

# Neptune Energy Daily Operations Report 35/6-4 S

Wellbore Name : 35/6-4 S	Event : Drilling	Event Start : 28.09.2023	Report No. : 17
Contractor : Odjell Drilling	Objective : Appraisal	Wellbore Type : Initial	
Rig Name : Deepsea Yantai	Water Depth : 331.00 (m)	Datum : 27.30 m RT MSL	
Country : Norway	Spud Date : 30 Sep 2023		
Field : Ofelia	Days From Spud : 15.2 (d)		

## Current Status

MD @ Midnight : 1,933.0 (m)	Hole Size : 17.5 (in)	Mud Weight : 1.21 (sg)	Est. Days : 30.42 (d)
TVD @ Midnight : 1,847.0 (m)	Casing Size : 13.375 (in)	Next Casing Size : 9.6 (in)	Kick Off Date : 30.09.2023
24hr Progress : 0.0 (m)	Casing Depth MD : 1,925.6 (m)	Next Casing MD : 1,933.0 (m)	DOL / DFS : 17.7 / 15.2 (d)
Days +/- : -3.9 (d)			NPT Last 24hr : 8.25 h
Day DSV : Trond Haugland	Offshore Engineer : Mehryar Nasser	DSL : Rupert E. Nilsen	Geologist Day : Tor Otto Andreassen
Night DSV : Helge Hope	D. Superintendent : Vidar Krone	OIM : Daniel Persson	Geologist Night : Kjell Berglund
24hr Summary :	RIH and landed 13 3/8" casing. Performed 13 3/8" cement job. Pressure tested casing to 202 bar. Set and tested 13 3/8" seal assembly. Displaced riser from 1.21sg OBM to SW in preparation to potential disconnect of LMRP due to upcoming adverse weather. Installed wear bushing. WOW.		
24hr Forecast :	WOW. Displace riser from SW to 1.21sg OBM. P/U and RIH with 12 1/4" RSS BHA. Drill 13 3/8" shoetrack while displace well from 1.21sg OBM to 1.08sg OBM. Clear rat hole and drill 3 meter new formation. Perform FIT to 1.35sg EMW. Commence drill 12 1/4" hole towards section TD ~2945m.		
Update At 06:00 :	Stop in operation due to exhaust on drill floor.		

## Remarks

Cuttings data at 00:00 hrs:

Skips full: 0

Skips empty: 17

Skips total onboard: 17

ISO-Pumps Full: 0

ISO-Pumps Empty: 6

ISO-tanks on vessel:

Bourbon Mistral:

ISO-Pumps Full: 4

ISO-Pumps Empty: 12

Bullseye readings 13.10.23

LMRP Bullseye: 1.25 STB / FWD

BOP Bullseye: 0.75 FWD

Riser Bullseye: 1.75 FWD

## HSE and Well Control

### HSE Summary

DSLTI : 215.00 (d) PDO Checks 24hr : 11 Next HSE Meeting : 15 Oct 2023 Safety Observation Cards :

No. Synergi Reports Last 24hr : 1 Near Miss : 0 Last Environmental Inspection : 14.10.2023

HSE Focus : Sea fastening

Weekly HSE Focus (Week 32-43): Use the Safety check

HSE Comments : Potential dropped objects areas checked:  
Derrick. Main deck. Electrical area. Stbd crane. Port crane. Container.

PDOs found: 1

Observed a washer and a nut located on the edge of a basket, removed this

Element HSE KPI:	YTD	Date of last incident
Health Lost Time Injury (LTI)	0	14.03.2023
Health Restricted Work Day Case (RWDC)	0	N/A
Health Medical Treatment Case (MTC)	0	07.07.2022
Health First Aid Case (FAC)	0	24.06.2022
Safety Dropped object	0	13.07.2022
Safety Well Integrity incident	0	N/A
Environment Unplanned discharge to sea	0	17.06.2022

Note: LTI 14.03.23 while rig not operated by Neptune Energy

Synergi#1: SSO notified by Asst Driller regarding security breach message on computer on drill floor.

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## Well Control

### Last Casing Test Pressure

Date : 14.10.2023 Pressure : 202.00 (bar)  
Last BOP Function Test : 09.10.2023  
Next BOP Function Test : 16.10.2023

### Last BOP Test Pressure

Date : 09.10.2023 Pressure : 400.00 (bar)  
Next BOP Pressure Test : 23.10.2023

### Last LOT/FIT

Date : 14.10.2023 EMW : 1.31 (sg)  
TVD : 576.50 (m) BHP : 74.00 (bar)  
Surface Pressure : 11.000 (bar)

## Drills

Last Abandonment Drill : 08.10.2023  
Last Fire Drill : 04.10.2023  
Last H2S Drill :

Last Choke Drill :  
Last Diverter Drill : 09.10.2023  
Last Kick Drill : 02.10.2023

Last Pit Drill :  
Last Spill Drill :  
Last Derrick Inspection : 07.10.2023

## Operations Summary

### Critical Path

From	Hrs	MD (m)	Unit	Code	Phase	Task	Activity	Operation
00:00	1.25	1,563.0	RIG	P	INTCSG1	CSG	RIH	RIH with 13 3/8" casing 53.5# P110 Vam from 1117m to 1563m - pre-made doubles from set-back. - RIH with 13 3/8" casing as per tally in open hole - Running speed adjusted as per surge calculation (1.29.sg surge limit) - MU casing to optimum MU TQ 43.800ft-lbs - No rejects - all good connections - Boosted riser with 1200 lpm / 10 bar - No restriction observed while RIH - Running speed: 31.0 joints / hrs
01:15	2.00	1,577.0	RIG	P	INTCSG1	CSG	RIH	M/U 13 3/8" casing hanger. - Filled last 13 3/8" casing stand with 1.21sg OBM - B/O and L/D CRTi - Performed Pre-job Meeting prior to P/U and M/U 13 3/8" casing hanger - P/U and M/U 13 3/8" casing hanger - Removed inserts and installed plastic protector bushing inside auto slips - Ran 13 3/8" casing hanger through rotary - Removed casing tong rails - Changed inserts in auto slips - Recorded up / down weight: 217MT / 184 MT - Broke circulation with 300 lpm - OK  Meanwhile. - Prepared cement head for up coming cement job - Flushed cement hose from cement unit to drill floor
03:15	1.00	1,910.0	RIG	P	INTCSG1	CSG	RIH	RIH with 13 3/8" casing on 5 7/8" landing string from 1577m to 1910m. - Filled pipe every 3rd stand with 1.21sg OBM - Running speed adjusted as per surge calculation (1.29.sg surge limit) - No restriction observed while RIH - No losses to formation through RIH with 13 3/8" casing  Meanwhile. - ROV checked flex joint angle: 1.75 deg stb-fwd - Moved rig 10m aft to align flex joint - flex joint angle: bullseye
04:15	0.75	1,926.0	RIG	P	INTCSG1	CSG	RIH	Landed 13 3/8" casing. - P/U and M/U cement stand to string - Recorded Up / Down weights: 247MT / 196MT - M/U top drive and broke circulation with 300lpm / 9bar - Washed in with 13 3/8" casing 300 lpm / 2-5 bar - Landed 13 3/8" casing hanger and slacked off weight of 13 3/8" casing +10MT. Maintained same - Landing depth at 357.47m (tide corrected), in line with NBP depth measurement / shoe depth at 1926m - No losses to formation observed during landing operation
05:00	0.50	1,926.0	RIG	P	INTCSG1	CEMT	CIRC	Circulated prior to cementing with 1.21sg OBM. - Increased flow in steps to 1800lpm / 15bar. Confirmed full returns - Recorded reference parameters : - 1800 lpm / 15 bar - 1500 lpm / 10 bar - 1000 lpm / 6 bar - 800 lpm / 5 bar - 600 lpm / 4 bar - 400 lpm / 2 bar - No loss observed while circulating  Meanwhile. - Performed Pre-job Meeting prior to 13 3/8" cement job - Performed line test from cement unit to drill floor
05:30	3.75	1,926.0	RIG	P	INTCSG1	CEMT	CEMT	Commenced 13 3/8" casing cement job with 1.92 sg ExpandaCem.

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								<ul style="list-style-type: none"> <li>- Pumped 27 m3, 1.45 sg Ecospacer with 1000 lpm / 1-2 bar with MP</li> <li>- Closed IBOP on top drive and opened LTV on cement head</li> <li>- Dropped dart for lower plug</li> <li>- Commenced mix and pump 27.6m3 of 1.92 sg cement slurry with cement unit</li> <li>- Observed flag, dart landing and shearing out of lower plug after 3.1 m3 pumped with 107bar</li> <li>- Displaced cement slurry in cement line with 250 litres of drill water from cement unit</li> <li>- Dropped top dart</li> <li>- Displaced cement with 1.21sg OBM utilising MPs at 600 lpm / 1bar</li> <li>- Observed dart landing and top plug shear out with after 3.4m3 with 130bar</li> <li>- Continued to displace cement with 1.21sg OBM with 2000lpm /1- 51bar</li> <li>- Reduced flow to 800lpm / 31-40bar</li> <li>- Observed bottom plug landed in landing collar after 94.4 m3 and burst at 40 bar</li> <li>- Bumped plug at 122.2m3 with 50 bar FCP</li> <li>- Increased pressure to 112 bar while lining up cement unit</li> <li>- Equalized pressure to cement unit</li> <li>- Pressured up to 202 bar / 10 min - pressure tested 13 3/8" casing - OK</li> <li>- Pumped 650 litre from 112 bar to 202 bar</li> <li>- Bled down pressure to 112 bar and equalized pressure - 650 litre</li> <li>- Opened IBOP in Top Drive and bled of pressure rapidly</li> <li>- No back-flow observed. Floats holding</li> <li>- No losses observed during the cement job</li> </ul> <p>****Well Acceptance Criteria****  Ref. 6.5  Activity: TOC behind the 13 3/8" casing (main bore)  Program Value: Min: 200m above shoe  Actual Value: 300m above shoe - OK  *****</p> <p>****Well Acceptance Criteria****  Ref. 6.3.6  Activity: Pressure test 13 3/8" casing on bump (main bore)  Program Value: 202bar w/1.11 sg (surface pressure)  Actual Value: Tested after plug bumped to 202bar w/1.21sg for 10 min - OK  *****</p>
09:15	1.00	355.0	RIG	P	INTCSG1	CEMT	TSTPRS	Set and tested 13 3/8" seal assembly. <ul style="list-style-type: none"> <li>- Set down 10MT on landing string</li> <li>- Rotated string 5 RH turn</li> <li>- Confirmed seal assembly in place</li> <li>- Closed MPR and applied 275 bar for 2 min</li> <li>- Bled off pressure</li> <li>- Pressure tested seal assembly against MPR / well head connector to 20 bar / 5 min and 234 bar / 10 min with cement pump</li> <li>- Opened MPR</li> <li>- Released 13 3/8" casing hanger running tool - observed 37MT overpull</li> <li>- Picked up 3m and pumped with 3000 lpm / 16 bar</li> <li>- Stopped pumping</li> <li>- Re-landed and verification test to 235bar / 2 min - OK</li> <li>- Bled off pressure and open BOP</li> </ul> <p>****Well Acceptance Criteria****  Ref. 6.3.5.3  Activity: Pressure test 13 3/8" casing hanger seal assembly (main bore)  Note: Seal assembly to be tested as pr. DQ procedure : HP: min WDP/10min w/1.11sg (surface pressure)  Actual: 234bar w/1.21sg - OK  *****</p>
10:15	1.75	0.0	RIG	P	INTCSG1	CEMT	TSTPRS	POOH with 13 3/8" casing hanger running tool. <ul style="list-style-type: none"> <li>- R/B cement stand to mouse hole</li> <li>- Installed 2 x sponge balls in string</li> <li>- Pumped 1 x string volume with 2000 lpm/2 bar</li> <li>- POOH with 13 3/8" casing hanger running tool</li> <li>- L/D pup joint and 13 3/8" casing hanger running tool to cat walk</li> </ul>
12:00	1.00	0.0	RIG	P	INTCSG1	CEMT	TSTPRS	Displaced riser from 1.21sg OBM to SW due to upcoming adverse weather. <ul style="list-style-type: none"> <li>- Displaced through kill, choke and boost line</li> </ul>
13:00	1.25	355.0	RIG	P	INTCSG1	CEMT	SETTST	Installed 13 3/8" wear bushing. <ul style="list-style-type: none"> <li>- RIH with 13 3/8" wear bushing on 5 7/8" landing string</li> <li>- Installed 13 3/8" wear bushing</li> <li>- Closed UAP and pumped down kill line to 175 bar / 2 min</li> </ul>

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Report Date: 14.10.2023

								- Opened UAP and pulled Multi Purpose Tool (MPT) free with 11MT overpull
14:15	0.75	0.0	RIG	P	INTCSG1	CEMT	POOH	POOH and L/D MPT. - Waited for UAP to retract - POOH with MPT on 5 7/8" landing string - B/O and L/D MPT
15:00	0.75	0.0	RIG	P	INTCSG1	CEMT	CLRF	Cleaned and cleared drill floor.  Meanwhile. - Set up BOP for disconnect
15:45	8.25	0.0	RIG	N	INTCSG1	CEMT	WAIT	Waited on weather in case of disconnect of LMRP.  Time Wind kt. Wv Sig Wv Max Heave Pitch deg Roll deg Wv per. 16:00 37 6.20 9.90 3.2 3.8 3.7 11.1 17:00 43 6.30 9.00 3.6 4.5 3.8 12.5 18:00 40 6.10 9.60 3.8 3.6 3.4 12.5 19:00 38 5.60 9.20 3.7 3.4 4.0 12.5 20:00 39 5.70 8.20 3.8 3.5 3.6 12.5 21:00 36 6.30 9.00 4.0 3.5 3.8 12.5 22:00 37 6.50 9.50 4.2 3.5 4.2 12.5 23:00 38 6.90 10.80 4.5 3.5 4.5 12.5 00:00 33 6.40 11.70 4.6 3.6 3.9 12.5  Meanwhile. - Performed general maintenance on drill floor equipment - Function tested BSRs from drillers cabin Blue POD
06:00 Update								
From	Hrs	MD (m)	Unit	Code	Phase	Task	Activity	Operation
00:00	2.00	0.0	RIG	N	INTCSG1	CEMT	WAIT	Waited on weather. - Monitored wind, pitch and roll - pending crane operations  Time Wind kt. Wv Sig Wv Max Heave Pitch deg Roll deg Wv per. 01:00 37 6.20 9.90 3.2 3.8 3.7 11.1 02:00 37 6.20 9.90 3.2 3.8 3.7 11.1  Meanwhile. -B/O and L/D cement stand
02:00	4.00	0.0	RIG	N	INTCSG1	CEMT	WAIT	Stop in operation due to exhaust on drill floor. - Assessed the situation with safety rep.
NPT								
NPT								
Start Date/Time	End Date/Time	Hrs.	Failure MD (m)	NPT Cause	NPT Description	Description		
14.10.2023 15:45	14.10.2023 24:00	8.25	0.0	WOW		Waited on weather in case of disconnect of LMRP.  Time Wind kt. Wv Sig Wv Max Heave Pitch deg Roll deg Wv per. 16:00 37 6.20 9.90 3.2 3.8 3.7 11.1 17:00 43 6.30 9.00 3.6 4.5 3.8 12.5 18:00 40 6.10 9.60 3.8 3.6 3.4 12.5 19:00 38 5.60 9.20 3.7 3.4 4.0 12.5 20:00 39 5.70 8.20 3.8 3.5 3.6 12.5 21:00 36 6.30 9.00 4.0 3.5 3.8 12.5 22:00 37 6.50 9.50 4.2 3.5 4.2 12.5 23:00 38 6.90 10.80 4.5 3.5 4.5 12.5 00:00 33 6.40 11.70 4.6 3.6 3.9 12.5  Meanwhile. - Performed general maintenance on drill floor equipment - Function tested BSRs from drillers cabin Blue POD		

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## Fluids

### Properties

Mud Type :	Oil Based	Gel 10 Sec :	14 (lbf/100ft <sup>2</sup> )	Solids :	11.00 (%)	Ca+ :	<b>Fann Data @ 50.00°C</b> R600 65.00 R300 41.00 R200 33.00 R100 25.00 R6 12.00 R3 11.00
Time :	10:00	Gel 10 Min :	18 (lbf/100ft <sup>2</sup> )	LGS Percent :	1.00 (%)	K+ :	
MD Check :	1,933.0 (m)	HTHP Temp. :	85.0 (°C)	HGS Percent :	9.00 (%)	Cl- :	
Mud Weight :	1.21 (sg)	HTHP WL :	4.0 (cm <sup>3</sup> /30min)	Oil / Glycol :		Nacl :	
Pore Pressure :	1,020.00 (kg/m <sup>3</sup> )	Filter Cake :		Water :	26.00 (%)	Lime :	
PV :	24 (cP)	Funnel Visc :	1 (s/L)	Oil to Water :	71/29		
YP :	17 (lbf/100ft <sup>2</sup> )			Sand :	0.30 (%)		

Comments : Receive 50 m<sup>3</sup> 1.09 sg Rheguard OBM and 65 mT Microbar from S. Symphony. Use Microbar to increase density in Active system to 1.21 sg, and to weight up Slug. Add Premix to Active to control rheology.

### Losses / Cuttings

Lost Surface Daily :	0 (m <sup>3</sup> )	Lost Downhole Daily :	0 (m <sup>3</sup> )	Cuttings Daily :	0 (m <sup>3</sup> )	Ditch Mag Daily :	
Lost Surface Cum. :	0 (m <sup>3</sup> )	Lost Downhole Cum. :	0.0 (m <sup>3</sup> )	Cuttings Cum. :	0.0 (m <sup>3</sup> )	Ditch Mag Cum. :	0.00 (kg)

### Bulks

Item	Units	Qty. Start	Received	Adjusted	Returns	Used	Qty. Ends
Water, Potable	M3		0	10	0.00	0	365
Water, Drilling	M3		0	0	0.00	72	1,089
MGO / Diesel	M3		0	0	0.00	41	985
Lube Oil	m3		0	0	0.00	0	17
SLOP	m3		0	0	0.00	0	28
WASTE OIL	m3		0	0	0.00	0	10
Base Oil	M3		0	0	0.00	0	100
OBM	m3		0	0	0.00	133	221
BRINE	m3		0	0	0.00	0	0
Mud Waste	M3		0	7	0.00	0	74
Barite	tonnes		0	0	0.00	0	90
WBM	m3		0	0	0.00	0	34
CEMENT	tonnes		0	0	0.00	0	95
Lube Mud	m3		0	0	0.00	0	27

### Personnel

Personnel On Board : 116

Company	Service	No. People	Company	Service	No. People
Neptune Energy		6	Odfjell Drilling	Drilling Crew	62
Odfjell Drilling	Extra	2	Odfjell Drilling	Service	5
Odfjell Drilling	RIS	2	4Service		7
SLB	DD/MWD	4	Geoservices		2
MI Swaco	Mud Engineer	2	MI Swaco	Slop treatment	1
MI Swaco	Cuttings	8	SLB	Digitalization	2
Dril-Quip		2	Halliburton	Cement	3
Oceaneering		4	Geoservices	Sample catcher / Flair	4

### Weather

Time	Wind Speed (kn)	Wind Direction (°)	Gust Speed (kn)	Bar Pressure (mbar)	Temp. Min. (°C)	Temp. Max. (°C)	Ceiling (m)	Visibility (km)
00:00	33	330.00	46.00	998	8.0	10.0		10.0

### Geology

Formation Name	Actual Depth MD (m RT)	Actual Depth TVD (m RT)	Comment
Top Nordland	358.00	331.00	
Utsira	567.00	539.60	
Top Rogaland unconformity	604.00	576.60	
Våle	1,230.00	1,168.20	
Jorsalfare	1,318.00	1,252.40	
Kyrre	1,374.00	1,307.50	