AGIP WELL NO.16/10-1

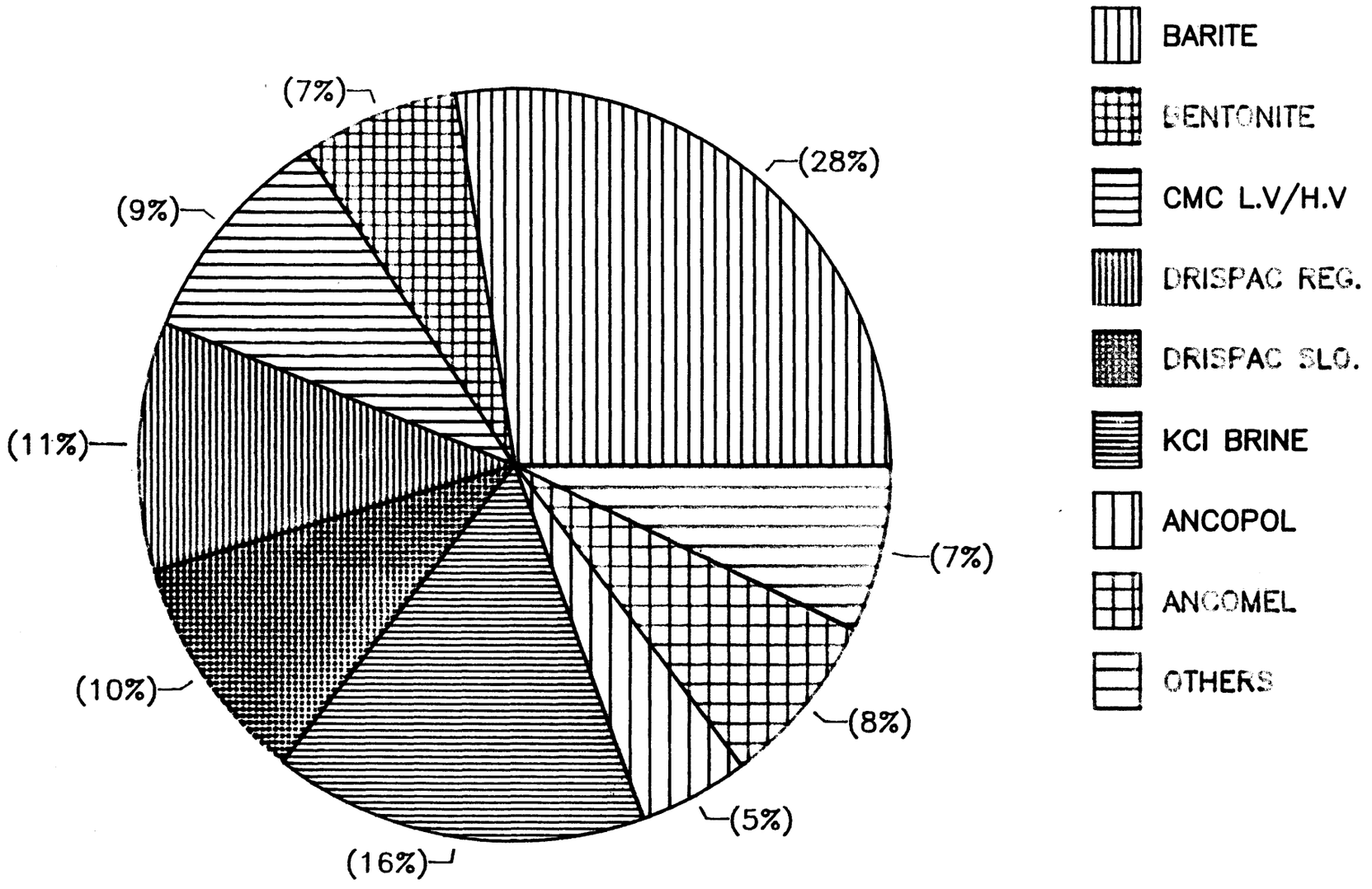
MATERIAL COST AND CONSUMPTION ANALYSIS

RIGG: DYVI STENA
AREA: NORTH SEA

PRODUCT	UNIT SIZE	UNIT PRICE $	36" SECTION	COST $	26" SECTION	COST $	17.5" SECTION	COST $	12.25" SECTION	COST $	8.5" SECTION	COST $	TEST P & A	COST $	TOTAL USED	TOTAL COST
BARITE	M.T.	77.00	6.00	462.00	96.00	7392.00	74.00	5698.00	310.00	23870.00	166.00	12782.00	23.00	1771.00	675	51975.00
BENTONITE	M.T.	127.00	46.00	5842.00	28.00	3556.00	7.00	889.00	.50	63.50	19.50	2476.50		.00	101	12827.00
CAUSTIC SODA	100 KG.	35.50	7.25	257.38	3.50	124.25	27.50	976.25	3.75	133.13	27.50	976.25		.00	70	2467.25
BICARBONATE	100 KG.	25.20		.00		.00	1.50	37.80	2.50	63.00		.00	1.50	37.80	6	138.60
SODA ASH	100 KG.	21.00	.50	10.50		.00	15.00	315.00	12.00	252.00	9.50	199.50		.00	37	777.00
POT.HYDROX.	100 KG	64.00		.00		.00		.00	47.25	3024.00		.00		.00	47	3024.00
LIME	100 KG.	18.00	16.40	295.20	12.80	230.40	.80	14.40		.00		.00		.00	30	540.00
ANCOMEL	100 KG.	155.00		.00		.00	92.25	14298.75		.00		.00		.00	92	14298.75
ANCOPOL	100 KG.	444.00		.00		.00	7.50	3330.00	12.60	5594.40		.00		.00	20	8924.40
DRISPAC REG	100 KG.	355.00		.00		.00	23.01	8168.55	22.58	8015.90	11.55	4100.25		.00	57	20284.70
DRISPAC SL	100 KG	355.00		.00		.00	25.63	9098.65	11.97	4249.35	15.12	5367.60		.00	53	18715.60
CMC LV	100 KG.	127.00		.00		.00	47.75	6064.25	55.50	7048.50	9.25	1174.75		.00	113	14287.50
CMC HV	100 KG.	133.50		.00		.00		.00	20.75	2770.13	5.75	767.63		.00	27	3537.75
SPERCELL C	100 KG.	41.50		.00		.00	.50	20.75		.00	44.50	1846.75		.00	45	1867.50
POT.CHLOR.	100 KG.	24.20		.00		.00	161.00	.00	24.00	580.80		.00		.00	185	4477.00
KCl BRINE	CU.M	61.50		.00		.00	260.00	15990.00	230.00	14145.00		.00		.00	490	30135.00
DEFOAMER	LITRES	1.00		.00		.00		.00	30.00	30.00	240.00	240.00		.00	270	270.00
TOTALS				6867.08		11302.65		64901.40		69839.70		29931.23		1808.80		188547.05
HOLE DRILLED (METRE)				87		318		905		1146		587				3043
COST PR. METRE				78.93		35.54		71.71		60.94		50.99				61.96
TOTAL DAYS				2		6		8		16		15		3		50
COST PR. DAY				3433.54		1883.78		8112.68		4364.98		1995.42		602.93		3770.94
MUD MIXED (CU.M)				640		524		833		401		483		32		2913
COST PR. CU.M				10.73		21.57		77.91		174.16		61.97		56.53		64.73

AGIP WELL NO.16/10-1

MATERIAL COST AND CONSUMPTION ANALYSIS



MUD VOLUME DISTRIBUTION SUMMARY

WELL: 16/10-1 **RIG:** DYVI STENA

HOLE SIZE	HOLE FROM-TO	HOLE LENGTH	MUD/BRINE BUILT	DUMPED	LOST TO FORMATION (SEABED)	LOST OVER SOLIDS CONTROL EQUIPMENT	MUD LEFT BETWEEN CSG/CSG	CUTTINGS VOLUME DRILLED	MUD TRANSF. TO NEXT SEC.	MUD TYPE USED FOR INTERVAL
RKB 109M										
36"	109 m	196 m	640 m³		345 m³			57 m³	295 m³	SPUD MUD
26"	196 M	514 M	524 M³	55 M³		685 M³		109 M³	82 M³	BENTONITE/SW
17.5"	514 M	1419 M	833 M³	371 M³		122 M³	9 M³	141 M³	413 M³	KCL-POLYMER
12.5"	1419 M	2565 M	401 M³	648 M³		144 M³	22 M³	90 M³		KCL-POLYMER
8.5"	2565 M	3152 M	483 M³	86 M³	4 M³	160 M³		22 M³		BENTONITE/LIGNO LIGNITE
Plug and Abandon			34 M³	234 M³						
PROD. TEST										

TOTALS:

Mud/Brine built	: 2915 m³	Total Mud/Brine left in hole/+ between csg/csg:	61 m³
Mud/Brine dumped	: 1394 m³	Total Mud/Brine to sea :	2799 m³
Mud/Brine lost to formation	: 349 m³	Total cuttings volume drilled :	419 m³
Mud/Brine lost over solids control equipment	: 1111 m³		
Mud/Brine left between csg/csg	: 31 m³		

NORCEM ANCHOR

MATERIAL CONSUMPTION REPORT

SECTION: 36"
SHEET No.: 1
VOLUME UNITS: m^3

WELL NAME: 16/10-1
AREA: North Sea, Norway
OPERATOR: Norsk Agip A/S
RIG: Dyvi Stena
MUD SYSTEM: Spud Mud; Prehydratee B-ntonite/Seawater
ENGINEERS: Mike Alison/Einar Korsvold

Q=Quintali=100 kg

INITIAL VOLUME: 0

DATE 1986	DEPTH feet ☐ metres ☒	VOLUME MADE	VOLUME RECEIVED	SURFACE LOSSES	DOWNHOLE LOSSES	VOLUME DUMPED	LEFT IN HOLE	BACK LOADED	FINAL VOLUME	UNITS M.T.	M.T.	Q	Q	Q
										BARYTE	Bentonite	Caustic	Soda Ash	Lime
25.05	146	440	0	95	0	0	0	0	345	-	25	3.75	-	16.4
26.05	196	200	0	250	0	0	0	0	295	6	21	3.5	0.5	-
TOTALS		640	0	345	0	0	0	0		6	46	7.25	0.5	16.4
PREVIOUS TOTAL		0	0	0	0	0	0	0		0	0	0	0	0
FINAL TOTAL		640	0	345	0	0	0	0		6	46	7.25	0.5	16.4

NORCEM ANCHOR

MATERIAL CONSUMPTION REPORT

SECTION: 26"
SHEET No.: 1
VOLUME UNITS:

WELL NAME: 16/10-1
AREA: NORTH SEA - NORWAY
OPERATOR: NORSK AGIP A.S.
RIG: DYVI STENA
MUD SYSTEM: SPUD MUD: PREHYDRATED BENTONITE/SEAWATER
ENGINEERS: ALISON/KORSVOLD

INITIAL VOLUME: 295

1986 DATE	DEPTH ☐ feet ☐ metres	VOLUME MADE	VOLUME RECEIVED	SURFACE LOSSES	DOWNHOLE LOSSES	VOLUME DUMPED	LEFT IN HOLE	BACK LOADED	FINAL VOLUME	UNITS M.T. BARYTE	MT BENTONITE	Q CAUSTIC	Q SODA ASH	Q LIME
27.5	218	107	0	25	0	0	0	0	377	78	2	0.75		1.2
28.5	400	75	0	75	0	0	0	0	377		9	0.75		1.6
29.5	515	107	0	137	0	0	0	0	347	9	5	0.75		1.2
30.5	329	85	0	80	0	0	0	0	352		5	0.75		2.8
1.6	514	100	0	130	0	35	0	0	82		7	0.5		1.2
TOTALS		524	0	682	0	55	0	0		96	28	3.5		12.8
PREVIOUS TOTAL		0	0	0	0	0	0	0		0	0	0		0
FINAL TOTAL		524	0	682	0	55	0	0		96	28	3.5		12.8

NOTE: 27.5.86 - 29.5.86 = 8 1/2" pilot hole

NORCEM ANCHOR

MATERIAL CONSUMPTION REPORT

SECTION 17½"

SHEET No. 1

VOLUME UNITS m3

WELL NAME 16/10-1 AREA North Sea, Norway

OPERATOR Norsk Aqip A.S. RIG Dyvi Stena

MUD SYSTEM KCL/Polymer ENGINEERS Mike Alison/ Kjell Øvrevik, Einar Korsvold/ Erik Lauritzen

INITIAL VOLUME 82

DATE 1986	DEPTH ☐ feet ☒ metres	VOLUME MADE	VOLUME RECEIVED	SURFACE LOSSES	DOWNHOLE LOSSES	VOLUME DUMPED	LEFT IN HOLE	BACK LOADED	FINAL VOLUME	UNITS M.T. BARYTE	MT BENTONITE	Q CAUSTIC	Q SODA ASH	Q LIME	Q CMC LOVIS	Q ANCOMEL	Q DRISPAC REGULAR	Q DRISPAC SUPERLO	Q ANCOPOL	Q SPERCELL C	Q BICARBONATE	Q KCl	L DEFOAMER	M3 KCl BRINE
2.6	514	215		0	0	0	0	0	297	8	5	4.5	4.5	12.5	25	3.86	3.86	0.3					30	85
3.6	536	120	0	0	0	0	0	0	365			2.5	2.5	0.8	7.5	15	2.95	2.26		0.5		1	30	55
4.6	811	94	0	32	0	105	0	0	323	19		1.75	4.0		4.75	10.5	5.91	2.95	1.8				30	40
5.6	1066	158	0	35	0	60	0	0	386	14		8.5	2.0		10.5	25	3.64	7.27	1.5			90		30
6.6	1215	95		20	0	65	0	0	396			3.5	1.0			12.5	1.0		2.4			70	30	0
7.6	1420	80		15	0	39	0	0	422			5.5			7.5	2.5	3.26	5.29	1.5			-	-	25
8.6	1420	0		21	0	45	0	0	366			1.25	1.0		5.0		2.39	4.0	-			-	30	-
9.6	1419	71	-	-	-	5	9	-	413	33	2					7.75					1.5			25
TOTALS		833	0	122	0	371	9	0		74	7	27.5	15	0.8	47.75	92.25	23.01	25.63	7.5	0.5	1.5	161	150	260
PREVIOUS TOTAL		0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FINAL TOTAL		833	0	122	0	371	9	0		74	7	27.5	15	0.8	47.75	92.25	23.01	25.63	7.5	0.5	1.5	161	150	260

NORCEM ANCHOR

MATERIAL CONSUMPTION REPORT

SECTION 12 1/4 | SHEET No. 1 | VOLUME UNITS M3

WELL NAME 16/10-1 | AREA NORTH SEA - NORWAY

OPERATOR NORSK AGIP A/S | RIG DYVI STENA

MUD SYSTEM KCl/POLYMER | ENGINEERS ALISON, ØVREVIK, KORSVOLD, LAURITZEN

(Q = Quintalis = 100 kg)

INITIAL VOLUME 43

1986 DATE	DEPTH ☐ feet ☒ metres	VOLUME MADE	VOLUME RECEIVED	SURFACE LOSSES	DOWNHOLE LOSSES	VOLUME DUMPED	LEFT IN HOLE	BACK LOADED	FINAL VOLUME	UNITS M.T. BARYTE	MT BENTONITE	Q CAUSTIC	Q SODA ASH	Q KOH	Q CMC LOVIS	Q CMC HIVIS	Q DRISPAC R	Q DRISPAC SL	Q ANCOPOL	Q KCl	Q BICARBONATE	Q	LTRS. DEFOAMER	M3 KCl BRINE
10.6	1424	–	–	11	–	40			362								4.22		3.70		2.50			
11.6	1592	8		15		6			349	36		3.5	1.5		3.5		1.47	4.08	1	12.5				
12.6	1739	110		21		75			363	45			2	10	13.25		2.70	2.25	0.6					70
13.6	1872	85		10		32			406	44			4.5	4.25	17.5		3.15	2.93	3.90					55
14.6	1970	85		15		44			432	73			2	6.75	7.5		6.7		2.7					51
15.6	2075	8		2		2			436	35				3.5		5.75	.23		.6					
16.6	2125	4		1		3			436	19				1.75	3.75	.75				.75				
17.6	2257	3		10		21			408	14				5.25		4.25	0.25							
18.6	2349	4		18		32			362	18				5.25		4								
19.6	2422	90		8		8			436	–			2	6	10	1.5	3.63							20
20.6	2472	2		15		8			415	9						3							30	4
21.6	2518	–		7		6			402	–				2.5		1.25		1.81						
TOTALS		399		133		277				293	0	3.5	12	45.25	55.5	20.75	22.35	11.07	12.5	20	2.5		30	200
PREVIOUS TOTAL		0		0		0				0		0	0	0	0	0	0	0	0	0	0		0	0
FINAL TOTAL		399		133		277				293	0	3.5	12	45.25	55.5	20.75	22.35	11.07	12.5	20	2.5		30	200

NORCEM ANCHOR

MATERIAL CONSUMPTION REPORT

SECTION 12¼ | SHEET No. 2 | VOLUME UNITS M^3

WELL NAME 16/10-1 | AREA NORTH SEA - NORWAY

OPERATOR NORSK AGIP A.S. | RIG DYVI STENA

MUD SYSTEM KCl/POLYMER | ENGINEERS ALISON, ØVREVIK, KORSVOLD, STOKKELAND

(Q = Quintali = 100 kg)

INITIAL VOLUME 413

DATE 1986	DEPTH ☐ feet ☒ metres	VOLUME MADE	VOLUME RECEIVED	SURFACE LOSSES	DOWNHOLE LOSSES	VOLUME DUMPED	LEFT IN HOLE	BACK LOADED	FINAL VOLUME	UNITS M.T.	MT	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	L		M^3
										BARYTE	BENTONITE	CAUSTIC	SODA ASH	POTASSIUM HYDROXIDE	CMC LOVIS	CMC HIVIS	DRISPAC R	DRISPAC SL	ANCOPOL	KCl	BICARBONATE	DEFOAMER		KCl BRINE
22.6	2565	2		8		8			388	8				2			0.23	0.9						
23.6	2565			3		16			369											4				
24.6	2565								369	9*	0.5*	0.25*							0.1					dumped
25.6	2565					347	22		0	Chemicals used for 8 1/2" section: See 8 1/2" consumption report														30
TOTALS		2		11		371	22			17	0.5	0.25	0	2	0	0	0.23	0.9	0.1	4	2.5	0		30
PREVIOUS TOTAL		399		133		277	0			293	0	3.5	12	45.25	55.5	20.75	22.35	11.07	12.6	20	0	30		200
FINAL TOTAL		401		144		648	22			310	0.5	3.75	12	47.25	55.5	20.75	22.58	11.97	12.6	24	2.5	30		230

* Initial volume at start of section: This + final total "volume made" (page 2) = final total of losses/dumped/left in hole.

NORCEM ANCHOR

SECTION 8 1/2

SHEET No. 1

VOLUME UNITS

WELL NAME 16/10-1 AREA NORTH SEA - NORWAY

OPERATOR NORSK AGIP A/S RIG DYVI STENA

MATERIAL CONSUMPTION REPORT

MUD SYSTEM BENTONITE/LIGNOSULPHONATE ENGINEERS ALISON/ØVREVIK/KORSVOLD/STOKKELAND

INITIAL VOLUME 0

DATE 1986	DEPTH ☐ feet ☒ metres	VOLUME MADE	VOLUME RECEIVED	SURFACE LOSSES	DOWNHOLE LOSSES	VOLUME DUMPED	LEFT IN HOLE	BACK LOADED	FINAL VOLUME	UNITS M.T.	MT	Q	Q	Q	Q	Q	Q	Q	L					
										BARYTE	BENTONITE	CAUSTIC	SODA ASH	CMC LOVIS	CMC HIVIS	DRISPAC R	DRISPAC SL	SPERCELL C	DEFOAMER					
26.6	2604	374	–	17	–	19	–	–	338	91	19.5	5	8	4.25	0.75	7.55	7.62	17.25	60					
27.6	2639	4	–	20		13			309	15	–						1.6		60					
28.6	2695	–	–	3	–	–	–	–	306	–		2.5			2.5		0.9	2.5	30					
29.6	2759	1	–	12	–	–	–	–	295	5		3		1				4.75	60					
30.6	2824	75		8					362	19		3.25	1.5	4			2.3	0.75						
1.7	2857	1		5	2				356	5		1						1						
2.7	2873	–		8	2				346			1.5												
3.7	2909	1		2					345	4		1.75						2.5						
4.7	2925			9					336								1.8							
5.7	2985	10		3					343	10		5.75					0.9	3.75						
6.7	3085	1		35					309	6		1.75						3.75						
7.7	3142	1.5	–	28.5	–	10			278	6		1.0						.25						
TOTALS		468.5		150.5	4	32				161	19.5	26.5	9.5	9.25	3.25	7.55	15.12	37.50	210					
PREVIOUS TOTAL		0		0		0				0	0	0	0	0	0	0	0	0	0					
FINAL TOTAL																								

NORCEM ANCHOR

MATERIAL CONSUMPTION REPORT

SECTION 8 1/2 | SHEET No. 2 | VOLUME UNITS M3

WELL NAME 16/10-1 | AREA NORTH SEA - NORWAY

OPERATOR NORSK AGIP A.S. | RIG DYVI STENA

MUD SYSTEM BENTONITE/LIGNOSULPHONATE | ENGINEERS ALISON/ØVREVIK/ KORSVOLD/STOKKELAND

INITIAL VOLUME

DATE	DEPTH ☐ feet ☐ metres	VOLUME MADE	VOLUME RECEIVED	SURFACE LOSSES	DOWNHOLE LOSSES	VOLUME DUMPED	LEFT IN HOLE	BACK LOADED	FINAL VOLUME	UNITS M.T.	BARYTE MT	Bentonite Q	Caustic Q	Soda Ash Q	CMC L.V. Q	CMC H.V. Q	Drispac REG. Q	Drispac Slo Q	Spercell C Q	Defoamer L	Soda Bicarb. Q
8.7	3152	14		9		8			275			1.0			2.5	4.0		3.0	30		
9.7	3152	1		1					275	5								4.0			
10.7	2400					10	8		257												
11.7	1291	5				3	22		237	23											
12.7	1100	27				30			234												1.5
13.7	0					234			0												
TOTALS		47		10		285	30			28	0	1.0	0	0	25	4.0	0	7.0	30	1.5	
PREVIOUS TOTAL		468.5		150.5	4	32	0			161	19.5	26.5	9.5	9.25	8.25	7.55	15.12	37.5	210	0	
FINAL TOTAL		515.5		160.5	4	320	30			189	19.5	27.5	9.5	9.25	5.75	11.55	15.12	44.5	240	1.5	

NORSK AGIP WELL NO.16/10-1

DRILLING MUD PROPERTIES RECORD

AREA NORTH SEA

MUD SYSTEM: SPUD MUD/KCL-POLYMER/GEL-POLYMER. RIG DYVI STENA

DAY No.	DATE 1986	DEPTH metre	M.W. sg	F.V. s/qt	A.V. cps	P.V. cps	Y.P. Pa	Gel 0	Gel 10	API Filt.	Cake 32nds	HPHT Filt.	pH	Chl. g/lit.	Calc. ppm.	Pf	%Oil	%sol.	%Sand	MBT g/lit.	KCL g/lit.	NaCl
1	5/24																					
2	5/25	196	1.06	100																		
3	5/26	196	1.06	100																		
4	5/27	218	1.06	100																		
5	5/28	400	1.06	100																		
6	5/29	515	1.06	100																		
7	5/30	329	1.06	100																		
8	5/31	514	1.06	100																		
9	6/ 1	514	1.07	100																		
10	6/ 2	514	1.15	60	17	13	4	1	1	5	1		10.9	61.00	400	.75		4			100	
11	6/ 3	536	1.15	54	18	12	6	1	2	4.8	1		10.5	61.00	360	.6		4		7.5	94	
12	6/ 4	811	1.18	55	25	18	7	1	2.5	4.2	1		10.5	62.00	360	.4		6	.75	21	112	9.90
13	6/ 5	1054	1.21	53	24.5	18	6.5	1	3	4.3	1		9.6	63.00	400	.3		5	2	27.5	114	9.90
14	6/ 6	1215	1.24	61	29	23	6	2	6	4	1		10.3	55.00	280	.4		6	1.75	45	98	14.80
15	6/ 7	1420	1.22	55	26.5	20	6.5	2	7	3.6	1		10.5	54.00	280	.6		7	.5	47	98	8.25
16	6/ 8	1420	1.23	59	27.5	21	6.5	2	6	3.5	1		9.9	52.00	200	.35		7.5	.5	46	96	6.60
17	6/ 9	1420	1.23	60	30	23	7	2	7	3.7	1		9.6	51.00	240	.4		8	.25	48	98	3.30
18	6/10	1424	1.23	59	27	20	7	2	10	3.7	1		9.7	50.00	160	.4		9.5	.5	55	96	3.30
19	6/11	1592	1.27	59	28	23	6	2	5	3.5	1		10.5	55.00	120	.5		12	.25	59	96	11.65
20	6/12	1739	1.28	56	29.5	23	6.5	2	5	3.5	1		10.6	57.00	240	.45		13	.25	46	100	11.55
21	6/13	1872	1.32	47	20	16	4	1	2	4.6	1		9.7	63.00	100	.2		13	Tr.	41	95	24.70
22	6/14	1970	1.37	54	28	23	5	1	1	3.8	1		9.7	58.00	420	.2		14	Tr.	42	88	23.10
23	6/15	2075	1.42	64	41	32	9	2	4	5	1		9.9	58.00	240	.25		14	.25	53.5	94	18.20
24	6/16	2125	1.42	49	40.5	30	10.5	2	3	4.3	1	15	10.7	60.00	160	.3		15	.25	52	93	21.50
25	6/17	2257	1.42	70	49	34	15	2	6.5	4.1	1		10.3	57.00	160	.3		16	.75	52	102	9.90
26	6/18	2349	1.42	70	57	39	18	2	6	3.9	1		10.6	54.00	200	.3		15	.5	46	87	17.33

NORSK AGIP WELL NO.16/10-1

DRILLING MUD PROPERTIES RECORD

MUD SYSTEM: SPUD MUD/KCL-POLYMER/GEL-POLYMER. AREA NORTH SEA
RIG DYVI STENA

DAY No.	DATE 1986	DEPTH metre	M.W. sg	F.V. s/qt	A.V. cps	P.V. cps	Y.P. Pa	Gel 0	Gel 10	API Filt.	Cake 32nds	HPHT Filt.	pH	Chl. g/lit.	Calc. ppm.	Pf	%Oil	%sol.	%Sand	MBT g/lit.	KCL g/lit.	NaCl g/lit.
27	6/19	2422	1.42	72	51	38	16	3	7	4.8	1		10.5	54.00	80	.8		15	.25	50	90	14.80
28	6/20	2474	1.42	72	52.5	35	16	2	6	4.4	1	14.8	9.8	56.00	90	.4		15	.25	49	90	18.20
29	6/21	2518	1.42	72	55.5	35	17.5	2	7	4.8	1	16.8	10.2	62.00	80	.8		15	.25	50	104	16.50
30	6/22	2565	1.42	74	53	40	15.5	2	6	4.5	1	16	9.9	58.00	60	.55		14	.5	49	93	17.30
31	6/23	2565	1.42	82	51	37	16	3	6	4.8	1	N.R	10	60.00	60	.6		15	.25	45	102	14.80
32	6/24	2565	1.42	90	51	37	14	2	5	4	1	N.R	9.4	61.00	160	.2		14.5	.25	48	100	18.20
33	6/25	2565	1.42	75	51	37	14	2	6	4.2	1		9.5	60.00	140	.3		15	.25	48	100	18.20
34	6/26	2604	1.25	45	22	15	7	2	15	6	1		10.8	13.00	120	.6		10	Tr.	45		21.40
35	6/27	2639	1.3	49	25.5	18	7.5	2	14	5.8	1		10	14.00	160	.3		10	Tr.	45		23.10
36	6/28	2695	1.3	47	26	20	6	2	8	6.1	1		10.4	14.00	50	.5		10	Tr.	44		23.10
37	6/29	2759	1.3	48	25.5	20	5.5	2	9	5.8	1		10.7	14.00	40	.8		10	Tr.	43		23.10
38	6/30	2824	1.35	50	28	23	6	2	11	6	1		10.6	14.00	50	.7		12	Tr.	46		23.10
39	7/ 1	2857	1.35	55	30.5	24	6.5	2	11	6.2	1		10.2	15.00	70	.6		12	Tr.	48		24.70
40	7/ 2	2873	1.35	60	27.5	21	6.5	3	21	6.4	1		10.5	15.00	40	.8		12	Tr.	45		24.70
41	7/ 3	2908	1.35	50	26	20	6	1.5	9	6.5	1		10.6	15.30	50	.9		11.5	Tr.	50		
42	7/ 4	2925	1.35	53	31	23	8	2	11	6.6	1		10	15.60	50	.75		12	Tr.	50		
43	7/ 5	2983	1.35	53	32.5	25	7.5	1.5	10	5.4	1		10.4	17.40	80	.9		12	Tr.	47.5		
44	7/ 6	3083	1.35	51	30.5	24	6.5	1.5	10	5.9	1		10.6	17.50	50	1		13	.25	47		
45	7/ 7	3142	1.35	69	34.5	24	6.5	3	18	6.5	1		9.6	27.60	400	.05		14	.25	48		
46	7/ 8	3152	1.35	62	27.5	21	6.5	1.5	10	6.2	1		9.5	31.60	280	.05		13	Tr.	46		
47	7/ 9	3151	1.35	64	27	21	12	2	10	6.3	1		9.6	31.00	380	.05		13	Tr.	46		
48	7/10	2400	1.35	57	25	19	6	2	12	6.2	1		10.1	31.00	400	.1		11	Tr.	40		
49	7/11	1291	1.42	63	27.5	21	6.5	2	13	5.9	1		10.1	32.00	400	.15		13	.25	42		
50	7/12	1100	1.38	58	25	19	6						9.7									

U-515 86-5963-BA 3/

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

SOURCE ROCK ANALYSIS OF N.O.C.S. WELL 16/10-1

CLIENT: NORSK AGIP

AUTHOR: JOSEPHINE Mc DERMOTT

RESPONSIBLE TECHNICIAN: KIRSTI ANDERSEN

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DATE:25.9.86

ENCLOSURES: 4

I. INTRODUCTION

Canned and bagged cuttings samples from the interval 500 m to 3151 m (T.D.) in the NOCS well 16/10-1 were received at Geolab Nor. The canned samples were taken at 30 m intervals down to the depth of 1420 m after which the sampling interval was 20 m down to T.D. These samples were provided for Headspace and Occluded gas analysis only. The bagged samples were taken at 20 m intervals throughout the well and were provided for Rock-Eval pyrolysis, vitrinite reflectance analysis and visual kerogen analysis. The objectives of the analysis program were to identify and characterise potential source rock horizons and to establish the maturity gradient of the well. The number of samples analysed were:

Headspace and Occluded Gas	117
Lithology Description	133
Rock-Eval Pyrolysis	119
Visual Kerogen Analysis	41
Vitrinite Reflectance Analysis	52

The report firstly discuss results of analyses within the stratigraphic framework. Following this discussion an interpretation of the source rock potential of the various stratigraphic horizons is made. A final conclusion section briefly draws together salient points of each stratigraphic zone.

II SAMPLE QUALITY

Down to a depth of 900 m only small quantities of cuttings samples were retrieved after sieving, restricting the number of Rock-Eval, visual kerogen and vitrinite reflectance analyses which could be performed. Below this depth, however, sample quantity and quality was very good. Apart from minor quantities of cement around the level of casing points, no contamination was found in the cuttings and downhole caving appears to be minimal.

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth		Type		Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description				
520.00								001
			40	Other	: ign			001-1
			35	Cont	: cem, prp, dd			001-4
			20	S/Sst	: gy, rnd			001-2
		1.82	5	Sh/Clst	: blk to drk gy, carb			001-3
540.00								002
			50	Cont	: cem, prp, dd			002-5
			30	Other	: ign			002-1
			10	S/Sst	: gy, rnd			002-2
		0.68	10	Sh/Clst	: blk to drk gy, carb			002-3
			tr	Coal	: blk			002-4
560.00								003
		3.82	50	Sh/Clst	: blk to drk gy, carb			003-1
			20	Other	: fos			003-4
			20	Cont	: cem, prp			003-6
			5	Other	: ign			003-2
			5	S/Sst	: gy, rnd			003-3
			tr	Ca	: gy pi			003-5
580.00								004
			40	S/Sst	: gy, rnd			004-2
			30	Sh/Clst	: blk to drk gy, carb			004-3
			15	Other	: fos			004-4
			15	Cont	: cem, prp			004-5
600.00								005
			60	Sh/Clst	: blk to drk gy, carb, mic			005-3
			20	S/Sst	: gy, rnd			005-2
			15	Other	: fos, ign			005-4
			5	Cont	: cem			005-5

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth		Type		Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description				
620.00								006
			50	S/Sst	: gy, f, rnd			006-1
			30	Sh/Clst	: blk to drk gy, carb, mic			006-2
			20	Other	: fos			006-3
			tr	Cont	: cem			006-4
640.00								007
			45	S/Sst	: gy, f, rnd			007-1
		4.69	40	Sh/Clst	: blk to drk gy, carb, mic			007-2
			10	Other	: fos			007-3
			5	Cont	: cem, fib			007-4
660.00								008
				No Mat.				008-1
680.00								009
				No Mat.				009-1
700.00								010
				No Mat.				010-1
720.00								011
			70	S/Sst	: gy, f, rnd			011-1
			15	Sh/Clst	: blk to drk gy, carb, mic			011-2
			10	Other	: fos			011-3
			5	Cont	: cem, prp			011-5

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth		Type		Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description				
740.00								012
			60	Sh/Clst:		blk, ol gy, m gy to drk gy, carb, mic		012-2
			30	S/Sst	:	gy, f, rnd		012-1
			10	Other	:	fos, ign		012-4
			tr	Cont	:	cem, prp		012-6
760.00								013
		2.09	60	Sh/Clst:		blk, ol gy, m gy to drk gy, carb, pyr, mic		013-2
			25	S/Sst	:	gy, f, rnd		013-1
			15	Other	:	fos, ign		013-5
			tr	Sh/Clst:		lt brn gy		013-6
780.00								014
			45	Sh/Clst:		blk, ol gy, m gy to m drk gy, carb, pyr, mic		014-2
			35	Other	:	fos, ign		014-4
			20	S/Sst	:	gy, rnd, ang		014-1
			tr	Cont	:	prp		014-5
800.00								015
				No Mat.				015-1
820.00								016
			50	S/Sst	:	gy, rnd, ang		016-1
		0.87	45	Sh/Clst:		blk, ol gy, m gy to drk gy, carb, pyr, mic		016-2
			5	Other	:	pyr		016-4

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth		Type		Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description				
840.00								017
		0.81	65	Sh/Clst:	blk, ol gy, m gy to drk gy, carb, pyr, mic			017-2
			25	S/Sst :	gy, f, rnd			017-1
			10	Other :	pyr, fos			017-4
			tr	Sh/Clst:	lt brn gy			017-6
			tr	Cont :	prp			017-7
860.00								018
		1.02	55	Sh/Clst:	blk, ol gy, m gy to drk gy, carb, pyr, mic			018-2
			25	Sh/Clst:	y gy to lt ol gy, calc			018-4
			20	S/Sst :	gy, f, rnd			018-1
			tr	Other :	fos			018-5
			tr	Cont :	prp			018-6
880.00								019
		1.14	70	Sh/Clst:	blk, ol gy, m gy to drk gy, carb, pyr, mic			019-2
			20	S/Sst :	gy, f, rnd			019-1
			10	Other :	pyr, fos			019-4
			tr	Sh/Clst:	y gy to lt ol gy, calc			019-6
			tr	Cont :	prp			019-7
900.00								020
		1.16	70	Sh/Clst:	blk, ol gy, m gy to drk gy, carb, pyr, mic			020-2
			20	S/Sst :	gy, f, rnd			020-1
			5	Sh/Clst:	y gy to lt ol gy, calc			020-4
			5	Other :	pyr, fos, ign			020-5
			tr	Cont :	prp, fib			020-8

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth Int	Depth Cvd	Type TOC%	%	Grp Frm Age / Lithology description	Trb	Sample
920.00						021
			50	Other : pyr		021-4
		1.08	40	Sh/Clst: blk, ol gy, m gy to drk gy, carb, pyr, mic		021-2
			10	S/Sst : gy, f, rnd		021-1
			tr	Sh/Clst: y gy to lt ol gy, calc		021-7
			tr	Cont : prp		021-8
940.00						022
		1.08	70	Sh/Clst: blk, ol gy, m gy to drk gy, carb, pyr, mic		022-2
			20	Other : pyr		022-4
			10	S/Sst : gy, f, rnd		022-1
			tr	Cont : prp		022-7
960.00						023
		1.14	55	Sh/Clst: blk, ol gy, m gy to drk gy, carb, pyr, mic		023-2
			30	S/Sst : gy, f, rnd		023-1
			15	Other : pyr, fos		023-4
			tr	Cont : prp		023-7
980.00						024
		1.05	50	Sh/Clst: ol gy, lt gy, lt ol gy, m gy		024-3
			20	Sh/Clst: y gy to lt ol gy, calc		024-6
			15	Other : pyr, fos		024-4
			10	S/Sst : gy, f, rnd		024-1
			5	Sh/Clst: blk to drk gy, carb, pyr, mic		024-2
			tr	Cont : prp		024-8
1000.00						025
		1.30	55	Sh/Clst: ol gy to lt ol gy, m gy to m lt gy		025-3
			30	S/Sst : gy, f, rnd		025-1
			10	Sh/Clst: y gy to lt ol gy, calc		025-5
			5	Other : pyr, fos		025-4
			tr	Sh/Clst: blk to drk gy, carb, pyr, mic		025-2
			tr	Cont : prp		025-7

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth		Type		Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description				
1020.00								026
			45	S/Sst	:	gy, f, rnd		026-1
		1.38	40	Sh/Clst	:	ol gy to lt ol gy, m gy to m lt gy		026-3
			10	Other	:	fos		026-5
			5	Sh/Clst	:	y gy to lt ol gy, calc		026-4
			tr	Sh/Clst	:	blk to drk gy, carb, pyr, mic		026-2
			tr	Cont	:	prp		026-6
1040.00								027
		1.31	70	Sh/Clst	:	ol gy to lt ol gy, m gy		027-3
			20	S/Sst	:	gy, f, rnd		027-1
			10	Other	:	pyr, fos		027-4
			tr	Sh/Clst	:	blk to drk gy, carb, pyr, mic		027-2
			tr	Sh/Clst	:	y gy to lt ol gy, calc		027-5
			tr	Cont	:	prp		027-7
1060.00								028
		1.17	80	Sh/Clst	:	ol gy to lt ol gy, m gy		028-2
			15	Other	:	pyr, fos, glauc		028-3
			5	Sh/Clst	:	y gy to lt ol gy, calc		028-5
			tr	S/Sst	:	gy, f, rnd		028-1
			tr	Cont	:	prp		028-7
1080.00								029
		1.10	85	Sh/Clst	:	ol gy to lt ol gy, m gy		029-2
			10	Other	:	pyr, fos, glauc		029-3
			5	Sh/Clst	:	y gy to lt ol gy, calc, dol		029-5
			tr	S/Sst	:	gy, f, rnd		029-1
			tr	Cont	:	prp		029-6

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth	Type		Grp	Frm	Age	Trb	Sample
Int Cvd	TOC%	%	Lithology description				
1100.00							030
	0.92	55	Sh/Clst	:	ol gy to lt ol gy, m gy		030-2
		40	Other	:	pyr, glauc		030-3
		5	Sh/Clst	:	y gy to lt ol gy, calc, dol		030-5
		tr	S/Sst	:	gy, f, rnd		030-1
		tr	Ca	:	gy pi		030-7
		tr	Cont	:	prp		030-8
1120.00							031
	0.50	90	Ca	:	ol gy, m brn to drk or y		031-1
		10	Sh/Clst	:	ol gy to lt ol gy, m gy		031-3
		tr	Ca	:	gy pi		031-4
1140.00							032
	1.33	75	Sh/Clst	:	ol gy to lt ol gy		032-3
		25	Ca	:	ol gy, m brn to drk or y		032-1
1160.00							033
	1.54	100	Sh/Clst	:	y gy to lt ol gy		033-2
		tr	Ca	:	ol gy, m brn		033-1
1180.00							034
	3.49	100	Sh/Clst	:	brn blk, ol gy, lt ol gy, drk gy		034-2
		tr	Ca	:	m brn		034-1
		tr	Other	:	fos		034-3
1200.00							035
	4.02	85	Sh/Clst	:	brn blk, ol gy, lt ol gy, drk gy, glauc		035-2
		10	Other	:	glauc		035-3
		5	Ca	:	ol gy		035-1

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth Int	Cvd	Type TOC%	%	Grp	Frm	Age / Lithology description	Trb	Sample
1220.00								036
		2.22	85	Sh/Clst		: brn gy to brn blk, ol gy to lt ol gy, glauc, mic		036-2
			15	Other		: glauc		036-3
			tr	Ca		: m brn		036-1
1240.00								130
		2.78	100	Sh/Clst		: brn gy to brn blk, ol gy to lt ol gy, mic, glauc		130-1
			tr	Ca		: lt ol gy to m brn		130-2
			tr	Other		: fos, glauc		130-3
1260.00								132
		4.18	90	Sh/Clst		: brn gy to brn blk, ol gy to lt ol gy, calc, mic, glauc		132-1
			10	Ca		: y gy to ol gy, m brn to drk or y		132-2
1280.00								037
		4.16	90	Sh/Clst		: brn gy to brn blk, ol gy to lt ol gy, mic, glauc		037-2
			10	Ca		: brn blk, ol gy to lt ol gy, m brn		037-1
			tr	Other		: fos, glauc		037-3
1300.00								038
		3.92	95	Sh/Clst		: brn gy to brn blk, ol gy to lt ol gy, mic, glauc		038-2
			5	Ca		: brn blk, ol gy, m brn		038-1
			tr	Other		: pyr, fos		038-5

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth Int	Depth Cvd	Type TOC%	%	Grp	Frm	Age / Lithology description	Trb	Sample
1320.00								039
		3.62	90	Sh/Clst		: brn gy to brn blk, ol gy to lt ol gy, mic, glauc		039-2
			10	Ca		: brn blk, ol gy, m brn		039-1
			tr	Other		: pyr, fos, glauc		039-3
1340.00								040
		4.79	95	Sh/Clst		: brn gy to brn blk, ol gy to lt ol gy, mic, glauc		040-2
			5	Ca		: brn blk		040-1
			tr	Other		: pyr, fos, glauc		040-3
1360.00								041
		4.27	95	Sh/Clst		: brn gy to brn blk, ol gy to lt ol gy, mic, glauc		041-2
			5	Ca		: brn blk		041-1
			tr	Other		: pyr, fos, glauc		041-3
1380.00								042
		4.42	80	Sh/Clst		: brn gy to brn blk, ol gy to lt ol gy, mic, glauc		042-2
			10	Other		: glauc		042-4
			5	Ca		: brn blk		042-1
			5	Other		: fos		042-3
1400.00								043
		4.19	75	Sh/Clst		: brn gy to brn blk, ol gy to lt ol gy, mic, glauc		043-2
			10	Ca		: ol gy to ol blk		043-1
			10	Other		: fos		043-4
			5	Ca		: y gy		043-5
			tr	Cont		: prp		043-6

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth Int	Depth Cvd	Type TOC%	%	Grp	Frm	Age	Trb	Sample	Lithology description
1420.00								044	
		4.49	80	Sh/Clst				044-2	brn gy to brn blk, ol gy to lt ol gy, mic, glauc
			10	Ca				044-5	y gy
			5	Ca				044-1	ol gy to ol blk
			5	Other				044-3	pyr, fos, glauc
			tr	Ca				044-7	m brn
1440.00								045	
		2.98	40	Sh/Clst				045-1	brn gy, slt, mic
			40	Cont				045-7	cem, prp
			10	Ca				045-6	brn blk to ol gy
			5	Sh/Clst				045-3	lt ol gy, calc, mic
			5	Ca				045-4	m y brn
			tr	Sh/Clst				045-2	gy blk
			tr	Ca				045-5	w, chk
1460.00								046	
		2.25	70	Sh/Clst				046-1	brn gy, slt, mic
			20	Cont				046-5	cem, prp
			5	Ca				046-2	y gy, cly, chk
			5	Ca				046-3	brn blk to ol gy, m y brn
1480.00								047	
		2.42	80	Sh/Clst				047-1	brn gy, slt, mic
			10	Ca				047-3	brn blk, ol gy, m y brn
			5	Ca				047-2	y gy, cly, chk
			5	Cont				047-4	cem, prp
1500.00								048	
		2.12	85	Sh/Clst				048-1	brn gy, slt, mic
			15	Ca				048-2	y gy, cly, chk

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth Int	Depth Cvd	Type TOC%	%	Grp Frm Age Lithology description	Trb	Sample
1520.00						049
		1.77	90	Sh/Clst: brn gy, ol gy to lt ol gy		049-1
			5	Ca : w to y gy, cly, chk		049-2
			5	Ca : brn blk to ol gy		049-3
			tr	Cont : cem, prp		049-4
1540.00						050
		1.64	80	Sh/Clst: brn gy, ol gy to lt ol gy		050-1
			10	Ca : or gy, dol		050-4
			5	Ca : y gy, cly		050-2
			5	Ca : brn blk to ol gy		050-3
			tr	Cont : cem, prp		050-5
1560.00						051
		1.78	90	Sh/Clst: brn gy, ol gy to lt ol gy		051-1
			5	Ca : w to y gy, chk		051-2
			5	Ca : brn blk to ol gy		051-3
			tr	Cont : cem, prp		051-4
1580.00						052
		1.74	100	Sh/Clst: brn gy, ol gy to lt ol gy		052-1
			tr	Ca : w to y gy		052-2
			tr	Ca : brn blk to ol gy		052-3
			tr	Cont : cem, prp		052-4
1600.00						053
		1.60	90	Sh/Clst: brn gy, ol gy to lt ol gy		053-1
			5	Ca : brn blk to ol gy		053-2
			5	Ca : gy pi, y gy, chk		053-3
			tr	Ca : drk y brn to pl y brn		053-4
			tr	Cont : cem, prp		053-5

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth Int	Depth Cvd	Type TOC%	%	Grp	Frm	Age	Trb	Sample	Lithology description
1620.00								054	
		1.40	85	Sh/Clst		brn gy, ol gy to lt ol gy		054-1	
			10	Ca		y gy to or gy, chk		054-2	
			5	Ca		brn blk to ol gy		054-3	
			tr	Other		fos		054-4	
1640.00								055	
		1.49	95	Sh/Clst		brn gy, ol gy to lt ol gy		055-1	
			5	Ca		y gy to or gy, chk		055-2	
			tr	Ca		brn blk to ol gy		055-3	
			tr	Other		fos		055-4	
1660.00								056	
		1.62	100	Sh/Clst		brn gy, ol gy to lt ol gy		056-1	
			tr	Ca		y gy to or gy, chk		056-2	
			tr	Ca		brn blk to ol gy		056-3	
1680.00								057	
		1.63	100	Sh/Clst		brn gy, ol gy to lt ol gy		057-1	
			tr	Ca		y gy to or gy		057-2	
			tr	Ca		brn blk to ol gy		057-3	
			tr	Other		fos		057-4	
1700.00								058	
		1.98	90	Sh/Clst		brn gy, ol gy to lt ol gy		058-1	
			10	Ca		y gy, chk		058-2	
			tr	Ca		ol gy		058-3	
1720.00								059	
		1.72	90	Sh/Clst		brn gy, ol gy to lt ol gy		059-1	
			10	Ca		y gy, chk		059-2	
			tr	Other		fos		059-3	

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth		Type		Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description				
1740.00								060
		1.68	50	Sh/Clst:		brn gy to ol gy		060-3
		0.29	40	Ca		: brn gy to brn blk, ol gy to ol blk		060-1
			10	Ca		: gy pi, y gy, fos, chk		060-2
1760.00								061
		0.26	60	Ca		: brn gy to brn blk, ol gy to ol blk		061-1
		1.57	30	Sh/Clst:		brn gy to ol gy		061-3
			10	Ca		: gy pi, y gy, fos, chk		061-2
1780.00								062
		1.26	60	Sh/Clst:		brn gy, ol gy to lt ol gy		062-1
			30	Ca		: brn gy to brn blk, ol gy to ol blk		062-2
			10	Ca		: w to y gy, chk		062-3
1800.00								063
		1.51	70	Sh/Clst:		brn gy, ol gy to lt ol gy		063-1
			20	Ca		: brn gy to brn blk, ol gy to ol blk		063-2
			10	Ca		: w to y gy, chk		063-3
1820.00								064
		2.31	80	Sh/Clst:		brn gy, ol gy to lt ol gy		064-1
			15	Ca		: brn gy to brn blk, ol gy to ol blk		064-2
			5	Ca		: w to y gy, fos, chk		064-3

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth Int	Depth Cvd	Type TOC%	%	Grp	Frm	Age	Trb	Sample	Lithology description
1840.00								065	
		2.75	75	Sh/Clst				065-1	brn gy, ol gy to lt ol gy
			20	Ca				065-2	brn blk, lt y brn, dsk y brn
			5	Ca				065-3	w to y gy, fos, chk
1860.00								066	
		3.07	90	Sh/Clst				066-1	brn gy, ol gy to lt ol gy
			5	Ca				066-2	brn blk, lt y brn, dsk y brn
			5	Ca				066-3	w to y gy, fos, chk
1880.00								067	
		2.22	90	Sh/Clst				067-1	brn gy, ol gy to lt ol gy
			5	Ca				067-2	brn blk, lt y brn, dsk y brn
			5	Ca				067-3	w to y gy, fos, chk
1900.00								068	
		1.94	100	Sh/Clst				068-1	brn gy, ol gy to lt ol gy
			tr	Ca				068-2	gy brn
			tr	Ca				068-3	w to y gy, chk
1920.00								069	
		2.40	70	Sh/Clst				069-1	brn gy, ol gy to lt ol gy
			20	Ca				069-2	gy brn, ol gy, m brn, dsk y brn
			10	Ca				069-3	w to y gy, chk
			tr	Other				069-4	fos
1940.00								070	
		2.58	90	Sh/Clst				070-1	brn gy, ol gy to lt ol gy
			5	Ca				070-2	gy brn, m brn, dsk y brn
			5	Ca				070-3	w to y gy, fos, chk
			tr	Other				070-4	fos

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth		Type		Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description				
1960.00								071
	2.44		90	Sh/Clst:		brn gy, ol gy to lt ol gy		071-1
			10	Ca		: gy brn, m brn, dsk y brn		071-2
			tr	Ca		: w to y gy, fos, chk		071-3
1980.00								072
	2.33		95	Sh/Clst:		brn gy, ol gy to lt ol gy		072-1
			5	Ca		: gy pi, ol gy, drk y brn, dsk y brn		072-2
			tr	Ca		: w to y gy, chk		072-3
2000.00								073
	2.48		100	Sh/Clst:		brn gy, ol gy to lt ol gy		073-1
			tr	Ca		: gy pi, ol gy, drk y brn, dsk y brn		073-2
			tr	Ca		: w to y gy, chk		073-3
2020.00								133
	2.84		45	Sh/Clst:		brn gy to brn blk, mic		133-1
			45	Sh/Clst:		gn gy, ol gy, lt ol gy		133-2
			5	Ca		: ol gy, pl y brn to dsk y brn		133-3
			5	Ca		: w to y gy, chk		133-4
2040.00								134
	0.25		70	Sh/Clst:		gn gy, ol gy, lt ol gy		134-2
	2.92		30	Sh/Clst:		brn gy to brn blk, lt brn gy, wx		134-1
2060.00								074
	0.19		90	Sh/Clst:		gn gy, ol gy to lt ol gy		074-1
			10	Sh/Clst:		brn gy, brn blk, lt brn gy, wx		074-2
			tr	Ca		: y gy, chk		074-3

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth Int	Depth Cvd	Type TOC%	%	Grp	Frm	Age	Trb	Sample	Lithology description
2080.00								075	
		0.24	100	Sh/Clst				075-1	brn gy, gn gy, ol blk to lt ol gy, drk gn gy, wx
			tr	Ca				075-2	: y gy, chk
2100.00								076	
		0.23	100	Sh/Clst				076-1	brn gy, gn gy, ol blk to lt ol gy, drk gn gy, wx
			tr	Ca				076-2	: y gy, chk
2120.00								077	
		0.58	90	Sh/Clst				077-1	brn gy, gn gy, ol blk to lt ol gy, drk gn gy, wx
			10	Ca				077-2	: y gy, chk
2140.00								078	
		1.32	85	Sh/Clst				078-1	brn blk, gn gy, ol gy, lt brn gy, lt ol gy
			15	Sh/Clst				078-2	y gy to lt ol gy, calc
			tr	Ca				078-3	: w to y gy, chk
			tr	Other				078-4	: pyr, glauc
2160.00								079	
		1.37	90	Sh/Clst				079-1	brn gy, gn gy, ol gy, lt brn gy, lt ol gy, m gy
			10	Ca				079-2	: w, y gy, lt ol gy, chk
2180.00								080	
		0.86	90	Sh/Clst				080-1	brn gy, gn gy, ol gy, lt brn gy, lt ol gy, m gy
			10	Ca				080-2	: w, y gy, lt ol gy, chk

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth		Type		Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description				
2200.00								081
		0.21	90	Sh/Clst:		w, gy red, brn gy, gn gy, ol gy, lt gn gy, m gy		081-1
			10	Ca	:	y gy, lt brn gy		081-2
			tr	Other	:	glauc		081-3
2220.00								082
		0.06	90	Sh/Clst:		w, gy red, brn gy, gn gy, ol gy, lt gn gy, m gy		082-1
			10	Ca	:	y gy, lt brn gy		082-2
			tr	Other	:	glauc		082-3
2240.00								083
		0.62	45	Sh/Clst:		brn gy, gn gy, ol gy, v col		083-1
		0.01	45	Sh/Clst:		gy red, red blk		083-2
			10	Ca	:	y gy, pl red, chk		083-3
2260.00								084
		0.55	70	Sh/Clst:		brn gy, gn gy, ol gy, v col		084-1
			20	Ca	:	gy red, red blk		084-2
			10	Ca	:	y gy, pl red, chk		084-3
2280.00								085
		0.03	60	Ca	:	w, chk		085-1
			40	Sh/Clst:		brn gy, gn gy, red blk, ol gy, v col		085-2
2300.00								086
			80	Ca	:	w, chk		086-1
	cvd		20	Sh/Clst:		brn gy, gn gy, red blk, ol gy, v col		086-2

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth Int	Cvd	Type TOC%	%	Grp Frm Age Lithology description	Trb	Sample
2320.00						087
			80	Ca : w, chk		087-1
	cvd		20	Sh/Clst: brn gy, gn gy, red blk, ol gy, v col		087-2
2340.00						088
			90	Ca : w, chk		088-1
	cvd		10	Sh/Clst: brn gy, gn gy, red blk, ol gy, v col		088-2
2360.00						089
			90	Ca : w, chk		089-1
	cvd		10	Sh/Clst: brn gy, gn gy, red blk, ol gy, v col		089-2
2380.00						090
			90	Ca : w, chk		090-1
	cvd		10	Sh/Clst: brn gy, gn gy, red blk, ol gy, v col		090-2
2400.00						091
			90	Ca : w, chk		091-1
	cvd		10	Sh/Clst: brn gy, gn gy, red blk, ol gy, v col		091-2
2420.00						092
			95	Ca : w, chk		092-1
	cvd		5	Sh/Clst: brn gy, gn gy, red blk, ol gy, v col		092-2

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth Int	Depth Cvd	Type TOC%	%	Grp Frm Age / Lithology description	Trb	Sample
2440.00						093
			95	Ca : w, chk		093-1
	cvd		5	Sh/Clst: brn gy, gn gy, red blk, ol gy, v col		093-2
2460.00						094
			95	Ca : w, chk		094-1
	cvd		5	Sh/Clst: brn gy, gn gy, red blk, ol gy, v col		094-2
2480.00						095
			95	Ca : w, chk		095-1
	cvd		5	Sh/Clst: brn gy, gn gy, red blk, ol gy, v col		095-2
2500.00						096
			95	Ca : w, chk		096-1
	cvd		5	Sh/Clst: brn gy, gn gy, red blk, ol gy, v col		096-2
2520.00						097
			95	Ca : w, chk		097-1
	cvd		5	Sh/Clst: brn gy, gn gy, red blk, ol gy, v col		097-2
2540.00						098
			95	Ca : w, chk		098-1
	cvd		5	Sh/Clst: brn gy, gn gy, red blk, ol gy, v col		098-2

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth		Type		Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description				
2560.00								099
			95	Ca		: w, chk		099-1
	cvd		5	Sh/Clst		: brn gy, gn gy, red blk, ol gy, v col		099-2
2580.00								100
			90	Ca		: w, chk		100-1
			5	Ca		: gy pi, lt gy to m lt gy		100-2
	cvd		5	Sh/Clst		: v col		100-3
2600.00								101
			100	Ca		: w, chk		101-1
			tr	Ca		: gy pi, lt gy to m lt gy		101-2
	cvd		tr	Sh/Clst		: v col		101-3
			tr	Sh/Clst		: ol gy, calc		101-4
2620.00								102
			95	Ca		: w, chk		102-1
			5	Ca		: gy pi, lt gy to m lt gy		102-2
	cvd		tr	Sh/Clst		: v col		102-3
			tr	Sh/Clst		: m gy to m drk gy, calc		102-4
2640.00								103
			90	Ca		: w, chk		103-1
			10	Ca		: gn gy, m gy to m lt gy		103-2
2660.00								104
			90	Ca		: w, chk		104-1
			10	Ca		: gy pi, lt gy to m drk gy		104-2

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth		Type		Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description				
2680.00								105
			100	Ca		: w, gy pi, gn gy, mic, glauc		105-1
			tr	Ca		: w, chk		105-2
2700.00								106
			90	Ca		: w, gy pi, brn gy, gn gy, lt gy to m gy, slt, mic, glauc		106-1
			10	Ca		: w, gy pi, chk		106-2
			tr	Sh/Clst		: red blk		106-3
2720.00								107
			100	Ca		: w, gy pi, brn gy, gn gy, lt gy to m gy, slt, mic, glauc		107-1
			tr	Ca		: w, gy pi, chk		107-2
2740.00								108
			100	Ca		: w to m drk gy, slt, mic, glauc		108-1
			tr	Ca		: w, gy pi, chk		108-2
2760.00								109
			60	Ca		: w to pl red, chk		109-1
			20	Ca		: w, gn gy, m lt gy, pyr, slt, mic, glauc		109-2
		0.01	15	Sh/Clst		: brn gy, red gy, red blk, ol gy, m brn, calc		109-4
			5	Sh/Clst		: dsk pu, dsk bl		109-3
			tr	Other		: pyr		109-5
2780.00								110
			50	Ca		: w to pl red, chk		110-1
		2.12	20	Sh/Clst		: brn gy, red gy, red blk, ol gy, m brn, drk gy, calc		110-2
			20	Sh/Clst		: gn gy, lt gn gy, lt ol gy, calc		110-3
			10	Sh/Clst		: dsk pu, dsk bl		110-4
			tr	Other		: pyr		110-5

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth Int	Cvd	Type TOC%	%	Grp	Frm	Age	Trb	Sample	Lithology description
2800.00								111	
		8.30	50	Sh/Clst				111-1	gy blk to drk gy, calc, carb, slt, mic
	cvd		20	Sh/Clst				111-3	gn gy to lt gy, calc, pyr
	cvd		10	Sh/Clst				111-2	gy red to m brn, calc
	cvd		10	Ca				111-4	w, pl red, carb, chk
	cvd		10	Ca				111-5	w, carb, slt, glauc
			tr	Other				111-6	pyr
			tr	Cont				111-7	prp
2820.00								112	
		10.36	80	Sh/Clst				112-1	gy blk to drk gy, calc, carb, slt, mic
	cvd		10	Sh/Clst				112-3	gn gy to lt gy, calc, pyr
	cvd		5	Sh/Clst				112-2	gy red to m brn, calc
	cvd		5	Ca				112-4	w, chk
			tr	Cont				112-5	prp
2840.00								113	
		8.56	95	Sh/Clst				113-1	gy blk, brn gy, drk gy, calc, carb, slt, mic
	cvd		5	Ca				113-2	w to pl red, chk
	cvd		tr	Ca				113-3	w, carb, slt, glauc
	cvd		tr	Sh/Clst				113-4	gy red, calc
2860.00								114	
		1.24	60	Ca				114-1	brn blk, slt, dol
		7.70	35	Sh/Clst				114-2	blk to gy blk, brn blk, m gy to m drk gy, chk
	cvd		5	Sh/Clst				114-3	gy red, gn gy, lt gy, calc
	cvd		tr	Ca				114-4	w, chk
			tr	Cont				114-5	prp, fib, tar-ad

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth		Type		Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description				
2880.00								115
		1.24	90	Sh/Clst:		blk to gy blk, brn blk to m gy, calc, carb, slt, mic		115-1
	cvd		5	Ca	:	w, chk		115-2
	cvd		5	Sh/Clst:		gy red, gn gy, lt gy, calc		115-3
			tr	Cont	:	prp, fib, tar-ad		115-4
2900.00								116
		2.44	90	Sh/Clst:		blk to gy blk, brn blk to m drk gy, calc, carb, slt, mic		116-1
			5	Sh/Clst:		lt gn gy, lt ol gy, drk gn gy, calc		116-2
	cvd		5	Ca	:	w, chk		116-3
	cvd		tr	Sh/Clst:		gy red, calc		116-4
2920.00								117
		2.75	80	Sh/Clst:		blk to gy blk, brn blk to m drk gy, calc, carb, slt, mic		117-1
	cvd		10	Sh/Clst:		gy pu, gn gy, lt bl gy, calc		117-3
	cvd		5	Sh/Clst:		gy red, calc		117-2
	cvd		5	Ca	:	w, chk		117-4
			tr	Cont	:	prp, fib, tar-ad		117-5
2940.00								118
			80	S/Sst	:	brn gy, lt gy, m gy, calc, carb, pyr, mic, glauc, f, cem, l		118-1
		0.70	20	Sh/Clst:		blk, lt gy to m gy, calc, carb, pyr, slt		118-2
			tr	Ca	:	brn blk, carb, slt, dol		118-3
	cvd		tr	Sh/Clst:		gy red, gn gy, v col		118-4

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth		Type		Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description				
2960.00								119
		0.21	90	S/Sst	:	lt gy, lt brn gy, m gy, calc, carb, pyr, mic, glauc, f, cem		119-1
		3.65	5	Sh/Clst	:	gy blk to m gy, calc, carb		119-2
			5	Sh/Clst	:	gn gy to lt gy, calc		119-3
	cvd		tr	Sh/Clst	:	gy red		119-4
			tr	Sh/Clst	:	lt ol brn, calc		119-5
			tr	Cont	:	prp		119-6
2980.00								120
			90	S/Sst	:	lt gy, lt brn gy, m gy, calc, carb, pyr, mic, glauc, f, cem		120-1
		0.89	10	Sh/Clst	:	gy blk to lt gy, calc, carb		120-2
			tr	Ca	:	brn blk, slt, cly, dol		120-3
3000.00								121
		0.21	100	S/Sst	:	gy, pyr, mic, glauc, f, l		121-1
			tr	Sh/Clst	:	gy blk, brn blk, m drk gy, calc, carb		121-2
			tr	Sh/Clst	:	gn gy to lt gy, calc		121-3
			tr	Cont	:	prp		121-4
3020.00								122
		0.18	100	S/Sst	:	gy, mic, glauc, l		122-1
			tr	Sh/Clst	:	blk to lt gy, calc, carb, slt, glauc		122-2
3040.00								123
		68.23	100	Sh/Clst	:	blk to brn blk, carb		123-1

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth Int	Depth Cvd	Type TOC%	%	Grp	Frm	Age	Trb	Sample	Lithology description
3060.00								124	
		44.56	90	Sh/Clst				124-1	blk to brn blk, carb, pyr
		2.23	10	Sh/Clst				124-2	gy blk, brn gy, ol gy to ol blk, drk gn gy, wx
			tr	Sh/Clst				124-3	gy pi to lt ol gy, calc
3080.00								125	
		0.03	90	S/Sst				125-1	gy, calc, carb, glauc
		8.67	5	Sh/Clst				125-2	gy blk, brn gy, ol gy to ol blk, drk gn gy, wx
			5	Sh/Clst				125-3	blk to brn blk, carb, pyr
			tr	Sh/Clst				125-4	gn gy, slt
3100.00								126	
			100	S/Sst				126-1	w to lt brn, carb, glauc, cem, l, kln
			tr	Sh/Clst				126-2	gy blk, brn gy, ol gy to ol blk, drk gn gy, wx
			tr	Sh/Clst				126-3	blk to brn blk, carb, pyr
			tr	Sh/Clst				126-4	gn gy
3120.00								127	
		0.11	50	S/Sst				127-1	w, brn gy, m brn, calc, carb, cly, f, cem, lam
			30	Sh/Clst				127-2	blk to gy blk, carb, slt
		19.11	20	Sh/Clst				127-6	gy red, brn gy, brn blk, carb
			tr	Sh/Clst				127-3	gn gy to ol gy, wx
			tr	Other				127-4	pyr
			tr	Kaolin				127-5	w
3140.00								128	
		1.60	85	Sh/Clst				128-1	blk, gy blk, brn blk, carb, slt, mic
			10	Sh/Clst				128-2	gy brn, red blk, m brn, pl brn
			5	Kaolin				128-3	w
			tr	S/Sst				128-4	w, l
			tr	Sh/Clst				128-5	gn gy, ol gy, lt gy

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 1 : Lithology description for well NOCS 16/10-1

Depth unit of measure: m

Depth		Type		Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description				
3151.00								129
		1.15	70	Sh/Clst: blk to m drk gy, carb, mic				129-1
		0.86	20	Sh/Clst: gy brn, gy red, brn blk, carb				129-2
			5	Sh/Clst: ol gy to lt ol gy, calc				129-3
			5	Kaolin : w				129-5
			tr	S/Sst : w, l				129-4

List of abbreviations used for lithology description
(sorted alphabetically).

and	= angular
bar	= Baryte (mud additive)
bl	= blue/blueish
blk	= black
br	= brittle
brn	= brown/brownish
Ca	= Carbonate (Limestone/Chalk/Dolomite/Siderite)
calc	= calcareous
carb	= carbonaceous
cem	= cement used as additive (under "Cont") or to describe cemented S/Sst
Chert	= Chert
chk	= Chalk/chalky
cly	= clayey/shaley
cngl	= conglomeratic
Coal	= Coal
Coal-ad	= Coal-like additive (e.g. chromlignosulfonate)
Congl	= Conglomerate
Cont	= Contamination
crs	= coarse grained
cvd	= caved
dd	= dried drilling mud
dol	= Dolomite/dolomitic
drk	= dark (colour)
dsk	= dusky (colour)
evap	= Salt/Gypsum/Halite (natural "Other" or as additive "Cont")
f	= fine grained
fib	= fibres (mud additive/contamination)
fis	= fissile
fos	= fossiliferous
glauc	= Glauconite/glauconitic
gn	= green/greenish
gy	= grey/greyish
hd	= hard
ign	= Igneous (material derived from igneous source)
int	= percentage interpreted from logs
Kaolin	= Kaolin(ite)
kln	= kaolinitic
l	= loose
lam	= laminated/laminae
lt	= light (colour)
m	= medium (colour or grain size)

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

List of abbreviations used for lithology description
(sorted alphabetically).

Marl	= Marl (calcareous claystone/mudstone)
mic	= micaceous
Mica-ad	= Mica used as mud additive
mrl	= marly
No Mat.	= No material left after washing
ns	= nutshells (mud additive)
ol	= olive
ool	= Oolite/oolitic
or	= orange
Other	= Other lithology/mineral, specified after this word
pi	= pink/pinkish
pl	= pale (colour)
prp	= paint/rust/plastic contamination/additives
pu	= purple
pyr	= Pyrite/pyritic
red	= red/reddish
rnd	= round/rounded
s	= sandy
S/Sst	= Sand and/or sandstone
Sh/Clst	= Shale and/or claystone
sid	= Siderite/sideritic
sil	= siliceous/cherty
slt	= silty
Sltst	= Siltstone
st	= stained (with natural oil or oil-like additive)
tar-ad	= Tar-like additive (e.g. "Black Magic")
Tuff	= Tuff
tuff	= tuffaceous
v col	= Various colours
w	= white
wx	= waxy
y	= yellow/yellowish

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 2a: C1 to C7 hydrocarbons in HEADSPACE gas
(ul gas/kg rock)

Project: NORSK AGIP
Well: NOCS 16/10-1
Depth unit of measure: m

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wetness	iC4/nC4
520.00	4926	53	5	1	1	1623	4986	60	1.2	1.00
550.00	26478	74	13	7	4	30	26576	98	0.4	1.75
580.00	1735	7	2	1	1	14	1746	11	0.6	1.00
610.00	1352	4	1	1	-	13	1358	6	0.4	-
640.00	1120	5	1	1	-	4	1127	7	0.6	-
670.00	1001	6	1	1	-	7	1009	8	0.8	-
700.00	212083	1086	93	67	18	9398	213347	1264	0.6	3.72
730.00	28811	272	14	4	1	2830	29102	291	1.0	4.00
760.00	117673	289	38	11	14	7351	118025	352	0.3	0.79
790.00	247	1	-	-	-	13	248	1	0.4	-
820.00	379	2	-	-	-	8	381	2	0.5	-
850.00	482	3	-	-	-	2	485	3	0.6	-
880.00	-	-	-	-	-	-	-	-	-	-
910.00	15628	122	9	3	4	459	15766	138	0.9	0.75
940.00	35403	424	129	-	41	3327	35997	594	1.7	-
970.00	33424	424	97	-	28	2512	33973	549	1.6	-
1000.00	1229	3	-	-	-	22	1232	3	0.2	-
1030.00	18033	410	20	-	6	4395	18469	436	2.4	-
1060.00	89	1	1	-	-	202	91	2	2.2	-
1090.00	24465	206	49	7	10	1764	24737	272	1.1	0.70
1120.00	19276	164	82	11	9	689	19542	266	1.4	1.22
1150.00	12940	148	60	7	7	485	13162	222	1.7	1.00
1180.00	5695	102	47	6	4	658	5854	159	2.7	1.50

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 2a: C1 to C7 hydrocarbons in HEADSPACE gas
(ul gas/kg rock)

Project: NORSK AGIP
Well: NOCS 16/10-1
Depth unit of measure: m

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wetness	iC4/nC4
1210.00	8455	77	52	9	6	133	8599	144	1.7	1.50
1240.00	19903	237	250	71	43	6825	20504	601	2.9	1.65
1270.00	27433	353	319	136	47	1003	28288	855	3.0	2.89
1300.00	22281	292	277	167	44	1293	23061	780	3.4	3.80
1330.00	-	-	-	-	-	-	-	-	-	-
1360.00	90874	918	550	434	109	5180	92885	2011	2.2	3.98
1390.00	17137	202	125	77	23	1989	17564	427	2.4	3.35
1420.00	23827	386	220	119	40	1235	24592	765	3.1	2.97
1440.00	4942	143	134	47	17	108	5283	341	6.5	2.76
1460.00	3345	64	57	18	7	26	3491	146	4.2	2.57
1480.00	857	14	12	4	2	7	889	32	3.6	2.00
1500.00	12210	249	206	79	48	527	12792	582	4.6	1.65
1520.00	3606	70	88	39	19	103	3822	216	5.7	2.05
1540.00	3841	134	167	70	35	581	4247	406	9.6	2.00
1560.00	8908	182	182	73	33	403	9378	470	5.0	2.21
1580.00	44	1	1	-	-	-	46	2	4.4	-
1600.00	1264	49	34	9	4	22	1360	96	7.1	2.25
1620.00	4	1	2	-	1	52	8	4	50.0	-
1640.00	5417	192	178	65	35	364	5887	470	8.0	1.86
1660.00	5539	177	144	50	27	389	5937	398	6.7	1.85
1680.00	13076	377	331	107	58	697	13949	873	6.3	1.84
1700.00	578	18	11	3	3	59	613	35	5.7	1.00
1720.00	3412	153	118	36	19	137	3738	326	8.7	1.89

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 2a: C1 to C7 hydrocarbons in HEADSPACE gas
(ul gas/kg rock)

Project: NORSK AGIP
Well: NOCS 16/10-1
Depth unit of measure: m

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4/nC4
1740.00	1152	48	39	13	7	96	1259	107	8.5	1.86
1760.00	3403	78	65	22	11	90	3579	176	4.9	2.00
1780.00	1679	62	60	21	11	101	1833	154	8.4	1.91
1800.00	3666	128	97	30	16	210	3937	271	6.9	1.88
1820.00	8340	386	223	51	23	185	9023	683	7.6	2.22
1840.00	4124	215	115	26	11	73	4491	367	8.2	2.36
1860.00	6545	377	186	44	18	128	7170	625	8.7	2.44
1880.00	8153	605	295	74	30	184	9157	1004	11.0	2.47
1900.00	5461	470	268	87	34	183	6320	859	13.6	2.56
1920.00	2790	136	84	28	11	84	3049	259	8.5	2.55
1940.00	11805	1066	443	135	52	375	13501	1696	12.6	2.60
1960.00	5444	505	190	58	22	194	6219	775	12.5	2.64
1980.00	4369	661	353	107	37	207	5527	1158	21.0	2.89
2000.00	2988	1174	489	102	33	129	4786	1798	37.6	3.09
2020.00	1135	342	154	26	11	37	1668	533	32.0	2.36
2040.00	2962	589	246	34	26	91	3857	895	23.2	1.31
2060.00	1228	421	307	37	49	77	2042	814	39.9	0.76
2080.00	981	359	370	55	99	51	1864	883	47.4	0.56
2100.00	1574	326	474	95	220	257	2689	1115	41.5	0.43
2120.00	914	490	704	127	312	541	2547	1633	64.1	0.41
2140.00	4732	2545	2008	221	511	534	10017	5285	52.8	0.43
2160.00	862	565	578	71	108	53	2184	1322	60.5	0.66
2180.00	1977	792	742	95	149	96	3755	1778	47.4	0.64

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 2a: C1 to C7 hydrocarbons in HEADSPACE gas
(ul gas/kg rock)

Project: NORSK AGIP
Well: NOCS 16/10-1
Depth unit of measure: m

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wetness	iC4/nC4
2200.00	832	226	256	40	84	320	1438	606	42.1	0.48
2220.00	724	132	143	27	58	164	1084	360	33.2	0.47
2240.00	792	366	351	54	111	234	1674	882	52.7	0.49
2260.00	74	14	17	5	9	16	119	45	37.8	0.56
2280.00	405	53	92	46	75	194	671	266	39.6	0.61
2300.00	234	20	16	5	8	78	283	49	17.3	0.63
2320.00	32	7	8	3	4	23	54	22	40.7	0.75
2340.00	76	13	13	3	4	82	109	33	30.3	0.75
2360.00	94	10	10	3	5	29	122	28	23.0	0.60
2380.00	92	4	3	1	1	3	101	9	8.9	1.00
2400.00	120	9	8	2	3	11	142	22	15.5	0.67
2420.00	72	11	12	3	5	13	103	31	30.1	0.60
2440.00	193	37	18	6	7	316	261	68	26.1	0.86
2460.00	135	48	30	8	9	335	230	95	41.3	0.89
2480.00	9	2	2	-	1	6	14	5	35.7	-
2500.00	22	15	4	1	2	141	44	22	50.0	0.50
2520.00	35	4	4	1	1	13	45	10	22.2	1.00
2540.00	19	3	1	1	1	6	25	6	24.0	1.00
2560.00	11	1	1	-	-	1	13	2	15.4	-
2580.00	89	32	35	10	14	291	180	91	50.6	0.71
2600.00	4	1	-	-	-	2	5	1	20.0	-
2620.00	6	2	-	-	-	2	8	2	25.0	-
2640.00	30	62	18	6	10	967	126	96	76.2	0.60

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 2a: C1 to C7 hydrocarbons in HEADSPACE gas
(ul gas/kg rock)

Project: NORSK AGIP
Well: NOCS 16/10-1
Depth unit of measure: m

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 / nC4
2660.00	23	16	4	1	1	577	45	22	48.9	1.00
2680.00	-	-	-	-	-	6	-	-	-	-
2700.00	67	326	40	14	31	3349	478	411	86.0	0.45
2720.00	39	9	11	4	9	294	72	33	45.8	0.44
2740.00	9	4	5	3	6	24	27	18	66.7	0.50
2760.00	61	30	54	27	64	1382	236	175	74.2	0.42
2780.00	920	572	1509	331	984	2086	4316	3396	78.7	0.34
2800.00	2	1	3	1	2	32	9	7	77.8	0.50
2820.00	1	-	-	-	-	1	1	-	-	-
2840.00	4770	4679	8345	2124	7659	10088	27577	22807	82.7	0.28
2880.00	32	66	280	47	215	688	640	608	95.0	0.22
2900.00	1	2	7	1	7	41	18	17	94.4	0.14
2920.00	4	3	10	2	12	173	31	27	87.1	0.17
2940.00	9	2	6	1	5	185	23	14	60.9	0.20
2960.00	527	219	313	56	128	321	1243	716	57.6	0.44
2980.00	874	297	651	134	442	1375	2398	1524	63.6	0.30
3000.00	65	26	47	10	30	84	178	113	63.5	0.33
3020.00	8	4	11	2	7	17	32	24	75.0	0.29
3040.00	45290	7372	5158	518	790	496	59128	13838	23.4	0.66
3060.00	14859	3851	3244	333	456	289	22743	7884	34.7	0.73
3080.00	7794	1680	1160	91	146	97	10871	3077	28.3	0.62
3100.00	713	169	155	-	16	39	1053	340	32.3	-
3120.00	1945	933	1211	157	270	307	4516	2571	56.9	0.58

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 2a: C1 to C7 hydrocarbons in HEADSPACE gas
(ul gas/kg rock)

Project: NORSK AGIP
Well: NOCS 16/10-1
Depth unit of measure: m

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4/nC4
3140.00	133	40	36	4	6	4	219	86	39.3	0.67
3151.00	143	34	29	3	4	4	213	70	32.9	0.75

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 2b: C1 to C7 hydrocarbons in CUTTINGS gas
(ul gas/kg rock)

Project: NORSK AGIP
Well: NOCS 16/10-1
Depth unit of measure: m

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 / nC4
520.00	93	2	3	1	3	110	102	9	8.8	0.33
550.00	302	12	5	3	3	113	325	23	7.1	1.00
580.00	429	24	9	-	7	132	469	40	8.5	-
610.00	830	116	87	-	108	4771	1141	311	27.3	-
640.00	895	64	45	-	85	2103	1089	194	17.8	-
670.00	427	117	106	-	128	2467	778	351	45.1	-
700.00	3447	219	139	-	234	6181	4039	592	14.7	-
730.00	1210	70	61	-	95	1922	1436	226	15.7	-
760.00	734	228	215	-	336	5593	1513	779	51.5	-
790.00	398	124	129	-	200	4455	851	453	53.2	-
820.00	201	49	49	-	83	1858	382	181	47.4	-
850.00	545	50	47	-	97	6825	739	194	26.3	-
880.00	112	27	31	-	50	2350	220	108	49.1	-
910.00	203	67	71	-	122	5056	463	260	56.2	-
940.00	445	70	44	-	57	2492	616	171	27.8	-
970.00	85	24	26	-	35	824	170	85	50.0	-
1000.00	85	34	41	-	56	1284	216	131	60.7	-
1030.00	171	71	75	-	119	2520	436	265	60.8	-
1060.00	90	34	35	-	56	1448	215	125	58.1	-
1090.00	110	48	52	-	76	1440	286	176	61.5	-
1120.00	107	37	40	-	63	1349	247	140	56.7	-
1150.00	171	48	91	45	99	3100	454	283	62.3	0.45
1180.00	158	51	110	63	93	2814	475	317	66.7	0.68

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 2b: C1 to C7 hydrocarbons in CUTTINGS gas
(ul gas/kg rock)

Project: NORSK AGIP
Well: NOCS 16/10-1
Depth unit of measure: m

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4/nC4
1210.00	302	63	219	174	156	2436	914	612	67.0	1.12
1240.00	40	11	20	12	10	74	93	53	57.0	1.20
1270.00	99	22	62	45	40	223	268	169	63.1	1.13
1300.00	76	15	35	42	15	161	183	107	58.5	2.80
1330.00	90	32	77	28	86	481	313	223	71.3	0.33
1360.00	60	15	16	19	10	195	120	60	50.0	1.90
1390.00	56	14	16	16	9	153	111	55	49.6	1.78
1420.00	52	15	32	30	32	208	161	109	67.7	0.94
1440.00	60	14	37	27	17	132	155	95	61.3	1.59
1460.00	39	11	27	19	14	107	110	71	64.6	1.36
1480.00	64	16	50	34	38	214	202	138	68.3	0.89
1500.00	49	25	97	34	66	192	271	222	81.9	0.52
1520.00	24	8	32	32	42	279	138	114	82.6	0.76
1540.00	29	9	25	23	19	277	105	76	72.4	1.21
1560.00	39	13	31	25	21	206	129	90	69.8	1.19
1580.00	80	26	63	41	32	286	242	162	66.9	1.28
1600.00	99	32	83	47	33	264	294	195	66.3	1.42
1620.00	3	2	1	-	2	2	8	5	62.5	-
1640.00	50	12	28	18	16	129	124	74	59.7	1.13
1660.00	50	12	32	22	18	157	134	84	62.7	1.22
1680.00	48	13	32	21	17	139	131	83	63.4	1.24
1700.00	101	35	95	52	36	216	319	218	68.3	1.44
1720.00	77	23	65	38	28	199	231	154	66.7	1.36

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 2b: C1 to C7 hydrocarbons in CUTTINGS gas
(ul gas/kg rock)

Project: NORSK AGIP
Well: NOCS 16/10-1
Depth unit of measure: m

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4/nC4
1740.00	693	45	63	39	28	246	868	175	20.2	1.39
1760.00	354	35	54	37	27	211	507	153	30.2	1.37
1780.00	278	31	63	42	29	259	443	165	37.3	1.45
1800.00	188	34	86	52	35	236	395	207	52.4	1.49
1820.00	359	119	246	117	68	338	909	550	60.5	1.72
1840.00	445	123	222	102	57	248	949	504	53.1	1.79
1860.00	303	160	282	123	64	269	932	629	67.5	1.92
1880.00	287	173	255	111	56	292	882	595	67.5	1.98
1900.00	108	77	145	85	44	244	459	351	76.5	1.93
1920.00	356	107	179	93	45	195	780	424	54.4	2.07
1940.00	219	152	208	115	53	249	747	528	70.7	2.17
1960.00	141	126	191	109	50	228	617	476	77.2	2.18
1980.00	87	76	137	81	38	214	419	332	79.2	2.13
2000.00	106	247	355	138	58	224	904	798	88.3	2.38
2020.00	71	174	300	106	52	163	703	632	89.9	2.04
2040.00	117	197	301	85	83	183	783	666	85.1	1.02
2060.00	64	81	241	66	138	150	590	526	89.2	0.48
2080.00	45	68	273	79	219	207	684	639	93.4	0.36
2100.00	42	35	165	69	233	556	544	502	92.3	0.30
2120.00	60	115	579	256	850	5008	1860	1800	96.8	0.30
2140.00	165	737	2245	571	1689	3606	5407	5242	97.0	0.34
2160.00	162	764	2258	469	1183	1647	4836	4674	96.7	0.40
2180.00	93	187	627	148	375	666	1430	1337	93.5	0.39

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GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 2b: C1 to C7 hydrocarbons in CUTTINGS gas
(ul gas/kg rock)

Project: NORSK AGIP
Well: NOCS 16/10-1
Depth unit of measure: m

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4/nC4
2200.00	49	19	48	17	65	294	198	149	75.3	0.26
2220.00	57	25	48	13	54	212	197	140	71.1	0.24
2240.00	68	65	230	83	253	910	699	631	90.3	0.33
2260.00	44	18	43	25	82	502	212	168	79.3	0.30
2280.00	41	23	31	27	68	5562	190	149	78.4	0.40
2300.00	42	15	10	2	7	186	76	34	44.7	0.29
2320.00	49	17	12	2	10	125	90	41	45.6	0.20
2340.00	41	16	12	2	9	83	80	39	48.8	0.22
2360.00	32	12	8	-	6	44	58	26	44.8	-
2380.00	35	14	10	1	7	47	67	32	47.8	0.14
2400.00	44	17	12	2	10	77	85	41	48.2	0.20
2420.00	35	13	9	2	6	64	65	30	46.2	0.33
2440.00	44	15	10	2	7	71	78	34	43.6	0.29
2460.00	35	15	10	-	8	44	68	33	48.5	-
2480.00	43	17	11	-	8	37	79	36	45.6	-
2500.00	43	17	12	-	9	45	81	38	46.9	-
2520.00	55	16	11	2	8	43	92	37	40.2	0.25
2540.00	29	11	7	1	5	30	53	24	45.3	0.20
2560.00	33	12	8	-	7	40	60	27	45.0	-
2580.00	12	4	2	1	1	34	20	8	40.0	1.00
2600.00	12	3	1	1	1	11	18	6	33.3	1.00
2620.00	21	5	2	1	1	11	30	9	30.0	1.00
2640.00	15	5	3	1	1	20	25	10	40.0	1.00

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GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 2b: C1 to C7 hydrocarbons in CUTTINGS gas
(ul gas/kg rock)

Project: NORSK AGIP
Well: NOCS 16/10-1
Depth unit of measure: m

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 / nC4
2660.00	22	7	4	2	1	20	36	14	38.9	2.00
2680.00	2	1	-	-	-	7	3	1	33.3	-
2700.00	1	1	-	-	-	6	2	1	50.0	-
2720.00	53	16	10	6	5	30	90	37	41.1	1.20
2740.00	81	28	15	10	11	62	145	64	44.1	0.91
2760.00	42	12	7	4	4	32	69	27	39.1	1.00
2780.00	31	22	177	73	348	762	651	620	95.2	0.21
2800.00	85	153	1439	667	2677	7675	5021	4936	98.3	0.25
2820.00	248	871	6158	1941	6308	10089	15526	15278	98.4	0.31
2840.00	192	1155	9698	2491	9298	14321	22834	22642	99.2	0.27
2880.00	72	94	1027	495	1994	6744	3682	3610	98.0	0.25
2900.00	64	50	476	247	1065	4845	1902	1838	96.6	0.23
2920.00	62	23	212	163	771	4170	1231	1169	95.0	0.21
2940.00	39	23	197	169	671	3731	1099	1060	96.5	0.25
2960.00	72	18	53	16	70	587	229	157	68.6	0.23
2980.00	90	12	31	16	69	688	218	128	58.7	0.23
3000.00	77	15	39	25	113	1072	269	192	71.4	0.22
3020.00	103	8	39	23	106	897	279	176	63.1	0.22
3040.00	27404	17302	16417	1608	2450	1273	65181	37777	58.0	0.66
3060.00	6817	7213	9358	1123	1625	966	26136	19319	73.9	0.69
3080.00	1194	1584	2259	307	436	276	5780	4586	79.3	0.70
3100.00	125	237	384	55	86	69	887	762	85.9	0.64
3120.00	21	47	80	11	20	20	179	158	88.3	0.55

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GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 2b: C1 to C7 hydrocarbons in CUTTINGS gas
(ul gas/kg rock)

Project: NORSK AGIP
Well: NOCS 16/10-1
Depth unit of measure: m

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4/nC4
3140.00	428	566	1040	149	382	587	2565	2137	83.3	0.39
3151.00	307	485	1034	163	416	759	2405	2098	87.2	0.39

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GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 2c: C1 to C7 hydrocarbons in HEADSPACE and CUTTINGS gas
(ul gas/kg rock)

Project: NORSK AGIP
Well: NOCS 16/10-1
Depth unit of measure: m

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 / nC4
520.00	5019	55	8	2	4	1733	5088	69	1.4	0.50
550.00	26780	86	18	10	7	143	26901	121	0.5	1.43
580.00	2164	31	11	1	8	146	2215	51	2.3	0.13
610.00	2182	120	88	1	108	4784	2499	317	12.7	0.01
640.00	2015	69	46	1	85	2107	2216	201	9.1	0.01
670.00	1428	123	107	1	128	2474	1787	359	20.1	0.01
700.00	215530	1305	232	67	252	15579	217386	1856	0.9	0.27
730.00	30021	342	75	4	96	4752	30538	517	1.7	0.04
760.00	118407	517	253	11	350	12944	119538	1131	1.0	0.03
790.00	645	125	129	-	200	4468	1099	454	41.3	-
820.00	580	51	49	-	83	1866	763	183	24.0	-
850.00	1027	53	47	-	97	6827	1224	197	16.1	-
880.00	112	27	31	-	50	2350	220	108	49.1	-
910.00	15831	189	80	3	126	5515	16229	398	2.5	0.02
940.00	35848	494	173	-	98	5819	36613	765	2.1	-
970.00	33509	448	123	-	63	3336	34143	634	1.9	-
1000.00	1314	37	41	-	56	1306	1448	134	9.3	-
1030.00	18204	481	95	-	125	6915	18905	701	3.7	-
1060.00	179	35	36	-	56	1650	306	127	41.5	-
1090.00	24575	254	101	7	86	3204	25023	448	1.8	0.08
1120.00	19383	201	122	11	72	2038	19789	406	2.1	0.15
1150.00	13111	196	151	52	106	3585	13616	505	3.7	0.49

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GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 2c: C1 to C7 hydrocarbons in HEADSPACE and CUTTINGS gas
(ul gas/kg rock)

Project: NORSK AGIP
Well: NOCS 16/10-1
Depth unit of measure: m

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 / nC4
1180.00	5853	153	157	69	97	3472	6329	476	7.5	0.71
1210.00	8757	140	271	183	162	2569	9513	756	8.0	1.13
1240.00	19943	248	270	83	53	6899	20597	654	3.2	1.57
1270.00	27532	375	381	181	87	1226	28556	1024	3.6	2.08
1300.00	22357	307	312	209	59	1454	23244	887	3.8	3.54
1330.00	90	32	77	28	86	481	313	223	71.3	0.33
1360.00	90934	933	566	453	119	5375	93005	2071	2.2	3.81
1390.00	17193	216	141	93	32	2142	17675	482	2.7	2.91
1420.00	23879	401	252	149	72	1443	24753	874	3.5	2.07
1440.00	5002	157	171	74	34	240	5438	436	8.0	2.18
1460.00	3384	75	84	37	21	133	3601	217	6.0	1.76
1480.00	921	30	62	38	40	221	1091	170	15.6	0.95
1500.00	12259	274	303	113	114	719	13063	804	6.2	0.99
1520.00	3630	78	120	71	61	382	3960	330	8.3	1.16
1540.00	3870	143	192	93	54	858	4352	482	11.1	1.72
1560.00	8947	195	213	98	54	609	9507	560	5.9	1.81
1580.00	124	27	64	41	32	286	288	164	56.9	1.28
1600.00	1363	81	117	56	37	286	1654	291	17.6	1.51
1620.00	7	3	3	-	3	54	16	9	56.3	-
1640.00	5467	204	206	83	51	493	6011	544	9.1	1.63
1660.00	5589	189	176	72	45	546	6071	482	7.9	1.60
1680.00	13124	390	363	128	75	836	14080	956	6.8	1.71

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GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 2c: C1 to C7 hydrocarbons in HEADSPACE and CUTTINGS gas
(ul gas/kg rock)

Project: NORSK AGIP
Well: NOCS 16/10-1
Depth unit of measure: m

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4/nC4
1700.00	679	53	106	55	39	275	932	253	27.2	1.41
1720.00	3489	176	183	74	47	336	3969	480	12.1	1.57
1740.00	1845	93	102	52	35	342	2127	282	13.3	1.49
1760.00	3757	113	119	59	38	301	4086	329	8.1	1.55
1780.00	1957	93	123	63	40	360	2276	319	14.0	1.58
1800.00	3854	162	183	82	51	446	4332	478	11.0	1.61
1820.00	8699	505	469	168	91	523	9932	1233	12.4	1.85
1840.00	4569	338	337	128	68	321	5440	871	16.0	1.88
1860.00	6848	537	468	167	82	397	8102	1254	15.5	2.04
1880.00	8440	778	550	185	86	476	10039	1599	15.9	2.15
1900.00	5569	547	413	172	78	427	6779	1210	17.9	2.21
1920.00	3146	243	263	121	56	279	3829	683	17.8	2.16
1940.00	12024	1218	651	250	105	624	14248	2224	15.6	2.38
1960.00	5585	631	381	167	72	422	6836	1251	18.3	2.32
1980.00	4456	737	490	188	75	421	5946	1490	25.1	2.51
2000.00	3094	1421	844	240	91	353	5690	2596	45.6	2.64
2020.00	1206	516	454	132	63	200	2371	1165	49.1	2.10
2040.00	3079	786	547	119	109	274	4640	1561	33.6	1.09
2060.00	1292	502	548	103	187	227	2632	1340	50.9	0.55
2080.00	1026	427	643	134	318	258	2548	1522	59.7	0.42
2100.00	1616	361	639	164	453	813	3233	1617	50.0	0.36
2120.00	974	605	1283	383	1162	5549	4407	3433	77.9	0.33

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 2c: C1 to C7 hydrocarbons in HEADSPACE and CUTTINGS gas
(ul gas/kg rock)

Project: NORSK AGIP
Well: NOCS 16/10-1
Depth unit of measure: m

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4/nC4
2140.00	4897	3282	4253	792	2200	4140	15424	10527	68.3	0.36
2160.00	1024	1329	2836	540	1291	1700	7020	5996	85.4	0.42
2180.00	2070	979	1369	243	524	762	5185	3115	60.1	0.46
2200.00	881	245	304	57	149	614	1636	755	46.2	0.38
2220.00	781	157	191	40	112	376	1281	500	39.0	0.36
2240.00	860	431	581	137	364	1144	2373	1513	63.8	0.38
2260.00	118	32	60	30	91	518	331	213	64.4	0.33
2280.00	446	76	123	73	143	5756	861	415	48.2	0.51
2300.00	276	35	26	7	15	264	359	83	23.1	0.47
2320.00	81	24	20	5	14	148	144	63	43.8	0.36
2340.00	117	29	25	5	13	165	189	72	38.1	0.38
2360.00	126	22	18	3	11	73	180	54	30.0	0.27
2380.00	127	18	13	2	8	50	168	41	24.4	0.25
2400.00	164	26	20	4	13	88	227	63	27.8	0.31
2420.00	107	24	21	5	11	77	168	61	36.3	0.45
2440.00	237	52	28	8	14	387	339	102	30.1	0.57
2460.00	170	63	40	8	17	379	298	128	43.0	0.47
2480.00	52	19	13	-	9	43	93	41	44.1	-
2500.00	65	32	16	1	11	186	125	60	48.0	0.09
2520.00	90	20	15	3	9	56	137	47	34.3	0.33
2540.00	48	14	8	2	6	36	78	30	38.5	0.33
2560.00	44	13	9	-	7	41	73	29	39.7	-

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GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 2c: C1 to C7 hydrocarbons in HEADSPACE and CUTTINGS gas
(ul gas/kg rock)

Project: NORSK AGIP
Well: NOCS 16/10-1
Depth unit of measure: m

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4/nC4
2580.00	101	36	37	11	15	325	200	99	49.5	0.73
2600.00	16	4	1	1	1	13	23	7	30.4	1.00
2620.00	27	7	2	1	1	13	38	11	29.0	1.00
2640.00	45	67	21	7	11	987	151	106	70.2	0.64
2660.00	45	23	8	3	2	597	81	36	44.4	1.50
2680.00	2	1	-	-	-	13	3	1	33.3	-
2700.00	68	327	40	14	31	3355	480	412	85.8	0.45
2720.00	92	25	21	10	14	324	162	70	43.2	0.71
2740.00	90	32	20	13	17	86	172	82	47.7	0.76
2760.00	103	42	61	31	68	1414	305	202	66.2	0.46
2780.00	951	594	1686	404	1332	2848	4967	4016	80.9	0.30
2800.00	87	154	1442	668	2679	7707	5030	4943	98.3	0.25
2820.00	249	871	6158	1941	6308	10090	15527	15278	98.4	0.31
2840.00	4962	5834	18043	4615	16957	24409	50411	45449	90.2	0.27
2880.00	104	160	1307	542	2209	7432	4322	4218	97.6	0.25
2900.00	65	52	483	248	1072	4886	1920	1855	96.6	0.23
2920.00	66	26	222	165	783	4343	1262	1196	94.8	0.21
2940.00	48	25	203	170	676	3916	1122	1074	95.7	0.25
2960.00	599	237	366	72	198	908	1472	873	59.3	0.36
2980.00	964	309	682	150	511	2063	2616	1652	63.2	0.29
3000.00	142	41	86	35	143	1156	447	305	68.2	0.24
3020.00	111	12	50	25	113	914	311	200	64.3	0.22

GEOLAB NOR
GEOCHEMICAL LABORATORIES OF NORWAY A.S

Table 2c: C1 to C7 hydrocarbons in HEADSPACE and CUTTINGS gas
(ul gas/kg rock)

Project: NORSK AGIP
Well: NOCS 16/10-1
Depth unit of measure: m

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4/nC4
3040.00	72694	24674	21575	2126	3240	1769	124309	51615	41.5	0.66
3060.00	21676	11064	12602	1456	2081	1255	48879	27203	55.7	0.70
3080.00	8988	3264	3419	398	582	373	16651	7663	46.0	0.68
3100.00	838	406	539	55	102	108	1940	1102	56.8	0.54
3120.00	1966	980	1291	168	290	327	4695	2729	58.1	0.58
3140.00	561	606	1076	153	388	591	2784	2223	79.9	0.39
3151.00	450	519	1063	166	420	763	2618	2168	82.8	0.40

Table 3 : Rock-Eval table for well NOCS 16/10-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
520.00	cut	Sh/Clst: blk to drk gy	0.13	2.24	1.04	2.15	1.82	123	57	2.4	0.05	432	001-3
540.00	cut	Sh/Clst: blk to drk gy	0.03	0.05	1.00	0.05	0.68	7	147	0.1	0.38	425	002-3
560.00	cut	Sh/Clst: blk to drk gy	0.03	0.01	0.67	0.01	3.82	-	18	-	0.75	235	003-1
640.00	cut	Sh/Clst: blk to drk gy	0.05	0.07	1.34	0.05	4.69	1	29	0.1	0.42	284	007-2
760.00	cut	Sh/Clst: blk, ol gy, m gy to drk gy	0.19	0.67	2.45	0.27	2.09	32	117	0.9	0.22	421	013-2
820.00	cut	Sh/Clst: blk, ol gy, m gy to drk gy	0.22	0.90	1.18	0.76	0.87	103	136	1.1	0.20	426	016-2
840.00	cut	Sh/Clst: blk, ol gy, m gy to drk gy	0.19	0.80	1.64	0.49	0.81	99	202	1.0	0.19	419	017-2
860.00	cut	Sh/Clst: blk, ol gy, m gy to drk gy	0.20	1.33	1.40	0.95	1.02	130	137	1.5	0.13	426	018-2
880.00	cut	Sh/Clst: blk, ol gy, m gy to drk gy	0.22	1.50	0.93	1.61	1.14	132	82	1.7	0.13	426	019-2
900.00	cut	Sh/Clst: blk, ol gy, m gy to drk gy	0.19	1.50	0.97	1.55	1.16	129	84	1.7	0.11	428	020-2
920.00	cut	Sh/Clst: blk, ol gy, m gy to drk gy	0.20	1.05	1.19	0.88	1.08	97	110	1.3	0.16	413	021-2
940.00	cut	Sh/Clst: blk, ol gy, m gy to drk gy	0.22	1.19	0.76	1.57	1.08	110	70	1.4	0.16	412	022-2
960.00	cut	Sh/Clst: blk, ol gy, m gy to drk gy	0.24	1.20	0.89	1.35	1.14	105	78	1.4	0.17	408	023-2
980.00	cut	Sh/Clst: ol gy, lt gy, lt ol gy, m gy	0.26	1.47	1.10	1.34	1.05	140	105	1.7	0.15	424	024-3
1000.00	cut	Sh/Clst: ol gy to lt ol gy, m gy to m lt gy	0.25	1.81	1.34	1.35	1.30	139	103	2.1	0.12	417	025-3

Table 3 : Rock-Eval table for well NOCS 16/10-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
1020.00	cut	Sh/Clst: ol gy to lt ol gy, m gy to m lt gy	0.26	1.95	1.39	1.40	1.38	141	101	2.2	0.12	426	026-3
1040.00	cut	Sh/Clst: ol gy to lt ol gy, m gy	0.22	1.65	1.43	1.15	1.31	126	109	1.9	0.12	422	027-3
1060.00	cut	Sh/Clst: ol gy to lt ol gy, m gy	0.17	1.34	1.47	0.91	1.17	115	126	1.5	0.11	420	028-2
1080.00	cut	Sh/Clst: ol gy to lt ol gy, m gy	0.16	0.94	1.36	0.69	1.10	85	124	1.1	0.15	415	029-2
1100.00	cut	Sh/Clst: ol gy to lt ol gy, m gy	0.16	0.97	1.26	0.77	0.92	105	137	1.1	0.14	417	030-2
1120.00	cut	Ca : ol gy, m brn to drk or y	0.03	0.39	1.03	0.38	0.50	78	206	0.4	0.07	423	031-1
1140.00	cut	Ca : ol gy, m brn to drk or y	0.24	2.29	1.58	1.45	-	-	-	2.5	0.09	427	032-1
1160.00	cut	Sh/Clst: y gy to lt ol gy	0.28	3.40	1.56	2.18	1.54	221	101	3.7	0.08	425	033-2
1180.00	cut	Sh/Clst: brn blk, ol gy, lt ol gy, drk gy	0.26	5.46	2.68	2.04	3.49	156	77	5.7	0.05	427	034-2
1200.00	cut	Sh/Clst: brn blk, ol gy, lt ol gy, drk gy	0.21	6.22	3.43	1.81	4.02	155	85	6.4	0.03	427	035-2
1220.00	cut	Sh/Clst: brn gy to brn blk, ol gy to lt ol gy	0.13	4.08	2.62	1.56	2.22	184	118	4.2	0.03	418	036-2
1240.00	cut	Sh/Clst: brn gy to brn blk, ol gy to lt ol gy	0.12	2.31	0.37	6.24	2.78	83	13	2.4	0.05	424	130-1
1260.00	cut	Sh/Clst: brn gy to brn blk, ol gy to lt ol gy	0.22	5.50	3.91	1.41	4.18	132	94	5.7	0.04	421	132-1

Table 3 : Rock-Eval table for well NOCS 16/10-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
1280.00	cut	Sh/Clst: brn gy to brn blk, ol gy to lt ol gy	0.22	6.04	3.82	1.58	4.16	145	92	6.3	0.04	422	037-2
1300.00	cut	Sh/Clst: brn gy to brn blk, ol gy to lt ol gy	0.20	5.59	3.70	1.51	3.92	143	94	5.8	0.03	428	038-2
1320.00	cut	Sh/Clst: brn gy to brn blk, ol gy to lt ol gy	0.23	5.16	3.83	1.35	3.62	143	106	5.4	0.04	430	039-2
1340.00	cut	Sh/Clst: brn gy to brn blk, ol gy to lt ol gy	0.20	6.91	4.25	1.63	4.79	144	89	7.1	0.03	423	040-2
1360.00	cut	Sh/Clst: brn gy to brn blk, ol gy to lt ol gy	0.18	5.76	4.00	1.44	4.27	135	94	5.9	0.03	425	041-2
1380.00	cut	Sh/Clst: brn gy to brn blk, ol gy to lt ol gy	0.19	6.38	4.58	1.39	4.42	144	104	6.6	0.03	423	042-2
1400.00	cut	Sh/Clst: brn gy to brn blk, ol gy to lt ol gy	0.17	6.08	4.20	1.45	4.19	145	100	6.3	0.03	432	043-2
1420.00	cut	Sh/Clst: brn gy to brn blk, ol gy to lt ol gy	0.21	6.73	3.39	1.99	4.49	150	76	6.9	0.03	424	044-2
1440.00	cut	Sh/Clst: brn gy	0.12	4.59	1.78	2.58	2.98	154	60	4.7	0.03	429	045-1
1460.00	cut	Sh/Clst: brn gy	0.10	3.65	1.36	2.68	2.25	162	60	3.8	0.03	430	046-1
1480.00	cut	Sh/Clst: brn gy	0.10	3.94	1.48	2.66	2.42	163	61	4.0	0.02	430	047-1

Table 3 : Rock-Eval table for well NOCS 16/10-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
1500.00	cut	Sh/Clst: brn gy	0.08	3.41	1.42	2.40	2.12	161	67	3.5	0.02	430	048-1
1520.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.06	2.87	1.31	2.19	1.77	162	74	2.9	0.02	431	049-1
1540.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.05	2.48	1.29	1.92	1.64	151	79	2.5	0.02	431	050-1
1560.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.05	2.66	1.38	1.93	1.78	149	78	2.7	0.02	432	051-1
1580.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.03	2.54	1.05	2.42	1.74	146	60	2.6	0.01	431	052-1
1600.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.04	2.52	1.34	1.88	1.60	158	84	2.6	0.02	431	053-1
1620.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.02	2.18	1.11	1.96	1.40	156	79	2.2	0.01	434	054-1
1640.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.05	2.38	1.37	1.74	1.49	160	92	2.4	0.02	432	055-1
1660.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.07	2.77	1.24	2.23	1.62	171	77	2.8	0.02	431	056-1
1680.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.04	2.58	1.04	2.48	1.63	158	64	2.6	0.02	432	057-1
1700.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.04	3.30	1.09	3.03	1.98	167	55	3.3	0.01	432	058-1
1720.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.03	2.92	1.23	2.37	1.72	170	72	3.0	0.01	431	059-1
1740.00	cut	Ca : brn gy to brn blk, ol gy to ol blk	0.01	0.17	0.55	0.31	0.29	59	190	0.2	0.06	432	060-1
1740.00	cut	Sh/Clst: brn gy to ol gy	0.04	3.01	1.01	2.98	1.68	179	60	3.0	0.01	434	060-3
1760.00	cut	Ca : brn gy to brn blk, ol gy to ol blk	0.01	0.16	0.89	0.18	0.26	62	342	0.2	0.06	427	061-1

Table 3 : Rock-Eval table for well NOCS 16/10-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
1760.00	cut	Sh/Clst: brn gy to ol gy	0.04	2.75	0.99	2.78	1.57	175	63	2.8	0.01	432	061-3
1780.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.03	2.40	0.91	2.64	1.26	190	72	2.4	0.01	433	062-1
1800.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.03	2.50	0.84	2.98	1.51	166	56	2.5	0.01	434	063-1
1820.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.07	4.49	0.98	4.58	2.31	194	42	4.6	0.02	434	064-1
1840.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.08	5.36	2.03	2.64	2.75	195	74	5.4	0.01	431	065-1
1860.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.09	7.38	1.69	4.37	3.07	240	55	7.5	0.01	431	066-1
1880.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.05	5.00	1.95	2.56	2.22	225	88	5.1	0.01	430	067-1
1900.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.05	4.29	1.42	3.02	1.94	221	73	4.3	0.01	430	068-1
1920.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.07	4.73	1.20	3.94	2.40	197	50	4.8	0.01	433	069-1
1940.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.04	4.82	1.97	2.45	2.58	187	76	4.9	0.01	432	070-1
1960.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.06	4.83	3.76	1.28	2.44	198	154	4.9	0.01	432	071-1
1980.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.06	5.28	2.43	2.17	2.33	227	104	5.3	0.01	435	072-1
2000.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	0.04	3.82	1.12	3.41	2.48	154	45	3.9	0.01	432	073-1
2020.00	cut	Sh/Clst: brn gy to brn blk	0.04	4.09	1.02	4.01	2.84	144	36	4.1	0.01	432	133-1
2040.00	cut	Sh/Clst: brn gy to brn blk, lt brn gy	0.04	3.79	0.99	3.83	2.92	130	34	3.8	0.01	432	134-1

Table 3 : Rock-Eval table for well NOCS 16/10-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
2040.00	cut	Sh/Clst: gn gy, ol gy, lt ol gy	-	0.15	0.84	0.18	0.25	60	336	0.2	-	423	134-2
2060.00	cut	Sh/Clst: gn gy, ol gy to lt ol gy	-	0.09	0.84	0.11	0.19	47	442	0.1	-	420	074-1
2080.00	cut	Sh/Clst: brn gy, gn gy, ol blk to lt ol gy, drk gn gy	-	0.23	0.66	0.35	0.24	96	275	0.2	-	420	075-1
2100.00	cut	Sh/Clst: brn gy, gn gy, ol blk to lt ol gy, drk gn gy	0.01	0.14	0.98	0.14	0.23	61	426	0.2	0.07	421	076-1
2120.00	cut	Sh/Clst: brn gy, gn gy, ol blk to lt ol gy, drk gn gy	0.03	0.67	0.73	0.92	0.58	116	126	0.7	0.04	432	077-1
2140.00	cut	Sh/Clst: brn blk, gn gy, ol gy, lt brn gy, lt ol gy	0.09	2.90	0.57	5.09	1.32	220	43	3.0	0.03	432	078-1
2160.00	cut	Sh/Clst: brn gy, gn gy, ol gy, lt brn gy, lt ol gy, m gy	0.06	2.41	0.60	4.02	1.37	176	44	2.5	0.02	435	079-1
2180.00	cut	Sh/Clst: brn gy, gn gy, ol gy, lt brn gy, lt ol gy, m gy	0.02	0.61	0.75	0.81	0.86	71	87	0.6	0.03	432	080-1
2200.00	cut	Sh/Clst: w, gy red, brn gy, gn gy, ol gy, lt gn gy, m gy	0.01	0.09	0.57	0.16	0.21	43	271	0.1	0.10	426	081-1
2220.00	cut	Sh/Clst: w, gy red, brn gy, gn gy, ol gy, lt gn gy, m gy	-	0.12	0.41	0.29	0.06	200	683	0.1	-	483	082-1
2240.00	cut	Sh/Clst: brn gy, gn gy, ol gy, v col	0.01	0.60	0.33	1.82	0.62	97	53	0.6	0.02	431	083-1

Table 3 : Rock-Eval table for well NOCS 16/10-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
2240.00	cut	Sh/Clst: gy red, red blk	-	0.11	0.73	0.15	0.01	1100	7300	0.1	-	507	083-2
2260.00	cut	Sh/Clst: brn gy, gn gy, ol gy, v col	0.01	0.24	0.81	0.30	0.55	44	147	0.3	0.04	432	084-1
2280.00	cut	Ca : w	0.03	0.03	0.69	0.04	0.03	100	2300	0.1	0.50	412	085-1
2340.00	cut	Ca : w	-	0.07	0.44	0.16	-	-	-	0.1	-	441	088-1
2420.00	cut	Ca : w	-	0.10	0.42	0.24	-	-	-	0.1	-	412	092-1
2500.00	cut	Ca : w	-	0.02	0.63	0.03	-	-	-	-	-	327	096-1
2580.00	cut	Ca : w	-	0.01	0.24	0.04	-	-	-	-	-	-	100-1
2640.00	cut	bulk	-	0.01	0.23	0.04	-	-	-	-	-	-	103-0
2680.00	cut	Ca : w, gy pi, gn gy	-	-	0.22	-	-	-	-	-	-	-	105-1
2700.00	cut	Ca : w, gy pi, brn gy, gn gy, lt gy to m gy	-	-	0.16	-	-	-	-	-	-	-	106-1
2720.00	cut	Ca : w, gy pi, brn gy, gn gy, lt gy to m gy	-	-	0.21	-	-	-	-	-	-	-	107-1
2740.00	cut	Ca : w to m drk gy	0.09	0.04	0.29	0.14	-	-	-	0.1	0.69	382	108-1
2760.00	cut	Sh/Clst: brn gy, red gy, red blk, ol gy, m brn	-	-	0.18	-	0.01	-	1800	-	-	-	109-4
2780.00	cut	Sh/Clst: brn gy, red gy, red blk, ol gy, m brn, drk gy	0.19	2.80	0.44	6.36	2.12	132	21	3.0	0.06	432	110-2

Table 3 : Rock-Eval table for well NOCS 16/10-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
2800.00	cut	Sh/Clst: gy blk to drk gy	3.47	35.05	0.52	67.40	8.30	422	6	38.5	0.09	425	111-1
2820.00	cut	Sh/Clst: gy blk to drk gy	5.96	44.96	0.46	97.74	10.36	434	4	50.9	0.12	430	112-1
2840.00	cut	Sh/Clst: gy blk, brn gy, drk gy	4.14	38.59	0.60	64.32	8.56	451	7	42.7	0.10	424	113-1
2860.00	cut	Ca : brn blk	0.52	6.19	0.44	14.07	1.24	499	35	6.7	0.08	428	114-1
2860.00	cut	Sh/Clst: blk to gy blk, brn blk, m gy to m drk gy	3.40	33.70	0.59	57.12	7.70	438	8	37.1	0.09	425	114-2
2880.00	cut	Sh/Clst: blk to gy blk, brn blk to m gy	0.42	7.20	0.40	18.00	1.24	581	32	7.6	0.06	429	115-1
2900.00	cut	Sh/Clst: blk to gy blk, brn blk to m drk gy	0.77	10.23	0.59	17.34	2.44	419	24	11.0	0.07	429	116-1
2920.00	cut	Sh/Clst: blk to gy blk, brn blk to m drk gy	0.75	10.80	0.61	17.70	2.75	393	22	11.6	0.06	431	117-1
2940.00	cut	Sh/Clst: blk, lt gy to m gy	0.10	0.98	0.76	1.29	0.70	140	109	1.1	0.09	431	118-2
2960.00	cut	S/Sst : lt gy, lt brn gy, m gy	0.03	0.29	0.53	0.55	0.21	138	252	0.3	0.09	433	119-1
2960.00	cut	Sh/Clst: gy blk to m gy	1.06	13.22	0.64	20.66	3.65	362	18	14.3	0.07	427	119-2
2980.00	cut	Sh/Clst: gy blk to lt gy	0.14	1.29	0.83	1.55	0.89	145	93	1.4	0.10	428	120-2
3000.00	cut	S/Sst : gy	0.02	0.17	0.57	0.30	0.21	81	271	0.2	0.11	433	121-1

Table 3 : Rock-Eval table for well NOCS 16/10-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
3020.00	cut	S/Sst : gy	0.02	0.11	0.25	0.44	0.18	61	139	0.1	0.15	433	122-1
3040.00	cut	Sh/Clst: blk to brn blk	18.15	249.34	2.79	89.37	68.23	365	4	267.5	0.07	437	123-1
3060.00	cut	Sh/Clst: blk to brn blk	12.05	220.41	-	-	44.56	495	-	232.5	0.05	438	124-1
3060.00	cut	Sh/Clst: gy blk, brn gy, ol gy to ol blk, drk gn gy	0.31	2.80	0.35	8.00	2.23	126	16	3.1	0.10	441	124-2
3080.00	cut	S/Sst : gy	-	0.02	0.59	0.03	0.03	67	1967	-	-	440	125-1
3080.00	cut	Sh/Clst: gy blk, brn gy, ol gy to ol blk, drk gn gy	1.20	32.17	-	-	8.67	371	-	33.4	0.04	441	125-2
3100.00	cut	S/Sst : w to lt brn	0.04	0.04	0.63	0.06	-	-	-	0.1	0.50	-	126-1
3120.00	cut	S/Sst : w, brn gy, m brn	-	-	0.16	-	0.11	-	145	-	-	-	127-1
3120.00	cut	Sh/Clst: gy red, brn gy, brn blk	3.81	94.68	0.50	189.36	19.11	495	3	98.5	0.04	438	127-6
3140.00	cut	Sh/Clst: blk, gy blk, brn blk	0.05	0.27	0.22	1.23	1.60	17	14	0.3	0.16	465	128-1
3151.00	cut	Sh/Clst: blk to m drk gy	0.06	0.97	0.25	3.88	1.15	84	22	1.0	0.06	441	129-1
3151.00	cut	Sh/Clst: gy brn, gy red, brn blk	0.12	1.27	-	-	0.86	148	-	1.4	0.09	444	129-2

Table 4 : Visual Kerogen Composition Data for well NOCS 16/10-1

Depth unit of measure: m

Depth	Typ	Lithology	LIPT %	Amor L	LipDet	Sp/Pol	Cutic	Resin	Algae	Dinofl	Acrit	Bit L	INERT %	Fusin	Semfus	Sentdet	Micrin	Sclero	Bit I	VITR %	Telin	Colin	Vitdet	Amorv	Bitv	Smple
900.00	cut	Sh/Clst: blk, ol gy, m gy to drk gy	NDP										NDP							NDP						020-2
960.00	cut	Sh/Clst: blk, ol gy, m gy to drk gy	10		**	*				*			40		*	**				50			**	*		023-2
1000.00	cut	Sh/Clst: ol gy to lt ol gy, m gy to m lt gy	10		**	*				*			40		?	*				50			*			025-3
1060.00	cut	Sh/Clst: ol gy to lt ol gy, m gy	10		**	*							30		*	**				60			*	**		028-2
1120.00	cut	Sh/Clst: ol gy to lt ol gy, m gy	5		*					*			60		*	**				35			*			031-3
1180.00	cut	Sh/Clst: brn blk, ol gy, lt ol gy, drk gy	NDP										NDP							NDP						034-2
1240.00	cut	Sh/Clst: brn gy to brn blk, ol gy to lt ol gy	5		**	*				*			10			*				85			*	**		130-1
1300.00	cut	Sh/Clst: brn gy to brn blk, ol gy to lt ol gy	5		*								5			*				90			*	**		038-2
1360.00	cut	Sh/Clst: brn gy to brn blk, ol gy to lt ol gy	5		*	*							TR?			?				95			*	**		041-2
1420.00	cut	Sh/Clst: brn gy to brn blk, ol gy to lt ol gy	5		*	*							5			*				90			*	**		044-2

Table 4 : Visual Kerogen Composition Data for well NOCS 16/10-1

Depth unit of measure: m

Depth	Typ	Lithology	LIPT %	Amor L	Lip Det	Sp/Pol	Cut Ocl	Resin	Alga e	Dino fl	Acrit	Bit L	INERT %	Fus in	Sem Fus	Int Det	Mic rin	Scl ero	Bit I	VITR %	Tel in	Col lin	Vit Det	Amor V	Bit V	Smple
1480.00	cut	Sh/Clst: brn gy	10	*	**	*							5			*				85			**	*		047-1
1540.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	10		**	*				*			10			*				80			**	*		050-1
1600.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	15	?	**	*				*			5			*				80			**	*		053-1
1660.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	10		**	*				*			10			*				80			*	*		056-1
1720.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	5		*	*							5			*				90			**	*		059-1
1780.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	5		*	*							5			*				90			*	*		062-1
1840.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	10	?	**	*							TR			*				90			*	**		065-1
1900.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	15	*	**	*				?			5			*				80			**	*		068-1
1960.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	10	?	**	*							5			*				85			*	**		071-1
2020.00	cut	Sh/Clst: brn gy to brn blk	10	?	**	*							10	?	*	**				80			**	*		133-1
2080.00	cut	Sh/Clst: brn gy, gn gy, ol blk to lt ol gy, drk gn gy	TR		?								80	*	*	**				20			*			075-1
2140.00	cut	Sh/Clst: brn blk, gn gy, ol gy, lt brn gy, lt ol gy	30	?	**	*							40		*	**				30			*	?		078-1

Table 4 : Visual Kerogen Composition Data for well NOCS 16/10-1

Depth unit of measure: m

Depth	Typ	Lithology	LIPT %	Amor L	LipDet	Sp/Pol	Cutcl	Resin	Algae	Dinofl	Acrit	Bit L	INERT %	Fusin	Semfus	Inertd	Micrin	Sclero	Bit I	VITR %	Tellin	Colln	Vitdet	Amorv	Bitv	Smple
2200.00	cut	Sh/Clst: w, gy red, brn gy, gn gy, ol gy, lt gn gy, m gy	TR										50			*				50			*			081-1
2260.00	cut	Sh/Clst: brn gy, gn gy, ol gy, v col	TR										60			*				40			*			084-1
2720.00	cut	Ca : w, gy pi, brn gy, gn gy, lt gy to m gy	NDP										NDP							NDP						107-1
2760.00	cut	Sh/Clst: brn gy, red gy, red blk, ol gy, m brn	NDP										NDP							NDP						109-4
2780.00	cut	Sh/Clst: brn gy, red gy, red blk, ol gy, m brn, drk gy	10		*								20	*	*	**				70	*	*	**	*		110-2
2800.00	cut	Sh/Clst: gy blk to drk gy	60	**	*	*			?	*			10			*				30			*			111-1
2820.00	cut	Sh/Clst: gy blk to drk gy	60	**	*	*			?	*			10		?	*				30	?	?	*			112-1
2840.00	cut	Sh/Clst: gy blk, brn gy, drk gy	60	**	*	*			?	?			10		*	**				30			*	?		113-1
2860.00	cut	Sh/Clst: blk to gy blk, brn blk, m gy to m drk gy	50	*	**	*			?	*			20	?	*	*				30	?	?	*			114-2
2880.00	cut	Sh/Clst: blk to gy blk, brn blk to m gy	70	**	*	*				*			10	?	*	**				20	?	?	*	?		115-1

Table 4 : Visual Kerogen Composition Data for well NOCS 16/10-1

Depth unit of measure: m

Depth	Typ	Lithology	LIPT %	AmorL	LipDet	Sp/Pol	Cuticl	Resine	Algae	Dinofl	Acrit	BitL	INERT %	Fusin	SemFus	IntDet	Micrino	Sclero	BitI	VITR %	Telin	Collin	VitDet	AmorV	BitV	Smple
2900.00	cut	Sh/Clst: blk to gy blk, brn blk to m drk gy	70	**	**	*				*			15		?	*				15			*	?		116-1
2920.00	cut	Sh/Clst: blk to gy blk, brn blk to m drk gy	60	**	**	*				*	?		15		*	**				25			*	**		117-1
2940.00	cut	Sh/Clst: blk, lt gy to m gy	NDP										NDP							NDP						118-2
2960.00	cut	Sh/Clst: gy blk to m gy	60	**	**	*				?			20	*	**	**				20	?	?	*	*		119-2
3040.00	cut	Sh/Clst: blk to brn blk	25										10							65						123-1
3060.00	cut	Sh/Clst: gy blk, brn gy, ol gy to ol blk, drk gn gy	20		*	**							TR							80	*	*	**			124-2
3080.00	cut	Sh/Clst: gy blk, brn gy, ol gy to ol blk, drk gn gy	50		*	**							TR			*				50	*	*	**			125-2
3120.00	cut	Sh/Clst: gy red, brn gy, brn blk	70	?	*	*							TR			*				30	?	?	*			127-6
3140.00	cut	Sh/Clst: blk, gy blk, brn blk	0										40?							60?						128-1
3151.00	cut	Sh/Clst: gy brn, gy red, brn blk	50	?	*	**	?		*	?			TR?			?				50	*	*	**	?		129-2

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Table 5 : Thermal Maturity Data for well NOCS 16/10-1

Depth unit of measure: m

Depth	Typ	Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation	Spore Fluorescence Colour	SCI	Tmax (°C)	Sample
520.00	cut	bulk	0.30	8	0.03	3	-	-	001-0
560.00	cut	bulk	NDP	-	-	0	-	-	003-0
640.00	cut	bulk	0.30	3	0.02	2+3	-	-	007-0
720.00	cut	bulk	0.30	24	0.03	3	-	-	011-0
820.00	cut	bulk	0.34	5	0.05	3	-	-	016-0
880.00	cut	bulk	0.34	6	0.02	3+4	-	-	019-0
900.00	cut	Sh/Clst: blk, ol gy, m gy to drk gy	-	-	-	-	NDP	428	020-2
940.00	cut	bulk	NDP	-	-	3	-	-	022-0
960.00	cut	Sh/Clst: blk, ol gy, m gy to drk gy	-	-	-	-	2	408	023-2
1000.00	cut	bulk	NDP	-	-	3	-	-	025-0
1000.00	cut	Sh/Clst: ol gy to lt ol gy, m gy to m lt gy	-	-	-	-	2	417	025-3
1060.00	cut	bulk	NDP	-	-	3	-	-	028-0
1060.00	cut	Sh/Clst: ol gy to lt ol gy, m gy	-	-	-	-	2.5?	420	028-2
1120.00	cut	bulk	NDP	-	-	0	-	-	031-0

Table 5 : Thermal Maturity Data for well NOCS 16/10-1

Depth unit of measure: m

Depth	Typ	Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation	Spore Fluorescence Colour	SCI	Tmax (°C)	Sample
1120.00	cut	Sh/Clst: ol gy to lt ol gy, m gy	-	-	-	-	NDP	-	031-3
1180.00	cut	bulk	0.33	19	0.02	3	-	-	034-0
1180.00	cut	Sh/Clst: brn blk, ol gy, lt ol gy, drk gy	-	-	-	-	NDP	427	034-2
1240.00	cut	bulk	0.32	12	0.01	3	-	-	130-0
1240.00	cut	Sh/Clst: brn gy to brn blk, ol gy to lt ol gy	-	-	-	-	2.5	424	130-1
1300.00	cut	bulk	0.37	18	0.04	3	-	-	038-0
1300.00	cut	Sh/Clst: brn gy to brn blk, ol gy to lt ol gy	-	-	-	-	NDP	428	038-2
1360.00	cut	bulk	0.34	14	0.02	3	-	-	041-0
1360.00	cut	Sh/Clst: brn gy to brn blk, ol gy to lt ol gy	-	-	-	-	3	425	041-2
1420.00	cut	bulk	0.34	16	0.03	3	-	-	044-0
1420.00	cut	Sh/Clst: brn gy to brn blk, ol gy to lt ol gy	-	-	-	-	3	424	044-2
1480.00	cut	bulk	0.35	16	0.03	4	-	-	047-0

Table 5 : Thermal Maturity Data for well NOCS 16/10-1

Depth unit of measure: m

Depth	Typ	Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation	Spore Fluorescence Colour	SCI	Tmax (°C)	Sample
1480.00	cut	Sh/Clst: brn gy	-	-	-	-	3? 3.5?	430	047-1
1540.00	cut	bulk	0.36	9	0.03	4	-	-	050-0
1540.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	-	-	-	-	3.5?	431	050-1
1600.00	cut	bulk	0.37	4	0.04	4	-	-	053-0
1600.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	-	-	-	-	3.5	431	053-1
1660.00	cut	bulk	0.33	6	0.02	4	-	-	056-0
1660.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	-	-	-	-	4	431	056-1
1720.00	cut	bulk	0.34	9	0.04	4	-	-	059-0
1720.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	-	-	-	-	NDP	431	059-1
1780.00	cut	bulk	0.36	13	0.04	4	-	-	062-0
1780.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	-	-	-	-	4.5?	433	062-1
1840.00	cut	bulk	0.34	10	0.03	4	-	-	065-0
1840.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	-	-	-	-	4.5?	431	065-1
1900.00	cut	bulk	0.36	10	0.03	4	-	-	068-0

Table 5 : Thermal Maturity Data for well NOCS 16/10-1

Depth unit of measure: m

Depth	Typ	Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation	Spore Fluorescence Colour	SCI	Tmax (°C)	Sample
1900.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	-	-	-	-	5.5	430	068-1
1960.00	cut	bulk	0.36	11	0.03	4	-	-	071-0
1960.00	cut	Sh/Clst: brn gy, ol gy to lt ol gy	-	-	-	-	5.5	432	071-1
2020.00	cut	bulk	0.39	7	0.03	4	-	-	133-0
2020.00	cut	Sh/Clst: brn gy to brn blk	-	-	-	-	5.5	432	133-1
2080.00	cut	bulk	0.39	6	0.02	4	-	-	075-0
2080.00	cut	Sh/Clst: brn gy, gn gy, ol blk to lt ol gy, drk gn gy	-	-	-	-	NDP	420	075-1
2140.00	cut	bulk	0.36	8	0.02	4	-	-	078-0
2140.00	cut	Sh/Clst: brn blk, gn gy, ol gy, lt brn gy, lt ol gy	-	-	-	-	5?	432	078-1
2200.00	cut	bulk	NDP	-	-	4	-	-	081-0
2200.00	cut	Sh/Clst: w, gy red, brn gy, gn gy, ol gy, lt gn gy, m gy	-	-	-	-	NDP	426	081-1
2260.00	cut	bulk	NDP	-	-	0	-	-	084-0
2260.00	cut	Sh/Clst: brn gy, gn gy, ol gy, v col	-	-	-	-	NDP	432	084-1

Table 5 : Thermal Maturity Data for well NOCS 16/10-1

Depth unit of measure: m

Depth	Typ	Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation	Spore Fluorescence Colour	SCI	Tmax (°C)	Sample
2720.00	cut	bulk	0.39	1	0.00	0	-	-	107-0
2720.00	cut	Ca : w, gy pi, brn gy, gn gy, lt gy to m gy	-	-	-	-	NDP	-	107-1
2740.00	cut	bulk	NDP	-	-	0	-	-	108-0
2760.00	cut	bulk	NDP	-	-	0	-	-	109-0
2760.00	cut	Sh/Clst: brn gy, red gy, red blk, ol gy, m brn	-	-	-	-	NDP	-	109-4
2780.00	cut	bulk	0.38	4	0.05	0	-	-	110-0
2780.00	cut	Sh/Clst: brn gy, red gy, red blk, ol gy, m brn, drk gy	-	-	-	-	NDP	432	110-2
2800.00	cut	bulk	0.42	3	0.06	4	-	-	111-0
2800.00	cut	Sh/Clst: gy blk to drk gy	-	-	-	-	3	425	111-1
2820.00	cut	bulk	0.44	13	0.05	0	-	-	112-0
2820.00	cut	Sh/Clst: gy blk to drk gy	-	-	-	-	3?	430	112-1
2840.00	cut	bulk	0.42	8	0.06	4	-	-	113-0
2840.00	cut	Sh/Clst: gy blk, brn gy, drk gy	-	-	-	-	3.5?	424	113-1

Table 5 : Thermal Maturity Data for well NOCS 16/10-1

Depth unit of measure: m

Depth	Typ	Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation	Spore Fluorescence Colour	SCI	Tmax (°C)	Sample
2860.00	cut	bulk	0.42	7	0.04	4	-	-	114-0
2860.00	cut	Sh/Clst: blk to gy blk, brn blk, m gy to m drk gy	-	-	-	-	3 - 5	425	114-2
2880.00	cut	bulk	0.44	6	0.06	4	-	-	115-0
2880.00	cut	Sh/Clst: blk to gy blk, brn blk to m gy	-	-	-	-	4.5? 5?	429	115-1
2900.00	cut	bulk	0.48	9	0.05	4+5	-	-	116-0
2900.00	cut	Sh/Clst: blk to gy blk, brn blk to m drk gy	-	-	-	-	4 - 4.5?	429	116-1
2920.00	cut	bulk	0.49	9	0.04	5	-	-	117-0
2920.00	cut	Sh/Clst: blk to gy blk, brn blk to m drk gy	-	-	-	-	5 - 5.5?	431	117-1
2940.00	cut	bulk	NDP	-	-	0	-	-	118-0
2940.00	cut	Sh/Clst: blk, lt gy to m gy	-	-	-	-	NDP	431	118-2
2960.00	cut	bulk	NDP	-	-	0	-	-	119-0
2960.00	cut	Sh/Clst: gy blk to m gy	-	-	-	-	5.5	427	119-2

Table 5 : Thermal Maturity Data for well NOCS 16/10-1

Depth unit of measure: m

Depth	Typ	Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation	Spore Fluorescence Colour	SCI	Tmax (°C)	Sample
2980.00	cut	bulk	0.48	7	0.05	0	-	-	120-0
3000.00	cut	bulk	0.47	2	0.01	0	-	-	121-0
3020.00	cut	bulk	NDP	-	-	0	-	-	122-0
3040.00	cut	bulk	0.48	40	0.05	5	-	-	123-0
3040.00	cut	Sh/Clst: blk to brn blk	-	-	-	-	NDP	437	123-1
3060.00	cut	bulk	0.52	32	0.05	5+6	-	-	124-0
3060.00	cut	Sh/Clst: gy blk, brn gy, ol gy to ol blk, drk gn gy	-	-	-	-	5 - 5.5	441	124-2
3080.00	cut	bulk	0.52	15	0.05	6	-	-	125-0
3080.00	cut	Sh/Clst: gy blk, brn gy, ol gy to ol blk, drk gn gy	-	-	-	-	6 - 6.5 7?	441	125-2
3100.00	cut	bulk	0.53	28	0.05	6	-	-	126-0
3120.00	cut	bulk	0.55	21	0.05	6+7	-	-	127-0
3120.00	cut	Sh/Clst: gy red, brn gy, brn blk	-	-	-	-	7	438	127-6
3140.00	cut	bulk	0.80	4	0.07	6+7	-	-	128-0

Table 5 : Thermal Maturity Data for well NOCS 16/10-1

Depth unit of measure: m

Depth	Typ	Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation	Spore Fluorescence Colour	SCI	Tmax (°C)	Sample
3140.00	cut	Sh/Clst: blk, gy blk, brn blk	-	-	-	-	NDP	465	128-1
3151.00	cut	bulk	0.76	13	0.08	6	-	-	129-0
3151.00	cut	Sh/Clst: gy brn, gy red, brn blk	-	-	-	-	7	444	129-2

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SUPPLEMENTARY REPORT ON HYDROCARBONS IN THE PRE-PALAEOCENE SEDIMENTS OF N.O.C.S. WELL 16/10-1

CLIENT: NORSK AGIP

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P.O. BOX 1581
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Supplementary Report on hydrocarbons in Pre-Palaeocene sediments in N.O.C.S. Well 16/10-1.

Objective:

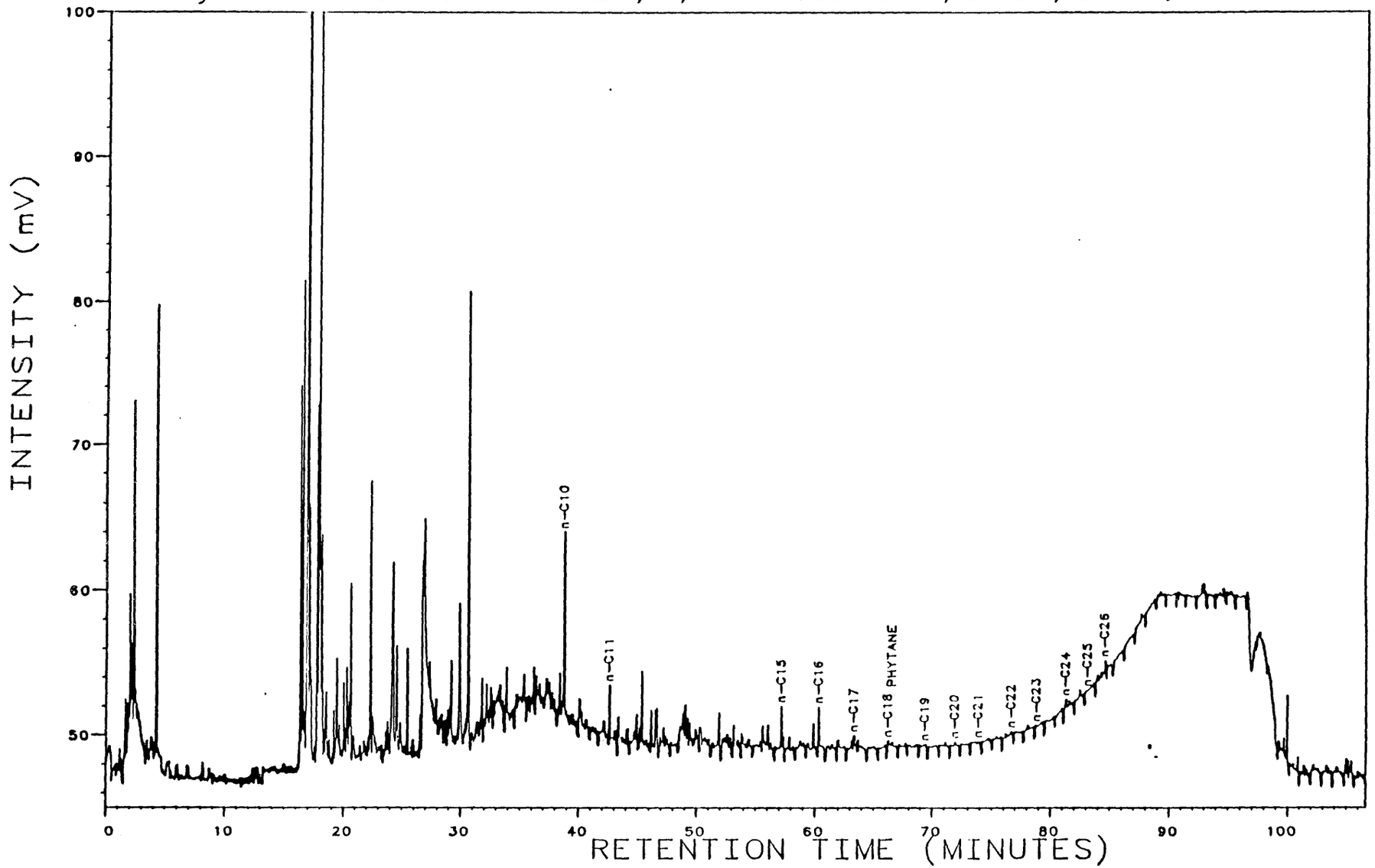
From wire line logs gaseous hydrocarbons were detected in the uppermost levels of the Pre-Palaeocene section of the well.The gaseous hydrocarbons are in association with a sandstone unit at approximately 1000m and Agip requested us to attempt to characterise hydrocarbons in the cuttings samples around this depth.
In order to do this four cuttings samples from the interval 910m to 1020m were analysed using Thermal Extraction/ Pyrolysis gas chromatography of the whole rock. This analysis basically allows a chromatogram of the S1 and S2 peaks (Rock-Eval) to be obtained.

Results:

Chromatograms of thermal extracts and pyrolysates are included with this report.
Claystones were analysed from 910m and 1000m. Thermal extract chromatograms show extremely small amounts of hydrocarbons to be present. The most abundant compounds are the low molecular weight hydrocarbons and polar compounds, alkanes above nC7 being present in trace amounts only. The pyrolysate chromatograms for these claystones show that only small amounts of C7+ n-alkanes are released on pyrolysis. Moderate amounts of aromatic and polar compounds are, however released and this indicates the presence of a type III kerogen with a potential for gas generation. From the very low amounts of thermal extract the claystones are shown to be immature ,having not yet begun to release any quantities of generated hydrocarbons.

The sandstones which were analysed are from 960m and 1020m. Chromatograms of the thermal extract show extremely low amounts of hydrocarbons to be present, especially in the C8+ n-alkane range. There are therefore no migrated oils or condensates within the sandstones. Pyrolysate chromatograms for the sandstones again show very low amounts of hydrocarbons, especially in the C8+ n-alkane range. This indicates that no residual oils are present within the analysed sandstones.

Analysis P178910 24, 1, 1 16/10-1, 910m, S1 *claystone*



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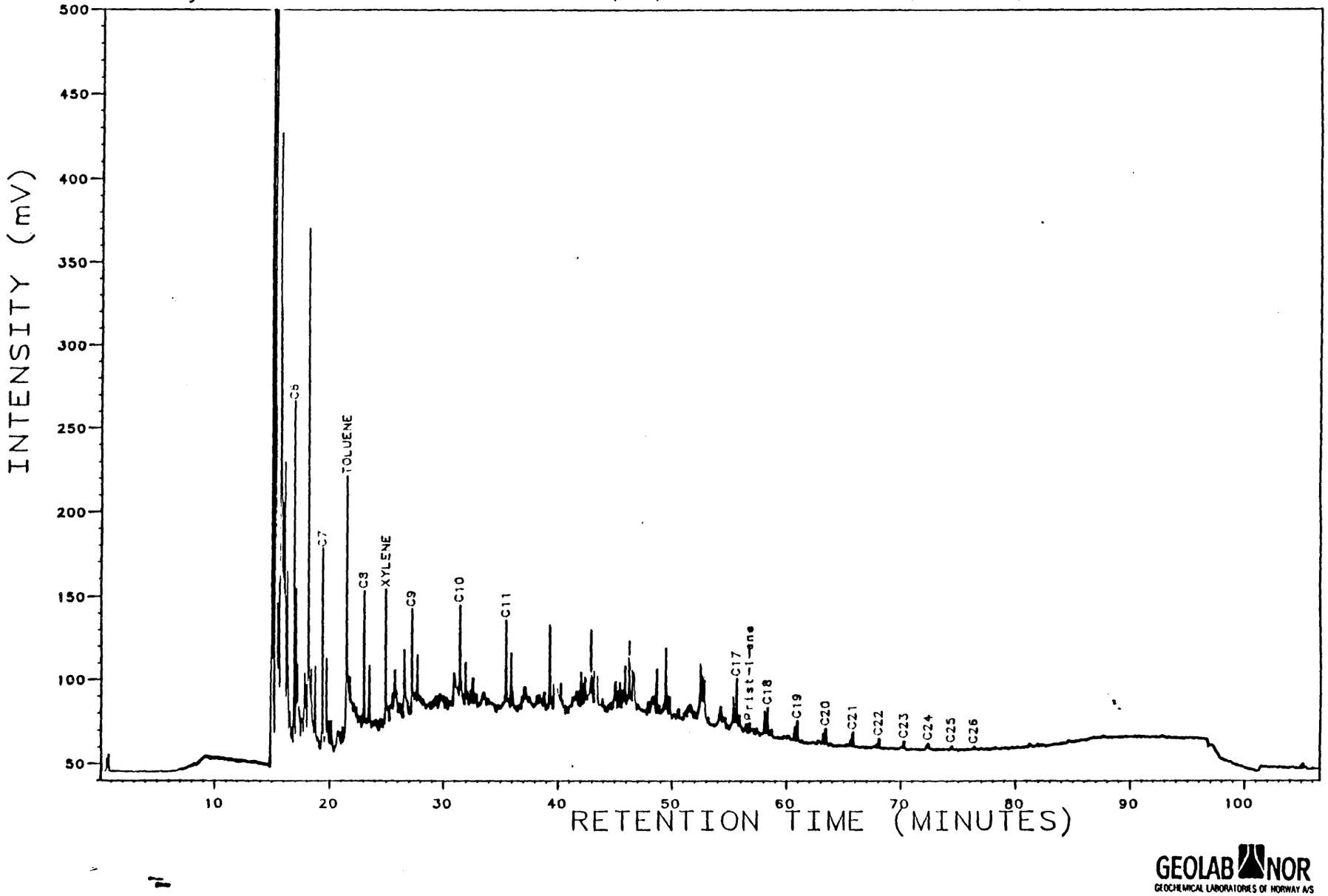
Analysis P178910 23, 1, 1 16/10-1, 910m, S2 *claystone*



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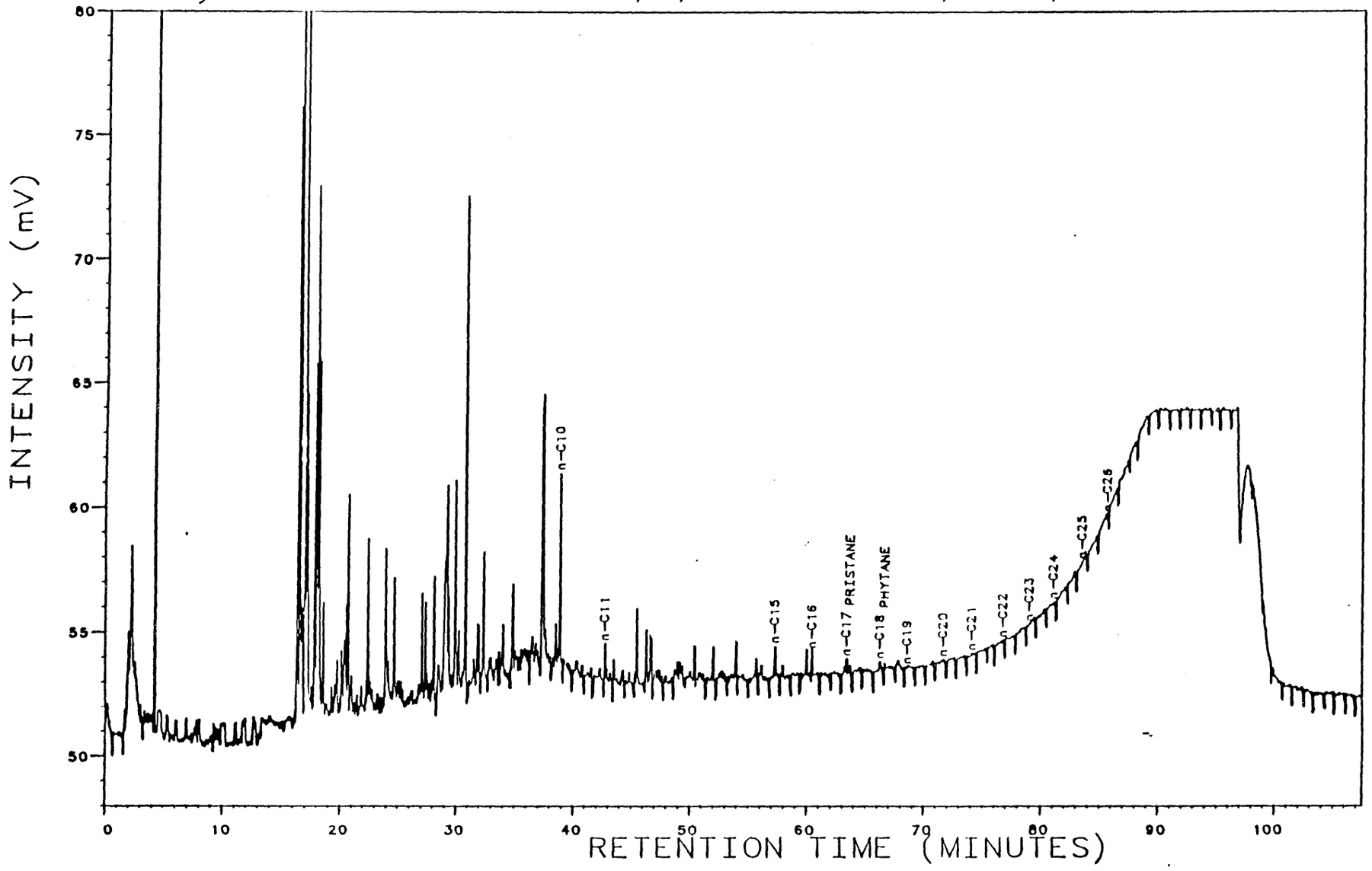
Analysis P178960 24, 1, 1 16/10-2, 960m, S1 *sandstone*



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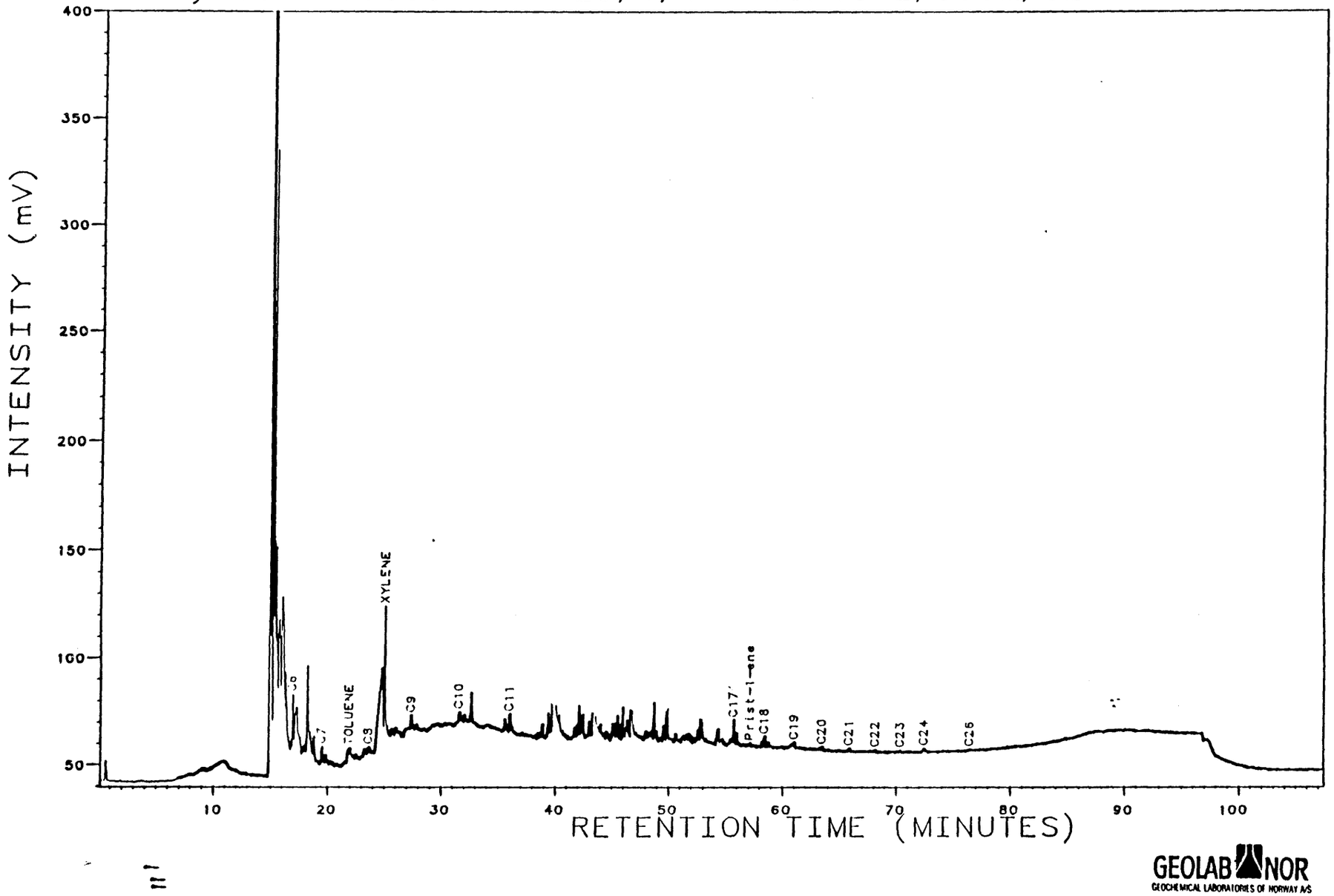
Analysis P178960 23, 1, 1 16/10-2, 960m, S2 *sandstone*



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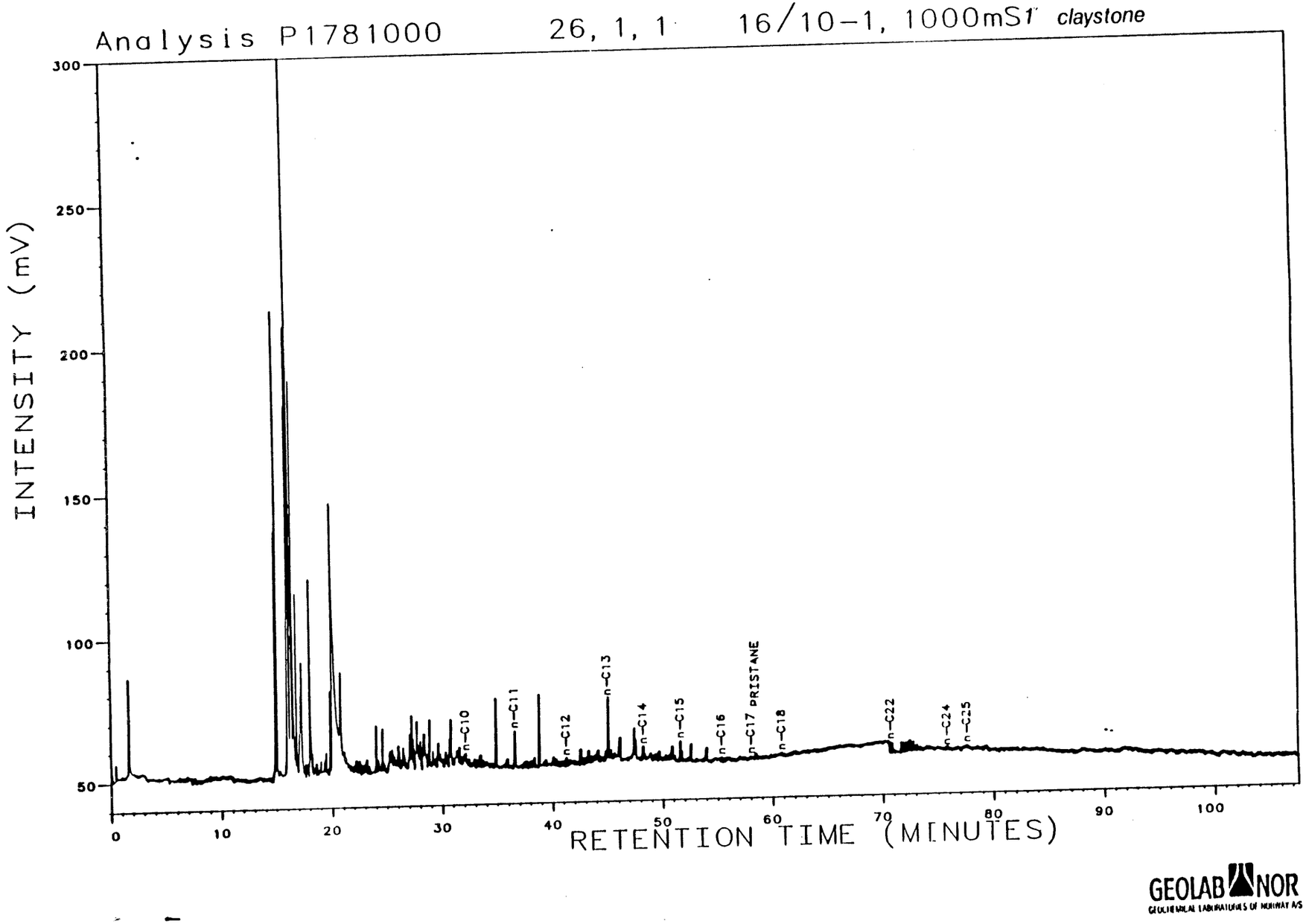

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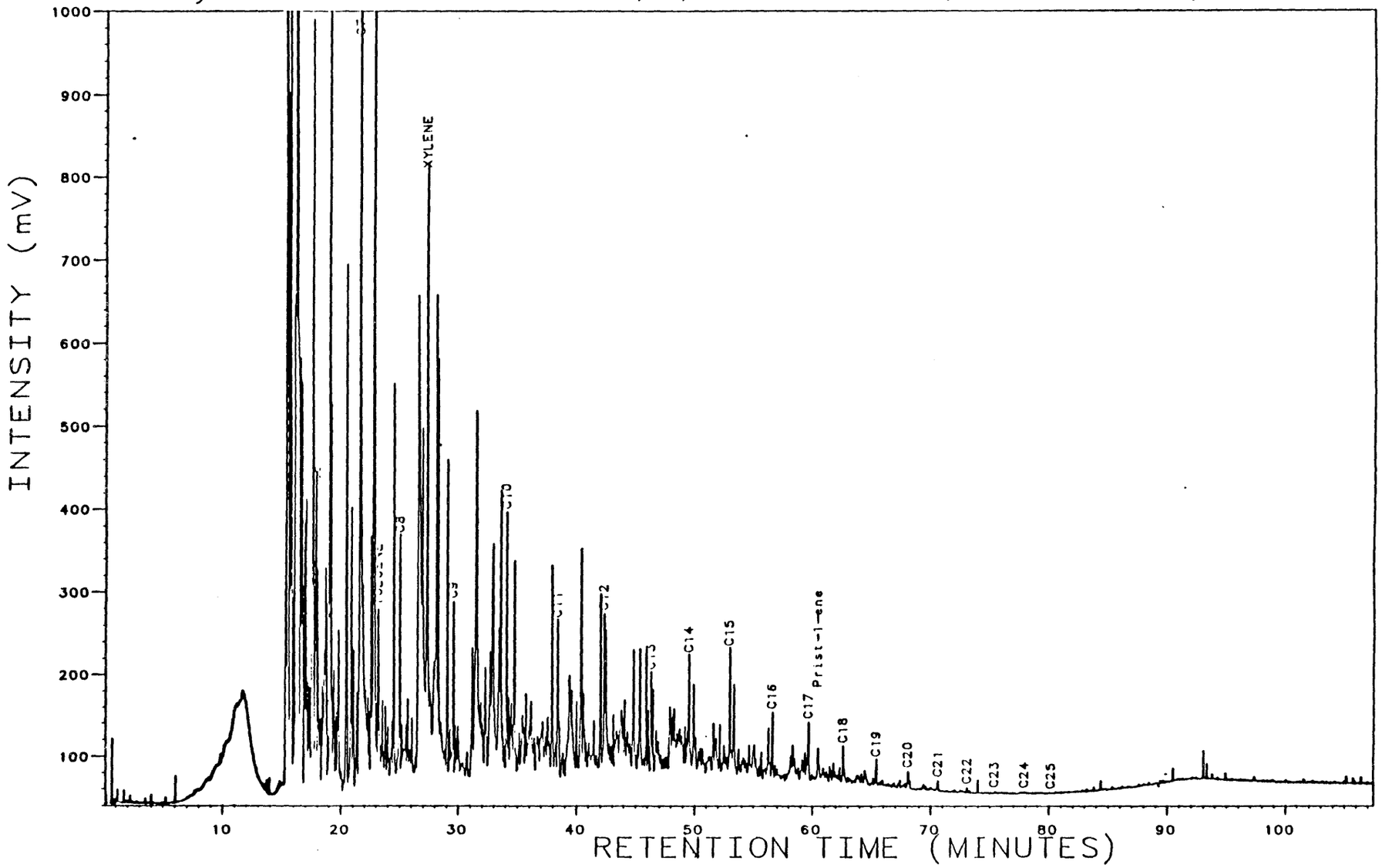
Analysis P1781000 25, 1, 1 16/10-1, 1000mS2 *claystone*



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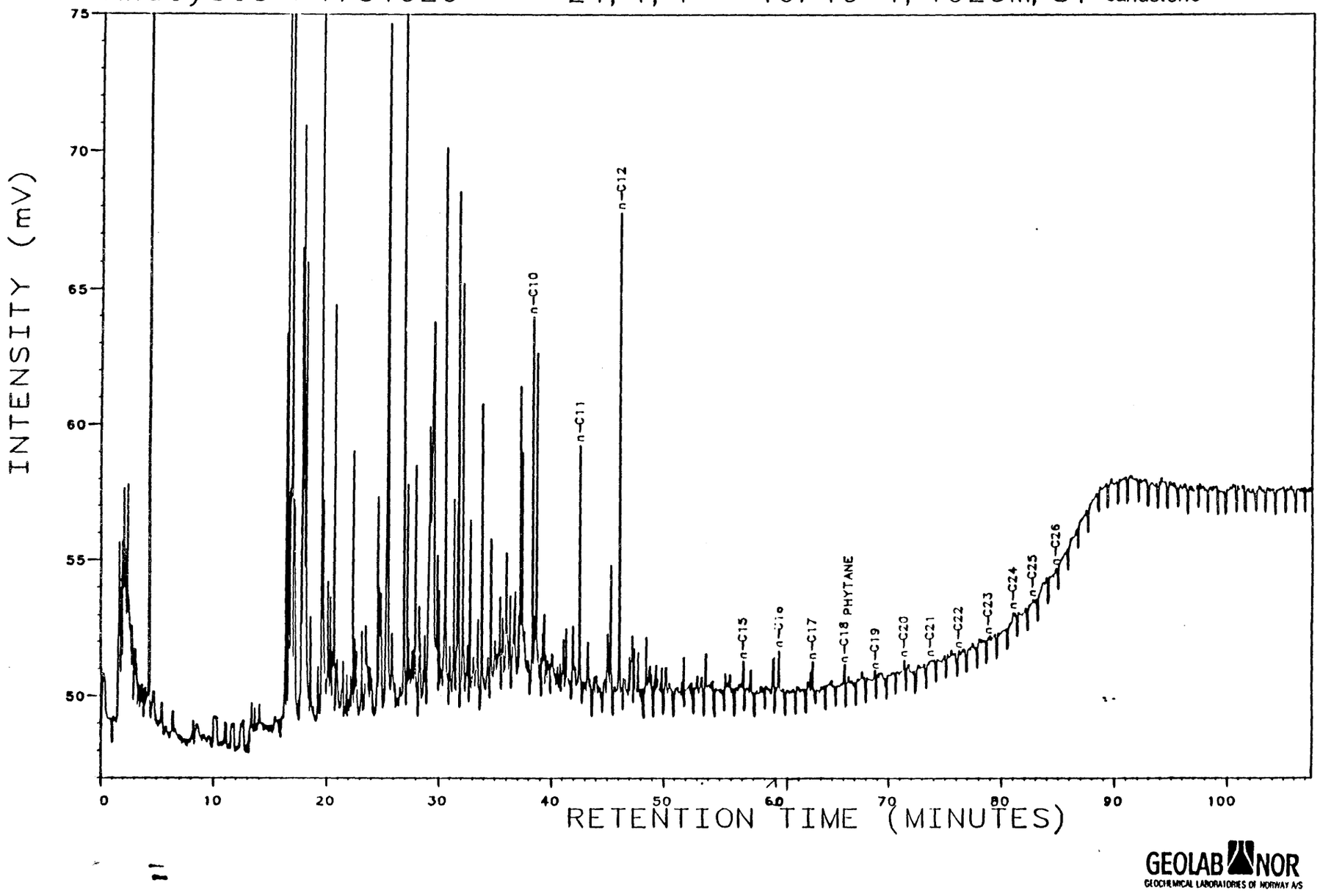
Analysis P1781020 24, 1, 1 16/10-1, 1020m, S1 *sandstone*



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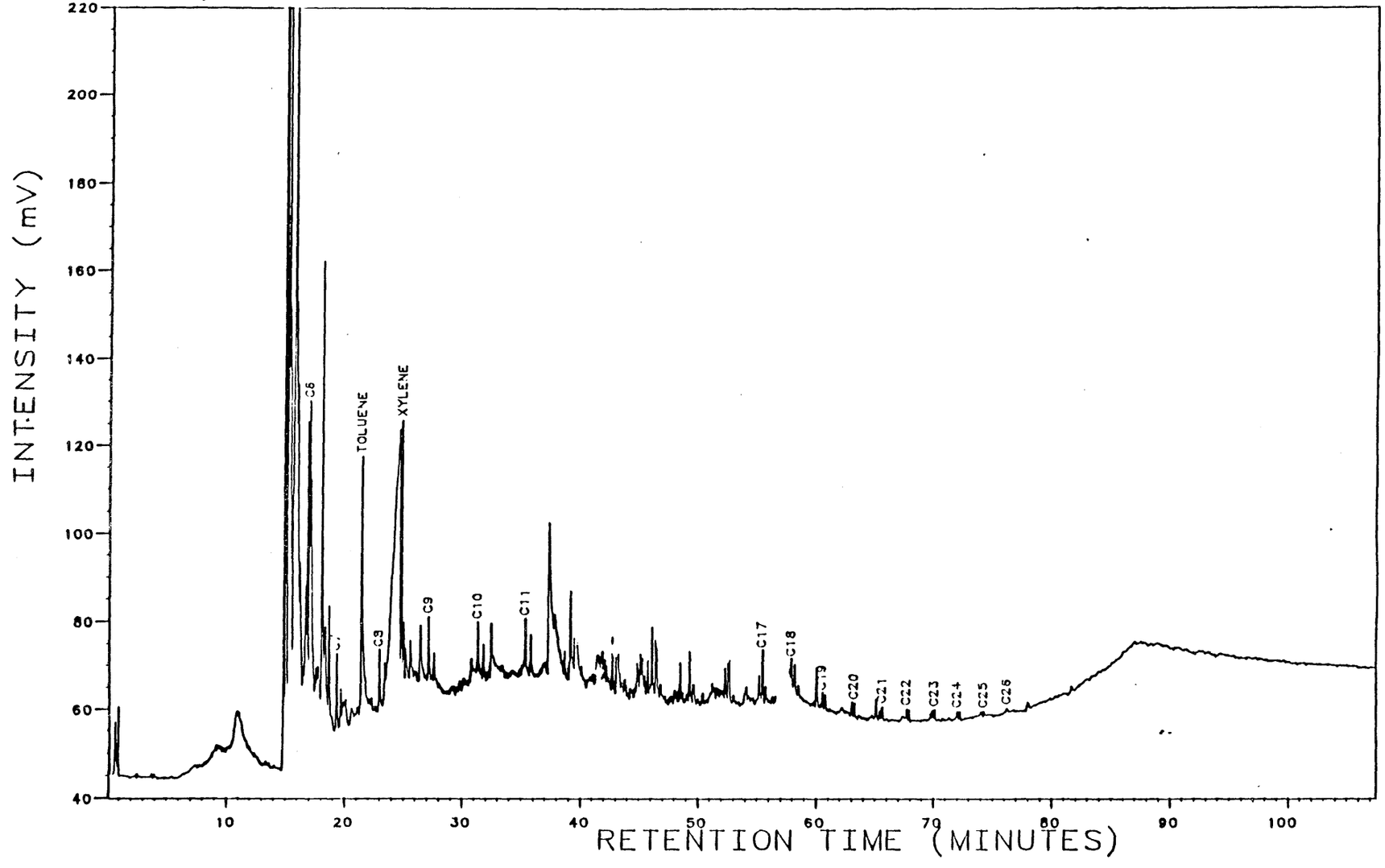
Analysis P1781020 23, 1, 1 16/10-1, 1020m, S2 *sandstone*



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