

# NORSK PETROLEUM SERVICES A/S

OPERATING AREA Statoil 30/6-4

OPERATOR Statoil

WELL NAME/No. 30/6-4

CONTRACTOR Odfjell Drilling & Consulting Co.

RIG Deep Sea Saga

BAROID ENGINEERS Ruffing, Tattersfield, Murphy, Saunderson

T.D. 2942 m

HOLE SIZE	CASING SIZE	CASING SET AT	MUD TYPE	MUD COST	DRILLING DAYS
36"	30"	192 m	SPUD MUD	\$ 7,335.00	2½
26"	20"	962 m	SPUD MUD	\$ 36,346.39	3
17½"	13 3/8"	1862 m	KCL/POLYMER	\$127,809.37	7½
12 1/4"	9 5/8"	2755 m	GEL/LIGNOSULFONATE	\$ 96,836.31	16
8½"		TD 2942 m	GEL/LIGNOSULFONATE	\$ 12,824.82	3
TESTING AND PLUGGING			GEL/LIGNOSULFONATE	\$ 17,868.86	

# NORSK PETROLEUM SERVICES A/S.

OPERATING AREA Statoil 30/6-4

## MATERIALS USED PER CASING INTERVAL

30" CASING

MATERIALS	UNITS	ESTIMATED		ACTUAL	
		QUANTITY	COST	QUANTITY	COST
WYO. BENTONITE	50 kg	134	2,456.22		
AQUAGEL	MT			22	6,490.00
CAUSTIC SODA	25 kg	5	93.00	8	137.84
SODA ASH	50 kg	5	93.35	6	103.44
LIME	40 kg	5	40.30	10	102.60
HPD POLYMER	25 kg			8	501.12
TOTAL COST			2,682.87		7,335.00
COST PER DAY		1.5	1,788.58	3	2,445.00
COST PER BARREL		730	3.67	935	7.84
COST PER BBL/DAY			2.45		2.61
COST PER METER		56	47.91	61	120.24

# NORSK PETROLEUM SERVICES A/S.

OPERATING AREA Statoil 30/6-4

## MATERIALS USED PER CASING INTERVAL

20" CASING, set at 962 m

MATERIALS	UNITS	ESTIMATED		ACTUAL	
		QUANTITY	COST	QUANTITY	COST
WYO. BENTONITE	50 kg	1086	19,906.38		
WYO. BENTONITE	MT			78	23,010.00
CAUSTIC SODA	25 kg	31	576.60	129	2,222.67
SODA ASH	50 kg	31	578.77	76	1,310.24
HPD POLYMER	25 kg	15	1,028.70		
WALLNUT	25 kg			15	218.55
MICA	25 kg			6	93.12
Q-BROXIN	25 kg			29	488.65
LIME	40 kg			61	625.86
CAL. CHLORIDE	50 kg			74	91.80
BARITE	MT	6	748.44	73	8,285.50
TOTAL COST			22,838.89		36,346.39
COST PER DAY		4	5,709.72	15	2,423.09
COST PER BARREL		4560	5.01	10425	3.49
COST PER BBL/DAY			1.25		.23
COST PER METER		769	29.70	770	47.20

# NORSK PETROLEUM SERVICES A/S.

OPERATING AREA Statoil 30/6-4

## MATERIALS USED PER CASING INTERVAL

13 3/8" CASING, set at 1862 m

MATERIALS	UNITS	ESTIMATED		ACTUAL	
		QUANTITY	COST	QUANTITY	COST
BARITE	MT	184	22,952.16	160	18,160.00
KCL	50 kg	1555	25,128.80	1891	32,066.82
DEXTRID	50 lb	305	14,932.80	454	18,032.88
DRISPAC	50 lb	150	21,832.50	150	19,519.50
XC POLYMER	50 lb	38	13,626.80	81	21,784.15
HPD POLYMER	25 kg	35	3,400.30	.8	501.12
SODA ASH	50 kg	35	653.45	67	1,155.08
CAUSTIC SODA	25 kg	35	651.00	35	603.05
SOD. BICARB.	50 kg			2	37.34
STAFLO	25 kg			13	1,841.32
CMC LV	25 kg			17	848.64
ALUM. STEAR.	25 kg			4	248.40
CON DET	55 gal			34	9,873.60
TORQ TRIM II	55 gal			2	1,164.10
WALLNUT	25 kg			141	2,054.37
TOTAL COST			102,177.81		127,890.37
COST PER DAY		7	14,596.83	13	9,837.72
COST PER BARREL		3800	26.89	4315	29.64
COST PER BBL/DAY			3.84		2.28
COST PER METER		890	114.81	902	141.78

# NORSK PETROLEUM SERVICES A/S.

OPERATING AREA Statoil 30/6-4

## MATERIALS USED PER CASING INTERVAL

9 5/8" CASING, set at 2755 m

MATERIALS	UNITS	ESTIMATED		ACTUAL	
		QUANTITY	COST	QUANTITY	COST
BARITE	MT	350	43,659.00	414	46,989.00
WYO. BENTONITE	50 kg	570	10,448.10	52	717.60
WYO. BENTONITE	MT			35	10,325.00
Q-BROXIN	25 kg	300	5,541.00	575	9,688.75
CC-16	50 lb	410	8,806.80	228	4,067.52
CAUSTIC SODA	25 kg	100	1,860.00	232	3,997.36
SODA ASH	50 kg	20	373.40	21	362.04
CMC (LV)	25 kg	70	4,073.30	138	6,888.96
HPD POLYMER	25 kg	70	4,800.60	3	187.92
SOD. BICARB.	50 kg			10	186.70
DEXTRID	50 lb			126	5,004.72
TORQ TRIM II	55 gal			14	8,148.70
ALUM. STEAR.	25 kg			2	124.20
SURFLO W-300	55 gal			15 gal.	147.84
TOTAL COST			79,562.20		96,836.31
COST PER DAY		10	7,956.22	24	4,034.85
COST PER BARREL		3425	23.23	4650	20.82
COST PER BBL/DAY			2.32		0.87
COST PER METER		930	85.55	893	108.44

# NORSK PETROLEUM SERVICES A/S.

OPERATING AREA Statoil 30/6-4

## MATERIALS USED PER CASING INTERVAL

8½" O.H., to 2942 m

MATERIALS	UNITS	ESTIMATED		ACTUAL	
		QUANTITY	COST	QUANTITY	COST
BARITE	MT	75	9,355.50	3	340.50
WYO. BENTONITE	50 kg	220	4,032.60		
WYO. BENTONITE	MT			12	3,540.00
Q-BROXIN	25 kg	125	2,308.75	95	1,600.75
CC-16	50 lb	125	2,685.00	59	1,052.56
CAUSTIC SODA	25 kg	30	558.00	35	603.05
SODA ASH	50 kg	30	560.10	7	120.68
DEXTRID	50 lb	95	4,651.20		
CMC (LV)	25 kg	50	2,909.50	40	1,996.80
HPD POLYMER	25 kg			57	3,570.48
TOTAL COST			27,060.65		12,824.82
COST PER DAY		12	2,255.05	5	2,564.96
COST PER BARREL		1965	13.77	1680	7.63
COST PER BBL/DAY			1.15		1.53
COST PER METER		220	123.00	177	72.46

# NORSK PETROLEUM SERVICES A/S.

OPERATING AREA Statoil 30/6-4

## MATERIALS USED PER CASING INTERVAL

### TESTING, PLUGGING AND ABANDONING

MATERIALS	UNITS	ESTIMATED		ACTUAL	
		QUANTITY	COST	QUANTITY	COST
BARITE	MT			74	8,399.00
WYO. BENTONITE	MT			5	1,475.00
AQUAGEL	100 lb			155	2,139.00
CAUSTIC SODA	25 kg			21	361.83
CMC (LV)	25 kg			25	1,248.00
HPD POLYMER	25 kg			53	3,319.92
SODA ASH	50 kg			10	172.40
SOD. BICARB.	50 kg			10	186.70
SURFLO W-300	55 gal			10 gal.	98.56
ALUM. STEARATE	25 kg			2	124.20
CALC. CHLORIDE	50 kg			15	344.25
TOTAL COST					17,868.86
COST PER DAY				25	714.75
COST PER BARREL				1615	11.06
COST PER BBL/DAY					0.44

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OPERATING AREA Statoil 30/6-4

## TOTAL MATERIAL CONSUMPTION

MATERIAL	PACKAGING	QUANTITY
BARITE	MT	724
WYO. BENTONITE	MT	152
AQUAGEL	100 lb	207
Q-BROXIN	25 kg	699
CC-16	50 lb	287
CAUSTIC SODA	25 kg	460
SODA ASH	50 kg	187
DEXTRID	50 lb	580
CMC LV	25 kg	220
HPD POLYMER	25 kg	129
BICARBONATE	50 kg	22
CON DET	55 gal	34
TORQ TRIM II	55 gal	16
AL. STEARATE	25 kg	8
SURFLO W-300	55 gal	25 gal
KCL	50 kg	1931
DRISPAC	50 lb	150
XC POLYMER	50 lb	81
STAFLO	25 kg	13
WALLNUT	25 kg	156
MICA	25 kg	6
LIME	40 kg	77
CALCIUM CHLORIDE	50 kg	19







WELL NAME: Statoil 30/6-4

MUD PROPERTY RECAP

DATE	DEPTH	DENSITY	VISC-OSITY	FILTRATE	HT/HP filter		pH	RHEOLOGY				FILTRATE ANALYSIS					RETORT ANALYSIS			CEC		OTHER			
					Cake	°500psi		PV	YP	10"	10'	Cl	Ca	Pf	Mf	Pm	Oil	Water	Corr. Solids	PPB	SD	KCL			
								ccs	cp	lbs/100ft <sup>3</sup>	mg/	ppm	%	%	%	Bent. Eq.	%	ppb							
1981	metres	SG	secs	ccs	1"/32/	ccs																			
11/3	1425	1.20	54	3.9	1		9.2	20	27	4	4	73000	120	.3	.8		0	88	12	15	1 1/2	40			
12/3	1462	1.21	55	2.9	1		8.9	20	22	3	4	69000	200	.25	.65		0	88	12	15	1 1/2	42			
	1538	1.26	54	3.5	1		9.2	19	23	3	4	72000	120	.3	.6		0	87	13	8	TR	38			
	1565	1.26	54	3.6	1		9.0	18	21	3	3	74000	300	.2	.49		0	87	13	7.5	TR	40			
13/3	Pit	1.26	53	3.3	1		9.0	18	22	3	4	70000	240	.15	.45		0	87	13	10.0	TR	40			
	1620	1.35	55	3.1	1		8.6	22	24	5	6	72000	400	.13	.45		0	84	16	10.0	TR	42			
	1660	1.35	54	3.2	1		8.5	19	24	4	5	81000	400	.15	.4		0	84	16	12.5	TR	45			
14/3	Pit	1.35	53	3.3	1		8.7	19	24	4	5	81000	400	.15	.4		0	84	16	15	TR	45			
	1703	1.35	55	3.7	1		8.6	22	26	5	6	72000	500	.1	.45		0	83	17	17.5	TR	39			
	Pit	1.35	55	3.8	1		8.6	19	23	6	11	82000	500	.1	.49		0	83	17	17.5	TR	45			
15/3	1800	1.35	56	3.3	1		8.9	21	30	6	10	76000	320	.15	.65		0	82	18	18	TR	43			
	1836	1.36	57	2.8	1		9.0	22	29	7	12	76000	520	.15	.65		0	82	18	19	TR	45			
	1867.5	1.39	58	3.4	1		9.0	21	27	7	11	81000	320	.1	.49		0	82	18	19	TR	45			
16/3	Pit	1.39	58	3.0	1		9.0	22	29	7	10	76000	420	.15	.35		0	81	19	21	TR	47			
	Pit	1.39	55	3.1	1		8.9	20	28	6	9	75000	420	.1	.3		0	81	19	21	TR	47			
17/3	Pit	1.39	52	2.8	1		8.8	17	27	6	8	71000	440	.05	.25		0	81	19	21	TR	46			
	Pit	1.39	57	3.1	1		9.0	20	29	6	12	76000	460	.09	.34		0	82	18	21	TR	45			
18/3	Pit	1.40	59	3.0	1		8.9	21	29	6	13	75000	380	.1	.5		0	82	18	21	TR	46			
	1867.5	1.40	53	2.7	1		8.9	20	29	6	10	76000	420	.1	.5		0	82	18	21	TR	46			





WELL NAME: Statoil 30/6-4

MUD PROPERTY RECAP

DATE	DEPTH	DENSITY	VISCOSITY	FILTRATE		HY/HP (ml)		pH	RHEOLOGY				FILTRATE ANALYSIS					RETORT ANALYSIS			CEC	OTHER			
				ccs	Cake 1" / 32'	200' ccs	500psi 32'		PV	YP	10" 10'	10'	Cl	Ca	Pf	Mf	Pm	Oil	Water	Corr. Solids		PPB	SD		
																							cp	lbs/100ft <sup>2</sup>	mg/
1981	metres	SG	secs	ccs	1" / 32'	ccs	32'		cp	lbs/100ft <sup>2</sup>			mg/	ppm			%	%	%	Bent. Eq.	%				
3/4	2641	1.54	53	4.2	1	12.3	2	10.1	21	16	3	26	20000	80	.55	2.2	0	78	22	27.5	TR				
	Pit	1.54	52	4.1	1	12.4	2	9.8	22	16	3	24	20500	100	.45	2.2	0	78	22	27	TR				
4/4	Pit	1.54	53	4.0	1	12.4	3	10.3	21	17	3	23	20000	100	.75	2.4	0	78	22	27	TR				
	2666	1.54	54	4.3	1	12.6	3	10.1	20	15	3	22	19500	120	.65	2.4	0	78	22	26	TR				
5/4	Pit	1.54	50	4.1	1	12.5	3	10.1	19	14	3	22	20000	120	.65	2.4	0	78	22	26	TR				
	2686	1.54	51	4.2	1	12.4	3	10.1	20	15	3	22	19500	120	.75	2.5	0	78	22	25	TR				
6/4	2687	1.54	51	4.1	1	12.4	3	10.3	20	14	3	23	20000	100	.75	2.6	0	78	22	25	TR				
	2690	1.54	53	4.2	1	12.6	3	10.2	21	14	3	24	20000	100	.75	2.5	0	78	22	25	TR				
	Pit	1.54	53	4.1	1	12.3	3	10.7	20	17	3	24	20500	80	.80	2.7	0	78	22	25	TR				
7/4	2710	1.54	52	3.8	1	12.3	3	10.5	21	15	3	26	20000	120	.65	2.6	0	78	22	25	TR				
	2715	1.54	56	4.2	1	12.6	3	10.5	22	16	3	25	20000	100	.70	2.6	0	77	23	25	TR				
	2749	1.54	52	4.1	1	12.8	3	10.0	22	16	4	27	20000	160	.40	2.1	0	77	23	25	TR				
	2762	1.54	51	3.9	1	13.2	3	10.4	21	16	3	27	20500	140	.65	2.4	0	78	22	24	TR				
8/4	Pit	1.54	51	4.1	1	12.8	3	10.3	22	16	3	28	20000	120	.60	2.3	0	78	22	24	TR				
	Pit	1.54	58	4.0	1	12.5	3	10.1	23	18	4	32	20500	160	.50	2.4	0	77	23	24	TR				
	2765	1.54	54	4.2	1	12.8	3	10.6	21	14	3	24	20000	120	.75	2.7	0	78	22	24	TR				
9/4	Pit	1.54	56	4.0	1	12.6	3	10.5	21	14	3	25	20500	120	.75	2.7	0	78	22	24	TR				
	Pit	1.54	58	3.9	1	12.5	3	10.1	20	14	3	26	20500	120	.45	2.4	0	78	22	24	TR				
10/4	Pit	1.54	57	4.0	1	12.6	3	10.3	20	14	3	24	20000	120	.55	2.6	0	78	22	24	TR				

WELL NAME: Statoil 30/6-4

MUD PROPERTY RECAP

DATE	DEPTH	DENSITY	VISCOSITY	FILTRATE		HY/HP filt		pH	RHEOLOGY				FILTRATE ANALYSIS					RETORT ANALYSIS			CEC	OTHER		
				cake	200 <sup>o</sup> 500psi	PV	YP		10"	10'	Cl	Ca	Pl	Mf	Pm	Oil	Water	Corr. Solids	PPB	SD				
1981	metres	SG	secs	ccs	1"/32'	ccs	1"/32'		cp	lbs/100ft <sup>3</sup>			mg/	ppm			%	%	%	Bent. Eq.	%			
10/4	Pit	1.55	51	4.0	1	13.2	3	10.5	20	12	3	23	20500	120	.70	2.8	0	77	23	23	TR			
11/4	Pit	1.54	53	3.9	1	12.8	3	10.4	20	12	3	24	20000	120	.65	2.7	0	78	22	23	TR			
	2765	1.54	48	4.0	1	12.4	3	10.9	20	11	3	21	20500	100	.80	3.1	0	77	23	23	TR			
12/4	Pit	1.54	54	3.9	1	12.5	3	10.8	20	12	3	23	20500	100	.75	3.0	0	78	22	23	TR			
	Pit	1.54	56	4.2	1	13.0	3	10.5	20	11	2	19	20500	140	.75	2.7	0	78	22	23	TR			
13/4	Pit	1.53	48	4.4	1	13.4	3	10.4	19	10	2	16	20000	160	.70	2.6	0	78	22	22.5	TR			
14/4	2768	1.16	47	6.1	1	26.0	2	9.8	14	7	1	12	20500	700	.30	.90	0	.89	11	8	TR			
	2770	1.16	46	5.5	1	19.5	2	9.8	13	9	1	10	20500	560	.35	.95	0	89	11	9	TR			
	2772	1.18	44	4.8	1	19.5	2	10.4	13	9	1	9	20000	240	.55	1.3	0	88	12	12	TR			
15/4	2852	1.16	51	4.4	1	16.8	2	10.4	14	11	1	17	19000	240	.40	1.3	0	89	11	15	1/8			
	2855	1.16	50	4.6	1	17.0	2	10.3	14	9	1	15	19000	240	.35	1.25	0	89	11	15	1/4			
	2915	1.16+	50	4.0	1	15.4	2	10.3	15	12	2	23	18000	240	.4	1.3	0	89	11	17.5	1/4			
	2942	1.16	51	3.8	1	15.2	2	10.2	15	11	2	20	18000	240	.3	1.1	0	90	10	18	TR			
16/4	Pit	1.17	47	3.9	1	15.6	2	10.3	14	10	2	17	18000	240	.4	1.2	0	89	11	18	TR			
	Pit	1.18	53	4.0	1	15.4	2	9.5	16	11	2	25	18000	220	.3	1.5	0	89	11	17.5	TR			
17/4	Pit	1.18	52	4.0	1	15.6	2	9.3	13	10	2	15	20000	260	.2	1.3	0	89	11	17.5	TR			
	2845	1.20	50	4.2	1	16.2	2	9.5	14	10	2	13	18000	180	.35	1.7	0	88	12	20	TR			
18/4	Pit	1.23	49	4.2	1	16.4	2	9.4	15	10	1	12	18000	160	.3	1.9	0	87	13	20	TR			
	2626	1.23	53	4.7	1			10.7	16	9	1	11	18000	220	.9	2.4	0	88	12	20	TR			

WELL NAME: Statoil 30/6-4

MUD PROPERTY RECAP

DATE	DEPTH	DENSITY	VISC-O-SITY	FILTRATE			HY/HP filt		pH	RHEOLOGY				FILTRATE ANALYSIS					RETORT ANALYSIS			CEC		OTHER		
				secs	ccs	Cake 1" / 32'	° 500psi			PV	YP	10"	10'	Cl	Ca	Pl	Mf	Pm	Oil	Water	Corr. Solids	PPB	SD			
							ccs	1" / 32'																		cp
19/4	Pit	1.22	48	4.5	1			11.0	14	10	1	9	19000	120	1.0	2.4	0	89	11	17.5	TR					
	Pit	1.22	49	4.5	1			11.0	12	11	1	9	19000	160	.9	2.0	0	88	12	17.5	TR					
20/4	Pit	1.22	49	4.6	1			10.8	12	10	1	8	19000	180	.8	2.0	0	88	12	17.5	TR					
	Pit	1.22	48	4.8	1			11.4	13	10	1	12	19000	200	1.2	2.6	0	88	12	17.5	TR					
21/4	Pit	1.22	48	4.7	1			11.2	13	9	1	10	19500	200	1.1	2.5	0	88	12	17.5	TR					
	Pit	1.22	48	4.6	1			11.2	13	9	1	10	19000	180	1.2	2.5	0	88	12	17.5	TR					
22/4	Pit	1.21	48	4.8	1			11.0	14	10	1	12	19000	200	.9	2.3	0	88	12	20	TR					
	Pit	1.22	55	4.6	1			10.8	15	10	1	12	19000	320	.8	1.9	0	88	12	17.5	TR					
23/4	Pit	1.22	47	4.7	1			11.0	13	9	1	9	19000	300	1.0	2.1	0	88	12	17.5	TR					
	Pit	1.22	49	4.8	1			11.1	12	8	1	9	19500	320	.8	1.8	0	88	12	17.5	TR					
24/4	2655	1.22	49	4.9	1			11.4	13	10	1	9	19500	180	.9	2.2	0	88	12	17.5	TR					
	2677	1.22	49	4.9	1			11.6	13	9	1	8	19000	160	1.2	2.6	0	88	12	17.5	TR					
25/4	Pit	1.22	55	4.5	1			11.4	16	13	1	15	19500	280	.75	1.8	0	88	12	20	TR					
	Pit	1.22	58	4.7	1			11.4	17	10	1	12	19500	260	.9	2.0	0	88	12	20	TR					
26/4	Pit	1.22	57	4.6	1			11.3	17	10	1	12	19000	280	.8	1.9	0	88	12	20	TR					
	Pit	1.21+	57	5.0	1			11.4	16	10	1	15	19500	320	.9	2.0	0	88	12	20	TR					
27/4	Pit	1.22	56	4.9	1			11.5	16	10	1	14	19500	340	1.0	2.0	0	88	12	20	TR					
	2655	1.22	53	4.9	1			11.6	16	10	1	14	19500	360	1.1	2.2	0	88	12	20	TR					
28/4	Pit	1.22	46	4.9	1			11.7	12	8	1	5	19500	200	1.1	2.3	0	88	12	20	TR					







TABLE 5. VA MEASURED DRILL STEM RESULTS FROM 30/6-ALPHA GAS WELLS.

Well number	DST number	Unit	Initial flow (mins)	1. Build up (mins)	2. Flow up (mins)	Final built up (mins)	Gas rate $10^3 \text{ SM}^3/\text{D}$	Oil rate $\text{Sm}^3/\text{D}$	Gor sep $\text{Sm}^3/\text{Sm}^3$	Oil / Gas specific gravity	Choke manif/ heater	Final bottom hole flowing pressure (bar)	
30/6-1	1	III	12	63	472	260	487	151	3225	0.76	0.657	48/32	265.1
	2	IV	4	63	569	420	688	167	4121	0.768	0.66	- 96 **	257.5
30/6-2	1A	IIb/III	6	64	477	302	645.6	190.8	3384	0.744	0.66	- 48	253.9 *
30/6-3	1	II	4	61	424	421	495.5	156.6	3163	0.742	0.66	- 44	269.6
	2	IV	3	66	441	640	280	88.4	3167	0.72	0.65	52 -	154.4

\* Calculated bottom hole flowing pressure.

\*\* Lead in heater-choke inlet give an effective choke less than 96/64"

TABLE 5VB MEASURED DRILLSTEM TEST RESULTS WELL 30/6-4

WELL	DST NUMBER	UNIT	Initial flow	1. build up	2. Flow	2. Build up	3. Flow	3. Build up	OIL RATE Sm <sup>3</sup> /D	GAS RATE 10 <sup>3</sup> Sm <sup>3</sup> /D	GORsep Sm <sup>3</sup> /Sm <sup>3</sup>	SEPARATOR		COKE manif heater	FINAL BOTTOM HOLE FLOWING PRESSURE (bar)	
												OIL SPECIFIC GRAVITY	GAS SPECIFIC GRAVITY			
30/6-4	1	IIb	UNSUCCESSFUL		518	673			313.9	32.56	103.7	0.85-0.86	0.67-0.68	24 32 48 -	281.7	
									316	535.8	58.36				108.9	282.6
									385 388	701.3	83.82				119.5	280.6
	2	III	4	34	708	566			493.5	53.78	109.0	0.85	0.67-0.68	32 48 62 -	278.5	
									255	717.3	82.41				114.9	275.4
									330 145	812.8	89.54				110.2	274.0

TABLE 5 VIA INTERPRETED TEST RESULTS  
FROM FINAL PRESSURE BUILD UP PERIOD OF 30/6-ALPHA GAS WELLS

WELL NUMBER	DST NUMBER	UNIT	METHOD OF INTERPRETATION	TRANSMISSIVITY (Kh-md m)	PERMEABILITY (md)	SKIN FACTOR	PSkin (bar)	PI STEDAY STATE ( $10^3 \text{ Sm}^3/\text{D}/\text{bar}$ )	FLOW EFFICIENCY	P* (bar)	DRAWDOWN P*-Pwf (bar)	DEPTH OF GAUGE (mRKB)	
30/6-1	1	III	HORNER	12 236.8	408	108	9.2	51.7	0.25	275.8	10.7	2301	
	2	IV	HORNER	1 127.8	282	5	6.8	41.7	0.60	275.1	17.6	2277	
30/6-2	1A	IIb/III	No bottomhole pressure measured							274.1**		20.2	2220
30/6-3	1	II	HORNER	12695	423	103	8.2	56.5	0.071	279.7	10.1	2481	
	2	IV	HORNER	232	22	40	104.6	2.3	0.144	277	122.6	2405	

\* Initial Reservoir Pressure

\*\* Calculated Bottom Hole Pressure

TABLE 5VIB INTERPRETED TEST RESULTS, WELL 30/6-4

WELL NUMBER	DST NUMBER	UNIT	METHOD OF INTERPRETATION	TRANSMISSIVITY (Kh-md m)	PERMEABILITY (md)	SKIN FACTOR	PSkin (bar)	PRODUCTIVITY INDEX ( $10^3 S_m^3/D/bar$ )	FLOW EFFICIENCY	P* (bar)	DRAWDOWN P - Pwf (bar)	DEPTH OF GAUGE (mRKB)
30/6-4	1	IIb	2BU HORNER	123750/107175**	3095/2680	124	3.86	0.318	0.187	286.46	4.76	2639
			3BU HORNER	99360/106800**	2490/2670	54	4.69	0.559	0.225	286.46	5.86	2629
	2	III	2BU HORNER	23 370	3117	9.1	2.32	0.429	0.572	283.95	5.45	2606
			3BU HORNER	22 365	2983	2.8	1.23	0.654	0.823	283.95	9.93	2609

\* Initial Reservoir Pressure

\* \* Analysis using Darcy's law

WELL	30/6-1				30/6-2		30/6-3			
	TEST NO	DST NO. 1		DST NO. 2		DST NO 1A		RFT	DST NO.1	DST NO.2
COMPOSITION	Mole % Res.fluid	Mole % Res.fluid	Mole % Res.fluid	Mole % Res.fluid	Mole % Res.fluid	Mole % Res.fluid	Mole % Res.fluid	Mole % Res.fluid	Mole % Res.fluid	Mole % Res.fluid
Nitrogen	0.55	0.95	0.82	0.42	0.83	0.96	0.87	0.84	0.94	
Carbondioxide	0.76	0.83	0.80	0.74	0.82	0.77	0.70	0.65	0.87	
Methane	83.65	82.91	83.21	83.38	81.99	83.57	81.91	83.61	82.73	
Ethane	5.98	6.10	6.15	5.99	6.74	6.16	6.97	5.97	6.45	
Propane	3.17	3.24	2.94	3.15	3.43	3.07	3.49	2.94	3.43	
iso-Butane	0.51	0.52	0.43	0.52	0.56	0.44	0.58	0.46	0.51	
n-Butane	1.10	1.13	1.04	1.14	1.20	1.12	1.28	1.13	1.17	
iso-Pentane	0.37	0.40	0.36	0.39	0.40	0.35	0.44	0.37	0.37	
n-Pentane	0.51	0.51	0.48	0.53	0.50	0.50	0.55	0.49	0.47	
Hexanes	0.63	0.65	0.61	0.70	0.59	0.48	0.61	0.61	0.54	
Heptanes	0.79	0.85	0.95	0.94	0.88	0.67	0.73	0.80	0.67	
Octanes	0.67	0.73	0.56	0.85	0.77	0.60	0.65	0.71	0.63	
Nonanes	0.39	0.45	0.32	0.39	0.49	0.38	0.36	0.44	0.28	
Decanes	0.26	0.26	0.20	0.25	0.34	0.28	0.28	0.27	0.94	
Undecanes +	0.64	0.46	1.13	0.62	0.48	0.65	0.57	0.71		
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
PROPERTIES OF PLUS FRACTION										
Density at 15%	-	0.805	0.771	-	0.806	0.822	0.806	-	0.824	*
Molecular wt.	193	168	151	193	172	181	171	198	169	*
Dew pt. (BAR)	275.6	261.0	275.7	274.6	263	279.10	265	282	276.5	
Analysis temp.	91.2°C	91.4°C	90.6°C	90.6°C	90.5°C	91°C	96.6°C	96.6°C	91°C	
Max liquid drop.out(at):	4.8% (85)	4.0% (85)	6.9% (70)	4.6% (85)	3.8% (100)	-	4.5% (94)	5.1% (90)	3.4% (85)	
Recomb.GOR SM <sup>3</sup> /M <sup>3</sup>	3185.4	3193.0	3698.0	3680.8	3265.0	3166.2	-	2886.0	3216.0	
Dew.pt.density (g/cm <sup>3</sup> )	0.224	0.207	-	0.231	0.216	-	0.207	0.238	0.220	
Analysed by:	FLOPETROL(F)	STATOIL(ST)	SINTEF(SI)	FLOPETROL(F)	STATOIL(ST)	CORELAB(C-L)	STATOIL(ST)	IFP	STATOIL(ST)	

\*Decane + properties

SUMMARY OF DATA ON OIL SAMPLES FROM STATOIL WELL 30/6-4

Components	BHS		RFT
	DST No 1	DST No 2	
Nitrogen	0.27	0.17	0.27
Carbondioxide	0.79	0.81	0.67
Methane	46.34	46.91	46.35
Ethane	6.15	6.29	6.11
Propane	4.46	4.56	4.29
iso-Butane	0.87	0.90	0.87
n-Butane	2.27	2.23	2.32
iso-Pentane	0.96	0.95	0.99
n-Pentane	1.41	1.32	1.39
Hexanes	2.10	2.06	2.11
Heptanes	3.41	3.46	3.55
Octanes	3.94	4.16	4.17
Nonanes	2.83	3.00	2.97
Decanes+	24.20	23.18	23.94
	100.00	100.00	100.00
C <sub>10+</sub> mot wt.	290	290	289
C <sub>10+</sub> density (g/cm <sup>3</sup> )	0.889	0.889	0.885
ρ <sub>rf</sub> density res.fluid (g/cm <sup>3</sup> )	0.689	0.684	0.699
Bubble pt. (Bar)	247.8	249.5	249.6
Co (vol/vol/bar x 10 <sup>5</sup> )	17.1	17.7	15.9
G <sub>or</sub> , (sm <sup>3</sup> /M <sup>3</sup> )	150.6	153.9	151.3
B <sub>o</sub> , (M <sup>3</sup> /M <sup>3</sup> )	1.462	1.469	1.440
ρ <sub>o</sub> , density of oil (g/cm <sup>3</sup> )	0.8577	0.8552	0.8551
γ <sub>g</sub> gravity of gas	0.81	0.79	0.82
Mol weight stock tank oil	220	215	219
Viscosity at bubble point (cp)	0.464		



RFI: PRESSURE POINTS

## CORRECTED PRESSURE

DEPTH (M)	FORMATION		HYDROSTATIC	
	(PSI)	(G/CC)	(PSI)	(G/CC)
RUN 1				
2311.5	4199	(1.279)	5119	(1.559)
2323.5			5149	(1.560)
2323			5147	(1.560)
2333			5173	(1.561)
2361.5	4375	(1.304)	5238	(1.561)
2366.7	4282	(1.274)	5249	(1.561)
2376			5274	(1.563)
<hr/>				
2377			5273	(1.562)
2378			5275	(1.562)
2390			5304	(1.560)
2605.3	4141	(1.119)	5770	(1.559)
2612	4137	(1.115)	5786	(1.559)
2631.5	4155	(1.112)	5832	(1.560)
2633	4157	(1.111)	5829	(1.558)
<hr/>				
RUN 2				
2605.3	4142	(1.115)	5773	(1.560)
2637	4172	(1.110)	5854	(1.563)
2646	4180	(1.108)	5875	(1.563)
2655	4189	(1.107)	5897	(1.564)
2665.5	4200	(1.106)	5921	(1.564)
2669	4203	(1.105)	5928	(1.564)
2676	4210	(1.104)	5945	(1.564)
<hr/>				
2683.5	4269	(1.103)	5962	(1.564)
2637	4169	(1.109)	5835	(1.558)
2612	4149	(1.114)	5784	(1.559)
2304.5	4225	(1.286)	5108	(1.560)
2303	4230	(1.289)	5105	(1.560)
2300.5	4202	(1.282)	5098	(1.560)
2361.5	4377	(1.301)	5250	(1.565)
<hr/>				
2366.7	4287	(1.271)	5261	(1.565)
2311.5	4206	(1.277)	5122	(1.560)
2303.3	4239	(1.291)	5102	(1.559)
<hr/>				
RUN 3				
2857	4776	(1.177)	4828	(1.189)
2859	4778	(1.176)	4830	(1.189)
2868	4791	(1.176)	4844	(1.189)
2884	4814	(1.175)	4871	(1.189)
2887			4874	(1.188)
2886	4818	(1.175)	4871	(1.180)

Fig. 5.1

