Standard Geochemical Data Report - well 6302/6-1 (Tulipan)

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Table 1. Number of analyses performed

Analysis	Cuttings	SWC	Core	Gas	Mud	Total
Lithology	31	11	2			44
Headspace	23					23
Gas composition				13		13
Stable isotopes of gas	11			13		24
Stable isotopes of fractions		1	1			2
TOC/Rock-Eval	15	4	1			20
Iatroscan		7	2		1	10
Extraction		7	2		1	10
Asphaltenes		7	2		1	10
MPLC		7	2		1	10
GC of Saturated hydrocarbons		7	2		1	10
GC of Aromatic hydrocarbons		7	2		1	10
GC-MS of Saturated hydrocarbons		1	2			3
GC-MS of Aromatic hydrocarbons		1	2			3
Vitrinite reflectance	22	3	1			26

Table 2. Lithology Description

Well	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	%	Lithology	Attributes
6302/6-1	DC		2000	29121A	100%	CONTAM	cem
6302/6-1	DC		2000	29121B	trace	SST	op, rnd, l
6302/6-1	DC		2100	29122	100 %	SST	op- lt gy w - gy, l, f, crs
6302/6-1	DC		2200	29123A	100%	SST	op- lt gy w - gy, f-crs, l
6302/6-1	DC		2200	29123B	trace	CLYST	gy
6302/6-1	DC		2300	29124A	100%	SST	op- lt gy w, f - md crs, l
6302/6-1	DC		2300	29124B	trace	CLYST	lt gy
6302/6-1	DC		2300	29124C	trace	LST	pl or w
6302/6-1	DC		2400	29125A	100%	CONTAM	Cem
6302/6-1	DC		2400	29125B	trace	CLYST	brn gy
6302/6-1	DC		2400	29125C	trace	SST	op- lt gy w, f l
6302/6-1	DC		2500	29126A	90%	CLYST	lt ol gy- gy, calc
6302/6-1	DC		2500	29126B	10%	SST	op- lt gy w, f-crs
6302/6-1	DC		2600	29127A	100%	CLYST	lt brn gy
6302/6-1	DC		2600	29127B	trace	SST	op- gy, f,l
6302/6-1	DC		2700	29128	100 %	CLYST	lt brn gy, slty
6302/6-1	DC		2800	29129	100 %	CLYST	lt brn gy - brn gy
6302/6-1	DC		2900	29130	100 %	CLYST	brn gy
6302/6-1	DC		3000	29131	100 %	CLYST	brn gy - md drk gy
6302/6-1	DCG		3100	27624A	100%	CONTAM	sulfo-lignite ?,
6302/6-1	DCG		3100	27624B	trace	SST	op, f, l
6302/6-1	DCG		3100	27624C	trace	CLYST	lt gy
6302/6-1	DC		3150	29132	100 %	CLYST	lt brn gy - gy brn
6302/6-1	DCG		3200	27625A	90%	CONTAM	sulfo lignite ?, rust
6302/6-1	DCG		3200	27625B	10%	SST	op, f, l
6302/6-1	DC		3250	29133A	80%	CLYST	gy brn - brn gy - md drk gy
6302/6-1	DC		3250	29133B	20%	CLYST	rd brn
6302/6-1	DC		3250	29133C	trace	SLST	ot brn gy
6302/6-1	DCG		3300	27626A	80%	CONTAM	sulfo lignite ?, rust, drillmud
6302/6-1	DCG		3300	27626B	15%	SST	op, f, l
6302/6-1	DCG		3300	27626C	5%	SLST	lt gy
6302/6-1	DC		3360	29134A	100%	CLYST	md drk gy - drk gy
6302/6-1	DC		3360	29134B	trace	CLYST	rd brn
6302/6-1	DC		3360	29134C	trace	SLST	gy w
6302/6-1	DC		3400	29135A	100%	CLYST	brn gy - md drk gy
6302/6-1	DC		3400	29135B	trace	SST	op, pyr
6302/6-1	DC		3450	29136A	100%	CLYST	lt gy- md drk brn gy
6302/6-1	DC		3450	29136B	trace	CLYST	rd brn
6302/6-1	DC		3500	29137A	50%	CLYST	gy - md drk gy
6302/6-1	DC		3500	29137B	25%	SLST	lt gy w
6302/6-1	DC		3500	29137C	25%	SST	op - l gy, f- crs, l
6302/6-1	DC		3500	29137D	trace	CLYST	rd brn
6302/6-1	DC		3540	29138A	80%	CLYST	md drk gy - md drk brn gy
6302/6-1	DC		3540	29138B	20%	SLST	gy
6302/6-1	DC		3540	29138C	trace	SST	op-lt gy
6302/6-1	DC		3600	29139A	100%	CLYST	md drk gy - drk gy
6302/6-1	DC		3600	29139B	trace	SLST	lt gy
6302/6-1	DC		3650	29140A	100%	CLYST	md drk gy - drk gy
6302/6-1	DC		3650	29140B	trace	SLST	lt gy

Well	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	%	Lithology	Attributes
6302/6-1	DC		3650	29140C	trace	SST	op - lt gy
6302/6-1	DC		3700	29141A	100%	CLYST	md drk gy - drk gy
6302/6-1	DC		3700	29141B	trace	LST	pl yel w
6302/6-1	DC		3700	29141C	trace	SLST	lt gy w
6302/6-1	DC		3750	29142A	100%	CLYST	md drk gy - drk gy
6302/6-1	DC		3750	29142B	trace	SLST	lt gy
6302/6-1	DC		3750	29142C	trace	SST	op - lt gy
6302/6-1	DC		3800	29143A	100%	CLYST	md drk gy - drk gy
6302/6-1	DC		3800	29143B	trace	SLST	lt gy
6302/6-1	DC		3800	29143C	trace	LST	lt yel w
6302/6-1	DC		3830	29144A	90%	CLYST	md drk gy - drk gy
6302/6-1	DC		3830	29144B	10%	SLST	op - pl ol gy, glauc
6302/6-1	DC		3888	29145A	60%	SLST	lt gy
6302/6-1	DC		3888	29145B	30%	LST	pl brn, marly
6302/6-1	DC		3888	29145C	10%	CLYST	md drk gy
6302/6-1	COCH		3914.60	29159	100 %	CLYST	gy- md drk gy
6302/6-1	COCH	3938.89	3938.91	28072	100 %	SST	op- lt gy- pl brn gy, hrd, f, md crs
6302/6-1	SWC		3945	29149	100 %	CLYST	gy, slty
6302/6-1	SWC		4025	29150	100 %	CLYST	gy- md drk gy, slty
6302/6-1	DC		4026	29146A	60%	SLST	op, l
6302/6-1	DC		4026	29146B	30%	LST	pl yel w - pl ol
6302/6-1	DC		4026	29146C	10%	CLYST	drk gy
6302/6-1	DC		4032	29147A	50%	SLST	op, l
6302/6-1	DC		4032	29147B	30%	LST	pl yel w - pl brn
6302/6-1	DC		4032	29147C	20%	CLYST	md drk gy
6302/6-1	DC		4050	29148A	75%	SLST	op - pl brn, l
6302/6-1	DC		4050	29148B	25%	CLYST	md drk gy
6302/6-1	DC		4050	29148C	trace	LST	pl brn
6302/6-1	SWC		4069	29151	100 %	SLST	op- lt gy w
6302/6-1	SWC		4098.50	29152	100 %	CLYST	gy
6302/6-1	SWC		4105	29153	100 %	CLYST	gy, pyr
6302/6-1	SWC		4128	29154	100 %	LST	lt gy
6302/6-1	SWC		4138.50	29155	100 %	LST	lt gy
6302/6-1	SWC		4151.60	29156	100 %	CLYST	gy - md drk gy
6302/6-1	SWC		4171.50	29157	100 %	CLYST	md drk gy
6302/6-1	SWC		4176	29158	100 %	CLYST	gy - md drk gy
6302/6-1	SWC		4209.50	29120	100 %	CLYST	md drk gy

Table 3. GC of saturated compounds (parameters)

Well	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	CPI 1	Pr/n-C17	Ph/n-C18	(Pr/n-C17)/ (Ph/n-C18))	Pr/Ph	n-C17/ (n-C17+C27)
6302/6-1	Mud		3900	28742		0.62	0.58	1.07	1.90	1.00
6302/6-1	COCH		3914.60	29159	1.35	1.46	0.68	2.14	1.57	0.55
6302/6-1	COCH	3938.89	3938.91	28072	1.41	0.73	0.57	1.27	1.59	0.72
6302/6-1	SWC		4025	29150	1.14	1.07	0.39	2.72	2.53	0.48
6302/6-1	SWC		4069	29151	1.10	0.64	0.66	0.97	0.75	0.45
6302/6-1	SWC		4098.50	29152	1.12	0.74	0.69	1.07	0.96	0.47
6302/6-1	SWC		4128	29154	1.31	0.92	0.60	1.52	1.49	0.50
6302/6-1	SWC		4138.50	29155	1.15	0.75	0.58	1.28	0.87	0.29
6302/6-1	SWC		4151.60	29156	1.28	1.47	0.33	4.39	3.94	0.38
6302/6-1	SWC		4209.50	29120	1.54	1.91	0.38	5.00	4.65	0.34

Table 4. GCMS SIR of saturated compounds (parameters)

Well	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	%23:3	%28□□	%30D	%27Ts	%22S	%29Ts	%20S	%□□	%27d□S	%C27	%C29	28/29	24:4/23:3
6302/6-1	COCH		3914.60	29159	8.44	2.87	3.38	16.04	52.49	10.29	22.46	28.89	40.53	28.56	38.93	0.60	0.43
6302/6-1	COCH	3938.89	3938.91	28072	36.12	12.50	3.74	19.29	56.98	9.74	35.16	32.14	23.70	35.24	33.75	0.59	0.23
6302/6-1	SWC		4151.60	29156	2.24	0.60	1.73	3.63	59.04	3.99	43.94	26.62	18.75	32.16	38.01	0.41	3.00

%23:3	23:3/(23:3+30αβ)*100
%28αβ	28αβ/(28αβ+30αβ)*100
%30D	30D/(30D+30αβ)*100
%27Ts	27Ts/(27Ts+27Tm)*100
%22S	(32αβS/(32αβS+32αβR)*100
%29Ts	(29Ts/29Ts+30αβ)*100
%20S	(29ααS/29ααS+29ααR)*100

%ββ	(29ββ(R+S)/(29ββ(R+S)+29αα(R+S)*100
%27dβS	27dβS/(27dβS+27αα(R+S))*100
%C27	(27ββ(R+S)/(27ββ(R+S)+28ββ(R+S)+29ββ(R+S))*100
%C29	(29ββ(R+S)/(27ββ(R+S)+28ββ(R+S)+29ββ(R+S))*100
28/29	(28αα(R+S)+28ββ(R+S))/(29αα(R+S)+29ββ(R+S))
24:4/23:3	24:4/23:3

Table 5. GCMS SIR of aromatic compounds (parameters)

Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	AROM2	Crack1	Crack2	MSAro1	MSAro2	MSAro3	MSAro4	MSAro5	MSAro6	MSAro7	MSAro8	MSAro9
6302/6-1	COCH			3914.60	29159	0.63	0.43	0.14	0.09	2.70	0.58	1.69	4.26	0.33	0.05	1.51	0.53
6302/6-1	COCH		3938.89	3938.91	28072	0.67	0.71	0.34	0.36	3.82	0.55	1.89	4.40	0.30	0.05	4.28	0.58
6302/6-1	SWC			4151.60	29156	0.95	0.58	0.19	0.23	1.00	0.45	1.45	2.98	0.32	0.06	5.03	0.92

AROM2:
($C_{20}TA+C_{21}TA+SC_{26}TA+RC_{26}TA+SC_{27}TA+SC_{28}TA+RC_{27}TA+RC_{28}TA$/($C_{20}TA+C_{21}TA+SC_{26}TA+RC_{26}TA+SC_{27}TA+SC_{28}TA+RC_{27}TA+RC_{28}TA+C_{21}MA+C_{22}MA+\beta SC_{27}MA+\beta RC_{27}MA+\beta RC_{27}DMA+\alpha SC_{27}MA+\beta SC_{28}MA+\beta SC_{28}DMA+\alpha RC_{27}DMA+\alpha SC_{27}DMA+\alpha RC_{27}MA+\alpha SC_{28}MA+\alpha SC_{29}MA+\alpha RC_{29}MA$)

Crack1: ($C_{20}TA$)/($C_{20}TA+RC_{28}TA$)

Crack2: ($C_{20}TA+C_{21}TA$)/($C_{20}TA+C_{21}TA+SC_{26}TA+RC_{26}TA+SC_{27}TA+SC_{28}TA+RC_{27}TA+RC_{28}TA$)

MSAro1:
($C_{21}MA+C_{22}MA$)/($C_{21}MA+C_{22}MA+\beta SC_{27}MA+\beta RC_{27}MA+\beta RC_{27}DMA+\alpha SC_{27}MA+\beta SC_{28}MA+\beta SC_{28}DMA+\alpha RC_{27}DMA+\alpha SC_{27}DMA+\alpha RC_{27}MA+\alpha SC_{28}MA+\alpha SC_{29}MA+\alpha RC_{29}MA$)

MSAro2: 4-MDBT/1-MDBT

MSAro3: (2-MP+3-MP)/(1-MP+2-MP+3-MP+9-MP)

MSAro4: 2-MN/1-MN

MSAro5: (2,6-DMN+2,7-DMN)/1,5-DMN

MSAro6: 4-MDBT/DBT

MSAro7: DBT/P

MSAro8: 3-MP/Retene

MSAro9: $RC_{28}TA$/($RC_{28}TA+\alpha RC_{28}MA+\beta RC_{29}MA+\beta RC_{29}DMA$)

Table 6. Gas Composition (volume-%)

Well	Sample type	Sample name	Lower Depth (m)	APT ID	C1%	C2%	C3%	iC4%	nC4%	iC5%	nC5%	CO2%	Sum C1-C5	Wetness	iC4/nC4	ppm
6302/6-1	DCG		3100	27624	89.0	0.17	0.20	0.02	0.02	0.02	0.06	10.6	89.4	0.46	1.0	1786
6302/6-1	DCG		3200	27625	92.4	0.19	0.09	0.02	0.01	0.02	0.02	7.2	92.8	0.33	1.5	2570
6302/6-1	DCG		3300	27626	97.9	0.27	0.24	0.06	0.06	0.04	0.03	1.4	98.6	0.64	1.1	14245
6302/6-1	gas bag		3317	27951	97.0	1.3	0.16	0.03	0.03	0.01	0.01	1.4	98.6	1.5	1.1	13290
6302/6-1	gas bag		3389	27952	97.4	1.5	0.23	0.05	0.04	0.02	0.01	0.73	99.3	1.9	1.3	16971
6302/6-1	gas bag		3835	27953	93.4	3.8	1.7	0.30	0.31	0.08	0.05	0.38	99.6	6.1	0.97	23607
6302/6-1	gas bag		3839	27954	93.5	3.5	1.6	0.31	0.32	0.09	0.06	0.63	99.4	5.8	0.95	17111
6302/6-1	gas bag		3902	27955	93.0	4.0	1.8	0.30	0.33	0.06	0.04	0.44	99.6	6.5	0.91	25912
6302/6-1	gas bottle	MDT3A	3903	28041	91.5	4.3	2.3	0.47	0.58	0.17	0.12	0.49	99.5	7.7	0.81	902534
6302/6-1	gas bag		3903	27956	92.0	3.5	1.5	0.25	0.32	0.10	0.08	2.3	97.7	5.7	0.81	6458
6302/6-1	gas bag		3907	27957	87.7	3.8	1.6	0.29	0.42	0.17	0.16	5.9	94.1	6.5	0.69	2457
6302/6-1	gas bag		3927	27958	91.5	3.8	1.7	0.28	0.32	0.07	0.05	2.3	97.7	6.2	0.87	10641
6302/6-1	gas bag		3948	27959	91.1	3.8	1.7	0.27	0.31	0.07	0.05	2.7	97.3	6.3	0.86	8228
6302/6-1	gas bag		3952	27960	91.0	4.0	1.9	0.32	0.37	0.08	0.06	2.3	97.7	6.7	0.88	8757
6302/6-1	gas bottle	MDT3A	3952.20	28042	90.9	4.5	2.6	0.55	0.67	0.20	0.14	0.48	99.5	8.4	0.82	934505
6302/6-1	gas bag		4066	27961	87.4	2.7	1.4	0.25	0.39	0.12	0.12	7.7	92.3	5.1	0.65	2436
6302/6-1	DCG		3860	28043	52.5	17.6	17.9	4.2	4.8	1.8	1.0	0.15	99.9	45.9	0.86	42033
6302/6-1	DCG		3880	28044	56.5	17.6	16.1	3.2	4.1	1.4	0.84	0.17	99.8	42.1	0.77	34285
6302/6-1	DCG		3900	28045	71.9	11.9	10.3	1.8	2.6	0.72	0.52	0.24	99.8	27.0	0.69	24740
6302/6-1	DCG		3920	28046	30.3	16.4	28.2	5.0	10.6	3.3	3.0	3.2	96.8	66.5	0.48	1591
6302/6-1	DCG		3940	28047	56.1	18.0	16.1	2.8	4.4	1.3	0.94	0.30	99.7	42.4	0.64	10508
6302/6-1	DCG		3960	28048	46.6	19.4	19.6	4.4	5.6	2.6	1.4	0.51	99.5	51.3	0.78	9574
6302/6-1	DCG		3980	28049	39.5	20.8	18.9	4.4	5.3	2.4	1.1	7.5	92.5	55.5	0.84	12876
6302/6-1	DCG		4000	28050	35.3	17.6	24.1	6.7	9.4	3.5	2.4	0.95	99.0	62.1	0.71	3986
6302/6-1	DCG		4020	28051	43.0	16.9	22.5	5.4	7.9	2.1	1.6	0.58	99.4	55.1	0.69	5705
6302/6-1	DCG		4040	28052	47.2	17.9	19.6	4.7	6.1	1.8	1.4	1.5	98.5	50.5	0.77	13276
6302/6-1	DCG		4060	28053	9.6	4.5	5.1	1.0	1.3	0.35	0.25	77.9	22.1	55.5	0.77	56585
6302/6-1	DCG		4080	28054	40.1	17.4	21.7	4.8	6.8	2.2	1.7	5.3	94.7	55.8	0.71	3863
6302/6-1	DCG		4100	28055	51.8	11.6	14.3	3.3	4.7	1.7	1.2	11.2	88.8	39.6	0.69	2799
6302/6-1	DCG		4120	28056	41.9	11.7	22.1	4.4	7.8	2.5	2.3	7.3	92.7	52.4	0.57	549
6302/6-1	DCG		4140	28057	11.7	2.1	8.2	3.2	5.9	3.0	2.5	63.4	36.6	62.3	0.54	450
6302/6-1	DCG		4160	28058	23.1	10.5	15.4	4.6	6.4	3.4	2.1	34.5	65.5	61.5	0.72	11052
6302/6-1	DCG		4180	28059	18.1	6.0	8.8	2.8	3.9	2.3	1.5	56.8	43.2	54.3	0.71	14363
6302/6-1	DCG		4200	28060	1.6	0.56	0.95	0.61	0.55	0.33	0.27	95.1	4.9	62.1	1.1	4665
6302/6-1	DCG		4220	28061	45.0	9.2	14.6	4.1	7.0	3.9	3.6	12.6	87.4	43.6	0.58	262
6302/6-1	DCG		4230	28062	39.8	11.8	19.2	5.5	10.0	6.0	5.2	2.5	97.5	53.9	0.54	578

Table 7. Gas Isotopes (δ13C, ‰ PDB)

Well	Sample type	Sample name	Lower Depth (m)	APT ID	C1 δ13C	C2 δ13C	C3 δ13C	i-C4 δ13C	n-C4 δ13C	CO2 δ13C	C1 δD
6302/6-1	DCG		3100	27624	-48.5						
6302/6-1	DCG		3200	27625	-36.0						
6302/6-1	DCG		3300	27626	-40.4						
6302/6-1	gas bag		3317	27951	-46.5						-176
6302/6-1	gas bag		3389	27952	-45.5						-177
6302/6-1	gas bag		3835	27953	-42.0	-34.8	-29.9				-169
6302/6-1	gas bag		3839	27954	-42.5	-34.6	-29.9				-169
6302/6-1	gas bag		3902	27955	-41.4	-35.2	-30.7				-170
6302/6-1	gas bottle	MDT3A	3903	28041	-40.7	-35.0	-30.8	-29.7	-29.2	-9.2	-163
6302/6-1	gas bag		3903	27956	-41.3						-164
6302/6-1	gas bag		3907	27957	-40.9						
6302/6-1	gas bag		3927	27958	-41.0	-35.0					-164
6302/6-1	gas bag		3948	27959	-41.1	-35.2					-162
6302/6-1	gas bag		3952	27960	-40.1	-35.1					-164
6302/6-1	gas bottle	MDT3A	3952.20	28042	-40.5	-35.1	-30.8	-29.8	-29.4	-9.2	-162
6302/6-1	gas bag		4066	27961	-40.5						
6302/6-1	DCG		3860	28043	-39.5	-34.3	-30.1	-29.3	-28.8		-174
6302/6-1	DCG		3880	28044	-39.0	-34.5	-30.5	-29.5	-29.6		-175
6302/6-1	DCG		3900	28045	-40.3	-34.9	-30.7	-29.5	-29.4		-173
6302/6-1	DCG		3940	28047	-38.5	-34.7	-30.8	-29.7	-29.5		-170
6302/6-1	DCG		3980	28049	-37.7	-35.0	-30.9	-29.8	-29.2	-20.2	-173
6302/6-1	DCG		4040	28052	-38.4	-34.6	-31.0	-30.1	-29.6		-168
6302/6-1	DCG		4160	28058	-38.1	-34.4	-31.4	-31.5	-31.2	-19.9	-168
6302/6-1	DCG		4180	28059	-38.4	-34.6	-31.5	-31.6	-31.7	-18.6	-166

Table 8. Isotopes of fractions, δ13C (‰ PDB)

Well	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	δ13C-Oil/EOM	δ13C-Sat	δ13C-Aro	δ13C-Pol	δ13C-Asp
6302/6-1	COCH	3938.89	3938.91	28072	-30.3	-30.6	-27.1	-31.2	

Table 9. TOC and Rock-Eval data

Well	Sample type	Lower Depth (m)	APT ID	S1 (mg/g)	S2 (mg/g)	S3 (mg/g)	Tmax (°C)	PP (mg/g)	PI (wt ratio)	HI (mg HC/ g TOC)	OI (mg CO2/ g TOC)	TOC (%)
6302/6-1	DC	3360	29134	0.89	3.78	0.40	416	4.67	0.19	235	25	1.61
6302/6-1	DC	3400	29135	3.34	5.95	0.19	316	9.29	0.36	243	8	2.45
6302/6-1	DC	3450	29136	1.47	3.00	0.11	307	4.47	0.33	192	7	1.56
6302/6-1	DC	3500	29137	0.62	1.71	0.23	319	2.33	0.27	323	43	0.53
6302/6-1	DC	3540	29138	0.93	3.44	0.15	330	4.37	0.21	321	14	1.07
6302/6-1	DC	3600	29139	1.28	5.28	0.15	324	6.56	0.20	268	8	1.97
6302/6-1	DC	3650	29140	1.40	4.95	0.18	331	6.35	0.22	273	10	1.81
6302/6-1	DC	3700	29141	1.94	5.70	0.24	333	7.64	0.25	249	10	2.29
6302/6-1	DC	3750	29142	1.29	4.73	0.34	328	6.02	0.21	230	17	2.06
6302/6-1	DC	3800	29143	1.45	5.13	0.34	326	6.58	0.22	267	18	1.92
6302/6-1	DC	3830	29144	2.10	7.60	0.18	334	9.70	0.22	298	7	2.55
6302/6-1	DC	3888	29145	0.36	0.91	1.75	333	1.27	0.28	134	257	0.68
6302/6-1	COCH	3914.60	29159	0.59	2.02	0.35	341	2.61	0.23	170	29	1.19
6302/6-1	DC	4026	29146	0.15	0.31	1.01	332	0.46	0.33	107	348	0.29
6302/6-1	DC	4032	29147	0.22	0.35	0.84	324	0.57	0.39	109	263	0.32
6302/6-1	DC	4050	29148	0.25	0.36	0.86	324	0.61	0.41	116	277	0.31
6302/6-1	SWC	4105	29153	0.37	1.32	0.87	343	1.69	0.22	161	106	0.82
6302/6-1	SWC	4151.60	29156	0.61	1.49	0.25	332	2.10	0.29	152	26	0.98
6302/6-1	SWC	4176	29158	0.64	1.56	0.08	332	2.20	0.29	220	11	0.71
6302/6-1	SWC	4209.50	29120	1.00	3.23	0.13	338	4.23	0.24	213	9	1.52

Table 10. Extraction, Asphaltene precipitation and Iatroscan data

Well	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	Rock weight (g)	EOM (mg)	EOM (mg/kg Rock)	SAT (wt% of EOM/Oil)	ARO (wt% of EOM/Oil)	POL (wt% of EOM/Oil)	ASP (wt% of EOM/Oil)	HC (wt% of EOM/Oil)
6302/6-1	Mud		3900	28742	10.000	27	2660	0.0	0.0	100.0		
6302/6-1	COCH		3914.60	29159	10.078	55	5457	4.9	0.8	45.0	49.3	5.7
6302/6-1	COCH	3938.89	3938.91	28072	32.308	21	650	0.0	0.0	47.6	52.4	
6302/6-1	SWC		4025	29150	10.865	57	5246	0.5	0.2	21.9	77.4	0.7
6302/6-1	SWC		4069	29151	6.361	49	7703	0.2	0.9	43.7	55.3	1.0
6302/6-1	SWC		4098.50	29152	4.850	27	5567	0.0	0.1	65.5	34.4	0.1
6302/6-1	SWC		4128	29154	7.158	62	8661	0.0	0.0	55.8	44.2	0.0
6302/6-1	SWC		4138.50	29155	4.449	29	6519	0.0	0.0	63.1	36.9	0.0
6302/6-1	SWC		4151.60	29156	8.950	42	4693	0.0	0.3	38.5	61.2	0.3
6302/6-1	SWC		4209.50	29120	4.377	32	7310	3.6	3.3	37.4	55.6	7.0

Table 11. GC of saturated compounds (peak area)

Well	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	n-C10	n-C11	n-C12	i-C13	i-C14	n-C13	i-C15	n-C14	i-C16	n-C15	n-C16	i-C18	n-C17	Pr	n-C18
6302/6-1	Mud		3900	28742	0.00e0	6.53e3	5.97e4	1.69e3	4.92e3	3.25e5	4.65e4	4.05e5	8.09e4	2.27e5	6.61e4	5.30e3	2.23e4	1.38e4	1.26e4
6302/6-1	COCH		3914.60	29159	7.22e3	3.37e4	4.86e4	2.92e3	3.12e3	6.61e4	5.12e3	5.42e4	1.44e4	4.53e4	5.07e4	2.78e4	7.65e4	1.12e5	1.04e5
6302/6-1	COCH	3938.89	3938.91	28072	2.82e3	9.64e3	5.83e3	4.48e2	6.66e2	1.38e4	1.45e3	1.76e4	4.18e3	1.42e4	1.29e4	4.12e3	1.02e4	7.42e3	8.16e3
6302/6-1	SWC		4025	29150	1.09e4	2.05e4	1.20e4	3.33e3	4.68e3	1.28e4	3.29e3	1.39e4	7.20e3	1.68e4	1.81e4	5.48e3	2.08e4	2.22e4	2.24e4
6302/6-1	SWC		4069	29151	3.93e3	1.23e4	2.90e3	5.82e2	6.08e2	2.56e3	7.17e2	3.01e3	1.13e3	3.62e3	4.04e3	1.68e3	5.51e3	3.52e3	7.14e3
6302/6-1	SWC		4098.50	29152	3.81e3	1.21e4	2.84e3	7.04e2	6.77e2	2.94e3	7.95e2	3.84e3	1.72e3	4.86e3	5.69e3	2.64e3	7.41e3	5.48e3	8.27e3
6302/6-1	SWC		4128	29154	2.26e3	7.63e3	1.31e3	4.03e2	4.07e2	1.56e3	6.94e2	2.78e3	1.51e3	4.60e3	6.15e3	2.85e3	8.49e3	7.82e3	8.70e3
6302/6-1	SWC		4138.50	29155	1.59e3	6.50e3	3.35e2	0.00e0	0.00e0	0.00e0	2.27e2	1.38e3	7.21e2	2.43e3	3.33e3	1.55e3	5.44e3	4.05e3	8.04e3
6302/6-1	SWC		4151.60	29156	1.75e4	2.77e4	2.41e4	7.45e3	9.01e3	2.65e4	7.23e3	2.83e4	1.62e4	3.36e4	3.84e4	1.62e4	4.52e4	6.62e4	5.03e4
6302/6-1	SWC		4209.50	29120	5.83e4	8.02e4	6.60e4	2.18e4	2.61e4	6.93e4	2.33e4	7.11e4	4.97e4	7.68e4	7.52e4	3.82e4	8.39e4	1.60e5	9.02e4

Table 11. continued, GC of saturated compounds (peak area)

Well	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	Ph	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
6302/6-1	Mud		3900	28742	7.28e3	6.73e3	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0
6302/6-1	COCH		3914.60	29159	7.12e4	1.25e5	1.36e5	1.27e5	1.16e5	1.02e5	8.45e4	7.98e4	5.77e4	6.15e4	3.66e4	5.25e4	2.97e4	3.13e4	1.45e4
6302/6-1	COCH	3938.89	3938.91	28072	4.66e3	6.86e3	5.93e3	4.61e3	4.69e3	4.32e3	4.19e3	4.14e3	3.57e3	3.93e3	2.75e3	4.01e3	1.79e3	2.88e3	1.28e3
6302/6-1	SWC		4025	29150	8.77e3	2.55e4	2.84e4	2.91e4	2.93e4	2.93e4	2.75e4	2.72e4	2.33e4	2.21e4	1.63e4	2.03e4	1.71e4	1.28e4	7.15e3
6302/6-1	SWC		4069	29151	4.68e3	8.59e3	1.12e4	1.05e4	1.19e4	1.12e4	1.01e4	9.02e3	7.64e3	6.81e3	5.76e3	6.56e3	5.12e3	5.30e3	3.81e3
6302/6-1	SWC		4098.50	29152	5.73e3	7.14e3	7.95e3	7.11e3	8.84e3	8.77e3	9.94e3	1.01e4	9.34e3	8.30e3	7.30e3	7.62e3	5.81e3	6.84e3	4.31e3
6302/6-1	SWC		4128	29154	5.26e3	8.15e3	9.34e3	8.76e3	9.42e3	9.32e3	9.14e3	9.95e3	7.85e3	8.58e3	6.33e3	9.65e3	6.34e3	7.27e3	4.41e3
6302/6-1	SWC		4138.50	29155	4.68e3	9.62e3	1.13e4	1.08e4	1.20e4	1.28e4	1.44e4	1.57e4	1.44e4	1.33e4	1.12e4	1.28e4	8.87e3	8.40e3	5.13e3
6302/6-1	SWC		4151.60	29156	1.68e4	5.91e4	6.34e4	6.95e4	7.19e4	7.78e4	7.14e4	8.09e4	6.18e4	7.22e4	4.38e4	5.59e4	4.24e4	3.20e4	1.59e4
6302/6-1	SWC		4209.50	29120	3.45e4	1.05e5	1.13e5	1.30e5	1.35e5	1.60e5	1.44e5	1.80e5	1.31e5	1.64e5	9.30e4	1.52e5	6.67e4	6.60e4	2.47e4

Table 11. continued, GC of saturated compounds (peak area)

Well	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	n-C33	n-C34	n-C35	n-C36
6302/6-1	Mud		3900	28742	0.00e0	0.00e0	0.00e0	0.00e0
6302/6-1	COCH		3914.60	29159	1.94e4	1.06e4	9.51e3	4.89e3
6302/6-1	COCH	3938.89	3938.91	28072	1.65e3	9.73e2	5.08e2	0.00e0
6302/6-1	SWC		4025	29150	7.40e3	5.22e3	3.92e3	3.37e3
6302/6-1	SWC		4069	29151	3.42e3	3.00e3	2.19e3	1.98e3
6302/6-1	SWC		4098.50	29152	3.61e3	3.42e3	2.36e3	2.40e3
6302/6-1	SWC		4128	29154	3.87e3	3.43e3	2.60e3	2.72e3
6302/6-1	SWC		4138.50	29155	4.00e3	3.12e3	1.91e3	1.72e3
6302/6-1	SWC		4151.60	29156	1.80e4	1.32e4	8.33e3	7.19e3
6302/6-1	SWC		4209.50	29120	3.66e4	1.81e4	1.57e4	9.82e3

Table 12. GC of saturated compounds (amounts in ng/g)

Well	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	n-C10	n-C11	n-C12	i-C13	i-C14	n-C13	i-C15	n-C14	i-C16	n-C15	n-C16	i-C18	n-C17	Pr	n-C18
6302/6-1	Mud		3900	28742	0.00e0	2.71e3	2.48e4	7.02e2	2.04e3	1.35e5	1.93e4	1.68e5	3.36e4	9.42e4	2.74e4	2.20e3	9.28e3	5.75e3	5.24e3
6302/6-1	COCH		3914.60	29159	8.66e3	4.04e4	5.83e4	3.50e3	3.74e3	7.92e4	6.14e3	6.50e4	1.73e4	5.44e4	6.07e4	3.33e4	9.17e4	1.34e5	1.25e5
6302/6-1	COCH	3938.89	3938.91	28072	2.45e4	8.38e4	5.07e4	3.89e3	5.79e3	1.20e5	1.26e4	1.53e5	3.64e4	1.24e5	1.12e5	3.58e4	8.87e4	6.45e4	7.09e4
6302/6-1	SWC		4025	29150	1.16e4	2.19e4	1.29e4	3.57e3	5.02e3	1.37e4	3.52e3	1.49e4	7.72e3	1.80e4	1.94e4	5.88e3	2.23e4	2.38e4	2.40e4
6302/6-1	SWC		4069	29151	5.45e3	1.71e4	4.02e3	8.08e2	8.45e2	3.56e3	9.95e2	4.18e3	1.57e3	5.03e3	5.61e3	2.33e3	7.65e3	4.89e3	9.92e3
6302/6-1	SWC		4098.50	29152	7.39e3	2.35e4	5.51e3	1.36e3	1.31e3	5.70e3	1.54e3	7.44e3	3.34e3	9.41e3	1.10e4	5.11e3	1.44e4	1.06e4	1.60e4
6302/6-1	SWC		4128	29154	2.61e3	8.79e3	1.51e3	4.64e2	4.69e2	1.80e3	8.00e2	3.20e3	1.74e3	5.30e3	7.09e3	3.29e3	9.78e3	9.02e3	1.00e4
6302/6-1	SWC		4138.50	29155	3.51e3	1.44e4	7.40e2	0.00e0	0.00e0	0.00e0	5.01e2	3.05e3	1.59e3	5.37e3	7.35e3	3.43e3	1.20e4	8.95e3	1.78e4
6302/6-1	SWC		4151.60	29156	2.81e4	4.45e4	3.88e4	1.20e4	1.45e4	4.26e4	1.16e4	4.55e4	2.61e4	5.41e4	6.18e4	2.61e4	7.27e4	1.07e5	8.09e4
6302/6-1	SWC		4209.50	29120	1.08e5	1.48e5	1.22e5	4.04e4	4.82e4	1.28e5	4.31e4	1.31e5	9.18e4	1.42e5	1.39e5	7.07e4	1.55e5	2.96e5	1.67e5

Table 12. continued, GC of saturated compounds (amounts in ng/g)

Well	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	Ph	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
6302/6-1	Mud		3900	28742	3.02e3	2.80e3	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0
6302/6-1	COCH		3914.60	29159	8.54e4	1.50e5	1.63e5	1.52e5	1.39e5	1.23e5	1.01e5	9.57e4	6.92e4	7.37e4	4.39e4	6.30e4	3.56e4	3.76e4	1.74e4
6302/6-1	COCH	3938.89	3938.91	28072	4.05e4	5.96e4	5.16e4	4.01e4	4.08e4	3.76e4	3.64e4	3.60e4	3.10e4	3.42e4	2.39e4	3.49e4	1.56e4	2.50e4	1.11e4
6302/6-1	SWC		4025	29150	9.40e3	2.73e4	3.04e4	3.12e4	3.14e4	3.14e4	2.95e4	2.92e4	2.49e4	2.37e4	1.75e4	2.17e4	1.83e4	1.37e4	7.66e3
6302/6-1	SWC		4069	29151	6.50e3	1.19e4	1.55e4	1.45e4	1.65e4	1.55e4	1.40e4	1.25e4	1.06e4	9.46e3	8.00e3	9.10e3	7.11e3	7.36e3	5.29e3
6302/6-1	SWC		4098.50	29152	1.11e4	1.38e4	1.54e4	1.38e4	1.71e4	1.70e4	1.93e4	1.97e4	1.81e4	1.61e4	1.41e4	1.48e4	1.13e4	1.32e4	8.35e3
6302/6-1	SWC		4128	29154	6.06e3	9.40e3	1.08e4	1.01e4	1.09e4	1.07e4	1.05e4	1.15e4	9.05e3	9.89e3	7.30e3	1.11e4	7.31e3	8.38e3	5.08e3
6302/6-1	SWC		4138.50	29155	1.03e4	2.12e4	2.49e4	2.38e4	2.65e4	2.82e4	3.19e4	3.46e4	3.18e4	2.93e4	2.47e4	2.83e4	1.96e4	1.85e4	1.13e4
6302/6-1	SWC		4151.60	29156	2.70e4	9.51e4	1.02e5	1.12e5	1.16e5	1.25e5	1.15e5	1.30e5	9.94e4	1.16e5	7.05e4	8.99e4	6.82e4	5.15e4	2.55e4
6302/6-1	SWC		4209.50	29120	6.37e4	1.94e5	2.09e5	2.41e5	2.50e5	2.96e5	2.66e5	3.32e5	2.42e5	3.03e5	1.72e5	2.81e5	1.23e5	1.22e5	4.56e4

Table 12. continued, GC of saturated compounds (amounts in ng/g)

Well	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	n-C33	n-C34	n-C35	n-C36
6302/6-1	Mud		3900	28742	0.00e0	0.00e0	0.00e0	0.00e0
6302/6-1	COCH		3914.60	29159	2.32e4	1.28e4	1.14e4	5.86e3
6302/6-1	COCH	3938.89	3938.91	28072	1.43e4	8.46e3	4.42e3	0.00e0
6302/6-1	SWC		4025	29150	7.93e3	5.59e3	4.20e3	3.61e3
6302/6-1	SWC		4069	29151	4.75e3	4.17e3	3.04e3	2.75e3
6302/6-1	SWC		4098.50	29152	6.99e3	6.62e3	4.56e3	4.65e3
6302/6-1	SWC		4128	29154	4.46e3	3.96e3	3.00e3	3.14e3
6302/6-1	SWC		4138.50	29155	8.82e3	6.90e3	4.21e3	3.80e3
6302/6-1	SWC		4151.60	29156	2.89e4	2.13e4	1.34e4	1.16e4
6302/6-1	SWC		4209.50	29120	6.77e4	3.35e4	2.90e4	1.82e4

Table 13. GC of aromatic compounds (peak area)

Well	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	2-MN	1-MN	P	3-MP	2-MP	9-MP	1-MP
6302/6-1	Mud		3900	28742	0	0	0	0	0	0	0
6302/6-1	COCH		3914.60	29159	43790	30141	65177	18497	22251	16854	17556
6302/6-1	COCH	3938.89	3938.91	28072	6917	3957	5650	1252	1430	1140	1270
6302/6-1	SWC		4025	29150	28744	31543	23671	4863	5639	6209	10459
6302/6-1	SWC		4069	29151	1026	947	2839	261	865	0	0
6302/6-1	SWC		4098.50	29152	1163	1048	2809	307	515	185	0
6302/6-1	SWC		4128	29154	2172	2059	5130	1123	1291	1216	1869
6302/6-1	SWC		4138.50	29155	0	0	1398	0	0	0	621
6302/6-1	SWC		4151.60	29156	71633	50555	51257	16575	16989	19016	20323
6302/6-1	SWC		4209.50	29120	71973	51462	28505	9548	10810	15429	14745

Table 14. GC of aromatic compounds (amounts in ng/g)

Well	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	2-MN	1-MN	P	3-MP	2-MP	9-MP	1-MP
6302/6-1	COCH		3914.60	29159	47694	32829	70989	20146	24235	18357	19122
6302/6-1	COCH	3938.89	3938.91	28072	42133	24103	34415	7623	8711	6943	7734
6302/6-1	SWC		4025	29150	27102	29741	22318	4585	5317	5854	9861
6302/6-1	SWC		4069	29151	1177	1086	3256	299	992	0	0
6302/6-1	SWC		4098.50	29152	3350	3021	8092	883	1483	532	0
6302/6-1	SWC		4128	29154	2388	2264	5641	1235	1419	1337	2056
6302/6-1	SWC		4138.50	29155	0	0	13137	0	0	0	5835
6302/6-1	SWC		4151.60	29156	110629	78077	79161	25597	26238	29367	31387
6302/6-1	SWC		4209.50	29120	184690	132057	73146	24501	27739	39593	37838

Table 15. GCMS SIR of saturated compounds (peak height)

m/e						123			177					191					
Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	25nor28αβ	25nor29αβ	25nor30αβ	25nor31αβ	19/3	20/3	21/3	23/3	24/3	25/3R	25/3S	24/4	26/3R	26/3S	28/3R
6302/6-1	COCH			3914.60	29159	3.10e5	2.17e6	3.25e5	3.02e6	6.55e5	1.03e6	1.82e6	4.02e6	1.74e6	5.57e5	5.16e5	1.73e6	4.23e5	4.06e5	2.00e5
6302/6-1	COCH		3938.89	3938.91	28072	0.00e0	0.00e0	0.00e0	2.31e4	3.26e4	7.82e4	1.10e5	1.65e5	5.83e4	1.32e4	1.39e4	3.84e4	7.76e3	8.57e3	5.91e3
6302/6-1	SWC			4151.60	29156	6.76e4	6.53e4	0.00e0	2.55e6	8.99e5	1.12e6	7.95e5	8.74e5	3.06e5	1.00e5	8.73e4	2.62e6	8.67e4	8.00e4	7.20e4

Table 15. continued, GCMS SIR of saturated compounds (peak height)

m/e						191													
Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	28/3S	29/3R	29/3S	27Ts	27Tm	30/3R	30/3S	28αβ	25nor30αβ	29αβ	29Ts	30d	29βα	30O	30αβ
6302/6-1	COCH			3914.60	29159	1.81e5	2.23e5	2.87e5	2.29e6	1.20e7	3.33e5	7.40e5	1.29e6	0.00e0	2.27e7	4.99e6	1.52e6	8.94e6	0.00e0	4.36e7
6302/6-1	COCH		3938.89	3938.91	28072	4.79e3	0.00e0	0.00e0	3.16e4	1.32e5	0.00e0	7.25e3	4.17e4	0.00e0	2.24e5	3.15e4	1.13e4	5.82e4	0.00e0	2.92e5
6302/6-1	SWC			4151.60	29156	5.44e4	5.71e4	5.25e4	8.33e5	2.21e7	0.00e0	0.00e0	2.28e5	0.00e0	4.01e7	1.58e6	6.69e5	1.39e7	0.00e0	3.81e7

Table 15. continued, GCMS SIR of saturated compounds (peak height)

m/e						191													
Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	30βα	31αβS	31αβR	30G	31βα	32αβS	32αβR	33αβS	33αβR	34αβS	34αβR	35αβS	35αβR	21αα	21ββ
6302/6-1	COCH			3914.60	29159	1.34e7	2.34e7	1.74e7	1.09e6	7.86e6	6.97e6	6.31e6	3.16e6	2.95e6	2.26e6	2.05e6	1.23e6	1.11e6	1.12e6	1.68e6
6302/6-1	COCH		3938.89	3938.91	28072	9.47e4	1.43e5	1.04e5	1.40e4	4.56e4	5.53e4	4.18e4	2.73e4	2.20e4	1.76e4	1.84e4	2.25e4	1.39e4	4.63e4	6.43e4
6302/6-1	SWC			4151.60	29156	1.79e7	2.19e7	1.55e7	5.95e5	7.50e6	5.13e6	3.56e6	1.75e6	1.20e6	7.24e5	4.65e5	2.55e5	1.94e5	1.41e5	2.69e5

Table 15. continued, GCMS SIR of saturated compounds (peak height)

m/e						191	217												
Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	22αα	22ββ	27dβS	27dβR	27dαR	27dαS	28dβS#1	28dβS#2	28dβR#1	28dβR#2	28dαR	27ααS	27ββR+29dβS	27ββS	28dαS
6302/6-1	COCH			3914.60	29159	7.05e5	7.68e5	3.42e6	2.11e6	9.10e5	1.11e6	2.11e6	2.11e6	1.23e6	1.48e6	1.02e6	1.45e6	2.75e6	7.81e5	7.42e5
6302/6-1	COCH		3938.89	3938.91	28072	2.94e4	2.77e4	2.35e4	1.54e4	6.12e3	7.26e3	1.08e4	1.12e4	7.28e3	8.36e3	6.83e3	1.22e4	1.44e4	8.00e3	4.40e3
6302/6-1	SWC			4151.60	29156	1.04e5	1.66e5	3.58e5	2.17e5	1.10e5	1.36e5	1.65e5	1.68e5	8.18e4	1.33e5	7.49e4	5.55e5	3.31e5	1.40e5	4.88e4

Table 15. continued, GCMS SIR of saturated compounds (peak height)

m/e						217													
Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	27ααR	29dβR	29dαR	28ααS	29dαS	28ββR	28ββS	28ααR	29ααS	29ββR	29ββS	29ααR	30ααS	30ββR	30ββS
6302/6-1	COCH			3914.60	29159	3.57e6	2.26e6	1.04e6	5.06e5	1.18e6	1.30e6	9.40e5	2.00e6	1.26e6	1.28e6	9.99e5	4.36e6	9.53e5	2.54e5	0.00e0
6302/6-1	COCH		3938.89	3938.91	28072	6.35e4	1.46e4	7.14e3	4.38e3	5.88e3	9.65e3	6.79e3	9.24e3	1.22e4	8.37e3	8.05e3	2.25e4	7.06e3	0.00e0	0.00e0
6302/6-1	SWC			4151.60	29156	9.97e5	2.92e5	1.19e5	2.18e5	1.36e5	0.00e0	1.71e5	4.36e5	6.56e5	3.03e5	2.38e5	8.36e5	9.22e5	4.34e4	0.00e0

Table 15. continued, GCMS SIR of saturated compounds (peak height)

m/e						217							218	
Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	30aaR	27bbR	27bbS	28bbR	28bbS	29bbR	29bbS	30bbR	30bbS
6302/6-1	COCH			3914.60	29159	8.49e5	1.46e6	9.21e5	1.46e6	1.25e6	1.72e6	1.53e6	1.61e5	1.11e5
6302/6-1	COCH		3938.89	3938.91	28072	4.47e3	1.22e4	1.15e4	9.94e3	1.09e4	1.15e4	1.12e4	0.00e0	0.00e0
6302/6-1	SWC			4151.60	29156	1.00e5	3.50e5	2.49e5	3.13e5	2.43e5	3.70e5	3.39e5	4.06e4	0.00e0

Abbreviations of saturated biomarkers

17α(H), 21β(H)-25,28,30-trisnorhopane	25nor28αβ
17α, 21β-25,30-bisnorhopane	25nor29αβ
17α(H), 21β(H)-25-norhopane	25nor30αβ
17α, 21β, 22(R/S)-25-norhomohopane	25nor31αβ
$C_{19}H_{34}$ tricyclic terpane	19/3
$C_{20}H_{36}$ tricyclic terpane	20/3
$C_{21}H_{38}$ tricyclic terpane	21/3
$C_{23}H_{42}$ tricyclic terpane	23/3
$C_{24}H_{44}$ tricyclic terpane	24/3
$C_{25}H_{46}$ tricyclic terpane	25/3R
$C_{25}H_{46}$ tricyclic terpane	25/3S
$C_{24}H_{42}$ tetracyclic terpane	24/4
$C_{26}H_{48}$ tricyclic terpane	26/3R
$C_{26}H_{48}$ tricyclic terpane	26/3S
$C_{28}H_{52}$ tricyclic terpane	28/3R
$C_{28}H_{52}$ tricyclic terpane	28/3S
$C_{29}H_{54}$ tricyclic terpane	29/3R
$C_{29}H_{54}$ tricyclic terpane	29/3S
18α(H)-22,29,30-trisnorneohopane	27Ts
17α(H)-22,29,30-trisnorhopane	27Tm
$C_{30}H_{56}$ tricyclic terpane	30/3R
$C_{30}H_{56}$ tricyclic terpane	30/3S
17α(H), 21β(H)-28,30-bisnorhopane	28αβ
17α(H), 21β(H)-30-norhopane	29αβ
18α(H)-30-norneohopane	29Ts
15α-methyl-17α(H)-27-norhopane (diahopane)	30d
17β(H), 21α(H)-30-norhopane (normoretane)	29βα
18α(H)-oleanane	30O
17α(H), 21β(H)-hopane	30αβ
17β(H), 21α(H)-hopane (moretane)	30βα
17α(H), 21β(H), 22(S)-homohopane	31αβS
17α(H), 21β(H), 22(R)-homohopane	31αβR
Gammacerane	30G
17β(H), 21α(H)-homohopane	31βα
17α(H), 21β(H), 22(S)-bishomohopane	32αβS
17α(H), 21β(H), 22(R)-bishomohopane	32αβR
17α(H), 21β(H), 22(S)-trishomohopane	33αβS

17α(H), 21β(H), 22(R)-trishomohopane	33αβR
17α(H), 21β(H), 22(S)-tetrakishomohopane	34αβS
17α(H), 21β(H), 22(R)-tetrakishomohopane	34αβR
17α(H), 21β(H), 22(S)-pentakishomohopane	35αβS
17α(H), 21β(H), 22(R)-pentakishomohopane	35αβR
C21-5α(H), 14α(H), 17α(H)-pregnane	21ααα
C21-5α(H), 14β(H), 17β(H)-pregnane	21βββ
C22-5α(H), 14α(H), 17α(H)-pregnane	22ααα
C22-5α(H), 14β(H), 17β(H)-pregnane	22βββ
13β(H), 17α(H), 20(S)-cholestane (diasterane)	27dβS
13β(H), 17α(H), 20(R)-cholestane (diasterane)	27dβR
13α(H), 17β(H), 20(R)-cholestane (diasterane)	27dαR
13α(H), 17β(H), 20(S)-cholestane (diasterane)	27dαS
24-methyl-13β(H), 17α(H), 20(S)-cholestane (diasterane)	28dβS
24-methyl-13β(H), 17α(H), 20(R)-cholestane (diasterane)	28dβR
24-methyl-13α(H), 17β(H), 20(R)-cholestane (diasterane)	28dαR
5α(H), 14α(H), 17α(H), 20(S)-cholestane	27ααS
5α(H), 14β(H), 17β(H), 20(R)-cholestane	27βββR
24-ethyl-13β(H), 17α(H), 20(S)-cholestane (diasterane)	29dβS
5α(H), 14β(H), 17β(H), 20(S)-cholestane	27βββS
24-methyl-13α(H), 17β(H), 20(S)-cholestane (diasterane)	28dαS
5α(H), 14α(H), 17α(H), 20(R)-cholestane	27ααR
24-ethyl-13β(H), 17α(H), 20(R)-cholestane (diasterane)	29dβR
24-ethyl-13α(H), 17β(H), 20(R)-cholestane (diasterane)	29dαR
24-methyl-5α(H), 14α(H), 17α(H), 20(S)-cholestane	28ααS
24-ethyl-13α(H), 17β(H), 20(S)-cholestane (diasterane)	29dαS
24-methyl-5α(H), 14β(H), 17β(H), 20(R)-cholestane	28βββR
24-methyl-5α(H), 14β(H), 17β(H), 20(S)-cholestane	28βββS
24-methyl-5α(H), 14α(H), 17α(H), 20(R)-cholestane	28ααR
24-ethyl-5α(H), 14α(H), 17α(H), 20(S)-cholestane	29ααS
24-ethyl-5α(H), 14β(H), 17β(H), 20(R)-cholestane	29βββR
24-ethyl-5α(H), 14β(H), 17β(H), 20(S)-cholestane	29βββS
24-ethyl-5α(H), 14α(H), 17α(H), 20(R)-cholestane	29ααR
24-propyl-5α(H), 14α(H), 17α(H), 20(S)-cholestane	30ααS
24-propyl-5α(H), 14β(H), 17β(H), 20(R)-cholestane	30βββR
24-propyl-5α(H), 14β(H), 17β(H), 20(S)-cholestane	30βββS
24-propyl-5α(H), 14α(H), 17α(H), 20(R)-cholestane	30ααR

Table 16. GCMS SIR of saturated compounds (amounts in ng/g)

m/e						123			177					191						
Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	25nor28αβ	25nor29αβ	25nor30αβ	25nor31αβ	19/3	20/3	21/3	23/3	24/3	25/3R	25/3S	24/4	26/3R	26/3S	28/3R
6302/6-1	COCH			3914.60	29159	1.73e2	1.22e3	1.82e2	1.69e3	3.67e2	5.75e2	1.02e3	2.25e3	9.71e2	3.12e2	2.89e2	9.66e2	2.36e2	2.27e2	1.12e2
6302/6-1	COCH		3938.89	3938.91	28072	0.00e0	0.00e0	0.00e0	1.47e2	2.07e2	4.97e2	6.98e2	1.05e3	3.71e2	8.40e1	8.81e1	2.44e2	4.93e1	5.45e1	3.75e1
6302/6-1	SWC			4151.60	29156	7.13e1	6.90e1	0.00e0	2.69e3	9.49e2	1.18e3	8.39e2	9.22e2	3.23e2	1.06e2	9.21e1	2.77e3	9.15e1	8.44e1	7.59e1

Table 16. continued, GCMS SIR of saturated compounds (amounts in ng/g)

m/e						191														
Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	28/3S	29/3R	29/3S	27Ts	27Tm	30/3R	30/3S	28αβ	25nor30αβ	29αβ	29Ts	30d	29βα	30O	30αβ
6302/6-1	COCH			3914.60	29159	1.01e2	1.25e2	1.61e2	1.28e3	6.69e3	1.86e2	4.14e2	7.20e2	0.00e0	1.27e4	2.79e3	8.52e2	5.00e3	0.00e0	2.44e4
6302/6-1	COCH		3938.89	3938.91	28072	3.04e1	0.00e0	0.00e0	2.01e2	8.39e2	0.00e0	4.60e1	2.65e2	0.00e0	1.42e3	2.00e2	7.20e1	3.70e2	0.00e0	1.85e3
6302/6-1	SWC			4151.60	29156	5.74e1	6.02e1	5.54e1	8.79e2	2.34e4	0.00e0	0.00e0	2.41e2	0.00e0	4.23e4	1.67e3	7.06e2	1.47e4	0.00e0	4.02e4

Table 16. continued, GCMS SIR of saturated compounds (amounts in ng/g)

m/e						191														
Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	30βα	31αβS	31αβR	30G	31βα	32αβS	32αβR	33αβS	33αβR	34αβS	34αβR	35αβS	35αβR	21αα	21ββ
6302/6-1	COCH			3914.60	29159	7.52e3	1.31e4	9.71e3	6.09e2	4.40e3	3.90e3	3.53e3	1.77e3	1.65e3	1.27e3	1.15e3	6.89e2	6.20e2	6.28e2	9.40e2
6302/6-1	COCH		3938.89	3938.91	28072	6.02e2	9.10e2	6.63e2	8.89e1	2.90e2	3.52e2	2.65e2	1.73e2	1.40e2	1.12e2	1.17e2	1.43e2	8.84e1	2.94e2	4.08e2
6302/6-1	SWC			4151.60	29156	1.89e4	2.31e4	1.64e4	6.28e2	7.91e3	5.41e3	3.76e3	1.84e3	1.26e3	7.64e2	4.91e2	2.69e2	2.04e2	1.49e2	2.83e2

Table 16. continued, GCMS SIR of saturated compounds (amounts in ng/g)

m/e						191	217												
Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	22αα	22ββ	27dβS	27dβR	27dαR	27dαS	28dβS#1	28dβS#2	28dβR#1	28dβR#2	28dαR	27ααS	27ββR+29dβS	27ββS	28dαS
6302/6-1	COCH			3914.60	29159	3.95e2	4.29e2	1.91e3	1.18e3	5.09e2	6.23e2	1.18e3	1.18e3	6.90e2	8.27e2	5.71e2	8.11e2	1.54e3	4.37e2	4.15e2
6302/6-1	COCH		3938.89	3938.91	28072	1.87e2	1.76e2	1.49e2	9.76e1	3.89e1	4.61e1	6.88e1	7.09e1	4.62e1	5.31e1	4.34e1	7.75e1	9.16e1	5.08e1	2.80e1
6302/6-1	SWC			4151.60	29156	1.10e2	1.75e2	3.78e2	2.29e2	1.16e2	1.44e2	1.74e2	1.77e2	8.63e1	1.40e2	7.91e1	5.86e2	3.49e2	1.48e2	5.15e1

Table 16. continued, GCMS SIR of saturated compounds (amounts in ng/g)

m/e						217													
Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	27ααR	29dβR	29dαR	28ααS	29dαS	28ββR	28ββS	28ααR	29ααS	29ββR	29ββS	29ααR	30ααS	30ββR	30ββS
6302/6-1	COCH			3914.60	29159	2.00e3	1.26e3	5.84e2	2.83e2	6.57e2	7.29e2	5.26e2	1.12e3	7.06e2	7.18e2	5.59e2	2.44e3	5.33e2	1.42e2	0.00e0
6302/6-1	COCH		3938.89	3938.91	28072	4.04e2	9.27e1	4.53e1	2.78e1	3.73e1	6.13e1	4.31e1	5.87e1	7.75e1	5.32e1	5.11e1	1.43e2	4.49e1	0.00e0	0.00e0
6302/6-1	SWC			4151.60	29156	1.05e3	3.08e2	1.25e2	2.30e2	1.44e2	0.00e0	1.81e2	4.60e2	6.92e2	3.20e2	2.51e2	8.83e2	9.73e2	4.58e1	0.00e0

Table 16. continued, GCMS SIR of saturated compounds (amounts in ng/g)

m/e						217					218			
Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	30aaR	27bbR	27bbS	28bbR	28bbS	29bbR	29bbS	30bbR	30bbS
6302/6-1	COCH			3914.60	29159	4.75e2	8.18e2	5.15e2	8.19e2	6.98e2	9.63e2	8.54e2	9.03e1	6.23e1
6302/6-1	COCH		3938.89	3938.91	28072	2.84e1	7.72e1	7.33e1	6.32e1	6.93e1	7.33e1	7.09e1	0.00e0	0.00e0
6302/6-1	SWC			4151.60	29156	1.06e2	3.70e2	2.63e2	3.31e2	2.56e2	3.90e2	3.57e2	4.28e1	0.00e0

Table 17. GCMS SIR of aromatic compounds (peak height)

m/e						142		156										170		
Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	2-MN	1-MN	2-EN	1-EN	2,6-DMN	2,7-DMN	1,3- + 1,7-DMN	1,6-DMN	2,3- + 1,4-DMN	1,5-DMN	1,2-DMN	1,8-DMN	1,3,7-TMN	1,3,6-TMN	1,3,5- + 1,4,6-TMN
6302/6-1	COCH			3914.60	29159	1.53e8	9.01e7	1.22e7	7.55e6	2.17e7	2.56e7	5.62e7	4.58e7	2.48e7	1.11e7	1.69e7	7.14e5	9.48e6	1.54e7	1.27e7
6302/6-1	COCH		3938.89	3938.91	28072	2.52e7	1.34e7	1.48e6	9.71e5	3.05e6	3.38e6	7.47e6	5.43e6	3.19e6	1.46e6	1.88e6	7.16e4	1.38e6	1.83e6	1.64e6
6302/6-1	SWC			4151.60	29156	2.99e8	2.06e8	2.41e7	1.45e7	2.37e7	3.27e7	8.33e7	7.56e7	4.18e7	1.89e7	3.98e7	1.17e6	1.05e7	1.82e7	1.64e7

Table 17. continued, GCMS SIR of aromatic compounds (peak height)

m/e						170					178	192				206				
Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	2,3,6-TMN	1,2,7-TMN	1,6,7 + 1,2,6-TMN	1,2,4-TMN	1,2,5-TMN	P	3-MP	2-MP	9-MP	1-MP	2-EP+9-EP+ 3,6-DMP	1-EP	2,6- + 2,7- + 3,5-DMP	1,3- + 2,10- + 3,9- + 3,10-DMP	1,6- + 2,5- + 2,9-DMP
6302/6-1	COCH			3914.60	29159	1.15e7	1.27e7	1.42e7	2.98e6	3.37e7	2.89e8	5.05e7	6.68e7	4.29e7	4.37e7	6.81e6	1.54e7	6.41e6	1.74e7	1.11e7
6302/6-1	COCH		3938.89	3938.91	28072	1.33e6	1.17e6	1.50e6	2.80e5	2.94e6	2.75e7	3.40e6	4.11e6	3.24e6	2.93e6	2.98e5	5.09e5	2.61e5	9.81e5	6.13e5
6302/6-1	SWC			4151.60	29156	1.41e7	2.46e7	3.30e7	5.74e6	1.08e8	2.76e8	5.08e7	6.00e7	6.37e7	7.03e7	6.51e6	1.17e7	3.29e6	2.03e7	1.31e7

Table 17. continued, GCMS SIR of aromatic compounds (peak height)

m/e						206					219	184	198			253				
Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	1,7-DMP	2,3-DMP	1,9- + 4,9- + 4,10-DMP	1,8-DMP	1,2-DMP	Retene	DBT	4-MDBT	(3+2)-MDBT	1-MDBT	C21MA	C22MA	βSC27MA	βSC27DMA	βRC27MA+ βRC27DMA
6302/6-1	COCH			3914.60	29159	1.54e7	7.73e6	5.36e6	4.03e6	5.37e6	3.36e7	1.54e7	5.09e6	4.05e6	1.89e6	6.37e5	5.16e5	3.92e5	2.22e6	2.00e6
6302/6-1	COCH		3938.89	3938.91	28072	7.64e5	3.79e5	2.82e5	1.79e5	2.36e5	7.94e5	1.51e6	4.47e5	2.75e5	1.17e5	1.74e4	9.75e3	1.89e3	9.08e3	7.95e3
6302/6-1	SWC			4151.60	29156	2.41e7	7.28e6	8.80e6	8.07e6	1.14e7	1.01e7	1.75e7	5.66e6	5.49e6	5.66e6	1.82e5	1.72e5	5.24e4	2.16e5	1.83e5

Table 17. continued, GCMS SIR of aromatic compounds (peak height)

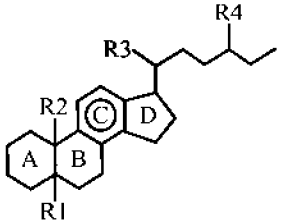
Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	m/e 253 αSC27MA	βSC28MA+ βSC28DMA+ αRC27DMA	αSC27DMA	αRC27MA	αSC28MA	βRC28MA+ βRC28DMA	βSC29MA+ βSC29DMA	αSC29MA	αRC28MA+ βRC29MA+ βRC29DMA	m/e 231 αRC29MA	C20TA	C21TA	SC26TA	RC26TA+ SC27TA	SC28TA
6302/6-1	COCH			3914.60	29159	2.89e5	5.89e6	1.03e6	3.49e5	8.31e5	3.99e6	2.46e6	3.58e5	1.93e6	3.16e5	1.67e6	1.27e6	2.37e6	8.06e6	1.88e6
6302/6-1	COCH		3938.89	3938.91	28072	1.86e3	2.09e4	4.72e3	1.83e3	4.10e3	1.49e4	1.12e4	2.60e3	9.26e3	1.92e3	3.18e4	1.90e4	1.31e4	4.62e4	1.08e4
6302/6-1	SWC			4151.60	29156	5.28e4	5.04e5	9.93e4	5.50e4	1.14e5	3.07e5	3.05e5	6.56e4	2.32e5	5.47e4	3.52e6	2.21e6	2.86e6	1.15e7	2.54e6

Table 17. continued, GCMS SIR of aromatic compounds (peak height)

Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	m/e 231 RC27TA	RC28TA
6302/6-1	COCH			3914.60	29159	3.72e6	2.22e6
6302/6-1	COCH		3938.89	3938.91	28072	1.60e4	1.31e4
6302/6-1	SWC			4151.60	29156	5.37e6	2.53e6

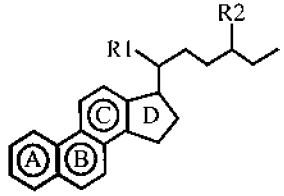
Abbreviation of aromatic biomarkers

C-ring monoaromatic steroid



Substituents				
R_1	R_2	R_3	R_4	Label
				$C_{21}MA$
				$C_{22}MA$
β(H)	CH_3	$S(CH_3)$	H	$\beta SC_{27}MA$
$\beta(CH_3)$	H	$S(CH_3)$	H	$\beta SC_{27}DMA$
$\beta(CH_3)$	H	$RCH_3)$	H	$\beta RC_{27}DMA+$
β(H)	CH_3	$R(CH_3)$	H	$\beta RC_{27}MA$
α(H)	CH_3	$S(CH_3)$	H	$\alpha SC_{27}MA$
β(H)	CH_3	$S(CH_3)$	CH_3	$\beta SC_{28}MA+$
$\alpha(CH_3)$	H	$R(CH_3)$	H	$\alpha RC_{27}DMA+$
$\beta(CH_3)$	H	$S(CH_3)$	CH_3	$\beta SC_{28}DMA$
$\alpha(CH_3)$	H	$S(CH_3)$	CH_3	$\alpha SC_{27}DMA$
α(H)	CH_3	$R(CH_3)$	H	$\alpha RC_{27}MA$
α(H)	CH_3	$S(CH_3)$	CH_3	$\alpha SC_{28}MA$
β(H)	CH_3	$R(CH_3)$	CH_3	$\beta RC_{28}MA+$
$\beta(CH_3)$	H	$R(CH_3)$	CH_3	$\beta RC_{28}DMA$
β(H)	CH_3	$S(CH_3)$	C_2H_5	$\beta SC_{29}MA+$
$\beta(CH_3)$	H	$S(CH_3)$	C_2H_5	$\beta SC_{29}DMA$
α(H)	CH_3	$S(CH_3)$	C_2H_5	$\alpha SC_{29}MA$
α(H)	CH_3	$R(CH_3)$	CH_3	$\alpha RC_{28}MA+$
β(H)	CH_3	$R(CH_3)$	C_2H_5	$\beta RC_{29}MA+$
$\beta(CH_3)$	H	$R(CH_3)$	C_2H_5	$\beta RC_{29}DMA$
α(H)	CH_3	$R(CH_3)$	C_2H_5	$\alpha RC_{29}MA$

ABC-ring triaromatic steroids



Substituents		
R_1	R_2	Label
CH_3	H	$C_{20}TA$
CH_3	CH_3	$C_{21}TA$
$S(CH_3)$	C_6H_{13}	$SC_{26}TA$
$R(CH_3)$	C_6H_{13}	$RC_{26}TA+$
S(CH3)	C_7H_{15}	$SC_{27}TA$
$S(CH_3)$	C_8H_{17}	$SC_{28}TA$
$R(CH_3)$	C_7H_{15}	$RC_{27}TA$
$R(CH_3)$	C_8H_{17}	$RC_{28}TA$

Polycyclic aromatic hydrocarbons and sulphur compounds

MN	Methylnaphthalene
EN	Ethylnaphthalene
DMN	Dimethylnaphthalene
TMN	Trimethylnaphthalene
P	Phenanthrene
MP	Methylphenanthrene
EP	Ethylphenanthrene
DMP	Dimethylphenanthrene
DBT	Dibenzothiophene
MDBT	Methyldibenzothiophene

Table 18. GCMS SIR of aromatic compounds (amounts in ng/g)

m/e						142		156									170		
Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	2-MN	1-MN	2-EN	1-EN	2,6-DMN	2,7-DMN	1,3- + 1,7-DMN	1,6-DMN	2,3- + 1,4-DMN	1,5-DMN	1,2-DMN	1,8-DMN	1,3,7-TMN	1,3,6-TMN	1,3,5- + 1,4,6-TMN
6302/6-1	COCH			3914.60	29159	3.52e4	2.08e4	2.82e3	1.74e3	5.01e3	5.90e3	1.30e4	1.06e4	5.71e3	2.56e3	3.90e3	1.65e2	2.19e3	3.55e3	2.92e3
6302/6-1	COCH		3938.89	3938.91	28072	2.14e4	1.13e4	1.26e3	8.24e2	2.59e3	2.87e3	6.34e3	4.60e3	2.70e3	1.24e3	1.60e3	6.08e1	1.17e3	1.55e3	1.39e3
6302/6-1	SWC			4151.60	29156	8.07e4	5.57e4	6.52e3	3.92e3	6.40e3	8.84e3	2.25e4	2.04e4	1.13e4	5.11e3	1.07e4	3.17e2	2.82e3	4.91e3	4.43e3

Table 18. continued, GCMS SIR of aromatic compounds (amounts in ng/g)

m/e						170					178	192				206				
Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	2,3,6-TMN	1,2,7-TMN	1,6,7 + 1,2,6-TMN	1,2,4-TMN	1,2,5-TMN	P	3-MP	2-MP	9-MP	1-MP	2-EP+9-EP+ 3,6-DMP	1-EP	2,6- + 2,7- + 3,5-DMP	1,3- + 2,10- + 3,9- + 3,10-DMP	1,6- + 2,5- + 2,9-DMP
6302/6-1	COCH			3914.60	29159	2.66e3	2.94e3	3.28e3	6.86e2	7.78e3	6.56e4	1.15e4	1.52e4	9.75e3	9.93e3	1.55e3	3.51e3	1.46e3	3.96e3	2.51e3
6302/6-1	COCH		3938.89	3938.91	28072	1.13e3	9.91e2	1.27e3	2.38e2	2.49e3	2.53e4	3.13e3	3.78e3	2.99e3	2.70e3	2.74e2	4.68e2	2.40e2	9.03e2	5.64e2
6302/6-1	SWC			4151.60	29156	3.80e3	6.65e3	8.91e3	1.55e3	2.91e4	7.55e4	1.39e4	1.64e4	1.74e4	1.92e4	1.78e3	3.20e3	8.99e2	5.54e3	3.58e3

Table 18. continued, GCMS SIR of aromatic compounds (amounts in ng/g)

m/e						206					219	184	198			253				
Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	1,7-DMP	2,3-DMP	1,9- + 4,9- + 4,10-DMP	1,8-DMP	1,2-DMP	Retene	DBT	4-MDBT	(3+2)-MDBT	1-MDBT	C21MA	C22MA	βSC27MA	βSC27DMA	βRC27MA+ βRC27DMA
6302/6-1	COCH			3914.60	29159	3.49e3	1.76e3	1.22e3	9.14e2	1.22e3	7.62e3	3.49e3	1.16e3	9.21e2	4.29e2	1.35e2	1.09e2	8.29e1	4.69e2	4.23e2
6302/6-1	COCH		3938.89	3938.91	28072	7.03e2	3.49e2	2.60e2	1.64e2	2.17e2	7.31e2	1.39e3	4.11e2	2.54e2	1.08e2	1.79e1	1.00e1	1.94e0	9.36e0	8.19e0
6302/6-1	SWC			4151.60	29156	6.60e3	1.99e3	2.41e3	2.21e3	3.12e3	2.76e3	4.77e3	1.55e3	1.50e3	1.55e3	4.27e1	4.03e1	1.23e1	5.08e1	4.29e1
6302/6-1	SWC			4209.50	29120	7.67e3	2.25e3	2.78e3	2.55e3	3.07e3	3.40e3	3.82e3	1.30e3	1.53e3	9.70e2	1.11e2	1.08e2	3.32e1	2.07e2	1.59e2

Table 18. continued, GCMS SIR of aromatic compounds (amounts in ng/g)

m/e						253										231				
Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	αSC27MA	βSC28MA+ βSC28DMA+ αRC27DMA	αSC27DMA	αRC27MA	αSC28MA	βRC28MA+ βRC28DMA	βSC29MA+ βSC29DMA	αSC29MA	αRC28MA+ βRC29MA+ βRC29DMA	αRC29MA	C20TA	C21TA	SC26TA	RC26TA+ SC27TA	SC28TA
6302/6-1	COCH			3914.60	29159	6.10e1	1.25e3	2.18e2	7.39e1	1.76e2	8.45e2	5.19e2	7.57e1	4.08e2	6.68e1	3.53e2	2.68e2	5.01e2	1.70e3	3.99e2
6302/6-1	COCH		3938.89	3938.91	28072	1.92e0	2.15e1	4.86e0	1.89e0	4.22e0	1.53e1	1.15e1	2.68e0	9.54e0	1.98e0	3.28e1	1.96e1	1.35e1	4.76e1	1.11e1
6302/6-1	SWC			4151.60	29156	1.24e1	1.18e2	2.33e1	1.29e1	2.67e1	7.20e1	7.17e1	1.54e1	5.44e1	1.28e1	8.26e2	5.19e2	6.71e2	2.69e3	5.97e2

Table 18. continued, GCMS SIR of aromatic compounds (amounts in ng/g)

m/e						231	
Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	RC27TA	RC28TA
6302/6-1	COCH			3914.60	29159	7.86e2	4.69e2
6302/6-1	COCH		3938.89	3938.91	28072	1.65e1	1.34e1
6302/6-1	SWC			4151.60	29156	1.26e3	5.93e2

Table 19. Vitrinite Reflectance

Well	Sample type	Sample name	Upper Depth (m)	Lower Depth (m)	APT ID	Sample prep.	%Lithology	%Ro	Std. dev.	No. of measurements	Quality rating	Overall quality	Comment
6302/6-1	DC			2100	29122	bulk	sst/clyst	barren					
6302/6-1	DC			2300	29124	bulk	sst/clyst	barren					
6302/6-1	DC			2600	29127	bulk	sst/clyst	0.20	0.01	10	-oo--o	M	
6302/6-1	DC			2700	29128	bulk	clyst	0.29	0.00	1	-±o--o	P	Nearly barren
6302/6-1	DC			2800	29129	bulk	clyst	0.18	0.01	4	-oo--o	P	
6302/6-1	DC			2900	29130	bulk	clyst	0.22	0.03	5	-oo--o	P	
6302/6-1	DC			3000	29131	bulk	clyst	0.23	0.04	11	-oo-oo	M	
6302/6-1	DC			3150	29132	bulk	clyst	barren					
6302/6-1	DC			3250	29133	bulk	clyst	0.27	0.01	2	-oo-oo	P	
6302/6-1	DC			3360	29134	bulk	clyst	0.45	0.01	2	-±o-oo	P	See data sheet
6302/6-1	DC			3400	29135	bulk	clyst	0.34	0.06	11	-oo-oo	M/P	
6302/6-1	DC			3450	29136	bulk	clyst	0.42	0.03	10	-±o-oo	P	
6302/6-1	DC			3500	29137	bulk	clyst	0.34	0.00	1	-±o--o	P	Nearly barren
6302/6-1	DC			3540	29138	bulk	clyst	barren					
6302/6-1	DC			3600	29139	bulk	clyst	0.42	0.05	9	-oo-oo	P	See data sheet
6302/6-1	DC			3650	29140	bulk	clyst	0.45	0.06	10	-oo--o	P/M	
6302/6-1	DC			3700	29141	bulk	clyst	0.51	0.08	16	-oo-oo	M	
6302/6-1	DC			3750	29142	bulk	clyst	0.49	0.06	19	ooo--o	M	
6302/6-1	DC			3800	29143	bulk	clyst	0.51	0.06	7	-oo-oo	M/P	
6302/6-1	DC			3830	29144	bulk	clyst	0.46	0.04	3	-oo--o	P	
6302/6-1	DC			3888	29145	bulk	clyst/sst	0.61	0.05	9	-oo-oo	P/M	
6302/6-1	COCH			3914.60	29159	bulk	clyst	0.63	0.05	15	-oo-oo	M	
6302/6-1	SWC			3945	29149	bulk	clyst	0.62	0.04	10	-oo-oo	M	
6302/6-1	DC			4026	29146	bulk	sst/clyst	barren					
6302/6-1	SWC			4171.50	29157	bulk	clyst	0.51	0.02	5	-±o-oo	P	
6302/6-1	SWC			4209.50	29120	bulk	clyst	0.51	0.05	9	-±o--o	P	

Legend to Vitrinite reflectance data

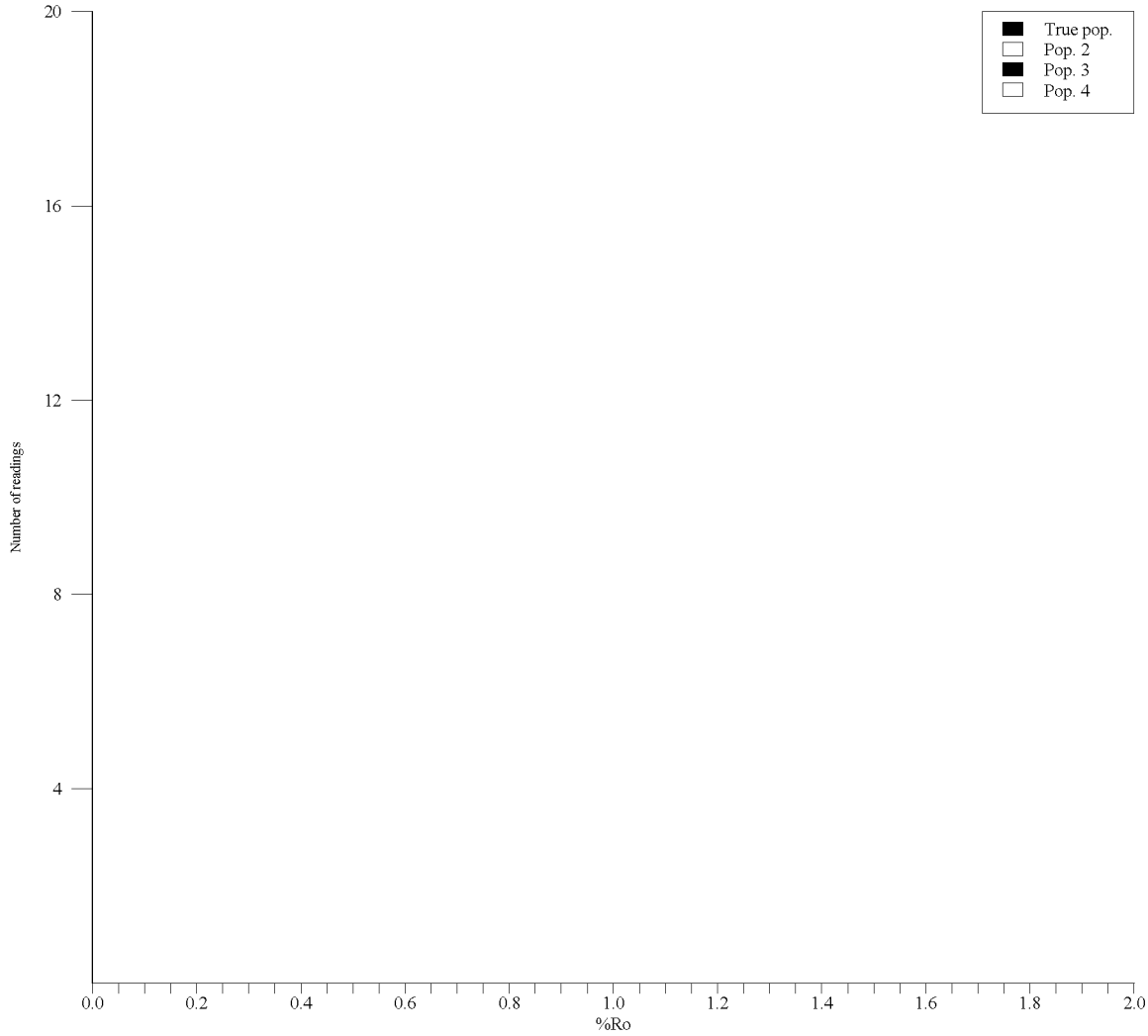
Lithology code		**Sample quality**		**Sample preparation**	
sst	Sandstone	G	Good	HF	Sample treatment with hydrofluoric

slst	Siltstone	M	Moderate		acid prior to analysis
clyst	Claystone	P	Poor	Bulk	Sample treated as bulk rock
sh	Shale	st	Hydrocarbon staining		
lst	Limestone				
coal	Coal				

Sample description and measurement evaluation (perfect sample characterised as: oooooo)

Sign order	Parameter	Sign	Sign legend:
1	Abundance of vitrinite	-o	- May give too low vitrinite reflectance sample value
2	Identification of vitrinite	-o+	o Reliable vitrinite reflectance sample value
3	Type of vitrinite	-o+	+ May give too high vitrinite reflectance sample value
4	Vitrinite fragment size	-o	
5	Vitrinite surface quality	-o	
6	Abundance of pyrite	o+	

Vitrinite Reflectance Sample Data Sheets



Sample info:

Well	6302/6-1
Lower depth	2100 m
Sample type	DC
Lithology	sst/clyst
Preparation	bulk
Date of analysis	04.02.2006
APT ID	29122

Quality rating:

Average sample quality	barren
Abundance of vitrinite	
Identification of vitrinite	
Type of vitrinite	
Particle size	
Particle surface quality	
Abundance of pyrite	

Legend to quality rating:

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
Mud additive	M

Comments:

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.				
Individual measurements				
3				
4				
5				
6				
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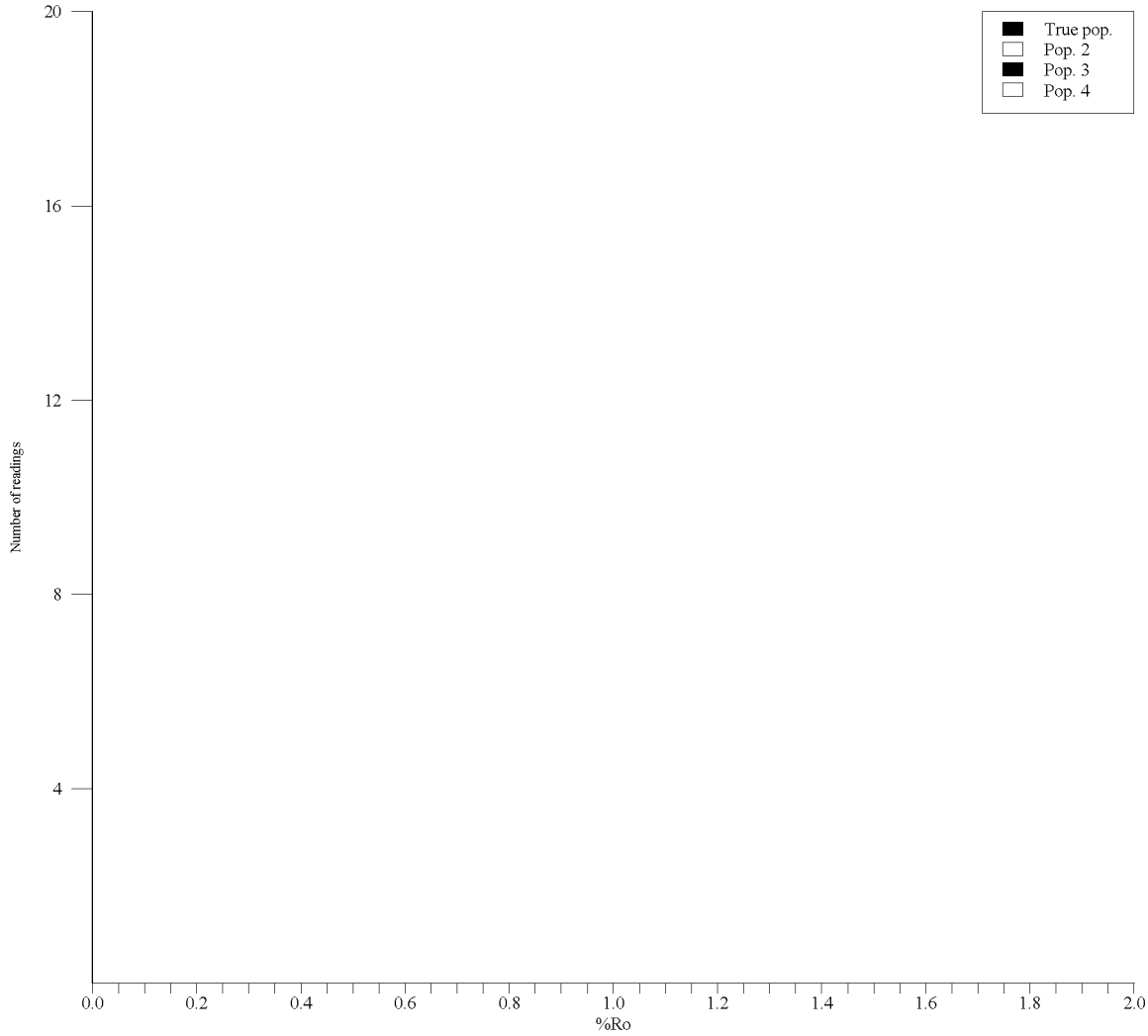
30				



Sample info:

Well	6302/6-1
Lower depth	2300 m
Sample type	DC
Lithology	sst/clyst
Preparation	bulk
Date of analysis	04.02.2006
APT ID	29124

Quality rating:

Average sample quality	barren
Abundance of vitrinite	
Identification of vitrinite	
Type of vitrinite	
Particle size	
Particle surface quality	
Abundance of pyrite	

Legend to quality rating:

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
Mud additive	M

Comments:

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.				
Individual measurements				
3				
4				
5				
6				
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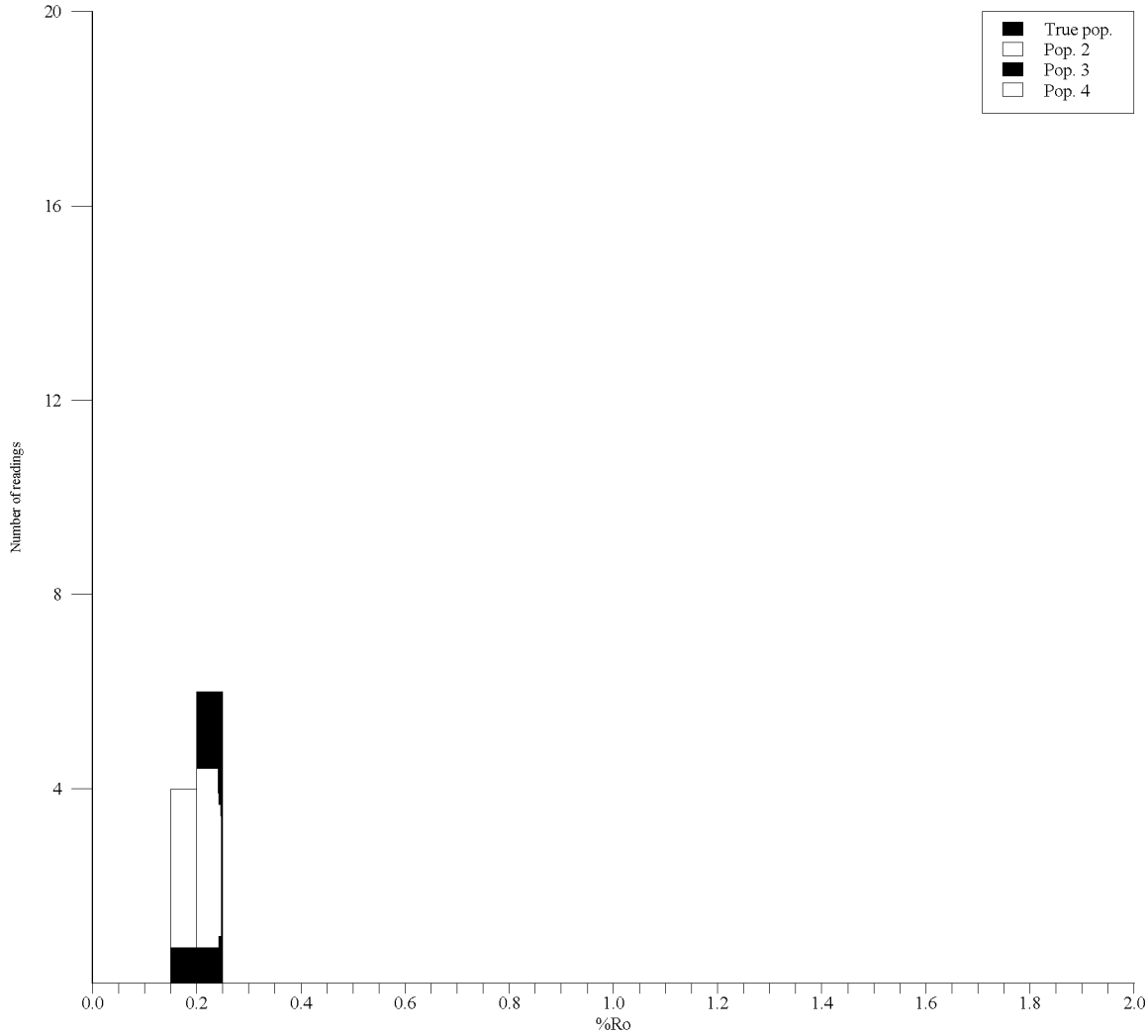

Sample info:

Well	6302/6-1
Lower depth	2600 m
Sample type	DC
Lithology	sst/clyst
Preparation	bulk
Date of analysis	04.02.2006
APT ID	29127

Quality rating:

Average sample quality	M
Abundance of vitrinite	-
Identification of vitrinite	o
Type of vitrinite	o
Particle size	-
Particle surface quality	-
Abundance of pyrite	o

Legend to quality rating:

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
Mud additive	M

Comments:

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.	0.20±0.01			
Individual	0.18			
measurements	0.18			
3	0.19			
4	0.19			
5	0.20			
6	0.20			
7	0.21			
8	0.21			
9	0.21			
10	0.21			
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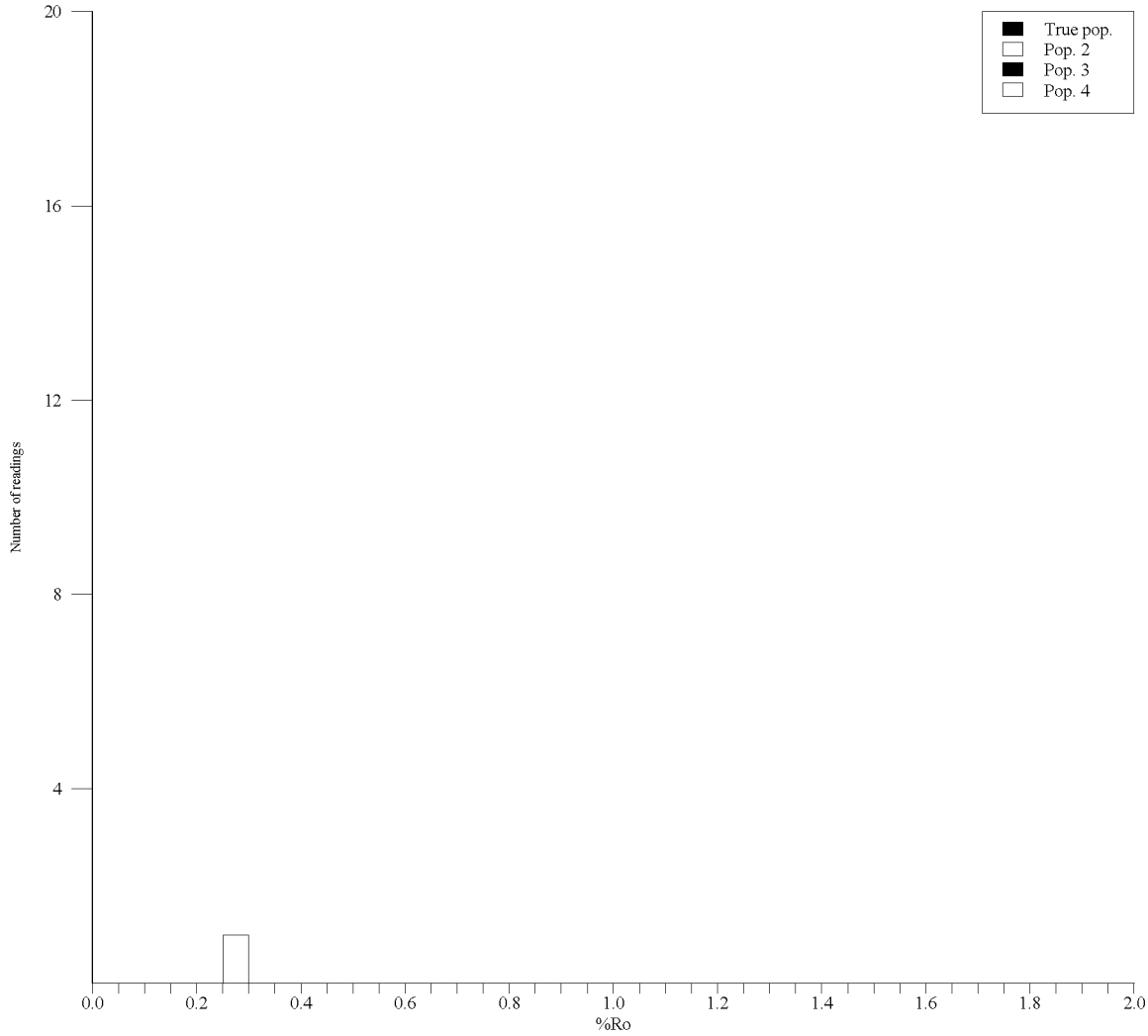

Sample info:

Well	6302/6-1
Lower depth	2700 m
Sample type	DC
Lithology	clyst
Preparation	bulk
Date of analysis	04.02.2006
APT ID	29128

Quality rating:

Average sample quality	P
Abundance of vitrinite	-
Identification of vitrinite	±
Type of vitrinite	o
Particle size	-
Particle surface quality	-
Abundance of pyrite	o

Legend to quality rating:

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
Mud additive	M

Comments:

Nearly barren.

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.	0.29±0.00			
Individual measurements	0.29			
3				
4				
5				
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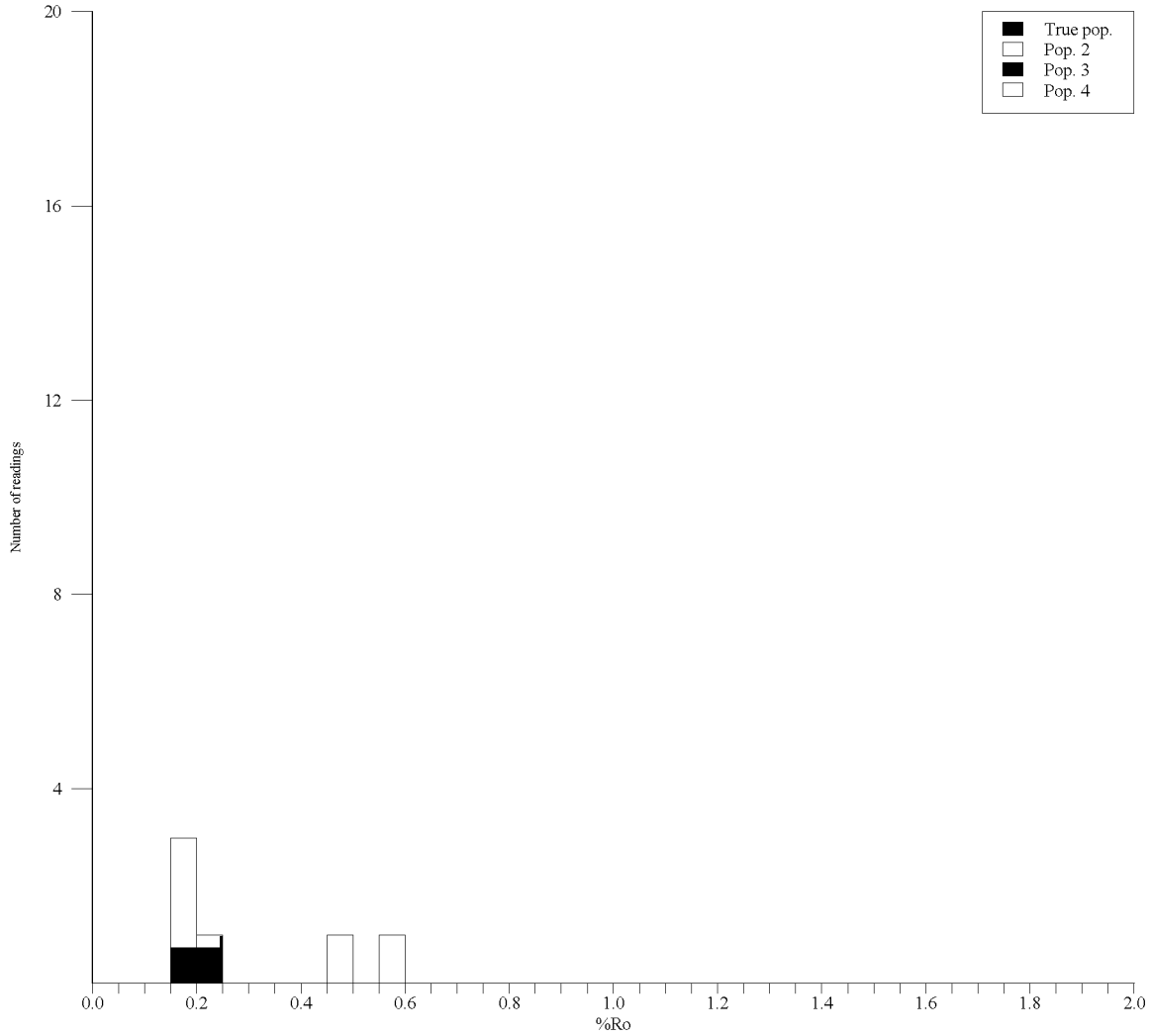

Sample info:

Well	6302/6-1
Lower depth	2800 m
Sample type	DC
Lithology	clyst
Preparation	bulk
Date of analysis	04.02.2006
APT ID	29129

Quality rating:

Average sample quality	P
Abundance of vitrinite	-
Identification of vitrinite	o
Type of vitrinite	o
Particle size	-
Particle surface quality	-
Abundance of pyrite	o

Legend to quality rating:

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
Mud additive	M

Comments:

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.	0.18±0.01	0.53±0.05		
Individual	0.17	0.49		
measurements	0.17	0.56		
3	0.18			
4	0.20			
5				
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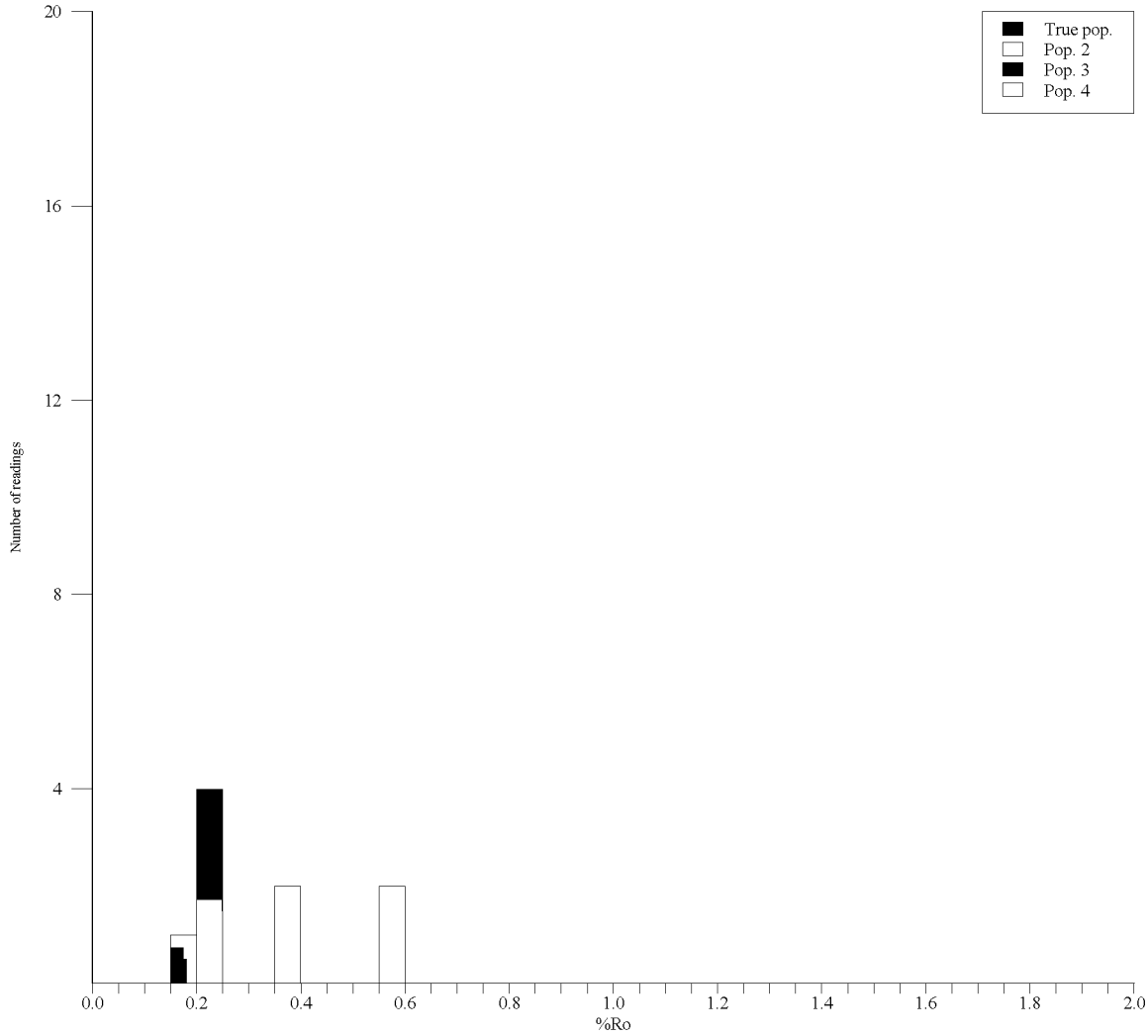

Sample info:

Well	6302/6-1
Lower depth	2900 m
Sample type	DC
Lithology	clyst
Preparation	bulk
Date of analysis	08.02.2006
APT ID	29130

Quality rating:

Average sample quality	P
Abundance of vitrinite	-
Identification of vitrinite	o
Type of vitrinite	o
Particle size	-
Particle surface quality	-
Abundance of pyrite	o

Legend to quality rating:

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
Mud additive	M

Comments:

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.	0.22±0.03	0.37±0.01	0.59±0.01	
Individual	0.17	0.36	0.58	
measurements	0.22	0.38	0.60	
3	0.23			
4	0.23			
5	0.24			
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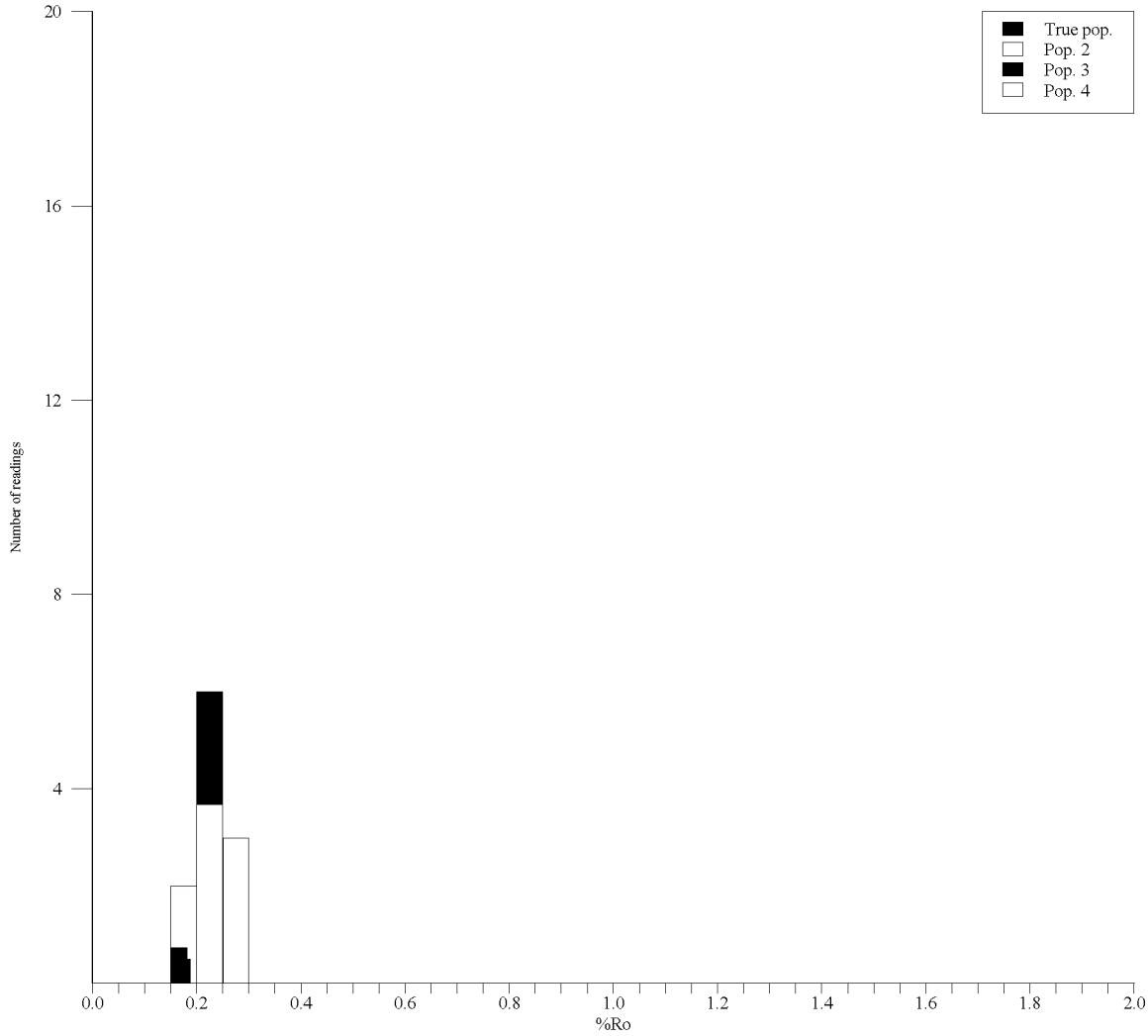

Sample info:

Well	6302/6-1
Lower depth	3000 m
Sample type	DC
Lithology	clyst
Preparation	bulk
Date of analysis	08.02.2006
APT ID	29131

Quality rating:

Average sample quality	M
Abundance of vitrinite	-
Identification of vitrinite	o
Type of vitrinite	o
Particle size	-
Particle surface quality	o
Abundance of pyrite	o

Legend to quality rating:

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
Mud additive	M

Comments:

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.	0.23±0.04			
Individual	0.18			
measurements	0.19			
3	0.20			
4	0.21			
5	0.21			
6	0.22			
7	0.22			
8	0.23			
9	0.25			
10	0.29			
11	0.30			
12				
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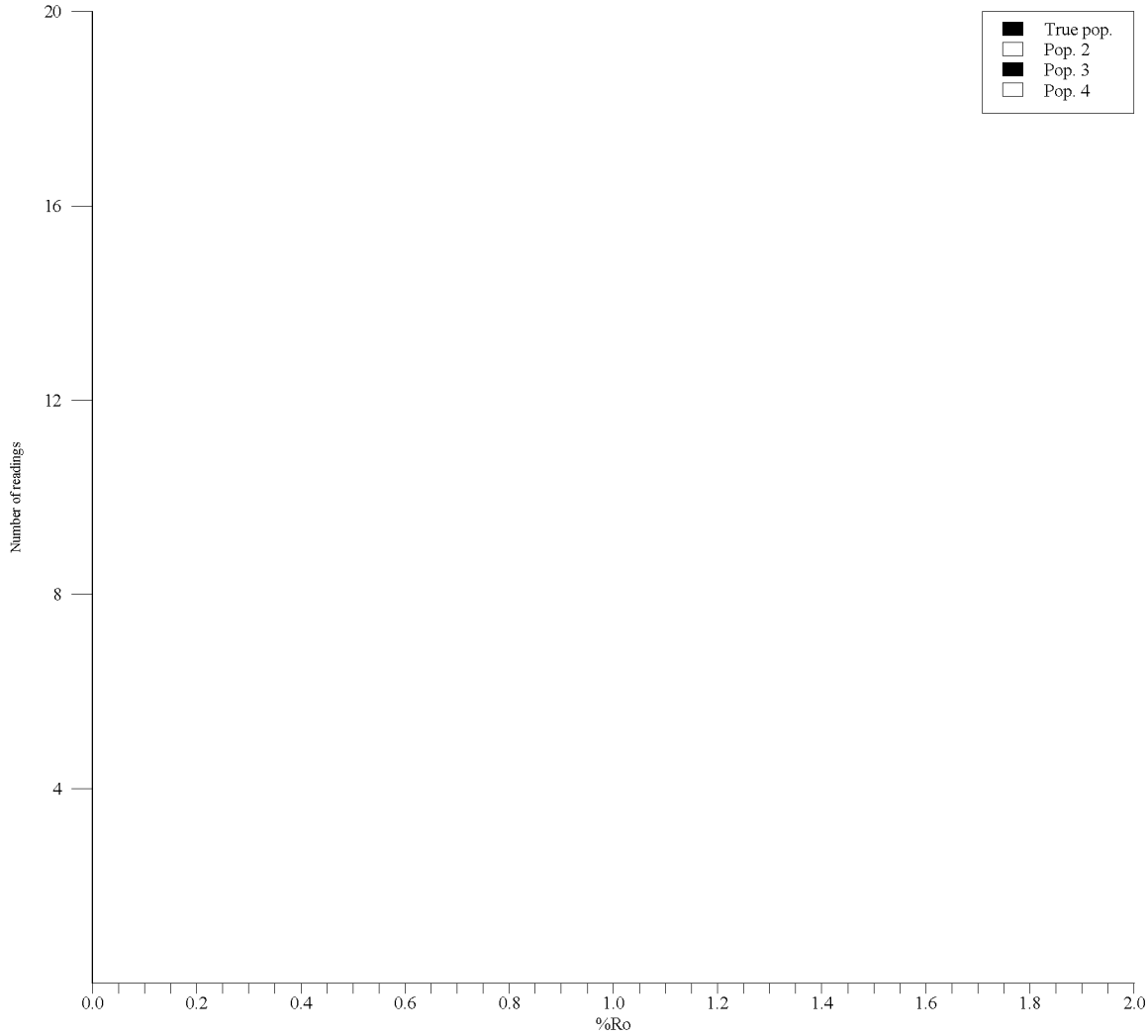

Sample info:

Well	6302/6-1
Lower depth	3150 m
Sample type	DC
Lithology	clyst
Preparation	bulk
Date of analysis	08.02.2006
APT ID	29132

Quality rating:

Average sample quality	barren
Abundance of vitrinite	
Identification of vitrinite	
Type of vitrinite	
Particle size	
Particle surface quality	
Abundance of pyrite	

Legend to quality rating:

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
Mud additive	M

Comments:

%Ro readings %Mean±sd.	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
Individual measurements				
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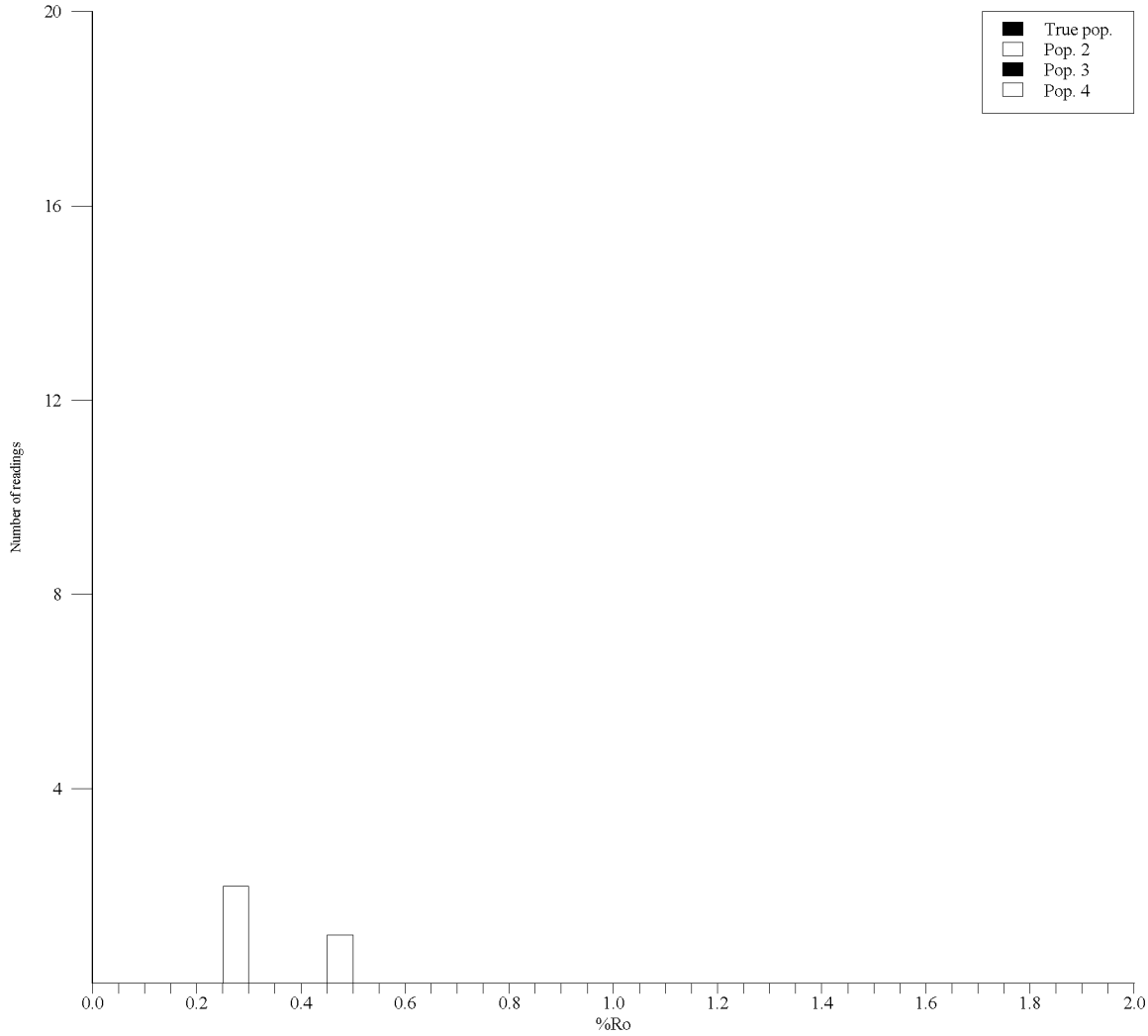

Sample info:

Well	6302/6-1
Lower depth	3250 m
Sample type	DC
Lithology	clyst
Preparation	bulk
Date of analysis	08.02.2006
APT ID	29133

Quality rating:

Average sample quality	P
Abundance of vitrinite	-
Identification of vitrinite	o
Type of vitrinite	o
Particle size	-
Particle surface quality	o
Abundance of pyrite	o

Legend to quality rating:

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
Mud additive	M

Comments:

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.	0.27±0.01	0.45±0.00		
Individual	0.26	0.45		
measurements	0.27			
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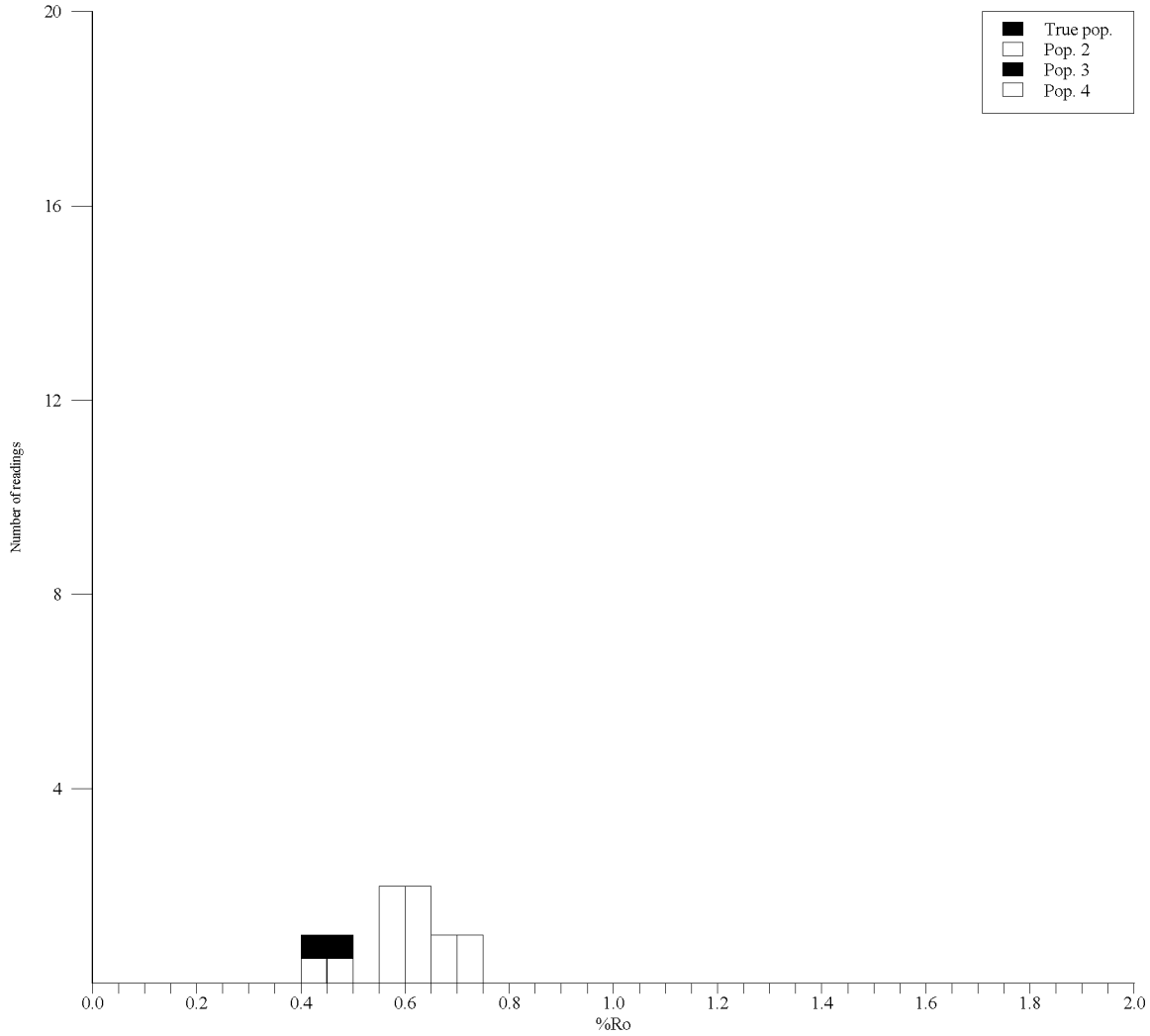

Sample info:

Well	6302/6-1
Lower depth	3360 m
Sample type	DC
Lithology	clyst
Preparation	bulk
Date of analysis	08.02.2006
APT ID	29134

Quality rating:

Average sample quality	P
Abundance of vitrinite	-
Identification of vitrinite	±
Type of vitrinite	o
Particle size	-
Particle surface quality	o
Abundance of pyrite	o

Legend to quality rating:

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
Mud additive	M

Comments:

"True population" is the lowest population found, but it is probably not representative vitrinite.

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.	0.45±0.01	0.64±0.06		
Individual	0.44	0.58		
measurements	0.45	0.60		
3		0.62		
4		0.63		
5		0.69		
6		0.74		
7				
8				
9				
10				
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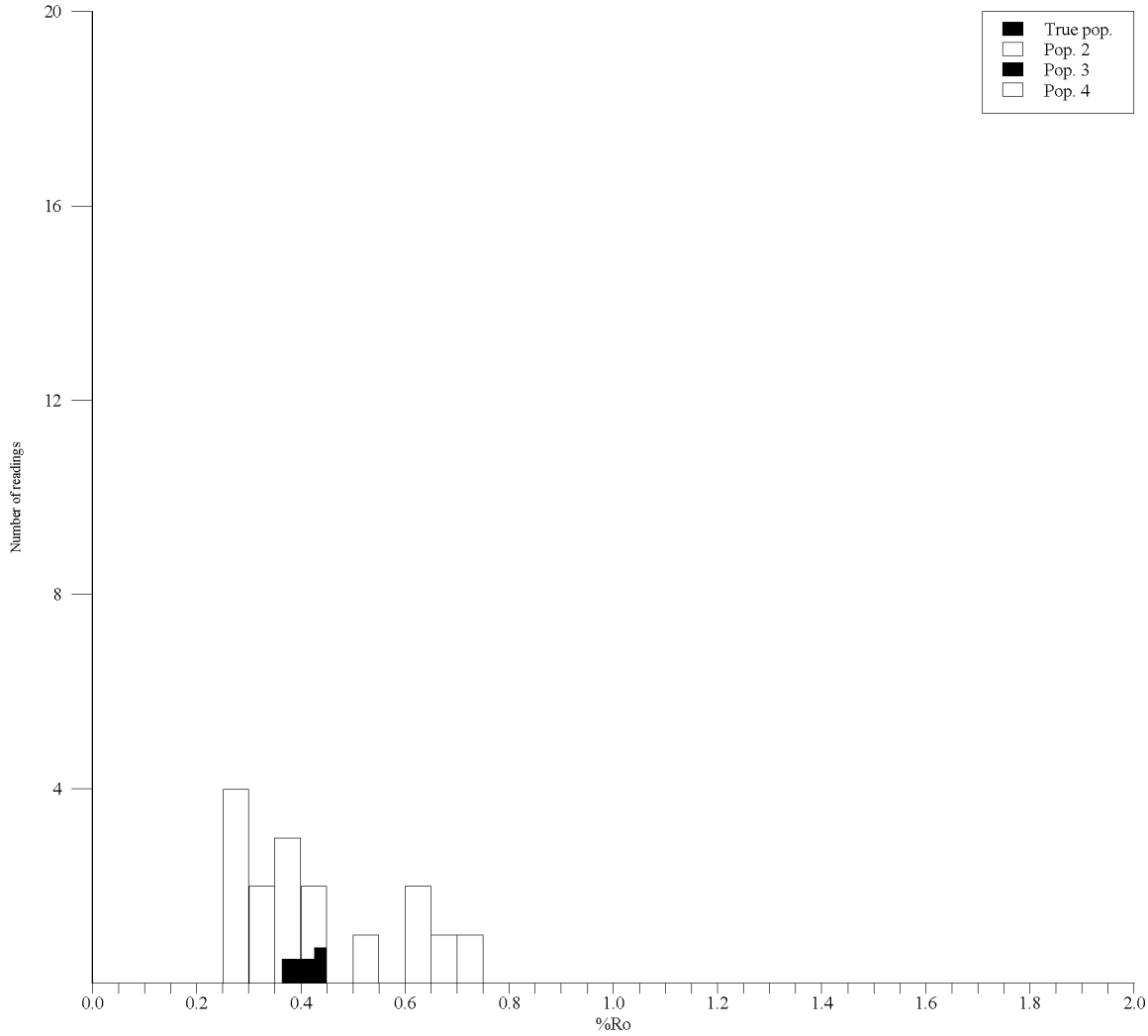

Sample info:

Well	6302/6-1
Lower depth	3400 m
Sample type	DC
Lithology	clyst
Preparation	bulk
Date of analysis	08.02.2006
APT ID	29135

Quality rating:

Average sample quality	M/P
Abundance of vitrinite	-
Identification of vitrinite	o
Type of vitrinite	o
Particle size	-
Particle surface quality	o
Abundance of pyrite	o

Legend to quality rating:

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
Mud additive	M

Comments:

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.	0.34±0.06	0.63±0.08		
Individual	0.25	0.52		
measurements	0.27	0.61		
3	0.27	0.64		
4	0.29	0.65		
5	0.32	0.74		
6	0.34			
7	0.36			
8	0.37			
9	0.37			
10	0.42			
11	0.44			
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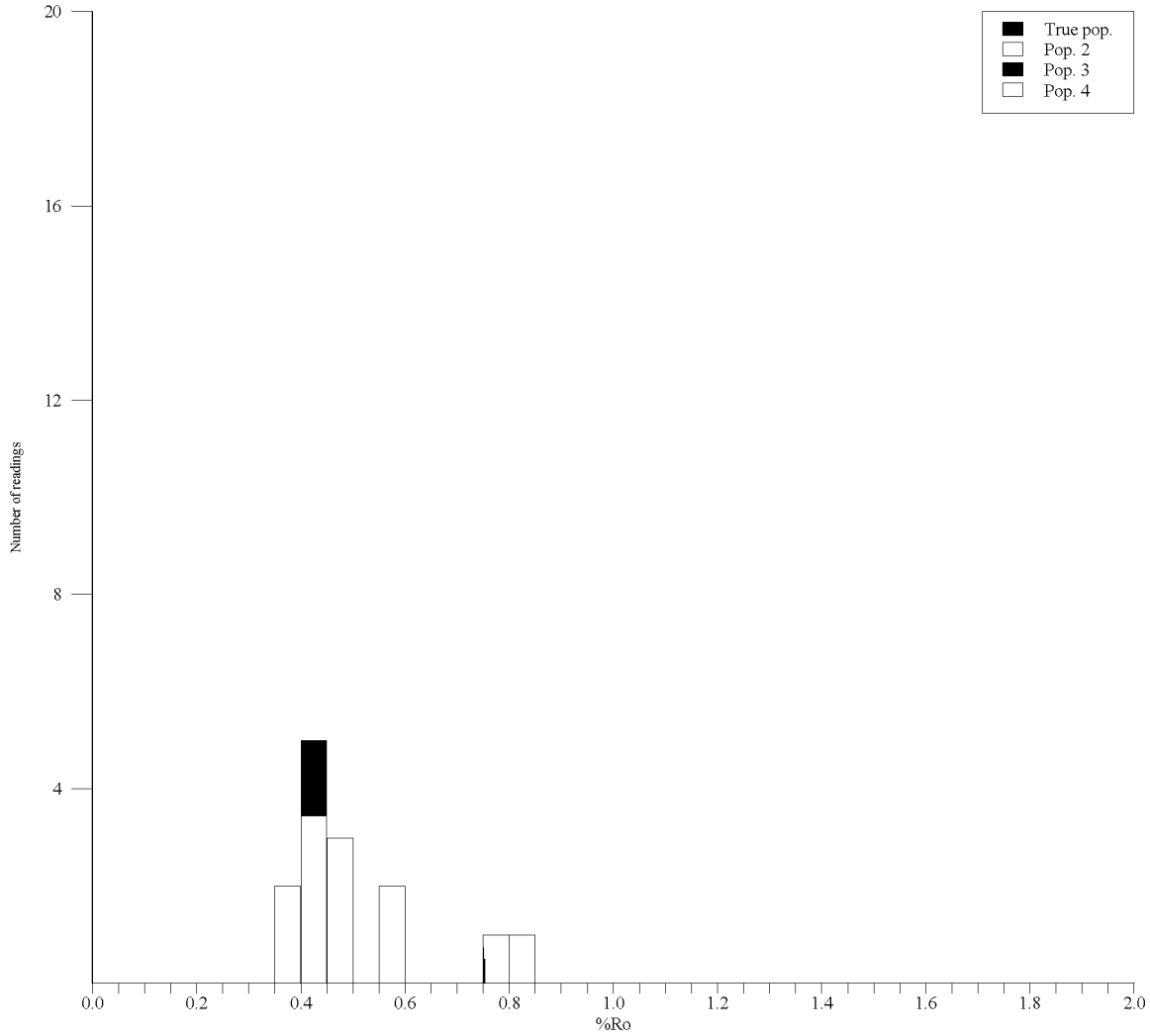

Sample info:

Well	6302/6-1
Lower depth	3450 m
Sample type	DC
Lithology	clyst
Preparation	bulk
Date of analysis	11.02.2006
APT ID	29136

Quality rating:

Average sample quality	P
Abundance of vitrinite	-
Identification of vitrinite	±
Type of vitrinite	o
Particle size	-
Particle surface quality	o
Abundance of pyrite	o

Legend to quality rating:

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
Mud additive	M

Comments:

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.	0.42±0.03	0.58±0.01	0.79±0.01	
Individual	0.38	0.57	0.78	
measurements	0.38	0.58	0.80	
3	0.41			
4	0.41			
5	0.41			
6	0.43			
7	0.44			
8	0.45			
9	0.45			
10	0.48			
11				
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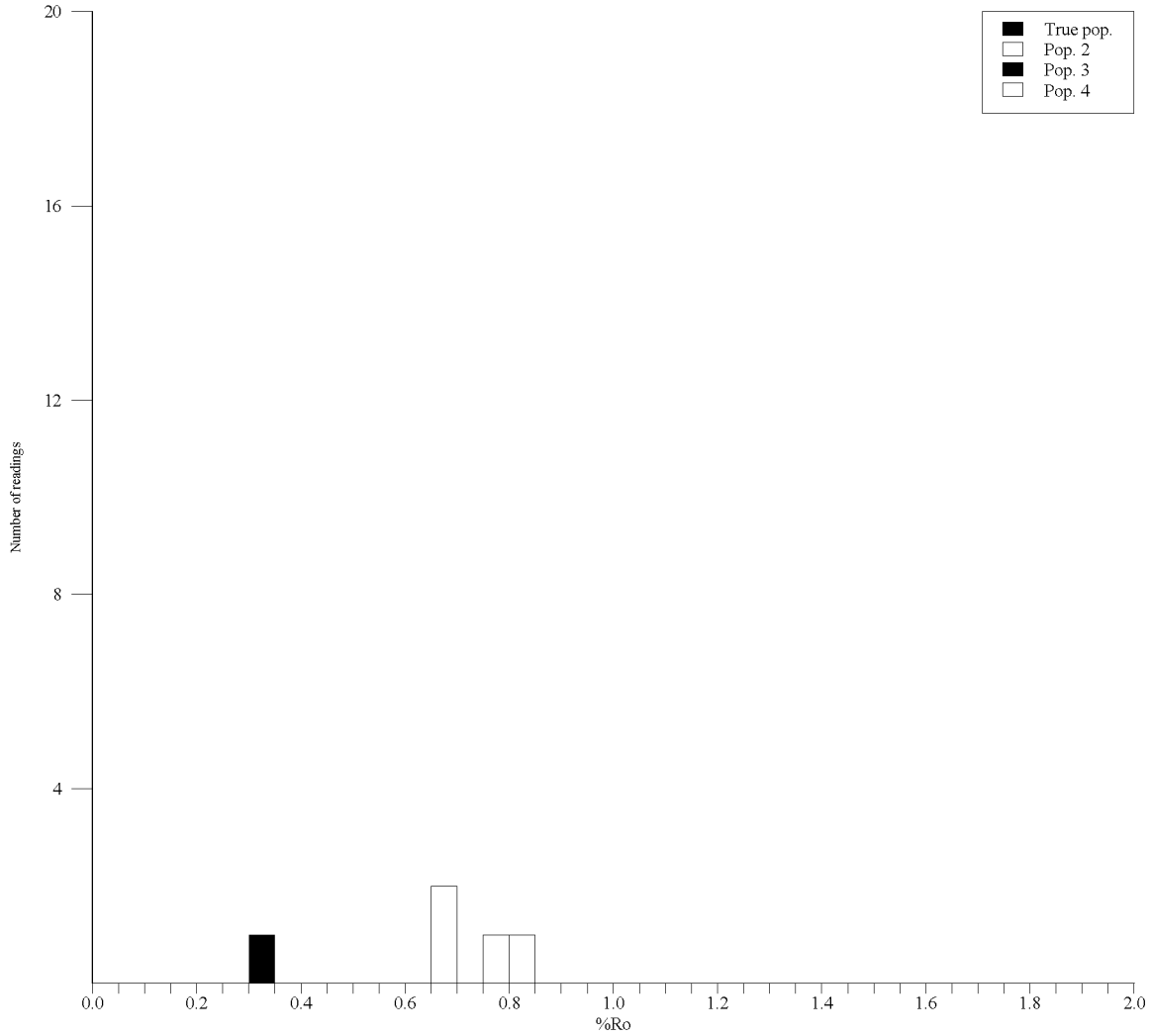

Sample info:

Well	6302/6-1
Lower depth	3500 m
Sample type	DC
Lithology	clyst
Preparation	bulk
Date of analysis	11.02.2006
APT ID	29137

Quality rating:

Average sample quality	P
Abundance of vitrinite	-
Identification of vitrinite	±
Type of vitrinite	o
Particle size	-
Particle surface quality	-
Abundance of pyrite	o

Legend to quality rating:

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
Mud additive	M

Comments:

Nearly barren.

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.	0.34±0.00	0.73±0.06		
Individual	0.34	0.66		
measurements		0.70		
3		0.75		
4		0.80		
5				
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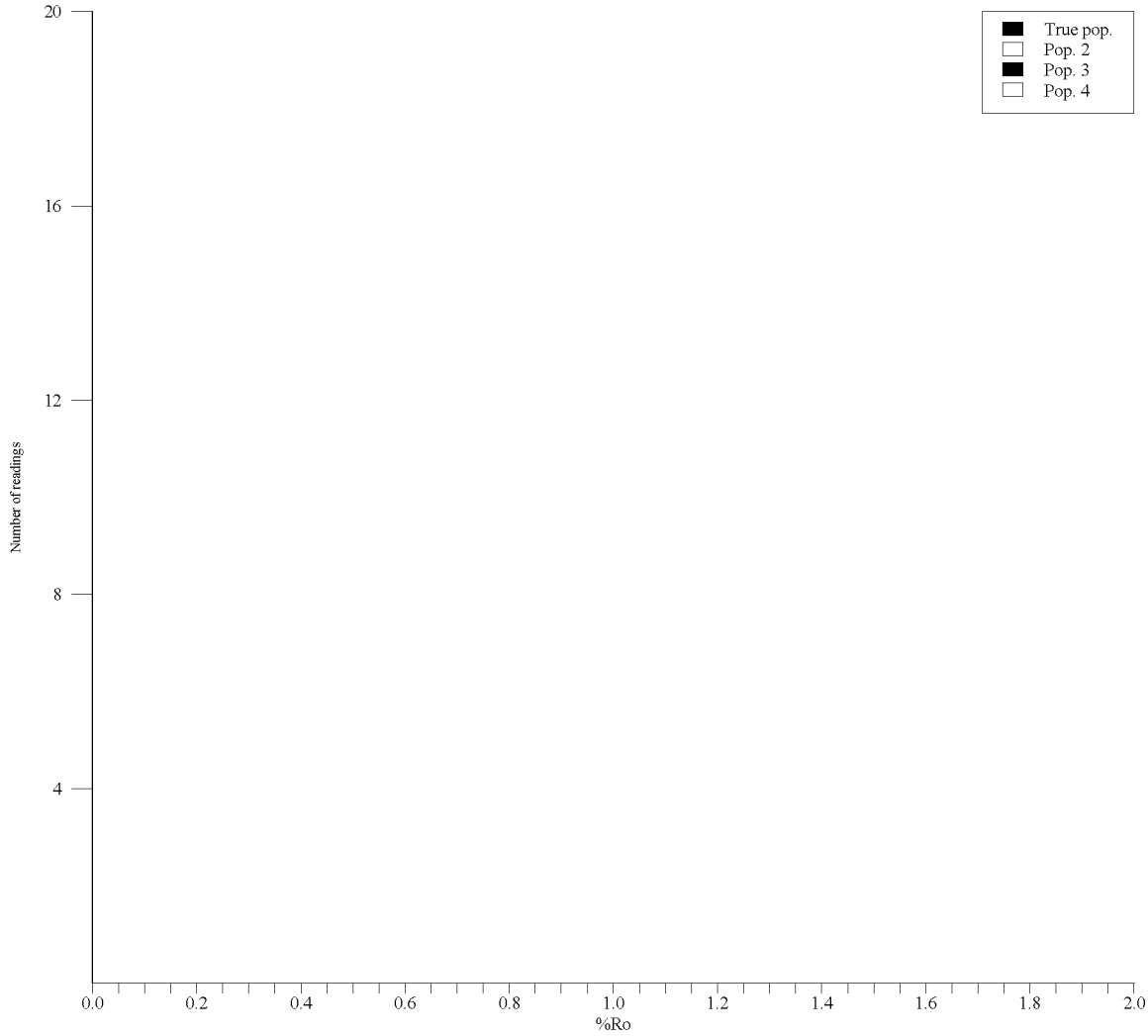

Sample info:

Well	6302/6-1
Lower depth	3540 m
Sample type	DC
Lithology	clyst
Preparation	bulk
Date of analysis	11.02.2006
APT ID	29138

Quality rating:

Average sample quality	barren
Abundance of vitrinite	
Identification of vitrinite	
Type of vitrinite	
Particle size	
Particle surface quality	
Abundance of pyrite	

Legend to quality rating:

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
Mud additive	M

Comments:

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.				
Individual measurements				
3				
4				
5				
6				
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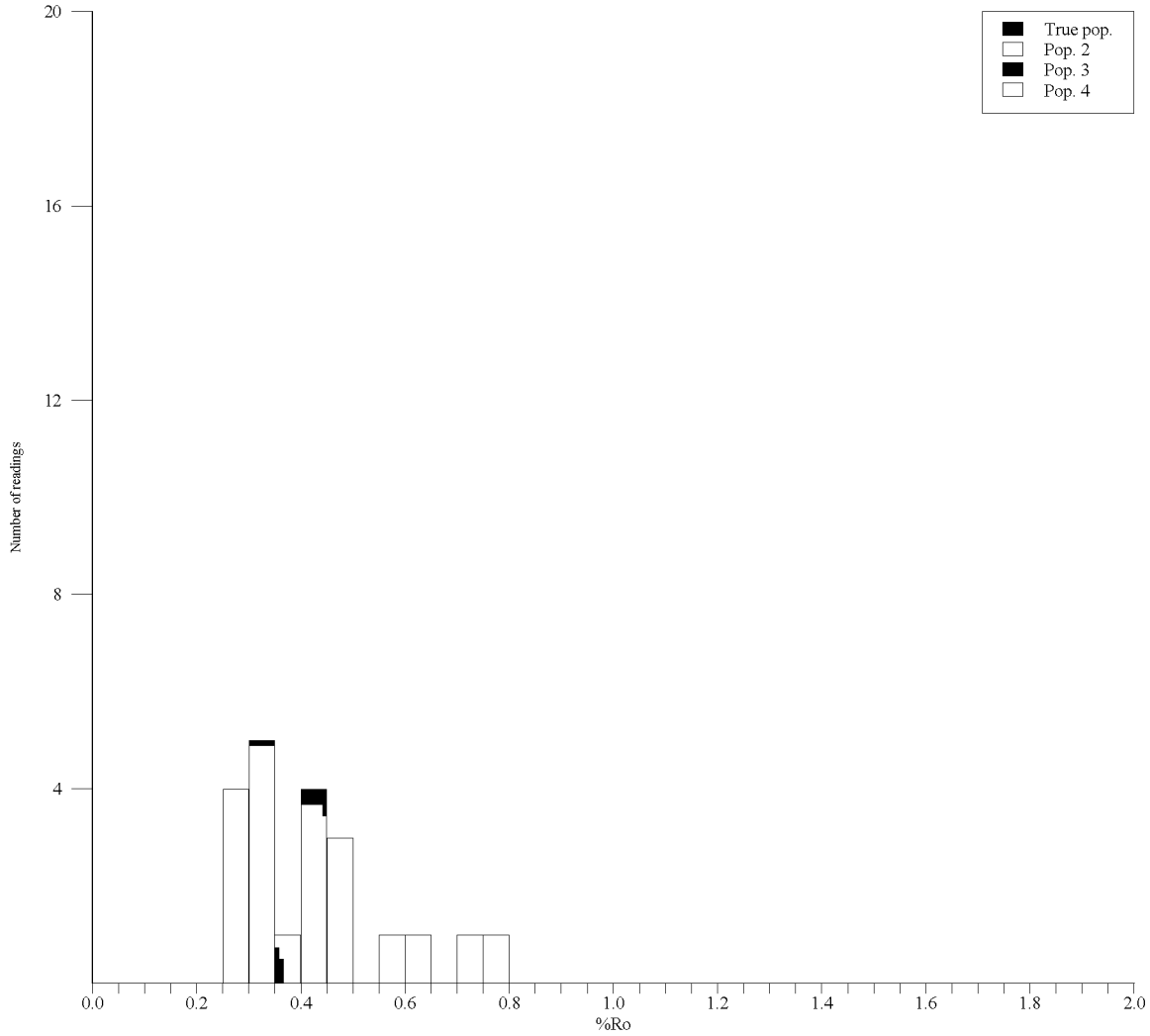

Sample info:

Well	6302/6-1
Lower depth	3600 m
Sample type	DC
Lithology	clyst
Preparation	bulk
Date of analysis	11.02.2006
APT ID	29139

Quality rating:

Average sample quality	P
Abundance of vitrinite	-
Identification of vitrinite	o
Type of vitrinite	o
Particle size	-
Particle surface quality	o
Abundance of pyrite	o

Legend to quality rating:

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
Mud additive	M

Comments:

Pop 2 is believed to be cavings.

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.	0.42±0.05	0.31±0.02	0.68±0.10	
Individual	0.35	0.29	0.58	
measurements	0.37	0.30	0.61	
3	0.40	0.30	0.73	
4	0.41	0.30	0.78	
5	0.42	0.32		
6	0.44	0.32		
7	0.45	0.33		
8	0.47	0.34		
9	0.49			
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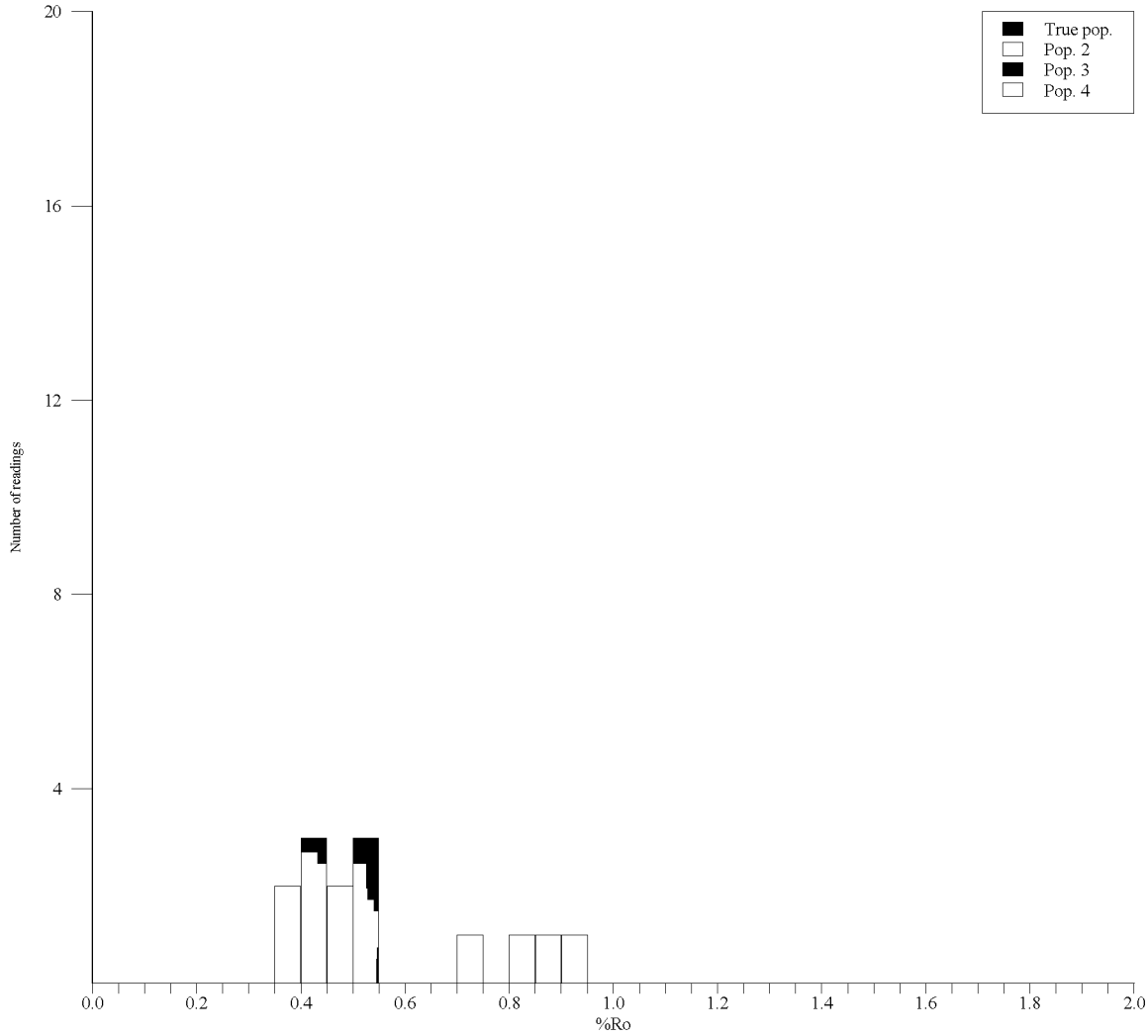

Sample info:

Well	6302/6-1
Lower depth	3650 m
Sample type	DC
Lithology	clyst
Preparation	bulk
Date of analysis	11.02.2006
APT ID	29140

Quality rating:

Average sample quality	P/M
Abundance of vitrinite	-
Identification of vitrinite	o
Type of vitrinite	o
Particle size	-
Particle surface quality	-
Abundance of pyrite	o

Legend to quality rating:

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
Mud additive	M

Comments:

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.	0.45±0.06	0.84±0.09		
Individual	0.36	0.74		
measurements	0.38	0.80		
3	0.43	0.86		
4	0.43	0.94		
5	0.44			
6	0.45			
7	0.46			
8	0.50			
9	0.51			
10	0.54			
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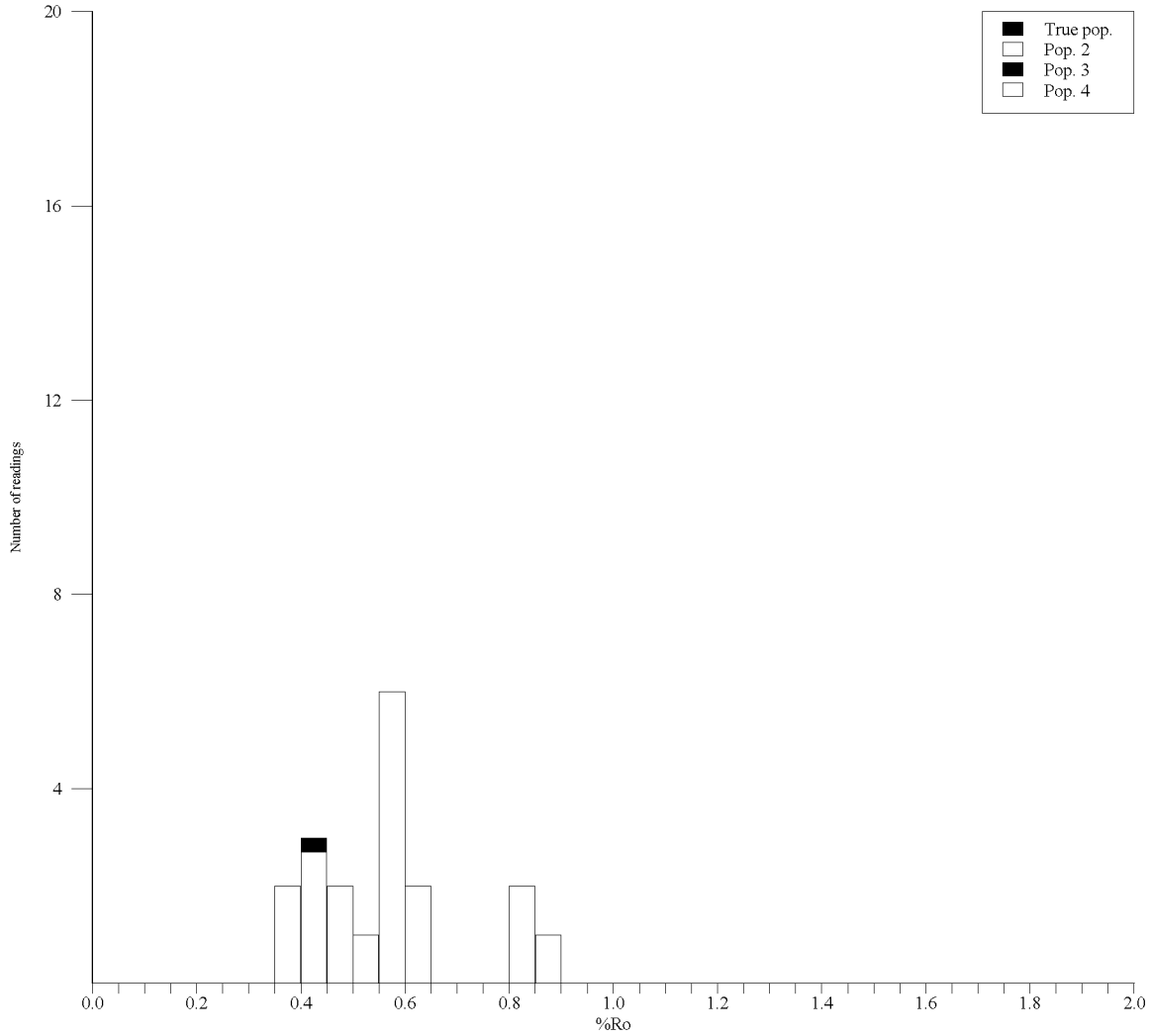

Sample info:

Well	6302/6-1
Lower depth	3700 m
Sample type	DC
Lithology	clyst
Preparation	bulk
Date of analysis	11.02.2006
APT ID	29141

Quality rating:

Average sample quality	M
Abundance of vitrinite	-
Identification of vitrinite	o
Type of vitrinite	o
Particle size	-
Particle surface quality	o
Abundance of pyrite	o

Legend to quality rating:

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
Mud additive	M

Comments:

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.	0.51±0.08	0.84±0.02		
Individual	0.36	0.83		
measurements	0.39	0.83		
3	0.41	0.86		
4	0.42			
5	0.44			
6	0.46			
7	0.48			
8	0.50			
9	0.56			
10	0.57			
11	0.57			
12	0.57			
13	0.58			
14	0.58			
15	0.61			
16	0.61			
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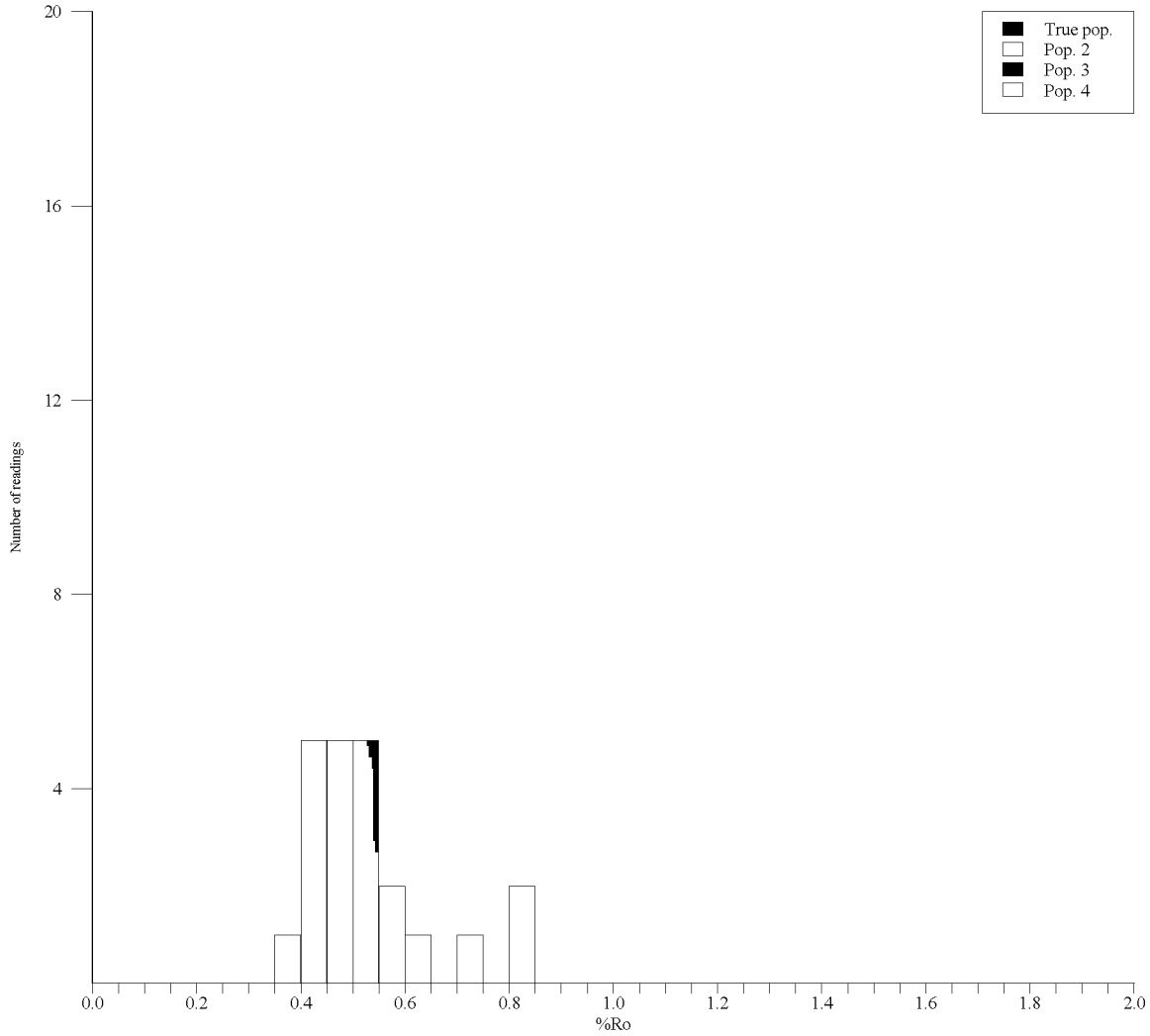

Sample info:

Well	6302/6-1
Lower depth	3750 m
Sample type	DC
Lithology	clyst
Preparation	bulk
Date of analysis	11.02.2006
APT ID	29142

Quality rating:

Average sample quality	M
Abundance of vitrinite	o
Identification of vitrinite	o
Type of vitrinite	o
Particle size	-
Particle surface quality	-
Abundance of pyrite	o

Legend to quality rating:

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
Mud additive	M

Comments:

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.	0.49±0.06	0.78±0.06		
Individual	0.39	0.71		
measurements	0.40	0.81		
3	0.42	0.81		
4	0.43			
5	0.44			
6	0.44			
7	0.45			
8	0.46			
9	0.47			
10	0.47			
11	0.48			
12	0.52			
13	0.52			
14	0.53			
15	0.53			
16	0.54			
17	0.56			
18	0.56			
19	0.63			
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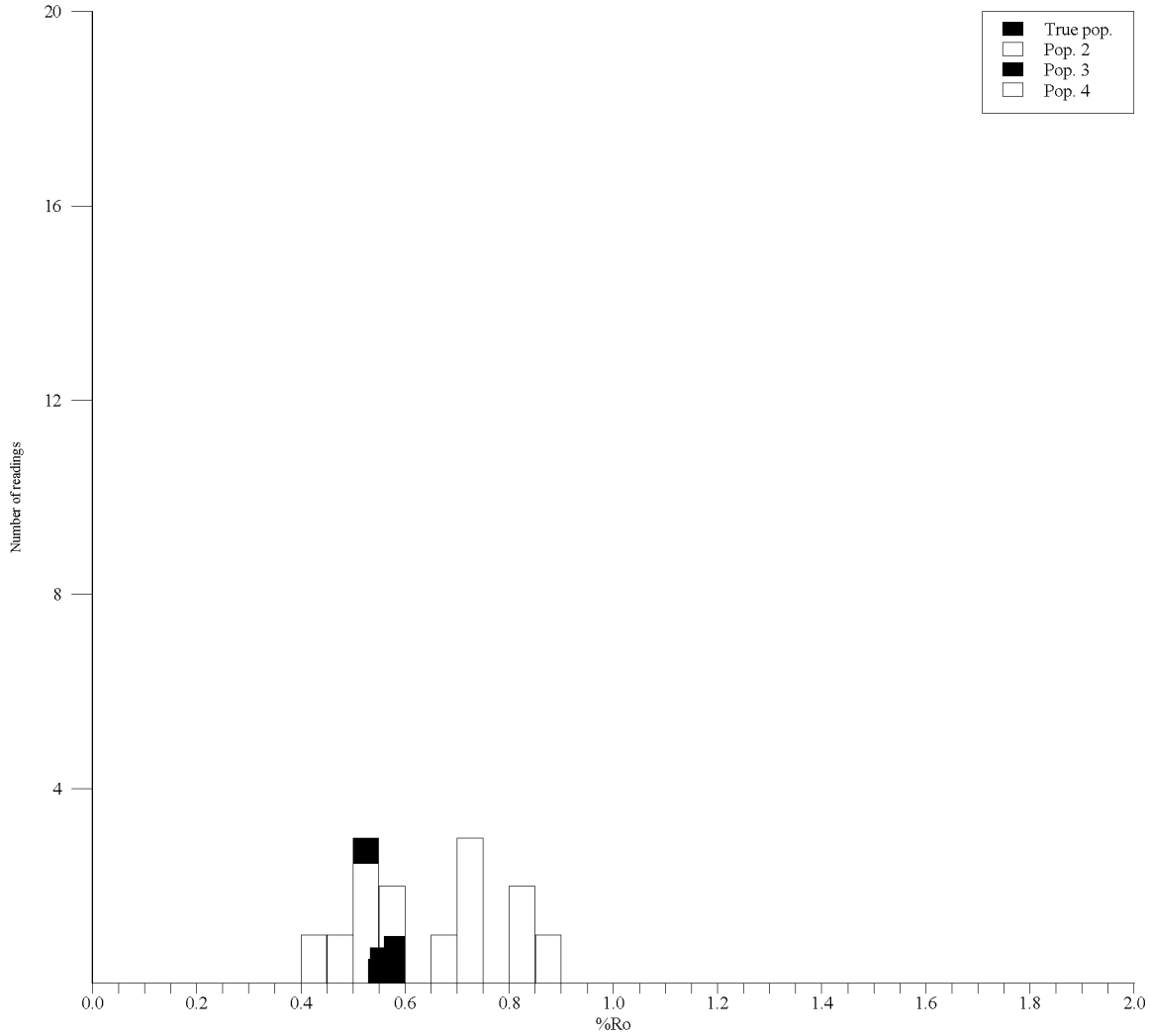

Sample info:

Well	6302/6-1
Lower depth	3800 m
Sample type	DC
Lithology	clyst
Preparation	bulk
Date of analysis	11.02.2006
APT ID	29143

Quality rating:

Average sample quality	M/P
Abundance of vitrinite	-
Identification of vitrinite	o
Type of vitrinite	o
Particle size	-
Particle surface quality	o
Abundance of pyrite	o

Legend to quality rating:

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
Mud additive	M

Comments:

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.	0.51±0.06	0.77±0.07		
Individual	0.41	0.70		
measurements	0.46	0.71		
3	0.51	0.73		
4	0.53	0.74		
5	0.53	0.81		
6	0.55	0.84		
7	0.60	0.88		
8				
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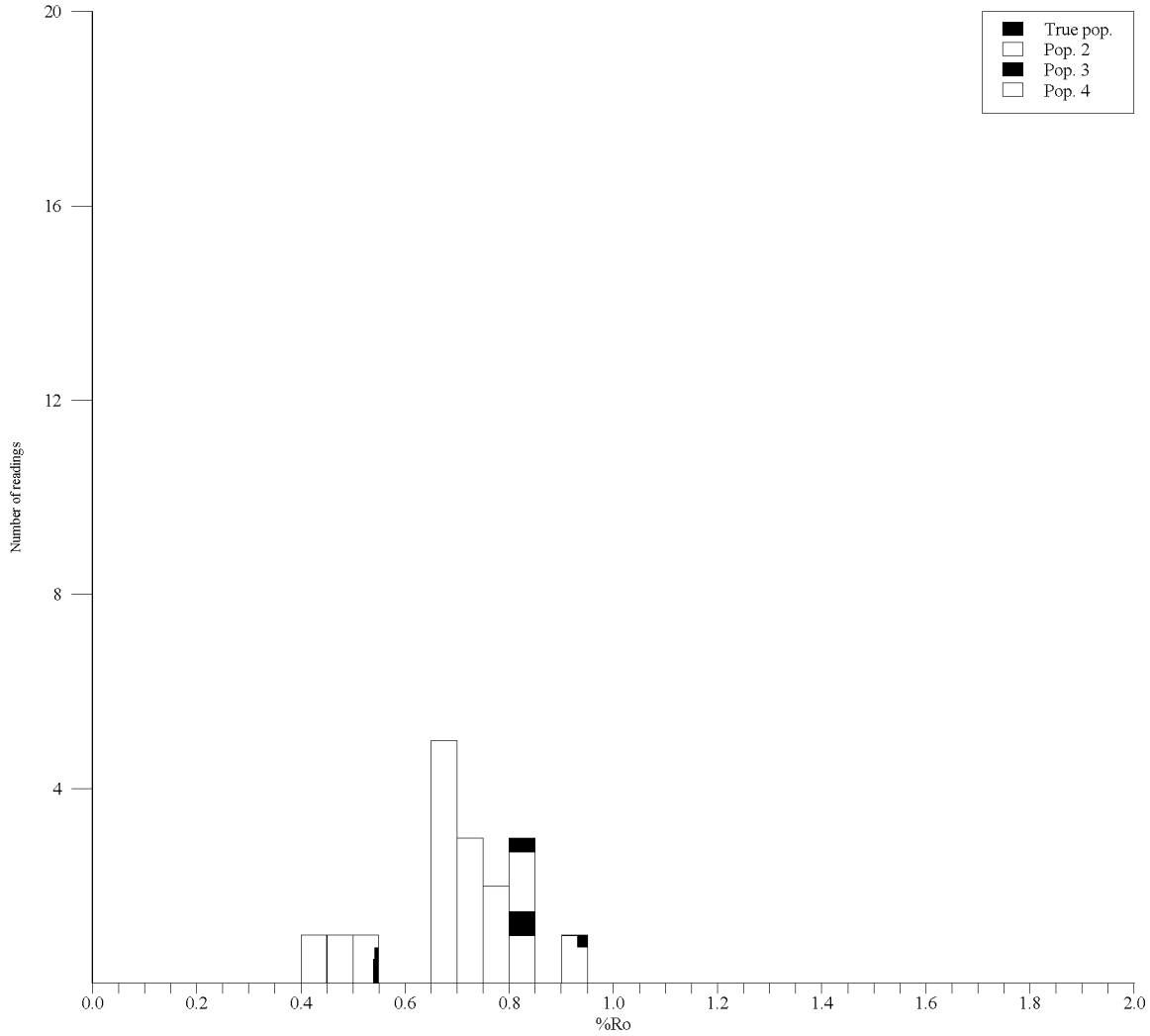

Sample info:

Well	6302/6-1
Lower depth	3830 m
Sample type	DC
Lithology	clyst
Preparation	bulk
Date of analysis	12.02.2006
APT ID	29144

Quality rating:

Average sample quality	P
Abundance of vitrinite	-
Identification of vitrinite	o
Type of vitrinite	o
Particle size	-
Particle surface quality	-
Abundance of pyrite	o

Legend to quality rating:

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
Mud additive	M

Comments:

Alternative true population: pop. 2

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.	0.46±0.04	0.71±0.04	0.86±0.04	
Individual	0.42	0.67	0.82	
measurements	0.45	0.67	0.84	
3	0.50	0.67	0.84	
4		0.68	0.92	
5		0.70		
6		0.71		
7		0.71		
8		0.73		
9		0.78		
10		0.79		
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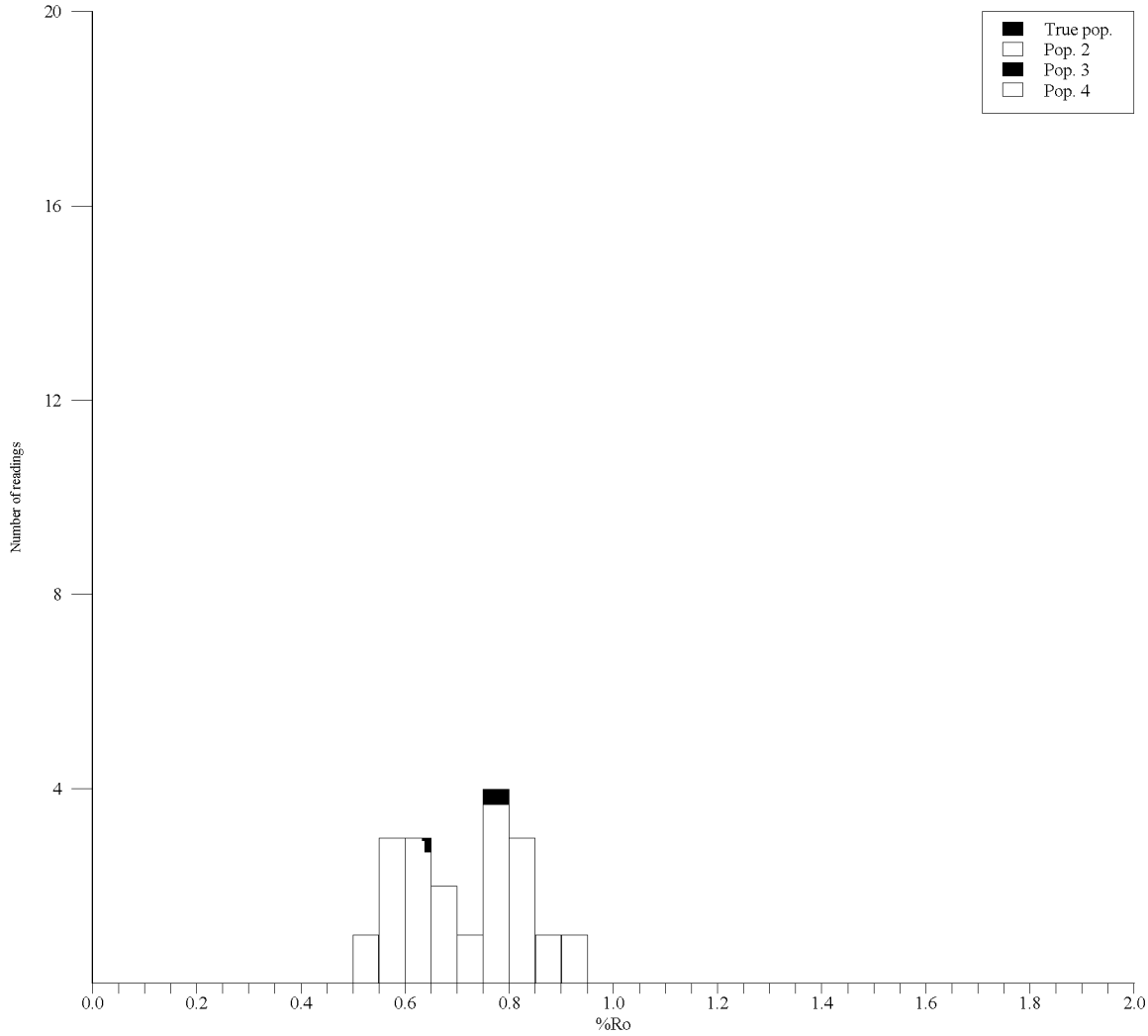

Sample info:

Well	6302/6-1
Lower depth	3888 m
Sample type	DC
Lithology	clyst/sst
Preparation	bulk
Date of analysis	12.02.2006
APT ID	29145

Quality rating:

Average sample quality	P/M
Abundance of vitrinite	-
Identification of vitrinite	o
Type of vitrinite	o
Particle size	-
Particle surface quality	o
Abundance of pyrite	o

Legend to quality rating:

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
Mud additive	M

Comments:

Alternative true population: pop. 2

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.	0.61±0.05	0.80±0.06		
Individual	0.53	0.74		
measurements	0.56	0.75		
3	0.58	0.76		
4	0.59	0.78		
5	0.62	0.79		
6	0.63	0.81		
7	0.64	0.81		
8	0.66	0.81		
9	0.69	0.85		
10		0.93		
11				
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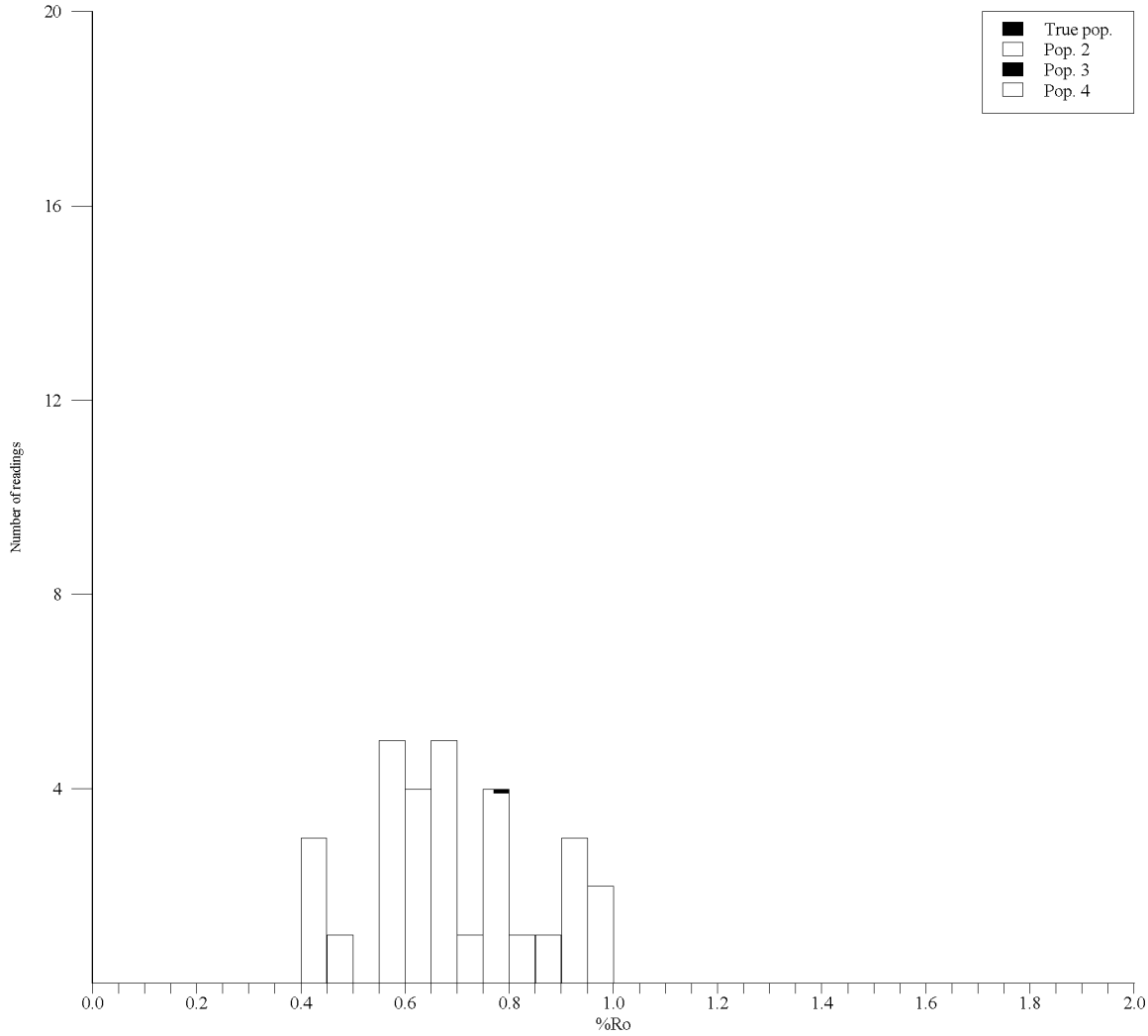

Sample info:

Well	6302/6-1
Lower depth	3914.60 m
Sample type	COCH
Lithology	clyst
Preparation	bulk
Date of analysis	12.02.2006
APT ID	29159

Quality rating:

Average sample quality	M
Abundance of vitrinite	-
Identification of vitrinite	o
Type of vitrinite	o
Particle size	-
Particle surface quality	o
Abundance of pyrite	o

Legend to quality rating:

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
Mud additive	M

Comments:

Alternative true population: pop. 2

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.	0.63±0.05	0.44±0.03	0.86±0.09	
Individual	0.55	0.41	0.75	
measurements	0.56	0.42	0.75	
3	0.56	0.44	0.76	
4	0.57	0.47	0.79	
5	0.60		0.82	
6	0.61		0.87	
7	0.63		0.91	
8	0.63		0.93	
9	0.64		0.94	
10	0.65		0.96	
11	0.67		0.97	
12	0.68			
13	0.69			
14	0.70			
15	0.71			
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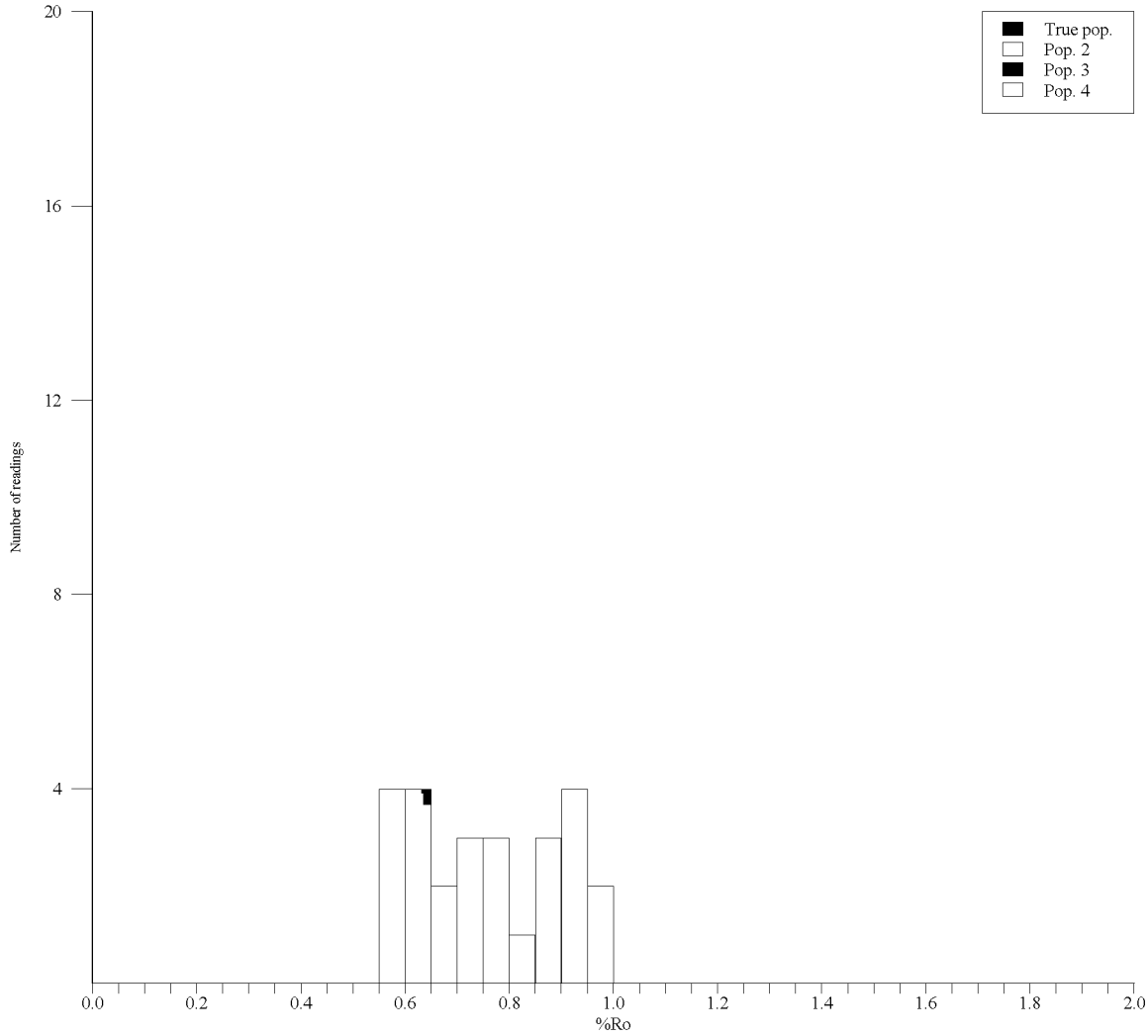

Sample info:

Well	6302/6-1
Lower depth	3945.00 m
Sample type	SWC
Lithology	clyst
Preparation	bulk
Date of analysis	12.02.2006
APT ID	29149

Quality rating:

Average sample quality	M
Abundance of vitrinite	-
Identification of vitrinite	o
Type of vitrinite	o
Particle size	-
Particle surface quality	o
Abundance of pyrite	o

Legend to quality rating:

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
Mud additive	M

Comments:

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.	0.62±0.04	0.85±0.09		
Individual	0.56	0.71		
measurements	0.58	0.72		
3	0.58	0.73		
4	0.59	0.76		
5	0.61	0.77		
6	0.62	0.79		
7	0.63	0.83		
8	0.63	0.85		
9	0.66	0.86		
10	0.69	0.87		
11		0.94		
12		0.94		
13		0.95		
14		0.95		
15		0.96		
16		0.97		
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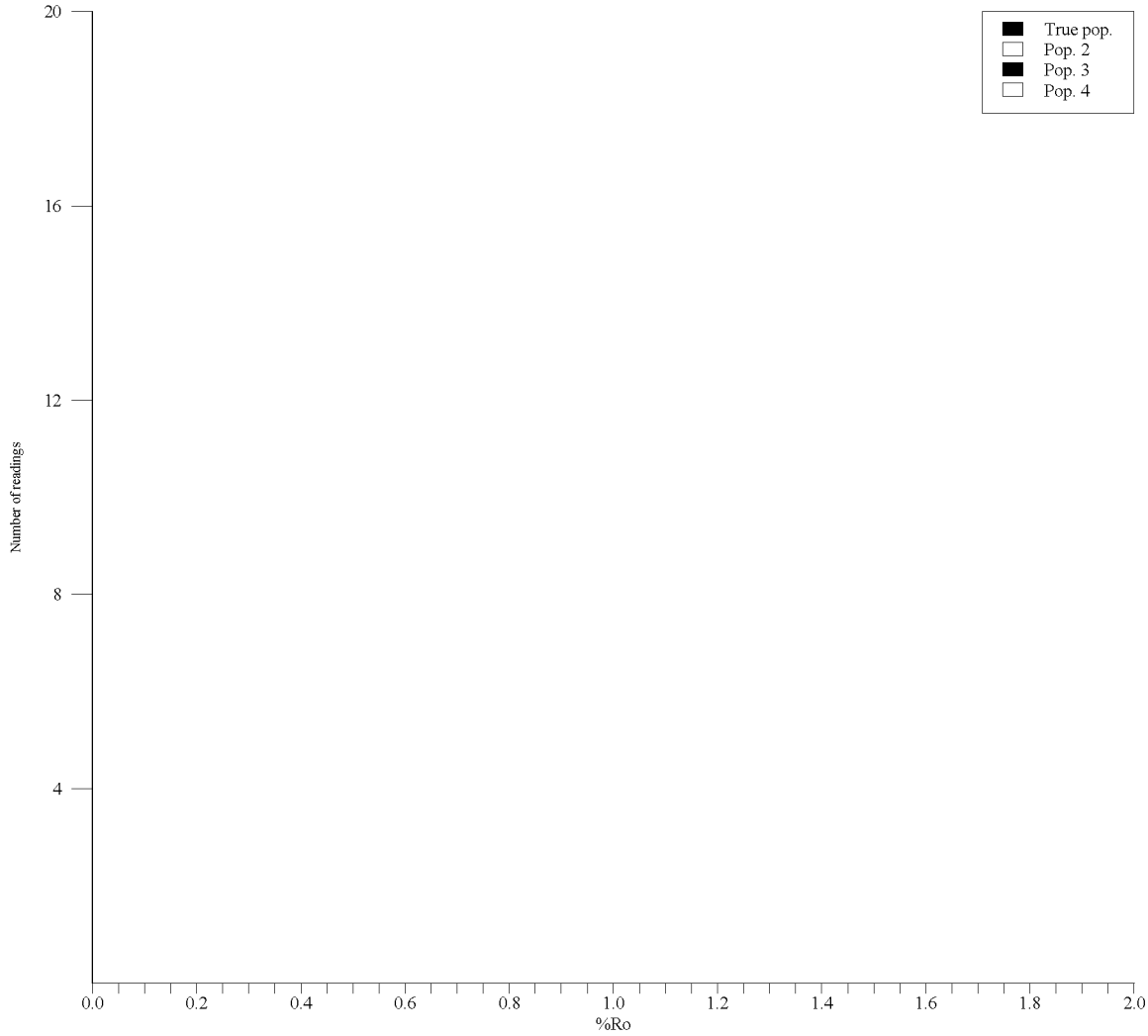

Sample info:

Well	6302/6-1
Lower depth	4026 m
Sample type	DC
Lithology	sst/clyst
Preparation	bulk
Date of analysis	13.02.2006
APT ID	29146

Quality rating:

Average sample quality	barren
Abundance of vitrinite	
Identification of vitrinite	
Type of vitrinite	
Particle size	
Particle surface quality	
Abundance of pyrite	

Legend to quality rating:

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
Mud additive	M

Comments:

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.				
Individual measurements				
3				
4				
5				
6				
7				
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9				
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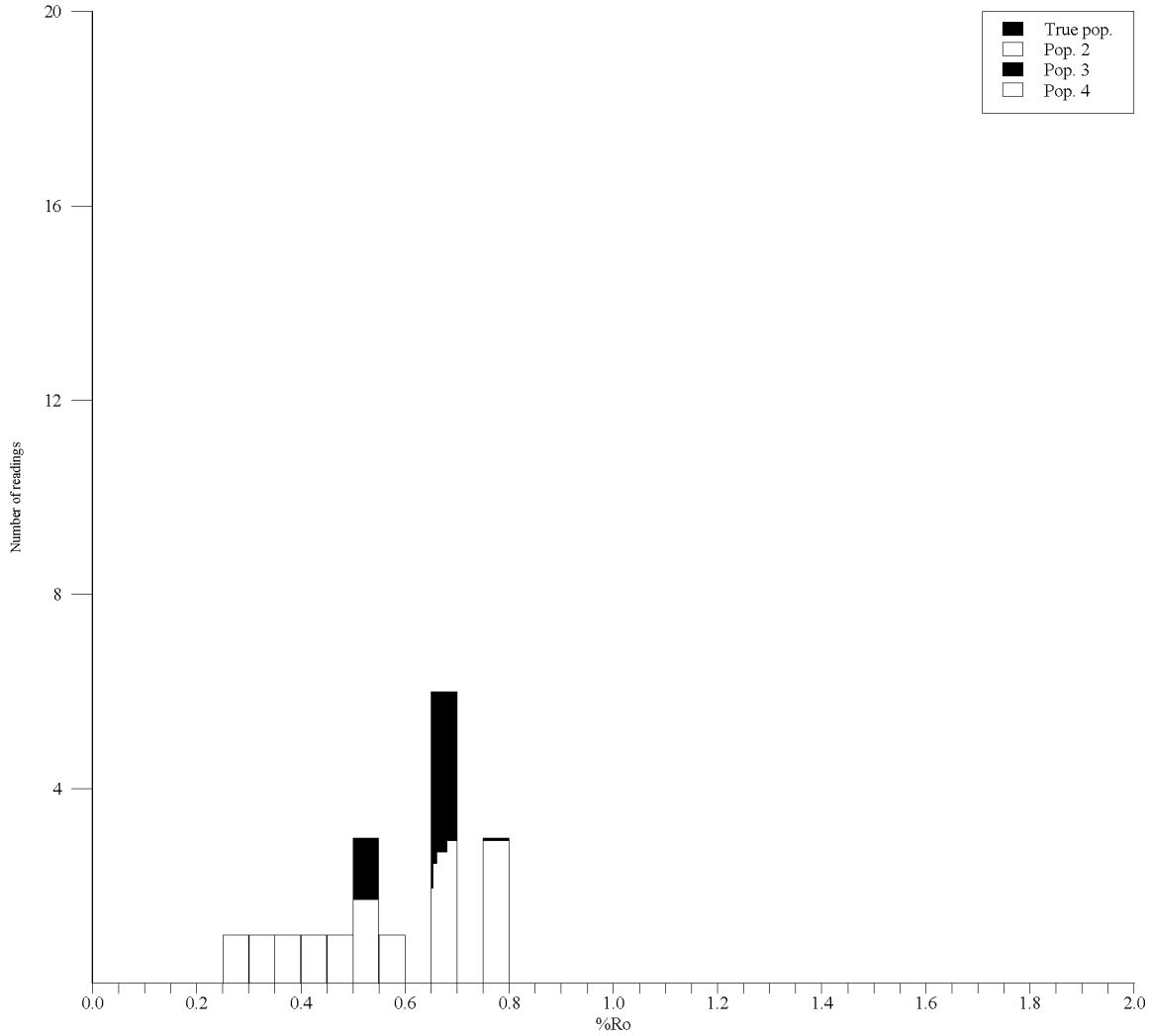

Sample info:

Well	6302/6-1
Lower depth	4171.50 m
Sample type	SWC
Lithology	clyst
Preparation	bulk
Date of analysis	13.02.2006
APT ID	29157

Quality rating:

Average sample quality	P
Abundance of vitrinite	-
Identification of vitrinite	±
Type of vitrinite	o
Particle size	-
Particle surface quality	o
Abundance of pyrite	o

Legend to quality rating:

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
Mud additive	M

Comments:

Alternative true population: pop. 3

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.	0.51±0.02	0.35±0.05	0.71±0.05	
Individual	0.49	0.30	0.66	
measurements	0.50	0.33	0.66	
3	0.50	0.37	0.67	
4	0.51	0.41	0.68	
5	0.55		0.69	
6			0.70	
7			0.75	
8			0.77	
9			0.78	
10				
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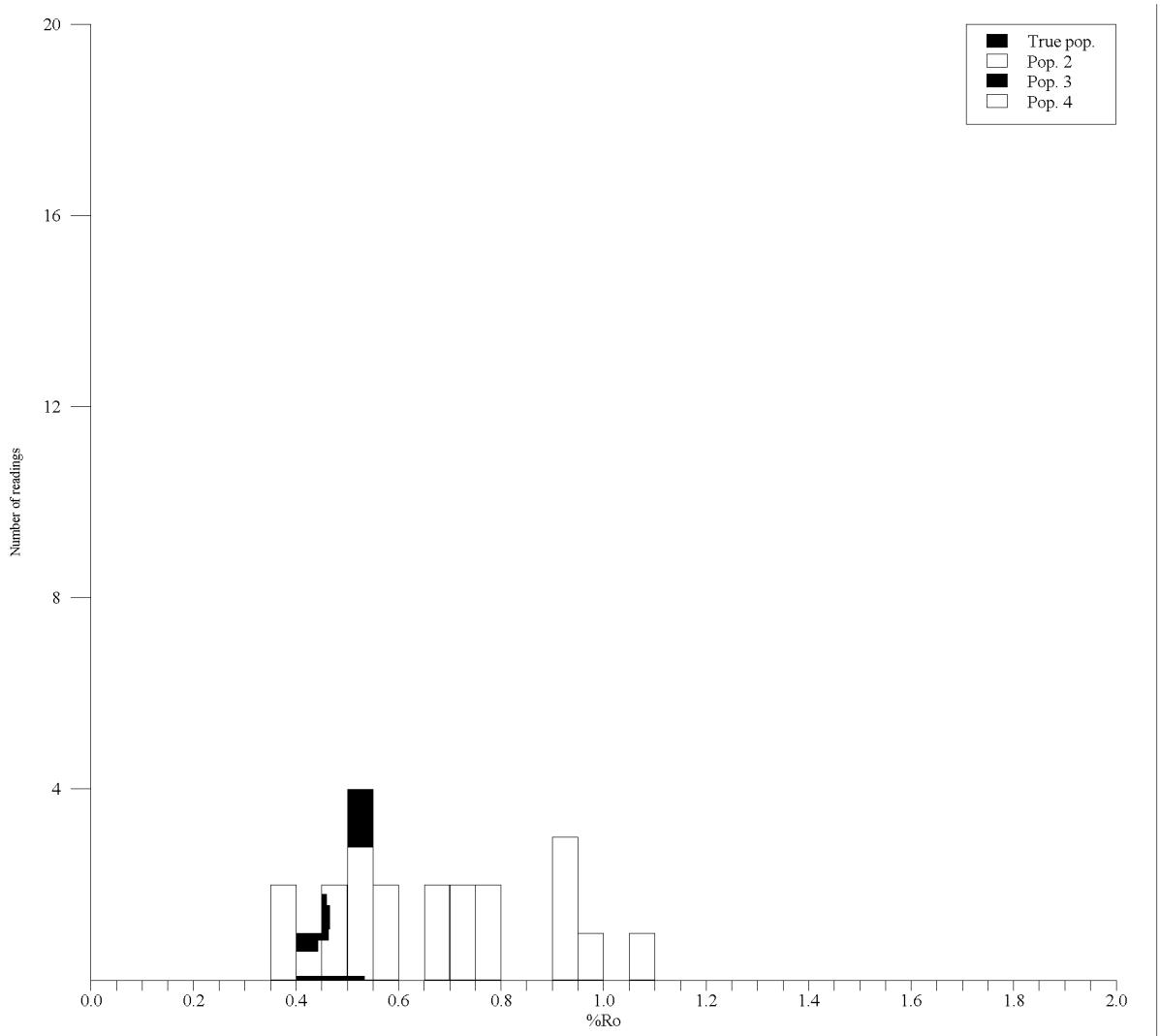

Sample info:

Well	6302/6-1
Lower depth	4209.50 m
Sample type	SWC
Lithology	clyst
Preparation	bulk
Date of analysis	13.02.2006
APT ID	29120

Quality rating:

Average sample quality	P
Abundance of vitrinite	-
Identification of vitrinite	±
Type of vitrinite	o
Particle size	-
Particle surface quality	-
Abundance of pyrite	o

Legend to quality rating:

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
Mud additive	M

Comments:

Alternative true population: pop. 3

%Ro readings	**True pop.**	**Pop. 2**	**Pop. 3**	**Pop. 4**
%Mean±sd.	0.51±0.05	0.39±0.01	0.72±0.05	0.96±0.07
Individual	0.44	0.38	0.65	0.90
measurements	0.45	0.39	0.70	0.91
3	0.47		0.71	0.94
4	0.50		0.73	0.99
5	0.51		0.75	1.07
6	0.53		0.79	
7	0.53			
8	0.58			
9	0.59			
10				
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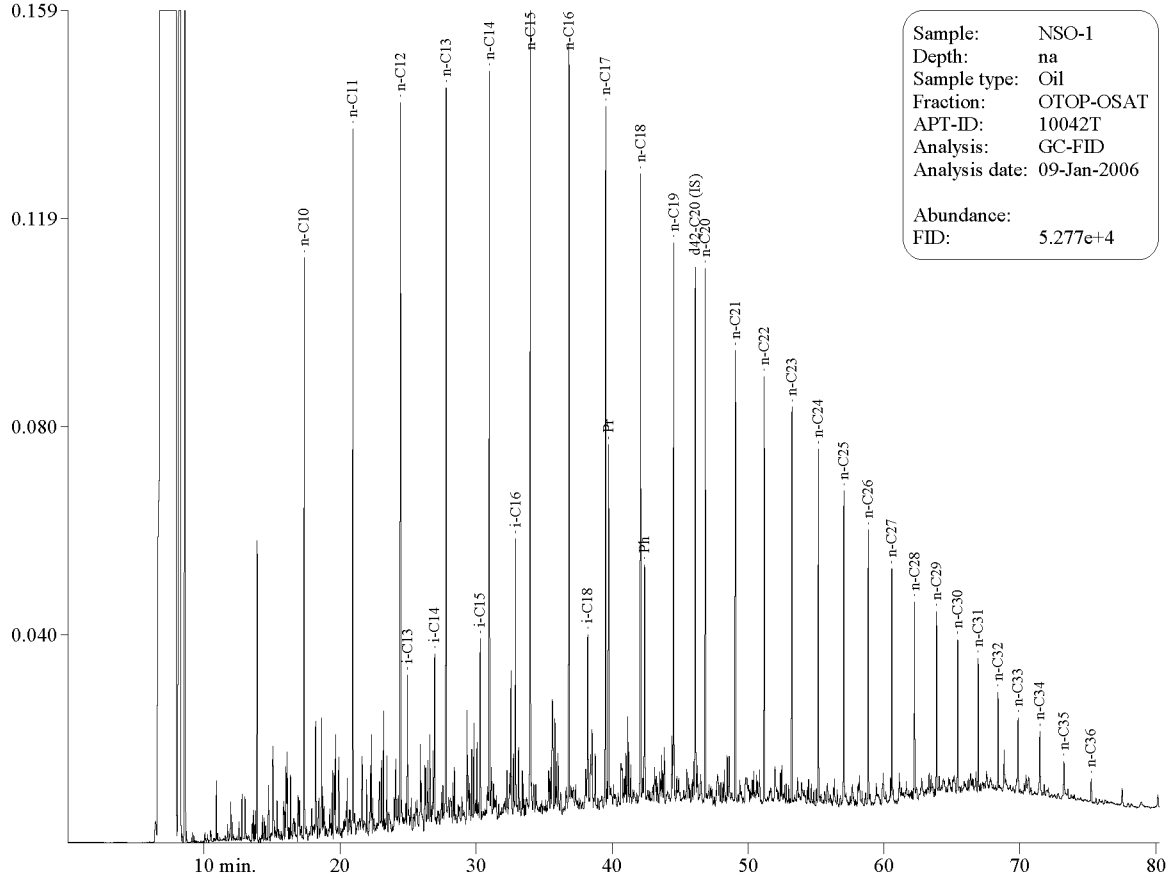
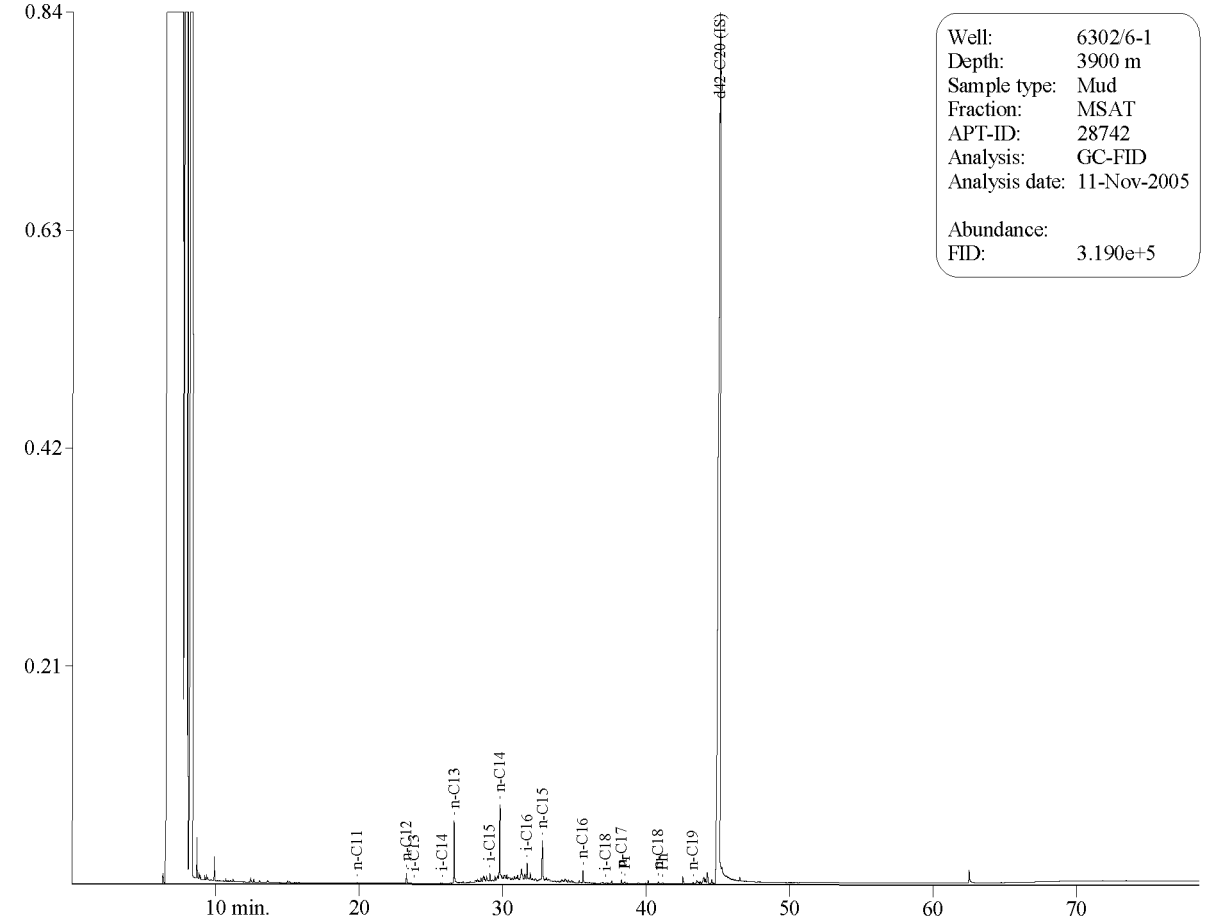
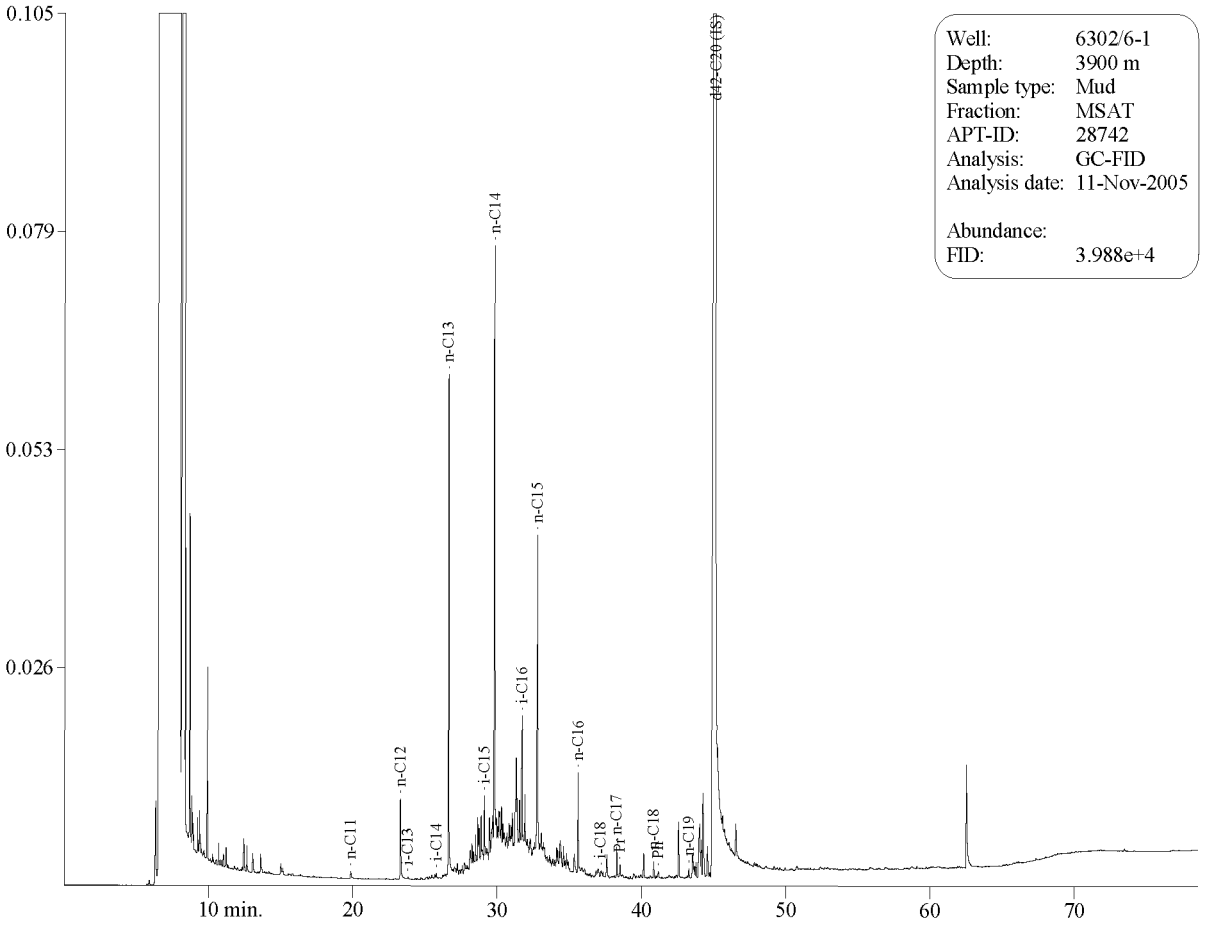
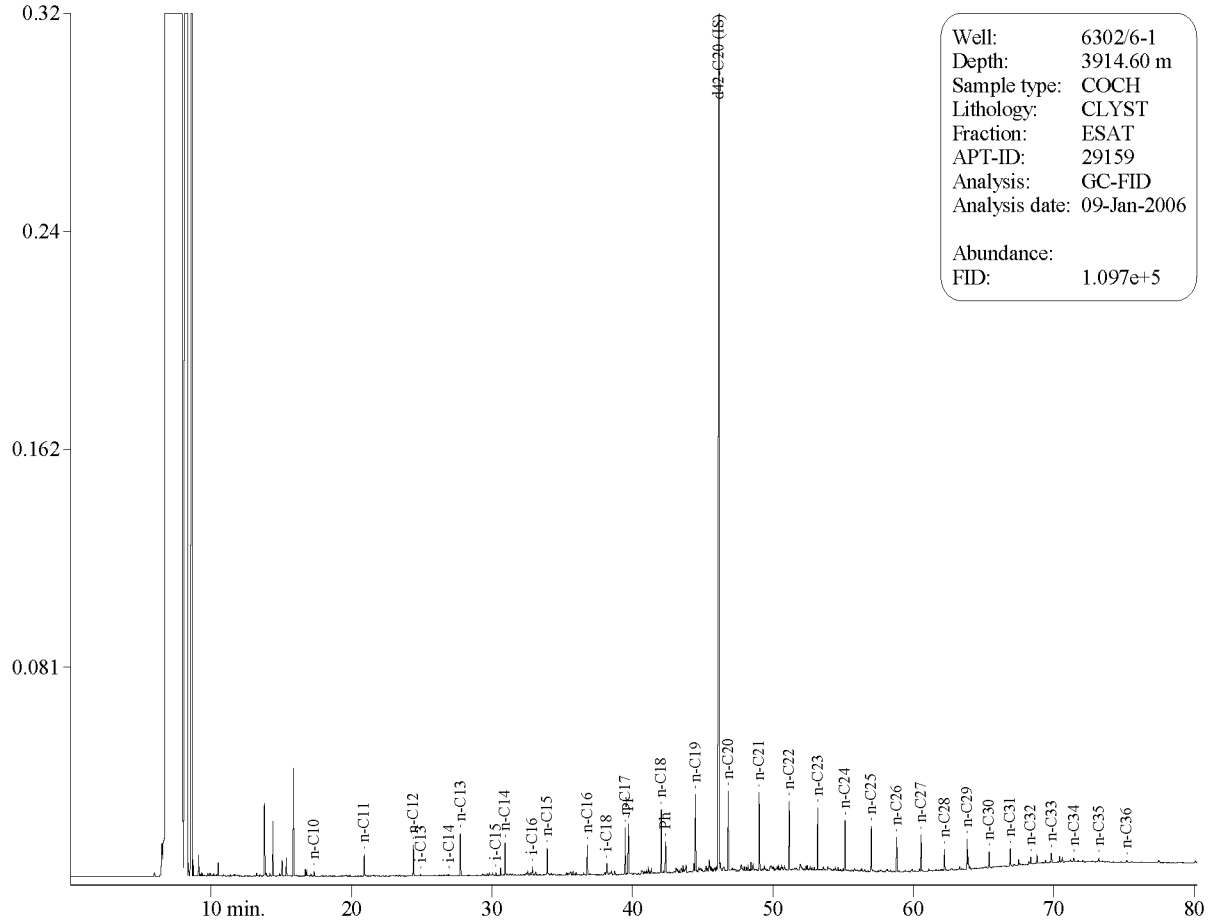
GC Chromatograms of Saturated Hydrocarbons


Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OTOP-OSAT
APT-ID: 10042T
Analysis: GC-FID
Analysis date: 09-Jan-2006
Abundance:
FID: 5.277e+4
0.159
0.119
0.080
0.040
10 min.
20
30
40
50
60
70
80
n-C10
n-C11
n-C12
n-C13
n-C14
n-C15
n-C16
n-C17
n-C18
n-C19
d42-C20 (IS)
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
n-C33
n-C34
n-C35
n-C36
i-C13
i-C14
i-C15
i-C16
i-C18
Pr
Ph


0.84
0.63
0.42
0.21
n-C11
i-C12
Pr
i-C13
n-C13
i-C14
n-C14
i-C15
i-C16
n-C15
n-C16
i-C18
Pr
n-C17
Ph
n-C18
n-C19
d42-C20 (IS)
10 min.
20
30
40
50
60
70
Well: 6302/6-1
Depth: 3900 m
Sample type: Mud
Fraction: MSAT
APT-ID: 28742
Analysis: GC-FID
Analysis date: 11-Nov-2005
Abundance:
FID: 3.190e+5


0.105
0.079
0.053
0.026
n-C11
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
i-C16
n-C15
n-C16
i-C18
Pr
n-C17
Ph
n-C18
n-C19
d42-C20 (IS)
10 min.
20
30
40
50
60
70
Well: 6302/6-1
Depth: 3900 m
Sample type: Mud
Fraction: MSAT
APT-ID: 28742
Analysis: GC-FID
Analysis date: 11-Nov-2005
Abundance:
FID: 3.988e+4


Well: 6302/6-1
Depth: 3914.60 m
Sample type: COCH
Lithology: CLYST
Fraction: ESAT
APT-ID: 29159
Analysis: GC-FID
Analysis date: 09-Jan-2006
Abundance:
FID: 1.097e+5
0.32
0.24
0.162
0.081
10 min.
20
30
40
50
60
70
80
d42-C20 (IS)
n-C10
n-C11
i-C13
n-C12
i-C14
n-C13
i-C15
n-C14
i-C16
n-C15
n-C16
i-C18
n-C17
Pr
n-C18
Ph
n-C19
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
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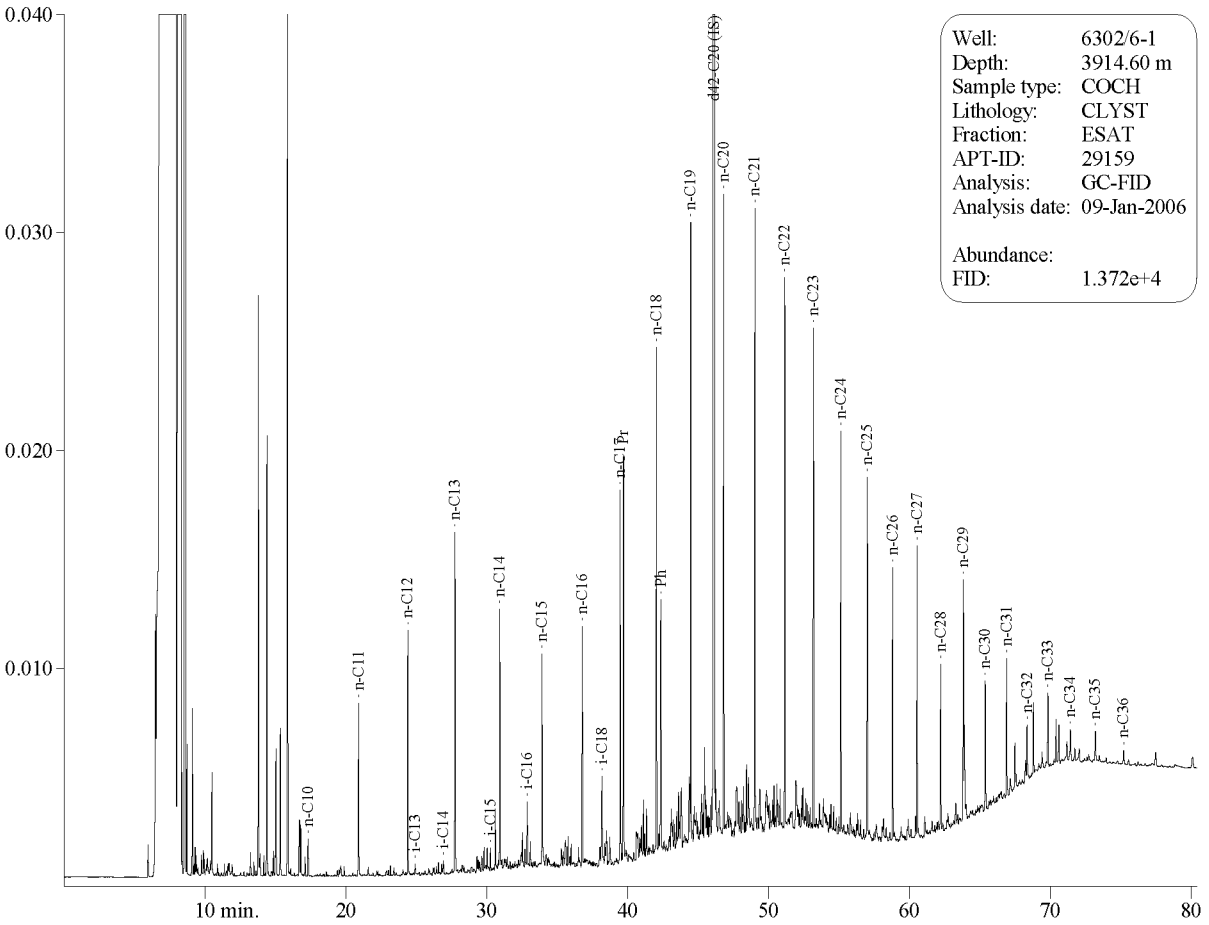
n-C30
n-C31
n-C32
n-C33
n-C34
n-C35
n-C36


Well: 6302/6-1
Depth: 3914.60 m
Sample type: COCH
Lithology: CLYST
Fraction: ESAT
APT-ID: 29159
Analysis: GC-FID
Analysis date: 09-Jan-2006
Abundance:
FID: 1.372e+4
0.040
0.030
0.020
0.010
10 min.
20
30
40
50
60
70
80
d42-C20 (IS)
n-C10
n-C11
i-C13
n-C12
i-C14
n-C13
i-C15
n-C14
i-C16
n-C15
n-C16
i-C18
n-C17
Pr
n-C18
Ph
n-C19
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
n-C27
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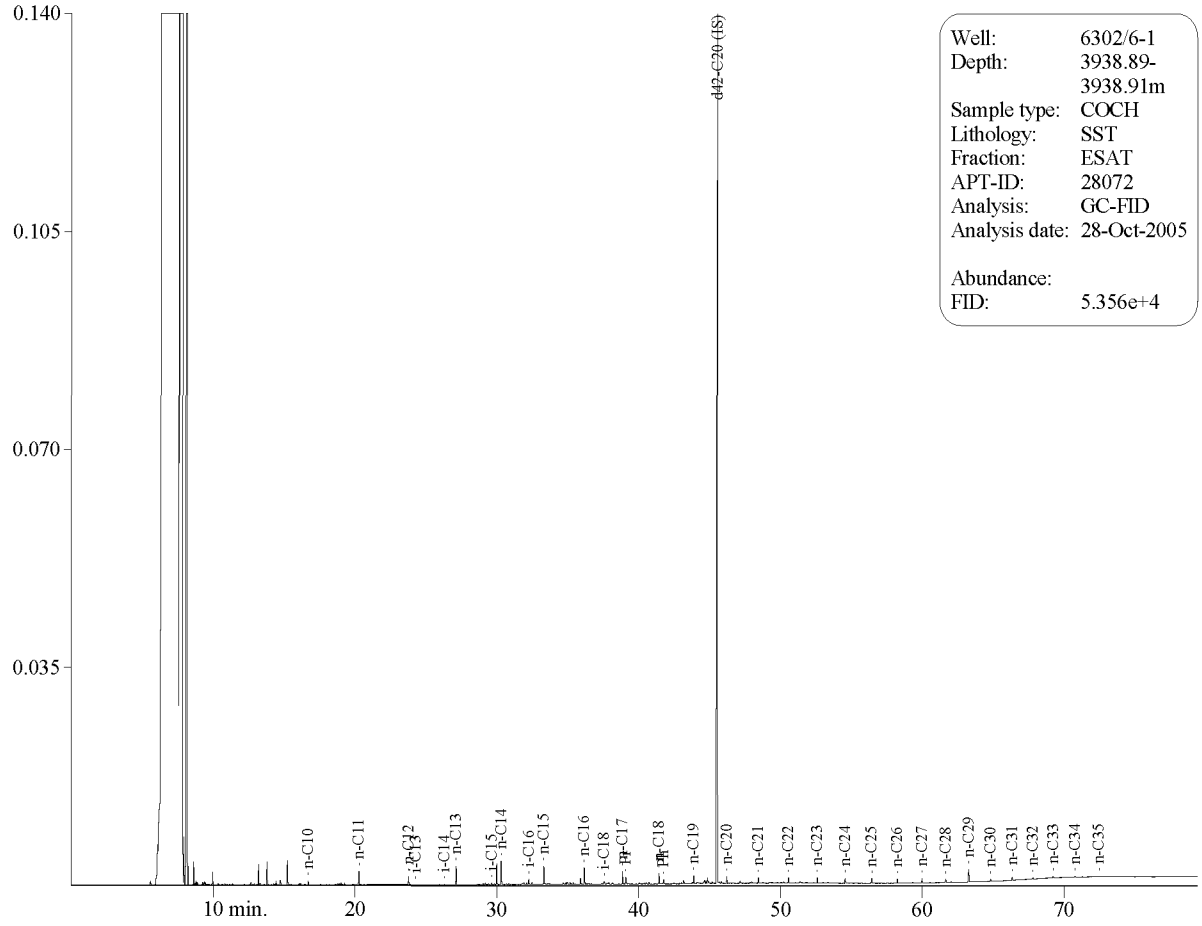
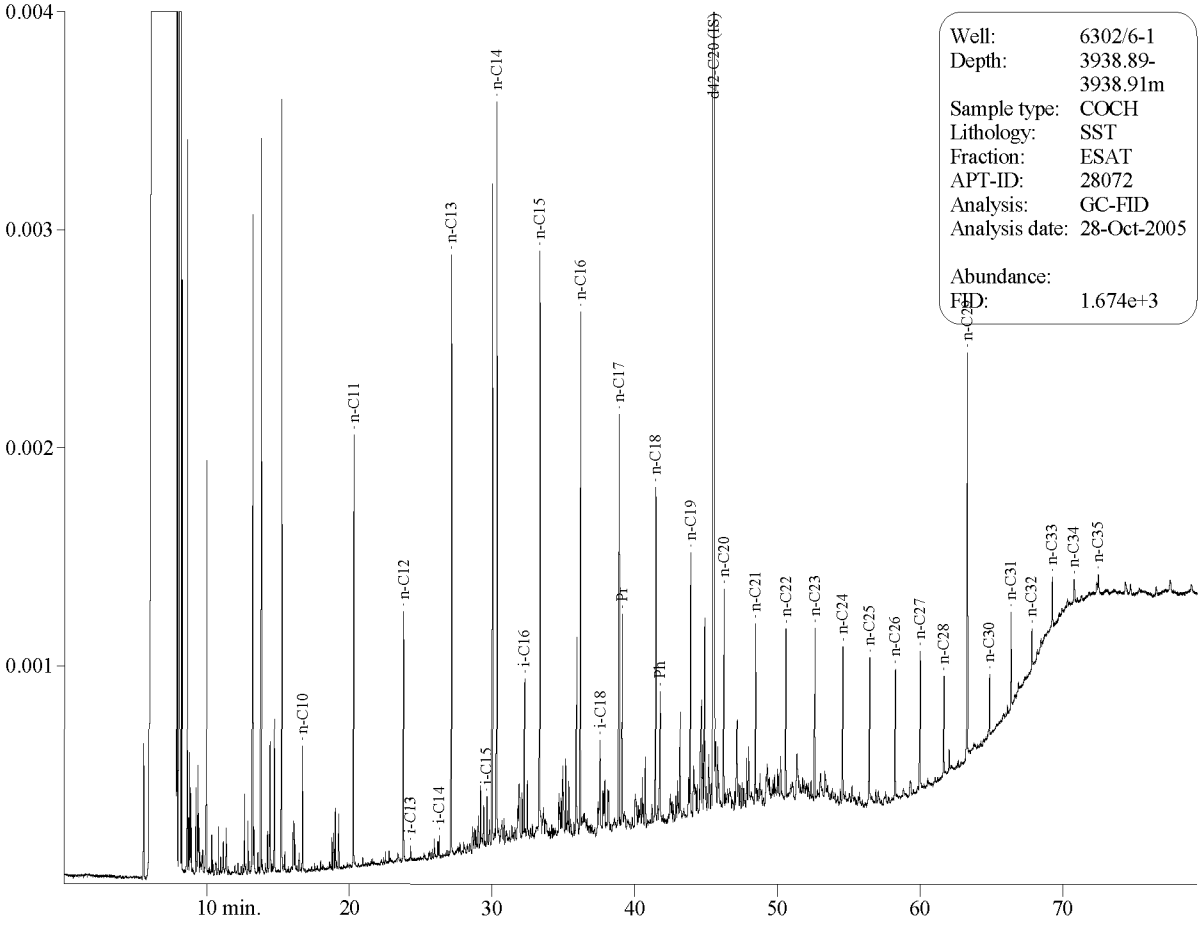
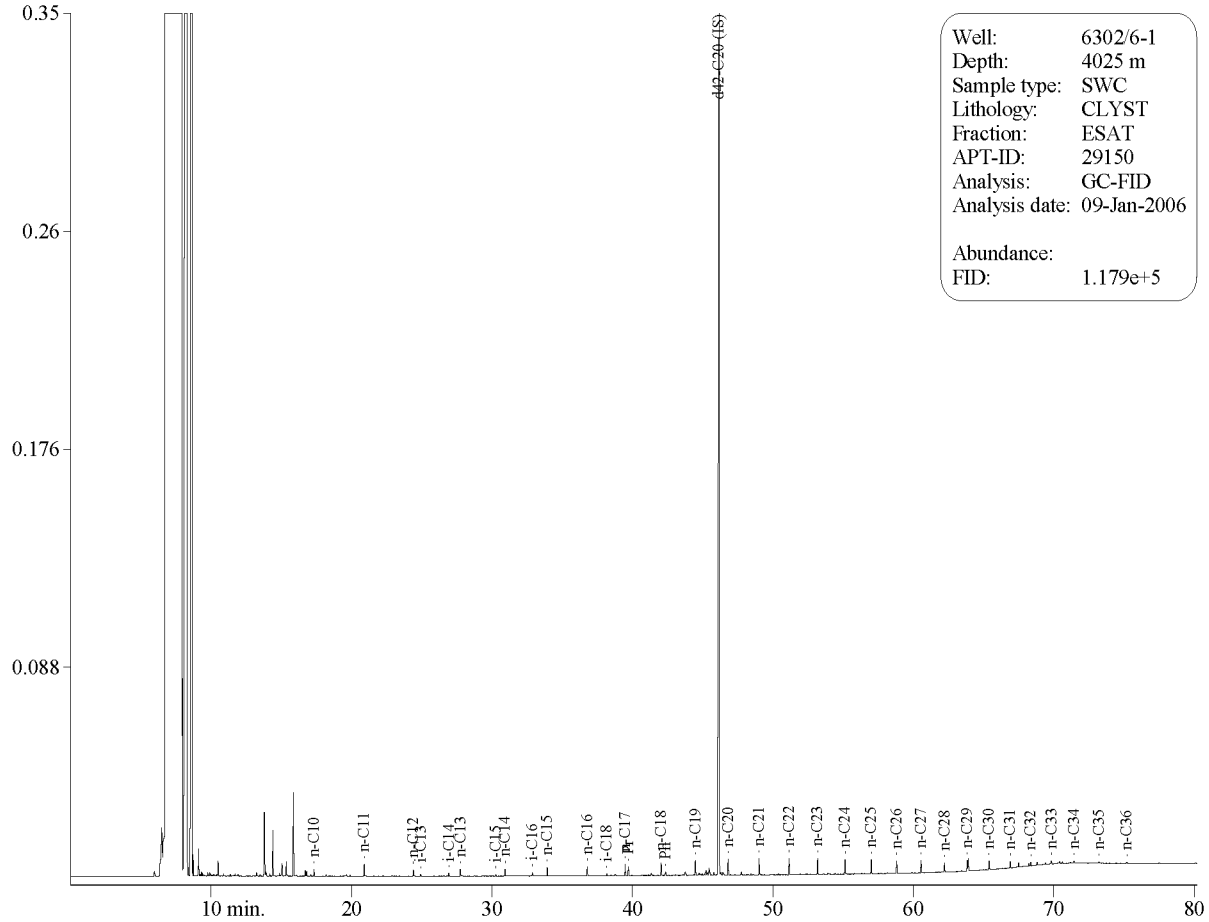
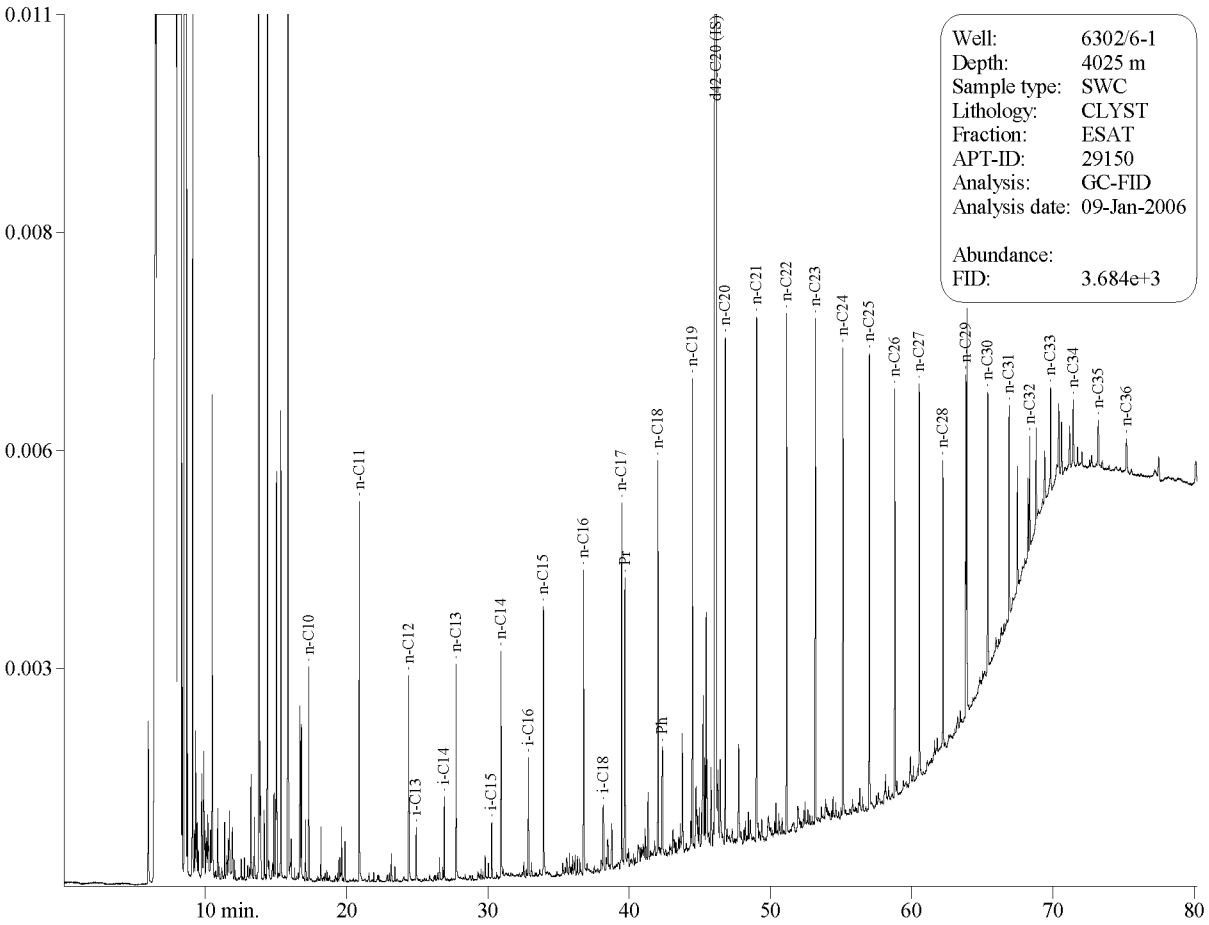
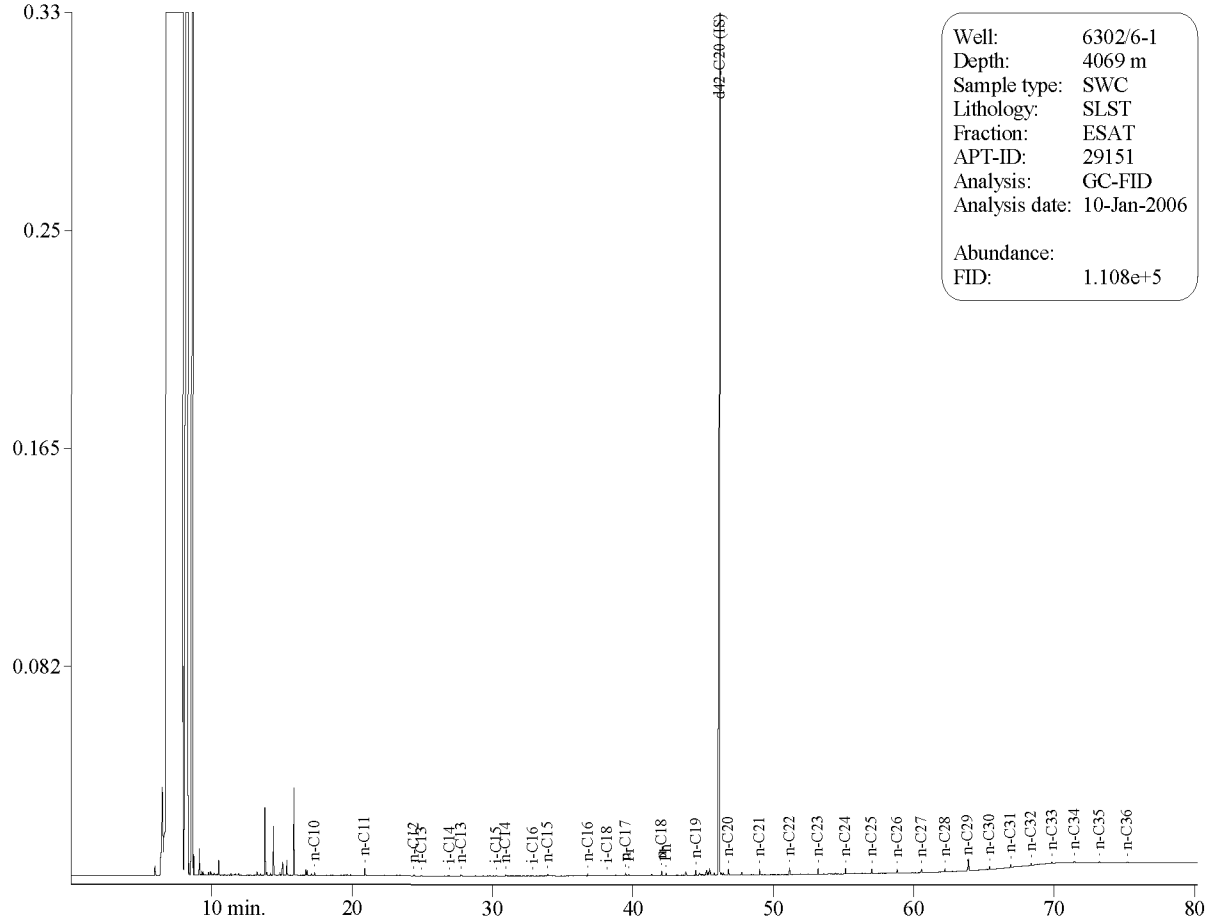
n-C33
n-C34
n-C35
n-C36

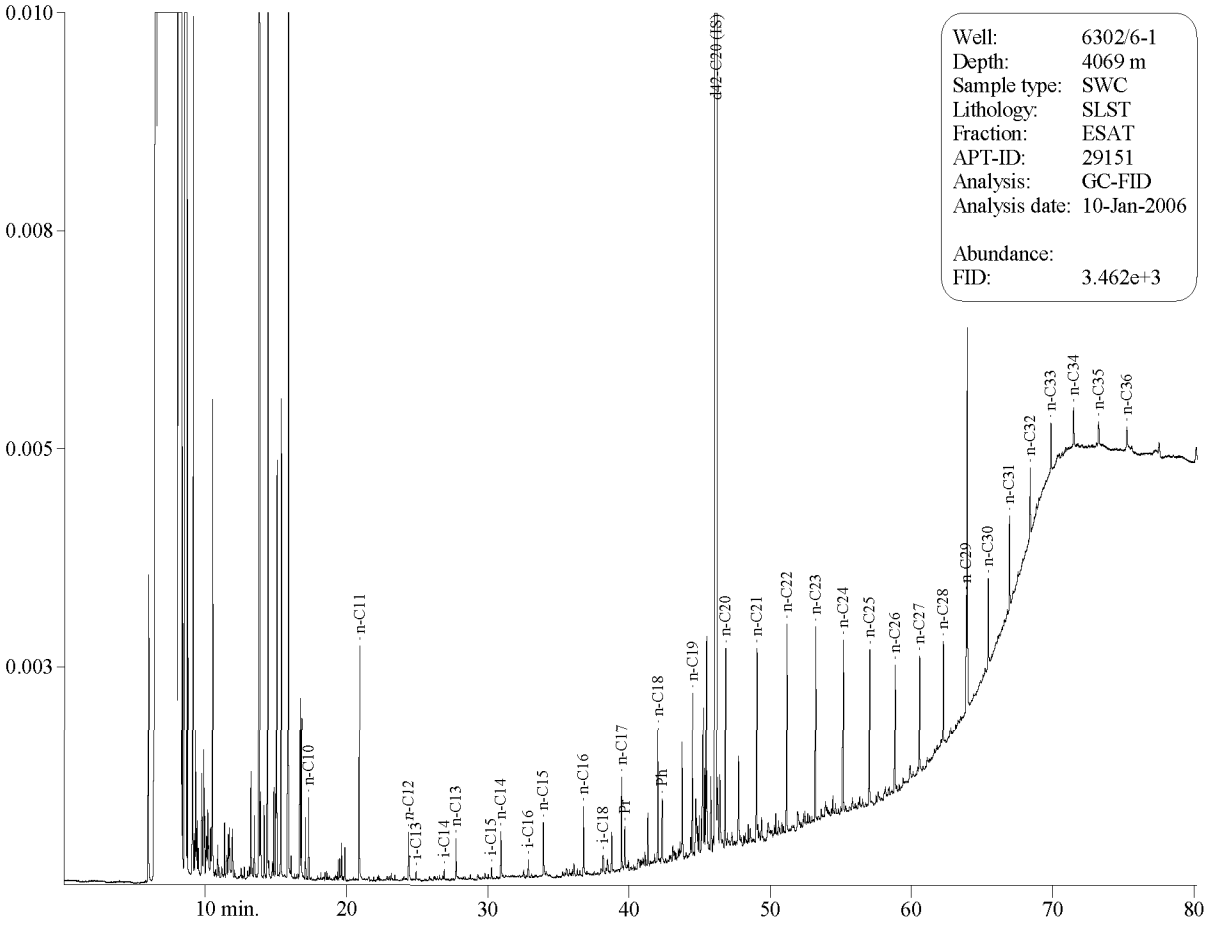

0.140
0.105
0.070
0.035
d42-C20 (IS)
n-C10
n-C11
i-C12
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
n-C15
i-C16
n-C16
i-C18
n-C17
Pr
Ph
n-C18
n-C19
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
n-C27
n-C28
n-C29
n-C30
n-C31
n-C32
n-C33
n-C34
n-C35
10 min.
20
30
40
50
60
70
Well: 6302/6-1
Depth: 3938.89-3938.91m
Sample type: COCH
Lithology: SST
Fraction: ESAT
APT-ID: 28072
Analysis: GC-FID
Analysis date: 28-Oct-2005
Abundance:
FID: 5.356e+4

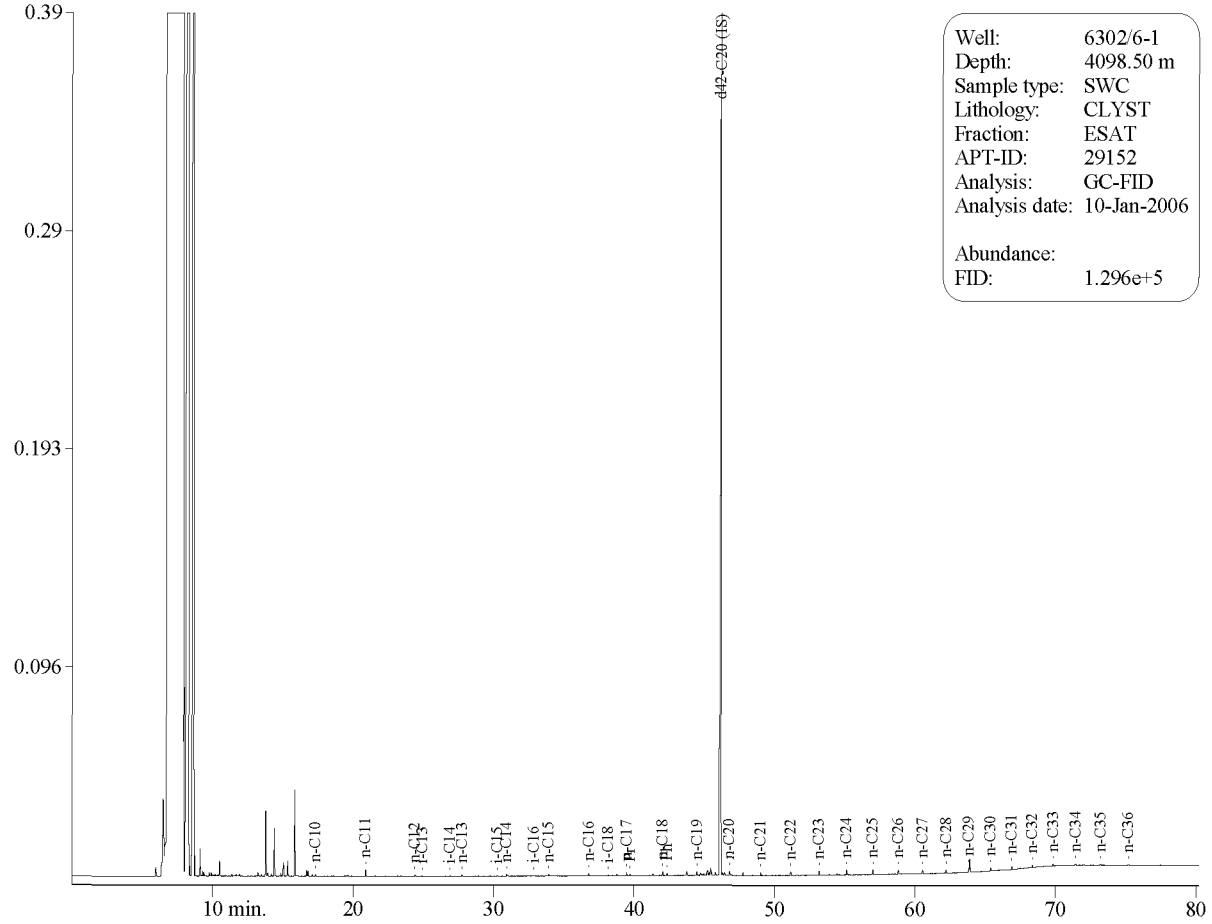

0.004
0.003
0.002
0.001
d42-C20 (IS)
n-C14
n-C13
n-C15
n-C16
n-C17
n-C11
n-C18
n-C12
n-C19
n-C20
n-C10
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
n-C27
n-C28
n-C30
n-C31
n-C32
n-C33
n-C34
n-C35
i-C13
i-C14
i-C15
i-C16
i-C18
Pr
Ph
10 min.
20
30
40
50
60
70
Well: 6302/6-1
Depth: 3938.89-3938.91m
Sample type: COCH
Lithology: SST
Fraction: ESAT
APT-ID: 28072
Analysis: GC-FID
Analysis date: 28-Oct-2005
Abundance:
FID: 1.674e+3

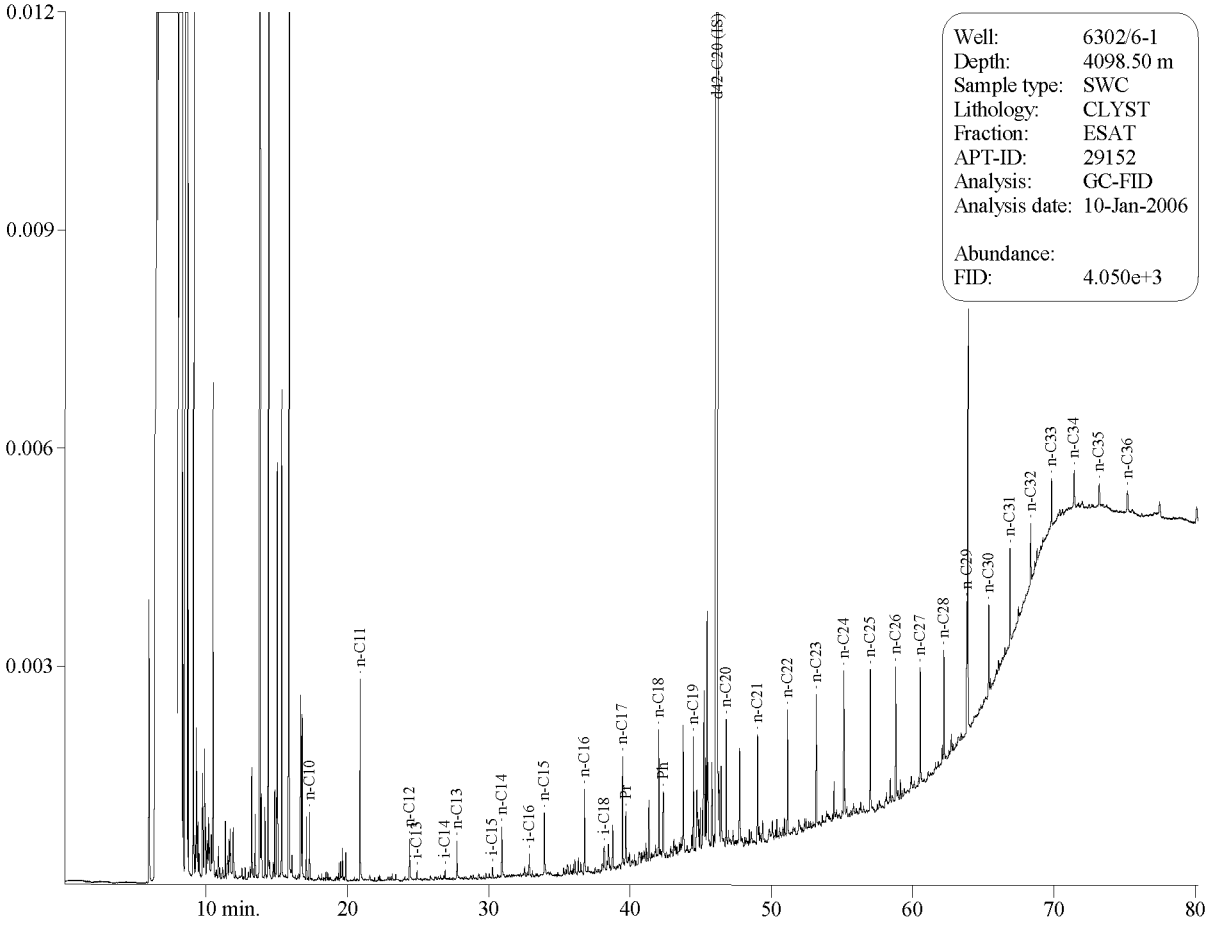

Well: 6302/6-1
Depth: 4025 m
Sample type: SWC
Lithology: CLYST
Fraction: ESAT
APT-ID: 29150
Analysis: GC-FID
Analysis date: 09-Jan-2006
Abundance:
FID: 1.179e+5
0.35
0.26
0.176
0.088
d42-C20 (IS)
n-C10
n-C11
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
n-C15
i-C16
n-C16
i-C18
n-C17
Pr
Ph
n-C18
n-C19
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
n-C27
n-C28
n-C29
n-C30
n-C31
n-C32
n-C33
n-C34
n-C35
n-C36
10 min.
20
30
40
50
60
70
80

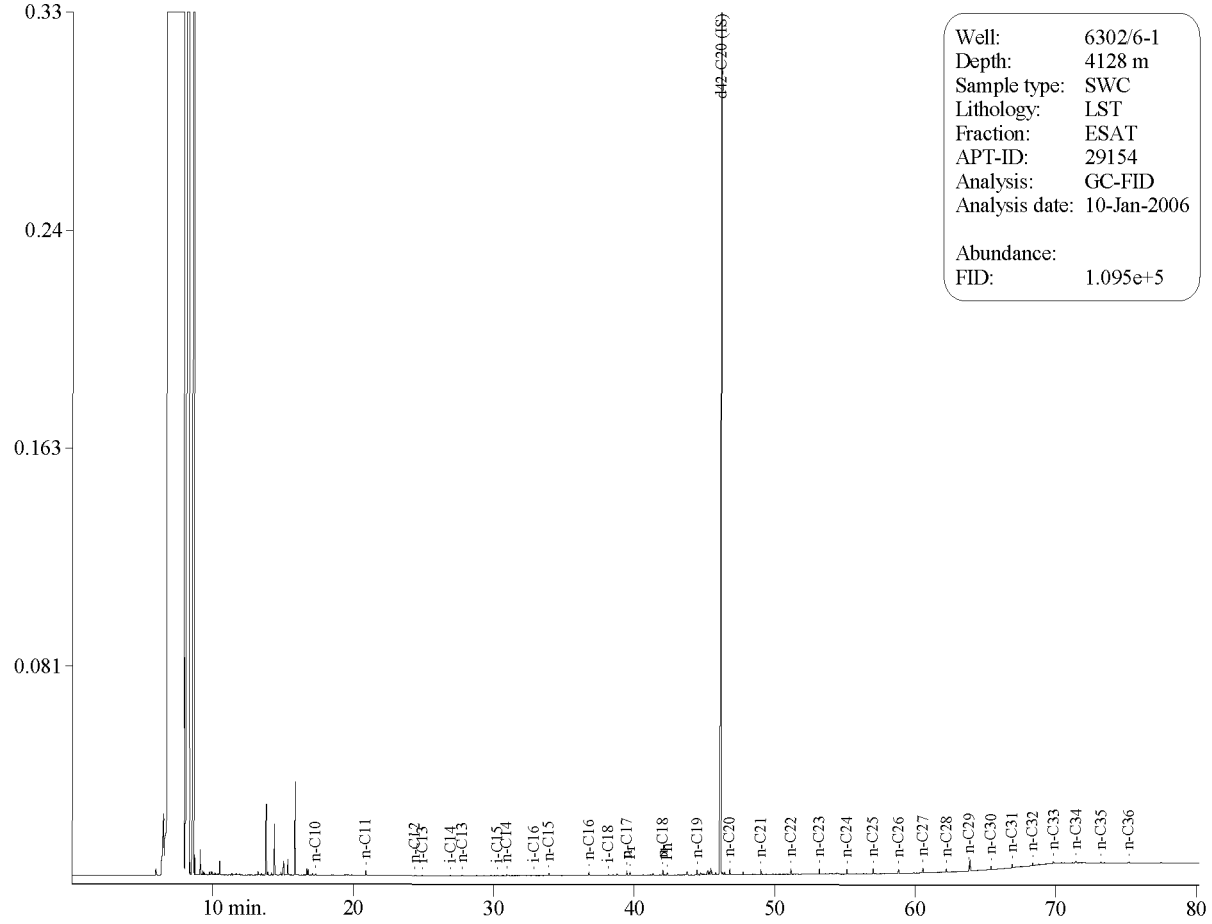

Well: 6302/6-1
Depth: 4025 m
Sample type: SWC
Lithology: CLYST
Fraction: ESAT
APT-ID: 29150
Analysis: GC-FID
Analysis date: 09-Jan-2006
Abundance:
FID: 3.684e+3
0.011
0.008
0.006
0.003
d42-C20 (IS)
n-C10
n-C11
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
n-C15
i-C16
n-C16
i-C18
n-C17
Pr
Ph
n-C18
n-C19
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
n-C27
n-C28
n-C29
n-C30
n-C31
n-C32
n-C33
n-C34
n-C35
n-C36
10 min.
20
30
40
50
60
70
80

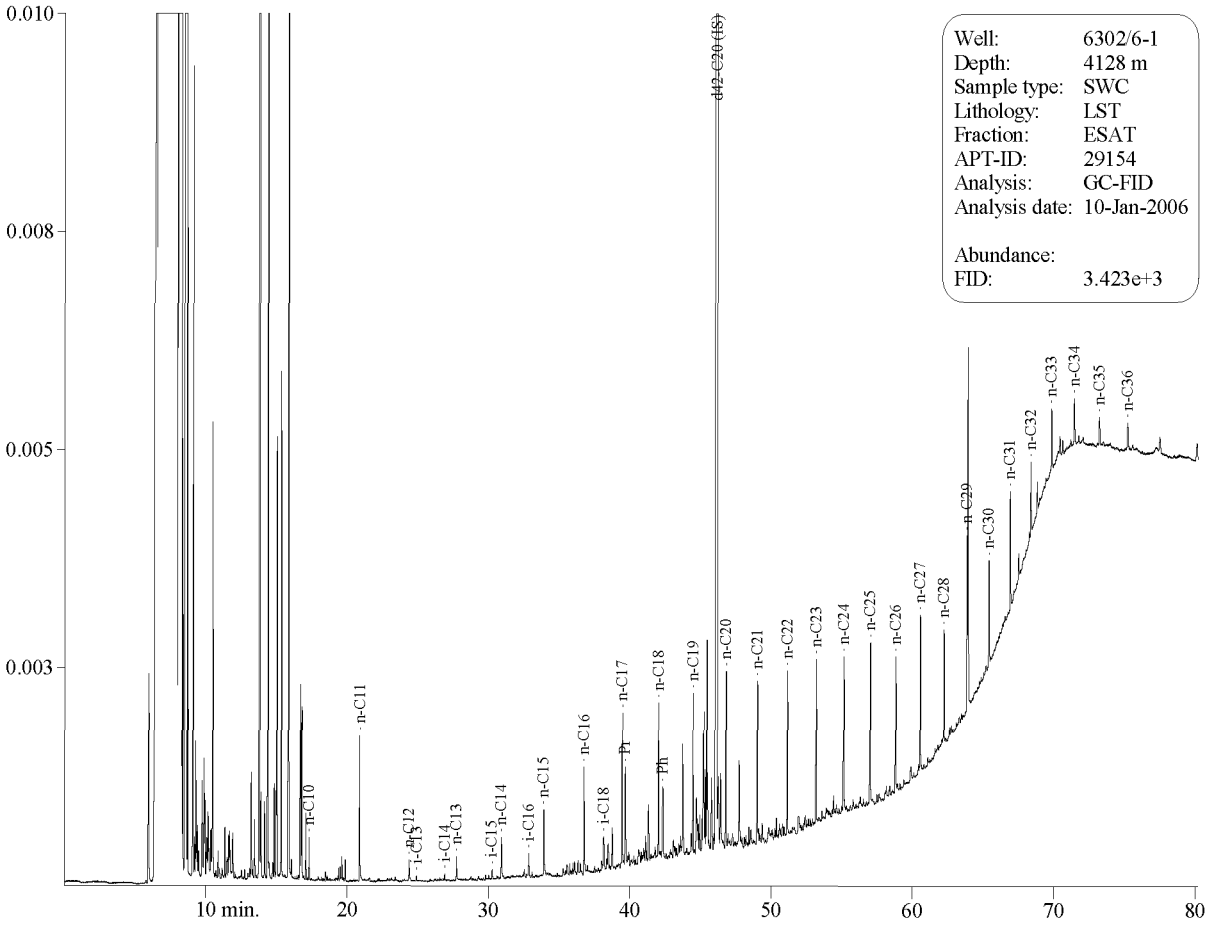

0.33
0.25
0.165
0.082
d42-C20 (IS)
n-C10
n-C11
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
n-C15
i-C16
n-C16
i-C17
Pr
n-C17
i-C18
Ph
n-C18
n-C19
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
n-C27
n-C28
n-C29
n-C30
n-C31
n-C32
n-C33
n-C34
n-C35
n-C36
10 min.
20
30
40
50
60
70
80
Well: 6302/6-1
Depth: 4069 m
Sample type: SWC
Lithology: SLST
Fraction: ESAT
APT-ID: 29151
Analysis: GC-FID
Analysis date: 10-Jan-2006
Abundance:
FID: 1.108e+5

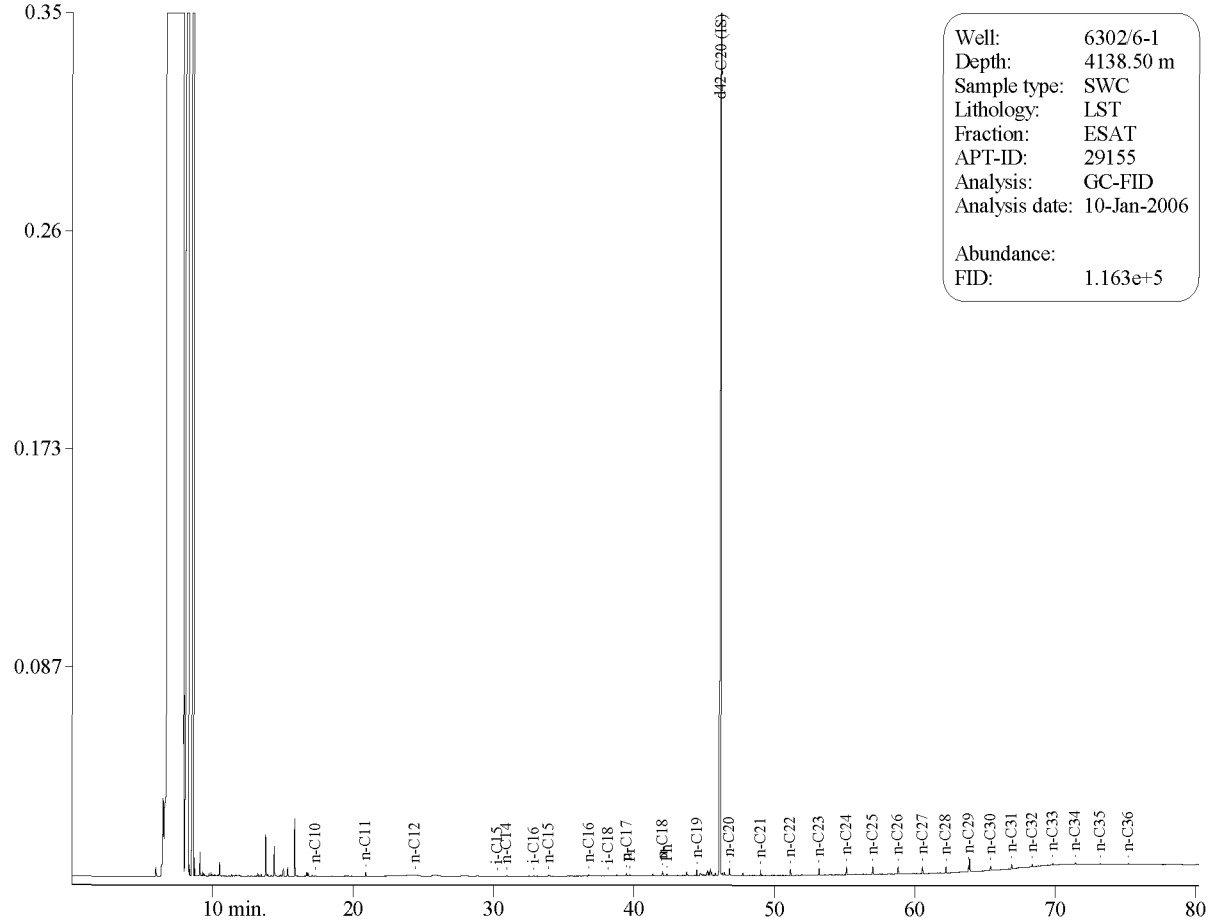

0.010
0.008
0.005
0.003
d42-C20 (IS)
n-C10
n-C11
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
n-C15
i-C16
n-C16
i-C17
Pr
n-C17
i-C18
Ph
n-C18
n-C19
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
n-C27
n-C28
n-C29
n-C30
n-C31
n-C32
n-C33
n-C34
n-C35
n-C36
10 min.
20
30
40
50
60
70
80
Well: 6302/6-1
Depth: 4069 m
Sample type: SWC
Lithology: SLST
Fraction: ESAT
APT-ID: 29151
Analysis: GC-FID
Analysis date: 10-Jan-2006
Abundance:
FID: 3.462e+3

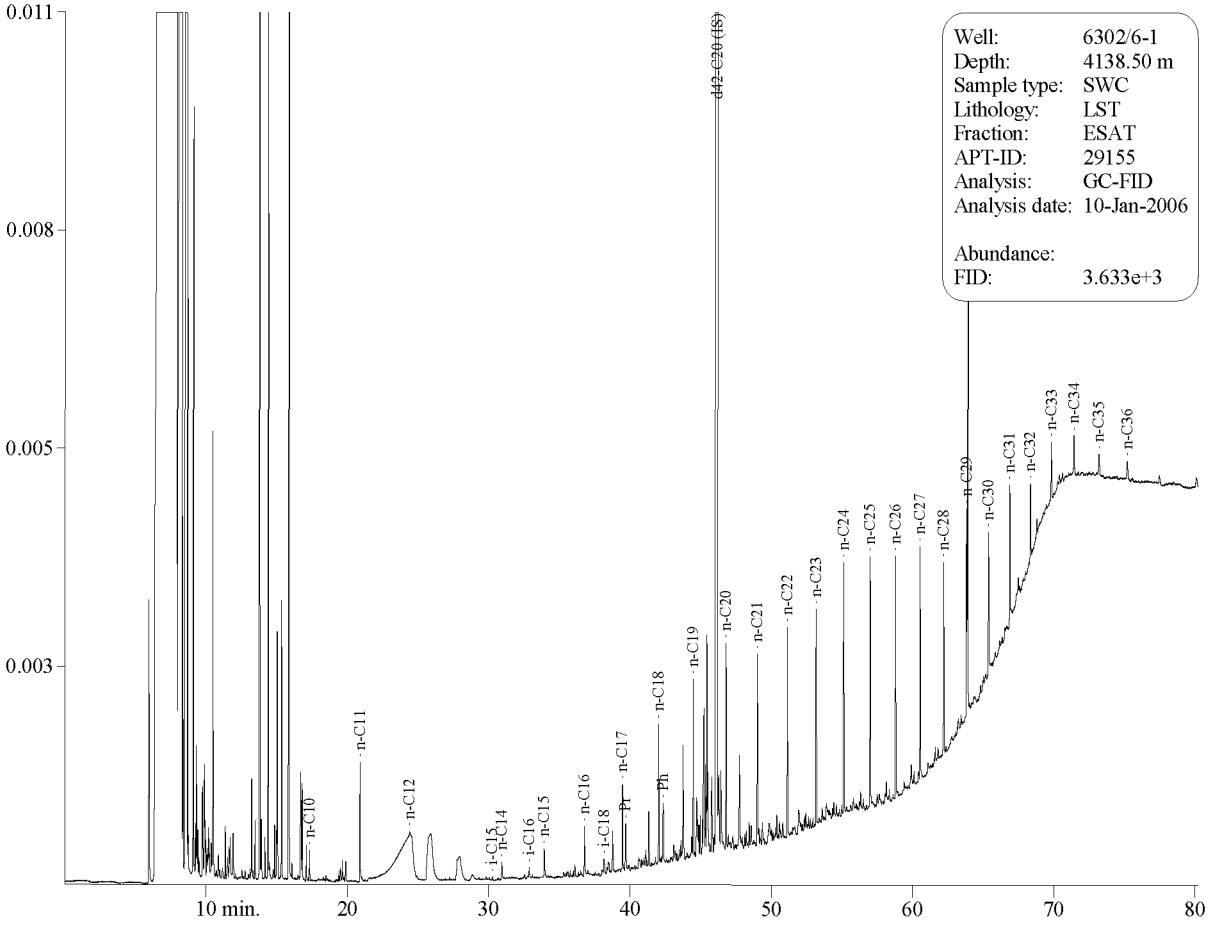

0.39
0.29
0.193
0.096
d42-C20 (IS)
n-C10
n-C11
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
n-C15
i-C16
n-C16
i-C17
n-C17
Pr
i-C18
n-C18
Ph
n-C19
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
n-C27
n-C28
n-C29
n-C30
n-C31
n-C32
n-C33
n-C34
n-C35
n-C36
10 min.
20
30
40
50
60
70
80
Well: 6302/6-1
Depth: 4098.50 m
Sample type: SWC
Lithology: CLYST
Fraction: ESAT
APT-ID: 29152
Analysis: GC-FID
Analysis date: 10-Jan-2006
Abundance:
FID: 1.296e+5

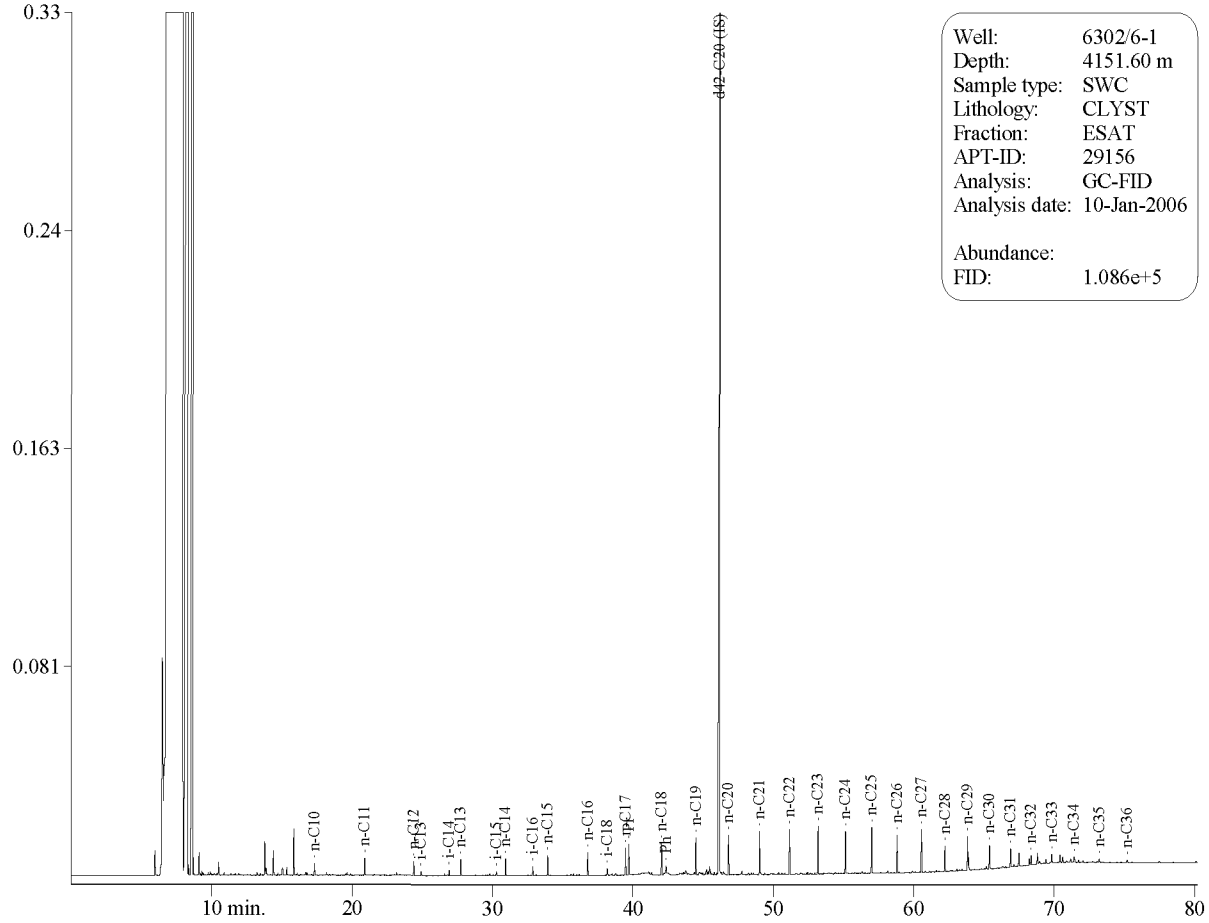

0.012
0.009
0.006
0.003
d42-C20 (IS)
n-C10
n-C11
i-C12
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
n-C15
i-C16
n-C16
i-C17
n-C17
Pr
i-C18
n-C18
Ph
n-C19
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
n-C27
n-C28
n-C29
n-C30
n-C31
n-C32
n-C33
n-C34
n-C35
n-C36
10 min.
20
30
40
50
60
70
80
Well: 6302/6-1
Depth: 4098.50 m
Sample type: SWC
Lithology: CLYST
Fraction: ESAT
APT-ID: 29152
Analysis: GC-FID
Analysis date: 10-Jan-2006
Abundance:
FID: 4.050e+3

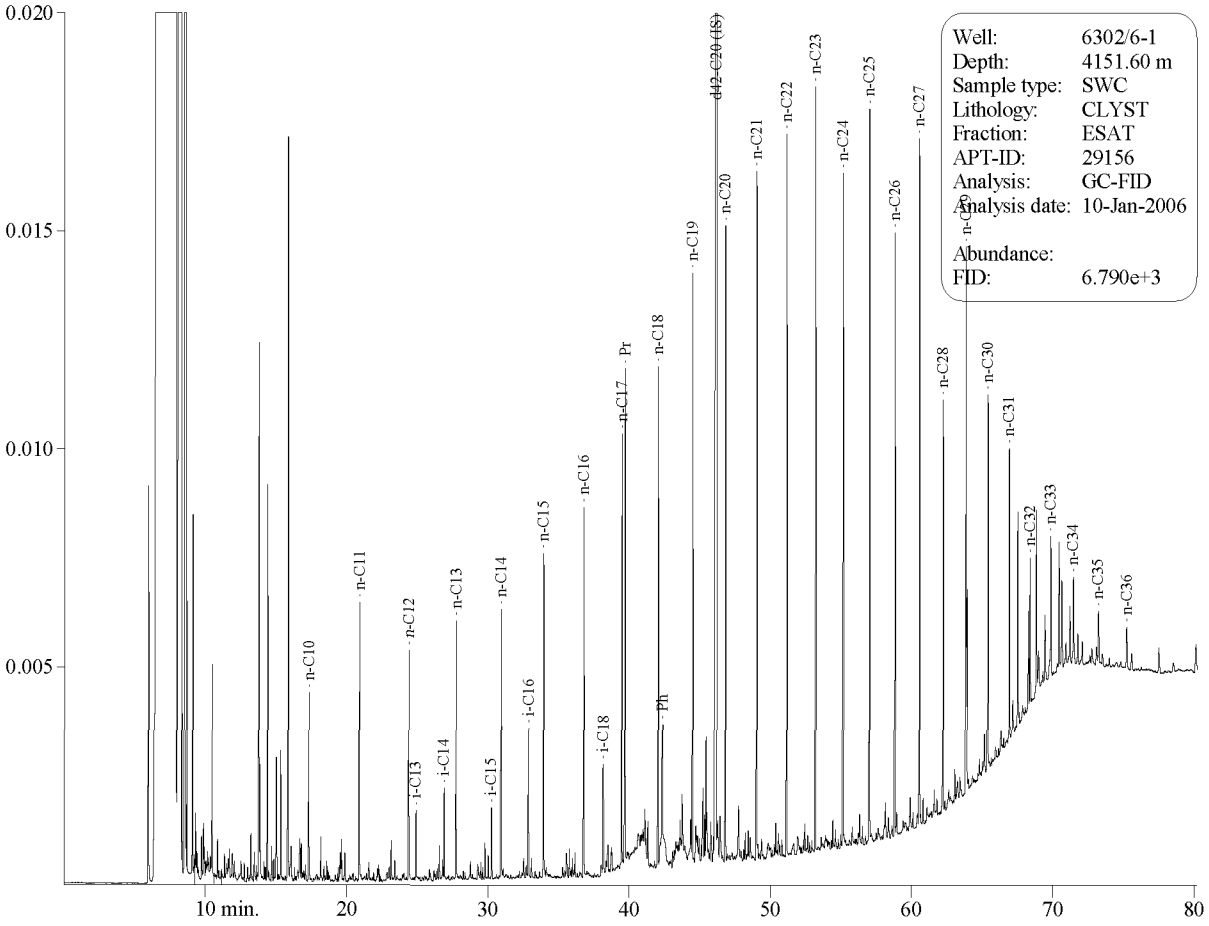

0.33
0.24
0.163
0.081
d42-C20 (IS)
n-C10
n-C11
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
n-C15
i-C16
n-C16
n-C17
Pr
n-C18
Ph
n-C19
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
n-C27
n-C28
n-C29
n-C30
n-C31
n-C32
n-C33
n-C34
n-C35
n-C36
10 min.
20
30
40
50
60
70
80
Well: 6302/6-1
Depth: 4128 m
Sample type: SWC
Lithology: LST
Fraction: ESAT
APT-ID: 29154
Analysis: GC-FID
Analysis date: 10-Jan-2006
Abundance:
FID: 1.095e+5

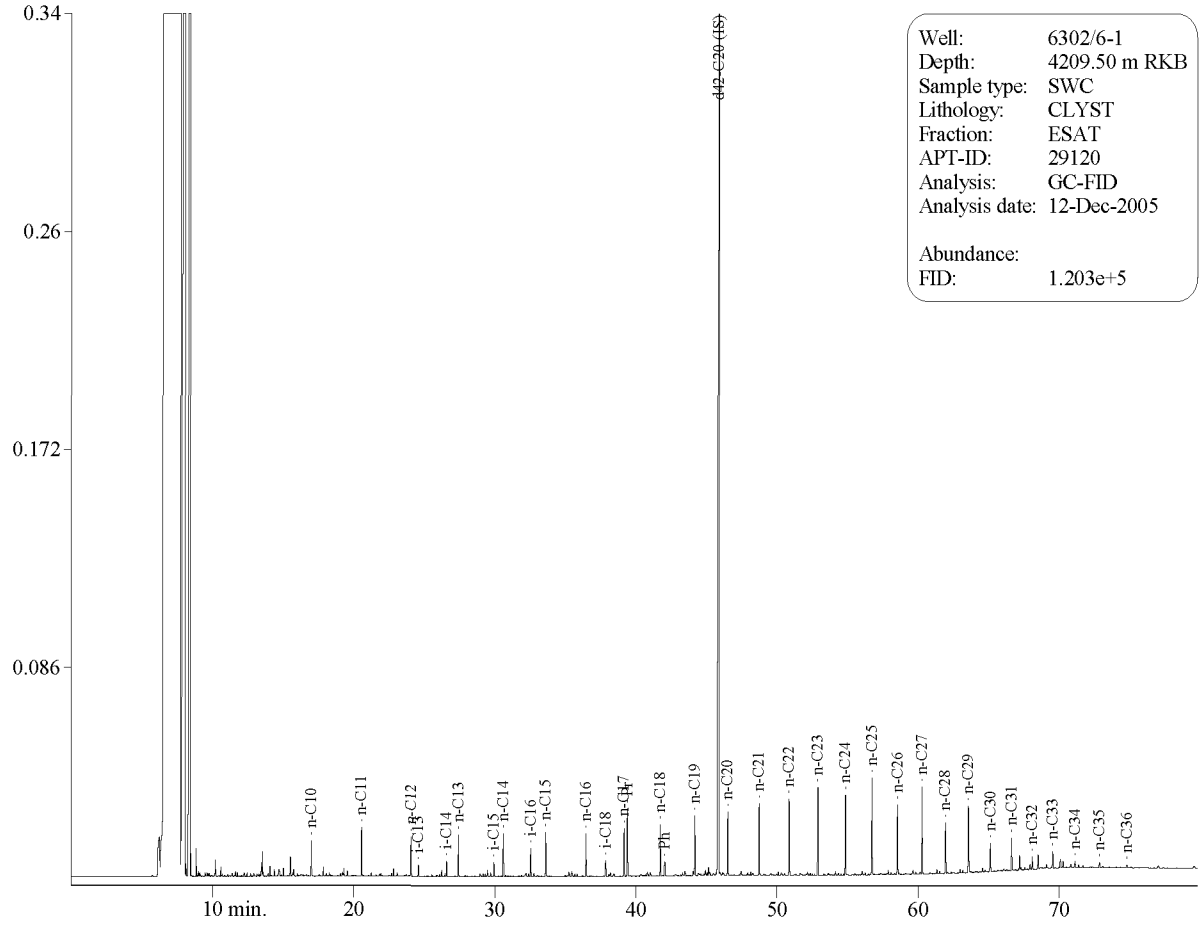

0.010
0.008
0.005
0.003
d42-C20 (IS)
n-C10
n-C11
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
n-C15
i-C16
n-C16
n-C17
Pr
n-C18
Ph
n-C19
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
n-C27
n-C28
n-C29
n-C30
n-C31
n-C32
n-C33
n-C34
n-C35
n-C36
10 min.
20
30
40
50
60
70
80
Well: 6302/6-1
Depth: 4128 m
Sample type: SWC
Lithology: LST
Fraction: ESAT
APT-ID: 29154
Analysis: GC-FID
Analysis date: 10-Jan-2006
Abundance:
FID: 3.423e+3

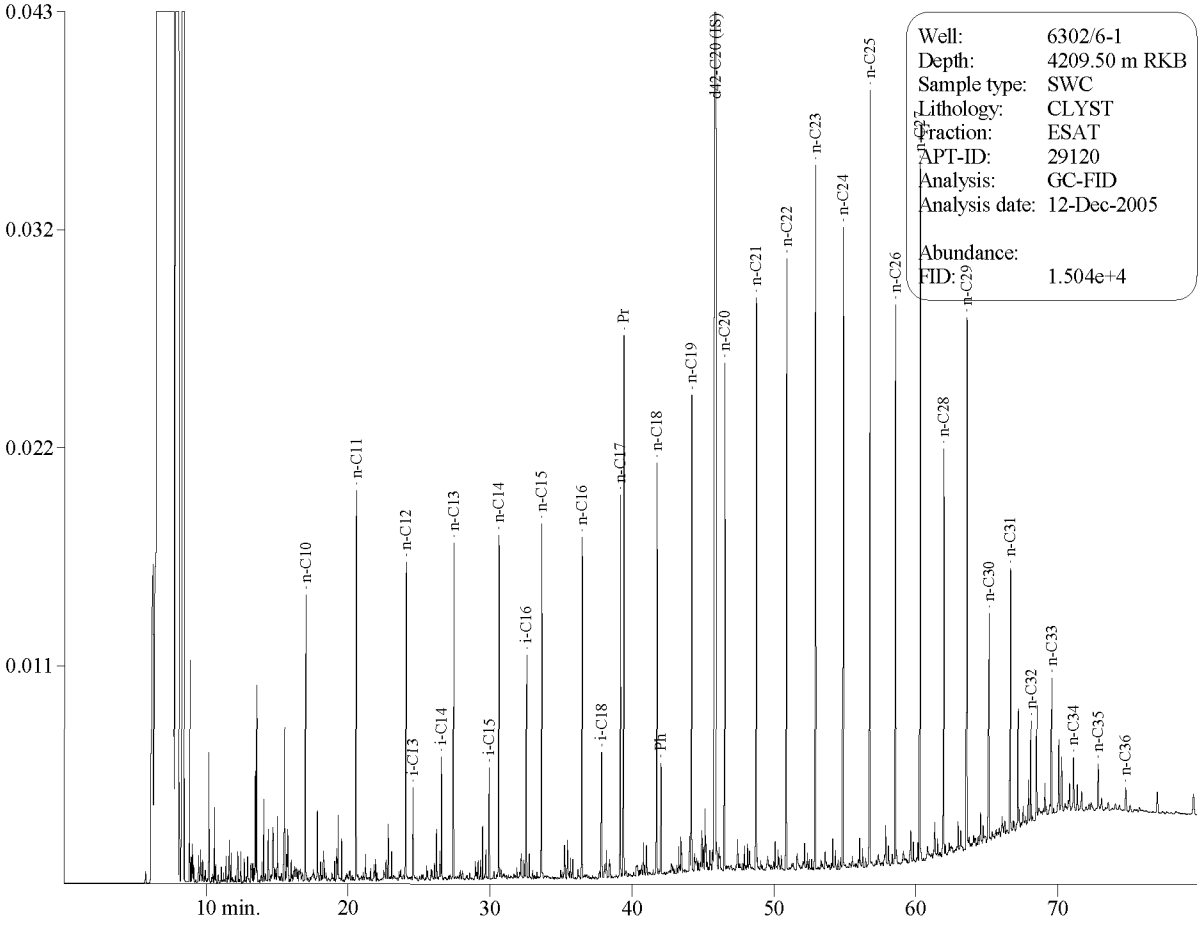

0.35
0.26
0.173
0.087
d42-C20 (IS)
n-C10
n-C11
n-C12
i-C15
n-C14
i-C16
n-C15
n-C16
i-C18
n-C17
Pr
Ph
n-C18
n-C19
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
n-C27
n-C28
n-C29
n-C30
n-C31
n-C32
n-C33
n-C34
n-C35
n-C36
10 min.
20
30
40
50
60
70
80
Well: 6302/6-1
Depth: 4138.50 m
Sample type: SWC
Lithology: LST
Fraction: ESAT
APT-ID: 29155
Analysis: GC-FID
Analysis date: 10-Jan-2006
Abundance:
FID: 1.163e+5


0.011
0.008
0.005
0.003
d42-C20 (IS)
n-C10
n-C11
n-C12
i-C15
n-C14
i-C16
n-C15
n-C16
i-C18
n-C17
Pr
Ph
n-C18
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
n-C33
n-C34
n-C35
n-C36
10 min.
20
30
40
50
60
70
80
Well: 6302/6-1
Depth: 4138.50 m
Sample type: SWC
Lithology: LST
Fraction: ESAT
APT-ID: 29155
Analysis: GC-FID
Analysis date: 10-Jan-2006
Abundance:
FID: 3.633e+3

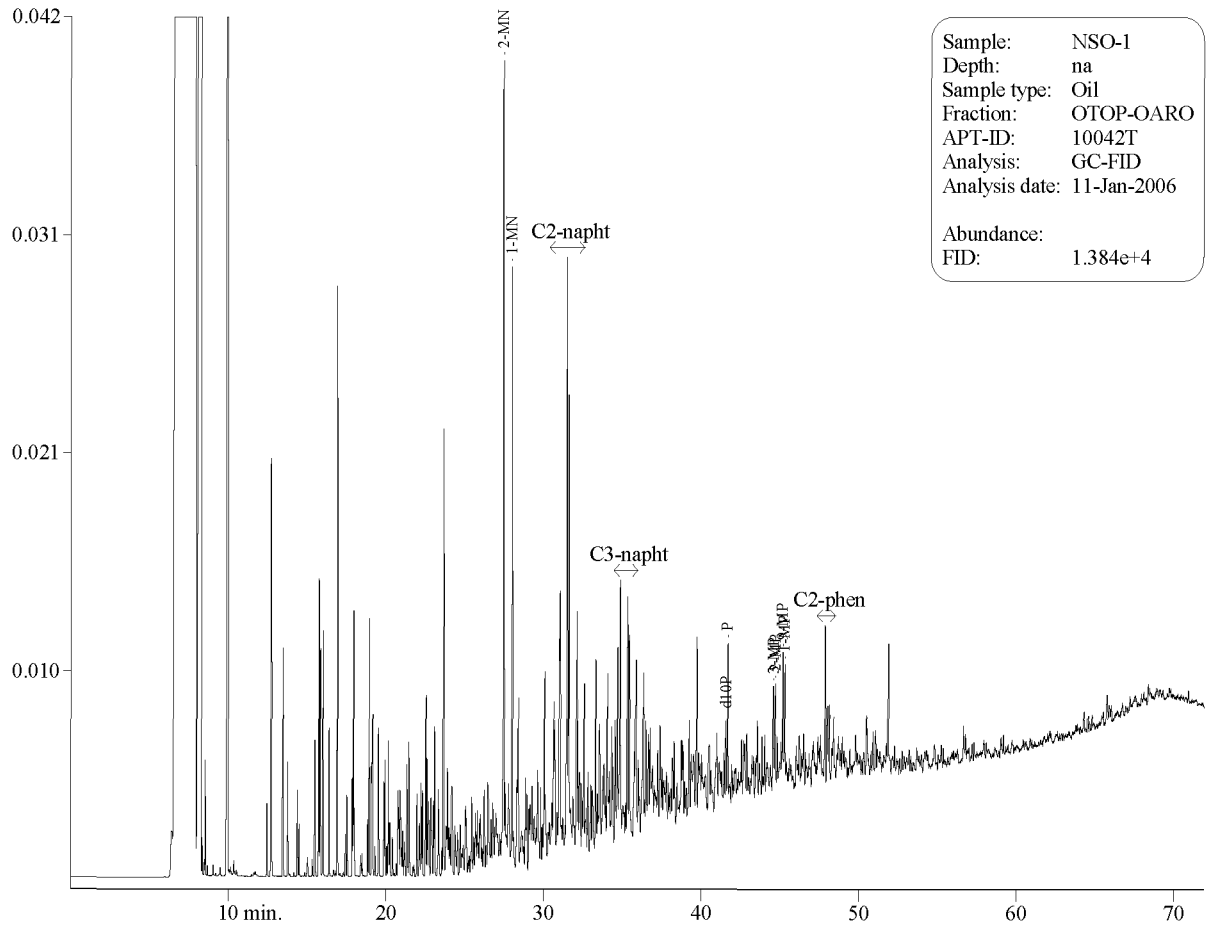

Well: 6302/6-1
Depth: 4151.60 m
Sample type: SWC
Lithology: CLYST
Fraction: ESAT
APT-ID: 29156
Analysis: GC-FID
Analysis date: 10-Jan-2006
Abundance:
FID: 1.086e+5
0.33
0.24
0.163
0.081
d42-C20 (IS)
n-C10
n-C11
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
n-C15
i-C16
n-C16
i-C18
n-C17
Pr
Ph
n-C18
n-C19
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
n-C27
n-C28
n-C29
n-C30
n-C31
n-C32
n-C33
n-C34
n-C35
n-C36
10 min.
20
30
40
50
60
70
80

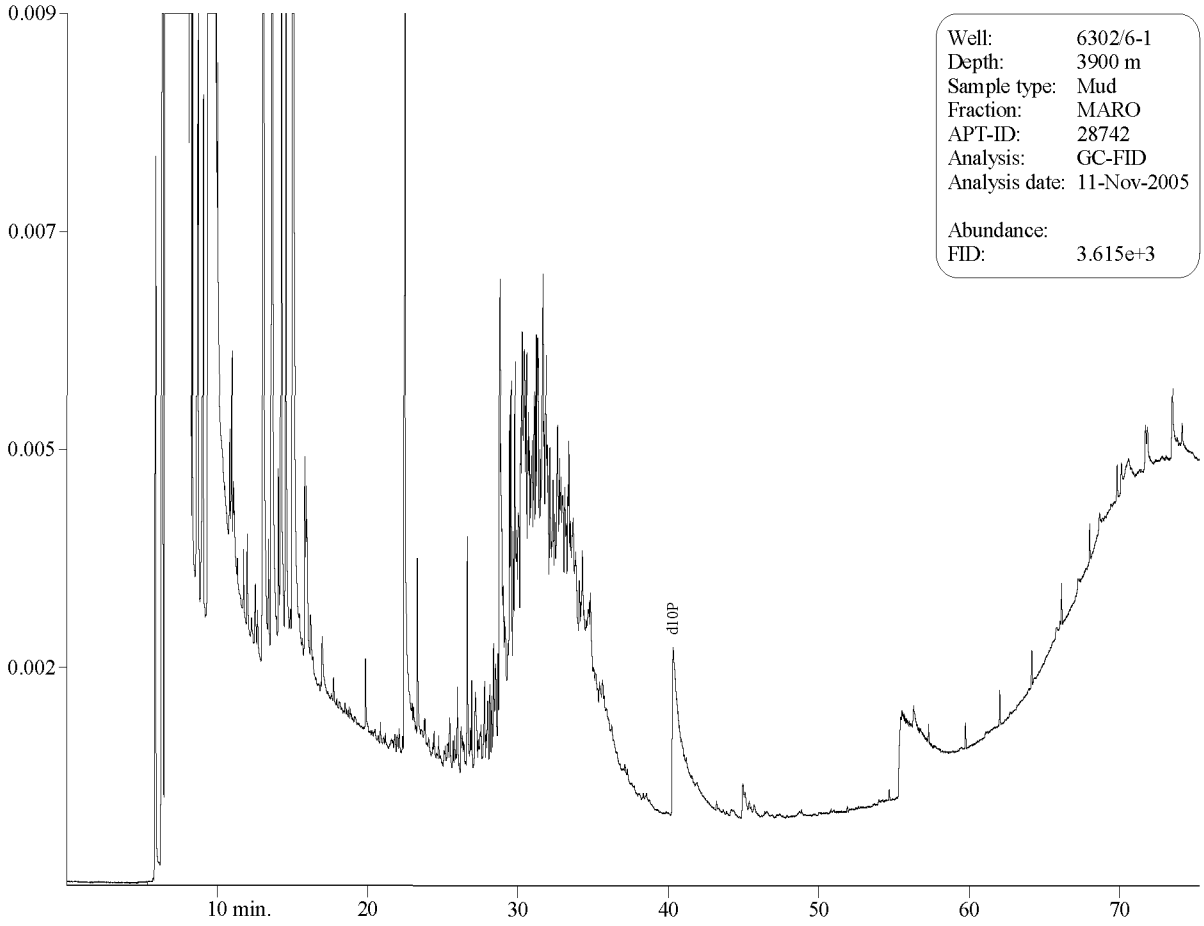

Well: 6302/6-1
Depth: 4151.60 m
Sample type: SWC
Lithology: CLYST
Fraction: ESAT
APT-ID: 29156
Analysis: GC-FID
Analysis date: 10-Jan-2006
Abundance:
FID: 6.790e+3
0.020
0.015
0.010
0.005
d42-C20 (IS)
n-C10
n-C11
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
n-C15
i-C16
n-C16
i-C18
n-C17
Pr
Ph
n-C18
n-C19
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
n-C27
n-C28
n-C30
n-C31
n-C32
n-C33
n-C34
n-C35
n-C36
10 min.
20
30
40
50
60
70
80

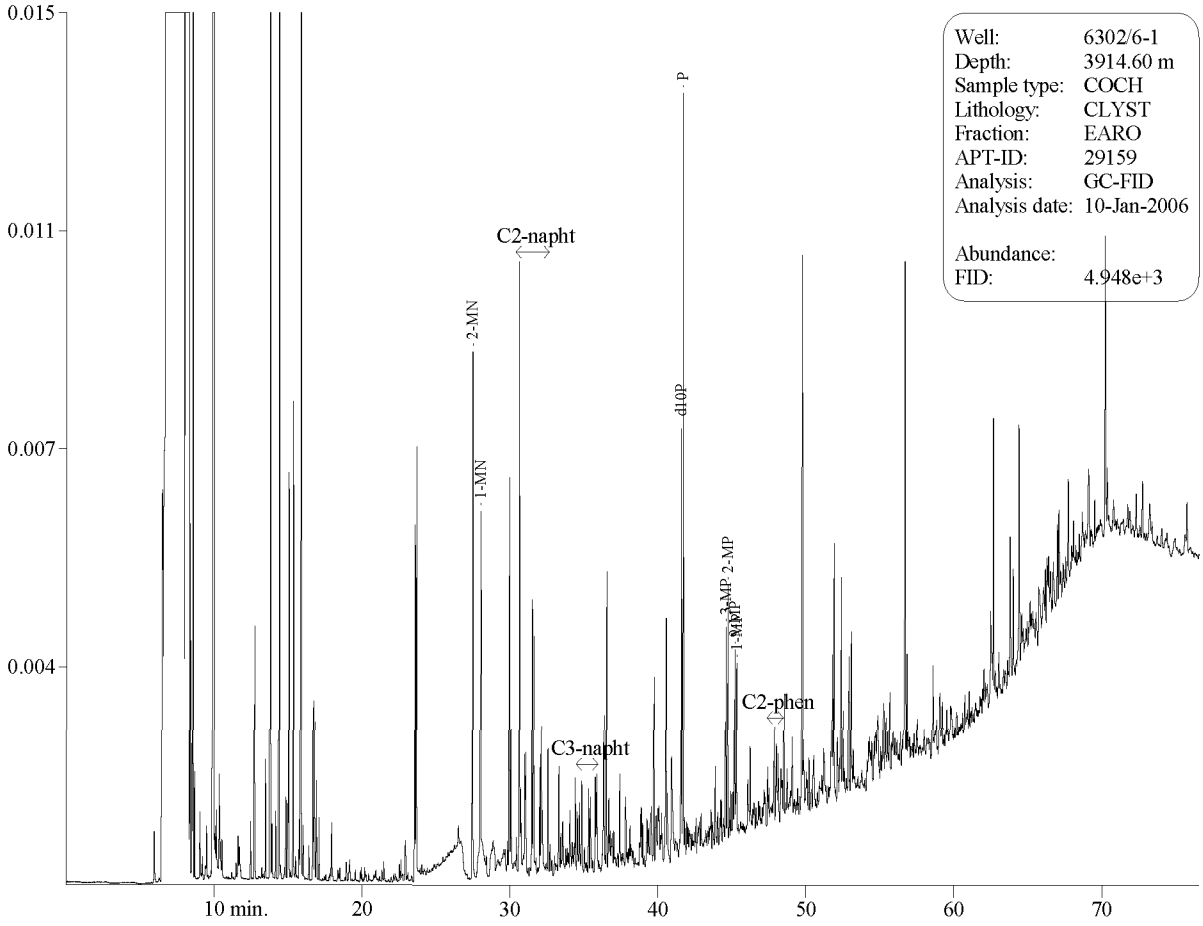

Well: 6302/6-1
Depth: 4209.50 m RKB
Sample type: SWC
Lithology: CLYST
Fraction: ESAT
APT-ID: 29120
Analysis: GC-FID
Analysis date: 12-Dec-2005
Abundance:
FID: 1.203e+5
0.34
0.26
0.172
0.086
10 min.
20
30
40
50
60
70
n-C10
n-C11
i-C12
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
n-C15
i-C16
n-C16
i-C18
n-C17
Pr
n-C18
Ph
n-C19
d42-C20 (IS)
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
n-C33
n-C34
n-C35
n-C36

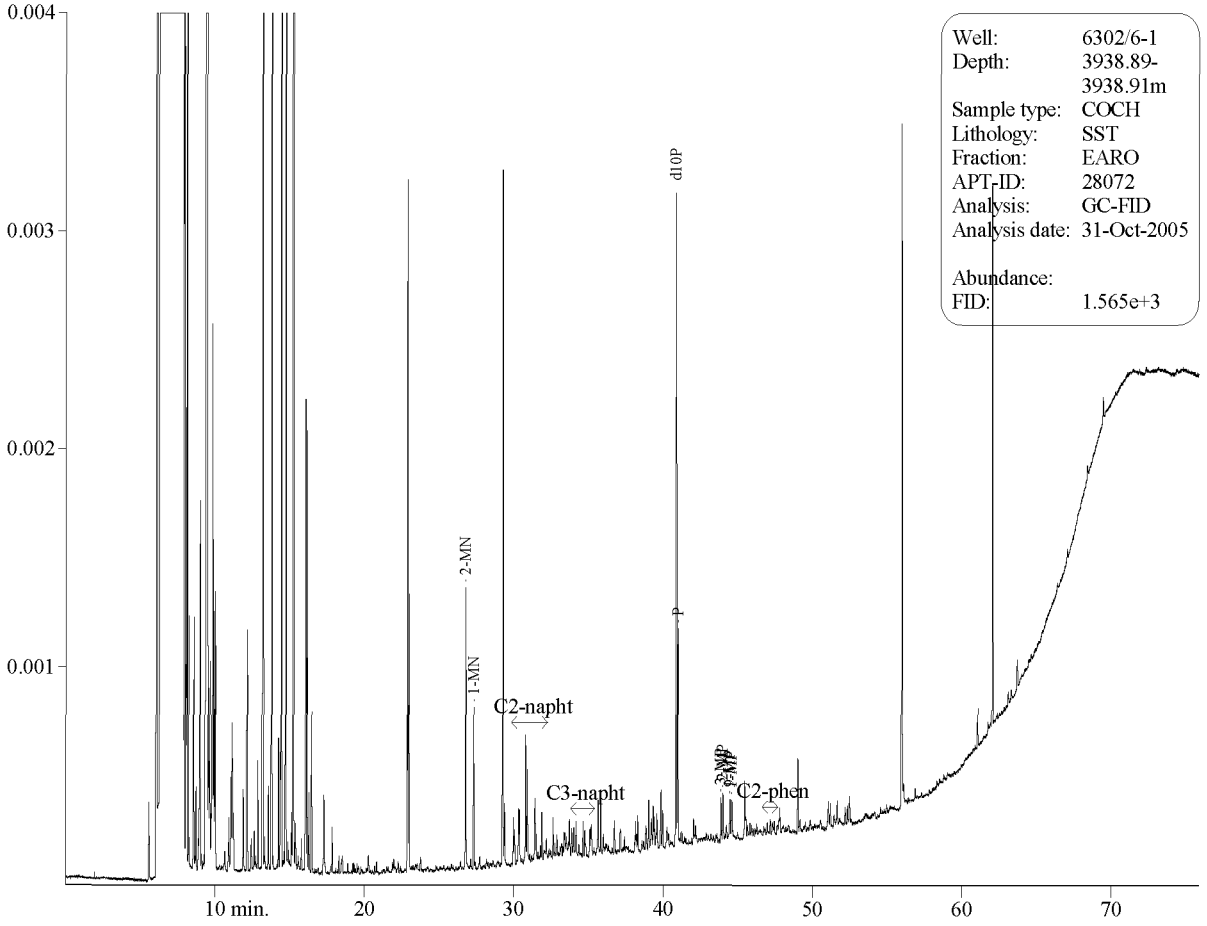

Well: 6302/6-1
Depth: 4209.50 m RKB
Sample type: SWC
Lithology: CLYST
Fraction: ESAT
APT-ID: 29120
Analysis: GC-FID
Analysis date: 12-Dec-2005
Abundance:
FID: 1.504e+4
0.043
0.032
0.022
0.011
10 min.
20
30
40
50
60
70
n-C10
n-C11
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
n-C15
i-C16
n-C16
i-C18
n-C17
Pr
n-C18
Ph
n-C19
d42-C20 (IS)
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
n-C33
n-C34
n-C35
n-C36

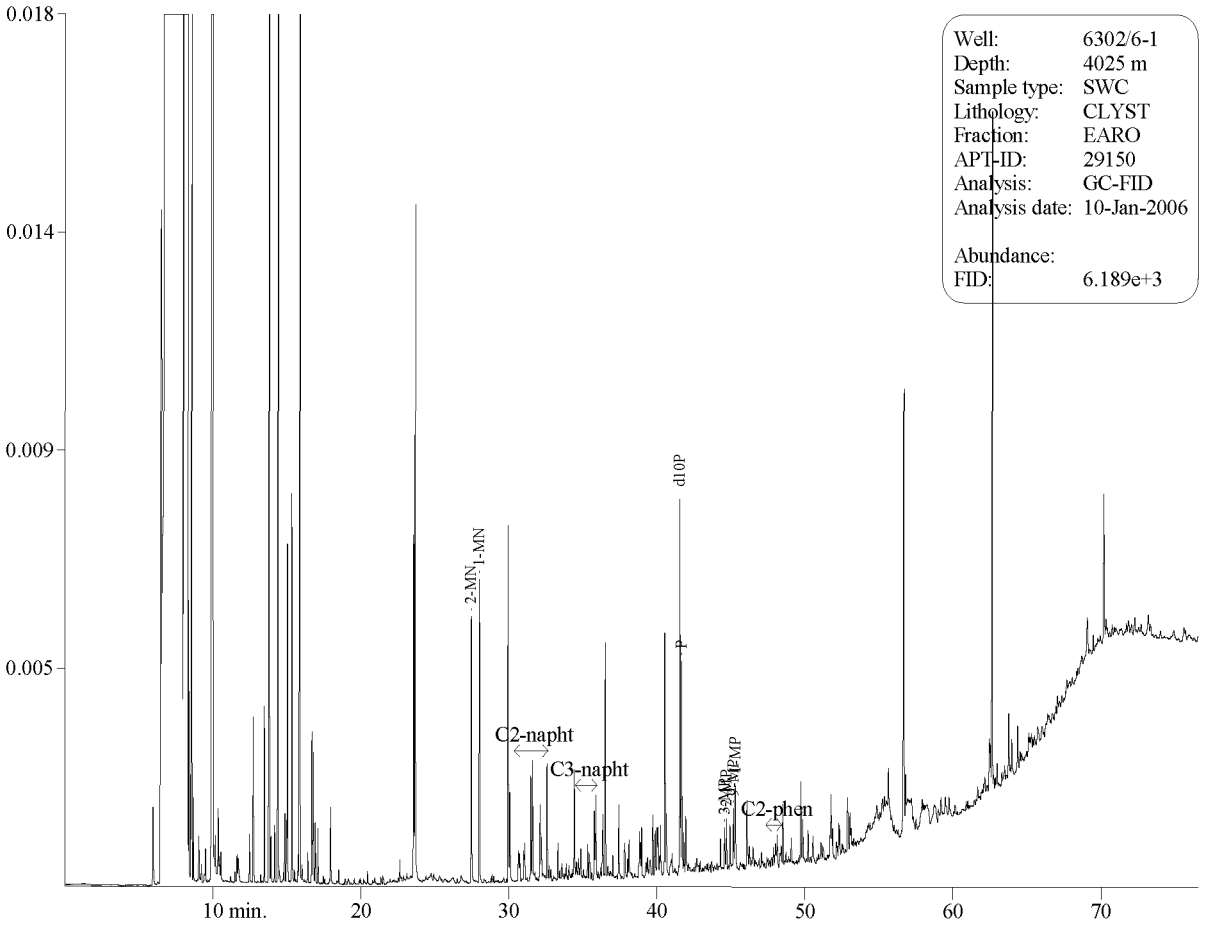
GC Chromatograms of Aromatic Hydrocarbons

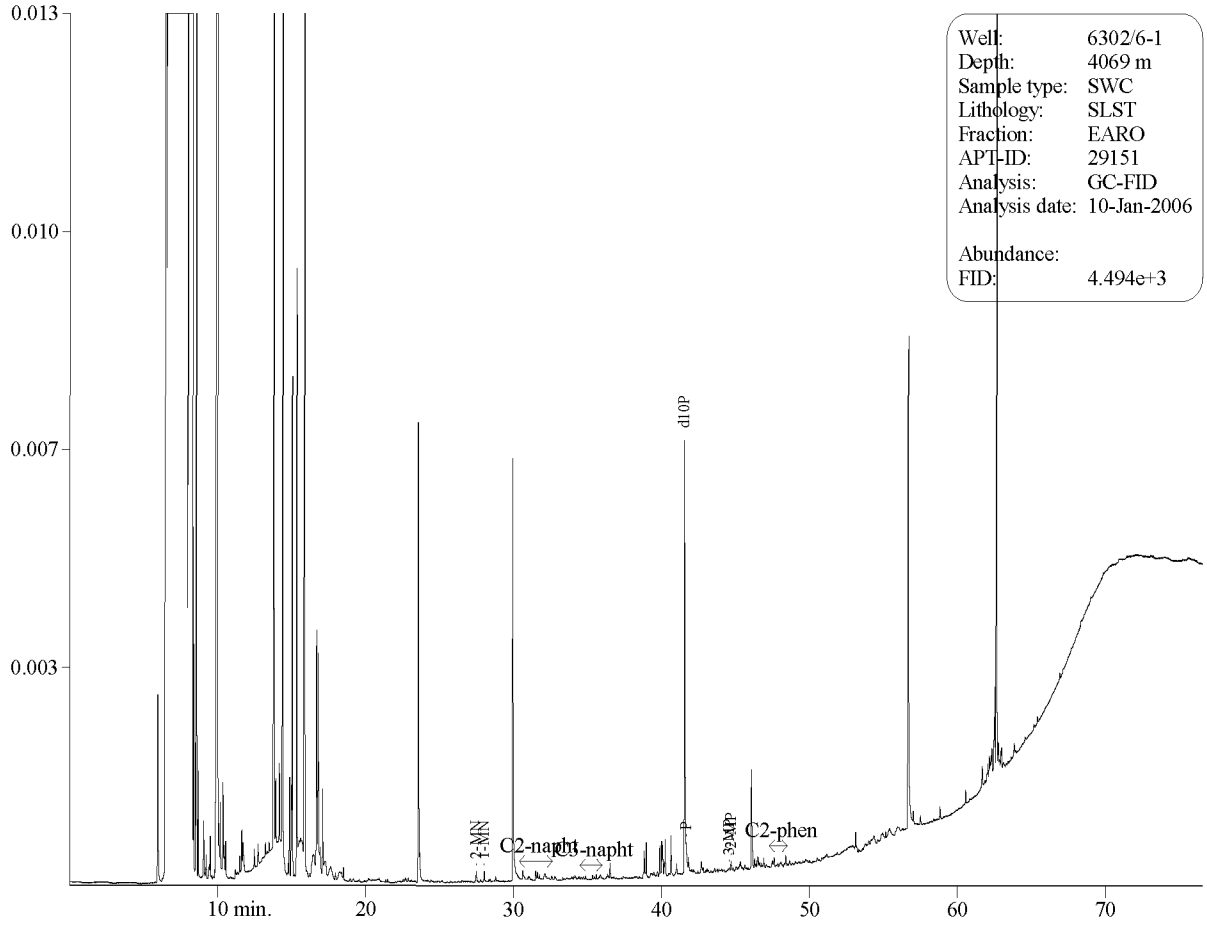

0.042
0.031
0.021
0.010
2-MN
1-MN
C2-napht
C3-napht
C2-phen
P
d10P
Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OTOP-OARO
APT-ID: 10042T
Analysis: GC-FID
Analysis date: 11-Jan-2006
Abundance:
FID: 1.384e+4
10 min.
20
30
40
50
60
70

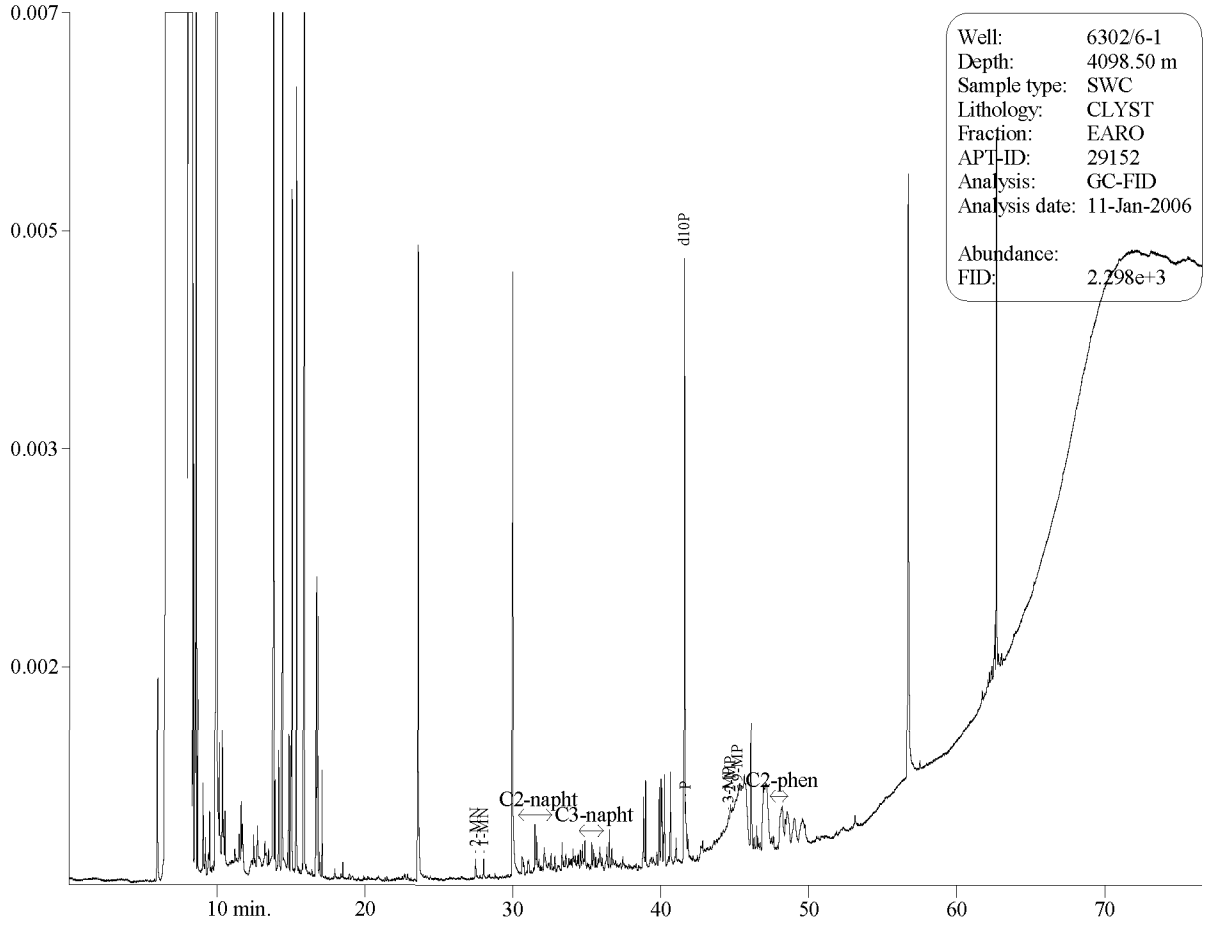

Well: 6302/6-1
Depth: 3900 m
Sample type: Mud
Fraction: MARO
APT-ID: 28742
Analysis: GC-FID
Analysis date: 11-Nov-2005
Abundance:
FID: 3.615e+3
0.009
0.007
0.005
0.002
d10P
10 min.
20
30
40
50
60
70

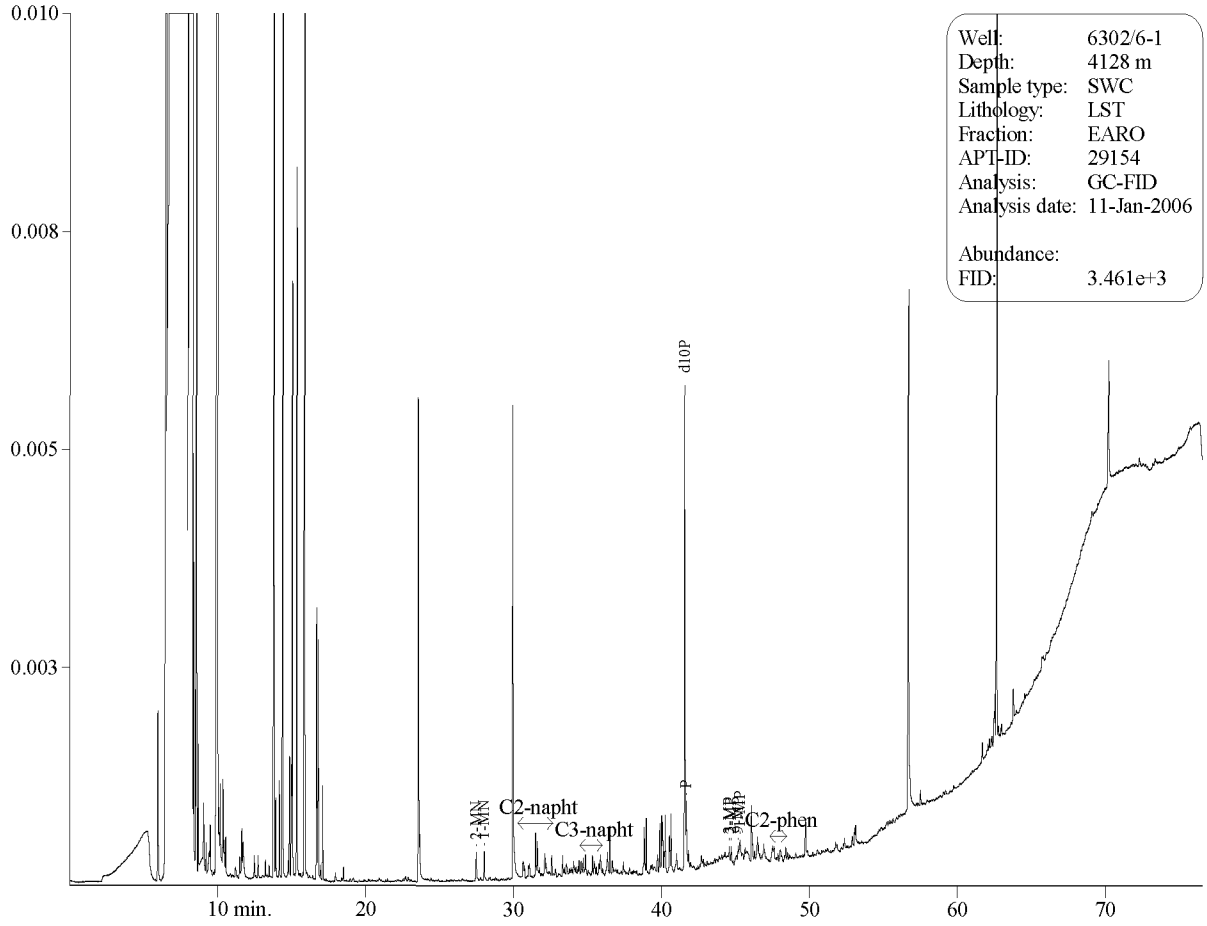

Well: 6302/6-1
Depth: 3914.60 m
Sample type: COCH
Lithology: CLYST
Fraction: EARO
APT-ID: 29159
Analysis: GC-FID
Analysis date: 10-Jan-2006
Abundance:
FID: 4.948e+3
0.015
0.011
0.007
0.004
C2-napht
2-MN
1-MN
P
d10P
3-MP
2-MP
1-MP
C2-phen
C3-napht
10 min.
20
30
40
50
60
70

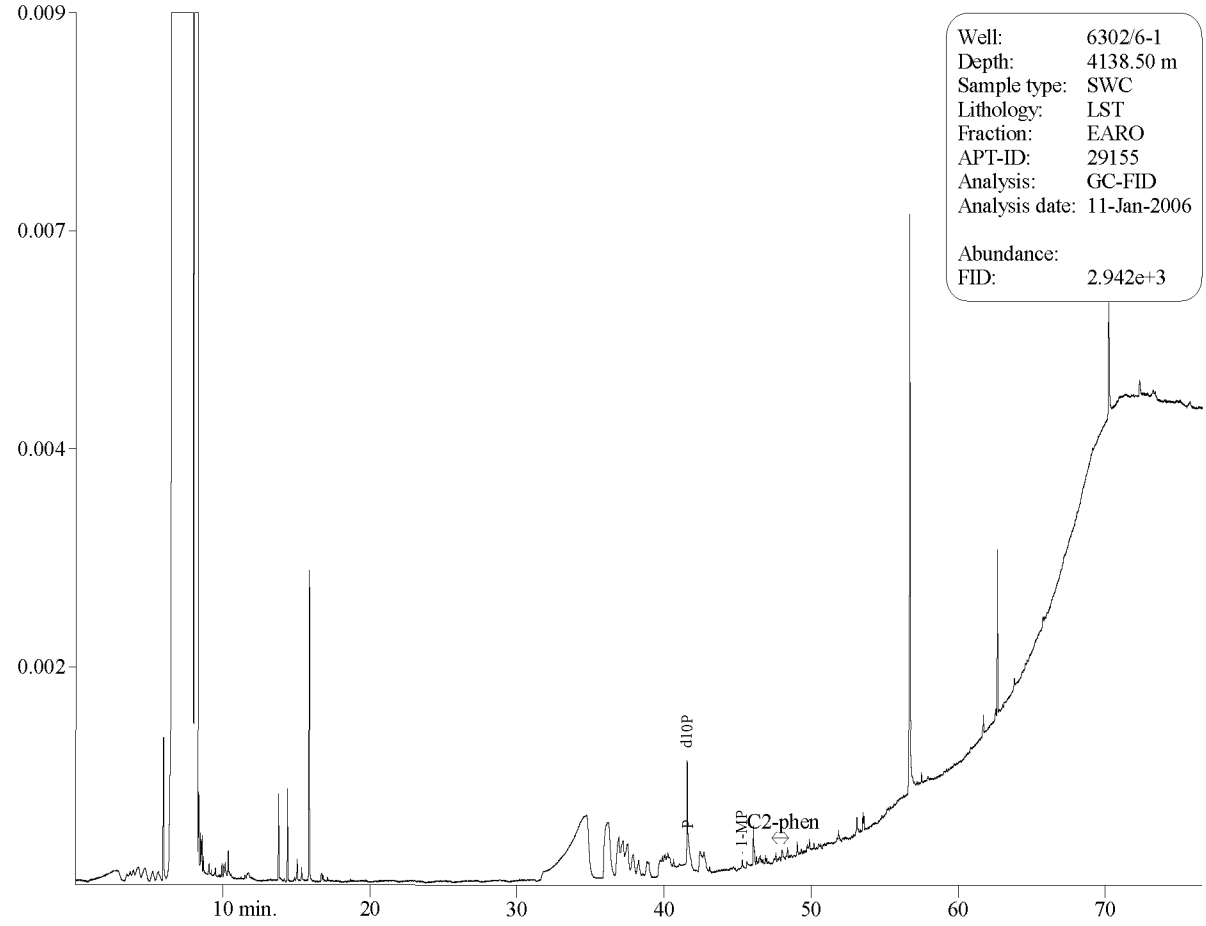

Well: 6302/6-1
Depth: 3938.89-3938.91m
Sample type: COCH
Lithology: SST
Fraction: EARO
APT-ID: 28072
Analysis: GC-FID
Analysis date: 31-Oct-2005
Abundance:
FID: 1.565e+3
0.004
0.003
0.002
0.001
2-MN
1-MN
d10P
P
C2-napht
C3-napht
C2-phen
10 min.
20
30
40
50
60
70

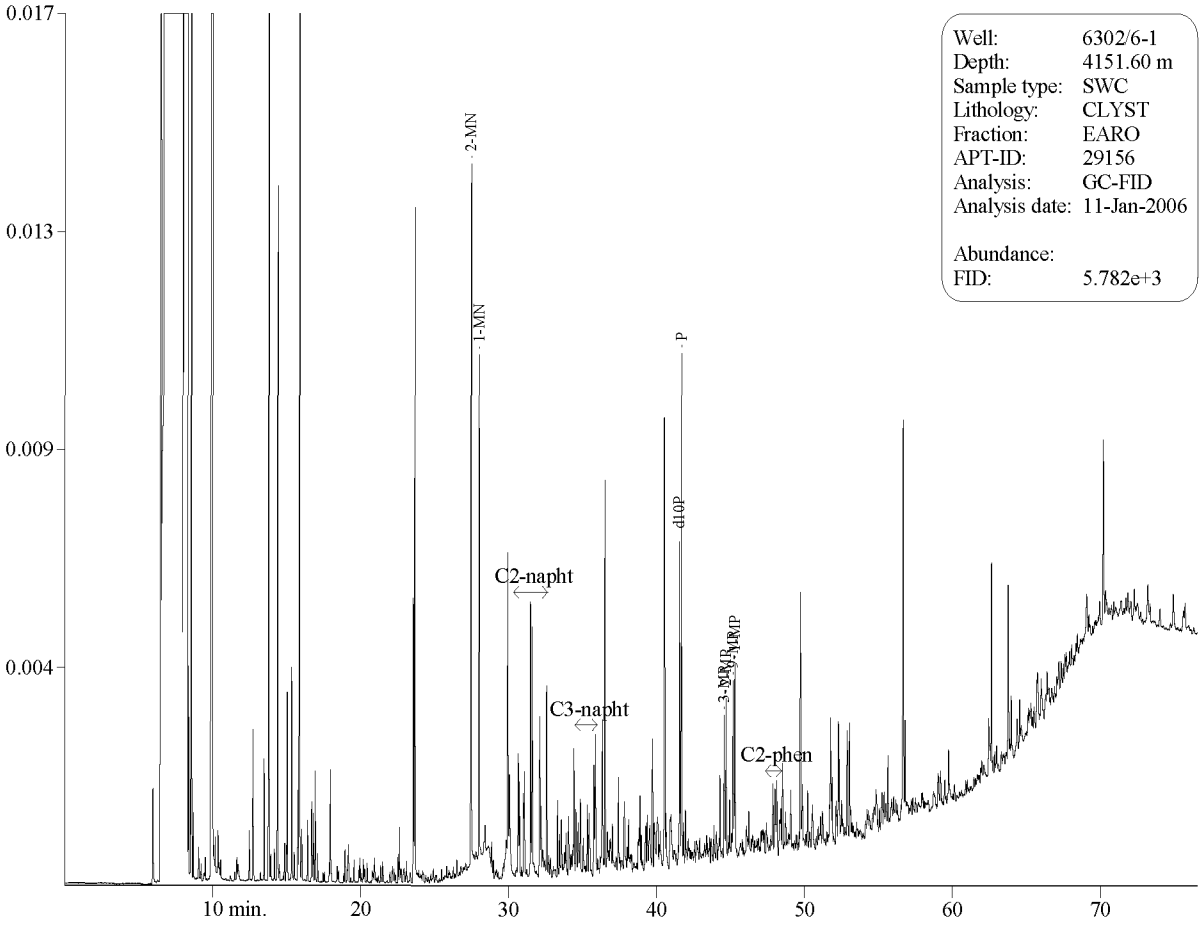

Well: 6302/6-1
Depth: 4025 m
Sample type: SWC
Lithology: CLYST
Fraction: EARO
APT-ID: 29150
Analysis: GC-FID
Analysis date: 10-Jan-2006
Abundance:
FID: 6.189e+3
0.018
0.014
0.009
0.005
2-MN
1-MN
d10P
P
C2-napht
C3-napht
C2-phen
10 min.
20
30
40
50
60
70

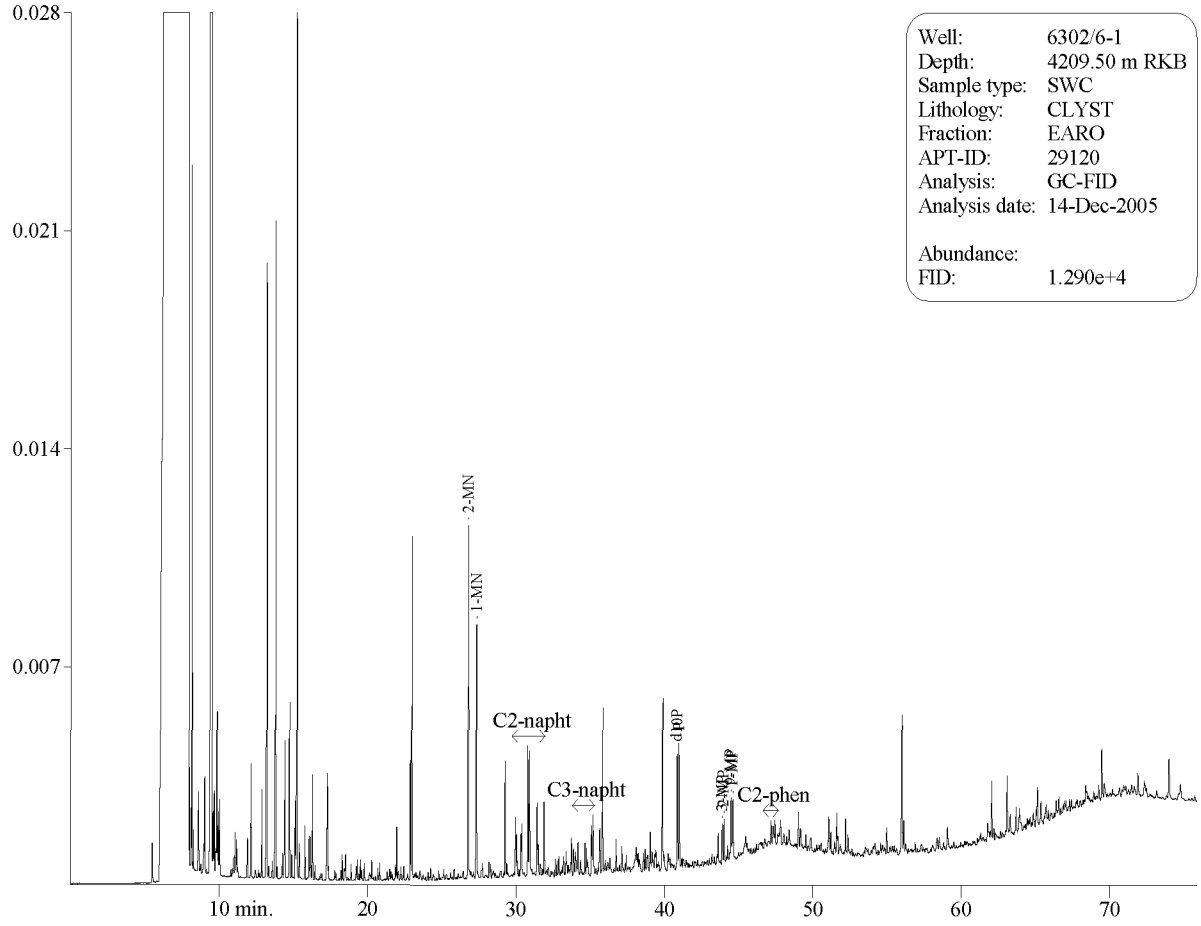

Well: 6302/6-1
Depth: 4069 m
Sample type: SWC
Lithology: SLST
Fraction: EARO
APT-ID: 29151
Analysis: GC-FID
Analysis date: 10-Jan-2006
Abundance:
FID: 4.494e+3
0.013
0.010
0.007
0.003
d10P
2-MN
1-MN
C2-napht
C3-napht
C2-phen
10 min.
20
30
40
50
60
70


Well: 6302/6-1
Depth: 4098.50 m
Sample type: SWC
Lithology: CLYST
Fraction: EARO
APT-ID: 29152
Analysis: GC-FID
Analysis date: 11-Jan-2006
Abundance:
FID: 2.298e+3
0.007
0.005
0.003
0.002
d10P
2-MN
1-MN
C2-napht
C3-napht
C2-phen
10 min.
20
30
40
50
60
70

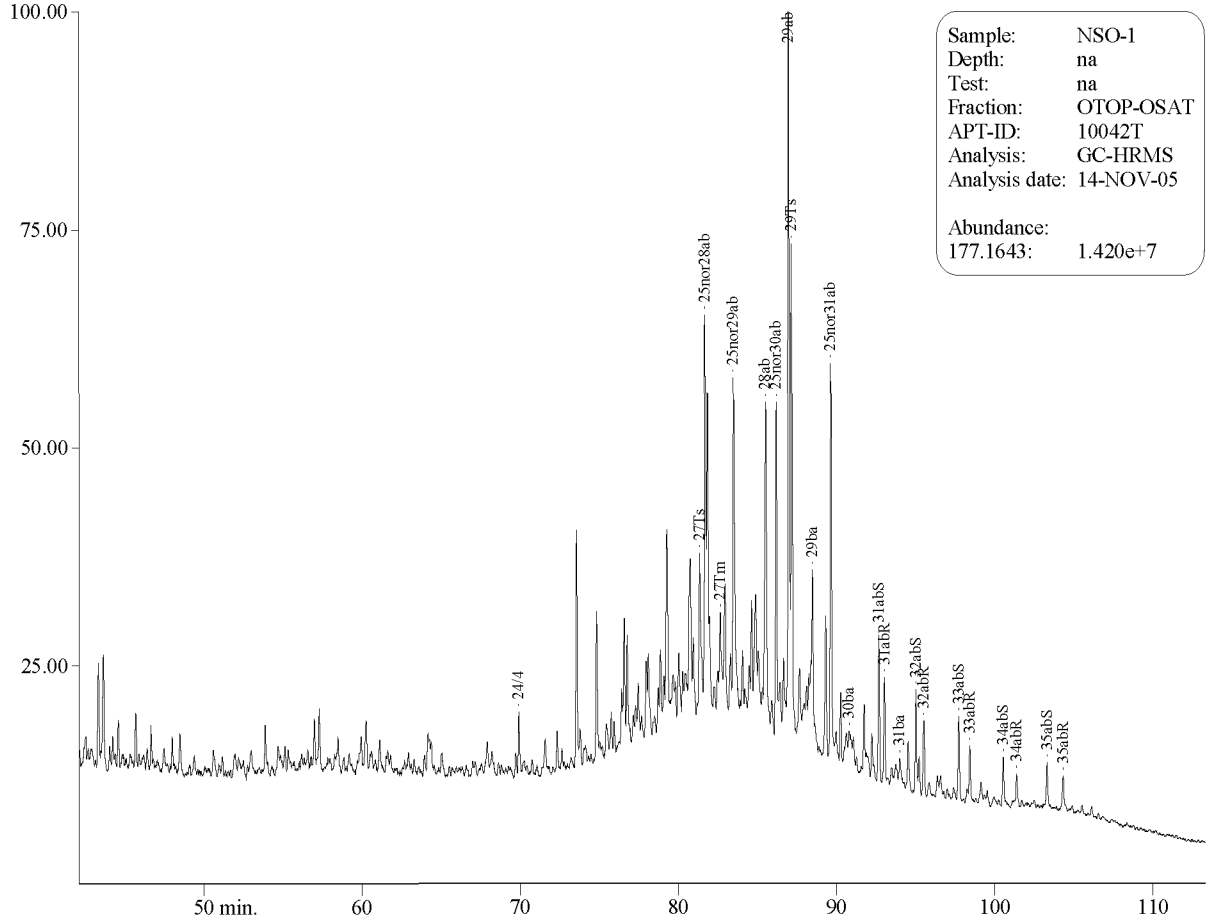

Well: 6302/6-1
Depth: 4128 m
Sample type: SWC
Lithology: LST
Fraction: EARO
APT-ID: 29154
Analysis: GC-FID
Analysis date: 11-Jan-2006
Abundance:
FID: 3.461e+3
0.010
0.008
0.005
0.003
d10P
2-MN
1-MN
C2-napht
C3-napht
P
2-MP
1-MP
C2-phen
10 min.
20
30
40
50
60
70

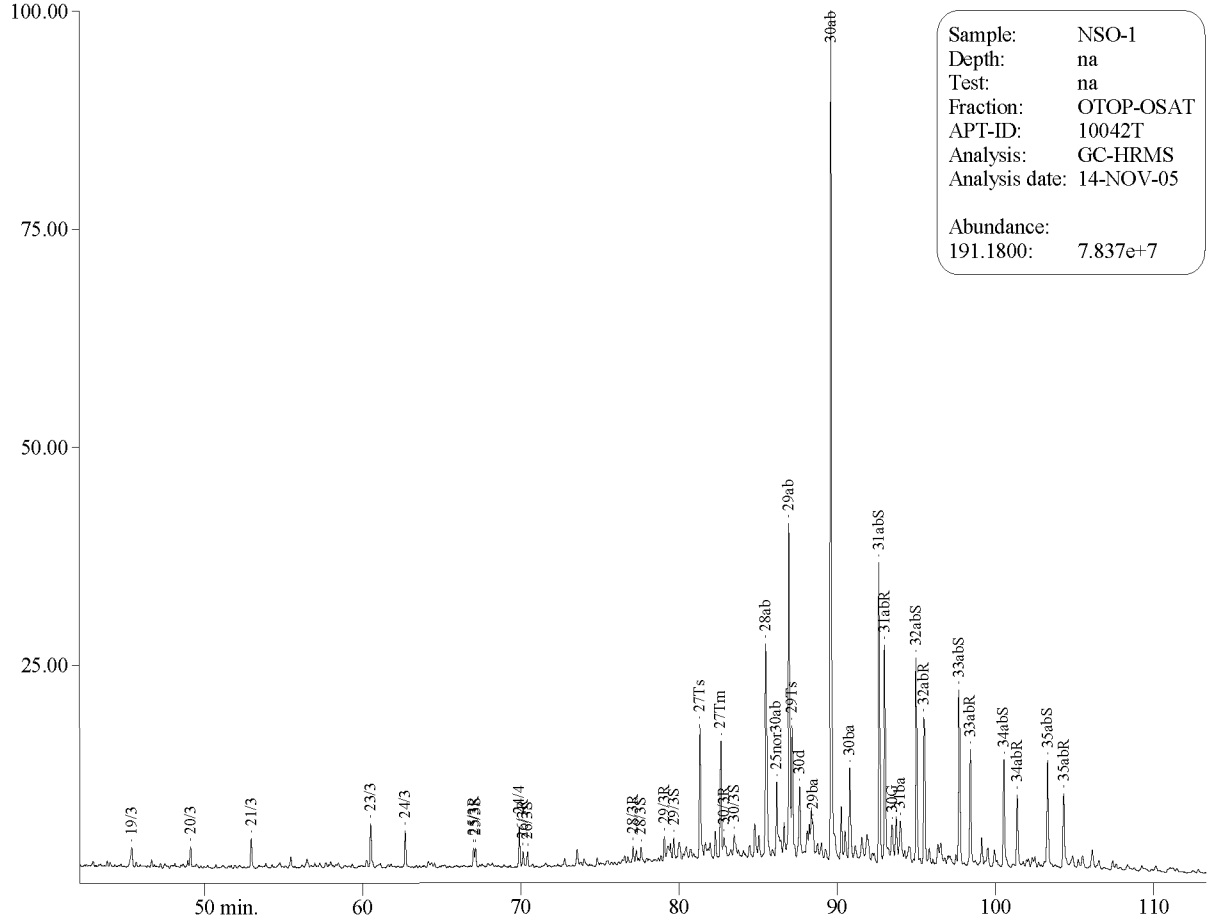

Well: 6302/6-1
Depth: 4138.50 m
Sample type: SWC
Lithology: LST
Fraction: EARO
APT-ID: 29155
Analysis: GC-FID
Analysis date: 11-Jan-2006
Abundance:
FID: 2.942e+3
0.009
0.007
0.004
0.002
d10P
P
1-MP
C2-phen
10 min.
20
30
40
50
60
70

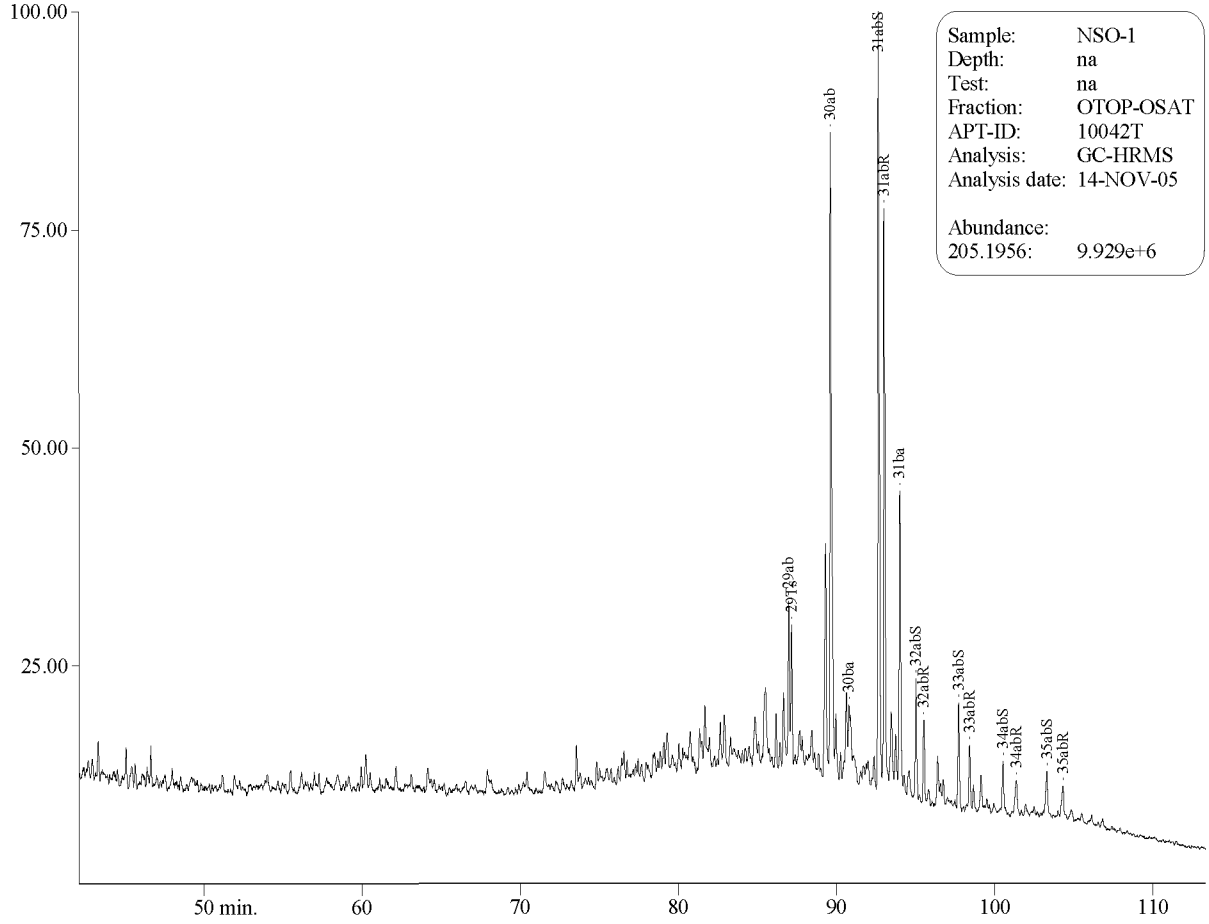

Well: 6302/6-1
Depth: 4151.60 m
Sample type: SWC
Lithology: CLYST
Fraction: EARO
APT-ID: 29156
Analysis: GC-FID
Analysis date: 11-Jan-2006
Abundance:
FID: 5.782e+3
0.017
0.013
0.009
0.004
2-MN
1-MN
P
d10P
C2-napht
C3-napht
C2-phen
10 min.
20
30
40
50
60
70

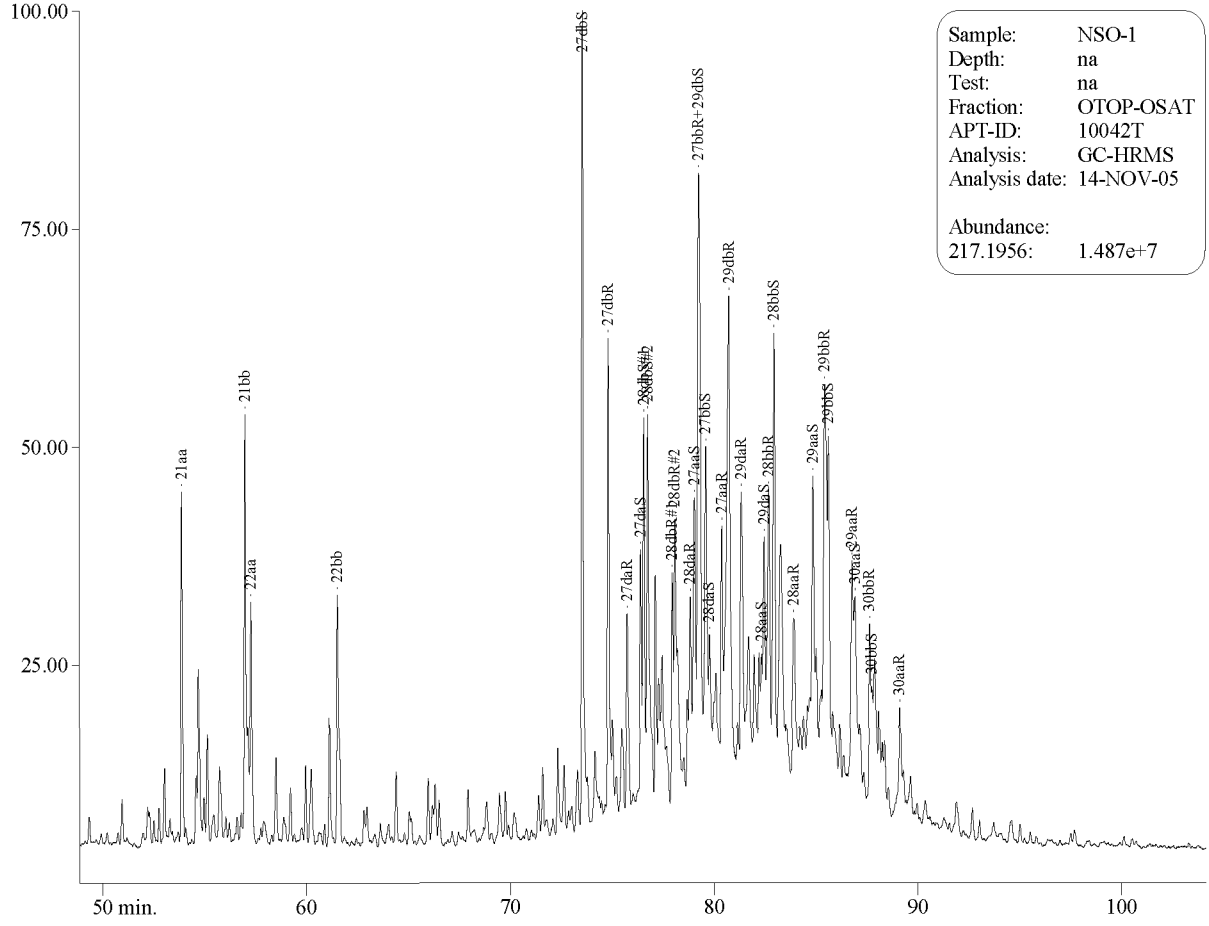

Well: 6302/6-1
Depth: 4209.50 m RKB
Sample type: SWC
Lithology: CLYST
Fraction: EARO
APT-ID: 29120
Analysis: GC-FID
Analysis date: 14-Dec-2005
Abundance:
FID: 1.290e+4
0.028
0.021
0.014
0.007
2-MN
1-MN
d10P
C2-napht
C3-napht
C2-phen
10 min.
20
30
40
50
60
70

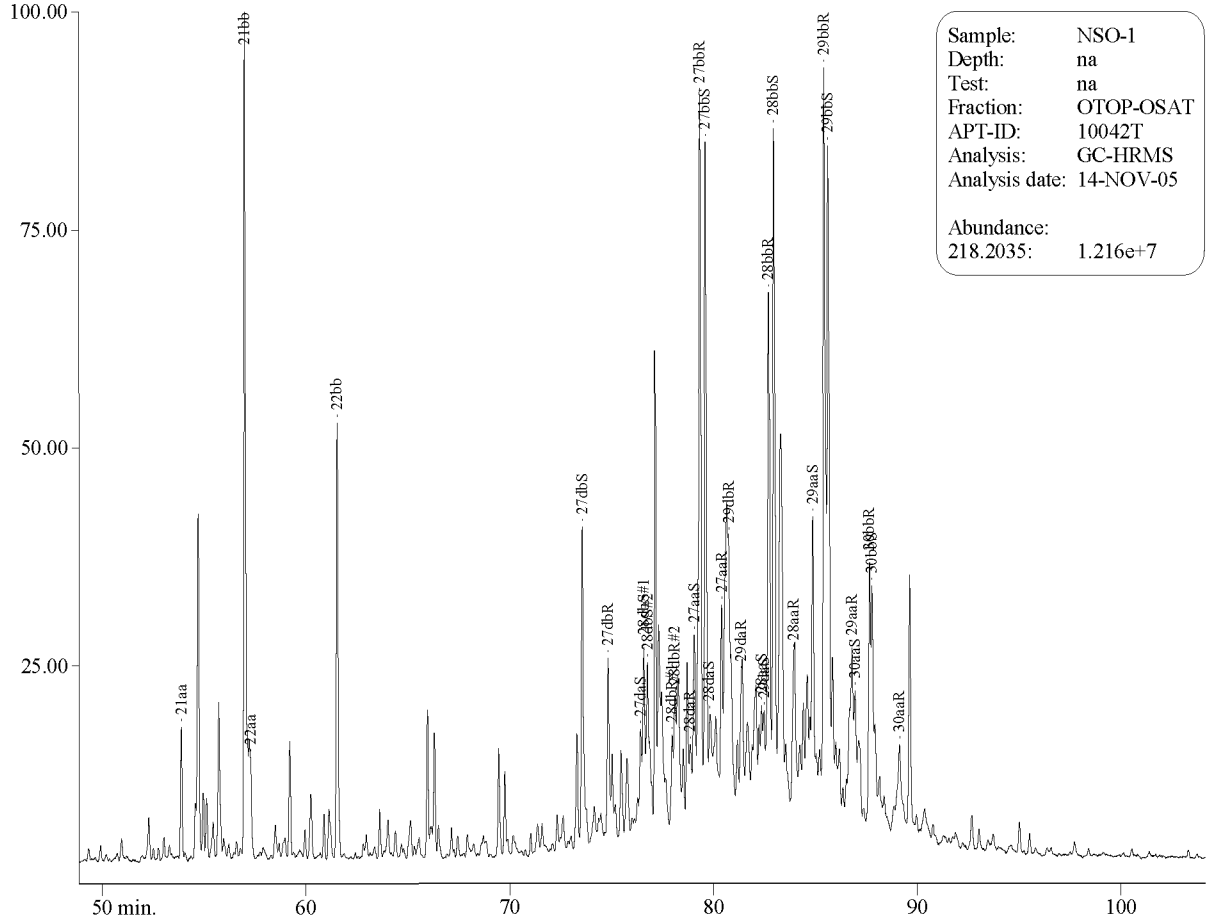
GC-MS Chromatograms of Saturated Hydrocarbons

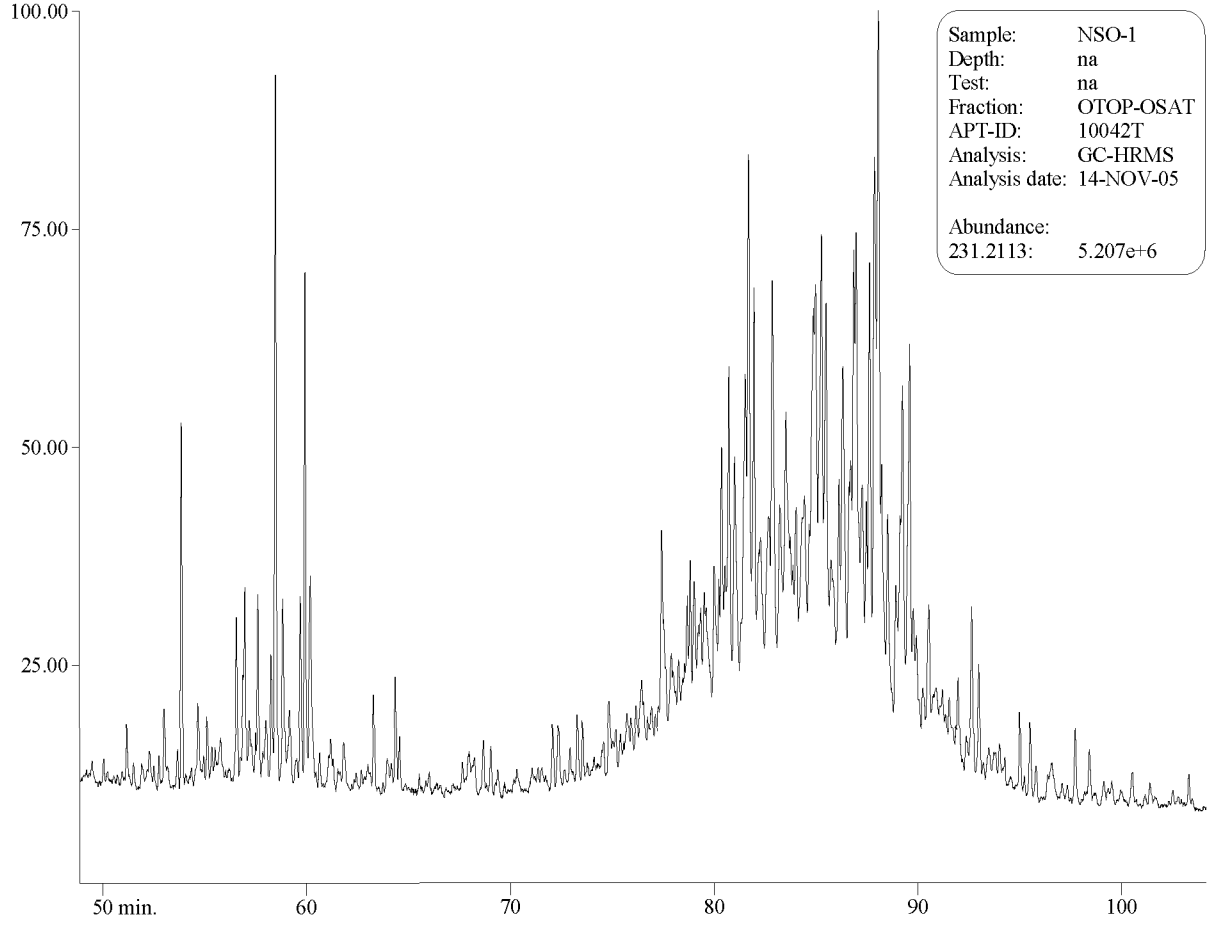

Sample: NSO-1
Depth: na
Test: na
Fraction: OTOP-OSAT
APT-ID: 10042T
Analysis: GC-HRMS
Analysis date: 14-NOV-05
Abundance:
177.1643: 1.420e+7
100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
110
24/4
27Ts
27Tm
25nor28ab
25nor29ab
28ab
25nor30ab
29Ts
29ab
25nor31ab
29ba
30ba
31ba
31abS
31abR
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

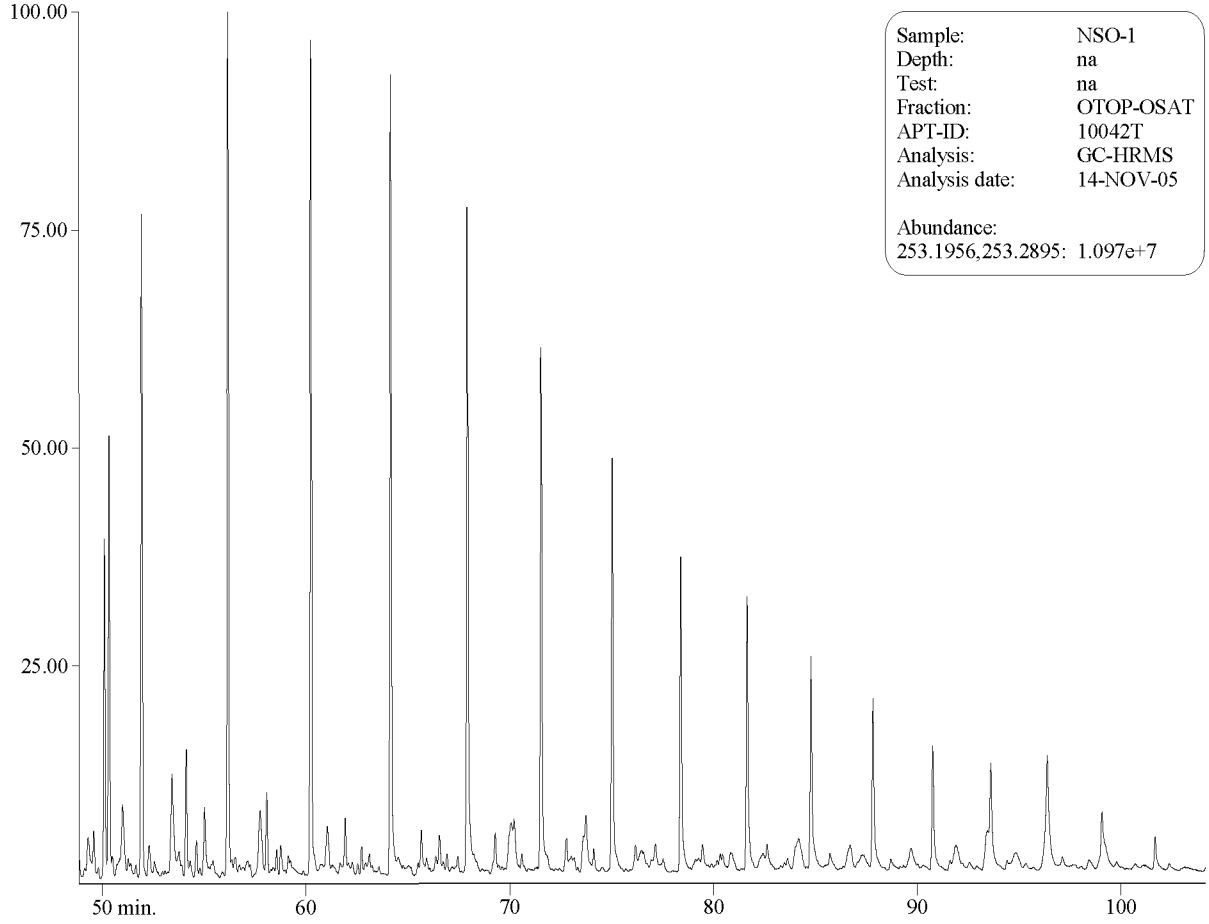

Sample: NSO-1
Depth: na
Test: na
Fraction: OTOP-OSAT
APT-ID: 10042T
Analysis: GC-HRMS
Analysis date: 14-NOV-05
Abundance:
191.1800: 7.837e+7
100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
110
19/3
20/3
21/3
23/3
24/3
24/4
28/3R
28/3S
29/3R
29/3S
27Ts
27Tm
30/3R
30/3S
28ab
25nor30ab
29Ts
29ab
30d
30ba
30ab
31abS
31abR
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

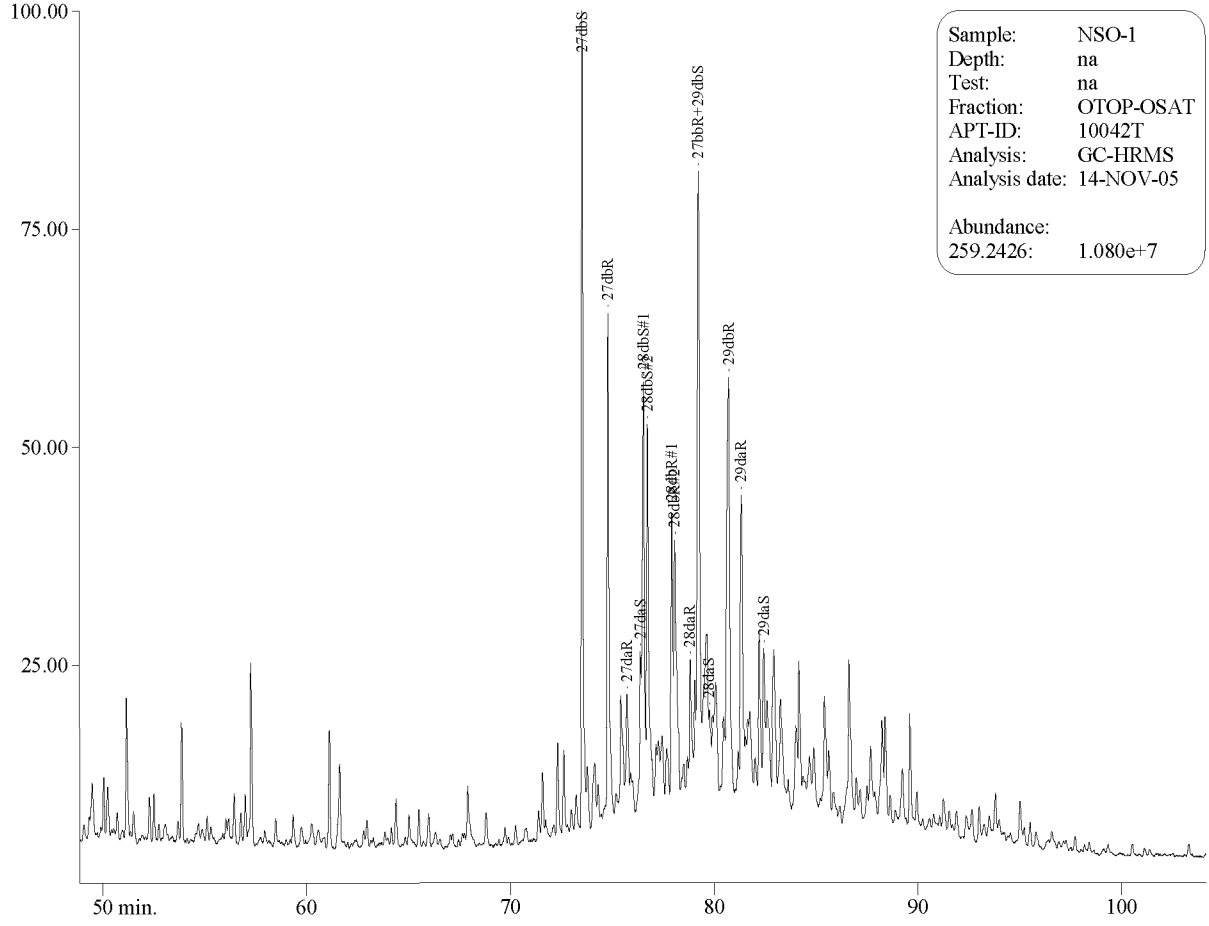

Sample: NSO-1
Depth: na
Test: na
Fraction: OTOP-OSAT
APT-ID: 10042T
Analysis: GC-HRMS
Analysis date: 14-NOV-05
Abundance:
205.1956: 9.929e+6
100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
110
29aab
30ab
31abS
31abR
31ba
30ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

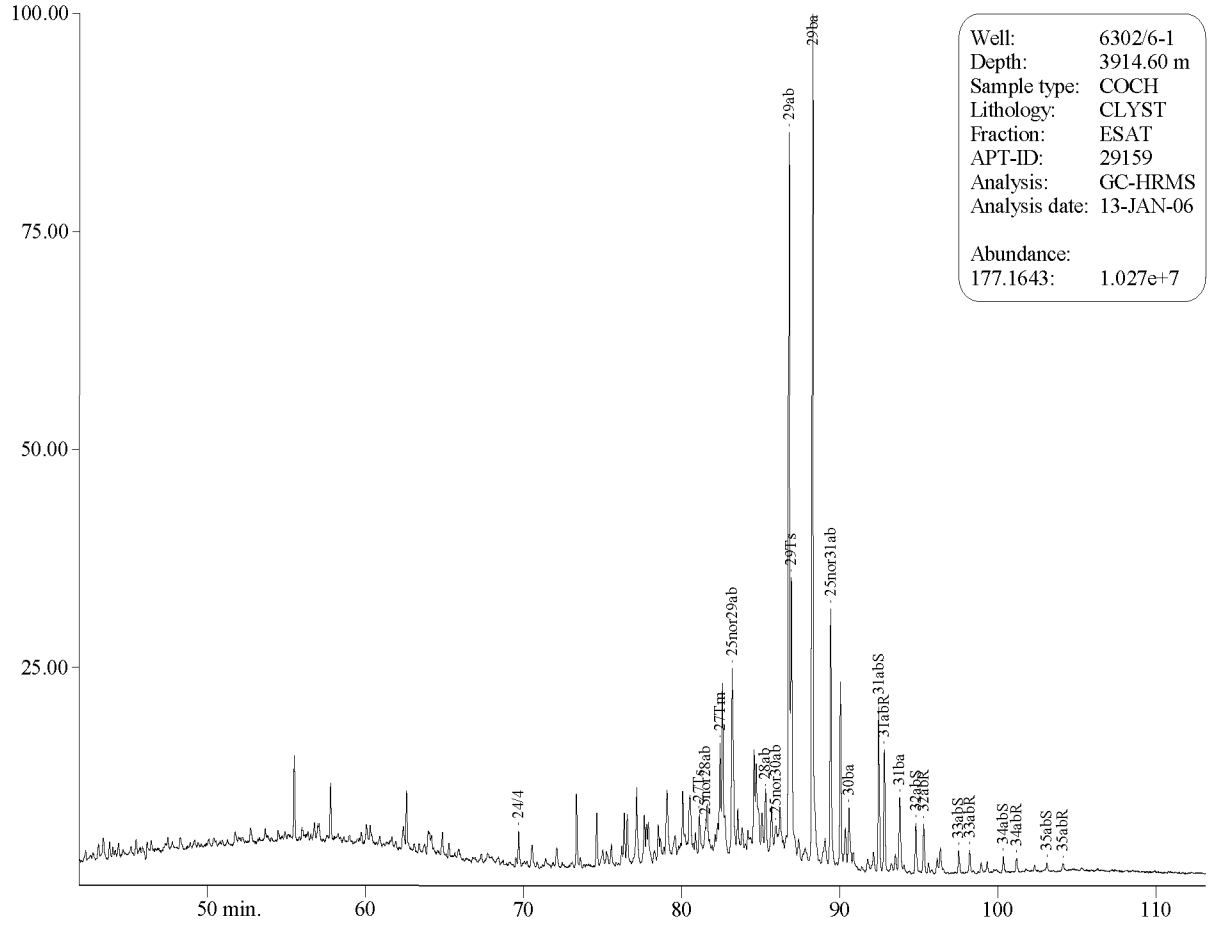

Sample: NSO-1
Depth: na
Test: na
Fraction: OTOP-OSAT
APT-ID: 10042T
Analysis: GC-HRMS
Analysis date: 14-NOV-05
Abundance:
217.1956: 1.487e+7
100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
21aa
21bb
22aa
22bb
27dbS
27dbR
27bbR+29dbS
29dbR
28bbS
29bbR
27bbS
27aaR
29daR
28bbR
29aaS
27daR
28daR
28aaR
29aaR
30bbR
30aaR

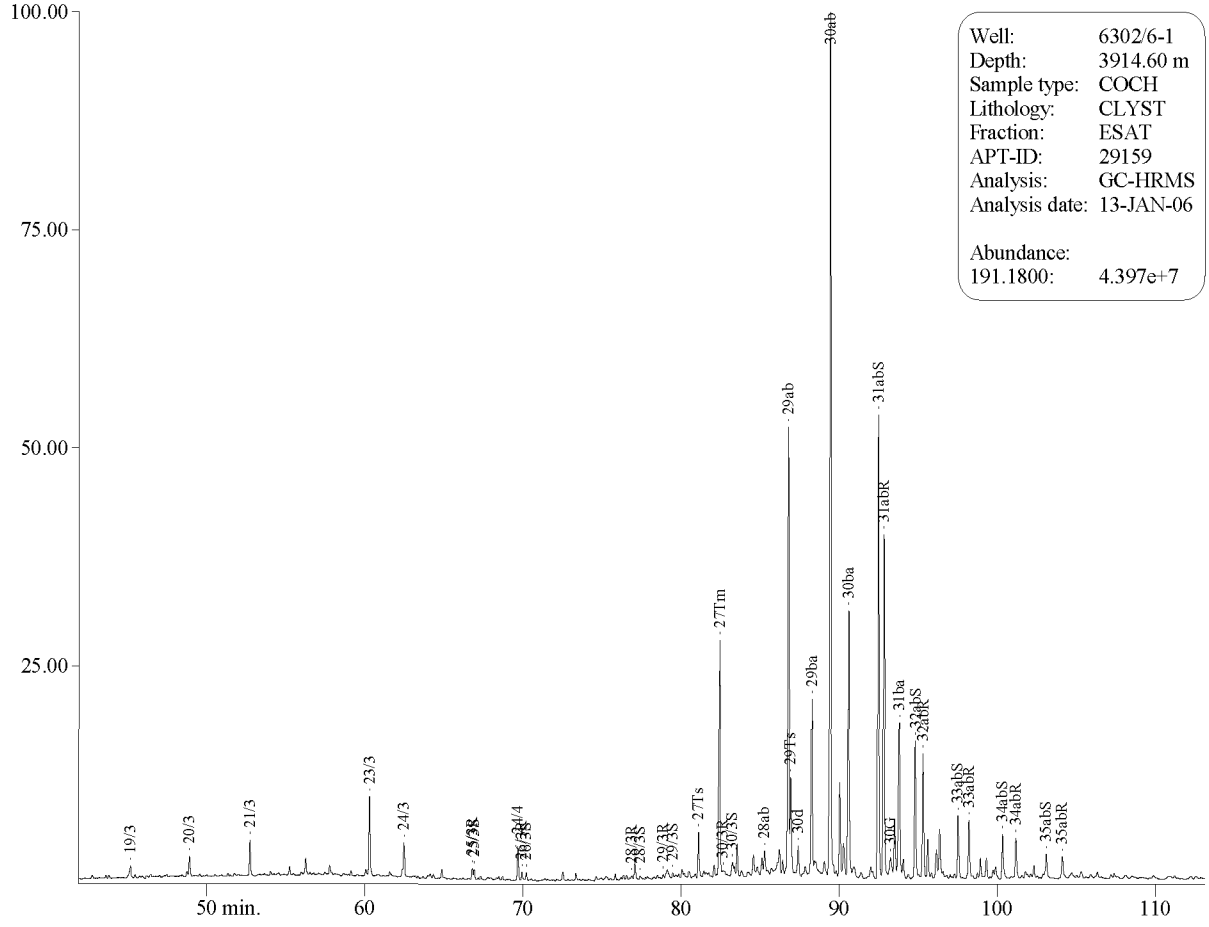

Sample: NSO-1
Depth: na
Test: na
Fraction: OTOP-OSAT
APT-ID: 10042T
Analysis: GC-HRMS
Analysis date: 14-NOV-05
Abundance:
218.2035: 1.216e+7
100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
21aa
21bb
22aa
22bb
27dbS
27dbR
27daS
27aaS
27aaR
28bbS
28bbR
28aaR
29bbR
29bbS
29aaS
29aaR
30aaR

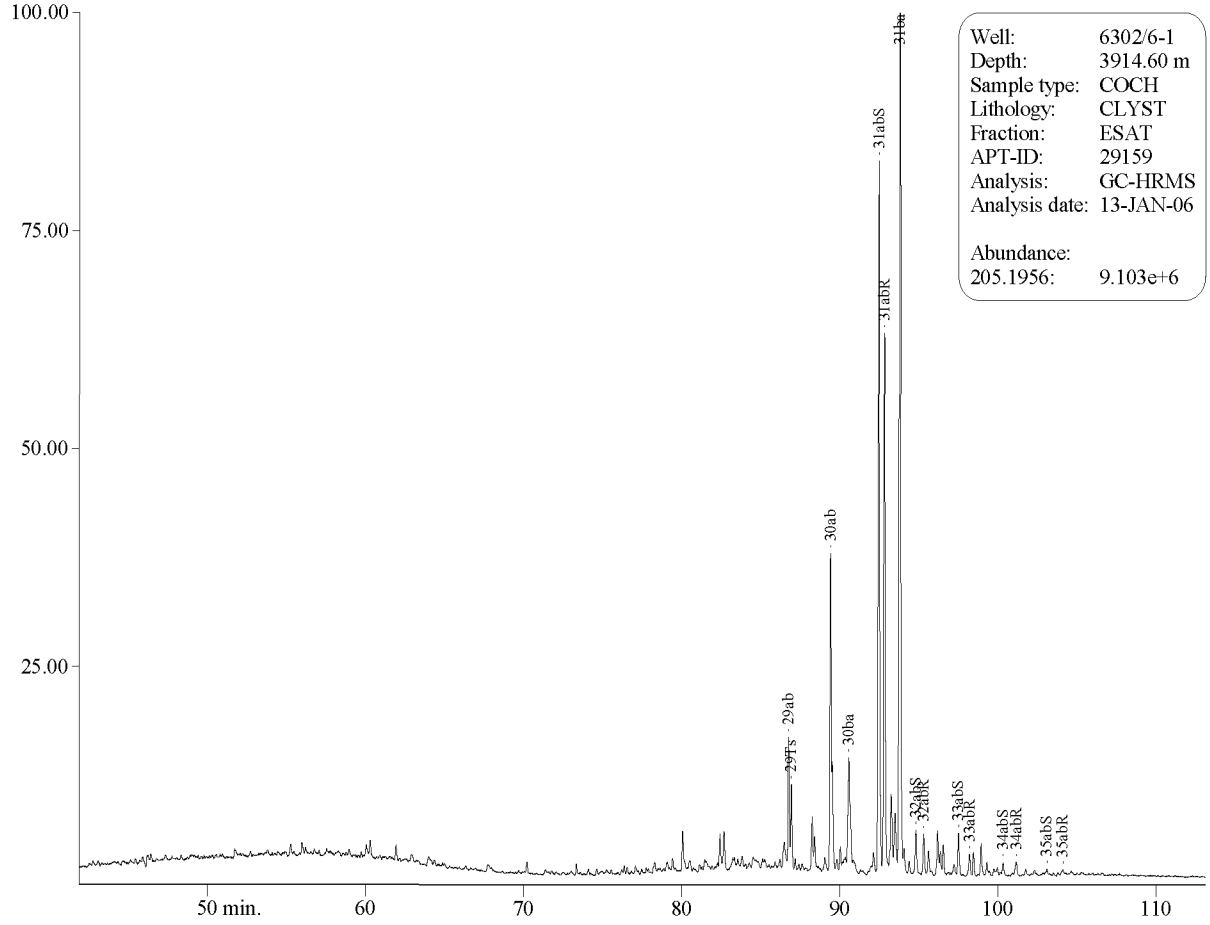

Sample: NSO-1
Depth: na
Test: na
Fraction: OTOP-OSAT
APT-ID: 10042T
Analysis: GC-HRMS
Analysis date: 14-NOV-05
Abundance:
231.2113: 5.207e+6
100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100

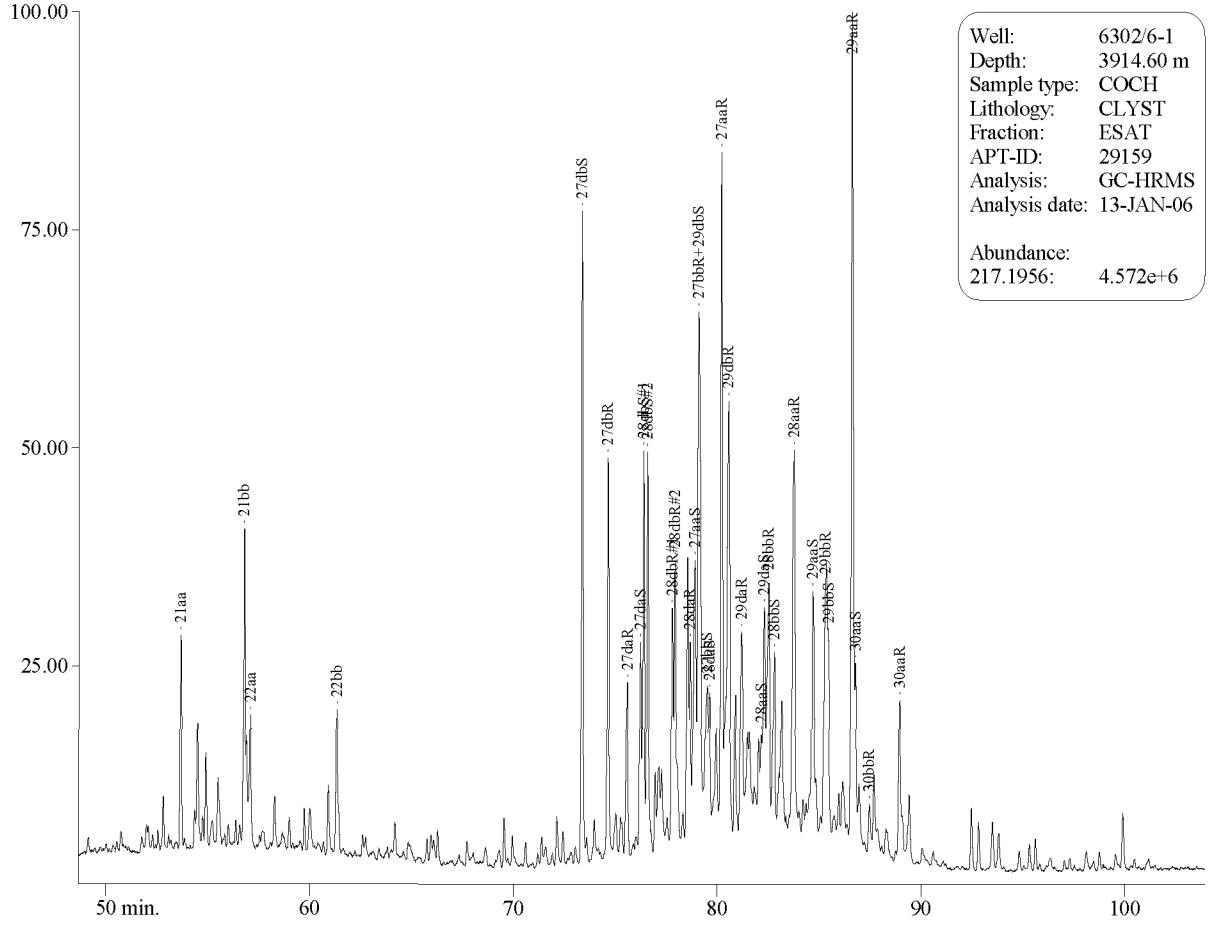

100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
Sample: NSO-1
Depth: na
Test: na
Fraction: OTOP-OSAT
APT-ID: 10042T
Analysis: GC-HRMS
Analysis date: 14-NOV-05
Abundance:
253.1956,253.2895: 1.097e+7

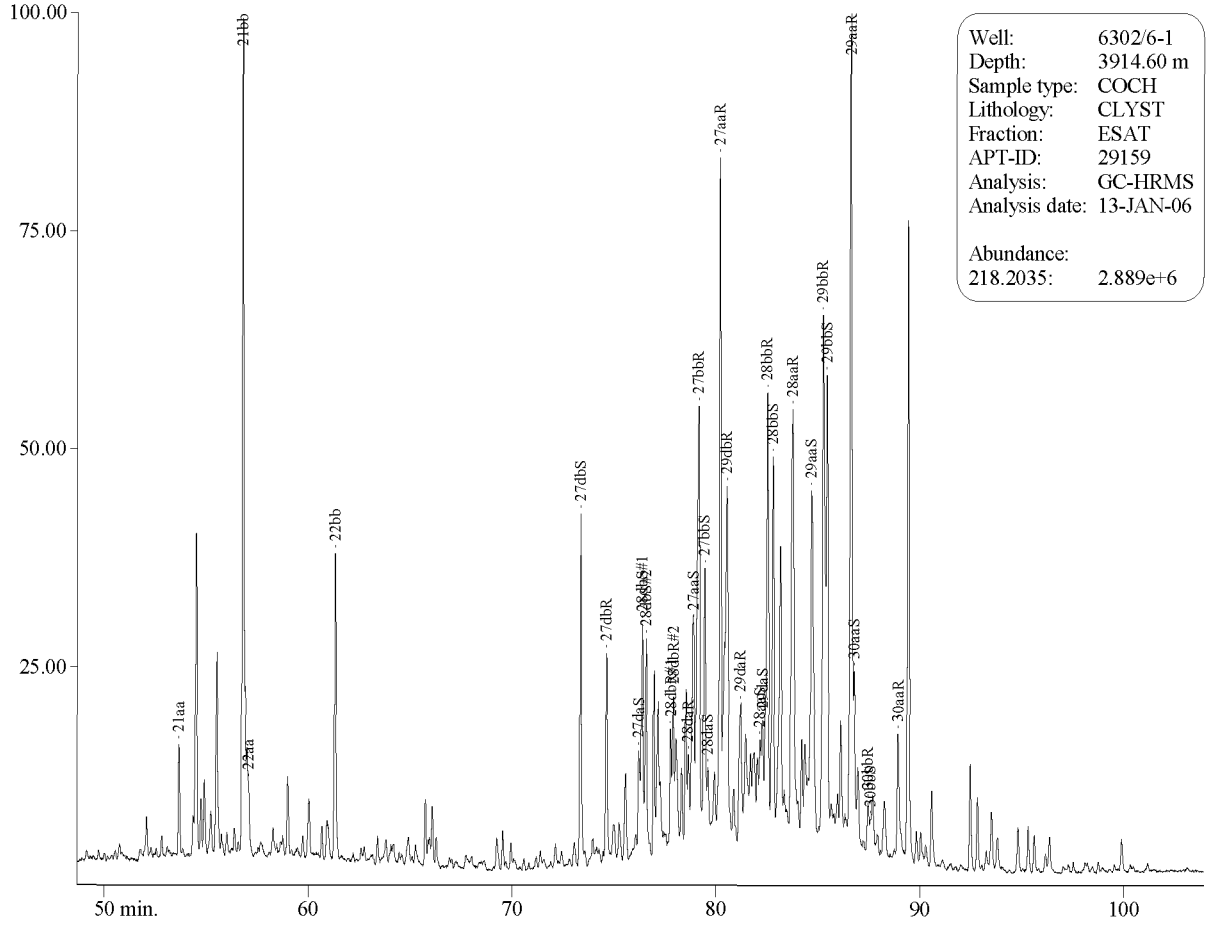

100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
27dbS
27dbR
27daR
27daS
28dbS#1
28dbS#2
28dbR#1
28daR
28daS
27bbR+29dbS
29dbR
29daR
29daS
Sample: NSO-1
Depth: na
Test: na
Fraction: OTOP-OSAT
APT-ID: 10042T
Analysis: GC-HRMS
Analysis date: 14-NOV-05
Abundance:
259.2426: 1.080e+7

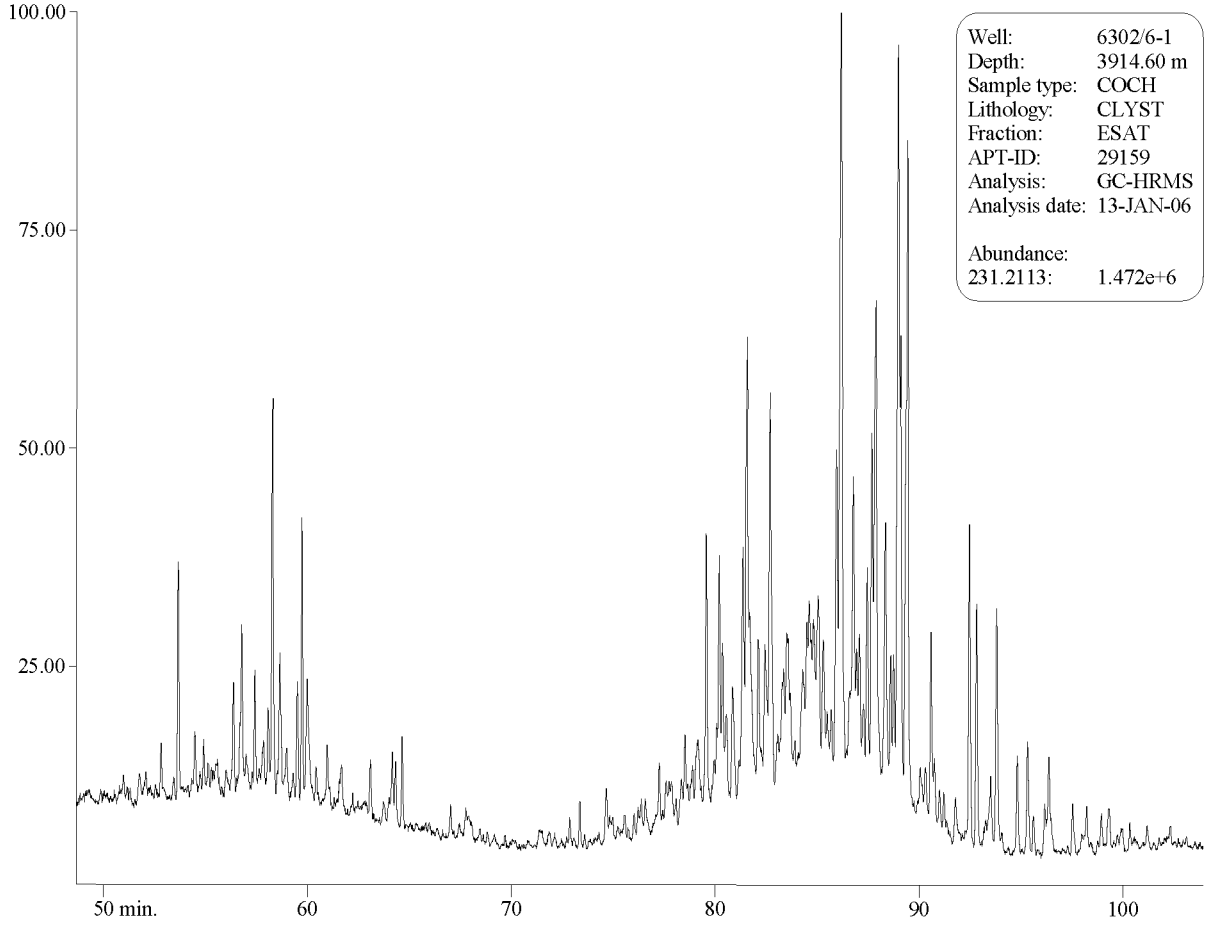

Well: 6302/6-1
Depth: 3914.60 m
Sample type: COCH
Lithology: CLYST
Fraction: ESAT
APT-ID: 29159
Analysis: GC-HRMS
Analysis date: 13-JAN-06
Abundance:
177.1643: 1.027e+7
100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
110
29ba
29ab
29Ts
25nor31ab
25nor29ab
27Tm
31abS
31abR
30ba
31ba
24/4
33abS
33abR
34abS
34abR
35abS
35abR

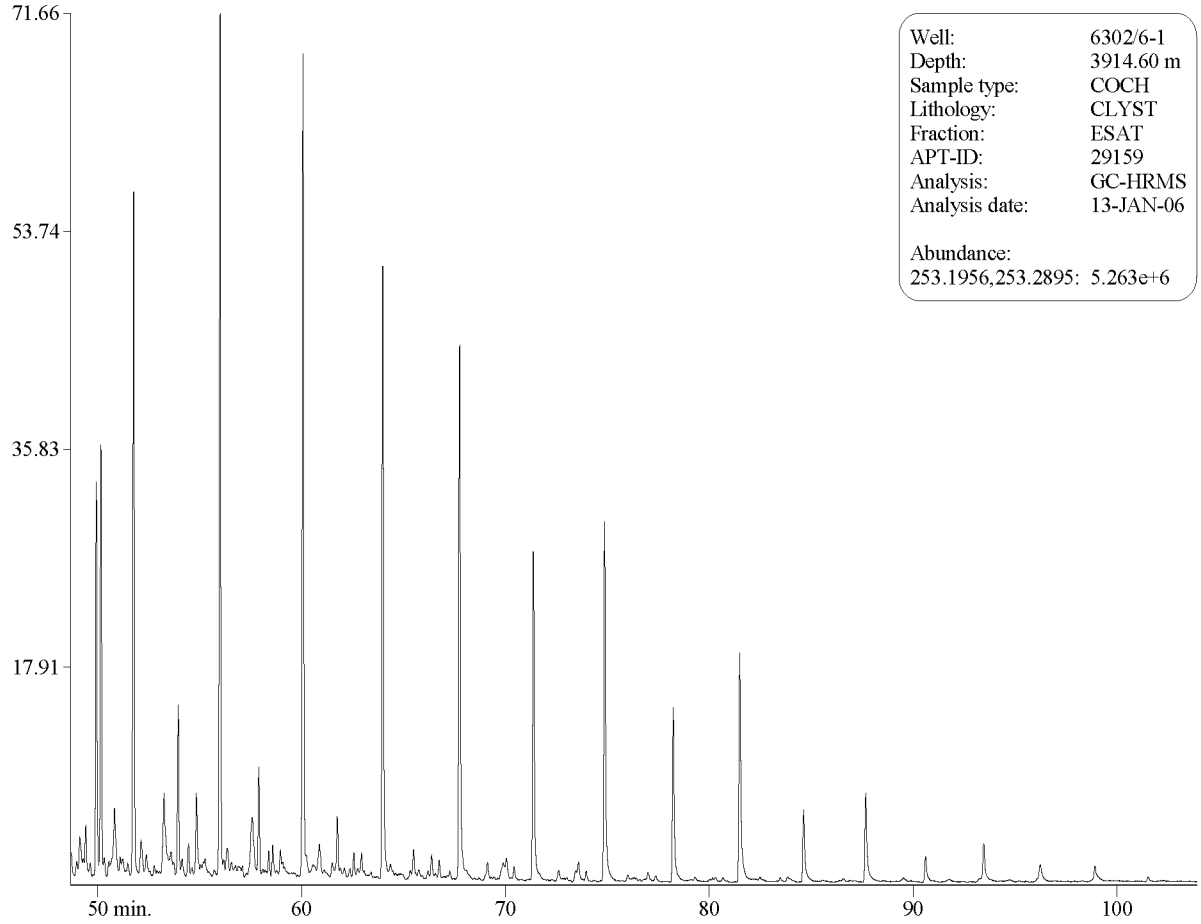

Well: 6302/6-1
Depth: 3914.60 m
Sample type: COCH
Lithology: CLYST
Fraction: ESAT
APT-ID: 29159
Analysis: GC-HRMS
Analysis date: 13-JAN-06
Abundance:
191.1800: 4.397e+7
100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
110
30ab
29ab
31abS
31abR
30ba
27Tm
29ba
29Ts
31ba
19/3
20/3
21/3
23/3
24/3
27Ts
28ab
30d
33abS
33abR
34abS
34abR
35abS
35abR

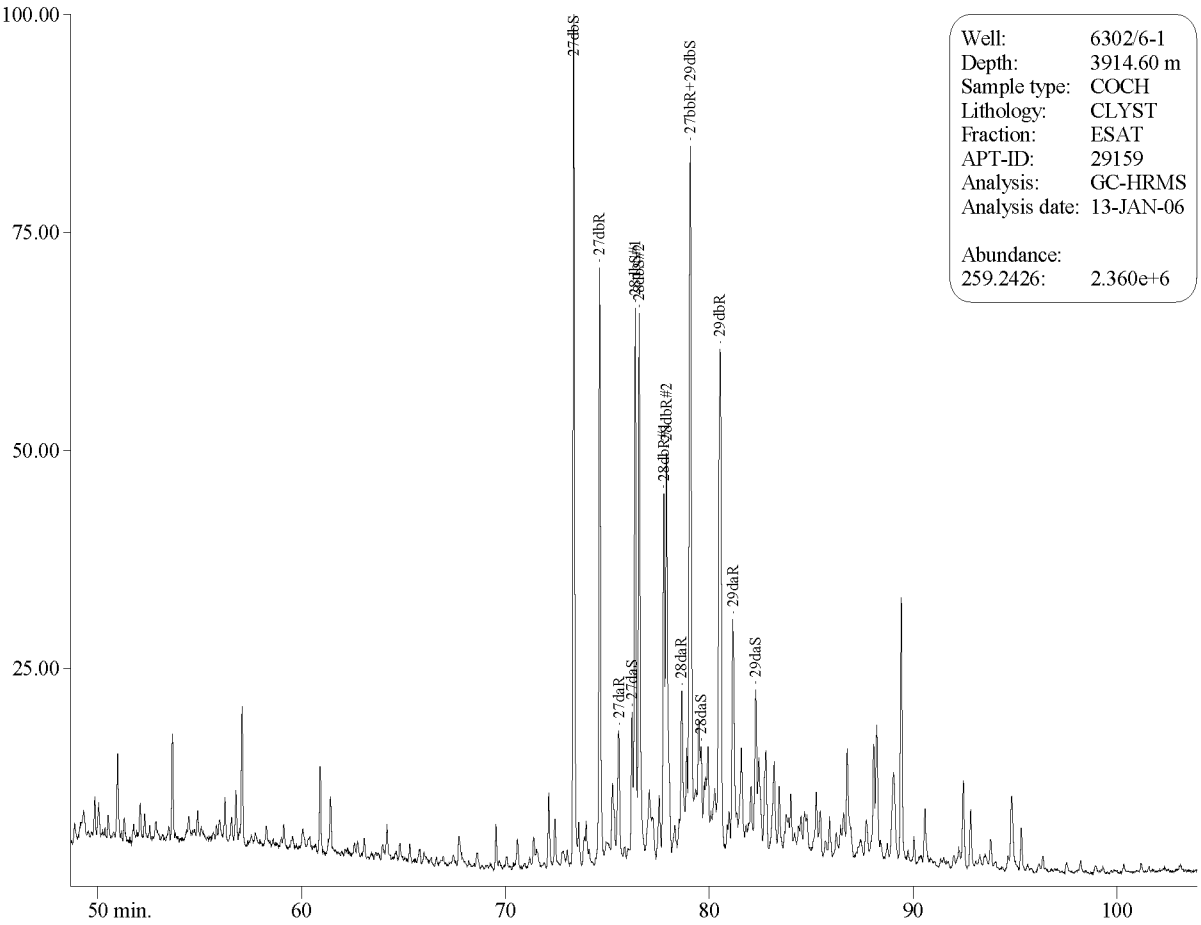

Well: 6302/6-1
Depth: 3914.60 m
Sample type: COCH
Lithology: CLYST
Fraction: ESAT
APT-ID: 29159
Analysis: GC-HRMS
Analysis date: 13-JAN-06
Abundance:
205.1956: 9.103e+6
100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
110
31abS
31abR
30ab
29ab
30ba
33abS
33abR
34abS
34abR
35abS
35abR

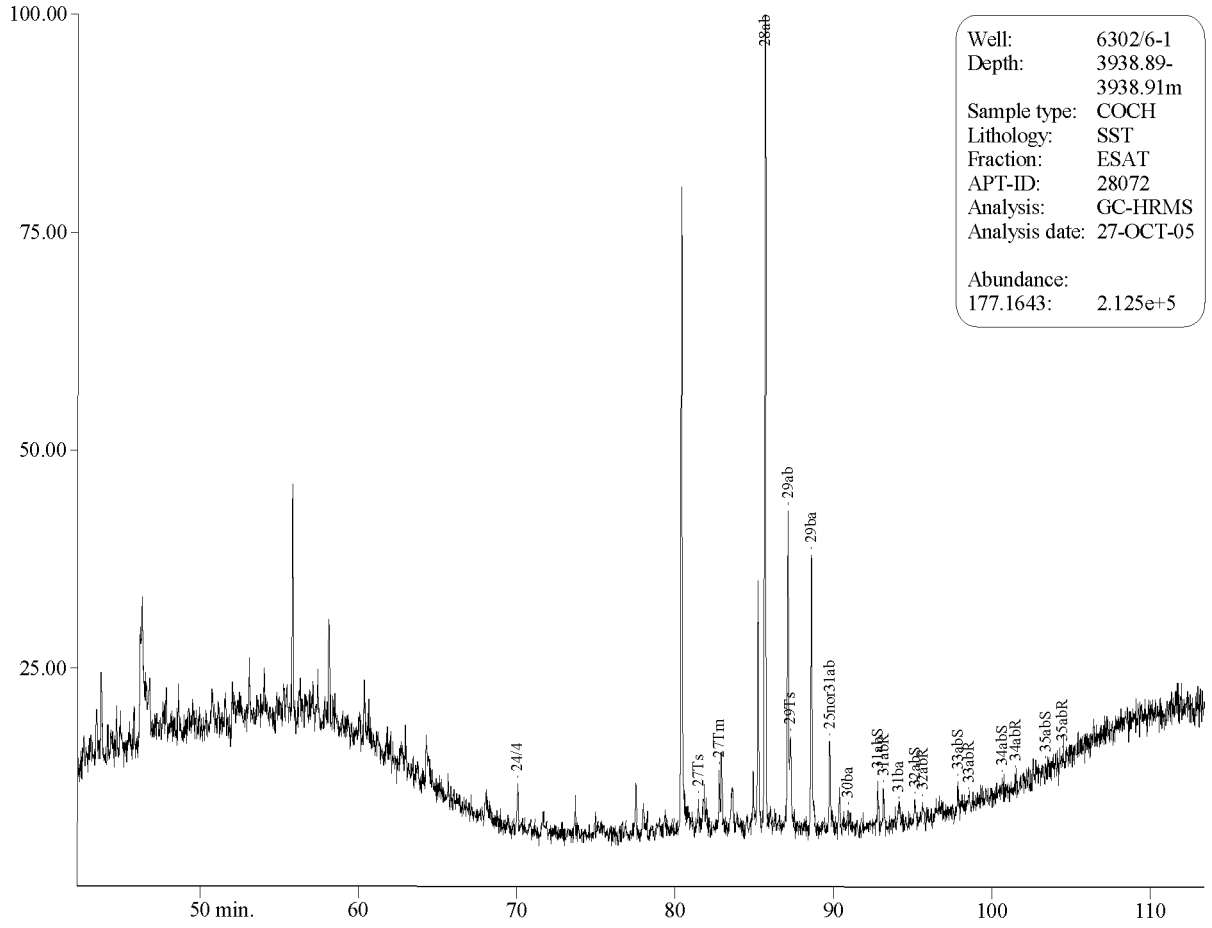

Well: 6302/6-1
Depth: 3914.60 m
Sample type: COCH
Lithology: CLYST
Fraction: ESAT
APT-ID: 29159
Analysis: GC-HRMS
Analysis date: 13-JAN-06
Abundance:
217.1956: 4.572e+6
100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
29aaR
27dbS
27aaR
27bbR+29dbS
27dbR
29dbR
28aaR
21bb
21aa
22aa
22bb
27daR
27daS
29daR
29aaS
29bbR
30aaR
30bbR

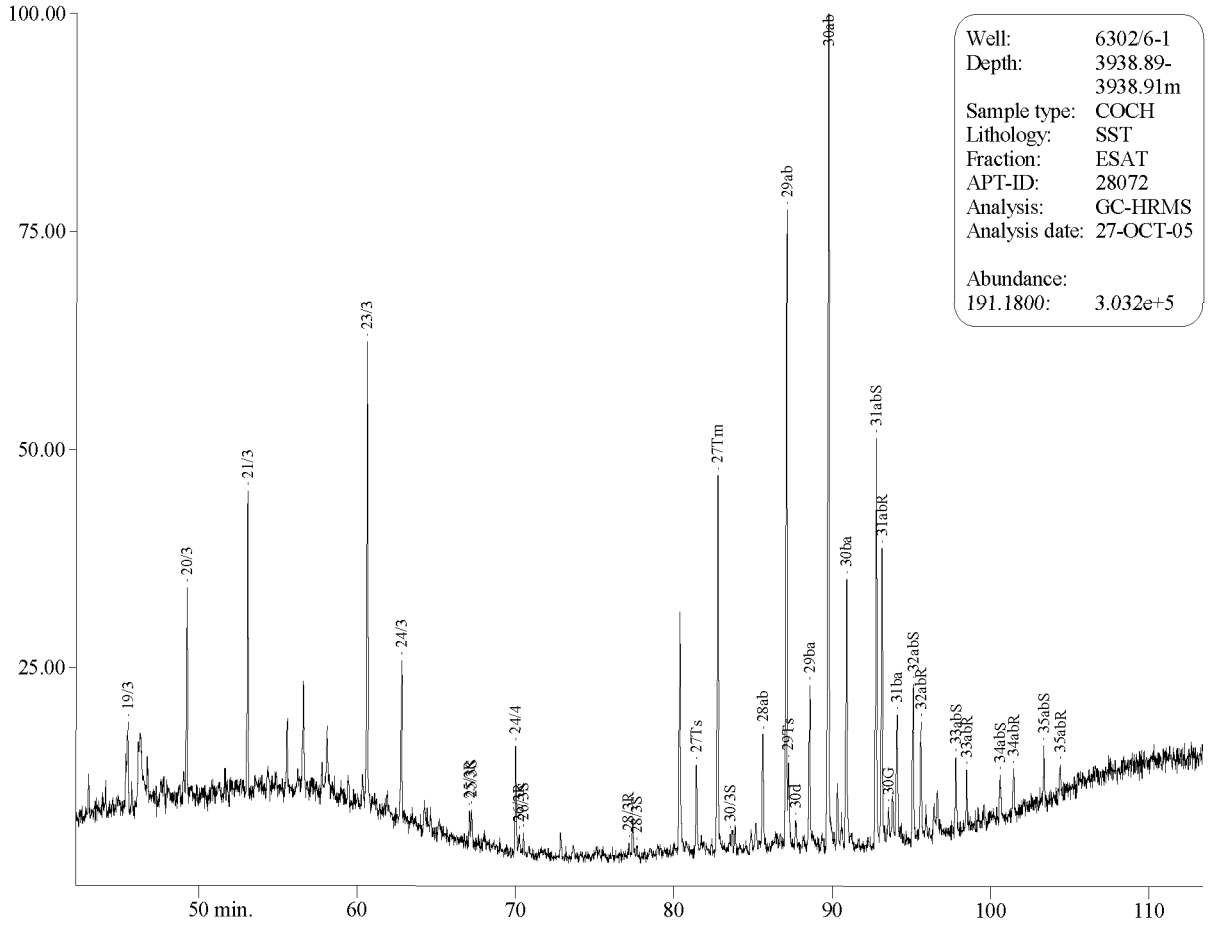

100.00
75.00
50.00
25.00
Well: 6302/6-1
Depth: 3914.60 m
Sample type: COCH
Lithology: CLYST
Fraction: ESAT
APT-ID: 29159
Analysis: GC-HRMS
Analysis date: 13-JAN-06
Abundance:
218.2035: 2.889e+6
21aa
21bb
22aa
22bb
27dbS
27dbR
27daS
27aaS
27bbR
27bbS
27aaR
29dbR
29daR
28bbR
28aaR
28bbS
29aaS
29bbR
29bbS
29aaR
30aaS
30aaR
50 min.
60
70
80
90
100

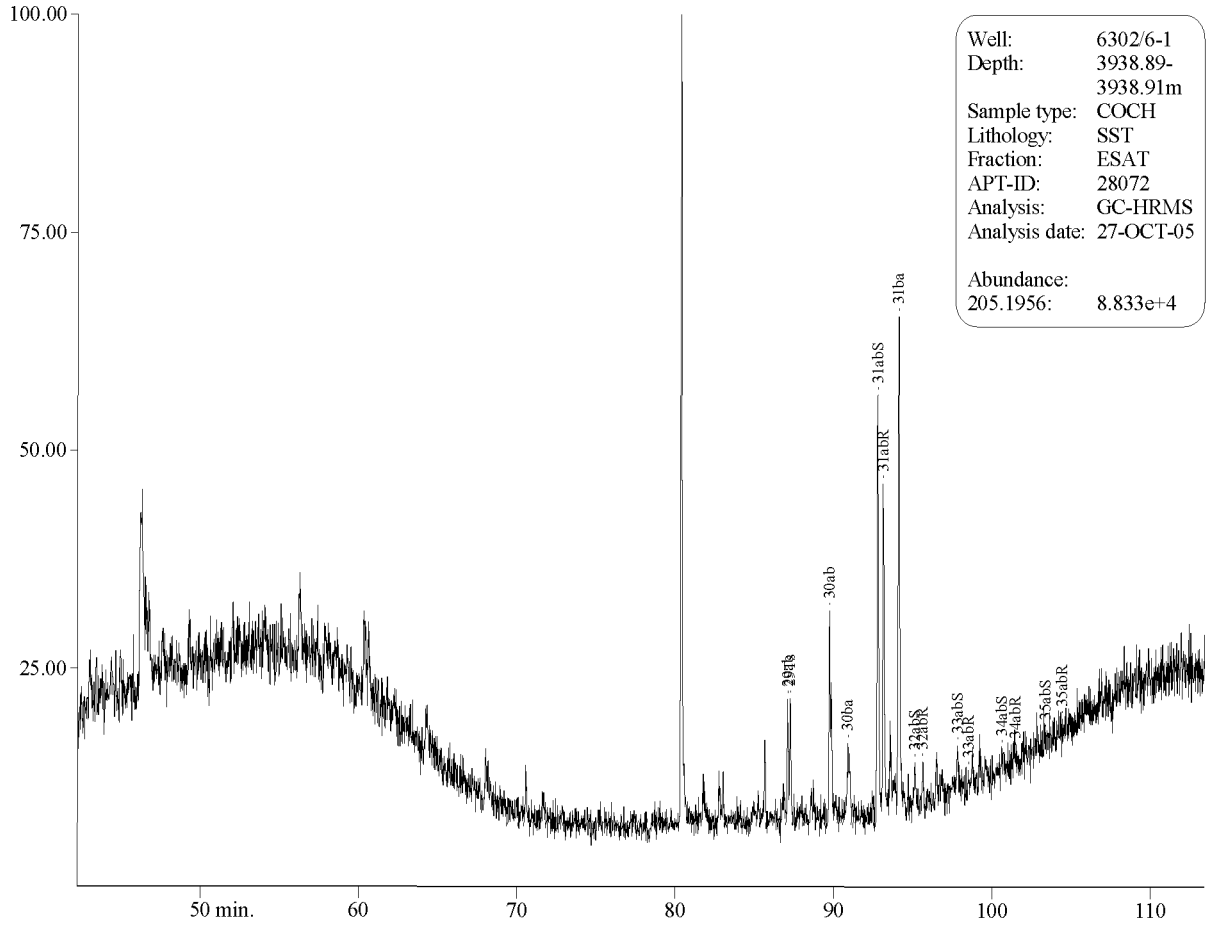

100.00
75.00
50.00
25.00
Well: 6302/6-1
Depth: 3914.60 m
Sample type: COCH
Lithology: CLYST
Fraction: ESAT
APT-ID: 29159
Analysis: GC-HRMS
Analysis date: 13-JAN-06
Abundance:
231.2113: 1.472e+6
50 min.
60
70
80
90
100

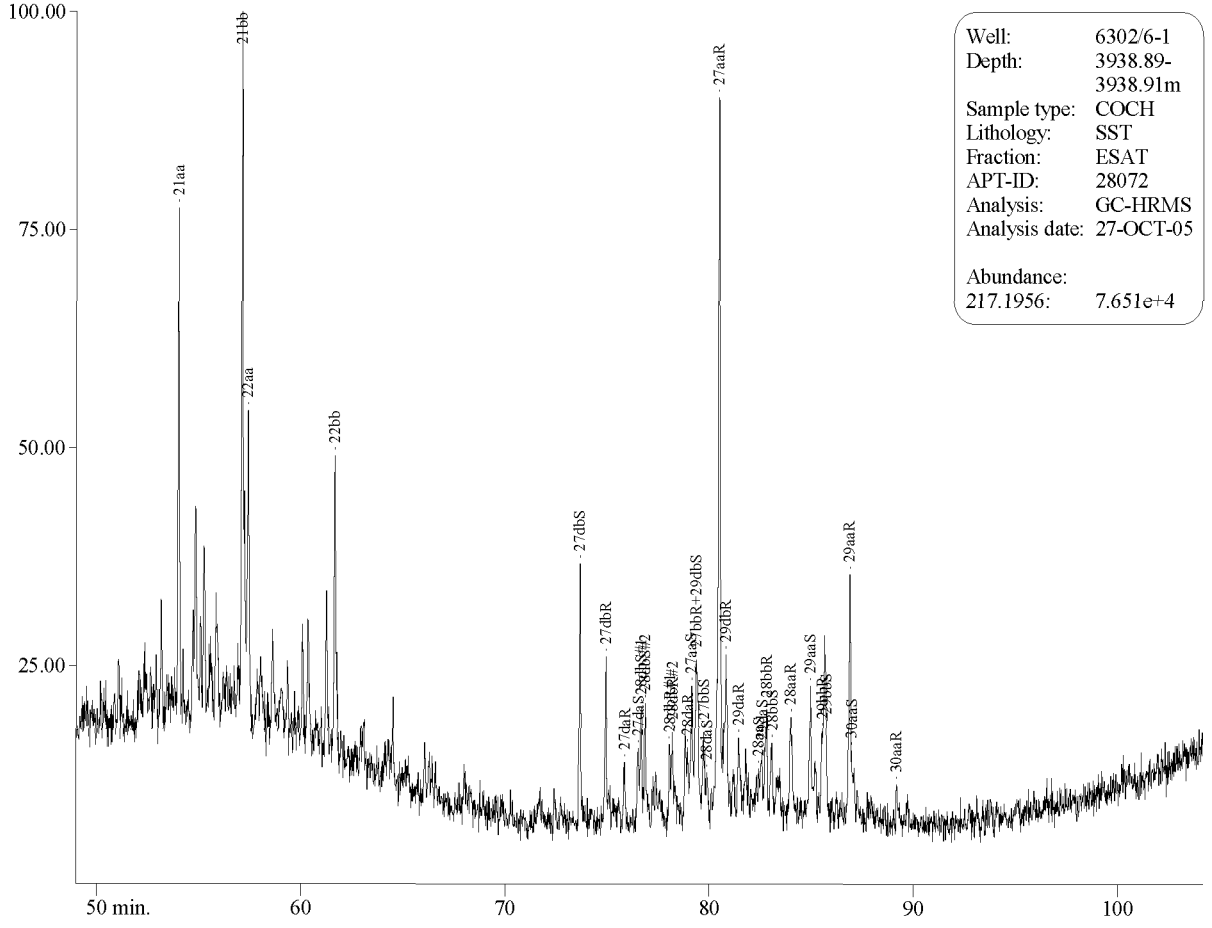

71.66
53.74
35.83
17.91
50 min.
60
70
80
90
100
Well: 6302/6-1
Depth: 3914.60 m
Sample type: COCH
Lithology: CLYST
Fraction: ESAT
APT-ID: 29159
Analysis: GC-HRMS
Analysis date: 13-JAN-06
Abundance:
253.1956,253.2895: 5.263e+6

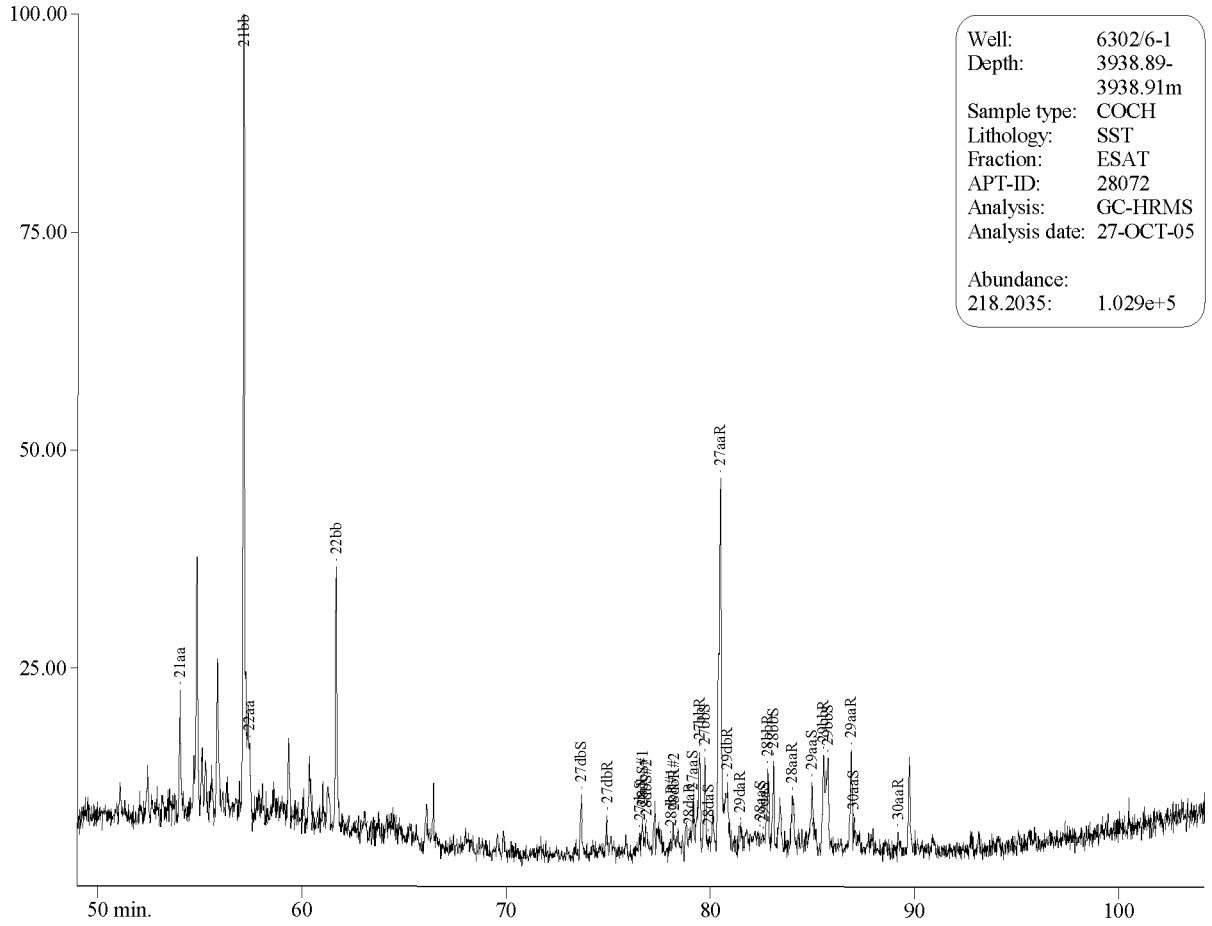

100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
27dbS
27dbR
27daR
27daS
28daR
28daS
27bbR+29dbS
29dbR
29daR
29daS
Well: 6302/6-1
Depth: 3914.60 m
Sample type: COCH
Lithology: CLYST
Fraction: ESAT
APT-ID: 29159
Analysis: GC-HRMS
Analysis date: 13-JAN-06
Abundance:
259.2426: 2.360e+6

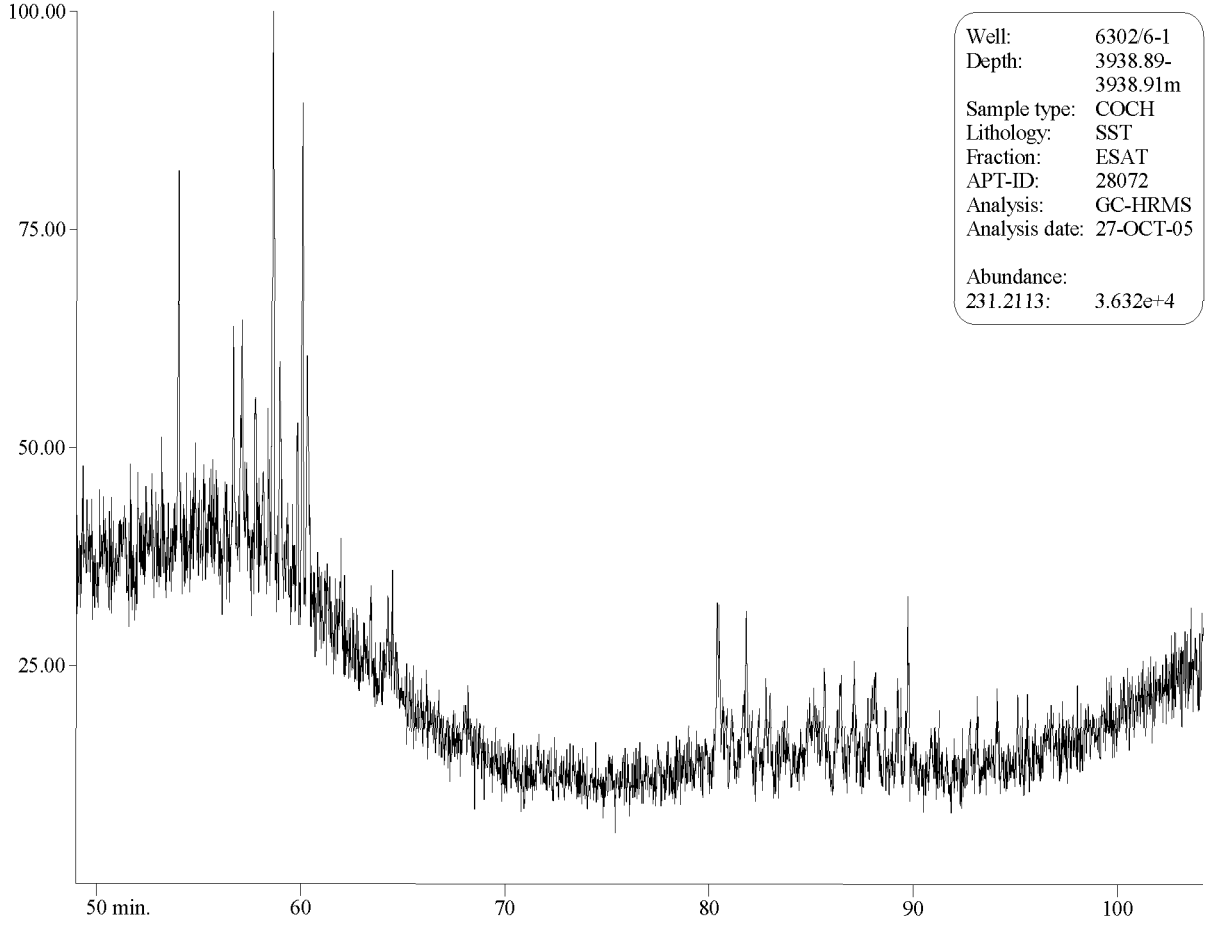

Well: 6302/6-1
Depth: 3938.89-3938.91m
Sample type: COCH
Lithology: SST
Fraction: ESAT
APT-ID: 28072
Analysis: GC-HRMS
Analysis date: 27-OCT-05
Abundance:
177.1643: 2.125e+5
100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
110
24/4
27Ts
27Tm
29ab
29Ts
29ba
25nor31ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

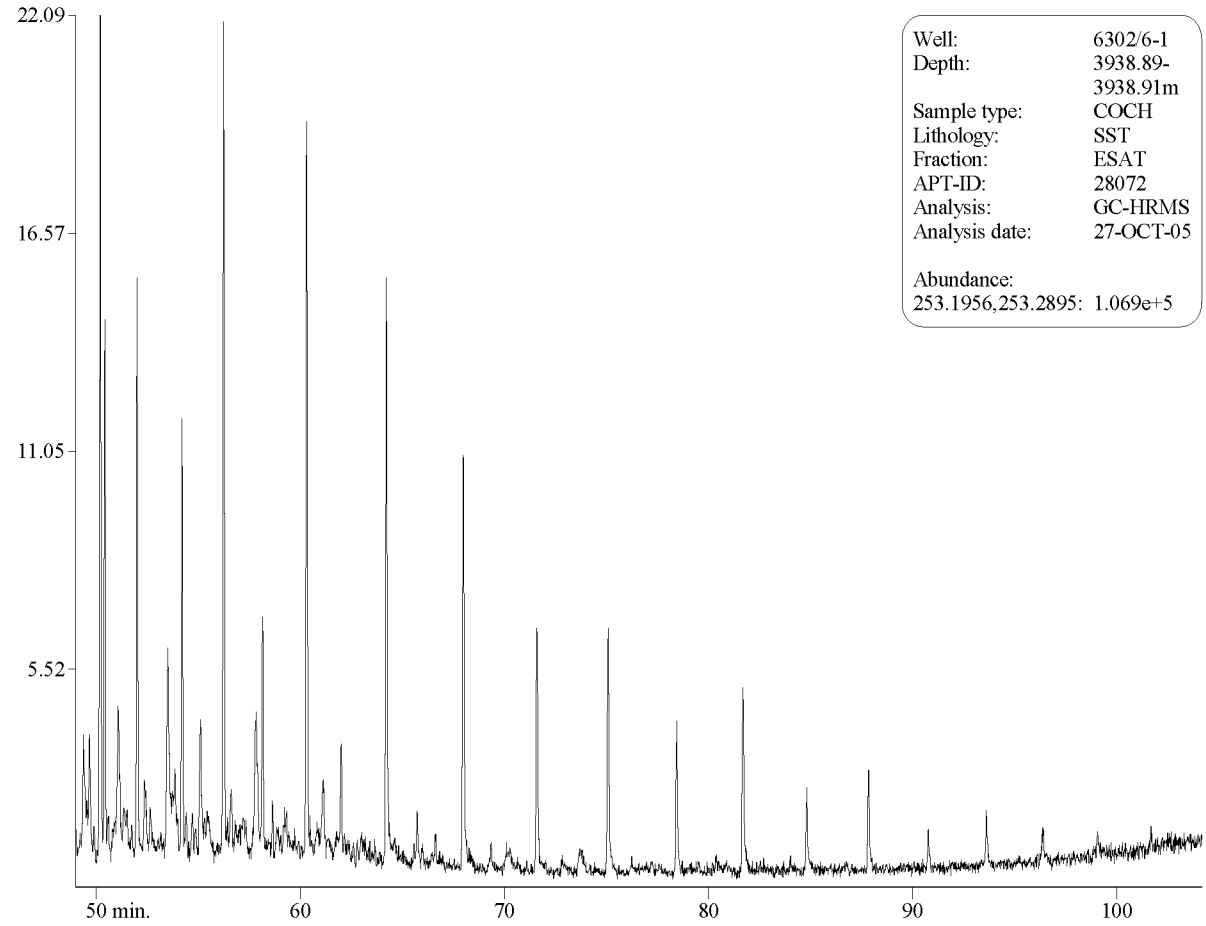

Well: 6302/6-1
Depth: 3938.89-3938.91m
Sample type: COCH
Lithology: SST
Fraction: ESAT
APT-ID: 28072
Analysis: GC-HRMS
Analysis date: 27-OCT-05
Abundance:
191.1800: 3.032e+5
100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
110
19/3
20/3
21/3
23/3
24/3
24/4
27Ts
27Tm
28ab
29ab
29Ts
29ba
30/3S
30ab
30d
30ba
30G
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

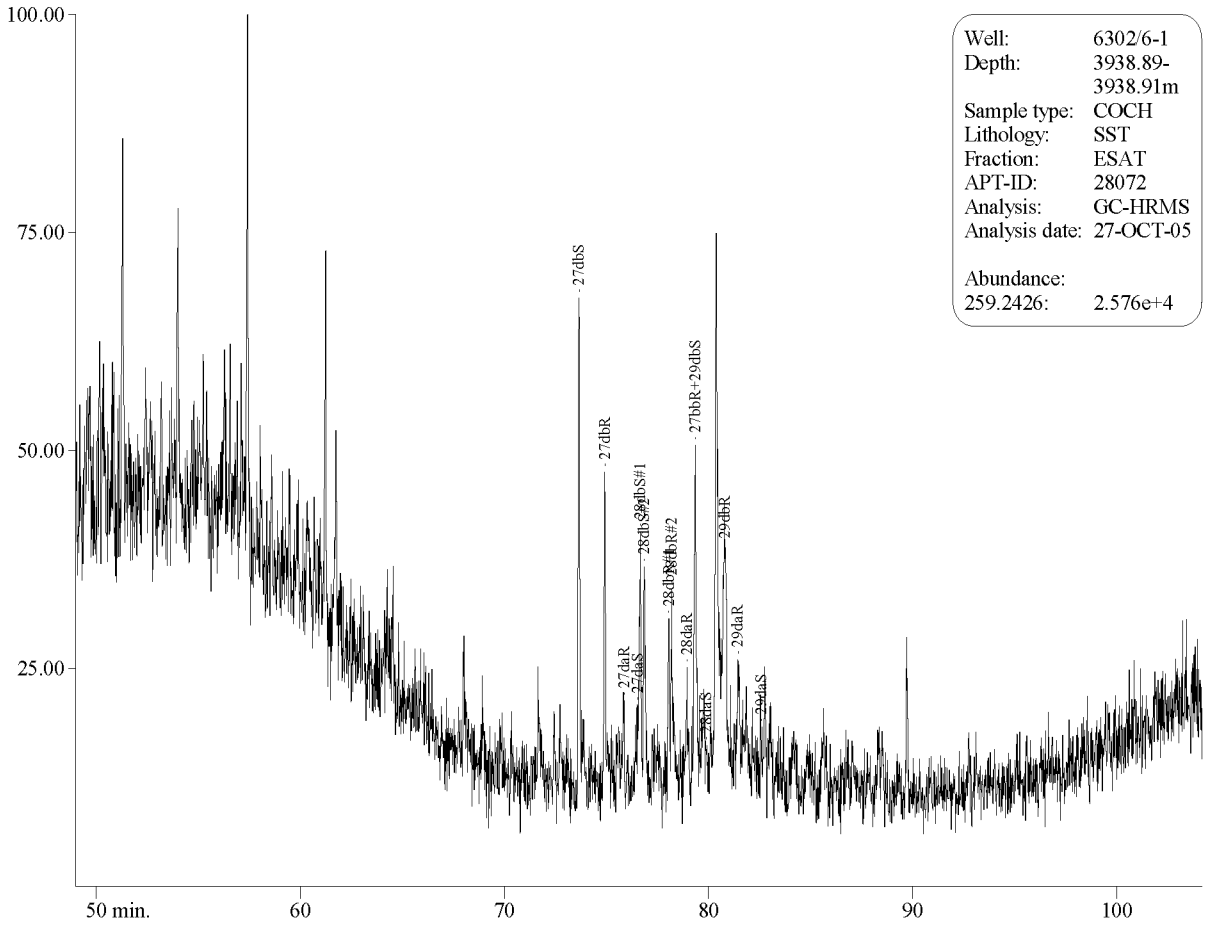

Well: 6302/6-1
Depth: 3938.89-3938.91m
Sample type: COCH
Lithology: SST
Fraction: ESAT
APT-ID: 28072
Analysis: GC-HRMS
Analysis date: 27-OCT-05
Abundance:
205.1956: 8.833e+4
100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
110
31ba
31abS
31abR
30ab
30ba
33abS
33abR
34abS
34abR
35abS
35abR

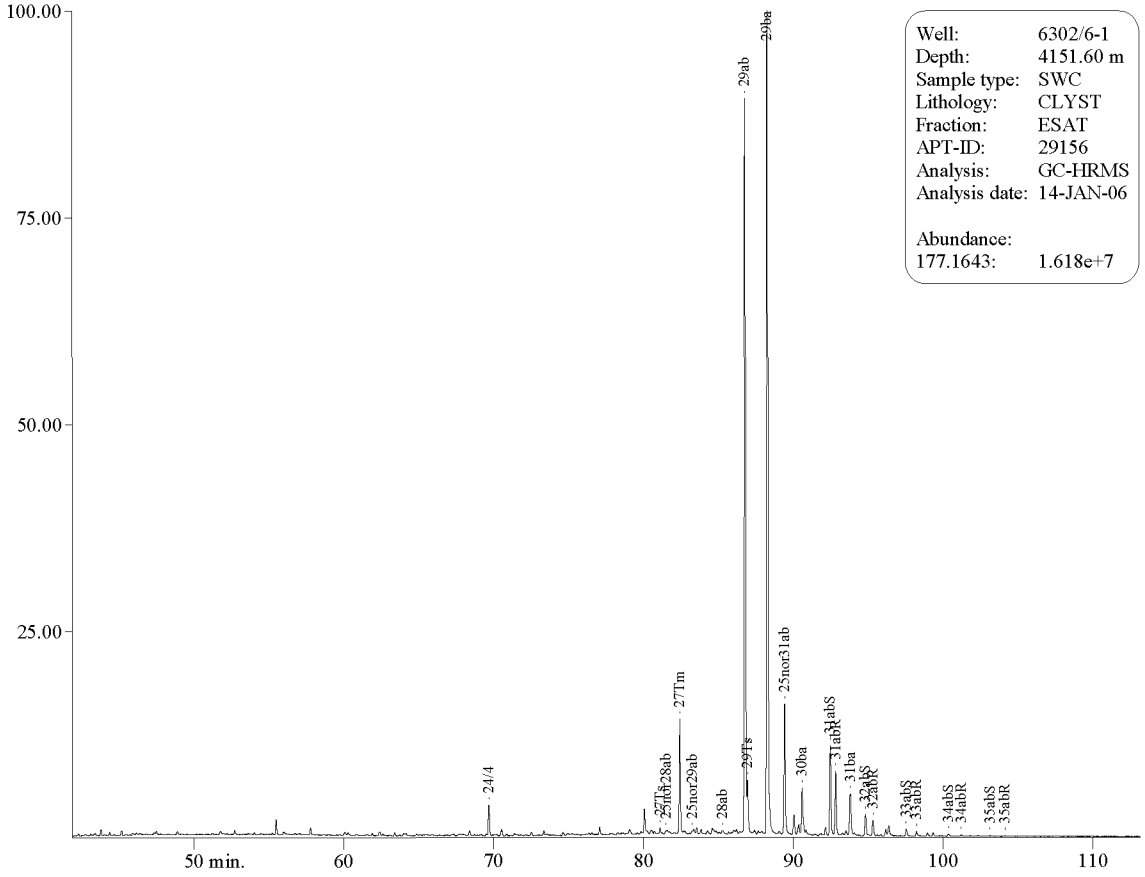

Well: 6302/6-1
Depth: 3938.89-3938.91m
Sample type: COCH
Lithology: SST
Fraction: ESAT
APT-ID: 28072
Analysis: GC-HRMS
Analysis date: 27-OCT-05
Abundance:
217.1956: 7.651e+4
100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
21aa
21bb
22aa
22bb
27dbS
27dbR
27daR
27aaR
27bbR+29dbS
29dbR
29daR
29aaS
29aaR
30aaS
30aaR

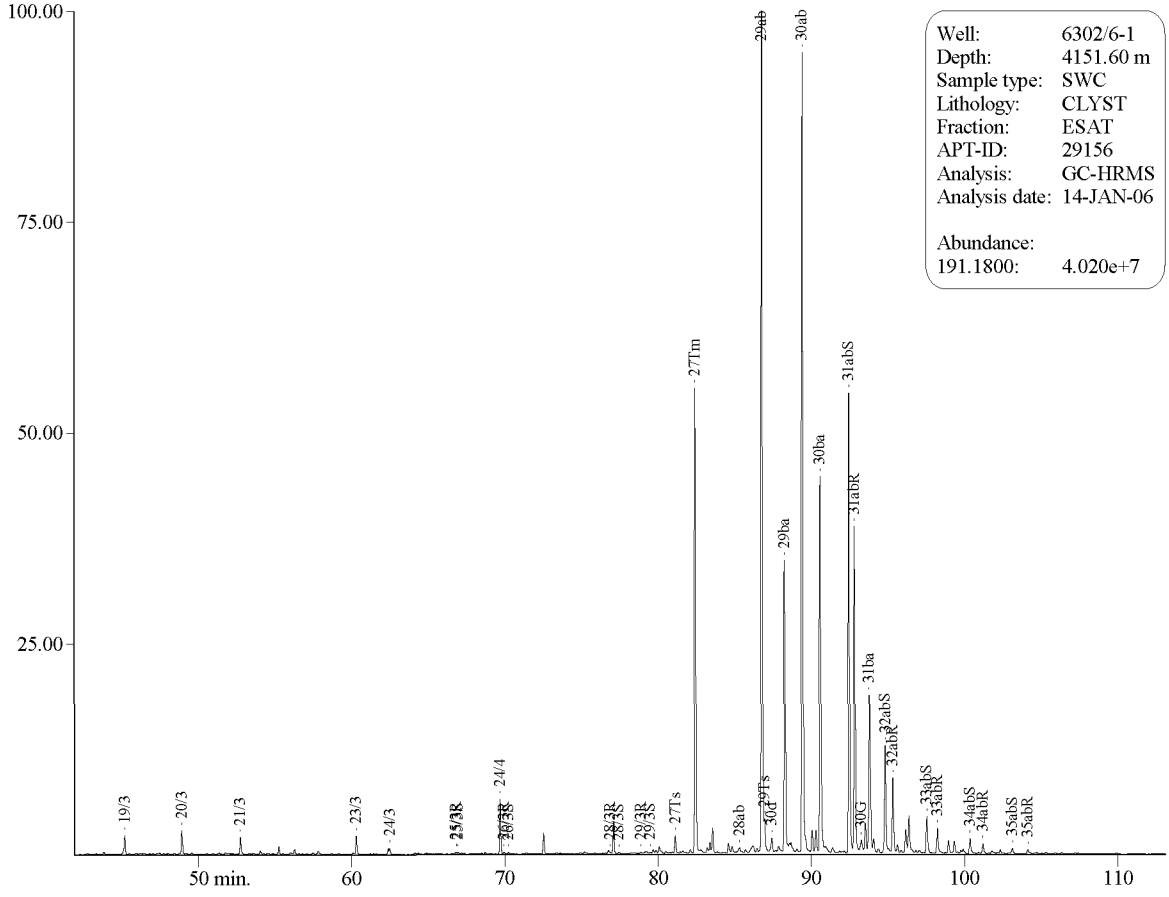

100.00
75.00
50.00
25.00
Well: 6302/6-1
Depth: 3938.89-3938.91m
Sample type: COCH
Lithology: SST
Fraction: ESAT
APT-ID: 28072
Analysis: GC-HRMS
Analysis date: 27-OCT-05
Abundance:
218.2035: 1.029e+5
21aa
21bb
22aa
22bb
27dbS
27dbR
27aaR
29dbR
29daR
28aaR
29aaS
29aaR
30aaS
30aaR
50 min.
60
70
80
90
100

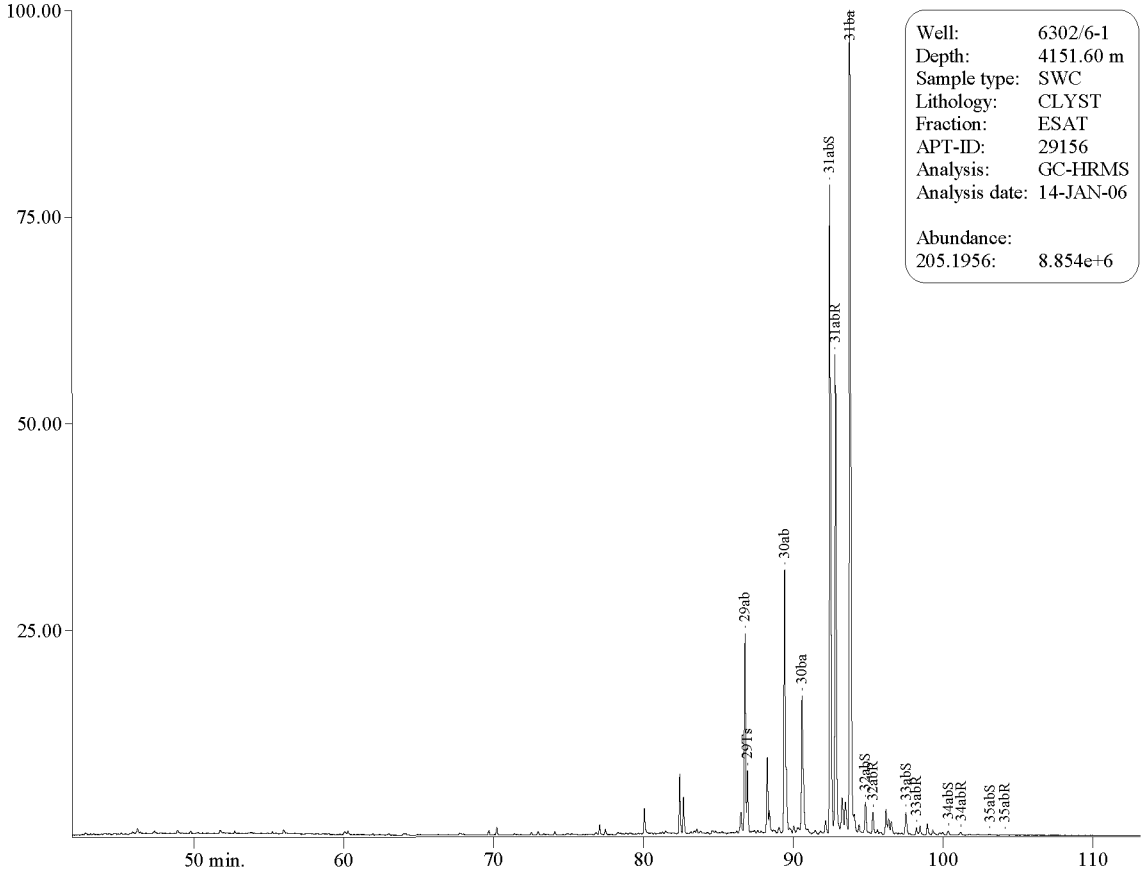

100.00
75.00
50.00
25.00
Well: 6302/6-1
Depth: 3938.89-3938.91m
Sample type: COCH
Lithology: SST
Fraction: ESAT
APT-ID: 28072
Analysis: GC-HRMS
Analysis date: 27-OCT-05
Abundance:
231.2113: 3.632e+4
50 min.
60
70
80
90
100

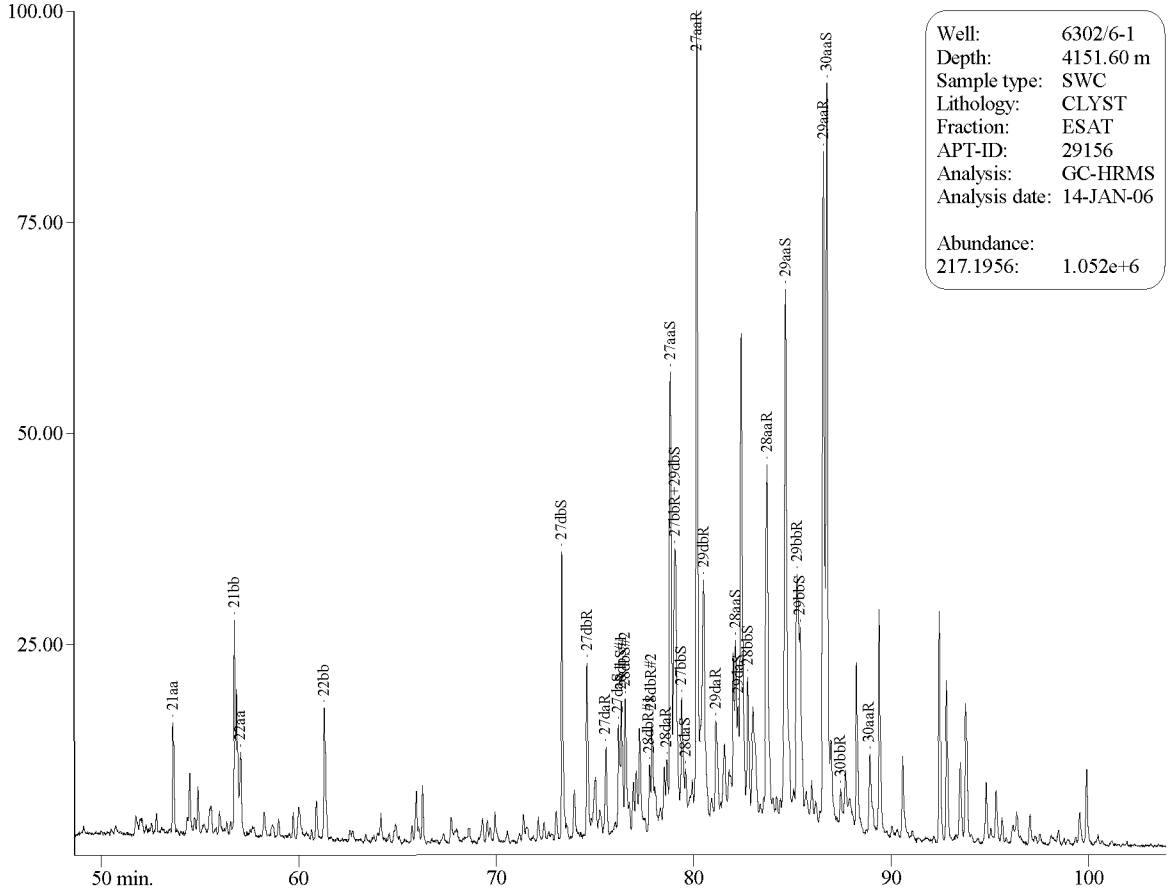

22.09
16.57
11.05
5.52
50 min.
60
70
80
90
100
Well: 6302/6-1
Depth: 3938.89-3938.91m
Sample type: COCH
Lithology: SST
Fraction: ESAT
APT-ID: 28072
Analysis: GC-HRMS
Analysis date: 27-OCT-05
Abundance:
253.1956,253.2895: 1.069e+5

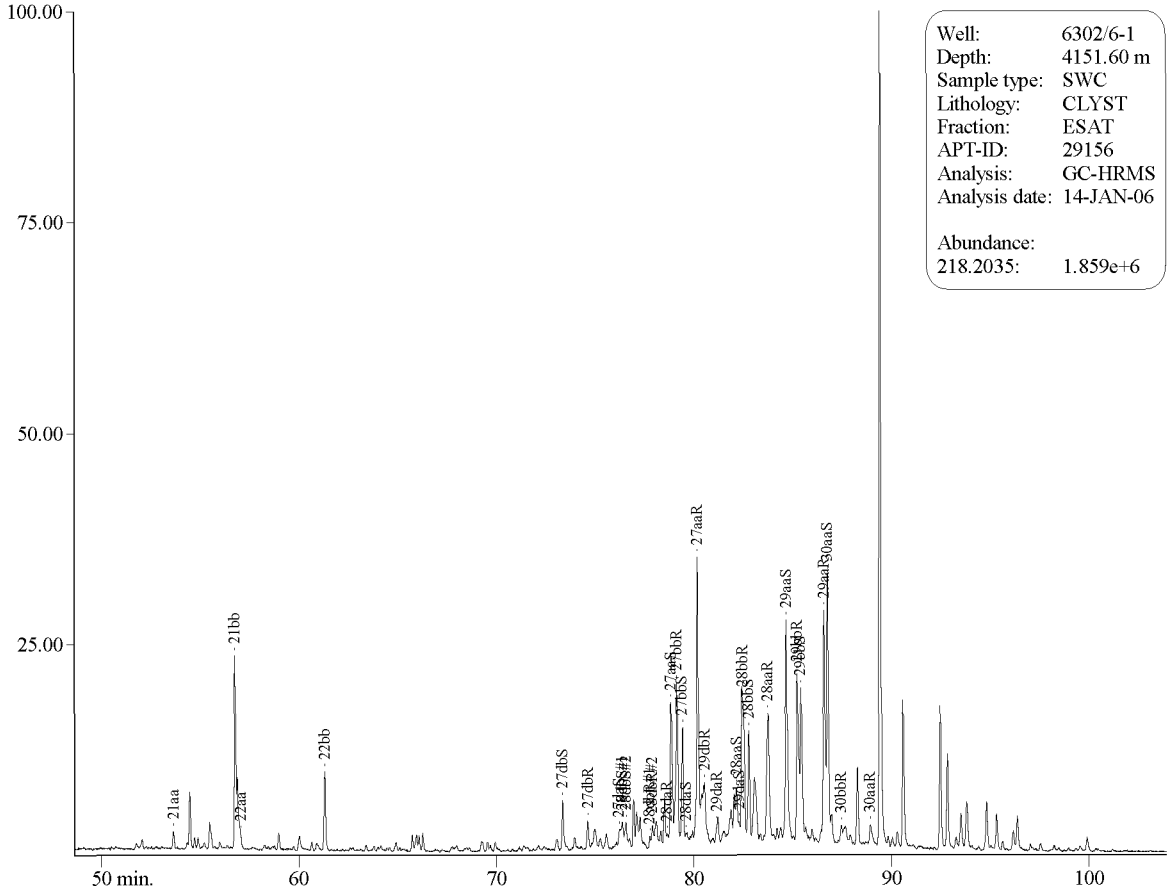

100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
Well: 6302/6-1
Depth: 3938.89-3938.91m
Sample type: COCH
Lithology: SST
Fraction: ESAT
APT-ID: 28072
Analysis: GC-HRMS
Analysis date: 27-OCT-05
Abundance:
259.2426: 2.576e+4
27dbS
27dbR
27daR
27daS
28daR
27bbR+29dbS
29dbR
29daR
29daS

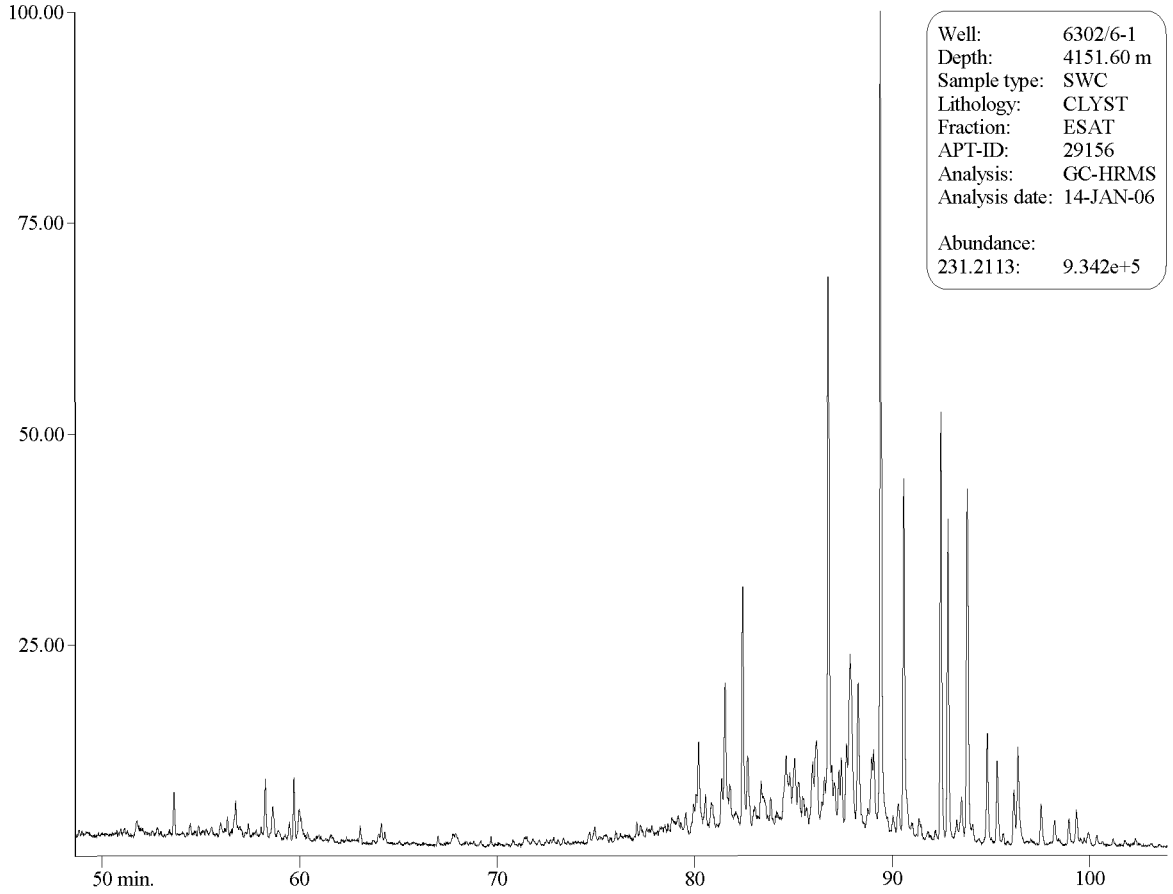

Well: 6302/6-1
Depth: 4151.60 m
Sample type: SWC
Lithology: CLYST
Fraction: ESAT
APT-ID: 29156
Analysis: GC-HRMS
Analysis date: 14-JAN-06
Abundance:
177.1643: 1.618e+7
100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
110
24/4
27Tm
29ab
29ba
25nor31ab
30ba
31abR
31abS
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

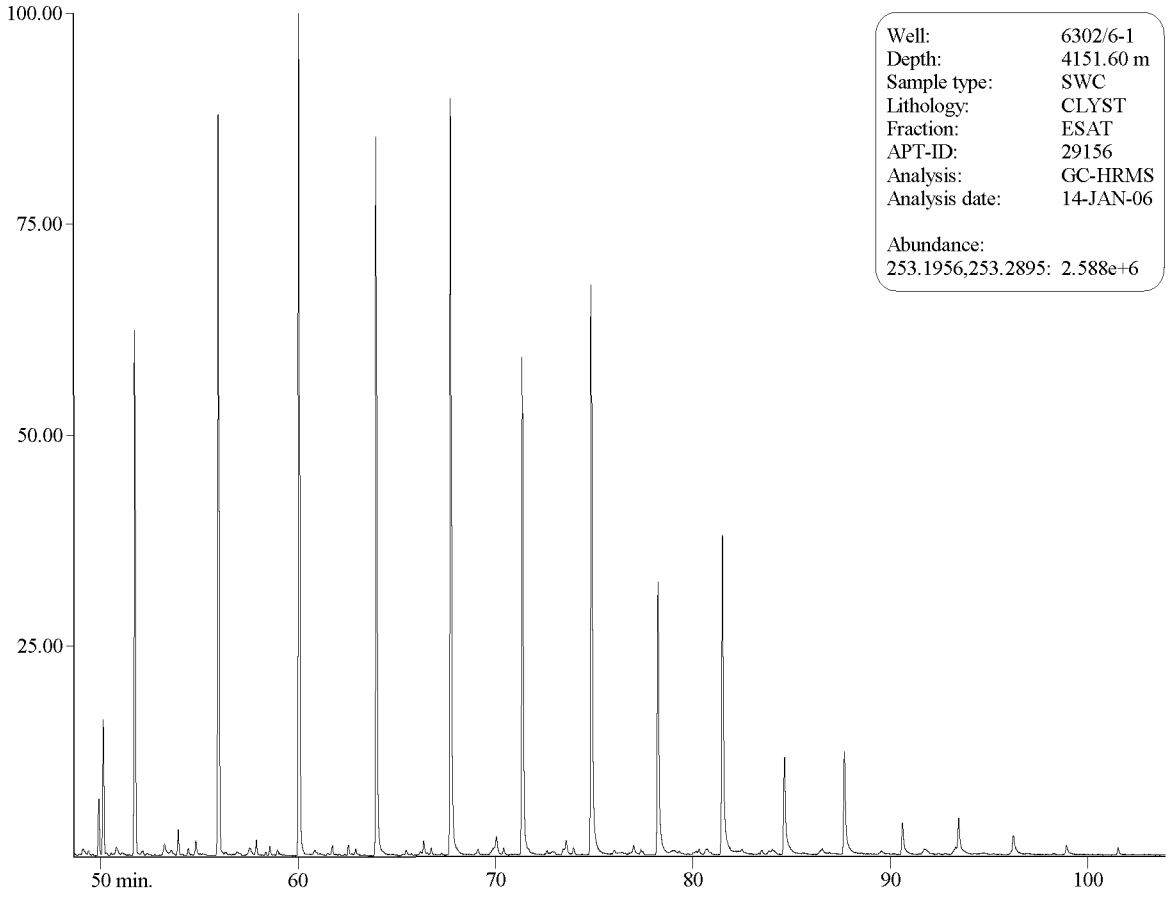

Well: 6302/6-1
Depth: 4151.60 m
Sample type: SWC
Lithology: CLYST
Fraction: ESAT
APT-ID: 29156
Analysis: GC-HRMS
Analysis date: 14-JAN-06
Abundance:
191.1800: 4.020e+7
100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
110
19/3
20/3
21/3
23/3
24/3
24/4
27Tm
27Ts
28ab
29ab
29ba
30ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

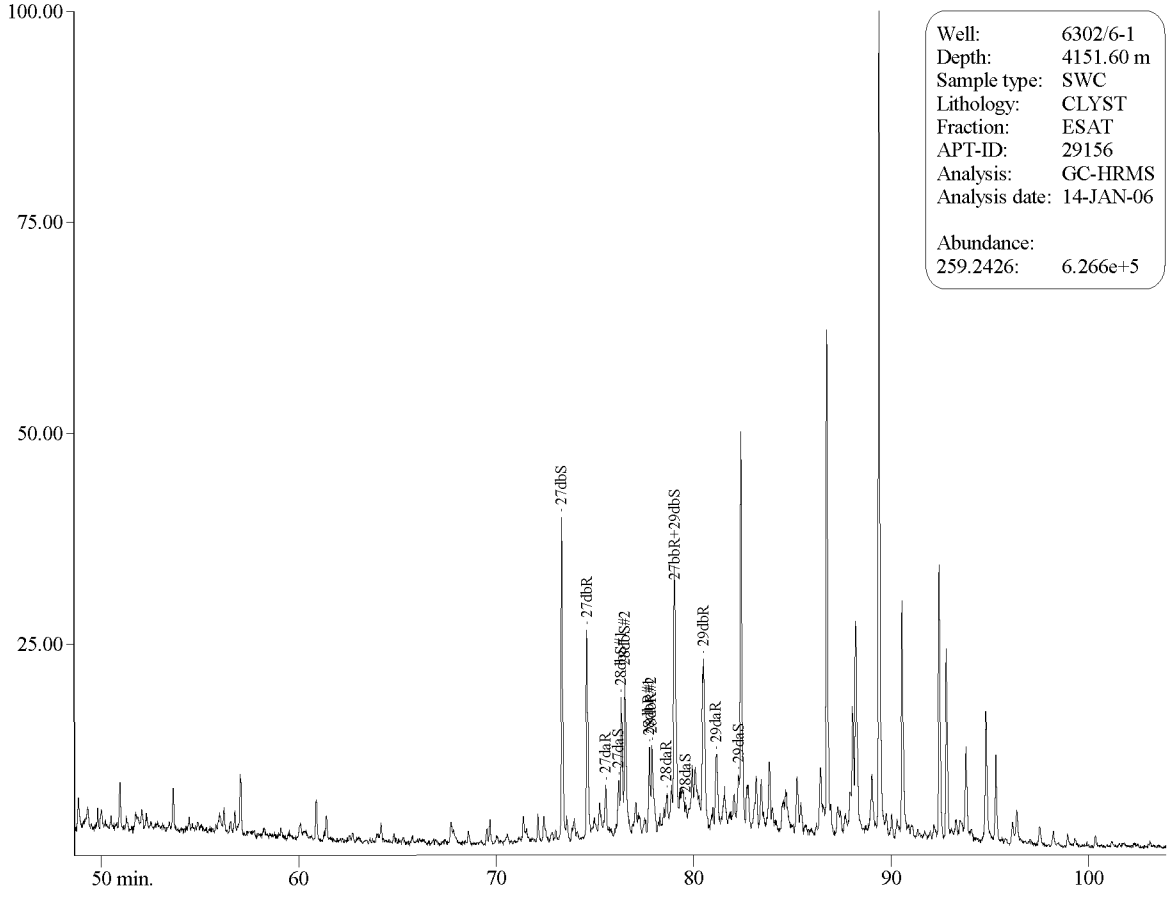

Well: 6302/6-1
Depth: 4151.60 m
Sample type: SWC
Lithology: CLYST
Fraction: ESAT
APT-ID: 29156
Analysis: GC-HRMS
Analysis date: 14-JAN-06
Abundance:
205.1956: 8.854e+6
100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
110
29ab
30ab
30ba
31abS
31abR
31bb
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR


Well: 6302/6-1
Depth: 4151.60 m
Sample type: SWC
Lithology: CLYST
Fraction: ESAT
APT-ID: 29156
Analysis: GC-HRMS
Analysis date: 14-JAN-06
Abundance:
217.1956: 1.052e+6
100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
21aa
21bb
22aa
22bb
27daR
27dbS
27dbR
27aaR
27aaS
27bbR+29dbS
27bbS
28daR
28daS
28dbR#2
28dbS#2
28aaS
28aaR
29daR
29dbR
29aaS
29aaR
29bbR
29bbS
30aaR
30aaS
30bbR

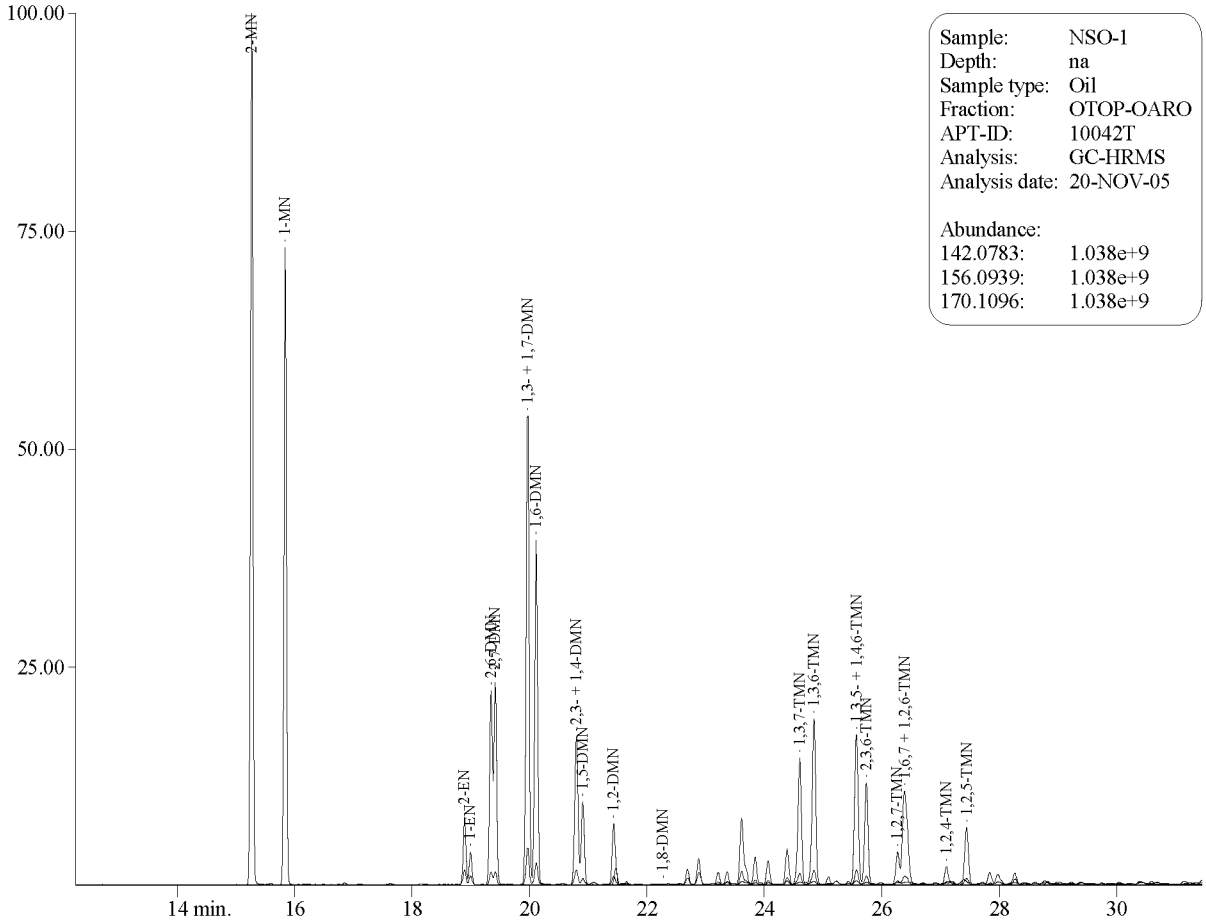

100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
Well: 6302/6-1
Depth: 4151.60 m
Sample type: SWC
Lithology: CLYST
Fraction: ESAT
APT-ID: 29156
Analysis: GC-HRMS
Analysis date: 14-JAN-06
Abundance:
218.2035: 1.859e+6
21aa
21bb
22aa
22bb
27dbS
27dbR
27aaR
28aaR
29aaS
29aaR
30aaS
30bbR
30aaR

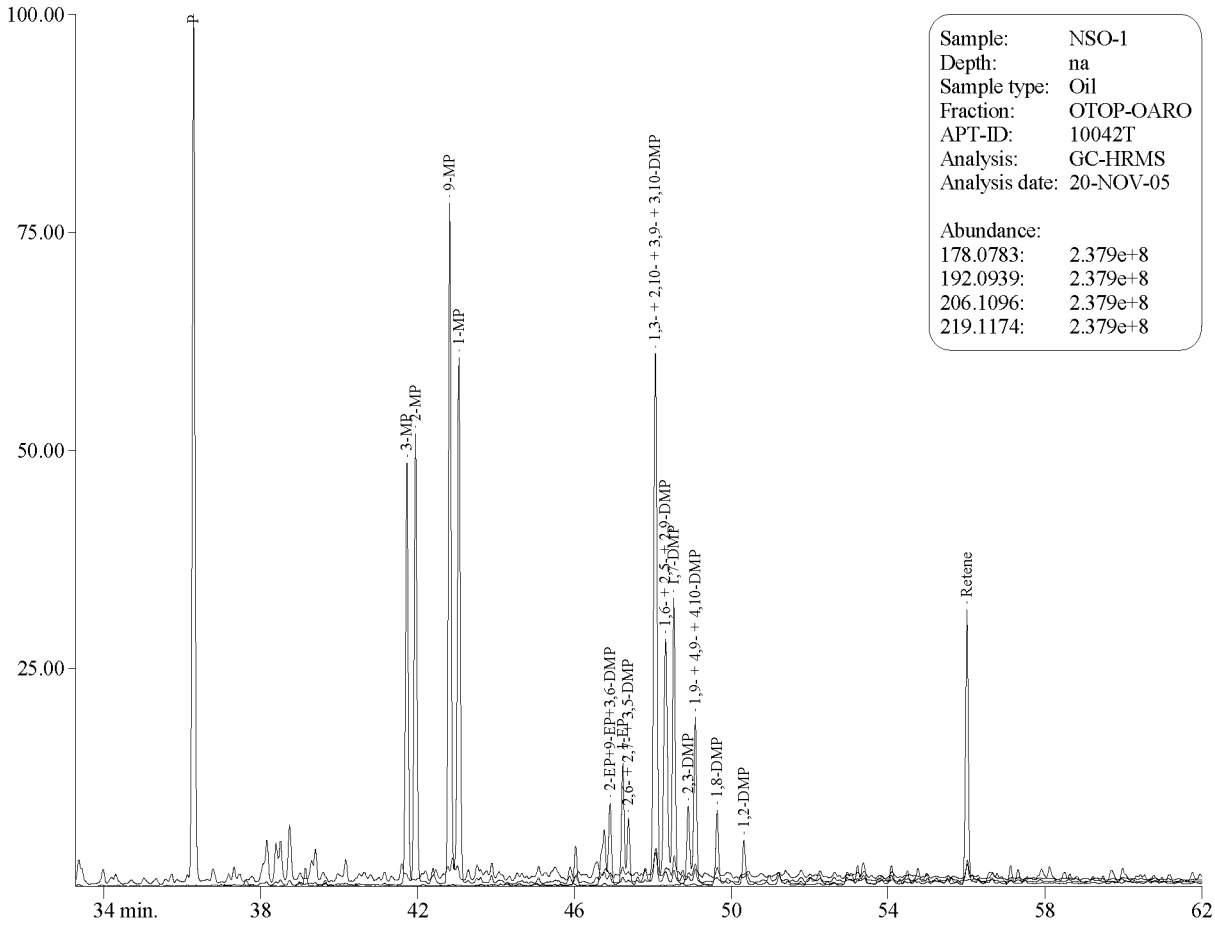

100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
Well: 6302/6-1
Depth: 4151.60 m
Sample type: SWC
Lithology: CLYST
Fraction: ESAT
APT-ID: 29156
Analysis: GC-HRMS
Analysis date: 14-JAN-06
Abundance:
231.2113: 9.342e+5

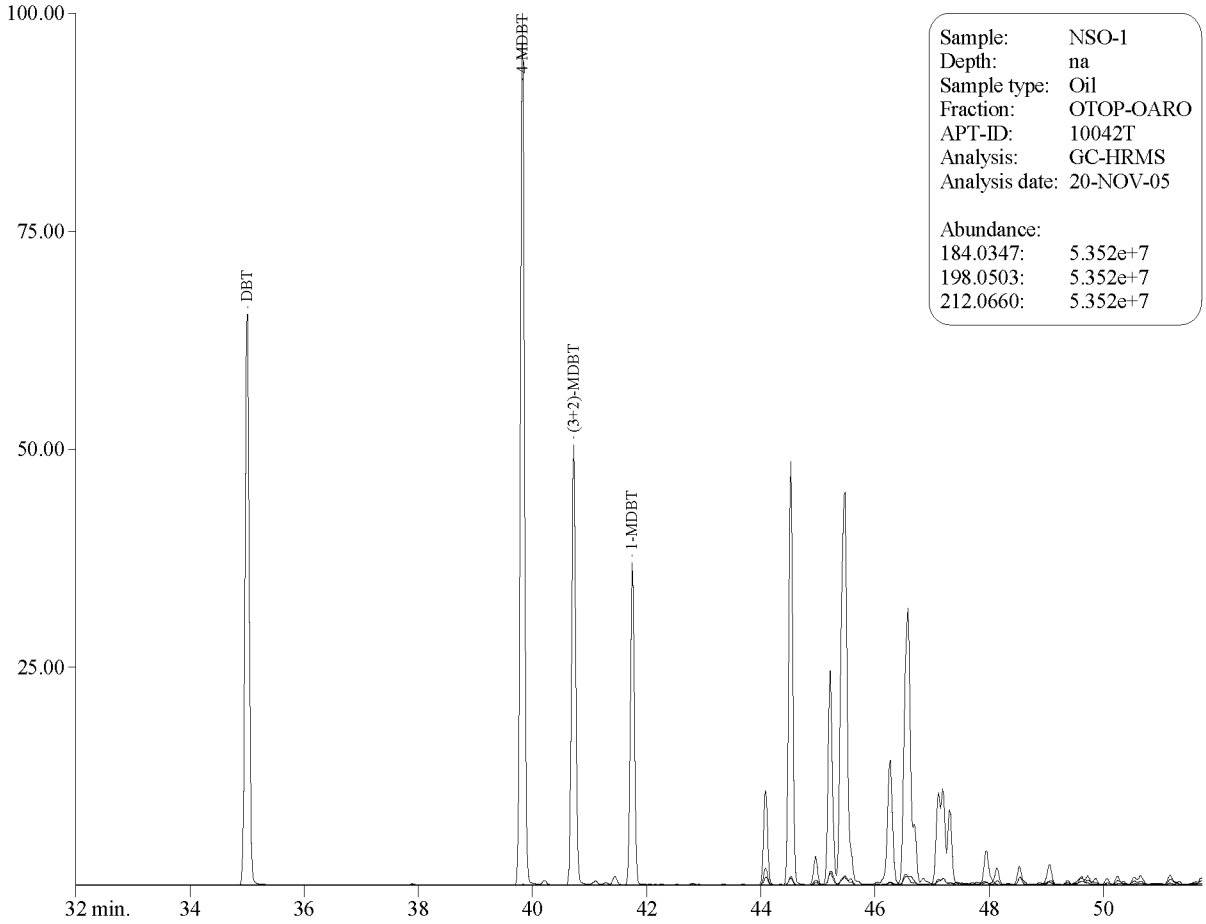

100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
Well: 6302/6-1
Depth: 4151.60 m
Sample type: SWC
Lithology: CLYST
Fraction: ESAT
APT-ID: 29156
Analysis: GC-HRMS
Analysis date: 14-JAN-06
Abundance:
253.1956,253.2895: 2.588e+6

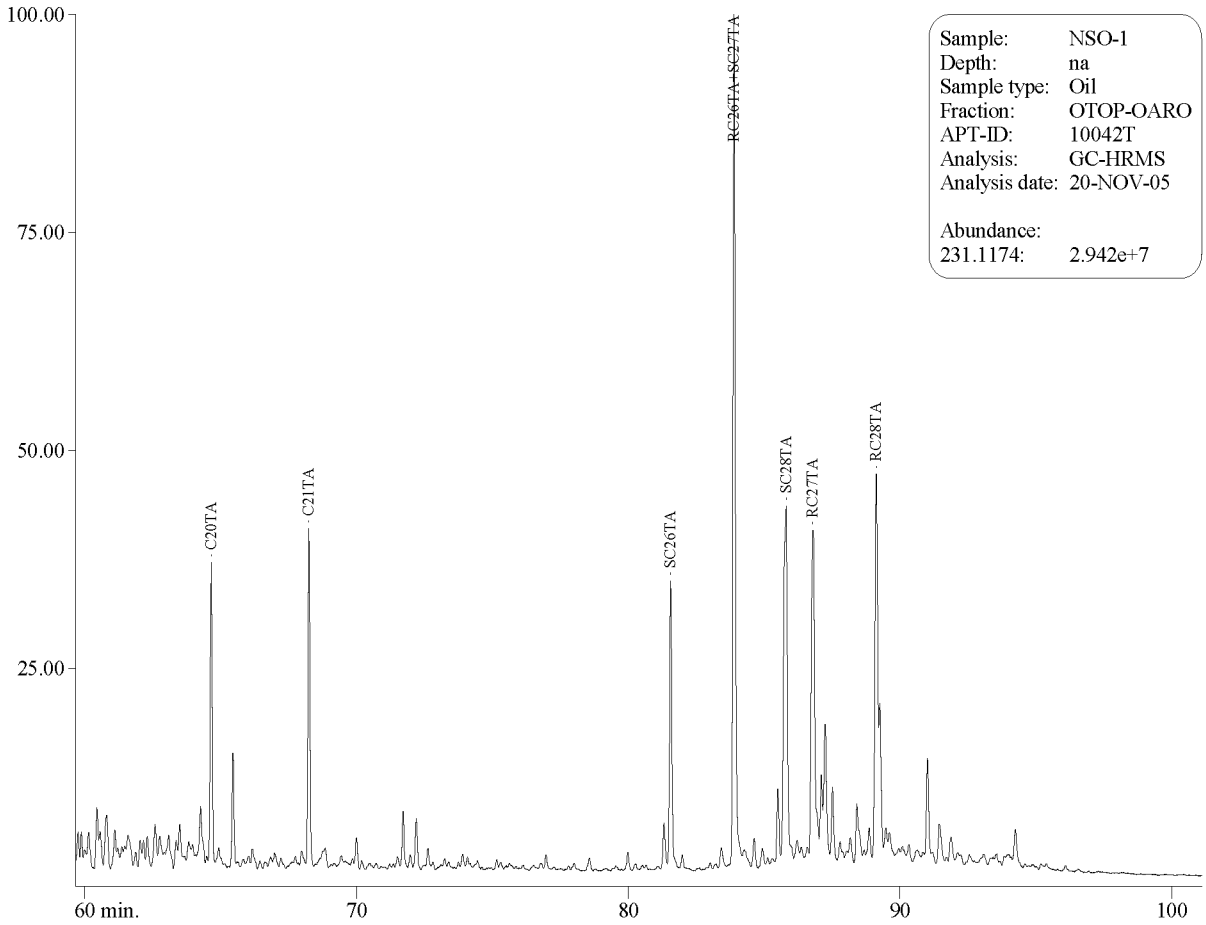

100.00
75.00
50.00
25.00
50 min.
60
70
80
90
100
Well: 6302/6-1
Depth: 4151.60 m
Sample type: SWC
Lithology: CLYST
Fraction: ESAT
APT-ID: 29156
Analysis: GC-HRMS
Analysis date: 14-JAN-06
Abundance:
259.2426: 6.266e+5
27dbS
27dbR
27daR
28daR
28dbS
27bbR+29dbS
29dbR
29daR
29daS

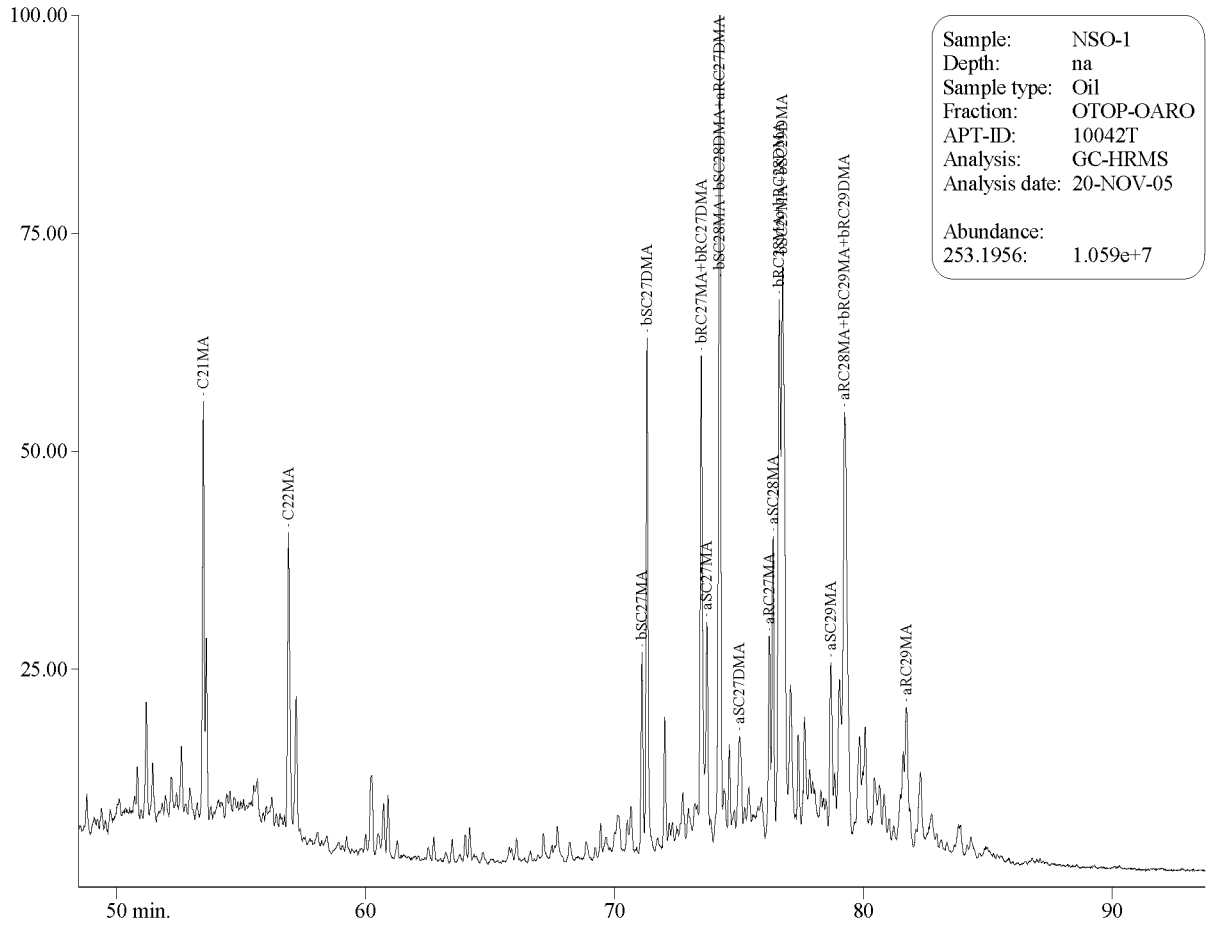
GC-MS Chromatograms of Aromatic Hydrocarbons

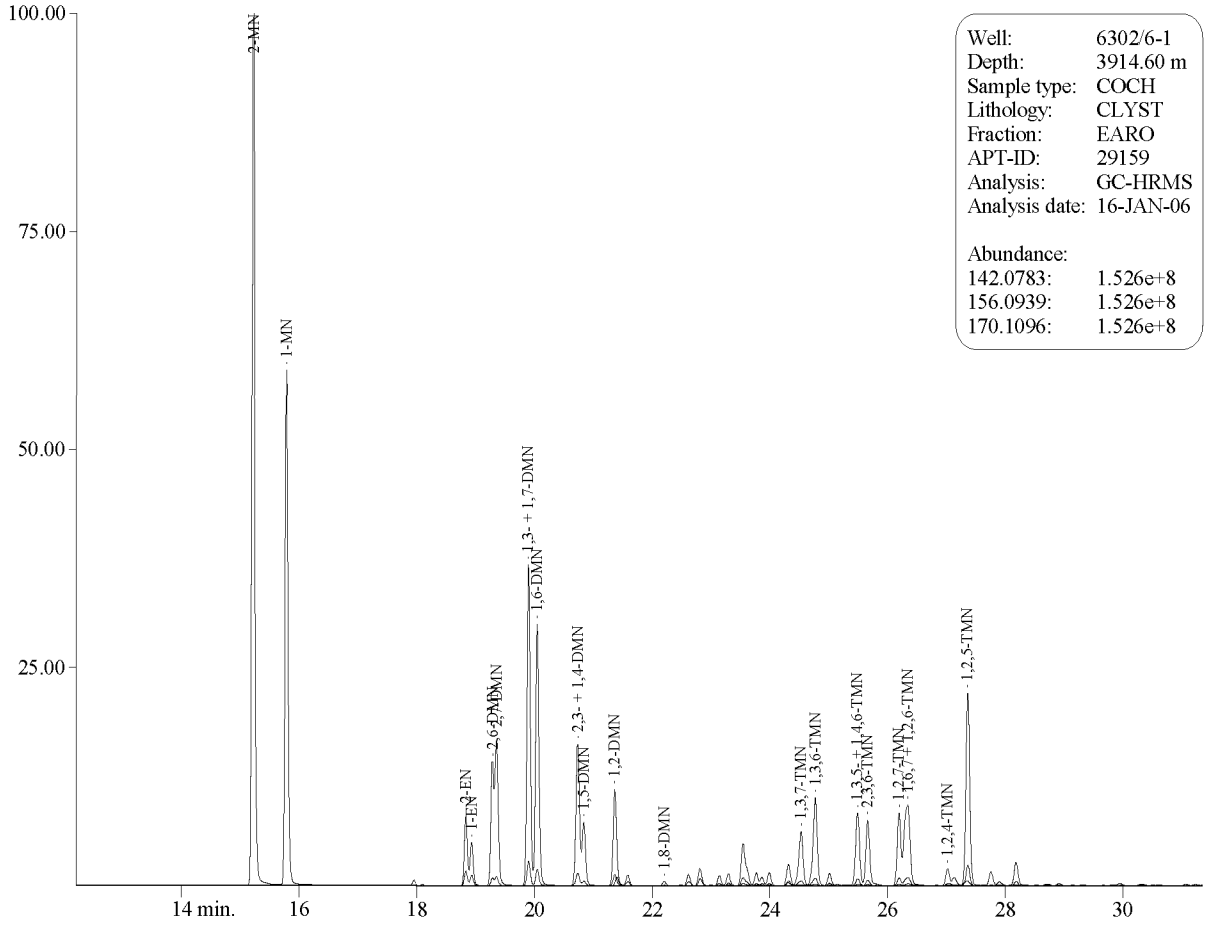

Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OTOP-OARO
APT-ID: 10042T
Analysis: GC-HRMS
Analysis date: 20-NOV-05
Abundance:
142.0783: 1.038e+9
156.0939: 1.038e+9
170.1096: 1.038e+9
100.00
75.00
50.00
25.00
14 min.
16
18
20
22
24
26
28
30
2-MN
1-MN
2-EN
1-EN
2,6-DMN
2,7-DMN
1,3- + 1,7-DMN
1,6-DMN
1,5-DMN
2,3- + 1,4-DMN
1,2-DMN
1,8-DMN
1,3,7-TMN
1,3,6-TMN
1,3,5- + 1,4,6-TMN
2,3,6-TMN
1,2,7-TMN
1,6,7 + 1,2,6-TMN
1,2,4-TMN
1,2,5-TMN

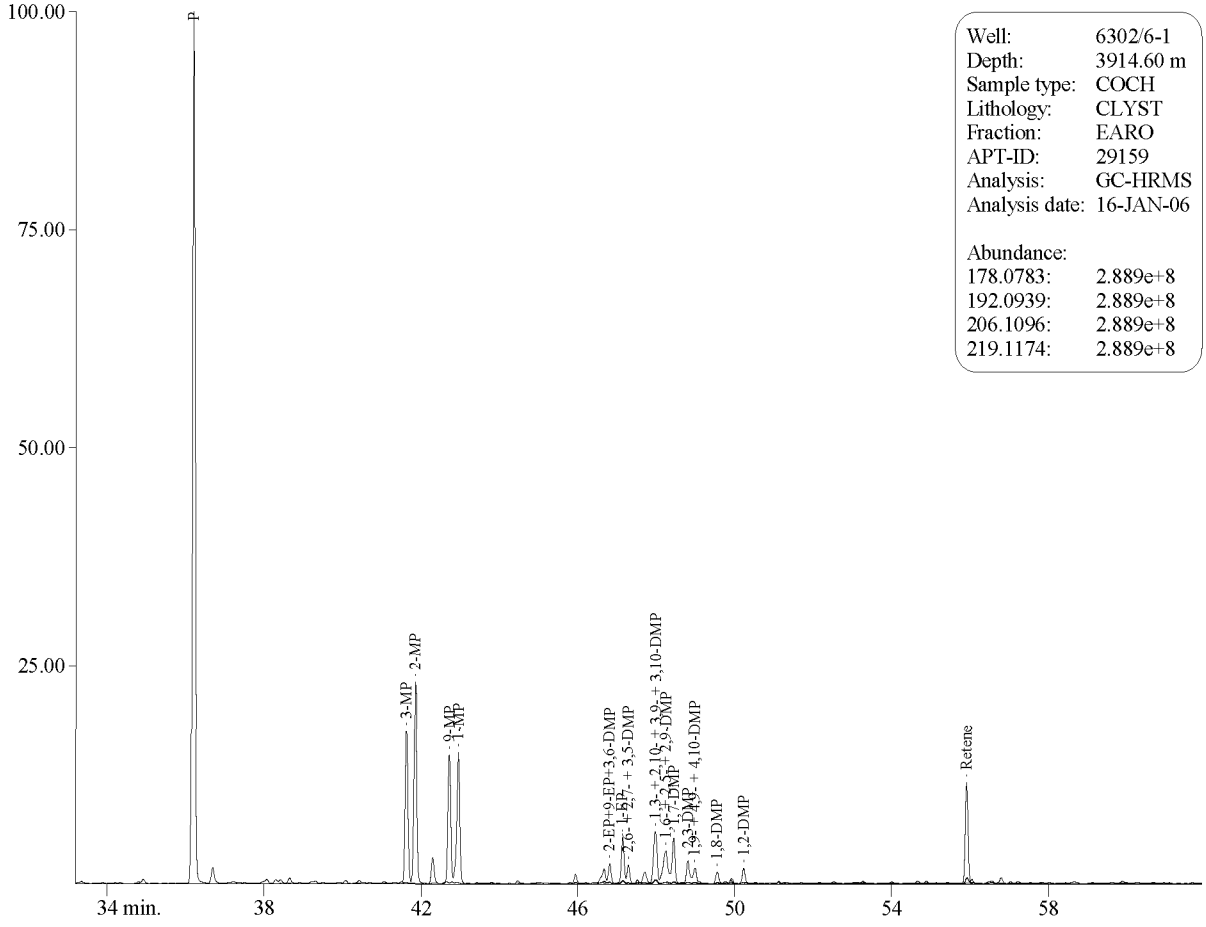

Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OTOP-OARO
APT-ID: 10042T
Analysis: GC-HRMS
Analysis date: 20-NOV-05
Abundance:
178.0783: 2.379e+8
192.0939: 2.379e+8
206.1096: 2.379e+8
219.1174: 2.379e+8
100.00
75.00
50.00
25.00
34 min.
38
42
46
50
54
58
62
P
3-MP
2-MP
9-MP
1-MP
1,3- + 2,10- + 3,9- + 3,10-DMP
1,6- + 2,5-DMP
2,9-DMP
1,7-DMP
2-EP+9-EP+3,6-DMP
2,6- + 2,7-EP
3,5-DMP
1,9- + 4,9- + 4,10-DMP
2,3-DMP
1,8-DMP
1,2-DMP
Retene

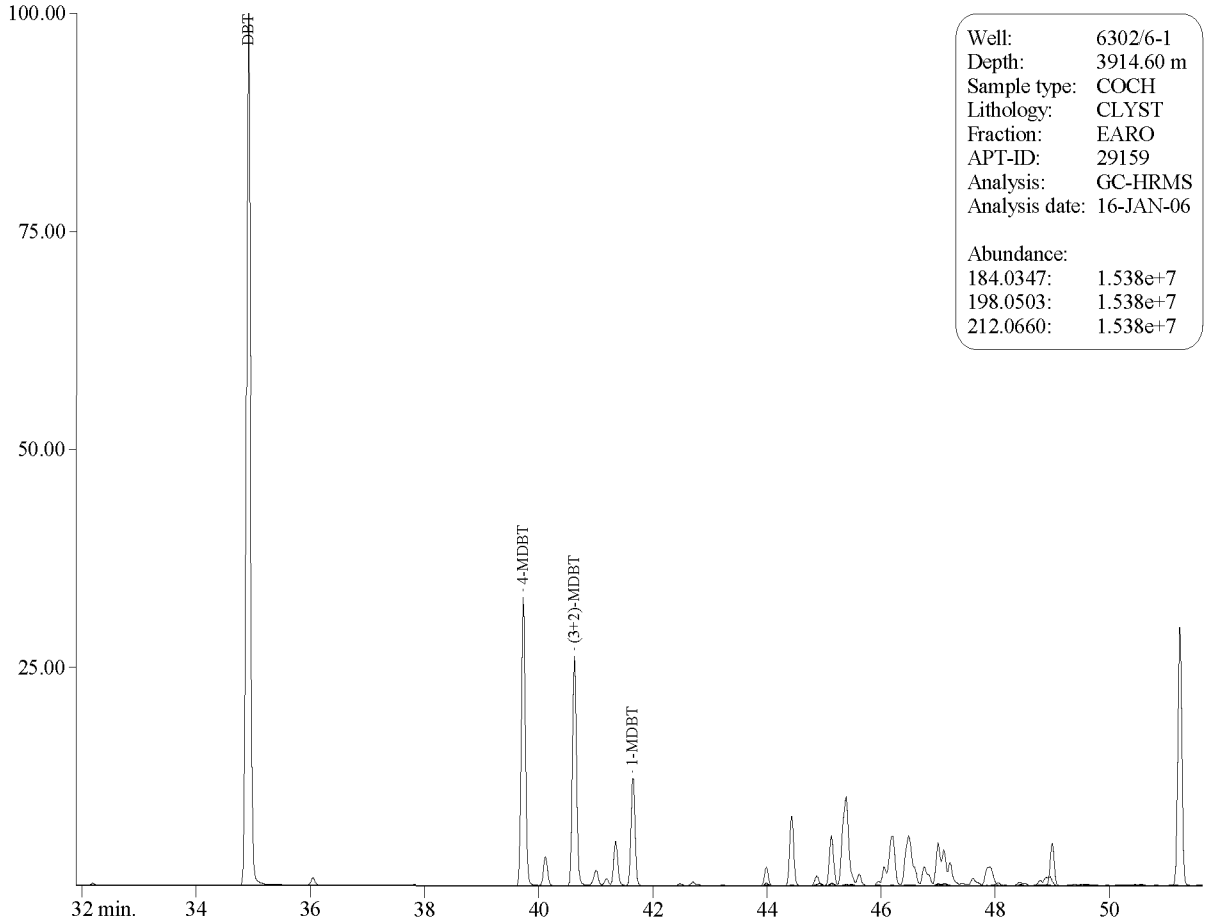

Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OTOP-OARO
APT-ID: 10042T
Analysis: GC-HRMS
Analysis date: 20-NOV-05
Abundance:
184.0347: 5.352e+7
198.0503: 5.352e+7
212.0660: 5.352e+7
DBT
4-MDBT
(3+2)-MDBT
1-MDBT
100.00
75.00
50.00
25.00
32 min.
34
36
38
40
42
44
46
48
50

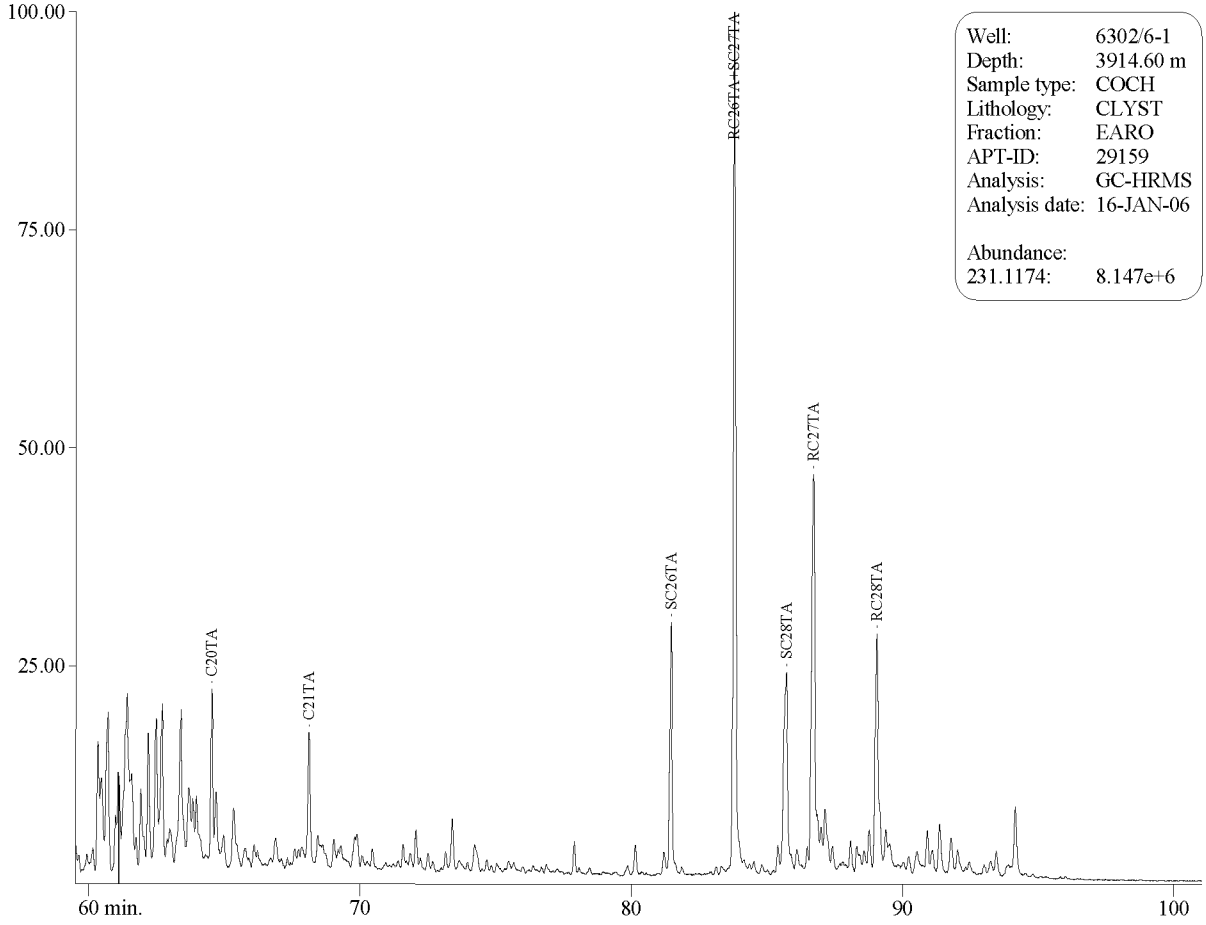

Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OTOP-OARO
APT-ID: 10042T
Analysis: GC-HRMS
Analysis date: 20-NOV-05
Abundance:
231.1174: 2.942e+7
C20TA
C21TA
SC26TA
RC26TA+SC27TA
SC28TA
RC27TA
RC28TA
100.00
75.00
50.00
25.00
60 min.
70
80
90
100

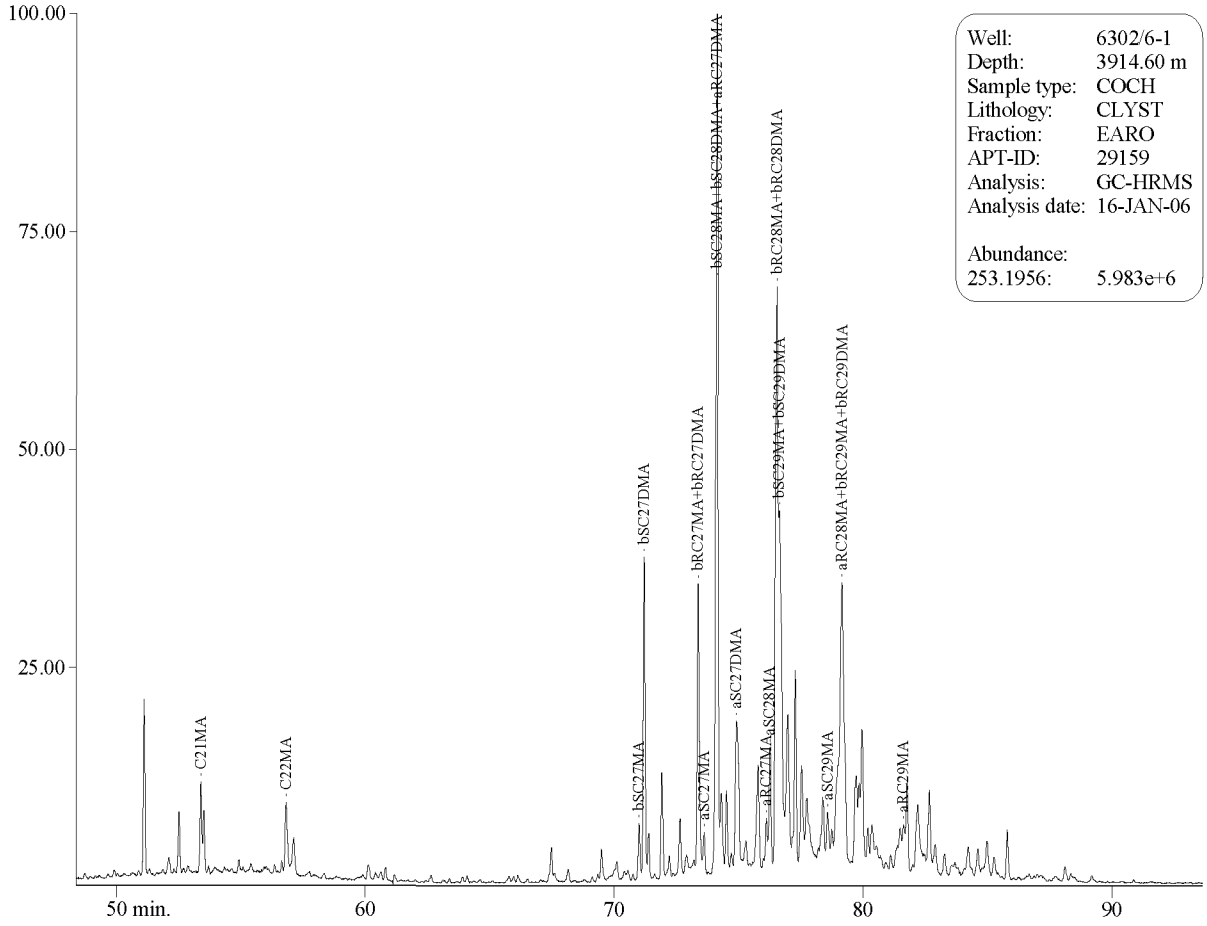

100.00
75.00
50.00
25.00
50 min.
60
70
80
90
C21MA
C22MA
bSC27MA
bSC27DMA
aSC27MA
bRC27MA+bRC27DMA
aSC27DMA
aRC27MA
aSC28MA
aSC29MA
aRC28MA+bRC29MA+bRC29DMA
aRC29MA
Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OTOP-OARO
APT-ID: 10042T
Analysis: GC-HRMS
Analysis date: 20-NOV-05
Abundance:
253.1956: 1.059e+7

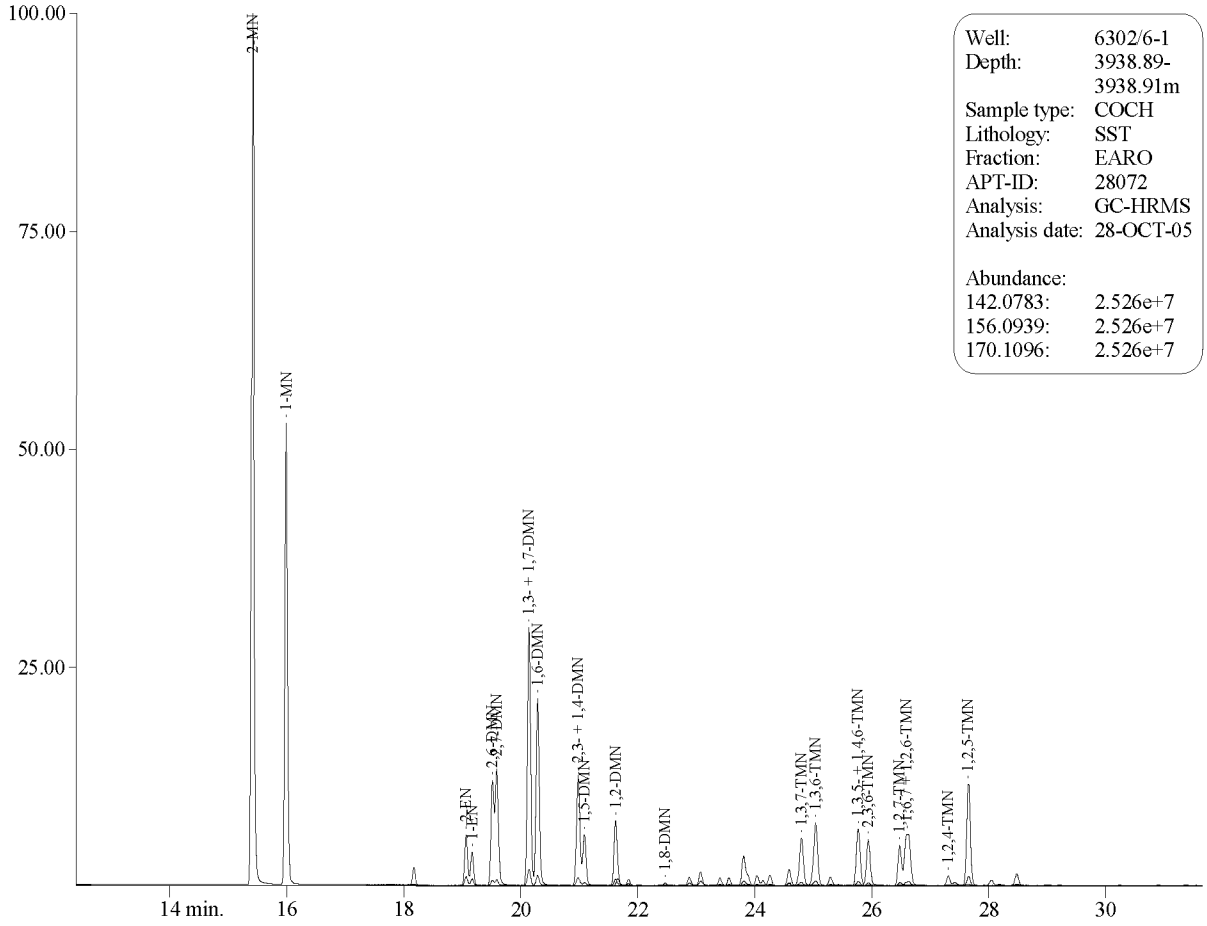

100.00
75.00
50.00
25.00
2-MN
1-MN
1-EN
2,6-DMN
2,7-DMN
1,3- + 1,7-DMN
1,6-DMN
2,3- + 1,4-DMN
1,5-DMN
1,2-DMN
1,8-DMN
1,3,7-TMN
1,3,6-TMN
1,3,5- + 1,4,6-TMN
2,3,6-TMN
1,2,7-TMN
1,6,7- + 1,2,6-TMN
1,2,4-TMN
1,2,5-TMN
14 min.
16
18
20
22
24
26
28
30
Well: 6302/6-1
Depth: 3914.60 m
Sample type: COCH
Lithology: CLYST
Fraction: EARO
APT-ID: 29159
Analysis: GC-HRMS
Analysis date: 16-JAN-06
Abundance:
142.0783: 1.526e+8
156.0939: 1.526e+8
170.1096: 1.526e+8


100.00
75.00
50.00
25.00
P
3-MP
2-MP
9-MP
1-MP
2-EP+9-EP+3,6-DMP
2,6- + 1-EP + 3,5-DMP
1,3- + 2,10- + 3,9- + 3,10-DMP
1,6- + 2,5- + 2,9-DMP
1,7-DMP
1,3- + 4,10-DMP
1,8-DMP
1,2-DMP
Retene
34 min.
38
42
46
50
54
58
Well: 6302/6-1
Depth: 3914.60 m
Sample type: COCH
Lithology: CLYST
Fraction: EARO
APT-ID: 29159
Analysis: GC-HRMS
Analysis date: 16-JAN-06
Abundance:
178.0783: 2.889e+8
192.0939: 2.889e+8
206.1096: 2.889e+8
219.1174: 2.889e+8


100.00
75.00
50.00
25.00
DBT
4-MDBT
(3+2)-MDBT
1-MDBT
32 min.
34
36
38
40
42
44
46
48
50
Well: 6302/6-1
Depth: 3914.60 m
Sample type: COCH
Lithology: CLYST
Fraction: EARO
APT-ID: 29159
Analysis: GC-HRMS
Analysis date: 16-JAN-06
Abundance:
184.0347: 1.538e+7
198.0503: 1.538e+7
212.0660: 1.538e+7


100.00
75.00
50.00
25.00
C20TA
C21TA
SC26TA
RC26TA+RC27TA
SC28TA
RC27TA
RC28TA
60 min.
70
80
90
100
Well: 6302/6-1
Depth: 3914.60 m
Sample type: COCH
Lithology: CLYST
Fraction: EARO
APT-ID: 29159
Analysis: GC-HRMS
Analysis date: 16-JAN-06
Abundance:
231.1174: 8.147e+6


100.00
75.00
50.00
25.00
50 min.
60
70
80
90
C21MA
C22MA
bSC27MA
bSC27DMA
aSC27MA
bRC27MA+bRC27DMA
aSC27DMA
aRC27MA
aSC28MA
bSC28MA+bSC28DMA+aRC27DMA
bSC29MA+bSC29DMA
bRC28MA+bRC28DMA
aSC29MA
aRC28MA+bRC29MA+bRC29DMA
aRC29MA
Well: 6302/6-1
Depth: 3914.60 m
Sample type: COCH
Lithology: CLYST
Fraction: EARO
APT-ID: 29159
Analysis: GC-HRMS
Analysis date: 16-JAN-06
Abundance:
253.1956: 5.983e+6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1-EN
2,6-+2,7-DMN
1,3- + 1,7-DMN
1,6-DMN
1,3- + 1,4-DMN
1,5-DMN
1,2-DMN
1,8-DMN
1,3,7-TMN
1,3,6-TMN
1,3,5- + 1,4,6-TMN
2,3,6-TMN
1,2,7-TMN
1,6,7-TMN
2,6-TMN
1,2,4-TMN
1,2,5-TMN
14 min.
16
18
20
22
24
26
28
30
Well: 6302/6-1
Depth: 3938.89-3938.91m
Sample type: COCH
Lithology: SST
Fraction: EARO
APT-ID: 28072
Analysis: GC-HRMS
Analysis date: 28-OCT-05
Abundance:
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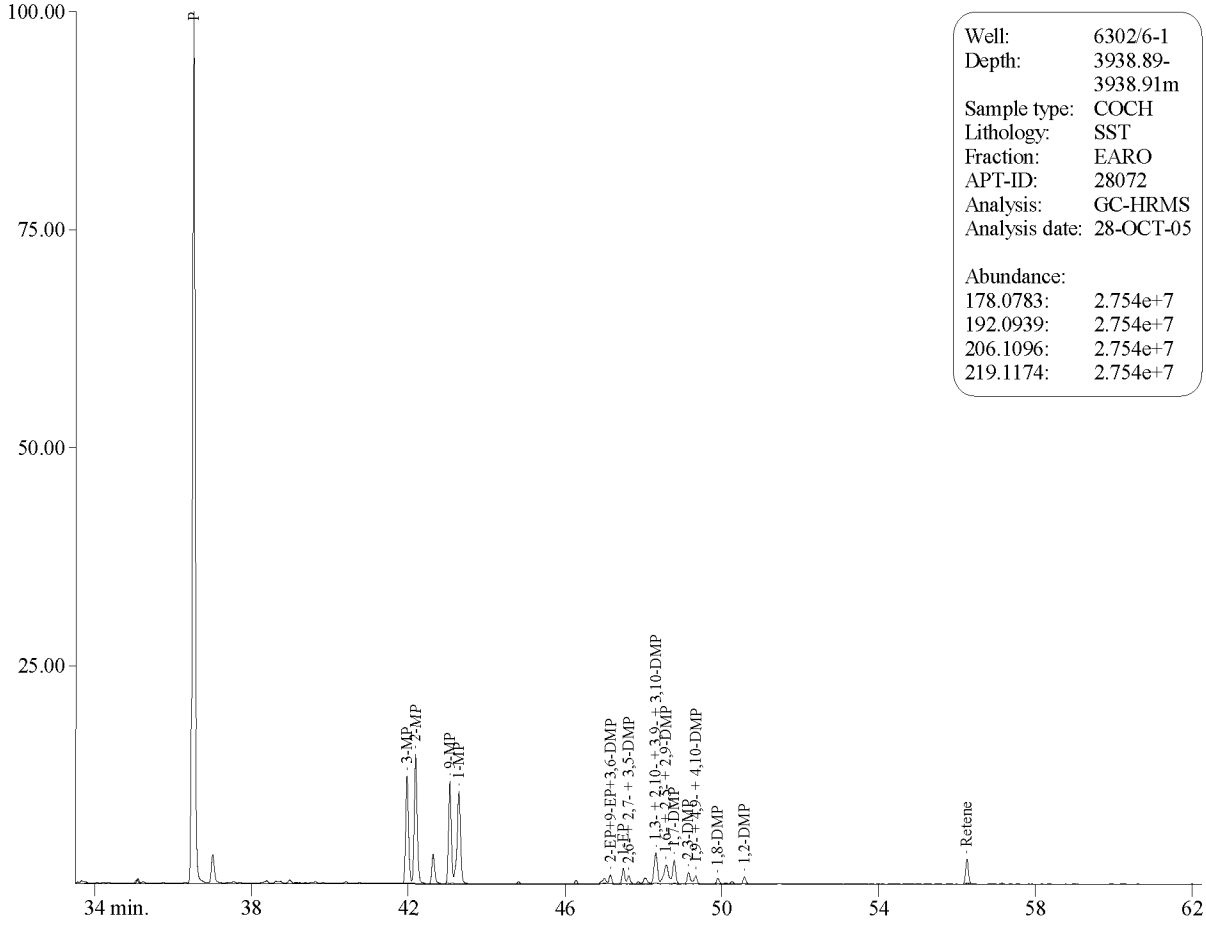
156.0939: 2.526e+7
170.1096: 2.526e+7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9-MP
1-MP
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2,6-EP 2,7- + 3,5-DMP
1,3- + 2,10- + 3,9- + 3,10-DMP
1,6- + 2,3- + 2,9-DMP
1,7-DMP
1,9- + 4,10-DMP
1,8-DMP
1,2-DMP
Retene
34 min.
38
42
46
50
54
58
62
Well: 6302/6-1
Depth: 3938.89-3938.91m
Sample type: COCH
Lithology: SST
Fraction: EARO
APT-ID: 28072
Analysis: GC-HRMS
Analysis date: 28-OCT-05
Abundance:
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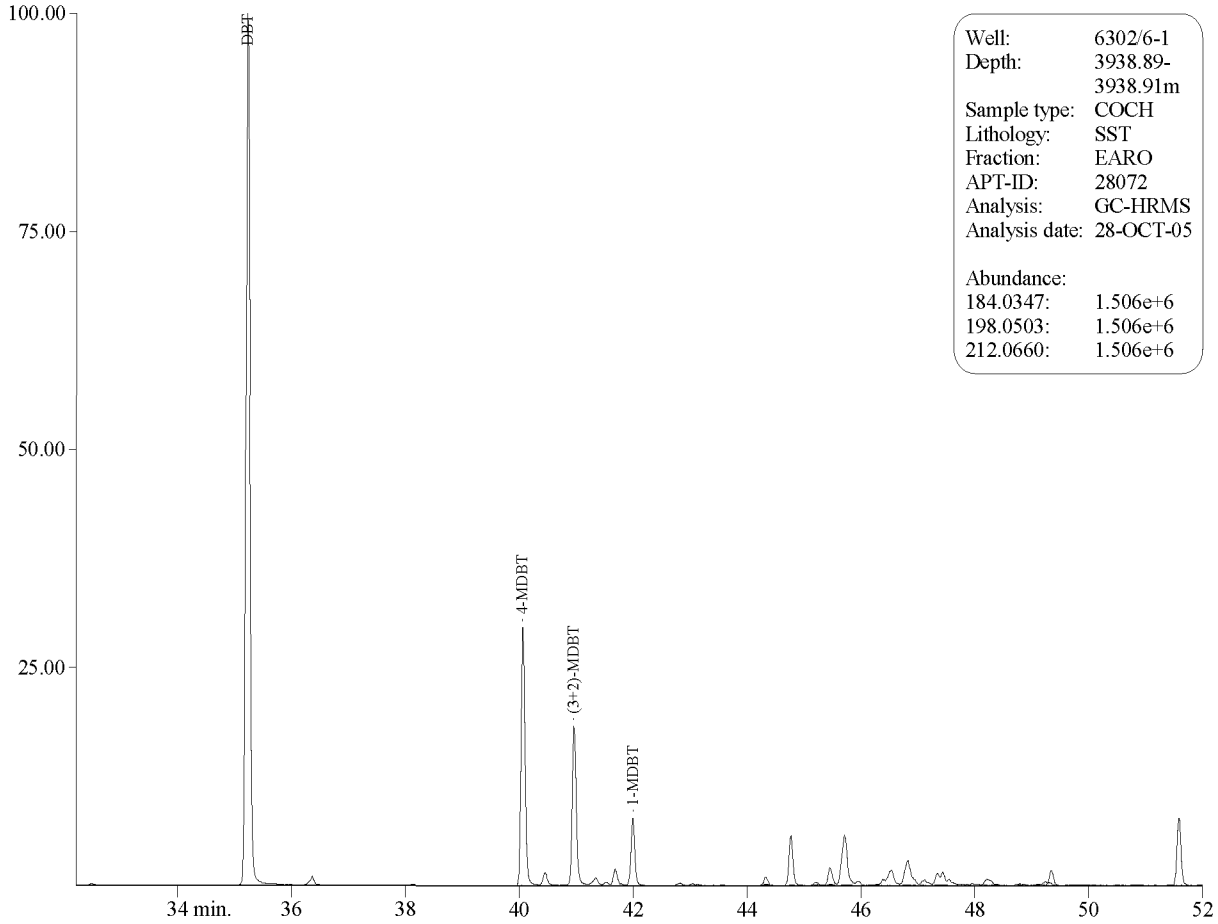
192.0939: 2.754e+7
206.1096: 2.754e+7
219.1174: 2.754e+7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(3+2)-MDBT
1-MDBT
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36
38
40
42
44
46
48
50
52
Well: 6302/6-1
Depth: 3938.89-3938.91m
Sample type: COCH
Lithology: SST
Fraction: EARO
APT-ID: 28072
Analysis: GC-HRMS
Analysis date: 28-OCT-05
Abundance:
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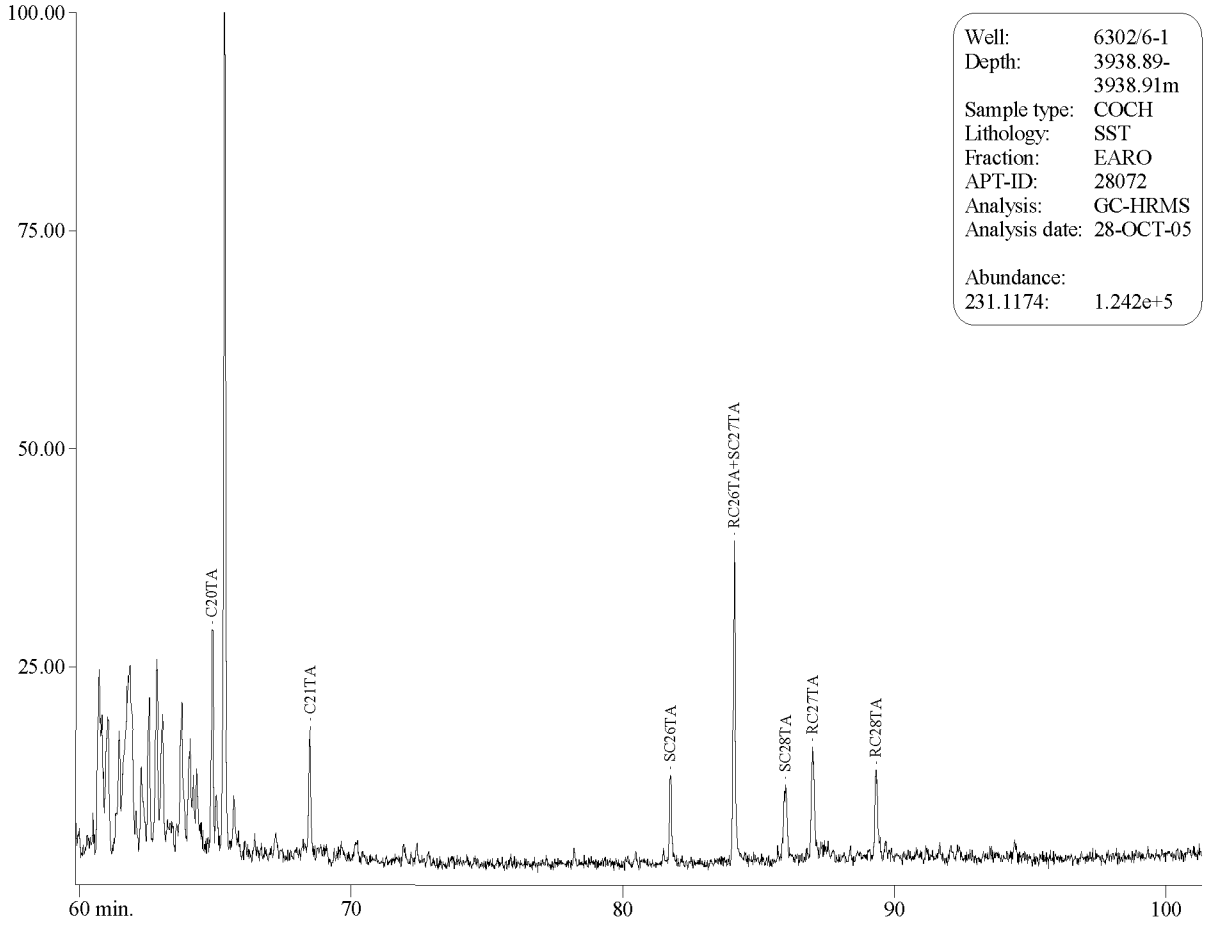
198.0503: 1.506e+6
212.0660: 1.506e+6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50.00
25.00
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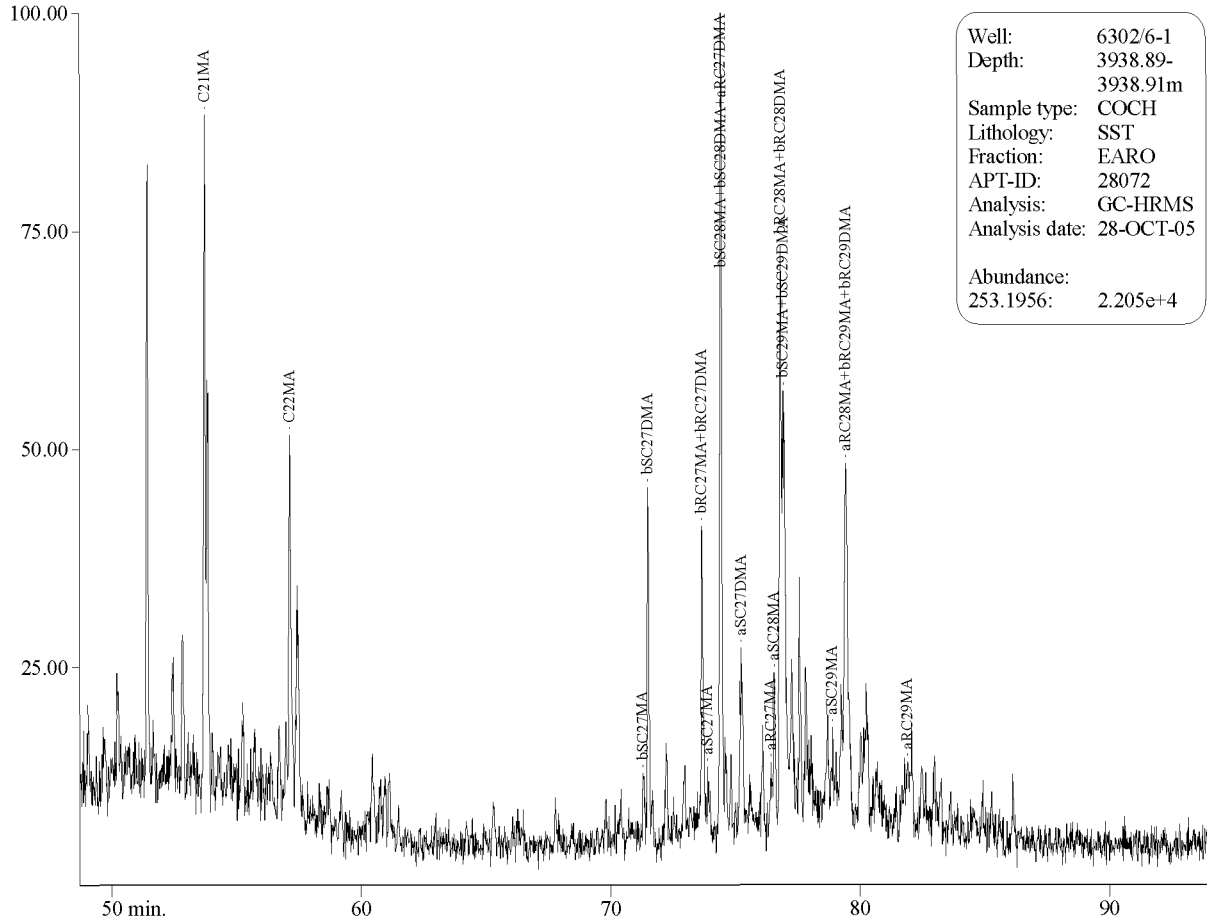
SC26TA
RC26TA+SC27TA
SC28TA
RC27TA
RC28TA
60 min.
70
80
90
100
Well: 6302/6-1
Depth: 3938.89-3938.91m
Sample type: COCH
Lithology: SST
Fraction: EARO
APT-ID: 28072
Analysis: GC-HRMS
Analysis date: 28-OCT-05
Abundance:
231.1174: 1.242e+5


100.00
75.00
50.00
25.00
50 min.
60
70
80
90
C21MA
C22MA
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bRC27MA+bRC27DMA
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aSC27MA
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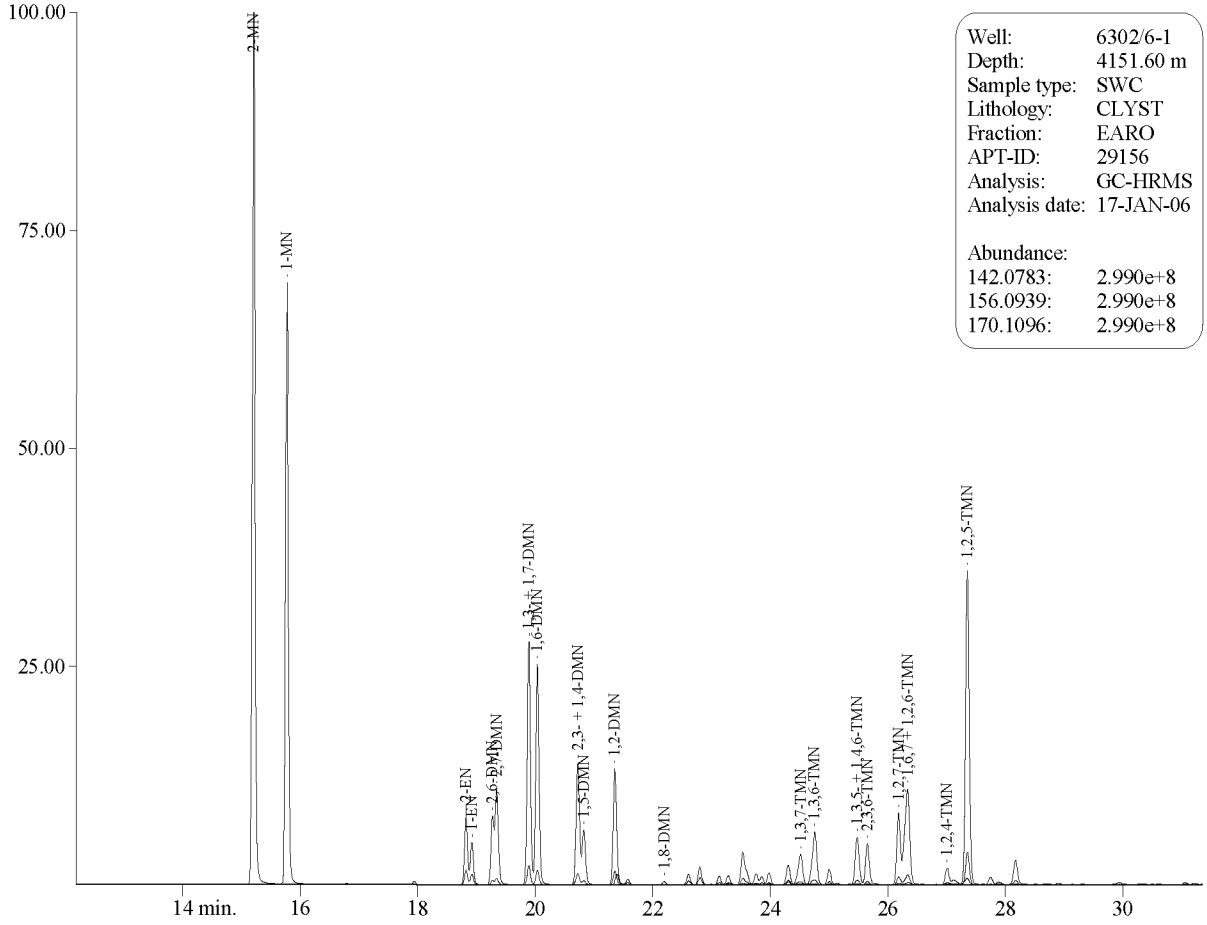
aSC28MA
aSC29MA
aRC29MA
Well: 6302/6-1
Depth: 3938.89-3938.91m
Sample type: COCH
Lithology: SST
Fraction: EARO
APT-ID: 28072
Analysis: GC-HRMS
Analysis date: 28-OCT-05
Abundance:
253.1956: 2.205e+4



Well:	6302/6-1
Depth:	4151.60 m
Sample type:	SWC
Lithology:	CLYST
Fraction:	EARO
APT-ID:	29156
Analysis:	GC-HRMS
Analysis date:	17-JAN-06
Abundance:	
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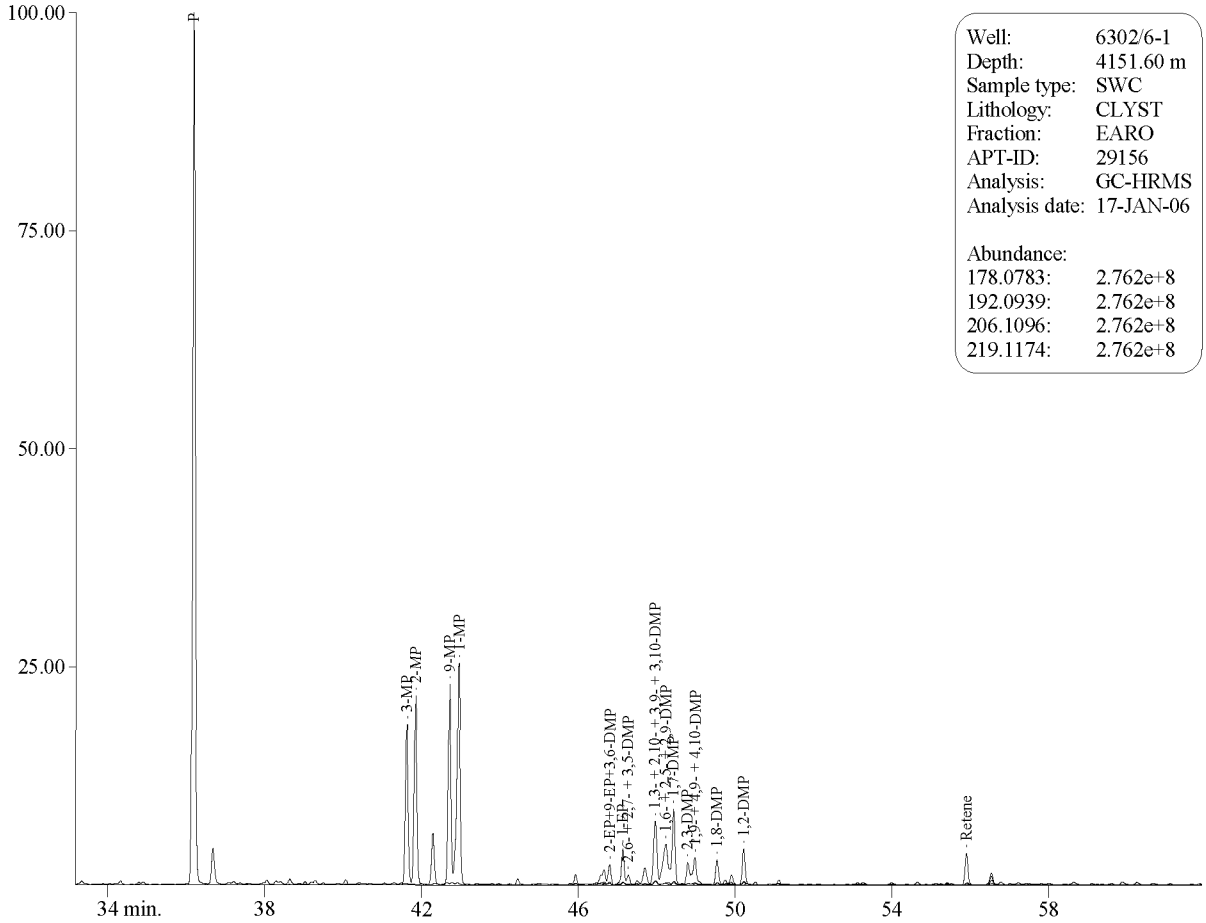
156.0939:	2.990e+8
170.1096:	2.990e+8



Well:	6302/6-1
Depth:	4151.60 m
Sample type:	SWC
Lithology:	CLYST
Fraction:	EARO
APT-ID:	29156
Analysis:	GC-HRMS
Analysis date:	17-JAN-06
Abundance:	
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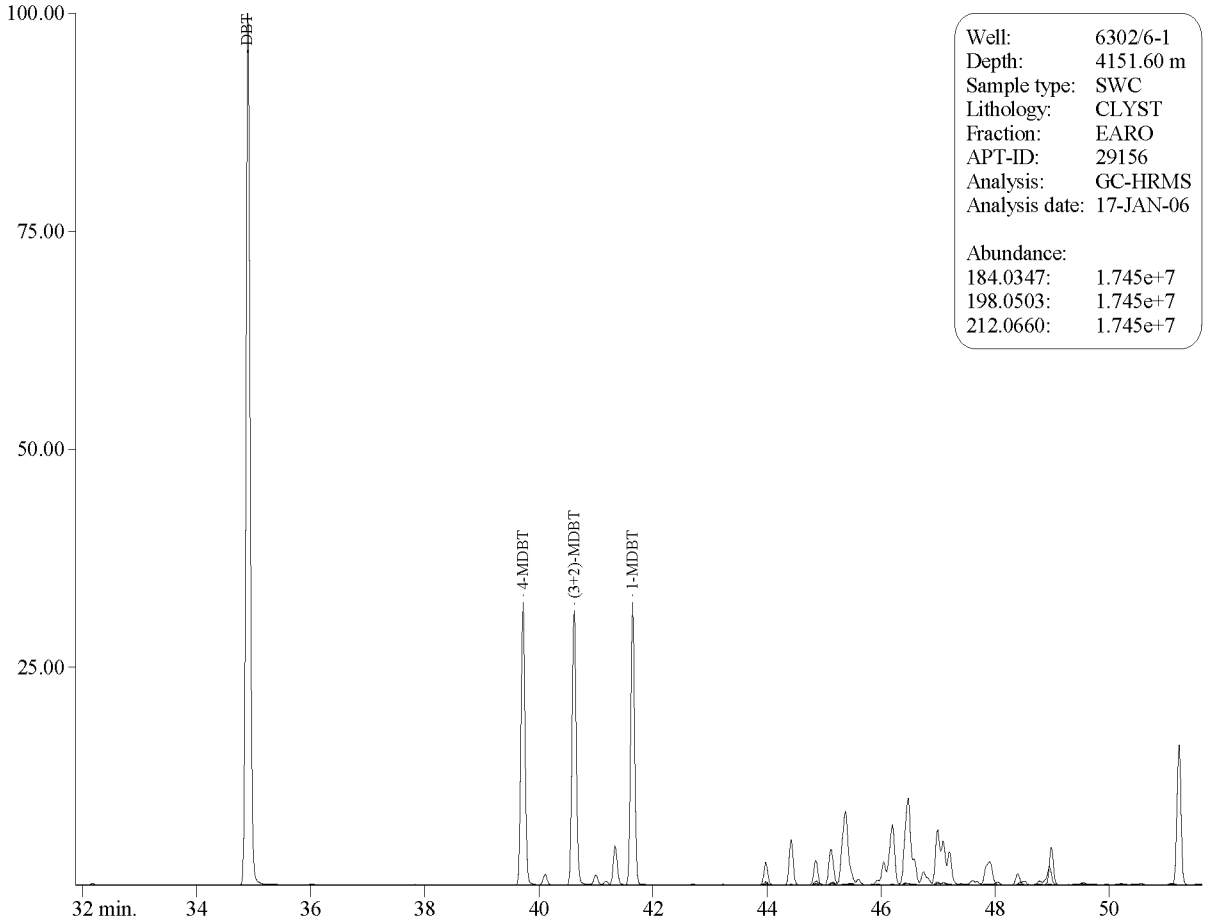
192.0939:	2.762e+8
206.1096:	2.762e+8
219.1174:	2.762e+8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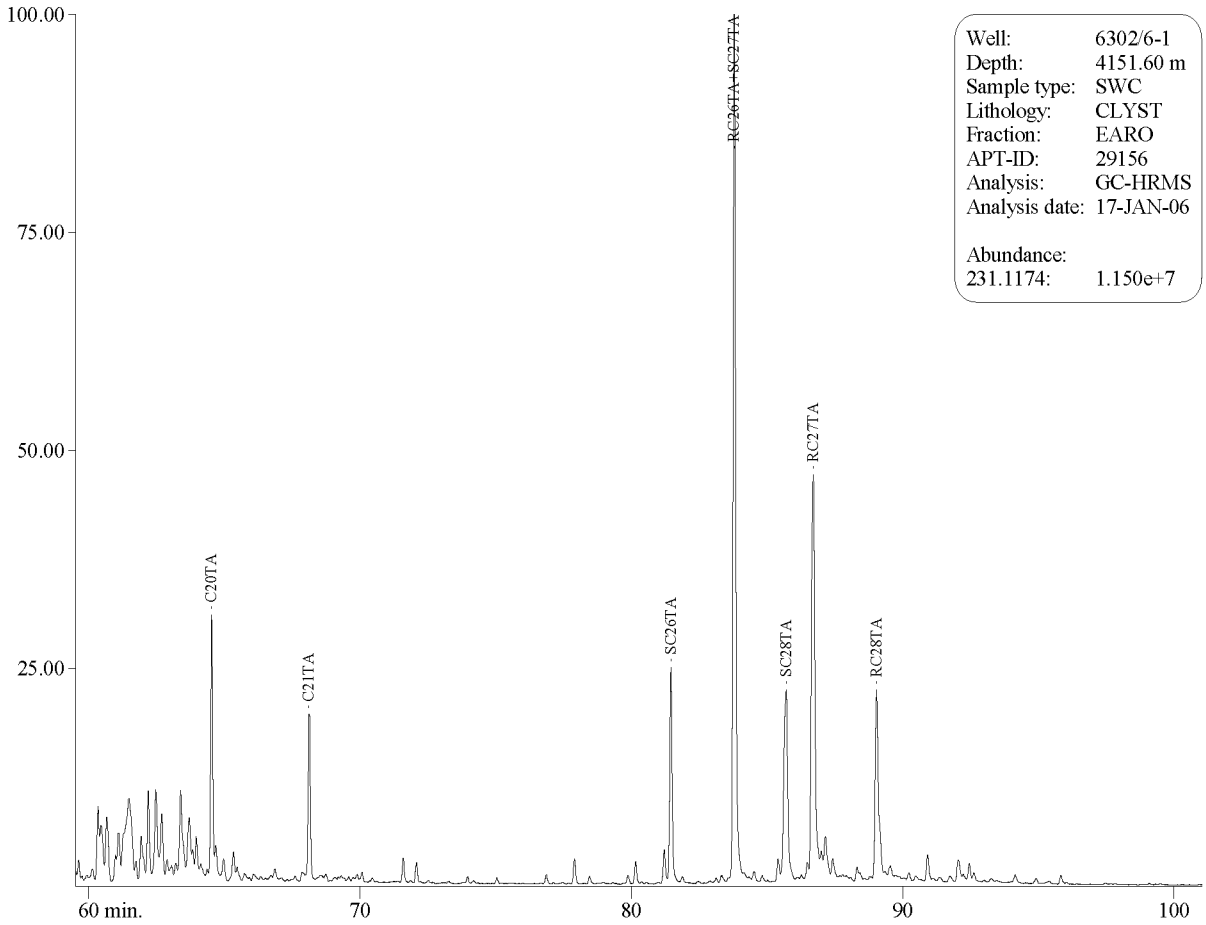
DBT
4-MDBT
(3+2)-MDBT
1-MDBT
32 min.
34
36
38
40
42
44
46
48
50
Well: 6302/6-1
Depth: 4151.60 m
Sample type: SWC
Lithology: CLYST
Fraction: EARO
APT-ID: 29156
Analysis: GC-HRMS
Analysis date: 17-JAN-06
Abundance:
184.0347: 1.745e+7
198.0503: 1.745e+7
212.0660: 1.745e+7


100.00
75.00
50.00
25.00
C20TA
C21TA
SC26TA
RC26TA+SC27TA
SC28TA
RC27TA
RC28TA
60 min.
70
80
90
100
Well: 6302/6-1
Depth: 4151.60 m
Sample type: SWC
Lithology: CLYST
Fraction: EARO
APT-ID: 29156
Analysis: GC-HRMS
Analysis date: 17-JAN-06
Abundance:
231.1174: 1.150e+7

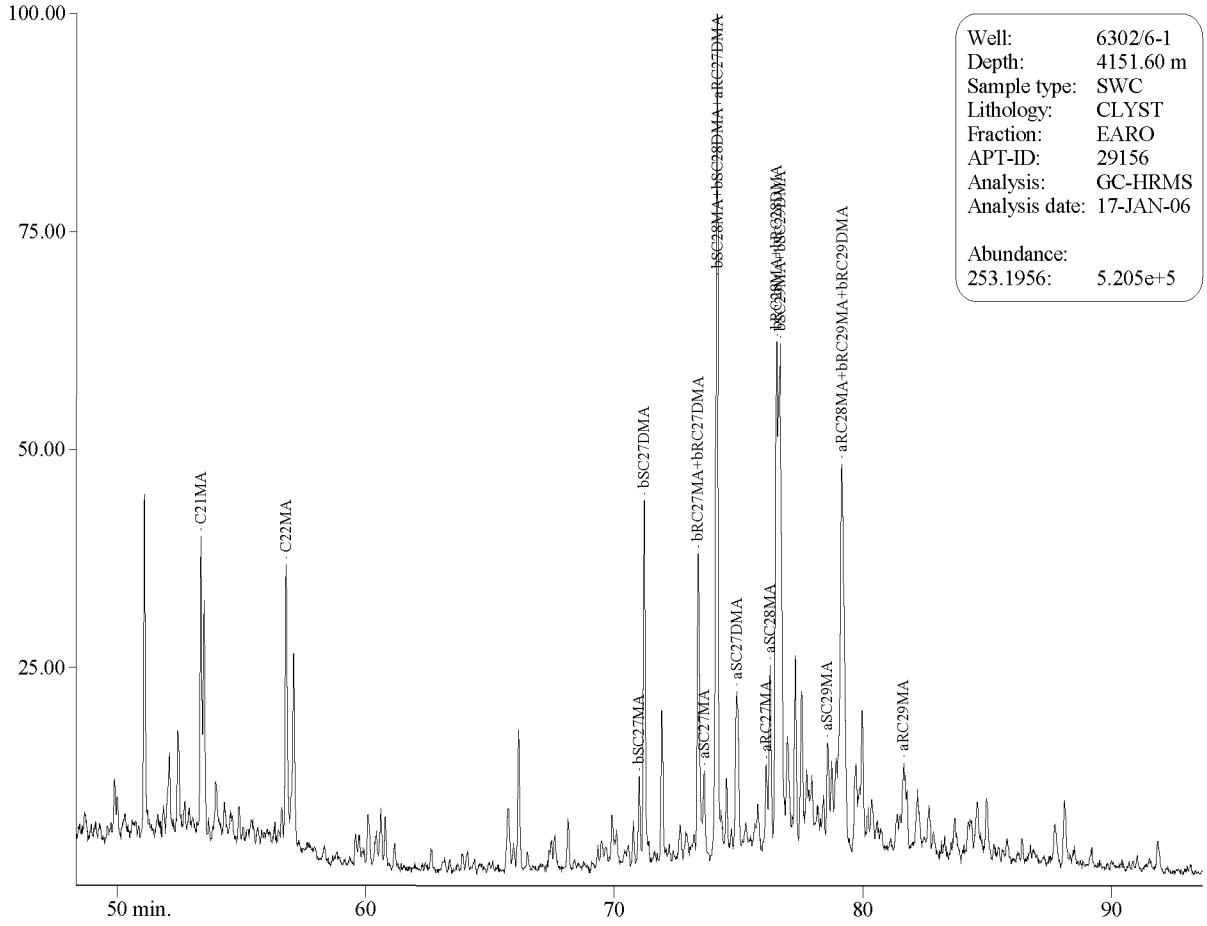

100.00
75.00
50.00
25.00
50 min.
60
70
80
90
C21MA
C22MA
bSC27MA
bRC27MA+bRC27DMA
bSC28MA+bSC28DMA+aRC27DMA
aSC27DMA
aRC27MA
aSC28MA
aSC27MA
aSC29MA
aRC28MA+bRC29MA+bRC29DMA
aRC29MA
Well: 6302/6-1
Depth: 4151.60 m
Sample type: SWC
Lithology: CLYST
Fraction: EARO
APT-ID: 29156
Analysis: GC-HRMS
Analysis date: 17-JAN-06
Abundance:
253.1956: 5.205e+5

Table 20. Reference data for GC of Saturated Compounds measured on NSO-1

Variable	Permissible range	Most likely value	28.10.05	12.12.05	09.01.06	09.01.06	10.01.06
Pr/n-C17	0.55-0.66	0.60	0.61	0.62	0.63	0.62	0.63
n-C15/n-C20	1.4-2.0	1.8	1.9	1.5	1.6	1.6	1.6
n-C30/n-C20	0.20-0.32	0.29	0.28	0.29	0.31	0.30	0.31
n-C17/(n-C17+n-C27)	0.75-0.82	0.79	0.78	0.76	0.76	0.76	0.76

Table 21. Reference data for GC-MS of Saturated Compounds measured on NSO-1

Variable	Permissible range	Most likely value	27.10.05	27.10.05	14.11.05	14.11.05	14.12.05	14.12.05	13.01.06	14.01.06
[23/3]/30ab	0.04-0.09	0.07	0.06	0.06	0.05	0.05	0.05	0.06	0.05	0.05
35abR/30ab	0.06-0.13	0.08	0.08	0.08	0.09	0.09	0.08	0.08	0.08	0.08
25nor30ab/25nor28ab	0.3-0.8	0.5	0.78	0.75	0.84	0.80	0.84	0.78	0.82	0.84
29aaR/27dbS	0.2-0.6	0.3	0.27	0.27	0.28	0.27	0.29	0.27	0.27	0.28
29bbS/27bbR	0.7-1.2	0.9	0.97	1.00	0.93	0.96	0.98	0.99	0.99	1.00

Our column resolves the 25nor28αβ doublet, thus giving a value in the high-end region of the acceptable range specified by NIGOGA.

Table 22. Reference data for GC-MS of Aromatic Compounds measured on NSO-1

Variable	Permissible range	Most likely value	28.10.05	20.11.05	15.12.05	15.12.05	16.01.06	17.01.06
1-MP/P	0.53-0.70	0.59	0.63	0.61	0.62	0.64	0.62	0.65
A1/E1	0.3-0.7	0.5	0.51	0.51	0.49	0.49	0.50	0.50
a1/d1	0.2-0.4	0.31	0.40	0.36	0.35	0.35	0.36	0.36

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.

Deasphaltening
Extracts are evaporated almost to dryness before a small amount of dichloromethane (3 times the amount of EOM) is added. Pentane is added in access (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.

TOC and Rock-Eval
A Rock-Eval 6 instrument is used. The analysis is performed in two steps, pyrolysis and oxidation, when TOC is measured. Jet-Rock 1 was run as every tenth sample and checked against the acceptable range given in NIGOGA.

Temperature programme
Pyrolysis: 300 °C (3 min.) - 25 °C/min. - 650 °C (0 min.)
Oxidation: 400 °C (3 min.) - 25 °C/min. - 850 °C (5 min.)

Rock-Eval, Reservoir cycle
A Rock-Eval 6 instrument is used. The analysis is performed in two steps, pyrolysis and oxidation, when TOC is measured. Jet-Rock 1 was run as every tenth sample and checked against the acceptable range given in NIGOGA.

Temperature programme
Pyrolysis: 180 °C (10 min.) - 10 °C/min. - 650 °C (1 min.)
Oxidation: 400 °C (3 min.) - 25 °C/min. - 450 °C (5 min.) - 25 °C/min. 850 °C (0 min.)

Bulk Kinetics
A Rock-Eval 6 instrument is used. The sample are run with 5 different rates.

Temperature programme
1 Pyrolysis: 300 °C (3 min.) - 1 °C/min. - 650 °C (0 min.)
2 Pyrolysis: 300 °C (3 min.) - 5 °C/min. - 650 °C (0 min.)

3 Pyrolysis: 300 °C (3 min.) - 15 °C/min. - 650 °C (0 min.)
4 Pyrolysis: 300 °C (3 min.) - 25 °C/min. - 650 °C (0 min.)
5 Pyrolysis: 300 °C (3 min.) - 50 °C/min. - 650 °C (0 min.)

Iatroscan
An Iatroscan MK-5 (TLC/FID Analyser) instrument is used. 2 µl of extract or diluted oil is spotted on Chromarod S-III rods before elution in hexane (25 min), toluene (8 min) and dichloromethane with 7 % methanol (vol/vol). The solvent is allowed to evaporate before the rods are placed into the next eluation chamber. Before running the rods in the analyser, the rods are heated for 90 sec. in a heating chamber at 60 °C.

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.

API Gravity (°) = 141.5/Density (g/cm^3) – 131.5

Topping
A rotavapor is used and ~ 1ml of oil is weighted accurately into a small round bottum flask. The oil is evaporated for 15 min at 90°C with the water pump turned to maximum. After the evaporation the oil is weighted again.
One aliquot of NSO-1 is run as a reference sample together with the topping series.

GC analysis of gas components
Aliquots of the samples were transferred to exetainers. 0.1-1ml were sampled using a Gerstel MPS2 autosampler and injected into a Hewlett Packard 5890 Series II GC equipped with Porabond Q column, a flame ionisation detector (FID), a thermal conductivity detector (TCD) and a methylization unit. Hydrocarbons were measured by FID, CO_2 by metylization (to CH_4) and then FID and N_2 and O_2 by TCD.

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 CO_2 and water in a 1000 ºC furnace over Cu/Ni/Pt. The water was removed by Nafion membrane separation. Repeated analyses of standards indicate that the reproducibility of $\delta^{13}C$ 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 H_2 and coke in a 1400 ºC 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).

Stable carbon isotope analysis of fractions
The samples are dissolved in a known amount of dichloromethane, and 1-2 mg of the sample (or as much as possible) is then transferred to a glass container. The solvent is evaporated in an oven at 50 °C. CuO and some silver wires are added to the containers, which are then sealed by melting in a vacuum. The samples are then combusted in an oven at 550 °C for 1 hour (Sofer, 1980). The combustion products CO_2 and H_2O are separated at –80°C before the isotopic ratio is determined on a Finnigan MAT 251 mass spectrometer.

A standard (NGS NSO-1, topped oil) is analysed for each 10^{th} sample. The $\delta^{13}C$ value obtained for this standard is –28.77 ‰ PDB. The variation in the isotopic values for the standard by repeated analysis over a period of five years is ± 0.13 ‰.

GC of saturated fraction
A HP5890 II instrument is used. The column is a CP-Sil-5 CB-MS, length 60 m, i.d. 0.25 mm, film thickness 0.25 µm. C20D42 is used as an internal standards.

Temperature programme
50 °C (1 min.) - 4 °C/min. - 320 °C (25 min.)

GC of aromatic fraction
A HP5890 instrument is used. The column is a CP-Sil-5 CB-MS, length 60 m, i.d. 0.25 mm, film thickness 0.25 µm.

Temperature programme
50 °C (1 min.) - 4 °C/min. - 320 °C (25 min.)

GCMS of saturated fractions
A Micromass ProSpec high resolution instrument is used. The instrument is tuned to a resolution of 3000 and data is acquired in Selected Ion Recording (SIR) mode. The column used is a 60 m CP-Sil-5 CB-MS with an i.d. of 0.25 mm and a film thickness 0.25 µm. d4-27ααR is used as internal standard when quantitative results are requested.

Temperature programme
50 °C (1 min.) - 20 °C/min. - 120 °C - 2 °C/min - 320 °C (20 min.)

GCMS of aromatic fractions
A Micromass ProSpec high resolution instrument is used. The instrument is tuned to a resolution of 3000 and data is acquired in Selected Ion Recording (SIR) mode. The column used is a 60 m CP-Sil-5 CB-MS with an i.d. of 0.25 mm and a film thickness 0.25 µm. D_8-naphthalene and D_{10}-phenanthrene are used as internal standards when quantitative results are required for the aromatic compounds.

Temperature programme
50 °C (1 min.) - 20 °C/min. - 120 °C - 2 °C/min - 320 °C (20 min.)

GCMS-MRM of age specific biomarkers
A Micromass ProSpec high resolution instrument is used. Data is acquired in Metastable Reaction Monitoring (MRM) mode. The column used is a 60 m CP-Sil-5 CB-MS with an i.d. of 0.25 mm and a film thickness 0.25 µm.

Temperature programme
50 °C (1 min.) - 20 °C/min. - 225 °C - 2 °C/min - 300 °C - 20 °C/min. - 320 °C (20 min.)

Vitrinite reflectance analysis
The samples are prepared either as "whole rock" or are treated with hydrochloric and hydrofluoric acid prior to further preparation. The aim of the acid treatment is to avoid soft and expanding mineral phases in order to ensure good polishing quality. The whole rock or the kerogen resulting from the acid treatment is embedded in an epoxy resin to make briquettes, ground flat and polished using 0.25 micron diamond paste and magnesium oxide as the two final steps.

The analytical equipment used is a Zeiss MPM 03 photometer microscope equipped with an Epiplan-Neofluar 40/0.90 oil objective. The sensitive measuring spot is kept constant for all measurements at about 2.5 micron in diameter. The measurements are made through a green band pass filter (546 nm) and in oil immersion (refractive index 1.515 at 18 °C). The readings are made without a polarizer and using a stationary stage. This procedure is called measurement of random reflectance (%Rm). The photometer is calibrated daily against a standard of known reflectance (%Rm = 0.588) and routinely (daily) checked against two other standards of significant different reflectances (%Rm = 0.879 and 1.696). A deviation from these values of less than ± 0.01 and ± 0.02 respectively is considered acceptable. The calibration is routinely checked during the course of measurements at least every hour, and a deviation of less than ± 0.005 is considered acceptable.

For each sample at least 20 points are measured if possible, and quality ratings are given to various important aspects, which may affect the measurements. These aspects are abundance of vitrinite, uncertainties in the identification of indigenous vitrinite, type of vitrinite, particle size, particle surface quality and abundance of pyrite.