1.4.3 Drilling fluids

Table 1-3 Drilling fluids summary.

Section	Section depth (mMD/m TVD)	Max mud weight (sg)	Mud type
9 ⅞" Pilothole	700/700	1,03	Seawater + hi-vis pills
36"	423/423	1,03-1,35	Seawater + hi-vis pills
26"	544/544	1,03-1,35	Seawater + hi-vis pills
17 ½"	855/855	1,28-1,35	Formpro
12 ¼"	1600/1600	1,28 – 1,35	Formpro
8 ½"	2992/2991	1,35-1,46	Formpro

Table 4-11 Pressure points 12 ¼ » section

Test No	DEPTH		Hydrostatic Before	Hydrostatic After	Formation pressure	Temp.	Mobility	Comments
	m MD	m TVD MSL	bar	bar	bar	degr C	md/cP	
	Run 2A. MDT pressure points							
1	1458.0	1434.8	193.59	193.57	155.82	45.2	12.6	Initial draw down problem
2	1417.0	1393.8	188.19	188.16	151.52	44.9	41.6	Good Test
3	1402.0	1378.8	186.18	186.19	149.94	44.3	121.4	Good Test
4	1388.0	1364.8	184.34	184.34	148.48	43.6	78.8	Good Test
5	1377.0	1353.8	182.88	182.89	147.34	43.3	87.4	Good Test
6	1362.0	1338.8	180.91	180.91	145.77	42.8	636.2	Good Test
7	1329.0	1305.8	176.57	176.56		42.1		Tight - too deep?
8	1327.0	1303.8	176.29	176.30		41.8		Tight - plugged tool?
9	1316.0	1292.8	174.85	174.85	140.82	41.2	4.4	Good Test
10	1290.0	1266.8	171.44	171.43	138.07	40.9	1.8	Good Test
11	1275.0	1251.8	169.46	169.45	136.63	40.4	1	Good Test
12	1256.6	1233.4	167.04	167.02	134.67	39.9	0.2	Slightly Wobbly
13	1134.3	1111.2	150.93	150.93	120.60	38.4	9.6	Good Test
14	1081.2	1058.1	143.94	143.93	115.24	36.5	2.5	Qustionable
15	1063.4	1040.3	141.58	141.59	112.90	36	8.3	Good Test
16	1012.9	989.8	134.93	134.93	107.36	35.2	36.9	Good Test
17	993.9	970.8	132.42	132.43	105.30	34.6	154.7	Good Test
18	985.3	962.2	131.28	131.28	104.37	34.2	173.5	Good Test
19	977.6	954.5	130.25	130.23	103.53	33.9	197.7	Good Test
20	971.2	948.1	129.39	129.39	102.83	33.6	84.1	Lost seal on 2nd 10cc
21	949.7	926.6	126.72	126.70	100.61	30.9	1521	Good Test
22	946.1	923.0	126.20	126.19	100.19	30.9	734.98	2nd 10cc - supercharged
23	940.7	917.6	125.47	125.46	99.59	31.1	635.8	Good Test
24	921.7	898.6	122.95	122.95	97.52	31.2	125.2	2nd 10cc -OK
25	919.6	896.5	122.68	122.67	97.29	31.2	109.64	2nd 10cc - supercharged
26	916.4	893.3	122.24	122.24		31.3		Supercharged
27	916.0	892.9	122.19	122.20	96.91	31.2	10.1	Good
28	911.6	888.5	121.62	121.62		31.2		Supercharged
29	911.4	888.3	121.60	121.60		31.5		Supercharged
30	907.7	884.6	121.11	121.11	95.99	31.6	28.44	Good
31	905.3	882.2	120.79	120.80	95.71	31.5	187	Good Test
32	903.6	880.5	120.59	120.58	95.54	31.6	128.1	Slow to stabilise

Table 4-12 Pressure points 8 ½ » section

Test No	DEPTH		Hydrostatic Before	Hydrostatic After	Formation pressure	Temp.	Mobility	Comments
	m MD	m TVD MSL	bar	bar	bar	degr C	md/cP	
	Run 3B. MDT pressure points with probe							
1	2938.8	2915.0	412.31	412.11	0.00	102.6		Tight
2	2930.4	2906.6	411.13	410.95	0.00	104.7		Tight
3	2931.5	2907.7	411.07	411.00	0.00	103.7		Tight
4	2932.2	2908.4	411.13	411.02	0.00	103.7		Tight
5	2934.4	2910.6	411.46	411.40	0.00	103.8		Tight
6	2937.1	2913.2	411.84	411.73	0.00	103.9		Tight
7	2938.4	2914.6	411.90	411.80	0.00	104.2		Tight
8	2939.2	2915.3	411.90	411.80	0.00	104.4		Tight
9	2941.8	2918.0	412.36	412.18	0.00	104.8		Tight
13	2887.6	2863.8	404.18	404.41	0.00	106.3		Tight
14	2328.4	2304.9	328.17	327.48	0.00	81.8		Tight
15	2127.2	2103.8	299.60	299.53	0.00	77.8		Tight
16	2115.9	2092.6	298.12	297.98	249.69	72.07	0.02	Questionable
17	2050.7	2027.3	288.91	288.83	0.00	70.98		Tight
18	1951.2	1928.0	275.12	275.09	0.00	67		Tight
19	1920.5	1897.2	270.83	270.77	0.00	65.5		Tight
20	1913.1	1889.8	269.76	269.73	0.00	64.7		Tight
21	1903.5	1880.2	268.40	268.31	227.16	63.9	0.01	Suoercharged
22	1903.1	1879.8	268.24	268.21	0.00	63.2		Tight
23	1899.4	1876.1	267.67	267.67	200.17	64.2	0.06	Close to stable.Questionable
24	1898.3	1875.0	267.53	267.52	0.00	63.7		Supercharged.
25	1883.6	1860.3	265.57	265.49	253.63	62.9	0.02	Supercharged
26	1839.0	1815.7	259.43	259.37	241.50	62	0.01	Supercharged
27	1776.8	1753.6	250.82	250.76	235.00	59.1		Supercharged
28	1770.4	1747.2	249.80	249.81	0.00	58.6		Tight
29	1747.9	1724.7	246.72	246.77	0.00	58.4		Supercharged
30	1739.2	1716.0	245.50	245.49	0.00	58.4		Tight
	Run 3B, MDT miniDST and sampling (dual packer)							
10	2938.5	2914.7	411.43	411.64	0.00	107.5		Tight
11	2931.8	2908.0	410.38	410.71	0.00	107.7		Tight
12	2941.8	2918.0	411.76	412.20	0.00	108.28		Tight
31	1903.6	1880.3	268.40	?	201.00	63.9	?	Fair pretest
	Run 3D, MDT miniDST and sampling (dual packer)							
32	1918.3	1895.0	270.46		259.84			Supercharged
33	1920.3	1897.0	270.63	270.60	203.28			Packer pretest
34	1920.3	1897.0	270.63	270.60	197.29	66.2		Build up for miniDST
35	2116.1	2092.7	297.85		234.00			Packer pretest
36	2116.1	2092.7			222.00			Packer repeat pretest
37	1748.0	1724.8			0.00			Tight
38	1747.8	1724.6	246.85		0.00			Packer pretest
39	1747.8	1724.6			194.37	62.8		BU miniDST

4.8 Reservoir fluid sampling

In the 12 ¼" section water samples were collected in the Stø Formation and Snadd Formation reservoirs. I the 8 ½" section gas samples were collected at 3 different levels

The water samples were collected using the Quicksilver probe. Both water samples had below 1 % contamination.

Gas samples were collected at 3 levels in the Kobbe formation. Some of the samples were collected at large drawdown and are probably sampled below the dew point. This applies especially for the sample at 1920.3 m. At this depth also some mud filtrate were observed from LFA when sampling.

Table 4-13 MDT sampling

Depth m MD	Samples collected	Sample content	Remarks
	12 1/4" Water sampling		
905.3	1 Gallon+3*MPSR	Formation water	Good sample
1362.0	1 Gallon + 1*MPSR	Formation water	Good sample
	8 1/2" Gas sampling		
1903.7	1*1 Gallon	Gas sample	Large drawdown
1747.8	5*1MPSR	Gas sample	4 Bar drwdown
1920.3	1 Gallon + 1*MPSR	Gas sample	Large drawdown