

Geochemistry Data Report –
Vitrinite Reflectance
Well 7222/6-1 S (Obesum)



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Vitrinite Reflectance Sample Data Sheets

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CONTENTS

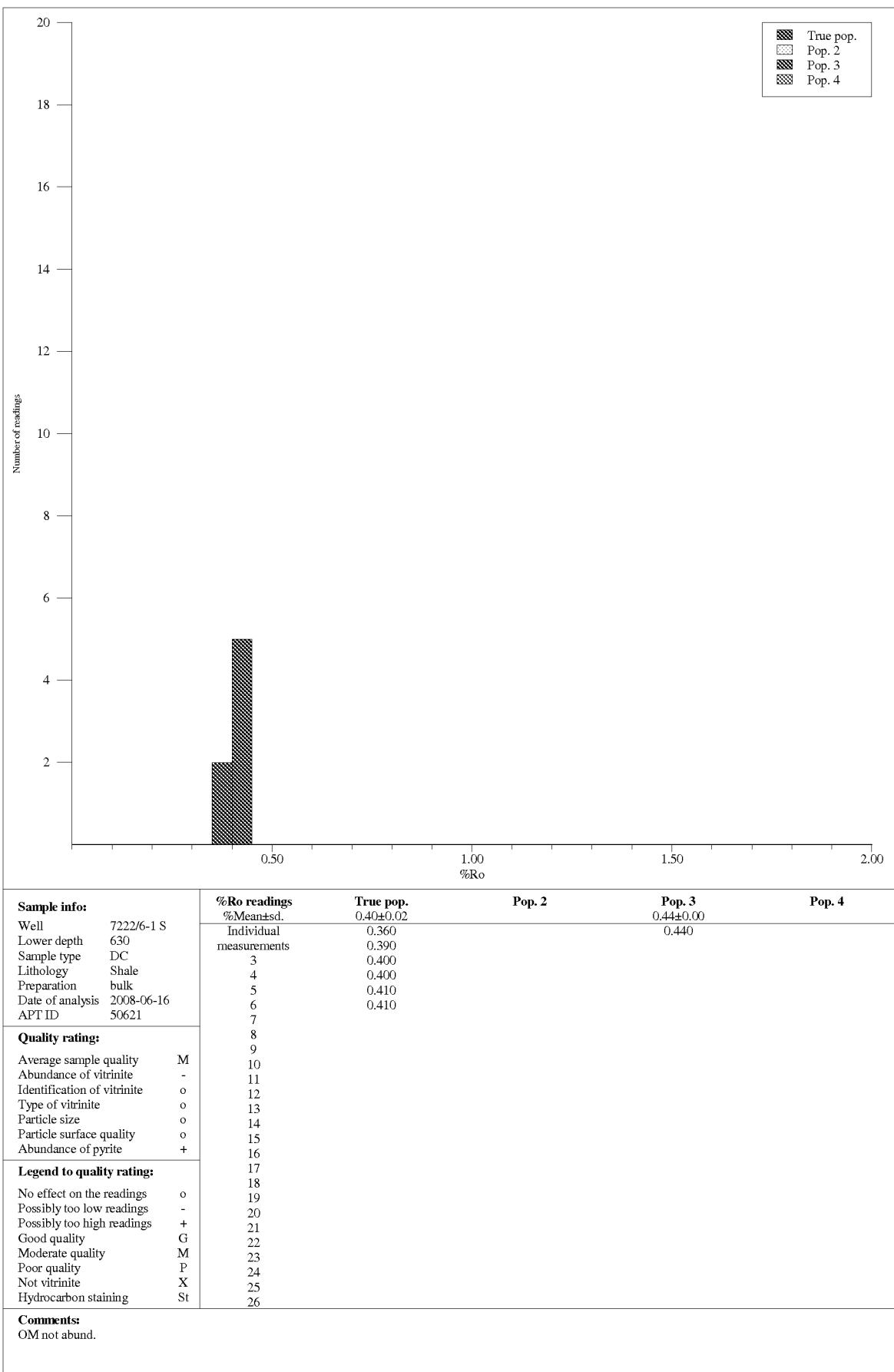
Table 1. Number of analyses performed	1
Table 2. Vitrinite Reflectance data	2
Figure 1. Vitrinite reflectance versus depth	3
Vitrinite Reflectance Sample Data Sheets.....	4
Experimental Procedures	34

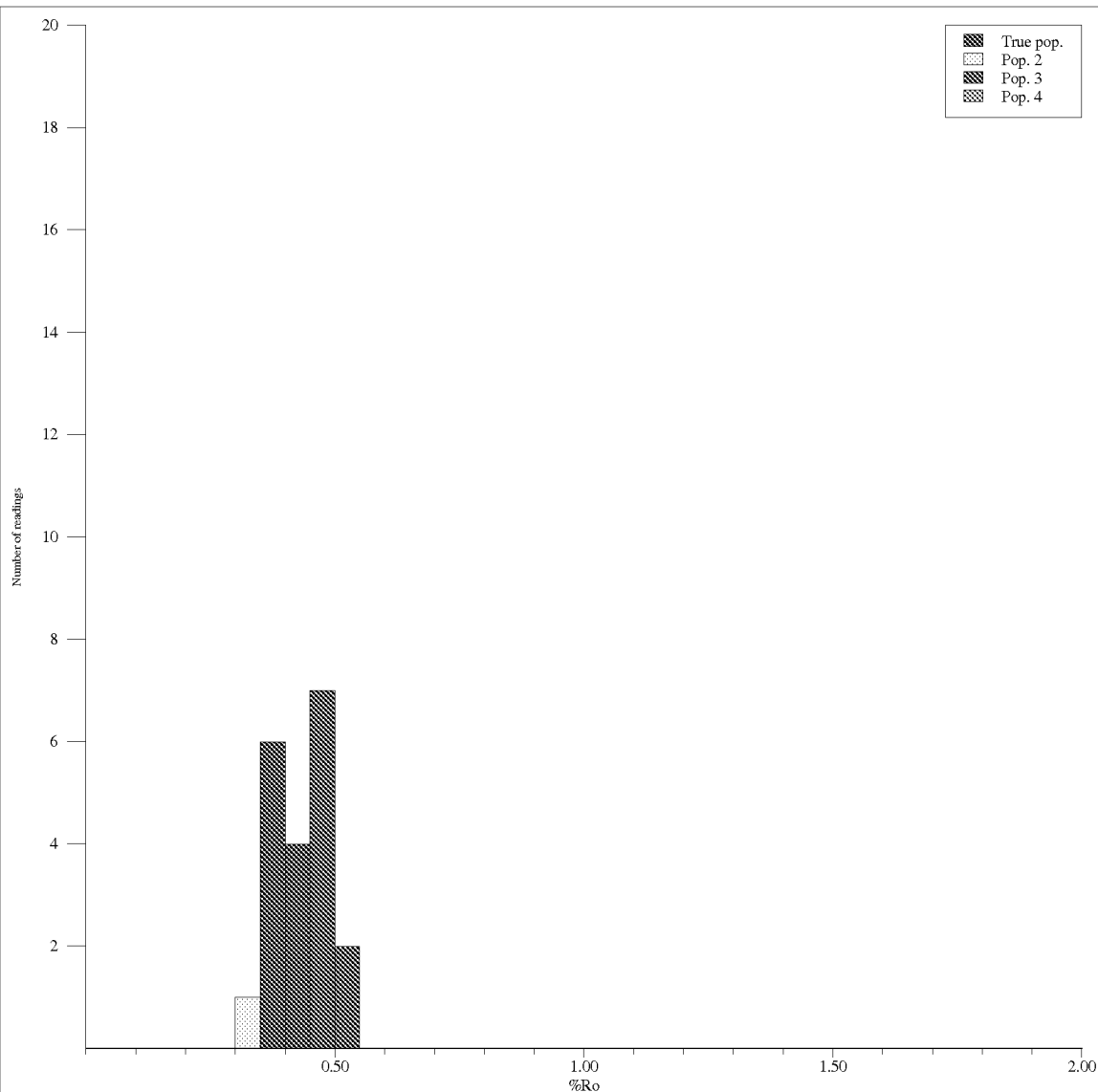
Table 1. Number of analyses performed

Analysis	Cuttings	Core	Total
Vitrinite reflectance	27	3	30

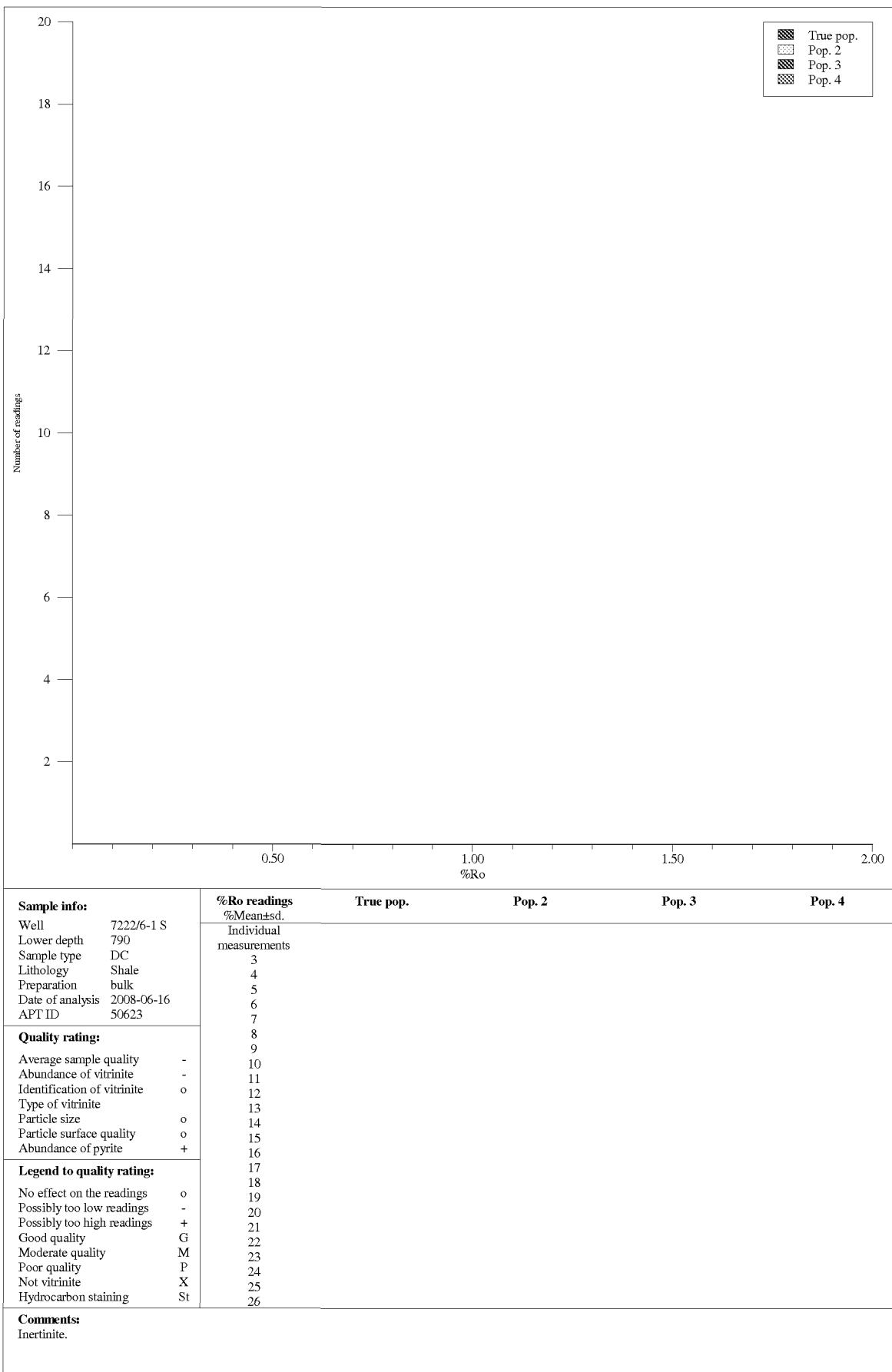
Table 2. Vitrinite Reflectance data

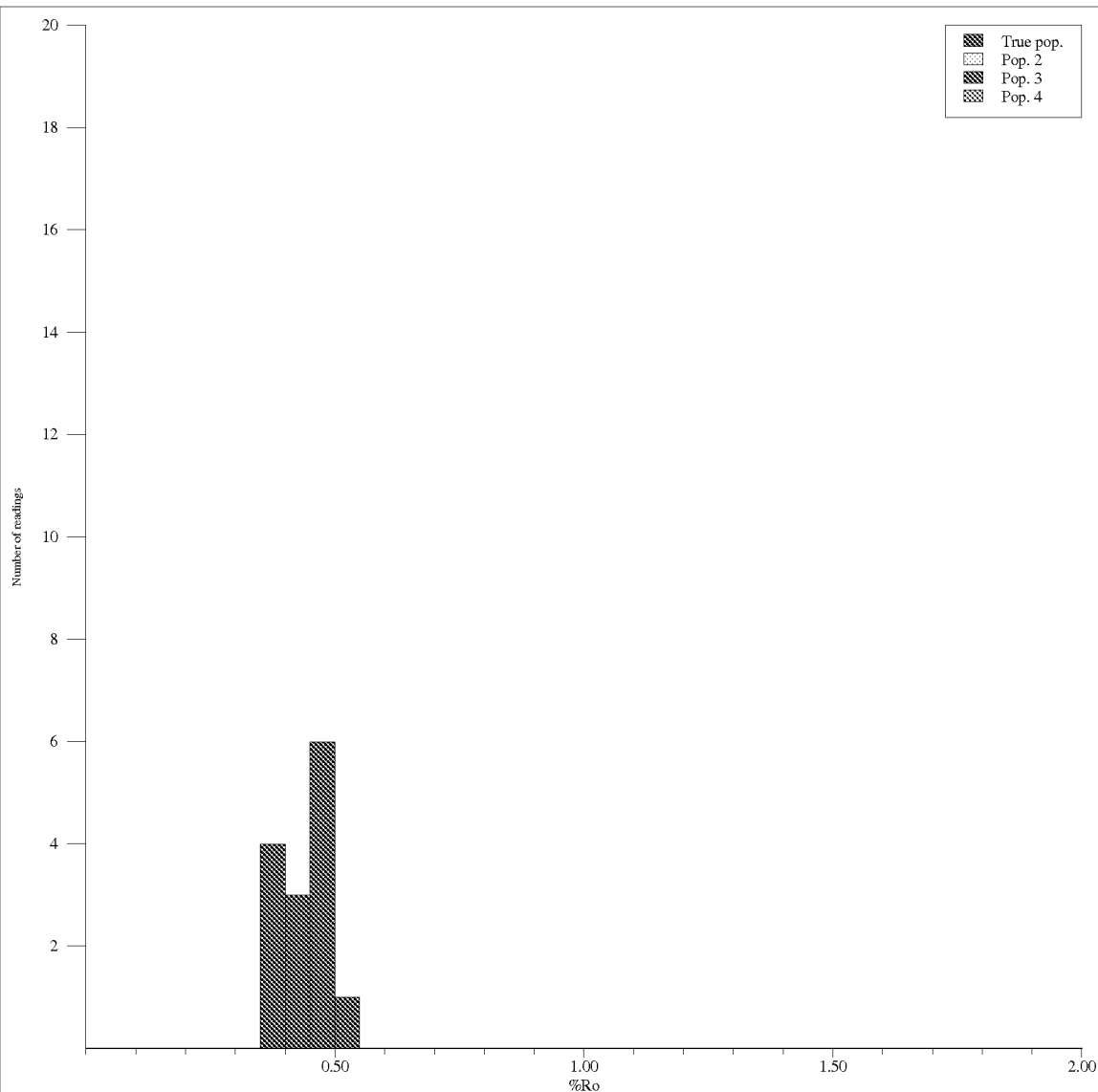
Well	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	Sample prep.	%Lithology	%Ro	Std. dev.	No. of measurements	Quality rating	Overall quality	Comment
7222/6-1 S	DC	630	630	50621	bulk	Shale	0.4	0.02	6	-0000+	M	OM not abund
7222/6-1 S	DC	730	730	50622	bulk	Shale	0.39	0.03	10	000000	M	
7222/6-1 S	DC	790	790	50623	bulk	Shale	barren					Inertinite
7222/6-1 S	DC	840	840	50624	bulk	Shale	0.43	0.04	13	00000+	M	
7222/6-1 S	DC	930	930	50625	bulk	Shale	0.42	0.05	19	000000	M	
7222/6-1 S	DC	1040	1040	50626	bulk	Shale	0.39	0.04	19	000000	M	
7222/6-1 S	DC	1338	1338	50628	bulk	Shale	0.46	0.03	20	000000	G	70%shale, 30%coal
7222/6-1 S	DC	1365	1365	50629	bulk	Shale	0.46	0.04	20	000000	G	90%shale,10%coal
7222/6-1 S	DC	1419	1419	50630	bulk	Shale	0.45	0.03	20	000000	G	90%shale,10%coal.
7222/6-1 S	DC	1575	1575	50631	bulk	Shale	0.51	0.04	20	-00000	M	Inertinite
7222/6-1 S	DC	1674	1674	50632	bulk	Shale	0.68	0.07	20	-00000	M	Inertinite
7222/6-1 S	DC	1713	1713	50633	bulk	Shale	0.58	0.06	20	-00000	M	Inertinite
7222/6-1 S	DC	1803	1803	50634	bulk	Shale	0.59	0.07	20	-00000	M	Inertinite
7222/6-1 S	DC	1887	1887	50635	bulk	Shale	0.61	0.06	20	000000	M	
7222/6-1 S	DC	1905	1905	50636	bulk	Shale	0.59	0.07	20	-00000	M	Inertinite
7222/6-1 S	DC	1974	1974	50637	bulk	Shale	0.64	0.05	20	000000	M	
7222/6-1 S	DC	2049	2049	50638	bulk	Shale	0.64	0.07	20	000000	M	
7222/6-1 S	DC	2115	2115	50639	bulk	Shale	0.59	0.05	20	000000	M	
7222/6-1 S	DC	2220	2220	50640	bulk	Shale	0.61	0.06	20	000000	M	
7222/6-1 S	DC	2331	2331	50641	bulk	Shale	0.63	0.06	20	000000	M	
7222/6-1 S	DC	2400	2400	50642	bulk	Shale	0.66	0.05	20	000000	M	
7222/6-1 S	DC	2454	2454	50643	bulk	Shale	0.66	0.08	20	000000	M	
7222/6-1 S	DC	2586	2586	50644	bulk	Shale	0.62	0.06	5	-0000	M	
7222/6-1 S	DC	2670	2670	50645	bulk	Shale	0.72	0.06	2	-0000	P	
7222/6-1 S	DC	2739	2739	50646	bulk	Shale	0.66	0.06	3	-0000	P	
7222/6-1 S	DC	2814	2814	50647	bulk	Shale	0.87	0	1	-0000	P	
7222/6-1 S	DC	2886	2886	50648	bulk	Shale	0.76	0.06	5	-0000	P	Inertinite
7222/6-1 S	COCH	1154.62	1154.62	50649	bulk	Shale	0.46	0.04	20	-0000	M	Inertinite
7222/6-1 S	COCH	1648.44	1648.44	50650	bulk	Shale	0.57	0.07	20	000000	M	
7222/6-1 S	COCH	1951.52	1951.52	50651	bulk	Shale	0.66	0.05	20	-00000	M	Inertinite



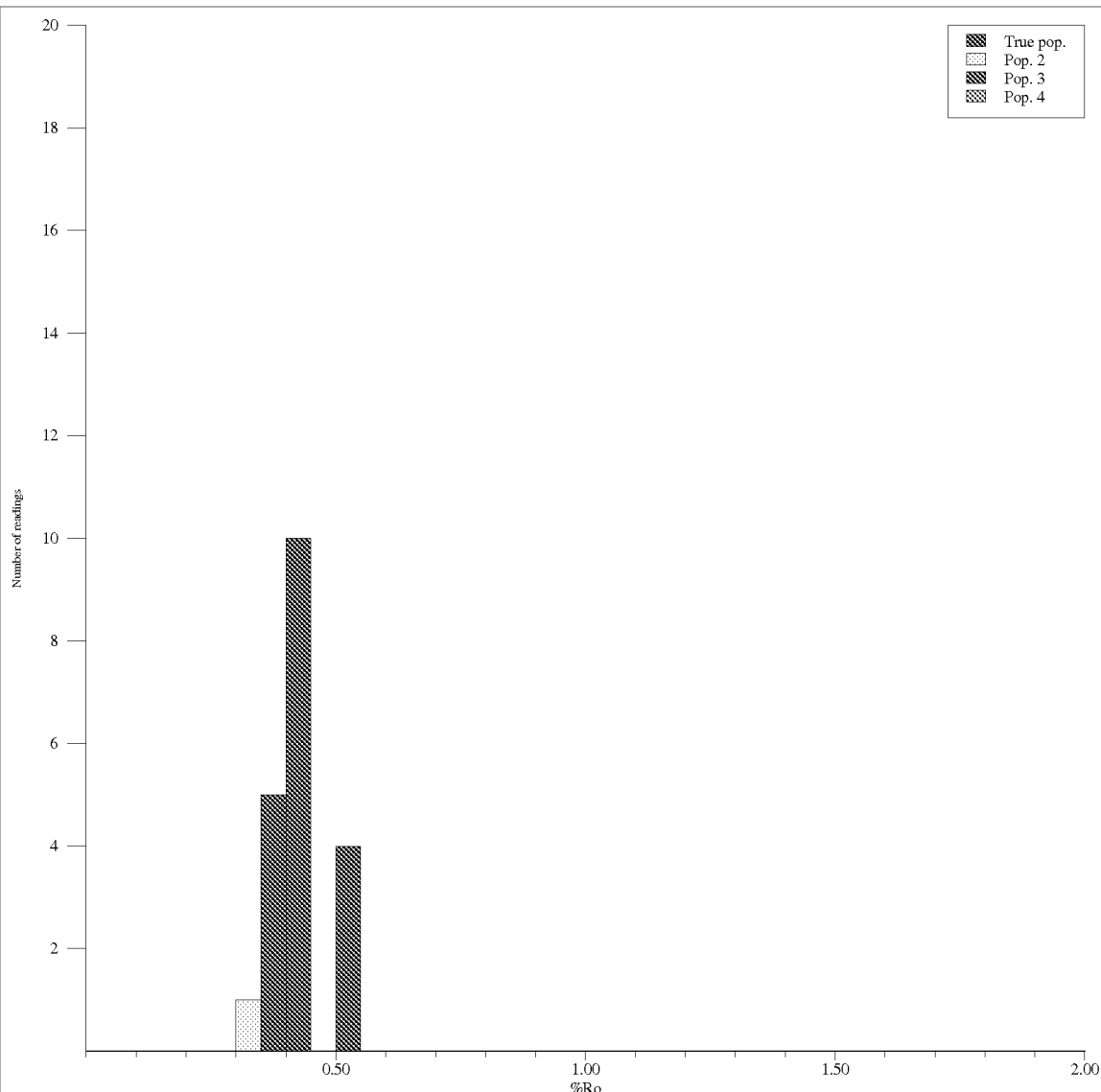


Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7222/6-1 S	Mean±sd.	0.39±0.03	0.33±0.00	0.48±0.02	
Lower depth	730	Individual	0.350	0.330	0.450	
Sample type	DC	measurements	0.350		0.460	
Lithology	Shale	3	0.370		0.460	
Preparation	bulk	4	0.370		0.460	
Date of analysis	2008-06-16	5	0.380		0.470	
APT ID	50622	6	0.380		0.480	
Quality rating: Average sample quality M Abundance of vitrinite o Identification of vitrinite o Type of vitrinite o Particle size o Particle surface quality o Abundance of pyrite o		7	0.410		0.490	
		8	0.430		0.510	
		9	0.430		0.510	
		10	0.440			
		11				
		12				
		13				
		14				
		15				
		16				
Legend to quality ratings: No effect on the readings o Possibly too low readings - Possibly too high readings + Good quality G Moderate quality M Poor quality P Not vitrinite X Hydrocarbon staining St		17				
		18				
		19				
		20				
		21				
		22				
		23				
		24				
		25				
		26				
Comments:						

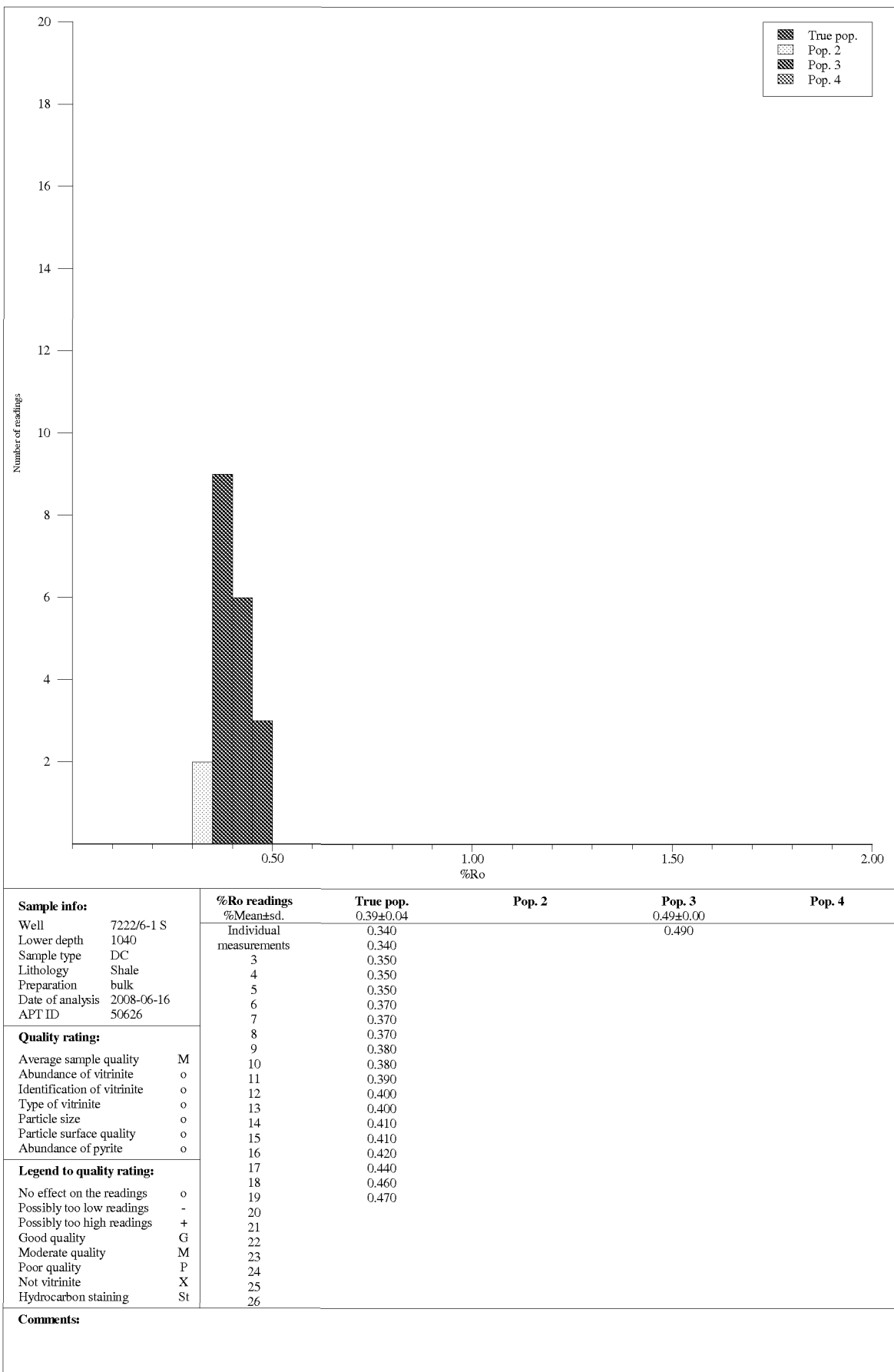


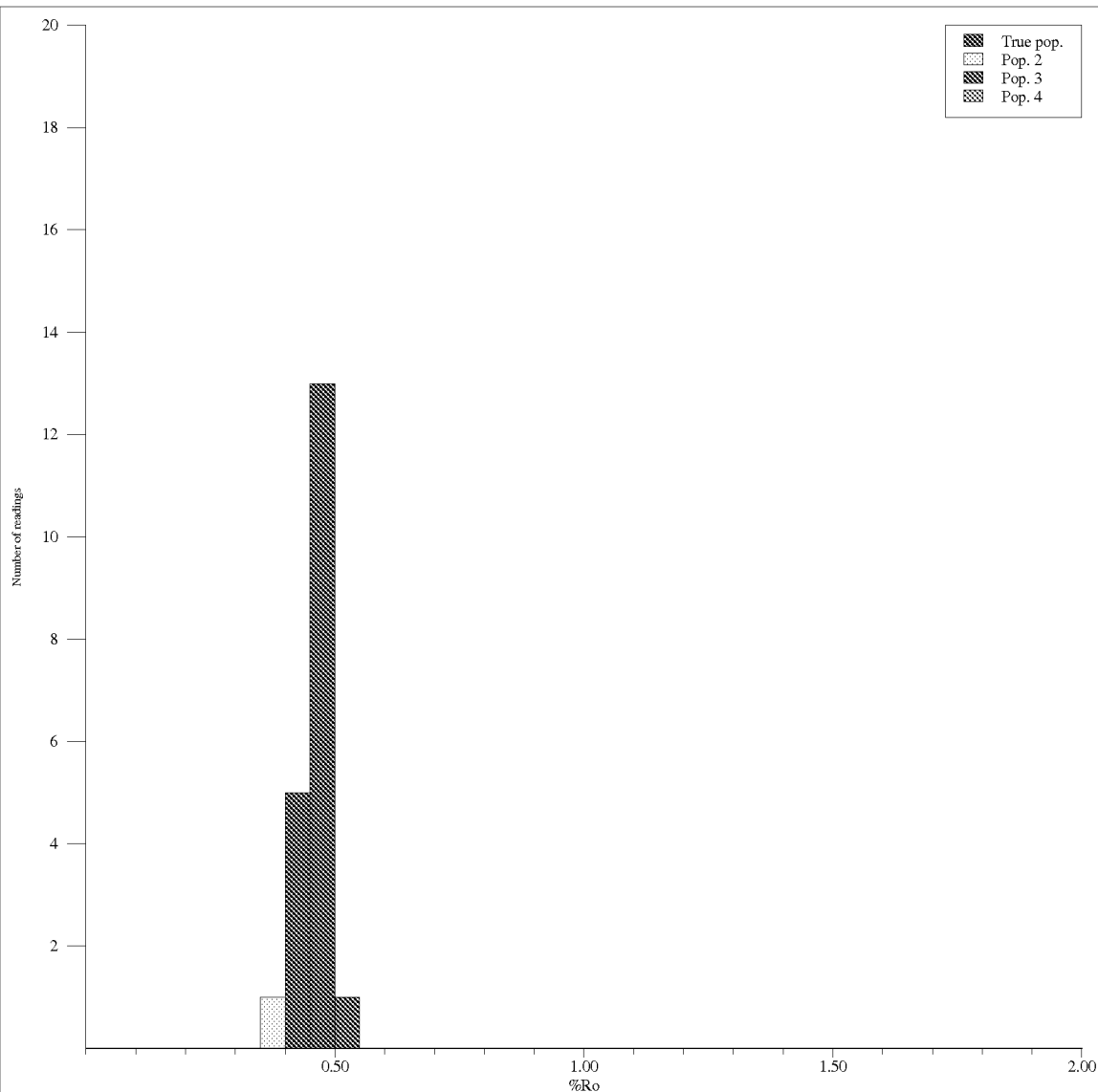


Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7222/6-1 S	%Mean±sd.	0.43±0.04		0.53±0.00	
Lower depth	840	Individual	0.360		0.530	
Sample type	DC	measurements	0.380			
Lithology	Shale	3	0.380			
Preparation	bulk	4	0.380			
Date of analysis	2008-06-16	5	0.400			
APT ID	50624	6	0.430			
Quality rating: Average sample quality M Abundance of vitrinite o Identification of vitrinite o Type of vitrinite o Particle size o Particle surface quality o Abundance of pyrite +		7	0.440			
		8	0.450			
		9	0.450			
		10	0.460			
		11	0.470			
		12	0.480			
		13	0.490			
		14				
		15				
		16				
Legend to quality ratings: No effect on the readings o Possibly too low readings - Possibly too high readings + Good quality G Moderate quality M Poor quality P Not vitrinite X Hydrocarbon staining St		17				
		18				
		19				
		20				
		21				
		22				
		23				
		24				
		25				
		26				
Comments:						

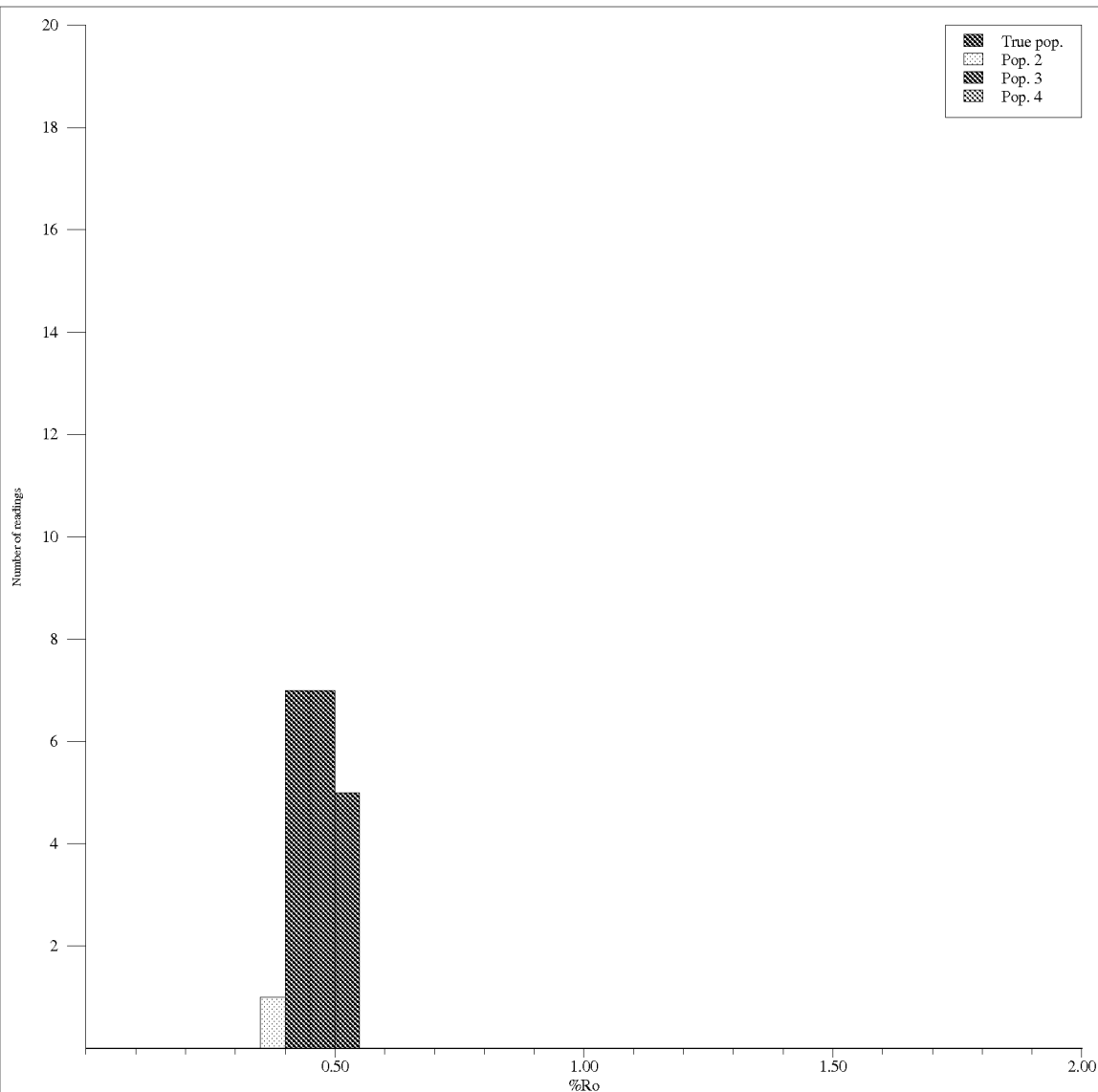


Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7222/6-1 S	Mean±sd.	0.42±0.05		0.54±0.00	
Lower depth	930	Individual	0.340		0.540	
Sample type	DC	measurements	0.350			
Lithology	Shale	3	0.350			
Preparation	bulk	4	0.360			
Date of analysis	2008-06-16	5	0.380			
APT ID	50625	6	0.390			
Quality rating:		7	0.410			
		8	0.420			
		9	0.430			
		10	0.430			
		11	0.430			
		12	0.430			
		13	0.430			
		14	0.430			
		15	0.430			
		16	0.440			
Legend to quality ratings:		17	0.500			
		18	0.510			
		19	0.520			
		20				
		21				
		22				
		23				
		24				
		25				
		26				
Comments:						

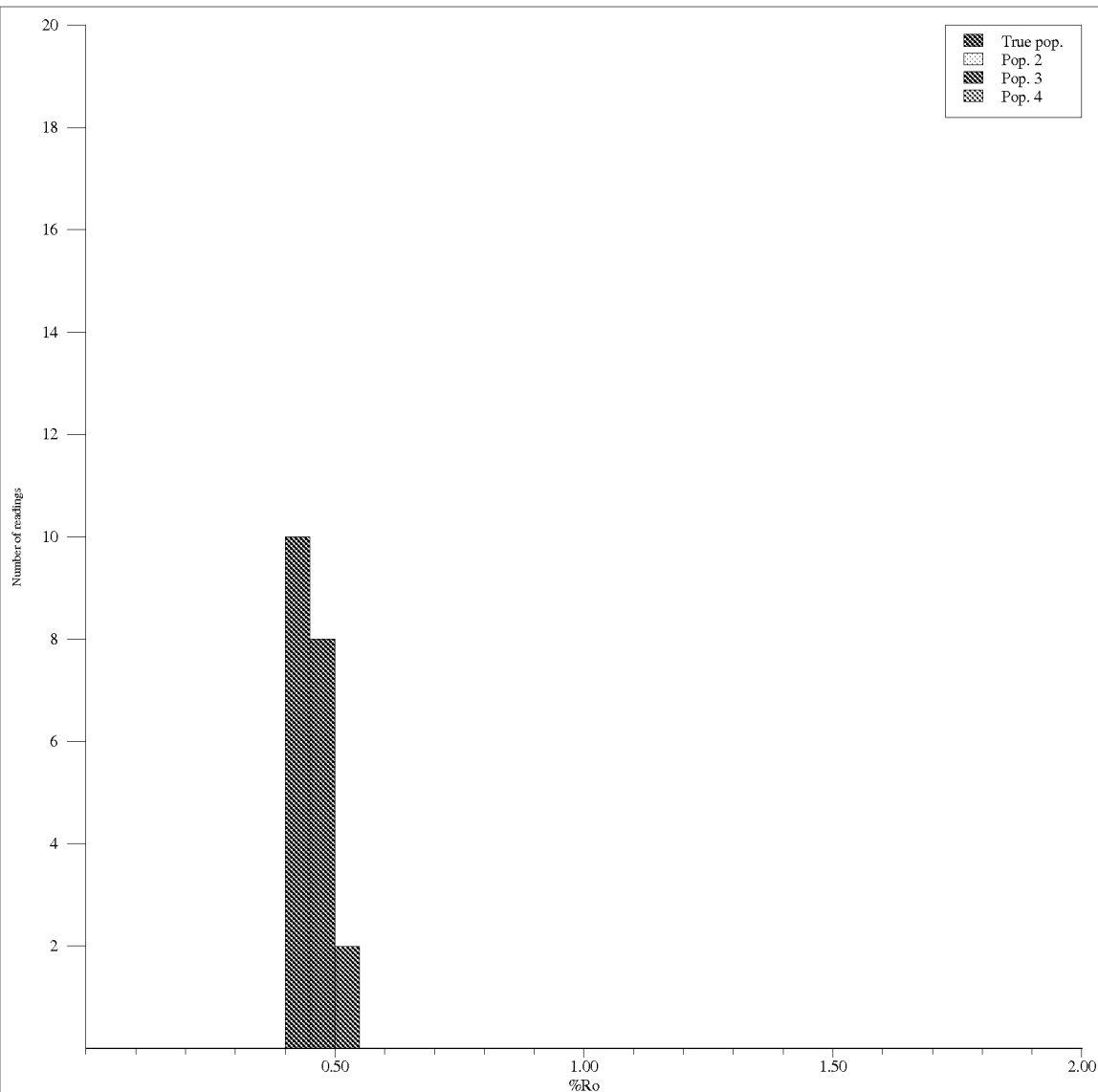




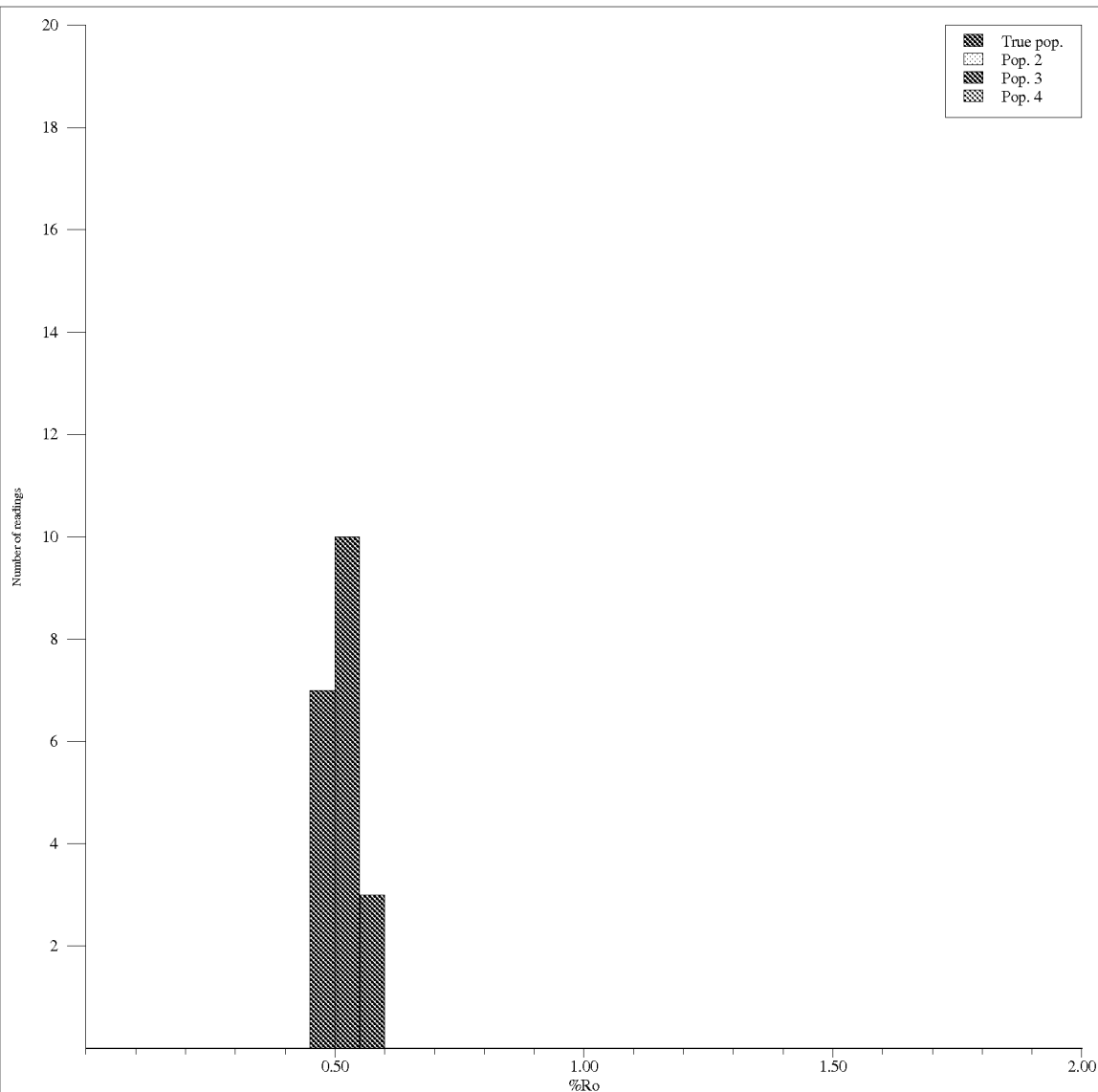
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7222/6-1 S	Mean±sd.	0.46±0.03			
Lower depth	1338	Individual	0.390			
Sample type	DC	measurements	0.400			
Lithology	Shale	3	0.410			
Preparation	bulk	4	0.420			
Date of analysis	2008-06-16	5	0.430			
APT ID	50628	6	0.440			
Quality rating:		7	0.450			
		8	0.460			
		9	0.460			
		10	0.460			
		11	0.470			
		12	0.470			
		13	0.470			
		14	0.480			
		15	0.480			
		16	0.490			
Legend to quality ratings:		17	0.490			
		18	0.490			
		19	0.490			
		20	0.500			
		21				
		22				
		23				
		24				
		25				
		26				
Comments:						
70%shale, 30%coal.						



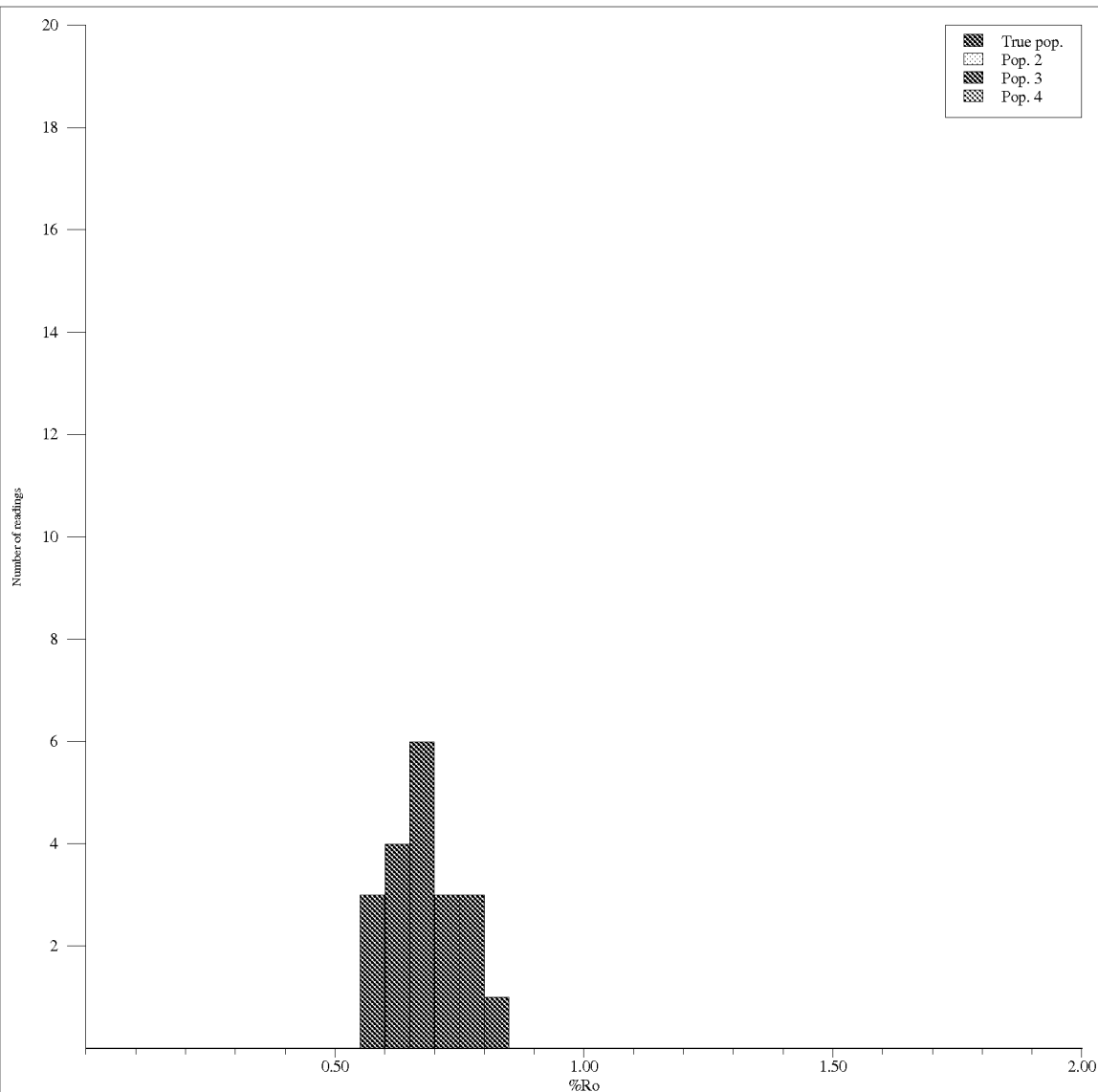
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7222/6-1 S	Mean±sd.	0.46±0.04			
Lower depth	1365	Individual	0.390			
Sample type	DC	measurements	0.400			
Lithology	Shale	3	0.410			
Preparation	bulk	4	0.410			
Date of analysis	2008-06-16	5	0.420			
APT ID	50629	6	0.420			
Quality rating:		7	0.430			
		8	0.430			
		9	0.450			
		10	0.450			
		11	0.460			
		12	0.460			
		13	0.480			
		14	0.480			
		15	0.490			
		16	0.500			
Legend to quality ratings:		17	0.500			
		18	0.500			
		19	0.510			
		20	0.520			
		21				
		22				
		23				
		24				
		25				
		26				
Comments:						
90%shale,10%coal.						



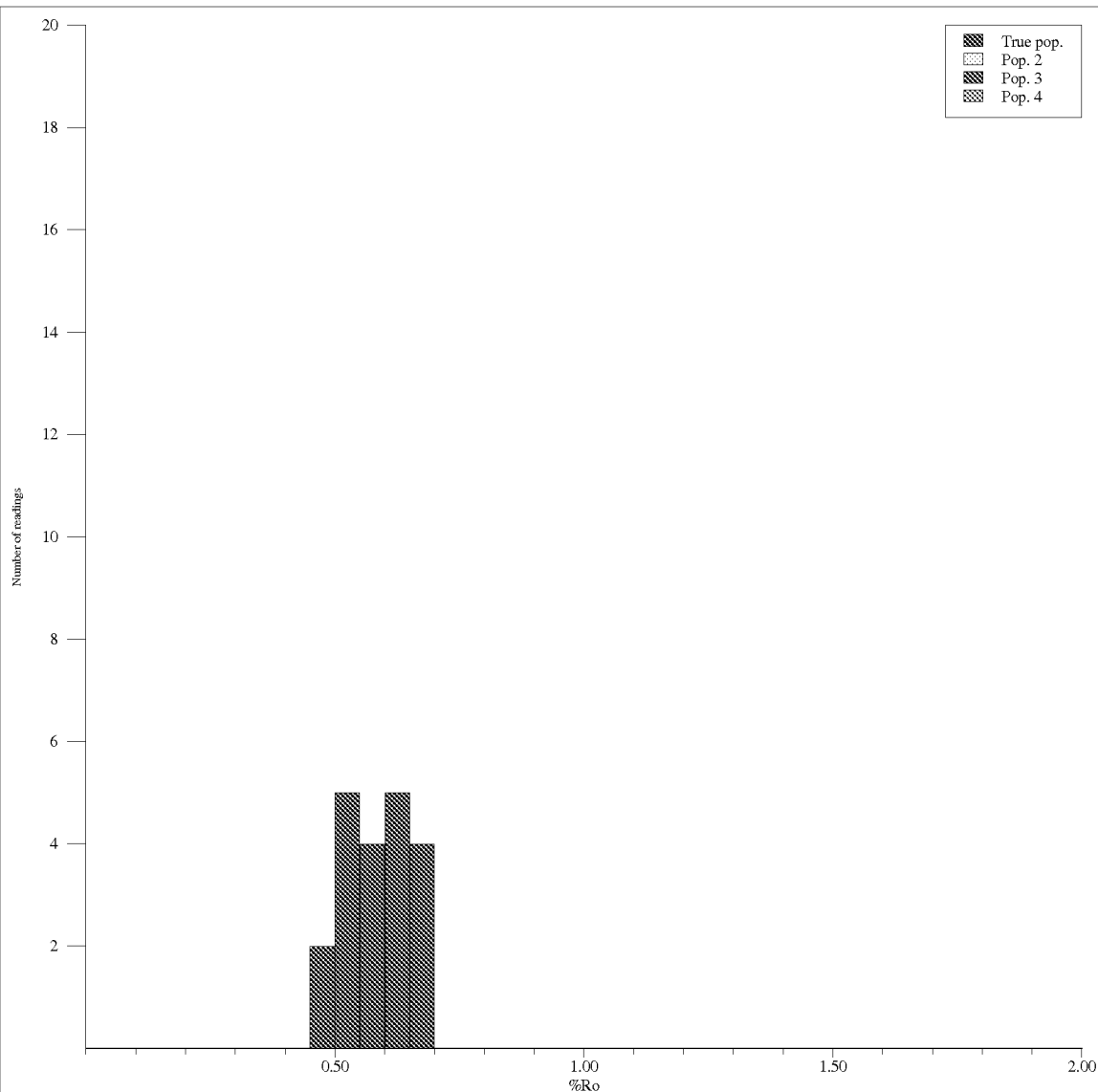
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7222/6-1 S	Mean±sd.	0.45±0.03			
Lower depth	1419	Individual	0.400			
Sample type	DC	measurements	0.410			
Lithology	Shale	3	0.410			
Preparation	bulk	4	0.420			
Date of analysis	2008-06-16	5	0.430			
APT ID	50630	6	0.430			
Quality rating:		7	0.440			
		8	0.440			
		9	0.440			
		10	0.440			
		11	0.450			
		12	0.450			
		13	0.450			
		14	0.460			
		15	0.470			
		16	0.470			
Legend to quality ratings:		17	0.480			
		18	0.490			
		19	0.500			
		20	0.500			
		21				
		22				
		23				
		24				
		25				
		26				
Comments:						
90%shale,10%coal.						



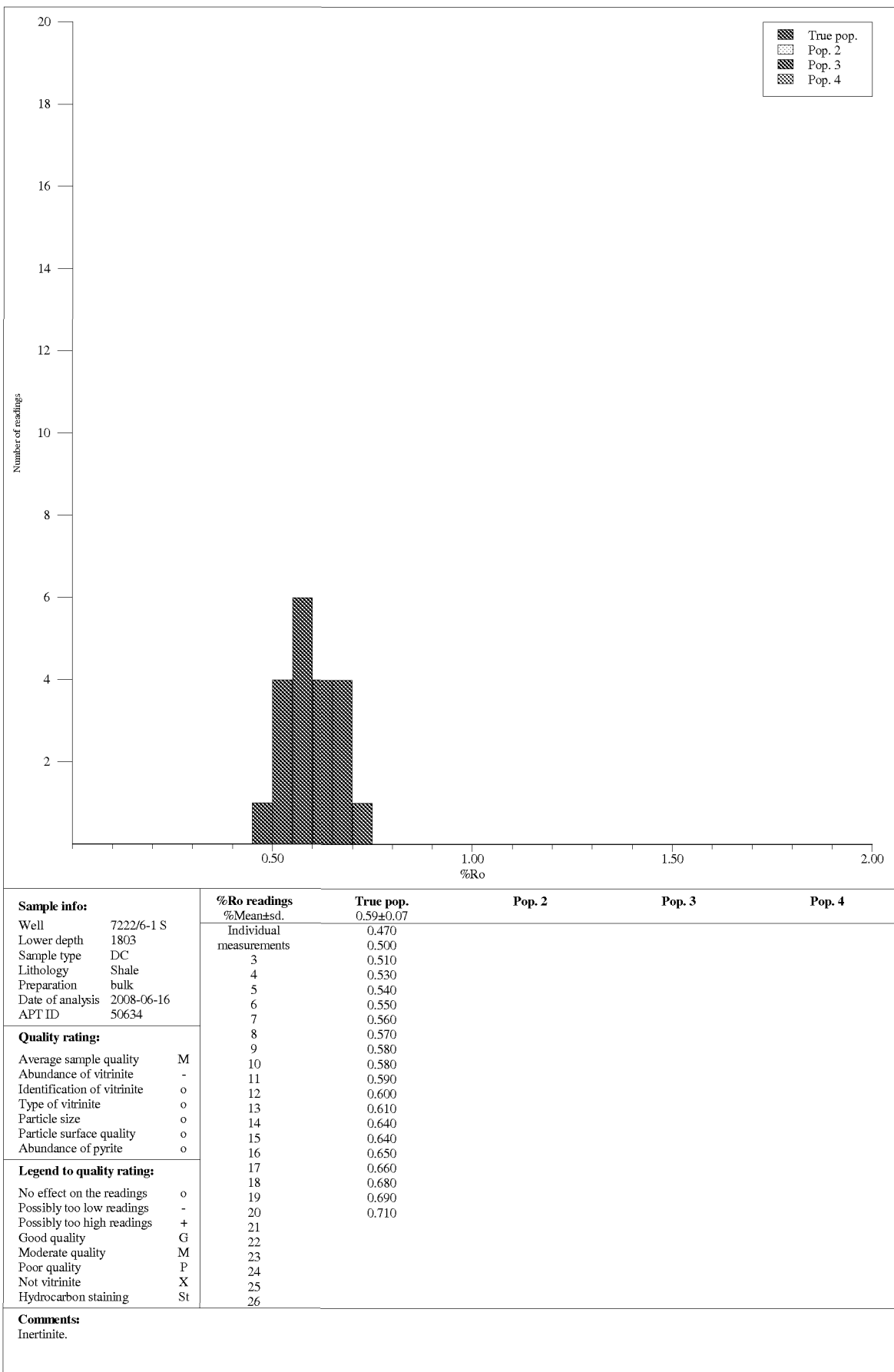
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7222/6-1 S	%Mean±sd.	0.51±0.04			
Lower depth	1575	Individual	0.450			
Sample type	DC	measurements	0.460			
Lithology	Shale	3	0.470			
Preparation	bulk	4	0.480			
Date of analysis	2008-06-16	5	0.480			
APT ID	50631	6	0.490			
Quality rating:		7	0.490			
		8	0.500			
		9	0.510			
		10	0.510			
		11	0.510			
		12	0.510			
		13	0.520			
		14	0.520			
		15	0.530			
		16	0.530			
Legend to quality ratings:		17	0.540			
		18	0.560			
		19	0.580			
		20	0.590			
		21				
		22				
		23				
		24				
		25				
		26				
Comments:						
Inertinite.						

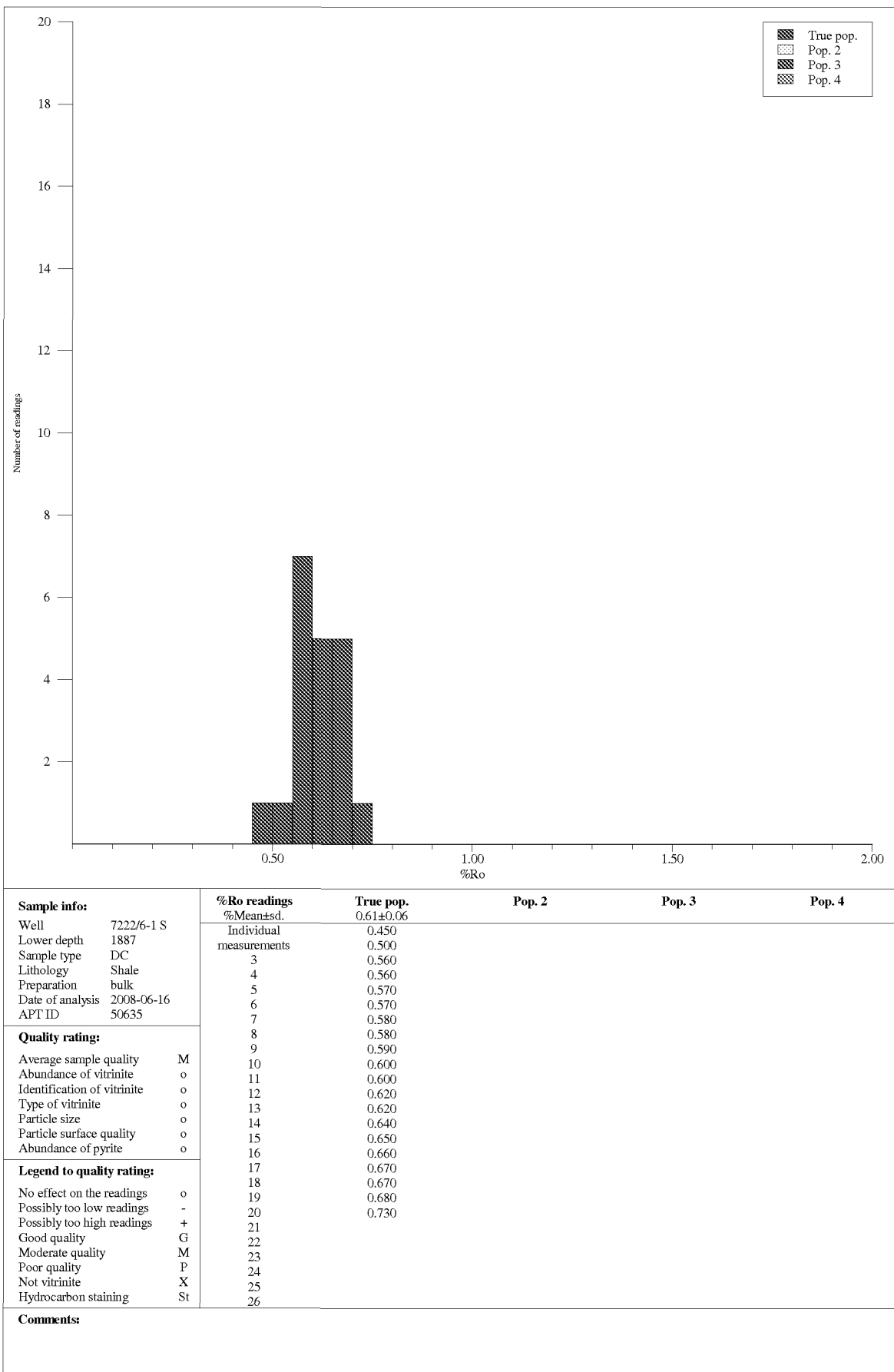


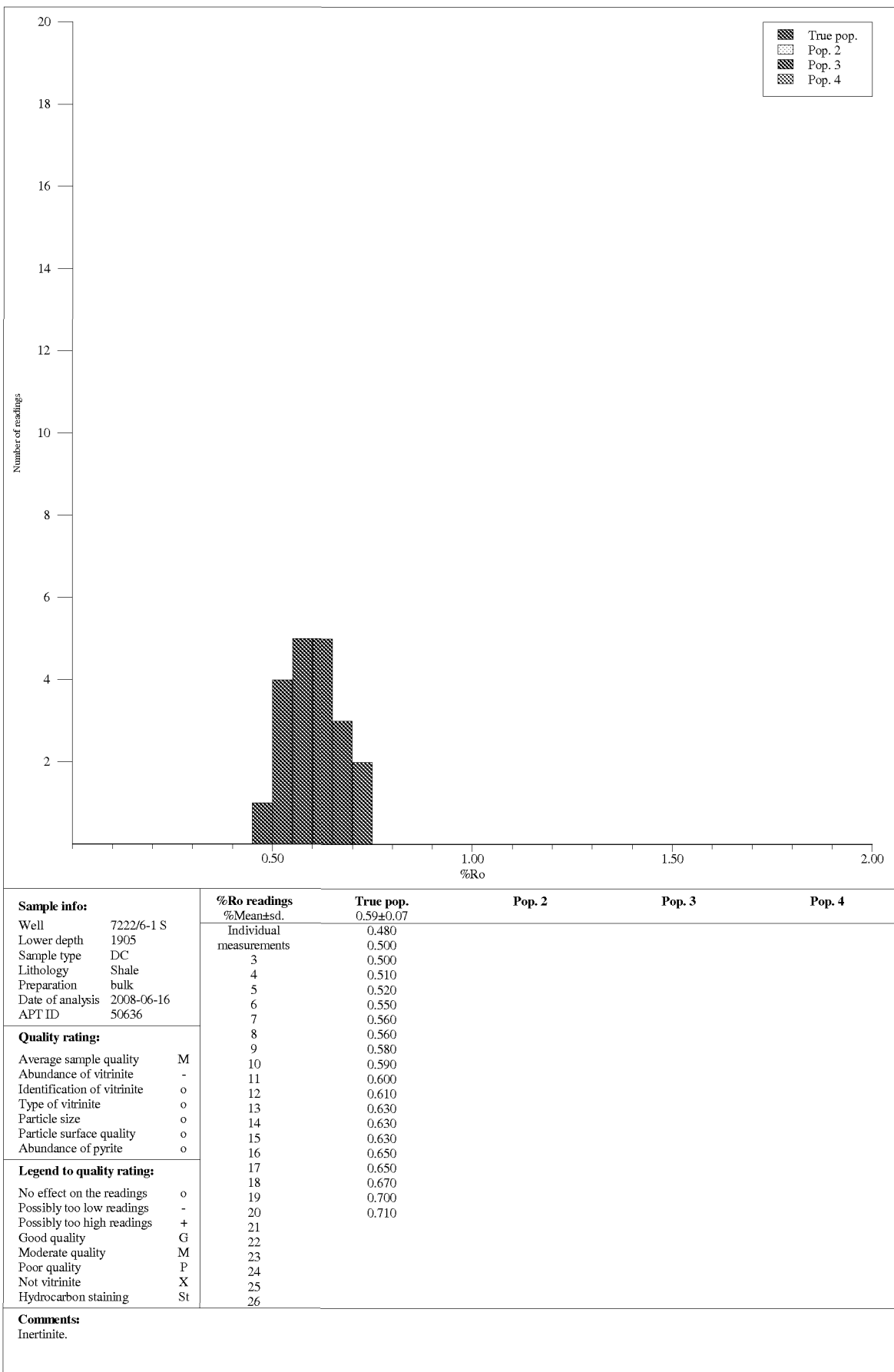
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7222/6-1 S	%Mean±sd.	0.68±0.07			
Lower depth	1674	Individual	0.560			
Sample type	DC	measurements	0.570			
Lithology	Shale	3	0.590			
Preparation	bulk	4	0.610			
Date of analysis	2008-06-16	5	0.620			
APT ID	50632	6	0.630			
Quality rating:		7	0.640			
		8	0.650			
		9	0.660			
		10	0.660			
		11	0.670			
		12	0.680			
		13	0.680			
		14	0.710			
		15	0.710			
		16	0.740			
Legend to quality ratings:		17	0.750			
		18	0.760			
		19	0.790			
		20	0.840			
		21				
		22				
		23				
		24				
		25				
		26				
Comments:						
Inertinite.						

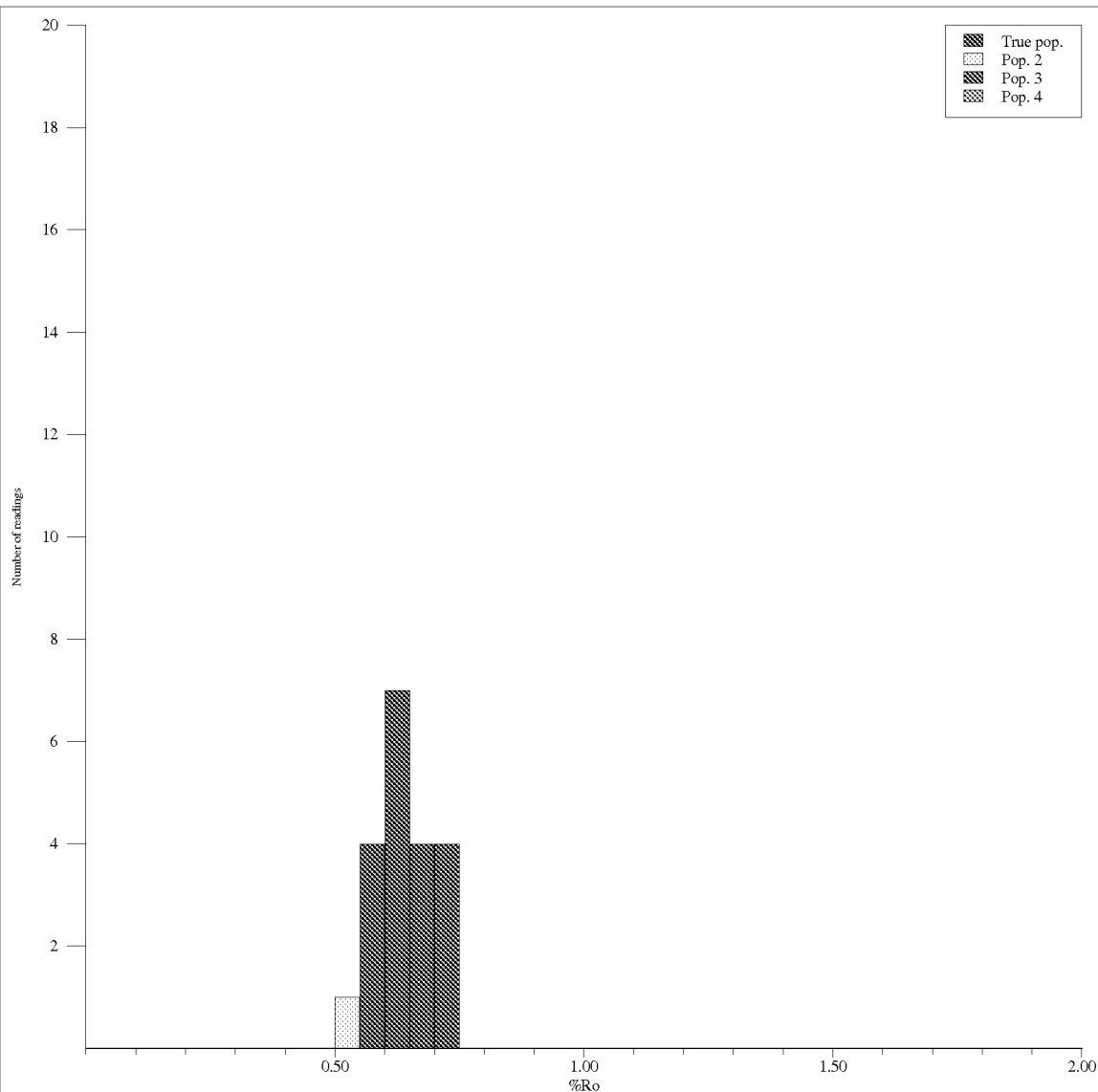


Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7222/6-1 S	Mean±sd.	0.58±0.06			
Lower depth	1713	Individual	0.470			
Sample type	DC	measurements	0.470			
Lithology	Shale	3	0.510			
Preparation	bulk	4	0.520			
Date of analysis	2008-06-16	5	0.530			
APT ID	50633	6	0.530			
Quality rating: Average sample quality M Abundance of vitrinite - Identification of vitrinite o Type of vitrinite o Particle size o Particle surface quality o Abundance of pyrite o Legend to quality ratings: No effect on the readings o Possibly too low readings - Possibly too high readings + Good quality G Moderate quality M Poor quality P Not vitrinite X Hydrocarbon staining St		7	0.540			
		8	0.570			
		9	0.580			
		10	0.590			
		11	0.590			
		12	0.600			
		13	0.610			
		14	0.620			
		15	0.620			
		16	0.630			
		17	0.650			
		18	0.670			
		19	0.670			
		20	0.680			
		21				
		22				
		23				
		24				
		25				
		26				
Comments:						
Inertinite.						

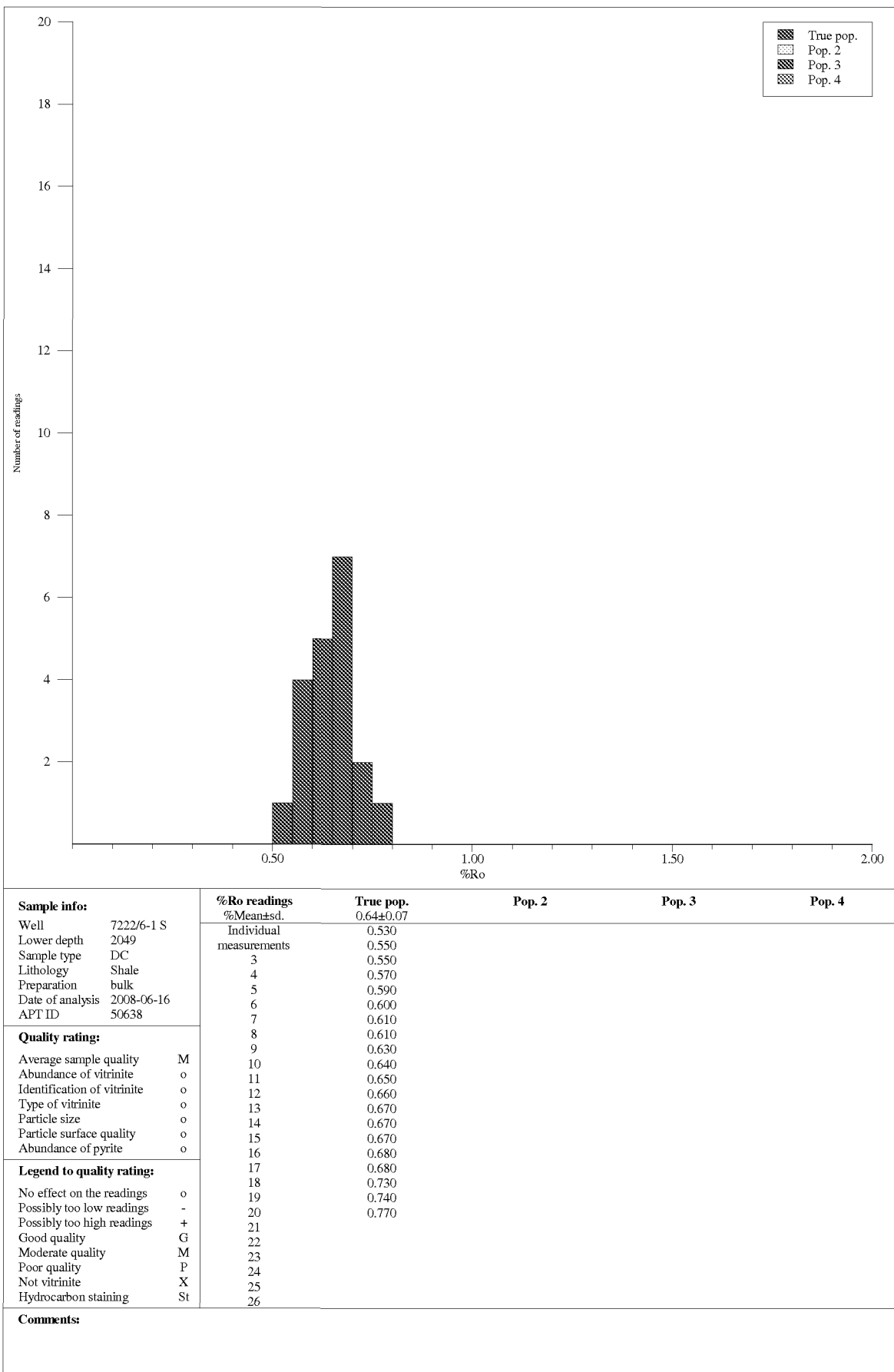


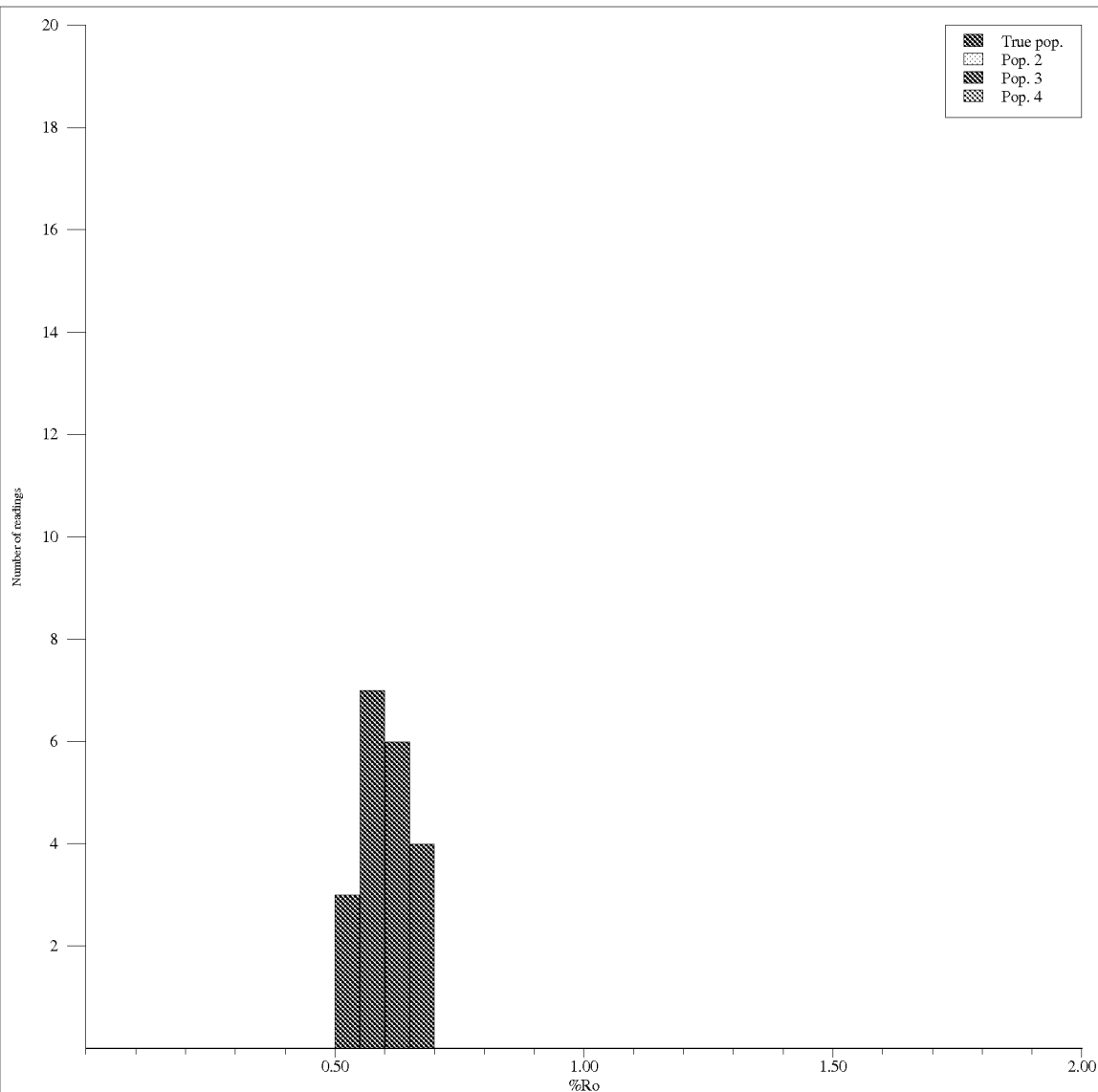




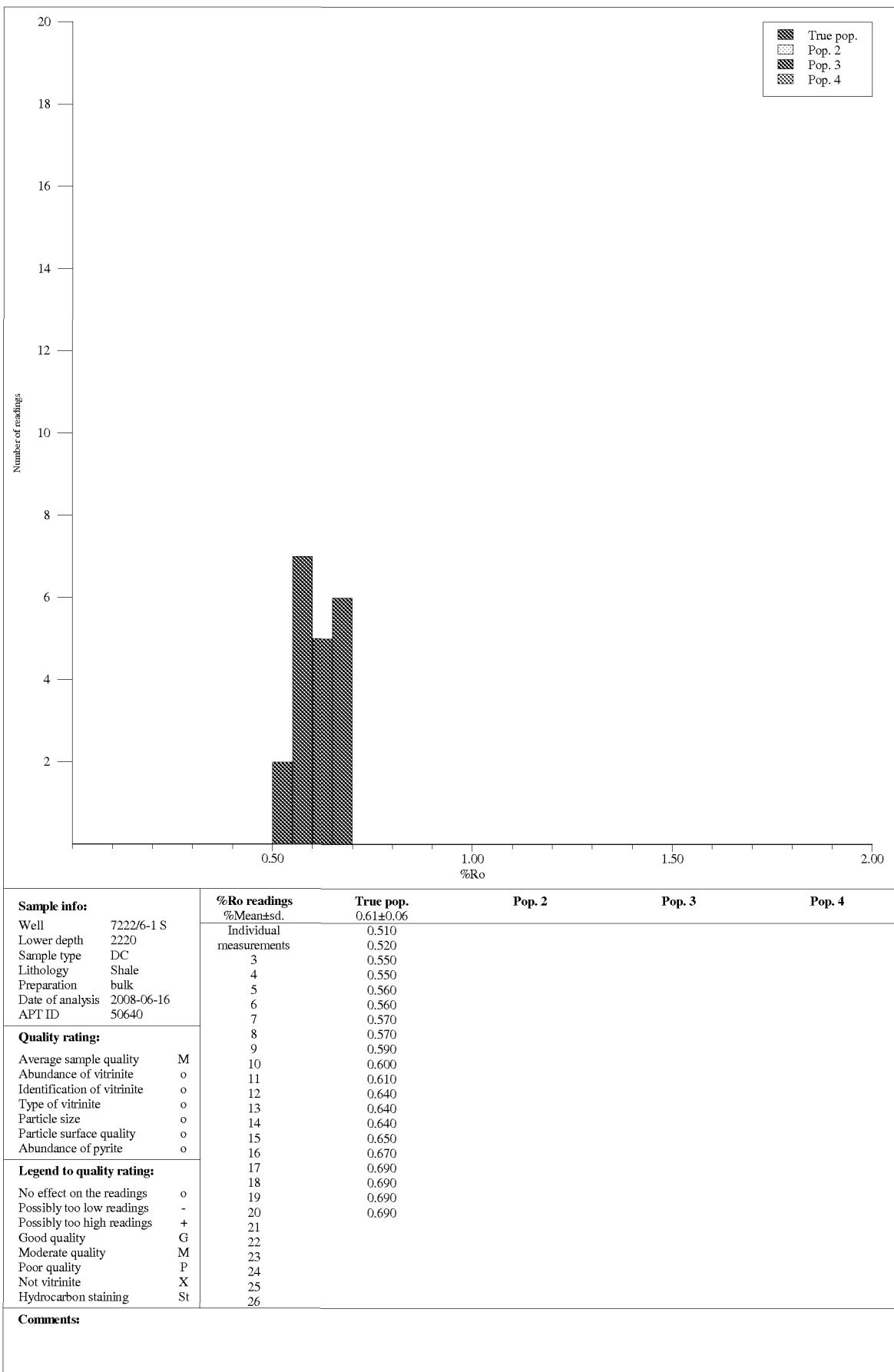


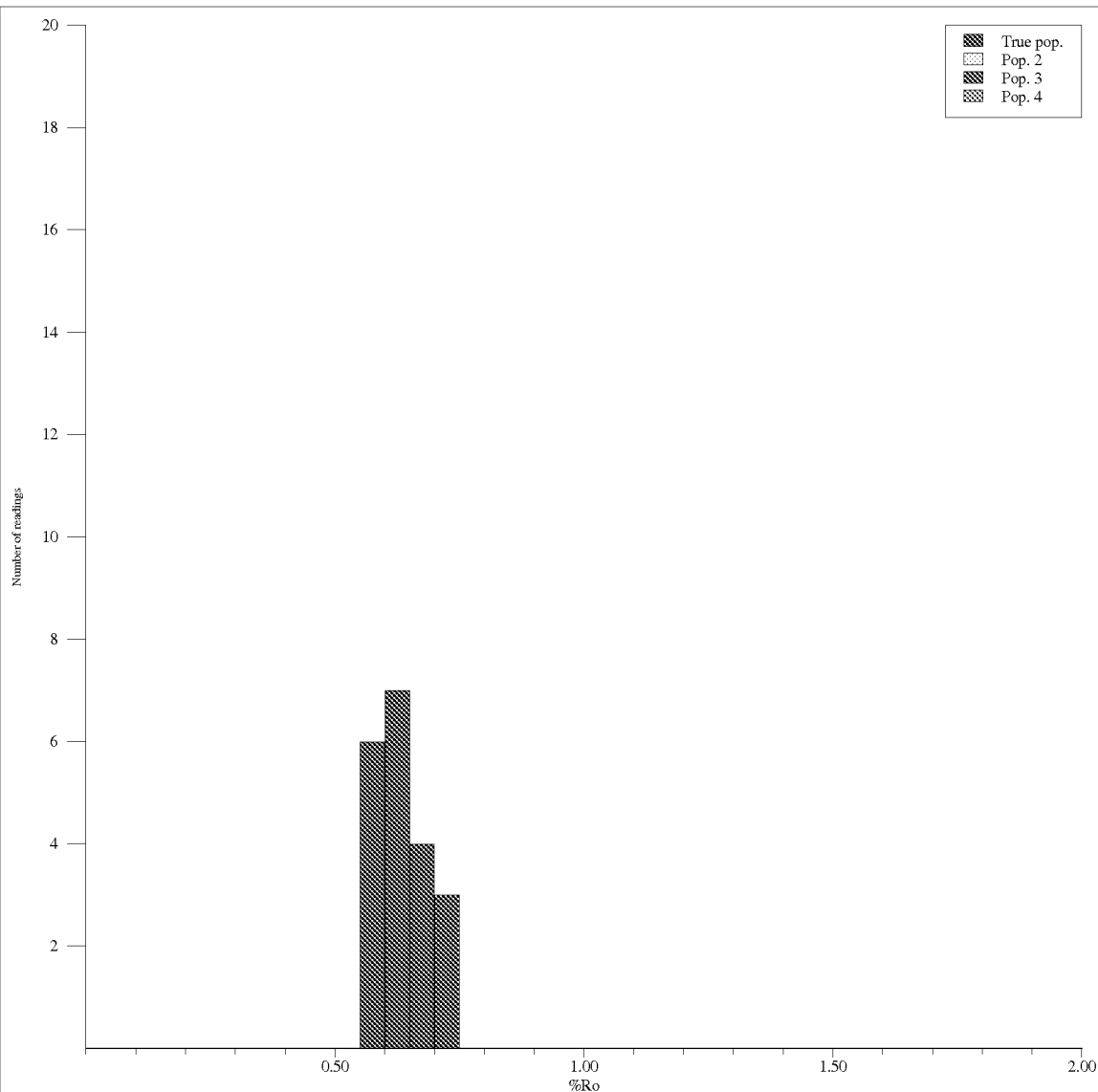
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7222/6-1 S	Mean±sd.	0.64±0.05			
Lower depth	1974	Individual	0.540			
Sample type	DC	measurements	0.570			
Lithology	Shale	3	0.580			
Preparation	bulk	4	0.580			
Date of analysis	2008-06-16	5	0.590			
APT ID	50637	6	0.610			
Quality rating:		7	0.620			
		8	0.620			
		9	0.630			
		10	0.640			
		11	0.640			
		12	0.640			
		13	0.650			
		14	0.660			
		15	0.670			
		16	0.690			
Legend to quality ratings:		17	0.700			
		18	0.710			
		19	0.730			
		20	0.740			
		21				
		22				
		23				
		24				
		25				
		26				
Comments:						



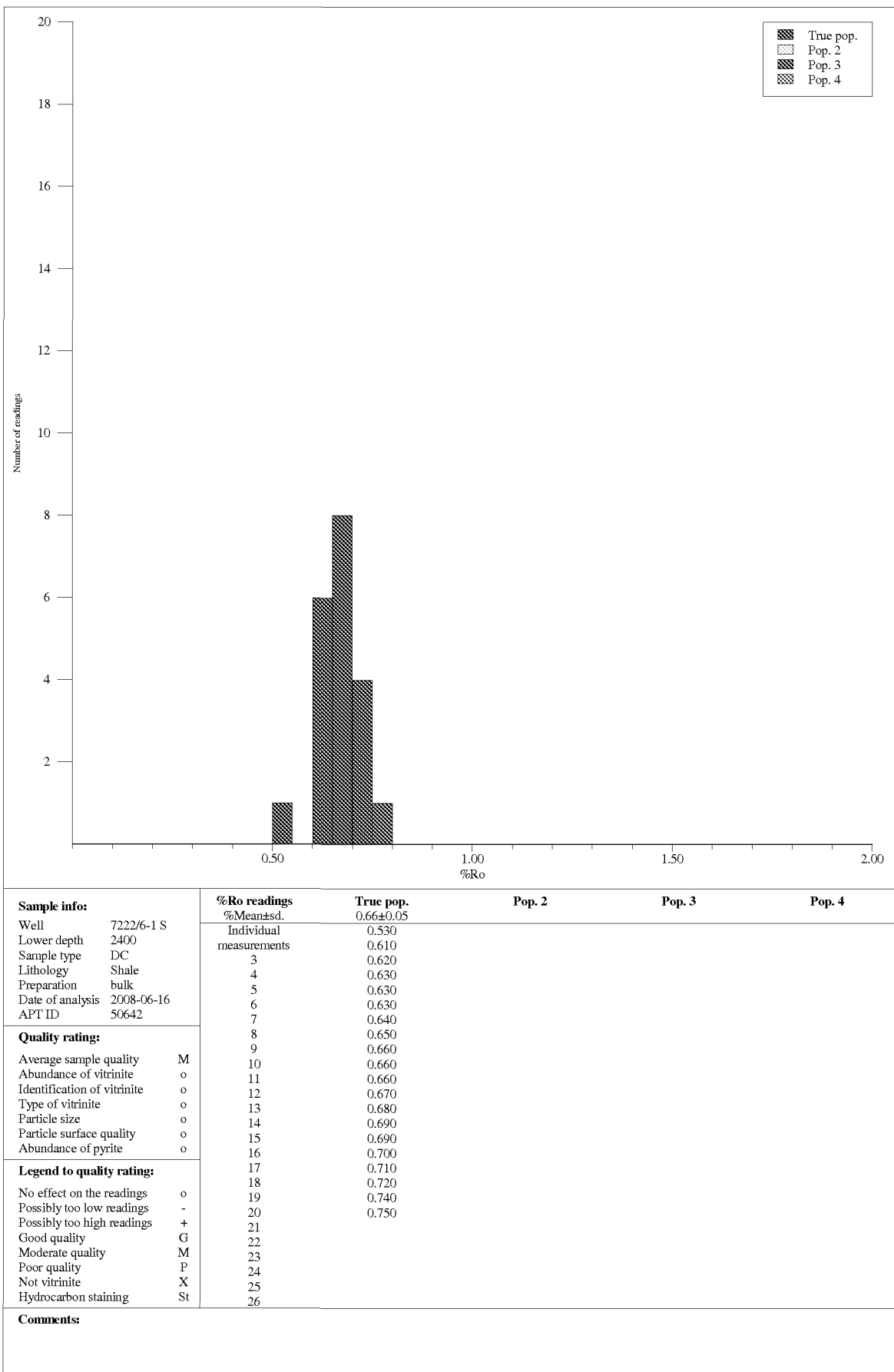


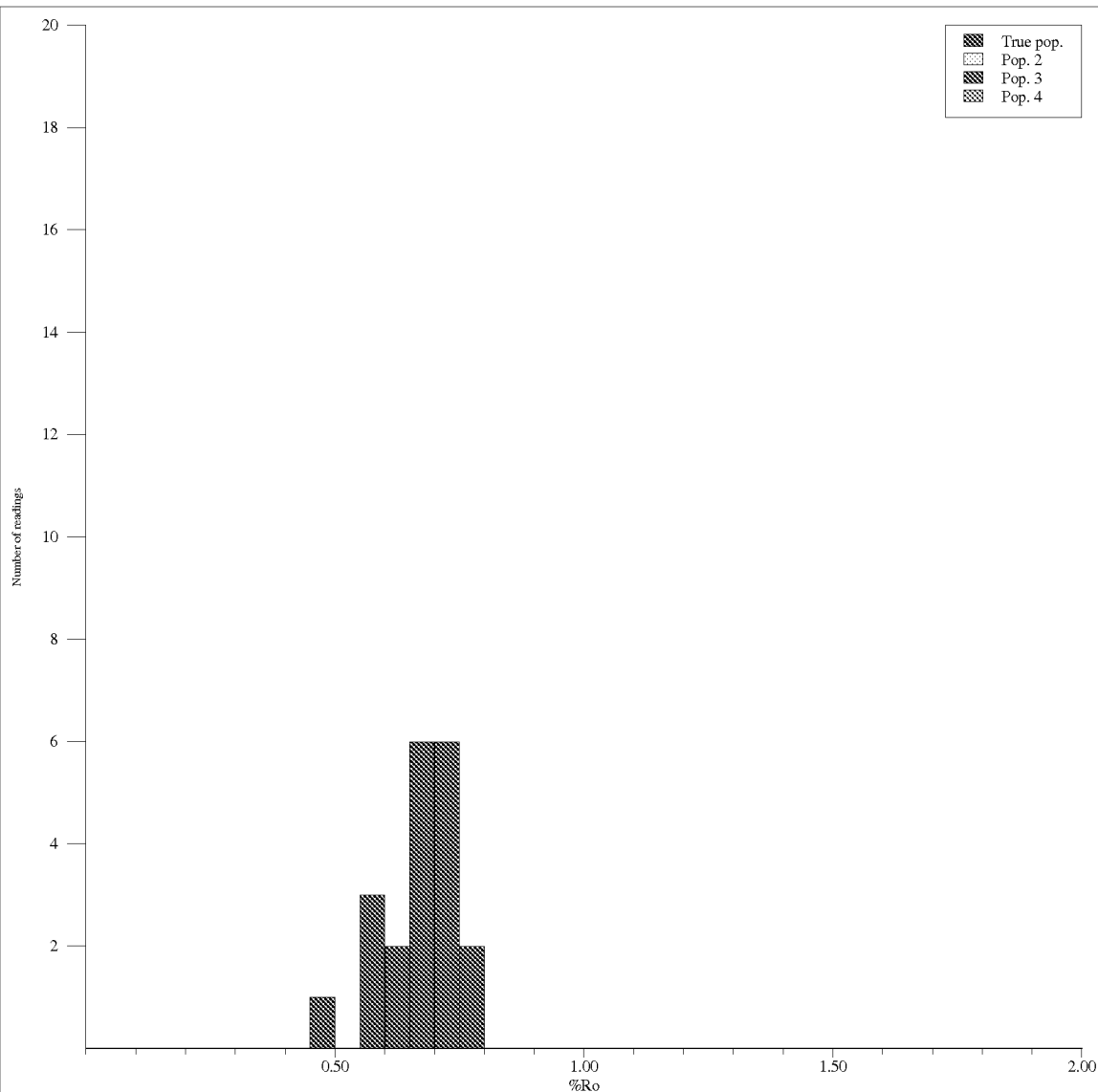
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7222/6-1 S	Mean±sd.	0.59±0.05			
Lower depth	2115	Individual	0.530			
Sample type	DC	measurements	0.540			
Lithology	Shale	3	0.540			
Preparation	bulk	4	0.550			
Date of analysis	2008-06-16	5	0.550			
APT ID	50639	6	0.550			
Quality rating:		7	0.570			
		8	0.570			
		9	0.580			
		10	0.580			
		11	0.600			
		12	0.600			
		13	0.600			
		14	0.610			
		15	0.610			
		16	0.620			
Legend to quality ratings:		17	0.650			
		18	0.660			
		19	0.680			
		20	0.690			
		21				
		22				
		23				
		24				
		25				
		26				
Comments:						



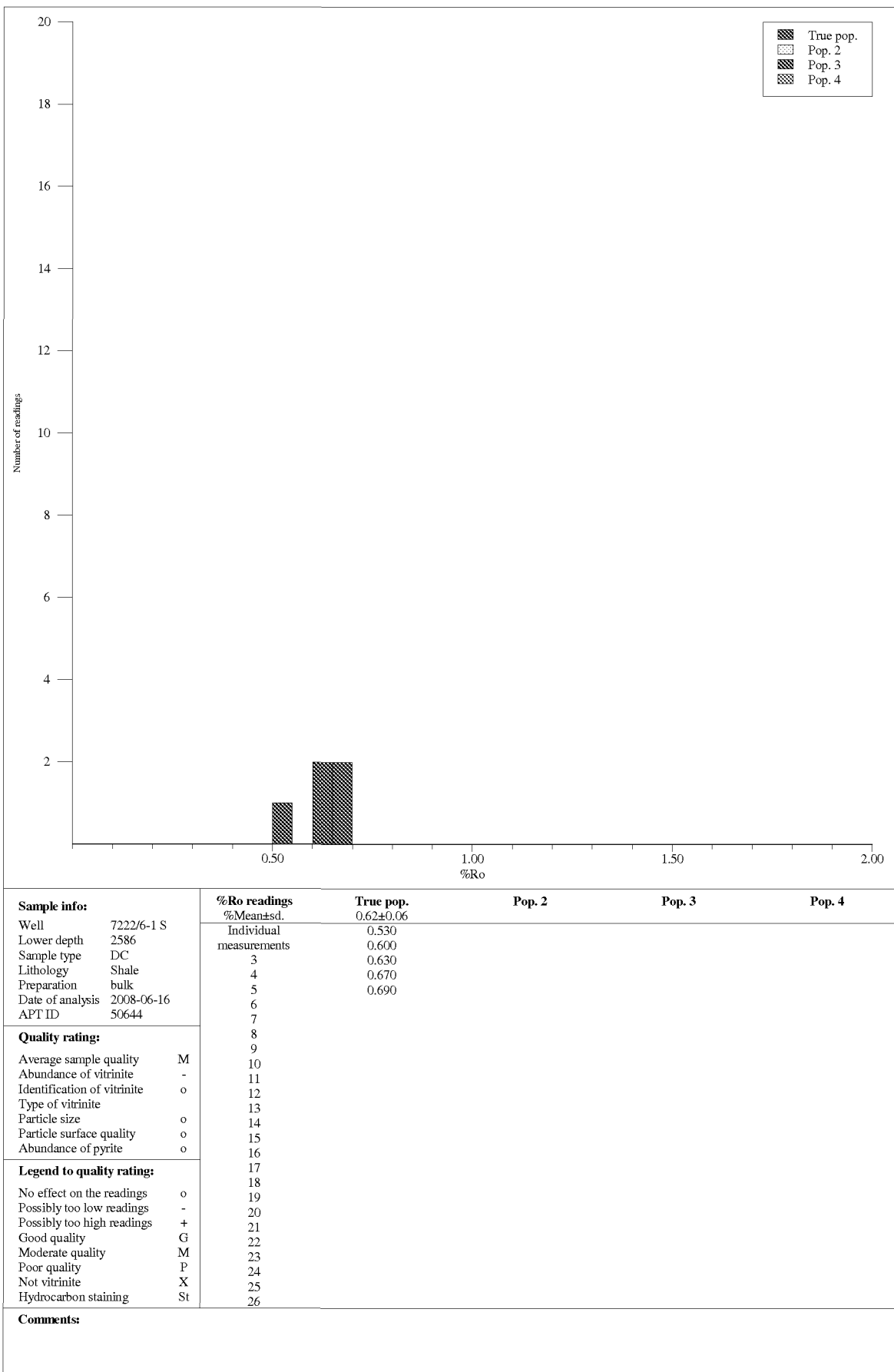


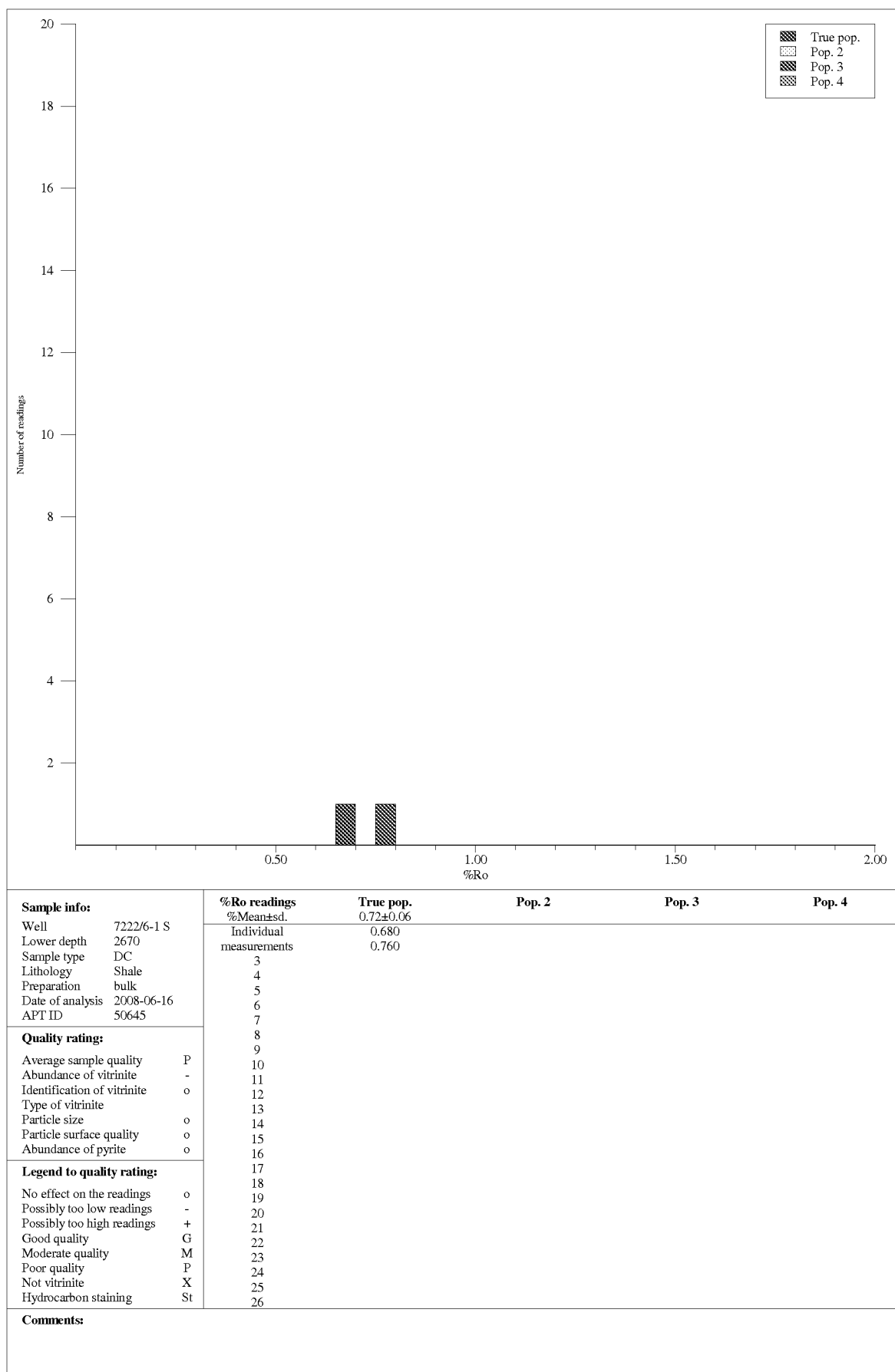
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7222/6-1 S	Mean±sd.	0.63±0.06			
Lower depth	2331	Individual	0.550			
Sample type	DC	measurements	0.550			
Lithology	Shale	3	0.550			
Preparation	bulk	4	0.580			
Date of analysis	2008-06-16	5	0.580			
APT ID	50641	6	0.590			
Quality rating:		7	0.600			
		8	0.600			
		9	0.610			
		10	0.620			
		11	0.620			
		12	0.630			
		13	0.630			
		14	0.650			
		15	0.660			
		16	0.670			
Legend to quality ratings:		17	0.680			
		18	0.720			
		19	0.720			
		20	0.720			
		21				
		22				
		23				
		24				
		25				
		26				
Comments:						

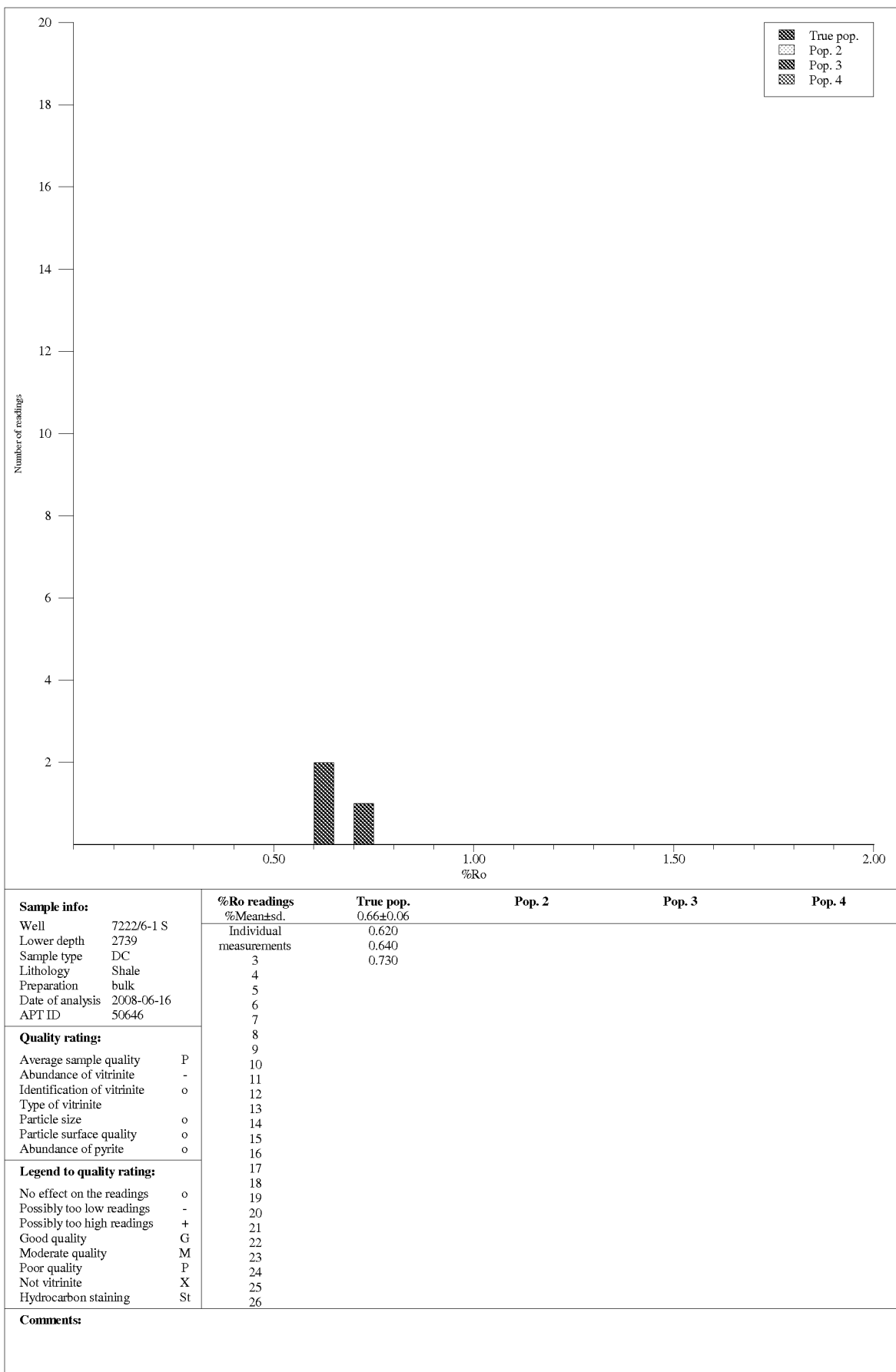


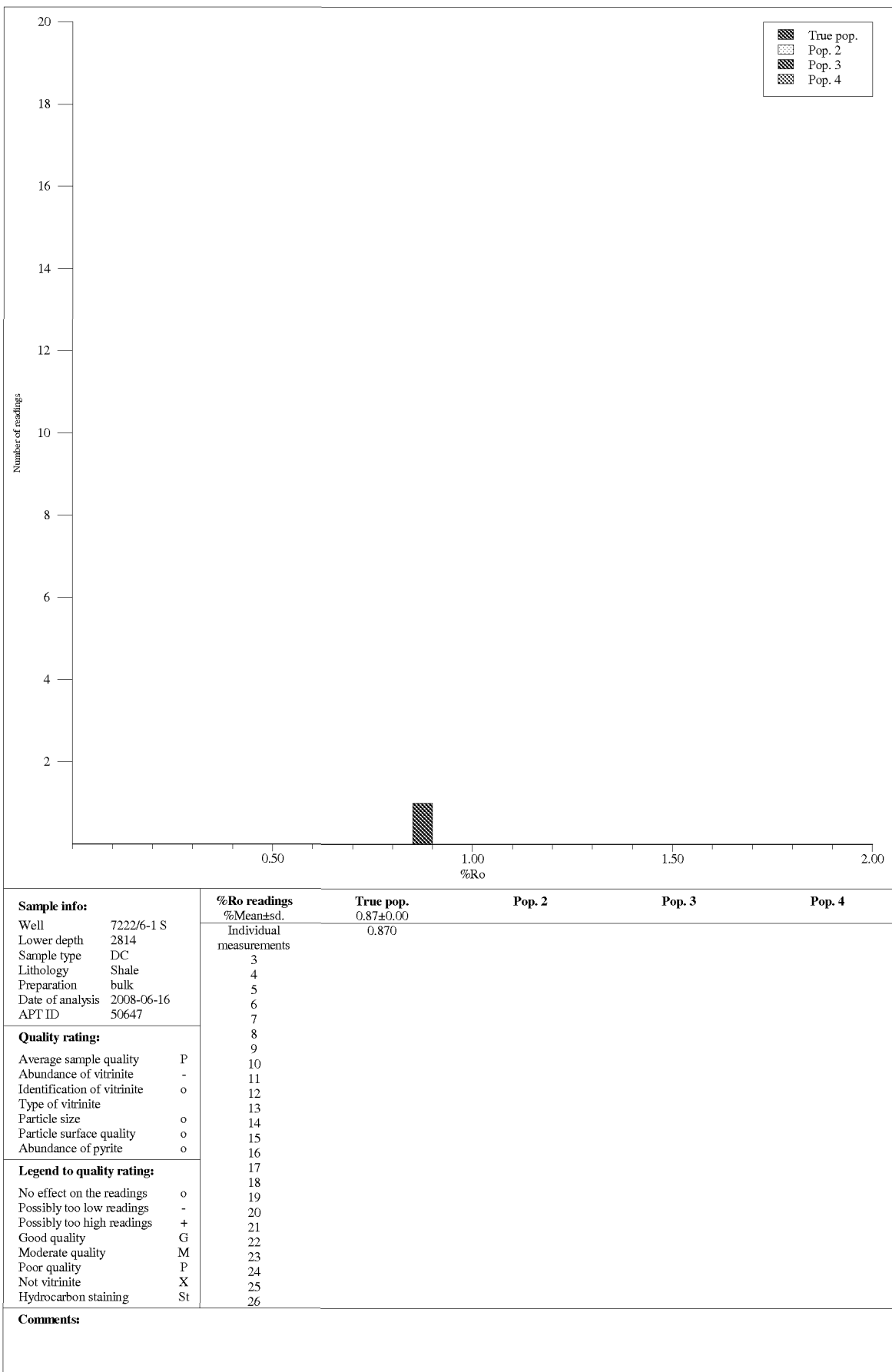


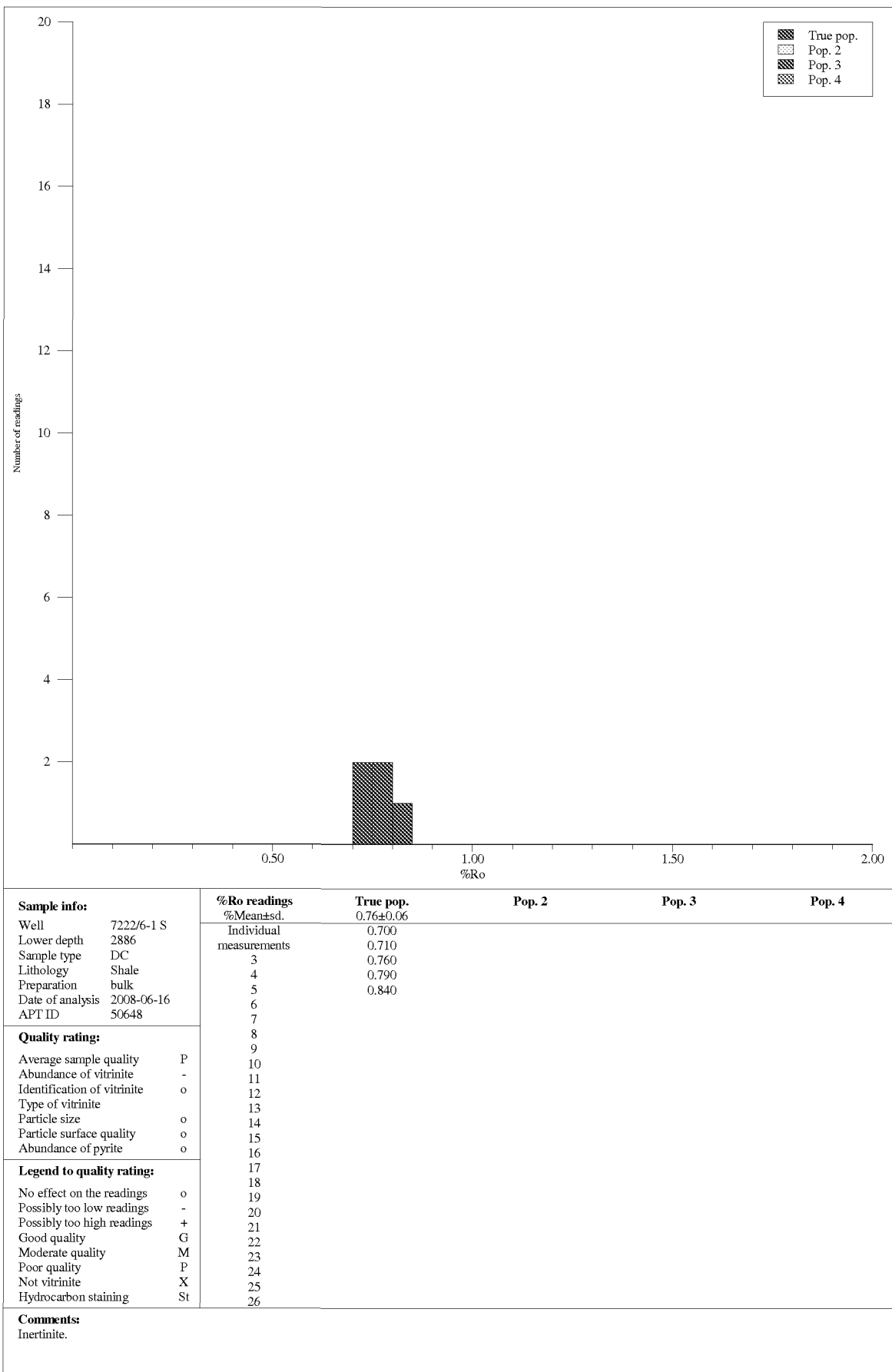
Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7222/6-1 S	Mean±sd.	0.66±0.08			
Lower depth	2454	Individual	0.480			
Sample type	DC	measurements	0.550			
Lithology	Shale	3	0.560			
Preparation	bulk	4	0.570			
Date of analysis	2008-06-16	5	0.600			
APT ID	50643	6	0.640			
Quality rating:		7	0.650			
		8	0.650			
		9	0.660			
		10	0.670			
		11	0.680			
		12	0.690			
		13	0.700			
		14	0.700			
		15	0.720			
		16	0.720			
Legend to quality ratings:		17	0.730			
		18	0.740			
		19	0.750			
		20	0.780			
		21				
		22				
		23				
		24				
		25				
		26				
Comments:						

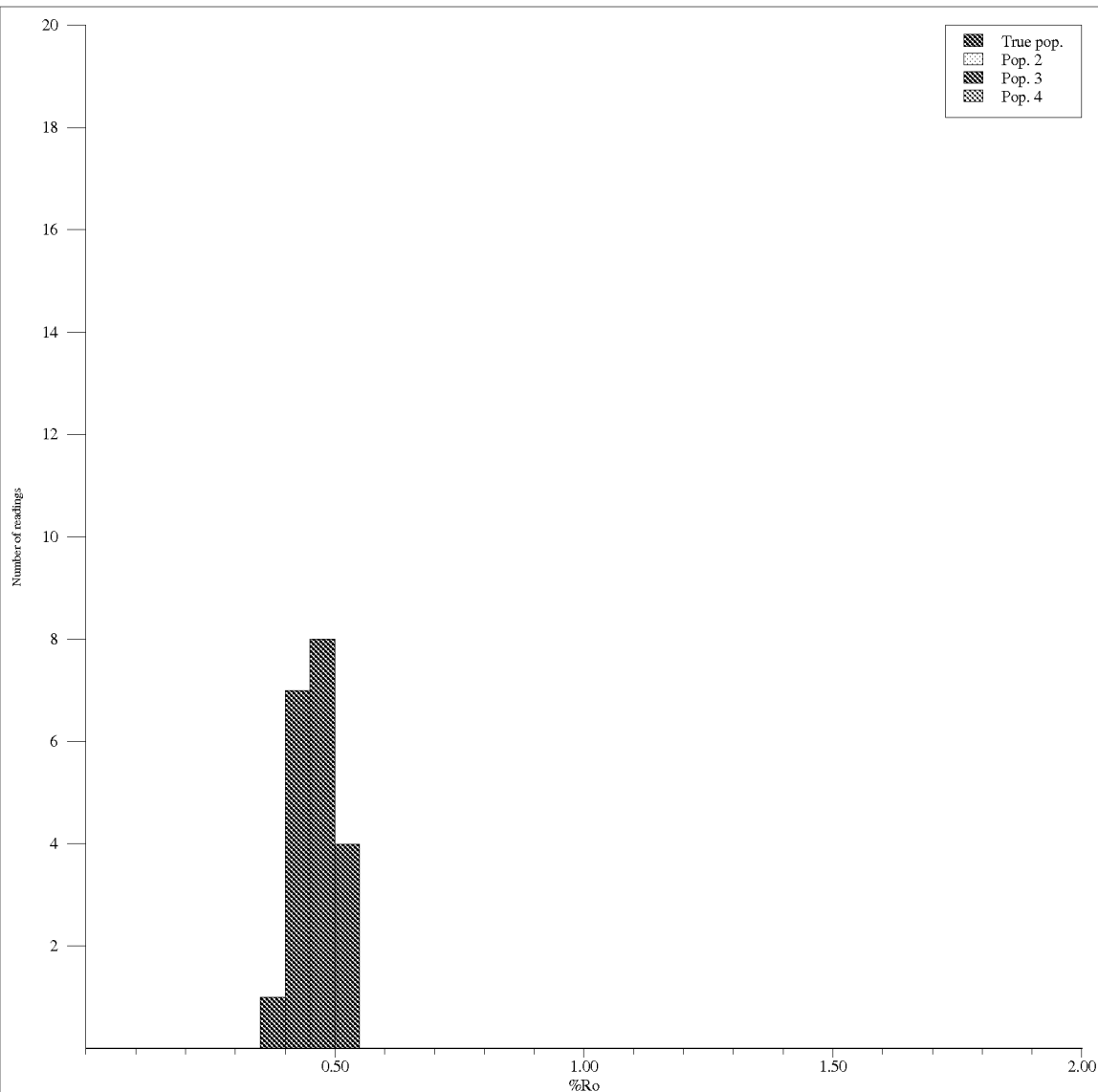




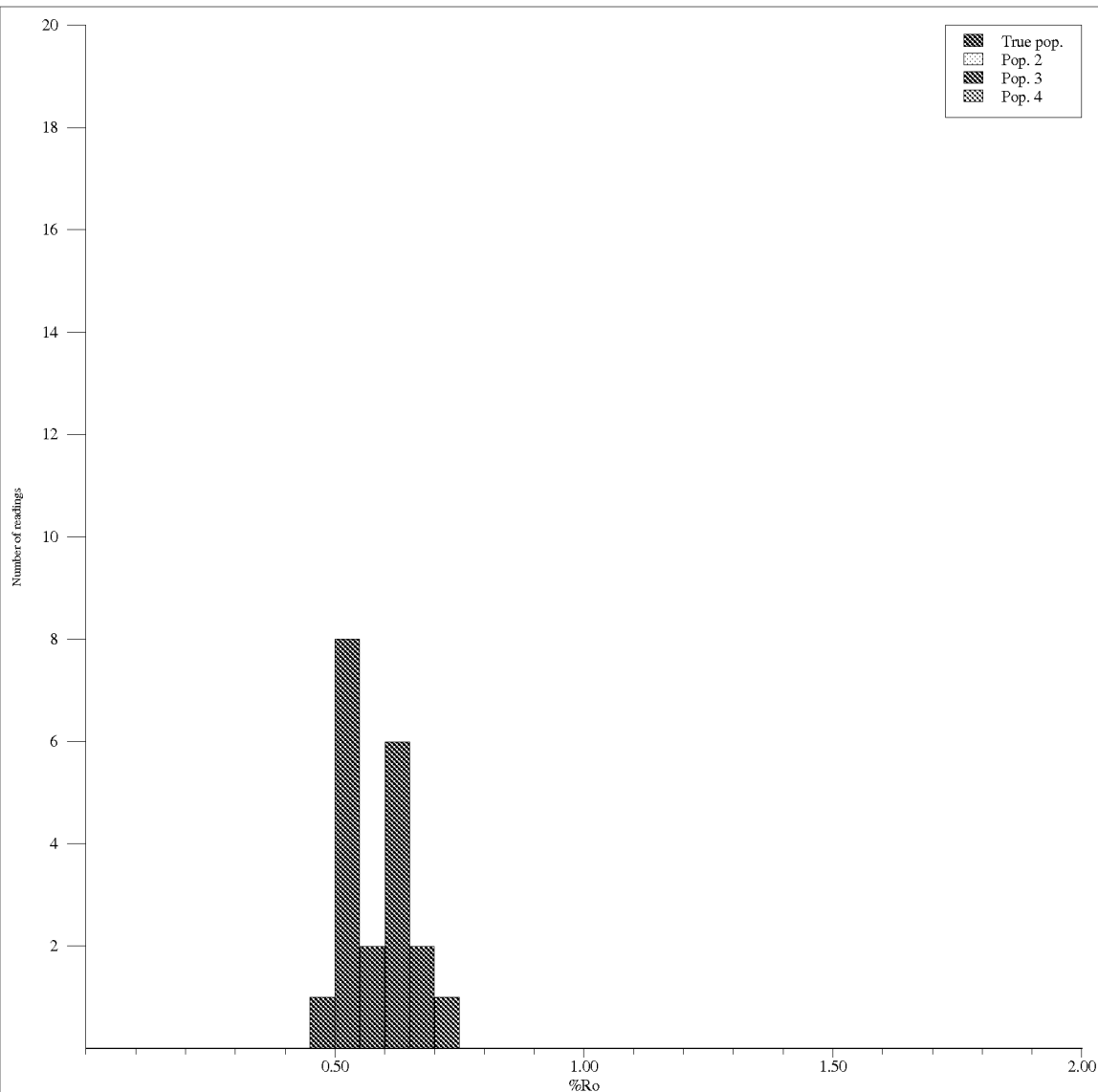




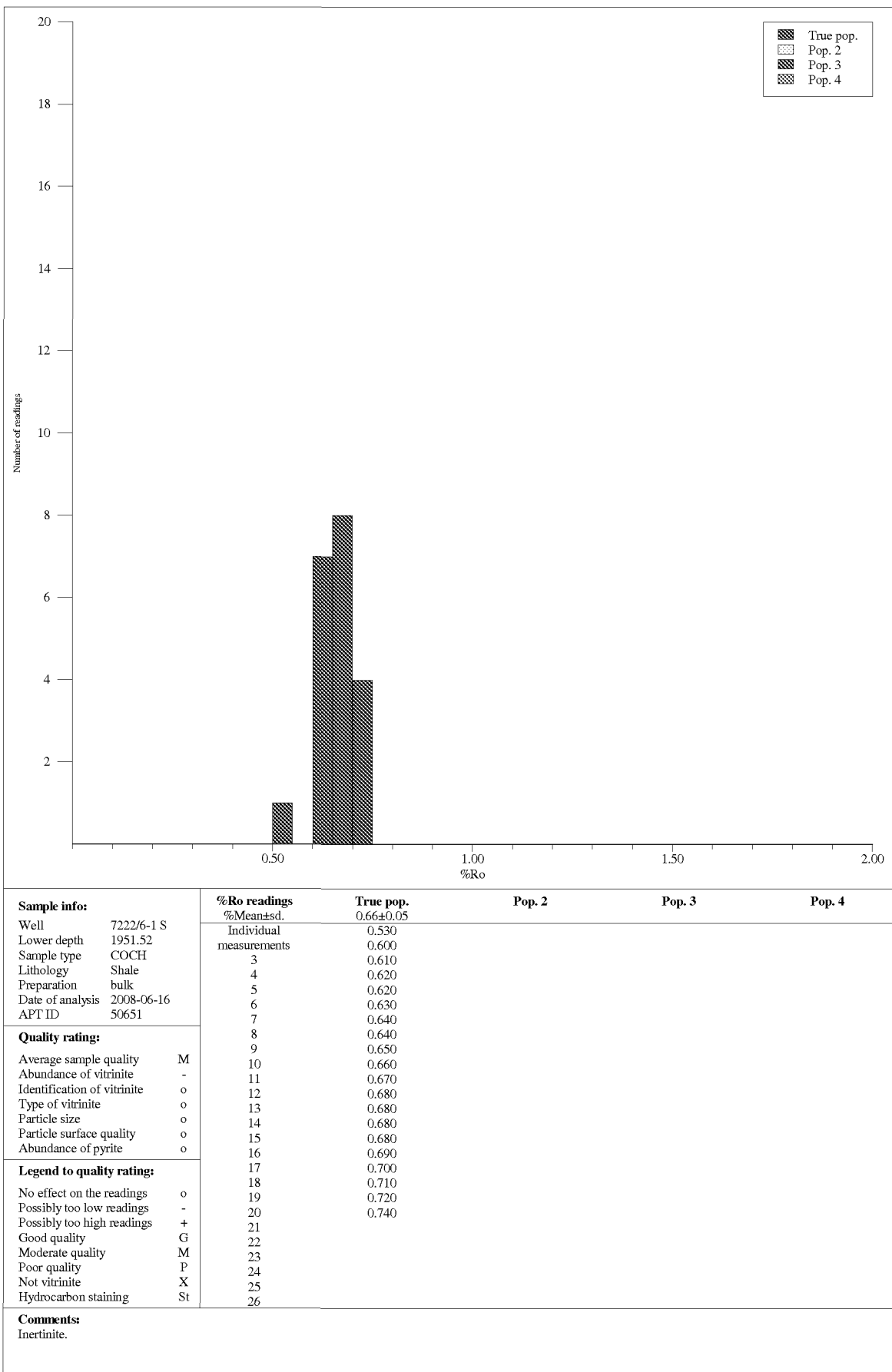




Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7222/6-1 S	Mean±sd.	0.46±0.04			
Lower depth	1154.62	Individual	0.380			
Sample type	COCH	measurements	0.400			
Lithology	Shale	3	0.400			
Preparation	bulk	4	0.420			
Date of analysis	2008-06-16	5	0.420			
APT ID	50649	6	0.430			
Quality rating:		7	0.430			
		8	0.430			
		9	0.450			
		10	0.450			
		11	0.460			
		12	0.470			
		13	0.470			
		14	0.470			
		15	0.480			
		16	0.490			
Legend to quality ratings:		17	0.500			
		18	0.510			
		19	0.530			
		20	0.540			
		21				
		22				
		23				
		24				
		25				
		26				
Comments:						
Inertinite.						



Sample info:		%Ro readings	True pop.	Pop. 2	Pop. 3	Pop. 4
Well	7222/6-1 S	Mean±sd.	0.57±0.07			
Lower depth	1648.44	Individual	0.450			
Sample type	COCH	measurements	0.500			
Lithology	Shale	3	0.500			
Preparation	bulk	4	0.510			
Date of analysis	2008-06-16	5	0.510			
APT ID	50650	6	0.520			
		7	0.520			
		8	0.530			
		9	0.540			
		10	0.550			
		11	0.590			
		12	0.600			
		13	0.610			
		14	0.610			
		15	0.610			
		16	0.620			
		17	0.630			
		18	0.660			
		19	0.660			
		20	0.710			
		21				
		22				
		23				
		24				
		25				
		26				
Quality rating:						
Average sample quality	M					
Abundance of vitrinite	o					
Identification of vitrinite	o					
Type of vitrinite	o					
Particle size	o					
Particle surface quality	o					
Abundance of pyrite	o					
Legend to quality ratings:						
No effect on the readings	o					
Possibly too low readings	-					
Possibly too high readings	+					
Good quality	G					
Moderate quality	M					
Poor quality	P					
Not vitrinite	X					
Hydrocarbon staining	St					
Comments:						



Experimental Procedures

All procedures follow NIGOGA, 4th Edition. Below are brief descriptions of procedures/analytical conditions.

Sample preparation

Cuttings samples are washed in water to remove mud. When oil based mud is used, soap (Zalo) is added to the sample and the sample is washed thoroughly in warm water to remove mud and soap.

Extraction

A Soxtec Tecator instrument is used. Thimbles are pre extracted in dichloromethane with 7% (vol/vol) methanol, 10 min boiling and 20 min rinsing. The crushed sample is weighed accurately in the pre extracted thimbles and boiled for 1 hour and rinsed for 2 hours in approximately 80 cc of dichloromethane with 7% (vol/vol) methanol. Copper blades activated in concentrated hydrochloric acid are added to the extraction cups to cause free sulphur to react with the copper. An aliquot of 10% of the extract is transferred to a pre weighed bottle and evaporated to dryness. The amount of extractable organic matter is calculated from the weight of this 10% aliquot.

Deasphalting

Extracts are evaporated almost to dryness before a small amount of dichloromethane (3 times the amount of EOM) is added. Pentane is added in excess (40 times the volume of EOM and dichloromethane/oil). The solution is stored for at least 12 hours in a dark place before the solution is filtered or centrifuged and the weight of the asphaltenes measured.

Vitrinite reflectance analysis

Methods closely follow the guidelines set out in the International Organization for Standardization publications ISO 7404-2, ISO 7404-3 and ISO 7404-5 but vary as follows. Crushed particles were cold set into an epoxy resin block. The set sample was ground and polished using an automated Buehler Ecomet 3[®], with an Automet 2[®] head, polishing system. The sample was ground sequentially using 240, 400, 600, 1200 carborundum papers and isopropanol as lubricant. After each grinding stage the sample was washed with alcohol to remove debris and prevent swelling.

Three polishing laps covered with Buehler Mastertex[®] short-nap cloth were loaded with alumina powders of decreasing grain size and used in the following sequence; 1 µm, 0.3 µm and 0.05 µm. Isopropanol was used as a lubricant during polishing. After each polishing the sample was washed in alcohol to remove debris. Finally, the block was hand-buffed to remove fine smears and checked under a microscope for polish quality and particle relief. Vitrinite reflectance determination was performed in a dark-room using a Zeiss Standard Universal research microscope-photometer system (MPM01K) equipped with a tungsten-halogen lamp (12V, 100w), a Epiplan-Neofluar 40/0.90 oil objective, filtered 546 nm incident light and Zeiss immersion oil (n_e 1.517 @ 23°C). The pinhole measuring diaphragm was set to 0.5 µm diameter and a lamp field stop reduced interfering reflectances during measurement.

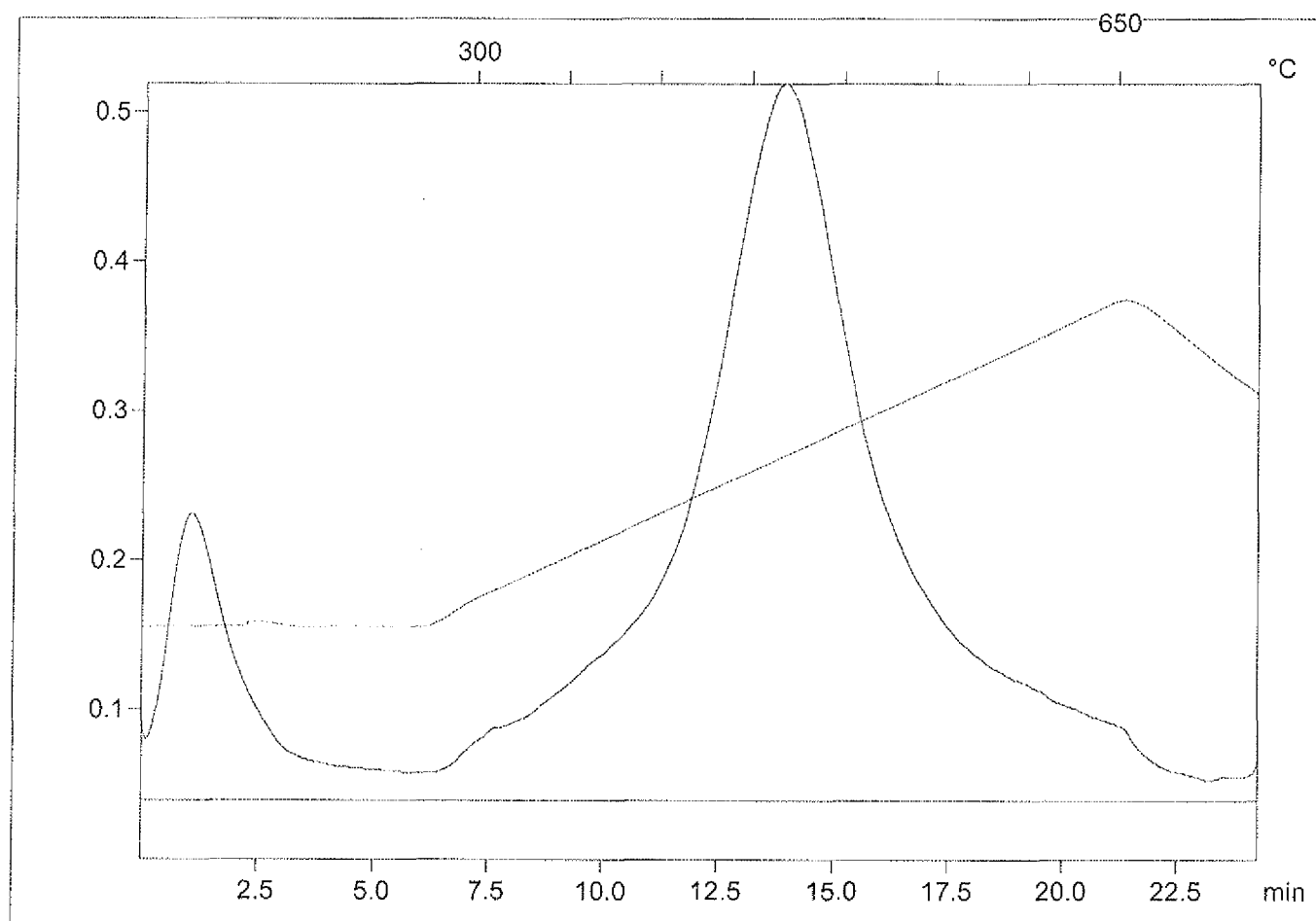
Glass and mineral standards of known reflectance were used for calibration. A Zeiss triple glass standard with reflectances of 0.506 %, 1.025 % and 1.817 % was used in addition to M^cCrone[®] Yttrium-aluminum-Garnet (0.917 %), Spinel (0.413 %) and Cubic Zirconium (3.256 %) standards. The standards are kept in dust free boxes at constant temperature and humidity. Random reflectance measurements were made (*i.e.*, no rotation of the microscope stage) in non-polarized light. Data were acquired using a Zeiss PMI-2, interfaced for computer data acquisition and processing. Photometer linearity tests were performed using all six standards and vitrinite analysis was conducted only if the correlation coefficient was

≥ 0.999 . Three standards were measured, each in triplicate on different spots on the standard surface, at the beginning of the analysis and every 15 min. during analyses

Appendix 5: RockEval data

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
7226/6-1 s 790m dc	

S1=0.05	Sample =7222/6-1s
S2=0.33	Method =Bulk Rock
Tmax=429	Cycle=rock6_1
TpkS2=467.0	KFID(10*9)=1359
PI=0.13	Qty =62.5
HI=66	TOC=0.5

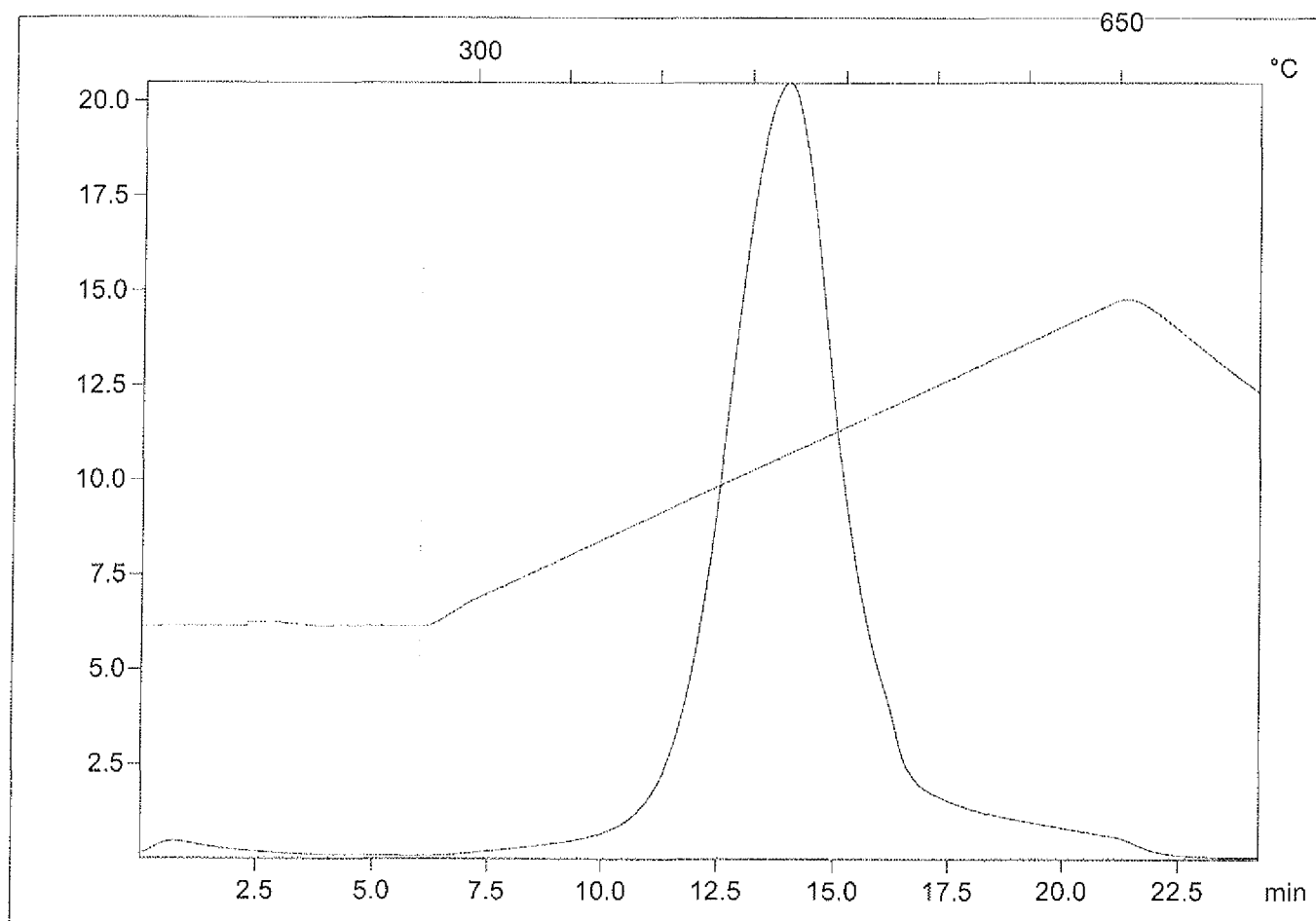


C:\HYDRO_AVA030608\3.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	Air Oxid. not ready

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
7226/6-1 s 1040m dc	

S1=0.12	Sample =7222/6-1s
S2=8.43	Method =Bulk Rock
Tmax=431	Cycle=rock6_1
TpkS2=469.0	KFID(10*9)=1359
PI=0.01	Qty =63.6
HI=180	TOC=4.68

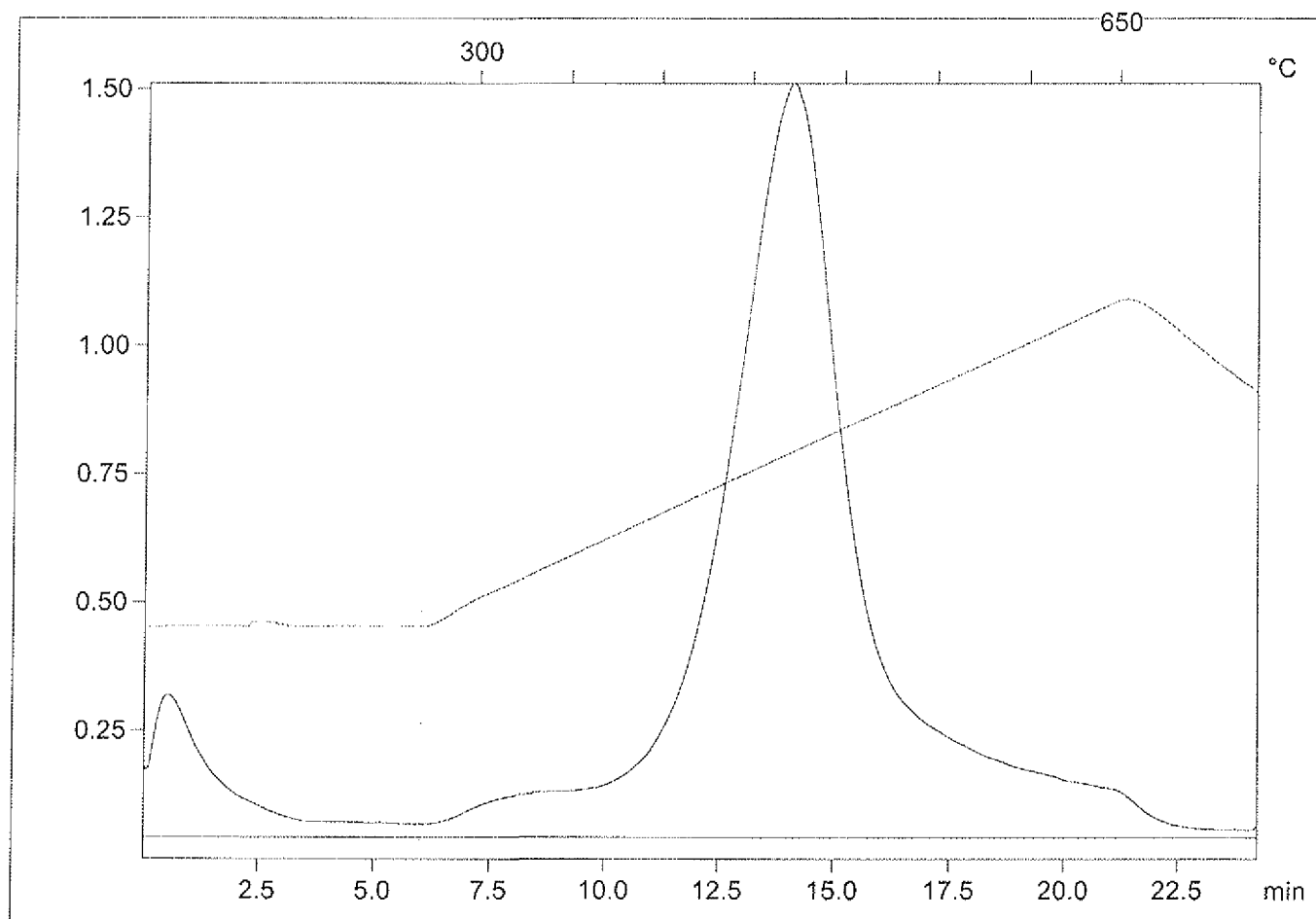


C:\HYDRO_AVA030608\4.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	Air Oxid. not ready

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
7226/6-1 s 1239m dc	

S1=0.07	Sample =7222/6-1s
S2=0.74	Method =Bulk Rock
Tmax=433	Cycle=rock6_1
TpkS2=471.0	KFID(10*9)=1359
PI=0.09	Qty =58.4
HI=73	TOC=1.01

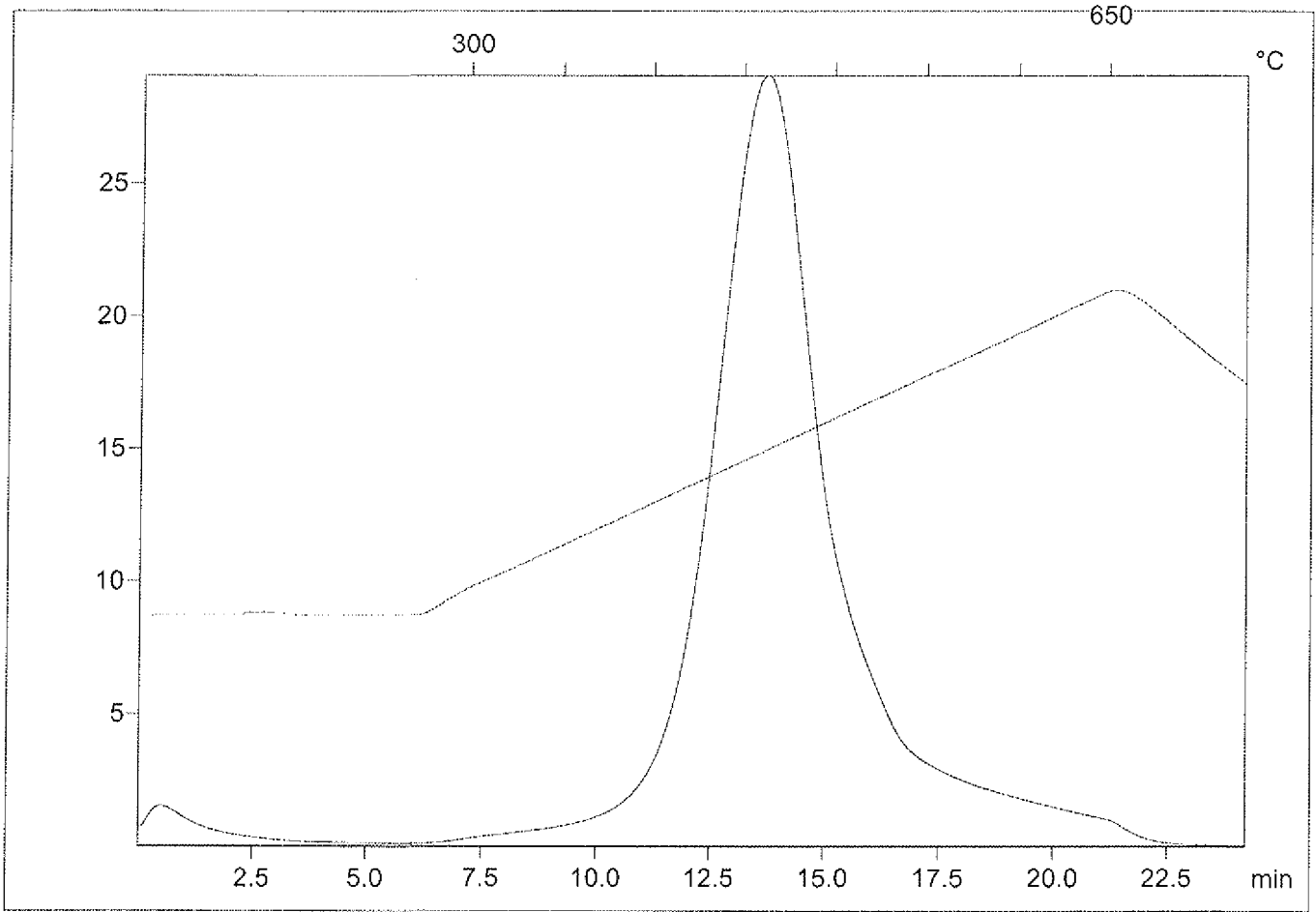


C:\HYDRO_AVA030608\5.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	Air Oxid. not ready

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
7226/6-1 s 1365m dc	

S1=0.38	Sample =7222/6-1s
S2=13.55	Method =Bulk Rock
Tmax=424	Cycle=rock6_1
TpkS2=462.0	KFID(10*9)=1359
PI=0.03	Qty =56.5
HI=173	TOC=7.82

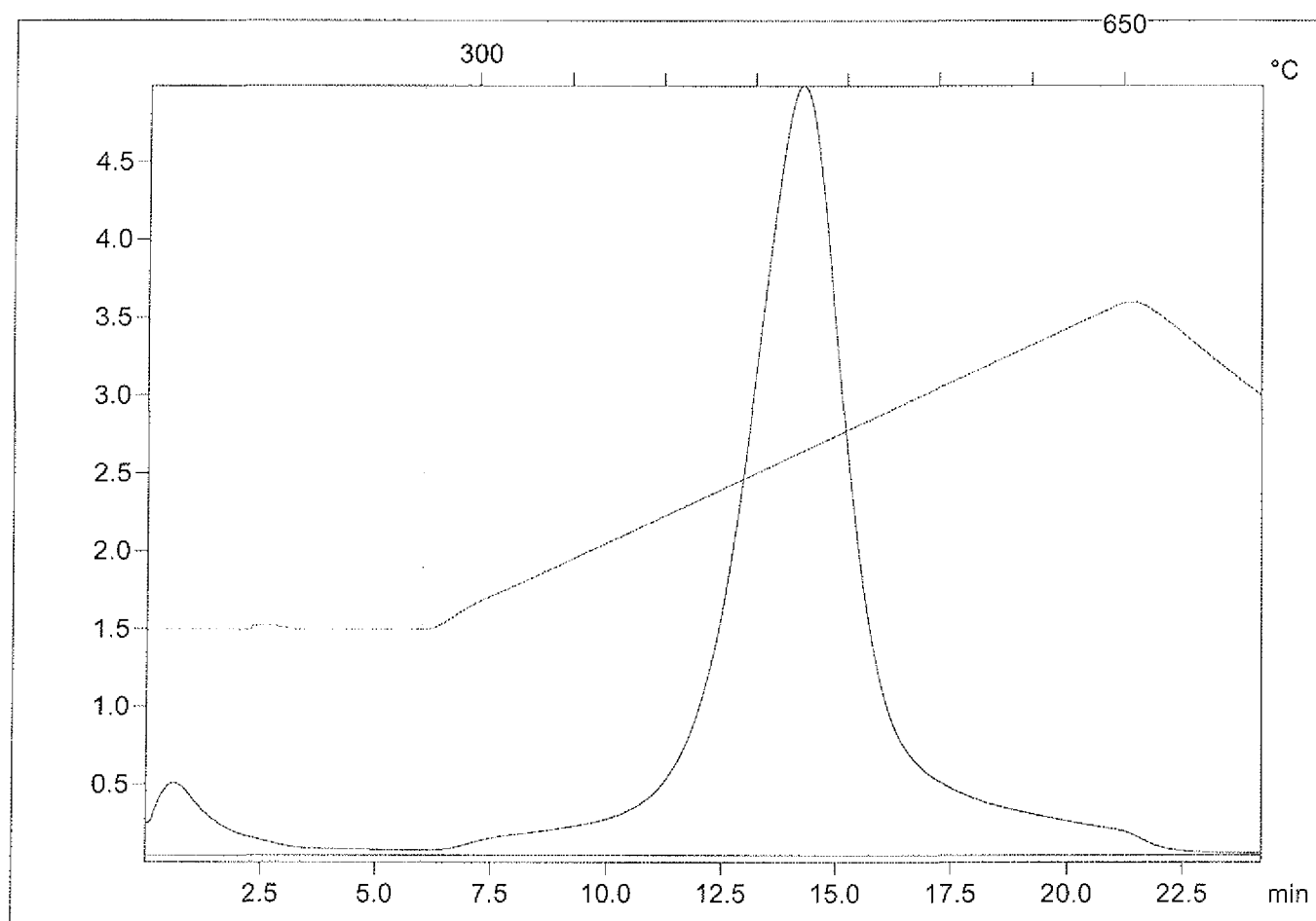


C:\HYDRO_A\A030608\6.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	Air Oxid. not ready

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
7226/6-1 s 1575m dc	

S1=0.09	Sample =7222/6-1s
S2=1.72	Method =Bulk Rock
Tmax=437	Cycle=rock6_1
TpkS2=475.0	KFID(10*9)=1359
PI=0.05	Qty =72.8
HI=119	TOC=1.45

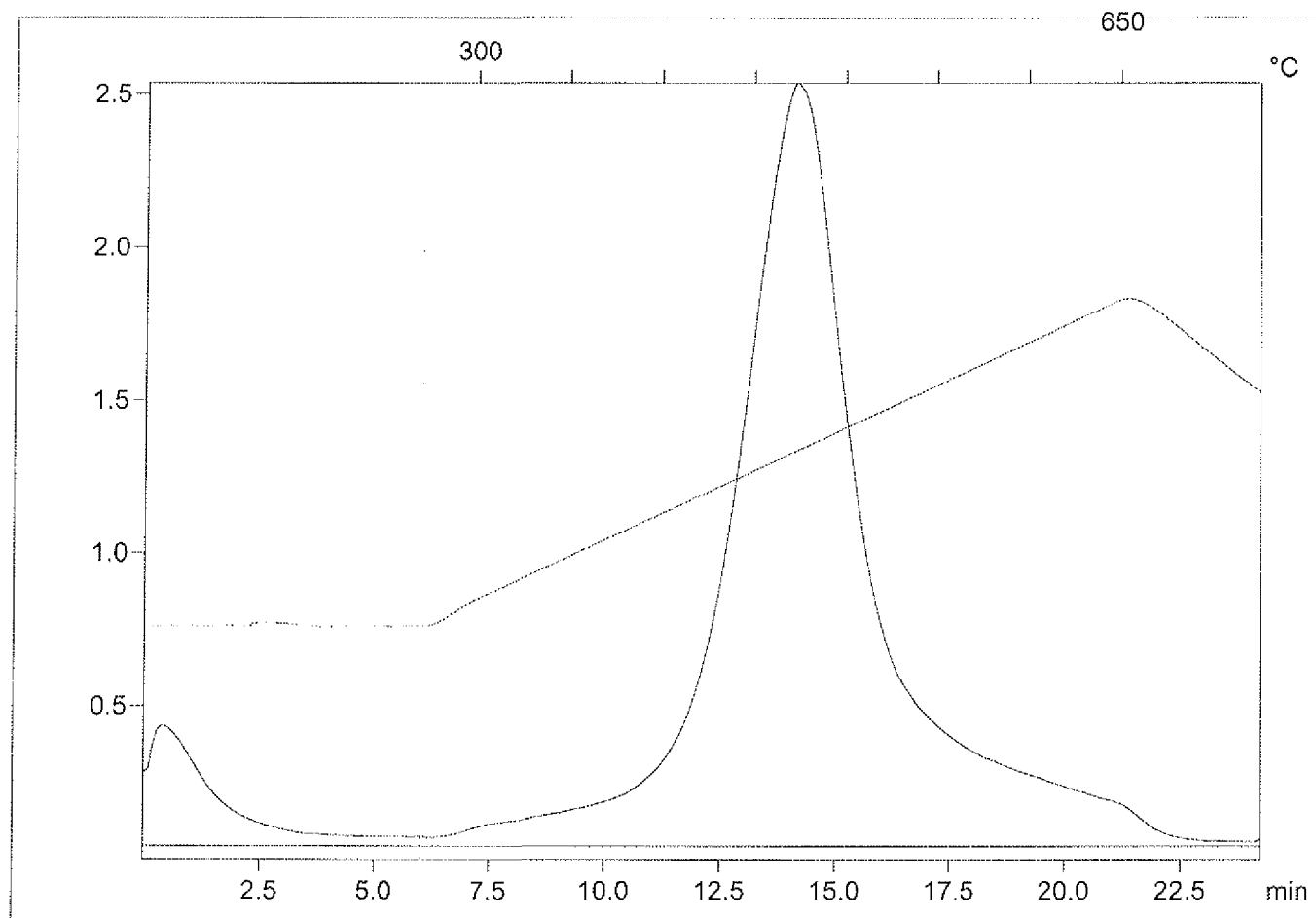


C:\HYDRO_AVA030608\7.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	No blank subtraction

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
7226/6-1 s 1674m dc	

S1=0.08	Sample =7222/6-1s
S2=0.96	Method =Bulk Rock
Tmax=435	Cycle=rock6_1
TpkS2=473.0	KFID(10*9)=1359
PI=0.07	Qty =74.9
HI=87	TOC=1.1

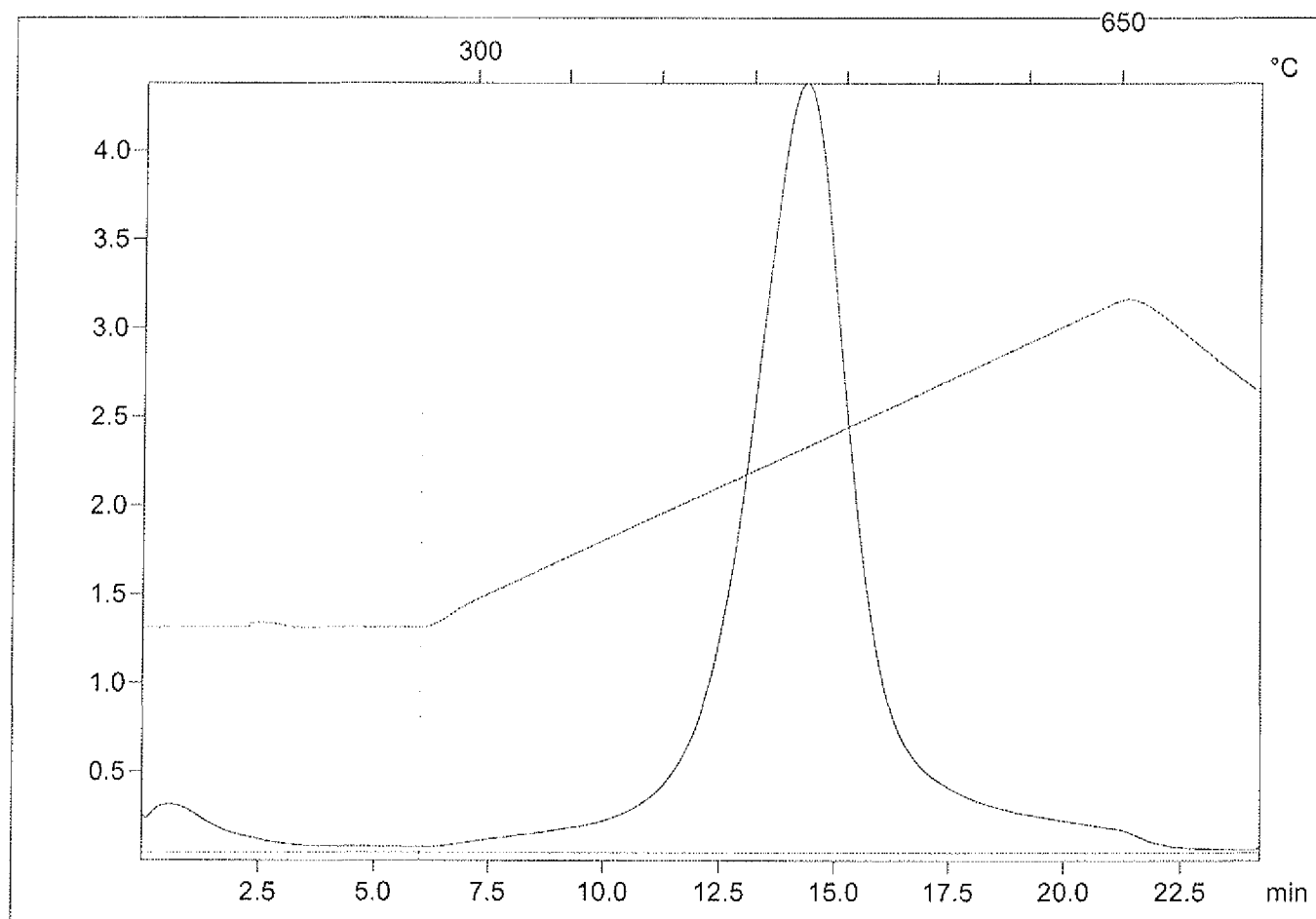


C:\HYDRO_AVA030608\8.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	No blank subtraction

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
7226/6-1 s 1713m dc	

S1=0.07	Sample =7222/6-1s
S2=1.51	Method =Bulk Rock
Tmax=439	Cycle=rock6_1
TpkS2=477.0	KFID(10*9)=1359
PI=0.04	Qty =71.3
HI=126	TOC=1.2

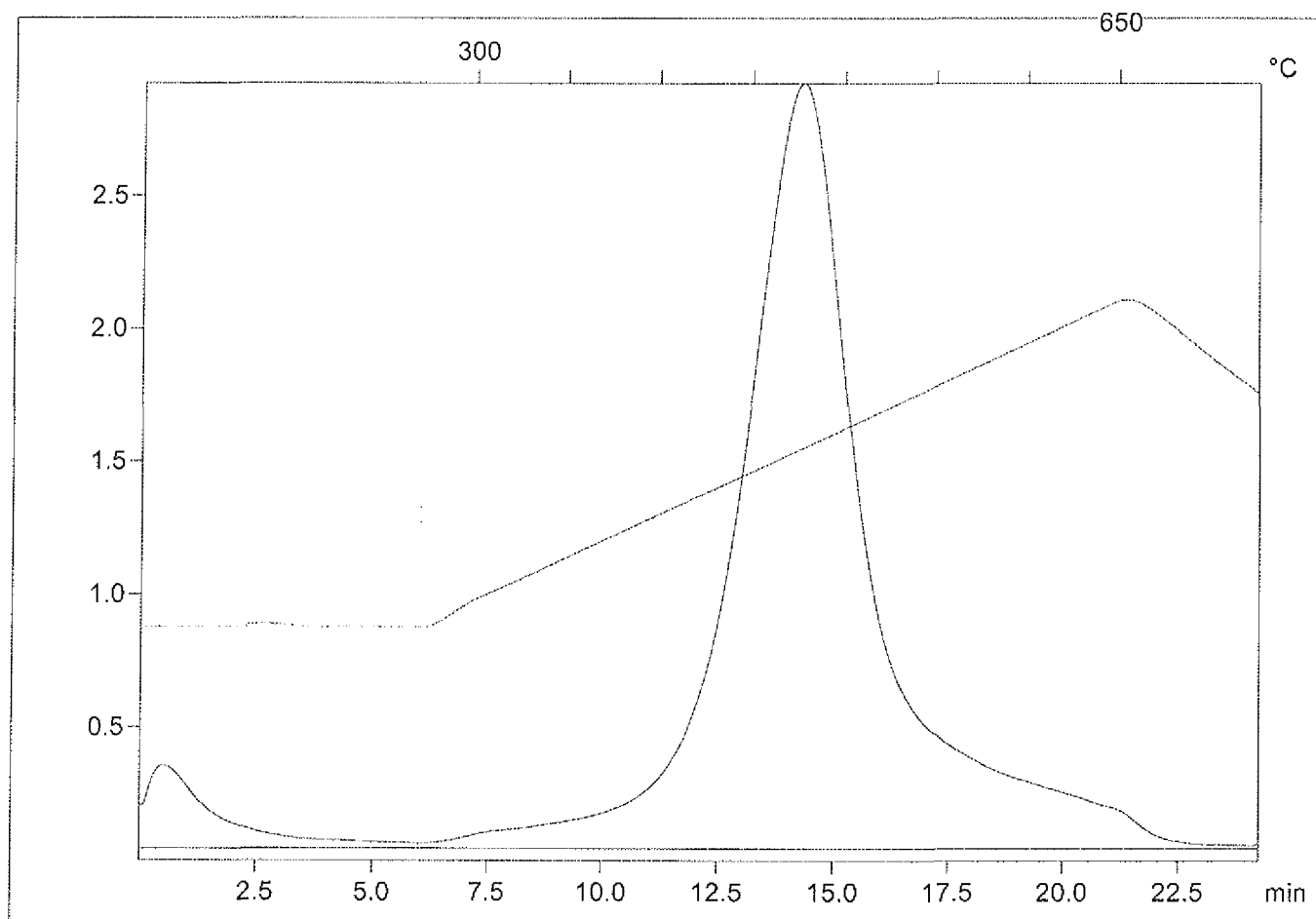


C:\HYDRO_A\A030608\9.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	Air Oxid. not ready

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
7226/6-1 s 1803m dc	

S1=0.07	Sample =7222/6-1s
S2=1.17	Method =Bulk Rock
Tmax=438	Cycle=rock6_1
TpkS2=476.0	KFID(10*9)=1359
PI=0.06	Qty =68.1
HI=92	TOC=1.27

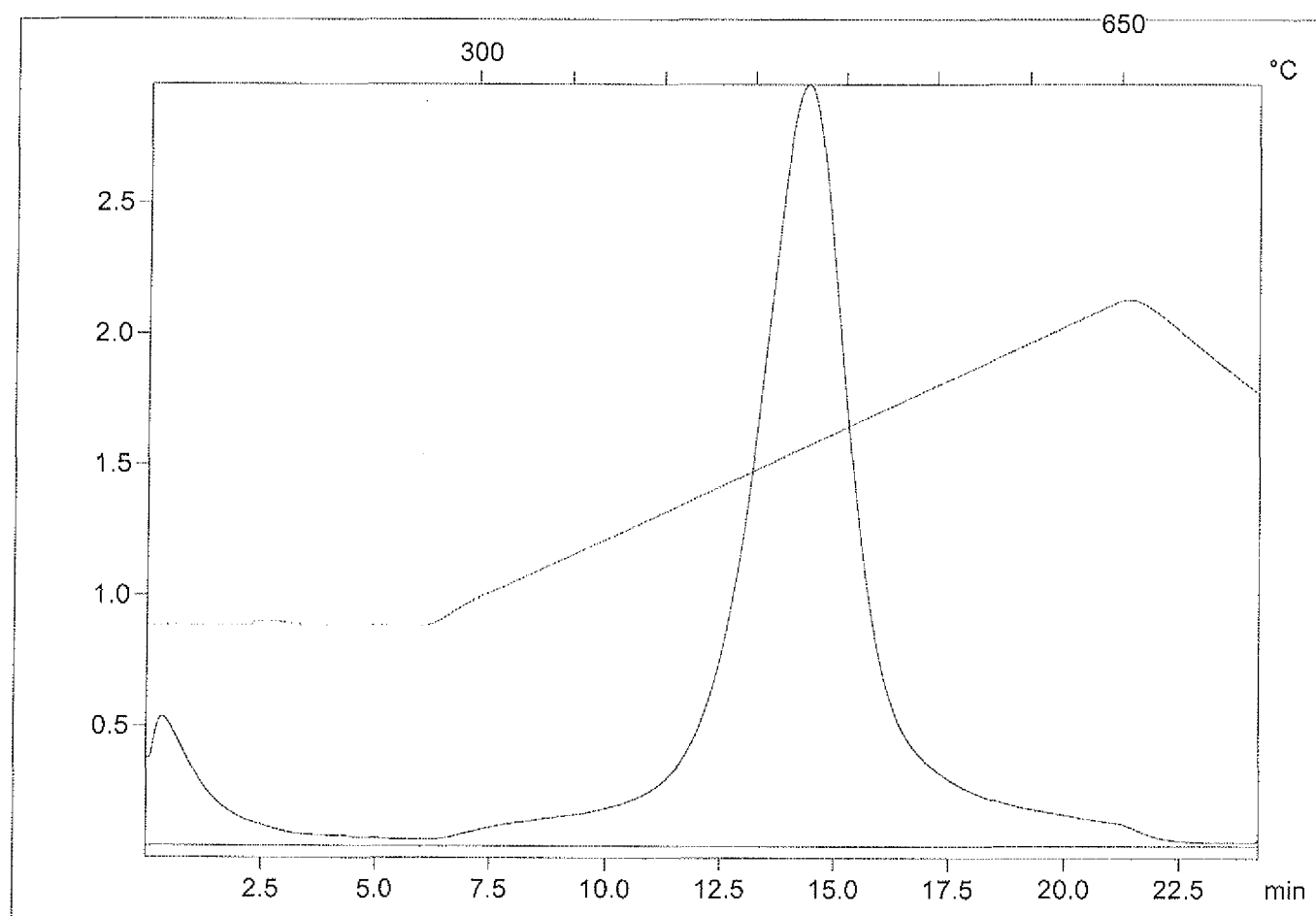


C:\HYDRO_AIA030608\10.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	Air Oxid. not ready

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
7226/6-1 s 1887m dc	

S1=0.11	Sample =7222/6-1s
S2=1.2	Method =Bulk Rock
Tmax=440	Cycle=rock6_1
TpkS2=478.0	KFID(10*9)=1359
PI=0.08	Qty =59.4
HI=113	TOC=1.06

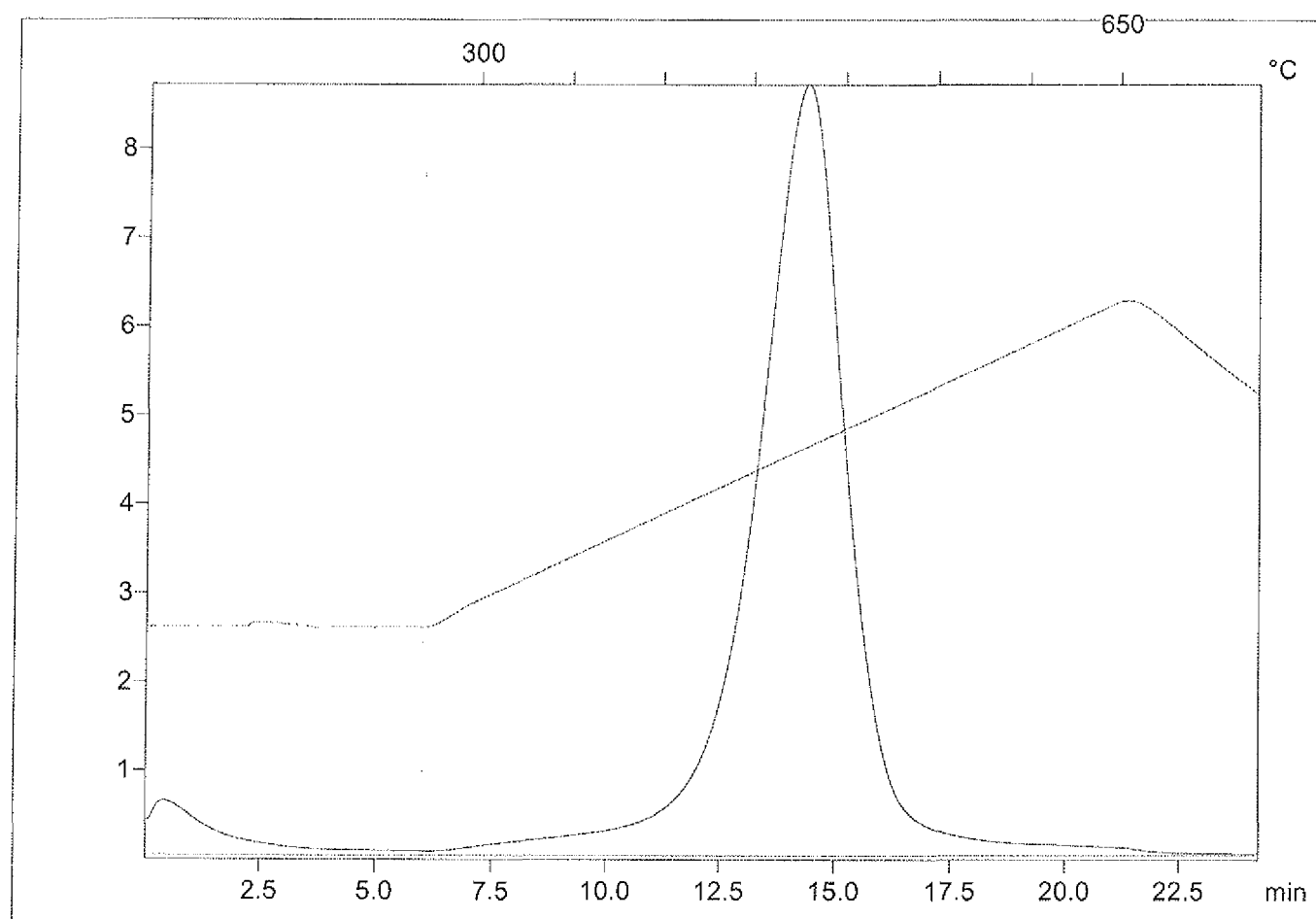


C:\HYDRO_AIA030608\11.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	Air Oxid. not ready

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
7226/6-1 s 1905m dc	

S1=0.14	Sample =7222/6-1s
S2=2.6	Method =Bulk Rock
Tmax=441	Cycle=rock6_1
TpkS2=479.0	KFID(10*9)=1359
PI=0.05	Qty =67.0
HI=197	TOC=1.32

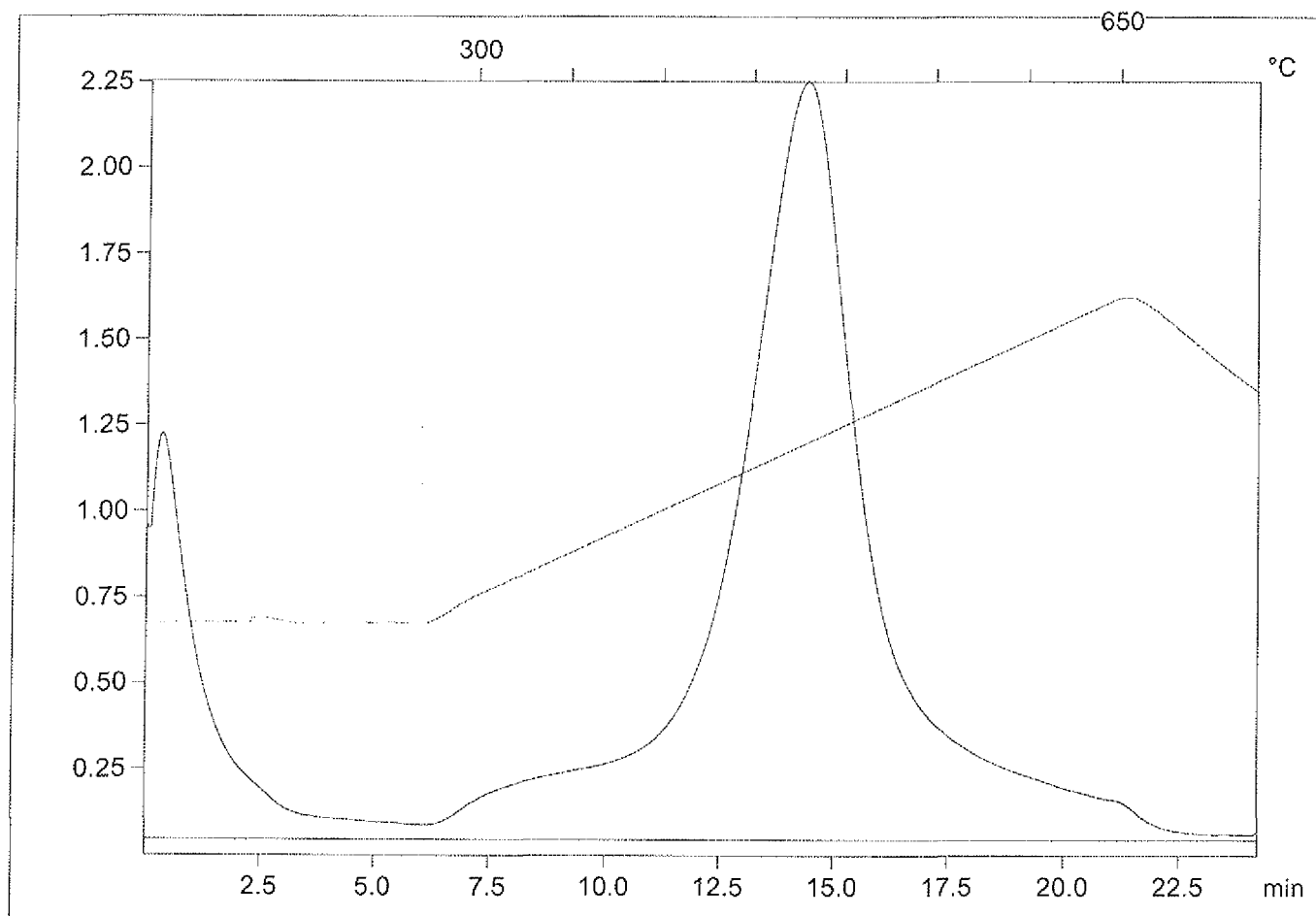


C:\HYDRO_AIA030608\12.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	Air Oxid. not ready

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
7226/6-1 s 1974m dc	

S1=0.2	Sample =7222/6-1s
S2=1.02	Method =Bulk Rock
Tmax=441	Cycle=rock6_1
TpkS2=479.0	KFID(10*9)=1359
PI=0.17	Qty =65.9
HI=115	TOC=0.89

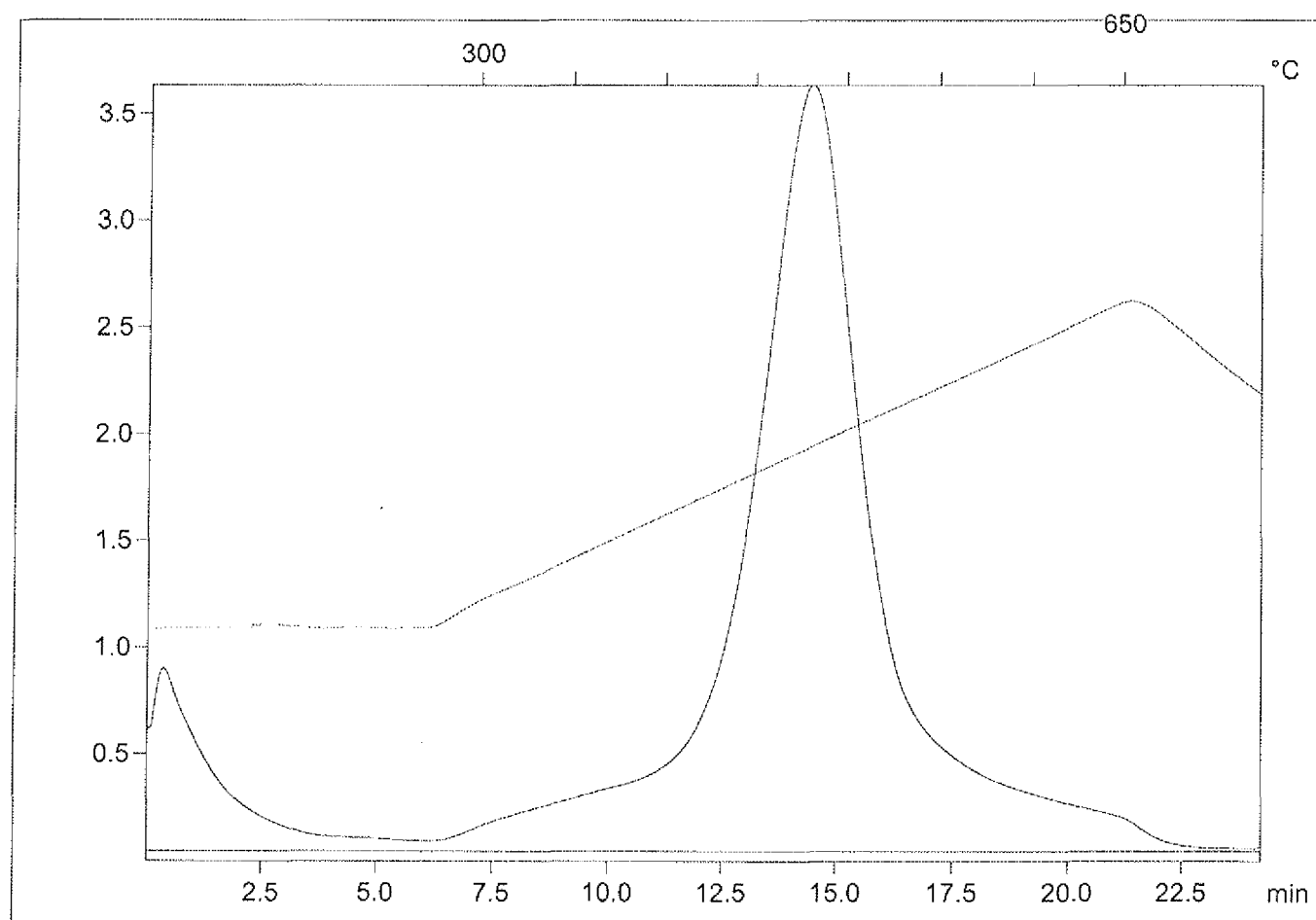


C:\HYDRO_AIA030608\13.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	No blank subtraction

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
7226/6-1 s 2049m dc	

S1=0.12	Sample =7222/6-1s
S2=1.02	Method =Bulk Rock
Tmax=442	Cycle=rock6_1
TpkS2=480.0	KFID(10*9)=1359
PI=0.1	Qty =97.3
HI=111	TOC=0.92

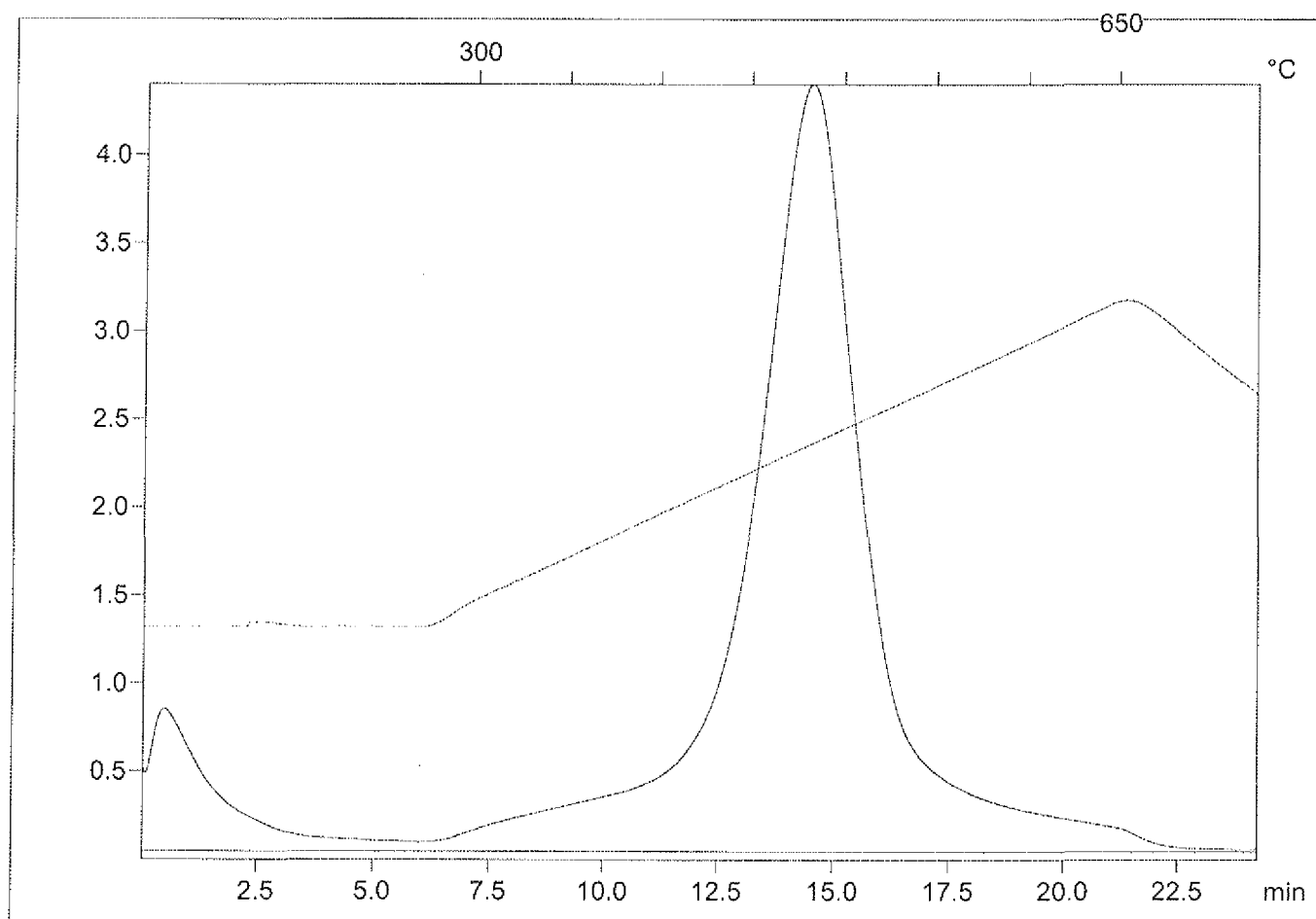


C:\HYDRO_AIA030608\14.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	Air Oxid. not ready

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
7226/6-1 s 2115m dc	

S1=0.13	Sample =7222/6-1s
S2=1.22	Method =Bulk Rock
Tmax=444	Cycle=rock6_1
TpkS2=482.0	KFID(10*9)=1359
PI=0.1	Qty =90.2
HI=126	TOC=0.97

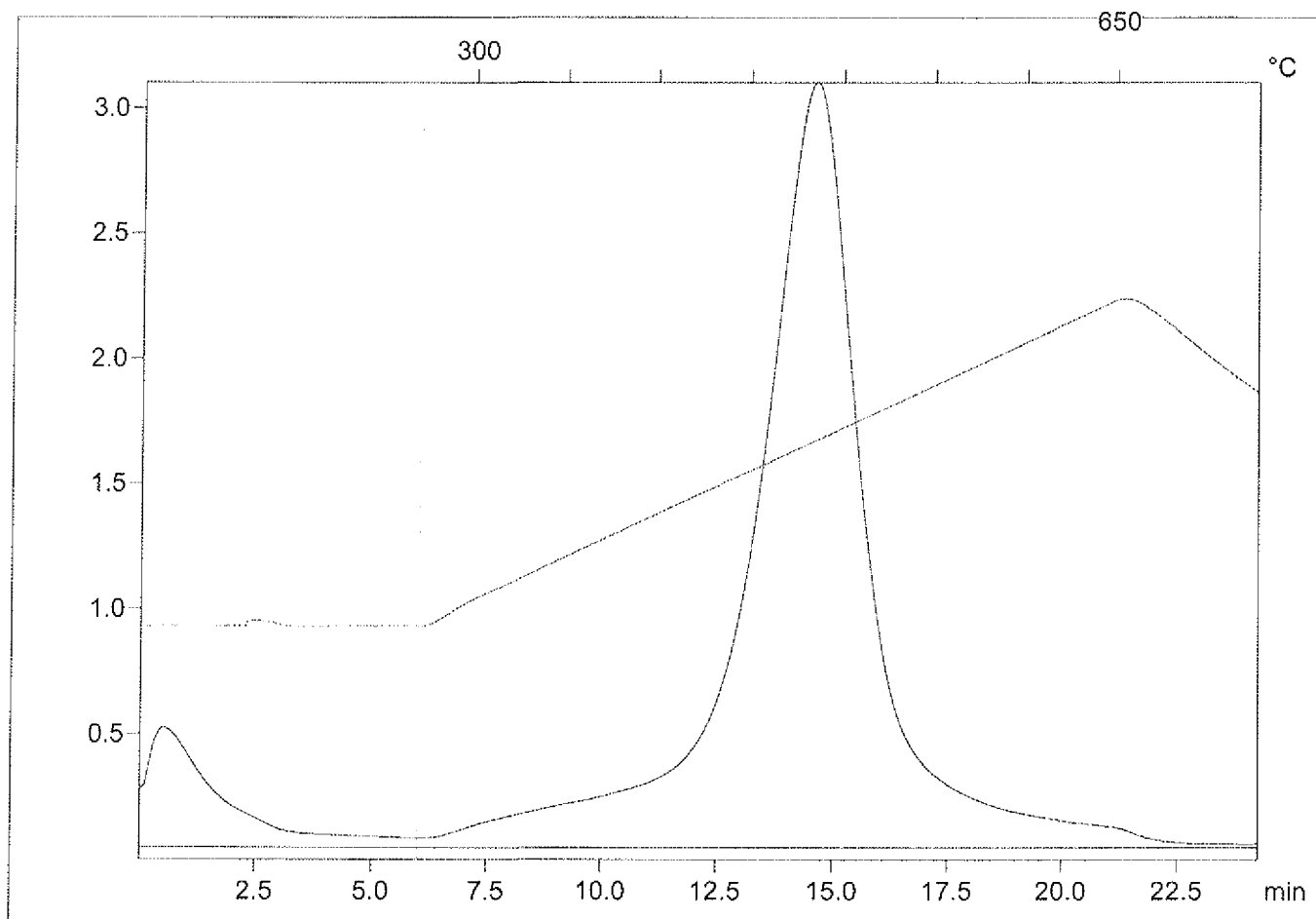


C:\HYDRO_AIA030608\16.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	Air Oxid. not ready

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
7226/6-1 s 2220m dc	

S1=0.11	Sample =7222/6-1s
S2=1.07	Method =Bulk Rock
Tmax=446	Cycle=rock6_1
TpkS2=484.0	KFID(10*9)=1359
PI=0.09	Qty =69.0
HI=135	TOC=0.79

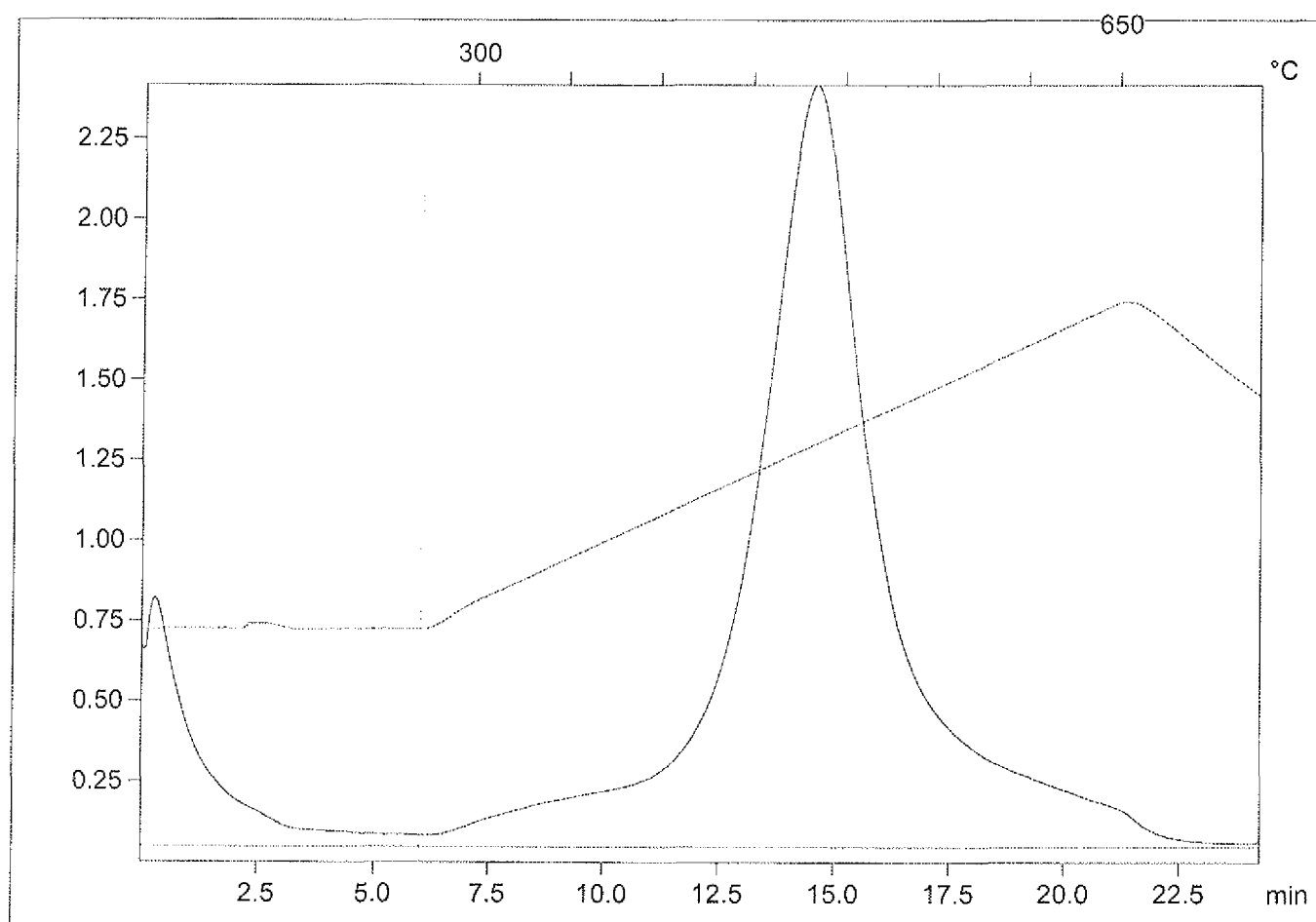


C:\HYDRO_AIA030608\17.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	No blank subtraction

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
7226/6-1 s 2331m dc	

S1=0.17	Sample =7222/6-1s
S2=1.31	Method =Bulk Rock
Tmax=446	Cycle=rock6_1
TpkS2=484.0	KFID(10*9)=1359
PI=0.12	Qty =51.6
HI=121	TOC=1.08

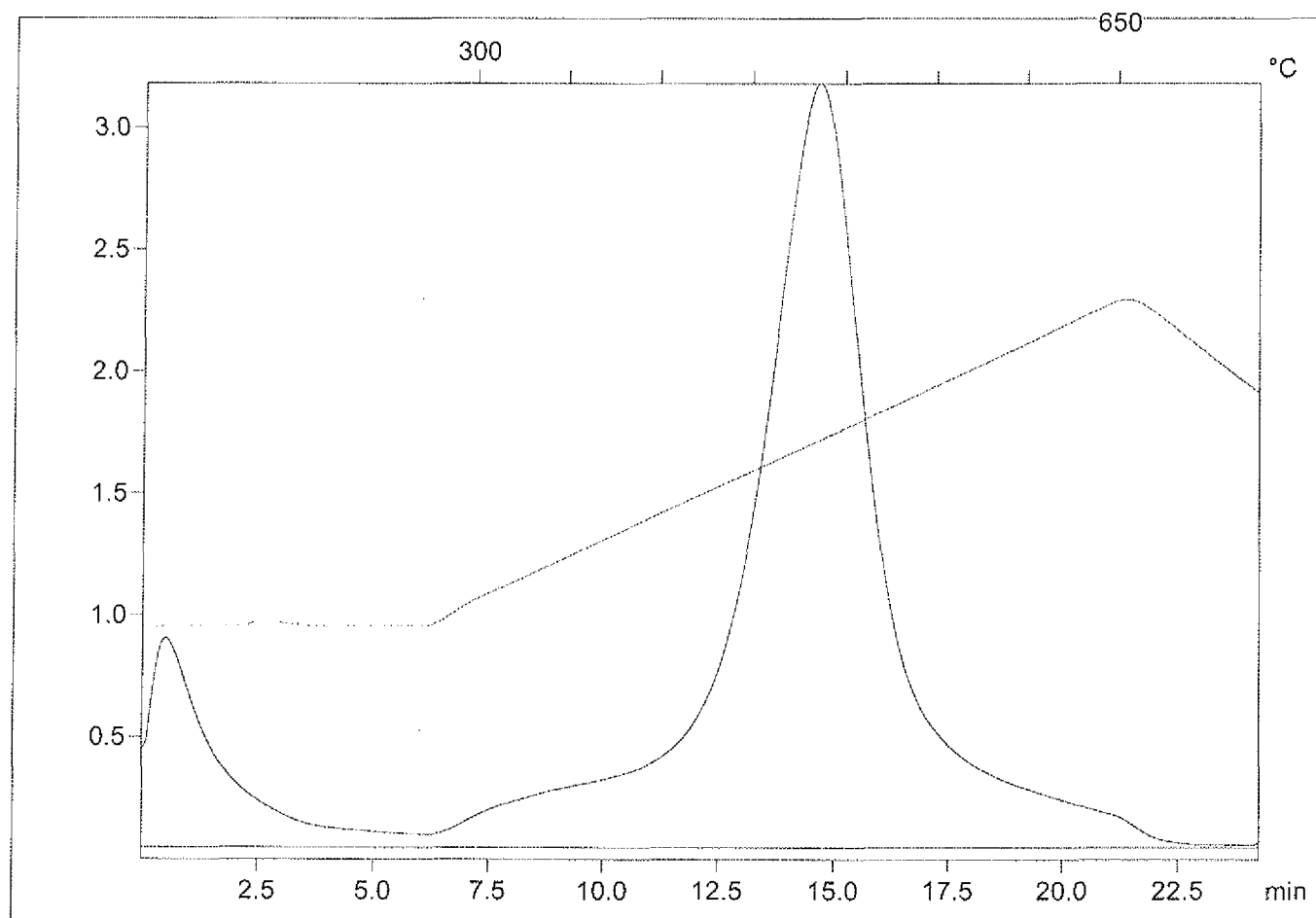


C:\HYDRO_AVA030608\18.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	Air Oxid. not ready

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
7226/6-1 s 2400m dc	

S1=0.2	Sample =7222/6-1s
S2=1.37	Method =Bulk Rock
Tmax=447	Cycle=rock6_1
TpkS2=485.0	KFID(10*9)=1359
PI=0.13	Qty =64.9
HI=136	TOC=1.01

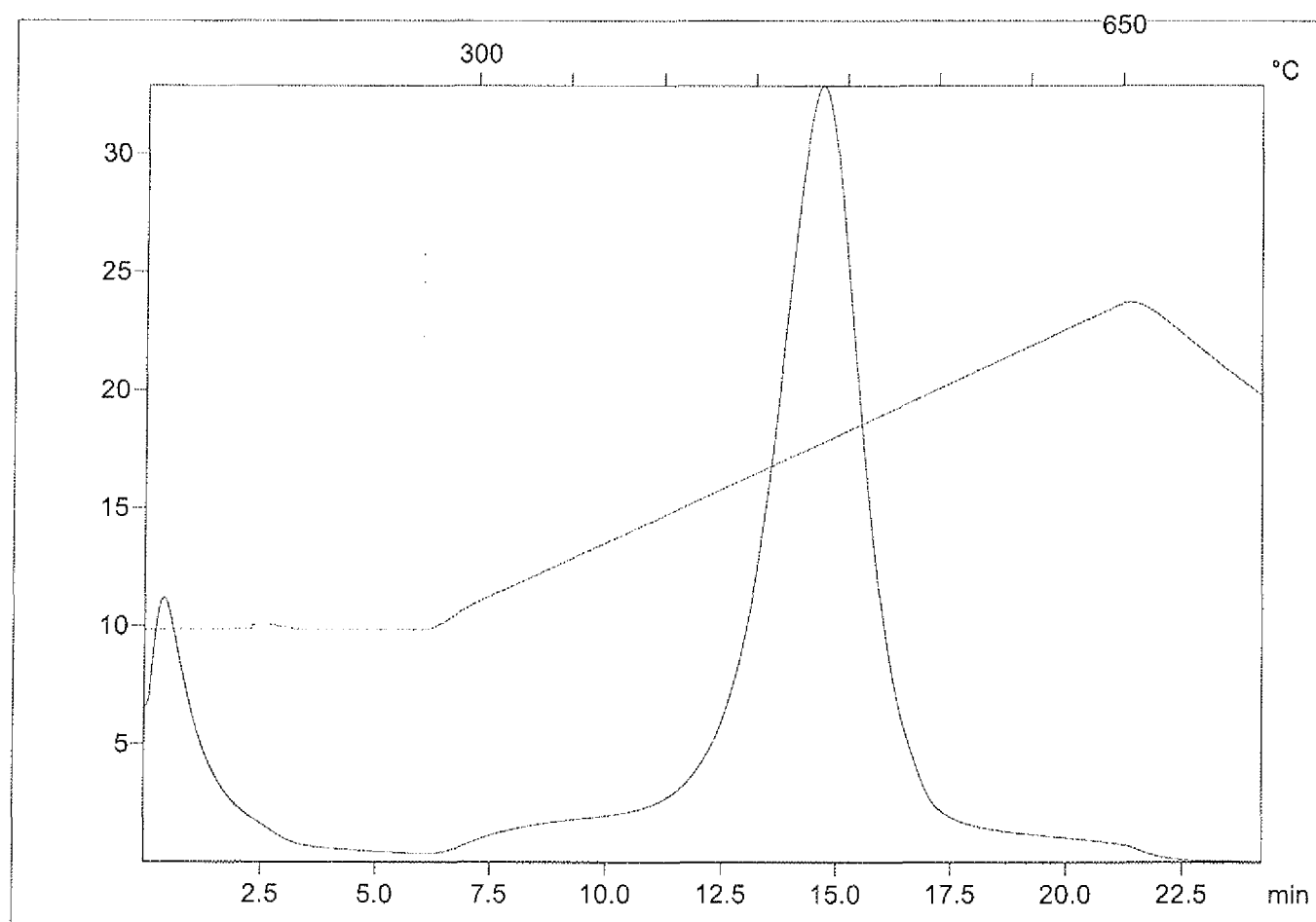


C:\HYDRO_AIA030608\19.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	No blank subtraction

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
7226/6-1 s 2454m dc	

S1=1.82	Sample =7222/6-1s
S2=10.76	Method =Bulk Rock
Tmax=448	Cycle=rock6_1
TpkS2=486.0	KFID(10*9)=1359
PI=0.15	Qty =71.4
HI=282	TOC=3.81

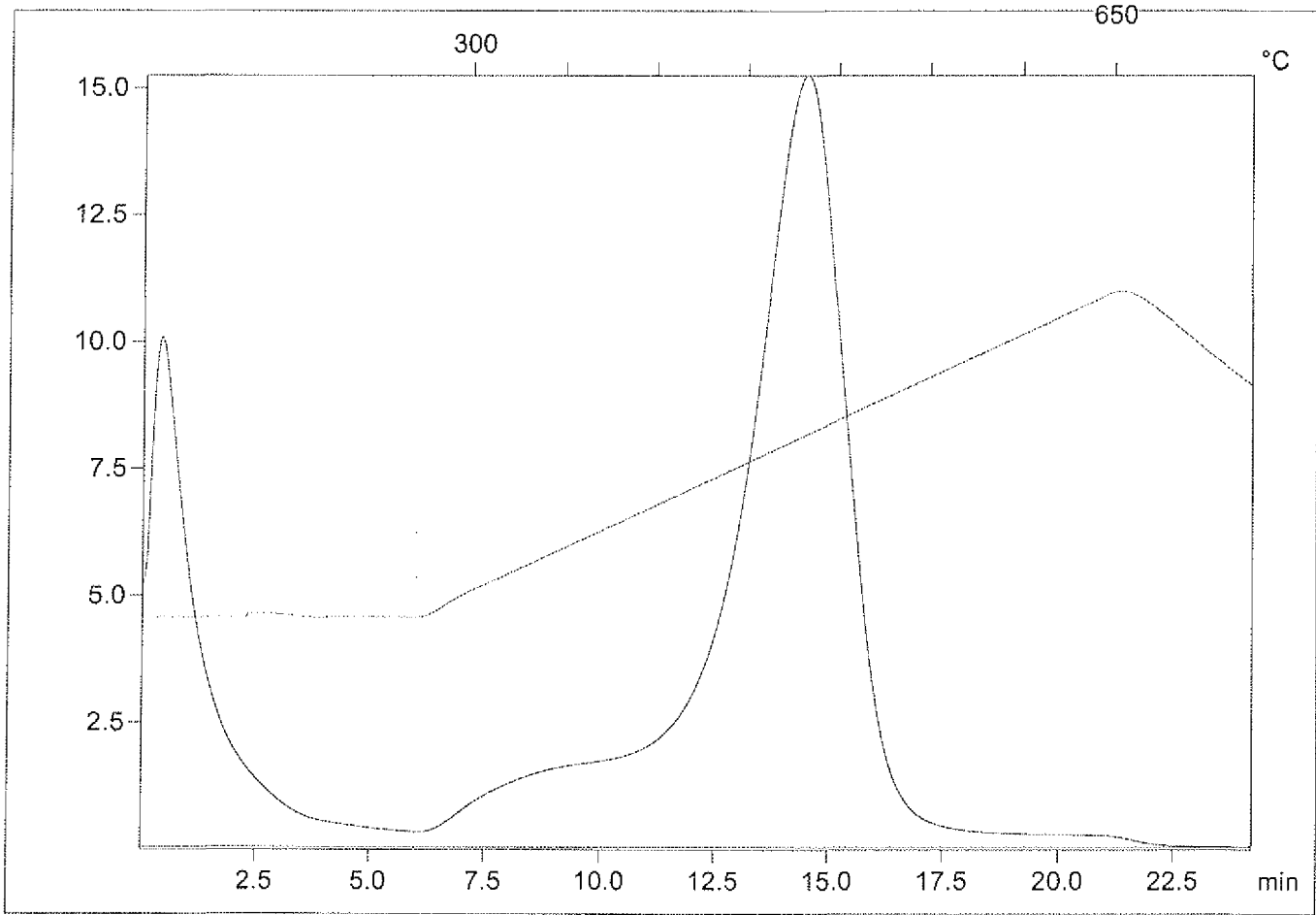


C:\HYDRO_AVA030608\20.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	No blank subtraction

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
7226/6-1 s 2586m dc	

S1=1.62	Sample =7222/6-1s
S2=5.43	Method =Bulk Rock
Tmax=444	Cycle=rock6_1
TpkS2=482.0	KFID(10*9)=1359
PI=0.23	Qty =70.6
HI=206	TOC=2.63

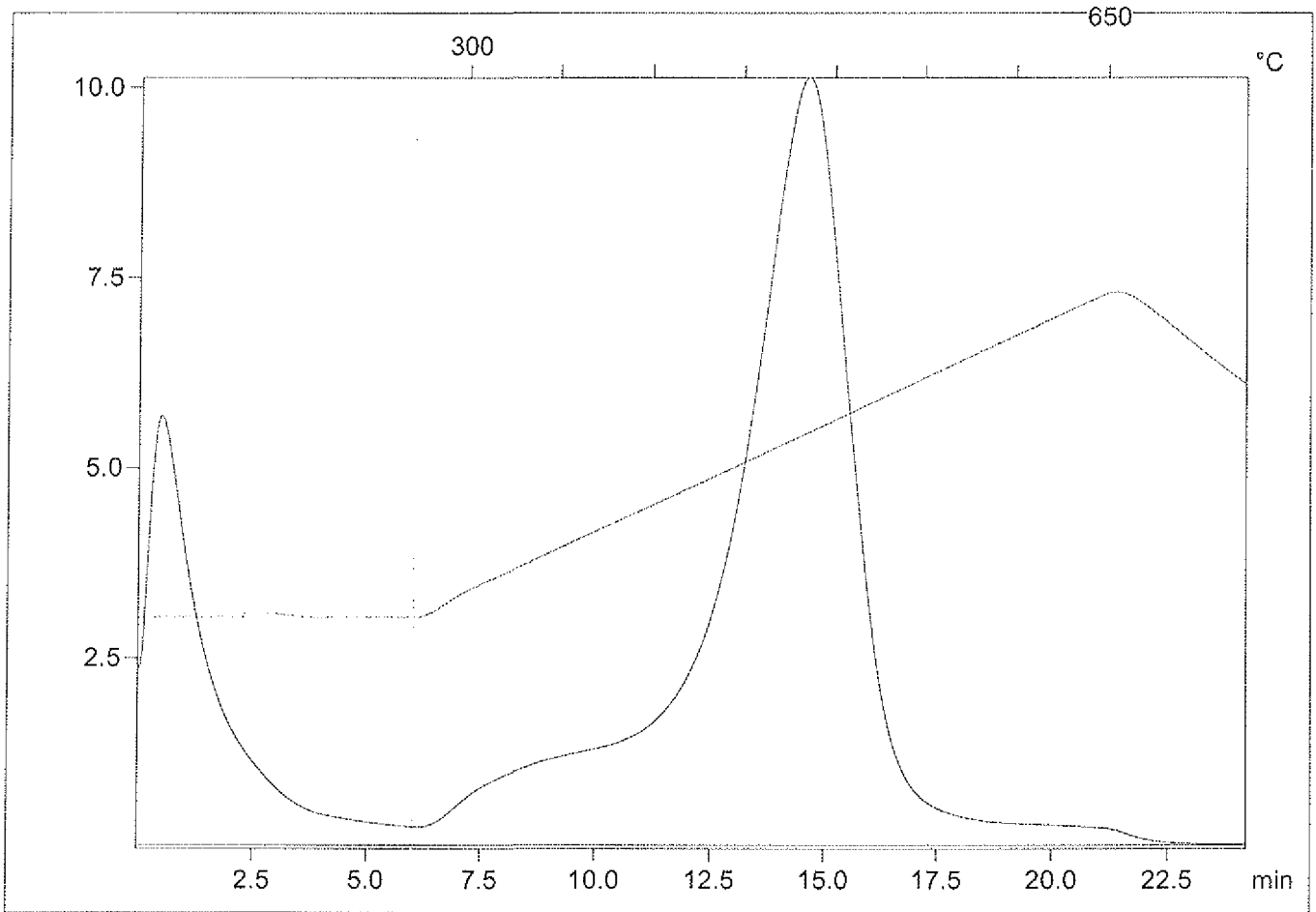


C:\HYDRO_AVA030608\21.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	No blank subtraction

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
7226/6-1 s 2613m dc	

S1=1.18	Sample =7222/6-1s
S2=4.36	Method =Bulk Rock
Tmax=447	Cycle=rock6_1
TpkS2=485.0	KFID(10*9)=1359
PI=0.21	Qty =64.1
HI=203	TOC=2.15

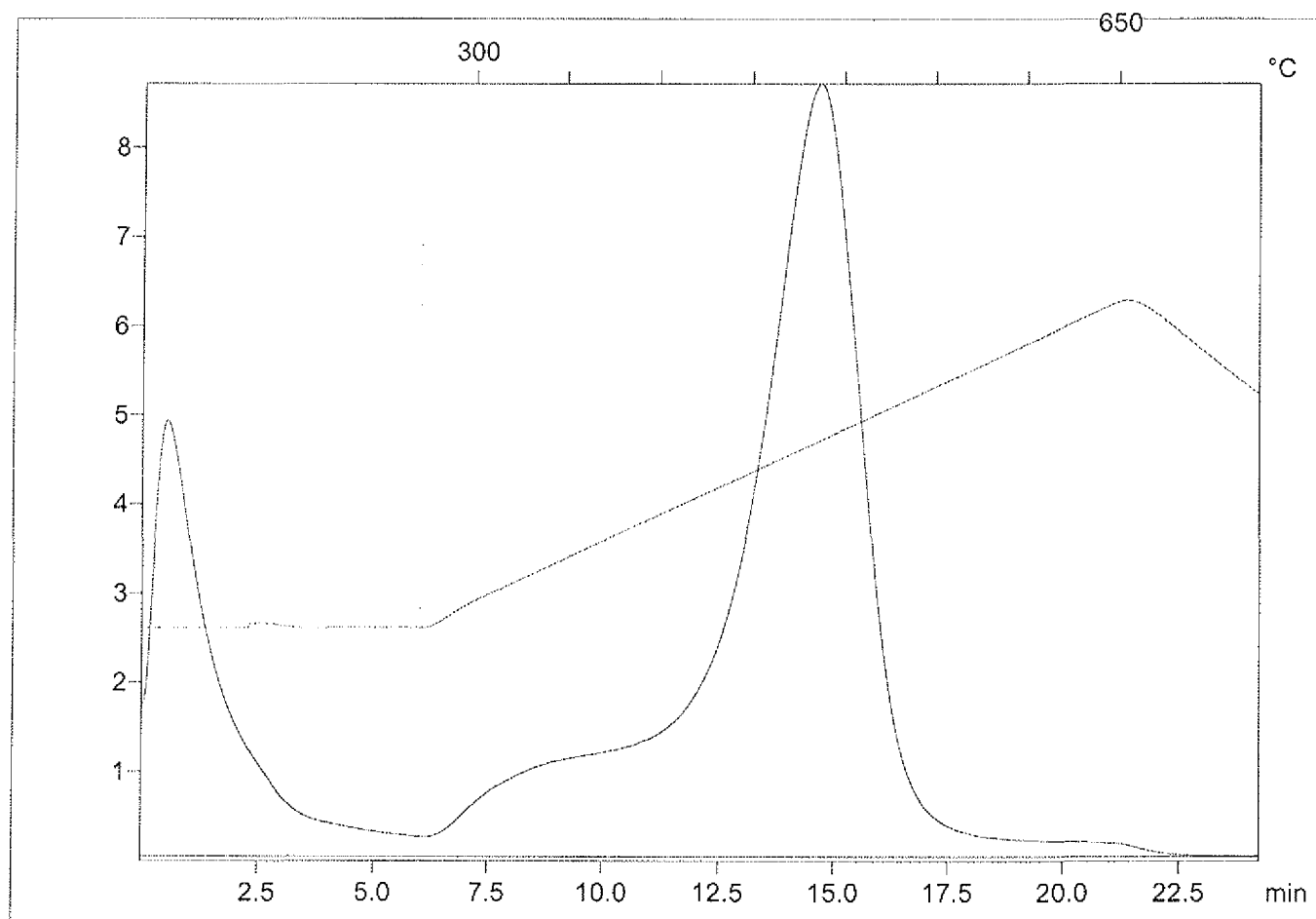


C:\HYDRO_AIA030608\22.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	No blank subtraction

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
7226/6-1 s 2616m dc	

S1=0.99	Sample =7222/6-1s
S2=3.45	Method =Bulk Rock
Tmax=448	Cycle=rock6_1
TpkS2=486.0	KFID(10*9)=1359
PI=0.22	Qty =69.0
HI=186	TOC=1.85

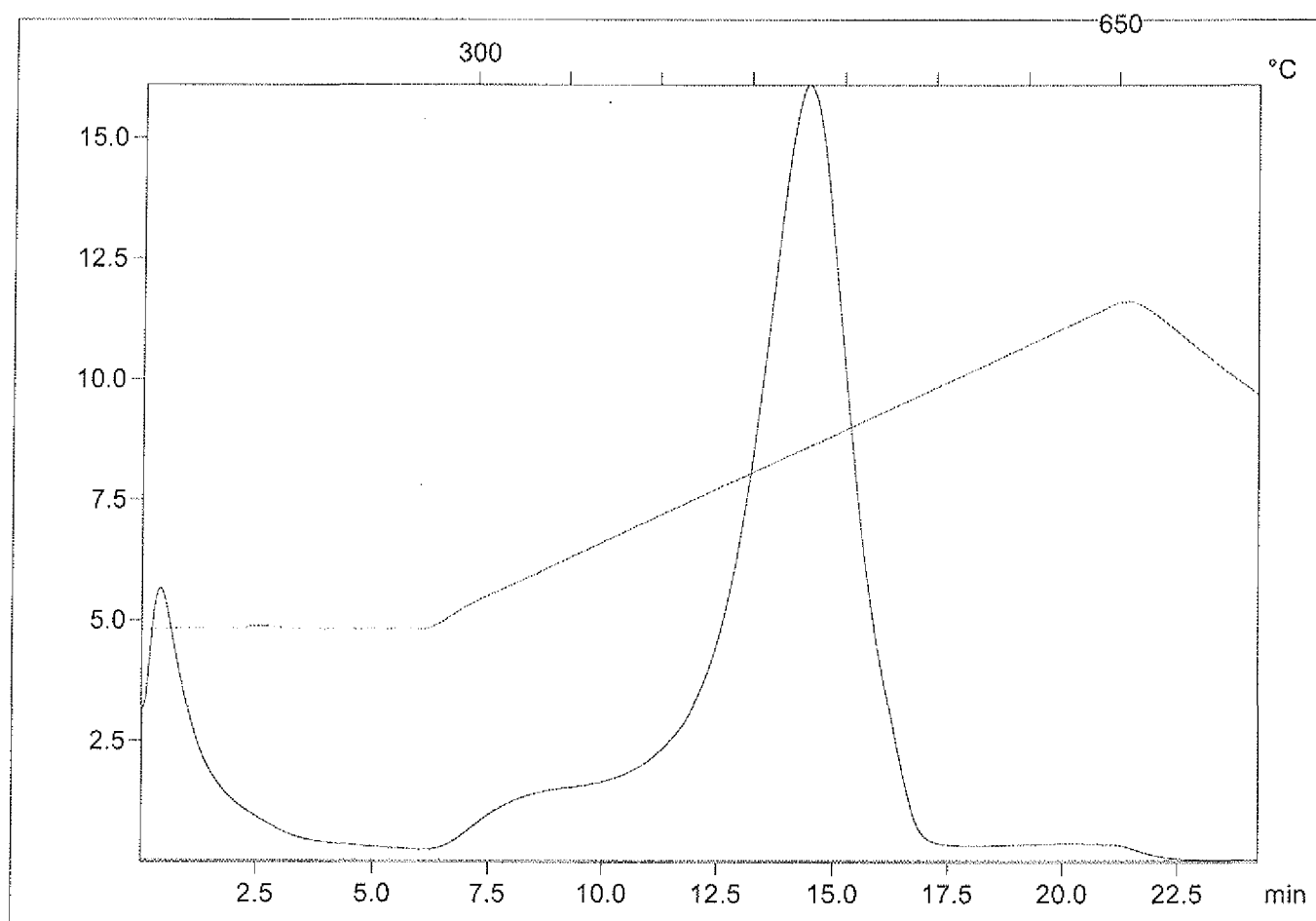


C:\HYDRO_AIA030608\23.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	No blank subtraction

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
Rockeval A	SR-1

S1=1	Sample =sr1
S2=5.96	Method =Bulk Rock
Tmax=441	Cycle=rock6_1
TpkS2=479.0	KFID(10*9)=1359
PI=0.14	Qty =68.5
HI=250	TOC=2.38

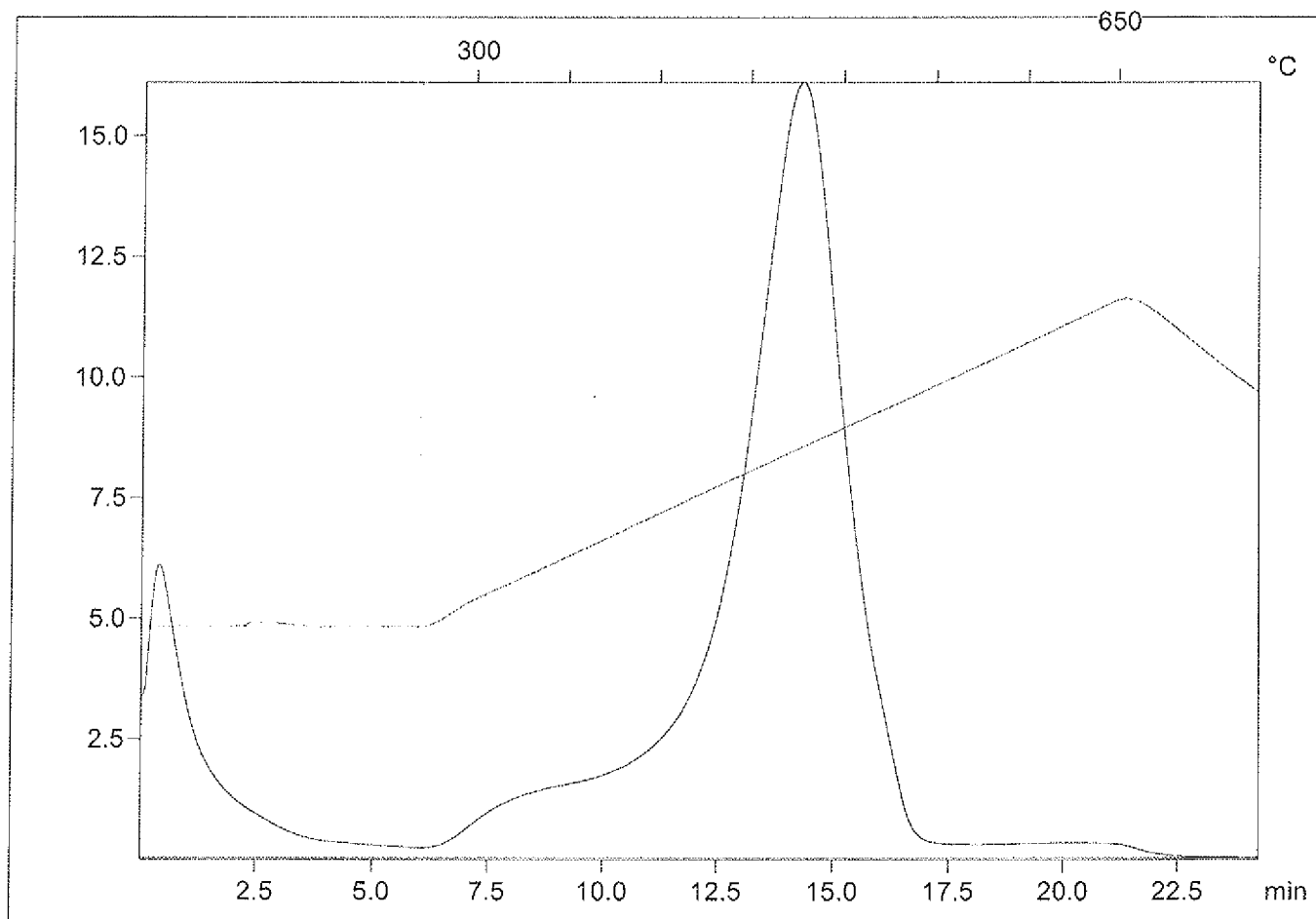


C:\HYDRO_A\A180408\1.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	No blank subtraction

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
Rockeval A	SR-1

S1=1.06	Sample =sr1
S2=6.13	Method =Bulk Rock
Tmax=439	Cycle=rock6_1
TpkS2=477.0	KFID(10*9)=1359
PI=0.15	Qty =66.3
HI=262	TOC=2.34

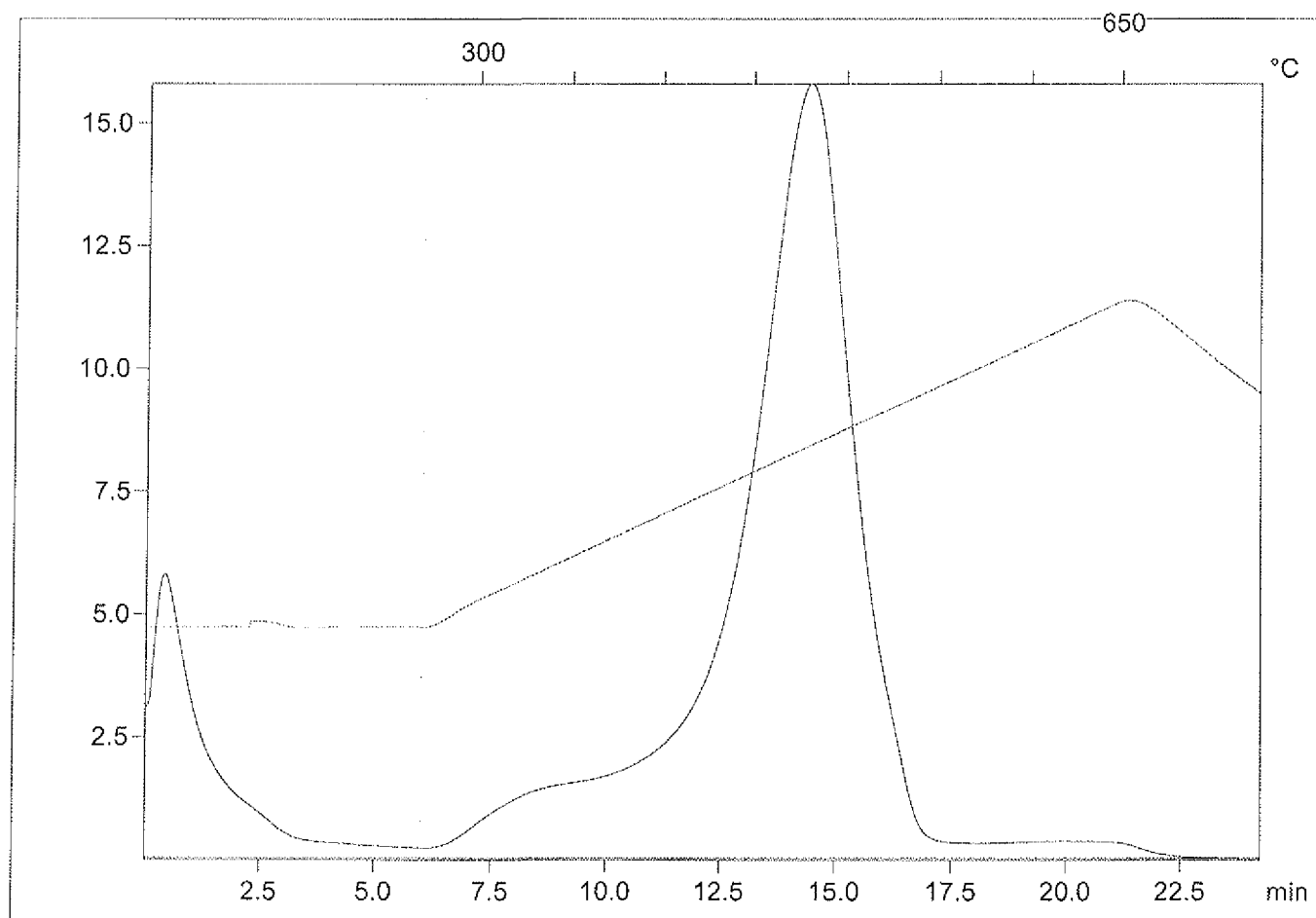


C:\HYDRO_A\A180408\13.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	Air Oxid. not ready

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
Rockeval A	SR-1

S1=1.01	Sample =sr1
S2=5.98	Method =Bulk Rock
Tmax=442	Cycle=rock6_1
TpkS2=480.0	KFID(10*9)=1359
PI=0.14	Qty =67.4
HI=250	TOC=2.39

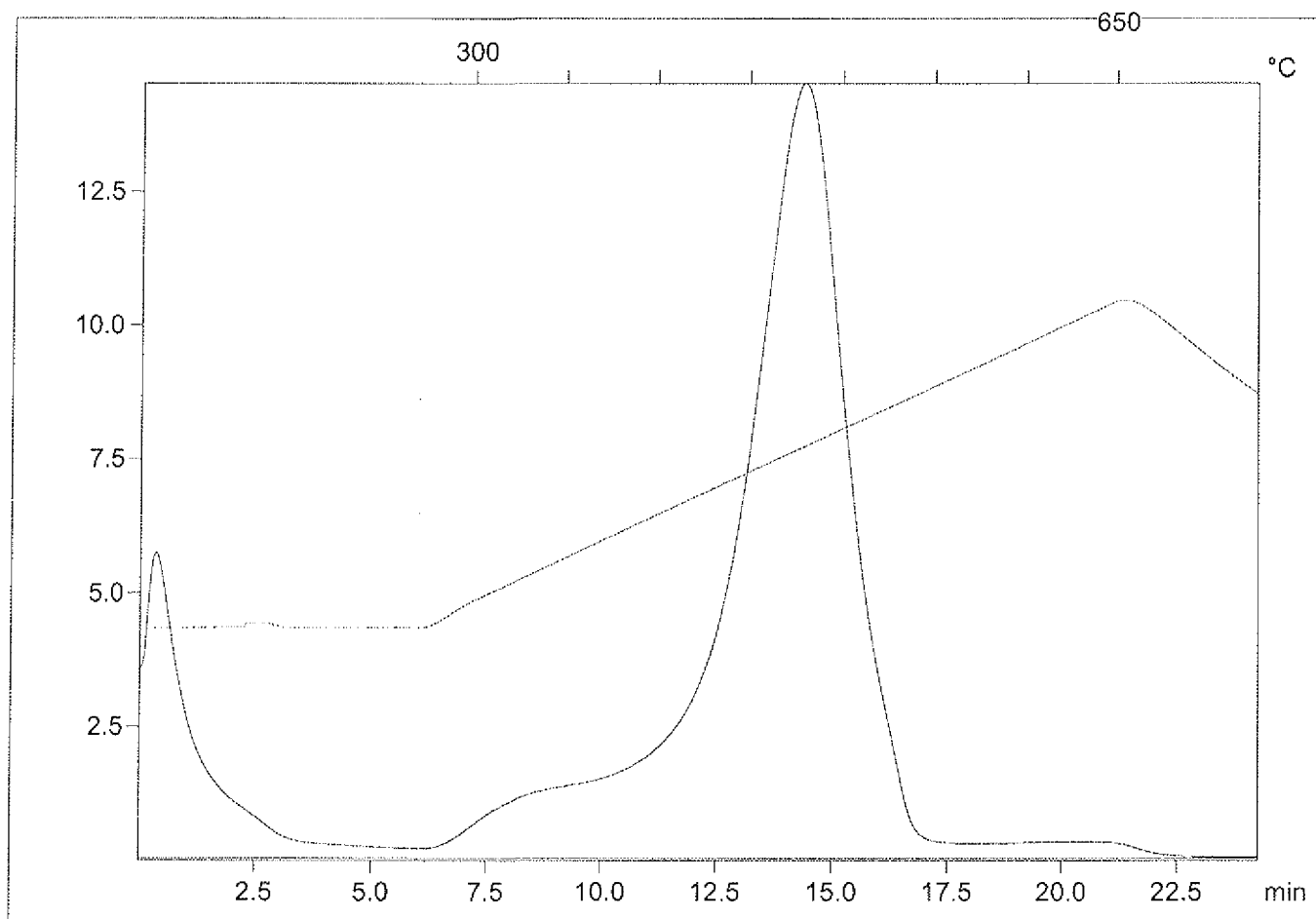


C:\HYDRO_A\A180408\30.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	No blank subtraction

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
SR1 Standard	

S1=1.04	Sample =sr-1
S2=6.14	Method =Bulk Rock
Tmax=440	Cycle=rock6_1
TpkS2=478.0	KFID(10*9)=1359
PI=0.15	Qty =59.5
HI=258	TOC=2.38

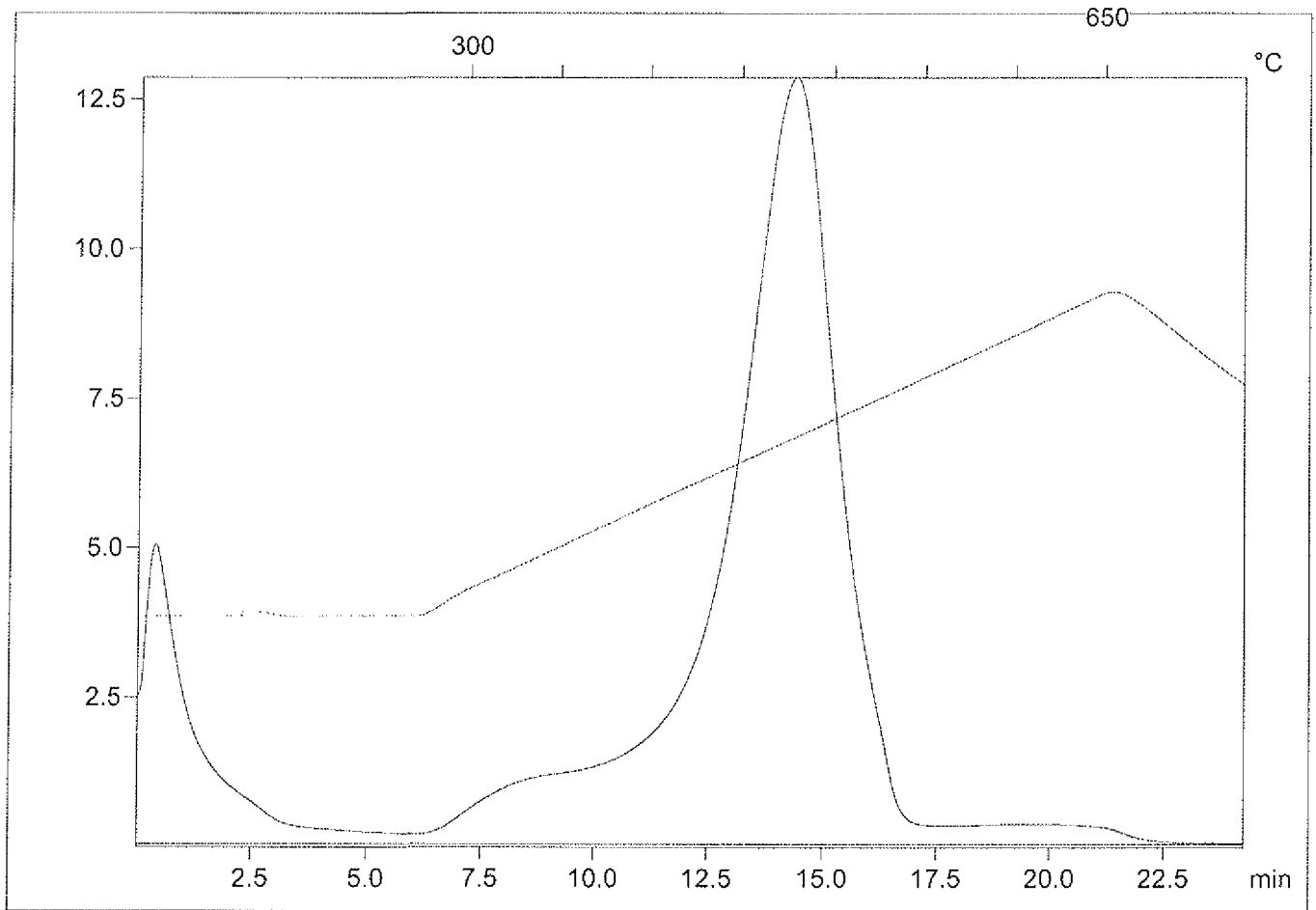


C:\HYDRO_AVA030608\2.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	Air Oxid. not ready

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
SR1 Standard	

S1=1	Sample =sr-1
S2=5.85	Method =Bulk Rock
Tmax=440	Cycle=rock6_1
TpkS2=478.0	KFID(10*9)=1359
PI=0.15	Qty =55.5
HI=251	TOC=2.33

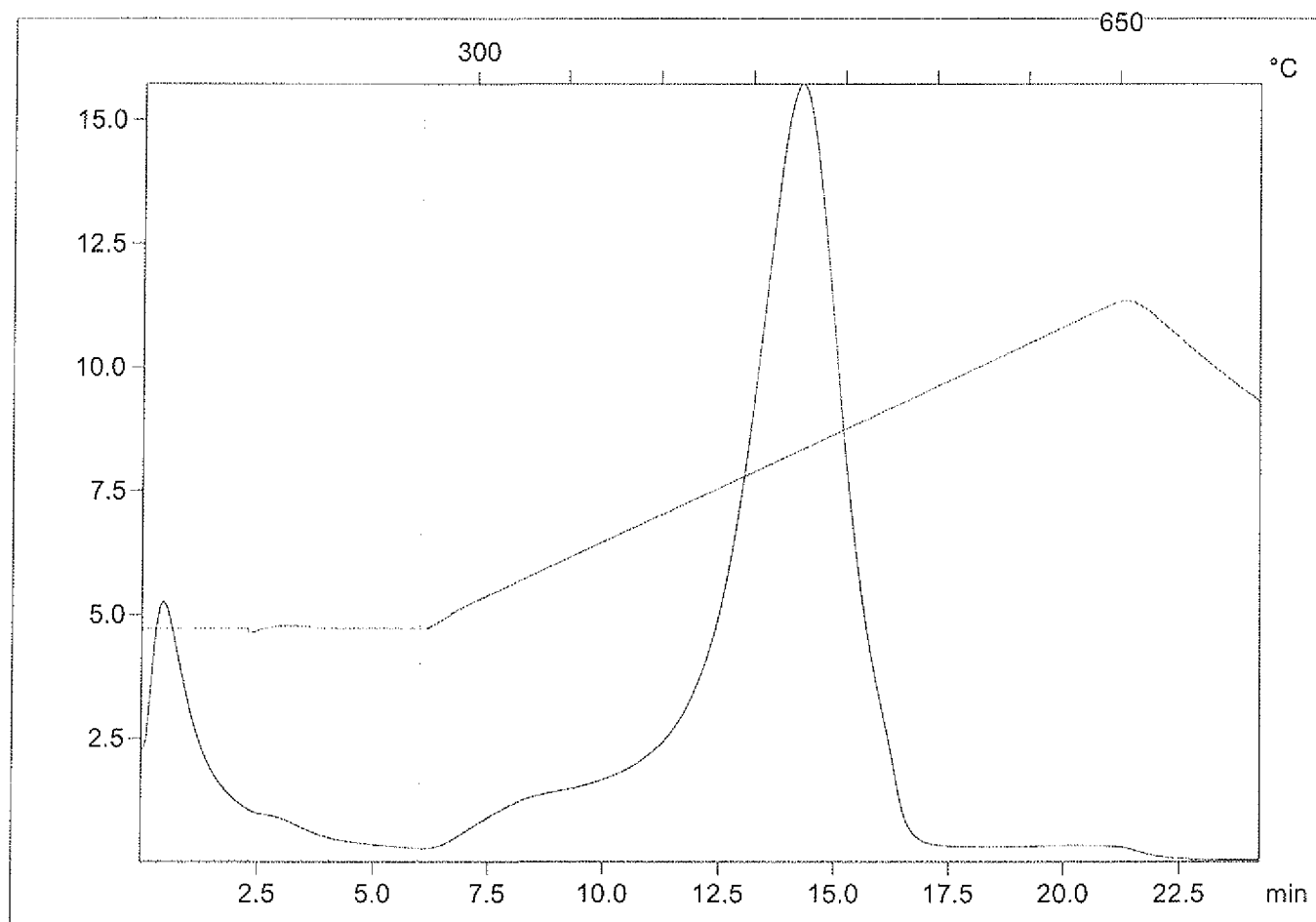


C:\HYDRO_A\A030608\15.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	No blank subtraction

Customer :	Customer part :
NORSK HYDRO	65047
Comment :	
Rockeval B	SR-1

S1=1.11	Sample =sr1
S2=6.41	Method =Bulk Rock
Tmax=437	Cycle=ROCK6_1
TpkS2=476.0	KFID(10*9)=1432
PI=0.15	Qty =64.8
HI=276	TOC=2.32

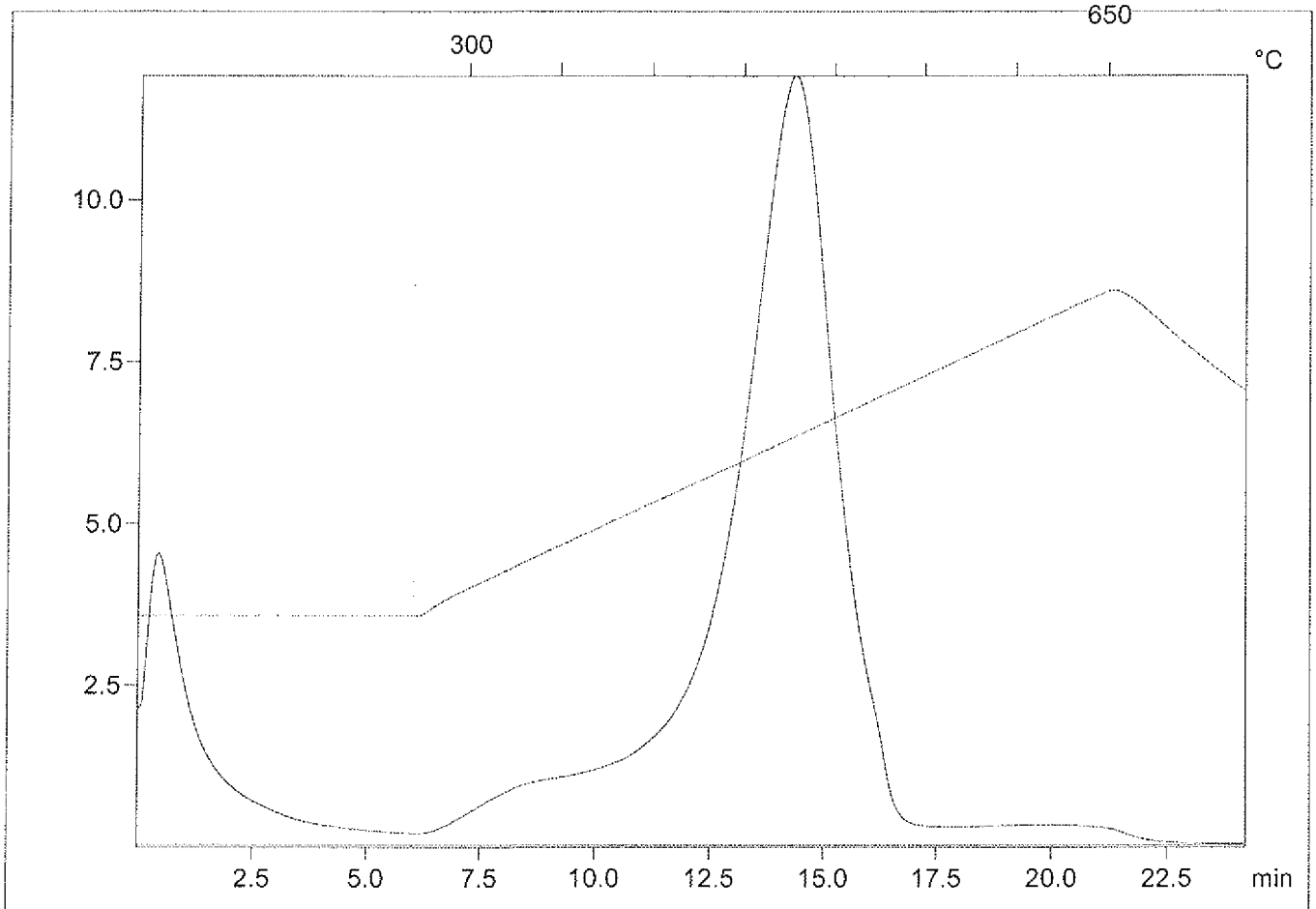


C:\HYDRO_B\B180408\31.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	H2 not ready
Oxi Status	No blank subtraction

Customer :	Customer part :
NORSK HYDRO	65047
Comment :	
Rockeval B	SR-1

S1=1.08	Sample =sr1
S2=5.94	Method =Bulk Rock
Tmax=439	Cycle=ROCK6_1
TpkS2=478.0	KFID(10*9)=1432
PI=0.15	Qty =52.1
HI=263	TOC=2.26

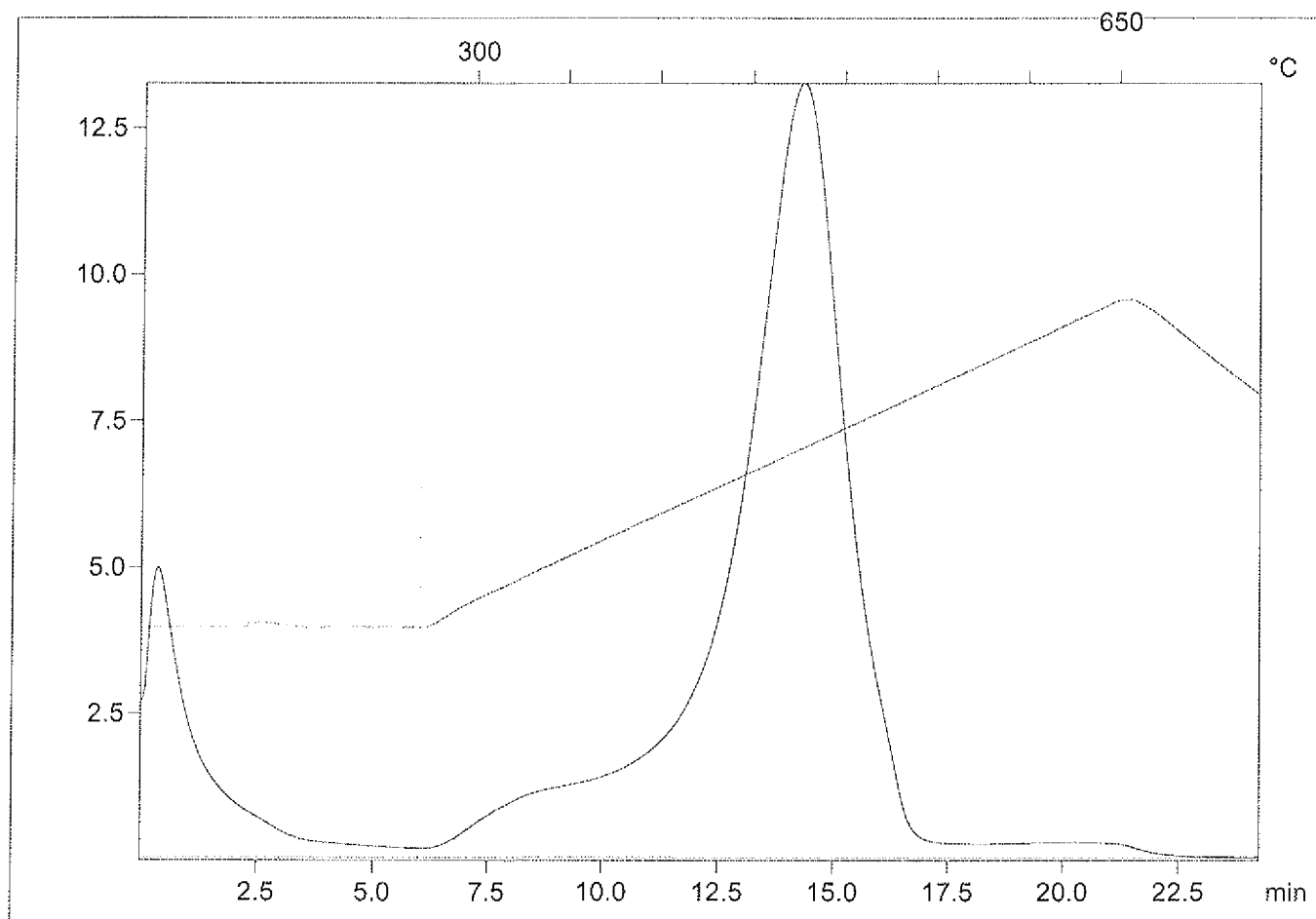


C:\HYDRO_B\B180408\13.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	H2 not ready
Oxi Status	No blank subtraction

Customer :	Customer part :
HYDRO	NORSKHYDRO
Comment :	
SR1 Standard	

S1=1.03	Sample =sr-1
S2=6.27	Method =Bulk Rock
Tmax=439	Cycle=rock6_1
TpkS2=477.0	KFID(10*9)=1359
PI=0.14	Qty =52.8
HI=266	TOC=2.36

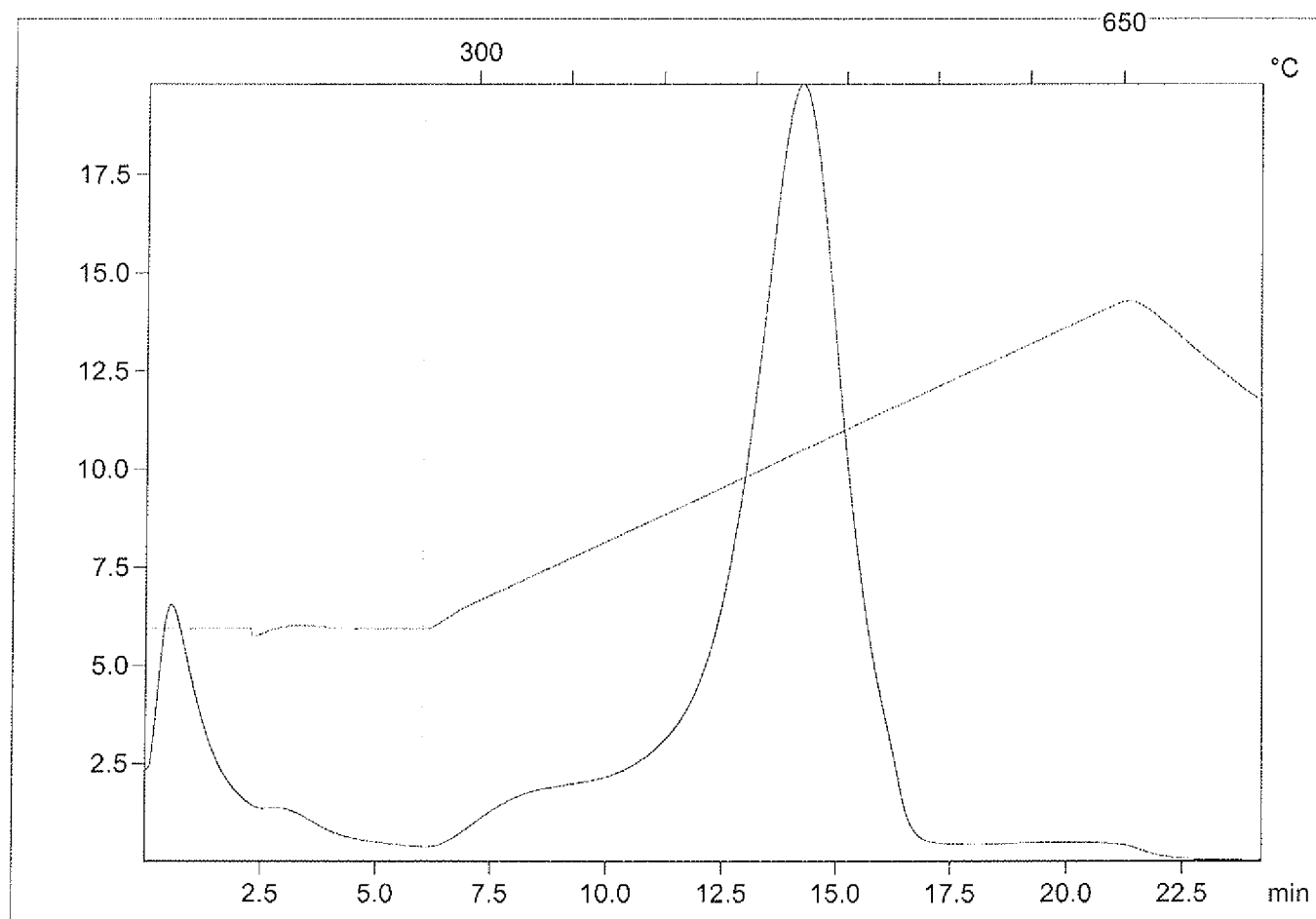


C:\HYDRO_AIA030608\24.R00 : FID pyrolysis graphic

State	Ok
Pyro Status	No blank subtraction
Oxi Status	No blank subtraction

Customer :	Customer part :
NORSK HYDRO	65047
Comment :	
Rockeval B	SR-1

S1=1.1	Sample =Sr1
S2=6.05	Method =Bulk Rock
Tmax=436	Cycle=ROCK6_1
TpkS2=475.0	KFID(10*9)=1432
PI=0.15	Qty =88.6
HI=260	TOC=2.33



C:\HYDRO_B\B180408\1.R00 : FID pyrolysis graphic

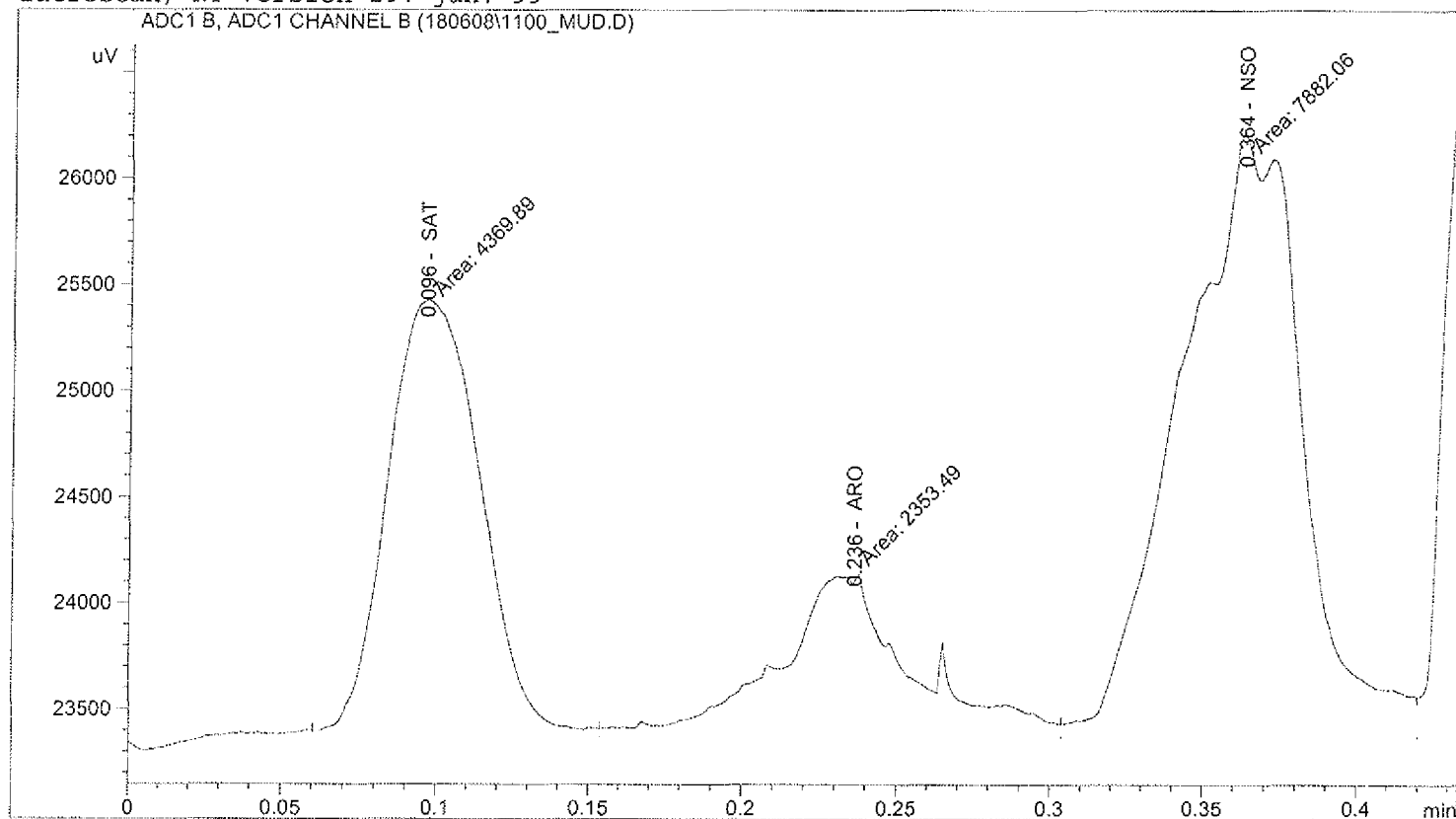
State	Ok
Pyro Status	H2 not ready
Oxi Status	No blank subtraction

Appendix 6: latroscan group type data

```

=====
Injection Date   : 6/18/08 1:14:50 PM          Seq. Line :    9
Sample Name     : 7222/6-1s 1100 mud          Vial       :    9
Acq. Operator   : anita                      Inj        :    1
                                           Inj Volume : Manually

Method          : C:\HPCHEM\1\METHODS\IATRO_A.M
Last changed    : 6/11/08 1:14:24 PM by ina
Iatroscan, NT version 29. jan. 99
  
```



```

=====
External Standard Report
=====
  
```

Sorted by Signal

```

Data File           : C:\HPCHEM\1\DATA\180608\1100_MUD.D
Calib. Data Modified : 5/20/08 1:41:22 PM
Multiplier          : 1
Dilution            : 1
Sample Amount       : 0
Ref Uncal. Peaks    : 0
  
```

Signal 1 ADC1 B, ADC1 CHANNEL B

Name	Area	Area%	Amt/Area	Amount	Amount%
SAT	4369.9	29.9	1.000000	4369.9	29.9
ARO	2353.5	16.1	1.000000	2353.5	16.1
NSO	7882.1	54.0	1.000000	7882.1	54.0

```
Totals :          14605.4          14605.4
```

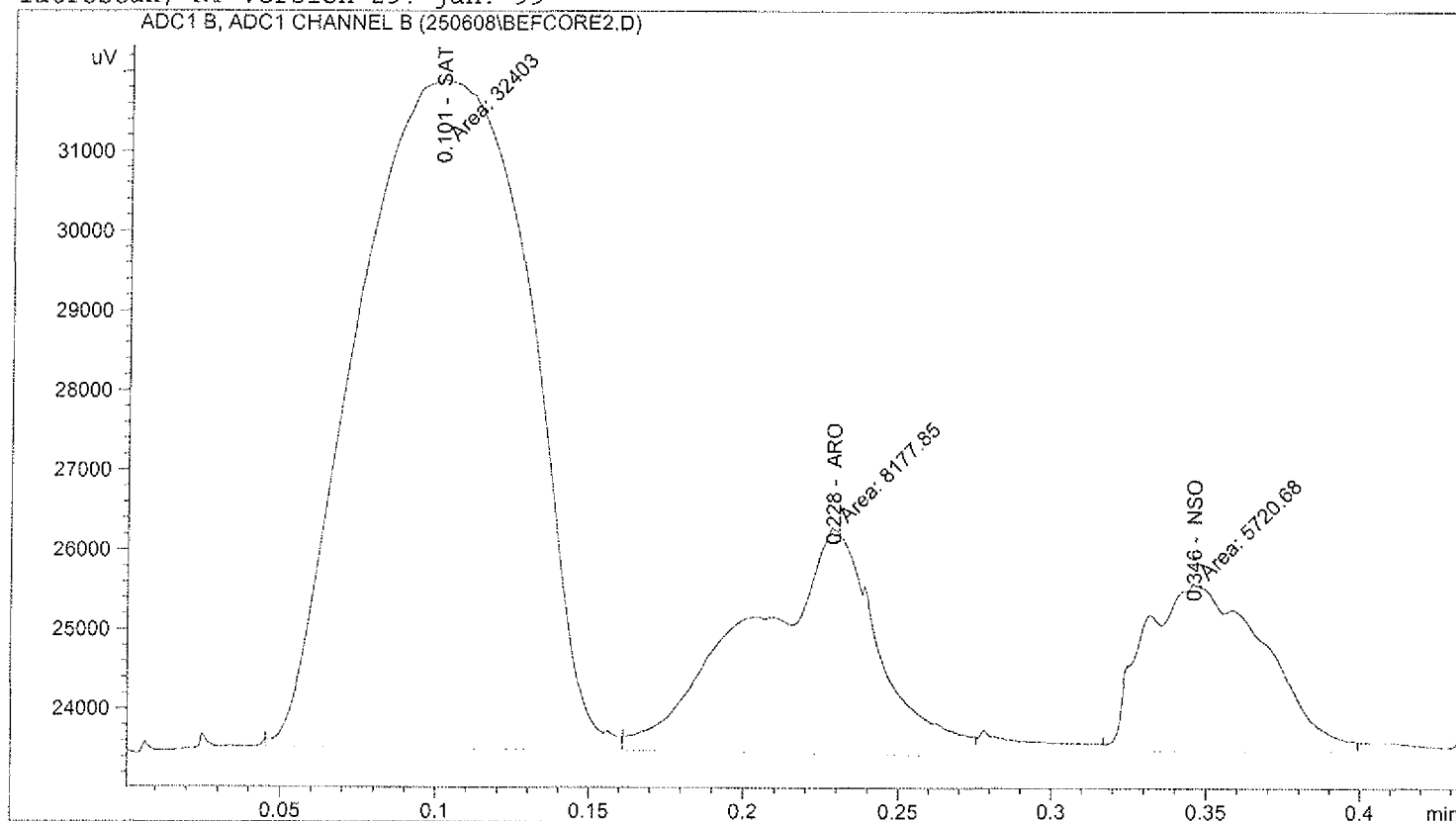
```

=====
*** End of Report ***
=====
  
```

=====
Injection Date : 6/25/08 1:24:32 PM Seq. Line : 6
Sample Name : 7222/6-1s bef.c2 Vial : 6
Acq. Operator : anita Inj : 1
Inj Volume : Manually
Acq. Method : C:\HPCHEM\1\METHODS\IATRO_A.M
Last changed : 6/11/08 1:14:24 PM by ina
Analysis Method : C:\HPCHEM\1\METHODS\IATRO_A.M
Last changed : 6/30/08 1:05:19 PM by anita
(modified after loading)

MUD before core 2

Iatroscan, NT version 29. jan. 99



=====
External Standard Report
=====

Sorted by Signal

Data File : C:\HPCHEM\1\DATA\250608\BEFCORE2.D
Calib. Data Modified : 6/30/08 1:05:19 PM
Multiplier : 1
Dilution : 1
Sample Amount : 0
Ref Uncal. Peaks : 0

Signal 1 ADC1 B, ADC1 CHANNEL B

Name	Area	Area%	Amt/Area	Amount	Amount%
SAT	32403.0	70.0	1.000000	32403.0	70.0
ARO	8177.9	17.7	1.000000	8177.9	17.7
NSO	5720.7	12.4	1.000000	5720.7	12.4

Totals : 46301.5 46301.5

=====
*** End of Report ***
=====

U

=====

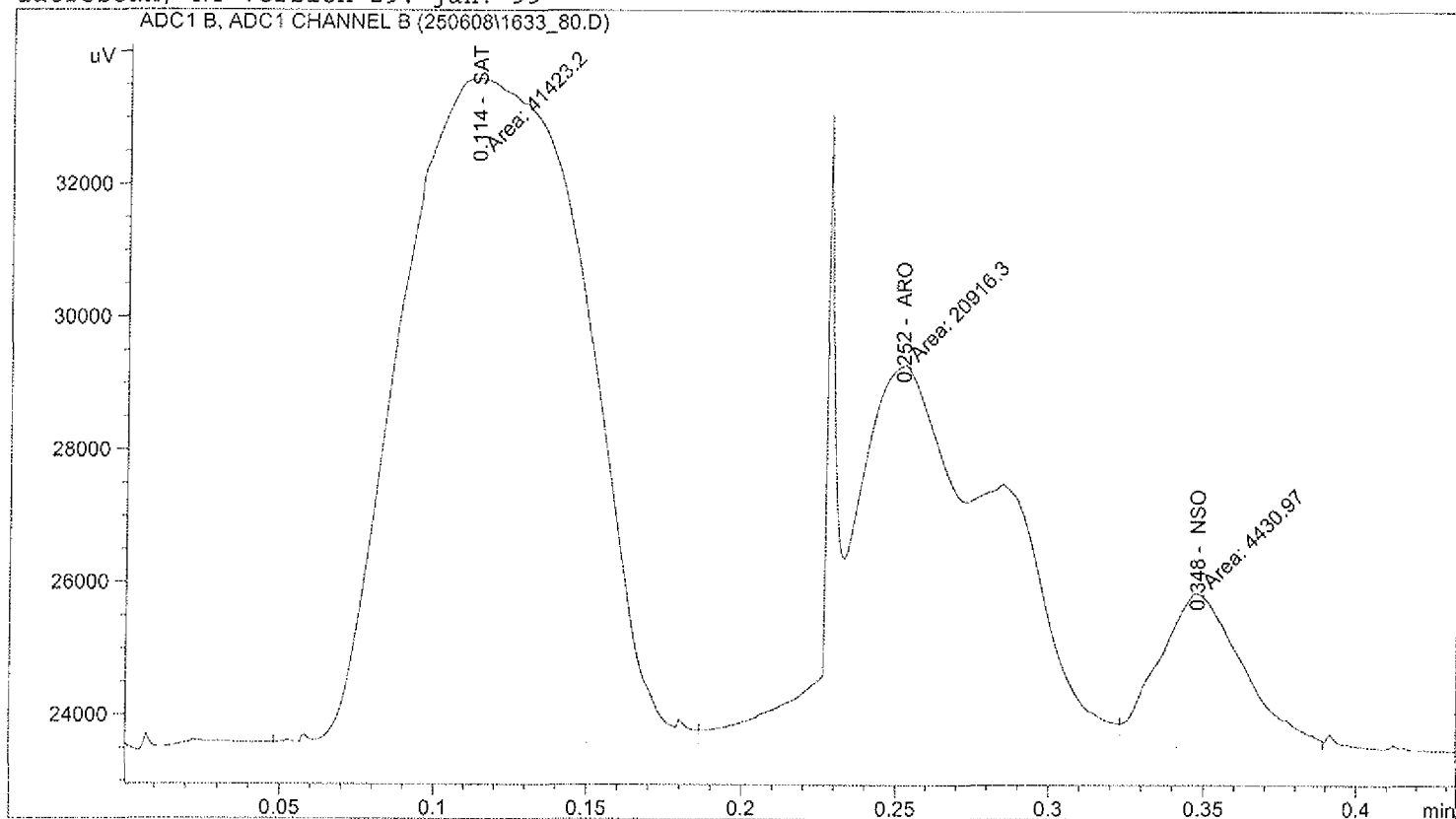
Injection Date	: 6/25/08 1:21:36 PM	Seq. Line	: 3
Sample Name	: 7222/6-1s 1633,8 TS-83102	Vial	: 3
Acq. Operator	: anita	Inj	: 1

Inj Volume : Manually

Method : C:\HPCHEM\1\METHODS\IATRO_A.M

Last changed : 6/11/08 1:14:24 PM by ina

Iatroscan, NT version 29. jan. 99



=====

External Standard Report

=====

Sorted by Signal

Data File	: C:\HPCHEM\1\DATA\250608\1633_80.D TS-83102
Calib. Data Modified	: 5/20/08 1:41:22 PM
Multiplier	: 1
Dilution	: 1
Sample Amount	: 0
Ref Uncal. Peaks	: 0

Signal 1 ADC1 B, ADC1 CHANNEL B

Name	Area	Area%	Amt/Area	Amount	Amount%
SAT	41423.2	62.0	1.000000	41423.2	62.0
ARO	20916.3	31.3	1.000000	20916.3	31.3
NSO	4431.0	6.6	1.000000	4431.0	6.6

Totals : 66770.5 66770.5

=====

*** End of Report ***

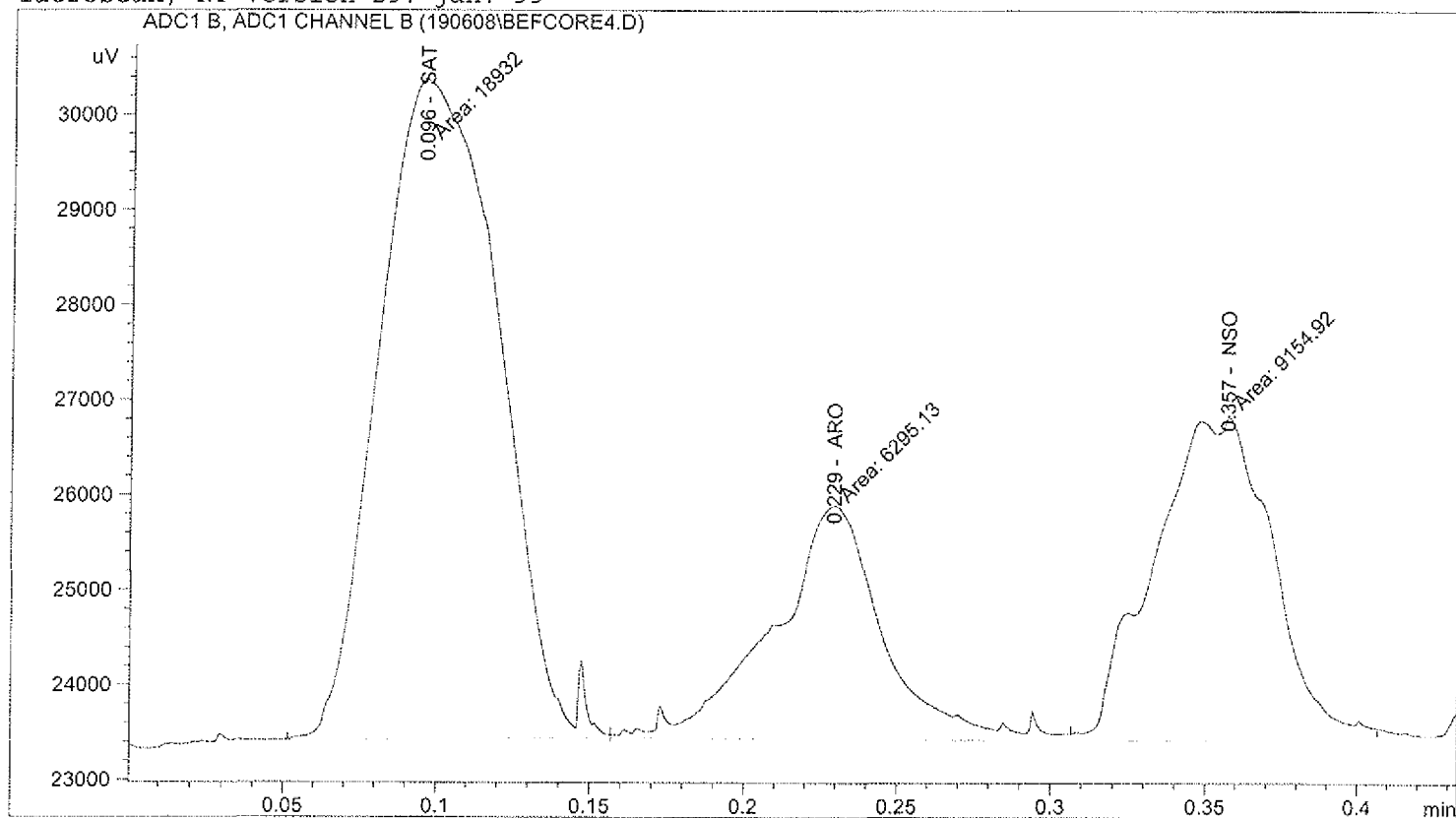
=====

```

=====
Injection Date   : 6/19/08 1:06:46 PM          Seq. Line :    9
Sample Name     : 7222/6-1 befc4              Vial      :    9
Acq. Operator   : anita                      Inj       :    1
                                           Inj Volume : Manually

Acq. Method     : C:\HPCHEM\1\METHODS\IATRO_A.M
Last changed    : 6/11/08 1:14:24 PM by ina
Analysis Method : C:\HPCHEM\1\METHODS\IATRO_A.M
Last changed    : 6/19/08 1:11:03 PM by anita
                  (modified after loading)
Iatroscan, NT version 29. jan. 99
  
```

mud before core 4



=====
 External Standard Report
 =====

Sorted by Signal

```

Data File       : C:\HPCHEM\1\DATA\190608\BEFCORE4.D
Calib. Data Modified : 6/19/08 1:11:01 PM
Multiplier      : 1
Dilution        : 1
Sample Amount    : 0
Ref Uncal. Peaks : 0
  
```

Signal 1 ADC1 B, ADC1 CHANNEL B

Name	Area	Area%	Amt/Area	Amount	Amount%
SAT	18932.0	55.1	1.000000	18932.0	55.1
ARO	6295.1	18.3	1.000000	6295.1	18.3
NSO	9154.9	26.6	1.000000	9154.9	26.6

Totals : 34382.1 34382.1

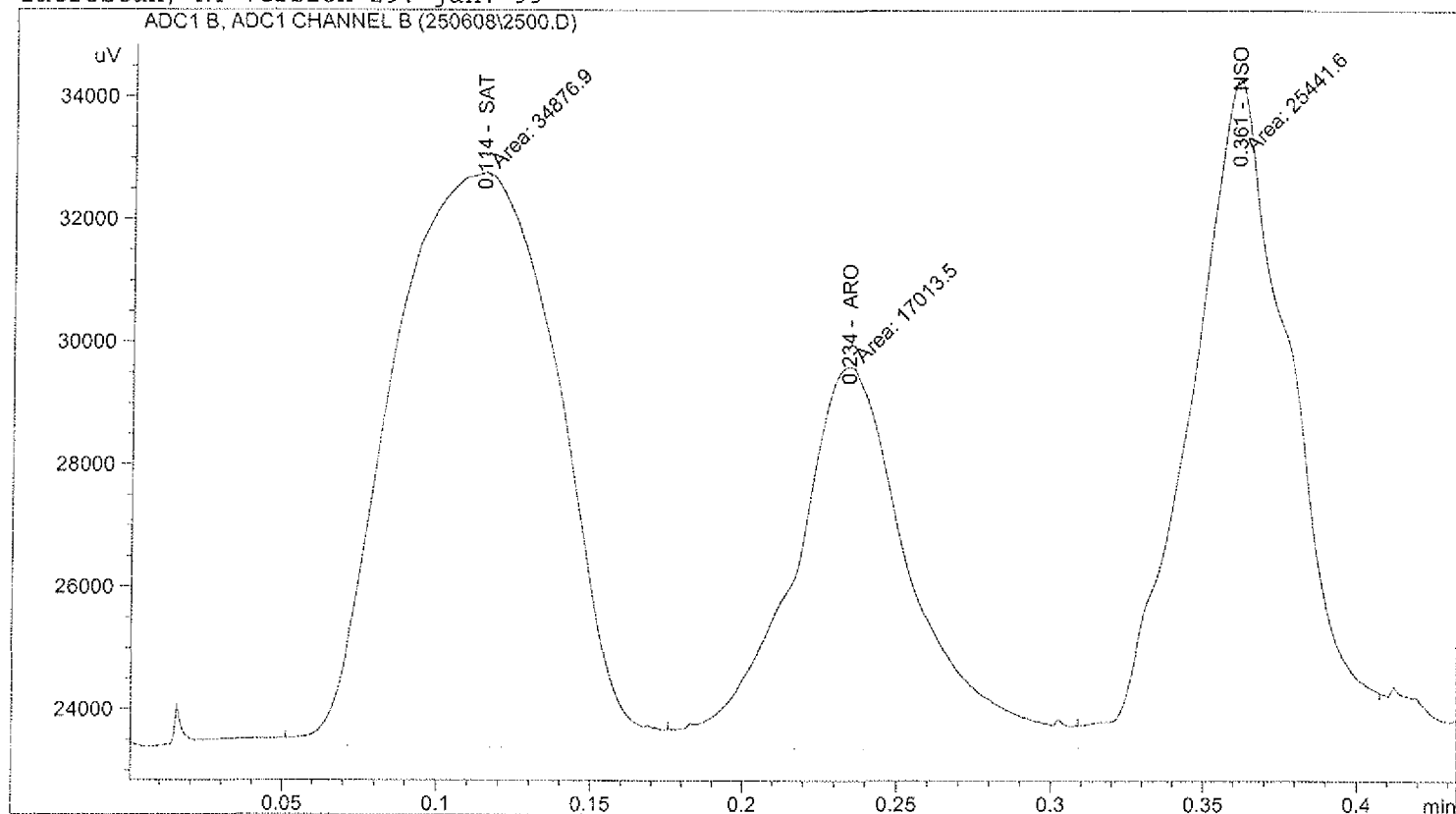
=====
 *** End of Report ***

=====

Injection Date	: 6/25/08 1:23:34 PM	Seq. Line	: 5
Sample Name	: 7222/6-1s 2500 mub	Vial	: 5
Acq. Operator	: anita	Inj	: 1

Inj Volume : Manually

Method : C:\HPCHEM\1\METHODS\IATRO_A.M
Last changed : 6/11/08 1:14:24 PM by ina
Iatroscan, NT version 29. jan. 99



=====

External Standard Report

=====

Sorted by Signal

Data File	: C:\HPCHEM\1\DATA\250608\2500.D
Calib. Data Modified	: 5/20/08 1:41:22 PM
Multiplier	: 1
Dilution	: 1
Sample Amount	: 0
Ref Uncal. Peaks	: 0

Signal 1 ADC1 B, ADC1 CHANNEL B

Name	Area	Area%	Amt/Area	Amount	Amount%
SAT	34876.9	45.1	1.000000	34876.9	45.1
ARO	17013.5	22.0	1.000000	17013.5	22.0
NSO	25441.6	32.9	1.000000	25441.6	32.9

Totals : 77332.0 77332.0

*** End of Report ***

✓

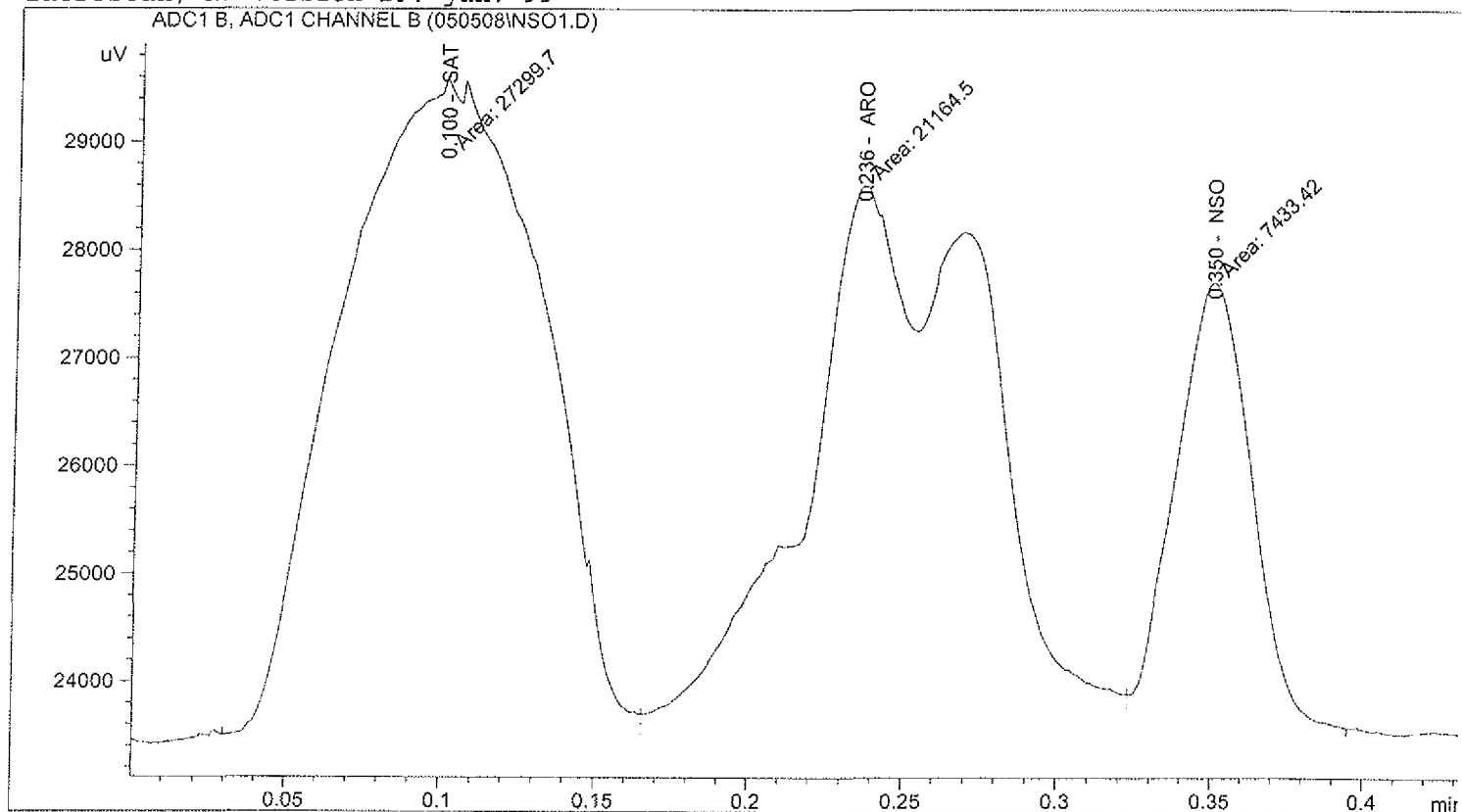
```

=====
Injection Date   : 5/5/08 1:05:07 PM          Seq. Line :    2
Sample Name     : Nsol                      Vial       :    2
Acq. Operator   : anita                      Inj         :    1
                                           Inj Volume  : Manually

Acq. Method     : C:\HPCHEM\1\METHODS\IATRO_A.M
Last changed    : 2/6/08 10:35:05 AM by anita
Analysis Method : C:\HPCHEM\1\METHODS\IATRO_A.M
Last changed    : 5/5/08 1:45:57 PM by anita
                  (modified after loading)

```

Iatroscan, NT version 29. jan. 99



```

=====
External Standard Report
=====

```

Sorted by Signal

```

Data File           : C:\HPCHEM\1\DATA\050508\NSO1.D
Calib. Data Modified : 5/5/08 1:45:54 PM
Multiplier          : 1
Dilution            : 1
Sample Amount       : 0
Ref Uncal. Peaks    : 0

```

Signal 1 ADC1 B, ADC1 CHANNEL B

Name	Area	Area%	Amt/Area	Amount	Amount%
SAT	27299.7	48.8	1.000000	27299.7	48.8
ARO	21164.5	37.9	1.000000	21164.5	37.9
NSO	7433.4	13.3	1.000000	7433.4	13.3

```
Totals :          55897.7          55897.7
```

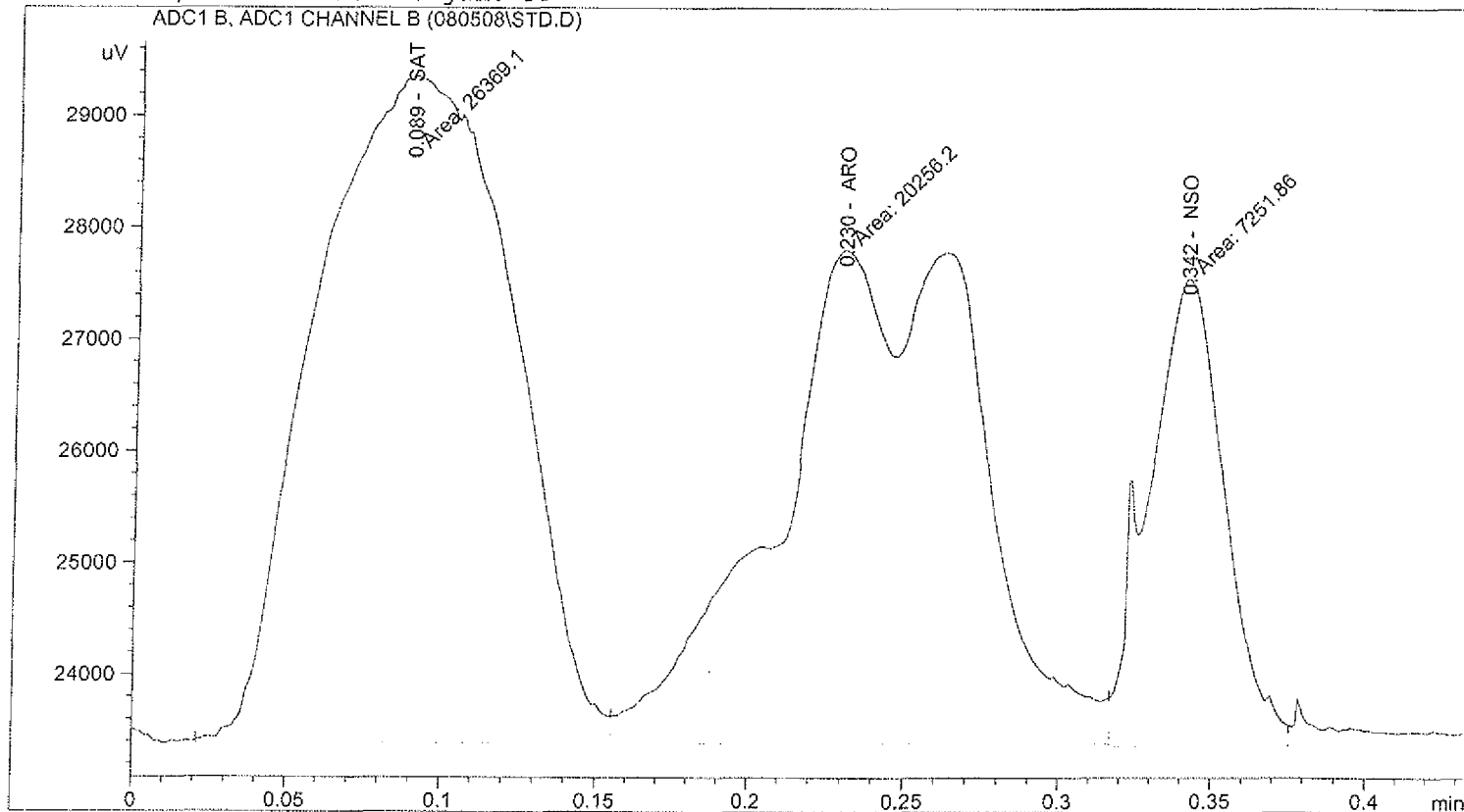
```

=====
*** End of Report ***
=====

```

Injection Date : 5/8/08 1:33:29 PM Seq. Line : 1
 Sample Name : nsol Vial : 1
 Acq. Operator : anita Inj : 1
 Inj Volume : Manually
 Acq. Method : C:\HPCHEM\1\METHODS\IATRO_A.M
 Last changed : 2/6/08 10:35:05 AM by anita
 Analysis Method : C:\HPCHEM\1\METHODS\IATRO_A.M
 Last changed : 5/8/08 1:53:29 PM by anita
 (modified after loading)

Iatroscan, NT version 29. jan. 99



External Standard Report

Sorted by Signal

Data File : C:\HPCHEM\1\DATA\080508\STD.D
 Calib. Data Modified : 5/8/08 1:53:26 PM
 Multiplier : 1
 Dilution : 1
 Sample Amount : 0
 Ref Uncal. Peaks : 0

Signal 1 ADC1 B, ADC1 CHANNEL B

Name	Area	Area%	Amt/Area	Amount	Amount%
SAT	26369.1	48.9	1.000000	26369.1	48.9
ARO	20256.2	37.6	1.000000	20256.2	37.6
NSO	7251.9	13.5	1.000000	7251.9	13.5

Totals : 53877.1 53877.1

*** End of Report ***

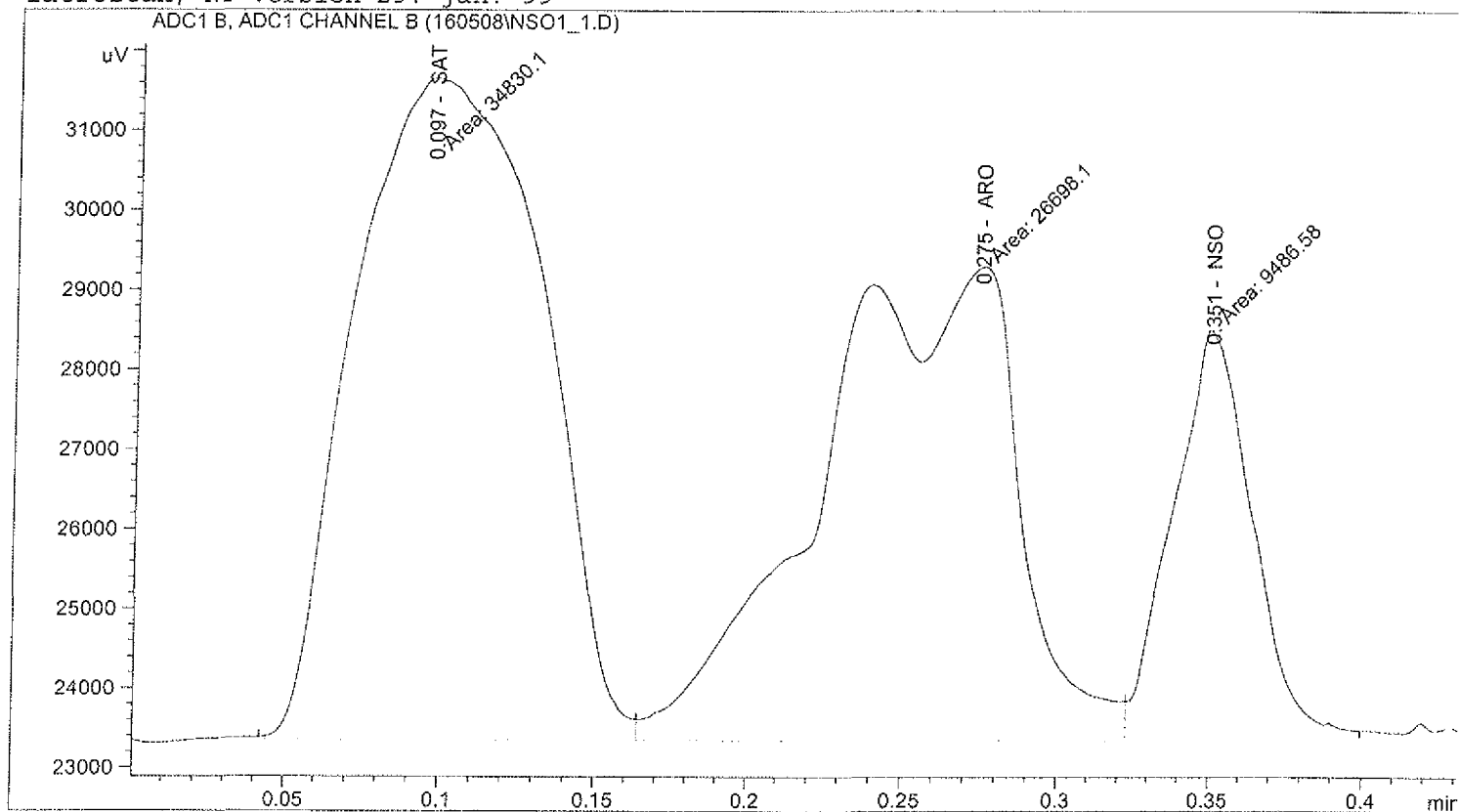
```

=====
Injection Date   : 5/16/08 1:18:08 PM          Seq. Line :   10
Sample Name      : nsol_1                      Vial       :   10
Acq. Operator    : anita                      Inj        :    1
                                           Inj Volume : Manually

Acq. Method      : C:\HPCHEM\1\METHODS\IATRO_A.M
Last changed     : 2/6/08 10:35:05 AM by anita
Analysis Method  : C:\HPCHEM\1\METHODS\IATRO_A.M
Last changed     : 5/16/08 1:41:58 PM by anita
                  (modified after loading)

```

Iatroscan, NT version 29. jan. 99



```

=====
                        External Standard Report
=====

```

Sorted by Signal

```

Data File           : C:\HPCHEM\1\DATA\160508\NSO1_1.D
Calib. Data Modified : 5/16/08 1:41:53 PM
Multiplier          : 1
Dilution            : 1
Sample Amount       : 0
Ref Uncal. Peaks    : 0

```

Signal 1 ADC1 B, ADC1 CHANNEL B

Name	Area	Area%	Amt/Area	Amount	Amount%
SAT	34830.1	49.0	1.000000	34830.1	49.0
ARO	26698.1	37.6	1.000000	26698.1	37.6
NSO	9486.6	13.4	1.000000	9486.6	13.4

Totals : 71014.7 71014.7

```

=====
*** End of Report ***
=====

```

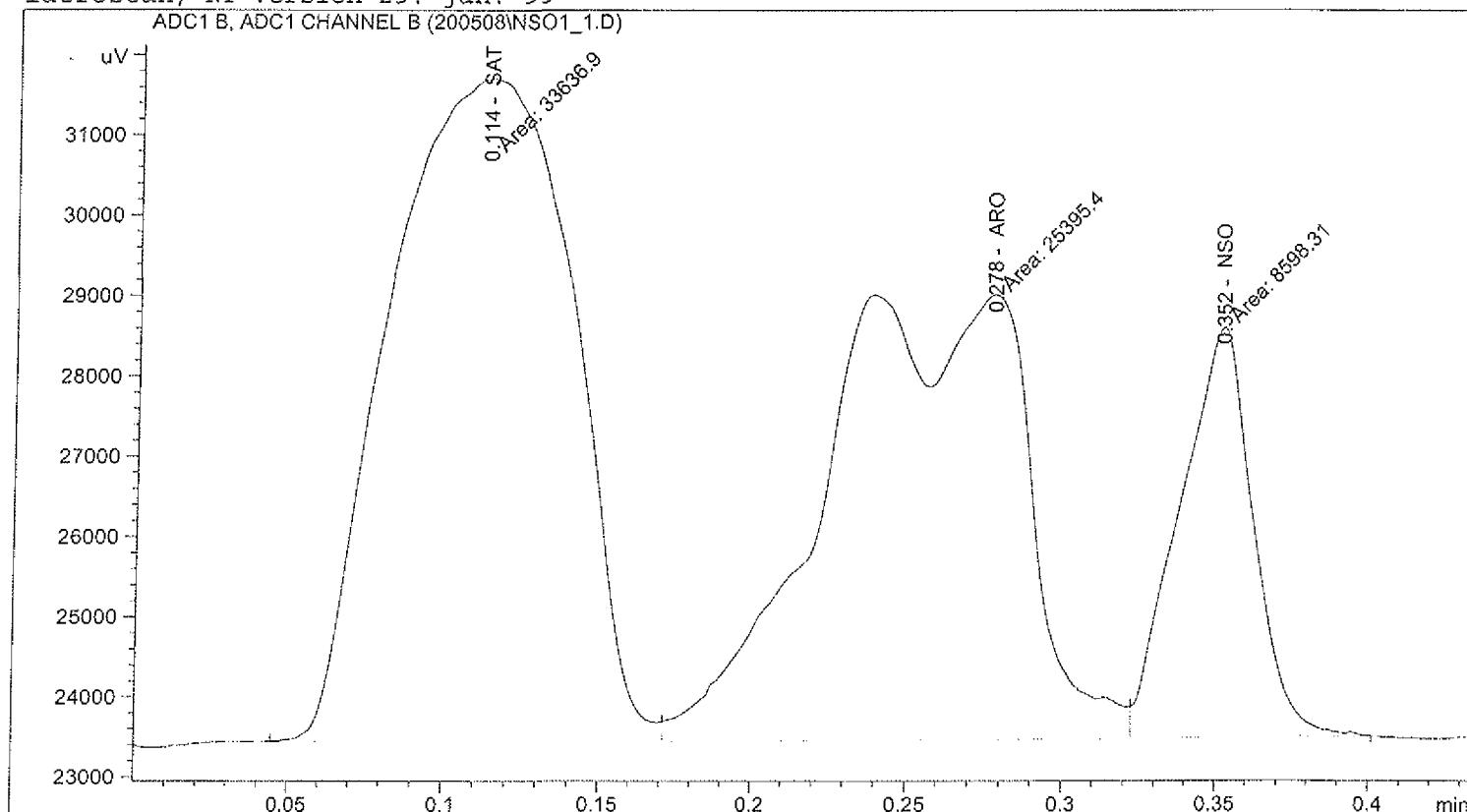
```

=====
Injection Date   : 5/20/08 1:24:25 PM          Seq. Line :   10
Sample Name     : nso1_1                      Vial       :   10
Acq. Operator   : anita                       Inj        :    1
                                           Inj Volume : Manually

Acq. Method     : C:\HPCHEM\1\METHODS\IATRO_A.M
Last changed    : 2/6/08 10:35:05 AM by anita
Analysis Method : C:\HPCHEM\1\METHODS\IATRO_A.M
Last changed    : 5/20/08 1:41:25 PM by anita
                  (modified after loading)

```

Iatroscan, NT version 29. jan. 99



```

=====
External Standard Report
=====

```

Sorted by Signal

```

Data File       : C:\HPCHEM\1\DATA\200508\NSO1_1.D
Calib. Data Modified : 5/20/08 1:41:22 PM
Multiplier      : 1
Dilution        : 1
Sample Amount    : 0
Ref Uncal. Peaks : 0

```

Signal 1 ADC1 B, ADC1 CHANNEL B

Name	Area	Area%	Amt/Area	Amount	Amount%
SAT	33636.9	49.7	1.000000	33636.9	49.7
ARO	25395.4	37.6	1.000000	25395.4	37.6
NSO	8598.3	12.7	1.000000	8598.3	12.7

Totals : 67630.6 67630.6

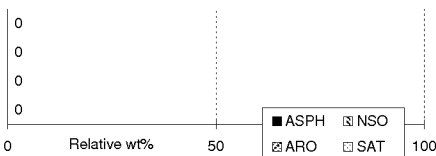
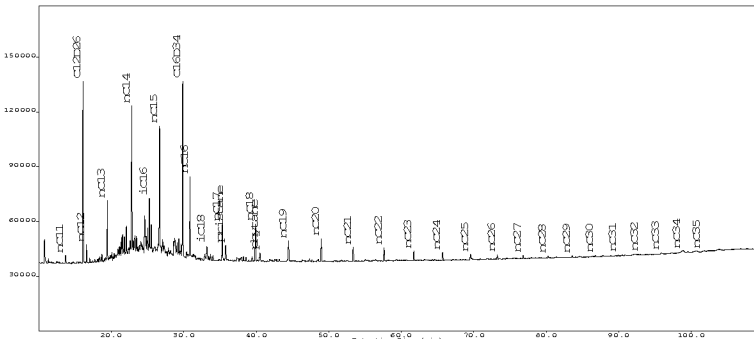
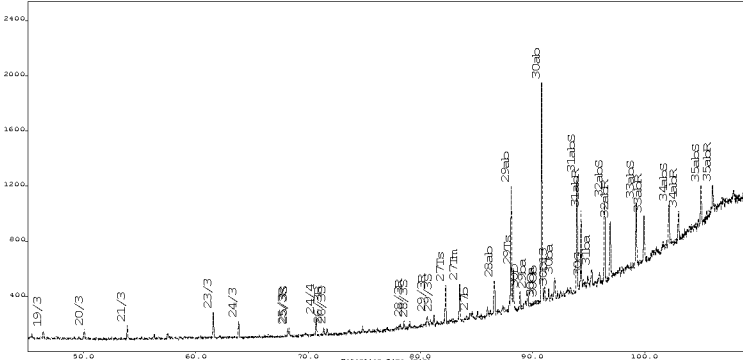
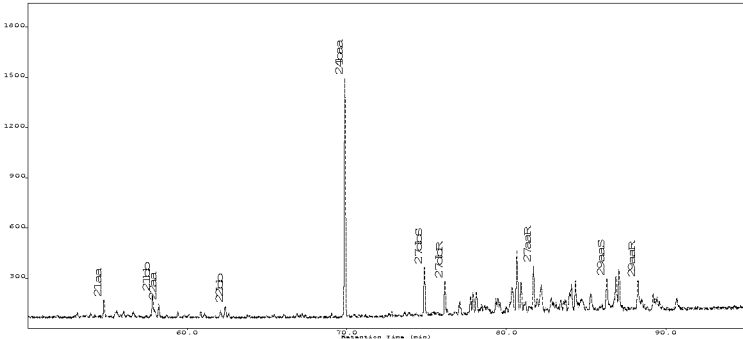
```

=====
*** End of Report ***
=====

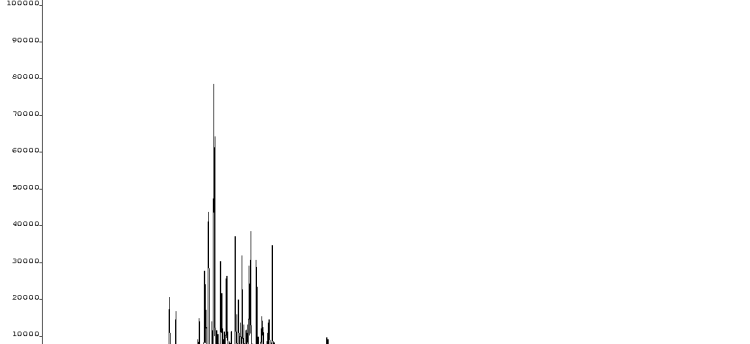
```

Appendix 7: Summary sheets

Country, well/location: NOR, 7222/6-1 S	StatoilHydro Reserach Centre, Bergen, Norway
Sample type, depth (m): MUD, 1100-1100 m MD RKB	
Stratigraphy (Gr./Fm.):	
Mud system:	
Remarks:	Fluid
OrgID: 2497825, PlanID: 698692	

latroscan 		δ13C fractions Sat. Aro. NSO Asph. EOM / Oil	
C15+ SAT-fraction hydrocarbons, GC/FID: 		Parameter/amounts, µg/mg	
		Pr/nC ₁₇	0.5
		Ph/nC ₁₈	0.3
		Pr/Ph	1.5
		nC ₁₇ /(C ₁₇ +C ₂₇)	0.9
		CPI2	1.3
		nC ₁₇	0.7
		Pristane	0.3
		ΣC15-C35	9
Terpanes, m/z 191: 		Parameter/amounts, ng/mg	
		%Tri	8.91
		%20/3	9.4
		%23/3	51.0
		%24/4	41.4
		C26/C25	1.0
		%27Ts	50.8
		%28αβ	19.2
		%29Ts	25.2
		%25nor30αβ	5.5
		%29αβ	45.5
		%30βα	8.5
		%30D	11.7
		%30G	6.2
		%32αβS	58.1
		%35αβ	48.3
		30αβ	10.9
		25nor30αβ	0.6
		Σterpanes	77
		%Pregnane	9.3
		%29ααS	51.8
		%29ββ	64.8
		%27dia	43.9
		%27ster. Norm	31.8
		%28ster. Norm	23.7
		%29ster. Norm	33.6
		%30ster. Norm	10.9
		Σsteranes	37
		Hop/Ste	2.1
Steranes, m/z 217: 			

Country, well/location:	NOR, 7222/6-1 S	StatoilHydro Research Centre, Bergen, Norway
Sample type, depth (m):	MUD, 1100-1100 m MD RKB	
Stratigraphy (Gr./Fm.):		
Mud system:		
Remarks:		Fluid
OrgID: 2497825, PlanID: 698692		

Aromatic hydrocarbons, TIC:		Parameter/amounts, ng/mg	
	2/1MN	1.20	
	2/1EN	2.19	
	Phen.	39	
	MPI1	0.72	
	F1 (2+3/all MP)	0.47	
	F2 (2/all MP)	0.25	
	%TAS	28	
	DBT/P	0.02	
	F/P	0.96	
	BP/1.6DMN	0.45	
	4/1MDBT	3.21	
	3MP/R	1.19	
	ΣARO HC	526	

Aromatic and Diamondoid hydrocarbons, GC/MS:	
Methyl-phenanthrenes (m/z 192):	Methyl-dibenzothiophenes (m/z 198):

Country, well/location: NOR, 7222/6-1 S	StatoilHydro Reserach Centre, Bergen, Norway
Sample type, depth (m): MUD, 1636-1636 m MD RKB	
Stratigraphy (Gr./Fm.):	
Mud system:	
Remarks:	Fluid
OrgID: 2497821, PlanID: 698690	

latroscan		$\delta^{13}C$ fractions	
		Sat. Aro. NSO Asph. EOM / Oil	
C15+ SAT-fraction hydrocarbons, GC/FID:		Parameter/amounts, $\mu g/mg$	
		Pr/nC ₁₇ 0.6 Ph/nC ₁₈ 0.5 Pr/Ph 1.5 nC ₁₇ /(C ₁₇ +C ₂₇) 0.9 CPI2 1.3 nC ₁₇ 0.9 Pristane 0.5 Σ C15-C35 12	
Terpanes, m/z 191:		Parameter/amounts, ng/mg	
		%Tri 12.71 %20/3 4.1 %23/3 48.9 %24/4 49.5 C26/C25 1.0 %27Ts 48.4 %28 $\alpha\beta$ 19.5 %29Ts 23.8 %25nor30 $\alpha\beta$ 2.9 %29 $\alpha\beta$ 50.8 %30 $\beta\alpha$ 7.6 %30D 10.7 %30G 4.5 %32 $\alpha\beta$ S 58.8 %35 $\alpha\beta$ 49.3 30 $\alpha\beta$ 81.0 25nor30 $\alpha\beta$ 2.4 Σ terpanes 532 %Pregnane 7.9 %29 $\alpha\alpha$ S 54.9 %29 $\beta\beta$ 66.8 %27dia 48.1 %27ster. Norm 38.9 %28ster. Norm 25.1 %29ster. Norm 30.0 %30ster. Norm 6.0 Σ steranes 510 Hop/Ste 1.0	
Steranes, m/z 217:			

Country, well/location: NOR, 7222/6-1 S
Sample type, depth (m): MUD, 1636-1636 m MD RKB
Stratigraphy (Gr./Fm.):
Mud system:
Remarks:

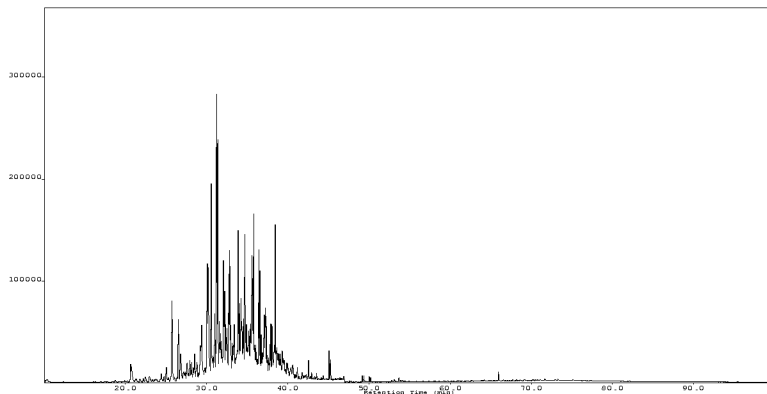
OrgID: 2497821, PlanID: 696690

StatoilHydro

Research Centre,
Bergen, Norway

Fluid

Aromatic hydrocarbons, TIC:

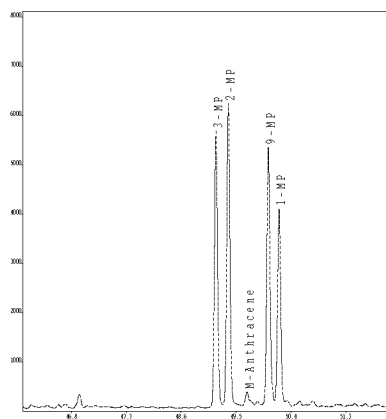


Parameter/amounts, ng/mg

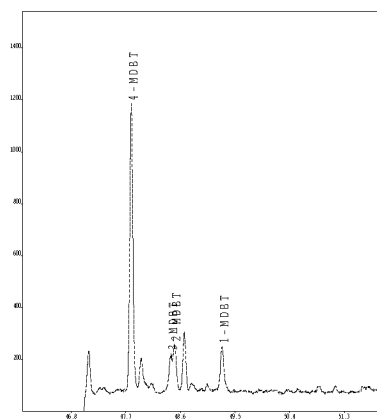
2/1MN	1.22
2/1EN	2.02
Phen.	32
MPI1	0.69
F1 (2+3/all MP)	0.56
F2 (2/all MP)	0.29
%TAS	36
DBT/P	0.02
F/P	1.59
BP/1.6DMN	0.41
4/1MDBT	6.30
3MP/R	7.73
ΣARO HC	566

Aromatic and Diamondoid hydrocarbons, GC/MS:

Methyl-phenanthrenes (m/z 192):



Methyl-dibenzothiophenes (m/z 198):



Country, well/location: NOR, 7222/6-1 S
Sample type, depth (m): FLUI, 1633.8-1633.8 m MD RKB
Stratigraphy (Gr./Fm.):
Mud system:
Remarks: TS-83102

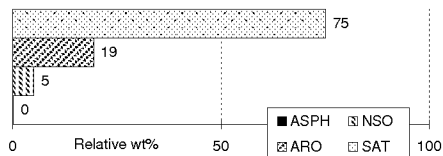
StatoilHydro

Research Centre,
Bergen, Norway

OrgID: 2499276, PlanID: 698807

Fluid

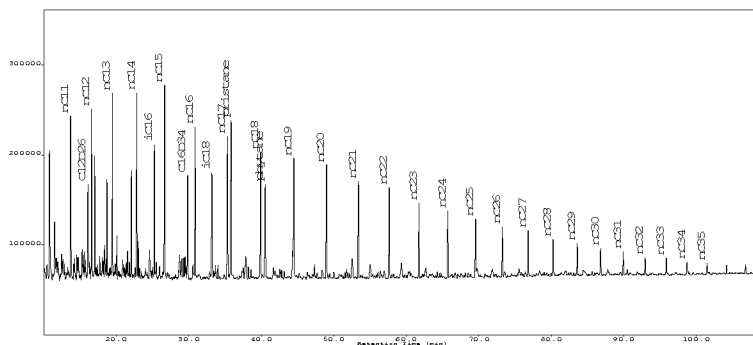
latroscan



δ13C fractions

Sat. -32.2
Aro. -31.1
NSO -30.8
Asph. -30.5
EOM / Oil

C15+ SAT-fraction hydrocarbons, GC/FID:

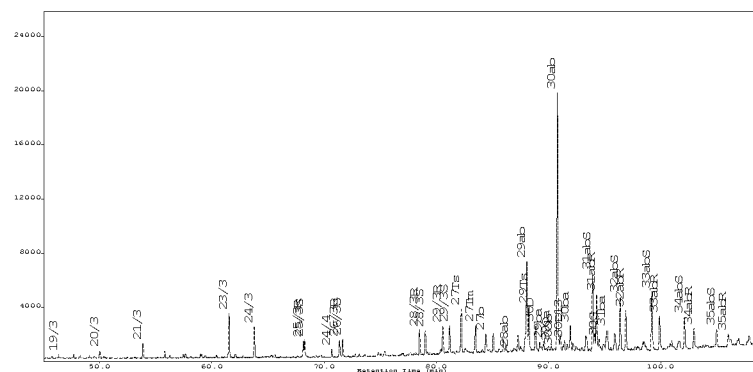


Parameter/amounts, µg/mg

Pr/nC₁₇ 1.4
Ph/nC₁₈ 1.0
Pr/Ph 1.6
nC₁₇/(C₁₇+C₂₇) 0.8
CPI2 1.0

nC₁₇ 5.6
Pristane 7.7
ΣC15-C35 78

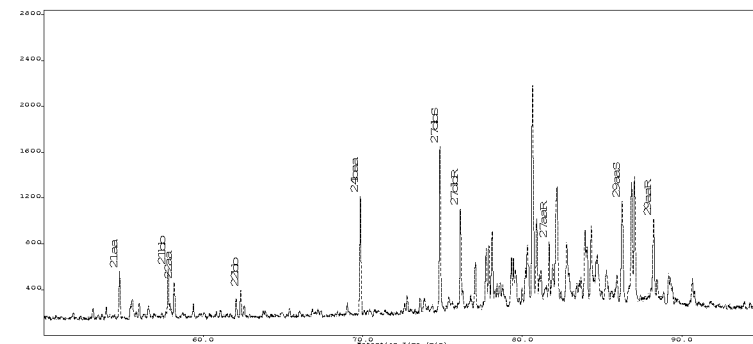
Terpanes, m/z 191:



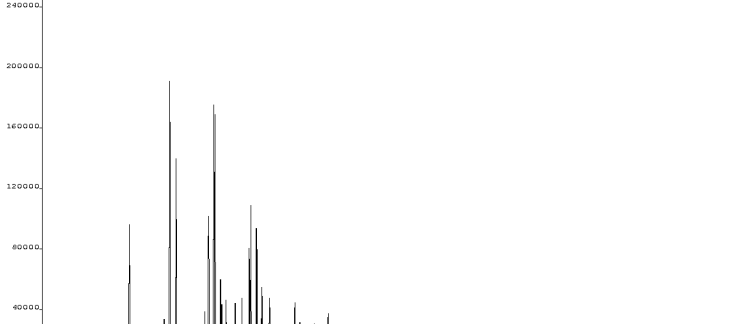
Parameter/amounts, ng/mg

%Tri 17.34
%20/3 4.7
%23/3 48.8
%24/4 14.4
C26/C25 1.1
%27Ts 61.6
%28αβ 1.0
%29Ts 33.0
%25nor30αβ 0.5
%29αβ 32.7
%30βα 8.8
%30D 13.1
%30G 5.6
%32αβS 57.1
%35αβ 37.4
30αβ 208.9
25nor30αβ 1.0
Σterpanes 951
%Pregnane 7.6
%29ααS 56.6
%29ββ 66.1
%27dia 49.0
%27ster. Norm 31.2
%28ster. Norm 20.9
%29ster. Norm 39.4
%30ster. Norm 8.6
Σsteranes 243
Hop/Ste 3.9

Steranes, m/z 217:



Country, well/location:	NOR, 7222/6-1 S	StatoilHydro Reserach Centre, Bergen, Norway
Sample type, depth (m):	FLUI, 1633.8-1633.8 m MD RKB	
Stratigraphy (Gr./Fm.):		
Mud system:		
Remarks:	TS-83102	
OrgID: 2499276, PlanID: 698807		<i>Fluid</i>

Aromatic hydrocarbons, TIC:		Parameter/amounts, ng/mg	
	2/1MN		1.34
	2/1EN		2.21
	Phen.		83
	MPI1		0.69
	F1 (2+3/all MP)		0.46
	F2 (2/all MP)		0.22
	%TAS		24
	DBT/P		0.01
	F/P		0.38
	BP/1.6DMN		0.34
	4/1MDBT		4.95
	3MP/R		6.10
	ΣARO HC		592

Aromatic and Diamondoid hydrocarbons, GC/MS:	
Methyl-phenanthrenes (m/z 192):	Methyl-dibenzothiophenes (m/z 198):

GC/MS chromatogram for Methyl-phenanthrenes (m/z 192). The x-axis is 'Retention Time (min)' from 30.0 to 32.0. The y-axis is intensity from 0 to 20,000. Peaks are labeled: Anthracene, 3-MP, 2-MP, 1-MP, and 9-MP.

GC/MS chromatogram for Methyl-dibenzothiophenes (m/z 198). The x-axis is 'Retention Time (min)' from 30.0 to 32.0. The y-axis is intensity from 0 to 300. Peaks are labeled: 4-MDBT, 2-MDBT, 1-MDBT, and 1-MDBT.

Country, well/location: NOR, 7222/6-1 S
Sample type, depth (m): MUD, 2500-2500 m MD RKB
Stratigraphy (Gr./Fm.):
Mud system:
Remarks:

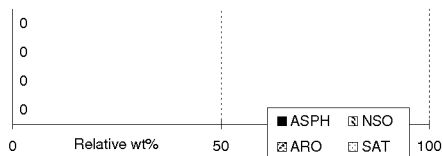
StatoilHydro

Research Centre,
Bergen, Norway

OrgID: 2497824, PlanID: 698693

Fluid

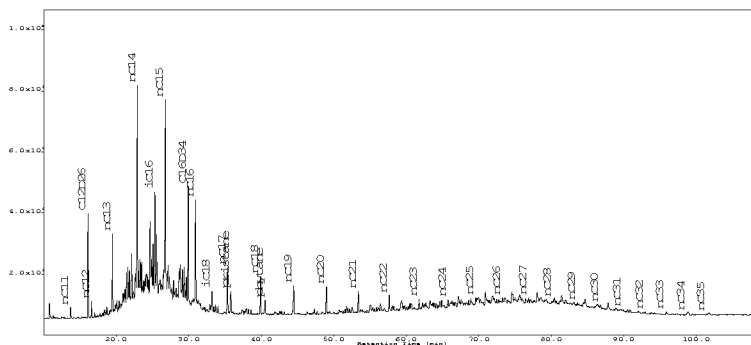
latroscan



δ13C fractions

Sat. -29.0
Aro. -28.1
NSO -29.2
Asph. -35.1
EOM / Oil

C15+ SAT-fraction hydrocarbons, GC/FID:

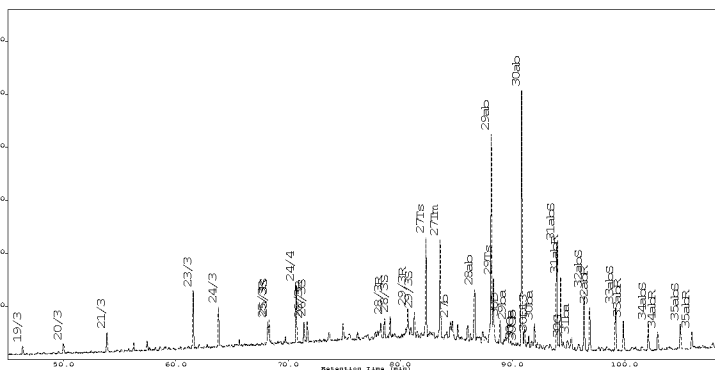


Parameter/amounts, µg/mg

Pr/nC₁₇ 0.6
Ph/nC₁₈ 0.5
Pr/Ph 1.6
nC₁₇/(C₁₇+C₂₇) 0.9
CPI2 1.4

nC₁₇ 1.3
Pristane 0.8
ΣC₁₅-C₃₅ 19

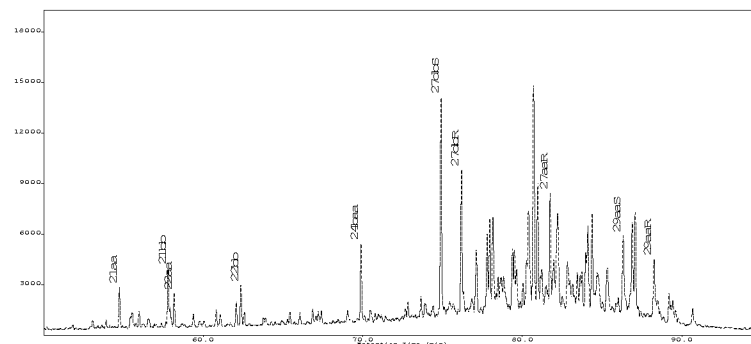
Terpanes, m/z 191:



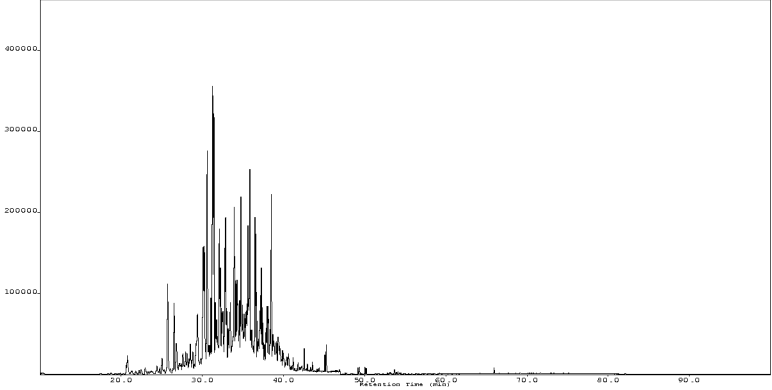
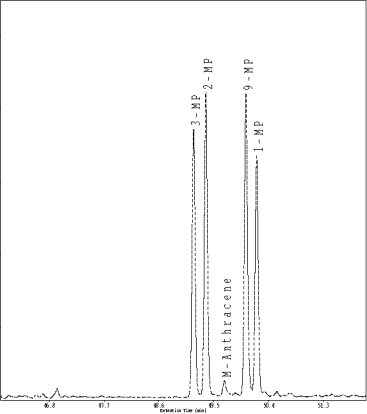
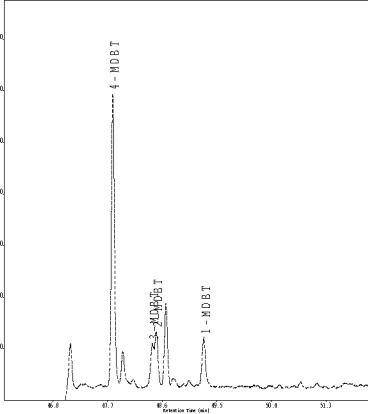
Parameter/amounts, ng/mg

%Tri 15.79
%20/3 4.5
%23/3 49.0
%24/4 49.0
C26/C25 1.0
%27Ts 50.6
%28αβ 23.7
%29Ts 23.7
%25nor30αβ 1.3
%29αβ 54.3
%30βα 8.4
%30D 12.5
%30G 3.1
%32αβS 58.0
%35αβ 47.1
30αβ 58.3
25nor30αβ 0.8
Σterpanes 390
%Pregnane 9.0
%29ααS 57.3
%29ββ 67.9
%27dia 47.9
%27ster. Norm 39.8
%28ster. Norm 26.0
%29ster. Norm 28.4
%30ster. Norm 5.9
Σsteranes 430
Hop/Ste 0.9

Steranes, m/z 217:



Country, well/location:	NOR, 7222/6-1 S	StatoilHydro Research Centre, Bergen, Norway
Sample type, depth (m):	MUD, 2500-2500 m MD RKB	
Stratigraphy (Gr./Fm.):		
Mud system:		
Remarks:		Fluid
OrgID: 2497824, PlanID: 698693		

Aromatic hydrocarbons, TIC:		Parameter/amounts, ng/mg
		2/1MN
		1.18
		2/1EN
		2.03
		Phen.
		75
		MPI1
		0.55
		F1 (2+3/all MP)
		0.51
		F2 (2/all MP)
		0.27
		%TAS
		36
Aromatic and Diamondoid hydrocarbons, GC/MS: Methyl-phenanthrenes (m/z 192):  Methyl-dibenzothiophenes (m/z 198): 		DBT/P
		0.02
		F/P
		1.71
		BP/1.6DMN
		0.34
		4/1MDBT
		5.87
		3MP/R
		8.13
		ΣARO HC
		1319

Country, well/location: NOR, NSO1	StatoilHydro Research Centre, Bergen, Norway
Sample type, depth (m): FLUI, 1-417.08 m MD RKB	
Stratigraphy (Gr./Fm.):	
Mud system:	
Remarks:	Fluid
OrgID: 2496948, PlanID: 698434	

latroscan	δ13C fractions
	Sat. Aro. NSO Asph. EOM / Oil

C15+ SAT-fraction hydrocarbons, GC/FID:	Parameter/amounts, µg/mg
	Pr/nC ₁₇ 0.5
	Ph/nC ₁₈ 0.4
	Pr/Ph 1.6
	nC ₁₇ /(C ₁₇ +C ₂₇) 0.8
	CPI2 1.0
	nC ₁₇ 5.8
	Pristane 3.1
	ΣC15-C35 66

Terpanes, m/z 191:	Parameter/amounts, ng/mg
	%Tri 5.67
	%20/3 8.5
	%23/3 45.9
	%24/4 42.3
	C26/C25 1.0
	%27Ts 51.2
	%28αβ 23.5
	%29Ts 30.1
	%25nor30αβ 11.0
	%29αβ 35.4
	%30βα 9.8
	%30D 12.6
	%30G 5.5
	%32αβS 57.9
	%35αβ 50.8
	30αβ 233.5
	25nor30αβ 29.0
	Σterpanes 1398
	%Pregnane 14.0
	%29ααS 55.1
	%29ββ 64.2

Steranes, m/z 217:	
	%27dia 56.4
	%27ster. Norm 30.5
	%28ster. Norm 26.3
	%29ster. Norm 31.6
	%30ster. Norm 11.6
	Σsteranes 542
	Hop/Ste 2.6

Country, well/location: NOR, NSO1
Sample type, depth (m): FLUI, 1-417.08 m MD RKB
Stratigraphy (Gr./Fm.):
Mud system:
Remarks:

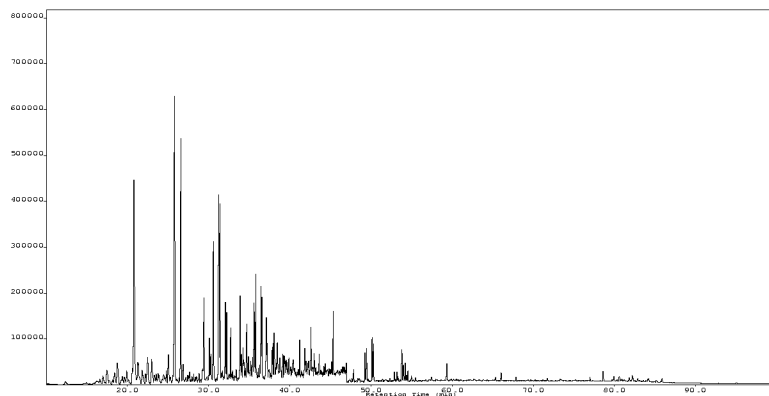
StatoilHydro

Research Centre,
Bergen, Norway

OrgID: 2496948, PlanID: 696434

Fluid

Aromatic hydrocarbons, TIC:

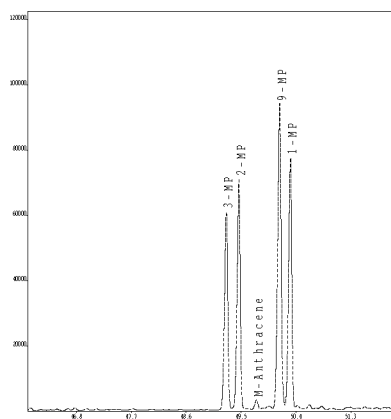


Parameter/amounts, ng/mg

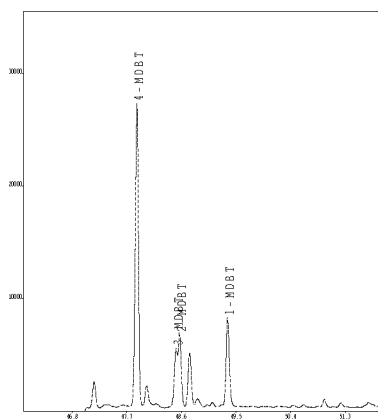
2/1MN	1.15
2/1EN	1.99
Phen.	243
MPI1	0.69
F1 (2+3/all MP)	0.44
F2 (2/all MP)	0.23
%TAS	23
DBT/P	0.05
F/P	0.35
BP/1.6DMN	0.98
4/1MDBT	3.42
3MP/R	2.13
ΣARO HC	1928

Aromatic and Diamondoid hydrocarbons, GC/MS:

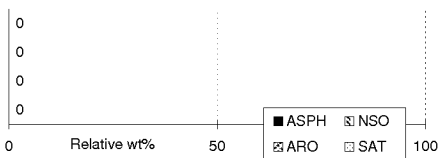
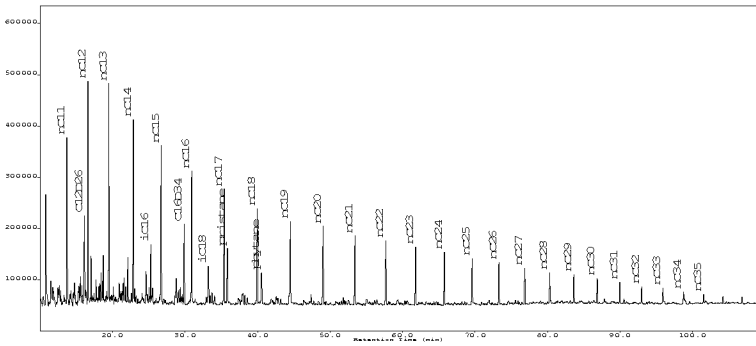
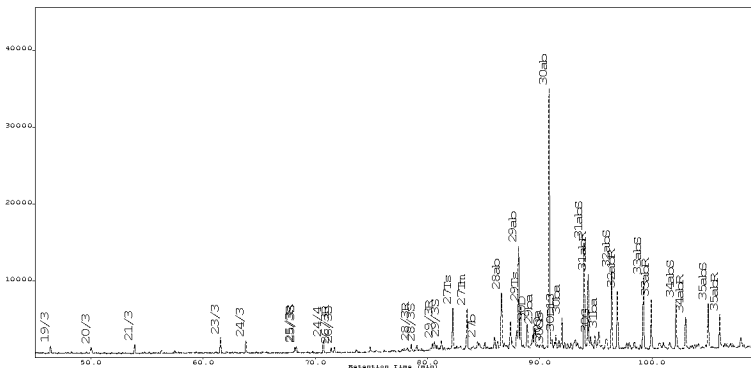
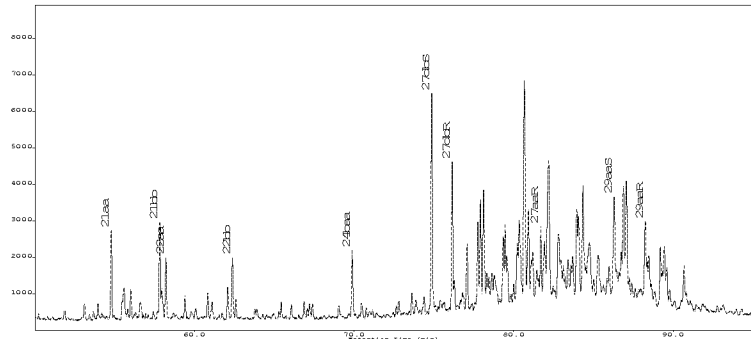
Methyl-phenanthrenes (m/z 192):



Methyl-dibenzothiophenes (m/z 198):



Country, well/location: NOR, NSO1	StatoilHydro Research Centre, Bergen, Norway
Sample type, depth (m): FLUI, 1-505.08 m MD RKB	
Stratigraphy (Gr./Fm.):	
Mud system:	
Remarks:	Fluid
OrgID: 2498067, PlanID: 698679	

latroscan 		δ13C fractions Sat. Aro. NSO Asph. EOM / Oil	
C15+ SAT-fraction hydrocarbons, GC/FID: 		Parameter/amounts, µg/mg	
		Pr/nC ₁₇ 0.5 Ph/nC ₁₈ 0.4 Pr/Ph 1.6 nC ₁₇ /(C ₁₇ +C ₂₇) 0.8 CPI2 1.0	
		nC ₁₇ 5.7 Pristane 3.1 ΣC15-C35 66	
Terpanes, m/z 191: 		Parameter/amounts, ng/mg	
		%Tri 5.69 %20/3 9.1 %23/3 45.9 %24/4 41.0 C26/C25 0.9 %27Ts 50.4 %28αβ 24.6 %29Ts 30.8 %25nor30αβ 11.5 %29αβ 35.9 %30βα 10.4 %30D 12.5 %30G 5.4 %32αβS 57.7 %35αβ 49.9	
Steranes, m/z 217: 		30αβ 218.1 25nor30αβ 28.4 Σterpanes 1341 %Pregnane 14.3 %29ααS 57.2 %29ββ 63.8 %27dia 57.0 %27ster. Norm 30.0 %28ster. Norm 26.8 %29ster. Norm 31.3 %30ster. Norm 11.9 Σsteranes 506 Hop/Ste 2.7	

Country, well/location: NOR, NSO1
Sample type, depth (m): FLUI, 1-505.08 m MD RKB
Stratigraphy (Gr./Fm.):
Mud system:
Remarks:

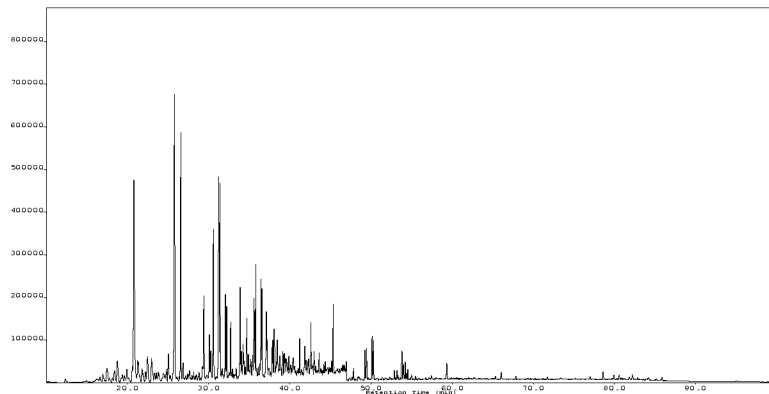
StatoilHydro

Research Centre,
Bergen, Norway

OrgID: 2498067, PlanID: 698679

Fluid

Aromatic hydrocarbons, TIC:

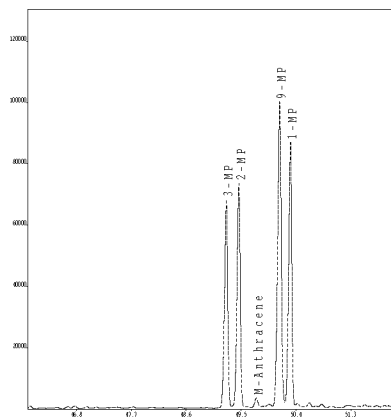


Parameter/amounts, ng/mg

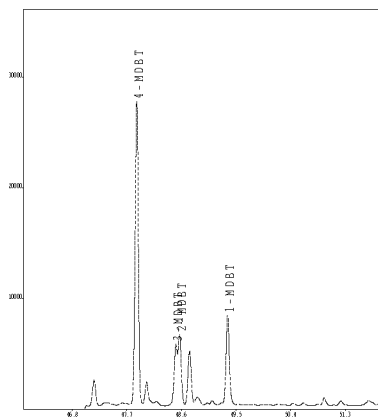
2/1MN	1.13
2/1EN	2.01
Phen.	283
MPI1	0.66
F1 (2+3/all MP)	0.43
F2 (2/all MP)	0.22
%TAS	24
DBT/P	0.05
F/P	0.30
BP/1.6DMN	0.89
4/1MDBT	3.42
3MP/R	2.41
ΣARO HC	1974

Aromatic and Diamonoid hydrocarbons, GC/MS:

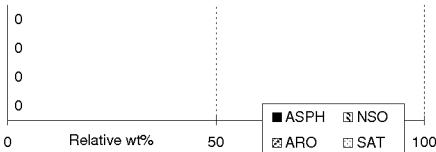
Methyl-phenanthrenes (m/z 192):

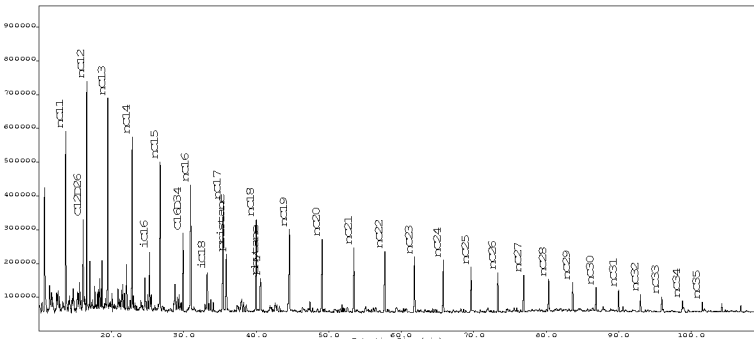


Methyl-dibenzothiophenes (m/z 198):



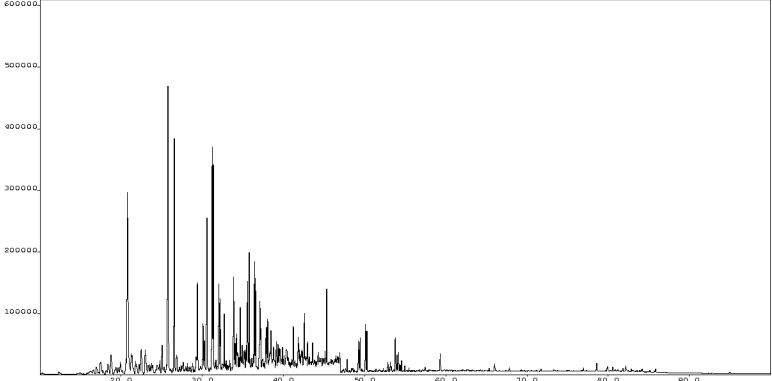
Country, well/location: NOR, NSO1	StatoilHydro Reserach Centre, Bergen, Norway
Sample type, depth (m): FLUI, 1-508.08 m MD RKB	
Stratigraphy (Gr./Fm.):	
Mud system:	
Remarks:	Fluid
OrgID: 2498068, PlanID: 698683	

latroscan	δ13C fractions
	Sat. Aro. NSO Asph. EOM / Oil

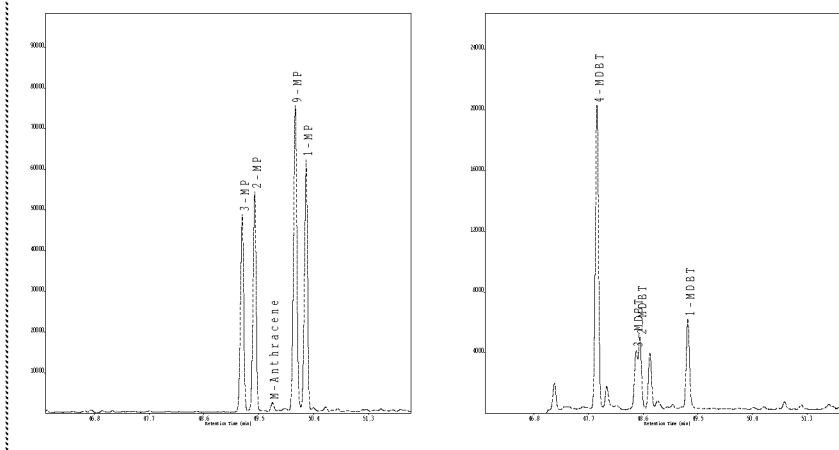
C15+ SAT-fraction hydrocarbons, GC/FID:	Parameter/amounts, µg/mg
	Pr/nC ₁₇ 0.5
	Ph/nC ₁₈ 0.4
	Pr/Ph 1.6
	nC ₁₇ /(C ₁₇ +C ₂₇) 0.8
	CPI2 1.0
	nC ₁₇ 5.8
	Pristane 3.1
	ΣC15-C35 67

Terpanes, m/z 191:	Parameter/amounts, ng/mg
	%Tri
	%20/3
	%23/3
	%24/4
	C26/C25
	%27Ts
	%28αβ
	%29Ts
	%25nor30αβ
	%29αβ
	%30βα
	%30D
	%30G
	%32αβS
	%35αβ
	30αβ
	25nor30αβ
Steranes, m/z 217:	Σterpanes 0
	%Pregnane
	%29ααS
	%29ββ
	%27dia
	%27ster. Norm
	%28ster. Norm
	%29ster. Norm
	%30ster. Norm
	Σsteranes 0
	Hop/Ste

Country, well/location:	NOR, NSO1	StatoilHydro Research Centre, Bergen, Norway
Sample type, depth (m):	FLUI, 1-508.08 m MD RKB	
Stratigraphy (Gr./Fm.):		
Mud system:		
Remarks:		Fluid
OrgID: 2498068, PlanID: 698683		

Aromatic hydrocarbons, TIC:	Parameter/amounts, ng/mg
	2/1MN 1.20
	2/1EN 2.05
	Phen. 2.79
	MPI1 0.64
	F1 (2+3/all MP) 0.43
	F2 (2/all MP) 0.23
	%TAS 24
	DBT/P 0.04
	F/P 0.31
	BP/1.6DMN 0.92
	4/1MDBT 3.38
	3MP/R 2.29
	ΣARO HC 1916

Aromatic and Diamondoid hydrocarbons, GC/MS:	
Methyl-phenanthrenes (m/z 192):	Methyl-dibenzothiophenes (m/z 198):



Country, well/location: NOR, NSO1
Sample type, depth (m): FLUI, 1-516.08 m MD RKB
Stratigraphy (Gr./Fm.):
Mud system:
Remarks:

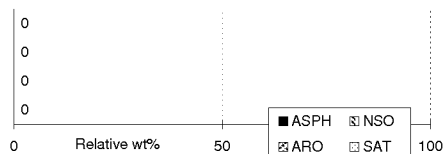
StatoilHydro

Research Centre,
Bergen, Norway

OrgID: 2498069, PlanID: 698684

Fluid

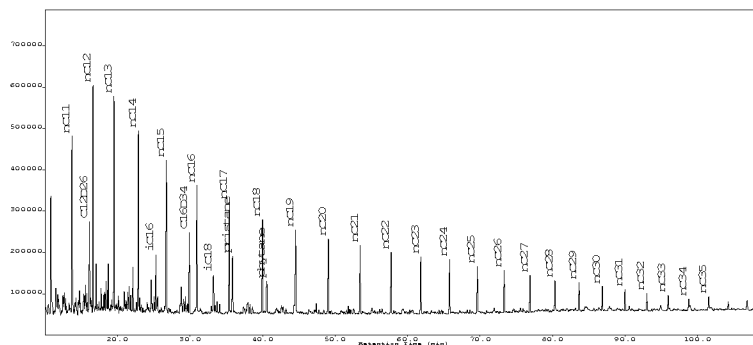
Iatroscan



$\delta^{13}\text{C}$ fractions

Sat.
Aro.
NSO
Asph.
EOM / Oil

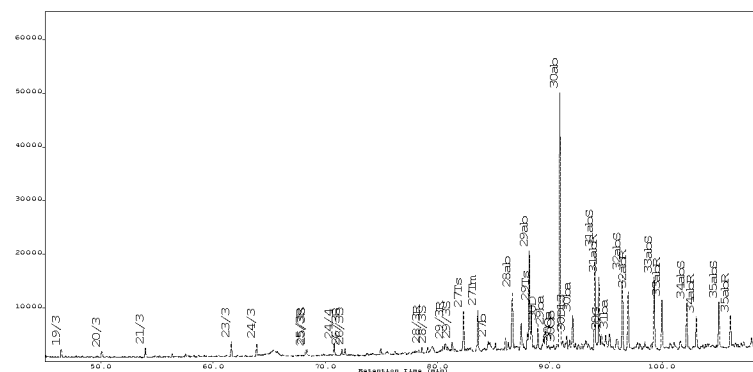
C15+ SAT-fraction hydrocarbons, GC/FID:



Parameter/amounts, $\mu\text{g}/\text{mg}$

Pr/nC ₁₇	0.6
Ph/nC ₁₈	0.4
Pr/Ph	1.7
nC ₁₇ /(C ₁₇ +C ₂₇)	0.8
CPI2	1.0
nC ₁₇	5.7
Pristane	3.2
$\Sigma\text{C}_{15}\text{-C}_{35}$	67

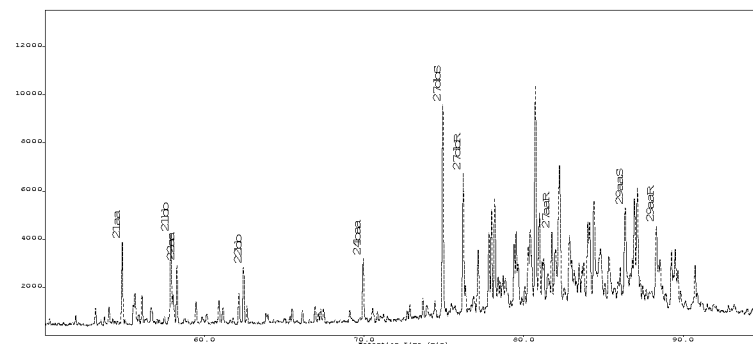
Terpanes, m/z 191:



Parameter/amounts, ng/mg

%Tri	5.93
%20/3	8.8
%23/3	43.1
%24/4	38.4
C26/C25	0.9
%27Ts	48.7
%28 $\alpha\beta$	26.0
%29Ts	30.5
%25nor30 $\alpha\beta$	11.7
%29 $\alpha\beta$	36.5
%30 $\beta\alpha$	11.3
%30D	13.5
%30G	6.5
%32 $\alpha\beta\text{S}$	56.7
%35 $\alpha\beta$	49.8
30 $\alpha\beta$	216.1
25nor30 $\alpha\beta$	28.8
$\Sigma\text{terpanes}$	1339
%Pregnane	14.0
%29 $\alpha\alpha\text{S}$	54.0
%29 $\beta\beta$	63.2
%27dia	55.2
%27ster. Norm	32.2
%28ster. Norm	25.7
%29ster. Norm	31.0
%30ster. Norm	11.1
$\Sigma\text{steranes}$	517
Hop/Ste	2.6

Steranes, m/z 217:



Country, well/location: NOR, NSO1
Sample type, depth (m): FLUI, 1-516.08 m MD RKB
Stratigraphy (Gr./Fm.):
Mud system:
Remarks:

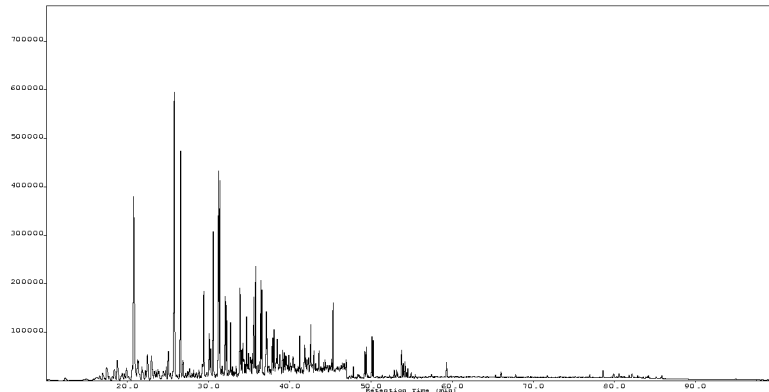
OrgID: 2498069, PlanID: 698684

StatoilHydro

Research Centre,
Bergen, Norway

Fluid

Aromatic hydrocarbons, TIC:

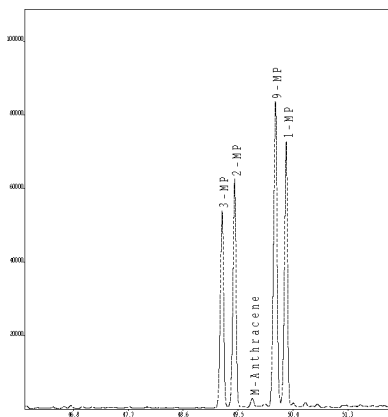


Parameter/amounts, ng/mg

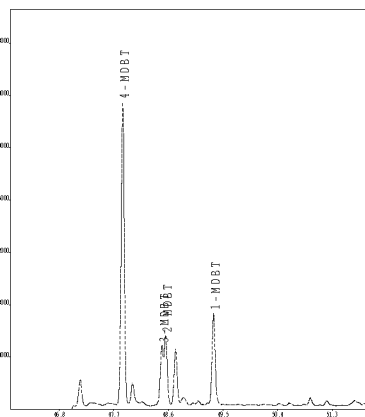
2/1MN	1.23
2/1EN	1.97
Phen.	281
MPI1	0.64
F1 (2+3/all MP)	0.43
F2 (2/all MP)	0.23
%TAS	25
DBT/P	0.04
F/P	0.31
BP/1.6DMN	0.97
4/1MDBT	3.31
3MP/R	2.31
ΣARO HC	1942

Aromatic and Diamantoid hydrocarbons, GC/MS:

Methyl-phenanthrenes (m/z 192):



Methyl-dibenzothiophenes (m/z 198):



Country, well/location: NOR, NSO1	StatoilHydro Reserach Centre, Bergen, Norway
Sample type, depth (m): FLUI, 1-520.08 m MD RKB	
Stratigraphy (Gr./Fm.):	
Mud system:	
Remarks:	Fluid
OrgID: 2498070, PlanID: 698685	

latroscan	δ13C fractions
	Sat. Aro. NSO Asph. EOM / Oil

C15+ SAT-fraction hydrocarbons, GC/FID:	Parameter/amounts, µg/mg
	Pr/nC ₁₇ 0.5
	Ph/nC ₁₈ 0.4
	Pr/Ph 1.6
	nC ₁₇ /(C ₁₇ +C ₂₇) 0.8
	CPI2 1.0
	nC ₁₇ 5.8
	Pristane 3.1
	ΣC15-C35 66

Terpanes, m/z 191:	Parameter/amounts, ng/mg
	%Tri 5.68
	%20/3 9.2
	%23/3 44.8
	%24/4 41.0
	C26/C25 0.9
	%27Ts 50.0
	%28αβ 24.1
	%29Ts 30.4
	%25nor30αβ 10.9
	%29αβ 36.1
	%30βα 10.1
	%30D 12.5
	%30G 5.5
	%32αβS 56.2
	%35αβ 50.1
	30αβ 228.8
	25nor30αβ 28.0
	Σterpanes 1384
	%Pregnane 14.3
	%29ααS 56.1
	%29ββ 62.6

Steranes, m/z 217:	
	%27dia 57.8
	%27ster. Norm 30.8
	%28ster. Norm 26.1
	%29ster. Norm 31.4
	%30ster. Norm 11.7
	Σsteranes 519
	Hop/Ste 2.7

Country, well/location: NOR, NSO1
Sample type, depth (m): FLUI, 1-520.08 m MD RKB
Stratigraphy (Gr./Fm.):
Mud system:
Remarks:

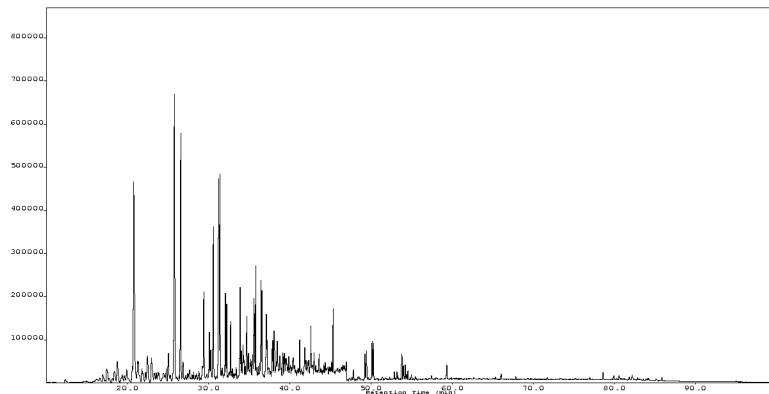
OrgID: 2498070, PlanID: 698685

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Bergen, Norway

Fluid

Aromatic hydrocarbons, TIC:

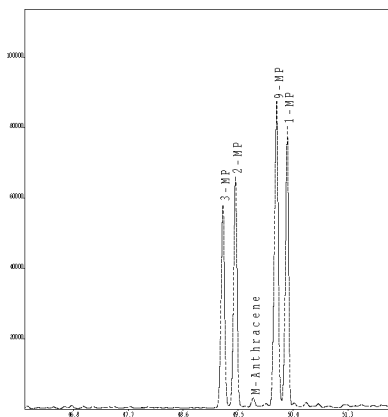


Parameter/amounts, ng/mg

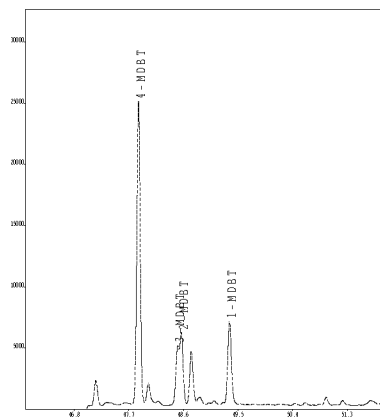
2/1MN	1.13
2/1EN	2.04
Phen.	286
MPI1	0.64
F1 (2+3/all MP)	0.43
F2 (2/all MP)	0.23
%TAS	23
DBT/P	0.05
F/P	0.29
BP/1.6DMN	0.93
4/1MDBT	3.64
3MP/R	2.35
ΣARO HC	1958

Aromatic and Diamonoid hydrocarbons, GC/MS:

Methyl-phenanthrenes (m/z 192):



Methyl-dibenzothiophenes (m/z 198):



Country, well/location:	NOR, NSO1	StatoilHydro Reserach Centre, Bergen, Norway
Sample type, depth (m):	FLUI, 1-520.08 m MD RKB	
Stratigraphy (Gr./Fm.):		
Mud system:		
Remarks:		Fluid
OrgID: , PlanID:		

Gaseous HC:	Gaseous HC, wt%
Methane Ethane Propane n-Butane iso-Butane	Wetness iC4/nC4 C2/C3 CO2
	Gaseous HC, isotopes ‰ d13C C1 d13C C2 d13C C3 d13C C4 d13C iC4 dD C1

Light HC C5-10, GC/FID:	Parameter/amounts, ug/mg
	Hepane value 22.6 Isohept. value 1.5 Paraffinicity 0.7 Aromaticity 0.6 nC₆/Benzene 2.4 nC₇/Toluene 1.2 ΣC5-C20 225

Whole oil, GC/FID:	Parameter/amounts, ug/mg

Country, well/location: NOR, NSO1
Sample type, depth (m): FLUI, 1-626.08 m MD RKB
Stratigraphy (Gr./Fm.):
Mud system:
Remarks:

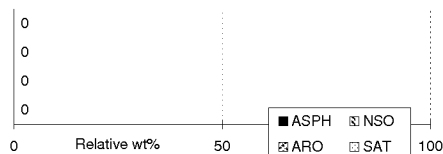
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Research Centre,
Bergen, Norway

OrgID: 2499403, PlanID: 696885

Fluid

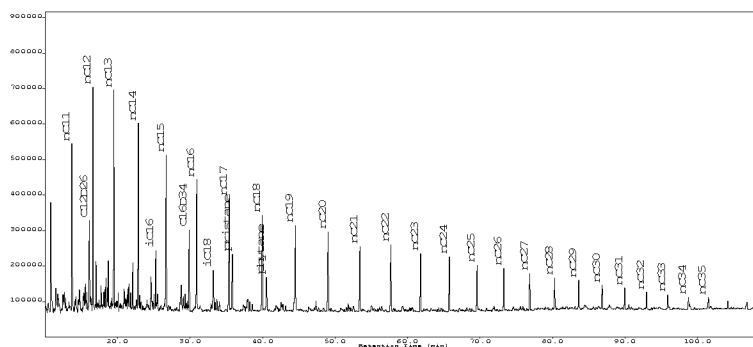
latroscan



$\delta^{13}\text{C}$ fractions

Sat.
Aro.
NSO
Asph.
EOM / Oil

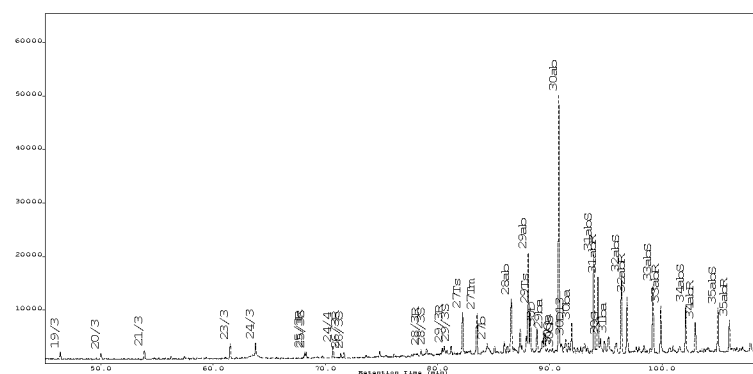
C15+ SAT-fraction hydrocarbons, GC/FID:



Parameter/amounts, $\mu\text{g}/\text{mg}$

Pr/nC ₁₇	0.5
Ph/nC ₁₈	0.4
Pr/Ph	1.6
nC ₁₇ /(C ₁₇ +C ₂₇)	0.8
CPI2	1.0
nC ₁₇	5.7
Pristane	3.1
$\Sigma\text{C}_{15}\text{-C}_{35}$	66

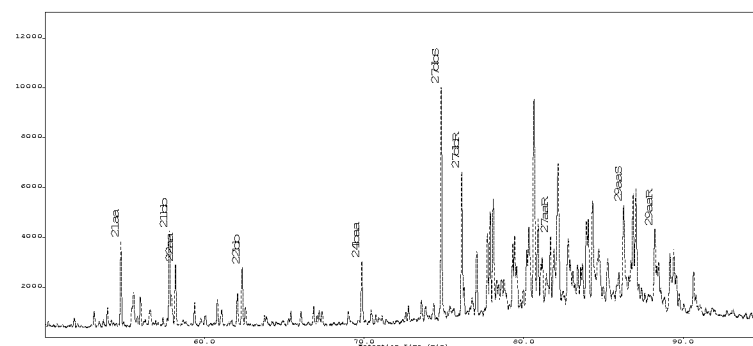
Terpanes, m/z 191:



Parameter/amounts, ng/mg

%Tri	5.83
%20/3	9.1
%23/3	45.1
%24/4	39.6
C26/C25	0.8
%27Ts	50.9
%28 $\alpha\beta$	24.2
%29Ts	32.5
%25nor30 $\alpha\beta$	11.0
%29 $\alpha\beta$	35.6
%30 $\beta\alpha$	10.1
%30D	12.2
%30G	5.6
%32 $\alpha\beta\text{S}$	57.9
%35 $\alpha\beta$	49.7
30 $\alpha\beta$	227.3
25nor30 $\alpha\beta$	28.1
$\Sigma\text{terpanes}$	1381
%Pregnane	14.3
%29 $\alpha\alpha\text{S}$	56.3
%29 $\beta\beta$	63.7
%27dia	58.1
%27ster. Norm	30.4
%28ster. Norm	27.0
%29ster. Norm	31.8
%30ster. Norm	10.7
$\Sigma\text{steranes}$	533
Hop/Ste	2.6

Steranes, m/z 217:



Country, well/location: NOR, NSO1
Sample type, depth (m): FLUI, 1-626.08 m MD RKB
Stratigraphy (Gr./Fm.):
Mud system:
Remarks:

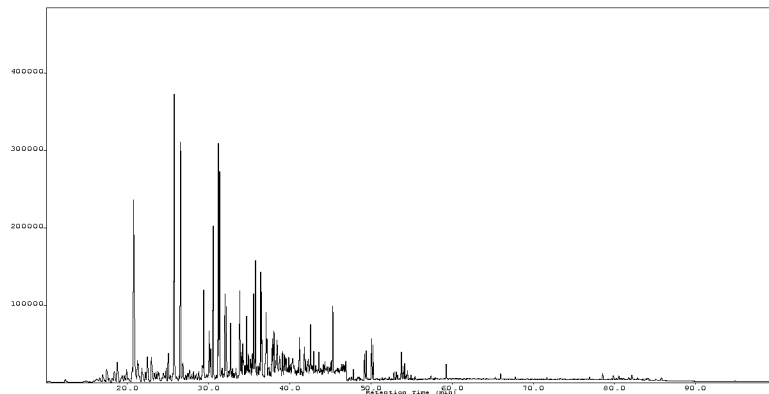
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Bergen, Norway

OrgID: 2499403, PlanID: 696885

Fluid

Aromatic hydrocarbons, TIC:



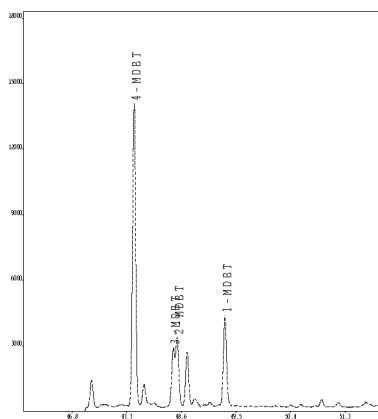
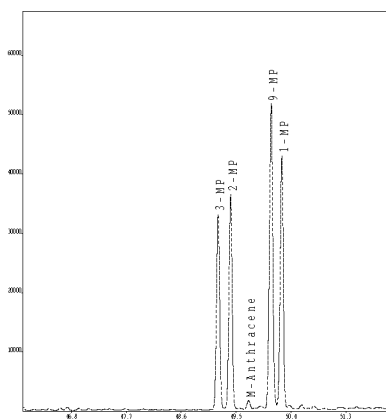
Parameter/amounts, ng/mg

2/1MN	1.18
2/1EN	2.04
Phen.	277
MPI1	0.63
F1 (2+3/all MP)	0.42
F2 (2/all MP)	0.22
%TAS	25
DBT/P	0.05
F/P	0.30
BP/1.6DMN	0.95
4/1MDBT	3.31
3MP/R	2.27
ΣARO HC	1881

Aromatic and Diamonoid hydrocarbons, GC/MS:

Methyl-phenanthrenes (m/z 192):

Methyl-dibenzothiophenes (m/z 198):



Geochemistry Data Report –
Oil and Gas analyses
Well 7222/6-1 S (Obesum)



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CONTENTS

Table 1. Number of analyses performed	2
Figure 1. Gas composition (volume based).....	3
Figure 2. Isotopic composition	4
GC-WO Star diagrams	5
Table 2. GC of Whole Oil (parameters)	8
Table 3. Gas Composition (volume-%).....	9
Table 4. Gas Isotopes ($\delta^{13}\text{C}$ (‰ PDB) & δD (‰ SMOW)).....	9
Table 5. Density and topping.....	9
Table 6. GC of Whole Oil (peak area)	10
Table 7. GC of Whole Oil (amounts in ng/g).....	13
GC Chromatograms of Whole Oil.....	16
GC Chromatograms of Whole Oil - detailed.....	19
Experimental Procedures.....	23

Table 1. Number of analyses performed

Analysis	Fluid	Gas	Total
Gas composition		4	4
Stable isotopes of gas		4	4
Density/Topping	2		2
GC of Whole Oil	2		2

Table 2. GC of Whole Oil (parameters)

Well	Sample type	Sample info	Upper Depth (m)	Lower Depth (m)	APT ID	A	B	X	W	C	I	F	H	U	R	S
7222/6-1 S	Oil	PT-2346	1633.80	1633.80	49338	0.04	0.33	0.39	0.74	0.98	1.26	0.69	21.81	1.09	2.51	23.67
7222/6-1 S	Oil	TS-83102	1633.80	1633.80	51580	0.05	0.33	0.40	0.73	0.95	1.27	0.69	21.94	1.11	2.55	25.35

A: Benz/n-C₆
B: Tol/n-C₇
X: m+p-Xyl/n-C₈
W: Benz*10/CyC₆
C: (n-C₆+n-C₇)/(CyC₆+MCyC₆)
I: (2-MC₆+3-MC₆)/(c1,3-DMCyC₅+t1,3-DMCyC₅+t1,2-DMCyC₅)
F: n-C₇/MCyC₆
H: n-C₇*100/(CyC₆+2-MC₆+3-MC₆+c1,3-DMCyC₅+t1,3-DMCyC₅+t1,2-DMCyC₅+n-C₇+MCyC₆)
U: CyC₆/MCyC₅
R: n-C₇/2-MC₆
S: n-C₆/2,2-DMC₄

Table 3. Gas Composition (volume-%)

Well	Sample type	Sample info	Upper Depth (m)	Lower Depth (m)	APT ID	C1%	C2%	C3%	iC4%	nC4%	iC5%	nC5%	C6+%	CO2%	Sum C1-C5	Wetness	iC4/nC4	ppm
7222/6-1 S	Cylinder	PT-5102	1625	1625	49340	90.2	5.2	3.1	0.51	0.68	0.16	0.13	0.06	0.05	99.9	9.5	0.75	838895
7222/6-1 S	Cylinder	PT-2346	1633.80	1633.80	49341	90.7	3.8	2.9	0.68	1.1	0.39	0.36	0.16	0.03	99.8	8.5	0.64	884487
7222/6-1 S	cylinder	PT-5102	1633.80	1633.80	51578	90.5	3.7	2.9	0.69	1.0	0.37	0.33	0.38	0.04	99.6	8.4	0.66	996457
7222/6-1 S	cylinder	TS-83102	1633.80	1633.80	51579	70.0	7.3	9.7	2.9	5.1	1.9	1.7	1.4	0.08	98.5	26.3	0.58	946353

Table 4. Gas Isotopes ($\delta^{13}C$ (‰ PDB) & δD (‰ SMOW))

Well	Sample type	Sample info	Upper Depth (m)	Lower Depth (m)	APT ID	C1 $\delta^{13}C$	C2 $\delta^{13}C$	C3 $\delta^{13}C$	i-C4 $\delta^{13}C$	n-C4 $\delta^{13}C$	C1 δD
7222/6-1 S	Cylinder	PT-5102	1625	1625	49340	-44.4	-36.1	-33.4	-33.4	-33.3	-192
7222/6-1 S	Cylinder	PT-2346	1633.80	1633.80	49341	-44.2	-36.5	-33.5	-33.6	-33.6	-183
7222/6-1 S	cylinder	PT-5102	1633.80	1633.80	51578	-44.7	-35.8	-33.3	-32.7	-32.3	-184
7222/6-1 S	cylinder	TS-83102	1633.80	1633.80	51579	-45.1	-35.7	-33.6	-32.8	-32.8	-190

Table 5. Density and topping

Well	Sample type	Sample info	Upper Depth (m)	Lower Depth (m)	APT ID	Density (g/cm ³)	%API
7222/6-1 S	Oil	PT-2346	1633.80	1633.80	49338	0.815	42.1
7222/6-1 S	Oil	TS-83102	1633.80	1633.80	51580	0.822	40.6

Table 6. GC of Whole Oil (peak area)

Well	Sample type	Sample info	Upper Depth (m)	Lower Depth (m)	APT ID	IS 2,2,4-TMC5	n-C3	i-C4	n-C4	i-C5	n-C5	2,2-DMC4	CyC5	2,3-DMC4	2-MC5	3-MC5	n-C6	2,2-DMC5	MCyC5	2,4-DMC5
7222/6-1 S	Oil	PT-2346	1633.80	1633.80	49338	1.41e5	6.30e4	8.05e4	2.05e5	2.18e5	2.55e5	1.01e4	2.26e4	2.21e4	1.62e5	9.85e4	2.40e5	7.07e3	1.30e5	1.47e4
7222/6-1 S	Oil	TS-83102	1633.80	1633.80	51580	1.32e5	3.23e4	4.78e4	1.28e5	1.65e5	2.01e5	8.43e3	1.92e4	1.91e4	1.41e5	8.68e4	2.14e5	6.67e3	1.19e5	1.34e4

Table 6. continued, GC of Whole Oil (peak area)

Well	Sample type	Sample info	Upper Depth (m)	Lower Depth (m)	APT ID	2,2,3-TMC4	Benz	3,3-DMC5	CyC6	2-MC6	2,3-DMC5	1,1-DMCyC5	3-MC6	c-1,3-DMCyC5	1-1,3-DMCyC5	3-EC5	1-1,2-DMCyC5	n-C7	c-1,2-DMCyC5	MCyC6
7222/6-1 S	Oil	PT-2346	1633.80	1633.80	49338	2.06e3	1.05e4	3.93e3	1.42e5	9.48e4	2.45e4	2.48e4	1.09e5	4.64e4	4.31e4	7.31e3	7.16e4	2.37e5	0.00e0	3.44e5
7222/6-1 S	Oil	TS-83102	1633.80	1633.80	51580	1.80e3	9.64e3	3.53e3	1.32e5	8.90e4	2.31e4	2.34e4	1.03e5	4.37e4	4.04e4	7.54e3	6.76e4	2.26e5	0.00e0	3.30e5

Table 6. continued, GC of Whole Oil (peak area)

Well	Sample type	Sample info	Upper Depth (m)	Lower Depth (m)	APT ID	1,1,3-TMCyC5	ECyC5	2,5-DMC6	2,2,3-TMC5/2,4-DMC6	c-1,1,2,4-TMCyC5	3,3-DMC6	1c-1,2,3-TMCyC5	2,3,4-TMC5	Tol	2,3-DMC6	2-MC7	4-MC7	3-MC7	c-1,3-DMCyC6	1-1,4-DMCyC6
7222/6-1 S	Oil	PT-2346	1633.80	1633.80	49338	4.00e4	1.48e4	1.65e4	1.89e4	3.25e4	5.00e3	3.56e4	1.06e3	7.76e4	2.42e4	1.21e5	3.30e4	7.94e4	1.08e5	4.24e4
7222/6-1 S	Oil	TS-83102	1633.80	1633.80	51580	3.83e4	1.41e4	1.57e4	1.81e4	3.15e4	4.73e3	3.43e4	9.30e2	7.37e4	2.32e4	1.17e5	3.21e4	7.34e4	1.02e5	4.06e4

Table 6. continued, GC of Whole Oil (peak area)

Well	Sample type	Sample info	Upper Depth (m)	Lower Depth (m)	APT ID	1,1-DMCyC6	1,1,2-DMCyC6	n-C8	E-CyC6	i-C9	E-Benz	m-Xyl	p-Xyl	4-MC8	2-MC8	3-MC8	o-Xyl	n-C9	i-C10	n-C10
7222/6-1 S	Oil	PT-2346	1633.80	1633.80	49338	1.65e4	5.56e4	2.35e5	8.48e4	6.33e4	1.92e4	7.43e4	1.77e4	3.13e4	3.97e4	5.98e4	4.24e4	1.91e5	6.05e4	1.63e5
7222/6-1 S	Oil	TS-83102	1633.80	1633.80	51580	1.61e4	5.37e4	2.27e5	8.33e4	6.17e4	1.81e4	7.19e4	1.90e4	3.07e4	3.90e4	5.82e4	4.09e4	1.86e5	5.86e4	1.58e5

Table 6. continued, GC of Whole Oil (peak area)

Well	Sample type	Sample info	Upper Depth (m)	Lower Depth (m)	APT ID	i-C11	n-C11	n-C12	i-C13	i-C14	n-C13	i-C15	n-C14	i-C16	n-C15	n-C16	i-C18	n-C17	i-C19	n-C18
7222/6-1 S	Oil	PT-2346	1633.80	1633.80	49338	6.92e4	1.35e5	1.06e5	7.62e4	7.43e4	1.07e5	6.24e4	1.06e5	8.83e4	1.19e5	9.92e4	7.92e4	9.32e4	1.36e5	8.02e4
7222/6-1 S	Oil	TS-83102	1633.80	1633.80	51580	6.82e4	1.37e5	1.05e5	7.52e4	7.41e4	1.05e5	6.06e4	1.04e5	8.67e4	1.15e5	9.58e4	7.99e4	8.99e4	1.34e5	7.84e4

Table 6. continued, GC of Whole Oil (peak area)

Well	Sample type	Sample info	Upper Depth (m)	Lower Depth (m)	APT ID	i-C20	n-C19	n-C20	n-C21	n-C22	n-C23	n-C24	n-C25	n-C26	n-C27	n-C28	n-C29	n-C30	n-C31	n-C32
7222/6-1 S	Oil	PT-2346	1633.80	1633.80	49338	8.32e4	8.70e4	7.74e4	6.45e4	5.91e4	4.92e4	4.20e4	3.61e4	3.31e4	2.85e4	2.19e4	1.93e4	1.62e4	1.49e4	1.07e4
7222/6-1 S	Oil	TS-83102	1633.80	1633.80	51580	8.42e4	8.14e4	7.09e4	6.12e4	5.67e4	4.68e4	4.00e4	3.46e4	3.27e4	2.82e4	2.15e4	2.02e4	1.58e4	1.52e4	1.11e4

Table 6. continued, GC of Whole Oil (peak area)

Well	Sample type	Sample info	Upper Depth (m)	Lower Depth (m)	APT ID	n-C33	n-C34	n-C35	n-C36
7222/6-1 S	Oil	PT-2346	1633.80	1633.80	49338	9.66e3	8.75e3	5.85e3	4.87e3
7222/6-1 S	Oil	TS-83102	1633.80	1633.80	51580	9.50e3	8.52e3	6.45e3	5.51e3

Table 7. GC of Whole Oil (amounts in ng/g)

Well	Sample type	Sample info	Upper Depth (m)	Lower Depth (m)	APT ID	IS 2,2,4-TMC5	n-C3	i-C4	n-C4	i-C5	n-C5	2,2-DMC4	CyC5	2,3-DMC4	2-MC5	3-MC5	n-C6	2,2-DMC5	MCyC5	2,4-DMC5
7222/6-1 S	Oil	PT-2346	1633.80	1633.80	49338	7.07e6	3.24e6	4.10e6	1.04e7	1.11e7	1.29e7	5.10e5	1.11e6	1.11e6	8.15e6	4.96e6	1.21e7	3.55e5	6.40e6	7.38e5
7222/6-1 S	Oil	TS-83102	1633.80	1633.80	51580	6.95e6	1.75e6	2.56e6	6.84e6	8.75e6	1.07e7	4.46e5	9.93e5	1.01e6	7.44e6	4.59e6	1.13e7	3.51e5	6.13e6	7.09e5

Table 7. continued, GC of Whole Oil (amounts in ng/g)

Well	Sample type	Sample info	Upper Depth (m)	Lower Depth (m)	APT ID	2,2,3-TMC4	Benz	3,3-DMC5	CyC6	2-MC6	2,3-DMC5	1,1-DMCyC5	3-MC6	c-1,3-DMCyC5	1-1,3-DMCyC5	3-EC5	1-1,2-DMCyC5	n-C7	c-1,2-DMCyC5	MCyC6
7222/6-1 S	Oil	PT-2346	1633.80	1633.80	49338	1.03e5	4.82e5	1.97e5	7.00e6	4.76e6	1.23e6	1.22e6	5.47e6	2.28e6	2.12e6	3.67e5	3.52e6	1.19e7	0.00e0	1.69e7
7222/6-1 S	Oil	TS-83102	1633.80	1633.80	51580	9.50e4	4.63e5	1.86e5	6.82e6	4.69e6	1.22e6	1.21e6	5.43e6	2.26e6	2.09e6	3.97e5	3.49e6	1.19e7	0.00e0	1.70e7

Table 7. continued, GC of Whole Oil (amounts in ng/g)

Well	Sample type	Sample info	Upper Depth (m)	Lower Depth (m)	APT ID	1,1,3-TMCyC5	ECyC5	2,5-DMC6	2,2,3-TMC5/2,4-DMC6	c-1,1,2,4-TMCyC5	3,3-DMC6	1c-1,2,3-TMCyC5	2,3,4-TMC5	Tol	2,3-DMC6	2-MC7	4-MC7	3-MC7	c-1,3-DMCyC6	1-1,4-DMCyC6
7222/6-1 S	Oil	PT-2346	1633.80	1633.80	49338	1.97e6	7.26e5	8.25e5	9.44e5	1.60e6	2.50e5	1.75e6	5.32e4	3.58e6	1.21e6	6.04e6	1.65e6	3.98e6	5.31e6	2.09e6
7222/6-1 S	Oil	TS-83102	1633.80	1633.80	51580	1.98e6	7.30e5	8.26e5	9.54e5	1.63e6	2.49e5	1.77e6	4.89e4	3.58e6	1.22e6	6.14e6	1.69e6	3.86e6	5.27e6	2.10e6

Table 7. continued, GC of Whole Oil (amounts in ng/g)

Well	Sample type	Sample info	Upper Depth (m)	Lower Depth (m)	APT ID	1,1-DMCyC6	1,1,2-DMCyC6	n-C8	E-CyC6	i-C9	E-Benz	m-Xyl	p-Xyl	4-MC8	2-MC8	3-MC8	o-Xyl	n-C9	i-C10	n-C10
7222/6-1 S	Oil	PT-2346	1633.80	1633.80	49338	8.09e5	2.73e6	1.18e7	4.17e6	3.16e6	8.92e5	3.46e6	8.24e5	1.56e6	1.99e6	2.99e6	1.98e6	9.54e6	3.02e6	8.13e6
7222/6-1 S	Oil	TS-83102	1633.80	1633.80	51580	8.33e5	2.77e6	1.20e7	4.30e6	3.24e6	8.84e5	3.52e6	9.29e5	1.61e6	2.05e6	3.06e6	2.00e6	9.79e6	3.07e6	8.30e6

Table 7. continued, GC of Whole Oil (amounts in ng/g)

Well	Sample type	Sample info	Upper Depth (m)	Lower Depth (m)	APT ID	i-C11	n-C11	n-C12	i-C13	i-C14	n-C13	i-C15	n-C14	i-C16	n-C15	n-C16	i-C18	n-C17	i-C19	n-C18
7222/6-1 S	Oil	PT-2346	1633.80	1633.80	49338	3.45e6	6.75e6	5.26e6	3.79e6	3.69e6	5.31e6	3.10e6	5.25e6	4.38e6	5.90e6	4.92e6	3.92e6	4.63e6	6.72e6	3.98e6
7222/6-1 S	Oil	TS-83102	1633.80	1633.80	51580	3.57e6	7.15e6	5.52e6	3.93e6	3.87e6	5.49e6	3.17e6	5.41e6	4.52e6	5.99e6	5.00e6	4.16e6	4.69e6	6.96e6	4.09e6

Table 7. continued, GC of Whole Oil (amounts in ng/g)

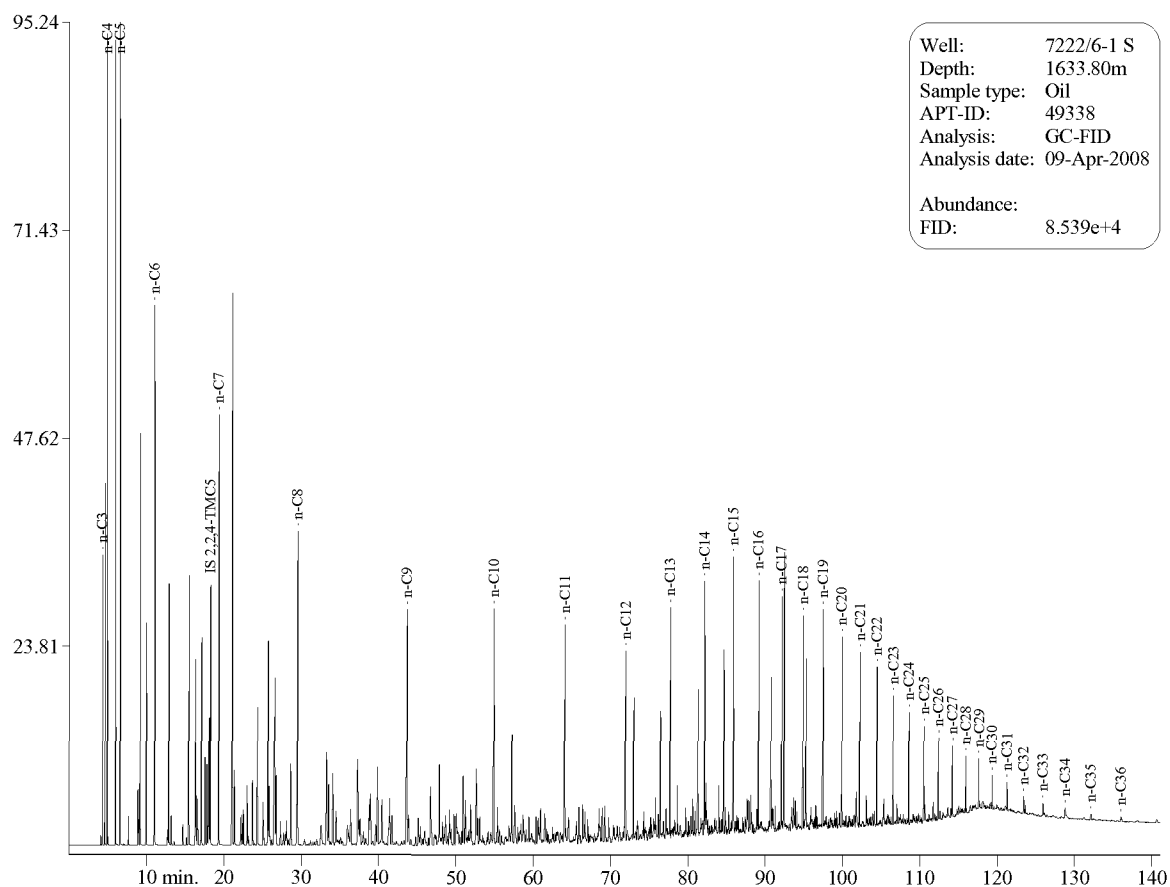
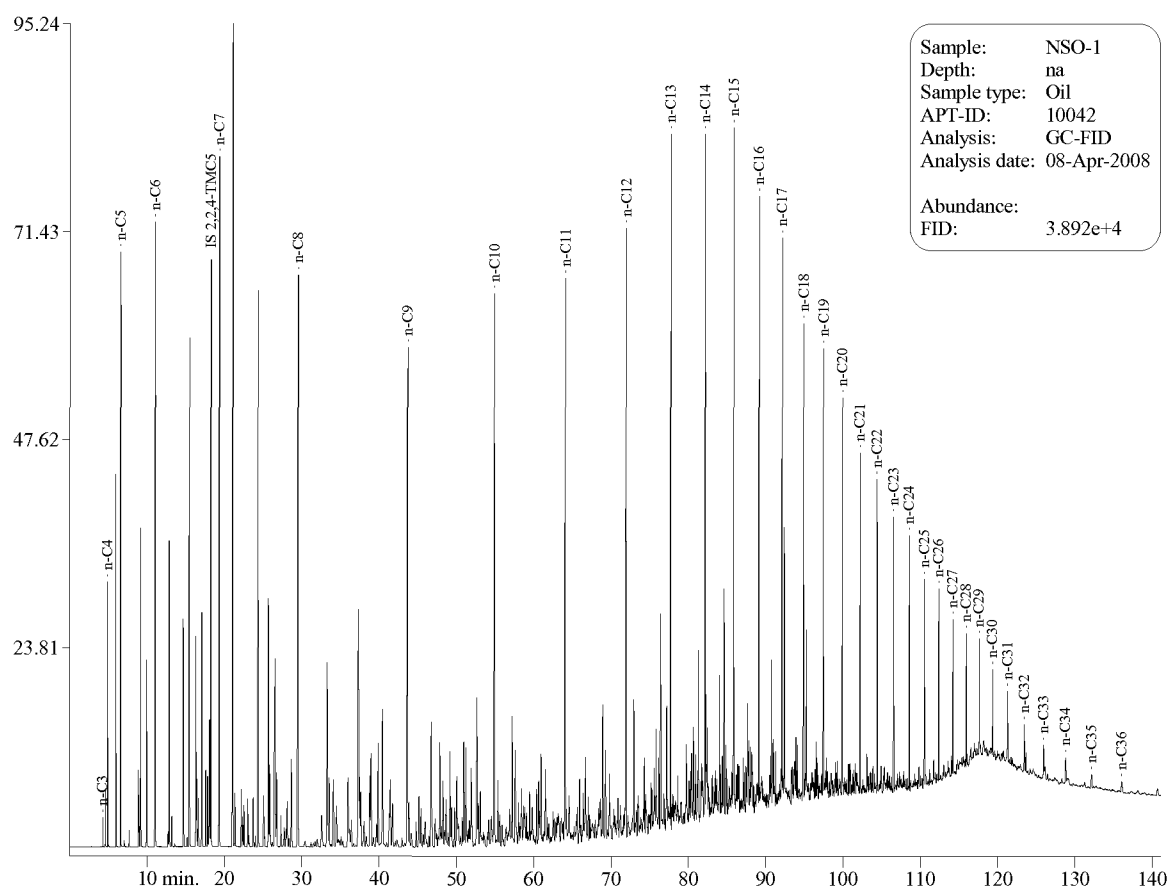
Well	Sample type	Sample info	Upper Depth (m)	Lower Depth (m)	APT ID	i-C20	n-C19	n-C20	n-C21	n-C22	n-C23	n-C24	n-C25	n-C26	n-C27	n-C28	n-C29	n-C30	n-C31	n-C32
7222/6-1 S	Oil	PT-2346	1633.80	1633.80	49338	4.12e6	4.31e6	3.83e6	3.20e6	2.93e6	2.43e6	2.08e6	1.78e6	1.64e6	1.41e6	1.08e6	9.55e5	8.00e5	7.37e5	5.29e5
7222/6-1 S	Oil	TS-83102	1633.80	1633.80	51580	4.38e6	4.24e6	3.69e6	3.18e6	2.95e6	2.43e6	2.08e6	1.80e6	1.70e6	1.47e6	1.12e6	1.05e6	8.23e5	7.87e5	5.75e5

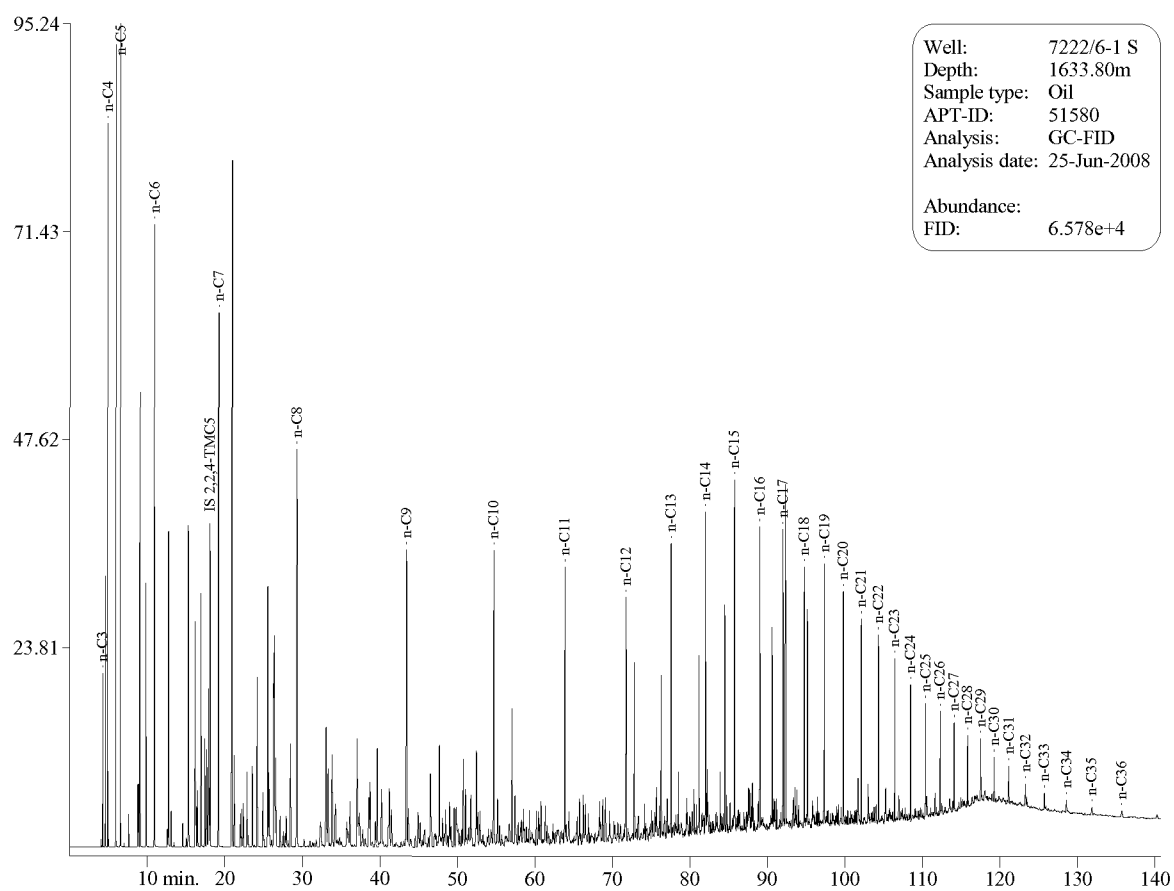
Table 7. continued, GC of Whole Oil (amounts in ng/g)

Well	Sample type	Sample info	Upper Depth (m)	Lower Depth (m)	APT ID	n-C33	n-C34	n-C35	n-C36
7222/6-1 S	Oil	PT-2346	1633.80	1633.80	49338	4.77e5	4.32e5	2.89e5	2.41e5
7222/6-1 S	Oil	TS-83102	1633.80	1633.80	51580	4.93e5	4.42e5	3.35e5	2.86e5

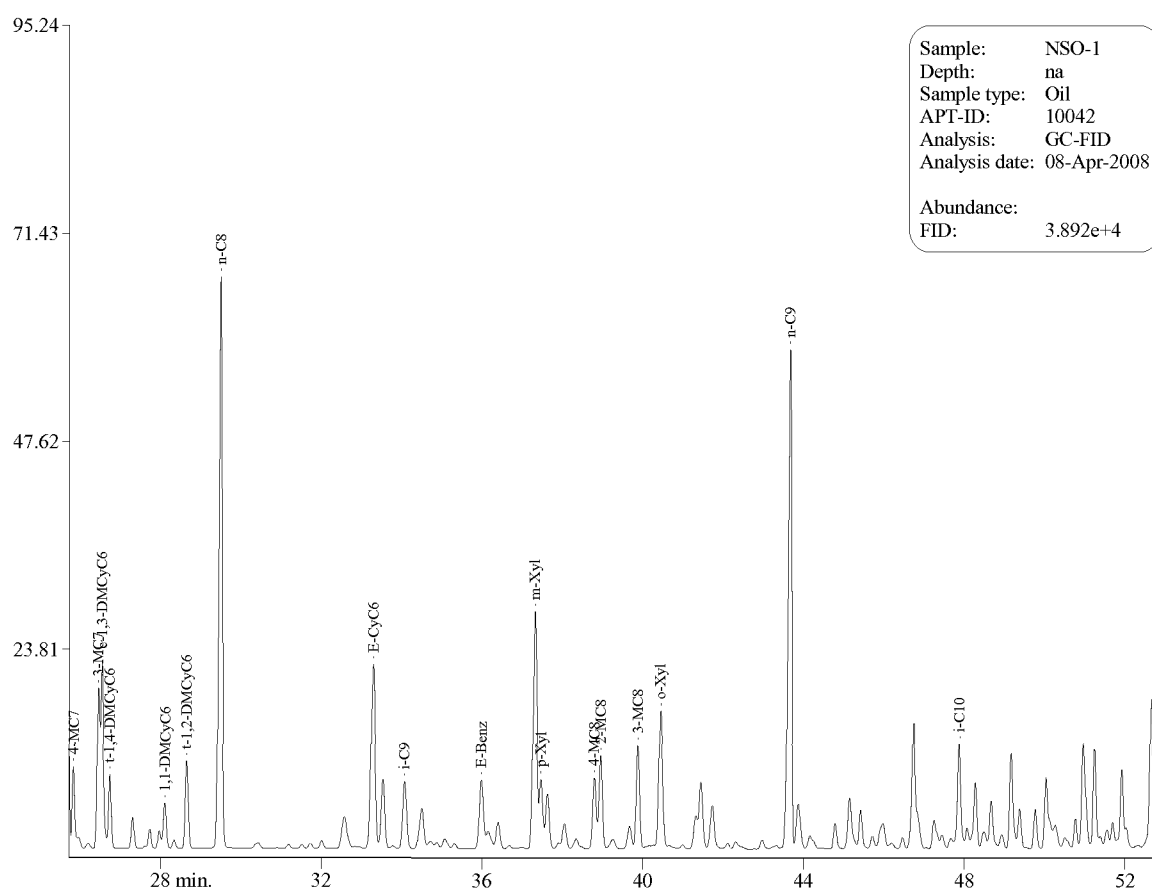
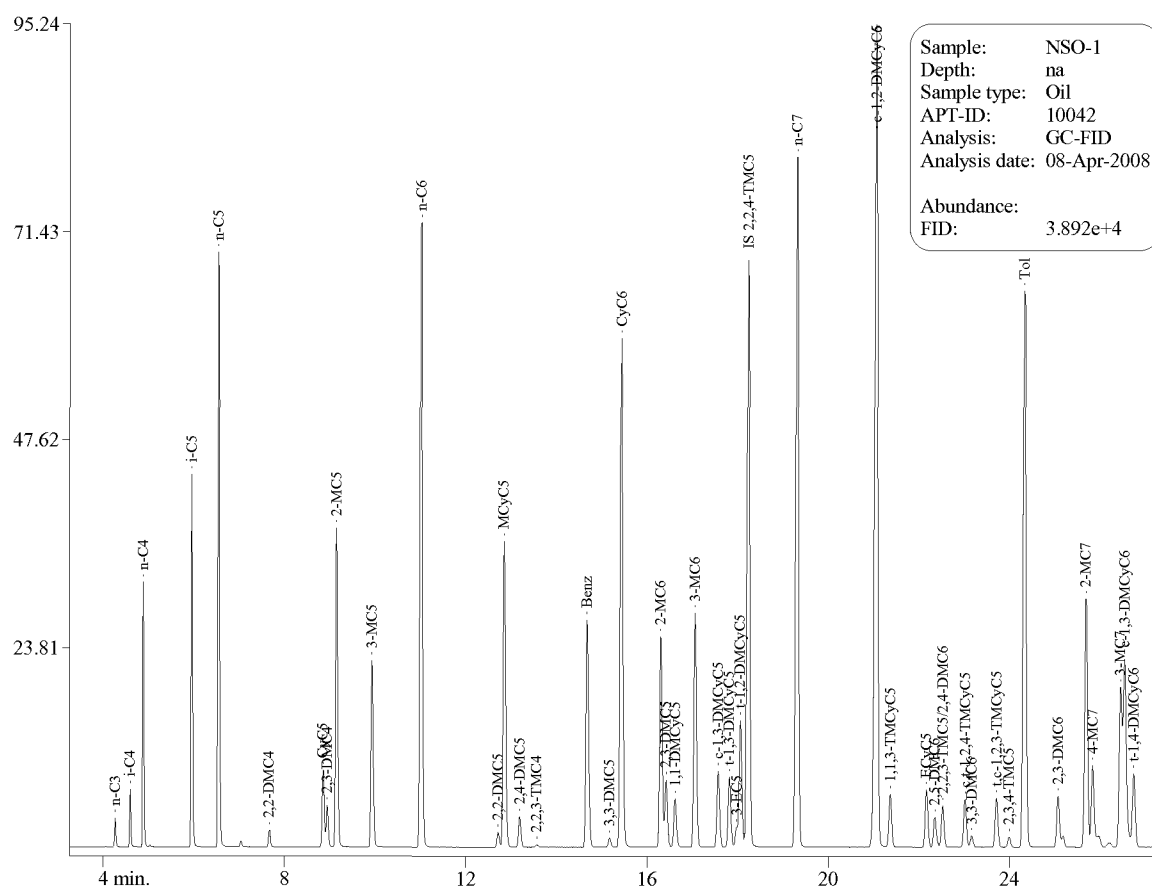
GC Chromatograms of Whole Oil

Geochemistry Data Report - Oil and Gas analyses Well 7222/6-1 S

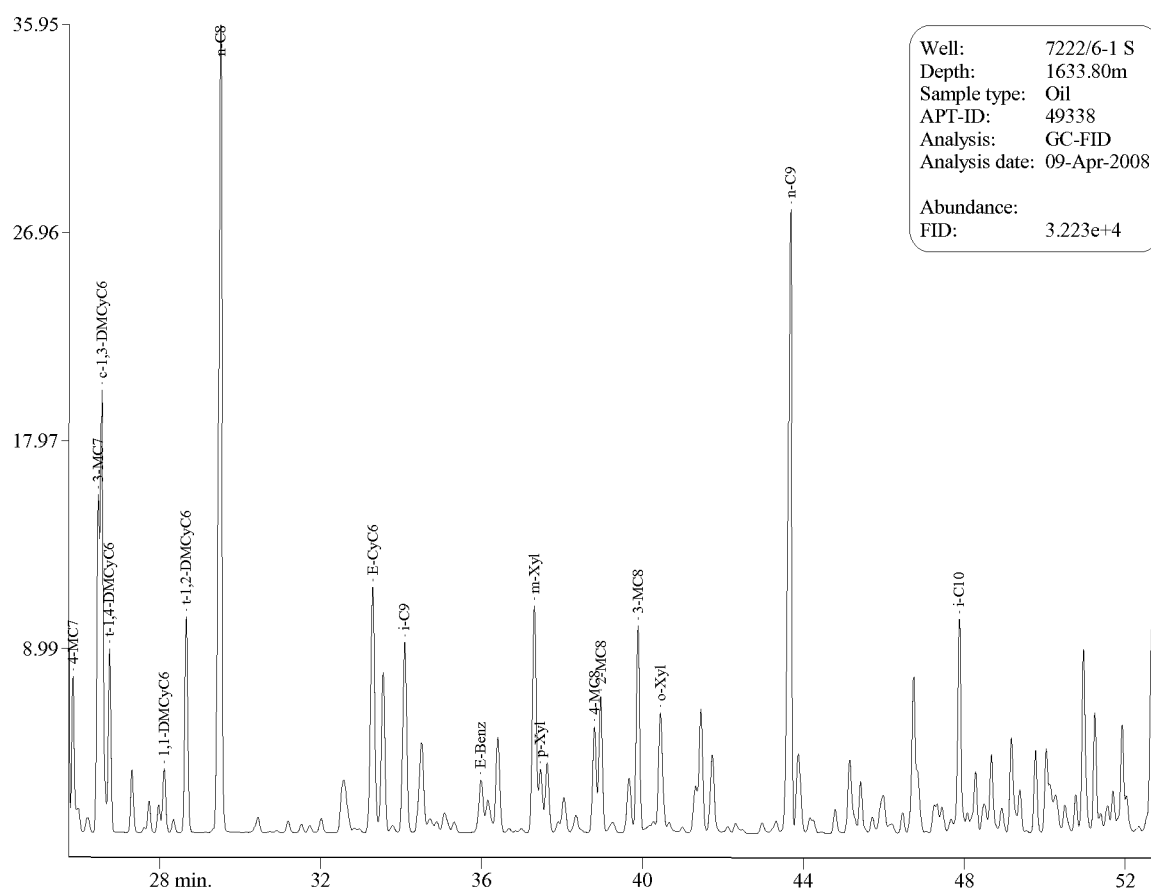
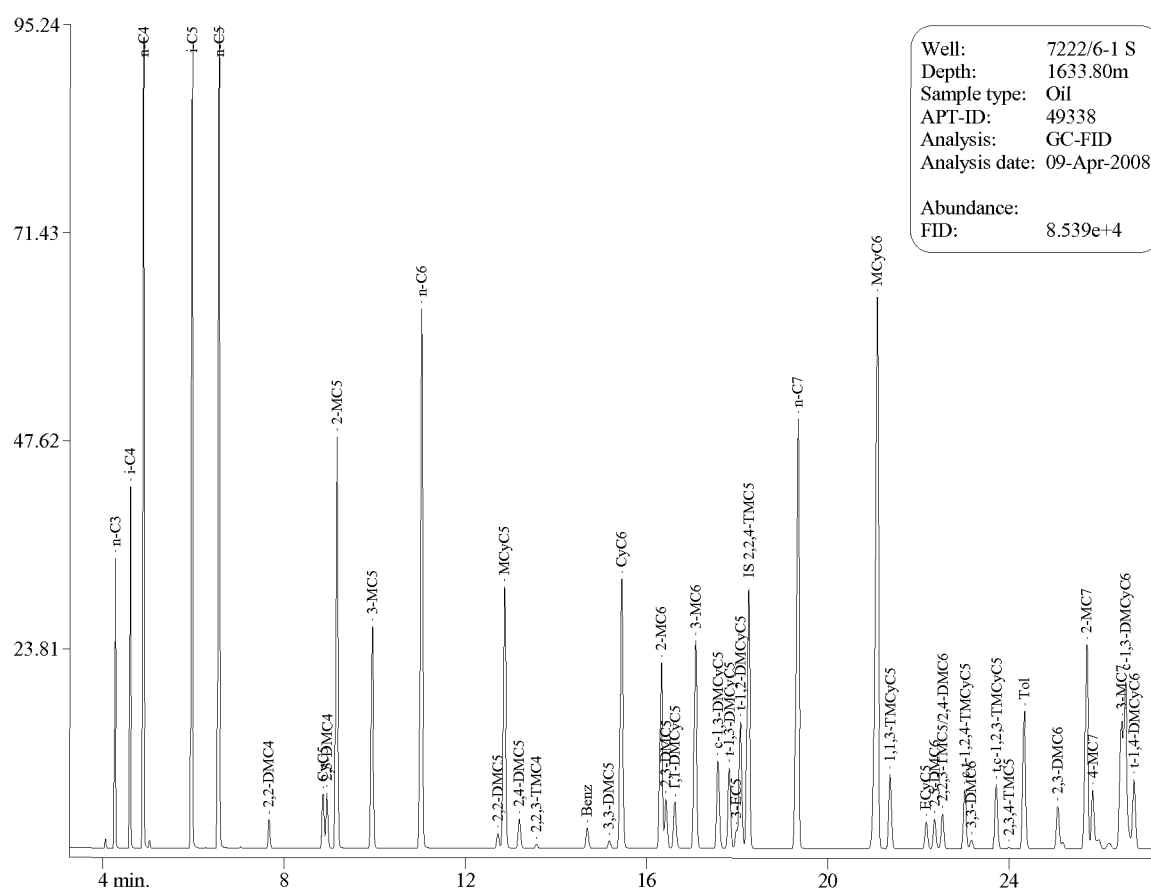


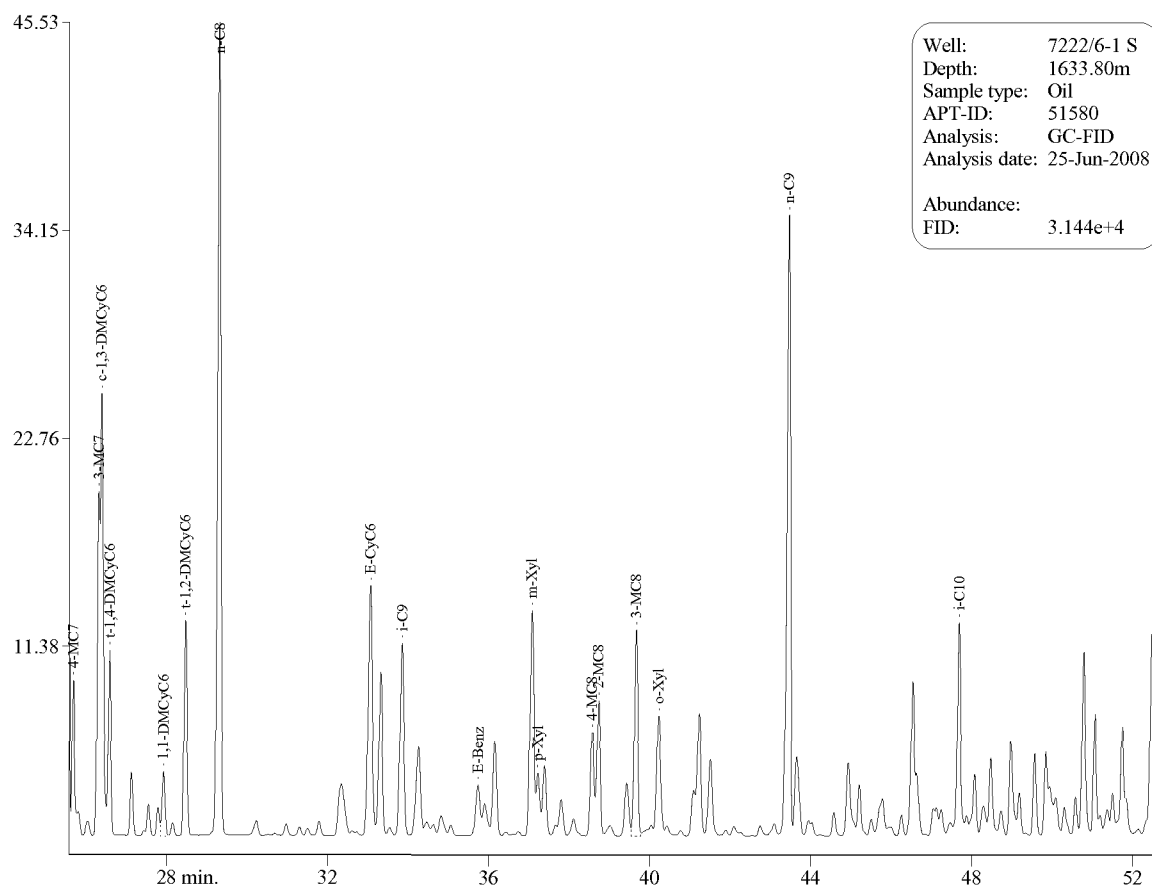
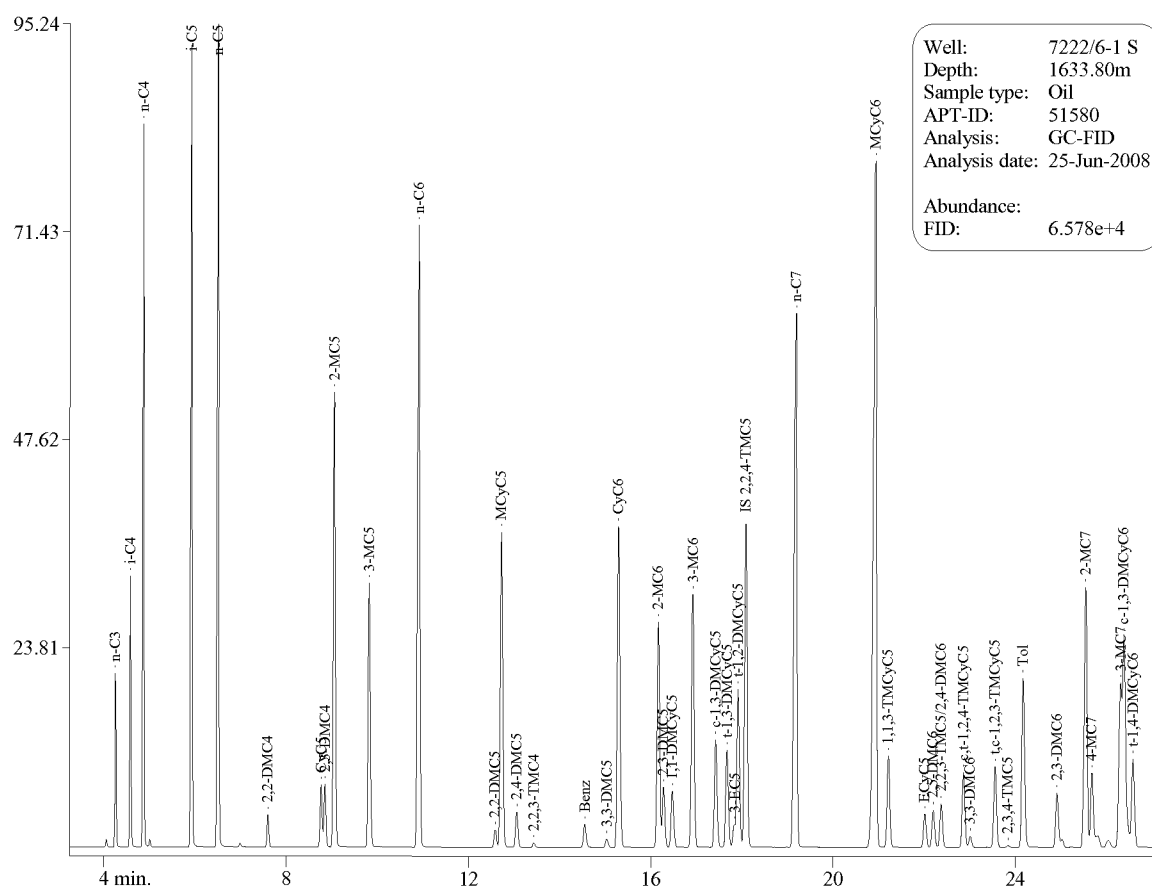


GC Chromatograms of Whole Oil - detailed



Geochemistry Data Report - Oil and Gas analyses Well 7222/6-1 S





Experimental Procedures

All procedures follow NIGOGA, 4th Edition. Below are brief descriptions of procedures/analytical conditions.

Deasphalting

Pentane is added in excess (40 times the volume of oil). The solution is stored for at least 12 hours in a dark place before the solution is filtered or centrifuged and the weight of the asphaltenes measured.

Density

An Anton Parr instrument is used. Air and distilled water is used to calibrate the instrument. All measurements are done at 15°C. NSO-1 is used as a reference sample, and is run in each series of density measurements. If the viscosity of the oil is very high at 15°C, a gravimetric method is used.

API gravity is calculated from the density.

$$\text{API Gravity (}^\circ\text{)} = 141.5/\text{Density (g/cm}^3\text{)} - 131.5$$

GC analysis of gas components

Aliquots of 0.1-1 ml were sampled with a syringe for analysis on a Carlo Erba HRGC 5300 equipped with a Porabond Q column. The detection limit for the hydrocarbon gas components is 0.001 µl/ml using a flame ionisation detector (FID) and for CO₂ 0.05 µl/ml using a thermal conductivity detector (TCD/HWD).

Carbon isotope analysis of hydrocarbon compounds and CO₂

The carbon isotopic composition of the hydrocarbon gas components was determined by a GC-C-IRMS system. Aliquots were sampled with a syringe and analysed on a Trace GC2000, equipped with a Poraplot Q column, connected to a Delta plus XP IRMS. The components were burnt to CO₂ and water in a 1000 °C furnace over Cu/Ni/Pt. The water was removed by Nafion membrane separation. Repeated analyses of standards indicate that the reproducibility of δ¹³C values is better than 1 ‰ PDB (2 sigma).

Hydrogen isotope analysis of methane

The hydrogen isotopic composition of methane was determined by a GC-C-IRMS system. Aliquots were sampled with a GCPal and analysed on a Trace GC2000, equipped with a Poraplot Q column, connected to a Delta plus XP IRMS. The components were decomposed to H₂ and coke in a 1400 °C furnace. The international standard NGS-2 and an in-house standard (Std A) were used for testing accuracy and precision. The “true” value of NGS-2 is given to -172.5 ‰ V-SMOW (<http://deuterium.nist.gov/standards.html>). Repeated analyses of standards indicate that the reproducibility of δD values is better than 10 ‰ PDB (2 sigma).

GC of whole oil

A HP5890 II instrument is used. The column is a HP PONA, length 50 m, i.d. 0.2 mm, film thickness 0.5 µm. 2,2,4-tri-methyl-pentane is used as an internal standard.

Temperature programme

30 °C (10 min.) - 2 °C/min. - 60 °C (10 min.) - 2 °C/min - 130 °C (0 min.) - 4 °C/min. - 320 °C (25 min.)