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Title

BA-93-73027 RESERVOIR GEOCHEMISTRY

WELL: 34/8-8.

15. 01. 1993

REGISTRERT
OFTEDIREKTORATET

Summary/Conclusion/Recommendation

Keywords

Petroleum geochemistry, Reservoir geochemistry
Migrated hydrocarbons, Residual hydrocarbons.

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1. INTRODUCTION.

Well 34/8-8 was spudded on 30.06.92 and reached total depth 13.08.92 at 3325 mRKB in the Triassic Lunde Fm. The well is located on the A N1 segment of the Visund A structure. A well location map is given in Figure 1.1 and a well summary with formation tops is given in Table 1.1.

Well 34/8-8 proved oil in the Brent Group, and will be tested at a later stage.

A list of samples analysed in this study is given in Table 1.2.

Stable carbon isotope measurements on the fractions of the oils was undertaken by Geolab Nor, Trondheim, Norway. All other analytical work, together with the interpretation of data and the compilation of this report was done at Norsk Hydro Research Centre, Bergen, Norway.

All depths in this report are in mRKB MD unless otherwise stated.



LIST OF ABBREVIATIONS AND TERMS

Kerogen

Insoluble organic matter which is preserved in sedimentary rocks. Under the increasing influence of temperature and time (maturation), most kerogen produce hydrocarbons.

TOC

Total Organic Carbon: a measure of the organic carbon in a rock, expressed as weight per cent. Used as a fundamental parameter in source rock classification.

RockEval

A commercial technique for the anhydrous pyrolysis of source rocks developed by IFP. It enables the chemical composition of kerogen and hence its hydrocarbon potential, to be determined.

S₁

This is a measure of the already generated oil in source rocks, or oil content in a reservoir. In units of kg:t rock.

S₂

This is a measure of the remaining hydrocarbon potential. In units of kg:t rock.

T_{max}

The temperature, in °C, at which the pyrolytic yield of hydrocarbons from a rock sample reaches its maximum, using RockEval.

Hydrogen Index (HI)

A parameter derived from RockEval which measures the hydrogen richness of kerogen. $HI = 100 * S_2 / TOC$. It has a direct relationship with the H/C ratio, and is measured in mg of hydrocarbons/g TOC

Production Index (PI)

A maturity parameter derived from RockEval, which is the ratio of already generated hydrocarbons (or migrated hydrocarbons) to potential hydrocarbons. $PI = S_1 / (S_1 + S_2)$

Immature samples have values of 0.1 or less, mature samples, 0.1 to 0.4. The PI is high in reservoirs.

Maturation

The process of chemical change in sedimentary organic matter induced by increasing time and temperature. These chemical reactions produce oil and hydrocarbon gases from the appropriate organic matter. The major maturity subdivisions are:

- immature
- early mature
- peak mature
- late mature
- post mature

Vitrinite

The type of organic matter derived from the lignified tissues of higher land plants.

Vitrinite reflectance

A maturity parameter based on the change in the reflectance of polished vitrinite particles with increasing time and temperature. Widely used values for maturity zones are:

- <0.55 %, immature
- 0.55-1.3 %, mature for oil generation
- >1.3 %, post mature for oil generation
- 0.7-3.0 %, mature for gas generation

EOM (Extractable Organic Matter)

Oil and oil-like products removed from rock samples using organic solvents. The amount of extract may be used to determine the level of maturation.

Saturated Hydrocarbons

Hydrocarbons which contain only carbon-carbon single bonds (alkanes).

Aromatic hydrocarbons

Unsaturated hydrocarbons and containing one or more rings with conjugated carbon-carbon double and single bonds.

NSO compounds

Fraction of oils or extracts containing heteroatoms like sulphur, oxygen and nitrogen.

Asphaltenes

The heavy molecular weight components of crude oils and sediment extracts which is soluble in CS_2 and insoluble in n-pentane.

n-C₁₇

n-alkane with 17 carbon atoms

n-alkane carbon number maximum

n-C₁₇ maximum indicates algal input

n-C₁₆ to n-C₂₄ indicates bacterial input

n-C₂₇, n-C₂₉, n-C₃₁ indicates higher plant input

Isoprenoids

Isoprenoids are branched and/or cyclic hydrocarbons built from multiples of the isoprene unit and are dominantly derived from plant and bacterial sources.

Pristane

C₁₉ regular acyclic isoprenoid derived from the side chain of chlorophyll.

Phytane

C₂₀ regular acyclic isoprenoid derived mainly from the side chain in chlorophyll, but have also been found in methanogenic bacteria and archaeobacteria.

Pristane/phytane ratio

>3 = oxic conditions

<0.5 = anoxic conditions

The ratio may be affected by many factors

CPI (Carbon Preference Index)

The ratio of abundance of odd carbon number n-alkanes to even number n-alkanes. The preference decreases with increasing maturity until CPI = 1.0.

CPI > 1.1 means oil or extract is of low maturity.

CPI < 1.0 in carbonate source rocks.

Biodegradation

Degradation of oils by bacteria. Normal alkanes are generally the first to be attacked and removed.

GC-MS (Gas chromatography-mass spectrometry)

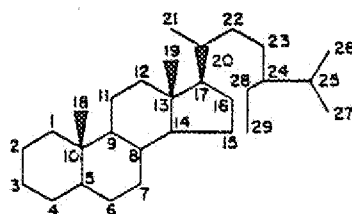
Method for identification of constituents in complex mixtures or for analysis of trace components using Single Ion Monitoring (SIM).

Biomarkers

Compounds found in petroleum or rock extracts which indicate an unambiguous link with a natural product.

Steranes

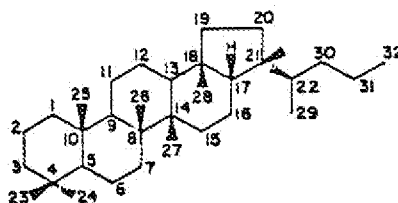
The alkanes derived from steroid natural products. Monitored by GC-MS of M/z 217 and 218.



Sterane

Triterpanes

C_{27} to C_{35} five ring cyclic alkanes derived from triterpenoid hydrocarbons in bacteria, fungi, algae and higher plants. Monitored by GC-MS of M/z 191.



Pentacyclic triterpane

Hopanes

C_{27} to C_{35} pentacyclic alkanes which dominate the triterpanes found in sediments and crude oils. They originate from bacteria.

M/z, m/e

The mass to charge ratio of fragment of molecules from GC-MS.

TABLE: 1.2

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ANALYSIS PROGRAMME, WELL NOR:34/8-8

Depth (m)	Lithology	Type	R-Ev	Extr	MPLC	Iatr	SatGC	PyGC	Isot	Biom	Vitr	VisK
2923.50	SST	COCH	1	1	1	1	1			1		
2924.50	SST	COCH	1	1		1						
2925.60	SST	COCH	1	1		1						
2926.45	SST	COCH	1	1		1						
2927.55	SST	COCH	1	1		1						
2928.50	SST	COCH	1	1		1						
2929.50	SST	COCH	1	1		1						
2930.50	SST	COCH	1	1		1						
2931.25	SST	COCH	1	1		1						
2932.50	SST	COCH	1	1		1						
2933.50	SST	COCH	1	1		1						
2934.50	SST	COCH	1	1		1						
2935.45	SST	COCH	1	1		1						
2936.45	SST	COCH	1	1		1						
2937.45		SDCR					1					
2937.45	SST	COCH	1	1	1	1						
2941.50	SST	COCH	1	1	1	1	1			1		
2948.50	SST	COCH	1	1	1	1	1					
2965.40	SST	COCH	1	1	1	1	1					
2966.35	SST	COCH	1	1	1	1	1			1		
2970.45	SST	COCH	1	1	1	1	1					
2972.60	SST	COCH	1	1	1	1	1			1		
2973.50	SST	COCH	1	1	1	1	1					
2974.50	SST	COCH	1	1	1	1	1					
2975.45	SST	COCH	1	1	1	1	1			1		
2976.55	SST	COCH	1	1	1	1	1					
2977.50	SST	COCH	1	1	1	1	1					
2978.25	SST	COCH	1	1	1	1	1			1		
2978.55	SST	COCH	1	1	1	1	1					
2979.55	SST	COCH	1	1	1	1	1			1		
2980.50	SST	COCH	1	1	1	1	1					
2981.45	SST	COCH	1	1	1	1	1					
2982.60	SST	COCH	1	1	1	1	1					

TABLE: 1.2

ANALYSIS PROGRAMME, WELL NOR:34/8-8 (cont'd)

Depth (m)	Lithology	Type	R-Ev	Extr	MPLC	Iatr	SatGC	PyGC	Isot	Biom	Vitr	VisK
2983.65	SST	COCH	1	1	1	1	1					
2984.50	SST	COCH	1	1	1	1	1					
2985.50	SST	COCH	1	1	1	1	1		1			
2986.25	SST	COCH	1	1	1	1	1					
2987.75	SST	COCH	1	1	1	1	1					
2988.50	SST	COCH	1	1	1	1	1					
2989.40	SST	COCH	1	1	1	1	1					
2990.75	SST	COCH	1	1	1	1	1					
2991.30	SST	COCH	1	1	1	1	1					
2992.30	SST	COCH	1	1	1	1	1		1			
2993.35	SST	COCH	1	1	1	1	1					
2994.45	SST	COCH	1	1	1	1	1					
2995.50	SST	COCH	1	1	1	1	1					
2998.40	SST	COCH	1	1	1	1	1					
3002.50	SST	COCH	1	1	1	1	1		1			

R-Ev = RockEval, MPLC = Separation, SatGC = Saturated GC, Isot = Isotope, Vitr = VRo(ave)%,
Extr = Extraction, Iatr = Iatrosan, PyGC = Pyrolysis GC, Biom = Biomarkers, VisK = Visual Kerogen

TABLE: 2.1

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ROCK EVAL SCREENING DATA, WELL NOR:34/8-8

Depth (m)	Lithology	Type	Tmax DegC	S1 kg/t	S2 kg/t	TOC %	HI	PI	Analysing Company
2923.50	SST	COCH		13.2	1.6	1.4	118	0.89	F-BERGEN
2924.50	SST	COCH	415	13.6	1.6	1.4	116	0.89	F-BERGEN
2925.60	SST	COCH	416	12.4	1.3	1.3	102	0.90	F-BERGEN
2926.45	SST	COCH	410	8.4	0.6	0.9	73	0.93	F-BERGEN
2927.55	SST	COCH	403	11.3	1.0	1.2	86	0.92	F-BERGEN
2928.50	SST	COCH		7.5	0.8	0.9	93	0.90	F-BERGEN
2929.50	SST	COCH	403	10.0	0.9	1.1	85	0.91	F-BERGEN
2930.50	SST	COCH	407	14.3	1.4	1.5	94	0.91	F-BERGEN
2931.25	SST	COCH	413	9.7	0.9	1.0	88	0.91	F-BERGEN
2932.50	SST	COCH		12.1	1.3	1.2	104	0.90	F-BERGEN
2933.50	SST	COCH	412	5.9	0.9	0.8	109	0.87	F-BERGEN
2934.50	SST	COCH	414	9.1	1.1	1.0	110	0.89	F-BERGEN
2935.45	SST	COCH	417	9.3	1.4	1.0	131	0.87	F-BERGEN
2936.45	SST	COCH	434	3.0	0.7	1.5	46	0.82	F-BERGEN
2937.45	SST	COCH	413	3.8	0.9	0.6	134	0.82	F-BERGEN
2941.50	SST	COCH	419	13.5	1.5	1.4	113	0.90	F-BERGEN
2948.50	SST	COCH	421	6.5	0.7	0.8	91	0.90	F-BERGEN
2965.40	SST	COCH	417	11.2	0.5	1.0	46	0.96	F-BERGEN
2966.35	SST	COCH	420	12.9	0.8	1.2	67	0.94	F-BERGEN
2970.45	SST	COCH		11.8	1.0	1.1	91	0.92	F-BERGEN
2972.60	SST	COCH	417	9.9	0.4	0.9	41	0.96	F-BERGEN
2973.50	SST	COCH	418	10.6	0.5	1.0	54	0.95	F-BERGEN
2974.50	SST	COCH	413	6.9	0.3	0.6	47	0.96	F-BERGEN
2975.45	SST	COCH	345	9.4	0.5	0.9	55	0.95	F-BERGEN
2976.55	SST	COCH	415	9.2	0.4	0.9	49	0.96	F-BERGEN
2977.50	SST	COCH	413	7.5	0.2	0.7	29	0.97	F-BERGEN
2978.25	SST	COCH		10.1	0.6	0.9	62	0.95	F-BERGEN
2978.55	SST	COCH	414	0.3	0.0	0.1	57		F-BERGEN
2979.55	SST	COCH		2.2	0.2	0.2	83	0.92	F-BERGEN
2980.50	SST	COCH		0.6	0.5			0.54	F-BERGEN
2981.45	SST	COCH		1.8	2.3			0.44	F-BERGEN
2982.60	SST	COCH		1.9	0.6			0.75	F-BERGEN
2983.65	SST	COCH		1.2	0.7			0.62	F-BERGEN

TABLE: 2.1

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HYDRO

ROCK EVAL SCREENING DATA, WELL NOR:34/8-8 (cont'd)

Depth (m)	Lithology	Type	Tmax DegC	S1 kg/t	S2 kg/t	TOC %	HI	PI	Analysing Company
2984.50	SST	COCH		1.3	0.6			0.70	F-BERGEN
2985.50	SST	COCH	417	1.9	0.3			0.84	F-BERGEN
2986.25	SST	COCH		1.0	0.3			0.75	F-BERGEN
2987.75	SST	COCH		1.6	0.9			0.63	F-BERGEN
2988.50	SST	COCH	423	0.8	0.2			0.76	F-BERGEN
2989.40	SST	COCH	416	1.3	0.3			0.80	F-BERGEN
2990.75	SST	COCH	418	1.6	0.4			0.80	F-BERGEN
2991.30	SST	COCH		0.9	0.5			0.63	F-BERGEN
2992.30	SST	COCH	419	1.8	0.4			0.81	F-BERGEN
2993.35	SST	COCH		1.1	1.5			0.44	F-BERGEN
2994.45	SST	COCH		1.4	0.6			0.71	F-BERGEN
2995.50	SST	COCH		1.5	0.7			0.69	F-BERGEN
2998.40	SST	COCH		1.6	0.7			0.71	F-BERGEN
3002.50	SST	COCH		1.2	0.5			0.69	F-BERGEN

Porosity and hydrocarbon saturation (SHre) data.

Depth m	Porosity	SHre
2923,50	26,70	14,24
2924,50	27,10	14,48
2925,60	26,60	13,35
2926,45	20,50	12,03
2927,55	23,50	13,95
2928,50	22,20	10,17
2929,50	25,00	11,72
2930,50	26,50	15,51
2931,25	22,40	12,78
2932,50	25,30	13,71
2933,50	16,50	11,65
2934,50	23,90	11,24
2935,45	23,50	12,01
2936,45	12,20	9,00
2937,45	16,20	8,22
2941,50	26,10	14,92
2948,50	23,60	7,99
2965,40	28,60	10,26
2966,35	27,70	12,49
2970,45	27,90	11,57
2972,60	30,10	8,43
2973,50	26,50	10,74
2974,50	23,90	7,90
2975,45	25,90	9,79
2976,25	27,00	9,04
2977,50	26,00	7,61
2978,25	29,60	8,97
2978,55	13,60	0,80
2979,55	25,50	2,45
2980,50	26,70	1,16
2981,45	26,80	3,94
2982,60	22,00	3,07
2983,65	22,30	1,62
2984,50	24,90	1,97
2985,50	28,00	2,04
2986,25	28,70	1,17
2987,75	23,70	2,77
2988,50	27,00	0,97
2989,40	24,90	1,66
2990,75	23,30	2,33
2991,30	23,40	1,54
2992,30	21,60	2,71
2993,35	26,50	2,53
2994,45	26,00	1,94
2995,50	25,60	2,22
2998,40	30,50	1,86
3002,50	24,00	1,91

Table 2.2

TABLE: 2.3

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HYDRO

SEDIMENT EXTRACTION PERCENTAGES (GRAVIMETRIC), WELL NOR:34/8-8

Depth (m)	Lithology	Type	EOM (mg)	EOM (%)	Hydrocarbons(%)			Non Hydrocarbons(%)		
					SAT	ARO	TOTAL	POL	ASP	TOTAL
2923.50	SST	COCH	168.9	1.67	55.7	24.0	79.6	19.4	0.9	20.4
2924.50	SST	COCH	190.3	1.87						
2925.60	SST	COCH	128.0	1.20						
2926.45	SST	COCH	123.0	1.09						
2927.55	SST	COCH	154.3	1.49						
2928.50	SST	COCH	111.8	1.12						
2929.50	SST	COCH	131.7	1.27						
2930.50	SST	COCH	146.4	1.44						
2931.25	SST	COCH	149.9	1.44						
2932.50	SST	COCH	174.7	1.77						
2933.50	SST	COCH	91.7	0.92						
2934.50	SST	COCH	136.8	1.34						
2935.45	SST	COCH	138.4	1.39						
2936.45	SST	COCH	44.3	0.44						
2937.45	SST	COCH	67.8	0.67	69.0	17.6	86.6	9.7	3.7	13.4
2941.50	SST	COCH	229.4	1.83	60.2	24.7	84.9	13.8	1.3	15.1
2948.50	SST	COCH	115.3	0.99	53.2	23.4	76.6	20.6	2.8	23.4
2965.40	SST	COCH	184.7	1.53	59.5	22.8	82.4	16.5	1.1	17.6
2966.35	SST	COCH	200.3	1.88	56.0	18.4	74.4	24.8	0.8	25.6
2970.45	SST	COCH	213.2	1.80	59.2	21.7	80.9	17.2	1.9	19.1
2972.60	SST	COCH	130.5	1.30	60.7	22.8	83.6	15.1	1.4	16.4
2973.50	SST	COCH	162.8	1.52	57.0	21.9	78.9	19.6	1.5	21.1
2974.50	SST	COCH	123.0	1.06	50.1	20.3	70.5	26.9	2.6	29.5
2975.45	SST	COCH	137.4	1.34	48.2	21.7	69.9	29.2	0.9	30.1
2976.55	SST	COCH	143.7	1.32	50.8	20.6	71.4	26.7	1.9	28.6
2977.50	SST	COCH	122.8	1.04	54.7	21.5	76.2	22.1	1.7	23.8
2978.25	SST	COCH	124.5	1.23	58.3	22.1	80.5	18.9	0.6	19.5
2978.55	SST	COCH	11.5	0.10	40.6	21.3	61.9	23.3	14.8	38.1
2979.55	SST	COCH	50.7	0.48	49.6	18.4	68.0	28.6	3.4	32.0
2980.50	SST	COCH	29.3	0.26	21.0	13.4	34.3	56.4	9.2	65.7
2981.45	SST	COCH	53.4	0.43	19.6	11.8	31.4	60.8	7.9	68.6
2982.60	SST	COCH	43.1	0.41	35.6	17.8	53.4	41.5	5.1	46.6
2983.65	SST	COCH	25.6	0.25	32.6	19.8	52.4	40.9	6.6	47.6

TABLE: 2.3

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SEDIMENT EXTRACTION PERCENTAGES (GRAVIMETRIC), WELL NOR:34/8-8 (cont'd)

Depth (m)	Lithology	Type	EOM (mg)	EOM (%)	Hydrocarbons(%)			Non Hydrocarbons(%)		
					SAT	ARO	TOTAL	POL	ASP	TOTAL
2984.50	SST	COCH	29.3	0.28	35.5	22.0	57.6	37.0	5.5	42.4
2985.50	SST	COCH	41.3	0.38	35.0	24.2	59.2	35.7	5.1	40.8
2986.25	SST	COCH	27.8	0.25	30.3	15.9	46.2	49.8	4.0	53.8
2987.75	SST	COCH	54.5	0.47	36.1	16.9	53.0	38.6	8.4	47.0
2988.50	SST	COCH	26.3	0.26	18.5	11.4	29.9	60.6	9.5	70.1
2989.40	SST	COCH	36.4	0.35	27.4	18.3	45.7	47.1	7.1	54.3
2990.75	SST	COCH	39.5	0.38	29.5	21.0	50.4	44.2	5.3	49.6
2991.30	SST	COCH	24.3	0.24	28.8	20.6	49.4	45.3	5.3	50.6
2992.30	SST	COCH	43.3	0.41	37.9	21.8	59.7	37.1	3.2	40.3
2993.35	SST	COCH	40.0	0.34	25.4	16.4	41.8	53.2	5.0	58.2
2994.45	SST	COCH	32.0	0.29	30.5	19.7	50.2	45.4	4.4	49.8
2995.50	SST	COCH	35.6	0.35	34.2	20.4	54.6	42.1	3.4	45.4
2998.40	SST	COCH	46.1	0.38	31.6	16.7	48.3	47.4	4.3	51.7
3002.50	SST	COCH	29.6	0.27	33.2	18.3	51.5	33.7	14.9	48.5



TABLE: 2.4

SEDIMENT EXTRACTION PERCENTAGES (IATROSCAN), WELL NOR:34/8-8

Depth (m)	Lithology	Type	Hydrocarbons (%)			Non Hydrocarbons (%)			Analysing Company
			SAT	ARO	TOTAL	POL	ASP	TOTAL	
2923.50	SST	COCH	51.5	36.0	87.5	12.0	0.5	12.5	F-BERGEN
2924.50	SST	COCH	52.0	35.0	87.0	12.0	1.0	13.0	F-BERGEN
2925.60	SST	COCH	51.5	36.0	87.5	11.5	1.0	12.5	F-BERGEN
2926.45	SST	COCH	58.0	30.5	88.5	11.0	0.5	11.5	F-BERGEN
2927.55	SST	COCH	52.0	36.0	88.0	11.0	1.0	12.0	F-BERGEN
2928.50	SST	COCH	52.0	31.0	83.0	15.0	2.0	17.0	F-BERGEN
2929.50	SST	COCH	54.0	34.5	88.5	10.5	1.0	11.5	F-BERGEN
2930.50	SST	COCH	51.5	37.0	88.5	10.5	1.0	11.5	F-BERGEN
2931.25	SST	COCH	54.5	34.5	89.0	10.0	1.0	11.0	F-BERGEN
2932.50	SST	COCH	54.5	36.0	90.5	8.0	1.5	9.5	F-BERGEN
2933.50	SST	COCH	58.0	29.5	87.5	10.0	2.5	12.5	F-BERGEN
2934.50	SST	COCH	56.5	32.0	88.5	10.0	1.5	11.5	F-BERGEN
2935.45	SST	COCH	52.0	37.0	89.0	9.5	1.5	11.0	F-BERGEN
2936.45	SST	COCH	49.5	32.0	81.5	17.0	1.5	18.5	F-BERGEN
2937.45	SST	COCH	51.5	38.5	90.0	9.0	1.0	10.0	F-BERGEN
2941.50	SST	COCH	52.0	39.0	91.0	8.0	1.0	9.0	F-BERGEN
2948.50	SST	COCH	59.5	22.5	82.0	16.0	2.0	18.0	F-BERGEN
2965.40	SST	COCH	55.0	32.5	87.5	11.5	1.0	12.5	F-BERGEN
2966.35	SST	COCH	57.5	28.0	85.5	13.5	1.0	14.5	F-BERGEN
2970.45	SST	COCH	53.5	33.5	87.0	12.0	1.0	13.0	F-BERGEN
2972.60	SST	COCH	57.0	32.5	89.5	9.0	1.5	10.5	F-BERGEN
2973.50	SST	COCH	54.0	35.0	89.0	10.0	1.0	11.0	F-BERGEN
2974.50	SST	COCH	53.5	29.0	82.5	16.0	1.5	17.5	F-BERGEN
2975.45	SST	COCH	51.5	29.0	80.5	17.0	2.5	19.5	F-BERGEN
2976.55	SST	COCH	53.0	31.0	84.0	14.5	1.5	16.0	F-BERGEN
2977.50	SST	COCH	56.5	28.5	85.0	14.0	1.0	15.0	F-BERGEN
2978.25	SST	COCH	61.0	27.0	88.0	11.0	1.0	12.0	F-BERGEN
2978.55	SST	COCH	43.0	26.0	69.0	23.5	7.5	31.0	F-BERGEN
2979.55	SST	COCH	46.0	36.0	82.0	16.0	2.0	18.0	F-BERGEN
2980.50	SST	COCH	31.0	22.0	53.0	36.5	10.5	47.0	F-BERGEN
2981.45	SST	COCH	28.5	20.0	48.5	47.0	4.5	51.5	F-BERGEN
2982.60	SST	COCH	42.0	31.0	73.0	22.0	5.0	27.0	F-BERGEN
2983.65	SST	COCH	40.0	28.0	68.0	28.0	4.0	32.0	F-BERGEN



TABLE: 2.4

SEDIMENT EXTRACTION PERCENTAGES (IATROSCAN), WELL NOR:34/8-8 (cont'd)

Depth (m)	Lithology	Type	Hydrocarbons (%)			Non Hydrocarbons (%)			Analysing Company
			SAT	ARO	TOTAL	POL	ASP	TOTAL	
2984.50	SST	COCH	40.5	29.5	70.0	26.5	3.5	30.0	F-BERGEN
2985.50	SST	COCH	40.0	31.5	71.5	22.5	6.0	28.5	F-BERGEN
2986.25	SST	COCH	34.0	23.5	57.5	34.5	8.0	42.5	F-BERGEN
2987.75	SST	COCH	39.0	29.0	68.0	28.5	3.5	32.0	F-BERGEN
2988.50	SST	COCH	26.0	21.0	47.0	47.5	5.5	53.0	F-BERGEN
2989.40	SST	COCH	31.5	34.5	66.0	29.5	4.5	34.0	F-BERGEN
2990.75	SST	COCH	34.5	34.5	69.0	28.0	3.0	31.0	F-BERGEN
2991.30	SST	COCH	34.0	35.5	69.5	27.0	3.5	30.5	F-BERGEN
2992.30	SST	COCH	38.5	30.0	68.5	29.0	2.5	31.5	F-BERGEN
2993.35	SST	COCH	32.0	23.0	55.0	38.0	7.0	45.0	F-BERGEN
2994.45	SST	COCH	34.0	30.5	64.5	30.0	5.5	35.5	F-BERGEN
2995.50	SST	COCH	36.5	31.5	68.0	28.5	3.5	32.0	F-BERGEN
2998.40	SST	COCH	35.5	28.5	64.0	30.0	6.0	36.0	F-BERGEN
3002.50	SST	COCH	37.0	26.0	63.0	29.0	8.0	37.0	F-BERGEN

TABLE: 2.5

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SEDIMENT EXTRACTION RATIOS (IATROSCAN), WELL NOR:34/8-8

Depth (m)	Lithology	Type	TOC (%)	EOM/TOC (%)	SAT/TOC (%)	SAT/ARO (%)	HC/Non HC (%)
2923.50	SST	COCH	1.4		37.9	1.4	7.0
2924.50	SST	COCH	1.4		37.1	1.5	6.7
2925.60	SST	COCH	1.3		39.9	1.4	7.0
2926.45	SST	COCH	0.9		65.2	1.9	7.7
2927.55	SST	COCH	1.2		43.3	1.4	7.3
2928.50	SST	COCH	0.9		59.8	1.7	4.9
2929.50	SST	COCH	1.1		49.1	1.6	7.7
2930.50	SST	COCH	1.5		35.3	1.4	7.7
2931.25	SST	COCH	1.0		52.4	1.6	8.1
2932.50	SST	COCH	1.2		44.3	1.5	9.5
2933.50	SST	COCH	0.8		73.4	2.0	7.0
2934.50	SST	COCH	1.0		57.1	1.8	7.7
2935.45	SST	COCH	1.0		50.0	1.4	8.1
2936.45	SST	COCH	1.5		33.4	1.5	4.4
2937.45	SST	COCH	0.6		80.5	1.3	9.0
2941.50	SST	COCH	1.4		38.0	1.3	10.1
2948.50	SST	COCH	0.8		78.3	2.6	4.6
2965.40	SST	COCH	1.0		53.9	1.7	7.0
2966.35	SST	COCH	1.2		48.7	2.1	5.9
2970.45	SST	COCH	1.1		47.8	1.6	6.7
2972.60	SST	COCH	0.9		63.3	1.8	8.5
2973.50	SST	COCH	1.0		54.5	1.5	8.1
2974.50	SST	COCH	0.6		83.6	1.8	4.7
2975.45	SST	COCH	0.9		58.5	1.8	4.1
2976.55	SST	COCH	0.9		61.6	1.7	5.3
2977.50	SST	COCH	0.7		81.9	2.0	5.7
2978.25	SST	COCH	0.9		65.6	2.3	7.3
2978.55	SST	COCH				1.7	2.2
2979.55	SST	COCH	0.2		191.7	1.3	4.6
2980.50	SST	COCH	0.2		129.2	1.4	1.1
2981.45	SST	COCH	0.2		118.8	1.4	0.9
2982.60	SST	COCH	0.2		175.0	1.4	2.7
2983.65	SST	COCH	0.2		166.7	1.4	2.1



TABLE: 2.5

SEDIMENT EXTRACTION RATIOS (IATROSCAN), WELL NOR:34/8-8 (cont'd)

Depth (m)	Lithology	Type	TOC (%)	EOM/TOC (%)	SAT/TOC (%)	SAT/ARO (%)	HC/Non HC (%)
2984.50	SST	COCH	0.2		168.8	1.4	2.3
2985.50	SST	COCH	0.2		166.7	1.3	2.5
2986.25	SST	COCH	0.2		141.7	1.4	1.4
2987.75	SST	COCH	0.2		162.5	1.3	2.1
2988.50	SST	COCH	0.2		108.3	1.2	0.9
2989.40	SST	COCH	0.2		131.3	0.9	1.9
2990.75	SST	COCH	0.2		143.8	1.0	2.2
2991.30	SST	COCH	0.2		141.7	1.0	2.3
2992.30	SST	COCH	0.2		160.4	1.3	2.2
2993.35	SST	COCH	0.2		133.3	1.4	1.2
2994.45	SST	COCH	0.2		141.7	1.1	1.8
2995.50	SST	COCH	0.2		152.1	1.2	2.1
2998.40	SST	COCH	0.2		147.9	1.2	1.8
3002.50	SST	COCH	0.2		154.2	1.4	1.7

TABLE: 2.6

SATURATED FRACTION MOLECULAR RATIOS (SEDIMENT SAMPLES), WELL NOR:34/8-8

Depth (m)	Lithology	Type	Pristane/ nC17	Pristane/ Phytane	CPI-I	CPI-II	nC17/ nC17+nC27	Analysing Company
2923.50	SST	COCH	0.6	1.6	1.1	0.9		F-BERGEN
2937.45		SDCR	0.6	1.5	1.1	0.9		F-BERGEN
2941.50	SST	COCH	0.6	1.5	1.1	0.9		F-BERGEN
2948.50	SST	COCH	0.6	1.5	1.1	0.9		F-BERGEN
2965.40	SST	COCH	0.6	1.5	1.1	1.0		F-BERGEN
2966.35	SST	COCH	0.6	1.6	1.1	0.9		F-BERGEN
2970.45	SST	COCH	0.6	1.7	1.1	0.9		F-BERGEN
2972.60	SST	COCH	0.6	1.5	1.1	0.9		F-BERGEN
2973.50	SST	COCH	0.6	1.5	1.1	1.0		F-BERGEN
2974.50	SST	COCH	0.6	1.5	1.1	0.9		F-BERGEN
2975.45	SST	COCH	0.6	1.6	1.1	1.0		F-BERGEN
2976.55	SST	COCH	0.6	1.6	1.1	1.0		F-BERGEN
2977.50	SST	COCH	0.6	1.5	1.1	1.0		F-BERGEN
2978.25	SST	COCH	0.6	1.5	1.1	0.9		F-BERGEN
2978.55	SST	COCH	1.8	1.4	1.2	0.9		F-BERGEN
2979.55	SST	COCH	0.7	1.6	1.1	1.0		F-BERGEN
2980.50	SST	COCH	1.9	1.4	1.2	1.1		F-BERGEN
2981.45	SST	COCH	2.0	1.4	1.2	0.8		F-BERGEN
2982.60	SST	COCH	1.8	1.5	1.3	0.9		F-BERGEN
2983.65	SST	COCH	1.9	1.7	1.1	0.8		F-BERGEN
2984.50	SST	COCH	1.8	1.5	1.2	1.0		F-BERGEN
2985.50	SST	COCH	1.6	1.5	1.2	0.8		F-BERGEN
2986.25	SST	COCH	2.2	1.7	1.1	0.9		F-BERGEN
2987.75	SST	COCH	2.5	2.1	1.1	0.9		F-BERGEN
2988.50	SST	COCH	1.9	1.5	1.1	0.9		F-BERGEN
2989.40	SST	COCH	1.7	1.5	1.1	0.9		F-BERGEN
2990.75	SST	COCH	1.8	1.5	1.1	0.8		F-BERGEN
2991.30	SST	COCH	1.7	1.5	1.1	0.9		F-BERGEN
2992.30	SST	COCH	1.8	1.5	1.1	0.9		F-BERGEN
2993.35	SST	COCH	1.8	1.5	1.1	0.9		F-BERGEN
2994.45	SST	COCH	1.9	1.6	1.3	0.8		F-BERGEN
2995.50	SST	COCH	1.7	1.5	1.1	0.9		F-BERGEN
2998.40	SST	COCH	1.9	1.5	1.2	0.8		F-BERGEN

TABLE: 2.6

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SATURATED FRACTION MOLECULAR RATIOS (SEDIMENT SAMPLES), WELL NOR:34/8-8 (cont'd)

Depth (m)	Lithology	Type	Pristane/ nC17	Pristane/ Phytane	CPI-I	CPI-II	nC17/ nC17+nC27	Analysing Company
3002.50	SST	COCH	1.8	1.5	1.1	1.0		F-BERGEN

Methyl phenanthrene indices.

Depth m	f1	f2	MPI-1	MPI-2
2923,50	0,48	0,32	0,91	1,21
2937,45	0,48	0,31	0,86	1,13
2941,50	0,45	0,31	0,75	1,03
2948,50	0,44	0,30	0,69	0,95
2965,40	0,41	0,27	0,67	1,02
2966,35	0,45	0,30	0,79	1,06
2970,45	0,48	0,32	0,90	1,18
2972,60	0,45	0,30	0,80	1,08
2973,50	0,48	0,32	0,86	1,15
2974,50	0,44	0,30	0,77	1,04
2975,45	0,48	0,32	0,86	1,14
2976,25	0,47	0,31	0,81	1,08
2977,50	0,45	0,30	0,76	1,04
2978,25	0,46	0,31	0,77	1,03
2978,55	0,44	0,29	0,74	0,99
2979,55	0,44	0,30	0,69	0,94
2980,50	0,44	0,29	0,73	0,97
2981,45	0,43	0,29	0,71	0,96
2982,60	0,43	0,30	0,72	0,98
2983,65	0,43	0,30	0,74	1,03
2984,50	0,45	0,30	0,72	0,97
2985,50	0,42	0,28	0,72	0,96
2986,25	0,42	0,29	0,71	0,98
2987,75	0,43	0,29	0,72	0,99
2988,50	0,42	0,28	0,69	0,92
2989,40	0,44	0,29	0,72	0,96
2990,75	0,42	0,29	0,65	0,90
2991,30	0,43	0,30	0,74	1,02
2992,30	0,44	0,31	0,76	1,06
2993,35	0,43	0,30	0,73	1,02
2994,45	0,45	0,30	0,78	1,07
2995,50	0,43	0,30	0,73	1,02
2998,40	0,46	0,32	0,78	1,08
3002,50	0,44	0,31	0,79	1,13

Table 2.7

Biomarker ratios.

Depth	%27	%28	%29	%20S	%abb	Ts/Tm	BNH/H	NH/H	D/H	Mor/H	25nor/H	BNH/D	BNH/BNH+D	HOP/STE	BNH/BNH+NH
2923,50	40	26	34	56	57	1,55	0,34	0,34	0,22	0,09	0,06	0,43	0,30	1,94	0,21
2937,45	39	28	33	53	59	1,65	0,36	0,36	0,23	0,11	0,05	0,45	0,31	1,83	0,23
2941,50	35	30	35	56	57	1,55	0,38	0,38	0,22	0,09	0,06	0,43	0,30	1,94	0,20
2948,50	37	28	35	49	57	1,37	0,39	0,39	0,24	0,13	0,07	0,50	0,33	1,88	0,23
2965,40	37	29	34	54	61	1,00	0,42	0,42	0,35	0,10	0,06	0,40	0,29	1,13	0,25
2966,35	37	29	34	51	58	1,43	0,35	0,35	0,22	0,10	0,05	0,43	0,30	2,55	0,21
2970,45	38	29	34	53	61	1,50	0,36	0,36	0,21	0,10	0,05	0,40	0,29	2,44	0,19
2972,60	37	30	33	53	57	1,48	0,36	0,36	0,23	0,11	0,05	0,32	0,24	2,42	0,17
2973,50	37	30	34	56	58	1,57	0,36	0,36	0,24	0,11	0,04	0,30	0,23	2,44	0,17
2974,50	36	31	33	55	58	1,41	0,36	0,36	0,23	0,11	0,04	0,32	0,24	2,53	0,17
2975,45	36	30	34	53	61	1,52	0,34	0,34	0,21	0,09	0,05	0,33	0,25	2,67	0,18
2976,25	38	28	34	56	59	1,52	0,34	0,34	0,21	0,11	0,05	0,33	0,25	2,50	0,18
2977,50	37	30	34	56	58	1,43	0,37	0,37	0,22	0,10	0,05	0,32	0,24	2,67	0,16
2978,25	37	30	33	53	59	1,33	0,35	0,35	0,22	0,11	0,06	0,38	0,28	2,36	0,19
2978,55	32	30	38	51	57	0,95	0,40	0,40	0,16	0,11	0,04	0,94	0,48	0,25	0,27
2979,55	34	30	35	52	58	1,32	0,38	0,38	0,20	0,11	0,02	0,53	0,34	1,71	0,22
2980,50	34	28	38	53	56	1,32	0,37	0,37	0,15	0,10	0,05	1,00	0,50	2,65	0,29
2981,45	34	28	38	47	58	1,25	0,39	0,39	0,14	0,12	0,04	0,93	0,48	2,48	0,25
2982,60	35	30	35	50	55	1,29	0,44	0,44	0,18	0,12	0,05	0,88	0,47	1,70	0,27
2983,65	31	29	40	48	54	1,30	0,41	0,41	0,17	0,11	0,05	0,94	0,48	1,64	0,28
2984,50	31	30	39	49	56	1,32	0,40	0,40	0,16	0,12	0,04	0,93	0,48	1,80	0,27
2985,50	32	30	37	49	58	1,30	0,43	0,43	0,14	0,10	0,07	1,00	0,50	1,85	0,25
2986,25	31	31	38	43	52	0,96	0,41	0,41	0,13	0,13	0,04	1,15	0,54	1,84	0,27
2987,75	32	29	38	34	45	0,63	0,52	0,52	0,18	0,19	0,06	0,39	0,28	2,87	0,12
2988,50	32	30	37	40	52	1,05	0,45	0,45	0,13	0,11	0,06	0,85	0,46	2,27	0,20
2989,40	32	30	39	50	56	1,20	0,41	0,41	0,17	0,11	0,05	0,75	0,43	1,85	0,24
2990,75	33	30	37	48	57	1,24	0,40	0,40	0,17	0,11	0,06	0,94	0,48	1,73	0,28
2991,30	34	29	36	50	57	1,19	0,43	0,43	0,19	0,10	0,05	0,88	0,47	1,64	0,28
2992,30	33	31	36	51	57	1,42	0,39	0,39	0,17	0,12	0,05	0,94	0,48	1,76	0,29
2993,35	33	31	35	51	55	1,32	0,39	0,39	0,18	0,11	0,04	0,88	0,47	1,67	0,29
2994,45	33	30	37	50	57	1,40	0,41	0,41	0,18	0,11	0,05	0,82	0,45	1,91	0,26
2995,50	31	31	37	46	53	1,35	0,41	0,41	0,20	0,11	0,05	0,84	0,46	2,09	0,29
2998,40	34	30	35	50	57	1,37	0,39	0,39	0,17	0,11	0,05	1,00	0,50	2,23	0,30
3002,50	32	31	37	51	55	1,26	0,38	0,38	0,16	0,11	0,04	0,93	0,48	2,17	0,29

Table 2.8

TABLE: 2.9

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ISOTOPE ANALYSIS RESULTS (SEDIMENT SAMPLES), WELL NOR:34/8-8

Depth (m)	Lithology	Type	d13C Extr	d13C SAT	d13C ARO	d13C POL	d13C ASP	d13C Kero	Analysing Company
2923.50	SST	COCH		-29.41	-28.64	-28.71	-27.56		F-BERGEN
2941.50	SST	COCH		-29.40	-28.70	-28.68	-27.52		F-BERGEN
2966.35	SST	COCH		-29.49	-28.74	-28.71	-27.63		F-BERGEN
2972.60	SST	COCH		-29.46	-28.73	-28.71	-27.64		F-BERGEN
2975.45	SST	COCH		-29.46	-28.72	-29.03	-27.89		F-BERGEN
2978.25	SST	COCH		-29.72	-29.01	-28.82	-27.14		F-BERGEN
2979.55	SST	COCH		-29.53	-28.93	-29.08	-28.00		F-BERGEN
2985.50	SST	COCH		-29.62	-29.12	-28.99	-27.73		F-BERGEN
2992.30	SST	COCH		-29.75	-29.19	-29.09	-27.45		F-BERGEN
3002.50	SST	COCH		-29.71	-29.12	-29.07	-27.55		F-BERGEN

Methyl phenanthrene indices versus depth, 34/8-B.

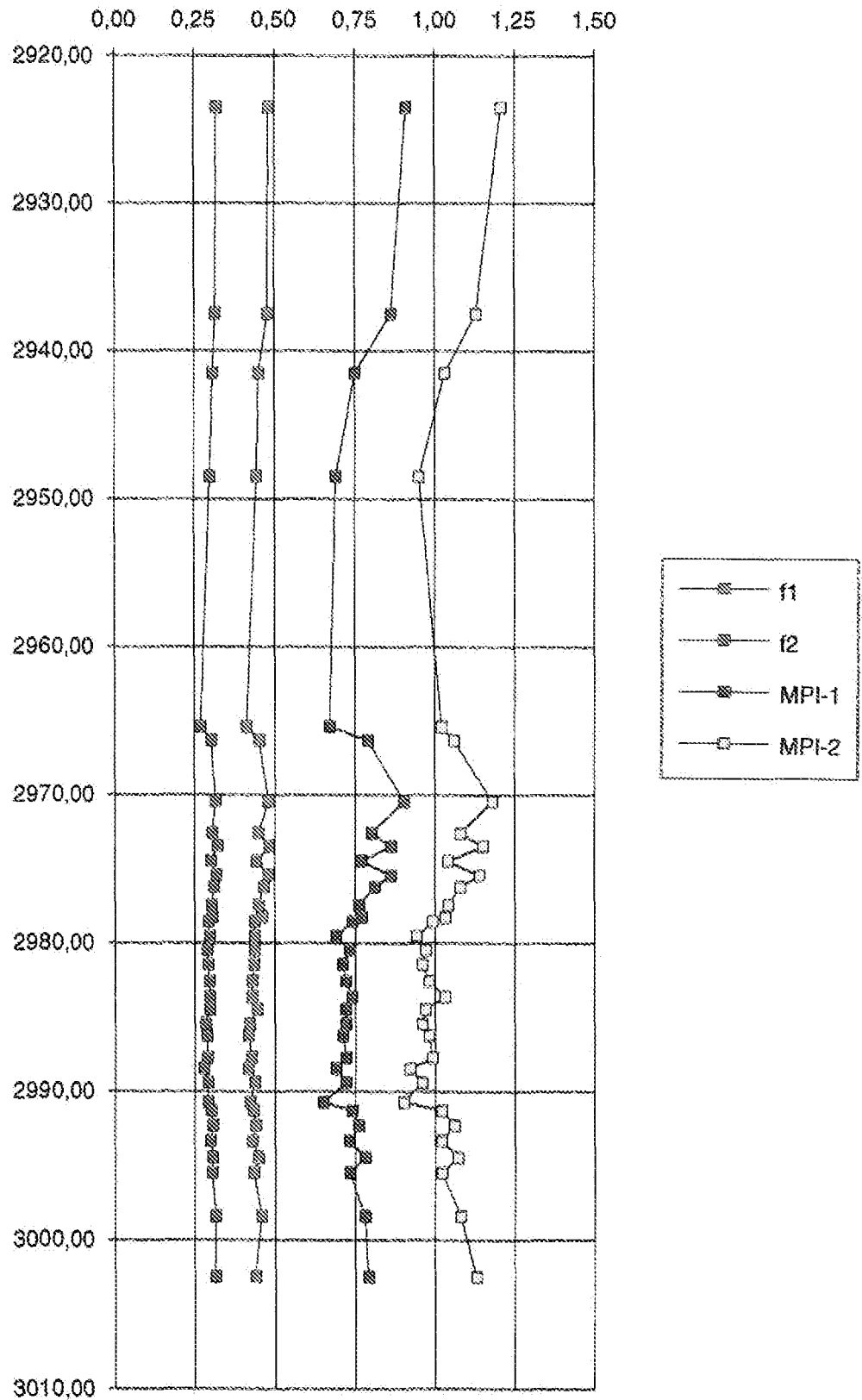


Figure 2.6

Sterane isomerization data versus depth, 34/8-8.

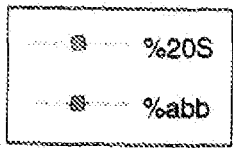
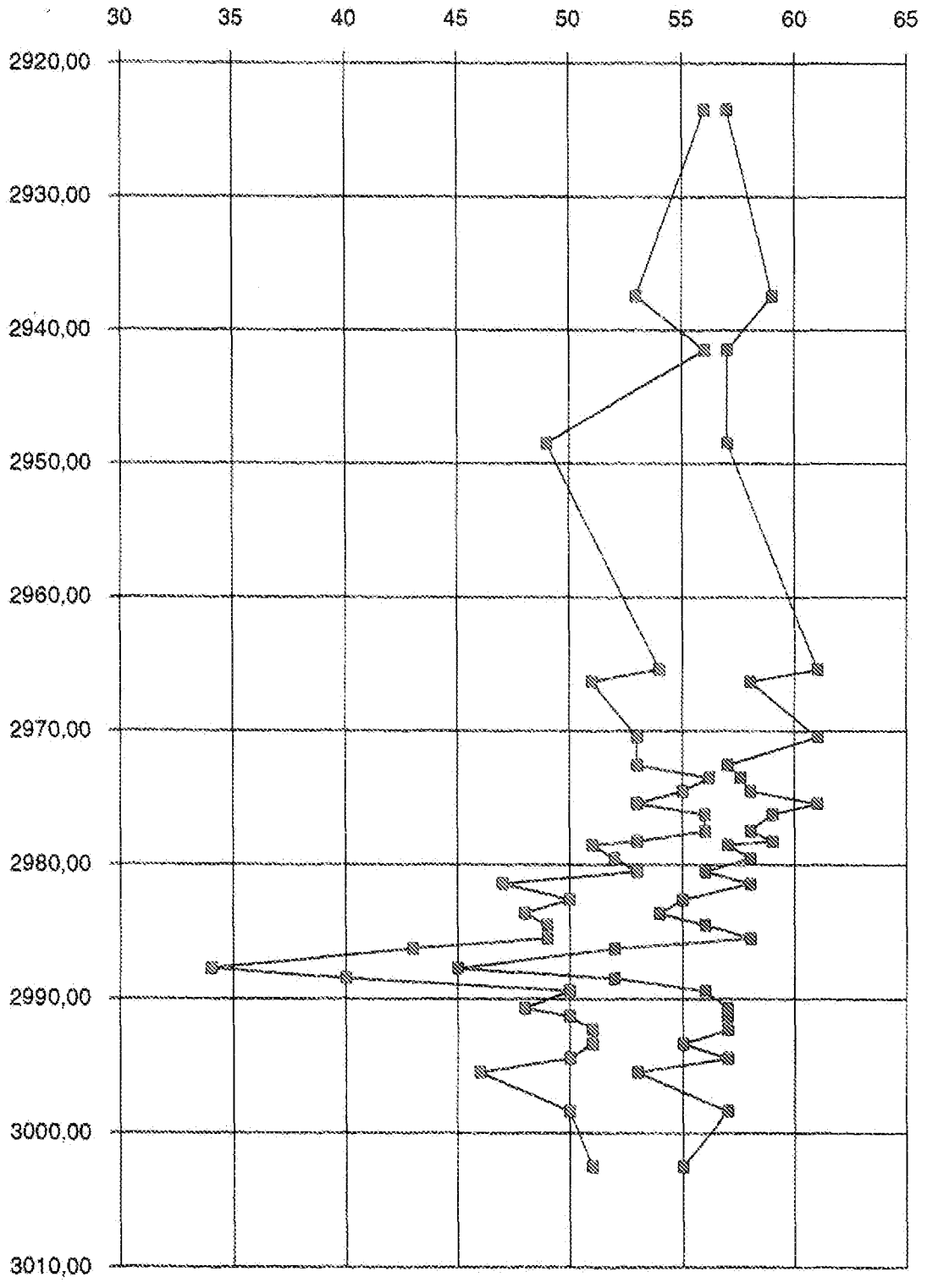


Figure 2.7

APPENDIX I

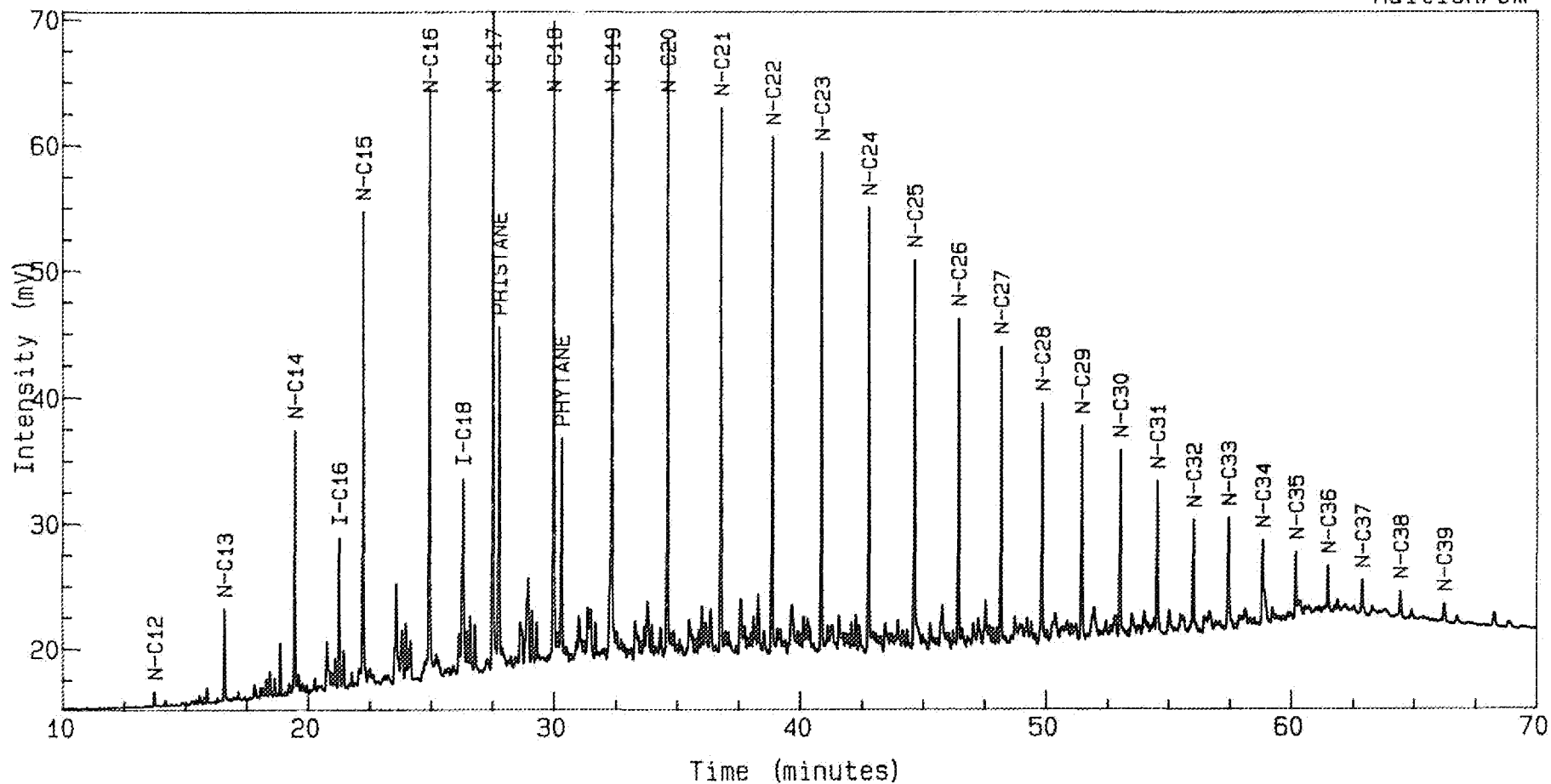
Gas chromatograms of saturated hydrocarbons.

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 B71280601S, 2, 1.

34/8-8, 2923.5

Multichrom



Instrument : HP5890

Channel Title : HP MSD

Lims ID :

Acquired on 1-DEC-1992 at 13:27

Reported on 15-DEC-1992 at 10:12

Method : MSDS

Calibration : MSDS

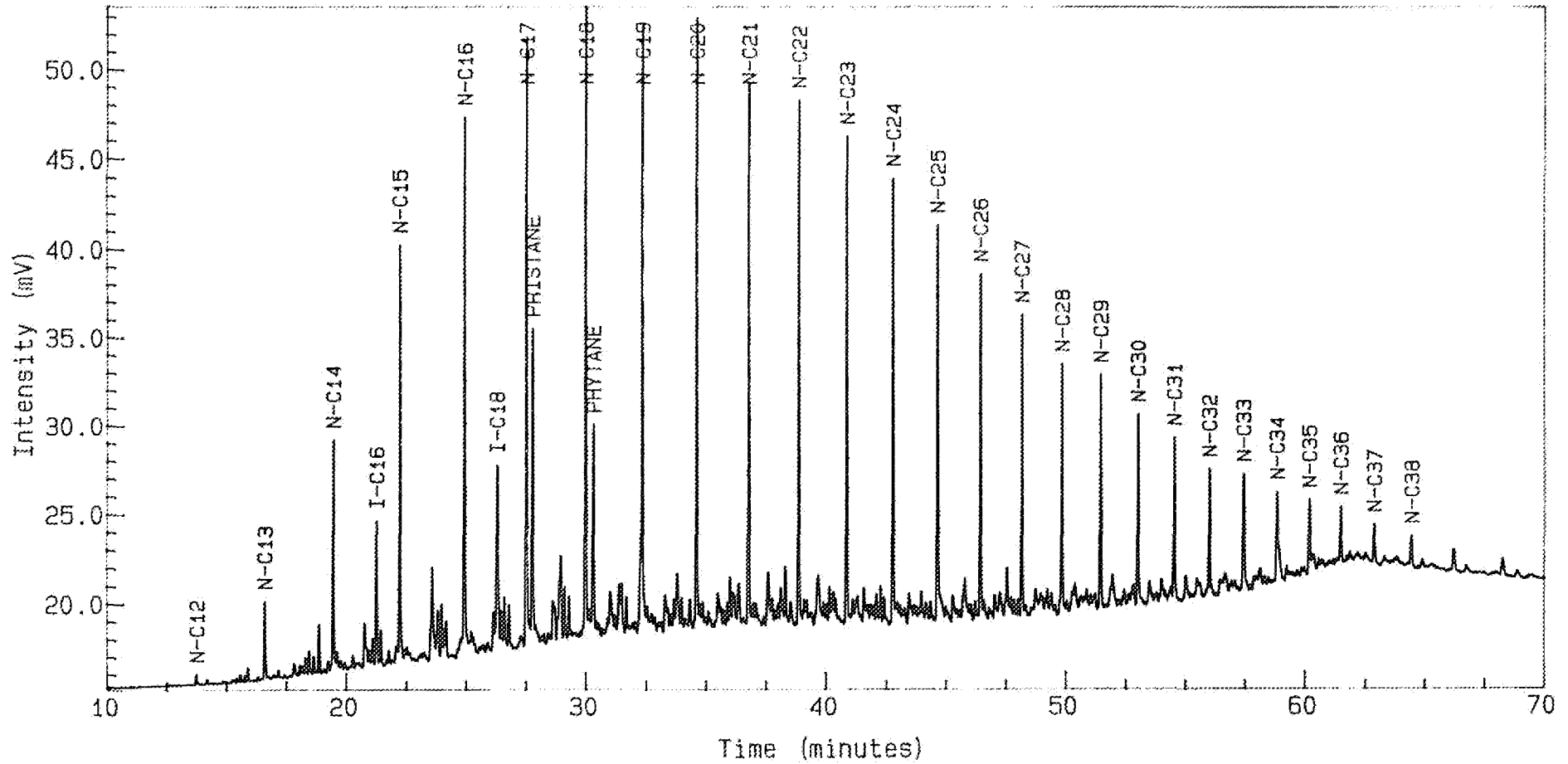
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 B71280601S, 3, 1.

34/8-8, 2937.45

Multichrom



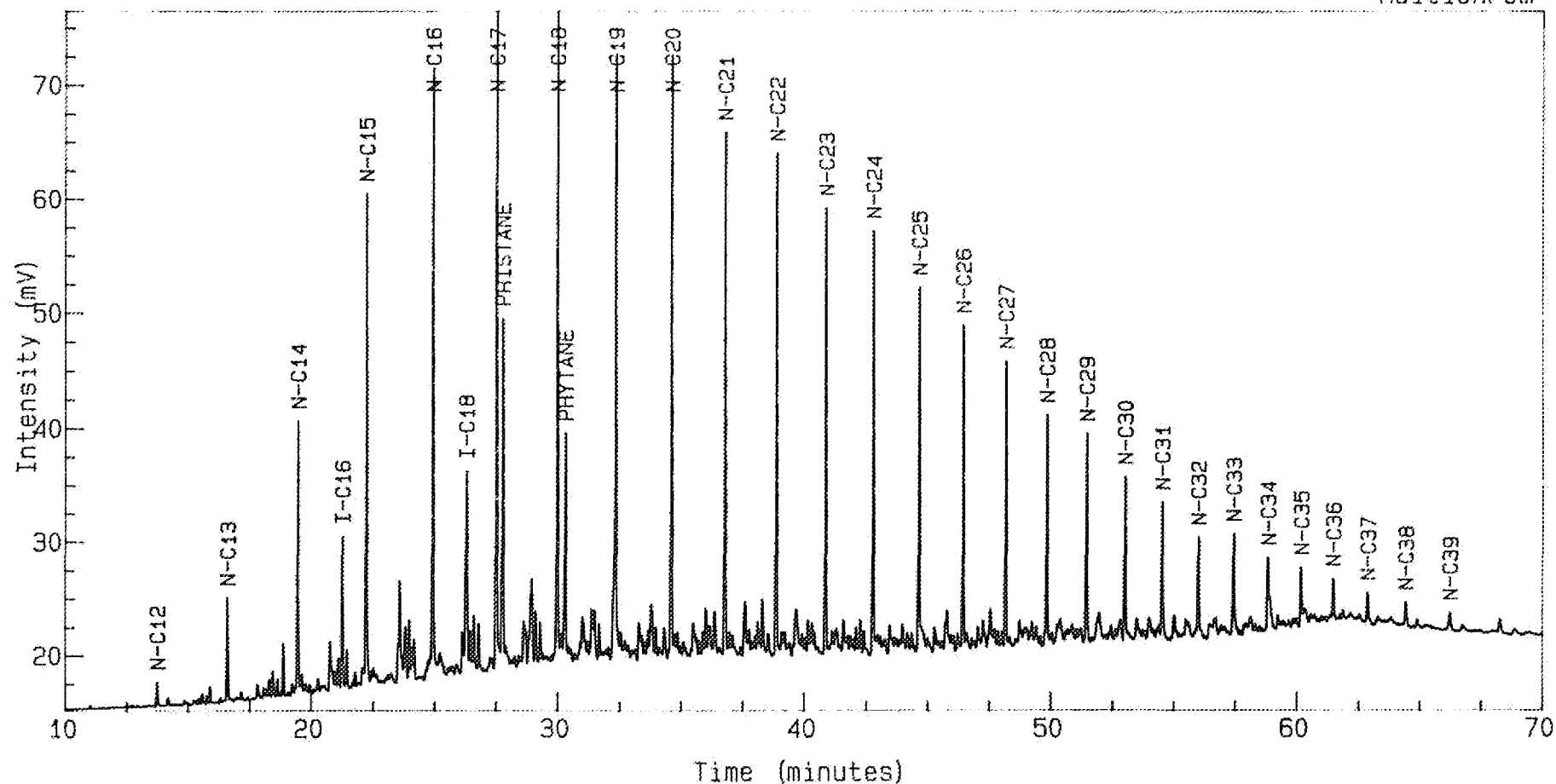
Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 1-DEC-1992 at 14:56
Reported on 15-DEC-1992 at 10:12

Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 B71280601S, 4, 1.
34/8-8, 2941.50

Multichrom



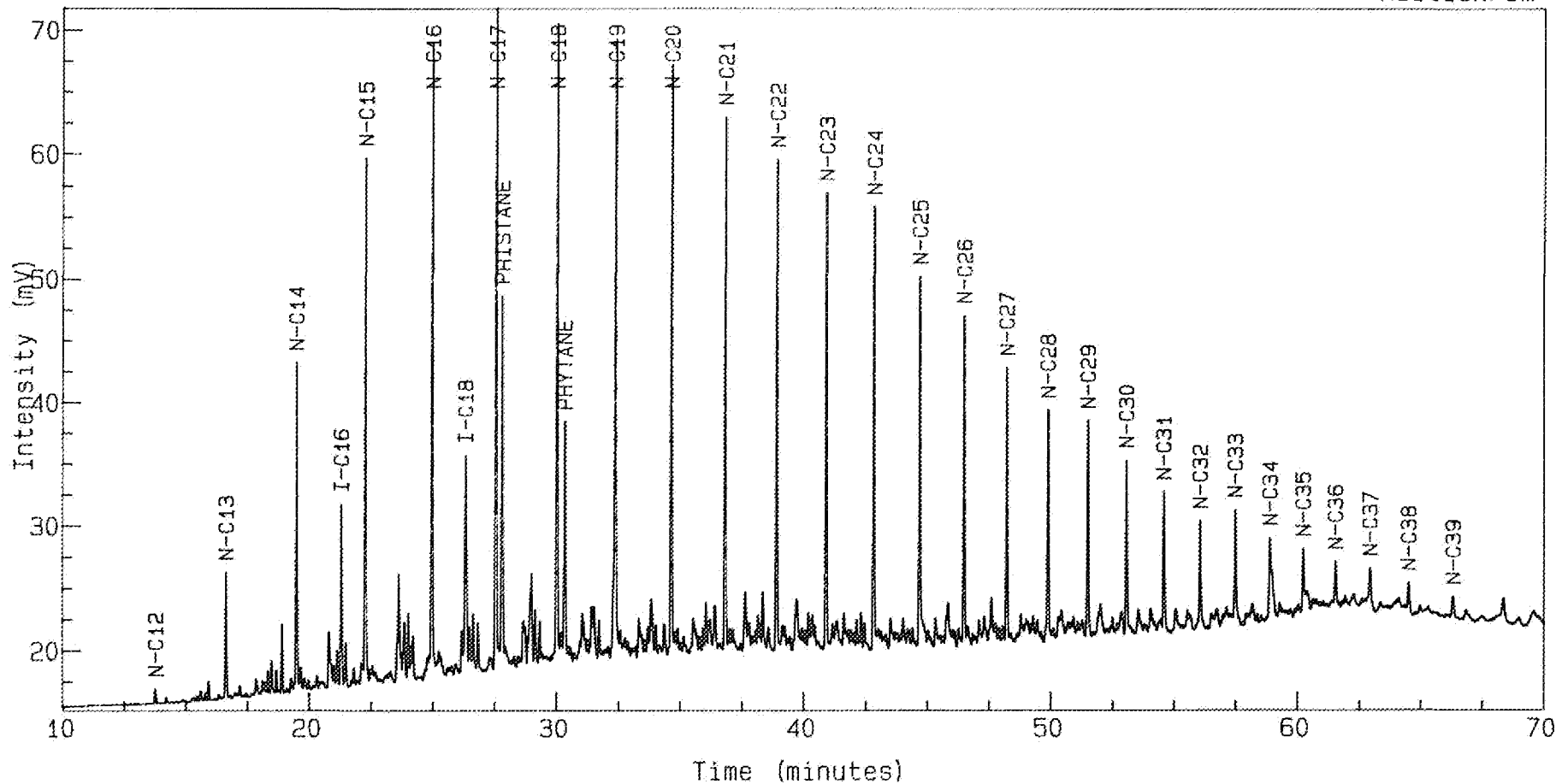
Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 1-DEC-1992 at 16:25
Reported on 15-DEC-1992 at 10:13

Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 B340808, 3, 1.
34/8-8, 2948.50

Multichrom



Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 19-NOV-1992 at 12:36
Reported on 26-NOV-1992 at 12:11

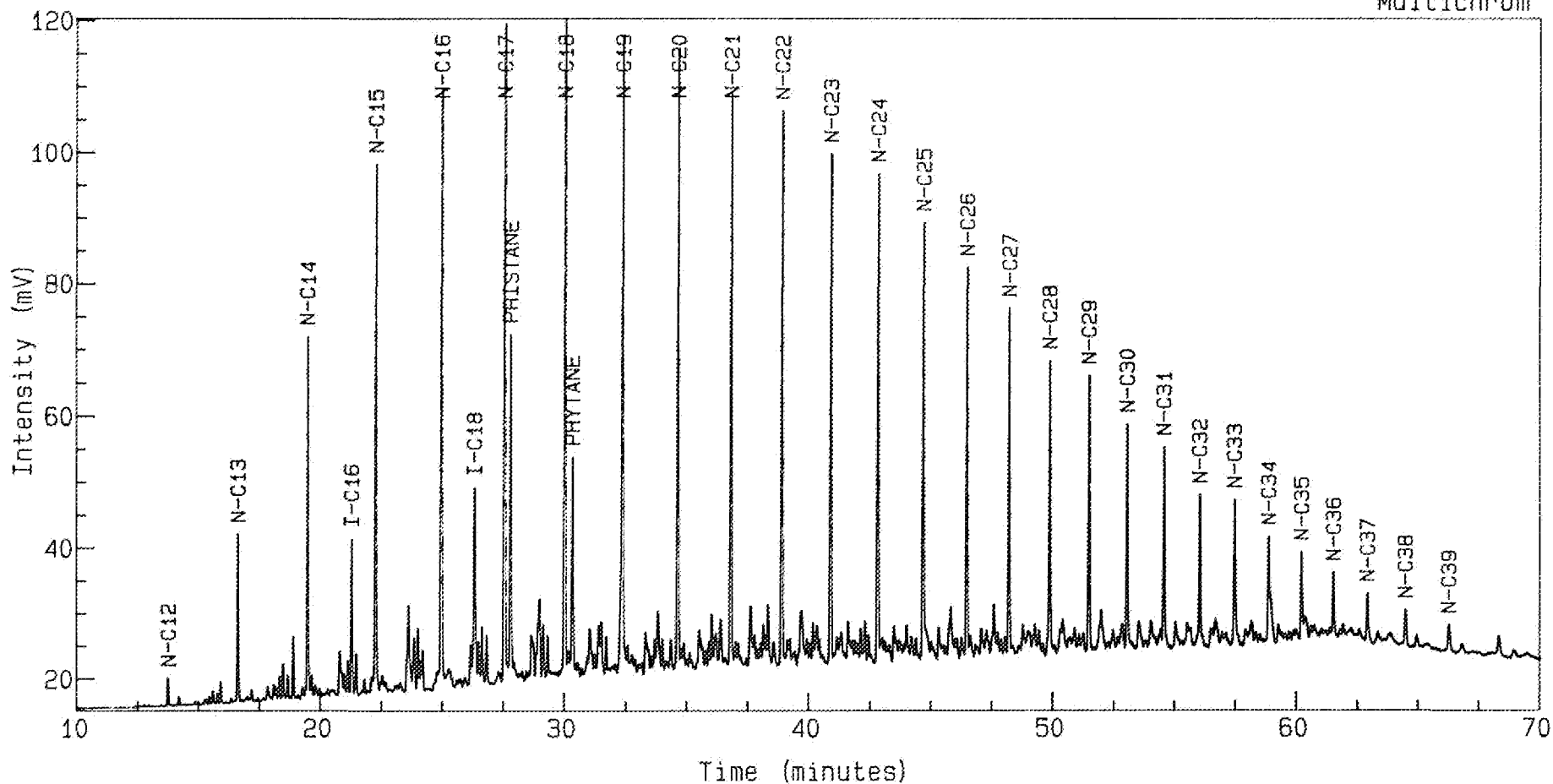
Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 C340808, 4, 1.

34/8-8, 2965.40

Multichrom



Instrument : HP5890

Channel Title : HP MSD

Lims ID :

Acquired on 20-NOV-1992 at 19:06

Reported on 27-NOV-1992 at 10:23

Method : MSDS

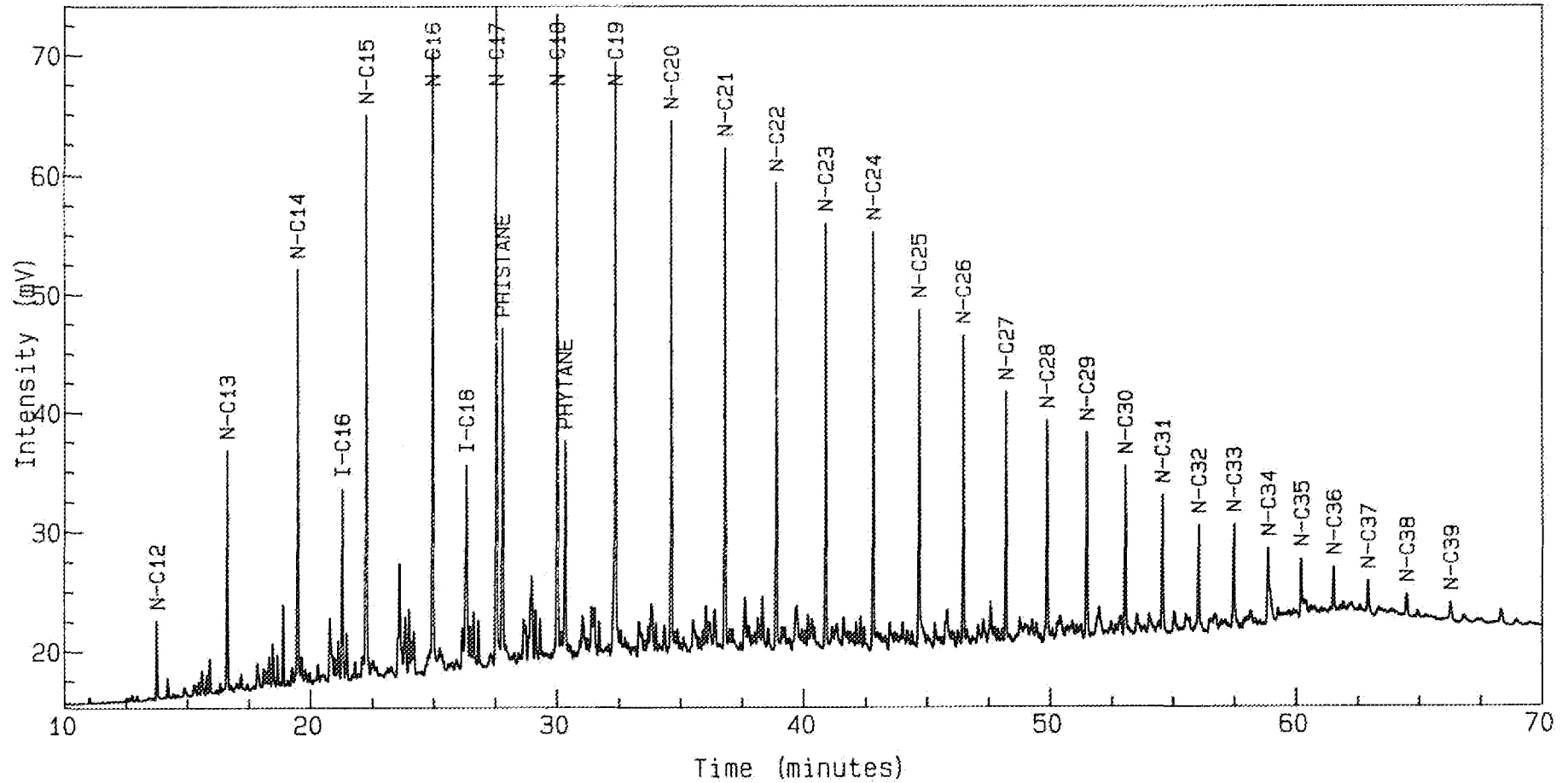
Calibration : MSDS

Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 B340808, 5, 1.
34/8-8, 2966.35

Multichrom



Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 19-NOV-1992 at 15:34
Reported on 26-NOV-1992 at 12:12

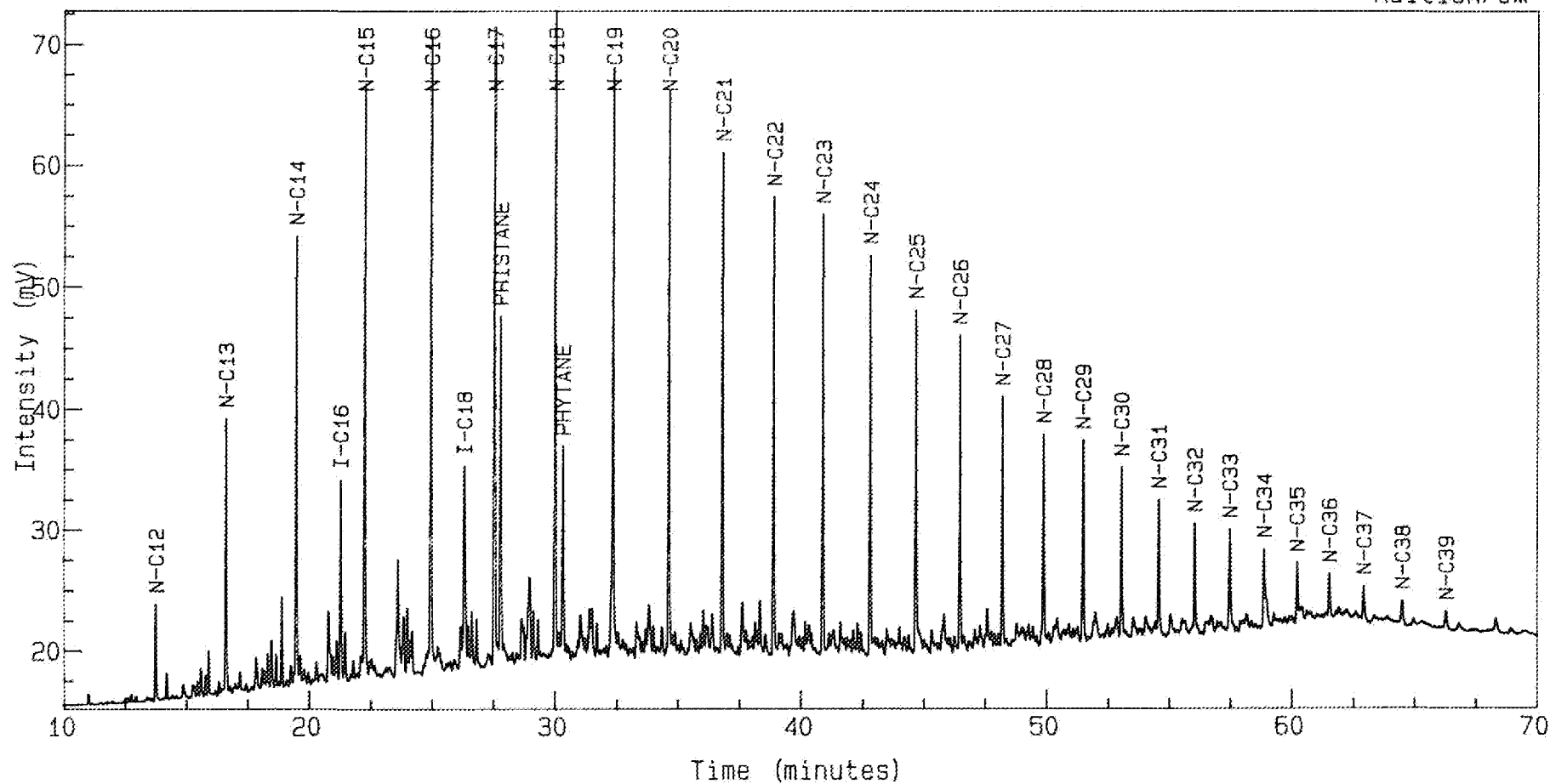
Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 B340808, 6, 1.

34/B-B, 2970.45

Multichrom



Instrument : HP5890

Channel Title : HP MSD

Lims ID :

Acquired on 19-NOV-1992 at 17:03

Reported on 26-NOV-1992 at 12:12

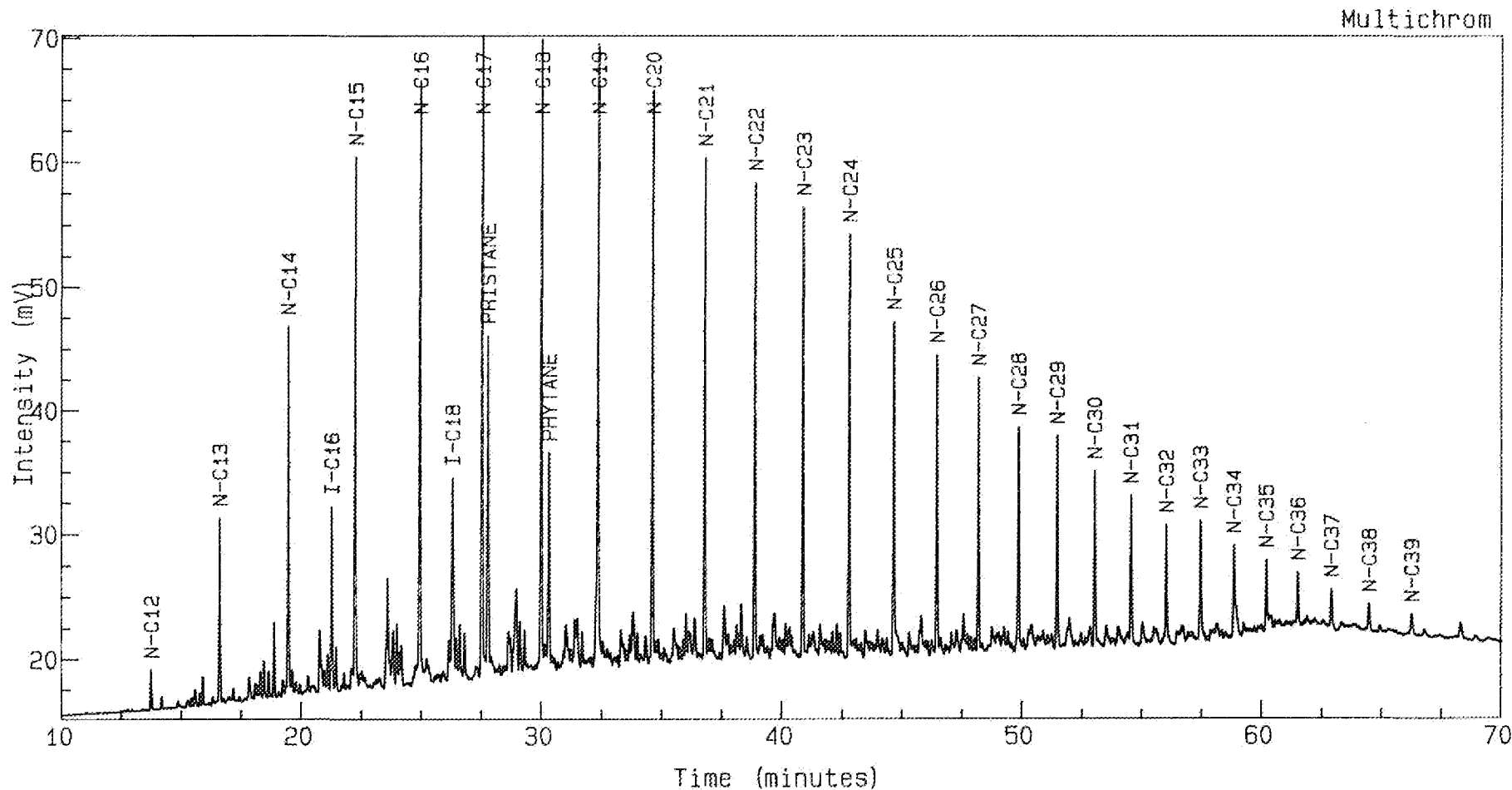
Method : MSDS

Calibration : MSDS

Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 B340808, 7, 1.
34/8-8, 2972.60



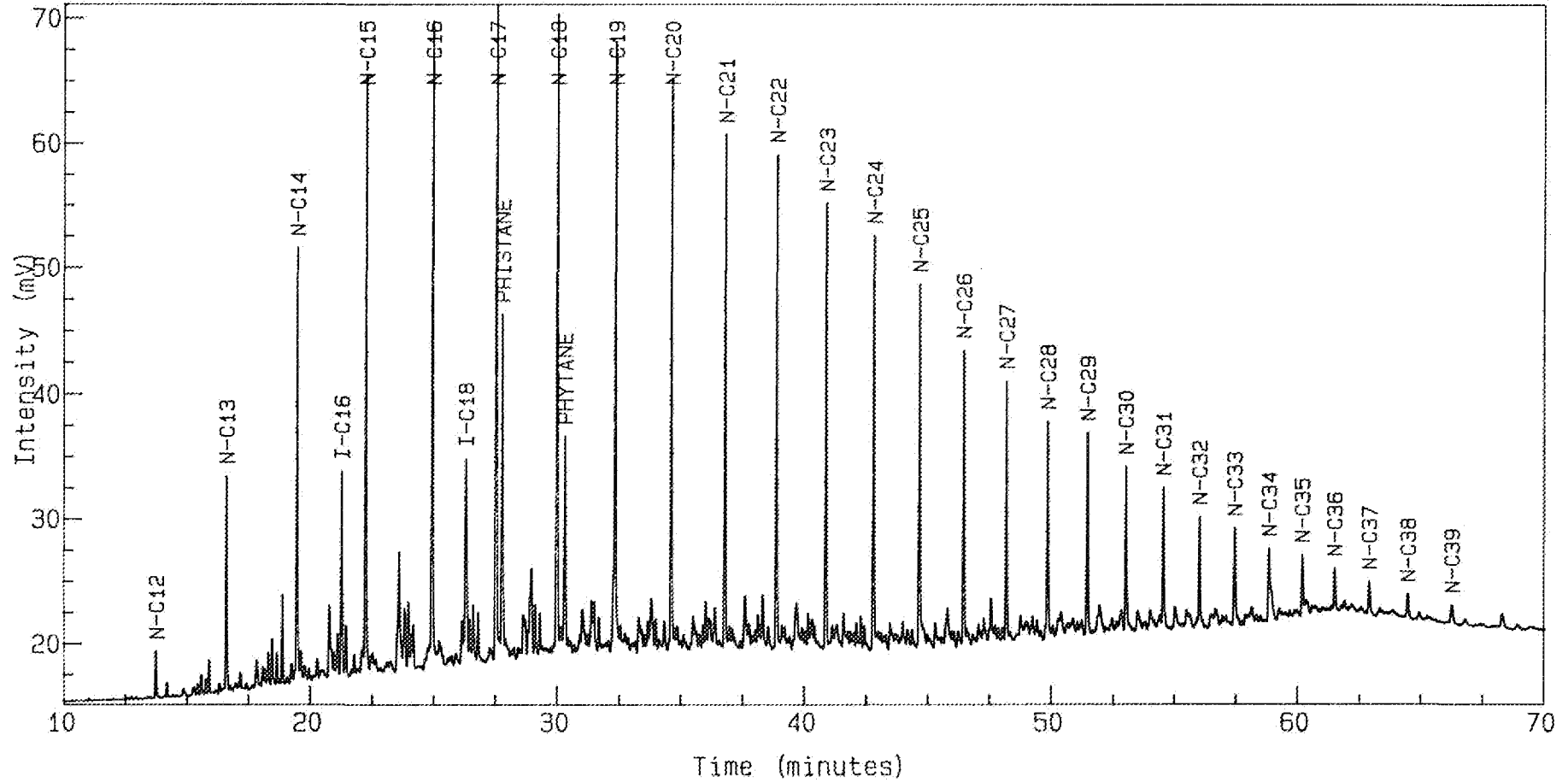
Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 19-NOV-1992 at 18:32
Reported on 26-NOV-1992 at 12:12

Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 B340808, 8, 1.
34/8-8, 2973.50

Multichrom



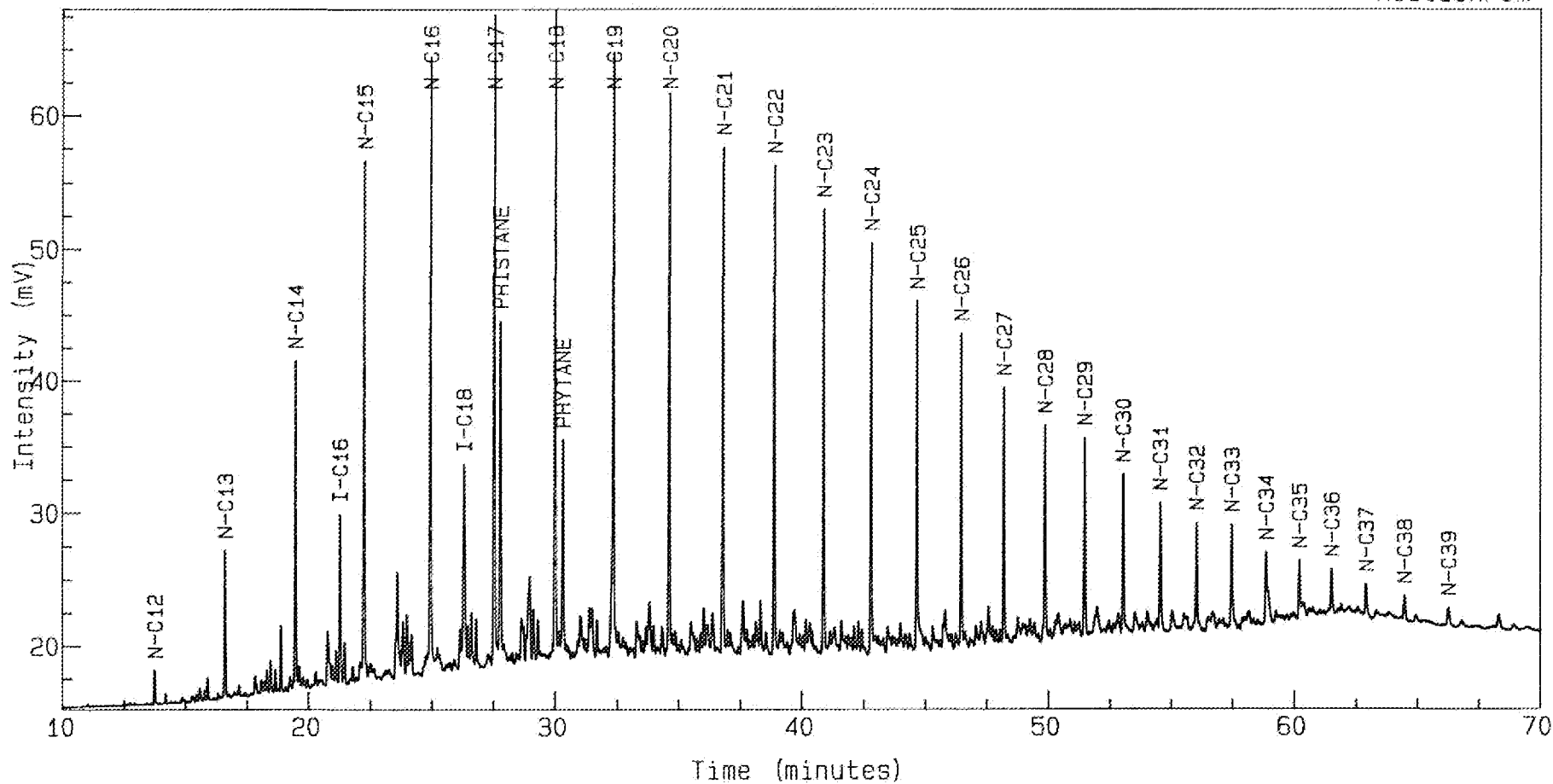
Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 19-NOV-1992 at 20:01
Reported on 26-NOV-1992 at 12:13

Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 B340808, 9, 1.
34/8-8, 2974.50

Multichrom



Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 19-NOV-1992 at 21:30
Reported on 26-NOV-1992 at 12:13

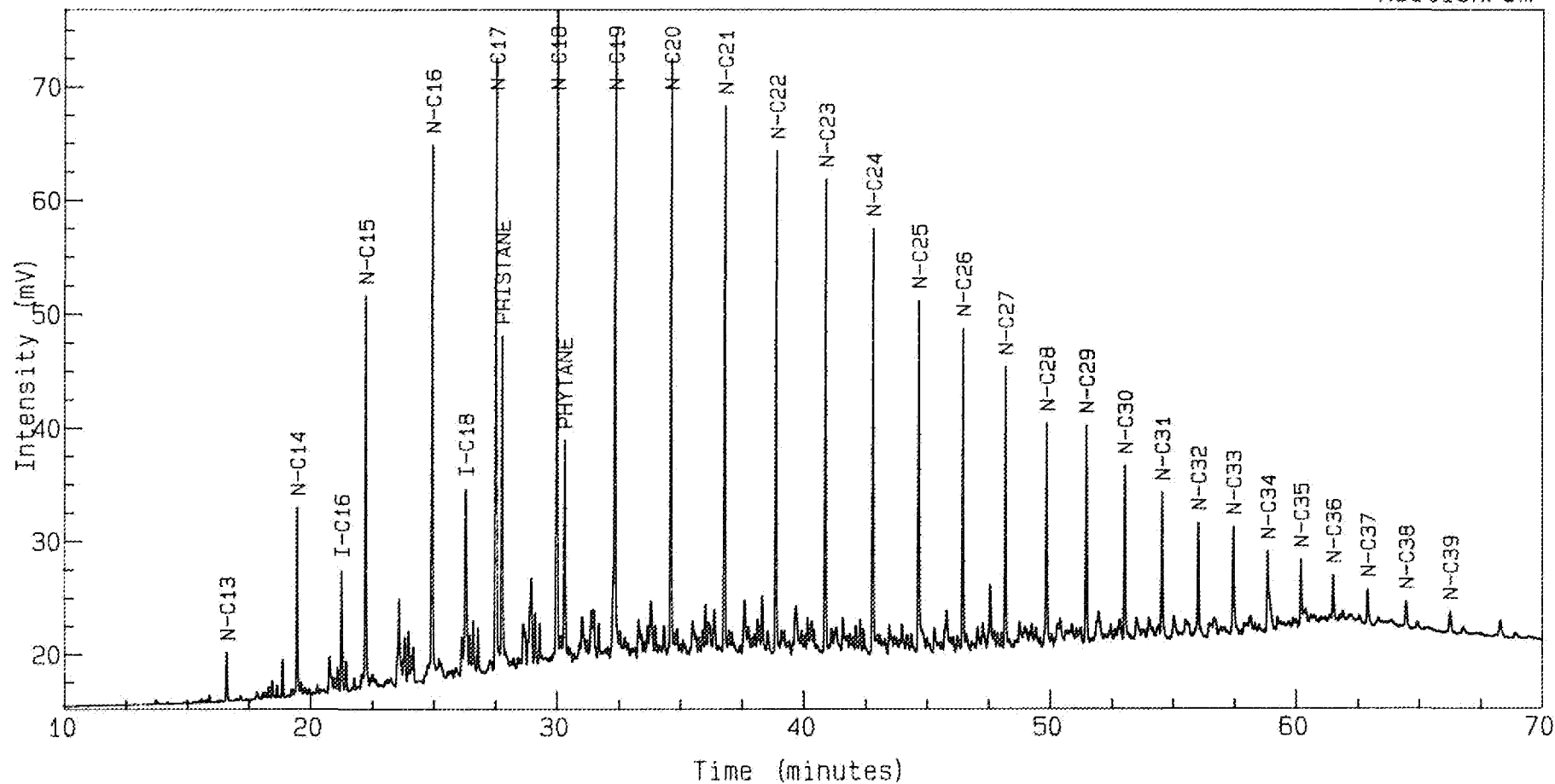
Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 B340808, 11, 1.

34/8-8, 2975.45

Multichrom



Instrument : HP5890

Channel Title : HP MSD

Lims ID :

Acquired on 20-NOV-1992 at 00:28

Reported on 26-NOV-1992 at 12:14

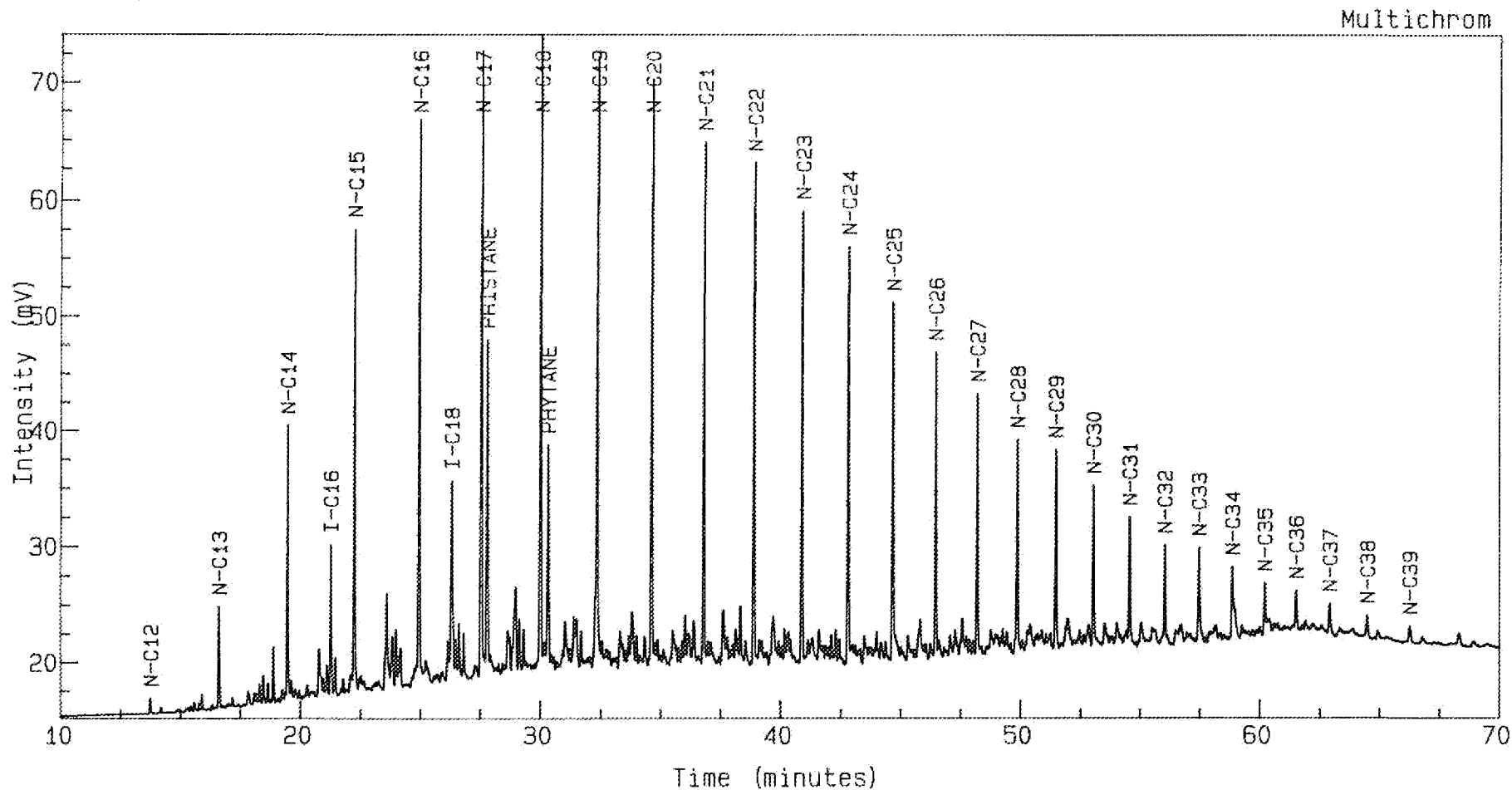
Method : MSDS

Calibration : MSDS

Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 B340808, 12, 1.
34/8-8, 2976.55

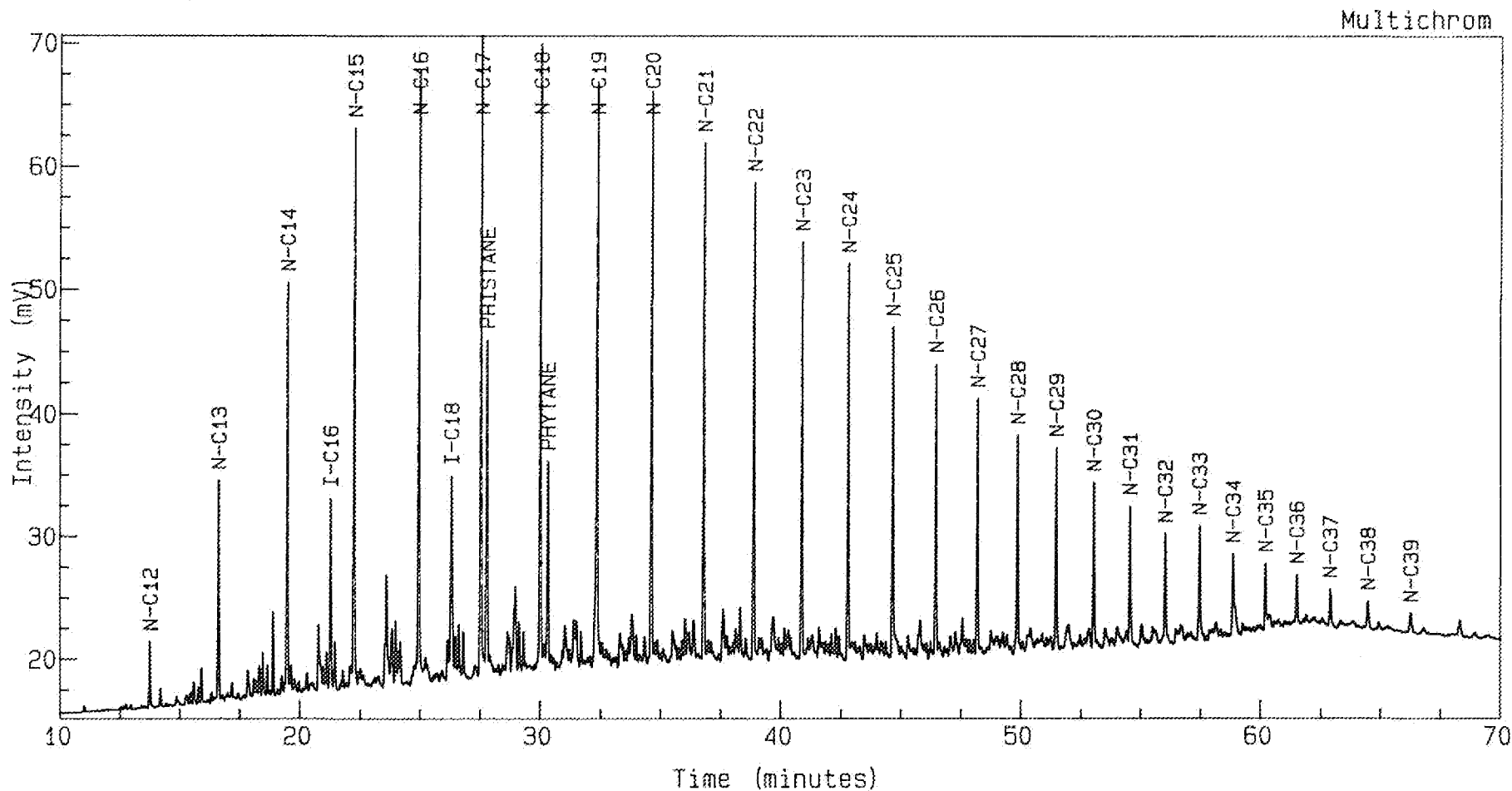


Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 20-NOV-1992 at 01:57
Reported on 26-NOV-1992 at 12:15

Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 B340808, 13, 1.
34/8-8, 2977.50



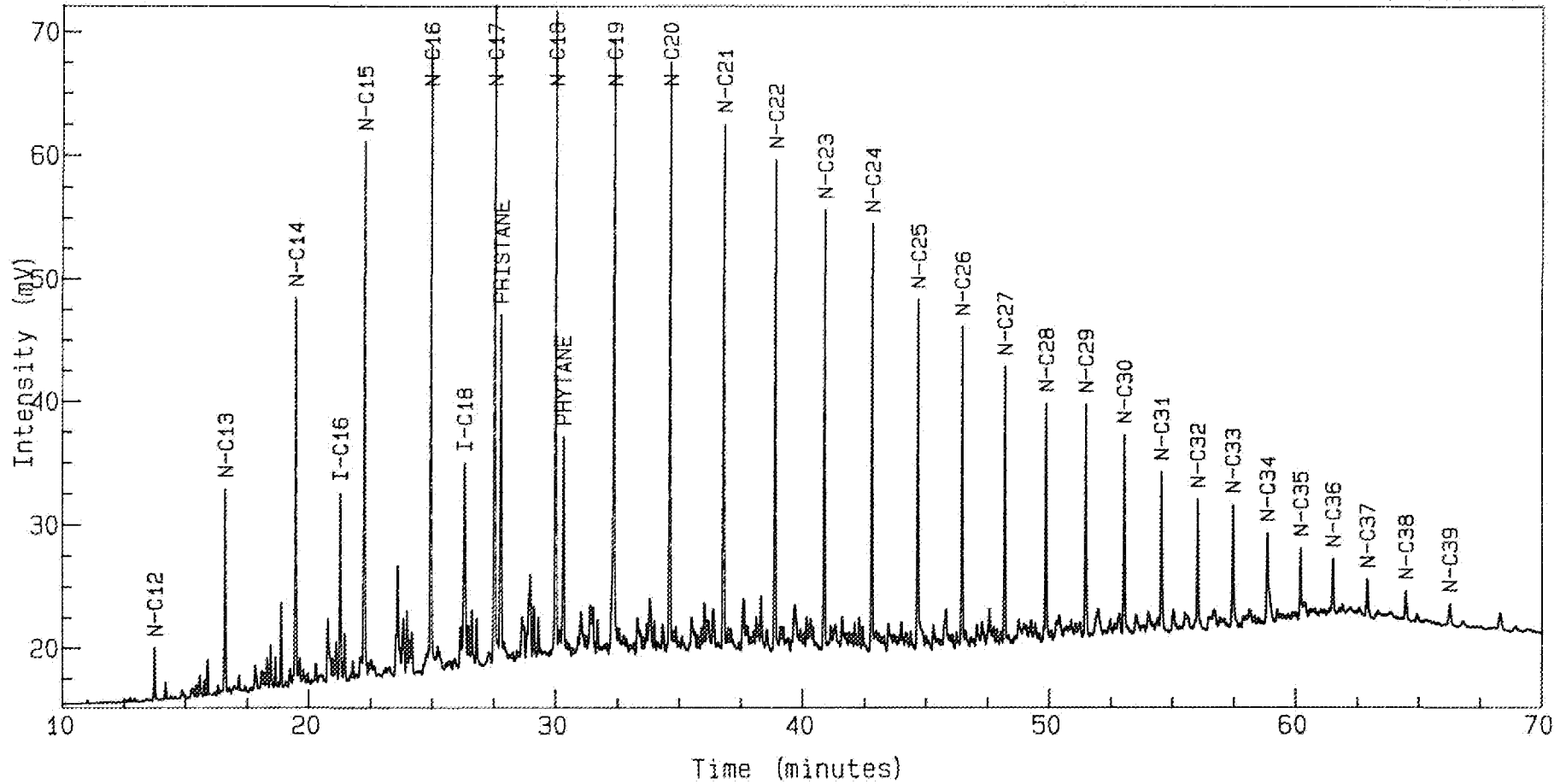
Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 20-NOV-1992 at 03:26
Reported on 26-NOV-1992 at 12:15

Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 B340808, 14, 1.
34/8-8, 2978.25

Multichrom



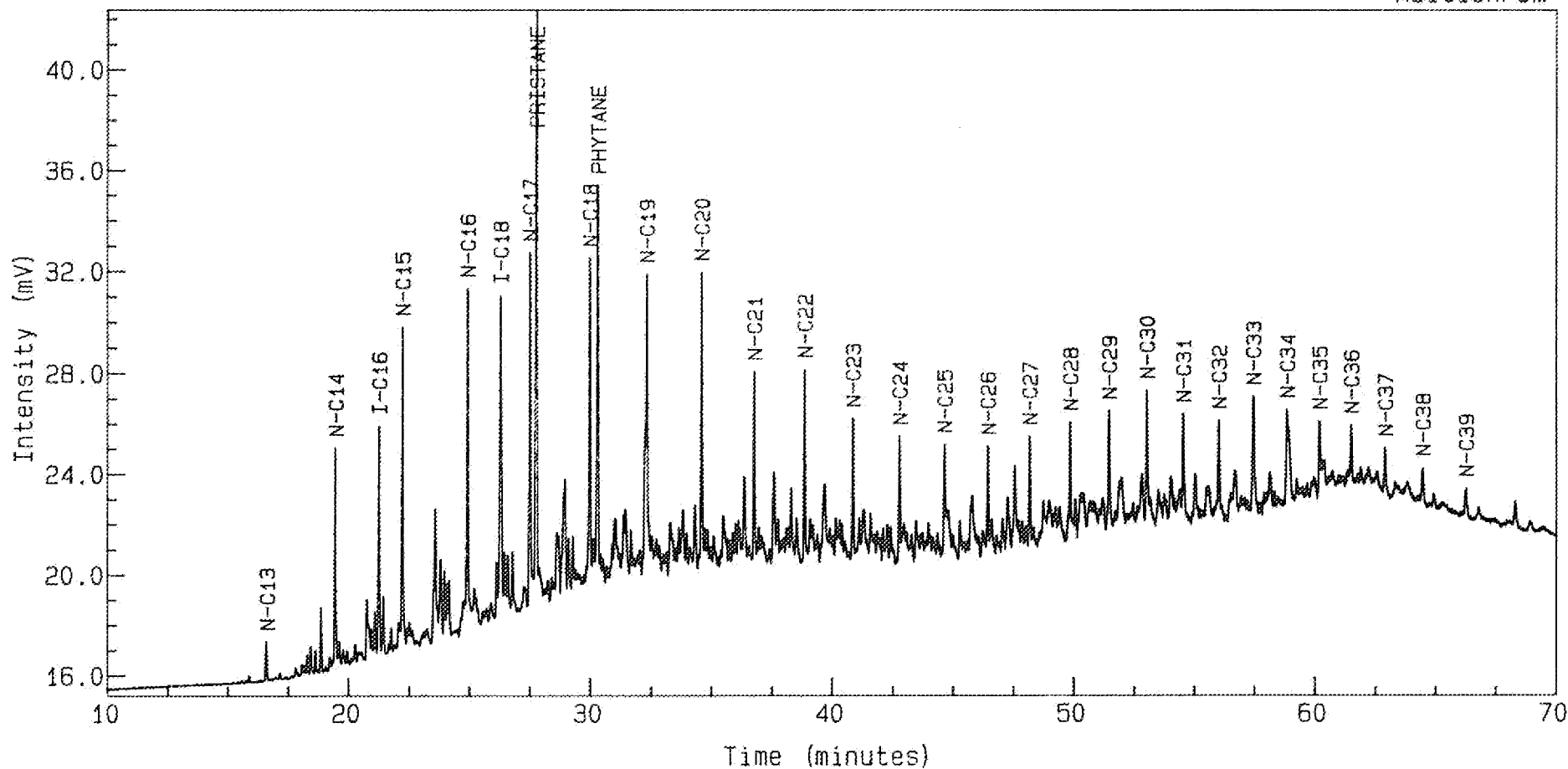
Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 20-NOV-1992 at 04:55
Reported on 26-NOV-1992 at 12:15

Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 B340808, 15, 1.
34/8-8, 2978.55

Multichrom



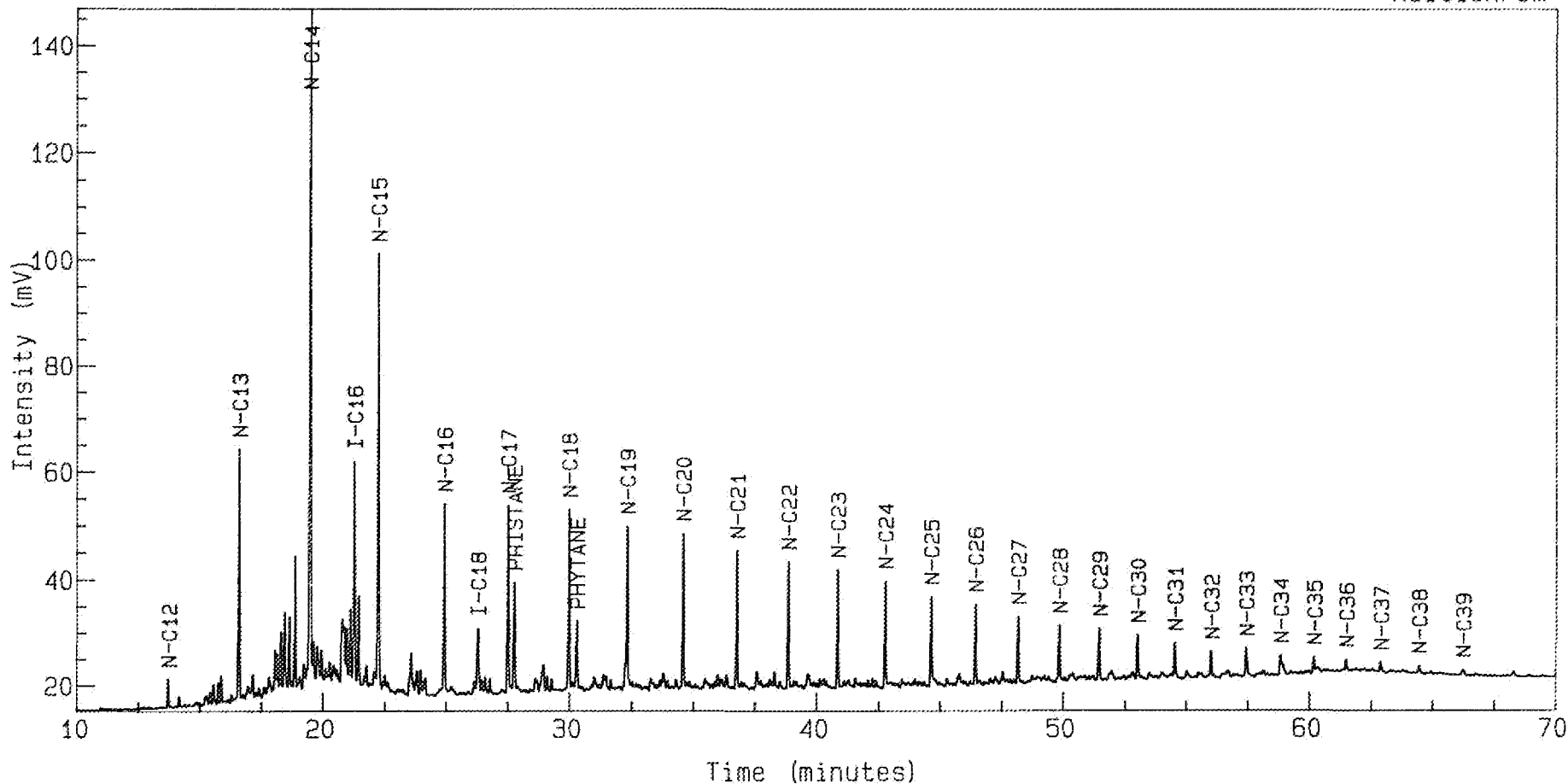
Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 20-NOV-1992 at 06:24
Reported on 26-NOV-1992 at 12:16

Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 B340808, 16, 1.
34/8-8, 2979.55

Multichrom



Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 20-NOV-1992 at 07:53
Reported on 26-NOV-1992 at 12:16

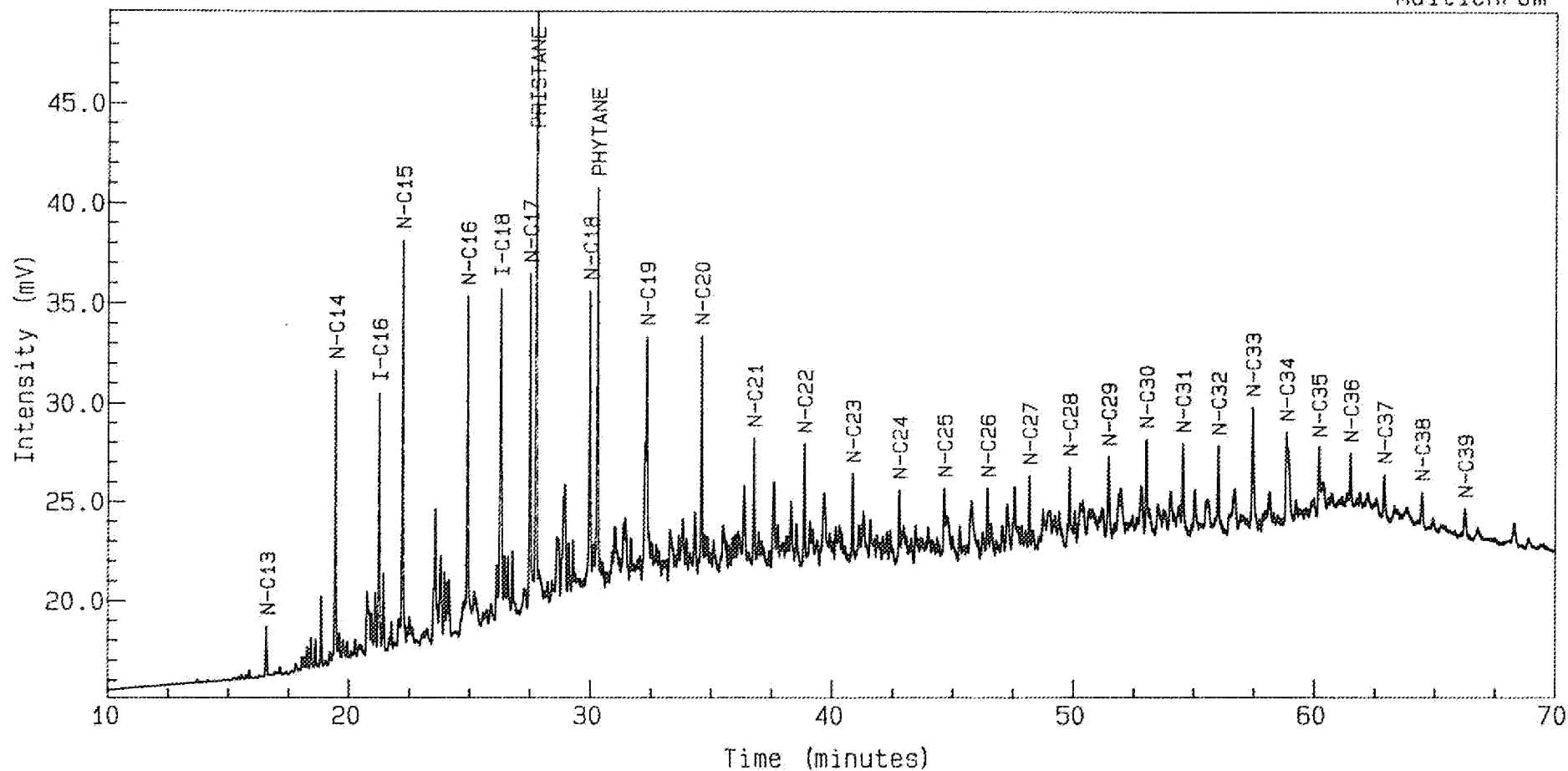
Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 B340808, 17, 1.

34/8-8, 2980.50

Multichrom



Instrument : HP5890

Channel Title : HP MSD

Lims ID :

Acquired on 20-NOV-1992 at 09:22

Reported on 26-NOV-1992 at 12:17

Method : MSDS

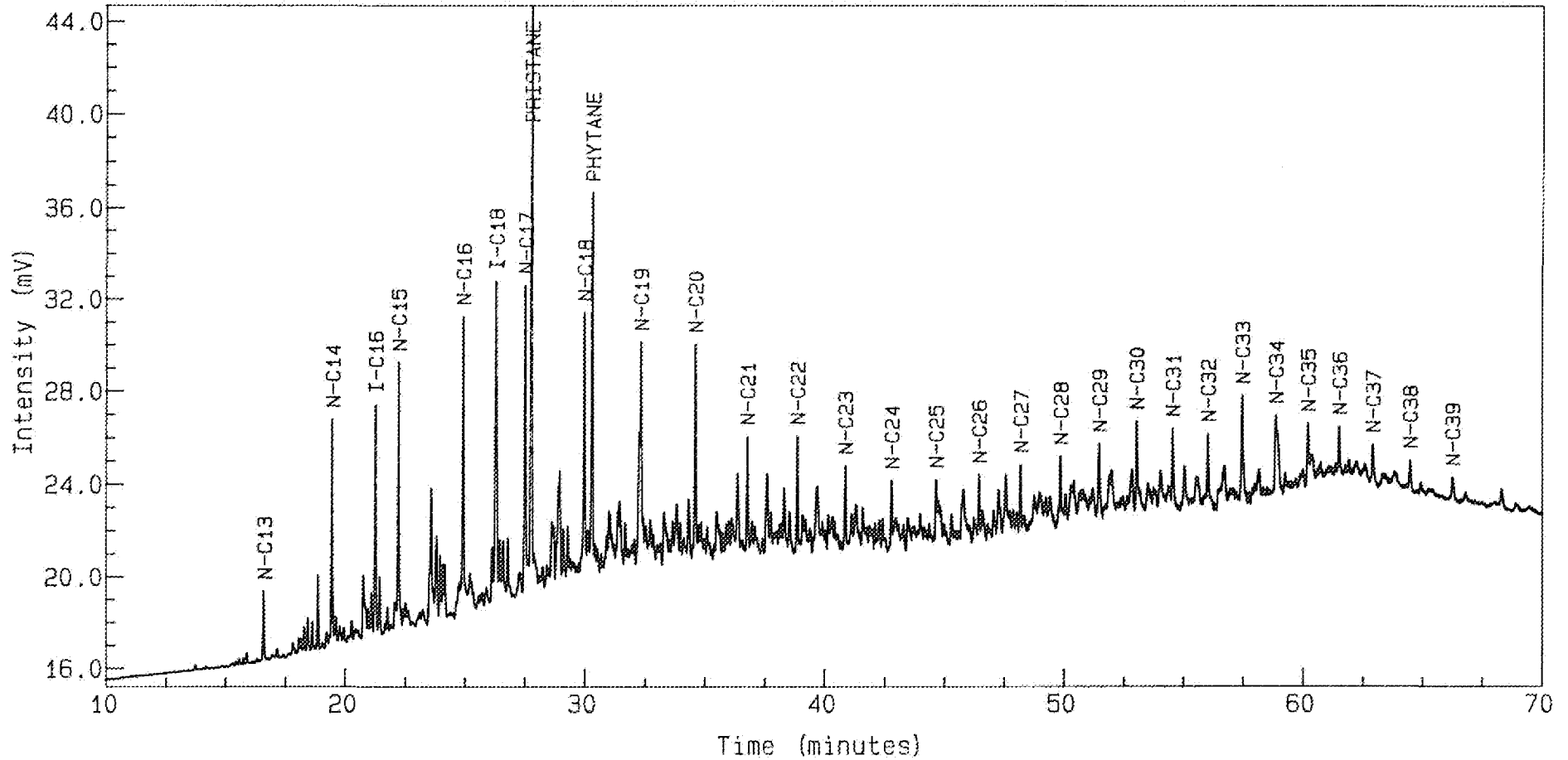
Calibration : MSDS

Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 B340808, 18, 1.
34/8-8, 2981.45

Multichrom



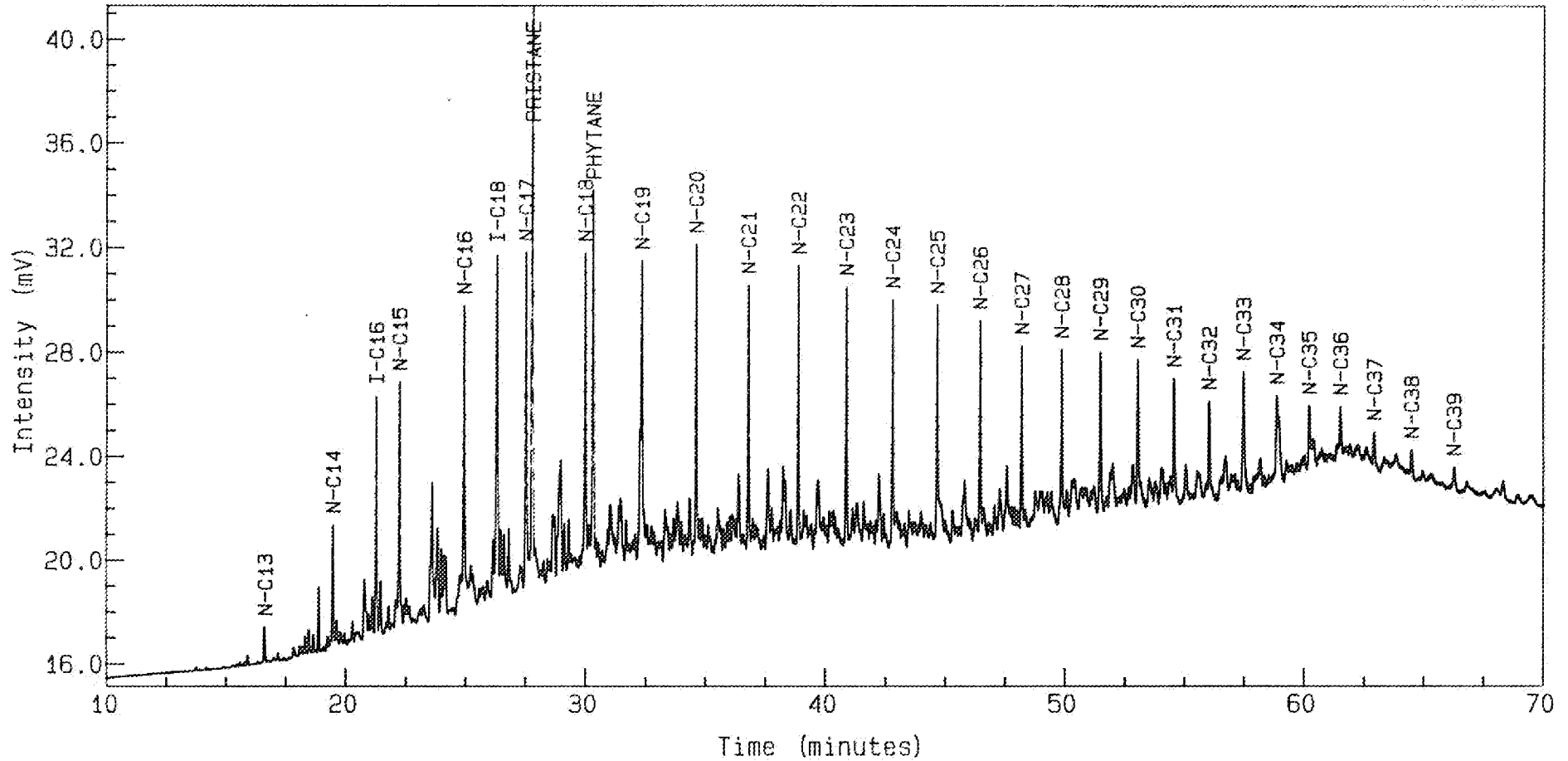
Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 20-NOV-1992 at 10:51
Reported on 26-NOV-1992 at 12:17

Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 C340808, 5, 1.
34/8-8, 2982.60

Multichrom



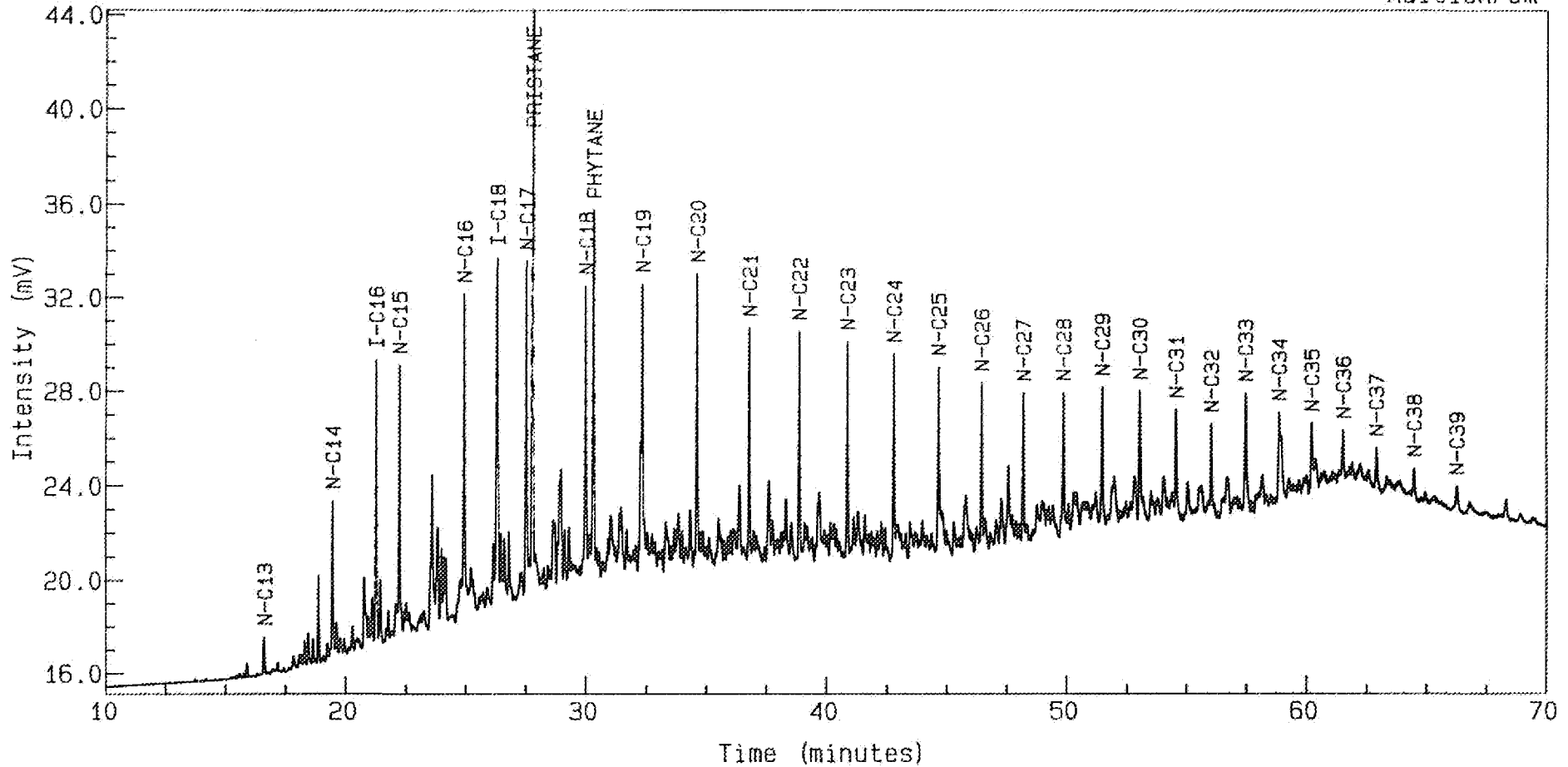
Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 20-NOV-1992 at 20:35
Reported on 27-NOV-1992 at 10:23

Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 C340808, 6, 1.
34/8-8, 2983.65

Multichrom



Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 20-NOV-1992 at 22:04
Reported on 27-NOV-1992 at 10:24

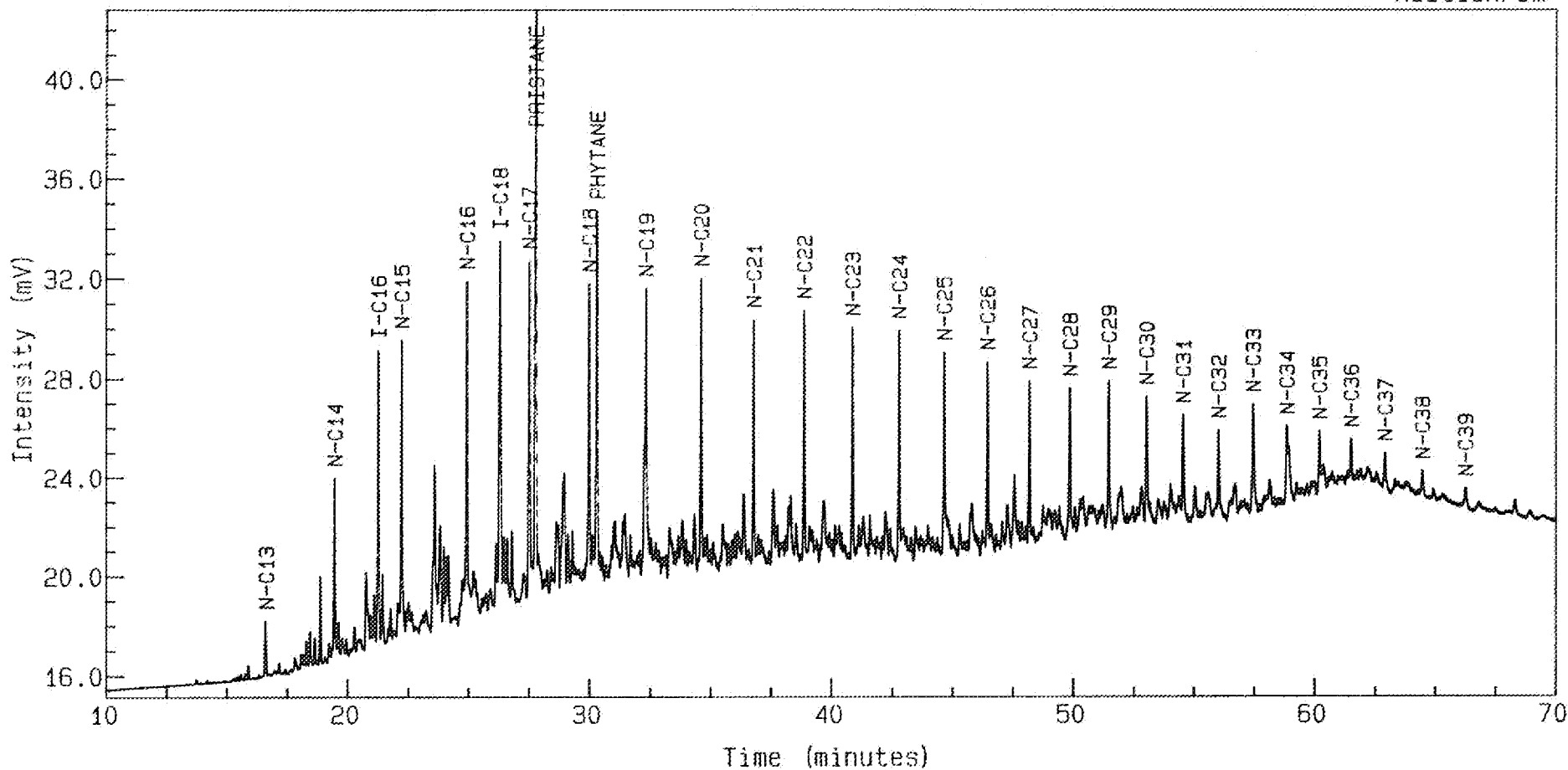
Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 C340808, 7, 1.

34/8-8, 2984.50

Multichrom



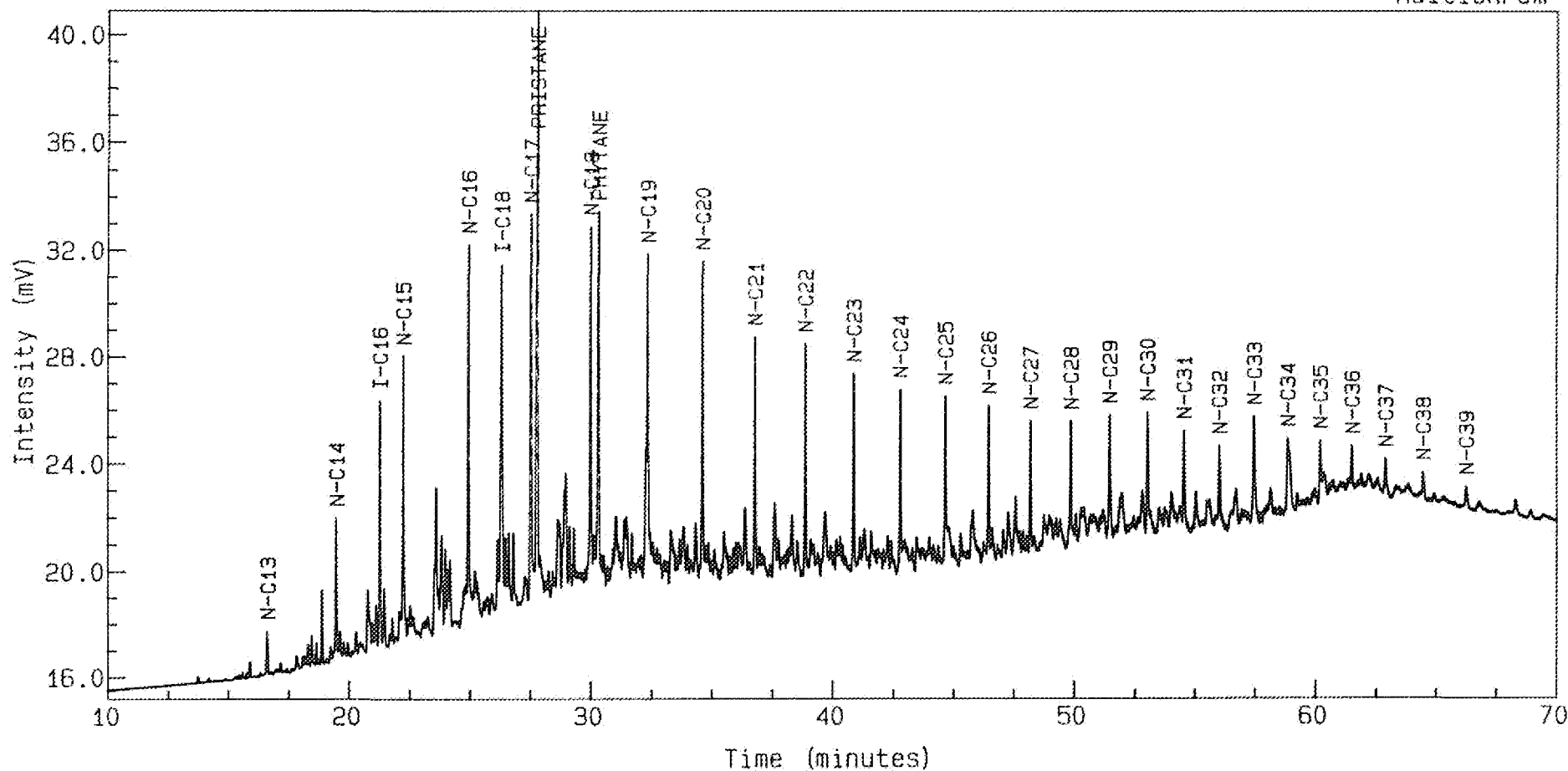
Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 20-NOV-1992 at 23:33
Reported on 27-NOV-1992 at 10:24

Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 C340808, 8, 1.
34/8-8, 2985.50

Multichrom



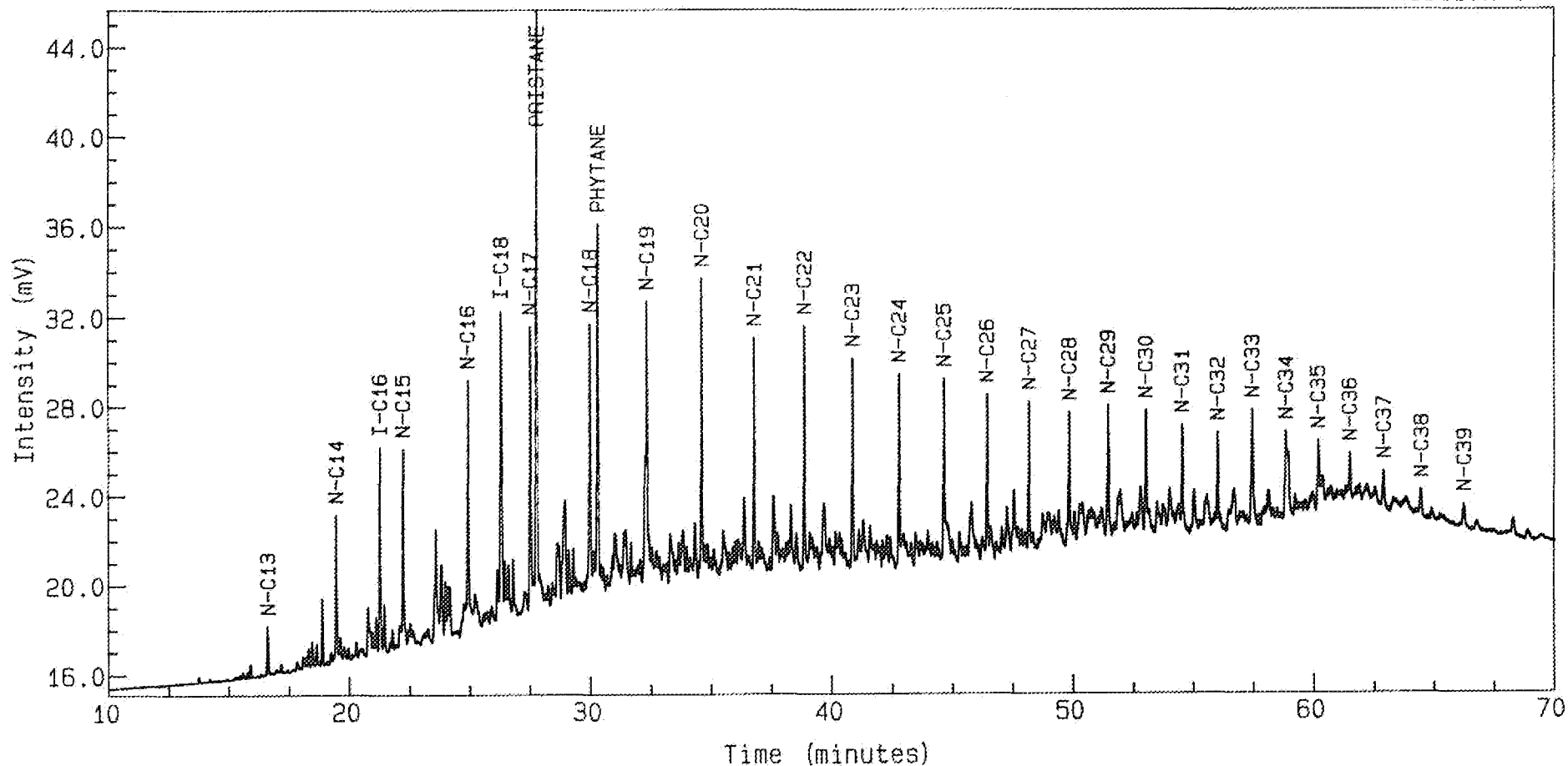
Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 21-NOV-1992 at 01:02
Reported on 27-NOV-1992 at 10:25

Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 C340808, 9, 1.
34/8-8, 2986.25

Multichrom



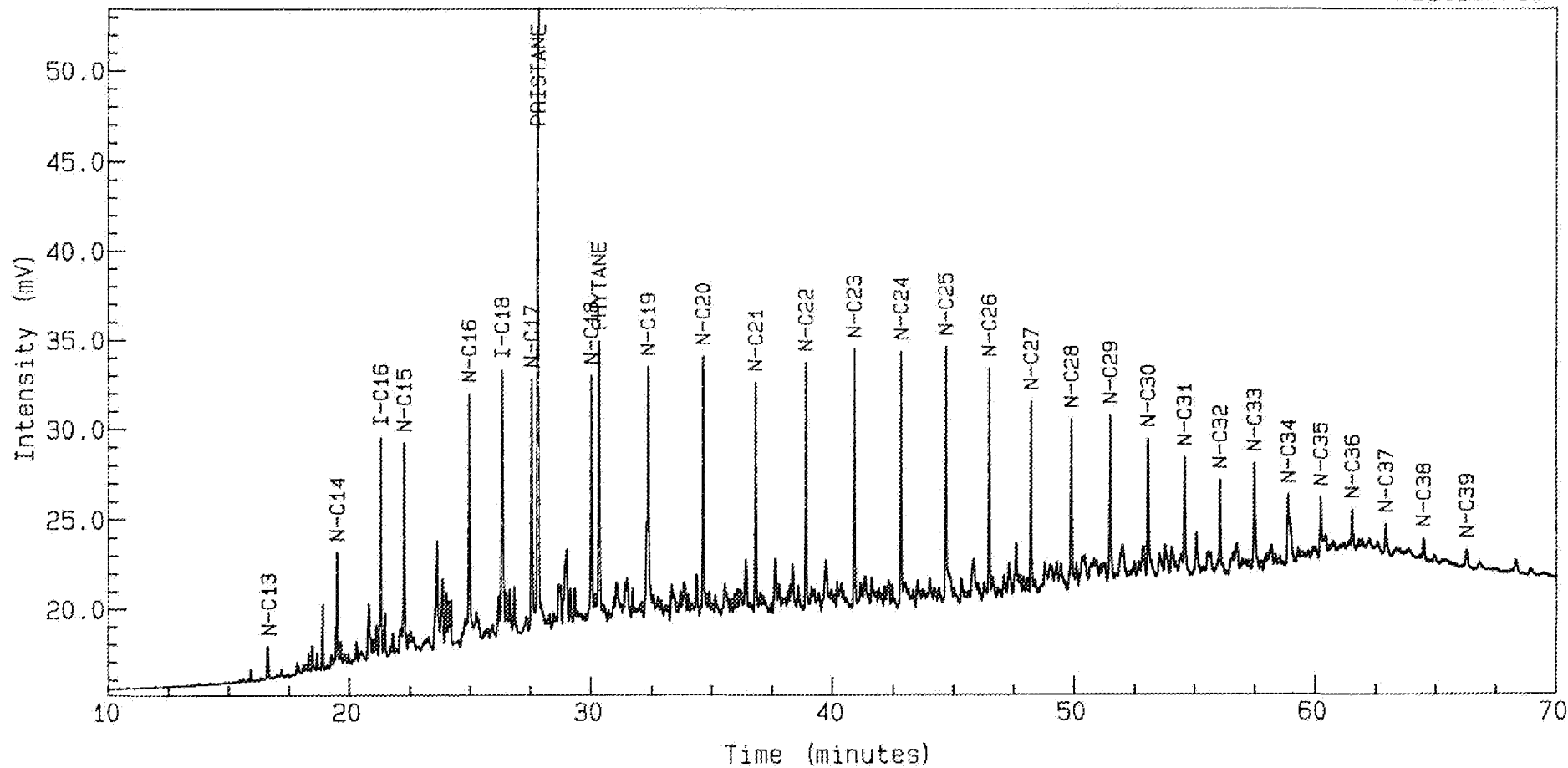
Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 21-NOV-1992 at 02:31
Reported on 27-NOV-1992 at 10:25

Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 C340808, 11, 1.
34/8-8, 2987.75

Multichrom



Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 21-NOV-1992 at 05:29
Reported on 27-NOV-1992 at 10:26

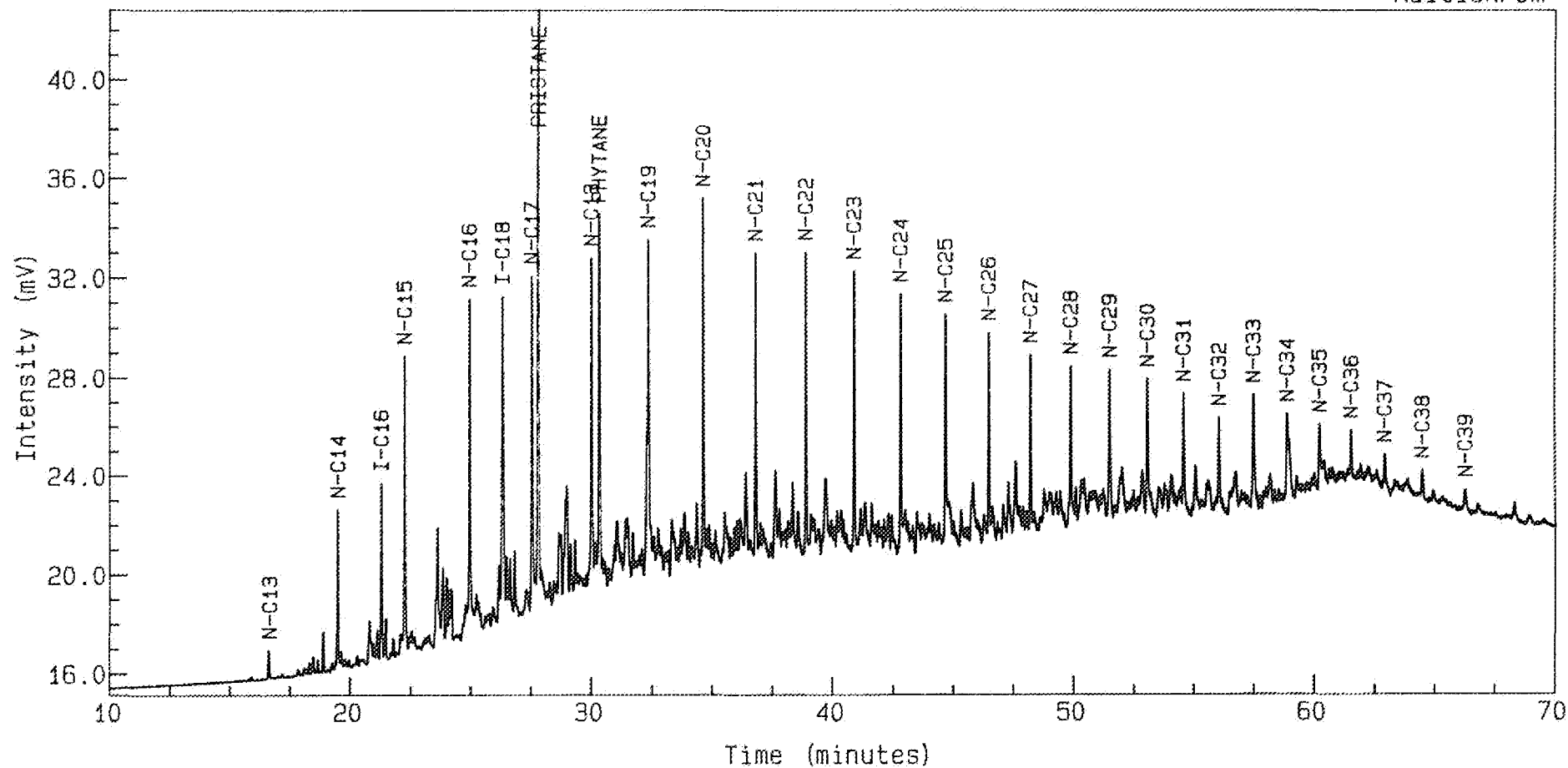
Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 C340808, 12, 1.

34/8-8, 2988.50

Multichrom



Instrument : HP5890

Channel Title : HP MSD

Lims ID :

Acquired on 21-NOV-1992 at 06:59

Reported on 27-NOV-1992 at 10:26

Method : MSDS

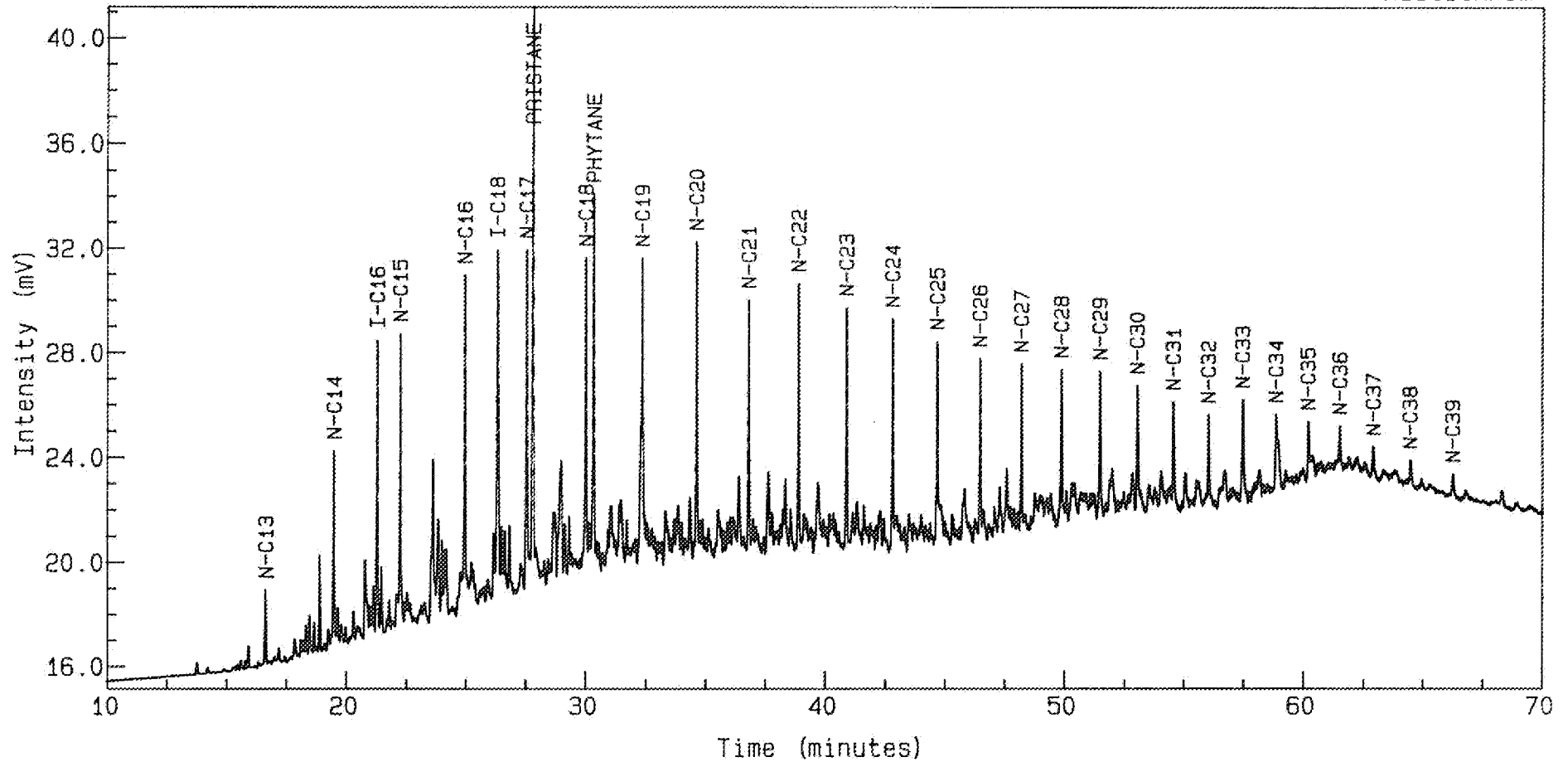
Calibration : MSDS

Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 C340808, 13, 1.
34/8-8, 2989.40

Multichrom



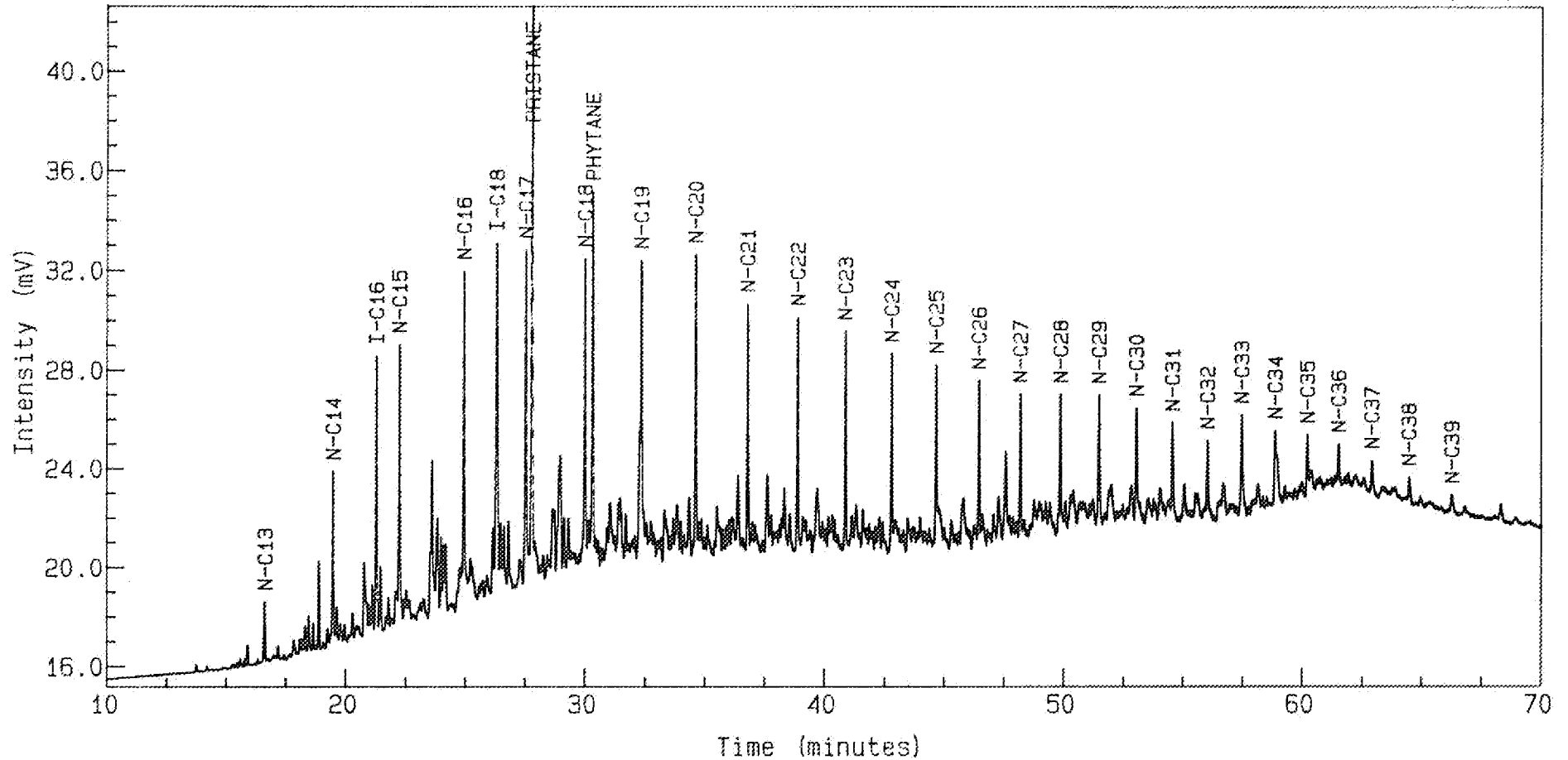
Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 21-NOV-1992 at 08:27
Reported on 27-NOV-1992 at 10:26

Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 C340808, 14, 1.
34/8-8, 2990.75

Multichrom



Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 21-NOV-1992 at 09:57
Reported on 27-NOV-1992 at 10:27

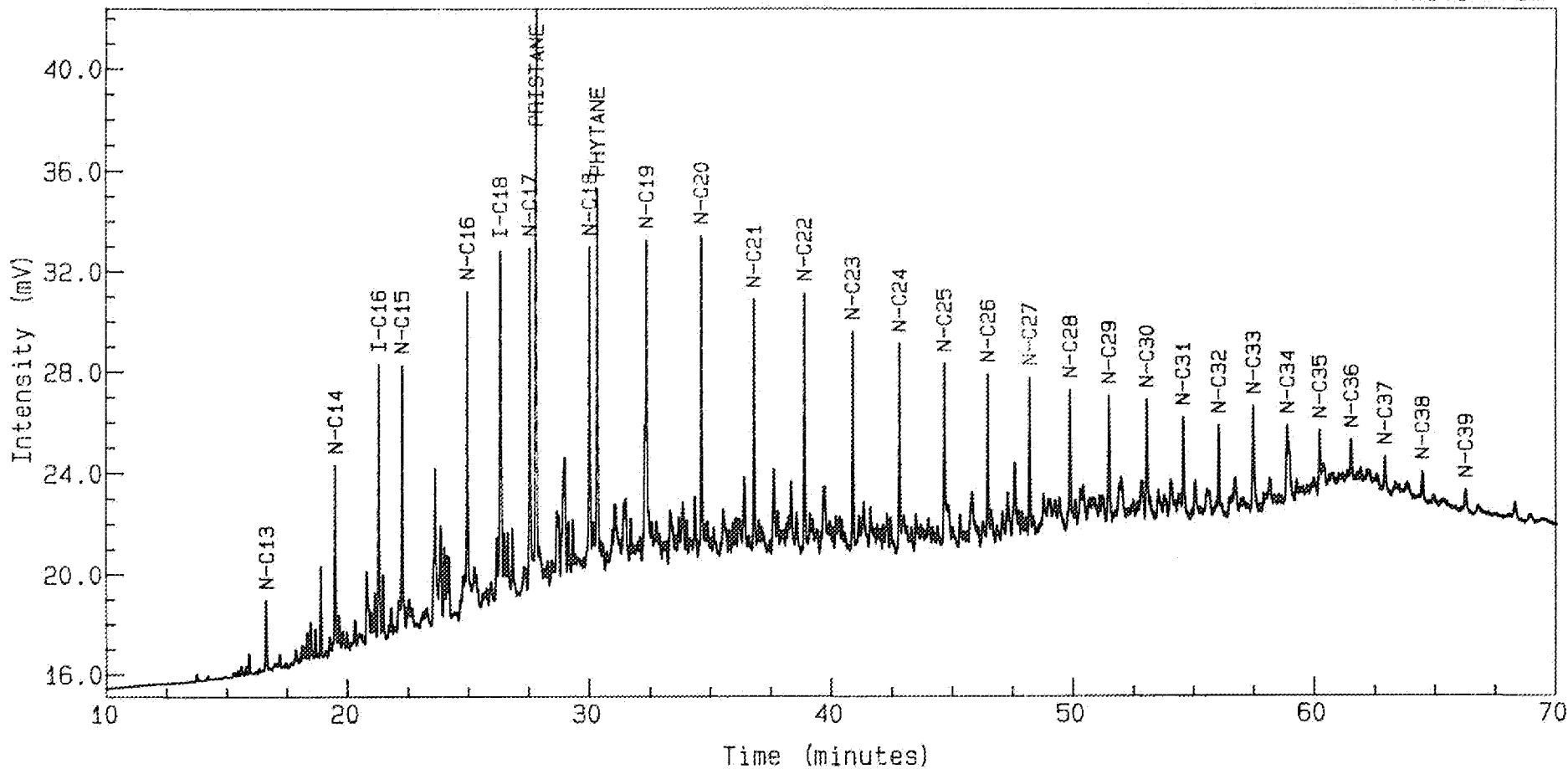
Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 C340808, 15, 1.

34/8-8, 2991.30

Multichrom



Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 21-NOV-1992 at 11:26
Reported on 27-NOV-1992 at 10:27

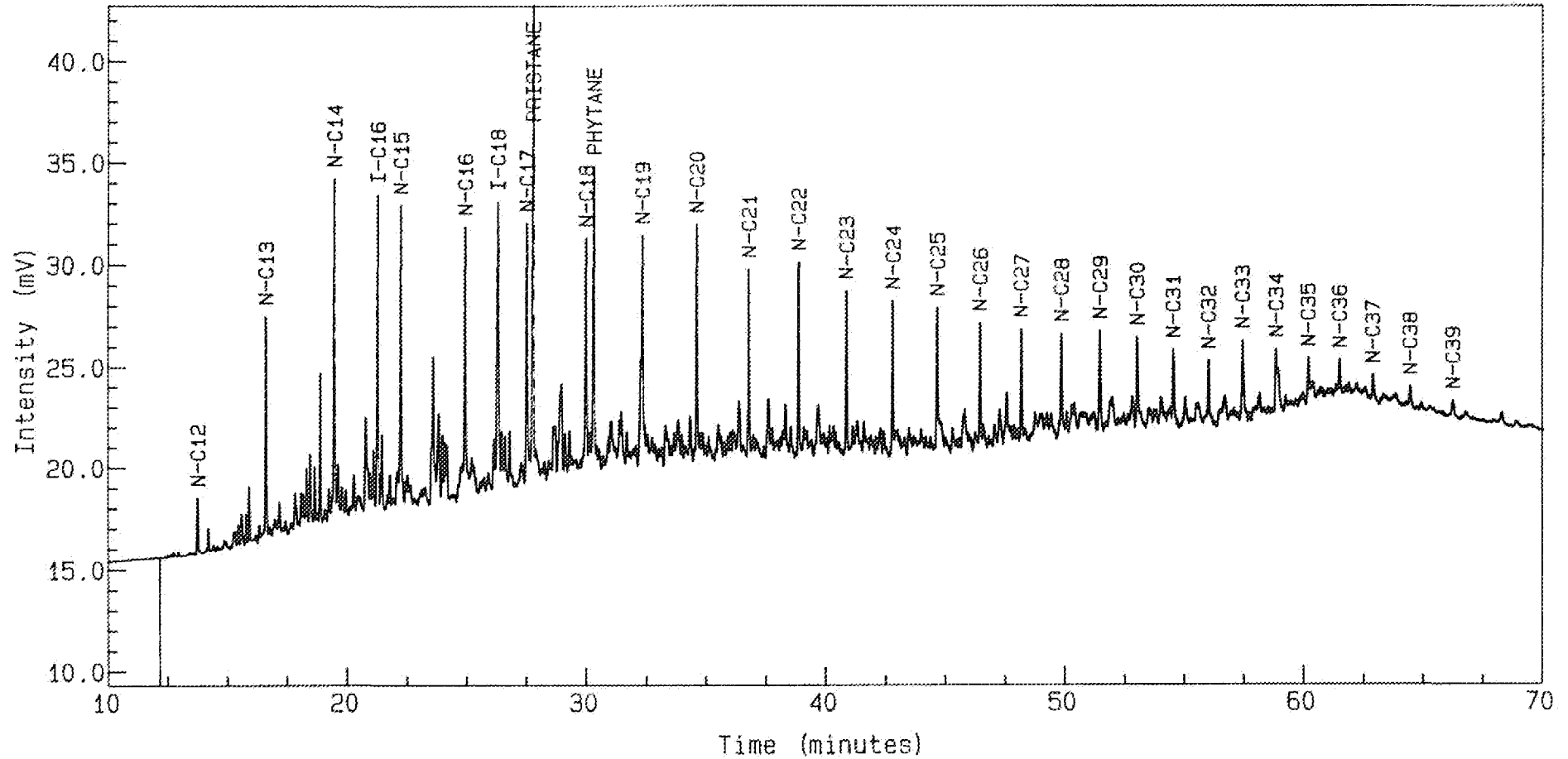
Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Hesearch Centre

Analysis Name : [PETRO] 7 C340808, 16, 1.

34/8-8, 2992.30

Multichrom



Instrument : HP5890

Channel Title : HP MSD

Lims ID :

Acquired on 21-NOV-1992 at 12:55

Reported on 27-NOV-1992 at 10:28

Method : MSDS

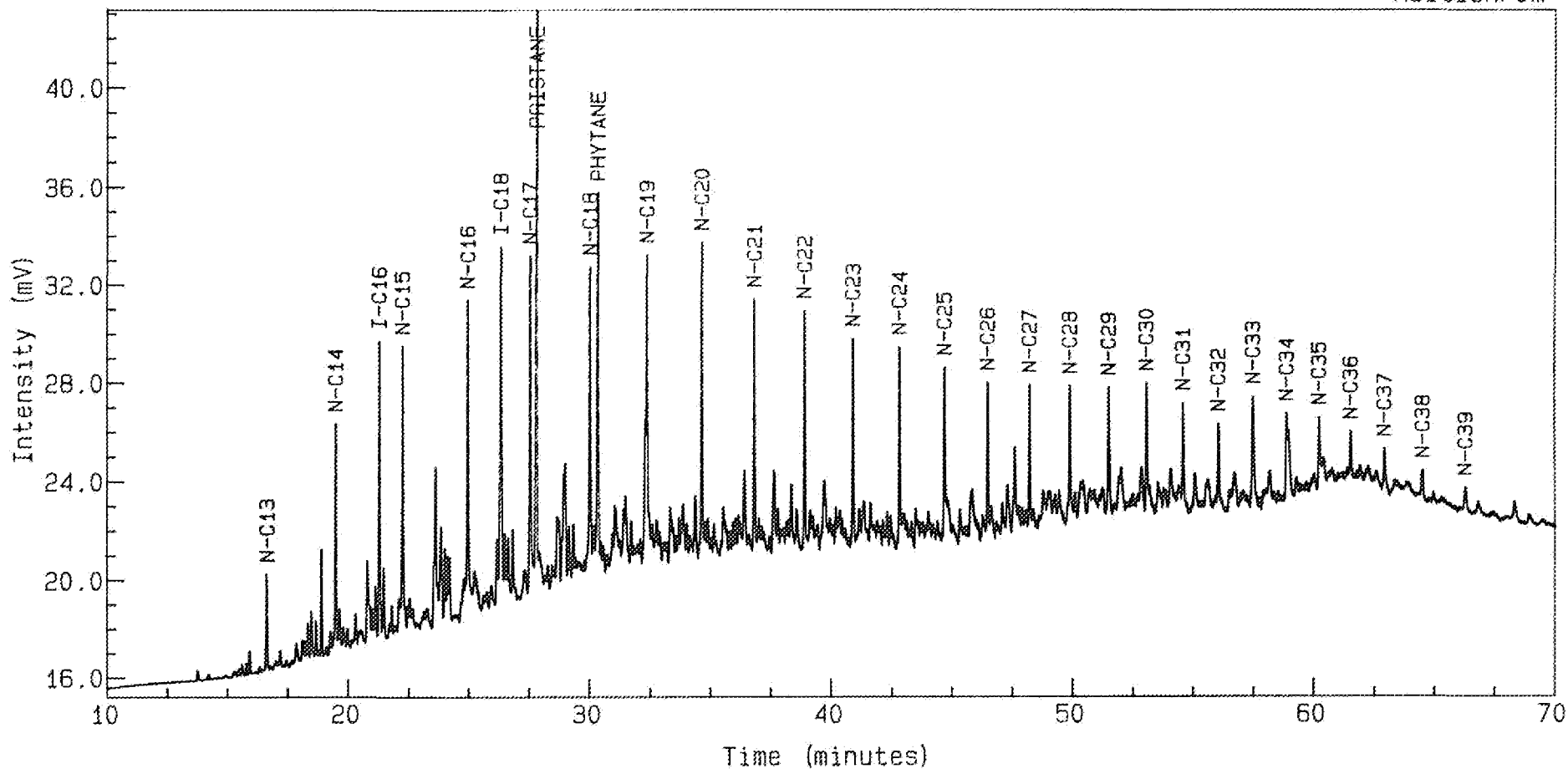
Calibration : MSDS

Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 A340808, 14, 1.
34/8-B, 2993.35

Multichrom



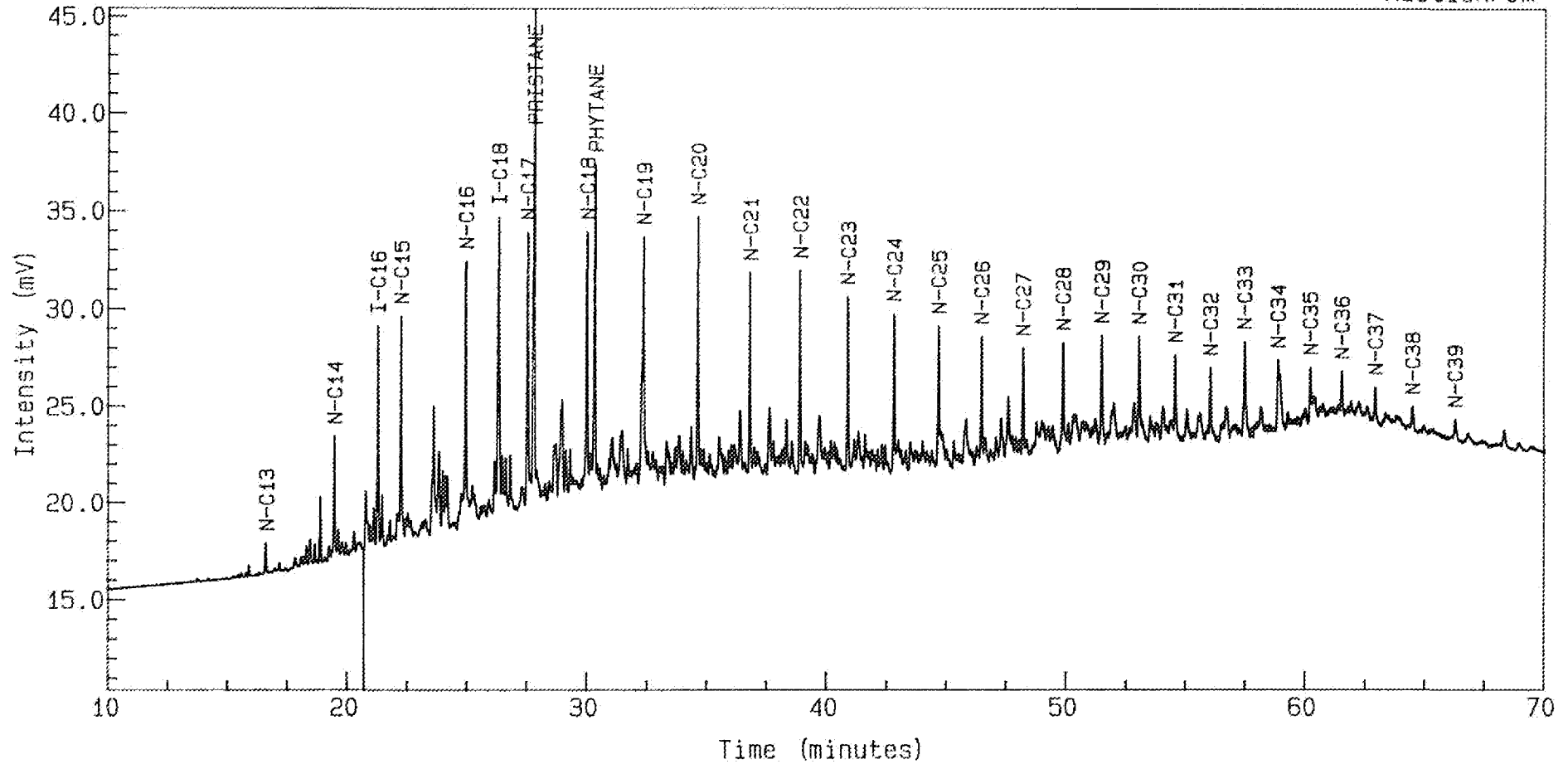
Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 18-NOV-1992 at 15: 47
Reported on 27-NOV-1992 at 10: 20

Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 A340808, 15, 1.
34/8-8, 2994.45

Multichrom



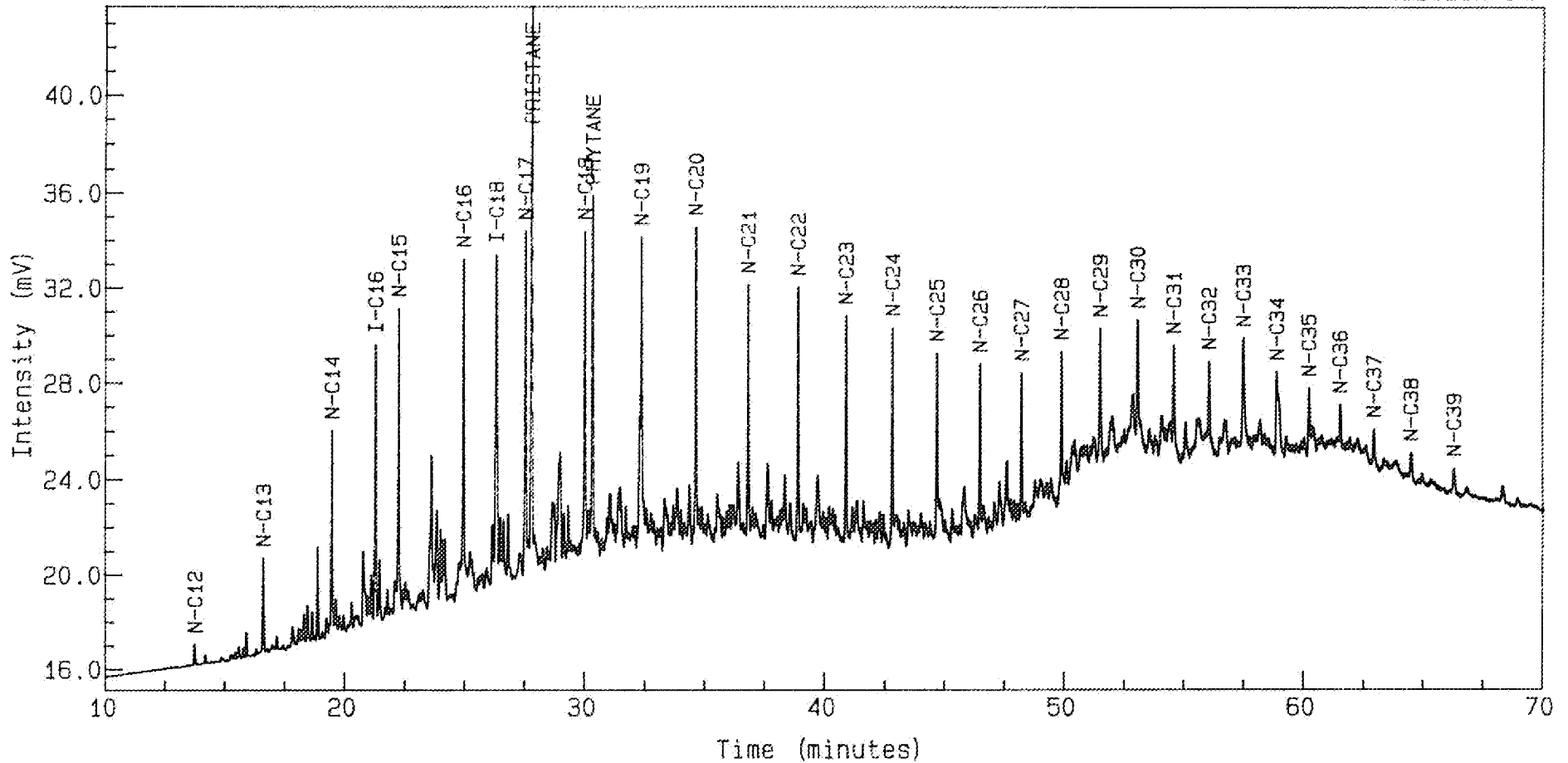
Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 18-NOV-1992 at 17:16
Reported on 30-NOV-1992 at 14:42

Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 C340808, 19, 1.
34/8-8 2995.50

Multichrom



Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 25-NOV-1992 at 14:00
Reported on 27-NOV-1992 at 10:28

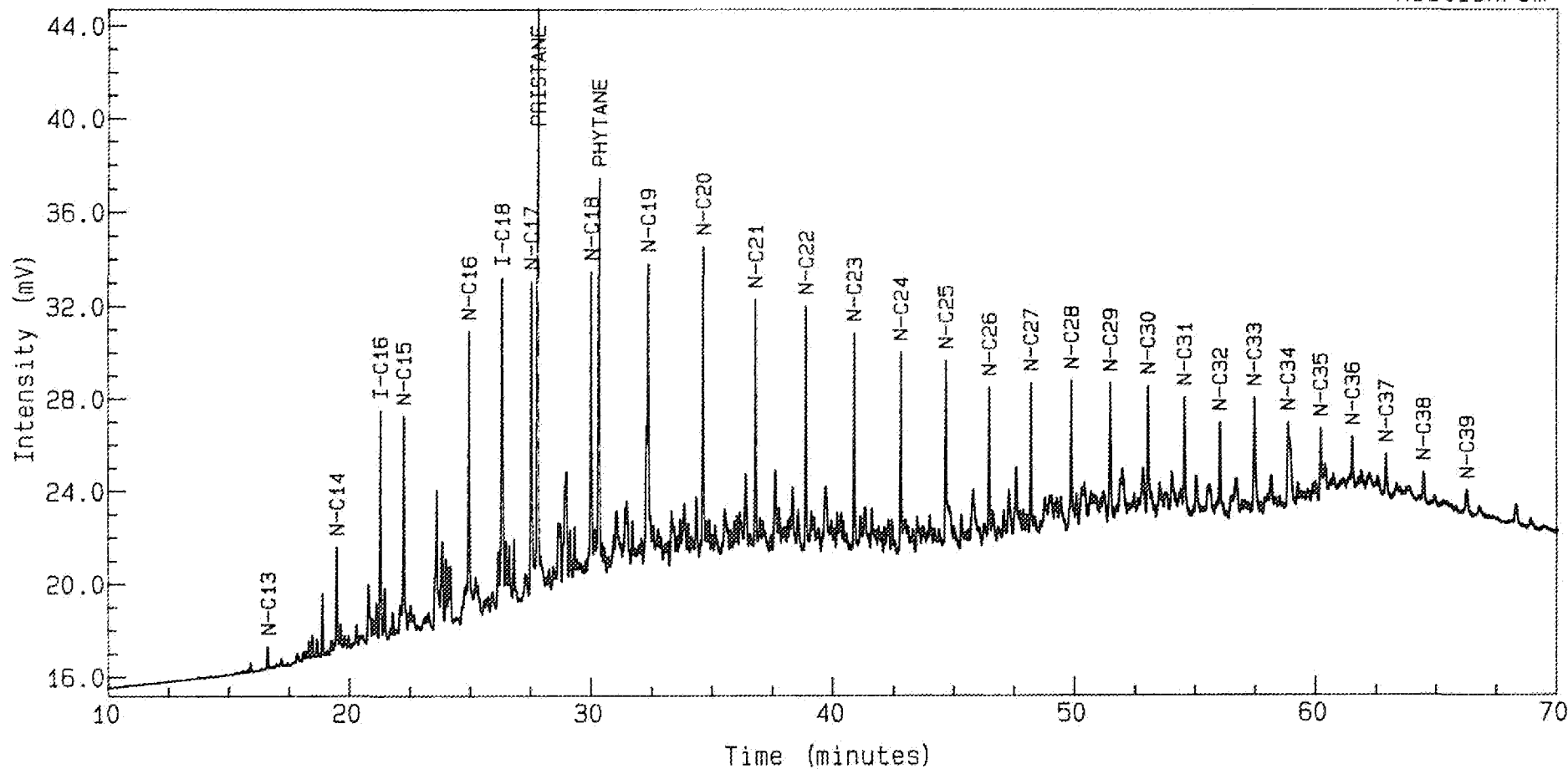
Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 C340808, 21, 1.

34/8-8 2998.40

Multichrom



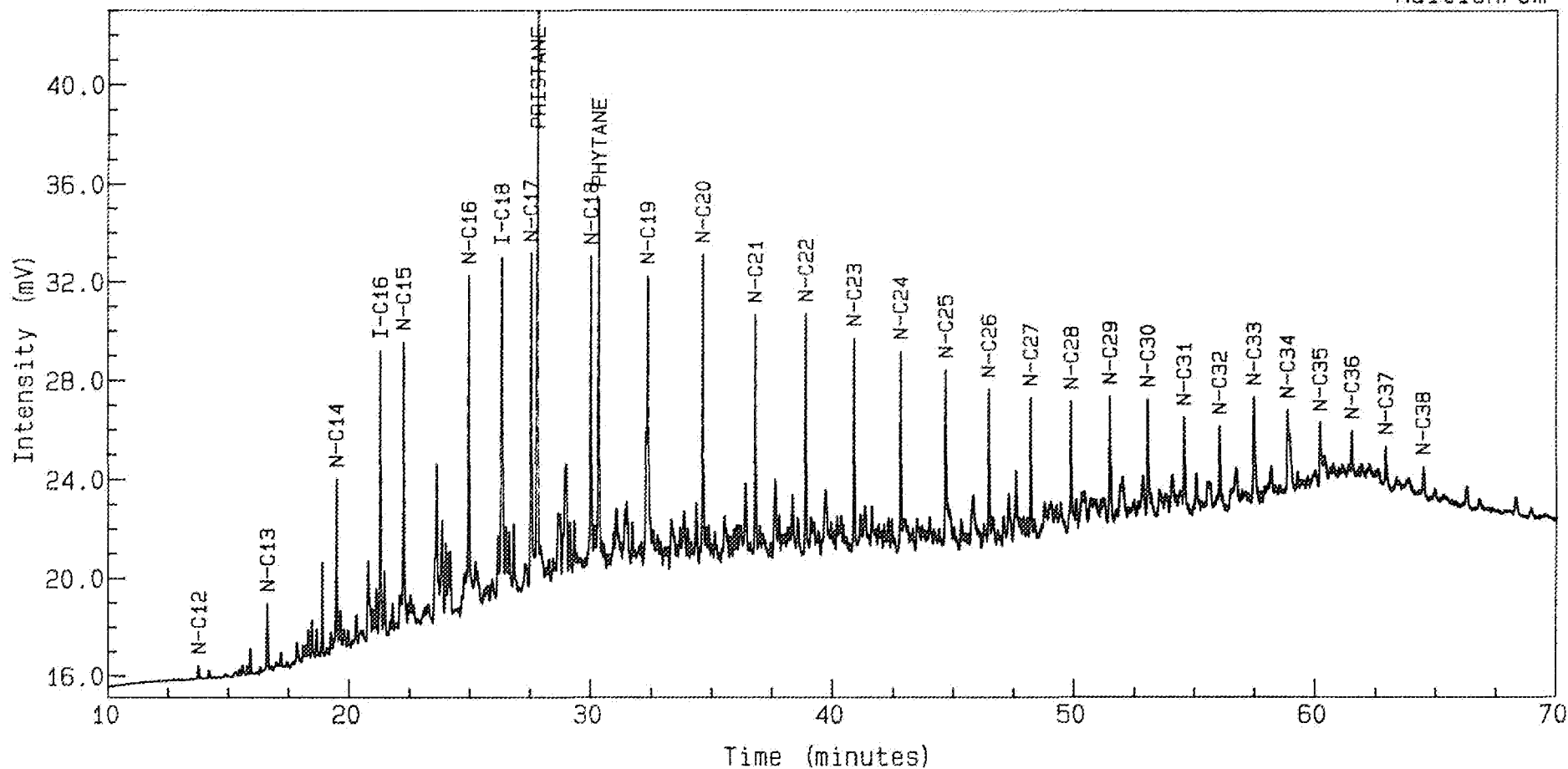
Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 25-NOV-1992 at 16:58
Reported on 27-NOV-1992 at 10:29

Method : MSDS
Calibration : MSDS
Run Sequence : MSDS

Norsk Hydro Research Centre

Analysis Name : [PETRO] 7 C340808, 22, 1.
34/8-8 3002.50

Multichrom



Instrument : HP5890
Channel Title : HP MSD
Lims ID :
Acquired on 25-NOV-1992 at 18:27
Reported on 27-NOV-1992 at 10:30

Method : MSDS
Calibration : MSDS
Run Sequence : MSDS