Geochemistry Data Report –
Sydney Basin Offshore Piston Cores

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1 Executive Summary

Nova Scotia Department of Energy organized a piston-coring cruise in the Sydney Basin, offshore Cape Breton Island that took place June-July, 2017 using the RV Coriolis. The objective was to detect seepages of thermogenic hydrocarbons in this area and, if possible, to determine if they have an oil-prone source rock, in order to encourage new oil and gas exploration. Piston Cores were collected from thirteen sites with three sediment samples and one headspace sample analyzed from each core. Fewer sites were cored than planned because the Coriolis experienced technical problems towards the end of the cruise. No oil slick samples were analyzed as no potential candidates were encountered.

The headspace gas samples show no evidence for thermogenic hydrocarbons. The only hydrocarbon gas detected was methane in concentrations too low for isotopic analysis. There was also weak evidence for the presence of subsurface petroleum seepage from the analyses of any of the sediment samples. However, two samples from site 15 have a higher relative abundance of C_{15}-C_{20} n-alkanes than other samples and show small, but consistent, indications of having a component of higher maturity hydrocarbons based on saturate and aromatic maturity parameters. One of the site 15 samples also contains diamondoids in similar concentrations to some 2016 offshore Nova Scotia piston core samples that were suspected to be in possible proximity to petroleum seeps, although much less than the 2016 site 41 sample that had much the best evidence for thermogenic hydrocarbons. One of the samples from site 18, the closest site to 15 where samples were collected for geochemistry, was the site that shows the next best evidence for a component of more thermally mature hydrocarbons in the area. The source of the thermogenic hydrocarbons at sites 15 and 18 cannot be determine and there is nothing to indicate that they could have a Carboniferous-aged lacustrine source rock, the most likely based on onshore geology. Hence there may be a petroleum seep in the vicinity of sites 15 and 18 but, based on present evidence, this is far from conclusive.

2 Introduction

Naturally occurring hydrocarbon seeps can provide evidence of working petroleum systems in areas that have not been drilled. They can be detected by satellite imagery and surface cores. Satellite evidence is often subjective and hence is usually followed up with surface core sampling to provide stronger evidence of actual occurrence. Geochemical analysis of the core samples can differentiate biogenic and thermogenic hydrocarbons and, if the latter are present, potentially identify possible petroleum systems including the age and type of source rock. The geochemical work on samples from this cruise is being done in collaboration with microbiological investigations of the cores for petroleum seepage at the University of Calgary by Hubert and co-workers.

This report presents the geochemical data obtained from the June-July 2017, offshore Nova Scotia piston-coring cruise, that was organized by the Nova Scotia Department of Energy. The 2017 cruise took place in the Sydney Basin, offshore Cape Breton Island (Fig. 1). It used the RV Coriolis. The objective was to detect seepages of thermogenic hydrocarbons in this area, and in particular, to determine if any of these of hydrocarbons could have an oil-prone source rock. Based on the known petroleum geology of the Sydney Basin, a Carboniferous lacustrine interval would be the most likely source rock for any petroleum seepage (Fowler and Webb, 2017b).

A problem was encountered towards the end of the cruise when the Coriolis experienced a hydraulic malfunction of the A-frame, making piston-coring non-viable. This occurred unfortunately over the 'Donkin Block' where gas seeps were a possibility because of the underlying shallow coals. The firm, sandy seafloor over this area also did not yield any gravity cores. As a final resort, two grab samples were taken, however due to the surficial nature of the samples they were not sampled for geochemistry, although they were examined by the on-board geochemist. Grab samples were taken by the University of Calgary Microbiology and the Geological Survey of Canada-Atlantic teams.

In 2017, a total of 39 sediment samples and 13 headspace gas samples were collected from 13 different piston coring sites. No oil slick samples were obtained as no slicks were encountered during the cruise. Locations of the sampling sites, water depth at the sampling location, the type of sample and some comments on the core are provided in Table 1. As indicated in this table, most samples are red brown muds. Very few sands were cored which are the preferred lithology for identifying indications of seeps. A map of the locations is shown in Figure 1.

Recovered cores were up to 10 m long but generally significantly less was obtained. Cores were inspected for indications of obvious hydrocarbon staining or odour and sandier horizons. Examples of samples are shown in Figure 2. A sample was collected immediately after core retrieval from each core near the base for the headspace gas sample. This was put into a 500 ml isojar and flushed with nitrogen before sealing. Multiple samples were collected from each core for extraction, ranging from the deepest portion to within about a metre or so of the top of the core. Replicate samples were collected at each depth. Samples were wrapped in Aluminium foil, placed in Ziploc bags and stored at -20°C to -30°C until analysis.

Gas samples were analysed for their composition. Unfortunately, there was insufficient hydrocarbons for isotopic analyses. Sediment samples were analysed for their Total Organic Carbon (TOC) content, extracted and the total extractable organic matter (EOM) analysed by gas chromatography (GC-EOM). The samples have low TOC contents, ranging from 0.07 to 0.58%. A subset of thirteen total extracts was selected for more detailed analysis based on the appearance of their GC EOM chromatographs. The samples underwent asphaltene precipitation followed by quantitative MPLC (medium pressure liquid chromatography) and were analysed by Gas Chromatography – Mass Spectrometry (GC-MS). Four samples from sites 15, 18 and 20 were selected for diamondoid and isotopic analysis (saturate and aromatic fractions). Details of the analytical methods can be found in the ‘Experimental Procedures’ section at the back of this report. Note sample NSO-1 is the laboratory standard.

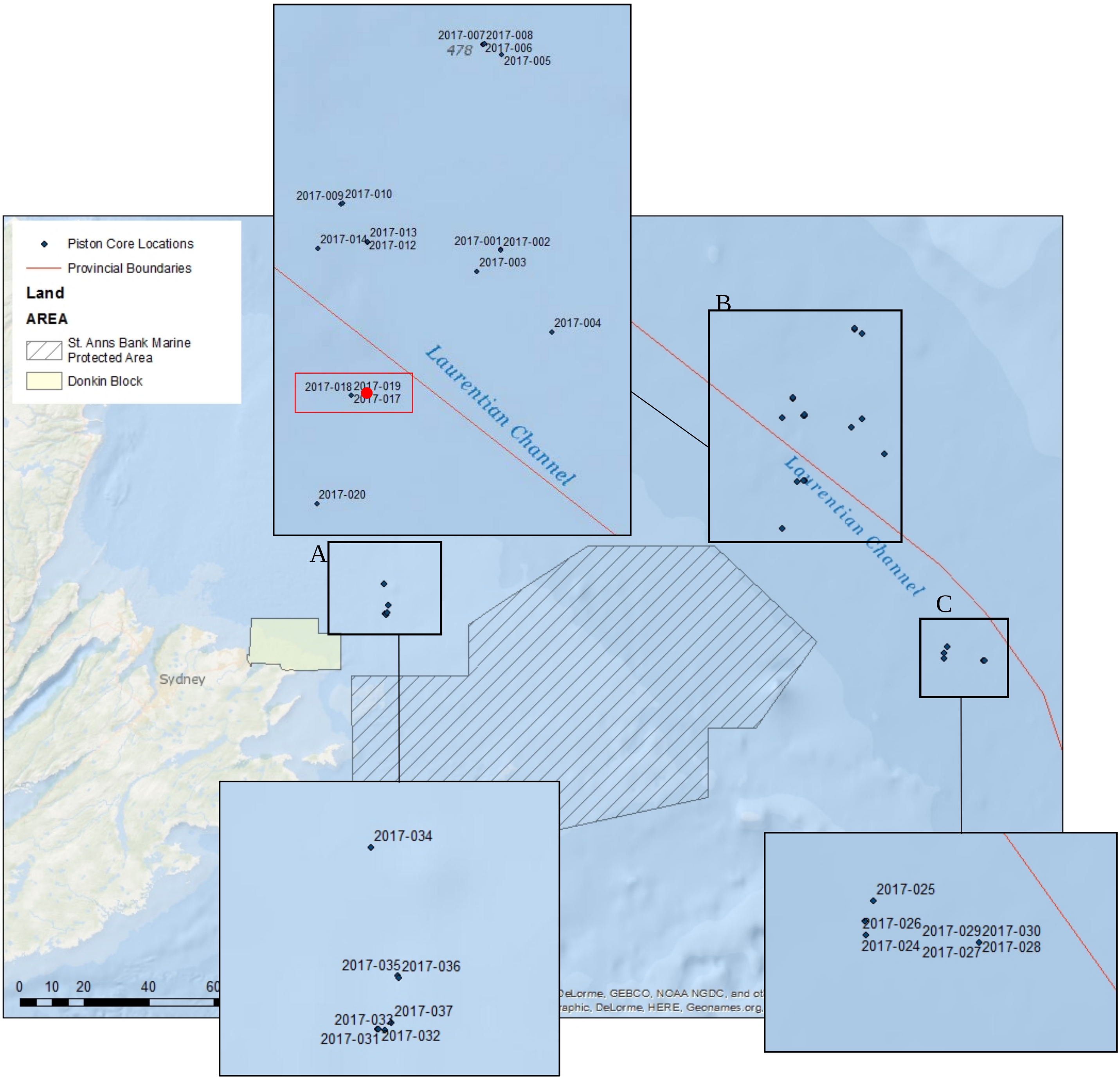


Figure 1. Map of locations of 2017 Piston Coring samples, Sydney Basin, offshore Nova Scotia with Area of Interest denoted by red box (enhanced below) and Site 2017-015 denoted by red point

Figure 1b. Map of Area of Interest

Figure 2. Examples of sediment samples collected during 2017 cruise. All of these samples are dominated by red brown mud, although there is a thin (~2 cm thick) coarse sand layer in the centre of the site 20 3.70-3.75 m sample.

3 Analysis

3.1 Headspace Gas Analyses

Results from the compositional analyses of headspace gas samples are presented in Table 7. Six of the thirteen samples contained no detectable hydrocarbon gases. These were from sites 3, 20, 21, 24, 27 and 30. In the remaining samples, methane was the only hydrocarbon gas detected. It was present in low concentrations, comprising just 0.047 to 0.19% of the 'Total Hydrocarbon Gases' (THCG) with carbon dioxide making up almost all the rest of the THCG which only constitute 3223 – 12024 ppm of the headspace gas volume. These concentrations of methane were too low, even with pre-concentration, for isotopic analyses. Site 15 had the lowest abundance of THCG but the highest concentration of methane.

3.2 Analysis of Sediment Samples

Sediment samples were selected for analysis (Table 1) based a combination of depth coverage and lithology with sandier zones favoured. Unlike the 2015 and 2016 cruises on the Scotian Slope, none of the cores showed evidence of gas leakage. The sediment samples were analyzed for their TOC content, extracted and the extracts analyzed by gas chromatography (GC). Thirteen samples were selected for gas chromatography – mass spectrometry (GC-MS).

The 2017 piston core samples have low TOC contents (0.07-0.58%) and show a similar range to the 2016 samples (0-0.64%) obtained from the deep-water Scotian Slope (Fowler and Webb, 2017a). The amounts of extract obtained from the samples were low, ranging from 1.9 to 15.3 mg which, if normalized to mg/kg rock extracted (i.e. ppm), gives a range of 34 to 249 mg/kg rock. Site 7 6.93-6.98 m sample gave the highest amount of extract and the highest amount of extract per kg of rock.

The EOM-GCs show some variation between samples. Most common are gas chromatograms that show low amounts of earlier eluting n-alkanes (C_{15}-C_{20}) and much higher amounts of C_{23}-C_{33} n-alkanes having a pronounced odd carbon number preference derived from higher land plant waxes, with a large late-eluting Unresolved Complex Mixture (UCM) hump (Fig. 3a). Other samples have EOM-GCs with greater amounts of C_{15}-C_{20} n-alkanes (e.g. Fig 3b). This is most evident in the site 15 2.10-2.15 and 2.80-2.85 samples, but also to a lesser degree by site 18 5.05-5.10 m and site 20 5.11-5.16 m samples. For the site 15 samples this is indicated by the high value for the $nC_{17}/(nC_{17}+nC_{27})$ parameter in Table 3. Two samples from site 3 (2.90 and 6.46 mm) show higher values for this parameter but these samples have EOM-GCs with very low concentrations of n-alkanes in general.

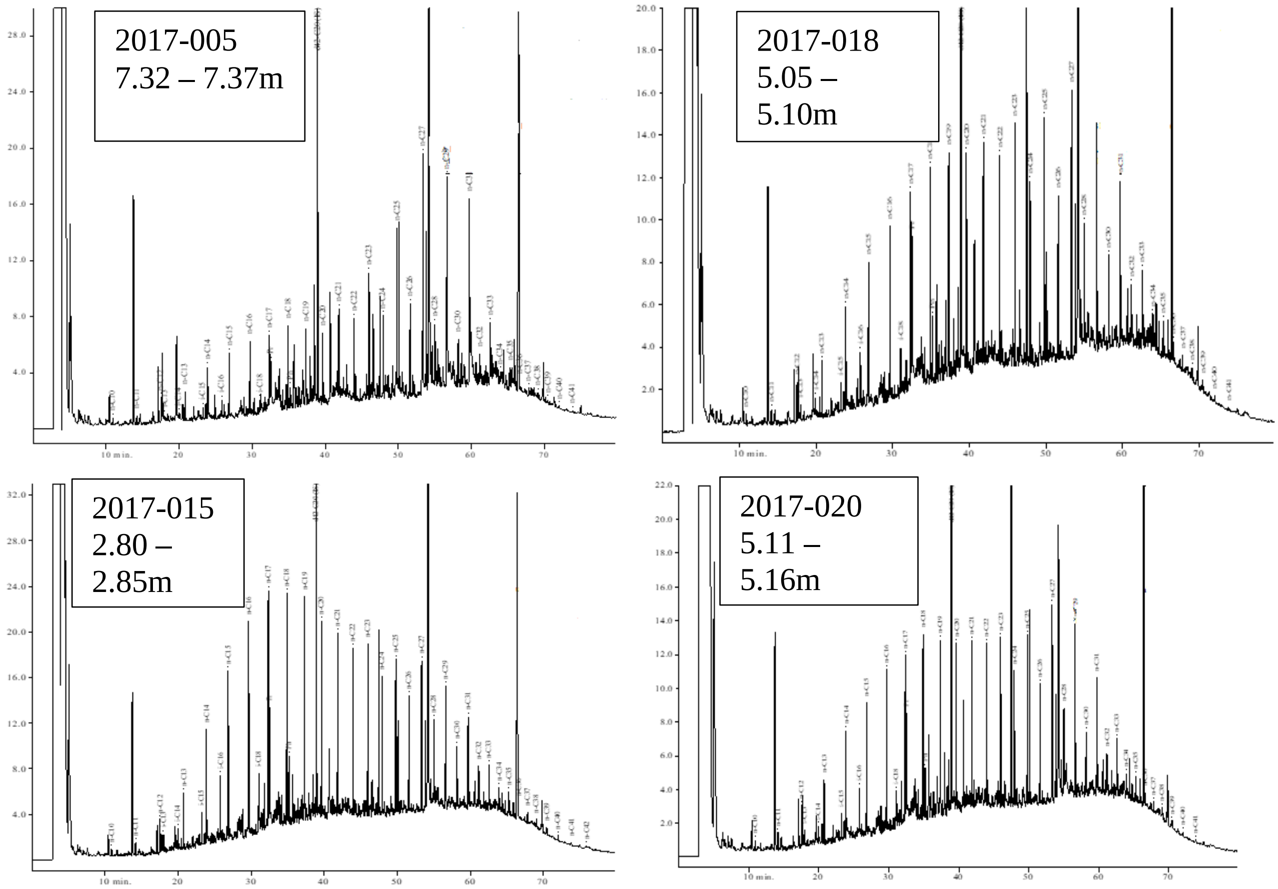
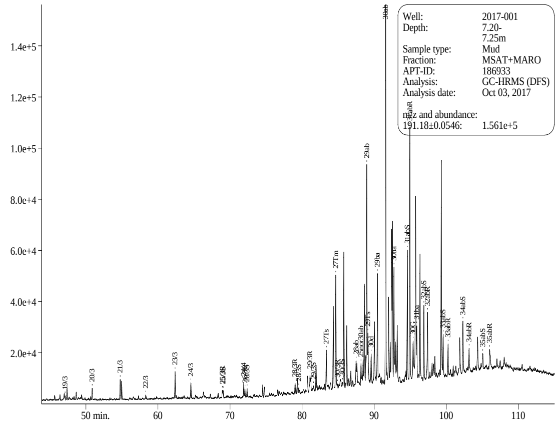


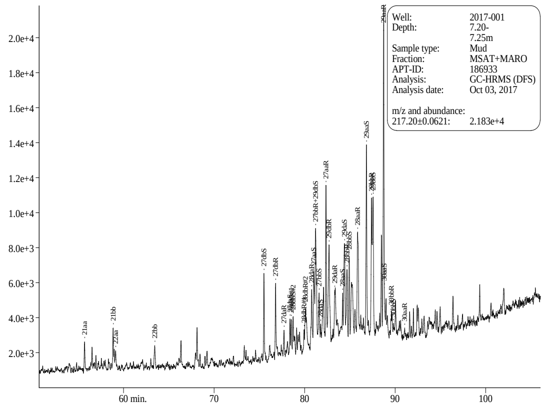
Figure 3. Representative EOM Gas Chromatograms of 2017 Piston Core samples.

Based on their EOM-GCs, thirteen samples were selected for more detailed analysis. These samples were first fractionated using medium pressure liquid chromatography (MPLC). The EOM of all but two of these samples were dominated by polar compounds, as expected for sediment extracts. The two exceptions were site 7 6.93-6.98 m and site 20 5.11-5.16 m samples. These two samples gave the highest amount of extract. If EOM/kg rock is plotted against percentage saturate hydrocarbons there is an apparent positive relationship. However, those samples having higher values of these parameters show no other indications of having a thermogenic hydrocarbon component.

The mass chromatograms of the piston-coring samples are those expected for samples with a significant input of recent land plant material. The m/z 191 mass chromatograms (Fig. 4) show abundant hopanes with the less stable 17β(H) configurations (i.e. 17β(H), 21α(H) and 17β(H), 21β(H) isomers), as found in samples of low thermal maturity. The C_{31} 17α(H)-homohopanes show a pronounced predominance of the 22R over the more thermally stable 22S isomer. Tricyclic terpanes are in low abundance relative to the hopanes. The m/z 217 mass chromatograms are dominated by C_{29} steranes with the biologically inherited 5α(H),14α(H),17α(H) 20R isomers predominant over their 20S and the 5α(H),14β(H),17β(H) isomers. Rearranged steranes (diasteranes) are in relatively low abundance compared to regular steranes (Fig. 4).

a)





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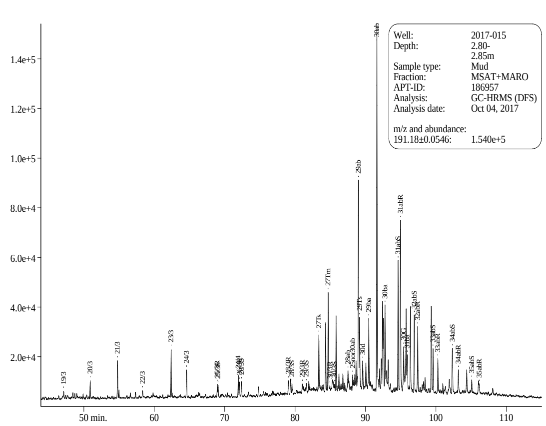

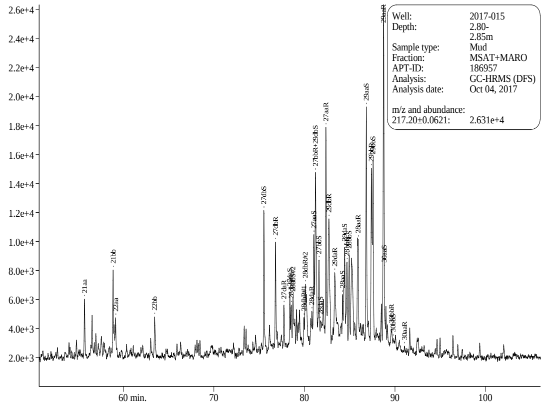

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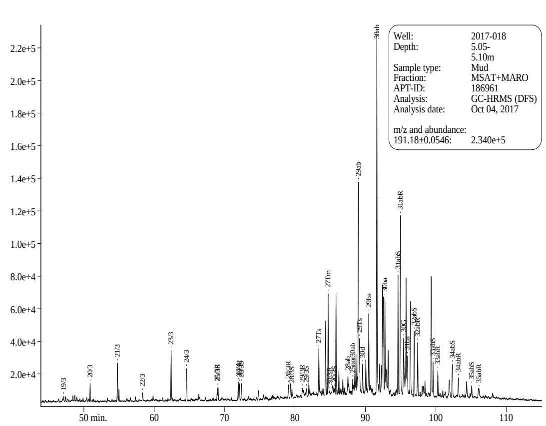

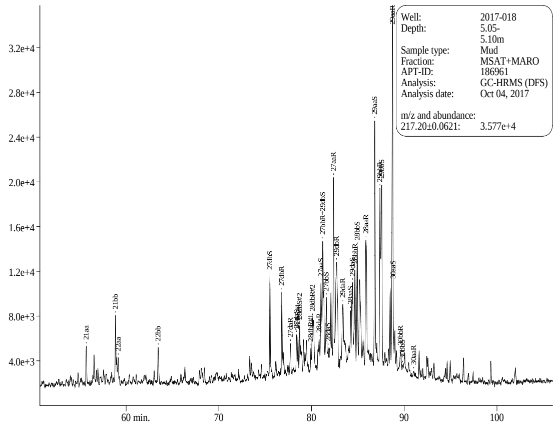

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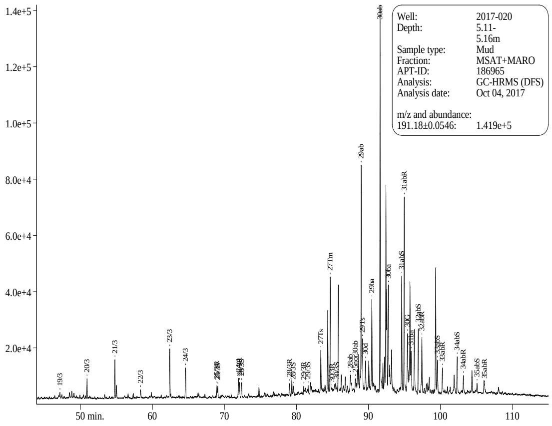

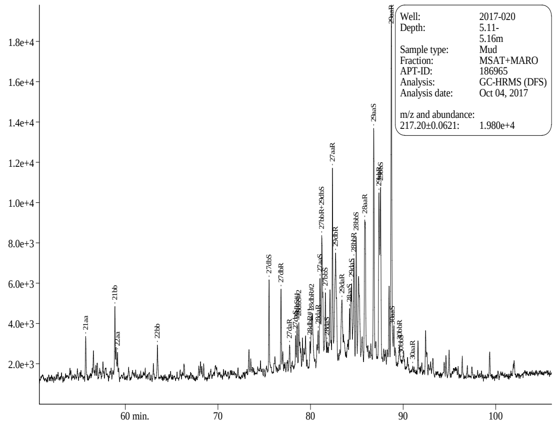

Figure 4. Representative m/z 191 mass chromatograms showing distributions of hopanes and terpanes, and m/z 217 mass chromatograms showing distributions of steranes in; a) Sample 2017-001 7.20-7.25 m, b) Sample 2017-015 2.80-2.85 m, c) Sample 2017-018 5.05-5.10 m, d) Sample 2017-020 5.11-5.15 m.

Samples from site 15 have chromatograms that show subtle but consistent indications that they contain a slightly higher abundance of thermogenic hydrocarbons than samples from other sites (Fig. 4). For example, the site 15 samples have the highest values for the %27Ts, %29Ts, %30diahopane, %22S C31 homohopane relative to 22R homohopane, %diasteranes, %20S and %bb parameters (Table 4). This can be shown cross-plots of these parameters such as Figure 5. The site 15 samples also show some differences that are more source-related, such as a slightly higher relative abundance of C_{27} steranes relative to their C_{28} and C_{29} homologues and a similar slightly increased abundance of C_{26} relative to C_{27} and C_{28} triaromatic steranes, and a lower C_{31}/C_{30} hopane ratio than the other samples. They also show higher tricyclic terpanes than most samples (Table 4). Two of the three highest values for the 3-methylphenanthrene/retene parameter (MSAro8 in Table 5), which is a ratio of a probable non-terrestrial derived versus a terrestrial derived aromatic diterpenoid, are from the site 15 samples. This also implies that the site 15 samples may have a greater proportion of hydrocarbons that are not derived from recent land plant matter. Aromatic parameters also suggest that site 15 samples are slightly more mature than the other samples, such as the triaromatic and monoaromatic sterane cracking ratio, and the 4MDBT/1MDBT ratio (MSAro6). Site 20 5.05-5.10 m sample often shows a maturity that is less than that of site 15 but greater than the majority of the samples. This is not as consistently shown as for the site 15 samples.

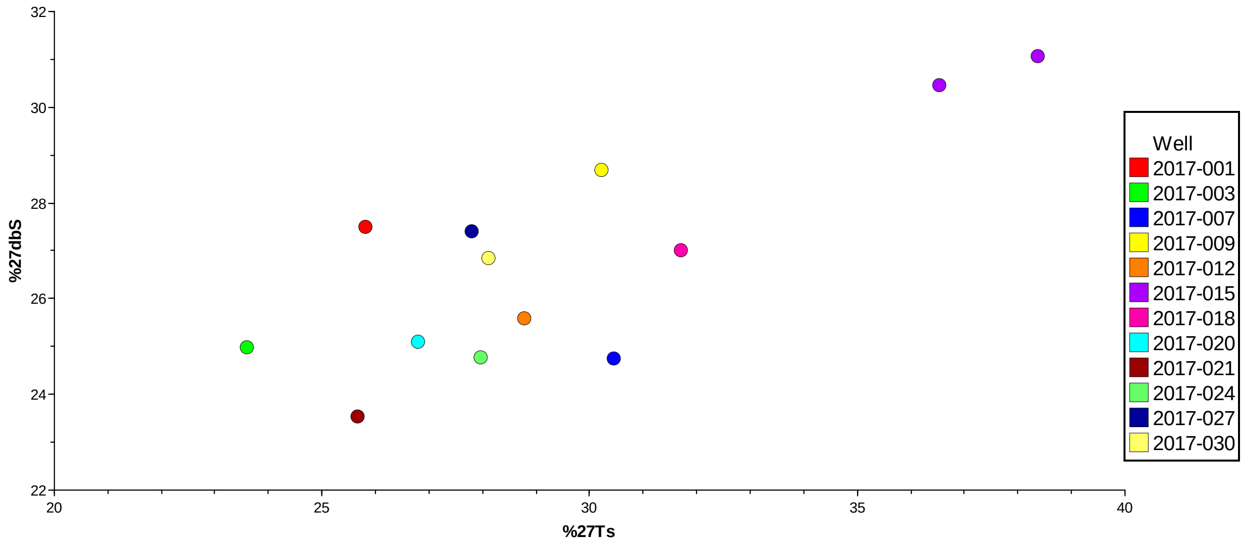

Figure 5. Cross-plot of %27dβS versus %27Ts parameters from Table ex-3. These parameters are C_{27} rearranged steranes versus regular steranes (%27dβS) and the rearranged C_{27} 18α(H) hopane versus its 17α(H) unrearranged equivalent. These ratios are affected by maturity but can be also influenced by rock lithology with increasing maturity and clastic rocks having higher values than lower maturity samples and carbonates.

Isotopic analyses were done on the saturate and aromatic fractions of fours samples, two from site 15 (2.10-2.15 m and 2.80-2.85 m), and one each from site 18 (5.05-5.10 m) and site 20 (5.11-5.16 m). Results are shown in Table 19. The site 15 2.80 m and site 18 5.05 m samples plot in a similar part of the Sofer plot (Fig 6) to the 2016 piston coring samples from the Scotian Slope (Fowler and Webb, 2017a). An onshore oil which is believed to have a Horton Group lacustrine source rock has been analysed (Fowler and Webb, 2017b) and has isotope values close to those of the 2016 site 41 sample on Figure 6 ($\delta^{13}C_{sats}$ -31.5‰, $\delta^{13}C_{arom}$ -30.7‰). The other site 15 sample (2.10 m) is a little isotopically heavier. The site 15 and 18 have values that are 2-3‰ different from the oil sample. The site 20 sample plots a long way from the other samples (Fig 6) and appears to have a very different organic matter input. It plots well within the marine organic matter area originally defined by Sofer (1984).

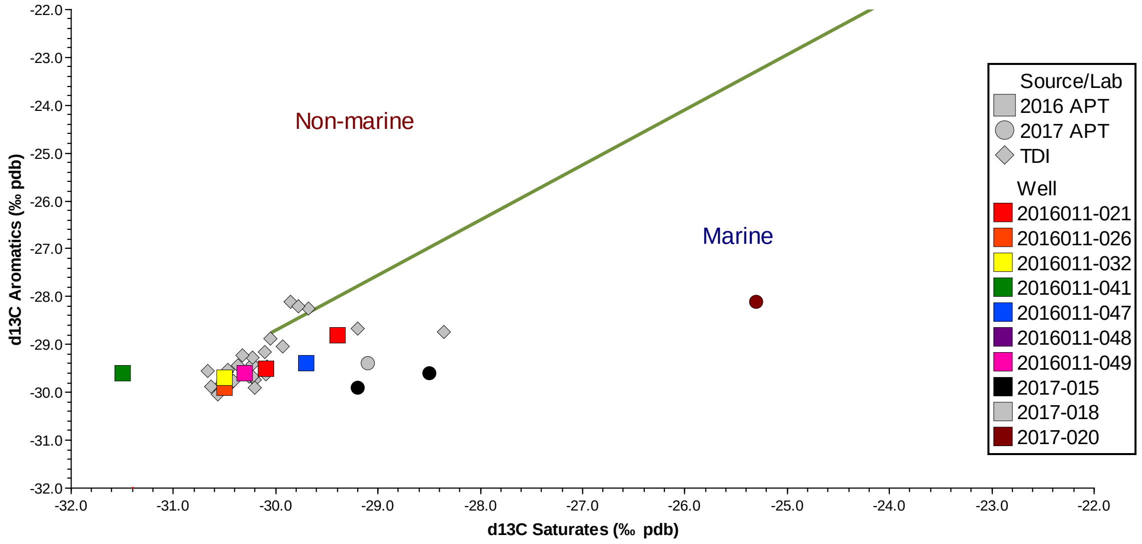

Figure 6. A Sofer diagram of δ13C saturates versus $\delta^{13}C$ aromatics showing the data from 2017 Sydney Basin samples with those from the 2016 offshore Scotia Slope piston core samples and TDI-Brooks (2000) offshore Nova Scotia data (grey circles) for comparison.

The same four samples which had their isotopes determined were also analysed for their diamondoids (Fig. 7). Total diamondoids in these samples ranged from 46-263 ppm. The site 20 sample had a much lower concentration of diamondoids than the other samples as the site 18 sample had 158 ppm and the site 15 samples 190 and 263 ppm. This supports the isotopic data in suggesting that it is unlikely a seep occurs at site 20. The diamondoid concentrations for the site 15 samples are significantly lower than those recorded at 2016 site 41 (782 ppm) which showed the best evidence for a thermogenic oil/gas seep on the Scotian Slope (Fowler and Webb, 2017a). However, the values for the 2017 site 15 and 18 samples are in the range of some other 2016 samples that show possible evidence or petrogenic hydrocarbons (Fig. 7). The utility of the diamondoid maturity parameters, Methyladamantane (MA) index and Methyldiamantane (MD) index has been questioned (e.g. Peters et al., 2005) but they work well in some situations. The samples show a narrow range of MA values of 0.77-0.82 and a wider range for MD of 0.25 -0.46 (Fig. 7). The 0.25 value is very low for the MD parameter and is from the site 20 sample, once again suggesting that it is not a seep location. The site 15 and 18 samples show a range of 0.36 to 0.46 which is within the range of the 2016 samples (0.33-0.51). 2016 site 41 had a value of 0.45.

Site	Upper Depth m	Lower Depth m	Total all Diamondoids ppm	Total Adamantanes ppm	Total Diamantanes pmm	3- + 4- Methyl-diamantanes (ppm)	Methyladamantane index (MA)	Methyldiamantane Index (MD)
2016 Analyses								
2016-005	6.09	6.14	44	41	3	0.71	0.80	0.42
2016-032	2.60	2.65	202	191	11	3.46	0.76	0.42
2016-041	2.08	2.13	782	754	29	9.03	0.81	0.45
2016-047	4.59	4.64	35	32	3	0.74	0.81	0.49
2016-049	4.03	4.09	21	20	1	0.32	0.79	0.44
2017 Analyses								
2017-015	2.10	2.15	190	178	12	3.36	0.82	0.43
2017-015	2.80	2.85	263	254	10	2.68	0.78	0.36
2017-018	5.05	5.10	158	151	7	1.95	0.77	0.46
2017-020	5.11	5.16	46	45	1	0.44	0.78	0.25

Figure 7. Table showing diamondoid concentrations and maturity parameters measured in 2017 with data from some 2016 piston coring samples provided for comparison. Methyladamantane (MA) Index = 1-MA/(I-MA + 2-MA); Methyldiamantane (MD) Index = 4-MD/(1-MD + 3-MD + 4-MD) , after Chen et al., 1996. 2016-041 shows very good evidence and 2016-032 showed possible evidence for proximity near a petroleum seep. The other 2016 samples show no evidence for seepage and are thought to represent background values.

4 Discussion

There is weak evidence for the presence of seeps in the vicinity of any of the sites sampled by piston coring in the offshore Sydney Basin during 2017. None of the cores showed physical evidence for gas seepage as observed for the 2015 and 2016 cruises and headspace gases contained very low concentrations of hydrocarbon gases with only methane detected. The sediment extracts are mostly dominated by hydrocarbons derived from recent land plant material. Two samples from site 15 (2.1 and 2.8 m) show higher amounts of C_{15}-C_{20} n-alkanes than other samples, including a shallower sample from site 15 (1.30 m). These samples also show consistent indications of slightly higher maturity saturated and aromatic hydrocarbon distributions. This suggests that the site 15 samples contain a minor contribution of thermogenic hydrocarbons above the background level. These site 15 samples have diamondoid concentrations in the same range as 2016 samples where there is suspicion of a contribution of petrogenic hydrocarbons. As diamondoids are thought to derived from oil to gas cracking (e.g. Peters et al., 2005), some evidence of gas seepage might have been expected. However, no thermogenic gas is associated with these samples. Additionally, they do not give high extract amounts or have a high percentage of hydrocarbons in their extracts or have high saturate/aromatic ratio compared to the other samples (Table 8), which might be expected if they had a lacustrine source rock.

Site 18 is the closest to site 15 from where samples were collected for geochemical analysis (Fig. 1). The deeper sample from this site (5.05 m) has an EOM-GC with relatively high amounts of C_{15}-C_{20} n-alkanes and some saturate and aromatic parameters suggest that it is the next most mature after the site 15 samples. However, this is not consistent for all maturity parameters and the site 18 sample, is for the most part, closer to other samples than the site 15 samples (e.g. Fig. 5). The Site 18 does have diamondoids in concentrations only slightly less than the site 15 samples and comparable to 2016 samples from the Scotian Slope where there is believed to be a possibility of thermogenic hydrocarbons. This sample is also isotopically similar to the site 15 samples. There appears to be a small possibility of a component of additional thermogenic hydrocarbons to the site 18 5.05 m sample, which is considered unlikely for the site 20 5.11 m sample. The proximity of site 18 to site 15 suggests that this part of the offshore Sydney Basin is the most likely to contain seepage of migrating hydrocarbons from the subsurface of the area cored. However, the data is far from conclusive and other factors may explain the higher concentration C_{15}-C_{20} n-alkanes and slight increase in thermal maturity as indicated by saturated and aromatic biomarkers, such as a variation in the sediment source input or anthropogenic sources. The amount of thermogenic hydrocarbons above the background level at site 15 is too small to give an indication of their source rock. In common with all the other 2017 samples, those from site 15 do not show obvious evidence of C_{30} 4-desmethylsteranes suggesting that there is a possibility of a non-marine (lacustrine) source.

The hydrocarbon isotopic values of the 2017 site 15 and 18 samples are 2-3‰ different from the Carboniferous onshore oil analysed by Fowler and Webb (2017b) but this could reflect the input of more recent organic matter. Hence this data may support a petrogenic component at these sites. However, the similarity of the isotopic values of the saturate and aromatic fractions from 2017 piston core samples to those collected in 2016 (Fig. 6), despite the very different source rocks that are considered most likely to occur in these areas (i.e. Mesozoic marine source rock on the Scotian Slope versus Carboniferous lacustrine source for the Sydney Basin), is an enigma. One possibility is that that the recent sediments cored in both areas possibly received a similar source sediment input from Carboniferous terrestrial/lacustrine rocks which are the principle outcropping units onshore Nova Scotia and this has influenced the isotopic signature.

Site 20 (5.11) also has elevated amounts of C_{15}-C_{20} n-alkanes comparable to site 18 but shows less biomarker evidence for a thermogenic hydrocarbon contribution. It is also isotopically different from the site 15 and 18 samples, especially the saturate hydrocarbons and has a much lower concentration of diamondoids than the other three 2017 samples analysed. A petrogenic component at site 20 seems very unlikely based on this data.

5 Summary

Samples from the 2017 piston coring cruise generally show little or no evidence for the presence of migrated hydrocarbons from subsurface petroleum reservoirs except in the vicinity of site 15 and possibly nearby site 18. There is no support from the headspace gas analyses to support this, just an increase in the abundance of C_{15}-C_{20} relative to the C_{25}-C_{33} n-alkanes in the EOM and, especially at site 15, saturate and aromatic thermal maturity parameters indicating a slightly higher maturity. Diamondoid concentrations may also support petroleum seepage at sites 15 and 18. The data from biomarkers for an increased thermogenic component of hydrocarbons is too subtle to be used as an indicator of age or type of source rock. Isotopes are similar to those from Scotian Slope piston core samples, suggesting other factors besides petroleum seepage may be influencing this data. The microbiological analyses being carried out by the University of Calgary may be able to confirm or disprove the occurrence of a seep in the vicinity of site 15.

6 References

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7 Tables and Figures

Table 1. Summary of Piston Core Samples

Sample	Lat	Long	Water Depth (m)	Sample Type	Depth Top (m)	Depth Base (m)	Reasons/Notes
2017-001 A'-A''	46.66024	-58.23916	459	Isojar	7.46	7.51	
2017-001 S01				Mud	2.20	2.25	Medium red brown mud
2017-001 S02				Mud	4.25	4.30	Medium red brown mud
2017-001 S03				Mud	7.20	7.25	Medium red brown mud with thin sandy lenses, minor dewatering
2017-002	46.65955	-58.23966	459	Multi-core			No sediment recovered
2017-003 A'-A''	46.6423	-58.26804	458	Isojar	7.47	8.02	
2017-003 S01				Mud	2.90	2.95	Medium brown mud
2017-003 S02				Mud	4.50	4.55	Medium red brown mud
2017-003 S03				Mud	6.46	6.51	Medium red brown mud with thin sandy lenses, minor dewatering
2017-004	46.5918	-58.17776	457	GC (gravity core)			No samples taken
2017-005 A'-A''	46.82201	-58.23861	466	Isojar	8.39	8.44	
2017-005 S01				Mud	4.80	4.85	Medium red brown mud
2017-005 S02				Mud	6.20	6.25	Medium red brown mud
2017-005 S03				Mud	7.32	7.37	Medium red brown mud
2017-006	46.83018	-58.26099	466	GC			No samples taken
2017-007 A'-A''	46.83027	-58.2601	469	Isojar	7.13	7.18	
2017-007 S01				Mud	3.23	3.28	Medium red brown mud with thin sandy lenses
2017-007 S02				Mud	4.28	4.33	Medium red brown mud with minor thin sandy lenses
2017-007 S03				Mud	6.93	6.98	Medium red bronw mud with black sediment band
2017-008	46.83069	-58.25963	466	GC			No samples taken
2017-009 A'-A''	46.6978	-58.432	458	Isojar	8.15	8.20	
2017-009 S01				Mud	4.80	4.85	Medium brown mud
2017-009 S02				Mud	6.10	6.15	Medium red brown mud
2017-009 S03				Mud	7.50	7.55	Medium red brown mud
2017-010	46.69905	-58.43049	458	GC			No samples taken
2017-011	46.6663	-58.40053	454	GC			No samples taken
2017-012 A'-A''	46.66626	-58.40092	455	Isojar	8.50	8.55	
2017-012 S01				Mud	3.70	3.75	Medium grey brown mud with sandy blebs

2017-012 S02				Mud	6.95	7.00	Medium grey brown mud with darker infilled bioturbation
2017-012 S03				Mud	8.15	8.20	Medium grey brown mud with darker infilled bioturbation
2017-013	46.66719	-58.40047	455	GC			No samples taken
2017-014	46.66132	-58.46008	420	Piston Core			No samples taken, core remains sealed for future work at GSC-A
2017-015 A'-A''	46.54102	-58.40039	450	Isojar	3.12	3.17	
2017-015 S01				Mud	1.30	1.35	Medium red brown mud
2017-015 S02				Mud	2.10	2.15	Medium red brown mud
2017-015 S03				Mud	2.80	2.85	Medium red brown mud
2017-016	45.5412	-58.40099	446	GC			No samples taken
2017-017	46.5391	-58.41979	447	GC			No samples taken
2017-018 A'-A''	46.53921	-58.41956	450	Isojar	5.85	5.90	
2017-018 S01				Mud	2.60	2.65	Medium red brown mud
2017-018 S02				Mud	3.90	3.95	Medium red brown mud
2017-018 S03				Mud	5.05	5.10	Medium red brown mud, trace planar bedding
2017-019	46.53948	-58.42032	450	GC			No samples taken
2017-020 A'-A''	46.44951	-58.46174	440	Isojar	5.46	5.51	
2017-020 S01				Mud	1.50	1.55	Medium red brown mud
2017-020 S02				Mud	3.70	3.75	Medium red brown mud with coarse grained sand layer
2017-020 S03				Mud	5.11	5.16	Medium red brown mud with dark sediment banding
2017-021 A'-A''	46.19603	-57.90099	475	Isojar	8.16	8.21	
2017-021 S01				Mud	2.90	2.95	Medium grey mud
2017-021 S02				Mud	4.73	4.78	Medium brown red mud with dark grey sand blebs
2017-021 S03				Mud	6.97	7.02	Medium red brown mud interbedded with sand layer
2017-022	46.19604	-57.9012	475	GC			No samples taken
2017-023	46.20997	-58.01103	470	GC			No samples taken
2017-024 A'-A''	46.20104	-58.01044	470	Isojar	8.36	8.41	
2017-024 S01				Mud	4.40	4.45	Medium brown mud, bioturbated
2017-024 S02				Mud	6.55	6.60	Medium red brown mud
2017-024 S03				Mud	8.18	8.23	Medium red brown mud with thin sandy lenses

2017-025	46.22377	-58.00278	460	Piston Core			No samples taken, core remains sealed for future work at GSC-A
2017-026	46.20129	-58.0107	460	GC			No samples taken
2017-027 A'-A''	46.1962	-57.90057	475	Isojar	8.46	8.51	
2017-027 S01				Mud	5.15	5.20	Medium red brown mud
2017-027 S02				Mud	5.88	5.93	Medium red brown mud with dark grey sand and mud blebs
2017-027 S03				Mud	6.68	6.73	Medium red brown mud with thin sandy lenses
2017-028	46.19616	-57.90055	475	GC			No samples taken
2017-029	46.19613	-57.90046	475	GC			No samples taken
2017-030 A'-A''	46.19609	-57.90043	475	Isojar	6.70	6.75	
2017-030 S01				Mud	3.20	3.25	Medium brown grey mud
2017-030 S02				Mud	4.90	4.95	Medium brown grey mud transitioning to red brown mud
2017-030 S03				Mud	6.32	6.37	Medium red brown mud with dark grey sand blebs
2017-031	46.2858	-59.56502	90	Piston Core			No recovery
2017-032	46.28557	-59.56484	95	GC			No recovery
2017-033	46.28519	-59.56174	94	GC			No recovery
2017-034	46.34377	-59.56812	95	GC			No recovery
2017-035	46.30264	-59.55604	96	GC			No recovery
2017-036	46.30199	-59.55518	97	Vanveen Grab			No samples taken
2017-037	46.28783	-59.55855	96	Vanveen Grab			No samples taken

Table 2. Number of analyses performed

Analysis	Gas	Mud	Total
Leco TOC		39	39
Gas composition	13		13
Extraction		39	39
Asphaltenes		13	13
MPLC		13	13
GC of EOM fraction		39	39
GC-MS of Saturated hydrocarbons		13	13
GC-MS of Aromatic hydrocarbons		13	13
GC-MS of Diamandoids		4	4
Stable isotopes of fractions		4	4

Location	Sample Type	Depth Top (m)	Depth Base (m)	Gas composition	Leco TOC	Extraction	Asphaltenes	MPLC	GC EOM	GC-MS Saturates	GC-MS Aromatics	GC-MS Diamandoids	Stable isotopes
2017-001 A'-A"	Isojar	7.46	7.51	X									
2017-001 S01	Mud	2.20	2.25		X	X							
2017-001 S02	Mud	4.25	4.30		X	X							
2017-001 S03	Mud	7.20	7.25		X	X	X	X	X	X	X		
2017-002	Multi-core												
2017-003 A'-A"	Isojar	7.47	8.02	X									
2017-003 S01	Mud	2.90	2.95		X	X							
2017-003 S02	Mud	4.50	4.55		X	X	X	X	X	X	X		
2017-003 S03	Mud	6.46	6.51		X	X							
2017-004	GC												
2017-005 A'-A"	Isojar	8.39	8.44	X									
2017-005 S01	Mud	4.80	4.85		X	X							
2017-005 S02	Mud	6.20	6.25		X	X							
2017-005 S03	Mud	7.32	7.37		X	X							
2017-006	GC												
2017-007 A'-A"	Isojar	7.13	7.18	X									
2017-007 S01	Mud	3.23	3.28		X	X							
2017-007 S02	Mud	4.28	4.33		X	X							
2017-007 S03	Mud	6.93	6.98		X	X	X	X	X	X	X		
2017-008	GC												
2017-009 A'-A"	Isojar	8.15	8.20	X									
2017-009 S01	Mud	4.80	4.85		X	X	X	X	X	X	X		
2017-009 S02	Mud	6.10	6.15		X	X							
2017-009 S03	Mud	7.50	7.55		X	X							
2017-010	GC												
2017-011	GC												
2017-012 A'-A"	Isojar	8.50	8.55	X									
2017-012 S01	Mud	3.70	3.75		X	X							
2017-012 S02	Mud	6.95	7.00		X	X	X	X	X	X	X		
2017-012 S03	Mud	8.15	8.20		X	X							
2017-013	GC												
2017-014	Piston Core												
2017-015 A'-A"	Isojar	3.12	3.17	X									
2017-015 S01	Mud	1.30	1.35		X	X							
2017-015 S02	Mud	2.10	2.15		X	X	X	X	X	X	X	X	X
2017-015 S03	Mud	2.80	2.85		X	X	X	X	X	X	X	X	X
2017-016	GC												
2017-017	GC												
2017-018 A'-A"	Isojar	5.85	5.90	X									

Location	Sample Type	Depth Top (m)	Depth Base (m)	Gas composition	Leco TOC	Extraction	Asphaltenes	MPLC	GC EOM	GC-MS Saturates	GC-MS Aromatics	GC-MS Diamandoids	Stable isotopes
2017-018 S01	Mud	2.60	2.65		X	X							
2017-018 S02	Mud	3.90	3.95		X	X							
2017-018 S03	Mud	5.05	5.10		X	X	X	X	X	X	X	X	X
2017-019	GC												
2017-020 A'-A''	Isojar	5.46	5.51	X									
2017-020 S01	Mud	1.50	1.55		X	X							
2017-020 S02	Mud	3.70	3.75		X	X							
2017-020 S03	Mud	5.11	5.16		X	X	X	X	X	X	X	X	X
2017-021 A'-A''	Isojar	8.16	8.21	X									
2017-021 S01	Mud	2.90	2.95		X	X							
2017-021 S02	Mud	4.73	4.78		X	X							
2017-021 S03	Mud	6.97	7.02		X	X	X	X	X	X	X		
2017-022	GC												
2017-023	GC												
2017-024 A'-A''	Isojar	8.36	8.41	X									
2017-024 S01	Mud	4.40	4.45		X	X							
2017-024 S02	Mud	6.55	6.60		X	X							
2017-024 S03	Mud	8.18	8.23		X	X	X	X	X	X	X		
2017-025	Piston Core												
2017-026	GC												
2017-027 A'-A''	Isojar	8.46	8.51	X									
2017-027 S01	Mud	5.15	5.20		X	X							
2017-027 S02	Mud	5.88	5.93		X	X							
2017-027 S03	Mud	6.68	6.73		X	X	X	X	X	X	X		
2017-028	GC												
2017-029	GC												
2017-030 A'-A''	Isojar	6.70	6.75	X									
2017-030 S01	Mud	3.20	3.25		X	X	X	X	X	X	X		
2017-030 S02	Mud	4.90	4.95		X	X							
2017-030 S03	Mud	6.32	6.37		X	X							
2017-031	Piston Core												
2017-032	GC												
2017-033	GC												
2017-034	GC												
2017-035	GC												
2017-036	Vanveen Grab												
2017-037	Vanveen Grab												

Table 3. GC of EOM fractions (parameters)

Piston Core	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+n-C27)
2017-001	Mud	2.20	2.25	186931	3.38	0.62	0.24	2.62	2.53	0.35
2017-001	Mud	4.25	4.30	186932	2.71	0.46	0.40	1.16	1.12	0.44
2017-001	Mud	7.20	7.25	186933	2.29	0.70	0.49	1.41	1.62	0.42
2017-003	Mud	2.90	2.95	186935	3.78	0.43	0.30	1.42	1.40	0.74
2017-003	Mud	4.50	4.55	186936	2.23	0.48	0.33	1.46	1.27	0.44
2017-003	Mud	6.46	6.51	186937		0.49	0.47	1.05	1.90	1.00
2017-005	Mud	4.80	4.85	186939	3.12	0.50	0.22	2.34	1.90	0.33
2017-005	Mud	6.20	6.25	186940	2.21	0.50	0.32	1.56	1.97	0.66
2017-005	Mud	7.32	7.37	186941	3.29	0.56	0.45	1.24	1.20	0.23
2017-007	Mud	3.23	3.28	186943	1.96	0.78	0.47	1.64	1.91	0.48
2017-007	Mud	4.28	4.33	186944	2.12	0.79	0.44	1.80	2.06	0.45
2017-007	Mud	6.93	6.98	186945	2.02	0.80	0.47	1.70	1.74	0.42
2017-009	Mud	4.80	4.85	186947	3.39	0.41	0.29	1.45	1.52	0.33
2017-009	Mud	6.10	6.15	186948	2.30	0.47	0.37	1.27	1.25	0.50
2017-009	Mud	7.50	7.55	186949	1.96	0.75	0.43	1.74	1.62	0.40
2017-012	Mud	3.70	3.75	186951	3.31	0.40	0.24	1.66	1.67	0.28
2017-012	Mud	6.95	7.00	186952	2.94	0.53	0.32	1.66	1.35	0.30
2017-012	Mud	8.15	8.20	186953	3.11	0.38	0.18	2.05	1.99	0.40
2017-015	Mud	1.30	1.35	186955	1.95	0.48	0.35	1.39	1.45	0.51
2017-015	Mud	2.10	2.15	186956	1.40	0.66	0.45	1.46	1.50	0.62
2017-015	Mud	2.80	2.85	186957	1.39	0.67	0.45	1.49	1.57	0.61
2017-018	Mud	2.60	2.65	186959	2.86	0.40	0.22	1.85	1.48	0.38
2017-018	Mud	3.90	3.95	186960	2.09	0.59	0.34	1.75	1.46	0.41
2017-018	Mud	5.05	5.10	186961	1.70	0.76	0.46	1.66	1.67	0.44
2017-020	Mud	1.50	1.55	186963	2.97	0.46	0.29	1.60	1.33	0.31
2017-020	Mud	3.70	3.75	186964	2.34	0.85	0.46	1.83	1.49	0.25
2017-020	Mud	5.11	5.16	186965	1.76	0.80	0.44	1.80	1.77	0.47
2017-021	Mud	2.90	2.95	186967	3.12	0.51	0.31	1.68	1.46	0.33
2017-021	Mud	4.73	4.78	186968	2.17	0.90	0.38	2.35	2.45	0.48
2017-021	Mud	6.97	7.02	186969	1.95	0.97	0.47	2.08	1.83	0.38
2017-024	Mud	4.40	4.45	186971	2.61	0.40	0.36	1.13	0.97	0.42
2017-024	Mud	6.55	6.60	186972	2.10	0.57	0.44	1.31	1.32	0.42
2017-024	Mud	8.18	8.23	186973	1.85	0.91	0.46	1.98	1.71	0.39
2017-027	Mud	5.15	5.20	186975	2.38	0.92	0.21	4.28	3.72	0.43
2017-027	Mud	5.88	5.93	186976	2.79	0.46	0.36	1.30	1.43	0.21
2017-027	Mud	6.68	6.73	186977	1.84	0.89	0.45	1.98	1.63	0.40
2017-030	Mud	3.20	3.25	186979	2.58	0.56	0.29	1.92	1.38	0.29
2017-030	Mud	4.90	4.95	186980	2.18	0.47	0.31	1.51	1.29	0.43
2017-030	Mud	6.32	6.37	186981	2.81	0.55	0.39	1.42	1.45	0.22

Table 4. GCMS SIR of saturated compounds (parameters)

Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	%23:3	%28ab	%30D	%27Ts	%22S	%29Ts	%20S	%bb	%27dbS	%C27	%C29	28/29	24:4/23:3
2017-001	Mud	7.20	7.25	186933	6.67	6.12	7.02	25.81	52.64	11.76	36.42	34.47	27.51	21.95	55.04	0.37	0.57
2017-003	Mud	4.50	4.55	186936	6.57	4.29	7.79	23.59	51.67	11.99	37.44	33.66	24.99	22.88	53.81	0.38	0.51
2017-007	Mud	6.93	6.98	186945	12.00	4.57	6.66	30.46	53.26	12.27	39.31	35.48	24.74	19.66	54.05	0.42	0.34
2017-009	Mud	4.80	4.85	186947	6.71	4.05	6.87	30.23	51.90	13.39	39.22	36.98	28.69	24.84	54.50	0.33	0.61
2017-012	Mud	6.95	7.00	186952	6.53	4.62	7.20	28.78	52.65	12.78	37.63	34.49	25.59	23.94	55.11	0.32	0.56
2017-015	Mud	2.10	2.15	186956	10.94	4.93	7.48	38.37	55.86	16.84	39.35	37.44	31.06	25.85	54.30	0.32	0.52
2017-015	Mud	2.80	2.85	186957	11.71	5.30	7.52	36.53	54.03	16.66	40.82	38.12	30.46	25.72	53.82	0.33	0.46
2017-018	Mud	5.05	5.10	186961	12.02	4.70	7.50	31.70	54.73	13.18	40.22	37.07	27.00	21.11	53.89	0.40	0.37
2017-020	Mud	5.11	5.16	186965	11.24	4.41	7.05	26.80	53.45	11.81	39.00	36.66	25.10	19.53	53.76	0.44	0.41
2017-021	Mud	6.97	7.02	186969	8.74	6.09	7.43	25.66	52.84	11.88	35.24	35.02	23.54	19.38	55.15	0.39	0.46
2017-024	Mud	8.18	8.23	186973	9.70	5.19	6.91	27.97	52.86	11.99	38.18	36.02	24.77	20.98	53.33	0.40	0.42
2017-027	Mud	6.68	6.73	186977	10.18	5.90	7.27	27.79	52.00	12.26	38.72	36.42	27.41	21.68	52.66	0.43	0.41
2017-030	Mud	3.20	3.25	186979	5.74	5.22	7.46	28.12	52.55	13.38	40.52	36.82	26.85	23.97	53.98	0.33	0.68

%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)

Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	AROM2	Crack1	Crack2	MSAro1	MSAro2	MSAro3	MSAro4	MSAro5	MSAro6	MSAro7	MSAro8	MSAro9
2017-001	Mud	7.20	7.25	186933	0.74	0.21	0.12	0.13	2.25	0.43	1.16	3.35	0.78	0.08	2.36	0.73
2017-003	Mud	4.50	4.55	186936	0.76	0.24	0.15	0.11	3.50	0.46	1.19	3.80	0.75	0.07	2.76	0.74
2017-007	Mud	6.93	6.98	186945	0.77	0.22	0.12	0.13	2.40	0.42	1.15	3.26	0.78	0.10	2.92	0.76
2017-009	Mud	4.80	4.85	186947	0.74	0.21	0.12	0.13	3.54	0.49	1.40	5.39	0.70	0.11	3.63	0.75
2017-012	Mud	6.95	7.00	186952	0.72	0.19	0.11	0.10	2.75	0.47	1.98	5.83	1.28	0.11	1.52	0.74
2017-015	Mud	2.10	2.15	186956	0.76	0.24	0.13	0.16	2.47	0.41	1.13	3.46	1.24	0.10	3.45	0.73
2017-015	Mud	2.80	2.85	186957	0.75	0.25	0.13	0.17	2.32	0.43	1.11	3.51	1.15	0.10	3.64	0.72
2017-018	Mud	5.05	5.10	186961	0.76	0.22	0.13	0.14	2.50	0.41	1.10	3.38	0.83	0.10	2.37	0.74
2017-020	Mud	5.11	5.16	186965	0.75	0.25	0.14	0.14	2.49	0.43	1.11	3.33	0.80	0.09	3.29	0.73
2017-021	Mud	6.97	7.02	186969	0.75	0.19	0.11	0.13	2.12	0.42	1.26	3.66	0.76	0.09	2.41	0.74
2017-024	Mud	8.18	8.23	186973	0.74	0.19	0.11	0.12	2.52	0.41	1.18	3.38	0.81	0.09	2.28	0.71
2017-027	Mud	6.68	6.73	186977	0.74	0.22	0.12	0.13	2.21	0.41	1.07	2.81	0.81	0.09	1.73	0.71
2017-030	Mud	3.20	3.25	186979	0.72	0.23	0.13	0.13	3.24	0.47	1.22	4.36	0.84	0.10	2.32	0.73

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. Leco TOC data

Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	TOC (%)
2017-001	Mud	2.20	2.25	186931	0.54
2017-001	Mud	4.25	4.30	186932	0.36
2017-001	Mud	7.20	7.25	186933	0.12
2017-003	Mud	2.90	2.95	186935	0.56
2017-003	Mud	4.50	4.55	186936	0.31
2017-003	Mud	6.46	6.51	186937	0.16
2017-005	Mud	4.80	4.85	186939	0.47
2017-005	Mud	6.20	6.25	186940	0.33
2017-005	Mud	7.32	7.37	186941	0.19
2017-007	Mud	3.23	3.28	186943	0.09
2017-007	Mud	4.28	4.33	186944	0.21
2017-007	Mud	6.93	6.98	186945	0.23
2017-009	Mud	4.80	4.85	186947	0.58
2017-009	Mud	6.10	6.15	186948	0.31
2017-009	Mud	7.50	7.55	186949	0.19
2017-012	Mud	3.70	3.75	186951	0.51
2017-012	Mud	6.95	7.00	186952	0.57
2017-012	Mud	8.15	8.20	186953	0.55
2017-015	Mud	1.30	1.35	186955	0.29
2017-015	Mud	2.10	2.15	186956	0.14
2017-015	Mud	2.80	2.85	186957	0.12
2017-018	Mud	2.60	2.65	186959	0.45
2017-018	Mud	3.90	3.95	186960	0.22
2017-018	Mud	5.05	5.10	186961	0.17
2017-020	Mud	1.50	1.55	186963	0.46
2017-020	Mud	3.70	3.75	186964	0.07
2017-020	Mud	5.11	5.16	186965	0.21
2017-021	Mud	2.90	2.95	186967	0.58
2017-021	Mud	4.73	4.78	186968	0.28
2017-021	Mud	6.97	7.02	186969	0.19
2017-024	Mud	4.40	4.45	186971	0.47
2017-024	Mud	6.55	6.60	186972	0.23
2017-024	Mud	8.18	8.23	186973	0.10
2017-027	Mud	5.15	5.20	186975	0.24
2017-027	Mud	5.88	5.93	186976	0.11
2017-027	Mud	6.68	6.73	186977	0.13
2017-030	Mud	3.20	3.25	186979	0.55
2017-030	Mud	4.90	4.95	186980	0.35
2017-030	Mud	6.32	6.37	186981	0.08

Table 7. Gas Composition (volume-%)

Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	C1 (%THCG)	C2 (%THCG)	C2= (%THCG)	C3 (%THCG)	C3= (%THCG)	iC4 (%THCG)	nC4 (%THCG)	C4= (%THCG)	neoC5 (%THCG)	iC5 (%THCG)	nC5 (%THCG)	C5= (%THCG)	C6+ (%THCG)	CO_2 (%THCG)	ppm THCG	H_2 (%Total)
2017-001	Gas	7.46	7.51	186930	0.047	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.015	99.9	12024	0.0000
2017-003	Gas	7.47	8.02	186934	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	100.0	9397	0.0000
2017-005	Gas	8.39	8.44	186938	0.095	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.12	99.8	5529	0.0000
2017-007	Gas	7.13	7.18	186942	0.089	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.15	99.8	6828	0.0000
2017-009	Gas	8.15	8.20	186946	0.086	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.050	99.9	8736	0.0000
2017-012	Gas	8.50	8.55	186950	0.11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.048	99.8	8128	0.0000
2017-015	Gas	3.12	3.17	186954	0.19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.14	99.7	3223	0.0000
2017-018	Gas	5.85	5.90	186958	0.076	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.79	99.1	6218	0.0000
2017-020	Gas	5.46	5.51	186962	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.80	99.2	5101	0.0000
2017-021	Gas	8.16	8.21	186966	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.18	99.8	5670	0.0000
2017-024	Gas	8.36	8.41	186970	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.10	99.9	8669	0.0000
2017-027	Gas	8.46	8.51	186974	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.083	99.9	9653	0.0000
2017-030	Gas	6.70	6.75	186978	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.11	99.9	9312	0.0000

NB: Quantification limit for CO_2 is 0.007%, all values < 0.007% is set to 0.

Table 7. continued, Gas Composition (volume-%)

Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	He (%Total)	N_2 (%Total)	O_2+Ar (%Total)	CO (%Total)	ppm Total	C1-nC4 (%THCG)	C2-nC4 (%THCG)	C5+ (%THCG)	Wetness	iC4/nC4
2017-001	Gas	7.46	7.51	186930	0.0000	95.3	3.44	0.0000	980500	0.047	0.0000	0.015	0.0000	
2017-003	Gas	7.47	8.02	186934	0.0000	96.6	2.48	0.0000	978620	0.0000	0.0000	0.0000		
2017-005	Gas	8.39	8.44	186938	0.0000	78.9	20.6	0.0000	987932	0.095	0.0000	0.12	0.0000	
2017-007	Gas	7.13	7.18	186942	0.0000	82.1	17.2	0.0000	987312	0.089	0.0000	0.15	0.0000	
2017-009	Gas	8.15	8.20	186946	0.0000	96.9	2.16	0.0000	977696	0.086	0.0000	0.050	0.0000	
2017-012	Gas	8.50	8.55	186950	0.0000	93.9	5.31	0.0000	978215	0.11	0.0000	0.048	0.0000	
2017-015	Gas	3.12	3.17	186954	0.0000	80.1	19.6	0.0000	989414	0.19	0.0000	0.14	0.0000	
2017-018	Gas	5.85	5.90	186958	0.0000	95.7	3.63	0.0000	978621	0.076	0.0000	0.79	0.0000	
2017-020	Gas	5.46	5.51	186962	0.0000	79.0	20.5	0.0000	989062	0.0000	0.0000	0.80		
2017-021	Gas	8.16	8.21	186966	0.0006	79.1	20.3	0.0000	983705	0.0000	0.0000	0.18		
2017-024	Gas	8.36	8.41	186970	0.0003	92.9	6.24	0.0000	980691	0.0000	0.0000	0.10		
2017-027	Gas	8.46	8.51	186974	0.0000	96.9	2.13	0.0000	977187	0.0000	0.0000	0.083		
2017-030	Gas	6.70	6.75	186978	0.0000	96.8	2.22	0.0000	976272	0.0000	0.0000	0.11		

Table 8. Extraction, Asphaltene precipitation and MPLC data

Piston Core	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)
2017-001	Mud	2.20	2.25	186931	57.640	6.1	106					
2017-001	Mud	4.25	4.30	186932	62.752	6.1	97					
2017-001	Mud	7.20	7.25	186933	61.594	4.8	78	6.7	8.6	65.6	19.2	15.2
2017-003	Mud	2.90	2.95	186935	61.919	10.1	163					
2017-003	Mud	4.50	4.55	186936	60.929	4.5	74	21.7	7.2	67.8	3.2	28.9
2017-003	Mud	6.46	6.51	186937	62.066	3.2	52					
2017-005	Mud	4.80	4.85	186939	60.325	6.6	109					
2017-005	Mud	6.20	6.25	186940	61.113	5.7	93					
2017-005	Mud	7.32	7.37	186941	62.374	3.9	63					
2017-007	Mud	3.23	3.28	186943	61.243	2.9	47					
2017-007	Mud	4.28	4.33	186944	60.475	4.3	71					
2017-007	Mud	6.93	6.98	186945	61.409	15.3	249	38.9	17.4	42.2	1.5	56.3
2017-009	Mud	4.80	4.85	186947	55.425	10.5	189	34.3	15.6	47.1	3.1	49.9
2017-009	Mud	6.10	6.15	186948	62.067	4.4	71					
2017-009	Mud	7.50	7.55	186949	61.735	1.9	31					
2017-012	Mud	3.70	3.75	186951	55.591	4.3	77					
2017-012	Mud	6.95	7.00	186952	59.398	10.9	184	34.0	15.1	48.7	2.1	49.1
2017-012	Mud	8.15	8.20	186953	55.557	10.5	189					
2017-015	Mud	1.30	1.35	186955	61.506	3.4	55					
2017-015	Mud	2.10	2.15	186956	60.361	3.9	65	24.9	13.9	56.4	4.8	38.8
2017-015	Mud	2.80	2.85	186957	61.460	4.4	72	29.3	19.3	48.6	2.8	48.6
2017-018	Mud	2.60	2.65	186959	59.782	6.6	110					
2017-018	Mud	3.90	3.95	186960	61.910	3.3	53					
2017-018	Mud	5.05	5.10	186961	60.468	4.2	69	19.1	17.3	60.8	2.9	36.3
2017-020	Mud	1.50	1.55	186963	53.483	4.8	90					
2017-020	Mud	3.70	3.75	186964	62.304	2.3	37					
2017-020	Mud	5.11	5.16	186965	59.981	11.9	198	40.9	26.2	32.7	0.2	67.1
2017-021	Mud	2.90	2.95	186967	56.079	9.9	177					
2017-021	Mud	4.73	4.78	186968	60.861	3.6	59					
2017-021	Mud	6.97	7.02	186969	60.713	4.2	69	13.7	12.9	57.1	16.4	26.5
2017-024	Mud	4.40	4.45	186971	59.065	6.3	107					
2017-024	Mud	6.55	6.60	186972	61.821	3.8	61					
2017-024	Mud	8.18	8.23	186973	60.846	2.8	46	19.1	16.8	62.9	1.2	35.9
2017-027	Mud	5.15	5.20	186975	60.481	3.4	56					
2017-027	Mud	5.88	5.93	186976	60.457	2.8	46					
2017-027	Mud	6.68	6.73	186977	63.560	3.5	55	23.2	12.5	60.8	3.5	35.7
2017-030	Mud	3.20	3.25	186979	57.598	7.0	122	27.1	11.3	61.1	0.5	38.5
2017-030	Mud	4.90	4.95	186980	61.513	3.4	55					
2017-030	Mud	6.32	6.37	186981	61.707	2.1	34					

Table 9. GC of EOM fractions (peak area)

Piston Core	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	Ph
2017-001	Mud	2.20	2.25	186931	0.00e0	0.00e0	2.20e1	7.00e0	4.00e0	5.20e1	1.90e1	1.00e2	3.40e1	1.39e2	1.71e2	3.50e1	2.12e2	1.32e2	2.20e2	5.20e1
2017-001	Mud	4.25	4.30	186932	9.00e0	1.10e1	3.10e1	1.30e1	5.00e0	5.90e1	2.60e1	1.36e2	4.20e1	1.81e2	2.18e2	4.40e1	2.58e2	1.18e2	2.67e2	1.06e2
2017-001	Mud	7.20	7.25	186933	4.00e0	7.00e0	9.00e0	4.00e0	4.00e0	1.80e1	1.40e1	4.10e1	2.50e1	9.60e1	1.01e2	4.30e1	1.74e2	1.21e2	1.52e2	7.50e1
2017-003	Mud	2.90	2.95	186935	0.00e0	0.00e0	1.80e1	0.00e0	0.00e0	2.90e1	1.20e1	6.30e1	1.50e1	8.30e1	7.10e1	2.20e1	9.20e1	4.00e1	9.40e1	2.90e1
2017-003	Mud	4.50	4.55	186936	0.00e0	0.00e0	1.50e1	4.00e0	2.00e0	2.70e1	1.30e1	6.50e1	1.80e1	1.15e2	1.27e2	2.60e1	1.52e2	7.30e1	1.75e2	5.80e1
2017-003	Mud	6.46	6.51	186937	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	4.00e0	3.00e0	8.00e0	4.00e0	2.30e1	9.00e0	6.00e0	2.90e1	1.40e1	1.60e1	8.00e0
2017-005	Mud	4.80	4.85	186939	0.00e0	0.00e0	1.80e1	0.00e0	0.00e0	3.20e1	1.60e1	7.20e1	2.60e1	1.10e2	1.29e2	2.60e1	1.48e2	7.40e1	1.82e2	3.90e1
2017-005	Mud	6.20	6.25	186940	0.00e0	7.00e0	1.60e1	0.00e0	0.00e0	3.20e1	1.30e1	7.90e1	1.80e1	1.06e2	1.08e2	2.10e1	1.55e2	7.70e1	1.23e2	3.90e1
2017-005	Mud	7.32	7.37	186941	1.50e1	1.40e1	2.40e1	7.00e0	5.00e0	3.10e1	1.30e1	5.10e1	2.00e1	8.00e1	7.90e1	1.90e1	9.60e1	5.40e1	9.90e1	4.50e1
2017-007	Mud	3.23	3.28	186943	1.70e1	1.50e1	3.00e1	7.00e0	7.00e0	4.00e1	1.70e1	8.70e1	3.80e1	1.30e2	1.23e2	3.80e1	1.62e2	1.26e2	1.39e2	6.60e1
2017-007	Mud	4.28	4.33	186944	1.40e1	1.60e1	4.10e1	1.40e1	1.30e1	5.20e1	2.30e1	1.08e2	5.50e1	1.70e2	1.61e2	5.90e1	2.28e2	1.80e2	1.99e2	8.70e1
2017-007	Mud	6.93	6.98	186945	1.40e1	2.00e1	3.20e1	1.20e1	1.10e1	4.30e1	2.30e1	7.50e1	5.20e1	1.27e2	1.39e2	6.40e1	1.98e2	1.58e2	1.93e2	9.10e1
2017-009	Mud	4.80	4.85	186947	2.30e1	1.80e1	5.70e1	1.70e1	1.00e1	7.10e1	2.80e1	1.64e2	6.50e1	1.55e2	1.70e2	3.60e1	2.07e2	8.60e1	1.97e2	5.60e1
2017-009	Mud	6.10	6.15	186948	1.80e1	1.80e1	4.60e1	1.00e1	6.00e0	5.20e1	1.70e1	1.20e2	3.10e1	1.36e2	1.42e2	3.00e1	1.54e2	7.20e1	1.57e2	5.70e1
2017-009	Mud	7.50	7.55	186949	1.40e1	1.10e1	2.20e1	4.00e0	3.00e0	2.40e1	1.10e1	4.00e1	1.70e1	5.70e1	6.40e1	1.70e1	7.00e1	5.30e1	7.50e1	3.20e1
2017-012	Mud	3.70	3.75	186951	1.80e1	1.30e1	3.30e1	1.00e1	4.00e0	4.60e1	1.80e1	9.00e1	2.70e1	1.12e2	1.34e2	2.40e1	1.46e2	5.80e1	1.45e2	3.50e1
2017-012	Mud	6.95	7.00	186952	2.00e1	1.90e1	4.60e1	9.00e0	7.00e0	5.10e1	2.50e1	1.03e2	3.70e1	1.03e2	1.22e2	2.50e1	1.19e2	6.40e1	1.46e2	4.70e1
2017-012	Mud	8.15	8.20	186953	2.60e1	2.20e1	6.40e1	0.00e0	9.00e0	7.20e1	2.90e1	1.53e2	4.70e1	1.53e2	1.83e2	2.90e1	2.04e2	7.60e1	2.09e2	3.80e1
2017-015	Mud	1.30	1.35	186955	1.50e1	1.40e1	2.90e1	9.00e0	6.00e0	3.80e1	1.40e1	6.70e1	2.30e1	7.80e1	9.90e1	2.30e1	1.20e2	5.80e1	1.15e2	4.00e1
2017-015	Mud	2.10	2.15	186956	1.70e1	2.00e1	4.30e1	2.20e1	2.50e1	6.90e1	3.90e1	1.24e2	9.60e1	2.21e2	2.67e2	1.32e2	3.15e2	2.08e2	3.06e2	1.39e2
2017-015	Mud	2.80	2.85	186957	1.90e1	2.70e1	4.70e1	2.50e1	2.70e1	6.90e1	4.10e1	1.40e2	9.70e1	2.51e2	2.76e2	1.27e2	3.31e2	2.24e2	3.15e2	1.42e2
2017-018	Mud	2.60	2.65	186959	2.00e1	1.70e1	4.50e1	1.90e1	9.00e0	6.70e1	2.40e1	1.36e2	4.20e1	1.54e2	1.75e2	3.50e1	1.78e2	7.10e1	2.22e2	4.80e1
2017-018	Mud	3.90	3.95	186960	0.00e0	0.00e0	6.00e0	0.00e0	0.00e0	1.30e1	1.00e1	3.40e1	1.80e1	6.40e1	8.80e1	2.50e1	1.17e2	6.90e1	1.40e2	4.80e1
2017-018	Mud	5.05	5.10	186961	1.50e1	1.60e1	2.90e1	1.30e1	1.10e1	4.00e1	2.10e1	6.80e1	4.60e1	1.20e2	1.23e2	5.40e1	1.64e2	1.24e2	1.63e2	7.40e1
2017-020	Mud	1.50	1.55	186963	1.50e1	1.00e1	2.80e1	0.00e0	4.00e0	4.10e1	1.50e1	8.80e1	2.80e1	1.06e2	1.23e2	2.50e1	1.21e2	5.50e1	1.45e2	4.20e1
2017-020	Mud	3.70	3.75	186964	0.00e0	0.00e0	9.00e0	0.00e0	0.00e0	1.40e1	7.00e0	2.60e1	1.20e1	5.80e1	4.70e1	1.60e1	5.60e1	4.80e1	6.90e1	3.20e1
2017-020	Mud	5.11	5.16	186965	2.00e1	2.30e1	3.70e1	1.60e1	1.20e1	5.40e1	2.50e1	8.90e1	5.30e1	1.35e2	1.41e2	5.30e1	1.72e2	1.38e2	1.76e2	7.80e1
2017-021	Mud	2.90	2.95	186967	4.10e1	3.50e1	9.80e1	0.00e0	1.90e1	1.19e2	4.80e1	2.15e2	8.20e1	2.30e2	2.73e2	6.00e1	2.85e2	1.46e2	3.28e2	1.00e2
2017-021	Mud	4.73	4.78	186968	2.30e1	1.80e1	4.00e1	1.00e1	9.00e0	5.20e1	2.20e1	8.90e1	3.40e1	1.22e2	1.25e2	3.20e1	1.56e2	1.40e2	1.49e2	5.70e1
2017-021	Mud	6.97	7.02	186969	0.00e0	0.00e0	1.20e1	5.00e0	5.00e0	1.80e1	1.30e1	4.40e1	2.40e1	9.60e1	1.03e2	3.90e1	1.29e2	1.25e2	1.47e2	6.80e1
2017-024	Mud	4.40	4.45	186971	0.00e0	0.00e0	2.00e1	0.00e0	0.00e0	3.40e1	1.70e1	7.70e1	2.50e1	9.80e1	1.22e2	2.30e1	1.47e2	6.00e1	1.72e2	6.20e1

Piston Core	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	Ph
2017-024	Mud	6.55	6.60	186972	1.00e1	1.00e1	2.20e1	7.00e0	4.00e0	2.50e1	1.40e1	4.80e1	2.40e1	8.30e1	9.40e1	3.00e1	1.31e2	7.50e1	1.31e2	5.70e1
2017-024	Mud	8.18	8.23	186973	8.00e0	8.00e0	1.80e1	1.00e1	6.00e0	2.30e1	1.10e1	4.50e1	2.30e1	1.01e2	9.70e1	3.70e1	1.22e2	1.11e2	1.41e2	6.50e1
2017-027	Mud	5.15	5.20	186975	1.30e1	1.60e1	3.70e1	1.00e1	7.00e0	4.70e1	1.90e1	1.01e2	3.10e1	1.30e2	1.41e2	2.90e1	1.46e2	1.34e2	1.68e2	3.60e1
2017-027	Mud	5.88	5.93	186976	1.80e1	1.20e1	3.00e1	6.00e0	0.00e0	3.10e1	1.20e1	6.40e1	1.80e1	1.06e2	8.40e1	2.20e1	1.09e2	5.10e1	1.00e2	3.60e1
2017-027	Mud	6.68	6.73	186977	0.00e0	7.00e0	1.80e1	8.00e0	6.00e0	2.40e1	1.10e1	6.10e1	3.00e1	1.07e2	1.17e2	4.00e1	1.32e2	1.17e2	1.60e2	7.20e1
2017-030	Mud	3.20	3.25	186979	2.60e1	1.70e1	4.90e1	1.50e1	6.00e0	5.00e1	2.30e1	9.60e1	3.90e1	1.20e2	1.35e2	3.10e1	1.27e2	7.00e1	1.76e2	5.10e1
2017-030	Mud	4.90	4.95	186980	1.80e1	1.40e1	4.70e1	9.00e0	3.00e0	4.10e1	1.70e1	1.02e2	2.50e1	1.12e2	1.23e2	2.50e1	1.24e2	5.80e1	1.44e2	4.50e1
2017-030	Mud	6.32	6.37	186981	1.70e1	1.40e1	2.70e1	6.00e0	5.00e0	2.70e1	1.20e1	5.20e1	1.80e1	7.40e1	7.50e1	2.00e1	8.70e1	4.80e1	8.50e1	3.30e1

Table 9. continued, GC of EOM fractions (peak area)

Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	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
2017-001	Mud	2.20	2.25	186931	1.68e2	1.41e2	1.42e2	1.36e2	1.53e2	1.26e2	2.78e2	1.46e2	3.99e2	1.22e2	4.48e2	1.01e2	4.39e2	6.50e1	1.14e2	3.20e1
2017-001	Mud	4.25	4.30	186932	2.05e2	1.76e2	1.68e2	1.66e2	1.68e2	1.41e2	2.39e2	1.48e2	3.28e2	1.21e2	4.08e2	1.03e2	3.28e2	8.10e1	9.10e1	4.50e1
2017-001	Mud	7.20	7.25	186933	1.37e2	1.31e2	1.46e2	1.57e2	1.56e2	1.37e2	2.08e2	1.31e2	2.42e2	1.01e2	2.39e2	8.00e1	2.41e2	6.00e1	6.70e1	3.30e1
2017-003	Mud	2.90	2.95	186935	4.10e1	3.20e1	2.30e1	2.70e1	2.50e1	2.10e1	2.40e1	1.70e1	3.20e1	0.00e0	3.40e1	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0
2017-003	Mud	4.50	4.55	186936	1.38e2	1.23e2	1.29e2	1.06e2	1.17e2	9.50e1	1.58e2	9.80e1	1.93e2	8.80e1	2.25e2	7.20e1	1.61e2	5.60e1	6.10e1	1.90e1
2017-003	Mud	6.46	6.51	186937	1.20e1	7.00e0	7.00e0	6.00e0	5.00e0	3.00e0	4.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0
2017-005	Mud	4.80	4.85	186939	1.25e2	1.16e2	1.11e2	9.60e1	1.27e2	9.60e1	1.95e2	1.12e2	2.97e2	1.18e2	3.49e2	7.90e1	3.61e2	6.00e1	8.70e1	3.20e1
2017-005	Mud	6.20	6.25	186940	9.10e1	7.40e1	6.10e1	5.30e1	6.10e1	4.90e1	7.00e1	5.20e1	8.10e1	3.20e1	9.10e1	2.50e1	6.00e1	1.40e1	2.10e1	0.00e0
2017-005	Mud	7.32	7.37	186941	9.10e1	7.70e1	1.00e2	9.00e1	1.42e2	1.11e2	2.45e2	1.13e2	3.20e2	9.40e1	2.63e2	6.10e1	2.94e2	4.20e1	8.10e1	2.50e1
2017-007	Mud	3.23	3.28	186943	1.31e2	1.17e2	1.23e2	1.11e2	1.26e2	1.17e2	1.54e2	1.01e2	1.75e2	8.60e1	1.69e2	6.40e1	1.45e2	4.40e1	6.50e1	2.70e1
2017-007	Mud	4.28	4.33	186944	1.94e2	1.69e2	1.78e2	1.50e2	1.83e2	1.58e2	2.35e2	1.45e2	2.74e2	1.24e2	2.50e2	8.60e1	2.23e2	6.70e1	9.30e1	4.80e1
2017-007	Mud	6.93	6.98	186945	2.06e2	1.76e2	1.91e2	1.63e2	1.99e2	1.65e2	2.47e2	1.50e2	2.78e2	1.41e2	2.35e2	8.10e1	2.02e2	5.80e1	9.10e1	4.30e1
2017-009	Mud	4.80	4.85	186947	1.34e2	1.23e2	1.28e2	9.70e1	1.55e2	1.14e2	2.56e2	1.31e2	4.25e2	1.54e2	5.00e2	8.00e1	3.44e2	5.90e1	1.22e2	3.00e1
2017-009	Mud	6.10	6.15	186948	1.09e2	1.03e2	1.02e2	7.80e1	9.80e1	7.60e1	1.29e2	8.20e1	1.57e2	6.90e1	1.83e2	6.10e1	1.51e2	4.10e1	6.40e1	2.20e1
2017-009	Mud	7.50	7.55	186949	6.60e1	5.60e1	6.00e1	6.40e1	6.80e1	5.80e1	8.80e1	5.90e1	1.03e2	5.60e1	1.01e2	3.90e1	8.50e1	2.30e1	3.70e1	1.40e1
2017-012	Mud	3.70	3.75	186951	9.30e1	9.70e1	9.20e1	9.00e1	1.41e2	1.03e2	2.23e2	1.25e2	3.68e2	1.04e2	3.87e2	8.90e1	3.10e2	4.40e1	1.19e2	2.70e1
2017-012	Mud	6.95	7.00	186952	9.40e1	9.60e1	8.10e1	8.60e1	1.24e2	9.10e1	1.90e2	1.07e2	2.79e2	1.01e2	3.01e2	6.60e1	2.23e2	4.10e1	8.90e1	2.20e1
2017-012	Mud	8.15	8.20	186953	1.26e2	1.27e2	1.32e2	1.19e2	1.43e2	1.09e2	2.30e2	1.05e2	3.02e2	1.06e2	3.40e2	7.90e1	2.60e2	4.60e1	1.16e2	2.70e1
2017-015	Mud	1.30	1.35	186955	9.50e1	8.80e1	8.30e1	9.00e1	8.10e1	6.60e1	9.90e1	6.80e1	1.16e2	7.00e1	1.35e2	4.90e1	1.10e2	3.40e1	4.90e1	2.00e1
2017-015	Mud	2.10	2.15	186956	3.12e2	2.58e2	2.42e2	2.26e2	2.18e2	1.95e2	2.09e2	1.60e2	1.95e2	1.25e2	1.62e2	9.10e1	1.32e2	6.90e1	6.40e1	4.90e1
2017-015	Mud	2.80	2.85	186957	3.12e2	2.64e2	2.46e2	2.17e2	2.24e2	1.96e2	2.18e2	1.68e2	2.13e2	1.46e2	1.81e2	9.60e1	1.40e2	7.60e1	7.50e1	4.50e1
2017-018	Mud	2.60	2.65	186959	1.43e2	1.30e2	1.24e2	1.00e2	1.40e2	1.01e2	2.22e2	1.11e2	2.87e2	1.08e2	3.32e2	9.00e1	2.55e2	5.00e1	1.09e2	2.70e1
2017-018	Mud	3.90	3.95	186960	1.16e2	1.10e2	9.90e1	9.30e1	1.12e2	8.90e1	1.37e2	9.40e1	1.67e2	8.20e1	1.84e2	6.70e1	1.53e2	4.10e1	6.70e1	2.50e1
2017-018	Mud	5.05	5.10	186961	1.71e2	1.63e2	1.62e2	1.49e2	1.72e2	1.45e2	1.88e2	1.30e2	2.08e2	1.19e2	1.81e2	7.70e1	1.40e2	5.60e1	6.60e1	3.60e1
2017-020	Mud	1.50	1.55	186963	9.00e1	1.00e2	8.80e1	7.50e1	1.13e2	8.70e1	1.87e2	1.03e2	2.66e2	9.20e1	2.96e2	7.20e1	2.36e2	4.50e1	8.70e1	2.30e1
2017-020	Mud	3.70	3.75	186964	6.00e1	5.40e1	6.40e1	6.70e1	9.60e1	8.10e1	1.30e2	7.70e1	1.66e2	5.10e1	1.30e2	4.50e1	1.05e2	3.20e1	4.50e1	2.10e1
2017-020	Mud	5.11	5.16	186965	1.68e2	1.59e2	1.53e2	1.52e2	1.59e2	1.36e2	1.72e2	1.19e2	1.92e2	1.04e2	1.67e2	6.50e1	1.26e2	4.40e1	6.20e1	3.30e1
2017-021	Mud	2.90	2.95	186967	2.30e2	2.06e2	2.13e2	1.86e2	2.56e2	1.95e2	4.36e2	2.06e2	5.89e2	1.86e2	6.07e2	1.44e2	4.72e2	9.00e1	2.07e2	5.30e1
2017-021	Mud	4.73	4.78	186968	1.23e2	1.05e2	9.00e1	9.90e1	1.03e2	8.50e1	1.38e2	9.80e1	1.67e2	8.30e1	2.14e2	7.20e1	1.70e2	4.70e1	7.40e1	2.40e1
2017-021	Mud	6.97	7.02	186969	1.43e2	1.28e2	1.30e2	1.37e2	1.46e2	1.38e2	1.73e2	1.18e2	2.07e2	9.50e1	1.87e2	6.80e1	1.58e2	5.10e1	6.70e1	3.60e1
2017-024	Mud	4.40	4.45	186971	1.22e2	1.09e2	1.26e2	9.00e1	1.15e2	8.30e1	1.70e2	9.60e1	2.01e2	8.70e1	2.41e2	6.50e1	1.94e2	4.10e1	8.50e1	2.20e1

Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	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
2017-024	Mud	6.55	6.60	186972	1.31e2	1.15e2	1.15e2	1.01e2	1.27e2	1.06e2	1.51e2	1.03e2	1.82e2	8.10e1	1.92e2	6.60e1	1.53e2	4.40e1	6.60e1	2.10e1
2017-024	Mud	8.18	8.23	186973	1.39e2	1.26e2	1.28e2	1.27e2	1.42e2	1.30e2	1.62e2	1.12e2	1.91e2	9.70e1	1.70e2	6.40e1	1.36e2	4.50e1	6.00e1	2.80e1
2017-027	Mud	5.15	5.20	186975	1.31e2	1.11e2	1.02e2	8.40e1	1.08e2	8.40e1	1.51e2	1.02e2	1.92e2	8.40e1	2.43e2	7.50e1	1.89e2	4.60e1	8.20e1	2.70e1
2017-027	Mud	5.88	5.93	186976	7.70e1	7.90e1	1.05e2	1.21e2	2.05e2	1.48e2	2.84e2	1.55e2	4.00e2	1.12e2	2.96e2	7.60e1	2.40e2	5.00e1	9.60e1	2.60e1
2017-027	Mud	6.68	6.73	186977	1.56e2	1.39e2	1.42e2	1.33e2	1.52e2	1.44e2	1.71e2	1.16e2	2.00e2	1.01e2	1.77e2	6.90e1	1.43e2	4.70e1	6.30e1	2.60e1
2017-030	Mud	3.20	3.25	186979	1.15e2	1.18e2	1.12e2	9.10e1	1.52e2	1.22e2	2.30e2	1.40e2	3.08e2	1.26e2	3.61e2	1.02e2	2.76e2	5.80e1	1.18e2	4.10e1
2017-030	Mud	4.90	4.95	186980	1.03e2	8.80e1	8.60e1	8.00e1	1.02e2	7.90e1	1.33e2	9.60e1	1.65e2	7.80e1	1.98e2	6.00e1	1.53e2	4.70e1	6.80e1	2.90e1
2017-030	Mud	6.32	6.37	186981	6.50e1	6.70e1	8.80e1	9.30e1	1.59e2	1.20e2	2.25e2	1.21e2	3.10e2	8.30e1	2.31e2	6.30e1	1.85e2	3.30e1	6.90e1	2.40e1

Table 9. continued, GC of EOM fractions (peak area)

Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	n-C35	n-C36	n-C37	n-C38	n-C39	n-C40	n-C41	n-C42	UCM_C12-C22	UCM_C23-C42
2017-001	Mud	2.20	2.25	186931	5.10e1	2.32e2	4.30e1	1.43e2	0.00e0	0.00e0	0.00e0	0.00e0	1.35e4	4.02e4
2017-001	Mud	4.25	4.30	186932	6.30e1	1.09e2	3.70e1	1.16e2	8.60e1	0.00e0	0.00e0	0.00e0	2.10e4	5.82e4
2017-001	Mud	7.20	7.25	186933	3.60e1	2.60e1	1.10e1	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	1.14e4	4.08e4
2017-003	Mud	2.90	2.95	186935	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	1.10e4	1.96e4
2017-003	Mud	4.50	4.55	186936	3.80e1	2.10e1	1.70e1	1.60e1	7.00e0	6.00e0	0.00e0	0.00e0	1.06e4	2.94e4
2017-003	Mud	6.46	6.51	186937	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	4.36e3	8.38e3
2017-005	Mud	4.80	4.85	186939	4.00e1	2.80e1	2.50e1	1.70e1	1.10e1	1.00e1	0.00e0	0.00e0	1.46e4	3.58e4
2017-005	Mud	6.20	6.25	186940	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	9.55e3	1.86e4
2017-005	Mud	7.32	7.37	186941	2.90e1	1.70e1	1.10e1	8.00e0	7.00e0	5.00e0	3.00e0	0.00e0	9.54e3	2.81e4
2017-007	Mud	3.23	3.28	186943	2.80e1	1.80e1	1.10e1	1.00e1	1.50e1	6.00e0	0.00e0	0.00e0	1.27e4	2.84e4
2017-007	Mud	4.28	4.33	186944	4.60e1	2.50e1	1.60e1	1.30e1	1.20e1	6.00e0	6.00e0	0.00e0	1.56e4	3.63e4
2017-007	Mud	6.93	6.98	186945	4.00e1	2.50e1	1.70e1	1.40e1	1.60e1	9.00e0	8.00e0	6.00e0	1.49e4	3.58e4
2017-009	Mud	4.80	4.85	186947	6.30e1	2.60e1	2.00e1	1.60e1	2.30e1	0.00e0	0.00e0	0.00e0	1.81e4	4.71e4
2017-009	Mud	6.10	6.15	186948	3.20e1	2.90e1	1.50e1	2.50e1	0.00e0	0.00e0	0.00e0	0.00e0	1.28e4	2.73e4
2017-009	Mud	7.50	7.55	186949	2.00e1	1.20e1	6.00e0	7.00e0	8.00e0	3.00e0	3.00e0	0.00e0	6.51e3	1.64e4
2017-012	Mud	3.70	3.75	186951	4.10e1	5.90e1	1.50e1	2.70e1	1.40e1	1.30e1	0.00e0	0.00e0	1.27e4	2.97e4
2017-012	Mud	6.95	7.00	186952	3.60e1	3.10e1	1.30e1	1.20e1	0.00e0	0.00e0	0.00e0	0.00e0	1.55e4	3.28e4
2017-012	Mud	8.15	8.20	186953	5.30e1	2.80e1	1.70e1	2.90e1	1.80e1	0.00e0	0.00e0	0.00e0	1.98e4	4.47e4
2017-015	Mud	1.30	1.35	186955	2.30e1	3.40e1	1.40e1	1.00e1	1.10e1	4.00e0	0.00e0	0.00e0	9.49e3	2.12e4
2017-015	Mud	2.10	2.15	186956	3.80e1	2.60e1	1.40e1	1.50e1	1.40e1	8.00e0	5.00e0	3.00e0	1.71e4	3.35e4
2017-015	Mud	2.80	2.85	186957	3.90e1	2.90e1	1.70e1	1.30e1	1.50e1	9.00e0	5.00e0	6.00e0	1.86e4	3.37e4
2017-018	Mud	2.60	2.65	186959	3.90e1	2.20e1	2.10e1	3.40e1	1.20e1	7.00e0	7.00e0	8.00e0	1.70e4	3.69e4
2017-018	Mud	3.90	3.95	186960	2.90e1	1.60e1	1.30e1	2.20e1	1.80e1	1.00e1	4.00e0	0.00e0	9.83e3	2.32e4
2017-018	Mud	5.05	5.10	186961	3.30e1	2.70e1	1.40e1	1.30e1	1.50e1	8.00e0	4.00e0	0.00e0	1.41e4	2.91e4
2017-020	Mud	1.50	1.55	186963	2.70e1	2.70e1	1.13e2	3.40e1	2.45e2	9.00e0	0.00e0	0.00e0	1.29e4	3.34e4
2017-020	Mud	3.70	3.75	186964	1.90e1	1.40e1	8.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	6.60e3	1.49e4
2017-020	Mud	5.11	5.16	186965	3.00e1	1.90e1	1.00e1	1.90e1	1.10e1	6.00e0	5.00e0	0.00e0	1.38e4	2.61e4
2017-021	Mud	2.90	2.95	186967	9.10e1	0.00e0	3.40e1	1.90e1	0.00e0	0.00e0	0.00e0	0.00e0	2.84e4	6.83e4
2017-021	Mud	4.73	4.78	186968	2.90e1	3.50e1	1.30e1	8.90e1	3.90e1	2.80e1	7.00e0	0.00e0	1.32e4	2.96e4
2017-021	Mud	6.97	7.02	186969	3.10e1	1.60e1	9.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	1.24e4	2.93e4
2017-024	Mud	4.40	4.45	186971	3.30e1	2.60e1	2.20e1	4.40e1	1.10e1	0.00e0	0.00e0	0.00e0	1.39e4	3.23e4

Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	n-C35	n-C36	n-C37	n-C38	n-C39	n-C40	n-C41	n-C42	UCM_C12-C22	UCM_C23-C42
2017-024	Mud	6.55	6.60	186972	3.10e1	1.30e1	1.20e1	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	1.17e4	2.63e4
2017-024	Mud	8.18	8.23	186973	3.00e1	1.70e1	1.00e1	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	1.16e4	2.57e4
2017-027	Mud	5.15	5.20	186975	3.20e1	2.20e1	1.70e1	1.37e2	2.90e1	3.60e1	7.00e0	0.00e0	1.44e4	3.22e4
2017-027	Mud	5.88	5.93	186976	2.70e1	2.20e1	1.00e1	9.00e0	0.00e0	0.00e0	0.00e0	0.00e0	8.97e3	2.08e4
2017-027	Mud	6.68	6.73	186977	2.60e1	1.80e1	1.10e1	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	1.32e4	2.69e4
2017-030	Mud	3.20	3.25	186979	4.20e1	2.20e1	1.80e1	1.42e2	3.70e1	2.40e1	1.40e1	0.00e0	1.76e4	4.01e4
2017-030	Mud	4.90	4.95	186980	3.20e1	3.40e1	1.80e1	2.60e1	2.70e1	0.00e0	0.00e0	0.00e0	1.30e4	2.78e4
2017-030	Mud	6.32	6.37	186981	2.70e1	1.50e1	9.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	8.42e3	2.00e4

Table 10. GC of EOM fractions (amounts in ng/g)

Piston Core	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	Ph
2017-001	Mud	2.20	2.25	186931	0.00e0	0.00e0	4.93e4	1.59e4	8.33e3	1.19e5	4.37e4	2.27e5	7.68e4	3.17e5	3.90e5	7.97e4	4.84e5	3.01e5	5.01e5	1.19e5
2017-001	Mud	4.25	4.30	186932	1.88e4	2.21e4	6.45e4	2.70e4	1.09e4	1.24e5	5.45e4	2.86e5	8.78e4	3.81e5	4.59e5	9.19e4	5.44e5	2.49e5	5.62e5	2.23e5
2017-001	Mud	7.20	7.25	186933	9.68e3	1.65e4	2.26e4	9.07e3	9.12e3	4.44e4	3.32e4	1.00e5	5.99e4	2.32e5	2.45e5	1.04e5	4.21e5	2.93e5	3.67e5	1.81e5
2017-003	Mud	2.90	2.95	186935	0.00e0	0.00e0	1.21e5	0.00e0	0.00e0	2.00e5	7.89e4	4.31e5	1.01e5	5.67e5	4.87e5	1.53e5	6.30e5	2.72e5	6.40e5	1.95e5
2017-003	Mud	4.50	4.55	186936	0.00e0	0.00e0	5.16e4	1.21e4	5.72e3	9.13e4	4.27e4	2.20e5	6.18e4	3.86e5	4.29e5	8.59e4	5.13e5	2.47e5	5.91e5	1.94e5
2017-003	Mud	6.46	6.51	186937	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	3.22e5	2.54e5	7.12e5	3.68e5	2.03e6	8.30e5	5.62e5	2.60e6	1.27e6	1.44e6	6.72e5
2017-005	Mud	4.80	4.85	186939	0.00e0	0.00e0	5.00e4	0.00e0	0.00e0	8.90e4	4.39e4	2.02e5	7.16e4	3.07e5	3.61e5	7.14e4	4.13e5	2.08e5	5.07e5	1.09e5
2017-005	Mud	6.20	6.25	186940	0.00e0	3.27e4	7.18e4	0.00e0	0.00e0	1.43e5	5.93e4	3.53e5	8.20e4	4.74e5	4.82e5	9.54e4	6.91e5	3.44e5	5.48e5	1.74e5
2017-005	Mud	7.32	7.37	186941	7.77e4	7.43e4	1.29e5	3.48e4	2.56e4	1.64e5	7.09e4	2.74e5	1.08e5	4.30e5	4.22e5	1.04e5	5.15e5	2.88e5	5.31e5	2.40e5
2017-007	Mud	3.23	3.28	186943	1.02e5	9.17e4	1.80e5	4.13e4	4.38e4	2.40e5	1.04e5	5.16e5	2.26e5	7.72e5	7.35e5	2.26e5	9.65e5	7.49e5	8.28e5	3.92e5
2017-007	Mud	4.28	4.33	186944	6.09e4	6.85e4	1.77e5	6.04e4	5.58e4	2.26e5	1.01e5	4.67e5	2.38e5	7.33e5	6.97e5	2.53e5	9.82e5	7.77e5	8.59e5	3.77e5
2017-007	Mud	6.93	6.98	186945	1.60e4	2.41e4	3.80e4	1.40e4	1.35e4	5.04e4	2.66e4	8.82e4	6.10e4	1.50e5	1.64e5	7.52e4	2.33e5	1.86e5	2.28e5	1.07e5
2017-009	Mud	4.80	4.85	186947	3.52e4	2.74e4	8.70e4	2.58e4	1.59e4	1.09e5	4.21e4	2.52e5	1.00e5	2.37e5	2.60e5	5.54e4	3.17e5	1.31e5	3.02e5	8.60e4
2017-009	Mud	6.10	6.15	186948	7.54e4	7.60e4	1.90e5	4.32e4	2.48e4	2.13e5	7.21e4	4.95e5	1.26e5	5.59e5	5.86e5	1.22e5	6.34e5	2.95e5	6.45e5	2.36e5
2017-009	Mud	7.50	7.55	186949	1.23e5	9.62e4	1.94e5	3.84e4	2.88e4	2.13e5	9.35e4	3.54e5	1.47e5	5.03e5	5.64e5	1.46e5	6.17e5	4.64e5	6.63e5	2.86e5
2017-012	Mud	3.70	3.75	186951	6.34e4	4.82e4	1.19e5	3.47e4	1.61e4	1.66e5	6.61e4	3.23e5	9.81e4	4.00e5	4.80e5	8.59e4	5.23e5	2.08e5	5.19e5	1.24e5
2017-012	Mud	6.95	7.00	186952	3.42e4	3.30e4	8.05e4	1.61e4	1.19e4	8.84e4	4.36e4	1.80e5	6.47e4	1.79e5	2.13e5	4.29e4	2.07e5	1.11e5	2.55e5	8.21e4
2017-012	Mud	8.15	8.20	186953	3.86e4	3.28e4	9.37e4	0.00e0	1.37e4	1.06e5	4.31e4	2.25e5	6.91e4	2.26e5	2.70e5	4.27e4	3.00e5	1.13e5	3.08e5	5.66e4
2017-015	Mud	1.30	1.35	186955	8.54e4	7.70e4	1.63e5	5.02e4	3.56e4	2.13e5	7.88e4	3.75e5	1.26e5	4.36e5	5.52e5	1.26e5	6.69e5	3.23e5	6.41e5	2.22e5
2017-015	Mud	2.10	2.15	186956	7.75e4	9.14e4	1.95e5	1.01e5	1.12e5	3.12e5	1.75e5	5.61e5	4.34e5	1.00e6	1.21e6	5.96e5	1.42e6	9.42e5	1.38e6	6.27e5
2017-015	Mud	2.80	2.85	186957	7.80e4	1.12e5	1.91e5	1.04e5	1.10e5	2.83e5	1.67e5	5.74e5	3.95e5	1.03e6	1.13e6	5.19e5	1.35e6	9.14e5	1.29e6	5.82e5
2017-018	Mud	2.60	2.65	186959	4.76e4	4.04e4	1.04e5	4.35e4	2.04e4	1.56e5	5.59e4	3.17e5	9.68e4	3.60e5	4.09e5	8.15e4	4.15e5	1.65e5	5.17e5	1.11e5
2017-018	Mud	3.90	3.95	186960	0.00e0	0.00e0	2.98e4	0.00e0	0.00e0	6.17e4	5.07e4	1.67e5	8.64e4	3.12e5	4.26e5	1.24e5	5.66e5	3.36e5	6.80e5	2.31e5
2017-018	Mud	5.05	5.10	186961	6.61e4	7.00e4	1.29e5	5.72e4	5.13e4	1.82e5	9.49e4	3.06e5	2.09e5	5.44e5	5.55e5	2.45e5	7.41e5	5.60e5	7.38e5	3.36e5
2017-020	Mud	1.50	1.55	186963	5.16e4	3.43e4	9.55e4	0.00e0	1.49e4	1.40e5	4.97e4	2.98e5	9.66e4	3.59e5	4.16e5	8.54e4	4.10e5	1.88e5	4.94e5	1.41e5
2017-020	Mud	3.70	3.75	186964	0.00e0	0.00e0	7.01e4	0.00e0	0.00e0	1.06e5	5.20e4	1.97e5	8.80e4	4.35e5	3.52e5	1.22e5	4.21e5	3.57e5	5.17e5	2.39e5
2017-020	Mud	5.11	5.16	186965	2.79e4	3.23e4	5.22e4	2.32e4	1.76e4	7.65e4	3.51e4	1.27e5	7.50e4	1.91e5	2.01e5	7.58e4	2.45e5	1.96e5	2.50e5	1.11e5
2017-021	Mud	2.90	2.95	186967	4.73e4	3.96e4	1.12e5	0.00e0	2.16e4	1.37e5	5.49e4	2.47e5	9.38e4	2.63e5	3.13e5	6.93e4	3.27e5	1.68e5	3.76e5	1.15e5
2017-021	Mud	4.73	4.78	186968	9.25e4	7.25e4	1.63e5	4.11e4	3.81e4	2.09e5	8.99e4	3.58e5	1.38e5	4.94e5	5.06e5	1.29e5	6.30e5	5.66e5	6.05e5	2.31e5
2017-021	Mud	6.97	7.02	186969	0.00e0	0.00e0	4.89e4	2.19e4	2.01e4	7.67e4	5.50e4	1.82e5	1.00e5	4.02e5	4.30e5	1.64e5	5.38e5	5.21e5	6.12e5	2.85e5
2017-024	Mud	4.40	4.45	186971	0.00e0	0.00e0	5.49e4	0.00e0	0.00e0	9.10e4	4.46e4	2.06e5	6.83e4	2.64e5	3.28e5	6.17e4	3.95e5	1.60e5	4.63e5	1.65e5

Piston Core	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	Ph
2017-024	Mud	6.55	6.60	186972	4.93e4	4.95e4	1.06e5	3.25e4	1.84e4	1.17e5	6.78e4	2.26e5	1.15e5	3.92e5	4.45e5	1.43e5	6.23e5	3.57e5	6.19e5	2.70e5
2017-024	Mud	8.18	8.23	186973	5.06e4	4.78e4	1.10e5	5.94e4	3.95e4	1.42e5	7.01e4	2.79e5	1.39e5	6.21e5	5.98e5	2.30e5	7.56e5	6.89e5	8.73e5	4.02e5
2017-027	Mud	5.15	5.20	186975	5.39e4	6.72e4	1.54e5	4.40e4	2.91e4	1.95e5	8.14e4	4.21e5	1.31e5	5.44e5	5.90e5	1.20e5	6.11e5	5.61e5	7.03e5	1.51e5
2017-027	Mud	5.88	5.93	186976	1.02e5	6.95e4	1.73e5	3.57e4	0.00e0	1.74e5	6.61e4	3.62e5	1.04e5	6.02e5	4.78e5	1.24e5	6.22e5	2.89e5	5.67e5	2.02e5
2017-027	Mud	6.68	6.73	186977	0.00e0	3.24e4	8.49e4	3.68e4	2.93e4	1.13e5	5.51e4	2.94e5	1.46e5	5.16e5	5.64e5	1.93e5	6.32e5	5.62e5	7.66e5	3.44e5
2017-030	Mud	3.20	3.25	186979	6.00e4	3.87e4	1.13e5	3.37e4	1.44e4	1.15e5	5.39e4	2.22e5	9.10e4	2.77e5	3.13e5	7.15e4	2.93e5	1.63e5	4.08e5	1.18e5
2017-030	Mud	4.90	4.95	186980	9.11e4	6.76e4	2.34e5	4.52e4	1.73e4	2.07e5	8.53e4	5.09e5	1.23e5	5.56e5	6.12e5	1.25e5	6.16e5	2.87e5	7.17e5	2.22e5
2017-030	Mud	6.32	6.37	186981	1.13e5	9.27e4	1.80e5	3.77e4	3.19e4	1.80e5	8.13e4	3.46e5	1.23e5	4.93e5	4.99e5	1.36e5	5.81e5	3.19e5	5.66e5	2.20e5

Table 10. continued, GC of EOM fractions (amounts in ng/g)

Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	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
2017-001	Mud	2.20	2.25	186931	3.84e5	3.21e5	3.23e5	3.10e5	3.48e5	2.86e5	6.33e5	3.32e5	9.08e5	2.78e5	1.02e6	2.31e5	1.00e6	1.47e5	2.60e5	7.26e4
2017-001	Mud	4.25	4.30	186932	4.31e5	3.71e5	3.54e5	3.49e5	3.54e5	2.96e5	5.03e5	3.11e5	6.90e5	2.55e5	8.59e5	2.17e5	6.90e5	1.71e5	1.92e5	9.45e4
2017-001	Mud	7.20	7.25	186933	3.32e5	3.18e5	3.52e5	3.79e5	3.78e5	3.31e5	5.02e5	3.16e5	5.85e5	2.43e5	5.78e5	1.93e5	5.82e5	1.44e5	1.61e5	8.07e4
2017-003	Mud	2.90	2.95	186935	2.81e5	2.16e5	1.60e5	1.87e5	1.71e5	1.44e5	1.66e5	1.18e5	2.21e5	0.00e0	2.29e5	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0
2017-003	Mud	4.50	4.55	186936	4.63e5	4.14e5	4.35e5	3.56e5	3.95e5	3.19e5	5.34e5	3.30e5	6.52e5	2.95e5	7.59e5	2.41e5	5.42e5	1.88e5	2.07e5	6.44e4
2017-003	Mud	6.46	6.51	186937	1.07e6	6.23e5	6.07e5	5.74e5	4.39e5	2.61e5	3.78e5	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0
2017-005	Mud	4.80	4.85	186939	3.47e5	3.24e5	3.10e5	2.67e5	3.54e5	2.67e5	5.43e5	3.13e5	8.29e5	3.28e5	9.74e5	2.19e5	1.01e6	1.66e5	2.42e5	8.98e4
2017-005	Mud	6.20	6.25	186940	4.07e5	3.28e5	2.74e5	2.37e5	2.73e5	2.19e5	3.14e5	2.29e5	3.62e5	1.42e5	4.07e5	1.11e5	2.67e5	6.08e4	9.52e4	0.00e0
2017-005	Mud	7.32	7.37	186941	4.88e5	4.12e5	5.35e5	4.84e5	7.61e5	5.97e5	1.31e6	6.07e5	1.71e6	5.02e5	1.41e6	3.25e5	1.58e6	2.26e5	4.35e5	1.33e5
2017-007	Mud	3.23	3.28	186943	7.79e5	6.96e5	7.33e5	6.61e5	7.49e5	6.97e5	9.14e5	6.02e5	1.04e6	5.12e5	1.01e6	3.83e5	8.63e5	2.61e5	3.89e5	1.60e5
2017-007	Mud	4.28	4.33	186944	8.36e5	7.28e5	7.68e5	6.47e5	7.90e5	6.83e5	1.01e6	6.26e5	1.18e6	5.35e5	1.08e6	3.70e5	9.63e5	2.88e5	4.02e5	2.08e5
2017-007	Mud	6.93	6.98	186945	2.44e5	2.08e5	2.25e5	1.93e5	2.35e5	1.94e5	2.92e5	1.77e5	3.28e5	1.66e5	2.78e5	9.54e4	2.38e5	6.88e4	1.07e5	5.06e4
2017-009	Mud	4.80	4.85	186947	2.05e5	1.88e5	1.96e5	1.49e5	2.38e5	1.74e5	3.93e5	2.01e5	6.51e5	2.37e5	7.66e5	1.23e5	5.26e5	9.00e4	1.86e5	4.61e4
2017-009	Mud	6.10	6.15	186948	4.48e5	4.23e5	4.22e5	3.22e5	4.05e5	3.14e5	5.29e5	3.37e5	6.46e5	2.83e5	7.55e5	2.52e5	6.23e5	1.69e5	2.63e5	9.18e4
2017-009	Mud	7.50	7.55	186949	5.80e5	4.95e5	5.31e5	5.62e5	6.00e5	5.11e5	7.81e5	5.22e5	9.09e5	4.93e5	8.96e5	3.46e5	7.47e5	2.04e5	3.25e5	1.25e5
2017-012	Mud	3.70	3.75	186951	3.35e5	3.46e5	3.29e5	3.22e5	5.05e5	3.71e5	7.99e5	4.47e5	1.32e6	3.73e5	1.39e6	3.19e5	1.11e6	1.57e5	4.25e5	9.67e4
2017-012	Mud	6.95	7.00	186952	1.63e5	1.67e5	1.41e5	1.50e5	2.17e5	1.58e5	3.31e5	1.85e5	4.86e5	1.76e5	5.25e5	1.15e5	3.88e5	7.07e4	1.56e5	3.86e4
2017-012	Mud	8.15	8.20	186953	1.86e5	1.87e5	1.95e5	1.75e5	2.10e5	1.60e5	3.39e5	1.55e5	4.46e5	1.56e5	5.01e5	1.17e5	3.84e5	6.79e4	1.71e5	3.95e4
2017-015	Mud	1.30	1.35	186955	5.33e5	4.94e5	4.65e5	5.00e5	4.53e5	3.69e5	5.52e5	3.79e5	6.47e5	3.89e5	7.53e5	2.76e5	6.14e5	1.92e5	2.76e5	1.14e5
2017-015	Mud	2.10	2.15	186956	1.41e6	1.16e6	1.09e6	1.02e6	9.86e5	8.82e5	9.45e5	7.23e5	8.82e5	5.67e5	7.33e5	4.10e5	5.96e5	3.12e5	2.91e5	2.22e5
2017-015	Mud	2.80	2.85	186957	1.27e6	1.08e6	1.01e6	8.87e5	9.17e5	8.00e5	8.91e5	6.87e5	8.72e5	5.98e5	7.41e5	3.94e5	5.74e5	3.11e5	3.09e5	1.84e5
2017-018	Mud	2.60	2.65	186959	3.34e5	3.03e5	2.88e5	2.32e5	3.26e5	2.36e5	5.18e5	2.60e5	6.70e5	2.52e5	7.76e5	2.09e5	5.95e5	1.18e5	2.54e5	6.38e4
2017-018	Mud	3.90	3.95	186960	5.61e5	5.31e5	4.82e5	4.49e5	5.44e5	4.30e5	6.62e5	4.56e5	8.10e5	3.98e5	8.94e5	3.26e5	7.42e5	1.98e5	3.23e5	1.21e5
2017-018	Mud	5.05	5.10	186961	7.71e5	7.36e5	7.32e5	6.74e5	7.76e5	6.53e5	8.51e5	5.85e5	9.38e5	5.37e5	8.20e5	3.49e5	6.32e5	2.54e5	2.97e5	1.64e5
2017-020	Mud	1.50	1.55	186963	3.06e5	3.41e5	3.00e5	2.56e5	3.85e5	2.95e5	6.36e5	3.51e5	9.05e5	3.11e5	1.00e6	2.45e5	8.01e5	1.54e5	2.96e5	7.70e4
2017-020	Mud	3.70	3.75	186964	4.51e5	4.04e5	4.81e5	5.01e5	7.20e5	6.04e5	9.76e5	5.79e5	1.24e6	3.84e5	9.76e5	3.39e5	7.89e5	2.38e5	3.38e5	1.59e5
2017-020	Mud	5.11	5.16	186965	2.38e5	2.27e5	2.17e5	2.17e5	2.25e5	1.94e5	2.45e5	1.70e5	2.73e5	1.48e5	2.38e5	9.18e4	1.79e5	6.25e4	8.79e4	4.70e4
2017-021	Mud	2.90	2.95	186967	2.63e5	2.37e5	2.44e5	2.13e5	2.94e5	2.24e5	5.00e5	2.36e5	6.75e5	2.13e5	6.96e5	1.65e5	5.41e5	1.03e5	2.38e5	6.03e4
2017-021	Mud	4.73	4.78	186968	4.98e5	4.25e5	3.64e5	4.03e5	4.15e5	3.42e5	5.58e5	3.97e5	6.75e5	3.37e5	8.67e5	2.90e5	6.90e5	1.91e5	2.97e5	9.74e4
2017-021	Mud	6.97	7.02	186969	5.99e5	5.36e5	5.44e5	5.70e5	6.11e5	5.76e5	7.21e5	4.94e5	8.65e5	3.97e5	7.80e5	2.85e5	6.61e5	2.14e5	2.81e5	1.50e5
2017-024	Mud	4.40	4.45	186971	3.28e5	2.92e5	3.37e5	2.41e5	3.09e5	2.23e5	4.58e5	2.58e5	5.41e5	2.34e5	6.46e5	1.75e5	5.23e5	1.11e5	2.28e5	5.94e4

Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	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
2017-024	Mud	6.55	6.60	186972	6.22e5	5.45e5	5.45e5	4.76e5	6.03e5	5.00e5	7.13e5	4.88e5	8.62e5	3.83e5	9.11e5	3.14e5	7.27e5	2.08e5	3.12e5	1.02e5
2017-024	Mud	8.18	8.23	186973	8.58e5	7.82e5	7.88e5	7.87e5	8.76e5	8.02e5	9.99e5	6.94e5	1.18e6	6.01e5	1.05e6	3.97e5	8.40e5	2.80e5	3.70e5	1.70e5
2017-027	Mud	5.15	5.20	186975	5.48e5	4.67e5	4.26e5	3.51e5	4.53e5	3.51e5	6.32e5	4.29e5	8.02e5	3.51e5	1.02e6	3.15e5	7.92e5	1.91e5	3.44e5	1.12e5
2017-027	Mud	5.88	5.93	186976	4.40e5	4.52e5	5.99e5	6.91e5	1.17e6	8.40e5	1.61e6	8.82e5	2.28e6	6.36e5	1.68e6	4.33e5	1.37e6	2.84e5	5.48e5	1.49e5
2017-027	Mud	6.68	6.73	186977	7.48e5	6.69e5	6.82e5	6.38e5	7.28e5	6.93e5	8.22e5	5.58e5	9.58e5	4.85e5	8.50e5	3.31e5	6.85e5	2.27e5	3.02e5	1.25e5
2017-030	Mud	3.20	3.25	186979	2.67e5	2.73e5	2.60e5	2.12e5	3.52e5	2.82e5	5.33e5	3.25e5	7.13e5	2.91e5	8.36e5	2.37e5	6.38e5	1.34e5	2.74e5	9.58e4
2017-030	Mud	4.90	4.95	186980	5.13e5	4.40e5	4.26e5	4.01e5	5.07e5	3.93e5	6.60e5	4.80e5	8.20e5	3.90e5	9.84e5	2.98e5	7.60e5	2.36e5	3.40e5	1.43e5
2017-030	Mud	6.32	6.37	186981	4.38e5	4.50e5	5.87e5	6.25e5	1.06e6	8.01e5	1.51e6	8.12e5	2.07e6	5.55e5	1.54e6	4.22e5	1.23e6	2.19e5	4.59e5	1.59e5

Table 10. continued, GC of EOM fractions (amounts in ng/g)

Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	n-C35	n-C36	n-C37	n-C38	n-C39	n-C40	n-C41	n-C42	UCM_C12-C22	UCM_C23-C42
2017-001	Mud	2.20	2.25	186931	1.16e5	5.28e5	9.71e4	3.25e5	0.00e0	0.00e0	0.00e0	0.00e0	3.07e7	9.15e7
2017-001	Mud	4.25	4.30	186932	1.33e5	2.29e5	7.84e4	2.44e5	1.81e5	0.00e0	0.00e0	0.00e0	4.42e7	1.23e8
2017-001	Mud	7.20	7.25	186933	8.68e4	6.24e4	2.77e4	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	2.76e7	9.85e7
2017-003	Mud	2.90	2.95	186935	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	7.55e7	1.34e8
2017-003	Mud	4.50	4.55	186936	1.27e5	7.24e4	5.77e4	5.27e4	2.48e4	2.14e4	0.00e0	0.00e0	3.57e7	9.91e7
2017-003	Mud	6.46	6.51	186937	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	3.86e8	7.42e8
2017-005	Mud	4.80	4.85	186939	1.11e5	7.69e4	6.98e4	4.86e4	3.14e4	2.86e4	0.00e0	0.00e0	4.07e7	9.99e7
2017-005	Mud	6.20	6.25	186940	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	4.25e7	8.30e7
2017-005	Mud	7.32	7.37	186941	1.55e5	9.14e4	6.11e4	4.16e4	3.97e4	2.77e4	1.46e4	0.00e0	5.11e7	1.50e8
2017-007	Mud	3.23	3.28	186943	1.65e5	1.05e5	6.76e4	6.01e4	8.82e4	3.60e4	0.00e0	0.00e0	7.59e7	1.69e8
2017-007	Mud	4.28	4.33	186944	1.97e5	1.06e5	6.70e4	5.41e4	5.03e4	2.46e4	2.68e4	0.00e0	6.72e7	1.57e8
2017-007	Mud	6.93	6.98	186945	4.68e4	2.94e4	1.99e4	1.63e4	1.88e4	1.06e4	8.88e3	6.71e3	1.76e7	4.23e7
2017-009	Mud	4.80	4.85	186947	9.72e4	4.04e4	3.02e4	2.50e4	3.51e4	0.00e0	0.00e0	0.00e0	2.77e7	7.21e7
2017-009	Mud	6.10	6.15	186948	1.31e5	1.18e5	6.30e4	1.03e5	0.00e0	0.00e0	0.00e0	0.00e0	5.28e7	1.12e8
2017-009	Mud	7.50	7.55	186949	1.78e5	1.06e5	5.53e4	6.08e4	7.06e4	2.86e4	2.23e4	0.00e0	5.75e7	1.45e8
2017-012	Mud	3.70	3.75	186951	1.49e5	2.12e5	5.39e4	9.67e4	5.10e4	4.65e4	0.00e0	0.00e0	4.54e7	1.06e8
2017-012	Mud	6.95	7.00	186952	6.28e4	5.32e4	2.20e4	2.07e4	0.00e0	0.00e0	0.00e0	0.00e0	2.70e7	5.72e7
2017-012	Mud	8.15	8.20	186953	7.78e4	4.19e4	2.56e4	4.23e4	2.58e4	0.00e0	0.00e0	0.00e0	2.92e7	6.59e7
2017-015	Mud	1.30	1.35	186955	1.29e5	1.89e5	7.59e4	5.67e4	6.26e4	2.51e4	0.00e0	0.00e0	5.30e7	1.18e8
2017-015	Mud	2.10	2.15	186956	1.72e5	1.19e5	6.18e4	7.00e4	6.49e4	3.52e4	2.09e4	1.54e4	7.72e7	1.52e8
2017-015	Mud	2.80	2.85	186957	1.61e5	1.19e5	6.75e4	5.14e4	6.14e4	3.75e4	1.88e4	2.38e4	7.59e7	1.38e8
2017-018	Mud	2.60	2.65	186959	9.07e4	5.17e4	4.84e4	7.89e4	2.80e4	1.65e4	1.70e4	1.83e4	3.97e7	8.62e7
2017-018	Mud	3.90	3.95	186960	1.38e5	7.87e4	6.27e4	1.06e5	8.92e4	4.64e4	2.10e4	0.00e0	4.76e7	1.12e8
2017-018	Mud	5.05	5.10	186961	1.50e5	1.20e5	6.34e4	6.01e4	6.71e4	3.76e4	1.63e4	0.00e0	6.37e7	1.32e8
2017-020	Mud	1.50	1.55	186963	9.32e4	9.21e4	3.83e5	1.17e5	8.34e5	2.90e4	0.00e0	0.00e0	4.37e7	1.14e8
2017-020	Mud	3.70	3.75	186964	1.41e5	1.03e5	5.65e4	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	4.94e7	1.12e8
2017-020	Mud	5.11	5.16	186965	4.31e4	2.68e4	1.37e4	2.67e4	1.61e4	8.97e3	6.40e3	0.00e0	1.97e7	3.71e7
2017-021	Mud	2.90	2.95	186967	1.04e5	0.00e0	3.93e4	2.23e4	0.00e0	0.00e0	0.00e0	0.00e0	3.25e7	7.83e7
2017-021	Mud	4.73	4.78	186968	1.17e5	1.41e5	5.29e4	3.60e5	1.58e5	1.13e5	2.65e4	0.00e0	5.35e7	1.20e8
2017-021	Mud	6.97	7.02	186969	1.29e5	6.59e4	3.56e4	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	5.19e7	1.22e8
2017-024	Mud	4.40	4.45	186971	8.90e4	6.86e4	5.97e4	1.19e5	3.02e4	0.00e0	0.00e0	0.00e0	3.74e7	8.69e7

Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	n-C35	n-C36	n-C37	n-C38	n-C39	n-C40	n-C41	n-C42	UCM_C12-C22	UCM_C23-C42
2017-024	Mud	6.55	6.60	186972	1.45e5	5.98e4	5.45e4	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	5.55e7	1.25e8
2017-024	Mud	8.18	8.23	186973	1.86e5	1.06e5	6.34e4	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	7.17e7	1.59e8
2017-027	Mud	5.15	5.20	186975	1.34e5	9.01e4	7.23e4	5.72e5	1.21e5	1.50e5	3.03e4	0.00e0	6.05e7	1.35e8
2017-027	Mud	5.88	5.93	186976	1.54e5	1.23e5	5.51e4	5.05e4	0.00e0	0.00e0	0.00e0	0.00e0	5.11e7	1.18e8
2017-027	Mud	6.68	6.73	186977	1.27e5	8.73e4	5.45e4	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	6.35e7	1.29e8
2017-030	Mud	3.20	3.25	186979	9.70e4	5.08e4	4.10e4	3.28e5	8.59e4	5.46e4	3.26e4	0.00e0	4.08e7	9.28e7
2017-030	Mud	4.90	4.95	186980	1.57e5	1.72e5	9.03e4	1.31e5	1.33e5	0.00e0	0.00e0	0.00e0	6.48e7	1.38e8
2017-030	Mud	6.32	6.37	186981	1.78e5	1.01e5	6.28e4	0.00e0	0.00e0	0.00e0	0.00e0	0.00e0	5.64e7	1.34e8

Table 11. GCMS SIR of saturated compounds (peak height)

				m/z	177				191											
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	25nor28αβ	25nor29αβ	25nor30αβ	25nor31αβR	19/3	20/3	21/3	22/3	23/3	24/3	25/3R	25/3S	24/4	26/3R	26/3S	28/3R
2017-001	Mud	7.20	7.25	186933	1.64e3	2.03e3	4.86e3	1.19e4	1.54e3	4.53e3	7.88e3	1.65e3	1.06e4	6.19e3	2.94e3	2.83e3	6.05e3	3.44e3	3.68e3	4.11e3
2017-003	Mud	4.50	4.55	186936	1.72e3	1.62e3	1.97e3	1.04e4	1.56e3	3.93e3	6.75e3	1.65e3	9.28e3	5.57e3	2.64e3	2.42e3	4.78e3	3.01e3	2.94e3	3.53e3
2017-007	Mud	6.93	6.98	186945	2.28e3	3.74e3	4.90e3	2.02e4	4.20e3	1.47e4	2.84e4	5.68e3	3.73e4	2.32e4	9.73e3	9.54e3	1.27e4	1.25e4	1.31e4	9.54e3
2017-009	Mud	4.80	4.85	186947	2.54e3	4.34e3	3.74e3	1.13e4	2.23e3	4.99e3	8.25e3	2.00e3	1.01e4	5.92e3	2.86e3	2.58e3	6.15e3	3.33e3	3.16e3	4.32e3
2017-012	Mud	6.95	7.00	186952	1.85e3	2.41e3	2.64e3	1.10e4	1.64e3	4.45e3	7.98e3	1.79e3	9.56e3	5.60e3	2.80e3	2.48e3	5.32e3	3.06e3	3.01e3	3.69e3
2017-015	Mud	2.10	2.15	186956	2.88e3	6.57e3	5.09e3	1.31e4	3.16e3	8.47e3	1.57e4	3.74e3	2.08e4	1.24e4	5.64e3	5.25e3	1.08e4	7.03e3	6.97e3	6.42e3
2017-015	Mud	2.80	2.85	186957	2.36e3	2.62e3	2.89e3	1.11e4	3.18e3	7.40e3	1.53e4	2.96e3	1.97e4	1.13e4	5.29e3	4.84e3	8.98e3	6.17e3	6.30e3	5.60e3
2017-018	Mud	5.05	5.10	186961	2.17e3	3.69e3	4.11e3	1.74e4	3.37e3	1.12e4	2.37e4	5.29e3	3.10e4	1.98e4	8.02e3	8.15e3	1.14e4	1.04e4	1.05e4	8.29e3
2017-020	Mud	5.11	5.16	186965	1.57e3	2.34e3	2.21e3	1.04e4	2.18e3	7.11e3	1.37e4	3.05e3	1.75e4	1.07e4	4.36e3	4.08e3	7.09e3	5.58e3	5.51e3	4.42e3
2017-021	Mud	6.97	7.02	186969	1.33e3	2.40e3	6.20e3	1.19e4	1.63e3	5.95e3	1.13e4	2.64e3	1.52e4	9.24e3	4.68e3	4.33e3	6.97e3	4.91e3	5.43e3	4.75e3
2017-024	Mud	8.18	8.23	186973	2.50e3	4.16e3	5.72e3	1.92e4	3.22e3	1.03e4	2.05e4	4.79e3	2.77e4	1.69e4	7.44e3	7.41e3	1.17e4	9.33e3	9.41e3	8.47e3
2017-027	Mud	6.68	6.73	186977	1.54e3	2.01e3	2.97e3	1.03e4	1.83e3	5.24e3	1.08e4	2.42e3	1.55e4	8.73e3	3.99e3	4.09e3	6.43e3	4.58e3	4.77e3	3.99e3
2017-030	Mud	3.20	3.25	186979	1.50e3	1.58e3	2.02e3	7.28e3	1.01e3	2.29e3	4.21e3	1.12e3	5.52e3	3.23e3	1.47e3	1.62e3	3.74e3	1.87e3	1.80e3	2.55e3

Table 11. continued, GCMS SIR of saturated compounds (peak height)

				m/z	191															
Piston Core	Sample type	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	30βα
2017-001	Mud	7.20	7.25	186933	2.30e3	6.42e3	1.97e3	1.55e4	4.44e4	1.79e3	2.16e3	9.66e3	8.32e3	8.57e4	1.97e4	1.12e4	4.29e4	0.00e0	1.48e5	4.51e4
2017-003	Mud	4.50	4.55	186936	2.08e3	1.83e3	1.67e3	1.16e4	3.75e4	5.55e2	1.84e3	5.92e3	2.82e3	7.60e4	1.80e4	1.12e4	5.13e4	0.00e0	1.32e5	4.47e4
2017-007	Mud	6.93	6.98	186945	6.75e3	6.57e3	6.83e3	3.15e4	7.19e4	3.09e3	3.99e3	1.31e4	1.13e4	1.50e5	3.82e4	1.95e4	6.33e4	0.00e0	2.73e5	7.06e4
2017-009	Mud	4.80	4.85	186947	2.53e3	1.97e3	1.72e3	1.65e4	3.80e4	1.66e3	3.08e3	5.93e3	5.00e3	7.77e4	2.17e4	1.04e4	5.58e4	1.38e3	1.40e5	4.45e4
2017-012	Mud	6.95	7.00	186952	2.07e3	1.77e3	1.79e3	1.50e4	3.72e4	1.07e3	2.40e3	6.63e3	3.34e3	7.40e4	2.00e4	1.06e4	5.07e4	0.00e0	1.37e5	4.13e4
2017-015	Mud	2.10	2.15	186956	4.77e3	4.43e3	3.85e3	2.80e4	4.50e4	2.54e3	3.06e3	8.76e3	9.57e3	9.72e4	3.42e4	1.37e4	2.94e4	0.00e0	1.69e5	3.95e4
2017-015	Mud	2.80	2.85	186957	4.33e3	3.68e3	3.82e3	2.30e4	3.99e4	2.27e3	2.61e3	8.30e3	6.54e3	8.49e4	2.96e4	1.21e4	2.90e4	0.00e0	1.48e5	3.49e4
2017-018	Mud	5.05	5.10	186961	5.56e3	5.72e3	5.15e3	2.86e4	6.17e4	1.89e3	3.29e3	1.12e4	9.32e3	1.30e5	3.44e4	1.84e4	4.99e4	0.00e0	2.27e5	5.97e4
2017-020	Mud	5.11	5.16	186965	3.42e3	2.94e3	3.06e3	1.51e4	4.12e4	1.82e3	2.64e3	6.35e3	4.64e3	8.03e4	1.84e4	1.05e4	3.25e4	0.00e0	1.38e5	3.81e4
2017-021	Mud	6.97	7.02	186969	3.08e3	3.06e3	2.89e3	1.61e4	4.66e4	1.81e3	2.46e3	1.03e4	1.09e4	8.83e4	2.14e4	1.27e4	4.61e4	0.00e0	1.59e5	4.34e4
2017-024	Mud	8.18	8.23	186973	5.76e3	5.56e3	5.85e3	2.93e4	7.54e4	2.06e3	3.46e3	1.41e4	1.06e4	1.44e5	3.51e4	1.91e4	6.65e4	0.00e0	2.58e5	6.94e4
2017-027	Mud	6.68	6.73	186977	3.27e3	2.49e3	2.81e3	1.54e4	4.00e4	1.28e3	2.02e3	8.57e3	5.61e3	7.53e4	1.91e4	1.07e4	3.54e4	0.00e0	1.37e5	3.66e4
2017-030	Mud	3.20	3.25	186979	1.16e3	1.32e3	1.11e3	1.03e4	2.64e4	3.49e2	1.88e3	4.99e3	2.89e3	4.93e4	1.40e4	7.30e3	4.12e4	0.00e0	9.06e4	3.17e4

Table 11. continued, GCMS SIR of saturated compounds (peak height)

				m/z	191												217			
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	31αβS	31αβR	30G	31βα	32αβS	32αβR	33αβS	33αβR	34αβS	34αβR	35αβS	35αβR	21αα	21ββ	22αα	22ββ
2017-001	Mud	7.20	7.25	186933	5.13e4	9.94e4	1.56e4	2.15e4	2.93e4	2.64e4	1.66e4	1.27e4	2.06e4	9.51e3	6.34e3	7.58e3	1.72e3	2.37e3	1.08e3	1.33e3
2017-003	Mud	4.50	4.55	186936	4.35e4	1.22e5	1.31e4	2.60e4	2.45e4	2.29e4	1.31e4	1.09e4	1.28e4	7.72e3	5.17e3	3.57e3	1.49e3	2.05e3	8.84e2	1.12e3
2017-007	Mud	6.93	6.98	186945	8.48e4	1.40e5	4.28e4	2.97e4	4.45e4	3.90e4	2.47e4	1.87e4	2.40e4	1.29e4	8.44e3	6.28e3	3.62e3	6.63e3	2.32e3	3.45e3
2017-009	Mud	4.80	4.85	186947	4.97e4	1.13e5	1.27e4	2.48e4	2.70e4	2.50e4	1.65e4	1.17e4	1.40e4	8.23e3	5.87e3	3.94e3	2.23e3	2.84e3	1.25e3	1.52e3
2017-012	Mud	6.95	7.00	186952	4.73e4	1.03e5	1.32e4	2.26e4	2.80e4	2.52e4	1.61e4	1.15e4	1.39e4	8.20e3	5.57e3	4.08e3	2.20e3	2.91e3	1.26e3	1.50e3
2017-015	Mud	2.10	2.15	186956	6.34e4	7.18e4	1.91e4	1.57e4	3.63e4	2.87e4	1.96e4	1.56e4	2.04e4	1.04e4	6.50e3	5.21e3	4.38e3	6.13e3	2.53e3	3.36e3
2017-015	Mud	2.80	2.85	186957	5.29e4	6.93e4	1.82e4	1.51e4	3.11e4	2.65e4	1.78e4	1.40e4	1.83e4	9.51e3	5.77e3	4.34e3	4.03e3	6.09e3	2.80e3	2.88e3
2017-018	Mud	5.05	5.10	186961	7.40e4	1.11e5	3.54e4	2.46e4	3.99e4	3.30e4	2.15e4	1.63e4	2.03e4	1.19e4	7.36e3	5.52e3	3.52e3	6.18e3	2.42e3	3.35e3
2017-020	Mud	5.11	5.16	186965	4.13e4	6.96e4	2.10e4	1.48e4	2.31e4	2.01e4	1.20e4	9.40e3	1.31e4	6.43e3	3.63e3	3.06e3	2.18e3	3.68e3	1.41e3	1.77e3
2017-021	Mud	6.97	7.02	186969	5.01e4	1.08e5	2.18e4	2.30e4	2.75e4	2.46e4	1.54e4	1.22e4	1.87e4	8.79e3	5.64e3	5.35e3	1.96e3	3.12e3	1.02e3	1.50e3
2017-024	Mud	8.18	8.23	186973	8.10e4	1.50e5	3.60e4	3.22e4	4.51e4	4.02e4	2.47e4	1.93e4	2.69e4	1.37e4	8.90e3	9.25e3	3.32e3	5.59e3	2.16e3	2.92e3
2017-027	Mud	6.68	6.73	186977	4.37e4	7.95e4	1.83e4	1.69e4	2.25e4	2.07e4	1.36e4	9.83e3	1.46e4	7.61e3	4.66e3	3.77e3	1.67e3	3.23e3	1.31e3	1.64e3
2017-030	Mud	3.20	3.25	186979	3.00e4	8.78e4	7.58e3	2.03e4	1.79e4	1.62e4	1.04e4	7.38e3	9.06e3	5.35e3	4.02e3	2.54e3	1.50e3	1.84e3	9.25e2	9.16e2

Table 11. continued, GCMS SIR of saturated compounds (peak height)

				m/z	217															
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	27dβS	27dβR	27daR	27daS	28dβS#1	28dβS#2	28dβR#1	28dβR#2	28daR	27ααS	27ββR+29dβS	27ββS	28daS	27ααR	29dβR	29daR
2017-001	Mud	7.20	7.25	186933	5.07e3	4.31e3	1.48e3	2.07e3	2.03e3	2.17e3	1.29e3	2.45e3	3.38e3	4.35e3	6.78e3	3.03e3	1.18e3	9.00e3	5.55e3	2.77e3
2017-003	Mud	4.50	4.55	186936	4.26e3	3.34e3	1.22e3	1.56e3	1.73e3	1.81e3	9.90e2	1.89e3	1.52e3	3.23e3	5.19e3	2.19e3	7.71e2	9.56e3	4.04e3	2.31e3
2017-007	Mud	6.93	6.98	186945	8.77e3	7.88e3	2.91e3	3.45e3	4.02e3	4.46e3	2.36e3	5.23e3	2.93e3	7.92e3	1.23e4	7.16e3	1.73e3	1.88e4	1.03e4	5.93e3
2017-009	Mud	4.80	4.85	186947	6.20e3	5.01e3	1.59e3	2.29e3	2.16e3	2.03e3	1.16e3	2.23e3	2.28e3	4.63e3	7.01e3	2.82e3	8.24e2	1.08e4	4.84e3	3.08e3
2017-012	Mud	6.95	7.00	186952	5.40e3	5.06e3	1.67e3	1.95e3	2.20e3	2.01e3	1.20e3	2.33e3	1.58e3	4.59e3	6.71e3	2.76e3	6.85e2	1.11e4	4.53e3	2.90e3
2017-015	Mud	2.10	2.15	186956	1.13e4	8.86e3	3.41e3	4.16e3	3.54e3	4.05e3	2.20e3	4.08e3	2.44e3	8.66e3	1.27e4	6.45e3	1.78e3	1.65e4	9.76e3	5.33e3
2017-015	Mud	2.80	2.85	186957	9.82e3	7.44e3	2.93e3	3.73e3	2.85e3	3.34e3	1.91e3	4.19e3	2.25e3	7.53e3	1.18e4	5.75e3	1.57e3	1.49e4	8.57e3	4.66e3
2017-018	Mud	5.05	5.10	186961	9.16e3	7.51e3	2.72e3	3.43e3	3.25e3	4.19e3	2.08e3	4.75e3	2.72e3	7.73e3	1.14e4	6.38e3	1.86e3	1.70e4	9.46e3	5.40e3
2017-020	Mud	5.11	5.16	186965	4.67e3	4.11e3	1.31e3	1.72e3	2.23e3	2.33e3	1.28e3	2.49e3	1.79e3	4.33e3	6.43e3	3.53e3	1.07e3	9.59e3	5.33e3	2.88e3
2017-021	Mud	6.97	7.02	186969	5.04e3	4.07e3	1.57e3	2.00e3	2.16e3	2.60e3	1.42e3	2.71e3	1.73e3	4.21e3	7.27e3	3.20e3	1.18e3	1.21e4	6.13e3	3.40e3
2017-024	Mud	8.18	8.23	186973	8.91e3	7.30e3	2.48e3	3.42e3	3.73e3	4.11e3	2.18e3	4.90e3	3.10e3	8.18e3	1.28e4	6.20e3	2.03e3	1.89e4	1.02e4	5.68e3
2017-027	Mud	6.68	6.73	186977	5.19e3	4.27e3	1.56e3	1.75e3	2.07e3	2.35e3	1.30e3	2.51e3	1.79e3	4.11e3	6.55e3	3.30e3	1.02e3	9.63e3	5.12e3	3.06e3
2017-030	Mud	3.20	3.25	186979	3.60e3	3.19e3	1.05e3	1.26e3	1.39e3	1.31e3	7.92e2	1.31e3	1.43e3	2.41e3	4.39e3	1.91e3	5.83e2	7.38e3	3.15e3	1.80e3

Table 11. continued, GCMS SIR of saturated compounds (peak height)

				m/z	217													218		
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	28ααS	29daS	28ββR	28ββS	28ααR	29ααS	29ββR	29ββS	29ααR	30ααS	30ββR	30ββS	30ααR	27ββR	27ββS	28ββR
2017-001	Mud	7.20	7.25	186933	2.42e3	5.26e3	3.77e3	4.55e3	5.89e3	1.08e4	7.80e3	7.86e3	1.89e4	2.75e3	1.51e3	8.29e2	6.37e2	5.28e3	4.92e3	4.91e3
2017-003	Mud	4.50	4.55	186936	1.61e3	4.80e3	3.42e3	2.78e3	4.42e3	7.95e3	5.01e3	5.77e3	1.33e4	1.30e3	1.08e3	3.76e2	4.20e2	3.84e3	3.47e3	3.60e3
2017-007	Mud	6.93	6.98	186945	5.41e3	7.99e3	1.01e4	1.30e4	1.38e4	2.58e4	1.74e4	1.86e4	3.98e4	6.74e3	2.13e3	6.80e2	4.51e2	1.15e4	1.08e4	1.27e4
2017-009	Mud	4.80	4.85	186947	1.82e3	2.47e4	4.59e3	3.20e3	4.77e3	1.07e4	7.73e3	8.22e3	1.65e4	1.39e3	1.30e3	5.36e2	2.53e2	5.77e3	5.21e3	4.76e3
2017-012	Mud	6.95	7.00	186952	1.74e3	1.03e4	4.00e3	3.00e3	5.11e3	1.05e4	7.06e3	7.67e3	1.74e4	2.30e3	1.39e3	6.31e2	5.50e2	5.31e3	4.42e3	4.29e3
2017-015	Mud	2.10	2.15	186956	3.12e3	6.92e3	5.76e3	6.21e3	7.54e3	1.77e4	1.29e4	1.40e4	2.72e4	3.83e3	1.51e3	6.94e2	6.27e2	1.13e4	1.00e4	7.30e3
2017-015	Mud	2.80	2.85	186957	2.93e3	6.24e3	5.32e3	5.85e3	6.93e3	1.61e4	1.19e4	1.24e4	2.33e4	5.15e3	1.17e3	5.99e2	4.82e2	1.01e4	9.06e3	6.84e3
2017-018	Mud	5.05	5.10	186961	4.58e3	7.12e3	8.28e3	1.04e4	1.11e4	2.18e4	1.58e4	1.61e4	3.24e4	7.36e3	1.75e3	6.52e2	5.11e2	1.10e4	9.65e3	1.06e4
2017-020	Mud	5.11	5.16	186965	2.42e3	3.68e3	4.96e3	6.05e3	6.98e3	1.14e4	8.34e3	8.64e3	1.79e4	1.66e3	1.02e3	3.62e2	3.28e2	5.33e3	4.74e3	5.94e3
2017-021	Mud	6.97	7.02	186969	2.50e3	6.06e3	5.36e3	6.24e3	6.65e3	1.23e4	9.30e3	9.53e3	2.26e4	2.59e3	1.64e3	6.61e2	6.50e2	6.10e3	4.90e3	6.40e3
2017-024	Mud	8.18	8.23	186973	4.75e3	8.68e3	8.60e3	1.07e4	1.29e4	2.23e4	1.61e4	1.68e4	3.62e4	5.53e3	1.95e3	9.32e2	6.75e2	1.12e4	9.46e3	1.13e4
2017-027	Mud	6.68	6.73	186977	1.99e3	4.45e3	4.67e3	5.30e3	6.54e3	1.05e4	7.58e3	8.01e3	1.67e4	1.54e3	1.43e3	5.83e2	4.83e2	5.23e3	5.14e3	5.51e3
2017-030	Mud	3.20	3.25	186979	9.36e2	9.54e3	2.55e3	1.53e3	2.66e3	6.02e3	3.89e3	4.77e3	8.84e3	9.24e2	1.09e3	5.48e2	2.67e2	3.19e3	2.79e3	2.88e3

Table 11. continued, GCMS SIR of saturated compounds (peak height)

				m/z	218				
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	28ββS	29ββR	29ββS	30ββR	30ββS
2017-001	Mud	7.20	7.25	186933	5.78e3	1.32e4	1.23e4	1.28e3	1.33e3
2017-003	Mud	4.50	4.55	186936	3.84e3	8.45e3	8.74e3	1.24e3	1.36e3
2017-007	Mud	6.93	6.98	186945	1.71e4	3.13e4	3.00e4	2.28e3	2.08e3
2017-009	Mud	4.80	4.85	186947	4.38e3	1.19e4	1.22e4	1.85e3	2.07e3
2017-012	Mud	6.95	7.00	186952	4.23e3	1.14e4	1.10e4	2.18e3	2.78e3
2017-015	Mud	2.10	2.15	186956	9.12e3	2.24e4	2.25e4	1.58e3	1.16e3
2017-015	Mud	2.80	2.85	186957	8.44e3	1.98e4	2.04e4	1.39e3	1.06e3
2017-018	Mud	5.05	5.10	186961	1.39e4	2.73e4	2.56e4	1.87e3	1.86e3
2017-020	Mud	5.11	5.16	186965	7.85e3	1.36e4	1.42e4	1.06e3	1.05e3
2017-021	Mud	6.97	7.02	186969	8.07e3	1.59e4	1.54e4	1.45e3	1.35e3
2017-024	Mud	8.18	8.23	186973	1.40e4	2.64e4	2.60e4	2.49e3	1.91e3
2017-027	Mud	6.68	6.73	186977	6.77e3	1.29e4	1.23e4	1.56e3	1.21e3
2017-030	Mud	3.20	3.25	186979	2.62e3	6.78e3	6.68e3	1.50e3	1.61e3

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	21αα
C21-5α(H), 14β(H), 17β(H)-pregnane	21ββ
C22-5α(H), 14α(H), 17α(H)-pregnane	22αα
C22-5α(H), 14β(H), 17β(H)-pregnane	22ββ
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	27ββR
24-ethyl-13β(H), 17α(H), 20(S)-cholestane (diasterane)	29dβS
5α(H), 14β(H), 17β(H), 20(S)-cholestane	27ββS
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	28ββR
24-methyl-5α(H), 14β(H), 17β(H), 20(S)-cholestane	28ββS
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	29ββR
24-ethyl-5α(H), 14β(H), 17β(H), 20(S)-cholestane	29ββS
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	30ββR
24-propyl-5α(H), 14β(H), 17β(H), 20(S)-cholestane	30ββS
24-propyl-5α(H), 14α(H), 17α(H), 20(R)-cholestane	30ααR

Table 12. GCMS SIR of saturated compounds (peak area)

				m/z	177				191											
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	25nor28αβ	25nor29αβ	25nor30αβ	25nor31αβR	19/3	20/3	21/3	22/3	23/3	24/3	25/3R	25/3S	24/4	26/3R	26/3S	28/3R
2017-001	Mud	7.20	7.25	186933	9.08e3	8.63e3	2.82e4	6.44e4	7.23e3	2.34e4	4.02e4	1.00e4	5.60e4	3.36e4	1.44e4	1.61e4	3.34e4	1.97e4	2.04e4	2.54e4
2017-003	Mud	4.50	4.55	186936	8.36e3	7.55e3	8.45e3	5.23e4	7.31e3	2.09e4	3.64e4	9.94e3	4.82e4	3.14e4	1.44e4	1.32e4	2.63e4	1.64e4	1.63e4	2.16e4
2017-007	Mud	6.93	6.98	186945	1.27e4	2.63e4	2.87e4	1.14e5	2.40e4	7.43e4	1.44e5	3.59e4	1.86e5	1.21e5	4.92e4	5.21e4	6.96e4	6.67e4	7.00e4	5.64e4
2017-009	Mud	4.80	4.85	186947	1.01e4	2.13e4	1.74e4	6.26e4	1.24e4	2.40e4	4.21e4	1.14e4	5.28e4	3.08e4	1.51e4	1.40e4	3.35e4	1.86e4	2.06e4	2.59e4
2017-012	Mud	6.95	7.00	186952	1.01e4	9.37e3	1.32e4	5.76e4	7.57e3	2.28e4	3.97e4	1.01e4	4.91e4	3.07e4	1.40e4	1.34e4	2.91e4	1.58e4	1.71e4	2.41e4
2017-015	Mud	2.10	2.15	186956	1.74e4	5.43e4	2.81e4	7.46e4	1.79e4	4.18e4	7.97e4	2.28e4	1.07e5	6.76e4	3.13e4	2.71e4	5.70e4	3.63e4	3.83e4	3.85e4
2017-015	Mud	2.80	2.85	186957	1.37e4	1.59e4	1.69e4	6.82e4	1.89e4	4.04e4	7.67e4	1.77e4	1.03e5	6.15e4	2.71e4	2.64e4	4.73e4	3.38e4	3.67e4	3.31e4
2017-018	Mud	5.05	5.10	186961	1.28e4	2.82e4	2.10e4	1.01e5	1.81e4	5.79e4	1.19e5	3.00e4	1.60e5	1.05e5	4.14e4	4.32e4	6.03e4	5.43e4	5.89e4	4.89e4
2017-020	Mud	5.11	5.16	186965	7.11e3	1.47e4	1.33e4	5.87e4	1.26e4	3.61e4	6.72e4	1.77e4	9.05e4	5.62e4	2.31e4	2.08e4	4.02e4	2.94e4	3.20e4	2.68e4
2017-021	Mud	6.97	7.02	186969	5.19e3	7.51e3	3.28e4	6.46e4	9.33e3	3.21e4	5.83e4	1.68e4	8.19e4	4.92e4	2.24e4	2.52e4	3.68e4	2.54e4	2.95e4	2.80e4
2017-024	Mud	8.18	8.23	186973	1.30e4	4.33e4	3.10e4	1.12e5	1.61e4	5.45e4	1.07e5	2.75e4	1.43e5	9.16e4	4.00e4	4.02e4	6.17e4	5.24e4	5.32e4	5.30e4
2017-027	Mud	6.68	6.73	186977	6.42e3	1.41e4	1.40e4	6.20e4	1.08e4	2.63e4	5.51e4	1.48e4	7.68e4	4.81e4	2.35e4	2.31e4	3.55e4	2.57e4	2.58e4	2.52e4
2017-030	Mud	3.20	3.25	186979	5.34e3	5.22e3	5.77e3	4.20e4	6.65e3	1.26e4	2.33e4	7.19e3	2.88e4	1.93e4	6.24e3	8.86e3	2.16e4	1.13e4	9.16e3	1.63e4

Table 12. continued, GCMS SIR of saturated compounds (peak area)

				m/z	191															
Piston Core	Sample type	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	30βα
2017-001	Mud	7.20	7.25	186933	1.28e4	4.16e4	1.14e4	9.20e4	2.60e5	8.42e3	1.41e4	6.14e4	4.80e4	4.73e5	1.29e5	6.38e4	2.36e5	0.00e0	8.15e5	2.59e5
2017-003	Mud	4.50	4.55	186936	1.04e4	9.46e3	8.97e3	6.26e4	2.03e5	2.13e3	9.90e3	3.42e4	1.69e4	4.08e5	1.03e5	6.34e4	2.66e5	0.00e0	6.86e5	2.61e5
2017-007	Mud	6.93	6.98	186945	4.06e4	3.79e4	3.61e4	1.88e5	4.11e5	2.00e4	2.00e4	8.04e4	6.75e4	8.16e5	2.26e5	1.14e5	3.34e5	0.00e0	1.45e6	4.26e5
2017-009	Mud	4.80	4.85	186947	1.38e4	9.33e3	8.98e3	9.36e4	2.29e5	8.25e3	2.16e4	3.30e4	3.04e4	4.08e5	1.26e5	5.93e4	2.94e5	7.04e3	7.58e5	2.65e5
2017-012	Mud	6.95	7.00	186952	1.12e4	1.08e4	1.01e4	8.94e4	2.05e5	6.20e3	1.40e4	3.39e4	1.91e4	3.90e5	1.20e5	6.32e4	2.78e5	0.00e0	7.27e5	2.44e5
2017-015	Mud	2.10	2.15	186956	3.04e4	2.43e4	1.98e4	1.56e5	2.57e5	1.80e4	1.68e4	5.51e4	5.34e4	5.00e5	2.01e5	8.01e4	1.62e5	0.00e0	9.38e5	2.31e5
2017-015	Mud	2.80	2.85	186957	2.40e4	2.07e4	1.92e4	1.36e5	2.34e5	1.28e4	1.24e4	5.70e4	3.92e4	4.66e5	1.76e5	7.27e4	1.61e5	0.00e0	8.39e5	2.15e5
2017-018	Mud	5.05	5.10	186961	3.36e4	2.60e4	3.05e4	1.62e5	3.50e5	8.98e3	1.38e4	7.36e4	5.16e4	6.91e5	2.14e5	1.02e5	2.75e5	0.00e0	1.26e6	3.50e5
2017-020	Mud	5.11	5.16	186965	1.90e4	1.72e4	1.59e4	9.36e4	2.30e5	7.91e3	1.13e4	4.18e4	2.63e4	4.27e5	1.11e5	5.73e4	1.75e5	0.00e0	7.54e5	2.30e5
2017-021	Mud	6.97	7.02	186969	1.58e4	1.33e4	1.80e4	1.02e5	2.60e5	8.83e3	1.28e4	5.95e4	6.31e4	4.93e5	1.52e5	7.52e4	2.59e5	0.00e0	8.60e5	2.83e5
2017-024	Mud	8.18	8.23	186973	3.40e4	2.97e4	2.84e4	1.76e5	4.18e5	1.29e4	1.93e4	8.98e4	6.21e4	7.87e5	2.26e5	1.08e5	3.73e5	0.00e0	1.42e6	4.36e5
2017-027	Mud	6.68	6.73	186977	1.67e4	9.66e3	1.60e4	9.26e4	2.27e5	6.76e3	1.51e4	5.39e4	3.36e4	4.24e5	1.24e5	6.83e4	2.02e5	0.00e0	7.54e5	2.30e5
2017-030	Mud	3.20	3.25	186979	8.51e3	6.79e3	6.73e3	5.95e4	1.54e5	1.35e3	1.07e4	2.29e4	1.67e4	2.72e5	8.24e4	4.33e4	2.35e5	0.00e0	5.08e5	1.94e5

Table 12. continued, GCMS SIR of saturated compounds (peak area)

				m/z	191												217			
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	31αβS	31αβR	30G	31βα	32αβS	32αβR	33αβS	33αβR	34αβS	34αβR	35αβS	35αβR	21αα	21ββ	22αα	22ββ
2017-001	Mud	7.20	7.25	186933	2.80e5	5.50e5	9.98e4	1.35e5	1.59e5	1.53e5	9.78e4	7.39e4	1.49e5	6.44e4	4.44e4	4.65e4	1.12e4	1.34e4	8.08e3	1.08e4
2017-003	Mud	4.50	4.55	186936	2.33e5	6.53e5	8.22e4	1.45e5	1.29e5	1.26e5	8.41e4	6.02e4	8.72e4	4.72e4	3.39e4	2.55e4	9.48e3	1.16e4	6.04e3	7.65e3
2017-007	Mud	6.93	6.98	186945	4.50e5	7.64e5	2.78e5	1.92e5	2.47e5	2.24e5	1.44e5	1.04e5	1.71e5	8.35e4	6.00e4	3.27e4	1.93e4	3.65e4	1.36e4	2.21e4
2017-009	Mud	4.80	4.85	186947	2.73e5	6.24e5	7.60e4	1.52e5	1.47e5	1.34e5	9.90e4	6.28e4	9.54e4	5.09e4	4.10e4	2.90e4	1.22e4	1.53e4	7.19e3	1.01e4
2017-012	Mud	6.95	7.00	186952	2.60e5	5.41e5	7.24e4	1.40e5	1.47e5	1.30e5	9.01e4	6.11e4	9.58e4	5.24e4	4.11e4	2.57e4	1.21e4	1.54e4	8.06e3	1.03e4
2017-015	Mud	2.10	2.15	186956	3.39e5	4.01e5	1.12e5	1.10e5	1.93e5	1.61e5	1.15e5	8.61e4	1.45e5	6.11e4	4.15e4	2.96e4	2.47e4	3.20e4	1.83e4	2.23e4
2017-015	Mud	2.80	2.85	186957	2.94e5	3.79e5	1.14e5	1.03e5	1.70e5	1.46e5	1.04e5	7.80e4	1.28e5	5.59e4	4.01e4	2.48e4	2.28e4	3.27e4	1.94e4	2.29e4
2017-018	Mud	5.05	5.10	186961	3.94e5	6.22e5	2.14e5	1.58e5	2.10e5	1.86e5	1.22e5	9.38e4	1.40e5	6.39e4	5.00e4	3.41e4	2.08e4	3.50e4	1.74e4	2.32e4
2017-020	Mud	5.11	5.16	186965	2.30e5	3.67e5	1.22e5	9.12e4	1.22e5	1.12e5	6.76e4	5.33e4	9.27e4	3.91e4	2.58e4	1.48e4	1.24e4	2.04e4	7.80e3	1.19e4
2017-021	Mud	6.97	7.02	186969	2.73e5	5.88e5	1.44e5	1.35e5	1.44e5	1.44e5	9.21e4	6.57e4	1.36e5	5.55e4	3.83e4	2.75e4	1.05e4	1.70e4	4.12e3	1.20e4
2017-024	Mud	8.18	8.23	186973	4.54e5	8.56e5	2.34e5	2.02e5	2.47e5	2.32e5	1.50e5	1.05e5	1.91e5	8.53e4	6.19e4	7.48e4	1.88e4	3.21e4	1.30e4	2.15e4
2017-027	Mud	6.68	6.73	186977	2.43e5	4.50e5	1.14e5	1.09e5	1.26e5	1.17e5	7.94e4	5.77e4	1.10e5	4.67e4	2.84e4	1.94e4	1.11e4	1.81e4	9.34e3	1.28e4
2017-030	Mud	3.20	3.25	186979	1.81e5	5.02e5	4.45e4	1.20e5	9.82e4	8.40e4	6.67e4	4.49e4	6.33e4	3.19e4	3.18e4	1.82e4	8.10e3	1.04e4	4.50e3	6.86e3

Table 12. continued, GCMS SIR of saturated compounds (peak area)

				m/z	217															
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	27dβS	27dβR	27daR	27daS	28dβS#1	28dβS#2	28dβR#1	28dβR#2	28daR	27ααS	27ββR+29dβS	27ββS	28daS	27ααR	29dβR	29daR
2017-001	Mud	7.20	7.25	186933	2.51e4	2.44e4	8.48e3	1.03e4	1.33e4	1.39e4	7.09e3	1.69e4	2.14e4	3.53e4	5.15e4	1.72e4	4.82e3	5.32e4	5.12e4	1.43e4
2017-003	Mud	4.50	4.55	186936	2.16e4	1.77e4	8.76e3	8.40e3	1.10e4	1.21e4	5.35e3	1.36e4	1.02e4	2.46e4	4.03e4	1.36e4	2.55e3	5.03e4	3.81e4	1.35e4
2017-007	Mud	6.93	6.98	186945	4.73e4	4.56e4	1.86e4	1.88e4	2.35e4	2.67e4	1.18e4	3.84e4	2.34e4	6.70e4	9.01e4	4.54e4	1.06e4	1.04e5	8.03e4	5.75e4
2017-009	Mud	4.80	4.85	186947	3.08e4	2.76e4	1.03e4	1.23e4	1.32e4	1.26e4	6.02e3	1.36e4	1.48e4	3.57e4	5.26e4	1.55e4	4.94e3	6.10e4	4.14e4	3.05e4
2017-012	Mud	6.95	7.00	186952	2.88e4	2.81e4	1.01e4	1.13e4	1.36e4	1.17e4	5.69e3	1.59e4	1.10e4	3.37e4	5.20e4	1.48e4	1.95e3	6.00e4	4.32e4	2.60e4
2017-015	Mud	2.10	2.15	186956	6.02e4	5.30e4	2.02e4	2.43e4	2.19e4	2.56e4	1.14e4	2.72e4	1.67e4	6.22e4	9.38e4	4.18e4	1.19e4	9.02e4	6.88e4	5.13e4
2017-015	Mud	2.80	2.85	186957	5.50e4	4.32e4	1.94e4	1.94e4	2.01e4	2.29e4	1.07e4	2.99e4	1.31e4	5.77e4	1.07e5	4.14e4	9.75e3	8.85e4	9.24e4	4.30e4
2017-018	Mud	5.05	5.10	186961	4.76e4	4.02e4	1.68e4	1.81e4	2.12e4	2.28e4	1.22e4	2.71e4	2.25e4	6.28e4	8.67e4	5.18e4	1.22e4	9.46e4	8.46e4	5.40e4
2017-020	Mud	5.11	5.16	186965	2.48e4	2.19e4	8.23e3	8.72e3	1.29e4	1.44e4	7.02e3	2.16e4	9.76e3	2.22e4	4.70e4	2.63e4	5.75e3	5.10e4	5.23e4	2.40e4
2017-021	Mud	6.97	7.02	186969	2.51e4	2.49e4	1.09e4	1.23e4	1.41e4	1.63e4	7.57e3	2.02e4	1.15e4	2.36e4	5.57e4	2.17e4	5.69e3	6.47e4	5.09e4	3.50e4
2017-024	Mud	8.18	8.23	186973	5.01e4	4.41e4	1.69e4	1.92e4	2.16e4	2.39e4	1.22e4	3.30e4	2.23e4	6.98e4	9.32e4	4.24e4	7.10e3	1.08e5	8.50e4	5.92e4
2017-027	Mud	6.68	6.73	186977	2.74e4	2.52e4	9.68e3	9.43e3	1.32e4	1.51e4	6.54e3	1.79e4	1.32e4	3.24e4	5.05e4	2.42e4	5.49e3	5.50e4	4.11e4	2.21e4
2017-030	Mud	3.20	3.25	186979	2.00e4	1.82e4	7.19e3	7.34e3	9.51e3	6.69e3	4.26e3	9.02e3	1.19e4	1.95e4	3.64e4	9.96e3	1.69e3	4.15e4	2.93e4	8.36e3

Table 12. continued, GCMS SIR of saturated compounds (peak area)

				m/z	217													218		
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	28ααS	29daS	28ββR	28ββS	28ααR	29ααS	29ββR	29ββS	29ααR	30ααS	30ββR	30ββS	30ααR	27ββR	27ββS	28ββR
2017-001	Mud	7.20	7.25	186933	1.07e4	4.82e4	3.05e4	2.72e4	5.58e4	6.92e4	5.39e4	6.21e4	1.26e5	8.83e3	6.27e3	3.70e3	2.04e3	2.96e4	2.79e4	3.13e4
2017-003	Mud	4.50	4.55	186936	8.25e3	4.00e4	2.44e4	1.78e4	2.64e4	5.15e4	3.44e4	5.01e4	8.20e4	4.73e3	6.00e3	1.56e3	1.98e3	2.13e4	2.12e4	2.38e4
2017-007	Mud	6.93	6.98	186945	2.86e4	4.98e4	6.37e4	8.36e4	6.68e4	1.60e5	1.29e5	1.28e5	2.52e5	2.06e4	1.31e4	3.48e3	1.32e3	6.50e4	6.13e4	8.75e4
2017-009	Mud	4.80	4.85	186947	6.56e3	1.42e5	2.84e4	2.07e4	2.57e4	6.90e4	5.25e4	7.12e4	1.12e5	5.45e3	8.19e3	2.65e3	6.85e2	3.38e4	2.76e4	3.35e4
2017-012	Mud	6.95	7.00	186952	9.08e3	7.78e4	2.85e4	2.12e4	3.02e4	6.83e4	4.93e4	5.98e4	1.13e5	6.44e3	7.89e3	2.81e3	2.56e3	2.71e4	2.56e4	2.81e4
2017-015	Mud	2.10	2.15	186956	1.69e4	4.69e4	4.39e4	4.27e4	7.03e4	1.13e5	8.53e4	9.51e4	1.73e5	1.12e4	1.12e4	3.51e3	3.82e3	6.92e4	5.85e4	5.27e4
2017-015	Mud	2.80	2.85	186957	1.56e4	4.06e4	4.19e4	4.01e4	3.71e4	1.07e5	9.08e4	7.75e4	1.65e5	1.46e4	5.35e3	2.80e3	2.79e3	6.49e4	5.31e4	4.70e4
2017-018	Mud	5.05	5.10	186961	2.37e4	4.56e4	6.60e4	6.99e4	1.11e5	1.37e5	1.11e5	1.15e5	2.21e5	1.90e4	1.12e4	4.09e3	3.18e3	6.58e4	5.97e4	7.25e4
2017-020	Mud	5.11	5.16	186965	1.31e4	2.43e4	3.09e4	3.91e4	3.72e4	7.37e4	5.86e4	6.36e4	1.18e5	6.58e3	5.05e3	9.25e2	1.28e3	3.18e4	2.63e4	3.91e4
2017-021	Mud	6.97	7.02	186969	1.40e4	5.11e4	3.32e4	4.05e4	3.15e4	8.04e4	5.89e4	8.07e4	1.51e5	1.21e4	7.65e3	1.90e3	2.07e3	3.78e4	2.88e4	4.53e4
2017-024	Mud	8.18	8.23	186973	2.47e4	8.23e4	5.51e4	6.76e4	6.50e4	1.43e5	1.05e5	1.39e5	2.48e5	2.14e4	1.03e4	3.07e3	3.21e3	6.84e4	5.67e4	7.68e4
2017-027	Mud	6.68	6.73	186977	1.13e4	4.02e4	2.86e4	3.43e4	3.80e4	6.96e4	5.25e4	6.38e4	1.17e5	5.38e3	9.31e3	3.06e3	2.18e3	3.81e4	3.21e4	3.75e4
2017-030	Mud	3.20	3.25	186979	5.53e3	6.53e4	1.64e4	1.11e4	1.14e4	4.12e4	2.84e4	3.99e4	6.07e4	2.56e3	8.15e3	2.34e3	1.69e3	1.82e4	1.51e4	1.81e4

Table 12. continued, GCMS SIR of saturated compounds (peak area)

				m/z	218				
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	28ββS	29ββR	29ββS	30ββR	30ββS
2017-001	Mud	7.20	7.25	186933	3.75e4	7.73e4	7.80e4	5.99e3	6.22e3
2017-003	Mud	4.50	4.55	186936	2.21e4	5.40e4	5.81e4	4.60e3	7.48e3
2017-007	Mud	6.93	6.98	186945	1.08e5	1.88e5	1.79e5	1.19e4	8.16e3
2017-009	Mud	4.80	4.85	186947	2.99e4	7.05e4	8.20e4	7.68e3	1.04e4
2017-012	Mud	6.95	7.00	186952	2.62e4	7.03e4	6.98e4	7.45e3	1.48e4
2017-015	Mud	2.10	2.15	186956	6.12e4	1.37e5	1.30e5	9.82e3	4.70e3
2017-015	Mud	2.80	2.85	186957	5.63e4	1.23e5	1.20e5	8.05e3	3.53e3
2017-018	Mud	5.05	5.10	186961	8.94e4	1.61e5	1.56e5	7.44e3	9.20e3
2017-020	Mud	5.11	5.16	186965	4.91e4	9.02e4	8.19e4	3.31e3	2.93e3
2017-021	Mud	6.97	7.02	186969	5.05e4	9.67e4	9.59e4	8.87e3	6.61e3
2017-024	Mud	8.18	8.23	186973	8.86e4	1.63e5	1.61e5	1.48e4	5.90e3
2017-027	Mud	6.68	6.73	186977	4.38e4	7.80e4	8.12e4	8.76e3	5.03e3
2017-030	Mud	3.20	3.25	186979	1.64e4	4.07e4	4.73e4	6.16e3	9.89e3

Table 13. GCMS SIR of saturated compounds (amounts in ng/g)

				m/z	177				191											
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	25nor28αβ	25nor29αβ	25nor30αβ	25nor31αβR	19/3	20/3	21/3	22/3	23/3	24/3	25/3R	25/3S	24/4	26/3R	26/3S	28/3R
2017-001	Mud	7.20	7.25	186933	9.73e2	1.20e3	2.88e3	7.06e3	9.11e2	2.68e3	4.66e3	9.74e2	6.26e3	3.67e3	1.74e3	1.68e3	3.58e3	2.04e3	2.18e3	2.43e3
2017-003	Mud	4.50	4.55	186936	9.24e2	8.68e2	1.06e3	5.59e3	8.37e2	2.11e3	3.62e3	8.86e2	4.98e3	2.99e3	1.42e3	1.30e3	2.57e3	1.62e3	1.58e3	1.89e3
2017-007	Mud	6.93	6.98	186945	4.28e2	7.04e2	9.22e2	3.81e3	7.91e2	2.78e3	5.34e3	1.07e3	7.02e3	4.37e3	1.83e3	1.80e3	2.39e3	2.36e3	2.47e3	1.80e3
2017-009	Mud	4.80	4.85	186947	7.59e2	1.30e3	1.12e3	3.38e3	6.67e2	1.50e3	2.47e3	6.00e2	3.02e3	1.77e3	8.55e2	7.72e2	1.84e3	9.98e2	9.46e2	1.29e3
2017-012	Mud	6.95	7.00	186952	5.28e2	6.88e2	7.56e2	3.16e3	4.70e2	1.27e3	2.28e3	5.13e2	2.73e3	1.60e3	8.02e2	7.11e2	1.52e3	8.75e2	8.62e2	1.06e3
2017-015	Mud	2.10	2.15	186956	2.55e3	5.82e3	4.51e3	1.16e4	2.80e3	7.50e3	1.39e4	3.31e3	1.84e4	1.10e4	5.00e3	4.65e3	9.55e3	6.23e3	6.18e3	5.69e3
2017-015	Mud	2.80	2.85	186957	2.22e3	2.46e3	2.71e3	1.05e4	2.99e3	6.95e3	1.43e4	2.78e3	1.85e4	1.06e4	4.97e3	4.55e3	8.44e3	5.80e3	5.92e3	5.27e3
2017-018	Mud	5.05	5.10	186961	1.56e3	2.66e3	2.97e3	1.26e4	2.43e3	8.06e3	1.71e4	3.81e3	2.23e4	1.43e4	5.78e3	5.87e3	8.19e3	7.48e3	7.55e3	5.98e3
2017-020	Mud	5.11	5.16	186965	5.24e2	7.81e2	7.40e2	3.47e3	7.27e2	2.38e3	4.59e3	1.02e3	5.84e3	3.57e3	1.46e3	1.37e3	2.37e3	1.87e3	1.84e3	1.48e3
2017-021	Mud	6.97	7.02	186969	1.29e3	2.31e3	5.97e3	1.15e4	1.57e3	5.73e3	1.09e4	2.54e3	1.46e4	8.91e3	4.51e3	4.17e3	6.71e3	4.74e3	5.24e3	4.57e3
2017-024	Mud	8.18	8.23	186973	1.83e3	3.06e3	4.21e3	1.41e4	2.37e3	7.58e3	1.51e4	3.52e3	2.03e4	1.24e4	5.47e3	5.45e3	8.62e3	6.86e3	6.91e3	6.23e3
2017-027	Mud	6.68	6.73	186977	1.81e3	2.37e3	3.50e3	1.21e4	2.15e3	6.17e3	1.28e4	2.85e3	1.83e4	1.03e4	4.70e3	4.82e3	7.57e3	5.39e3	5.62e3	4.69e3
2017-030	Mud	3.20	3.25	186979	1.05e3	1.11e3	1.41e3	5.08e3	7.08e2	1.60e3	2.94e3	7.80e2	3.85e3	2.25e3	1.03e3	1.13e3	2.61e3	1.30e3	1.26e3	1.78e3

Table 13. continued, GCMS SIR of saturated compounds (amounts in ng/g)

				m/z	191															
Piston Core	Sample type	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	30βα
2017-001	Mud	7.20	7.25	186933	1.36e3	3.80e3	1.16e3	9.15e3	2.63e4	1.06e3	1.28e3	5.72e3	4.92e3	5.07e4	1.17e4	6.63e3	2.54e4	0.00e0	8.77e4	2.67e4
2017-003	Mud	4.50	4.55	186936	1.12e3	9.80e2	8.97e2	6.21e3	2.01e4	2.98e2	9.88e2	3.18e3	1.52e3	4.08e4	9.65e3	5.99e3	2.75e4	0.00e0	7.08e4	2.40e4
2017-007	Mud	6.93	6.98	186945	1.27e3	1.24e3	1.29e3	5.93e3	1.35e4	5.82e2	7.52e2	2.46e3	2.13e3	2.83e4	7.20e3	3.67e3	1.19e4	0.00e0	5.14e4	1.33e4
2017-009	Mud	4.80	4.85	186947	7.56e2	5.90e2	5.16e2	4.93e3	1.14e4	4.98e2	9.24e2	1.78e3	1.50e3	2.33e4	6.50e3	3.10e3	1.67e4	4.14e2	4.21e4	1.33e4
2017-012	Mud	6.95	7.00	186952	5.93e2	5.07e2	5.12e2	4.30e3	1.06e4	3.07e2	6.87e2	1.90e3	9.55e2	2.12e4	5.73e3	3.04e3	1.45e4	0.00e0	3.91e4	1.18e4
2017-015	Mud	2.10	2.15	186956	4.22e3	3.92e3	3.41e3	2.48e4	3.98e4	2.25e3	2.71e3	7.76e3	8.48e3	8.62e4	3.03e4	1.21e4	2.60e4	0.00e0	1.50e5	3.50e4
2017-015	Mud	2.80	2.85	186957	4.07e3	3.46e3	3.59e3	2.16e4	3.75e4	2.14e3	2.46e3	7.80e3	6.15e3	7.98e4	2.79e4	1.13e4	2.73e4	0.00e0	1.39e5	3.29e4
2017-018	Mud	5.05	5.10	186961	4.01e3	4.12e3	3.72e3	2.06e4	4.44e4	1.36e3	2.37e3	8.06e3	6.72e3	9.40e4	2.48e4	1.33e4	3.60e4	0.00e0	1.63e5	4.30e4
2017-020	Mud	5.11	5.16	186965	1.14e3	9.84e2	1.02e3	5.05e3	1.38e4	6.09e2	8.84e2	2.13e3	1.55e3	2.69e4	6.17e3	3.50e3	1.09e4	0.00e0	4.61e4	1.27e4
2017-021	Mud	6.97	7.02	186969	2.97e3	2.95e3	2.79e3	1.55e4	4.50e4	1.75e3	2.37e3	9.91e3	1.05e4	8.51e4	2.06e4	1.23e4	4.44e4	0.00e0	1.53e5	4.18e4
2017-024	Mud	8.18	8.23	186973	4.24e3	4.09e3	4.30e3	2.15e4	5.55e4	1.52e3	2.54e3	1.04e4	7.80e3	1.06e5	2.58e4	1.41e4	4.89e4	0.00e0	1.89e5	5.10e4
2017-027	Mud	6.68	6.73	186977	3.86e3	2.93e3	3.31e3	1.81e4	4.71e4	1.50e3	2.38e3	1.01e4	6.61e3	8.87e4	2.25e4	1.26e4	4.17e4	0.00e0	1.61e5	4.31e4
2017-030	Mud	3.20	3.25	186979	8.08e2	9.23e2	7.77e2	7.20e3	1.84e4	2.43e2	1.31e3	3.48e3	2.02e3	3.44e4	9.77e3	5.09e3	2.88e4	0.00e0	6.32e4	2.21e4

Table 13. continued, GCMS SIR of saturated compounds (amounts in ng/g)

				m/z	191												217			
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	31αβS	31αβR	30G	31βα	32αβS	32αβR	33αβS	33αβR	34αβS	34αβR	35αβS	35αβR	21αα	21ββ	22αα	22ββ
2017-001	Mud	7.20	7.25	186933	3.04e4	5.88e4	9.25e3	1.27e4	1.73e4	1.56e4	9.83e3	7.49e3	1.22e4	5.63e3	3.76e3	4.48e3	1.02e3	1.41e3	6.38e2	7.88e2
2017-003	Mud	4.50	4.55	186936	2.34e4	6.57e4	7.01e3	1.39e4	1.31e4	1.23e4	7.05e3	5.87e3	6.89e3	4.14e3	2.77e3	1.91e3	8.00e2	1.10e3	4.74e2	6.02e2
2017-007	Mud	6.93	6.98	186945	1.60e4	2.63e4	8.05e3	5.58e3	8.37e3	7.34e3	4.65e3	3.52e3	4.53e3	2.42e3	1.59e3	1.18e3	6.82e2	1.25e3	4.36e2	6.50e2
2017-009	Mud	4.80	4.85	186947	1.49e4	3.38e4	3.79e3	7.44e3	8.08e3	7.49e3	4.93e3	3.49e3	4.21e3	2.46e3	1.76e3	1.18e3	6.68e2	8.49e2	3.75e2	4.55e2
2017-012	Mud	6.95	7.00	186952	1.35e4	2.94e4	3.77e3	6.47e3	8.00e3	7.20e3	4.61e3	3.29e3	3.98e3	2.35e3	1.59e3	1.17e3	6.30e2	8.33e2	3.60e2	4.30e2
2017-015	Mud	2.10	2.15	186956	5.61e4	6.36e4	1.69e4	1.39e4	3.21e4	2.54e4	1.74e4	1.39e4	1.81e4	9.24e3	5.75e3	4.61e3	3.88e3	5.43e3	2.24e3	2.97e3
2017-015	Mud	2.80	2.85	186957	4.98e4	6.52e4	1.71e4	1.42e4	2.93e4	2.49e4	1.67e4	1.32e4	1.72e4	8.94e3	5.43e3	4.08e3	3.79e3	5.73e3	2.63e3	2.71e3
2017-018	Mud	5.05	5.10	186961	5.34e4	7.99e4	2.55e4	1.77e4	2.87e4	2.38e4	1.55e4	1.18e4	1.46e4	8.57e3	5.30e3	3.98e3	2.54e3	4.45e3	1.74e3	2.42e3
2017-020	Mud	5.11	5.16	186965	1.38e4	2.33e4	7.02e3	4.96e3	7.73e3	6.73e3	4.01e3	3.14e3	4.38e3	2.15e3	1.21e3	1.02e3	7.28e2	1.23e3	4.71e2	5.92e2
2017-021	Mud	6.97	7.02	186969	4.83e4	1.04e5	2.10e4	2.22e4	2.65e4	2.37e4	1.49e4	1.18e4	1.80e4	8.47e3	5.44e3	5.16e3	1.89e3	3.01e3	9.85e2	1.45e3
2017-024	Mud	8.18	8.23	186973	5.95e4	1.10e5	2.64e4	2.37e4	3.31e4	2.96e4	1.81e4	1.42e4	1.98e4	1.01e4	6.54e3	6.80e3	2.44e3	4.11e3	1.59e3	2.15e3
2017-027	Mud	6.68	6.73	186977	5.15e4	9.37e4	2.16e4	1.99e4	2.65e4	2.44e4	1.61e4	1.16e4	1.72e4	8.97e3	5.49e3	4.44e3	1.96e3	3.81e3	1.55e3	1.93e3
2017-030	Mud	3.20	3.25	186979	2.09e4	6.13e4	5.29e3	1.42e4	1.25e4	1.13e4	7.25e3	5.15e3	6.33e3	3.73e3	2.81e3	1.77e3	1.05e3	1.29e3	6.46e2	6.40e2

Table 13. continued, GCMS SIR of saturated compounds (amounts in ng/g)

				m/z	217															
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	27dβS	27dβR	27daR	27daS	28dβS#1	28dβS#2	28dβR#1	28dβR#2	28daR	27ααS	27ββR+29dβS	27ββS	28daS	27ααR	29dβR	29daR
2017-001	Mud	7.20	7.25	186933	3.00e3	2.55e3	8.77e2	1.23e3	1.20e3	1.29e3	7.63e2	1.45e3	2.00e3	2.57e3	4.01e3	1.79e3	7.01e2	5.33e3	3.29e3	1.64e3
2017-003	Mud	4.50	4.55	186936	2.29e3	1.79e3	6.54e2	8.39e2	9.29e2	9.72e2	5.31e2	1.01e3	8.16e2	1.73e3	2.78e3	1.18e3	4.14e2	5.13e3	2.17e3	1.24e3
2017-007	Mud	6.93	6.98	186945	1.65e3	1.48e3	5.48e2	6.49e2	7.56e2	8.40e2	4.44e2	9.84e2	5.51e2	1.49e3	2.31e3	1.35e3	3.25e2	3.53e3	1.94e3	1.12e3
2017-009	Mud	4.80	4.85	186947	1.86e3	1.50e3	4.75e2	6.86e2	6.46e2	6.08e2	3.48e2	6.69e2	6.84e2	1.39e3	2.10e3	8.44e2	2.47e2	3.23e3	1.45e3	9.23e2
2017-012	Mud	6.95	7.00	186952	1.55e3	1.45e3	4.77e2	5.59e2	6.29e2	5.74e2	3.44e2	6.65e2	4.51e2	1.31e3	1.92e3	7.89e2	1.96e2	3.18e3	1.30e3	8.28e2
2017-015	Mud	2.10	2.15	186956	1.00e4	7.85e3	3.02e3	3.69e3	3.13e3	3.58e3	1.95e3	3.62e3	2.16e3	7.68e3	1.12e4	5.72e3	1.58e3	1.46e4	8.64e3	4.73e3
2017-015	Mud	2.80	2.85	186957	9.23e3	7.00e3	2.75e3	3.50e3	2.68e3	3.14e3	1.80e3	3.94e3	2.12e3	7.08e3	1.11e4	5.41e3	1.47e3	1.40e4	8.06e3	4.38e3
2017-018	Mud	5.05	5.10	186961	6.60e3	5.41e3	1.96e3	2.48e3	2.34e3	3.02e3	1.50e3	3.42e3	1.96e3	5.57e3	8.25e3	4.60e3	1.34e3	1.23e4	6.82e3	3.89e3
2017-020	Mud	5.11	5.16	186965	1.56e3	1.37e3	4.39e2	5.77e2	7.46e2	7.80e2	4.29e2	8.32e2	5.99e2	1.45e3	2.15e3	1.18e3	3.57e2	3.21e3	1.78e3	9.64e2
2017-021	Mud	6.97	7.02	186969	4.85e3	3.92e3	1.52e3	1.93e3	2.08e3	2.51e3	1.37e3	2.61e3	1.67e3	4.06e3	7.01e3	3.09e3	1.14e3	1.17e4	5.91e3	3.28e3
2017-024	Mud	8.18	8.23	186973	6.55e3	5.37e3	1.82e3	2.52e3	2.74e3	3.02e3	1.60e3	3.60e3	2.28e3	6.01e3	9.39e3	4.56e3	1.49e3	1.39e4	7.53e3	4.17e3
2017-027	Mud	6.68	6.73	186977	6.11e3	5.03e3	1.83e3	2.07e3	2.44e3	2.77e3	1.53e3	2.95e3	2.11e3	4.85e3	7.71e3	3.89e3	1.21e3	1.13e4	6.03e3	3.60e3
2017-030	Mud	3.20	3.25	186979	2.51e3	2.22e3	7.32e2	8.78e2	9.73e2	9.11e2	5.53e2	9.14e2	9.98e2	1.69e3	3.06e3	1.33e3	4.07e2	5.15e3	2.20e3	1.26e3

Table 13. continued, GCMS SIR of saturated compounds (amounts in ng/g)

				m/z	217													218		
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	28ααS	29daS	28ββR	28ββS	28ααR	29ααS	29ββR	29ββS	29ααR	30ααS	30ββR	30ββS	30ααR	27ββR	27ββS	28ββR
2017-001	Mud	7.20	7.25	186933	1.43e3	3.11e3	2.23e3	2.69e3	3.49e3	6.42e3	4.62e3	4.65e3	1.12e4	1.63e3	8.94e2	4.91e2	3.77e2	3.13e3	2.91e3	2.90e3
2017-003	Mud	4.50	4.55	186936	8.65e2	2.58e3	1.83e3	1.49e3	2.37e3	4.27e3	2.69e3	3.09e3	7.13e3	6.95e2	5.80e2	2.02e2	2.26e2	2.06e3	1.86e3	1.93e3
2017-007	Mud	6.93	6.98	186945	1.02e3	1.51e3	1.90e3	2.44e3	2.60e3	4.85e3	3.28e3	3.50e3	7.48e3	1.27e3	4.02e2	1.28e2	8.50e1	2.16e3	2.04e3	2.39e3
2017-009	Mud	4.80	4.85	186947	5.44e2	7.39e3	1.37e3	9.60e2	1.43e3	3.19e3	2.32e3	2.46e3	4.95e3	4.15e2	3.89e2	1.60e2	7.60e1	1.73e3	1.56e3	1.43e3
2017-012	Mud	6.95	7.00	186952	4.98e2	2.96e3	1.15e3	8.57e2	1.46e3	3.01e3	2.02e3	2.19e3	4.99e3	6.57e2	3.99e2	1.81e2	1.57e2	1.52e3	1.27e3	1.23e3
2017-015	Mud	2.10	2.15	186956	2.77e3	6.14e3	5.11e3	5.51e3	6.68e3	1.56e4	1.14e4	1.24e4	2.41e4	3.39e3	1.34e3	6.15e2	5.55e2	1.00e4	8.90e3	6.47e3
2017-015	Mud	2.80	2.85	186957	2.75e3	5.87e3	5.00e3	5.50e3	6.51e3	1.51e4	1.12e4	1.17e4	2.19e4	4.84e3	1.10e3	5.63e2	4.53e2	9.54e3	8.52e3	6.43e3
2017-018	Mud	5.05	5.10	186961	3.30e3	5.14e3	5.97e3	7.50e3	8.01e3	1.57e4	1.14e4	1.16e4	2.33e4	5.31e3	1.26e3	4.70e2	3.69e2	7.96e3	6.96e3	7.66e3
2017-020	Mud	5.11	5.16	186965	8.10e2	1.23e3	1.66e3	2.02e3	2.33e3	3.83e3	2.79e3	2.89e3	5.99e3	5.56e2	3.43e2	1.21e2	1.10e2	1.78e3	1.59e3	1.99e3
2017-021	Mud	6.97	7.02	186969	2.41e3	5.84e3	5.17e3	6.01e3	6.41e3	1.19e4	8.97e3	9.18e3	2.18e4	2.49e3	1.58e3	6.37e2	6.27e2	5.88e3	4.72e3	6.16e3
2017-024	Mud	8.18	8.23	186973	3.49e3	6.38e3	6.32e3	7.84e3	9.47e3	1.64e4	1.18e4	1.24e4	2.66e4	4.07e3	1.44e3	6.85e2	4.96e2	8.20e3	6.95e3	8.27e3
2017-027	Mud	6.68	6.73	186977	2.35e3	5.25e3	5.50e3	6.25e3	7.70e3	1.24e4	8.93e3	9.44e3	1.97e4	1.82e3	1.69e3	6.86e2	5.69e2	6.16e3	6.06e3	6.49e3
2017-030	Mud	3.20	3.25	186979	6.53e2	6.66e3	1.78e3	1.07e3	1.85e3	4.20e3	2.72e3	3.33e3	6.17e3	6.45e2	7.62e2	3.83e2	1.86e2	2.22e3	1.95e3	2.01e3

Table 13. continued, GCMS SIR of saturated compounds (amounts in ng/g)

				m/z	218				
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	28ββS	29ββR	29ββS	30ββR	30ββS
2017-001	Mud	7.20	7.25	186933	3.42e3	7.83e3	7.30e3	7.57e2	7.86e2
2017-003	Mud	4.50	4.55	186936	2.06e3	4.53e3	4.69e3	6.63e2	7.27e2
2017-007	Mud	6.93	6.98	186945	3.22e3	5.90e3	5.64e3	4.29e2	3.91e2
2017-009	Mud	4.80	4.85	186947	1.31e3	3.55e3	3.66e3	5.54e2	6.21e2
2017-012	Mud	6.95	7.00	186952	1.21e3	3.27e3	3.14e3	6.22e2	7.96e2
2017-015	Mud	2.10	2.15	186956	8.08e3	1.98e4	1.99e4	1.40e3	1.02e3
2017-015	Mud	2.80	2.85	186957	7.94e3	1.86e4	1.92e4	1.30e3	9.92e2
2017-018	Mud	5.05	5.10	186961	1.00e4	1.97e4	1.84e4	1.35e3	1.34e3
2017-020	Mud	5.11	5.16	186965	2.62e3	4.53e3	4.75e3	3.55e2	3.49e2
2017-021	Mud	6.97	7.02	186969	7.78e3	1.54e4	1.48e4	1.39e3	1.30e3
2017-024	Mud	8.18	8.23	186973	1.03e4	1.94e4	1.91e4	1.83e3	1.40e3
2017-027	Mud	6.68	6.73	186977	7.97e3	1.51e4	1.45e4	1.84e3	1.43e3
2017-030	Mud	3.20	3.25	186979	1.83e3	4.74e3	4.66e3	1.05e3	1.13e3

Table 14. GCMS SIR of aromatic compounds (peak height)

				m/z	142		156										170			
Piston Core	Sample type	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	2,3,6-TMN
2017-001	Mud	7.20	7.25	186933	1.10e5	9.55e4	1.17e4	7.71e3	3.12e4	2.92e4	8.66e4	5.87e4	4.52e4	1.80e4	1.63e4	8.60e2	2.91e4	4.06e4	3.73e4	3.26e4
2017-003	Mud	4.50	4.55	186936	5.22e4	4.40e4	7.83e3	4.71e3	2.33e4	1.98e4	5.67e4	3.80e4	3.12e4	1.13e4	1.03e4	3.27e2	2.54e4	3.74e4	2.95e4	3.22e4
2017-007	Mud	6.93	6.98	186945	6.08e4	5.30e4	7.64e3	5.37e3	2.14e4	1.87e4	5.31e4	3.77e4	3.08e4	1.23e4	1.16e4	1.20e3	2.62e4	4.01e4	3.51e4	3.20e4
2017-009	Mud	4.80	4.85	186947	5.43e4	3.88e4	6.82e3	4.08e3	3.50e4	1.95e4	4.74e4	3.35e4	2.52e4	1.01e4	9.03e3	5.20e2	2.24e4	3.23e4	2.64e4	2.69e4
2017-012	Mud	6.95	7.00	186952	9.47e3	4.78e3	5.36e2	2.25e2	2.19e3	2.23e3	3.72e3	2.96e3	1.35e3	7.59e2	5.87e2	1.10e2	1.04e3	1.43e3	1.22e3	5.88e2
2017-015	Mud	2.10	2.15	186956	2.49e4	2.21e4	3.30e3	2.45e3	1.15e4	1.09e4	2.71e4	2.00e4	1.49e4	6.45e3	6.19e3	7.16e2	1.62e4	2.24e4	2.25e4	1.82e4
2017-015	Mud	2.80	2.85	186957	1.80e4	1.61e4	2.67e3	1.86e3	8.73e3	7.55e3	1.93e4	1.45e4	1.10e4	4.64e3	4.76e3	6.66e2	1.37e4	1.94e4	1.87e4	1.70e4
2017-018	Mud	5.05	5.10	186961	2.70e4	2.46e4	3.57e3	2.28e3	1.05e4	9.19e3	2.61e4	1.88e4	1.52e4	5.82e3	5.64e3	6.74e2	1.35e4	1.95e4	1.83e4	1.69e4
2017-020	Mud	5.11	5.16	186965	3.62e4	3.27e4	4.87e3	3.31e3	1.48e4	1.33e4	3.42e4	2.44e4	1.99e4	8.42e3	7.53e3	8.56e2	1.86e4	2.73e4	2.38e4	2.29e4
2017-021	Mud	6.97	7.02	186969	9.48e4	7.55e4	9.27e3	5.28e3	2.62e4	2.48e4	6.29e4	4.35e4	3.19e4	1.40e4	1.22e4	6.26e2	2.18e4	3.16e4	3.00e4	2.58e4
2017-024	Mud	8.18	8.23	186973	7.49e4	6.34e4	7.91e3	4.96e3	2.16e4	2.07e4	5.64e4	3.94e4	3.02e4	1.25e4	1.14e4	7.54e2	2.32e4	3.35e4	3.21e4	2.67e4
2017-027	Mud	6.68	6.73	186977	2.14e4	1.99e4	3.01e3	2.04e3	8.07e3	7.26e3	2.31e4	1.57e4	1.29e4	5.45e3	5.10e3	4.42e2	1.15e4	1.63e4	1.55e4	1.29e4
2017-030	Mud	3.20	3.25	186979	2.20e4	1.80e4	2.54e3	1.56e3	9.44e3	6.75e3	1.82e4	1.19e4	9.43e3	3.71e3	3.33e3	1.85e2	8.83e3	1.22e4	1.05e4	1.01e4

Table 14. continued, GCMS SIR of aromatic compounds (peak height)

				m/z	170				178	192				206						
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	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	1,7-DMP	2,3-DMP
2017-001	Mud	7.20	7.25	186933	9.18e3	3.75e4	5.76e3	3.76e4	2.05e5	6.45e4	8.33e4	1.22e5	7.68e4	1.73e4	3.08e4	2.50e4	7.36e4	3.96e4	4.67e4	2.71e4
2017-003	Mud	4.50	4.55	186936	7.30e3	3.09e4	4.13e3	2.05e4	2.73e5	9.58e4	1.31e5	1.65e5	1.01e5	2.58e4	4.85e4	3.62e4	1.08e5	5.32e4	5.22e4	3.71e4
2017-007	Mud	6.93	6.98	186945	8.00e3	3.29e4	5.24e3	3.40e4	2.20e5	7.49e4	9.70e4	1.46e5	8.99e4	2.36e4	4.02e4	3.03e4	1.32e5	6.06e4	6.90e4	3.31e4
2017-009	Mud	4.80	4.85	186947	1.08e4	2.50e4	3.58e3	1.87e4	2.21e5	6.92e4	1.02e5	1.06e5	7.24e4	1.50e4	2.49e4	2.17e4	7.66e4	3.56e4	3.21e4	1.86e4
2017-012	Mud	6.95	7.00	186952	2.03e2	5.46e2	2.21e2	5.25e2	4.33e4	2.49e4	3.81e4	4.26e4	2.81e4	8.06e3	1.73e4	1.37e4	4.22e4	1.99e4	1.87e4	1.09e4
2017-015	Mud	2.10	2.15	186956	5.10e3	1.77e4	3.52e3	1.56e4	8.82e4	4.06e4	5.71e4	9.01e4	4.94e4	1.84e4	3.89e4	2.63e4	1.16e5	5.34e4	6.06e4	2.52e4
2017-015	Mud	2.80	2.85	186957	4.60e3	1.67e4	3.23e3	1.59e4	1.00e5	4.78e4	6.70e4	9.97e4	5.49e4	2.26e4	4.32e4	2.68e4	1.24e5	5.80e4	6.72e4	2.69e4
2017-018	Mud	5.05	5.10	186961	4.62e3	1.78e4	3.16e3	1.84e4	1.36e5	4.98e4	6.59e4	1.06e5	6.34e4	1.98e4	3.48e4	2.20e4	9.74e4	4.54e4	4.99e4	2.49e4
2017-020	Mud	5.11	5.16	186965	5.87e3	2.30e4	4.11e3	2.50e4	1.73e5	5.93e4	8.21e4	1.12e5	7.21e4	1.70e4	3.70e4	2.66e4	9.13e4	4.50e4	4.96e4	2.38e4
2017-021	Mud	6.97	7.02	186969	7.39e3	2.93e4	4.68e3	3.13e4	1.60e5	5.08e4	6.23e4	9.48e4	6.31e4	1.35e4	2.50e4	1.55e4	6.13e4	3.30e4	3.90e4	2.05e4
2017-024	Mud	8.18	8.23	186973	7.25e3	3.10e4	5.04e3	3.14e4	1.72e5	5.22e4	6.86e4	1.07e5	6.56e4	1.62e4	2.93e4	1.94e4	7.39e4	3.83e4	4.31e4	2.30e4
2017-027	Mud	6.68	6.73	186977	3.65e3	1.51e4	2.73e3	1.66e4	8.18e4	2.65e4	3.54e4	5.62e4	3.36e4	8.78e3	1.65e4	1.10e4	4.31e4	2.24e4	2.54e4	1.31e4
2017-030	Mud	3.20	3.25	186979	3.10e3	1.06e4	1.49e3	7.90e3	8.71e4	3.44e4	4.82e4	5.75e4	3.47e4	1.03e4	1.84e4	1.14e4	4.14e4	2.05e4	1.97e4	1.31e4

Table 14. continued, GCMS SIR of aromatic compounds (peak height)

				m/z	206			219	184	198			253							
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	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	αSC27MA	βSC28MA+ βSC28DMA+ αRC27DMA	αSC27DMA
2017-001	Mud	7.20	7.25	186933	2.51e4	1.53e4	1.55e4	2.73e4	1.56e4	1.21e4	8.30e3	5.37e3	1.41e3	9.59e2	8.24e2	2.12e3	1.52e3	1.00e3	3.21e3	9.09e2
2017-003	Mud	4.50	4.55	186936	3.25e4	1.82e4	1.90e4	3.47e4	1.93e4	1.45e4	9.13e3	4.15e3	6.54e2	5.09e2	4.72e2	1.36e3	9.50e2	6.66e2	1.76e3	4.80e2
2017-007	Mud	6.93	6.98	186945	4.03e4	2.45e4	2.24e4	2.56e4	2.22e4	1.72e4	1.02e4	7.18e3	1.91e3	1.41e3	1.12e3	3.31e3	2.44e3	1.72e3	4.45e3	1.09e3
2017-009	Mud	4.80	4.85	186947	2.20e4	1.25e4	1.22e4	1.91e4	2.43e4	1.71e4	8.26e3	4.81e3	1.03e3	5.63e2	7.31e2	1.65e3	1.27e3	9.00e2	1.87e3	4.29e2
2017-012	Mud	6.95	7.00	186952	1.22e4	7.37e3	7.07e3	1.63e4	4.81e3	6.18e3	3.41e3	2.25e3	8.46e2	5.10e2	7.37e2	1.77e3	1.33e3	9.20e2	1.87e3	4.53e2
2017-015	Mud	2.10	2.15	186956	3.27e4	1.93e4	1.61e4	1.18e4	8.91e3	1.10e4	6.34e3	4.45e3	3.16e3	1.74e3	1.75e3	6.05e3	4.02e3	2.20e3	5.43e3	1.31e3
2017-015	Mud	2.80	2.85	186957	3.51e4	2.06e4	1.72e4	1.31e4	1.04e4	1.20e4	7.44e3	5.18e3	3.38e3	1.88e3	1.93e3	5.91e3	3.90e3	2.02e3	5.55e3	1.50e3
2017-018	Mud	5.05	5.10	186961	3.04e4	1.78e4	1.65e4	2.10e4	1.33e4	1.10e4	6.52e3	4.38e3	1.96e3	1.21e3	1.10e3	3.13e3	2.23e3	1.48e3	4.03e3	1.10e3
2017-020	Mud	5.11	5.16	186965	2.90e4	1.69e4	1.60e4	1.80e4	1.58e4	1.27e4	7.70e3	5.09e3	1.24e3	8.46e2	6.45e2	1.70e3	1.35e3	8.46e2	2.75e3	7.89e2
2017-021	Mud	6.97	7.02	186969	2.25e4	1.32e4	1.38e4	2.11e4	1.38e4	1.05e4	7.11e3	4.93e3	1.29e3	9.41e2	7.31e2	2.15e3	1.62e3	1.02e3	3.07e3	8.36e2
2017-024	Mud	8.18	8.23	186973	2.47e4	1.43e4	1.49e4	2.30e4	1.54e4	1.24e4	7.41e3	4.94e3	1.97e3	1.40e3	1.17e3	3.52e3	2.56e3	1.72e3	4.86e3	1.37e3
2017-027	Mud	6.68	6.73	186977	1.43e4	8.52e3	8.68e3	1.53e4	7.06e3	5.71e3	3.78e3	2.59e3	1.15e3	7.97e2	6.47e2	2.01e3	1.40e3	9.96e2	2.92e3	7.93e2
2017-030	Mud	3.20	3.25	186979	1.23e4	7.04e3	7.20e3	1.49e4	8.46e3	7.10e3	4.06e3	2.19e3	6.58e2	4.54e2	4.68e2	1.07e3	8.64e2	6.25e2	1.28e3	3.32e2

Table 14. continued, GCMS SIR of aromatic compounds (peak height)

				m/z	253							231									
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	αRC27MA	αSC28MA	βRC28MA+ βRC28DMA	βSC29MA+ βSC29DMA	αSC29MA	αRC28MA+ βRC29MA+ βRC29DMA	αRC29MA	C20TA	C21TA	SC26TA	RC26TA+ SC27TA	M1	M2	SC28TA	RC27TA	M3
2017-001	Mud	7.20	7.25	186933	9.43e2	1.52e3	2.35e3	6.91e3	3.30e3	5.55e3	2.81e3	3.89e3	2.55e3	4.68e3	1.03e4	9.00e1	2.45e2	1.16e4	4.02e3	2.83e2
2017-003	Mud	4.50	4.55	186936	5.88e2	9.95e2	1.11e3	3.62e3	1.69e3	3.00e3	1.44e3	2.81e3	2.02e3	3.21e3	6.31e3	9.50e1	1.85e2	7.25e3	2.48e3	1.67e2
2017-007	Mud	6.93	6.98	186945	1.38e3	1.90e3	2.72e3	9.65e3	4.44e3	7.53e3	3.47e3	6.44e3	3.98e3	7.97e3	1.82e4	1.35e2	3.24e2	2.06e4	6.82e3	3.84e2
2017-009	Mud	4.80	4.85	186947	7.20e2	8.04e2	1.00e3	4.03e3	2.11e3	3.06e3	1.70e3	2.54e3	1.70e3	3.85e3	6.58e3	1.33e2	1.74e2	7.81e3	2.28e3	1.14e2
2017-012	Mud	6.95	7.00	186952	9.58e2	1.06e3	1.15e3	4.27e3	2.40e3	3.31e3	1.94e3	2.15e3	1.42e3	3.76e3	6.07e3	1.20e2	1.74e2	7.73e3	2.19e3	1.18e2
2017-015	Mud	2.10	2.15	186956	1.71e3	1.60e3	3.14e3	1.29e4	4.31e3	9.30e3	3.33e3	8.09e3	4.87e3	1.08e4	1.95e4	2.29e2	4.12e2	2.36e4	6.50e3	2.84e2
2017-015	Mud	2.80	2.85	186957	1.76e3	1.65e3	3.39e3	1.34e4	4.53e3	9.70e3	3.50e3	8.10e3	4.78e3	1.06e4	1.97e4	1.59e2	3.94e2	2.25e4	6.29e3	3.23e2
2017-018	Mud	5.05	5.10	186961	1.16e3	1.72e3	2.29e3	8.68e3	3.85e3	6.85e3	3.12e3	5.67e3	3.55e3	7.01e3	1.45e4	1.41e2	2.69e2	1.70e4	5.31e3	2.20e2
2017-020	Mud	5.11	5.16	186965	6.74e2	1.24e3	1.68e3	6.05e3	2.64e3	4.53e3	2.03e3	3.96e3	2.32e3	4.09e3	9.09e3	7.80e1	1.38e2	1.06e4	3.81e3	2.13e2
2017-021	Mud	6.97	7.02	186969	9.02e2	1.72e3	2.14e3	7.03e3	2.92e3	5.26e3	2.55e3	3.52e3	2.44e3	4.95e3	1.07e4	9.40e1	2.14e2	1.25e4	4.32e3	2.36e2
2017-024	Mud	8.18	8.23	186973	1.47e3	2.18e3	3.27e3	1.08e4	4.81e3	9.16e3	4.19e3	5.00e3	3.57e3	7.53e3	1.60e4	1.34e2	2.99e2	1.90e4	6.36e3	2.76e2
2017-027	Mud	6.68	6.73	186977	7.63e2	1.23e3	1.94e3	6.18e3	2.68e3	4.89e3	2.12e3	3.23e3	2.11e3	4.38e3	9.13e3	1.30e2	2.52e2	1.04e4	3.62e3	2.48e2
2017-030	Mud	3.20	3.25	186979	5.49e2	7.65e2	7.14e2	2.81e3	1.46e3	2.17e3	1.17e3	1.74e3	1.22e3	2.49e3	4.33e3	4.80e1	9.90e1	5.20e3	1.50e3	1.09e2

Table 14. continued, GCMS SIR of aromatic compounds (peak height)

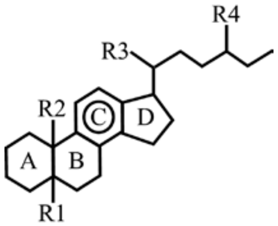
				m/z	231		245													
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	M4	RC28TA	3MS-TA	4MS-TA	2,24DMS-TA	3,24DMS+3MR-TA	4,24DMS+4MR-TA	D1-TA	3M24ES-TA	D2-TA	4M24ES-TA	3,24DMR-TA	4,24DMR-TA	D3-TA	D4-TA	2M24ER-TA
2017-001	Mud	7.20	7.25	186933	1.57e2	1.48e4	7.50e2	3.72e3	4.65e2	2.48e3	4.35e3	1.43e2	3.67e3	4.04e2	2.49e3	1.25e3	2.64e3	4.33e2	7.84e2	7.43e2
2017-003	Mud	4.50	4.55	186936	9.20e1	8.75e3	5.77e2	1.94e3	2.08e2	1.45e3	1.68e3	9.70e1	1.98e3	2.42e2	1.09e3	7.33e2	9.84e2	1.89e2	4.88e2	3.69e2
2017-007	Mud	6.93	6.98	186945	1.96e2	2.32e4	1.38e3	3.13e3	5.35e2	3.80e3	3.54e3	2.16e2	5.76e3	2.68e2	2.90e3	2.06e3	2.04e3	2.55e2	6.25e2	9.18e2
2017-009	Mud	4.80	4.85	186947	1.26e2	9.28e3	5.37e2	1.10e3	1.71e2	1.30e3	9.90e2	9.00e1	2.01e3	1.74e2	1.19e3	7.14e2	5.50e2	2.35e2	4.03e2	4.72e2
2017-012	Mud	6.95	7.00	186952	7.70e1	9.36e3	4.77e2	1.04e3	1.74e2	1.30e3	9.19e2	4.50e1	2.05e3	1.21e2	1.14e3	6.55e2	5.10e2	1.25e2	3.11e2	4.91e2
2017-015	Mud	2.10	2.15	186956	2.38e2	2.55e4	1.84e3	2.52e3	6.00e2	3.37e3	2.29e3	1.16e2	6.22e3	3.50e2	2.95e3	1.78e3	1.29e3	2.40e2	4.66e2	9.99e2
2017-015	Mud	2.80	2.85	186957	2.60e1	2.49e4	1.71e3	2.71e3	5.08e2	3.65e3	2.50e3	2.02e2	6.09e3	3.21e2	3.10e3	1.70e3	1.32e3	1.83e2	4.51e2	1.01e3
2017-018	Mud	5.05	5.10	186961	1.92e2	1.98e4	1.14e3	2.65e3	4.42e2	3.03e3	2.61e3	1.14e2	4.26e3	1.41e2	2.25e3	1.65e3	1.50e3	2.34e2	4.34e2	7.14e2
2017-020	Mud	5.11	5.16	186965	1.39e2	1.22e4	6.86e2	2.05e3	3.14e2	1.88e3	2.50e3	6.30e1	2.64e3	1.56e2	1.38e3	1.02e3	1.33e3	1.61e2	3.17e2	4.23e2
2017-021	Mud	6.97	7.02	186969	1.41e2	1.53e4	7.67e2	2.69e3	3.12e2	2.36e3	3.15e3	1.10e2	3.61e3	3.30e2	2.09e3	1.18e3	1.89e3	3.34e2	5.77e2	5.69e2
2017-024	Mud	8.18	8.23	186973	4.40e1	2.20e4	1.26e3	3.98e3	5.26e2	3.57e3	4.62e3	8.40e1	5.05e3	3.17e2	2.91e3	1.71e3	2.58e3	3.27e2	6.53e2	8.20e2
2017-027	Mud	6.68	6.73	186977	1.82e2	1.18e4	6.58e2	2.24e3	3.10e2	1.99e3	2.71e3	1.29e2	2.64e3	3.09e2	1.62e3	1.00e3	1.47e3	3.13e2	5.21e2	4.81e2
2017-030	Mud	3.20	3.25	186979	1.07e2	5.81e3	3.29e2	8.98e2	1.45e2	9.21e2	7.68e2	5.70e1	1.34e3	1.19e2	7.57e2	4.70e2	4.12e2	9.80e1	1.99e2	2.69e2

Table 14. continued, GCMS SIR of aromatic compounds (peak height)

				m/z	245			
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	3M24ER-TA	D5-TA	4M24ER-TA	D6-TA
2017-001	Mud	7.20	7.25	186933	3.14e3	3.29e2	2.53e3	8.00e2
2017-003	Mud	4.50	4.55	186936	1.70e3	1.31e2	1.22e3	3.41e2
2017-007	Mud	6.93	6.98	186945	4.60e3	1.85e2	2.86e3	5.75e2
2017-009	Mud	4.80	4.85	186947	1.65e3	1.27e2	1.23e3	3.48e2
2017-012	Mud	6.95	7.00	186952	1.69e3	1.46e2	1.22e3	2.24e2
2017-015	Mud	2.10	2.15	186956	5.22e3	2.89e2	3.19e3	5.61e2
2017-015	Mud	2.80	2.85	186957	5.08e3	3.61e2	3.05e3	4.65e2
2017-018	Mud	5.05	5.10	186961	3.67e3	1.05e2	2.45e3	3.56e2
2017-020	Mud	5.11	5.16	186965	2.28e3	5.20e1	1.59e3	2.55e2
2017-021	Mud	6.97	7.02	186969	2.95e3	2.14e2	2.33e3	6.86e2
2017-024	Mud	8.18	8.23	186973	4.38e3	1.63e2	2.97e3	6.11e2
2017-027	Mud	6.68	6.73	186977	2.40e3	1.92e2	1.62e3	5.69e2
2017-030	Mud	3.20	3.25	186979	1.12e3	6.50e1	8.12e2	2.55e2

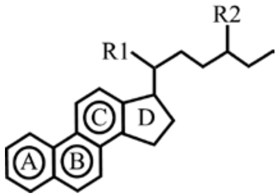
Abbreviation of aromatic biomarkers

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	RCH3)	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
TeMN	Tetramethylnaphthalene
P	Phenanthrene
MP	Methylphenanthrene
EP	Ethylphenanthrene
DMP	Dimethylphenanthrene
DBT	Dibenzothiophene
MDBT	Methyldibenzothiophene
DMDBT	Dimethyldibenzothiophene

Tri-aromatic steroids (TA)

3MS-TA	(20S) 3-methyl TA
4MS-TA	(20S) 4-methyl TA
2,24DMS-TA	(20S) 2,24-dimethyl TA
3,24DMS-TA	(20S) 3,24-dimethyl TA
3MR-TA	(20R) 3-methyl TA
4,24DMS-TA	(20S) 4,24-dimethyl TA
4MR-TA	(20R) 4-methyl TA
3M24ES-TA	(20S) 3-methyl-24-ethyl TA
4M24ES-TA	(20S) 4-methyl-24-ethyl TA
3,24DMR-TA	(20R) 3,24-dimethyl TA
4,24DMR-TA	(20R) 4,24-dimethyl TA
2M24ER-TA	(20R) 2-methyl-24-ethyl TA
3M24ER-TA	(20R) 3-methyl-24-ethyl TA
4M24ER-TA	(20R) 4-methyl-24-ethyl TA

Tri-aromatic dinosteroids

D1-TA	TA-dinosteroid #1
D2-TA	TA-dinosteroid #2
D3-TA	TA-dinosteroid #3
D4-TA	TA-dinosteroid #4
D5-TA	TA-dinosteroid #5
D6-TA	TA-dinosteroid #6
M1	23,24-dimethyl-triaromatic steroid #1
M2	23,24-dimethyl-triaromatic steroid #2
M3	23,24-dimethyl-triaromatic steroid #3
M4	23,24-dimethyl-triaromatic steroid #4

Table 15. GCMS SIR of aromatic compounds (peak area)

				m/z	142		156										170			
Piston Core	Sample type	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	2,3,6-TMN
2017-001	Mud	7.20	7.25	186933	7.20e5	6.53e5	8.66e4	5.88e4	2.42e5	2.14e5	6.75e5	4.59e5	3.80e5	1.46e5	1.35e5	6.84e3	2.65e5	3.96e5	3.64e5	2.86e5
2017-003	Mud	4.50	4.55	186936	3.42e5	3.00e5	5.72e4	3.47e4	1.73e5	1.53e5	4.44e5	2.95e5	2.58e5	9.09e4	8.42e4	2.65e3	2.34e5	3.52e5	2.83e5	2.75e5
2017-007	Mud	6.93	6.98	186945	3.99e5	3.56e5	5.83e4	3.91e4	1.62e5	1.41e5	4.18e5	2.97e5	2.54e5	1.00e5	9.77e4	1.08e4	2.47e5	3.81e5	3.39e5	2.75e5
2017-009	Mud	4.80	4.85	186947	3.53e5	2.61e5	5.13e4	3.00e4	2.57e5	1.41e5	3.68e5	2.62e5	2.11e5	7.75e4	7.46e4	4.06e3	2.05e5	3.11e5	2.60e5	2.33e5
2017-012	Mud	6.95	7.00	186952	6.38e4	3.24e4	4.38e3	1.94e3	1.67e4	1.77e4	3.06e4	2.30e4	1.17e4	6.54e3	4.88e3	4.53e2	9.78e3	1.30e4	1.21e4	5.60e3
2017-015	Mud	2.10	2.15	186956	1.66e5	1.50e5	2.59e4	1.89e4	8.56e4	8.51e4	2.18e5	1.55e5	1.26e5	5.19e4	5.12e4	7.48e3	1.45e5	2.14e5	2.11e5	1.60e5
2017-015	Mud	2.80	2.85	186957	1.24e5	1.10e5	2.16e4	1.41e4	6.33e4	5.98e4	1.56e5	1.16e5	9.37e4	3.84e4	3.89e4	6.98e3	1.29e5	1.87e5	1.82e5	1.51e5
2017-018	Mud	5.05	5.10	186961	1.80e5	1.65e5	2.70e4	1.78e4	7.67e4	7.00e4	2.01e5	1.44e5	1.24e5	4.81e4	4.70e4	5.26e3	1.23e5	1.91e5	1.75e5	1.46e5
2017-020	Mud	5.11	5.16	186965	2.41e5	2.22e5	3.69e4	2.38e4	1.13e5	1.01e5	2.76e5	1.94e5	1.68e5	6.68e4	6.35e4	7.75e3	1.71e5	2.61e5	2.32e5	2.00e5
2017-021	Mud	6.97	7.02	186969	6.31e5	5.21e5	7.12e4	4.03e4	1.75e5	1.97e5	5.09e5	3.48e5	2.72e5	1.16e5	1.03e5	5.70e3	2.09e5	3.07e5	2.92e5	2.29e5
2017-024	Mud	8.18	8.23	186973	4.93e5	4.34e5	6.04e4	3.90e4	1.72e5	1.54e5	4.56e5	3.12e5	2.57e5	1.04e5	9.76e4	6.98e3	2.18e5	3.30e5	3.14e5	2.41e5
2017-027	Mud	6.68	6.73	186977	1.47e5	1.39e5	2.31e4	1.61e4	6.72e4	5.83e4	1.85e5	1.27e5	1.11e5	4.41e4	4.27e4	3.37e3	1.07e5	1.62e5	1.55e5	1.17e5
2017-030	Mud	3.20	3.25	186979	1.55e5	1.28e5	1.94e4	1.24e4	7.80e4	4.93e4	1.46e5	9.88e4	8.08e4	3.12e4	2.84e4	8.32e2	8.12e4	1.26e5	1.07e5	9.44e4

Table 15. continued, GCMS SIR of aromatic compounds (peak area)

				m/z	170				178	192				206						
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	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	1,7-DMP	2,3-DMP
2017-001	Mud	7.20	7.25	186933	7.79e4	5.03e5	5.45e4	3.44e5	9.70e5	3.10e5	4.08e5	6.03e5	4.24e5	8.37e4	1.52e5	1.17e5	4.69e5	3.14e5	2.49e5	1.43e5
2017-003	Mud	4.50	4.55	186936	6.40e4	3.96e5	3.75e4	1.85e5	1.30e6	4.64e5	6.39e5	8.30e5	5.18e5	1.25e5	2.26e5	1.79e5	6.69e5	3.75e5	2.65e5	1.88e5
2017-007	Mud	6.93	6.98	186945	7.00e4	4.52e5	5.10e4	3.09e5	1.13e6	3.67e5	4.83e5	7.45e5	4.79e5	1.24e5	1.95e5	1.44e5	7.57e5	4.08e5	3.49e5	1.62e5
2017-009	Mud	4.80	4.85	186947	9.24e4	3.24e5	3.26e4	1.71e5	1.06e6	3.38e5	4.90e5	5.28e5	3.62e5	7.90e4	1.21e5	8.70e4	4.51e5	2.31e5	1.61e5	9.40e4
2017-012	Mud	6.95	7.00	186952	1.95e3	6.69e3	7.33e2	5.99e3	2.10e5	1.24e5	1.88e5	2.14e5	1.44e5	4.02e4	6.76e4	4.93e4	2.51e5	1.30e5	9.27e4	5.40e4
2017-015	Mud	2.10	2.15	186956	4.36e4	2.17e5	3.42e4	1.43e5	4.24e5	2.03e5	2.88e5	4.61e5	2.53e5	9.12e4	1.84e5	1.32e5	6.98e5	3.60e5	3.11e5	1.27e5
2017-015	Mud	2.80	2.85	186957	4.38e4	2.50e5	3.02e4	1.42e5	4.84e5	2.36e5	3.35e5	5.05e5	2.97e5	1.04e5	2.05e5	1.30e5	7.45e5	3.86e5	3.43e5	1.38e5
2017-018	Mud	5.05	5.10	186961	3.77e4	2.30e5	2.88e4	1.67e5	6.45e5	2.40e5	3.30e5	5.26e5	3.30e5	8.93e4	1.58e5	1.06e5	5.87e5	3.18e5	2.62e5	1.28e5
2017-020	Mud	5.11	5.16	186965	5.16e4	3.40e5	3.81e4	2.24e5	8.71e5	2.92e5	4.04e5	5.78e5	3.96e5	8.96e4	1.47e5	9.88e4	5.58e5	3.16e5	2.47e5	1.23e5
2017-021	Mud	6.97	7.02	186969	6.42e4	4.15e5	4.22e4	2.91e5	7.99e5	2.42e5	3.19e5	4.93e5	3.58e5	6.67e4	1.23e5	7.54e4	3.95e5	2.60e5	2.13e5	1.08e5
2017-024	Mud	8.18	8.23	186973	6.60e4	4.28e5	4.99e4	2.94e5	8.42e5	2.65e5	3.46e5	5.43e5	3.52e5	7.88e4	1.53e5	9.29e4	4.62e5	2.79e5	2.25e5	1.18e5
2017-027	Mud	6.68	6.73	186977	3.33e4	2.12e5	2.63e4	1.56e5	4.09e5	1.36e5	1.78e5	2.88e5	1.87e5	4.44e4	8.37e4	5.51e4	2.76e5	1.64e5	1.34e5	6.80e4
2017-030	Mud	3.20	3.25	186979	2.67e4	1.41e5	1.48e4	7.32e4	4.32e5	1.74e5	2.42e5	2.86e5	1.82e5	4.44e4	8.39e4	5.41e4	2.58e5	1.45e5	1.02e5	6.60e4

Table 15. continued, GCMS SIR of aromatic compounds (peak area)

				m/z	206			219	184	198			253							
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	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	αSC27MA	βSC28MA+ βSC28DMA+ αRC27DMA	αSC27DMA
2017-001	Mud	7.20	7.25	186933	1.50e5	8.03e4	8.03e4	1.39e5	7.85e4	5.73e4	4.09e4	2.75e4	6.83e3	6.95e3	4.30e3	1.22e4	1.14e4	6.63e3	2.12e4	4.48e3
2017-003	Mud	4.50	4.55	186936	1.78e5	9.14e4	9.29e4	1.76e5	9.70e4	7.02e4	4.57e4	2.15e4	3.63e3	4.04e3	2.59e3	7.80e3	6.12e3	3.70e3	1.15e4	2.37e3
2017-007	Mud	6.93	6.98	186945	2.18e5	1.22e5	1.13e5	1.31e5	1.14e5	8.34e4	5.09e4	3.64e4	1.00e4	9.91e3	6.20e3	1.87e4	1.67e4	1.02e4	2.80e4	9.82e3
2017-009	Mud	4.80	4.85	186947	1.15e5	6.26e4	6.16e4	9.60e4	1.22e5	8.16e4	4.11e4	2.42e4	5.44e3	4.39e3	3.61e3	9.44e3	8.90e3	4.96e3	1.25e4	2.91e3
2017-012	Mud	6.95	7.00	186952	6.56e4	3.76e4	3.59e4	8.11e4	2.42e4	3.04e4	1.67e4	1.10e4	4.30e3	3.55e3	3.58e3	1.03e4	8.72e3	5.67e3	1.29e4	2.53e3
2017-015	Mud	2.10	2.15	186956	1.75e5	9.64e4	8.08e4	6.08e4	4.43e4	5.31e4	3.10e4	2.24e4	1.53e4	1.28e4	9.77e3	3.35e4	2.60e4	1.18e4	3.51e4	1.13e4
2017-015	Mud	2.80	2.85	186957	1.90e5	1.05e5	9.08e4	7.04e4	5.29e4	5.82e4	3.51e4	2.62e4	1.68e4	1.36e4	9.56e3	3.38e4	2.66e4	1.20e4	3.66e4	1.35e4
2017-018	Mud	5.05	5.10	186961	1.69e5	9.25e4	8.43e4	1.08e5	6.41e4	5.46e4	3.19e4	2.32e4	9.74e3	9.13e3	5.33e3	1.75e4	1.56e4	9.21e3	2.58e4	8.53e3
2017-020	Mud	5.11	5.16	186965	1.55e5	8.63e4	8.15e4	9.01e4	8.10e4	6.20e4	3.75e4	2.65e4	6.43e3	5.83e3	3.33e3	1.03e4	9.43e3	5.89e3	1.81e4	6.70e3
2017-021	Mud	6.97	7.02	186969	1.29e5	6.74e4	6.85e4	1.07e5	7.15e4	5.27e4	3.59e4	2.61e4	6.69e3	7.35e3	3.86e3	1.23e4	1.06e4	6.30e3	2.00e4	4.60e3
2017-024	Mud	8.18	8.23	186973	1.41e5	7.33e4	7.50e4	1.20e5	7.69e4	6.17e4	3.82e4	2.61e4	1.01e4	9.87e3	6.53e3	1.99e4	1.76e4	9.93e3	3.17e4	1.17e4
2017-027	Mud	6.68	6.73	186977	8.20e4	4.52e4	4.42e4	8.06e4	3.66e4	2.91e4	1.88e4	1.37e4	5.92e3	5.58e3	3.98e3	1.23e4	9.95e3	6.00e3	1.87e4	4.98e3
2017-030	Mud	3.20	3.25	186979	6.79e4	3.57e4	3.72e4	7.62e4	4.28e4	3.65e4	2.00e4	1.11e4	3.31e3	3.37e3	2.43e3	6.54e3	5.88e3	3.37e3	8.75e3	2.08e3

Table 15. continued, GCMS SIR of aromatic compounds (peak area)

				m/z	253							231								
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	αRC27MA	αSC28MA	βRC28MA+ βRC28DMA	βSC29MA+ βSC29DMA	αSC29MA	αRC28MA+ βRC29MA+ βRC29DMA	αRC29MA	C20TA	C21TA	SC26TA	RC26TA+ SC27TA	M1	M2	SC28TA	RC27TA	M3
2017-001	Mud	7.20	7.25	186933	5.37e3	8.02e3	1.25e4	6.30e4	2.22e4	5.40e4	2.15e4	1.95e4	1.43e4	2.52e4	5.67e4	3.70e2	8.77e2	1.10e5	3.23e4	1.51e3
2017-003	Mud	4.50	4.55	186936	3.21e3	5.51e3	6.01e3	2.39e4	1.22e4	2.73e4	1.13e4	1.44e4	1.17e4	1.82e4	3.47e4	3.18e2	7.38e2	6.75e4	1.90e4	8.41e2
2017-007	Mud	6.93	6.98	186945	7.08e3	1.01e4	1.45e4	6.28e4	2.98e4	6.39e4	2.54e4	3.33e4	2.30e4	4.29e4	9.81e4	5.98e2	1.88e3	1.87e5	5.65e4	1.48e3
2017-009	Mud	4.80	4.85	186947	4.41e3	4.08e3	5.38e3	2.69e4	1.40e4	2.87e4	1.34e4	1.32e4	9.52e3	2.06e4	3.63e4	5.98e2	1.01e3	7.19e4	1.77e4	3.08e2
2017-012	Mud	6.95	7.00	186952	4.81e3	5.71e3	5.92e3	2.50e4	1.57e4	3.33e4	1.49e4	1.14e4	7.62e3	1.97e4	3.50e4	5.22e2	8.95e2	7.28e4	1.76e4	5.10e2
2017-015	Mud	2.10	2.15	186956	9.39e3	8.72e3	1.88e4	1.08e5	2.78e4	8.32e4	2.51e4	4.39e4	2.64e4	5.96e4	1.09e5	1.49e3	2.38e3	2.11e5	5.15e4	1.16e3
2017-015	Mud	2.80	2.85	186957	1.02e4	8.49e3	1.73e4	1.19e5	3.09e4	8.52e4	2.61e4	4.12e4	2.59e4	5.90e4	1.08e5	7.05e2	1.96e3	2.09e5	5.13e4	2.25e3
2017-018	Mud	5.05	5.10	186961	6.67e3	8.62e3	1.34e4	5.56e4	2.54e4	5.88e4	2.31e4	2.84e4	1.96e4	3.76e4	7.97e4	7.15e2	1.04e3	1.56e5	4.21e4	6.60e2
2017-020	Mud	5.11	5.16	186965	3.56e3	6.43e3	9.05e3	4.56e4	1.78e4	4.35e4	1.61e4	2.18e4	1.33e4	2.25e4	5.17e4	3.08e2	7.01e2	1.00e5	2.91e4	9.80e2
2017-021	Mud	6.97	7.02	186969	4.91e3	8.94e3	1.19e4	4.92e4	2.00e4	4.41e4	1.90e4	1.83e4	1.41e4	2.64e4	6.04e4	3.24e2	7.08e2	1.17e5	3.55e4	1.38e3
2017-024	Mud	8.18	8.23	186973	7.50e3	1.17e4	1.82e4	9.63e4	3.36e4	8.19e4	3.10e4	2.62e4	1.97e4	3.96e4	9.12e4	3.01e2	1.36e3	1.76e5	5.03e4	1.29e3
2017-027	Mud	6.68	6.73	186977	4.20e3	6.32e3	1.15e4	5.49e4	1.89e4	4.70e4	1.71e4	1.64e4	1.23e4	2.45e4	5.15e4	6.99e2	1.16e3	9.65e4	2.89e4	1.30e3
2017-030	Mud	3.20	3.25	186979	2.98e3	4.03e3	4.19e3	1.80e4	1.01e4	2.08e4	9.79e3	9.27e3	7.14e3	1.45e4	2.41e4	1.36e2	2.76e2	4.79e4	1.23e4	3.65e2

Table 15. continued, GCMS SIR of aromatic compounds (peak area)

				m/z	231		245														
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	M4	RC28TA	3MS-TA	4MS-TA	2,24DMS-TA	3,24DMS+3MR-TA	4,24DMS+4MR-TA	D1-TA	3M24ES-TA	D2-TA	4M24ES-TA	3,24DMR-TA	4,24DMR-TA	D3-TA	D4-TA	2M24ER-TA
2017-001	Mud	7.20	7.25	186933	5.19e2	9.78e4	4.11e3	2.01e4	2.85e3	1.73e4	2.55e4	4.11e2	3.40e4	2.72e3	1.48e4	7.11e3	2.35e4	2.49e3	5.07e3	5.52e3
2017-003	Mud	4.50	4.55	186936	2.79e2	5.57e4	3.01e3	9.85e3	1.24e3	1.05e4	1.02e4	2.53e2	1.87e4	1.37e3	4.96e3	4.73e3	9.01e3	8.28e2	2.60e3	2.84e3
2017-007	Mud	6.93	6.98	186945	4.82e2	1.53e5	7.39e3	1.73e4	3.93e3	2.80e4	2.01e4	1.10e3	5.11e4	1.40e3	2.04e4	2.04e4	1.74e4	1.28e3	3.08e3	6.83e3
2017-009	Mud	4.80	4.85	186947	3.72e2	5.95e4	2.68e3	6.57e3	1.22e3	1.07e4	5.85e3	3.92e2	1.91e4	8.85e2	6.99e3	6.70e3	4.84e3	1.15e3	2.24e3	3.21e3
2017-012	Mud	6.95	7.00	186952	1.17e2	6.07e4	2.85e3	5.57e3	9.28e2	9.93e3	5.55e3	2.44e2	1.81e4	5.87e2	5.77e3	4.23e3	4.47e3	7.33e2	1.66e3	3.45e3
2017-015	Mud	2.10	2.15	186956	9.39e2	1.68e5	1.00e4	1.35e4	3.57e3	2.93e4	1.40e4	5.01e2	5.61e4	1.60e3	1.57e4	1.47e4	1.28e4	7.11e2	2.78e3	7.08e3
2017-015	Mud	2.80	2.85	186957	3.50e1	1.68e5	1.22e4	1.51e4	3.22e3	2.88e4	1.56e4	1.28e3	5.74e4	1.30e3	1.64e4	1.47e4	1.17e4	8.23e2	2.34e3	7.32e3
2017-018	Mud	5.05	5.10	186961	4.64e2	1.23e5	6.51e3	1.48e4	2.62e3	2.23e4	1.62e4	4.35e2	3.94e4	4.84e2	1.49e4	1.46e4	1.26e4	1.27e3	2.72e3	5.21e3
2017-020	Mud	5.11	5.16	186965	4.88e2	7.91e4	3.86e3	1.11e4	1.70e3	1.53e4	1.44e4	2.44e2	2.61e4	5.61e2	9.04e3	1.01e4	1.18e4	8.94e2	1.59e3	3.33e3
2017-021	Mud	6.97	7.02	186969	5.48e2	9.97e4	4.32e3	1.47e4	1.81e3	1.85e4	1.82e4	3.73e2	3.33e4	1.89e3	1.28e4	1.22e4	1.60e4	1.99e3	3.24e3	4.17e3
2017-024	Mud	8.18	8.23	186973	9.30e1	1.48e5	8.17e3	2.10e4	2.83e3	2.72e4	2.63e4	2.03e2	4.72e4	1.24e3	1.76e4	5.92e3	2.33e4	2.20e3	4.18e3	6.20e3
2017-027	Mud	6.68	6.73	186977	8.49e2	7.99e4	3.65e3	1.16e4	2.03e3	1.59e4	1.57e4	3.71e2	2.48e4	1.51e3	1.60e4	1.03e4	1.28e4	1.67e3	3.42e3	3.52e3
2017-030	Mud	3.20	3.25	186979	3.12e2	3.86e4	2.33e3	5.00e3	8.53e2	7.70e3	4.74e3	2.61e2	1.29e4	4.67e2	5.01e3	4.61e3	3.26e3	5.78e2	1.11e3	2.10e3

Table 15. continued, GCMS SIR of aromatic compounds (peak area)

				m/z	245			
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	3M24ER-TA	D5-TA	4M24ER-TA	D6-TA
2017-001	Mud	7.20	7.25	186933	3.25e4	1.37e3	1.72e4	4.29e3
2017-003	Mud	4.50	4.55	186936	1.62e4	4.53e2	8.66e3	2.08e3
2017-007	Mud	6.93	6.98	186945	4.11e4	6.14e2	1.97e4	3.46e3
2017-009	Mud	4.80	4.85	186947	1.55e4	5.27e2	8.47e3	2.17e3
2017-012	Mud	6.95	7.00	186952	1.62e4	5.40e2	8.75e3	1.41e3
2017-015	Mud	2.10	2.15	186956	4.91e4	1.00e3	2.15e4	3.85e3
2017-015	Mud	2.80	2.85	186957	4.72e4	1.06e3	2.11e4	2.85e3
2017-018	Mud	5.05	5.10	186961	3.59e4	4.07e2	1.60e4	2.02e3
2017-020	Mud	5.11	5.16	186965	2.21e4	1.91e2	1.03e4	1.74e3
2017-021	Mud	6.97	7.02	186969	3.05e4	1.02e3	1.55e4	4.11e3
2017-024	Mud	8.18	8.23	186973	4.38e4	7.45e2	2.08e4	3.83e3
2017-027	Mud	6.68	6.73	186977	2.36e4	5.17e2	1.19e4	3.30e3
2017-030	Mud	3.20	3.25	186979	1.02e4	2.12e2	5.52e3	1.32e3

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

				m/z	142		156										170			
Piston Core	Sample type	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	2,3,6-TMN
2017-001	Mud	7.20	7.25	186933	1.69e4	1.46e4	1.69e3	1.12e3	4.51e3	4.23e3	1.25e4	8.50e3	6.54e3	2.61e3	2.36e3	1.24e2	4.21e3	5.87e3	5.40e3	4.71e3
2017-003	Mud	4.50	4.55	186936	1.70e4	1.43e4	1.64e3	9.88e2	4.88e3	4.16e3	1.19e4	7.98e3	6.54e3	2.38e3	2.17e3	6.90e1	5.34e3	7.84e3	6.19e3	6.75e3
2017-007	Mud	6.93	6.98	186945	5.23e3	4.56e3	5.09e2	3.58e2	1.43e3	1.24e3	3.54e3	2.51e3	2.05e3	8.19e2	7.70e2	8.00e1	1.74e3	2.67e3	2.34e3	2.13e3
2017-009	Mud	4.80	4.85	186947	7.09e3	5.07e3	5.60e2	3.35e2	2.87e3	1.60e3	3.89e3	2.75e3	2.07e3	8.29e2	7.41e2	4.30e1	1.84e3	2.65e3	2.17e3	2.21e3
2017-012	Mud	6.95	7.00	186952	1.79e5	9.03e4	2.41e4	1.01e4	9.86e4	1.01e5	1.68e5	1.34e5	6.08e4	3.42e4	2.65e4	4.95e3	4.67e4	6.44e4	5.50e4	2.65e4
2017-015	Mud	2.10	2.15	186956	1.13e4	1.01e4	1.03e3	7.61e2	3.56e3	3.38e3	8.42e3	6.23e3	4.64e3	2.01e3	1.92e3	2.23e2	5.03e3	6.97e3	7.00e3	5.65e3
2017-015	Mud	2.80	2.85	186957	1.17e4	1.05e4	1.35e3	9.42e2	4.41e3	3.82e3	9.76e3	7.33e3	5.58e3	2.35e3	2.41e3	3.37e2	6.94e3	9.81e3	9.48e3	8.59e3
2017-018	Mud	5.05	5.10	186961	1.31e4	1.19e4	1.54e3	9.86e2	4.53e3	3.97e3	1.12e4	8.12e3	6.54e3	2.51e3	2.44e3	2.91e2	5.85e3	8.43e3	7.92e3	7.28e3
2017-020	Mud	5.11	5.16	186965	5.40e3	4.88e3	6.55e2	4.45e2	1.99e3	1.78e3	4.60e3	3.28e3	2.67e3	1.13e3	1.01e3	1.15e2	2.51e3	3.67e3	3.20e3	3.08e3
2017-021	Mud	6.97	7.02	186969	3.33e4	2.66e4	3.25e3	1.85e3	9.19e3	8.70e3	2.21e4	1.52e4	1.12e4	4.89e3	4.27e3	2.19e2	7.64e3	1.11e4	1.05e4	9.05e3
2017-024	Mud	8.18	8.23	186973	2.50e4	2.12e4	2.16e3	1.36e3	5.92e3	5.65e3	1.54e4	1.08e4	8.24e3	3.43e3	3.13e3	2.06e2	6.33e3	9.16e3	8.78e3	7.29e3
2017-027	Mud	6.68	6.73	186977	1.47e4	1.37e4	1.74e3	1.18e3	4.66e3	4.19e3	1.33e4	9.06e3	7.44e3	3.15e3	2.95e3	2.55e2	6.63e3	9.39e3	8.97e3	7.43e3
2017-030	Mud	3.20	3.25	186979	1.12e4	9.18e3	1.12e3	6.88e2	4.17e3	2.98e3	8.02e3	5.28e3	4.17e3	1.64e3	1.47e3	8.20e1	3.90e3	5.41e3	4.62e3	4.48e3

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

				m/z	170				178	192				206						
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	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	1,7-DMP	2,3-DMP
2017-001	Mud	7.20	7.25	186933	1.33e3	5.42e3	8.33e2	5.43e3	5.11e4	1.61e4	2.08e4	3.04e4	1.92e4	4.31e3	7.67e3	6.24e3	1.84e4	9.88e3	1.16e4	6.77e3
2017-003	Mud	4.50	4.55	186936	1.53e3	6.48e3	8.67e2	4.29e3	6.30e4	2.21e4	3.02e4	3.82e4	2.33e4	5.96e3	1.12e4	8.35e3	2.50e4	1.23e4	1.21e4	8.57e3
2017-007	Mud	6.93	6.98	186945	5.33e2	2.19e3	3.49e2	2.27e3	1.51e4	5.13e3	6.64e3	1.00e4	6.16e3	1.62e3	2.75e3	2.07e3	9.07e3	4.15e3	4.73e3	2.27e3
2017-009	Mud	4.80	4.85	186947	8.84e2	2.05e3	2.94e2	1.54e3	2.14e4	6.69e3	9.89e3	1.03e4	7.00e3	1.45e3	2.41e3	2.10e3	7.40e3	3.44e3	3.10e3	1.80e3
2017-012	Mud	6.95	7.00	186952	9.16e3	2.46e4	9.97e3	2.37e4	2.02e4	1.16e4	1.78e4	1.99e4	1.31e4	3.76e3	8.06e3	6.39e3	1.97e4	9.27e3	8.72e3	5.08e3
2017-015	Mud	2.10	2.15	186956	1.58e3	5.49e3	1.10e3	4.86e3	3.61e4	1.66e4	2.34e4	3.69e4	2.03e4	7.53e3	1.59e4	1.08e4	4.74e4	2.19e4	2.48e4	1.03e4
2017-015	Mud	2.80	2.85	186957	2.32e3	8.47e3	1.63e3	8.04e3	4.33e4	2.06e4	2.89e4	4.31e4	2.37e4	9.77e3	1.86e4	1.16e4	5.33e4	2.50e4	2.90e4	1.16e4
2017-018	Mud	5.05	5.10	186961	2.00e3	7.67e3	1.36e3	7.95e3	5.15e4	1.89e4	2.50e4	4.01e4	2.41e4	7.52e3	1.32e4	8.34e3	3.70e4	1.72e4	1.89e4	9.44e3
2017-020	Mud	5.11	5.16	186965	7.89e2	3.10e3	5.53e2	3.36e3	2.04e4	6.98e3	9.67e3	1.32e4	8.49e3	2.00e3	4.36e3	3.13e3	1.07e4	5.30e3	5.84e3	2.80e3
2017-021	Mud	6.97	7.02	186969	2.59e3	1.03e4	1.64e3	1.10e4	6.08e4	1.93e4	2.36e4	3.59e4	2.39e4	5.13e3	9.47e3	5.88e3	2.32e4	1.25e4	1.48e4	7.75e3
2017-024	Mud	8.18	8.23	186973	1.98e3	8.46e3	1.38e3	8.59e3	6.38e4	1.94e4	2.55e4	3.97e4	2.43e4	6.02e3	1.09e4	7.20e3	2.74e4	1.42e4	1.60e4	8.53e3
2017-027	Mud	6.68	6.73	186977	2.11e3	8.72e3	1.58e3	9.58e3	5.37e4	1.74e4	2.33e4	3.69e4	2.21e4	5.76e3	1.09e4	7.23e3	2.83e4	1.47e4	1.67e4	8.58e3
2017-030	Mud	3.20	3.25	186979	1.37e3	4.70e3	6.58e2	3.49e3	2.79e4	1.11e4	1.55e4	1.84e4	1.11e4	3.29e3	5.89e3	3.65e3	1.33e4	6.57e3	6.32e3	4.20e3

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

				m/z	206			219	184	198			253							
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	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	αSC27MA	βSC28MA+ βSC28DMA+ αRC27DMA	αSC27DMA
2017-001	Mud	7.20	7.25	186933	6.26e3	3.83e3	3.88e3	6.81e3	3.88e3	3.02e3	2.07e3	1.34e3	4.69e2	3.18e2	2.74e2	7.05e2	5.06e2	3.33e2	1.06e3	3.02e2
2017-003	Mud	4.50	4.55	186936	7.49e3	4.20e3	4.39e3	8.00e3	4.46e3	3.35e3	2.11e3	9.57e2	2.14e2	1.66e2	1.54e2	4.43e2	3.10e2	2.18e2	5.74e2	1.57e2
2017-007	Mud	6.93	6.98	186945	2.76e3	1.68e3	1.53e3	1.76e3	1.52e3	1.18e3	7.02e2	4.92e2	1.98e2	1.47e2	1.16e2	3.44e2	2.54e2	1.78e2	4.63e2	1.13e2
2017-009	Mud	4.80	4.85	186947	2.13e3	1.21e3	1.18e3	1.84e3	2.36e3	1.65e3	7.99e2	4.66e2	1.97e2	1.08e2	1.40e2	3.16e2	2.42e2	1.72e2	3.57e2	8.20e1
2017-012	Mud	6.95	7.00	186952	5.68e3	3.44e3	3.30e3	7.62e3	2.24e3	2.88e3	1.59e3	1.05e3	2.17e2	1.31e2	1.89e2	4.55e2	3.40e2	2.36e2	4.79e2	1.16e2
2017-015	Mud	2.10	2.15	186956	1.34e4	7.92e3	6.60e3	4.83e3	3.65e3	4.51e3	2.60e3	1.82e3	1.75e3	9.58e2	9.68e2	3.34e3	2.22e3	1.21e3	3.00e3	7.21e2
2017-015	Mud	2.80	2.85	186957	1.51e4	8.88e3	7.41e3	5.66e3	4.50e3	5.19e3	3.21e3	2.24e3	1.86e3	1.04e3	1.06e3	3.26e3	2.15e3	1.11e3	3.06e3	8.28e2
2017-018	Mud	5.05	5.10	186961	1.15e4	6.76e3	6.25e3	7.98e3	5.04e3	4.16e3	2.47e3	1.66e3	9.08e2	5.63e2	5.07e2	1.45e3	1.04e3	6.85e2	1.87e3	5.09e2
2017-020	Mud	5.11	5.16	186965	3.42e3	1.99e3	1.88e3	2.12e3	1.87e3	1.49e3	9.07e2	5.99e2	2.09e2	1.43e2	1.09e2	2.87e2	2.28e2	1.43e2	4.64e2	1.33e2
2017-021	Mud	6.97	7.02	186969	8.52e3	4.98e3	5.24e3	7.98e3	5.22e3	3.97e3	2.70e3	1.87e3	7.00e2	5.12e2	3.98e2	1.17e3	8.83e2	5.53e2	1.67e3	4.55e2
2017-024	Mud	8.18	8.23	186973	9.16e3	5.31e3	5.55e3	8.52e3	5.72e3	4.61e3	2.75e3	1.83e3	1.23e3	8.72e2	7.33e2	2.20e3	1.60e3	1.08e3	3.04e3	8.56e2
2017-027	Mud	6.68	6.73	186977	9.38e3	5.59e3	5.70e3	1.01e4	4.63e3	3.75e3	2.48e3	1.70e3	9.88e2	6.87e2	5.57e2	1.73e3	1.21e3	8.58e2	2.51e3	6.83e2
2017-030	Mud	3.20	3.25	186979	3.96e3	2.26e3	2.31e3	4.77e3	2.71e3	2.28e3	1.30e3	7.04e2	3.29e2	2.27e2	2.34e2	5.35e2	4.32e2	3.13e2	6.40e2	1.66e2

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

				m/z	253							231								
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	αRC27MA	αSC28MA	βRC28MA+ βRC28DMA	βSC29MA+ βSC29DMA	αSC29MA	αRC28MA+ βRC29MA+ βRC29DMA	αRC29MA	C20TA	C21TA	SC26TA	RC26TA+ SC27TA	M1	M2	SC28TA	RC27TA	M3
2017-001	Mud	7.20	7.25	186933	3.13e2	5.04e2	7.80e2	2.30e3	1.10e3	1.84e3	9.34e2	1.29e3	8.45e2	1.55e3	3.42e3	3.00e1	8.10e1	3.87e3	1.34e3	9.40e1
2017-003	Mud	4.50	4.55	186936	1.92e2	3.25e2	3.64e2	1.18e3	5.52e2	9.80e2	4.72e2	9.16e2	6.60e2	1.05e3	2.06e3	3.10e1	6.10e1	2.37e3	8.08e2	5.50e1
2017-007	Mud	6.93	6.98	186945	1.44e2	1.98e2	2.83e2	1.00e3	4.62e2	7.83e2	3.61e2	6.70e2	4.14e2	8.30e2	1.89e3	1.40e1	3.40e1	2.14e3	7.10e2	4.00e1
2017-009	Mud	4.80	4.85	186947	1.38e2	1.54e2	1.92e2	7.70e2	4.02e2	5.84e2	3.24e2	4.85e2	3.25e2	7.36e2	1.26e3	2.50e1	3.30e1	1.49e3	4.36e2	2.20e1
2017-012	Mud	6.95	7.00	186952	2.46e2	2.72e2	2.94e2	1.09e3	6.15e2	8.49e2	4.97e2	5.51e2	3.63e2	9.65e2	1.56e3	3.10e1	4.50e1	1.98e3	5.62e2	3.00e1
2017-015	Mud	2.10	2.15	186956	9.42e2	8.82e2	1.74e3	7.14e3	2.38e3	5.13e3	1.84e3	4.47e3	2.69e3	5.96e3	1.08e4	1.27e2	2.28e2	1.30e4	3.59e3	1.56e2
2017-015	Mud	2.80	2.85	186957	9.68e2	9.07e2	1.87e3	7.39e3	2.50e3	5.34e3	1.93e3	4.46e3	2.63e3	5.85e3	1.08e4	8.70e1	2.17e2	1.24e4	3.47e3	1.78e2
2017-018	Mud	5.05	5.10	186961	5.35e2	7.96e2	1.06e3	4.02e3	1.78e3	3.17e3	1.45e3	2.63e3	1.64e3	3.25e3	6.74e3	6.50e1	1.25e2	7.87e3	2.46e3	1.02e2
2017-020	Mud	5.11	5.16	186965	1.14e2	2.09e2	2.85e2	1.02e3	4.46e2	7.67e2	3.43e2	6.69e2	3.93e2	6.92e2	1.54e3	1.30e1	2.30e1	1.79e3	6.44e2	3.60e1
2017-021	Mud	6.97	7.02	186969	4.90e2	9.36e2	1.17e3	3.83e3	1.59e3	2.86e3	1.39e3	1.91e3	1.33e3	2.69e3	5.82e3	5.10e1	1.16e2	6.82e3	2.35e3	1.29e2
2017-024	Mud	8.18	8.23	186973	9.17e2	1.36e3	2.04e3	6.77e3	3.01e3	5.73e3	2.62e3	3.12e3	2.23e3	4.71e3	1.00e4	8.40e1	1.87e2	1.19e4	3.97e3	1.73e2
2017-027	Mud	6.68	6.73	186977	6.57e2	1.06e3	1.67e3	5.33e3	2.31e3	4.21e3	1.83e3	2.79e3	1.82e3	3.77e3	7.87e3	1.12e2	2.17e2	8.93e3	3.12e3	2.14e2
2017-030	Mud	3.20	3.25	186979	2.75e2	3.83e2	3.57e2	1.41e3	7.32e2	1.08e3	5.85e2	8.68e2	6.10e2	1.25e3	2.17e3	2.40e1	4.90e1	2.60e3	7.50e2	5.40e1

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

m/z					231		245														
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	M4	RC28TA	3MS-TA	4MS-TA	2,24DMS-TA	3,24DMS+3MR-TA	4,24DMS+4MR-TA	D1-TA	3M24ES-TA	D2-TA	4M24ES-TA	3,24DMR-TA	4,24DMR-TA	D3-TA	D4-TA	2M24ER-TA
2017-001	Mud	7.20	7.25	186933	5.20e1	4.92e3	2.49e2	1.24e3	1.54e2	8.24e2	1.44e3	4.80e1	1.22e3	1.34e2	8.28e2	4.17e2	8.78e2	1.44e2	2.60e2	2.47e2
2017-003	Mud	4.50	4.55	186936	3.00e1	2.86e3	1.88e2	6.35e2	6.80e1	4.74e2	5.50e2	3.20e1	6.46e2	7.90e1	3.55e2	2.39e2	3.21e2	6.20e1	1.60e2	1.21e2
2017-007	Mud	6.93	6.98	186945	2.00e1	2.42e3	1.43e2	3.25e2	5.60e1	3.95e2	3.68e2	2.20e1	5.99e2	2.80e1	3.01e2	2.15e2	2.13e2	2.60e1	6.50e1	9.60e1
2017-009	Mud	4.80	4.85	186947	2.40e1	1.77e3	1.03e2	2.10e2	3.30e1	2.48e2	1.89e2	1.70e1	3.83e2	3.30e1	2.28e2	1.36e2	1.05e2	4.50e1	7.70e1	9.00e1
2017-012	Mud	6.95	7.00	186952	2.00e1	2.40e3	1.22e2	2.67e2	4.50e1	3.33e2	2.36e2	1.10e1	5.26e2	3.10e1	2.91e2	1.68e2	1.31e2	3.20e1	8.00e1	1.26e2
2017-015	Mud	2.10	2.15	186956	1.31e2	1.41e4	1.02e3	1.39e3	3.31e2	1.86e3	1.27e3	6.40e1	3.43e3	1.93e2	1.63e3	9.84e2	7.10e2	1.32e2	2.57e2	5.51e2
2017-015	Mud	2.80	2.85	186957	1.40e1	1.37e4	9.42e2	1.49e3	2.80e2	2.01e3	1.38e3	1.11e2	3.35e3	1.77e2	1.71e3	9.39e2	7.27e2	1.01e2	2.49e2	5.57e2
2017-018	Mud	5.05	5.10	186961	8.90e1	9.16e3	5.28e2	1.23e3	2.05e2	1.41e3	1.21e3	5.30e1	1.97e3	6.50e1	1.04e3	7.66e2	6.96e2	1.08e2	2.01e2	3.31e2
2017-020	Mud	5.11	5.16	186965	2.30e1	2.06e3	1.16e2	3.47e2	5.30e1	3.18e2	4.23e2	1.10e1	4.46e2	2.60e1	2.33e2	1.72e2	2.24e2	2.70e1	5.40e1	7.10e1
2017-021	Mud	6.97	7.02	186969	7.70e1	8.34e3	4.17e2	1.46e3	1.69e2	1.28e3	1.71e3	6.00e1	1.97e3	1.80e2	1.13e3	6.39e2	1.03e3	1.82e2	3.14e2	3.09e2
2017-024	Mud	8.18	8.23	186973	2.80e1	1.37e4	7.86e2	2.49e3	3.29e2	2.23e3	2.89e3	5.30e1	3.16e3	1.98e2	1.82e3	1.07e3	1.61e3	2.04e2	4.08e2	5.12e2
2017-027	Mud	6.68	6.73	186977	1.57e2	1.01e4	5.67e2	1.93e3	2.67e2	1.71e3	2.33e3	1.11e2	2.28e3	2.66e2	1.39e3	8.62e2	1.26e3	2.70e2	4.49e2	4.14e2
2017-030	Mud	3.20	3.25	186979	5.40e1	2.91e3	1.65e2	4.49e2	7.20e1	4.61e2	3.84e2	2.80e1	6.71e2	6.00e1	3.79e2	2.35e2	2.06e2	4.90e1	1.00e2	1.34e2

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

				m/z	245			
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	3M24ER-TA	D5-TA	4M24ER-TA	D6-TA
2017-001	Mud	7.20	7.25	186933	1.04e3	1.09e2	8.39e2	2.66e2
2017-003	Mud	4.50	4.55	186936	5.55e2	4.30e1	3.98e2	1.11e2
2017-007	Mud	6.93	6.98	186945	4.78e2	1.90e1	2.97e2	6.00e1
2017-009	Mud	4.80	4.85	186947	3.14e2	2.40e1	2.35e2	6.60e1
2017-012	Mud	6.95	7.00	186952	4.34e2	3.70e1	3.14e2	5.70e1
2017-015	Mud	2.10	2.15	186956	2.88e3	1.60e2	1.76e3	3.10e2
2017-015	Mud	2.80	2.85	186957	2.80e3	1.99e2	1.68e3	2.56e2
2017-018	Mud	5.05	5.10	186961	1.70e3	4.90e1	1.14e3	1.65e2
2017-020	Mud	5.11	5.16	186965	3.86e2	9.00e0	2.69e2	4.30e1
2017-021	Mud	6.97	7.02	186969	1.61e3	1.16e2	1.26e3	3.73e2
2017-024	Mud	8.18	8.23	186973	2.74e3	1.02e2	1.86e3	3.82e2
2017-027	Mud	6.68	6.73	186977	2.07e3	1.66e2	1.40e3	4.90e2
2017-030	Mud	3.20	3.25	186979	5.61e2	3.30e1	4.06e2	1.27e2

Table 17. GCMS SIR of diamandoids (peak height)

				m/z	136	135				149					163					177
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	A	1-MA	2-MA	1-EtA	2-EtA	1,3-DMA	cis-1,4-DMA	trans-1,4-DMA	1,2-DMA	1-Et, 3-MA	1,3,5-TMA	1,3,6-TMA	cis-1,3,4-TMA	trans-1,3,4-TMA	1-Et, 3,5-DMA	1,3,5,7-TeMA
2017-015	Mud	2.10	2.15	186956	4.47e5	1.78e6	5.27e5	3.18e5	4.00e5	2.22e6	7.45e5	6.18e5	9.70e5	7.14e5	9.36e5	9.73e5	7.26e5	8.14e5	5.99e5	2.19e5
2017-015	Mud	2.80	2.85	186957	1.11e6	4.99e6	1.70e6	8.74e5	1.11e6	5.87e6	2.93e6	2.53e6	3.71e6	2.17e6	3.07e6	3.90e6	2.89e6	3.14e6	2.33e6	6.24e5
2017-018	Mud	5.05	5.10	186961	6.89e5	1.84e6	7.46e5	3.38e5	5.12e5	2.13e6	1.14e6	8.28e5	1.17e6	8.28e5	1.30e6	1.79e6	1.10e6	1.22e6	9.41e5	3.59e5
2017-020	Mud	5.11	5.16	186965	2.99e5	9.34e5	3.58e5	1.44e5	1.90e5	8.73e5	4.76e5	3.16e5	4.29e5	2.65e5	3.77e5	4.62e5	2.64e5	2.90e5	2.22e5	7.47e4

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

				m/z	177	188	187			201				215	
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	1,2,5,7-TeMA	DIA	4-MDIA	1-MDIA	3-MDIA	4,9-DMDIA	1,4+2,4-DMDIA	4,8-DMDIA	3,4-DMDIA	1,4,9-TMDIA	3,4,9-TMDIA
2017-015	Mud	2.10	2.15	186956	6.73e5	4.03e5	5.99e5	4.81e5	3.25e5	2.28e5	3.34e5	3.79e5	4.99e5	2.76e5	6.49e4
2017-015	Mud	2.80	2.85	186957	2.18e6	5.24e5	8.62e5	9.09e5	6.95e5	3.85e5	5.37e5	6.87e5	1.04e6	4.81e5	1.13e5
2017-018	Mud	5.05	5.10	186961	9.92e5	1.55e5	2.14e5	1.80e5	8.45e4	8.97e4	9.37e4	1.18e5	1.39e5	9.94e4	1.32e4
2017-020	Mud	5.11	5.16	186965	2.27e5	1.43e5	1.67e5	1.50e5	3.42e5	2.26e5	7.31e4	3.47e5	1.30e5	2.94e5	2.19e4

Abbreviations of diamandoids analysed by GC-MS

Adamantane	A
1-Methyladamantane	1-MA
2- Methyladamantane	2-MA
1-Ethyladamantane	1-EtA
2-Ethyladamantane	2-EtA
1,3-Dimethyladamantane	1,3-DMA
cis-1,4-Dimethyladamantane	cis-1,4-DMA
trans-1,4-Dimethyladamantane	trans-1,4-DMA
1,2-Dimethyladamantane	1,2-DMA
1-Et, 3-Madamantane	1-Et, 3-MA
1,3,5-Trimethyladamantane	1,3,5-TMA
1,3,6-Trimethyladamantane	1,3,6-TMA
cis-1,3,4-Trimethyladamantane	cis-1,3,4-TMA
trans-1,3,4-Trimethyladamantane	trans-1,3,4-TMA
1-Et, 3,5-Dimethyladamantane	1-Et, 3,5-DMA
1,3,5,7-Tetramethyladamantane	1,3,5,7-TeMA
1,2,5,7-Tetramethyladamantane	1,2,5,7-TeMA
Diamantane	DIA
4-Methyldiamantane	4-MDIA
1-Methyldiamantane	1-MDIA
3-Methyldiamantane	3-MDIA
4,9-Dimethyldiamantane	4,9-DMDIA
1,4+2,4-Dimethyldiamantane	1,4+2,4-DMDIA
4,8-Dimethyldiamantane	4,8-DMDIA
3,4-Dimethyldiamantane	3,4-DMDIA
1,4,9-Trimethyldiamantane	1,4,9-TMDIA
3,4,9-Trimethyldiamantane	3,4,9-TMDIA

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

				m/z	136	135				149					163					177
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	A	1-MA	2-MA	1-EtA	2-EtA	1,3-DMA	cis-1,4-DMA	trans-1,4-DMA	1,2-DMA	1-Et, 3-MA	1,3,5-TMA	1,3,6-TMA	cis-1,3,4-TMA	trans-1,3,4-TMA	1-Et, 3,5-DMA	1,3,5,7-TeMA
2017-015	Mud	2.10	2.15	186956	6.53e3	2.60e4	5.62e3	4.07e3	3.91e3	3.17e4	8.80e3	8.48e3	1.26e4	8.10e3	1.31e4	1.27e4	9.60e3	1.10e4	5.23e3	2.71e3
2017-015	Mud	2.80	2.85	186957	7.03e3	3.21e4	9.15e3	4.96e3	4.89e3	3.65e4	1.56e4	1.50e4	2.09e4	1.08e4	1.93e4	2.06e4	1.60e4	1.69e4	7.82e3	3.63e3
2017-018	Mud	5.05	5.10	186961	6.48e3	1.81e4	5.52e3	2.79e3	3.18e3	2.02e4	8.76e3	7.37e3	9.48e3	6.52e3	1.19e4	1.41e4	9.40e3	1.02e4	5.49e3	3.18e3
2017-020	Mud	5.11	5.16	186965	2.45e3	7.33e3	2.05e3	1.03e3	1.10e3	6.88e3	2.77e3	2.46e3	2.98e3	1.59e3	2.99e3	3.67e3	1.90e3	2.09e3	1.08e3	6.12e2

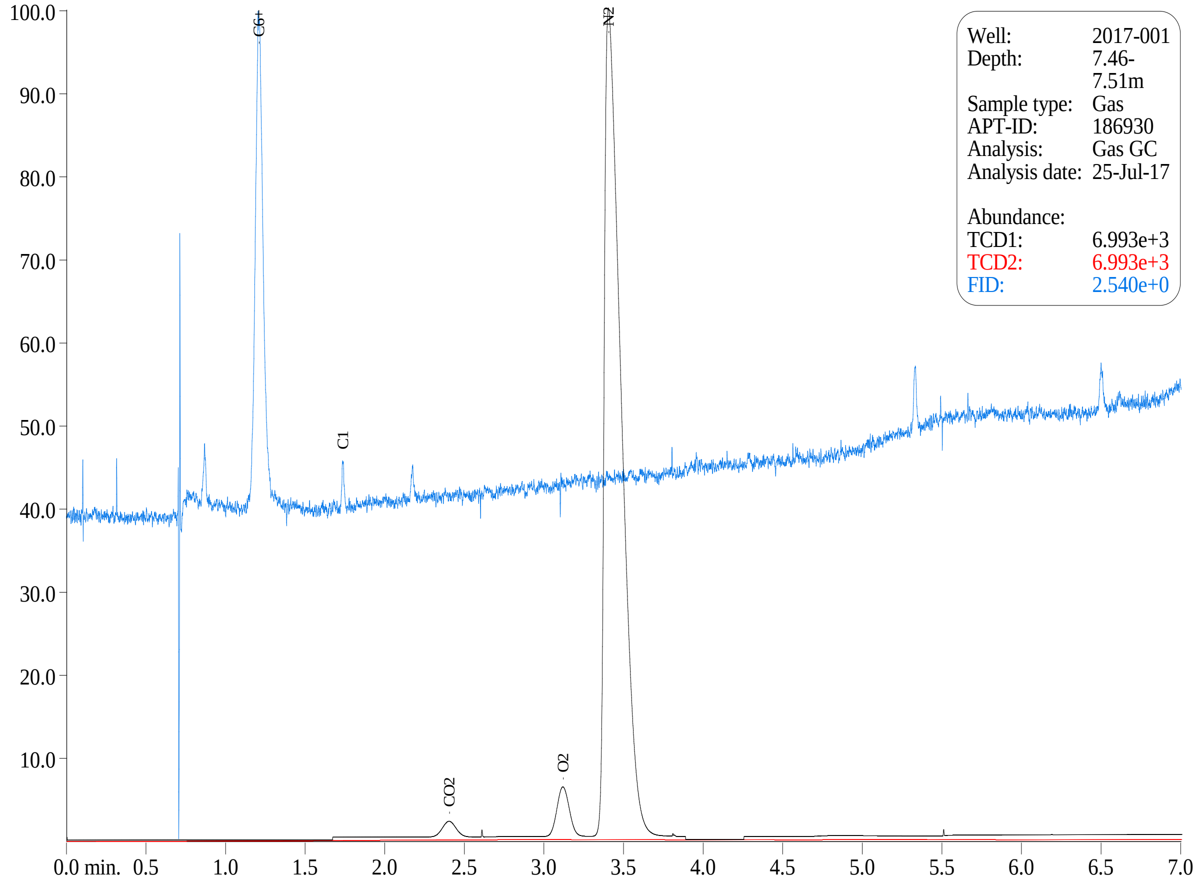
Table 18. continued, GCMS SIR of diamandoids (amounts in ng/g)

				m/z	177	188	187			201				215	
Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	1,2,5,7-TeMA	DIA	4-MDIA	1-MDIA	3-MDIA	4,9-DMDIA	1,4+2,4-DMDIA	4,8-DMDIA	3,4-DMDIA	1,4,9-TMDIA	3,4,9-TMDIA
2017-015	Mud	2.10	2.15	186956	8.16e3	1.39e3	2.18e3	1.69e3	1.18e3	8.42e2	1.28e3	1.34e3	1.73e3	1.00e3	2.51e2
2017-015	Mud	2.80	2.85	186957	1.23e4	8.70e2	1.48e3	1.40e3	1.20e3	6.69e2	9.89e2	1.24e3	1.69e3	8.40e2	2.17e2
2017-018	Mud	5.05	5.10	186961	8.75e3	9.89e2	1.38e3	1.08e3	5.71e2	6.49e2	5.84e2	7.13e2	8.06e2	6.04e2	1.23e2
2017-020	Mud	5.11	5.16	186965	1.63e3	1.38e2	1.44e2	1.30e2	2.91e2	2.00e2	6.30e1	3.04e2	1.22e2	2.48e2	1.80e1

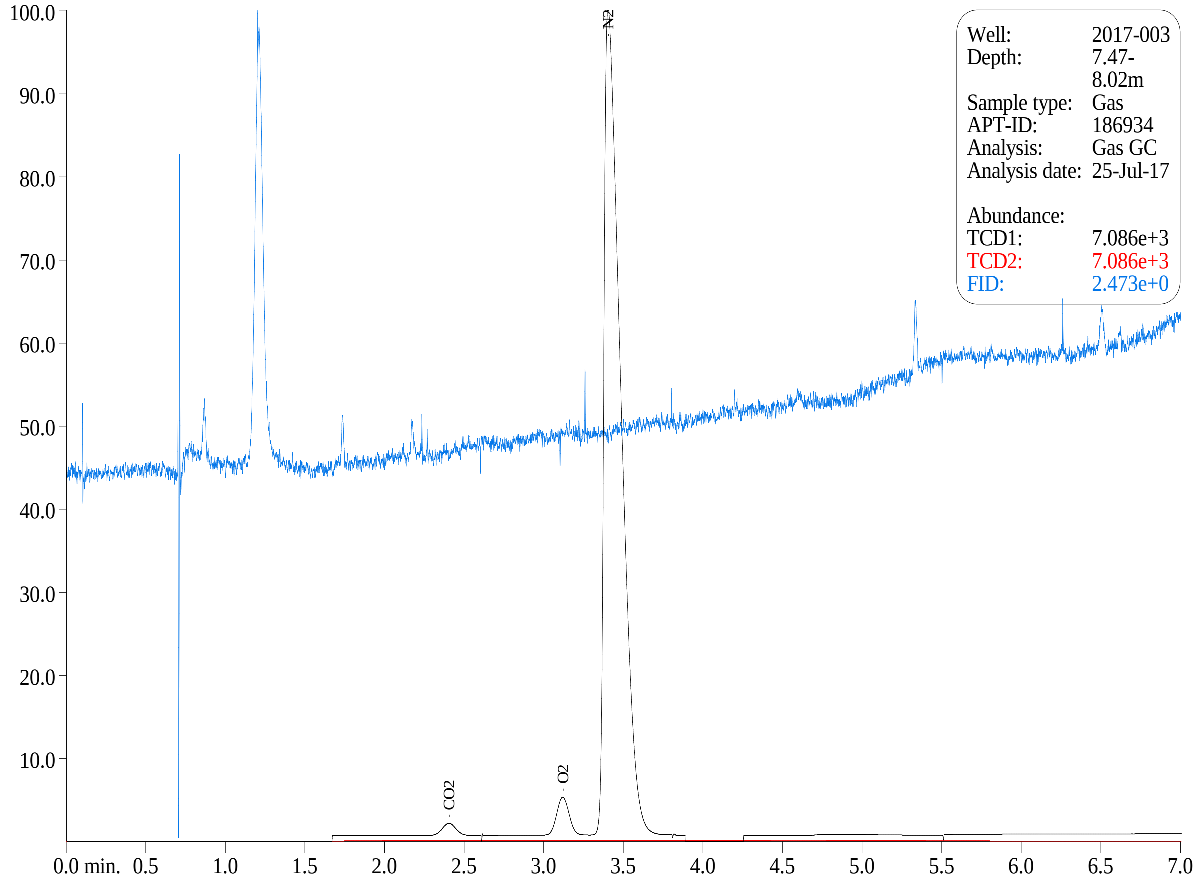
Table 19. Isotopes of fractions, δ¹³C (‰ VPDB)

Piston Core	Sample type	Upper Depth (m)	Lower Depth (m)	APT ID	δ^{13}C-Oil/EOM	δ^{13}C-Sat	δ^{13}C-Aro	δ^{13}C-Pol	δ^{13}C-Asp	δ^{13}C-Ker
2017-015	Mud	2.10	2.15	186956		-28.5	-29.6			
2017-015	Mud	2.80	2.85	186957		-29.2	-29.9			
2017-018	Mud	5.05	5.10	186961		-29.1	-29.4			
2017-020	Mud	5.11	5.16	186965		-25.3	-28.1			

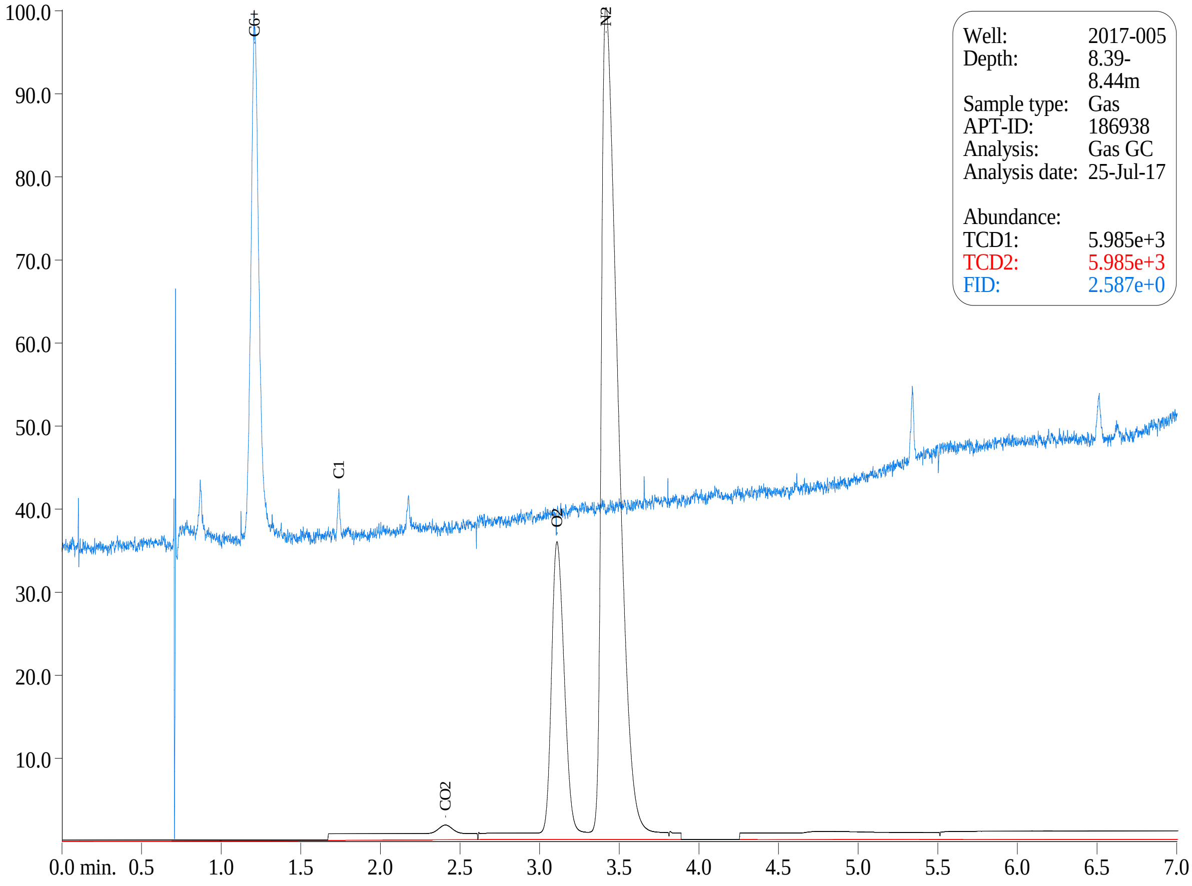
GC Chromatograms of Gas Samples



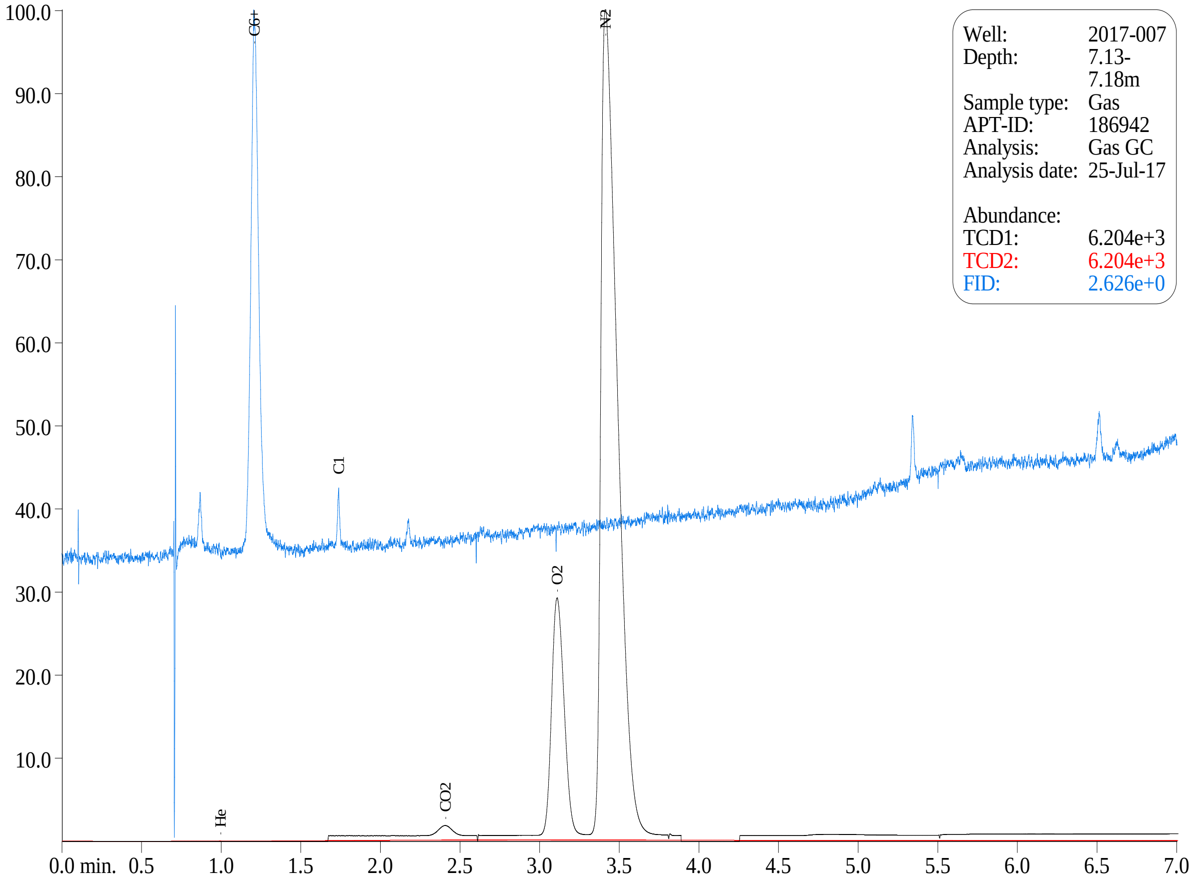
Well: 2017-001
Depth: 7.46-7.51m
Sample type: Gas
APT-ID: 186930
Analysis: Gas GC
Analysis date: 25-Jul-17
Abundance:
TCD1: 6.993e+3
TCD2: 6.993e+3
FID: 2.540e+0
C6+
C1
CO2
O2
N2
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0 min.
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
5.5
6.0
6.5
7.0



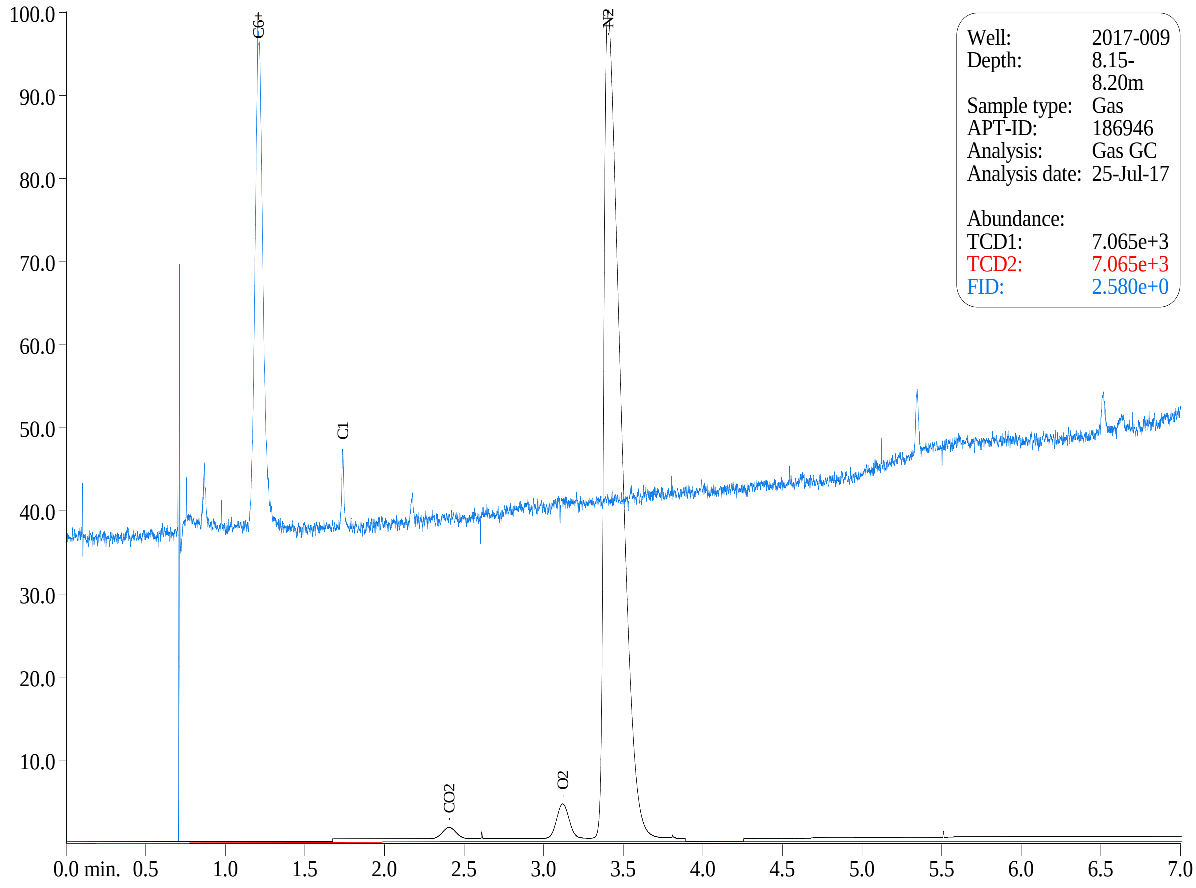
Well: 2017-003
Depth: 7.47-8.02m
Sample type: Gas
APT-ID: 186934
Analysis: Gas GC
Analysis date: 25-Jul-17
Abundance:
TCD1: 7.086e+3
TCD2: 7.086e+3
FID: 2.473e+0
CO2
O2
N2
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0 min.
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
5.5
6.0
6.5
7.0



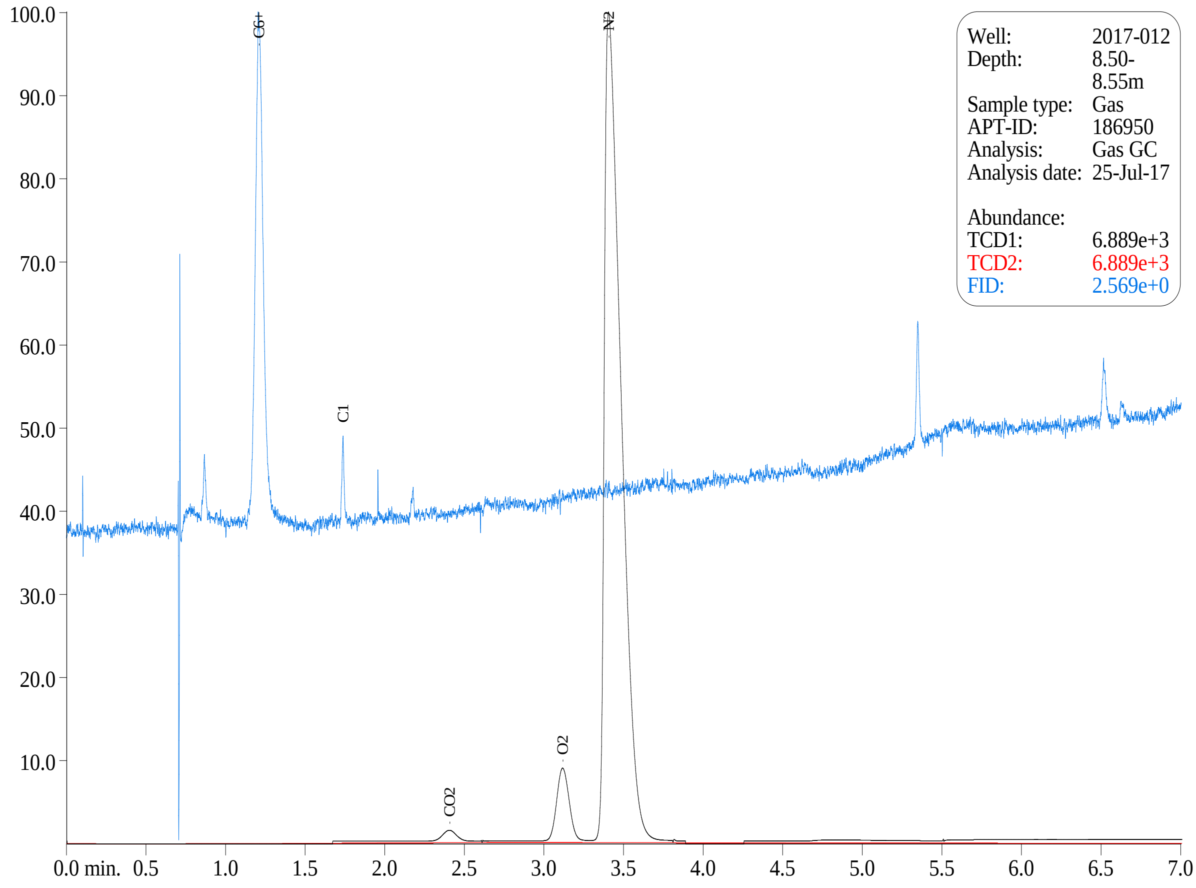
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
C6+
N2
C1
O2
CO2
0.0 min. 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0
Well: 2017-005
Depth: 8.39-8.44m
Sample type: Gas
APT-ID: 186938
Analysis: Gas GC
Analysis date: 25-Jul-17
Abundance:
TCD1: 5.985e+3
TCD2: 5.985e+3
FID: 2.587e+0



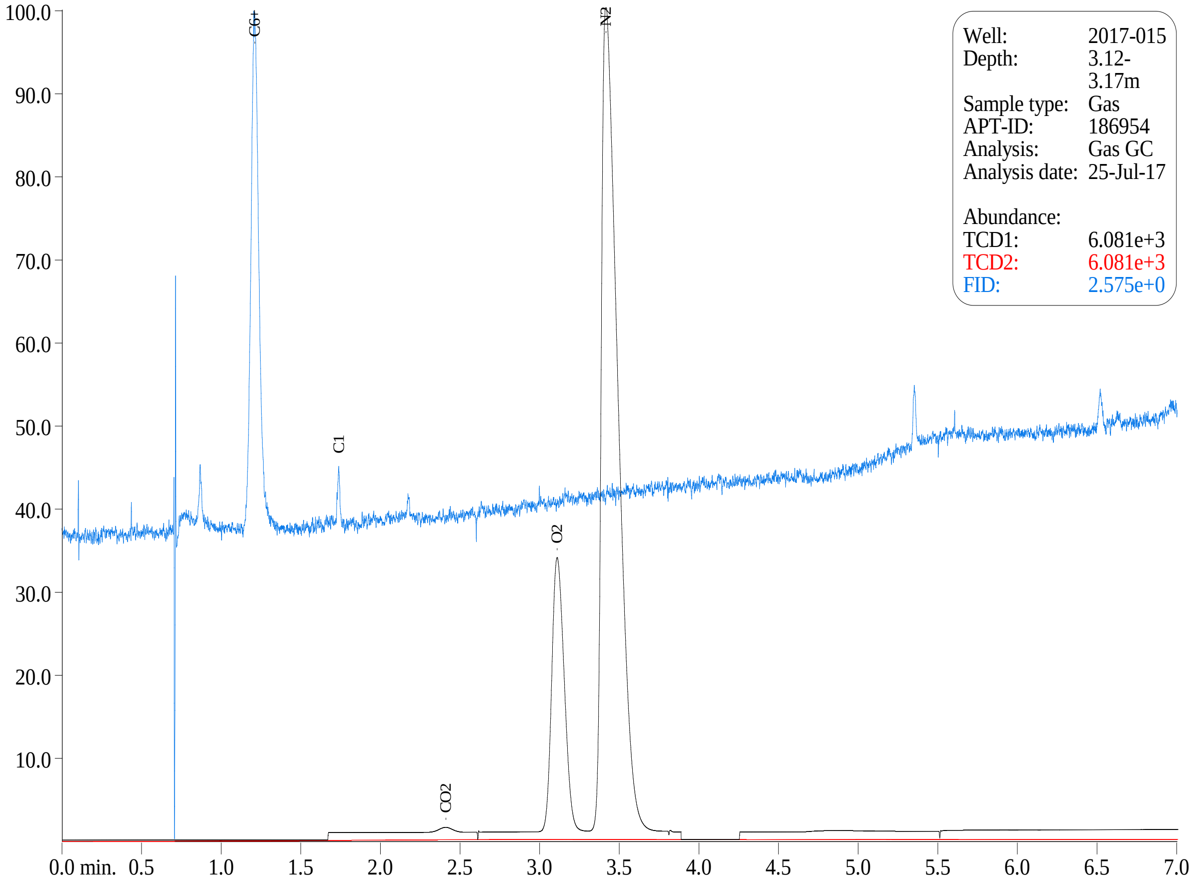
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
C6+
N2
C1
O2
CO2
He
0.0 min. 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0
Well: 2017-007
Depth: 7.13-7.18m
Sample type: Gas
APT-ID: 186942
Analysis: Gas GC
Analysis date: 25-Jul-17
Abundance:
TCD1: 6.204e+3
TCD2: 6.204e+3
FID: 2.626e+0



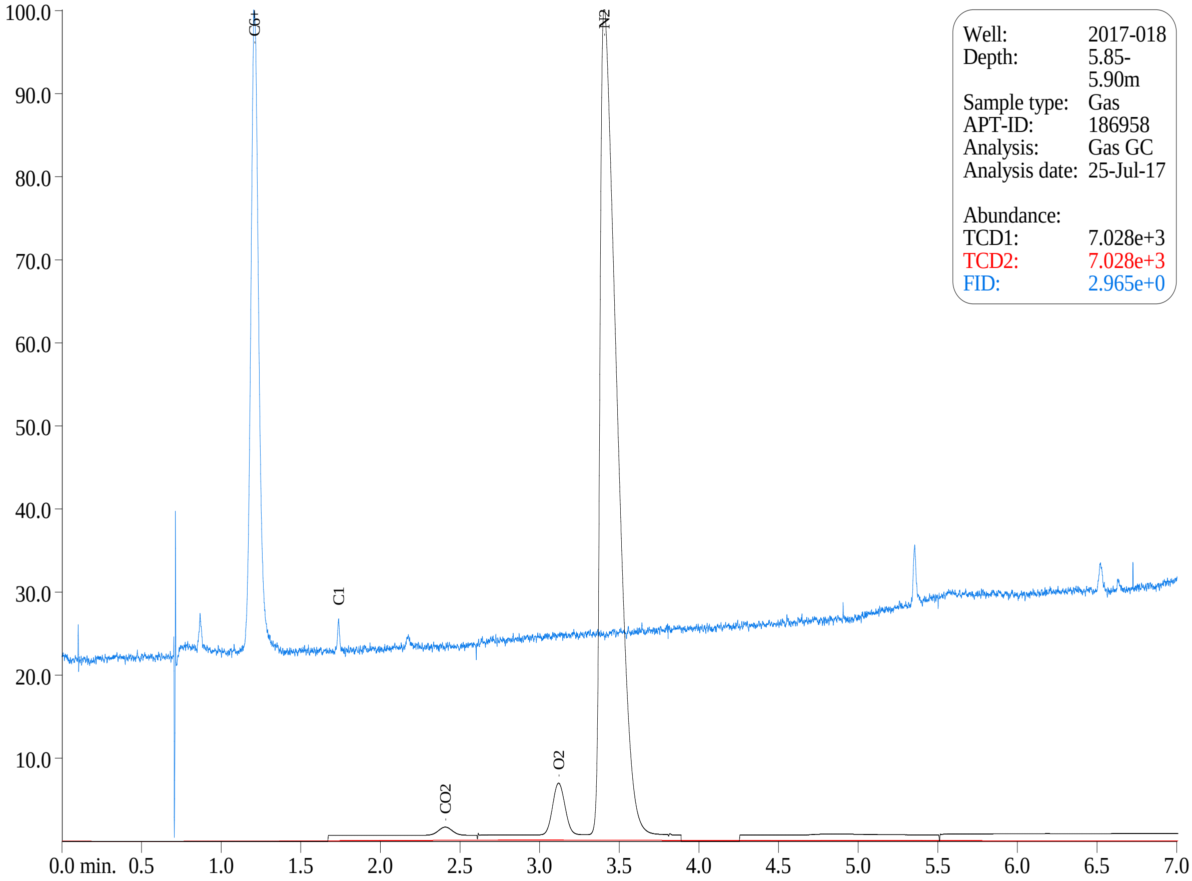
Well: 2017-009
Depth: 8.15-8.20m
Sample type: Gas
APT-ID: 186946
Analysis: Gas GC
Analysis date: 25-Jul-17
Abundance:
TCD1: 7.065e+3
TCD2: 7.065e+3
FID: 2.580e+0
C6+
N2
C1
CO2
O2



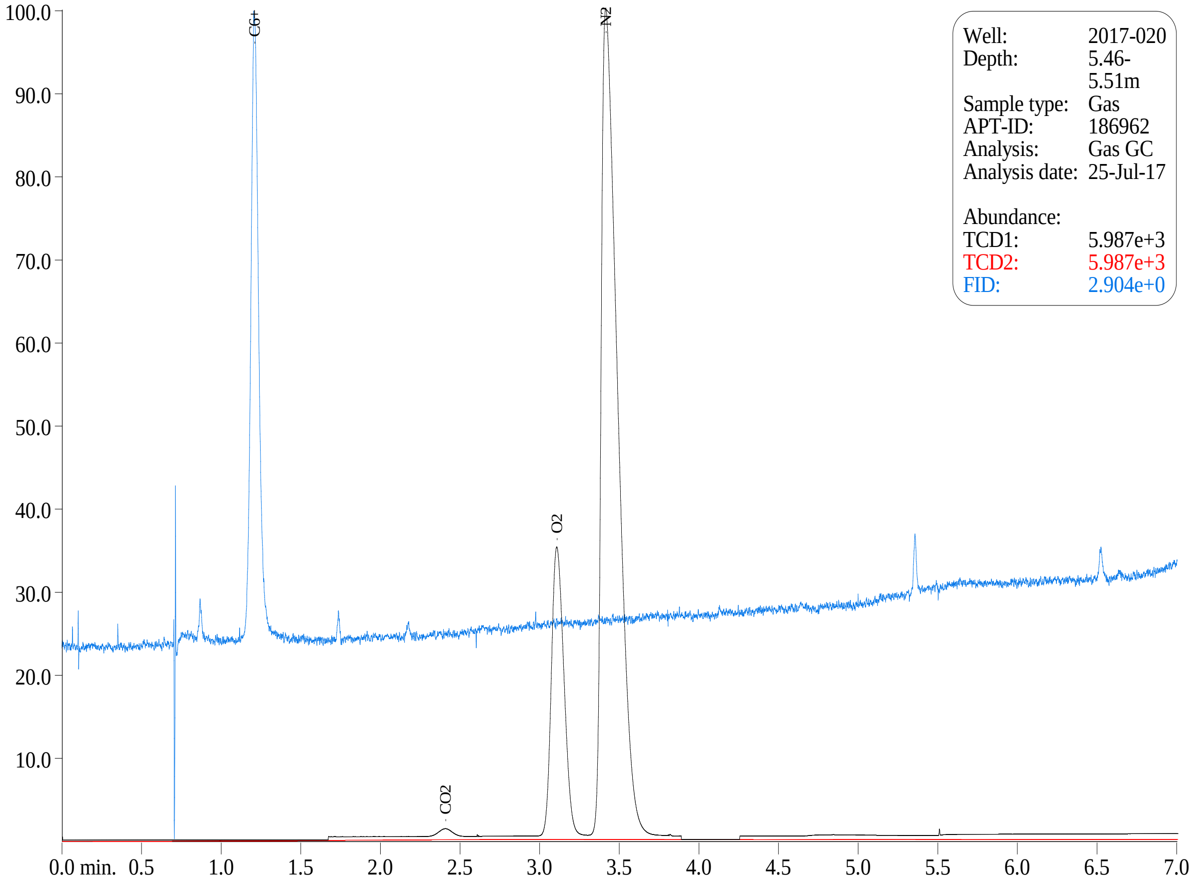
Well: 2017-012
Depth: 8.50-8.55m
Sample type: Gas
APT-ID: 186950
Analysis: Gas GC
Analysis date: 25-Jul-17
Abundance:
TCD1: 6.889e+3
TCD2: 6.889e+3
FID: 2.569e+0
C6+
N2
C1
CO2
O2



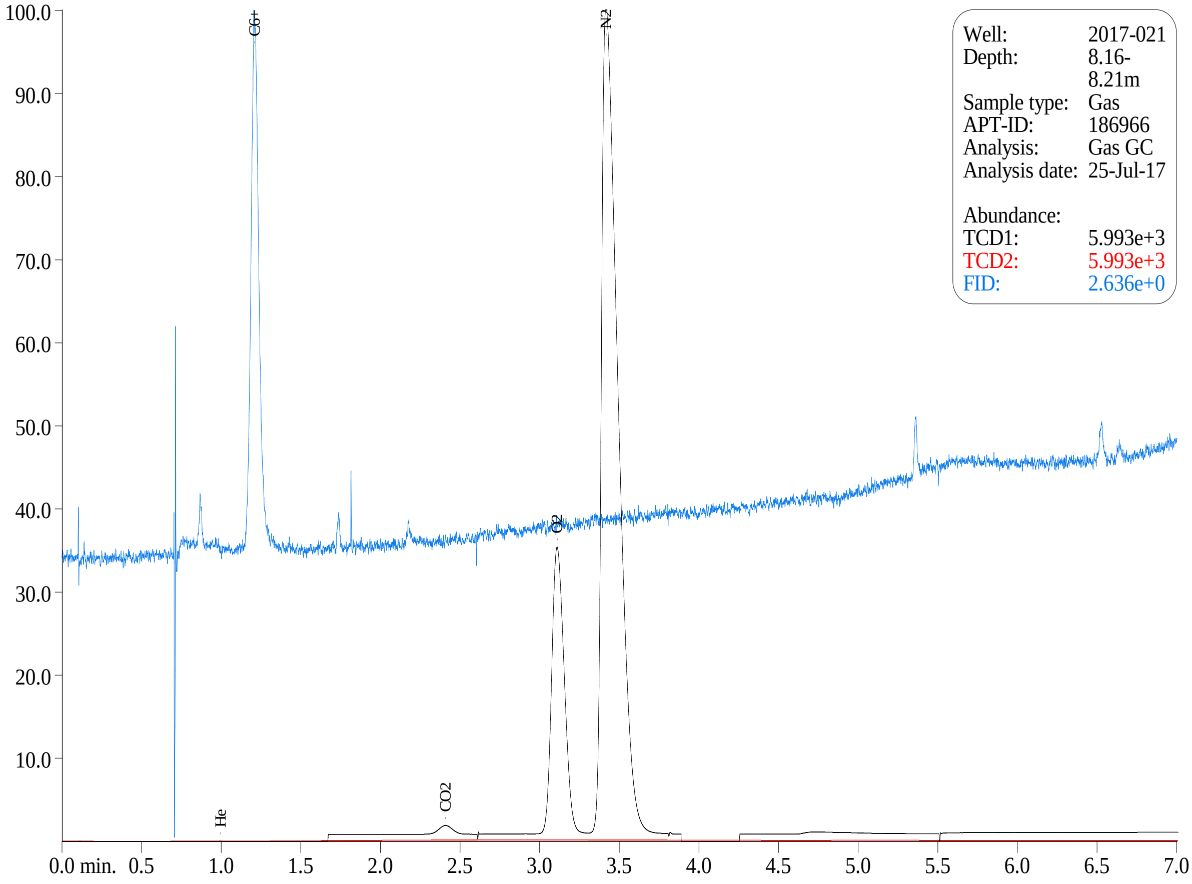
Well: 2017-015
Depth: 3.12-3.17m
Sample type: Gas
APT-ID: 186954
Analysis: Gas GC
Analysis date: 25-Jul-17
Abundance:
TCD1: 6.081e+3
TCD2: 6.081e+3
FID: 2.575e+0
C6+
N2
C1
O2
CO2
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0 min. 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0



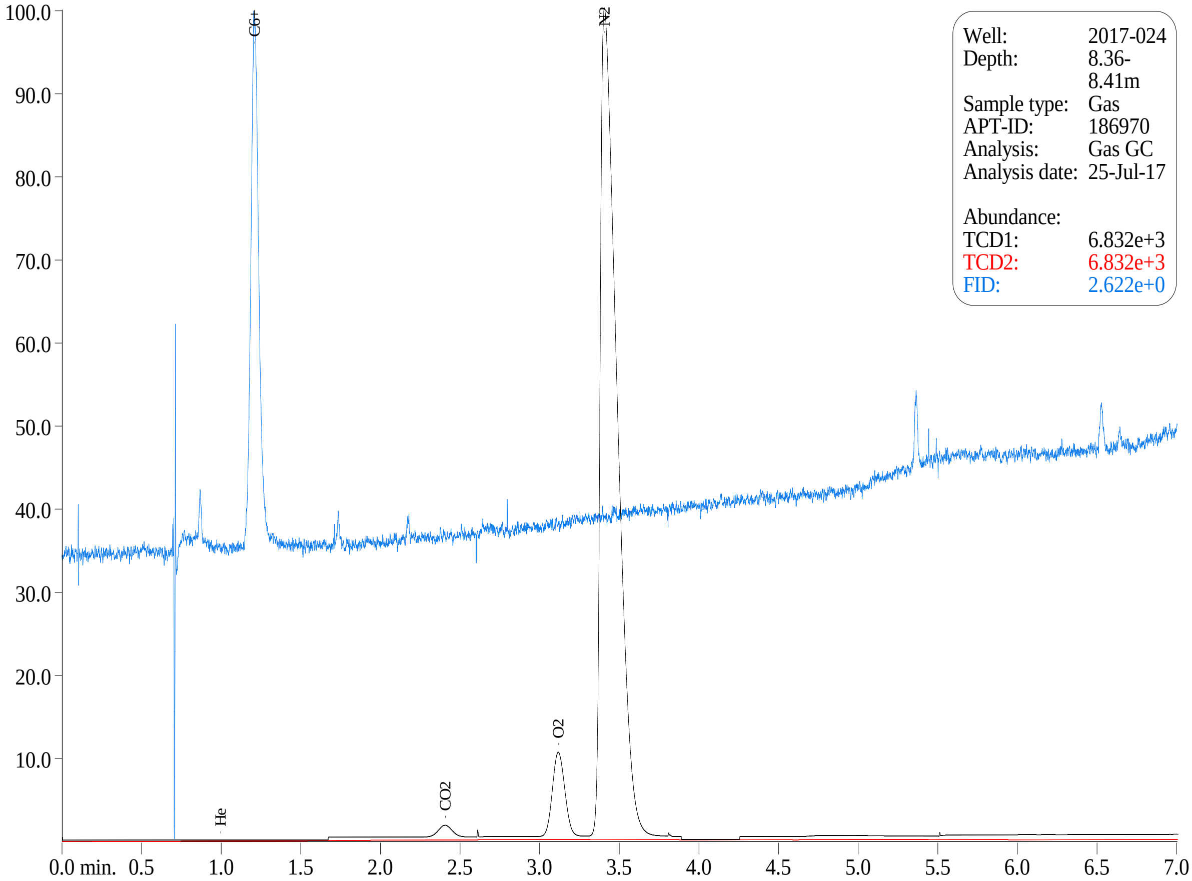
Well: 2017-018
Depth: 5.85-5.90m
Sample type: Gas
APT-ID: 186958
Analysis: Gas GC
Analysis date: 25-Jul-17
Abundance:
TCD1: 7.028e+3
TCD2: 7.028e+3
FID: 2.965e+0
C6+
N2
C1
O2
CO2
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0 min. 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0

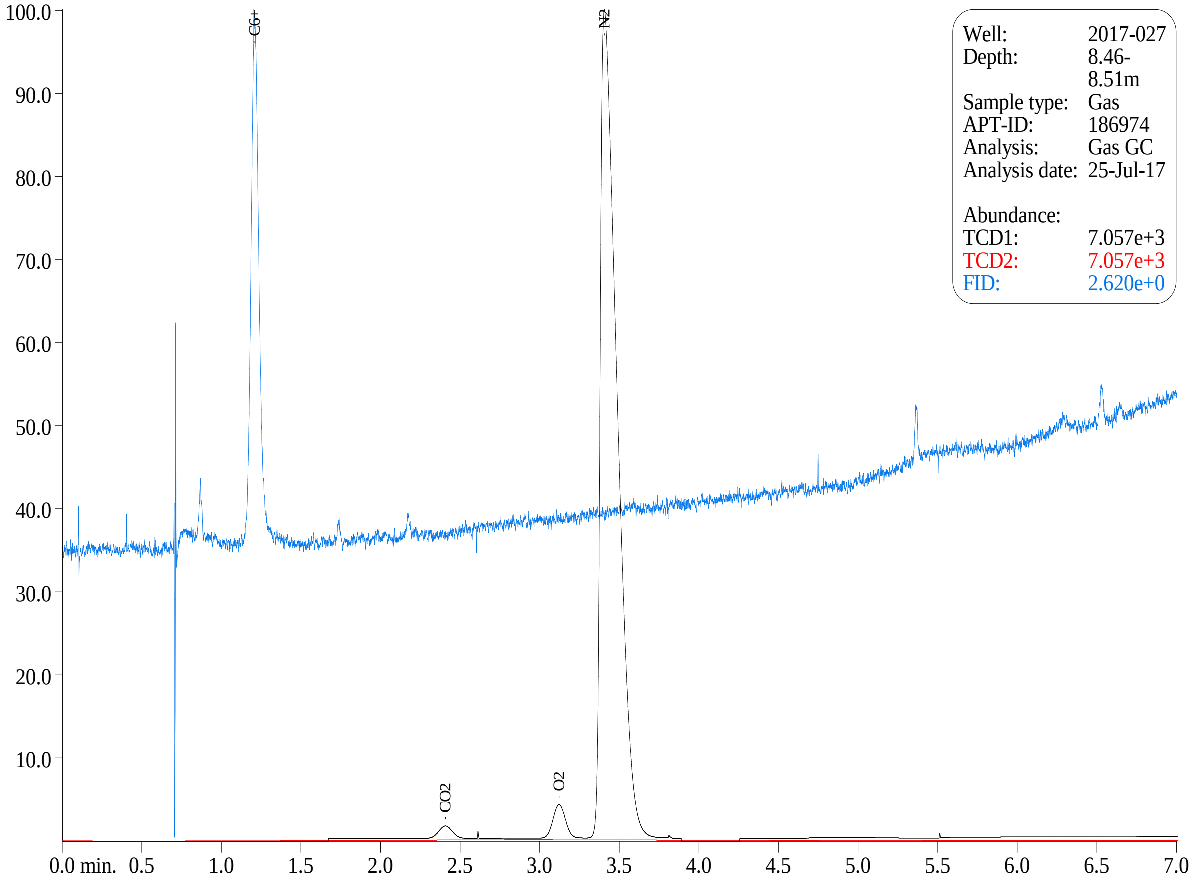


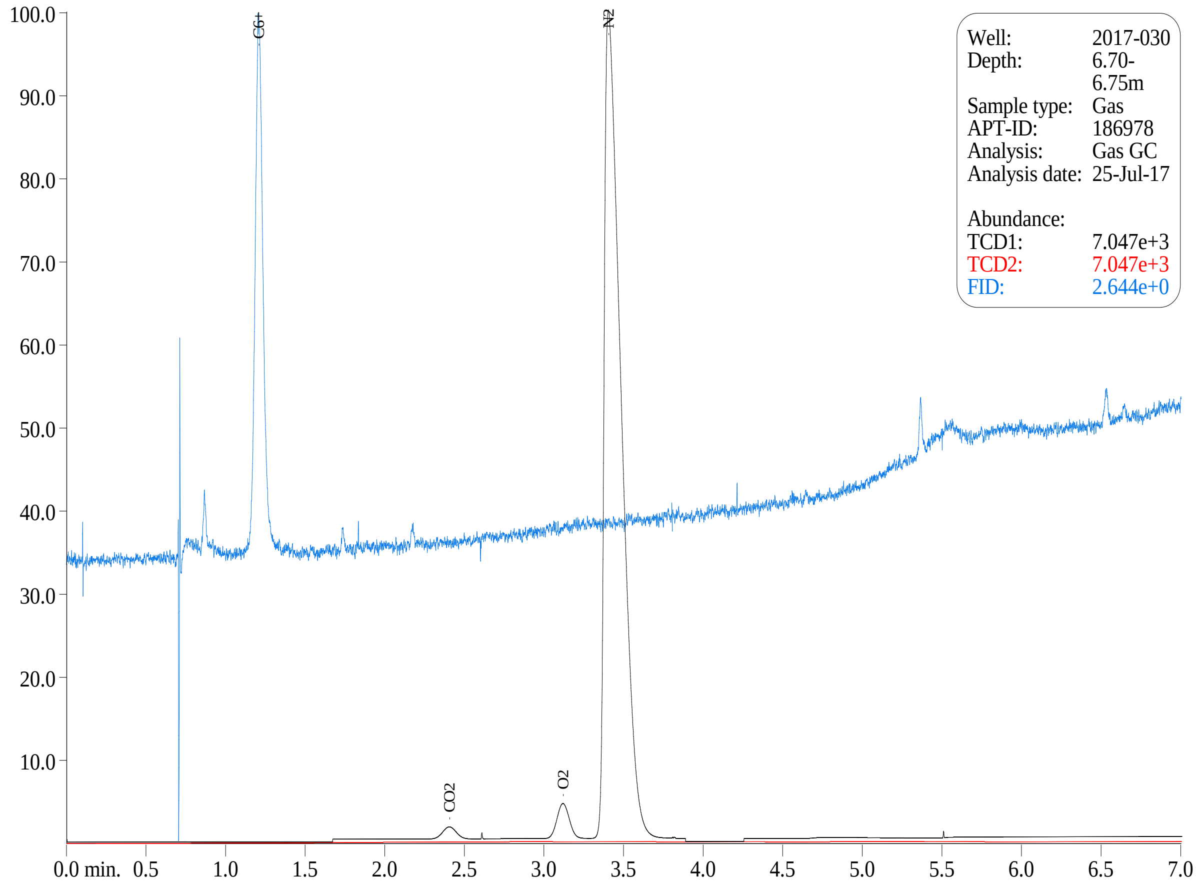
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
C6+
N2
O2
CO2
0.0 min. 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0
Well: 2017-020
Depth: 5.46-5.51m
Sample type: Gas
APT-ID: 186962
Analysis: Gas GC
Analysis date: 25-Jul-17
Abundance:
TCD1: 5.987e+3
TCD2: 5.987e+3
FID: 2.904e+0



100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
C6+
N2
O2
CO2
He
0.0 min. 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0
Well: 2017-021
Depth: 8.16-8.21m
Sample type: Gas
APT-ID: 186966
Analysis: Gas GC
Analysis date: 25-Jul-17
Abundance:
TCD1: 5.993e+3
TCD2: 5.993e+3
FID: 2.636e+0

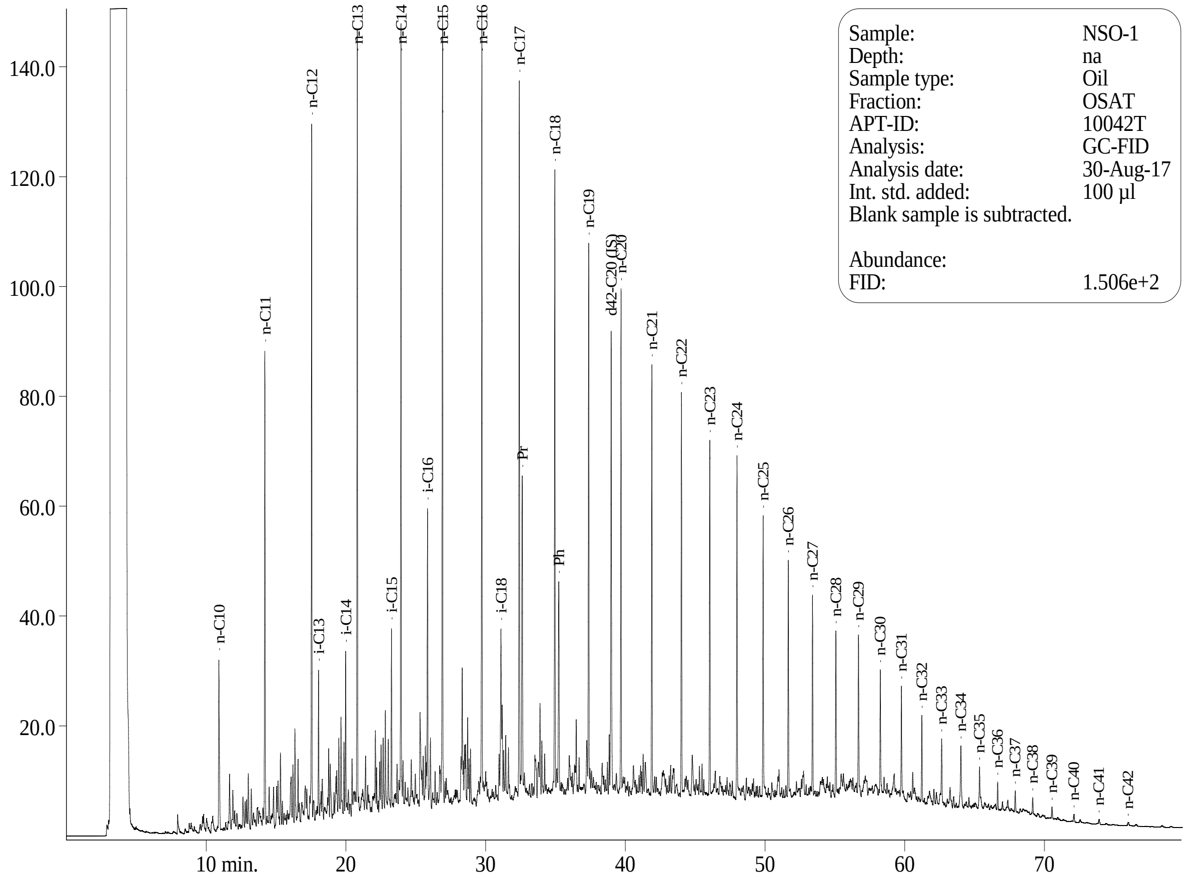

Well: 2017-024
Depth: 8.36-8.41m
Sample type: Gas
APT-ID: 186970
Analysis: Gas GC
Analysis date: 25-Jul-17
Abundance:
TCD1: 6.832e+3
TCD2: 6.832e+3
FID: 2.622e+0
C6+
N2
O2
CO2
He
0.0 min.

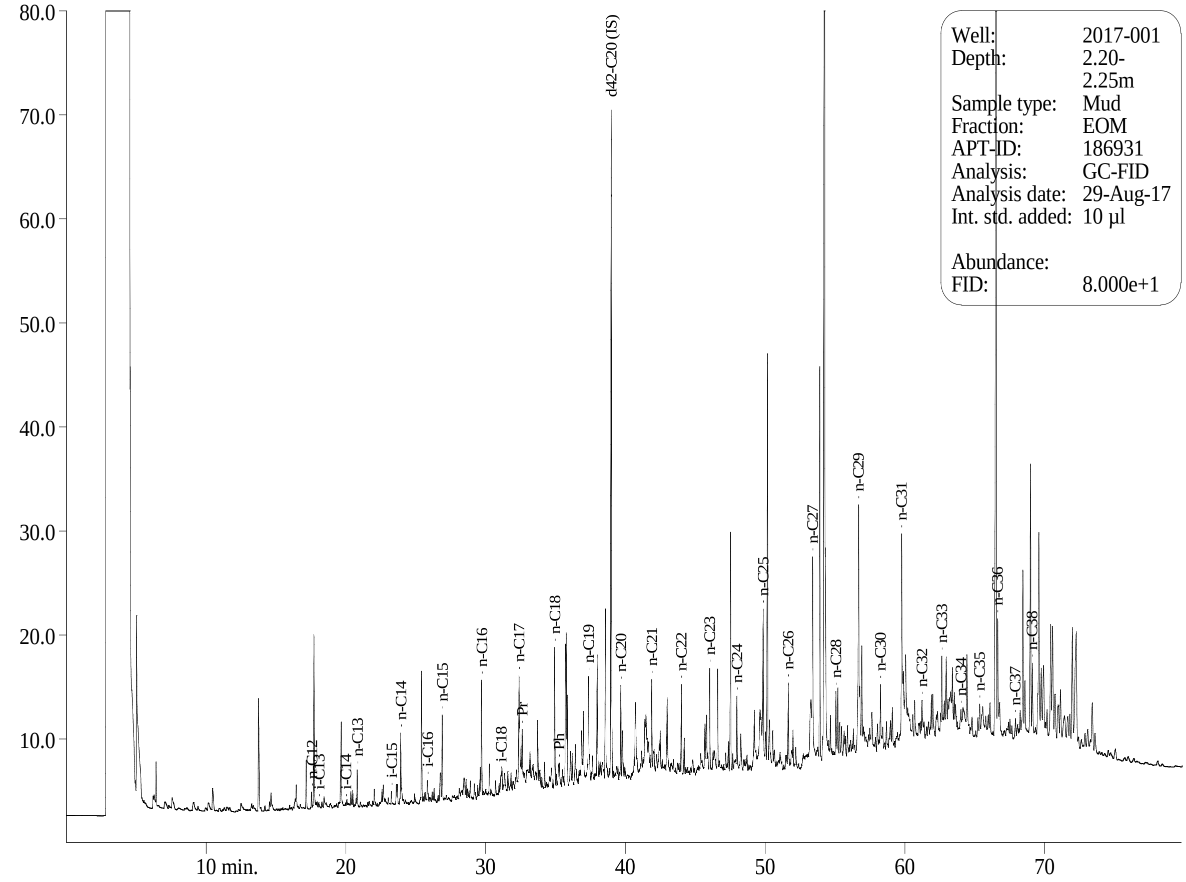

Well: 2017-027
Depth: 8.46-8.51m
Sample type: Gas
APT-ID: 186974
Analysis: Gas GC
Analysis date: 25-Jul-17
Abundance:
TCD1: 7.057e+3
TCD2: 7.057e+3
FID: 2.620e+0
C6+
N2
O2
CO2
0.0 min.

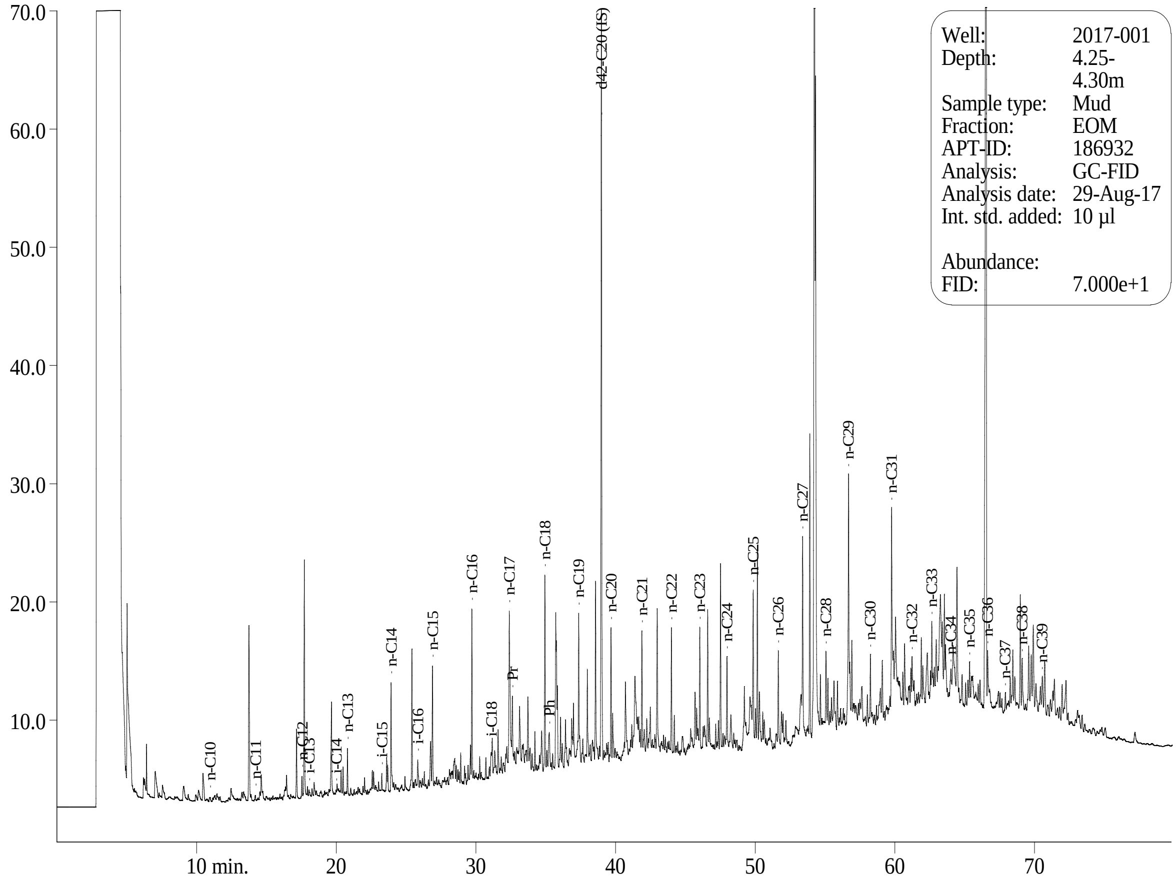


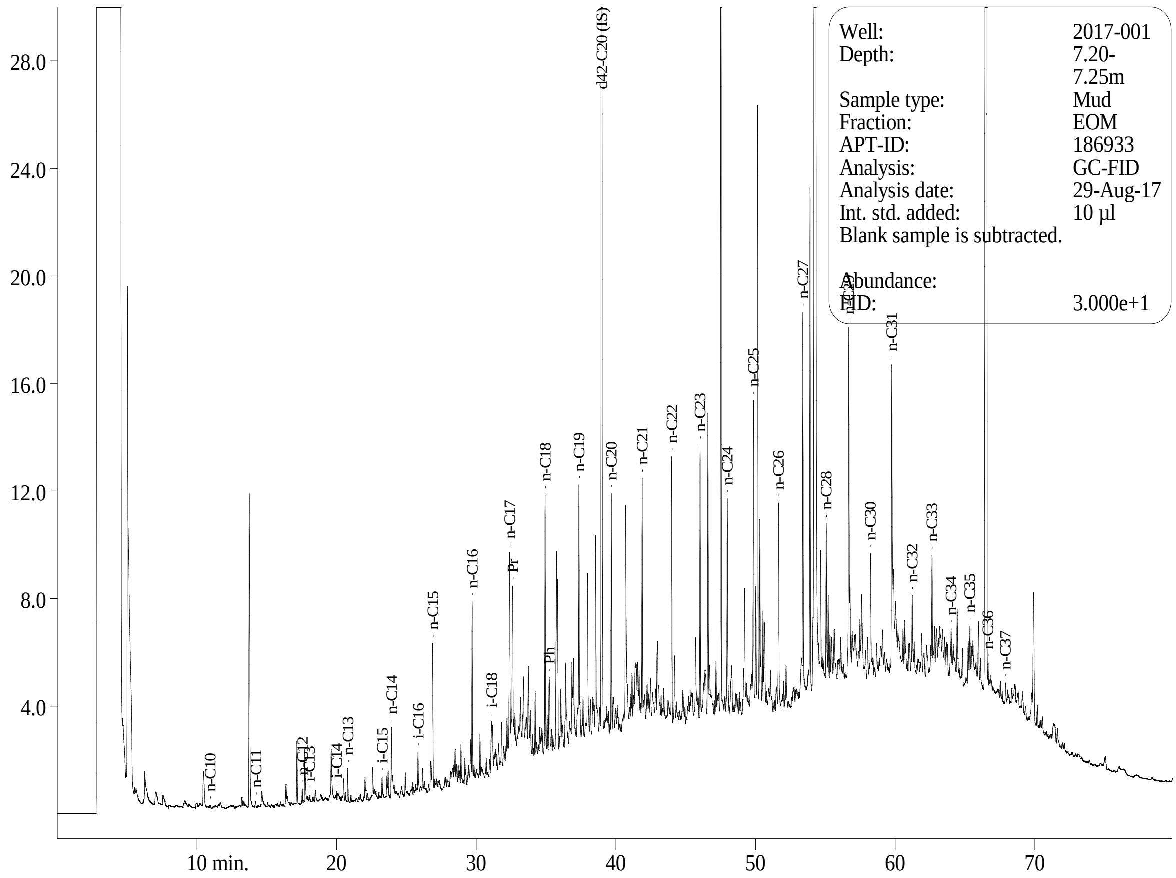
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
C6+
N2
CO2
O2
0.0 min. 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0
Well: 2017-030
Depth: 6.70-6.75m
Sample type: Gas
APT-ID: 186978
Analysis: Gas GC
Analysis date: 25-Jul-17
Abundance:
TCD1: 7.047e+3
TCD2: 7.047e+3
FID: 2.644e+0

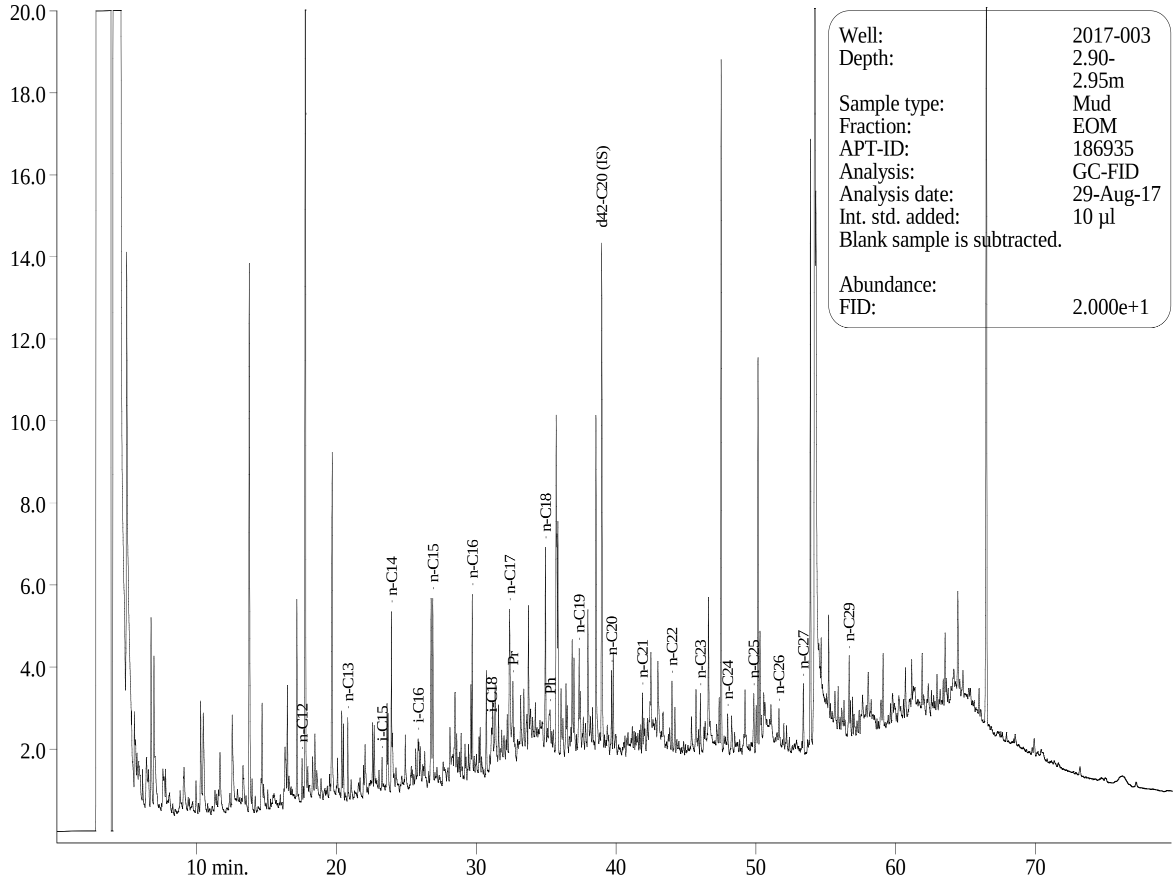
GC Chromatograms of EOM Fractions

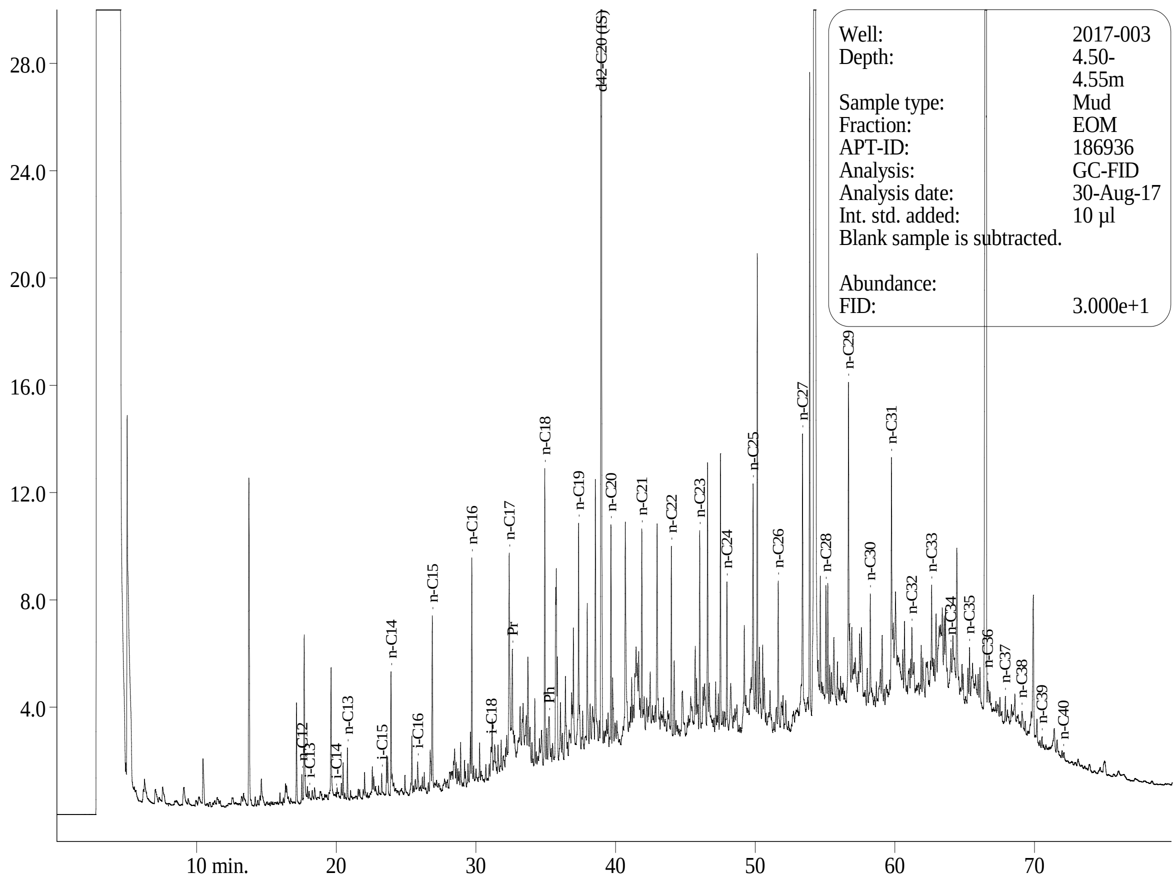

Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OSAT
APT-ID: 10042T
Analysis: GC-FID
Analysis date: 30-Aug-17
Int. std. added: 100 µl
Blank sample is subtracted.
Abundance:
FID: 1.506e+2
140.0
120.0
100.0
80.0
60.0
40.0
20.0
10 min.
20
30
40
50
60
70
n-C10
n-C11
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
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
n-C37
n-C38
n-C39
n-C40
n-C41
n-C42

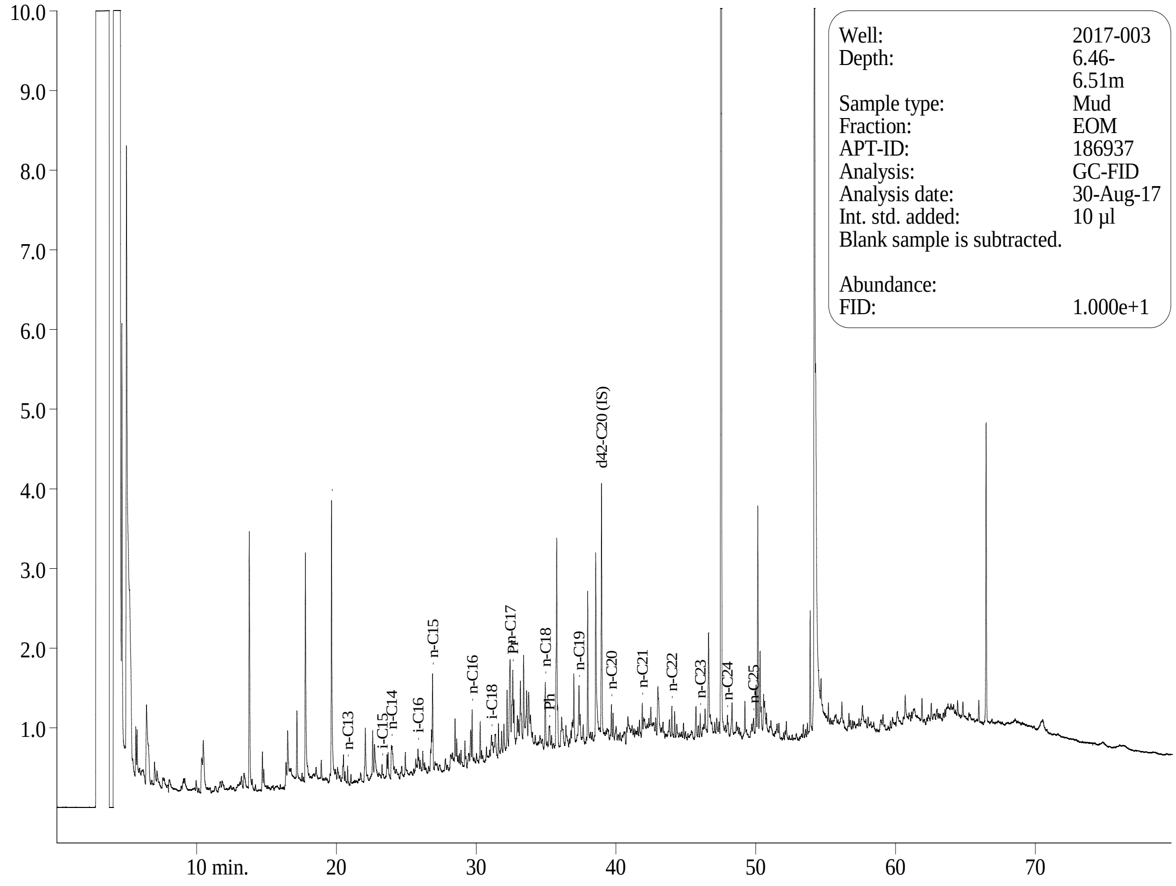

Well: 2017-001
Depth: 2.20-2.25m
Sample type: Mud
Fraction: EOM
APT-ID: 186931
Analysis: GC-FID
Analysis date: 29-Aug-17
Int. std. added: 10 µl
Abundance:
FID: 8.000e+1
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
10 min.
20
30
40
50
60
70
n-C12
i-C13
i-C14
n-C13
i-C15
n-C14
i-C16
n-C15
n-C16
i-C18
n-C17
Pr
n-C18
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
n-C37
n-C38

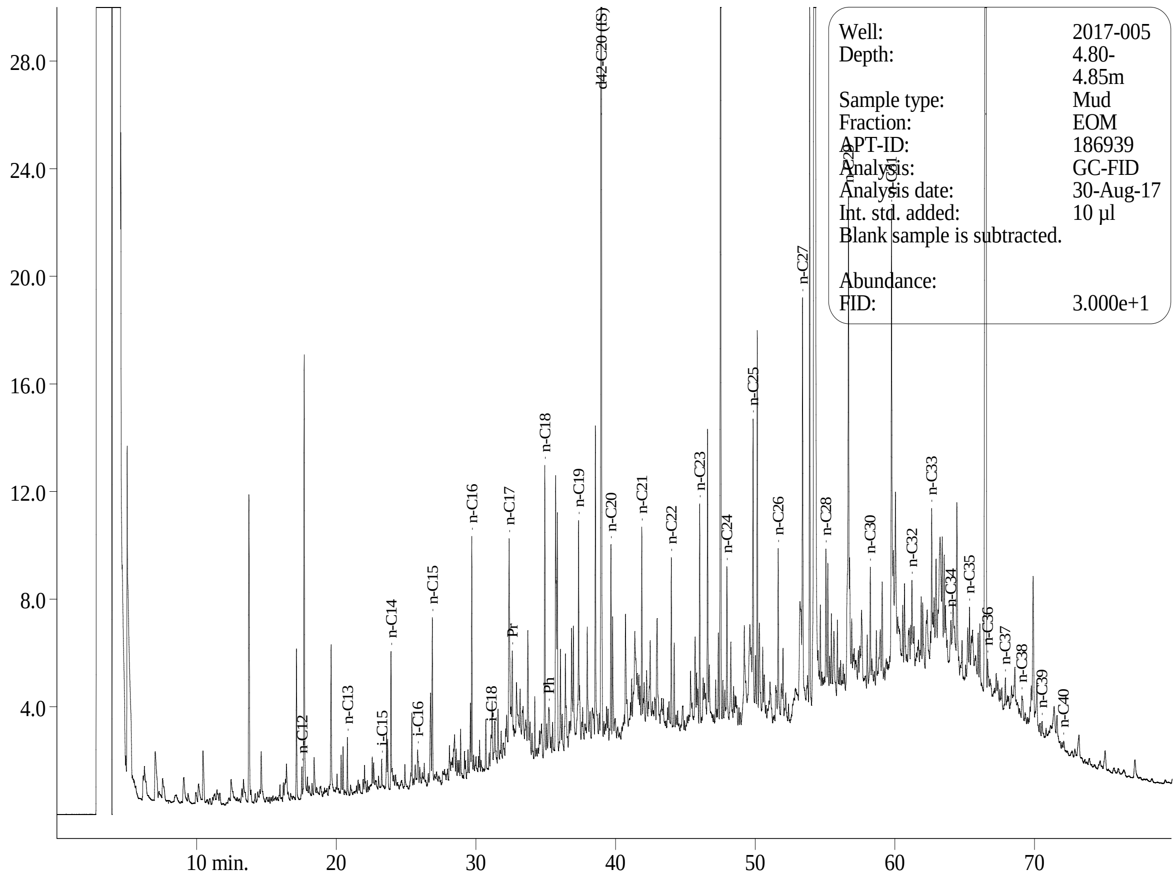

Well: 2017-001
Depth: 4.25-4.30m
Sample type: Mud
Fraction: EOM
APT-ID: 186932
Analysis: GC-FID
Analysis date: 29-Aug-17
Int. std. added: 10 µl
Abundance:
FID: 7.000e+1
d42-C20 (IS)
Pr
Ph
10 min.
20
30
40
50
60
70

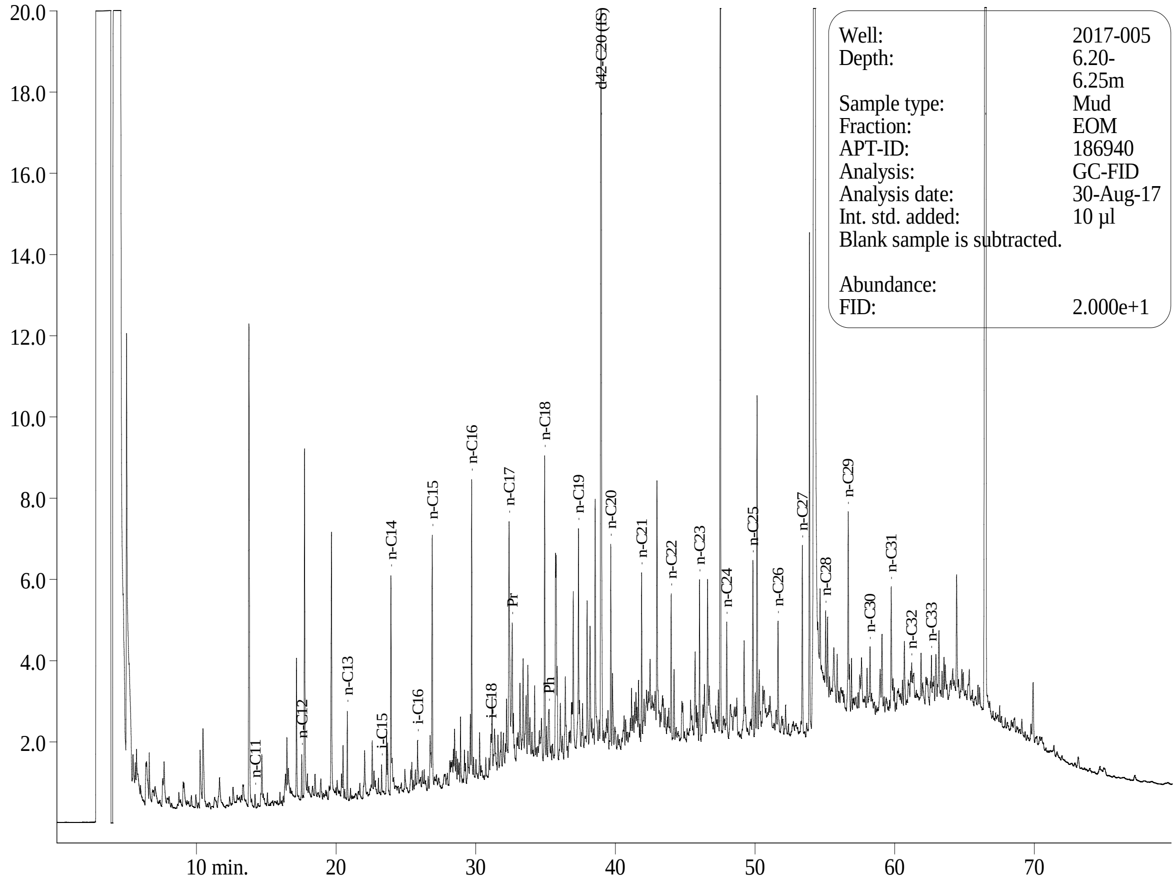

Well: 2017-001
Depth: 7.20-7.25m
Sample type: Mud
Fraction: EOM
APT-ID: 186933
Analysis: GC-FID
Analysis date: 29-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 3.000e+1
d42-C20 (IS)
Pr
Ph
10 min.
20
30
40
50
60
70

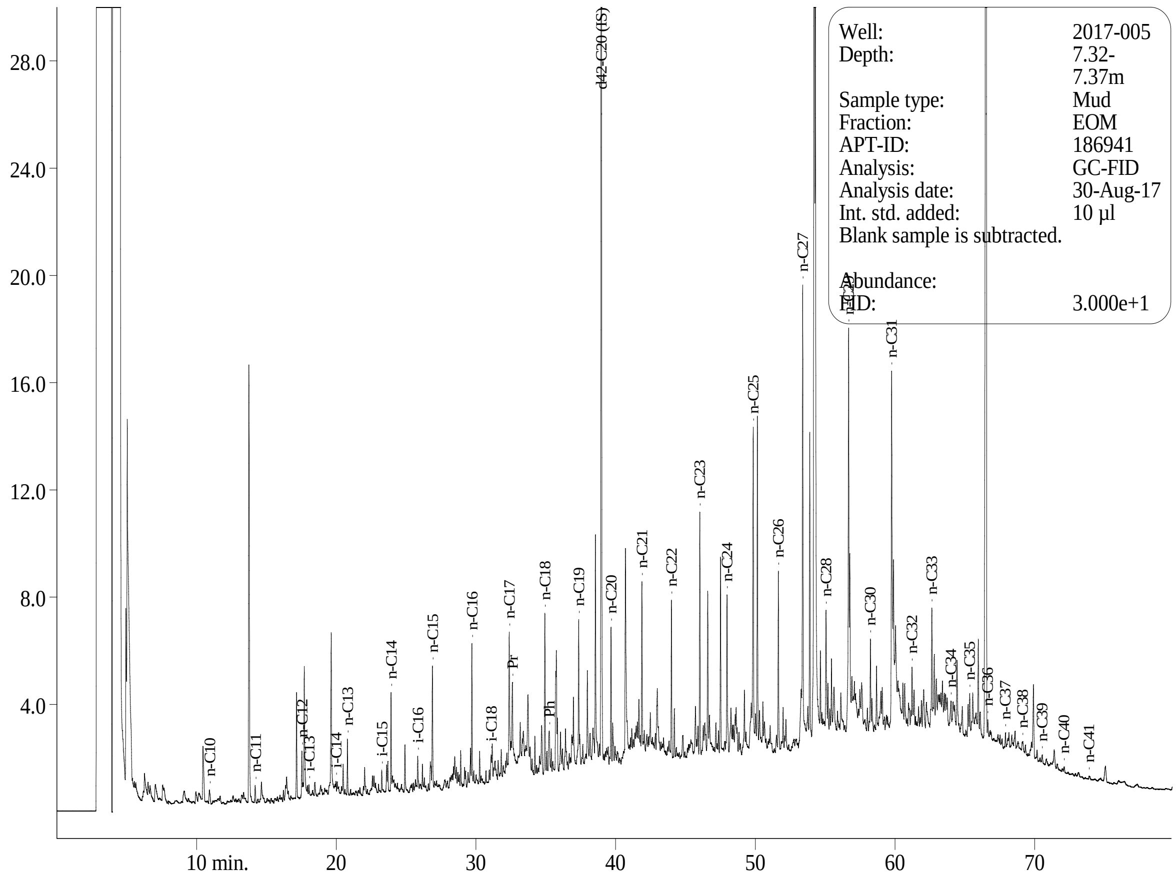

Well: 2017-003
Depth: 2.90-2.95m
Sample type: Mud
Fraction: EOM
APT-ID: 186935
Analysis: GC-FID
Analysis date: 29-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 2.000e+1
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
10 min.
20
30
40
50
60
70
n-C12
n-C13
i-C15
n-C14
i-C16
n-C15
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-C29

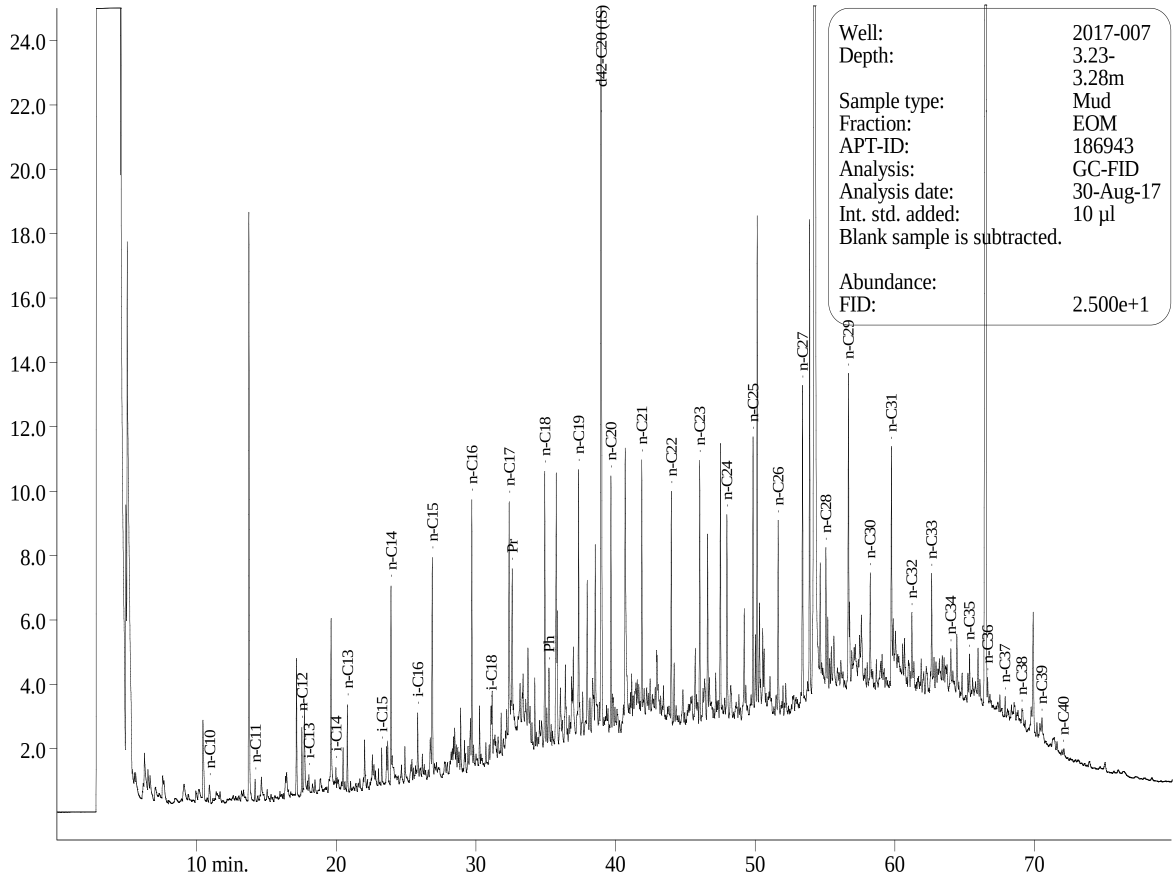

Well: 2017-003
Depth: 4.50-4.55m
Sample type: Mud
Fraction: EOM
APT-ID: 186936
Analysis: GC-FID
Analysis date: 30-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 3.000e+1
28.0
24.0
20.0
16.0
12.0
8.0
4.0
10 min.
20
30
40
50
60
70
n-C12
i-C13
i-C14
n-C13
i-C15
n-C14
i-C16
n-C15
n-C16
i-C18
n-C17
Pr
n-C18
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
n-C37
n-C38
n-C39
n-C40


Well: 2017-003
Depth: 6.46-6.51m
Sample type: Mud
Fraction: EOM
APT-ID: 186937
Analysis: GC-FID
Analysis date: 30-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 1.000e+1
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
10 min.
20
30
40
50
60
70
n-C13
i-C15
n-C14
i-C16
n-C15
n-C16
i-C18
Pr
n-C17
Ph
n-C18
n-C19
d42-C20 (IS)
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25

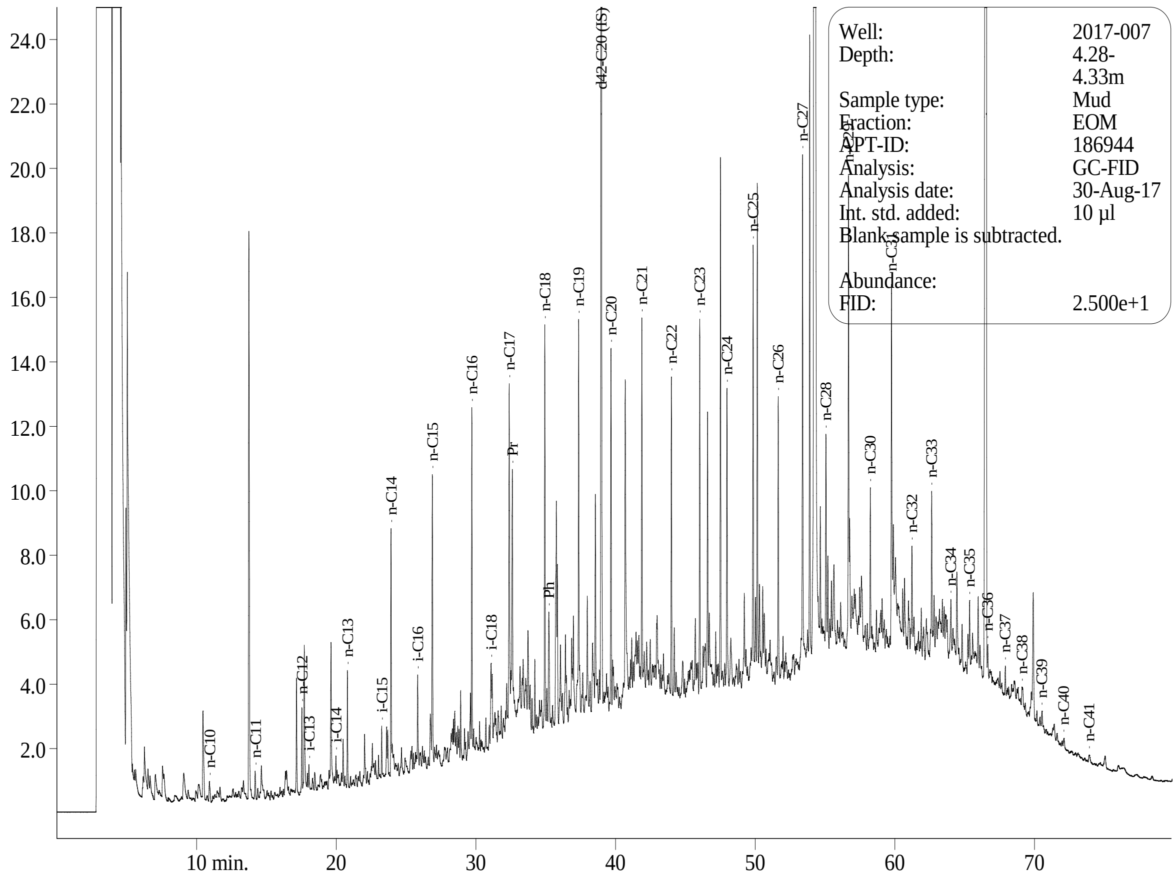

Well: 2017-005
Depth: 4.80-4.85m
Sample type: Mud
Fraction: EOM
APT-ID: 186939
Analysis: GC-FID
Analysis date: 30-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 3.000e+1
28.0
24.0
20.0
16.0
12.0
8.0
4.0
10 min.
20
30
40
50
60
70
n-C12
n-C13
i-C15
n-C14
i-C16
n-C15
n-C16
i-C18
Pr
n-C17
Ph
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-C30
n-C32
n-C33
n-C34
n-C35
n-C36
n-C37
n-C38
n-C39
n-C40


Well: 2017-005
Depth: 6.20-6.25m
Sample type: Mud
Fraction: EOM
APT-ID: 186940
Analysis: GC-FID
Analysis date: 30-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 2.000e+1
d42-C20 (IS)
n-C11
n-C12
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
n-C28
n-C29
n-C30
n-C31
n-C32
n-C33
10 min.
20
30
40
50
60
70

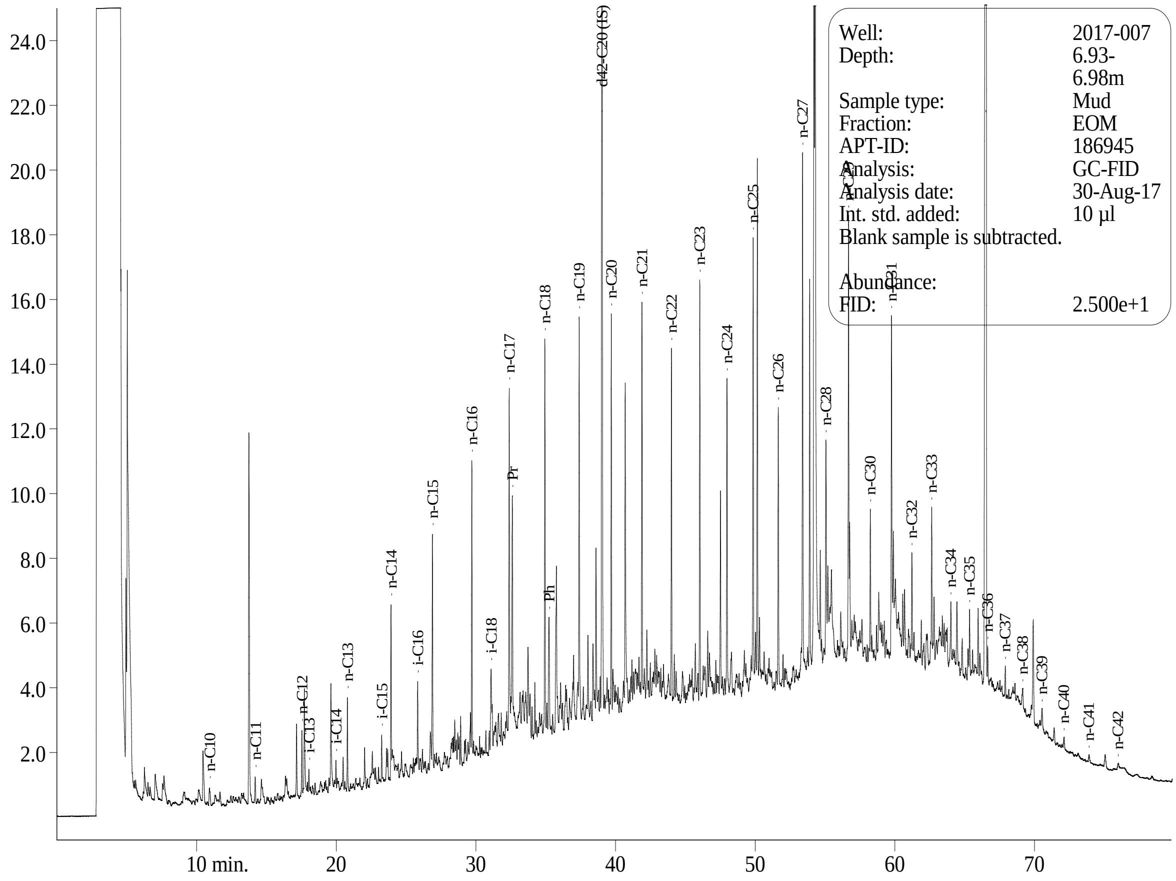

Well: 2017-005
Depth: 7.32-7.37m
Sample type: Mud
Fraction: EOM
APT-ID: 186941
Analysis: GC-FID
Analysis date: 30-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 3.000e+1
d42-C20 (IS)
n-C10
n-C11
n-C12
i-C13
i-C14
n-C13
i-C15
n-C14
i-C16
n-C15
n-C16
i-C18
n-C17
Pr
n-C18
Ph
n-C19
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
n-C37
n-C38
n-C39
n-C40
n-C41
10 min.
20
30
40
50
60
70

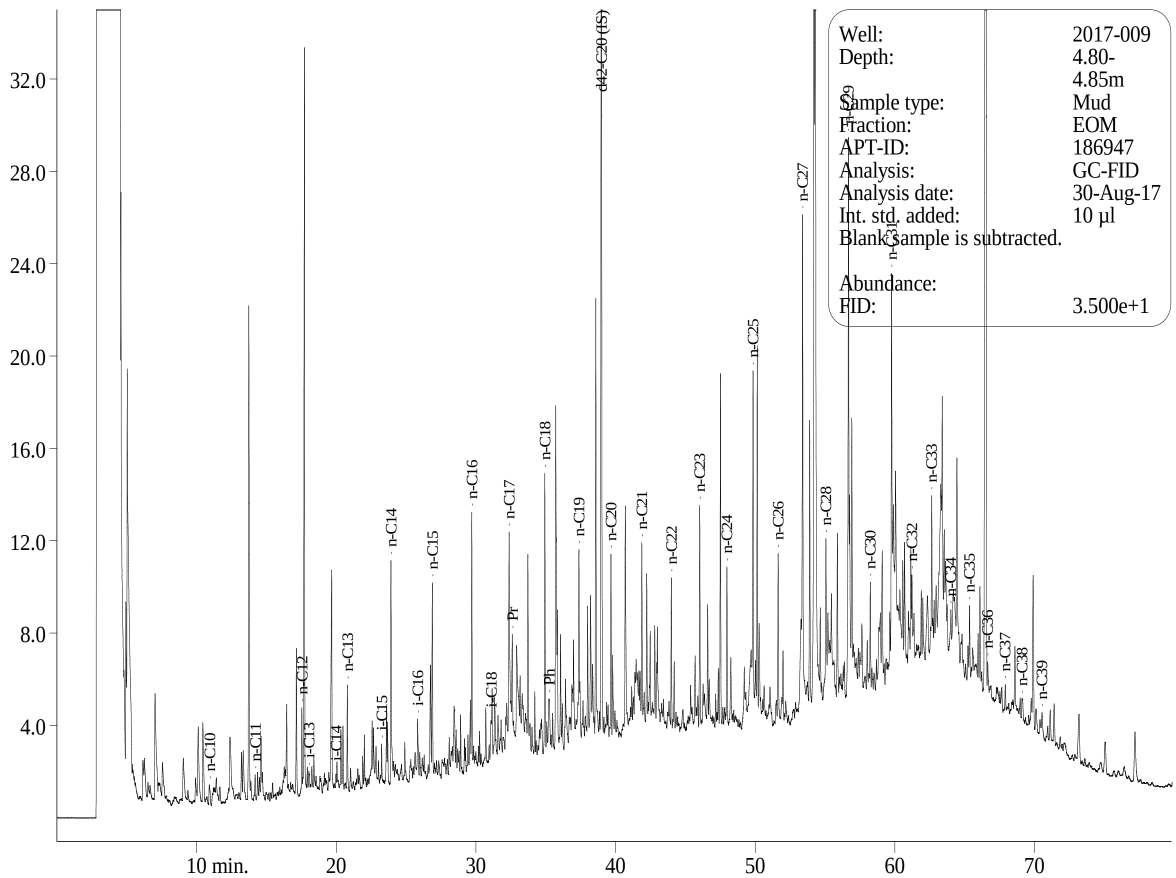


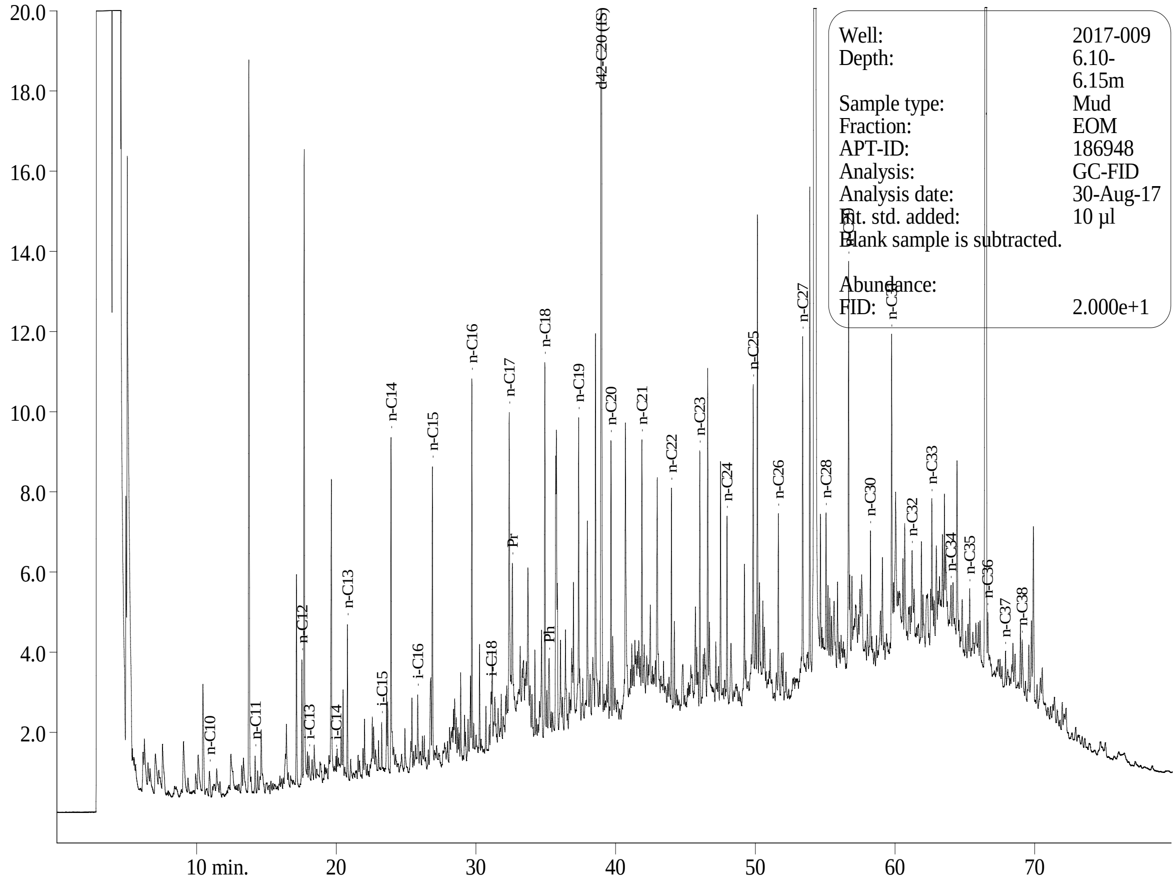
Well: 2017-007
Depth: 3.23-3.28m
Sample type: Mud
Fraction: EOM
APT-ID: 186943
Analysis: GC-FID
Analysis date: 30-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 2.500e+1
d42-C20 (IS)
10 min.
20
30
40
50
60
70

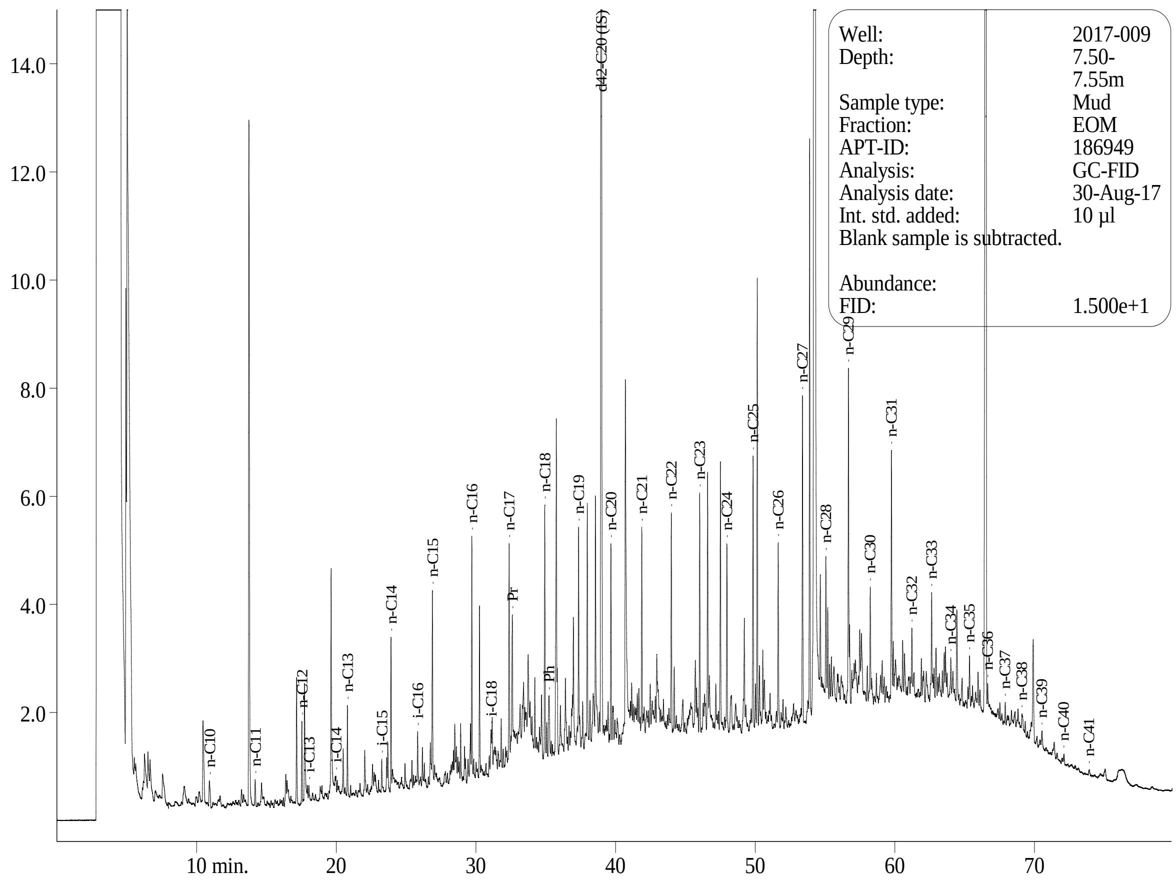


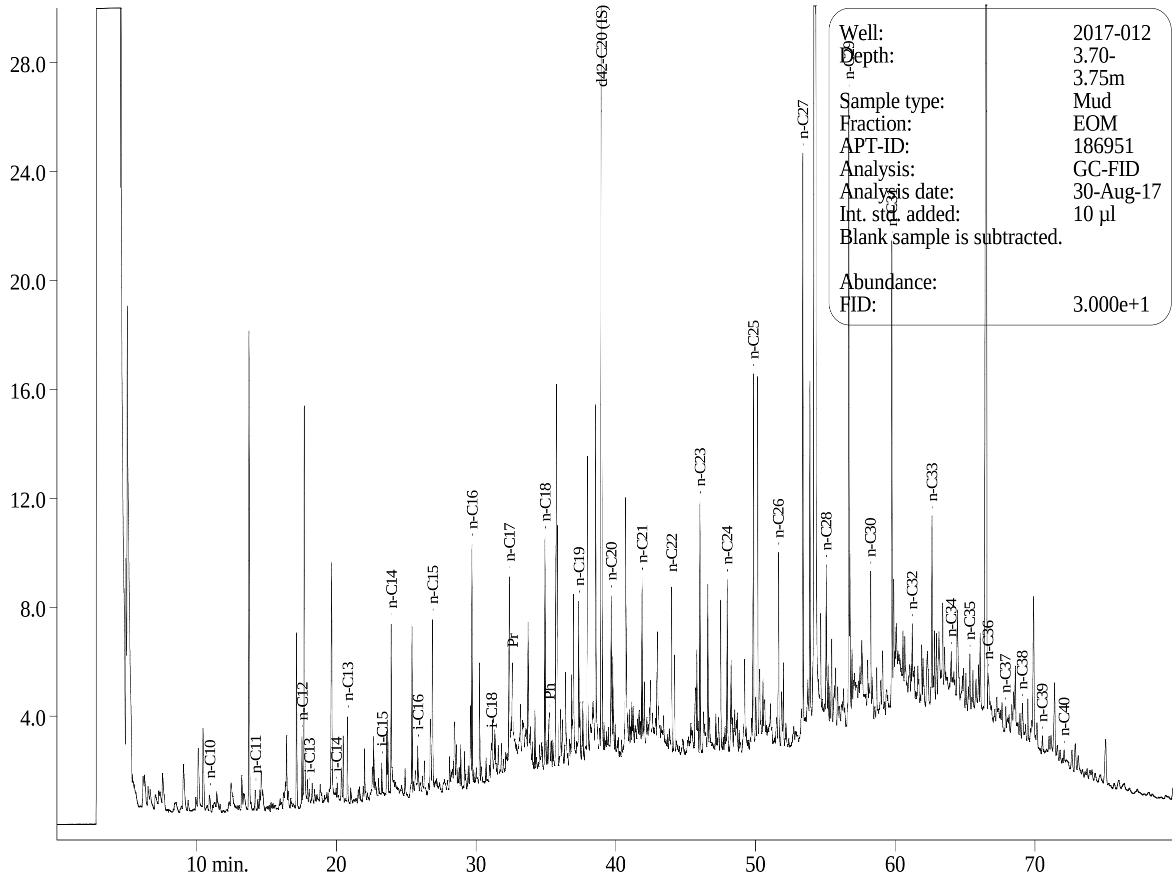
Well: 2017-007
Depth: 4.28-4.33m
Sample type: Mud
Fraction: EOM
APT-ID: 186944
Analysis: GC-FID
Analysis date: 30-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 2.500e+1
d42-C20 (IS)
10 min.
20
30
40
50
60
70

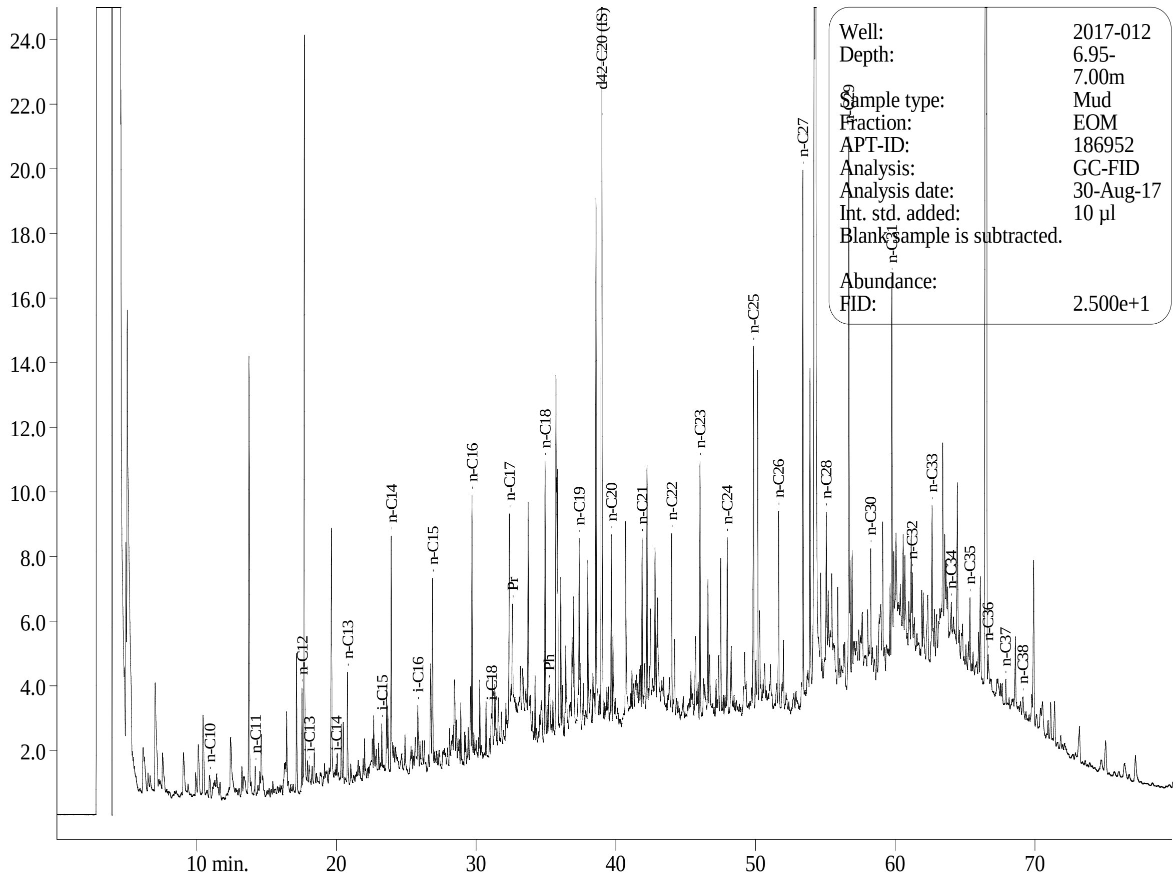

Well: 2017-007
Depth: 6.93-6.98m
Sample type: Mud
Fraction: EOM
APT-ID: 186945
Analysis: GC-FID
Analysis date: 30-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 2.500e+1
24.0
22.0
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
10 min.
20
30
40
50
60
70
n-C10
n-C11
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
n-C15
i-C16
n-C16
n-C17
Pr
i-C18
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-C30
n-C31
n-C32
n-C33
n-C34
n-C35
n-C36
n-C37
n-C38
n-C39
n-C40
n-C41
n-C42

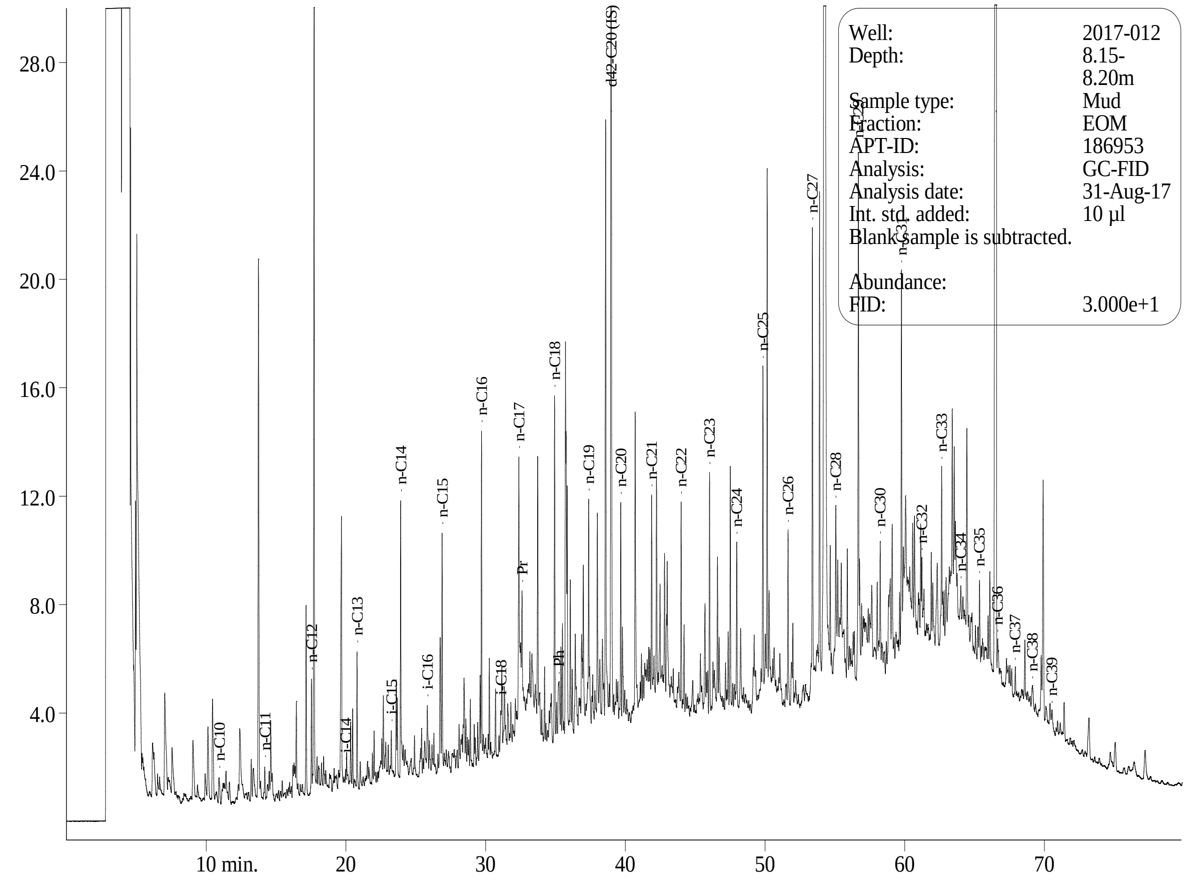

Well: 2017-009
Depth: 4.80-4.85m
Sample type: Mud
Fraction: EOM
APT-ID: 186947
Analysis: GC-FID
Analysis date: 30-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 3.500e+1
32.0
28.0
24.0
20.0
16.0
12.0
8.0
4.0
10 min.
20
30
40
50
60
70
n-C10
n-C11
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
n-C15
i-C16
n-C16
n-C17
Pr
i-C18
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
n-C37
n-C38
n-C39

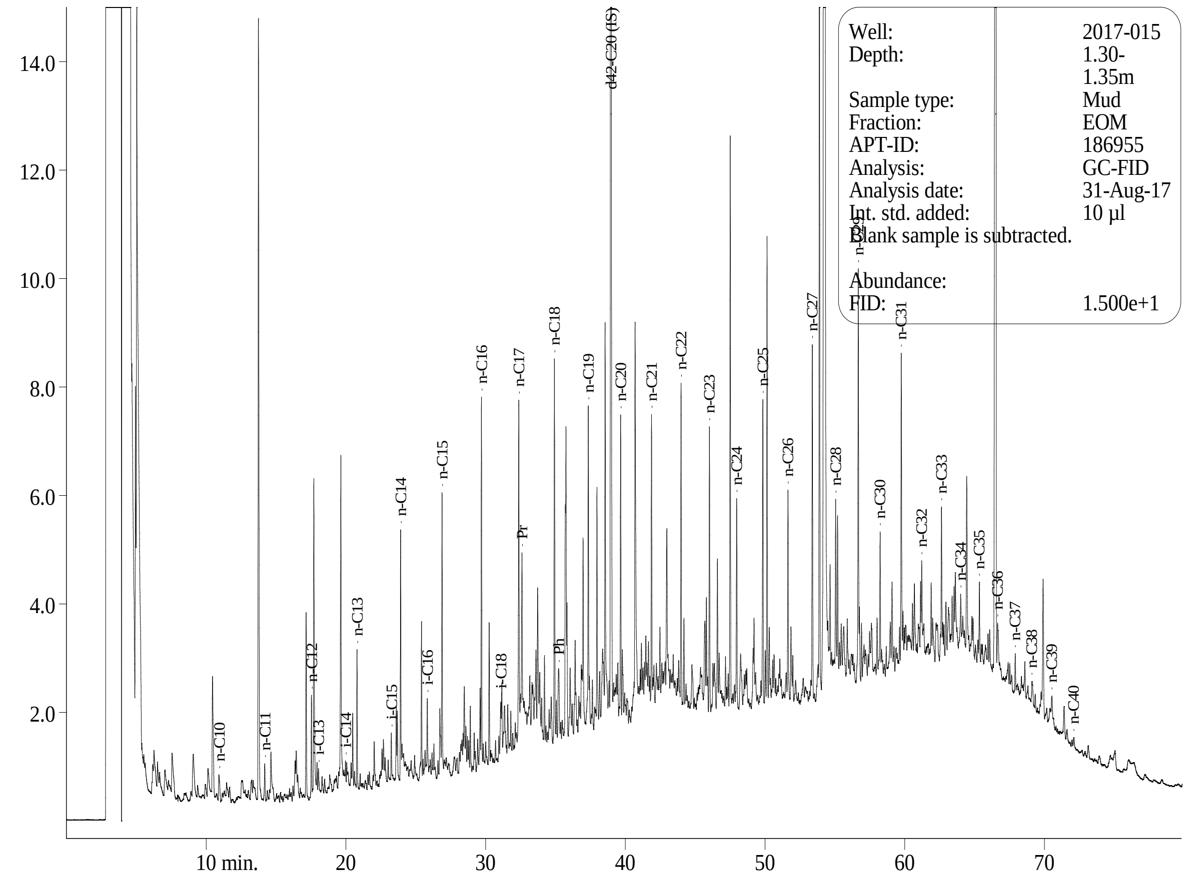

Well: 2017-009
Depth: 6.10-6.15m
Sample type: Mud
Fraction: EOM
APT-ID: 186948
Analysis: GC-FID
Analysis date: 30-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 2.000e+1
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
10 min.
20
30
40
50
60
70
d42-C20 (IS)
n-C10
n-C11
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
n-C15
i-C16
n-C16
n-C17
Pr
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-C30
n-C32
n-C33
n-C34
n-C35
n-C36
n-C37
n-C38

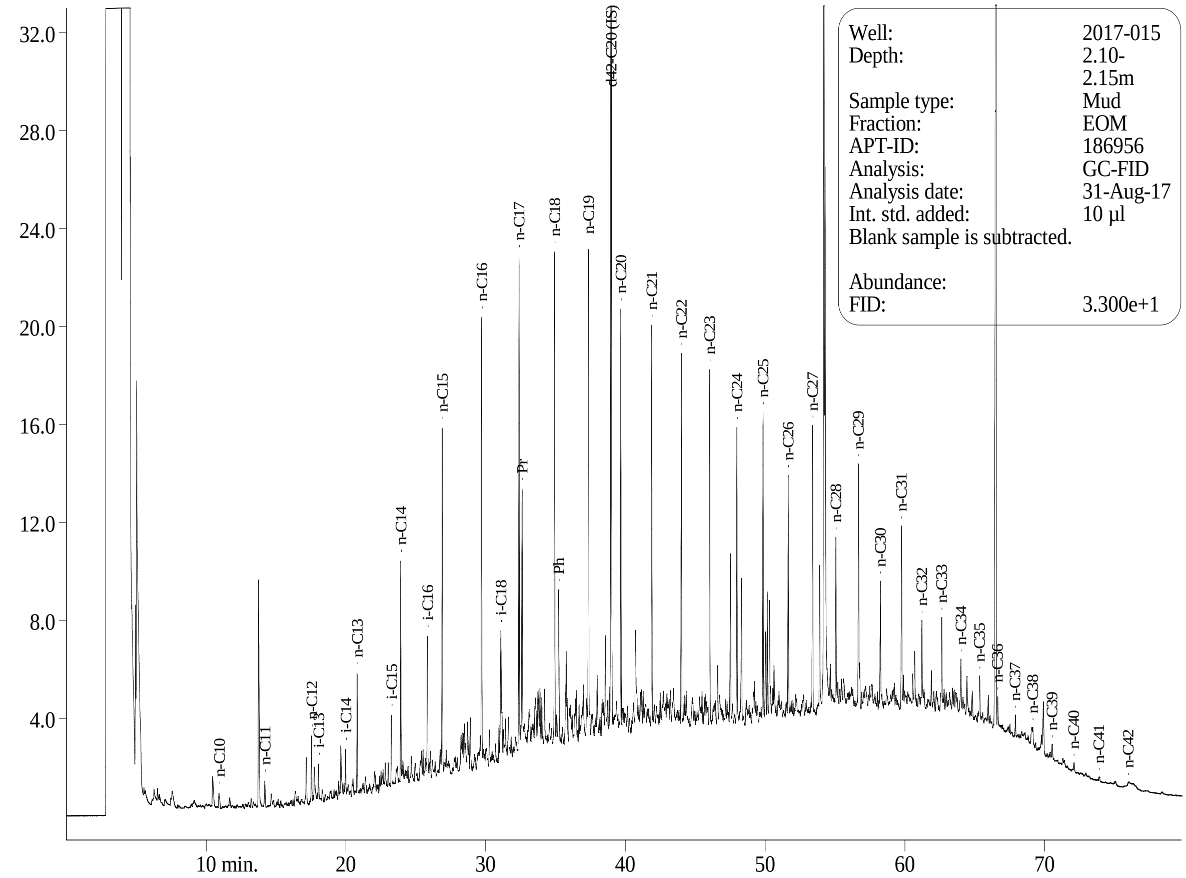

Well: 2017-009
Depth: 7.50-7.55m
Sample type: Mud
Fraction: EOM
APT-ID: 186949
Analysis: GC-FID
Analysis date: 30-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 1.500e+1
14.0
12.0
10.0
8.0
6.0
4.0
2.0
10 min.
20
30
40
50
60
70
d42-C20 (IS)
n-C10
n-C11
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
n-C15
i-C16
n-C16
n-C17
Pr
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
n-C37
n-C38
n-C39
n-C40
n-C41


Well: 2017-012
Depth: 3.70-3.75m
Sample type: Mud
Fraction: EOM
APT-ID: 186951
Analysis: GC-FID
Analysis date: 30-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 3.000e+1
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
Pr
n-C17
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
n-C37
n-C38
n-C39
n-C40
10 min.
20
30
40
50
60
70

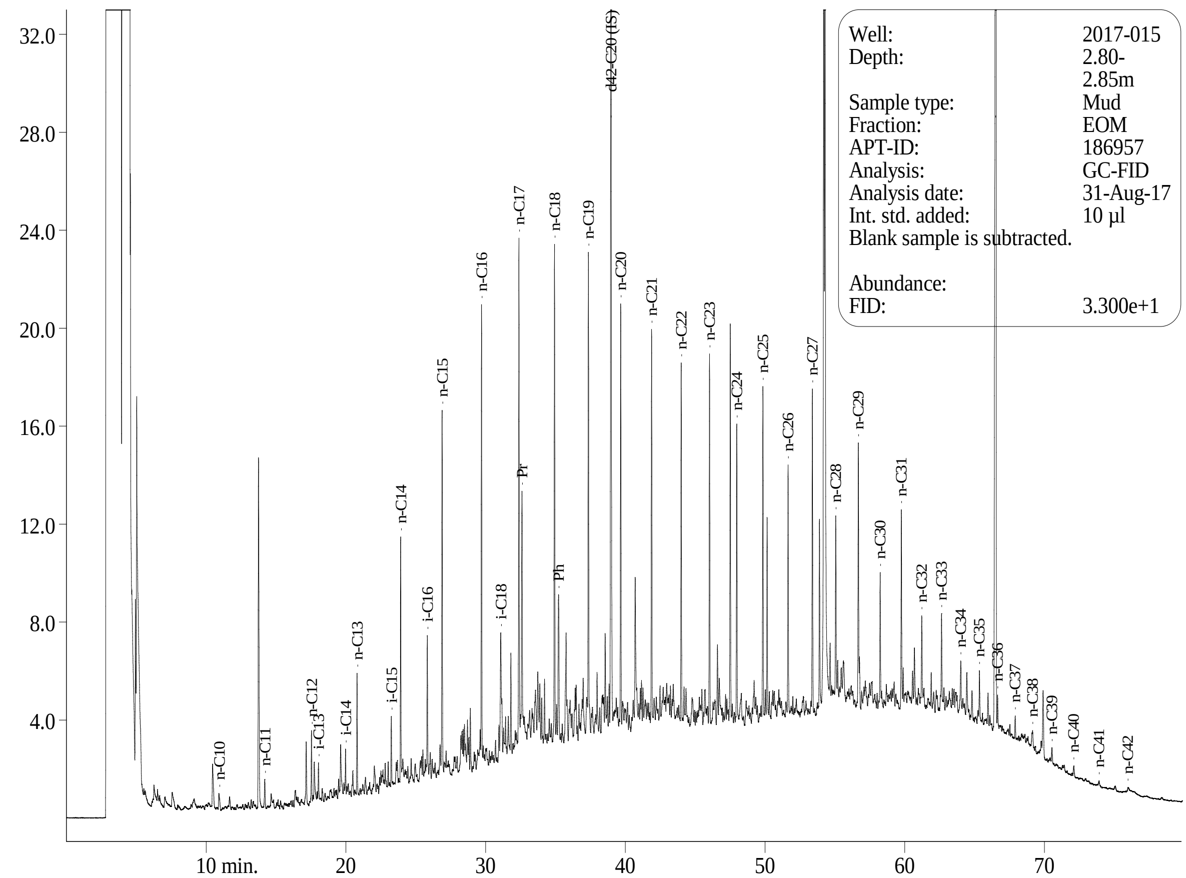

Well: 2017-012
Depth: 6.95-7.00m
Sample type: Mud
Fraction: EOM
APT-ID: 186952
Analysis: GC-FID
Analysis date: 30-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 2.500e+1
d42-C20 (IS)
n-C10
n-C11
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
n-C15
i-C16
n-C16
Pr
n-C17
i-C18
n-C18
Ph
n-C19
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
n-C37
n-C38
10 min.
20
30
40
50
60
70


Well: 2017-012
Depth: 8.15-8.20m
Sample type: Mud
Fraction: EOM
APT-ID: 186953
Analysis: GC-FID
Analysis date: 31-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 3.000e+1
d42-C20 (IS)
n-C10
n-C11
n-C12
n-C13
n-C14
n-C15
n-C16
n-C17
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
n-C37
n-C38
n-C39
i-C14
i-C15
i-C16
i-C18
Pr
Ph
28.0
24.0
20.0
16.0
12.0
8.0
4.0
10 min.
20
30
40
50
60
70

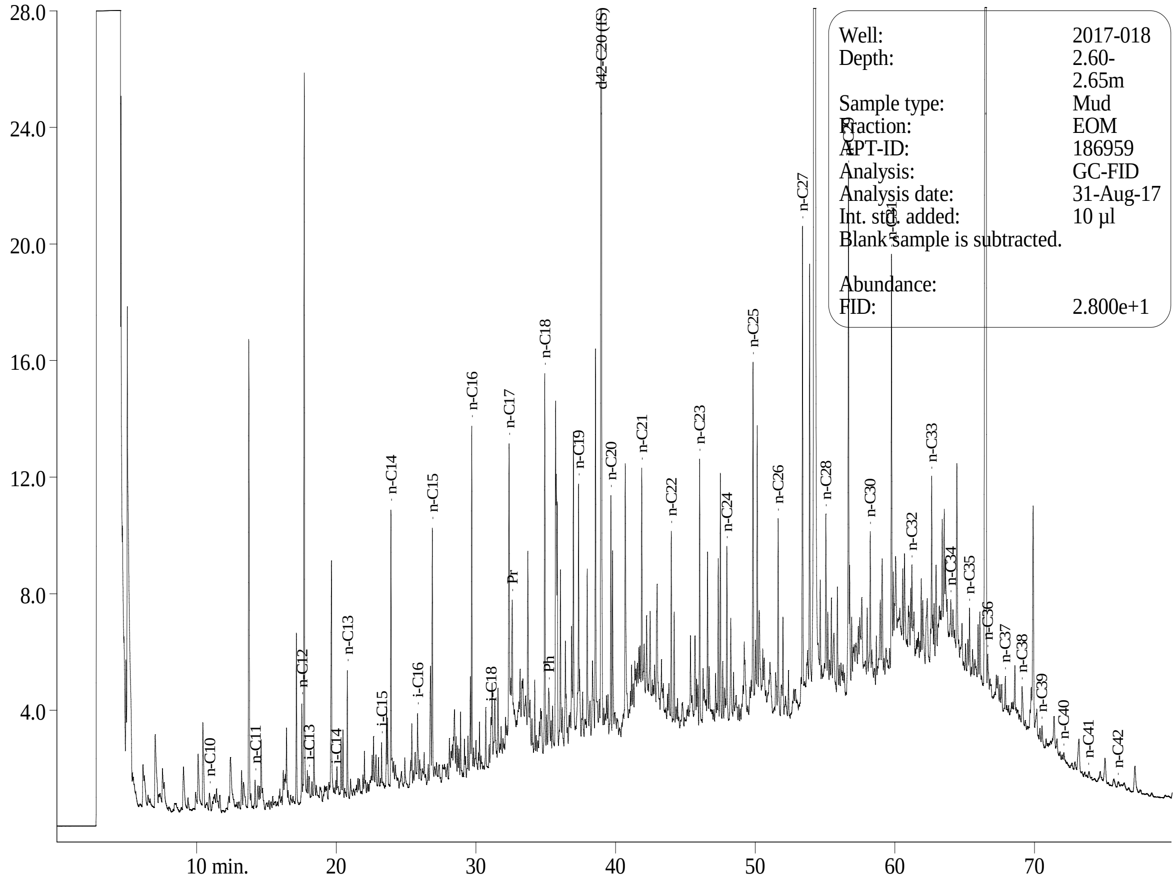

Well: 2017-015
Depth: 1.30-1.35m
Sample type: Mud
Fraction: EOM
APT-ID: 186955
Analysis: GC-FID
Analysis date: 31-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 1.500e+1
d42-C20 (IS)
n-C10
n-C11
n-C12
n-C13
n-C14
n-C15
n-C16
n-C17
n-C18
n-C19
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
n-C27
n-C28
n-C30
n-C31
n-C32
n-C33
n-C34
n-C35
n-C36
n-C37
n-C38
n-C39
n-C40
i-C13
i-C14
i-C15
i-C16
i-C18
Pr
Ph
14.0
12.0
10.0
8.0
6.0
4.0
2.0
10 min.
20
30
40
50
60
70

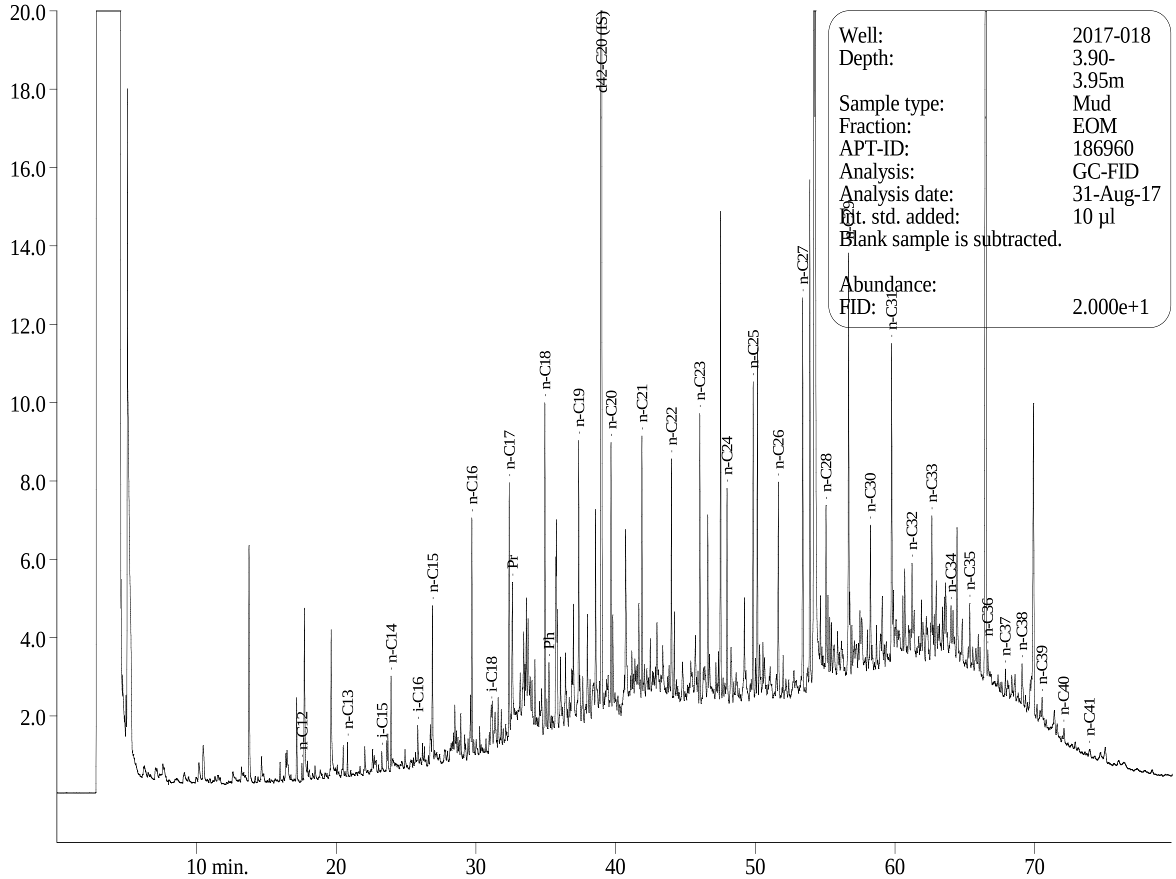


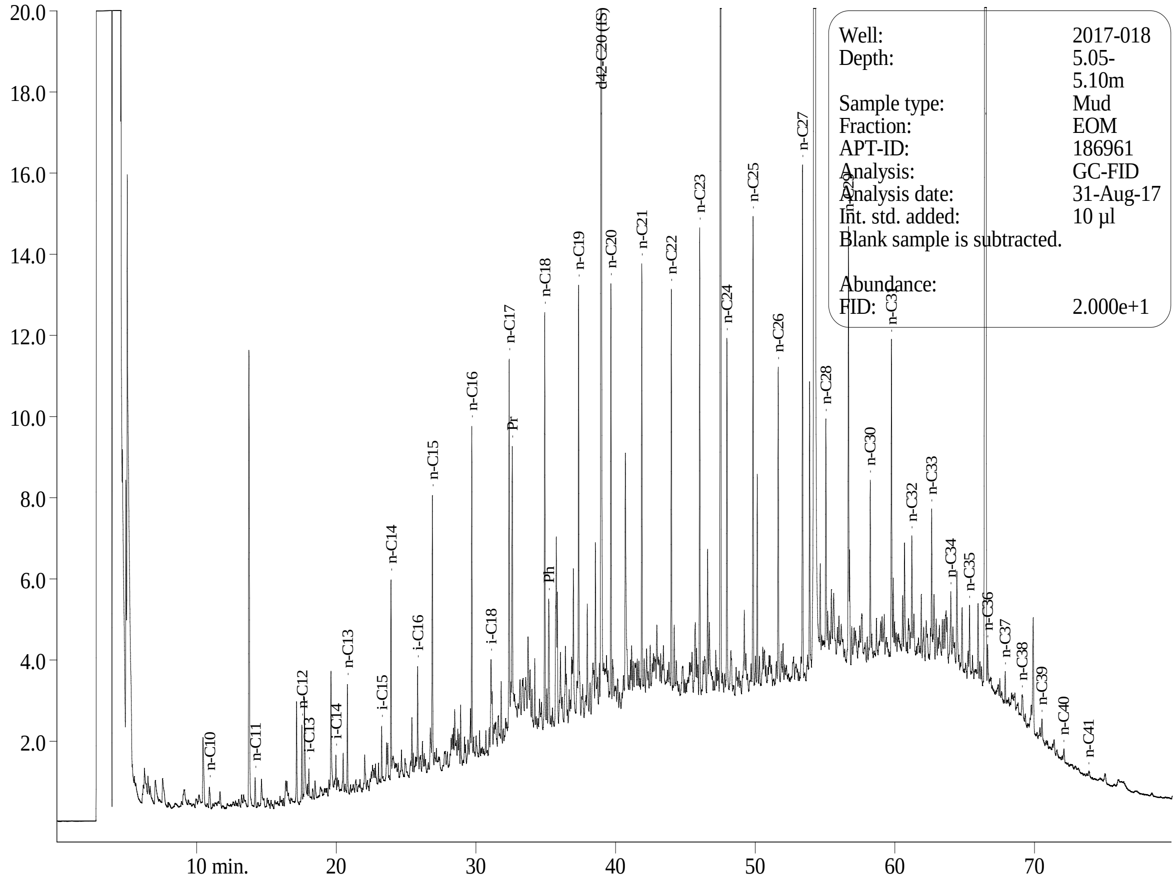
32.0
28.0
24.0
20.0
16.0
12.0
8.0
4.0
10 min.
20
30
40
50
60
70
n-C10
n-C11
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
n-C15
i-C16
n-C16
n-C17
Pr
i-C18
n-C18
Ph
n-C19
d42-C20 (IS)
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
n-C27
n-C28
n-C29
n-C30
n-C31
n-C32
n-C33
n-C34
n-C35
n-C36
n-C37
n-C38
n-C39
n-C40
n-C41
n-C42
Well: 2017-015
Depth: 2.10-2.15m
Sample type: Mud
Fraction: EOM
APT-ID: 186956
Analysis: GC-FID
Analysis date: 31-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 3.300e+1

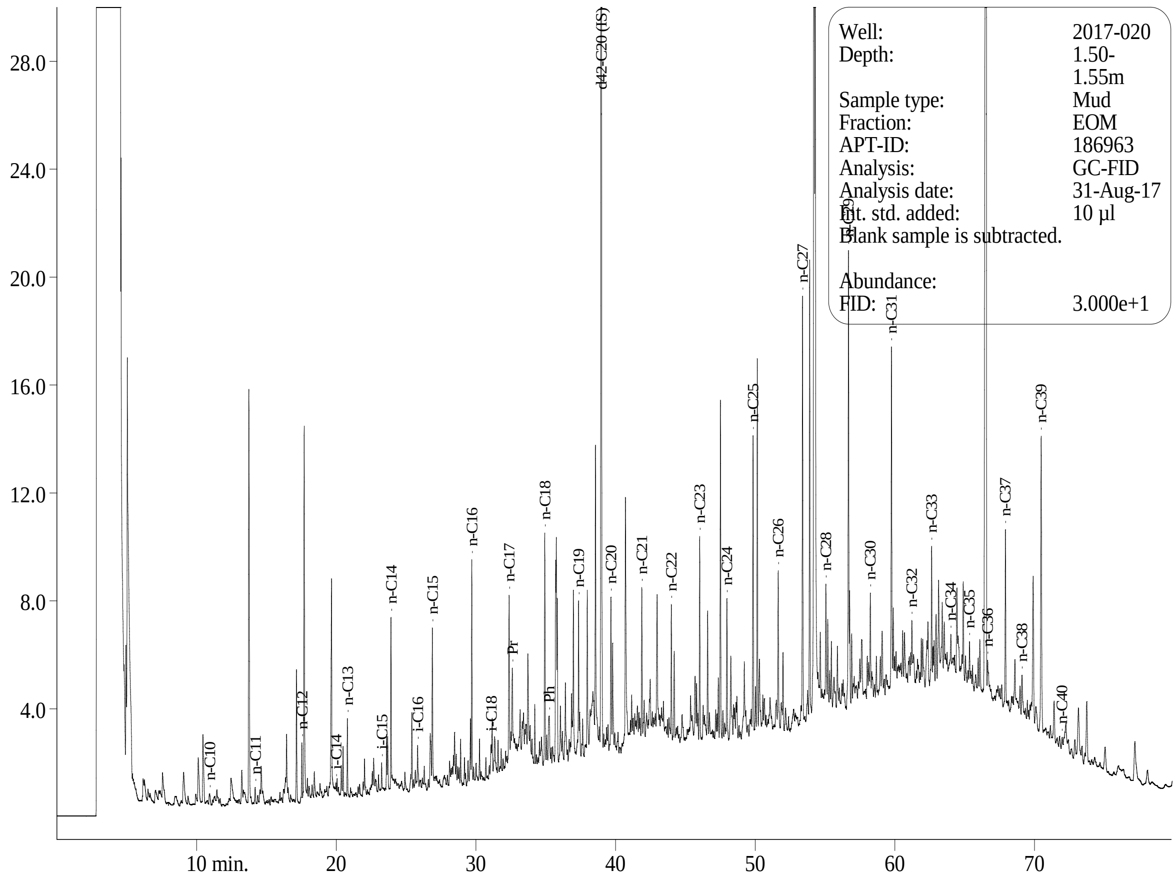


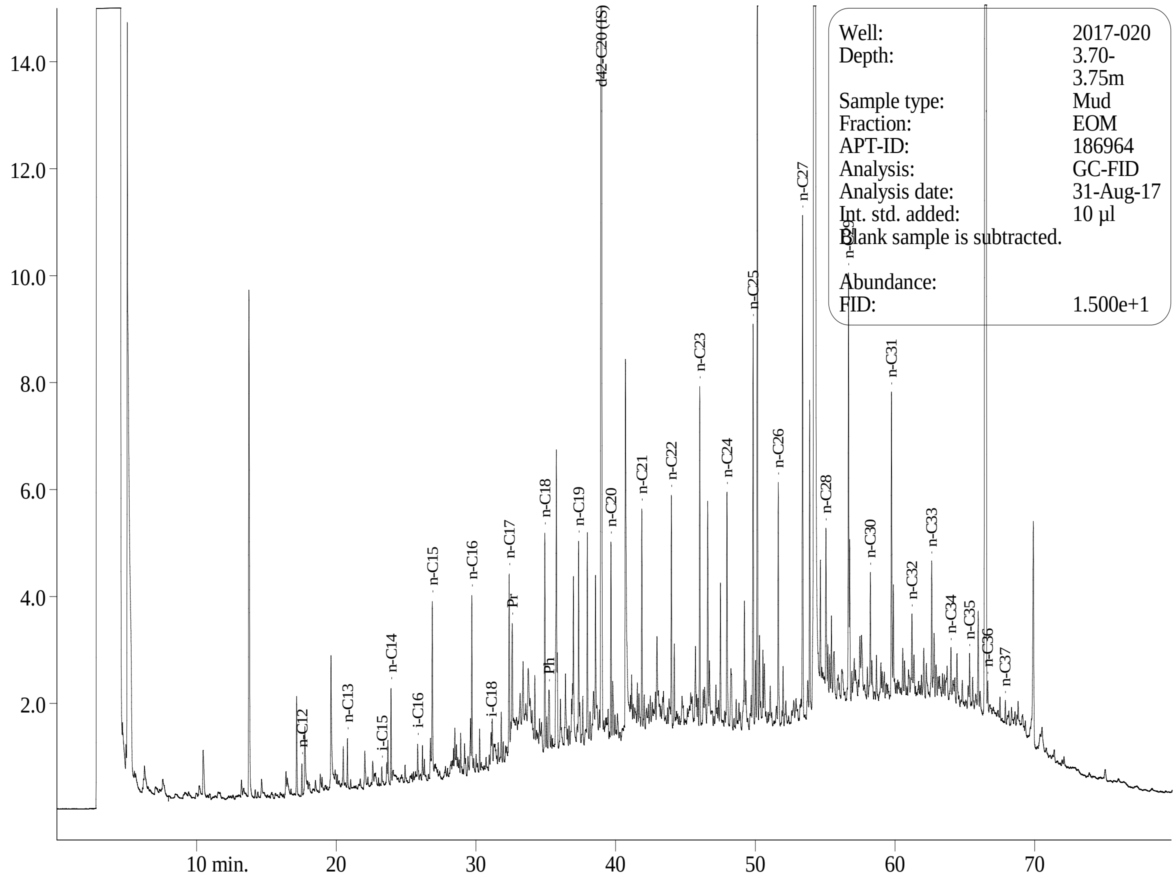
32.0
28.0
24.0
20.0
16.0
12.0
8.0
4.0
10 min.
20
30
40
50
60
70
n-C10
n-C11
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
n-C15
i-C16
n-C16
n-C17
Pr
i-C18
n-C18
Ph
n-C19
d42-C20 (IS)
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
n-C27
n-C28
n-C29
n-C30
n-C31
n-C32
n-C33
n-C34
n-C35
n-C36
n-C37
n-C38
n-C39
n-C40
n-C41
n-C42
Well: 2017-015
Depth: 2.80-2.85m
Sample type: Mud
Fraction: EOM
APT-ID: 186957
Analysis: GC-FID
Analysis date: 31-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 3.300e+1

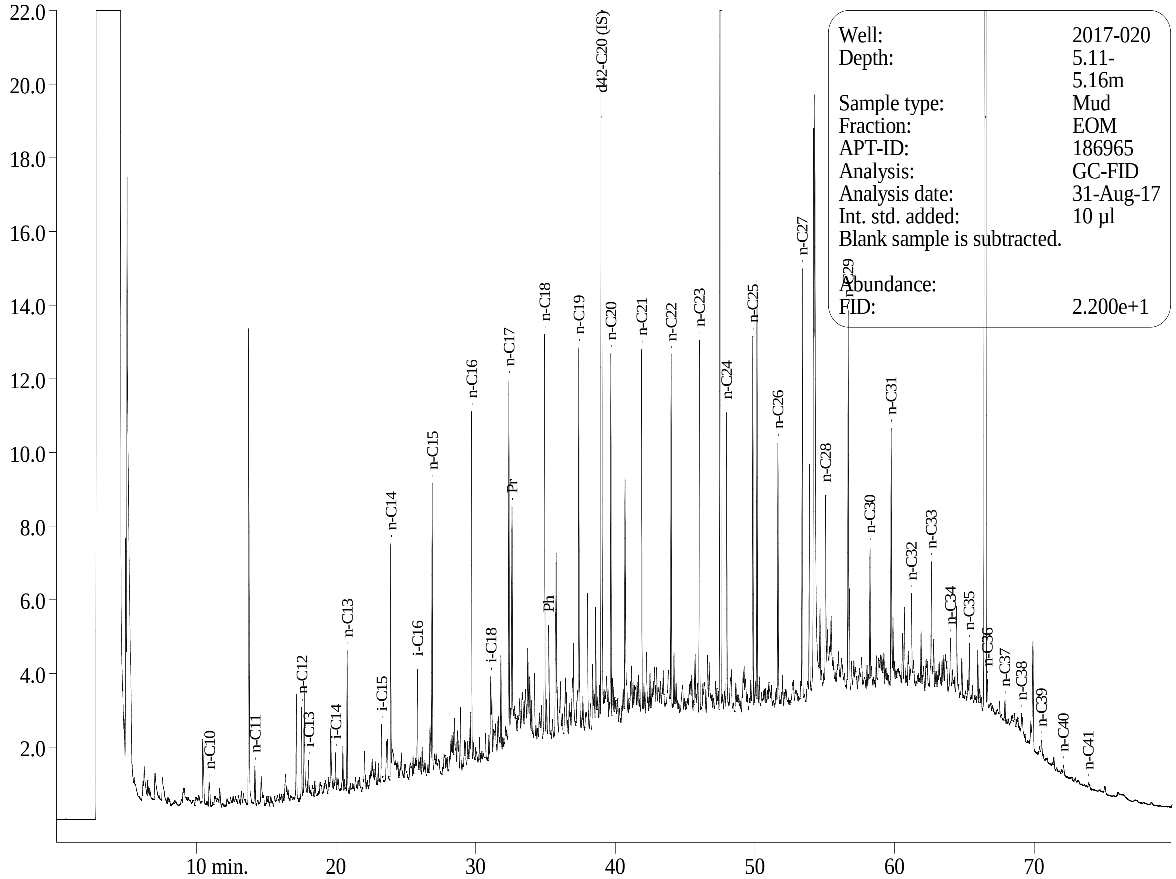

Well: 2017-018
Depth: 2.60-2.65m
Sample type: Mud
Fraction: EOM
APT-ID: 186959
Analysis: GC-FID
Analysis date: 31-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 2.800e+1
28.0
24.0
20.0
16.0
12.0
8.0
4.0
10 min.
20
30
40
50
60
70
d42-C20 (IS)
Pr
Ph

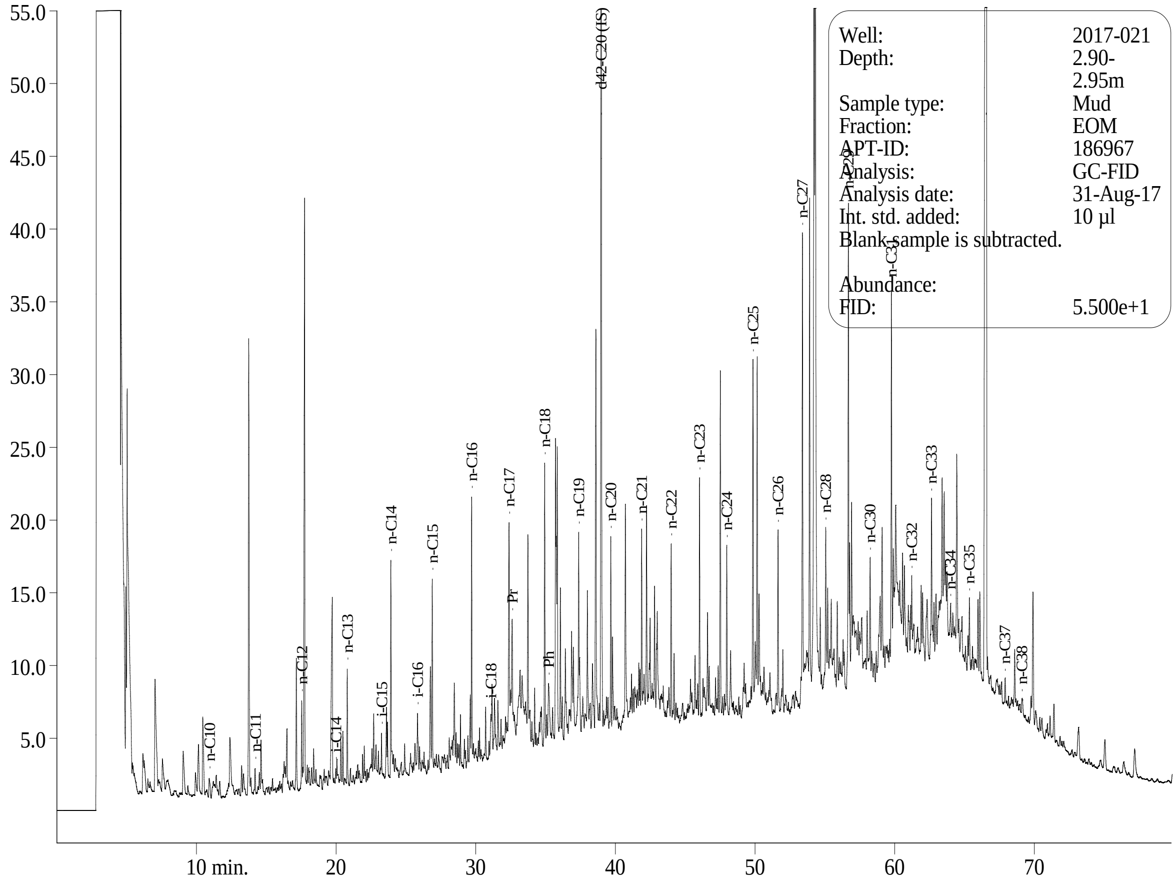

Well: 2017-018
Depth: 3.90-3.95m
Sample type: Mud
Fraction: EOM
APT-ID: 186960
Analysis: GC-FID
Analysis date: 31-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 2.000e+1
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
10 min.
20
30
40
50
60
70
d42-C20 (IS)
Pr
Ph

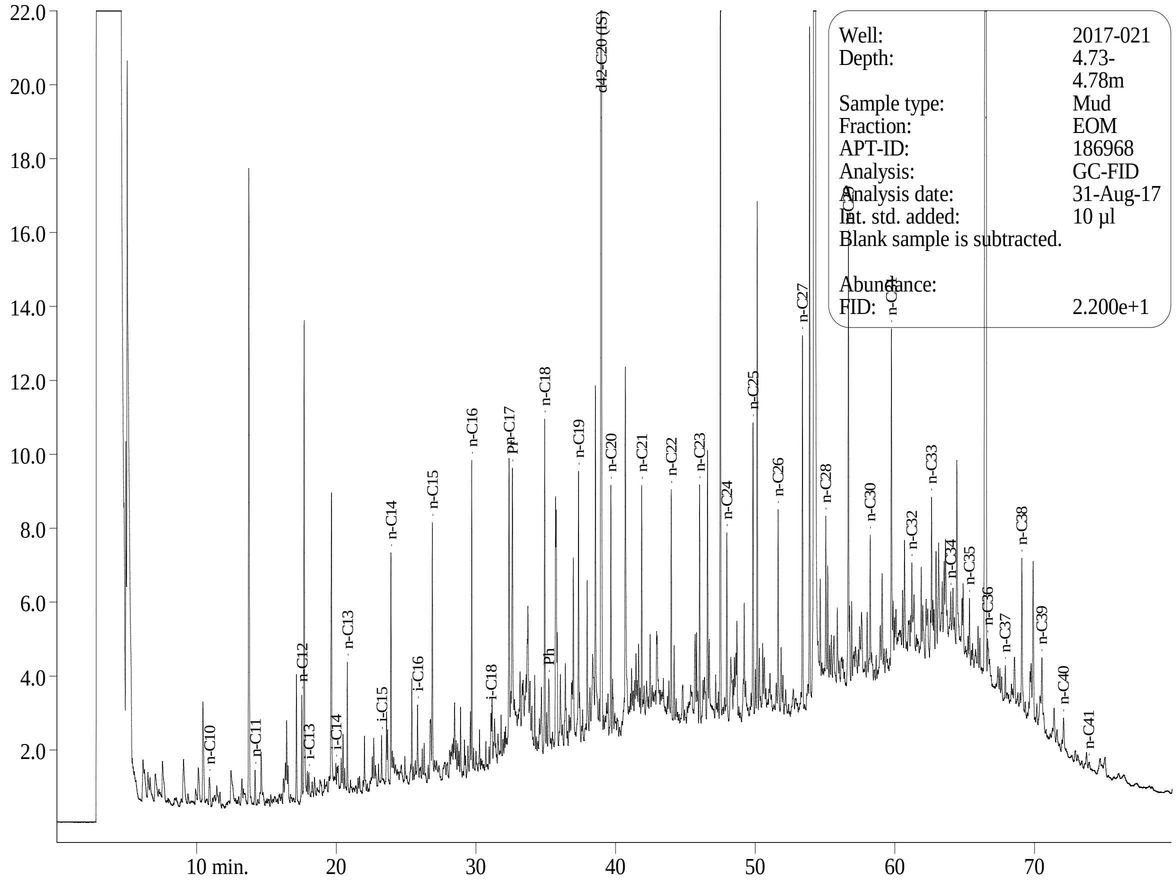

Well: 2017-018
Depth: 5.05-5.10m
Sample type: Mud
Fraction: EOM
APT-ID: 186961
Analysis: GC-FID
Analysis date: 31-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 2.000e+1
d42-C20 (IS)
n-C10
n-C11
n-C12
i-C13
n-C13
i-C14
n-C14
i-C15
n-C15
i-C16
n-C16
n-C17
Pr
i-C18
n-C18
Ph
n-C19
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
n-C27
n-C28
n-C30
n-C32
n-C33
n-C34
n-C35
n-C36
n-C37
n-C38
n-C39
n-C40
n-C41
10 min.
20
30
40
50
60
70

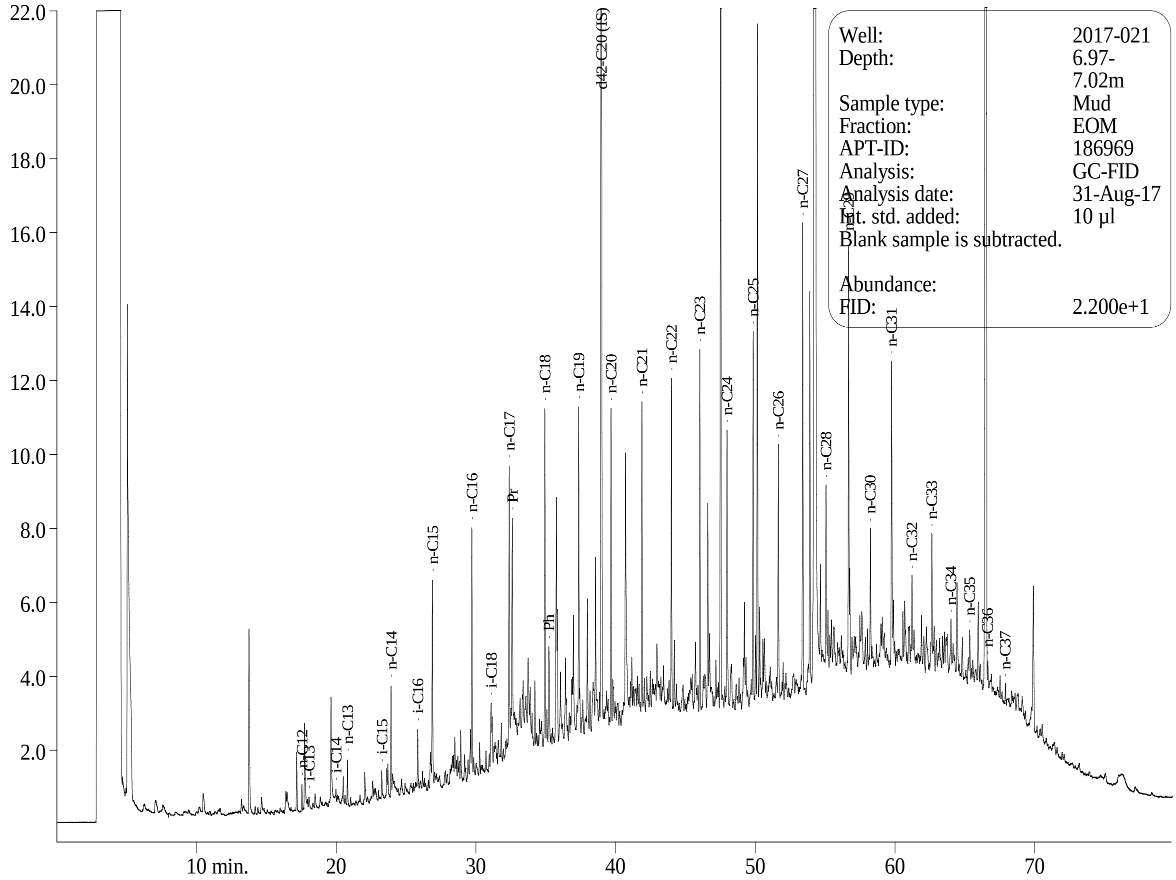

Well: 2017-020
Depth: 1.50-1.55m
Sample type: Mud
Fraction: EOM
APT-ID: 186963
Analysis: GC-FID
Analysis date: 31-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 3.000e+1
d42-C20 (IS)
n-C10
n-C11
n-C12
i-C14
n-C13
i-C15
n-C14
n-C15
i-C16
n-C16
i-C18
n-C17
Pr
n-C18
Ph
n-C19
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
n-C27
n-C28
n-C30
n-C31
n-C32
n-C33
n-C34
n-C35
n-C36
n-C37
n-C38
n-C39
n-C40
10 min.
20
30
40
50
60
70

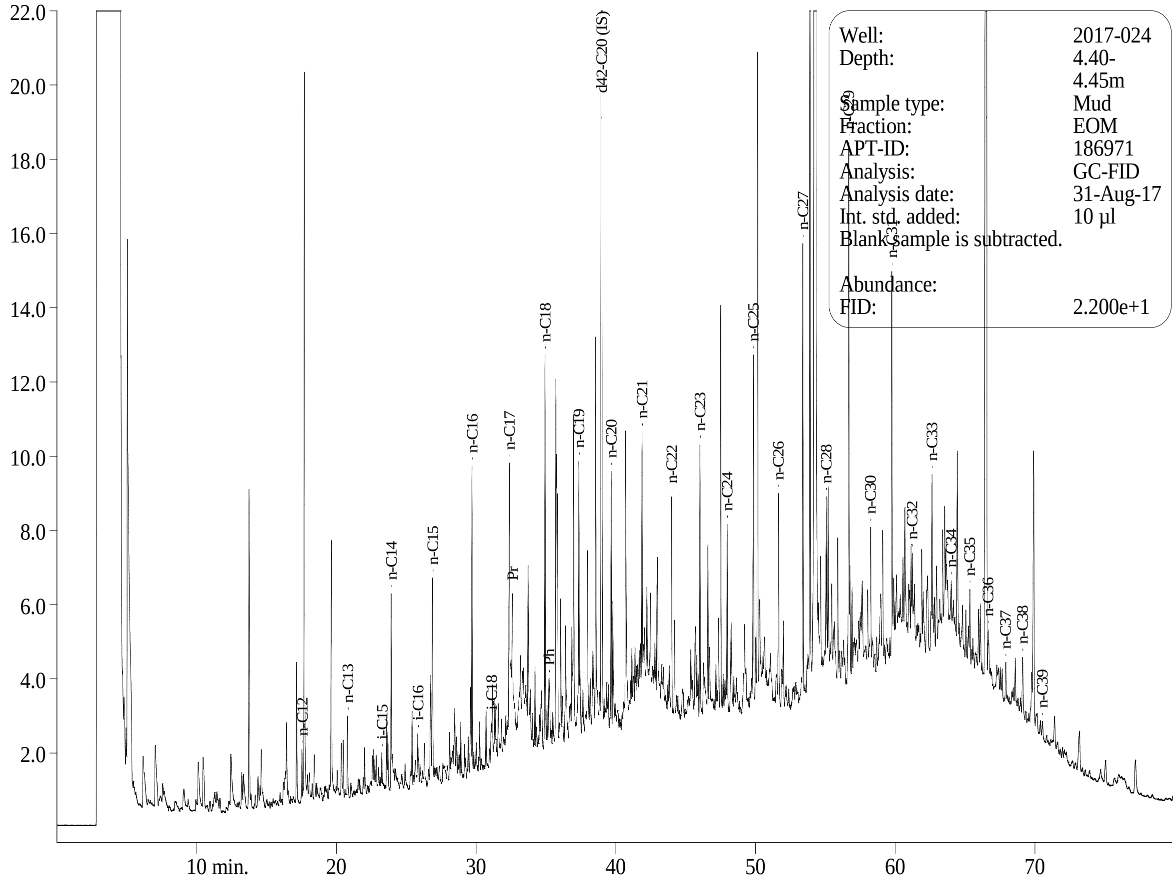

Well: 2017-020
Depth: 3.70-3.75m
Sample type: Mud
Fraction: EOM
APT-ID: 186964
Analysis: GC-FID
Analysis date: 31-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 1.500e+1
14.0
12.0
10.0
8.0
6.0
4.0
2.0
10 min.
20
30
40
50
60
70
n-C12
n-C13
i-C15
n-C14
i-C16
n-C15
n-C16
i-C18
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-C30
n-C31
n-C32
n-C33
n-C34
n-C35
n-C36
n-C37

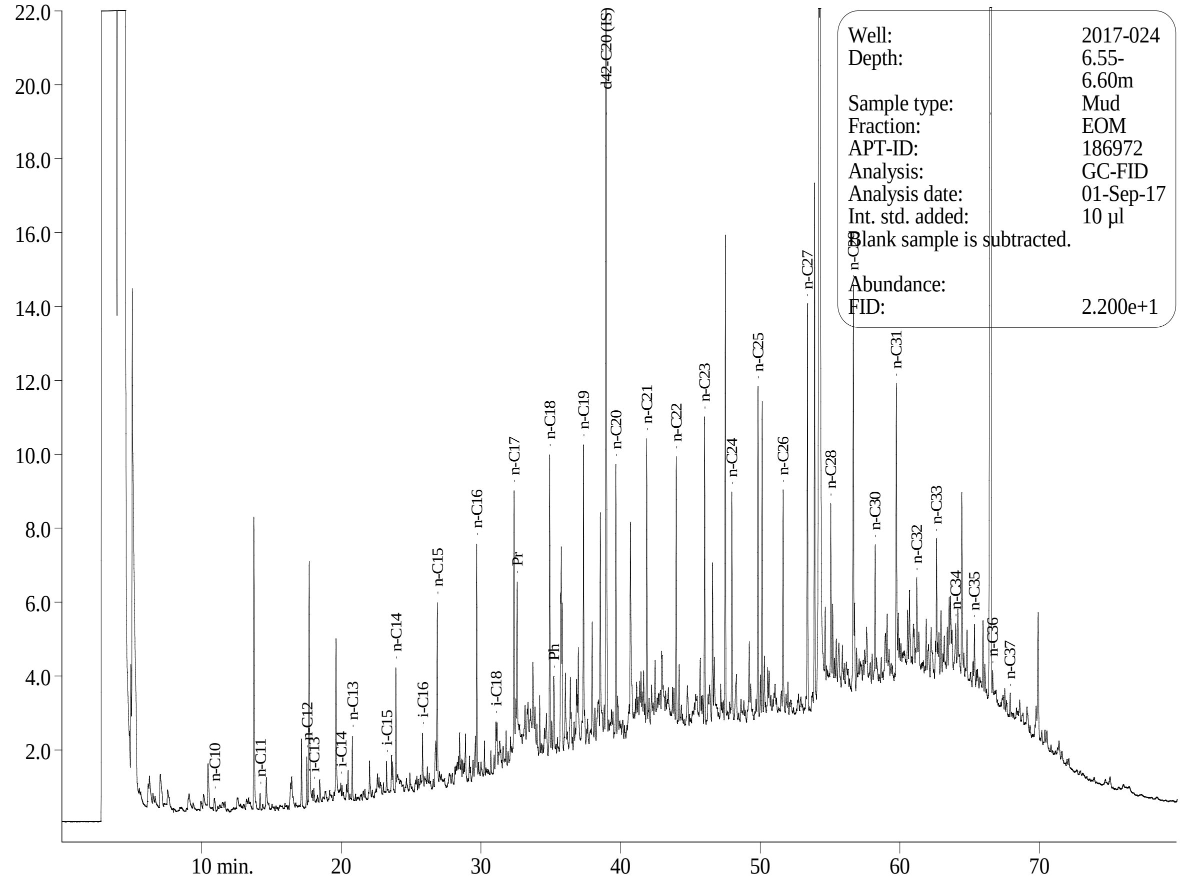

Well: 2017-020
Depth: 5.11-5.16m
Sample type: Mud
Fraction: EOM
APT-ID: 186965
Analysis: GC-FID
Analysis date: 31-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 2.200e+1
22.0
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
10 min.
20
30
40
50
60
70
n-C10
n-C11
n-C12
i-C13
i-C14
n-C13
i-C15
n-C14
i-C16
n-C15
n-C16
i-C18
n-C17
Pr
n-C18
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-C30
n-C31
n-C32
n-C33
n-C34
n-C35
n-C36
n-C37
n-C38
n-C39
n-C40
n-C41

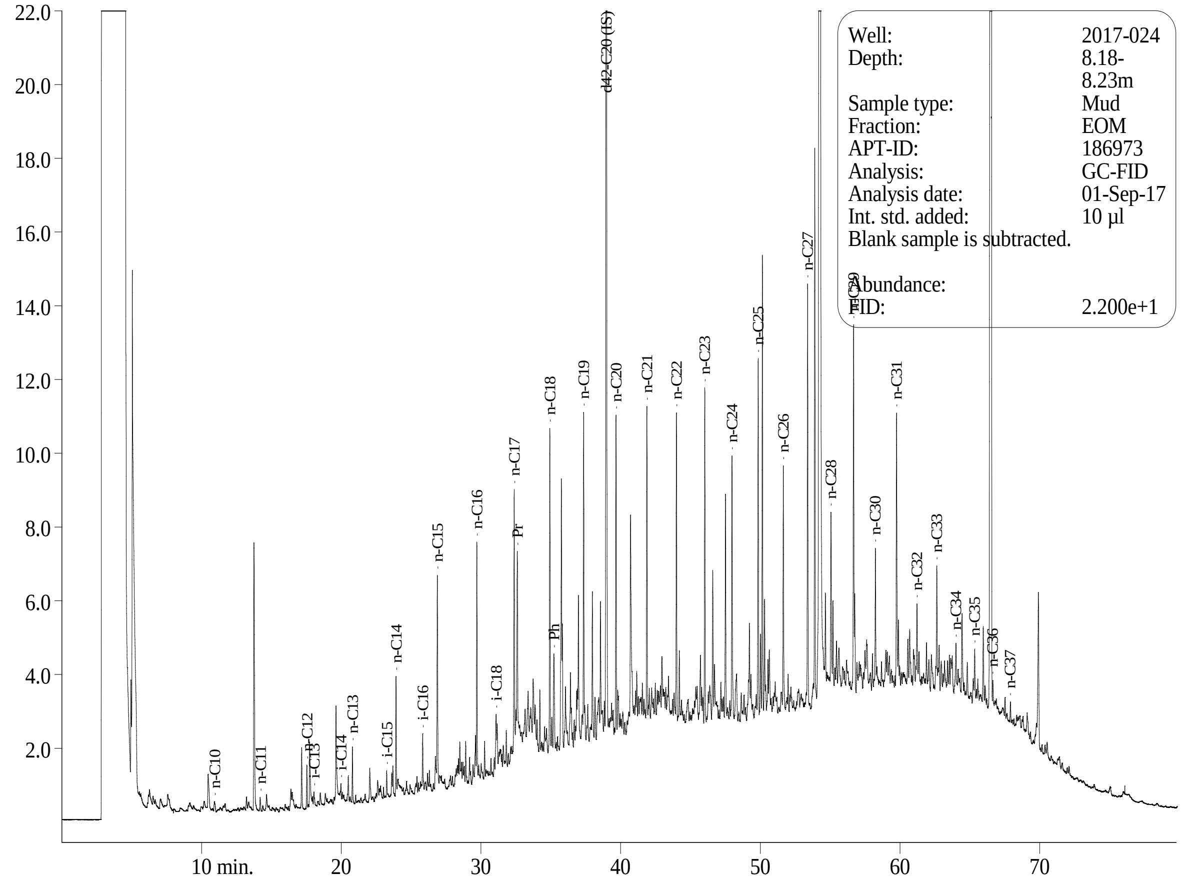

Well: 2017-021
Depth: 2.90-2.95m
Sample type: Mud
Fraction: EOM
APT-ID: 186967
Analysis: GC-FID
Analysis date: 31-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 5.500e+1
10 min.
20
30
40
50
60
70

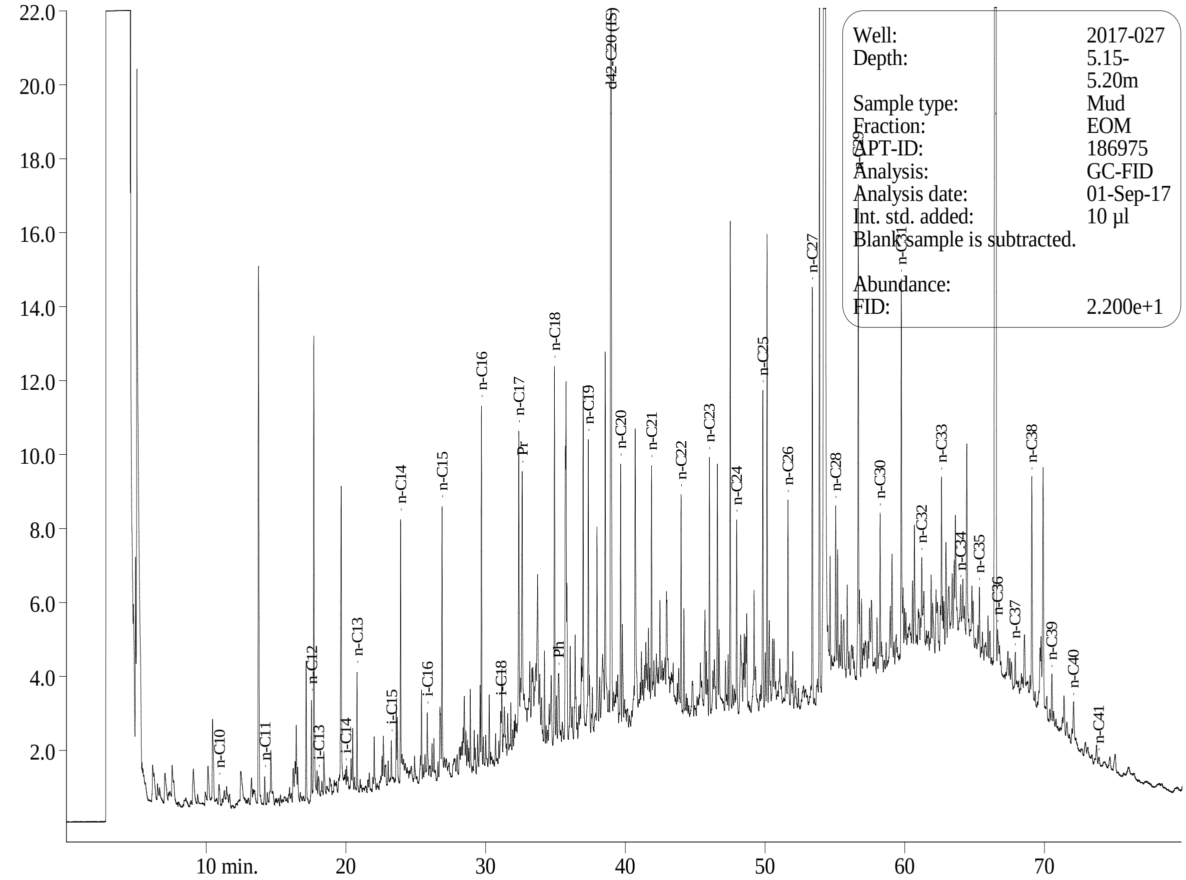

Well: 2017-021
Depth: 4.73-4.78m
Sample type: Mud
Fraction: EOM
APT-ID: 186968
Analysis: GC-FID
Analysis date: 31-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 2.200e+1
10 min.
20
30
40
50
60
70

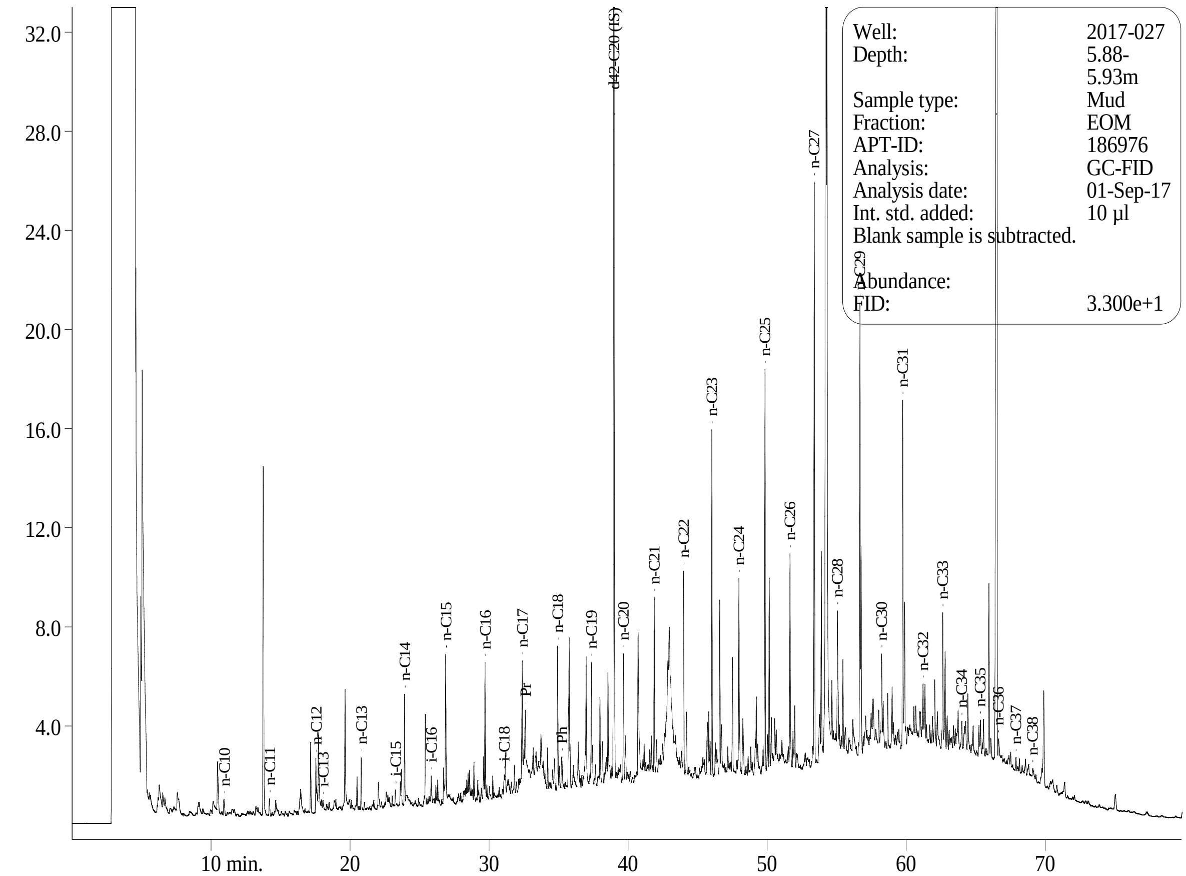

Well: 2017-021
Depth: 6.97-7.02m
Sample type: Mud
Fraction: EOM
APT-ID: 186969
Analysis: GC-FID
Analysis date: 31-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 2.200e+1
d42-C20 (IS)
n-C12
i-C13
i-C14
n-C13
i-C15
n-C14
i-C16
n-C15
n-C16
i-C18
n-C17
Pr
Ph
n-C18
n-C19
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
n-C27
n-C28
n-C30
n-C31
n-C32
n-C33
n-C34
n-C35
n-C36
n-C37
22.0
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
10 min.
20
30
40
50
60
70

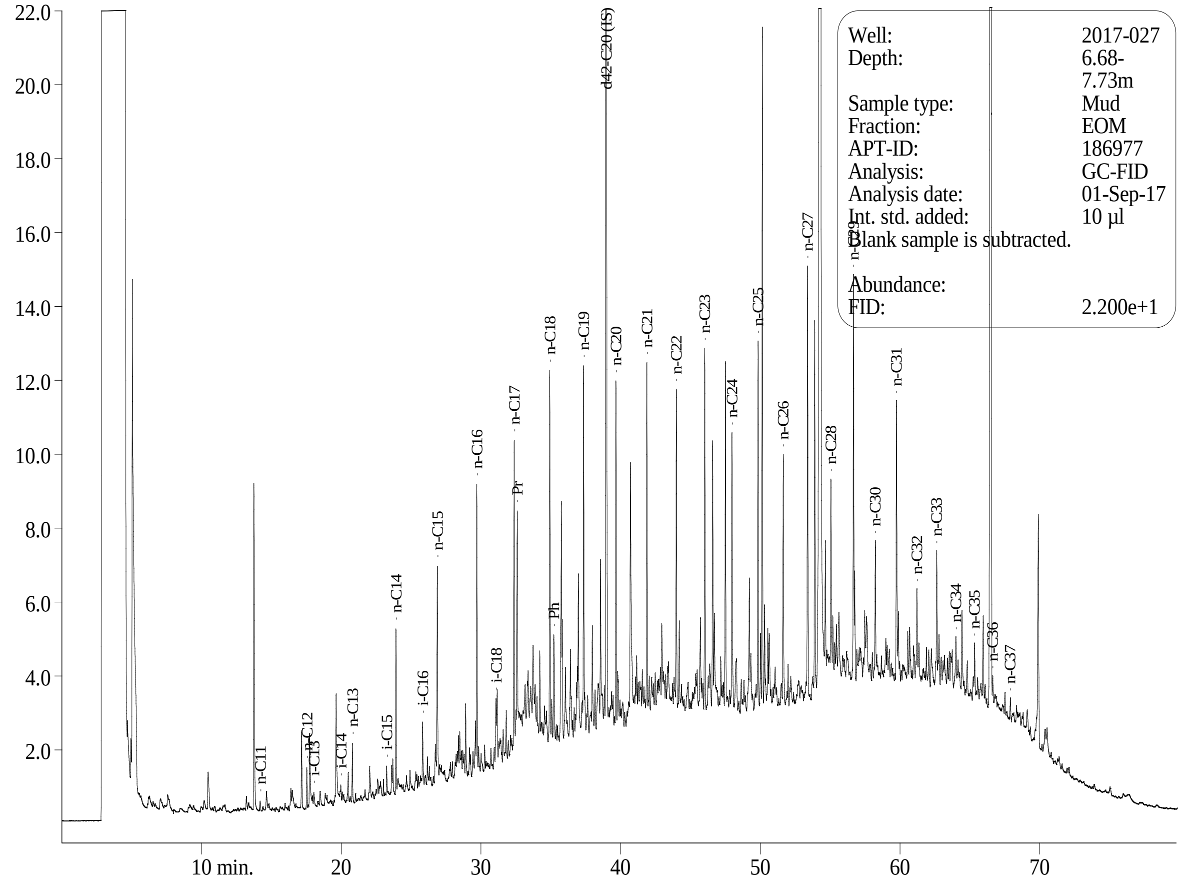

Well: 2017-024
Depth: 4.40-4.45m
Sample type: Mud
Fraction: EOM
APT-ID: 186971
Analysis: GC-FID
Analysis date: 31-Aug-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 2.200e+1
d42-C20 (IS)
n-C12
n-C13
i-C15
n-C14
i-C16
n-C15
n-C16
i-C18
n-C17
Pr
Ph
n-C18
n-C19
n-C20
n-C21
n-C22
n-C23
n-C24
n-C25
n-C26
n-C27
n-C28
n-C30
n-C31
n-C32
n-C33
n-C34
n-C35
n-C36
n-C37
n-C38
n-C39
22.0
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
10 min.
20
30
40
50
60
70

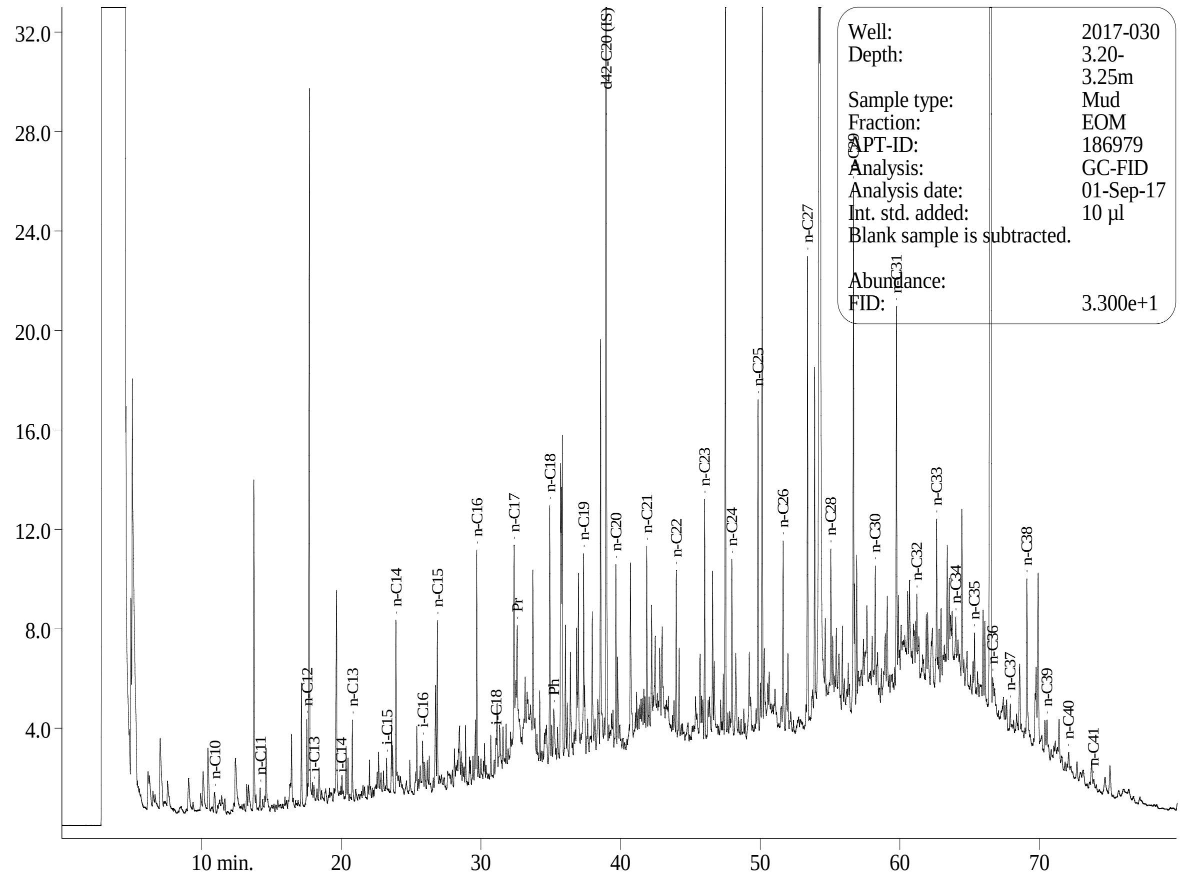

Well: 2017-024
Depth: 6.55-6.60m
Sample type: Mud
Fraction: EOM
APT-ID: 186972
Analysis: GC-FID
Analysis date: 01-Sep-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 2.200e+1
22.0
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
10 min.
20
30
40
50
60
70
n-C10
n-C11
n-C12
i-C13
i-C14
n-C13
i-C15
n-C14
i-C16
n-C15
n-C16
i-C18
n-C17
Pr
n-C18
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
n-C37

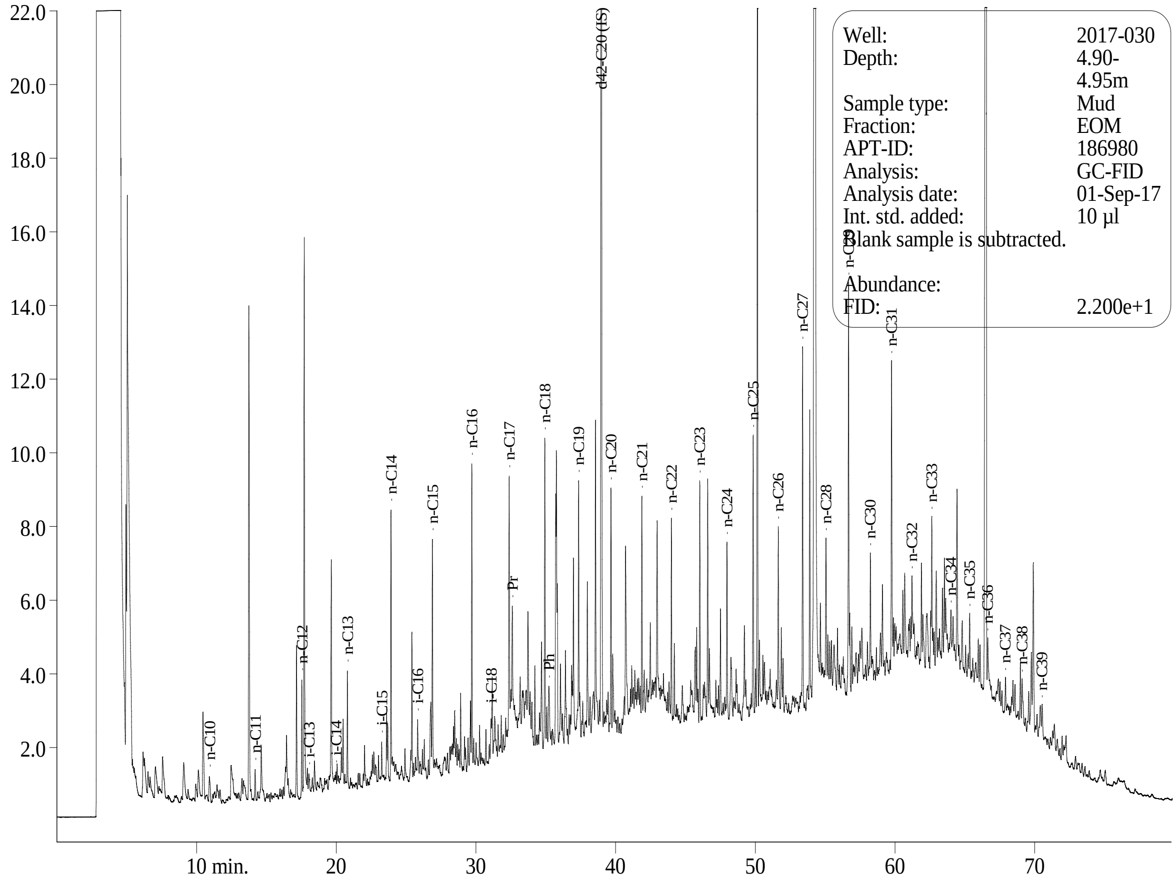

Well: 2017-024
Depth: 8.18-8.23m
Sample type: Mud
Fraction: EOM
APT-ID: 186973
Analysis: GC-FID
Analysis date: 01-Sep-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 2.200e+1
22.0
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
10 min.
20
30
40
50
60
70
n-C10
n-C11
n-C12
i-C13
i-C14
n-C13
i-C15
n-C14
i-C16
n-C15
n-C16
i-C18
n-C17
Pr
n-C18
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
n-C37

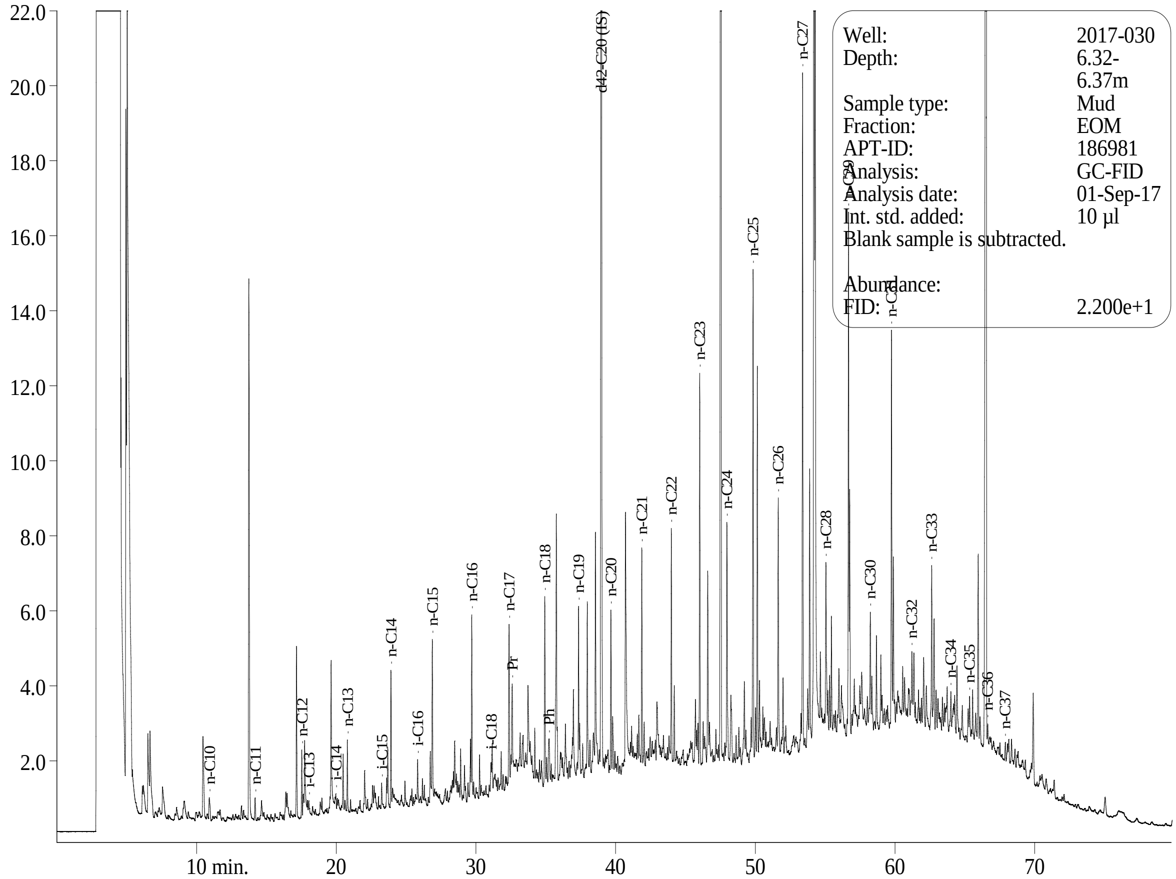

Well: 2017-027
Depth: 5.15-5.20m
Sample type: Mud
Fraction: EOM
APT-ID: 186975
Analysis: GC-FID
Analysis date: 01-Sep-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 2.200e+1
22.0
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
10 min.
20
30
40
50
60
70
n-C10
n-C11
n-C12
i-C13
n-C13
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
n-C37
n-C38
n-C39
n-C40
n-C41


Well: 2017-027
Depth: 5.88-5.93m
Sample type: Mud
Fraction: EOM
APT-ID: 186976
Analysis: GC-FID
Analysis date: 01-Sep-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 3.300e+1
32.0
28.0
24.0
20.0
16.0
12.0
8.0
4.0
10 min.
20
30
40
50
60
70
n-C10
n-C11
n-C12
i-C13
n-C13
i-C15
n-C14
i-C16
n-C15
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
n-C37
n-C38

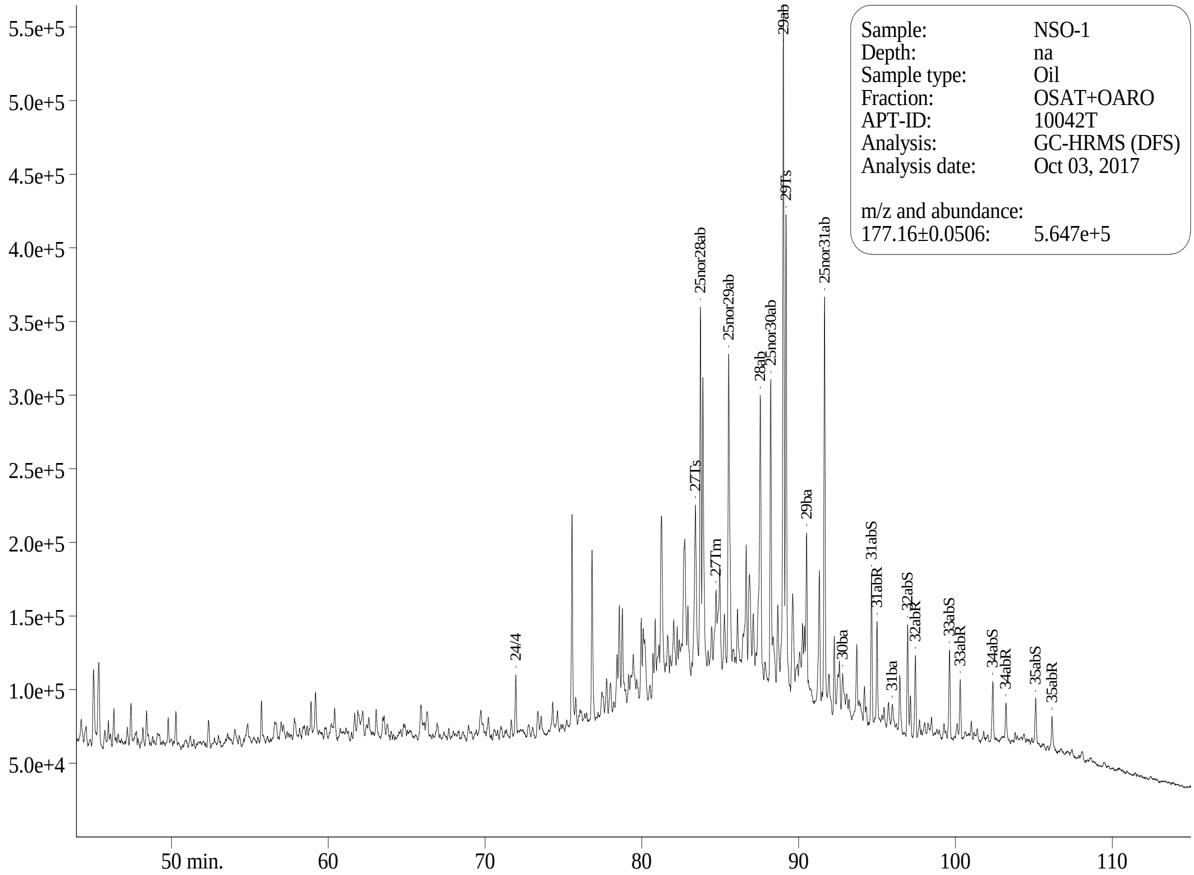

Well: 2017-027
Depth: 6.68-7.73m
Sample type: Mud
Fraction: EOM
APT-ID: 186977
Analysis: GC-FID
Analysis date: 01-Sep-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 2.200e+1
10 min.
20
30
40
50
60
70
22.0
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
d42-C20 (IS)
n-C11
n-C12
i-C13
i-C14
n-C13
i-C15
n-C14
i-C16
n-C15
n-C16
i-C18
Pr
n-C17
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
n-C37

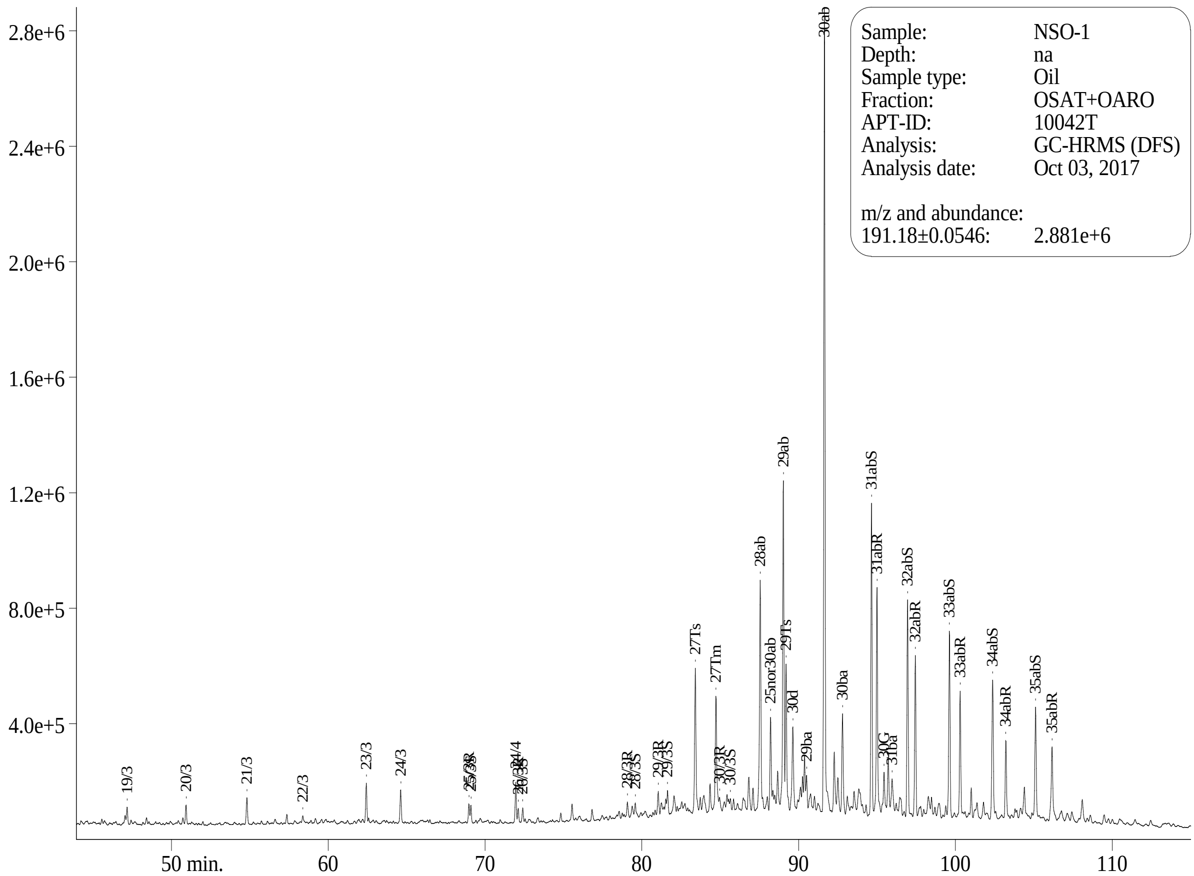

Well: 2017-030
Depth: 3.20-3.25m
Sample type: Mud
Fraction: EOM
APT-ID: 186979
Analysis: GC-FID
Analysis date: 01-Sep-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 3.300e+1
10 min.
20
30
40
50
60
70
32.0
28.0
24.0
20.0
16.0
12.0
8.0
4.0
d42-C20 (IS)
n-C10
n-C11
n-C12
i-C13
i-C14
n-C13
i-C15
n-C14
i-C16
n-C15
n-C16
i-C18
Pr
n-C17
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
n-C37
n-C38
n-C39
n-C40
n-C41

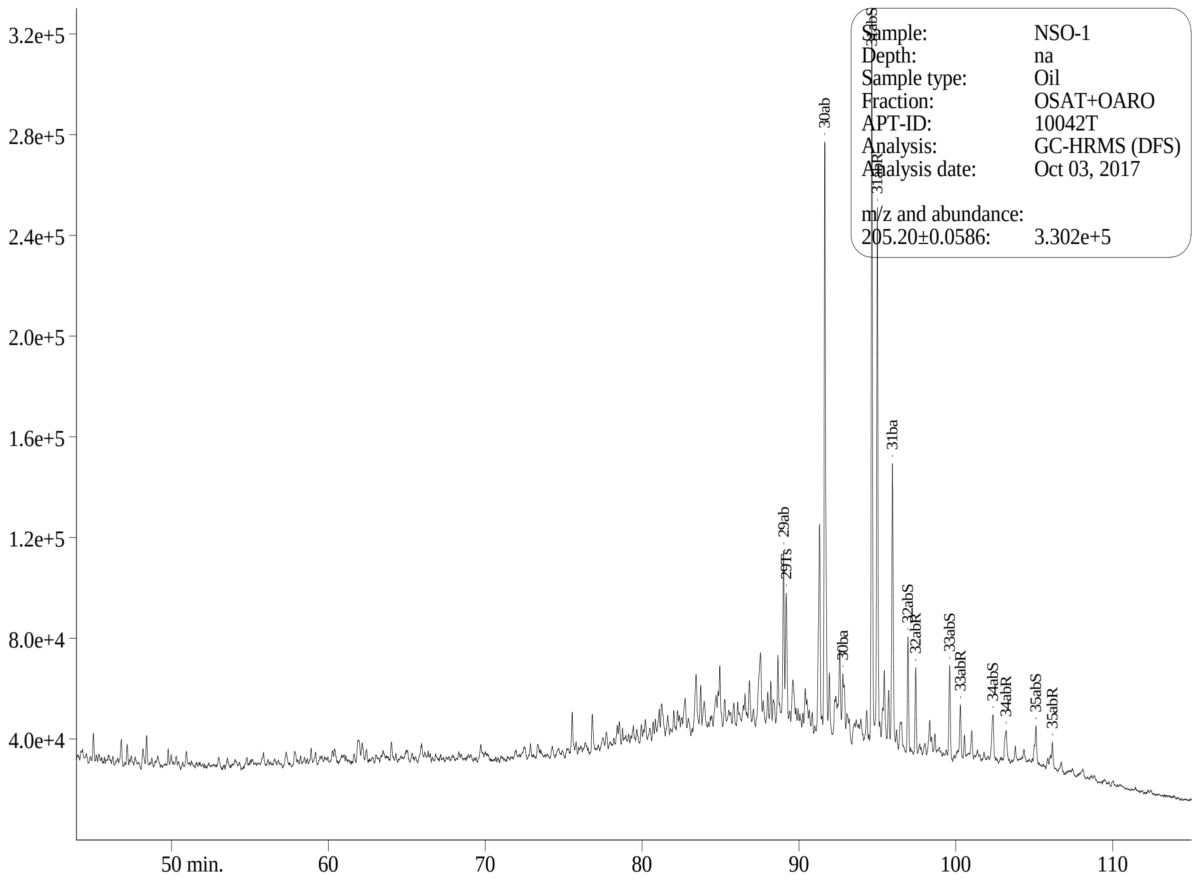

Well: 2017-030
Depth: 4.90-4.95m
Sample type: Mud
Fraction: EOM
APT-ID: 186980
Analysis: GC-FID
Analysis date: 01-Sep-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 2.200e+1
d42-C20 (IS)
10 min.
20
30
40
50
60
70

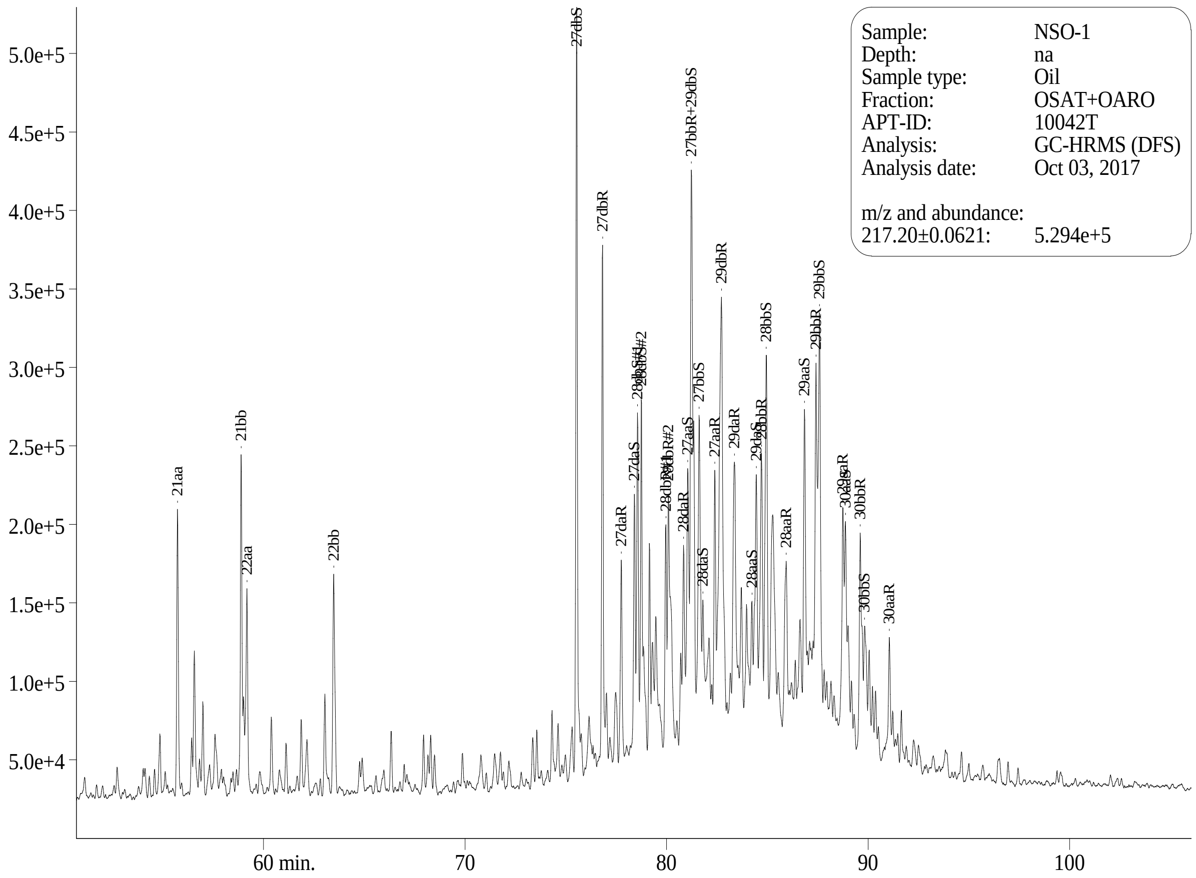

Well: 2017-030
Depth: 6.32-6.37m
Sample type: Mud
Fraction: EOM
APT-ID: 186981
Analysis: GC-FID
Analysis date: 01-Sep-17
Int. std. added: 10 µl
Blank sample is subtracted.
Abundance:
FID: 2.200e+1
d42-C20 (IS)
10 min.
20
30
40
50
60
70

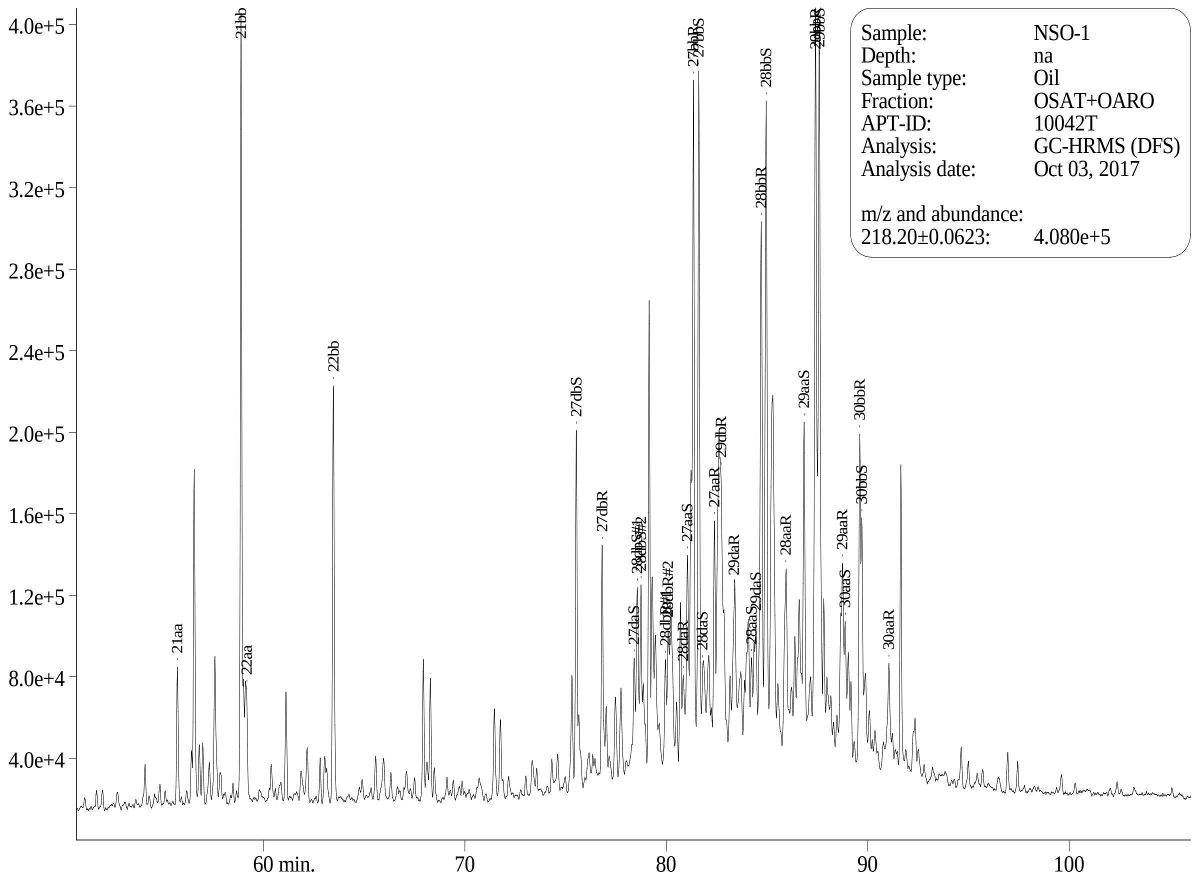
GC-MS Chromatograms of Saturated Hydrocarbons


Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OSAT+OARO
APT-ID: 10042T
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
177.16±0.0506: 5.647e+5
5.5e+5
5.0e+5
4.5e+5
4.0e+5
3.5e+5
3.0e+5
2.5e+5
2.0e+5
1.5e+5
1.0e+5
5.0e+4
50 min.
60
70
80
90
100
110
24/4
27Ts
25nor28ab
27Tm
25nor29ab
28ab
25nor30ab
29ab
29Ts
29ba
25nor31ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

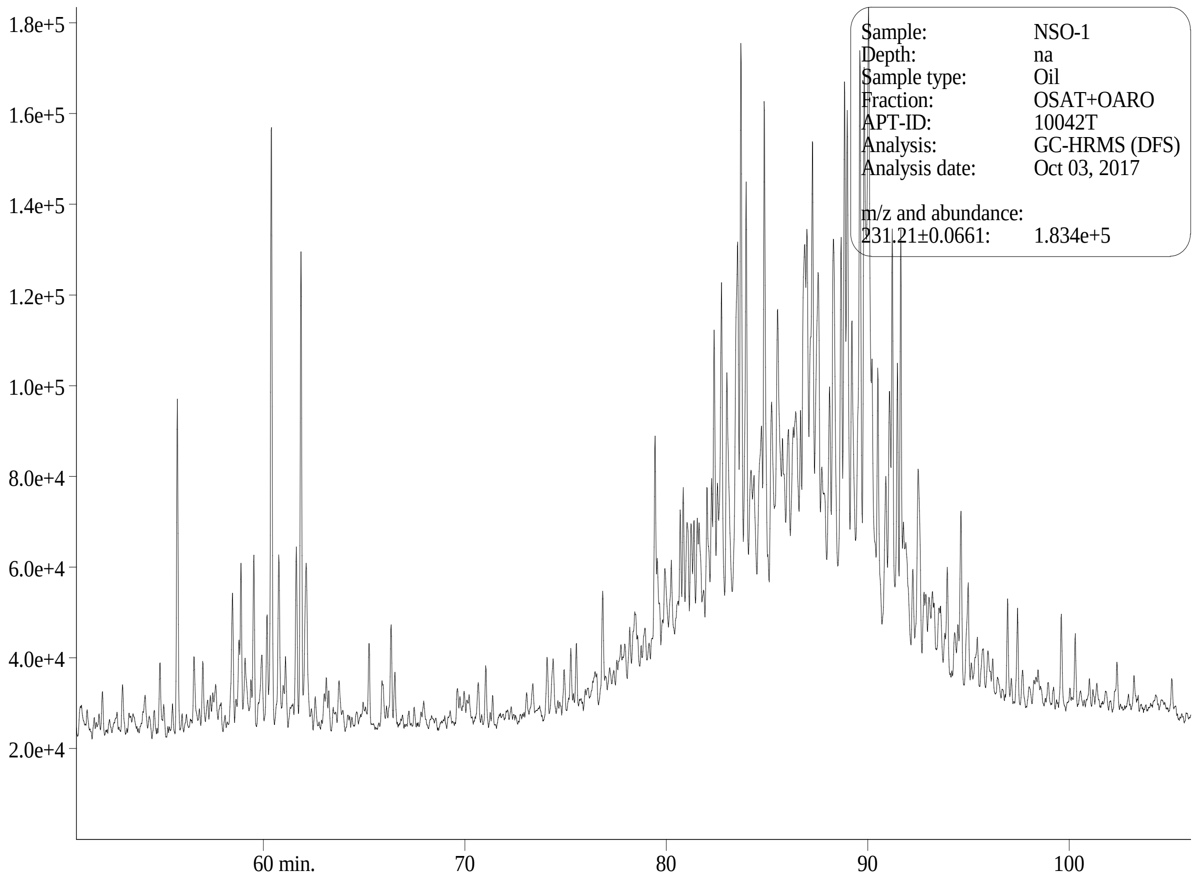

Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OSAT+OARO
APT-ID: 10042T
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
191.18±0.0546: 2.881e+6
2.8e+6
2.4e+6
2.0e+6
1.6e+6
1.2e+6
8.0e+5
4.0e+5
50 min.
60
70
80
90
100
110
19/3
20/3
21/3
22/3
23/3
24/3
25/3
24/4
26/3
28/3R
28/3S
29/3R
29/3S
30/3R
30/3S
27Ts
27Tm
28ab
25nor30ab
29ab
29Ts
30d
29ba
30ab
30ba
31abS
31abR
30G
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR


Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OSAT+OARO
APT-ID: 10042T
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
205.20±0.0586: 3.302e+5
29Ts
29ab
30ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR
3.2e+5
2.8e+5
2.4e+5
2.0e+5
1.6e+5
1.2e+5
8.0e+4
4.0e+4
50 min.
60
70
80
90
100
110

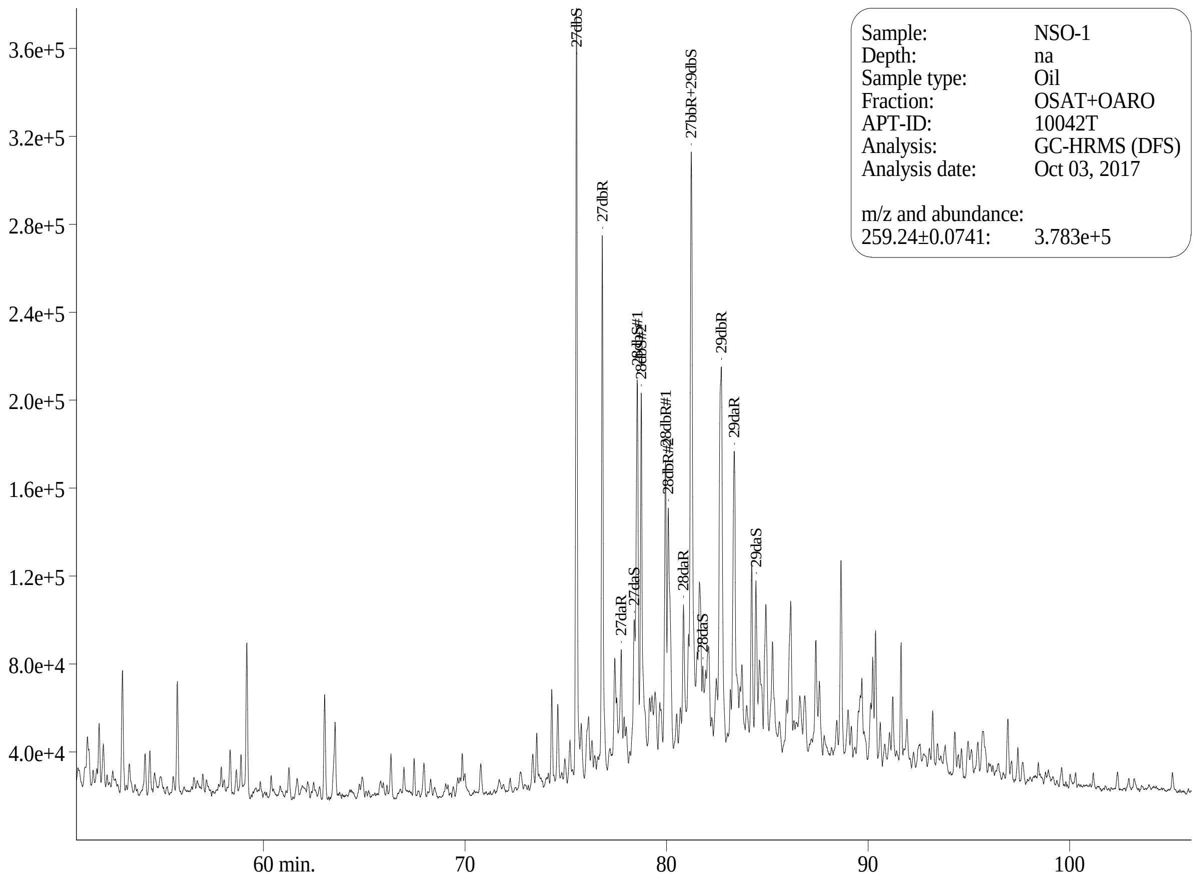

Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OSAT+OARO
APT-ID: 10042T
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
217.20±0.0621: 5.294e+5
21aa
21bb
22aa
22bb
27dbS
27dbR
27daR
27daS
27bbR+29dbS
27bbS
27aaS
27aaR
28daR
28daS
29dbR
29daR
28bbS
28aaS
28aaR
29aaS
29bbR
29bbS
30bbR
30bbS
30aaR
5.0e+5
4.5e+5
4.0e+5
3.5e+5
3.0e+5
2.5e+5
2.0e+5
1.5e+5
1.0e+5
5.0e+4
60 min.
70
80
90
100

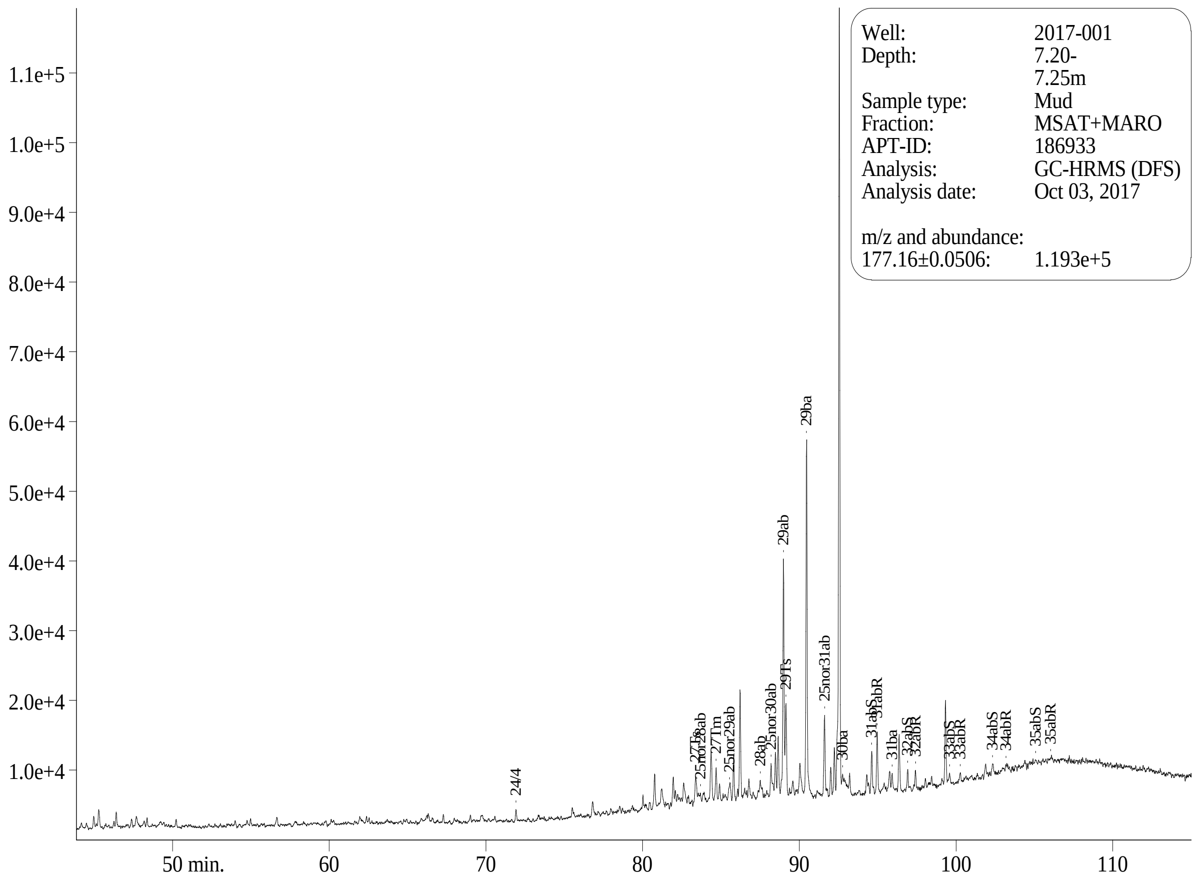


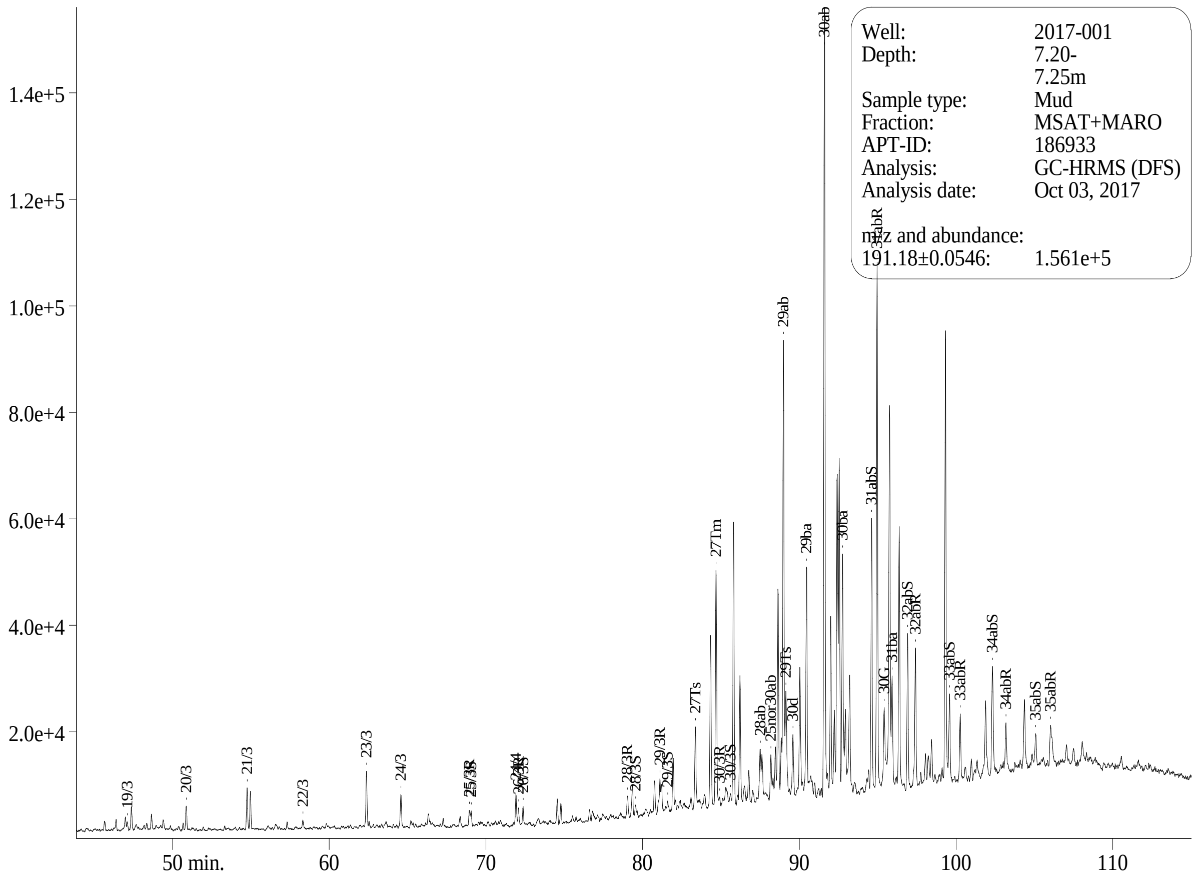
4.0e+5
3.6e+5
3.2e+5
2.8e+5
2.4e+5
2.0e+5
1.6e+5
1.2e+5
8.0e+4
4.0e+4
60 min.
70
80
90
100
21aa
21bb
22aa
22bb
27dbS
27dbR
27daS
27aaS
27aaR
27bbR
27bbS
28bbS
28bbR
28daS
28daR
28aaR
29dbR
29daR
29daS
29aaS
29aaR
30bbR
30bbS
30aaS
30aaR
Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OSAT+OARO
APT-ID: 10042T
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
218.20±0.0623: 4.080e+5

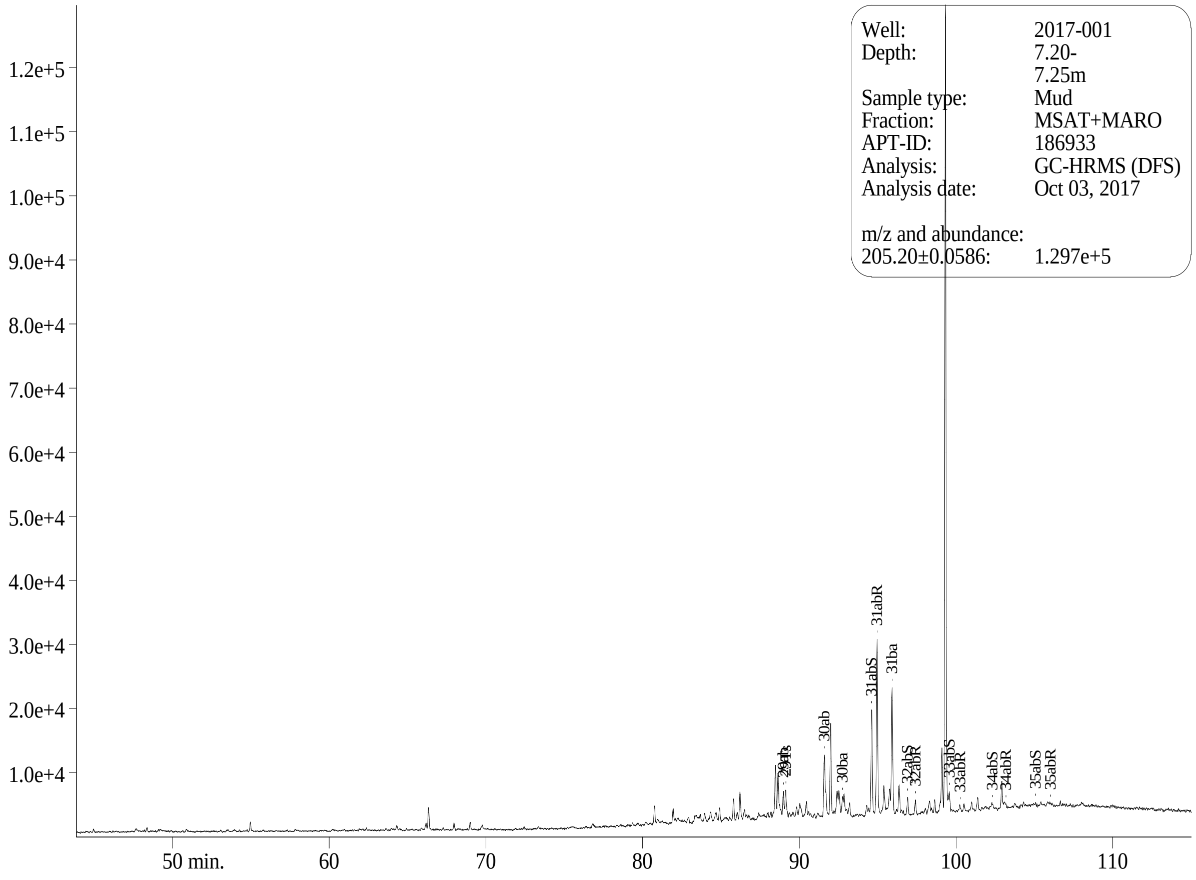


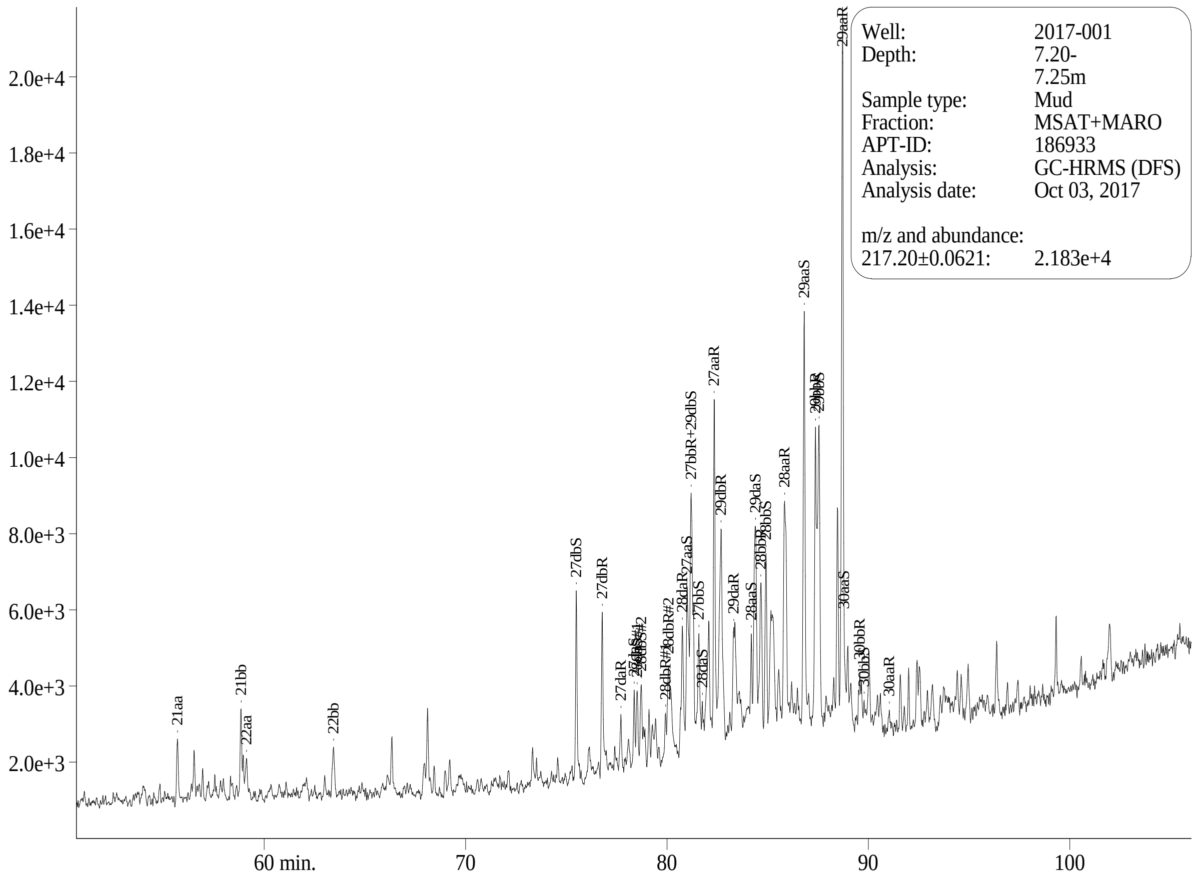
1.8e+5
1.6e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
60 min.
70
80
90
100
Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OSAT+OARO
APT-ID: 10042T
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
231.21±0.0661: 1.834e+5

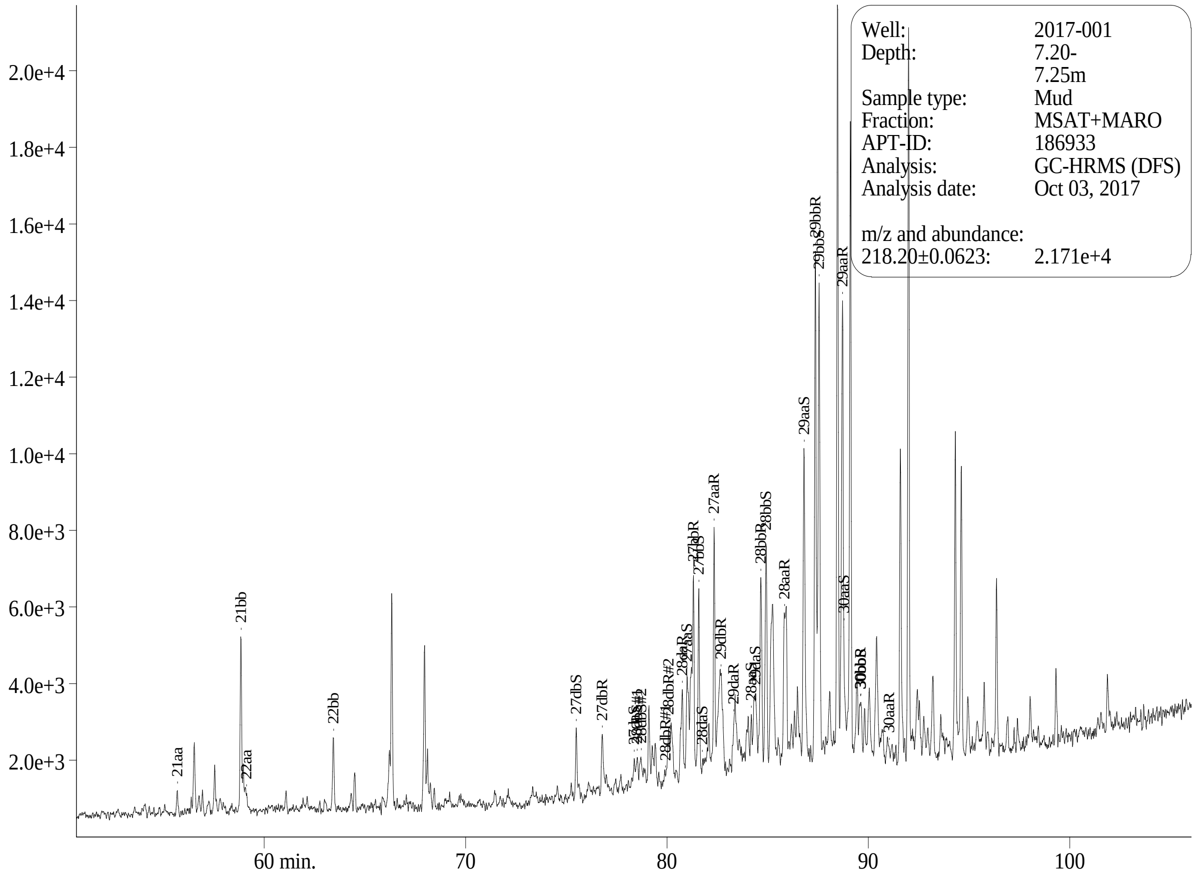

Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OSAT+OARO
APT-ID: 10042T
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
259.24±0.0741: 3.783e+5
27dbS
27dbR
27daR
27daS
28dbS#1
28dbS#2
28dbR#1
28dbR#2
28daR
28daS
27bbR+29dbS
29dbR
29daR
29daS
3.6e+5
3.2e+5
2.8e+5
2.4e+5
2.0e+5
1.6e+5
1.2e+5
8.0e+4
4.0e+4
60 min.
70
80
90
100

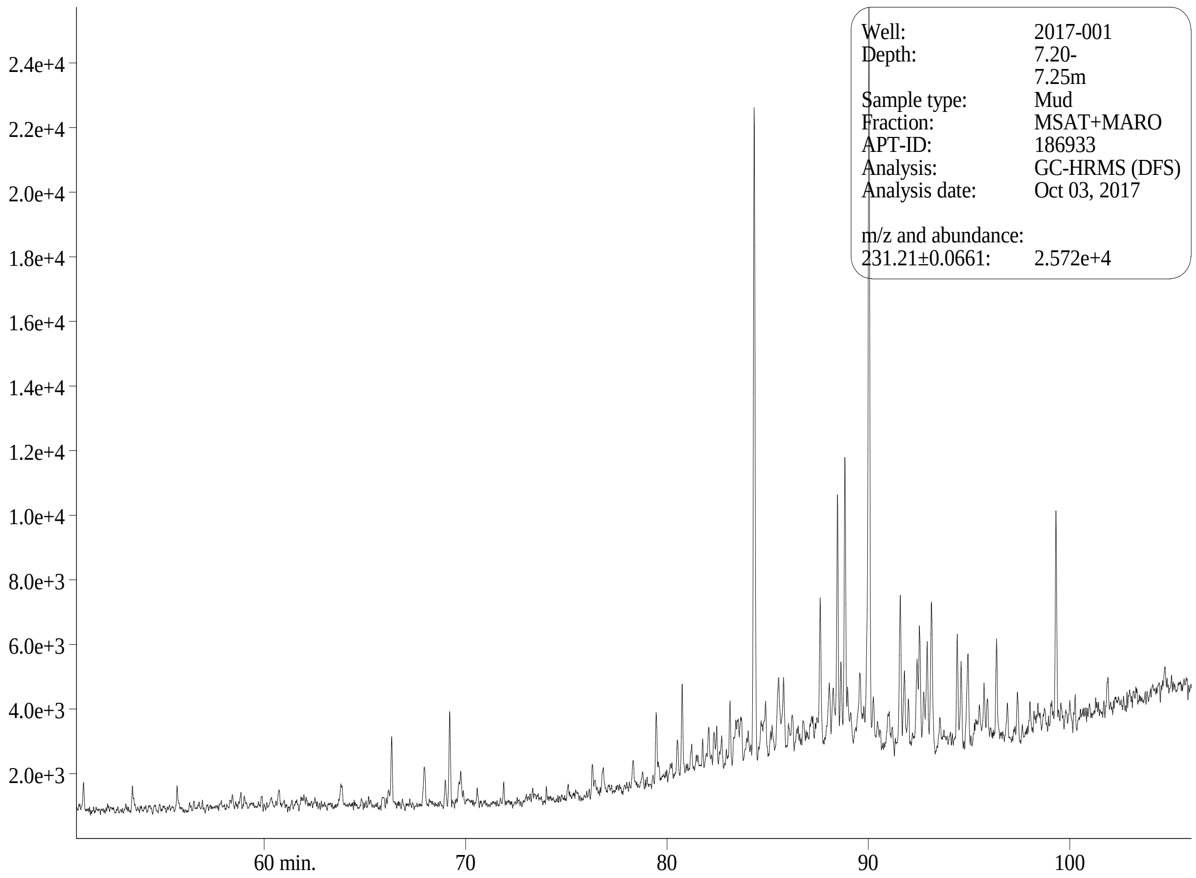

Well: 2017-001
Depth: 7.20-7.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186933
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
177.16±0.0506: 1.193e+5
1.1e+5
1.0e+5
9.0e+4
8.0e+4
7.0e+4
6.0e+4
5.0e+4
4.0e+4
3.0e+4
2.0e+4
1.0e+4
50 min.
60
70
80
90
100
110
24/4
27Ts
25nor28ab
27Tm
25nor29ab
28ab
25nor30ab
29ab
29Ts
29ba
25nor31ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

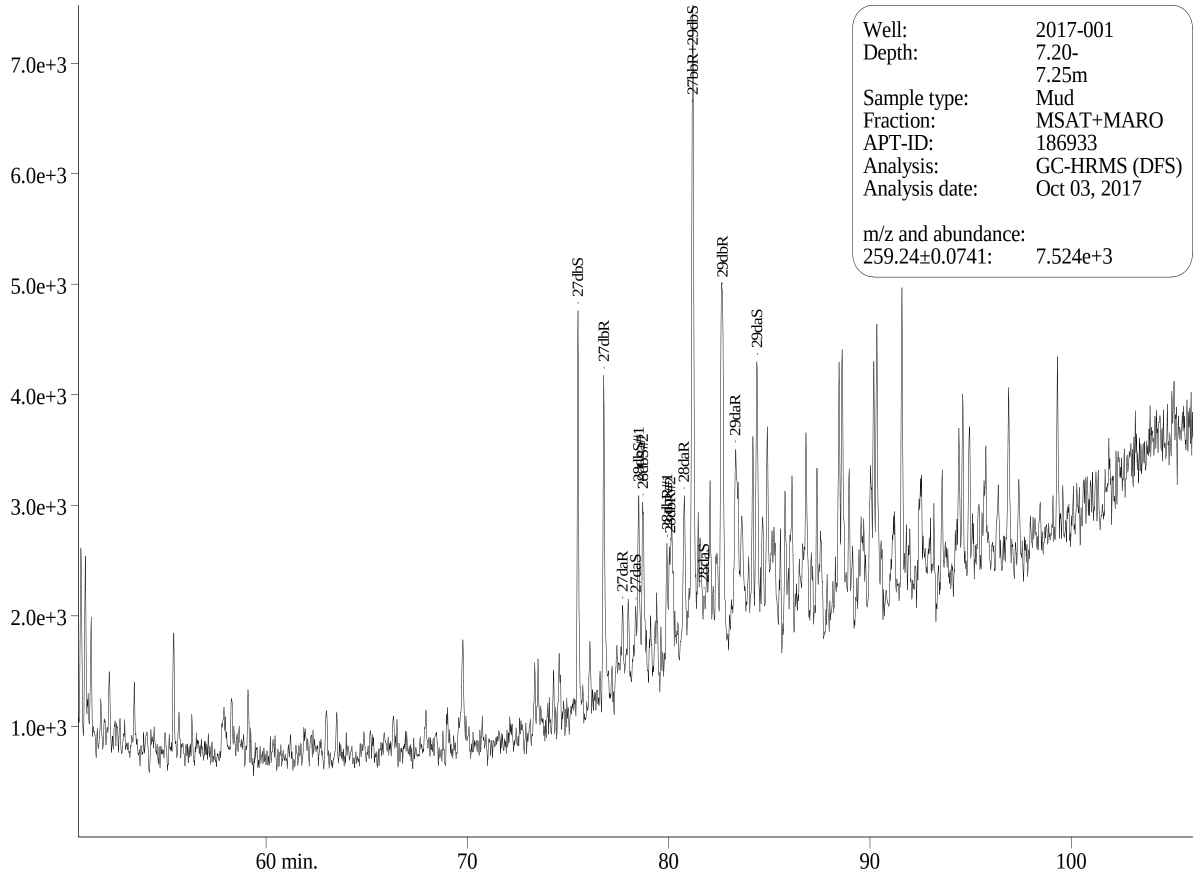

Well: 2017-001
Depth: 7.20-7.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186933
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
191.18±0.0546: 1.561e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
50 min.
60
70
80
90
100
110
19/3
20/3
21/3
22/3
23/3
24/3
28/3R
28/3S
29/3R
29/3S
30/3R
30/3S
27Ts
27Tm
28ab
25nor30ab
30d
29ab
29Ts
29ba
30ab
30ba
31abS
31abR
30G
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

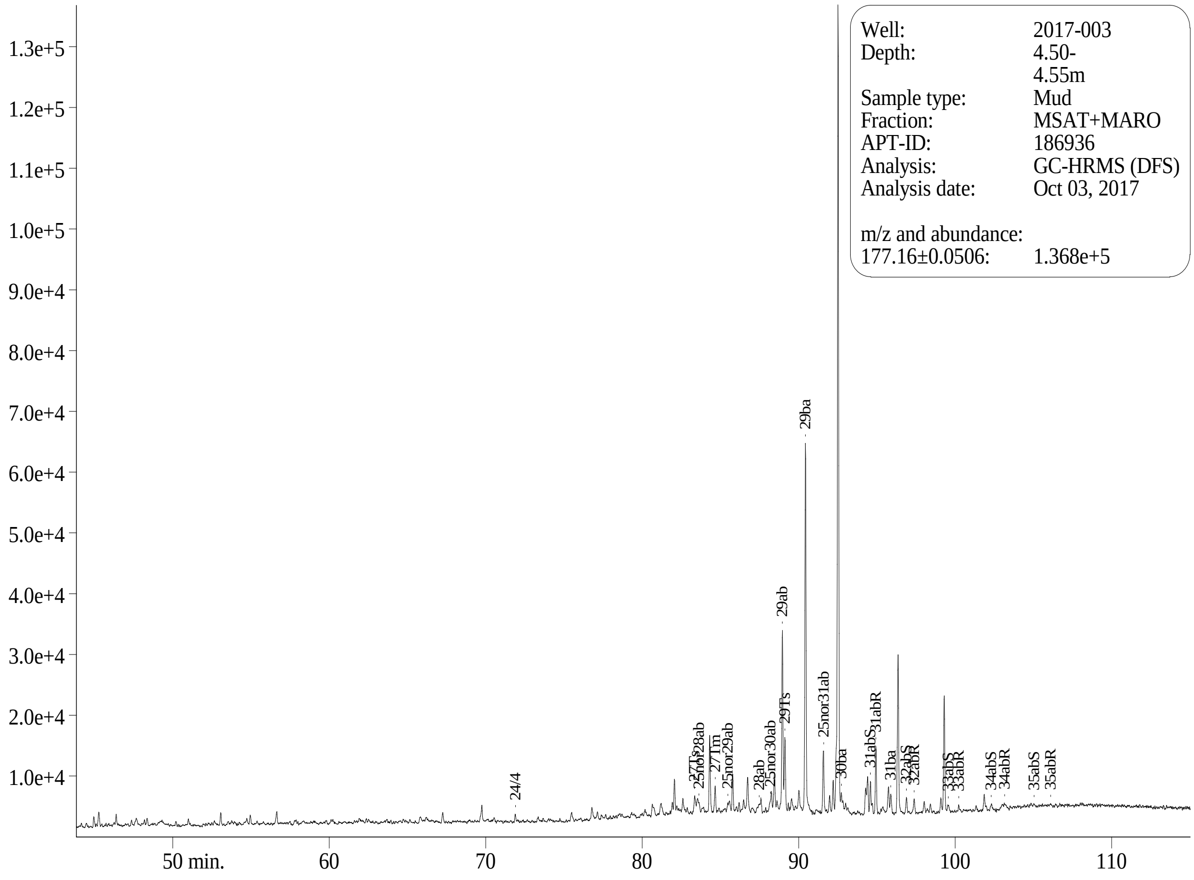

Well: 2017-001
Depth: 7.20-7.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186933
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
205.20±0.0586: 1.297e+5
31abR
31ba
31abS
30ab
30ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR
1.2e+5
1.1e+5
1.0e+5
9.0e+4
8.0e+4
7.0e+4
6.0e+4
5.0e+4
4.0e+4
3.0e+4
2.0e+4
1.0e+4
50 min.
60
70
80
90
100
110

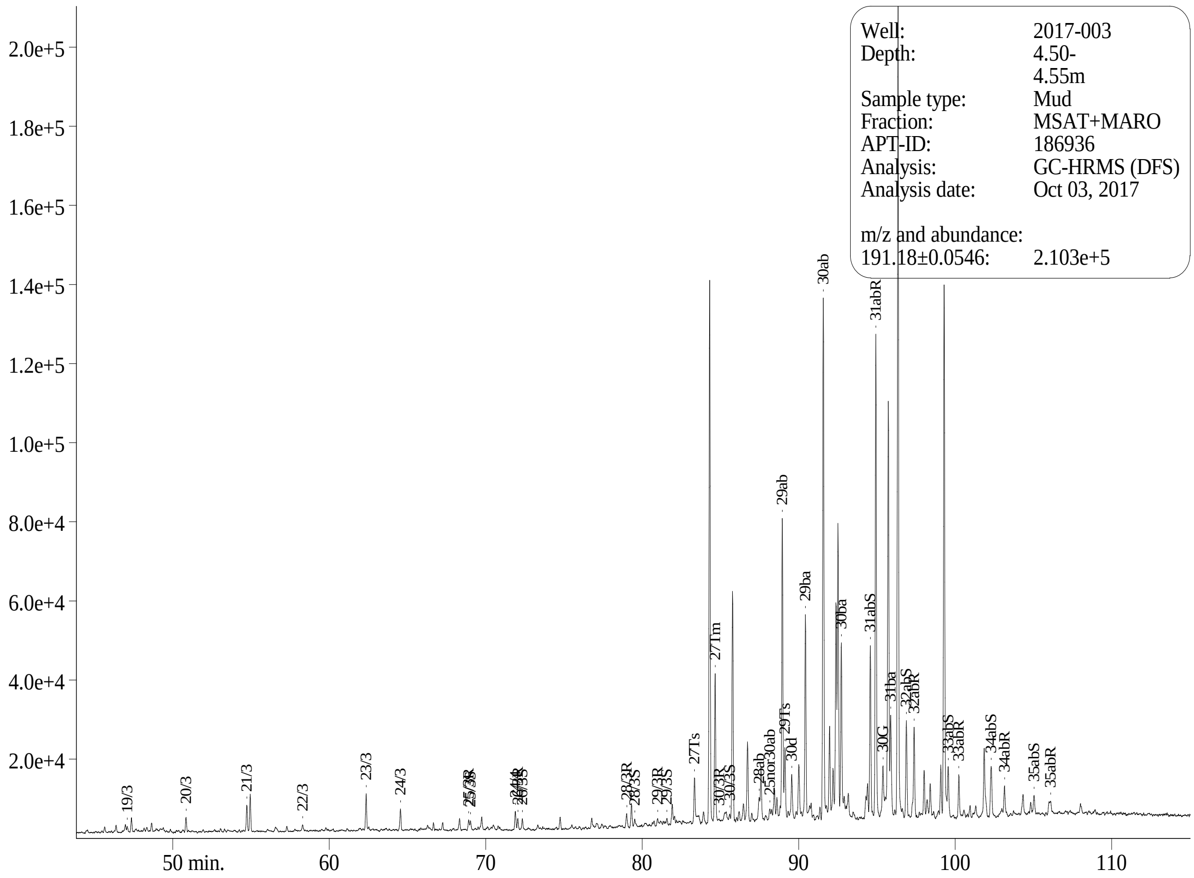

Well: 2017-001
Depth: 7.20-7.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186933
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
217.20±0.0621: 2.183e+4
29aaR
29aaS
27aaR
27bbR+29dbS
28aaR
29dbR
29daS
27dbS
27dbR
27aaS
27bbS
29daR
28aaS
28daS
27daR
30aaS
30bbR
30aaR
21aa
21bb
22aa
22bb
2.0e+4
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
60 min.
70
80
90
100

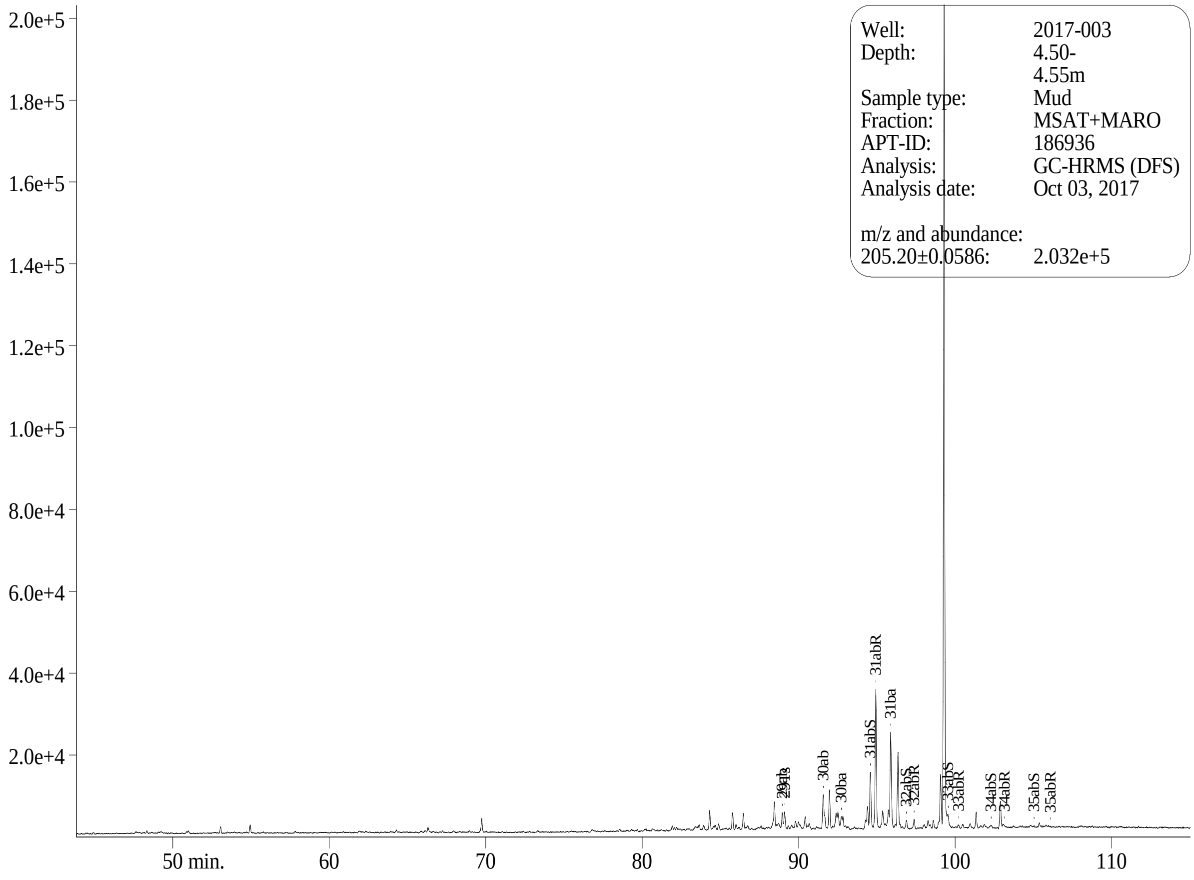

Well: 2017-001
Depth: 7.20-7.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186933
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
218.20±0.0623: 2.171e+4
2.0e+4
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
60 min.
70
80
90
100
21aa
21bb
22aa
22bb
27dbS
27dbR
27bbR
27bbS
27aaR
28daS
29dbR
29daR
28bbR
28bbS
28aaR
29aaS
29bbR
29bbS
29aaR
30aaS
30bbR
30aaR

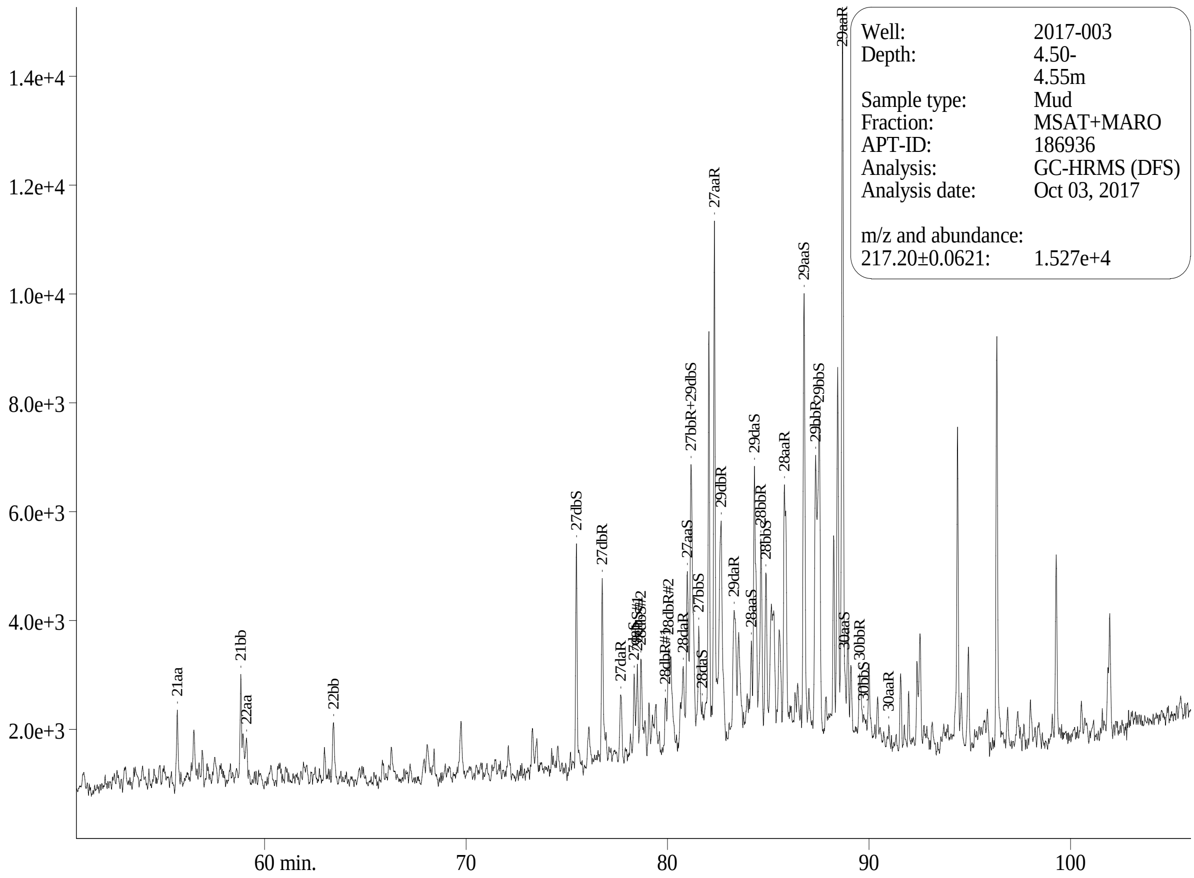

Well: 2017-001
Depth: 7.20-7.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186933
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
231.21±0.0661: 2.572e+4
2.4e+4
2.2e+4
2.0e+4
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
60 min.
70
80
90
100

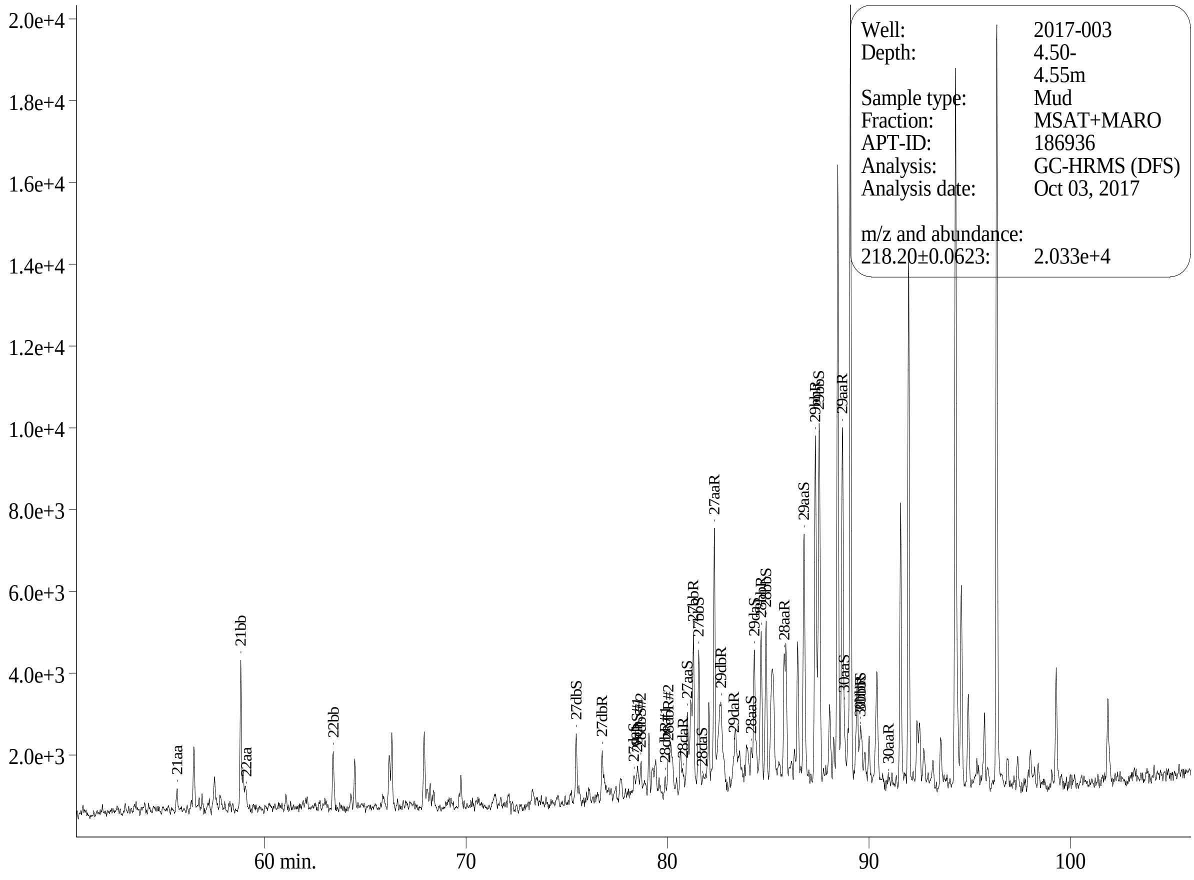

Well: 2017-001
Depth: 7.20-7.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186933
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
259.24±0.0741: 7.524e+3
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3
60 min.
70
80
90
100
27dbS
27dbR
27daR
27daS
28dbS#1
28dbS#2
28dbR#1
28dbR#2
28daR
27bbR+29dbS
28daS
29dbR
29daR
29daS

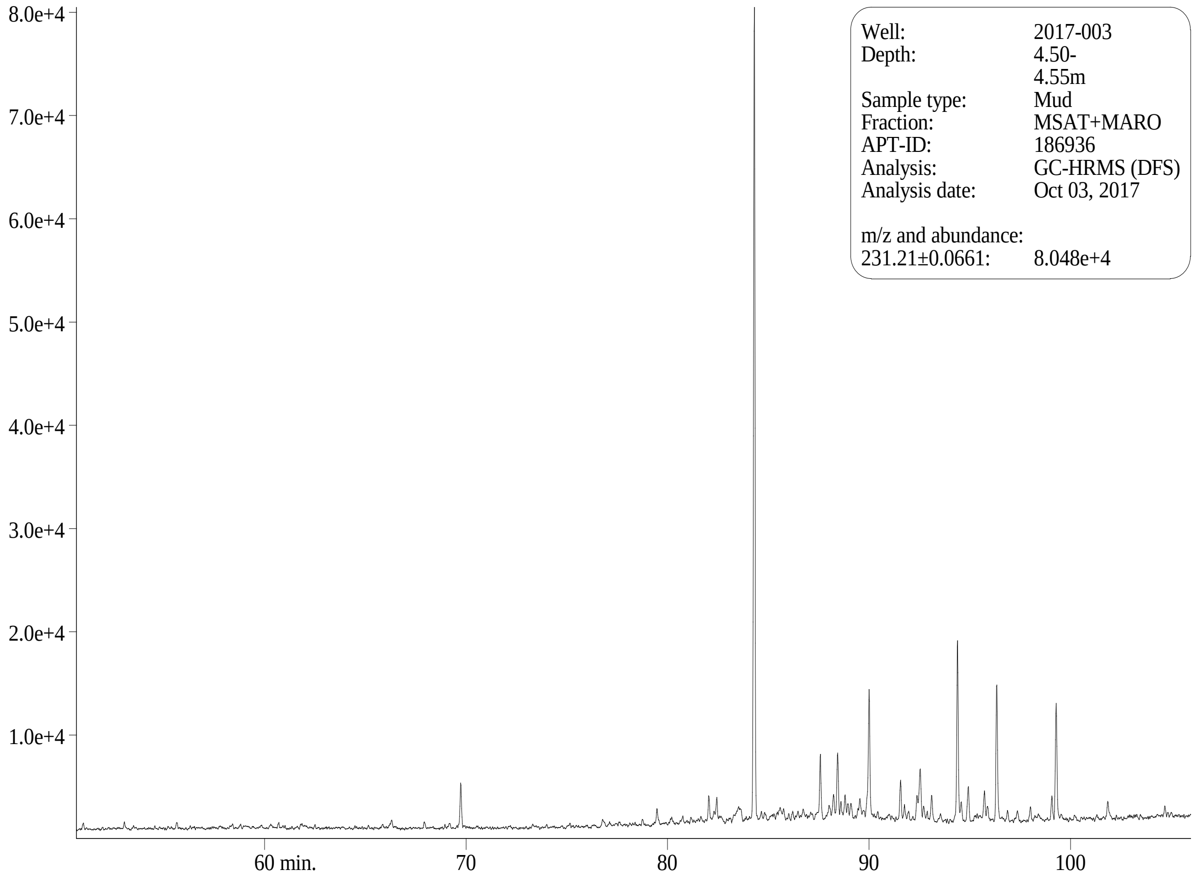

Well: 2017-003
Depth: 4.50-4.55m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186936
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
177.16±0.0506: 1.368e+5
1.3e+5
1.2e+5
1.1e+5
1.0e+5
9.0e+4
8.0e+4
7.0e+4
6.0e+4
5.0e+4
4.0e+4
3.0e+4
2.0e+4
1.0e+4
50 min.
60
70
80
90
100
110
24/4
27Ts
25nor28ab
27Tm
25nor29ab
28ab
25nor30ab
29ab
29Ts
29ba
25nor31ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

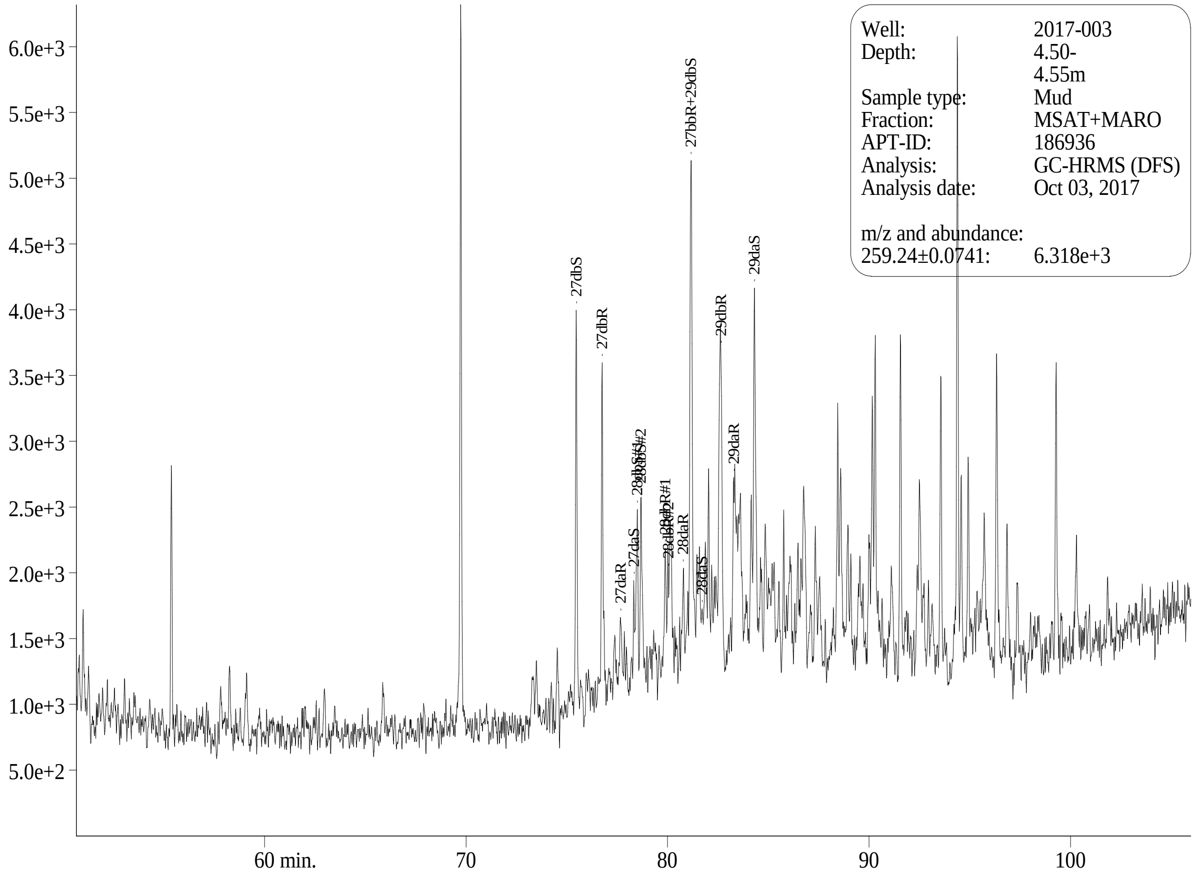

Well: 2017-003
Depth: 4.50-4.55m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186936
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
191.18±0.0546: 2.103e+5
2.0e+5
1.8e+5
1.6e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
50 min.
60
70
80
90
100
110
19/3
20/3
21/3
22/3
23/3
24/3
28/3R
28/3S
29/3R
29/3S
27Ts
27Tm
30/3R
30/3S
28ab
25nor30ab
30d
29Ts
29ab
29ba
30ab
30ba
30G
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR


Well: 2017-003
Depth: 4.50-4.55m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186936
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
205.20±0.0586: 2.032e+5
30ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR
50 min.
60
70
80
90
100
110

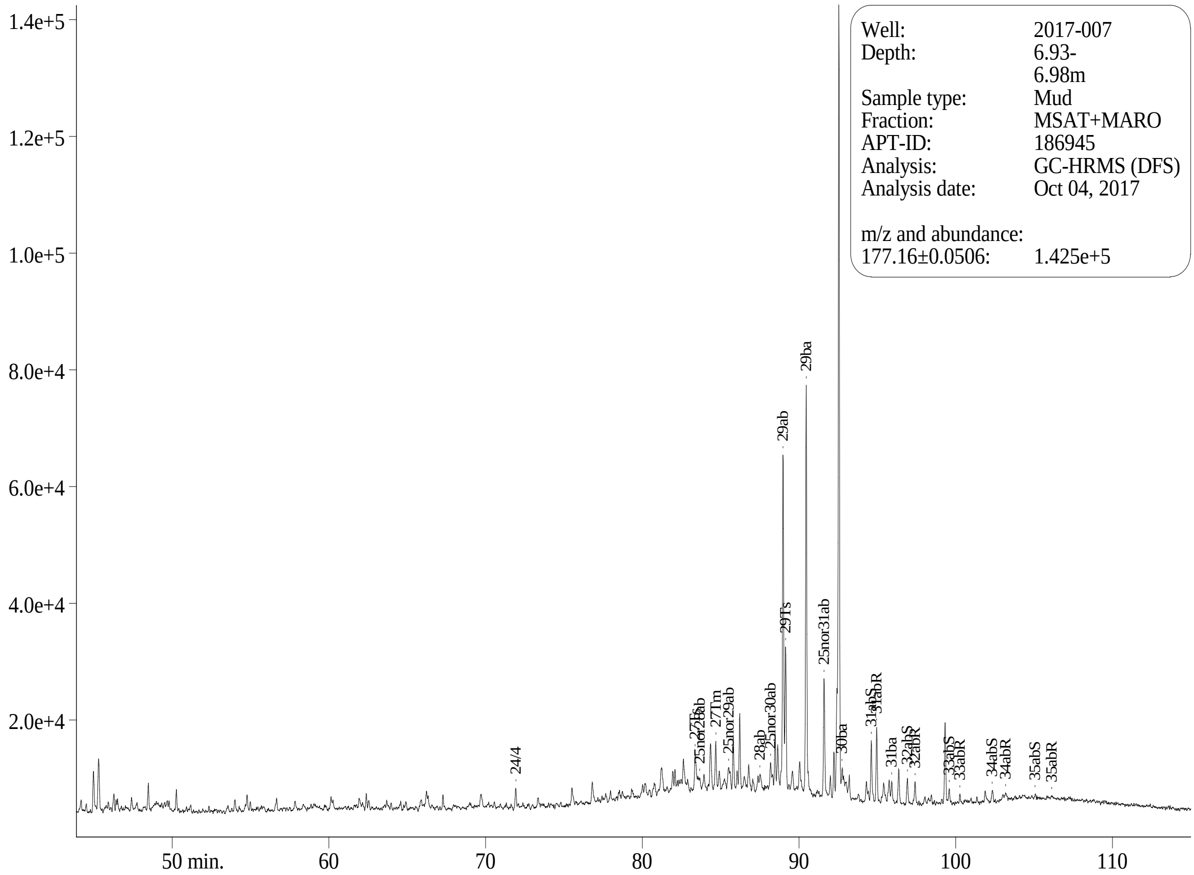

Well: 2017-003
Depth: 4.50-4.55m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186936
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
217.20±0.0621: 1.527e+4
21aa
21bb
22aa
22bb
27dbS
27dbR
27daR
28dbR#2
28daR
28daS
27aaS
27bbR+29dbS
27bbS
27aaR
29dbR
29daR
28aaS
29daS
28bbR
28bbS
28aaR
29aaS
29bbR
29bbS
29aaR
30aaS
30bbR
30bbS
30aaR
60 min.
70
80
90
100

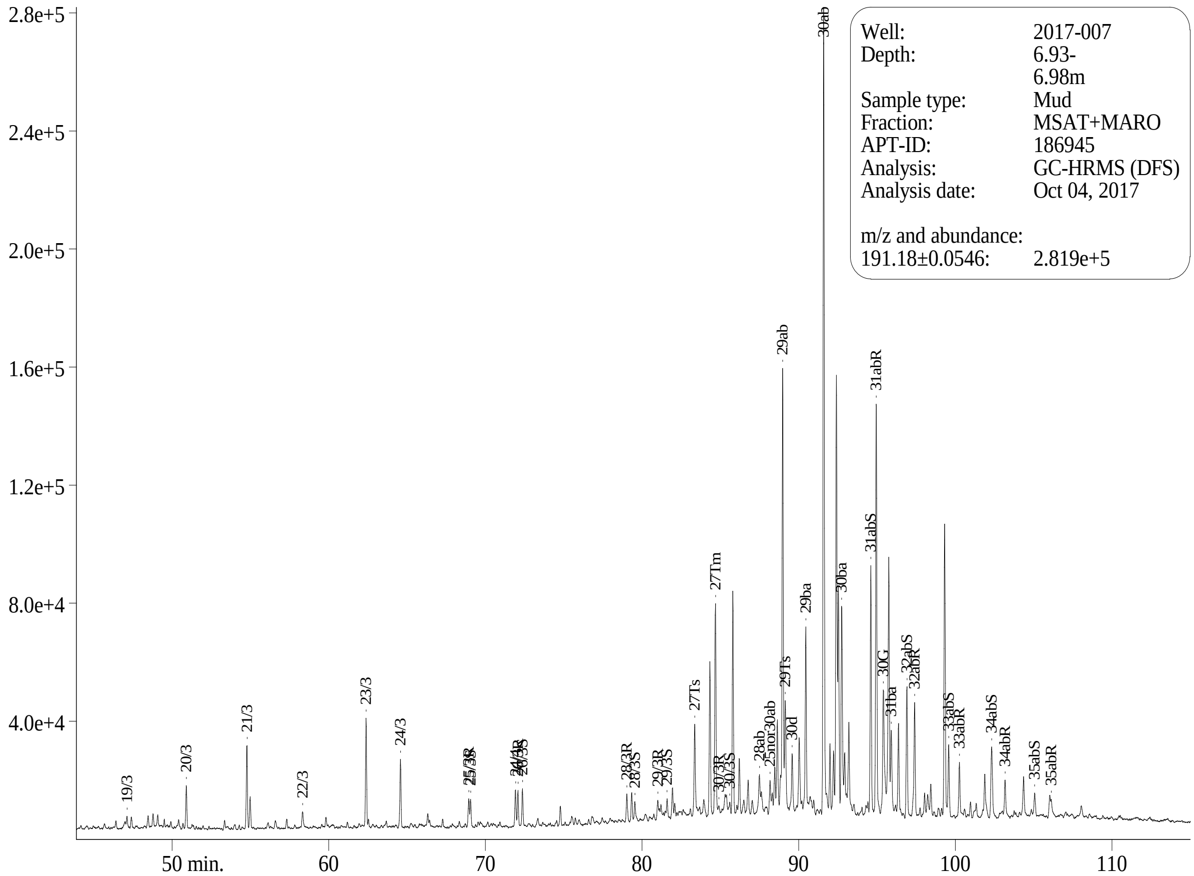

Well: 2017-003
Depth: 4.50-4.55m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186936
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
218.20±0.0623: 2.033e+4
21aa
21bb
22aa
22bb
27dbS
27dbR
27aaS
27aaR
28aaS
28aaR
29aaS
29aaR
29dbR
29daR
30aaS
30aaR
60 min.
70
80
90
100

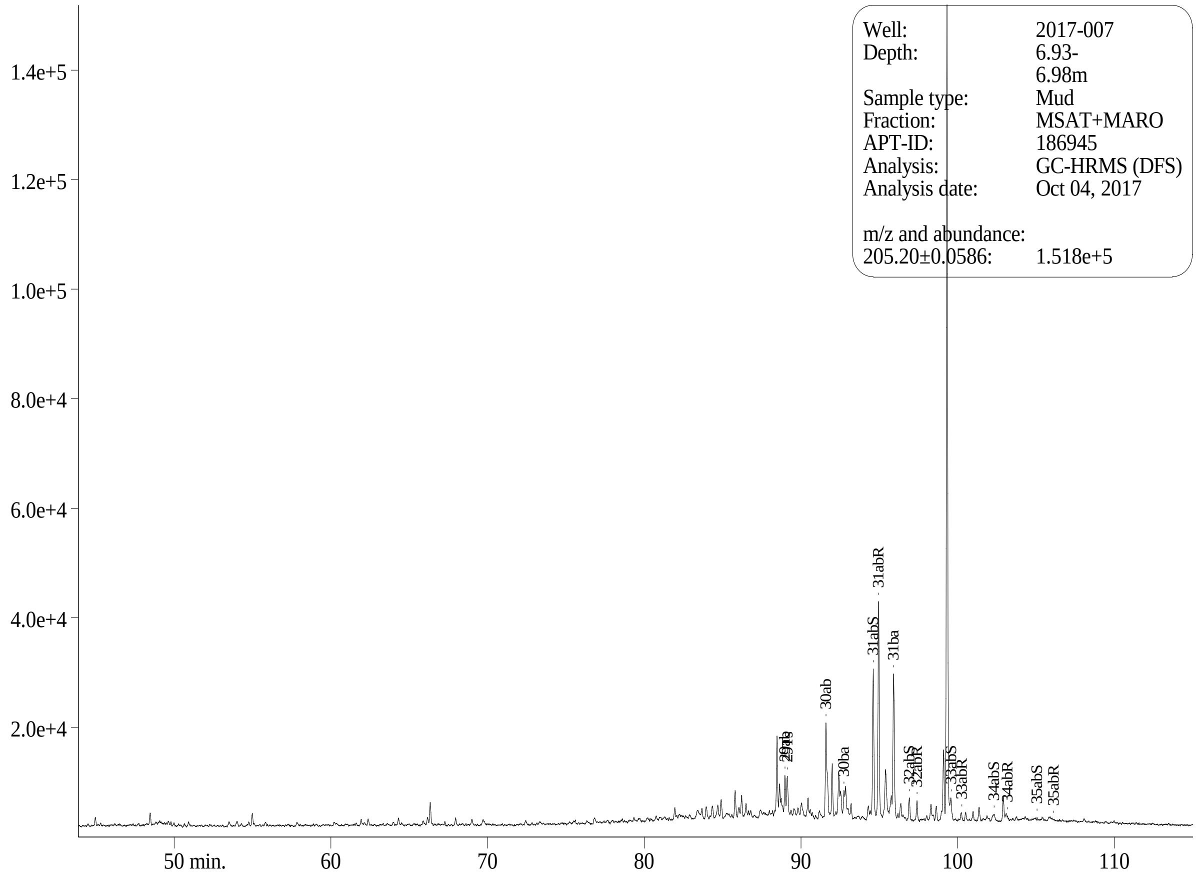

Well: 2017-003
Depth: 4.50-4.55m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186936
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
231.21±0.0661: 8.048e+4
60 min.
70
80
90
100

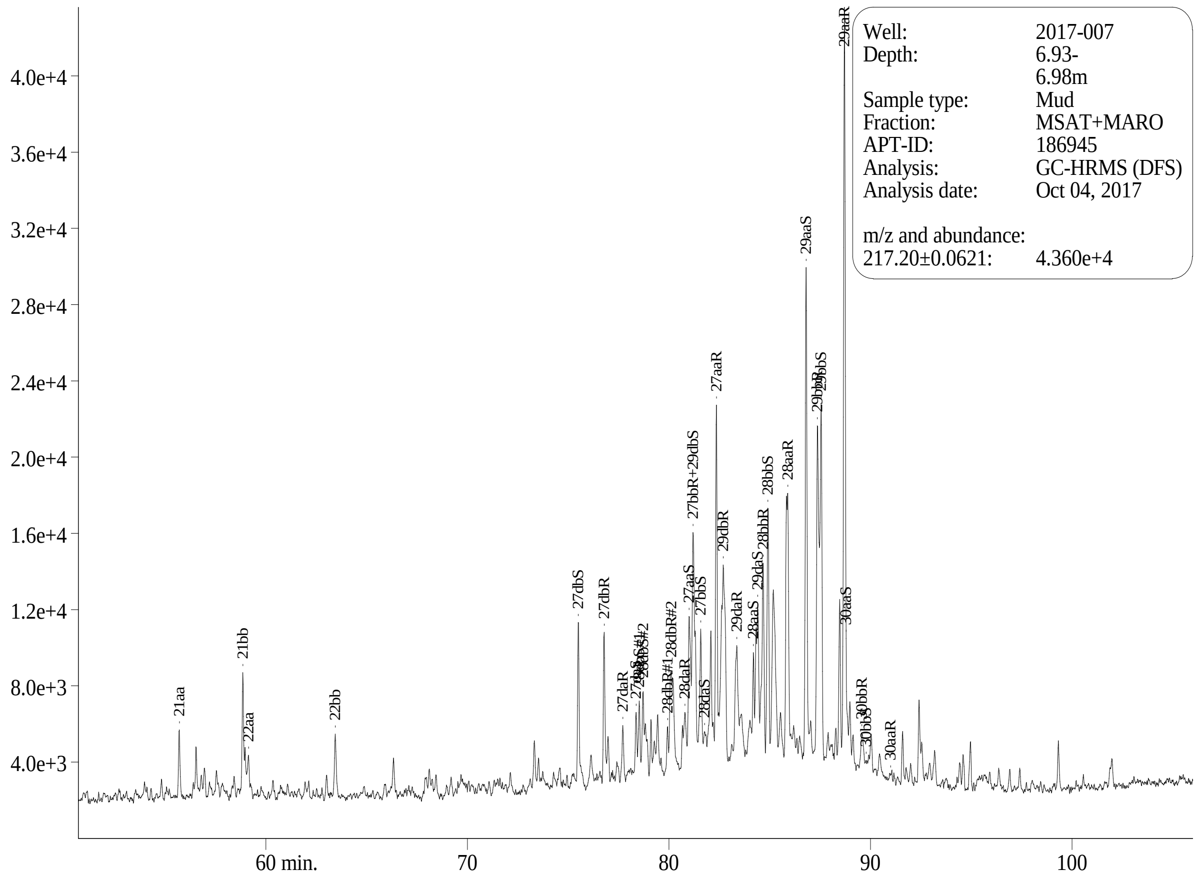


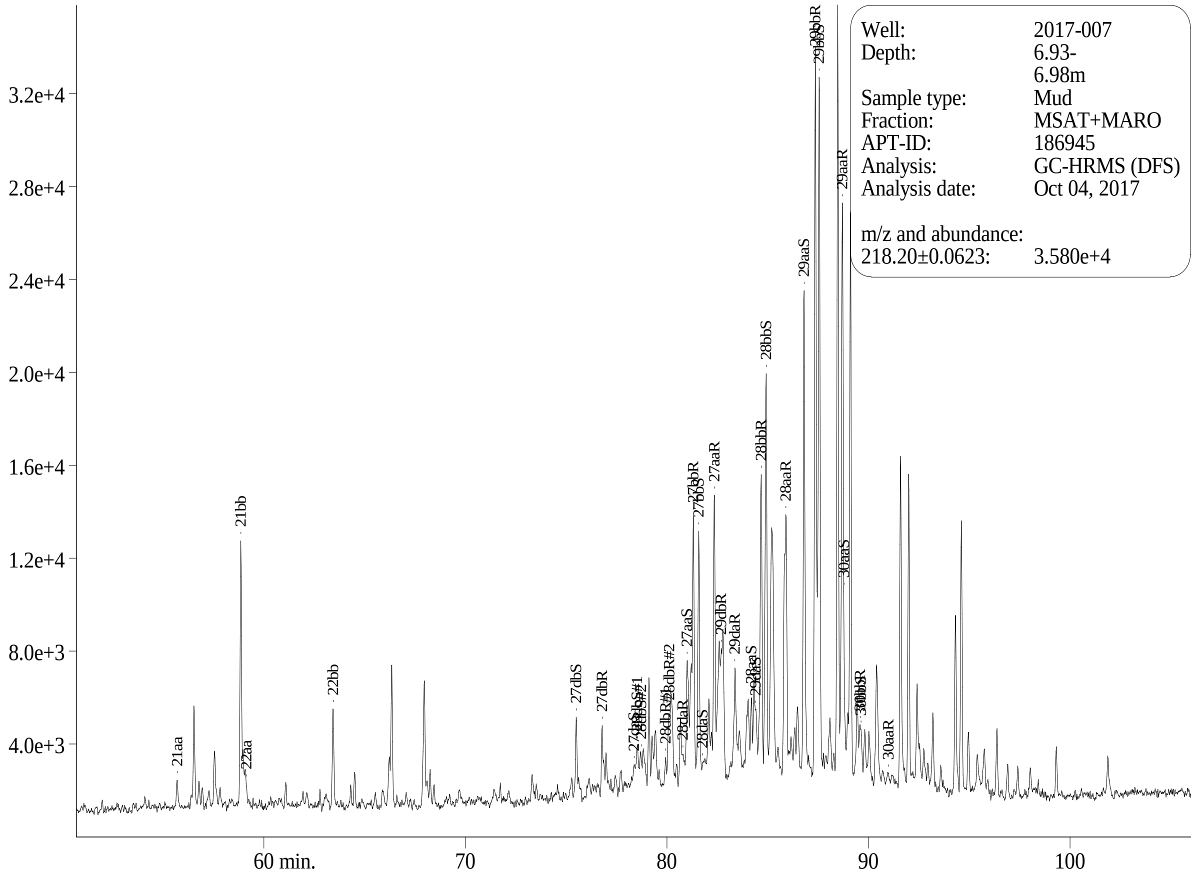
Well: 2017-003
Depth: 4.50-4.55m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186936
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
259.24±0.0741: 6.318e+3
6.0e+3
5.5e+3
5.0e+3
4.5e+3
4.0e+3
3.5e+3
3.0e+3
2.5e+3
2.0e+3
1.5e+3
1.0e+3
5.0e+2
60 min.
70
80
90
100
27dbS
27dbR
27daR
27daS
27bbR+29dbS
29dbR
29daS
29daR
28daR
28daS

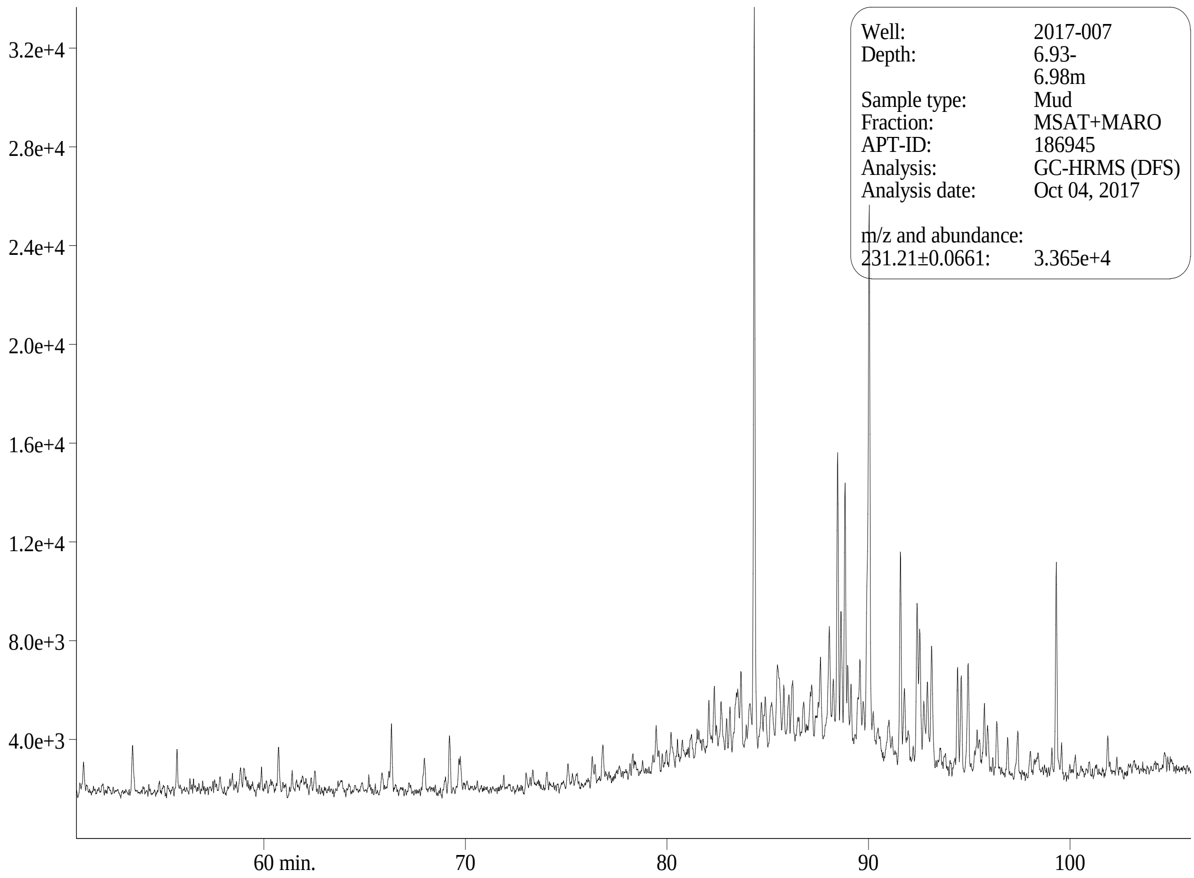

Well: 2017-007
Depth: 6.93-6.98m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186945
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
177.16±0.0506: 1.425e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
50 min.
60
70
80
90
100
110
24/4
27Ts
25nor28ab
27Tm
25nor29ab
28ab
25nor30ab
29ab
29Ts
29ba
25nor31ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

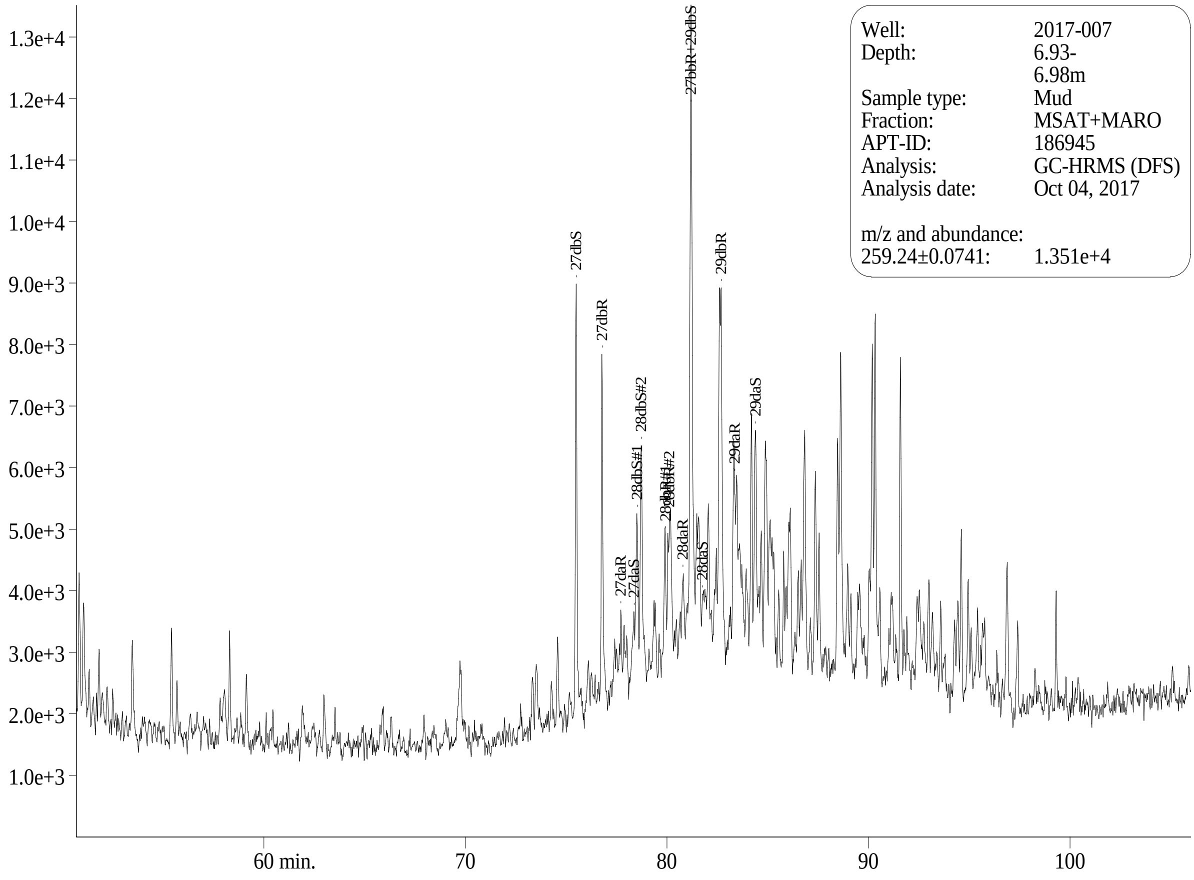

Well: 2017-007
Depth: 6.93-6.98m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186945
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
191.18±0.0546: 2.819e+5
2.8e+5
2.4e+5
2.0e+5
1.6e+5
1.2e+5
8.0e+4
4.0e+4
50 min.
60
70
80
90
100
110
19/3
20/3
21/3
22/3
23/3
24/3
25/3S
25/3R
24/4
26/3S
26/3R
28/3R
28/3S
29/3R
29/3S
30/3R
30/3S
27Ts
27Tm
28ab
25nor30ab
29ab
29Ts
30d
29ba
30ab
30ba
30G
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR


Well: 2017-007
Depth: 6.93-6.98m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186945
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
205.20±0.0586: 1.518e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
50 min.
60
70
80
90
100
110
30ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

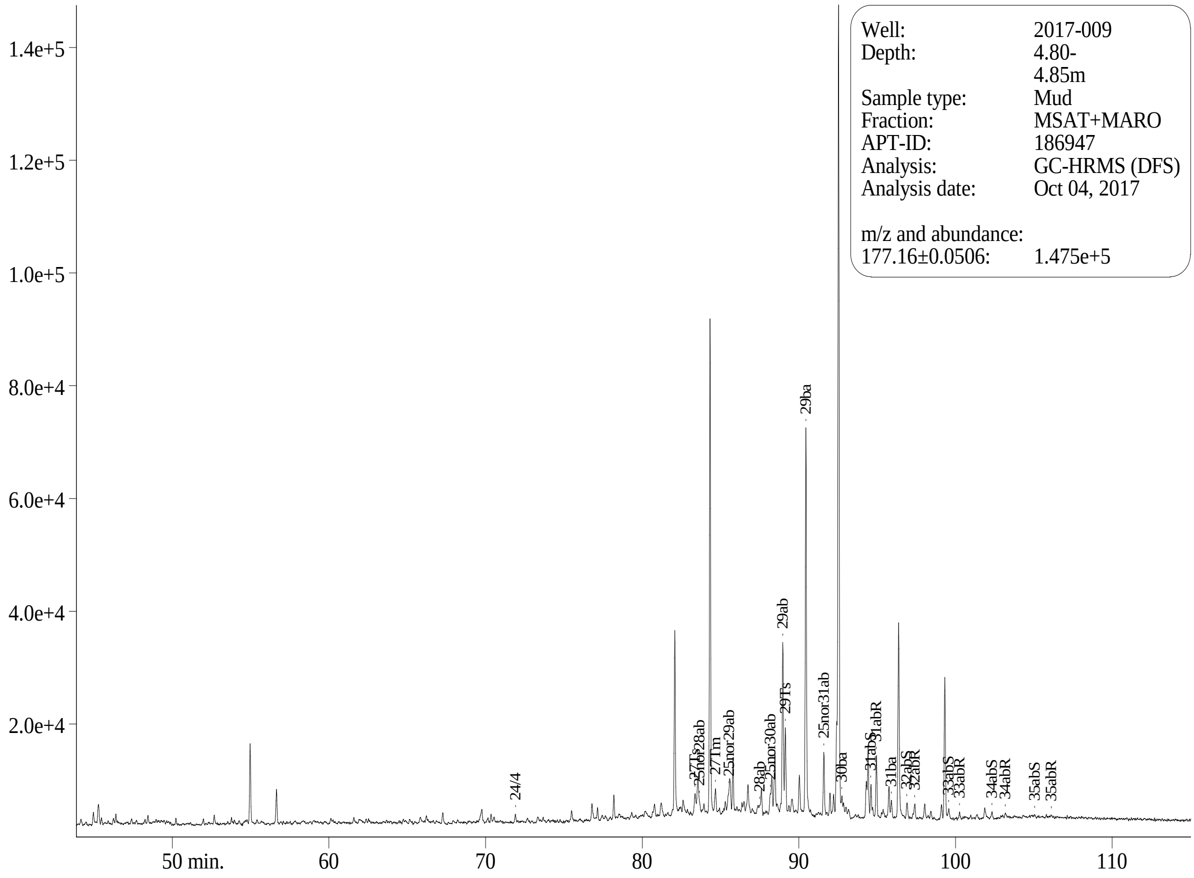

Well: 2017-007
Depth: 6.93-6.98m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186945
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
217.20±0.0621: 4.360e+4
4.0e+4
3.6e+4
3.2e+4
2.8e+4
2.4e+4
2.0e+4
1.6e+4
1.2e+4
8.0e+3
4.0e+3
60 min.
70
80
90
100
21aa
21bb
22aa
22bb
27dbS
27dbR
27daR
28dbR#1
28dbR#2
28daR
28daS
27aaS
27bbS
27bbR+29dbS
27aaR
29dbR
29daR
28aaS
29daS
28bbR
28bbS
28aaR
29aaS
29bbS
29aaR
30aaS
30bbR
30aaR

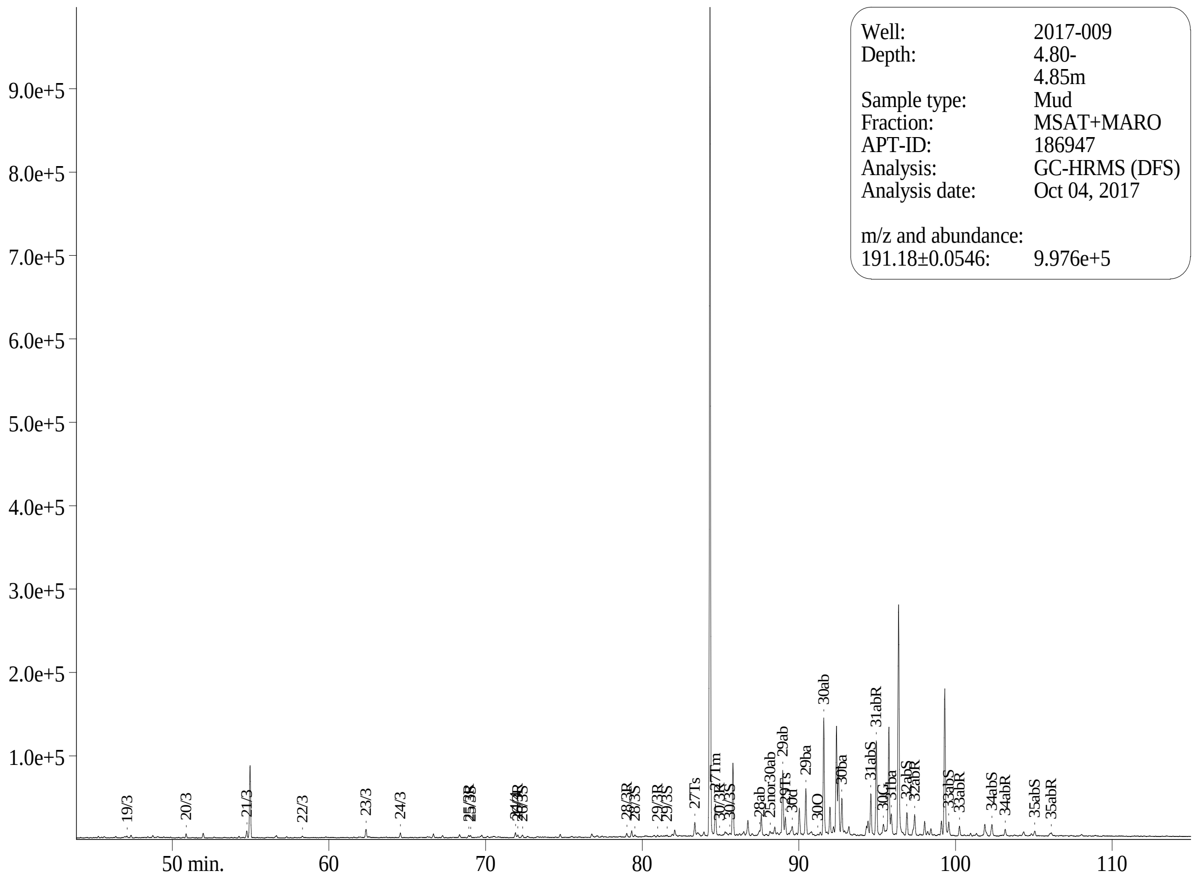

Well: 2017-007
Depth: 6.93-6.98m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186945
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
218.20±0.0623: 3.580e+4
3.2e+4
2.8e+4
2.4e+4
2.0e+4
1.6e+4
1.2e+4
8.0e+3
4.0e+3
60 min.
70
80
90
100
21aa
21bb
22aa
22bb
27dbS
27dbR
27aaS
27aaR
28bbS
28bbR
28aaR
28daS
29aaS
29aaR
29dbR
29daR
30aaS
30aaR

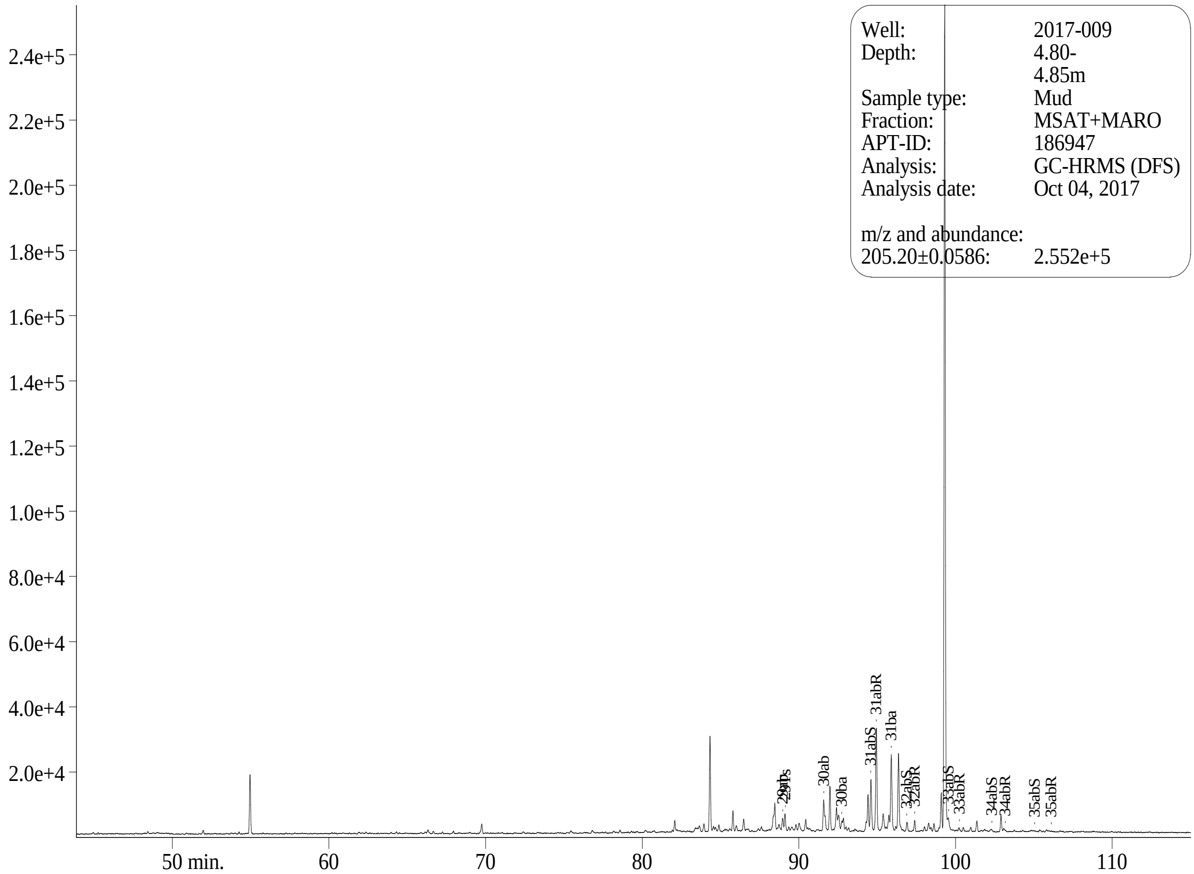

Well: 2017-007
Depth: 6.93-6.98m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186945
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
231.21±0.0661: 3.365e+4
3.2e+4
2.8e+4
2.4e+4
2.0e+4
1.6e+4
1.2e+4
8.0e+3
4.0e+3
60 min.
70
80
90
100

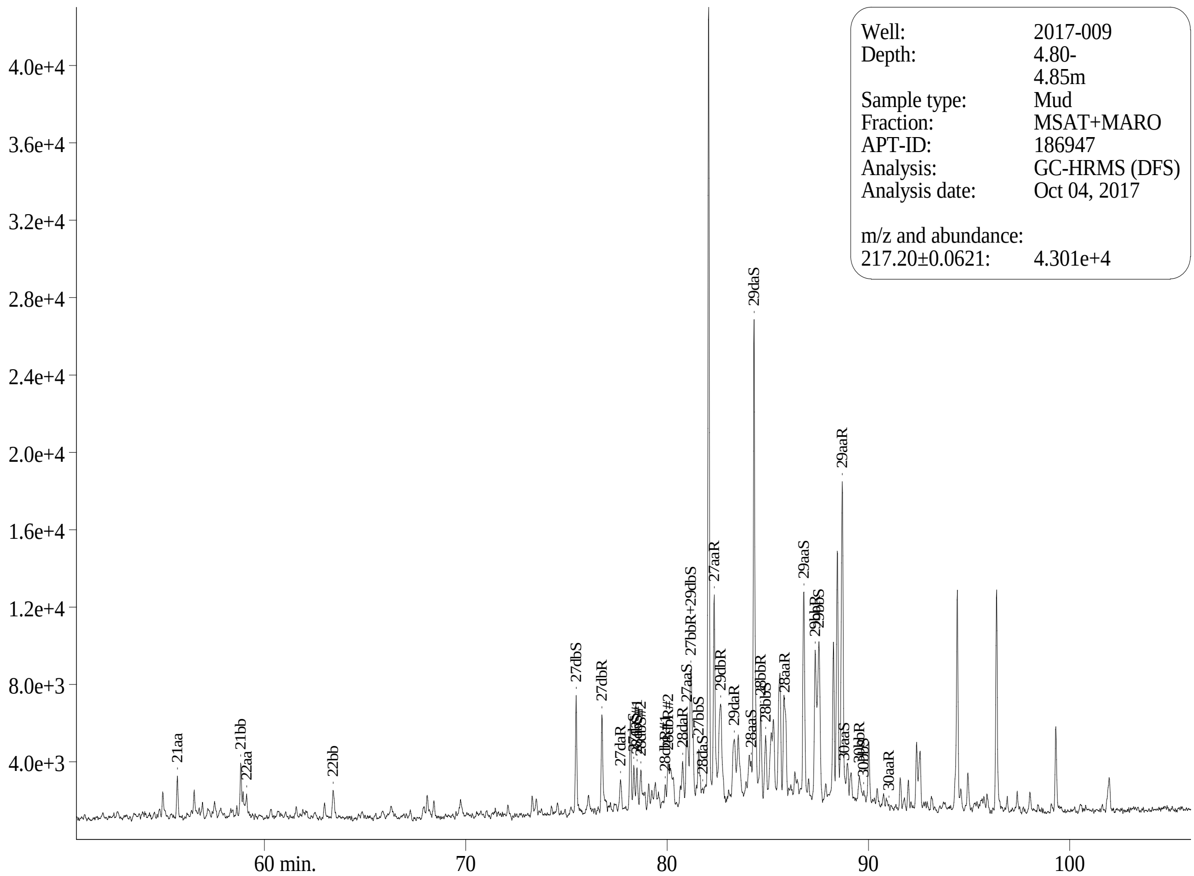


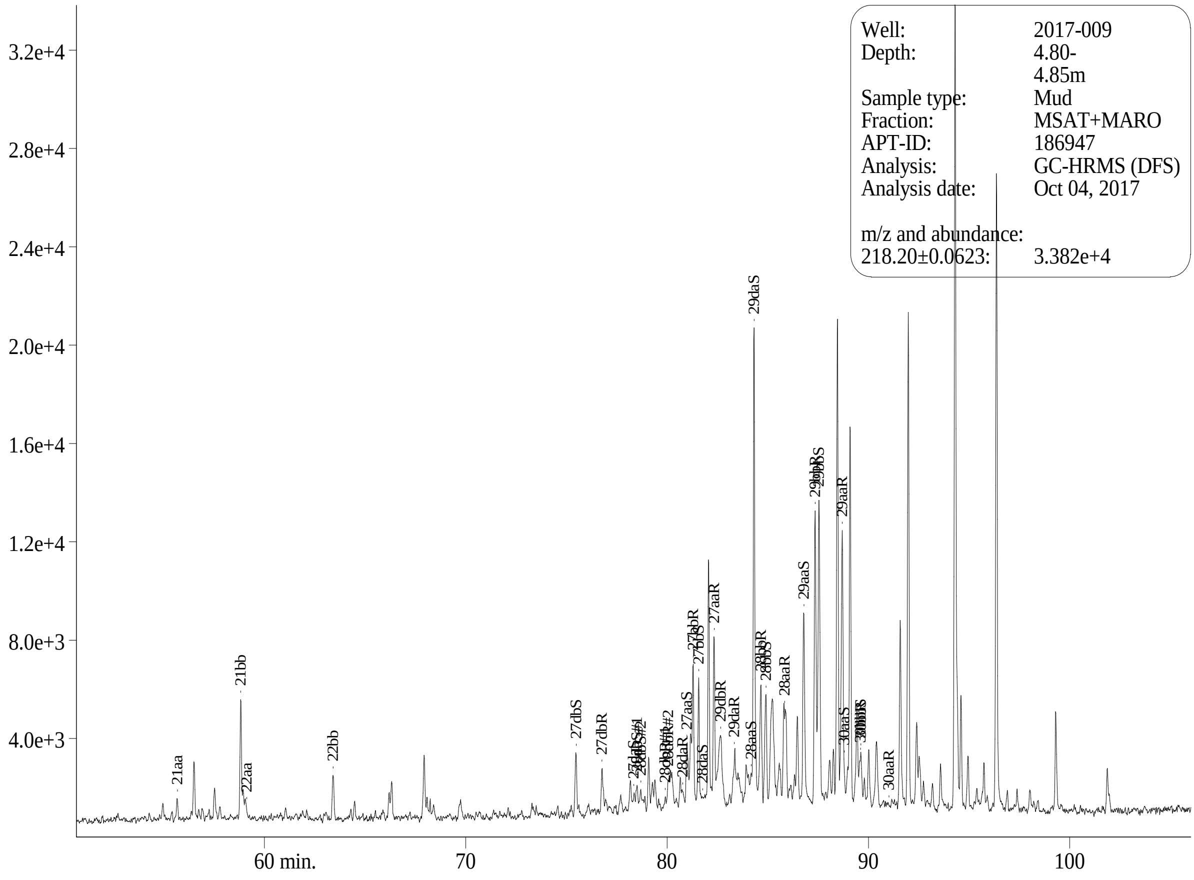
Well: 2017-007
Depth: 6.93-6.98m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186945
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
259.24±0.0741: 1.351e+4
27dbS
27dbR
27daR
27daS
28dbS#1
28dbS#2
28daR
28daS
27bbR+29dbS
29dbR
29daR
29daS
1.3e+4
1.2e+4
1.1e+4
1.0e+4
9.0e+3
8.0e+3
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3
60 min.
70
80
90
100

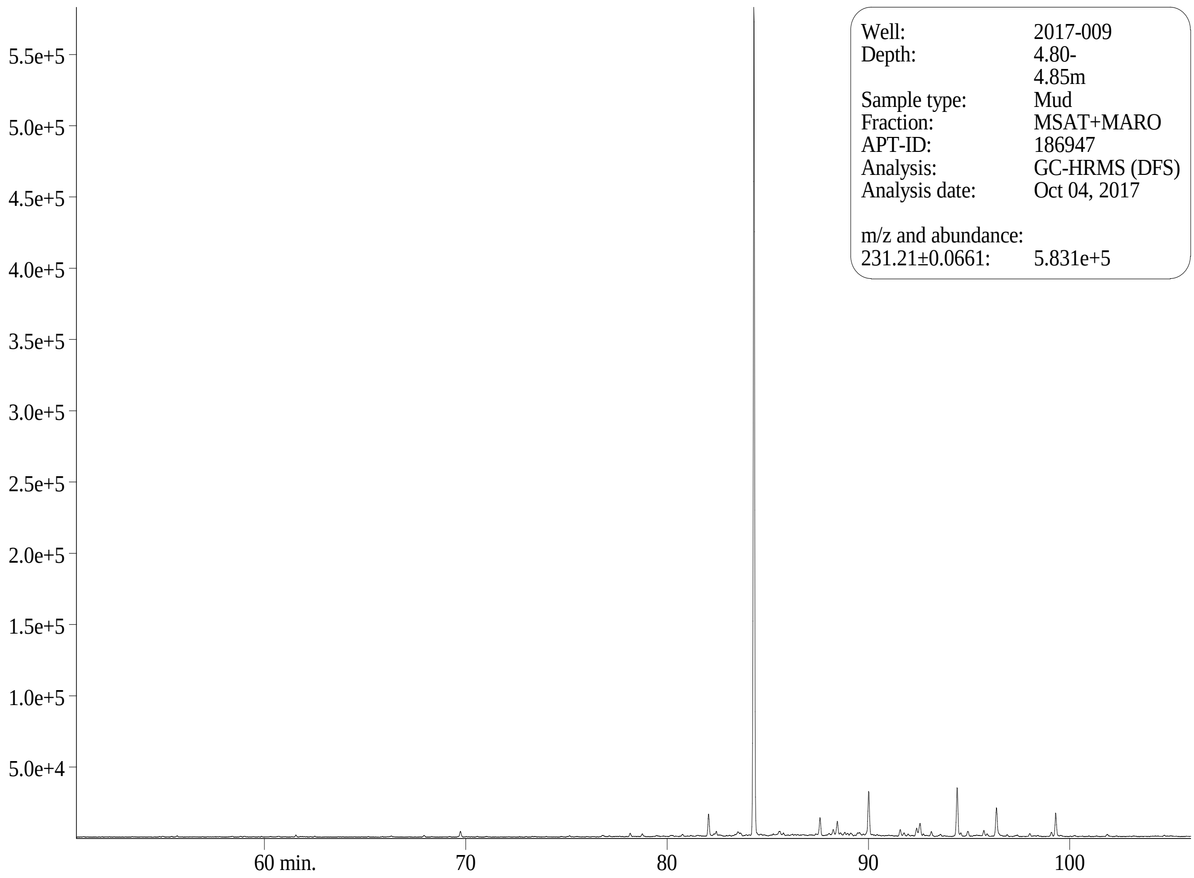

Well: 2017-009
Depth: 4.80-4.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186947
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
177.16±0.0506: 1.475e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
50 min.
60
70
80
90
100
110
24/4
27Ts
25nor28ab
27Tm
25nor29ab
28ab
25nor30ab
29ab
29Ts
29ba
25nor31ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

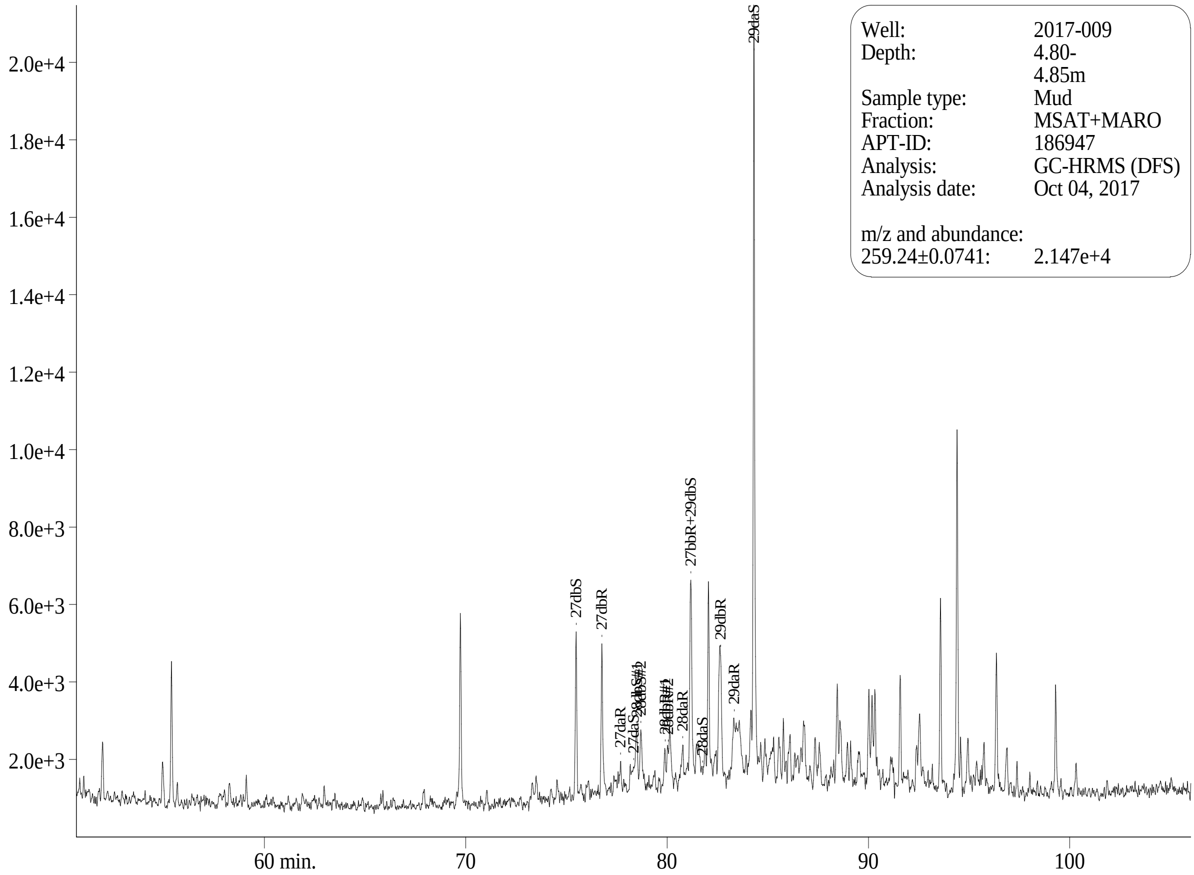

Well: 2017-009
Depth: 4.80-4.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186947
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
191.18±0.0546: 9.976e+5
9.0e+5
8.0e+5
7.0e+5
6.0e+5
5.0e+5
4.0e+5
3.0e+5
2.0e+5
1.0e+5
50 min.
60
70
80
90
100
110
19/3
20/3
21/3
22/3
23/3
24/3
28/3R
28/3S
29/3R
29/3S
27Ts
27Tm
28ab
25nor30ab
29ab
29Ts
30d
29ba
30O
30ab
30ba
31abS
31abR
30G
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR


Well: 2017-009
Depth: 4.80-4.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186947
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
205.20±0.0586: 2.552e+5
2.4e+5
2.2e+5
2.0e+5
1.8e+5
1.6e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
50 min.
60
70
80
90
100
110
30ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

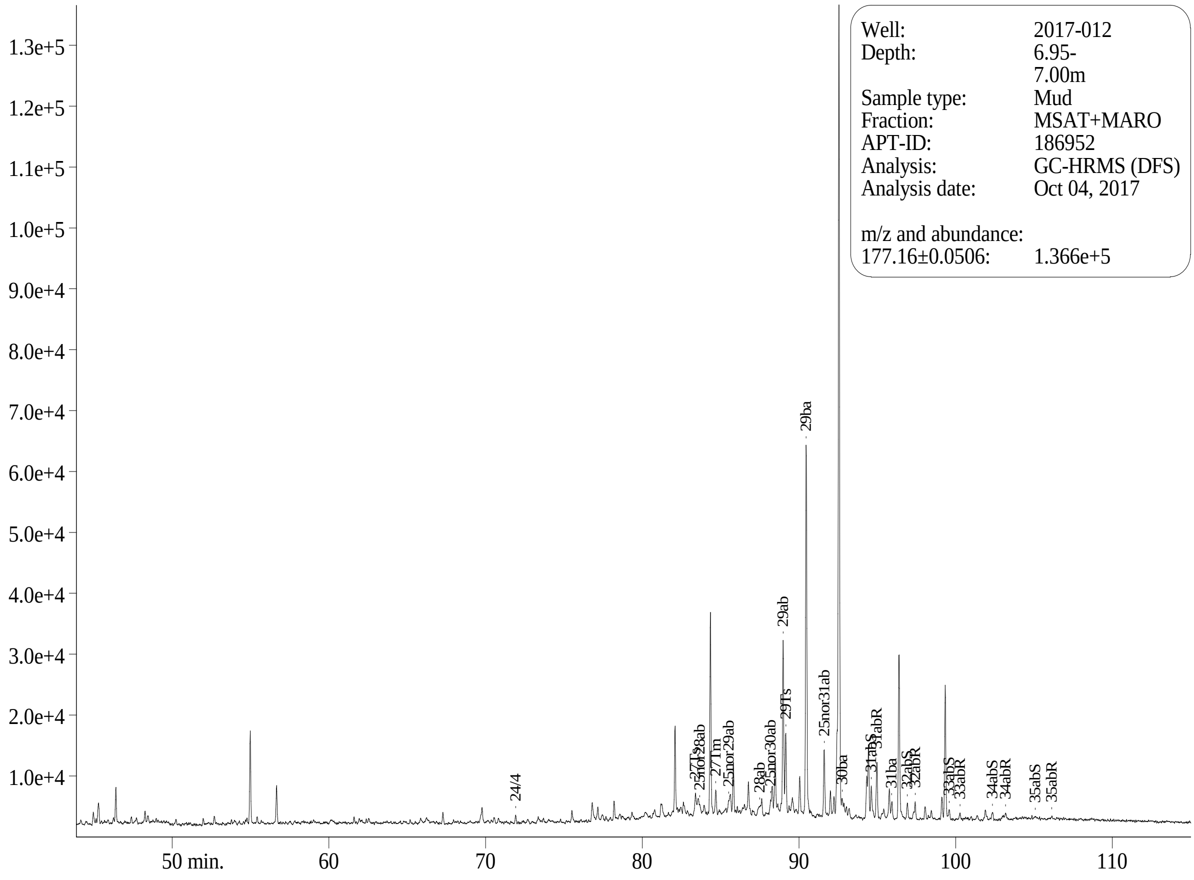

Well: 2017-009
Depth: 4.80-4.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186947
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
217.20±0.0621: 4.301e+4
4.0e+4
3.6e+4
3.2e+4
2.8e+4
2.4e+4
2.0e+4
1.6e+4
1.2e+4
8.0e+3
4.0e+3
60 min.
70
80
90
100
21aa
21bb
22aa
22bb
27dbS
27dbR
27daR
27bbR+29dbS
27aaS
27bbS
27aaR
28daS
28daR
29dbR
29daS
29daR
28aaS
28bbR
28bbS
28aaR
29aaS
29bbS
29aaR
30aaS
30aaR

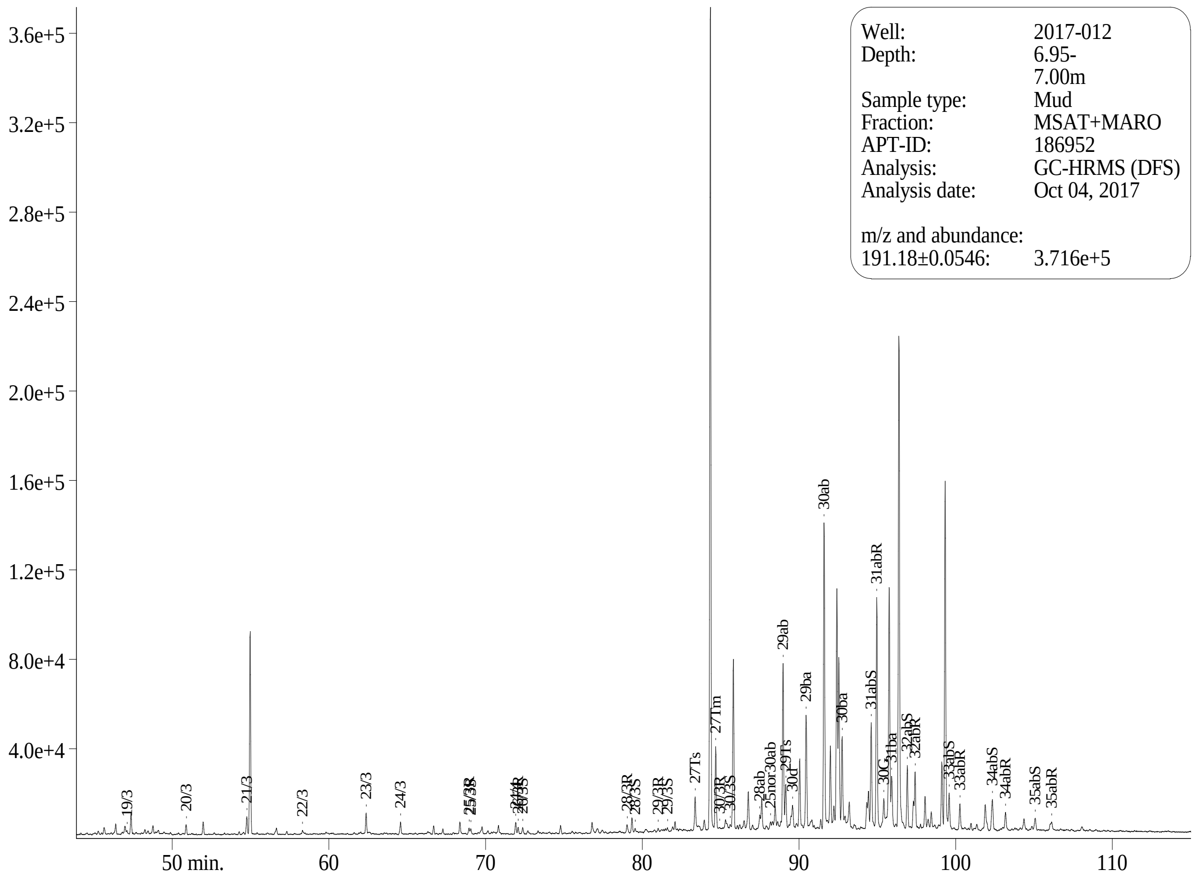

Well: 2017-009
Depth: 4.80-4.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186947
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
218.20±0.0623: 3.382e+4
21aa
21bb
22aa
22bb
27dbS
27dbR
29daS
29aaS
29aaR
27aaR
28aaR
28aaS
30aaR
60 min.
70
80
90
100

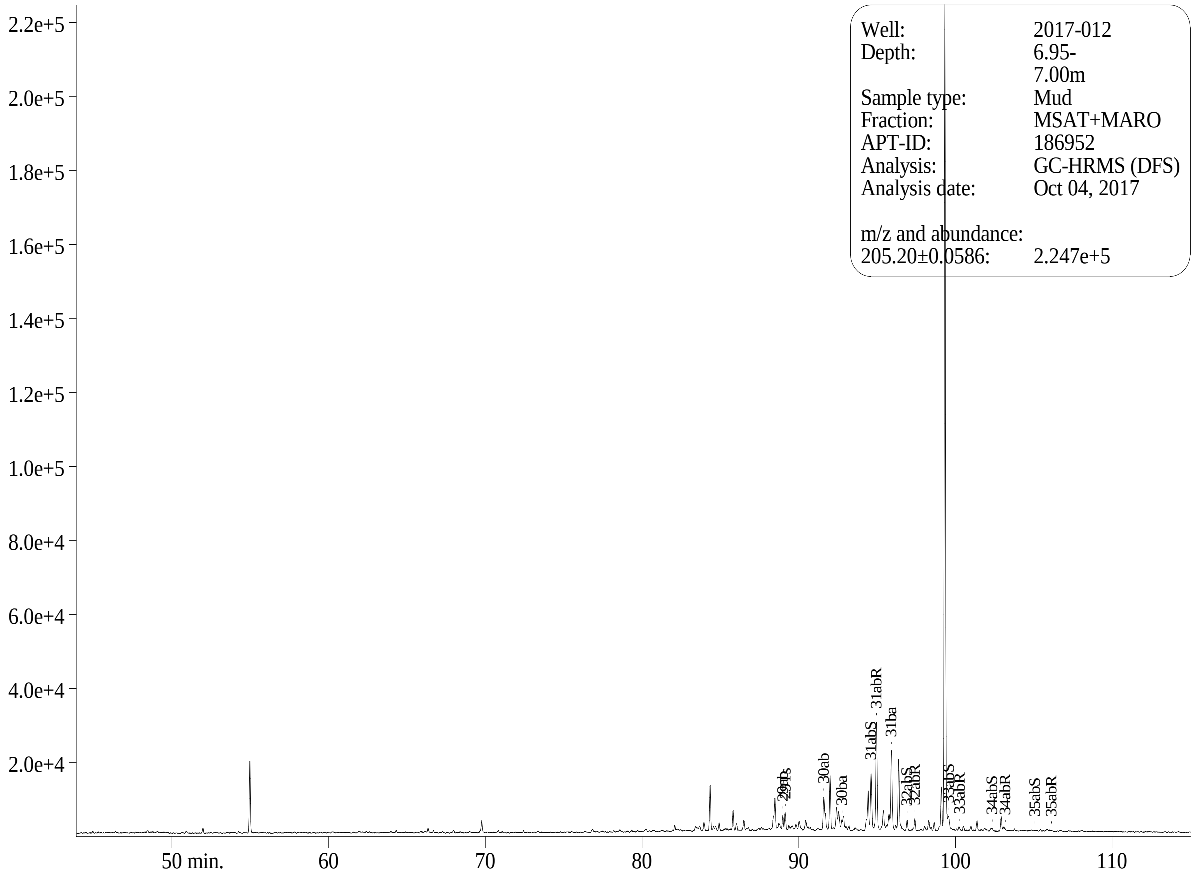

Well: 2017-009
Depth: 4.80-4.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186947
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
231.21±0.0661: 5.831e+5
60 min.
70
80
90
100



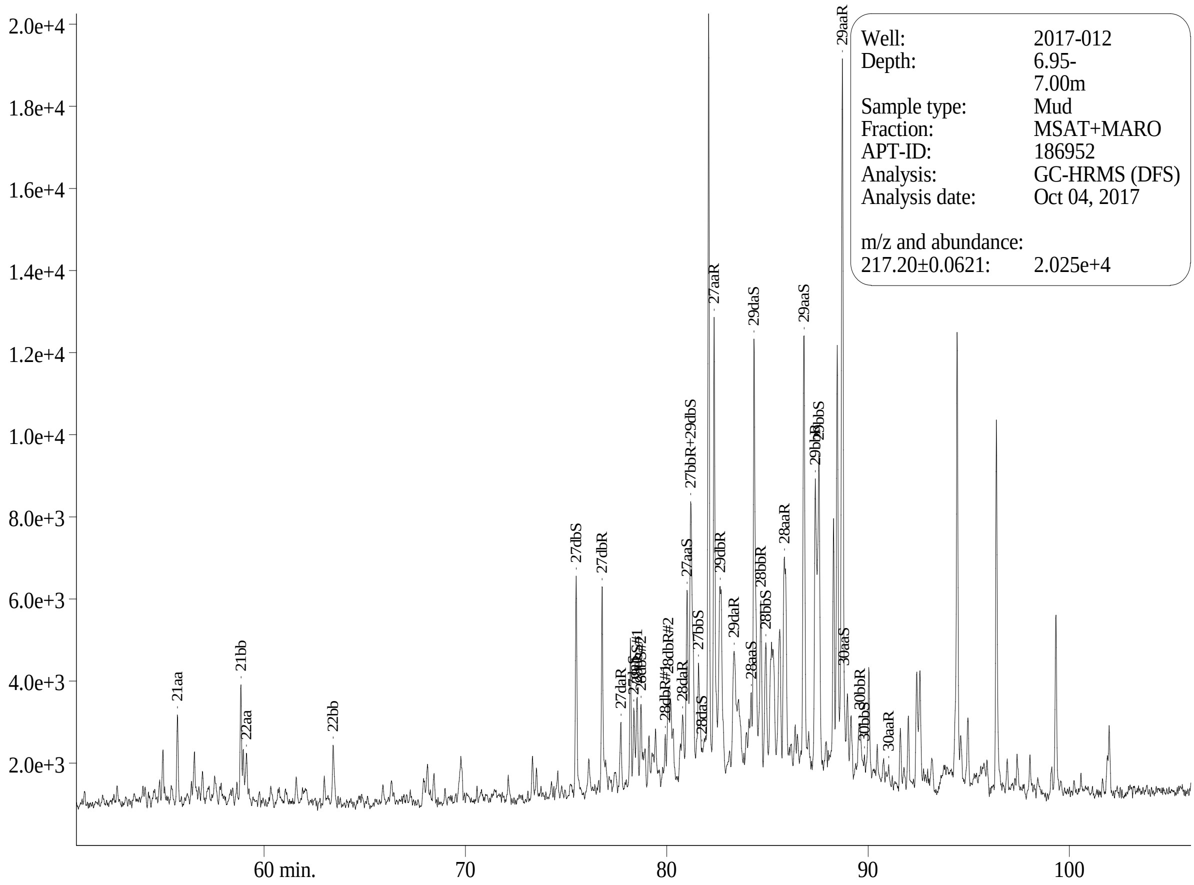
Well: 2017-009
Depth: 4.80-4.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186947
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
259.24±0.0741: 2.147e+4
2.0e+4
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
60 min.
70
80
90
100
27dbS
27dbR
27daR
27bbR+29dbS
29dbR
29daR
28daR
28daS
29daS


Well: 2017-012
Depth: 6.95-7.00m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186952
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
177.16±0.0506: 1.366e+5
1.3e+5
1.2e+5
1.1e+5
1.0e+5
9.0e+4
8.0e+4
7.0e+4
6.0e+4
5.0e+4
4.0e+4
3.0e+4
2.0e+4
1.0e+4
50 min.
60
70
80
90
100
110

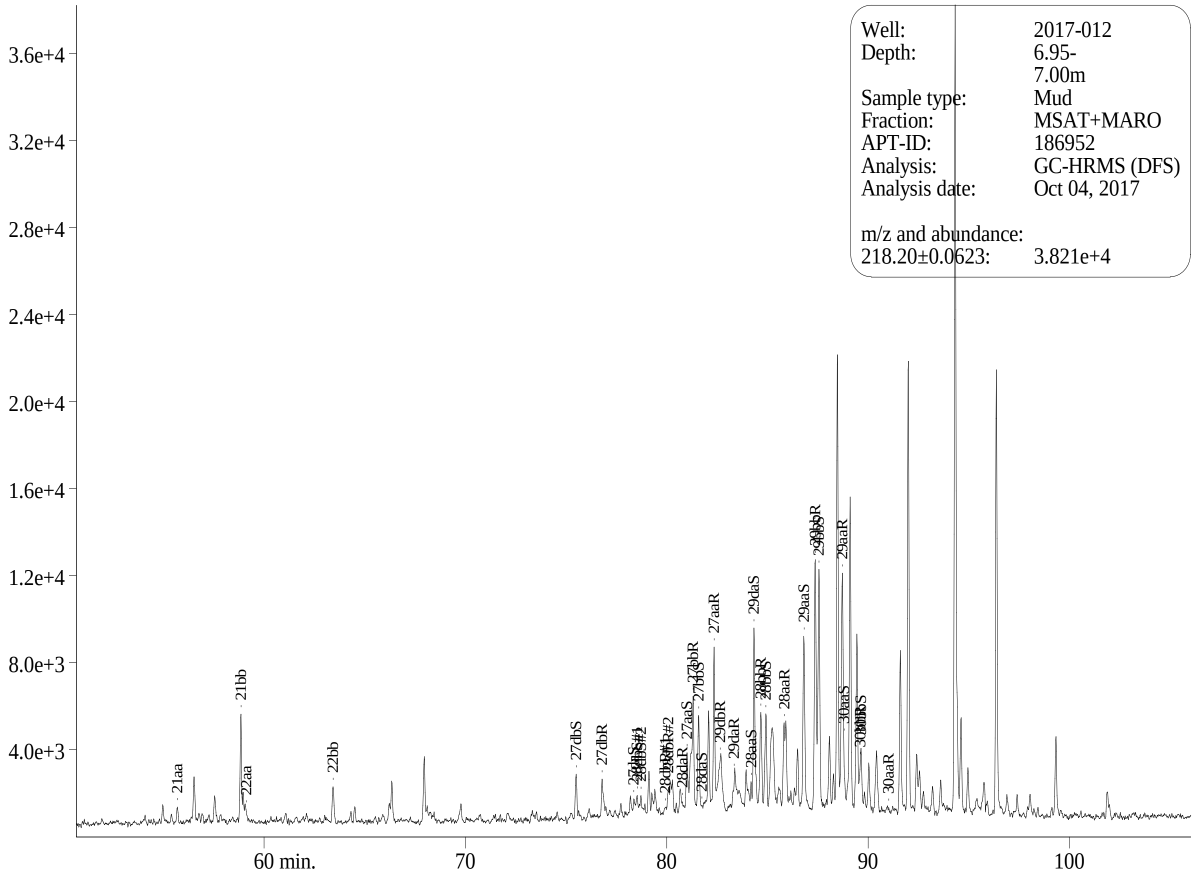

Well: 2017-012
Depth: 6.95-7.00m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186952
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
191.18±0.0546: 3.716e+5
3.6e+5
3.2e+5
2.8e+5
2.4e+5
2.0e+5
1.6e+5
1.2e+5
8.0e+4
4.0e+4
50 min.
60
70
80
90
100
110

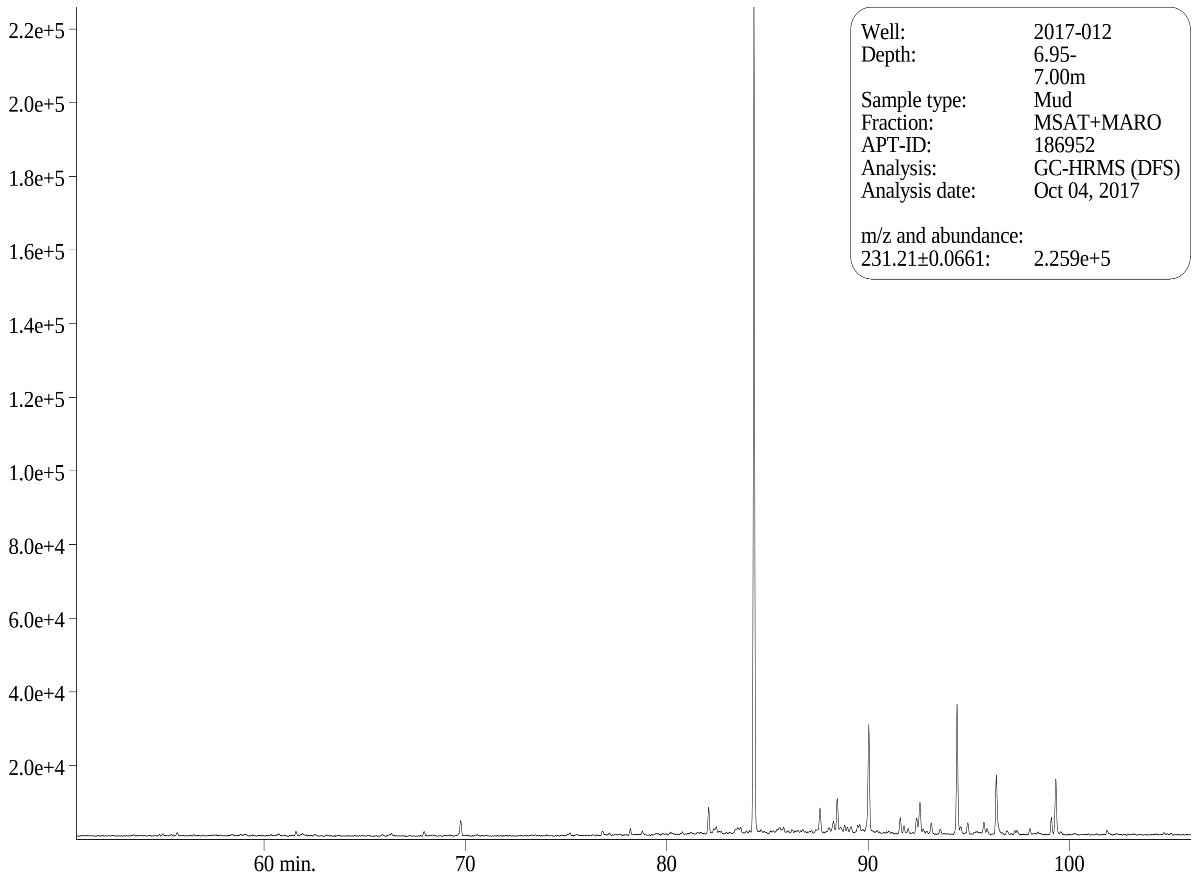


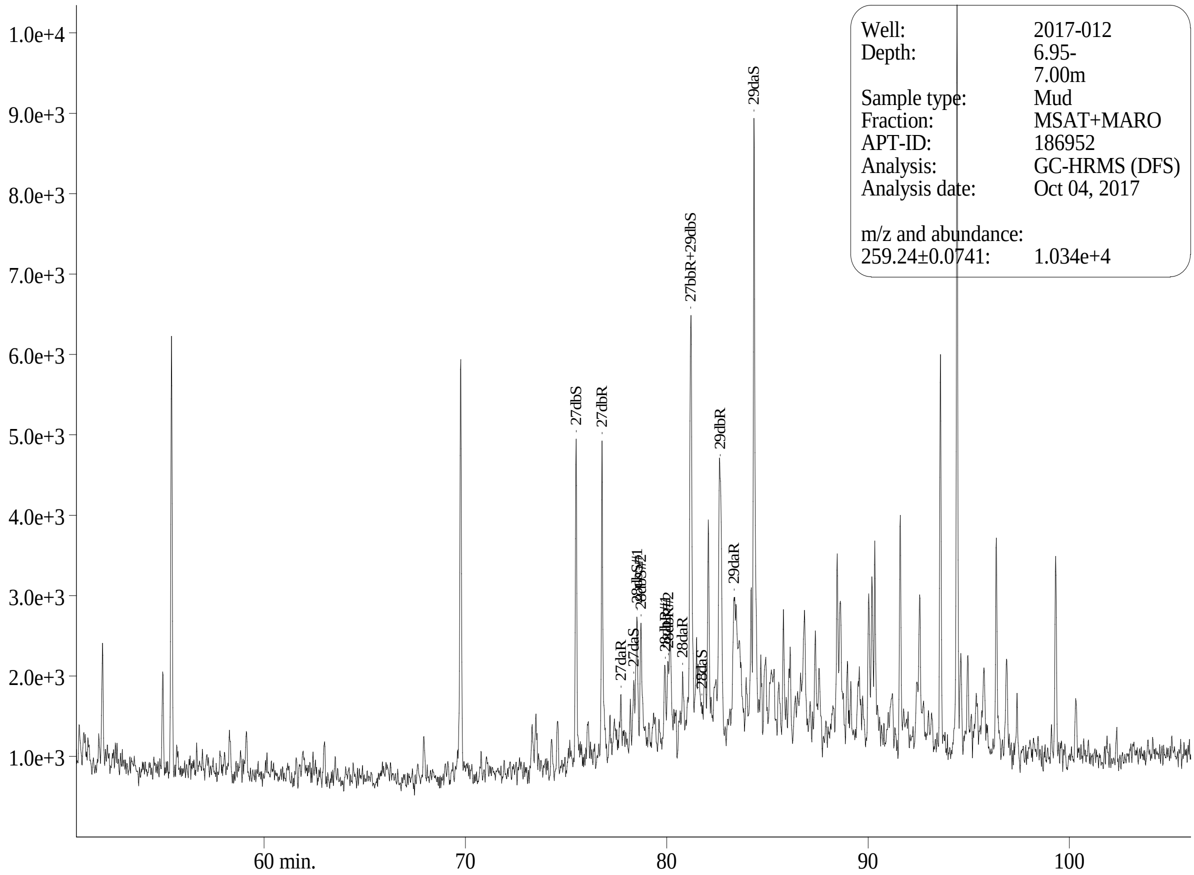
Well: 2017-012
Depth: 6.95-7.00m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186952
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
205.20±0.0586: 2.247e+5
31abR
31abS
31ba
30ab
30ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR
50 min.
60
70
80
90
100
110

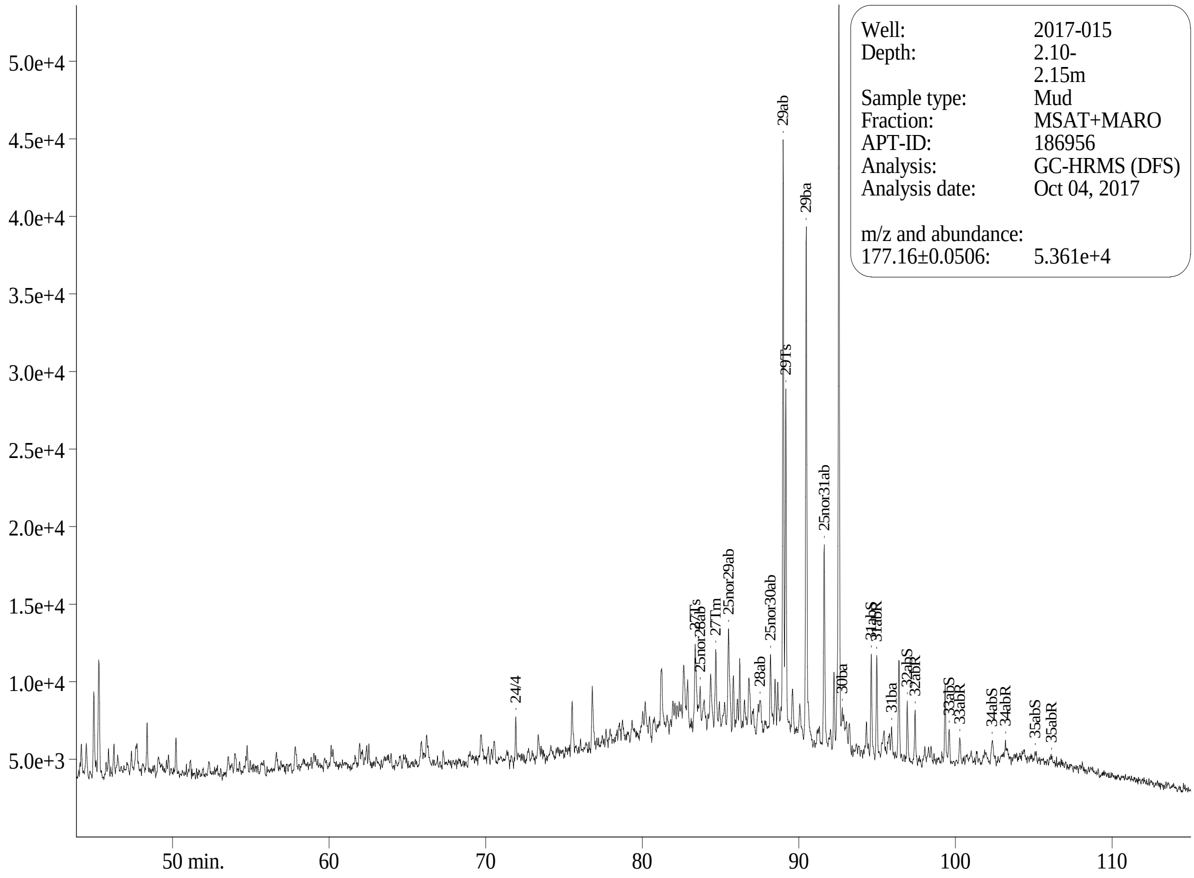


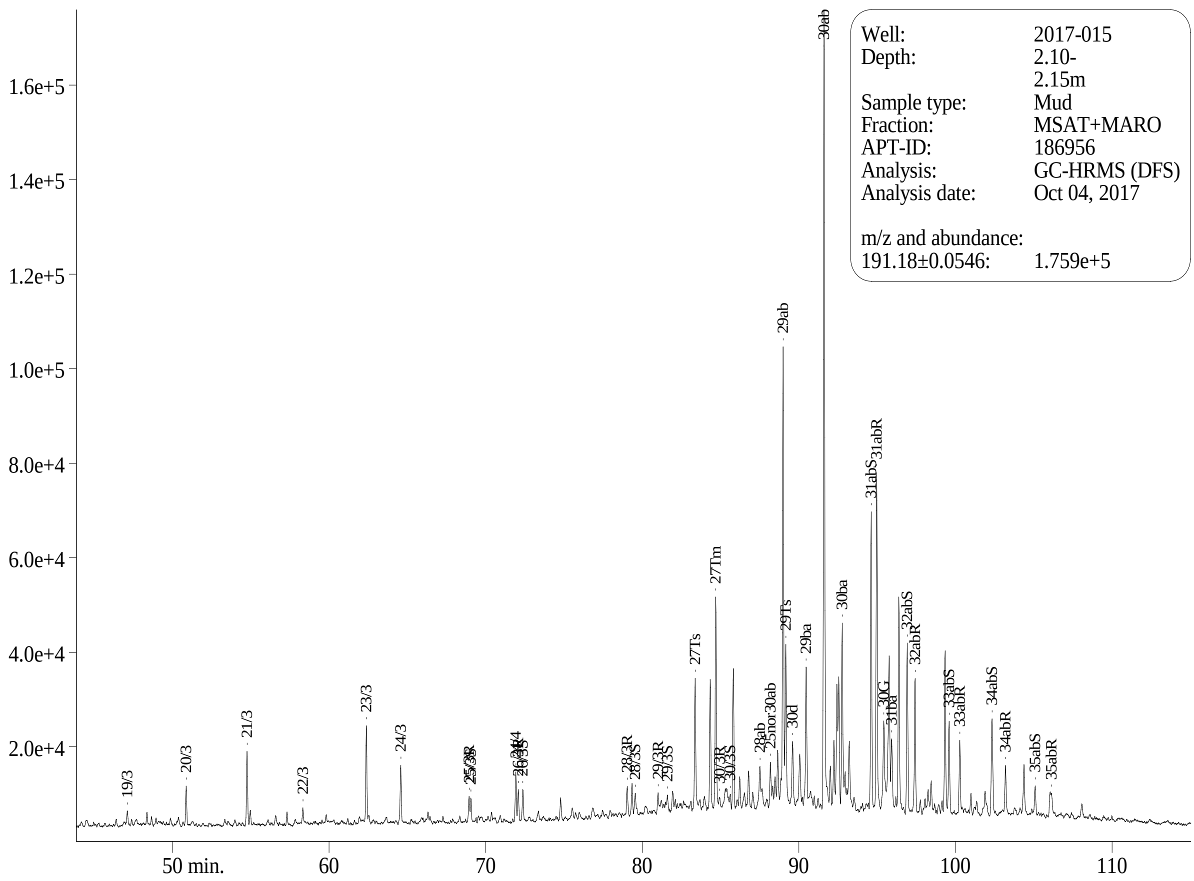
Well: 2017-012
Depth: 6.95-7.00m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186952
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
217.20±0.0621: 2.025e+4
21aa
21bb
22aa
22bb
27dbS
27dbR
27daR
27aaS
27aaR
27bbR+29dbS
27bbS
28dbR#2
28daR
28aaS
28aaR
28bbS
28bbR
29daS
29dbR
29daR
29aaS
29aaR
29bbS
30aaS
30bbR
30aaR
60 min.
70
80
90
100

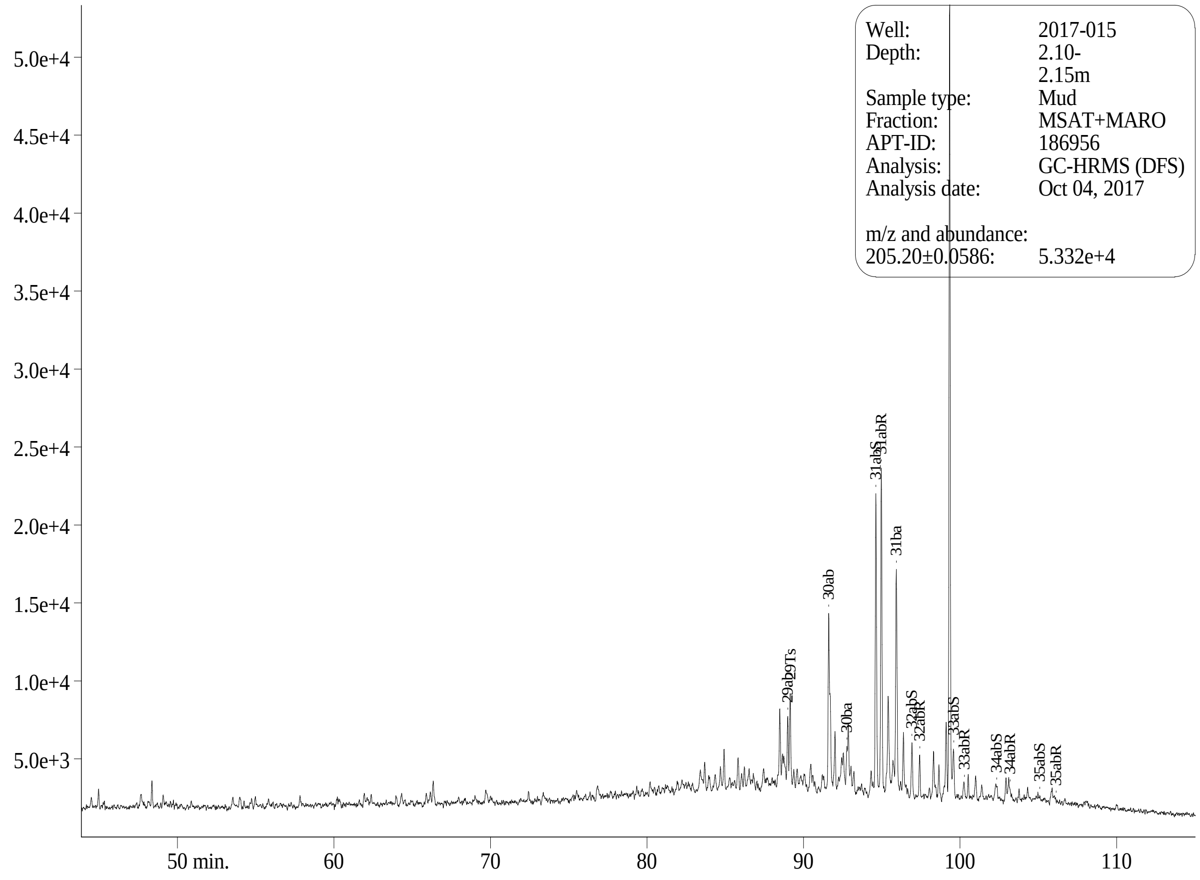

Well: 2017-012
Depth: 6.95-7.00m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186952
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
218.20±0.0623: 3.821e+4
3.6e+4
3.2e+4
2.8e+4
2.4e+4
2.0e+4
1.6e+4
1.2e+4
8.0e+3
4.0e+3
60 min.
70
80
90
100
21aa
21bb
22aa
22bb
27dbS
27dbR
27aaS
27bbR
27bbS
27aaR
28daS
28daR
29dbR
29daR
29daS
28aaS
28aaR
29aaS
29bbR
29aaR
30aaS
30aaR

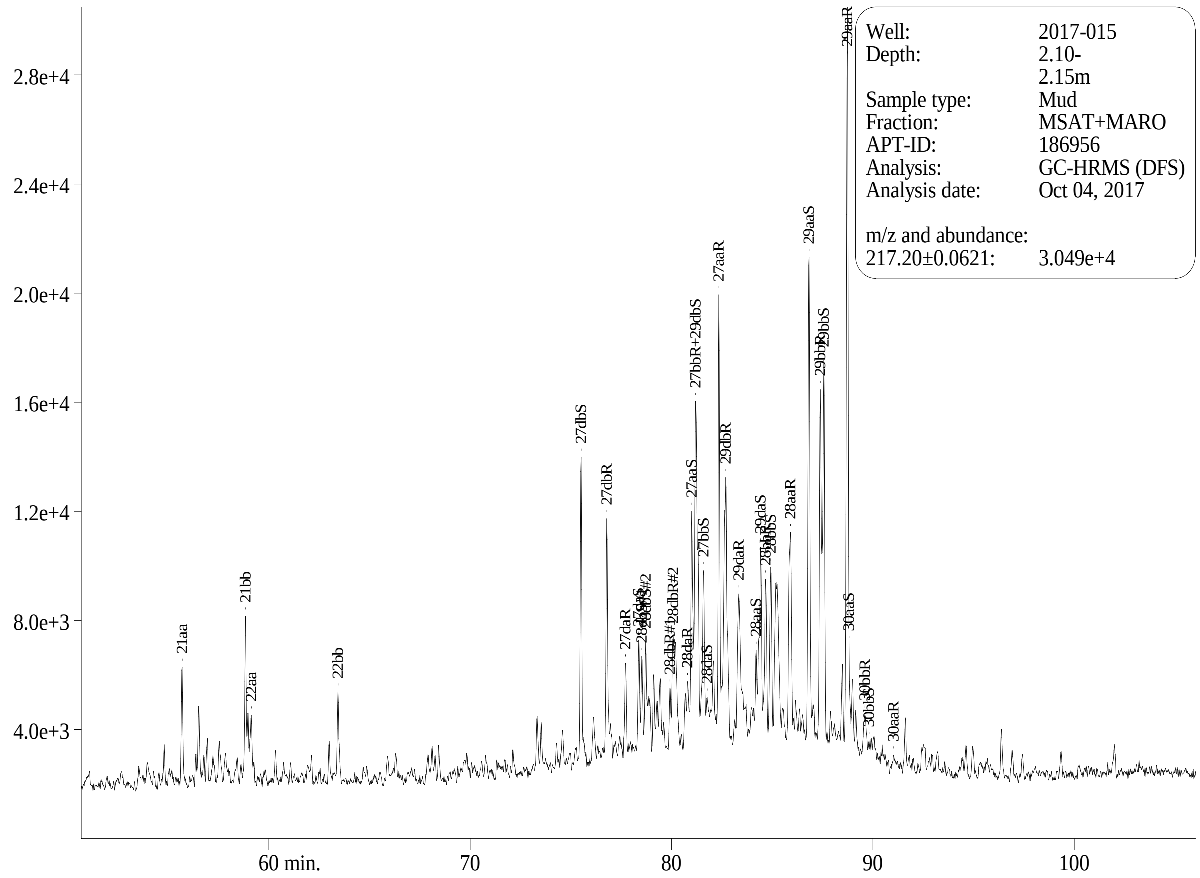

Well: 2017-012
Depth: 6.95-7.00m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186952
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
231.21±0.0661: 2.259e+5
2.2e+5
2.0e+5
1.8e+5
1.6e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
60 min.
70
80
90
100

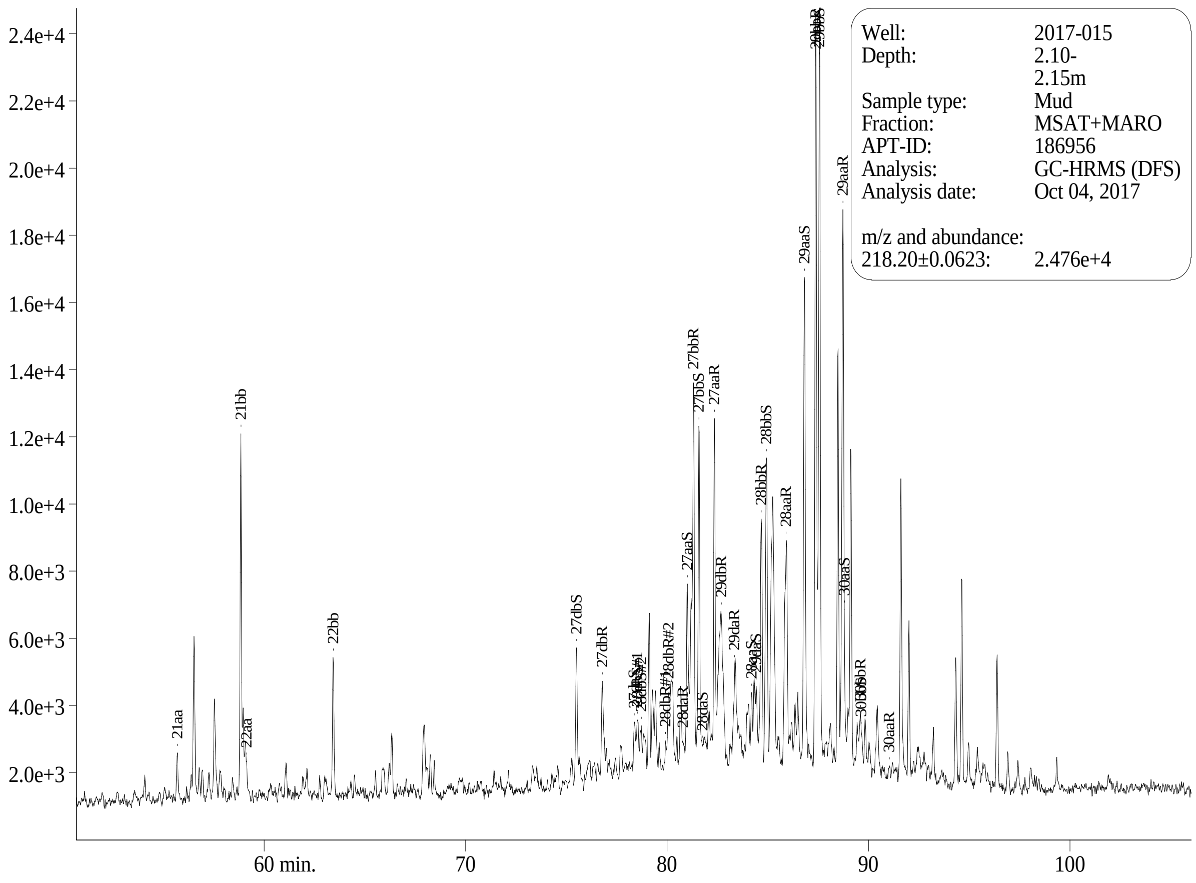

Well: 2017-012
Depth: 6.95-7.00m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186952
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
259.24±0.0741: 1.034e+4
1.0e+4
9.0e+3
8.0e+3
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3
60 min.
70
80
90
100
27dbS
27dbR
27daR
27daS
27bbR+29dbS
29dbR
29daS
29daR
28daR

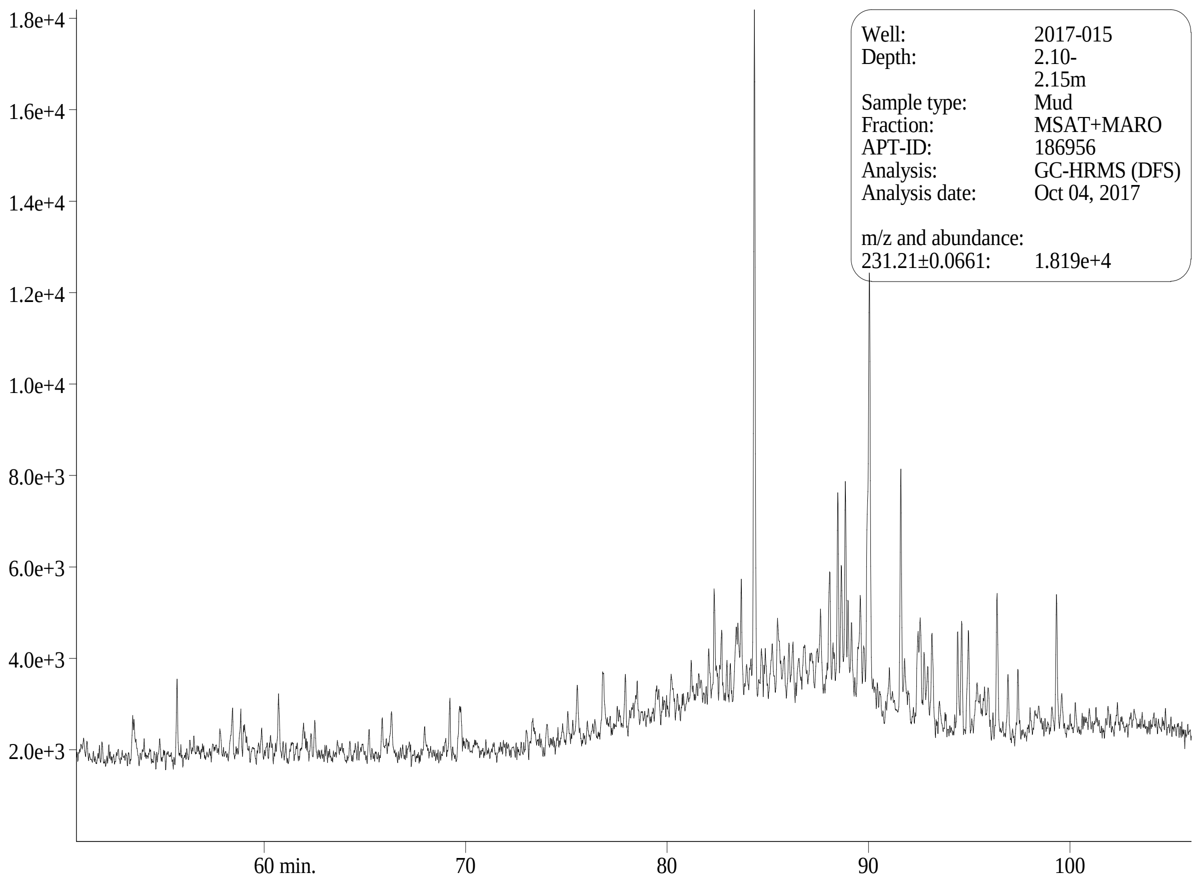

Well: 2017-015
Depth: 2.10-2.15m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186956
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
177.16±0.0506: 5.361e+4
5.0e+4
4.5e+4
4.0e+4
3.5e+4
3.0e+4
2.5e+4
2.0e+4
1.5e+4
1.0e+4
5.0e+3
50 min.
60
70
80
90
100
110
24/4
25nor28ab
27Ts
27Tm
25nor29ab
25nor30ab
28ab
29ab
29Ts
29ba
25nor31ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

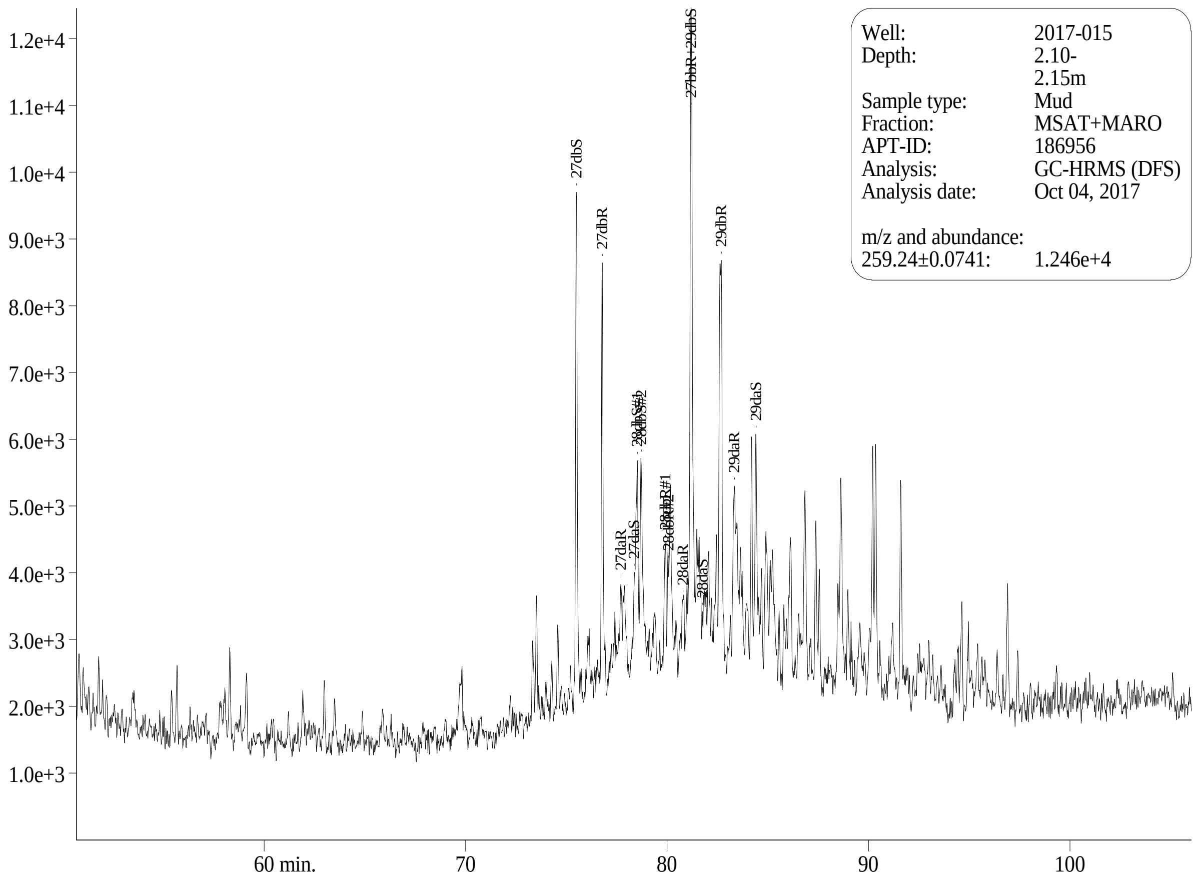

Well: 2017-015
Depth: 2.10-2.15m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186956
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
191.18±0.0546: 1.759e+5
1.6e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
50 min.
60
70
80
90
100
110
19/3
20/3
21/3
22/3
23/3
24/3
25/3R
25/3S
24/4
26/3R
26/3S
28/3R
28/3S
29/3R
29/3S
30/3R
30/3S
27Ts
27Tm
28ab
25nor30ab
29ab
29Ts
30d
29ba
30ab
30ba
31abS
31abR
30G
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR


Well: 2017-015
Depth: 2.10-2.15m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186956
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
205.20±0.0586: 5.332e+4
5.0e+4
4.5e+4
4.0e+4
3.5e+4
3.0e+4
2.5e+4
2.0e+4
1.5e+4
1.0e+4
5.0e+3
29ab
29Ts
30ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR
50 min.
60
70
80
90
100
110

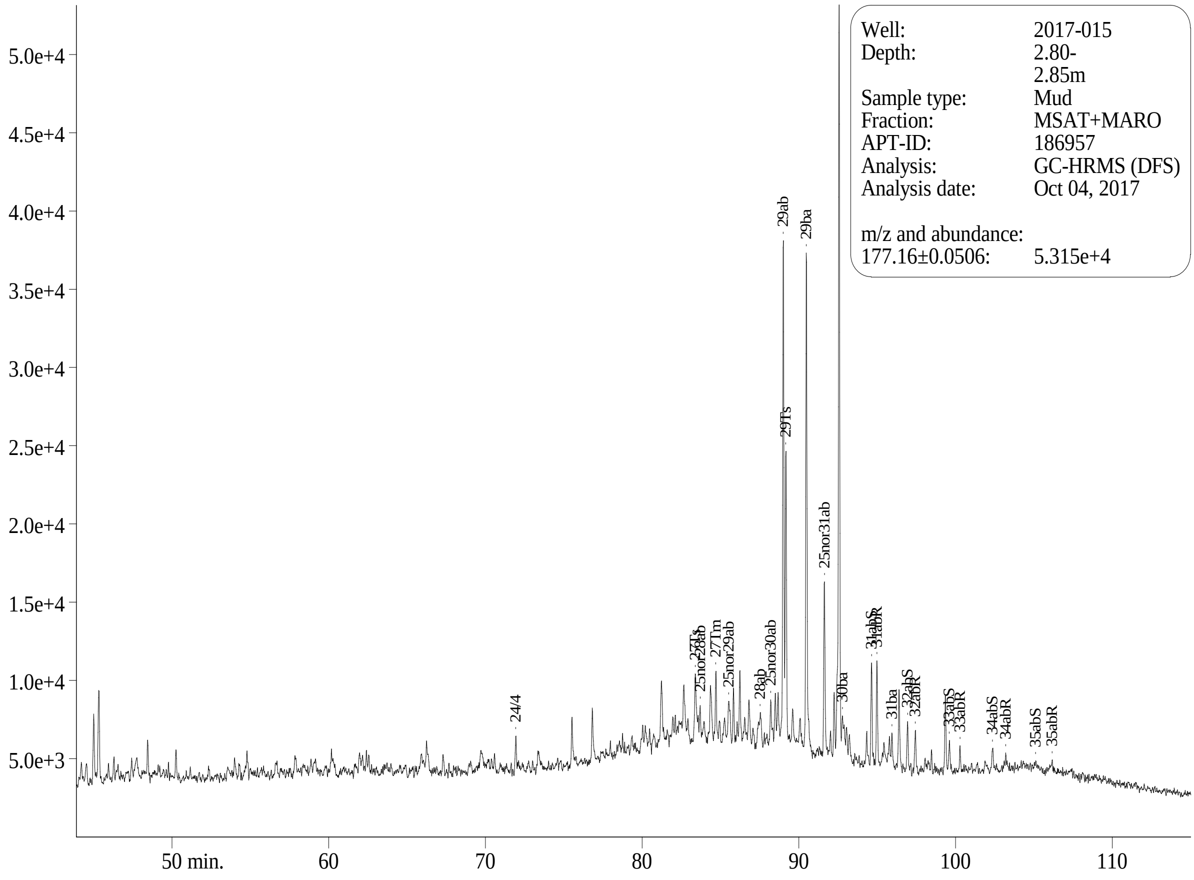

Well: 2017-015
Depth: 2.10-2.15m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186956
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
217.20±0.0621: 3.049e+4
2.8e+4
2.4e+4
2.0e+4
1.6e+4
1.2e+4
8.0e+3
4.0e+3
21aa
21bb
22aa
22bb
27dbS
27dbR
27daR
27bbR+29dbS
27aaS
27bbS
27aaR
28daR
28daS
29dbR
29daR
28aaS
29daS
28aaR
29aaS
29bbS
29aaR
30aaS
30bbR
30aaR
60 min.
70
80
90
100

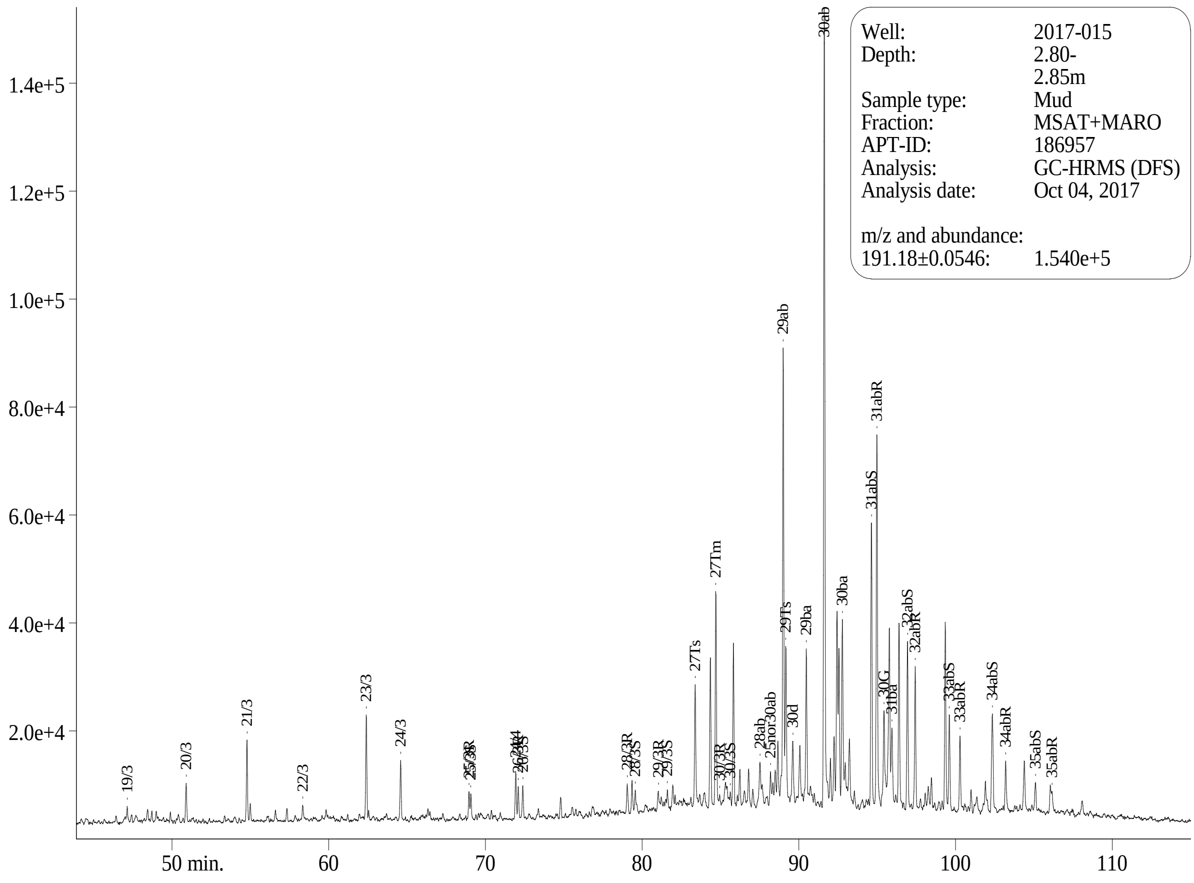

Well: 2017-015
Depth: 2.10-2.15m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186956
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
218.20±0.0623: 2.476e+4
2.4e+4
2.2e+4
2.0e+4
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
60 min.
70
80
90
100
21aa
21bb
22aa
22bb
27dbS
27dbR
27bbR
27bbS
27aaR
27aaS
29dbR
29daR
28bbS
28bbR
28aaR
28daS
28daR
29aaS
29aaR
30aaS
30aaR

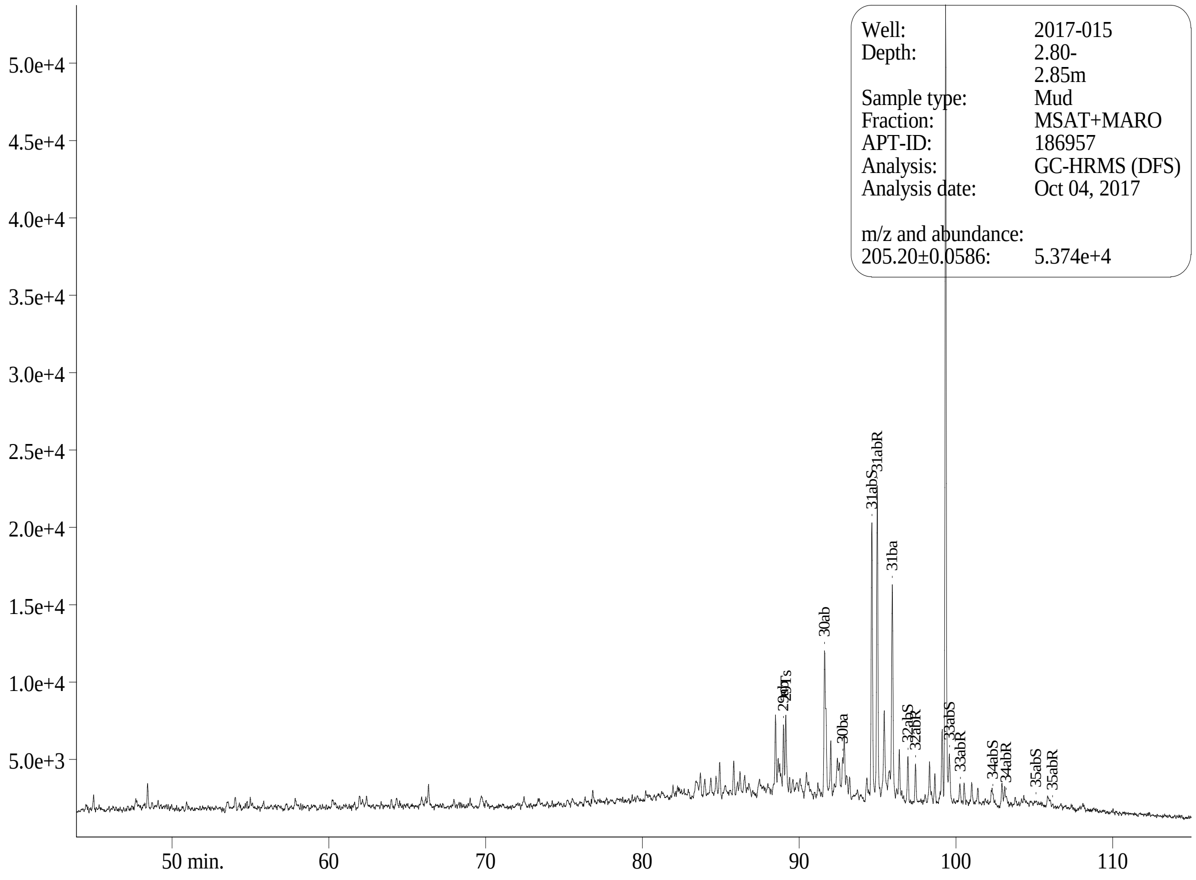

Well: 2017-015
Depth: 2.10-2.15m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186956
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
231.21±0.0661: 1.819e+4
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
60 min.
70
80
90
100

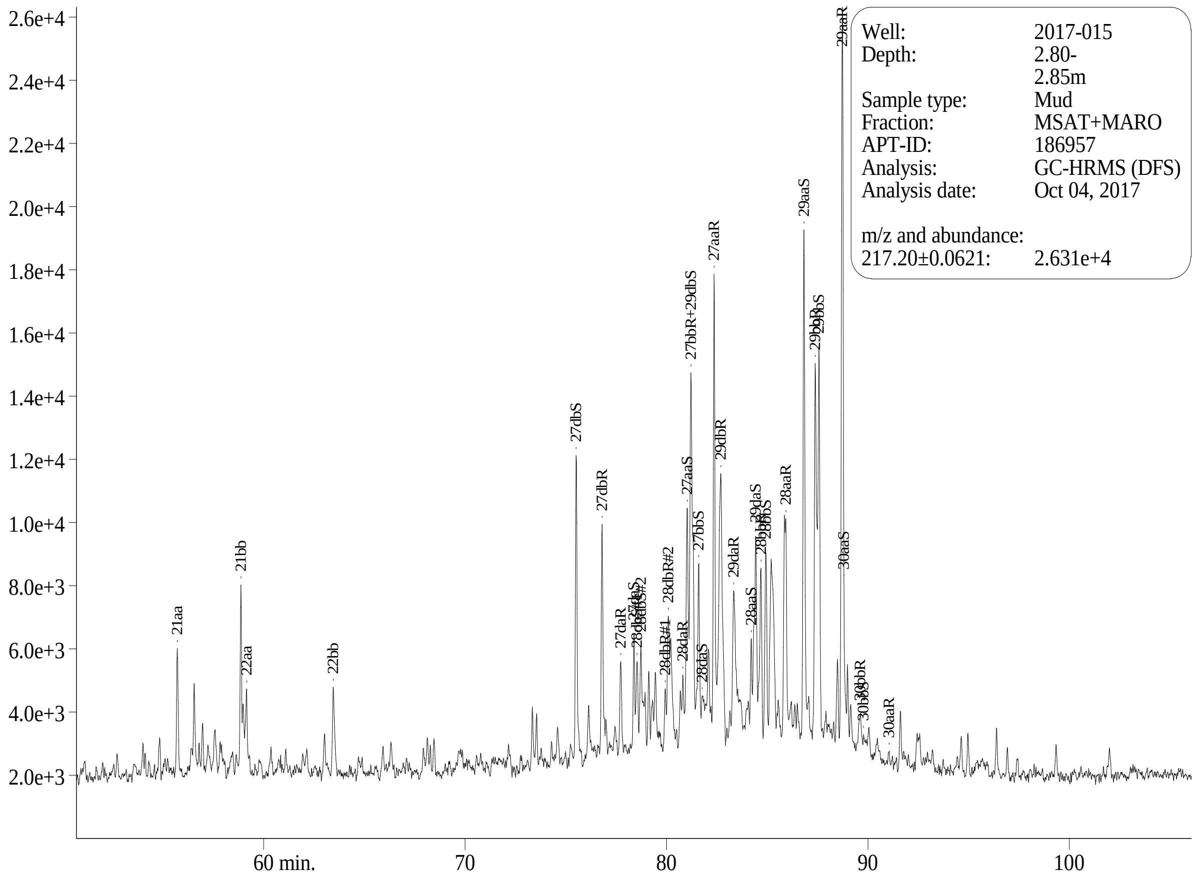


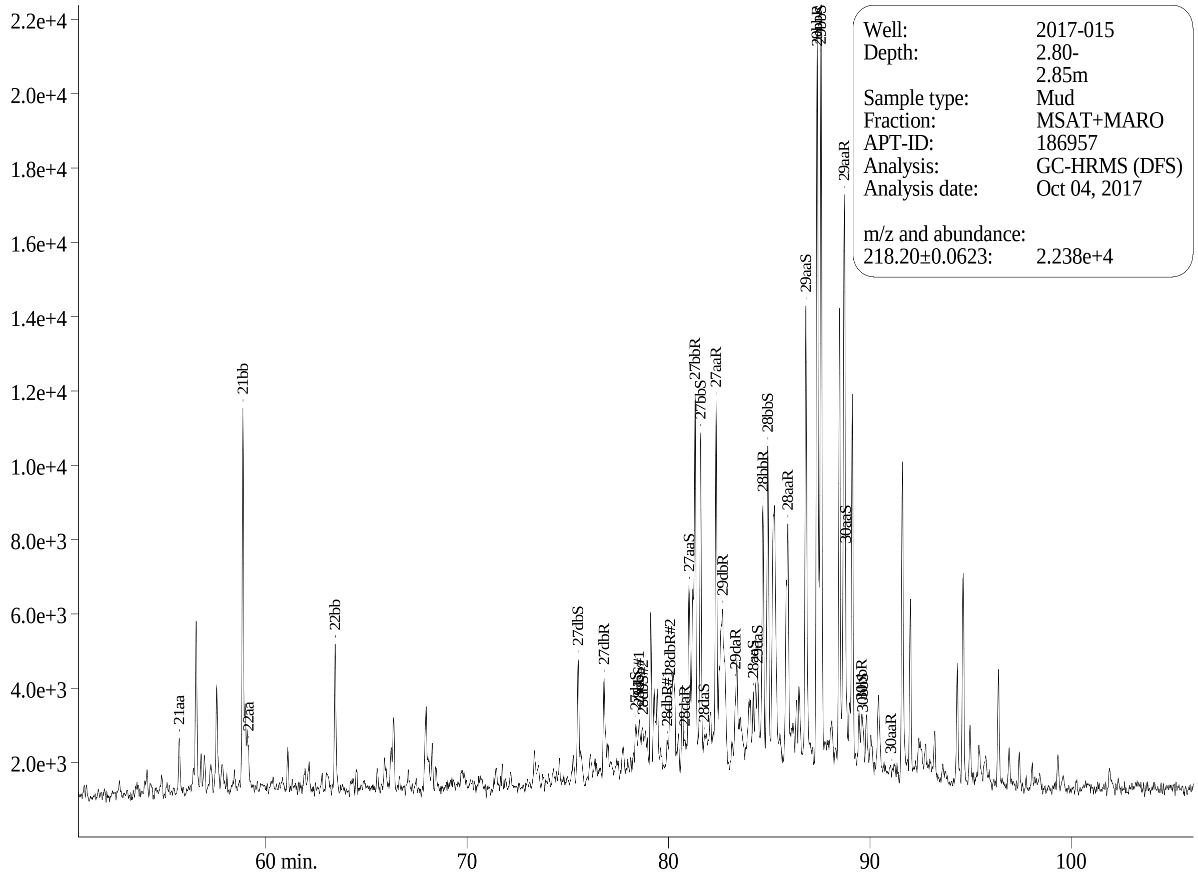
Well: 2017-015
Depth: 2.10-2.15m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186956
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
259.24±0.0741: 1.246e+4
1.2e+4
1.1e+4
1.0e+4
9.0e+3
8.0e+3
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3
60 min.
70
80
90
100
27dbS
27dbR
27daR
27daS
27bbR+29dbS
29dbR
29daR
29daS
28daR
28daS

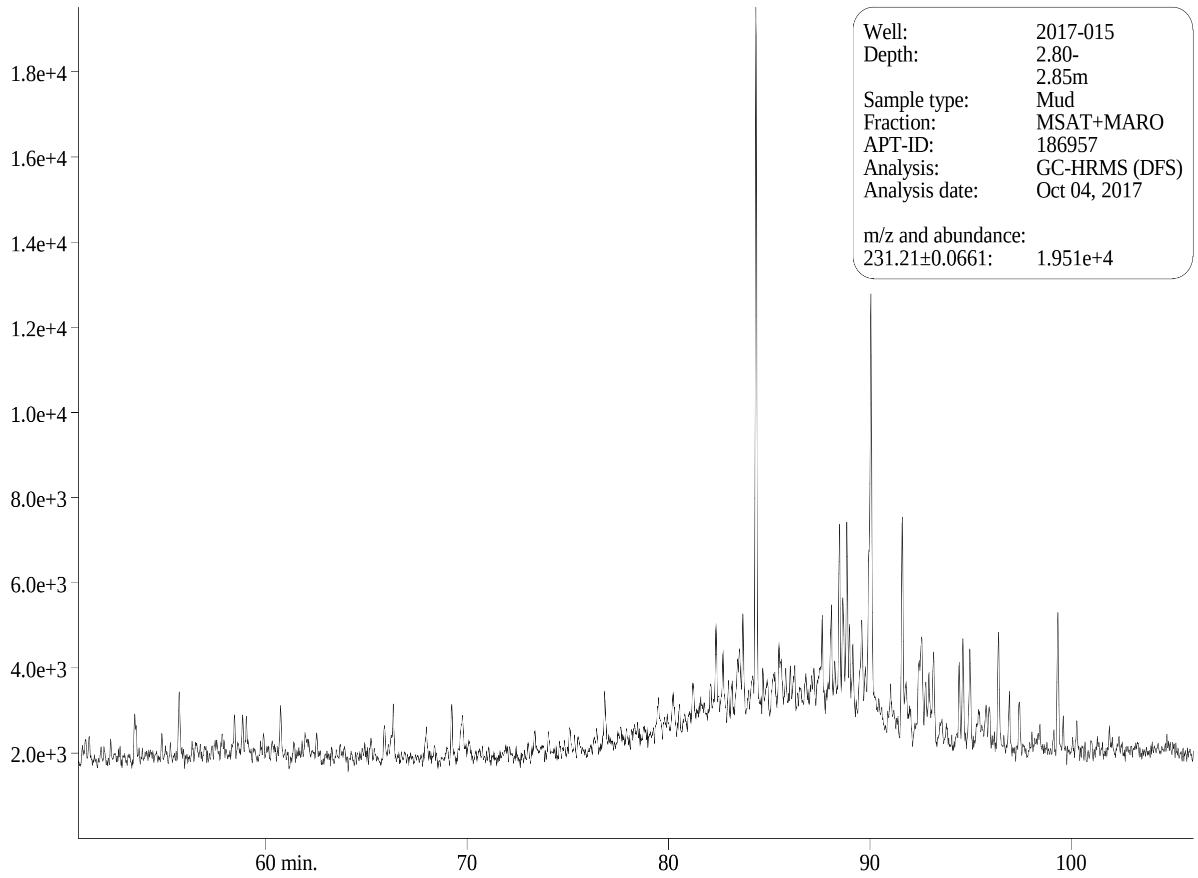

Well: 2017-015
Depth: 2.80-2.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186957
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
177.16±0.0506: 5.315e+4
5.0e+4
4.5e+4
4.0e+4
3.5e+4
3.0e+4
2.5e+4
2.0e+4
1.5e+4
1.0e+4
5.0e+3
50 min.
60
70
80
90
100
110
24/4
27Ts
25nor28ab
27Tm
25nor29ab
28ab
25nor30ab
29ab
29Ts
29ba
25nor31ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

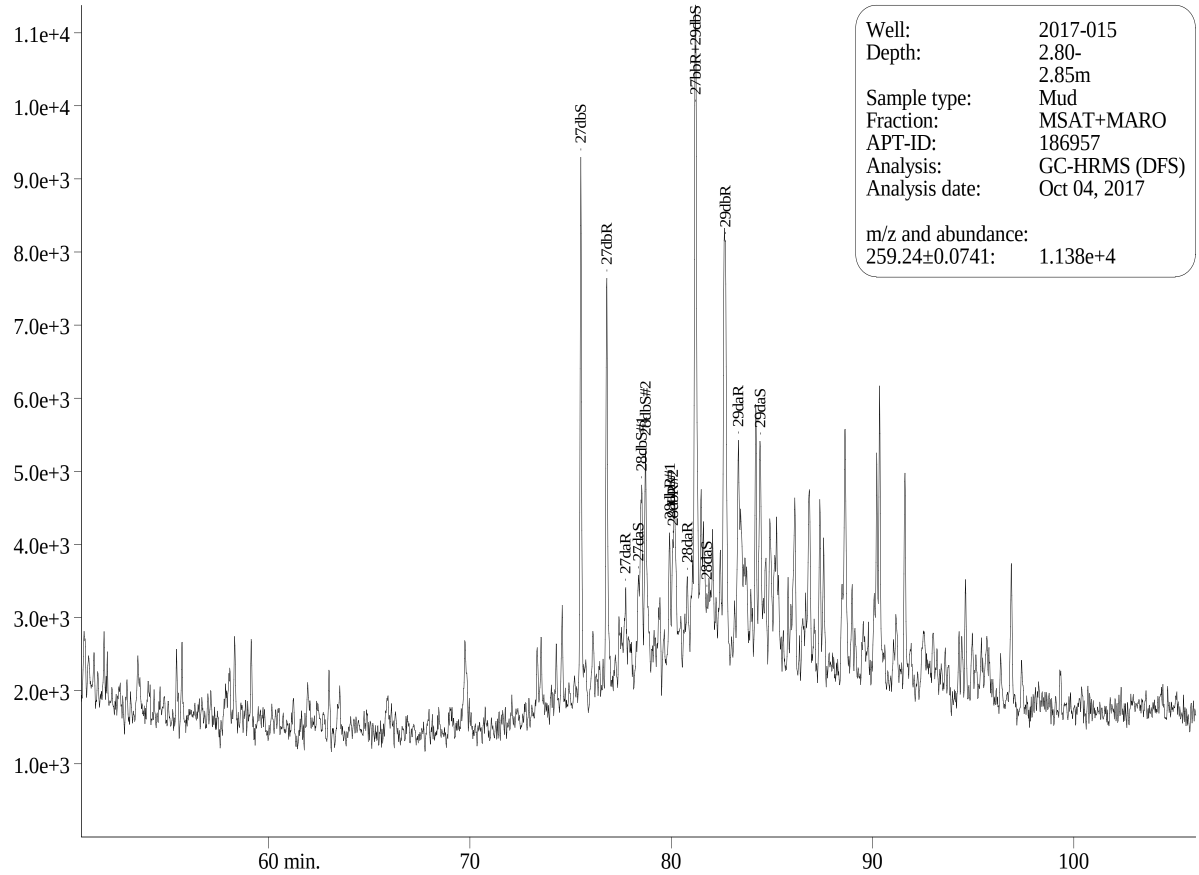

Well: 2017-015
Depth: 2.80-2.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186957
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
191.18±0.0546: 1.540e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
50 min.
60
70
80
90
100
110
19/3
20/3
21/3
22/3
23/3
24/3
25/3R
25/3S
24/4
26/3R
26/3S
28/3R
28/3S
29/3R
29/3S
27Ts
30/3R
30/3S
27Tm
28ab
25nor30ab
29ab
29Ts
30d
29ba
30ab
30ba
31abS
31abR
30G
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR


Well: 2017-015
Depth: 2.80-2.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186957
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
205.20±0.0586: 5.374e+4
5.0e+4
4.5e+4
4.0e+4
3.5e+4
3.0e+4
2.5e+4
2.0e+4
1.5e+4
1.0e+4
5.0e+3
50 min.
60
70
80
90
100
110
30ab
31abS
31abR
31ba
30ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

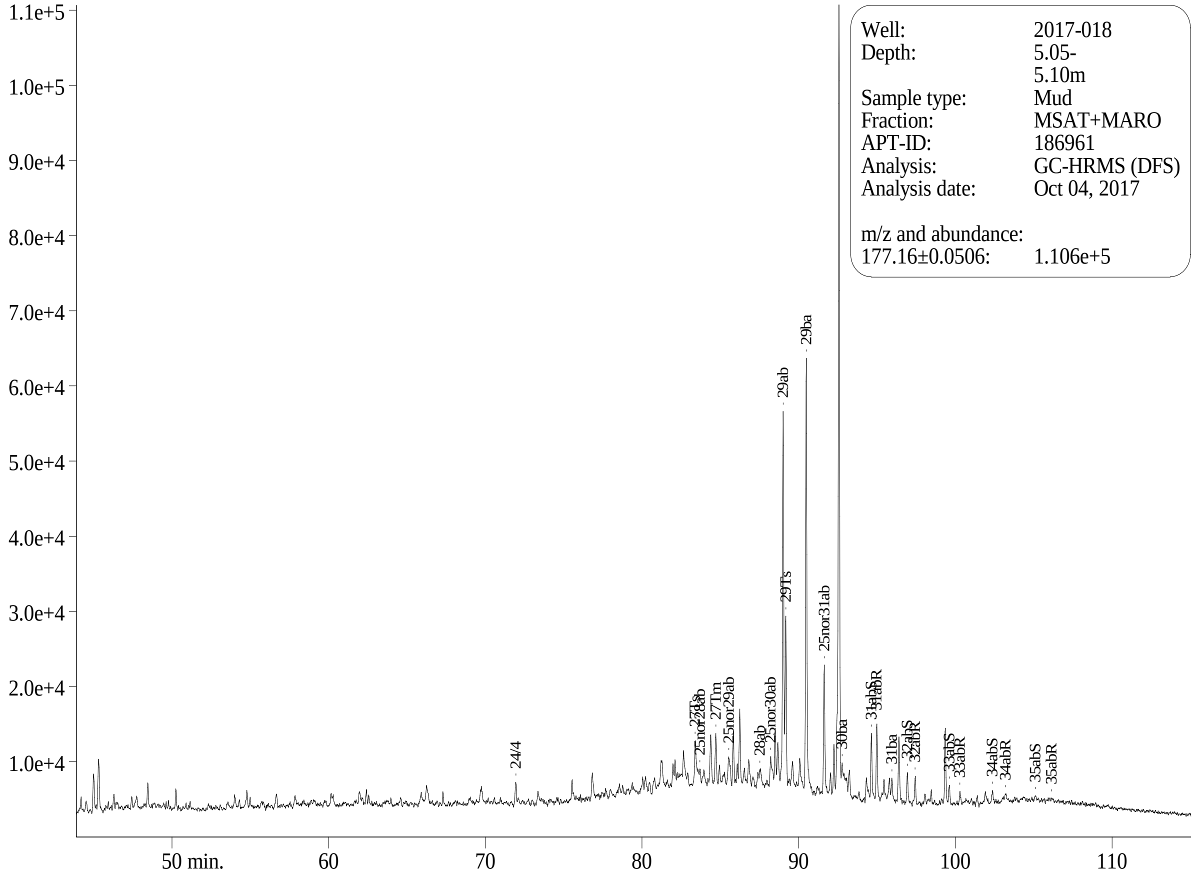

Well: 2017-015
Depth: 2.80-2.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186957
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
217.20±0.0621: 2.631e+4
2.6e+4
2.4e+4
2.2e+4
2.0e+4
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
60 min.
70
80
90
100
21aa
21bb
22aa
22bb
27dbS
27dbR
27daR
28dbR#1
28daR
28dbR#2
28daS
27bbR+29dbS
27aaS
27bbS
27aaR
29dbR
29daR
28aaS
29daS
28aaR
29aaS
29bbR
29bbS
29aaR
30aaS
30bbR
30aaR

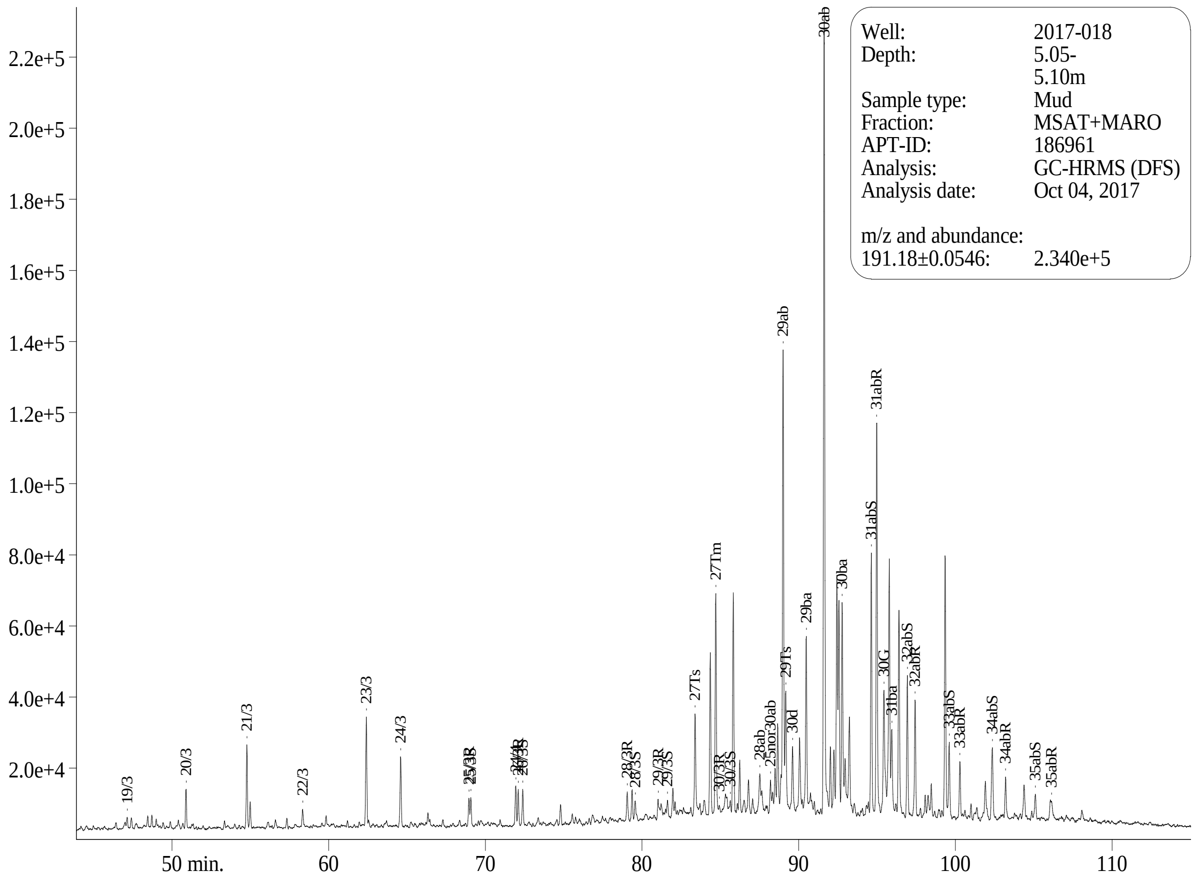

Well: 2017-015
Depth: 2.80-2.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186957
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
218.20±0.0623: 2.238e+4
2.2e+4
2.0e+4
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
60 min.
70
80
90
100
21aa
21bb
22aa
22bb
27dbS
27dbR
27aaS
27bbR
27bbS
27aaR
28dbR#2
28daR
28daS
29dbR
29daR
28bbR
28bbS
28aaR
29aaS
29aaR
30aaS
30aaR

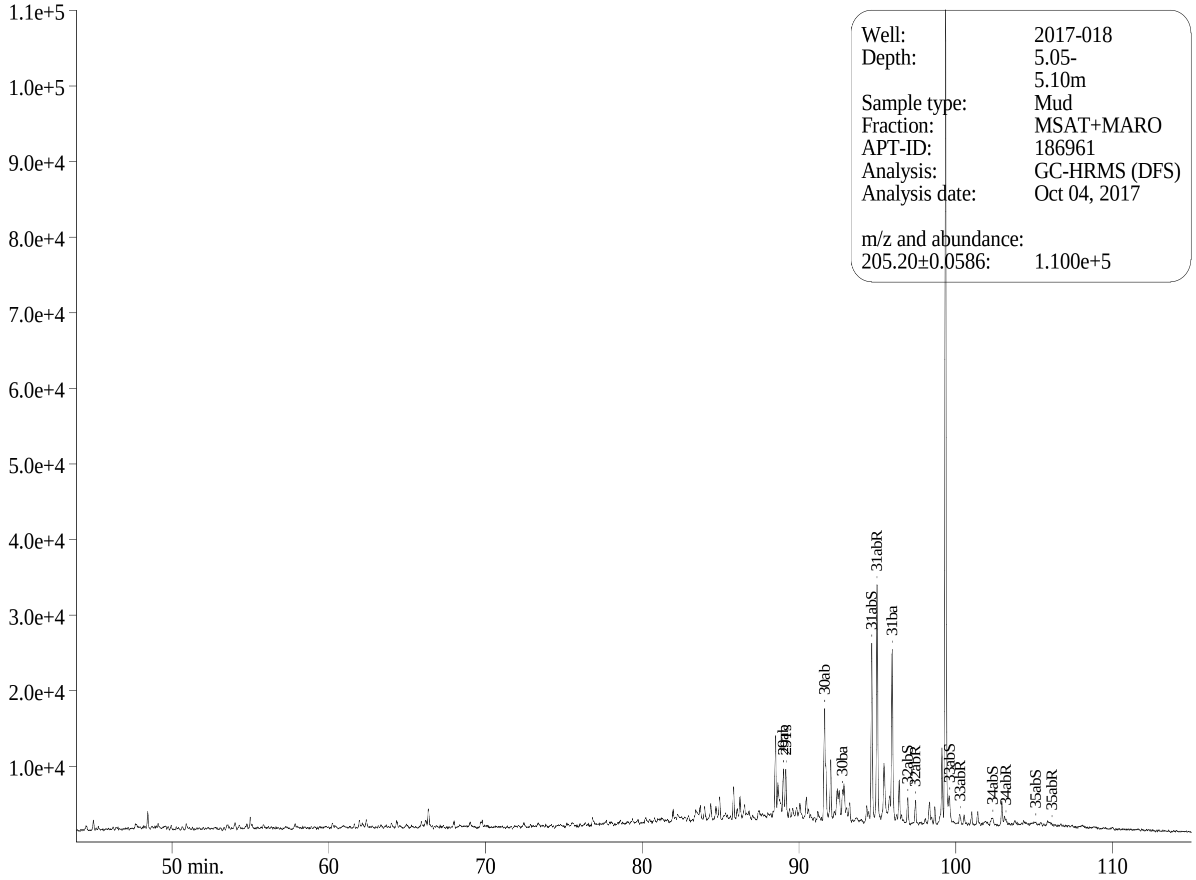

Well: 2017-015
Depth: 2.80-2.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186957
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
231.21±0.0661: 1.951e+4
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
60 min.
70
80
90
100

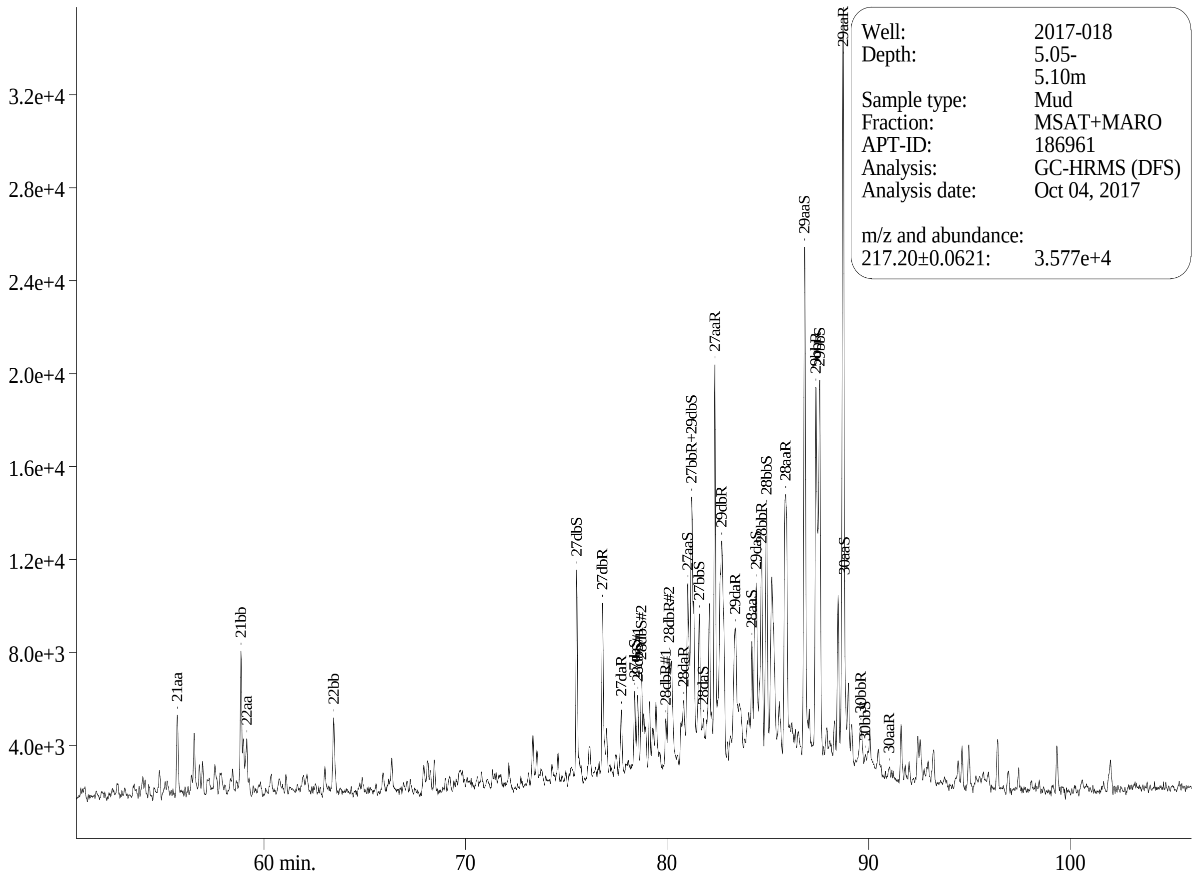


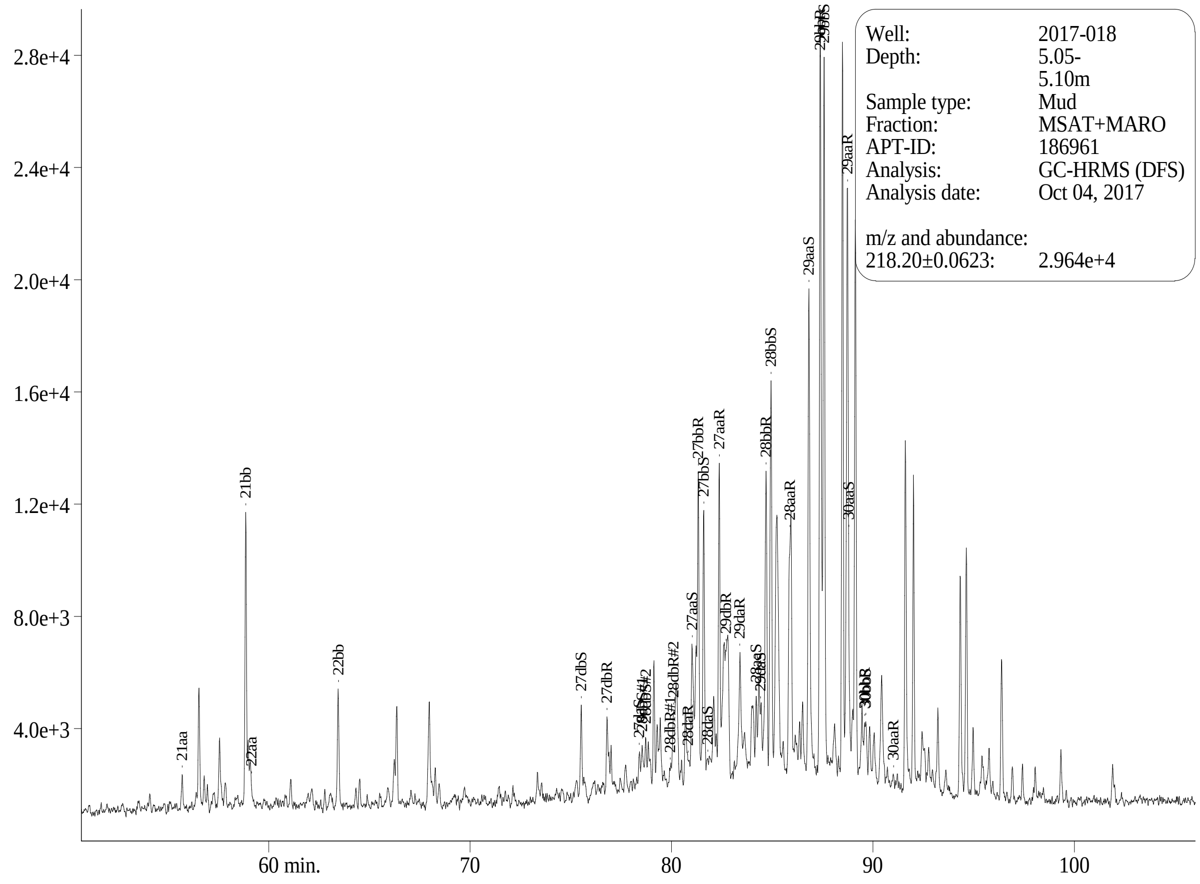
Well: 2017-015
Depth: 2.80-2.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186957
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
259.24±0.0741: 1.138e+4
27dbS
27dbR
27daR
27daS
28dbS#2
27bbR+29dbS
29dbR
28daR
28daS
29daR
29daS
1.1e+4
1.0e+4
9.0e+3
8.0e+3
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3
60 min.
70
80
90
100


Well: 2017-018
Depth: 5.05-5.10m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186961
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
177.16±0.0506: 1.106e+5
1.1e+5
1.0e+5
9.0e+4
8.0e+4
7.0e+4
6.0e+4
5.0e+4
4.0e+4
3.0e+4
2.0e+4
1.0e+4
50 min.
60
70
80
90
100
110
24/4
27Ts
27Tm
25nor29ab
28ab
25nor30ab
29ab
29Ts
29ba
25nor31ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

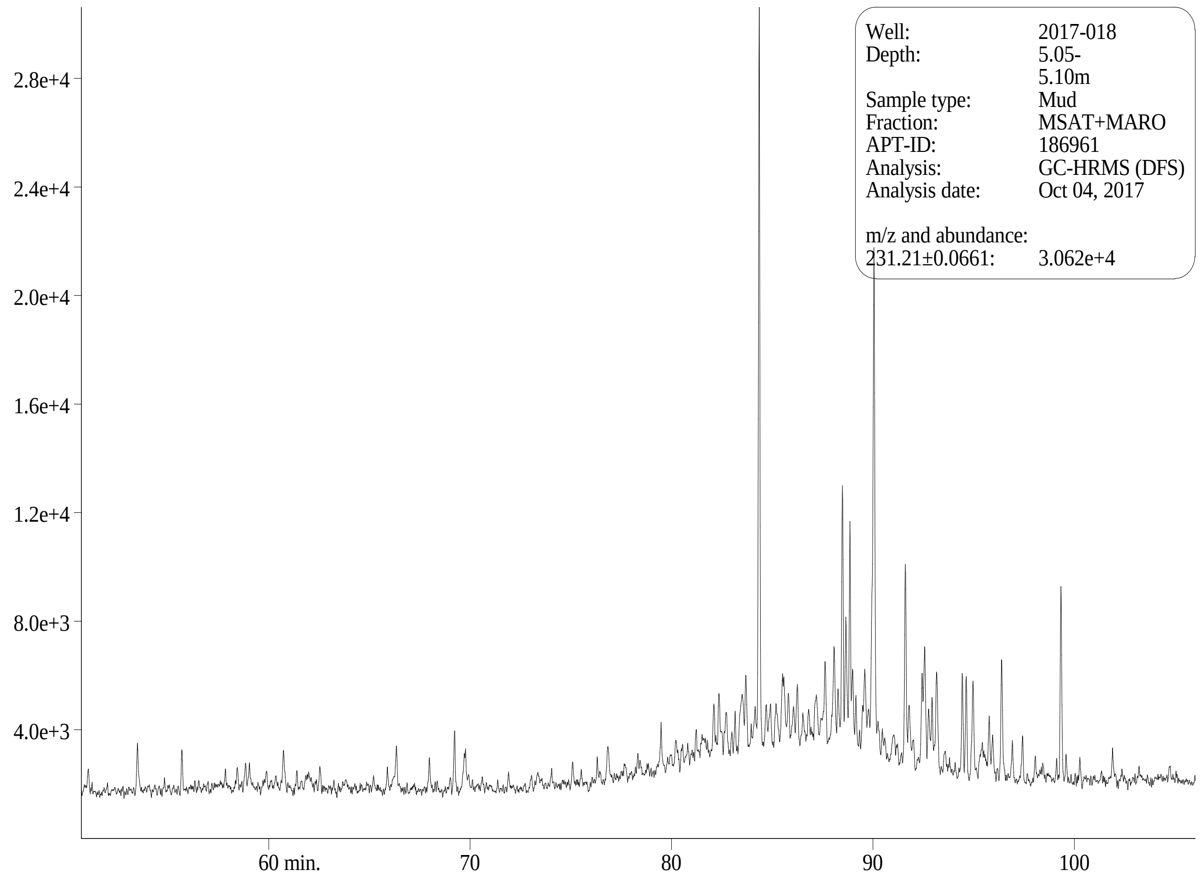

Well: 2017-018
Depth: 5.05-5.10m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186961
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
191.18±0.0546: 2.340e+5
2.2e+5
2.0e+5
1.8e+5
1.6e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
50 min.
60
70
80
90
100
110
19/3
20/3
21/3
22/3
23/3
24/3
28/3R
28/3S
29/3R
29/3S
30/3R
30/3S
27Ts
27Tm
28ab
25nor30ab
30d
29Ts
29ab
29ba
30ab
30ba
30G
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR


Well: 2017-018
Depth: 5.05-5.10m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186961
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
205.20±0.0586: 1.100e+5
30ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR
50 min.
60
70
80
90
100
110

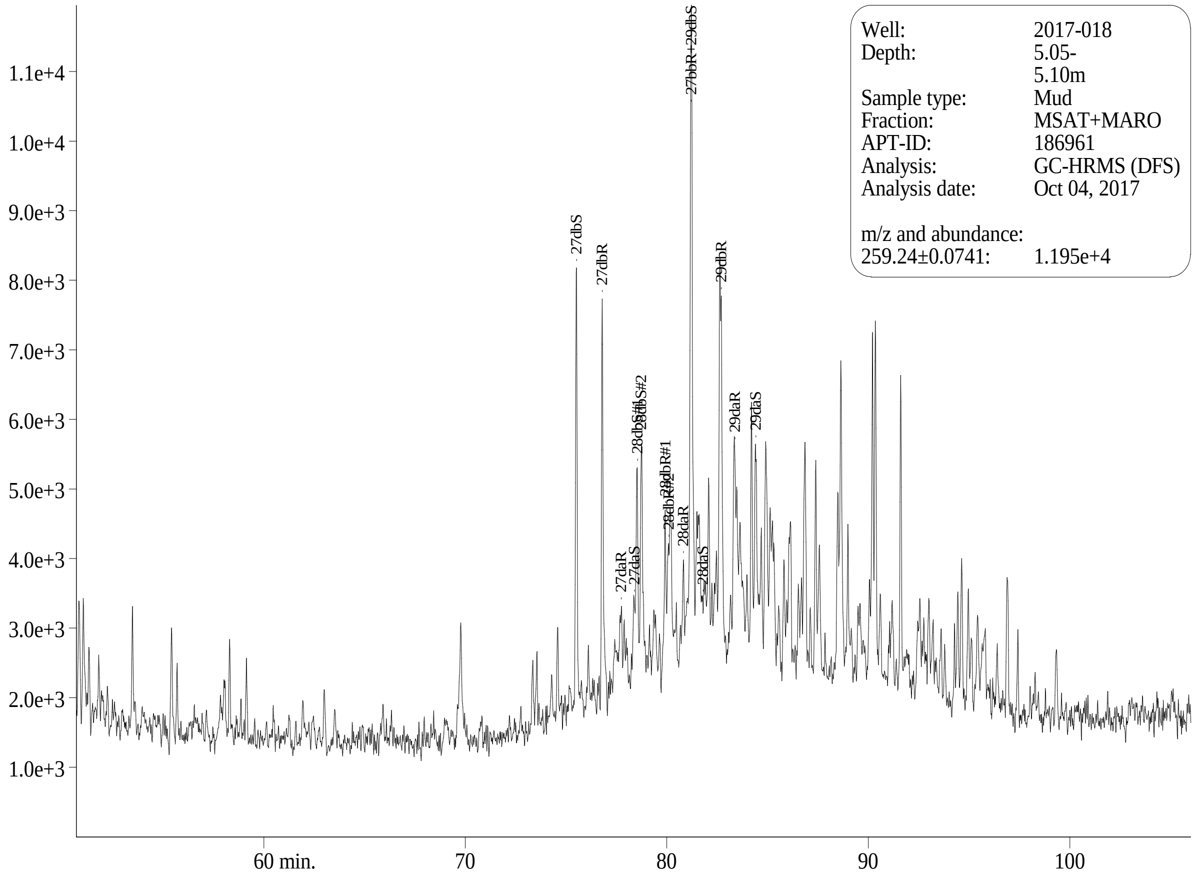

Well: 2017-018
Depth: 5.05-5.10m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186961
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
217.20±0.0621: 3.577e+4
21aa
21bb
22aa
22bb
27dbS
27dbR
27daR
27bbR+29dbS
27aaS
27bbS
27aaR
28dbR#1
28dbR#2
28daR
28daS
29dbR
29daR
29aaS
28aaS
28bbR
28bbS
28aaR
29aaR
30aaS
30bbR
30aaR
60 min.
70
80
90
100

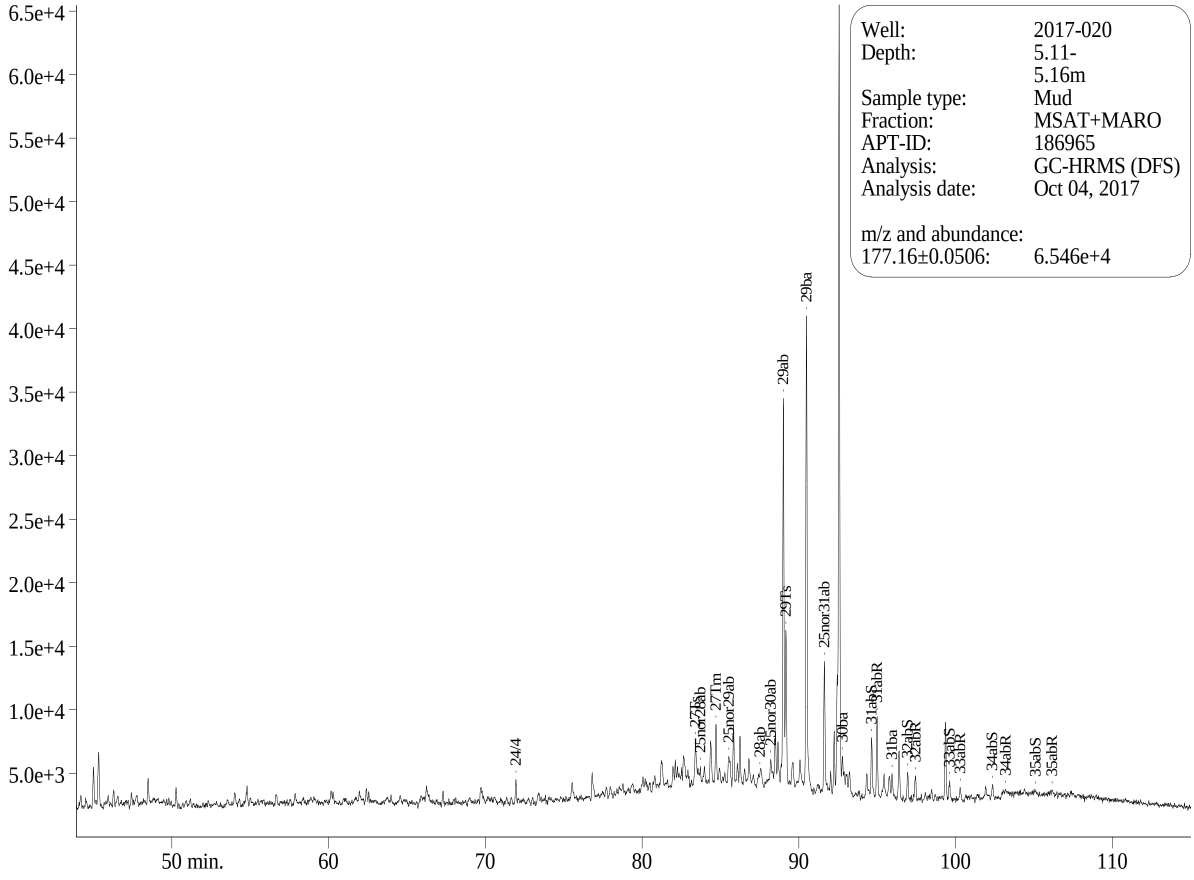


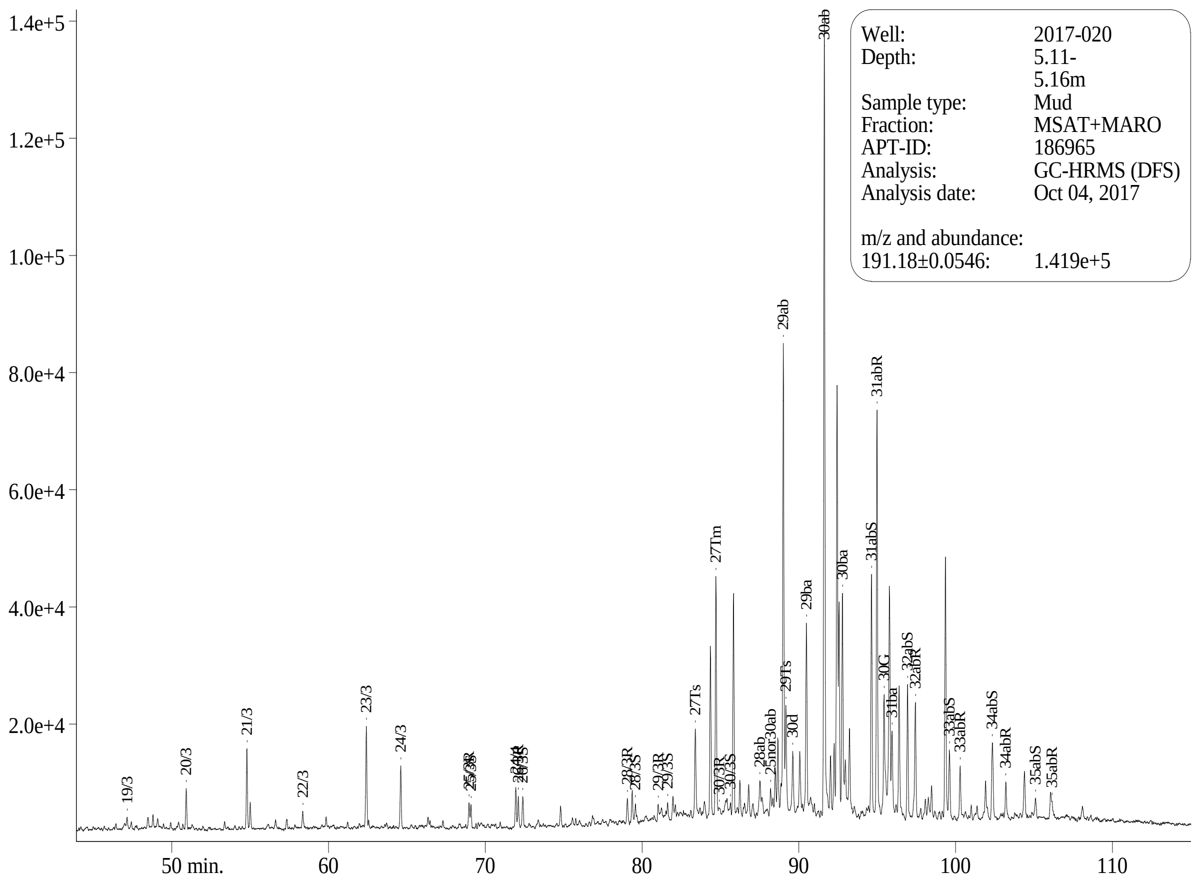
Well: 2017-018
Depth: 5.05-5.10m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186961
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
218.20±0.0623: 2.964e+4
2.8e+4
2.4e+4
2.0e+4
1.6e+4
1.2e+4
8.0e+3
4.0e+3
60 min.
70
80
90
100
21aa
21bb
22aa
22bb
27dbS
27dbR
27aaS
27bbR
27bbS
27aaR
28dbR#2
28daS
29dbR
29daR
28bbR
28bbS
28aaR
29aaS
29aaR
30aaS
30aaR

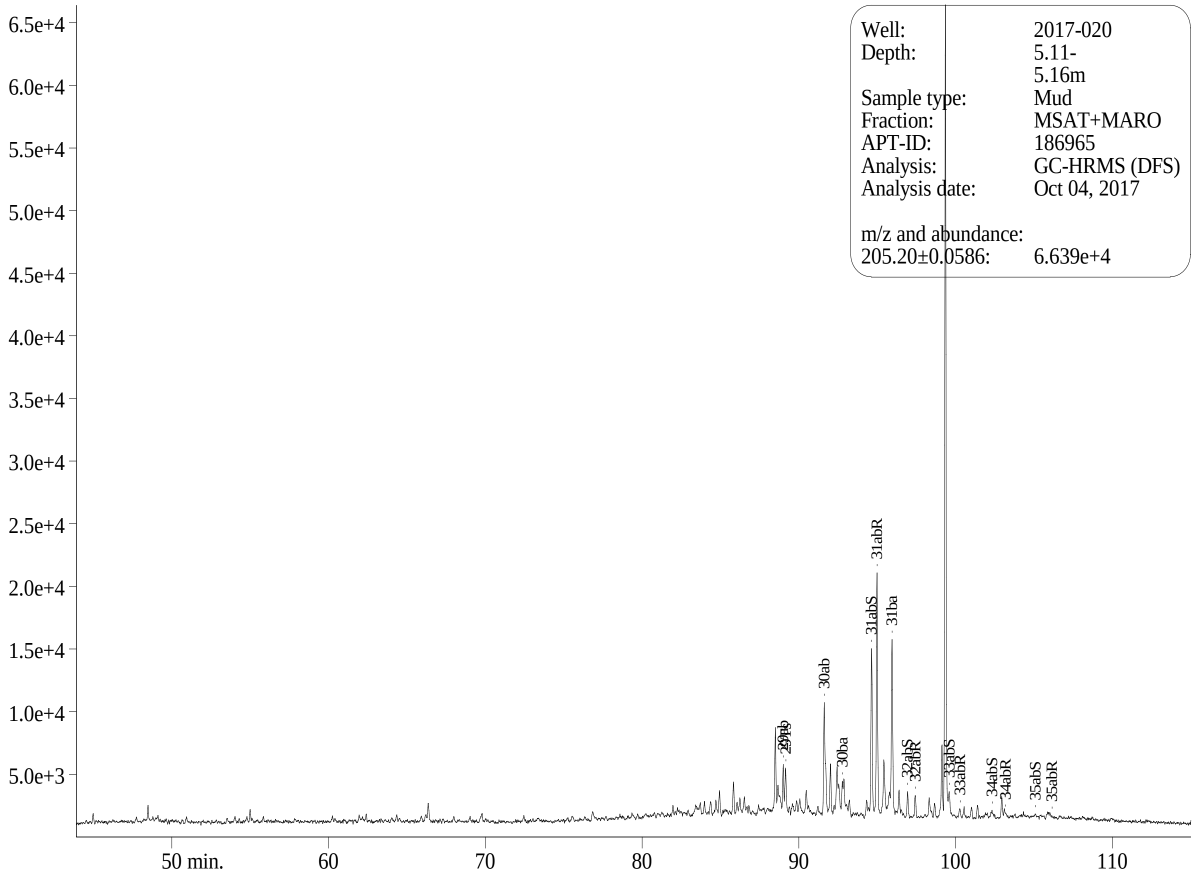


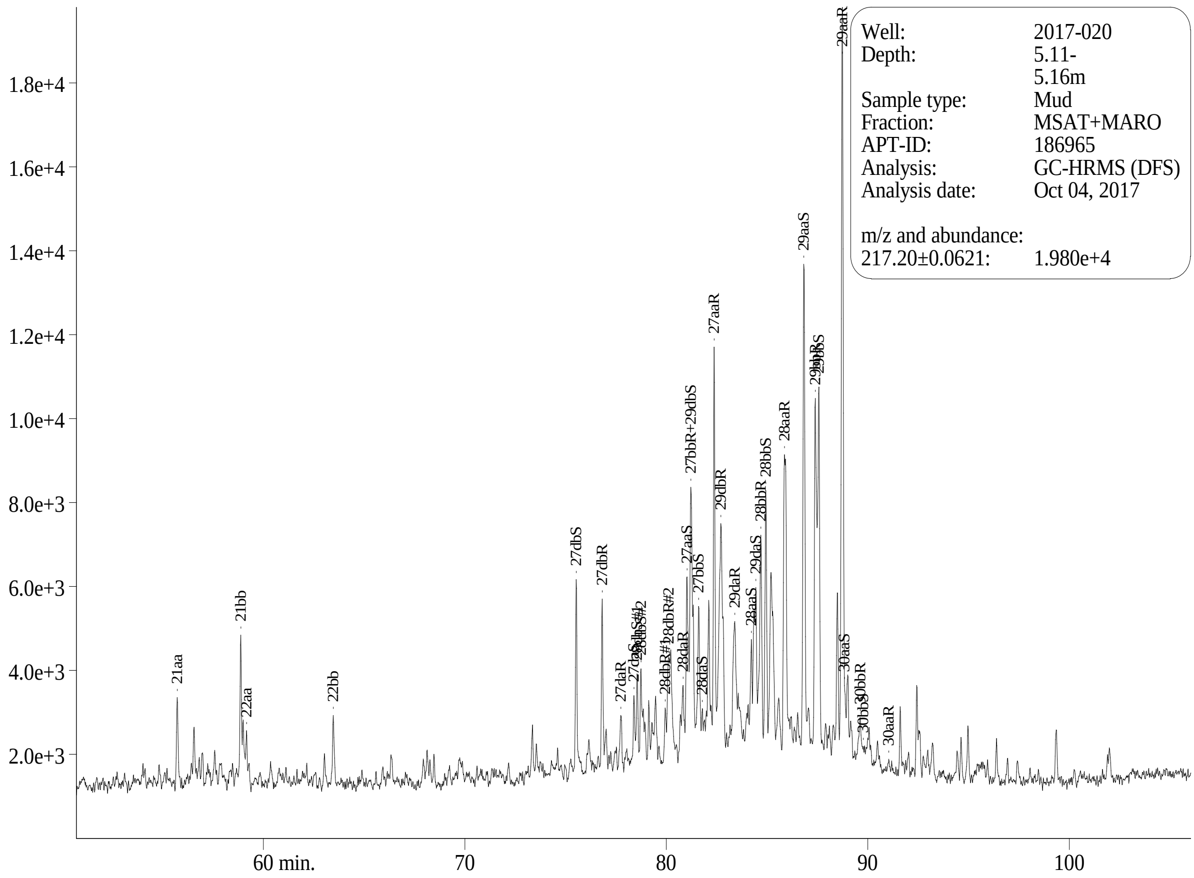
Well: 2017-018
Depth: 5.05-5.10m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186961
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
231.21±0.0661: 3.062e+4
2.8e+4
2.4e+4
2.0e+4
1.6e+4
1.2e+4
8.0e+3
4.0e+3
60 min.
70
80
90
100

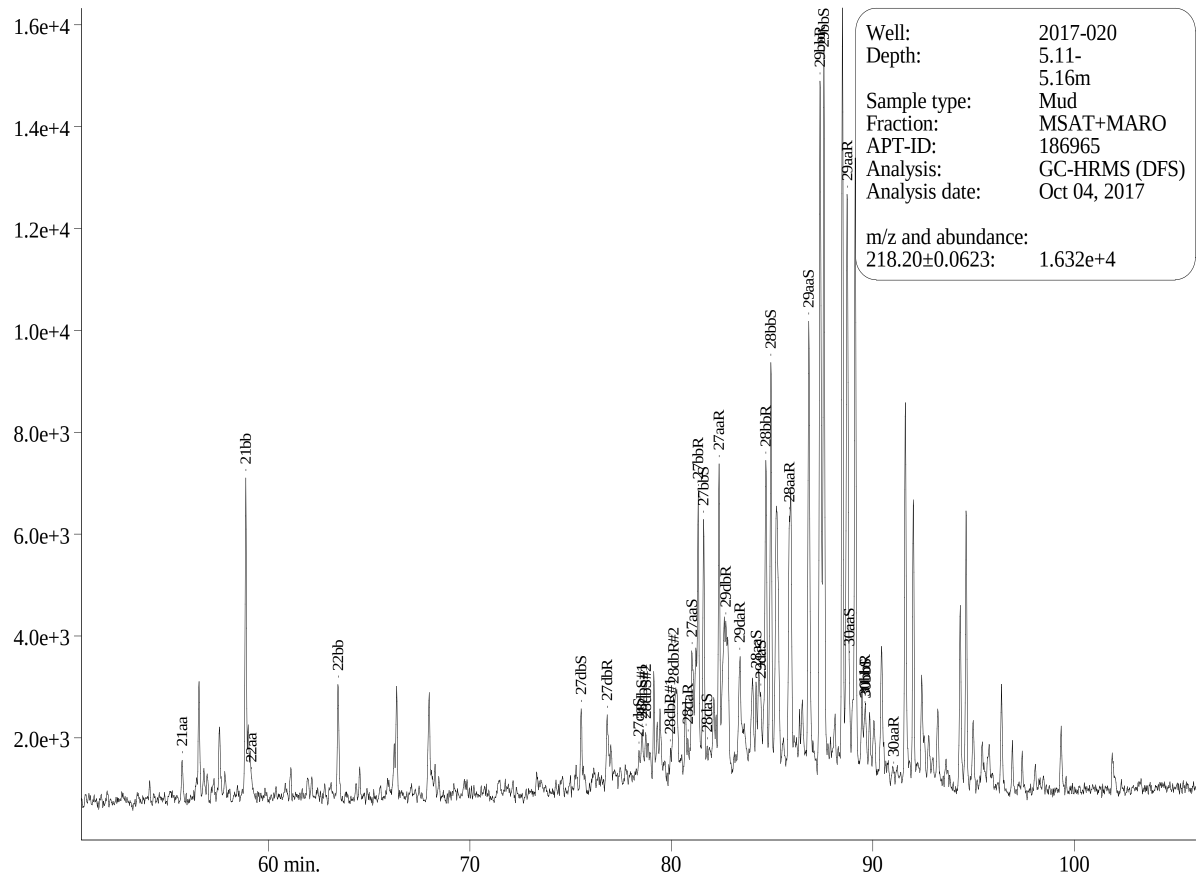

Well: 2017-018
Depth: 5.05-5.10m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186961
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
259.24±0.0741: 1.195e+4
27dbS
27dbR
27daR
27daS
28dbS#1
28dbS#2
28dbR#1
28dbR#2
28daR
27bbR+29dbS
28daS
29dbR
29daR
29daS
1.1e+4
1.0e+4
9.0e+3
8.0e+3
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3
60 min.
70
80
90
100

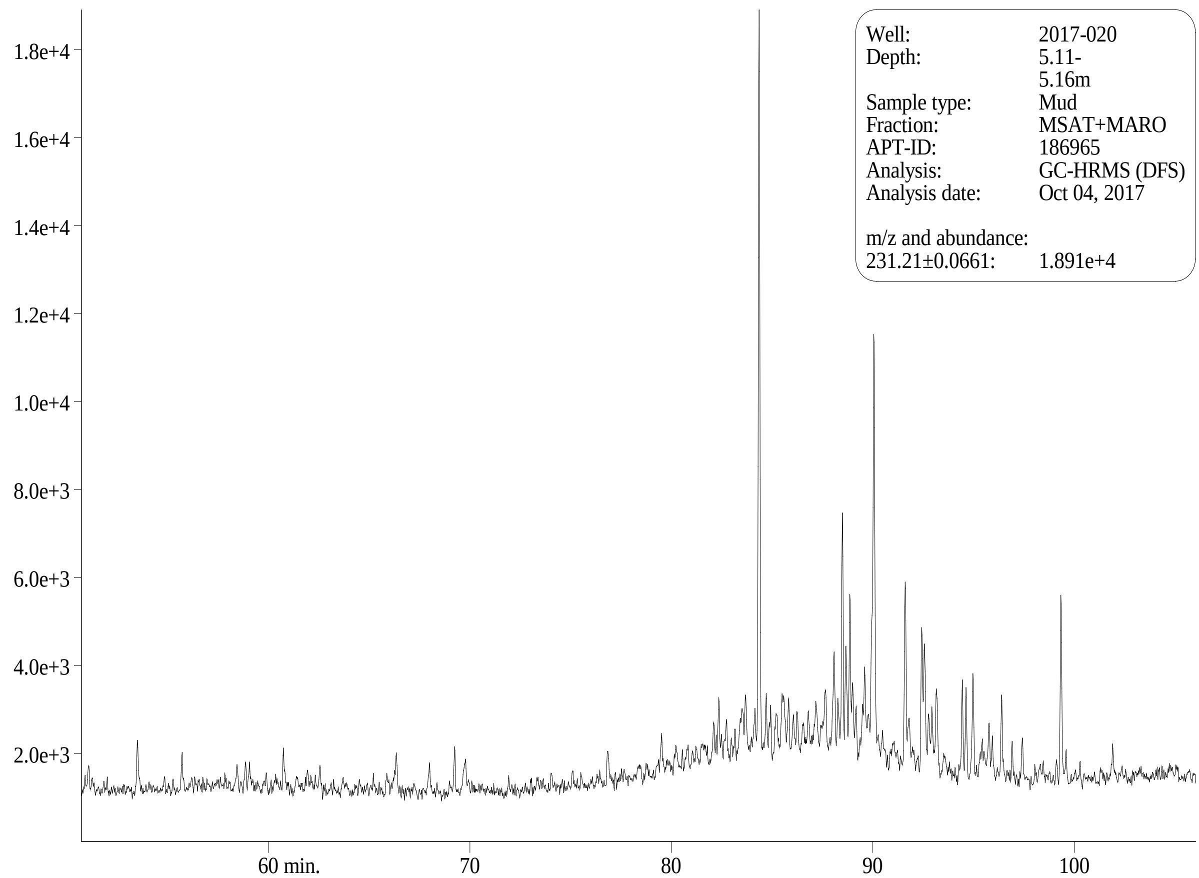

Well: 2017-020
Depth: 5.11-5.16m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186965
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
177.16±0.0506: 6.546e+4
6.5e+4
6.0e+4
5.5e+4
5.0e+4
4.5e+4
4.0e+4
3.5e+4
3.0e+4
2.5e+4
2.0e+4
1.5e+4
1.0e+4
5.0e+3
50 min.
60
70
80
90
100
110
24/4
27Ts
25nor28ab
27Tm
25nor29ab
28ab
25nor30ab
29Ts
29ab
29ba
25nor31ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

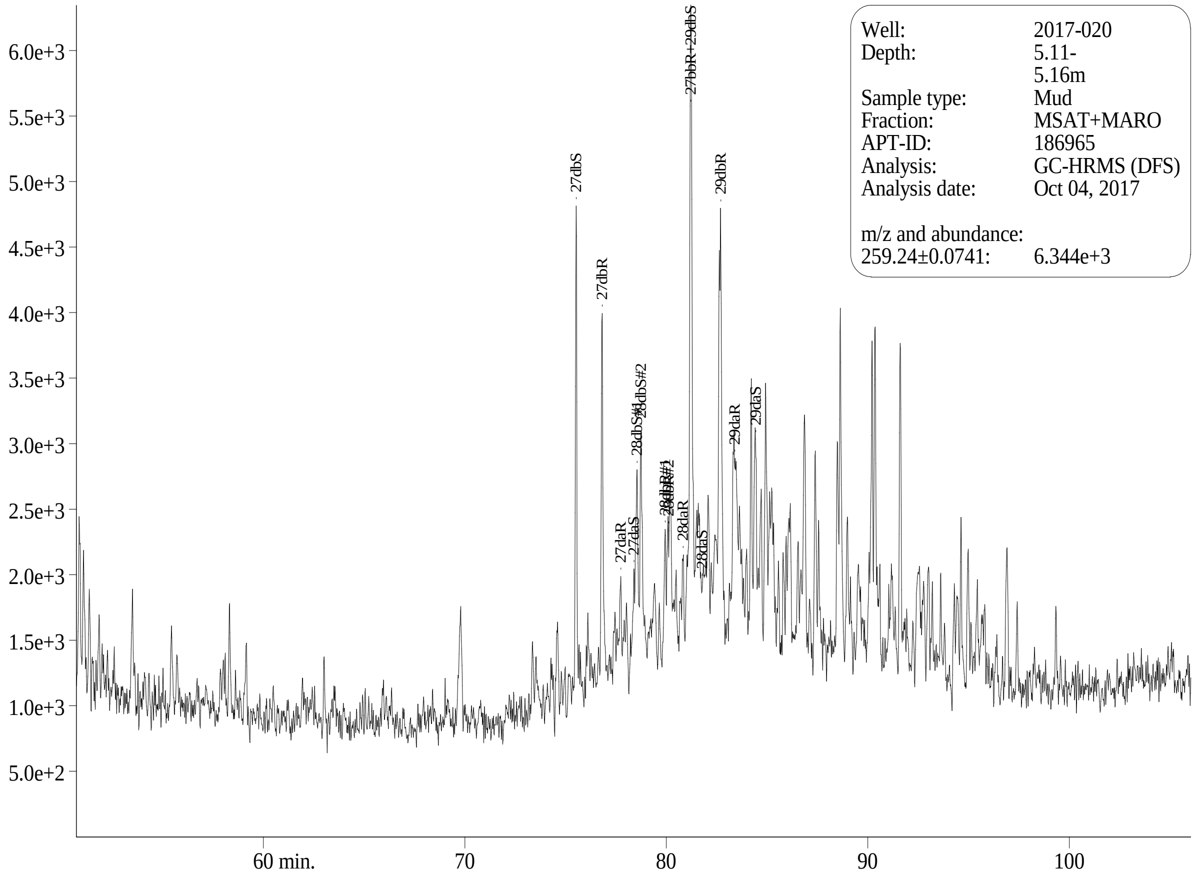

Well: 2017-020
Depth: 5.11-5.16m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186965
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
191.18±0.0546: 1.419e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
50 min.
60
70
80
90
100
110
19/3
20/3
21/3
22/3
23/3
24/3
25/3R
25/3S
24/4
26/3R
26/3S
28/3R
28/3S
29/3R
29/3S
30/3R
30/3S
27Ts
27Tm
28ab
25nor30ab
29Ts
29ab
30d
29ba
30ab
30ba
31abS
31abR
30G
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

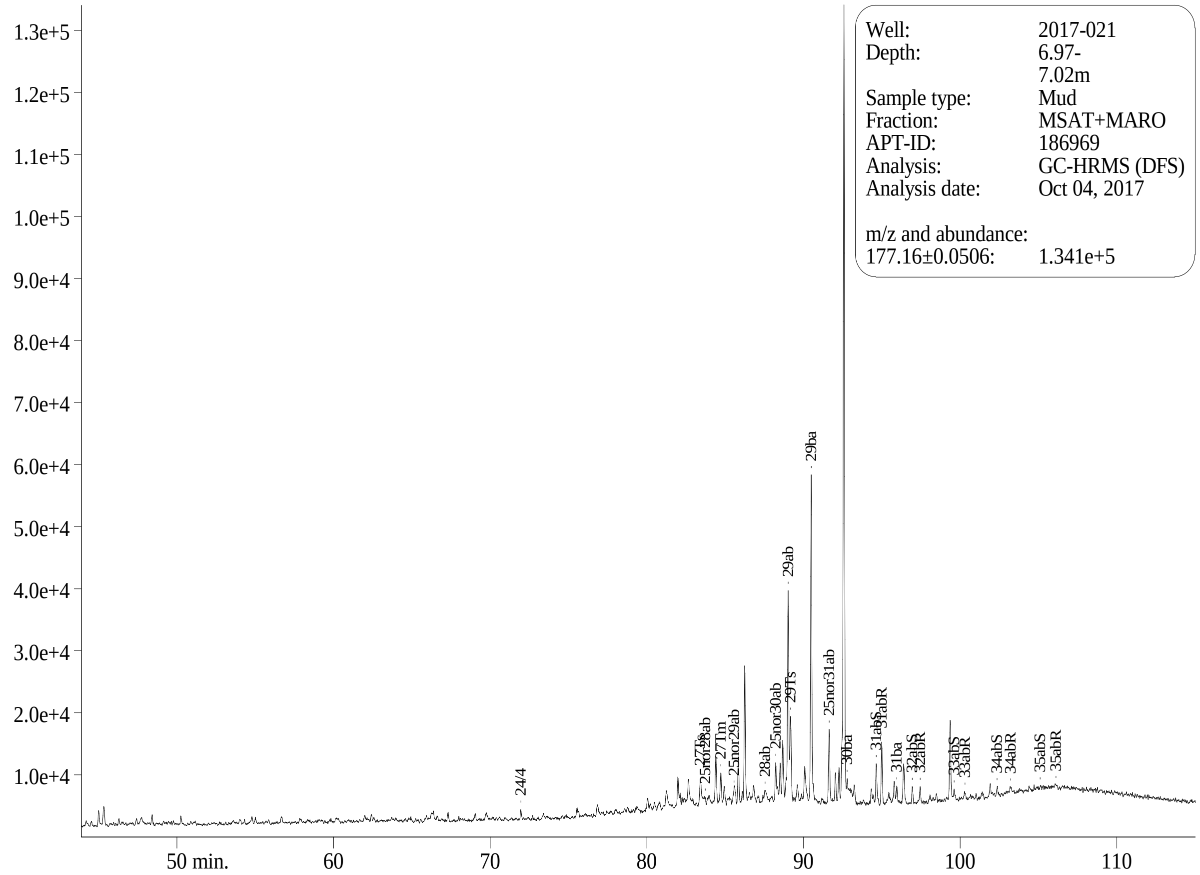

Well: 2017-020
Depth: 5.11-5.16m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186965
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
205.20±0.0586: 6.639e+4
6.5e+4
6.0e+4
5.5e+4
5.0e+4
4.5e+4
4.0e+4
3.5e+4
3.0e+4
2.5e+4
2.0e+4
1.5e+4
1.0e+4
5.0e+3
50 min.
60
70
80
90
100
110
30ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

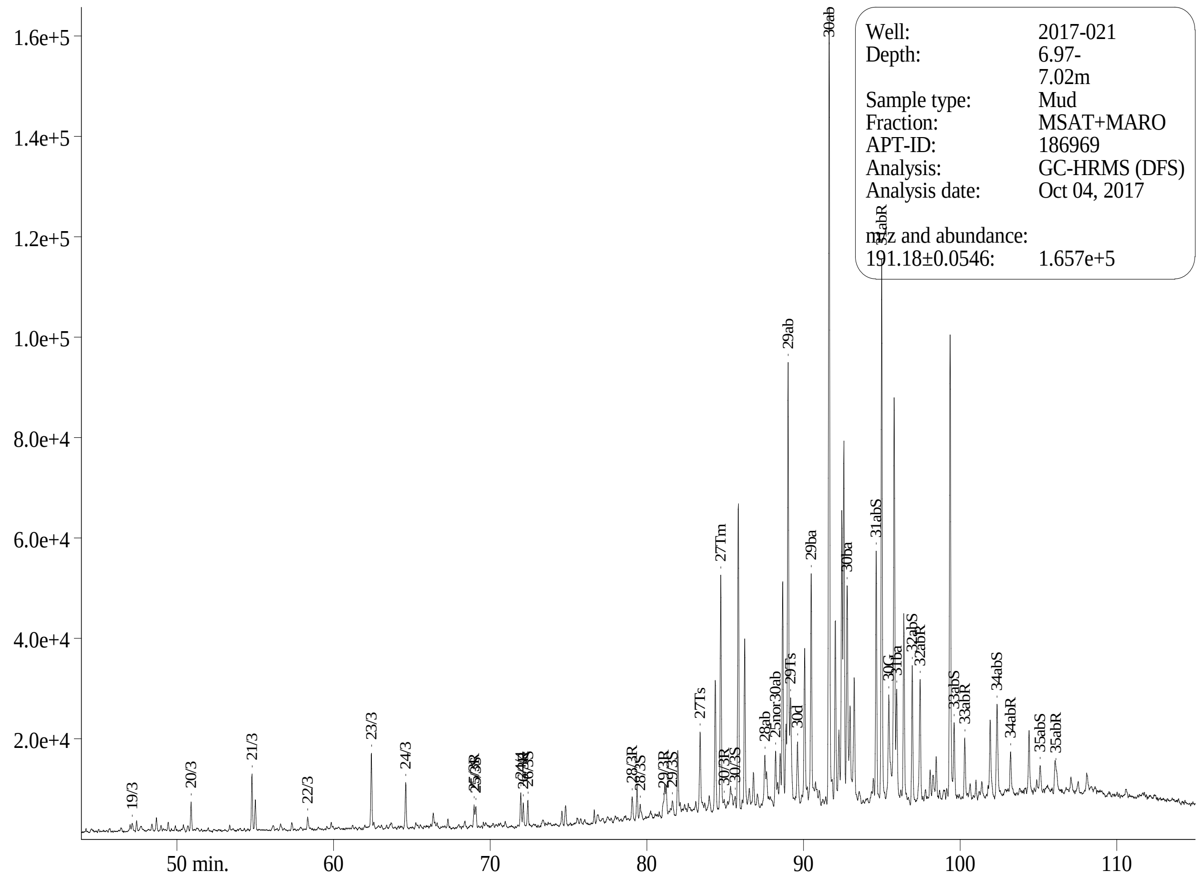

Well: 2017-020
Depth: 5.11-5.16m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186965
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
217.20±0.0621: 1.980e+4
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
60 min.
70
80
90
100
21aa
21bb
22aa
22bb
27dbS
27dbR
27daR
27aaS
27bbS
27bbR+29dbS
27aaR
28daR
28daS
29dbR
29daR
28aaS
29daS
28bbR
28bbS
28aaR
29aaS
29aaR
30aaS
30bbR
30aaR

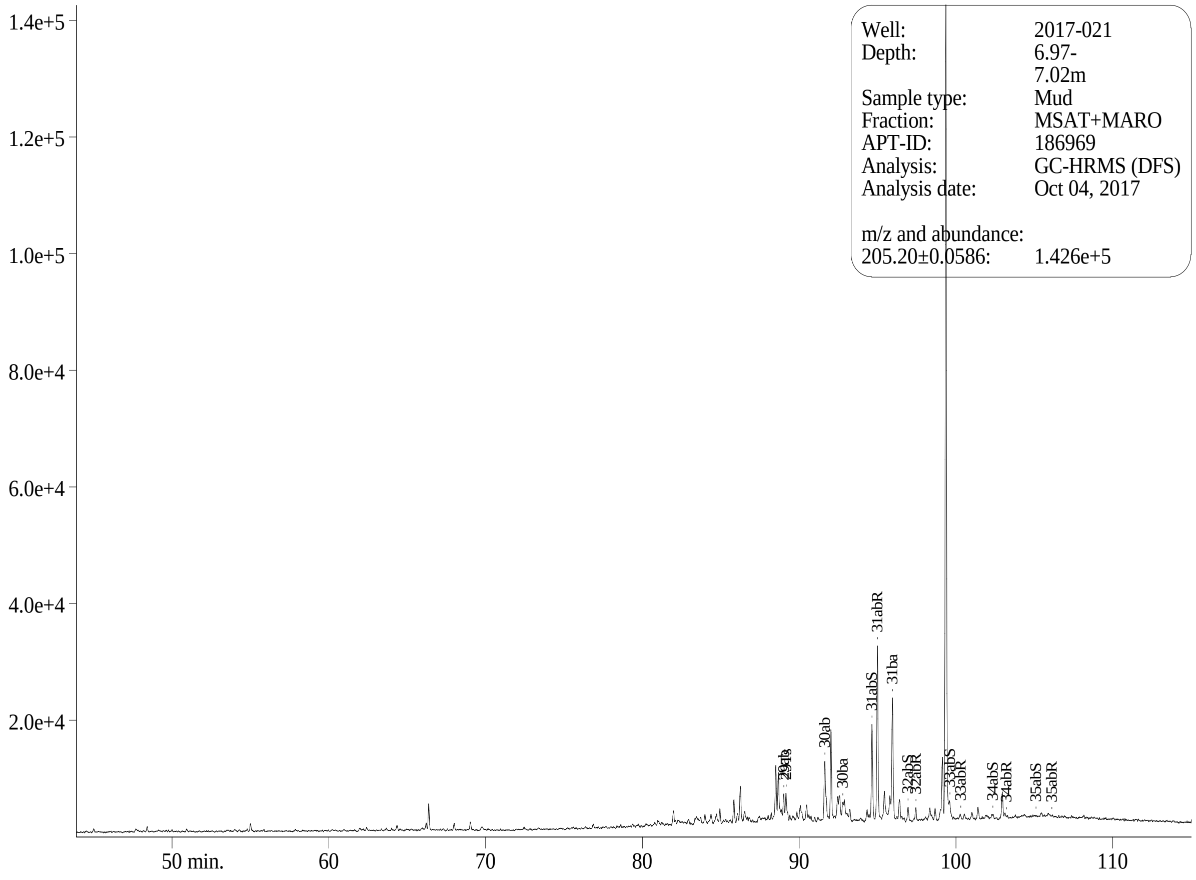

Well: 2017-020
Depth: 5.11-5.16m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186965
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
218.20±0.0623: 1.632e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
60 min.
70
80
90
100
21aa
21bb
22aa
22bb
27dbS
27dbR
27aaS
27bbR
27bbS
27aaR
28dbR#2
28daR
28daS
29dbR
29daR
28bbR
28bbS
28aaR
29aaS
29aaR
30aaS
30aaR

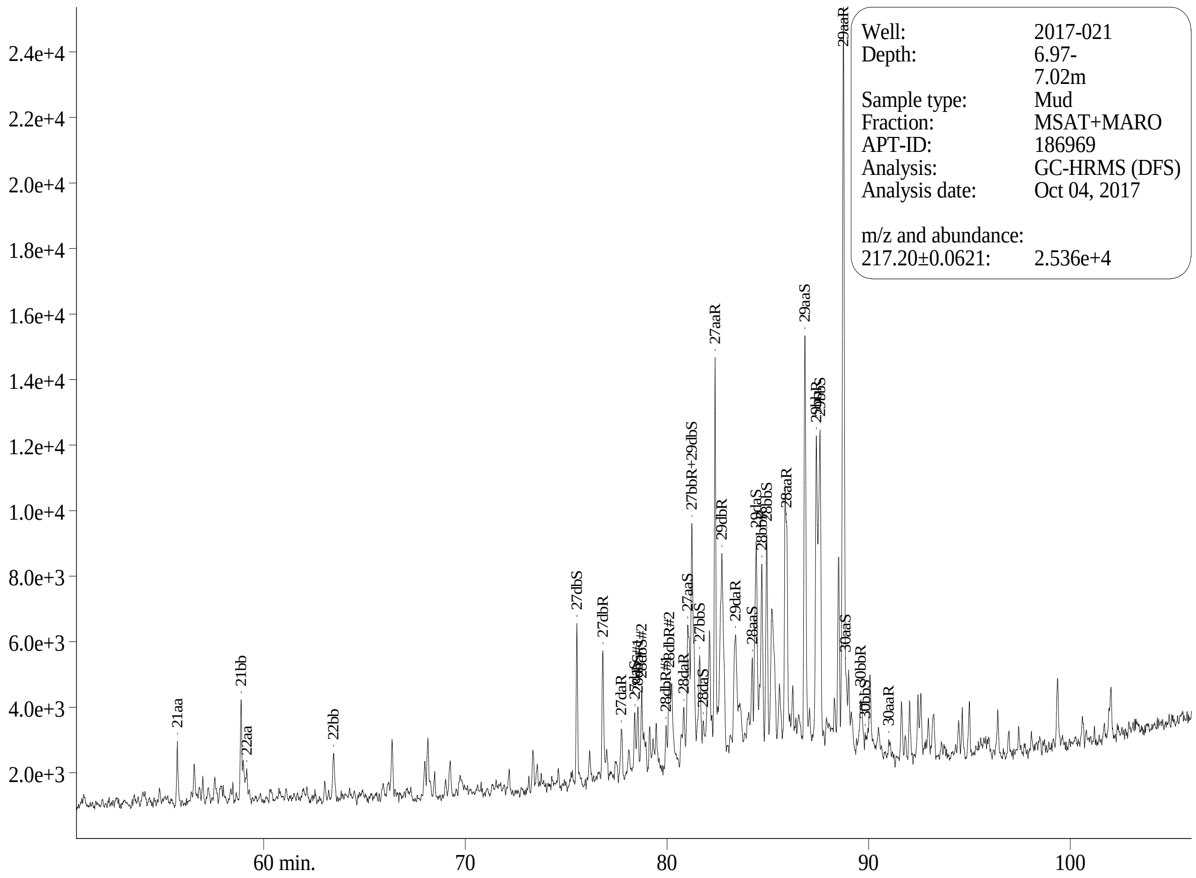

Well: 2017-020
Depth: 5.11-5.16m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186965
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
231.21±0.0661: 1.891e+4
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
60 min.
70
80
90
100

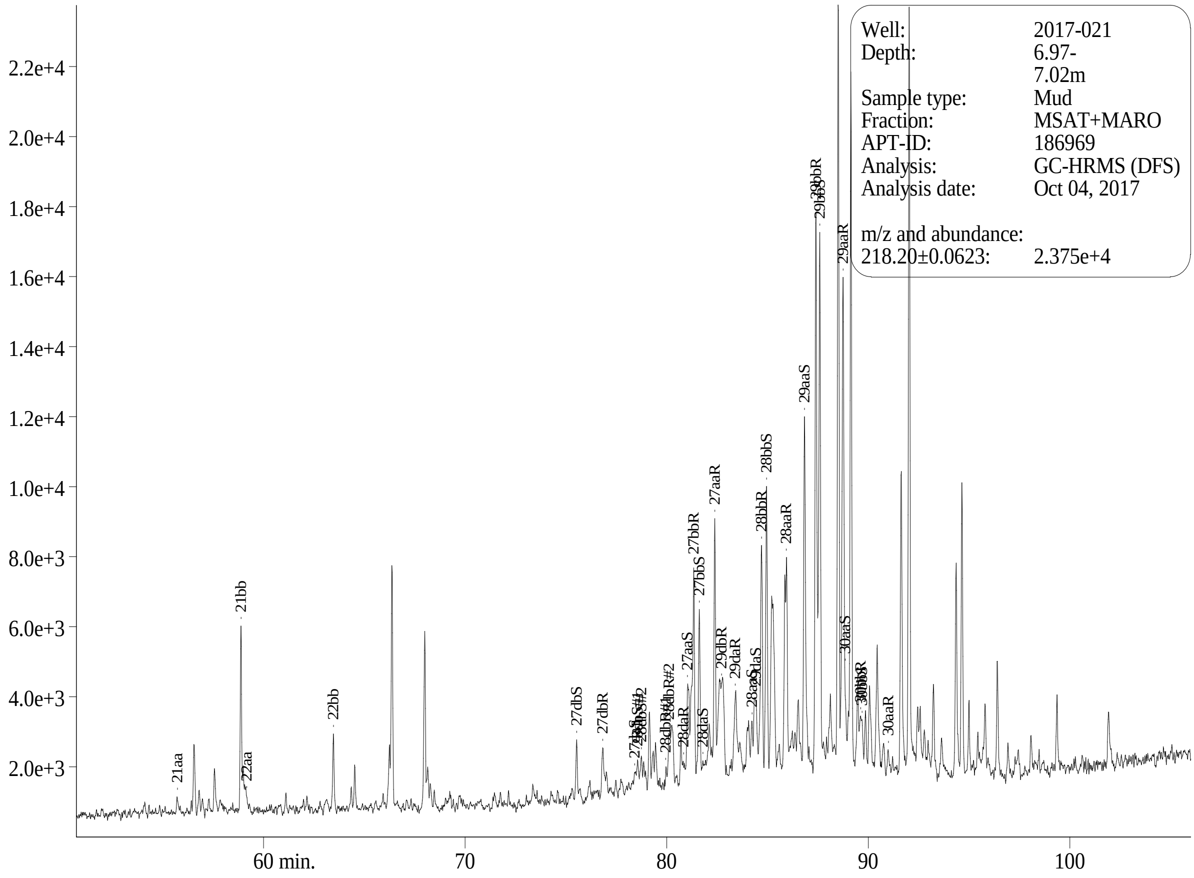

Well: 2017-020
Depth: 5.11-5.16m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186965
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
259.24±0.0741: 6.344e+3
27dbS
27dbR
27daR
27daS
28dbS#1
28dbS#2
28daR
28daS
27bbR+29dbS
29dbR
29daR
29daS
6.0e+3
5.5e+3
5.0e+3
4.5e+3
4.0e+3
3.5e+3
3.0e+3
2.5e+3
2.0e+3
1.5e+3
1.0e+3
5.0e+2
60 min.
70
80
90
100

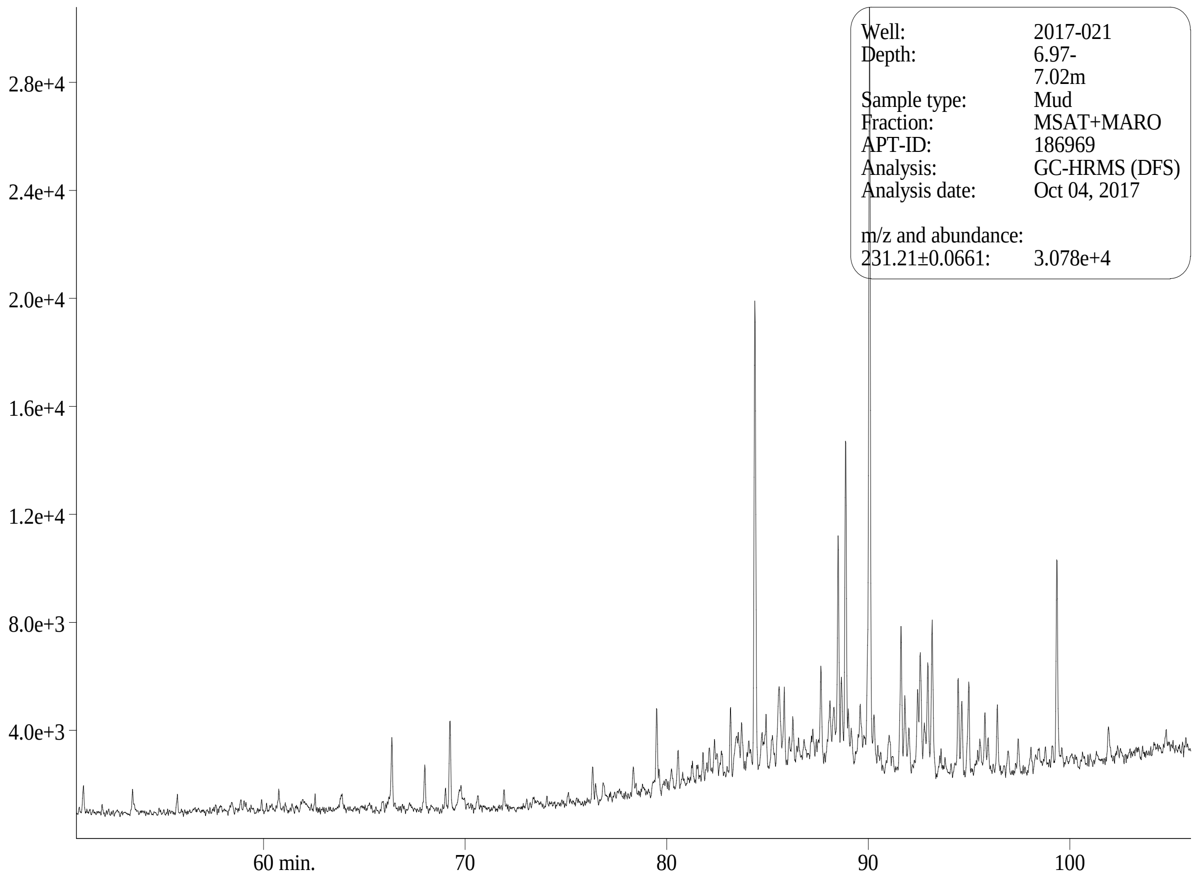

Well: 2017-021
Depth: 6.97-7.02m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186969
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
177.16±0.0506: 1.341e+5

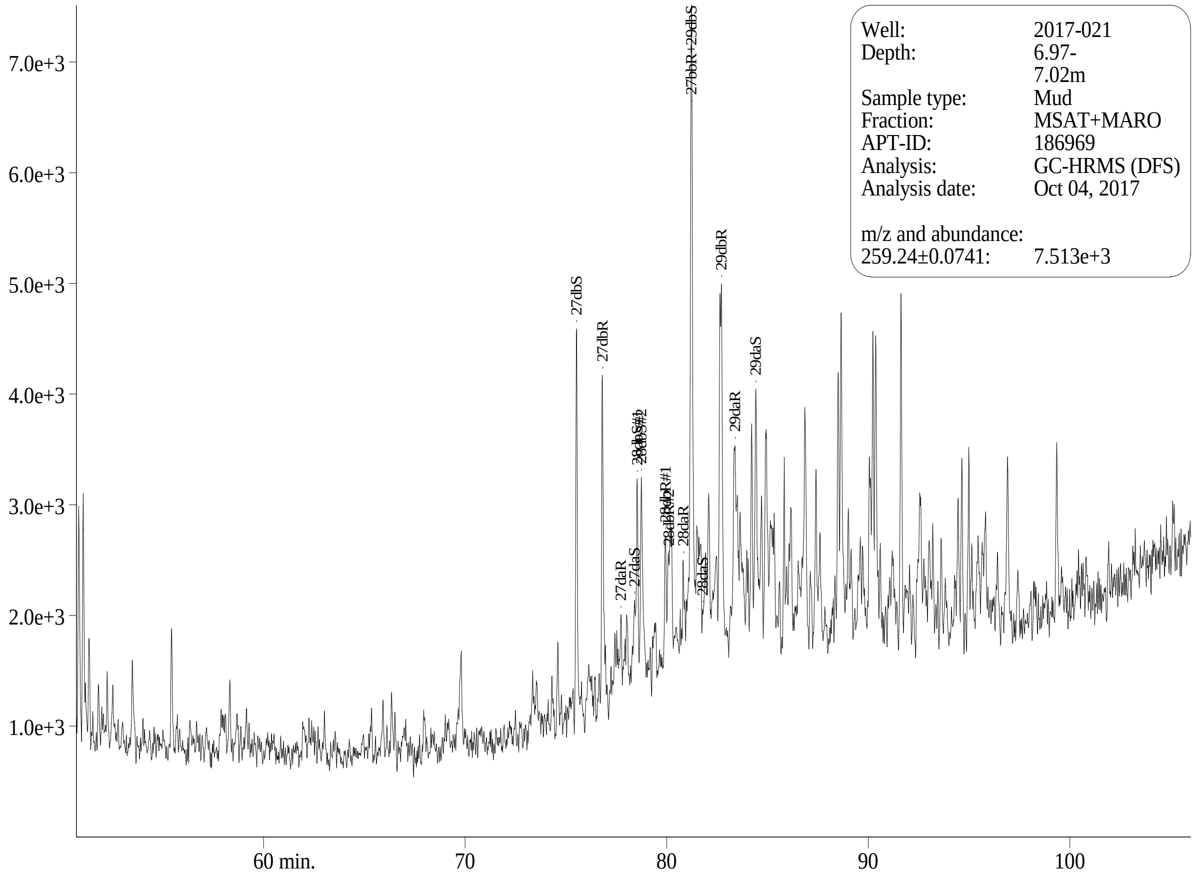

Well: 2017-021
Depth: 6.97-7.02m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186969
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
191.18±0.0546: 1.657e+5


Well: 2017-021
Depth: 6.97-7.02m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186969
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
205.20±0.0586: 1.426e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
50 min.
60
70
80
90
100
110
31abR
31ba
31abS
30ab
30ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

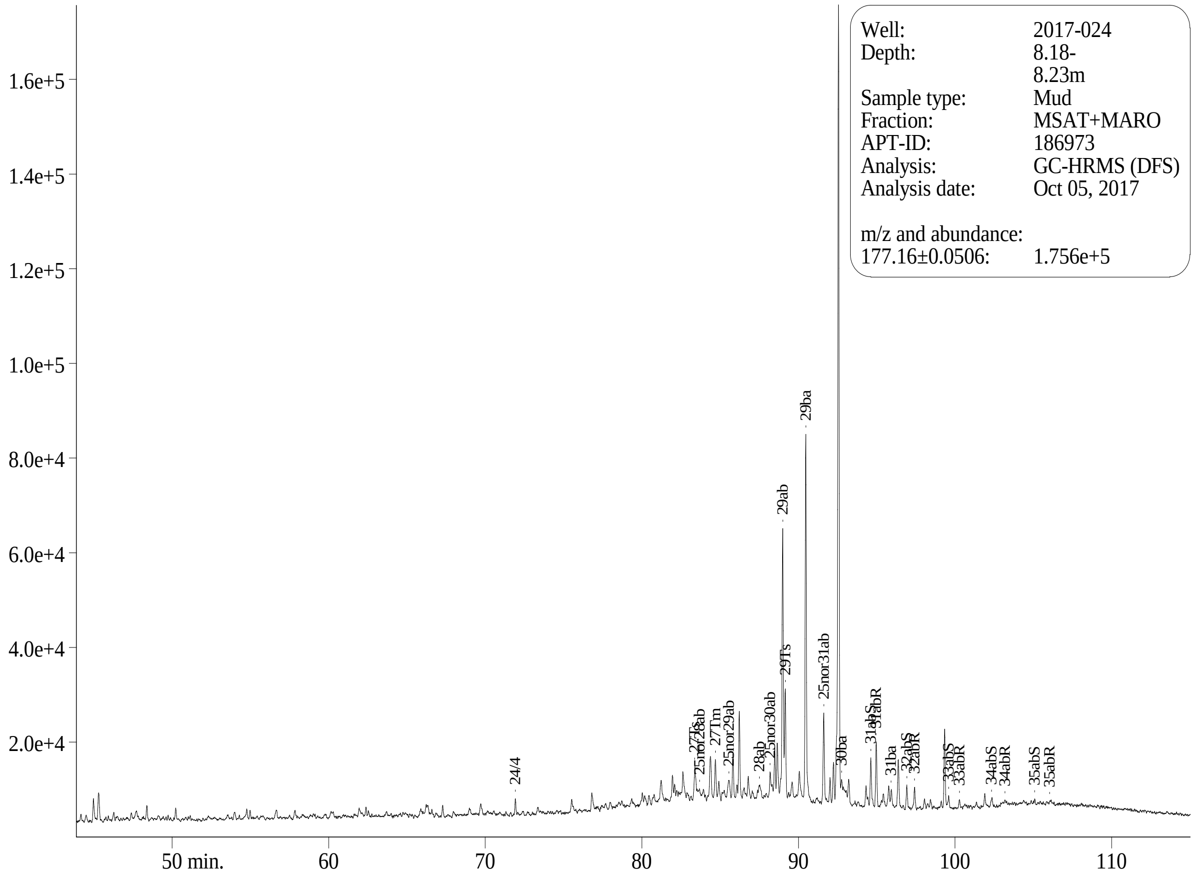

Well: 2017-021
Depth: 6.97-7.02m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186969
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
217.20±0.0621: 2.536e+4
2.4e+4
2.2e+4
2.0e+4
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
60 min.
70
80
90
100
21aa
21bb
22aa
22bb
27dbS
27dbR
27daR
27bbR+29dbS
27aaS
27bbS
27aaR
28daR
28daS
29dbR
29daR
28aaS
28bbS
28aaR
29aaS
29aaR
30aaS
30bbR
30aaR

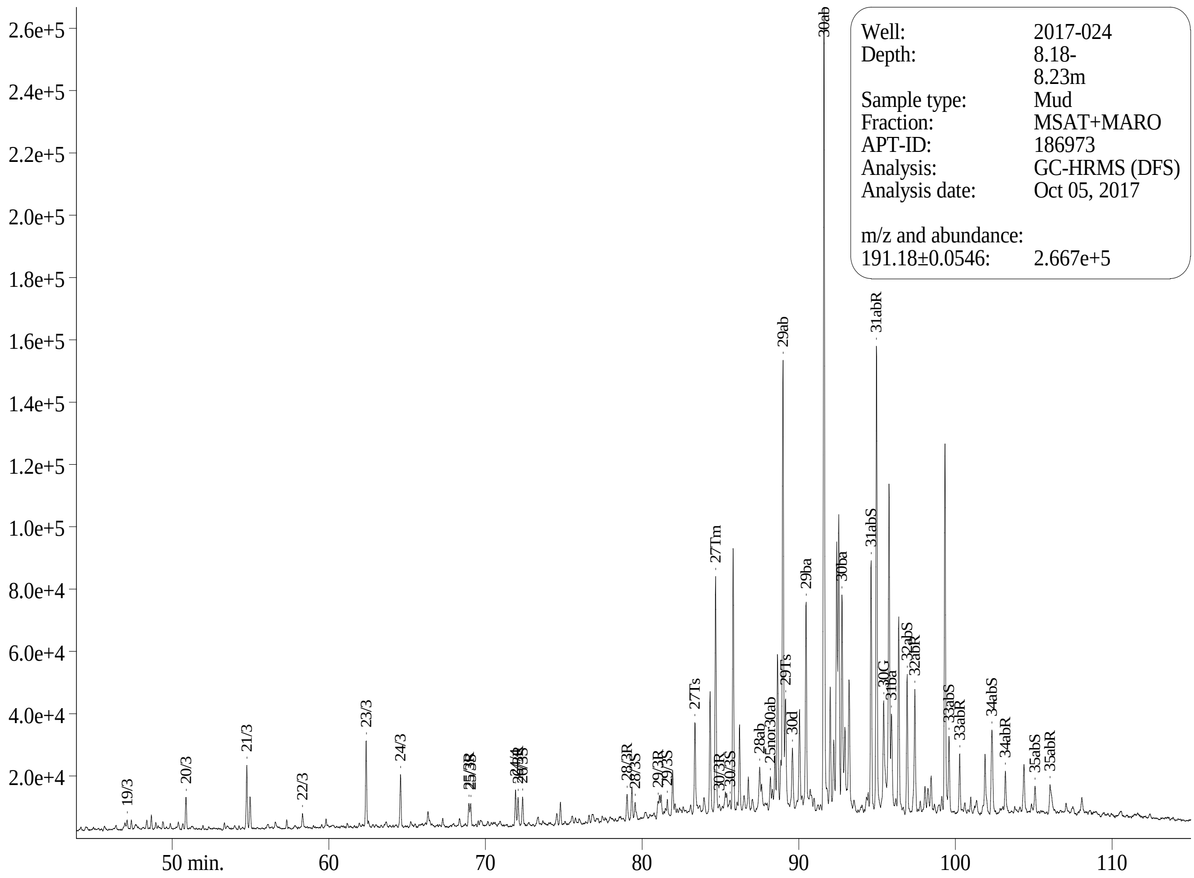

Well: 2017-021
Depth: 6.97-7.02m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186969
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
218.20±0.0623: 2.375e+4
2.2e+4
2.0e+4
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
60 min.
70
80
90
100
21aa
21bb
22aa
22bb
27dbS
27dbR
27aaS
27bbR
27bbS
27aaR
28daR
28daS
28bbR
28bbS
28aaR
29dbR
29daR
29aaS
29bbR
29bbS
29aaR
30aaS
30aaR

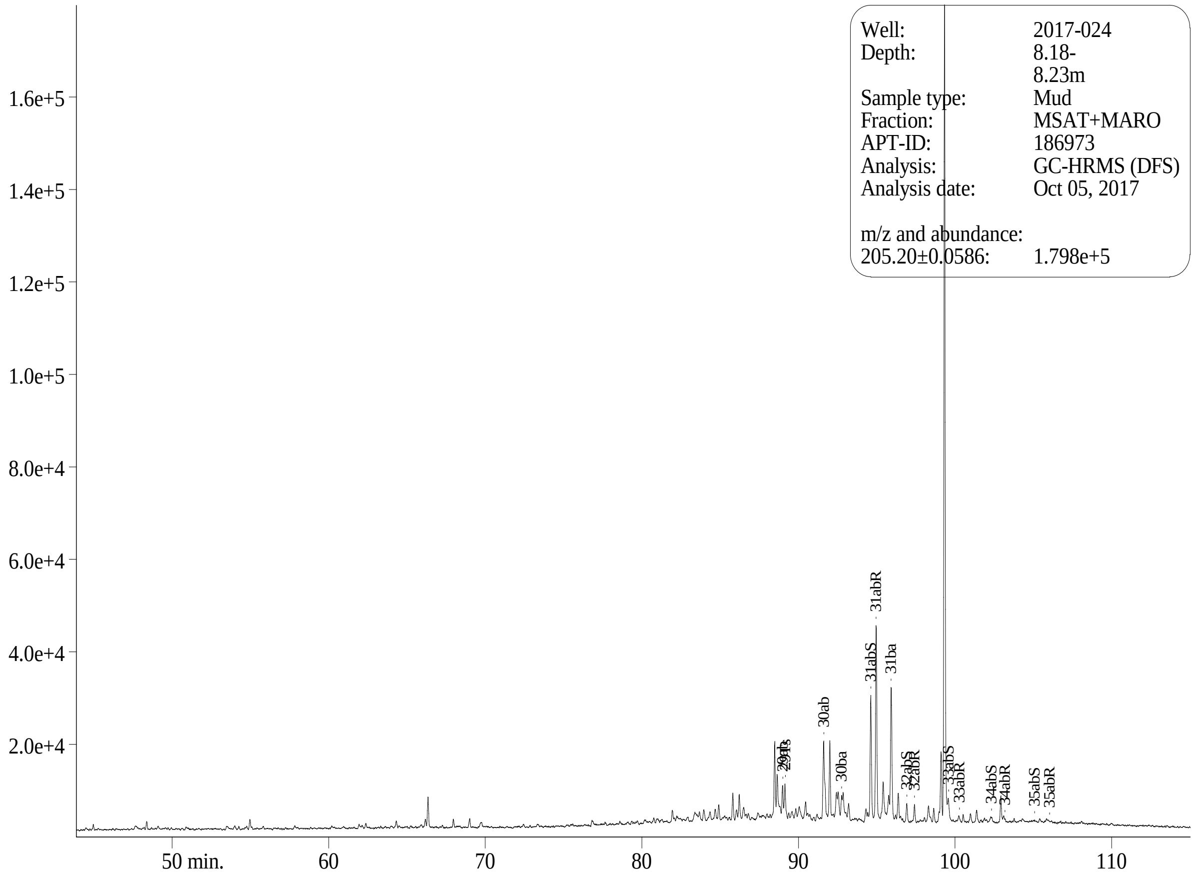

Well: 2017-021
Depth: 6.97-7.02m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186969
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
231.21±0.0661: 3.078e+4
2.8e+4
2.4e+4
2.0e+4
1.6e+4
1.2e+4
8.0e+3
4.0e+3
60 min.
70
80
90
100

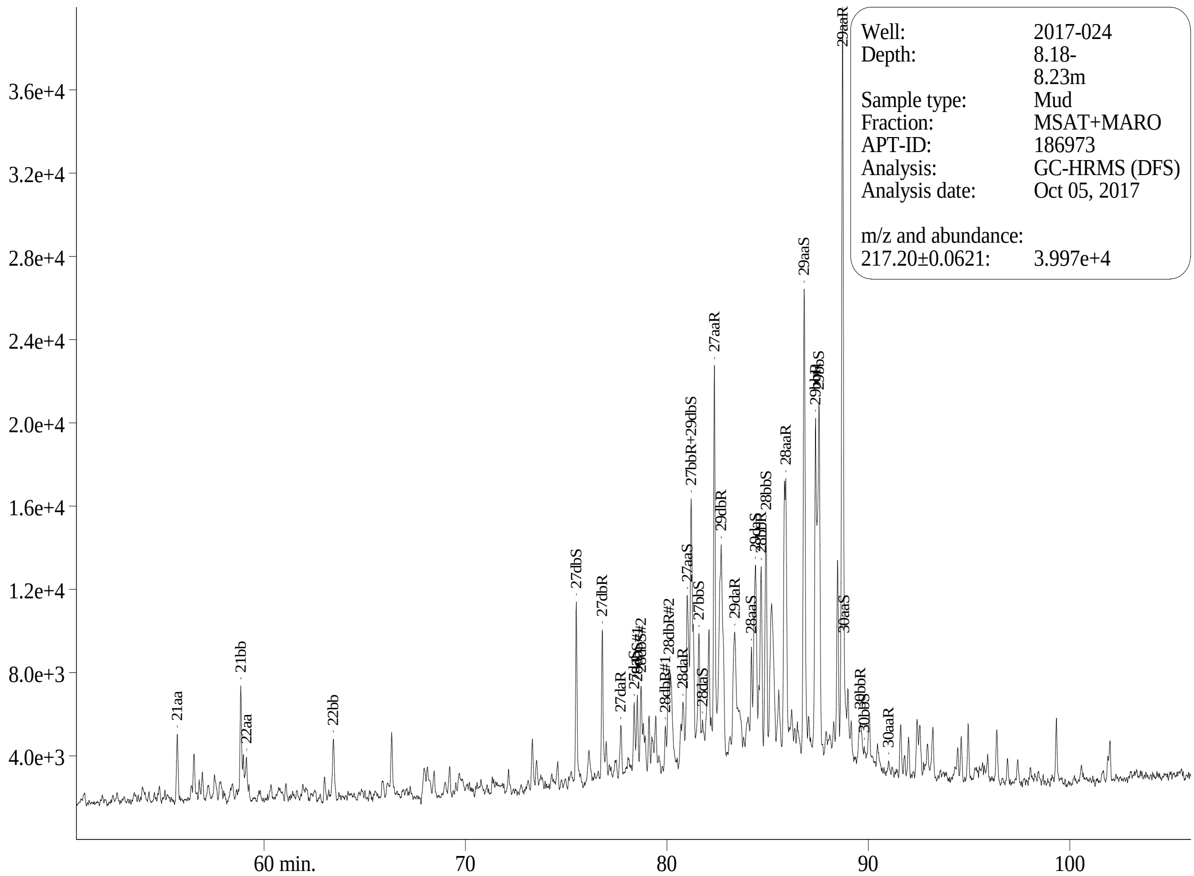


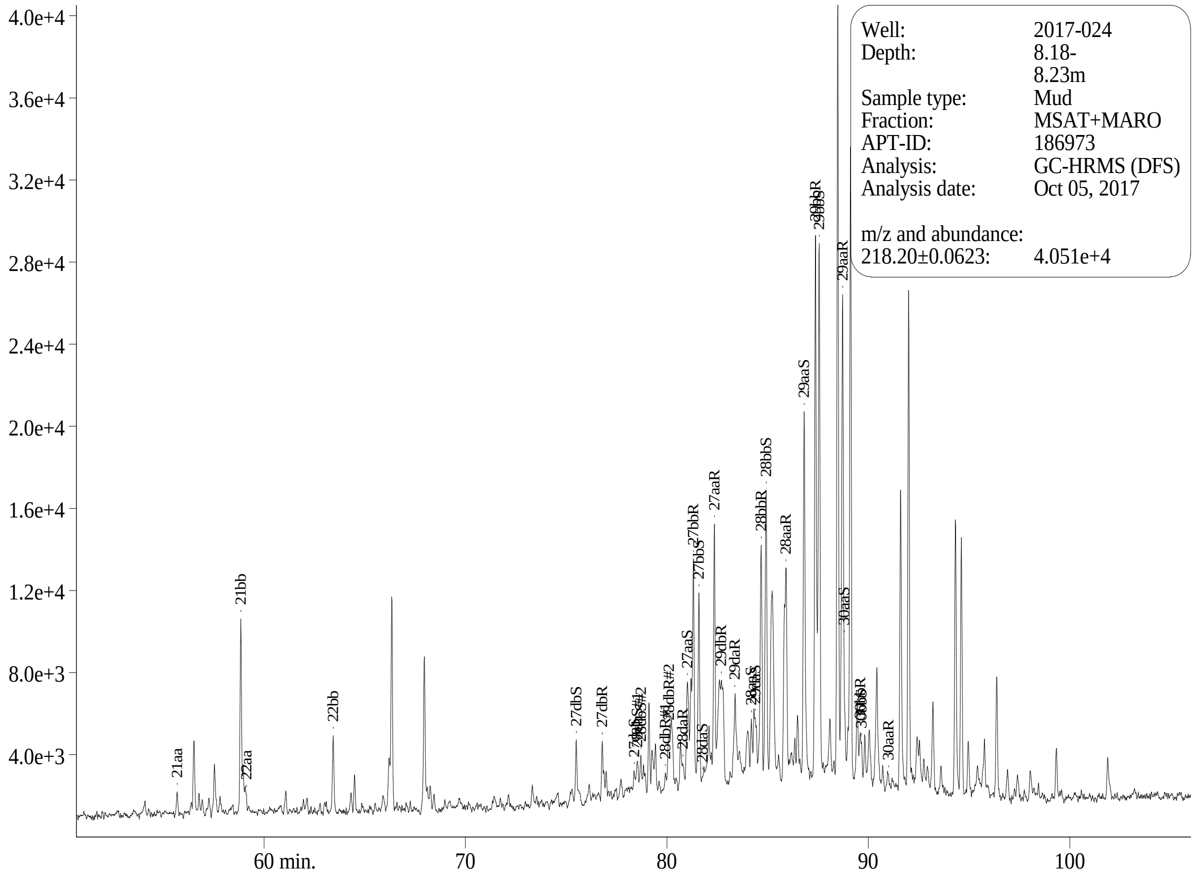
Well: 2017-021
Depth: 6.97-7.02m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186969
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
259.24±0.0741: 7.513e+3
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3
60 min.
70
80
90
100
27dbS
27dbR
27daR
27daS
28daR
28daS
27bbR+29dbS
29dbR
29daR
29daS

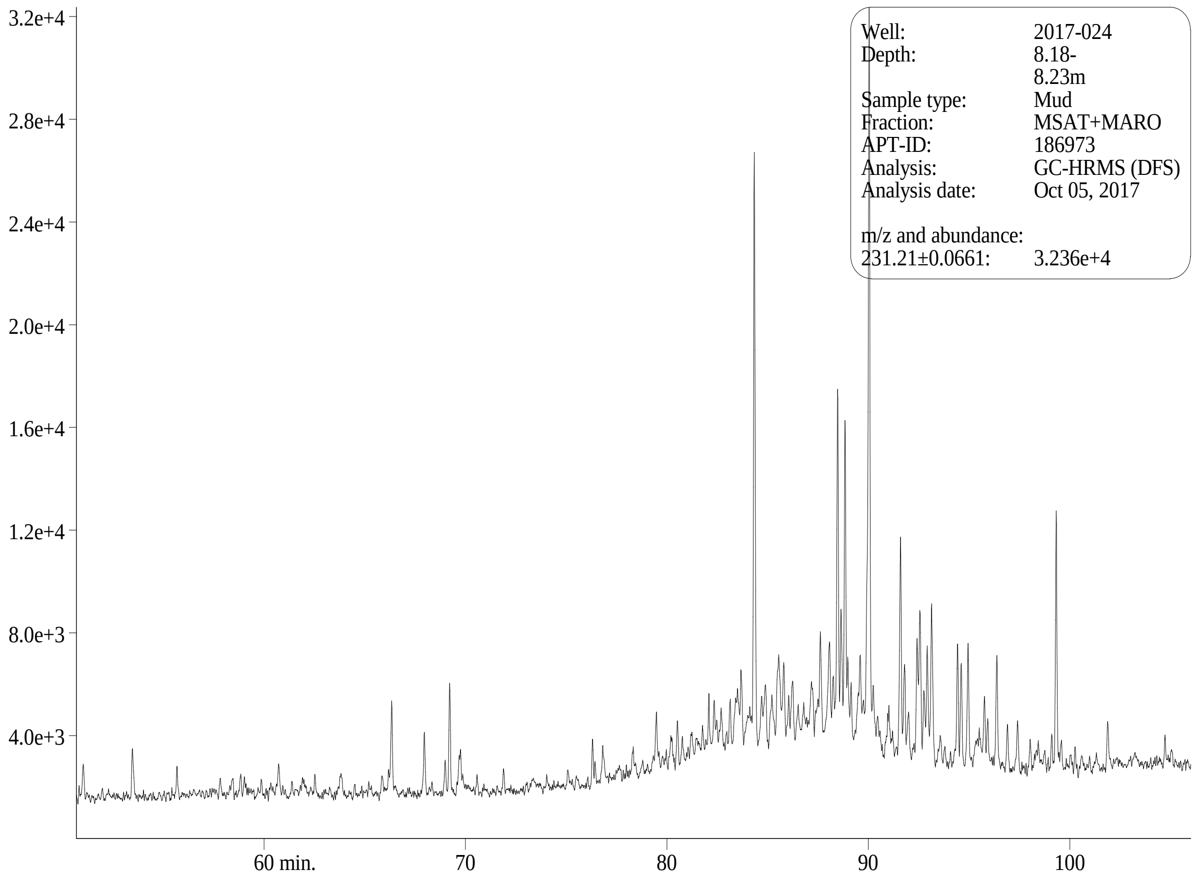

Well: 2017-024
Depth: 8.18-8.23m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186973
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
177.16±0.0506: 1.756e+5
1.6e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
50 min.
60
70
80
90
100
110
24/4
27Ts
25nor28ab
27Tm
25nor29ab
28ab
25nor30ab
29Ts
29ab
29ba
25nor31ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

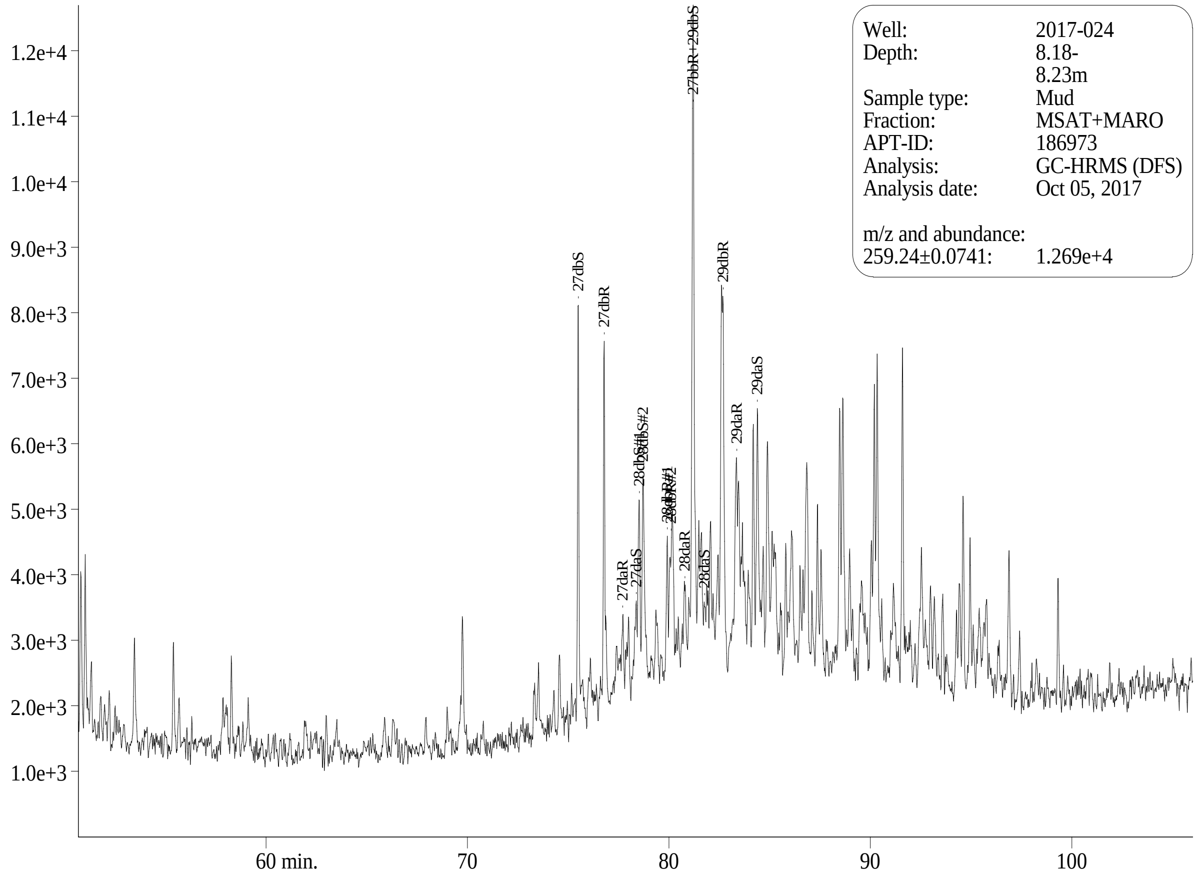

Well: 2017-024
Depth: 8.18-8.23m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186973
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
191.18±0.0546: 2.667e+5
2.6e+5
2.4e+5
2.2e+5
2.0e+5
1.8e+5
1.6e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
50 min.
60
70
80
90
100
110
19/3
20/3
21/3
22/3
23/3
24/3
28/3R
28/3S
29/3R
29/3S
27Ts
30/3R
30/3S
27Tm
28ab
25nor30ab
29Ts
30d
29ab
29ba
30ab
30ba
31abS
31abR
30G
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

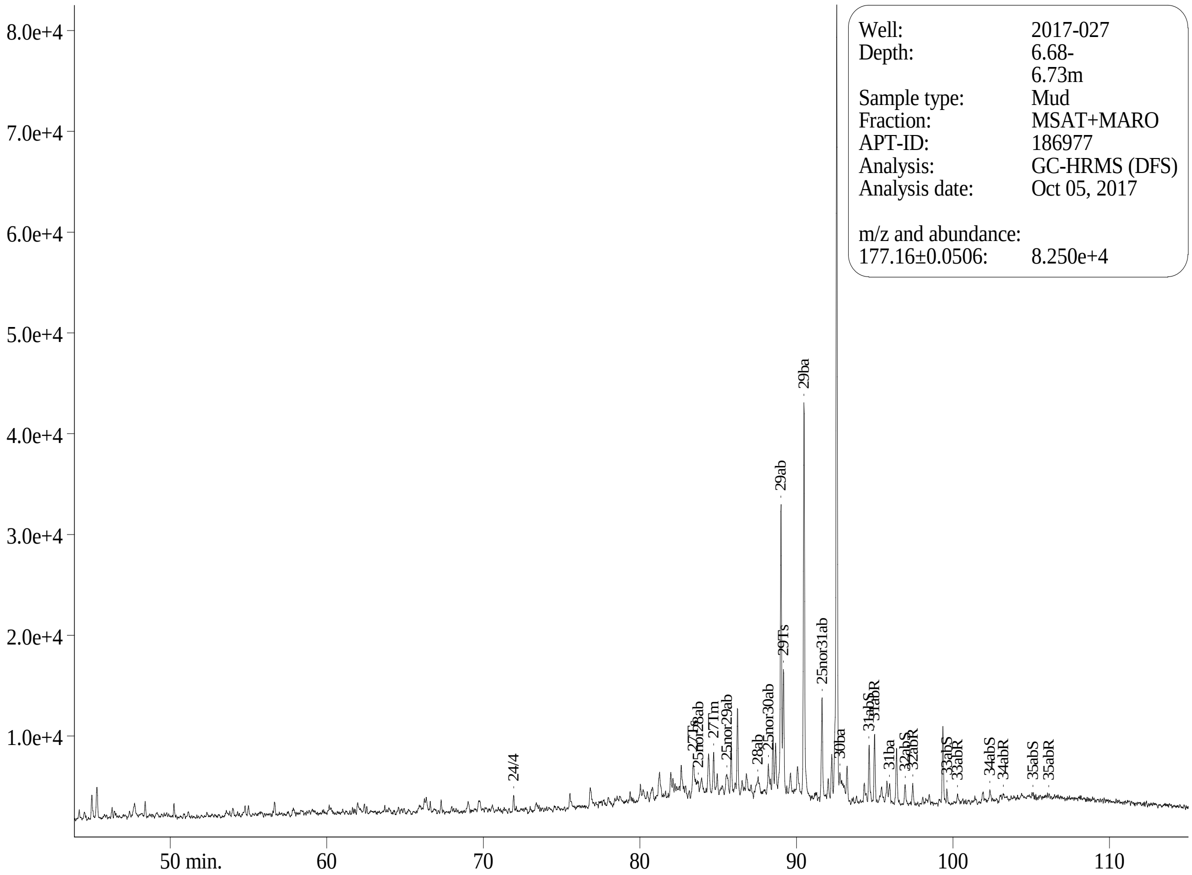

Well: 2017-024
Depth: 8.18-8.23m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186973
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
205.20±0.0586: 1.798e+5
1.6e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
50 min.
60
70
80
90
100
110
31abR
31abS
31ba
30ab
30ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

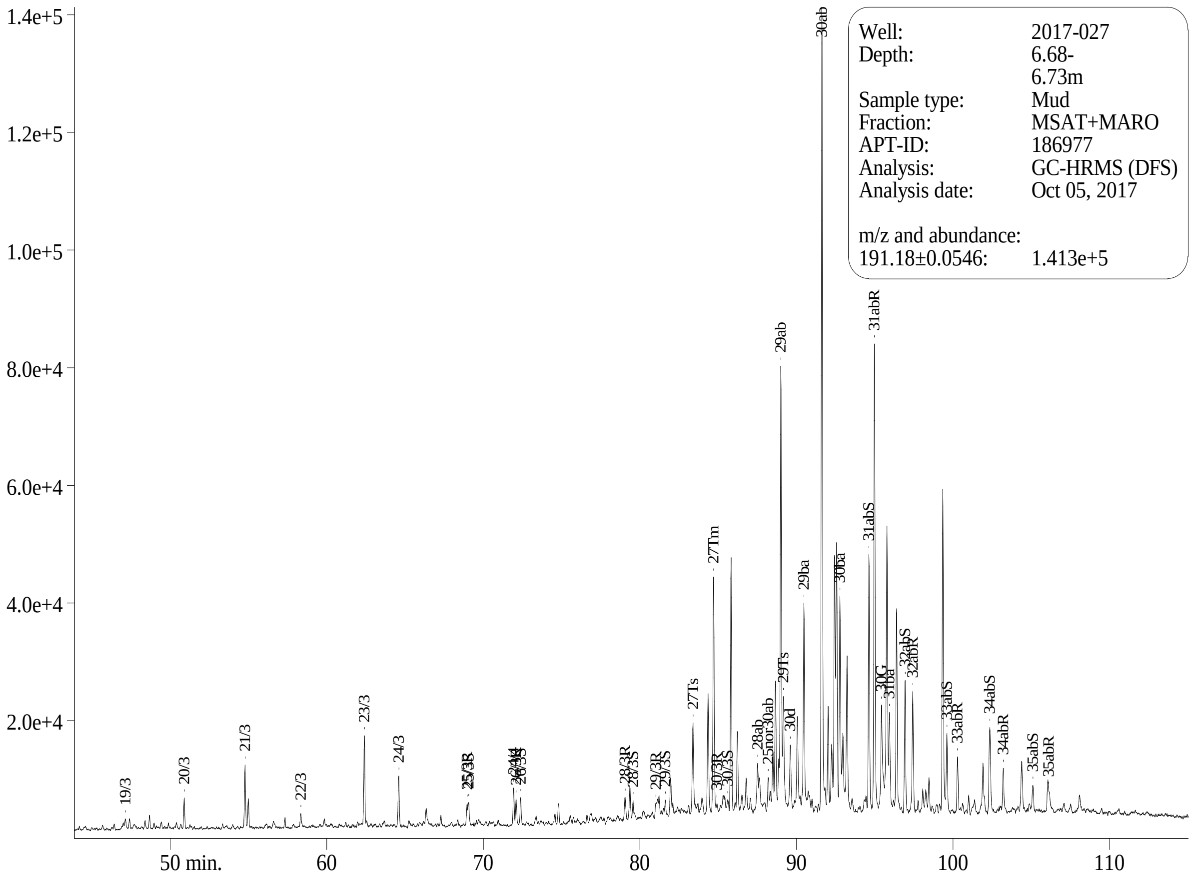

Well: 2017-024
Depth: 8.18-8.23m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186973
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
217.20±0.0621: 3.997e+4
3.6e+4
3.2e+4
2.8e+4
2.4e+4
2.0e+4
1.6e+4
1.2e+4
8.0e+3
4.0e+3
60 min.
70
80
90
100
29aaR
29aaS
27aaR
27bbR+29dbS
29dbR
28aaR
28bbS
27dbS
27dbR
27aaS
27bbS
29daR
28aaS
30aaS
21aa
21bb
22aa
22bb
27daR
28dbR#1
28dbR#2
28daR
28daS
30aaR

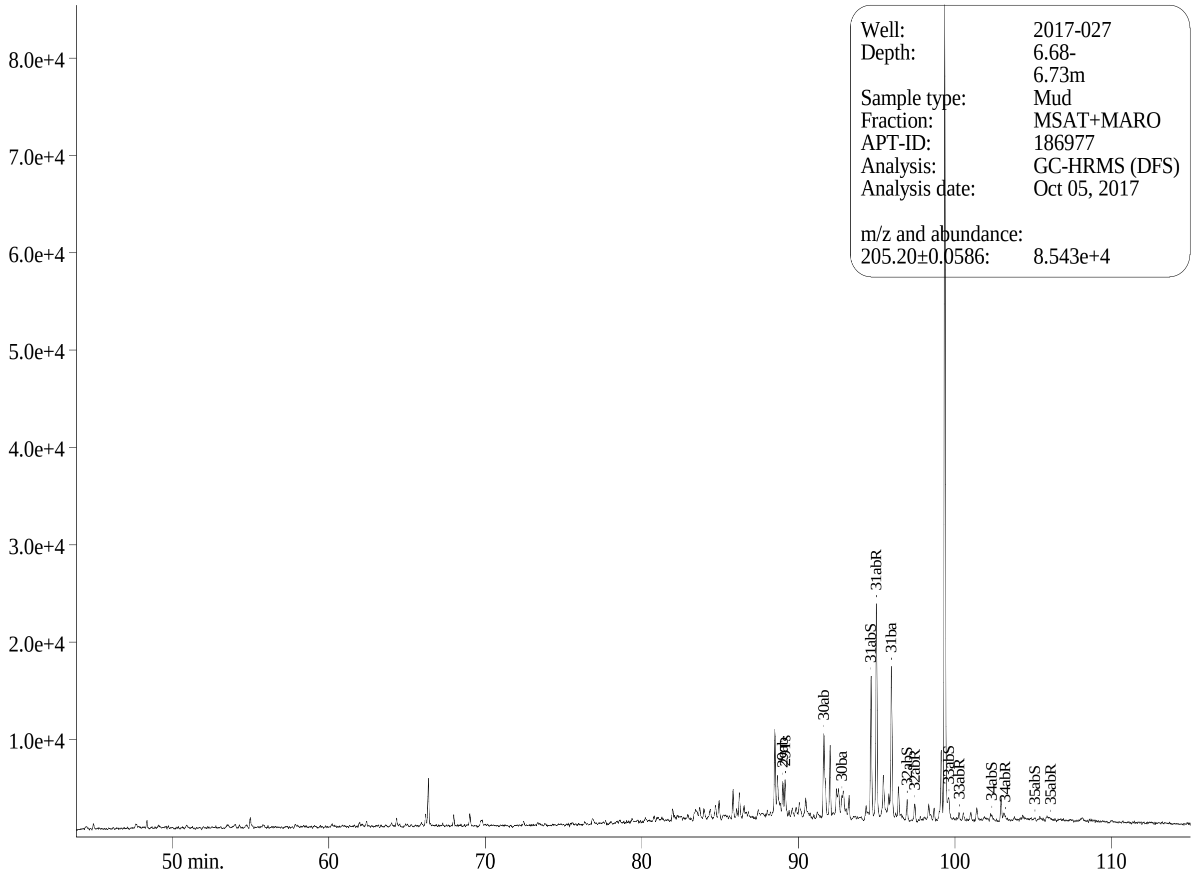

4.0e+4
3.6e+4
3.2e+4
2.8e+4
2.4e+4
2.0e+4
1.6e+4
1.2e+4
8.0e+3
4.0e+3
60 min.
70
80
90
100
21aa
21bb
22aa
22bb
27dbS
27dbR
27aaS
27bbR
27bbS
27aaR
28daS
28daR
29dbR
29daR
28bbR
28bbS
28aaR
29aaS
29aaR
30aaS
30aaR
Well: 2017-024
Depth: 8.18-8.23m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186973
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
218.20±0.0623: 4.051e+4

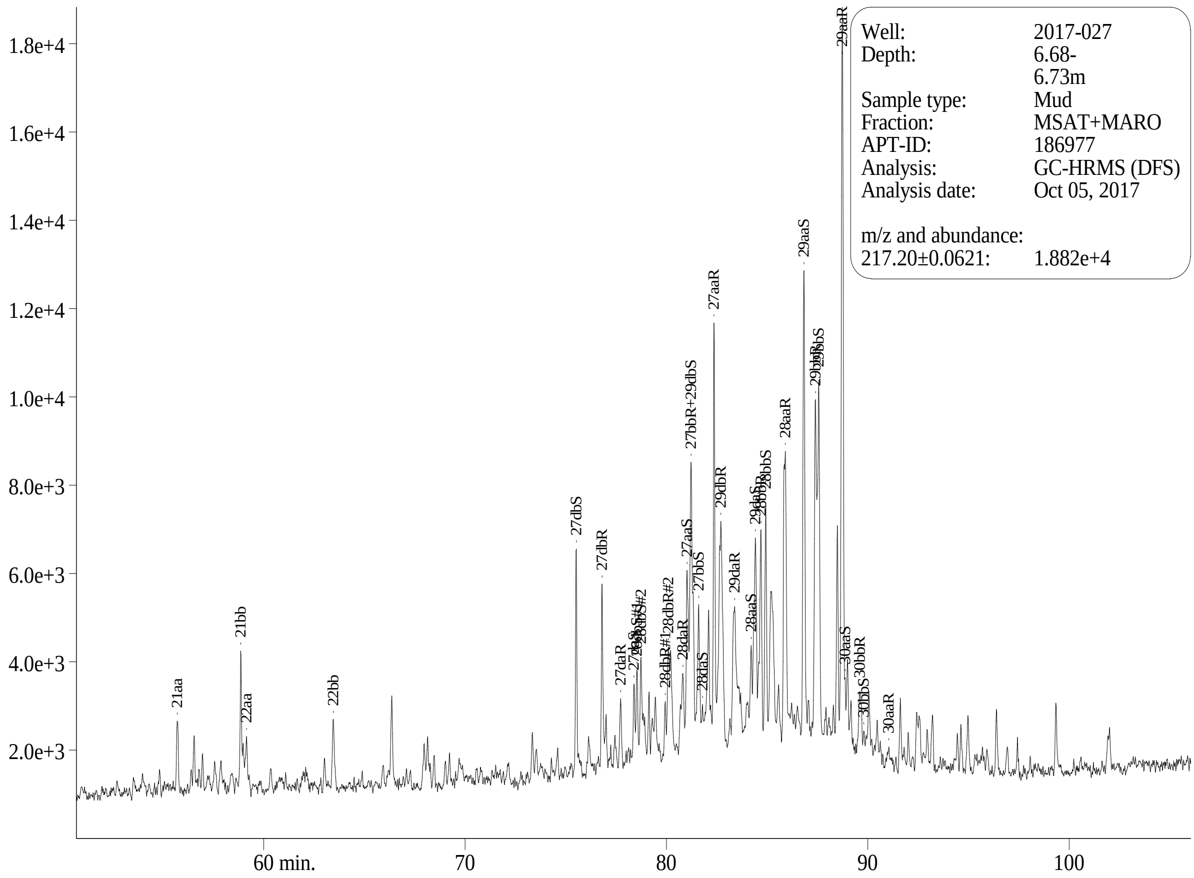

3.2e+4
2.8e+4
2.4e+4
2.0e+4
1.6e+4
1.2e+4
8.0e+3
4.0e+3
60 min.
70
80
90
100
Well: 2017-024
Depth: 8.18-8.23m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186973
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
231.21±0.0661: 3.236e+4

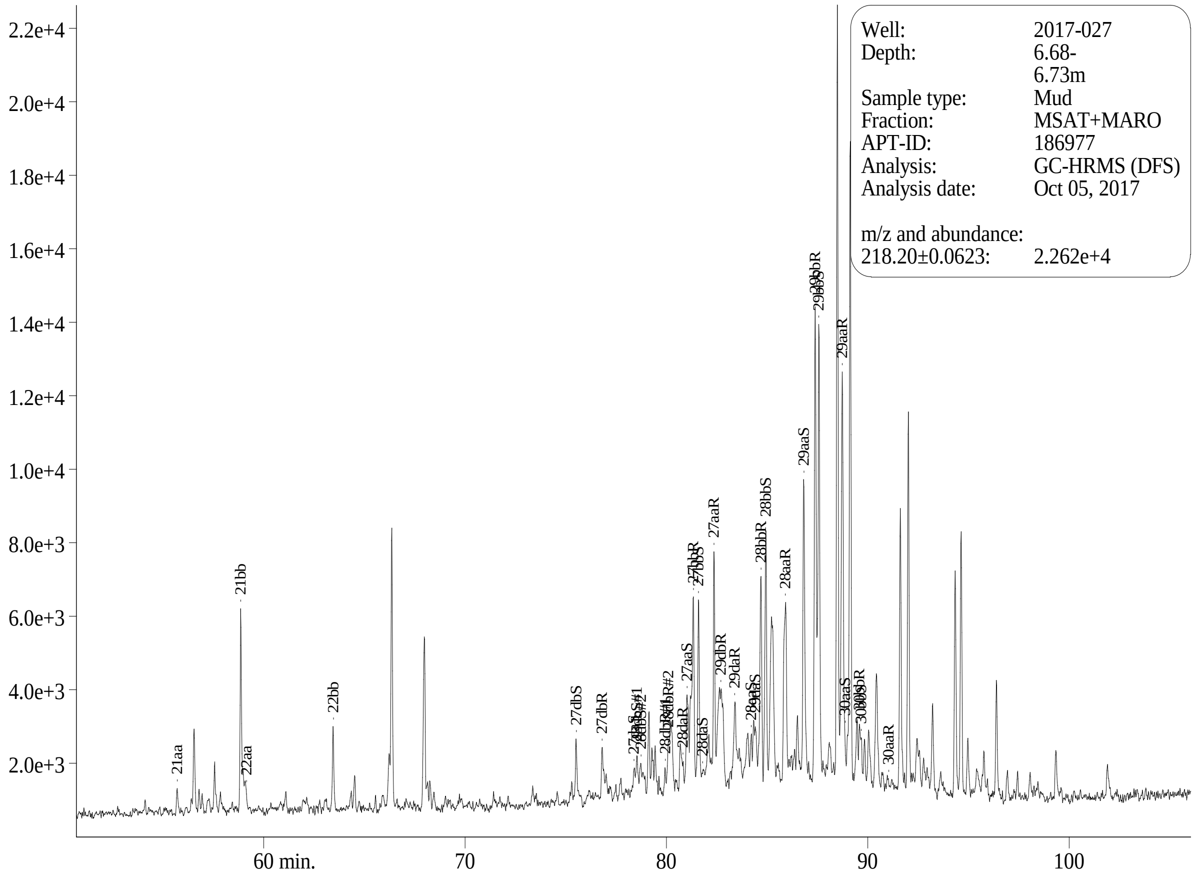

Well: 2017-024
Depth: 8.18-8.23m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186973
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
259.24±0.0741: 1.269e+4
27dbS
27dbR
27daR
27daS
28dbS#1
28dbS#2
28dbR#1
28dbR#2
28daR
28daS
27bbR+29dbS
29dbR
29daR
29daS
1.2e+4
1.1e+4
1.0e+4
9.0e+3
8.0e+3
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3
60 min.
70
80
90
100

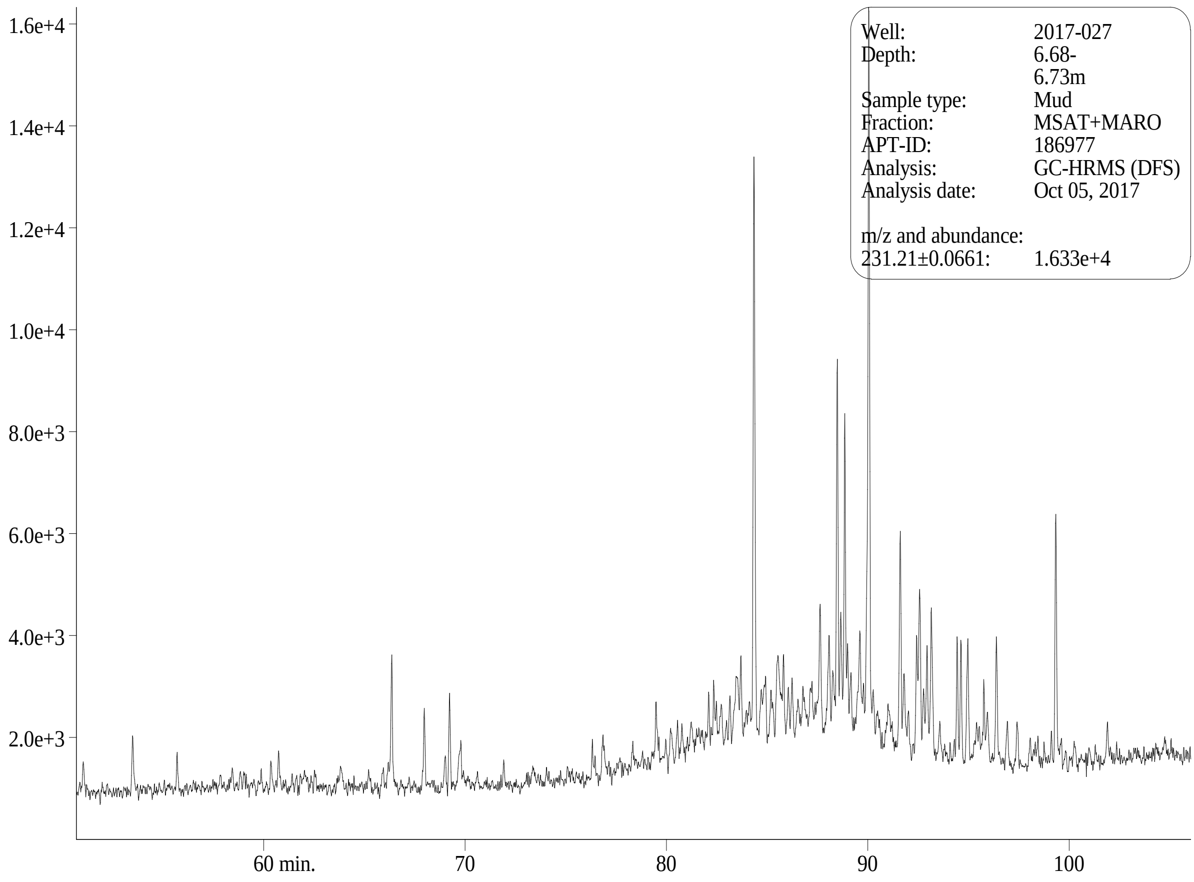

Well: 2017-027
Depth: 6.68-6.73m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186977
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
177.16±0.0506: 8.250e+4
24/4
27Ts
28ab
25nor28ab
27Tm
25nor29ab
25nor30ab
28ab
29ab
29Ts
29ba
25nor31ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR
50 min.
60
70
80
90
100
110

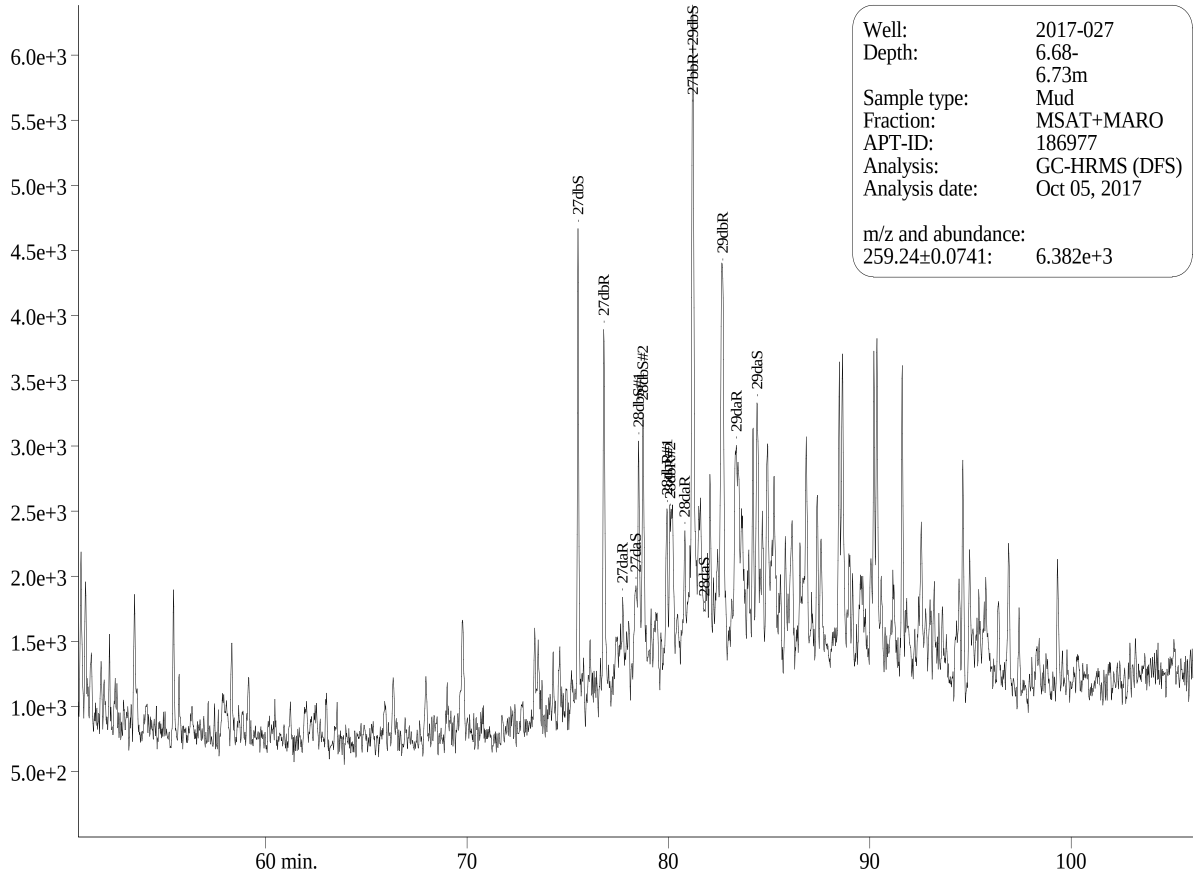

Well: 2017-027
Depth: 6.68-6.73m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186977
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
191.18±0.0546: 1.413e+5
19/3
20/3
21/3
22/3
23/3
24/3
25/3R
25/3S
24/4
26/3R
26/3S
28/3R
28/3S
29/3R
29/3S
30/3R
30/3S
27Ts
27Tm
28ab
25nor30ab
30d
29Ts
29ab
29ba
30ab
30ba
31abS
31abR
30G
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR
50 min.
60
70
80
90
100
110

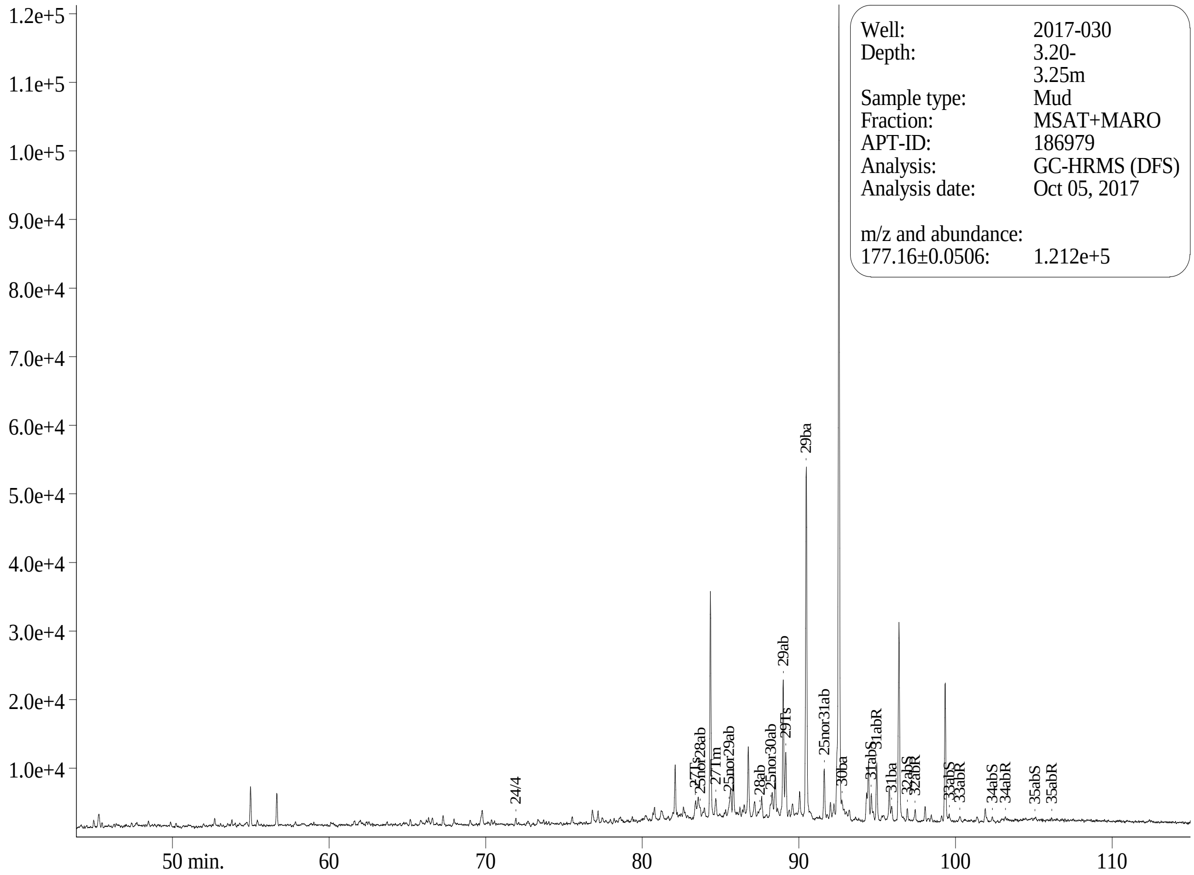

Well: 2017-027
Depth: 6.68-6.73m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186977
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
205.20±0.0586: 8.543e+4
30ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR
50 min.
60
70
80
90
100
110

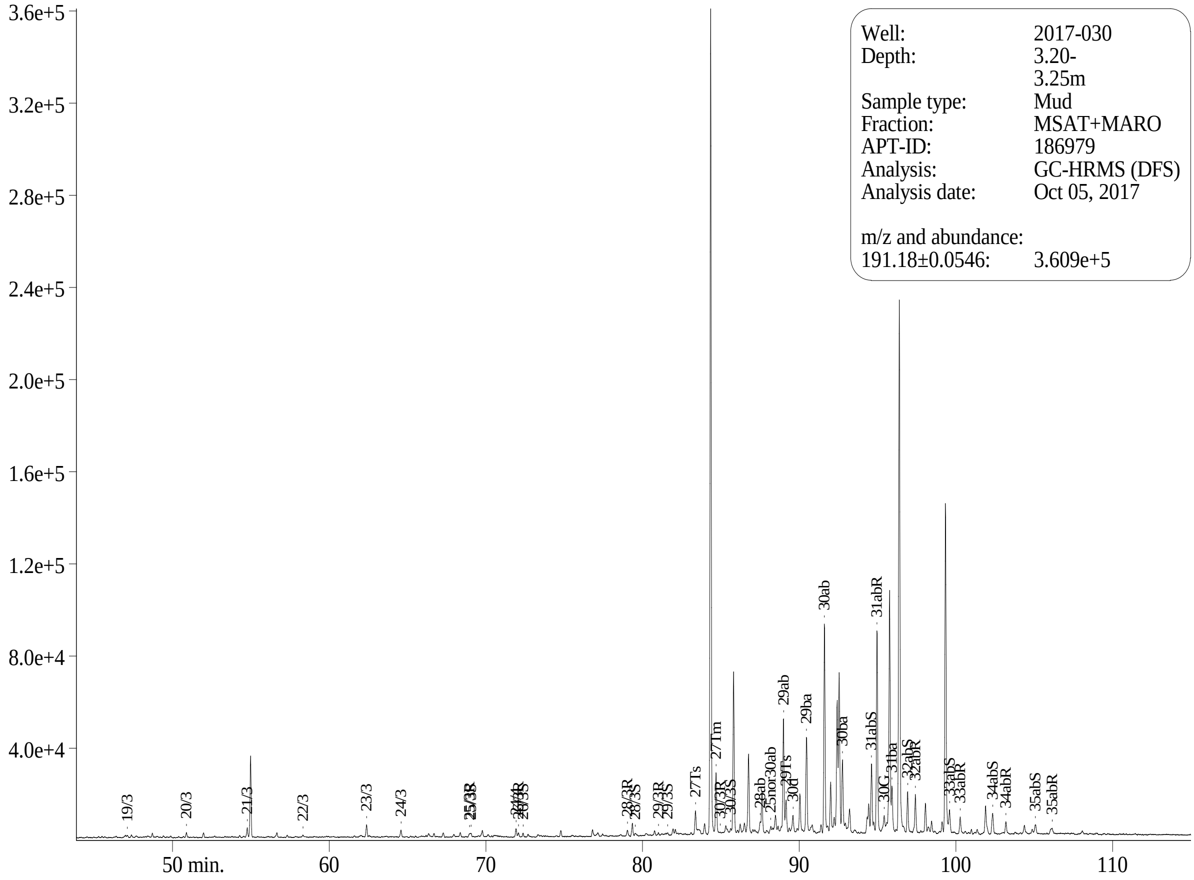

Well: 2017-027
Depth: 6.68-6.73m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186977
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
217.20±0.0621: 1.882e+4
21aa
21bb
22aa
22bb
27dbS
27dbR
27daR
27aaS
27bbR+29dbS
27bbS
27aaR
28daR
28daS
29dbR
29daR
28aaS
28aaR
29aaS
29aaR
30aaS
30bbR
30aaR
60 min.
70
80
90
100

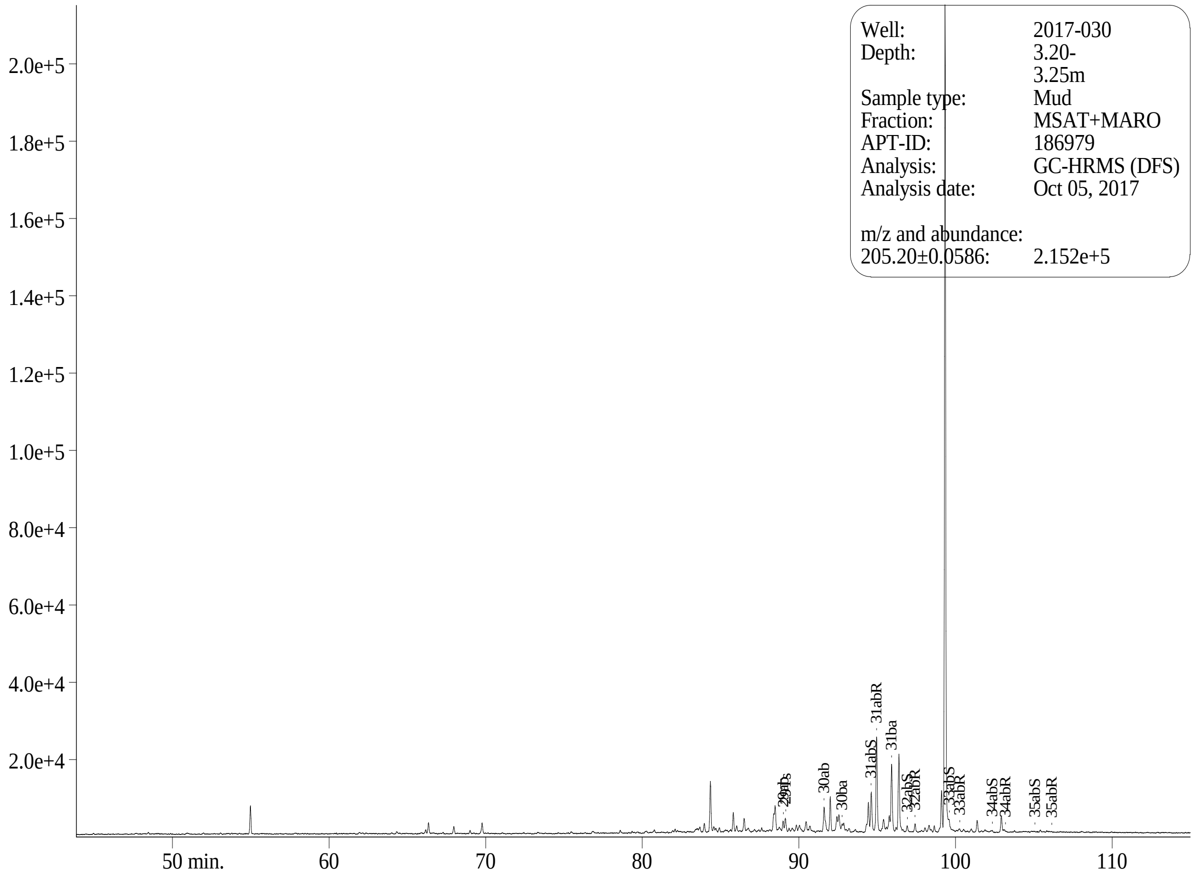

Well: 2017-027
Depth: 6.68-6.73m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186977
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
218.20±0.0623: 2.262e+4
2.2e+4
2.0e+4
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
60 min.
70
80
90
100
21aa
21bb
22aa
22bb
27dbS
27dbR
27aaS
27bbR
27aaR
28daS
28daR
28bbR
28bbS
28aaR
29dbR
29daR
29aaS
29bbR
29aaR
30aaS
30aaR

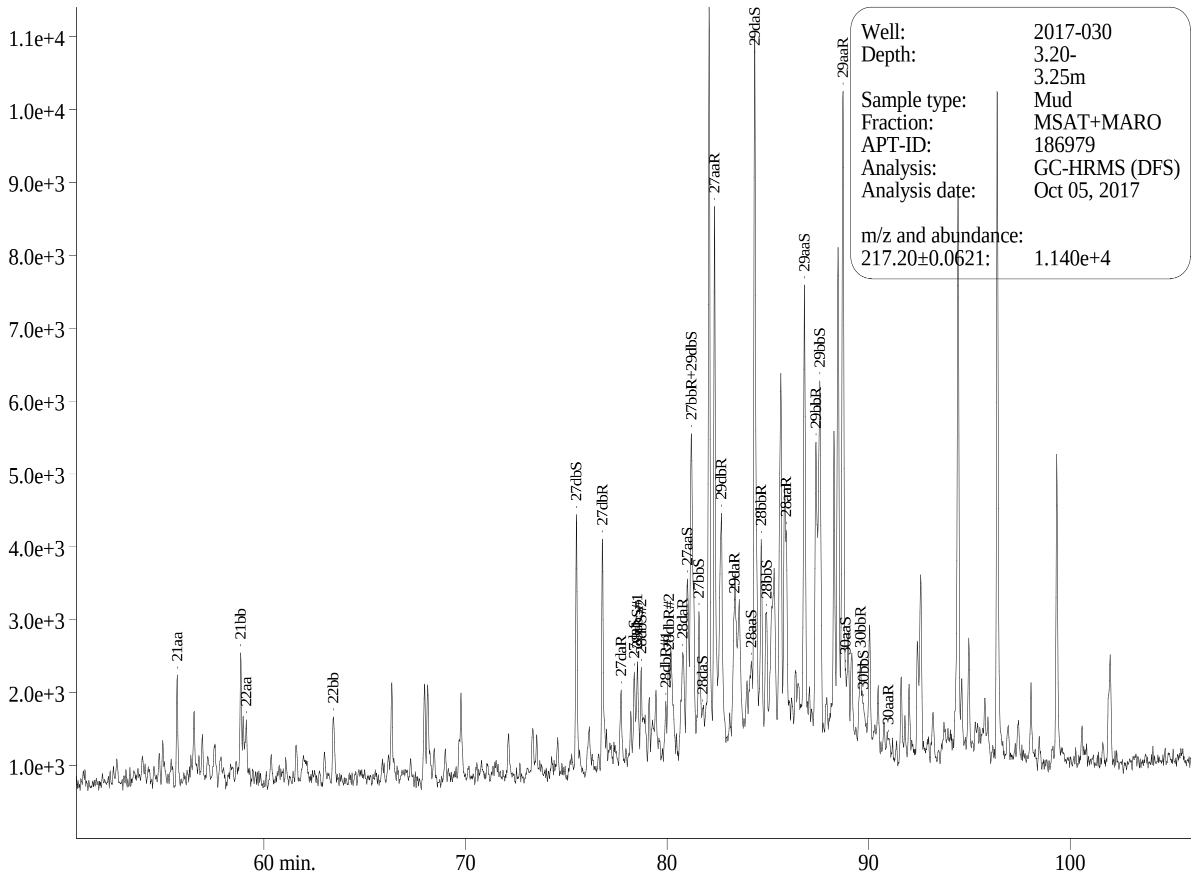

Well: 2017-027
Depth: 6.68-6.73m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186977
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
231.21±0.0661: 1.633e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
60 min.
70
80
90
100

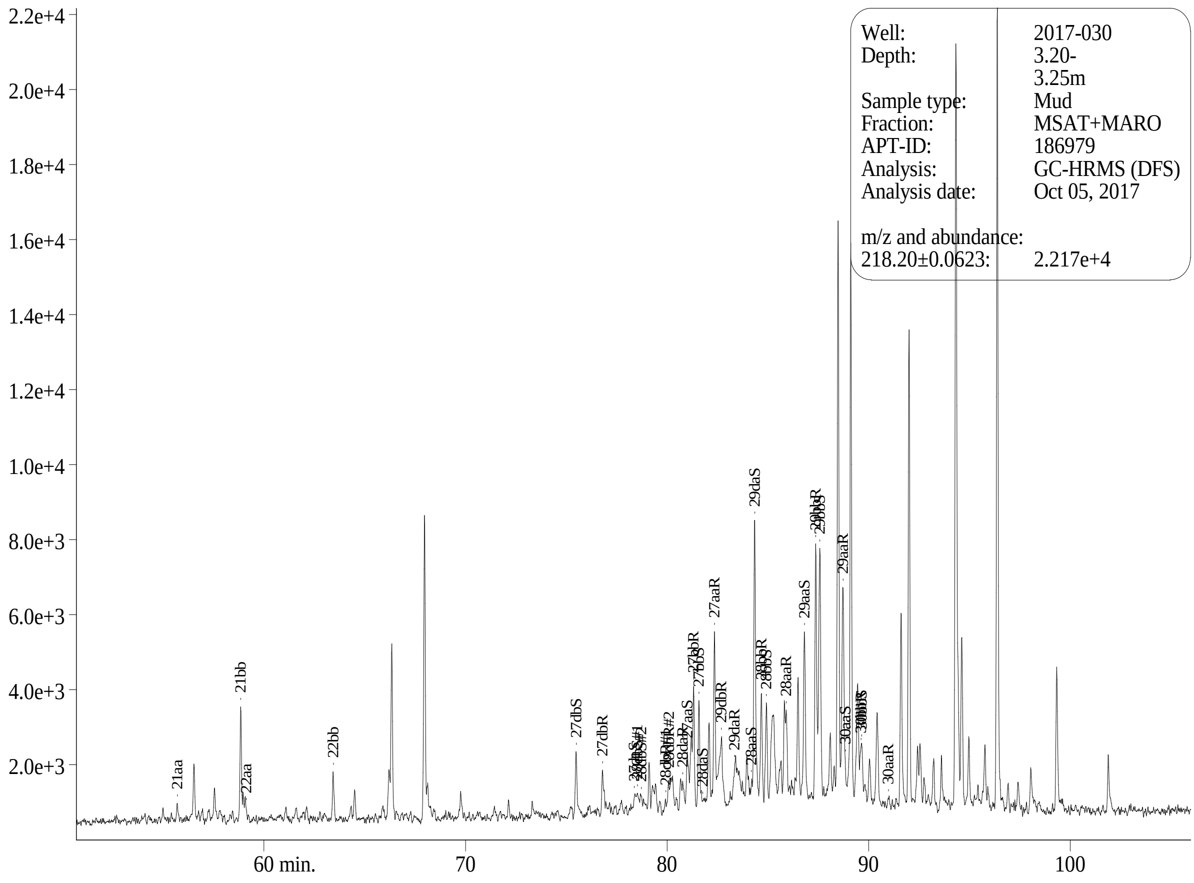

Well: 2017-027
Depth: 6.68-6.73m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186977
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
259.24±0.0741: 6.382e+3
6.0e+3
5.5e+3
5.0e+3
4.5e+3
4.0e+3
3.5e+3
3.0e+3
2.5e+3
2.0e+3
1.5e+3
1.0e+3
5.0e+2
60 min.
70
80
90
100
27dbS
27dbR
27daR
27daS
28daR
27bbR+29dbS
28daS
29dbR
29daR
29daS

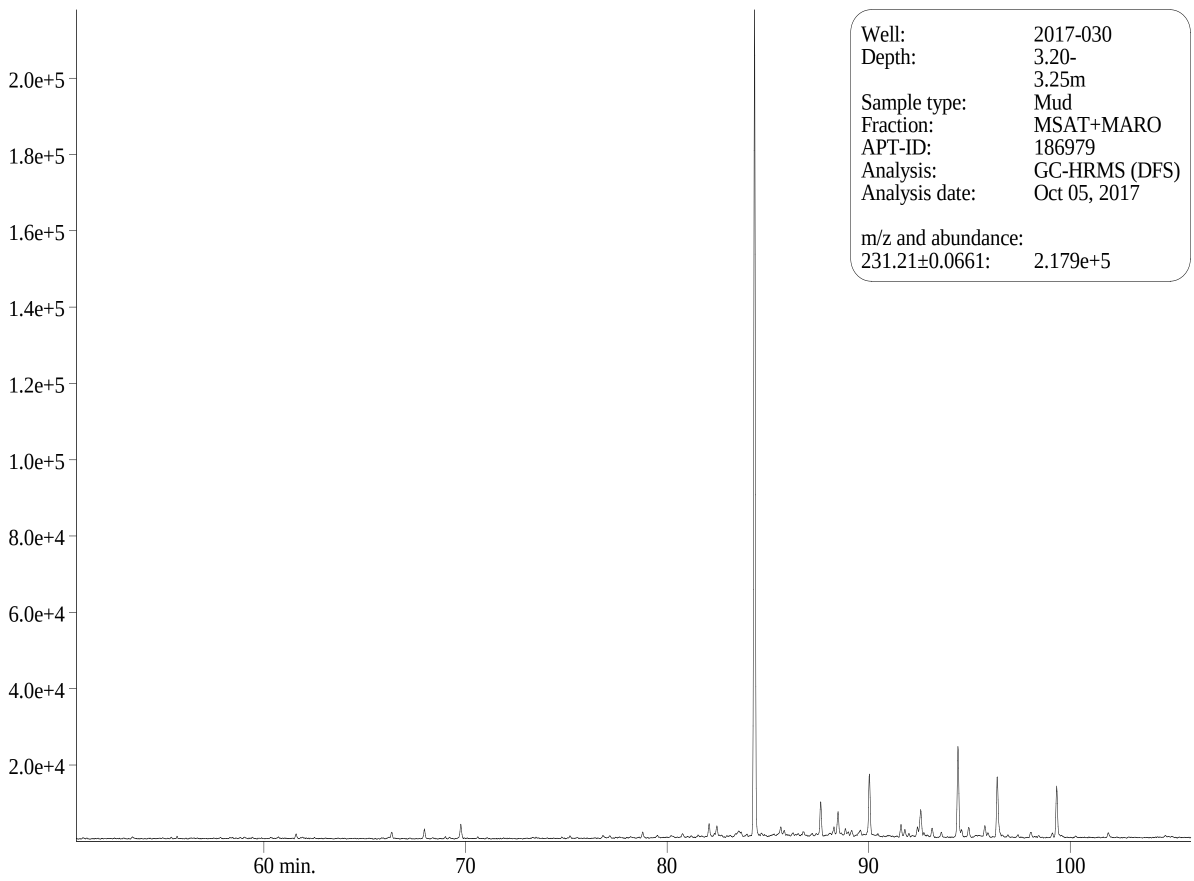

Well: 2017-030
Depth: 3.20-3.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186979
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
177.16±0.0506: 1.212e+5
1.2e+5
1.1e+5
1.0e+5
9.0e+4
8.0e+4
7.0e+4
6.0e+4
5.0e+4
4.0e+4
3.0e+4
2.0e+4
1.0e+4
50 min.
60
70
80
90
100
110
24/4
29ba
29ab
29Ts
25nor31ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR
28ab
25nor30ab
25nor29ab
27Tm
27Ts
25nor28ab

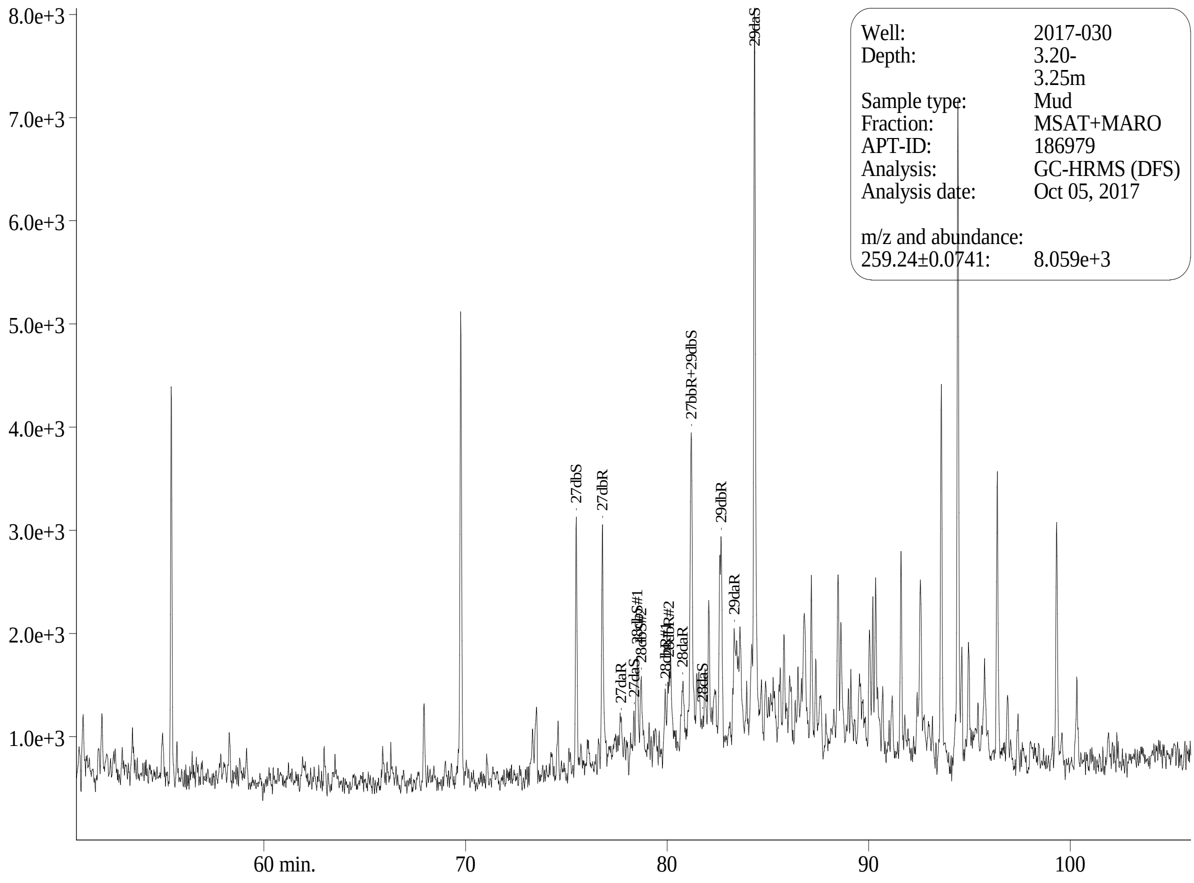

Well: 2017-030
Depth: 3.20-3.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186979
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
191.18±0.0546: 3.609e+5
3.6e+5
3.2e+5
2.8e+5
2.4e+5
2.0e+5
1.6e+5
1.2e+5
8.0e+4
4.0e+4
50 min.
60
70
80
90
100
110
19/3
20/3
21/3
22/3
23/3
24/3
28/3R
28/3S
29/3R
29/3S
27Ts
27Tm
30/3R
30/3S
28ab
25nor30ab
29Ts
30d
29ab
29ba
30ab
30ba
30G
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR


Well: 2017-030
Depth: 3.20-3.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186979
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
205.20±0.0586: 2.152e+5
2.0e+5
1.8e+5
1.6e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
50 min.
60
70
80
90
100
110
30ab
30ba
31abS
31abR
31ba
32abS
32abR
33abS
33abR
34abS
34abR
35abS
35abR

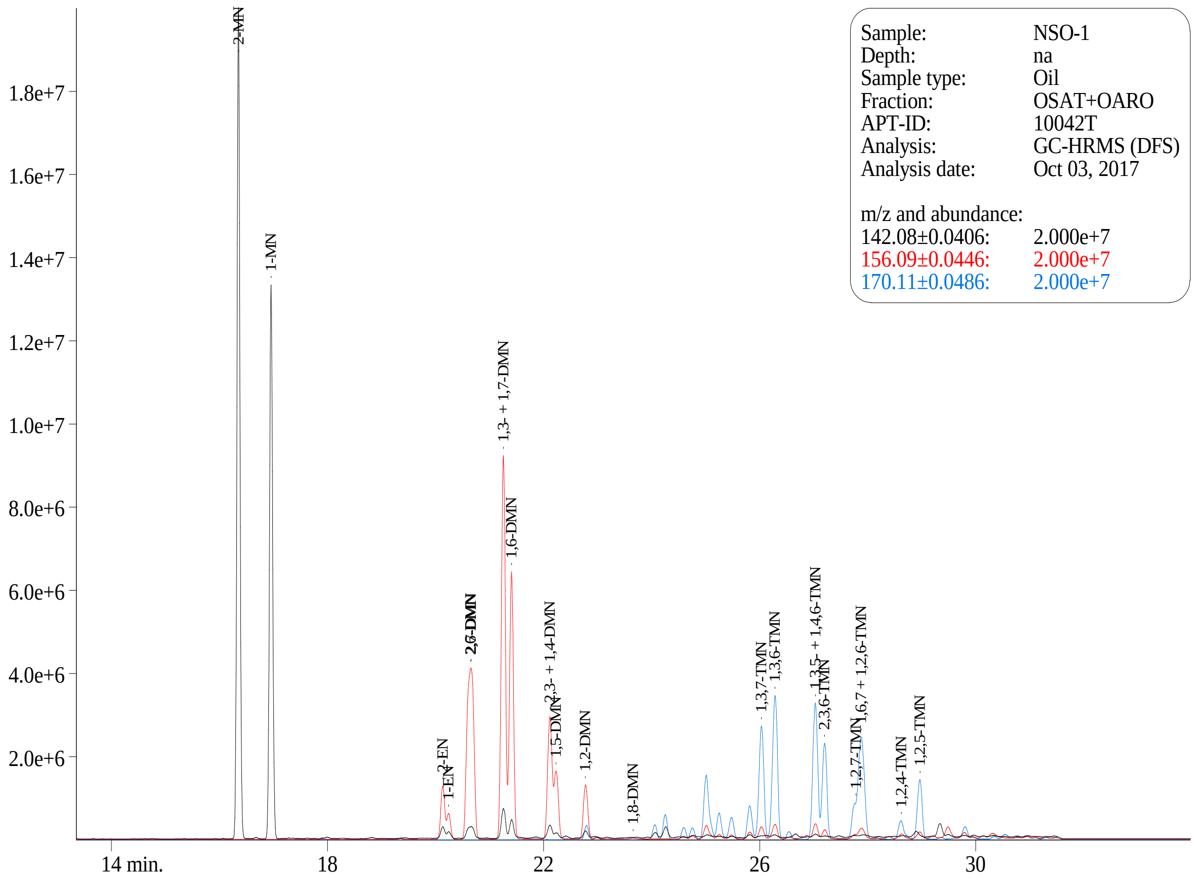

Well: 2017-030
Depth: 3.20-3.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186979
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
217.20±0.0621: 1.140e+4
1.1e+4
1.0e+4
9.0e+3
8.0e+3
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3
60 min.
70
80
90
100
21aa
21bb
22aa
22bb
27dbS
27dbR
27daR
27aaS
27aaR
27bbR+29dbS
27bbS
28daR
28daS
29dbR
29daR
29daS
28aaS
28bbS
28bbR
28aaR
29aaS
29bbS
29bbR
29aaR
30aaS
30bbS
30bbR
30aaR

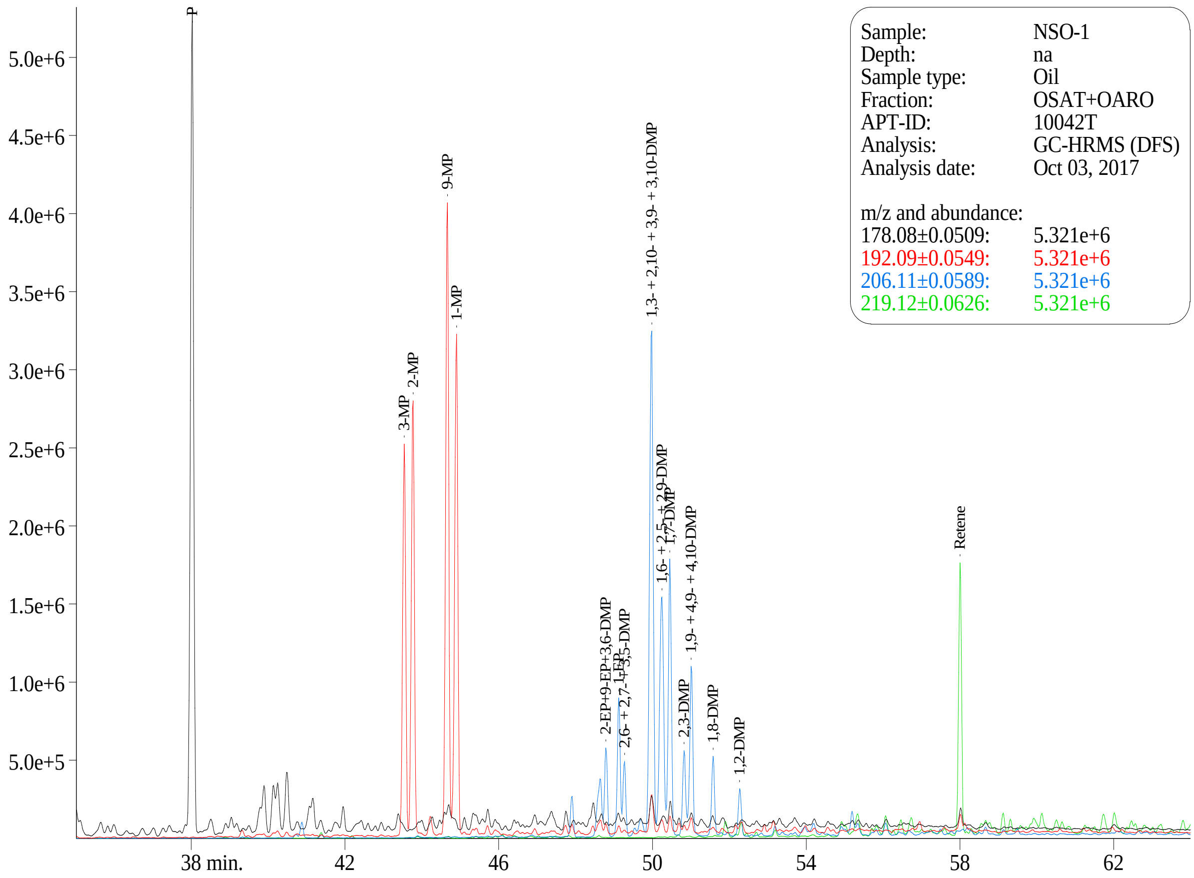

Well: 2017-030
Depth: 3.20-3.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186979
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
218.20±0.0623: 2.217e+4
2.2e+4
2.0e+4
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
60 min.
70
80
90
100
21aa
21bb
22aa
22bb
27dbS
27dbR
27aaS
27bbR
27aaR
28daS
28aaS
28aaR
29daS
29daR
29dbR
29aaS
29bbR
29aaR
30aaS
30aaR

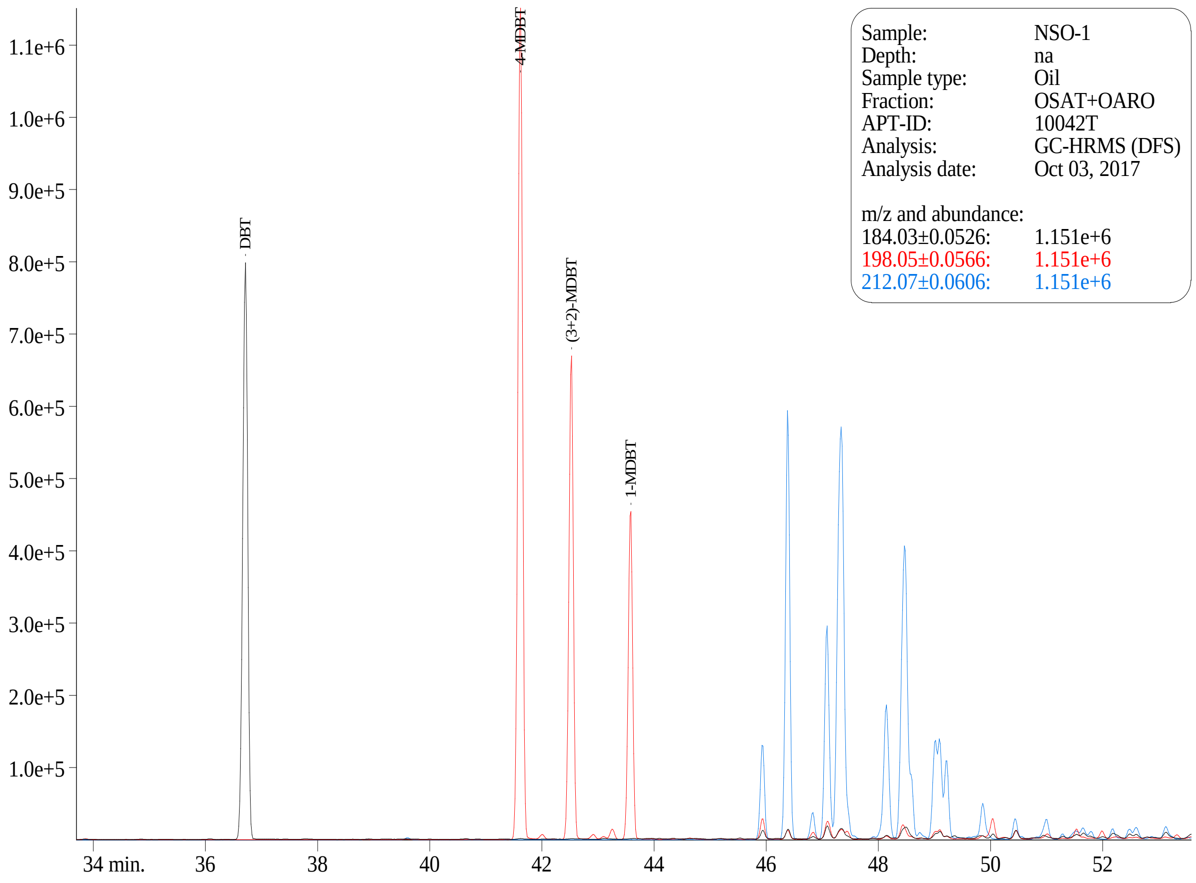

Well: 2017-030
Depth: 3.20-3.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186979
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
231.21±0.0661: 2.179e+5
2.0e+5
1.8e+5
1.6e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
60 min.
70
80
90
100

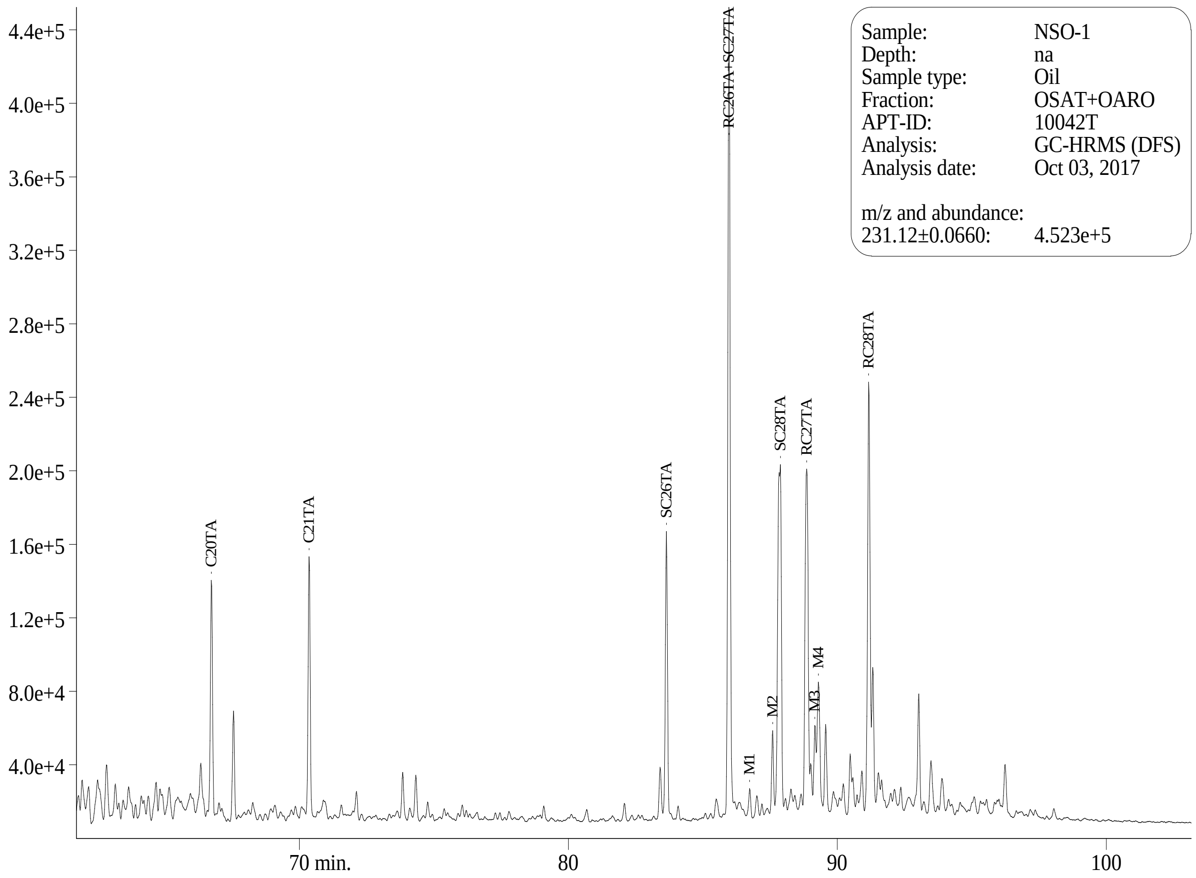

Well: 2017-030
Depth: 3.20-3.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186979
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
259.24±0.0741: 8.059e+3
8.0e+3
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3
60 min.
70
80
90
100
27dbS
27dbR
27daR
27daS
27bbR+29dbS
28daR
28daS
29dbR
29daR
29daS

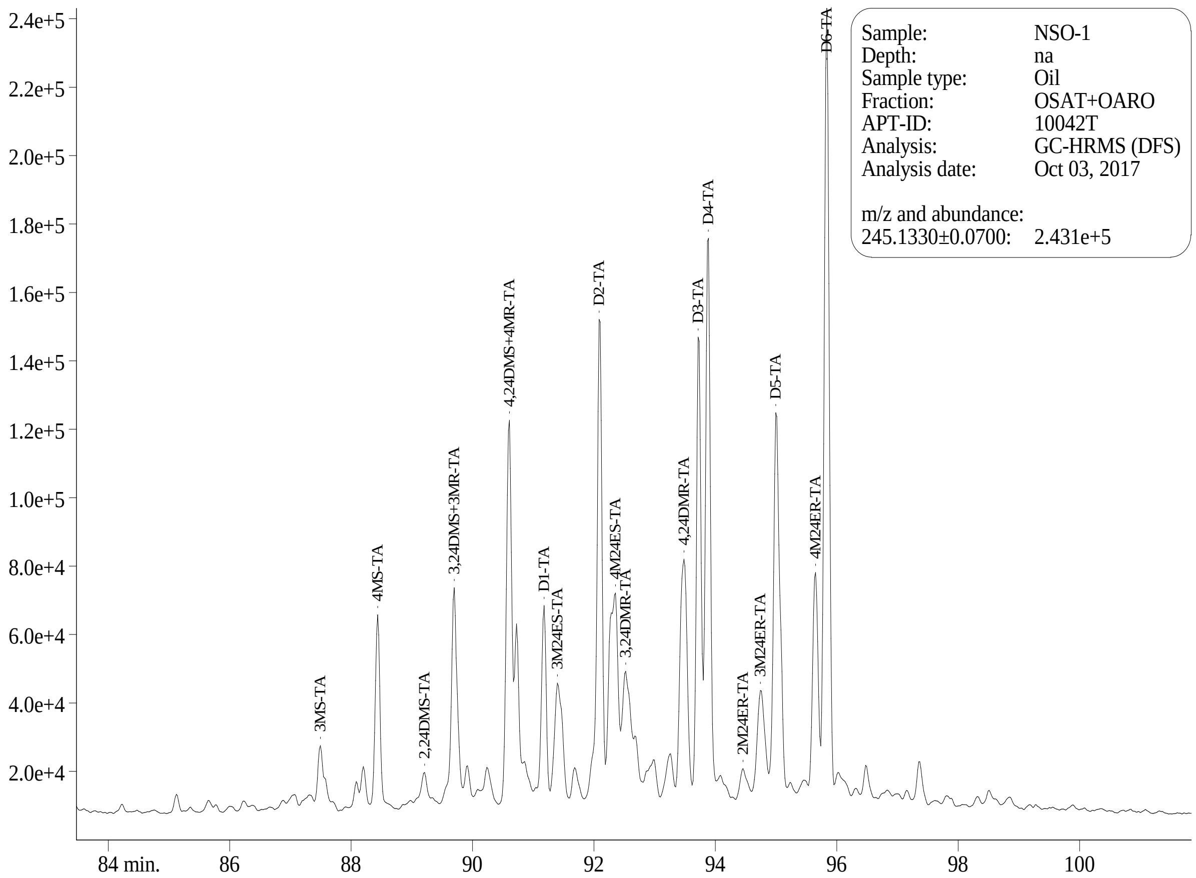
GC-MS Chromatograms of Aromatic Hydrocarbons

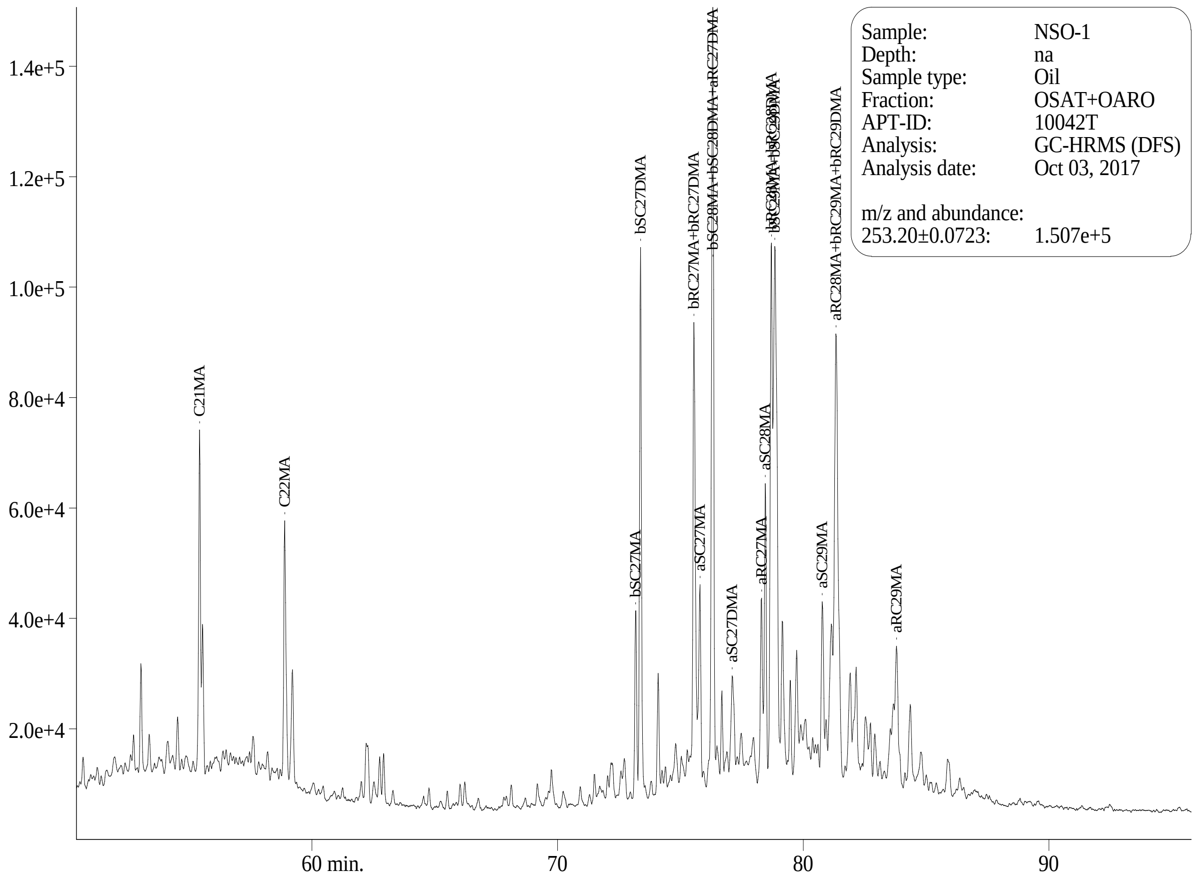

Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OSAT+OARO
APT-ID: 10042T
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
142.08±0.0406: 2.000e+7
156.09±0.0446: 2.000e+7
170.11±0.0486: 2.000e+7
2-MN
1-MN
2-EN
1-EN
2,6-DMN
1,3- + 1,7-DMN
1,6-DMN
2,3- + 1,4-DMN
1,5-DMN
1,2-DMN
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.
18
22
26
30

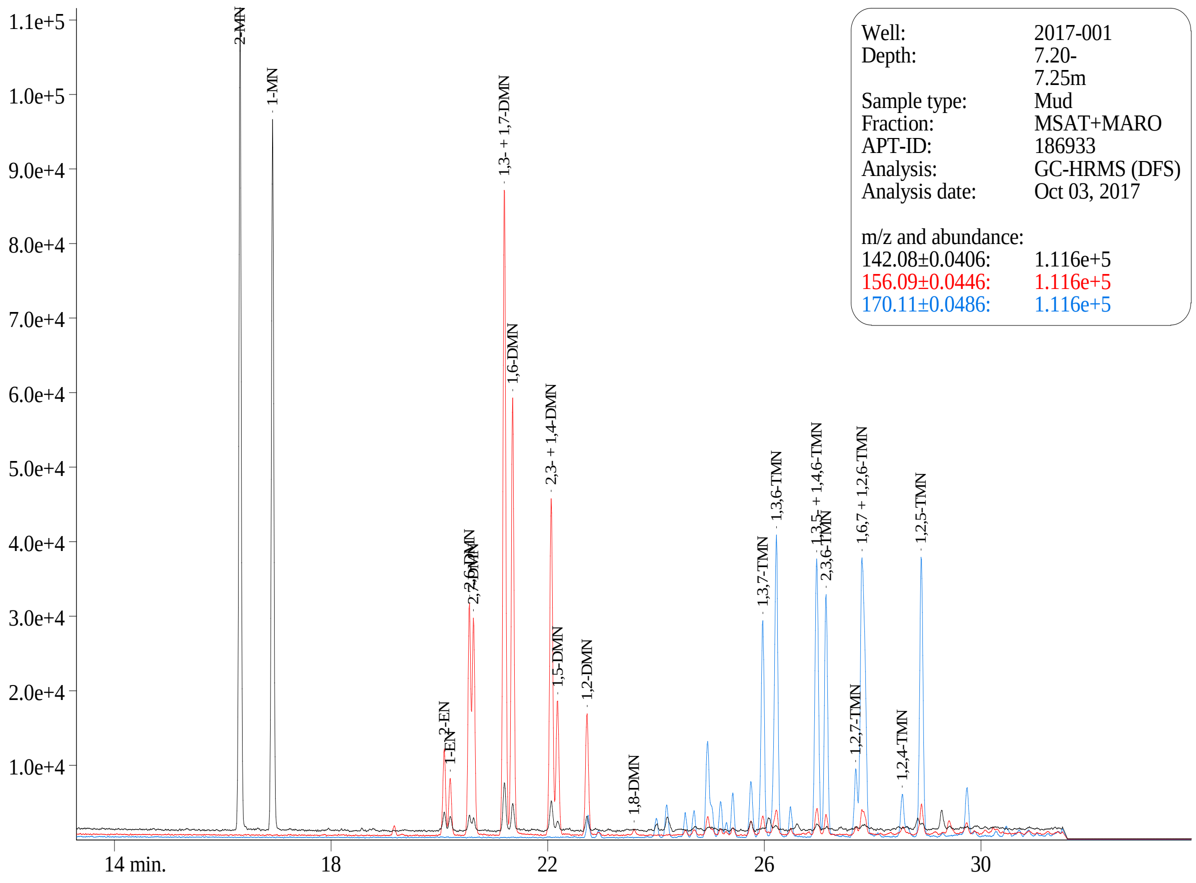

Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OSAT+OARO
APT-ID: 10042T
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
178.08±0.0509: 5.321e+6
192.09±0.0549: 5.321e+6
206.11±0.0589: 5.321e+6
219.12±0.0626: 5.321e+6
P
3-MP
2-MP
9-MP
1-MP
2-EP+9-EP+3,6-DMP
1-EP
2,6- + 2,7- + 3,5-DMP
1,3- + 2,10- + 3,9- + 3,10-DMP
1,6- + 2,5- + 2,9-DMP
1,7-DMP
1,9- + 4,9- + 4,10-DMP
2,3-DMP
1,8-DMP
1,2-DMP
Retene
38 min.
42
46
50
54
58
62


1.1e+6
1.0e+6
9.0e+5
8.0e+5
7.0e+5
6.0e+5
5.0e+5
4.0e+5
3.0e+5
2.0e+5
1.0e+5
34 min.
36
38
40
42
44
46
48
50
52
DBT
4-MDBT
(3+2)-MDBT
1-MDBT
Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OSAT+OARO
APT-ID: 10042T
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
184.03±0.0526: 1.151e+6
198.05±0.0566: 1.151e+6
212.07±0.0606: 1.151e+6

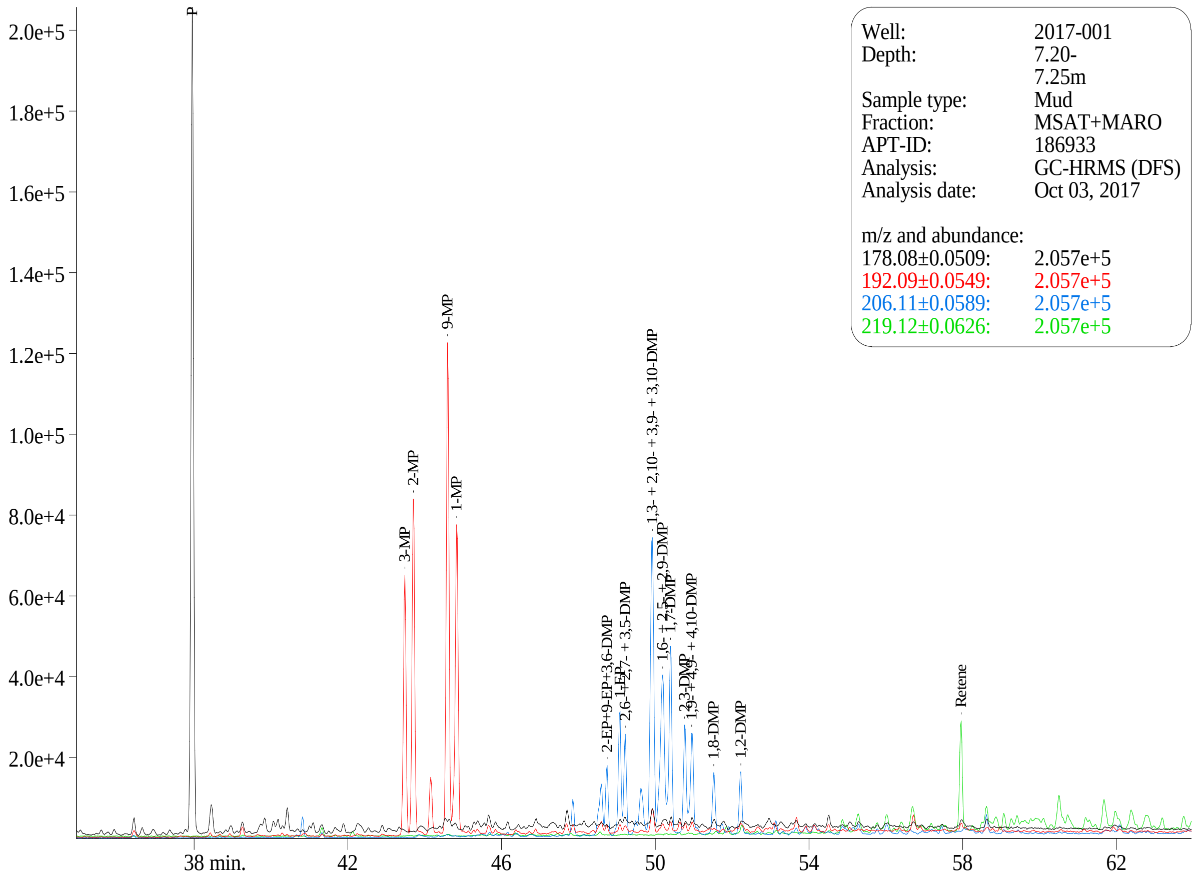

4.4e+5
4.0e+5
3.6e+5
3.2e+5
2.8e+5
2.4e+5
2.0e+5
1.6e+5
1.2e+5
8.0e+4
4.0e+4
70 min.
80
90
100
C20TA
C21TA
SC26TA
RC26TA+SC27TA
M1
M2
SC28TA
RC27TA
M3
M4
RC28TA
Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OSAT+OARO
APT-ID: 10042T
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
231.12±0.0660: 4.523e+5


Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OSAT+OARO
APT-ID: 10042T
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
245.1330±0.0700: 2.431e+5
3MS-TA
4MS-TA
2,24DMS-TA
3,24DMS+3MR-TA
4,24DMS+4MR-TA
D1-TA
3M24ES-TA
D2-TA
4M24ES-TA
3,24DMR-TA
4,24DMR-TA
D3-TA
D4-TA
2M24ER-TA
3M24ER-TA
D5-TA
4M24ER-TA
D6-TA
84 min.
86
88
90
92
94
96
98
100

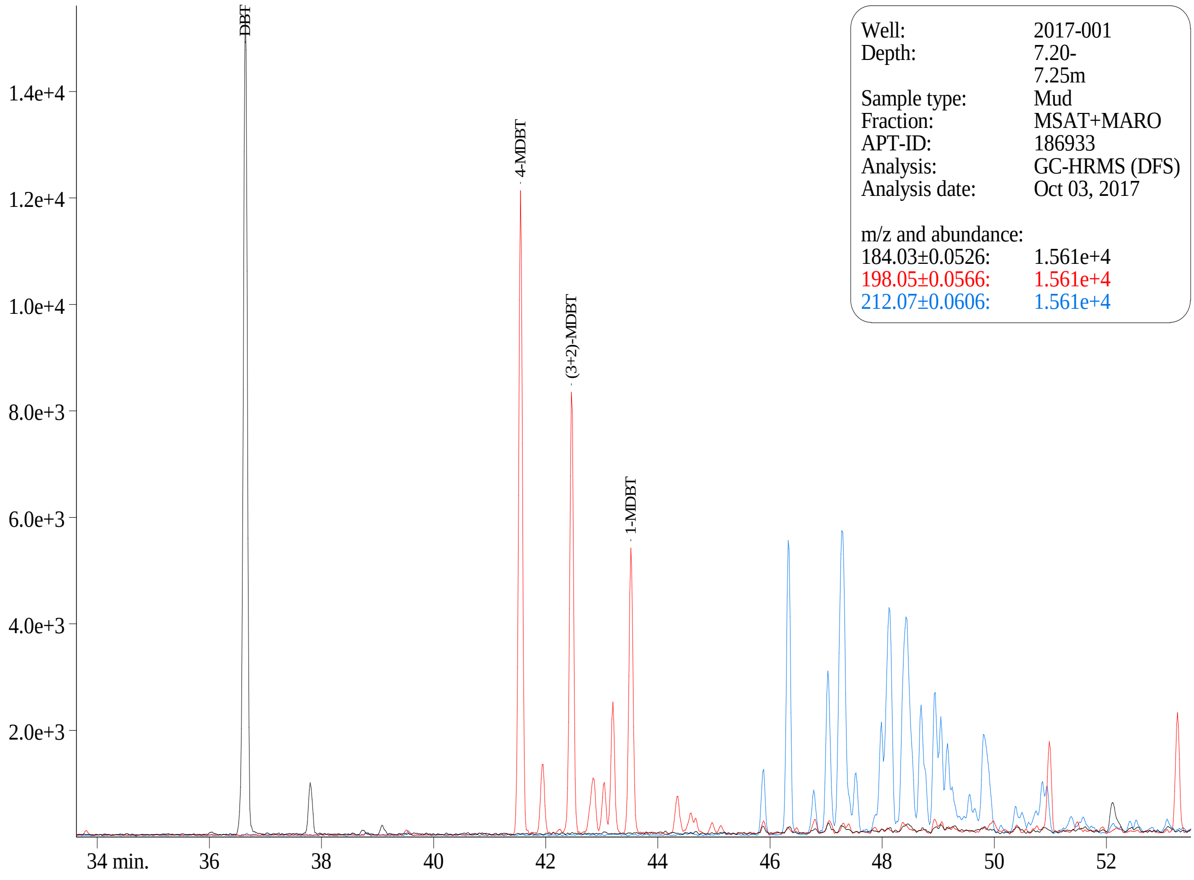

Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OSAT+OARO
APT-ID: 10042T
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
253.20±0.0723: 1.507e+5
C21MA
C22MA
bSC27MA
bSC27DMA
bRC27MA+bRC27DMA
aSC27MA
bSC28MA+bSC28DMA+aRC27DMA
aSC27DMA
aRC27MA
aSC28MA
aSC29MA
aRC28MA+bRC29MA+bRC29DMA
aRC29MA
60 min.
70
80
90

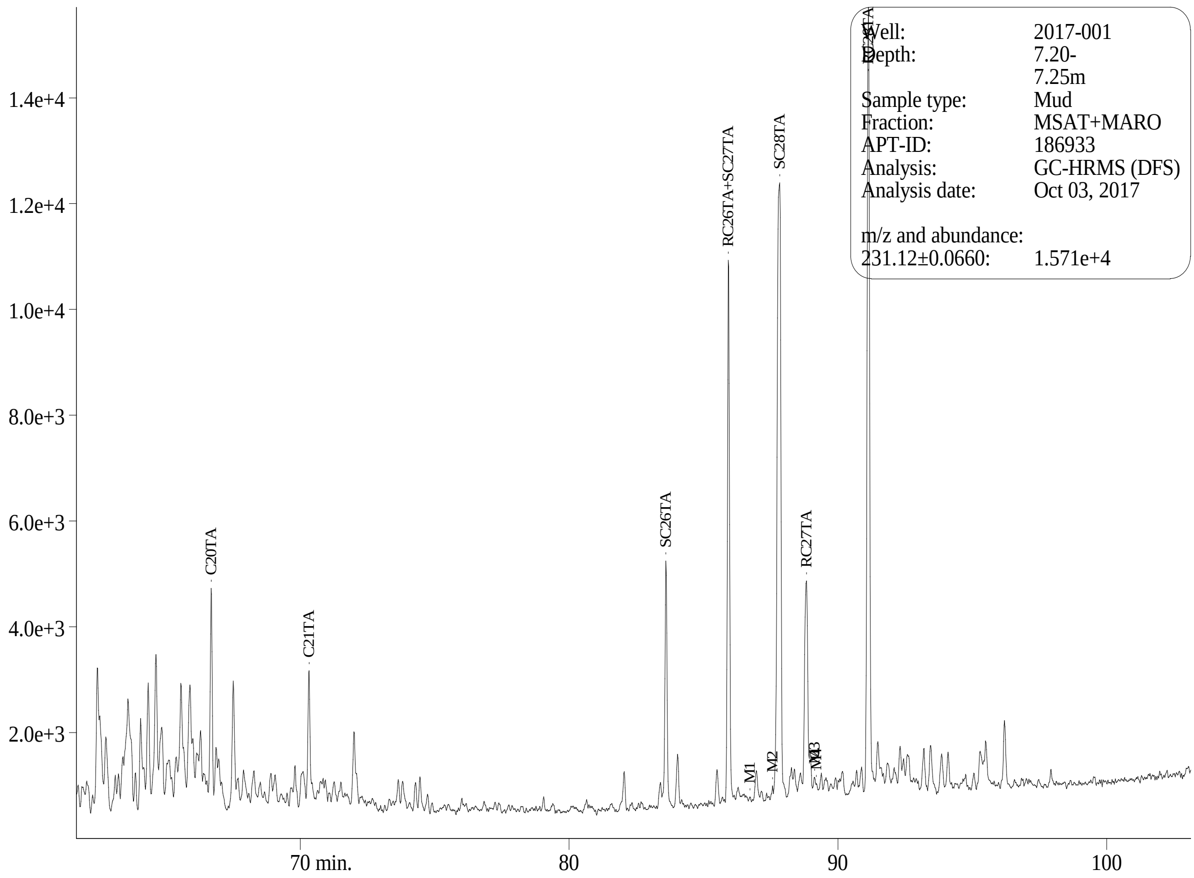


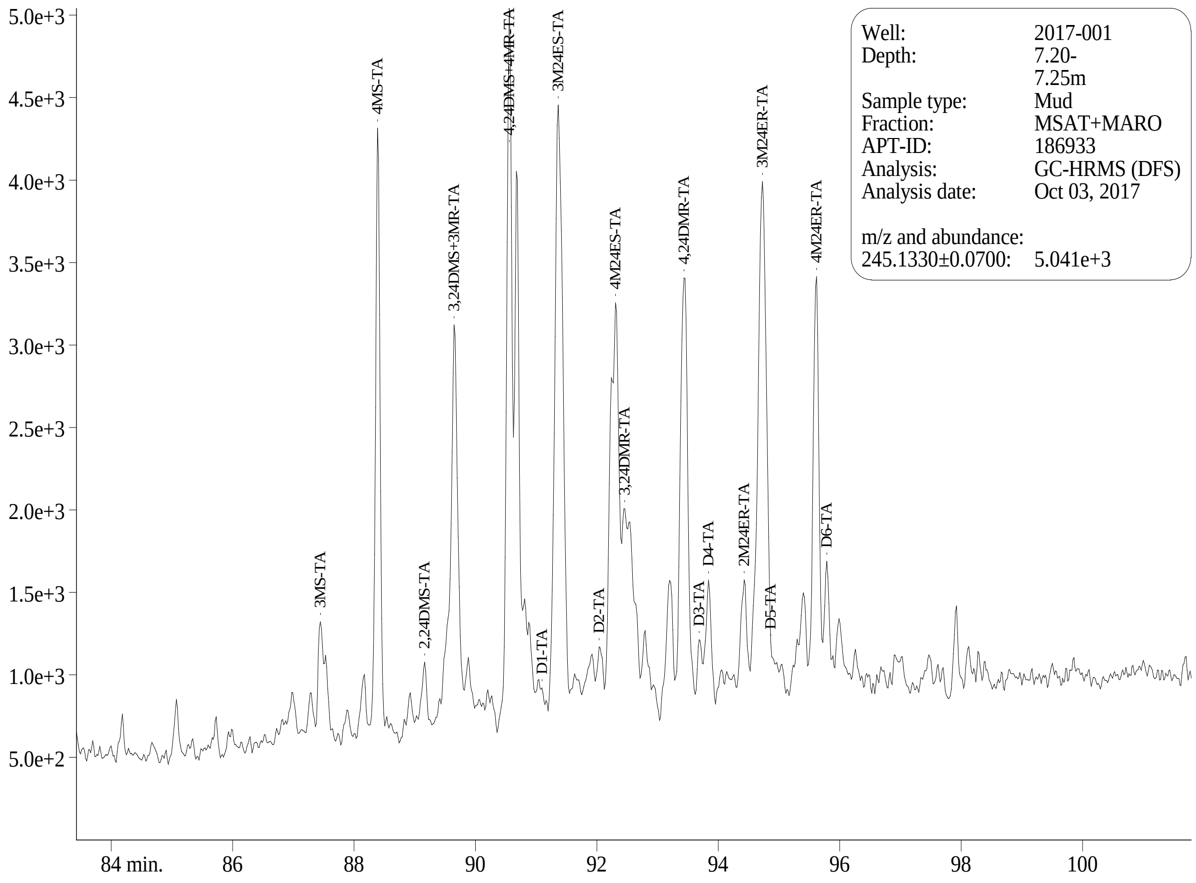
1.1e+5
1.0e+5
9.0e+4
8.0e+4
7.0e+4
6.0e+4
5.0e+4
4.0e+4
3.0e+4
2.0e+4
1.0e+4
14 min.
18
22
26
30
2-MN
1-MN
1,3- + 1,7-DMN
1,6-DMN
2,3- + 1,4-DMN
2,6-DMN
2,7-DMN
1-EN
2-EN
1,5-DMN
1,2-DMN
1,8-DMN
1,3,7-TMN
1,3,6-TMN
1,3,5- + 1,4,6-TMN
2,3,6-TMN
1,6,7 + 1,2,6-TMN
1,2,7-TMN
1,2,4-TMN
1,2,5-TMN
Well: 2017-001
Depth: 7.20-7.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186933
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
142.08±0.0406: 1.116e+5
156.09±0.0446: 1.116e+5
170.11±0.0486: 1.116e+5

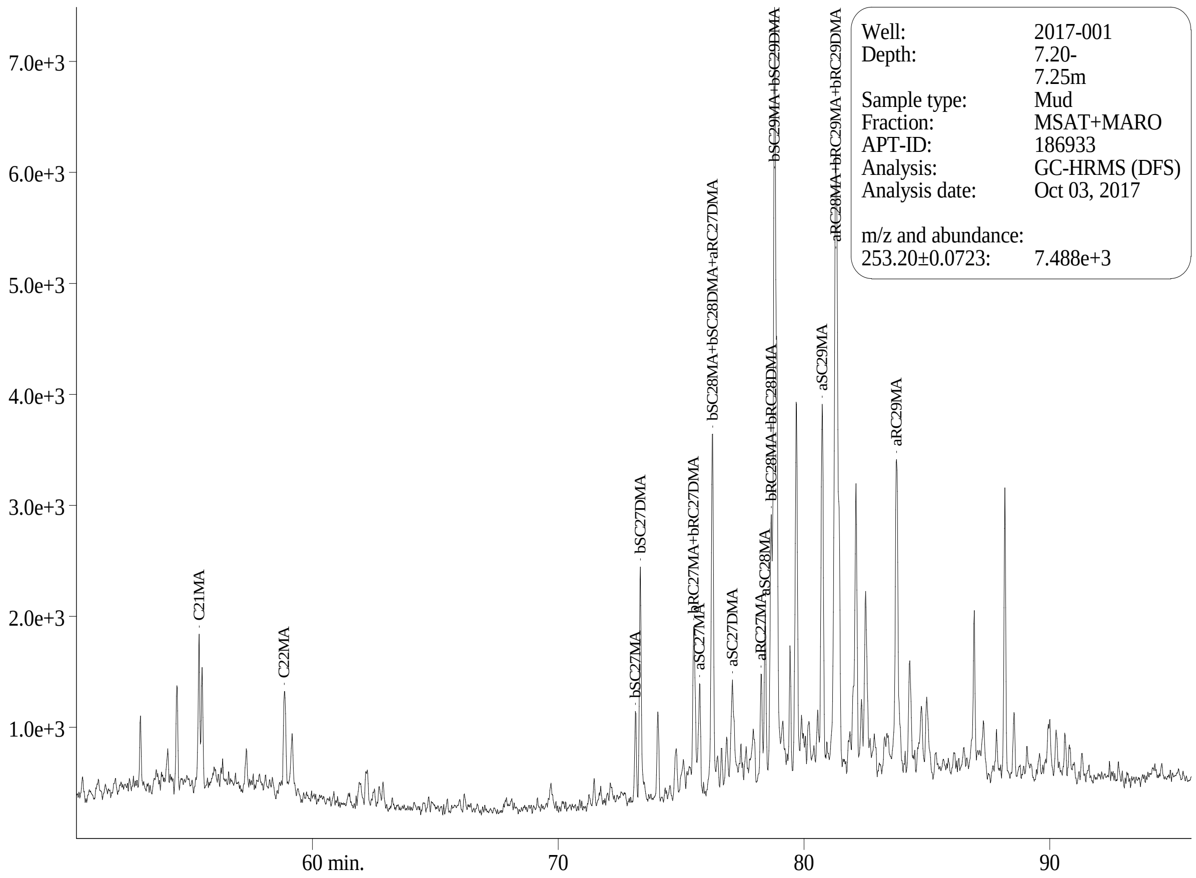


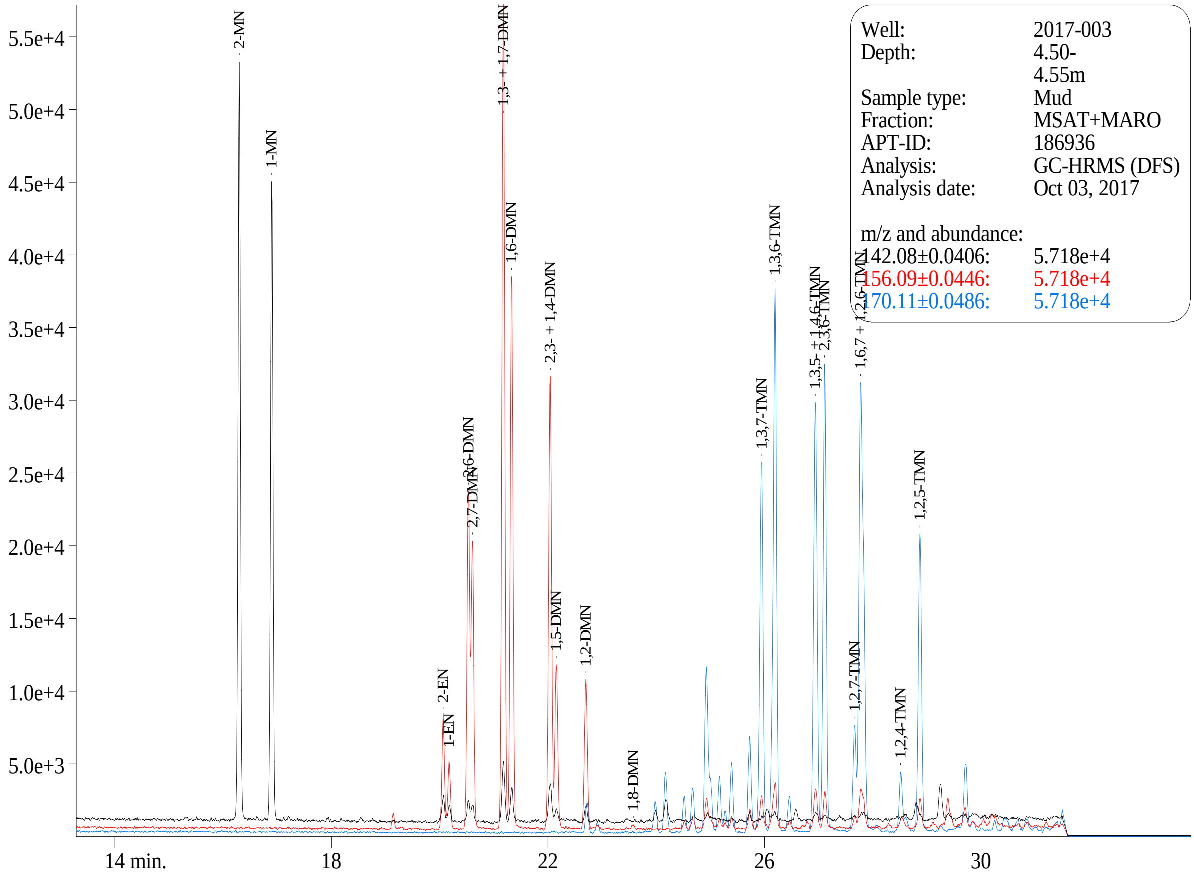
2.0e+5
1.8e+5
1.6e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
38 min.
42
46
50
54
58
62
P
3-MP
2-MP
9-MP
1-MP
2-EP+9-EP+3,6-DMP
1-EP
2,6- + 2,7- + 3,5-DMP
1,3- + 2,10- + 3,9- + 3,10-DMP
1,6- + 2,5- + 2,9-DMP
1,7-DMP
2,3-DMP
1,9- + 4,9- + 4,10-DMP
1,8-DMP
1,2-DMP
Retene
Well: 2017-001
Depth: 7.20-7.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186933
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
178.08±0.0509: 2.057e+5
192.09±0.0549: 2.057e+5
206.11±0.0589: 2.057e+5
219.12±0.0626: 2.057e+5

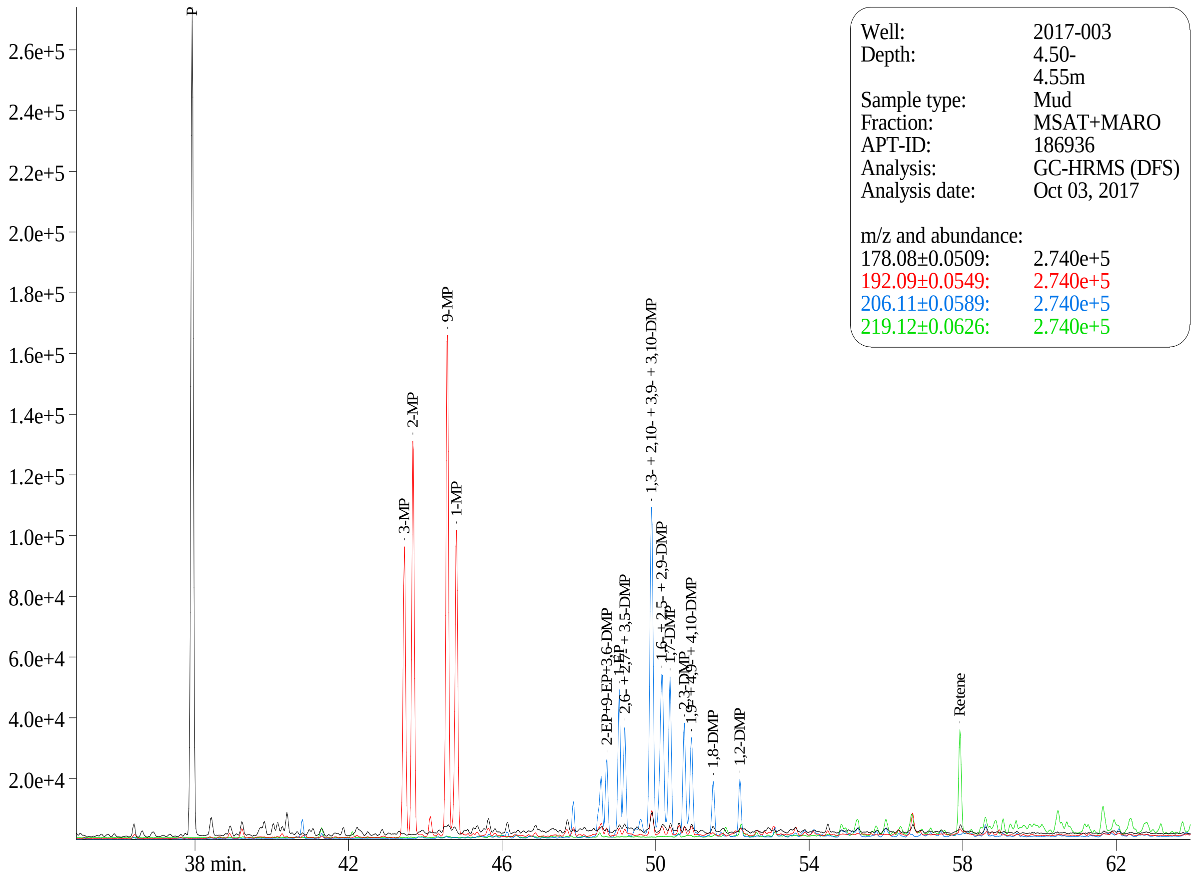

DBT
4-MDBT
(3+2)-MDBT
1-MDBT
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
34 min.
36
38
40
42
44
46
48
50
52
Well: 2017-001
Depth: 7.20-7.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186933
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
184.03±0.0526: 1.561e+4
198.05±0.0566: 1.561e+4
212.07±0.0606: 1.561e+4

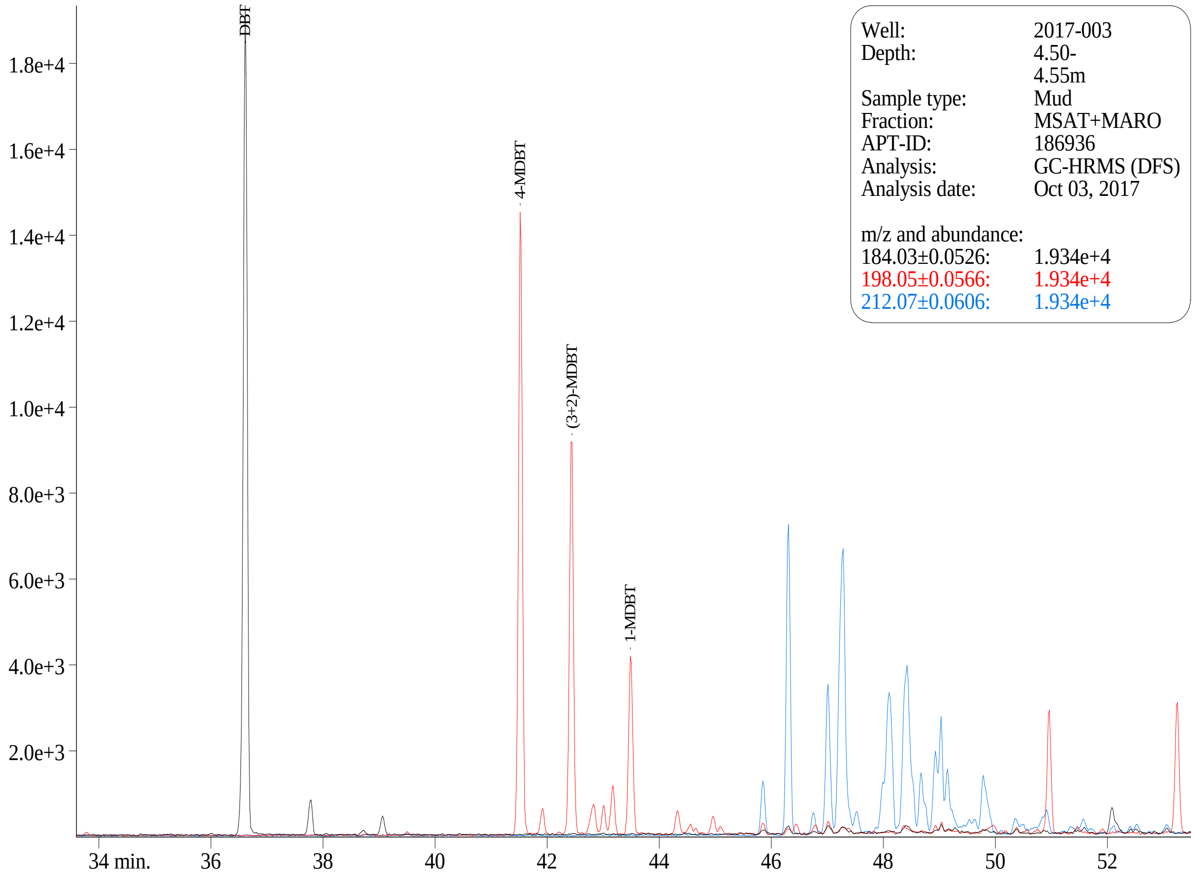

C20TA
C21TA
SC26TA
RC26TA+SC27TA
SC28TA
RC27TA
M1
M2
M3
M4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
70 min.
80
90
100
Well: 2017-001
Depth: 7.20-7.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186933
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
231.12±0.0660: 1.571e+4

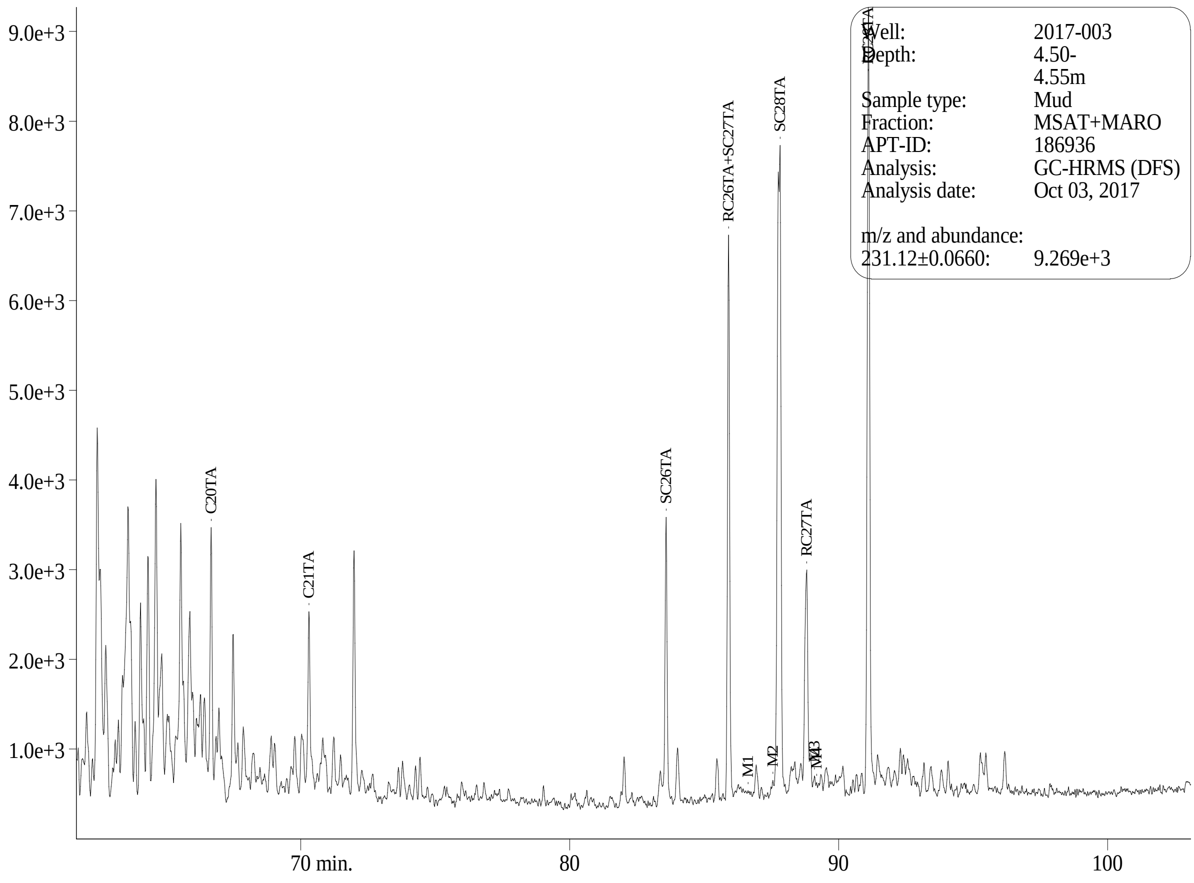

Well: 2017-001
Depth: 7.20-7.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186933
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
245.1330±0.0700: 5.041e+3
3MS-TA
4MS-TA
2,24DMS-TA
3,24DMS+3MR-TA
4,24DMS+4MR-TA
D1-TA
3M24ES-TA
D2-TA
4M24ES-TA
3,24DMR-TA
4,24DMR-TA
D3-TA
D4-TA
2M24ER-TA
3M24ER-TA
D5-TA
4M24ER-TA
D6-TA
84 min.
86
88
90
92
94
96
98
100
5.0e+2
1.0e+3
1.5e+3
2.0e+3
2.5e+3
3.0e+3
3.5e+3
4.0e+3
4.5e+3
5.0e+3

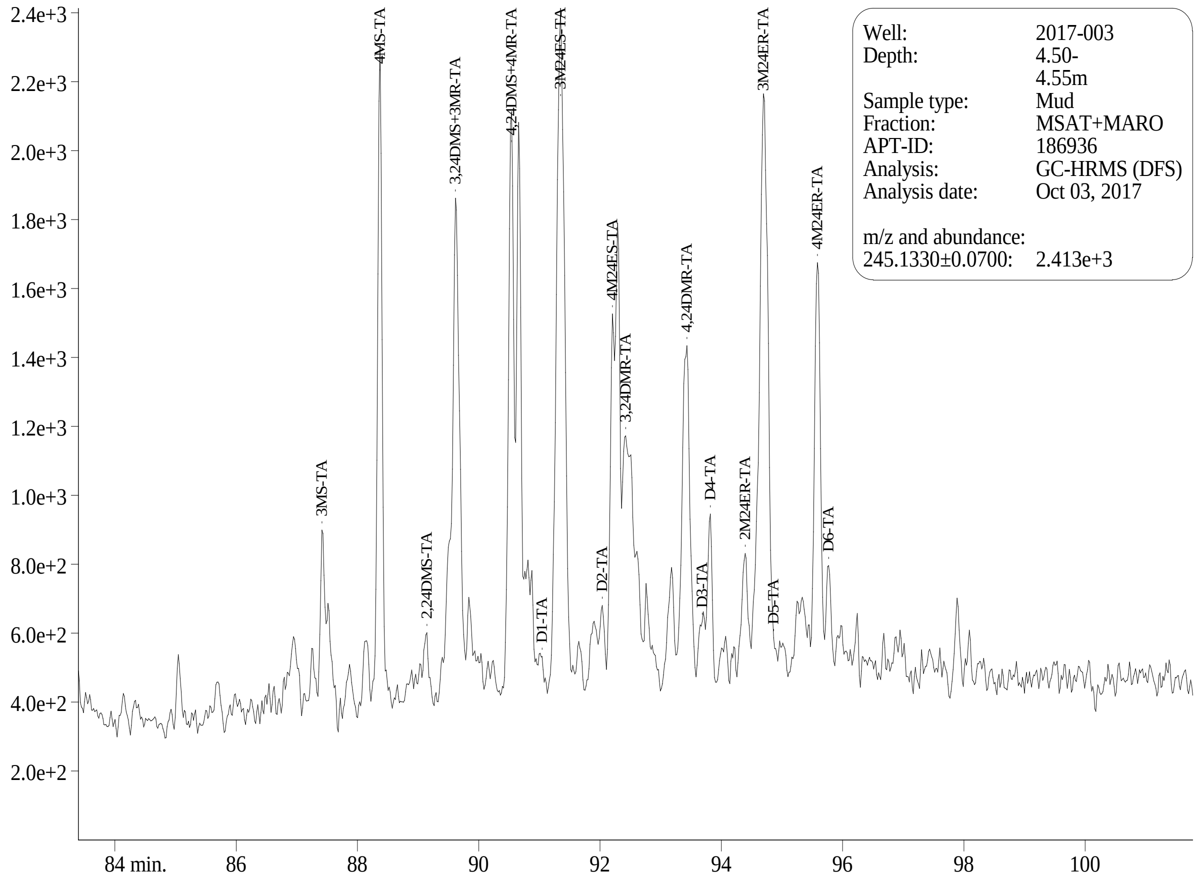

Well: 2017-001
Depth: 7.20-7.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186933
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
253.20±0.0723: 7.488e+3
C21MA
C22MA
bSC27MA
bSC27DMA
aSC27MA
bRC27MA+bRC27DMA
bSC28MA+bSC28DMA+aRC27DMA
aSC27DMA
aRC27MA
aSC28MA
bRC28MA+bRC28DMA
bSC29MA+bSC29DMA
aSC29MA
aRC28MA+bRC29MA+bRC29DMA
aRC29MA
60 min.
70
80
90
1.0e+3
2.0e+3
3.0e+3
4.0e+3
5.0e+3
6.0e+3
7.0e+3


Well: 2017-003
Depth: 4.50-4.55m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186936
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
142.08±0.0406: 5.718e+4
156.09±0.0446: 5.718e+4
170.11±0.0486: 5.718e+4
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
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.
18
22
26
30

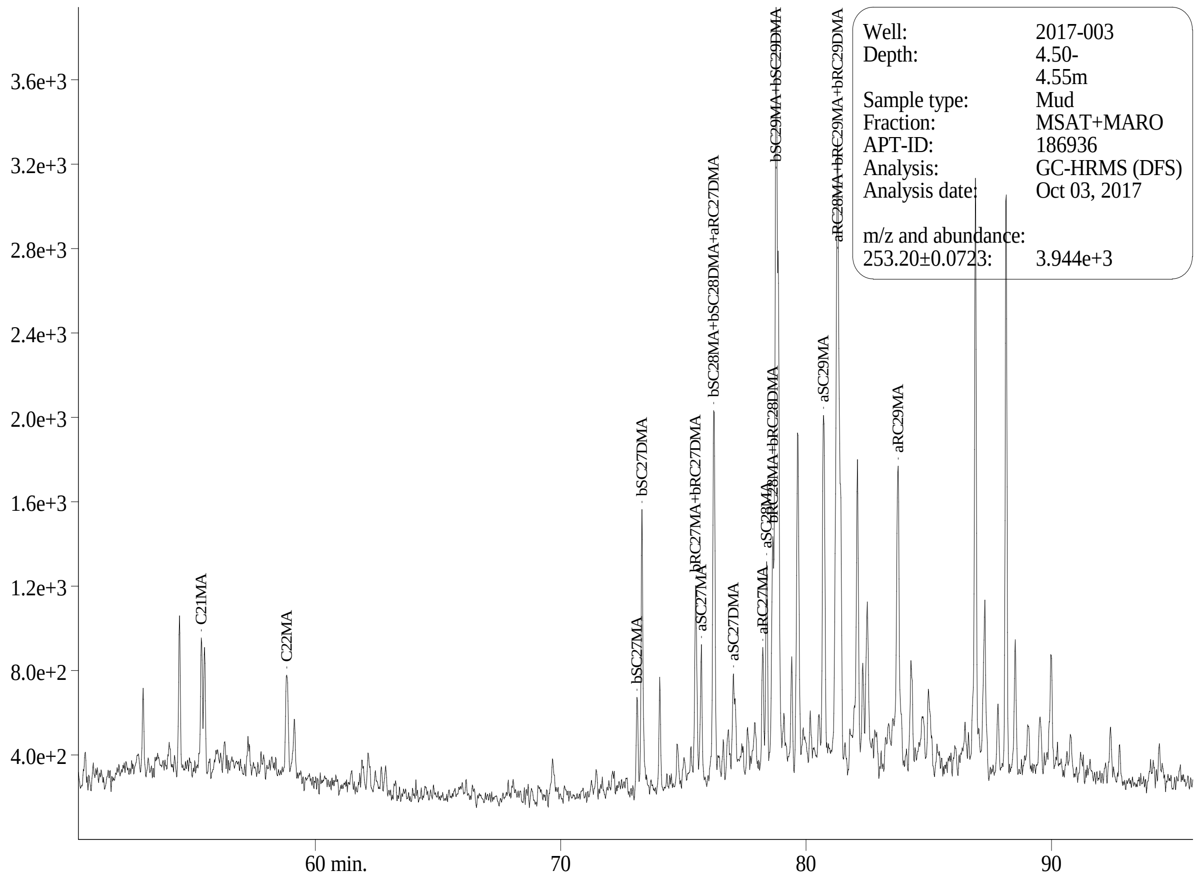

Well: 2017-003
Depth: 4.50-4.55m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186936
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
178.08±0.0509: 2.740e+5
192.09±0.0549: 2.740e+5
206.11±0.0589: 2.740e+5
219.12±0.0626: 2.740e+5
P
3-MP
2-MP
9-MP
1-MP
2-EP+9-EP+3,6-DMP
1-EP
2,6- + 2,7- + 3,5-DMP
1,3- + 2,10- + 3,9- + 3,10-DMP
1,6- + 2,5- + 2,9-DMP
1,7-DMP
2,3-DMP
1,9- + 4,5- + 4,10-DMP
1,8-DMP
1,2-DMP
Retene
38 min.
42
46
50
54
58
62


Well: 2017-003
Depth: 4.50-4.55m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186936
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
184.03±0.0526: 1.934e+4
198.05±0.0566: 1.934e+4
212.07±0.0606: 1.934e+4
DBT
4-MDBT
(3+2)-MDBT
1-MDBT
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
34 min.
36
38
40
42
44
46
48
50
52

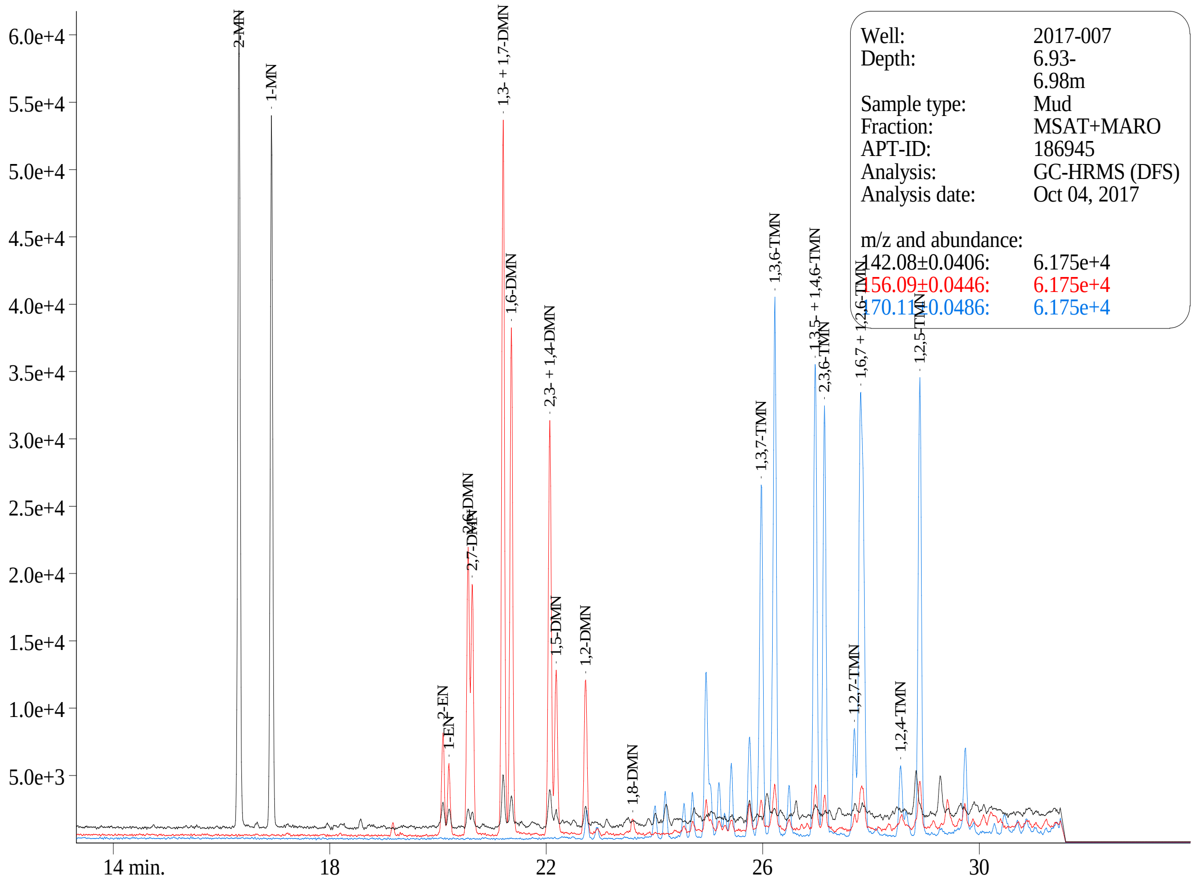

Well: 2017-003
Depth: 4.50-4.55m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186936
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
231.12±0.0660: 9.269e+3
C20TA
C21TA
SC26TA
RC26TA+SC27TA
SC28TA
RC27TA
M1
M2
M3
M4
9.0e+3
8.0e+3
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3
70 min.
80
90
100

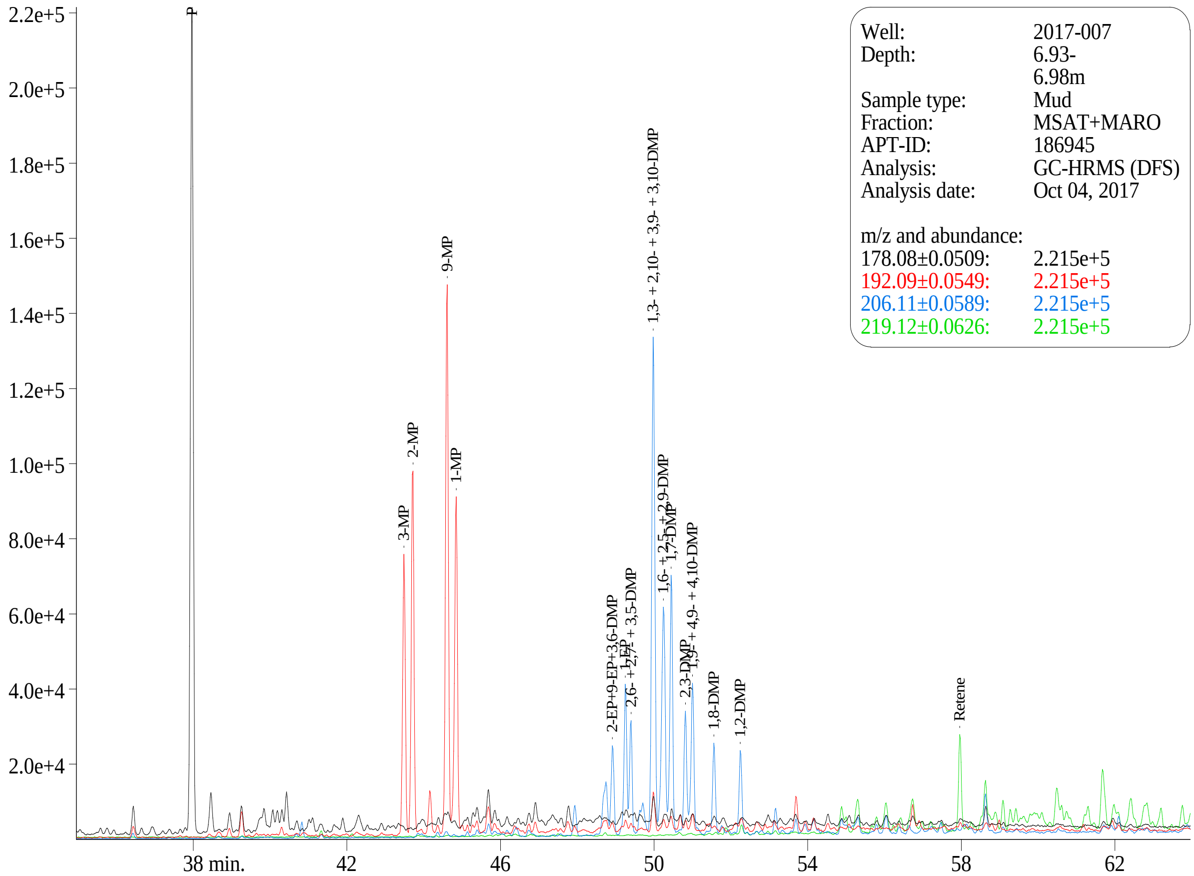


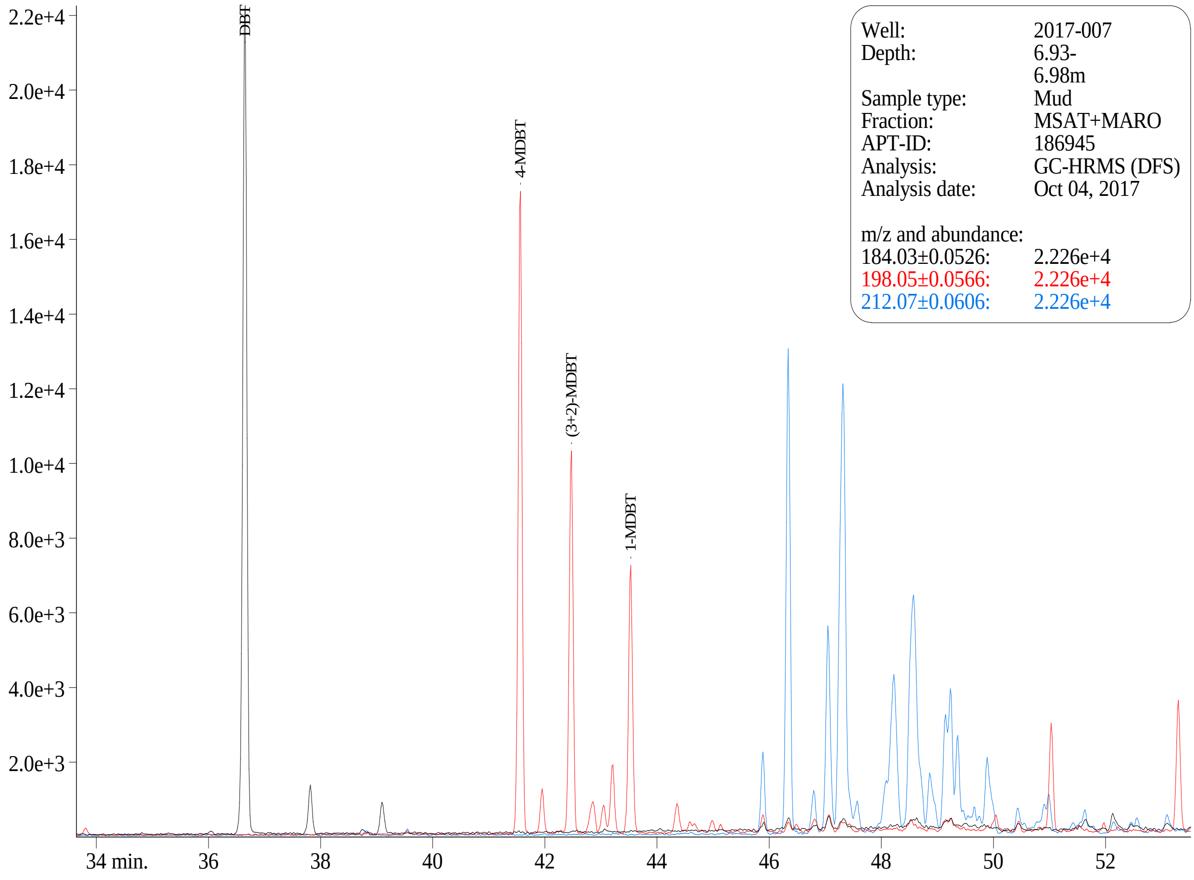
2.4e+3
2.2e+3
2.0e+3
1.8e+3
1.6e+3
1.4e+3
1.2e+3
1.0e+3
8.0e+2
6.0e+2
4.0e+2
2.0e+2
84 min.
86
88
90
92
94
96
98
100
3MS-TA
4MS-TA
2,24DMS-TA
3,24DMS+3MR-TA
4,24DMS+4MR-TA
D1-TA
3M24ES-TA
D2-TA
4M24ES-TA
3,24DMR-TA
4,24DMR-TA
D3-TA
D4-TA
2M24ER-TA
3M24ER-TA
D5-TA
4M24ER-TA
D6-TA
Well: 2017-003
Depth: 4.50-4.55m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186936
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
245.1330±0.0700: 2.413e+3

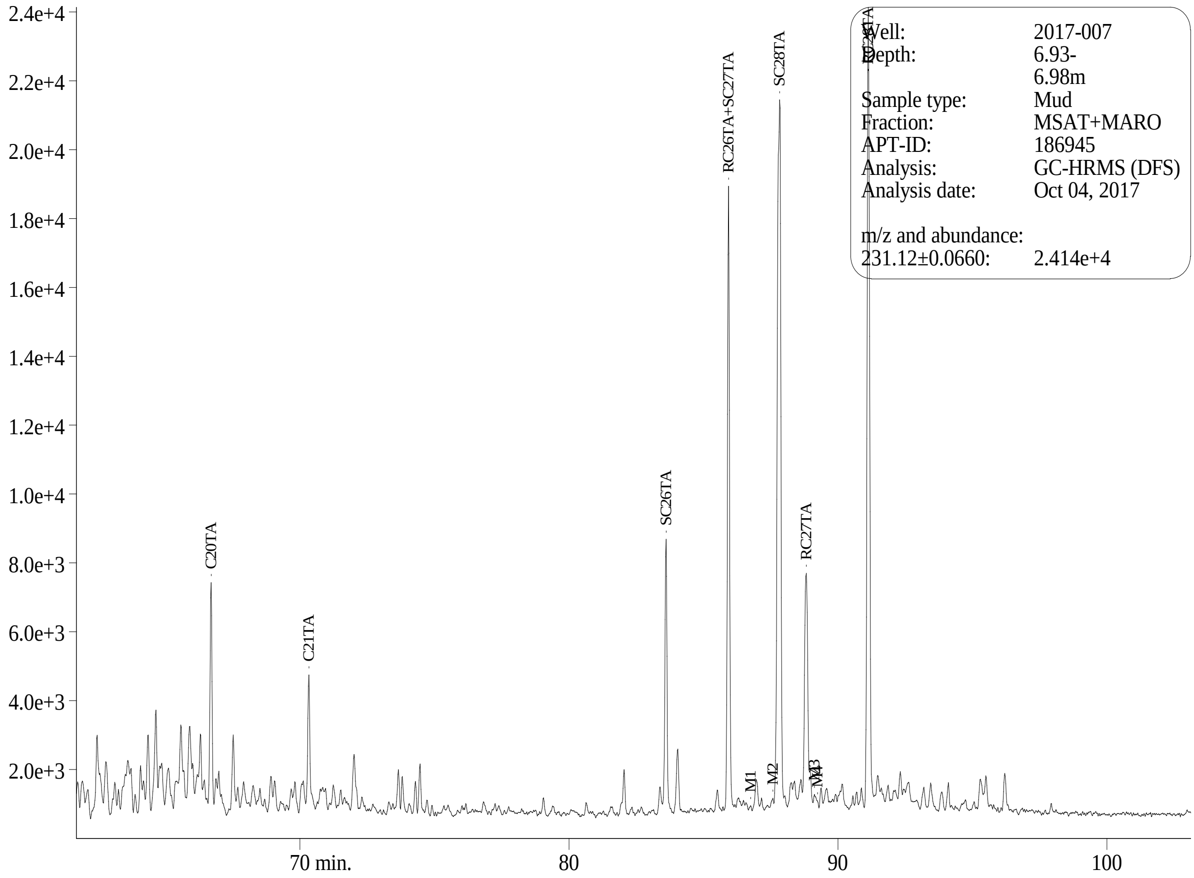


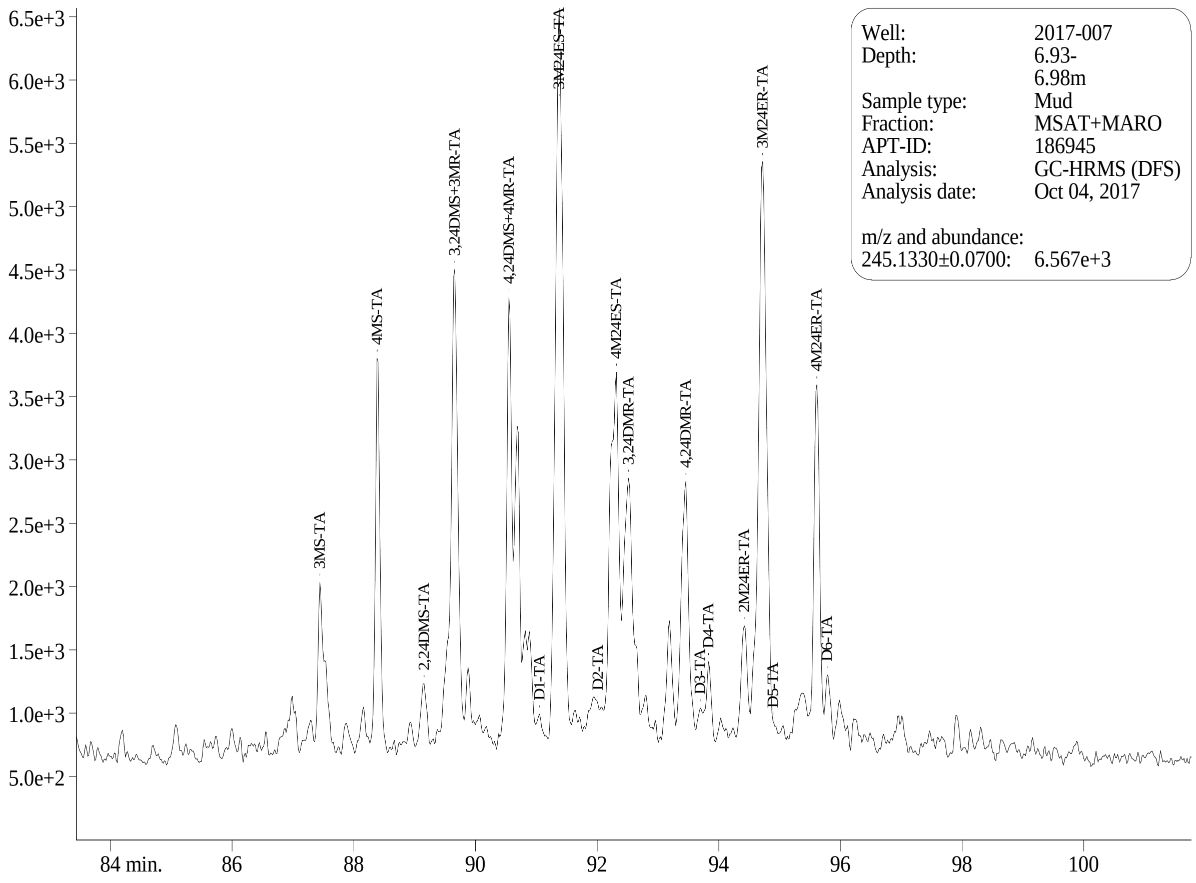
3.6e+3
3.2e+3
2.8e+3
2.4e+3
2.0e+3
1.6e+3
1.2e+3
8.0e+2
4.0e+2
60 min.
70
80
90
C21MA
C22MA
bSC27MA
bSC27DMA
aSC27MA
bRC27MA+bRC27DMA
bSC28MA+bSC28DMA+aRC27DMA
aSC27DMA
aRC27MA
aSC28MA
bRC28MA+bRC28DMA
bSC29MA+bSC29DMA
aSC29MA
aRC28MA+bRC29MA+bRC29DMA
aRC29MA
Well: 2017-003
Depth: 4.50-4.55m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186936
Analysis: GC-HRMS (DFS)
Analysis date: Oct 03, 2017
m/z and abundance:
253.20±0.0723: 3.944e+3


6.0e+4
5.5e+4
5.0e+4
4.5e+4
4.0e+4
3.5e+4
3.0e+4
2.5e+4
2.0e+4
1.5e+4
1.0e+4
5.0e+3
14 min.
18
22
26
30
2-MN
1-MN
1,3- + 1,7-DMN
1,6-DMN
2,3- + 1,4-DMN
2,6-DMN
2,7-DMN
2-EN
1-EN
1,5-DMN
1,2-DMN
1,8-DMN
1,3,6-TMN
1,3,5- + 1,4,6-TMN
2,3,6-TMN
1,6,7 + 1,2,6-TMN
1,2,5-TMN
1,3,7-TMN
1,2,7-TMN
1,2,4-TMN
Well: 2017-007
Depth: 6.93-6.98m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186945
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
142.08±0.0406: 6.175e+4
156.09±0.0446: 6.175e+4
170.11±0.0486: 6.175e+4

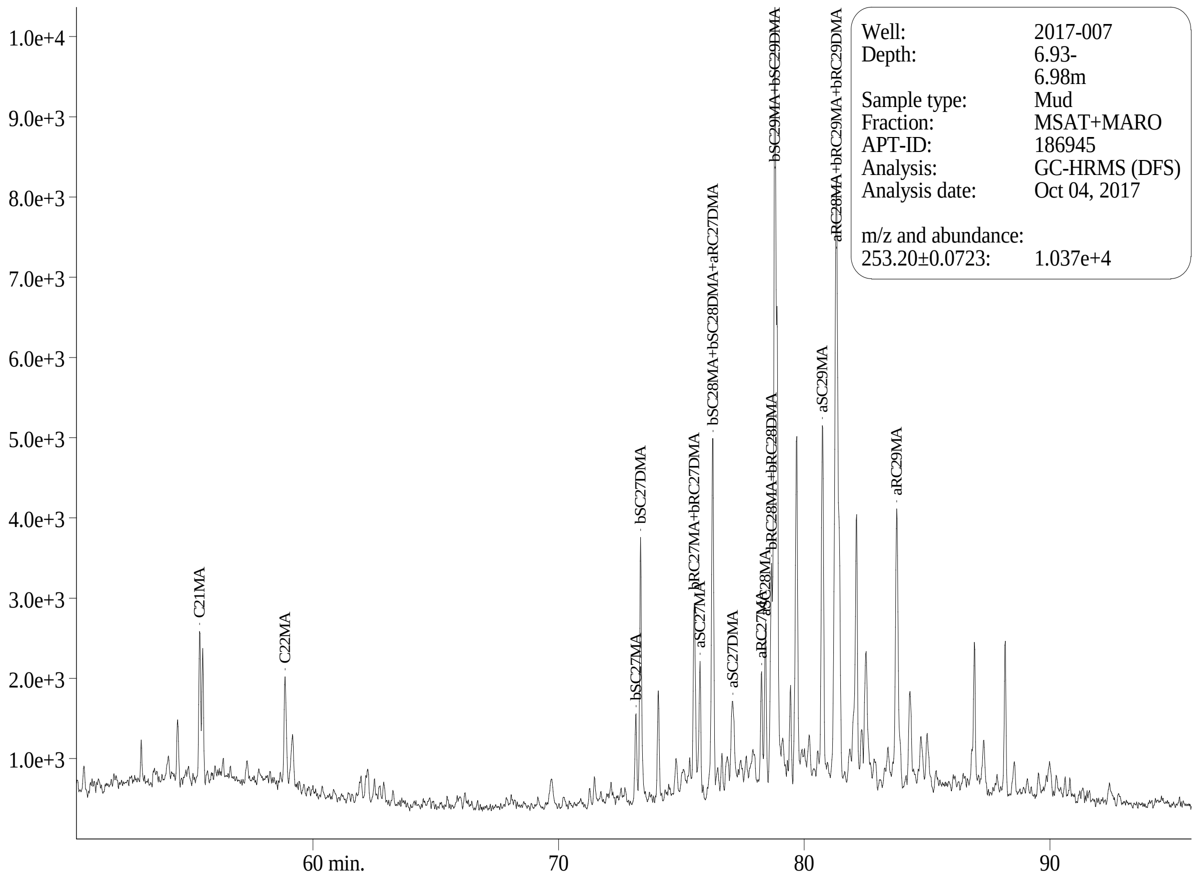

2.2e+5
2.0e+5
1.8e+5
1.6e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
38 min.
42
46
50
54
58
62
P
9-MP
2-MP
3-MP
1-MP
1,3- + 2,10- + 3,9- + 3,10-DMP
1,6- + 2,5- + 2,9-DMP
1,7-DMP
1,9- + 4,9- + 4,10-DMP
2,3-DMP
2-EP+9-EP+3,6-DMP
1-EP + 3,5-DMP
2,6- + 2,7-
1,8-DMP
1,2-DMP
Retene
Well: 2017-007
Depth: 6.93-6.98m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186945
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
178.08±0.0509: 2.215e+5
192.09±0.0549: 2.215e+5
206.11±0.0589: 2.215e+5
219.12±0.0626: 2.215e+5


DBT
4-MDBT
(3+2)-MDBT
1-MDBT
Well: 2017-007
Depth: 6.93-6.98m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186945
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
184.03±0.0526: 2.226e+4
198.05±0.0566: 2.226e+4
212.07±0.0606: 2.226e+4
34 min.
36
38
40
42
44
46
48
50
52

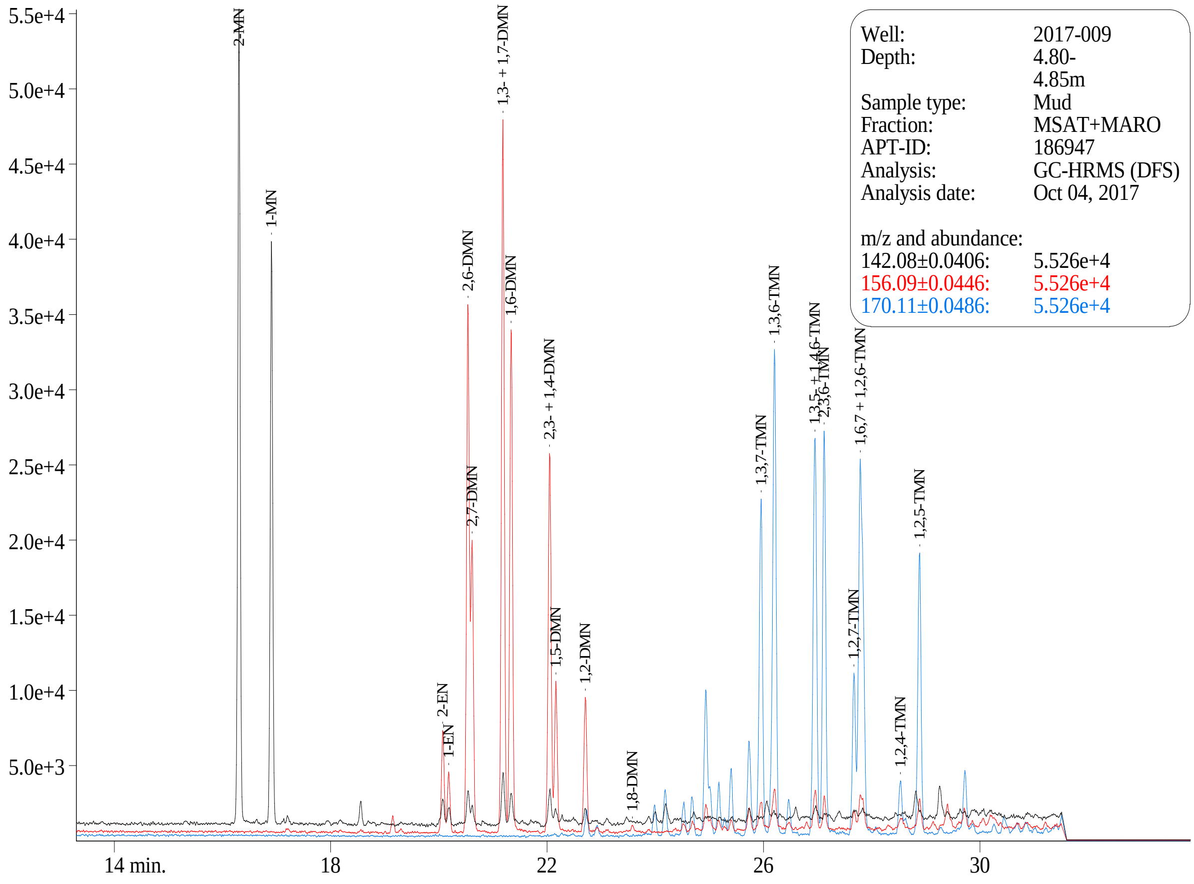

C20TA
C21TA
SC26TA
RC26TA+SC27TA
SC28TA
RC27TA
M1
M2
M3
Well: 2017-007
Depth: 6.93-6.98m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186945
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
231.12±0.0660: 2.414e+4
70 min.
80
90
100



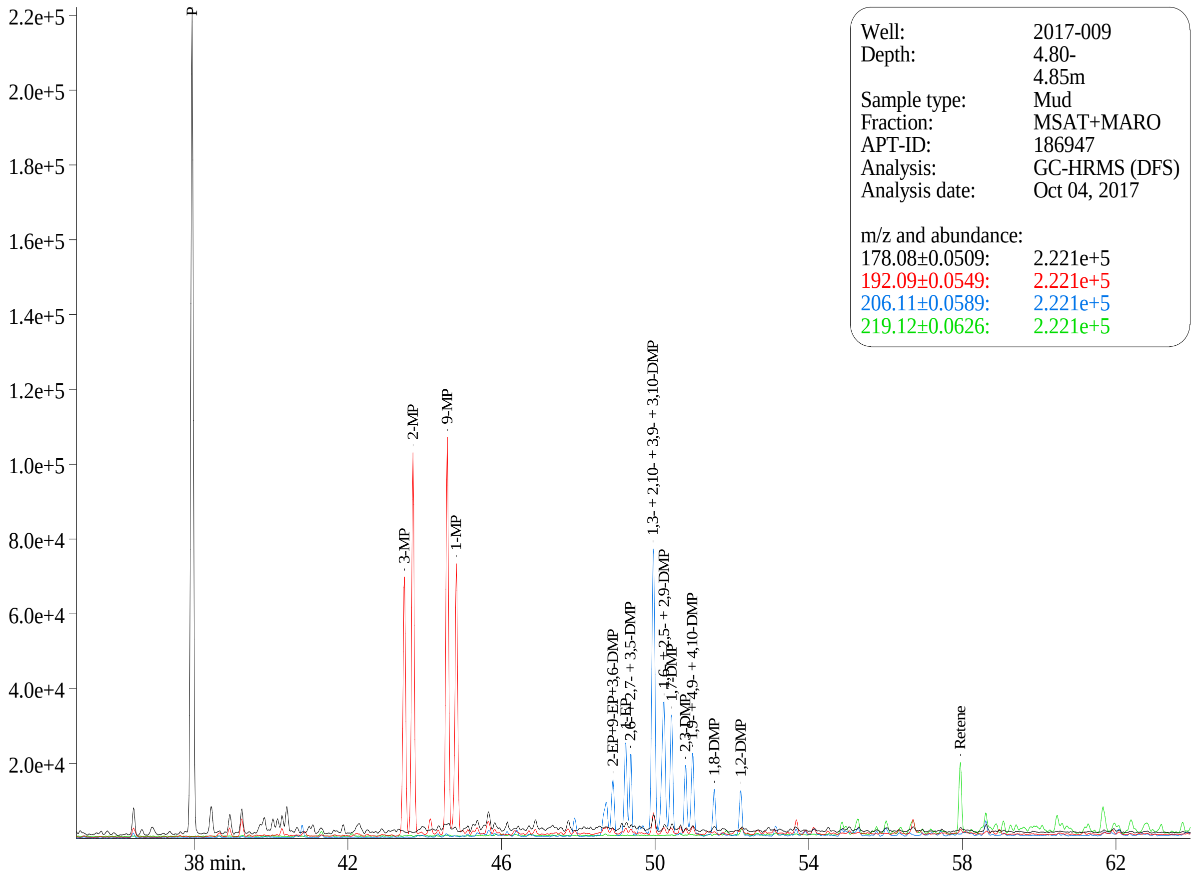
Well: 2017-007
Depth: 6.93-6.98m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186945
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
245.1330±0.0700: 6.567e+3
3MS-TA
4MS-TA
2,24DMS-TA
3,24DMS+3MR-TA
4,24DMS+4MR-TA
D1-TA
3M24ES-TA
D2-TA
4M24ES-TA
3,24DMR-TA
4,24DMR-TA
D3-TA
D4-TA
2M24ER-TA
3M24ER-TA
D5-TA
4M24ER-TA
D6-TA
84 min.
86
88
90
92
94
96
98
100



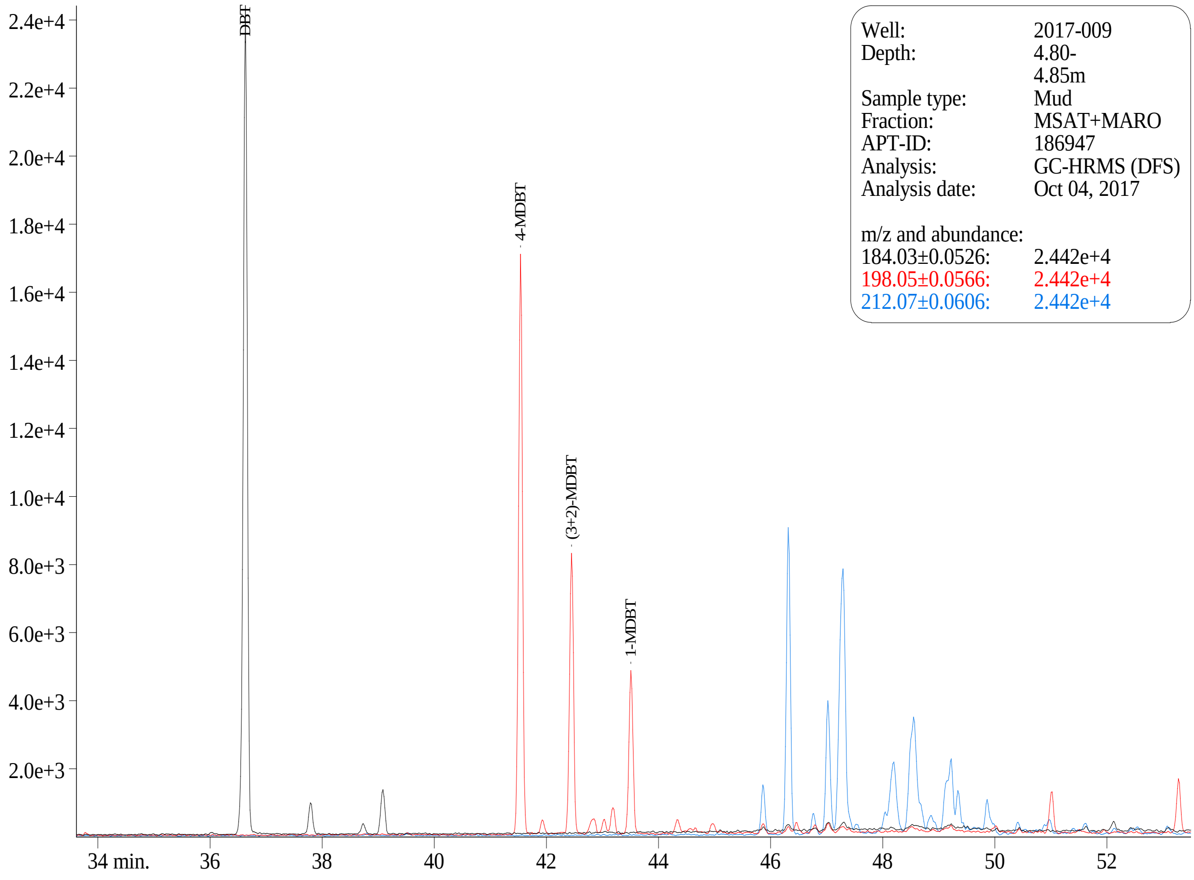
Well: 2017-007
Depth: 6.93-6.98m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186945
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
253.20±0.0723: 1.037e+4
C21MA
C22MA
bSC27MA
bSC27DMA
bRC27MA+bRC27DMA
aSC27MA
bSC28MA+bSC28DMA+aRC27DMA
aSC27DMA
aRC27MA
aSC28MA
bRC28MA+bRC28DMA
bSC29MA+bSC29DMA
aSC29MA
aRC28MA+bRC29MA+bRC29DMA
aRC29MA
60 min.
70
80
90

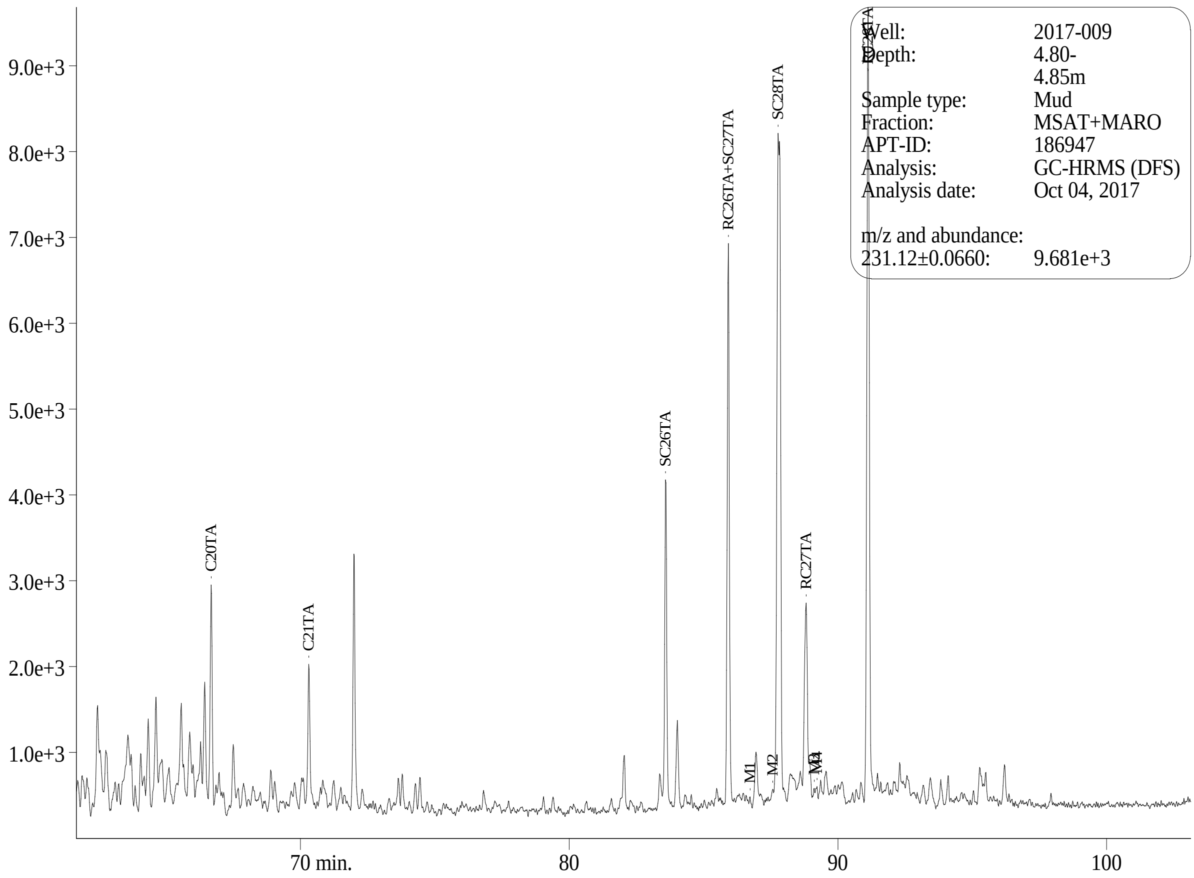


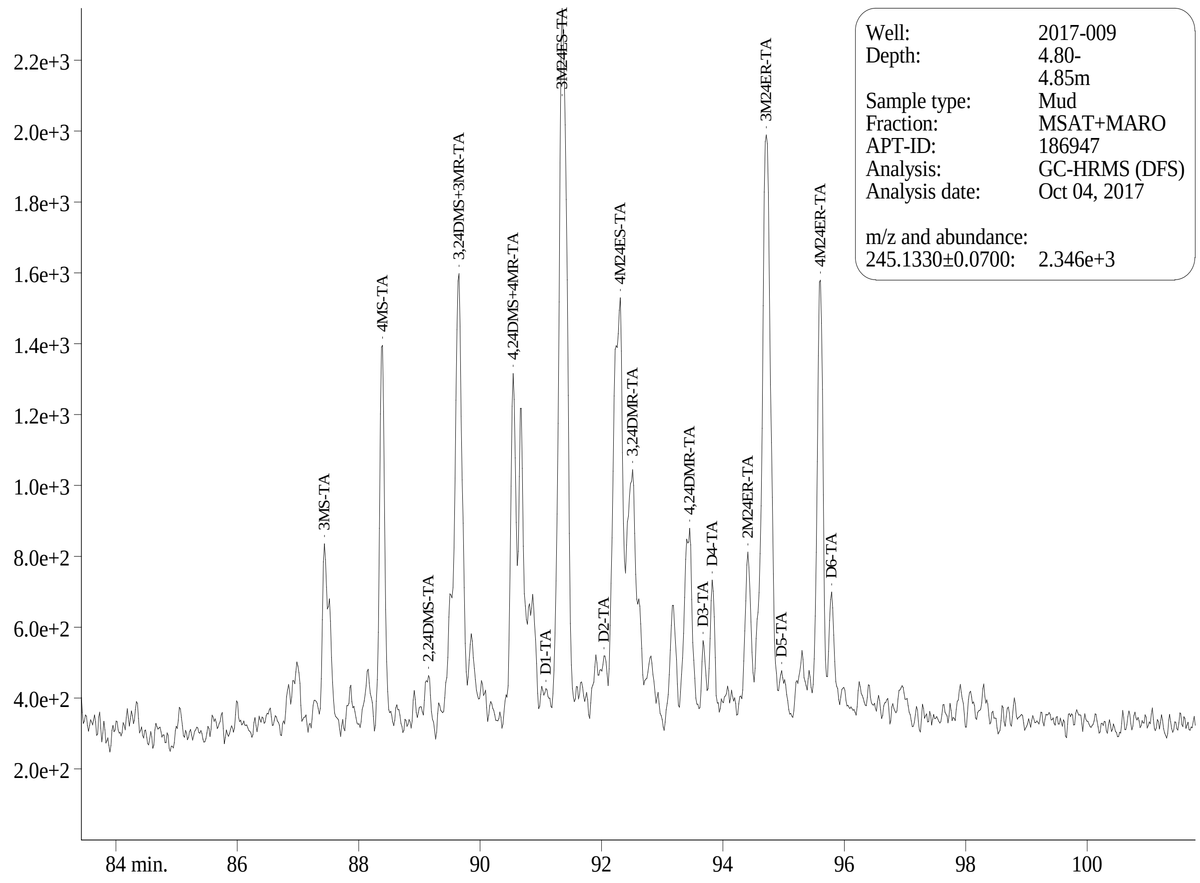
Well: 2017-009
Depth: 4.80-4.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186947
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
142.08±0.0406: 5.526e+4
156.09±0.0446: 5.526e+4
170.11±0.0486: 5.526e+4
2-MN
1-MN
2-EN
1-EN
2,6-DMN
2,7-DMN
1,3- + 1,7-DMN
1,6-DMN
2,3- + 1,4-DMN
1,5-DMN
1,2-DMN
1,8-DMN
1,3,7-TMN
1,3,6-TMN
1,3,5- + 1,4,6-TMN
2,3,6-TMN
1,2,7-TMN
1,6,7 + 1,2,6-TMN
1,2,4-TMN
1,2,5-TMN
5.5e+4
5.0e+4
4.5e+4
4.0e+4
3.5e+4
3.0e+4
2.5e+4
2.0e+4
1.5e+4
1.0e+4
5.0e+3
14 min.
18
22
26
30

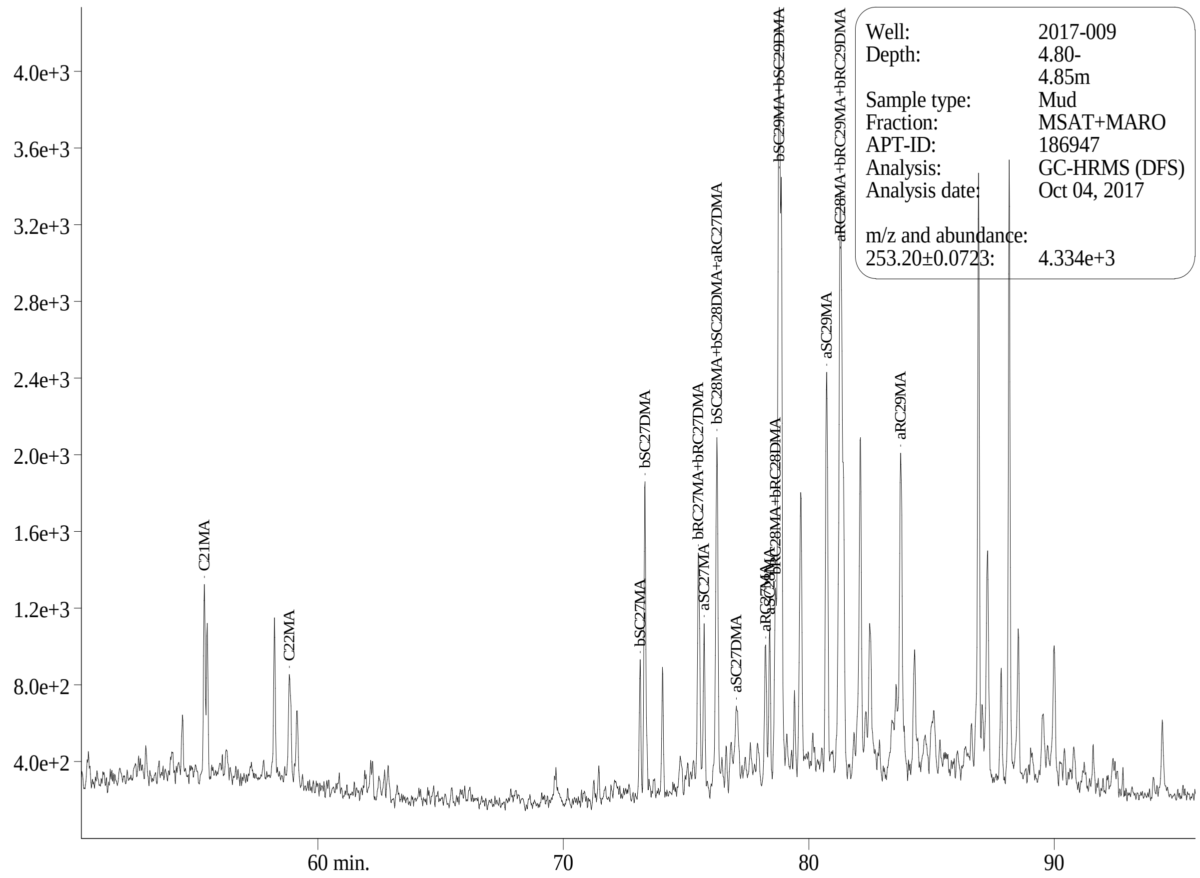


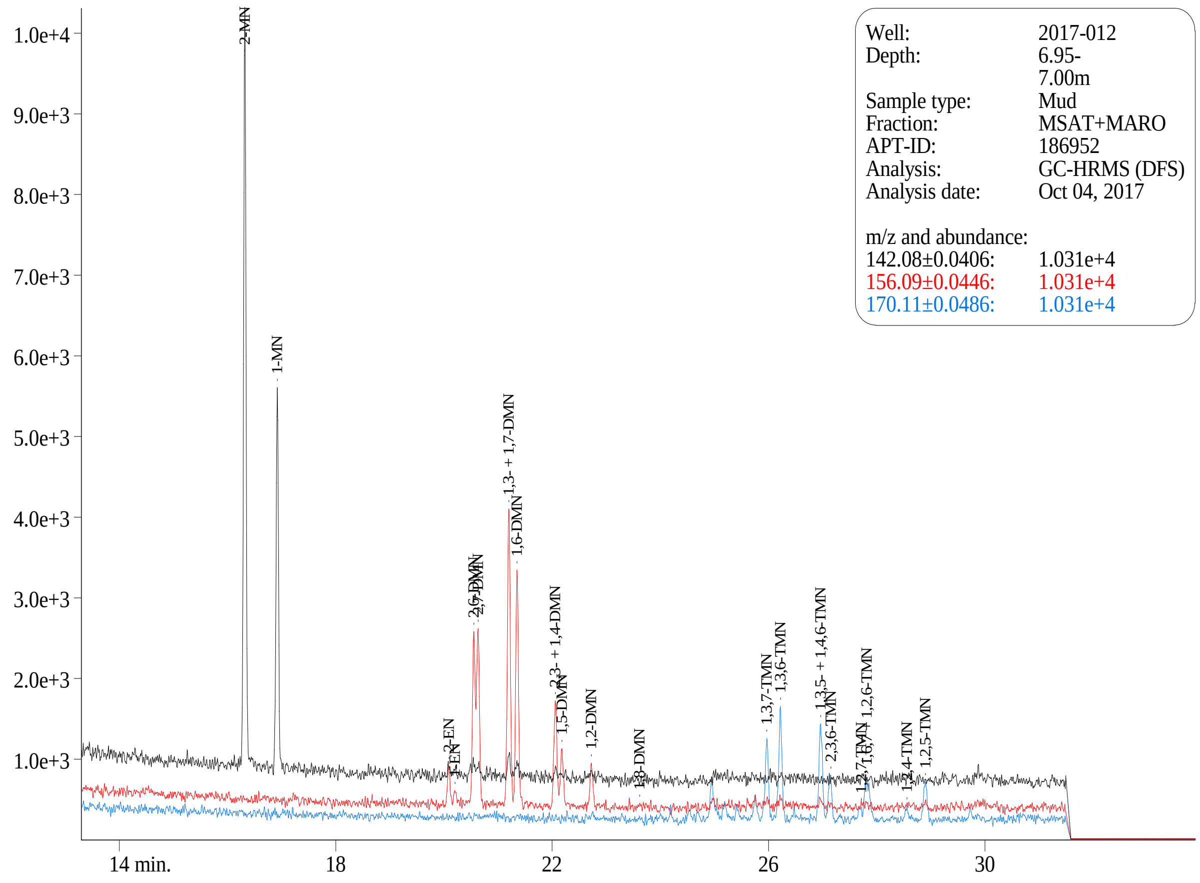
Well: 2017-009
Depth: 4.80-4.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186947
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
178.08±0.0509: 2.221e+5
192.09±0.0549: 2.221e+5
206.11±0.0589: 2.221e+5
219.12±0.0626: 2.221e+5
P
3-MP
2-MP
9-MP
1-MP
2-EP+9-EP+3,6-DMP
1-EP
2,6-
2,7- + 3,5-DMP
1,3- + 2,10- + 3,9- + 3,10-DMP
1,6- + 2,5- + 2,9-DMP
1,7-DMP
2,3-DMP
1,9- + 4,9- + 4,10-DMP
1,8-DMP
1,2-DMP
Retene
2.2e+5
2.0e+5
1.8e+5
1.6e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
38 min.
42
46
50
54
58
62

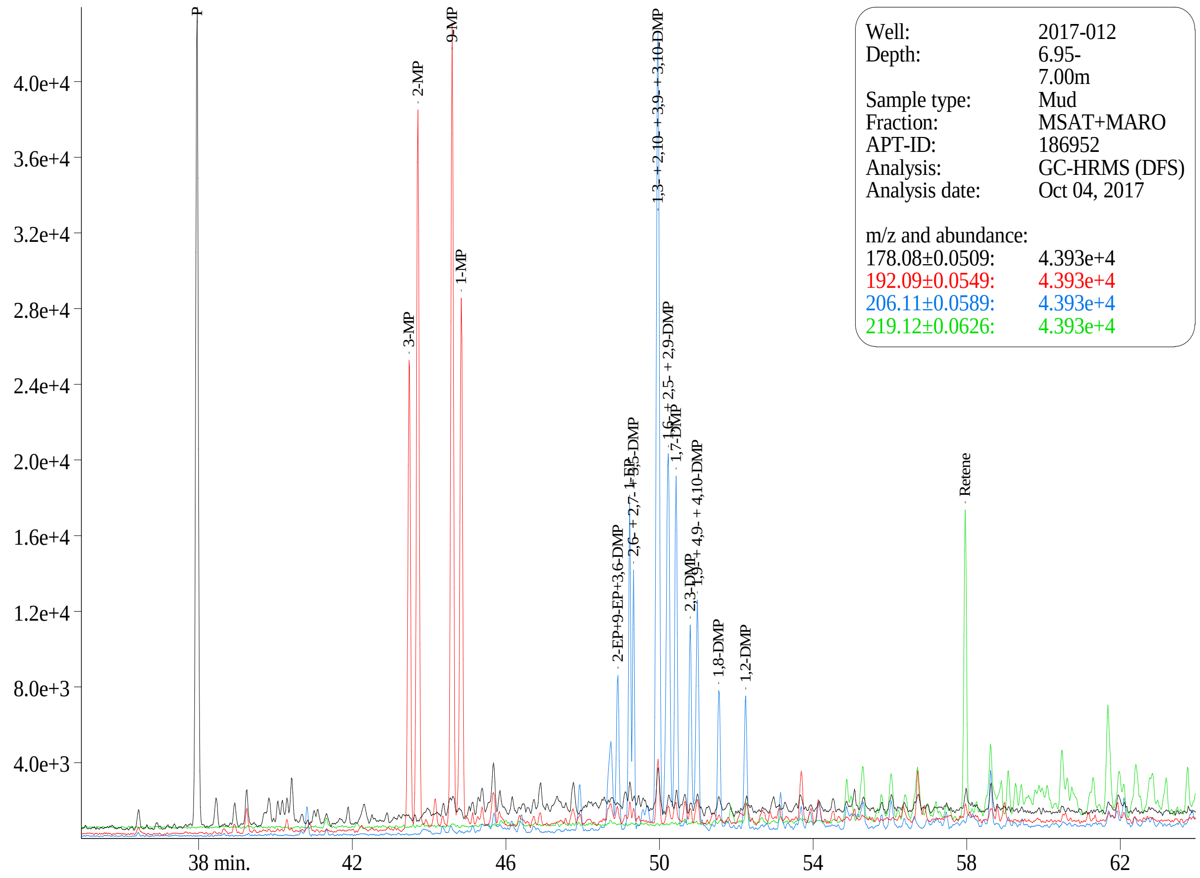

DBT
4-MDBT
(3+2)-MDBT
1-MDBT
Well: 2017-009
Depth: 4.80-4.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186947
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
184.03±0.0526: 2.442e+4
198.05±0.0566: 2.442e+4
212.07±0.0606: 2.442e+4
34 min.
36
38
40
42
44
46
48
50
52

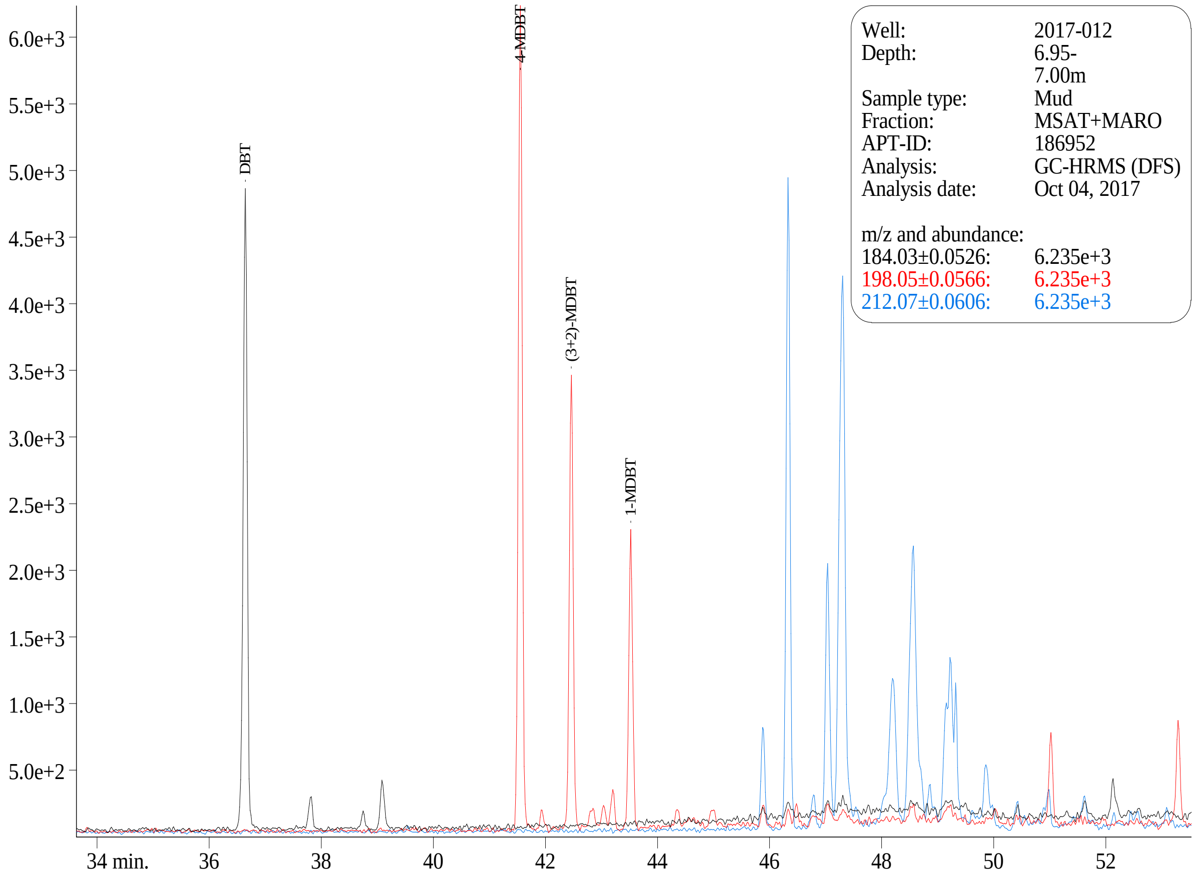

C20TA
C21TA
SC26TA
RC26TA+SC27TA
SC28TA
RC27TA
M1
M2
M3
M4
Well: 2017-009
Depth: 4.80-4.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186947
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
231.12±0.0660: 9.681e+3
70 min.
80
90
100

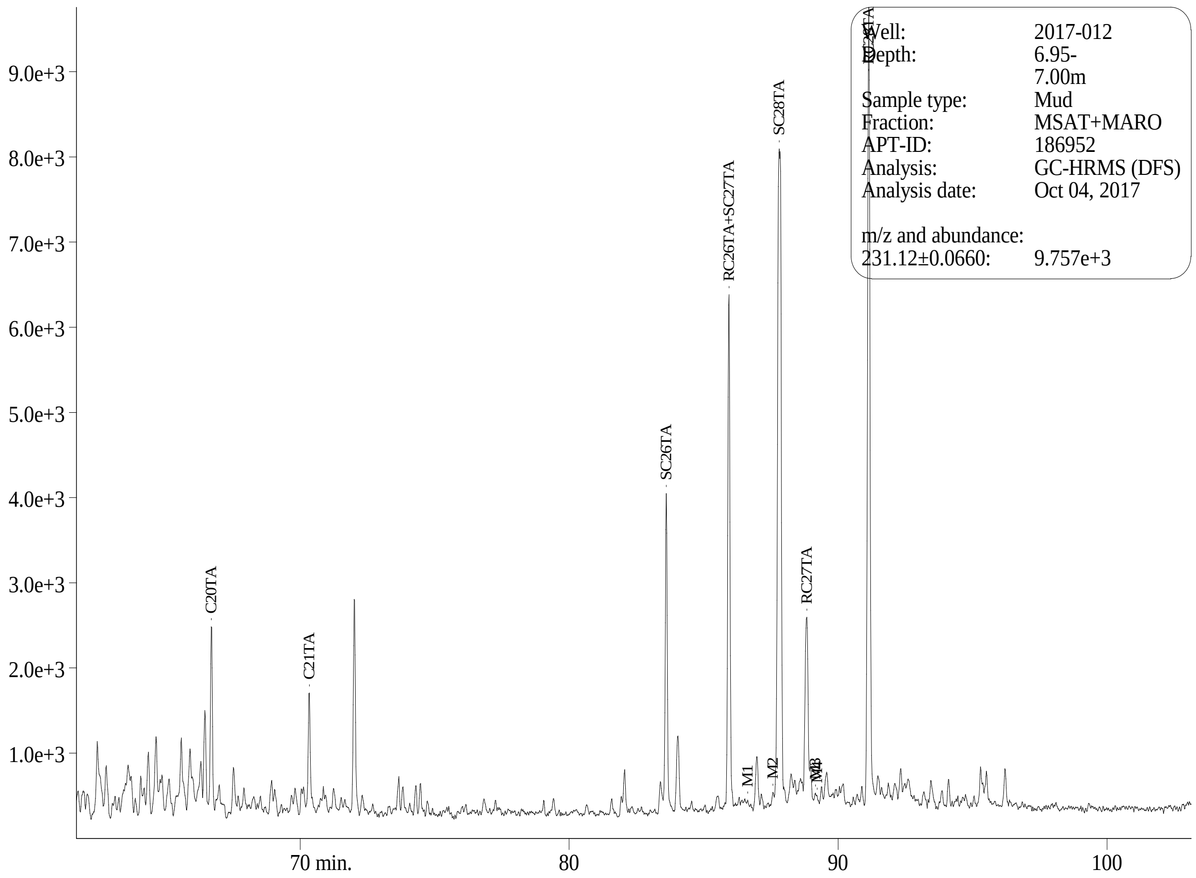

Well: 2017-009
Depth: 4.80-4.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186947
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
245.1330±0.0700: 2.346e+3
3MS-TA
4MS-TA
2,24DMS-TA
3,24DMS+3MR-TA
4,24DMS+4MR-TA
D1-TA
3M24ES-TA
D2-TA
4M24ES-TA
3,24DMR-TA
4,24DMR-TA
D3-TA
D4-TA
2M24ER-TA
3M24ER-TA
D5-TA
4M24ER-TA
D6-TA
2.2e+3
2.0e+3
1.8e+3
1.6e+3
1.4e+3
1.2e+3
1.0e+3
8.0e+2
6.0e+2
4.0e+2
2.0e+2
84 min.
86
88
90
92
94
96
98
100

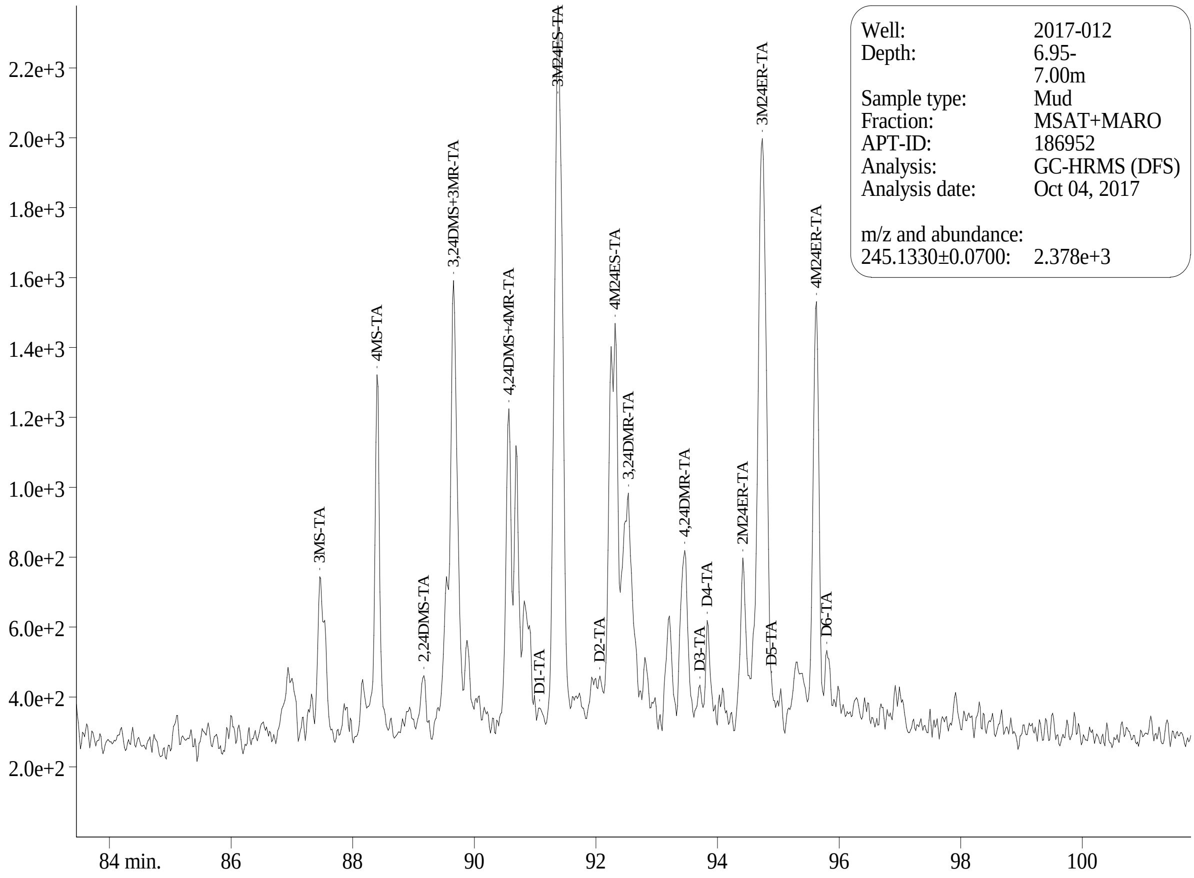

Well: 2017-009
Depth: 4.80-4.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186947
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
253.20±0.0723: 4.334e+3
C21MA
C22MA
bSC27MA
bSC27DMA
aSC27MA
bRC27MA+bRC27DMA
bSC28MA+bSC28DMA+aRC27DMA
aSC27DMA
aRC27MA
bSC29MA+bSC29DMA
aSC29MA
aRC28MA+bRC29MA+bRC29DMA
aRC29MA
4.0e+3
3.6e+3
3.2e+3
2.8e+3
2.4e+3
2.0e+3
1.6e+3
1.2e+3
8.0e+2
4.0e+2
60 min.
70
80
90

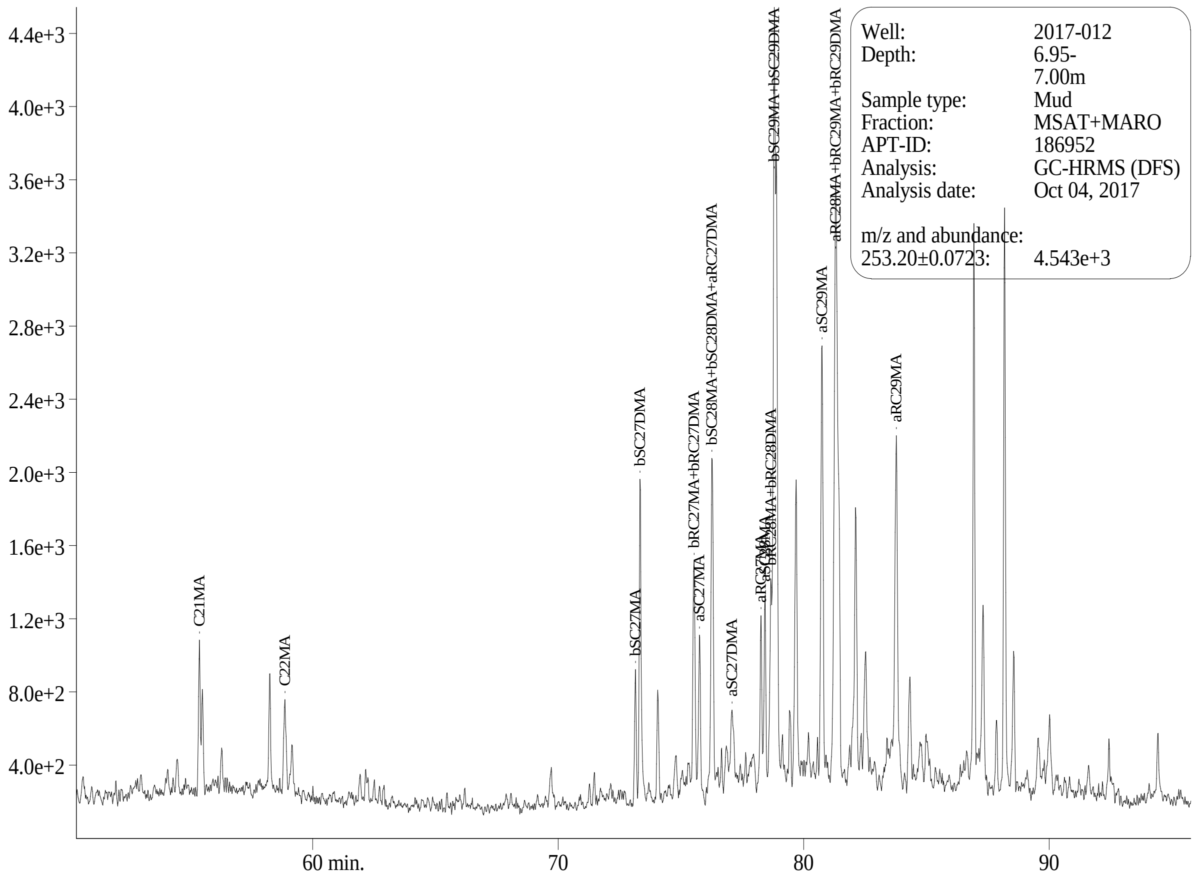

Well: 2017-012
Depth: 6.95-7.00m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186952
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
142.08±0.0406: 1.031e+4
156.09±0.0446: 1.031e+4
170.11±0.0486: 1.031e+4
2-MN
1-MN
1,3- + 1,7-DMN
1,6-DMN
2,6-DMN
2,7-DMN
2,3- + 1,4-DMN
1,5-DMN
1,2-DMN
1,8-DMN
1,3,7-TMN
1,3,6-TMN
1,3,5- + 1,4,6-TMN
2,3,6-TMN
1,2,6-TMN
1,2,4-TMN
1,2,5-TMN
14 min.
18
22
26
30

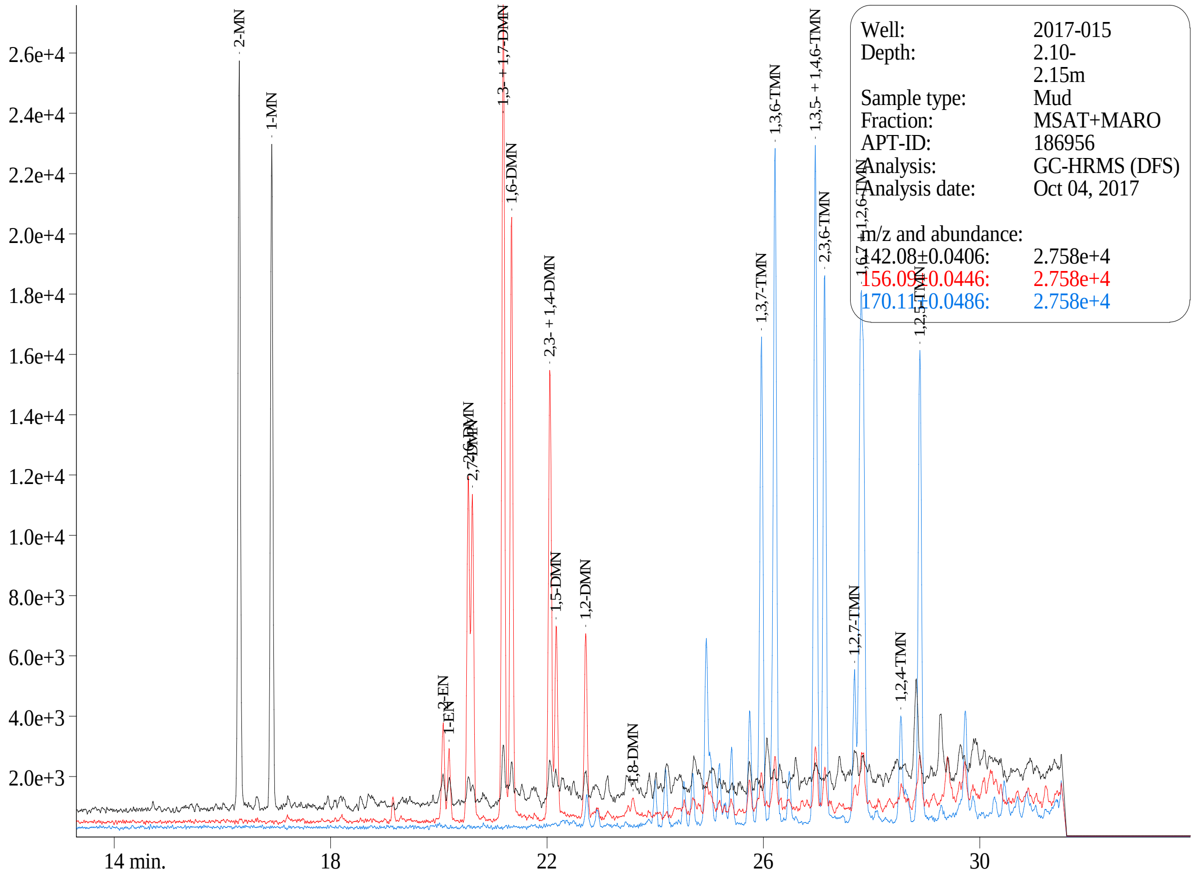

Well: 2017-012
Depth: 6.95-7.00m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186952
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
178.08±0.0509: 4.393e+4
192.09±0.0549: 4.393e+4
206.11±0.0589: 4.393e+4
219.12±0.0626: 4.393e+4
P
3-MP
2-MP
9-MP
1-MP
2-EP+9-EP+3,6-DMP
2,6- + 2,7- + 3,5-DMP
1,3- + 2,10- + 3,9- + 3,10-DMP
1,6- + 2,5- + 2,9-DMP
1,7-DMP
2,3-DMP
1,9- + 4,9- + 4,10-DMP
1,8-DMP
1,2-DMP
Retene
38 min.
42
46
50
54
58
62


Well: 2017-012
Depth: 6.95-7.00m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186952
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
184.03±0.0526: 6.235e+3
198.05±0.0566: 6.235e+3
212.07±0.0606: 6.235e+3
DBT
4-MDBT
(3+2)-MDBT
1-MDBT
34 min.
36
38
40
42
44
46
48
50
52
6.0e+3
5.5e+3
5.0e+3
4.5e+3
4.0e+3
3.5e+3
3.0e+3
2.5e+3
2.0e+3
1.5e+3
1.0e+3
5.0e+2

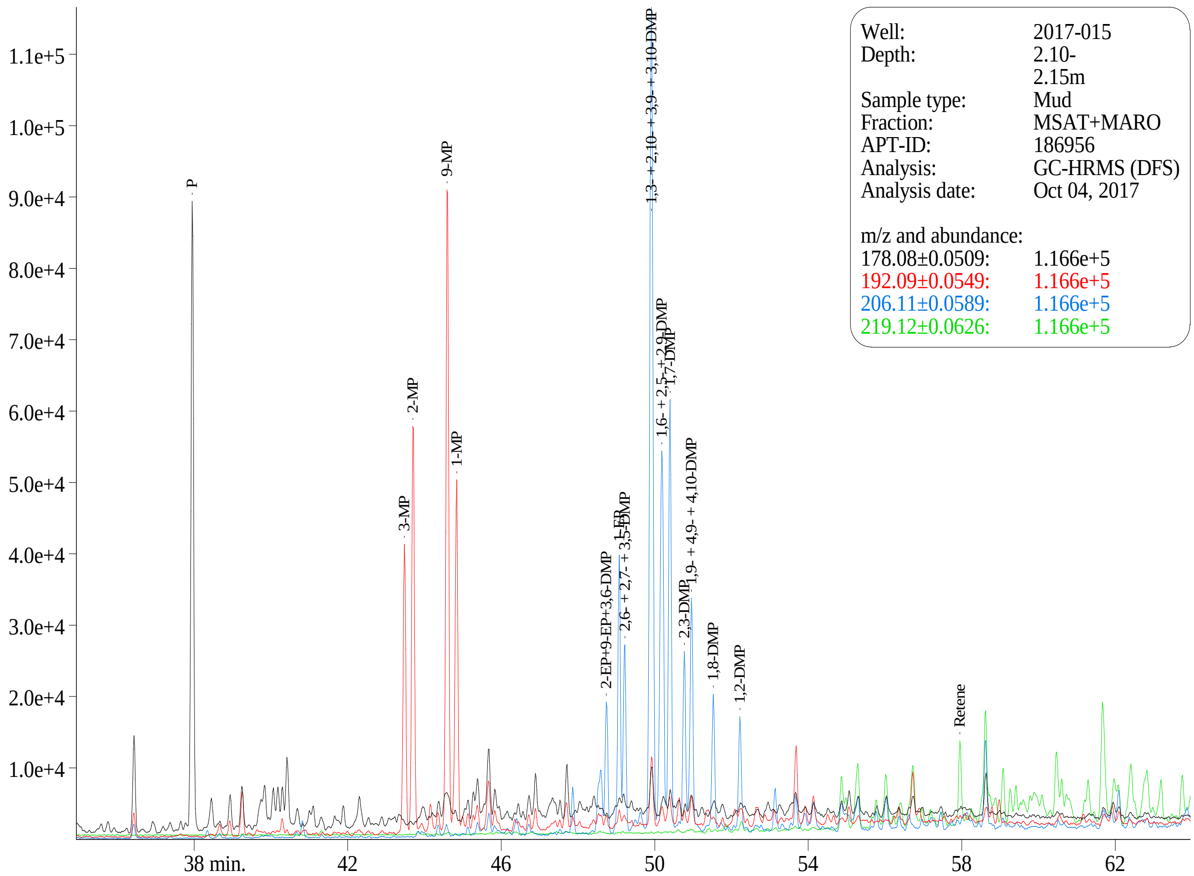

Well: 2017-012
Depth: 6.95-7.00m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186952
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
231.12±0.0660: 9.757e+3
C20TA
C21TA
SC26TA
RC26TA+SC27TA
SC28TA
RC27TA
M1
M2
70 min.
80
90
100
9.0e+3
8.0e+3
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3


Well: 2017-012
Depth: 6.95-7.00m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186952
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
245.1330±0.0700: 2.378e+3
2.2e+3
2.0e+3
1.8e+3
1.6e+3
1.4e+3
1.2e+3
1.0e+3
8.0e+2
6.0e+2
4.0e+2
2.0e+2
84 min.
86
88
90
92
94
96
98
100
3MS-TA
4MS-TA
2,24DMS-TA
3,24DMS+3MR-TA
4,24DMS+4MR-TA
D1-TA
3M24ES-TA
D2-TA
4M24ES-TA
3,24DMR-TA
4,24DMR-TA
D3-TA
D4-TA
2M24ER-TA
3M24ER-TA
D5-TA
4M24ER-TA
D6-TA

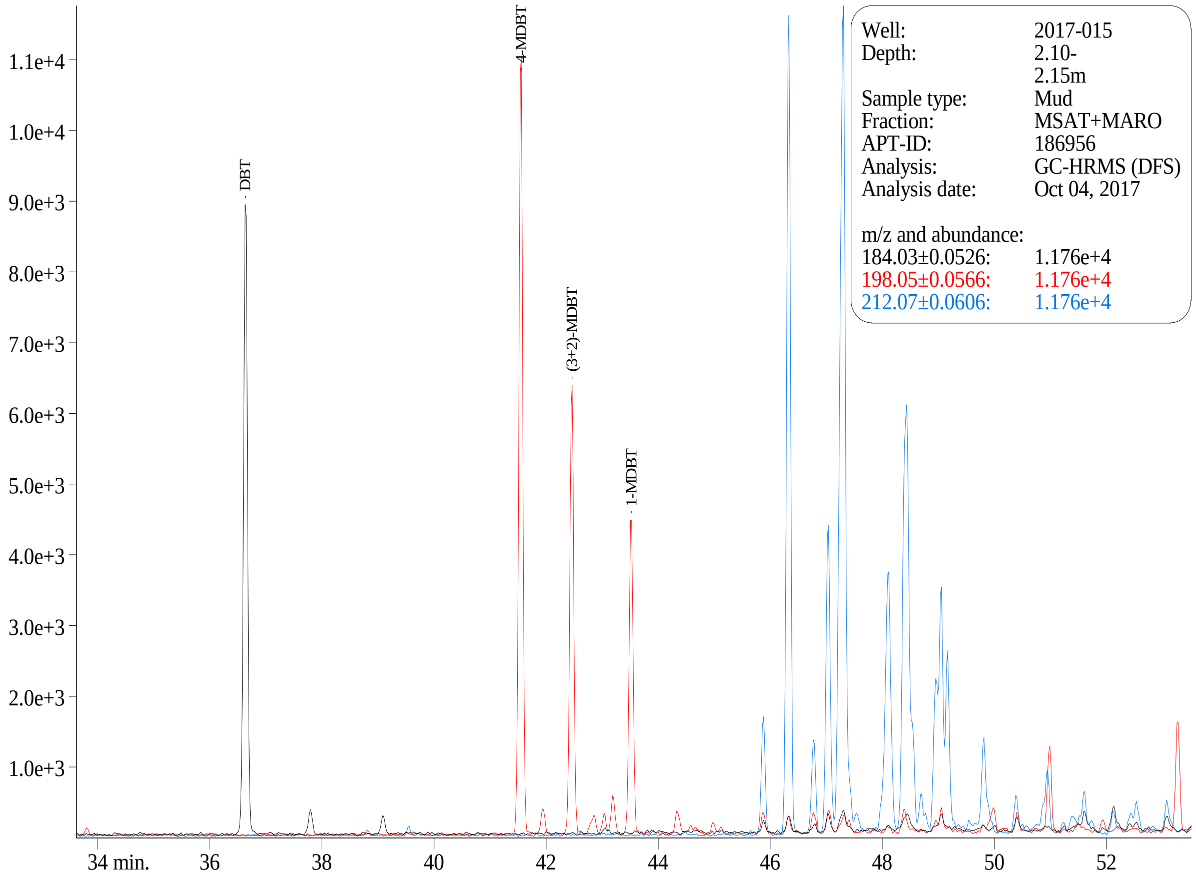

Well: 2017-012
Depth: 6.95-7.00m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186952
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
253.20±0.0723: 4.543e+3
4.4e+3
4.0e+3
3.6e+3
3.2e+3
2.8e+3
2.4e+3
2.0e+3
1.6e+3
1.2e+3
8.0e+2
4.0e+2
60 min.
70
80
90
C21MA
C22MA
bSC27MA
bSC27DMA
aSC27MA
bRC27MA+bRC27DMA
bSC28MA+bSC28DMA+aRC27DMA
aSC27DMA
aRC27MA
bSC29MA+bSC29DMA
aSC29MA
aRC28MA+bRC29MA+bRC29DMA
aRC29MA



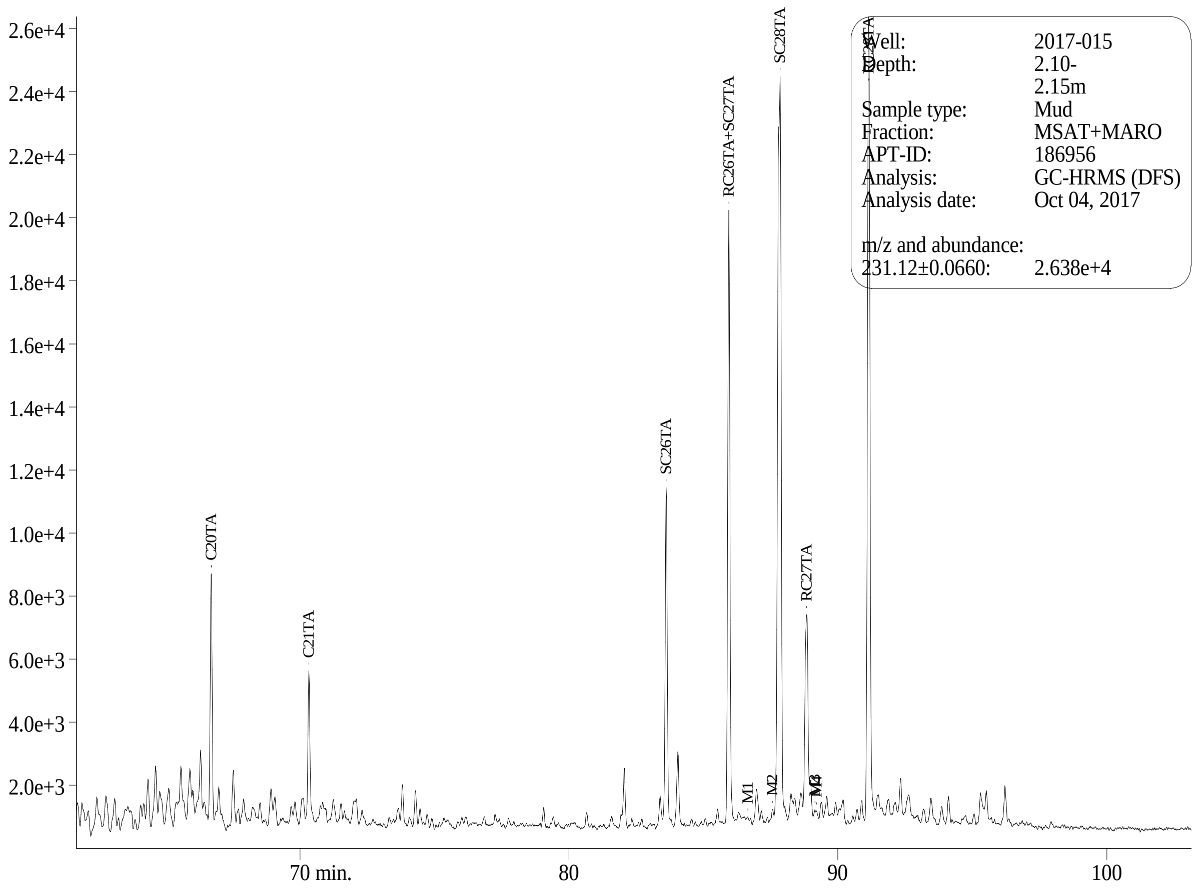
Well: 2017-015
Depth: 2.10-2.15m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186956
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
142.08±0.0406: 2.758e+4
156.09±0.0446: 2.758e+4
170.11±0.0486: 2.758e+4
2-MN
1-MN
1-EN
2-EN
2,6-DMN
2,7-DMN
1,3- + 1,7-DMN
1,6-DMN
2,3- + 1,4-DMN
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.
18
22
26
30



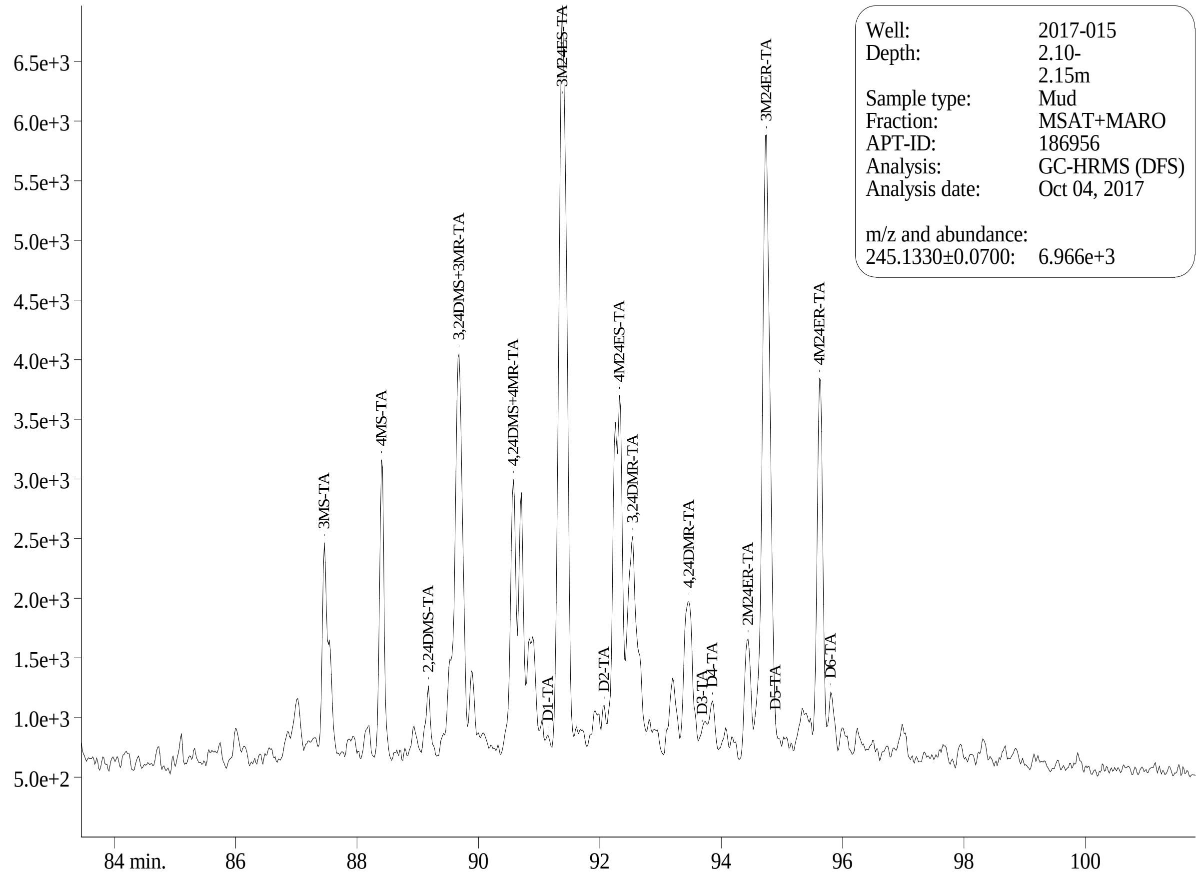
Well: 2017-015
Depth: 2.10-2.15m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186956
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
178.08±0.0509: 1.166e+5
192.09±0.0549: 1.166e+5
206.11±0.0589: 1.166e+5
219.12±0.0626: 1.166e+5
P
3-MP
2-MP
9-MP
1-MP
2-EP+9-EP+3,6-DMP
2,6- + 2,7- + 3,5-DMP
1-EP
1,3- + 2,10- + 3,9- + 3,10-DMP
1,6- + 2,5- + 2,9-DMP
1,7-DMP
2,3-DMP
1,9- + 4,9- + 4,10-DMP
1,8-DMP
1,2-DMP
Retene
38 min.
42
46
50
54
58
62

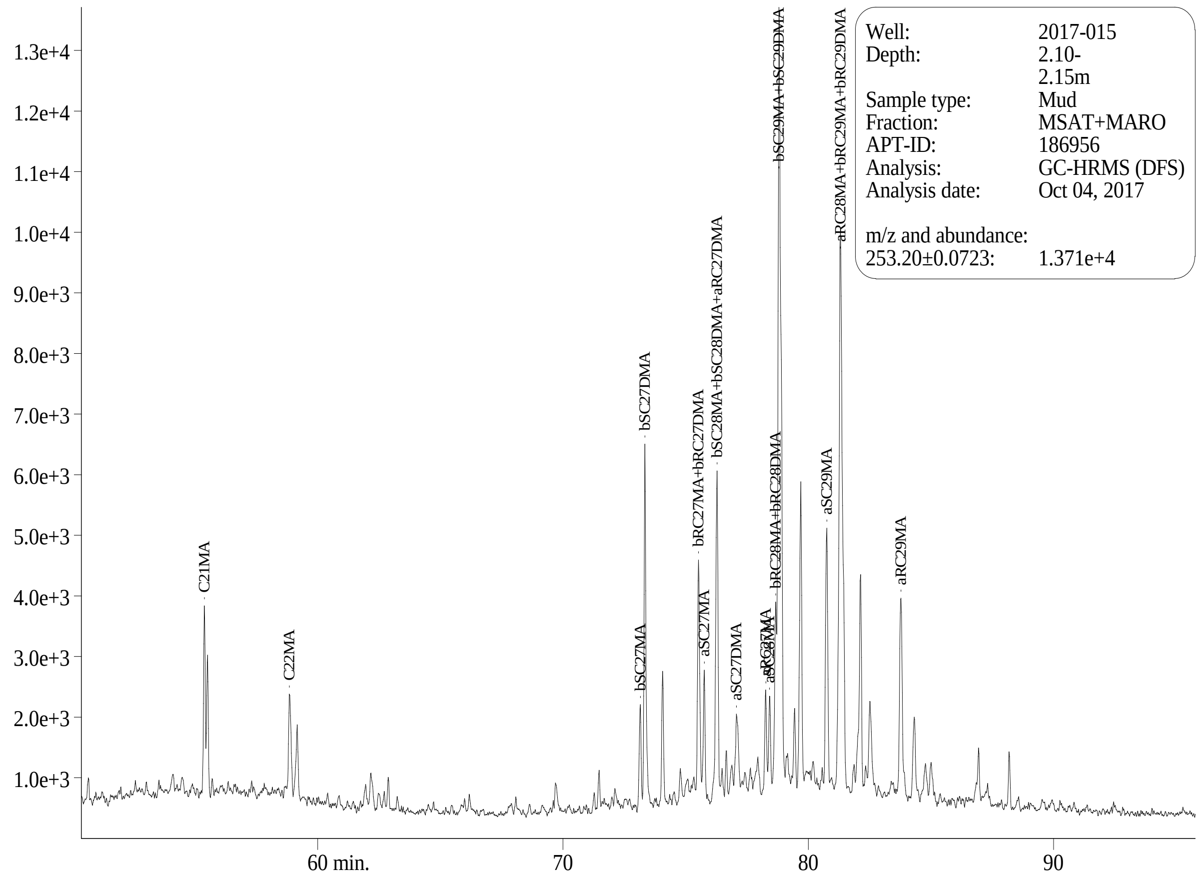


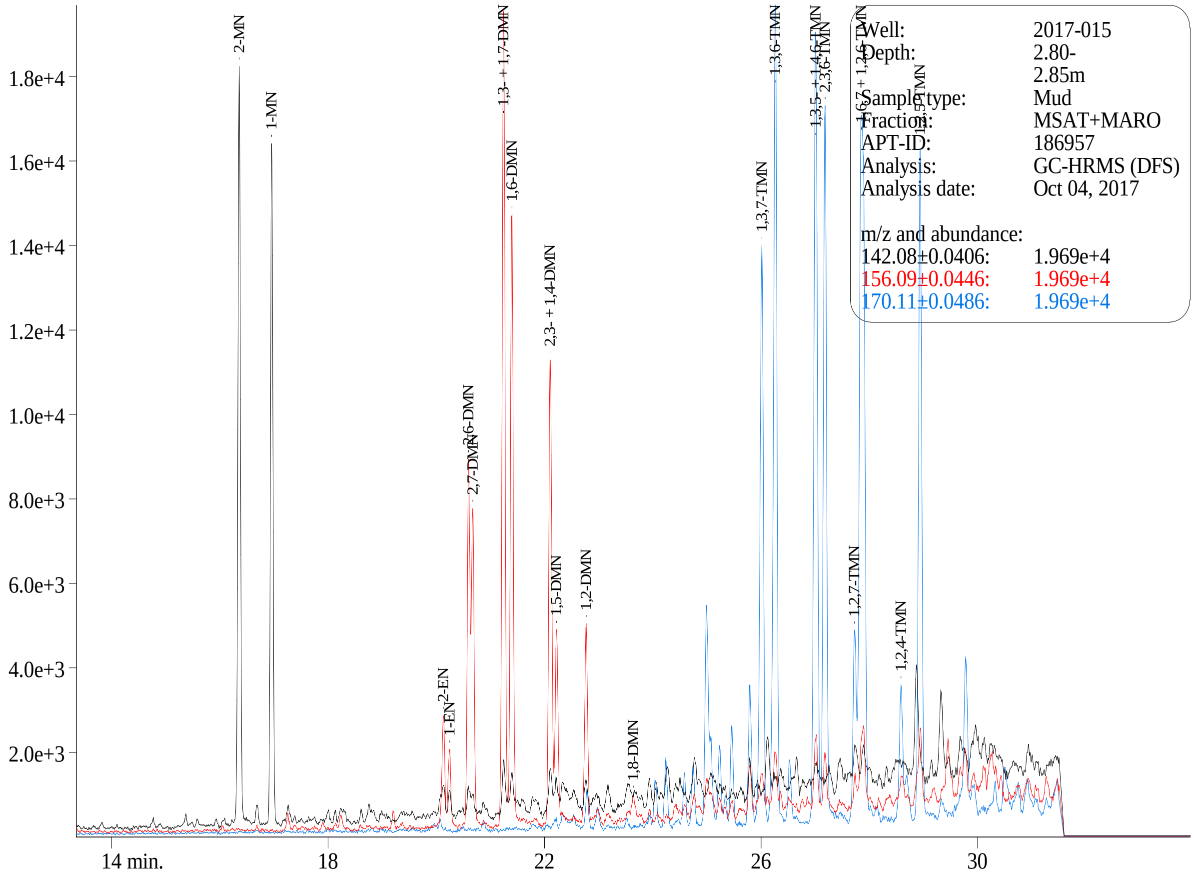
DBT
4-MDBT
(3+2)-MDBT
1-MDBT
1.1e+4
1.0e+4
9.0e+3
8.0e+3
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3
34 min.
36
38
40
42
44
46
48
50
52
Well: 2017-015
Depth: 2.10-2.15m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186956
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
184.03±0.0526: 1.176e+4
198.05±0.0566: 1.176e+4
212.07±0.0606: 1.176e+4

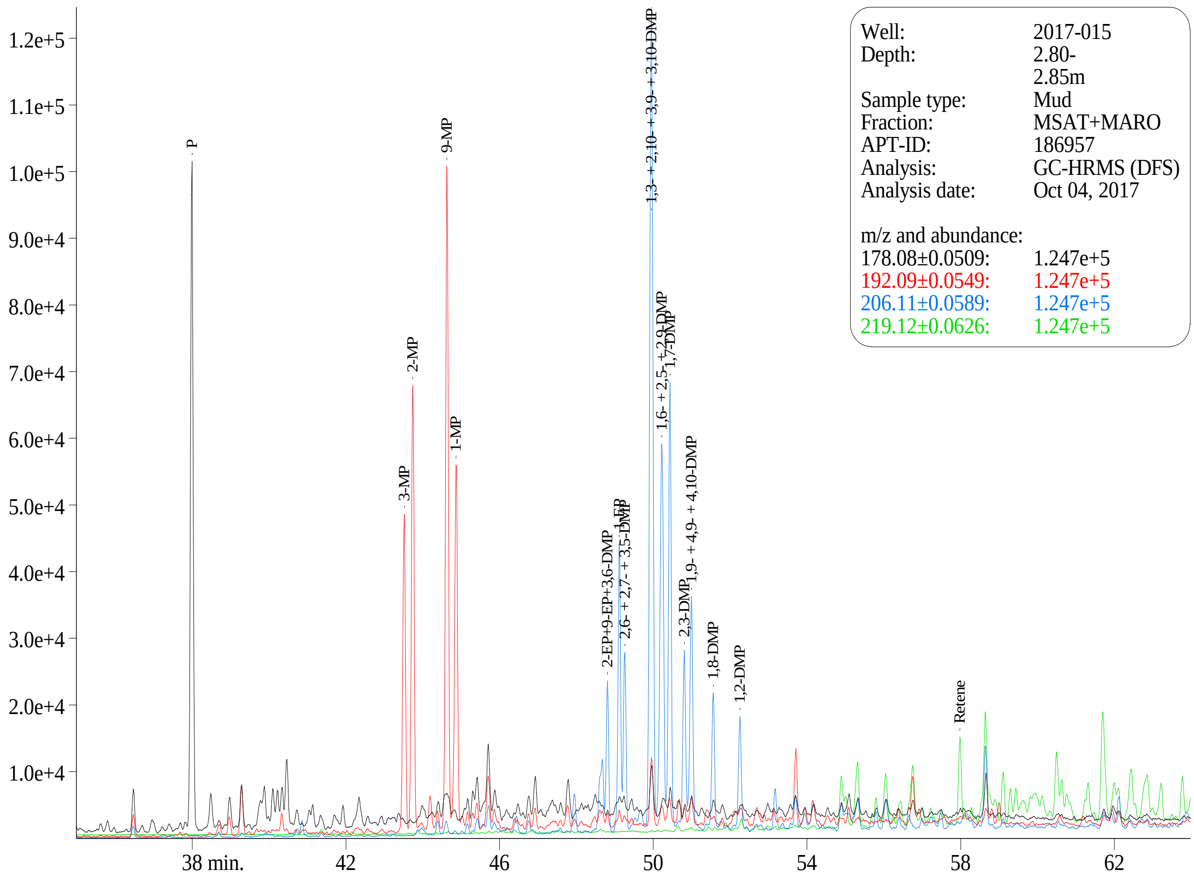


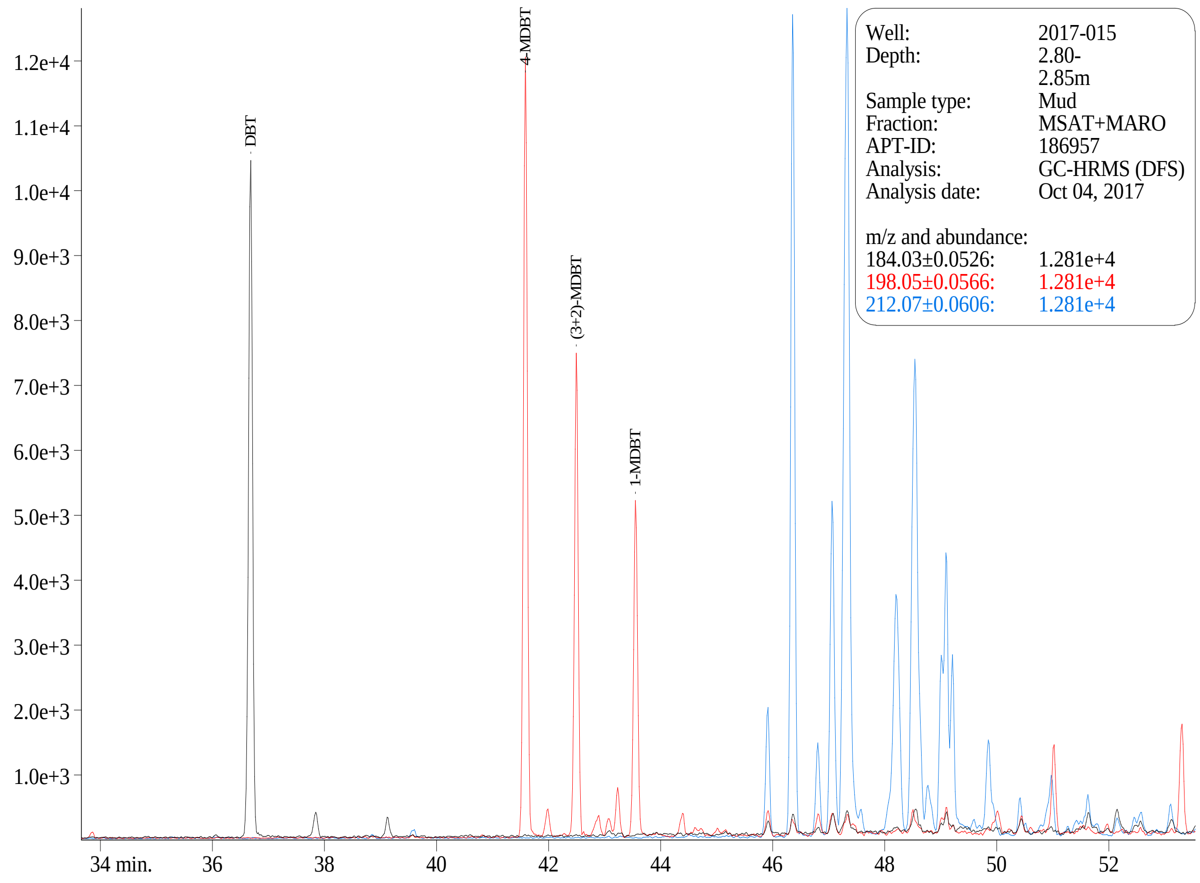
C20TA
C21TA
SC26TA
RC26TA+SC27TA
SC28TA
RC27TA
M1
M2
2.6e+4
2.4e+4
2.2e+4
2.0e+4
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
70 min.
80
90
100
Well: 2017-015
Depth: 2.10-2.15m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186956
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
231.12±0.0660: 2.638e+4


Well: 2017-015
Depth: 2.10-2.15m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186956
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
245.1330±0.0700: 6.966e+3
3MS-TA
4MS-TA
2,24DMS-TA
3,24DMS+3MR-TA
4,24DMS+4MR-TA
D1-TA
3M24ES-TA
D2-TA
4M24ES-TA
3,24DMR-TA
4,24DMR-TA
D3-TA
D4-TA
2M24ER-TA
3M24ER-TA
D5-TA
4M24ER-TA
D6-TA
84 min.
86
88
90
92
94
96
98
100

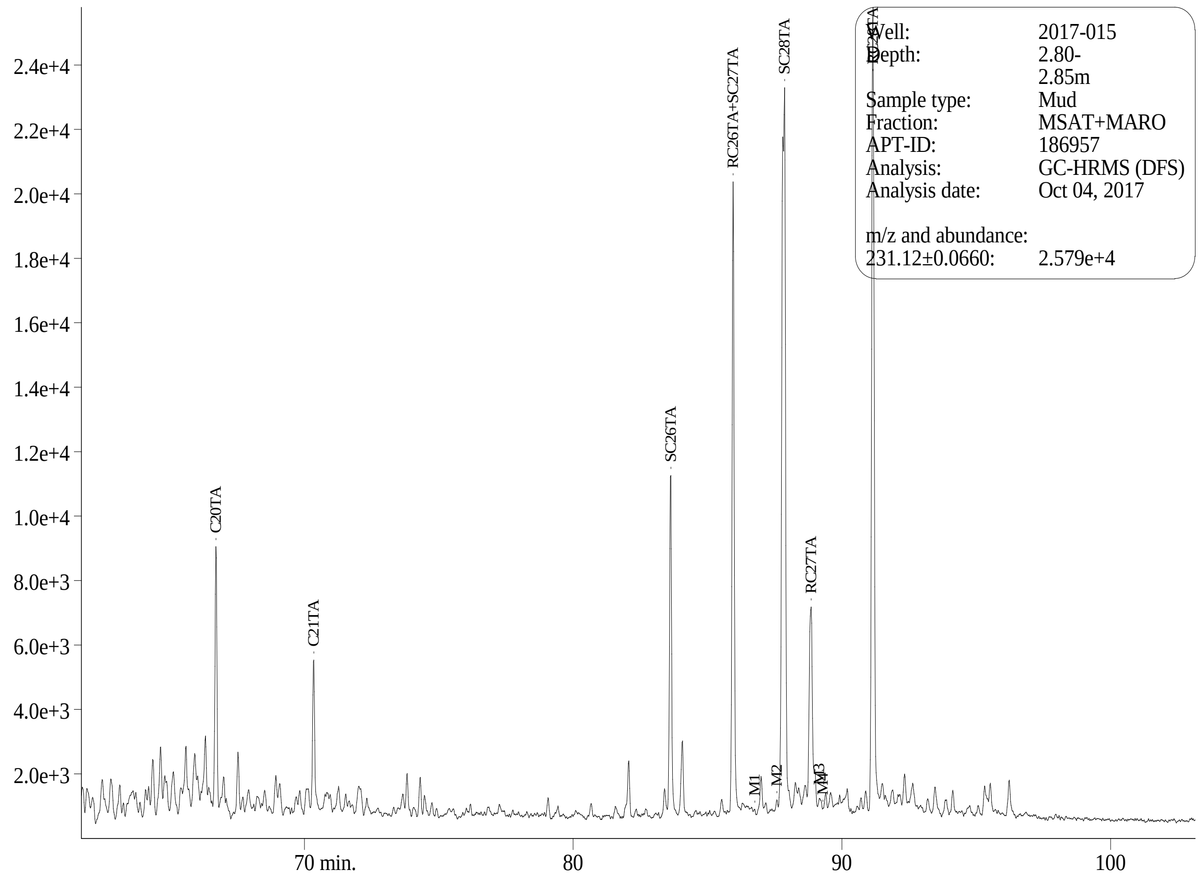

Well: 2017-015
Depth: 2.10-2.15m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186956
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
253.20±0.0723: 1.371e+4
C21MA
C22MA
bSC27MA
bSC27DMA
bRC27MA+bRC27DMA
aSC27MA
bSC28MA+bSC28DMA+aRC27DMA
aSC27DMA
bRC28MA+bRC28DMA
bSC29MA+bSC29DMA
aSC29MA
aRC28MA+bRC29MA+bRC29DMA
aRC29MA
60 min.
70
80
90


Well: 2017-015
Depth: 2.80-2.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186957
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
142.08±0.0406: 1.969e+4
156.09±0.0446: 1.969e+4
170.11±0.0486: 1.969e+4
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
2,3,6-TMN
1,2,7-TMN
1,2,4-TMN
14 min.
18
22
26
30
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3

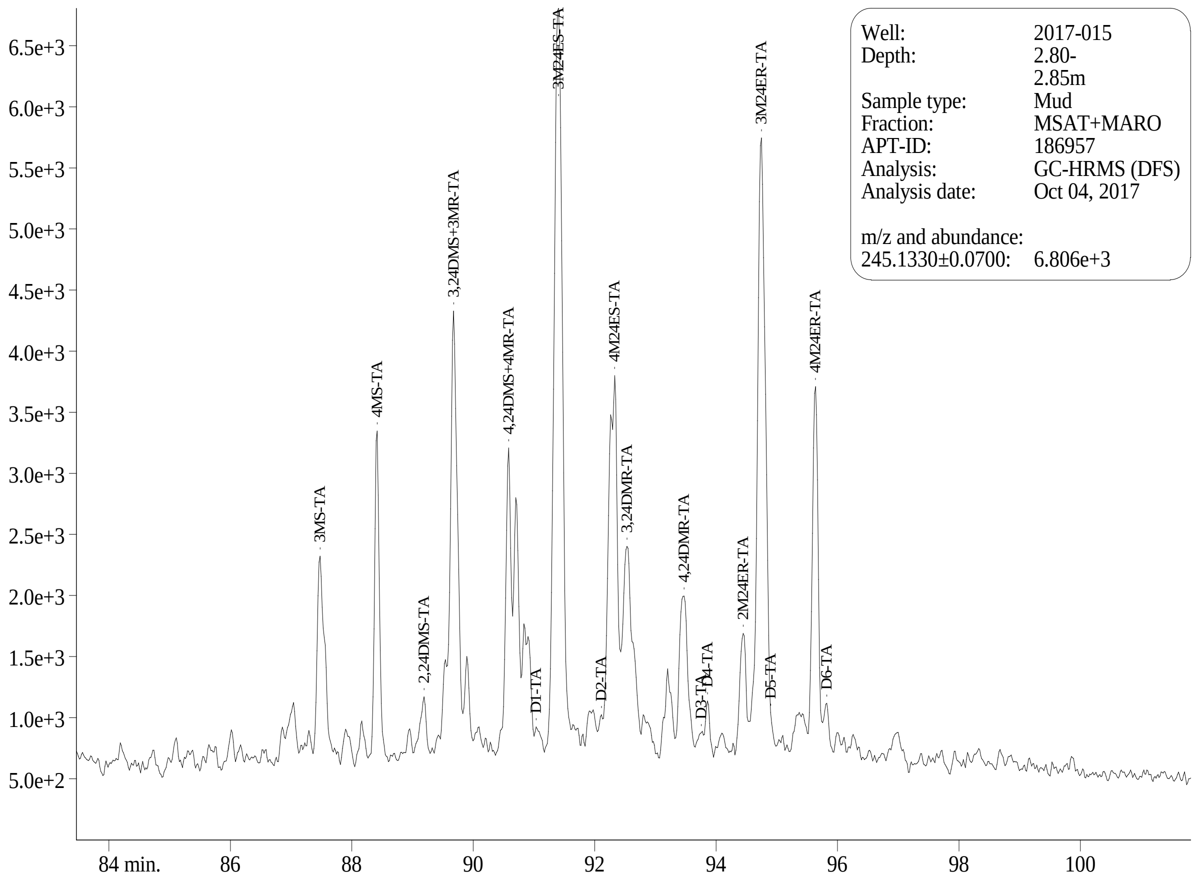

Well: 2017-015
Depth: 2.80-2.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186957
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
178.08±0.0509: 1.247e+5
192.09±0.0549: 1.247e+5
206.11±0.0589: 1.247e+5
219.12±0.0626: 1.247e+5
P
3-MP
2-MP
9-MP
1-MP
2-EP+9-EP+3,6-DMP
2,6- + 2,7- + 3,5-DMP
1,3- + 2,10- + 3,9- + 3,10-DMP
1,6- + 2,5- + 2,9-DMP
1,7-DMP
2,3-DMP
1,9- + 4,9- + 4,10-DMP
1,8-DMP
1,2-DMP
Retene
38 min.
42
46
50
54
58
62
1.2e+5
1.1e+5
1.0e+5
9.0e+4
8.0e+4
7.0e+4
6.0e+4
5.0e+4
4.0e+4
3.0e+4
2.0e+4
1.0e+4

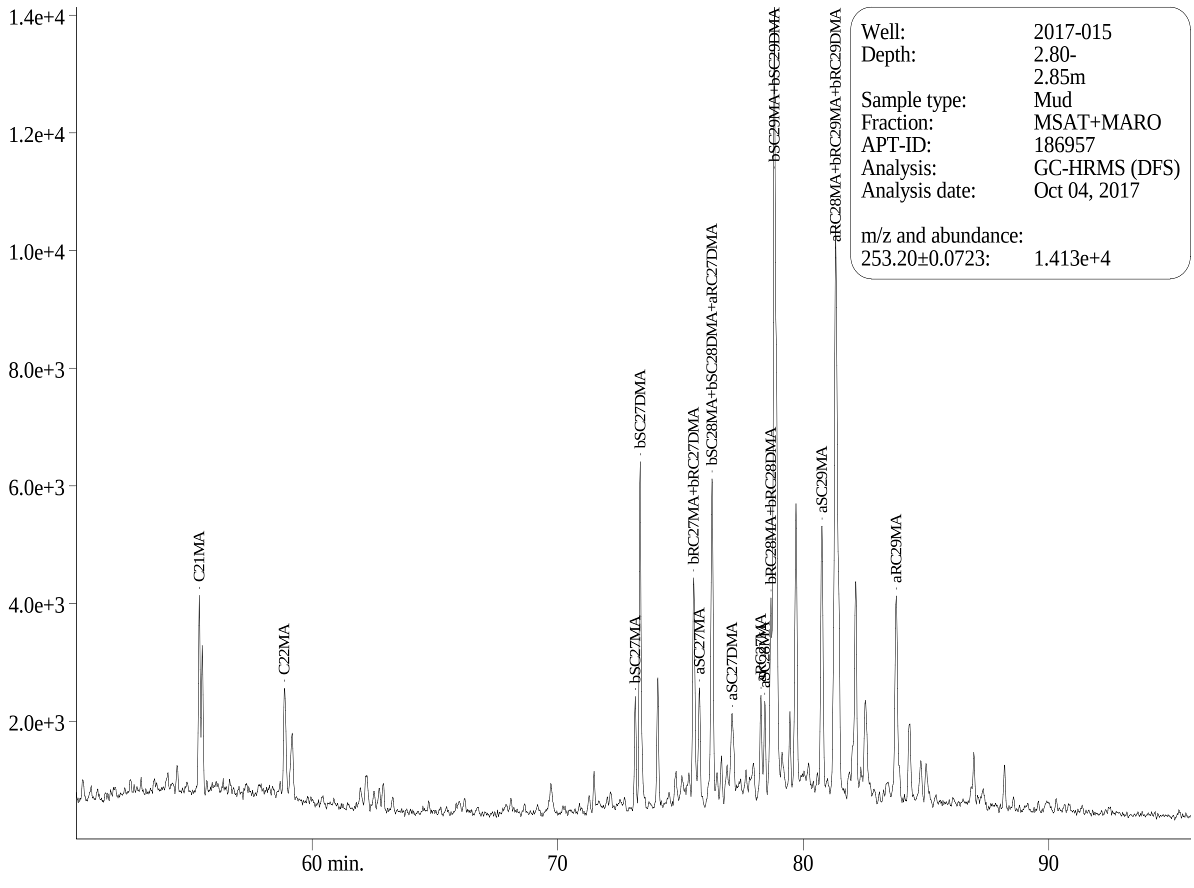


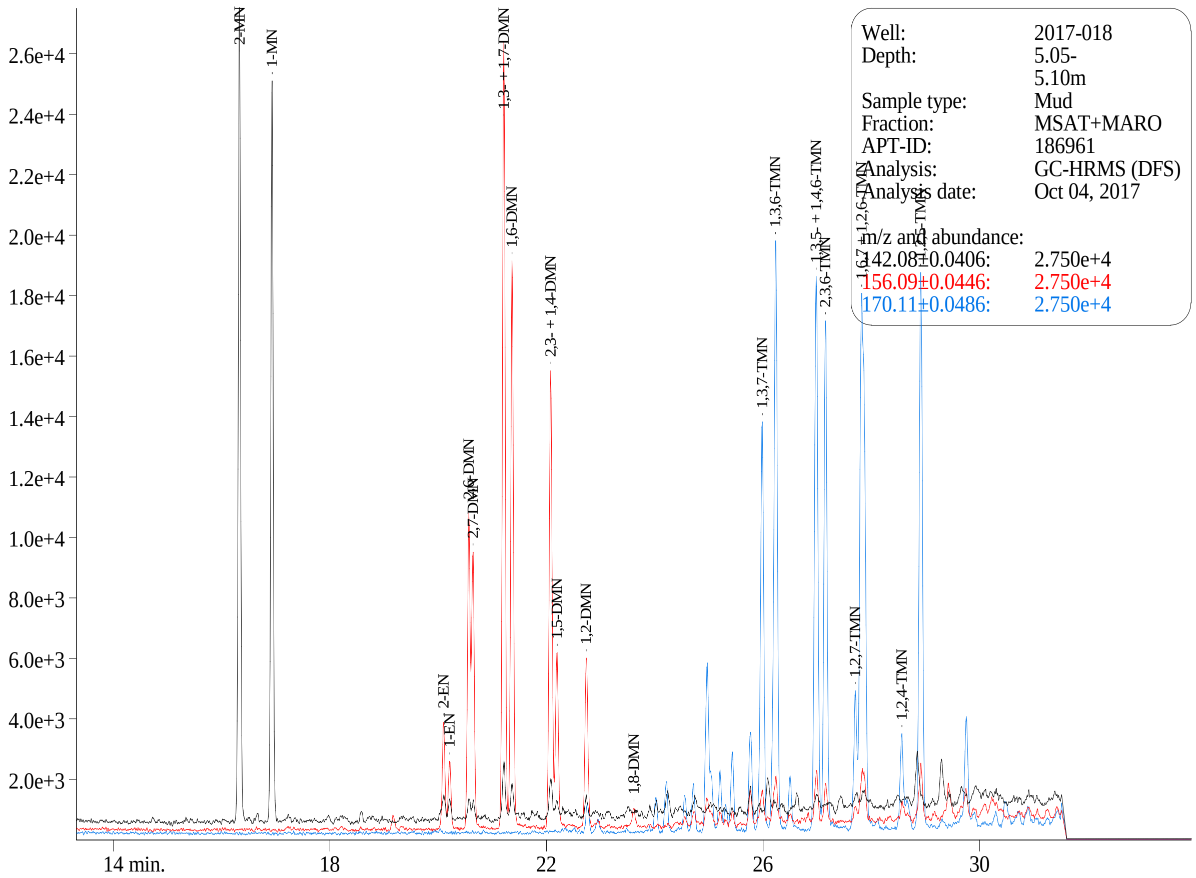
1.2e+4
1.1e+4
1.0e+4
9.0e+3
8.0e+3
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3
DBT
4-MDBT
(3+2)-MDBT
1-MDBT
34 min.
36
38
40
42
44
46
48
50
52
Well: 2017-015
Depth: 2.80-2.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186957
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
184.03±0.0526: 1.281e+4
198.05±0.0566: 1.281e+4
212.07±0.0606: 1.281e+4



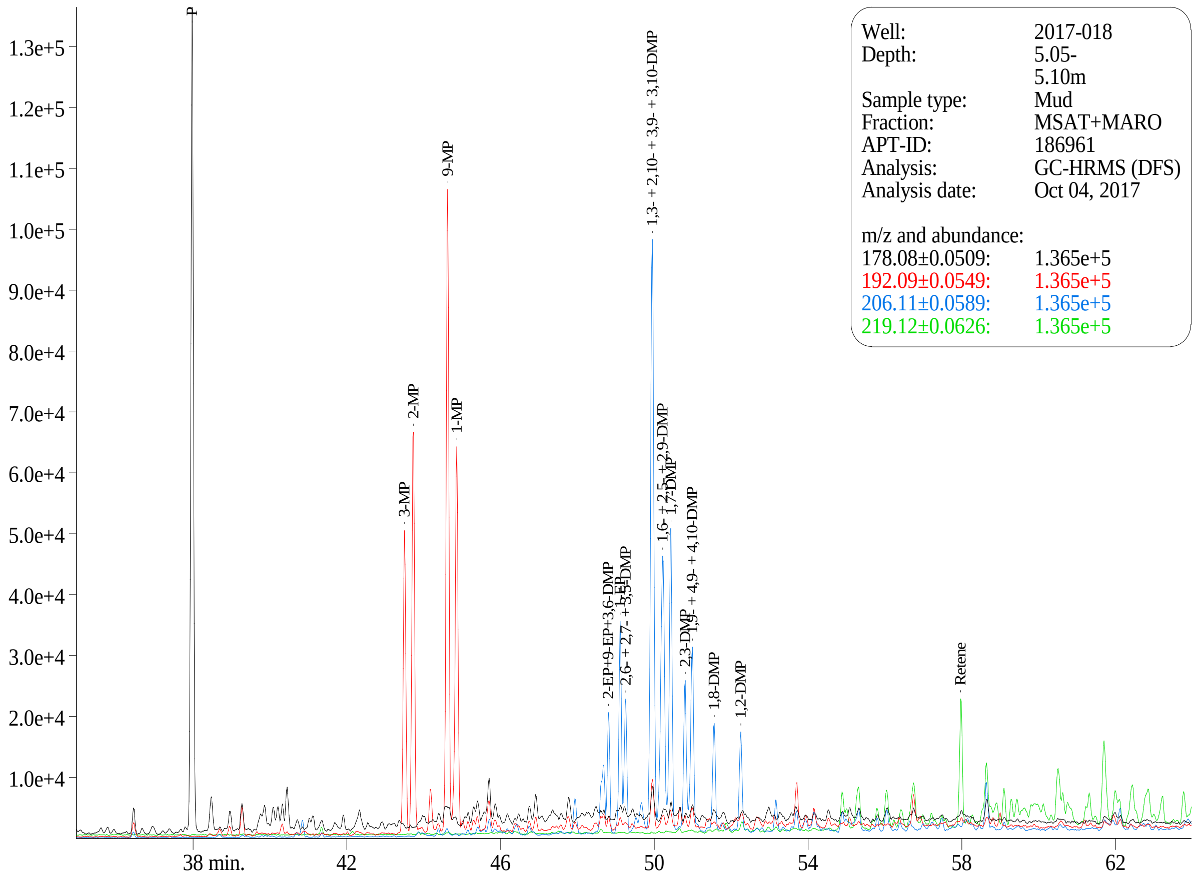
2.4e+4
2.2e+4
2.0e+4
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
C20TA
C21TA
SC26TA
RC26TA+SC27TA
SC28TA
RC27TA
RC28TA
M1
M2
M3
M4
70 min.
80
90
100
Well: 2017-015
Depth: 2.80-2.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186957
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
231.12±0.0660: 2.579e+4


Well: 2017-015
Depth: 2.80-2.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186957
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
245.1330±0.0700: 6.806e+3
3MS-TA
4MS-TA
2,24DMS-TA
3,24DMS+3MR-TA
4,24DMS+4MR-TA
D1-TA
3M24ES-TA
D2-TA
4M24ES-TA
3,24DMR-TA
4,24DMR-TA
D3-TA
D4-TA
2M24ER-TA
3M24ER-TA
D5-TA
4M24ER-TA
D6-TA
84 min.
86
88
90
92
94
96
98
100

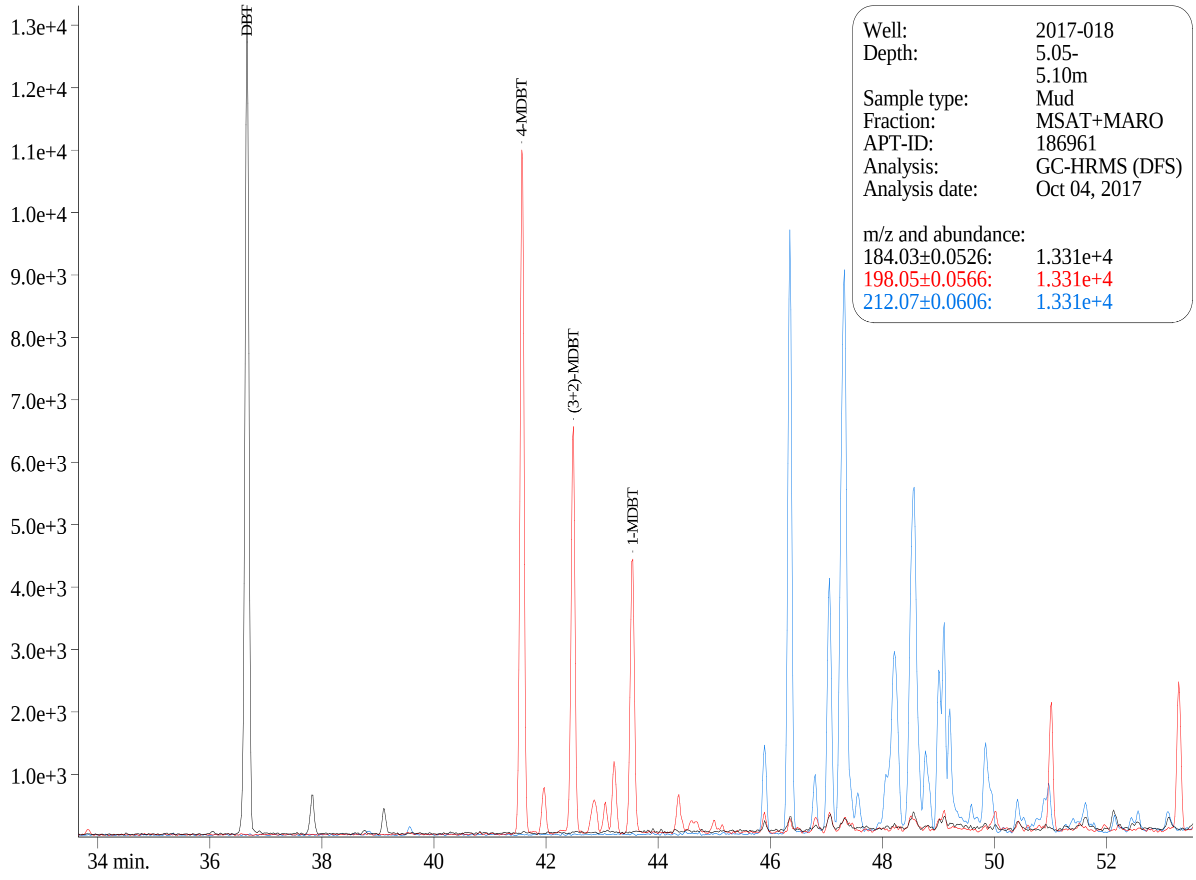

Well: 2017-015
Depth: 2.80-2.85m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186957
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
253.20±0.0723: 1.413e+4
C21MA
C22MA
bSC27MA
bSC27DMA
aSC27MA
bRC27MA+bRC27DMA
bSC28MA+bSC28DMA+aRC27DMA
aSC27DMA
aSC28MA
bRC28MA+bRC28DMA
bSC29MA+bSC29DMA
aSC29MA
aRC28MA+bRC29MA+bRC29DMA
aRC29MA
60 min.
70
80
90



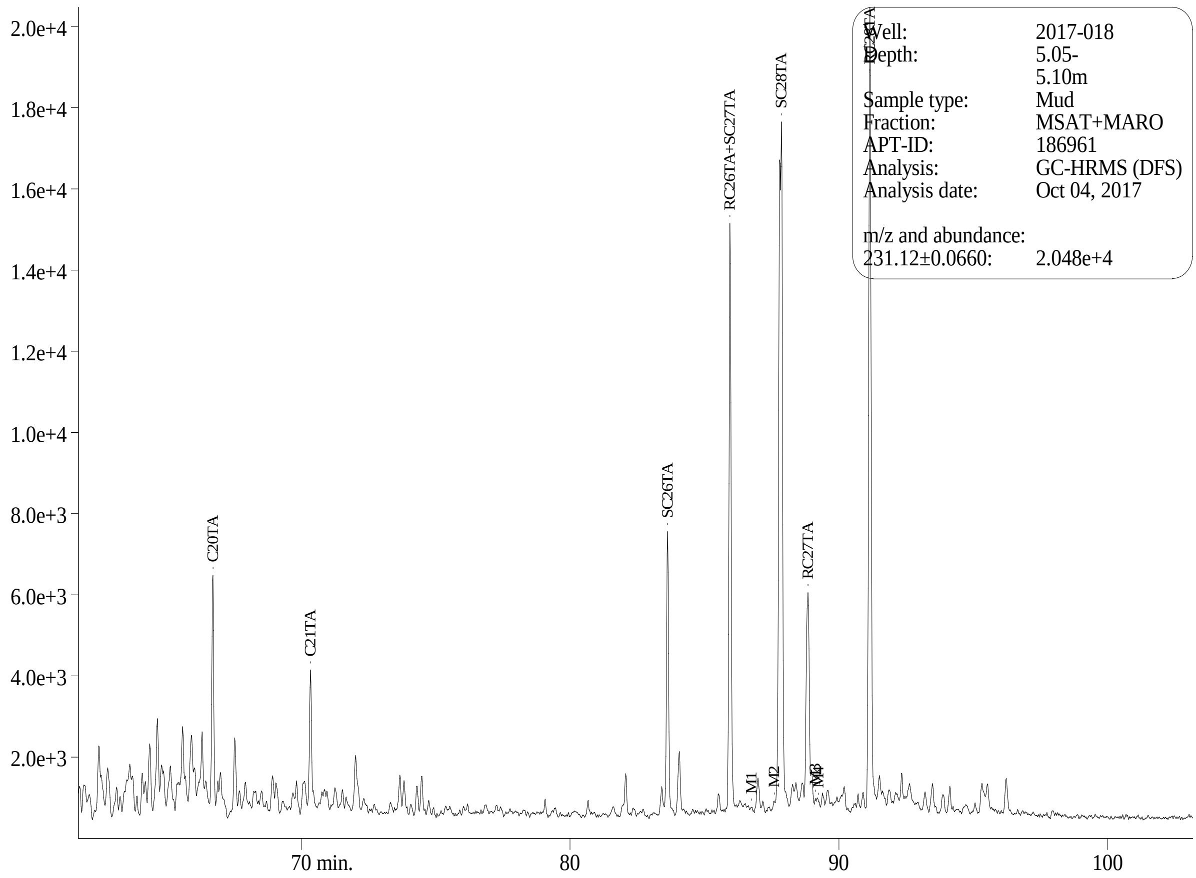
2-MN
1-MN
1,3- + 1,7-DMN
1,6-DMN
2,3- + 1,4-DMN
2,6-DMN
2,7-DMN
1,5-DMN
1,2-DMN
2-EN
1-EN
1,8-DMN
1,3,6-TMN
1,3,7-TMN
1,3,5- + 1,4,6-TMN
2,3,6-TMN
1,2,7-TMN
1,2,4-TMN
Well: 2017-018
Depth: 5.05-5.10m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186961
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
142.08±0.0406: 2.750e+4
156.09±0.0446: 2.750e+4
170.11±0.0486: 2.750e+4
14 min.
18
22
26
30



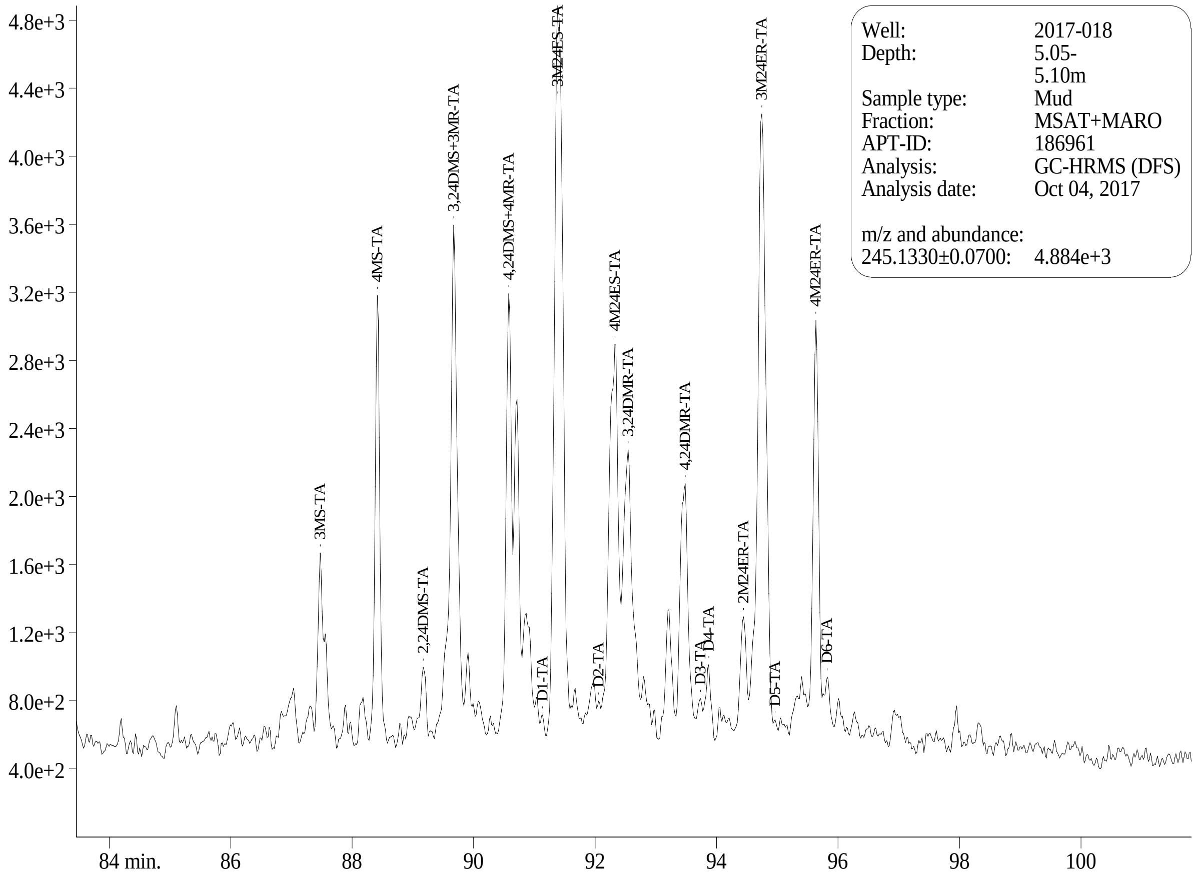
P
9-MP
2-MP
3-MP
1-MP
1,3- + 2,10- + 3,9- + 3,10-DMP
1,6- + 2,5- + 2,9-DMP
1,7-DMP
1,9- + 4,9- + 4,10-DMP
2,3-DMP
1,8-DMP
1,2-DMP
2-EP+9-EP+3,6-DMP
2,6- + 2,7- + 3,5-DMP
Retene
Well: 2017-018
Depth: 5.05-5.10m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186961
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
178.08±0.0509: 1.365e+5
192.09±0.0549: 1.365e+5
206.11±0.0589: 1.365e+5
219.12±0.0626: 1.365e+5
38 min.
42
46
50
54
58
62

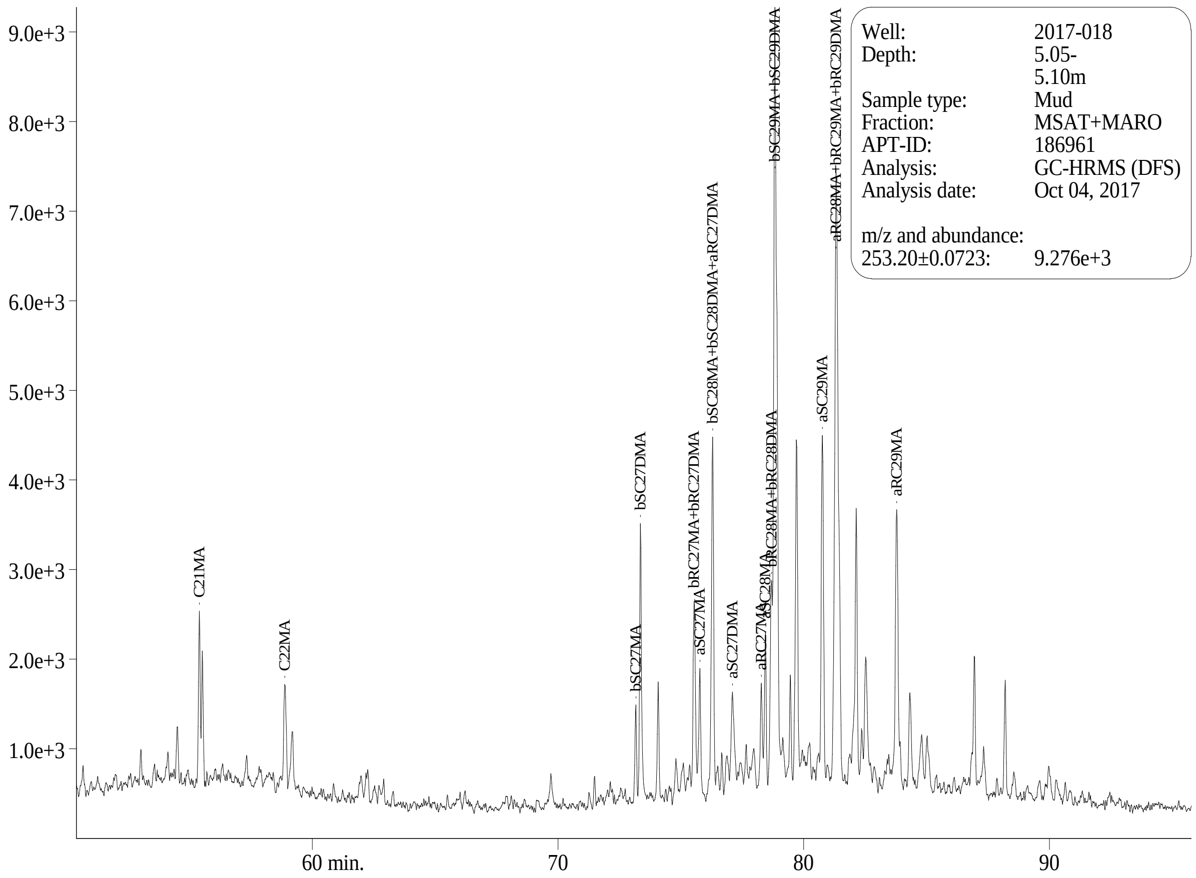


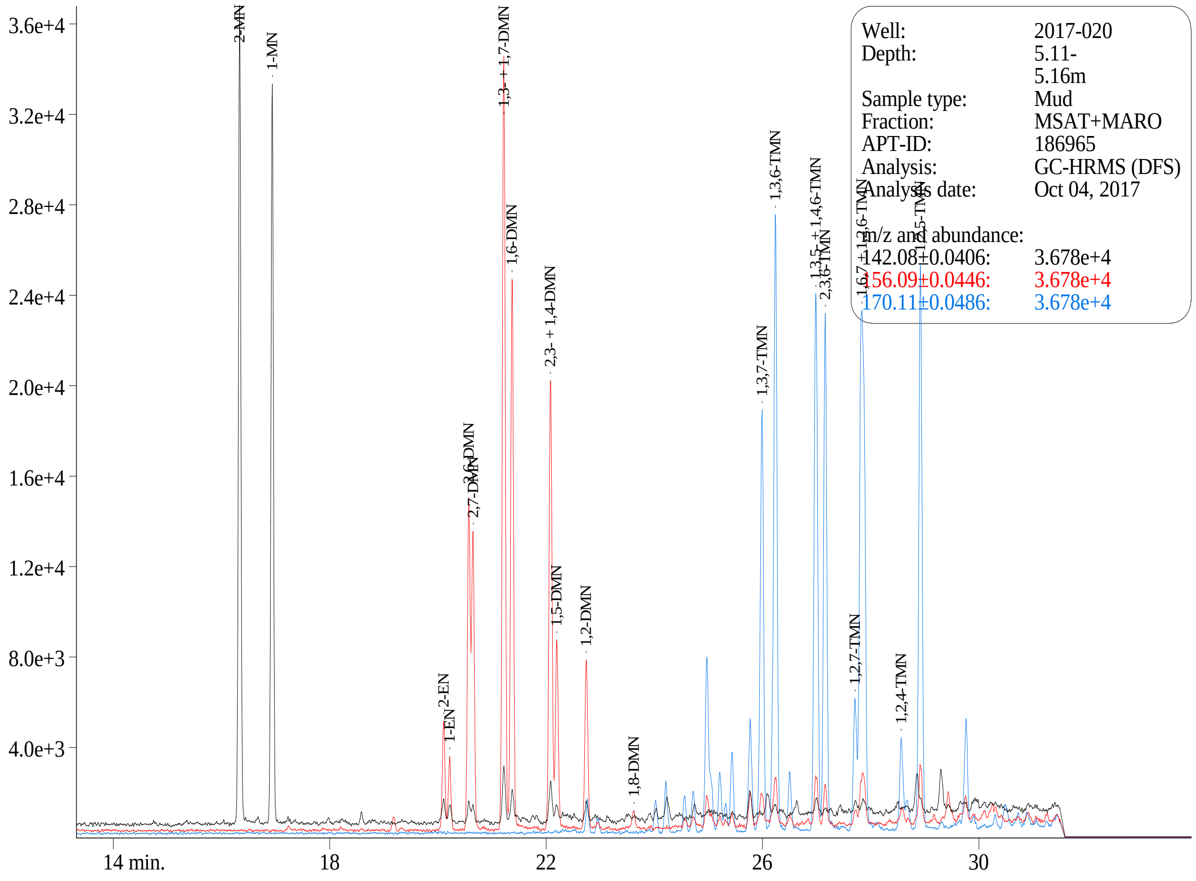
DBT
4-MDBT
(3+2)-MDBT
1-MDBT
Well: 2017-018
Depth: 5.05-5.10m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186961
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
184.03±0.0526: 1.331e+4
198.05±0.0566: 1.331e+4
212.07±0.0606: 1.331e+4
1.3e+4
1.2e+4
1.1e+4
1.0e+4
9.0e+3
8.0e+3
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3
34 min.
36
38
40
42
44
46
48
50
52

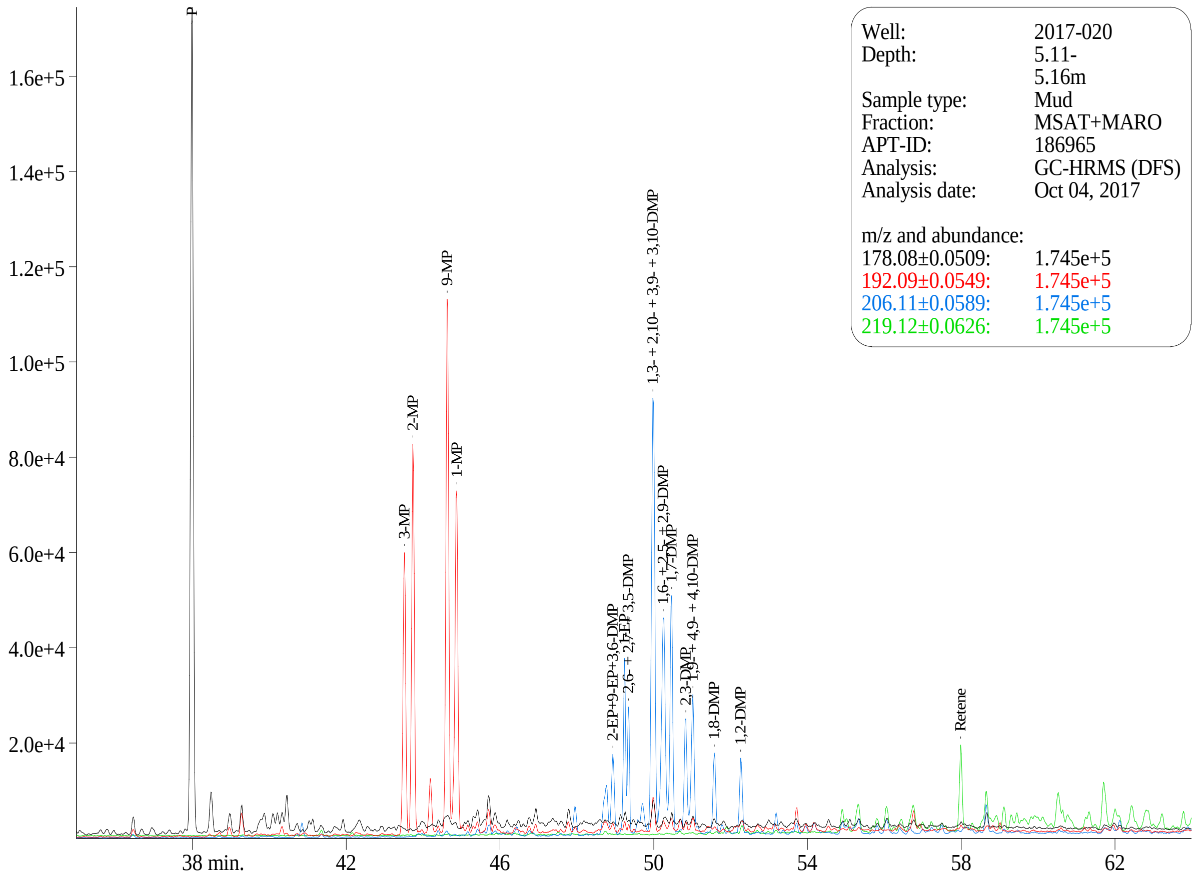


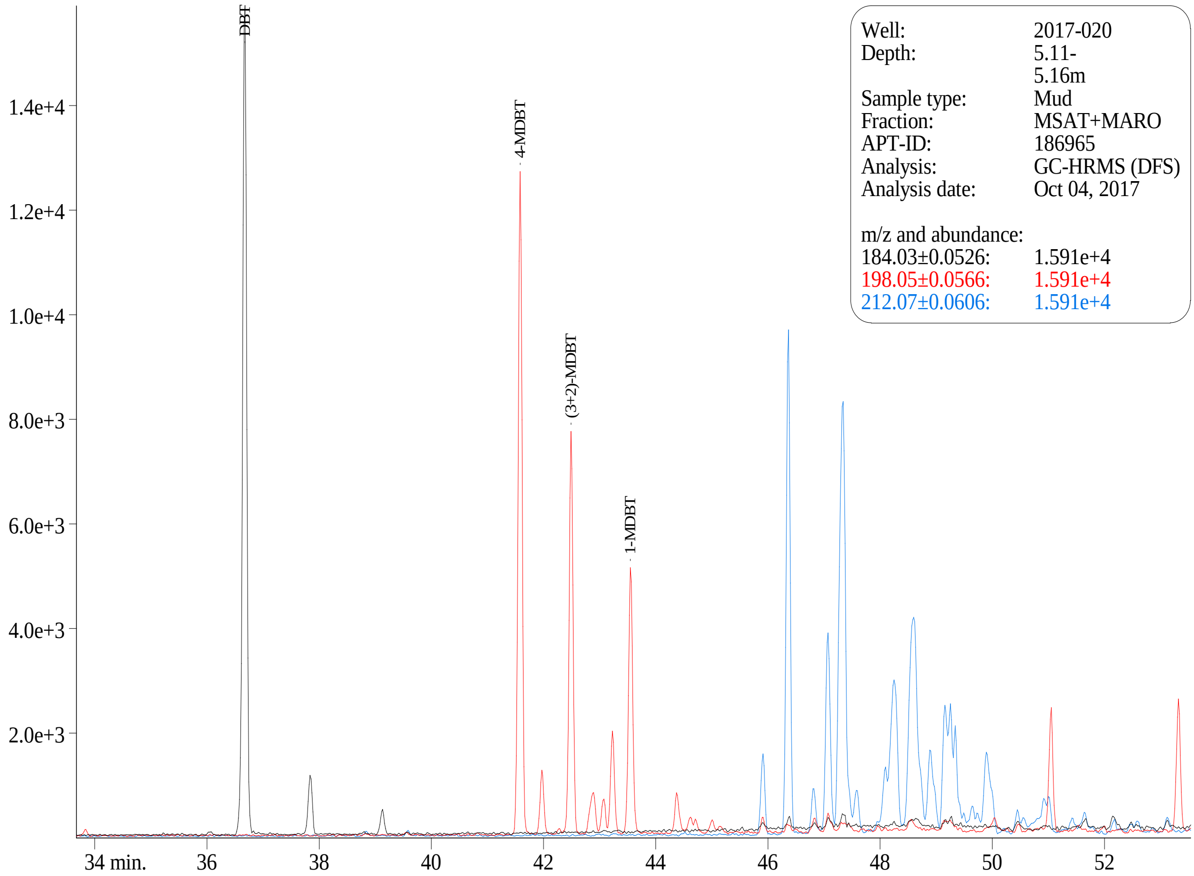
C20TA
C21TA
SC26TA
RC26TA+SC27TA
SC28TA
RC27TA
M1
M2
Well: 2017-018
Depth: 5.05-5.10m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186961
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
231.12±0.0660: 2.048e+4
2.0e+4
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
70 min.
80
90
100

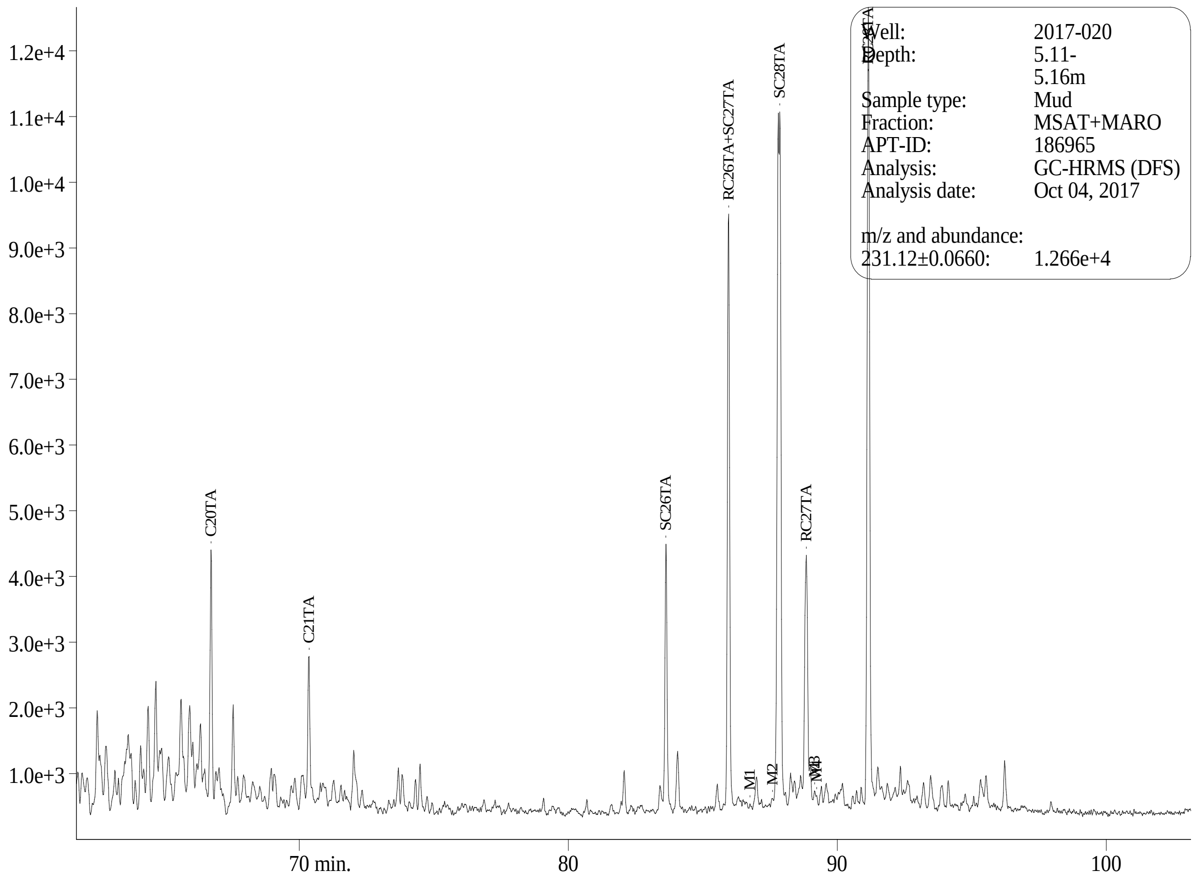

4.8e+3
4.4e+3
4.0e+3
3.6e+3
3.2e+3
2.8e+3
2.4e+3
2.0e+3
1.6e+3
1.2e+3
8.0e+2
4.0e+2
84 min.
86
88
90
92
94
96
98
100
3MS-TA
4MS-TA
2,24DMS-TA
3,24DMS+3MR-TA
4,24DMS+4MR-TA
D1-TA
3M24ES-TA
D2-TA
4M24ES-TA
3,24DMR-TA
4,24DMR-TA
D3-TA
D4-TA
2M24ER-TA
3M24ER-TA
D5-TA
4M24ER-TA
D6-TA
Well: 2017-018
Depth: 5.05-5.10m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186961
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
245.1330±0.0700: 4.884e+3

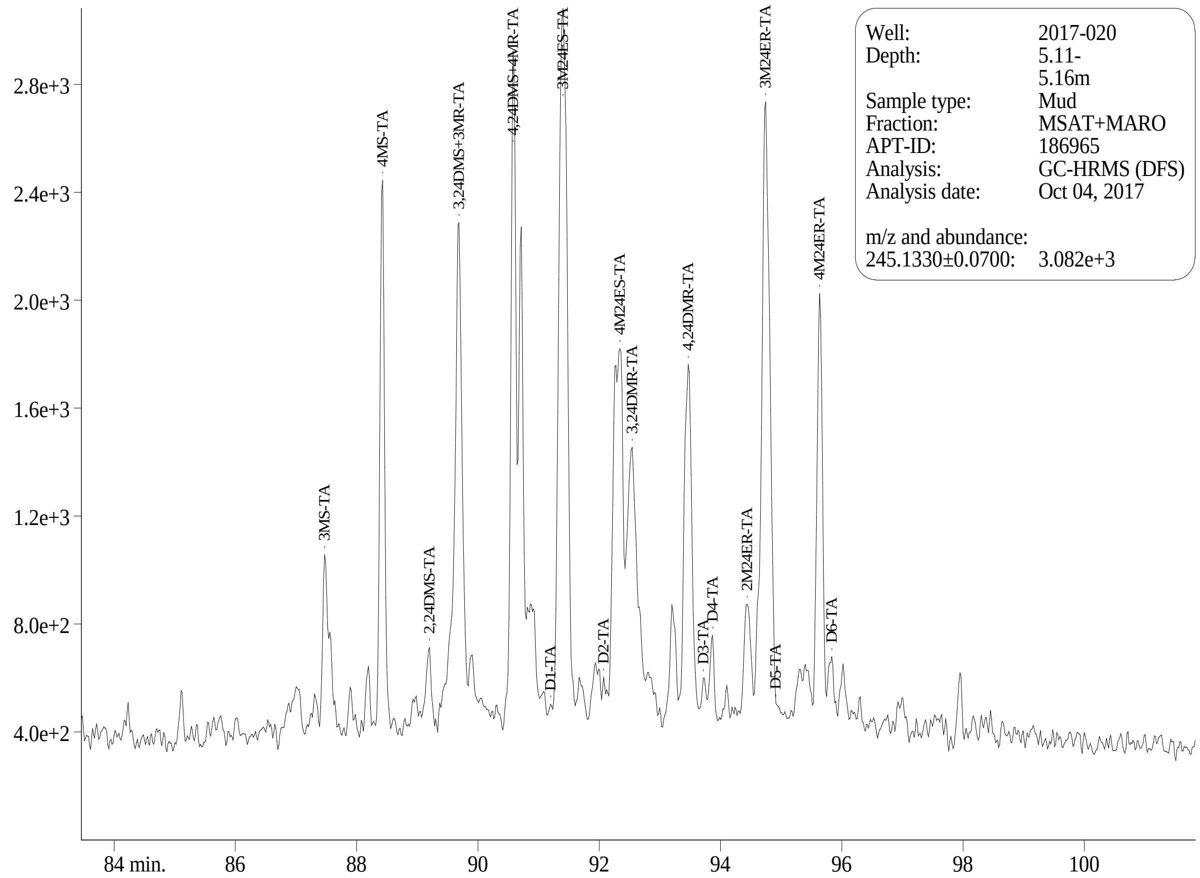

9.0e+3
8.0e+3
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3
60 min.
70
80
90
C21MA
C22MA
bSC27MA
bSC27DMA
aSC27MA
bRC27MA+bRC27DMA
bSC28MA+bSC28DMA+aRC27DMA
aSC27DMA
aRC27MA
aSC28MA
bRC28MA+bRC28DMA
bSC29MA+bSC29DMA
aSC29MA
aRC28MA+bRC29MA+bRC29DMA
aRC29MA
Well: 2017-018
Depth: 5.05-5.10m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186961
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
253.20±0.0723: 9.276e+3

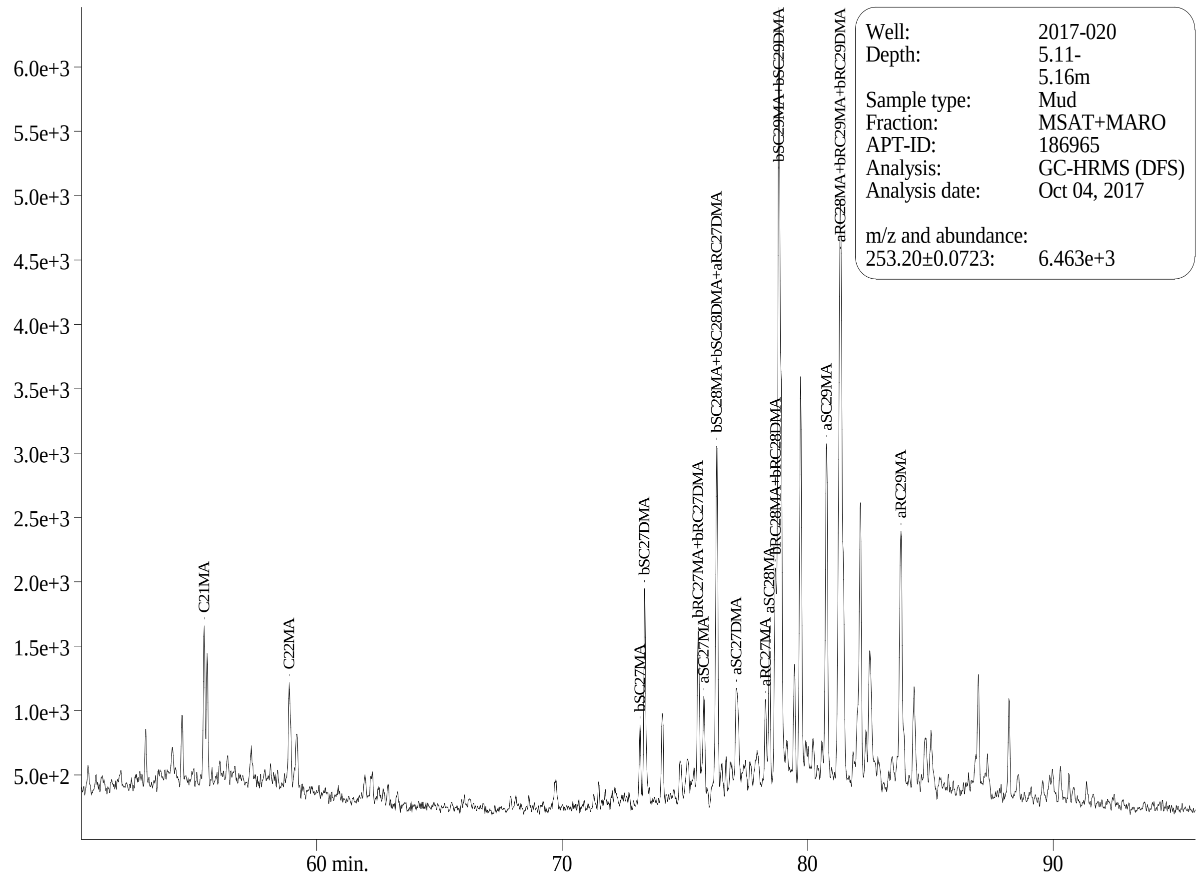

Well: 2017-020
Depth: 5.11-5.16m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186965
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
142.08±0.0406: 3.678e+4
156.09±0.0446: 3.678e+4
170.11±0.0486: 3.678e+4
2-MN
1-MN
1-EN
2-EN
2,6-DMN
2,7-DMN
1,3- + 1,7-DMN
1,6-DMN
2,3- + 1,4-DMN
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
3.6e+4
3.2e+4
2.8e+4
2.4e+4
2.0e+4
1.6e+4
1.2e+4
8.0e+3
4.0e+3
14 min.
18
22
26
30

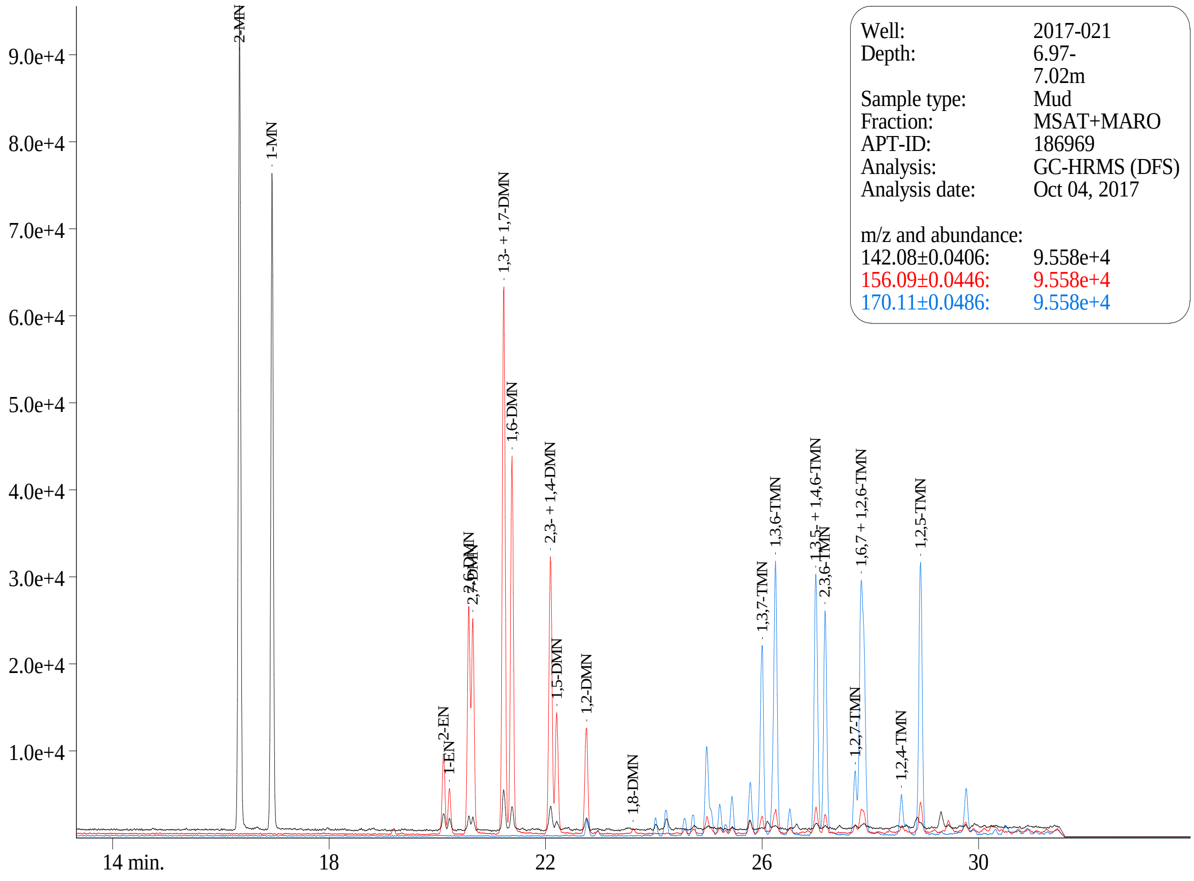

Well: 2017-020
Depth: 5.11-5.16m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186965
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
178.08±0.0509: 1.745e+5
192.09±0.0549: 1.745e+5
206.11±0.0589: 1.745e+5
219.12±0.0626: 1.745e+5
P
3-MP
2-MP
9-MP
1-MP
2-EP+9-EP+3,6-DMP
2,6- + 2,7-DMP
3,5-DMP
1,3- + 2,10- + 3,9- + 3,10-DMP
1,6- + 2,5- + 2,9-DMP
1,7-DMP
2,3-DMP
1,9- + 4,9- + 4,10-DMP
1,8-DMP
1,2-DMP
Retene
1.6e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
38 min.
42
46
50
54
58
62


DBT
4-MDBT
(3+2)-MDBT
1-MDBT
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
34 min.
36
38
40
42
44
46
48
50
52
Well: 2017-020
Depth: 5.11-5.16m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186965
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
184.03±0.0526: 1.591e+4
198.05±0.0566: 1.591e+4
212.07±0.0606: 1.591e+4

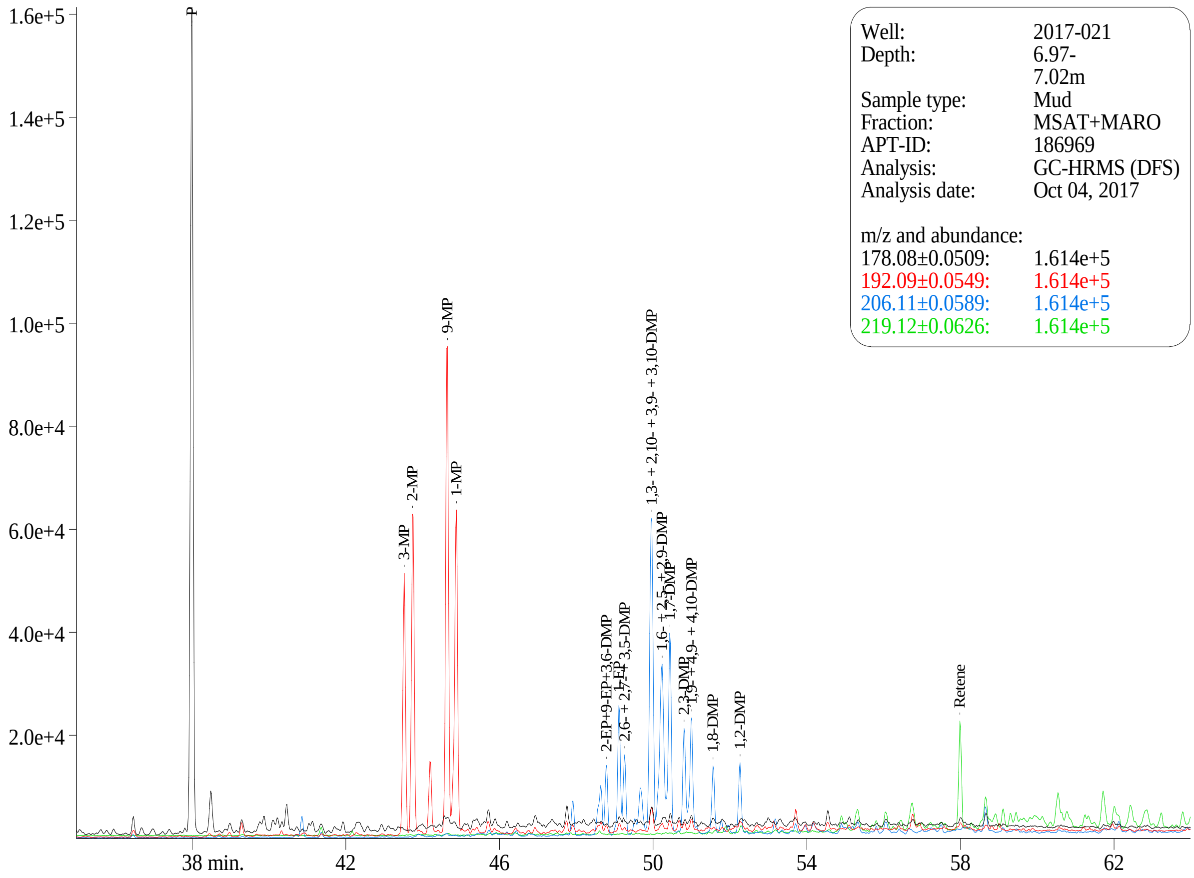

C20TA
C21TA
SC26TA
RC26TA+SC27TA
SC28TA
RC27TA
RC28TA
M1
M2
M3
M4
1.2e+4
1.1e+4
1.0e+4
9.0e+3
8.0e+3
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3
70 min.
80
90
100
Well: 2017-020
Depth: 5.11-5.16m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186965
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
231.12±0.0660: 1.266e+4


Well: 2017-020
Depth: 5.11-5.16m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186965
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
245.1330±0.0700: 3.082e+3
3MS-TA
4MS-TA
2,24DMS-TA
3,24DMS+3MR-TA
4,24DMS+4MR-TA
3M24ES-TA
D1-TA
D2-TA
4M24ES-TA
3,24DMR-TA
4,24DMR-TA
D3-TA
D4-TA
2M24ER-TA
3M24ER-TA
D5-TA
4M24ER-TA
D6-TA
2.8e+3
2.4e+3
2.0e+3
1.6e+3
1.2e+3
8.0e+2
4.0e+2
84 min.
86
88
90
92
94
96
98
100

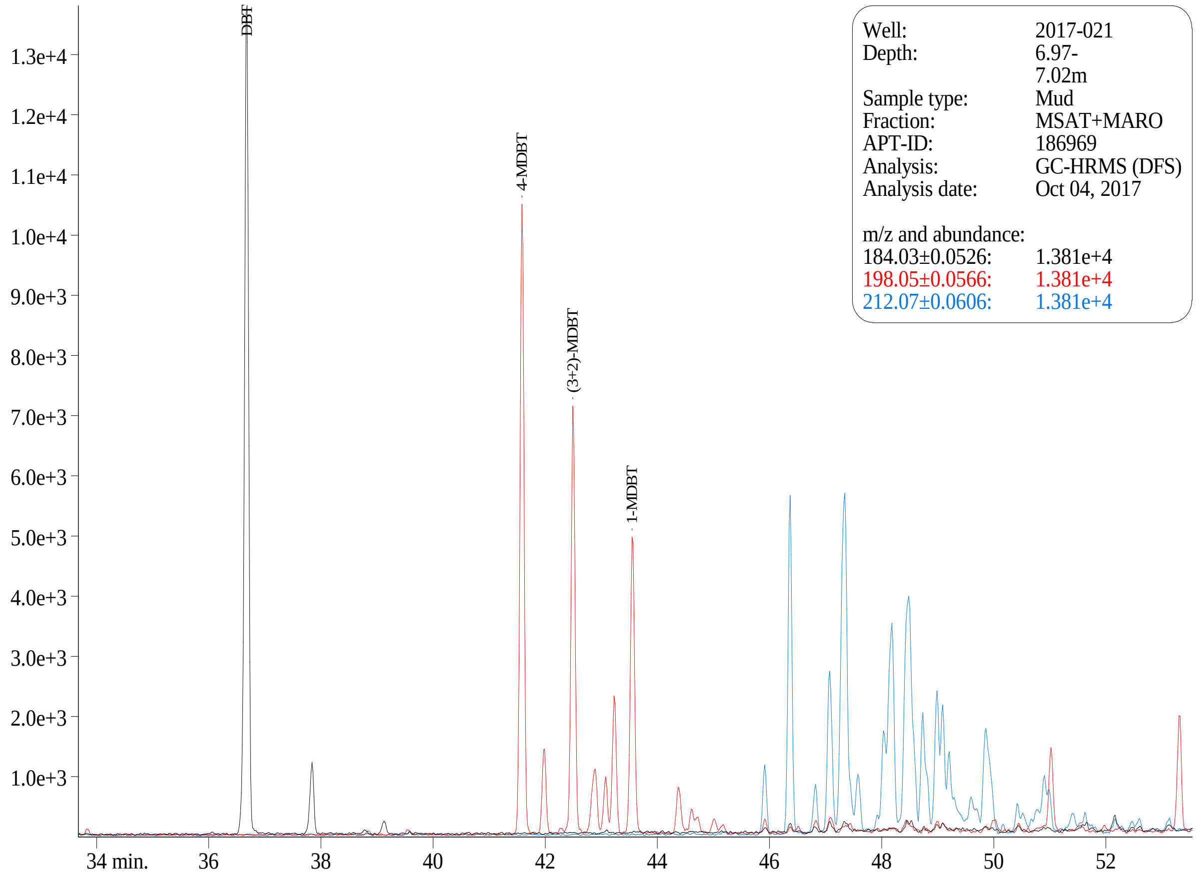

Well: 2017-020
Depth: 5.11-5.16m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186965
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
253.20±0.0723: 6.463e+3
C21MA
C22MA
bSC27MA
bSC27DMA
aSC27MA
bRC27MA+bRC27DMA
bSC28MA+bSC28DMA+aRC27DMA
aSC27DMA
aRC27MA
aSC28MA
bRC28MA+bRC28DMA
bSC29MA+bSC29DMA
aSC29MA
aRC28MA+bRC29MA+bRC29DMA
aRC29MA
6.0e+3
5.5e+3
5.0e+3
4.5e+3
4.0e+3
3.5e+3
3.0e+3
2.5e+3
2.0e+3
1.5e+3
1.0e+3
5.0e+2
60 min.
70
80
90



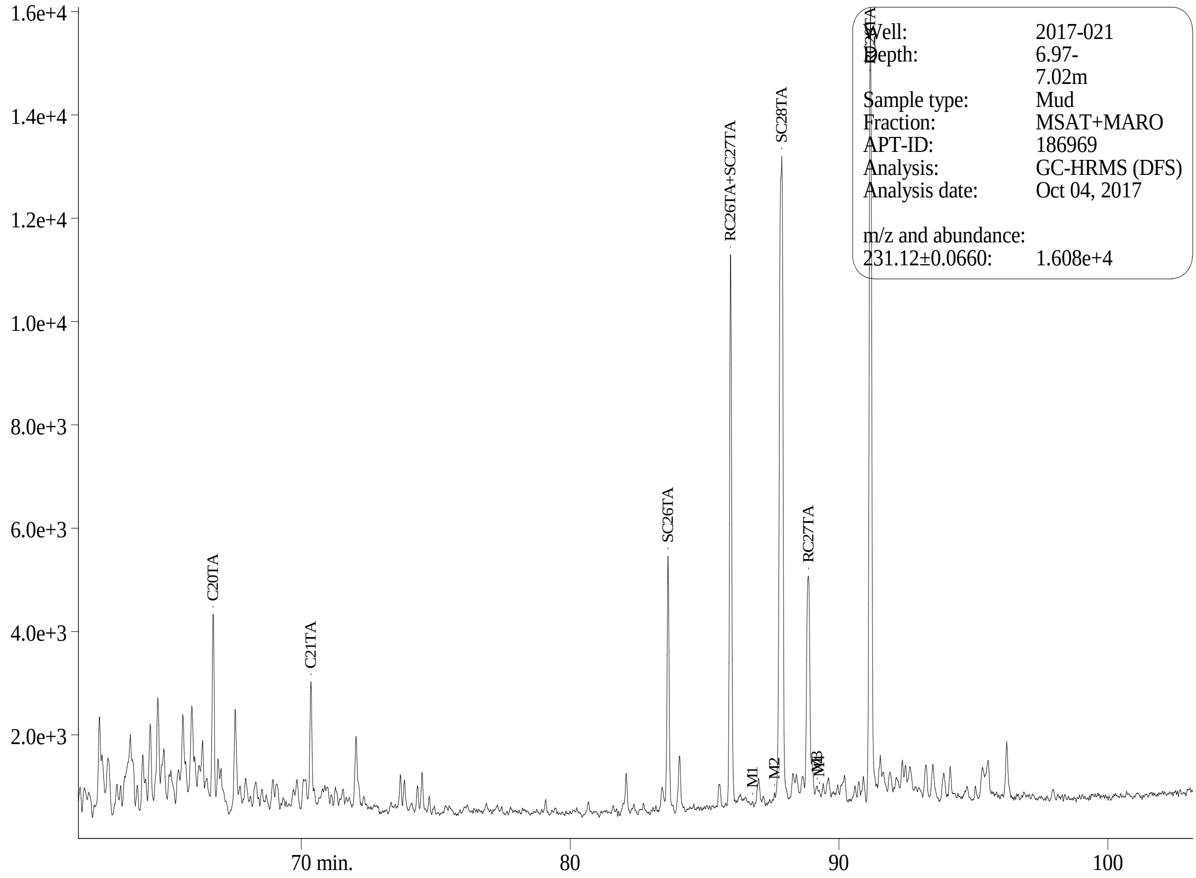
Well: 2017-021
Depth: 6.97-7.02m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186969
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
142.08±0.0406: 9.558e+4
156.09±0.0446: 9.558e+4
170.11±0.0486: 9.558e+4
2-MN
1-MN
2-EN
1-EN
2,6-DMN
2,7-DMN
1,3- + 1,7-DMN
1,6-DMN
2,3- + 1,4-DMN
1,5-DMN
1,2-DMN
1,8-DMN
1,3,7-TMN
1,3,6-TMN
1,3,5- + 1,4,6-TMN
2,3,6-TMN
1,2,7-TMN
1,6,7 + 1,2,6-TMN
1,2,4-TMN
1,2,5-TMN
9.0e+4
8.0e+4
7.0e+4
6.0e+4
5.0e+4
4.0e+4
3.0e+4
2.0e+4
1.0e+4
14 min.
18
22
26
30



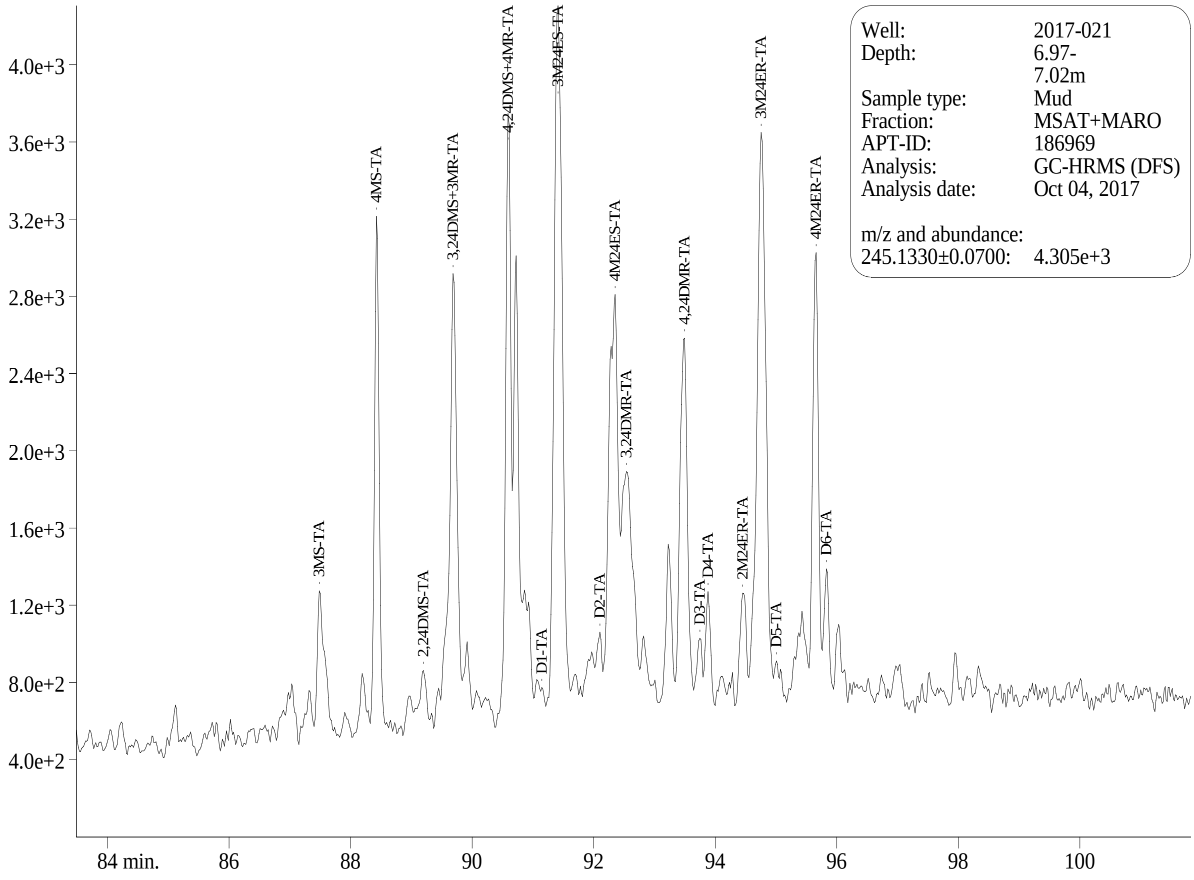
Well: 2017-021
Depth: 6.97-7.02m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186969
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
178.08±0.0509: 1.614e+5
192.09±0.0549: 1.614e+5
206.11±0.0589: 1.614e+5
219.12±0.0626: 1.614e+5
P
3-MP
2-MP
9-MP
1-MP
2-EP+9-EP+3,6-DMP
2,6- + 2,7- + 3,5-DMP
1-EP
1,3- + 2,10- + 3,9- + 3,10-DMP
1,6- + 2,5- + 2,9-DMP
1,7-DMP
2,3-DMP
1,9- + 4,9- + 4,10-DMP
1,8-DMP
1,2-DMP
Retene
1.6e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
38 min.
42
46
50
54
58
62

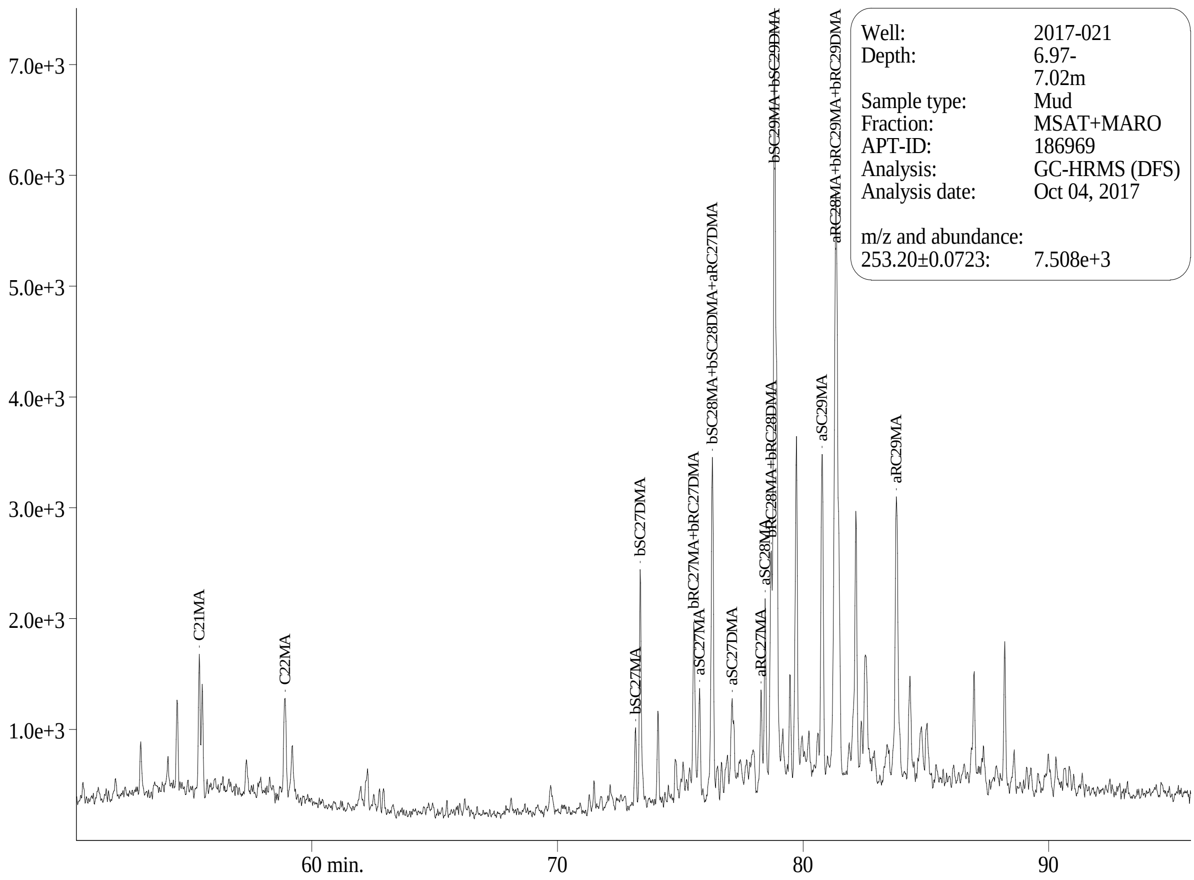


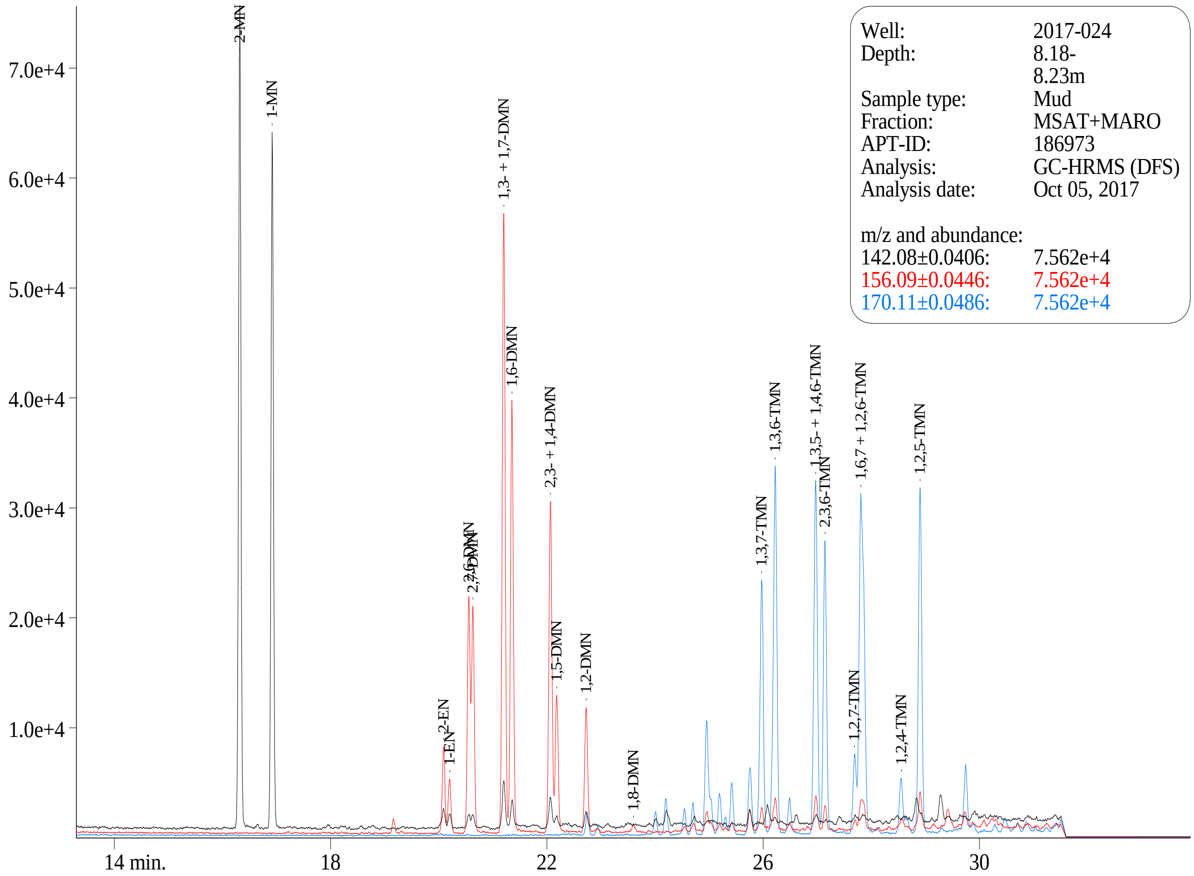
Well: 2017-021
Depth: 6.97-7.02m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186969
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
184.03±0.0526: 1.381e+4
198.05±0.0566: 1.381e+4
212.07±0.0606: 1.381e+4
DBT
4-MDBT
(3+2)-MDBT
1-MDBT
1.3e+4
1.2e+4
1.1e+4
1.0e+4
9.0e+3
8.0e+3
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3
34 min.
36
38
40
42
44
46
48
50
52

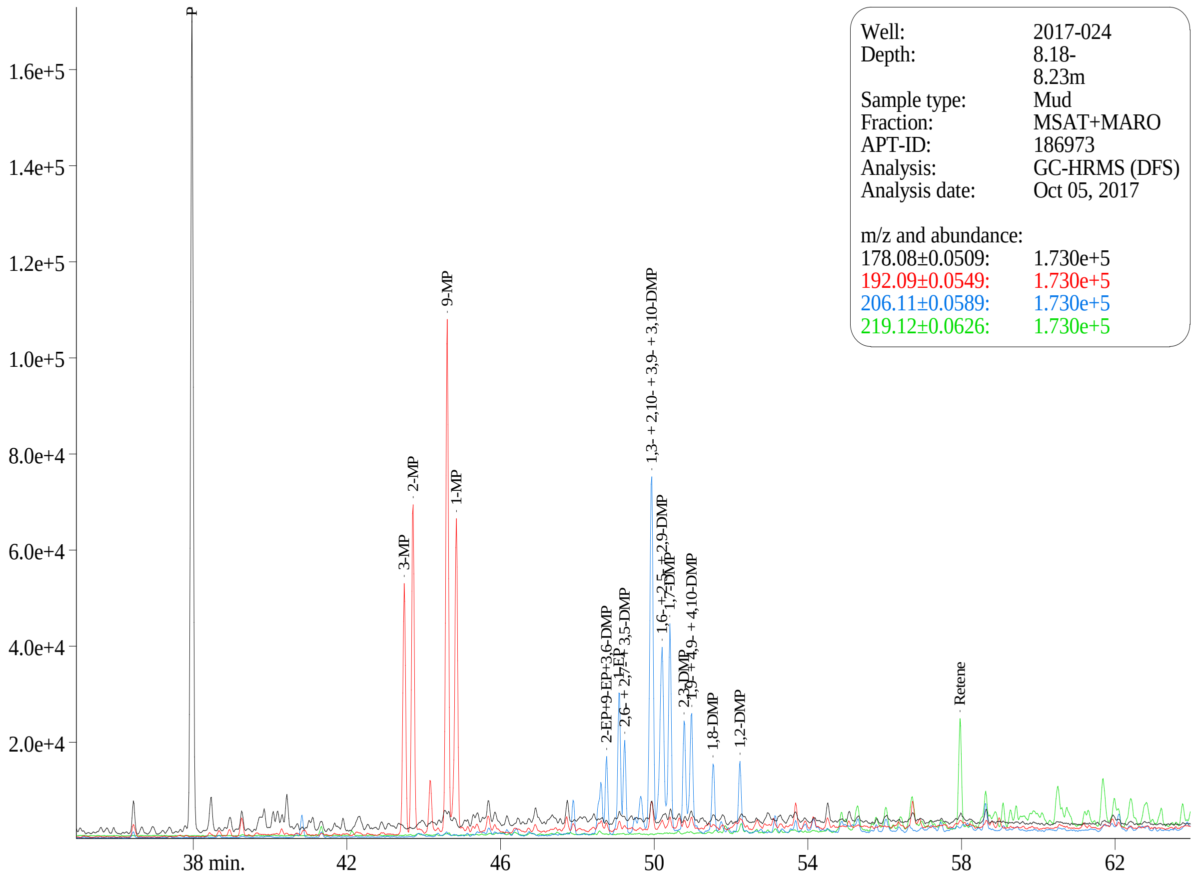


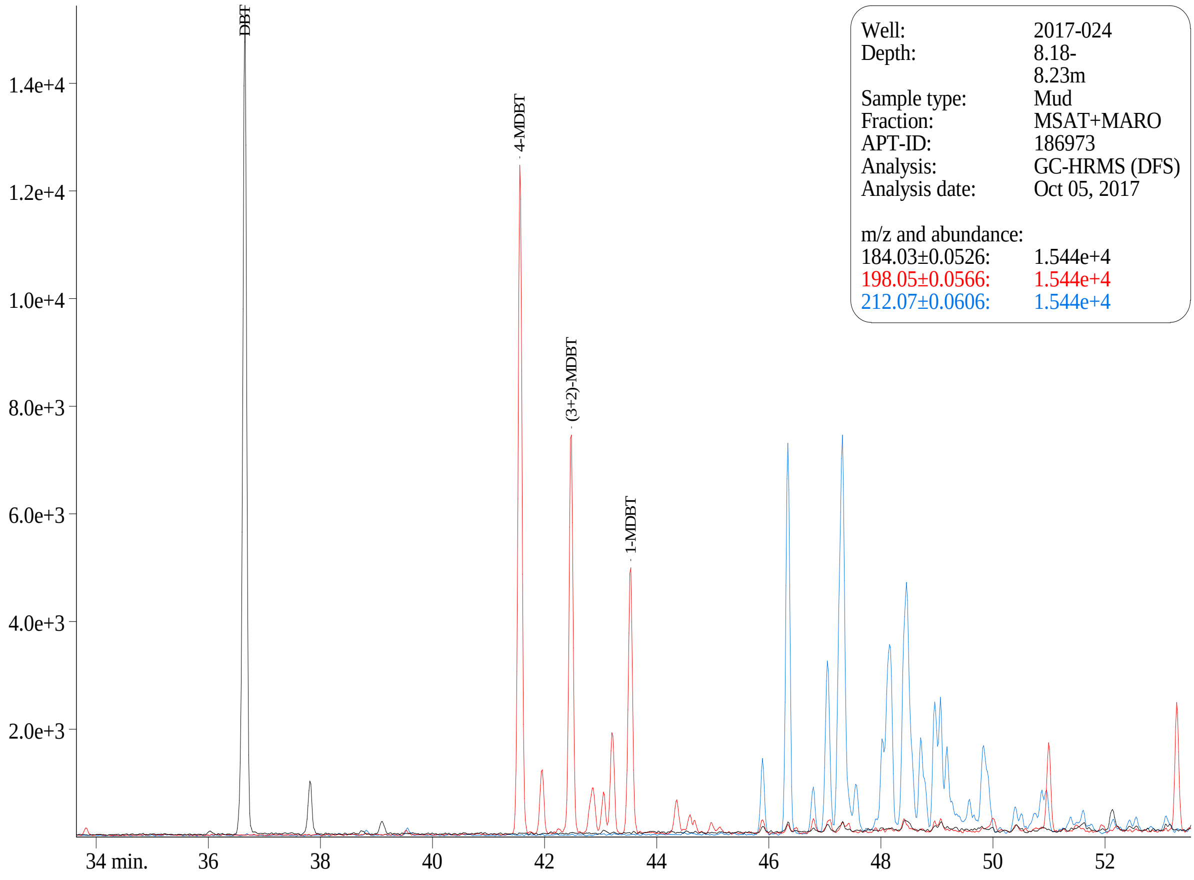
Well: 2017-021
Depth: 6.97-7.02m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186969
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
231.12±0.0660: 1.608e+4
C20TA
C21TA
SC26TA
RC26TA+SC27TA
SC28TA
RC27TA
M1
M2
M3
M4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
70 min.
80
90
100

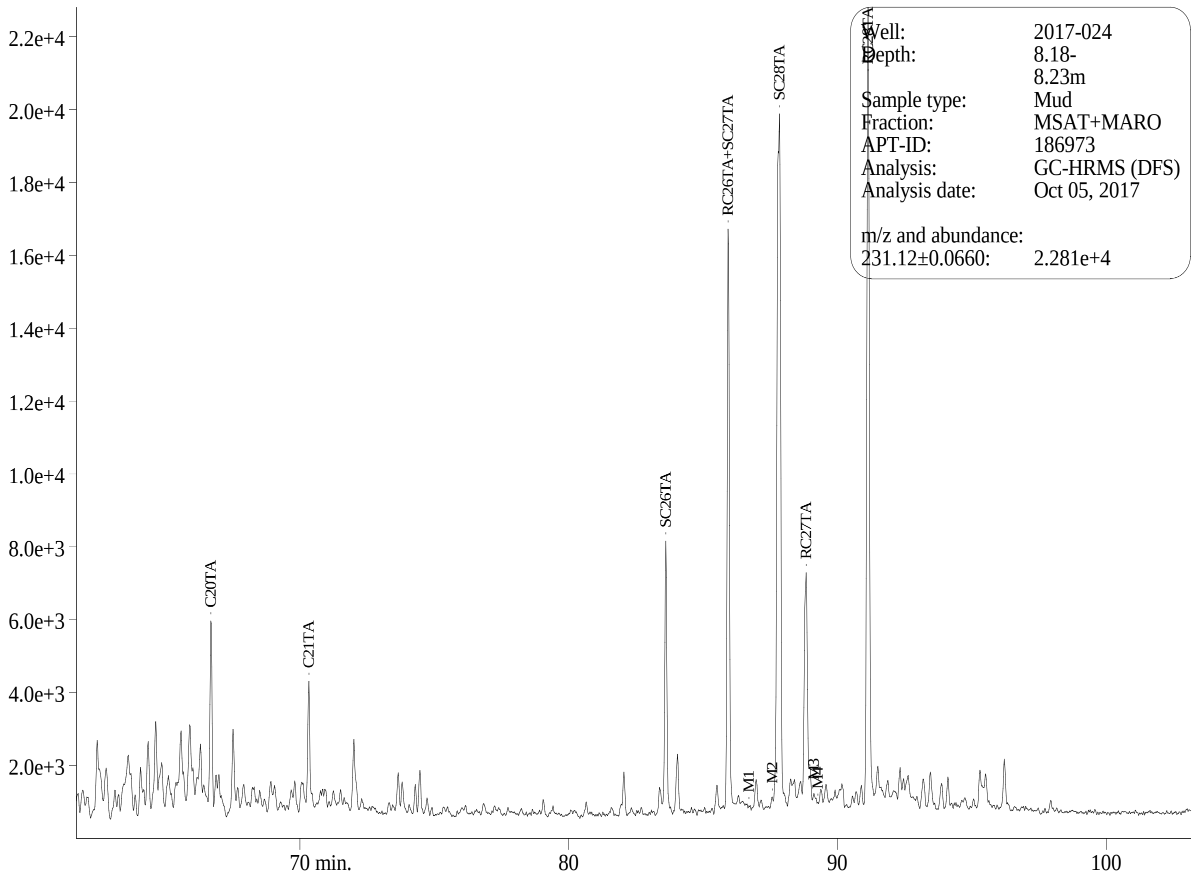

Well: 2017-021
Depth: 6.97-7.02m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186969
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
245.1330±0.0700: 4.305e+3
3MS-TA
4MS-TA
2,24DMS-TA
3,24DMS+3MR-TA
4,24DMS+4MR-TA
3M24ES-TA
D1-TA
D2-TA
4M24ES-TA
3,24DMR-TA
4,24DMR-TA
D3-TA
D4-TA
2M24ER-TA
3M24ER-TA
D5-TA
4M24ER-TA
D6-TA
4.0e+3
3.6e+3
3.2e+3
2.8e+3
2.4e+3
2.0e+3
1.6e+3
1.2e+3
8.0e+2
4.0e+2
84 min.
86
88
90
92
94
96
98
100

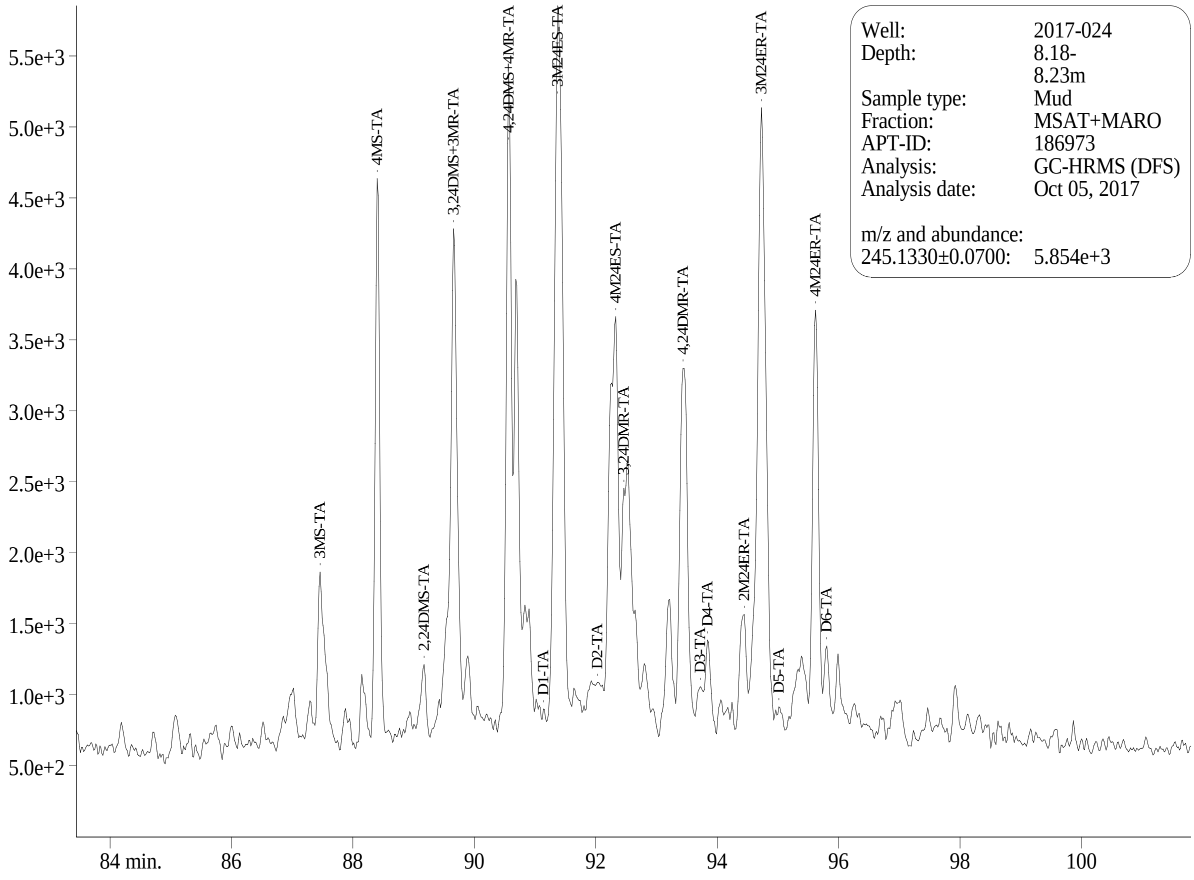

Well: 2017-021
Depth: 6.97-7.02m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186969
Analysis: GC-HRMS (DFS)
Analysis date: Oct 04, 2017
m/z and abundance:
253.20±0.0723: 7.508e+3
C21MA
C22MA
bSC27MA
bSC27DMA
aSC27MA
bRC27MA+bRC27DMA
bSC28MA+bSC28DMA+aRC27DMA
aSC27DMA
aRC27MA
aSC28MA
bRC28MA+bRC28DMA
bSC29MA+bSC29DMA
aSC29MA
aRC28MA+bRC29MA+bRC29DMA
aRC29MA
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3
60 min.
70
80
90


Well: 2017-024
Depth: 8.18-8.23m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186973
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
142.08±0.0406: 7.562e+4
156.09±0.0446: 7.562e+4
170.11±0.0486: 7.562e+4
2-MN
1-MN
1,3- + 1,7-DMN
1,6-DMN
2,3- + 1,4-DMN
1,5-DMN
1,2-DMN
1,8-DMN
2-EN
1-EN
1,3,7-TMN
1,3,6-TMN
1,3,5- + 1,4,6-TMN
2,3,6-TMN
1,6,7 + 1,2,6-TMN
1,2,7-TMN
1,2,4-TMN
1,2,5-TMN
7.0e+4
6.0e+4
5.0e+4
4.0e+4
3.0e+4
2.0e+4
1.0e+4
14 min.
18
22
26
30

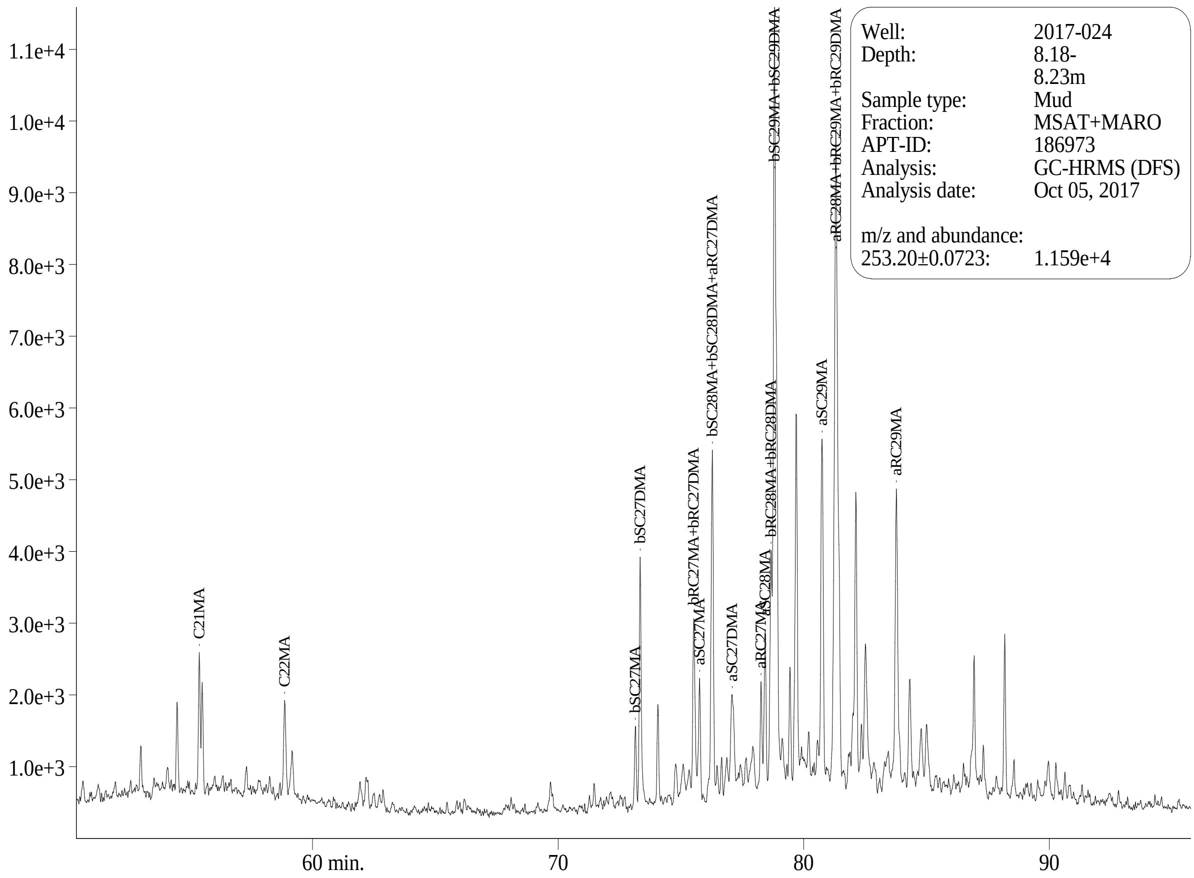

Well: 2017-024
Depth: 8.18-8.23m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186973
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
178.08±0.0509: 1.730e+5
192.09±0.0549: 1.730e+5
206.11±0.0589: 1.730e+5
219.12±0.0626: 1.730e+5
P
3-MP
2-MP
9-MP
1-MP
2-EP+9-EP+3,6-DMP
1-EP
2,6- + 2,7- + 3,5-DMP
1,3- + 2,10- + 3,9- + 3,10-DMP
1,6- + 2,5- + 2,9-DMP
1,7-DMP
1,9- + 4,9- + 4,10-DMP
2,3-DMP
1,8-DMP
1,2-DMP
Retene
1.6e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
38 min.
42
46
50
54
58
62


DBT
4-MDBT
(3+2)-MDBT
1-MDBT
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
34 min.
36
38
40
42
44
46
48
50
52
Well: 2017-024
Depth: 8.18-8.23m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186973
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
184.03±0.0526: 1.544e+4
198.05±0.0566: 1.544e+4
212.07±0.0606: 1.544e+4

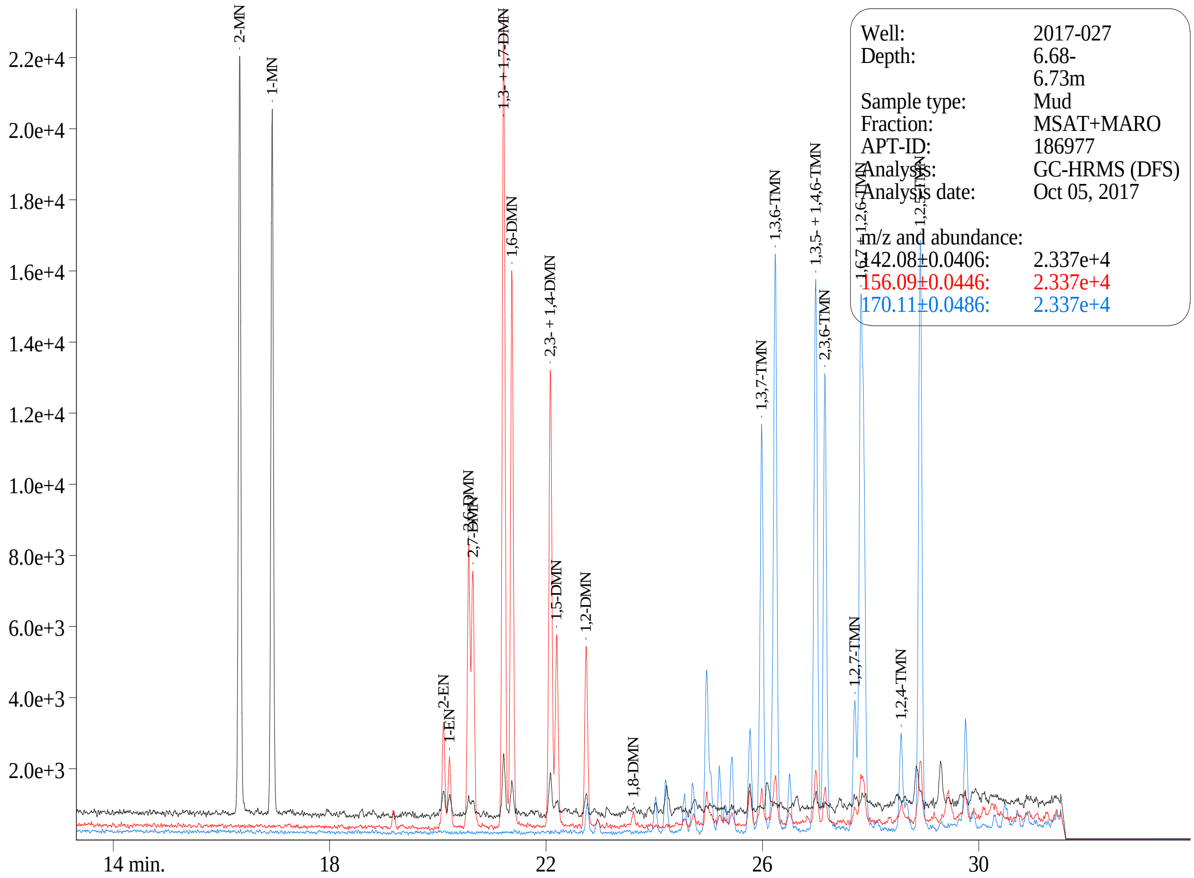

C20TA
C21TA
SC26TA
RC26TA+SC27TA
SC28TA
RC27TA
M1
M2
M3
M4
2.2e+4
2.0e+4
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
70 min.
80
90
100
Well: 2017-024
Depth: 8.18-8.23m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186973
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
231.12±0.0660: 2.281e+4

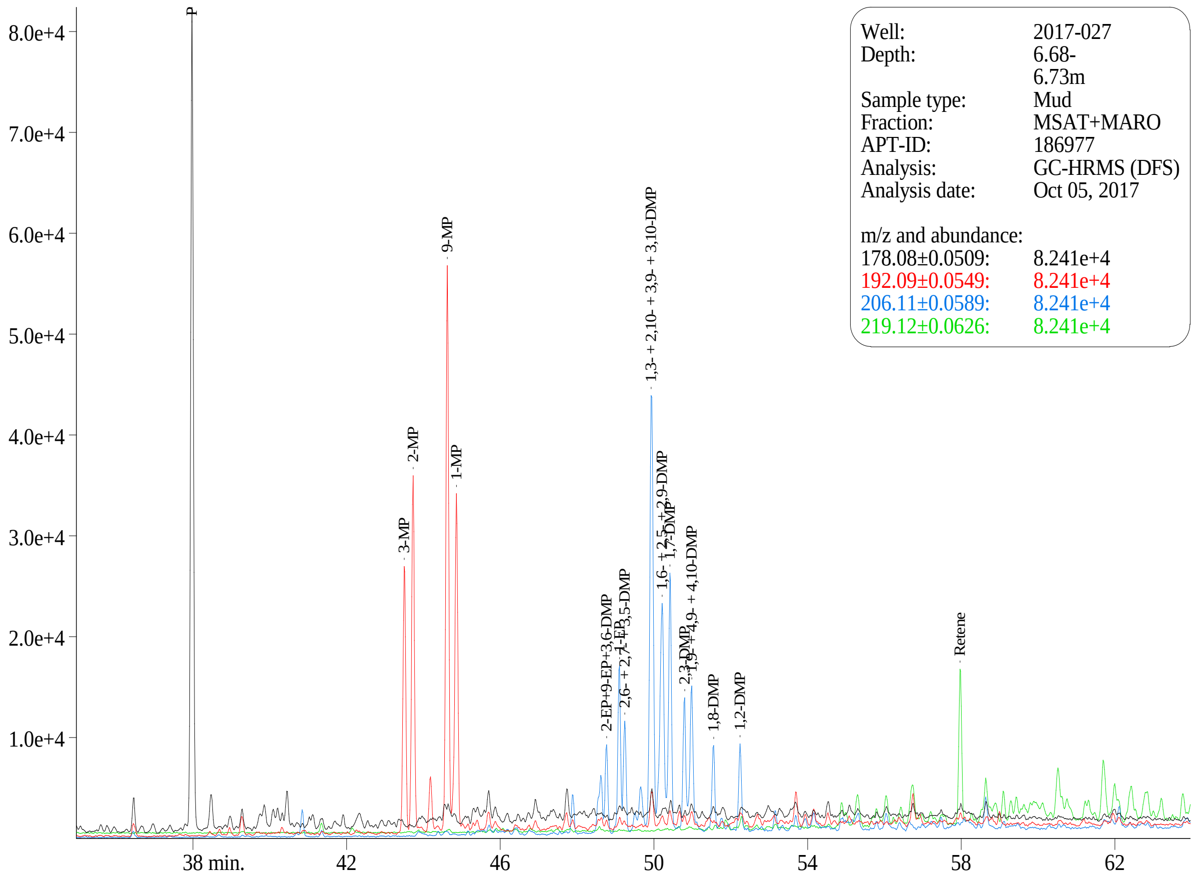


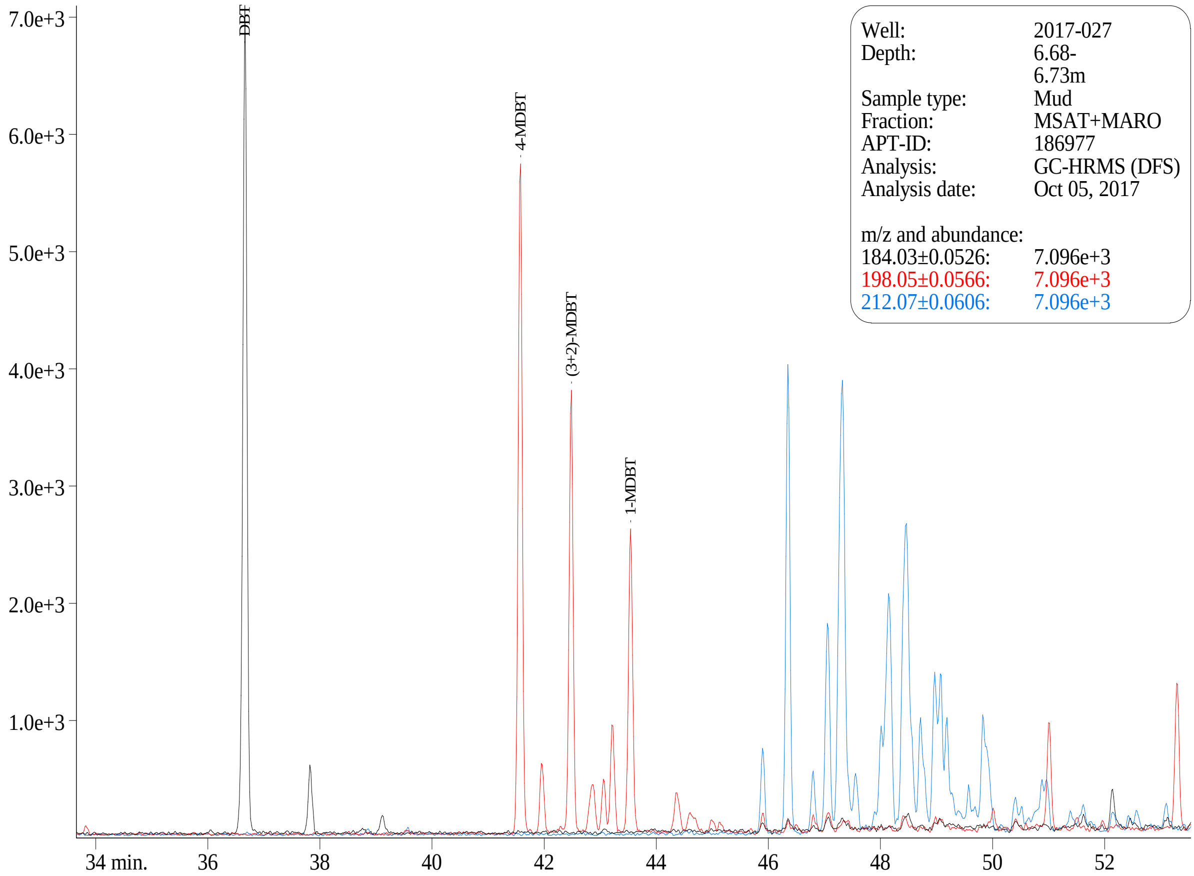
Well: 2017-024
Depth: 8.18-8.23m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186973
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
245.1330±0.0700: 5.854e+3
3MS-TA
4MS-TA
2,24DMS-TA
3,24DMS+3MR-TA
4,24DMS+4MR-TA
3M24ES-TA
D1-TA
D2-TA
4M24ES-TA
3,24DMR-TA
4,24DMR-TA
D3-TA
D4-TA
2M24ER-TA
3M24ER-TA
D5-TA
4M24ER-TA
D6-TA
84 min.
86
88
90
92
94
96
98
100



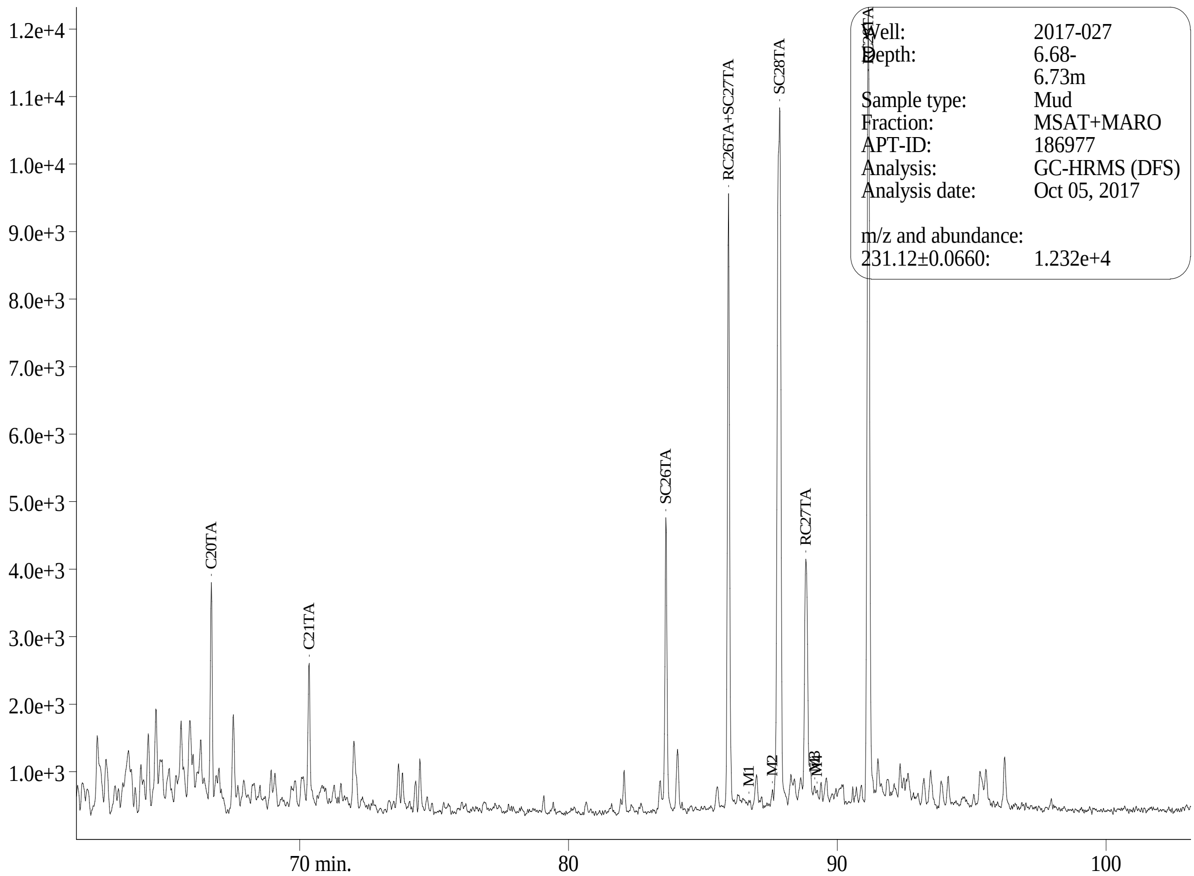
Well: 2017-024
Depth: 8.18-8.23m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186973
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
253.20±0.0723: 1.159e+4
C21MA
C22MA
bSC27MA
bSC27DMA
aSC27MA
bRC27MA+bRC27DMA
bSC28MA+bSC28DMA+aRC27DMA
aSC27DMA
aRC27MA
aSC28MA
bRC28MA+bRC28DMA
bSC29MA+bSC29DMA
aSC29MA
aRC28MA+bRC29MA+bRC29DMA
aRC29MA
60 min.
70
80
90


Well: 2017-027
Depth: 6.68-6.73m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186977
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
142.08±0.0406: 2.337e+4
156.09±0.0446: 2.337e+4
170.11±0.0486: 2.337e+4
2-MN
1-MN
1,3- + 1,7-DMN
1,6-DMN
2,3- + 1,4-DMN
2,6-DMN
2,7-DMN
1,5-DMN
1,2-DMN
1-EN
2-EN
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
1,2,4-TMN
14 min.
18
22
26
30

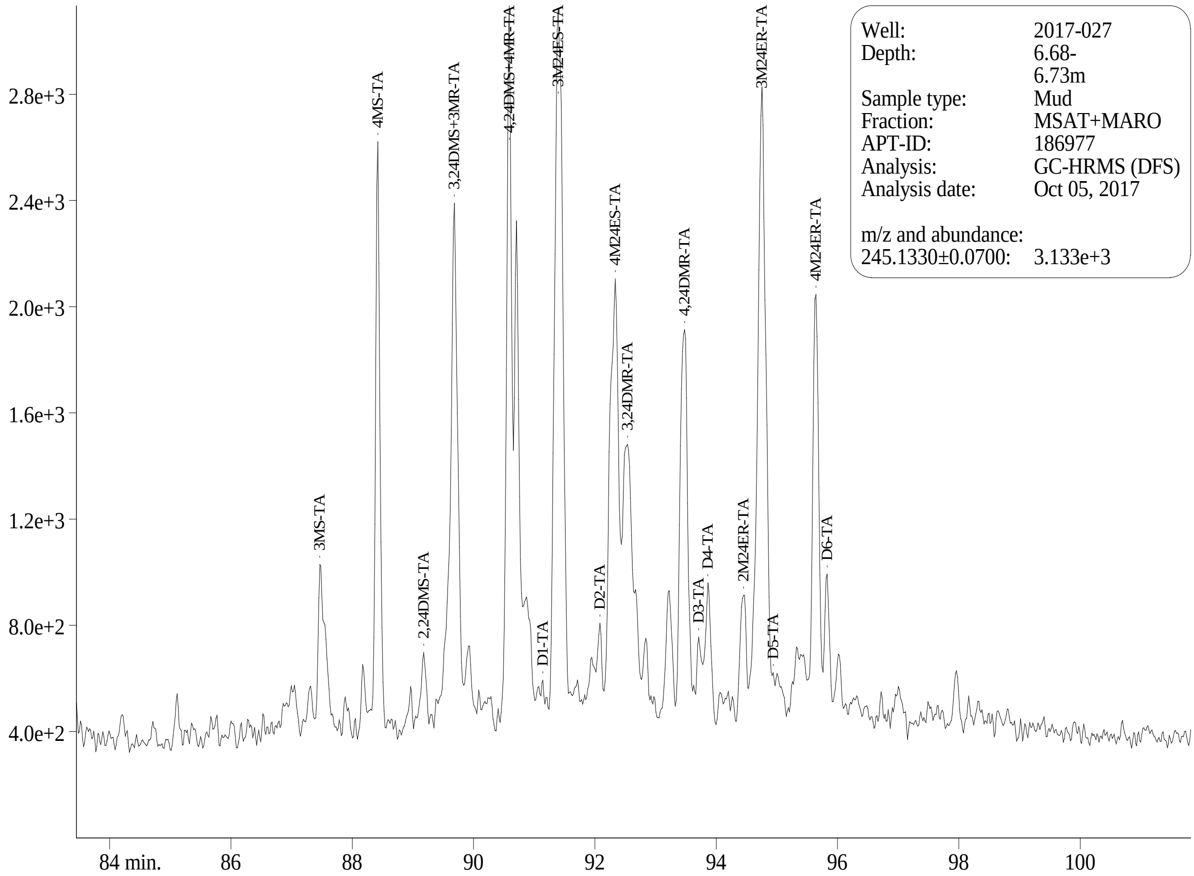

Well: 2017-027
Depth: 6.68-6.73m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186977
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
178.08±0.0509: 8.241e+4
192.09±0.0549: 8.241e+4
206.11±0.0589: 8.241e+4
219.12±0.0626: 8.241e+4
P
3-MP
2-MP
9-MP
1-MP
1,3- + 2,10- + 3,9- + 3,10-DMP
1,8-DMP
1,2-DMP
Retene
38 min.
42
46
50
54
58
62

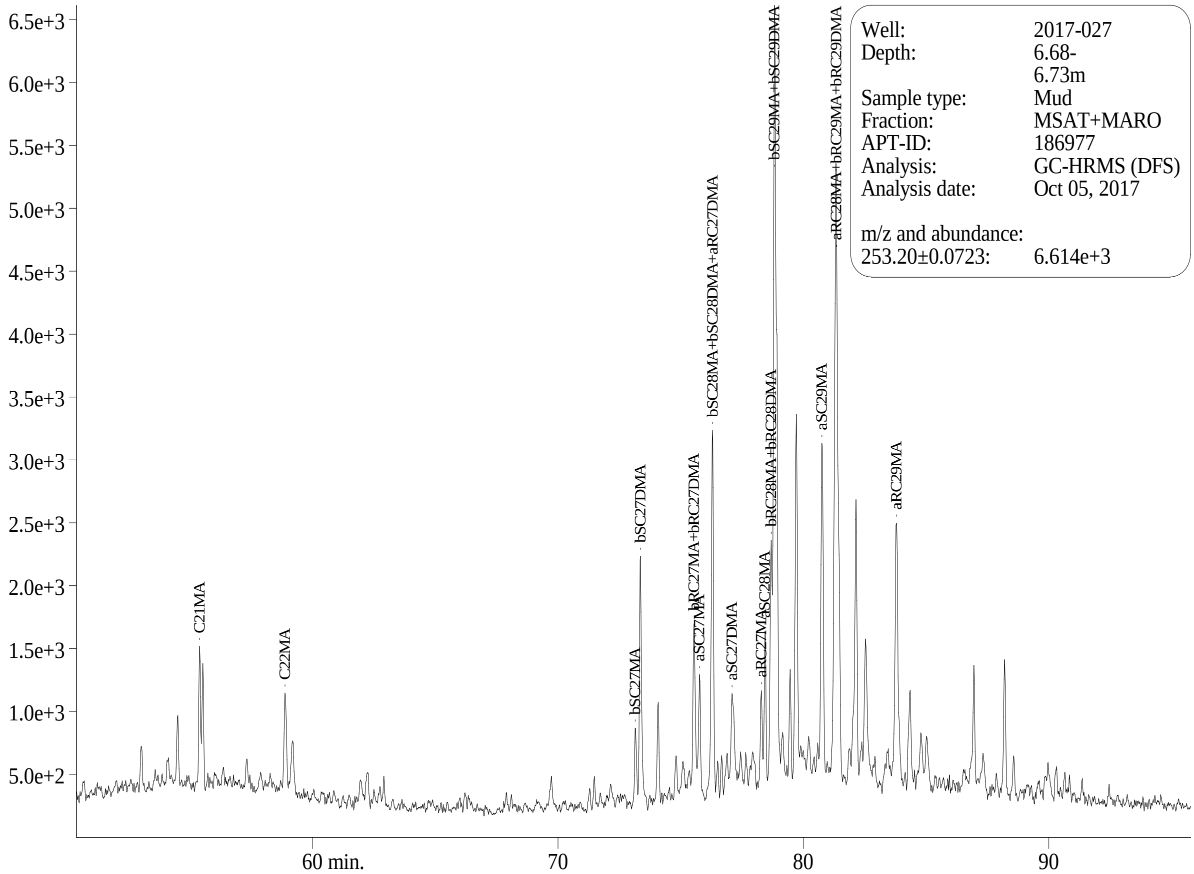


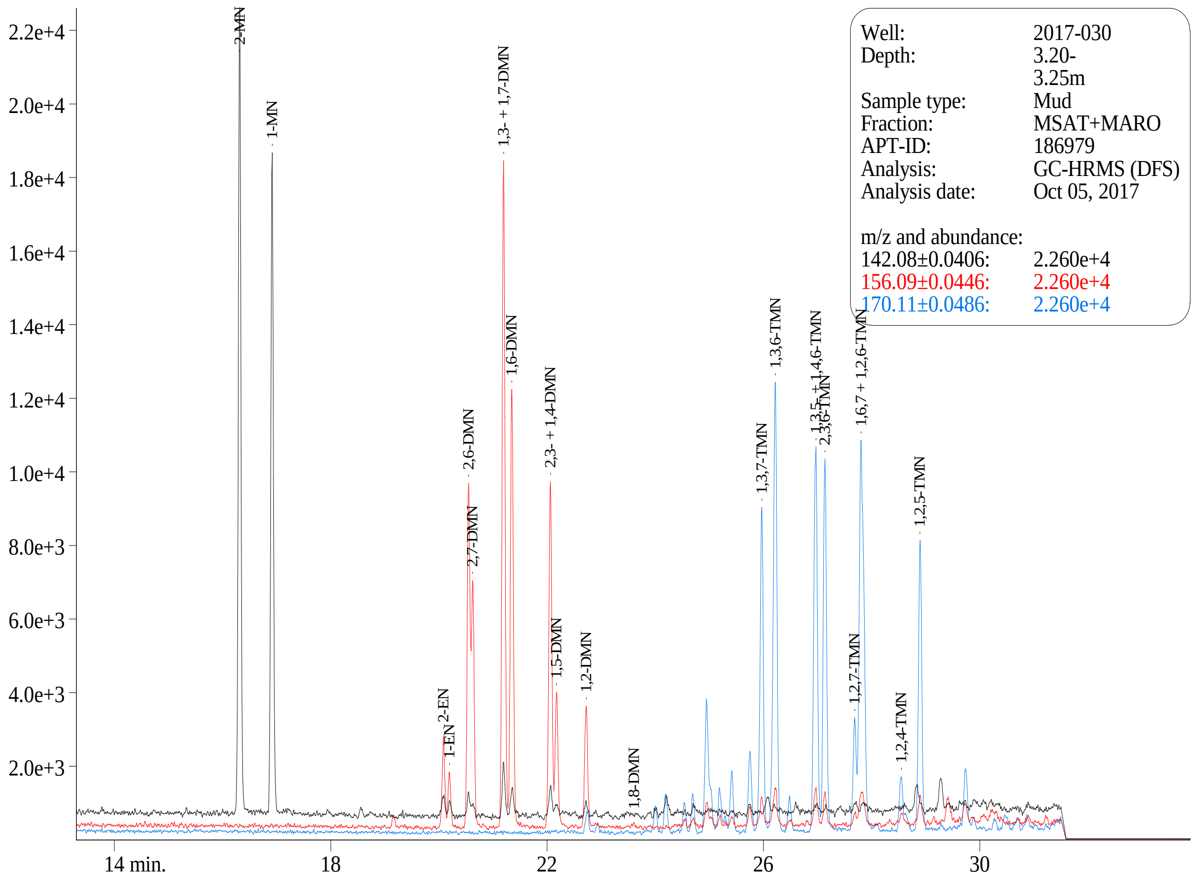
DBT
4-MDBT
(3+2)-MDBT
1-MDBT
Well: 2017-027
Depth: 6.68-6.73m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186977
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
184.03±0.0526: 7.096e+3
198.05±0.0566: 7.096e+3
212.07±0.0606: 7.096e+3
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3
34 min.
36
38
40
42
44
46
48
50
52



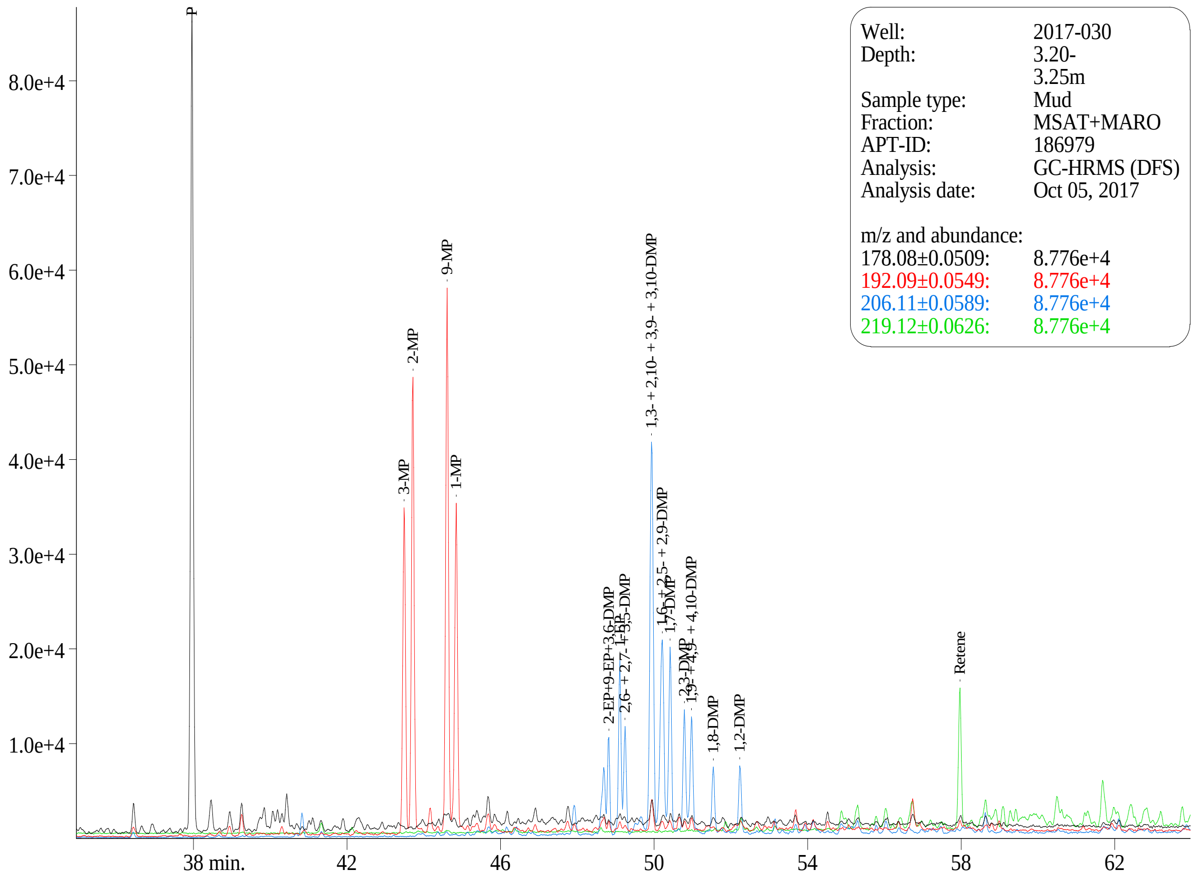
C20TA
C21TA
SC26TA
RC26TA+SC27TA
SC28TA
RC27TA
M1
M2
Well: 2017-027
Depth: 6.68-6.73m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186977
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
231.12±0.0660: 1.232e+4
1.2e+4
1.1e+4
1.0e+4
9.0e+3
8.0e+3
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3
70 min.
80
90
100


Well: 2017-027
Depth: 6.68-6.73m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186977
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
245.1330±0.0700: 3.133e+3
3MS-TA
4MS-TA
2,24DMS-TA
3,24DMS+3MR-TA
4,24DMS+4MR-TA
D1-TA
3M24ES-TA
D2-TA
4M24ES-TA
3,24DMR-TA
4,24DMR-TA
D3-TA
D4-TA
2M24ER-TA
3M24ER-TA
D5-TA
4M24ER-TA
D6-TA
84 min.
86
88
90
92
94
96
98
100

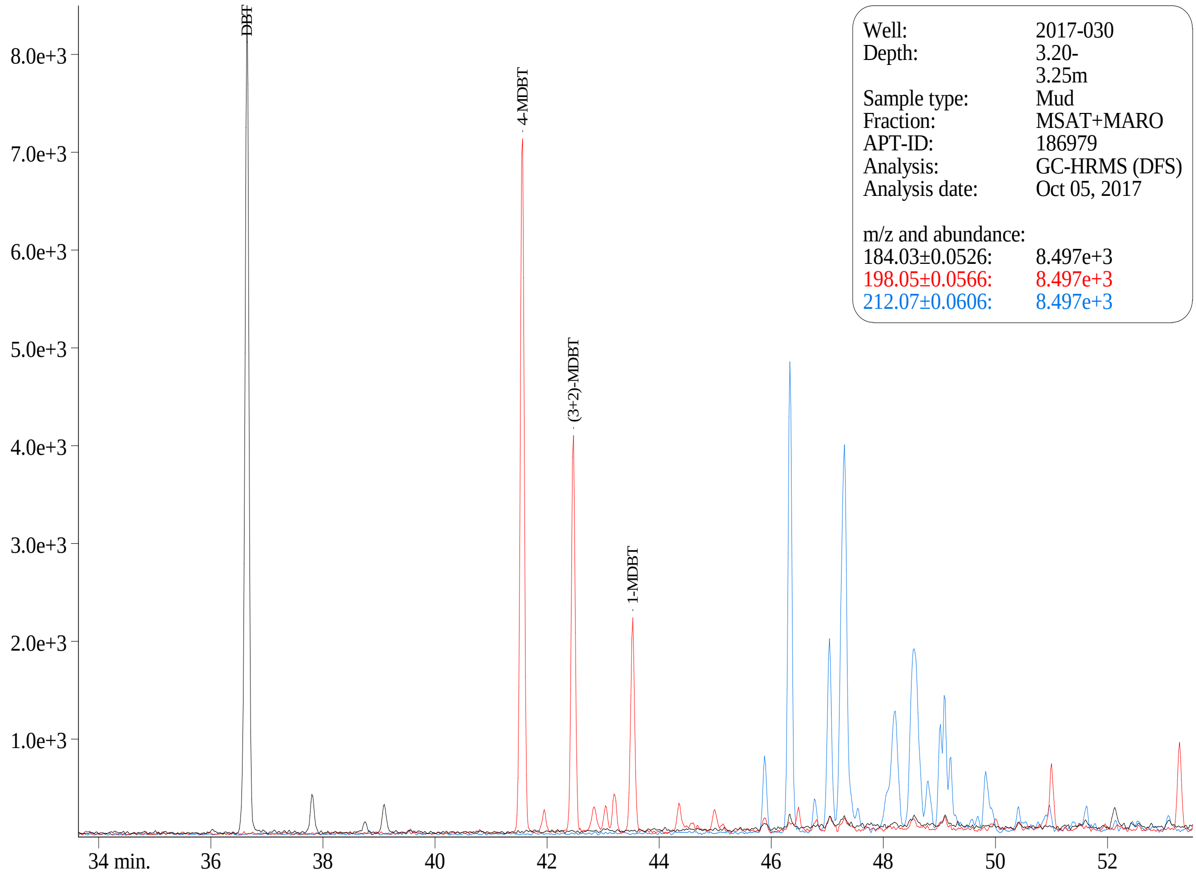

Well: 2017-027
Depth: 6.68-6.73m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186977
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
253.20±0.0723: 6.614e+3
C21MA
C22MA
bSC27MA
bSC27DMA
aSC27MA
bRC27MA+bRC27DMA
bSC28MA+bSC28DMA+aRC27DMA
aSC27DMA
aRC27MA
aSC28MA
bRC28MA+bRC28DMA
bSC29MA+bSC29DMA
aSC29MA
aRC28MA+bRC29MA+bRC29DMA
aRC29MA
60 min.
70
80
90

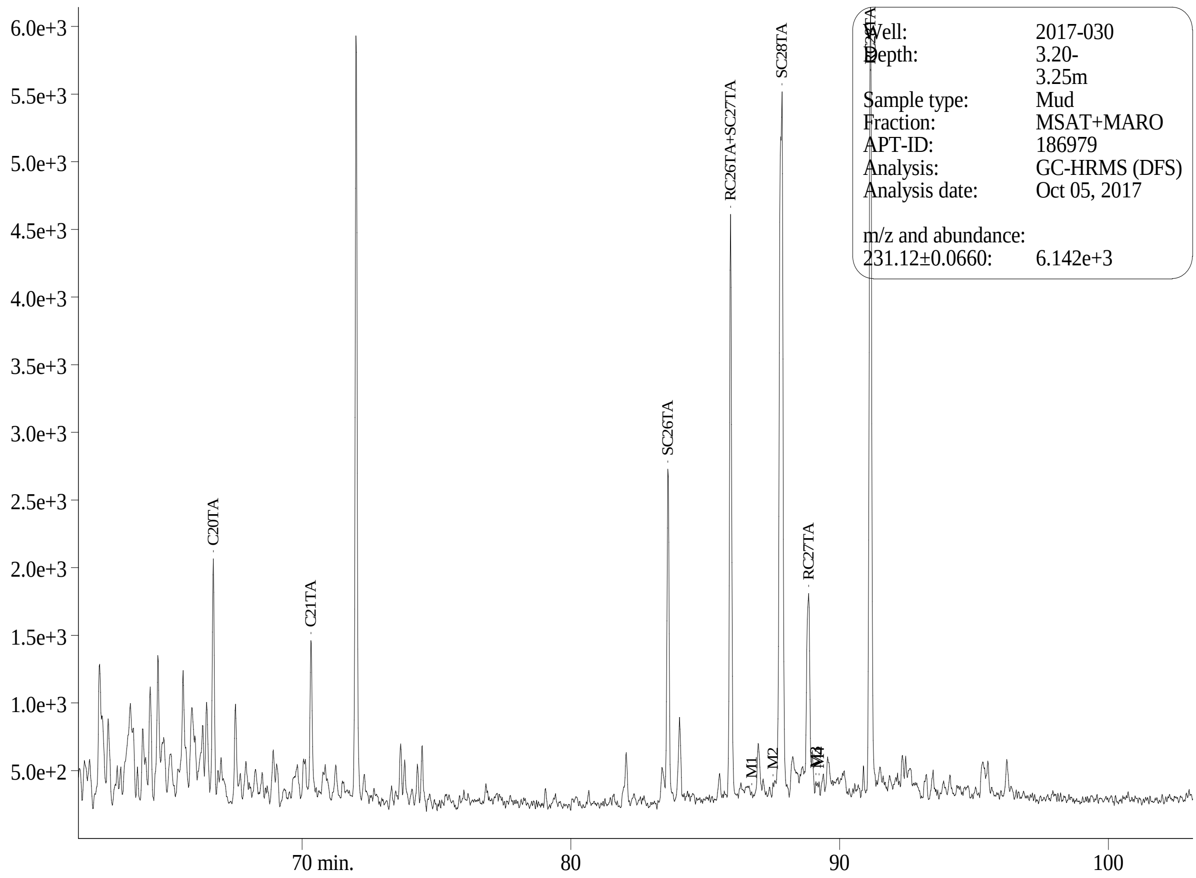


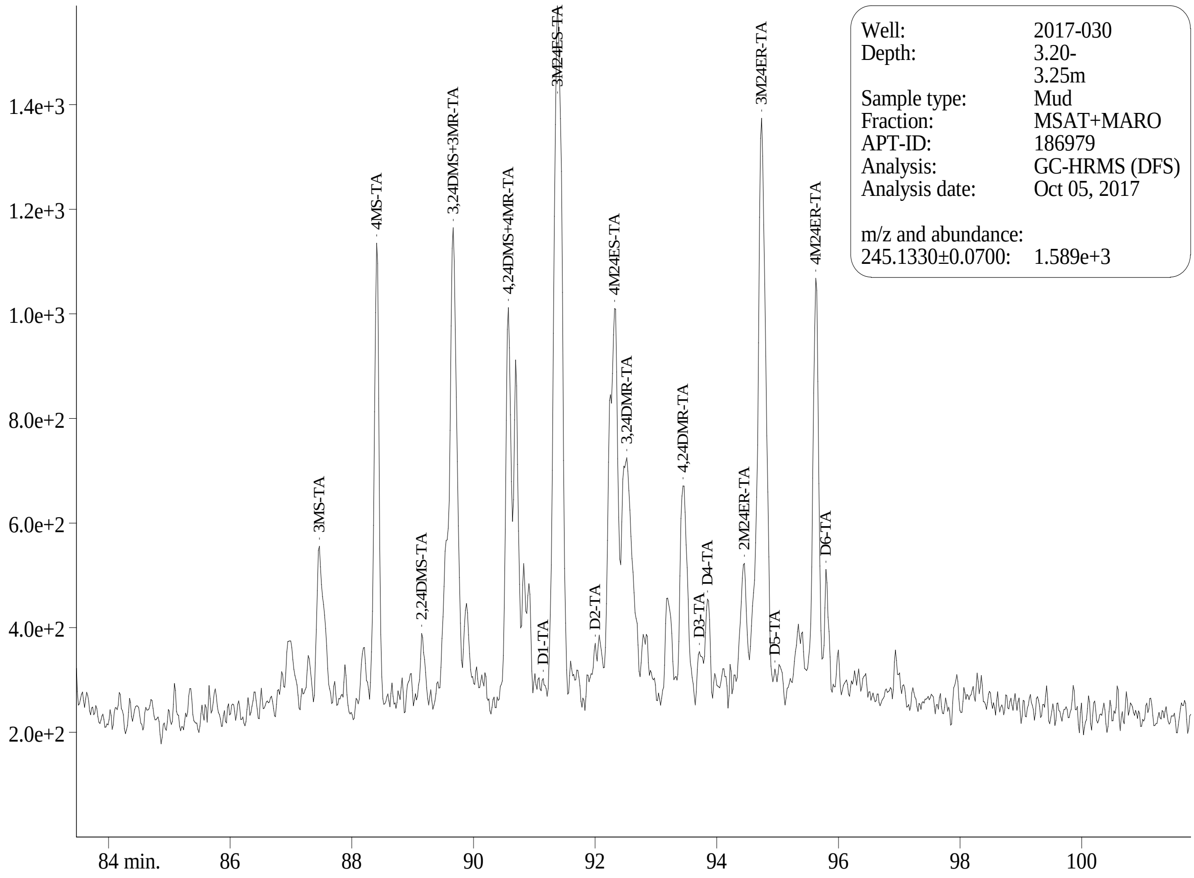
2.2e+4
2.0e+4
1.8e+4
1.6e+4
1.4e+4
1.2e+4
1.0e+4
8.0e+3
6.0e+3
4.0e+3
2.0e+3
2-MN
1-MN
1,3- + 1,7-DMN
1,6-DMN
2,6-DMN
2,7-DMN
2,3- + 1,4-DMN
1,5-DMN
1,2-DMN
1-EN
2-EN
1,8-DMN
1,3,7-TMN
1,3,6-TMN
1,3,5- + 1,4,6-TMN
2,3,6-TMN
1,6,7 + 1,2,6-TMN
1,2,7-TMN
1,2,4-TMN
1,2,5-TMN
14 min.
18
22
26
30
Well: 2017-030
Depth: 3.20-3.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186979
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
142.08±0.0406: 2.260e+4
156.09±0.0446: 2.260e+4
170.11±0.0486: 2.260e+4

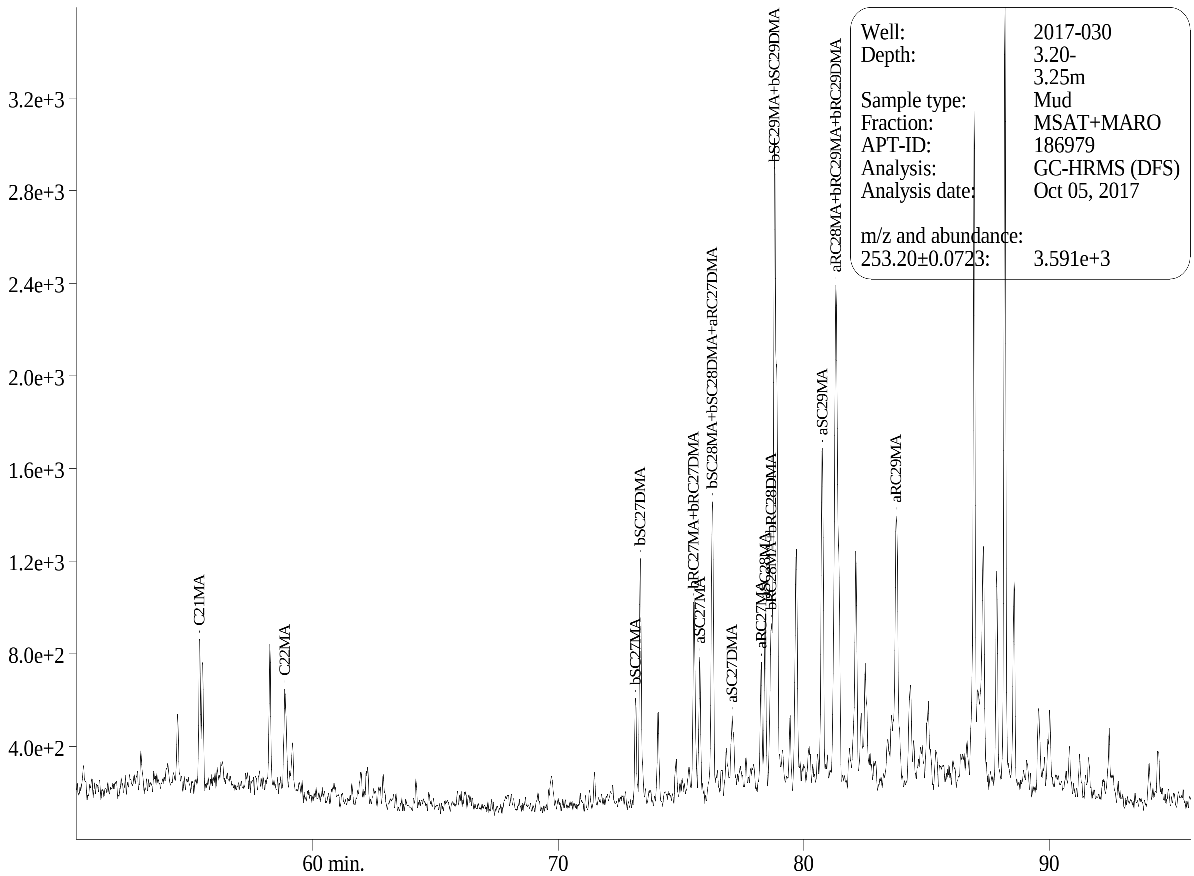


8.0e+4
7.0e+4
6.0e+4
5.0e+4
4.0e+4
3.0e+4
2.0e+4
1.0e+4
P
3-MP
2-MP
9-MP
1-MP
1,3- + 2,10- + 3,9- + 3,10-DMP
2-EP+9-EP+3,6-DMP
2,6- + 2,7- + 3,5-DMP
1-EP
1,6- + 2,5- + 2,9-DMP
1,7-DMP
2,3-DMP
1,9- + 4,9- + 4,10-DMP
1,8-DMP
1,2-DMP
Retene
38 min.
42
46
50
54
58
62
Well: 2017-030
Depth: 3.20-3.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186979
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
178.08±0.0509: 8.776e+4
192.09±0.0549: 8.776e+4
206.11±0.0589: 8.776e+4
219.12±0.0626: 8.776e+4

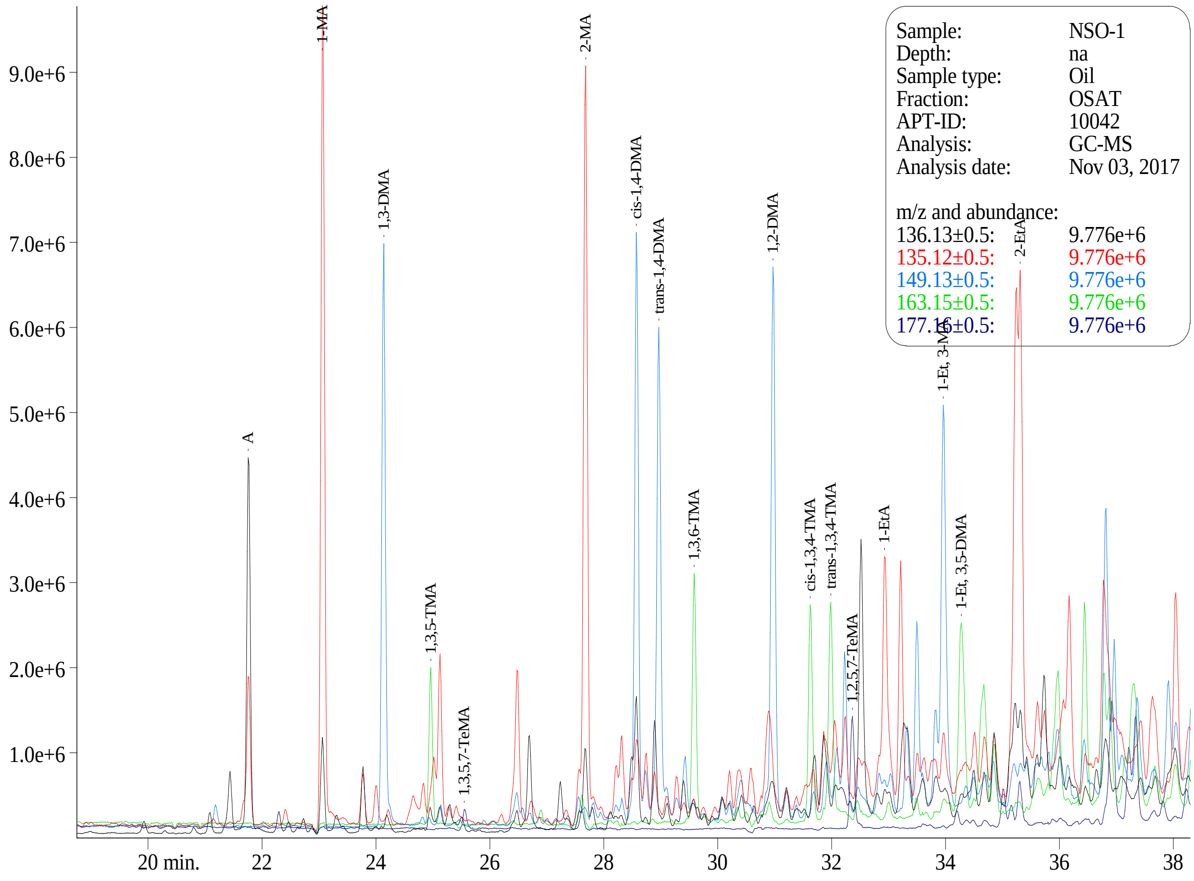

DBT
4-MDBT
(3+2)-MDBT
1-MDBT
8.0e+3
7.0e+3
6.0e+3
5.0e+3
4.0e+3
3.0e+3
2.0e+3
1.0e+3
34 min.
36
38
40
42
44
46
48
50
52
Well: 2017-030
Depth: 3.20-3.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186979
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
184.03±0.0526: 8.497e+3
198.05±0.0566: 8.497e+3
212.07±0.0606: 8.497e+3

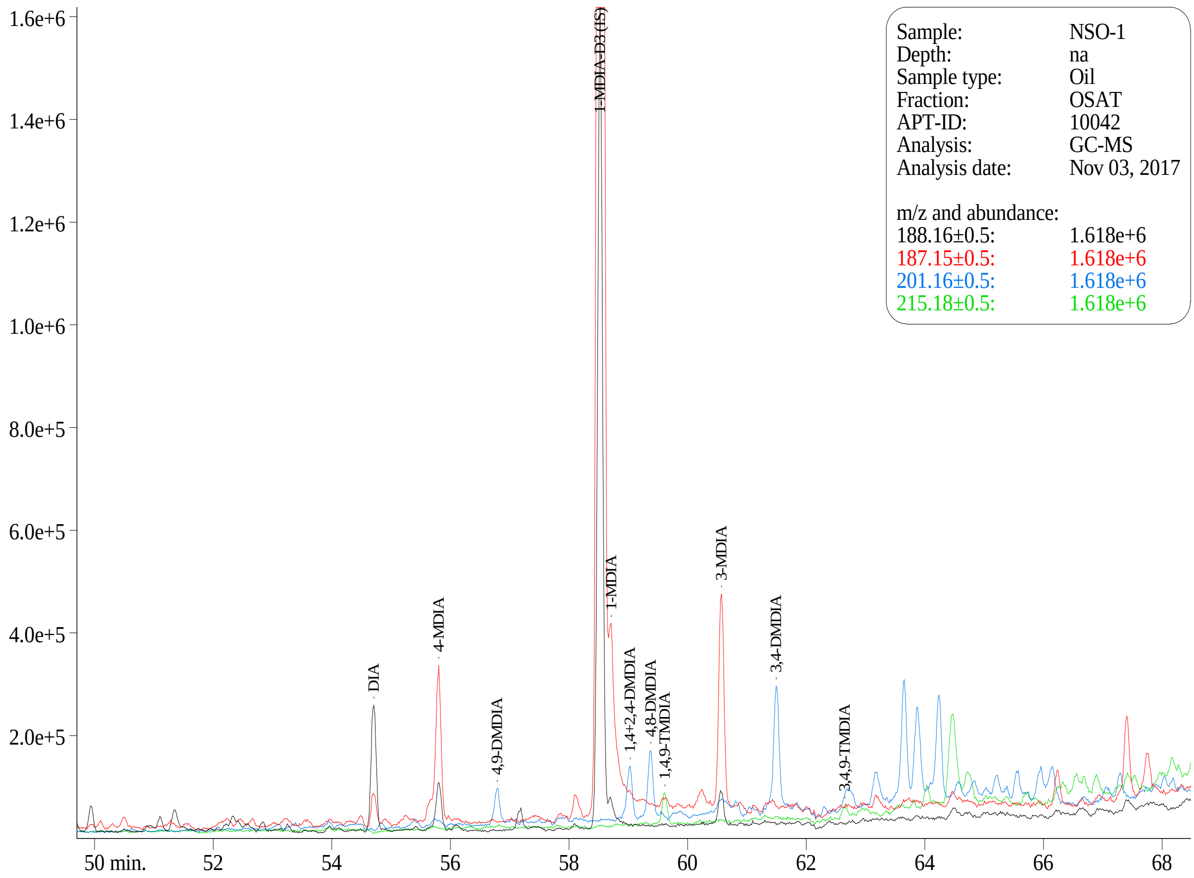

C20TA
C21TA
SC26TA
RC26TA+SC27TA
SC28TA
RC27TA
M1
M2
M3
M4
6.0e+3
5.5e+3
5.0e+3
4.5e+3
4.0e+3
3.5e+3
3.0e+3
2.5e+3
2.0e+3
1.5e+3
1.0e+3
5.0e+2
70 min.
80
90
100
Well: 2017-030
Depth: 3.20-3.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186979
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
231.12±0.0660: 6.142e+3

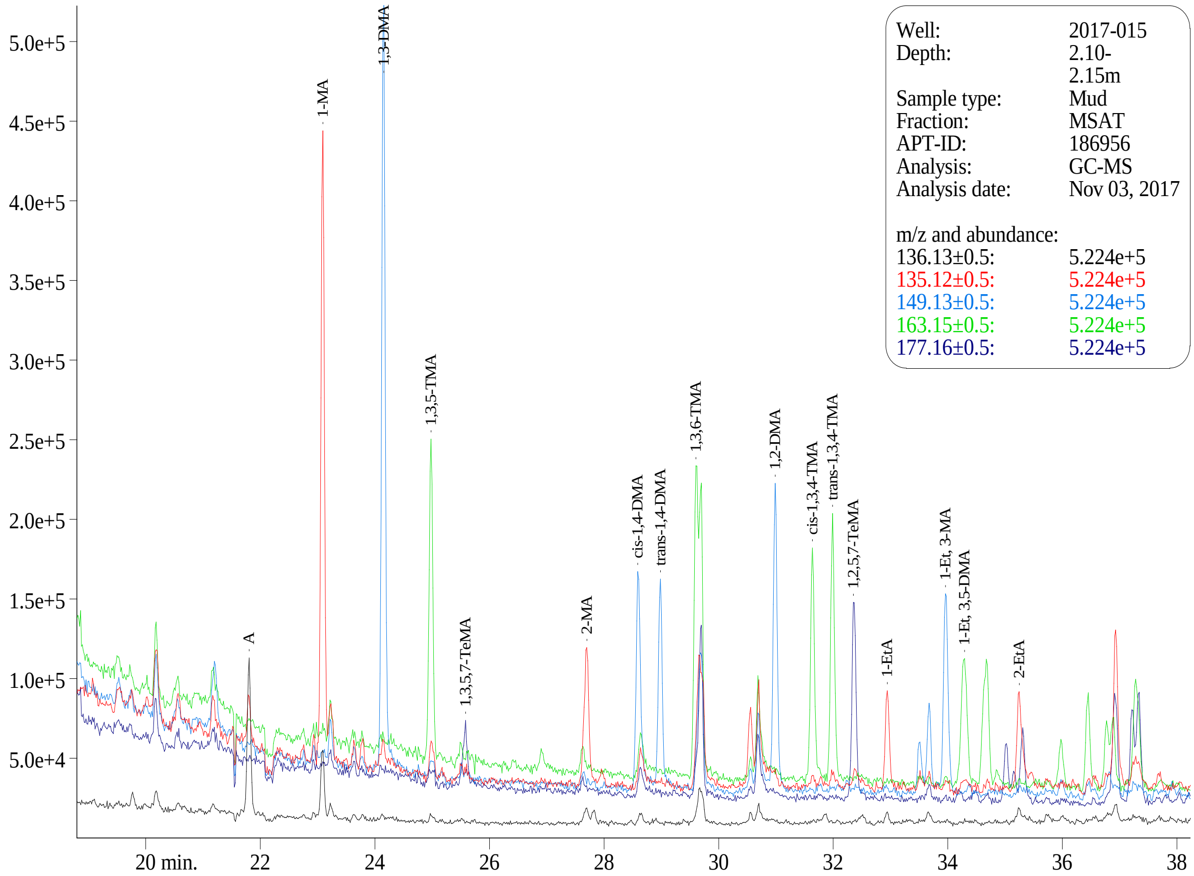

Well: 2017-030
Depth: 3.20-3.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186979
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
245.1330±0.0700: 1.589e+3
1.4e+3
1.2e+3
1.0e+3
8.0e+2
6.0e+2
4.0e+2
2.0e+2
84 min.
86
88
90
92
94
96
98
100
3MS-TA
4MS-TA
2,24DMS-TA
3,24DMS+3MR-TA
4,24DMS+4MR-TA
D1-TA
3M24ES-TA
D2-TA
4M24ES-TA
3,24DMR-TA
4,24DMR-TA
D3-TA
D4-TA
2M24ER-TA
3M24ER-TA
D5-TA
4M24ER-TA
D6-TA

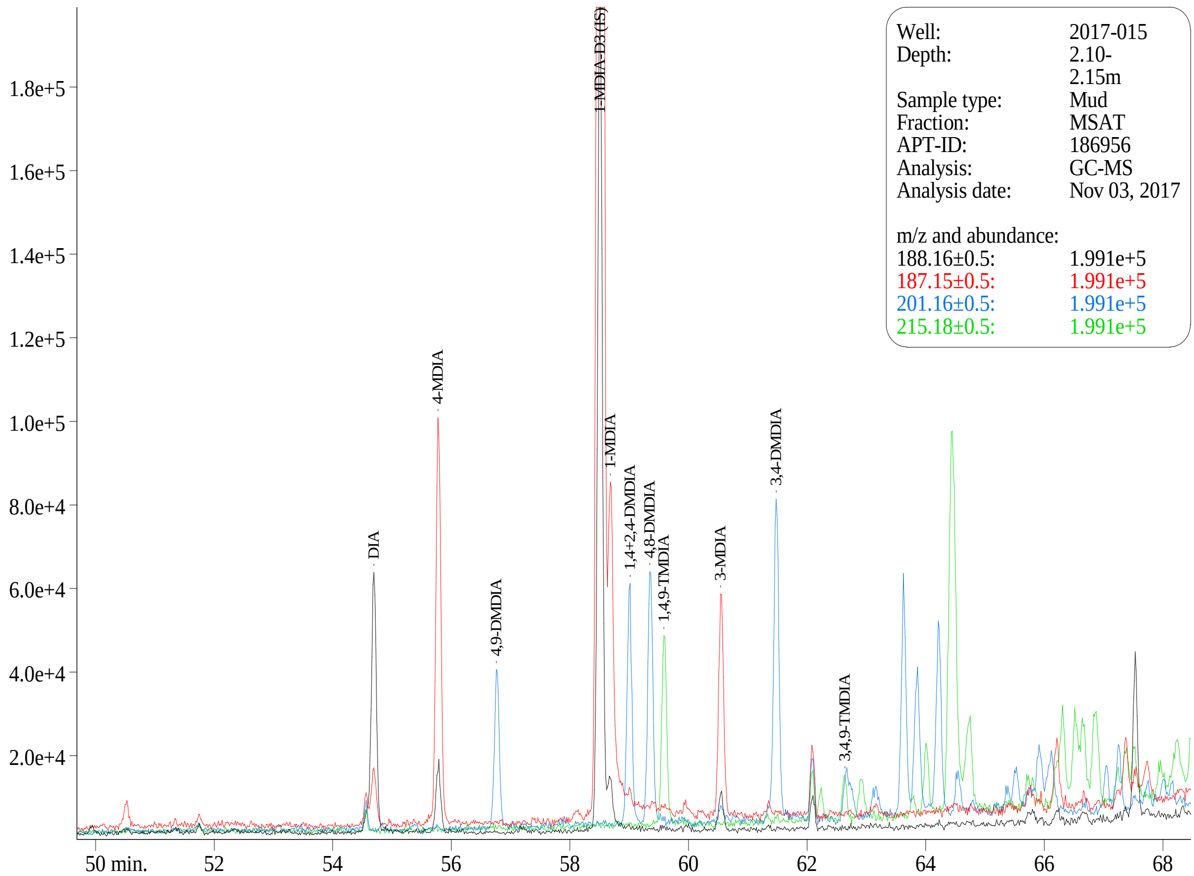

Well: 2017-030
Depth: 3.20-3.25m
Sample type: Mud
Fraction: MSAT+MARO
APT-ID: 186979
Analysis: GC-HRMS (DFS)
Analysis date: Oct 05, 2017
m/z and abundance:
253.20±0.0723: 3.591e+3
3.2e+3
2.8e+3
2.4e+3
2.0e+3
1.6e+3
1.2e+3
8.0e+2
4.0e+2
60 min.
70
80
90
C21MA
C22MA
bSC27MA
bSC27DMA
bRC27MA+bRC27DMA
aSC27MA
bSC28MA+bSC28DMA+aRC27DMA
aSC27DMA
bSC29MA+bSC29DMA
aSC29MA
aRC28MA+bRC29MA+bRC29DMA
aRC29MA

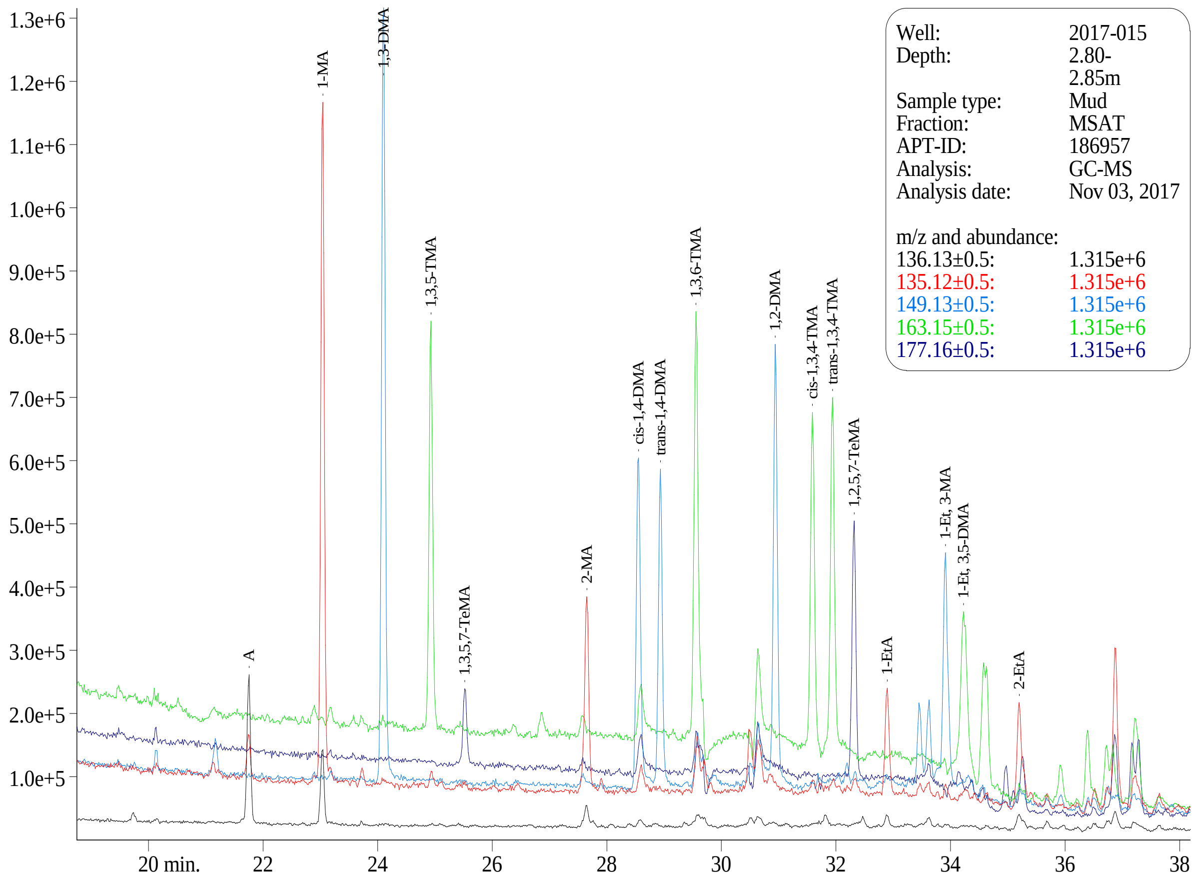
GC-MS Chromatograms of Diamandoids

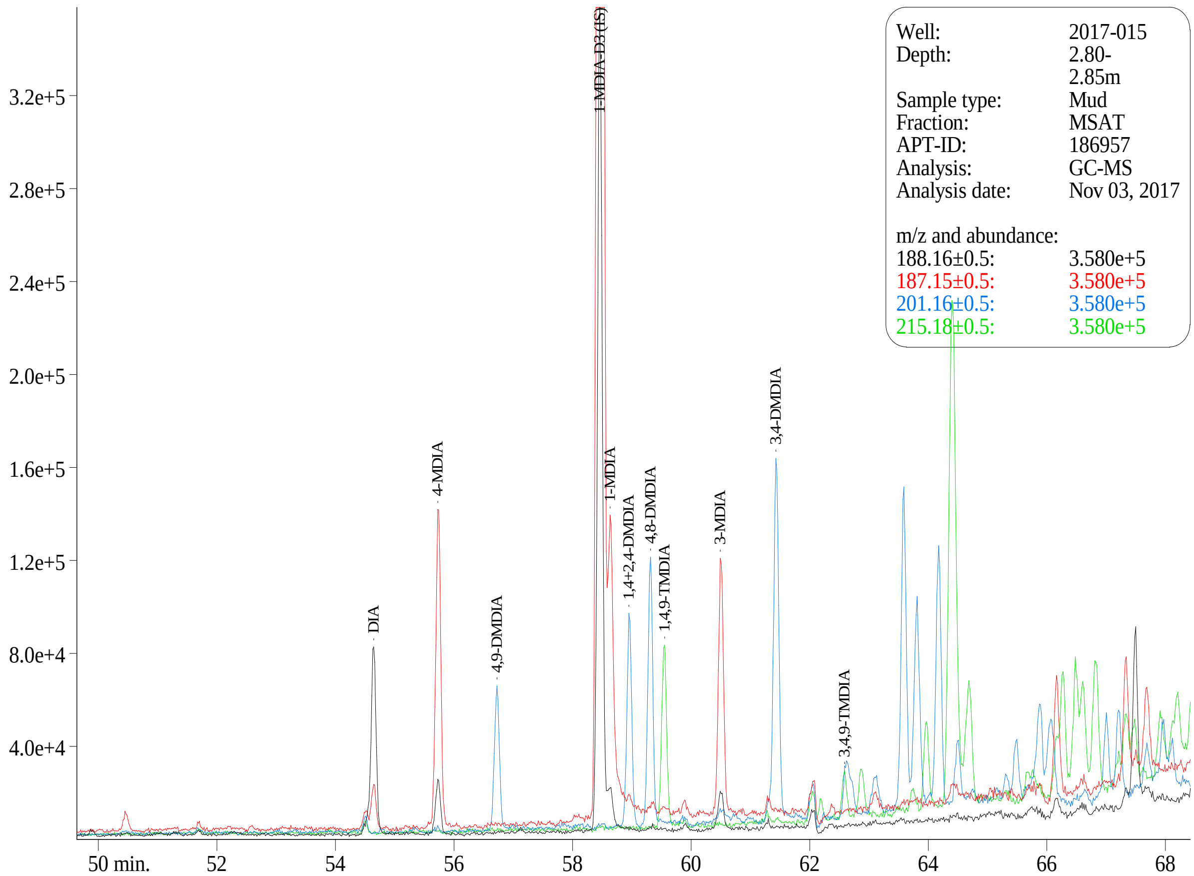

Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OSAT
APT-ID: 10042
Analysis: GC-MS
Analysis date: Nov 03, 2017
m/z and abundance:
136.13±0.5: 9.776e+6
135.12±0.5: 9.776e+6
149.13±0.5: 9.776e+6
163.15±0.5: 9.776e+6
177.16±0.5: 9.776e+6
A
1-MA
1,3-DMA
1,3,5-TMA
1,3,5,7-TeMA
2-MA
cis-1,4-DMA
trans-1,4-DMA
1,3,6-TMA
1,2-DMA
cis-1,3,4-TMA
trans-1,3,4-TMA
1,2,5,7-TeMA
1-EtA
1-Et, 3-MA
1-Et, 3,5-DMA
2-EtA
20 min.
22
24
26
28
30
32
34
36
38
9.0e+6
8.0e+6
7.0e+6
6.0e+6
5.0e+6
4.0e+6
3.0e+6
2.0e+6
1.0e+6

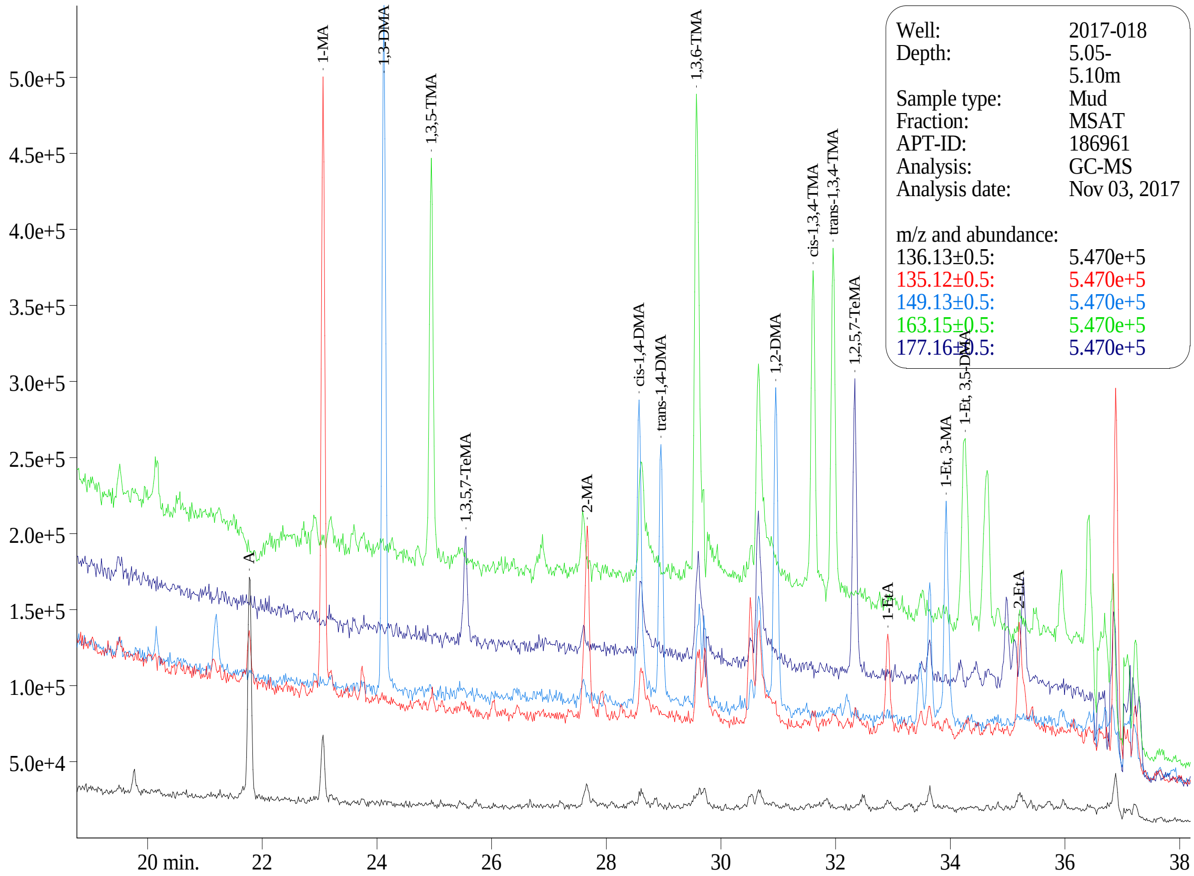

Sample: NSO-1
Depth: na
Sample type: Oil
Fraction: OSAT
APT-ID: 10042
Analysis: GC-MS
Analysis date: Nov 03, 2017
m/z and abundance:
188.16±0.5: 1.618e+6
187.15±0.5: 1.618e+6
201.16±0.5: 1.618e+6
215.18±0.5: 1.618e+6
DIA
4-MDIA
4,9-DMDIA
1-MDIA-D3(IS)
1-MDIA
1,4+2,4-DMDIA
4,8-DMDIA
1,4,9-TMDIA
3-MDIA
3,4-DMDIA
3,4,9-TMDIA
50 min.
52
54
56
58
60
62
64
66
68
1.6e+6
1.4e+6
1.2e+6
1.0e+6
8.0e+5
6.0e+5
4.0e+5
2.0e+5

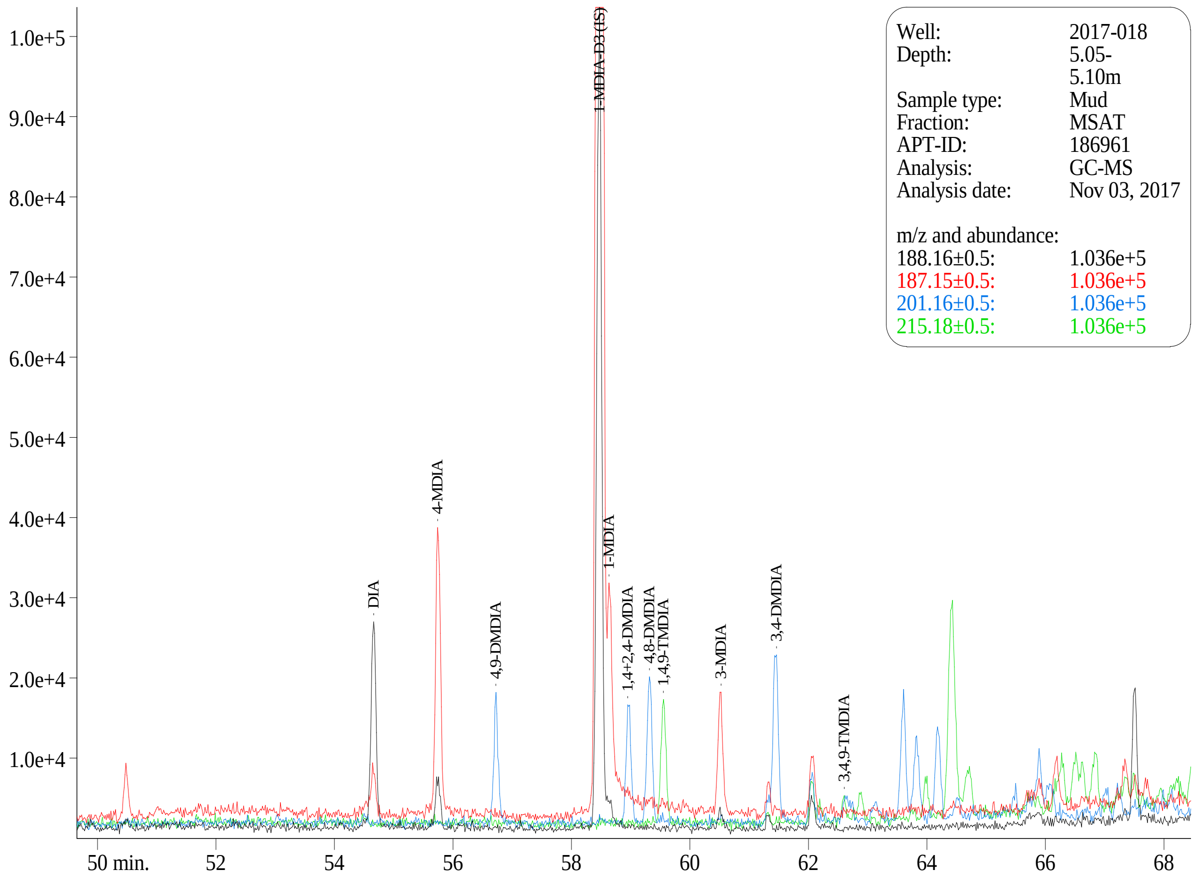

Well: 2017-015
Depth: 2.10-2.15m
Sample type: Mud
Fraction: MSAT
APT-ID: 186956
Analysis: GC-MS
Analysis date: Nov 03, 2017
m/z and abundance:
136.13±0.5: 5.224e+5
135.12±0.5: 5.224e+5
149.13±0.5: 5.224e+5
163.15±0.5: 5.224e+5
177.16±0.5: 5.224e+5
1-MA
1,3-DMA
1,3,5-TMA
1,3,5,7-TeMA
A
2-MA
cis-1,4-DMA
trans-1,4-DMA
1,3,6-TMA
1,2-DMA
cis-1,3,4-TMA
trans-1,3,4-TMA
1,2,5,7-TeMA
1-EtA
1-Et, 3-MA
1-Et, 3,5-DMA
2-EtA
20 min.
38

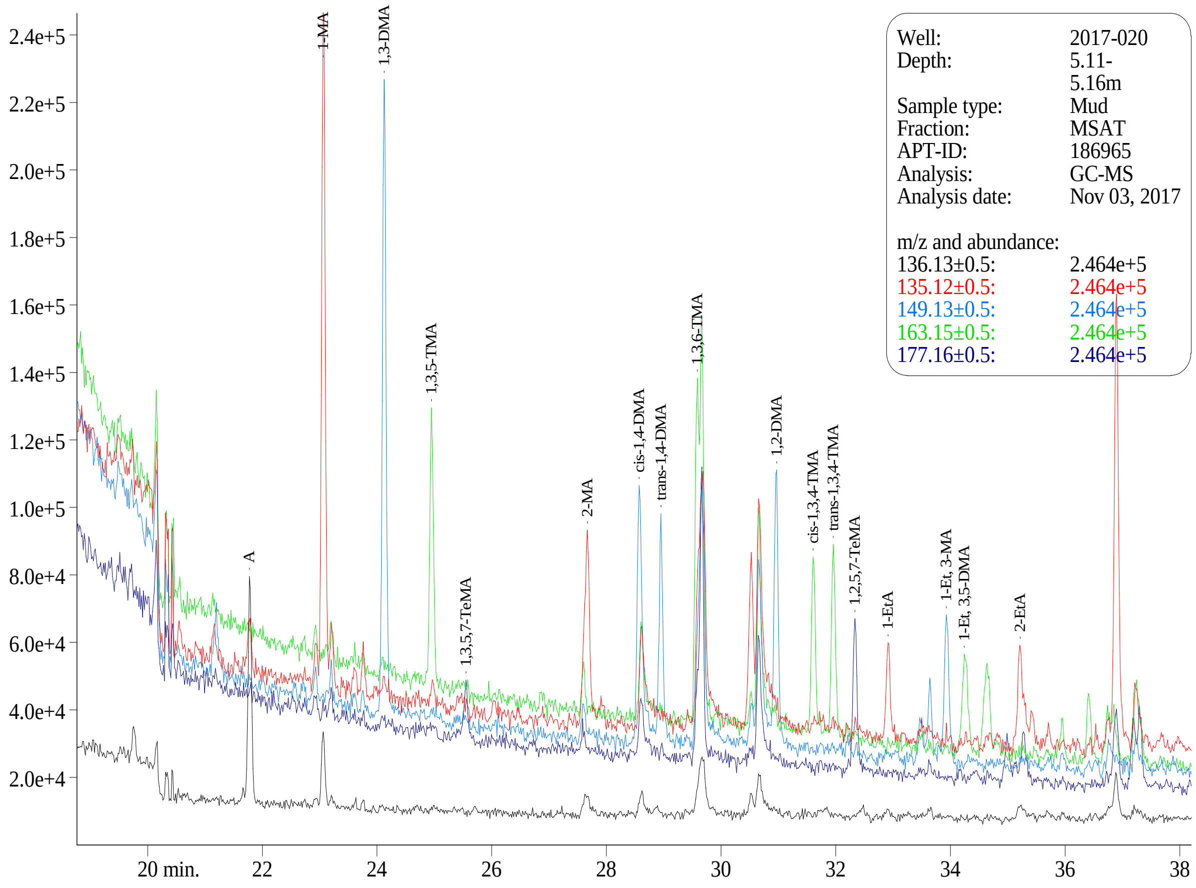

Well: 2017-015
Depth: 2.10-2.15m
Sample type: Mud
Fraction: MSAT
APT-ID: 186956
Analysis: GC-MS
Analysis date: Nov 03, 2017
m/z and abundance:
188.16±0.5: 1.991e+5
187.15±0.5: 1.991e+5
201.16±0.5: 1.991e+5
215.18±0.5: 1.991e+5
DIA
4-MDIA
4,9-DMDIA
1-MDIA-D3(IS)
1-MDIA
1,4+2,4-DMDIA
4,8-DMDIA
1,4,9-TMDIA
3-MDIA
3,4-DMDIA
3,4,9-TMDIA
50 min.
68


Well: 2017-015
Depth: 2.80-2.85m
Sample type: Mud
Fraction: MSAT
APT-ID: 186957
Analysis: GC-MS
Analysis date: Nov 03, 2017
m/z and abundance:
136.13±0.5: 1.315e+6
135.12±0.5: 1.315e+6
149.13±0.5: 1.315e+6
163.15±0.5: 1.315e+6
177.16±0.5: 1.315e+6
A
1-MA
1,3-DMA
1,3,5-TMA
1,3,5,7-TeMA
2-MA
cis-1,4-DMA
trans-1,4-DMA
1,3,6-TMA
1,2-DMA
cis-1,3,4-TMA
trans-1,3,4-TMA
1,2,5,7-TeMA
1-EtA
1-Et, 3-MA
1-Et, 3,5-DMA
2-EtA
1.3e+6
1.2e+6
1.1e+6
1.0e+6
9.0e+5
8.0e+5
7.0e+5
6.0e+5
5.0e+5
4.0e+5
3.0e+5
2.0e+5
1.0e+5
20 min.
22
24
26
28
30
32
34
36
38

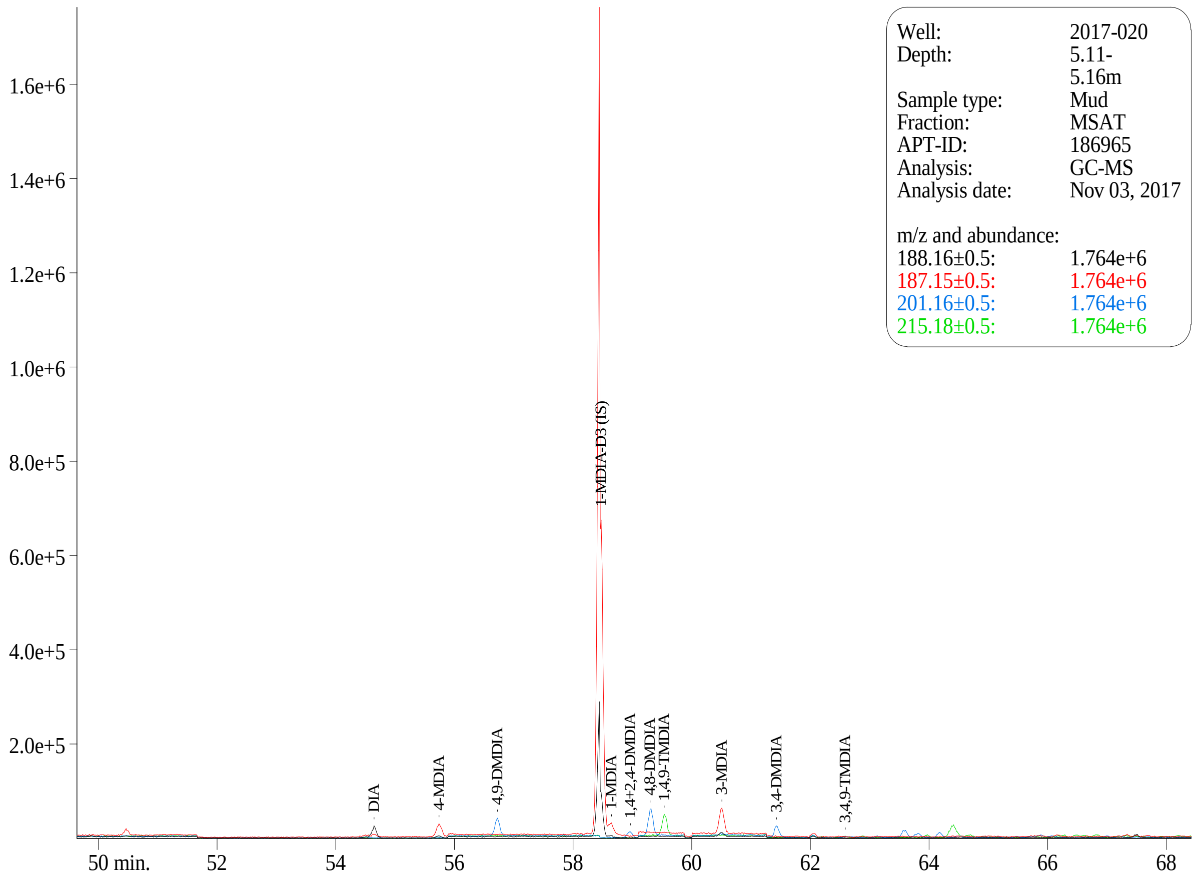

Well: 2017-015
Depth: 2.80-2.85m
Sample type: Mud
Fraction: MSAT
APT-ID: 186957
Analysis: GC-MS
Analysis date: Nov 03, 2017
m/z and abundance:
188.16±0.5: 3.580e+5
187.15±0.5: 3.580e+5
201.16±0.5: 3.580e+5
215.18±0.5: 3.580e+5
DIA
4-MDIA
4,9-DMDIA
1-MDIA-D3(IS)
1-MDIA
1,4+2,4-DMDIA
4,8-DMDIA
1,4,9-TMDIA
3-MDIA
3,4-DMDIA
3,4,9-TMDIA
3.2e+5
2.8e+5
2.4e+5
2.0e+5
1.6e+5
1.2e+5
8.0e+4
4.0e+4
50 min.
52
54
56
58
60
62
64
66
68


Well: 2017-018
Depth: 5.05-5.10m
Sample type: Mud
Fraction: MSAT
APT-ID: 186961
Analysis: GC-MS
Analysis date: Nov 03, 2017
m/z and abundance:
136.13±0.5: 5.470e+5
135.12±0.5: 5.470e+5
149.13±0.5: 5.470e+5
163.15±0.5: 5.470e+5
177.16±0.5: 5.470e+5
A
1-MA
1,3-DMA
1,3,5-TMA
1,3,5,7-TeMA
2-MA
cis-1,4-DMA
trans-1,4-DMA
1,3,6-TMA
1,2-DMA
cis-1,3,4-TMA
trans-1,3,4-TMA
1,2,5,7-TeMA
1-EtA
1-Et, 3-MA
1-Et, 3,5-DMA
2-EtA
20 min.
22
24
26
28
30
32
34
36
38


Well: 2017-018
Depth: 5.05-5.10m
Sample type: Mud
Fraction: MSAT
APT-ID: 186961
Analysis: GC-MS
Analysis date: Nov 03, 2017
m/z and abundance:
188.16±0.5: 1.036e+5
187.15±0.5: 1.036e+5
201.16±0.5: 1.036e+5
215.18±0.5: 1.036e+5
DIA
4-MDIA
4,9-DMDIA
1-MDIA-D3(IS)
1-MDIA
1,4+2,4-DMDIA
4,8-DMDIA
1,4,9-TMDIA
3-MDIA
3,4-DMDIA
3,4,9-TMDIA
50 min.
52
54
56
58
60
62
64
66
68



2.4e+5
2.2e+5
2.0e+5
1.8e+5
1.6e+5
1.4e+5
1.2e+5
1.0e+5
8.0e+4
6.0e+4
4.0e+4
2.0e+4
20 min.
22
24
26
28
30
32
34
36
38
A
1-MA
1,3-DMA
1,3,5-TMA
1,3,5,7-TeMA
2-MA
cis-1,4-DMA
trans-1,4-DMA
1,3,6-TMA
1,2-DMA
cis-1,3,4-TMA
trans-1,3,4-TMA
1,2,5,7-TeMA
1-EtA
1-Et, 3-MA
1-Et, 3,5-DMA
2-EtA
Well: 2017-020
Depth: 5.11-5.16m
Sample type: Mud
Fraction: MSAT
APT-ID: 186965
Analysis: GC-MS
Analysis date: Nov 03, 2017
m/z and abundance:
136.13±0.5: 2.464e+5
135.12±0.5: 2.464e+5
149.13±0.5: 2.464e+5
163.15±0.5: 2.464e+5
177.16±0.5: 2.464e+5



1.6e+6
1.4e+6
1.2e+6
1.0e+6
8.0e+5
6.0e+5
4.0e+5
2.0e+5
50 min.
52
54
56
58
60
62
64
66
68
DIA
4-MDIA
4,9-DMDIA
1-MDIA-D3 (IS)
1-MDIA
1,4+2,4-DMDIA
4,8-DMDIA
1,4,9-TMDIA
3-MDIA
3,4-DMDIA
3,4,9-TMDIA
Well: 2017-020
Depth: 5.11-5.16m
Sample type: Mud
Fraction: MSAT
APT-ID: 186965
Analysis: GC-MS
Analysis date: Nov 03, 2017
m/z and abundance:
188.16±0.5: 1.764e+6
187.15±0.5: 1.764e+6
201.16±0.5: 1.764e+6
215.18±0.5: 1.764e+6

Experimental Procedures

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

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

Quantitative MPLC 3 fractions
The MPLC is constructed as described by Radke et al. (1980). The system includes two HPLC pumps, sample injector, sample collector and two packed columns. The pre column is filled with Kieselgel 100, which is heated at 600 °C for 2 hours to deactivate it. The main column, a LiChroprep Si60 column, is heated at 120 °C for 2 hours with a helium flow to make it water free.
Approximately 30 mg of deasphaltened oil or EOM diluted in 1 ml hexane is injected into a sample loop. The solvents used are hexane and dichloromethane.

Fraction 1 - Saturates
Hexane through the sample loop, the pre column and the main column is collected until all saturates are collected.

Fraction 2 – Aromatics A
Hexane that back flushes the main column is collected.

Fraction 3 – Polars (NSO-fraction)
Dichloromethane that back flushes the pre column is collected.

Solvents from all fractions are removed until the total volum is 1 ml by using a Turbovap unit. The fractions are transferred to small pre weight vials and dried carefully. Then the weights are measured.

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 Agilent 7890 RGA GC equipped with Molsieve and Poraplot Q columns, a flame ionisation detector (FID) and 2 thermal conductivity detector (TCD). Hydrocarbons were measured by FID. H_2, CO_2, N_2 and O_2/Ar by TCD.

Stable carbon isotope analysis of fractions
The samples were dissolved in a known amount of dichloromethane, and 0.2 mg of the sample (or as much as possible) was transferred to a 6x8mm tin capsule. The solvent was evaporated in an oven at 50 °C. The samples were then combusted in a EuroVector Elemental Analyser EA3028-IRMS at 1700 °C. The produced water is trapped on $Mg(ClO_4)_2$ and the CO_2 is flushed into a Horizon, Isotope Ratio mass spectrometer (IRMS) from NU-Instruments. A standard (NGS NSO-1, topped oil) is analysed for each 10th sample. The $\delta^{13}C$ value obtained for this standard is –28.61‰ VPDB. The variation in the isotopic values for the standard by repeated analysis over a period of three years is ± 0.09‰.

GC of EOM fraction
A HP7890 A instrument is used. The column is a CP-Sil-5 CB-MS, length 30 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-MS of saturated and aromatic fractions
A Thermo Scientific DFS 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_4-27ααR is used as internal standard when quantitative results are requested for the saturated compounds. D_8-Naphthalene, D_{10}-Biphenyl , D_{10}-Phenanthrene and D_{12}- Chrysene are used as internal standards when quantitative results are required for the aromatic compounds. The aromatic and aliphatic fractions may be analysed together or separately.

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

GCMS of Diamandoids in saturated fractions
A Thermo Scientific TSQ Quantum XLS instrument is used. The instrument is tuned to a resolution of 0.4 mass units 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_{16}-Adamantane and D_3-1-Methyl-Diamantane are used as internal standards when quantitative results are required.

Temperature programme
50 °C (1 min.) - 3 °C/min. - 230 °C - 15 °C/min - 325 °C (20 min.)