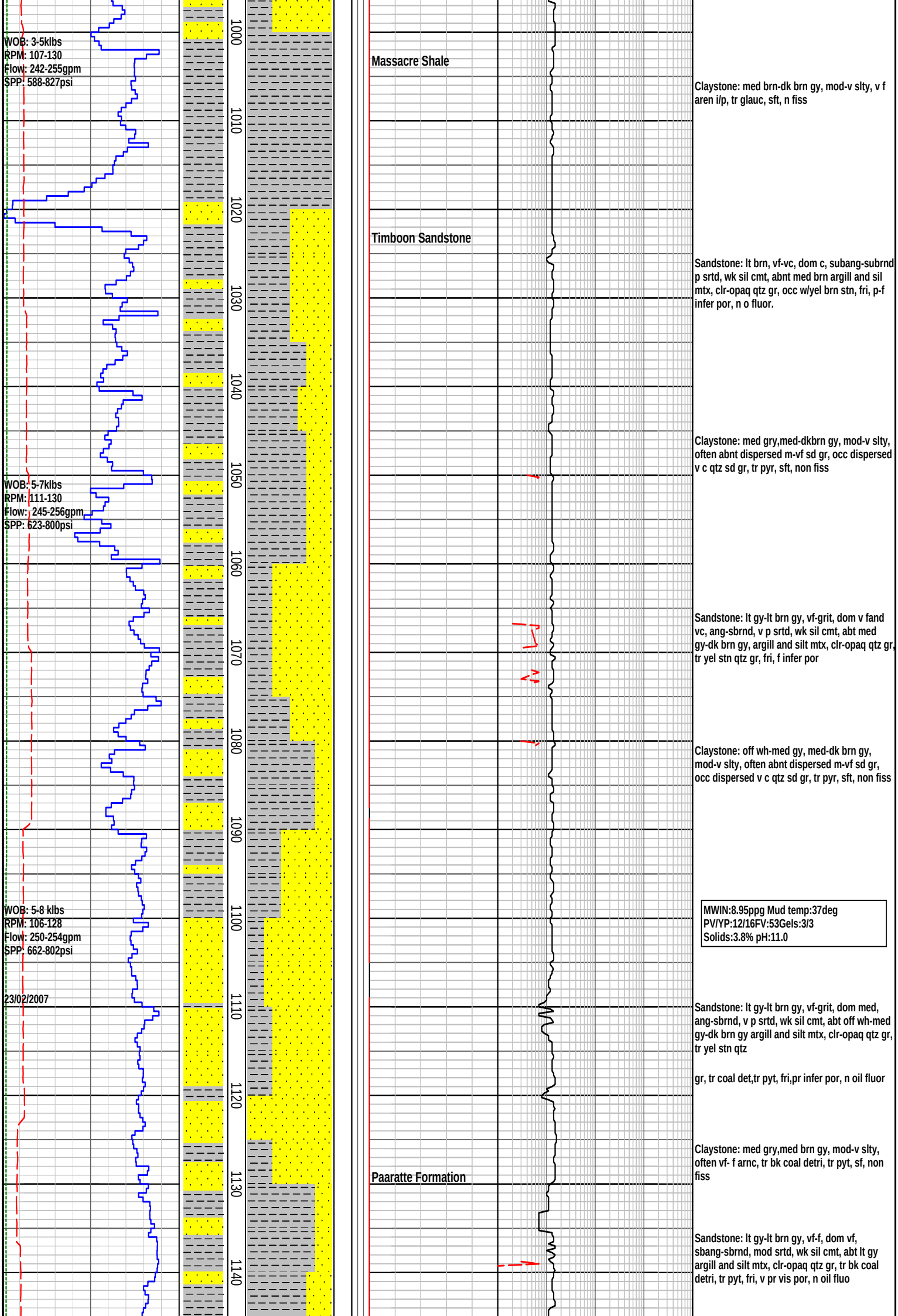

Flow: 249-256gpm
SPP: 815-1094psi
260
270
280
290
WOB: 5-15klbs
RPM: 90-110
Flow: 488-515gpm
SPP: 1195-1337psi
300
310
320
330
340
WOB: 5-15klbs
RPM: 90-110
Flow: 488-515gpm
SPP: 1195-1337psi
350
360
370
380
390
WOB: 17-20klbs
400
bryozoa, forams, bivalves, gastropod, sponge spicules & echionoid spns, rr glauc, rr pyr, rr blk coaly det, v sft, stky, no fiss
Marl: med grn gy-rr med brn gy, occ med-dk gy abnt fos frags incl
bryozoa, forams, bivalves, gastropod, sponge spicules & echionoid spns, rr glauc, rr pyr, rr blk coaly det, v sft, stky, no fiss
Survey @ 312m = 0.50 deg incl
Marl: med gry-occ med -dk gy, occ med brn gy, abnt foss frags incl bryozoa, forams, bivalves, gastropods, sponge spicules and echionoid spines, v sft, stky, non fiss
Marl: med grn gy, rr med - dkgy-med brn gy, abnt foss frags incl bryozoa, forams, bivalves, gastropod, sponge spicules and echionoid spines, very sft, stky, non fiss
MWIN:8.95ppg Mud temp:41deg
PV/YP:5/21 FV:47 Gels:20/31
Solids:4.3% pH:8.3
Marl: med grn gy- rr med brn gy,occ med-dk gy

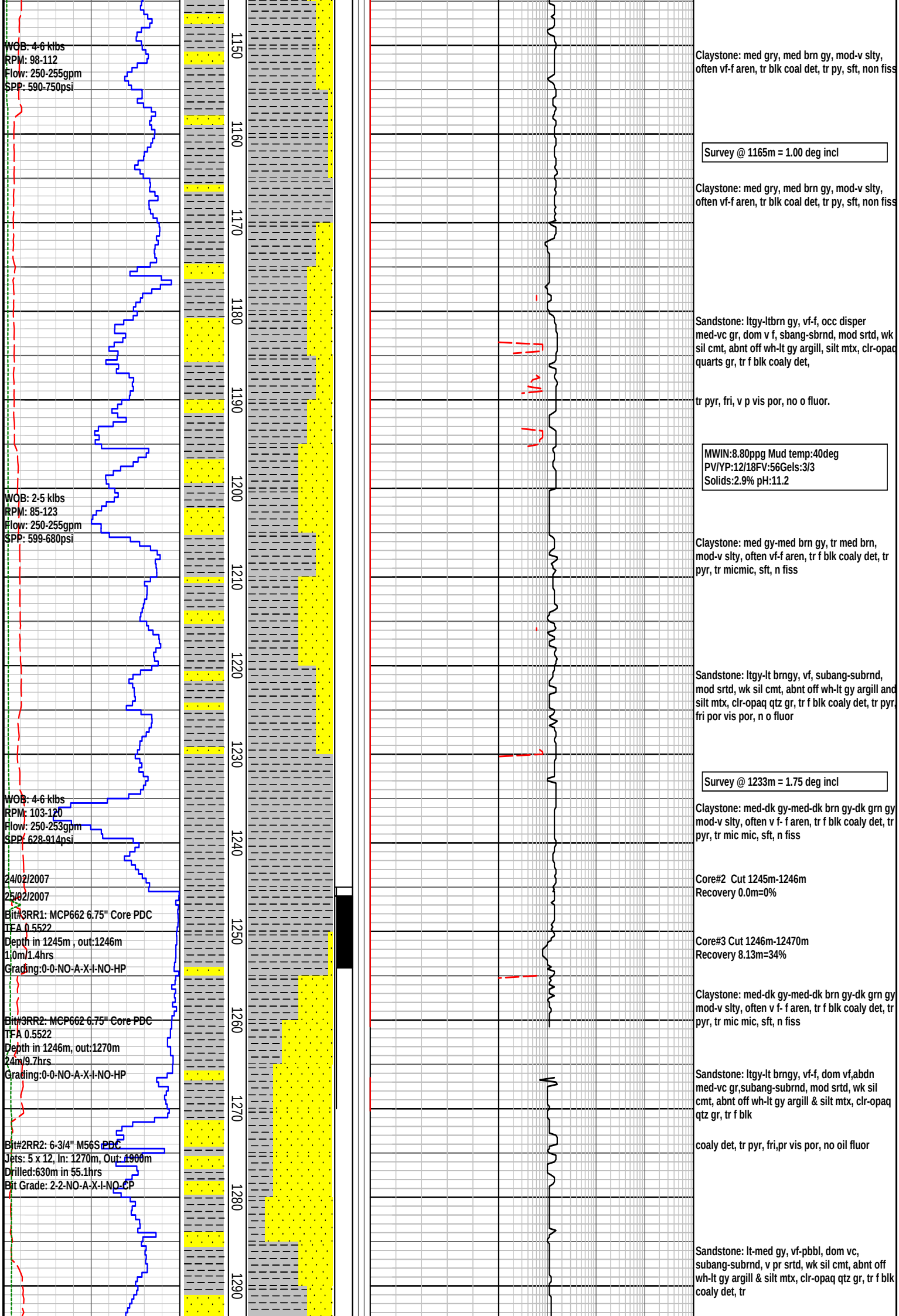

RPM: 100-105
Flow: 484-513gpm
SPP: 1299-1500psi
410
420
430
440
450
460
470
480
490
500
510
520
530
540
550
WOB: 17-26klbs
RPM: 90-105
Flow: 501-519gpm
SPP: 1472-1577psi
WOB: 5-8klbs
RPM: 90-100
Flow: 490-506gpm
SPP: 535-1540psi
17-20/02/2007
Bit #2: 6-3/4" M56S PDC
Jets: 5 x 12, In: 516m, Out: 915m
Drilled: 399m in 14.9hrs
Bit Grade: 1-1-NO-A-X-I-NO-CP
Clifton Formation
carbide lag check
Narrawaturk Marl
abnt fos frags incl
bryozoa, forams, bivalves, gastropod, sponge spicules & echionoid spns, rr glauc, rr pyr, rr blk coaly det, v sft, stky, non fiss
Marl: med grn gy-occasionally med -dkgy, occ mrd brn gy,abnt foss frags incl bryozoa, forams, bivalves, gastropod, sponge spicules, , echinoid spines, v soft, stky, non fiss
Marl: med grn gy, rr med - dkgy-med brn gy, abnt foss frags incl bryozoa, forams, bivalves, gastropod, sponge spicules and echionoid spines, very sft, stky, non fiss
Carbide lag check at 458m
Average hole size 11.2 inch
Calcarenite: off wh-yell or-occ dk rd brn, v f-v c, abnt foss frags often with lt yell or iron ox stn, com dk brn iron ox pell, tr vf-vc orbrn stnfrost qtz gr,
v argll and marl i/p fri-mod hd, p infer por
Marl: med grn gy, rr med - dkgy-med brn gy, abnt foss frags incl bryozoa, forams, bivalves, gastropod, sponge spicules and echionoid spines, very sft, stky, non fiss
Survey @ 506m = 1.00 deg incl
MWIN:9.0ppg Mud temp:47deg
PV/YP:12/38FV:49Gels:25/37
Solids:4.4% pH:8.0
LOT @ 519m = 13.3ppg EMW

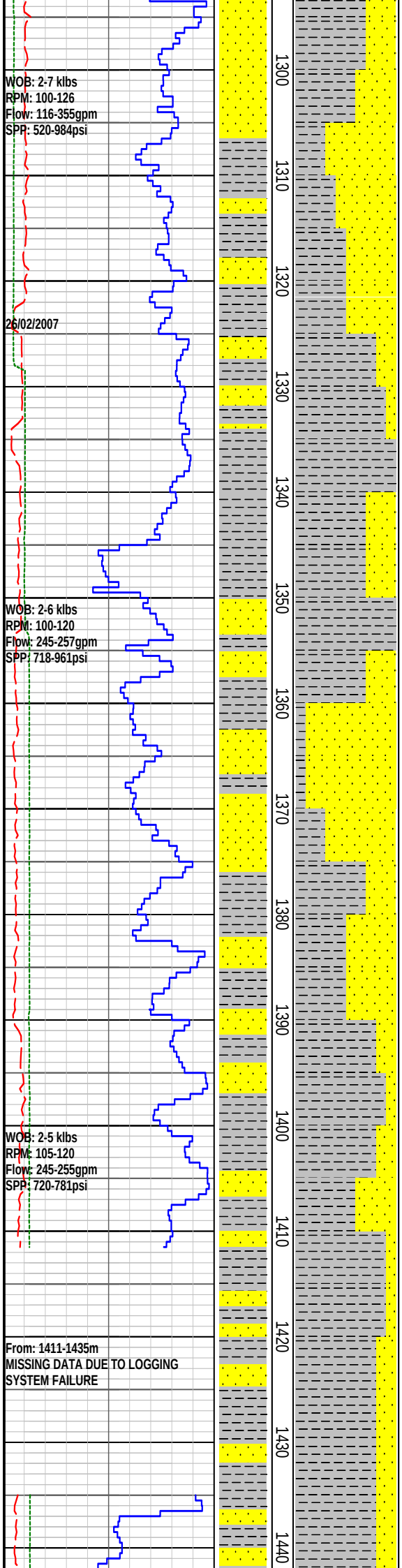

WOB: 2-8klbs
RPM: 90-110
Flow: 294-510gpm
SPP: 890-1518psi
WOB: 2-4klbs
RPM: 105-110
Flow: 192-224gpm
SPP: 563-732psi
WOB: 2-4klbs
RPM: 105-110
Flow: 198-224gpm
SPP: 574-736psi
560
570
580
590
600
610
620
630
640
650
660
670
680
690
Mepunga Formation
Dilwyn Formation
Claystone: dkbrn-dkdkbrn gy, rr off wh, sli slty tr disper v f- grit ang-sbang qtz gr sd gr, tr glauc, tr foss frags rr pyr, tr vf blk carb det, soft, mod disper, non fiss
MWIN:8.45ppg Mud temp:32deg
PV/YP:9/10FV:48Gels:1/1
Solids:0.3% pH:10.0
Sandstone: ltyell-med brn, vf-grit, dom c, sbrnd-rnd, v p srtd, abnt off wh, -yel-dk brn argll mtx, abnt calcltitde mtx i/p, wk-occ srtng calc cmt,
brn iron ox stn frost qtz gr, com dk brn iron ox pell, tr glau, unconsol-occ mod hd, p vis por, no oil fluor.
Claystone: dkbrn-dkdkbrn gy, rr off wh, sli slty, tr disper v f- grit ang-sbang qtz gr sd gr, tr glauc, tr foss frags rr pyr, tr vf blk carb det, soft, mod disper, non fiss
Sandstone: ltyel -dom med brn, vf-grit, dom c, sbrnd-rnd, v p srtd, abnt offwh-yel-dkbrn argill mtx, abnt calcilutite mtx i/p, wk-occ strng calc
cmnt, brn iron oxstn frosted qtz gr, com dk brn iron oxide pell, tr glouc, unconsol-occ mod hd, poor vis por, no oil fluor.
Claystone: dk brn-dkbrn gy, mod slty, com disperd vf-med qtz sd gr i/p, tr marcasite, mod disp,soft, non fiss
Sandstone: lt brngy-med brn, vf-vc gr, dom med,subang-sbrnd,p srtd, wk sil cmt, abnt dk brn gyagill mtx, clr-opaq qtz gr, often w/brn stn, tr
marcasite, unconsol-fri, p infer por,n oil fluor
Sandstone: lt brngy-med brn, vf-vc gr, dom med,subang-sbrnd,p srtd, wk sil cmt, abnt dk brn gyagill mtx, clr-opaq qtz gr, often w/brn stn, tr


WOB: 2-4klbs
RPM: 105-110
Flow: 210-252gpm
SPP: 631-862psi
21/02/2007
WOB: 2-4klbs
RPM: 105-110
Flow: 212-250gpm
SPP: 734-914psi
WOB: 2-4klbs
RPM: 105-110
Flow: 238-254gpm
SPP: 660-954psi
700
710
720
730
740
750
760
770
780
790
800
810
820
830
840
carbide lag check
MWIN:8.65ppg Mud temp:33deg
PV/YP:9/11FV:46Gels:1/1
Solids:1.5% pH:9.5
Claystone: dk brn-dkbrn gy, mod slty, com disperd vf-med qtz sd gr i/p, tr marcasite, mod disp,soft, non fiss
Sandstone: lt brngy-med brn, vf-vc gr, dom med,subang-sbrnd,p srtd, wk sil cmt, abnt dk brn gyagill mtx, clr-opaq qtz gr, often w/brn stn, tr
marcasite, unconsol-fri, p infer por,n oil fluor
Sandstone: vlt brn gy, vf-vc gr, dom c,subang-sbrnd,pr srtd, wk sil cmt, com dk brn gy agill mtx, clr-opaq qtz gr occ w yel stng, tr c muscovite
flks, tr bk coal det, tr marcasite, fri, gd inferred por, n oil fluor
Sandstone: vlt brn gy, vf-vc gr, dom c,subang-sbrnd,pr srtd, wk sil cmt, com dk brn gy agill mtx, clr-opaq qtz gr occ w yel stng, tr c muscovite
flks, tr rd rhyolite lith, tr bk coal det, tr marcasite, fri, gd inferred por, n oil fluor
Carbide lag check at 807m
Average hole size 8.0 inch
Claystone: med-dk brn-dk brn gy, mod slty, com disperd vf-med qtz sd gr i/p, tr c marcasite flks, tr marcasite, mod disp,soft, non fiss
Sandstone: vlt brn gy, vf-vc gr, dom c,subang-sbrnd,pr srtd, wk sil cmt, com dk brn gy agill mtx, clr-opaq qtz gr occ w yel stng, tr c muscovite
flks, tr rd rhyolite lith, tr bk coal det, tr marcasite, fri, gd inferred por, n oil fluor


WOB: 2-4klbs
RPM: 105-110
Flow: 211-246gpm
SPP: 862-1136psi
850
860
870
880
890
900
910
920
930
940
950
960
970
980
990
Claystone: med-dk brn-dk brn gy, mod slty, occ wh mod slty, com disperd vf-med qtz sd gr i/p, tr c marcasite flks, tr marcasite, mod disp,soft, non fiss
MWIN:8.60ppg Mud temp:32deg
PV/YP:9/13FV:52Gels:2/2
Solids:1.1% pH:10.2
Pember Mudstone
Sandstone: vlt brn gy, vf-vc , dom f,subang-sbrnd,pr srtd, wk sil cmt, abnt dk brn gy agill mtx, clr-opaq qtz gr tr c mic flks tr coal det, com marcasite, fri, p infer por, n o flu
WOB: 2-4klbs
RPM: 105-110
Flow: 198-229gpm
SPP: 569-1064psi
Claystone: med-dk brn-dk brn gy, often dk grn, mod - occ v slty, abnt disper vf-med qtz sd gr i/p, comm-abnt glauc, com marcasite, mod disp, sft n fiss
22/02/2007
Bit #3: MCP662 6.75" Core PDC
TFA 0.5522
Depth in 915 , out: 919 m
4.0m/1.2 hrs
Bit Grade: 0-0-NO-A-X-I-NO-HP
Core#1 Cut 915m-918.5m
Recovery 2.03m=58%
Core Description
Claystone; dk brn gy,v slty, v f aren w/ang-subang clr opaque qtz gr, tr f brn & clr mic flks, comm diss marcasite, sft, n fiss
2RR1: 6-3/4" M56S PDC
Jets: 5 x 12, In: 919m, Out: 1245m
Drilled:326m in 12.8hrs
Bit Grade: 1-2-NO-A-X-I-NO-CP
MWIN:8.65ppg Mud temp:32deg
PV/YP:9/11FV:48Gels:2/2
Solids:1.7% pH:10.8
Pebble Point Formation
Sandstone: lt brn, vf-vc, dom med-c, subang-subrnd, p srtd, wk sil cmt, abnt med brn argill and sil mtx, clr-opaq qtz gr, occ w/yel brn stn, fri, p-f infer por, n o fluor.
WOB: 4-6klbs
RPM: 98-115
Flow: 144-247gpm
SPP: 452-859psi
Claystone: med brn-dk brn gy, mod-v slty, v f aren i/p, tr glauc, sft, n fiss
Sandstone: med or brn, vf-gran, dom c, subang-sbrnd, v p srtd, wk sil cmt, abt med brn argill and silt mtx, qtz w/yel brn stn on qtz gr, rr iron ox pell, fri, f-g infer por, n fluo
Claystone: dk brn gy, mod-v slty, abnt dispers vf - c qtz sd gr, sft, non fiss
Sandstone: lt brn, vf-vc, dom med-c, subang-subrnd, p srtd, wk sil cmt, abnt med brn argill and sil mtx, clr-opaq qtz gr, occ w/yel brn stn, fri, p-f infer por, n o fluor.


WOB: 3-5klbs
RPM: 107-130
Flow: 242-255gpm
SPP: 588-827psi
WOB: 5-7klbs
RPM: 111-130
Flow: 245-256gpm
SPP: 623-800psi
WOB: 5-8 klbs
RPM: 106-128
Flow: 250-254gpm
SPP: 662-802psi
23/02/2007
1000
1010
1020
1030
1040
1050
1060
1070
1080
1090
1100
1110
1120
1130
1140
Massacre Shale
Timboon Sandstone
Paaratte Formation
Claystone: med brn-dk brn gy, mod-v slty, v f aren i/p, tr glauc, sft, n fiss
Sandstone: lt brn, vf-vc, dom c, subang-subrnd p srtd, wk sil cmt, abnt med brn argill and sil mtx, clr-opaq qtz gr, occ w/yel brn stn, fri, p-f infer por, n o fluor.
Claystone: med gry,med-dkbrn gy, mod-v slty, often abnt dispersed m-vf sd gr, occ dispersed v c qtz sd gr, tr pyr, sft, non fiss
Sandstone: lt gy-lt brn gy, vf-grit, dom v fand vc, ang-sbrnd, v p srtd, wk sil cmt, abt med gy-dk brn gy, argill and silt mtx, clr-opaq qtz gr, tr yel stn qtz gr, fri, f infer por
Claystone: off wh-med gy, med-dk brn gy, mod-v slty, often abnt dispersed m-vf sd gr, occ dispersed v c qtz sd gr, tr pyr, sft, non fiss
MWIN:8.95ppg Mud temp:37deg
PV/YP:12/16FV:53Gels:3/3
Solids:3.8% pH:11.0
Sandstone: lt gy-lt brn gy, vf-grit, dom med, ang-sbrnd, v p srtd, wk sil cmt, abt off wh-med gy-dk brn gy argill and silt mtx, clr-opaq qtz gr, tr yel stn qtz
gr, tr coal det,tr pyt, fri,pr infer por, n oil fluor
Claystone: med gry,med brn gy, mod-v slty, often vf- f arnc, tr bk coal detri, tr pyt, sf, non fiss
Sandstone: lt gy-lt brn gy, vf-f, dom vf, sbang-sbrnd, mod srtd, wk sil cmt, abt lt gy argill and silt mtx, clr-opaq qtz gr, tr bk coal detri, tr pyt, fri, v pr vis por, n oil fluo


WOB: 4-6 klbs
RPM: 98-112
Flow: 250-255gpm
SPP: 590-750psi
WOB: 2-5 klbs
RPM: 85-123
Flow: 250-255gpm
SPP: 599-680psi
WOB: 4-6 klbs
RPM: 103-120
Flow: 250-253gpm
SPP: 628-914psi
24/02/2007
25/02/2007
Bit#3RR1: MCP662 6.75" Core PDC
TFA 0.5522
Depth in 1245m , out:1246m
1.0m/1.4hrs
Grading:0-0-NO-A-X-I-NO-HP
Bit#3RR2: MCP662 6.75" Core PDC
TFA 0.5522
Depth in 1246m, out:1270m
24m/9.7hrs
Grading:0-0-NO-A-X-I-NO-HP
Bit#2RR2: 6-3/4" M56S PDC
Jets: 5 x 12, In: 1270m, Out: 1900m
Drilled:630m in 55.1hrs
Bit Grade: 2-2-NO-A-X-I-NO-CP
1150
1160
1170
1180
1190
1200
1210
1220
1230
1240
1250
1260
1270
1280
1290
Claystone: med gry, med brn gy, mod-v slty, often vf-f aren, tr blk coal det, tr py, sft, non fiss
Survey @ 1165m = 1.00 deg incl
Claystone: med gry, med brn gy, mod-v slty, often vf-f aren, tr blk coal det, tr py, sft, non fiss
Sandstone: ltgy-ltbrn gy, vf-f, occ disper med-vc gr, dom v f, sbang-sbrnd, mod srtd, wk sil cmt, abnt off wh-lt gy argill, silt mtx, clr-opaq quarts gr, tr f blk coaly det,
tr pyr, fri, v p vis por, no o fluor.
MWIN:8.80ppg Mud temp:40deg
PV/YP:12/18FV:56Gels:3/3
Solids:2.9% pH:11.2
Claystone: med gy-med brn gy, tr med brn, mod-v slty, often vf-f aren, tr f blk coaly det, tr pyr, tr micmic, sft, n fiss
Sandstone: ltgy-lt brngy, vf, subang-subrnd, mod srtd, wk sil cmt, abnt off wh-lt gy argill and silt mtx, clr-opaq qtz gr, tr f blk coaly det, tr pyr, fri por vis por, n o fluor
Survey @ 1233m = 1.75 deg incl
Claystone: med-dk gy-med-dk brn gy-dk grn gy mod-v slty, often v f- f aren, tr f blk coaly det, tr pyr, tr mic mic, sft, n fiss
Core#2 Cut 1245m-1246m
Recovery 0.0m=0%
Core#3 Cut 1246m-12470m
Recovery 8.13m=34%
Claystone: med-dk gy-med-dk brn gy-dk grn gy mod-v slty, often v f- f aren, tr f blk coaly det, tr pyr, tr mic mic, sft, n fiss
Sandstone: ltgy-lt brngy, vf-f, dom vf,abdn med-vc gr,subang-subrnd, mod srtd, wk sil cmt, abnt off wh-lt gy argill & silt mtx, clr-opaq qtz gr, tr f blk
coaly det, tr pyr, fri,pr vis por, no oil fluor
Sandstone: lt-med gy, vf-pbbl, dom vc, subang-subrnd, v pr srtd, wk sil cmt, abnt off wh-lt gy argill & silt mtx, clr-opaq qtz gr, tr f blk coaly det, tr



pyt, fri,pr vis por, n oil fluor

MWIN:8.95ppg Mud temp:35deg
PV/YP:12/12FV:56Gels:2/2
Solids:3.6% pH:10.8

Claystone: med-dk gy-med-dk brn gy, mod-v slty, occ v aren, rr dipers med-pbbl qzt grn,tr f blk coaly det, tr mic mic, sft, n fiss

Sandstone: lt-med gy, vf-pbbl, dom vf-f, subang- rnd, v pr srtd, wk sil cmt, abnt off wh-lt gy argill & silt mtx, clr-opaq qtz gr, tr f blk coaly det, tr

biotite flks, fri,v pr infer por, no oil fluor

Claystone: med-dk gy-med-dk brn gy, mod-v slty, occ v aren, rr dipers med-pbbl qzt grn,tr f blk coaly det, tr mic mic, sft, n fiss

Sandstone: lt-med gy,vf- rr pbbl,dom vf-f, subang- rnd, v pr srtd,wk sil cmt, abnt off wh-lt gy argill & silt mtx, clr-opaq qtz gr, tr f blk coaly det, tr

biotite flks, fri,v pr infer por, no oil fluor

Claystone: med-dk gy-med-dk brn gy, mod-v slty, occ v aren, rr dipers med-pbbl qzt grn,tr f blk coaly det, tr mic mic, sft, n fiss

Sandstone: lt-med gy,vf-pbbl,dom vc, ang- rnd, v pr srtd,wk sil cmt, abnt off wh-lt gy argill & silt mtx, clr-opaq qtz gr, tr f blk coaly det, tr biotite flk,

tr pyt, fri, gd infer por, no oil fluor

Survey @ 1370m = 1.75 deg incl

Claystone: lt-dk gy-med-dk brn gy, mod-v slty, oft vf-f aren, rr dipers med-pbbl qzt grn,tr blk coaly det, tr mic mic, sft, n fiss

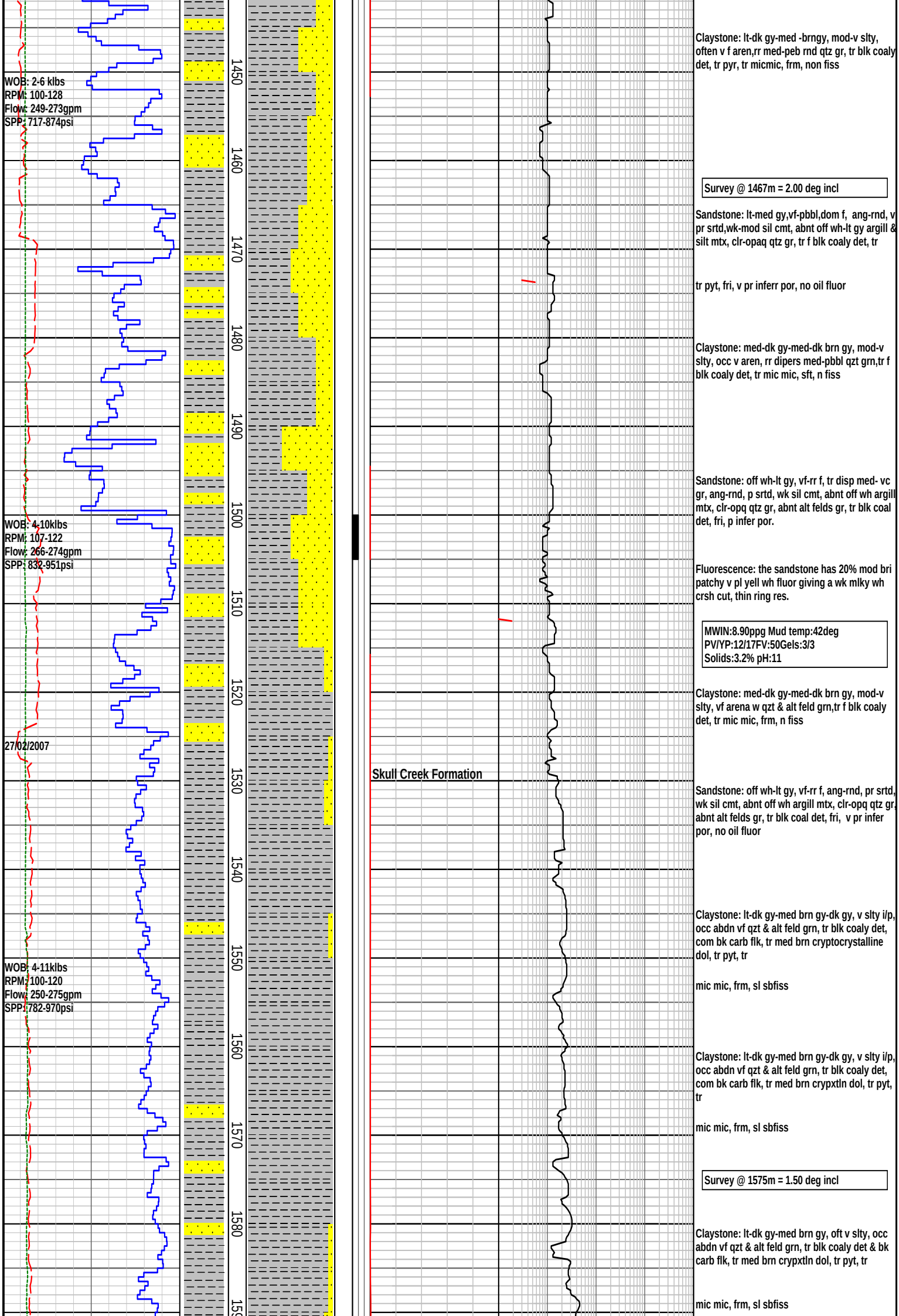
Sandstone: lt-med gy,vf-pbbl,dom f, ang-rnd, v pr srtd,wk-mod sil cmt, abnt off wh-lt gy argill & silt mtx, clr-opaq qtz gr, tr f blk coaly det, tr

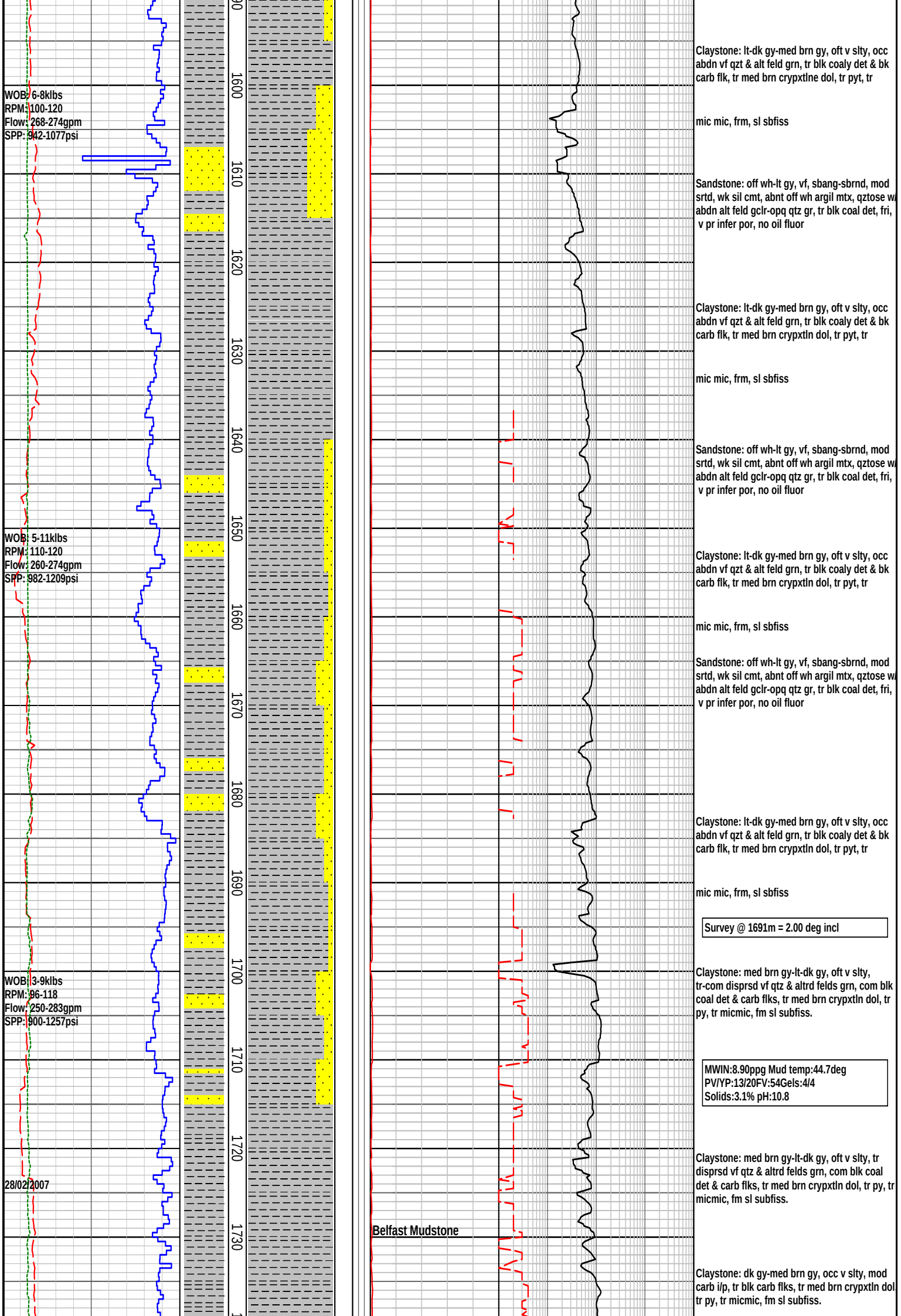
biotite flks, tr py, fri-mod hd, v pr inf por, no oil fluor

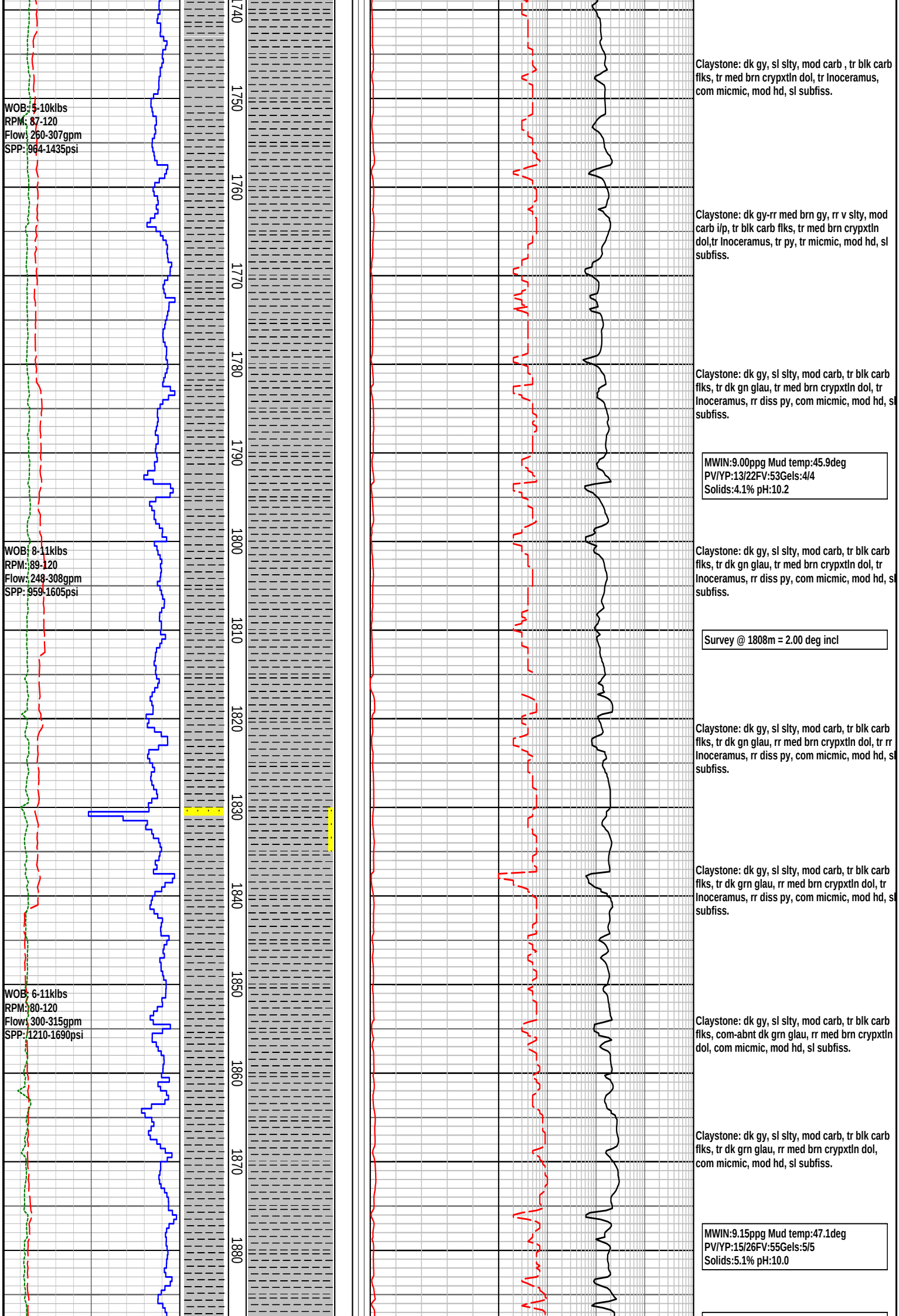
MWIN:8.90ppg Mud temp:39deg
PV/YP:12/15FV:52Gels:3/3
Solids:3.3% pH:11

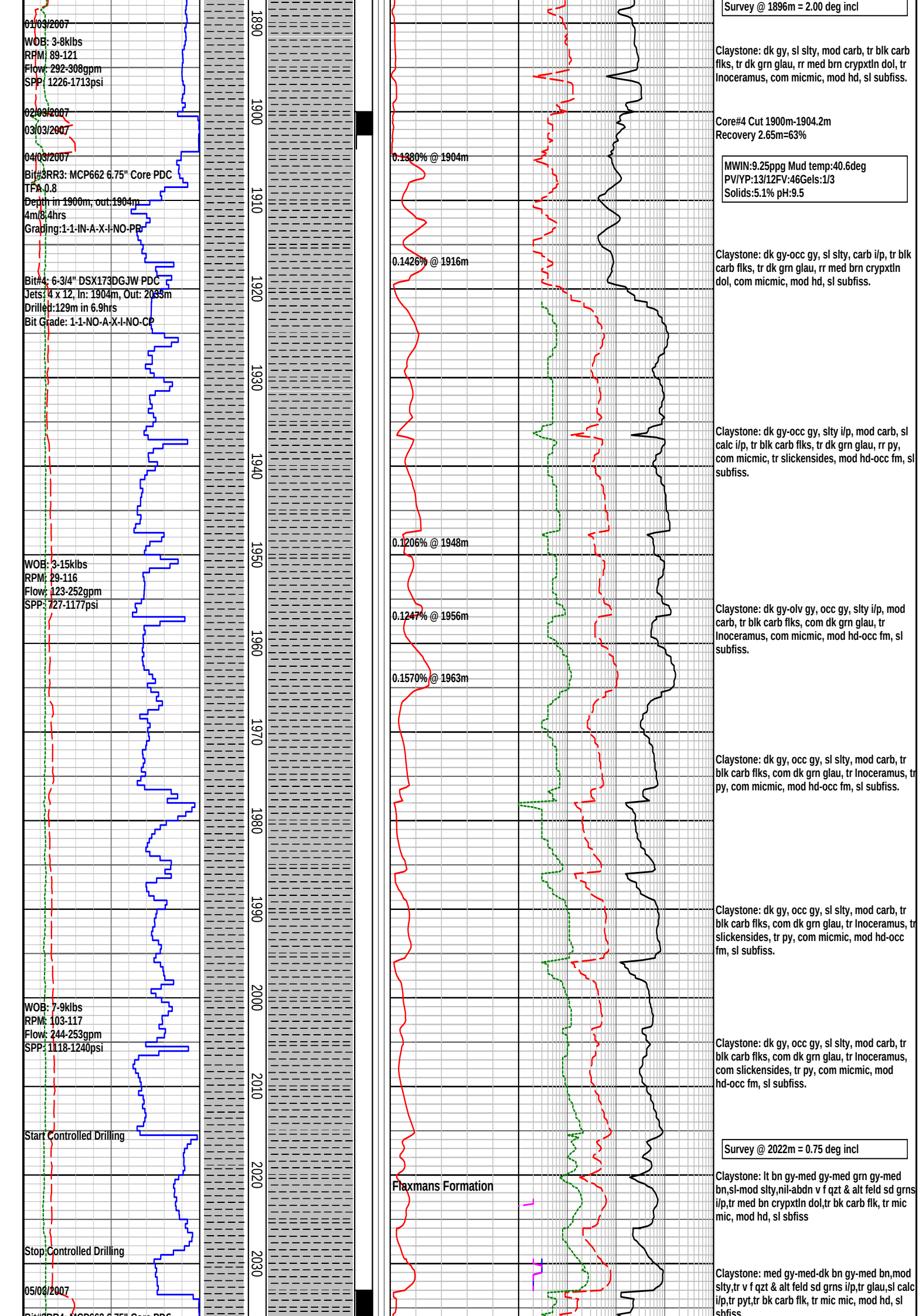
Claystone: med-dk gy-med-dk brn gy, mod-v slty, occ v aren, rr dipers med-pbbl qzt grn,tr f blk coaly det, tr mic mic, sft, n fiss

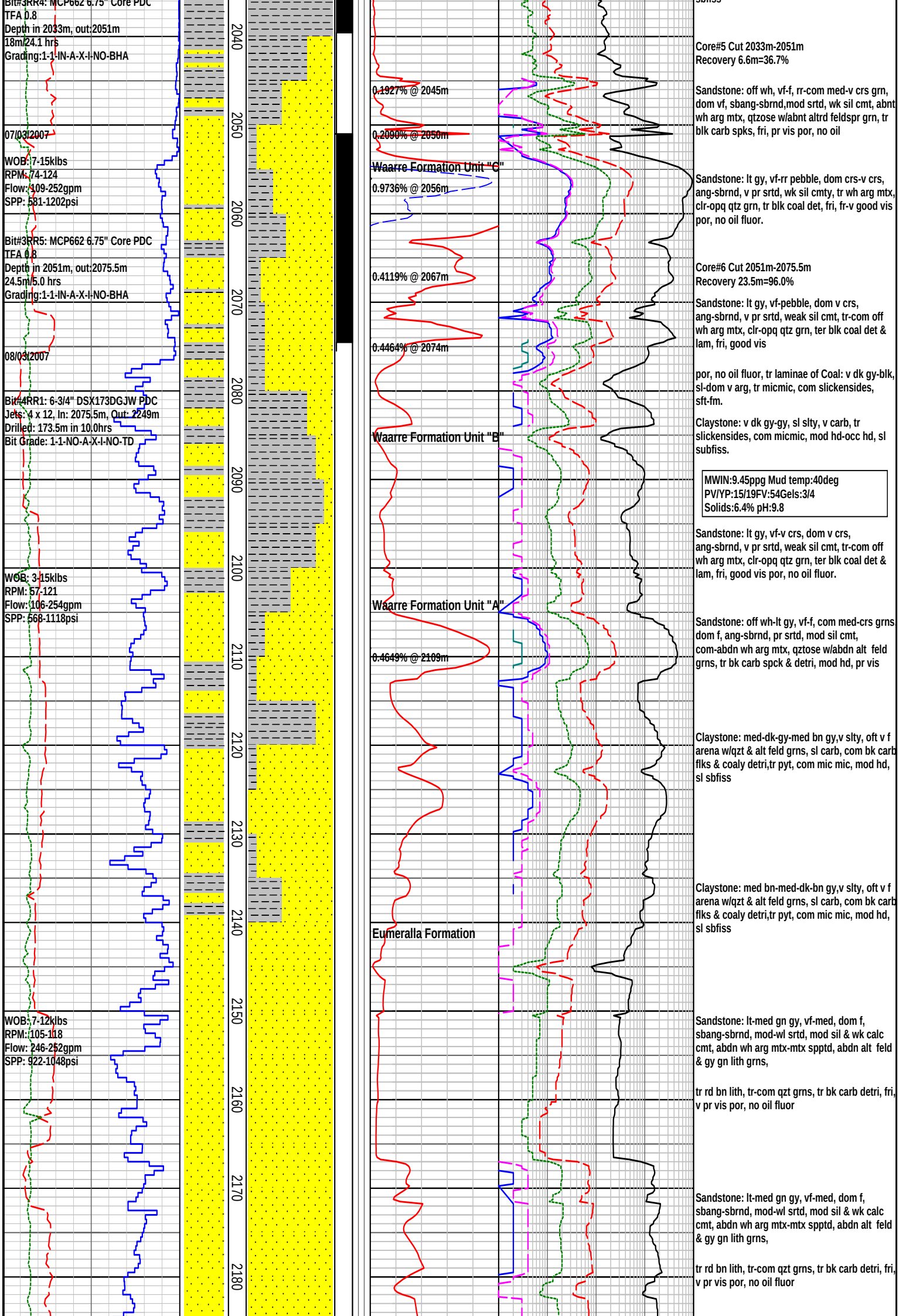
Sandstone: off wh-med gy, vf, ang-rnd, v p srtd wk sil cmt, abnt off wh-med gy argill and silt mtx, clr-opaq qtz gr, tr blk coaly det, tr pyr, fri, v p infer por, n o fluor

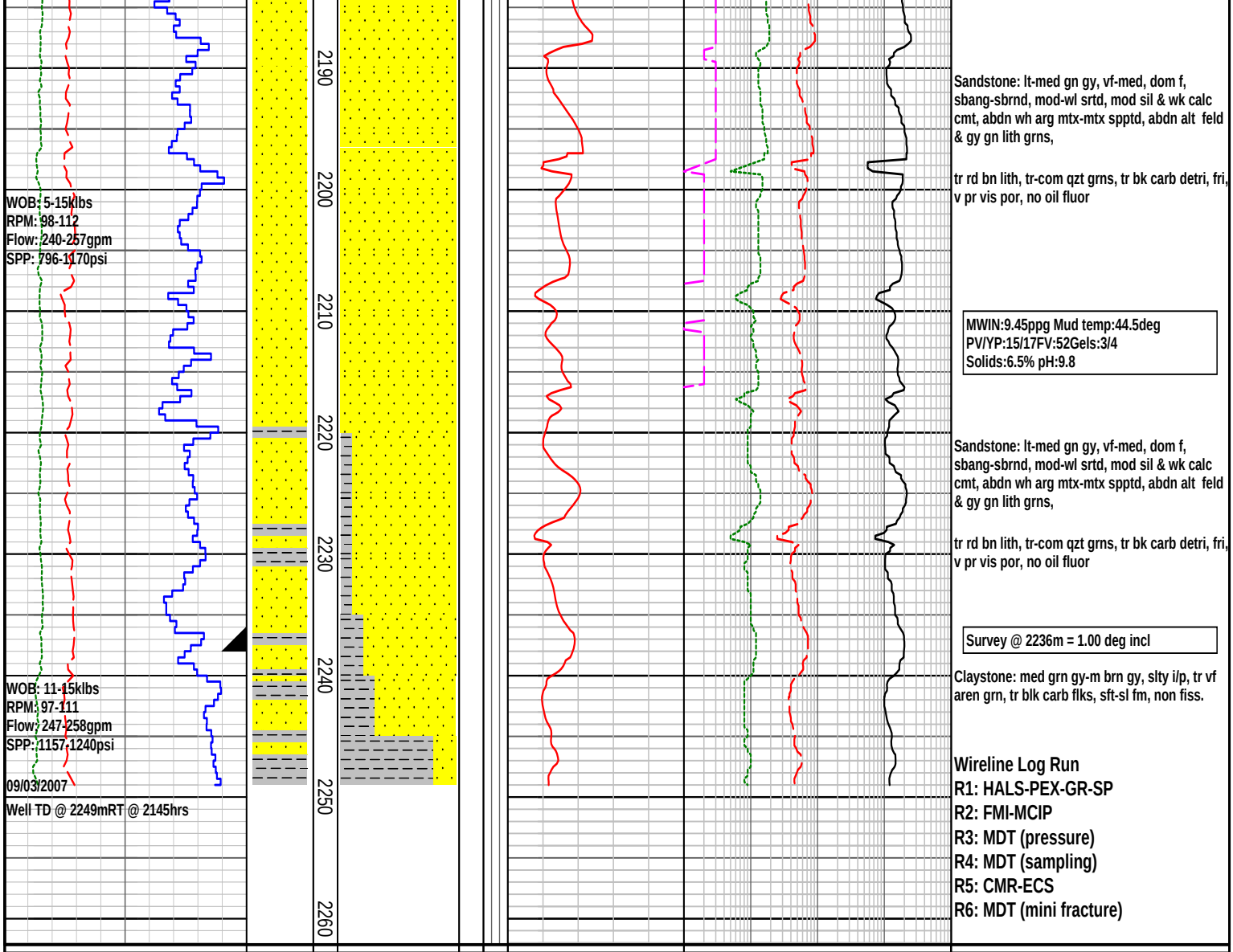

WOB: 2-6 klbs
RPM: 100-128
Flow: 249-273gpm
SPP: 717-874psi
WOB: 4-10klbs
RPM: 107-122
Flow: 266-274gpm
SPP: 832-951psi
27/02/2007
WOB: 4-11klbs
RPM: 100-120
Flow: 250-275gpm
SPP: 782-970psi
1450
1460
1470
1480
1490
1500
1510
1520
1530
1540
1550
1560
1570
1580
Skull Creek Formation
Claystone: lt-dk gy-med -brngy, mod-v slty, often v f aren,rr med-peb rnd qtz gr, tr blk coaly det, tr pyr, tr micmic, frm, non fiss
Survey @ 1467m = 2.00 deg incl
Sandstone: lt-med gy,vf-pbbl,dom f, ang-rnd, v pr srtd,wk-mod sil cmt, abnt off wh-lt gy argill & silt mtx, clr-opaq qtz gr, tr f blk coaly det, tr
tr pyt, fri, v pr inferr por, no oil fluor
Claystone: med-dk gy-med-dk brn gy, mod-v slty, occ v aren, rr dipers med-pbbl qzt grn,tr f blk coaly det, tr mic mic, sft, n fiss
Sandstone: off wh-lt gy, vf-rr f, tr disp med- vc gr, ang-rnd, p srtd, wk sil cmt, abnt off wh argill mtx, clr-opq qtz gr, abnt alt felds gr, tr blk coal det, fri, p infer por.
Fluorescence: the sandstone has 20% mod bri patchy v pl yell wh fluor giving a wk mlky wh crsh cut, thin ring res.
MWIN:8.90ppg Mud temp:42deg
PV/YP:12/17FV:50Gels:3/3
Solids:3.2% pH:11
Claystone: med-dk gy-med-dk brn gy, mod-v slty, vf arena w qzt & alt feld grn,tr f blk coaly det, tr mic mic, frm, n fiss
Sandstone: off wh-lt gy, vf-rr f, ang-rnd, pr srtd, wk sil cmt, abnt off wh argill mtx, clr-opq qtz gr, abnt alt felds gr, tr blk coal det, fri, v pr infer por, no oil fluor
Claystone: lt-dk gy-med brn gy-dk gy, v slty i/p, occ abdn vf qzt & alt feld grn, tr blk coaly det, com bk carb flk, tr med brn cryptocrystalline dol, tr pyt, tr
mic mic, frm, sl sbfiss
Claystone: lt-dk gy-med brn gy-dk gy, v slty i/p, occ abdn vf qzt & alt feld grn, tr blk coaly det, com bk carb flk, tr med brn crypxtln dol, tr pyt, tr
mic mic, frm, sl sbfiss
Survey @ 1575m = 1.50 deg incl
Claystone: lt-dk gy-med brn gy, oft v slty, occ abdn vf qzt & alt feld grn, tr blk coaly det & bk carb flk, tr med brn crypxtln dol, tr pyt, tr
mic mic, frm, sl sbfiss


WOB: 6-8klbs
RPM: 100-120
Flow: 268-274gpm
SPP: 942-1077psi
WOB: 5-11klbs
RPM: 110-120
Flow: 260-274gpm
SPP: 982-1209psi
WOB: 3-9klbs
RPM: 96-118
Flow: 250-283gpm
SPP: 900-1257psi
28/02/2007
1590
1600
1610
1620
1630
1640
1650
1660
1670
1680
1690
1700
1710
1720
1730
Belfast Mudstone
Claystone: lt-dk gy-med brn gy, oft v slty, occ abdn vf qzt & alt feld grn, tr blk coaly det & bk carb flk, tr med brn crypxtlne dol, tr pyt, tr
mic mic, frm, sl sbfiss
Sandstone: off wh-lt gy, vf, sbang-sbrnd, mod srtd, wk sil cmt, abnt off wh argil mtx, qztose wk abdn alt feld gclr-opq qtz gr, tr blk coal det, fri, v pr infer por, no oil fluor
Claystone: lt-dk gy-med brn gy, oft v slty, occ abdn vf qzt & alt feld grn, tr blk coaly det & bk carb flk, tr med brn crypxtln dol, tr pyt, tr
mic mic, frm, sl sbfiss
Sandstone: off wh-lt gy, vf, sbang-sbrnd, mod srtd, wk sil cmt, abnt off wh argil mtx, qztose wk abdn alt feld gclr-opq qtz gr, tr blk coal det, fri, v pr infer por, no oil fluor
Claystone: lt-dk gy-med brn gy, oft v slty, occ abdn vf qzt & alt feld grn, tr blk coaly det & bk carb flk, tr med brn crypxtln dol, tr pyt, tr
mic mic, frm, sl sbfiss
Sandstone: off wh-lt gy, vf, sbang-sbrnd, mod srtd, wk sil cmt, abnt off wh argil mtx, qztose wk abdn alt feld gclr-opq qtz gr, tr blk coal det, fri, v pr infer por, no oil fluor
Claystone: lt-dk gy-med brn gy, oft v slty, occ abdn vf qzt & alt feld grn, tr blk coaly det & bk carb flk, tr med brn crypxtln dol, tr pyt, tr
mic mic, frm, sl sbfiss
Survey @ 1691m = 2.00 deg incl
Claystone: med brn gy-lt-dk gy, oft v slty, tr-com disprsd vf qtz & altrd felds grn, com blk coal det & carb flks, tr med brn crypxtln dol, tr py, tr micmic, fm sl subfiss.
MWIN:8.90ppg Mud temp:44.7deg
PV/YP:13/20FV:54Gels:4/4
Solids:3.1% pH:10.8
Claystone: med brn gy-lt-dk gy, oft v slty, tr disprsd vf qtz & altrd felds grn, com blk coal det & carb flks, tr med brn crypxtln dol, tr py, tr micmic, fm sl subfiss.
Claystone: dk gy-med brn gy, occ v slty, mod carb i/p, tr blk carb flks, tr med brn crypxtln dol tr py, tr micmic, fm sl subfiss.


1740
1750
1760
1770
1780
1790
1800
1810
1820
1830
1840
1850
1860
1870
1880
WOB: 5-10klbs
RPM: 87-120
Flow: 260-307gpm
SPP: 964-1435psi
WOB: 8-11klbs
RPM: 89-120
Flow: 248-308gpm
SPP: 959-1605psi
WOB: 6-11klbs
RPM: 80-120
Flow: 300-315gpm
SPP: 1210-1690psi
Claystone: dk gy, sl slty, mod carb , tr blk carb flks, tr med brn crypxtln dol, tr Inoceramus, com micmic, mod hd, sl subfiss.
Claystone: dk gy-rr med brn gy, rr v slty, mod carb i/p, tr blk carb flks, tr med brn crypxtln dol,tr Inoceramus, tr py, tr micmic, mod hd, sl subfiss.
Claystone: dk gy, sl slty, mod carb, tr blk carb flks, tr dk gn glau, tr med brn crypxtln dol, tr Inoceramus, rr diss py, com micmic, mod hd, sl subfiss.
MWIN:9.00ppg Mud temp:45.9deg
PV/YP:13/22FV:53Gels:4/4
Solids:4.1% pH:10.2
Claystone: dk gy, sl slty, mod carb, tr blk carb flks, tr dk gn glau, tr med brn crypxtln dol, tr Inoceramus, rr diss py, com micmic, mod hd, sl subfiss.
Survey @ 1808m = 2.00 deg incl
Claystone: dk gy, sl slty, mod carb, tr blk carb flks, tr dk gn glau, rr med brn crypxtln dol, tr rr Inoceramus, rr diss py, com micmic, mod hd, sl subfiss.
Claystone: dk gy, sl slty, mod carb, tr blk carb flks, tr dk grn glau, rr med brn crypxtln dol, tr Inoceramus, rr diss py, com micmic, mod hd, sl subfiss.
Claystone: dk gy, sl slty, mod carb, tr blk carb flks, com-abnt dk grn glau, rr med brn crypxtln dol, com micmic, mod hd, sl subfiss.
Claystone: dk gy, sl slty, mod carb, tr blk carb flks, tr dk grn glau, rr med brn crypxtln dol, com micmic, mod hd, sl subfiss.
MWIN:9.15ppg Mud temp:47.1deg
PV/YP:15/26FV:55Gels:5/5
Solids:5.1% pH:10.0


01/03/2007
WOB: 3-8klbs
RPM: 89-121
Flow: 292-308gpm
SPP: 1226-1713psi
02/03/2007
03/03/2007
04/03/2007
Bit#3RR3: MCP662 6.75" Core PDC
TFA 0.8
Depth in 1900m, out:1904m
4m/8.4hrs
Grading:1-1-IN-A-X-I-NO-PR
Bit#4: 6-3/4" DSX173DGJW PDC
Jets: 4 x 12, In: 1904m, Out: 2033m
Drilled:129m in 6.9hrs
Bit Grade: 1-1-NO-A-X-I-NO-CP
WOB: 3-15klbs
RPM: 29-116
Flow: 123-252gpm
SPP: 727-1177psi
WOB: 7-9klbs
RPM: 103-117
Flow: 244-253gpm
SPP: 1118-1240psi
Start Controlled Drilling
Stop Controlled Drilling
05/03/2007
1890
1900
1910
1920
1930
1940
1950
1960
1970
1980
1990
2000
2010
2020
2030
0.1380% @ 1904m
0.1426% @ 1916m
0.1206% @ 1948m
0.1247% @ 1956m
0.1570% @ 1963m
Flaxmans Formation
Survey @ 1896m = 2.00 deg incl
Claystone: dk gy, sl slty, mod carb, tr blk carb flks, tr dk grn glau, rr med brn crypxtln dol, tr Inoceramus, com micmic, mod hd, sl subfiss.
Core#4 Cut 1900m-1904.2m
Recovery 2.65m=63%
MWIN:9.25ppg Mud temp:40.6deg
PV/YP:13/12FV:46Gels:1/3
Solids:5.1% pH:9.5
Claystone: dk gy-occ gy, sl slty, carb i/p, tr blk carb flks, tr dk grn glau, rr med brn crypxtln dol, com micmic, mod hd, sl subfiss.
Claystone: dk gy-occ gy, slty i/p, mod carb, sl calc i/p, tr blk carb flks, tr dk grn glau, rr py, com micmic, tr slickensides, mod hd-occ fm, sl subfiss.
Claystone: dk gy-olv gy, occ gy, slty i/p, mod carb, tr blk carb flks, com dk grn glau, tr Inoceramus, com micmic, mod hd-occ fm, sl subfiss.
Claystone: dk gy, occ gy, sl slty, mod carb, tr blk carb flks, com dk grn glau, tr Inoceramus, tr py, com micmic, mod hd-occ fm, sl subfiss.
Claystone: dk gy, occ gy, sl slty, mod carb, tr blk carb flks, com dk grn glau, tr Inoceramus, tr slickensides, tr py, com micmic, mod hd-occ fm, sl subfiss.
Claystone: dk gy, occ gy, sl slty, mod carb, tr blk carb flks, com dk grn glau, tr Inoceramus, com slickensides, tr py, com micmic, mod hd-occ fm, sl subfiss.
Survey @ 2022m = 0.75 deg incl
Claystone: lt bn gy-med gy-med grn gy-med bn,sl-mod slty,nil-abdn v f qzt & alt feld sd grns i/p,tr med bn crypxtln dol,tr bk carb flk, tr mic mic, mod hd, sl sbfiss
Claystone: med gy-med-dk bn gy-med bn,mod slty,tr v f qzt & alt feld sd grns i/p,tr glau,sl calc i/p,tr pyt,tr bk carb flk, tr mic mic, mod hd, sl sbfiss


Bit#3RR4: MCP662 6.75" Core PDC
TFA 0.8
Depth in 2033m, out:2051m
18m/24.1 hrs
Grading:1-1-IN-A-X-I-NO-BHA
07/03/2007
WOB: 7-15klbs
RPM: 74-124
Flow: 109-252gpm
SPP: 581-1202psi
Bit#3RR5: MCP662 6.75" Core PDC
TFA 0.8
Depth in 2051m, out:2075.5m
24.5m/5.0 hrs
Grading:1-1-IN-A-X-I-NO-BHA
08/03/2007
Bit#4RR1: 6-3/4" DSX173DGJW PDC
Jets: 4 x 12, In: 2075.5m, Out: 2249m
Drilled: 173.5m in 10.0hrs
Bit Grade: 1-1-NO-A-X-I-NO-TD
WOB: 3-15klbs
RPM: 57-121
Flow: 106-254gpm
SPP: 568-1118psi
WOB: 7-12klbs
RPM: 105-118
Flow: 246-252gpm
SPP: 922-1048psi
2040
2050
2060
2070
2080
2090
2100
2110
2120
2130
2140
2150
2160
2170
2180
0.1927% @ 2045m
0.2090% @ 2050m
Waarre Formation Unit "C"
0.9736% @ 2056m
0.4119% @ 2067m
0.4464% @ 2074m
Waarre Formation Unit "B"
Waarre Formation Unit "A"
0.4649% @ 2109m
Eumeralla Formation
Core#5 Cut 2033m-2051m
Recovery 6.6m=36.7%
Sandstone: off wh, vf-f, rr-com med-v crs grn, dom vf, sbang-sbrnd,mod srtd, wk sil cmt, abnt wh arg mtx, qtzose w/abnt altrd feldspr grn, tr blk carb spks, fri, pr vis por, no oil
Sandstone: lt gy, vf-rr pebble, dom crs-v crs, ang-sbrnd, v pr srtd, wk sil cmty, tr wh arg mtx, clr-opq qtz grn, tr blk coal det, fri, fr-v good vis por, no oil fluor.
Core#6 Cut 2051m-2075.5m
Recovery 23.5m=96.0%
Sandstone: lt gy, vf-pebble, dom v crs, ang-sbrnd, v pr srtd, weak sil cmt, tr-com off wh arg mtx, clr-opq qtz grn, ter blk coal det & lam, fri, good vis
por, no oil fluor, tr laminae of Coal: v dk gy-blk, sl-dom v arg, tr micmic, com slickensides, sft-fm.
Claystone: v dk gy-gy, sl slty, v carb, tr slickensides, com micmic, mod hd-occ hd, sl subfiss.
MWIN:9.45ppg Mud temp:40deg
PV/YP:15/19FV:54Gels:3/4
Solids:6.4% pH:9.8
Sandstone: lt gy, vf-v crs, dom v crs, ang-sbrnd, v pr srtd, weak sil cmt, tr-com off wh arg mtx, clr-opq qtz grn, ter blk coal det & lam, fri, good vis por, no oil fluor.
Sandstone: off wh-lt gy, vf-f, com med-crs grns dom f, ang-sbrnd, pr srtd, mod sil cmt, com-abdn wh arg mtx, qztose w/abdn alt feld grns, tr bk carb spck & detri, mod hd, pr vis
Claystone: med-dk-gy-med bn gy,v slty, oft v f arena w/qzt & alt feld grns, sl carb, com bk carb flks & coaly detri,tr pyt, com mic mic, mod hd, sl sbfiss
Claystone: med bn-med-dk-bn gy,v slty, oft v f arena w/qzt & alt feld grns, sl carb, com bk carb flks & coaly detri,tr pyt, com mic mic, mod hd, sl sbfiss
Sandstone: lt-med gn gy, vf-med, dom f, sbang-sbrnd, mod-wl srtd, mod sil & wk calc cmt, abdn wh arg mtx-mtx spptd, abdn alt feld & gy gn lith grns,
tr rd bn lith, tr-com qzt grns, tr bk carb detri, fri, v pr vis por, no oil fluor
Sandstone: lt-med gn gy, vf-med, dom f, sbang-sbrnd, mod-wl srtd, mod sil & wk calc cmt, abdn wh arg mtx-mtx spptd, abdn alt feld & gy gn lith grns,
tr rd bn lith, tr-com qzt grns, tr bk carb detri, fri, v pr vis por, no oil fluor



FORMATION EVALUATION LOG

RATE OF PENETRATION

ROP (0-100m/hr)

100 90 80 70 60 50 40 30 20 10

Backup ROP (100-200m/hr)

200 190 180 170 160 150 140 130 120 110

WOB (klb)

5 10 15 20 25 30 35 40 45 50

TORQUE AVG

5 10 15 20 25 30 35 40 45 50

INTERPRETED LITHOLOGY

MD meters 1:500

LITHOLOGY

CORE

OIL SHOWS

TOTAL GAS

TOTAL GAS

0.1 0.2 0.3 0.4 0.5

%

BACKUP TOTAL GAS

0.6 0.7 0.8 0.9 1

%

CHROMATOGRAPH

Methane ppm 1 10000

Ethane ppm 1 10000

Propane ppm 1 10000

iso-Butane ppm 1 10000

n-Butane ppm 1 10000

iso-Pentane ppm 1 10000

n-Pentane ppm

10 100 1000 10000

REMARKS

DRILLING DATA PLOT

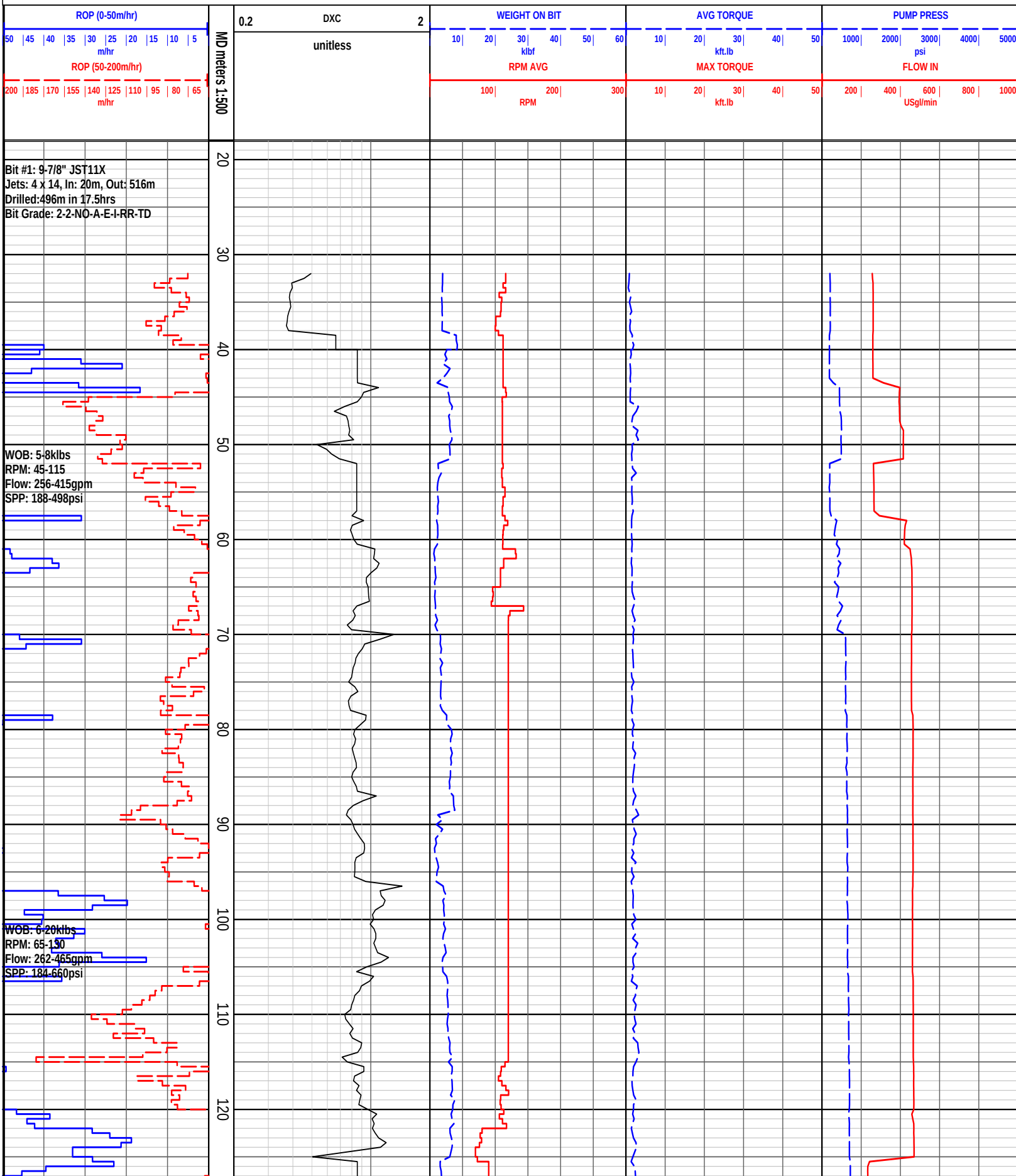
1:500

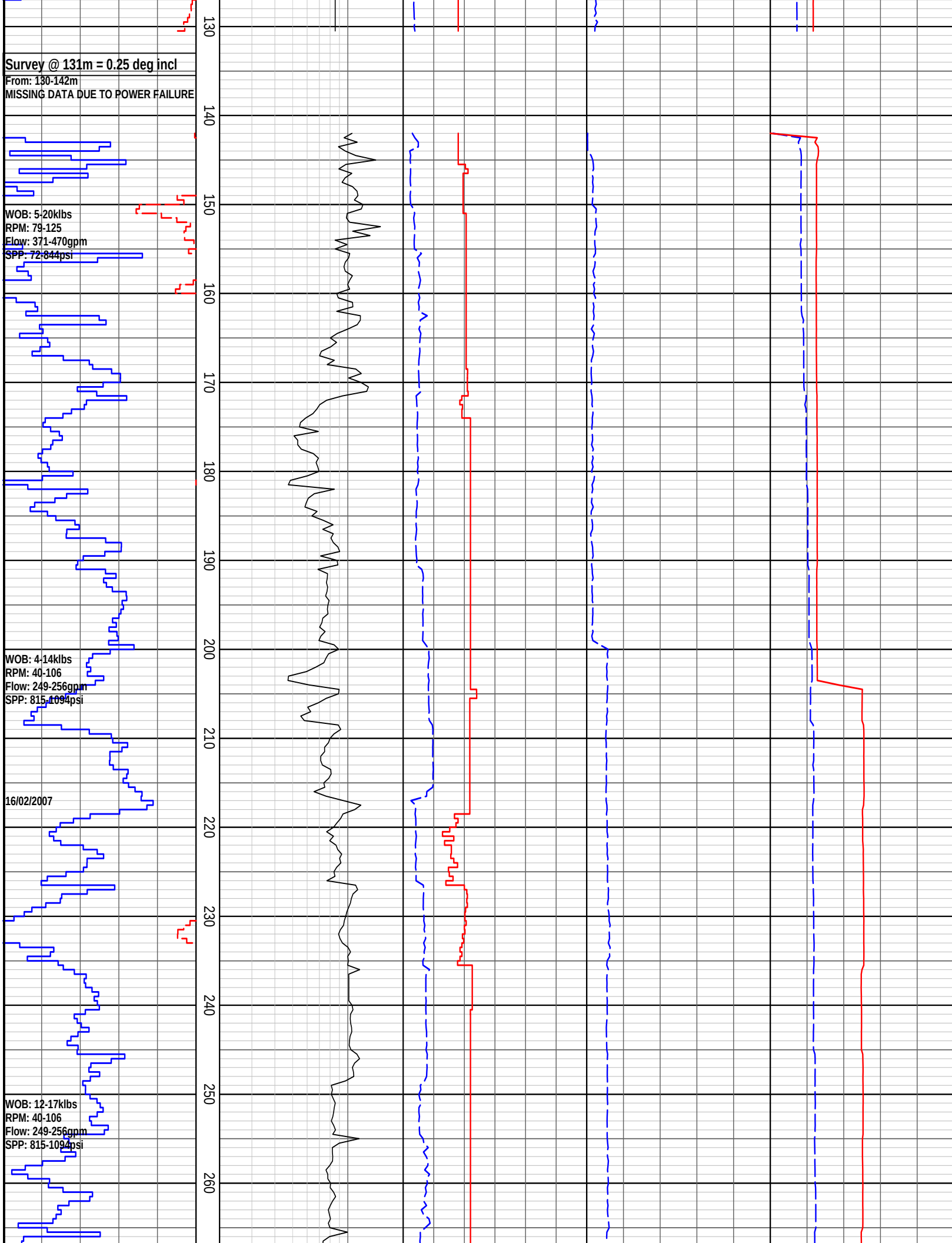
BAKER HUGHES INTEQ

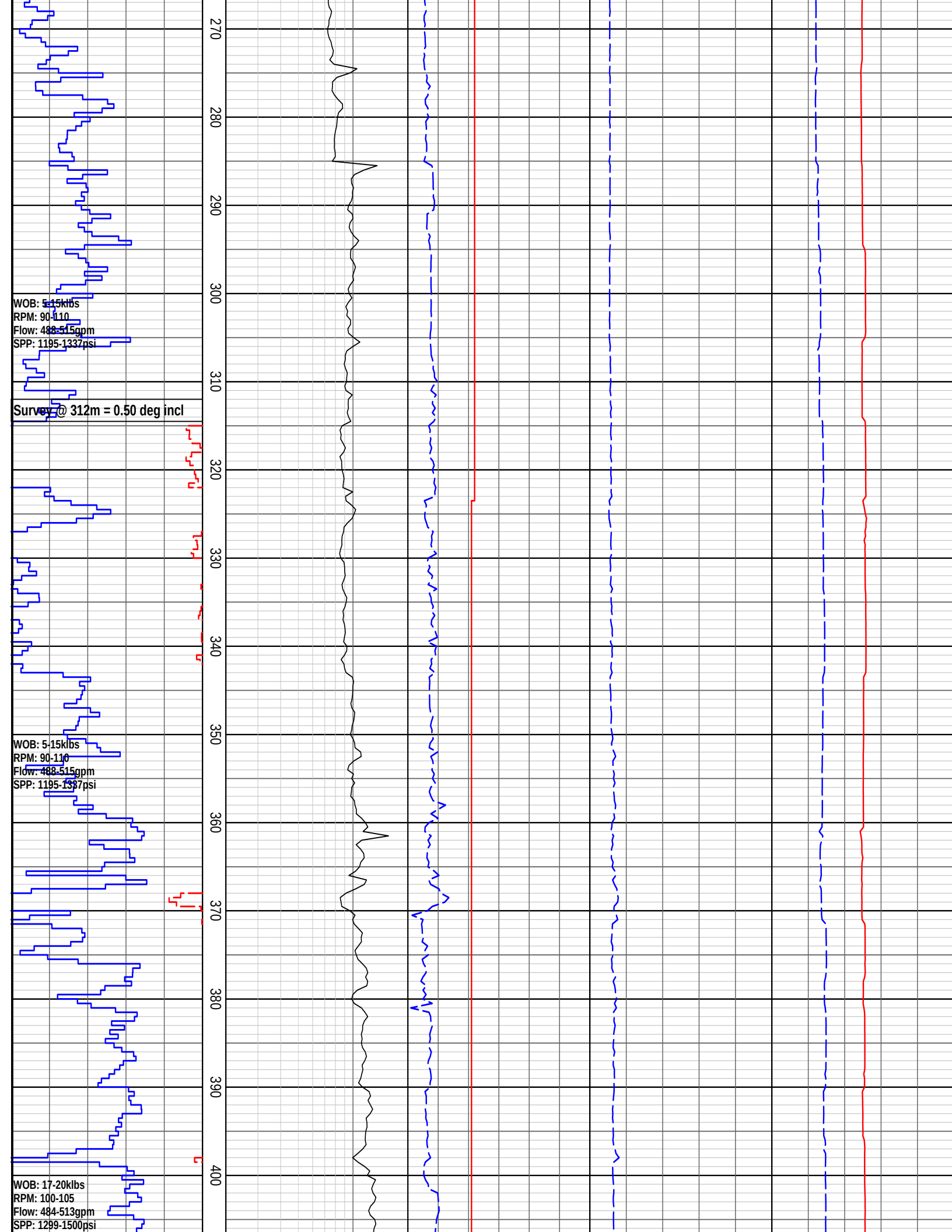
Company : CO2CRC
Well : CRC-1
Interval : 18.00 - 2266.20 meters
Created : 23/05/2007 3:27:52 PM

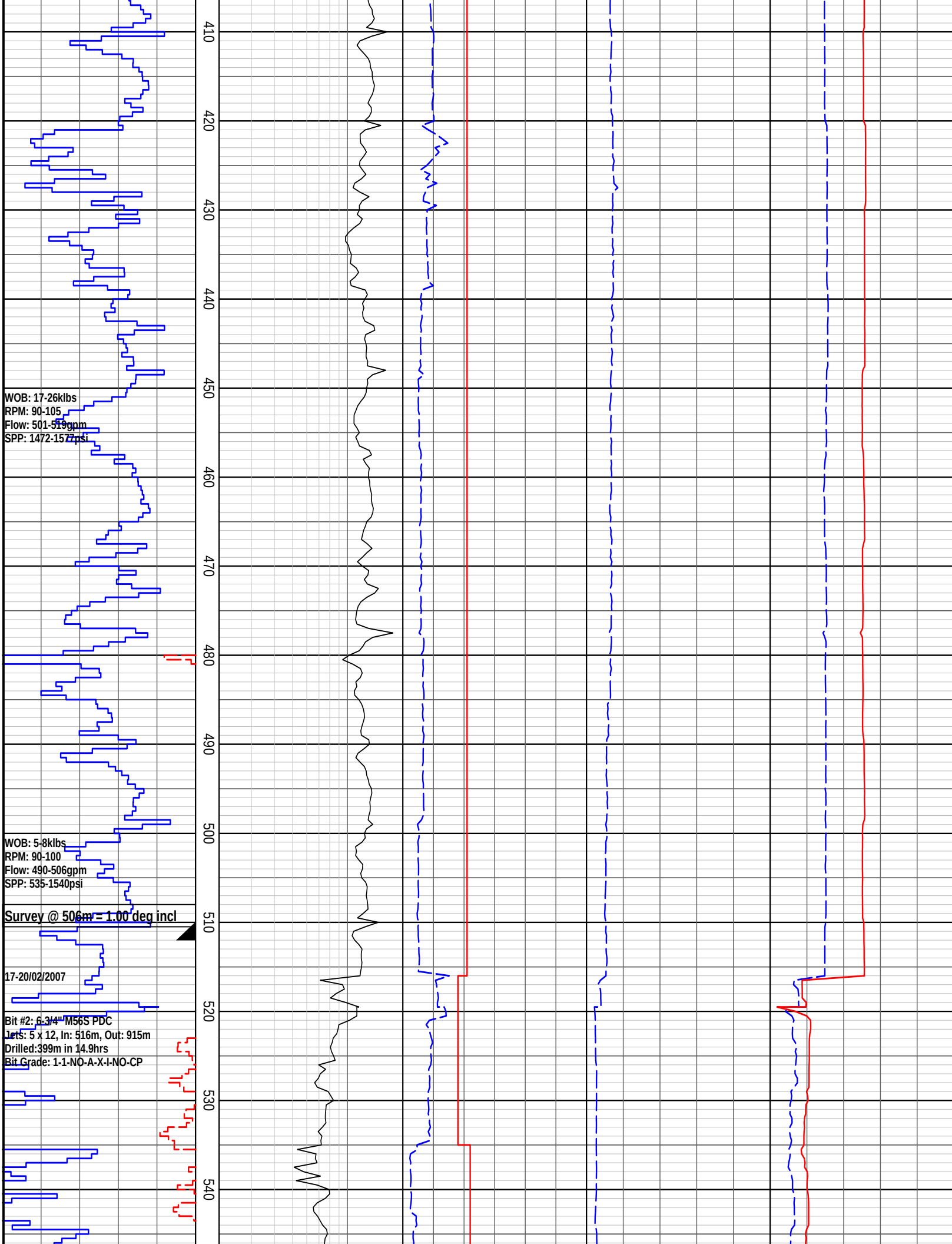
CO2CRC PILOT PROJECT LTD

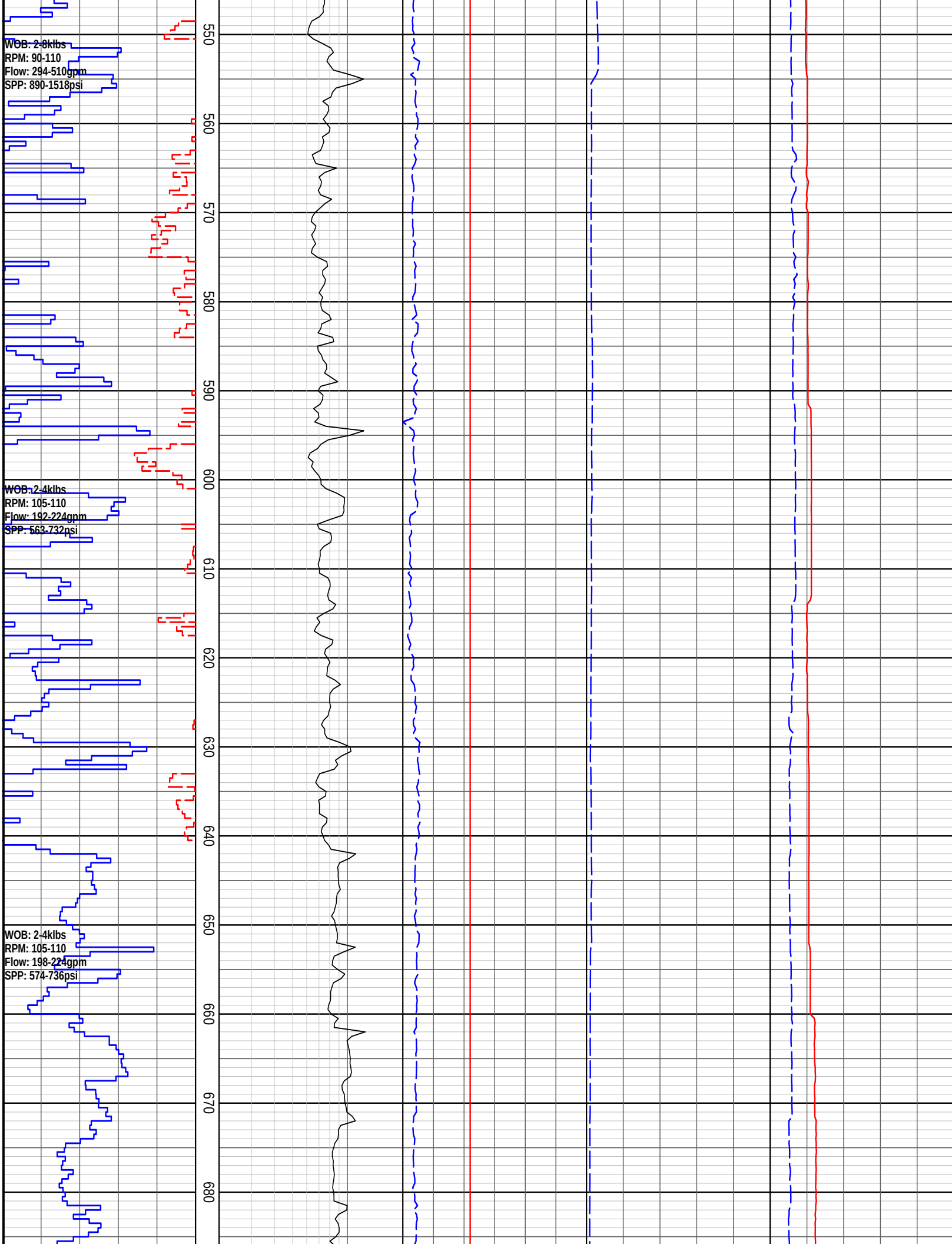
ENGINEERING SUMMARY PLOT

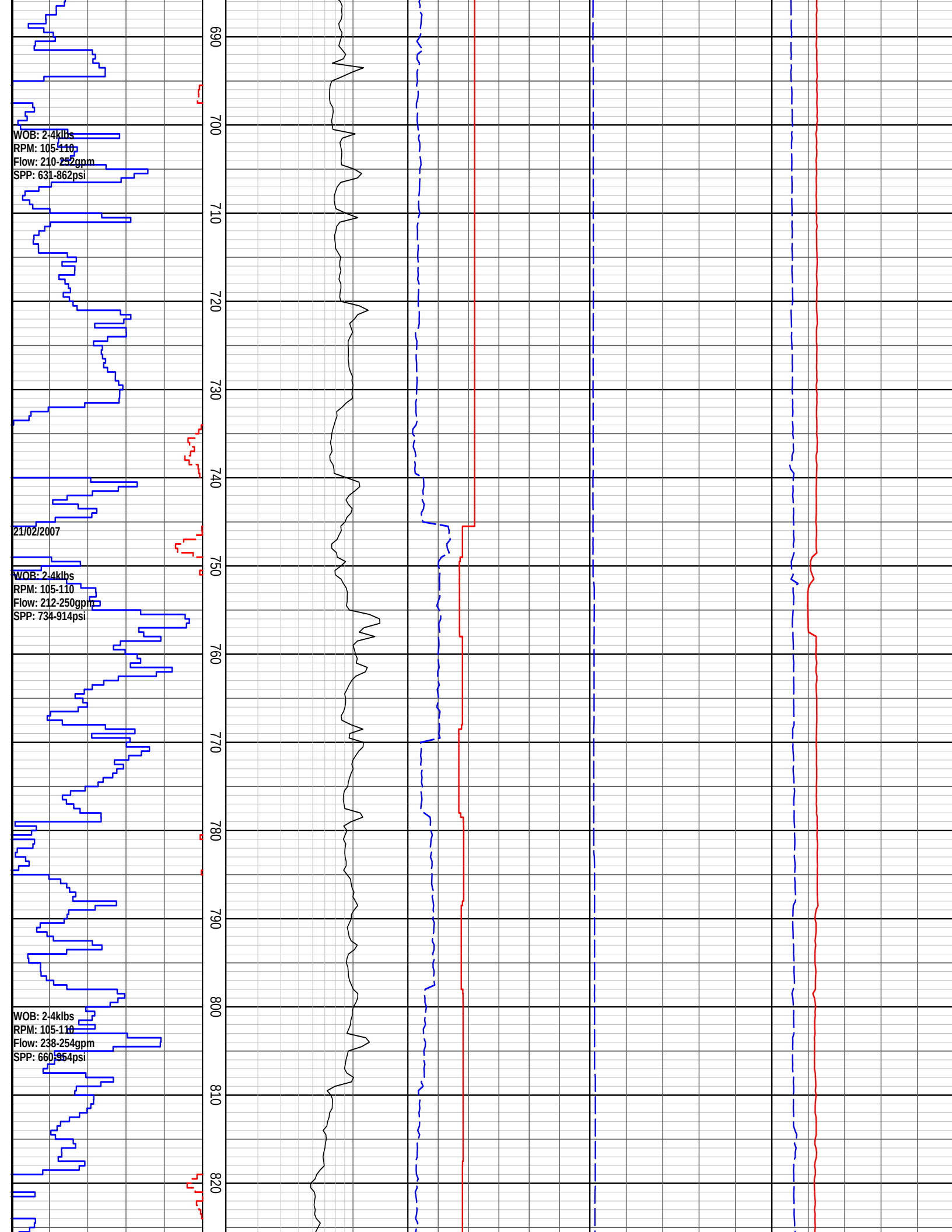


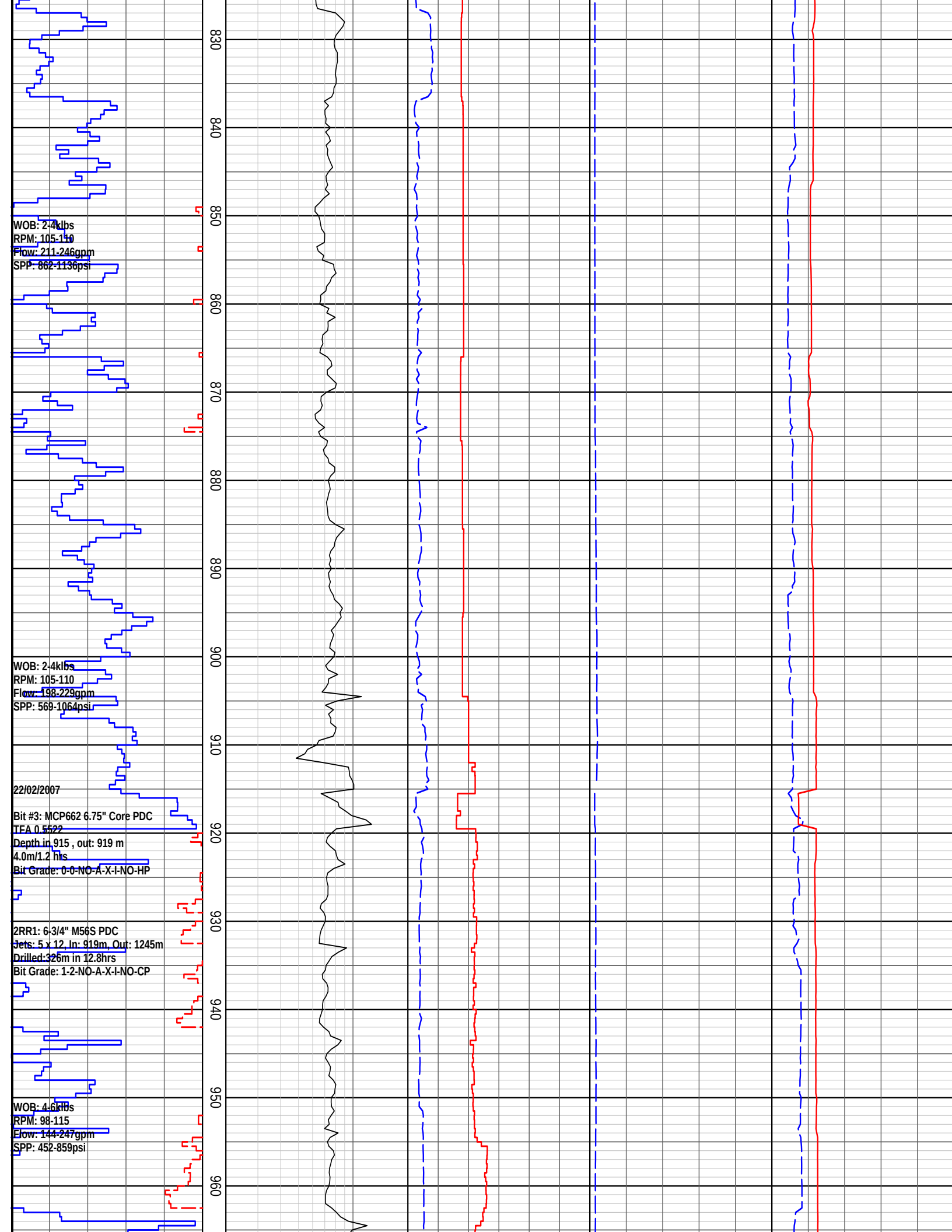

Survey @ 131m = 0.25 deg incl
From: 130-142m
MISSING DATA DUE TO POWER FAILURE
WOB: 5-20klbs
RPM: 79-125
Flow: 371-470gpm
SPP: 72-844psi
WOB: 4-14klbs
RPM: 40-106
Flow: 249-256gpm
SPP: 815-1094psi
16/02/2007
WOB: 12-17klbs
RPM: 40-106
Flow: 249-256gpm
SPP: 815-1094psi
130
140
150
160
170
180
190
200
210
220
230
240
250
260

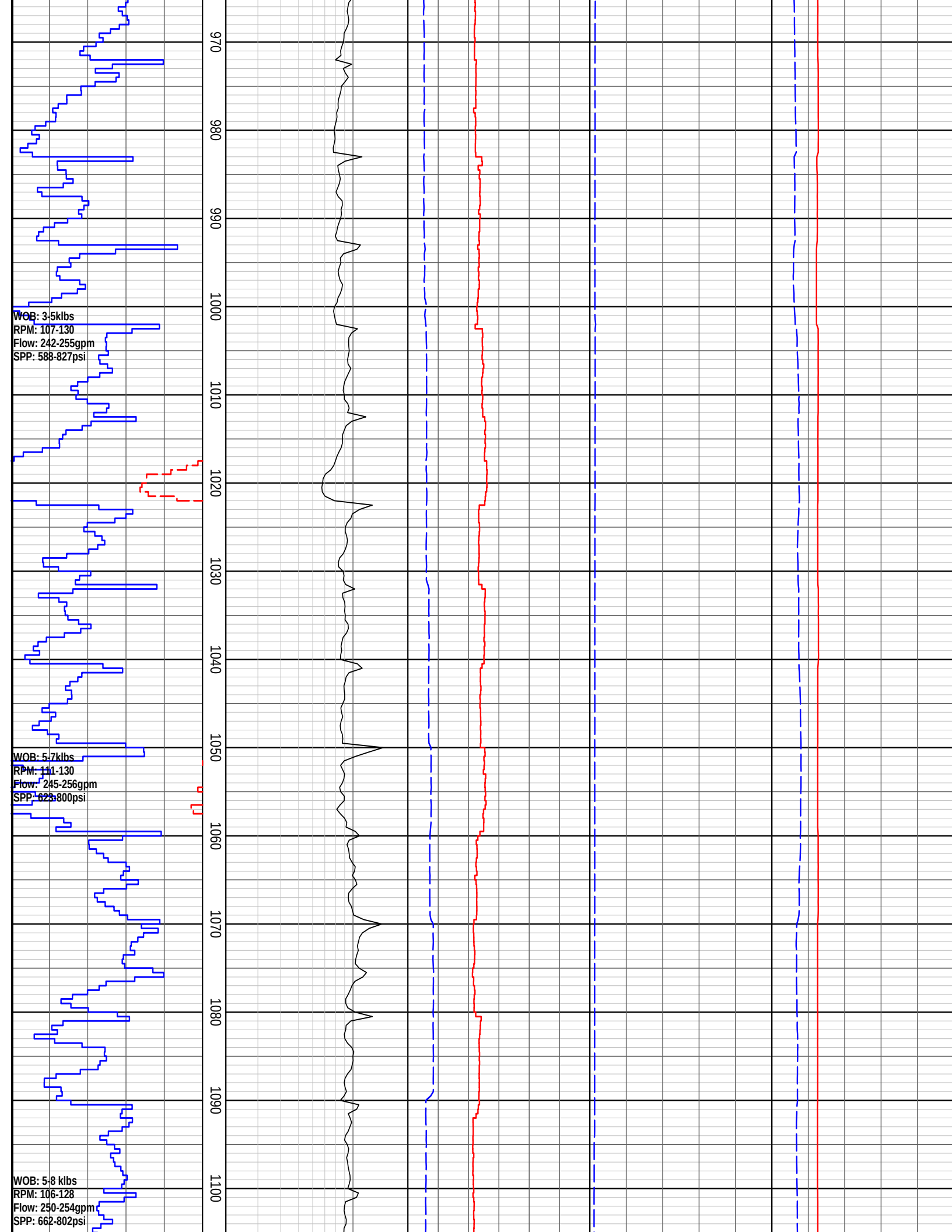

270
280
290
300
310
320
330
340
350
360
370
380
390
400
WOB: 5-15klbs
RPM: 90-110
Flow: 488-515gpm
SPP: 1195-1337psi
Survey @ 312m = 0.50 deg incl
WOB: 5-15klbs
RPM: 90-110
Flow: 488-515gpm
SPP: 1195-1337psi
WOB: 17-20klbs
RPM: 100-105
Flow: 484-513gpm
SPP: 1299-1500psi

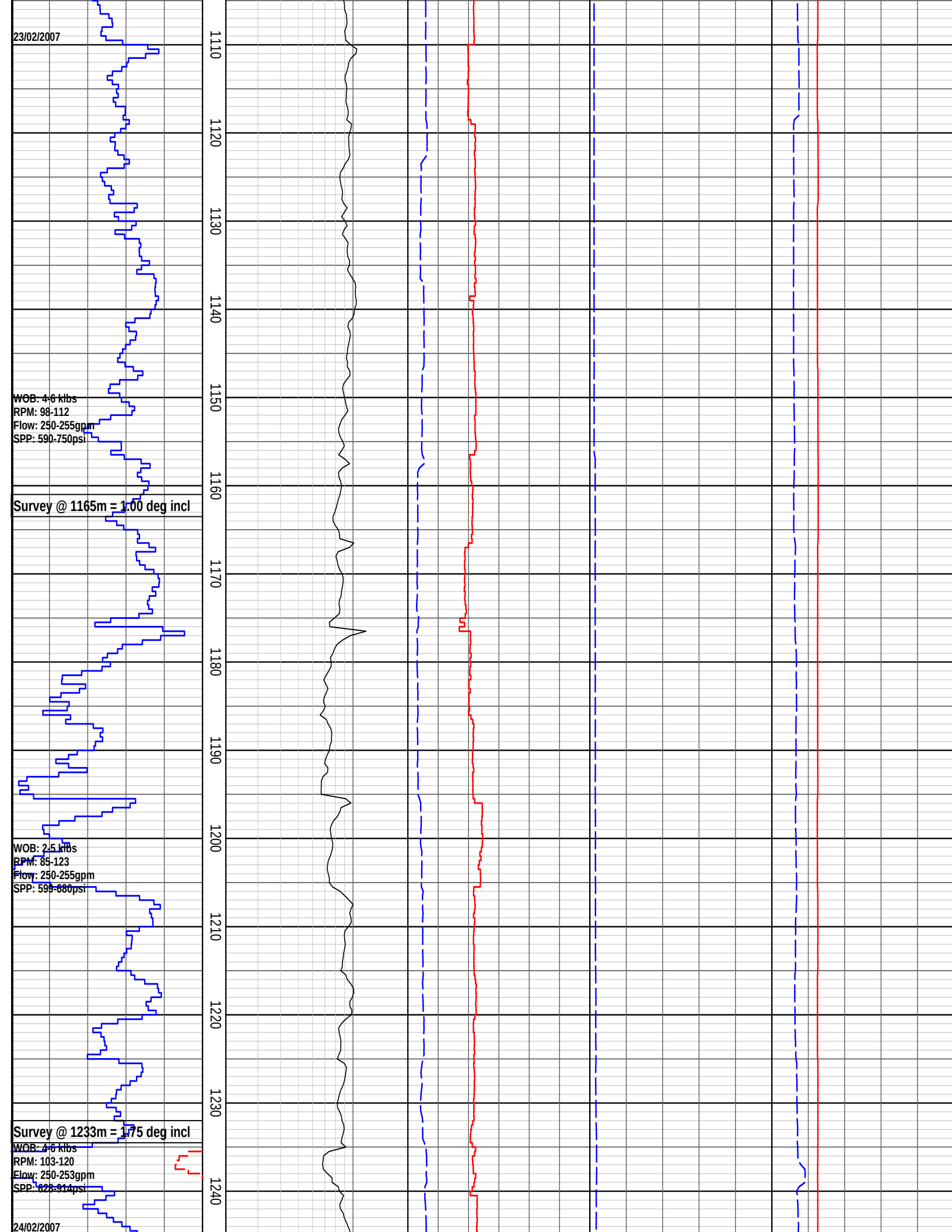

410
420
430
440
450
460
470
480
490
500
510
520
530
540
WOB: 17-26klbs
RPM: 90-105
Flow: 501-519gpm
SPP: 1472-1577psi
WOB: 5-8klbs
RPM: 90-100
Flow: 490-506gpm
SPP: 535-1540psi
Survey @ 506m = 1.00 deg incl
17-20/02/2007
Bit #2: 6-3/4" M56S PDC
Jets: 5 x 12, In: 516m, Out: 915m
Drilled:399m in 14.9hrs
Bit Grade: 1-1-NO-A-X-I-NO-CP

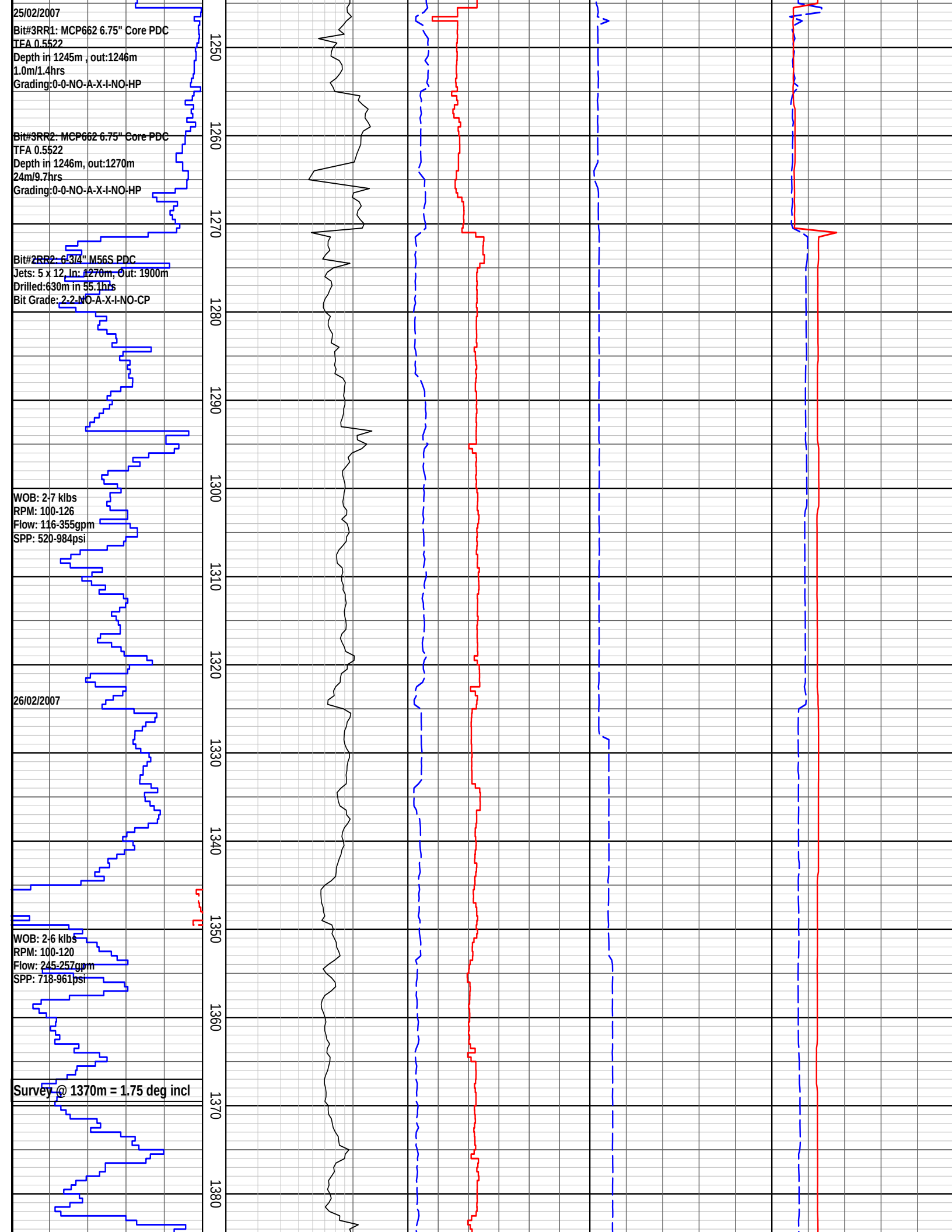

WOB: 2-8klbs
RPM: 90-110
Flow: 294-510gpm
SPP: 890-1518psi
WOB: 2-4klbs
RPM: 105-110
Flow: 192-224gpm
SPP: 563-732psi
WOB: 2-4klbs
RPM: 105-110
Flow: 198-224gpm
SPP: 574-736psi
550
560
570
580
590
600
610
620
630
640
650
660
670
680

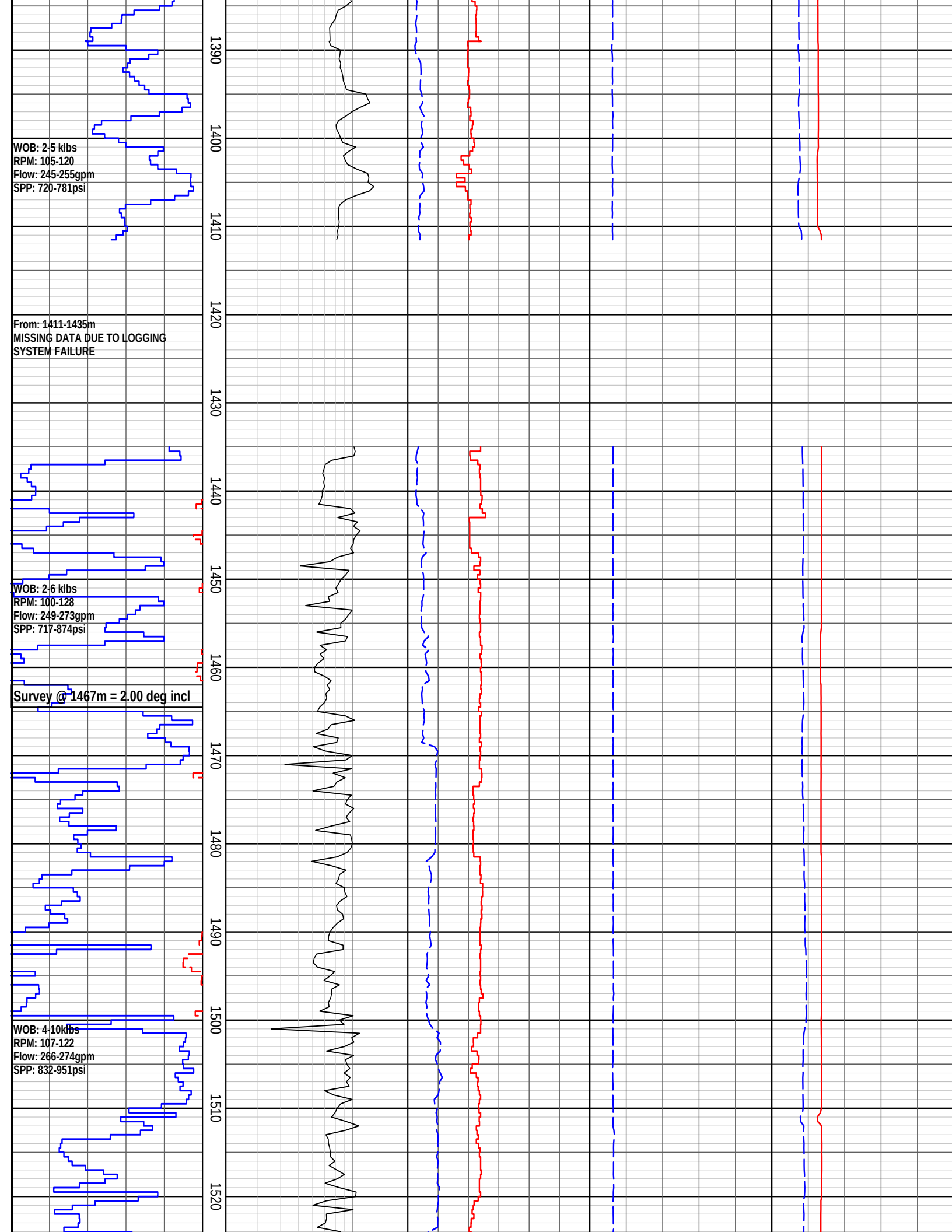

WOB: 2-4klbs
RPM: 105-110
Flow: 210-252gpm
SPP: 631-862psi
21/02/2007
WOB: 2-4klbs
RPM: 105-110
Flow: 212-250gpm
SPP: 734-914psi
WOB: 2-4klbs
RPM: 105-110
Flow: 238-254gpm
SPP: 660-954psi
690
700
710
720
730
740
750
760
770
780
790
800
810
820

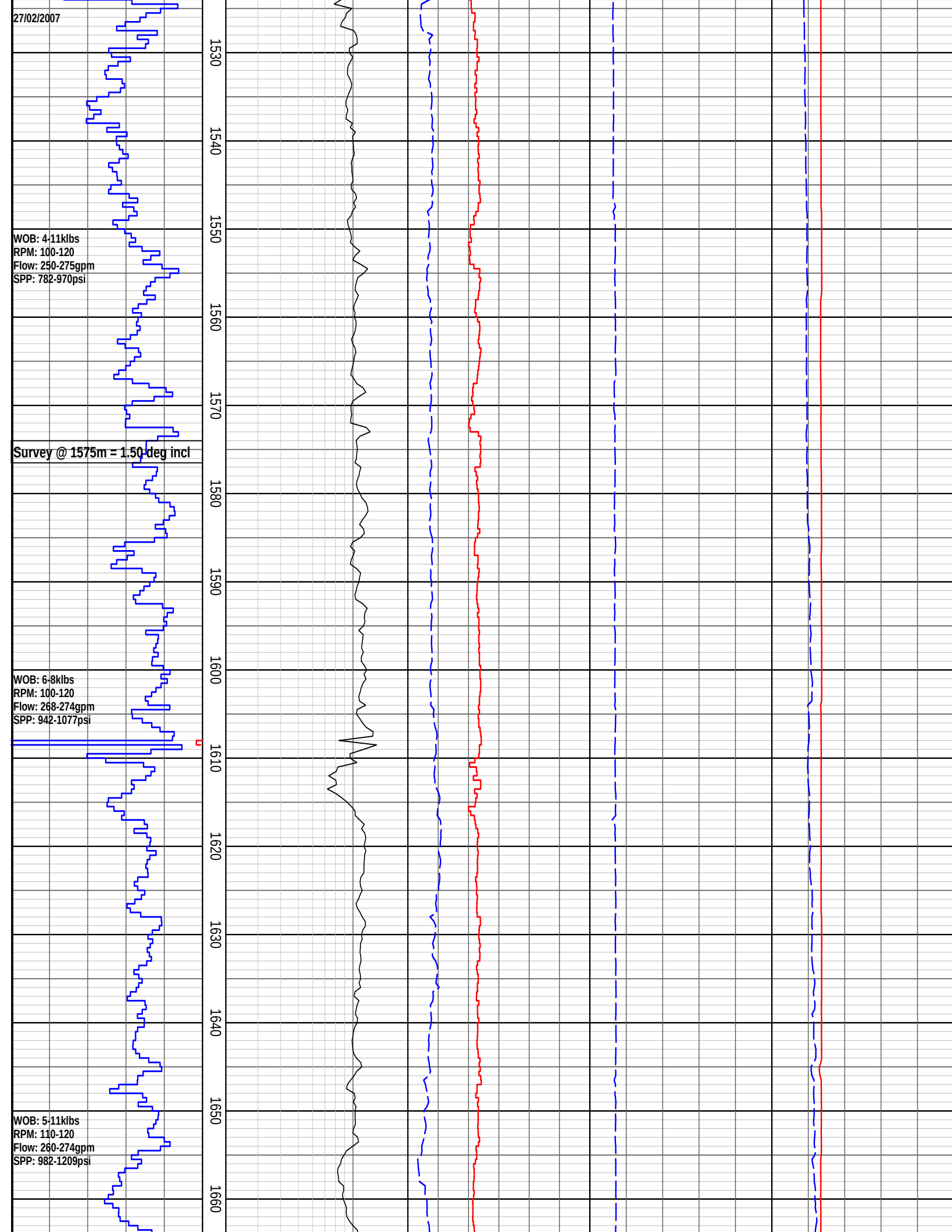

WOB: 2-4klbs
RPM: 105-110
Flow: 211-246gpm
SPP: 862-1136psi
WOB: 2-4klbs
RPM: 105-110
Flow: 198-229gpm
SPP: 569-1064psi
22/02/2007
Bit #3: MCP662 6.75" Core PDC
TFA 0.5522
Depth in 915 , out: 919 m
4.0m/1.2 hrs
Bit Grade: 0-0-NO-A-X-I-NO-HP
2RR1: 6-3/4" M56S PDC
Jets: 5 x 12, In: 919m, Out: 1245m
Drilled:326m in 12.8hrs
Bit Grade: 1-2-NO-A-X-I-NO-CP
WOB: 4-6klbs
RPM: 98-115
Flow: 144-247gpm
SPP: 452-859psi
830
840
850
860
870
880
890
900
910
920
930
940
950
960

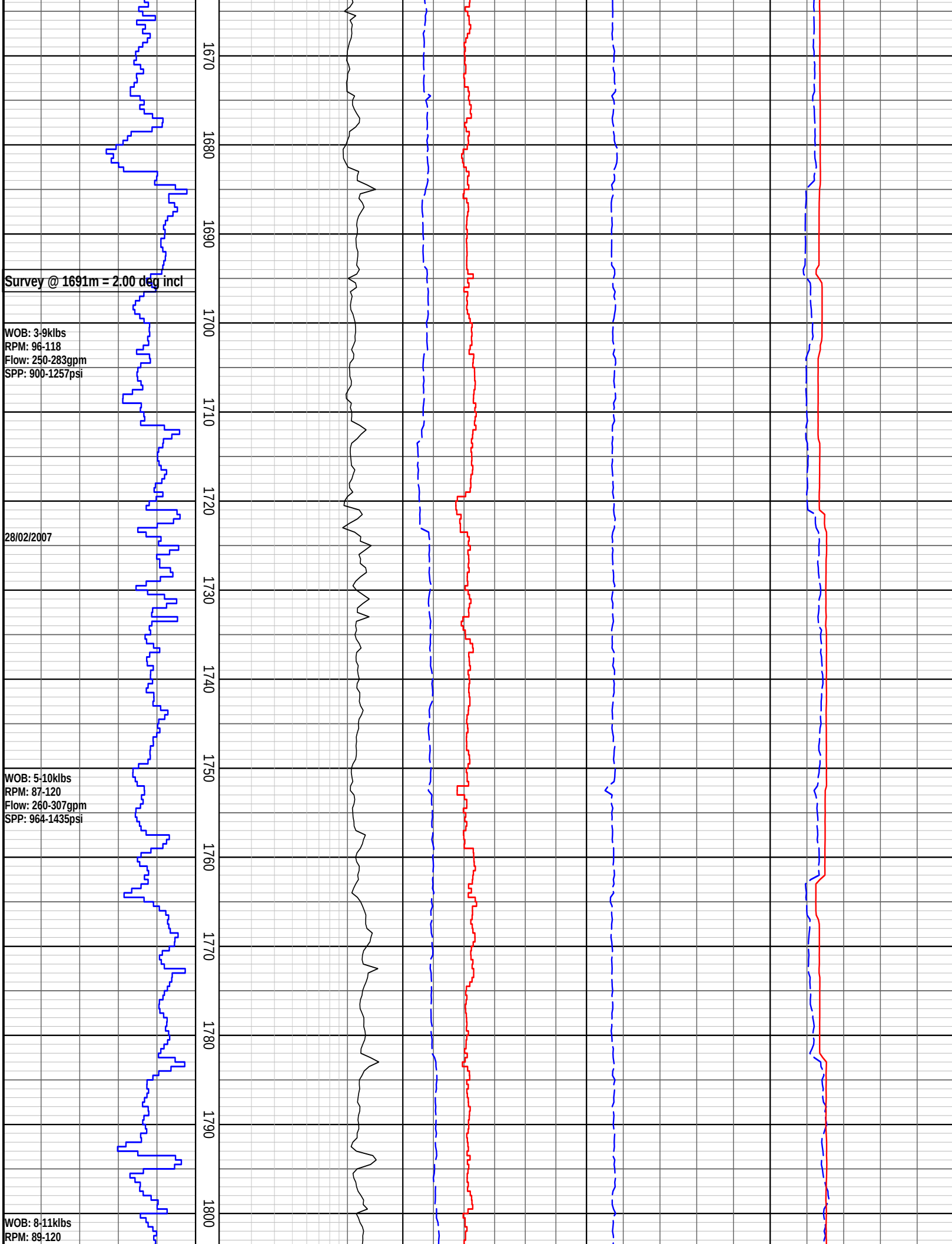

970
980
990
1000
1010
1020
1030
1040
1050
1060
1070
1080
1090
1100
WOB: 3-5klbs
RPM: 107-130
Flow: 242-255gpm
SPP: 588-827psi
WOB: 5-7klbs
RPM: 111-130
Flow: 245-256gpm
SPP: 625-800psi
WOB: 5-8 klbs
RPM: 106-128
Flow: 250-254gpm
SPP: 662-802psi

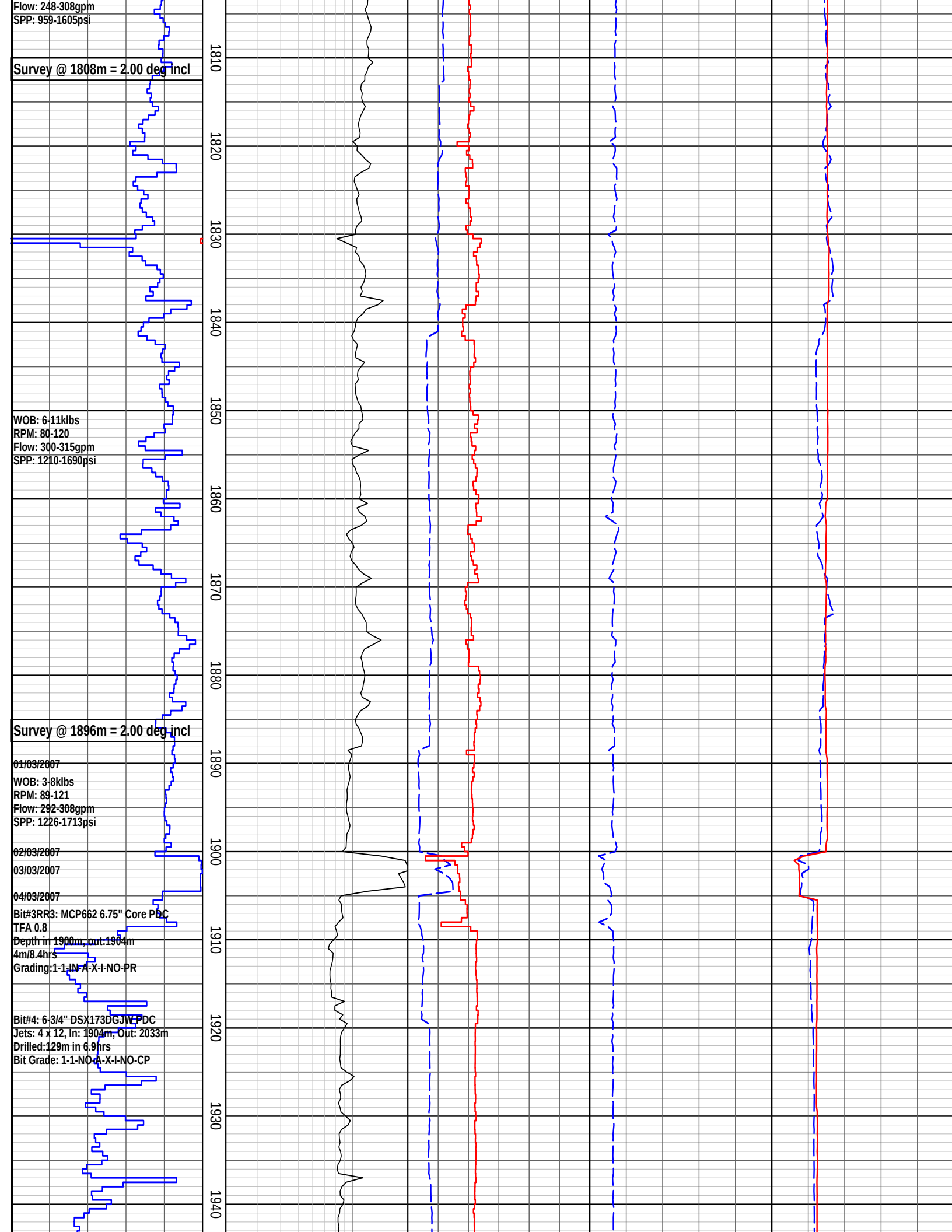

23/02/2007
1110
1120
1130
1140
1150
1160
1170
1180
1190
1200
1210
1220
1230
1240
WOB: 4-6 klbs
RPM: 98-112
Flow: 250-255gpm
SPP: 590-750psi
Survey @ 1165m = 1.00 deg incl
WOB: 2-5 klbs
RPM: 85-123
Flow: 250-255gpm
SPP: 599-680psi
Survey @ 1233m = 1.75 deg incl
WOB: 4-6 klbs
RPM: 103-120
Flow: 250-253gpm
SPP: 628-914psi
24/02/2007

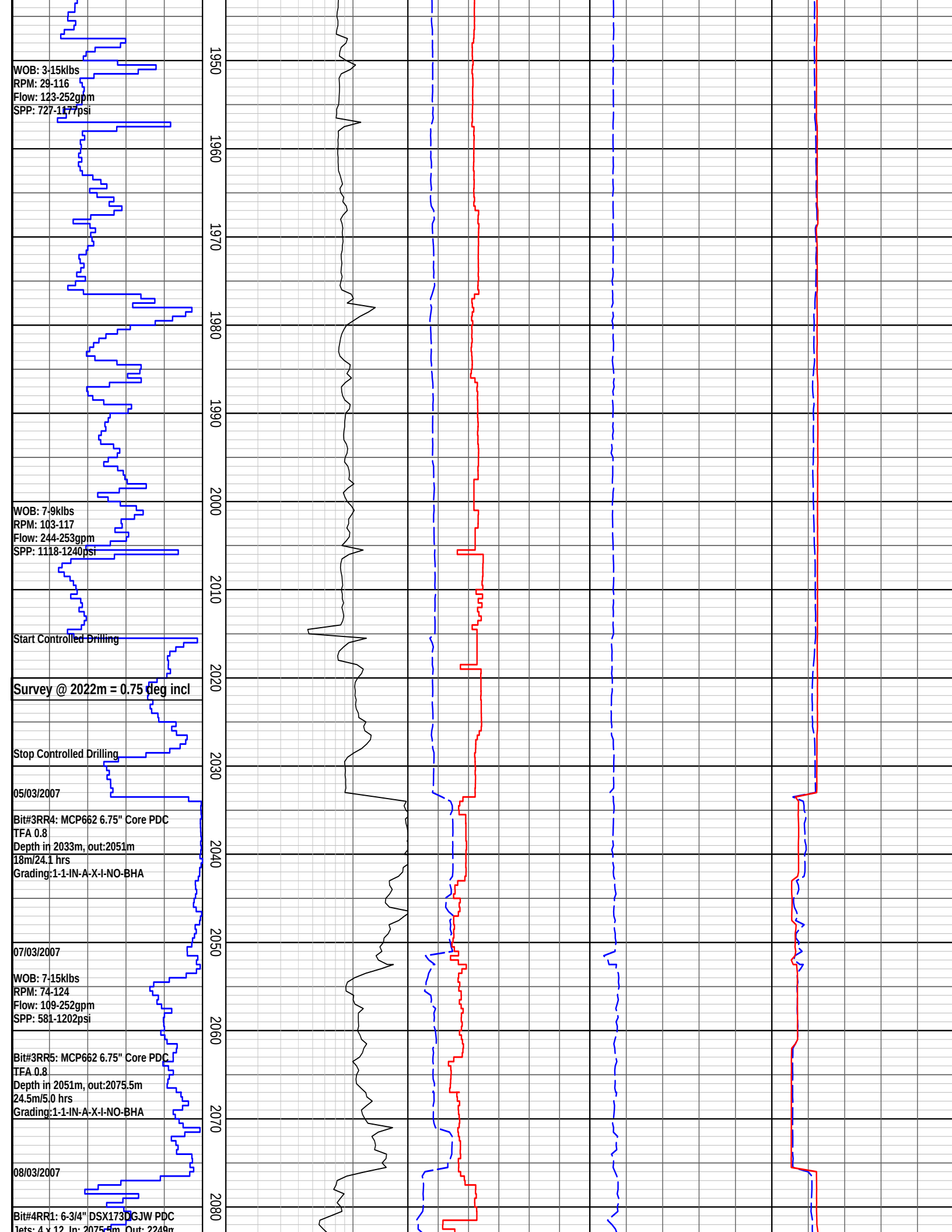

25/02/2007
Bit#3RR1: MCP662 6.75" Core PDC
TFA 0.5522
Depth in 1245m , out:1246m
1.0m/1.4hrs
Grading:0-0-NO-A-X-I-NO-HP
Bit#3RR2: MCP662 6.75" Core PDC
TFA 0.5522
Depth in 1246m, out:1270m
24m/9.7hrs
Grading:0-0-NO-A-X-I-NO-HP
Bit#2RR2: 6 3/4" M56S PDC
Jets: 5 x 12, In: 1270m, Out: 1900m
Drilled:630m in 55.1hrs
Bit Grade: 2-2-NO-A-X-I-NO-CP
WOB: 2-7 klbs
RPM: 100-126
Flow: 116-355gpm
SPP: 520-984psi
26/02/2007
WOB: 2-6 klbs
RPM: 100-120
Flow: 245-257gpm
SPP: 718-961psi
Survey @ 1370m = 1.75 deg incl
1250
1260
1270
1280
1290
1300
1310
1320
1330
1340
1350
1360
1370
1380

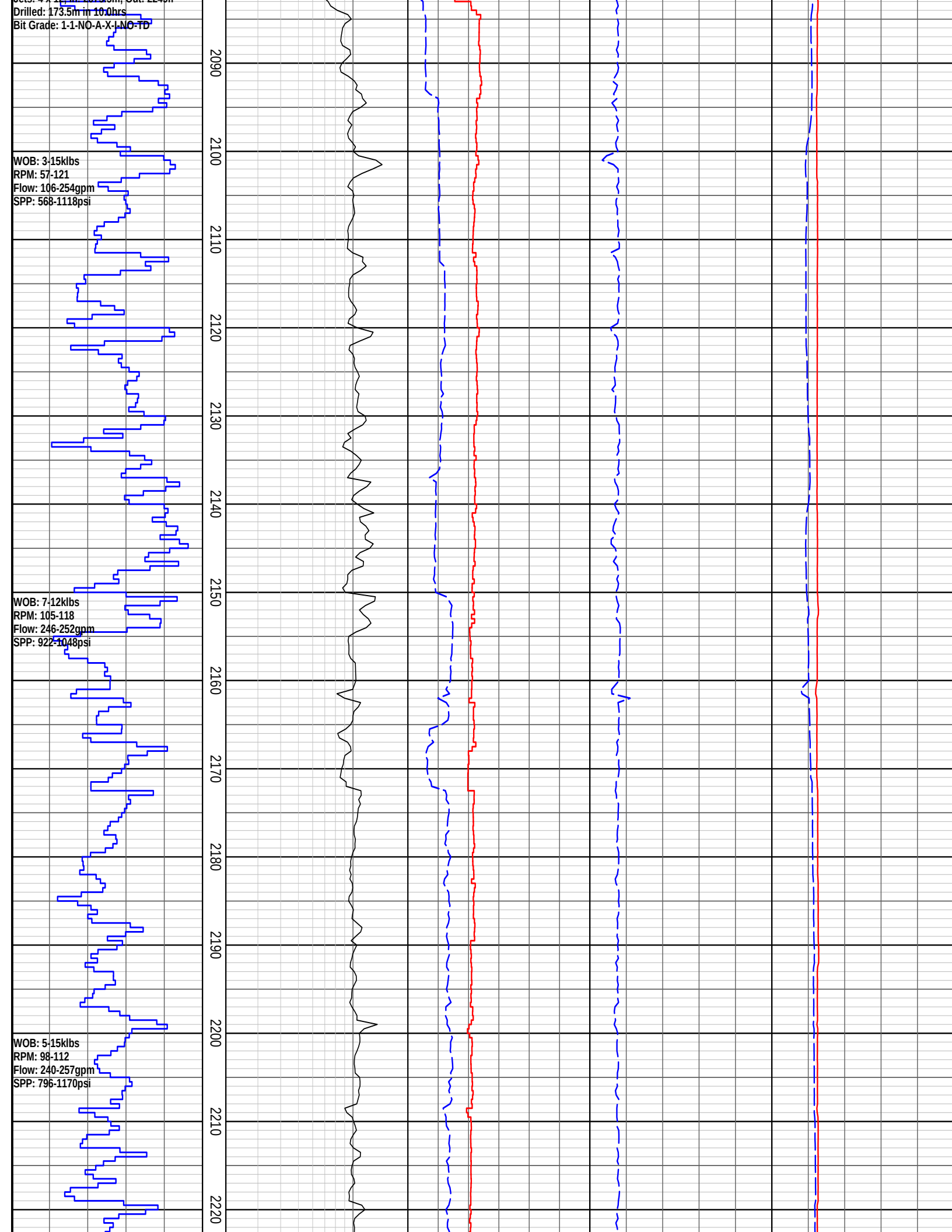

1390
1400
1410
1420
1430
1440
1450
1460
1470
1480
1490
1500
1510
1520
WOB: 2-5 klbs
RPM: 105-120
Flow: 245-255gpm
SPP: 720-781psi
From: 1411-1435m
MISSING DATA DUE TO LOGGING
SYSTEM FAILURE
WOB: 2-6 klbs
RPM: 100-128
Flow: 249-273gpm
SPP: 717-874psi
Survey @ 1467m = 2.00 deg incl
WOB: 4-10klbs
RPM: 107-122
Flow: 266-274gpm
SPP: 832-951psi


27/02/2007
1530
1540
1550
WOB: 4-11klbs
RPM: 100-120
Flow: 250-275gpm
SPP: 782-970psi
1560
1570
Survey @ 1575m = 1.50 deg incl
1580
1590
1600
WOB: 6-8klbs
RPM: 100-120
Flow: 268-274gpm
SPP: 942-1077psi
1610
1620
1630
1640
1650
WOB: 5-11klbs
RPM: 110-120
Flow: 260-274gpm
SPP: 982-1209psi
1660


1670
1680
1690
1700
1710
1720
1730
1740
1750
1760
1770
1780
1790
1800
Survey @ 1691m = 2.00 deg incl
WOB: 3-9klbs
RPM: 96-118
Flow: 250-283gpm
SPP: 900-1257psi
28/02/2007
WOB: 5-10klbs
RPM: 87-120
Flow: 260-307gpm
SPP: 964-1435psi
WOB: 8-11klbs
RPM: 89-120


Flow: 248-308gpm
SPP: 959-1605psi
Survey @ 1808m = 2.00 deg incl
1810
1820
1830
1840
1850
1860
1870
1880
1890
1900
1910
1920
1930
1940
WOB: 6-11klbs
RPM: 80-120
Flow: 300-315gpm
SPP: 1210-1690psi
Survey @ 1896m = 2.00 deg incl
01/03/2007
WOB: 3-8klbs
RPM: 89-121
Flow: 292-308gpm
SPP: 1226-1713psi
02/03/2007
03/03/2007
04/03/2007
Bit#3RR3: MCP662 6.75" Core PDC
TFA 0.8
Depth in 1900m, out:1904m
4m/8.4hrs
Grading:1-1-IN-A-X-I-NO-PR
Bit#4: 6-3/4" DSX173DGJW PDC
Jets: 4 x 12, In: 1904m, Out: 2033m
Drilled:129m in 6.9hrs
Bit Grade: 1-1-NO-A-X-I-NO-CP


WOB: 3-15klbs
RPM: 29-116
Flow: 123-252gpm
SPP: 727-1177psi
WOB: 7-9klbs
RPM: 103-117
Flow: 244-253gpm
SPP: 1118-1240psi
Start Controlled Drilling
Survey @ 2022m = 0.75 deg incl
Stop Controlled Drilling
05/03/2007
Bit#3RR4: MCP662 6.75" Core PDC
TFA 0.8
Depth in 2033m, out:2051m
18m/24.1 hrs
Grading:1-1-IN-A-X-I-NO-BHA
07/03/2007
WOB: 7-15klbs
RPM: 74-124
Flow: 109-252gpm
SPP: 581-1202psi
Bit#3RR5: MCP662 6.75" Core PDC
TFA 0.8
Depth in 2051m, out:2075.5m
24.5m/5.0 hrs
Grading:1-1-IN-A-X-I-NO-BHA
08/03/2007
Bit#4RR1: 6-3/4" DSX173DGJW PDC
1950
1960
1970
1980
1990
2000
2010
2020
2030
2040
2050
2060
2070
2080


Drilled: 173.5m in 10.0hrs
Bit Grade: 1-1-NO-A-X-I-NO-TD
WOB: 3-15klbs
RPM: 57-121
Flow: 106-254gpm
SPP: 568-1118psi
WOB: 7-12klbs
RPM: 105-118
Flow: 246-252gpm
SPP: 922-1048psi
WOB: 5-15klbs
RPM: 98-112
Flow: 240-257gpm
SPP: 796-1170psi
2090
2100
2110
2120
2130
2140
2150
2160
2170
2180
2190
2200
2210
2220

ENGINEERING SUMMARY PLOT

ROP (0-50m/hr)
50 | 45 | 40 | 35 | 30 | 25 | 20 | 15 | 10 | 5
m/hr
ROP (50-200m/hr)
200 | 185 | 170 | 155 | 140 | 125 | 110 | 95 | 80 | 65
m/hr

MD meters 1:500

0.2 DXC 2
unitless

WEIGHT ON BIT
10 | 20 | 30 | 40 | 50 | 60
klbf
RPM AVG
100 | 200 | 300
RPM

AVG TORQUE
10 | 20 | 30 | 40 | 50
kft.lb
MAX TORQUE
10 | 20 | 30 | 40 | 50
kft.lb

PUMP PRESS
1000 | 2000 | 3000 | 4000 | 5000
psi
FLOW IN
200 | 400 | 600 | 800 | 1000
USgl/min

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ATTACHMENT 25 : PETROPHYSICS REPORTS

Schlumberger

Company: CO2CRC
Well Name: CRC-1
Field: Naylor
Rig: Century-11
State: Victoria
Country: Australia

File Name: HALS_TLD_MCFL_CNL_006PUP_lowersection.DLIS
Data Presented with: Schlumberger DecisionXpress

Location Description:	API Well Number:		
Brumby's Lane, Nirrandah		Latitude	38 31' 50" S
PPL 13, GDA94, Otway Basin		Longitude	142 48' 42" E
E: 657,913 m / N: 5,733,761 m			

Elevations:	Permanent Datum Elev: 0.0	m	Kelly Bushing:	50.0	m
Permanent Datum:	Mean Sea Level		Drilling Floor:	50.0	m
Drilling Measured From:	Drill Floor		Ground/Sea Floor:	44.8	m
Log Measured From:	Drill Floor		Height Above Datum:	50.0	m

Acquisition Date:	9-Mar-2007	Bit Size:	6.800	in	
Run Number:	1	from:		m to:	22490.0 m
Depth Driller:	22490.0 m	Csg Size:	7.625	in Wt:	26.40 lbm/ft
Depth Logger:	2239.5 m	from:		m to:	512.0 m
Top Log Interval:	511.8 m	Casing Bottom Logger:			511.8 m
Bottom Log Interval:	2236.7 m	Type Fluid in Hole:	KCL / PHPA / Pol		
Time Circ Stopped:	9:30	Dens:	9.50 lbm/gal	Vis:	54.00 s
Time Log at Bottom:	20:25	pH:	9.8	Fld Loss:	6.00 cm3
Max Recorded Temp:	176 degF	Sample Source:	Mud Pit		
Unit Number:	3160	Rm:	0.140 ohm.m @	76	degF
Service Location:	AUMB	Rmf:	0.132 ohm.m @	75	degF
Recorded By:	Kasian / Malik	Rmc:	0.123 ohm.m @	76	degF
Witnessed By:	Mr.Peter Van Ruth	Borehole Salinity:		31800	ppm

All interpretations using the DecisionXpress Viewer, and all recommendations or reservoir descriptions based upon such interpretations, are opinions based on inferences from measurements and empirical relationships and on assumptions, which inferences and assumptions are not infallible, and with respect to which competent specialists may differ. In addition, such interpretations, recommendations and reservoir descriptions may involve the opinion and judgement of Customer. Customer has full responsibility for all interpretation, recommendations and reservoir descriptions utilizing the DecisionXpress Viewer.

Schlumberger does not warrant the accuracy, correctness or completeness of any interpretation, recommendation or reservoir description.

DecisionXpress is a highly automated petrophysical interpretation product for siliciclastic formations. SpectroLith processing of the ECS capture spectroscopy data provides lithology (dry weight fractions of clay, quartz, carbonate, ...) and matrix properties including grain density (RHGE) and thermal neutron matrix (TNGE). Total porosity (PHIT) is computed from density and environmentally corrected neutron porosity (NPOR) which have been adjusted for matrix effects. Total water saturations in the uninvaded and flushed zones (SWT, SXOT) are computed from the Waxman Smits equation using a variable m* exponent. Intrinsic permeability (KINT) and irreducible water saturations (SWI) are computed from porosity and mineralogy using the K-Lamda permeability equation.

The primary user inputs for this interpretation are FSAL (Formation Water Salinity), CEC (Cation Exchange Capacity) and HVIS (Hydrocarbon viscosity), which are listed in the parameter table below.

User Comments

Information about the Clays(From M.Watson, CSIRO)

Waaree C and Waarre A: Kaolinitic Clay w ith minor smectite

Waarre B: Kaolinitic w ith occassional Chlorite / Glauconite

Flaxmans - Mixed bag of illite, kaolinite, smectite, chlorite and glauconite

Eumeralla : Authingenic chloritic and kaolinite throughout, illite and smectite increases in the shale units.

Standard values for the clays in literature

Kaolinie=0.03-0.15, Chlorite=0.1-0.4,Ilite=0.1-0.4,Smectite=0.8-1.5,Glauconite=0.1-0.4

->The CEC values for the zones w ere adjusted to reflect the clay mineralogy and is given in the attached table

Formation Zone Parameters

No.	Zone Name	Depth		Formation Properties		
		Top (m)	Bottom (m)	Water Salinity (ppm)	CEC (meq/g)	Hydrocarbon Viscosity (cP)
1	Belfast	2000.4	2022.5	21000.0	0.10	0.30
2	Flaxmans	2022.5	2052.5	21000.0	0.15	0.30
3	Waarre C	2052.5	2083.0	21000.0	0.07	0.30
4	Waarre B	2083.0	2100.0	21000.0	0.10	0.30
5	Waarre A	2100.0	2139.0	21000.0	0.07	0.30
6	Eumeralla	2139.0	2192.0	3673.9	0.15	0.30

Reservoir Zone Parameters

No.	Zone Name	Depth		Cutoffs			
		Top (m)	Bottom (m)	Max Clay Volume (m3/m3)	Min Porosity (m3/m3)	Min Permeability (mD)	Max Sw (m3/m3)
1	Belfast	2000.4	2022.5	0.20	0.10	10.00	0.30
2	Flaxmans	2022.5	2052.5	0.20	0.10	10.00	0.30
3	Waarre C	2052.5	2083.0	0.20	0.10	10.00	0.30
4	Waarre B	2083.0	2100.0	0.20	0.10	10.00	0.30
5	Waarre A	2100.0	2139.0	0.20	0.10	10.00	0.30
6	Eumeralla	2139.0	2192.0	0.20	0.10	10.00	0.30

Reservoir Summation 1

No	Zone Name	Depth		Reservoir			Pay			
		Top (m)	Bottom (m)	Net Thickness (m)	Average Porosity (m3/m3)	Average Perm (mD)	Net Thickness (m)	Average Porosity (m3/m3)	Average Perm (mD)	Average Sw (m3/m3)
1	Belfast	2000.4	2022.5	0.0	N/A	N/A	0.0	N/A	N/A	N/A
2	Flaxmans	2022.5	2052.5	0.0	N/A	N/A	0.0	N/A	N/A	N/A
3	Waarre C	2052.5	2083.0	13.4	0.19	151.99	0.0	N/A	N/A	N/A
4	Waarre B	2083.0	2100.0	0.0	N/A	N/A	0.0	N/A	N/A	N/A
5	Waarre A	2100.0	2139.0	0.5	0.17	14.39	0.0	N/A	N/A	N/A
6	Eumeralla	2139.0	2192.0	0.0	N/A	N/A	0.0	N/A	N/A	N/A

Reservoir Summation 2

No	Zone Name	Depth		Reservoir		Pay		
		Top (m)	Bottom (m)	Porosity Thickness (m)	Permeability Thickness (mD.m)	Porosity Thickness (m)	Permeability Thickness (mD.m)	Hydrocarbon Porosity Thickness (m)
1	Belfast	2000.4	2022.5	0.0	0.0	0.0	0.0	0.0
2	Flaxmans	2022.5	2052.5	0.0	0.0	0.0	0.0	0.0
3	Waarre C	2052.5	2083.0	2.5	2038.3	0.0	0.0	0.0
4	Waarre B	2083.0	2100.0	0.0	0.0	0.0	0.0	0.0
5	Waarre A	2100.0	2139.0	0.1	6.6	0.0	0.0	0.0
6	Eumeralla	2139.0	2192.0	0.0	0.0	0.0	0.0	0.0

Description: Dex Petrophysics Plot Format: Dex_PetrophysicsPlot.xml Index Scale: 50 cm per 100 m Index Unit: m Index Type: Measured Depth Creation Date: 16-Apr-2007 12:09:00

FSALPip - Show selected point in the Petrophysics Plot

	MudCake Washout Gamma-Ray (ECGR) 0 gAPI 200 Bit Size (BS) 6 in 16 Borehole Pressure (BHPR) 0 psi 5000 Computed Temperature (TEMP_COMP) 0 degF 300	Clay Q-F-M Carbonate Pyrite Anhydrite Siderite Coal Salt Data Quality	Light Hydrocarbon Data Quality Matrix Adjusted Neutron Porosity (CNPH) 0.5 Ft3/ft3 0	Data Quality Apparent Salinity (SpectroLith WALK2 Model) (ASAL_WALK2) 300000 ppm 30	Hydrocarbon Data Quality Resistivity of Water Filled Formation (R0) 0.2 ohm.m 2000	Clay Bound Water Irreducible Water Free Water Data Quality Invaded Zone Water Saturation (SXOT) 1 ft3/ft3 0
Cable Tension (TENS) 10000 lbf 0	HGNS Deviation (GDEV) -10 deg 90	Matrix Density from Elemental Concentrations (SpectroLith WALK2 Model) (RHGE_WALK2) 2.5 g/cm3 3	Matrix Adjusted Density Porosity (DPHI) 0.5 ft3/ft3 0	Apparent Formation Salinity (FSALA) 300000 ppm 30	MCFL Standard Resolution Invaded Zone Resistivity (RXOZ) 0.2 ohm.m 2000	Irreducible Water Saturation (SWI) 1 ft3/ft3 0 Clay Bound Water Saturation (SWB) 1 ft3/ft3 0
Cable Speed (CS) 0 ft/h 5000	HRCC Cal. Caliper (HCAL) 6 in 16		Total Porosity (PHIT) 0.5 ft3/ft3 0	Formation Salinity (FSAL) 300000 ppm 30	HALS Computed True Resistivity (HART) 0.2 ohm.m 2000	Uninvaded Zone Water Saturation (SWT) 1 ft3/ft3 0

L P K S R

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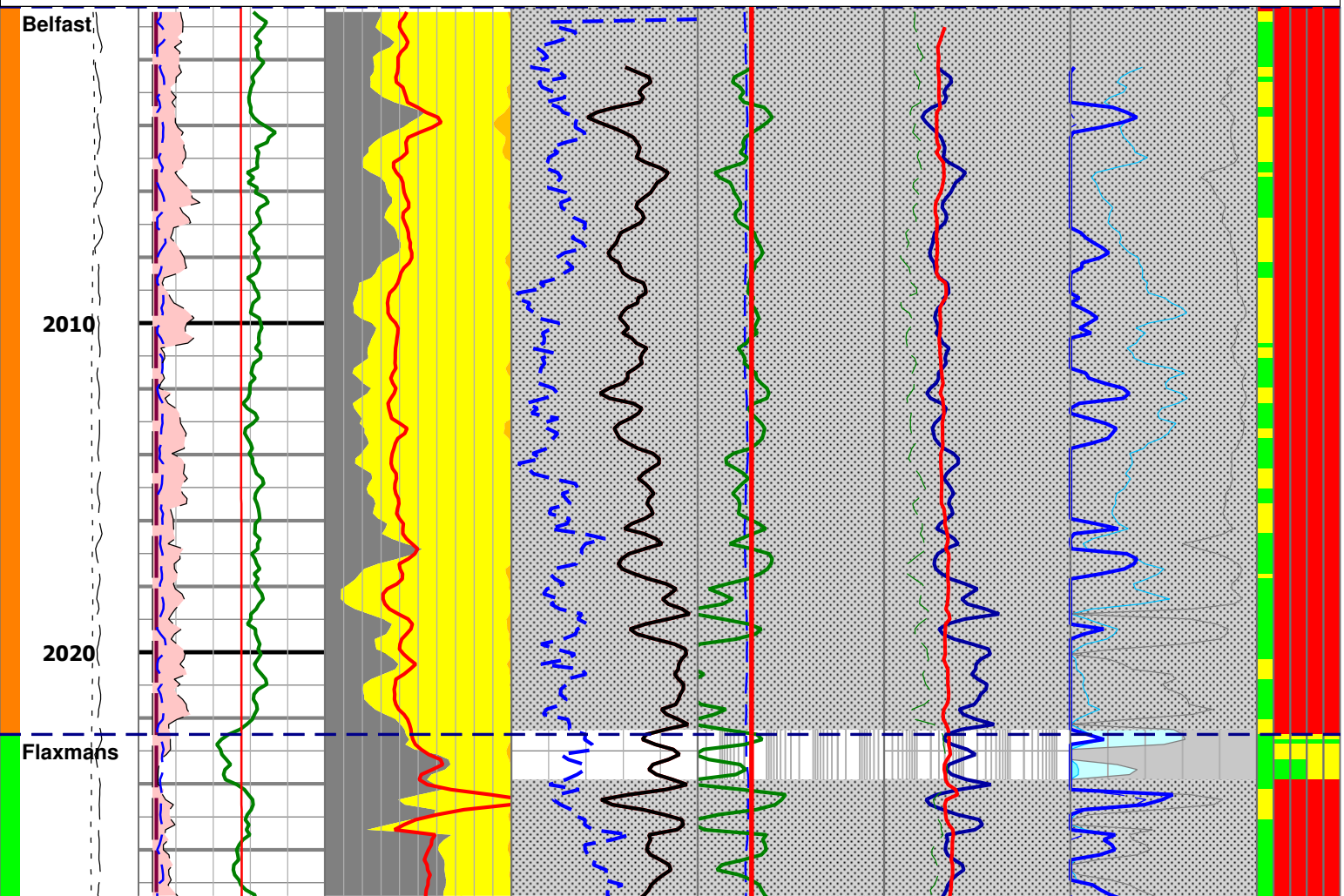

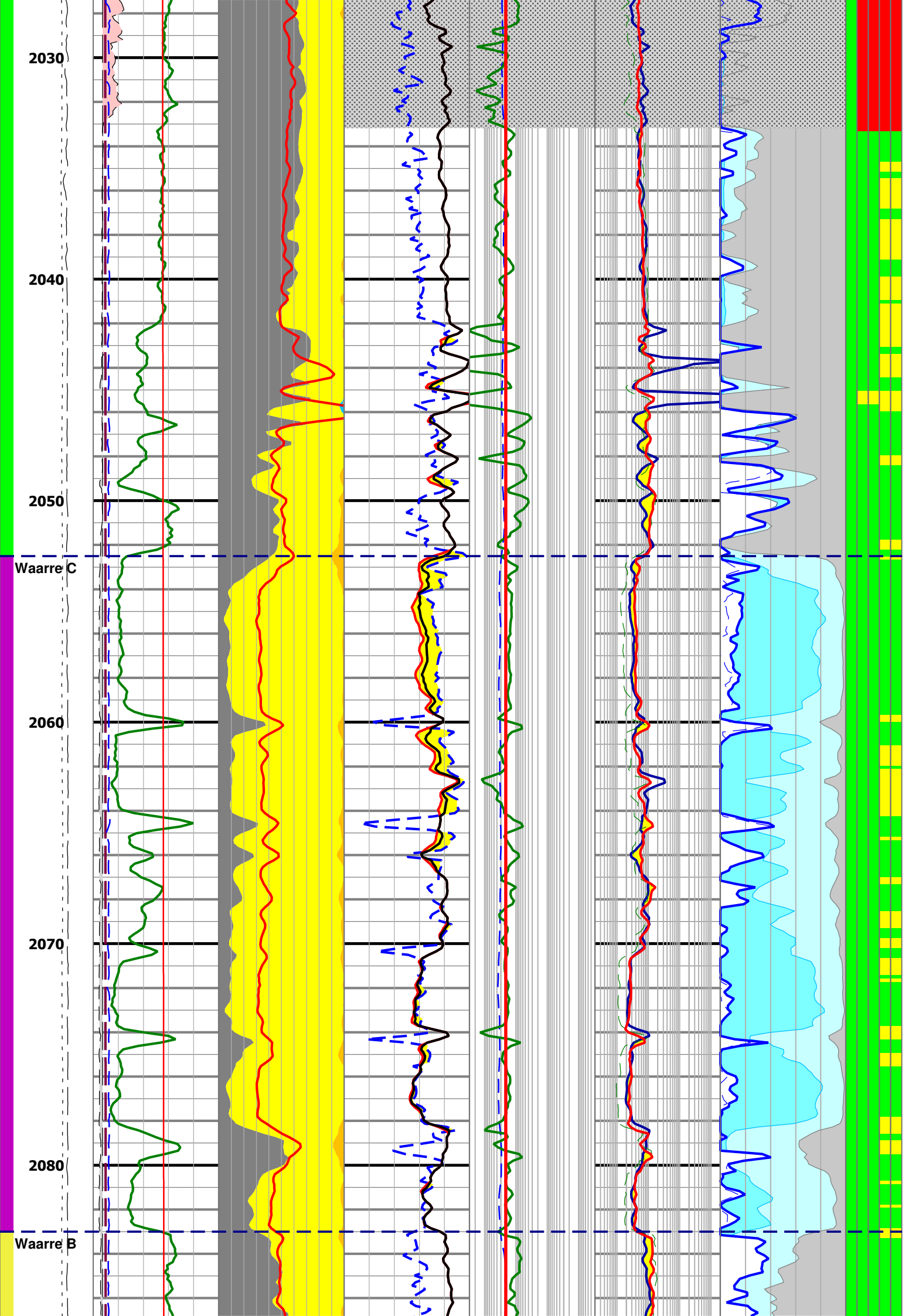
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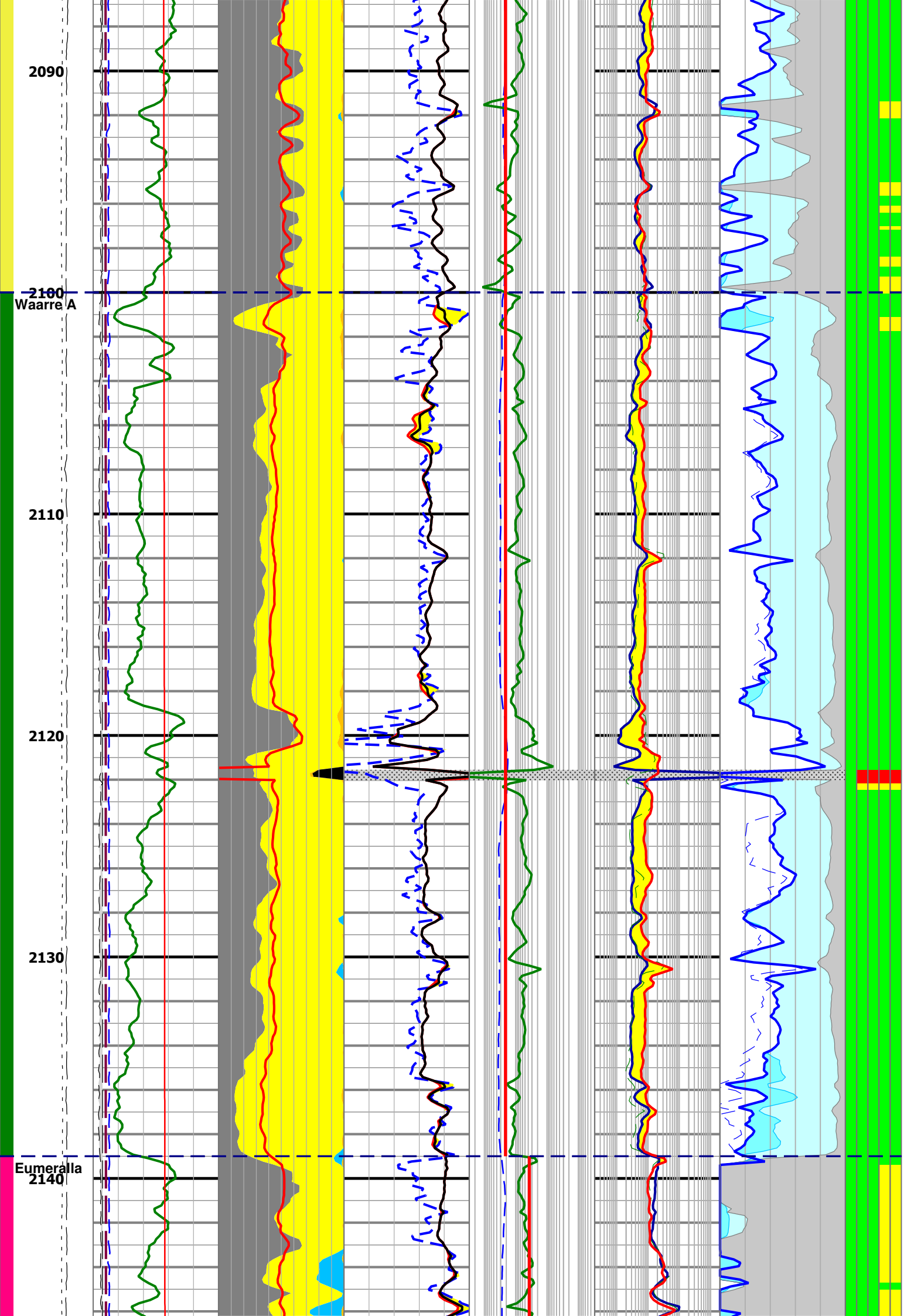
2050
Waarre C
2060
2070
2080
Waarre B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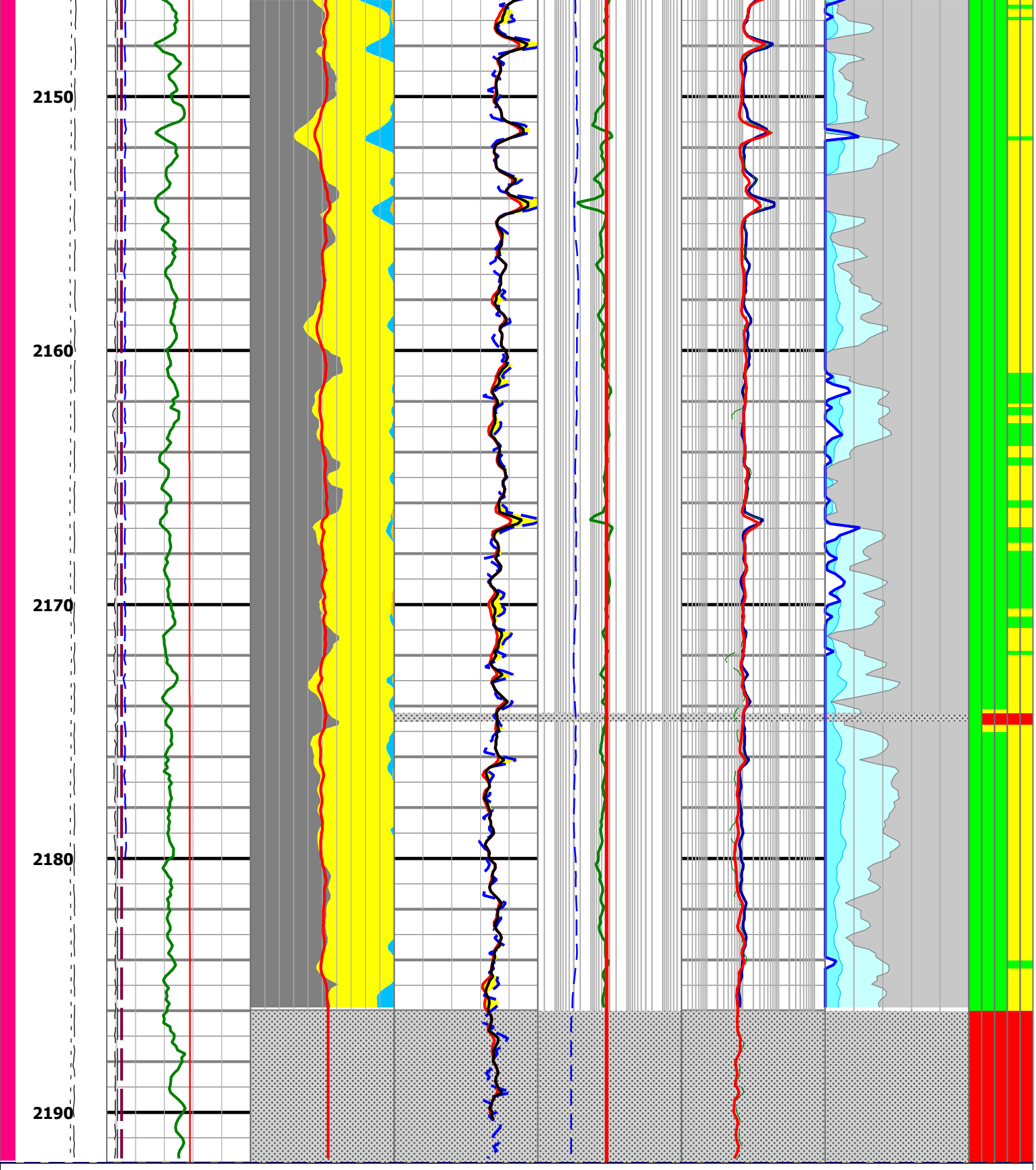
2100
Waarre A
2110
2120
2130
Eumeralla
2140



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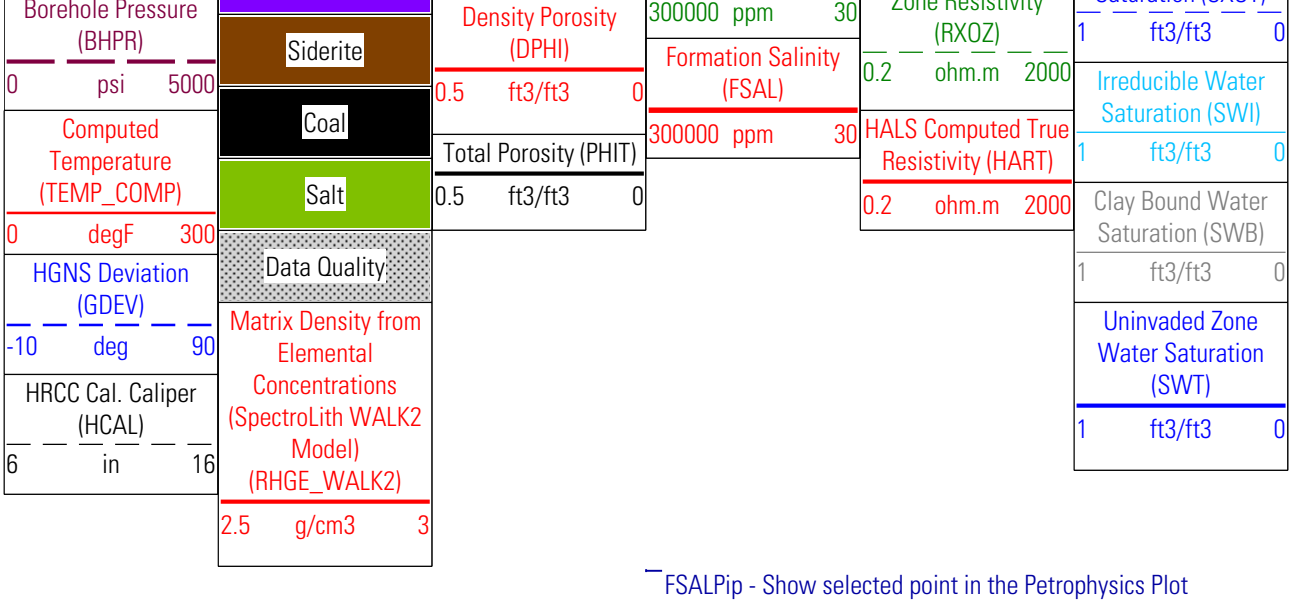
Cable Tension (TENS)	MudCake	Clay	Light Hydrocarbon	Data Quality	Hydrocarbon	Clay Bound Water	L P K S R
10000 lbf 0	Washout	Q-F-M	Data Quality	Apparent Salinity (SpectroLith WALK2 Model) (ASAL_WALK2)	Data Quality	Irreducible Water	
Cable Speed (CS)	Gamma-Ray (ECGR)	Carbonate	Matrix Adjusted Neutron Porosity (CNPH)	300000 ppm 30	Resistivity of Water Filled Formation (R0)	Free Water	
0 ft/h 5000	0 gAPI 200	Pyrite	0.5 Ft3/ft3 0	Apparent Formation Salinity (FSALA)	0.2 ohm.m 2000	Data Quality	
	Bit Size (BS)	Anhydrite	Matrix Adjusted		MCFL Standard Resolution Invaded Zone Resistivity	Invaded Zone Water Saturation (SXOT)	
	6 in 16						



Description: Dex Petrophysics Plot Format: Dex_PetrophysicsPlot.xml Index Scale: 50 cm per 100 m Index Unit: m Index Type: Measured Depth Creation Date: 16-Apr-2007 12:09:00

Schlumberger

Company: CO2CRC
Well Name: CRC-1
Field: Naylor
Rig: Century-11
State: Victoria
Country: Australia

File Name: HALS_TLD_MCFL_CNL_006PUP_lowersection.DLIS
Data Presented with: Schlumberger DecisionXpress

Location Description:	API Well Number:		
Brumby's Lane, Nirrandah		Latitude	38 31' 50" S
PPL 13, GDA94, Otway Basin		Longitude	142 48' 42" E
E: 657,913 m / N: 5,733,761 m			

Elevations:	Permanent Datum Elev: 0.0	m	Kelly Bushing:	50.0	m
Permanent Datum:	Mean Sea Level		Drilling Floor:	50.0	m
Drilling Measured From:	Drill Floor		Ground/Sea Floor:	44.8	m
Log Measured From:	Drill Floor		Height Above Datum:	50.0	m

Acquisition Date:	9-Mar-2007	Bit Size:	6.800	in	
Run Number:	1	from:		m to:	22490.0 m
Depth Driller:	22490.0 m	Csg Size:	7.625	in Wt:	26.40 lbm/ft
Depth Logger:	2239.5 m	from:		m to:	512.0 m
Top Log Interval:	511.8 m	Casing Bottom Logger:			511.8 m
Bottom Log Interval:	2236.7 m	Type Fluid in Hole:	KCL / PHPA / Pol		
Time Circ Stopped:	9:30	Dens:	9.50 lbm/gal	Vis:	54.00 s
Time Log at Bottom:	20:25	pH:	9.8	Fld Loss:	6.00 cm3
Max Recorded Temp:	176 degF	Sample Source:	Mud Pit		
Unit Number:	3160	Rm:	0.140 ohm.m @	76	degF
Service Location:	AUMB	Rmf:	0.132 ohm.m @	75	degF
Recorded By:	Kasian / Malik	Rmc:	0.123 ohm.m @	76	degF
Witnessed By:	Mr.Peter Van Ruth	Borehole Salinity:		31800	ppm

All interpretations using the DecisionXpress Viewer, and all recommendations or reservoir descriptions based upon such interpretations, are opinions based on inferences from measurements and empirical relationships and on assumptions, which inferences and assumptions are not infallible, and with respect to which competent specialists may differ. In addition, such interpretations, recommendations and reservoir descriptions may involve the opinion and judgement of Customer. Customer has full responsibility for all interpretation, recommendations and reservoir descriptions utilizing the DecisionXpress Viewer.

Schlumberger does not warrant the accuracy, correctness or completeness of any interpretation, recommendation or reservoir description.

DecisionXpress is a highly automated petrophysical interpretation product for siliciclastic formations. SpectroLith processing of the ECS capture spectroscopy data provides lithology (dry weight fractions of clay, quartz, carbonate, ...) and matrix properties including grain density (RHGE) and thermal neutron matrix (TNGE). Total porosity (PHIT) is computed from density and environmentally corrected neutron porosity (NPOR) which have been adjusted for matrix effects. Total water saturations in the uninvaded and flushed zones (SWT, SXOT) are computed from the Waxman Smits equation using a variable m* exponent. Intrinsic permeability (KINT) and irreducible water saturations (SWI) are computed from porosity and mineralogy using the K-Lamda permeability equation.

The primary user inputs for this interpretation are FSAL (Formation Water Salinity), CEC (Cation Exchange Capacity) and HVIS (Hydrocarbon viscosity), which are listed in the parameter table below.

User Comments

Information about the Clays(From M.Watson, CSIRO)

Waaree C and Waarre A: Kaolinitic Clay w ith minor smectite

Waarre B: Kaolinitic w ith occassional Chlorite / Glauconite

Flaxmans - Mixed bag of illite, kaolinite, smectite, chlorite and glauconite

Eumeralla : Authingenic chloritic and kaolinite throughout, illite and smectite increases in the shale units.

Standard values for the clays in literature

Kaolinie=0.03-0.15, Chlorite=0.1-0.4,Ilite=0.1-0.4,Smectite=0.8-1.5,Glauconite=0.1-0.4

->The CEC values for the zones w ere adjusted to reflect the clay mineralogy and is given in the attached table

Formation Zone Parameters

No.	Zone Name	Depth		Formation Properties		
		Top (m)	Bottom (m)	Water Salinity (ppm)	CEC (meq/g)	Hydrocarbon Viscosity (cP)
1	Belfast	2000.4	2022.5	21000.0	0.10	0.30
2	Flaxmans	2022.5	2052.5	21000.0	0.15	0.30
3	Waarre C	2052.5	2083.0	21000.0	0.07	0.30
4	Waarre B	2083.0	2100.0	21000.0	0.10	0.30
5	Waarre A	2100.0	2139.0	21000.0	0.07	0.30
6	Eumeralla	2139.0	2192.0	3673.9	0.15	0.30

Reservoir Zone Parameters

No.	Zone Name	Depth		Cutoffs			
		Top (m)	Bottom (m)	Max Clay Volume (m3/m3)	Min Porosity (m3/m3)	Min Permeability (mD)	Max Sw (m3/m3)
1	Belfast	2000.4	2022.5	0.20	0.10	10.00	0.30
2	Flaxmans	2022.5	2052.5	0.20	0.10	10.00	0.30
3	Waarre C	2052.5	2083.0	0.20	0.10	10.00	0.30
4	Waarre B	2083.0	2100.0	0.20	0.10	10.00	0.30
5	Waarre A	2100.0	2139.0	0.20	0.10	10.00	0.30
6	Eumeralla	2139.0	2192.0	0.20	0.10	10.00	0.30

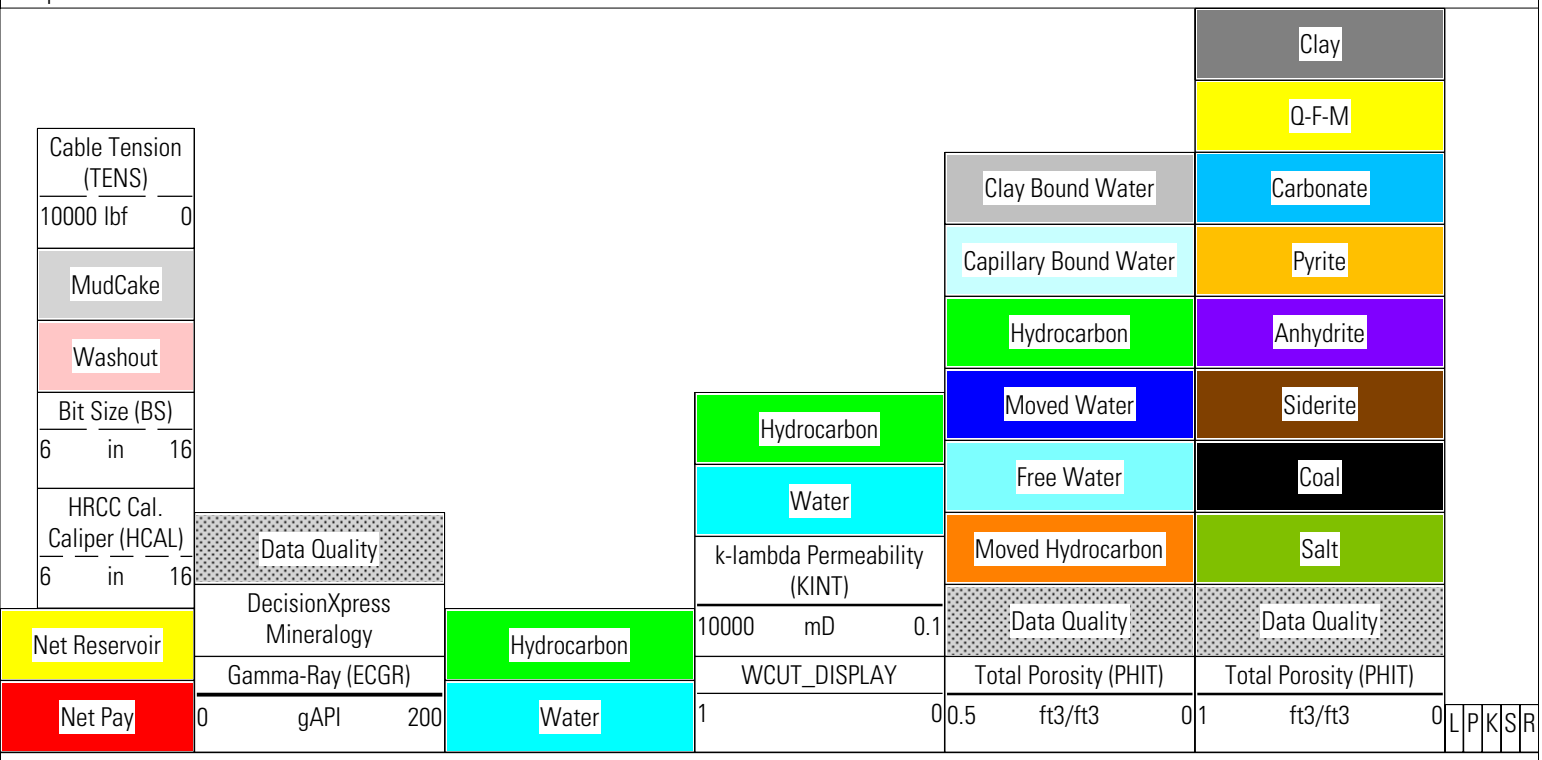
Reservoir Summation 1

No	Zone Name	Depth		Reservoir			Pay			
		Top (m)	Bottom (m)	Net Thickness (m)	Average Porosity (m3/m3)	Average Perm (mD)	Net Thickness (m)	Average Porosity (m3/m3)	Average Perm (mD)	Average Sw (m3/m3)
1	Belfast	2000.4	2022.5	0.0	N/A	N/A	0.0	N/A	N/A	N/A
2	Flaxmans	2022.5	2052.5	0.0	N/A	N/A	0.0	N/A	N/A	N/A
3	Waarre C	2052.5	2083.0	13.4	0.19	151.99	0.0	N/A	N/A	N/A
4	Waarre B	2083.0	2100.0	0.0	N/A	N/A	0.0	N/A	N/A	N/A
5	Waarre A	2100.0	2139.0	0.5	0.17	14.39	0.0	N/A	N/A	N/A
6	Eumeralla	2139.0	2192.0	0.0	N/A	N/A	0.0	N/A	N/A	N/A

Reservoir Summation 2

No	Zone Name	Depth		Reservoir		Pay		
		Top (m)	Bottom (m)	Porosity Thickness (m)	Permeability Thickness (mD.m)	Porosity Thickness (m)	Permeability Thickness (mD.m)	Hydrocarbon Porosity Thickness (m)
1	Belfast	2000.4	2022.5	0.0	0.0	0.0	0.0	0.0
2	Flaxmans	2022.5	2052.5	0.0	0.0	0.0	0.0	0.0
3	Waarre C	2052.5	2083.0	2.5	2038.3	0.0	0.0	0.0
4	Waarre B	2083.0	2100.0	0.0	0.0	0.0	0.0	0.0
5	Waarre A	2100.0	2139.0	0.1	6.6	0.0	0.0	0.0
6	Eumeralla	2139.0	2192.0	0.0	0.0	0.0	0.0	0.0

Description: Dex_AnswerPlot Format: Dex_AnswerPlot.xml Index Scale: 50 cm per 100 m Index Unit: m Index Type: Measured Depth Creation Date: 16-Apr-2007 12:13:05



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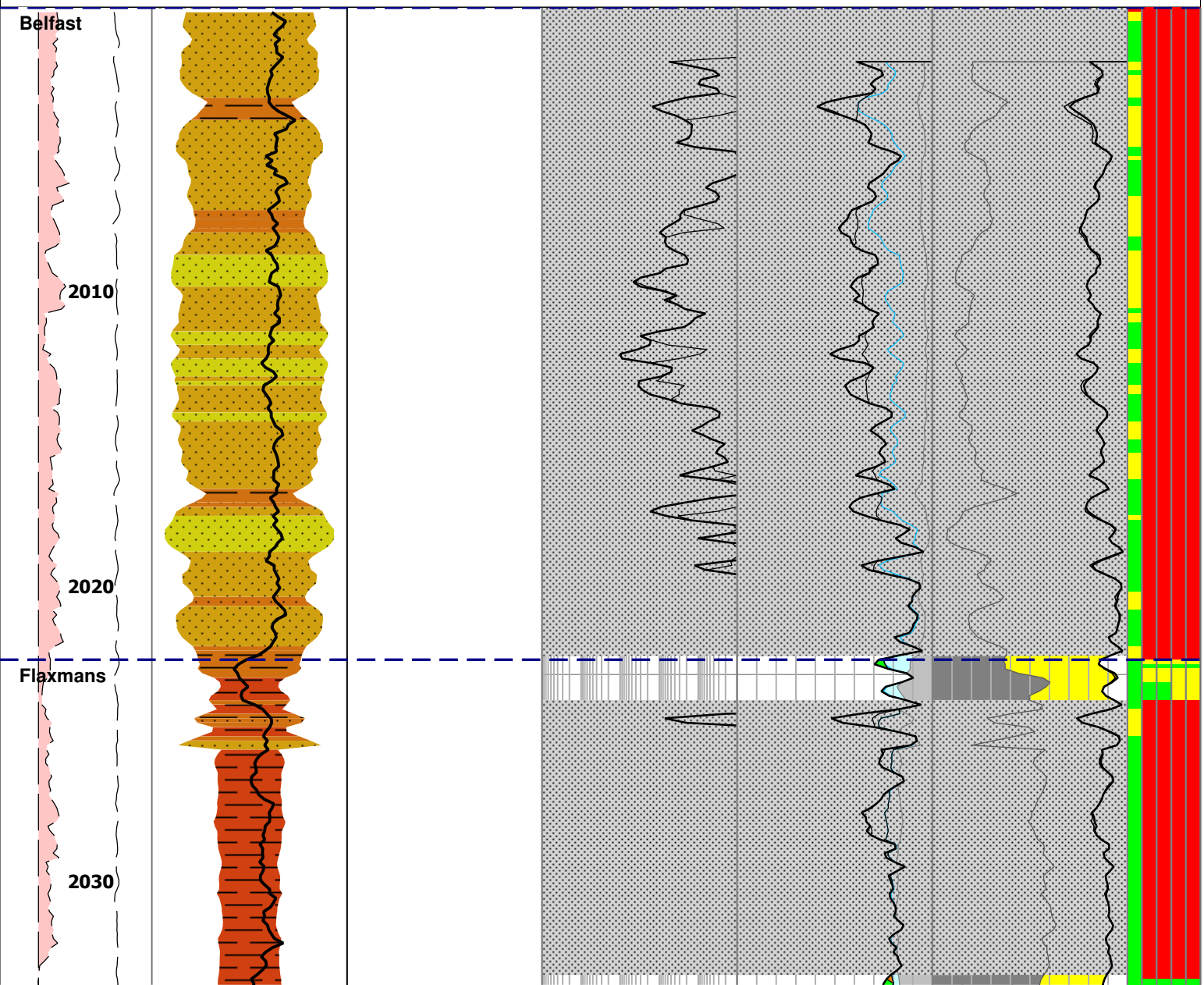

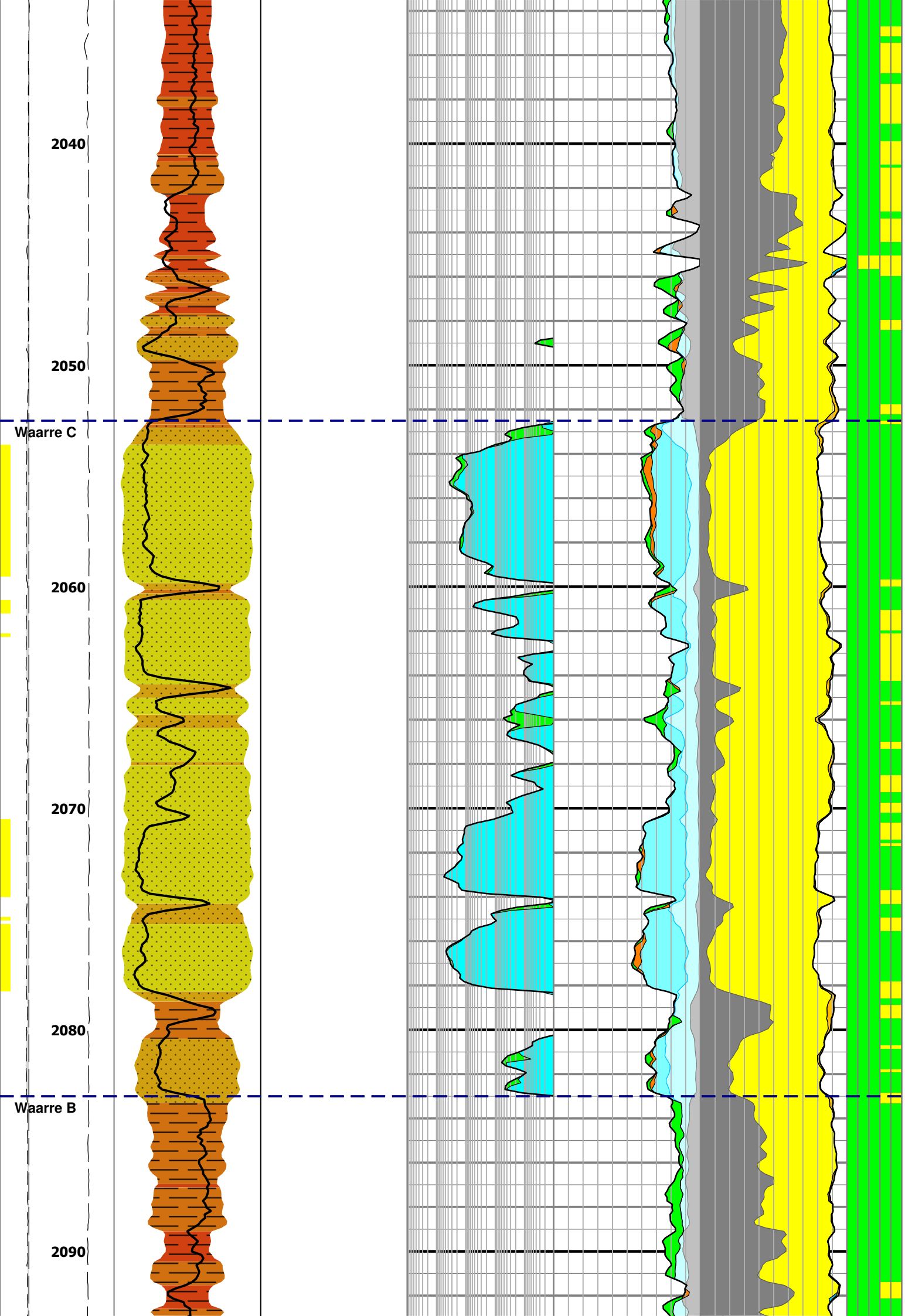
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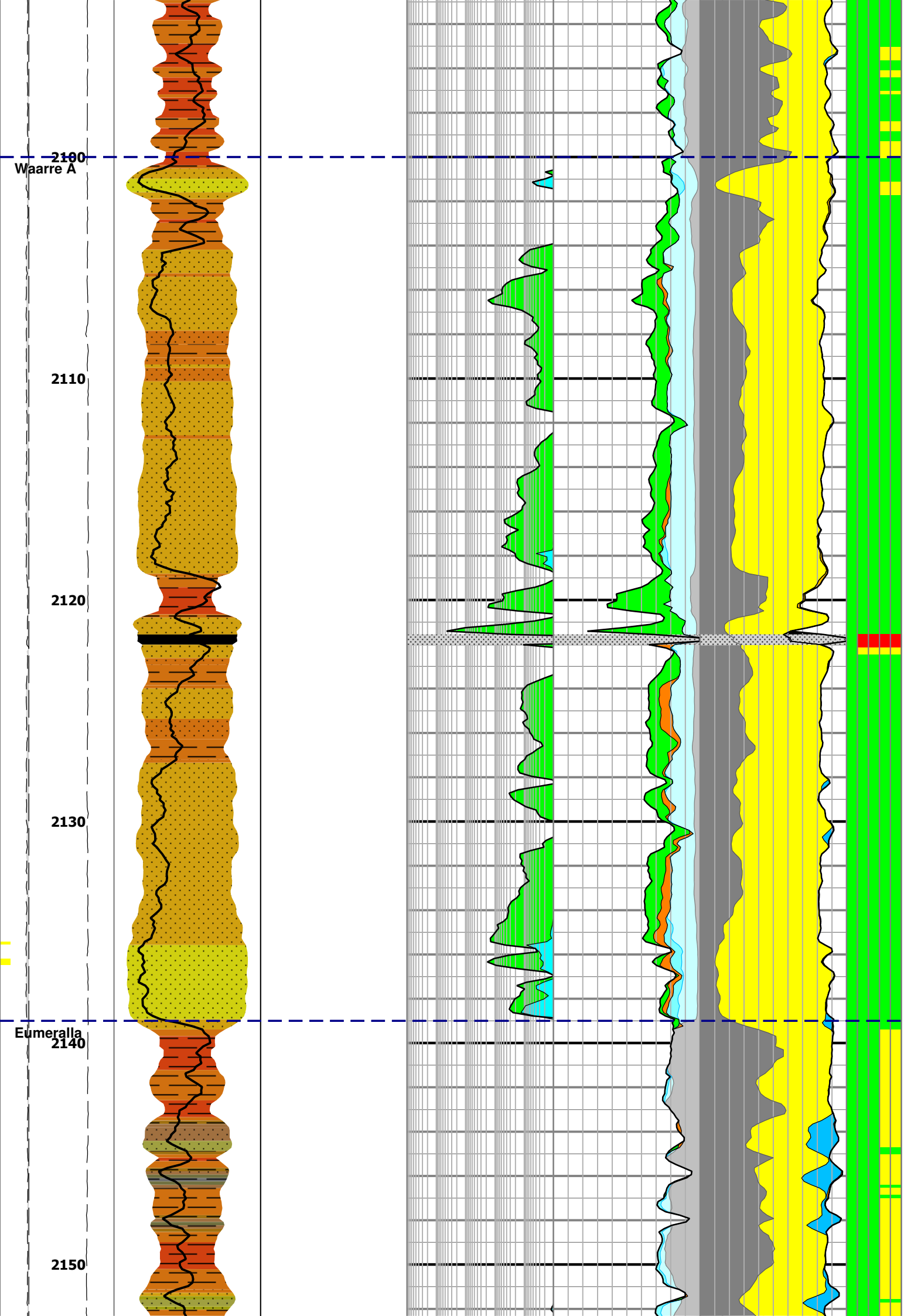
2050
Waarre C
2060
2070
2080
Waarre B
2090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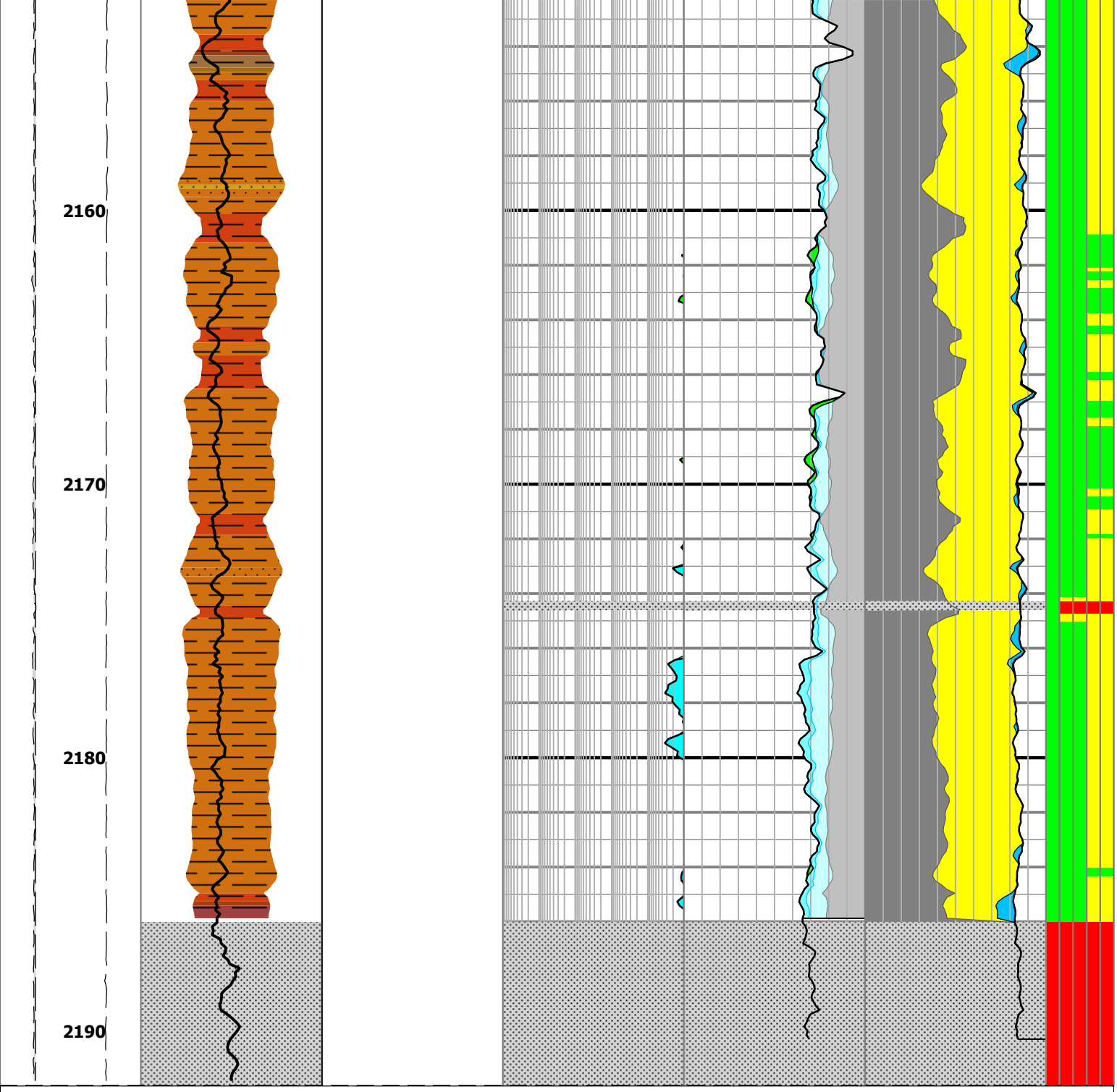
Waarre A
2110
2120
2130
Eumeralla
2140
2150



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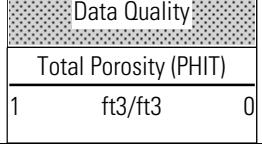
						L	P	K	S	R
Net Reservoir	Data Quality	Hydrocarbon	Hydrocarbon	Clay Bound Water	Clay					
Net Pay	DecisionXpress Mineralogy	Water	Water	Capillary Bound Water	Q-F-M					
Cable Tension (TENS) 10000 lbf 0	Gamma-Ray (ECGR) 0 gAPI 200		k-lambda Permeability (KINT) 10000 mD 0.1	Hydrocarbon	Carbonate					
MudCake			WCUT_DISPLAY 1 0	Moved Water	Pyrite					
Washout				Free Water	Anhydrite					
Bit Size (BS) 6 in 16				Moved Hydrocarbon	Siderite					
HRCC Cal. Caliper (HCAL) 6 in 16				Data Quality	Coal					
				Total Porosity (PHIT) 0.5 ft3/ft3 0	Salt					



Total Porosity (PHIT)		
1	ft3/ft3	0

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