

LSS 201. (200).
 Logging unit 205.

No.

Date 3.12.2012

LWD WATCHDOG REAL-TIME EXP 338 HOLE C0012H.

<p>Write the date } (-JST) Write the time }. Write the depth. TVD Write out your extended comments. Include shift change markers Initial your comments.</p>	
<p>eg: Drill string is still being lowered to the seabed ready to spud in C0012H. JSW.</p>	<p>3/12/2012 13:42 2985.0 m</p>
<p>Spudding hole began JSW.</p>	<p>3/12/2012 15:03</p>
<p>Current bit depth 3517 m (water depth at proposed C0012H = 3539 m). JSW.</p>	<p>3/12/2012 15:12 3517 m</p>
<p>Problem with tool communication due to low flow rate. Engineers working on a fix. ~5 m above seabed. JSW.</p>	<p>3/12/2012 15:53 3525 m</p>
<p>Information from Kido-san, that SLB run the procedures to check the signal of logging tools. ~SNT</p>	<p>3/12/2012 18:07 3519 m</p>
<p>pull out the pipes @ 18:25 to 3433m and run down again to 3507m</p>	<p>3/12/2012 18:27 3507m</p>
<p>SLB designed to pull up all slings and replace the logging tools, the mission of today tonight is over.</p>	<p>3/12/2012 18:35</p>
<p>BHA and drill string being re-lowered towards the seabed. JSW.</p>	<p>4/12/2012 06:32</p>
<p>Rig workers making steady progress lowering the string. JSW.</p>	<p>4/12/2012 08:54 716 m</p>

4/12/2012
10:41
1657m
Still making good progress towards the seafloor. Almost halfway in a little over 4 hrs. At current rate estimate (3pm) 15:00 to seabed DJW.

4/12/2012
15:22
3530.0m
tagged mud line, commenced drilling. Just SWOB + ROP SJ

4/12/2012
16:24
3553.6m
Pushing into the hole. DJW.

16:42
3564.46
Re-tagged mud line at 3538m. Screen is not updating w/ log data. Pushing down to engage the bit. No logs on screen (LWD) RS.

17:11
off bottom at ~~3575~~ 3595m. HDTH = 3598.38m Still no logs as before. Receiving SWOB + ROP. RS

17:35
On bottom. Drill string is rotating... No logs. (LWD)

18:00
Logging start to [363 mbsf; ROP 4.24(m/hr)] stuck slip indicator (STICK) got a peak in this depth. (3610) mbsf SWT

18:45
@ 363.75m stop drill for connecting pipes? SWT

19:00
Keep on 363/m. Pipes keep rotating. Add ~~centrifizer~~ ^{pro} centrifizer? SWT

19:14
Pipes stop rotating. RS Also check the (TAB.RZS). SWT

19:33
Start spinning again, but keep the same depth (363/m) SWT

19:49
Restarting drilling SWT

20:00
The DTCO ^(velocity) is higher than expected (>2.1 km/s) discussed with SAMADA-sen. SWT

The change of GERRA between 60-90 gAPI will be ignored. SWT 20:39

Pulling up the pipes. 20:42

RIH Connecting pipes. 20:44

Drilling restart @ 3670m 21:03

Stop drilling and move up and down pipes. @ 3675m (3676) SWT 21:30

Restart drilling ROP = 37 m/hr and pull up the strings again. from 3670 to 3680 m Stop drilling for discussing the velocity high. SWT 21:45

Restarting drilling 23:18

The large drop of gamma-ray at depth 3685 when the re-drilling starts. (45 gAPI) 5 Dec/2012

Connecting pipes. 0:11

Connection complete, resumed LWD 13 mins to change pipe. SWT 00:24

Note (slowness low matches GR low at 3685 - 3690 as tool progresses This is not correct value but matches! DJW 00:45

Reached 200 mbsf. DJW 00:56 3730 m

GR 90 - 120 gAPI between 3727 v 3738..... 3740 01:12

Spike in Downhole Annular Temp at 3733 erratic data point! 01:17

GR still fluctuating around 100 gAPI. DJW 01:24 3744 m

Had to stop to fix broken depth maintaining wire at rig floor 01:30 -02:00 ~3750 m

5/12/2012 02:08 3747 m.	Stop for pipe connect? - Not sure! Yes	D.S.U.
5/12/2012 02:19	Continued drilling	D.S.U.
03:23	Reached 3784 ≈ 254 mbsf	D.S.U.
03:40	Stop for pipe connect. 3785 ^m (bit) 3790 ^m (hole depth)	D.S.U.
04:55	Massive spikes in ^{sh} deep & medium resistivity at 3807 m + 2.5 chm + 9 chm	D.S.U.
05:15	off bottom for pipe connect	D.S.U.
05:41	Back on bottom, resume drilling	D.S.U.
05:47	Reached 300 mbsf.	D.S.U.
06:31	SWOB increased, GR fluctuating around 100 gAPI, all Res. constant ~ 1.2 m., Ring res. slightly lower. ROP ~ 32.09 m/h.	JT
06:47	3865 mbsf spike inc. in SWOB	
06:48	off bottom (3864 m - Pipe connection? (3866.44 m TD currently)	
07:06	resumed resumed drilling 37.55 m/h ROP	
07:17	3871.29 SWOB increasing (+100 kN?)	
07:21	annular pressure; temp, constant.	
07:24	depth sonic @ 3845 mbsf increased DTCO, ~ 115-120 μ s/ft GR continuing to fluctuate around 95 api	

07:34,	3880.91 m (3879?)	large drop in GR (<45 api)	JT
07:48	3883 mbsf approx.	Spike in GR with spike increase in shallow & bit Res. Coincides with spike increase in DWOB, DTR and Stick slip.	JT
07:53;	drill-pipe (from Rig floor vid.) - intense shaking reclosed 'flaps' - reduced pipe shaking. depth ~ 3890.10 mbsf	→ watch for image quality in this region.	
3860 - 3863;		decrease in DTRA,	
8:20 am;	3904.8 TD	off bottom; pipe connection. pulled up to 3900.42 m.	
8:34 am;	Resumed rotation;		
8:39	back on bottom.		
09:05 am;	no DTRA advancement of data points since (3919.56)	depth point @ ~3870 mbsf	
		DTRA increase across 3895 mbsf.	
09:39 am;		400 m bsf.	
3924 mbsf		separation in shallow & bottom res. to higher values than, deep, ring bit.	
		↓	
09:47 am	Slowing for pipe connection.	off bottom.	
	3942.74 mbsf		
10:08	Resumed rotation;	10:12 am back on bottom.	

10:20 am / 3946.55 mbsf ; drill pipe (viewed on rig floor cam) is shaking (minor) with rotations. data quality?

11:01 am : ROP av. \sim 31 m/hr.

11:26 am 3980.58 mbsf off bottom - pipe connection

11:47 am resumed rotation

11:51 am back on bottom, resuming drilling

12:01 PM Shift Change, Jo \rightarrow Rob R.S.

12:19 PM Pipe vibrations until \sim 3996 m
3995.30

~~12:03~~
12:30 PM \sim 462 mbsf Unit V - Siliciclastic/Volcaniclastic turbidite facies.
4001.66 m

12:33 PM Pipe vibration. Periodic vibrations lasting to \sim 4006 m
4003.86

12:58 Slight divergence in resistivity logs. RES_BD -
4018.39 m RES_BS + RES_BM -

1:01 PM OFF Bottom - Pipe connect; check shot @ \sim 3980 m
ON Bottom

1:26 PM ON Bottom + Drilling
4018.89 m

1:30 PM Resistivity logs continuing to diverge, same trends as previous
4020.19 m

1:35 PM - Pipe vibrations, relatively quiet R.S.
4021 m - Resistivity logs have converged

1:40 PM Vibrations ceased (sp?)

1:44 PM There's been an increase in SWOB since pipe connection \rightarrow dropping back to previous values

1:52 PM Vibrating pipe
4033.26 m

1:59 PM Vibrations stopped

2:01 PM Arrive at \sim 800 mbsf Still Unit V
4038.2 m

2:07 PM Pipe vibrations, strong at first
4041.83

2:16 PM Pipe still vibrating
4045.9

2:18 PM Vibrations stopped
4047.2

2:34 PM Pipe connection; OFF Bottom
4056.3 m

~~4~~
3:03 PM ON Bottom + drilling, usual increase in SWOB after pipe connect
#4056.38 m

3:15 PM Possibly penetrate claystone, Gamma ray increasing, ROP decreasing
4061.6 m

DEC 5 7012

3:22 PM 4065.8 Increase in sonic reading, Deep resistivity, gamma ray increasing likely Unit VI - pelagic clay facies. ROP decreasing. large temp increase RS

3:32 PM 4068.96 Gamma & DWOB decrease, possible Bottom of Unit VI. ~830 mbsf

3:33 PM 4069.66 large spike in resistivity - bit deep med, shallow ring large decrease in gamma ray, ROP = 14 m/hr possible top of basement, ~831 mbsf Pipe shaking.

3:48 PM 4073.66m Certainly drilling basement, "engineers change auto-pick on sonic" - Dean

3:52 PM 4075.99m Resistivity increase = it wrapped around the log. gamma very low, ROP = 12 m/hr

4:33 PM 4089.67m Resistivity generally decreasing in an oscillatory fashion. Gamma still very low. ROP ~ 28 m/hr

4:45 PM 4090.11m OFF Bottom - Pipe connect

5:18 PM ON Bottom - Drilling

5:27 PM 4097.64m Resistivity still decreasing generally. ROP ~ 15 m/hr Sonic log has lost coherency. ~560 mbsf

ROP = 8.83 m/hr the high peak of GRRR at 4102 m then drop GRRR to 45 gAPI.

high bit resistivity cover the scale

We are OVER 576 mbsf, the new field.

Stop drilling, pull up the strings.

~~Restarting drilling~~

Back to drill; ROP = 8.96 m/hr

The GRRR ≈ 30 gAPI, ROP = 10.84 m/hr all Res high.

GRRR to 33 gAPI ROP = 14.61 m/hr Res still keep high.

The value of physical properties = GRRR = 33 gAPI; Res too high to see Torque = 4 km-N DWOB = 75 KR CRPM = 60. STICK = 100.

STICK increasing below 4125m

DWOB and Torque are increasing.

Change to log scale of resistivity (value ~ 40 Ω), GRRR change to 15 gAPI.

Stop drilling, connecting pipes.

Restart drilling

GRRR got high below 4132.5m to 4135m (GRRR = 45-60)

From 4110m; the sonic log with wrong picking windows. the velocity must be wrong.

SWT 17:47 4165.79m

18:08, 4113m

18:13, 4114m

18:30 4115m

~~18:37~~

18:40

19:15 4120

19:26 4123.6m

19:37 4125m

19:47 4127.3m

19:52 4128.6

20:07 4130.6m

20:12 4132m

20:40 4132m

21:07 4135m

21:27 41440m

Date Dec 5 2012

21:43 41570 The drilling is smoothly moving. ROP=22m/hr. GRRR=15 ^{SNT} API
GRRR keep stable (15-30) gAPI, Res also keep consistent.

22:36 4165m GRRR drops to 15 gAPI, Res keeps raising.
ROP to 10.7m/hr, the hard formation.

22:57 417054 Stop drilling, connect the pipes.

23:28 417054 Restarting drilling.

Dec 6, 2012: High GRRR=30 gAPI.
4190m 01:00

01:09 4195m shallow and medium resistivity get increasing.

01:14 4198.4m the bit resistivity get high to 2052-m

01:56 4205m GRRR drops to 500 gAPI.

02:04 4208.6m GRRR up to 30 gAPI; Res all drop.

02:08 4208.5m Stop drilling. Connecting pipes.

02:37 lost 30 meters drilling start. (670 mbsf) ROP=12.85m/hr

02:42 4205 GRRR drops to 10 gAPI. Res drops and get high.
4237m GRRR over 30 gAPI, ROP=12.17m/hr.

03:08 4216 mBCT. (4238 = 750 mbsf).
It's the FINAL COUNTDOWN! To TD and the the Co-Chief
must decide whether or not to proceed. Based on data quality
I for one hope that we can go another 50-100m because there
are some really interesting trends in the data.

03:38 4222.61 15 meters to go!! GRRR=15 gAPI. Res all increase.
Will finish this logging and say goodbye and good luck.

Date

lost 10 meters to go! Come on.

The final metre!!?

Drilling will continue until the end of the current
38.5 m pipe section ~10m.

Pipe change predicted at 4247 mBCT.
4m to go!

Total Depth Reached!

4247.6 mBCT @ 710 mbsf. DSW.

BOOK then TAB to C0002H.

4:00
4228.6m

4237 m
04:26

04:27

4243 mBCT.
04:49

05:09.
4247.6
mBCT.

Date 26.12.12

Pipe connection complete, back on bottom 7.02 am

ROP remaining constant ~ 41 m/hr.

07.51 am, 3211.79, minor pipe vibrations, infrequent.

100 mbsf / 3213.00 mBRT 07.53 am.

3215.48 mBRT 07.56 am; off bottom; pipe connection remaining. (??) ?

08.35 am back on bottom.

3226 mBRT ↓ stick becoming 'noisier' - sharper highs + lows, but not large values.

3238 mBRT 09.10 am. pipe shaking - mild ROP ~ 42 m/hr.

3253.77 mBRT 09.33 am - off bottom - pipe. 10.04 am - back on bottom - resumed drilling.

~ 3263. mBRT ~ 10.20 am 150 mbsf.

~ 3278 mBRT (10.40 am) Minor pipe vibrations. - infrequent vibrations ceased

~ 3292.02 mBRT 11.00 am; off bottom - pipe connection. 11.34 am; back on bottom - drilling resumed.

↳ SWOB spike @ 3292 mBRT

Date 26.12.12

Measured

Depth (mBRT)	Local Time (JST)	Comments
3317	12:10	Mild pipe shaking
3318	12:12	added
3311 - 3316	11:08 - 12:08	Departure of Deep Button Res from other curves (to higher values...). Base of MTIS 6?
3318		γ-ray drop to ~ 30 gAPI.
3320		Could be the sands observed in Exp 333 cores. Return to ~ 75 gAPI.
3320	12:25	Medium Button Res. ^{slightly} increasing ~ 1.5 - 2.2 Ωm
	12:32	Off bottom to change correct pipe run, ... Preparing to correct pipe stand
	12:45	Pipe checked
	12:53	Pipe unchecked! but not rotating or lowering.
3331.86 mBRT	13:05	Back on bottom - drilling resumed.
3332		Large spike in medium button resistivity. ^{Wraparound} - unsure of peak value
3335 - 3345	13:25	Low fluctuation in γ ray around 90 gAPI. All resistivity measurements ~ 1.5 Ωm.
3347	13:36	Shallow button res dropped to ~ 0.7 Ωm
3348		returned to ~ 1.5 Ωm
3349		dropped again to ~ 0.8 Ωm (Deep res ↑ to 1.7 Ωm)
3350		returned to 1.5 Ωm
3352.5	13:44	Deep button res dropped to < 1.0 Ωm (Also γ high).
3353.5		then spiked to 1.9 Ωm (γ at 60 gAPI at 3355 mBRT)
3353+		γ-ray becoming more "spiky" (variable ± 20 gAPI).
3360		Med res 1.9 Ωm, shallow + deep ~ 1.2 Ωm.
3367.5		γ-ray high of ~ 122 gAPI. Spike.
3369	14:03	Off bottom for pipe change, reaming.
	14:17	Pipe checked
	14:24	Pipe unchecked
	14:34	Drilling resumed, on bottom.

Date 26 Dec 12

Measurement Depth (mBSF)	Local Time (JST)	Comments
3368	14:37	γ-ray low spike (~60 gAPI)
3371	14:44	shallow and medium resistivity high → 2.5 Ωm
3377	14:49	Another small γ-ray low (~70 gAPI)
3379	14:51	Small peak in deep res (2 Ωm)
3383		Small γ-ray low (~60 gAPI)
3383	15:07	Deep res ↑ 2 Ωm, medium res ↓ 0.7 Ωm
	15:08	Mild pipe shaking (brief)
3386		γ-ray low (~55 gAPI)
3387.5		γ-ray ~105 gAPI
3397.5		then varying between 90 and 105 gAPI
3400		Shallow res high ~ 2.6 Ωm
3407	15:30	Off bottom for final pipe connection? Learning
	15:32	Pipe chocked
	15:43	Pipe unchocked
	15:53	Drilling resumed, on bottom
3398-3412		γ-ray 90 ± 15 gAPI
3413	16:06	γ-ray low spike ~ 52 gAPI, corresponding low res shallow & medium resistivity porous layer → Sands??
3418	16:12	γ-ray now ~ 80 ± 25 gAPI. In bot 10 m
3426	16:22	Mild pipe shaking
3424	16:23	γ-ray 90 gAPI for bot 7 m
3427		γ-ray high ~ 110 gAPI
3428		low ~ 55 gAPI
3429		high ~ 110 gAPI



Date 26 Dec 12

Measurement Depth (mBSF)	Local Time (JST)	Comments
3431		γ-ray high ~ 115 gAPI
	16:41	Pipe shake
3444.2	16:48	Off bottom ~ 331.2 mbsf. TD?
		No, it would seem that they are going for another pipe stand...
	16:53	Pipe chocked (in slips)
	17:01	Chocks away!!
	17:09	Drilling resumed, on bottom
	17:20	Pipe shake
	17:21	
3457	17:29	Rather hungry, almost at Total Depth....
	17:33	Pipe shake
3457		High shallow & medium resistivity - 2.5 & 3.5 Ωm respectively
3463.21	17:37	≈ 350 mbsf. TD
		<u>Off bottom FOOT</u>

No.

Date

EXP 338 HOLE C0021A
(NTS-1C).Water Depth No. ~~2978.5~~ mBRT

~2969

Date 26 Dec 12

LWD WATCHDOG REAL-TIME

Depth (mBRT)	Time (JST)	Comments.
2808	22:26 22:26	On site. Begin Starting to lower the drill string. Bit depth already 2808 mBRT as we drifted from the previous site with the string in the water column ~300 m above seabed at C0018. Seabed here is shallower so spud in should be soon.
2885	22:36	Pushing down, connecting pipe. Awaiting initiation of real-time data feed and tentative seabed depth following 'spud in' confirmation.
2922.7	22:42	Pipe lowering stopped..... then continuing slowly...
2932	22:44 22:46	Paused..... feeling out the seabed? Pulled up a couple of meters.
2971	23:06	Pinning the tag on the seafloor!
	23:11	Estimated seabed is 2978.5 mBRT. Information from Lera. Started logging. Pushing down, no rotation. ROP ~30 m/hr.
	23:21	Lifting up, off bottom.
	23:22	Estimate was too deep. We are now pulling back out, moving off ~10m and will attempt to spud in again. This time estimated seabed depth is 2969 mBRT. Need the spud in to be controlled to avoid a strongly inclined hole.

No.

Max ROP
45 m/hr.Attempt #2 - Spud-in
~ 23:38 26/12/12.

Water ~ 2969 mBRT.

Date

No.

? current strong today?

Date 27. 12. 12

Depth (mBRT)	Time (JST)	Comments
	23:45	pushing down slowly. JT "watchdog"
2996.08	00:09	off bottom - pipe connection
	00:36	back on bottom - drilling resumed ; push/wash down.
	00:57	Starting rotating - ROP ~ 42 m/hr
	01:06	50 rev 50 m/hr. (briefly!) Returned to ~ 41 m/hr.
3034.23	01:31	off bottom - pipe connection
	01:58	back on bottom, drilling resumed. ROP increasing from 18 m/hr back to 40 m/hr.
		progressing smoothly; ROP ~ 40 m/hr. SWOB, DWOB, DOR low
	02:43	temporarily 'out of sync'. ~ 1/2 minutes.
3069:00	02:51	100 mbsf reached (~ 3 hrs.).
3072.46	02:56	off bottom - pipe
	03:26	back on bottom - drilling resumed.
3085.00		Ring resistivity increasing, but others staying low. (spike).
	03:52	ROP remaining ~ 42 m/hr.
3095.05	04:06	GR splice
3102 ~ 3104	04:09 04:10	minor pipe-shaking / vibrations vibrations ceased.
3110.70	04:21 04:53	off bottom - pipe connection back on bottom - drilling resumed
		ROP ~ 42 m/hr.

3124	05:14	pipe vibrations (3122 mBRT inc. m res, stick, DWOB/ROE etc) - linked?
3126	05:16	pipe vibrations reduced.
3134	05:28	pipe vibrations / motion, not excessive but visible stick going up + down quite sharply. Check data quality in this depth interval.
3149.02	05:48	off bottom, pipe connection
	06:17	back on bottom, drilling resumed
	06:32	minor pipe vibrations, occasional not continuous. ROP ~ 41 m/hr.
3165 mBRT	06:40	pipe shaking, intermittently.
3168	06:47	pipe vibrations.
3169	06:48	200 mbsf reached.
3179	07:02	pipe vibrations.
3181	07:04	briefly strong pipe vibrations / shaking.
3187.37	07:13	off bottom - pipe connection.
	07:51	back on bottom. drilling resumed.
3187.7		pipe vibrations / shaking. briefly.
	08:06	pipe vibrations (intermittent.)
3196		
3207	08:21	pipe vibrations.
3225.39	08:47	off bottom - pipe connection.
	09:26	back-on-bottom, drilling resumed. ROP. 40 m/hr

Depth (MBRT)	Time.	
~3239	09.46	- Drill Floor tr. monitor frozen → not possible to assess vibration of pipe.
3263.49	10.23	- off bottom. (TD) <u>POOH.</u>
(1ms TD 3263.36m)		

No.

Date

EXP 338 HOLE C0022A
(NT2-13A)

Water ~2704.5 MBRT.

Depth No.

Seafloor/ mudline. Date 28 Dec 12

LWD WATCHDOG REAL-TIME

Depth (MBRT)	Time (JST)	Comments.	DJW.
	~16:30	Spud in. - informed by Lena	16:20
		Tentative water depth: 2704.5 MBRT	
		TD: 3132.5 MBRT.	0 to 428 mbsf.
2725	16:40	Washdown ~40 m. Pushing down slowly.	Plan to drill until ~22:00 then pull up to WOW. Resume early morning 29 Dec once wind & waves calm
2724	16:57	Mid-pipe connection	
2729	17:10	Back on bottom, pushing down.	
2704.5 - 2708		γ-ray and resistivity stabilising to 75 gAPI and ~1.2 Ωm.	
2734	17:19	Reached ~30 mbsf, should start rotating soon...	
2739	17:28	Still pushing down GR has been 75-85 gAPI. Res has been ~1-1.2 Ωm	
2742		Small peak in Deep res → 1.5 Ωm	
2744	17:36	Rotation begins. ROP ~40 m/hr.	} γ-ray ~45-90 gAPI.
2760	18:01	γ ray still ~75 gAPI. Moe is working to fix the resistivity scale from logarithmic 0.2 - 2000 to linear 0-5.	
2762	18:04	Mid pipe shake!	
	18:05	Real-time template fixed.	
2767	18:13	Off bottom. Pulling up, no rotation...	
	18:14	Checked for pipe connection.	
		WENT FOR DINNER	
	18:32	Out of chocks, still off bottom at 2761 MBRT. Tool display reporting "Out of Sync".	
	18:35	Back "in Sync"	
	18:36	Rotation begins again	
	18:37	Back on bottom	
	18:40		

Date 28 Dec 12

Depth (mBRT)	Time (JST)	Comments DJW.
2773	18:50	
2790	19:16	γ -ray has been varying between 65 and 90 gAPI Resistivity has been constantly between 1 and 1.2 Ωm .
2788-2794		Resistivity high of 1.5 Ωm , γ -ray 90-105 gAPI
2795		Back to 75 gAPI, 1.0 Ωm
2806	19:44	Off bottom
	20:04	Chocked for pipe connection
	20:16	Out of chocks, still off bottom, not rotating
	20:21	Real-time display reporting "signal loss"
	20:23	In Sync
	20:24	Out of Sync!
	20:26	Signal Loss...
	20:29	In Sync
	20:31	Rotating once more
	20:34	Mild pipe shake
	20:36	Back on bottom.
2800-2810		Resistivity \sim 1.5 Ωm , except low at \sim 2804 mBRT to \sim 1.0 Ωm
	20:55	Mild pipe shake
2818 2820		Drop in ROP from \sim 32 \rightarrow \sim 22 ... m/hr. Recovered to \sim 30 m/hr.
2823	21:16	Bit res dropped to 0.75 Ωm
2825	21:20	γ -ray off the scale!! 180 gAPI. 120 mbsf
2820	---	Drainhole T & P off the scale!!? Error?? At \sim same time a high γ -ray drilled Also shallow res \rightarrow 2.5 Ωm deep res \rightarrow 0.5 Ωm medium res was off the scale but now appears normal Tip of the Megasplay?

Date 28 Dec 12

Depth (mBRT)	Time (JST)	Comments DJW.
2834	21:42 21:42	γ -ray returned to \sim 75-95 gAPI } since the resistivity \sim 1.0-1.5 Ωm . } large spikes
		Looking back at STICK indicator, there may be high stick-slip from \sim 2800 - 2830. mBRT \approx 100 - 130 mbsf.
2840	\sim 22:00	off bottom work. filling hole with Kill mud with then pull up to 40 mbsf. Resume drilling once the high wind & waves die down.
		29.12.12.
	03:00	Resumed running down, not yet back on top bottom.
	03:40	Back on bottom
2841.93	03:46	off bottom. : pipe connection? in slips out of slips
	3:56	
	04:08	Back on bottom; drilling resumed. Ship heaving still.
2850	04:30	at Turbine rotation speed spike (since gone)
2869.88	04:56	off bottom; out of sync. signal loss. In sync.
	05:00	
	05:02	Back on bottom
\sim 2871 2872	05:05 :07	Out of sync. In sync ROP \sim 25 m/hr stick high
2881.89	05:31	off bottom: pipe connection.
	05:59	back on bottom.

Depth (mBRT)	Time	
2884.88	06:07 06:07	Out of Sync. In Sync.
2894.55 2895.16	06:29 06:31	Out of sync. (o.o.s.) In sync (~200 mbsf)
2902.22	06:54 06:55	o.o.s. In sync.
2919.44	07:16 07:40	off bottom - pipe connection back on bottom. high R.O.P > 50-60
2927. 2928.35	07:52 07:58	o.o.s. (out of sync) in sync
2929	08:00	Mild pipe vibrations. less heave. increased DWOB. (2925 - 2929) high ring res + GR - real? (2929 mBRT)
2932.40	08:05 08:08	off bottom back on bottom.
2937	08:17 08:19	o.o.s. b.i.s. (back in sync)
2957.9	08:49 09:14	off bottom - pipe connection back on bottom - drilling resumed pipe shaving.
	09:55	weather + heaving heave calmer, though not totally calm.
2978.57	10:03 10:06	off bottom. back on bottom. low ROP (~20 m/hr)
2983.98	10:18 10:20(57)	off bottom - pulled up < 2m. back on bottom. low ROP ~ 1m ? approaching horizon - ~300 mbsf

DEPTH (mBRT)	Time	
2987.10 2988.01	10:28 10:30(06)	o.o.s. back in sync.
2988.45	10:30(51) 10:32(05)	o.o.s. b.i.s.
		low ROP.
2994.81 2995.	10:44 10:46	o.o.s. back in sync.
2996.35	10:47.	off bottom; pipe connection.
	11:13	back on bottom,
3004.5	11:29	~300 mbsf
3022	12:02	ROP ~30 m/hr. DSD watchdog:
		"It seems that the large peaks in P, T and gamma-ray observed at 2820 & 2825 may have been due to out-of-sync readings made by the BHA" - JT.
		We will have to wait to see the Memory data.
3016 & 3023		A couple of spikes in downhole P - caused by spikes in equivalent circulating density.
3017		Downhole T 10 -> 15°C -> 10°C over ~4 m.
3034	12:25	~100 m until TD.
3035	12:26	Off bottom, pipe connection
3036	13:11	Back on bottom
3052	13:38	After JT told me that she had little confidence in my ability to analyse resistivity image data I decided to take a tea break on the Helideck to calm down
3067	14:46	Back from my break - missed nothing unusual in either gamma-ray or resistivity.

Date 29 Dec 12

Date

Depth (MBRT)	Time (SST)	
3095	15:24	Resistivity still ~1.2 Ωm γ-ray 60-90 gAPI.
3101	15:36	γ-ray drop to 45 gAPI (small peak).
3107	15:42	> 403 nbsf ~25 metres to go!
3111	15:50	Off bottom for ^{the final} pipe connection ~406 nbsf.
	16:04	Pipe checked
	16:15	Chocks Away!
	16:24	Back on bottom, drilling resumed.
		Planning to stop at the unconformity, estimated 430 nbsf as below this, at other sites, lbs of sand was found, and this would lead to an unstable hole...
3115		γ-ray low peak to 60 gAPI.
3117		ring res drop to below 1.0 Ωm
>3115		ROP increasing 40 → 45 m/hr. ^{together with gradual av. γ-ray decrease} implies sandy layers reached. 75 → 60 gAPI
3124	16:45	TID called TID = 3124.5 MBRT ≈ 420 nbsf. <u>POOH</u>