SUMMARY OF RFT RESULTS

Run 1,2,3

DEPTH		HYDROSTATIC PRESSURE		FORMATION PRESSURE		REMARKS
mRKB	mMSL	kg/cm^2	EQ.MW kg/cm^3	kg/cm^2	EQ.MW kg/cm^3	
2015.50	1991.50	268.30	1.331	225.10	1.130	
2015.50	1991.50	268.40	1.332	225.30	1.131	0.32 mD
2016.00	1992.00	268.90	1.334	225.60	1.132	Sample 1 (Segr.)
2016.50	1992.50	268.30	1.331	225.20	1.130	10.01 mD
2017.50	1993.50	269.28	1.334	225.55	1.131	-
2018.00	1994.00	268.80	1.332	225.50	1.131	12.79 mD
2018.50	1994.50	268.80	1.332	225.40	1.130	37.37 mD
2024.50	2000.50	269.60	1.332	226.50	1.132	6.24 mD (bad seal)
2024.60	2000.60	269.60	1.332	226.10	1.130	2.09 mD
2027.50	2003.50	270.00	1.332	226.40	1.130	3.31 mD
2029.90	2005.90	270.20	1.331	226.60	1.130	-
2030.50	2006.50	270.40	1.332	226.70	1.130	Sample 2(Segr.) 17.81mD
2032.50	2008.50	270.70	1.332	227.00	1.130	3.76 mD
2032.90	2008.90	270.90	1.333	227.10	1.130	3.39 mD
2033.00	2009.00	270.80	1.332	227.00	1.130	1.55 mD
2036.50	2012.50	271.20	1.332	227.40	1.130	8.01 mD
2054.80	2030.80	273.70	1.332	229.30	1.129	95.14 mD
2066.50	2042.50	275.30	1.332	230.60	1.129	24.24 mD
2069.00	2045.00	275.60	1.332	231.00	1.130	8.48 mD
2107.50	2083.50	280.20	1.330	235.10	1.129	Sample 3 (Segr.)
2107.60	2083.60	280.80	1.332	235.10	1.129	109.6 mD
2111.50	2087.50	280.90	1.330	235.50	1.128	64.52 mD
2111.60	2087.60	281.20	1.332	235.60	1.129	66.35 mD
2196.50	2172.50	292.20	1.330	245.60	1.131	2.18 mD
2196.50	2172.50	292.40	1.331	247.20	1.138	0.47 mD

SUMMARY OF RFT RESULTS

Run 4,5,6

DEPTH		HYDROSTATIC PRESSURE		FORMATION PRESSURE		REMARKS
mRKB	mMSL	kg/cm^2	EQ.MW kg/cm^3	kg/cm^2	EQ.MW kg/cm^3	
2191.50	2167.50	292.17	1.333	Tight	-	
2193.50	2169.50	292.38	1.333	Tight	-	
2200.00	2176.00	293.28	1.333	Tight	-	
2205.00	2181.00	293.93	1.333	Tight	-	
2231.50	2207.50	297.58	1.334	Tight	-	
2245.00	2221.00	299.24	1.333	Tight	-	
2315.00	2291.00	308.90	1.334	Tight	-	
2316.00	2292.00	308.60	1.333	Tight	-	
2371.50	2347.00	315.10	1.333	264.40	1.127	
2389.50	2365.50	318.17	1.332	Tight	-	
2390.00	2366.00	318.27	1.332	264.35	1.117	
2406.00	2382.00	320.70	1.333	271.37	1.139	
2406.10	2382.10	320.22	1.331	270.48	1.135	
2414.60	2390.60	321.60	1.332	265.08	1.109	
2425.00	2401.00	322.94	1.332	264.94	1.104	Sample 4 (Segr.)
2428.10	2404.10	323.32	1.332	265.31	1.104	
2430.00	2406.00	323.50	1.331	265.13	1.102	
2436.60	2412.60	324.36	1.331	265.96	1.102	0.24 mD
2438.10	2414.10	324.56	1.331	266.75	1.105	
2448.10	2424.10	325.88	1.331	272.02	1.122	
2015.50	1991.31	268.84	1.333	225.16	1.131	
2015.80	1991.80	268.90	1.334	229.70	1.153	Sample 7 (6 gal)
2016.00	1992.01	269.10	1.333	227.26	1.141	
2016.20	1992.19	269.13	1.333	225.24	1.131	
2016.30	1992.30	269.00	1.334	225.23	1.130	3.10 mD
2405.70	2381.70	320.86	1.331	272.70	1.145	
2407.90	2383.90	321.14	1.334	Tight	-	
2408.20	2384.20	321.08	1.332	Tight	-	
2411.80	2387.80	321.60	1.331	Tight	-	
2412.00	2388.00	322.65	1.337	268.52	1.130	
2414.50	2390.50	322.26	1.331	265.30	1.110	Sample 6 (2 3/4 gal)
2420.00	2396.00	322.65	1.333	267.52	1.117	
2420.50	2396.50	322.73	1.333	Tight	-	
2430.00	2306.00	323.97	1.333	265.13	-	
2432.00	2408.00	323.88	1.332	265.18	1.101	Sample 5 (6 gal)
2436.50	2412.50	324.81	1.331	265.85	1.102	
2437.00	2413.04	324.50	1.332	265.00	1.098	Sample 8 (2 3/4 gal)
2442.50	2418.50	325.58	1.329	272.70	1.128	
2447.00	2423.00	325.20	1.329	-	-	
2448.00	2424.00	326.40	1.333	271.50	1.120	

SUMMARY OF RFT RESULTS

Run 7,8,9

DEPTH		HYDROSTATIC PRESSURE		FORMATION PRESSURE		REMARKS
mRKB	mMSL	kg/cm^2	EQ.MW kg/cm^3	kg/cm^2	EQ.MW kg/cm^3	
2315.80	2291.80	306.35	1.333	Tight	-	
2316.50	2292.50	306.38	1.323	Tight	-	
2433.00	2409.00	322.24	1.325	265.23	1.101	28.72 mD
2433.00	2409.00	322.57	1.326	265.20	1.101	26.18 mD
2436.50	2412.50	322.10	1.322	Tight	-	
2437.00	2413.00	322.40	1.326	265.60	1.102	Sample 11 (segr.)
2438.00	2414.00	322.43	1.323	265.21	1.099	1.82 mD
2440.00	2416.00	322.90	1.323	-	-	
2441.00	2417.00	322.96	1.323	Tight	-	
2442.00	2418.00	323.00	1.322	272.00	1.125	1.70 mD
2443.30	2419.30	322.94	1.322	266.76	1.103	
2445.00	2421.00	324.80	1.328	Tight	-	
2447.50	2423.50	323.91	1.323	271.83	1.122	1.30 mD
2469.00	2445.00	326.80	1.323	Tight	-	
2478.70	2454.70	328.64	1.326	Tight	-	
2478.90	2454.90	328.20	1.324	Tight		
2524.50	2500.50	334.10	1.323	Tight	-	
2526.00	2502.00	334.05	1.322	Tight	-	
2527.00	2503.00	334.00	1.322	Tight	-	
2528.90	2504.90	334.20	1.322	283.90	1.133	Supercharged
2528.90	2504.90	334.40	1.323	Tight	-	
2531.00	2507.00	337.16	1.332	Tight	-	
2531.90	2507.90	336.35	1.328	Tight	-	
2533.00	2509.00	335.80	1.325	282.43	1.126	0.68 mD
2533.30	2509.30	334.80	1.332	281.31	1.121	7.36 mD
2583.00	2559.00	342.30	1.326	Tight	-	
2609.90	2585.90	346.30	1.328	Tight	-	
2610.50	2586.50	345.00	1.322	Tight	-	
2614.50	2590.50	345.90	1.323	Tight	-	
2642.40	2618.40	350.50	1.326	Tight	-	
2642.70	2618.70	349.33	1.322	Tight	-	
2651.40	2627.40	350.40	1.322	297.33	1.132	3.20 mD
2652.30	2628.20	353.40	1.332	294.11	1.119	3.20 mD
2652.50	2628.50	350.20	1.320	297.30	1.131	Sample 9 and 10 (segr.)
2653.50	2629.50	351.70	1.326	297.85	1.133	2.64 mD
2654.00	2630.00	350.75	1.322	297.58	1.132	4.23 mD
2654.50	2630.50	351.50	1.324	297.70	1.132	2.60 mD
2656.60	2632.60	350.90	1.321	Tight	-	

5.2.2 Drill stem tests (DST)

Two tests were performed The objectives were to identify the formation fluid, obtain representative samples and to estimate the reservoir characteristics. The results are summarized in Table 5.

DST 1 results

Packer set at : 2425.3 m

Perforated intervals: 2439.5 m - 2449 m

No flow reached surface during main flow. The estimated amount of produced fluid was 0.142 m^3 under reservoir conditions, and was trapped between the tester and the perforations. Reverse circulation produced only mudfiltrate. No hydrocarbons were detected during the flow or the trip after the DST.

Pressures - Temperatures

Gauge depth for pressure measurements:		2400.6 m	
Initial flow	:	206.63 kg/cm^2	(2938.27 psi)
Initial build up	:	259.20 kg/cm^2	(3685.82 psi)
Main flow	:	213.80 kg/cm^2	(3040.23 psi)
Extrapolated formation pressure	:	271.01 kg/cm^2	at 2445 m
Bottom hole temperature	:	70°C	at 2400.6 m

Analysis results

Effective permeability, Kh	:	0.5 mD.m
Permeability, assuming 9.5 m pay zone, K:		0.05 mD
Skin	:	- 0.9
Radius of investigation	:	5.4 m

The results indicate that only the invaded zone has been tested and uncertainty still exists on the formation fluid.

DST 2 results

Packer set at : 2408 m

Perforated intervals: 2424 - 2434 m

Timing

Initial flow	:	4 min
Initial build up	:	120 min
Clean up and main flow	:	783 min
Main build up	:	893 min

Production data

Choke	:	44/64" (17.5 mm)
Gas flow (initial-final)	:	538516 - 564849 Sm^3/d
Condensate flow (initial-final)	:	73 - 66 Sm^3/d
Well head pressure	:	126.6 kg/cm^2 (1800.2 psi)
Well head temperature	:	15.8 -19.5°C (60.44 - 67.1°F)
Separator pressure	:	37.5 - 37.84 kg/cm^2 (533.3 - 537.1 psi)
Separator temperature	:	43.6 - 45.8 °C (110.5 - 114.4°F)

Fluid properties

- gas: specific gravity (air=1) = 0.68
  CO_2: 0.5%, H_2S: 0
- condensate: specific gravity, SG = 0.76 g/cm^3

Pressures - Temperatures

Gauge depth for pressure measurements: 2384.6 m

Initial flow	:	224.46 kg/cm^2	(3191.82 psi)
Initial build up	:	263.58 kg/cm^2	(3748.10 psi)
Main flow	:	224.45 kg/cm^2	(3191.68 psi)
Main build up	:	263.03 kg/cm^2	(3740.29 psi)
Extrapolated formation pressure	:	264.46 kg/cm^2	(3760.62 psi)
			at 2435 m
Bottom hole temperature	:	79.5 °C	at 2384.6°C

DST SUMMARY Table 5

Test no.	1	2
Formation	SNADD	SNADD
Perf. int. (mRKB)	2439.5 - 2449	2424 - 2434
Flow period no.	1	1
Duration (min)	-	783
Choke (mm)	-	17.5
Liquid HC rate (Sm^3/d)	-	73 - 66
Gas rate (Sm^3/d)	-	538516 - 564849
GOR (Sm^3/Sm^3)	-	7377 - 8558
Water rate (Sm^3/d)	-	0
Oil dens. (kg/m^3)	-	0.76
Gas sp.g. (air=1)	-	0.68
WHP (kg/cm^2)	0	131.58
WHT (°C)	-	19.5
BHT (°C)	73.5°C	79.5°C
BHP (kg/cm^2) (main flow)	206.63	224.45
Reserv.press. (kg/cm^2)	271.	264.46

TOTAL MARINE NORSK A.S

RFT RESULTS

Well: 7122/6-1

RFT NUMBER Run/Test	DEPTH TMD / SS	STRATIGRAPHIC ATTRIBUTION	CHAMBER gal / choke	MUD WEIGHT (g/cm³)	PRESSURES (kg/cm²) Hydrost. / s.g	Shut in / eq.d	Surface chamber	Sampling Time (min)	RECOVERY DATA GAS (dm³)	GAS COMPOSITION (%) C1	C2	C3	iC4	nC4	iC5
1	2016		6	1.31	269.90	225.65	63.3	18	-	-	-	-	-	-	-

INTERPRETATION :	RECOVERY DATA CONDENSATE (cm³)	ρh g/cm³	API	T°C	OIL (cm³)	ρh g/cm³	API	T°C	Pour Point °C	MUD / FILTRATE / WATER (cm³)	Rmf 75°F	Sal. (NaCl) ppm	Rrf 75°F	Sal. ppm	Titration ppm
Mudfiltrate	-	-	-	-	-	-	-	-	-	20500	0.700	9000	0.64	9500	1715 CL-

REMARKS : Segregated sample

RFT NUMBER Run/Test	DEPTH TMD / SS	STRATIGRAPHIC ATTRIBUTION	CHAMBER gal / choke	MUD WEIGHT (g/cm³)	PRESSURES (kg/cm²) Hydrost. / s.g	Shut in / eq.d	Surface chamber	Sampling Time (min)	RECOVERY DATA GAS (dm³)	GAS COMPOSITION (%) C1	C2	C3	iC4	nC4	iC5
1	2016		2 3/4	1.31	269.90	225.65	84.40	25	1	9.52	4.01	1.57	0.08	0.13	0.02

INTERPRETATION :	RECOVERY DATA CONDENSATE (cm³)	ρh g/cm³	API	T°C	OIL (cm³)	ρh g/cm³	API	T°C	Pour Point °C	MUD / FILTRATE / WATER (cm³)	Rmf 75°F	Sal. (NaCl) ppm	Rrf 75°F	Sal. µpm	Titration ppm
Mudfiltrate	-	-	-	-	-	-	-	-	-	2000	0.700	9000	0.451	14100	6680 CL-

REMARKS : Segretated sample

Encl. 5a

RFT RESULTS

TOTAL MARINE NORSK A.S

Well: 7122/6-1

RFT NUMBER Run/Test	DEPTH TMD / SS	STRATIGRAPHIC ATTRIBUTION	CHAMBER gal / choke	MUD WEIGHT (g/cm³)	PRESSURES (kg/cm²) Hydrost. / s.g	Shut in / eq.d	Surface chamber	Sampling Time (min)	RECOVERY DATA GAS (dm³)	GAS COMPOSITION (%) C1	C2	C3	iC4	nC4	iC5
2	2030.5		6	1.31	270.37	226.78	65.05	27	42.5	2.99	0.11	0.035	0.002	0.001	-

INTERPRETATION :	RECOVERY DATA CONDENSATE (cm³)	ρh g/cm³	API	T°C	OIL (cm³)	ρh g/cm³	API	T°C	Pour Point °C	MUD / FILTRATE / WATER (cm³)	Rmf 75°F	Sal. (NaCl) ppm	Rrf 75°F	Sal. (NaCl) ppm	Titration (NaCl) ppm
Mudfiltrate	-	-	-	-	-	-	-	-	-	22 500	0.700	9000	0.282	22000	10540 CL-

REMARKS :

Segregated sample

RFT NUMBER Run/Test	DEPTH TMD / SS	STRATIGRAPHIC ATTRIBUTION	CHAMBER gal / choke	MUD WEIGHT (g/cm³)	PRESSURES (kg/cm²) Hydrost. / s.g	Shut in / eq.d	Surface chamber	Sampling Time (min)	RECOVERY DATA GAS (dm³)	GAS COMPOSITION (%) C1	C2	C3	iC4	nC4	iC5
2	2030.5		2 3/4	1.31	270.37	226.78	59.77	19	42.5	1.88	0.056	0.016	0.0009	0.0007	-

INTERPRETATION :	RECOVERY DATA CONDENSATE (cm³)	ρh g/cm³	API	T°C	OIL (cm³)	ρh g/cm³	API	T°C	Pour Point °C	MUD / FILTRATE / WATER (cm³)	Rmf 75°F	Sal. (NaCl) ppm	Rrf 75°F	Sal. (NaCl) µµm	Titration (NaCl) ppm
Filtrate and formation water	-	-	-	-	-	-	-	-	-	9750	0.007	9000	0.121	55000	31480 CL-

REMARKS :

Segregated sample

Encl. 5b

RFT RESULTS

TOTAL MARINE NORSK A.S

Well: 7122/6-1

RFT NUMBER Run/Test	DEPTH TMD / SS	STRATIGRAPHIC ATTRIBUTION	CHAMBER gal / choke	MUD WEIGHT (g/cm³)	PRESSURES (kg/cm²) Hydrost. s.g	Shut in eq.d	Surface chamber	Sampling Time (min)	RECOVERY DATA GAS (dm³)	GAS COMPOSITION (%) C1	C2	C3	iC4	nC4	iC5
3	2107.5		6	1.31	280.20	234.83	3.52	31	Traces	4.2439	0.1104	0.0316	0.00174	0.00082	-

INTERPRETATION :	RECOVERY DATA CONDENSATE (cm³)	ρh g/cm³	API	T°C	OIL (cm³)	ρh g/cm³	API	T°C	Pour Point °C	MUD / FILTRATE / WATER (cm³)	Rmf 75°F	Sal. ppm	Rrf 75°F	Sal. (NaCl) ppm	Titration ppm
Mudfiltrate and formation water	-	-	-	-	-	-	-	-	-	24000	0.700	9000	0.107	66000	38065 CL-

REMARKS : Segregated sample

RFT NUMBER Run/Test	DEPTH TMD / SS	STRATIGRAPHIC ATTRIBUTION	CHAMBER gal / choke	MUD WEIGHT (g/cm³)	PRESSURES (kg/cm²) Hydrost. s.g	Shut in eq.d	Surface chamber	Sampling Time (min)	RECOVERY DATA GAS (dm³)	GAS COMPOSITION (%) C1	C2	C3	iC4	nC4	iC5
3	2107.5		2 3/4	1.31	280.20	234.83	70.32	9	14.2	3.0246	0.0471	0.0115	0.00064	0.00058	-

INTERPRETATION :	RECOVERY DATA CONDENSATE (cm³)	ρh g/cm³	API	T°C	OIL (cm³)	ρh g/cm³	API	T°C	Pour Point °C	MUD / FILTRATE / WATER (cm³)	Rmf 75°F	Sal. ppm	Rrf 75°F	Sal. NaCl µgm	Titration ppm
Formation water (?)	-	-	-	-	-	-	-	-	-	6800	0.700	9000	0.077	95000	57280 CL-

REMARKS : Segregated sample

Encl. 5c

RFT RESULTS

TOTAL MARINE NORSK A.S

Well: 7122/6-1

RFT NUMBER / Run/Test	DEPTH TMD / SS	STRATIGRAPHIC ATTRIBUTION	CHAMBER gal / choke	MUD WEIGHT (g/cm³)	PRESSURES (kg/cm²) Hydrost. / s.g	Shut in / eq.d	Surface chamber	Sampling Time (min)	RECOVERY DATA GAS (dm³)	GAS COMPOSITION (%) C1	C2	C3	iC4	nC4	iC5
4	2425		6	1.31	322.94	264.93	175.81	28	2975	45.044	3.765	1.482	0.282	0.171	-

INTERPRETATION :	RECOVERY DATA CONDENSATE (cm³)	ρh g/cm³	ρh API	ρh T°C	OIL (cm³)	ρh g/cm³	ρh API	ρh T°C	Pour Point °C	MUD / FILTRATE / WATER (cm³)	Rmf 75°F	Sal. ppm	Rrf 75°F	Sal. (NaCl) ppm	Titration ppm
Gas, condensate and mudfiltrate mixed with formation water	600		31.5	20	-	-	-	-	-	6300	0.59	9400	0.52	11000	2400 CL-

REMARKS : Segregated sample

RFT NUMBER / Run/Test	DEPTH TMD / SS	STRATIGRAPHIC ATTRIBUTION	CHAMBER gal / choke	MUD WEIGHT (g/cm³)	PRESSURES (kg/cm²) Hydrost. / s.g	Shut in / eq.d	Surface chamber	Sampling Time (min)	RECOVERY DATA GAS (dm³)	GAS COMPOSITION (%) C1	C2	C3	iC4	nC4	iC5
4	2425		2 3/4	1.31	322.94	264.93		13	1654	88.79	5.92	2.09	0.39	0.74	0.27

INTERPRETATION :	RECOVERY DATA CONDENSATE (cm³)	ρh g/cm³	ρh API	ρh T°C	OIL (cm³)	ρh g/cm³	ρh API	ρh T°C	Pour Point °C	MUD / FILTRATE / WATER (cm³)	Rmf 75°F	Sal. ppm	Rrf 75°F	Sal. µpm	Titration ppm
Gas, condensate and mudfiltrate	0.2	-	-	-	-	-	-	-	-	0.5	0.59	9400	0.72	8000	1850 CL-

REMARKS : Segregated sample.
Sealed on rig and sent to GECO Laboratory for analysis
Density condensate: 0.752 g/cm^3

Encl. 5d

RFT RESULTS

TOTAL MARINE NORSK A.S

Well: 7122/6-1

RFT NUMBER Run/Test	DEPTH TMD / SS	STRATIGRAPHIC ATTRIBUTION	CHAMBER gal / choke	MUD WEIGHT (g/cm³)	PRESSURES (kg/cm²) Hydrost. / s.g	Shut in / eq.d	Surface chamber	Sampling Time (min)	RECOVERY DATA GAS (dm³)	GAS COMPOSITION (%) C1	C2	C3	iC4	nC4	iC5
5.1	2432		6	1.31	324.24	265.18	2400	119	2880	81.85	12.56	3.94	.64	.76	.25

INTERPRETATION :	RECOVERY DATA CONDENSATE (cm³)	ρh g/cm³	API	T°C	OIL (cm³)	ρh g/cm³	API	T°C	Pour Point °C	MUD / FILTRATE / WATER (cm³)	Rmf 75°F	Sal. ppm	Rrf 75°F	Sal. ppm	Titration ppm
Gas, condensate and mudfiltrate	0.8		31	20	-	-	-	-	-	5200	0.59	9400	0.53	10200	2485 CL-

REMARKS :

Refr. index: 1.489/22°C

RFT NUMBER Run/Test	DEPTH TMD / SS	STRATIGRAPHIC ATTRIBUTION	CHAMBER gal / choke	MUD WEIGHT (g/cm³)	PRESSURES (kg/cm²) Hydrost. / s.g	Shut in / eq.d	Surface chamber	Sampling Time (min)	RECOVERY DATA GAS (dm³)	GAS COMPOSITION (%) C1	C2	C3	iC4	nC4	iC5

INTERPRETATION :	RECOVERY DATA CONDENSATE (cm³)	ρh g/cm³	API	T°C	OIL (cm³)	ρh g/cm³	API	T°C	Pour Point °C	MUD / FILTRATE / WATER (cm³)	Rmf 75°F	Sal. ppm	Rrf 75°F	Sal. µ̣ppm	Titration ppm

REMARKS :

Encl. 5e

TOTAL MARINE NORSK A.S

RFT RESULTS

Well: 7122/6-1

RFT NUMBER Run/Test	DEPTH TMD / SS	STRATIGRAPHIC ATTRIBUTION	CHAMBER gal / choke	MUD WEIGHT (g/cm³)	PRESSURES (kg/cm²) Hydrost. s.g	Shut in eq.d	Surface chamber	Sampling Time (min)	RECOVERY DATA GAS (dm³)	GAS COMPOSITION (%) C1	C2	C3	iC4	nC4	iC5
6	2414.5		2 3/4		322.11	265.30	1.1	22	Traces	85.73	10.52	2.82	0.48	0.35	0.10

INTERPRETATION :	RECOVERY DATA CONDENSATE (cm³)	ρh g/cm³	API	T°C	OIL (cm³)	ρh g/cm³	API	T°C	Pour Point °C	MUD / FILTRATE / WATER (cm³)	Rmf 75°F	Sal. ppm	Rrf 75°F	Sal. ppm	Titration ppm
Mudfiltrate	Traces		31.5	22	-	-	-	-	-	1000	0.59	9400	0.46	13000	3080 CL-

REMARKS : Ref. index 1.488/22°C

RFT NUMBER Run/Test	DEPTH TMD / SS	STRATIGRAPHIC ATTRIBUTION	CHAMBER gal / choke	MUD WEIGHT (g/cm³)	PRESSURES (kg/cm²) Hydrost. s.g	Shut in eq.d	Surface chamber	Sampling Time (min)	RECOVERY DATA GAS (dm³)	GAS COMPOSITION (%) C1	C2	C3	iC4	nC4	iC5
7	2015.8 2015.3		6			225.6	100 psi	54 + 25	56.6	71.77	15.74	9.78	.93	1.53	0.25

INTERPRETATION :	RECOVERY DATA CONDENSATE (cm³)	ρh g/cm³	API	T°C	OIL (cm³)	ρh g/cm³	API	T°C	Pour Point °C	MUD / FILTRATE / WATER (cm³)	Rmf 75°F	Sal. ppm	Rrf 75°F	Sal. µµm	Titration ppm
Gas, condensate and mudfiltrate	0.5		45	20	-	-	-	-	-	12.3	059	9400	0.58	9500	2000 CL-

REMARKS : One sampling at 2015.8 m in 54 min. resulted in 18 kg/cm 2 chamber pressure, then closed and opened at 2015.3 m in 25 min. which resulted in 14 kg/cm 2 chamber pressure.

Encl. 5f

TOTAL MARINE NORSK A.S

RFT RESULTS

RFT NUMBER Run/Test	DEPTH TMD / SS	STRATIGRAPHIC ATTRIBUTION	CHAMBER gal / choke	MUD WEIGHT (g/cm³)	PRESSURES (kg/cm²) Hydrost. / s.g	Shut in / eq.d	Surface chamber	Sampling Time (min)	RECOVERY DATA GAS (dm³)	GAS COMPOSITION (%) C1	C2	C3	iC4	nC4	iC5
8	2437.0		2 3/4	1.31	324.76	265.0	114.62	100	130.2	73.97	15.28	8.75	0.81	1.04	0.15

INTERPRETATION :	RECOVERY DATA CONDENSATE (cm³)	ρh g/cm³	ρh API	ρh T°C	OIL (cm³)	ρh g/cm³	ρh API	ρh T°C	Pour Point °C	MUD / FILTRATE / WATER (cm³)	Rmf 75°F	Sal. ppm	Rrf 75°F	Sal. ppm	Titration ppm
Mudfiltrate	Traces	-	-	-	-	-	-	-	-	9200	0.5	11500	0.72	9800	2120 CL-

REMARKS :

RFT NUMBER Run/Test	DEPTH TMD / SS	STRATIGRAPHIC ATTRIBUTION	CHAMBER gal / choke	MUD WEIGHT (g/cm³)	PRESSURES (kg/cm²) Hydrost. / s.g	Shut in / eq.d	Surface chamber	Sampling Time (min)	RECOVERY DATA GAS (dm³)	GAS COMPOSITION (%) C1	C2	C3	iC4	nC4	iC5
9	2652.5		6	1.31	350.4	297.3	250 psi	70	39.6	88.14	9.65	1.73	0.22	0.26	-

INTERPRETATION :	RECOVERY DATA CONDENSATE (cm³)	ρh g/cm³	ρh API	ρh T°C	OIL (cm³)	ρh g/cm³	ρh API	ρh T°C	Pour Point °C	MUD / FILTRATE / WATER (cm³)	Rmf 75°F	Sal. ppm	Rrf 75°F	Sal. µµm	Titration ppm
Gas, mudfiltrate and formation water	-	-	-	-	-	-	-	-	-	19000	0.5	11500 (3520) Sal	0.12	55000	3030 CL-

REMARKS :

Permeability 3.2 mD

Well: 7122/6-1

Encl. 5g

RFT RESULTS

TOTAL MARINE NORSK A.S

Well: 7122/6-1

RFT NUMBER Run/Test	DEPTH TMD / SS	STRATIGRAPHIC ATTRIBUTION	CHAMBER gal / choke	MUD WEIGHT (g/cm³)	PRESSURES (kg/cm²) Hydrost. / s.g	Shut in / eq.d	Surface chamber	Sampling Time (min)	RECOVERY DATA GAS (dm³)	GAS COMPOSITION (%) C1	C2	C3	iC4	nC4	iC5
10	2652.5		6	1.32	350.2	297.3	35.16	95	56.6	91.6169	6.4422	1.5557	0.2258	0.1593	-

INTERPRETATION :	RECOVERY DATA CONDENSATE (cm³)	ρh g/cm³	API	T°C	OIL (cm³)	ρh g/cm³	API	T°C	Pour Point °C	MUD / FILTRATE / WATER (cm³)	Rmf 75°F	Sal. ppm (NaCl)	Rrf 75°F	Sal. ppm	Titration ppm
Mudfiltrate and formation water	-	-	-	-	-	-	-	-	-	20.500	0.60	9500	0.1374	55000	31500 CL-

REMARKS : Segretated sample

RFT NUMBER Run/Test	DEPTH TMD / SS	STRATIGRAPHIC ATTRIBUTION	CHAMBER gal / choke	MUD WEIGHT (g/cm³)	PRESSURES (kg/cm²) Hydrost. / s.g	Shut in / eq.d	Surface chamber	Sampling Time (min)	RECOVERY DATA GAS (dm³)	GAS COMPOSITION (%) C1	C2	C3	iC4	nC4	iC5
10	2652.5		2 3/4	1.32	350.2	297.3	28.13	48	28.3	88.5656	9.4101	1.5954	0.2276	0.2014	-

INTERPRETATION :	RECOVERY DATA CONDENSATE (cm³)	ρh g/cm³	API	T°C	OIL (cm³)	ρh g/cm³	API	T°C	Pour Point °C	MUD / FILTRATE / WATER (cm³)	Rmf 75°F	Sal. ppm	Rrf 75°F	Sal. µµm	Titration ppm
Mudfiltrate and formation water	-	-	-	-	-	-	-	-	-	8.600	0.60	9500	0.1254	6000	34740 CL-

REMARKS : Segregated sample

Encl. 5h

RFT RESULTS

TOTAL MARINE NORSK A.S

Well: 7122/6-1

RFT NUMBER Run/Test	DEPTH TMD / SS	STRATIGRAPHIC ATTRIBUTION	CHAMBER gal / choke	MUD WEIGHT (g/cm³)	PRESSURES (kg/cm²) Hydrost. s.g	Shut in eq.d	Surface chamber	Sampling Time (min)	RECOVERY DATA GAS (dm³)	GAS COMPOSITION (%) C1	C2	C3	iC4	nC4	iC5
11	2437		6			265.6	14.06	120	28.3	82.27	13.81	3.23	0.32	0.34	0.03

INTERPRETATION :	RECOVERY DATA CONDENSATE (cm³)	ρh g/cm³	ρh API	ρh T°C	OIL (cm³)	ρh g/cm³	ρh API	ρh T°C	Pour Point °C	MUD / FILTRATE / WATER (cm³)	Rmf 75°F	Sal. (NaCl) ppm	Rrf 75°F	Sal. ppm	Titration ppm
Mudfiltrate	–	–	–	–	–	–	–	–	–	19000	0.5	11500 3520	0.64	9000	2080 CL–

REMARKS : Segregated sample

RFT NUMBER Run/Test	DEPTH TMD / SS	STRATIGRAPHIC ATTRIBUTION	CHAMBER gal / choke	MUD WEIGHT (g/cm³)	PRESSURES (kg/cm²) Hydrost. s.g	Shut in eq.d	Surface chamber	Sampling Time (min)	RECOVERY DATA GAS (dm³)	GAS COMPOSITION (%) C1	C2	C3	iC4	nC4	iC5
11	2437		2 3/4			265.6	7.03	60	2.8	85.49	11.80	2.27	0.20	0.21	0.03

INTERPRETATION :	RECOVERY DATA CONDENSATE (cm³)	ρh g/cm³	ρh API	ρh T°C	OIL (cm³)	ρh g/cm³	ρh API	ρh T°C	Pour Point °C	MUD / FILTRATE / WATER (cm³)	Rmf 75°F	Sal. ppm	Rrf 75°F	Sal. µpm	Titration ppm
Mudfiltrate	–	–	–	–	–	–	–	–	–	7000	0.5	11500	.58	9600	2230 CL–

REMARKS : Segregated sample

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GEOTRACK

THERMAL HISTORY RECONSTRUCTION IN BARENTS SEA WELLS 7117/9-2, 7119/9-1, 7120/9-2, 7120/12-2, 7120/12-4 AND 7122/6-1 USING APATITE FISSION TRACK ANALYSIS AND VITRINITE REFLECTANCE

GEOTRACK REPORT #642

A report prepared for Phillips Petroleum Company Norway, Tananger.

Report prepared by:	I. R. Duddy, H. J. Gibson
AFTA determinations by:	M. E. Moore, P. O'Sullivan
Microprobe determinations by:	P. G. Watson
Vitrinite Reflectance data by:	Keiraville Konsultants

February 1997

GEOTRACK INTERNATIONAL PTY LTD ACN 006 821 209
37 Melville Road, Brunswick West, Victoria 3055 Australia telephone +61 3 9380 1077 facsimile +61 3 9380 1477

APPENDIX D

Vitrinite Reflectance Measurements

D.1 New vitrinite reflectance determinations

New vitrinite reflectance data were collected as part of this study, with details of determinations described in sections D.1 and D.2 below. In addition, further vitrinite reflectance data were supplied by the client, as summarised in section D.3.

Samples

Samples were submitted for vitrinite reflectance determination to Keiraville Konsultants, Australia. Results and sample details are summarised in Table D.2, while supporting data, including maceral descriptions and raw data sheets, are presented in the following pages.

Equipment

Leitz MPV1.1 photometer equipped with separate fluorescence illuminator, Swift point counter. Reflectance standards: spinel 0.42%, YAG 0.91%, GGG 1.72%, SiC standard for cokes and masked uranyl glass for measurement of intensity (I) in fluorescence mode. With the Keiraville Konsultants equipment, it is possible to alternate from reflectance to fluorescence mode to check for associated fluorescing liptinite, or importantly with some samples, to check for bitumen impregnation, or the presence, intensity, and source of oil-cut.

Sample preparation

Samples are normally mounted in cold setting polyester resin and polished using Cr_2O_3 and MgO polishing powders. Epoxy resins or araldite can be used if required. "Whole rock" samples are normally used but demineralisation can be undertaken. Large samples of coals and cokes can be mounted and examined.

Vitrinite Reflectance measurement

The procedure used generally follows Australian Standard (AS) 2486, but has been slightly modified for use with dispersed organic matter (DOM). For each sample, a minimum of 25 fields is measured (the number may be less if vitrinite is rare or if a

limited number of particles of vitrinite is supplied, as may be the case with hand-picked samples). If wide dispersal of vitrinite reflectances is found, the number of readings (N) is increased until a stable mean is obtained.

Vitrinite identification is made primarily on textural grounds, and this allows an independent assessment to be made of cavings and re-worked vitrinite populations. Histograms are only used for population definition when a cavings population significantly overlaps the range of the indigenous population. Where such data provides additional information, the mean maximum reflectance of inertinite and/or the mean maximum reflectance of liptinite (exinite) is reported. For each field, the maximum reflectance position is located and the reading recorded. The stage is then rotated by 180° which should give the same reading. In practice, the readings are seldom identical because of stage run-out and slight surface irregularities. If the readings are within ±5% relative, they are accepted. If not, the cause of the difference is sought and the results rejected. The usual source of differences is surface relief. The measurement of both maxima results in a total of 50 measurements being taken for the 25 fields reported. Thus, the 50 readings consist of 25 pairs of closely spaced readings which provide a check on the levelling of the surface and hence additional precision.

As the vitrinite reflectance measurements are being made, the various features of the samples are noted on a check sheet to allow a sample description to be compiled. When the reflectance measurements are complete, a thorough check is made of liptinite fluorescence characteristics. At the same time, organic matter abundance is estimated using a global estimate, a grain count method or point count method as required.

Data presentation

Individual sample results are reported in the following format:

KK No.	Depth (ft)	$\overline{R}_V$max*1	Range*2	N*3
x10324	3106	0.79	0.64 - 0.91	25

*1 Mean of all the maximum reflectance readings obtained.

*2 Lowest Rmax and highest Rmax of the population considered to represent the first generation vitrinite population.

*3 Number of fields measured (Number of measurements = 2N because 2 maximum values are recorded for each field)

Methods - Organic matter abundance and type.

After completion of vitrinite reflectance readings, the microscope is switched to fluorescence-mode and an estimate made of the abundance of each liptinite maceral. Fluorescence colours are also noted (BG 3 long UV excitation, TK400 dichroic mirror and a K490 barrier filter). The abundances are estimated using comparison charts. The categories used for liptinite (and other components) are:

Descriptor	%	Source potential
Absent	0	None
Rare	<0.1	Very poor
Sparse	0.1<x<0.5	Poor to fair
Common	0.5<x<2.0	Fair to good
Abundant	2.0<x<10.0	Good to very good
Major	10.0<x<40.0	Very good (excellent if algal)
Dominant	>40.0	Excellent

Dispersed Organic Matter (DOM) composition

At the same time as liptinite abundances are estimated, total DOM, vitrinite and inertinite abundances are estimated and reported in the categories listed above. Liptinite (exinite) fluorescence intensity and colour, lithology and a brief description of organic matter type and abundance are also recorded in a further column. Coal is described separately from dispersed organic matter (DOM). These data can be used to estimate the specific yield of the DOM and form a valuable adjunct to TOC data.

Lithological composition

The lithological abundances are ranked. For cuttings, these data can be useful in conjunction with geophysical logs in assessing the abundance and nature of cavings. For cores, it provides a record of the lithology examined and of the lithological associations of the organic matter.

Coal abundance and composition

Where coals are present, their abundance is recorded and their composition is reported as microlithotypes thus:

Coal major, **V**itrinite>**I**nertinite>**E**xinite, Clarodurite>vitrite>clarite>inertite.

These data give an approximate maceral composition and information about the organic facies of the coal. Where coal is a major or dominant component, and more precise maceral composition data are required, point count analyses should be requested. However, the precision of the original sampling is commonly a limiting factor in obtaining better quality data.

Abundance factor analysis

Especially where cuttings samples are used, abundance factor analyses are used to obtain an assessment of the maceral assemblages in the various lithologies. This can be done by a combination analysis using a point counter, but a large number of categories is required, and the precision is low if DOM is less than about 10%. For an abundance factor analysis (for core, 50 microscope fields of view) we assess the abundance of DOM, coal and shaly coal in 50 grains. The data can be used to plot DOM and coal abundance profiles.

Analyst/Advisor: Professor A.C. Cook

Prior to transmittal of final results, all samples are examined and checked by A.C. Cook who has more than 30 years' experience of work on coals, cokes, source rocks and source rock maturation.

D.2 Integration of vitrinite reflectance data with AFTA

Vitrinite reflectance is a time-temperature indicator governed by a kinetic response in a similar manner to the annealing of fission tracks in apatite as described in Appendix C. In this study, vitrinite reflectance data are interpreted on the basis of the distributed activation energy model describing the evolution of VR with temperature and time described by Burnham and Sweeney (1989), as implemented in the BasinMod™ software package of Platte River Associates. In a considerable number of wells from around the world, in which AFTA has been used to constrain the thermal history, we have found that the Burnham and Sweeney (1989) model gives good agreement between predicted and observed VR data, in a variety of settings.

As in the case of fission track annealing, it is clear from the chemical kinetic description embodied in equation 2 of Burham and Sweeney (1989) that temperature is more important than time in controlling the increase of vitrinite reflectance. If the Burham and Sweeney (1989) distributed activation energy model is expressed in the form of an Arrhenius plot (a plot of the logarithm of time versus inverse absolute temperature), then the slopes of lines defining contours of equal vitrinite reflectance in such a plot are very

similar to those describing the kinetic description of annealing of fission tracks in Durango apatite developed by Laslett et al. (1987), which is used to interpret the AFTA data in this report. This feature of the two quite independent approaches to thermal history analysis means that for a particular sample, a given degree of fission track annealing in apatite of Durango composition will be associated with the same value of vitrinite reflectance regardless of the heating rate experienced by a sample. Thus paleotemperature estimates based on either AFTA or VR data sets should be equivalent, regardless of the duration of heating. As a guide, Table D.1 gives paleotemperature estimates for various values of VR for two different heating times.

One practical consequence of this relationship between AFTA and VR is, for example, that a VR value of 0.7% is associated with total annealing of all fission tracks in apatite of Durango composition, and that total annealing of all fission tracks in apatites of more Chlorine-rich composition is accomplished between VR values of 0.7 and ~0.9%.

Furthermore, because vitrinite reflectance continues to increase progressively with increasing temperature, VR data allow direct estimation of maximum paleotemperatures in the range where fission tracks in apatite are totally annealed (generally above ~110°C) and where therefore AFTA only provides minimum estimates. Maximum paleotemperature estimates based on vitrinite reflectance data from a well in which most AFTA samples were totally annealed will allow constraints on the paleogeothermal gradient that would not be possible from AFTA alone. In such cases the AFTA data should allow tight constraints to be placed on the time of cooling and also the cooling history, since AFTA parameters will be dominated by the effects of tracks formed after cooling from maximum paleotemperatures. Even in situations where AFTA samples were not totally annealed, integration of AFTA and VR can allow paleotemperature control over a greater range of depth, e.g. by combining AFTA from sand-dominated units with VR from other parts of the section, thereby providing tighter constraint on the paleogeothermal gradient.

D.3 Client-supplied vitrinite reflectance

Vitrinite reflectance and other data (if applicable) supplied by the client is summarised in Table D.3. Unless specified, this vitrinite reflectance data has been treated at face value, as if it were collected in the same manner as described for the new data, because detailed information is usually not available.

References

Burnham, A.K. and Sweeney, J.J. (1989). A chemical kinetic model of vitrinite reflectance maturation. Geochim. et Cosmochim. Acta, 53, 2649-2657.

Laslett, G.M., Green, P.F., Duddy, I.R. and Gleadow, A.J.W. (1987). Thermal annealing of fission tracks in apatite 2. A quantitative analysis. *Chem. Geol. (Isot. Geosci.Sect.)*, 65, 1-13.

Table D.1: Paleotemperature - vitrinite reflectance nomogram based on Equation 2 of Burnham and Sweeney (1989)

Paleotemperature (°C / °F)	Vitrinite Reflectance (%) 1 Ma Duration of heating	10 Ma Duration of heating
40 / *104*	0.29	0.32
50 / *122*	0.31	0.35
60 / *140*	0.35	0.40
70 / *158*	0.39	0.45
80 / *176*	0.43	0.52
90 / *194*	0.49	0.58
100 / *212*	0.55	0.64
110 / *230*	0.61	0.70
120 / *248*	0.66	0.78
130 / *266*	0.72	0.89
140 / *284*	0.81	1.04
150 / *302*	0.92	1.20
160 / *320*	1.07	1.35
170 / *338*	1.23	1.55
180 / *356*	1.42	1.80
190 / *374*	1.63	2.05
200 / *392*	1.86	2.33
210 / *410*	2.13	2.65
220 / *428*	2.40	2.94
230 / *446*	2.70	3.23

Table D.2: Vitrinite reflectance sample details and results - well samples from the Barents Sea (Geotrack Report #642)

Sample number	Depth (m)	Sample type	Present temperature *1 (°C)	VR (Range) %	N
7117/9-2					
GC642-3.1	1150	cuttings	31	0.39 (0.25-0.56)	29
GC642-4.1	1400	cuttings	38	0.47 (0.37-0.55)	4
GC642-5.1	1490	cuttings	41	0.41 (0.31-0.56)	25
GC642-6.1	1750	cuttings	49	0.48 (0.32-0.64)	27
GC642-7.1	2000	cuttings	56	0.51 (0.38-0.59)	25
GC642-9.1	2260	cuttings	64	0.57 (0.43-0.70)	24
GC642-10.1	2490	cuttings	71	0.65 (0.49-0.90)	17
GC642-11.1	2750	cuttings	79	0.67 (0.43-0.92)	15
GC642-13.1	2960	cuttings	85	0.83 (0.53-0.96)	25
GC642-14.1	3240	cuttings	94	0.94 (0.66-1.10)	14
GC642-15.1	3470	cuttings	101	0.93 (0.66-1.15)	21
GC642-16.1	4040	cuttings	118	1.27 (0.93-1.41)	13
GC642-17.1	4250	cuttings	124	1.75 (1.50-1.93)	19
GC642-18.1	4490	cuttings	131	1.79 (1.47-2.05)	25
GC642-19.1	4730	cuttings	139	1.98 (1.63-2.27)	25
GC642-20.1	4990	cuttings	146	2.23 (1.92-2.55)	25

Table D.2: Continued

Sample number	Depth (m)	Sample type	Present temperature *1 (°C)	VR (Range) %	N
7119/9-1					
GC642-21.1	600	cuttings	18	0.39 (0.29-0.52)	14
GC642-23.1	1100	cuttings	35	0.47 (0.33-0.62)	32
GC642-24.1	1400	cuttings	45	0.58 (0.46-0.66)	11
GC642-25.1	1700	cuttings	55	0.61 (0.48-0.70)	15
GC642-26.1	1880	cuttings	61	0.66 (0.54-0.81)	25
GC642-28.1	2100	cuttings	69	0.74 (0.61-0.86)	28
GC642-30.1	2660	cuttings	88	0.77 (0.52-0.90)	22
GC642-31.1	2710	cuttings	90	0.90 (0.78-1.08)	25
GC642-32.1	2880	cuttings	96	1.11 (0.92-1.30)	12
GC642-92.1	2360	cuttings	78	0.72 (0.44-0.89)	27

Table D.2: Continued

Sample number	Depth (m)	Sample type	Present temperature *1 (°C)		VR (Range) %	N
7120/9-2						
GC642-33.1	600	cuttings	14		0.41 (0.28-0.54)	26
GC642-35.1	1000	cuttings	26		0.48 (0.39-0.67)	11
GC642-37.1	1390	cuttings	37		0.51 (0.31-0.65)	15
GC642-38.1	1695	cuttings	46		0.59 (0.49-0.69)	25
GC642-39.1	1940	cuttings	54	I	0.58 (0.49-0.68)	22
				II	0.37 (0.24-0.45)	8
GC642-40.1	2120	cuttings	59	I	0.60 (0.52-0.75)	28
				II	0.44 (0.32-0.50)	20
GC642-41.1	2397	cuttings	68		0.72 (0.54-0.91)	27
GC642-43.1	2602	cuttings	74		0.78 (0.65-0.92)	13
GC642-44.1	2902	cuttings	83		0.71 (0.54-0.87)	36
GC642-45.1	3280	cuttings	94		1.00 (0.80-1.19)	28
GC642-46.1	3600	cuttings	104		1.13 (1.00-1.26)	12
GC642-47.1	3900	cuttings	113		1.85 *2 (1.64-2.14)	4
GC642-48.1	4422	cuttings	129		-	-
GC642-49.1	4825	cuttings	141		2.83 *2 (1.88-3.76)	27
GC642-50.1	5022	cuttings	147		3.49 *2 (2.24-7.70)	37

Note: For sample GC642-50.1 the mean inertinite reflectance is consistent with a vitrinite reflectance of 2-2.5% (see maceral descriptions).

Table D.2: Continued

Sample number	Depth (m)	Sample type	Present temperature *1 (°C)		VR (Range) %	N
7120/12-2						
GC642-51.1	615	cuttings	19		0.44 (0.40-0.51)	3
GC642-52.1	805	cuttings	25		0.44 (0.38-0.52)	4
GC642-53.1	1010	cuttings	32		0.42 (0.32-0.53)	9
GC642-54.1	1270	cuttings	40		0.50 (0.42-0.58)	16
GC642-55.1	1395	cuttings	44		0.54 (0.41-0.70)	16
GC642-56.1	1548	cuttings	49	I	0.54 (0.39-0.67)	21
				II	0.84 (0.84-0.84)	1
GC642-57.1	1798	cuttings	57		0.53 (0.43-0.69)	27
GC642-58.1	2000	cuttings	64		0.51 (0.38-0.62)	27
GC642-59.1	2148	cuttings	68		0.61 (0.45-0.76)	27
GC642-60.1	2238	cuttings	71		0.64 (0.52-0.78)	25
GC642-61.1	2445	cuttings	78		0.58 (0.49-0.69)	17
GC642-63.1	2700	cuttings	86		0.61 (0.49-0.85)	28
GC642-65.1	3100	cuttings	99		0.69 (0.56-0.86)	22
GC642-66.1	3400	cuttings	109		0.81 (0.66-0.95)	20
GC642-67.1	3900	cuttings	125		0.85 (0.65-1.08)	25
GC642-68.1	4300	cuttings	138		0.87 (0.71-1.04)	25

Table D.2: Continued

Sample number	Depth (m)	Sample type	Present temperature *1 (°C)		VR (Range) %	N
7120/12-4						
GC642-69.1	405	cuttings	20		0.36 (0.22-0.50)	3
GC642-71.1	755	cuttings	38		0.51 (0.42-0.65)	17
GC642-72.1	827	cuttings	38		1.26 *2 (0.46-1.96)	4
GC642-74.1	1020	cuttings	40		0.57 (0.39-0.68)	27
GC642-75.1	1197	cuttings	42		0.53 (0.34-0.72)	25
GC642-77.1	1462	cuttings	44		0.54 (0.35-0.71)	27
GC642-78.1	1817	cuttings	48		0.55 (0.41-0.68)	26
GC642-78.2	1737	cuttings	47		0.58 (0.41-0.72)	25
GC642-79.1	1902	cuttings	48		0.57 (0.43-0.73)	18
GC642-80.1	2000	cuttings	49		0.57 (0.41-0.76)	22
GC642-93.1	460	cuttings	24		0.39 (0.27-0.60)	12
7122/6-1						
GC642-82.1	1100	cuttings	26		0.48 (0.37-0.60)	16
GC642-83.1	1520	cuttings	38		0.58 (0.48-0.65)	3
GC642-84.1	1755	cuttings	46		0.59 (0.49-0.71)	25
GC642-85.1	1999	cuttings	53	I	0.57 (0.49-0.77)	26
				II	0.41 (0.28-0.46)	23
GC642-87.1	2180	cuttings	59		0.74 (0.60-0.88)	18
GC642-88.1	2251	cuttings	61		0.61 (0.50-0.76)	27
GC642-89.1	2356	cuttings	64		0.82 (0.60-1.12)	17
GC642-90.1	2506	cuttings	69	I	0.72 (0.60-0.93)	32
				II	0.49 (0.43-0.55)	11
GC642-91.1	2677	cuttings	74		0.76 (0.58-1.07)	27

Note: Some samples may contain both vitrinite and inertinite.

*1 See Appendix A for discussion of present temperature data.

*2 Inertinite

Table D.3: Vitrinite reflectance sample details and results supplied by client - Barents Sea wells (Geotrack Report #642)

Depth (m)	Present temperature*1 (°C)	Ro average	N	Sd
7117/9-2				
1185-1215	32.3	0.34	6	0.02
1345-1375	37.1	0.36	2	0.05
1500-1535	41.8	0.49	11	0.04
1660-1695	46.6	0.49	15	0.07
1820-1855	51.5	0.49	21	0.05
1985-2017	56.4	0.56	19	0.07
2087-2120	59.5	0.60	12	0.06
2262-2295	64.7	0.60	16	0.05
2440-2472	70.1	0.62	16	0.04
2615-2647	75.3	0.65	13	0.04
2792-2825	80.7	0.71	9	0.06
2970-3002	86.0	0.77	9	0.04
3150-3185	91.5	0.86	10	0.05
3337-3372	97.1	0.90	16	0.06
3476	100.8	1.00	11	0.07
3615-3650	105.5	1.07	12	0.05
3762-3797	109.9	1.14	10	0.06
3950-3985	115.6	1.19	12	0.05
4145-4180	121.4	1.35	13	0.04
4340-4375	127.3	1.38	9	0.04
4392-4393	128.4	1.35	11	0.08
4467-4497	131.1	1.40	10	0.07
4662-4692	136.9	1.49	5	0.05
4825-4855	141.8	1.57	12	0.07
4867-4868	142.7	1.66	9	0.06
4970-5000	146.2	1.82	10	0.07
7119/9-1				
773.4	23.7	0.95	-	-
1180-1190	37.7	0.38	5	0.03
1400	45.0	0.42	25	-
1440-1470	46.9	0.70	4	0.04
1740-1770	57.1	0.55	5	0.03
1955	64.0	0.35	2	-
2040-2070	67.4	0.66	21	0.06
2090	68.6	0.47	6	-
2335-2365	77.4	0.79	20	0.05
2360	77.8	0.52	23	-
2450	80.8	0.80	-	-
2600-2630	86.5	0.91	14	0.06
2695-2700	89.3	1.00	7	0.08
2705	89.5	0.42	4	-
2720	90.0	0.95	-	-
2985-3015	99.6	0.90	8	0.07
2990	99.3	0.58	6	-
3053	101.4	1.00	-	-
3170	105.4	0.64	11	-
3220-3243	107.5	1.15	2	0.04
3243	107.9	1.15	-	-

Table D.3: Continued

Depth (m)	Present temperature*1 (°C)	Ro average	N	Sd
7120/9-2				
1225-1255	32.8	0.66	3	0.13
1525-1555	41.8	0.49	6	0.06
1825-1850	50.8	0.50	11	0.06
1852-1882	51.7	0.71	28	0.09
1885-1905	52.5	0.58	5	0.01
1945-1950	54.1	0.50	27	0.07
1970-1975	54.8	0.50	23	0.05
2312-2342	65.5	0.76	10	0.08
2345-2362	66.3	0.73	15	0.09
2540-2562	72.2	0.99	9	0.08
2825-2855	80.9	1.63	8	0.11
3100-3127	89.2	1.29	15	0.11
7120/12-2				
993.2	31.1	0.45	25	-
1270-1275	40.1	0.33	10	0.06
1390-1395	44.0	0.44	21	0.05
1500	47.5	0.45	6	-
1515-1520	48.0	0.43	18	0.04
1655-1660	52.6	0.42	26	0.03
1680	53.3	0.42	22	-
1725	54.8	0.44	22	-
1770	56.2	0.42	22	-
1785-1790	56.8	0.40	24	0.04
1830	58.2	0.43	21	-
1860	59.1	0.44	22	-
1880-1885	59.9	0.47	30	0.05
1983	63.1	0.39	21	-
1995	63.5	0.47	16	-
2038.5	64.9	0.51	50	0.04
2165-2180	69.3	0.47	32	0.07
2175	69.3	0.44	20	-
2265	72.3	0.51	10	-
2270-2288	72.7	0.46	20	0.03
2310	73.7	0.45	8	-
2405-2420	77.0	0.52	46	0.08
2460	78.6	0.50	21	-
2570-2585	82.4	0.52	7	0.04
2625	83.9	0.45	21	-
2640	84.4	0.45	20	-
2700	86.4	0.47	21	-
2730	87.3	0.45	20	-
2775	88.8	0.48	21	-
2940	94.1	0.44	23	-
2985	95.6	0.59	21	-

Table D.3: Continued

Depth (m)	Present temperature*1 (°C)	Ro average	N	Sd
7120/12-2				
3045	97.5	0.55	11	-
3065-3095	98.7	0.55	28	0.04
3105	99.5	0.57	6	-
3215-3245	103.5	0.62	5	0.03
3365-3395	108.4	0.54	14	0.03
3420	109.7	0.54	2	-
3485-3515	112.3	0.58	4	0.07
3540	113.6	0.57	3	-
3605-3635	116.2	0.65	8	0.06
3630	116.5	0.59	7	-
3720	119.4	0.55	7	-
3755-3785	121.0	0.65	11	0.07
3795	121.8	0.57	5	-
3875-3905	124.9	0.61	17	0.07
3930	126.2	0.69	7	-
3995-4025	128.8	0.70	11	0.11
4005	128.6	0.67	20	-
4020	129.1	0.71	6	-
4110	132.0	0.63	3	-
4124	132.5	0.84	6	-
4145-4175	133.7	0.73	1	0.00
4170	134.0	0.65	12	-
4350	139.8	0.68	7	-
4385-4415	141.4	0.75	7	0.05
4500	144.7	0.73	6	-
4505-4535	145.3	0.74	8	0.05
4530	145.6	0.57	6	-
7120/12-4				
475-480	24.9	0.25	9	0.04
775-780	38.0	0.38	4	0.04
990-992	40.0	0.35	9	0.04
1145-1150	41.4	0.27	6	0.02
1571-1575	45.3	0.52	3	0.03
1691-1695	46.4	0.55	4	0.04
1846-1850	47.9	0.81	5	0.04

Table D.3: Continued

Depth (m)	Present temperature*1 (°C)	Ro average	N	Sd
7122/6-1				
1045-1050	24.0	0.53	7	0.03
1145-1150	27.1	0.53	3	0.02
1555-1560	39.6	0.52	4	0.07
1745-1750	45.4	0.64	5	0.04
1845-1850	48.4	0.64	2	0.02
1954-1957	51.7	0.55	11	0.07
2011-2014	53.4	0.53	17	0.04
2044	54.4	0.63	36	0.07
2064	55.0	0.59	2	0.03
2260-2263	61.0	0.67	25	0.07
2462-2470	67.3	0.69	4	0.04
2569-2572	70.5	0.54	27	0.06
2671-2674	73.6	0.72	14	0.07

*1 See Appendix A for discussion of present temperature data.

TOTAL C.F.P.
DIRECTION EXPLORATION
Département Laboratoires Exploration

TMN WELL 7122/6-1
GEOCHEMICAL STUDY

J.L. PITTION

30T 062 682 RL 4275 TEP/DE/LAB
30T 062 612

ADDRESSEES :

TMN..... 2 ex.
AMERADA..... 1 ex.
NORSK HYDRO..... 1 ex.
NORSKE SHELL..... 1 ex.
STATOIL..... 1 ex.
NPD..... 1 ex.

TOTAL GROUP LABORATORIES

Co-ordinator : J.L. PITTION
Pessac, May 1988

INTRODUCTION

Rock-Eval pyrolysis was performed all along the well (5-10 m spacing in the post-Jurassic series and 3 m spacing in the Jurassic -Triassic).

22 kerogens and coals were selected for microscopical study (visual type of organic matter, vitrinite Ro, TAI).

30 extracts were performed on shales, coals, and sandstones. Conventional chromatography and biomarkers mass spectrometry analyses were carried out.

26 head-space gas (from canned cuttings) were analyzed for composition and CH4 δ C13.

One oil sample (RFT-7 2015 m) and two condensates (DST-2 2424 - 2434 m , RFT-5 2432 m,) were analyzed.

Concerning the stratigraphic limits (litho and bio) log depths are used in the uncored intervals and driller depths in the cored interval.

TABLE.1

** NORWAY * 7122/6-1 **

PETROLEUM POTENTIAL O.S.A.

LEGEND

T.O.C ..... : TOTAL ORGANIC CARBON (WEIGHT % OF ROCK)

S1 PRODUCTIVITY ..... : KG OF HYDROCARBONS (FREE AND THERMOVAPORIZABLE) PER TON OF ROCK ----------> OIL

S2 POTENTIAL PRODUCTIVITY .. : KG OF HYDROCARBONS (CRACKING OF KEROGEN) PER TON OF ROCK ----------> KEROGEN

PI PRODUCTION INDEX ..... : RATIO (PRODUCTIVITY / PRODUCTIVITY + POTENTIAL PRODUCTIVITY) = S1/S1+S2 -

TMAX PYROLYSIS TEMPERATURE .. : TEMPERATURE ('C) OF THE MAXIMUN FORMATION OF HYDROCARBONS BY CRACKING OF KEROGEN - S2 -

HC HYDROCARBONS INDEX ..... : MG OF HYDROCARBONS (FREE AND THERMOVAPORIZABLE) IN THE ROCK PER GRAM OF TOC - S1/TOC -

HI HYDROGEN INDEX ..... : MG OF HYDROCARBONS (COMING FROM CRACKING OF KEROGEN) IN THE ROCK PER GRAM OF TOC - S2/TOC -

CUT.=CUTTINGS CORE=CORE SWC.=SIDE WALL CORE COAL=COAL P.C.=PICKED COAL
OS.W = WASHED WITH ORGANIC SOLVENT

No GR	NATURE	DEPTH	TOC	S1	S2	PI	TMAX	HC	HI
59087	SWC.	490.00	.72	.01	.74	.01	427	1	102
59088	SWC.	498.00	.78	.02	.83	.02	422	3	106
59089	SWC.	514.00	1.01	.15	2.41	.06	425	15	238
59090	SWC.	522.00	.60	0.00	.70	0.00	424	0	116
59091	SWC.	530.00	.60	0.00	.66	0.00	430	0	110
59092	SWC.	538.00	.67	0.00	.80	0.00	426	0	119
59093	SWC.	570.00	.63	0.00	.72	0.00	427	0	114
59094	SWC.	578.00	.54	.01	.61	.02	425	2	112
59095	SWC.	586.00	.57	0.00	.65	0.00	430	0	114
59096	SWC.	594.00	.56	0.00	0.00	0.00	354	0	0
59097	SWC.	602.00	.54	0.00	0.00	0.00	219	0	0
59098	SWC.	610.00	.61	0.00	0.00	0.00	258	0	0
59099	SWC.	618.00	.79	.04	1.23	.03	430	5	155
59100	SWC.	626.00	.56	0.00	0.00	0.00	441	0	0
59101	SWC.	682.00	.49	0.00	0.00	0.00	289	0	0
59102	SWC.	690.00	.96	.02	.90	.02	415	2	93
59103	SWC.	744.20	.01	0.00	0.00	0.00	285	0	0
59104	SWC.	744.40	.05	0.00	0.00	0.00	217	0	0
59105	SWC.	752.70	.99	0.00	.99	0.00	430	0	100
59106	SWC.	752.70	.76	.04	.83	.05	409	5	109
59107	SWC.	758.40	1.24	0.00	.81	0.00	420	2	6

** NORWAY * 7122/6-1 **

No GR	NATURE	DEPTH	TOC	S1	S2	PI	TMAX	HC	HI
59108	SWC.	760.10	.01	0.00	0.00	0.00	350	0	0
59109	SWC.	764.90	.03	0.00	0.00	0.00	235	0	0
59110	SWC.	765.20	.07	.02	.10	.17	293	29	142
59111	SWC.	767.70	.13	0.00	.57	0.00	440	0	438
59112	SWC.	768.00	.07	0.00	0.00	0.00	291	0	0
59113	SWC.	771.40	.04	0.00	0.00	0.00	271	0	0
59114	SWC.	775.00	.05	0.00	0.00	0.00	271	0	0
59115	SWC.	780.00	.04	.03	.11	.21	283	75	275
59116	SWC.	785.00	.30	.19	.98	.16	309	63	326
59117	SWC.	790.00	.07	0.00	.86	0.00	454	0	
59575	SWC.	791.00	.01	0.00	0.00	0.00	440	0	0
59118	SWC.	795.00	.07	.18	.53	.26	354	257	757
59576	SWC.	803.00	.07	0.00	0.00	0.00	263	0	0
59577	SWC.	824.50	.37	0.00	.08	0.00	404	0	21
59578	CUT.	825.00	.41	0.00	.07	0.00	332	0	17
59579	CUT.	830.00	.02	.03	.02	.75	282	150	100
59580	CUT.	840.00	.23	0.00	.08	0.00	399	0	34
59581	CUT.	850.00	.51	0.00	.25	0.00	426	0	49
59582	CUT.	855.00	.73	.04	.45	.08	459	5	61
59583	CUT.	860.00	.87	0.00	.60	0.00	429	0	68
59584	CUT.	870.00	.76	0.00	.56	0.00	428	0	73
59585	SWC.	877.00	1.25	0.00	.68	0.00	429	0	54
59586	CUT.	880.00	.84	0.00	.47	0.00	430	0	55
59587	CUT.	890.00	.70	0.00	.43	0.00	430	0	61
59588	CUT.	900.00	.79	0.00	.41	0.00	428	0	51
59589	CUT.	910.00	.75	0.00	.34	0.00	427	0	45
59590	CUT.	920.00	.83	0.00	.46	0.00	427	0	55
59591	CUT.	930.00	.87	.14	.68	.17	430	16	78
59592	CUT.	940.00	.89	.01	.52	.02	426	1	58
59593	CUT.	950.00	.80	.02	.53	.04	427	3	66
59594	CUT.	960.00	.79	0.00	.55	0.00	430	0	69
59595	CUT.	970.00	.72	.01	.40	.02	428	1	55
59596	SWC.	974.50	1.54	0.00	.46	0.00	428	0	29
59597	CUT.	980.00	.86	0.00	.47	0.00	430	0	54
59598	CUT.	990.00	.73	.03	.41	.07	430	4	56
59599	CUT.	1000.00	.78	0.00	.30	0.00	428	0	38
59600	CUT.	1010.00	.72	.01	.34	.03	430	1	47
59601	CUT.	1020.00	.75	0.00	.44	0.00	430	0	58
59602	CUT.	1030.00	.76	.02	.31	.06	428	3	40
59603	CUT.	1040.00	.89	0.00	.52	0.00	431	0	58
59604	SWC.	1045.00	1.45	.06	.59	.09	427	4	40
59605	CUT.	1050.00	1.07	.04	.45	.08	429	4	42
59606	CUT.	1060.00	.77	.01	.42	.02	431	1	54
59607	CUT.	1070.00	.67	.01	.26	.04	428	1	38
59608	CUT.	1080.00	.74	0.00	.28	0.00	429	0	37
59609	SWC.	1082.00	1.22	.04	.53	.07	429	3	43
59610	CUT.	1090.00	.73	0.00	.34	0.00	431	0	46
59611	CUT.	1100.00	.93	0.00	.15	0.00	429	0	16
59612	CUT.	1110.00	.77	.01	.35	.03	432	1	45
59613	SWC.	1115.00	1.32	.03	.48	.06	430	2	36
59614	CUT.	1120.00	.90	0.00	.19	0.00	432	0	21
59615	CUT.	1130.00	.78	.01	.41	.02	430	1	52
59616	CUT.	1140.00	.72	0.00	.17	0.00	434	0	23
59617	CUT.	1150.00	.62	0.00	.21	0.00	432	0	33
59618	CUT.	1160.00	1.12	0.00	.56	0.00	340	0	50
59619	CUT.	1170.00	.73	0.00	.43	0.00	339	0	58
59620	CUT.	1180.00	.72	0.00	.11	0.00	433	0	15

** NORWAY * 7122/6-1 **

No GR	NATURE	DEPTH	TOC	S1	S2	PI	TMAX	HC	HI
59621	CUT.	1190.00	.71	0.00	.22	0.00	417	0	30
59622	CUT.	1200.00	.80	0.00	.11	0.00	428	0	13
59623	SWC.	1202.50	.79	0.00	.14	0.00	404	0	17
59624	CUT.	1210.00	.84	0.00	.07	0.00	392	0	8
59625	CUT.	1220.00	.73	.02	.37	.05	379	3	50
59626	CUT.	1230.00	.89	0.00	.05	0.00	320	0	5
59627	CUT.	1240.00	.99	.06	.65	.09	343	6	65
59628	CUT.	1250.00	.83	0.00	.04	0.00	316	0	4
59629	CUT.	1260.00	.85	.01	.44	.02	419	1	51
59630	CUT.	1270.00	.57	0.00	.04	0.00	318	0	7
59631	CUT.	1280.00	.56	0.00	.11	0.00	269	0	19
59632	CUT.	1290.00	.48	0.00	.04	0.00	340	0	8
59633	SWC.	1293.00	.68	0.00	.12	0.00	293	0	17
59634	CUT.	1300.00	.73	0.00	.13	0.00	316	0	17
59635	CUT.	1310.00	.68	0.00	.14	0.00	395	0	20
59636	CUT.	1320.00	.45	0.00	.09	0.00	295	0	20
59637	CUT.	1330.00	.95	0.00	.22	0.00	431	0	23
59638	SWC.	1338.00	1.66	.02	.54	.04	431	1	32
59639	CUT.	1340.00	1.11	0.00	.25	0.00	431	0	22
59640	CUT.	1350.00	1.00	0.00	.25	0.00	426	0	25
59641	CUT.	1360.00	1.14	0.00	.24	0.00	432	0	21
59642	CUT.	1370.00	.82	.01	.29	.03	436	1	35
59643	CUT.	1380.00	1.02	.01	.21	.05	436	1	20
59644	SWC.	1382.00	1.01	.01	.18	.06	430	1	17
59645	CUT.	1390.00	.91	.02	.26	.07	446	2	28
59646	CUT.	1400.00	1.22	0.00	.25	0.00	431	0	20
59647	CUT.	1410.00	.74	.01	.28	.04	434	1	37
59648	CUT.	1420.00	1.04	.01	.32	.03	435	1	30
59649	SWC.	1423.50	1.50	.02	.43	.05	431	1	28
59650	CUT.	1430.00	1.01	.02	.35	.06	434	2	34
59651	CUT.	1440.00	1.26	.01	.31	.03	432	1	24
59652	CUT.	1450.00	.77	.01	.42	.02	435	1	54
59653	SWC.	1453.00	1.65	.02	.32	.06	429	1	19
59654	CUT.	1460.00	1.03	.02	.27	.07	432	2	26
59655	CUT.	1470.00	.74	.01	.31	.03	433	1	41
59656	CUT.	1480.00	1.03	0.00	.17	0.00	430	0	16
59657	SWC.	1488.00	1.15	.03	.17	.15	433	3	14
59658	CUT.	1490.00	.71	.01	.25	.04	436	1	35
59659	CUT.	1500.00	1.23	0.00	.19	0.00	432	0	15
59660	CUT.	1510.00	.85	.02	.26	.07	438	2	30
59661	CUT.	1520.00	1.25	0.00	.26	0.00	432	0	20
59662	CUT.	1530.00	.88	.03	.24	.12	436	3	27
59663	CUT.	1540.00	1.37	0.00	.19	0.00	429	0	13
59664	SWC.	1542.00	1.54	.05	.14	.28	321	3	9
59665	CUT.	1550.00	.84	0.00	.21	0.00	446	0	25
59666	CUT.	1560.00	1.10	0.00	.09	0.00	438	0	8
59667	CUT.	1570.00	.90	0.00	.21	0.00	338	0	23
59668	CUT.	1580.00	1.30	0.00	.13	0.00	430	0	10
59669	SWC.	1583.00	2.05	.05	.33	.13	433	2	16
59670	CUT.	1590.00	1.61	.07	1.24	.05	344	4	77
59671	CUT.	1595.00	1.45	0.00	.14	0.00	434	0	9
59672	CUT.	1600.00	.95	.01	.18	.06	419	1	18
59673	CUT.	1605.00	1.70	.08	1.53	.05	340	5	90
59674	CUT.	1610.00	1.01	0.00	.21	0.00	443	0	20
59675	SWC.	1613.00	2.00	.03	.35	.08	441	2	17
59676	CUT.	1615.00	1.21	0.00	.26	0.00	442	0	21
59677	CUT.	1620.00	.88	0.00	.17	0.00	365	0	19

** NORWAY * 7122/6-1 **

No GR	NATURE	DEPTH	TOC	S1	S2	PI	TMAX	HC	HI
59678	CUT.	1625.00	1.08	.02	.25	.08	445	2	23
59679	CUT.	1630.00	1.08	.02	.20	.09	388	2	18
59680	SWC.	1634.50	1.16	0.00	.01	0.00	333	0	0
59681	CUT.	1635.00	1.15	.03	.23	.12	361	3	20
59682	CUT.	1640.00	1.01	.02	.18	.10	439	2	17
59683	CUT.	1645.00	.97	0.00	.20	0.00	437	0	20
59684	SWC.	1647.50	1.11	0.00	.02	0.00	293	0	1
59685	CUT.	1650.00	1.13	.02	.24	.08	450	2	21
59686	SWC.	1654.00	1.15	.06	.44	.12	434	5	38
59687	CUT.	1655.00	.77	0.00	.15	0.00	441	0	19
59688	CUT.	1660.00	.67	0.00	.11	0.00	443	0	16
59689	CUT.	1665.00	.58	0.00	.10	0.00	438	0	17
59690	CUT.	1670.00	.67	0.00	.15	0.00	432	0	22
59691	SWC.	1671.50	1.22	.04	.34	.11	428	3	27
59692	CUT.	1675.00	.79	.01	.23	.04	435	1	29
59693	CUT.	1680.00	.82	0.00	.23	0.00	437	0	28
59694	CUT.	1685.00	.80	0.00	.29	0.00	436	0	36
59695	CUT.	1690.00	.74	0.00	.18	0.00	435	0	24
59696	CUT.	1695.00	.80	0.00	.27	0.00	439	0	33
59697	CUT.	1700.00	.76	.01	.30	.03	464	1	39
59698	CUT.	1705.00	.88	0.00	.32	0.00	439	0	36
59699	CUT.	1710.00	.96	.01	.44	.02	440	1	45
59700	CUT.	1715.00	.85	.01	.44	.02	439	1	51
59701	CUT.	1720.00	1.40	.08	1.62	.05	343	6	115
59702	CUT.	1725.00	1.33	.03	.70	.04	442	2	52
59703	CUT.	1730.00	.94	.02	.44	.04	439	2	46
59705	SWC.	1735.00	2.51	.02	1.05	.02	440	1	41
59704	CUT.	1735.00	1.14	0.00	.52	0.00	439	0	45
59706	CUT.	1740.00	1.22	.01	.67	.01	438	1	54
59707	CUT.	1745.00	.85	0.00	.30	0.00	440	0	35
59708	CUT.	1750.00	.86	0.00	.49	0.00	439	0	56
59709	CUT.	1755.00	1.30	.02	.62	.03	440	2	47
59710	SWC.	1758.00	2.54	.06	1.10	.05	440	2	43
59711	CUT.	1760.00	2.79	.28	5.55	.05	348	10	198
59712	CUT.	1765.00	3.89	.63	9.19	.06	343	16	236
59713	CUT.	1770.00	1.20	.03	.86	.03	440	3	71
59714	CUT.	1775.00	2.11	.13	2.62	.05	346	6	124
59715	CUT.	1780.00	1.77	.07	.84	.08	438	4	47
59716	SWC.	1780.50	2.47	.08	1.25	.06	441	3	50
59717	CUT.	1785.00	1.53	.05	.61	.08	440	3	39
59718	CUT.	1790.00	2.10	.06	1.00	.06	440	3	47
59719	CUT.	1795.00	1.89	.01	.77	.01	437	1	40
59720	SWC.	1797.00	1.84	.06	.52	.10	438	3	28
59721	CUT.	1800.00	1.58	0.00	.65	0.00	440	0	41
59722	CUT.	1805.00	1.43	.01	.56	.02	440	1	39
59723	CUT.	1810.00	1.48	.02	.74	.03	438	1	50
59724	SWC.	1813.50	3.14	.59	13.52	.04	428	19	430
59725	CUT.	1815.00	2.94	.18	4.71	.04	431	6	160
59726	CUT.	1820.00	2.06	.14	2.55	.05	433	7	123
59727	CUT.	1825.00	1.95	.02	1.17	.02	434	1	60
59728	CUT.	1830.00	2.76	.18	2.51	.07	434	7	90
59729	CUT.	1835.00	2.75	.06	2.08	.03	436	2	75
59730	SWC.	1836.70	2.42	.06	2.55	.02	442	2	105
59731	CUT.	1840.00	2.13	.05	1.57	.03	433	2	73
59732	CUT.	1845.00	1.78	.02	.80	.02	440	1	44
59733	CUT.	1850.00	1.68	.02	1.00	.02	440	1	59
59734	CUT.	1855.00	1.58	.01	.80	.01	438	1	50

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No GR	NATURE	DEPTH	TOC	S1	S2	PI	TMAX	HC	HI
59735	CUT.	1860.00	1.88	.05	1.19	.04	439	3	63
59736	CUT.	1865.00	1.84	.05	1.08	.04	441	3	58
59737	CUT.	1870.00	1.49	.01	.62	.02	441	1	41
59738	CUT.	1875.00	1.55	.06	.80	.07	437	4	51
59739	CUT.	1880.00	1.16	.05	.54	.09	445	4	46
59740	CUT.	1885.00	2.11	.11	1.33	.08	446	5	63
59910	SWC.	1887.50	3.52	.13	3.27	.04	439	4	92
59741	CUT.	1890.00	3.08	.17	3.41	.05	443	6	110
59911	SWC.	1893.00	5.95	.23	9.17	.02	442	4	154
59742	CUT.	1895.00	3.09	.21	4.53	.04	442	7	146
59743	CUT.	1900.00	4.47	.56	8.64	.06	343	13	193
59912	SWC.	1902.50	.17	0.00	0.00	0.00	0	0	0
59744	CUT.	1905.00	1.08	0.00	.51	0.00	444	0	47
59913	SWC.	1909.00	.09	0.00	0.00	0.00	0	0	0
59745	CUT.	1910.00	1.64	.04	1.90	.02	343	2	115
59746	CUT.	1912.00	1.21	.04	.97	.04	442	3	80
59747	CUT.	1915.00	.92	0.00	.50	0.00	446	0	54
59748	CUT.	1918.00	.61	0.00	.16	0.00	436	0	26
59914	SWC.	1918.50	.17	0.00	.01	0.00	276	0	5
59749	CUT.	1920.00	.67	0.00	.21	0.00	443	0	31
59750	CUT.	1925.00	.83	.02	.73	.03	342	2	87
59915	SWC.	1926.00	.45	.01	.15	.06	387	2	33
59751	CUT.	1927.00	.63	0.00	.05	0.00	398	0	7
59752	CUT.	1930.00	.72	.01	.64	.02	435	1	88
59753	CUT.	1933.00	1.11	.05	.91	.05	437	5	81
59754	CUT.	1935.00	2.56	.17	3.67	.04	438	7	143
59916	SWC.	1937.50	6.99	1.48	22.58	.06	433	21	323
59755	CUT.	1940.00	3.40	.99	9.52	.09	435	29	280
59756	CUT.	1945.00	4.14	.63	14.73	.04	435	15	355
59757	CUT.	1950.00	4.13	.67	14.49	.04	438	16	350
59896	CUT. OS.W	1951.00	4.36	.08	13.28	.01	435	2	304
59917	SWC.	1952.50	5.02	1.30	15.34	.08	435	26	305
59758	CUT.	1957.00	6.41	1.11	20.35	.05	437	17	317
59759	CUT.	1960.00	4.66	1.14	16.11	.07	436	24	345
59760	CUT.	1963.00	5.28	1.00	16.80	.06	438	19	318
59761	CUT.	1966.00	5.02	.91	17.32	.05	437	18	345
59762	CUT.	1969.00	5.10	1.42	15.59	.08	438	28	305
59763	CUT.	1972.00	4.96	1.01	13.73	.07	437	20	276
59918	SWC.	1972.50	6.67	2.30	24.60	.09	436	34	368
59764	CUT.	1975.00	5.01	1.41	17.09	.08	436	28	341
59765	CUT.	1978.00	11.15	3.85	37.48	.09	433	35	336
59919	SWC.	1979.00	19.50	7.10	56.82	.11	431	36	291
59766	CUT.	1981.00	11.10	4.94	46.14	.10	434	45	415
59767	CUT.	1984.00	8.65	2.70	25.13	.10	435	31	290
59768	CUT.	1987.00	10.37	3.38	32.22	.09	437	33	310
59920	SWC.	1989.50	16.64	6.43	47.21	.12	437	39	283
59769	CUT.	1990.00	11.84	3.46	34.50	.09	436	29	291
59921	SWC.	1992.50	9.78	4.65	27.82	.14	437	48	284
59770	CUT.	1993.00	8.91	2.52	24.40	.09	438	28	273
59771	CUT.	1996.00	10.12	3.56	30.21	.11	438	35	298
59772	CUT.	1999.00	10.46	3.75	32.47	.10	440	36	310
59922	SWC.	2001.50	14.93	6.05	42.89	.12	438	41	287
59773	CUT.	2002.00	11.63	4.24	34.00	.11	436	36	292
59774	CUT.	2005.00	13.43	4.79	37.08	.11	438	36	276
59923	SWC.	2006.00	17.77	6.75	55.54	.11	435	38	312
59775	CUT.	2008.00	15.12	5.82	47.21	.11	435	38	312
59776	CUT.	2011.00	15.91	5.65	51.58	.10	435	36	324

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No GR	NATURE	DEPTH	TOC	S1	S2	PI	TMAX	HC	HI
59924	SWC.	2011.00	12.86	5.42	38.71	.12	438	42	301
59925	SWC.	2013.00	14.40	5.79	47.55	.11	434	40	330
59777	CUT.	2014.00	12.53	4.75	43.96	.10	435	38	350
59926	SWC.	2014.00	19.94	6.37	63.05	.09	433	32	316
59927	SWC.	2014.50	24.45	7.87	78.98	.09	429	32	323
59928	SWC.	2015.00	.88	3.15	1.47	.68	297	358	167
59929	SWC.	2015.50	1.01	6.54	2.17	.75	294	648	214
59778	CUT.	2017.00	10.09	3.71	30.59	.11	437	37	303
59930	SWC.	2017.50	.50	2.05	.67	.75	412	410	134
59779	CUT.	2018.00	5.86	2.39	25.39	.09	437	41	433
59780	CORE	2019.00	.28	.71	.61	.54	309	254	217
59781	CORE	2019.90	.35	.41	.36	.54	447	117	102
59782	CORE	2020.00	.28	.19	1.06	.15	410	68	378
59783	CORE	2020.80	.48	1.76	.81	.69	417	367	168
59784	CORE	2021.70	.64	.48	1.10	.30	440	75	171
59785	CORE	2022.10	.31	2.50	.42	.86	421	806	135
59786	CORE	2022.60	.17	.50	.21	.71	386	294	123
59787	CORE	2023.70	.24	.38	.48	.44	436	158	200
59788	CORE	2024.40	.16	.31	.35	.47	424	194	218
59789	CORE	2025.30	.10	.23	.21	.52	414	230	210
59790	CORE	2026.20	.18	.27	.14	.67	375	150	77
59791	CORE	2027.10	.20	.21	.35	.37	425	105	175
59792	CORE	2027.30	.23	.30	.33	.48	478	130	143
59793	CORE	2028.00	.08	.21	.21	.50	508	263	262
59794	CORE	2028.80	.08	.24	.17	.60	426	300	212
59795	CORE	2029.60	.07	.29	.15	.66	374	414	214
59796	CORE	2030.50	.12	.62	.26	.70	401	517	216
59797	CORE	2031.40	.07	.17	.10	.65	454	243	142
59798	CORE	2032.30	.10	.25	.05	.83	322	250	50
59799	CORE	2035.00	.26	.75	.36	.68	441	288	138
59800	CORE	2036.45	.21	.72	.29	.72	440	343	138
59801	CORE	2038.20	3.71	2.32	13.40	.15	436	63	361
59802	CORE	2039.00	8.85	2.29	41.12	.05	446	26	464
61075	COAL	2039.25	86.03	18.14	273.14	.06	426	21	317
61076	CORE	2040.30	.16	.45	.40	.54	452	281	250
59803	CORE	2040.80	.31	.39	.27	.59	416	126	87
61077	CORE	2041.25	.38	.10	.56	.15	442	26	147
59804	CORE	2041.50	23.56	3.51	36.17	.09	444	15	153
59805	CORE	2043.50	.64	.17	.51	.25	451	27	79
61078	CORE	2044.75	.20	.82	.44	.65	443	410	220
59806	CORE	2045.15	10.81	3.84	25.56	.13	438	36	236
59807	CORE	2046.05	2.95	3.52	6.92	.34	438	119	234
61079	COAL	2046.10	86.80	25.28	252.87	.09	432	29	291
59808	CORE	2046.70	.38	.03	.41	.07	444	8	107
59809	CORE	2049.50	.29	.05	.26	.17	441	17	89
59810	CORE	2049.65	.10	.37	.10	.80	367	370	100
61080	CORE	2050.50	.14	.05	.34	.13	443	36	242
61081	COAL	2050.75	78.21	21.97	130.78	.14	441	28	167
59811	CORE	2053.15	2.12	1.71	4.58	.27	443	81	216
59812	CORE	2054.07	4.87	2.37	12.44	.16	443	49	255
61082	COAL	2054.80	87.02	16.66	242.56	.06	431	19	278
59813	CORE	2055.00	46.01	10.69	91.38	.10	438	23	198
59813	COAL	2055.00	43.97	9.17	106.39	.08	437	21	241
59814	CORE	2056.60	2.14	1.31	4.48	.23	438	61	209
59815	CORE	2058.60	7.81	4.45	16.34	.21	443	57	209
59816	CORE	2061.30	.18	.02	.11	.17	422	11	61
59817	CORE	2061.70	.37	.05	.35	.12	444	14	94

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No GR	NATURE	DEPTH	TOC	S1	S2	PI	TMAX	HC	HI
61083	CORE	2062.80	1.42	.44	2.89	.13	444	31	203
59818	CORE	2064.00	2.28	.26	1.28	.17	450	11	56
59819	CORE	2066.70	.39	3.83	.41	.90	290	982	105
61084	CORE	2067.80	.19	.92	.37	.72	456	484	194
59820	CORE	2069.40	.63	.07	.48	.13	448	11	76
59822	CORE	2072.15	.79	.06	.22	.21	455	8	27
61085	CORE	2072.60	.58	.13	.66	.17	451	22	113
59821	CORE	2073.30	.09	0.00	.05	0.00	430	0	55
59823	CORE	2075.75	1.28	.25	1.24	.17	446	20	96
59824	CORE	2076.65	.06	0.00	.03	0.00	452	0	50
59825	CORE	2079.60	.22	.02	.16	.11	449	9	72
59826	CORE	2081.40	.14	.55	.28	.67	304	393	200
59827	CORE	2082.30	1.33	1.57	1.64	.49	440	118	123
59828	CORE	2083.40	3.23	.54	4.31	.11	444	17	133
59829	CORE	2084.10	.07	.01	.08	.12	449	14	114
61086	CORE	2085.75	1.30	.36	3.30	.11	448	28	253
59830	CORE	2086.60	.14	0.00	.05	0.00	365	0	35
59831	CORE	2087.00	.36	.03	.17	.15	459	8	47
59832	CORE	2088.40	.38	.02	.14	.12	459	5	36
61087	CORE	2088.60	.13	.04	.52	.07	371	31	400
59833	CORE	2089.30	.08	0.00	.04	0.00	341	0	50
59834	CORE	2096.50	.02	0.00	.03	0.00	281	0	150
59835	CORE	2097.00	.01	0.00	.04	0.00	447	0	400
59931	SWC.	2098.50	.23	0.00	0.00	0.00	0	0	0
59988	CUT.	2101.00	1.91	.35	4.03	.08	440	18	210
59932	SWC.	2103.00	2.90	.37	6.01	.06	440	13	207
59989	CUT.	2104.00	2.55	.25	3.54	.07	442	10	138
59990	CUT.	2107.00	2.92	.36	5.10	.07	440	12	174
59991	CUT.	2110.00	.22	.01	.07	.12	445	5	31
59992	CUT.	2113.00	.20	.01	.07	.12	355	5	35
59993	CUT.	2116.00	2.37	.18	1.64	.10	448	8	69
59994	CUT.	2119.00	1.78	.15	1.26	.11	444	8	70
59995	CUT.	2122.00	1.22	.12	1.24	.09	447	10	101
59996	CUT.	2125.00	1.06	.08	.69	.11	449	8	65
59933	SWC.	2125.00	1.75	.17	1.81	.09	443	10	103
59997	CUT.	2128.00	1.41	.13	1.54	.08	442	9	109
59998	CUT.	2131.00	1.67	.13	1.69	.07	447	8	101
59999	CUT.	2134.00	.63	.05	.52	.09	442	8	82
60000	CUT.	2137.00	1.05	.16	1.02	.14	440	15	97
60001	CUT.	2140.00	1.92	.38	4.77	.07	445	20	248
60002	CUT.	2143.00	1.92	.19	3.41	.05	447	10	177
60003	CUT.	2146.00	.71	.05	.77	.06	443	7	108
59934	SWC.	2147.50	5.16	.42	8.62	.05	440	8	167
60004	CUT.	2149.00	.77	.05	.81	.06	445	6	105
60005	CUT.	2152.00	1.13	.07	1.30	.05	444	6	115
60006	CUT.	2155.00	.85	.06	.86	.07	445	7	101
60007	CUT.	2158.00	1.16	.09	1.22	.07	445	8	105
60008	CUT.	2161.00	.59	.03	.47	.06	446	5	79
60009	CUT.	2164.00	.92	.07	.77	.08	443	8	83
60010	CUT.	2167.00	.70	.02	.51	.04	443	3	72
60011	CUT.	2170.00	.56	0.00	.20	0.00	445	0	35
59935	SWC.	2172.00	1.18	.04	.79	.05	444	3	66
60012	CUT.	2173.00	.77	.02	.36	.05	445	3	46
60013	CUT.	2176.00	.60	.03	.42	.07	448	5	70
60014	CUT.	2179.00	.80	.01	.34	.03	448	1	42
60015	CUT.	2182.00	.85	.01	.31	.03	446	1	36
59936	SWC.	2182.50	.85	.06	.48	.11	442	7	56

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No GR	NATURE	DEPTH	TOC	S1	S2	PI	TMAX	HC	HI
60016	CUT.	2185.00	.85	.07	.82	.08	442	8	96
60017	CUT.	2188.00	.56	0.00	.25	0.00	449	0	44
60018	CUT.	2191.00	1.22	.52	2.07	.20	431	43	169
60019	CUT.	2194.00	.78	.04	.47	.08	445	5	60
60020	CUT.	2197.00	.87	.04	.57	.07	445	5	65
60021	CUT.	2200.00	.77	.03	.57	.05	447	4	74
60022	CUT.	2203.00	.52	.03	.27	.10	447	6	51
60023	CUT.	2206.00	.64	.09	.46	.17	445	14	71
60024	CUT.	2209.00	.80	.21	.55	.28	447	26	68
60025	CUT.	2212.00	.51	.19	.37	.34	445	37	72
60026	CUT.	2215.00	.39	.19	.30	.40	444	49	76
60027	CUT.	2218.00	.43	.17	.30	.37	442	40	69
60028	CUT.	2221.00	.41	.06	.21	.23	446	15	51
60029	CUT.	2224.00	.51	.06	.34	.15	445	12	66
60030	CUT.	2227.00	.58	.04	.43	.09	447	7	74
59937	SWC.	2228.00	.15	0.00	.09	0.00	455	0	60
60031	CUT.	2230.00	.51	.01	.19	.05	449	2	37
60032	CUT.	2233.00	.38	.01	.20	.05	443	3	52
60033	CUT.	2236.00	.45	.01	.29	.03	446	2	64
60034	CUT.	2239.00	.64	.02	.96	.02	448	3	150
60035	CUT.	2242.00	.24	0.00	.06	0.00	451	0	25
59938	SWC.	2242.00	.07	0.00	.07	0.00	485	0	100
60036	CUT.	2245.00	.28	.01	.07	.12	386	4	25
60037	CUT.	2248.00	.32	0.00	.06	0.00	351	0	18
60038	CUT.	2251.00	.15	0.00	0.00	0.00	253	0	0
60039	CUT.	2254.00	.18	0.00	.03	0.00	331	0	16
60040	CUT.	2257.00	.40	.02	.53	.04	448	5	132
59939	SWC.	2257.50	.81	.04	.80	.05	443	5	98
60041	CUT.	2260.00	.14	0.00	.01	0.00	443	0	7
60042	CUT.	2263.00	.19	0.00	.10	0.00	445	0	52
59940	SWC.	2263.00	.21	.02	.14	.12	391	10	66
60043	CUT.	2266.00	.38	0.00	.16	0.00	443	0	42
59941	SWC.	2268.00	.03	0.00	.01	0.00	401	0	33
60044	CUT.	2269.00	.25	0.00	.24	0.00	448	0	96
60045	CUT.	2272.00	.26	0.00	.07	0.00	444	0	26
60046	CUT.	2273.00	.21	0.00	.09	0.00	444	0	42
60047	CUT.	2275.00	.25	0.00	.14	0.00	442	0	56
59942	SWC.	2278.00	.19	0.00	.10	0.00	455	0	52
60048	CUT.	2278.00	.13	0.00	.02	0.00	451	0	15
60049	CUT.	2281.00	.48	.07	.78	.08	437	15	162
60050	CUT.	2284.00	.28	.02	.23	.08	443	7	82
60051	CUT.	2287.00	.26	.02	.20	.09	451	8	76
60052	CUT.	2290.00	.47	.02	.32	.06	445	4	68
60053	CUT.	2293.00	.27	.02	.31	.06	453	7	114
60054	CUT.	2296.00	.71	.04	.69	.06	446	6	97
60055	CUT.	2299.00	.54	0.00	.25	0.00	445	0	46
60056	CUT.	2302.00	.34	.01	.24	.04	441	3	70
60057	CUT.	2305.00	.64	.03	.51	.06	448	5	79
60058	CUT.	2308.00	1.02	.03	.86	.03	446	3	84
59943	SWC.	2310.00	1.04	.07	.54	.12	458	7	51
60059	CUT.	2311.00	.61	.01	.39	.02	448	2	63
59944	SWC.	2312.50	.08	0.00	.06	0.00	446	0	75
60060	CUT.	2314.00	.34	0.00	.24	0.00	445	0	70
59945	SWC.	2315.00	.10	.03	.02	.75	298	30	20
60061	CUT.	2317.00	.56	.01	.33	.03	443	2	58
60062	CUT.	2320.00	.36	0.00	.20	0.00	455	0	55
60063	CUT.	2323.00	.99	.03	.71	.04	444	3	71

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No GR	NATURE	DEPTH	TOC	S1	S2	PI	TMAX	HC	HI
60064	CUT.	2326.00	2.34	.27	3.02	.08	443	12	129
59946	SWC.	2328.00	.43	.02	.26	.07	451	5	60
60065	CUT.	2329.00	1.28	.07	1.00	.07	445	5	78
60066	CUT.	2332.00	.50	.01	.35	.03	447	2	70
59947	SWC.	2334.00	.31	.03	.24	.12	407	10	77
60067	CUT.	2335.00	.40	.01	.22	.05	445	3	55
60068	CUT.	2338.00	.27	0.00	.20	0.00	448	0	74
60069	CUT.	2341.00	.18	0.00	.14	0.00	445	0	77
60070	CUT.	2344.00	.60	.04	.29	.12	443	7	48
60071	CUT.	2347.00	.35	.01	.10	.10	448	3	28
59948	SWC.	2348.00	.46	.01	.12	.08	487	2	26
60072	CUT.	2350.00	.70	.09	.72	.11	444	13	102
60073	CUT.	2353.00	.35	.02	.14	.12	449	6	40
59949	SWC.	2354.50	.14	0.00	.08	0.00	485	0	57
60074	CUT.	2356.00	.15	0.00	.13	0.00	384	0	86
59950	SWC.	2357.50	.24	0.00	.07	0.00	429	0	29
60075	CUT.	2359.00	.20	0.00	.05	0.00	472	0	25
60076	CUT.	2362.00	.18	.02	.09	.20	317	11	50
60077	CUT.	2365.00	.19	.02	.10	.17	293	11	52
60078	CUT.	2368.00	.36	.04	.35	.11	447	11	97
60079	CUT.	2371.00	.29	.02	.10	.17	384	7	34
59951	SWC.	2373.00	1.46	.16	1.31	.11	445	11	89
60080	CUT.	2374.00	.36	.02	.19	.10	448	6	52
60081	CUT.	2377.00	.41	.03	.19	.14	449	7	46
60082	CUT.	2380.00	.43	.02	.19	.10	452	5	44
60083	CUT.	2383.00	.46	.02	.20	.09	451	4	43
60084	CUT.	2386.00	.42	.02	.20	.09	448	5	47
59952	SWC.	2386.50	1.40	.16	1.10	.13	447	11	78
60085	CUT.	2389.00	6.69	.76	15.68	.05	442	11	234
60086	CUT.	2392.00	1.68	.08	1.34	.06	440	5	79
59953	SWC.	2394.50	.04	0.00	0.00	0.00	0	0	0
60087	CUT.	2395.00	.49	.01	.23	.04	453	2	46
60088	CUT.	2398.00	1.36	.07	1.23	.05	447	5	90
59954	SWC.	2400.50	.02	0.00	.03	0.00	336	0	150
60089	CUT.	2401.00	.40	.01	.13	.07	454	3	32
60090	CUT.	2404.00	.29	0.00	.11	0.00	418	0	37
59955	SWC.	2404.00	.05	0.00	.04	0.00	313	0	80
60091	CUT.	2407.00	.26	0.00	.06	0.00	369	0	23
60092	CUT.	2410.00	.54	.01	.19	.05	461	2	35
59956	SWC.	2410.50	.07	0.00	.07	0.00	314	0	100
60093	CUT.	2413.00	.13	0.00	.06	0.00	372	0	46
60094	CUT.	2416.00	.26	0.00	.09	0.00	387	0	34
60095	CUT.	2419.00	1.31	.05	.85	.06	445	4	64
60096	CUT.	2422.00	.68	.06	.65	.09	441	9	95
60097	CUT.	2425.00	.47	.03	.33	.08	438	6	70
59957	SWC.	2425.50	.05	.02	.02	.50	278	40	40
60098	CUT.	2428.00	.48	.06	.54	.10	440	13	112
59958	SWC.	2430.00	.08	.02	0.00	1.00	0	25	0
60099	CUT.	2431.00	1.06	.06	.96	.06	439	6	90
59959	SWC.	2432.00	.11	.03	.07	.30	258	27	63
60100	CUT.	2434.00	.20	0.00	.05	0.00	448	0	25
59960	SWC.	2437.00	.14	.11	.16	.42	293	79	114
60101	CUT.	2437.00	.62	.08	.78	.09	441	13	125
60102	CUT.	2440.00	.49	.03	.37	.07	445	6	75
59961	SWC.	2442.00	.08	.02	.06	.25	264	25	75
60103	CUT.	2443.00	.37	.03	.14	.19	448	8	37
60104	CUT.	2446.00	.46	.05	.31	.14	437	11	67

** NORWAY * 7122/6-1 **

No GR	NATURE	DEPTH	TOC	S1	S2	PI	TMAX	HC	HI
60105	CUT.	2449.00	.23	.02	.21	.09	443	9	91
60106	CUT.	2452.00	.29	.03	.13	.19	390	10	44
59962	SWC.	2454.50	.13	0.00	.05	0.00	258	0	38
60107	CUT.	2455.00	.28	.03	.15	.17	390	11	53
60108	CUT.	2458.00	.55	.01	.13	.07	424	2	23
59963	SWC.	2459.00	.21	0.00	.09	0.00	341	0	42
60109	CUT.	2461.00	.49	.03	.24	.12	440	6	48
60110	CUT.	2464.00	.61	.05	.38	.12	444	8	62
60111	CUT.	2467.00	.42	.03	.24	.12	446	7	57
60112	CUT.	2470.00	.46	0.00	.11	0.00	444	0	23
60113	CUT.	2473.00	1.21	.13	1.11	.10	444	11	91
59964	SWC.	2475.00	.58	.02	.54	.04	444	3	93
60114	CUT.	2476.00	.33	.03	.22	.12	448	9	66
60115	CUT.	2479.00	.31	.02	.19	.10	431	6	61
60116	CUT.	2482.00	.44	.02	.21	.09	445	5	47
60117	CUT.	2485.00	.44	.04	.39	.10	449	9	88
59965	SWC.	2485.50	.29	.02	.19	.10	454	7	65
60118	CUT.	2488.00	.77	.05	.39	.11	444	6	50
59966	SWC.	2489.00	1.42	.23	2.03	.10	447	16	142
60119	CUT.	2491.00	.71	.06	.42	.12	447	8	59
60120	CUT.	2494.00	.74	.06	.57	.10	444	8	77
60121	CUT.	2497.00	.68	.02	.35	.06	448	3	51
60122	CUT.	2500.00	.46	.01	.14	.07	446	2	30
59967	SWC.	2501.50	1.12	.15	.83	.15	454	13	74
59968	SWC.	2507.00	.51	.06	.35	.15	451	12	68
59969	SWC.	2524.50	.16	.04	.15	.22	361	25	93
60123	CUT.	2525.00	1.13	.25	3.15	.07	454	22	278
60124	CUT.	2526.00	.81	.21	1.11	.16	450	26	137
60125	CUT.	2527.00	1.78	.20	6.49	.03	456	11	364
60126	CUT.	2530.00	.70	.13	1.23	.10	445	19	175
59970	SWC.	2530.50	.29	.07	.19	.27	415	24	65
60127	CUT.	2533.00	.68	.18	.96	.16	447	26	141
60128	CUT.	2536.00	.46	.07	.51	.12	446	15	110
60129	CUT.	2539.00	.37	.06	.38	.14	443	16	102
60130	CUT.	2542.00	.35	.07	.50	.12	446	20	142
60131	CUT.	2545.00	.57	.10	.79	.11	441	18	138
59971	SWC.	2547.00	.38	.07	.29	.19	445	18	76
60132	CUT.	2548.00	.20	.05	.22	.19	443	25	110
60133	CUT.	2551.00	.20	.04	.22	.15	446	20	110
59972	SWC.	2553.00	.37	.02	.15	.12	455	5	40
60134	CUT.	2554.00	.30	.02	.47	.04	449	7	156
60135	CUT.	2557.00	.27	.02	.30	.06	445	7	111
60136	CUT.	2560.00	.40	.05	.51	.09	452	13	127
60137	CUT.	2563.00	.59	.06	.47	.12	446	10	79
60138	CUT.	2566.00	.25	.02	.22	.08	446	8	88
60139	CUT.	2569.00	.23	.03	.22	.12	449	13	95
60140	CUT.	2572.00	.34	.06	.42	.12	446	18	123
59973	SWC.	2574.50	1.10	.19	1.95	.09	450	17	177
60141	CUT.	2575.00	.56	.06	.83	.07	447	11	148
60142	CUT.	2578.00	.32	.05	.38	.12	449	16	118
60143	CUT.	2581.00	.36	.06	.39	.14	446	17	108
60144	CUT.	2584.00	.47	.06	.52	.10	449	13	110
60145	CUT.	2587.00	.34	.04	.33	.11	446	12	97
59974	SWC.	2587.50	.62	.03	.16	.17	444	5	25
60146	CUT.	2590.00	.39	.06	.46	.12	447	15	117
60147	CUT.	2593.00	.41	.04	.74	.05	448	10	180
59975	SWC.	2595.00	.23	.03	.13	.19	441	13	56

** NORWAY * 7122/6-1 **

No GR	NATURE	DEPTH	TOC	S1	S2	PI	TMAX	HC	HI
60148	CUT.	2596.00	.39	.04	.75	.05	449	10	192
60149	CUT.	2599.00	.28	.02	.68	.03	442	7	242
60150	CUT.	2602.00	.33	.02	.48	.04	446	6	145
59976	SWC.	2603.00	.42	0.00	.11	0.00	450	0	26
60151	CUT.	2605.00	.39	.05	.50	.09	447	13	128
60152	CUT.	2608.00	.78	.16	.79	.17	448	21	101
60153	CUT.	2611.00	.19	.02	.17	.11	448	11	89
60154	CUT.	2613.00	.17	.03	.16	.17	445	18	94
60155	CUT.	2617.00	.31	.07	.53	.12	444	23	170
59977	SWC.	2617.50	.73	.14	.52	.21	445	19	71
60156	CUT.	2620.00	.49	.10	.56	.15	436	20	114
60157	CUT.	2623.00	.20	.02	.17	.11	446	10	85
60158	CUT.	2626.00	.26	.03	.24	.12	445	12	92
59978	SWC.	2626.50	.25	.08	.21	.29	417	32	84
60159	CUT.	2629.00	.39	.09	.50	.16	442	23	128
60160	CUT.	2632.00	.31	.03	.19	.14	449	10	61
60161	CUT.	2635.00	.25	.04	.22	.15	445	16	88
60162	CUT.	2638.00	.31	.01	.17	.06	446	3	54
60163	CUT.	2641.00	.56	.07	.60	.11	443	13	107
60164	CUT.	2644.00	.29	.04	.22	.15	444	14	75
60165	CUT.	2647.00	.63	.14	.55	.21	445	22	87
60166	CUT.	2650.00	1.26	.28	1.42	.16	443	22	112
59979	SWC.	2651.00	.16	.13	.13	.50	293	81	81
60167	CUT.	2653.00	.45	.06	.39	.14	447	13	86
59980	SWC.	2655.50	.46	.12	.38	.24	447	26	82
60168	CUT.	2656.00	.23	0.00	.13	0.00	444	0	56
59981	SWC.	2657.50	.93	.20	.81	.20	444	22	87
59982	SWC.	2658.00	1.00	.16	.67	.20	445	16	67
60169	CUT.	2659.00	.57	.09	.51	.15	443	16	89
60170	CUT.	2662.00	.42	.05	.39	.11	446	12	92
59983	SWC.	2662.00	.50	.13	.42	.24	447	26	84
60171	CUT.	2665.00	.82	.06	.57	.10	446	7	69
60172	CUT.	2668.00	.73	.05	.48	.10	446	7	65
60173	CUT.	2671.00	.99	.08	.68	.11	450	8	68
59984	SWC.	2671.50	.32	.06	.23	.21	453	19	71
60174	CUT.	2674.00	1.30	.10	.80	.11	446	8	61
60175	CUT.	2677.00	.90	.07	.52	.12	448	8	57
59985	SWC.	2678.00	.68	.10	.55	.16	446	15	80
60176	CUT.	2680.00	.92	.06	.52	.10	446	7	56
60177	CUT.	2683.00	.77	.05	.49	.09	448	6	63
59986	SWC.	2683.00	1.30	.11	.73	.13	450	8	56
60178	CUT.	2686.00	1.24	.09	.56	.14	449	7	45
60179	CUT.	2689.00	.97	.08	.50	.14	447	8	51
59987	SWC.	2690.00	1.48	.13	.98	.12	451	9	66
60180	CUT.	2692.00	1.10	.09	.70	.12	446	8	63
60181	CUT.	2695.00	1.27	.12	.74	.14	446	9	58
60182	CUT.	2698.00	.97	.07	.47	.13	450	7	48
60183	CUT.	2701.00	1.04	.08	.59	.12	445	8	56
60184	CUT.	2704.00	1.18	.10	.65	.14	449	8	55
60185	CUT.	2707.00	1.14	.14	1.26	.10	441	12	110
60186	CUT.	2708.00	1.26	.14	1.00	.12	443	11	79
60187	CUT.	2709.00	.98	.09	.69	.12	449	9	70
60188	CUT.	2710.00	2.47	.24	2.47	.09	444	10	100

ELEMENTAL ANALYSIS

** NORWAY * 7122/6-1 **

GEOCH. NUMBER	DEPTH (METERS)	C %	H %	N %	O %	ASH %	ATOMIC RATIOS	
							H/C	O/C
GK59670.	1590.00	48.77	2.88	.93	10.39	23.20	.709	.160
GK61021.	1894.00	61.01	3.97	1.01	8.21	16.90	.782	.101
GK61022.	1949.00	58.95	4.89	1.45	5.25	10.30	.994	.067
GK61023.	1970.00	55.41	4.60	1.37	4.62	21.70	.996	.063
GK59769.	1990.00	57.85	4.49	1.36	3.77	18.25	.932	.049
GR61075.	2039.25	62.15	4.17	.64	7.03	19.90	.805	.085
GR61079.	2046.10	83.59	5.86	1.01	6.47	5.60	.841	.058
GR61081.	2050.75	85.97	4.34	.76	6.26	1.77	.605	.055
GR61082.	2054.80	69.00	4.49	.86	6.19	17.10	.781	.067
GR59813.	2055.00	33.17	2.47	.41	3.75	41.60	.894	.085
GK61083.	2062.80	54.21	3.21	.66	8.58	30.30	.711	.119
GK61085.	2072.60	57.20	3.10	1.09	8.44	20.40	.650	.111
GK59828.	2083.40	75.56	4.61	1.51	6.94	9.10	.731	.069
GK61086.	2085.75	65.98	3.74	1.78	8.48	14.65	.681	.096
GK59989.	2104.00	60.10	3.99	.81	7.29	14.10	.797	.091
GK60007.	2158.00	62.40	4.25	1.36	6.60	13.80	.817	.079
GK60017.	2188.00	63.87	4.06	1.16	6.59	13.70	.763	.077
GK60065.	2329.00	40.10	3.74	.73	6.15	42.90	1.119	.115
GK60085.	2389.00	36.11	3.34	.86	8.49	32.10	1.110	.176
GK60114.	2476.00	48.14	4.01	.92	6.98	26.40	1.000	.109
GK61024.	2524.00	51.43	4.06	.87	6.32	17.10	.946	.092
GK61025.	2671.00	49.38	3.76	1.05	6.88	16.60	.913	.105

REFLECTOMETRY

* NORWAY *
* 7122/6-1 *

GEOCH. NUM.	DEPTH.	VITRINITE MEAN	VITRINITE S-D.	VITRINITE NB. MEAS	EXINITE MEAN	EXINITE S-D.	EXINITE NB. MEAS	INERTINITE MEAN	INERTINITE S-D.	INERTINITE NB. MEAS	CAVINGS MEAN	CAVINGS S-D.	CAVINGS NB. MEAS	SAMPLES TYPES	TOTAL NB. MEAS.
GR61022.	1949.00	.55	.04	5			0			0			0	*Kerogen Cutt.	5
GR59801.	2038.20	.56	.03	30			0			0			0	*Coal scratch core	30
GR61075.	2039.25	.62	.05	30			0			0			0	*Coal core	30
GR59804.	2041.40			0	.26	.05	12	1.36	.28	14			0	* " "	26
GR61079.	2046.10	.74	.02	20			0			0			0	* " "	20
GR61081.	2050.75	.63	.07	4	.23	.12	6	1.21	.21	9			0	* " "	19
GR61082.	2054.80	.67	.04	24	.21	.10	6	.81	.05	15			0	* " "	45
GR59815.	2058.60	.61	.05	19			0			0			0	*Coal scratch core	19
GR59827.	2082.30	.64	.08	19			0			0			0	*Whole Rock core	19
GK59828.	2083.40	.79	.02	7	.23	.02	5	.89	.03	17			0	*Kerogen core	29
GK61086.	2085.75	.73	.06	5	.31	.05	3			0			0	* " "	8
GK60007.	2158.00	.70	.06	18			0	1.03	.16	6			0	*Kerogen cutt.	24
GK60065.	2329.00	.66	.07	33			0			0			0	* " "	33
GK60095.	2389.00	.72	.05	9			0			0			0	* " "	9
GK60114.	2476.00	.73	.05	5			0			0			0	* " "	5
GK61024.	2524.00	.73	.08	23			0	.92		5			0	* " "	28
GK61025.	2671.00	.77	.05	20			0			0	.56	.05	19	* " "	39

NORWAY

MAIN CHEMICAL DATA OF EXTRACTS

TABLE. 4 a

N.GR	DEPTH METERS		I.O.C %	E.C. ppm	EC/IOC	COMPOSITION (WEIGHT%) SATURAT	AROMAT.	RESINS +ASPHALT.	SATURAT. / AROMAT.	C.P.I. nALKANES odd/EVEN	PRISTANE / C17	PHYTANE / C18	PRISTANE / PHYTANE
59896 CUTTINGS	1951 1957		4.28	2857	.07	28.74	28.84	33.18	1.00	1.07	3.11	1.43	2.75
59758 CUTTINGS	1957		4.41	3655	.08	30.83	33.46	30.42	.92	1.25	3.82	1.56	2.69
59897 CUTTINGS	1972 1984		6.61	5127	.08	25.36	26.16	36.48	.97	1.01	2.05	1.55	1.52
59764 CUTTINGS	1975		5.24	5280	.10	39.32	30.33	25.53	1.30	1.04	2.71	1.40	2.08
59770 CUTTINGS	1993		7.69	9603	.12	29.54	38.16	25.09	.77	.96	1.98	1.65	1.37
59898 CUTTINGS	1999 2008		8.50	10601	.12	27.04	61.56	.02	.44	.96	1.76	1.60	1.23

NORWAY

MAIN CHEMICAL DATA OF EXTRACTS

TABLE. 4 d

N.GR	DEPTH METERS		I.O.C %	E.C. ppm	EC/IOC	COMPOSITION (WEIGHT%) SATURAT	AROMAT.	RESINS +ASPHALT.	SATURAT. / AROMAT.	C.P.I. nALKANES odd/EVEN	PRISTANE / C17	PHYTANE / C18	PRISTANE / PHYTANE
61079 CORE 2	2046.1		65.70	6563	.01	11.48	54.87	16.61	.21	.86	.41	.35	1.45
61081 CORE 2	2050.75		78.10	7720	.01	32.55	42.65	14.34	.76	1.09	.82	.61	1.44
61082 CORE 2	2054.8		60.20	7193	.01	9.31	66.83	1.98	.14	.90	.47	.37	1.64
59813 CORE.2	2055		74.78	7576	.01	10.38	53.93	22.68	.19	.97	.52	.40	1.36
61083 CORE 2	2062.8		1.60	524	.03	8.75	53.03	21.79	.17	1.25	1.17	.27	4.82
59819 CORE 3	2066.7		.11	3087	2.81	67.00	21.57	9.45	3.11	1.02	.95	.70	1.39

MAIN CHEMICAL DATA OF OIL AND CONDENSATES

TABLE.5

N.GB	DEPTH METERS		DENSITY .API	COMPOSITION (%WEIGHT)				SATURAT. / AROMAT.	C.P.I nALKANES odd/EVEN	PRISTANE / C17	PHYTANE / C18	PRISTANE / PHYTANE	delta C13
				% DIST.	SATURAT.	AROMAT.	RESINS +ASPHAL.						
OIL 61031 RFT-7	2015.8		37		78.34	17.23	4.43	4.55	1.15	.92	.68	1.48	
CONDENSATE 61032 RFT-5	2432.1		57		86.43	12.67	.90	6.82		.89	.66	2.13	
CONDENSATE 61030 DST-2	2424 2434		57		85.09	14.90	.01	5.71		.90	.66	2.12	

NORWAY

THERMOVAPORISATION RESULTS OF ROCKS

TABLE. 6 a

N.GR	DEPTH METERS			IP	IH	I1	I2	BENZENE n.HEXANE	BENZENE + TOLUENE		n.ALKANES % nC4-nC5
GR 61022 CUTTINGS	1949M Shale			.45	12.81	.62	.77	.178			
GR 61023 CUTTINGS	1970M Shale			.47	14.11	.66	.85	.240			
GR 59769 CUTTINGS	1990M Shale			.64	15.02	.67	1.07	.353			
GR 59776 CUTTINGS	2011M Shale			.90	13.85	.77	1.60	1.103			
GR 59989 CUTTINGS	2104M Shale			.60	16.07	1.22	1.75	2.763			

$$Ip = \frac{2\ Me\ C6 + 3\ Me\ C6}{3\ isomeres\ of\ Di\ Me\ Cyclo\ C5} \qquad Ih = \frac{n\ C7 * 100}{Cyclo\ C6 < peaks < Me\ Cyclo\ C6} \qquad I1 = \frac{n\ C6}{Me\ Cyclo\ C5} \qquad I2 = \frac{n\ C7}{1\ Trans\ 2\ Di\ Me\ Cyclo\ C6}$$

THERMOVAPORISATION RESULTS OF OIL AND CONDENSATES TABLE.7

N.GB	DEPTH METERS		OIL DENSITY API	IP	IH	I1	I2	BENZENE n.HEXANE RATIO	BENZENE + TOLUENE		n.ALKANES % nC4-nC5
OIL GB 61031 RFT-7	2015.8M		37	1.29	20.06	1.47	4.11	.470			
CONDENSATE GB 61030 DST-1	2424. 2434.		57	1.64	19.02	1.66	5.06	.222			
GB 61032 RFT-5	2432.		57	1.65	18.00	1.67	4.70	.187			

$$Ip = \frac{2\ Me\ C6 + 3\ Me\ C6}{3\ isomeres\ of\ Di\ Me\ Cyclo\ C5} \qquad Ih = \frac{n\ C7 * 100}{Cyclo\ C6 < peaks < Me\ Cyclo\ C6} \qquad I1 = \frac{n\ C6}{Me\ Cyclo\ C5} \qquad I2 = \frac{n\ C7}{1\ Trans\ 2\ Di\ Me\ Cyclo\ C6}$$

MAIN DATA STERANES-TRITERPANES BIOMARKERS

EXTRACTS

GR	DEPTH (m)	LITHOLOGY	TYPE SAMPLE	% TS	% 22S	% 20S	% ββ	C28 BISNOR. C30 HOP.
59758	1957.	Shale	Cut.	32	51	49	38	-
59764	1975.	"	"	32	56	60	35	-
59770	1993.	"	"	33	60	58	52	.17
59775	2008.	"	"	24	54	52	52	.27
59900	2019.	Sandst.	Core	51	57	57	62	.04
59901	2027.1	"	"	58	57	51	62	.03
59813	2055.	Coal	"	56	53	52	57	.04
59820	2069.4	Shale	"	7	55	43	39	.05
60064	2326.	"	Cut.	26	51	51	36	.06
60099	2439.	"	Cut.	32	59	52	45	.02

OIL RFT-7

GB	DEPTH (m)		AGE	% TS	% 22S	% 20S	% ββ	C28 BISNOR. C30 HOP.
61031	2015.8	OIL RFT-7	Low. Jura.	67	58	53	60	-

TABLE.9

*** ANALYSIS OF HEAD SPACE GAS ***

** NORWAY * 7122/6-1 **

(% VOLUME)

GEOCH NUMBER	DEPTH (meters)	C1 C1 to C4	C2 C1 to C4	C3 C1 to C4	IC4 C1 to C4	NC4 C1 to C4	C2 to C4 C1 to C4	IC4 NC4
GR60189.	800.00	28.33	7.01	26.25	9.96	28.45	71.67	.350
GR60190.	830.00	73.28	9.98	10.43	1.87	4.44	26.72	.421
GR60191.	860.00	77.84	9.72	9.02	1.41	2.02	22.16	.698
GR60192.	890.00	91.61	4.02	2.93	.60	.84	8.39	.718
GR60193.	920.00	86.45	4.24	5.15	1.62	2.54	13.55	.641
GR60194.	950.00	95.60	2.09	1.48	.45	.37	4.40	1.199
GR60195.	980.00	96.24	1.68	1.24	.49	.35	3.76	1.383
GR60196.	1010.00	94.37	2.57	1.83	.71	.52	5.63	1.365
GR60197.	1040.00	91.47	3.31	3.12	1.20	.90	8.53	1.325
GR60198.	1070.00	94.64	2.11	1.86	.78	.60	5.36	1.302
GR60199.	1100.00	93.78	2.35	2.15	1.00	.73	6.22	1.371
GR60200.	1130.00	94.67	1.90	1.85	.88	.70	5.33	1.258
GR60201.	1160.00	95.77	1.80	1.41	.55	.48	4.23	1.165
GR60202.	1190.00	96.12	1.80	1.38	.44	.27	3.88	1.631
GR60203.	1220.00	96.46	1.65	1.08	.47	.34	3.54	1.393
GR60204.	1250.00	95.67	2.03	1.41	.47	.41	4.33	1.140
GR60205.	1280.00	95.88	1.98	1.26	.51	.38	4.12	1.355
GR60206.	1310.00	95.46	2.23	1.36	.57	.38	4.54	1.484
GR60207.	1340.00	95.21	2.48	1.31	.66	.35	4.79	1.896
GR60208.	1370.00	93.55	2.97	1.87	1.04	.57	6.45	1.845
GR60209.	1400.00	95.06	2.82	1.18	.63	.31	4.94	2.016
GR60210.	1430.00	94.88	3.08	1.18	.57	.28	5.12	2.014
GR60211.	1460.00	92.31	3.91	2.29	.92	.57	7.69	1.616
GR60212.	1490.00	91.24	5.52	2.26	.60	.38	8.76	1.587
GR60213.	1520.00	94.20	3.88	1.34	.35	.23	5.80	1.497
GR60214.	1550.00	92.99	4.98	1.63	.26	.15	7.01	1.791

TABLE.9

*** ANALYSIS OF HEAD SPACE GAS ***

** NORWAY * 7122/6-1 **

(% VOLUME)

GEOCH NUMBER	DEPTH (meters)	C1 C1 to C4	C2 C1 to C4	C3 C1 to C4	IC4 C1 to C4	NC4 C1 to C4	C2 to C4 C1 to C4	IC4 * NC4 *
R60215.	1580.00	91.29	6.28	2.01	.27	.15	8.71	1.757
R60216.	1610.00	90.63	6.94	2.01	.29	.13	9.37	2.338
R60217.	1640.00	86.22	8.59	4.06	.78	.35	13.78	2.198
R60218.	1670.00	88.59	7.24	3.16	.71	.29	11.41	2.459
R60219.	1700.00	83.51	10.18	4.90	1.01	.40	16.49	2.556
R60220.	1730.00	87.03	8.18	3.68	.76	.35	12.97	2.166
R60221.	1760.00	81.39	10.76	5.88	1.26	.70	18.61	1.818
R60222.	1790.00	75.87	11.93	8.74	2.10	1.37	24.13	1.533
R60223.	1820.00	77.67	11.05	8.04	1.88	1.36	22.33	1.377
R60224.	1850.00	78.43	10.78	7.78	1.70	1.32	21.57	1.286
R60225.	1870.00	77.28	13.58	7.40	.79	.95	22.72	.830
R60226.	1890.00	62.72	17.55	15.20	2.06	2.46	37.28	.838
R60227.	1910.00	62.14	16.41	15.00	1.58	4.86	37.86	.325
R60228.	1930.00	50.45	21.40	19.64	1.95	6.56	49.55	.298
R60229.	1950.00	48.62	22.02	18.58	2.61	8.17	51.38	.319
R60230.	1990.00	41.89	23.68	22.70	2.73	9.01	58.11	.303
R60231.	2010.00	60.14	20.67	13.56	1.52	4.11	39.86	.370
R60232.	2030.00	56.88	26.75	13.13	.98	2.26	43.12	.435
R60233.	2050.00	53.85	20.37	17.77	2.36	5.66	46.15	.417
R60234.	2090.00	55.62	20.11	17.21	1.97	5.10	44.38	.385
R60235.	2110.00	71.60	19.16	7.65	.54	1.05	28.40	.512
R60236.	2130.00	66.96	21.65	9.09	.89	1.40	33.04	.638
R60237.	2150.00	65.36	22.14	9.76	1.16	1.57	34.64	.739
R60238.	2170.00	53.35	26.90	15.19	1.89	2.67	46.65	.707
R60239.	2190.00	53.04	25.00	13.97	3.71	4.29	46.96	.865
R60240.	2210.00	62.40	21.39	10.36	2.77	3.09	37.60	.899

TABLE.9

*** ANALYSIS OF HEAD SPACE GAS ***

** NORWAY * 7122/6-1 **

(% VOLUME)

GEOCH NUMBER	DEPTH (meters)	C1 to C4	C1 to C4	C1 to C4	C1 to C4	NC4	C2 to C4 C1 to C4	IC4 NC4
GR60241.	2230.00	65.18	21.28	8.95	2.12	2.47	34.82	.856
GR60242.	2250.00	47.32	31.78	14.89	2.44	3.57	52.68	.682
GR60243.	2270.00	44.34	24.10	21.07	3.83	6.66	55.66	.576
GR60244.	2290.00	48.47	22.23	18.95	3.67	6.68	51.53	.548
GR60245.	2310.00	54.94	27.43	12.97	1.77	2.89	45.06	.614
GR60246.	2330.00	66.78	20.35	8.97	1.47	2.43	33.22	.604
GR60247.	2350.00	48.68	25.83	16.11	3.49	5.89	51.32	.594
GR60248.	2370.00	48.46	17.32	19.26	5.82	9.14	51.54	.636
GR60249.	2390.00	89.26	8.43	1.71	.24	.37	10.74	.667
GR60250.	2410.00	68.66	17.94	9.01	1.91	2.47	31.34	.773
GR60251.	2430.00	58.23	11.20	12.38	6.81	11.38	41.77	.598
GR60252.	2450.00	54.28	10.25	13.68	8.21	13.59	45.72	.604
GR60253.	2470.00	53.39	17.38	15.91	5.35	7.97	46.61	.671
GR60254.	2480.00	39.38	22.04	21.03	6.45	11.11	60.62	.580
GR60255.	2490.00	31.56	21.13	24.95	8.26	14.10	68.44	.586
GR60256.	2520.00	60.73	23.13	11.83	1.59	2.72	39.27	.583
GR60257.	2540.00	62.74	14.33	13.99	3.23	5.70	37.26	.566
GR60258.	2560.00	42.83	21.86	23.03	4.17	8.11	57.17	.514
GR60259.	2580.00	47.58	16.49	20.91	5.13	9.89	52.42	.519
GR60260.	2600.00	59.34	18.97	12.91	3.23	5.56	40.66	.580
GR60261.	2620.00	43.80	17.44	21.89	5.95	10.92	56.20	.545
GR60262.	2640.00	50.50	17.48	18.59	4.80	8.62	49.50	.557
GR60263.	2660.00	52.35	18.56	16.74	5.05	7.30	47.65	.692
GR60264.	2680.00	44.97	24.78	20.81	4.03	5.41	55.03	.745
GR60265.	2700.00	30.06	28.91	28.47	4.39	8.18	69.94	.536

TABLE.10

** NORWAY * 7122/6-1 **

METHANE DELTA C13 RESULTS

NUMBER GR	DEPTH (M)	DELTA C13
GR.60189	800.00	-45.50
GR.60191	860.00	-49.50
GR.60194	950.00	-57.30
GR.60196	1010.00	-51.20
GR.60199	1100.00	-43.30
GR.60202	1190.00	-44.10
GR.60204	1250.00	-43.90
GR.60207	1340.00	-44.80
GR.60209	1400.00	-44.70
GR.60212	1490.00	-45.50
GR.60214	1550.00	-41.50
GR.60216	1610.00	-41.40
GR.60220	1730.00	-46.40
GR.60222	1790.00	-42.80
GR.60224	1850.00	-43.90
GR.60225	1870.00	-45.10
GR.60227	1910.00	-43.30
GR.60229	1950.00	-45.80
GR.60231	2010.00	-45.90
GR.60233	2050.00	-44.40
GR.60235	2110.00	-44.00
GR.60237	2150.00	-40.50
GR.60240	2210.00	-38.60
GR.60244	2290.00	-36.70
GR.60246	2330.00	-39.70
GR.60250	2410.00	-38.10
GR.60253	2470.00	-35.80
GR.60256	2520.00	-36.80
GR.60259	2580.00	-34.70
GR.60262	2640.00	-34.10
GR.60264	2680.00	-35.20

ROCK EXTRACT

NORWAY

G R: 59896

WELL : 7122/6-1

FIELD : BARENTS SEA

SAMPLE : CUTTINGS

DEPTH (m) : 1951.00 1957.00

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%) : 4.28

EXTRACT CARBON — EC (PPM) : 2857 — EC/IOC : .07

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	28.74
AROMATIC HYDROCARBONS	:	28.84
RESINS	:	33.18
ASPHALTENES	:	9.24
SATURATES / AROMATICS	:	1.00

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION C (% WEIGHT)

13	:	
14	:	6.39
15	:	7.66
16	:	6.60
17	:	7.30
18	:	5.77
19	:	6.13
20	:	5.59
21	:	5.59
22	:	5.86
23	:	5.68
24	:	5.30
25	:	5.68
26	:	4.21
27	:	4.94
28	:	4.03
29	:	4.85
30	:	4.49
31	:	1.97
32	:	1.97
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE (% WEIGHT / OF N-ALKANES)

19(PRIST.):22.69

20(PHYT.) : 8.27

PRIST./C 17	:	3.11
PHYT./C 18	:	1.43
PRIST./PHYT.	:	2.75
CPI (C24-C32):		1.07

ROCK EXTRACT

NORWAY

G R: 59758

WELL : 7122/6-1
FIELD : BARENTS SEA

SAMPLE : CUTTINGS
DEPTH (m) : 1957.00

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%): 4.47

EXTRACT CARBON — EC (PPM) : 3655 — EC/IOC : .08

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	30.83
AROMATIC HYDROCARBONS	:	33.46
RESINS	:	30.42
ASPHALTENES	:	5.29
SATURATES / AROMATICS	:	.92

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION
C (% WEIGHT)

13	:	
14	:	7.76
15	:	9.21
16	:	7.79
17	:	7.19
18	:	6.55
19	:	7.23
20	:	6.02
21	:	5.81
22	:	5.27
23	:	5.46
24	:	4.55
25	:	5.24
26	:	3.37
27	:	5.07
28	:	2.61
29	:	4.04
30	:	3.94
31	:	1.70
32	:	1.19
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE
(% WEIGHT / OF N-ALKANES)

19(PRIST.):27.45

20(PHYT.) :10.19

PRIST./C 17	:	3.82
PHYT./C 18	:	1.56
PRIST./PHYT.	:	2.69
CPI (C24-C32):		1.25

ROCK EXTRACT

NORWAY

G R: 59775

WELL : 7122/6-1
FIELD : BARENTS SEA

SAMPLE : CUTTINGS
DEPTH (m) : 2008.00

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%) : 10.24

EXTRACT CARBON — EC (PPM) : 16054 — EC/IOC : .16

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	21.19
AROMATIC HYDROCARBONS	:	44.44
RESINS	:	20.19
ASPHALTENES	:	14.18
SATURATES / AROMATICS	:	.48

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION
C (% WEIGHT)

13	:	
14	:	10.02
15	:	11.09
16	:	9.95
17	:	9.44
18	:	8.17
19	:	7.60
20	:	7.17
21	:	5.64
22	:	5.49
23	:	4.45
24	:	4.07
25	:	3.15
26	:	2.41
27	:	2.31
28	:	2.38
29	:	2.14
30	:	1.71
31	:	1.44
32	:	1.37
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE
(% WEIGHT / OF N-ALKANES)

19(PRIST.):17.38

20(PHYT.) :14.26

PRIST./C 17	:	1.84
PHYT./C 18	:	1.75
PRIST./PHYT.	:	1.22
CPI (C24-C32):		.98

ROCK EXTRACT

NORWAY

G R: 59899

WELL : 7122/6-1

FIELD : BARENTS SEA

SAMPLE : CUTTINGS

DEPTH (m) : 2011.00 2017.00

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%): .89

EXTRACT CARBON — EC (PPM) : 10784 — EC/IOC :1.212

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	22.99
AROMATIC HYDROCARBONS	:	36.92
RESINS	:	27.09
ASPHALTENES	:	13.00
SATURATES / AROMATICS	:	.62

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION C (% WEIGHT)

13	:	
14	:	9.66
15	:	10.21
16	:	9.11
17	:	8.67
18	:	7.48
19	:	6.83
20	:	6.37
21	:	4.96
22	:	4.83
23	:	4.74
24	:	4.63
25	:	4.34
26	:	3.85
27	:	4.00
28	:	2.89
29	:	2.54
30	:	2.44
31	:	1.39
32	:	1.05
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE (% WEIGHT / OF N-ALKANES)

19(PRIST.):14.71

20(PHYT.) :11.52

PRIST./C 17	:	1.70
PHYT./C 18	:	1.54
PRIST./PHYT.	:	1.28
CPI (C24-C32):		1.02

ROCK EXTRACT

NORWAY

G R: 59900

WELL : 7122/6-1
FIELD : BARENTS SEA

SAMPLE : CORE
DEPTH (m) : 2019.00

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%) : .17

EXTRACT CARBON — EC (PPM) : 2379 — EC/IOC : 1.40

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	64.72
AROMATIC HYDROCARBONS	:	23.96
RESINS	:	9.69
ASPHALTENES	:	1.63
SATURATES / AROMATICS	:	2.70

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION
C (% WEIGHT)

13	:	
14	:	4.67
15	:	6.98
16	:	7.54
17	:	8.12
18	:	8.06
19	:	8.37
20	:	7.72
21	:	6.88
22	:	6.25
23	:	5.86
24	:	5.55
25	:	4.97
26	:	4.28
27	:	3.74
28	:	3.02
29	:	2.57
30	:	2.41
31	:	1.76
32	:	1.27
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE (% WEIGHT / OF N-ALKANES)

19(PRIST.): 7.39

20(PHYT.) : 5.58

PRIST./C 17	:	.91
PHYT./C 18	:	.69
PRIST./PHYT.	:	1.33
CPI (C24-C32):		.99

ROCK EXTRACT

NORWAY

G R: 59785

WELL : 7122/6-1
FIELD : BARENTS SEA

SAMPLE : CORE.1
DEPTH (m) : 2022.10

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON IOC (%):

EXTRACT CARBON EC (PPM) : 4665 EC/IOC :

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS :
AROMATIC HYDROCARBONS :
RESINS :
ASPHALTENES :
SATURATES / AROMATICS :

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION
C (% WEIGHT)

13	
14	4.63
15	6.50
16	6.91
17	7.63
18	7.89
19	7.81
20	7.57
21	6.47
22	6.23
23	5.28
24	5.60
25	4.71
26	5.41
27	4.62
28	3.75
29	3.39
30	2.40
31	2.02
32	1.19
33	
34	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE (% WEIGHT / OF N-ALKANES)

19(PRIST.): 6.48

20(PHYT.) : 5.04

PRIST./C 17 :	.85
PHYT./C 18 :	.64
PRIST./PHYT. :	1.29
CPI (C24-C32):	.99

ROCK EXTRACT

NORWAY

G R: 59901

WELL : 7122/6-1
FIELD : BARENTS SEA

SAMPLE : CORE
DEPTH (m) : 2027.10

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%): .25

EXTRACT CARBON — EC (PPM) : 1005 — EC/IOC : .40

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	59.53
AROMATIC HYDROCARBONS	:	26.70
RESINS	:	10.74
ASPHALTENES	:	3.04
SATURATES / AROMATICS	:	2.23

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION
C (% WEIGHT)

13	:	
14	:	5.49
15	:	8.13
16	:	8.67
17	:	8.85
18	:	8.57
19	:	7.95
20	:	7.34
21	:	6.72
22	:	5.95
23	:	5.55
24	:	5.41
25	:	5.32
26	:	3.91
27	:	3.41
28	:	2.68
29	:	2.36
30	:	1.92
31	:	1.17
32	:	.60
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE
(% WEIGHT / OF N-ALKANES)

19(PRIST.): 8.23

20(PHYT.) : 5.93

PRIST./C 17	:	.93
PHYT./C 18	:	.69
PRIST./PHYT.	:	1.39
CPI (C24-C32):		1.06

ROCK EXTRACT

NORWAY

G R: 59796

WELL : 7122/6-1
FIELD : BARENTS SEA

SAMPLE : CORE.2
DEPTH (m) : 2030.50

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON IOC (%):

EXTRACT CARBON EC (PPM) : 1058 EC/IOC :

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS :
AROMATIC HYDROCARBONS :
RESINS :
ASPHALTENES :
SATURATES / AROMATICS :

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION C (% WEIGHT)

13	
14	3.05
15	5.65
16	6.57
17	7.71
18	8.27
19	8.15
20	8.00
21	7.14
22	6.91
23	5.44
24	5.62
25	4.71
26	4.80
27	4.67
28	4.11
29	3.28
30	2.52
31	2.07
32	1.33
33	
34	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE (% WEIGHT / OF N-ALKANES)

19(PRIST.): 6.73

20(PHYT.) : 4.98

PRIST./C 17 :	.87
PHYT./C 18 :	.60
PRIST./PHYT. :	1.35
CPI (C24-C32):	.99

ROCK EXTRACT

NORWAY

G R: 59902

WELL : 7122/6-1
FIELD : BARENTS SEA

SAMPLE : CORE
DEPTH (m) : 2036.40

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%): .12

EXTRACT CARBON — EC (PPM) : 1438 — EC/IOC :1.198

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	62.11
AROMATIC HYDROCARBONS	:	26.78
RESINS	:	7.57
ASPHALTENES	:	3.53
SATURATES / AROMATICS	:	2.32

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION
C (% WEIGHT)

13	:	
14	:	6.01
15	:	7.88
16	:	7.88
17	:	8.34
18	:	7.51
19	:	7.30
20	:	6.87
21	:	6.04
22	:	5.68
23	:	5.41
24	:	5.33
25	:	5.01
26	:	4.65
27	:	4.05
28	:	3.41
29	:	2.86
30	:	2.58
31	:	1.70
32	:	1.47
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE (% WEIGHT / OF N-ALKANES)

19(PRIST.): 7.13

20(PHYT.) : 4.95

PRIST./C 17	:	.85
PHYT./C 18	:	.66
PRIST./PHYT.	:	1.44
CPI (C24-C32):		.97

ROCK EXTRACT

NORWAY

G R: 59903

WELL : 7122/6-1
FIELD : BARENTS SEA

SAMPLE : CORE
DEPTH (m) : 2038.90

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%): .13

EXTRACT CARBON — EC (PPM) : 1178 — EC/IOC : .91

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	63.81
AROMATIC HYDROCARBONS	:	22.90
RESINS	:	10.18
ASPHALTENES	:	3.11
SATURATES / AROMATICS	:	2.79

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION
C (% WEIGHT)

13	:	
14	:	2.99
15	:	5.96
16	:	7.32
17	:	8.32
18	:	8.36
19	:	8.53
20	:	8.27
21	:	7.68
22	:	7.33
23	:	6.64
24	:	5.94
25	:	5.42
26	:	3.85
27	:	3.50
28	:	3.06
29	:	2.40
30	:	1.86
31	:	1.31
32	:	1.27
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE
(% WEIGHT / OF N-ALKANES)

19(PRIST.): 7.52

20(PHYT.) : 5.66

PRIST./C 17	:	.90
PHYT./C 18	:	.68
PRIST./PHYT.	:	1.33
CPI (C24-C32):		1.02

ROCK EXTRACT

NORWAY

G R: 59802

WELL : 7122/6-1
FIELD : BARENTS SEA

SAMPLE : CORE.2
DEPTH (m) : 2039

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%): 11.51

EXTRACT CARBON — EC (PPM) : 3533 — EC/IOC : .03

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	15.33
AROMATIC HYDROCARBONS	:	52.17
RESINS	:	20.98
ASPHALTENES	:	11.53
SATURATES / AROMATICS	:	.29

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION C (% WEIGHT)

13	:	
14	:	14.30
15	:	14.79
16	:	12.64
17	:	10.36
18	:	8.41
19	:	6.43
20	:	5.32
21	:	3.96
22	:	3.41
23	:	3.13
24	:	2.63
25	:	2.72
26	:	1.91
27	:	1.77
28	:	1.84
29	:	1.52
30	:	2.53
31	:	.88
32	:	1.45
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE (% WEIGHT / OF N-ALKANES)

19(PRIST.): 5.83

20(PHYT.) : 3.52

PRIST./C 17	:	.56
PHYT./C 18	:	.42
PRIST./PHYT.	:	1.65
CPI (C24-C32):		.83

ROCK EXTRACT

NORWAY

G R: 61075

WELL : 7122/6-1
FIELD : BARENT SEA

SAMPLE : CORE COAL
DEPTH (m) : 2039.25

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%) : 56.6

EXTRACT CARBON — EC (PPM) : 12359 — EC/IOC : .02

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	14.05
AROMATIC HYDROCARBONS	:	47.81
RESINS	:	13.48
ASPHALTENES	:	24.66
SATURATES / AROMATICS	:	.29

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION C (% WEIGHT)

13	:	
14	:	13.53
15	:	13.24
16	:	11.41
17	:	9.77
18	:	8.69
19	:	6.48
20	:	5.61
21	:	4.62
22	:	4.39
23	:	3.58
24	:	3.26
25	:	2.79
26	:	2.61
27	:	2.07
28	:	1.64
29	:	1.50
30	:	2.29
31	:	1.29
32	:	1.21
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE (% WEIGHT / OF N-ALKANES)

19(PRIST.): 5.59

20(PHYT.) : 3.85

PRIST./C 17	:	.57
PHYT./C 18	:	.44
PRIST./PHYT.	:	1.45
CPI (C24-C32):		.87

ROCK EXTRACT

NORWAY

G R: 61076

WELL : 7122/6-1
FIELD : BARENT SEA

SAMPLE : CORE
DEPTH (m) : 2040.30

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%): .50

EXTRACT CARBON — EC (PPM) : 741 — EC/IOC : .15

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	74.63
AROMATIC HYDROCARBONS	:	14.26
RESINS	:	6.35
ASPHALTENES	:	4.75
SATURATES / AROMATICS	:	5.23

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION C (% WEIGHT)		COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE (% WEIGHT / OF N-ALKANES)	
13	:		
14	:	2.93	
15	:	5.77	
16	:	7.61	
17	:	9.04	19(PRIST.): 8.11
18	:	9.68	
19	:	8.57	
20	:	9.23	20(PHYT.) : 6.06
21	:	8.20	
22	:	6.98	
23	:	5.95	
24	:	5.20	
25	:	4.51	
26	:	3.96	
27	:	3.19	
28	:	2.64	PRIST./C 17 : .90
29	:	2.34	PHYT./C 18 : .63
30	:	1.70	PRIST./PHYT. : 1.34
31	:	1.42	CPI (C24-C32): 1.00
32	:	1.08	
33	:		
34	:		

ROCK EXTRACT

NORWAY

G R: 61078

WELL : 7122/6-1
FIELD : BARENT SEA

SAMPLE : CORE
DEPTH (m) : 2044.75

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%) : .60

EXTRACT CARBON — EC (PPM) : 914 — EC/IOC : .15

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	60.51
AROMATIC HYDROCARBONS	:	22.87
RESINS	:	9.17
ASPHALTENES	:	7.45
SATURATES / AROMATICS	:	2.65

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION
C (% WEIGHT)

C		% WEIGHT
13	:	
14	:	.35
15	:	2.03
16	:	4.65
17	:	7.26
18	:	9.95
19	:	9.64
20	:	10.47
21	:	9.02
22	:	7.93
23	:	7.09
24	:	6.55
25	:	5.96
26	:	4.06
27	:	3.81
28	:	3.24
29	:	2.64
30	:	2.28
31	:	1.78
32	:	1.28
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE
(% WEIGHT / OF N-ALKANES)

19(PRIST.): 8.67

20(PHYT.) : 6.98

PRIST./C 17	:	1.19
PHYT./C 18	:	.70
PRIST./PHYT.	:	1.24
CPI (C24-C32):		1.05

ROCK EXTRACT

NORWAY

G R: 61079

WELL : 7122/6-1
FIELD : BARENT SEA

SAMPLE : CORE COAL
DEPTH (m) : 2046.10

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%): 65.7

EXTRACT CARBON — EC (PPM) : 6563 — EC/IOC : .01

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	11.48
AROMATIC HYDROCARBONS	:	54.87
RESINS	:	16.61
ASPHALTENES	:	17.04
SATURATES / AROMATICS	:	.21

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION

C (% WEIGHT)

13	
14	16.35
15	14.86
16	12.36
17	10.59
18	8.58
19	7.01
20	6.16
21	5.05
22	4.15
23	3.34
24	2.80
25	1.88
26	1.81
27	1.30
28	1.01
29	.82
30	.93
31	.59
32	.42
33	
34	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE

(% WEIGHT / OF N-ALKANES)

19(PRIST.): 4.34

20(PHYT.) : 3.00

PRIST./C 17	:	.41
PHYT./C 18	:	.35
PRIST./PHYT.	:	1.45
CPI (C24-C32):		.86

ROCK EXTRACT

NORWAY

G R: 61081

WELL : 7122/6-1
FIELD : BARENTS SEA

SAMPLE : CORE COAL
DEPTH (m) : 2050.75

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%): 78.1

EXTRACT CARBON — EC (PPM) : 7720 — EC/IOC : .01

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	32.55
AROMATIC HYDROCARBONS	:	42.65
RESINS	:	14.34
ASPHALTENES	:	10.46
SATURATES / AROMATICS	:	.76

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION
C (% WEIGHT)

13	:	
14	:	8.21
15	:	10.63
16	:	10.67
17	:	10.09
18	:	9.41
19	:	7.66
20	:	7.13
21	:	6.12
22	:	5.31
23	:	4.66
24	:	4.17
25	:	3.83
26	:	2.65
27	:	2.55
28	:	1.91
29	:	1.66
30	:	1.40
31	:	1.15
32	:	.82
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE (% WEIGHT / OF N-ALKANES)

19(PRIST.): 8.30

20(PHYT.) : 5.76

PRIST./C 17	:	.82
PHYT./C 18	:	.61
PRIST./PHYT.	:	1.44
CPI (C24-C32):		1.09

ROCK EXTRACT

NORWAY

G R: 59813

WELL : 7122/6-1
FIELD : BARENTS SEA

SAMPLE : CORE.2
DEPTH (m) : 2055.00

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%) : 74.78

EXTRACT CARBON — EC (PPM) : 7576 — EC/IOC : .010

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	10.38
AROMATIC HYDROCARBONS	:	53.93
RESINS	:	22.68
ASPHALTENES	:	13.01
SATURATES / AROMATICS	:	.19

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION
C (% WEIGHT)

13	:	
14	:	9.32
15	:	10.77
16	:	11.32
17	:	11.83
18	:	11.33
19	:	8.92
20	:	8.04
21	:	6.42
22	:	4.85
23	:	3.83
24	:	3.40
25	:	2.45
26	:	1.95
27	:	1.61
28	:	1.15
29	:	1.02
30	:	.73
31	:	.42
32	:	.32
33	:	.32
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE (% WEIGHT / OF N-ALKANES)

19(PRIST.): 6.09

20(PHYT.) : 4.50

PRIST./C 17	:	.52
PHYT./C 18	:	.40
PRIST./PHYT.	:	1.36
CPI (C24-C32):		.97

ROCK EXTRACT

NORWAY

G R: 61082

WELL : 7122/6-1
FIELD : BARENT SEA

SAMPLE : CORE COAL
DEPTH (m) : 2054.80

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%): 60.20

EXTRACT CARBON — EC (PPM) : 7193 — EC/IOC : .01

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	9.31
AROMATIC HYDROCARBONS	:	66.83
RESINS	:	1.98
ASPHALTENES	:	21.87
SATURATES / AROMATICS	:	.14

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION

C (% WEIGHT)

13	
14	17.21
15	15.82
16	12.89
17	10.75
18	8.47
19	6.62
20	5.76
21	4.49
22	3.71
23	2.90
24	2.41
25	1.99
26	1.54
27	1.18
28	1.05
29	.88
30	1.16
31	.65
32	.52
33	
34	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE

(% WEIGHT / OF N-ALKANES)

19(PRIST.): 5.09

20(PHYT.) : 3.10

PRIST./C 17	:	.47
PHYT./C 18	:	.37
PRIST./PHYT.	:	1.64
CPI (C24-C32):		.90

ROCK EXTRACT

NORWAY

G R: 61083

WELL : 7122/6-1
FIELD : BARENT SEA

SAMPLE : CORE
DEPTH (m) : 2062.80

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%): 1.60

EXTRACT CARBON — EC (PPM) : 524 — EC/IOC : .03

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	8.75
AROMATIC HYDROCARBONS	:	53.03
RESINS	:	21.79
ASPHALTENES	:	16.43
SATURATES / AROMATICS	:	.17

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION
C (% WEIGHT)

13	:	
14	:	2.83
15	:	5.11
16	:	6.18
17	:	6.96
18	:	6.22
19	:	6.11
20	:	5.72
21	:	6.18
22	:	5.83
23	:	6.22
24	:	5.67
25	:	6.64
26	:	5.20
27	:	6.62
28	:	4.28
29	:	4.97
30	:	3.95
31	:	3.35
32	:	1.97
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE (% WEIGHT / OF N-ALKANES)

19(PRIST.): 8.13

20(PHYT.) : 1.69

PRIST./C 17	:	1.17
PHYT./C 18	:	.27
PRIST./PHYT.	:	4.82
CPI (C24-C32):		1.25

ROCK EXTRACT

NORWAY

G R: 61085

WELL : 7122/6-1
FIELD : BARENT SEA

SAMPLE : CORE
DEPTH (m) : 2072.60

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%): .90

EXTRACT CARBON — EC (PPM) : 466 — EC/IOC : .05

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	4.66
AROMATIC HYDROCARBONS	:	57.85
RESINS	:	19.68
ASPHALTENES	:	17.81
SATURATES / AROMATICS	:	.08

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION
C (% WEIGHT)

13	:	
14	:	.37
15	:	2.20
16	:	4.79
17	:	6.54
18	:	6.38
19	:	5.07
20	:	6.13
21	:	6.08
22	:	6.01
23	:	5.78
24	:	5.83
25	:	6.59
26	:	5.44
27	:	6.64
28	:	5.16
29	:	6.45
30	:	6.20
31	:	5.00
32	:	3.32
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE (% WEIGHT / OF N-ALKANES)

19(PRIST.): 6.27

20(PHYT.) : 1.52

PRIST./C 17	:	.96
PHYT./C 18	:	.24
PRIST./PHYT.	:	4.12
CPI (C24-C32):		1.15

ROCK EXTRACT

NORWAY

G R: 59904

WELL : 7122/6-1
FIELD : BARENTS SEA

SAMPLE : CORE
DEPTH (m) : 2083.37

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%): .15

EXTRACT CARBON — EC (PPM) : 1594 — EC/IOC : 1.06

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	76.41
AROMATIC HYDROCARBONS	:	15.26
RESINS	:	5.84
ASPHALTENES	:	2.49
SATURATES / AROMATICS	:	5.01

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION
C (% WEIGHT)

13	:	
14	:	5.73
15	:	8.72
16	:	9.05
17	:	9.88
18	:	9.34
19	:	9.75
20	:	9.07
21	:	7.50
22	:	6.29
23	:	5.27
24	:	3.99
25	:	3.45
26	:	2.66
27	:	2.42
28	:	1.83
29	:	1.62
30	:	1.22
31	:	1.22
32	:	1.00
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE
(% WEIGHT / OF N-ALKANES)

19(PRIST.):10.47

20(PHYT.) : 6.77

PRIST./C 17	:	1.06
PHYT./C 18	:	.73
PRIST./PHYT.	:	1.55
CPI (C24-C32):		1.06

ROCK EXTRACT

NORWAY

G R: 61086

WELL : 7122/6-1
FIELD : BARENT SEA

SAMPLE : CORE
DEPTH (m) : 2085.75

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%): 1.80

EXTRACT CARBON — EC (PPM) : 530 — EC/IOC : .03

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	23.89
AROMATIC HYDROCARBONS	:	44.61
RESINS	:	21.19
ASPHALTENES	:	10.32
SATURATES / AROMATICS	:	.54

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION

C (% WEIGHT)

13	:	
14	:	1.36
15	:	3.51
16	:	5.21
17	:	6.41
18	:	6.54
19	:	6.91
20	:	6.84
21	:	7.18
22	:	6.16
23	:	6.53
24	:	6.19
25	:	6.71
26	:	5.45
27	:	6.24
28	:	4.47
29	:	4.91
30	:	4.59
31	:	3.14
32	:	1.66
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE

(% WEIGHT / OF N-ALKANES)

19(PRIST.): 6.61

20(PHYT.) : 1.18

PRIST./C 17	:	1.03
PHYT./C 18	:	.18
PRIST./PHYT.	:	5.60
CPI (C24-C32):		1.14

ROCK EXTRACT

NORWAY

G R: 59994

WELL : 7122/6-1
FIELD : BARENTS SEA

SAMPLE : CUTTINGS
DEPTH (m) : 2119.00

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%): 1.50

EXTRACT CARBON — EC (PPM) : 516 — EC/IOC : .03

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	21.06
AROMATIC HYDROCARBONS	:	25.89
RESINS	:	32.07
ASPHALTENES	:	20.97
SATURATES / AROMATICS	:	.81

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION
C (% WEIGHT)

13	:	
14	:	6.82
15	:	8.22
16	:	7.17
17	:	7.90
18	:	6.19
19	:	6.28
20	:	4.94
21	:	5.01
22	:	4.87
23	:	5.57
24	:	5.19
25	:	5.31
26	:	4.79
27	:	4.50
28	:	4.04
29	:	4.19
30	:	4.85
31	:	2.43
32	:	1.71
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE
(% WEIGHT / OF N-ALKANES)

19(PRIST.):15.99

20(PHYT.) : 5.66

PRIST./C 17	:	2.02
PHYT./C 18	:	.91
PRIST./PHYT.	:	2.82
CPI (C24-C32):		.96

ROCK EXTRACT

NORWAY

G R: 60064

WELL : 7122/6-1
FIELD : BARENTS SEA

SAMPLE : CUTTINGS
DEPTH (m) : 2326.00

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%): 1.11

EXTRACT CARBON — EC (PPM) : 361 — EC/IOC : .03

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	33.62
AROMATIC HYDROCARBONS	:	32.14
RESINS	:	25.86
ASPHALTENES	:	8.38
SATURATES / AROMATICS	:	1.05

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION
C (% WEIGHT)

13	:	
14	:	6.69
15	:	8.87
16	:	9.01
17	:	9.94
18	:	8.57
19	:	7.91
20	:	6.85
21	:	6.33
22	:	5.54
23	:	5.27
24	:	4.48
25	:	3.95
26	:	3.16
27	:	3.16
28	:	2.37
29	:	2.37
30	:	2.64
31	:	1.58
32	:	1.31
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE (% WEIGHT / OF N-ALKANES)

19(PRIST.):15.71

20(PHYT.) : 8.26

PRIST./C 17	:	1.58
PHYT./C 18	:	.96
PRIST./PHYT.	:	1.90
CPI (C24-C32):		1.00

CRUDE OIL

NORWAY

G B :61031

WELL : 7122/6-1

FIELD : BARENTS SEA

TEST : RFT-7

DEPTH (m) : 2015.80

TEST RESULTS

FLUIDS: OIL

G.O.R(m3/m3) :

TEMP.(deg.C) :

GRAVITY { gr/cm3 :
a.p.i : 37

RESULTS OF THE GEOCHEMICAL ANALYSIS

GRAVITY (gr/cm3) :

COMPOSITION (% WEIGHT)

DISTILLATE (<210 deg.C):		
SATURATED HYDROCARBONS	:	78.34
AROMATIC HYDROCARBONS	:	17.23
RESINS	:	4.43
ASPHALTENES	:	0.00
SATURATES / AROMATICS	:	4.55

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION

C (% WEIGHT)

13	
14	13.48
15	12.29
16	10.77
17	9.57
18	8.71
19	7.34
20	6.87
21	5.15
22	4.84
23	3.79
24	3.69
25	3.51
26	2.39
27	2.34
28	1.55
29	1.48
30	1.36
31	.86
32	
33	
34	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE (% WEIGHT / OF N-ALKANES)

19(PRIST.): 8.82

20(PHYT.) : 5.97

PRIST./C 17	:	.92
PHYT./C 18	:	.68
PRIST./PHYT.	:	1.48
CPI (C24-C32):		1.15

CRUDE OIL

NORWAY

G B :61030

WELL : 7122/6-1

FIELD : BARENTS SEA

TEST : DST-2

DEPTH (m) : 2424.00 2434.00

TEST RESULTS

FLUIDS: CONDENSATE

G.O.R(m3/m3) :

TEMP.(deg.C) :

GRAVITY { gr/cm3 :
a.p.i : 55

RESULTS OF THE GEOCHEMICAL ANALYSIS

GRAVITY (gr/cm3) :

COMPOSITION (% WEIGHT)

DISTILLATE (<210 deg.C):		
SATURATED HYDROCARBONS	:	85.09
AROMATIC HYDROCARBONS	:	14.90
RESINS	:	.01
ASPHALTENES	:	
SATURATES / AROMATICS	:	5.71

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION C	(% WEIGHT)
13	:
14	: 27.84
15	: 23.59
16	: 15.85
17	: 13.11
18	: 8.51
19	: 5.43
20	: 2.68
21	: 1.82
22	: 1.17
23	:
24	:
25	:
26	:
27	:
28	:
29	:
30	:
31	:
32	:
33	:
34	:

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE (% WEIGHT / OF N-ALKANES)

19(PRIST.): 11.81

20(PHYT.) : 5.58

PRIST./C 17	:	.90
PHYT./C 18	:	.66
PRIST./PHYT.	:	2.12
CPI (C24-C32):		

CRUDE OIL

NORWAY

G B :61032

WELL : 7122/6-1
FIELD : BARENTS SEA

TEST : RFT-5
DEPTH (m) : 2432.10

TEST RESULTS

FLUIDS: CONDENSATE

G.O.R(m3/m3) :
TEMP.(deg.C) :

GRAVITY { gr/cm3 :
a.p.i : 48

RESULTS OF THE GEOCHEMICAL ANALYSIS

GRAVITY (gr/cm3) :

COMPOSITION (% WEIGHT)

DISTILLATE (<210 deg.C):		
SATURATED HYDROCARBONS	:	86.43
AROMATIC HYDROCARBONS	:	12.67
RESINS	:	.90
ASPHALTENES	:	
SATURATES / AROMATICS	:	6.82

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION

C (% WEIGHT)

13	:	
14	:	26.68
15	:	22.42
16	:	15.17
17	:	12.87
18	:	8.17
19	:	5.28
20	:	4.09
21	:	2.66
22	:	1.62
23	:	1.05
24	:	
25	:	
26	:	
27	:	
28	:	
29	:	
30	:	
31	:	
32	:	
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE (% WEIGHT / OF N-ALKANES)

19(PRIST.): 11.48

20(PHYT.) : 5.40

PRIST./C 17	:	.89
PHYT./C 18	:	.66
PRIST./PHYT.	:	2.13
CPI (C24-C32):		

ROCK EXTRACT

NORWAY

G R: 59764

WELL : 7122/6-1
FIELD : BARENTS SEA

SAMPLE : CUTTINGS
DEPTH (m) : 1975.00

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%) : 5.24

EXTRACT CARBON — EC (PPM) : 5280 — EC/IOC : .10

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	39.32
AROMATIC HYDROCARBONS	:	30.33
RESINS	:	25.53
ASPHALTENES	:	4.82
SATURATES / AROMATICS	:	1.30

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION
C (% WEIGHT)

13	:	
14	:	6.02
15	:	7.21
16	:	6.19
17	:	5.98
18	:	5.58
19	:	5.19
20	:	5.05
21	:	4.63
22	:	5.39
23	:	5.64
24	:	6.17
25	:	5.86
26	:	5.08
27	:	5.52
28	:	4.17
29	:	5.29
30	:	5.50
31	:	3.15
32	:	2.39
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE
(% WEIGHT / OF N-ALKANES)

19(PRIST.):16.23

20(PHYT.) : 7.81

PRIST./C 17	:	2.71
PHYT./C 18	:	1.40
PRIST./PHYT.	:	2.08
CPI (C24-C32):		1.04

ROCK EXTRACT

NORWAY

G R: 59896

WELL : 7122/6-1
FIELD : BARENTS SEA

SAMPLE : CUTTINGS
DEPTH (m) : 1951.00 1957.00

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON IOC (%) : 4.28

EXTRACT CARBON EC (PPM) : 2857 EC/IOC : .07

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	28.74
AROMATIC HYDROCARBONS	:	28.84
RESINS	:	33.18
ASPHALTENES	:	9.24
SATURATES / AROMATICS	:	1.00

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION C (% WEIGHT)

13	:	
14	:	6.39
15	:	7.66
16	:	6.60
17	:	7.30
18	:	5.77
19	:	6.13
20	:	5.59
21	:	5.59
22	:	5.86
23	:	5.68
24	:	5.30
25	:	5.68
26	:	4.21
27	:	4.94
28	:	4.03
29	:	4.85
30	:	4.49
31	:	1.97
32	:	1.97
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE (% WEIGHT / OF N-ALKANES)

19(PRIST.):22.69

20(PHYT.) : 8.27

PRIST./C 17	:	3.11
PHYT./C 18	:	1.43
PRIST./PHYT.	:	2.75
CPI (C24-C32):		1.07

ROCK EXTRACT

NORWAY

G R: 59758

WELL : 7122/6-1
FIELD : BARENTS SEA

SAMPLE : CUTTINGS
DEPTH (m) : 1957.00

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%): 4.47

EXTRACT CARBON — EC (PPM) : 3655 — EC/IOC : .08

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	30.83
AROMATIC HYDROCARBONS	:	33.46
RESINS	:	30.42
ASPHALTENES	:	5.29
SATURATES / AROMATICS	:	.92

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION C (% WEIGHT)

13	:	
14	:	7.76
15	:	9,21
16	:	7.79
17	:	7.19
18	:	6.55
19	:	7.23
20	:	6.02
21	:	5.81
22	:	5.27
23	:	5.46
24	:	4.55
25	:	5.24
26	:	3.37
27	:	5.07
28	:	2.61
29	:	4.04
30	:	3.94
31	:	1.70
32	:	1.19
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE (% WEIGHT / OF N-ALKANES)

19(PRIST.):27.45

20(PHYT.) :10.19

PRIST./C 17	:	3.82
PHYT./C 18	:	1.56
PRIST./PHYT.	:	2.69
CPI (C24-C32):		1.25

ROCK EXTRACT

NORWAY

G R: 59897

WELL : 7122/6-1
FIELD : BARENTS SEA

SAMPLE : CUTTINGS
DEPTH (m) : 1972.00 1984.00

RESULTS OF THE GEOCHEMICAL ANALYSIS

INSOLUBLE ORGANIC CARBON — IOC (%): 6.61

EXTRACT CARBON — EC (PPM) : 5127 — EC/IOC : .078

COMPOSITION (% WEIGHT)

SATURATED HYDROCARBONS	:	25.36
AROMATIC HYDROCARBONS	:	26.16
RESINS	:	36.48
ASPHALTENES	:	11.99
SATURATES / AROMATICS	:	.97

CHROMATOGRAPHIC ANALYSIS

N-ALKANES COMPOSITION C (% WEIGHT)

13	:	
14	:	8.02
15	:	9.44
16	:	8.93
17	:	8.95
18	:	7.81
19	:	7.33
20	:	6.98
21	:	6.20
22	:	5.82
23	:	5.30
24	:	4.91
25	:	3.75
26	:	2.98
27	:	3.37
28	:	2.33
29	:	2.46
30	:	2.59
31	:	1.55
32	:	1.29
33	:	
34	:	

COMPOSITION OF ALKANES WITH ISOPRENOID STRUCTURE (% WEIGHT / OF N-ALKANES)

19(PRIST.):18.32

20(PHYT.) :12.07

PRIST./C 17	:	2.05
PHYT./C 18	:	1.55
PRIST./PHYT.	:	1.52
CPI (C24-C32):		1.01