



For the 8 1/2" section where the formation was hard and the penetration rate was less than 5 m/hr it is recommended to use DRIL-N-SLIDE in a concentration of 2-5 percent by volume to the mud system. This product is used to enhance the rate of penetration when using water based muds. This procedure is used in the Gulf of Mexico.

DRIL-N-SLIDE is a blend of organics for improving the lubricity and penetration rate of water based drilling fluids. DRIL-N-SLIDE is non-damaging to production zones and is not affected by contaminants commonly encountered during drilling operations. 1 m3 tanks can be sent out as contingency materials.

## TOTAL MATERIAL CONSUMPTION

Material	Unit size	Quantity	Total cost (Kr)
BARACARB 50	25 KG. BAG	82	9,245.50
BARASIL-S	1000 L.	110.500	712,062.00
BARAZAN-D PLUS	25 KG. BAG	220	336,160.00
barite	1000 KG. TON	414.000	309,621.00
BAROFIBRE	25 LB. BAG	93	24,924.00
bentonite	1000 KG. TON	30.000	23,520.00
citric acid	25 KG. BAG	2	634.00
DEXTRID LT	25 KG. BAG	313	59,157.00
FILTER-CHEK	50 LB. BAG	628	256,268.00
GEM GP	1000 L. BULK	66.980	817,156.00
GEM GP	220 KG. DRUM	44	115,824.00
lime	25 KG. BAG	76	3,420.00
LOLOSS	25 KG. BAG	3	1,002.00
M.E.Glycol	42 GAL. BULK	470.000	618,277.70
N-VIS HI	20 KG. BAG	4	10,036.00
PAC-L	25 KG. BAG	373	230,141.00
potassium chloride	25 KG. BAG	384	16,512.00
potassium chloride	1000 KG. BAG	45	80,550.00
potassium chloride brine	1000 L.	441.600	293,222.40
salt	1000 KG. BAG	37	49,580.00
soda ash	25 KG. BAG	158	9,954.00
sodium bicarbonate	25 KG. BAG	23	1,564.00
sodium chloride brine	42 GAL. BBL	3,820.000	381,439.74
STEELSEAL	50 LB. BAG	45	26,325.00
WALL-NUT FINE	25 KG. BAG	1	67.00
wyoming bentonite	1000 KG. TON	45.000	85,050.00
<b>Miscellaneous Items</b>			
2nd ENGINEER			349,600.00
BARITE/BJ CMT			15,375.00
Barite/BJ cmt			17,064.00
MUD ENGINEER			451,000.00

Total mud cost	Kr 4,471,712.34
Total miscellaneous cost	Kr 833,039.00
Total cost	Kr 5,304,751.34
Programmed mud cost	Kr 3,072,952.00
Variance	Kr 1,398,760.34



## APPENDIX 1 WIRELINE LOGGING REPORTS

### 17.5" HOLE SECTION

#### Logs Run:

DST-DSI-IPL-SP-AMS (Run 2A)  
RFT/HP-GR-AMS (Run 2A)  
CST - Two Guns (Run 2A)

#### Well Data:

Well: 6707/10-1 Location:	Nyk High PL218
Surface Co-ords: Lat:	67 Deg 04' 08" 7440629.7 N
Long:	07 Deg 00' 36" 413490.4 E
RKB - MSL: 23.2m	RKB - SB : 1275.5m (MSL)
30" Shoe:	1376.3m
20" Shoe:	2202.7m
Driller's TD: 2896m	Max deviation: 2.1 Degs(MWD)
Hole Condition:	good
Mud Parameters:	
Mud type:	Sodium Silicate WBM MW: 1.25sg
Barite:	79.38 ppb

#### Operational Activity Summary:

Wireline TD: 2887.5m	20" Casing(Wireline): 2200m
Rigged up logging unit:	01:55hrs, 16/05/97
Rigged down unit:	20:00hrs, 17/05/97
Total Operating time:	42 hrs 5mins



## 12.25" HOLE SECTION - RUNS 3A AND 4B (MDT)

### Logs Run:

1. MDT-GR-AMS (Run 3A)
2. MDT-GR-AMS (Run 4B)

### Well Data:

Well: 6707/10-1	Location: Nyk High PL218
Surface Co-ords:	Lat: 67° 04' 08"      7440629.7 N Long: 07° 00' 36"      413490.4 E
RKB - MSL:      25.85m	RKB - SB : 1272.7m (MSL)
30" Shoe:	1376.3m
20" Shoe:	2202.7m
Driller's TD: 2964m/2967m (MWD) - Open Hole	Max deviation: 2.10 Degs at 2919m
Hole Condition:	Good
Mud Parameters: Mud type: KCl/NaCl/Glycol/Polmer	MW: 1.27g      Chl: 142K ppm

### Operational Activity Summary:

Wireline TD: 2964.8m	13-3/8" Casing(Wireline): 2888.5m
Run 3A	
Rigged up logging unit:	06:55hrs, 24/05/97
Rigged down unit:	12:25hrs, 24/05/97
Total Operating time:	5hrs 30mins
Run 4B	
Rigged up logging unit:	08:25hrs, 25/05/97
Rigged down unit:	15:55hrs, 25/05/97
Total Operating time:	7hrs 30 mins



## 12.25" HOLE SECTION - RUNS 5A-5D

### Logs Run

Run No.	Date	Log	Interval (m)	
			Top	Bottom
5A	9/6/97	HALS/PEX/DSI/AMS/SP/G PIT	2885.5	3860.7
5C	10/6/97	MDT/AMS/GR	2960	3145.5
5A	11/6/97	FMS/HNGS/AMS	2885.5	3857.5
5B	12/6/97	VSP/GR/AMS	2560	3845.1
5D	12/6/97	MDT/GR/AMS	3109	3820

### Well Data:

Well: 6707/10-1

Location: Nyk High PL218

Surface Co-ords:

Lat: 67 Deg 04' 08" 7440629.7 N  
Long: 07 Deg 00' 36" 413490.4 E

RKB - MSL: 25.85m

RKB - SB : 1275.5m (MSL)

30" Shoe:

1376.3m

20" Shoe:

2202.7m

13.375" Shoe:

2890.7m

Driller's TD:

3871m

Hole Condition:

good

Mud Parameters:

Mud type: KCl/NaCl/Glycol/Polymer WBM MW: 1.28sg

### Wireline Operations Time Sheet

TIME	ACTIVITY
<u>09-06-97</u>	
20:00	Schlumberger rigged up wireline
21:00	Rig floor to Schlumberger
21:00-	Safety Meeting
21:15	Making up tool
21:15	Put in radioactive sources
21:40	Started to RIH
22:10	



## 8.5" HOLE SECTION

### Logs Run:

Run 6B PEX(HALS)-GPIT-DSI-ACTS-SP  
Run 6B RFT-CBL-VDL-GR-AMS  
Run 6C CSI-GR (Checkshot)  
Run 6B CST-GR

### Well Data:

Well: 6707/10-1 Location: Nyk High PL218

Surface Co-ords: Lat: 67 Deg 04' 08" 7440629.7 N  
Long: 07 Deg 00' 36" 413490.4 E

RKB - MSL: 25.85m RKB - SB : 1298.7m  
30" Shoe: 1376.3m  
20" Shoe: 2202.7m  
13.375" Shoe: 2890.7m  
9.625" Shoe: 3865m  
Driller's TD: 5039m  
Hole Condition: good

Mud Parameters:  
Mud type: KCl/NaCl/Glycol/Polymer WBM MW: 1.25sg

### Wireline Operations Time Sheet

TIME	ACTIVITY
<u>13/07/97</u>	
21:20	Rig Floor to Schlumberger. Start rigging sheaves & compensator link.
21:55	Safety meeting with rig crew.
22:05	Start rigging up PEX(hals)-DSI-SP-ACTS. (run 6b)
22:30	Tool rigged up, checking tool.
22:45	No contact with tools below DSI and disturbances on DSI.
23:20	Change out cartridge on DSI (SPAC-BB out, SPAC-AA in).

Well 6707/10-1



Table 1.7 6707/10-1 MDT Pressure Summary in the 12 ¼” section - Run 4B

Test No	Run No	Depth m MD RKB	Mud Hydrostatic Before (HPG psia)	Mud Hydrostatic After (HPG psia)	Formation Pressure (HPG psia)	k <sub>HPH</sub> /mu md	Remarks
1	4B	2960.80	5401.3	5400.7	3814.0+		Tight, 10 min build
2	4B	2961.05	5400.6	5401.0	5366.0+		Tight, supercharged, 8.5 min build, press. Still increasing
3	4B	2961.30	5400.4	5398.9	4648.6	0.4	Poor perm, 9min build, 37.9°C
4	4B	2961.8	5401.5	5400.4	3490.0+		Tight, press. Rising slowly, 38.9°C
5	4B	2962.05	5402.4	5402.0	4009.0+		V poor perm., abort test, 39.9°C
6	4B	2964.60	5408.1	5406.7	4897.0+		Tight, still incr. After 10 min, 42.9°C
7	4B	2964.20	5406.2		4635.6		Good test, Mod-good perm, 44.0°C
8	4B	2964.20	5407.5		4635.6	36.9	Sample 2x2-3/4 Gal
9	4B	2958.20	5355.4?	5355.7?	4631.7	44.6	Good test, good perm. Low hydrostatic, 45.3°C
10	4B	2957.20	5047.9	5388.0	3347.0+		Low perm. Abort test, 43.0°C
11	4B	2956.20	5387.6	5383.7			Tight, 41.7°C
12	4B	2955.20	5385.1	5384.9			Tight, 40.9°C

Table 1.8 6707/10-1 MDT Pressure Summary in the 12 ¼” section - Run 5C

Test No	Run No	Depth m MD RKB	Mud Hydrostatic Before (HPG psia)	Mud Hydrostatic After (HPG psia)	Formation Pressure (HPG psia)	k <sub>HPH</sub> /mu md	Remarks
1	5C	2960	5433	5434	4611.4	64.5	Good test
2	5C	2964	5442	5441	4612.9	55.2	Good test
3	5C	2979	5468	5468	4617.1	76.2	Good test
4	5C	2981	5472	5472	4617.6	71.8	Good test
5	5C	2983	5475	5475	4618.3	206.2	Good test
6	5C	2989	5486	5487	4620.0	1147.3	Good test
7	5C	2991	5489	5489	4620.6	322.5	Good test
8	5C	2994	5496	5496	4621.4	1616.8	Good test
9	5C	2998	5502	5501	4622.7	3022.2	Good test
10	5C	3001	5508	5508	4623.3	419.5	Good test
11	5C	3008	5521	5520	4626.2	149.3	Hole washout - bad test
12	5C	3010	5525	5525	4626.0	2167.5	Hole washout - bad test
13	5C	3012	5528				No seal

Pressure points at 3014m, 3018m, 3025m, 3028m 3032m and 3034m were omitted due to hole washout.



Table 1.8 cont. 6707/10-1 MDT Pressure Summary 12 ¼” section - Run 5C

Test No	Run No	Depth m MD RKB	Mud Hydrostatic Before (HPG psia)	Mud Hydrostatic After (HPG psia)	Formation Pressure (HPG psia)	k <sub>HPH</sub> /mu md	Remarks
14	5C	3037	5574	5574	4633.4	3695	Good test
15	5C	3041	5580			5587	Lost seal-pre test at 3042m-no seal
16	5C	3047	5592	5592	4636.1	798	Good test
17	5C	3051	5599	5598	4637.4	787	Good test
18	5C	3053.5	5602	5604	4638.1	1114	Good test
19	5C	3056	5608	5608	4638.7	681	Good test
20	5C	3059	5614	5614	4639.8	194	Good test
21	5C	3061.5					Lost seal-pre test at 3162.5m-no seal
22	5C	3064.5	5623	5623	4641.1	1777	Good test
23	5C	3070.5	5634	5633	4642.9	102	Good test
24	5C	3076	5643	5643	4644.2	60	Good test
25	5C	3079	5649	5649	4645.3	149	Good test
26	5C	3082	5664	5663	4646	155	Good test
27	5C	3085	5660	5661	4646.9	1920	Good test
28	5C	3089	5667	5667	4647.6	68	Tool resetting
	5C	3093					Unstable Fm.
29	5C	3101	5688	5688	4651.4	119	Tool resetting
30	5C	3105	5695	5695	4652.6	413	Good test
31	5C	3109	5704	5702	4653.6	209	Tool resetting
32	5C	3115	5713	5711	4657.3	116	Tool resetting
33	5C	3119	5720	5718	4664	95	
34	5C	3122.5	5727	5727	4667.9	155	Tool resetting

Table 1.8 cont. 6707/10-1 MDT Pressure Summary in the 12 ¼” section - Run 5C

Test No	Run No	Depth m MD RKB	Mud Hydrostatic Before (HPG psia)	Mud Hydrostatic After (HPG psia)	Formation Pressure (HPG psia)	k <sub>HPH</sub> /mu md	Remarks
From sample points							
	5C	3145.5	5767		4699.7		Good test
	5C	3086	5661		4646.9		Good test
	5C	3051	5600		4643.2		Pressure higher than previous pre-test
	5C	3051.5	5598		4651.0		Pressure higher than previous pre-test
	5C	3058.8	5611		4640.0		Pressure approaching expected value
	5C	3039.9	5576				Seal failure (2 attempts)
	5C	3041.9	5581				Seal failure
	5C	3037	5572				Seal failure
	5C	3038.5	5574				Seal failure
	5C	2994	5593		4621.7		Good test



Table 1.9 6707/10-1 MDT Pressure Summary in the 12 ¼” section - Run 5D

From sample points							
Test No	Run No	Depth m MD RKB	Mud Hydrostatic Before (HPG psia)	Mud Hydrostatic After (HPG psia)	Formation Pressure (HPG psia)	k <sub>H</sub> ph/mu md	Remarks
1	5D	3109	5693		4653.4	777	Good test
2	5D	3111.5	5698		4654.5	1532	Good test
3	5D	3112.5	5699				Tight-abandoned
3b	5D	3112	5699		4654.7	123	Good test
4	5D	3113.5	5702		4655.3	268	Good test
5	5D	3114.2	5703		4657.1	35	Good test
6	5D	3117.7	5709		4661.5	403	Good test
7	5D	3121	5716		4666.2	100.9	Good test
8	5D	3128	5729		4676.3	214.5	Good test
9	5D	3130	5731		4678.8	79	Good test
10	5D	3131.8	5735				Tight-abandoned
10b	5D	3133	5736		4683.0	195.8	Good test
11	5D	3136	5743.5		4687.4	97	Good test
12	5D	3140					Skipped-good gradient
13	5D	3148					Skipped-good gradient
14	5D	3157	5781			31	Good test
15	5D	3170	5803				Seal failure
15b	5D	3170.5	5805				Supercharged? Seal failure? P app. 4941psi
test	5D	3172	5809				Test tool in shale-OK
15	5D	3177.5	5817		4745.9	118	Good test
16	5D	3190					Skipped-good gradient
17	5D	3215	5885		4805.2	0.4	Good test, tight
18	5D	3249					Skipped-good gradient
19	5D	3297	6031.4		4916.4	3.4	Good test
20	5D	3310	6054.9		4934.0	103	Good test
21	5D	3322					Skipped-good gradient
22	5D	3335					Skipped-good gradient
23	5D	3400	6217		5061.1		Good test
24	5D	3413					Skipped-good gradient
25	5D	3493	6383		5192.3	10	Good test
26	5D	3511.5	6416		5219.4		Good test
27	5D	3571.5	6524		5303.0		Good test
28	5D	3619					Skipped-good gradient
29	5D	3663.5	6689.9		5432.3	30	Good test
30	5D	3670					Skipped-good gradient
31	5D	3702	6759		5486.8	7	Good test
32	5D	3728.5	6806			0	Supercharged, v tight, P app. 5900
33	5D	3762	6867				Supercharged
34	5D	3773.5					Skipped-good gradient
35	5D	3800	6937		5634.6	10	Good test
36	5D	3820	6973				Supercharged, v tight, P app. 5720

Well 6707/10-1





## 1.6 MDT FLUID SAMPLES

The Schlumberger Modular Dynamic Tester (MDT) was used to take formation fluid samples at 6 levels in the K80 reservoir section. The aim of this was to sample the gas column at several levels, and to identify the movable fluid ( in this case water) in the trapped gas zone (with oil shows in core) at 3145.5 mBRT. In addition, where possible, the aim was to take 450cc PVT quality samples in addition to bulk samples at each hydrocarbon sampling level. PVT samples were taken at the three levels in the main gas bearing section. Table 1.11 lists the sample levels and types:

Table 1.11 MDT Fluid Sample Details

Depth (BRT)	Depth (TVDBRT)	Chamber Code	Chamber Size	Comp. Analysis	Content	Geochem Sub Sample	Transf. Volume (cc)	Transf. To bottle no.	Comments
2964.2	2964.2	MRSC-DB 27	2.75 Gal	Done	Gas	Yes		?	660 cc sub sample kept rest junked
2964.2	2964.2	MRSC-DB 24	2.75 Gal	Done	Gas	Yes		?	660 cc sub sample kept rest junked
2994	2993.72	MPSR-BA 607	450 cc	Done	Gas		340	TS-21515	All sample transferred to storage vessel
2994	2993.72	MPSR-BA 610	450 cc	Done	Gas		305	TS-8503	All sample transferred to storage vessel
2994	2993.72	MPSC-EC 62	6 Gal				—	N/A	Drained down at rig site
3058.8	3058.4	MPSR-BA 85	450 cc		Empty		—	N/A	Found to be Empty
3058.8	3058.4	MRSC-BB 67	1 Gal	Done	Gas		550	TS-5814 & TS-2911	
3086	3085.54	MPSR-AA 152	450 cc	Done	Gas		185	TS-7413	All sample transferred to storage vessel
3086	3085.54	MPSR-AA 166	450 cc	Done	Gas		230	TS-9305	All sample transferred to storage vessel
3114.5	3114.0	MPSR-AA 750	450 cc		Water				
3114.5	3114.0	MPSR-AA 751	450 cc		Water				
3145.5	3144.93	MPSR-AA 606	450 cc	Done	Water		—	N/A	Water ~ 340cc + 100 Single flash; 10 cc mud

# GEOCHEMICAL INTERPRETATION REPORT

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CLIENT:

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BPN97-22275  
Rune Olsen

TITLE

## NOCS 6707/10-1 Headspace Gas and GHM Thermal Extract Gas Chromatography

AUTHOR(S)

Peter Barry Hall

GEOLAB PROJECT NO.

62365

DATE

2.03.98

PROJECT MANAGER

Åashild Linnestad Lab. Manager

QA RESPONSIBLE

Sunil Bharati, Snr. Scientist

REPORT NO./FILE

PAGE

1 of 1

BA 98-541-1

10 MARS 1998

REGISTERED

OWEDIRECTORATE

Table 1 A : Isotope GC of Whole Oil for 6707/10-1

<u>Well</u>	<u>Description</u>	<u>nC12</u>	<u>iC13</u>	<u>iC14</u>	<u>nC13</u>	<u>iC15</u>	<u>nC14</u>	<u>iC16</u>	<u>nC15</u>	<u>nC16</u>	<u>iC18</u>	<u>Sample</u>
TS-2621	MDT DA027	-	-28.10	-26.50	-28.30	-26.70	-25.60	-24.00	-24.90	-26.40	-26.10	P32/0302
TS-5814	MDT BB067	-	-	-	-	-30.00	-28.50	-	-	-26.90	-27.00	P32/0300
TS-9305	MDT 166	-	-	-	-	-31.20	-29.30	-32.80	-28.30	-28.30	-28.20	P32/0301

Table 1 B : Isotope GC of Whole Oil for 6707/10-1

<u>Well</u>	<u>Description</u>	<u>nC17</u>	<u>Pristane</u>	<u>nC18</u>	<u>Phytane</u>	<u>nC19</u>	<u>nC20</u>	<u>nC21</u>	<u>nC22</u>	<u>nC23</u>	<u>nC24</u>	<u>Sample</u>
TS-2621	MDT DA027	-26.20	-	-26.60	-26.90	-26.60	-26.50	-26.70	-27.00	-27.00	-27.90	P32/0302
TS-5814	MDT BB067	-26.90	-	-27.20	-27.20	-27.50	-27.60	-27.00	-27.20	-27.70	-27.70	P32/0300
TS-9305	MDT 166	-28.50	-	-27.60	-28.00	-28.10	-	-	-	-	-	P32/0301

Table 1C : Isotope GC of Whole Oil for 6707/10-1

<u>Well</u>	<u>Description</u>	<u>nC25</u>	<u>nC26</u>	<u>nC27</u>	<u>nC28</u>	<u>nC29</u>	<u>nC30</u>	<u>nC31</u>	<u>nC32</u>	<u>nC33</u>	<u>nC34</u>	<u>Sample</u>
TS-2621	MDT DA027	-27.80	-28.60	-28.90	-	-	-	-	-	-	-	P32/0302
TS-5814	MDT BB067	-28.40	-28.40	-29.00	-29.70	-	-	-	-	-	-	P32/0300
TS-9305	MDT 166	-	-	-	-	-	-	-	-	-	-	P32/0301

**GEOCHEMICAL REPORT ON  
WELL NOCS 6707/10-1 (Headspace Gas data)**

Authors: Peter B. Hall

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Date: February 1998

Table 1a: C1 to C7 hydrocarbons in HEADSPACE gas  
(µl gas/kg rock)

Project: NOCS 6707/10-1

Well: NOCS 6707/10-1

Depth unit of measure: m

\* Indicated values in ml gas/kg rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
2900.00	968	168	40	28	21	143	1224	256	20.9	1.34
2918.00	3475	615	108	107	65	479	4371	896	20.5	1.64
2936.00	6719	981	149	187	84	764	8119	1401	17.3	2.22
2954.00	22579	3173	414	627	225	3483	27018	4439	16.4	2.78
2972.00	3066	543	100	237	72	1123	4018	952	23.7	3.31
2978.00	767	55	8	4	2	18	835	68	8.2	2.57
2993.00	349	47	10	16	8	217	430	81	18.8	2.02
3011.00	676	135	27	60	12	273	910	234	25.8	4.84
3029.00	469	211	60	153	28	347	920	451	49.0	5.53
3047.00	2323	746	140	281	54	852	3544	1221	34.5	5.17
3065.00	35753	4414	614	1647	306	4797	42733	6980	16.3	5.38
3083.00	8642	1373	169	383	67	765	10634	1992	18.7	5.75
3101.00	3817	1176	207	570	104	1653	5874	2056	35.0	5.49
3119.00	13071	2874	309	729	143	2598	17125	4054	23.7	5.11
3134.00	163	76	23	63	15	304	340	177	52.1	4.09
3155.00	1431	539	280	129	115	1041	2494	1063	42.6	1.12
3170.00	22	6	6	2	2	80	38	16	41.9	1.29
3188.00	57	19	11	12	5	78	104	48	45.9	2.40
3209.00	906	177	100	27	35	195	1245	339	27.2	0.76
3227.00	669	91	48	13	18	107	840	172	20.4	0.73
3245.00	27	11	11	1	6	76	56	29	51.7	0.15
3263.00	67	23	17	9	8	99	124	57	46.2	1.25
3281.00	90	23	16	6	8	73	143	53	36.9	0.75
3299.00	22	7	8	2	2	74	41	19	47.1	0.98
3317.00	79	23	17	4	6	38	129	50	38.9	0.78



OLJEDIREKTORATET  
- 8 NOV 1997  
Sak/Dokument

# Geochemical Evaluation

## Well 6707/10-1

### October 1997

by  
R.I. Crisp and R.R. Olsen

BA 97-1914-1  
05 NOV. 1997  
**REGISTRERT**  
OLJEDIREKTORATET





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# SEDIMENTS DATA

TABLE A

## OPTICAL SOURCE ROCK MATURITY INDICATORS

COUNTRY: Norway  
WELL: 67067/10-1

DEPTH	FORMATION	VITRINITE (%Ro)	NO. of READINGS	CONFIDENCE	COMMENTS
2210		0.34	20	C	L-MOD;IPAR 90% VWPAP+PAR 10%;BS MOD BW L;SP Y/O MOD
2240		0.24	20	D	MOD; 100%I;TR V; SP TR Y
2282		0.34	20	C	MOD; IPAR 100% VPAR TR;BS LT/MOD BW VERY L;SP Y/O L
2390		0.34	20	C	MOD;IWPAP+PAR 80% VWPAP 20%;BS LT/MOD BW L/MOD;SP Y/O VERY L
2540		0.34	20	D	L-MOD; IPAR 100%, TR V;SP TR Y+Y/O
2640		0.31	20	D	LOW; IPAR 90% SP 10% TR V; SP TR Y-Y/O
2740		0.34	12	D	LO-MOD; IPAR 90% SP 10% TR V; SP L Y-Y/O
2840		0.35	20	D	MOD; IPAR 90% SP 10%TR V; SP L Y+Y/O
2939		0.41	20	D	MOD;IPAR 100% TR V; SP TR Y/O
3002		0.34	20	C	VERY RI; VPAR 80% IAPR 20%; COALY WISPS
3010		0.36	20	D	MOD; IPAR 80% VPAR TR SP 20%; ALG TR G/Y; MUD CAKE CONTAMINATION
3014		0.37	20	C	MOD; IAPR 90% VPAR 10% V H/C IMPREG; ALG TR Y, SP TR Y/O
3119		0.36	9	D	LOW; 100%IPAR, VAPR TR; AMORP L Y/O, ALG TR Y, SP TR Y/O
3194		0.37	20	D	L-MOD; IPAR 100% VPAR TR; SP TR Y+Y/O, AMORP L LO
3329		0.39	10	D	V LOW; IAPR 100% VAPR TR; SP TR Y-Y/O
3401		0.42	11	D	V LOW; IPAR 100% VPAR TR; AMORP L, Y/O, SP TR Y-Y/O
3494		0.43	5	E	TR; IPAR 90% VPAR 10% SP 10%; AMORP MOD Y/O-LO, SP VERY L Y-Y/O
3599		0.43	9	D	LOW; IPAR 100% VPAR TR; SP TR Y-Y/O
3707		0.46	20	D	LOW-MOD; IPAR 90% VPAR 10%; SP TR Y+Y/O
3806		0.48	20	D	MOD; IPAR 90% VPAR TR, SP 10%; SP L Y/O
3912		0.46	20	D	MOD;IPAR 100% VPAR+WPAR TR;BS+BW MOD;ALG Y/O TR SP L+M.O. L
4039		0.46	20	C	MOD;IPAR 100% VPAR+WPAR TR;BS+BW MOD;ALG Y-Y/O TR SP Y/O-M.O. L/MOD
4100.5		0.47	20	C	MOD;IPAR 100% VPAR+WPAR TR;BS+BW MOD;SP L.O. MOD

TABLE B

OPTICAL SOURCE ROCK MATURITY INDICATORS

COUNTRY: Norway  
WELL: 67067/10-1

DEPTH	FORMATION	VITRINITE (%Ro)	NO. of READINGS	CONFIDENCE	COMMENTS
4138		0.49	20	C	MOD; IPAR 80%, SP 20% VPAR TR; ALG TR Y
4210		0.49	20	D	MOD; IPAR 100% VPAR TR; SP TR Y/O
4248		0.51	20	D	MOD;IPAR 100% VPAR TR;BS+BW MOD;SP Y/O-L.O. L
4390		0.52	5	D	MOD;IPAR 100% VPAR TR DEG;BS LT+MOD BW MOD;SP L.O. TR
4520		0.54	20	D	MOD;IPAR 100% VPAR TR;BS MOD BW L;ALG Y/O TR SP L.O. L
4600		0.6	20	C	MOD;IPAR 100% VPAR+WPAR TR;BS LT+MOD BW L;ALG Y/O L SP M.O. MOD
4800		0.61	20	D	MOD;IPAR 100% VPAR TR DEG;BS MOD BW L;ALG Y/O TR SP M.O. L
4950		0.63	20	D	MOD;IPAR 100% VPAR TR DEG;BS LT+MOD BW L;ALG L.O. TR SP M.O. L
5027		0.68	20	C	MOD;IPAR 100% VPAR TR;BS MOD BW L/MOD;SP M.O. L

Confidence      A=Excellent   B=Good   C=Average   D=Poor   E=Unreliable

TABLE C

## SOURCE ROCK QUALITY INDICATORS

COUNTRY: Norway  
WELL: 6707/10-1

DEPTH (M)	DEPTHRANGE (M)	FORMATION	PICKED LITHOLOGY	S1 (kg/t)	S1 (mg/gC)	S2 (kg/t)	TOC (%)	TMAX deg C	HI	GOGI	CARBT (%)	S (%)
2210			Mudstone				0.83				8.4	2.19
2228			Mudstone				0.86				11.6	2.55
2240			Mudstone				0.93				15.8	2.32
2244			Mudstone				0.73				6.2	8.50
2252			Mudstone	0.7	28.9	2.2	2.39	362	91		8.3	3.87
2264			Mudstone				0.98				13.6	1.97
2270			Mudstone	0.8	68.2	6.0	1.11	397	542		8.2	2.47
2282			Mudstone				0.85				6.3	2.74
2295			Mudstone									
2300			Mudstone	0.7	62.6	4.3	1.06	383	408		7.1	3.48
2390			Mudstone				0.77				3.4	0.93
2422			Mudstone	0.8	65.5	3.0	1.19	362	253		6.3	0.55
2437			Mudstone				0.92				6.9	0.45
2440			Mudstone	1.0	69.8	4.6	1.48	393	307		11.3	1.03
2465			Mudstone	0.9	73.9	5.4	1.15	386	472		9.2	1.13
2490			Mudstone				0.92				3.0	1.85
2520			Mudstone	0.8	72.5	5.6	1.12	380	496		7.6	0.49
2540			Mudstone				0.94				4.4	0.61
2570			Mudstone	1.3	129.1	3.7	1.00	374	371		7.0	0.87
2590			Mudstone				0.87				8.5	0.36
2610			Mudstone	0.8	75.7	3.8	1.01	375	371		7.2	0.66
2640			Mudstone				0.98				3.2	0.72
2670			Mudstone				0.99				6.6	0.58
2690			Mudstone				0.91				9.3	0.65
2720			Mudstone	0.7	65.5	4.4	1.04	376	423		5.5	0.40
2740			Mudstone	0.8	72.9	4.0	1.04	380	389		8.1	0.41
2770			Mudstone				0.93				3.8	0.59
2790			Mudstone	0.8	73.4	3.2	1.02	384	311		1.5	0.64

TABLE D

## SOURCE ROCK QUALITY INDICATORS

COUNTRY: Norway  
WELL: 6707/10-1

DEPTH (M)	DEPTHRANGE (M)	FORMATION	PICKED LITHOLOGY	S1 (kg/t)	S1 (mg/gC)	S2 (kg/t)	TOC (%)	TMAX deg C	HI	GOGI	CARBT (%)	S (%)
2820			Mudstone	0.6	50.1	4.0	1.15	384	349		1.9	0.48
2840			Mudstone	0.7	65.2	3.7	1.11	381	333		0.7	0.55
2870			Mudstone	0.7	62.5	4.2	1.05	379	405		11.1	0.49
2890			Mudstone	1.8	155.2	11.8	1.15	364	1027		8.4	0.70
2912			Mudstone	1.3	99.0	7.6	1.29	360	592		9.0	0.48
2924			Mudstone	1.0	89.2	8.6	1.12	361	768		9.4	0.38
2939			Mudstone	1.8	161.6	8.9	1.13	365	789		7.0	0.60
2967			Mudstone	1.1	74.7	3.9	1.49	362	261		9.4	1.15
2968			Mudstone	1.0	72.1	2.6	1.34	431	197		7.2	0.91
2969			Mudstone	1.2	107.3	3.4	1.12	344	301		5.9	0.38
2970			Mudstone	0.8	65.1	1.9	1.20	434	158		8.4	1.11
2971			Mudstone				0.82	434			43.8	0.54
2972			Mudstone	0.7	57.0	2.2	1.27	424	175		8.7	0.89
2973			Mudstone				0.99	434			7.0	0.69
2974.1			Mudstone				0.72	342			5.6	0.20
2976			Mudstone	1.1	88.5	3.0	1.22	334	246		6.4	0.33
2982			Mudstone	0.9	59.5	2.7	1.45	427	184		12.8	1.24
2984			Mudstone	1.4	95.7	3.3	1.43	424	232		8.8	1.50
3000			Mudstone				0.49	345			3.5	0.14
3001			Mudstone				0.98	430			11.7	0.34
3002			Mudstone	7.6	48.6	19.1	15.62	418	123		15.4	21.40
3010			Mudstone	1.3	87.5	4.6	1.54	430	298		7.4	0.39
3014			Mudstone	1.4	77.0	4.3	1.76	338	245		30.8	0.42
3019			Mudstone	1.2	104.1	2.9	1.13	430	254		8.9	0.50
3019.98			Mudstone				0.93	342			7.7	0.55
3020.83			Mudstone				0.91	429			9.2	0.49
3022			Mudstone	0.9	82.0	2.7	1.07	432	247		10.3	0.84
3022.92			Mudstone				0.35	345			4.8	0.23
3037.18			Mudstone	1.2	78.8	4.8	1.58	432	305		6.3	0.93

TABLE E

## SOURCE ROCK QUALITY INDICATORS

COUNTRY: Norway  
WELL: 6707/10-1

DEPTH (M)	DEPTH RANGE (M)	FORMATION	PICKED LITHOLOGY	S1 (kg/t)	S1 (mg/gC)	S2 (kg/t)	TOC (%)	TMAX deg C	HI	GOGI	CARB (%)	S (%)
3048.5			Mudstone				0.93	358			7.8	0.09
3054.85			Mudstone	1.3	70.3	3.5	1.87	430	188		8.9	2.87
3081			Mudstone	1.3	47.6	4.1	2.65	420	154		8.9	1.60
3105			Mudstone	1.7	60.1	6.0	2.76	431	218		11.1	1.13
3119			Mudstone	1.1	111.0	4.2	1.01	356	417		10.7	1.55
3128			Mudstone	1.0		1.3		398				
3155			Mudstone	0.9	140.2	2.0	0.67	362	303		37.5	0.31
3170			Mudstone	0.9		3.4		354				
3194			Mudstone	1.3	97.5	4.2	1.32	359	315		1.3	0.68
3215			Mudstone	2.3	213.6	10.1	1.06	373	959		1.1	0.63
3302			Mudstone	5.7	561.8	11.5	1.01	380	1138		1.0	0.66
3329			Mudstone				0.99				1.0	0.68
3356			Mudstone	5.5	394.2	15.1	1.39	383	1087		1.4	0.62
3401			Mudstone	0.9	73.9	9.3	1.24	367	747		1.2	0.89
3428			Mudstone	8.9	729.3	12.4	1.22	378	1020		1.2	0.54
3494			Mudstone	1.1	77.6	4.6	1.37	432	336		1.4	0.96
3554			Mudstone	0.9	74.2	7.1	1.27	358	560		1.3	1.50
3572			Mudstone	6.1	570.8	11.6	1.07	376	1077		1.1	0.57
3599			Mudstone	5.7	368.6	13.4	1.55	380	864		1.6	0.80
3635			Mudstone	4.3	308.0	13.5	1.41	378	960		1.4	0.72
3662			Mudstone	4.6	402.6	11.6	1.14	379	1016		1.1	0.74
3707			Mudstone	5.2	389.1	13.5	1.35	376	1002		1.3	1.14
3752			Mudstone	1.1	90.1	7.5	1.24	344	607		1.2	0.81
3806			Mudstone	1.6	135.8	8.0	1.16	345	687		1.2	0.61
3815			Mudstone	1.5	137.7	9.1	1.09	355	832		1.1	0.77
3824			Mudstone	1.6	148.7	7.4	1.07	348	693		1.1	0.82
3833			Mudstone	1.9	192.5	7.9	1.00	356	788		1.0	0.90
3842			Mudstone	1.4	125.8	7.7	1.09	353	705		1.1	0.86
3851			Mudstone	1.1	101.3	6.9	1.07	346	644		1.1	0.85

TABLE F

## SOURCE ROCK QUALITY INDICATORS

COUNTRY: Norway  
WELL: 6707/10-1

DEPTH (M)	DEPTHRANGE (M)	FORMATION	PICKED LITHOLOGY	S1 (kg/t)	S1 (mg/gC)	S2 (kg/t)	TOC (%)	TMAX deg C	HI	GOGI	CARB (%)	S (%)
3860			Mudstone	1.3	119.1	8.5	1.08	353	780		1.1	0.68
3869			Mudstone	1.3	119.7	7.0	1.08	351	647		1.1	0.80
3871			Mudstone	1.3	132.2	7.2	1.00	351	721		1.0	0.59
3901			Mudstone				0.93				0.9	0.47
3912			Mudstone				0.95				10.0	0.42
3925			Mudstone				0.98				1.0	0.48
3933			Mudstone	0.8	71.7	3.8	1.17	356	322		7.1	0.86
3949			Mudstone	1.4	130.6	4.7	1.04	345	456		0.9	0.59
4021			Mudstone	1.2	113.5	3.8	1.09	345	348		8.6	0.79
4039			Mudstone	3.1	173.5	9.6	1.76	333	542		8.7	1.12
4063.5			Mudstone	0.9	74.1	5.4	1.16	365	463		4.9	2.15
4075			Mudstone	0.9	73.7	4.4	1.27	356	350		7.9	0.99
4097			Mudstone	1.1	84.7	5.5	1.28	357	432		3.7	1.60
4100.5			Mudstone	1.1	80.7	7.1	1.34	361	527		3.9	1.46
4138			Mudstone	1.3	75.7	2.9	1.71	438	168		11.0	0.78
4138.2			Mudstone	0.8	51.5	2.5	1.59	441	160		21.3	0.66
4143.5			Mudstone	1.0	71.1	4.8	1.44	360	332		6.2	0.86
4150			Mudstone	1.0	81.2	5.0	1.28	357	394		1.9	1.08
4162			Mudstone	1.0	78.0	3.2	1.24	356	258		5.8	1.65
4174			Mudstone	1.5	120.8	4.0	1.23	339	330		5.8	1.04
4175			Mudstone	1.0	93.0	5.1	1.13	359	449		5.3	0.73
4210			Mudstone	1.3	104.6	5.6	1.22	349	459		4.3	1.06
4248			Mudstone				0.66				6.7	0.27
4252			Mudstone	1.0	96.5	4.0	1.04	344	383		5.1	0.76
4276			Mudstone	1.3	108.9	4.8	1.18	347	409		6.5	1.23
4295			Mudstone				0.96				6.8	1.20
4300			Mudstone	1.3	122.3	6.3	1.10	349	575		6.9	0.95
4325			Mudstone	1.0	95.3	5.5	1.01	348	542		6.9	0.93
4339.5			Mudstone				0.85				9.7	0.37
4351			Mudstone	0.9	81.5	6.5	1.08	350	603		4.6	0.65



TABLE G

## SOURCE ROCK QUALITY INDICATORS

COUNTRY: Norway  
WELL: 6707/10-1

DEPTH (M)	DEPTRANGE (M)	FORMATION	PICKED LITHOLOGY	S1 (kg/t)	S1 (mg/gC)	S2 (kg/t)	TOC (%)	TMAX deg C	HI	GOGI	CARB (%)	S (%)
4360			Mudstone	0.8	63.8	3.8	1.32	352	290		6.8	0.88
4375			Mudstone	1.0	97.8	5.3	1.00	349	534		6.5	0.70
4390			Mudstone				0.71				4.6	0.55
4400			Mudstone									
4411			Mudstone	0.9	75.2	2.8	1.14	434	248		4.3	0.72
4423			Mudstone				0.98				6.5	0.57
4425			Mudstone				0.94				5.3	1.15
4437			Mudstone				0.96				7.7	0.79
4450			Mudstone				0.95				6.9	0.69
4468			Mudstone	1.2	103.3	3.5	1.17	349	297		11.6	0.50
4480			Mudstone	1.0	93.8	2.9	1.02	354	286		7.2	0.75
4495			Mudstone	1.1	100.0	4.5	1.05	342	431		7.8	0.58
4510			Mudstone	1.2	114.2	4.5	1.06	345	421		9.6	0.49
4520			Mudstone	1.0	89.6	4.5	1.09	352	409		6.8	0.47
4534			Mudstone	1.1	101.5	3.5	1.05	351	335		8.6	0.59
4549			Mudstone	0.9	90.3	3.8	1.01	352	376		10.2	0.61
4560.5			Mudstone				0.92				6.7	1.72
4576			Mudstone				0.93				10.4	0.66
4590			Mudstone				0.92				13.6	0.56
4600			Mudstone				0.99				6.7	0.35
4615			Mudstone	1.10	106.4	1.9	1.03	327	182		14.0	0.39
4630			Mudstone				0.82				18.3	0.43
4645			Mudstone				0.96				14.6	0.71
4654			Mudstone				0.98				7.81	1.42
4669			Mudstone	1.48	135.8	4.0	1.09	333	366		12.4	1.03
4684			Mudstone				0.99				12.9	0.77
4699			Mudstone	0.89	85.5	3.5	1.04	344	336		7.2	0.65
4714			Mudstone	0.81	71.1	3.7	1.14	354	328		8.7	0.55
4732			Mudstone	0.89	88.0	3.8	1.01	345	377		6.6	0.48
4744			Mudstone				0.93				13.9	0.36

TABLE H  
SOURCE ROCK QUALITY INDICATORS

COUNTRY: Norway  
WELL: 6707/10-1

DEPTH (M)	DEPTHRANGE (M)	FORMATION	PICKED LITHOLOGY	S1 (kg/t)	S1 (mg/gC)	S2 (kg/t)	TOC (%)	TMAX deg C	HI	GOGI	CARBT (%)	S (%)
4759			Mudstone	1.11	107.8	4.2	1.03	344	405		14.6	0.38
4774			Mudstone	0.96	88.4	4.5	1.09	348	418		14.1	0.39
4789			Mudstone	1.16		4.4		347				
4800			Mudstone	1.1	107.5	3.5	1.05	348	333		6.57	0.49
4816			Mudstone	1.00		3.0		337				
4825			Mudstone	1.2	92.6	5.2	1.27	357	409		6.87	0.23
4831			Mudstone				0.99				15.5	0.62
4846			Mudstone	1.00	88.3	4.3	1.14	349	381		7.1	0.43
4861			Mudstone	0.87	80.3	4.7	1.09	352	431		7.9	0.44
4876			Mudstone	1.05	102.0	4.0	1.03	347	389		12.0	3.34
4891			Mudstone	1.11	99.2	7.3	1.12	358	650		11.6	0.43
4906			Mudstone	1.06	99.0	5.2	1.07	340	485		10.8	0.55
4921			Mudstone	0.99	91.6	6.4	1.08	348	593		12.8	0.42
4936			Mudstone				0.97				15.8	0.38
4948			Mudstone				0.94				21.7	0.40
4950			Mudstone				0.93				5.43	0.25
4963			Mudstone	1.74	154.7	6.4	1.13	346	566		8.8	0.39
4981			Mudstone				0.92				15.5	0.40
4993			Mudstone	2.00	178.5	8.5	1.12	367	761		8.9	0.42
5005			Mudstone	1.19	114.6	7.6	1.04	363	732		10.7	0.76
5027			Mudstone	1.1	104.8	3.4	1.08	356	311		6.90	1.14

# GAS DATA

Table 1: Amount of gas (ppm) well NOCS 6707/10-1

Sample	C1	C2	C3	iC4	C4	C5+
2900 m	11816,2	294,8	9,8	10,4	1,8	13,6
2957 m	16424,1	417,7	14,3	15,0	2,7	19,8
2958 m	14563,1	405,7	13,7	14,5	2,4	13,6
2959 m	15853,4	404,8	13,8	14,5	2,4	13,3
2961 m	13320,6	333,8	11,7	11,3	2,0	11,4
2962 m	14445,9	372,6	13,2	14,1	3,4	33,1
2963 m	10415,2	279,8	9,8	10,4	1,8	9,4
2966 m	5217,3	129,4	7,6	4,7	5,2	59,4
2967 m	7400,1	181,9	6,3	7,4	1,7	15,4
2973 m	7295,7	199,8	27,3	5,7	26,2	95,6
2994 m	12685,8	325,9	10,4	9,0	1,6	8,5
2997 m	13296,4	307,5	10,2	8,4	1,6	19,2
2998 m	14863,5	346,9	11,7	10,2	5,1	50,5
2999 m	not enough	gas in	sample bag	to enable	analysis	
3023 m	7180,7	163,9	6,2	4,9	4,6	49,2
3030 m	17853,6	396,5	11,7	11,1	2,3	36,6
3032 m	18590,5	411,7	11,5	11,3	2,0	13,5
3038 m	16219,0	367,0	10,5	10,1	1,8	22,9
3041 m	15046,1	340,3	10,1	9,6	2,7	34,1
3044 m	12470,5	306,3	8,5	8,2	1,5	9,8
3046 m	8811,1	201,8	6,5	5,6	4,0	39,3
3048 m	6877,2	160,4	4,9	4,9	1,4	35,7
3059 m	5372,4	128,0	4,3	4,7	1,4	17,6
3083 m	8951,0	204,1	5,9	5,2	1,5	16,3
3110 m	14171,6	317,0	12,2	8,3	4,3	30,4
3115 m	10800,0	243,7	11,0	6,8	1,9	16,1
3120 m	8627,2	195,3	8,6	5,7	3,8	37,8
3125 m	6747,1	164,7	6,6	4,4	1,1	5,9
3130 m	2192,9	52,9	3,9	2,6	1,0	6,7

Sample	C1	C2	C3	iC4	C4	C5+
3135 m	2114,2	52,8	4,4	2,9	1,6	27,8
3140 m	1623,0	40,8	3,1	2,3	1,0	12,9
3355 m	3150,2	52,4	6,2	1,2	1,7	10,5
3385 m	3608,6	83,6	13,1	3,5	5,3	25,9
3413 m	4431,5	62,3	6,8	1,9	2,8	38,3
3450 m	5025,3	72,1	8,7	2,4	2,5	16,4
3763 m	4402,6	63,0	8,1	1,7	3,0	23,3
Unmarked	10715,7	242,1	7,4	7,0	1,5	27,4
MDT 750 3114,5 m	28975,2	3349,4	54,7	27,4	17,7	286,7
MDT 751 3114,5 m	289476,8	3809,0	86,7	55,3	27,7	200,0

Table 2: Isotope GC Analysis of Headspace Gas for well NOCS 6707/10-1

Page: 1

Depth unit of measure: m

Depth	Typ	Lithology	C1	C2	C3	iC4	nC4	CO2	D	Sample
2961.00	gas	DB024	-38.5	-30.7	-19.9	-26.8	-19.9	-3.6	-183.0	0001-0B
2961.00	gas	DA027	-43.1	-29.5	-23.4	-27.4	-25.8	-5.8	-	0009-0B
2994.00	gas	MDT 607	-42.4	-28.5	-19.9	-26.4	-23.0	-3.1	-182.0	0003-0B
2994.00	gas	MDT 610	-45.1	-29.6	-18.7	-25.8	-21.5	-2.6	-187.0	0004-0B
3058.80	gas	MDT BB067	-38.8	-28.7	-18.7	-25.8	-21.5	-2.7	-178.0	0005-0B
3086.00	gas	MDT 152	-40.6	-29.2	-19.5	-26.4	-21.2	-5.6	-177.0	0006-0B
3086.00	gas	MDT 166	-40.4	-29.5	-19.6	-26.3	-22.6	-3.6	-176.0	0007-0B
3114.50	gas	MDT 750	-36.2	-29.3	-21.3	-26.7	-25.8	-8.2	-	0047-0B
3114.50	gas	MDT 751	-37.1	-27.9	-21.7	-29.4	-22.2	-8.6	-	0048-0B
3195.50	gas	MDT 606	-36.1	-29.7	-26.6	-27.1	-26.3	-15.4	-177.0	0008-0B
3355.00	gas		-34.7	-30.8	-	-	-	-13.6	-	0041-0B
3450.00	gas		-38.3	-32.2	-	-	-	-13.7	-	0044-0B
3763.00	gas		-39.3	-30.9	-	-	-	-11.1	-	0045-0B
3945.00	cut		-36.7	-29.5	-28.0	-27.2	-26.6	-29.7	-	0278-0B
3961.00	cut		-35.8	-29.8	-27.8	-27.0	-26.4	-24.2	-	0279-0B

Table 2: Isotope GC Analysis of Headspace Gas for well NOCS 6707/10-1

Depth unit of measure: m

Depth	Typ	Lithology	C1	C2	C3	iC4	nC4	CO2	D	Sample
3979.00	cut		-36.0	-30.6	-28.1	-27.0	-26.7	-23.8	-	0280-0B
3997.00	cut		-36.6	-31.0	-29.4	-27.5	-27.3	-28.3	-	0281-0B
4015.00	cut		-35.2	-30.4	-28.6	-27.7	-27.1	-26.5	-	0282-0B
4033.00	cut		-36.3	-31.4	-29.4	-27.9	-27.3	-26.6	-	0283-0B
4051.00	cut		-38.7	-30.7	-28.9	-28.2	-28.8	-25.7	-	0284-0B
4069.00	cut		-36.7	-30.9	-29.1	-28.4	-27.6	-28.4	-	0285-0B
4105.00	cut		-37.4	-31.5	-29.9	-27.6	-27.5	-28.4	-	0287-0B
4195.00	cut		-36.6	-31.2	-29.5	-31.0	-28.6	-30.6	-	0288-0B
4213.00	cut		-35.9	-31.1	-29.4	-29.3	-28.1	-29.3	-	0289-0B

Table 7a: C1 to C7 hydrocarbons in HEADSPACE gas  
( $\mu$ l gas/kg rock)

Project: NOCS 6707/10-1

Well: NOCS 6707/10-1

Depth unit of measure: m

\* Indicated values in ml gas/kg rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 ---- nC4
3889.00	4292	775	425	102	139	311	5732	1440	25.1	0.73
3907.00	1381	312	170	31	43	111	1938	557	28.7	0.73
3925.00	8829	2008	1130	226	331	880	12526	3696	29.5	0.68
3943.00	11301	2552	1378	231	360	935	15821	4520	28.6	0.64
3961.00	12179	2543	1447	230	400	1058	16799	4620	27.5	0.58
3979.00	18486	3914	1820	262	457	1256	24939	6453	25.9	0.57
3997.00	30952	4656	1746	246	413	1144	38013	7060	18.6	0.59
4015.00	27025	5413	2149	303	529	1752	35420	8395	23.7	0.57
4033.00	13403	3235	1363	227	373	1054	18601	5198	27.9	0.61
4051.00	13523	2570	975	128	220	677	17416	3893	22.4	0.58
4069.00	7664	1574	643	106	169	478	10156	2492	24.5	0.60
4087.00	5490	1414	668	97	167	489	7835	2345	29.9	0.58
4105.00	3933	1237	913	132	224	419	6439	2507	38.9	0.59
4195.00	5955	1059	639	59	156	402	7867	1912	24.3	0.38
4213.00	5874	1486	822	102	195	573	8480	2605	30.7	0.52
4231.00	2726	955	728	92	196	434	4698	1972	42.0	0.47
4249.00	3200	950	627	70	147	338	4994	1793	35.9	0.48
4267.00	1652	629	521	63	121	310	2985	1334	44.7	0.52
4285.00	986	385	332	39	68	122	1810	824	45.5	0.58
4303.00	592	187	198	21	50	183	1049	457	43.6	0.42
4321.00	486	173	219	26	61	154	965	479	49.6	0.42
4339.00	1287	616	679	95	196	459	2873	1586	55.2	0.49
4357.00	974	466	522	79	149	394	2189	1215	55.5	0.53
4375.00	1516	609	509	78	119	274	2831	1315	46.4	0.66
4396.00	416	104	112	13	24	46	669	253	37.8	0.56



# LIGHT HC DATA

Table 3A: Light Hydrocarbons from Whole Oil GC for BP

Well	Description	iC4	nC4	iC5	nC5	2,2DMC4	2,3DMC4	2MC5	3MC5	nC6	MCyC5	Benz	Sample
NOCS 6707/10-1	MDT,DB24	-	-	-	-	0.10	-	-	-	0.95	2.95	-	P32/0002

Table 3B: Light Hydrocarbons from Whole Oil GC for BP

Well	Description	CyC6	2MC6	3MC6	1,3ci- DMCyC5	1,3tr- DMCyC5	1,2tr- DMCyC5	nC7	MCyC6	Tol	nC8	p/m- Xylene	Sample
NOCS 6707/10-1	MDT,DB24	5.03	1.55	1.25	0.95	0.92	1.89	0.47	14.78	5.52	2.12	-	P32/0002

Table 3C: Thompson's indices for BP

Well	Description	A	B	X	W	C	I	F	H	U	R	S	Sample
NOCS 6707/10-1	MDT,DB24	-	11.74	-	-	0.07	0.74	0.03	1.75	1.71	0.30	9.50	P32/0002

THOMPSON'S INDICES

$$A = \frac{\text{Benzene}}{nC6}$$

$$B = \frac{\text{Toluene}}{nC7}$$

$$X = \frac{\text{p/m-xylene}}{nC8}$$

$$W = \frac{\text{Benzene} * 10}{CyC6}$$

$$C = \frac{nC6 + nC7}{CyC6 + MCyC6}$$

$$I = \frac{2MC6 + 3MC6}{1,3ciDMCyC5 + 1,3trDMCyC5 + 1,2trDMCyC5}$$

$$F = \frac{nC7}{MCyC6}$$

$$H = \frac{nC7 * 100}{CyC6 + 2MC6 + 2,3DMC4 + 3MC6 + 1,3ciDMCyC5 + 1,3trDMCyC5 + 1,2trDMCyC5 + nC7 + MCyC6}$$

$$U = \frac{CyC6}{MCyC5}$$

$$R = \frac{nC7}{2MC6}$$

$$S = \frac{nC6}{2,2DMC4}$$

MDT OIL SAMPLES  
B.M. DATA

Table 4A: Variation in Triterpane Distribution (peak height) SIR for BP

Well	Descript.	Ratio1	Ratio2	Ratio3	Ratio4	Ratio5	Ratio6	Ratio7	Ratio8	Ratio9	Rat.10	Rat.11	Rat.12	Rat.13	Rat.14	Sample
NOCS 6707/10-1	MDT,DB24	0.61	0.38	0.36	0.89	0.47	0.08	0.15	0.17	0.13	6.43	0.92	0.48	0.11	61.07	P32/0002

List of Triterpane Distribution Ratios

Ratio 1:  $27Tm / 27Ts$

Ratio 2:  $27Tm / 27Tm+27Ts$

Ratio 3:  $27Tm / 27Tm+30a\beta+30\beta a$

Ratio 4:  $29a\beta / 30a\beta$

Ratio 5:  $29a\beta / 29a\beta+30a\beta$

Ratio 6:  $30d / 30a\beta$

Ratio 7:  $28a\beta / 30a\beta$

Ratio 8:  $28a\beta / 29a\beta$

Ratio 9:  $28a\beta / 28a\beta+30a\beta$

Ratio 10:  $24/3 / 30a\beta$

Ratio 11:  $30a\beta / 30a\beta+30\beta a$

Ratio 12:  $29a\beta+29\beta a / 29a\beta+29\beta a+30a\beta+30\beta a$

Ratio 13:  $29\beta a+30\beta a / 29a\beta+30a\beta$

Ratio 14:  $32a\beta S / 32a\beta S+32a\beta R$  (%)



Table 4B: Variation in Sterane Distribution (peak height) SIR for BP

Well	Descript.	Ratio1	Ratio2	Ratio3	Ratio4	Ratio5	Ratio6	Ratio7	Ratio8	Ratio9	Ratio10	Sample
NOCS 6707/10-1	MDT,DB24	0.93	49.54	70.76	5.76	0.71	0.99	0.97	0.55	0.98	2.40	P32/0002

List of Sterane Distribution Ratios

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Ratio 1:  $27d\beta S / 27d\beta S + 27aaR$

Ratio 2:  $29aaS / 29aaS + 29aaR$  (%)

Ratio 3:  $2 * (29\beta\beta R + 29\beta\beta S) / (29aaS + 29aaR + 2 * (29\beta\beta R + 29\beta\beta S))$  (%)

Ratio 4:  $27d\beta S + 27d\beta R + 27daR + 27daS / 29d\beta S + 29d\beta R + 29daR + 29daS$

Ratio 5:  $29\beta\beta R + 29\beta\beta S / 29\beta\beta R + 29\beta\beta S + 29aaS$

Ratio 6:  $21a + 22a / 21a + 22a + 29aaS + 29\beta\beta R + 29\beta\beta S + 29aaR$

Ratio 7:  $21a + 22a / 21a + 22a + 28daS + 28aaS + 29daR + 29aaS + 29\beta\beta R + 29\beta\beta S + 29aaR$

Ratio 8:  $29\beta\beta R + 29\beta\beta S / 29aaS + 29\beta\beta R + 29\beta\beta S + 29aaR$

Ratio 9:  $29aaS / 29aaR$

Ratio 10:  $29\beta\beta R + 29\beta\beta S / 29aaR$

Table 4C: Variation in Triaromatic Sterane Distribution (peak height) for BP

Well	Descript.	Ratio1	Ratio2	Ratio3	Ratio4	Ratio5	Sample
NOCS 6707/10-1	MDT,DB24	0.63	0.53	0.37	0.37	0.52	P32/0002

Ratio1:  $a1 / a1 + g1$

Ratio2:  $b1 / b1 + g1$

Ratio3:  $a1 + b1 / a1 + b1 + c1 + d1 + e1 + f1 + g1$

Ratio4:  $a1 / a1 + e1 + f1 + g1$

Ratio5:  $a1 / a1 + d1$

Table 4D: Variation in Monoaromatic Sterane Distribution (peak height) for BP

Well	Descript.	Ratio1	Ratio2	Ratio3	Ratio4	Sample
NOCS 6707/10-1	MDT,DB24	0.75	0.65	0.65	0.65	P32/0002

Ratio1:  $A1 / A1 + E1$   
 Ratio2:  $B1 / B1 + E1$

Ratio3:  $A1 / A1 + E1 + G1$   
 Ratio4:  $A1+B1 / A1+B1+C1+D1+E1+F1+G1+H1+I1$

Table 4E: Aromatisation of Steranes (peak height) for BP

<u>Well</u>	<u>Descript.</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Sample</u>
NOCS 6707/10-1	MDT,DB24	0.62	0.95	P32/0002

Ratio1: 
$$\frac{C1+D1+E1+F1+G1+H1+I1}{C1+D1+E1+F1+G1+H1+I1 + c1+d1+e1+f1+g1}$$

Ratio2:  $g1 / g1 + I1$

Table 4F: Raw triterpane data (peak height) for BP

Well	Descript.	23/3	24/3	25/3	24/4	26/3	27Ts	27Tm	28aß	25nor30aß	Sample
	29aß	29Ts	30d	29Ba	300	30aß	30Ba	30G	31aßS		
	31aßR	32aßS	32aßR	33aßS	33aßR	34aßS	34aßR	35aßS	35aßR		
NOCS 6707/10-1 MDT, DB24	71577.4 6477.2 826.4	46733.0 1994.6 567.2	8423.4 569.2 361.6	37629.6 871.2 243.9	6870.3 0.0 144.0	7186.0 7262.5 242.9	4400.2 667.4 73.9	1090.7 0.0 0.0	4741.0 1170.6 0.0	P32/0002	

Table 4G: Raw sterane data (peak height) m/z 217 SIR for BP

Well	Descript.	21a	22a	27dBS	27dBR	27daR	27daS	28dBS	28dBR	28daR*	Sample
		29dBS*	28daS*	27aaR	29dBR	29daR	28aaS	29daS*	28BS		
		28aaR	29aaS	29BR	29BS	29aaR					
NOCS 6707/10-1 MDT, DB24		84308.4	19019.8	17232.2	8248.2	2616.5	2438.8	4908.0	2297.8	1424.0	P32/0002
		2879.0	1357.0	1203.3	1373.5	475.8	323.5	569.5	508.8		
		471.9	301.9	424.7	312.5	307.5					

\* 28daR coel with 27aaS, 29dBS coel with 27BR, 28daS coel with 27BS, 29daS coel with 28BR

Table 4H: Raw triaromatic sterane data (peak height) m/z 231 for BP

Well	Descript.	a1	b1	c1	d1	e1	f1	g1	Sample
NOCS 6707/10-1	MDT,DB24	7623.8	4967.2	1792.1	7104.8	5800.7	2554.7	4482.2	P32/0002



Table 4I: Raw monoaromatic sterane data (peak height) m/z 253 for BP

Well	Descript.	A1	B1	C1	D1	E1	F1	G1	H1	I1	Sample
NOCS 6707/10-1	MDT,DB24	40915.9	25784.3	7465.5	4414.1	13768.3	46.6	8091.9	1564.7	212.2	P32/0002

Table 4J: Raw sterane data (peak height) m/z 218 SIR for BP

Well	Descript.	27 $\beta$ BR	27 $\beta$ BS	28 $\beta$ BR	28 $\beta$ BS	29 $\beta$ BR	29 $\beta$ BS	30 $\beta$ BR	30 $\beta$ BS	Sample
NOCS 6707/10-1	MDT,DB24	1840.5	1270.1	646.9	655.3	547.6	464.0	41.7	38.8	P32/0002

Table 4K: Raw triterpane data (peak height) m/z 177 SIR for BP

<u>Well</u>	<u>Descript.</u>	<u>25nor28aß</u>	<u>25nor30aß</u>	<u>Sample</u>
NOCS 6707/10-1	MDT,DB24	6113.5	2118.4	P32/0002

Table 5a: Variation in Triterpane Distribution (peak height) SIR for 6707/10-1

Well	Descript.	Ratio1	Ratio2	Ratio3	Ratio4	Ratio5	Ratio6	Ratio7	Ratio8	Ratio9	Rat.10	Rat.11	Rat.12	Rat.13	Rat.14	Sample
TS-2621	MDT DA027	1.01	0.50	0.15	0.61	0.38	0.03	0.05	0.09	0.05	0.08	0.84	0.39	0.21	58.00	P32/0302
TS-5814	MDT BB067	0.96	0.49	0.13	0.61	0.38	0.01	0.03	0.04	0.03	0.10	0.88	0.39	0.15	59.57	P32/0300
TS-9305	MDT 166	1.15	0.53	0.12	0.59	0.37	0.00	0.02	0.03	0.02	0.05	0.87	0.37	0.15	59.78	P32/0301

List of Triterpane Distribution Ratios

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Ratio 1:  $27Tm / 27Ts$

Ratio 2:  $27Tm / 27Tm+27Ts$

Ratio 3:  $27Tm / 27Tm+30a\beta+30\beta a$

Ratio 4:  $29a\beta / 30a\beta$

Ratio 5:  $29a\beta / 29a\beta+30a\beta$

Ratio 6:  $30d / 30a\beta$

Ratio 7:  $28a\beta / 30a\beta$

Ratio 8:  $28a\beta / 29a\beta$

Ratio 9:  $28a\beta / 28a\beta+30a\beta$

Ratio 10:  $24/3 / 30a\beta$

Ratio 11:  $30a\beta / 30a\beta+30\beta a$

Ratio 12:  $29a\beta+29\beta a / 29a\beta+29\beta a+30a\beta+30\beta a$

Ratio 13:  $29\beta a+30\beta a / 29a\beta+30a\beta$

Ratio 14:  $32a\beta S / 32a\beta S+32a\beta R$  (%)

Table 5b: Variation in Sterane Distribution (peak height) SIR for 6707/10-1

<u>Well</u>	<u>Descript.</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Ratio3</u>	<u>Ratio4</u>	<u>Ratio5</u>	<u>Ratio6</u>	<u>Ratio7</u>	<u>Ratio8</u>	<u>Ratio9</u>	<u>Ratio10</u>	<u>Sample</u>
TS-2621	MDT DA027	0.70	44.01	66.29	1.15	0.69	0.26	0.19	0.50	0.79	1.76	P32/0302
TS-5814	MDT BB067	0.85	43.90	74.30	1.75	0.77	0.49	0.38	0.59	0.78	2.58	P32/0300
TS-9305	MDT 166	0.68	40.81	72.40	0.99	0.76	0.19	0.13	0.57	0.69	2.22	P32/0301

List of Sterane Distribution Ratios

Ratio 1:  $27d\beta S / 27d\beta S + 27aaR$

Ratio 2:  $29aaS / 29aaS + 29aaR$  (%)

Ratio 3:  $2 * (29\beta\beta R + 29\beta\beta S) / (29aaS + 29aaR + 2 * (29\beta\beta R + 29\beta\beta S))$  (%)

Ratio 4:  $27d\beta S + 27d\beta R + 27daR + 27daS / 29d\beta S + 29d\beta R + 29daR + 29daS$

Ratio 5:  $29\beta\beta R + 29\beta\beta S / 29\beta\beta R + 29\beta\beta S + 29aaS$

Ratio 6:  $21a + 22a / 21a + 22a + 29aaS + 29\beta\beta R + 29\beta\beta S + 29aaR$

Ratio 7:  $21a + 22a / 21a + 22a + 28daS + 28aaS + 29daR + 29aaS + 29\beta\beta R + 29\beta\beta S + 29aaR$

Ratio 8:  $29\beta\beta R + 29\beta\beta S / 29aaS + 29\beta\beta R + 29\beta\beta S + 29aaR$

Ratio 9:  $29aaS / 29aaR$

Ratio 10:  $29\beta\beta R + 29\beta\beta S / 29aaR$

Table 5c: Variation in Triaromatic Sterane Distribution (peak height) for 6707/10-1

<u>Well</u>	<u>Descript.</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Ratio3</u>	<u>Ratio4</u>	<u>Ratio5</u>	<u>Sample</u>
TS-2621	MDT DA027	0.34	0.39	0.19	0.16	0.24	P32/0302
TS-5814	MDT BB067	0.50	0.40	0.27	0.29	0.40	P32/0300
TS-9305	MDT 166	0.14	0.15	0.06	0.06	0.07	P32/0301

Ratio1:  $a1 / a1 + g1$

Ratio2:  $b1 / b1 + g1$

Ratio3:  $a1 + b1 / a1 + b1 + c1 + d1 + e1 + f1 + g1$

Ratio4:  $a1 / a1 + e1 + f1 + g1$

Ratio5:  $a1 / a1 + d1$



Table 5d: Variation in Monoaromatic Sterane Distribution (peak height) for 6707/10-1

Well	Descript.	Ratio1	Ratio2	Ratio3	Ratio4	Sample
TS-2621	MDT DA027	0.42	0.35	0.26	0.24	P32/0302
TS-5814	MDT BB067	0.51	0.37	0.36	0.35	P32/0300
TS-9305	MDT 166	0.31	0.17	0.16	0.15	P32/0301

Ratio1: A1 / A1 + E1  
 Ratio2: B1 / B1 + E1

Ratio3: A1 / A1 + E1 + G1  
 Ratio4: A1+B1 / A1+B1+C1+D1+E1+F1+G1+H1+I1

Table 5e: Aromatisation of Steranes (peak height) for 6707/10-1

Well	Descript.	Ratio1	Ratio2	Sample
TS-2621	MDT DA027	0.69	0.72	P32/0302
TS-5814	MDT BB067	0.65	0.93	P32/0300
TS-9305	MDT 166	0.62	0.81	P32/0301

Ratio1: 
$$\frac{C1+D1+E1+F1+G1+H1+I1}{C1+D1+E1+F1+G1+H1+I1 + c1+d1+e1+f1+g1}$$

Ratio2:  $g1 / g1 + I1$

Table 5f: Raw triterpane data (peak height) for 6707/10-1

Page: 1

Well	Descript.	23/3	24/3	25/3	24/4	26/3	27Ts	27Tm	28aß	25nor30aß	Sample
		29aß	29Ts	30d	29ßa	300	30aß	30ßa	30G	31aßS	
		31aßR	32aßS	32aßR	33aßS	33aßR	34aßS	34aßR	35aßS	35aßR	
TS-2621	MDT DA027	47882.2 309366.8 123405.2	38813.4 123352.4 105588.9	28440.0 14597.5 76466.6	47413.1 71275.6 64310.0	17715.2 0.0 40980.7	108132.0 506850.2 53912.2	108989.1 96061.0 22002.9	26977.3 0.0 28291.8	52697.8 152906.4 23237.9	P32/0302
TS-5814	MDT BB067	5384.6 20947.6 6945.5	3573.1 6331.8 6513.3	1506.6 390.5 4420.3	4382.8 3821.3 3808.0	1233.3 0.0 2167.9	6208.9 34118.1 2885.4	5934.0 4699.5 1028.1	888.6 0.0 1354.3	3442.7 10133.6 845.0	P32/0300
TS-9305	MDT 166	2660.0 23098.9 8711.7	2004.1 6829.1 8690.8	941.9 131.0 5846.8	1817.7 3484.8 5794.2	891.5 0.0 3303.1	5219.1 38889.1 4665.3	5979.5 5573.7 1765.3	792.7 0.0 2511.4	2456.8 12328.3 1642.2	P32/0301

Table 5g: Raw sterane data (peak height) m/z 217 SIR for 6707/10-1

Well	Descript.	21a	22a	27dBS	27dBR	27daR	27daS	28dBS	28dBR	28daR*	Sample
		29dBS*	28daS*	27aaR	29dBR	29daR	28aaS	29daS*	28BS		
		28aaR	29aaS	29BR	29BS	29aaR					
TS-2621	MDT DA027	35241.4 67236.4 15693.1	15415.4 34734.8 31668.9	73590.5 31473.4 40996.1	47707.3 41730.4 29766.8	20719.6 13107.6 40284.4	21869.2 13126.9	37957.8 20563.9	23265.6 26975.5	30109.6	P32/0302
TS-5814	MDT BB067	4619.8 3271.3 582.4	1284.9 1667.4 1090.4	6460.2 1165.9 1996.8	3786.4 2312.3 1593.8	1470.1 769.9 1393.4	1214.4 656.6	2789.7 1048.8	1669.3 1203.1	1295.2	P32/0300
TS-9305	MDT 166	1606.4 3115.6 1300.6	696.7 1991.7 1772.2	4065.6 1877.0 3184.5	2467.2 2453.4 2509.8	901.5 877.9 2570.0	892.5 1241.7	2057.2 1988.3	1127.4 2356.7	1632.3	P32/0301

\* 28daR coel with 27aaS, 29dBS coel with 27BR, 28daS coel with 27BS, 29daS coel with 28BR

Table 5h: Raw sterane data (peak height) m/z 218 SIR for 6707/10-1

Well	Descript.	27 $\beta$ BR	27 $\beta$ BS	28 $\beta$ BR	28 $\beta$ BS	29 $\beta$ BR	29 $\beta$ BS	30 $\beta$ BR	30 $\beta$ BS	Sample
TS-2621	MDT DA027	63530.1	47261.4	34490.4	39735.3	57479.4	50769.1	10123.8	9771.9	P32/0302
TS-5814	MDT BB067	2355.5	1923.0	1384.5	1665.7	2675.4	2480.7	276.3	283.8	P32/0300
TS-9305	MDT 166	3307.2	2705.5	2914.6	3225.0	4555.5	4121.9	457.8	447.4	P32/0301

Table 5i: Raw triterpane data (peak height) m/z 177 SIR for 6707/10-1

<u>Well</u>	<u>Descript.</u>	<u>25nor28aß</u>	<u>25nor30aß</u>	<u>Sample</u>
TS-2621	MDT DA027	31773.0	35986.9	P32/0302
TS-5814	MDT BB067	2335.6	1885.6	P32/0300
TS-9305	MDT 166	1042.8	1358.0	P32/0301

Table 5j: Raw triaromatic sterane data (peak height) m/z 231 for 6707/10-1

Well	Descript.	a1	b1	c1	d1	e1	f1	g1	Sample
TS-2621	MDT DA027	7654.2	9229.7	9052.3	24006.3	17130.5	9211.8	14717.1	P32/0302
TS-5814	MDT BB067	1098.7	740.9	526.7	1673.5	1088.9	514.7	1106.9	P32/0300
TS-9305	MDT 166	147.0	160.4	473.4	1817.0	838.9	460.2	887.2	P32/0301

Table 5k: Raw monoaromatic sterane data (peak height) m/z 253 for 6707/10-1

Well	Descript.	A1	B1	C1	D1	E1	F1	G1	H1	I1	Sample
TS-2621	MDT DA027	30077.3	22375.4	21368.4	19786.0	42122.3	11017.6	43422.8	18703.2	5766.2	P32/0302
TS-5814	MDT BB067	3184.0	1801.4	1195.9	1033.0	3084.3	531.6	2655.4	605.3	84.7	P32/0300
TS-9305	MDT 166	847.0	397.7	735.7	681.2	1909.3	314.5	2466.5	914.5	206.6	P32/0301



OLJEDIREKTORAAT  
- 3 NOV 1997  
Sak/Dok. nr. 7

# APPENDIX 1 SIDEWALL CORE EXTRACTS DATA

EXTRACTS DATA

BA 97-1914-1  
05 NOV. 1997  
REGISTRERT  
OLJEDIREKTORAAT

## Sediment/Extract Analysis

Well name : 6707/10-1  
Suite name : NYK 6707/10-1 SWC's  
Country Of Origin : Norway  
Depth (m) : 3945  
Sample name :

### Extraction

TSE %wt : 1.539

### HPLC

Saturates %wt : 0.15  
Aromatics %wt : 22.36  
Residue %wt : 77.49

### Inspection Properties

Density @ 15 deg C :  
Wax Content %wt :  
Wax Melting Point deg C :  
Pour Point deg C :  
Viscosity cSt @ 20 deg C :  
Total Acidity mg KOH/g :  
Asphaltenes %wt (IP Method) :  
Nitrogen ppm :  
Sulphur %wt :  
Nickel ppm :  
Vanadium :

Asphaltenes (Micro Method) %wt :

### Saturates GC

Pristane/Pyhtane : 2.83  
Pristane/nC17 : 1.79  
Phytane/nC18 : 0.93  
CPI : 1.1  
ALKIND : 89.75  
R22 : 0.82

### Biomarker Ratios

H1 :	0.38	S1 :	0.21	M2 :	1.17
H2 :	0.53	S2 :	0.48	M3 :	0.68
H3 :	0.81	S3 :	14:30:56	M4 :	
H4 :		S4 :	34:24:43	M5 :	
H5 :	100:72:43	S5 :	53.6	A1 :	0.26
H6 :	0.21	S6 :		A2 :	0.41
H7 :		S7 :	20.12	A3 :	0.92
H8 :		S8 :		A4 :	0.75
H9 :		S9 :		A5 :	0.39
H10 :		S10 :		A6 :	1.22
H11 :	10.14			MDR :	3.37
H12 :	23.35			MBP :	40.41
H13 :	132.4				
H14 :	34.75				
H15 :	0				
H16 :	0				
H17 :					
H18 :	272.72				

### Light Hydrocarbons

MCH % :  
HER :  
HXR :

### Stable Carbon Isotopes

Saturates :  
Total Oil :  
Aromatics :  
Residue :  
Asphaltenes :  
Kerogen :

STANDARD :

# Oil Analysis

Well name : 6707/10-1  
Suite name : NYK 6707/10-1 SWC's  
Country Of Origin : Norway  
Depth (m) : 3956  
Sample name :  
Test Number :  
G number : G

## Inspection Properties

API :  
Density @ 15 deg C :  
Wax Content %wt :  
Wax Melting Point deg C :  
Pour Point deg C :  
Viscosity cSt @ 20 deg C :  
Total Acidity mg KOH/g :  
Asphaltenes %wt (IP Method) :  
Nitrogen ppm :  
Sulphur %wt :  
Nickel ppm :  
Vanadium ppm :  
Nickel/Vanadium :

## Biomarker Ratios

H1 : 0.56	S1 : 0.59	M2 : 1.27
H2 : 0.46	S2 : 0.56	M3 : 0.80
H3 : 0.85	S3 : 50:23:25	M4 : 66.32
H4 : 0	S4 : 34:29:36	M5 :
H5 : 100:100:52:37:14:15	S5 : 15.76	A1 : 0.39
H6 : 0.38	S6 :	A2 : 0.52
H7 : 0.73	S7 : 65.88	A3 : 0.60
H8 :	S8 : 0.00	A4 : 0.24
H9 :	S9 :	A5 : 1.97
H10 :	S10 :	A6 : 1.63
H11 : 12.58		MDR : 3.02
H12 : 11.17		MBP : 29.02
H13 : 16.17		
H14 : 6.07		
H15 : 0.00		
H16 : 0.00		
H17 : 52.00		
H18 : 23.67		

## HPLC

Saturates %wt : 0.99  
Aromatics %wt : 0.92  
Residues %wt : 98.09

Asphaltenes (Micro Method) %wt :

## Saturates GC

Pristane/Phytane : 0.22  
Pristane/nC17 : 0.62  
Phytane/nC18 : 1.20  
CPI : 1.10  
ALKIND : 32.69  
R22 : 1.01

## Light Hydrocarbons

MCH % :  
HER :  
HXR :

## Stable Carbon Isotopes

Saturates :  
Total Oil :  
Aromatics :  
Residue :  
Asphaltenes :

STANDARD:

## Oil Analysis

Well name : 6707/10-1  
Suite name : NYK 6707/10-1 SWC's  
Country Of Origin : Norway  
Depth (m) : 3977.5  
Sample name :  
Test Number :  
G number : G

### Inspection Properties

API :  
Density @ 15 deg C :  
Wax Content %wt :  
Wax Melting Point deg C :  
Pour Point deg C :  
Viscosity cSt @ 20 deg C :  
Total Acidity mg KOH/g :  
Asphaltenes %wt (IP Method) :  
Nitrogen ppm :  
Sulphur %wt :  
Nickel ppm :  
Vanadium ppm :  
Nickel/Vanadium :

### Biomarker Ratios

H1 : 0.48	S1 : 0.36	M2 : 1.29
H2 : 0.47	S2 : 0.42	M3 : 0.63
H3 : 0.80	S3 : 26:37:36	M4 : 55.11
H4 : 0	S4 : 31:34:34	M5 :
H5 : 100:100:43:16:12:10	S5 : 52.95	A1 : 0.17
H6 : 0.21	S6 :	A2 : 0.38
H7 : 0.47	S7 : 42.00	A3 : 0.93
H8 :	S8 : 0.00	A4 : 0.77
H9 :	S9 :	A5 : 0.48
H10 :	S10 :	A6 : 0.98
H11 : 10.20		MDR : 2.06
H12 : 10.12		MBP : 19.51
H13 : 27.70		
H14 : 7.43		
H15 : 0.00		
H16 : 0.00		
H17 : 45.61		
H18 : 36.57		

### HPLC

Saturates %wt : 0.70  
Aromatics %wt : 24.50  
Residues %wt : 74.81

Asphaltenes (Micro Method) %wt :

### Saturates GC

Pristane/Phytane : 1.54  
Pristane/nC17 : 1.20  
Phytane/nC18 : 1.09  
CPI : 1.10  
ALKIND : 57.87  
R22 : 0.82

### Light Hydrocarbons

MCH % :  
HER :  
HXR :

### Stable Carbon Isotopes

Saturates :  
Total Oil :  
Aromatics :  
Residue :  
Asphaltenes :

STANDARD:

# Oil Analysis

Well name : 6707/10-1  
Suite name : NYK 6707/10-1 SWC's  
Country Of Origin : Norway  
Depth (m) : 3998.5  
Sample name :  
Test Number :  
G number : G

## Inspection Properties

API :  
Density @ 15 deg C :  
Wax Content %wt :  
Wax Melting Point deg C :  
Pour Point deg C :  
Viscosity cSt @ 20 deg C :  
Total Acidity mg KOH/g :  
Asphaltenes %wt (IP Method) :  
Nitrogen ppm :  
Sulphur %wt :  
Nickel ppm :  
Vanadium ppm :  
Nickel/Vanadium :

## Biomarker Ratios

H1 : 0.53	S1 : 0.44	M2 : 1.14
H2 : 0.45	S2 : 0.57	M3 : 0.57
H3 : 0.86	S3 : 35:23:40	M4 : 67.79
H4 : 0	S4 : 25:32:41	M5 :
H5 : 100:103:42:21:7:9	S5 : 39.71	A1 : 0.25
H6 : 0.31	S6 :	A2 : 0.44
H7 : 0.57	S7 : 47.07	A3 : 0.96
H8 :	S8 : 0.00	A4 : 0.82
H9 :	S9 :	A5 : 0.51
H10 :	S10 :	A6 : 1.16
H11 : 22.13		MDR : 2.76
H12 : 17.80		MBP : 20.73
H13 : 20.10		
H14 : 3.15		
H15 : 0.00		
H16 : 0.00		
H17 : 56.75		
H18 : 37.47		

## HPLC

Saturates %wt : 0.66  
Aromatics %wt : 9.85  
Residues %wt : 89.49

Asphaltenes (Micro Method) %wt :

## Saturates GC

Pristane/Phytane : 1.39  
Pristane/nC17 : 1.06  
Phytane/nC18 : 1.00  
CPI : 1.10  
ALKIND : 75.02  
R22 : 0.99

## Light Hydrocarbons

MCH % :  
HER :  
HXR :

## Stable Carbon Isotopes

Saturates :  
Total Oil :  
Aromatics :  
Residue :  
Asphaltenes :

STANDARD:

## Oil Analysis

Well name : 6707/10-1  
Suite name : NYK 6707/10-1 SWC's  
Country Of Origin : Norway  
Depth (m) : 4003  
Sample name :  
Test Number :  
G number : G

### Inspection Properties

API :  
Density @ 15 deg C :  
Wax Content %wt :  
Wax Melting Point deg C :  
Pour Point deg C :  
Viscosity cSt @ 20 deg C :  
Total Acidity mg KOH/g :  
Asphaltenes %wt (IP Method) :  
Nitrogen ppm :  
Sulphur %wt :  
Nickel ppm :  
Vanadium ppm :  
Nickel/Vanadium :

### Biomarker Ratios

H1 : 0.39	S1 : 0.55	M2 : 1.02
H2 : 0.45	S2 : 0.56	M3 : 0.55
H3 : 0.89	S3 : 49:21:28	M4 : 65.30
H4 : 0	S4 : 39:26:34	M5 :
H5 : 100:97:41:23:13:11	S5 : 19.47	A1 : 0.21
H6 : 0.41	S6 :	A2 : 0.29
H7 : 0.56	S7 : 63.26	A3 : 0.41
H8 :	S8 : 0.00	A4 : 0.21
H9 :	S9 :	A5 : 0.63
H10 :	S10 :	A6 : 1.49
H11 : 12.27		MDR : 2.72
H12 : 13.44		MBP : 23.80
H13 : 16.47		
H14 : 5.16		
H15 : 0.00		
H16 : 0.00		
H17 : 45.87		
H18 : 23.64		

### HPLC

Saturates %wt : 2.83  
Aromatics %wt : 0.26  
Residues %wt : 96.91

Asphaltenes (Micro Method) %wt :

### Saturates GC

Pristane/Phytane : 1.09  
Pristane/nC17 : 0.63  
Phytane/nC18 : 0.47  
CPI : 1.10  
ALKIND : 71.15  
R22 : 1.06

### Light Hydrocarbons

MCH % :  
HER :  
HXR :

### Stable Carbon Isotopes

Saturates :  
Total Oil :  
Aromatics :  
Residue :  
Asphaltenes :

STANDARD: