



WELL DATA SHEET

MAG-545-A		SURVEY SEC. T R		CASING SIZE DEPTH DRLG. DAYS BIT SIZE	
OPERATOR Gulf Oil Norway		FIELD		SURFACE	
WELL 3/5-2		COUNTY		INTERMEDIATE	
CONTRACTOR Oslo Drilling		STATE North Sea COUNTRY Norway		PRODUCTION	
ENGINEER Bender, Masterson, Mortimer					

DATE	DEPTH	WT.	VISCOSITY		CORR. 115°F		GELS		pH	FLUID LOSS		CL <input type="checkbox"/>	ALKALINITY			CA ppm	Mg ppm	RETORT			ACTIVITY		RATIO		# Bbl	Bbl
			SEC	CPS	PV	YP	0	10		100 PSI API	500 PSI 300 °F HT-HP		PF	PM	MF			% OIL	% SOL	% WATER	As	Am	OIL	H2O		
29		8.7	9.5	100+					11.5	N.C.																
30	539	9.5	100+						11.5	N.C.																
1	539	8.8	60						11.5	N.C.																
2	1562	9.6	52		11	27	10	14	11.0	N.C.																
3	1562	9.1	59		12	18	10	15	11.0	N.C.										10	90					
4	1562	8.7	59		26	21	2	2	13.0	13.8										6	94					4.6
5	1768	9.0	52		18	7	1	2	13.0	9.4										6	94					4.8
6	3100	9.5	55		24	7	2	2	13.0	9.0										7	93					5.0
7	3977	9.7	49		23	7	1	3	13.0	10.0										7	93					4.0
8	5300	10.0	54		27	12	1	3	12.8	7.8										8	92					3.75
9	5511	10.4	50		24	10	1	3	13.0	8.4										9	91					3.82
10	5511	10.4	52		24	7	1	3	12.5	9.5										9	91					3.25
11	5511	10.3	48		24	11	1	3	12.5	9.4										9	91					4.0
12	5577	10.4	49		24	11	1	3	13.0	8.9										9.5	90.5					5.0
13	6186	10.4	50		19	7	1	3	12.5	9.2										10	90					4.25
14	7227	10.3+	50		18	9	1	10	12.5	8.5										9	91					3.5
15	7460	10.8	61		18	12	1	13	12.5	7.4										12	88					3.8
16	3440	10.8	62		21	18	2	15	12.5	6.5										12.5	87.5					3.5
17	8740	11.0	55		23	12	2	11	12.5	5.8										13.5	86.5					4.3
18	8782	11.0	59		23	13	2	11	13.0	5.4										12	88					5.3
19	8880	11.0	52		21	12	2	9	12.5	5.8										12	88					3.15
20	9126	11.3	50		25	15	2	10	12.5	4.7										12	88					3.6
21	9310	11.3	51		25	12	2	10	12.5	4.8										12	88					4.2
22	9440	11.3	53		24	18	2	10	12.5	4.8										12	88					2.7
23	9680	11.3	53		30	21	2	12	13.0	4.8										13	88					2.05
24	9840	11.3	53		23	14	2	10	13.0	4.8										13	87					2.25
25	10047	11.5	54		24	18	2	12	12.5	4.4										15	85					2.50

DATE SPUD: DATE T.D.: B.H.T. COMPLETION FLUID TYPE: COST. PACKER MUD TYPE: COST.



WELL DATA SHEET

MAG-545-A																PAGE 1													
OPERATOR										SURVEY SEC.					CASING SIZE		DEPTH		DRLG. DAYS				BIT SIZE						
WELL										FIELD					SURFACE														
CONTRACTOR										COUNTY					INTERMEDIATE														
ENGINEER										STATE					COUNTRY		PRODUCTION												
DATE	DEPTH	WT.	VISCOSITY		GELS				pH		FLUID LOSS		CL			ALKALINITY			RETORT			ACTIVITY		RATIO		# Bbl	Bbl		
			SEC.	CPS.	PV	YP	0	10	BECK STRIP	100 PSI API	500 PSI 300 °F HT-HP	CACL	NACL	PF	PM	MF	CA ppm	Mg ppm	% OIL	% SOL	% WATER	A _s	A _m	OIL	H ₂ O			CEC	Excess Lime
July 26	10200	11.5	56		27	16	2	14	11	4.5		20000	1.4	6.0		120		0	16	84						1.125			
27	10386	11.5	56		29	17	2	12	10.5	4.7		21000	.35	1.80		140		0	17	83									
28	10386	11.5	60		26	21	2	12	10.5	4.8		21000	.30	2.0		140		0	17	83									
29	10386	11.6	59		26	10	1	12	12.5	5.2		19000	2.2	6.1		80		0	17	83									
30	10387	11.5	57		25	12	1	11	12.0	5.5		20000	1.2	6.5		480		0	17	83									
31	10447	11.5	55		21	10	1	8	11.5	5.6		19500	1.1	5.6		120		0	18	82									
Aug. 1	10555	11.7	53		24	9	1	11	11.5	5.8		20500	.8	5.8		80		0	20	80									
2	10654	11.4	58		24	11	1	9	11.0	5.7		18500	1.4	5.0		120		0	18	82									
3	10766	11.4 ⁺	59		22	10	1	9	11.0	5.6		19000	.8	4.2		80		0	19	81									
4	10841	11.5 ⁺	59		21	12	1	8	11.0	5.6		19500	.7	4.0		120		0	20	80									
5	10928	11.5 ⁺	61		24	10	1	10	11.0	5.6		18500	.75	3.8		120		0	19	81									
6	11128	11.5	63		25	14	1	12	10.5	5.5		21000	.85	3.5		120		0	20	80									
7	11294	11.5 ⁺	61		23	14	1	10	10.5	5.5		21500	.7	3.2		200		0	20	80									
* 7	11356	11.6	58		21	11	1	9	11.0	5.6		24000	.9	3.7		220		0	20	80	Note Chloride Increase								
8	11400	11.6	58		20	13	1	8	11.5	5.4		26000	1.3	4.2		220		0	21	79									
9	11550	12.0	61		24	12	1	10	11.0	5.1		26000	1.2	3.7		180		0	22	78									
10	11711	12.2 ⁺	57		21	13	1	8	11.0	5.2		27000	1.1	3.0		200		0	23	77									
11	11900	12.6	61		21	14	1	12	11.0	5.5		26500	.9	3.0		180		0	24	76									
12	12104	12.6	62		22	16	1	16	11.0	5.7		26500	1.1	3.2		180		0	24	76									
13	12234	12.7	56		25	11	1	13	11.0	5.4		26500	1.0	3.2		200		0	24	76									
14	12280	12.8 ⁺	60		24	16	1	16	11.0	5.6		26000	1.0	3.3		200		0	25	75									
15	12390	12.8 ⁺	63		24	17	1	15	11.0	4.9		27000	1.3	3.6		180		0	25	75									
16	12500	12.9	59		25	14	1	15	11.0	4.9		26500	1.2	3.5		160		0	26	74									
17	12551	12.9	62		24	14	1	13	11.0	4.9		26000	1.0	3.1		120		0	26	74									
18	12551	12.8	62		25	12	1	10	11.0	4.6		25000	1.2	3.4		160		0	26	74									
19	Initiate P and A Program																												

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DATE SPUD: DATE T.D.: B.H.T. COMPLETION FLUID TYPE: COST: Packer Mud Type: COST:



WELL DATA SHEET

MAG-345-1-A

Norske Gulf Production Co. A/S

Well 3/5-2

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EQUIPMENT		MAKE		CHOKE (L.P.)		PVT		Delaval Sensor												
DESANDER	<input type="checkbox"/>	Demco		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>												
DESILTER	<input type="checkbox"/>	Sweco		CHOKE (SUPER)	<input type="checkbox"/>	Swaco		FLOW SENSOR	<input type="checkbox"/>	Martin Decker										
CENTRIFUGE	<input type="checkbox"/>			CLAYJECTOR	<input type="checkbox"/>			ROP	<input type="checkbox"/>	Exploration Logging										
DEGASSER	<input type="checkbox"/>	Swaco		FINE SCREEN	<input type="checkbox"/>	Miclchem		OTHER	<input type="checkbox"/>	Mud logging by Exploration Logging										
TOTAL MUD COST:										TOTAL DEPTH:										
	MAGCOBAR (Bulk)	MAGCOGEL (Bulk)	SPERSENE	Resinex	CAUSTIC	Soda Ash	Lime	Drilling Detergent	Drispac Regular	Drispac SuperFlo	MagcoGel (5x)	Desco	Magconol Mica	Nut Plug	Pipe Lax	SEVICE	Daily Cost	Comulative Cost	REMARKS	
June 28	180	25			13		3				150						1	3062.23	3062.23	Build spud mud
29							5							25	25	2	1	3713.22	6775.45	Stuck in 36" hole. Work free
30	520	106			6												2	4405.42	11180.87	Set 30" Gel/Seawater Mud
July 1		91					5										2	1772.23	12953.20	
2	183	160					10										2	3512.63	16465.83	Set 20" casing
3			18		52	19	64		40			1					2	7795.37	24261.20	Build Lime/Drispac Mud
4			25		30	11	88		80								2	11522.41	35783.61	
5	30		14		56	5	70		44	10							2	8651.46	44435.07	
6	514		30		40	12	70		32	12							2	9837.92	54272.99	
7	78				47	13	102			10							2	3731.30	58004.29	
8	941		10		26	6	32		10	10							2	8162.99	66166.28	
9	52																2	839.72	67007.00	Set 13 3/8" csg. at 5471'
10					8	6	4			3							2	1217.17	68224.12	
11	656		10		37	15	68			16							2	6963.04	75187.21	
12					11				3	12							2	2607.67	77794.88	
13	182		35		36				3	27							2	6116.59	83911.47	
14	468		20		21			2		16							1	5707.66	89619.13	Wt. Active system to 10.8 ppg
15	182		34		37		31	1		33							1	6766.71	96385.84	
16	494		33		33		14			26	3		15				1	7082.76	103468.60	
17	181		14		11		8			10	4						1	2870.75	106339.35	
18	260		21		9		2			5	4						1	2632.30	108971.65	
19	208		20		9		2			5	5						1	2474.98	111376.63	
20			20		9		2			5							1	1319.45	112696.08	
21			20		9		2			5							1	1319.45	114015.53	
22			20		9		4			6							1	1457.88	115473.41	
23	260		20		10		6			6	5						1	2809.31	118282.72	Increased wt. to 11.5 ppg
24	78		10	10	5		1			3							1	1765.47	120048.19	

FINAL COST

Set 30"

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WELL DATA SHEET

MAG-545-1-A

Norske Gulf production Co. A/S Well 3/5-2

PAGE 2

EQUIPMENT		MAKE		CHOKE (L.P.)		PVT														
DESANDER	<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>													
DESILTER	<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>													
CENTRIFUGE	<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>													
DEGASSER	<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>													
				FINE SCREEN		OTHER														
						TOTAL MUD COST:	TOTAL DEPTH:													
	MAGCOBAR (Bulk)	MAGCOGEL (Bulk)	SPERSENE	Resinex	CAUSTIC	Soda Ash	Lime	Drilling Detergent	Drispac (Regular)	Drispac Super Lo	Magcogel	Desco	Magconol	Mica	Nut Plug	Pipe Lax	Eng. Service	Daily Cost	Cumulative Cost	REMARKS
25	208		30	30													1	3226.88	123275.07	
26			60	15	10												1	1999.25	125274.32	
27	78			40													1	2766.38	128040.70	
28	60																1	576.60	128617.30	Ran 9 5/8" Casing
29	408		48		12	2											1	2974.44	131591.74	Increased kill mud wt to 13.7ppg
30	52	45	60		6	1					60						1	2533.61	134125.35	
31				40													1	2406.80	136532.15	
Aug 1	364	76	7	40													1	5127.63	141659.78	Spersene/Resinex system
2			25	25	9												1	2060.06	143719.84	
3	104		25	25	6												1	2499.48	146219.32	
4			15	9	4												1	1021.34	147240.66	
5			15	9	4	2						1					1	1832.25	149072.91	
6	102		60	30	16	3	5										1	5113.82	154186.73	
7			30		12	3											1	867.24	155053.97	
8	288		20	15	8	2											1	2795.89	157849.86	Increased wt to 12.0 ppg
9	260		25		12												1	1981.93	159831.79	Increased wt to 12.2+ppg
10	52		20		8	3											1	924.30	160756.09	
11	311		20		8	2											1	2111.87	162867.96	Increased wt to 12.6+ppg
12	266		25	30	15												1	3629.71	166497.67	
13	104		25		8	2											1	1222.25	167719.92	
14	155			15													1	1804.60	169524.52	Increased wt to 12.8 ppg
15	156		55		15	4											1	956.09	171480.61	Conditioned for projected logging
16	87		21		6							1					1	1850.71	173331.32	Drilled to T.D.
17																	1	300.00	173631.32	Logging
18	75		35		10												1	1231.70	174863.02	Wiper trip. Logging
19																	1	300.00	175516.02	Compl. Logging. Initiate P and A
20-22	August 20 thru 22																3	900.00	176063.02	P and A Pull anchors. Under Tow. Engineer released 22-8-78

FINAL COST