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# Geochemical characterisation of the reservoir interval of well 6608/10-6

## TEK-F&T1090

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# 1 INTRODUCTION

This report presents the results of a detailed geochemical characterisation of core samples from the reservoir interval of the 6608/10-6 (Svale) oil discovery well, drilled offshore mid-Norway (Figure 1).

A total of fifty core samples were collected and analysed specifically for this study. Additionally, data for the three MDT oils and thirteen core samples have been included from the standard geochemical well study (Statoil, 2000). As coring of the reservoir ceased before the oil-water contact was reached (for technical reasons), four cuttings samples from sandstone intervals below the cored interval were also analysed. All of the core and cuttings samples were analysed by Rock-Eval pyrolysis, solvent extraction, MPLC fractionation and saturated hydrocarbon GC. A selection of the extracts were further characterised using Iatroscan, aromatic hydrocarbon GC, and GC-MS and carbon isotope analyses of the saturates and aromatics fractions. The wireline fluids were analysed in the same way as the rock extracts. The total numbers of analyses included in the study are as follows:

| Analysis | Oil | Core | Cuttings | Total |
|---|---|---|---|---|
| Sample preparation | | 63 | 4 | 67 |
| Rock-Eval | | 63 | 4 | 67 |
| Solvent extraction | | 67 | 4 | 71 |
| Whole oil/extract GC | 3 | 4 | | 7 |
| Asphaltene precipitation | 3 | 63 | 4 | 70 |
| MPLC separation | 3 | 63 | 4 | 70 |
| Iatroscan | 3 | 14 | | 17 |
| Saturates GC | 3 | 63 | 4 | 70 |
| Aromatic GC | 3 | 14 | | 17 |
| Saturates GC-MS | 3 | 18 | 2 | 23 |
| Aromatic GC-MS | 3 | 14 | | 17 |
| Carbon isotopes | 3 | 18 | 2 | 23 |

Full details of the analyses carried out on a sample-by-sample basis are presented in Table 1. The analyses were all carried out by Geolab Nor a.s. in accordance with the guidelines given in "The Norwegian Industry Guide to Organic Geochemical Analyses, 3rd edition (1993)". The analytical data are presented in Appendix 1.

| Sample Depth | Sample Type | Lithology Description | Rock-Eval | Solvent Extraction | MPLC | Iatroscan | Saturate GC | Aromatic GC | Saturate GC-MS | Aromatic GC-MS | Carbon Isotopes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1826.7 | Oil | | | | y | y | y | y | y | y | y |
| 1827.35 | Core | x | x | x | x | x | x | x | x | x | x |
| 1830.52 | Core | y | y | y | y | | y | | | | |
| 1832.98 | Core | x | x | x | x | | x | | | | |
| 1839.32 | Core | x | x | x | x | | x | | | | |
| 1843.34 | Core | x | x | x | x | | x | | | | |
| 1844.97 | Core | y | y | y | y | | y | | y | | y |
| 1846.98 | Core | x | x | x | x | | x | | | | |
| 1849.86 | Core | x | x | x | x | | x | | | | |
| 1851.57 | Core | x | x | x | x | | x | | | | |
| 1853.16 | Core | y | y | y | y | | y | | | | |
| 1855.80 | Core | x | x | x | x | x | x | x | x | x | x |
| 1864.70 | Core | x | x | x | x | | x | | | | |
| 1865.98 | Core | x | x | x | x | | x | | | | |
| 1867.30 | Core | y | y | y | y | x | y | x | y | x | y |
| 1869.52 | Core | x | x | x | x | | x | | | | |
| 1871.54 | Core | y | y | y | y | | y | | | | |
| 1873.52 | Core | x | x | x | x | | x | | | | |
| 1875.60 | Core | x | x | x | x | x | x | x | x | x | x |
| 1878.64 | Core | x | x | x | x | | x | | | | |
| 1881.00 | Core | x | x | x | x | | x | | | | |
| 1883.90 | Core | y | y | y | y | | y | | y | | y |
| 1885.00 | Core | | | y | | | | | | | |
| 1885.98 | Core | x | x | x | x | | x | | | | |
| 1888.00 | Core | x | x | x | x | | x | | | | |
| 1890.00 | Core | x | x | x | x | x | x | x | x | x | x |
| 1892.48 | Core | y | y | y | y | x | y | x | x | x | x |
| 1897.00 | Core | x | x | x | x | | x | | | | |
| 1901.20 | Core | x | x | x | x | x | x | x | x | x | x |
| 1903.72 | Core | x | x | x | x | | x | | | | |
| 1907.14 | Core | x | x | x | x | | x | | | | |
| 1909.25 | Core | x | x | x | x | | x | | | | |
| 1910.5 | Oil | | | | y | y | y | y | y | y | y |
| 1911.75 | Core | x | x | x | x | x | x | x | x | x | x |
| 1913.90 | Core | y | y | y | y | | y | | | | |

Table 1 Geochemical analytical programme

| Formation | Sample Depth | Sample Type | Lithology Description | Rock-Eval | Solvent Extraction | MPLC | Iatroscan | Saturate GC | Aromatic GC | Saturate GC-MS | Aromatic GC-MS | Carbon Isotopes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1915.75 | Core | x | x | x | x | | x | | | | |
| | 1917.42 | Core | x | x | x | x | | x | | | | |
| | 1918.00 | Core | | | y | | | | | | | |
| | 1919.45 | Core | x | x | x | x | | x | | | | |
| | 1921.00 | Core | x | x | x | x | | x | | | | |
| | 1922.80 | Core | y | y | y | y | | y | | y | | y |
| | 1923.66 | Core | x | x | x | x | | x | | | | |
| | 1924.65 | Core | y | y | y | y | x | y | x | y | x | y |
| | 1925.00 | Core | | | y | | | | | | | |
| | 1926.00 | Core | x | x | x | x | | x | | | | |
| | 1928.00 | Core | x | x | x | x | | x | | | | |
| | 1930.52 | Core | x | x | x | x | | x | | | | |
| | 1932.90 | Core | x | x | x | x | | x | | | | |
| | 1934.70 | Core | x | x | x | x | | x | | | | |
| | 1936.75 | Core | x | x | x | x | | x | | | | |
| | 1938.60 | Core | x | x | x | x | x | x | x | x | x | x |
| | 1940.5 | Oil | | | | y | y | y | y | y | y | y |
| | 1941.09 | Core | x | x | x | x | | x | | | | |
| | 1943.00 | Core | | | y | | | | | | | |
| | 1943.50 | Core | x | x | x | x | | x | | | | |
| | 1945.97 | Core | x | x | x | x | | x | | | | |
| | 1947.00 | Core | x | x | x | x | | x | | | | |
| | 1949.52 | Core | y | y | y | y | x | y | x | y | x | y |
| | 1951.76 | Core | x | x | x | x | | x | | | | |
| | 1953.00 | Core | x | x | x | x | | x | | | | |
| | 1957.96 | Core | x | x | x | x | x | x | x | x | x | x |
| | 1959.68 | Core | x | x | x | x | x | x | x | x | x | x |
| | 1960.14 | Core | x | x | x | x | | x | | | | |
| | 1960.67 | Core | y | y | y | y | | y | | | | |
| | 1963.00 | Core | x | x | x | x | | x | | | | |
| | 1965.60 | Core | x | x | x | x | | x | | | | |
| | 1967.24 | Core | x | x | x | x | | x | | | | |
| | 1969.51 | Core | x | x | x | x | | x | | | | |
| | 1970.81 | Core | y | y | y | y | | y | | y | | y |
| | 1971.33 | Core | x | x | x | x | x | x | x | x | x | x |

Table 1 Geochemical analytical programme

| Formation | Sample Depth | Sample Type | Lithology Description | Rock-Eval | Solvent Extraction | MPLC | Iatroscan | Saturate GC | Aromatic GC | Saturate GC-MS | Aromatic GC-MS | Carbon Isotopes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1986 | Ctgs (pick) | y | x | x | x | | x | | x | | x |
| | 1992 | Ctgs (pick) | y | x | x | x | | x | | | | |
| | 2001 | Ctgs (pick) | y | x | x | x | | x | | x | | x |
| | 2040 | Ctgs (pick) | x | x | x | x | | x | | | | |
| Totals | | | 67 | 67 | 71 | 70 | 17 | 70 | 17 | 23 | 17 | 23 |

x denotes analyses carried out during this study
y denotes analyses carried out during the standard well study

Table 1 Geochemical analytical programme

| Depth (m MDRT) | 22S | TSTM | TTX | 30D | 30AB-HOP | 28AB | TRICY | TETRACY | 35H_34H | 29H_30H | DEMET | GAMMA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Oil samples | | | | | | | | | | | | |
| 1826.7 | 0.62 | 0.87 | 1.14 | 0.08 | 0.91 | 0.09 | 0.09 | 0.09 | 0.71 | 0.47 | 0.07 | 0.00 |
| 1910.5 | 0.62 | 0.89 | 1.14 | 0.08 | 0.91 | 0.10 | 0.09 | 0.09 | 0.64 | 0.49 | 0.09 | 0.00 |
| 1940.5 | 0.62 | 0.91 | 1.14 | 0.08 | 0.91 | 0.09 | 0.09 | 0.09 | 0.66 | 0.48 | 0.08 | 0.00 |
| Core samples | | | | | | | | | | | | |
| 1827.35 | 0.63 | 0.94 | 1.25 | 0.09 | 0.91 | 0.10 | 0.09 | 0.09 | 0.65 | 0.51 | 0.08 | 0.02 |
| 1844.97 | 0.63 | 0.94 | 1.21 | 0.09 | 0.91 | 0.10 | 0.10 | 0.10 | 0.63 | 0.50 | 0.10 | 0.02 |
| 1855.80 | 0.61 | 0.91 | 1.30 | 0.09 | 0.90 | 0.10 | 0.06 | 0.07 | 0.68 | 0.50 | 0.08 | 0.06 |
| 1867.30 | 0.62 | 0.91 | 1.23 | 0.09 | 0.91 | 0.10 | 0.10 | 0.10 | 0.63 | 0.51 | 0.10 | 0.03 |
| 1875.60 | 0.61 | 0.90 | 1.22 | 0.09 | 0.91 | 0.10 | 0.09 | 0.10 | 0.64 | 0.50 | 0.09 | 0.00 |
| 1883.90 | 0.61 | 0.93 | 1.16 | 0.08 | 0.91 | 0.10 | 0.08 | 0.09 | 0.67 | 0.48 | 0.09 | 0.02 |
| 1890.00 | 0.60 | 0.92 | 1.26 | 0.09 | 0.90 | 0.11 | 0.10 | 0.11 | 0.66 | 0.51 | 0.10 | 0.00 |
| 1892.48 | 0.61 | 0.91 | 1.18 | 0.09 | 0.91 | 0.11 | 0.09 | 0.10 | 0.68 | 0.51 | 0.09 | 0.00 |
| 1901.20 | 0.61 | 0.94 | 1.19 | 0.09 | 0.91 | 0.11 | 0.09 | 0.10 | 0.68 | 0.52 | 0.10 | 0.00 |
| 1911.75 | 0.60 | 0.93 | 1.35 | 0.10 | 0.89 | 0.10 | 0.06 | 0.07 | 0.69 | 0.49 | 0.10 | 0.03 |
| 1922.80 | 0.60 | 0.95 | 1.23 | 0.09 | 0.90 | 0.10 | 0.09 | 0.10 | 0.66 | 0.51 | 0.10 | 0.03 |
| 1924.65 | 0.61 | 0.93 | 1.20 | 0.09 | 0.91 | 0.10 | 0.09 | 0.09 | 0.66 | 0.49 | 0.10 | 0.03 |
| 1938.60 | 0.60 | 0.92 | 1.24 | 0.10 | 0.90 | 0.11 | 0.06 | 0.07 | 0.68 | 0.50 | 0.10 | 0.03 |
| 1949.52 | 0.62 | 0.94 | 1.23 | 0.09 | 0.91 | 0.10 | 0.09 | 0.09 | 0.64 | 0.50 | 0.09 | 0.03 |
| 1957.96 | 0.61 | 0.90 | 1.22 | 0.10 | 0.91 | 0.11 | 0.10 | 0.10 | 0.67 | 0.50 | 0.10 | 0.03 |
| 1959.68 | 0.60 | 0.97 | 1.21 | 0.09 | 0.90 | 0.11 | 0.10 | 0.10 | 0.66 | 0.53 | 0.12 | 0.03 |
| 1970.81 | 0.61 | 0.90 | 1.21 | 0.09 | 0.90 | 0.11 | 0.09 | 0.10 | 0.66 | 0.53 | 0.10 | 0.03 |
| 1971.33 | 0.61 | 0.92 | 1.18 | 0.09 | 0.91 | 0.11 | 0.08 | 0.09 | 0.66 | 0.52 | 0.09 | 0.03 |
| Cuttings sampl | | | | | | | | | | | | |
| 1986 | 0.58 | 0.78 | 0.69 | 0.08 | 0.89 | 0.12 | 0.09 | 0.12 | 0.62 | 0.55 | 0.09 | 0.04 |
| 2001 | 0.44 | 0.64 | 0.31 | 0.08 | 0.84 | 0.55 | 0.06 | 0.08 | 0.68 | 0.56 | 0.09 | 0.08 |

Table 2 Saturated hydrocarbon biomarker ratios (terpanes)

| Depth (m MDRT) | 20S | BB | C27BB | C28BB | C29BB | C30BB | DIAST |
|---|---|---|---|---|---|---|---|
| Oil samples | | | | | | | |
| 1826.7 | 0.49 | 0.65 | 33 | 28 | 38 | 0.10 | 2.09 |
| 1910.5 | 0.49 | 0.65 | 31 | 27 | 42 | 0.11 | 1.97 |
| 1940.5 | 0.49 | 0.66 | 32 | 28 | 40 | 0.10 | 2.08 |
| Core samples | | | | | | | |
| 1827.35 | 0.47 | 0.60 | 35 | 29 | 36 | 0.09 | 2.16 |
| 1844.97 | 0.47 | 0.59 | 36 | 30 | 34 | 0.09 | 2.34 |
| 1855.80 | 0.45 | 0.58 | 32 | 28 | 41 | 0.11 | 1.93 |
| 1867.30 | 0.47 | 0.61 | 34 | 28 | 38 | 0.10 | 2.24 |
| 1875.60 | 0.47 | 0.61 | 35 | 27 | 38 | 0.10 | 2.21 |
| 1883.90 | 0.48 | 0.61 | 35 | 27 | 38 | 0.10 | 2.22 |
| 1890.00 | 0.48 | 0.61 | 34 | 27 | 38 | 0.10 | 2.36 |
| 1892.48 | 0.48 | 0.61 | 34 | 27 | 39 | 0.10 | 2.24 |
| 1901.20 | 0.48 | 0.61 | 33 | 27 | 39 | 0.10 | 2.37 |
| 1911.75 | 0.46 | 0.58 | 32 | 28 | 39 | 0.11 | 1.96 |
| 1922.80 | 0.48 | 0.61 | 34 | 27 | 39 | 0.10 | 2.27 |
| 1924.65 | 0.48 | 0.61 | 33 | 27 | 39 | 0.10 | 2.26 |
| 1938.60 | 0.47 | 0.60 | 32 | 27 | 41 | 0.11 | 1.97 |
| 1949.52 | 0.47 | 0.60 | 34 | 28 | 38 | 0.10 | 2.26 |
| 1957.96 | 0.48 | 0.61 | 34 | 27 | 39 | 0.10 | 2.23 |
| 1959.68 | 0.49 | 0.61 | 34 | 28 | 39 | 0.10 | 2.31 |
| 1970.81 | 0.47 | 0.61 | 33 | 27 | 39 | 0.10 | 2.17 |
| 1971.33 | 0.48 | 0.62 | 34 | 27 | 39 | 0.10 | 2.39 |
| Cuttings samples | | | | | | | |
| 1986 | 0.41 | 0.59 | 34 | 27 | 39 | 0.10 | 2.02 |
| 2001 | 0.28 | 0.57 | 25 | 26 | 48 | 0.17 | 0.95 |

Table 3 Saturated hydrocarbon biomarker ratios (steranes)

**Derivation of biomarker ratios reported in Tables 2 and 3**

| Ratio | Derivation | m/z |
|---|---|---|
| Triterpanes | | |
| 22S | 32αβS/(32αβS+32αβR) | 191 |
| TSTM | 27Ts/27Tm | 191 |
| TTX | 30d/29βα | 191 |
| 30D | 30d/30αβ | 191 |
| 29H_30H | 29αβ/30αβ | 191 |
| 30AB–HOP | 30αβ/(30αβ+30βα) | 191 |
| C28AB | 28αβ/30αβ | 191 |
| TRICY | (23/3)/30αβ | 191 |
| TETRACY | (24/4)/30αβ | 191 |
| 35H_34H | (35αβR+35αβS)/(34αβR+34αβS) | 191 |
| DEMET | 25nor30αβ/30αβ | 191 |
| OLEANAN | 30O/30αβ | 191 |
| GAMMA | 30G/30αβ | 191 |
| PPMH* | ppm 27Ts+27Tm+29αβ+29βα+30αβ+30βα+31αβS+31αβR+32αβS+32αβR+33αβS+33αβR +34αβS+34αβR+35αβS+35αβR | 191 |
| Steranes | | |
| 20S | 29ααS/(29ααR+29ααS) | 217 |
| BB | (29ββR+29βββS)/(29ββR+29βββS+29ααR+29ααS) | 217 |
| C27BB | 100*(27ββR+27βββS)/(27ββR+27βββS+28ββR+28βββS+29ββR+29βββS) | 218 |
| C28BB | 100*(28ββR+28βββS)/(27ββR+27βββS+28ββR+28βββS+29ββR+29βββS) | 218 |
| C29BB | 100*(29ββR+29βββS)/(27ββR+27βββS+28ββR+28βββS+29ββR+29βββS) | 218 |
| C30BB | (30ββR+30βββS)/(27ββR+27βββS+28ββR+28βββS+29ββR+29βββS) | 218 |
| DIAST | (27dβR+27dβS)/(27ααR+27ααS) | 217 |
| PPMS* | ppm 27ββR+27βββS+28ββR+28βββS+29ββR+29βββS | 218 |
| HOPST | Intensities(27Ts+27Tm+29αβ+29βα+30αβ+30βα+31αβS+31αβR+32αβS+32αβR+33αβS+33αβR+34αβS+34αβR +35αβS+35αβR)/Intensities(27ββR+27βββS+28ββR+28βββS+29ββR+29βββS) | |

* ppm calculated from comparison with m/z 219 intensity for D2-cholestane

**Biomarker codes used in derivation of ratios**

| Compound name | Old code | NEW CODE |
|---|---|---|
| Triterpanes | | |
| $C_{23}H_{42}$ tricyclic terpane | P | 23/3 |
| $C_{24}H_{44}$ tricyclic terpane | Q | 24/3 |
| $C_{25}H_{46}$ tricyclic terpane[1] | R | 25/3 |
| $C_{24}H_{42}$ tetracyclic terpane | S | 24/4 |
| $C_{26}H_{48}$ tricyclic terpane[2] | T | 26/3 |
| 18α(H)-22,29,30-trisnorneohopane | 27A | 27Ts |
| 17α(H)-22,29,30-trisnorhopane | 27B | 27Tm |
| 17α(H), 21β(H)-25,28,30-trisnorhopane | | 25nor28αβ |
| 17α(H), 21β(H)-28,30-bisnorhopane | 28A | 28αβ |
| 17α(H), 21β(H)-25-norhopane | | 25nor30αβ[3] |
| 17α(H), 21β(H)-30-norhopane | C29A | 29αβ |
| 18α(H)-30-nomeohopane | | 29Ts |
| 15α-methyl-17α(H)-27-norhopane (TtX) | X | 30D |
| 17β(H), 21α(H)-30-norhopane (normoretane) | C29B | 29βα |
| 18α(H)-oleanane | | 30O |
| 17α(H), 21β(H)-hopane | C30A | 30αβ |
| 17β(H), 21α(H)-hopane (moretane) | C30B | 30βα |
| Gammacerane | | 30G |
| 17α(H), 21β(H), 22(S)-homohopane | C31S | 31αβS |
| 17α(H), 21β(H), 22(R)-homohopane | C31R | 31αβR |
| 17α(H), 21β(H), 22(S)-bishomohopane | C32S | 32αβS |
| 17α(H), 21β(H), 22(R)-bishomohopane | C32R | 32αβR |
| 17α(H), 21β(H), 22(S)-trishomohopane | C33S | 33αβS |
| 17α(H), 21β(H), 22(R)-trishomohopane | C33R | 33αβR |
| 17α(H), 21β(H), 22(S)-tetrakishomohopane | C34S | 34αβS |
| 17α(H), 21β(H), 22(R)-tetrakishomohopane | C34R | 34αβR |
| 17α(H), 21β(H), 22(S)-pentakishomohopane | C35S | 35αβS |
| 17α(H), 21β(H), 22(R)-pentakishomohopane | C35R | 35αβR |

1 may be broad peak or doublet  2 may be doublet  3 listed in Statoil spreadsheats as "nor30" for convenience

Steranes

| | | |
|---|---|---|
| 13β(H), 17α(H), 20(S)-cholestane (diasterane) | 27a | 27dβS |
| 13β(H), 17α(H), 20(R)-cholestane (diasterane) | 27b | 27dβR |
| 13α(H), 17β(H), 20(R)-cholestane (diasterane) | 27c | 27dαR |
| 13α(H), 17β(H), 20(S)-cholestane (diasterane) | 27d | 27dαS |
| 5α(H), 14α(H), 17α(H), 20(S)-cholestane | 27e | 27ααS |
| 5α(H), 14β(H), 17β(H), 20(R)-cholestane | 27f | 27ββR |
| 5α(H), 14β(H), 17β(H), 20(S)-cholestane | 27g | 27ββS |
| 5α(H), 14α(H), 17α(H), 20(R)-cholestane | 27h | 27ααR |
| 24-methyl-13β(H), 17α(H), 20(S)-cholestane (diasterane) | 28a | 28dβS |
| 24-methyl-13β(H), 17α(H), 20(R)-cholestane (diasterane) | 28b | 28dβR |
| 24-methyl-13α(H), 17β(H), 20(R)-cholestane (diasterane) | 28c | 28dαR |
| 24-methyl-13α(H), 17β(H), 20(S)-cholestane (diasterane) | 28d | 28dαS |
| 24-methyl-5α(H), 14α(H), 17α(H), 20(S)-cholestane | 28e | 28ααS |
| 24-methyl-5α(H), 14β(H), 17β(H), 20(R)-cholestane | 28f | 28ββR |
| 24-methyl-5α(H), 14β(H), 17β(H), 20(S)-cholestane | 28g | 28ββS |
| 24-methyl-5α(H), 14α(H), 17α(H), 20(R)-cholestane | 28h | 28ααR |
| 24-ethyl-13β(H), 17α(H), 20(S)-cholestane (diasterane) | 29a | 29dβS |
| 24-ethyl-13β(H), 17α(H), 20(R)-cholestane (diasterane) | 29b | 29dβR |
| 24-ethyl-13α(H), 17β(H), 20(R)-cholestane (diasterane) | 29c | 29dαR |
| 24-ethyl-13α(H), 17β(H), 20(S)-cholestane (diasterane) | 29d | 29dαS |
| 24-ethyl-5α(H), 14α(H), 17α(H), 20(S)-cholestane | 29e | 29ααS |
| 24-ethyl-5α(H), 14β(H), 17β(H), 20(R)-cholestane | 29f | 29ββR |
| 24-ethyl-5α(H), 14β(H), 17β(H), 20(S)-cholestane | 29g | 29ββS |
| 24-ethyl-5α(H), 14α(H), 17α(H), 20(R)-cholestane | 29h | 29ααR |
| 24-propyl-5α(H), 14α(H), 17α(H), 20(S)-cholestane | 30e | 30ααS |
| 24-propyl-5α(H), 14β(H), 17β(H), 20(R)-cholestane | 30f | 30ββR |
| 24-propyl-5α(H), 14β(H), 17β(H), 20(S)-cholestane | 30g | 30ββS |
| 24-propyl-5α(H), 14α(H), 17α(H), 20(R)-cholestane | 30h | 30ααR |
| 4-methyl-14α(H), 17α(H)-cholestanes | | M28αα |
| 4,24-dimethyl-14α(H), 17α(H)-cholestanes | | M29αα |
| 4-methyl-24-ethyl-14α(H), 17α(H)-cholestanes | | M30αα |
| 4,23,24-trimethyl-14α(H), 17α(H)-cholestanes (dinosteranes) | | M30D |

| Depth (m MDRT) | Arom1 | Arom2 | Crack1 | Crack2 |
|---|---|---|---|---|
| Oil samples | | | | |
| 1826.7 | 0.66 | 0.57 | 0.58 | 0.34 |
| 1910.5 | 0.67 | 0.59 | 0.59 | 0.35 |
| 1940.5 | 0.68 | 0.59 | 0.57 | 0.34 |
| Core samples | | | | |
| 1827.35 | 0.61 | 0.58 | 0.57 | 0.33 |
| 1855.80 | 0.65 | 0.58 | 0.60 | 0.34 |
| 1867.30 | 0.71 | 0.61 | 0.60 | 0.35 |
| 1875.60 | 0.67 | 0.58 | 0.58 | 0.35 |
| 1890.00 | 0.65 | 0.58 | 0.62 | 0.35 |
| 1892.48 | 0.67 | 0.57 | 0.58 | 0.34 |
| 1901.20 | 0.66 | 0.58 | 0.62 | 0.36 |
| 1911.75 | 0.66 | 0.59 | 0.60 | 0.35 |
| 1924.65 | 0.69 | 0.60 | 0.57 | 0.34 |
| 1938.60 | 0.66 | 0.59 | 0.61 | 0.36 |
| 1949.52 | 0.67 | 0.59 | 0.60 | 0.36 |
| 1957.96 | 0.67 | 0.59 | 0.60 | 0.36 |
| 1959.68 | 0.69 | 0.57 | 0.57 | 0.34 |
| 1971.33 | 0.65 | 0.57 | 0.59 | 0.35 |

Table 4 Aromatic hydrocarbon biomarker ratios

**Derivation of aromatic steroid ratios reported in Table 4**

Arom 1 = g1/((g1+H1b+I1) - (I1*f1/g1))

Arom 2 = (a1+b1+c1+d1+e1+f1+g1)/(a1+b1+c1+d1+e1+f1+g1+A1+B1+C1+D1+E1+F1+G1+H1+I1)

Crack 1 = a1/(a1+g1)

Crack 2 = (a1+b1)/(a1+b1+c1+d1+e1+f1+g1)

N.B. H1b refers to second eluting (split) peak of doublet corresponding to H1 in standard figure

**Codes for aromatic steroids**

ABC-RING TRIAROMATIC STEROID HYDROCARBONS (m/z 231)

| | Substituents | | |
|---|---|---|---|
| Peak | $R_1$ | $R_2$ | Abbreviation of Compound |
| a1 | $CH_3$ | H | $C_{20}TA$ |
| b1 | $CH_3$ | $CH_3$ | $C_{21}TA$ |
| c1 | $S(CH_3)$ | $C_6H_{13}$ | $SC_{26}TA$ |
| d1 | $R(CH_3)$ | $C_6H_{13}$ | $RC_{26}TA$ |
| | $S(CH_3)$ | $C_7H_{15}$ | $SC_{27}TA$ |
| e1 | $S(CH_3)$ | $C_8H_{17}$ | $SC_{28}TA$ |
| f1 | $R(CH_3)$ | $C_7H_{15}$ | $RC_{27}TA$ |
| g1 | $R(CH_3)$ | $C_8H_{17}$ | $RC_{28}TA$ |

C-RING MONOAROMATIC STEROID HYDROCARBONS (m/z 253)

| Peak | Substituents $R_1$ | $R_2$ | $R_3$ | $R_4$ | Abbreviation of Compound |
|---|---|---|---|---|---|
| A1 | | | | | $C_{21}M$ |
| B1 | | | | | $C_{22}MA$ |
| C1 | β(H) | $CH_3$ | S($CH_3$) | H | β$SC_{27}MA$ |
| | β($CH_3$) | H | S($CH_3$) | H | β$SC_{27}DMA$ |
| D1 | β($CH_3$) | H | R($CH_3$) | H | β$RC_{27}DMA$ |
| | β(H) | $CH_3$ | R($CH_3$) | H | β$RC_{27}MA$ |
| | α(H) | $CH_3$ | S($CH_3$) | H | α$SC_{27}MA$ |
| E1 | β(H) | $CH_3$ | S($CH_3$) | $CH_3$ | β$SC_{28}MA$ |
| | α($CH_3$) | H | R($CH_3$) | H | α$RC_{27}DMA$ |
| | β($CH_3$) | H | S($CH_3$) | $CH_3$ | β$SC_{28}DMA$ |
| F1 | α($CH_3$) | H | S($CH_3$) | $CH_3$ | α$SC_{27}DMA$ |
| | α(H) | $CH_3$ | R($CH_3$) | H | α$RC_{27}MA$ |
| | α(H) | $CH_3$ | S($CH_3$) | $CH_3$ | α$SC_{28}MA$ |
| G1 | β(H) | $CH_3$ | R($CH_3$) | $CH_3$ | β$RC_{28}MA$ |
| | β($CH_3$) | H | R($CH_3$) | $CH_3$ | β$RC_{28}DMA$ |
| | β(H) | $CH_3$ | S($CH_3$) | $C_2H_5$ | β$SC_{29}MA$ |
| | β$CH_3$ | H | S($CH_3$) | $C_2H_5$ | β$SC_{29}DMA$ |
| | α(H) | $CH_3$ | S($CH_3$) | $C_2H_5$ | α$SC_{29}MA$ |
| | α(H) | $CH_3$ | R($CH_3$) | $CH_3$ | α$RC_{28}MA$ |
| H1 | β(H) | $CH_3$ | R($CH_3$) | $C_2H_5$ | β$RC_{29}MA$ |
| | β$CH_3$ | H | R($CH_3$) | $C_2H_5$ | β$RC_{29}DMA$ |
| I1 | α(H) | $CH_3$ | R($CH_3$) | $C_2H_5$ | α$RC_{29}MA$ |

*N.B. Not all possible DMA isomers are marked (rarely present in geological samples)*

# GEOCHEMICAL DATA REPORT


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TITLE

# WELL 6608/10-6, Detailed Reservoir Characterisation

AUTHOR(S)

Peter Barry Hall

| GEOLAB PROJECT NO. | DATE |
|---|---|
| 60433 | 16/11/00 |
| PROJECT MANAGER | QA RESPONSIBLE |
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| REPORT NO./FILE | PAGE |
| | 1 of 1 |

# CONTENTS

## Comments

Included in this report are tabulated data, EOM GC's, saturated hydrocarbon GC's and GC-MS fragmentograms of sandstones analysed for the standard well study (G2000-31) on this well NOCS 6608/10-6. These are marked by the sign § in the Analytical Table 1 (instead of x). These data have been integrated into the tables, whereas the GCs andfragmentograms have been added to the back of each appendix.

The well was drilled with a glycol-based mud.
Analysed cuttings sand/sandstone samples contain traces of carbargillites.

# APPENDICES

## A. Rock samples

### Appendix 1: TABLES



### Appendix 2: GAS CHROMATOGRAMS



### Appendix 3: GAS CHROMATOGRAPHY – MASS SPECTROMETRY FRAGMENTOGRAMS

B. Oils and Gases

## Appendix 1: TABLES



## Appendix 2: GAS CHROMATOGRAMS



## Appendix 3: GAS CHROMATOGRAPHY – MASS SPECTROMETRY FRAGMENTOGRAMS



## Appendix 4: GAS COMPOSITION AND STABLE CARBON ISOTOPE COMPOSITION (IFE REPORT)

## Abbreviations

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

| | |
|---|---|
| ang | = angular |
| bar | = Baryte (mud additive) |
| bit | = bituminous |
| bl | = blue/blueish |
| blk | = black |
| br | = brittle |
| brn | = brown/brownish |
| Ca | = Carbonate (limestone/chalk/dolomite/siderite) |
| calc | = calcareous |
| carb | = carbonaceous |
| cem | = cement used as additive (under "cont") or to describe cemented S/Sst |
| Chert | = Chert |
| chk | = Chalk/chalky |
| cly | = clayey/shaly |
| cngl | = conglomeratic |
| Coal | = Coal |
| Coal-ad | = Coal-like additive (e.g. chromlignosulfonate) |
| Congl | = Conglomerat |
| Cont | = Contamination(s) |
| crs | = coarse grained |
| dd | = dried drilling mud |
| dol | = Dolomite/dolomitic |
| drk | = dark (colour) |
| dsk | = dusk/dusky (colour) |
| evap | = Salt/Gypsum/Halite (natural "Other" or as additive "Cont" |
| f | = fine grained |
| fe | = ferruginous |
| fib | = fibres (mud additive/contamination) |
| fis | = fissile |
| fos | = fossiliferous |
| glauc | = glauconite/glauconitic |
| gn | = green/greenish |
| gy | = grey/greyish |
| hd | = hard |
| ign | = Igneous (material derived from igneous source) |
| Kaolin | = Kaolin(ite) |
| kln | = kaolinitic |
| l | = loose |
| lam | = laminated/laminae |
| lt | = light (colour) |
| m | = medium (colour or grain size) |
| Marl | = Marl (calcareous claystone/mudstone) |
| mic | = micaceous |
| Mica-ad | = Mica used as mud additive |
| mrl | = marly |

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

# Experimental

## Total Organic Carbon (TOC) and Total Carbon Analysis

This analysis is performed using a LECO CS244 Carbon Analyser. Hand-picked lithologies from cuttings samples are crushed with a mortar and pestle and approximately 200 mg (50 mg for coals) are accurately weighed into LECO crucibles. The samples are then treated three times with 10 % hydrochloric acid to remove oxidized (carbonate) carbon, and washed four times with distilled water. The samples are dried on a hotplate at 60 - 70°C before analysis of total organic carbon.

## Rock-Eval Pyrolysis

This analysis was performed using a Rock-Eval 6 Pyrolyser. Approximately 100 mg crushed whole rock is analysed. The sample is first heated at 325°C for three min to release the free hydrocarbons present (S1 peak) and then pyrolysed by increasing the temperature from 300°C to 600°C (temp. gradient 25°C/min) (S2 peak). Both the S1 and S2 yields are measured using a flame ionization detector (FID).

## Iatroscan

Saturates, aromatics and polars are qualitatively and quantitatively assessed using Iatroscan TLC-FID and employing Chromarod S-III rods. Deasphaltened EOM was dissolved in DCM/MeOH. 1-3 µl of the solution is spotted on the pre-activated rods, using an auto-spotter. The rods are developed in n-hexane (35 mins), followed by toluene (13 mins) with 2 mins air-drying between every stage. The developed rods are introduced in a 60°C oven for 90 seconds. The rods are analysed using Iatroscan and the data collected and processed using Multichrom data system.

## Pyrolysis - Gas Chromatography

The instrument used for this analysis is a Varian 3400 Gas Chromatograph interfaced to a pyrolysis oven (the pyrolyser). Up to 15 mg of whole rock sample is loaded on the pyrolyser and heated isothermally, at 300°C, for 4 min, during which time thermal extraction of the free hydrocarbons occurs (equivalent to the S1 peak of the Rock-Eval). After 4 min the pyrolysis oven is temperature programmed up to 530°C, at a rate of 37°C/min, causing bound hydrocarbons to be released from the kerogen (equivalent to the $S_2$ peak of the Rock-Eval). The released gases pass to a 25 m OV1 column with a liquid nitrogen-cooled trap. The

temperature program of the gas chromatograph oven, in which the columns are housed is -10°C to 290°C at a rate of 6°C/min. Only the pyrolysate was analysed

**Whole Oil - Gas Chromatography**

The instrument used for this analysis is a Perkin-Elmer XL Automatic gas chromatograph fitted with a split injector and a Chrompack CP SIL-5 CB 50m capillary column connected to an FID. Approximately 0.2-0.4 microlitres of whole oil are injected and the temperature program on the chromatograph runs from –10°C to 300°C at 4°C/min.

**Solvent Extraction (EOM)**

Rock samples are extracted using a Tecator Soxtec HT-System. Carefully weighed samples are taken in a pre-extracted thimble. Some activated copper is added to the extraction cup and dichloromethane/methanol (93/7) is used as an extraction solvent. The samples are boiled for 1 hour and then rinsed for 2 hours. If the samples contain more than 10 % TOC, then the whole procedure is repeated once. The resulting solution is transferred to a flask and the solvent removed by rotary evaporation (200 mb, 30°C). The amount of EOM is gravimetrically established. Mud samples were extracted with several aliquots of DCM by shaking in a separatory funnel.

**Removal of Asphaltenes**

The EOM is dissolved in n-pentane in a flask to precipitate the asphaltenes by ultrasonic bath for 3 min. The solution is then stored in the dark and at ambient temperature for at least 8 hours. The solution is then filtered (Baker 10-spe system) and the precipitated asphaltenes returned to the original flask by dissolution in dichloromethane. The solvent is removed by rotary evaporation at 200 millibars and 30°C.

**Chromatographic Separation of deasphaltened EOM**

Chromatographic separation is performed using an MPLC system developed by the company. The EOM (minus asphaltenes) is injected into the MPLC and separated using hexane as an eluent. The saturated and aromatic hydrocarbon fractions are collected and the solvent removed using a rotary evaporator at 30°C. The fractions are then transferred to small pre-weighed vials and evaporated to dryness overnight. The vials are re-weighed to obtain the weights of both the saturated and the aromatic fractions. The weight of the NSO fraction which is retained on the column, is obtained by weight difference.

## Gas Chromatographic Analyses

*EOM:*

The instrument used for this analysis is a DANI 8510 Gas Chromatograph equipped with an FID detector and an OV1 (25m) column. The carrier gas is helium and the temperature program run from 80°C to 300°C at a rate of 4°C/min.. Final hold time is 20 mins.. The EOM is diluted by 1:30 and a 1 microlitre aliquot of this is injected into the instrument.

*Saturated hydrocarbon fractions:*

The instrument used for this analysis is a DANI 8510 Gas Chromatograph equipped with an FID detector and an OV1 (25m) column. The carrier gas is helium and the temperature program run from 80°C to 300°C at a rate of 4°C/min.. Final hold time is 20 mins.. The saturated hydrocarbon fraction is diluted by 1:30 and a 1 microlitre aliquot of this is injected into the instrument.

*Aromatic hydrocarbon fractions:*

The instrument used is a Varian 3400 Gas Chromatograph with a 40 m SE-54 capillary column, split injector and a column splitter leading to FID and FPD detectors, which allows simultaneous analysis of co-eluting hydrocarbons and sulphur compounds. The carrier gas is helium and the temperature program runs from 40°C to 290°C at a rate of 4°C/min. Final hold time is 10 mins. The aromatic hydrocarbon fraction is diluted by 1:30 and a 1 microlitre aliquot of this is injected into the instrument.

## Visual Kerogen Misroscopy

Kerogen concentrates are obtained from samples prepared by HCl and HF digestion followed by zinc bromide flotation to remove pyrite and other heavy mineral residues. The cleaned concentrates are mounted on slides by smearing, these being analysed microscopically in transmitted white light and UV light (530 nm barrier filter) to determine the Spore Colour or Thermal Alteration Indices (SCI or TAI) and the colour and intensity of spore fluorescence. The spore colour index, backed by spore fluorescence, is used as an alternative maturity parameter to verify the results obtained from vitrinite reflectance.

## Vitrinite Reflectance Analysis

Samples to be analysed for vitrinite reflectance were sent to IFE for analysis

## Combined Gas Chromatography - Mass Spectrometry (GC-MS)

The GC-MS analyses are performed on a Autospec Ultima system interfaced to a Hewlett Packard 5890 gas chromatograph. The GC is fitted with a fused silica SE54 capillary column (40 m x 0.22 mm i.d.) directly into the ion source. Helium (12 psi) is used as carrier gas and the injections are performed in splitless mode. The GC oven is programmed from 45°C to 150°C at 35°C/min, at which point the programme rate is 2°C/min up to 310°C where the column is held isothermally for 15 min. For the aromatic hydrocarbons, the GC oven is programmed from 50°C to 310°C at 5°C/min. and held isothermally at 310°C for 15 min. The mass spectrometer is operated in electron impact (EI) mode at 70 eV electron energy, a trap current of 500 uA and a source temperature of 220°C. The instrument resolution used is 1500 (10 % value).

The data system used is a VG OPUS system. The samples are analysed in multiple ion detection mode (MID) at a scan cycle time of approximately 1.1 sec. Calculation of peak ratios is performed from peak heights in the appropriate mass fragmentograms.

### Saturated Fractions

#### *Terpanes*

The most commonly used fragment ions for detection of terpanes are m/z 177 for detection of demethylated hopanes or moretanes, m/z 191 for detection of tricyclic, tetracyclic- and pentacyclic terpanes and m/z 205 for methylated hopanes or moretanes.

#### *Steranes*

The most commonly used fragment ions for detection of steranes are m/z 259 for detection of rearranged steranes, m/z 217 for detection of rearranged and normal steranes and m/z 218 for detection of 14β(H) 17β(H) steranes. The m/z 231 fragment ion is used for detection of methyl steranes.

### Aromatic Fractions

#### *Naphthalenes*

Methyl naphthalenes are normally detected by the m/z 142 fragment ion, while $C_2$-naphthalenes are detected by m/z 156 and $C_3$-naphthalenes by m/z 170.

*Dibenzothiophenes*

The m/z 184 fragment ion is used to detect the dibenzothiophenes. The m/z 198 fragment ion is used for methyl-substituted dibenzothiophenes and dimethyl-substituted dibenzothiophenes respectively.

*Phenanthrenes*

Phenanthrene is detected using the m/z 178 fragment ion. Anthracene will, if present, also give a signal in the m/z 178 fragment ion. Methyl-substituted phenanthrenes give signals in the m/z 192 fragment ion.

*Aromatic Steranes*

Monoaromatic steranes are detected using the m/z 253 fragment ion, while the triaromatic steranes are detected using the m/z 231 fragment ion.

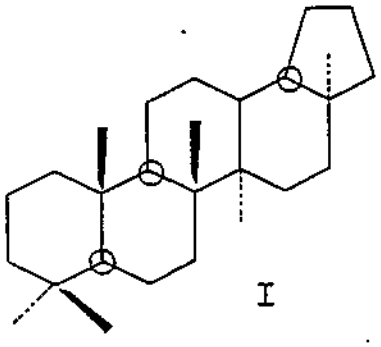
## Mass Fragmentograms representing Terpanes (m/z 163, 177, 191, 205, 370, 384, 398, 412 and 426)

Peak Identification: (α and β refer to hydrogen atoms at C-17 and C-21 respectively unless indicated otherwise).

| | | | |
|---|---|---|---|
| 27Ts | 18 α trisnorneohopane ($T_s$) | $C_{27}H_{44}$ | (I) |
| 27Tm | 17 α trisnorhopane ($T_m$) | $C_{27}H_{46}$ | (II, R=H) |
| 28αβ | Bisnorhopane | $C_{28}H_{48}$ | (IV) |
| 25nor30αβ* | norhopane | $C_{29}H_{50}$ | |
| 29αβ | αβ norhopane | $C_{29}H_{50}$ | (II, R=$C_2H_5$) |
| 29Ts | norneohopane | $C_{29}H_{50}$ | |
| 29βα | βα norhopane | $C_{29}H_{50}$ | (III, R=$C_2H_5$) |
| 30αβ | αβ hopane | $C_{30}H_{52}$ | (II, R=i-$C_3H_7$) |
| 30O | Oleanane | $C_{30}H_{52}$ | |
| 30βα | βα hopane | $C_{30}H_{52}$ | (III, R=i-$C_3H_7$) |
| 31αβS | 22Sαβ homohopane | $C_{31}H_{54}$ | (II, R=i-$C_4H_9$) |
| 31αβR | 22Rαβ homohopane | $C_{31}H_{54}$ | (II, R=i-$C_4H_9$) |
| 30G | gammacerane | $C_{30}H_{52}$ | |
| 31βα | βα homohopane | $C_{31}H_{54}$ | (III, R=i-$C_4H_9$) |
| 32αβS | 22Sαβ bishomohopane | $C_{32}H_{56}$ | (II, R=i-$C_5H_{11}$) |
| 32αβR | 22Rαβ bishomohopane | $C_{32}H_{56}$ | (II, R=i-$C_5H_{11}$) |
| 33αβS | 22Sαβ trishomohopane | $C_{33}H_{56}$ | (II, R=i-$C_5H_{11}$) |
| 33αβR | 22Rαβ trishomohopane | $C_{33}H_{58}$ | (II, R=i-$C_6H_{13}$) |
| 34αβS | 22Sαβ tetrakishomohopane | $C_{34}H_{60}$ | (II, R=i-$C_7H_{15}$) |
| 34αβR | 22Rαβ tetrakishomohopane | $C_{34}H_{60}$ | (II, R=i-$C_7H_{15}$) |
| 35αβS | 22Sαβ pentakishomohopane | $C_{35}H_{62}$ | (II, Ri-$C_8H_{17}$) |
| 35αβR | 22Rαβ pentakishomohopane | $C_{35}H_{62}$ | (II, R=i-$C_8H_{17}$) |
| 23/3 | Tricyclic terpane | $C_{23}H_{42}$ | (V, R=i-$C_4H_9$) |
| 24/3 | Tricyclic terpane | $C_{24}H_{44}$ | (V, R=i-$C_5H_{11}$) |
| 25/3 | Tricyclic terpane (17R, 17S) | $C_{25}H_{66}$ | (V, R=i-$C_6H_{13}$) |
| 24/4 | Tetracyclic terpane | $C_{24}H_{42}$ | (VI) |
| 26/3 | Tricyclic terpane (17R, 17S) | $C_{26}H_{48}$ | (V, R=i-$C_7H_{15}$) |
| 21/3 | Tricyclic terpane | $C_{21}H_{38}$ | (V, R=$C_2H_5$) |
| 22/3 | Tricyclic terpane | $C_{22}H_{40}$ | (V, R=$C_3H_7$) |
| 25nor28 * | 25,28,30-trisnorhopane/moretane | $C_{27}H_{46}$ | (VII) |
| 30d | diahopane | $C_{30}H_{52}$ | (VIII) |

* Also identified and quantified in m/z 177 fragmentograms

## STRUCTURES REPRESENTING TERPANES



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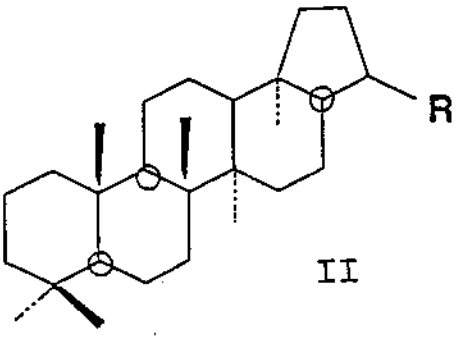
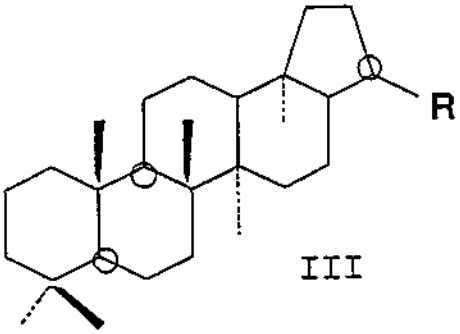



II

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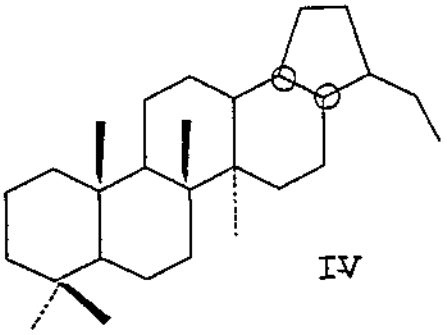

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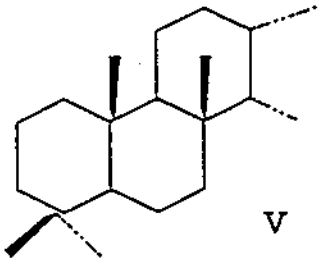

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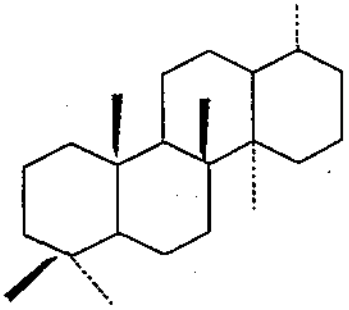

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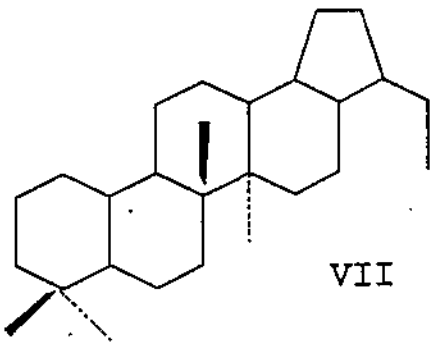


VII

## Mass Fragmentograms representing Steranes

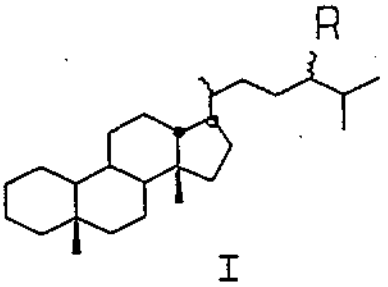
(m/z 149, 189, 217, 218, 259, 372, 386, 400 and 414)

Peak Identifications: α and β refer to hydrogen atoms at C-5, C-14 and C-17 in regular steranes and at C-13 and C-17 in diasteranes.

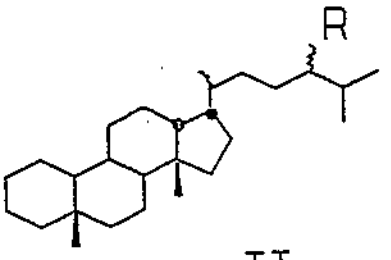
| | | | |
|---|---|---|---|
| 21α | 5α sterane | $C_{21}H_{36}$ | (VI, R=$C_2H_5$) |
| 22α | 5α sterane | $C_{22}H_{38}$ | (VI, R=$C_3H_7$) |
| 27dβS | 20S βα diacholestane | $C_{27}H_{48}$ | (I, R=H) |
| 27dβR | 20R βα diacholestane | $C_{27}H_{48}$ | (I, R=H) |
| 27dαR | 20R αβ diacholestane | $C_{27}H_{48}$ | (II, R=H) |
| 27dαS | 20S αβ diacholestane | $C_{27}H_{48}$ | (II, R=H) |
| 28dβS | 20S βα 24-methyl-diacholestane | $C_{28}H_{50}$ | (I, R=$CH_3$) |
| 28dβR | 20R βα 24-methyl-diacholestane | $C_{28}H_{50}$ | (I, R=$CH_3$) |
| 28dαR | 20R αβ 24-methyl-diacholestane | $C_{28}H_{50}$ | (II, R=$CH_3$) |
| 27ααS | + 20S ααα cholestane | $C_{27}H_{48}$ | (III, R=H) |
| 29dβS | 20S βα 24-ethyl-diacholestane | $C_{29}H_{52}$ | (II, R=$C_2H_5$) |
| 27ββR* | + 20R αββ cholestane | $C_{27}H_{48}$ | (IV, R=H) |
| 27ββS* | 20S αββ cholestane | $C_{27}H_{48}$ | (IV, R=H) |
| 28dαS | + 20S αβ 24-methyl-diacholestane | $C_{28}H_{50}$ | (II, R=$CH_3$) |
| 27ααR | 20R ααα cholestane | $C_{27}H_{48}$ | (III, R=H) |
| 29dβR | 20R βα 24-ethyl-diacholestane | $C_{29}H_{52}$ | (I, R=$C_2H_5$) |
| 29dαR | 20R αβ 24-ethyl-diacholestane | $C_{29}H_{52}$ | (II, R=$C_2H_5$) |
| 28ααS | 20S ααα 24-methyl-cholestane | $C_{28}H_{50}$ | (III, R=$CH_3$) |
| 28ββR* | 20R αββ 24-methyl-cholestane | $C_{28}H_{50}$ | (IV, R=$CH_3$) |
| 29dαS | + 20S αβ 24-ethyl-diacholestane | $C_{29}H_{52}$ | (II, R=$C_2H_5$) |
| 28ββS* | 20S αββ 24-methyl-cholestane | $C_{28}H_{50}$ | (IV, R=$CH_3$) |
| 28ααR | 20R ααα 24-methyl-cholestane | $C_{28}H_{50}$ | (III, R=$CH_3$) |
| 29ααS | 20S ααα 24-ethyl-cholestane | $C_{29}H_{52}$ | (III, R=$C_2H_5$) |
| 29ββR* | 20R αββ 24-ethyl-cholestane | $C_{29}H_{52}$ | (IV, R=$C_2H_5$) |
| 29ββS* | 20S αββ 24-ethyl-cholestane | $C_{29}H_{52}$ | (IV, R=$C_2H_5$) |
| 29ααR | 20R ααα 24-ethyl-cholestane | $C_{29}H_{52}$ | (III, R=$C_2H_5$) |
| M30αα | αα 4-methyl-24-ethyl-cholestane | $C_{30}H_{54}$ | |
| M30D | αα 4,23,24-trimethyl-cholestane | $C_{30}H_{54}$ | |
| 30ααS | 20S ααα 24-propyl-cholestane | $C_{30}H_{54}$ | (IV, R=$C_3H_7$) |
| 30ββR* | 20R αββ 24-propyl-cholestane | $C_{30}H_{54}$ | (V, R=$C_3H_7$) |
| 30ββS* | 20S αββ 24-propyl-cholestane | $C_{30}H_{54}$ | (IV, R=$C_3H_7$) |
| 30ααR | 20R ααα 24-propyl-cholestane | $C_{30}H_{54}$ | (IV, R=$C_3H_7$) |

* Compounds identified and quantified in m/z 218 fragmentograms

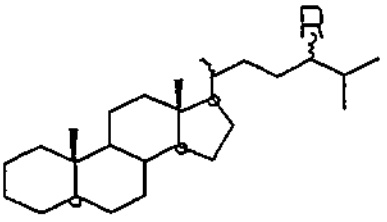
## STRUCTURES REPRESENTING STERANES



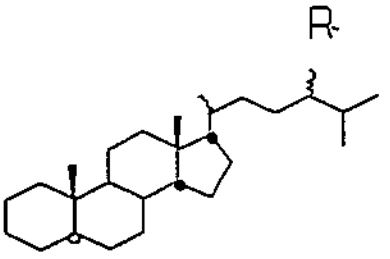

I



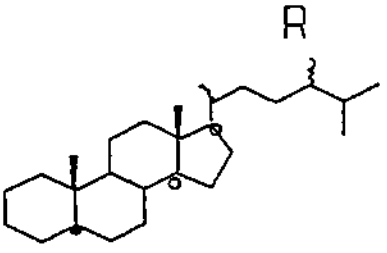

II



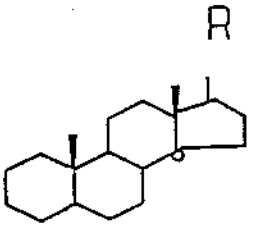

III




IV




V



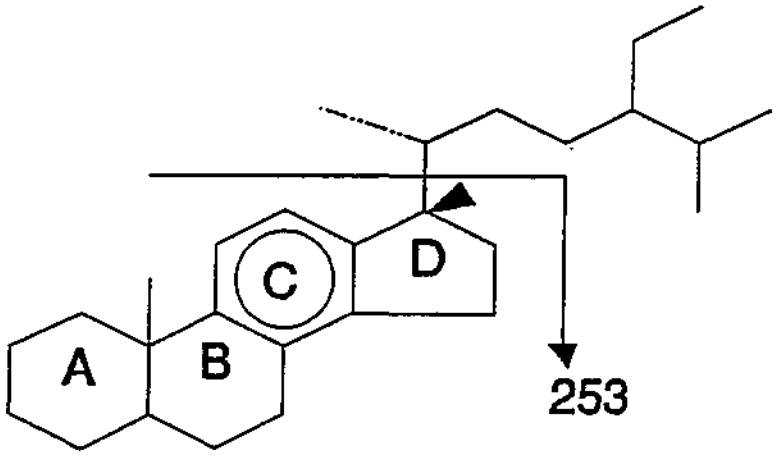

VI

## Mass Fragmentograms representing Monoaromatic Steranes (m/z 253)

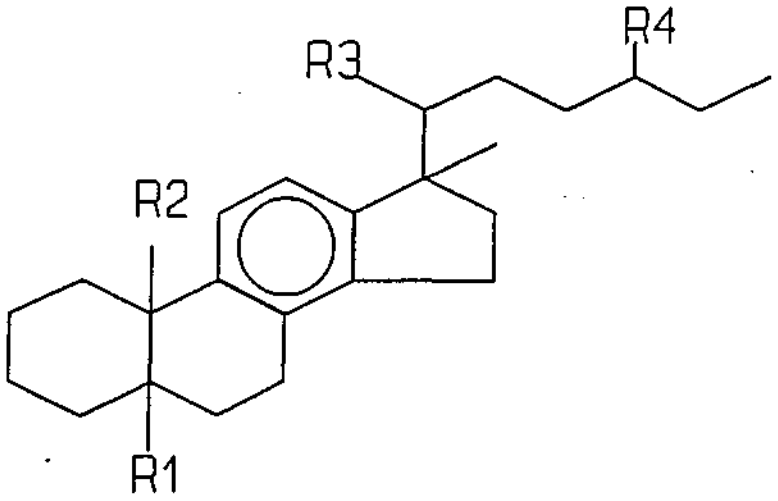
Description of C-ring monoaromatic steroid hydrocarbons

| Peak | Substituents $R_1$ | $R_2$ | $R_3$ | $R_4$ | Abbreviation of Compound |
|---|---|---|---|---|---|
| A1 | | | | | $C_{21}M$ |
| B1 | | | | | $C_{22}MA$ |
| C1 | β(H) | $CH_3$ | S($CH_3$) | H | β$SC_{27}MA$ |
| | β(H) | $CH_3$ | R($CH_3$) | H | β$RC_{27}MA$ |
| D1 | $CH_3$ | H | R($CH_3$) | H | $RC_{27}DMA$ |
| | α(H) | $CH_3$ | S($CH_3$) | H | α$SC_{27}MA$ |
| E1 | β(H) | $CH_3$ | S($CH_3$) | $CH_3$ | β$SC_{28}MA$ |
| | $CH_3$ | H | S($CH_3$) | $CH_3$ | $SC_{28}DMA$ |
| F1 | α(H) | $CH_3$ | R($CH_3$) | H | α$RC_{27}MA$ |
| | α(H) | $CH_3$ | S($CH_3$) | $CH_3$ | α$SC_{28}MA$ |
| | β(H) | $CH_3$ | R($CH_3$) | $CH_3$ | β$RC_{28}MA$ |
| G1 | $CH_3$ | H | R($CH_3$) | $CH_3$ | $RC_{28}DMA$ |
| | β(H) | $CH_3$ | S($CH_3$) | $C_2H_5$ | β$SC_{29}MA$ |
| | $CH_3$ | H | S($CH_3$) | $C_2H_5$ | $SC_{29}DMA$ |
| | α(H) | $CH_3$ | R($CH_3$) | $CH_3$ | α$RC_{28}MA$ |
| H1 | β(H) | $CH_3$ | R($CH_3$) | $C_2H_5$ | β$RC_{29}MA$ |
| | $CH_3$ | H | R($CH_3$) | $C_2H_5$ | $RC_{29}DMA$ |
| I1 | α(H) | $CH_3$ | R($CH_3$) | $C_2H_5$ | α$RC_{29}MA$ |

STRUCTURES REPRESENTING MONOAROMATIC STERANES




I

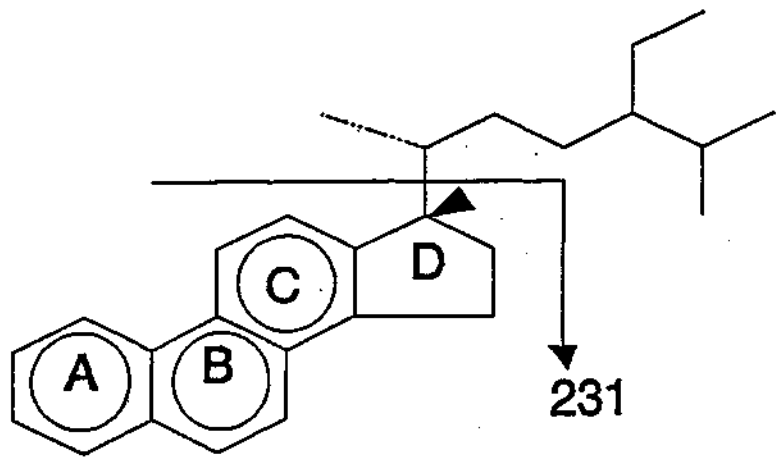


## Mass Fragmentograms representing Triaromatic Steranes (m/z 231)

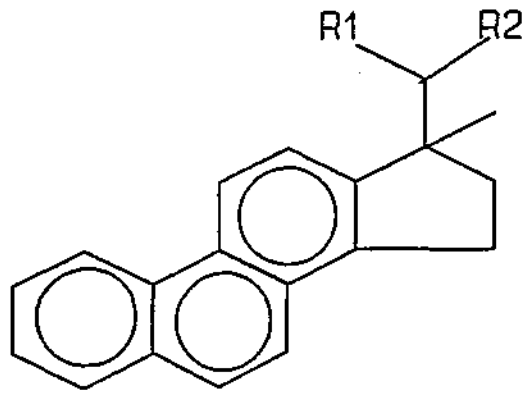
Description of ABC-ring triaromatic steroid hydrocarbons

| Peak | Substituents $R_1$ | $R_2$ | Abbreviation of Compound |
|---|---|---|---|
| a1 | $CH_3$ | H | $C_{20}TA$ |
| b1 | $CH_3$ | $CH_3$ | $C_{21}TA$ |
| c1 | $S(CH_3)$ | $C_6H_{1-3}$ | $SC_{26}TA$ |
| d1 | $R(CH_3)$ | $C_6H_{13}$ | $RC_{26}TA$ |
| | $S(CH_3)$ | $C_7H_{15}$ | $SC_{27}TA$ |
| e1 | $S(CH_3)$ | $C_8H_{17}$ | $SC_{28}TA$ |
| f1 | $S(CH_3)$ | $C_7H_{15}$ | $RC_{27}TA$ |
| g1 | $R(CH_3)$ | $C_8H_{17}$ | $RC_{28}TA$ |

## STRUCTURES REPRESENTING TRIAROMATIC STERANES




II



## Stable Carbon Isotope Ratio Mass Spectrometry

Carbon isotope analysis is performed on a dual inlet VG SIRA 10 instrument. The combustion of the samples is performed by a Carlo Erba EA 1108 element analyser directly connected to the inlet system of the mass spectrometer.

The combustion temperature is 1020°C and the carrier gas used was Helium. After the combustion $H_2O$ and $CO_2$ are trapped in individual cool traps. The $CO_2$ gas is then heated up before admission into the mass spectrometer. The whole operation is controlled by an IBM PC50 computer system.

## δ-values

The isotope ratios are given as δ-values in ‰ versus the PDB-standard:

$$\delta^{13}C = (R\ sample - R\ standard/R\ standard) \times 1000$$

$$R = {}^{13}C/{}^{12}C$$

The PDB-standard (a marine chalk of the Pee Dee-formation, USA - Craig (1957). All results of $^{13}C/^{12}C$-analysis of organic matter today are calculated (Craig correction) against this international standard.

## Reproducibility

The precision of the combustion system and the mass spectrometer is controlled by determination of an international calibrated standard, NBS22 oil and a house standard carbon. Replicate analyses are also performed on samples.

## Gas Composition and Stable Carbon Isotope Analysis

Analyses were performed at IFE

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Table 3: Lithology description for well NOCS 6608/10-6 RES

Depth unit of measure: m

| Depth | Type | | Grp | Frm | Age | Trb | Sample |
|---|---|---|---|---|---|---|---|
| Int Cvd | TOC% | % | Lithology description | | | | |
| 1827.35 ccp | | | | | | | 0001 |
| | | 100 | S/Sst | | : gy brn, argill, sft | | 0001-1L |
| 1830.52 ccp | | | | | | | 0002 |
| | | 100 | S/Sst | | : pl y brn to dsk y brn, sft | | 0002-1L |
| 1832.98 ccp | | | | | | | 0003 |
| | | 95 | S/Sst | | : pl y brn to dsk y brn, carb, argill, sft | | 0003-1L |
| | | 5 | Cont | | : dd | | 0003-2L |
| 1839.32 ccp | | | | | | | 0004 |
| | | 100 | S/Sst | | : pl y brn to dsk y brn, carb, argill, sft | | 0004-1L |
| 1843.34 ccp | | | | | | | 0005 |
| | | 100 | S/Sst | | : pl y brn to dsk y brn, carb, argill, sft | | 0005-1L |
| 1844.97 ccp | | | | | | | 0006 |
| | | 100 | S/Sst | | : pl y brn to dsk y brn, sft | | 0006-1L |
| 1846.98 ccp | | | | | | | 0007 |
| | | 100 | S/Sst | | : pl y brn to dsk y brn, argill, sft | | 0007-1L |
| 1849.86 ccp | | | | | | | 0008 |
| | | 100 | S/Sst | | : pl y brn to dsk y brn, pyr, argill, mic, lam, sft | | 0008-1L |

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Table 3: Lithology description for well NOCS 6608/10-6 RES

Depth unit of measure: m

| Depth | Type | | Grp | Frm | Age | Trb | Sample |
|---|---|---|---|---|---|---|---|
| Int Cvd | TOC% | % | Lithology description | | | | |
| 1851.57 | ccp | | | | | | 0009 |
| | | 100 | S/Sst | : | pl y brn to dsk y brn, argill, sft | | 0009-1L |
| 1853.16 | ccp | | | | | | 0010 |
| | | 100 | S/Sst | : | pl y brn to dsk y brn, sft | | 0010-1L |
| 1855.80 | ccp | | | | | | 0011 |
| | | 100 | Ca | : | lt or to dsk y brn, hd | | 0011-1L |
| 1864.70 | ccp | | | | | | 0014 |
| | | 100 | S/Sst | : | or gy, calc, mic, br | | 0014-1L |
| 1865.98 | ccp | | | | | | 0015 |
| | | 100 | S/Sst | : | pl y brn to dsk y brn, mic, sft | | 0015-1L |
| 1867.30 | ccp | | | | | | 0072 |
| | | 100 | S/Sst | : | pl y brn to dsk y brn, sft | | 0072-1L |
| 1869.52 | ccp | | | | | | 0017 |
| | | 100 | S/Sst | : | pl y brn to dsk y brn, carb, mic, sft | | 0017-1L |
| 1871.54 | ccp | | | | | | 0018 |
| | | 100 | S/Sst | : | pl y brn to dsk y brn, lam, sft | | 0018-1L |
| 1873.52 | ccp | | | | | | 0019 |
| | | 95 | S/Sst | : | pl y brn to dsk y brn, mic, sft | | 0019-1L |
| | | 5 | Cont | : | dd | | 0019-2L |

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Table 3: Lithology description for well NOCS 6608/10-6 RES

Depth unit of measure: m

| Depth Int | Depth Cvd | Type TOC% | % | Grp | Frm | Age | Trb | Sample |
|---|---|---|---|---|---|---|---|---|
| | | | | Lithology description | | | | |
| 1875.60 | | ccp | | | | | | 0020 |
| | | | 100 | S/Sst | | : pl y brn to dsk y brn, mic, sft | | 0020-1L |
| 1878.64 | | ccp | | | | | | 0021 |
| | | | 100 | Ca | | : pl y brn, s, hd, sft | | 0021-1L |
| 1881.00 | | ccp | | | | | | 0022 |
| | | | 100 | S/Sst | | : lt brn to m brn, crs, l | | 0022-1L |
| 1883.90 | | ccp | | | | | | 0023 |
| | | | 100 | S/Sst | | : lt brn to m brn, l | | 0023-1L |
| 1885.98 | | ccp | | | | | | 0024 |
| | | | 100 | S/Sst | | : lt brn to m brn, crs, l | | 0024-1L |
| 1888.00 | | ccp | | | | | | 0025 |
| | | | 100 | S/Sst | | : lt brn to m brn, f, sft | | 0025-1L |
| 1890.00 | | ccp | | | | | | 0026 |
| | | | 100 | S/Sst | | : lt brn to m brn, sft | | 0026-1L |
| 1892.48 | | ccp | | | | | | 0071 |
| | | | 100 | S/Sst | | : or gy to pl y brn, sft | | 0071-1L |
| 1897.00 | | ccp | | | | | | 0029 |
| | | | 100 | S/Sst | | : lt or, carb, mic, sft | | 0029-1L |

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Table 3: Lithology description for well NOCS 6608/10-6 RES

Depth unit of measure: m

| Depth Int | Depth Cvd | Type TOC% | % | Grp | Frm | Age | Trb | Sample | Lithology description |
|---|---|---|---|---|---|---|---|---|---|
| 1901.20 | | ccp | | | | | | 0030 | |
| | | | 100 | S/Sst | | | | 0030-1L | : lt or to m y brn, sft |
| 1903.72 | | ccp | | | | | | 0031 | |
| | | | 100 | S/Sst | | | | 0031-1L | : lt or to m y brn, sft |
| 1907.14 | | ccp | | | | | | 0033 | |
| | | | 100 | S/Sst | | | | 0033-1L | : lt brn to m brn, sft |
| 1909.25 | | ccp | | | | | | 0035 | |
| | | | 100 | S/Sst | | | | 0035-1L | : lt brn to m brn, sft |
| 1911.75 | | ccp | | | | | | 0036 | |
| | | | 100 | S/Sst | | | | 0036-1L | : lt brn to m brn, sft |
| 1913.90 | | ccp | | | | | | 0037 | |
| | | | 100 | S/Sst | | | | 0037-1L | : lt brn to m brn, l |
| 1915.75 | | ccp | | | | | | 0038 | |
| | | | 100 | S/Sst | | | | 0038-1L | : lt brn to m brn, sft |
| 1917.42 | | ccp | | | | | | 0039 | |
| | | | 100 | S/Sst | | | | 0039-1L | : lt brn to m brn, sft |
| 1919.45 | | ccp | | | | | | 0040 | |
| | | | 100 | S/Sst | | | | 0040-1L | : lt brn to m brn, sff |

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Table 3: Lithology description for well NOCS 6608/10-6 RES

Depth unit of measure: m

| Depth | | Type | | Grp | Frm | Age | Trb | Sample |
|---|---|---|---|---|---|---|---|---|
| Int | Cvd | TOC% | % | Lithology description | | | | |
| 1921.00 | ccp | | | | | | | 0041 |
| | | | 100 | S/Sst | | : lt brn to m brn, sft | | 0041-1L |
| 1922.80 | ccp | | | | | | | 0042 |
| | | | 100 | S/Sst | | : lt brn, l | | 0042-1L |
| 1923.66 | ccp | | | | | | | 0043 |
| | | | 100 | S/Sst | | : or gy to lt brn, slt, argill, mic, sft | | 0043-1L |
| 1924.65 | ccp | | | | | | | 0073 |
| | | | 100 | S/Sst | | : lt brn, l | | 0073-1L |
| 1926.00 | ccp | | | | | | | 0045 |
| | | | 100 | S/Sst | | : lt brn to m brn, sft | | 0045-1L |
| 1928.00 | ccp | | | | | | | 0046 |
| | | | 100 | S/Sst | | : lt brn to m brn, sft | | 0046-1L |
| 1930.52 | ccp | | | | | | | 0047 |
| | | | 100 | S/Sst | | : lt brn to m brn, sft | | 0047-1L |
| 1932.90 | ccp | | | | | | | 0048 |
| | | | 100 | S/Sst | | : lt brn to m brn, sft | | 0048-1L |
| 1934.70 | ccp | | | | | | | 0049 |
| | | | 100 | S/Sst | | : or gy to lt brn, slt, sft | | 0049-1L |

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Table 3: Lithology description for well NOCS 6608/10-6 RES

Depth unit of measure: m

| Depth | Type | | Grp | Frm | Age | Trb | Sample |
|---|---|---|---|---|---|---|---|
| Int Cvd | TOC% | % | Lithology description | | | | |
| 1936.75 | ccp | | | | | | 0050 |
| | | 100 | S/Sst | | : or gy to lt brn, slt, sft | | 0050-1L |
| 1938.60 | ccp | | | | | | 0051 |
| | | 100 | S/Sst | | : or gy to lt brn, slt, mic, dol, hd | | 0051-1L |
| 1941.09 | ccp | | | | | | 0052 |
| | | 100 | S/Sst | | : lt brn to m brn, sft | | 0052-1L |
| 1943.50 | ccp | | | | | | 0053 |
| | | 100 | S/Sst | | : lt brn to m brn, sft | | 0053-1L |
| 1945.97 | ccp | | | | | | 0054 |
| | | 100 | S/Sst | | : lt brn to m brn, sft | | 0054-1L |
| 1947.00 | ccp | | | | | | 0055 |
| | | 100 | S/Sst | | : lt brn to m brn, sft | | 0055-1L |
| 1949.52 | ccp | | | | | | 0074 |
| | | 100 | S/Sst | | : lt brn to m brn, l | | 0074-1L |
| 1951.76 | ccp | | | | | | 0057 |
| | | 100 | S/Sst | | : lt brn to m brn, mic, br | | 0057-1L |
| 1953.00 | ccp | | | | | | 0058 |
| | | 100 | S/Sst | | : or gy to lt brn, mic, br | | 0058-1L |

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Table 3: Lithology description for well NOCS 6608/10-6 RES

Depth unit of measure: m

| Depth Int | Depth Cvd | Type TOC% | % | Grp Frm Age Lithology description | Trb | Sample |
|---|---|---|---|---|---|---|
| 1957.96 | ccp | | | | | 0059 |
| | | | 100 | S/Sst : or gy to lt brn, br, lam | | 0059-1L |
| 1959.68 | ccp | | | | | 0060 |
| | | | 100 | S/Sst : lt brn to m brn, br | | 0060-1L |
| 1960.14 | ccp | | | | | 0061 |
| | | | 100 | S/Sst : lt brn to m brn, lam, sft | | 0061-1L |
| 1960.67 | ccp | | | | | 0062 |
| | | | 100 | S/Sst : lt brn, l | | 0062-1L |
| 1963.00 | ccp | | | | | 0063 |
| | | | 100 | S/Sst : or gy to lt brn, mic, br | | 0063-1L |
| 1965.60 | ccp | | | | | 0064 |
| | | | 100 | S/Sst : lt brn to m brn, sft | | 0064-1L |
| 1967.24 | ccp | | | | | 0065 |
| | | | 100 | S/Sst : lt brn to m brn, carb, br | | 0065-1L |
| 1969.51 | ccp | | | | | 0068 |
| | | | 100 | S/Sst : m y brn to m brn, carb, crs | | 0068-1L |
| 1970.81 | ccp | | | | | 0069 |
| | | | 100 | S/Sst : lt or, sft | | 0069-1L |

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Table 3: Lithology description for well NOCS 6608/10-6 RES

Depth unit of measure: m

| Depth Int | Cvd | Type TOC% | % | Grp | Frm | Age / Lithology description | Trb | Sample |
|---|---|---|---|---|---|---|---|---|
| 1971.33 | | ccp | | | | | | 0070 |
| | | | 100 | S/Sst | | : or gy to lt or, mic | | 0070-1L |
| 1986.00 | | | | | | | | 0075 |
| | | | 80 | S/Sst | | : lt or, f, l | | 0075-1L |
| | | | 15 | Sh/Clst | | : blk to brn blk, carb | | 0075-2L |
| | | | 5 | Sh/Clst | | : lt gy, lt gn gy, lt brn gy | | 0075-3L |
| | | | tr | Cont | | : Mica-ad | | 0075-4L |
| | | | tr | Other | | : pyr | | 0075-5L |
| 1992.00 | | | | | | | | 0076 |
| | | | 75 | S/Sst | | : lt or, f, l | | 0076-1L |
| | | | 10 | Sh/Clst | | : blk to brn blk, carb | | 0076-2L |
| | | | 10 | Sh/Clst | | : lt gy, lt gn gy, lt brn gy | | 0076-3L |
| | | | 5 | Cont | | : Mica-ad | | 0076-4L |
| | | | tr | Other | | : pyr | | 0076-5L |
| 2001.00 | | | | | | | | 0077 |
| | | | 45 | S/Sst | | : lt or, f, l | | 0077-1L |
| | | | 35 | Sh/Clst | | : blk to brn blk, carb | | 0077-2L |
| | | | 15 | Sh/Clst | | : lt gy, lt gn gy, lt brn gy | | 0077-3L |
| | | | 5 | Cont | | : Mica-ad | | 0077-4L |
| | | | tr | Other | | : pyr | | 0077-5L |
| 2040.00 | | | | | | | | 0078 |
| | | | 65 | S/Sst | | : lt or, f, l | | 0078-1L |
| | | | 20 | Sh/Clst | | : blk to brn blk, carb | | 0078-2L |
| | | | 15 | Sh/Clst | | : lt gy, lt gn gy, lt brn gy | | 0078-3L |
| | | | tr | Cont | | : Mica-ad | | 0078-4L |
| | | | tr | Other | | : pyr | | 0078-5L |

## Table 5a Rock-Eval Table for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | S1 | S2 | S3 | TOC | Tmax | S2/S3 | HI | OI | PP | PI | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 41.47 | 7.62 | 0 | 0 | 411 | 0 | 0 | 0 | 49.09 | 0.84 | U02/0001-1 |
| 1830.52 | ccp | bulk fraction | | 39.11 | 11.01 | 0 | 0 | 285 | 0 | 0 | 0 | 50.12 | 0.78 | T92/0143-0 |
| 1832.98 | ccp | sandstone/sand | 95 | 34.12 | 5.96 | 0 | 0 | 412 | 0 | 0 | 0 | 40.08 | 0.85 | U02/0003-1 |
| 1839.32 | ccp | sandstone/sand | 100 | 43.12 | 8.46 | 0 | 0 | 411 | 0 | 0 | 0 | 51.58 | 0.84 | U02/0004-1 |
| 1843.34 | ccp | sandstone/sand | 100 | 31.80 | 5.50 | 0 | 0 | 408 | 0 | 0 | 0 | 37.30 | 0.85 | U02/0005-1 |
| 1844.97 | ccp | bulk fraction | | 57.06 | 20.09 | 0 | 0 | 285 | 0 | 0 | 0 | 77.15 | 0.74 | T92/0144-0 |
| 1846.98 | ccp | sandstone/sand | 100 | 45.70 | 6.42 | 0 | 0 | 316 | 0 | 0 | 0 | 52.12 | 0.88 | U02/0007-1 |
| 1849.86 | ccp | sandstone/sand | 100 | 29.48 | 6.39 | 0 | 0 | 416 | 0 | 0 | 0 | 35.87 | 0.82 | U02/0008-1 |
| 1851.57 | ccp | sandstone/sand | 100 | 20.61 | 5.50 | 0 | 0 | 414 | 0 | 0 | 0 | 26.11 | 0.79 | U02/0009-1 |
| 1853.16 | ccp | bulk fraction | | 30.10 | 8.32 | 0 | 0 | 409 | 0 | 0 | 0 | 38.42 | 0.78 | T92/0145-0 |
| 1855.8 | ccp | carbonate | 100 | 6.53 | 1.08 | 0 | 0 | 316 | 0 | 0 | 0 | 7.61 | 0.86 | U02/0011-1 |
| 1864.7 | ccp | sandstone/sand | 100 | 10.79 | 1.12 | 0 | 0 | 404 | 0 | 0 | 0 | 11.91 | 0.91 | U02/0014-1 |
| 1865.98 | ccp | sandstone/sand | 100 | 13.09 | 2.54 | 0 | 0 | 414 | 0 | 0 | 0 | 15.63 | 0.84 | U02/0015-1 |
| 1867.3 | ccp | bulk fraction | | 27.40 | 9.26 | 0 | 0 | 412 | 0 | 0 | 0 | 36.66 | 0.75 | T92/0148-0 |
| 1869.52 | ccp | sandstone/sand | 100 | 22.78 | 4.86 | 0 | 0 | 416 | 0 | 0 | 0 | 27.64 | 0.82 | U02/0017-1 |
| 1871.54 | ccp | bulk fraction | | 19.96 | 7.67 | 0 | 0 | 418 | 0 | 0 | 0 | 27.63 | 0.72 | T92/0149-0 |
| 1873.52 | ccp | sandstone/sand | 95 | 22.14 | 5.25 | 0 | 0 | 420 | 0 | 0 | 0 | 27.39 | 0.81 | U02/0019-1 |
| 1875.6 | ccp | sandstone/sand | 100 | 26.09 | 4.33 | 0 | 0 | 418 | 0 | 0 | 0 | 30.42 | 0.86 | U02/0020-1 |
| 1878.64 | ccp | carbonate | 100 | 24.16 | 2.89 | 0 | 0 | 316 | 0 | 0 | 0 | 27.05 | 0.89 | U02/0021-1 |
| 1881 | ccp | sandstone/sand | 100 | 19.23 | 2.03 | 0 | 0 | 319 | 0 | 0 | 0 | 21.26 | 0.90 | U02/0022-1 |
| 1883.9 | ccp | bulk fraction | | 55.96 | 17.95 | 0 | 0 | 317 | 0 | 0 | 0 | 73.91 | 0.76 | T92/0150-0 |
| 1885.98 | ccp | sandstone/sand | 100 | 27.34 | 3.63 | 0 | 0 | 313 | 0 | 0 | 0 | 30.97 | 0.88 | U02/0024-1 |
| 1888 | ccp | sandstone/sand | 100 | 71.80 | 15.02 | 0 | 0 | 314 | 0 | 0 | 0 | 86.82 | 0.83 | U02/0025-1 |
| 1890 | ccp | sandstone/sand | 100 | 75.69 | 14.11 | 0 | 0 | 318 | 0 | 0 | 0 | 89.80 | 0.84 | U02/0026-1 |
| 1892.48 | ccp | bulk fraction | | 35.81 | 10.55 | 0 | 0 | 285 | 0 | 0 | 0 | 46.36 | 0.77 | T92/0152-0 |
| 1897 | ccp | sandstone/sand | 100 | 31.13 | 4.39 | 0 | 0 | 391 | 0 | 0 | 0 | 35.52 | 0.88 | U02/0029-1 |
| 1901.2 | ccp | sandstone/sand | 100 | 40.16 | 7.35 | 0 | 0 | 314 | 0 | 0 | 0 | 47.51 | 0.85 | U02/0030-1 |
| 1903.72 | ccp | sandstone/sand | 100 | 54.52 | 10.82 | 0 | 0 | 314 | 0 | 0 | 0 | 65.34 | 0.83 | U02/0031-1 |
| 1907.14 | ccp | sandstone/sand | 100 | 78.09 | 12.44 | 0 | 0 | 313 | 0 | 0 | 0 | 90.53 | 0.86 | U02/0033-1 |
| 1909.25 | ccp | sandstone/sand | 100 | 70.09 | 15.45 | 0 | 0 | 319 | 0 | 0 | 0 | 85.54 | 0.82 | U02/0035-1 |
| 1911.75 | ccp | sandstone/sand | 100 | 94.38 | 26.79 | 0 | 0 | 317 | 0 | 0 | 0 | 121.17 | 0.78 | U02/0036-1 |
| 1913.9 | ccp | bulk fraction | | 69.21 | 26.40 | 0 | 0 | 285 | 0 | 0 | 0 | 95.61 | 0.72 | T92/0155-0 |
| 1915.75 | ccp | sandstone/sand | 100 | 84.27 | 15.54 | 0 | 0 | 315 | 0 | 0 | 0 | 99.81 | 0.84 | U02/0038-1 |
| 1917.42 | ccp | sandstone/sand | 100 | 75.95 | 16.78 | 0 | 0 | 316 | 0 | 0 | 0 | 92.73 | 0.82 | U02/0039-1 |

## Table 5a Rock-Eval Table for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | S1 | S2 | S3 | TOC | Tmax | S2/S3 | HI | OI | PP | PI | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1919.45 | ccp | sandstone/sand | 100 | 94.75 | 20.38 | 0 | 0 | 317 | 0 | 0 | 0 | 115.13 | 0.82 | U02/0040-1 |
| 1921 | ccp | sandstone/sand | 100 | 76.80 | 15.60 | 0 | 0 | 317 | 0 | 0 | 0 | 92.40 | 0.83 | U02/0041-1 |
| 1922.8 | ccp | bulk fraction | | 60.48 | 24.12 | 0 | 0 | 285 | 0 | 0 | 0 | 84.60 | 0.71 | T92/0156-0 |
| 1923.66 | ccp | sandstone/sand | 100 | 11.36 | 4.22 | 0 | 0 | 408 | 0 | 0 | 0 | 15.58 | 0.73 | U02/0043-1 |
| 1924.65 | ccp | bulk fraction | | 36.19 | 9.90 | 0 | 0 | 285 | 0 | 0 | 0 | 46.09 | 0.79 | T92/0157-0 |
| 1926 | ccp | sandstone/sand | 100 | 77.27 | 14.09 | 0 | 0 | 284 | 0 | 0 | 0 | 91.36 | 0.85 | U02/0045-1 |
| 1928 | ccp | sandstone/sand | 100 | 43.64 | 9.99 | 0 | 0 | 321 | 0 | 0 | 0 | 53.63 | 0.81 | U02/0046-1 |
| 1930.52 | ccp | sandstone/sand | 100 | 40.06 | 5.75 | 0 | 0 | 315 | 0 | 0 | 0 | 45.81 | 0.87 | U02/0047-1 |
| 1932.9 | ccp | sandstone/sand | 100 | 32.63 | 5.23 | 0 | 0 | 315 | 0 | 0 | 0 | 37.86 | 0.86 | U02/0048-1 |
| 1934.7 | ccp | sandstone/sand | 100 | 22.61 | 4.32 | 0 | 0 | 397 | 0 | 0 | 0 | 26.93 | 0.84 | U02/0049-1 |
| 1936.75 | ccp | sandstone/sand | 100 | 12.84 | 3.02 | 0 | 0 | 406 | 0 | 0 | 0 | 15.86 | 0.81 | U02/0050-1 |
| 1938.6 | ccp | sandstone/sand | 100 | 4.71 | 1.25 | 0 | 0 | 392 | 0 | 0 | 0 | 5.96 | 0.79 | U02/0051-1 |
| 1941.09 | ccp | sandstone/sand | 100 | 33.68 | 3.36 | 0 | 0 | 403 | 0 | 0 | 0 | 37.04 | 0.91 | U02/0052-1 |
| 1943.5 | ccp | sandstone/sand | 100 | 43.55 | 7.56 | 0 | 0 | 319 | 0 | 0 | 0 | 51.11 | 0.85 | U02/0053-1 |
| 1945.97 | ccp | sandstone/sand | 100 | 40.93 | 4.78 | 0 | 0 | 314 | 0 | 0 | 0 | 45.71 | 0.90 | U02/0054-1 |
| 1947 | ccp | sandstone/sand | 100 | 63.16 | 8.49 | 0 | 0 | 315 | 0 | 0 | 0 | 71.65 | 0.88 | U02/0055-1 |
| 1949.52 | ccp | bulk fraction | | 45.35 | 13.22 | 0 | 0 | 285 | 0 | 0 | 0 | 58.57 | 0.77 | T92/0158-0 |
| 1951.76 | ccp | sandstone/sand | 100 | 29.84 | 3.70 | 0 | 0 | 313 | 0 | 0 | 0 | 33.54 | 0.89 | U02/0057-1 |
| 1953 | ccp | sandstone/sand | 100 | 34.67 | 4.58 | 0 | 0 | 318 | 0 | 0 | 0 | 39.25 | 0.88 | U02/0058-1 |
| 1957.96 | ccp | sandstone/sand | 100 | 18.35 | 5.14 | 0 | 0 | 404 | 0 | 0 | 0 | 23.49 | 0.78 | U02/0059-1 |
| 1959.68 | ccp | sandstone/sand | 100 | 32.23 | 4.07 | 0 | 0 | 312 | 0 | 0 | 0 | 36.30 | 0.89 | U02/0060-1 |
| 1960.14 | ccp | sandstone/sand | 100 | 48.11 | 6.98 | 0 | 0 | 312 | 0 | 0 | 0 | 55.09 | 0.87 | U02/0061-1 |
| 1960.67 | ccp | bulk fraction | | 52.89 | 17.90 | 0 | 0 | 285 | 0 | 0 | 0 | 70.79 | 0.75 | T92/0159-0 |
| 1963 | ccp | sandstone/sand | 100 | 20.45 | 4.04 | 0 | 0 | 409 | 0 | 0 | 0 | 24.49 | 0.84 | U02/0063-1 |
| 1965.6 | ccp | sandstone/sand | 100 | 46.55 | 7.64 | 0 | 0 | 314 | 0 | 0 | 0 | 54.19 | 0.86 | U02/0064-1 |
| 1967.24 | ccp | sandstone/sand | 100 | 28.90 | 3.74 | 0 | 0 | 398 | 0 | 0 | 0 | 32.64 | 0.89 | U02/0065-1 |
| 1969.51 | ccp | sandstone/sand | 100 | 10.52 | 0.79 | 0 | 0 | 326 | 0 | 0 | 0 | 11.31 | 0.93 | U02/0068-1 |
| 1970.81 | ccp | bulk fraction | | 22.79 | 7.79 | 0 | 0 | 418 | 0 | 0 | 0 | 30.58 | 0.75 | T92/0162-0 |
| 1971.33 | ccp | sandstone/sand | 100 | 26.26 | 4.76 | 0 | 0 | 398 | 0 | 0 | 0 | 31.02 | 0.85 | U02/0070-1 |
| 1986 | cut | sandstone/sand | 80 | 2.41 | 4.61 | 0 | 0 | 344 | 0 | 0 | 0 | 7.02 | 0.34 | U02/0075-1 |
| 1992 | cut | sandstone/sand | 75 | 3.35 | 8.08 | 0 | 0 | 411 | 0 | 0 | 0 | 11.43 | 0.29 | U02/0076-1 |
| 2001 | cut | sandstone/sand | 45 | 3.80 | 9.35 | 0 | 0 | 410 | 0 | 0 | 0 | 13.15 | 0.29 | U02/0077-1 |
| 2040 | cut | sandstone/sand | 65 | 1.16 | 2.71 | 0 | 0 | 406 | 0 | 0 | 0 | 3.87 | 0.30 | U02/0078-1 |



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Table 5B: Rock-Eval table for well SVALBARD ROCK-1(SR-1)



Depth unit of measure: m

| Depth | Typ | Form | Lithology | S1 | S2 | S3 | S2/S3 | TOC | HI | OI | PP | PI | Tmax | Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.00 | n/a | | bulk | 1.16 | 5.52 | - | - | - | - | - | 6.7 | 0.17 | 435 | 0228-0B |
| 2.00 | n/a | | bulk | 1.07 | 5.44 | - | - | - | - | - | 6.5 | 0.16 | 437 | 0229-0B |

## Table 8a MPLC Bulk Composition: Weight of EOM and Fractions for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | Rock ext | EOM | Sat. | Aro. | NSO | Asph. | TOC(e) | HC | Non-HC | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 7.31 | 402.4 | 208.53 | 130.91 | 57.89 | 5.07 | 4.21 | 339.44 | 62.96 | U02/0001-1 |
| 1830.52 | ccp | bulk fraction | | 7.37 | 393.4 | 212.84 | 126.78 | 50.71 | 3.07 | 3.84 | 339.62 | 53.78 | T92/0143-0 |
| 1832.98 | ccp | sandstone/sand | 95 | 6.56 | 309.6 | 152.49 | 94.22 | 57.81 | 5.08 | 3.4 | 246.71 | 62.89 | U02/0003-1 |
| 1839.32 | ccp | sandstone/sand | 100 | 5.12 | 277.2 | 140.92 | 88.42 | 43.75 | 4.1 | 4.55 | 229.34 | 47.86 | U02/0004-1 |
| 1843.34 | ccp | sandstone/sand | 100 | 5.43 | 228.2 | 115.88 | 71.16 | 38.19 | 2.97 | 2.98 | 187.04 | 41.16 | U02/0005-1 |
| 1844.97 | ccp | bulk fraction | | 7.27 | 496.4 | 266.7 | 153.06 | 66.9 | 9.74 | 5.38 | 419.76 | 76.64 | T92/0144-0 |
| 1846.98 | ccp | sandstone/sand | 100 | 5.43 | 330.5 | 169.92 | 106.26 | 49.98 | 4.34 | 4.69 | 276.18 | 54.32 | U02/0007-1 |
| 1849.86 | ccp | sandstone/sand | 100 | 5.31 | 209.2 | 105.7 | 64.8 | 35.39 | 3.31 | 3.95 | 170.5 | 38.7 | U02/0008-1 |
| 1851.57 | ccp | sandstone/sand | 100 | 5.23 | 171.9 | 80.61 | 51.38 | 37.21 | 2.7 | 3.38 | 132 | 39.9 | U02/0009-1 |
| 1853.16 | ccp | bulk fraction | | 7.04 | 303.3 | 151.09 | 89.52 | 60.44 | 2.25 | 3.47 | 240.61 | 62.69 | T92/0145-0 |
| 1855.8 | ccp | carbonate | 100 | 5.62 | 78.2 | 39.3 | 24.32 | 13.04 | 1.54 | 1.27 | 63.63 | 14.57 | U02/0011-1 |
| 1864.7 | ccp | sandstone/sand | 100 | 5.76 | 94.5 | 43.5 | 30.75 | 17.8 | 2.45 | 1.15 | 74.25 | 20.25 | U02/0014-1 |
| 1865.98 | ccp | sandstone/sand | 100 | 5.34 | 113.5 | 49.6 | 35.17 | 26.02 | 2.71 | 2.03 | 84.77 | 28.73 | U02/0015-1 |
| 1867.3 | ccp | bulk fraction | | 7.03 | 291 | 138.5 | 94.14 | 53.56 | 4.79 | 3.55 | 232.64 | 58.36 | T92/0148-0 |
| 1869.52 | ccp | sandstone/sand | 100 | 5.15 | 179.9 | 79.78 | 57.54 | 39.54 | 3.04 | 3.98 | 137.32 | 42.58 | U02/0017-1 |
| 1871.54 | ccp | bulk fraction | | 7.12 | 238.8 | 113.08 | 80.77 | 42.63 | 2.33 | 2.73 | 193.84 | 44.96 | T92/0149-0 |
| 1873.52 | ccp | sandstone/sand | 95 | 5.34 | 166.3 | 74.03 | 53.02 | 36.7 | 2.55 | 2.86 | 127.05 | 39.25 | U02/0019-1 |
| 1875.6 | ccp | sandstone/sand | 100 | 5.32 | 205.3 | 96.19 | 68.15 | 37.53 | 3.43 | 3.21 | 164.35 | 40.95 | U02/0020-1 |
| 1878.64 | ccp | carbonate | 100 | 5.37 | 187 | 89.59 | 63.5 | 31.12 | 2.79 | 3.03 | 153.09 | 33.91 | U02/0021-1 |
| 1881 | ccp | sandstone/sand | 100 | 5.65 | 186.4 | 76.87 | 50.75 | 52.61 | 6.18 | 1.48 | 127.61 | 58.79 | U02/0022-1 |
| 1883.9 | ccp | bulk fraction | | 7.99 | 604.4 | 309.01 | 209.4 | 73.57 | 12.42 | 4.84 | 518.41 | 85.99 | T92/0150-0 |
| 1885 | ccp | bulk fraction | | 3.96 | 365.8 | - | - | - | - | - | - | - | T92/0163-0 |
| 1885.98 | ccp | sandstone/sand | 100 | 5.61 | 211.2 | 93.3 | 62.46 | 50.12 | 5.32 | 2.05 | 155.76 | 55.44 | U02/0024-1 |
| 1888 | ccp | sandstone/sand | 100 | 5.28 | 505.8 | 217.04 | 215.46 | 65.75 | 7.55 | 6.57 | 432.5 | 73.3 | U02/0025-1 |
| 1890 | ccp | sandstone/sand | 100 | 5.57 | 565.1 | 273.08 | 199.48 | 85.22 | 7.32 | 6.95 | 472.56 | 92.54 | U02/0026-1 |
| 1892.48 | ccp | bulk fraction | | 7.14 | 249 | 124.32 | 83.04 | 39.84 | 1.81 | 2.27 | 207.36 | 41.64 | T92/0152-0 |
| 1897 | ccp | sandstone/sand | 100 | 5.47 | 250.2 | 124.74 | 51.22 | 69.25 | 4.99 | 3.62 | 175.96 | 74.24 | U02/0029-1 |
| 1901.2 | ccp | sandstone/sand | 100 | 5.94 | 331.2 | 186.73 | 94.11 | 45.82 | 4.54 | 4.03 | 280.84 | 50.36 | U02/0030-1 |
| 1903.72 | ccp | sandstone/sand | 100 | 5.6 | 411.3 | 179.34 | 154.78 | 72.18 | 4.99 | 5.04 | 334.12 | 77.18 | U02/0031-1 |
| 1907.14 | ccp | sandstone/sand | 100 | 5.59 | 594.7 | 270.9 | 226.65 | 90.66 | 6.49 | 6.55 | 497.55 | 97.15 | U02/0033-1 |
| 1909.25 | ccp | sandstone/sand | 100 | 5.56 | 526.3 | 232.98 | 196.43 | 89.54 | 7.35 | 6.22 | 429.42 | 96.88 | U02/0035-1 |
| 1911.75 | ccp | sandstone/sand | 100 | 6.44 | 863.7 | 386.17 | 318.75 | 147.11 | 11.66 | 8.66 | 704.92 | 158.78 | U02/0036-1 |
| 1913.9 | ccp | bulk fraction | | 7.08 | 709.1 | 316.99 | 282.21 | 105.66 | 4.23 | 6.83 | 599.2 | 109.9 | T92/0155-0 |
| 1915.75 | ccp | sandstone/sand | 100 | 5.55 | 638.5 | 310.2 | 185.9 | 131.02 | 11.38 | 6.74 | 496.1 | 142.4 | U02/0038-1 |

## Table 8a MPLC Bulk Composition: Weight of EOM and Fractions for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | Rock ext | EOM | Sat. | Aro. | NSO | Asph. | TOC(e) | HC | Non-HC | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1917.42 | ccp | sandstone/sand | 100 | 5.26 | 570.6 | 282.07 | 183.25 | 98.83 | 6.45 | 6.98 | 465.32 | 105.28 | U02/0039-1 |
| 1918 | ccp | bulk fraction | | 3.42 | 295.1 | - | - | - | - | - | - | - | T92/0164-0 |
| 1919.45 | ccp | sandstone/sand | 100 | 5.54 | 689.5 | 334.44 | 223.39 | 124.11 | 7.56 | 7.3 | 557.83 | 131.67 | U02/0040-1 |
| 1921 | ccp | sandstone/sand | 100 | 5.78 | 609.4 | 298.74 | 189.62 | 113.35 | 7.69 | 6.88 | 488.36 | 121.04 | U02/0041-1 |
| 1922.8 | ccp | bulk fraction | | 7.05 | 596 | 300.8 | 188.28 | 102.5 | 4.42 | 5.79 | 489.08 | 106.92 | T92/0156-0 |
| 1923.66 | ccp | sandstone/sand | 100 | 5.95 | 118.9 | 41.15 | 31.23 | 44.82 | 1.71 | 2.18 | 72.37 | 46.53 | U02/0043-1 |
| 1924.65 | ccp | bulk fraction | | 8.11 | 433.6 | 182.53 | 142.7 | 99.56 | 8.81 | 3.28 | 325.23 | 108.37 | T92/0157-0 |
| 1925 | ccp | bulk fraction | | 4.43 | 340.9 | - | - | - | - | - | - | - | T92/0165-0 |
| 1926 | ccp | sandstone/sand | 100 | 5.5 | 563.9 | 312.61 | 166.2 | 78.15 | 6.93 | 5.83 | 478.81 | 85.09 | U02/0045-1 |
| 1928 | ccp | sandstone/sand | 100 | 5.46 | 328.4 | 149.52 | 99.09 | 76.23 | 3.56 | 4.1 | 248.61 | 79.79 | U02/0046-1 |
| 1930.52 | ccp | sandstone/sand | 100 | 6.07 | 350.3 | 164.76 | 104.73 | 75.99 | 4.81 | 3.55 | 269.49 | 80.81 | U02/0047-1 |
| 1932.9 | ccp | sandstone/sand | 100 | 5.38 | 254 | 121.28 | 81.6 | 48.16 | 2.96 | 3.08 | 202.88 | 51.12 | U02/0048-1 |
| 1934.7 | ccp | sandstone/sand | 100 | 5.35 | 174 | 72.13 | 50.37 | 50.37 | 1.14 | 2.46 | 122.5 | 51.5 | U02/0049-1 |
| 1936.75 | ccp | sandstone/sand | 100 | 5.25 | 112.9 | 46.21 | 32.92 | 32.06 | 1.72 | 1.83 | 79.13 | 33.77 | U02/0050-1 |
| 1938.6 | ccp | sandstone/sand | 100 | 5.47 | 49.9 | 17.19 | 13.13 | 18.62 | 0.95 | 0.85 | 30.32 | 19.58 | U02/0051-1 |
| 1941.09 | ccp | sandstone/sand | 100 | 5.37 | 241.4 | 141.83 | 58.79 | 38.26 | 2.53 | 2.73 | 200.62 | 40.78 | U02/0052-1 |
| 1943 | ccp | bulk fraction | | 4.37 | 205.2 | - | - | - | - | - | - | - | T92/0166-0 |
| 1943.5 | ccp | sandstone/sand | 100 | 5.35 | 396.7 | 188.14 | 110.73 | 93.53 | 4.29 | 3.59 | 298.88 | 97.82 | U02/0053-1 |
| 1945.97 | ccp | sandstone/sand | 100 | 5.65 | 313 | 178.38 | 81.73 | 49.52 | 3.37 | 3.2 | 260.12 | 52.88 | U02/0054-1 |
| 1947 | ccp | sandstone/sand | 100 | 6.18 | 514.8 | 303.15 | 136.09 | 68.45 | 7.11 | 5.17 | 439.24 | 75.56 | U02/0055-1 |
| 1949.52 | ccp | bulk fraction | | 7.01 | 448.5 | 241.06 | 136.89 | 68.01 | 2.54 | 3.75 | 377.94 | 70.56 | T92/0158-0 |
| 1951.76 | ccp | sandstone/sand | 100 | 5.53 | 216.8 | 105.64 | 64.9 | 43.5 | 2.76 | 2.36 | 170.54 | 46.26 | U02/0057-1 |
| 1953 | ccp | sandstone/sand | 100 | 5.7 | 262.7 | 125.23 | 86.14 | 48.66 | 2.67 | 3.16 | 211.37 | 51.33 | U02/0058-1 |
| 1957.96 | ccp | sandstone/sand | 100 | 5.29 | 148.9 | 65.26 | 46.04 | 34.91 | 2.7 | 3.03 | 111.3 | 37.6 | U02/0059-1 |
| 1959.68 | ccp | sandstone/sand | 100 | 5.34 | 241.9 | 111.27 | 77.37 | 48.6 | 4.66 | 2.92 | 188.64 | 53.26 | U02/0060-1 |
| 1960.14 | ccp | sandstone/sand | 100 | 5.7 | 348.1 | 181.82 | 104.24 | 54.14 | 7.9 | 3.75 | 286.06 | 62.04 | U02/0061-1 |
| 1960.67 | ccp | bulk fraction | | 7.04 | 444.3 | 235 | 137.22 | 63.27 | 8.81 | 3.86 | 372.22 | 72.08 | T92/0159-0 |
| 1963 | ccp | sandstone/sand | 100 | 5.78 | 169.5 | 73.45 | 46.06 | 47.31 | 2.68 | 2.89 | 119.51 | 49.99 | U02/0063-1 |
| 1965.6 | ccp | sandstone/sand | 100 | 5.38 | 321.3 | 145.31 | 96.07 | 74.27 | 5.65 | 3.62 | 241.38 | 79.92 | U02/0064-1 |
| 1967.24 | ccp | sandstone/sand | 100 | 4.31 | 166.3 | 93.17 | 40.76 | 29.67 | 2.7 | 3.47 | 133.93 | 32.37 | U02/0065-1 |
| 1969.51 | ccp | sandstone/sand | 100 | 4.58 | 91.5 | 40.66 | 28.5 | 20.33 | 2.01 | 1.3 | 69.16 | 22.34 | U02/0068-1 |
| 1970.81 | ccp | bulk fraction | | 7.11 | 195.8 | 95.4 | 62.86 | 36.61 | 0.94 | 2.52 | 158.25 | 37.55 | T92/0162-0 |
| 1971.33 | ccp | sandstone/sand | 100 | 4.58 | 172 | 77.4 | 56.21 | 36.2 | 2.19 | 3.17 | 133.61 | 38.39 | U02/0070-1 |
| 1986 | cut | sandstone/sand | 80 | 5.17 | 80 | 15.18 | 31.25 | 24.11 | 9.46 | 6.1 | 46.43 | 33.57 | U02/0075-1 |

## Table 8a MPLC Bulk Composition: Weight of EOM and Fractions for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | Rock ext | EOM | Sat. | Aro. | NSO | Asph. | TOC(e) | HC | Non-HC | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1992 | cut | sandstone/sand | 75 | 6.93 | 80.1 | 3.33 | 7.14 | 59.05 | 10.57 | 4.61 | 10.48 | 69.62 | U02/0076-1 |
| 2001 | cut | sandstone/sand | 45 | 3.35 | 47.5 | 0.99 | 3.56 | 34.98 | 7.97 | 7.51 | 4.55 | 42.95 | U02/0077-1 |
| 2040 | cut | sandstone/sand | 65 | 3.99 | 22.1 | 0.2 | 1.01 | 17.75 | 3.14 | 1.8 | 1.21 | 20.89 | U02/0078-1 |

## Table 8b MPLC Bulk Composition - Concentration of EOM and Fraction (wt ppm rock) for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | EOM | Sat. | Aro. | NSO | Asph. | HC | Non-HC | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 55048 | 28527 | 17908 | 7919 | 694 | 46435 | 8613 | U02/0001-1 |
| 1830.52 | ccp | bulk fraction | | 53379 | 28879 | 17202 | 6881 | 417 | 46081 | 7297 | T92/0143-0 |
| 1832.98 | ccp | sandstone/sand | 95 | 47195 | 23245 | 14363 | 8813 | 774 | 37608 | 9587 | U02/0003-1 |
| 1839.32 | ccp | sandstone/sand | 100 | 54141 | 27523 | 17270 | 8545 | 801 | 44793 | 9348 | U02/0004-1 |
| 1843.34 | ccp | sandstone/sand | 100 | 42026 | 21341 | 13105 | 7033 | 547 | 34446 | 7580 | U02/0005-1 |
| 1844.97 | ccp | bulk fraction | | 68281 | 36685 | 21054 | 9202 | 1340 | 57739 | 10542 | T92/0144-0 |
| 1846.98 | ccp | sandstone/sand | 100 | 60866 | 31293 | 19569 | 9204 | 799 | 50862 | 10004 | U02/0007-1 |
| 1849.86 | ccp | sandstone/sand | 100 | 39397 | 19906 | 12203 | 6665 | 623 | 32109 | 7288 | U02/0008-1 |
| 1851.57 | ccp | sandstone/sand | 100 | 32868 | 15413 | 9824 | 7115 | 516 | 25239 | 7629 | U02/0009-1 |
| 1853.16 | ccp | bulk fraction | | 43082 | 21462 | 12716 | 8585 | 320 | 34178 | 8905 | T92/0145-0 |
| 1855.8 | ccp | carbonate | 100 | 13915 | 6993 | 4327 | 2320 | 274 | 11322 | 2593 | U02/0011-1 |
| 1864.7 | ccp | sandstone/sand | 100 | 16406 | 7552 | 5339 | 3090 | 425 | 12891 | 3516 | U02/0014-1 |
| 1865.98 | ccp | sandstone/sand | 100 | 21255 | 9288 | 6586 | 4873 | 507 | 15875 | 5380 | U02/0015-1 |
| 1867.3 | ccp | bulk fraction | | 41394 | 19701 | 13391 | 7619 | 681 | 33092 | 8302 | T92/0148-0 |
| 1869.52 | ccp | sandstone/sand | 100 | 34932 | 15491 | 11173 | 7678 | 590 | 26664 | 8268 | U02/0017-1 |
| 1871.54 | ccp | bulk fraction | | 33539 | 15882 | 11344 | 5987 | 327 | 27225 | 6315 | T92/0149-0 |
| 1873.52 | ccp | sandstone/sand | 95 | 31142 | 13863 | 9929 | 6873 | 478 | 23792 | 7350 | U02/0019-1 |
| 1875.6 | ccp | sandstone/sand | 100 | 38590 | 18081 | 12810 | 7055 | 645 | 30893 | 7697 | U02/0020-1 |
| 1878.64 | ccp | carbonate | 100 | 34823 | 16683 | 11825 | 5795 | 520 | 28508 | 6315 | U02/0021-1 |
| 1881 | ccp | sandstone/sand | 100 | 32991 | 13605 | 8982 | 9312 | 1094 | 22586 | 10405 | U02/0022-1 |
| 1883.9 | ccp | bulk fraction | | 75645 | 38675 | 26208 | 9208 | 1554 | 64882 | 10762 | T92/0150-0 |
| 1885 | ccp | bulk fraction | | 92374 | - | - | - | - | - | - | T92/0163-0 |
| 1885.98 | ccp | sandstone/sand | 100 | 37647 | 16631 | 11134 | 8934 | 948 | 27765 | 9882 | U02/0024-1 |
| 1888 | ccp | sandstone/sand | 100 | 95795 | 41106 | 40807 | 12453 | 1430 | 81913 | 13883 | U02/0025-1 |
| 1890 | ccp | sandstone/sand | 100 | 101454 | 49027 | 35813 | 15300 | 1314 | 84840 | 16614 | U02/0026-1 |
| 1892.48 | ccp | bulk fraction | | 34874 | 17412 | 11630 | 5580 | 254 | 29042 | 5832 | T92/0152-0 |
| 1897 | ccp | sandstone/sand | 100 | 45740 | 22804 | 9364 | 12660 | 912 | 32168 | 13572 | U02/0029-1 |
| 1901.2 | ccp | sandstone/sand | 100 | 55758 | 31436 | 15843 | 7714 | 764 | 47279 | 8478 | U02/0030-1 |
| 1903.72 | ccp | sandstone/sand | 100 | 73446 | 32025 | 27639 | 12889 | 891 | 59664 | 13782 | U02/0031-1 |
| 1907.14 | ccp | sandstone/sand | 100 | 106386 | 48462 | 40546 | 16218 | 1161 | 89007 | 17379 | U02/0033-1 |
| 1909.25 | ccp | sandstone/sand | 100 | 94658 | 41903 | 35329 | 16104 | 1322 | 77234 | 17424 | U02/0035-1 |
| 1911.75 | ccp | sandstone/sand | 100 | 134115 | 59964 | 49495 | 22843 | 1811 | 109460 | 24655 | U02/0036-1 |
| 1913.9 | ccp | bulk fraction | | 100155 | 44773 | 39860 | 14924 | 597 | 84633 | 15523 | T92/0155-0 |
| 1915.75 | ccp | sandstone/sand | 100 | 115045 | 55892 | 33495 | 23607 | 2050 | 89387 | 25658 | U02/0038-1 |

## Table 8b MPLC Bulk Composition - Concentration of EOM and Fraction (wt ppm rock) for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | EOM | Sat. | Aro. | NSO | Asph. | HC | Non-HC | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1917.42 | ccp | sandstone/sand | 100 | 108479 | 53625 | 34838 | 18789 | 1226 | 88464 | 20015 | U02/0039-1 |
| 1918 | ccp | bulk fraction | | 86287 | - | - | - | - | - | - | T92/0164-0 |
| 1919.45 | ccp | sandstone/sand | 100 | 124458 | 60368 | 40323 | 22403 | 1365 | 100691 | 23767 | U02/0040-1 |
| 1921 | ccp | sandstone/sand | 100 | 105433 | 51685 | 32806 | 19611 | 1330 | 84491 | 20941 | U02/0041-1 |
| 1922.8 | ccp | bulk fraction | | 84539 | 42667 | 26706 | 14539 | 627 | 69373 | 15166 | T92/0156-0 |
| 1923.66 | ccp | sandstone/sand | 100 | 19983 | 6916 | 5249 | 7533 | 287 | 12163 | 7820 | U02/0043-1 |
| 1924.65 | ccp | bulk fraction | | 53465 | 22507 | 17596 | 12276 | 1086 | 40102 | 13363 | T92/0157-0 |
| 1925 | ccp | bulk fraction | | 76953 | - | - | - | - | - | - | T92/0165-0 |
| 1926 | ccp | sandstone/sand | 100 | 102527 | 56838 | 30218 | 14209 | 1260 | 87056 | 15471 | U02/0045-1 |
| 1928 | ccp | sandstone/sand | 100 | 60147 | 27385 | 18148 | 13962 | 652 | 45533 | 14614 | U02/0046-1 |
| 1930.52 | ccp | sandstone/sand | 100 | 57710 | 27143 | 17254 | 12519 | 792 | 44397 | 13313 | U02/0047-1 |
| 1932.9 | ccp | sandstone/sand | 100 | 47212 | 22543 | 15167 | 8952 | 550 | 37710 | 9502 | U02/0048-1 |
| 1934.7 | ccp | sandstone/sand | 100 | 32523 | 13482 | 9415 | 9415 | 213 | 22897 | 9626 | U02/0049-1 |
| 1936.75 | ccp | sandstone/sand | 100 | 21505 | 8802 | 6270 | 6107 | 328 | 15072 | 6432 | U02/0050-1 |
| 1938.6 | ccp | sandstone/sand | 100 | 9122 | 3143 | 2400 | 3404 | 174 | 5543 | 3580 | U02/0051-1 |
| 1941.09 | ccp | sandstone/sand | 100 | 44953 | 26412 | 10948 | 7125 | 471 | 37359 | 7594 | U02/0052-1 |
| 1943 | ccp | bulk fraction | | 46957 | - | - | - | - | - | - | T92/0166-0 |
| 1943.5 | ccp | sandstone/sand | 100 | 74150 | 35166 | 20697 | 17482 | 802 | 55865 | 18284 | U02/0053-1 |
| 1945.97 | ccp | sandstone/sand | 100 | 55398 | 31572 | 14465 | 8765 | 596 | 46039 | 9359 | U02/0054-1 |
| 1947 | ccp | sandstone/sand | 100 | 83301 | 49053 | 22021 | 11076 | 1150 | 71074 | 12227 | U02/0055-1 |
| 1949.52 | ccp | bulk fraction | | 63980 | 34388 | 19528 | 9702 | 362 | 53914 | 10066 | T92/0158-0 |
| 1951.76 | ccp | sandstone/sand | 100 | 39204 | 19103 | 11736 | 7866 | 499 | 30839 | 8365 | U02/0057-1 |
| 1953 | ccp | sandstone/sand | 100 | 46088 | 21970 | 15112 | 8537 | 468 | 37082 | 9005 | U02/0058-1 |
| 1957.96 | ccp | sandstone/sand | 100 | 28147 | 12336 | 8703 | 6599 | 510 | 21040 | 7108 | U02/0059-1 |
| 1959.68 | ccp | sandstone/sand | 100 | 45300 | 20837 | 14489 | 9101 | 873 | 35326 | 9974 | U02/0060-1 |
| 1960.14 | ccp | sandstone/sand | 100 | 61070 | 31898 | 18288 | 9498 | 1386 | 50186 | 10884 | U02/0061-1 |
| 1960.67 | ccp | bulk fraction | | 63111 | 33381 | 19491 | 8987 | 1251 | 52872 | 10239 | T92/0159-0 |
| 1963 | ccp | sandstone/sand | 100 | 29325 | 12708 | 7969 | 8185 | 464 | 20676 | 8649 | U02/0063-1 |
| 1965.6 | ccp | sandstone/sand | 100 | 59721 | 27009 | 17857 | 13805 | 1050 | 44866 | 14855 | U02/0064-1 |
| 1967.24 | ccp | sandstone/sand | 100 | 38585 | 21617 | 9457 | 6884 | 626 | 31074 | 7510 | U02/0065-1 |
| 1969.51 | ccp | sandstone/sand | 100 | 19978 | 8878 | 6223 | 4439 | 439 | 15100 | 4878 | U02/0068-1 |
| 1970.81 | ccp | bulk fraction | | 27539 | 13418 | 8841 | 5149 | 132 | 22257 | 5281 | T92/0162-0 |
| 1971.33 | ccp | sandstone/sand | 100 | 37555 | 16900 | 12273 | 7904 | 478 | 29172 | 8382 | U02/0070-1 |
| 1986 | cut | sandstone/sand | 80 | 15474 | 2936 | 6044 | 4663 | 1830 | 8981 | 6493 | U02/0075-1 |

## Table 8b MPLC Bulk Composition - Concentration of EOM and Fraction (wt ppm rock) for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | EOM | Sat. | Aro. | NSO | Asph. | HC | Non-HC | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1992 | cut | sandstone/sand | 75 | 11558 | 481 | 1030 | 8521 | 1525 | 1512 | 10046 | U02/0076-1 |
| 2001 | cut | sandstone/sand | 45 | 14179 | 296 | 1063 | 10442 | 2379 | 1358 | 12821 | U02/0077-1 |
| 2040 | cut | sandstone/sand | 65 | 5539 | 50 | 253 | 4449 | 787 | 303 | 5236 | U02/0078-1 |

**Table 8c MPLC Bulk Composition - Concentration of EOM and Fractions (mg/g TOC [e]) for well NOCS 6608/10-6 (reservoir study)**

| Lower depth | Sample type | Desc | % Lith | EOM | Sat. | Aro. | NSO | Asph. | HC | Non-HC | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 1307.6 | 677.6 | 425.4 | 188.1 | 16.5 | 1103.0 | 204.6 | U02/0001-1 |
| 1830.52 | ccp | bulk fraction | | 1390.1 | 752.1 | 448.0 | 179.2 | 10.8 | 1200.0 | 190.0 | T92/0143-0 |
| 1832.98 | ccp | sandstone/sand | 95 | 1388.1 | 683.7 | 422.4 | 259.2 | 22.8 | 1106.1 | 282.0 | U02/0003-1 |
| 1839.32 | ccp | sandstone/sand | 100 | 1189.9 | 604.9 | 379.6 | 187.8 | 17.6 | 984.5 | 205.4 | U02/0004-1 |
| 1843.34 | ccp | sandstone/sand | 100 | 1410.3 | 716.1 | 439.8 | 236.0 | 18.4 | 1155.9 | 254.4 | U02/0005-1 |
| 1844.97 | ccp | bulk fraction | | 1269.2 | 681.9 | 391.3 | 171.0 | 24.9 | 1073.2 | 195.9 | T92/0144-0 |
| 1846.98 | ccp | sandstone/sand | 100 | 1297.8 | 667.2 | 417.3 | 196.3 | 17.0 | 1084.5 | 213.3 | U02/0007-1 |
| 1849.86 | ccp | sandstone/sand | 100 | 997.4 | 503.9 | 308.9 | 168.7 | 15.8 | 812.9 | 184.5 | U02/0008-1 |
| 1851.57 | ccp | sandstone/sand | 100 | 972.4 | 456.0 | 290.7 | 210.5 | 15.3 | 746.7 | 225.7 | U02/0009-1 |
| 1853.16 | ccp | bulk fraction | | 1241.6 | 618.5 | 366.5 | 247.4 | 9.2 | 984.9 | 256.6 | T92/0145-0 |
| 1855.8 | ccp | carbonate | 100 | 1095.6 | 550.6 | 340.7 | 182.7 | 21.6 | 891.5 | 204.1 | U02/0011-1 |
| 1864.7 | ccp | sandstone/sand | 100 | 1426.6 | 656.7 | 464.2 | 268.7 | 37.0 | 1120.9 | 305.7 | U02/0014-1 |
| 1865.98 | ccp | sandstone/sand | 100 | 1047.0 | 457.6 | 324.4 | 240.0 | 25.0 | 782.0 | 265.0 | U02/0015-1 |
| 1867.3 | ccp | bulk fraction | | 1166.0 | 555.0 | 377.2 | 214.6 | 19.2 | 932.2 | 233.8 | T92/0148-0 |
| 1869.52 | ccp | sandstone/sand | 100 | 877.7 | 389.2 | 280.7 | 192.9 | 14.8 | 670.0 | 207.7 | U02/0017-1 |
| 1871.54 | ccp | bulk fraction | | 1228.5 | 581.8 | 415.5 | 219.3 | 12.0 | 997.2 | 231.3 | T92/0149-0 |
| 1873.52 | ccp | sandstone/sand | 95 | 1088.9 | 484.7 | 347.2 | 240.3 | 16.7 | 831.9 | 257.0 | U02/0019-1 |
| 1875.6 | ccp | sandstone/sand | 100 | 1202.2 | 563.3 | 399.1 | 219.8 | 20.1 | 962.4 | 239.8 | U02/0020-1 |
| 1878.64 | ccp | carbonate | 100 | 1149.3 | 550.6 | 390.3 | 191.3 | 17.1 | 940.9 | 208.4 | U02/0021-1 |
| 1881 | ccp | sandstone/sand | 100 | 2229.1 | 919.3 | 606.9 | 629.2 | 73.9 | 1526.1 | 703.1 | U02/0022-1 |
| 1883.9 | ccp | bulk fraction | | 1562.9 | 799.1 | 541.5 | 190.2 | 32.1 | 1340.5 | 222.4 | T92/0150-0 |
| 1885 | ccp | bulk fraction | | - | - | - | - | - | - | - | T92/0163-0 |
| 1885.98 | ccp | sandstone/sand | 100 | 1836.4 | 811.3 | 543.1 | 435.8 | 46.3 | 1354.4 | 482.1 | U02/0024-1 |
| 1888 | ccp | sandstone/sand | 100 | 1458.1 | 625.7 | 621.1 | 189.5 | 21.8 | 1246.8 | 211.3 | U02/0025-1 |
| 1890 | ccp | sandstone/sand | 100 | 1459.8 | 705.4 | 515.3 | 220.1 | 18.9 | 1220.7 | 239.1 | U02/0026-1 |
| 1892.48 | ccp | bulk fraction | | 1536.3 | 767.0 | 512.3 | 245.8 | 11.2 | 1279.4 | 256.9 | T92/0152-0 |
| 1897 | ccp | sandstone/sand | 100 | 1263.5 | 630.0 | 258.7 | 349.7 | 25.2 | 888.6 | 374.9 | U02/0029-1 |
| 1901.2 | ccp | sandstone/sand | 100 | 1383.6 | 780.1 | 393.1 | 191.4 | 19.0 | 1173.2 | 210.4 | U02/0030-1 |
| 1903.72 | ccp | sandstone/sand | 100 | 1457.3 | 635.4 | 548.4 | 255.7 | 17.7 | 1183.8 | 273.5 | U02/0031-1 |
| 1907.14 | ccp | sandstone/sand | 100 | 1624.2 | 739.9 | 619.0 | 247.6 | 17.7 | 1358.9 | 265.3 | U02/0033-1 |
| 1909.25 | ccp | sandstone/sand | 100 | 1521.8 | 673.7 | 568.0 | 258.9 | 21.3 | 1241.7 | 280.1 | U02/0035-1 |
| 1911.75 | ccp | sandstone/sand | 100 | 1548.7 | 692.4 | 571.5 | 263.8 | 20.9 | 1264.0 | 284.7 | U02/0036-1 |
| 1913.9 | ccp | bulk fraction | | 1466.4 | 655.5 | 583.6 | 218.5 | 8.7 | 1239.1 | 227.3 | T92/0155-0 |
| 1915.75 | ccp | sandstone/sand | 100 | 1706.9 | 829.3 | 497.0 | 350.3 | 30.4 | 1326.2 | 380.7 | U02/0038-1 |

## Table 8c MPLC Bulk Composition - Concentration of EOM and Fractions (mg/g TOC [e]) for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | EOM | Sat. | Aro. | NSO | Asph. | HC | Non-HC | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1917.42 | ccp | sandstone/sand | 100 | 1554.1 | 768.3 | 499.1 | 269.2 | 17.6 | 1267.4 | 286.8 | U02/0039-1 |
| 1918 | ccp | bulk fraction | | - | - | - | - | - | - | - | T92/0164-0 |
| 1919.45 | ccp | sandstone/sand | 100 | 1704.9 | 827.0 | 552.4 | 306.9 | 18.7 | 1379.3 | 325.6 | U02/0040-1 |
| 1921 | ccp | sandstone/sand | 100 | 1532.4 | 751.2 | 476.8 | 285.0 | 19.3 | 1228.1 | 304.4 | U02/0041-1 |
| 1922.8 | ccp | bulk fraction | | 1460.1 | 736.9 | 461.3 | 251.1 | 10.8 | 1198.2 | 261.9 | T92/0156-0 |
| 1923.66 | ccp | sandstone/sand | 100 | 916.7 | 317.2 | 240.8 | 345.5 | 13.2 | 557.9 | 358.7 | U02/0043-1 |
| 1924.65 | ccp | bulk fraction | | 1630.0 | 686.2 | 536.5 | 374.3 | 33.1 | 1222.6 | 407.4 | T92/0157-0 |
| 1925 | ccp | bulk fraction | | - | - | - | - | - | - | - | T92/0165-0 |
| 1926 | ccp | sandstone/sand | 100 | 1758.6 | 974.9 | 518.3 | 243.7 | 21.6 | 1493.2 | 265.4 | U02/0045-1 |
| 1928 | ccp | sandstone/sand | 100 | 1467.0 | 667.9 | 442.6 | 340.5 | 15.9 | 1110.6 | 356.4 | U02/0046-1 |
| 1930.52 | ccp | sandstone/sand | 100 | 1625.6 | 764.6 | 486.0 | 352.6 | 22.3 | 1250.6 | 375.0 | U02/0047-1 |
| 1932.9 | ccp | sandstone/sand | 100 | 1532.9 | 731.9 | 492.4 | 290.6 | 17.9 | 1224.4 | 308.5 | U02/0048-1 |
| 1934.7 | ccp | sandstone/sand | 100 | 1322.1 | 548.1 | 382.7 | 382.7 | 8.7 | 930.8 | 391.3 | U02/0049-1 |
| 1936.75 | ccp | sandstone/sand | 100 | 1175.1 | 481.0 | 342.6 | 333.7 | 17.9 | 823.6 | 351.5 | U02/0050-1 |
| 1938.6 | ccp | sandstone/sand | 100 | 1073.2 | 369.7 | 282.4 | 400.5 | 20.4 | 652.1 | 421.1 | U02/0051-1 |
| 1941.09 | ccp | sandstone/sand | 100 | 1646.6 | 967.5 | 401.0 | 261.0 | 17.3 | 1368.5 | 278.2 | U02/0052-1 |
| 1943 | ccp | bulk fraction | | - | - | - | - | - | - | - | T92/0166-0 |
| 1943.5 | ccp | sandstone/sand | 100 | 2065.4 | 979.6 | 576.5 | 487.0 | 22.3 | 1556.1 | 509.3 | U02/0053-1 |
| 1945.97 | ccp | sandstone/sand | 100 | 1731.2 | 986.6 | 452.0 | 273.9 | 18.6 | 1438.7 | 292.5 | U02/0054-1 |
| 1947 | ccp | sandstone/sand | 100 | 1611.2 | 948.8 | 425.9 | 214.2 | 22.3 | 1374.7 | 236.5 | U02/0055-1 |
| 1949.52 | ccp | bulk fraction | | 1706.1 | 917.0 | 520.7 | 258.7 | 9.7 | 1437.7 | 268.4 | T92/0158-0 |
| 1951.76 | ccp | sandstone/sand | 100 | 1661.2 | 809.5 | 497.3 | 333.3 | 21.1 | 1306.7 | 354.5 | U02/0057-1 |
| 1953 | ccp | sandstone/sand | 100 | 1458.5 | 695.3 | 478.2 | 270.2 | 14.8 | 1173.5 | 285.0 | U02/0058-1 |
| 1957.96 | ccp | sandstone/sand | 100 | 929.0 | 407.1 | 287.2 | 217.8 | 16.8 | 694.4 | 234.6 | U02/0059-1 |
| 1959.68 | ccp | sandstone/sand | 100 | 1551.4 | 713.6 | 496.2 | 311.7 | 29.9 | 1209.8 | 341.6 | U02/0060-1 |
| 1960.14 | ccp | sandstone/sand | 100 | 1628.5 | 850.6 | 487.7 | 253.3 | 37.0 | 1338.3 | 290.2 | U02/0061-1 |
| 1960.67 | ccp | bulk fraction | | 1635.0 | 864.8 | 505.0 | 232.8 | 32.4 | 1369.7 | 265.2 | T92/0159-0 |
| 1963 | ccp | sandstone/sand | 100 | 1014.7 | 439.7 | 275.7 | 283.2 | 16.0 | 715.4 | 299.3 | U02/0063-1 |
| 1965.6 | ccp | sandstone/sand | 100 | 1649.8 | 746.1 | 493.3 | 381.3 | 29.0 | 1239.4 | 410.4 | U02/0064-1 |
| 1967.24 | ccp | sandstone/sand | 100 | 1112.0 | 623.0 | 272.5 | 198.4 | 18.1 | 895.5 | 216.4 | U02/0065-1 |
| 1969.51 | ccp | sandstone/sand | 100 | 1536.8 | 682.9 | 478.7 | 341.5 | 33.8 | 1161.6 | 375.2 | U02/0068-1 |
| 1970.81 | ccp | bulk fraction | | 1092.8 | 532.4 | 350.8 | 204.3 | 5.2 | 883.2 | 209.6 | T92/0162-0 |
| 1971.33 | ccp | sandstone/sand | 100 | 1184.7 | 533.1 | 387.2 | 249.3 | 15.1 | 920.3 | 264.4 | U02/0070-1 |
| 1986 | cut | sandstone/sand | 80 | 253.7 | 48.1 | 99.1 | 76.4 | 30.0 | 147.2 | 106.4 | U02/0075-1 |

**Table 8c MPLC Bulk Composition - Concentration of EOM and Fractions (mg/g TOC [e]) for well NOCS 6608/10-6 (reservoir study)**

| Lower depth | Sample type | Desc | % Lith | EOM | Sat. | Aro. | NSO | Asph. | HC | Non-HC | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1992 | cut | sandstone/sand | 75 | 250.7 | 10.4 | 22.3 | 184.8 | 33.1 | 32.8 | 217.9 | U02/0076-1 |
| 2001 | cut | sandstone/sand | 45 | 188.8 | 3.9 | 14.2 | 139.0 | 31.7 | 18.1 | 170.7 | U02/0077-1 |
| 2040 | cut | sandstone/sand | 65 | 307.7 | 2.8 | 14.1 | 247.1 | 43.7 | 16.8 | 290.9 | U02/0078-1 |

## Table 8d MPLC Bulk Composition: Material extracted from the rock (%) for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | Sat/ EOM | Aro/ EOM | Asph/ EOM | NSO/ EOM | HC/ EOM | Non-HC/ EOM | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 51.82 | 32.53 | 1.26 | 14.39 | 84.35 | 15.65 | U02/0001-1 |
| 1830.52 | ccp | bulk fraction | | 54.1 | 32.23 | 0.78 | 12.89 | 86.33 | 13.67 | T92/0143-0 |
| 1832.98 | ccp | sandstone/sand | 95 | 49.25 | 30.43 | 1.64 | 18.67 | 79.69 | 20.31 | U02/0003-1 |
| 1839.32 | ccp | sandstone/sand | 100 | 50.84 | 31.9 | 1.48 | 15.78 | 82.74 | 17.26 | U02/0004-1 |
| 1843.34 | ccp | sandstone/sand | 100 | 50.78 | 31.18 | 1.3 | 16.74 | 81.96 | 18.04 | U02/0005-1 |
| 1844.97 | ccp | bulk fraction | | 53.73 | 30.83 | 1.96 | 13.48 | 84.56 | 15.44 | T92/0144-0 |
| 1846.98 | ccp | sandstone/sand | 100 | 51.41 | 32.15 | 1.31 | 15.12 | 83.56 | 16.44 | U02/0007-1 |
| 1849.86 | ccp | sandstone/sand | 100 | 50.53 | 30.97 | 1.58 | 16.92 | 81.5 | 18.5 | U02/0008-1 |
| 1851.57 | ccp | sandstone/sand | 100 | 46.9 | 29.89 | 1.57 | 21.64 | 76.79 | 23.21 | U02/0009-1 |
| 1853.16 | ccp | bulk fraction | | 49.82 | 29.51 | 0.74 | 19.93 | 79.33 | 20.67 | T92/0145-0 |
| 1855.8 | ccp | carbonate | 100 | 50.26 | 31.1 | 1.97 | 16.67 | 81.36 | 18.64 | U02/0011-1 |
| 1864.7 | ccp | sandstone/sand | 100 | 46.03 | 32.54 | 2.59 | 18.84 | 78.57 | 21.43 | U02/0014-1 |
| 1865.98 | ccp | sandstone/sand | 100 | 43.7 | 30.99 | 2.38 | 22.93 | 74.69 | 25.31 | U02/0015-1 |
| 1867.3 | ccp | bulk fraction | | 47.6 | 32.35 | 1.65 | 18.41 | 79.95 | 20.05 | T92/0148-0 |
| 1869.52 | ccp | sandstone/sand | 100 | 44.35 | 31.98 | 1.69 | 21.98 | 76.33 | 23.67 | U02/0017-1 |
| 1871.54 | ccp | bulk fraction | | 47.35 | 33.82 | 0.98 | 17.85 | 81.17 | 18.83 | T92/0149-0 |
| 1873.52 | ccp | sandstone/sand | 95 | 44.52 | 31.88 | 1.53 | 22.07 | 76.4 | 23.6 | U02/0019-1 |
| 1875.6 | ccp | sandstone/sand | 100 | 46.85 | 33.2 | 1.67 | 18.28 | 80.05 | 19.95 | U02/0020-1 |
| 1878.64 | ccp | carbonate | 100 | 47.91 | 33.96 | 1.49 | 16.64 | 81.86 | 18.14 | U02/0021-1 |
| 1881 | ccp | sandstone/sand | 100 | 41.24 | 27.22 | 3.31 | 28.23 | 68.46 | 31.54 | U02/0022-1 |
| 1883.9 | ccp | bulk fraction | | 51.13 | 34.65 | 2.05 | 12.17 | 85.77 | 14.23 | T92/0150-0 |
| 1885 | ccp | bulk fraction | | - | - | - | - | - | - | T92/0163-0 |
| 1885.98 | ccp | sandstone/sand | 100 | 44.18 | 29.57 | 2.52 | 23.73 | 73.75 | 26.25 | U02/0024-1 |
| 1888 | ccp | sandstone/sand | 100 | 42.91 | 42.6 | 1.49 | 13 | 85.51 | 14.49 | U02/0025-1 |
| 1890 | ccp | sandstone/sand | 100 | 48.32 | 35.3 | 1.3 | 15.08 | 83.62 | 16.38 | U02/0026-1 |
| 1892.48 | ccp | bulk fraction | | 49.93 | 33.35 | 0.73 | 16 | 83.28 | 16.72 | T92/0152-0 |
| 1897 | ccp | sandstone/sand | 100 | 49.86 | 20.47 | 2 | 27.68 | 70.33 | 29.67 | U02/0029-1 |
| 1901.2 | ccp | sandstone/sand | 100 | 56.38 | 28.41 | 1.37 | 13.83 | 84.79 | 15.21 | U02/0030-1 |
| 1903.72 | ccp | sandstone/sand | 100 | 43.6 | 37.63 | 1.21 | 17.55 | 81.24 | 18.76 | U02/0031-1 |
| 1907.14 | ccp | sandstone/sand | 100 | 45.55 | 38.11 | 1.09 | 15.24 | 83.66 | 16.34 | U02/0033-1 |
| 1909.25 | ccp | sandstone/sand | 100 | 44.27 | 37.32 | 1.4 | 17.01 | 81.59 | 18.41 | U02/0035-1 |
| 1911.75 | ccp | sandstone/sand | 100 | 44.71 | 36.9 | 1.35 | 17.03 | 81.62 | 18.38 | U02/0036-1 |
| 1913.9 | ccp | bulk fraction | | 44.7 | 39.8 | 0.6 | 14.9 | 84.5 | 15.5 | T92/0155-0 |
| 1915.75 | ccp | sandstone/sand | 100 | 48.58 | 29.11 | 1.78 | 20.52 | 77.7 | 22.3 | U02/0038-1 |

## Table 8d MPLC Bulk Composition: Material extracted from the rock (%) for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | Sat/ EOM | Aro/ EOM | Asph/ EOM | NSO/ EOM | HC/ EOM | Non-HC/ EOM | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|
| 1917.42 | ccp | sandstone/sand | 100 | 49.43 | 32.11 | 1.13 | 17.32 | 81.55 | 18.45 | U02/0039-1 |
| 1918 | ccp | bulk fraction | | - | - | - | - | - | - | T92/0164-0 |
| 1919.45 | ccp | sandstone/sand | 100 | 48.5 | 32.4 | 1.1 | 18 | 80.9 | 19.1 | U02/0040-1 |
| 1921 | ccp | sandstone/sand | 100 | 49.02 | 31.12 | 1.26 | 18.6 | 80.14 | 19.86 | U02/0041-1 |
| 1922.8 | ccp | bulk fraction | | 50.47 | 31.59 | 0.74 | 17.2 | 82.06 | 17.94 | T92/0156-0 |
| 1923.66 | ccp | sandstone/sand | 100 | 34.6 | 26.26 | 1.44 | 37.69 | 60.87 | 39.13 | U02/0043-1 |
| 1924.65 | ccp | bulk fraction | | 42.1 | 32.91 | 2.03 | 22.96 | 75.01 | 24.99 | T92/0157-0 |
| 1925 | ccp | bulk fraction | | - | - | - | - | - | - | T92/0165-0 |
| 1926 | ccp | sandstone/sand | 100 | 55.44 | 29.47 | 1.23 | 13.86 | 84.91 | 15.09 | U02/0045-1 |
| 1928 | ccp | sandstone/sand | 100 | 45.53 | 30.17 | 1.08 | 23.21 | 75.7 | 24.3 | U02/0046-1 |
| 1930.52 | ccp | sandstone/sand | 100 | 47.03 | 29.9 | 1.37 | 21.69 | 76.93 | 23.07 | U02/0047-1 |
| 1932.9 | ccp | sandstone/sand | 100 | 47.75 | 32.13 | 1.16 | 18.96 | 79.88 | 20.12 | U02/0048-1 |
| 1934.7 | ccp | sandstone/sand | 100 | 41.45 | 28.95 | 0.65 | 28.95 | 70.4 | 29.6 | U02/0049-1 |
| 1936.75 | ccp | sandstone/sand | 100 | 40.93 | 29.16 | 1.52 | 28.39 | 70.09 | 29.91 | U02/0050-1 |
| 1938.6 | ccp | sandstone/sand | 100 | 34.45 | 26.32 | 1.91 | 37.32 | 60.77 | 39.23 | U02/0051-1 |
| 1941.09 | ccp | sandstone/sand | 100 | 58.75 | 24.35 | 1.05 | 15.85 | 83.11 | 16.89 | U02/0052-1 |
| 1943 | ccp | bulk fraction | | - | - | - | - | - | - | T92/0166-0 |
| 1943.5 | ccp | sandstone/sand | 100 | 47.43 | 27.91 | 1.08 | 23.58 | 75.34 | 24.66 | U02/0053-1 |
| 1945.97 | ccp | sandstone/sand | 100 | 56.99 | 26.11 | 1.08 | 15.82 | 83.1 | 16.9 | U02/0054-1 |
| 1947 | ccp | sandstone/sand | 100 | 58.89 | 26.44 | 1.38 | 13.3 | 85.32 | 14.68 | U02/0055-1 |
| 1949.52 | ccp | bulk fraction | | 53.75 | 30.52 | 0.57 | 15.16 | 84.27 | 15.73 | T92/0158-0 |
| 1951.76 | ccp | sandstone/sand | 100 | 48.73 | 29.94 | 1.28 | 20.06 | 78.66 | 21.34 | U02/0057-1 |
| 1953 | ccp | sandstone/sand | 100 | 47.67 | 32.79 | 1.02 | 18.52 | 80.46 | 19.54 | U02/0058-1 |
| 1957.96 | ccp | sandstone/sand | 100 | 43.83 | 30.92 | 1.81 | 23.44 | 74.75 | 25.25 | U02/0059-1 |
| 1959.68 | ccp | sandstone/sand | 100 | 46 | 31.99 | 1.93 | 20.09 | 77.98 | 22.02 | U02/0060-1 |
| 1960.14 | ccp | sandstone/sand | 100 | 52.23 | 29.95 | 2.27 | 15.55 | 82.18 | 17.82 | U02/0061-1 |
| 1960.67 | ccp | bulk fraction | | 52.89 | 30.88 | 1.98 | 14.24 | 83.78 | 16.22 | T92/0159-0 |
| 1963 | ccp | sandstone/sand | 100 | 43.33 | 27.18 | 1.58 | 27.91 | 70.51 | 29.49 | U02/0063-1 |
| 1965.6 | ccp | sandstone/sand | 100 | 45.23 | 29.9 | 1.76 | 23.12 | 75.13 | 24.87 | U02/0064-1 |
| 1967.24 | ccp | sandstone/sand | 100 | 56.02 | 24.51 | 1.62 | 17.84 | 80.54 | 19.46 | U02/0065-1 |
| 1969.51 | ccp | sandstone/sand | 100 | 44.44 | 31.15 | 2.19 | 22.22 | 75.59 | 24.41 | U02/0068-1 |
| 1970.81 | ccp | bulk fraction | | 48.72 | 32.1 | 0.48 | 18.7 | 80.82 | 19.18 | T92/0162-0 |
| 1971.33 | ccp | sandstone/sand | 100 | 45 | 32.68 | 1.28 | 21.05 | 77.68 | 22.32 | U02/0070-1 |
| 1986 | cut | sandstone/sand | 80 | 18.97 | 39.06 | 11.83 | 30.13 | 58.04 | 41.96 | U02/0075-1 |

## Table 8d MPLC Bulk Composition - Material extracted from the rock (%) for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | Sat/ EOM | Aro/ EOM | Asph/ EOM | NSO/ EOM | HC/ EOM | Non-HC/ EOM | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|
| 1992 | cut | sandstone/sand | 75 | 4.16 | 8.92 | 13.2 | 73.72 | 13.08 | 86.92 | U02/0076-1 |
| 2001 | cut | sandstone/sand | 45 | 2.08 | 7.49 | 16.78 | 73.65 | 9.57 | 90.43 | U02/0077-1 |
| 2040 | cut | sandstone/sand | 65 | 0.91 | 4.56 | 14.2 | 80.32 | 5.48 | 94.52 | U02/0078-1 |

## Table 8e MPLC Bulk Composition: Ratios for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | Sat/Aro | HC/ Non-HC | Asp/ NSO | Sample number |
|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 1.59 | 5.39 | 0.09 | U02/0001-1 |
| 1830.52 | ccp | bulk fraction | | 1.68 | 6.31 | 0.06 | T92/0143-0 |
| 1832.98 | ccp | sandstone/sand | 95 | 1.62 | 3.92 | 0.09 | U02/0003-1 |
| 1839.32 | ccp | sandstone/sand | 100 | 1.59 | 4.79 | 0.09 | U02/0004-1 |
| 1843.34 | ccp | sandstone/sand | 100 | 1.63 | 4.54 | 0.08 | U02/0005-1 |
| 1844.97 | ccp | bulk fraction | | 1.74 | 5.48 | 0.15 | T92/0144-0 |
| 1846.98 | ccp | sandstone/sand | 100 | 1.6 | 5.08 | 0.09 | U02/0007-1 |
| 1849.86 | ccp | sandstone/sand | 100 | 1.63 | 4.41 | 0.09 | U02/0008-1 |
| 1851.57 | ccp | sandstone/sand | 100 | 1.57 | 3.31 | 0.07 | U02/0009-1 |
| 1853.16 | ccp | bulk fraction | | 1.69 | 3.84 | 0.04 | T92/0145-0 |
| 1855.8 | ccp | carbonate | 100 | 1.62 | 4.37 | 0.12 | U02/0011-1 |
| 1864.7 | ccp | sandstone/sand | 100 | 1.41 | 3.67 | 0.14 | U02/0014-1 |
| 1865.98 | ccp | sandstone/sand | 100 | 1.41 | 2.95 | 0.10 | U02/0015-1 |
| 1867.3 | ccp | bulk fraction | | 1.47 | 3.99 | 0.09 | T92/0148-0 |
| 1869.52 | ccp | sandstone/sand | 100 | 1.39 | 3.23 | 0.08 | U02/0017-1 |
| 1871.54 | ccp | bulk fraction | | 1.4 | 4.31 | 0.05 | T92/0149-0 |
| 1873.52 | ccp | sandstone/sand | 95 | 1.4 | 3.24 | 0.07 | U02/0019-1 |
| 1875.6 | ccp | sandstone/sand | 100 | 1.41 | 4.01 | 0.09 | U02/0020-1 |
| 1878.64 | ccp | carbonate | 100 | 1.41 | 4.51 | 0.09 | U02/0021-1 |
| 1881 | ccp | sandstone/sand | 100 | 1.51 | 2.17 | 0.12 | U02/0022-1 |
| 1883.9 | ccp | bulk fraction | | 1.48 | 6.03 | 0.17 | T92/0150-0 |
| 1885 | ccp | bulk fraction | | - | - | - | T92/0163-0 |
| 1885.98 | ccp | sandstone/sand | 100 | 1.49 | 2.81 | 0.11 | U02/0024-1 |
| 1888 | ccp | sandstone/sand | 100 | 1.01 | 5.9 | 0.11 | U02/0025-1 |
| 1890 | ccp | sandstone/sand | 100 | 1.37 | 5.11 | 0.09 | U02/0026-1 |
| 1892.48 | ccp | bulk fraction | | 1.5 | 4.98 | 0.05 | T92/0152-0 |
| 1897 | ccp | sandstone/sand | 100 | 2.44 | 2.37 | 0.07 | U02/0029-1 |
| 1901.2 | ccp | sandstone/sand | 100 | 1.98 | 5.58 | 0.10 | U02/0030-1 |
| 1903.72 | ccp | sandstone/sand | 100 | 1.16 | 4.33 | 0.07 | U02/0031-1 |
| 1907.14 | ccp | sandstone/sand | 100 | 1.2 | 5.12 | 0.07 | U02/0033-1 |
| 1909.25 | ccp | sandstone/sand | 100 | 1.19 | 4.43 | 0.08 | U02/0035-1 |
| 1911.75 | ccp | sandstone/sand | 100 | 1.21 | 4.44 | 0.08 | U02/0036-1 |
| 1913.9 | ccp | bulk fraction | | 1.12 | 5.45 | 0.04 | T92/0155-0 |
| 1915.75 | ccp | sandstone/sand | 100 | 1.67 | 3.48 | 0.09 | U02/0038-1 |

## Table 8e MPLC Bulk Composition: Ratios for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | Sat/Aro | HC/ Non-HC | Asp/ NSO | Sample number |
|---|---|---|---|---|---|---|---|
| 1917.42 | ccp | sandstone/sand | 100 | 1.54 | 4.42 | 0.07 | U02/0039-1 |
| 1918 | ccp | bulk fraction | | - | - | - | T92/0164-0 |
| 1919.45 | ccp | sandstone/sand | 100 | 1.5 | 4.24 | 0.06 | U02/0040-1 |
| 1921 | ccp | sandstone/sand | 100 | 1.58 | 4.03 | 0.07 | U02/0041-1 |
| 1922.8 | ccp | bulk fraction | | 1.6 | 4.57 | 0.04 | T92/0156-0 |
| 1923.66 | ccp | sandstone/sand | 100 | 1.32 | 1.56 | 0.04 | U02/0043-1 |
| 1924.65 | ccp | bulk fraction | | 1.28 | 3 | 0.09 | T92/0157-0 |
| 1925 | ccp | bulk fraction | | - | - | - | T92/0165-0 |
| 1926 | ccp | sandstone/sand | 100 | 1.88 | 5.63 | 0.09 | U02/0045-1 |
| 1928 | ccp | sandstone/sand | 100 | 1.51 | 3.12 | 0.05 | U02/0046-1 |
| 1930.52 | ccp | sandstone/sand | 100 | 1.57 | 3.34 | 0.06 | U02/0047-1 |
| 1932.9 | ccp | sandstone/sand | 100 | 1.49 | 3.97 | 0.06 | U02/0048-1 |
| 1934.7 | ccp | sandstone/sand | 100 | 1.43 | 2.38 | 0.02 | U02/0049-1 |
| 1936.75 | ccp | sandstone/sand | 100 | 1.4 | 2.34 | 0.05 | U02/0050-1 |
| 1938.6 | ccp | sandstone/sand | 100 | 1.31 | 1.55 | 0.05 | U02/0051-1 |
| 1941.09 | ccp | sandstone/sand | 100 | 2.41 | 4.92 | 0.07 | U02/0052-1 |
| 1943 | ccp | bulk fraction | | - | - | - | T92/0166-0 |
| 1943.5 | ccp | sandstone/sand | 100 | 1.7 | 3.06 | 0.05 | U02/0053-1 |
| 1945.97 | ccp | sandstone/sand | 100 | 2.18 | 4.92 | 0.07 | U02/0054-1 |
| 1947 | ccp | sandstone/sand | 100 | 2.23 | 5.81 | 0.10 | U02/0055-1 |
| 1949.52 | ccp | bulk fraction | | 1.76 | 5.36 | 0.04 | T92/0158-0 |
| 1951.76 | ccp | sandstone/sand | 100 | 1.63 | 3.69 | 0.06 | U02/0057-1 |
| 1953 | ccp | sandstone/sand | 100 | 1.45 | 4.12 | 0.05 | U02/0058-1 |
| 1957.96 | ccp | sandstone/sand | 100 | 1.42 | 2.96 | 0.08 | U02/0059-1 |
| 1959.68 | ccp | sandstone/sand | 100 | 1.44 | 3.54 | 0.10 | U02/0060-1 |
| 1960.14 | ccp | sandstone/sand | 100 | 1.74 | 4.61 | 0.15 | U02/0061-1 |
| 1960.67 | ccp | bulk fraction | | 1.71 | 5.16 | 0.14 | T92/0159-0 |
| 1963 | ccp | sandstone/sand | 100 | 1.59 | 2.39 | 0.06 | U02/0063-1 |
| 1965.6 | ccp | sandstone/sand | 100 | 1.51 | 3.02 | 0.08 | U02/0064-1 |
| 1967.24 | ccp | sandstone/sand | 100 | 2.29 | 4.14 | 0.09 | U02/0065-1 |
| 1969.51 | ccp | sandstone/sand | 100 | 1.43 | 3.1 | 0.10 | U02/0068-1 |
| 1970.81 | ccp | bulk fraction | | 1.52 | 4.21 | 0.03 | T92/0162-0 |
| 1971.33 | ccp | sandstone/sand | 100 | 1.38 | 3.48 | 0.06 | U02/0070-1 |
| 1986 | cut | sandstone/sand | 80 | 0.49 | 1.38 | 0.39 | U02/0075-1 |

## Table 8e MPLC Bulk Composition: Ratios for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | Sat/Aro | HC/ Non-HC | Asp/ NSO | Sample number |
|---|---|---|---|---|---|---|---|
| 1992 | cut | sandstone/sand | 75 | 0.47 | 0.15 | 0.18 | U02/0076-1 |
| 2001 | cut | sandstone/sand | 45 | 0.28 | 0.11 | 0.23 | U02/0077-1 |
| 2040 | cut | sandstone/sand | 65 | 0.2 | 0.06 | 0.18 | U02/0078-1 |

Table 8F: Iatroscan TLC Bulk Composition: Absolute yields in mg/g rock for well NOCS 6608/10-6 RES



Depth unit of measure: m

| Depth | Typ | Lithology | Sat HC | Aro HC | NSO | Asp | HC | Non-HC | EOM | Sample |
|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | S/Sst | 32.96 | 18.16 | 3.31 | 0.69 | 51.12 | 4.00 | 55.12 | 0001-1L |
| 1855.80 | ccp | Ca | 8.37 | 4.42 | 0.85 | 0.27 | 12.79 | 1.12 | 13.91 | 0011-1L |
| 1867.30 | ccp | S/Sst | 22.84 | 13.94 | 3.93 | 0.68 | 36.78 | 4.62 | 41.39 | 0072-1L |
| 1875.60 | ccp | S/Sst | 21.89 | 13.39 | 2.67 | 0.64 | 35.28 | 3.31 | 38.59 | 0020-1L |
| 1890.00 | ccp | S/Sst | 67.53 | 42.79 | 5.95 | 1.53 | 110.32 | 7.47 | 117.79 | 0026-1L |
| 1892.48 | ccp | S/Sst | 19.82 | 12.01 | 2.79 | 0.25 | 31.83 | 3.04 | 34.87 | 0071-1L |
| 1901.20 | ccp | S/Sst | 31.92 | 18.72 | 4.36 | 0.76 | 50.64 | 5.12 | 55.76 | 0030-1L |
| 1911.75 | ccp | S/Sst | 76.37 | 45.84 | 10.10 | 1.81 | 122.20 | 11.91 | 134.11 | 0036-1L |
| 1924.65 | ccp | S/Sst | 28.55 | 19.03 | 4.79 | 1.09 | 47.59 | 5.88 | 53.46 | 0073-1L |
| 1938.60 | ccp | S/Sst | 5.60 | 2.45 | 0.89 | 0.17 | 8.06 | 1.06 | 9.12 | 0051-1L |
| 1949.52 | ccp | S/Sst | 39.21 | 18.65 | 5.76 | 0.36 | 57.86 | 6.12 | 63.98 | 0074-1L |
| 1957.96 | ccp | S/Sst | 16.05 | 9.43 | 2.16 | 0.51 | 25.48 | 2.67 | 28.15 | 0059-1L |
| 1959.68 | ccp | S/Sst | 25.43 | 15.61 | 3.39 | 0.87 | 41.04 | 4.26 | 45.30 | 0060-1L |
| 1971.33 | ccp | S/Sst | 20.26 | 14.60 | 2.22 | 0.48 | 34.86 | 2.70 | 37.55 | 0070-1L |

Table 8G: Iatroscan TLC Bulk Composition: Rel. percentages of sep. fractions for well NOCS 6608/10-6 RES 

Depth unit of measure: m

| Depth | Typ | Lithology | Sat HC | Aro HC | NSO | Asp | Total | HC | Non-HC | Recov. Iatr. | Recov. Asp | Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | S/Sst | 59.80 | 32.95 | 6.00 | 1.26 | 100.00 | 92.74 | 7.26 | 0.74 | 1.01 | 0001-1L |
| 1855.80 | ccp | Ca | 60.18 | 31.75 | 6.11 | 1.97 | 100.00 | 91.92 | 8.08 | 0.80 | 0.97 | 0011-1L |
| 1867.30 | ccp | S/Sst | 55.17 | 33.67 | 9.51 | 1.65 | 100.00 | 88.85 | 11.15 | 0.89 | 0.97 | 0072-1L |
| 1875.60 | ccp | S/Sst | 56.72 | 34.70 | 6.92 | 1.67 | 100.00 | 91.41 | 8.59 | 0.97 | 0.98 | 0020-1L |
| 1890.00 | ccp | S/Sst | 57.33 | 36.33 | 5.05 | 1.30 | 100.00 | 93.65 | 6.35 | 0.95 | 0.99 | 0026-1L |
| 1892.48 | ccp | S/Sst | 56.85 | 34.43 | 8.00 | 0.73 | 100.00 | 91.28 | 8.72 | 0.65 | 0.96 | 0071-1L |
| 1901.20 | ccp | S/Sst | 57.24 | 33.58 | 7.81 | 1.37 | 100.00 | 90.82 | 9.18 | 0.77 | 0.98 | 0030-1L |
| 1911.75 | ccp | S/Sst | 56.94 | 34.18 | 7.53 | 1.35 | 100.00 | 91.12 | 8.88 | 0.97 | 0.97 | 0036-1L |
| 1924.65 | ccp | S/Sst | 53.41 | 35.60 | 8.96 | 2.03 | 100.00 | 89.01 | 10.99 | 0.78 | 0.98 | 0073-1L |
| 1938.60 | ccp | S/Sst | 61.42 | 26.91 | 9.76 | 1.91 | 100.00 | 88.33 | 11.67 | 0.60 | 0.86 | 0051-1L |
| 1949.52 | ccp | S/Sst | 61.29 | 29.14 | 9.00 | 0.57 | 100.00 | 90.43 | 9.57 | 0.30 | 0.98 | 0074-1L |
| 1957.96 | ccp | S/Sst | 57.03 | 33.50 | 7.66 | 1.81 | 100.00 | 90.53 | 9.47 | 0.49 | 0.94 | 0059-1L |
| 1959.68 | ccp | S/Sst | 56.13 | 34.47 | 7.48 | 1.93 | 100.00 | 90.59 | 9.41 | 0.83 | 0.94 | 0060-1L |
| 1971.33 | ccp | S/Sst | 53.95 | 38.88 | 5.90 | 1.28 | 100.00 | 92.82 | 7.18 | 0.84 | 0.98 | 0070-1L |

## Table 9a[1] Saturated Hydrocarbon Gas Chromatography - Peak Areas - for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | nC15 | nC16 | Norpris | nC17 | Pristane | nC18 | Phytane | nC19 | nC20 | nC21 | nC22 | nC23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 1401030 | 1500259 | 696385 | 1659310 | 1466730 | 1632599 | 836368 | 1742855 | 1452277 | 1209947 | 1127195 | 1063287 |
| 1830.52 | ccp | bulk fraction | | 2714964 | 2674240 | 1182906 | 2788179 | 2515552 | 2628625 | 1247487 | 2727867 | 2292556 | 1970196 | 1790862 | 1658355 |
| 1832.98 | ccp | sandstone/sand | 95 | 2303951 | 2510292 | 1113305 | 2788481 | 2516838 | 2763633 | 1308558 | 2921493 | 2384458 | 2132647 | 2040319 | 1971785 |
| 1839.32 | ccp | sandstone/sand | 100 | 1633566 | 1953282 | 895268 | 2270579 | 1922245 | 2264931 | 1104372 | 2372250 | 1983841 | 1762714 | 1678894 | 1611478 |
| 1843.34 | ccp | sandstone/sand | 100 | 2626933 | 2792837 | 1218868 | 3029369 | 2677548 | 2693795 | 1366333 | 3163225 | 2615307 | 2260449 | 2198044 | 2029884 |
| 1844.97 | ccp | bulk fraction | | 2427039 | 2481606 | 1100621 | 2660089 | 2159239 | 2469943 | 1171313 | 2537530 | 2074858 | 1838711 | 1686693 | 1538982 |
| 1846.98 | ccp | sandstone/sand | 100 | 1658532 | 1769540 | 759517 | 1917701 | 1615698 | 1910887 | 868165 | 1958934 | 1575047 | 1392915 | 1279762 | 1231680 |
| 1849.86 | ccp | sandstone/sand | 100 | 1327294 | 1592484 | 713958 | 1864850 | 1543930 | 1878605 | 857587 | 1978917 | 1662533 | 1407360 | 1277572 | 1216897 |
| 1851.57 | ccp | sandstone/sand | 100 | 1392929 | 1466733 | 612642 | 1584959 | 1279598 | 1535752 | 677483 | 1583932 | 1339568 | 1138239 | 1054650 | 1004752 |
| 1853.16 | ccp | bulk fraction | | 987988 | 947866 | 405484 | 989778 | 799480 | 944759 | 444964 | 979362 | 853375 | 731902 | 678331 | 633178 |
| 1855.8 | ccp | carbonate | 100 | 942832 | 1032016 | 427860 | 1123028 | 890808 | 1089906 | 490270 | 1121040 | 958300 | 790956 | 721776 | 693624 |
| 1864.7 | ccp | sandstone/sand | 100 | 161134 | 168770 | 343937 | 244075 | 864357 | 302900 | 589026 | 219796 | 237434 | 160431 | 127836 | 163797 |
| 1865.98 | ccp | sandstone/sand | 100 | 130989 | 192434 | 420389 | 292636 | 1086738 | 379377 | 773967 | 294520 | 308023 | 218776 | 169165 | 201760 |
| 1867.3 | ccp | bulk fraction | | 104908 | 138946 | 287982 | 192043 | 636632 | 216080 | 414989 | 144499 | 169567 | 125385 | 100744 | 114933 |
| 1869.52 | ccp | sandstone/sand | 100 | 0 | 125698 | 313336 | 192807 | 730573 | 203391 | 505630 | 156786 | 172213 | 99295 | 81143 | 92855 |
| 1871.54 | ccp | bulk fraction | | 173459 | 216073 | 481832 | 322806 | 1083513 | 355811 | 718925 | 259338 | 275655 | 186791 | 144550 | 173277 |
| 1873.52 | ccp | sandstone/sand | 95 | 118662 | 158480 | 331367 | 239661 | 843364 | 315415 | 617088 | 256152 | 254169 | 171839 | 141223 | 151250 |
| 1875.6 | ccp | sandstone/sand | 100 | 90480 | 118743 | 245778 | 199001 | 620731 | 243020 | 441986 | 165378 | 174594 | 124063 | 100513 | 112666 |
| 1878.64 | ccp | carbonate | 100 | 204249 | 225200 | 203839 | 301644 | 423587 | 342728 | 286575 | 298011 | 284901 | 198363 | 162728 | 175613 |
| 1881 | ccp | sandstone/sand | 100 | 206070 | 248326 | 194518 | 311684 | 393476 | 308535 | 269232 | 348474 | 284287 | 196769 | 170656 | 176910 |
| 1883.9 | ccp | bulk fraction | | 284263 | 266250 | 215598 | 305603 | 367954 | 287819 | 229870 | 267162 | 253138 | 192511 | 162499 | 159857 |
| 1885.98 | ccp | sandstone/sand | 100 | 239068 | 262626 | 223201 | 357240 | 429987 | 364989 | 295548 | 380064 | 314235 | 217895 | 176887 | 183799 |
| 1888 | ccp | sandstone/sand | 100 | 205897 | 223902 | 206348 | 295537 | 433906 | 315895 | 316846 | 254490 | 269338 | 161558 | 124841 | 154296 |
| 1890 | ccp | sandstone/sand | 100 | 184261 | 190947 | 229639 | 236875 | 382756 | 255090 | 265015 | 278988 | 193186 | 134784 | 95290 | 107118 |
| 1892.48 | ccp | bulk fraction | | 283237 | 269176 | 250076 | 327832 | 459754 | 316065 | 318373 | 343632 | 248646 | 185318 | 144492 | 153566 |
| 1897 | ccp | sandstone/sand | 100 | 127199 | 141343 | 143602 | 194153 | 262617 | 226090 | 200983 | 293322 | 359516 | 307594 | 245375 | 197482 |
| 1901.2 | ccp | sandstone/sand | 100 | 92183 | 116078 | 183456 | 144412 | 261908 | 140668 | 202045 | 114493 | 115408 | 56317 | 51062 | 59170 |
| 1903.72 | ccp | sandstone/sand | 100 | 170835 | 161927 | 212910 | 224977 | 378236 | 216824 | 312925 | 156692 | 194250 | 109138 | 74641 | 95788 |
| 1907.14 | ccp | sandstone/sand | 100 | 0 | 0 | 146776 | 126448 | 272982 | 115188 | 234167 | 103904 | 92582 | 43356 | 0 | 0 |
| 1909.25 | ccp | sandstone/sand | 100 | 78894 | 89912 | 178162 | 154723 | 344142 | 166990 | 282906 | 87699 | 135465 | 58171 | 45347 | 56889 |
| 1911.75 | ccp | sandstone/sand | 100 | 111763 | 100097 | 221311 | 163707 | 379825 | 157560 | 315116 | 139632 | 123469 | 66259 | 42318 | 57053 |
| 1913.9 | ccp | bulk fraction | | 96414 | 127016 | 223423 | 165456 | 384511 | 160739 | 307019 | 133400 | 148020 | 79556 | 58440 | 76984 |
| 1915.75 | ccp | sandstone/sand | 100 | 63682 | 153872 | 269184 | 193380 | 440427 | 211040 | 386037 | 137762 | 153655 | 73511 | 55065 | 69688 |
| 1917.42 | ccp | sandstone/sand | 100 | 0 | 0 | 261295 | 183208 | 396173 | 165358 | 347858 | 101395 | 130152 | 71260 | 46928 | 76349 |

## Table 9a[1] Saturated Hydrocarbon Gas Chromatography - Peak Areas - for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | nC24 | nC25 | nC26 | nC27 | nC28 | nC29 | nC30 | nC31 | nC32 | nC33 | nC34 | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 993904 | 882396 | 725342 | 711289 | 460070 | 427391 | 304276 | 234865 | 169324 | 222669 | 198443 | U02/0001-1 |
| 1830.52 | ccp | bulk fraction | | 1496281 | 1301564 | 1025254 | 960221 | 673461 | 634097 | 576066 | 409894 | 302250 | 405629 | 434516 | T92/0143-0 |
| 1832.98 | ccp | sandstone/sand | 95 | 1861213 | 1794079 | 1274776 | 1150907 | 789195 | 716605 | 506742 | 403341 | 279275 | 338529 | 333759 | U02/0003-1 |
| 1839.32 | ccp | sandstone/sand | 100 | 1524424 | 1335363 | 1077964 | 1054397 | 678827 | 626713 | 524513 | 333197 | 230855 | 280789 | 277205 | U02/0004-1 |
| 1843.34 | ccp | sandstone/sand | 100 | 1851344 | 1620785 | 1239368 | 1106126 | 757360 | 661805 | 562187 | 378228 | 253683 | 318909 | 300745 | U02/0005-1 |
| 1844.97 | ccp | bulk fraction | | 1354683 | 1152354 | 898410 | 819250 | 567058 | 503251 | 474377 | 302128 | 235018 | 329451 | 395507 | T92/0144-0 |
| 1846.98 | ccp | sandstone/sand | 100 | 1116395 | 1023235 | 823644 | 755621 | 527750 | 485694 | 423227 | 279437 | 186126 | 227199 | 216080 | U02/0007-1 |
| 1849.86 | ccp | sandstone/sand | 100 | 1164205 | 992063 | 805696 | 739639 | 511792 | 475937 | 404191 | 258454 | 177793 | 226072 | 204179 | U02/0008-1 |
| 1851.57 | ccp | sandstone/sand | 100 | 898127 | 814397 | 645003 | 585048 | 396887 | 365652 | 298774 | 190367 | 132262 | 165848 | 162376 | U02/0009-1 |
| 1853.16 | ccp | bulk fraction | | 564378 | 482311 | 386144 | 383929 | 258714 | 254977 | 214547 | 149560 | 107285 | 136325 | 145774 | T92/0145-0 |
| 1855.8 | ccp | carbonate | 100 | 627450 | 540852 | 438208 | 404682 | 277928 | 269327 | 234816 | 151099 | 109186 | 131573 | 126944 | U02/0011-1 |
| 1864.7 | ccp | sandstone/sand | 100 | 142187 | 138116 | 108688 | 120669 | 60617 | 82961 | 62295 | 49855 | 120481 | 0 | 0 | U02/0014-1 |
| 1865.98 | ccp | sandstone/sand | 100 | 178816 | 179492 | 140725 | 166660 | 74159 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0015-1 |
| 1867.3 | ccp | bulk fraction | | 100949 | 102834 | 67008 | 76161 | 46153 | 46480 | 34612 | 29369 | 39853 | 111843 | 147024 | T92/0148-0 |
| 1869.52 | ccp | sandstone/sand | 100 | 92045 | 100688 | 65175 | 76466 | 44861 | 38222 | 47100 | 0 | 0 | 0 | 0 | U02/0017-1 |
| 1871.54 | ccp | bulk fraction | | 163496 | 165644 | 110687 | 135254 | 64634 | 77698 | 72720 | 55065 | 61962 | 181238 | 225231 | T92/0149-0 |
| 1873.52 | ccp | sandstone/sand | 95 | 135645 | 168302 | 95972 | 105439 | 53660 | 72583 | 0 | 0 | 0 | 0 | 0 | U02/0019-1 |
| 1875.6 | ccp | sandstone/sand | 100 | 97176 | 109888 | 70619 | 78900 | 38083 | 49519 | 43556 | 36127 | 39701 | 0 | 0 | U02/0020-1 |
| 1878.64 | ccp | carbonate | 100 | 146280 | 152722 | 95659 | 107527 | 55591 | 61649 | 45933 | 35974 | 45823 | 0 | 0 | U02/0021-1 |
| 1881 | ccp | sandstone/sand | 100 | 153157 | 163956 | 108343 | 117841 | 64550 | 71147 | 56523 | 46460 | 44424 | 0 | 0 | U02/0022-1 |
| 1883.9 | ccp | bulk fraction | | 142246 | 125120 | 95379 | 107284 | 61321 | 63608 | 50477 | 40271 | 39292 | 104888 | 129695 | T92/0150-0 |
| 1885.98 | ccp | sandstone/sand | 100 | 161582 | 153655 | 107087 | 111633 | 60816 | 64387 | 88841 | 37667 | 44591 | 0 | 0 | U02/0024-1 |
| 1888 | ccp | sandstone/sand | 100 | 119933 | 115926 | 80403 | 101276 | 43512 | 50695 | 0 | 0 | 0 | 0 | 0 | U02/0025-1 |
| 1890 | ccp | sandstone/sand | 100 | 90497 | 100524 | 66463 | 90898 | 35822 | 48075 | 0 | 0 | 0 | 0 | 0 | U02/0026-1 |
| 1892.48 | ccp | bulk fraction | | 132955 | 128292 | 92246 | 105861 | 54039 | 71433 | 44597 | 40920 | 47618 | 135694 | 171516 | T92/0152-0 |
| 1897 | ccp | sandstone/sand | 100 | 133497 | 107972 | 62365 | 85158 | 30527 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0029-1 |
| 1901.2 | ccp | sandstone/sand | 100 | 58336 | 54560 | 42620 | 48119 | 13951 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0030-1 |
| 1903.72 | ccp | sandstone/sand | 100 | 79417 | 86204 | 49252 | 78204 | 29951 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0031-1 |
| 1907.14 | ccp | sandstone/sand | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0033-1 |
| 1909.25 | ccp | sandstone/sand | 100 | 44343 | 47808 | 32074 | 55546 | 17188 | 26908 | 31238 | 20440 | 28522 | 0 | 0 | U02/0035-1 |
| 1911.75 | ccp | sandstone/sand | 100 | 44982 | 59175 | 37756 | 55271 | 18333 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0036-1 |
| 1913.9 | ccp | bulk fraction | | 55361 | 61465 | 38817 | 66377 | 21255 | 38235 | 36047 | 22433 | 29006 | 123699 | 155360 | T92/0155-0 |
| 1915.75 | ccp | sandstone/sand | 100 | 62303 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0038-1 |
| 1917.42 | ccp | sandstone/sand | 100 | 51004 | 50433 | 32810 | 56604 | 18067 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0039-1 |

## Table 9a[1] Saturated Hydrocarbon Gas Chromatography - Peak Areas - for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | nC15 | nC16 | Norpris | nC17 | Pristane | nC18 | Phytane | nC19 | nC20 | nC21 | nC22 | nC23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1919.45 | ccp | sandstone/sand | 100 | 120842 | 145985 | 270267 | 200258 | 453005 | 186320 | 384139 | 150572 | 153747 | 79303 | 61949 | 62844 |
| 1921 | ccp | sandstone/sand | 100 | 0 | 123865 | 249518 | 179641 | 355018 | 160957 | 333836 | 163061 | 147423 | 91185 | 72309 | 83517 |
| 1922.8 | ccp | bulk fraction | | 94492 | 108089 | 186683 | 144097 | 324546 | 138723 | 257806 | 99888 | 101338 | 57306 | 41531 | 61898 |
| 1923.66 | ccp | sandstone/sand | 100 | 0 | 0 | 0 | 195234 | 416658 | 155844 | 379301 | 150502 | 134781 | 69861 | 47443 | 0 |
| 1924.65 | ccp | bulk fraction | | 106844 | 127117 | 222826 | 172105 | 400879 | 148226 | 299605 | 134673 | 129151 | 75123 | 45043 | 60108 |
| 1926 | ccp | sandstone/sand | 100 | 83633 | 108402 | 200247 | 151238 | 325167 | 173000 | 276054 | 122717 | 160417 | 148400 | 95899 | 118115 |
| 1928 | ccp | sandstone/sand | 100 | 0 | 128480 | 226433 | 186227 | 459655 | 176366 | 375931 | 155497 | 174111 | 87111 | 53822 | 67198 |
| 1930.52 | ccp | sandstone/sand | 100 | 81292 | 109684 | 211507 | 164501 | 407166 | 172712 | 299528 | 116655 | 127275 | 62385 | 48209 | 39619 |
| 1932.9 | ccp | sandstone/sand | 100 | 0 | 141057 | 255658 | 217981 | 485940 | 238538 | 388404 | 176493 | 151614 | 85657 | 51514 | 57919 |
| 1934.7 | ccp | sandstone/sand | 100 | 88384 | 129365 | 250971 | 194601 | 460777 | 196380 | 382730 | 165172 | 154723 | 88441 | 47969 | 54657 |
| 1936.75 | ccp | sandstone/sand | 100 | 0 | 0 | 298720 | 198732 | 588074 | 254102 | 480391 | 287282 | 160779 | 69712 | 43567 | 62297 |
| 1938.6 | ccp | sandstone/sand | 100 | 0 | 80031 | 240119 | 165820 | 507850 | 216284 | 454437 | 225826 | 164690 | 80331 | 53091 | 68536 |
| 1941.09 | ccp | sandstone/sand | 100 | 0 | 191593 | 243523 | 268577 | 529889 | 339336 | 377416 | 296311 | 376185 | 365038 | 266066 | 257071 |
| 1943.5 | ccp | sandstone/sand | 100 | 216827 | 258667 | 336022 | 372940 | 726963 | 450311 | 504842 | 562165 | 432284 | 342217 | 270870 | 274214 |
| 1945.97 | ccp | sandstone/sand | 100 | 224814 | 262036 | 334737 | 339412 | 641818 | 374201 | 434672 | 412661 | 414346 | 342943 | 309582 | 269883 |
| 1947 | ccp | sandstone/sand | 100 | 179113 | 212630 | 283091 | 288915 | 566164 | 338370 | 395158 | 352225 | 391314 | 338863 | 294495 | 236486 |
| 1949.52 | ccp | bulk fraction | | 271068 | 276206 | 358023 | 369833 | 690758 | 421910 | 454259 | 482086 | 370374 | 280346 | 233326 | 236347 |
| 1951.76 | ccp | sandstone/sand | 100 | 228150 | 292407 | 411526 | 404761 | 842805 | 451531 | 591057 | 426043 | 461302 | 370362 | 306679 | 293545 |
| 1953 | ccp | sandstone/sand | 100 | 234910 | 261414 | 340618 | 330260 | 661085 | 377996 | 452448 | 334720 | 312608 | 255189 | 211099 | 214169 |
| 1957.96 | ccp | sandstone/sand | 100 | 0 | 110371 | 275851 | 178410 | 538225 | 232763 | 456190 | 160782 | 156498 | 92222 | 60752 | 66058 |
| 1959.68 | ccp | sandstone/sand | 100 | 0 | 0 | 313340 | 225145 | 659456 | 235189 | 465477 | 232180 | 242642 | 159921 | 140922 | 151415 |
| 1960.14 | ccp | sandstone/sand | 100 | 0 | 0 | 276314 | 215675 | 570412 | 221825 | 388650 | 235394 | 258104 | 188507 | 164763 | 161528 |
| 1960.67 | ccp | bulk fraction | | 97997 | 144334 | 285032 | 227943 | 654252 | 247551 | 422974 | 219372 | 210440 | 157713 | 125240 | 139760 |
| 1963 | ccp | sandstone/sand | 100 | 0 | 0 | 259765 | 206077 | 533468 | 253192 | 375504 | 195647 | 221758 | 176573 | 148582 | 172500 |
| 1965.6 | ccp | sandstone/sand | 100 | 0 | 0 | 230929 | 154912 | 371094 | 137468 | 309529 | 149815 | 124515 | 51498 | 42788 | 33207 |
| 1967.24 | ccp | sandstone/sand | 100 | 0 | 0 | 152455 | 113622 | 235135 | 170846 | 216280 | 230629 | 227071 | 187576 | 128912 | 0 |
| 1969.51 | ccp | sandstone/sand | 100 | 0 | 0 | 152507 | 78860 | 153841 | 137138 | 143414 | 0 | 0 | 0 | 0 | 0 |
| 1970.81 | ccp | bulk fraction | | 54317 | 53984 | 160002 | 144871 | 182206 | 137412 | 139592 | 99768 | 96065 | 37188 | 18192 | 24055 |
| 1971.33 | ccp | sandstone/sand | 100 | 0 | 0 | 155909 | 64238 | 132782 | 101600 | 139467 | 60506 | 108118 | 0 | 0 | 0 |
| 1986 | cut | sandstone/sand | 80 | 210667 | 248179 | 223408 | 271555 | 244133 | 215623 | 141120 | 164244 | 156030 | 95464 | 68199 | 80066 |
| 1992 | cut | sandstone/sand | 75 | 164019 | 230630 | 214803 | 275050 | 374696 | 234017 | 182401 | 232873 | 181313 | 122627 | 101265 | 171776 |
| 2001 | cut | sandstone/sand | 45 | 72462 | 91668 | 81444 | 113919 | 161503 | 107081 | 74954 | 81573 | 70148 | 52315 | 46129 | 69766 |
| 2040 | cut | sandstone/sand | 65 | 0 | 17766 | 19187 | 32824 | 45002 | 33746 | 23564 | 25851 | 21493 | 16375 | 19207 | 36589 |

## Table 9a[1] Saturated Hydrocarbon Gas Chromatography - Peak Areas - for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | nC24 | nC25 | nC26 | nC27 | nC28 | nC29 | nC30 | nC31 | nC32 | nC33 | nC34 | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1919.45 | ccp | sandstone/sand | 100 | 60189 | 64641 | 43443 | 73675 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0040-1 |
| 1921 | ccp | sandstone/sand | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0041-1 |
| 1922.8 | ccp | bulk fraction | | 45360 | 49879 | 26309 | 47988 | 14248 | 24957 | 34718 | 24323 | 27720 | 109065 | 141108 | T92/0156-0 |
| 1923.66 | ccp | sandstone/sand | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0043-1 |
| 1924.65 | ccp | bulk fraction | | 51069 | 50219 | 37930 | 62834 | 18329 | 33974 | 65926 | 21259 | 31114 | 130016 | 172930 | T92/0157-0 |
| 1926 | ccp | sandstone/sand | 100 | 70491 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0045-1 |
| 1928 | ccp | sandstone/sand | 100 | 55835 | 68699 | 38807 | 69724 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0046-1 |
| 1930.52 | ccp | sandstone/sand | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0047-1 |
| 1932.9 | ccp | sandstone/sand | 100 | 59371 | 73440 | 37125 | 65840 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0048-1 |
| 1934.7 | ccp | sandstone/sand | 100 | 49872 | 68709 | 39267 | 74645 | 20100 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0049-1 |
| 1936.75 | ccp | sandstone/sand | 100 | 44833 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0050-1 |
| 1938.6 | ccp | sandstone/sand | 100 | 50307 | 66817 | 41477 | 77213 | 22609 | 34420 | 81967 | 0 | 0 | 0 | 0 | U02/0051-1 |
| 1941.09 | ccp | sandstone/sand | 100 | 206121 | 197543 | 124905 | 133681 | 97084 | 86797 | 100312 | 59553 | 45941 | 0 | 0 | U02/0052-1 |
| 1943.5 | ccp | sandstone/sand | 100 | 258376 | 252767 | 189679 | 182074 | 112709 | 118237 | 125340 | 84904 | 72627 | 0 | 0 | U02/0053-1 |
| 1945.97 | ccp | sandstone/sand | 100 | 234990 | 238622 | 161068 | 171130 | 90953 | 106776 | 120476 | 66948 | 70518 | 0 | 0 | U02/0054-1 |
| 1947 | ccp | sandstone/sand | 100 | 232443 | 199795 | 157632 | 151711 | 88871 | 96560 | 113097 | 66917 | 59554 | 0 | 0 | U02/0055-1 |
| 1949.52 | ccp | bulk fraction | | 217348 | 209173 | 158328 | 158504 | 95115 | 104664 | 75006 | 63589 | 54954 | 136098 | 155417 | T92/0158-0 |
| 1951.76 | ccp | sandstone/sand | 100 | 279423 | 287341 | 217954 | 217431 | 135766 | 151088 | 182697 | 107077 | 88420 | 0 | 0 | U02/0057-1 |
| 1953 | ccp | sandstone/sand | 100 | 195903 | 196692 | 145080 | 149341 | 90798 | 97954 | 110598 | 68586 | 61954 | 0 | 0 | U02/0058-1 |
| 1957.96 | ccp | sandstone/sand | 100 | 60082 | 84065 | 41731 | 71449 | 19409 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0059-1 |
| 1959.68 | ccp | sandstone/sand | 100 | 136241 | 139740 | 100879 | 117976 | 60508 | 70740 | 59080 | 49717 | 54027 | 0 | 0 | U02/0060-1 |
| 1960.14 | ccp | sandstone/sand | 100 | 136114 | 133731 | 96045 | 111646 | 61096 | 69632 | 52694 | 44228 | 45388 | 0 | 0 | U02/0061-1 |
| 1960.67 | ccp | bulk fraction | | 131003 | 123246 | 92502 | 103882 | 54804 | 67800 | 59634 | 41291 | 48017 | 108737 | 133160 | T92/0159-0 |
| 1963 | ccp | sandstone/sand | 100 | 123662 | 130288 | 86598 | 107669 | 59669 | 63015 | 47603 | 42081 | 46203 | 0 | 0 | U02/0063-1 |
| 1965.6 | ccp | sandstone/sand | 100 | 38339 | 50476 | 31003 | 52089 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0064-1 |
| 1967.24 | ccp | sandstone/sand | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0065-1 |
| 1969.51 | ccp | sandstone/sand | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0068-1 |
| 1970.81 | ccp | bulk fraction | | 27069 | 31094 | 33761 | 42900 | 17357 | 28774 | 57579 | 77367 | 28189 | 128412 | 169045 | T92/0162-0 |
| 1971.33 | ccp | sandstone/sand | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | U02/0070-1 |
| 1986 | cut | sandstone/sand | 80 | 51082 | 99637 | 37810 | 80039 | 22758 | 53284 | 25361 | 57072 | 25809 | 0 | 0 | U02/0075-1 |
| 1992 | cut | sandstone/sand | 75 | 90204 | 193166 | 72875 | 169638 | 45097 | 126512 | 53307 | 75473 | 61421 | 0 | 0 | U02/0076-1 |
| 2001 | cut | sandstone/sand | 45 | 41103 | 86784 | 31226 | 64836 | 19539 | 54410 | 22021 | 66490 | 19752 | 0 | 0 | U02/0077-1 |
| 2040 | cut | sandstone/sand | 65 | 27439 | 50663 | 17971 | 42564 | 14604 | 31951 | 12757 | 33476 | 11972 | 0 | 0 | U02/0078-1 |

## Table 9a Quantitative Saturated Hydrocarbon data (mg/g SAT) for well NOGS 6608/10-6 (reservoir study)

| lower depth | Desc | nC15 | nC16 | iC18 | nC17 | Pr | nC18 | Ph | nC19 | nC20 | nC21 | nC22 | nC23 | nC24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35m | sandstone/sand | 10.30 | 11.03 | 5.12 | 12.20 | 10.78 | 12.00 | 6.15 | 12.81 | 10.68 | 8.89 | 8.29 | 7.82 | 7.31 |
| 1830.52m | bulk fraction | 12.28 | 12.10 | 5.35 | 12.61 | 11.38 | 11.89 | 5.64 | 12.34 | 10.37 | 8.91 | 8.10 | 7.50 | 6.77 |
| 1832.98m | sandstone/sand | 10.16 | 11.08 | 4.91 | 12.30 | 11.10 | 12.19 | 5.77 | 12.89 | 10.52 | 9.41 | 9.00 | 8.70 | 8.21 |
| 1839.32m | sandstone/sand | 8.45 | 10.10 | 4.63 | 11.75 | 9.94 | 11.72 | 5.71 | 12.27 | 10.26 | 9.12 | 8.69 | 8.34 | 7.89 |
| 1843.34m | sandstone/sand | 10.75 | 11.43 | 4.99 | 12.40 | 10.96 | 11.02 | 5.59 | 12.94 | 10.70 | 9.25 | 8.99 | 8.31 | 7.58 |
| 1844.97m | bulk fraction | 11.83 | 12.10 | 5.37 | 12.97 | 10.53 | 12.04 | 5.71 | 12.37 | 10.12 | 8.96 | 8.22 | 7.50 | 6.61 |
| 1846.98m | sandstone/sand | 10.25 | 10.93 | 4.69 | 11.85 | 9.98 | 11.81 | 5.36 | 12.10 | 9.73 | 8.61 | 7.91 | 7.61 | 6.90 |
| 1849.86m | sandstone/sand | 9.73 | 11.67 | 5.23 | 13.67 | 11.31 | 13.77 | 6.28 | 14.50 | 12.18 | 10.31 | 9.36 | 8.92 | 8.53 |
| 1851.57m | sandstone/sand | 11.59 | 12.21 | 5.10 | 13.19 | 10.65 | 12.78 | 5.64 | 13.18 | 11.15 | 9.47 | 8.78 | 8.36 | 7.47 |
| 1853.16m | bulk fraction | 12.54 | 12.03 | 5.15 | 12.56 | 10.15 | 11.99 | 5.65 | 12.43 | 10.83 | 9.29 | 8.61 | 8.04 | 7.16 |
| 1855.80m | carbonate | 10.89 | 11.91 | 4.94 | 12.97 | 10.28 | 12.58 | 5.66 | 12.94 | 11.06 | 9.13 | 8.33 | 8.01 | 7.24 |
| 1864.70m | sandstone/sand | 1.52 | 1.59 | 3.24 | 2.30 | 8.15 | 2.86 | 5.55 | 2.07 | 2.24 | 1.51 | 1.21 | 1.54 | 1.34 |
| 1865.98m | sandstone/sand | 0.99 | 1.46 | 3.19 | 2.22 | 8.24 | 2.88 | 5.87 | 2.23 | 2.34 | 1.66 | 1.28 | 1.53 | 1.36 |
| 1867.30m | bulk fraction | 1.34 | 1.78 | 3.69 | 2.46 | 8.15 | 2.77 | 5.32 | 1.85 | 2.17 | 1.61 | 1.29 | 1.47 | 1.29 |
| 1869.52m | sandstone/sand | 0.00 | 1.92 | 4.78 | 2.94 | 11.13 | 3.10 | 7.71 | 2.39 | 2.62 | 1.51 | 1.24 | 1.42 | 1.40 |
| 1871.54m | bulk fraction | 1.40 | 1.74 | 3.89 | 2.61 | 8.75 | 2.87 | 5.80 | 2.09 | 2.23 | 1.51 | 1.17 | 1.40 | 1.32 |
| 1873.52m | sandstone/sand | 1.44 | 1.92 | 4.02 | 2.91 | 10.24 | 3.83 | 7.49 | 3.11 | 3.09 | 2.09 | 1.72 | 1.84 | 1.65 |
| 1875.60m | sandstone/sand | 1.48 | 1.94 | 4.01 | 3.25 | 10.13 | 3.96 | 7.21 | 2.70 | 2.85 | 2.02 | 1.64 | 1.84 | 1.59 |
| 1878.64m | carbonate | 3.07 | 3.39 | 3.06 | 4.53 | 6.37 | 5.15 | 4.31 | 4.48 | 4.28 | 2.98 | 2.45 | 2.64 | 2.20 |
| 1881.00m | sandstone/sand | 3.05 | 3.67 | 2.88 | 4.61 | 5.82 | 4.56 | 3.98 | 5.15 | 4.20 | 2.91 | 2.52 | 2.62 | 2.27 |
| 1883.90m | bulk fraction | 3.58 | 3.35 | 2.71 | 3.84 | 4.63 | 3.62 | 2.89 | 3.36 | 3.18 | 2.42 | 2.04 | 2.01 | 1.79 |
| 1885.98m | sandstone/sand | 3.38 | 3.72 | 3.16 | 5.06 | 6.09 | 5.17 | 4.18 | 5.38 | 4.45 | 3.08 | 2.50 | 2.60 | 2.29 |
| 1888.00m | sandstone/sand | 2.26 | 2.46 | 2.27 | 3.25 | 4.77 | 3.47 | 3.48 | 2.80 | 2.96 | 1.78 | 1.37 | 1.70 | 1.32 |
| 1890.00m | sandstone/sand | 1.92 | 1.99 | 2.39 | 2.46 | 3.98 | 2.65 | 2.76 | 2.90 | 2.01 | 1.40 | 0.99 | 1.11 | 0.94 |
| 1892.48m | bulk fraction | 3.24 | 3.08 | 2.86 | 3.75 | 5.26 | 3.61 | 3.64 | 3.93 | 2.84 | 2.12 | 1.65 | 1.76 | 1.52 |
| 1897.00m | sandstone/sand | 1.19 | 1.32 | 1.34 | 1.81 | 2.45 | 2.11 | 1.88 | 2.74 | 3.36 | 2.87 | 2.29 | 1.85 | 1.25 |
| 1901.20m | sandstone/sand | 0.99 | 1.25 | 1.98 | 1.55 | 2.82 | 1.51 | 2.18 | 1.23 | 1.24 | 0.61 | 0.55 | 0.64 | 0.63 |
| 1903.72m | sandstone/sand | 1.38 | 1.31 | 1.72 | 1.82 | 3.06 | 1.75 | 2.53 | 1.27 | 1.57 | 0.88 | 0.60 | 0.77 | 0.64 |
| 1907.14m | sandstone/sand | 0.00 | 0.00 | 1.97 | 1.69 | 3.66 | 1.54 | 3.14 | 1.39 | 1.24 | 0.58 | 0.00 | 0.00 | 0.00 |
| 1909.25m | sandstone/sand | 1.15 | 1.31 | 2.59 | 2.25 | 5.01 | 2.43 | 4.12 | 1.28 | 1.97 | 0.85 | 0.66 | 0.83 | 0.65 |
| 1911.75m | sandstone/sand | 1.55 | 1.38 | 3.06 | 2.26 | 5.25 | 2.18 | 4.36 | 1.93 | 1.71 | 0.92 | 0.59 | 0.79 | 0.62 |
| 1913.90m | bulk fraction | 1.26 | 1.66 | 2.92 | 2.16 | 5.03 | 2.10 | 4.02 | 1.74 | 1.94 | 1.04 | 0.76 | 1.01 | 0.72 |
| 1915.75m | sandstone/sand | 0.66 | 1.60 | 2.81 | 2.02 | 4.59 | 2.20 | 4.03 | 1.44 | 1.60 | 0.77 | 0.57 | 0.73 | 0.65 |
| 1917.42m | sandstone/sand | 0.00 | 0.00 | 2.98 | 2.09 | 4.52 | 1.89 | 3.97 | 1.16 | 1.49 | 0.81 | 0.54 | 0.87 | 0.58 |
| 1919.45m | sandstone/sand | 1.21 | 1.46 | 2.70 | 2.00 | 4.53 | 1.86 | 3.84 | 1.51 | 1.54 | 0.79 | 0.62 | 0.63 | 0.60 |

## Table 9a Quantitative Saturated Hydrocarbon data (mg/g SAT) for well NOCS 6608/10-6 (reservoir study)

| lower depth | Desc | nC25 | nC26 | nC27 | nC28 | nC29 | nC30 | nC31 | nC32 | nC33 | nC34 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35m | sandstone/sand | 6.49 | 5.33 | 5.23 | 3.38 | 3.14 | 2.24 | 1.73 | 1.24 | 1.64 | 1.46 |
| 1830.52m | bulk fraction | 5.89 | 4.64 | 4.34 | 3.05 | 2.87 | 2.61 | 1.85 | 1.37 | 1.84 | 1.97 |
| 1832.98m | sandstone/sand | 7.92 | 5.62 | 5.08 | 3.48 | 3.16 | 2.24 | 1.78 | 1.23 | 1.49 | 1.47 |
| 1839.32m | sandstone/sand | 6.91 | 5.58 | 5.45 | 3.51 | 3.24 | 2.71 | 1.72 | 1.19 | 1.45 | 1.43 |
| 1843.34m | sandstone/sand | 6.63 | 5.07 | 4.53 | 3.10 | 2.71 | 2.30 | 1.55 | 1.04 | 1.31 | 1.23 |
| 1844.97m | bulk fraction | 5.62 | 4.38 | 3.99 | 2.76 | 2.45 | 2.31 | 1.47 | 1.15 | 1.61 | 1.93 |
| 1846.98m | sandstone/sand | 6.32 | 5.09 | 4.67 | 3.26 | 3.00 | 2.61 | 1.73 | 1.15 | 1.40 | 1.34 |
| 1849.86m | sandstone/sand | 7.27 | 5.90 | 5.42 | 3.75 | 3.49 | 2.96 | 1.89 | 1.30 | 1.66 | 1.50 |
| 1851.57m | sandstone/sand | 6.78 | 5.37 | 4.87 | 3.30 | 3.04 | 2.49 | 1.58 | 1.10 | 1.38 | 1.35 |
| 1853.16m | bulk fraction | 6.12 | 4.90 | 4.87 | 3.28 | 3.24 | 2.72 | 1.90 | 1.36 | 1.73 | 1.85 |
| 1855.80m | carbonate | 6.24 | 5.06 | 4.67 | 3.21 | 3.11 | 2.71 | 1.74 | 1.26 | 1.52 | 1.47 |
| 1864.70m | sandstone/sand | 1.30 | 1.02 | 1.14 | 0.57 | 0.78 | 0.59 | 0.47 | 1.14 | 0.00 | 0.00 |
| 1865.98m | sandstone/sand | 1.36 | 1.07 | 1.26 | 0.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1867.30m | bulk fraction | 1.32 | 0.86 | 0.98 | 0.59 | 0.60 | 0.44 | 0.38 | 0.51 | 1.43 | 1.88 |
| 1869.52m | sandstone/sand | 1.53 | 0.99 | 1.17 | 0.68 | 0.58 | 0.72 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1871.54m | bulk fraction | 1.34 | 0.89 | 1.09 | 0.52 | 0.63 | 0.59 | 0.44 | 0.50 | 1.46 | 1.82 |
| 1873.52m | sandstone/sand | 2.04 | 1.17 | 1.28 | 0.65 | 0.88 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1875.60m | sandstone/sand | 1.79 | 1.15 | 1.29 | 0.62 | 0.81 | 0.71 | 0.59 | 0.65 | 0.00 | 0.00 |
| 1878.64m | carbonate | 2.30 | 1.44 | 1.62 | 0.84 | 0.93 | 0.69 | 0.54 | 0.69 | 0.00 | 0.00 |
| 1881.00m | sandstone/sand | 2.43 | 1.60 | 1.74 | 0.95 | 1.05 | 0.84 | 0.69 | 0.66 | 0.00 | 0.00 |
| 1883.90m | bulk fraction | 1.57 | 1.20 | 1.35 | 0.77 | 0.80 | 0.64 | 0.51 | 0.49 | 1.32 | 1.63 |
| 1885.98m | sandstone/sand | 2.18 | 1.52 | 1.58 | 0.86 | 0.91 | 1.26 | 0.53 | 0.63 | 0.00 | 0.00 |
| 1888.00m | sandstone/sand | 1.27 | 0.88 | 1.11 | 0.48 | 0.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1890.00m | sandstone/sand | 1.05 | 0.69 | 0.95 | 0.37 | 0.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1892.48m | bulk fraction | 1.47 | 1.05 | 1.21 | 0.62 | 0.82 | 0.51 | 0.47 | 0.54 | 1.55 | 1.96 |
| 1897.00m | sandstone/sand | 1.01 | 0.58 | 0.80 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1901.20m | sandstone/sand | 0.59 | 0.46 | 0.52 | 0.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1903.72m | sandstone/sand | 0.70 | 0.40 | 0.63 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1907.14m | sandstone/sand | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1909.25m | sandstone/sand | 0.70 | 0.47 | 0.81 | 0.25 | 0.39 | 0.45 | 0.30 | 0.42 | 0.00 | 0.00 |
| 1911.75m | sandstone/sand | 0.82 | 0.52 | 0.76 | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1913.90m | bulk fraction | 0.80 | 0.51 | 0.87 | 0.28 | 0.50 | 0.47 | 0.29 | 0.38 | 1.62 | 2.03 |
| 1915.75m | sandstone/sand | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1917.42m | sandstone/sand | 0.58 | 0.37 | 0.65 | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1919.45m | sandstone/sand | 0.65 | 0.43 | 0.74 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## Table 9a Quantitative Saturated Hydrocarbon data (mg/g SAT) for well NOCS 6608/10-6 (reservoir study)

| lower depth | Desc | nC15 | nC16 | iC18 | nC17 | Pr | nC18 | Ph | nC19 | nC20 | nC21 | nC22 | nC23 | nC24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1921.00m | sandstone/sand | 0.00 | 1.38 | 2.78 | 2.00 | 3.96 | 1.79 | 3.72 | 1.82 | 1.64 | 1.02 | 0.81 | 0.93 | 0.00 |
| 1922.80m | bulk fraction | 1.36 | 1.56 | 2.69 | 2.08 | 4.68 | 2.00 | 3.72 | 1.44 | 1.46 | 0.83 | 0.60 | 0.89 | 0.65 |
| 1923.66m | sandstone/sand | 0.00 | 0.00 | 0.00 | 2.05 | 4.36 | 1.63 | 3.97 | 1.58 | 1.41 | 0.73 | 0.50 | 0.00 | 0.00 |
| 1924.65m | bulk fraction | 1.29 | 1.54 | 2.70 | 2.08 | 4.85 | 1.79 | 3.62 | 1.63 | 1.56 | 0.91 | 0.54 | 0.73 | 0.62 |
| 1926.00m | sandstone/sand | 0.91 | 1.18 | 2.18 | 1.65 | 3.54 | 1.88 | 3.01 | 1.34 | 1.75 | 1.62 | 1.04 | 1.29 | 0.77 |
| 1928.00m | sandstone/sand | 0.00 | 1.34 | 2.36 | 1.94 | 4.79 | 1.84 | 3.92 | 1.62 | 1.81 | 0.91 | 0.56 | 0.70 | 0.58 |
| 1930.52m | sandstone/sand | 0.94 | 1.26 | 2.44 | 1.90 | 4.70 | 1.99 | 3.45 | 1.35 | 1.47 | 0.72 | 0.56 | 0.46 | 0.00 |
| 1932.90m | sandstone/sand | 0.00 | 1.32 | 2.39 | 2.04 | 4.54 | 2.23 | 3.63 | 1.65 | 1.42 | 0.80 | 0.48 | 0.54 | 0.55 |
| 1934.70m | sandstone/sand | 0.88 | 1.29 | 2.50 | 1.94 | 4.59 | 1.96 | 3.81 | 1.65 | 1.54 | 0.88 | 0.48 | 0.54 | 0.50 |
| 1936.75m | sandstone/sand | 0.00 | 0.00 | 3.17 | 2.11 | 6.24 | 2.69 | 5.09 | 3.05 | 1.70 | 0.74 | 0.46 | 0.66 | 0.48 |
| 1938.60m | sandstone/sand | 0.00 | 0.70 | 2.09 | 1.44 | 4.42 | 1.88 | 3.96 | 1.97 | 1.43 | 0.70 | 0.46 | 0.60 | 0.44 |
| 1941.09m | sandstone/sand | 0.00 | 1.97 | 2.51 | 2.77 | 5.46 | 3.49 | 3.89 | 3.05 | 3.87 | 3.76 | 2.74 | 2.65 | 2.12 |
| 1943.50m | sandstone/sand | 2.50 | 2.98 | 3.87 | 4.30 | 8.37 | 5.19 | 5.82 | 6.48 | 4.98 | 3.94 | 3.12 | 3.16 | 2.98 |
| 1945.97m | sandstone/sand | 2.26 | 2.63 | 3.36 | 3.41 | 6.44 | 3.75 | 4.36 | 4.14 | 4.16 | 3.44 | 3.11 | 2.71 | 2.36 |
| 1947.00m | sandstone/sand | 1.91 | 2.26 | 3.01 | 3.07 | 6.02 | 3.60 | 4.20 | 3.75 | 4.16 | 3.61 | 3.13 | 2.52 | 2.47 |
| 1949.52m | bulk fraction | 3.42 | 3.49 | 4.52 | 4.67 | 8.72 | 5.32 | 5.73 | 6.08 | 4.67 | 3.54 | 2.94 | 2.98 | 2.74 |
| 1951.76m | sandstone/sand | 2.13 | 2.73 | 3.84 | 3.77 | 7.86 | 4.21 | 5.51 | 3.97 | 4.30 | 3.45 | 2.86 | 2.74 | 2.61 |
| 1953.00m | sandstone/sand | 2.56 | 2.85 | 3.71 | 3.59 | 7.19 | 4.11 | 4.92 | 3.64 | 3.40 | 2.78 | 2.30 | 2.33 | 2.13 |
| 1957.96m | sandstone/sand | 0.00 | 1.29 | 3.22 | 2.08 | 6.27 | 2.71 | 5.32 | 1.87 | 1.82 | 1.07 | 0.71 | 0.77 | 0.70 |
| 1959.68m | sandstone/sand | 0.00 | 0.00 | 3.53 | 2.54 | 7.44 | 2.65 | 5.25 | 2.62 | 2.74 | 1.80 | 1.59 | 1.71 | 1.54 |
| 1960.14m | sandstone/sand | 0.00 | 0.00 | 2.83 | 2.21 | 5.85 | 2.28 | 3.99 | 2.41 | 2.65 | 1.93 | 1.69 | 1.66 | 1.40 |
| 1960.67m | bulk fraction | 1.27 | 1.88 | 3.71 | 2.96 | 8.50 | 3.22 | 5.50 | 2.85 | 2.74 | 2.05 | 1.63 | 1.82 | 1.70 |
| 1963.00m | sandstone/sand | 0.00 | 0.00 | 3.02 | 2.40 | 6.21 | 2.95 | 4.37 | 2.28 | 2.58 | 2.05 | 1.73 | 2.01 | 1.44 |
| 1965.60m | sandstone/sand | 0.00 | 0.00 | 2.66 | 1.78 | 4.27 | 1.58 | 3.56 | 1.72 | 1.43 | 0.59 | 0.49 | 0.38 | 0.44 |
| 1967.24m | sandstone/sand | 0.00 | 0.00 | 1.59 | 1.18 | 2.45 | 1.78 | 2.26 | 2.40 | 2.37 | 1.96 | 1.34 | 0.00 | 0.00 |
| 1969.51m | sandstone/sand | 0.00 | 0.00 | 1.44 | 0.75 | 1.45 | 1.30 | 1.36 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1970.81m | bulk fraction | 0.76 | 0.76 | 2.25 | 2.04 | 2.56 | 1.93 | 1.96 | 1.40 | 1.35 | 0.52 | 0.26 | 0.34 | 0.38 |
| 1971.33m | sandstone/sand | 0.00 | 0.00 | 1.62 | 0.67 | 1.38 | 1.05 | 1.45 | 0.63 | 1.12 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1986.00m | sandstone/sand | 3.08 | 3.63 | 3.27 | 3.97 | 3.57 | 3.15 | 2.06 | 2.40 | 2.28 | 1.40 | 1.00 | 1.17 | 0.75 |
| 1992.00m | sandstone/sand | 2.69 | 3.78 | 3.52 | 4.51 | 6.15 | 3.84 | 2.99 | 3.82 | 2.97 | 2.01 | 1.66 | 2.82 | 1.48 |
| 2001.00m | sandstone/sand | 2.65 | 3.35 | 2.98 | 4.16 | 5.90 | 3.91 | 2.74 | 2.98 | 2.56 | 1.91 | 1.69 | 2.55 | 1.50 |
| 2040.00m | sandstone/sand | 0.00 | 3.11 | 3.36 | 5.75 | 7.89 | 5.92 | 4.13 | 4.53 | 3.77 | 2.87 | 3.37 | 6.41 | 4.81 |

## Table 9a Quantitative Saturated Hydrocarbon data (mg/g SAT) for well NOCS 6608/10-6 (reservoir study)

| lower depth | Desc | nC25 | nC26 | nC27 | nC28 | nC29 | nC30 | nC31 | nC32 | nC33 | nC34 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1921.00m | sandstone/sand | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1922.80m | bulk fraction | 0.72 | 0.38 | 0.69 | 0.21 | 0.36 | 0.50 | 0.35 | 0.40 | 1.57 | 2.04 |
| 1923.66m | sandstone/sand | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1924.65m | bulk fraction | 0.61 | 0.46 | 0.76 | 0.22 | 0.41 | 0.80 | 0.26 | 0.38 | 1.57 | 2.09 |
| 1926.00m | sandstone/sand | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1928.00m | sandstone/sand | 0.72 | 0.40 | 0.73 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1930.52m | sandstone/sand | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1932.90m | sandstone/sand | 0.69 | 0.35 | 0.61 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1934.70m | sandstone/sand | 0.68 | 0.39 | 0.74 | 0.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1936.75m | sandstone/sand | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1938.60m | sandstone/sand | 0.58 | 0.36 | 0.67 | 0.20 | 0.30 | 0.71 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1941.09m | sandstone/sand | 2.03 | 1.29 | 1.38 | 1.00 | 0.89 | 1.03 | 0.61 | 0.47 | 0.00 | 0.00 |
| 1943.50m | sandstone/sand | 2.91 | 2.18 | 2.10 | 1.30 | 1.36 | 1.44 | 0.98 | 0.84 | 0.00 | 0.00 |
| 1945.97m | sandstone/sand | 2.39 | 1.62 | 1.72 | 0.91 | 1.07 | 1.21 | 0.67 | 0.71 | 0.00 | 0.00 |
| 1947.00m | sandstone/sand | 2.13 | 1.68 | 1.61 | 0.95 | 1.03 | 1.20 | 0.71 | 0.63 | 0.00 | 0.00 |
| 1949.52m | bulk fraction | 2.64 | 2.00 | 2.00 | 1.20 | 1.32 | 0.95 | 0.80 | 0.69 | 1.72 | 1.96 |
| 1951.76m | sandstone/sand | 2.68 | 2.03 | 2.03 | 1.27 | 1.41 | 1.70 | 1.00 | 0.82 | 0.00 | 0.00 |
| 1953.00m | sandstone/sand | 2.14 | 1.58 | 1.63 | 0.99 | 1.07 | 1.20 | 0.75 | 0.67 | 0.00 | 0.00 |
| 1957.96m | sandstone/sand | 0.98 | 0.49 | 0.83 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1959.68m | sandstone/sand | 1.58 | 1.14 | 1.33 | 0.68 | 0.80 | 0.67 | 0.56 | 0.61 | 0.00 | 0.00 |
| 1960.14m | sandstone/sand | 1.37 | 0.99 | 1.15 | 0.63 | 0.71 | 0.54 | 0.45 | 0.47 | 0.00 | 0.00 |
| 1960.67m | bulk fraction | 1.60 | 1.20 | 1.35 | 0.71 | 0.88 | 0.78 | 0.54 | 0.62 | 1.41 | 1.73 |
| 1963.00m | sandstone/sand | 1.52 | 1.01 | 1.25 | 0.69 | 0.73 | 0.55 | 0.49 | 0.54 | 0.00 | 0.00 |
| 1965.60m | sandstone/sand | 0.58 | 0.36 | 0.60 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1967.24m | sandstone/sand | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1969.51m | sandstone/sand | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1970.81m | bulk fraction | 0.44 | 0.47 | 0.60 | 0.24 | 0.40 | 0.81 | 1.09 | 0.40 | 1.81 | 2.38 |
| 1971.33m | sandstone/sand | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1986.00m | sandstone/sand | 1.46 | 0.55 | 1.17 | 0.33 | 0.78 | 0.37 | 0.83 | 0.38 | 0.00 | 0.00 |
| 1992.00m | sandstone/sand | 3.17 | 1.20 | 2.78 | 0.74 | 2.08 | 0.87 | 1.24 | 1.01 | 0.00 | 0.00 |
| 2001.00m | sandstone/sand | 3.17 | 1.14 | 2.37 | 0.71 | 1.99 | 0.80 | 2.43 | 0.72 | 0.00 | 0.00 |
| 2040.00m | sandstone/sand | 8.88 | 3.15 | 7.46 | 2.56 | 5.60 | 2.24 | 5.87 | 2.10 | 0.00 | 0.00 |

## Table 9b Saturated Hydrocarbon Ratios (peak areas) for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | Prist./ nC17 | Prist./ Phyt. | (Prist./nC17)/ (Phyt./nC18) | CPI 1 | Phytane/ nC18 | nC17/ (nC17+nC27) | (Pristane+Phytane)/ (nC17+nC18) | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 0.88 | 1.75 | 1.73 | 1.13 | 0.51 | 0.7 | 0.7 | U02/0001-1 |
| 1830.52 | ccp | bulk fraction | | 0.9 | 2.02 | 1.9 | 1.08 | 0.47 | 0.74 | 0.69 | T92/0143-0 |
| 1832.98 | ccp | sandstone/sand | 95 | 0.9 | 1.92 | 1.91 | 1.17 | 0.47 | 0.71 | 0.69 | U02/0003-1 |
| 1839.32 | ccp | sandstone/sand | 100 | 0.85 | 1.74 | 1.74 | 1.11 | 0.49 | 0.68 | 0.67 | U02/0004-1 |
| 1843.34 | ccp | sandstone/sand | 100 | 0.88 | 1.96 | 1.74 | 1.1 | 0.51 | 0.73 | 0.71 | U02/0005-1 |
| 1844.97 | ccp | bulk fraction | | 0.81 | 1.84 | 1.71 | 1.06 | 0.47 | 0.76 | 0.65 | T92/0144-0 |
| 1846.98 | ccp | sandstone/sand | 100 | 0.84 | 1.86 | 1.85 | 1.09 | 0.45 | 0.72 | 0.65 | U02/0007-1 |
| 1849.86 | ccp | sandstone/sand | 100 | 0.83 | 1.8 | 1.81 | 1.08 | 0.46 | 0.72 | 0.64 | U02/0008-1 |
| 1851.57 | ccp | sandstone/sand | 100 | 0.81 | 1.89 | 1.83 | 1.1 | 0.44 | 0.73 | 0.63 | U02/0009-1 |
| 1853.16 | ccp | bulk fraction | | 0.81 | 1.8 | 1.72 | 1.1 | 0.47 | 0.72 | 0.64 | T92/0145-0 |
| 1855.8 | ccp | carbonate | 100 | 0.79 | 1.82 | 1.76 | 1.08 | 0.45 | 0.74 | 0.62 | U02/0011-1 |
| 1864.7 | ccp | sandstone/sand | 100 | 3.54 | 1.47 | 1.82 | 1.08 | 1.94 | 0.67 | 2.66 | U02/0014-1 |
| 1865.98 | ccp | sandstone/sand | 100 | 3.71 | 1.4 | 1.82 | 1.25 | 2.04 | 0.64 | 2.77 | U02/0015-1 |
| 1867.3 | ccp | bulk fraction | | 3.32 | 1.53 | 1.73 | 1.19 | 1.92 | 0.72 | 2.58 | T92/0148-0 |
| 1869.52 | ccp | sandstone/sand | 100 | 3.79 | 1.44 | 1.52 | 1.12 | 2.49 | 0.72 | 3.12 | U02/0017-1 |
| 1871.54 | ccp | bulk fraction | | 3.36 | 1.51 | 1.66 | 1.23 | 2.02 | 0.7 | 2.66 | T92/0149-0 |
| 1873.52 | ccp | sandstone/sand | 95 | 3.52 | 1.37 | 1.8 | 1.76 | 1.96 | 0.69 | 2.63 | U02/0019-1 |
| 1875.6 | ccp | sandstone/sand | 100 | 3.12 | 1.4 | 1.72 | 1.26 | 1.82 | 0.72 | 2.4 | U02/0020-1 |
| 1878.64 | ccp | carbonate | 100 | 1.4 | 1.48 | 1.68 | 1.26 | 0.84 | 0.74 | 1.1 | U02/0021-1 |
| 1881 | ccp | sandstone/sand | 100 | 1.26 | 1.46 | 1.45 | 1.25 | 0.87 | 0.73 | 1.07 | U02/0022-1 |
| 1883.9 | ccp | bulk fraction | | 1.2 | 1.6 | 1.51 | 1.16 | 0.8 | 0.74 | 1.01 | T92/0150-0 |
| 1885.98 | ccp | sandstone/sand | 100 | 1.2 | 1.45 | 1.49 | 1.05 | 0.81 | 0.76 | 1 | U02/0024-1 |
| 1888 | ccp | sandstone/sand | 100 | 1.47 | 1.37 | 1.46 | 1.63 | 1 | 0.74 | 1.23 | U02/0025-1 |
| 1890 | ccp | sandstone/sand | 100 | 1.62 | 1.44 | 1.56 | 1.79 | 1.04 | 0.72 | 1.32 | U02/0026-1 |
| 1892.48 | ccp | bulk fraction | | 1.4 | 1.44 | 1.39 | 1.26 | 1.01 | 0.76 | 1.21 | T92/0152-0 |
| 1897 | ccp | sandstone/sand | 100 | 1.35 | 1.31 | 1.52 | 1.47 | 0.89 | 0.7 | 1.1 | U02/0029-1 |
| 1901.2 | ccp | sandstone/sand | 100 | 1.81 | 1.3 | 1.26 | 1.35 | 1.44 | 0.75 | 1.63 | U02/0030-1 |
| 1903.72 | ccp | sandstone/sand | 100 | 1.68 | 1.21 | 1.16 | 1.56 | 1.44 | 0.74 | 1.56 | U02/0031-1 |
| 1907.14 | ccp | sandstone/sand | 100 | 2.16 | 1.17 | 1.06 | 0 | 2.03 | 1 | 2.1 | U02/0033-1 |
| 1909.25 | ccp | sandstone/sand | 100 | 2.22 | 1.22 | 1.31 | 1.29 | 1.69 | 0.74 | 1.95 | U02/0035-1 |
| 1911.75 | ccp | sandstone/sand | 100 | 2.32 | 1.21 | 1.16 | 1.59 | 2 | 0.75 | 2.16 | U02/0036-1 |
| 1913.9 | ccp | bulk fraction | | 2.32 | 1.25 | 1.22 | 1.38 | 1.91 | 0.71 | 2.12 | T92/0155-0 |
| 1915.75 | ccp | sandstone/sand | 100 | 2.28 | 1.14 | 1.25 | 0 | 1.83 | 1 | 2.04 | U02/0038-1 |
| 1917.42 | ccp | sandstone/sand | 100 | 2.16 | 1.14 | 1.03 | 1.58 | 2.1 | 0.76 | 2.13 | U02/0039-1 |

## Table 9b Saturated Hydrocarbon Ratios (peak areas) for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | Prist./ nC17 | Prist./ Phyt. | (Prist./nC17)/ (Phyt./nC18) | CPI 1 | Phytane/ nC18 | nC17/ (nC17+nC27) | (Pristane+Phytane)/ (nC17+nC18) | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1919.45 | ccp | sandstone/sand | 100 | 2.26 | 1.18 | 1.1 | 2.26 | 2.06 | 0.73 | 2.17 | U02/0040-1 |
| 1921 | ccp | sandstone/sand | 100 | 1.98 | 1.06 | 0.95 | 0 | 2.07 | 1 | 2.02 | U02/0041-1 |
| 1922.8 | ccp | bulk fraction | | 2.25 | 1.26 | 1.21 | 1.32 | 1.86 | 0.75 | 2.06 | T92/0156-0 |
| 1923.66 | ccp | sandstone/sand | 100 | 2.13 | 1.1 | 0.88 | 0 | 2.43 | 1 | 2.27 | U02/0043-1 |
| 1924.65 | ccp | bulk fraction | | 2.33 | 1.34 | 1.15 | 1.03 | 2.02 | 0.73 | 2.19 | T92/0157-0 |
| 1926 | ccp | sandstone/sand | 100 | 2.15 | 1.18 | 1.35 | 0 | 1.6 | 1 | 1.85 | U02/0045-1 |
| 1928 | ccp | sandstone/sand | 100 | 2.47 | 1.22 | 1.16 | 2.51 | 2.13 | 0.73 | 2.3 | U02/0046-1 |
| 1930.52 | ccp | sandstone/sand | 100 | 2.48 | 1.36 | 1.43 | 0 | 1.73 | 1 | 2.1 | U02/0047-1 |
| 1932.9 | ccp | sandstone/sand | 100 | 2.23 | 1.25 | 1.37 | 2.6 | 1.63 | 0.77 | 1.92 | U02/0048-1 |
| 1934.7 | ccp | sandstone/sand | 100 | 2.37 | 1.2 | 1.21 | 1.86 | 1.95 | 0.72 | 2.16 | U02/0049-1 |
| 1936.75 | ccp | sandstone/sand | 100 | 2.96 | 1.22 | 1.57 | 0 | 1.89 | 1 | 2.36 | U02/0050-1 |
| 1938.6 | ccp | sandstone/sand | 100 | 3.06 | 1.12 | 1.46 | 1.07 | 2.1 | 0.68 | 2.52 | U02/0051-1 |
| 1941.09 | ccp | sandstone/sand | 100 | 1.97 | 1.4 | 1.77 | 1.1 | 1.11 | 0.67 | 1.49 | U02/0052-1 |
| 1943.5 | ccp | sandstone/sand | 100 | 1.95 | 1.44 | 1.74 | 1.1 | 1.12 | 0.67 | 1.5 | U02/0053-1 |
| 1945.97 | ccp | sandstone/sand | 100 | 1.89 | 1.48 | 1.63 | 1.14 | 1.16 | 0.66 | 1.51 | U02/0054-1 |
| 1947 | ccp | sandstone/sand | 100 | 1.96 | 1.43 | 1.68 | 1.05 | 1.17 | 0.66 | 1.53 | U02/0055-1 |
| 1949.52 | ccp | bulk fraction | | 1.87 | 1.52 | 1.73 | 1.19 | 1.08 | 0.7 | 1.45 | T92/0158-0 |
| 1951.76 | ccp | sandstone/sand | 100 | 2.08 | 1.43 | 1.59 | 1.08 | 1.31 | 0.65 | 1.67 | U02/0057-1 |
| 1953 | ccp | sandstone/sand | 100 | 2 | 1.46 | 1.67 | 1.1 | 1.2 | 0.69 | 1.57 | U02/0058-1 |
| 1957.96 | ccp | sandstone/sand | 100 | 3.02 | 1.18 | 1.54 | 1.91 | 1.96 | 0.71 | 2.42 | U02/0059-1 |
| 1959.68 | ccp | sandstone/sand | 100 | 2.93 | 1.42 | 1.48 | 1.22 | 1.98 | 0.66 | 2.44 | U02/0060-1 |
| 1960.14 | ccp | sandstone/sand | 100 | 2.64 | 1.47 | 1.51 | 1.22 | 1.75 | 0.66 | 2.19 | U02/0061-1 |
| 1960.67 | ccp | bulk fraction | | 2.87 | 1.55 | 1.68 | 1.16 | 1.71 | 0.69 | 2.27 | T92/0159-0 |
| 1963 | ccp | sandstone/sand | 100 | 2.59 | 1.42 | 1.75 | 1.25 | 1.48 | 0.66 | 1.98 | U02/0063-1 |
| 1965.6 | ccp | sandstone/sand | 100 | 2.4 | 1.2 | 1.06 | 2.39 | 2.25 | 0.75 | 2.33 | U02/0064-1 |
| 1967.24 | ccp | sandstone/sand | 100 | 2.07 | 1.09 | 1.63 | 0 | 1.27 | 1 | 1.59 | U02/0065-1 |
| 1969.51 | ccp | sandstone/sand | 100 | 1.95 | 1.07 | 1.87 | 0 | 1.05 | 1 | 1.38 | U02/0068-1 |
| 1970.81 | ccp | bulk fraction | | 1.26 | 1.31 | 1.24 | 1.32 | 1.02 | 0.77 | 1.14 | T92/0162-0 |
| 1971.33 | ccp | sandstone/sand | 100 | 2.07 | 0.95 | 1.51 | 0 | 1.37 | 1 | 1.64 | U02/0070-1 |
| 1986 | cut | sandstone/sand | 80 | 0.9 | 1.73 | 1.37 | 2.36 | 0.65 | 0.77 | 0.79 | U02/0075-1 |
| 1992 | cut | sandstone/sand | 75 | 1.36 | 2.05 | 1.75 | 2.29 | 0.78 | 0.62 | 1.09 | U02/0076-1 |
| 2001 | cut | sandstone/sand | 45 | 1.42 | 2.15 | 2.03 | 2.67 | 0.7 | 0.64 | 1.07 | U02/0077-1 |
| 2040 | cut | sandstone/sand | 65 | 1.37 | 1.91 | 1.96 | 2.47 | 0.7 | 0.44 | 1.03 | U02/0078-1 |

## Table 9c[1] Aromatic Hydrocarbon Gas Chromatography - Peak Areas

| Lower depth | Sample type | Desc | %Lith. | 2MN | 1MN | BPh | 2EN | 1EN | 2.6+ 2.7DMN | 1.6DMN | 1.5DMN | 1.3.7TMN | 1.3.6TMN | 1.3.5TMN | 1.4.6+ 2.3.6TMN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.4 | ccp | sandstone/sand | 100 | 190436 | 113706 | 125277 | 119111 | 108218 | 418201 | 407909 | 89987 | 251723 | 333688 | 313365 | 354348 |
| 1855.8 | ccp | carbonate | 100 | 97039 | 63090 | 114578 | 84325 | 78174 | 318431 | 327309 | 74499 | 237268 | 320195 | 316460 | 331701 |
| 1867.3 | ccp | sandstone/sand | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 53514 | 74874 | 91821 | 86507 |
| 1875.6 | ccp | sandstone/sand | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 81575 | 116732 | 153698 | 144252 |
| 1890 | ccp | sandstone/sand | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 104300 | 152981 | 197832 | 183832 |
| 1892.5 | ccp | sandstone/sand | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112779 | 165699 | 207862 | 192228 |
| 1901.2 | ccp | sandstone/sand | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 96423 | 140370 | 189492 | 167587 |
| 1911.8 | ccp | sandstone/sand | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 76244 | 84874 | 162996 | 185433 |
| 1924.7 | ccp | sandstone/sand | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44280 | 49749 | 89508 | 110127 |
| 1938.6 | ccp | sandstone/sand | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 53912 | 56778 | 113303 | 101664 |
| 1949.5 | ccp | sandstone/sand | 100 | 162525 | 76216 | 67380 | 0 | 0 | 151023 | 0 | 0 | 121705 | 138132 | 212507 | 188593 |
| 1958 | ccp | sandstone/sand | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 99069 | 119230 | 231040 | 125190 |
| 1959.7 | ccp | sandstone/sand | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 54976 | 71632 | 111360 | 114537 |
| 1971.3 | ccp | sandstone/sand | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66770 | 66255 | 138118 | 122816 |

| Lower depth | Sample type | Desc | %Lith. | P | 3MP | 2MP | 9MP | 1MP | DBT | 4MDBT | 2+ 3MDBT | 1MDBT | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.4 | ccp | sandstone/sand | 100 | 278089 | 149964 | 190233 | 134451 | 102705 | 0 | 198453 | 0 | 0 | U02/0001-1 |
| 1855.8 | ccp | carbonate | 100 | 293226 | 167212 | 202316 | 147259 | 111423 | 0 | 169123 | 0 | 0 | U02/0011-1 |
| 1867.3 | ccp | sandstone/sand | 100 | 208059 | 47377 | 68972 | 73684 | 50746 | 0 | 0 | 0 | 0 | U02/0072-1 |
| 1875.6 | ccp | sandstone/sand | 100 | 471022 | 124260 | 165632 | 183346 | 122506 | 0 | 184943 | 0 | 0 | U02/0020-1 |
| 1890 | ccp | sandstone/sand | 100 | 546526 | 139270 | 185249 | 207274 | 113849 | 0 | 155950 | 0 | 0 | U02/0026-1 |
| 1892.5 | ccp | sandstone/sand | 100 | 502240 | 130034 | 156674 | 181171 | 101561 | 0 | 116932 | 0 | 0 | U02/0071-1 |
| 1901.2 | ccp | sandstone/sand | 100 | 433216 | 115639 | 157243 | 179636 | 96081 | 0 | 92026 | 0 | 0 | U02/0030-1 |
| 1911.8 | ccp | sandstone/sand | 100 | 367084 | 97556 | 138527 | 157666 | 80066 | 0 | 94627 | 0 | 0 | U02/0036-1 |
| 1924.7 | ccp | sandstone/sand | 100 | 188211 | 45738 | 66446 | 73493 | 37932 | 0 | 0 | 0 | 0 | U02/0073-1 |
| 1938.6 | ccp | sandstone/sand | 100 | 419353 | 95113 | 167362 | 180422 | 94502 | 0 | 0 | 0 | 0 | U02/0051-1 |
| 1949.5 | ccp | sandstone/sand | 100 | 289526 | 77373 | 126150 | 114094 | 63329 | 0 | 0 | 0 | 0 | U02/0074-1 |
| 1958 | ccp | sandstone/sand | 100 | 624363 | 140598 | 250920 | 272915 | 130233 | 0 | 151783 | 0 | 0 | U02/0059-1 |
| 1959.7 | ccp | sandstone/sand | 100 | 343397 | 97583 | 141076 | 141093 | 78693 | 0 | 0 | 0 | 0 | U02/0060-1 |
| 1971.3 | ccp | sandstone/sand | 100 | 306697 | 87437 | 150816 | 140187 | 77113 | 0 | 0 | 0 | 0 | U02/0070-1 |

Table 9Ca: Aromatic Hydrocarbon Ratios (peak area) for well NOCS 6608/10-6 RES



Depth unit of measure: m

| Depth | Typ | Lithology | MNR | DMNR | BPhR | 2/1MP | MPI1 | MPI2 | Rc | DBT/P | 4/1MDBT | (3+2) /1MDBT | Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | S/Sst : gy brn | 1.67 | 4.65 | 0.31 | 1.85 | 0.99 | 1.11 | 0.99 | - | - | - | 0001-1L |
| 1855.80 | ccp | Ca : lt or to dsk y brn | 1.54 | 4.27 | 0.35 | 1.82 | 1.00 | 1.10 | 1.00 | - | - | - | 0011-1L |
| 1867.30 | ccp | S/Sst : pl y brn to dsk y brn | - | - | - | 1.36 | 0.52 | 0.62 | 0.71 | - | - | - | 0072-1L |
| 1875.60 | ccp | S/Sst : pl y brn to dsk y brn | - | - | - | 1.35 | 0.56 | 0.64 | 0.74 | - | - | - | 0020-1L |
| 1890.00 | ccp | S/Sst : lt brn to m brn | - | - | - | 1.63 | 0.56 | 0.64 | 0.74 | - | - | - | 0026-1L |
| 1892.48 | ccp | S/Sst : or gy to pl y brn | - | - | - | 1.54 | 0.55 | 0.60 | 0.73 | - | - | - | 0071-1L |
| 1901.20 | ccp | S/Sst : lt or to m y brn | - | - | - | 1.64 | 0.58 | 0.67 | 0.75 | - | - | - | 0030-1L |
| 1911.75 | ccp | S/Sst : lt brn to m brn | - | - | - | 1.73 | 0.59 | 0.69 | 0.75 | - | - | - | 0036-1L |
| 1924.65 | ccp | S/Sst : lt brn | - | - | - | 1.75 | 0.56 | 0.67 | 0.74 | - | - | - | 0073-1L |
| 1938.60 | ccp | S/Sst : or gy to lt brn | - | - | - | 1.77 | 0.57 | 0.72 | 0.74 | - | - | - | 0051-1L |
| 1949.52 | ccp | S/Sst : lt brn to m brn | 2.13 | - | - | 1.99 | 0.65 | 0.81 | 0.79 | - | - | - | 0074-1L |
| 1957.96 | ccp | S/Sst : or gy to lt brn | - | - | - | 1.93 | 0.57 | 0.73 | 0.74 | - | - | - | 0059-1L |
| 1959.68 | ccp | S/Sst : lt brn to m brn | - | - | - | 1.79 | 0.64 | 0.75 | 0.78 | - | - | - | 0060-1L |
| 1971.33 | ccp | S/Sst : or gy to lt or | - | - | - | 1.96 | 0.68 | 0.86 | 0.81 | - | - | - | 0070-1L |

Table 9Cb: Aromatic Hydrocarbon Ratios (peak area) for well NOCS 6608/10-6 RES



Depth unit of measure: m

| Depth | Typ | Lithology | F1 | F2 | Sample |
|---|---|---|---|---|---|
| 1827.35 | ccp | S/Sst : gy brn | 0.59 | 0.33 | 0001-1L |
| 1855.80 | ccp | Ca : lt or to dsk y brn | 0.59 | 0.32 | 0011-1L |
| 1867.30 | ccp | S/Sst : pl y brn to dsk y brn | 0.48 | 0.29 | 0072-1L |
| 1875.60 | ccp | S/Sst : pl y brn to dsk y brn | 0.49 | 0.28 | 0020-1L |
| 1890.00 | ccp | S/Sst : lt brn to m brn | 0.50 | 0.29 | 0026-1L |
| 1892.48 | ccp | S/Sst : or gy to pl y brn | 0.50 | 0.28 | 0071-1L |
| 1901.20 | ccp | S/Sst : lt or to m y brn | 0.50 | 0.29 | 0030-1L |
| 1911.75 | ccp | S/Sst : lt brn to m brn | 0.50 | 0.29 | 0036-1L |
| 1924.65 | ccp | S/Sst : lt brn | 0.50 | 0.30 | 0073-1L |
| 1938.60 | ccp | S/Sst : or gy to lt brn | 0.49 | 0.31 | 0051-1L |
| 1949.52 | ccp | S/Sst : lt brn to m brn | 0.53 | 0.33 | 0074-1L |
| 1957.96 | ccp | S/Sst : or gy to lt brn | 0.49 | 0.32 | 0059-1L |
| 1959.68 | ccp | S/Sst : lt brn to m brn | 0.52 | 0.31 | 0060-1L |
| 1971.33 | ccp | S/Sst : or gy to lt or | 0.52 | 0.33 | 0070-1L |

## Table 10a Tabulation of carbon isotope data for EOM /EOM fractions for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | %Lithology | Wh. oil | EOM/Top.oil | Sat. | Aro. | NSO | Asph. | Kerogen | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 0 | 0 | -28.15 | -27.22 | 0 | 0 | 0 | U02/0001-1 |
| 1844.97 | ccp | bulk fraction | | 0 | 0 | -28.18 | -27.04 | 0 | 0 | 0 | T92/0144-0 |
| 1855.8 | ccp | carbonate | 100 | 0 | 0 | -28.32 | -27.17 | 0 | 0 | 0 | U02/0011-1 |
| 1867.3 | ccp | bulk fraction | | 0 | 0 | -28.42 | -27.19 | 0 | 0 | 0 | T92/0148-0 |
| 1875.6 | ccp | sandstone/sand | 100 | 0 | 0 | -28.33 | -27.33 | 0 | 0 | 0 | U02/0020-1 |
| 1883.9 | ccp | bulk fraction | | 0 | 0 | -28.35 | -27.29 | 0 | 0 | 0 | T92/0150-0 |
| 1890 | ccp | sandstone/sand | 100 | 0 | 0 | -28.35 | -27.05 | 0 | 0 | 0 | U02/0026-1 |
| 1892.48 | ccp | sandstone/sand | 100 | 0 | 0 | -28.47 | -27.28 | 0 | 0 | 0 | U02/0071-1 |
| 1901.2 | ccp | sandstone/sand | 100 | 0 | 0 | -28.5 | -27.26 | 0 | 0 | 0 | U02/0030-1 |
| 1911.75 | ccp | sandstone/sand | 100 | 0 | 0 | -28.2 | -27.52 | 0 | 0 | 0 | U02/0036-1 |
| 1922.8 | ccp | bulk fraction | | 0 | 0 | -28.46 | -27.1 | 0 | 0 | 0 | T92/0156-0 |
| 1924.65 | ccp | bulk fraction | | 0 | 0 | -28.29 | -27.3 | 0 | 0 | 0 | T92/0157-0 |
| 1938.6 | ccp | sandstone/sand | 100 | 0 | 0 | -28.6 | -27.19 | 0 | 0 | 0 | U02/0051-1 |
| 1949.52 | ccp | bulk fraction | | 0 | 0 | -28.36 | -27.07 | 0 | 0 | 0 | T92/0158-0 |
| 1957.96 | ccp | sandstone/sand | 100 | 0 | 0 | -28.39 | -27.24 | 0 | 0 | 0 | U02/0059-1 |
| 1959.68 | ccp | sandstone/sand | 100 | 0 | 0 | -28.53 | -27.22 | 0 | 0 | 0 | U02/0060-1 |
| 1970.81 | ccp | bulk fraction | | 0 | 0 | -28.37 | -27.16 | 0 | 0 | 0 | T92/0162-0 |
| 1971.33 | ccp | sandstone/sand | 100 | 0 | 0 | -28.58 | -27.27 | 0 | 0 | 0 | U02/0070-1 |
| 1986 | cut | sandstone/sand | 80 | 0 | 0 | -28.15 | -26.17 | 0 | 0 | 0 | U02/0075-1 |
| 2001 | cut | sandstone/sand | 45 | 0 | 0 | -33.44 | -26 | 0 | 0 | 0 | U02/0077-1 |

## Table 10b Tabulation of cv values from carbon isotope data for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | %Lithology | Sat. | Aro. | CV | Interpretation | Sample number |
|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | -28.15 | -27.22 | -0.86 | Marine | U02/0001-1 |
| 1844.97 | ccp | bulk fraction | | -28.18 | -27.04 | -0.38 | Marine | T92/0144-0 |
| 1855.8 | ccp | carbonate | 100 | -28.32 | -27.17 | -0.32 | Marine | U02/0011-1 |
| 1867.3 | ccp | bulk fraction | | -28.42 | -27.19 | -0.11 | Marine | T92/0148-0 |
| 1875.6 | ccp | sandstone/sand | 100 | -28.33 | -27.33 | -0.65 | Marine | U02/0020-1 |
| 1883.9 | ccp | bulk fraction | | -28.35 | -27.29 | -0.51 | Marine | T92/0150-0 |
| 1890 | ccp | sandstone/sand | 100 | -28.35 | -27.05 | 0.02 | Marine | U02/0026-1 |
| 1892.48 | ccp | sandstone/sand | 100 | -28.47 | -27.28 | -0.18 | Marine | U02/0071-1 |
| 1901.2 | ccp | sandstone/sand | 100 | -28.5 | -27.26 | -0.06 | Marine | U02/0030-1 |
| 1911.75 | ccp | sandstone/sand | 100 | -28.2 | -27.52 | -1.4 | Marine | U02/0036-1 |
| 1922.8 | ccp | bulk fraction | | -28.46 | -27.1 | 0.19 | Marine | T92/0156-0 |
| 1924.65 | ccp | bulk fraction | | -28.29 | -27.3 | -0.68 | Marine | T92/0157-0 |
| 1938.6 | ccp | sandstone/sand | 100 | -28.6 | -27.19 | 0.35 | Marine | U02/0051-1 |
| 1949.52 | ccp | bulk fraction | | -28.36 | -27.07 | 0.01 | Marine | T92/0158-0 |
| 1957.96 | ccp | sandstone/sand | 100 | -28.39 | -27.24 | -0.3 | Marine | U02/0059-1 |
| 1959.68 | ccp | sandstone/sand | 100 | -28.53 | -27.22 | 0.1 | Marine | U02/0060-1 |
| 1970.81 | ccp | bulk fraction | | -28.37 | -27.16 | -0.17 | Marine | T92/0162-0 |
| 1971.33 | ccp | sandstone/sand | 100 | -28.58 | -27.27 | 0.12 | Marine | U02/0070-1 |
| 1986 | cut | sandstone/sand | 80 | -28.15 | -26.17 | 1.47 | Terrigenous | U02/0075-1 |
| 2001 | cut | sandstone/sand | 45 | -33.44 | -26 | 15.23 | Terrigenous | U02/0077-1 |

## Table 11a Variation in Triterpane distribution (peak height) SIR for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | Ratio 1 | Ratio 2 | Ratio 3 | Ratio 4 | Ratio 5 | Ratio 6 | Ratio 7 | Ratio 8 | Ratio 9 | Ratio 10 | Ratio 11 | Ratio 12 | Ratio 13 | Ratio 14 | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 1.07 | 0.52 | 0.13 | 0.51 | 0.34 | 0.09 | 0.1 | 0.19 | 0.09 | 0.07 | 0.91 | 0.34 | 0.12 | 62.61 | U02/0001-1 |
| 1844.97 | ccp | bulk fraction | | 1.07 | 0.52 | 0.13 | 0.5 | 0.33 | 0.09 | 0.1 | 0.21 | 0.09 | 0.09 | 0.91 | 0.34 | 0.12 | 63.46 | T92/0144-0 |
| 1855.8 | ccp | carbonate | 100 | 1.1 | 0.52 | 0.12 | 0.5 | 0.34 | 0.09 | 0.1 | 0.2 | 0.09 | 0.04 | 0.9 | 0.34 | 0.12 | 60.92 | U02/0011-1 |
| 1867.3 | ccp | bulk fraction | | 1.09 | 0.52 | 0.14 | 0.51 | 0.34 | 0.09 | 0.1 | 0.2 | 0.09 | 0.08 | 0.91 | 0.35 | 0.11 | 61.74 | T92/0148-0 |
| 1875.6 | ccp | sandstone/sand | 100 | 1.12 | 0.53 | 0.14 | 0.5 | 0.34 | 0.09 | 0.1 | 0.2 | 0.09 | 0.08 | 0.91 | 0.34 | 0.12 | 61.03 | U02/0020-1 |
| 1883.9 | ccp | bulk fraction | | 1.08 | 0.52 | 0.13 | 0.48 | 0.32 | 0.08 | 0.1 | 0.2 | 0.09 | 0.07 | 0.91 | 0.33 | 0.12 | 60.8 | T92/0150-0 |
| 1890 | ccp | sandstone/sand | 100 | 1.09 | 0.52 | 0.14 | 0.51 | 0.34 | 0.09 | 0.11 | 0.22 | 0.1 | 0.09 | 0.9 | 0.34 | 0.12 | 60.25 | U02/0026-1 |
| 1892.48 | ccp | sandstone/sand | 100 | 1.1 | 0.52 | 0.14 | 0.51 | 0.34 | 0.09 | 0.11 | 0.21 | 0.1 | 0.08 | 0.91 | 0.35 | 0.12 | 61.3 | U02/0071-1 |
| 1901.2 | ccp | sandstone/sand | 100 | 1.07 | 0.52 | 0.15 | 0.52 | 0.34 | 0.09 | 0.11 | 0.21 | 0.1 | 0.08 | 0.91 | 0.35 | 0.12 | 61.01 | U02/0030-1 |
| 1911.75 | ccp | sandstone/sand | 100 | 1.08 | 0.52 | 0.13 | 0.49 | 0.33 | 0.1 | 0.1 | 0.21 | 0.09 | 0.05 | 0.89 | 0.34 | 0.14 | 60.47 | U02/0036-1 |
| 1922.8 | ccp | bulk fraction | | 1.06 | 0.51 | 0.14 | 0.51 | 0.34 | 0.09 | 0.1 | 0.21 | 0.09 | 0.08 | 0.9 | 0.34 | 0.12 | 60.39 | T92/0156-0 |
| 1924.65 | ccp | bulk fraction | | 1.07 | 0.52 | 0.13 | 0.49 | 0.33 | 0.09 | 0.1 | 0.21 | 0.09 | 0.07 | 0.91 | 0.34 | 0.12 | 60.61 | T92/0157-0 |
| 1938.6 | ccp | sandstone/sand | 100 | 1.09 | 0.52 | 0.13 | 0.5 | 0.33 | 0.1 | 0.11 | 0.21 | 0.1 | 0.06 | 0.9 | 0.34 | 0.13 | 59.95 | U02/0051-1 |
| 1949.52 | ccp | bulk fraction | | 1.06 | 0.51 | 0.13 | 0.5 | 0.33 | 0.09 | 0.1 | 0.2 | 0.09 | 0.08 | 0.91 | 0.34 | 0.11 | 62.07 | T92/0158-0 |
| 1957.96 | ccp | sandstone/sand | 100 | 1.11 | 0.53 | 0.15 | 0.5 | 0.33 | 0.1 | 0.11 | 0.22 | 0.1 | 0.08 | 0.91 | 0.35 | 0.12 | 60.56 | U02/0059-1 |
| 1959.68 | ccp | sandstone/sand | 100 | 1.04 | 0.51 | 0.14 | 0.53 | 0.34 | 0.09 | 0.11 | 0.21 | 0.1 | 0.09 | 0.9 | 0.35 | 0.12 | 60.47 | U02/0060-1 |
| 1970.81 | ccp | bulk fraction | | 1.11 | 0.53 | 0.14 | 0.53 | 0.35 | 0.09 | 0.11 | 0.2 | 0.1 | 0.08 | 0.9 | 0.35 | 0.12 | 60.51 | T92/0162-0 |
| 1971.33 | ccp | sandstone/sand | 100 | 1.08 | 0.52 | 0.14 | 0.52 | 0.34 | 0.09 | 0.11 | 0.21 | 0.1 | 0.07 | 0.91 | 0.35 | 0.12 | 60.62 | U02/0070-1 |
| 1986 | cut | sandstone/sand | 80 | 1.27 | 0.56 | 0.18 | 0.55 | 0.35 | 0.08 | 0.12 | 0.23 | 0.11 | 0.07 | 0.89 | 0.37 | 0.16 | 57.83 | U02/0075-1 |
| 2001 | cut | sandstone/sand | 45 | 1.55 | 0.61 | 0.18 | 0.56 | 0.36 | 0.08 | 0.55 | 1 | 0.36 | 0.05 | 0.84 | 0.41 | 0.29 | 44.33 | U02/0077-1 |

## Table 11b Variation in steran distribution (peak height) SIR for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | Ratio 1 | Ratio 2 | Ratio 3 | Ratio 4 | Ratio 5 | Ratio 6 | Ratio 7 | Ratio 8 | Ratio 9 | Ratio 10 | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 0.73 | 47.32 | 74.67 | 0.77 | 0.76 | 0.32 | 0.23 | 0.6 | 0.9 | 2.8 | U02/0001-1 |
| 1844.97 | ccp | bulk fraction | | 0.73 | 47.37 | 74.36 | 0.69 | 0.75 | 0.38 | 0.27 | 0.59 | 0.9 | 2.75 | T92/0144-0 |
| 1855.8 | ccp | carbonate | 100 | 0.7 | 45.23 | 73.53 | 0.73 | 0.75 | 0.21 | 0.15 | 0.58 | 0.83 | 2.54 | U02/0011-1 |
| 1867.3 | ccp | bulk fraction | | 0.73 | 46.52 | 75.56 | 0.83 | 0.77 | 0.37 | 0.27 | 0.61 | 0.87 | 2.89 | T92/0148-0 |
| 1875.6 | ccp | sandstone/sand | 100 | 0.72 | 47.46 | 75.76 | 0.83 | 0.77 | 0.33 | 0.24 | 0.61 | 0.9 | 2.97 | U02/0020-1 |
| 1883.9 | ccp | bulk fraction | | 0.72 | 47.61 | 75.51 | 0.77 | 0.76 | 0.36 | 0.26 | 0.61 | 0.91 | 2.94 | T92/0150-0 |
| 1890 | ccp | sandstone/sand | 100 | 0.74 | 47.95 | 75.82 | 0.89 | 0.77 | 0.35 | 0.26 | 0.61 | 0.92 | 3.01 | U02/0026-1 |
| 1892.48 | ccp | sandstone/sand | 100 | 0.73 | 47.54 | 75.41 | 0.85 | 0.76 | 0.34 | 0.25 | 0.61 | 0.91 | 2.92 | U02/0071-1 |
| 1901.2 | ccp | sandstone/sand | 100 | 0.74 | 47.83 | 75.96 | 0.89 | 0.77 | 0.33 | 0.25 | 0.61 | 0.92 | 3.03 | U02/0030-1 |
| 1911.75 | ccp | sandstone/sand | 100 | 0.71 | 45.92 | 73.76 | 0.74 | 0.75 | 0.2 | 0.14 | 0.58 | 0.85 | 2.6 | U02/0036-1 |
| 1922.8 | ccp | bulk fraction | | 0.73 | 47.69 | 75.68 | 0.88 | 0.77 | 0.35 | 0.26 | 0.61 | 0.91 | 2.97 | T92/0156-0 |
| 1924.65 | ccp | bulk fraction | | 0.72 | 47.76 | 76.02 | 0.84 | 0.77 | 0.32 | 0.23 | 0.61 | 0.91 | 3.03 | T92/0157-0 |
| 1938.6 | ccp | sandstone/sand | 100 | 0.7 | 47.26 | 75.12 | 0.77 | 0.76 | 0.23 | 0.17 | 0.6 | 0.9 | 2.86 | U02/0051-1 |
| 1949.52 | ccp | bulk fraction | | 0.73 | 47.37 | 75.32 | 0.8 | 0.76 | 0.34 | 0.24 | 0.6 | 0.9 | 2.9 | T92/0158-0 |
| 1957.96 | ccp | sandstone/sand | 100 | 0.73 | 47.95 | 75.88 | 0.86 | 0.77 | 0.35 | 0.26 | 0.61 | 0.92 | 3.02 | U02/0059-1 |
| 1959.68 | ccp | sandstone/sand | 100 | 0.74 | 48.72 | 75.59 | 0.85 | 0.76 | 0.34 | 0.25 | 0.61 | 0.95 | 3.02 | U02/0060-1 |
| 1970.81 | ccp | bulk fraction | | 0.72 | 47.23 | 75.81 | 0.86 | 0.77 | 0.34 | 0.25 | 0.61 | 0.9 | 2.97 | T92/0162-0 |
| 1971.33 | ccp | sandstone/sand | 100 | 0.74 | 48.35 | 76.27 | 0.88 | 0.77 | 0.32 | 0.24 | 0.62 | 0.94 | 3.11 | U02/0070-1 |
| 1986 | cut | sandstone/sand | 80 | 0.71 | 40.77 | 74.42 | 0.83 | 0.78 | 0.43 | 0.33 | 0.59 | 0.69 | 2.46 | U02/0075-1 |
| 2001 | cut | sandstone/sand | 45 | 0.58 | 27.98 | 72.73 | 0.54 | 0.83 | 0.29 | 0.21 | 0.57 | 0.39 | 1.85 | U02/0077-1 |

## Table 11c Raw triterpane data (peak height) m/z 191 SIR for well 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | 23/3 (P) | 24/3 (Q) | 25/3 (R) | 24/4 (S) | 26/3 (T) | 27Ts (A) | 27Tm (B) | 28ab (Z) | 25nor30ab (Z1) | 29ab (C) | 29Ts (C1) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 11926.3 | 9920.5 | 4122.2 | 12143.9 | 3084.4 | 21545.5 | 22978.3 | 12965.1 | 11265.6 | 68135.6 | 19212.8 |
| 1844.97 | ccp | bulk fraction | | 5738.2 | 5121.4 | 1945 | 5792.4 | 1362.8 | 9567.7 | 10215.5 | 6224.2 | 6267.9 | 29782.9 | 8177.9 |
| 1855.8 | ccp | carbonate | 100 | 31742 | 24562.6 | 10928.2 | 38305.1 | 9010.2 | 77483.9 | 85532.9 | 54731 | 45861.2 | 275683.2 | 78603.1 |
| 1867.3 | ccp | bulk fraction | | 13177.2 | 11045.8 | 4467.4 | 13075 | 2972.9 | 22248 | 24326.4 | 14067.2 | 13410.3 | 69432.6 | 19340.4 |
| 1875.6 | ccp | sandstone/sand | 100 | 13834.2 | 11520.4 | 4786.4 | 14597.1 | 3490.6 | 23363.6 | 26087 | 14985.6 | 13592.3 | 75318.6 | 21311.2 |
| 1883.9 | ccp | bulk fraction | | 11630.5 | 10403.1 | 3962.2 | 12643.7 | 2879.9 | 21884.8 | 23617.9 | 13494.6 | 12748.4 | 67078 | 18507 |
| 1890 | ccp | sandstone/sand | 100 | 16257.2 | 13835.1 | 5330.6 | 16649 | 3913 | 26345.5 | 28713.3 | 17277.1 | 15790.6 | 80354 | 22915.8 |
| 1892.48 | ccp | sandstone/sand | 100 | 17216.7 | 14690.7 | 6035.5 | 18103.8 | 4545.8 | 29347.9 | 32350.4 | 19987.6 | 17596.4 | 94832.3 | 26820.4 |
| 1901.2 | ccp | sandstone/sand | 100 | 8910.8 | 7737.7 | 3157.2 | 9350.7 | 2237.4 | 17447 | 18601 | 10819.9 | 9973 | 50359.3 | 14843.7 |
| 1911.75 | ccp | sandstone/sand | 100 | 42377.9 | 40622.7 | 18954.8 | 53010.2 | 14493 | 115101.3 | 124395.5 | 77180.2 | 76456.5 | 368175.8 | 120006 |
| 1922.8 | ccp | bulk fraction | | 18379.9 | 16516.1 | 6779.6 | 19791.8 | 4560.6 | 32670.7 | 34483.2 | 20526 | 19776.7 | 100054.5 | 29325.9 |
| 1924.65 | ccp | bulk fraction | | 21153.3 | 17970 | 7427.4 | 21629.3 | 5138.8 | 37876.1 | 40511.5 | 25166.4 | 23860.5 | 121507.5 | 35673.2 |
| 1938.6 | ccp | sandstone/sand | 100 | 36032 | 32677 | 14242.8 | 42612.9 | 11490 | 92899.2 | 101518.2 | 62727.1 | 59892.5 | 294015.7 | 93069.2 |
| 1949.52 | ccp | bulk fraction | | 16673.3 | 14900.8 | 5873 | 18234.1 | 4294.4 | 30986.5 | 32831.3 | 18764.2 | 17155.6 | 95655.4 | 26371.1 |
| 1957.96 | ccp | sandstone/sand | 100 | 15094.8 | 12509.5 | 5403.8 | 16057.6 | 3928.6 | 27092.2 | 30184.1 | 17294.2 | 15574.9 | 78337.2 | 23218.4 |
| 1959.68 | ccp | sandstone/sand | 100 | 18076.4 | 16202 | 6255.8 | 18633.3 | 4643.7 | 33292 | 34469.7 | 20659.3 | 22364.6 | 98507.3 | 29615.3 |
| 1970.81 | ccp | bulk fraction | | 24482.6 | 20785.1 | 8456.9 | 25146.4 | 6070.9 | 42751 | 47491.9 | 27329.8 | 25313.7 | 136823.1 | 38980.5 |
| 1971.33 | ccp | sandstone/sand | 100 | 11672.3 | 10073.2 | 4123.5 | 12872.9 | 3280 | 23119.4 | 25071.1 | 14791.2 | 12930.5 | 71439.7 | 20819.8 |
| 1986 | cut | sandstone/sand | 80 | 31998 | 25450.1 | 9665.6 | 42398.4 | 7254.1 | 68444.2 | 87202.3 | 42992.8 | 32187.2 | 189891.1 | 55139.3 |
| 2001 | cut | sandstone/sand | 45 | 10886.3 | 8556.8 | 5101.5 | 13944.5 | 3171.5 | 29997 | 46622.2 | 95643.9 | 15351.4 | 96086.3 | 34121.6 |

## Table 11c Raw triterpane data (peak height) m/z 191 SIR for well 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | 30d (X) | 29ba (D) | 30O | 30ab (E) | 30ba (F) | 30G | 31abS (G) | 31abR (H) | 31ba (I) | 32abS (J1) | 32abR (J2) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 11663.5 | 9352.8 | 2646.3 | 133382.6 | 13926.5 | 3244.3 | 39061.6 | 27499.2 | 4603.6 | 26093.7 | 15582.5 |
| 1844.97 | ccp | bulk fraction | | 5167.7 | 4286.5 | 1326.3 | 60143.8 | 6119.3 | 1481.6 | 17072.7 | 11756.7 | 2082.3 | 11395.9 | 6562.8 |
| 1855.8 | ccp | carbonate | 100 | 50736.5 | 38981.1 | 13511.5 | 546418.9 | 63164.4 | 33836.3 | 179732 | 129391.7 | 23076.1 | 119675.7 | 76762.5 |
| 1867.3 | ccp | bulk fraction | | 11817.3 | 9569.7 | 2561.3 | 136230.3 | 13346.1 | 3544.6 | 38922 | 26193 | 4744.9 | 24146.7 | 14966.3 |
| 1875.6 | ccp | sandstone/sand | 100 | 13410.6 | 10999.2 | 2973.7 | 149332.1 | 15544.3 | 0 | 43250.4 | 29930.2 | 5301.3 | 27169.8 | 17350.4 |
| 1883.9 | ccp | bulk fraction | | 11637.4 | 10005.6 | 2855.3 | 139354.4 | 13903.9 | 3414.5 | 39288.1 | 26666.7 | 4816.7 | 24159.2 | 15573.3 |
| 1890 | ccp | sandstone/sand | 100 | 14468.7 | 11507.2 | 0 | 157950.3 | 16897.4 | 0 | 46869.8 | 31598.7 | 5833 | 27968 | 18455.5 |
| 1892.48 | ccp | sandstone/sand | 100 | 17129.9 | 14492.3 | 0 | 186829.6 | 19071.1 | 0 | 53848.5 | 37791.8 | 7072.1 | 34592 | 21836.8 |
| 1901.2 | ccp | sandstone/sand | 100 | 9111.9 | 7649.3 | 0 | 96979.6 | 10170.9 | 0 | 27054.4 | 19107.4 | 3414.1 | 17346.9 | 11087.6 |
| 1911.75 | ccp | sandstone/sand | 100 | 75714.6 | 56091.8 | 0 | 745282.1 | 96027.8 | 21899.1 | 256938.1 | 182698 | 35283.9 | 168699.2 | 110292.6 |
| 1922.8 | ccp | bulk fraction | | 18107.4 | 14723.1 | 4259.5 | 198002.3 | 21081.2 | 4950.8 | 55554.7 | 38799.3 | 6839.3 | 35123.6 | 23039.6 |
| 1924.65 | ccp | bulk fraction | | 21031.7 | 17485 | 4787.6 | 246938.2 | 25123.6 | 6388.6 | 70287.4 | 50574.8 | 8940.5 | 46264.9 | 30071.9 |
| 1938.6 | ccp | sandstone/sand | 100 | 59261 | 47857.3 | 17787.5 | 584806.6 | 67497.5 | 16871.1 | 186176.4 | 134368.6 | 25959.9 | 120682.9 | 80632.6 |
| 1949.52 | ccp | bulk fraction | | 16643.3 | 13581.9 | 3630.1 | 192013.1 | 18865.9 | 4968.4 | 55931.1 | 38318.6 | 6759.6 | 35719.4 | 21828.4 |
| 1957.96 | ccp | sandstone/sand | 100 | 15173 | 12463.7 | 3975.8 | 155613.1 | 15923.7 | 4068.6 | 44320.1 | 30814.7 | 5550.6 | 27762.4 | 18077.1 |
| 1959.68 | ccp | sandstone/sand | 100 | 17700.5 | 14637.6 | 4649.7 | 187295 | 20383.5 | 5251.4 | 56968.2 | 37809 | 7290.8 | 34884.6 | 22806.9 |
| 1970.81 | ccp | bulk fraction | | 23432.4 | 19334.1 | 5245.6 | 258064.7 | 29180.6 | 7036.5 | 76138.2 | 54146.4 | 9706 | 48458.4 | 31624.5 |
| 1971.33 | ccp | sandstone/sand | 100 | 12861.4 | 10903.2 | 3477.9 | 138226.7 | 14332.7 | 3730.7 | 40151.6 | 27406.7 | 5181.5 | 24412.9 | 15856.9 |
| 1986 | cut | sandstone/sand | 80 | 29098.7 | 42298.9 | 0 | 346646.3 | 42194.4 | 13025.2 | 84096.9 | 78710.1 | 19817.4 | 49963.9 | 36436.7 |
| 2001 | cut | sandstone/sand | 45 | 14140.2 | 46334.6 | 0 | 173012.1 | 32831.6 | 13167.9 | 30762.1 | 59686.4 | 23094.9 | 17242 | 21654.2 |

## Table 11c Raw triterpane data (peak height) m/z 191 SIR for well 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | 33abS (K1) | 33abR (K2) | 34abS (L1) | 34abR (L2) | 35abS (M1) | 35abR (M2) | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 17497.8 | 9846.9 | 10307.5 | 6116.6 | 6285.9 | 4347 | U02/0001-1 |
| 1844.97 | ccp | bulk fraction | | 7830.1 | 4189.1 | 4307.1 | 2492.8 | 2576 | 1724.3 | T92/0144-0 |
| 1855.8 | ccp | carbonate | 100 | 88707.5 | 52028.3 | 52556.1 | 32414.7 | 34103.2 | 23646.7 | U02/0011-1 |
| 1867.3 | ccp | bulk fraction | | 18161.5 | 9954.5 | 10260.8 | 6115 | 6039.4 | 4214.3 | T92/0148-0 |
| 1875.6 | ccp | sandstone/sand | 100 | 19201.8 | 11373.4 | 11641.9 | 7170.9 | 7154.4 | 4903.6 | U02/0020-1 |
| 1883.9 | ccp | bulk fraction | | 17505.1 | 10179.2 | 10078.7 | 6172.8 | 6480.6 | 4446.4 | T92/0150-0 |
| 1890 | ccp | sandstone/sand | 100 | 20512.4 | 12073.4 | 12187.6 | 7147.1 | 7509 | 5330.7 | U02/0026-1 |
| 1892.48 | ccp | sandstone/sand | 100 | 23939 | 13848.6 | 14198.9 | 8767.2 | 9456.8 | 6142.7 | U02/0071-1 |
| 1901.2 | ccp | sandstone/sand | 100 | 12242.2 | 7151.4 | 7312.3 | 4501 | 4830.8 | 3169.9 | U02/0030-1 |
| 1911.75 | ccp | sandstone/sand | 100 | 122446.4 | 74063.4 | 75699.6 | 48902.1 | 51437.4 | 34847.8 | U02/0036-1 |
| 1922.8 | ccp | bulk fraction | | 25710.2 | 14463.5 | 15096.1 | 9139 | 9647.8 | 6261.9 | T92/0156-0 |
| 1924.65 | ccp | bulk fraction | | 35545 | 19615.5 | 20225.9 | 12513.1 | 13054 | 8552.3 | T92/0157-0 |
| 1938.6 | ccp | sandstone/sand | 100 | 87638.1 | 53799.4 | 53269.4 | 33858.1 | 35891.3 | 23769.4 | U02/0051-1 |
| 1949.52 | ccp | bulk fraction | | 25409.8 | 14331 | 14431.4 | 8449 | 8659.3 | 5969.1 | T92/0158-0 |
| 1957.96 | ccp | sandstone/sand | 100 | 19070.2 | 11539.4 | 11397.2 | 7063.8 | 7482.7 | 4894.2 | U02/0059-1 |
| 1959.68 | ccp | sandstone/sand | 100 | 24264.3 | 14321.1 | 13889 | 8804.4 | 8979.4 | 5970.7 | U02/0060-1 |
| 1970.81 | ccp | bulk fraction | | 35560.9 | 20432.5 | 20659.3 | 12740.7 | 13093.5 | 8797.7 | T92/0162-0 |
| 1971.33 | ccp | sandstone/sand | 100 | 17290.2 | 10165.2 | 9900.5 | 5957.2 | 6305.4 | 4196.3 | U02/0070-1 |
| 1986 | cut | sandstone/sand | 80 | 32665 | 19638.2 | 17338.9 | 11012.2 | 10228.2 | 7314.7 | U02/0075-1 |
| 2001 | cut | sandstone/sand | 45 | 11157.5 | 8855.9 | 6023.7 | 4431 | 4417.9 | 2655.9 | U02/0077-1 |

## Table 11d Raw sterane data (peak height) m/z 217 SIR for well NOCS 8008/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | 21a (u) | 22a (v) | 27dbS (a) | 27dbR (b) | 27daR (c) | 27daS (d) | 28dbS (e) | 28dbR (f) | 28daR+ 27aaS (g) | 29dbS+ 27bbR (h) | 28daS+ 27bbS (i) | 27aaR (j) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 17766 | 9756.2 | 27177.9 | 16110.4 | 6370.3 | 6449.2 | 14109.4 | 7982.2 | 9793 | 34418 | 15410 | 10262.8 |
| 1844.97 | ccp | bulk fraction | | 10059.2 | 5151.9 | 12156 | 7498 | 2413.2 | 2542.3 | 6106.4 | 3509.7 | 3994.3 | 18327 | 6689.4 | 4422.1 |
| 1855.8 | ccp | carbonate | 100 | 39171.2 | 22561 | 84082.3 | 51706.5 | 21958 | 21991.2 | 46435.9 | 25857 | 33624.4 | 111450 | 53370 | 36865.9 |
| 1867.3 | ccp | bulk fraction | | 21031.5 | 10739.4 | 25927.1 | 16221.6 | 5873.2 | 5801.5 | 13254.8 | 7360.3 | 8998.5 | 30045 | 14262 | 9785.4 |
| 1875.6 | ccp | sandstone/sand | 100 | 19248 | 10023.7 | 28473.1 | 17649.5 | 6505.2 | 7138.2 | 14960.2 | 8284.7 | 9861.8 | 33086 | 15690 | 10985.5 |
| 1883.9 | ccp | bulk fraction | | 20004.9 | 9632.9 | 24098.8 | 16022 | 5363.2 | 5488.4 | 12726.7 | 7313.3 | 8770.2 | 31840 | 13733 | 9299.9 |
| 1890 | ccp | sandstone/sand | 100 | 23407.5 | 11399.1 | 31173.5 | 19850.7 | 7473.8 | 7460.5 | 15916.2 | 8885.3 | 10926.6 | 34769 | 16634 | 10689 |
| 1892.48 | ccp | sandstone/sand | 100 | 24540.3 | 12429.8 | 33649.2 | 22085.9 | 8263.8 | 8560.1 | 17611.4 | 9659.7 | 12368.4 | 39341 | 19443 | 12535.4 |
| 1901.2 | ccp | sandstone/sand | 100 | 12286.9 | 6235.2 | 17427.4 | 10769.2 | 4373.9 | 4174.7 | 9410.6 | 5086.9 | 5853.5 | 19284 | 9443.4 | 6063.2 |
| 1911.75 | ccp | sandstone/sand | 100 | 51619.2 | 29443.9 | 124066.6 | 70970.7 | 29277.9 | 26726.2 | 60287.9 | 38087.9 | 47572.2 | 152128 | 76715 | 51711.5 |
| 1922.8 | ccp | bulk fraction | | 29632.9 | 14284 | 37055.3 | 25466.5 | 8808.9 | 8802 | 19356.8 | 11165.5 | 13605.9 | 41014 | 20638 | 13910.2 |
| 1924.65 | ccp | bulk fraction | | 32918.5 | 16695.8 | 47957.7 | 32097.6 | 11078.8 | 10615.7 | 24219.8 | 14066.4 | 17169.6 | 55557 | 27164 | 18327.9 |
| 1938.6 | ccp | sandstone/sand | 100 | 43364.1 | 24614.8 | 85106.7 | 51607.2 | 22375.7 | 19204 | 43054.8 | 27129.6 | 32596.3 | 102751 | 52486 | 36944.8 |
| 1949.52 | ccp | bulk fraction | | 26184.8 | 13247.1 | 37146 | 22734.4 | 8009.1 | 7653.3 | 18763.1 | 10777.4 | 12942.4 | 43819 | 20575 | 13575.8 |
| 1957.96 | ccp | sandstone/sand | 100 | 20498.1 | 10195.7 | 26830.8 | 17307.7 | 6601.4 | 6579.1 | 14028.3 | 7797.8 | 9913.5 | 30359 | 14674 | 9854.7 |
| 1959.68 | ccp | sandstone/sand | 100 | 23804.8 | 12321.9 | 34334.8 | 20070.5 | 7930.4 | 8133.9 | 17630.4 | 9368.1 | 11434.2 | 38464 | 18178 | 12085.4 |
| 1970.81 | ccp | bulk fraction | | 38768.4 | 19292.3 | 50738.6 | 31574.9 | 12022.8 | 11713.3 | 26851.3 | 14650.5 | 18411.5 | 55446 | 29192 | 19498.3 |
| 1971.33 | ccp | sandstone/sand | 100 | 15069.2 | 8009.1 | 22146.3 | 14780.5 | 5406 | 5683 | 11878.3 | 6287.5 | 7640.5 | 24693 | 12046 | 7777.8 |
| 1986 | cut | sandstone/sand | 80 | 59861.1 | 30165.4 | 51038.3 | 31185.9 | 12617.1 | 12552.2 | 26794.1 | 14058.8 | 19547.9 | 56852 | 30013 | 21106.3 |
| 2001 | cut | sandstone/sand | 45 | 21756.2 | 9577.9 | 15643.7 | 10158.7 | 5003.4 | 4974.7 | 10235.3 | 5880.1 | 15785.2 | 24103 | 16775 | 11338.8 |

## Table 11d Raw sterane data (peak height) m/z 217 SIR for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | 29dbR (k) | 29daR (l) | 28aaS (m) | 29daS+ 28bbR (n) | 28bbS (o) | 28aaR (p) | 29aaS (q) | 29bbR (r) | 29bbS (s) | 29aaR (t) | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 18381 | 6731 | 5569.4 | 13770 | 15828.2 | 4040.2 | 11058.2 | 19231.2 | 15210 | 12313.2 | U02/0001-1 |
| 1844.97 | ccp | bulk fraction | | 7420 | 2609.5 | 2028.7 | 7439.1 | 6673.9 | 1641.7 | 4761.9 | 8011.1 | 6562.3 | 5290.7 | T92/0144-0 |
| 1855.8 | ccp | carbonate | 100 | 67341.8 | 24786.8 | 21861 | 43716 | 61493.3 | 17528 | 45304.3 | 76760.9 | 62378.2 | 54855.5 | U02/0011-1 |
| 1867.3 | ccp | bulk fraction | | 17489.2 | 5999.6 | 5470.3 | 11547 | 14675.2 | 3459.5 | 9883.8 | 18444.4 | 14392.7 | 11364 | T92/0148-0 |
| 1875.6 | ccp | sandstone/sand | 100 | 19471.6 | 6905.3 | 5903.1 | 12306 | 16442.2 | 4305.2 | 11175.5 | 20344.8 | 16443.8 | 12370.1 | U02/0020-1 |
| 1883.9 | ccp | bulk fraction | | 17130.1 | 5738.1 | 5268.6 | 11908 | 14306.7 | 3490.2 | 9992.9 | 18156.7 | 14203.1 | 10995.7 | T92/0150-0 |
| 1890 | ccp | sandstone/sand | 100 | 20063 | 6912 | 5323.2 | 12472 | 17499.8 | 4429.8 | 11868.9 | 21609.1 | 17201.6 | 12881.4 | U02/0026-1 |
| 1892.48 | ccp | sandstone/sand | 100 | 23316 | 8587.8 | 6963.7 | 14370 | 20135.7 | 5023 | 13592.4 | 23920.6 | 19924.5 | 14997.2 | U02/0071-1 |
| 1901.2 | ccp | sandstone/sand | 100 | 11422 | 3984.6 | 3089.7 | 6774.7 | 10140.4 | 2494.1 | 6905.1 | 12421.7 | 10393.3 | 7533 | U02/0030-1 |
| 1911.75 | ccp | sandstone/sand | 100 | 94786.3 | 34031.6 | 29733.3 | 58064 | 87505.8 | 23266.5 | 62653.4 | 107453.5 | 84296.7 | 73772.1 | U02/0036-1 |
| 1922.8 | ccp | bulk fraction | | 25903.4 | 8527.6 | 8036.4 | 15332 | 20962.2 | 5161.5 | 14906.3 | 27333.7 | 21302.1 | 16350.9 | T92/0156-0 |
| 1924.65 | ccp | bulk fraction | | 33467 | 11369.2 | 10497.1 | 20832 | 28442.7 | 7187.2 | 19752.4 | 36453.4 | 29088 | 21600.9 | T92/0157-0 |
| 1938.6 | ccp | sandstone/sand | 100 | 65709.1 | 23956.3 | 21921.6 | 40371 | 57137.2 | 17127 | 42594.8 | 75009.8 | 61055 | 47535.1 | U02/0051-1 |
| 1949.52 | ccp | bulk fraction | | 24254 | 8456.4 | 7549.6 | 17412 | 20945.9 | 5035 | 14598.1 | 25721.4 | 21305.8 | 16220.2 | T92/0158-0 |
| 1957.96 | ccp | sandstone/sand | 100 | 18624 | 6733.3 | 5677.5 | 11005 | 15597.8 | 3873.9 | 10592.8 | 19165.2 | 15592.5 | 11498.9 | U02/0059-1 |
| 1959.68 | ccp | sandstone/sand | 100 | 22531.5 | 8081.1 | 6821.7 | 14277 | 18900 | 5054.4 | 13668.4 | 24135.3 | 19314.3 | 14388.2 | U02/0060-1 |
| 1970.81 | ccp | bulk fraction | | 34957.3 | 12064.8 | 10921.6 | 20617 | 30069.6 | 7497.5 | 20577.3 | 38297.3 | 29985 | 22990.9 | T92/0162-0 |
| 1971.33 | ccp | sandstone/sand | 100 | 15777.5 | 5280.3 | 4718.3 | 8757.6 | 12848.3 | 3327.9 | 8952 | 16678.2 | 13082.3 | 9562.3 | U02/0070-1 |
| 1986 | cut | sandstone/sand | 80 | 34802.9 | 12676.8 | 10968.5 | 25828 | 29479.3 | 9700.3 | 19722.1 | 38909.4 | 31446.1 | 28652.3 | U02/0075-1 |
| 2001 | cut | sandstone/sand | 45 | 15364.1 | 7498.9 | 5733.8 | 19269 | 12745.7 | 10921.7 | 9133.8 | 23500 | 20022 | 23510.6 | U02/0077-1 |

## Table 11e Raw sterane data (peak height) m/z 218 SIR for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | 27bbR (h) | 27bbS (i) | 28bbR (n) | 28bbS (o) | 29bbR (r) | 29bbS (s) | 30bbR (x) | 30bbS (y) | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 29996.4 | 20213.8 | 20695 | 20811.4 | 27566.1 | 25067.5 | 7346.8 | 6312.1 | U02/0001-1 |
| 1844.97 | ccp | bulk fraction | | 16823.8 | 9015.8 | 11636.8 | 9361.5 | 12528.3 | 11538 | 3288.9 | 2792.5 | T92/0144-0 |
| 1855.8 | ccp | carbonate | 100 | 96585.9 | 70517.9 | 67383.8 | 79835.9 | 111388.7 | 103723.1 | 32280.9 | 27641.4 | U02/0011-1 |
| 1867.3 | ccp | bulk fraction | | 28792 | 19124.9 | 18480.2 | 20625.9 | 27648 | 25237.9 | 7485 | 6216.1 | T92/0148-0 |
| 1875.6 | ccp | sandstone/sand | 100 | 30074.7 | 20590.9 | 18694.1 | 21427.8 | 29312.2 | 26719.6 | 7850.1 | 6657.7 | U02/0020-1 |
| 1883.9 | ccp | bulk fraction | | 29895.7 | 18826.7 | 19054.9 | 19350.1 | 28165 | 24973.3 | 7480.8 | 6125.2 | T92/0150-0 |
| 1890 | ccp | sandstone/sand | 100 | 31447.7 | 22224.4 | 19645.4 | 22776 | 31035 | 28474.4 | 8161.5 | 6955 | U02/0026-1 |
| 1892.48 | ccp | sandstone/sand | 100 | 34497.5 | 24895.3 | 21657.6 | 25869.2 | 34952.9 | 32366.2 | 9165.3 | 7853.1 | U02/0071-1 |
| 1901.2 | ccp | sandstone/sand | 100 | 16957.3 | 12058.7 | 10796.4 | 13060.6 | 17788 | 16421 | 4546.4 | 4008 | U02/0030-1 |
| 1911.75 | ccp | sandstone/sand | 100 | 134505.1 | 97543.9 | 91284.7 | 112700.7 | 148339.9 | 135052.4 | 40667.1 | 36416.4 | U02/0036-1 |
| 1922.8 | ccp | bulk fraction | | 39776.4 | 28375.2 | 24954.8 | 29247.7 | 41564.4 | 36115.9 | 10484.5 | 8713.1 | T92/0156-0 |
| 1924.65 | ccp | bulk fraction | | 51285.5 | 36813.3 | 33557.1 | 38066 | 54830.6 | 48844.9 | 14543.4 | 11761.4 | T92/0157-0 |
| 1938.6 | ccp | sandstone/sand | 100 | 90171.6 | 66922.9 | 62298.8 | 72880.5 | 105491.5 | 98791.5 | 28723 | 24992.4 | U02/0051-1 |
| 1949.52 | ccp | bulk fraction | | 40627.7 | 26519.6 | 27021.4 | 28496.7 | 39129.8 | 36449.9 | 10711.8 | 8914.2 | T92/0158-0 |
| 1957.96 | ccp | sandstone/sand | 100 | 25877.9 | 18861.1 | 16158.8 | 19520.2 | 26790.2 | 24631 | 7136.7 | 6182.6 | U02/0059-1 |
| 1959.68 | ccp | sandstone/sand | 100 | 32260.9 | 22576.6 | 21188.3 | 23849.9 | 33583.1 | 30145.8 | 8513.3 | 7475.4 | U02/0060-1 |
| 1970.81 | ccp | bulk fraction | | 50842.3 | 38828.9 | 32807.7 | 41315.8 | 56053.7 | 50348.5 | 14389 | 12799.3 | T92/0162-0 |
| 1971.33 | ccp | sandstone/sand | 100 | 21691.1 | 15593.9 | 13176.5 | 16488.7 | 22839.6 | 20352.7 | 5792.1 | 5204.7 | U02/0070-1 |
| 1986 | cut | sandstone/sand | 80 | 49919.7 | 36803.8 | 33674.5 | 37043.7 | 52881.1 | 48098.2 | 11666.7 | 13727.3 | U02/0075-1 |
| 2001 | cut | sandstone/sand | 45 | 17101.8 | 11928.1 | 16587.8 | 14046.5 | 29418.9 | 26709.1 | 5085 | 14918.2 | U02/0077-1 |

**Table 11f Raw triterpane data (peak height) m/z 177 SIR for well NOCS 6608/10-6 (reservoir study)**

| Lower depth | Sample type | Desc | %Lithology | 25nor28ab | 25nor30ab | Sample number |
|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 9768.8 | 6284.4 | U02/0001-1 |
| 1844.97 | ccp | bulk fraction | | 4667 | 3611.2 | T92/0144-0 |
| 1855.8 | ccp | carbonate | 100 | 38185.2 | 23306.2 | U02/0011-1 |
| 1867.3 | ccp | bulk fraction | | 10753.3 | 7714.5 | T92/0148-0 |
| 1875.6 | ccp | sandstone/sand | 100 | 10941.4 | 7402.9 | U02/0020-1 |
| 1883.9 | ccp | bulk fraction | | 10747.9 | 7458.4 | T92/0150-0 |
| 1890 | ccp | sandstone/sand | 100 | 12397.2 | 8007 | U02/0026-1 |
| 1892.48 | ccp | sandstone/sand | 100 | 13909.1 | 8814.7 | U02/0071-1 |
| 1901.2 | ccp | sandstone/sand | 100 | 7458.4 | 4847.7 | U02/0030-1 |
| 1911.75 | ccp | sandstone/sand | 100 | 57139.9 | 38261.1 | U02/0036-1 |
| 1922.8 | ccp | bulk fraction | | 15788.3 | 10970.3 | T92/0156-0 |
| 1924.65 | ccp | bulk fraction | | 19780.3 | 13446.9 | T92/0157-0 |
| 1938.6 | ccp | sandstone/sand | 100 | 41739.2 | 28111 | U02/0051-1 |
| 1949.52 | ccp | bulk fraction | | 14510.6 | 9793 | T92/0158-0 |
| 1957.96 | ccp | sandstone/sand | 100 | 11738.8 | 7900.4 | U02/0059-1 |
| 1959.68 | ccp | sandstone/sand | 100 | 14737.3 | 11380.1 | U02/0060-1 |
| 1970.81 | ccp | bulk fraction | | 19613.3 | 13348.2 | T92/0162-0 |
| 1971.33 | ccp | sandstone/sand | 100 | 10064.1 | 6496.3 | U02/0070-1 |
| 1986 | cut | sandstone/sand | 80 | 33642.5 | 20890 | U02/0075-1 |
| 2001 | cut | sandstone/sand | 45 | 43361.8 | 7111.2 | U02/0077-1 |

## Table 11g Amount of triterpanes (ppb) m/z 191 SIR for well NOCS 6608/10-6

| Lower depth | Sample type | Desc | % Lith | 23/3 (P) | 24/3 (Q) | 25/3 (R) | 24/4 (S) | 26/3 (T) | 27Ts (A) | 27Tm (B) | 28ab (Z) | 25nor30ab (Z1) | 29ab (C) | 29Ts (C1) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 72734.9 | 60502.1 | 25140.1 | 74062.3 | 18810.7 | 131399.8 | 140138.2 | 79070.5 | 68705.8 | 415539.2 | 117173 |
| 1844.97 | ccp | bulk fraction | | 88307 | 78815.7 | 29931.7 | 89141.7 | 20972.2 | 147240 | 157210.4 | 95787.1 | 96458.2 | 458340.2 | 125852.1 |
| 1855.8 | ccp | carbonate | 100 | 51564 | 39901.3 | 17752.6 | 62225.5 | 14636.8 | 125870.5 | 138945.8 | 88908.9 | 74500.3 | 447839.6 | 127688.6 |
| 1867.3 | ccp | bulk fraction | | 125801.3 | 105452.4 | 42649.2 | 124825.7 | 28382.1 | 212398.8 | 232240.8 | 134297.9 | 128026.8 | 662864 | 184639.9 |
| 1875.6 | ccp | sandstone/sand | 100 | 101451.7 | 84483.4 | 35100.4 | 107046.3 | 25597.6 | 171334.3 | 191306.3 | 109895.4 | 99677.7 | 552340.6 | 156283 |
| 1883.9 | ccp | bulk fraction | | 122444.3 | 109521.9 | 41713.2 | 133110.6 | 30318.7 | 230399.6 | 248646 | 142069.5 | 134213.2 | 706187.5 | 194839.2 |
| 1890 | ccp | sandstone/sand | 100 | 113818 | 96860.8 | 37319.9 | 116560.8 | 27395 | 184447.4 | 201024 | 120958.7 | 110551.4 | 562565.2 | 160435.5 |
| 1892.48 | ccp | sandstone/sand | 100 | 87032.4 | 74263 | 30510.1 | 91517.1 | 22979.6 | 148357.2 | 163535.4 | 101039.7 | 88952.2 | 479388.6 | 135580.6 |
| 1901.2 | ccp | sandstone/sand | 100 | 74664.6 | 64835.3 | 26454.8 | 78351.1 | 18747.8 | 146191.1 | 155860.3 | 90661.7 | 83565.4 | 421967.5 | 124377.8 |
| 1911.75 | ccp | sandstone/sand | 100 | 59366.2 | 56907.3 | 26553.3 | 74260.7 | 20302.5 | 161242.6 | 174262.6 | 108119.9 | 107106.1 | 515768.5 | 168113.5 |
| 1922.8 | ccp | bulk fraction | | 150254.7 | 135018.8 | 55423.1 | 161796.8 | 37283.1 | 267081.9 | 281899.2 | 167799.4 | 161673.9 | 817941.8 | 239738 |
| 1924.65 | ccp | bulk fraction | | 135655.8 | 115241.7 | 47631.7 | 138708.7 | 32954.9 | 242899 | 259799.9 | 161391.7 | 153017.5 | 779226.8 | 228771.7 |
| 1938.6 | ccp | sandstone/sand | 100 | 63109.9 | 57233.7 | 24946.3 | 74636.3 | 20124.2 | 162712.8 | 177808.8 | 109866.4 | 104901.5 | 514967.6 | 163010.5 |
| 1949.52 | ccp | bulk fraction | | 122472.2 | 109452.8 | 43139.5 | 133936.7 | 31544.2 | 227608.6 | 241159.3 | 137831.1 | 126015.3 | 702628.9 | 193706.9 |
| 1957.96 | ccp | sandstone/sand | 100 | 117424 | 97312.2 | 42036.8 | 124913.5 | 30560.6 | 210752.9 | 234805.2 | 134533 | 121158.4 | 609392.9 | 180617.9 |
| 1959.68 | ccp | sandstone/sand | 100 | 124432.8 | 111530 | 43063.1 | 128266 | 31965.7 | 229172 | 237278.8 | 142212.6 | 153951 | 678094.4 | 203862.6 |
| 1970.81 | ccp | bulk fraction | | 151461.7 | 128587.5 | 52318.7 | 155568.7 | 37557.7 | 264479.5 | 293809.5 | 169076.2 | 156603.7 | 846457.9 | 241153.5 |
| 1971.33 | ccp | sandstone/sand | 100 | 124625.4 | 107551.4 | 44027.1 | 137444 | 35020.3 | 246845.9 | 267684.8 | 157926 | 138059 | 762763.4 | 222293.1 |
| 1986 | cut | sandstone/sand | 80 | 127724.4 | 101587.7 | 38581.5 | 169239.3 | 28955.8 | 273204.8 | 348080.5 | 171612 | 128479.6 | 757977.4 | 220096.3 |
| 2001 | cut | sandstone/sand | 45 | 82989.4 | 65230.8 | 38890.4 | 106303 | 24177.6 | 228675.7 | 355414.6 | 729121.5 | 117028 | 732493.8 | 260118.8 |

## Table 11g Amount of triterpanes (ppb) m/z 191 SIR for well NOCS 6608/10-6

| Lower depth | Sample type | Desc | % Lith | 30d (X) | 29ba (D) | 30O | 30ab (E) | 30ba (F) | 30G | 31abS (G) | 31abR (H) | 31ba (I) | 32abS (J1) | 32abR (J2) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 71132 | 57040.3 | 16139.3 | 813462 | 84933.8 | 19786 | 238225.7 | 167709.8 | 28076.2 | 159137.7 | 95033.2 |
| 1844.97 | ccp | bulk fraction | | 79526.9 | 65966.3 | 20410.2 | 925574.8 | 94172.4 | 22800.5 | 262738.4 | 180928.3 | 32045.7 | 175376.1 | 100998 |
| 1855.8 | ccp | carbonate | 100 | 82420 | 63323.7 | 21949 | 887642.2 | 102608.7 | 54966.1 | 291969.6 | 210193.2 | 37486.5 | 194409.8 | 124698.5 |
| 1867.3 | ccp | bulk fraction | | 112818.5 | 91360.9 | 24452.2 | 1300572 | 127413.4 | 33839.8 | 371582.7 | 250061.4 | 45298.6 | 230525.6 | 142880.9 |
| 1875.6 | ccp | sandstone/sand | 100 | 98344.9 | 80661 | 21807 | 1095109.7 | 113992.3 | 0 | 317171.8 | 219489.3 | 38876.3 | 199246.3 | 127237.2 |
| 1883.9 | ccp | bulk fraction | | 122516.7 | 105337.2 | 30060.1 | 1467102.9 | 146378.5 | 35947.4 | 413619.3 | 280742.9 | 50709.2 | 254344.6 | 163953 |
| 1890 | ccp | sandstone/sand | 100 | 101296.9 | 80562.9 | 0 | 1105823.7 | 118300.3 | 0 | 328139.3 | 221225.4 | 40837.1 | 195806.2 | 129208.5 |
| 1892.48 | ccp | sandstone/sand | 100 | 86593.5 | 73260.4 | 0 | 944446 | 96406.5 | 0 | 272210.5 | 191042 | 35750.2 | 174866.8 | 110387.6 |
| 1901.2 | ccp | sandstone/sand | 100 | 76350.2 | 64094.7 | 0 | 812605.1 | 85223.6 | 0 | 226692.5 | 160103.6 | 28607 | 145352.3 | 92904.9 |
| 1911.75 | ccp | sandstone/sand | 100 | 106066.7 | 78577.6 | 0 | 1044047.4 | 134523 | 30678 | 359938.3 | 255937.1 | 49428.3 | 236326.6 | 154506.2 |
| 1922.8 | ccp | bulk fraction | | 148027.2 | 120360.9 | 34821.5 | 1618661.2 | 172338.3 | 40472.8 | 454157.7 | 317183 | 55911.1 | 287133.8 | 188347.7 |
| 1924.65 | ccp | bulk fraction | | 134876.2 | 112131.2 | 30702.8 | 1583613 | 161117.3 | 40970 | 450752.8 | 324335.9 | 57335.4 | 296696.3 | 192850.8 |
| 1938.6 | ccp | sandstone/sand | 100 | 103795.5 | 83821.9 | 31154.8 | 1024287.1 | 118221.7 | 29549.7 | 326087.4 | 235346.2 | 45468.7 | 211375.7 | 141227.7 |
| 1949.52 | ccp | bulk fraction | | 122251.7 | 99764.8 | 26664.5 | 1410416.4 | 138578.2 | 36495.1 | 410837.3 | 281465.8 | 49651.8 | 262374.1 | 160338.6 |
| 1957.96 | ccp | sandstone/sand | 100 | 118032.5 | 96956 | 30928.4 | 1210529.6 | 123871.8 | 31650 | 344770.2 | 239710.4 | 43178.6 | 215966.7 | 140623.5 |
| 1959.68 | ccp | sandstone/sand | 100 | 121845.2 | 100760.9 | 32007.4 | 1289282.4 | 140313.7 | 36148.9 | 392151.8 | 260265.7 | 50187.7 | 240135.2 | 156996 |
| 1970.81 | ccp | bulk fraction | | 144964.7 | 119610.7 | 32452.2 | 1596520.7 | 180526.4 | 43531.6 | 471030 | 334977.3 | 60046.4 | 299788.7 | 195645.6 |
| 1971.33 | ccp | sandstone/sand | 100 | 137321.2 | 116413.5 | 37133.5 | 1475849.4 | 153031.1 | 39832.9 | 428699.2 | 292622.3 | 55323 | 260657.3 | 169304.1 |
| 1986 | cut | sandstone/sand | 80 | 116151.5 | 168842.3 | 0 | 1383688.1 | 168425 | 51991.9 | 335684.6 | 314182.8 | 79103.9 | 199438.1 | 145442.3 |
| 2001 | cut | sandstone/sand | 45 | 107794.9 | 353221.8 | 0 | 1318921.6 | 250285 | 100382.6 | 234508.7 | 455006.8 | 176059.5 | 131440.9 | 165076 |

## Table 11g Amount of triterpanes (ppb) m/z 191 SIR for well NOCS 6608/10-6

| Lower depth | Sample type | Desc | % Lith | 33abS (K1) | 33abR (K2) | 34abS (L1) | 34abR (L2) | 35abS (M1) | 35abR (M2) | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 106714 | 60053.2 | 62862.8 | 37303.6 | 38335.9 | 26510.9 | U02/0001-1 |
| 1844.97 | ccp | bulk fraction | | 120499.6 | 64467.5 | 66284.1 | 38363.3 | 39642.3 | 26535.6 | T92/0144-0 |
| 1855.8 | ccp | carbonate | 100 | 144102.9 | 84518.4 | 85375.9 | 52656.7 | 55399.8 | 38413.5 | U02/0011-1 |
| 1867.3 | ccp | bulk fraction | | 173385.6 | 95034.7 | 97958.6 | 58379.3 | 57656.9 | 40233.5 | T92/0148-0 |
| 1875.6 | ccp | sandstone/sand | 100 | 140814.6 | 83405.7 | 85374.8 | 52587.2 | 52466 | 35960.1 | U02/0020-1 |
| 1883.9 | ccp | bulk fraction | | 184291 | 107165 | 106107.6 | 64986.7 | 68226.9 | 46811.4 | T92/0150-0 |
| 1890 | ccp | sandstone/sand | 100 | 143609 | 84526.9 | 85326.4 | 50037.6 | 52571.2 | 37320.5 | U02/0026-1 |
| 1892.48 | ccp | sandstone/sand | 100 | 121014.4 | 70006.4 | 71777.1 | 44319.1 | 47805.5 | 31052.2 | U02/0071-1 |
| 1901.2 | ccp | sandstone/sand | 100 | 102579.4 | 59922.6 | 61270.5 | 37714.4 | 40477.9 | 26561.2 | U02/0030-1 |
| 1911.75 | ccp | sandstone/sand | 100 | 171532.2 | 103753.5 | 106045.8 | 68505.8 | 72057.4 | 48817.4 | U02/0036-1 |
| 1922.8 | ccp | bulk fraction | | 210179.7 | 118238.3 | 123409.8 | 74710.6 | 78870.2 | 51191.1 | T92/0156-0 |
| 1924.65 | ccp | bulk fraction | | 227950 | 125794.2 | 129708.5 | 80246.4 | 83715.2 | 54845.7 | T92/0157-0 |
| 1938.6 | ccp | sandstone/sand | 100 | 153497.9 | 94229.5 | 93301.2 | 59302.3 | 62863.6 | 41632 | U02/0051-1 |
| 1949.52 | ccp | bulk fraction | | 186645.5 | 105266.8 | 106004.4 | 62061.1 | 63605.9 | 43845.3 | T92/0158-0 |
| 1957.96 | ccp | sandstone/sand | 100 | 148348.8 | 89766.4 | 88659.9 | 54949.8 | 58208.3 | 38072.8 | U02/0059-1 |
| 1959.68 | ccp | sandstone/sand | 100 | 167028.3 | 98582.3 | 95607.5 | 60606.7 | 61811.6 | 41100.7 | U02/0060-1 |
| 1970.81 | ccp | bulk fraction | | 219998 | 126405.7 | 127809.3 | 78820.7 | 81003.2 | 54427 | T92/0162-0 |
| 1971.33 | ccp | sandstone/sand | 100 | 184608.3 | 108534.5 | 105708.2 | 63605.6 | 67322.5 | 44803.7 | U02/0070-1 |
| 1986 | cut | sandstone/sand | 80 | 130387.1 | 78388.7 | 69210.6 | 43956.7 | 40827.2 | 29197.5 | U02/0075-1 |
| 2001 | cut | sandstone/sand | 45 | 85056.6 | 67511 | 45920.4 | 33778.7 | 33679.2 | 20246.5 | U02/0077-1 |

## Table 11h Amount of steranes (ppb) m/z 217 SIR for well NOCS 6608/10-6 (reservoir study)

| Lower depth | Sample type | Desc | % Lith | 21a (u) | 22a (v) | 27dbS (a) | 27dbR (b) | 27daR (c) | 27daS (d) | 28dbS (e) | 28dbR (f) | 28daR+ 27aaS (g) | 29dbS+ 27bbR (h) | 28daS+ 27bbS (i) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 108349.7 | 59500.4 | 165749.9 | 98252.7 | 38850.7 | 39331.5 | 86049.2 | 48681.1 | 59724.8 | 209905.7 | 93983 |
| 1844.97 | ccp | bulk fraction | | 154803.8 | 79285.1 | 187073 | 115389.4 | 37137.2 | 39124.9 | 93974 | 54012.6 | 61470 | 282038.5 | 102944.9 |
| 1855.8 | ccp | carbonate | 100 | 63632.5 | 36649.6 | 136589.3 | 83995.8 | 35670.1 | 35724.1 | 75433.8 | 42004 | 54621.8 | 181047.4 | 86697.9 |
| 1867.3 | ccp | bulk fraction | | 200785 | 102527.9 | 247522 | 154865.3 | 56070.6 | 55386.5 | 126542 | 70267.6 | 85907.9 | 286836 | 136160.2 |
| 1875.6 | ccp | sandstone/sand | 100 | 141153 | 73507.6 | 208804.3 | 129430.4 | 47704.9 | 52346.8 | 109708.8 | 60754.6 | 72320.4 | 242630.2 | 115056.9 |
| 1883.9 | ccp | bulk fraction | | 210608.6 | 101413.4 | 253708.3 | 168676.9 | 56463.4 | 57781.3 | 133984.7 | 76993 | 92330.9 | 335203.3 | 144574.9 |
| 1890 | ccp | sandstone/sand | 100 | 163877.8 | 79806.3 | 218248.5 | 138976.3 | 52324.7 | 52231.5 | 111430.5 | 62206.5 | 76498.4 | 243420.9 | 116452.9 |
| 1892.48 | ccp | sandstone/sand | 100 | 124054.3 | 62834 | 170100.9 | 111647.1 | 41774.5 | 43272.2 | 89027.6 | 48830.9 | 62523.6 | 198873.9 | 98288.5 |
| 1901.2 | ccp | sandstone/sand | 100 | 102953.9 | 52245.4 | 146026.7 | 90237 | 36649.5 | 34980.7 | 78852.8 | 42623.5 | 49047.4 | 161583 | 79127.6 |
| 1911.75 | ccp | sandstone/sand | 100 | 72312.1 | 41247.3 | 173801.9 | 99421.1 | 41014.6 | 37440.1 | 84455.8 | 53356.3 | 66642.8 | 213112.4 | 107468.3 |
| 1922.8 | ccp | bulk fraction | | 242247.8 | 116771.2 | 302925.4 | 208187.6 | 72012.6 | 71955.7 | 158241.3 | 91277.9 | 111228 | 335285.1 | 168710.9 |
| 1924.65 | ccp | bulk fraction | | 211106.2 | 107069.8 | 307552.5 | 205841.5 | 71048.1 | 68078.2 | 155321.2 | 90208 | 110108.5 | 356288.5 | 174205.2 |
| 1938.6 | ccp | sandstone/sand | 100 | 75952.1 | 43112.8 | 149064.2 | 90389.9 | 39191 | 33635.8 | 75410.3 | 47517.3 | 57092.3 | 179967.6 | 91929.1 |
| 1949.52 | ccp | bulk fraction | | 192337.9 | 97305.8 | 272852.8 | 166993.4 | 58830.4 | 56216.7 | 137822.5 | 79164.8 | 95067.1 | 321868.8 | 151134.2 |
| 1957.96 | ccp | sandstone/sand | 100 | 159457 | 79313.7 | 208719.5 | 134638.4 | 51352.9 | 51179.2 | 109127.5 | 60659.6 | 77117.8 | 236163.5 | 114147.5 |
| 1959.68 | ccp | sandstone/sand | 100 | 163865.4 | 84820.5 | 236350.6 | 138159.3 | 54590.3 | 55991.3 | 121362.1 | 64487.2 | 78709.7 | 264774.9 | 125132.8 |
| 1970.81 | ccp | bulk fraction | | 239841 | 119352.3 | 313894.8 | 195338.5 | 74379.3 | 72464.5 | 166115.7 | 90635.5 | 113903.1 | 343018.3 | 180596 |
| 1971.33 | ccp | sandstone/sand | 100 | 160893.8 | 85513.5 | 236456.5 | 157811.6 | 57719.5 | 60677.6 | 126824.5 | 67132 | 81578.1 | 263646.1 | 128618.2 |
| 1986 | cut | sandstone/sand | 80 | 238944.3 | 120409.4 | 203726.8 | 124483.1 | 50362.9 | 50104.1 | 106952.5 | 56117.8 | 78028.3 | 226932.5 | 119802.2 |
| 2001 | cut | sandstone/sand | 45 | 165853.5 | 73014.8 | 119256.5 | 77443 | 38142.3 | 37923.5 | 78027.1 | 44825.8 | 120335.5 | 183743.4 | 127883.5 |

## Table 11h Amount of steranes (ppb) m/z 217 SIR for well NOCS 6608/10-6 (reservoir study)

| Lower depth | 27aaR (j) | 29dbR (k) | 29daR (l) | 28aaS (m) | 29daS+ 28bbR (n) | 28bbS (o) | 28aaR (p) | 29aaS (q) | 29bbR (r) | 29bbS (s) | 29aaR (t) | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | 62590 | 112100.2 | 41050.4 | 33966.4 | 83977.1 | 96531.3 | 24640.2 | 67441.1 | 117285.4 | 92761.7 | 75094.7 | U02/0001-1 |
| 1844.97 | 68052.7 | 114188.6 | 40158.2 | 31219.9 | 114483.4 | 102707.3 | 25263.9 | 73282.8 | 123286.3 | 100989.7 | 81420.8 | T92/0144-0 |
| 1855.8 | 59887.7 | 109394.8 | 40265.4 | 35512.6 | 71014.5 | 99894.2 | 28473.7 | 73595.5 | 124695.9 | 101331.7 | 89111.3 | U02/0011-1 |
| 1867.3 | 93420.3 | 166967.3 | 57277.4 | 52223.9 | 110237.6 | 140101.7 | 33027 | 94359 | 176086 | 137405 | 108490.4 | T92/0148-0 |
| 1875.6 | 80561.1 | 142793 | 50639.3 | 43290 | 90245.9 | 120577.1 | 31571.5 | 81954 | 149196.4 | 120588.4 | 90714.7 | U02/0020-1 |
| 1883.9 | 97907.7 | 180343 | 60410.1 | 55467.5 | 125367.6 | 150619.2 | 36744.4 | 105203.7 | 191151.1 | 149528.3 | 115760.7 | T92/0150-0 |
| 1890 | 74834.4 | 140463.1 | 48391.4 | 37268.4 | 87317.3 | 122518 | 31013.4 | 83095 | 151287 | 120429.7 | 90183.5 | U02/0026-1 |
| 1892.48 | 63368 | 117865.3 | 43412.6 | 35202.5 | 72639.9 | 101788.4 | 25391.8 | 68711.4 | 120921.7 | 100720.6 | 75812.7 | U02/0071-1 |
| 1901.2 | 50804.4 | 95706.4 | 33387.7 | 25889.2 | 56766.4 | 84967.6 | 20898.6 | 57858.6 | 104082.8 | 87087.1 | 63120.4 | U02/0030-1 |
| 1911.75 | 72441.4 | 132783.8 | 47674 | 41652.7 | 81340.2 | 122584.7 | 32593.4 | 87769.7 | 150529 | 118089.2 | 103345.6 | U02/0036-1 |
| 1922.8 | 113715.3 | 211759.5 | 69712.7 | 65697.5 | 125338.9 | 171365.4 | 42195.2 | 121858.2 | 223452.3 | 174143.7 | 133668.2 | T92/0156-0 |
| 1924.65 | 117536.4 | 214623.7 | 72910.9 | 67317.6 | 133593.7 | 182402.7 | 46091.6 | 126672.1 | 233775.3 | 186541.1 | 138526.7 | T92/0157-0 |
| 1938.6 | 64708.7 | 115089.3 | 41959.3 | 38395.6 | 70709.4 | 100075.7 | 29998 | 74604.6 | 131379.4 | 106937.6 | 83257.5 | U02/0051-1 |
| 1949.52 | 99719.7 | 178155.7 | 62115.7 | 55455.3 | 127898.6 | 153856.7 | 36984.3 | 107229.2 | 188934.1 | 156500.4 | 119144.1 | T92/0158-0 |
| 1957.96 | 76660.6 | 144877.9 | 52378.7 | 44166.1 | 85608.4 | 121336.9 | 30135.6 | 82402.4 | 149087.6 | 121295.2 | 89451.2 | U02/0059-1 |
| 1959.68 | 83192.2 | 155100.3 | 55628.1 | 46958.3 | 98279.2 | 130101.7 | 34793.2 | 94088.9 | 166140.3 | 132953.7 | 99044.1 | U02/0060-1 |
| 1970.81 | 120626.7 | 216263.7 | 74638.8 | 67566.6 | 127546.9 | 186025.8 | 46383.3 | 127301.6 | 236927 | 185502.7 | 142233.4 | T92/0162-0 |
| 1971.33 | 83044 | 168457.1 | 56377.7 | 50377.2 | 93505 | 137181.4 | 35531.7 | 95581.1 | 178073.3 | 139680.4 | 102097 | U02/0070-1 |
| 1986 | 84248.8 | 138920.6 | 50601.1 | 43782.4 | 103094.2 | 117671 | 38720.3 | 78723.5 | 155312.5 | 125521.5 | 114369.8 | U02/0075-1 |
| 2001 | 86439.1 | 117125.2 | 57166.4 | 43710.1 | 146896.4 | 97164.4 | 83259 | 69629.5 | 179147.1 | 152633.2 | 179227.9 | U02/0077-1 |

**Table 11i Amount of standard and weight of sample for well NOCs 6608/10-6 (reservoir study)**

| Lower depth | Sample type | Desc | % Lith | Standard | Amount | Weight | Sample number |
|---|---|---|---|---|---|---|---|
| 1827.35 | ccp | sandstone/sand | 100 | 7241.5 | 1.4 | 31.7 | U02/0001-1 |
| 1844.97 | ccp | bulk fraction | | 3126.2 | 1.4 | 29.1 | T92/0144-0 |
| 1855.8 | ccp | carbonate | 100 | 42664.3 | 1.4 | 20.2 | U02/0011-1 |
| 1867.3 | ccp | bulk fraction | | 5728.3 | 1.4 | 25.6 | T92/0148-0 |
| 1875.6 | ccp | sandstone/sand | 100 | 8560.9 | 1.4 | 22.3 | U02/0020-1 |
| 1883.9 | ccp | bulk fraction | | 4871.1 | 1.4 | 27.3 | T92/0150-0 |
| 1890 | ccp | sandstone/sand | 100 | 7091.1 | 1.4 | 28.2 | U02/0026-1 |
| 1892.48 | ccp | sandstone/sand | 100 | 10946.5 | 1.4 | 25.3 | U02/0071-1 |
| 1901.2 | ccp | sandstone/sand | 100 | 4408.5 | 1.4 | 37.9 | U02/0030-1 |
| 1911.75 | ccp | sandstone/sand | 100 | 39657.7 | 1.4 | 25.2 | U02/0036-1 |
| 1922.8 | ccp | bulk fraction | | 6342.8 | 1.4 | 27.0 | T92/0156-0 |
| 1924.65 | ccp | bulk fraction | | 9923 | 1.4 | 22.0 | T92/0157-0 |
| 1938.6 | ccp | sandstone/sand | 100 | 55508.1 | 0.7 | 7.2 | U02/0051-1 |
| 1949.52 | ccp | bulk fraction | | 6807 | 1.4 | 28.0 | T92/0158-0 |
| 1957.96 | ccp | sandstone/sand | 100 | 13951.1 | 1.4 | 12.9 | U02/0059-1 |
| 1959.68 | ccp | sandstone/sand | 100 | 11688.5 | 1.4 | 17.4 | U02/0060-1 |
| 1970.81 | ccp | bulk fraction | | 8771.3 | 1.4 | 25.8 | T92/0162-0 |
| 1971.33 | ccp | sandstone/sand | 100 | 4985.7 | 1.4 | 26.3 | U02/0070-1 |
| 1986 | cut | sandstone/sand | 80 | 103156.7 | 0.7 | 1.7 | U02/0075-1 |
| 2001 | cut | sandstone/sand | 45 | 183647.7 | 0.7 | 0.5 | U02/0077-1 |

| | Triterpanes | Steranes |
|---|---|---|
| Ratio 1 | 27Tm/27Ts | 27dβS/(27dβS+27ααR) |
| Ratio 2 | 27Tm/(27Tm+27Ts) | 29ααS/(29ααS+29ααR) |
| Ratio 3 | 27Tm/(27Tm+30αβ+30βα) | 2*(29ββR+29ββS)/(29ααS+29ααR+2*[29ββR+29ββS]) |
| Ratio 4 | 29αβ/30αβ | (27dβS+27dβR+27dαR+27dαS)/(29dβS+29dβR+29dαR+29dαS) |
| Ratio 5 | 29αβ/(29αβ+30αβ) | (29ββR+29ββS)/(29ααS+29ββR+29ββS) |
| Ratio 6 | 30d/30αβ | 21α+22α/(21α+22α+29ααS+29ββR+29ββS+29ααR) |
| Ratio 7 | 28αβ/30αβ | 21α+22α/(21α+22α+28dαS+28ααS+29dαR+29ααS+29ββR+29ββS+29ααR) |
| Ratio 8 | 28αβ/29αβ | (29ββR+29ββS)/(29ααS+29ββR+29ββS+29ααR) |
| Ratio 9 | 28αβ/(28αβ+30αβ) | 29ααS/29ααR |
| Ratio 10 | 24/3/30αβ | (29ββR+29ββS)/29ααR |
| Ratio 11 | 30αβ/(30βα+30αβ) | |
| Ratio 12 | (29αβ+29βα)/(29αβ+29βα+30αβ+30βα) | |
| Ratio 13 | (29βα+30βα)/(29αβ+30αβ) | |
| Ratio 14 | 32αβS/(32αβS+32αβR) % | |

Table 12a: Variation in Triaromatic Sterane Distribution (peak height) for Well NOCS 6608/10-6 RES



Depth unit of measure: m

| Depth | Lithology | Ratio1 | Ratio2 | Ratio3 | Ratio4 | Ratio5 | Sample |
|---|---|---|---|---|---|---|---|
| 1827.35 | S/Sst | 0.57 | 0.58 | 0.33 | 0.30 | 0.42 | 0001-1 |
| 1855.80 | Ca | 0.60 | 0.58 | 0.34 | 0.32 | 0.45 | 0011-1 |
| 1867.30 | S/Sst | 0.60 | 0.61 | 0.35 | 0.32 | 0.44 | 0072-1 |
| 1875.60 | S/Sst | 0.58 | 0.61 | 0.35 | 0.31 | 0.44 | 0020-1 |
| 1890.00 | S/Sst | 0.62 | 0.61 | 0.35 | 0.33 | 0.46 | 0026-1 |
| 1892.48 | S/Sst | 0.58 | 0.58 | 0.34 | 0.31 | 0.44 | 0071-1 |
| 1901.20 | S/Sst | 0.62 | 0.60 | 0.36 | 0.34 | 0.46 | 0030-1 |
| 1911.75 | S/Sst | 0.60 | 0.60 | 0.35 | 0.33 | 0.44 | 0036-1 |
| 1924.65 | S/Sst | 0.57 | 0.60 | 0.34 | 0.30 | 0.43 | 0073-1 |
| 1938.60 | S/Sst | 0.61 | 0.61 | 0.36 | 0.34 | 0.46 | 0051-1 |
| 1949.52 | S/Sst | 0.60 | 0.60 | 0.36 | 0.33 | 0.46 | 0074-1 |
| 1957.96 | S/Sst | 0.60 | 0.61 | 0.36 | 0.33 | 0.45 | 0059-1 |
| 1959.68 | S/Sst | 0.57 | 0.59 | 0.34 | 0.30 | 0.43 | 0060-1 |

Ratio1: a1 / a1 + g1
Ratio2: b1 / b1 + g1
Ratio3: a1 + b1 / a1 + b1 + c1 + d1 + e1 + f1 + g1
Ratio4: a1 / a1 + e1 + f1 + g1
Ratio5: a1 / a1 + d1

Table 12a: Variation in Triaromatic Sterane Distribution (peak height) for Well NOCS 6608/10-6 RES

Depth unit of measure: m

| Depth | Lithology | Ratio1 | Ratio2 | Ratio3 | Ratio4 | Ratio5 | Sample |
|---|---|---|---|---|---|---|---|
| 1971.33 | S/Sst | 0.59 | 0.61 | 0.35 | 0.31 | 0.44 | 0070-1 |

Ratio1: a1 / a1 + g1
Ratio2: b1 / b1 + g1
Ratio3: a1 + b1 / a1 + b1 + c1 + d1 + e1 + f1 + g1
Ratio4: a1 / a1 + e1 + f1 + g1
Ratio5: a1 / a1 + d1

Table 12b: Variation in Monoaromatic Sterane Distribution (peak height) for Well NOCS 6608/10-6 RES



Depth unit of measure: m

| Depth | Lithology | Ratio1 | Ratio2 | Ratio3 | Ratio4 | Sample |
|---|---|---|---|---|---|---|
| 1827.35 | S/Sst | 0.44 | 0.34 | 0.28 | 0.23 | 0001-1 |
| 1855.80 | Ca | 0.40 | 0.32 | 0.27 | 0.23 | 0011-1 |
| 1867.30 | S/Sst | 0.41 | 0.32 | 0.27 | 0.24 | 0072-1 |
| 1875.60 | S/Sst | 0.45 | 0.35 | 0.29 | 0.24 | 0020-1 |
| 1890.00 | S/Sst | 0.41 | 0.33 | 0.27 | 0.24 | 0026-1 |
| 1892.48 | S/Sst | 0.43 | 0.33 | 0.28 | 0.24 | 0071-1 |
| 1901.20 | S/Sst | 0.41 | 0.33 | 0.27 | 0.24 | 0030-1 |
| 1911.75 | S/Sst | 0.40 | 0.31 | 0.26 | 0.22 | 0036-1 |
| 1924.65 | S/Sst | 0.44 | 0.30 | 0.28 | 0.23 | 0073-1 |
| 1938.60 | S/Sst | 0.38 | 0.34 | 0.25 | 0.23 | 0051-1 |
| 1949.52 | S/Sst | 0.38 | 0.31 | 0.25 | 0.22 | 0074-1 |
| 1957.96 | S/Sst | 0.44 | 0.31 | 0.28 | 0.23 | 0059-1 |
| 1959.68 | S/Sst | 0.44 | 0.33 | 0.29 | 0.24 | 0060-1 |
| 1971.33 | S/Sst | 0.44 | 0.34 | 0.29 | 0.25 | 0070-1 |

Ratio1: A1 / A1 + E1
Ratio2: B1 / B1 + E1
Ratio3: A1 / A1 + E1 + G1
Ratio4: A1+B1 / A1+B1+C1+D1+E1+F1+G1+H1+I1

Table 12c: Aromatisation of Steranes (peak height) for Well NOCS 6608/10-6 RES 

Depth unit of measure: m

| Depth | Lithology | Ratio1 | Ratio2 | Sample |
|---|---|---|---|---|
| 1827.35 | S/Sst | 0.45 | 0.86 | 0001-1 |
| 1855.80 | Ca | 0.46 | 0.86 | 0011-1 |
| 1867.30 | S/Sst | 0.42 | 0.85 | 0072-1 |
| 1875.60 | S/Sst | 0.46 | 0.86 | 0020-1 |
| 1890.00 | S/Sst | 0.46 | 0.86 | 0026-1 |
| 1892.48 | S/Sst | 0.46 | 0.86 | 0071-1 |
| 1901.20 | S/Sst | 0.46 | 0.85 | 0030-1 |
| 1911.75 | S/Sst | 0.46 | 0.85 | 0036-1 |
| 1924.65 | S/Sst | 0.44 | 0.88 | 0073-1 |
| 1938.60 | S/Sst | 0.45 | 0.86 | 0051-1 |
| 1949.52 | S/Sst | 0.45 | 0.86 | 0074-1 |
| 1957.96 | S/Sst | 0.46 | 0.85 | 0059-1 |
| 1959.68 | S/Sst | 0.46 | 0.88 | 0060-1 |

Ratio1: $$\frac{C1+D1+E1+F1+G1+H1+I1}{C1+D1+E1+F1+G1+H1+I1 + c1+d1+e1+f1+g1}$$

Ratio2: g1 / g1 + I1

GEOLAB NOR

Table 12c: Aromatisation of Steranes (peak height) for Well NOCS 6608/10-6 RES

Depth unit of measure: m

| Depth | Lithology | Ratio1 | Ratio2 | Sample |
|---|---|---|---|---|
| 1971.33 | S/Sst | 0.47 | 0.84 | 0070-1 |

Ratio1: $\frac{C1+D1+E1+F1+G1+H1+I1}{C1+D1+E1+F1+G1+H1+I1 + c1+d1+e1+f1+g1}$

Ratio2: g1 / g1 + I1

Table 12d: Raw triaromatic sterane data (peak height) m/z 231 for Well NOCS 6608/10-6 RES



Depth unit of measure: m

| Depth | Lithology | a1 | b1 | c1 | d1 | e1 | f1 | g1 | Sample |
|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | S/Sst | 2209.9 | 2291.6 | 842.5 | 3098.7 | 2071.8 | 1463.8 | 1677.4 | 0001-1 |
| 1855.80 | Ca | 3914.2 | 3609.4 | 1457.1 | 4762.8 | 3409.2 | 2137.1 | 2597.4 | 0011-1 |
| 1867.30 | S/Sst | 2012.0 | 2082.9 | 736.6 | 2532.2 | 1774.3 | 1149.2 | 1318.5 | 0072-1 |
| 1875.60 | S/Sst | 4383.3 | 4891.0 | 1609.7 | 5611.7 | 3776.8 | 2707.2 | 3163.9 | 0020-1 |
| 1890.00 | S/Sst | 9058.4 | 8527.6 | 3209.5 | 10570.6 | 7743.2 | 5039.3 | 5553.2 | 0026-1 |
| 1892.48 | S/Sst | 4479.5 | 4545.1 | 1604.0 | 5672.8 | 4193.9 | 2759.3 | 3241.3 | 0071-1 |
| 1901.20 | S/Sst | 5487.4 | 5159.9 | 1890.7 | 6538.4 | 4575.6 | 2837.0 | 3435.1 | 0030-1 |
| 1911.75 | S/Sst | 5445.5 | 5484.9 | 1973.1 | 6864.9 | 4474.9 | 3026.1 | 3592.9 | 0036-1 |
| 1924.65 | S/Sst | 2317.1 | 2567.2 | 841.7 | 3091.3 | 2166.8 | 1501.6 | 1733.6 | 0073-1 |
| 1938.60 | S/Sst | 9543.1 | 9385.8 | 3398.6 | 11195.0 | 7861.6 | 4963.7 | 6013.9 | 0051-1 |
| 1949.52 | S/Sst | 5035.9 | 5047.9 | 1821.4 | 6021.7 | 4144.4 | 2805.1 | 3372.5 | 0074-1 |
| 1957.96 | S/Sst | 7733.1 | 8290.3 | 2798.1 | 9552.4 | 6108.0 | 4409.7 | 5201.0 | 0059-1 |
| 1959.68 | S/Sst | 5515.4 | 6075.6 | 2133.6 | 7289.5 | 5334.1 | 3585.5 | 4187.2 | 0060-1 |
| 1971.33 | S/Sst | 6432.6 | 6940.3 | 2504.3 | 8075.2 | 6103.7 | 4069.6 | 4443.2 | 0070-1 |

Table 12e: Raw monoaromatic sterane data (peak height) m/z 253 for Well NOCS 6608/10-6 RES 

Depth unit of measure: m

| Depth | Lithology | A1 | B1 | C1 | D1 | E1 | F1 | G1 | H1 | I1 | Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1827.35 | S/Sst | 1382.4 | 902.7 | 1195.1 | 838.9 | 1744.5 | 620.1 | 1780.9 | 1042.1 | 279.0 | 0001-1 |
| 1855.80 | Ca | 2154.5 | 1531.5 | 1797.1 | 1420.8 | 3223.3 | 826.2 | 2671.2 | 1775.3 | 423.9 | 0011-1 |
| 1867.30 | S/Sst | 1040.6 | 723.2 | 802.4 | 624.8 | 1507.1 | 357.0 | 1261.9 | 753.4 | 231.4 | 0072-1 |
| 1875.60 | S/Sst | 2797.3 | 1814.2 | 2281.8 | 1682.9 | 3365.6 | 1086.8 | 3434.0 | 2075.7 | 522.2 | 0020-1 |
| 1890.00 | S/Sst | 5070.8 | 3706.7 | 4254.4 | 3028.9 | 7385.7 | 1743.0 | 6379.9 | 3984.9 | 912.5 | 0026-1 |
| 1892.48 | S/Sst | 2920.7 | 1910.4 | 2289.0 | 1586.8 | 3927.1 | 1114.5 | 3446.1 | 2101.3 | 532.2 | 0071-1 |
| 1901.20 | S/Sst | 3052.9 | 2200.0 | 2451.5 | 1928.4 | 4441.4 | 1052.8 | 3811.2 | 2301.8 | 597.7 | 0030-1 |
| 1911.75 | S/Sst | 2834.2 | 1958.2 | 2446.7 | 1986.1 | 4315.6 | 1116.0 | 3823.5 | 2400.1 | 614.1 | 0036-1 |
| 1924.65 | S/Sst | 1412.6 | 798.9 | 1197.9 | 787.9 | 1824.5 | 494.7 | 1744.4 | 1064.8 | 243.2 | 0073-1 |
| 1938.60 | S/Sst | 4534.4 | 3758.6 | 3930.0 | 3318.2 | 7383.8 | 1777.6 | 6414.5 | 4038.4 | 982.6 | 0051-1 |
| 1949.52 | S/Sst | 2489.7 | 1811.4 | 2087.7 | 1783.8 | 3988.5 | 944.7 | 3508.4 | 2205.3 | 527.3 | 0074-1 |
| 1957.96 | S/Sst | 4471.4 | 2613.6 | 3732.3 | 2791.5 | 5804.1 | 1603.3 | 5517.0 | 3386.2 | 915.4 | 0059-1 |
| 1959.68 | S/Sst | 3748.4 | 2396.8 | 3113.5 | 2164.5 | 4792.9 | 1425.2 | 4536.5 | 2604.9 | 595.0 | 0060-1 |
| 1971.33 | S/Sst | 4521.6 | 2922.8 | 3426.4 | 2375.1 | 5717.4 | 1473.2 | 5194.6 | 3226.2 | 815.5 | 0070-1 |

Table 8a: MPLC Bulk Composition: Weight of Oil and Fraction for NOCS 6608/10-6

| Well | Description | Whole oil (mg) | Light (mg) | Topped (mg) | Sat (mg) | Aro (mg) | Asph (mg) | NSO (mg) | HC (mg) | Non-HC (mg) | Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | 48.2 | 5.0 | 43.2 | 24.2 | 14.3 | 0.4 | 4.3 | 38.5 | 4.7 | T91/0001 |
| 6608/10-6 | 1910.5 MDT | 48.6 | 1.0 | 47.6 | 24.2 | 18.3 | 0.3 | 4.8 | 42.5 | 5.1 | T91/0002 |
| 6608/10-6 | 1940.5 MDT | 53.7 | 1.7 | 52.0 | 28.2 | 18.3 | 0.3 | 5.2 | 46.5 | 5.5 | T91/0003 |

Table 8b: MPLC Bulk Composition: Comparison of topped oil (%) for NOCS 6608/10-6

| Well | Description | Sat | Aro | Asph | NSO | Total | HC | Non-HC | Recov. MPLC | Recov. Asph | Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | 56.00 | 33.17 | 0.93 | 9.91 | 100.00 | 89.17 | 10.83 | 1.18 | 0.92 | T91/0001 |
| 6608/10-6 | 1910.5 MDT | 50.81 | 38.39 | 0.63 | 10.16 | 100.00 | 89.21 | 10.79 | 1.16 | 0.98 | T91/0002 |
| 6608/10-6 | 1940.5 MDT | 54.32 | 35.19 | 0.58 | 9.91 | 100.00 | 89.51 | 10.49 | 1.21 | 0.96 | T91/0003 |

Table 8c: MPLC Bulk Composition: Ratios in topped oil for NOCS 6608/10-6

| Well | Description | Sat / Aro | HC / Non-HC | Asp / NSO | Sample |
|---|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | 1.69 | 8.23 | 0.09 | T91/0001 |
| 6608/10-6 | 1910.5 MDT | 1.32 | 8.27 | 0.06 | T91/0002 |
| 6608/10-6 | 1940.5 MDT | 1.54 | 8.54 | 0.06 | T91/0003 |

Table 8F: Iatroscan TLC Bulk Composition: Rel. percentages of sep. fractions for NOCS 6608/10-6

| Well | Description | Sat HC | Aro HC | NSO | Asp | Total | HC | Non-HC | Recov. Iatr. | Recov. Asp | Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | 61.13 | 33.99 | 3.96 | 0.93 | 100.00 | 95.12 | 4.88 | 0.74 | 0.92 | T91/0001 |
| 6608/10-6 | 1910.5 MDT | 54.19 | 40.51 | 4.67 | 0.63 | 100.00 | 94.70 | 5.30 | 0.95 | 0.98 | T91/0002 |
| 6608/10-6 | 1940.5 MDT | 58.67 | 37.34 | 3.41 | 0.58 | 100.00 | 96.01 | 3.99 | 0.90 | 0.96 | T91/0003 |

## Table 9a[1] Peak areas Saturated Hydrocarbon GC data

| Depth (m) | Desc | nC15 | nC16 | Norpristane | nC17 | Pristane | nC18 | Phytane | nC19 | nC20 | nC21 | nC22 | nC23 | nC24 | nC25 | nC26 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1826.7 | 1826.7 MDT | 861740 | 891446 | 404977 | 930423 | 807968 | 908622 | 458518 | 929661 | 743780 | 640068 | 599050 | 550777 | 484454 | 445245 | 361555 |
| 1910.5 | 1910.5 MDT | 70945 | 82558 | 164326 | 133176 | 278671 | 125970 | 213204 | 87085 | 86415 | 42951 | 31428 | 44936 | 36395 | 42560 | 31837 |
| 1940.5 | 1940.5 MDT | 232700 | 240301 | 319320 | 339143 | 642303 | 348969 | 438385 | 467709 | 343587 | 253311 | 224147 | 221882 | 208212 | 215547 | 164950 |

| Depth (m) | Desc | nC27 | nC28 | nC29 | nC30 | nC31 | nC32 | nC33 | nC34 | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|
| 1826.7 | 1826.7 MDT | 335404 | 245357 | 229439 | 157612 | 148326 | 101825 | 129668 | 134220 | T91/0001-0 |
| 1910.5 | 1910.5 MDT | 53181 | 16515 | 31433 | 0 | 0 | 0 | 0 | 0 | T91/0002-0 |
| 1940.5 | 1940.5 MDT | 175169 | 114289 | 110686 | 84625 | 70849 | 62801 | 0 | 0 | T91/0003-0 |

Table 9a: Quantitative Analysis of Saturated Fraction for NOCS 6608/10-6

| sample | nC15 mg/g sat | nC16 mg/g sat | iC18 mg/g sat | nC17 mg/g sat | Pr mg/g sat | nC18 mg/g sat | Ph mg/g sat | nC19 mg/g sat | nC20 mg/g sat | nC21 mg/g sat | nC22 mg/g sat | nC23 mg/g sat | nC24 mg/g sat | nC25 mg/g sat | nC26 mg/g sat | nC27 mg/g sat | nC28 mg/g sat | nC29 mg/g sat | nC30 mg/g sat | nC31 mg/g sat | nC32 mg/g sat | nC33 mg/g sat | nC34 mg/g sat |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1826.7 MDT | 11.71 | 12.11 | 5.50 | 12.64 | 10.98 | 12.35 | 6.23 | 12.63 | 10.11 | 8.70 | 8.14 | 7.48 | 6.58 | 6.05 | 4.91 | 4.56 | 3.33 | 3.12 | 2.14 | 2.02 | 1.38 | 1.76 | 1.82 |
| 1910.5 MDT | 1.21 | 1.41 | 2.81 | 2.27 | 4.76 | 2.15 | 3.64 | 1.49 | 1.48 | 0.73 | 0.54 | 0.77 | 0.62 | 0.73 | 0.54 | 0.91 | 0.28 | 0.54 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1940.5 MDT | 3.01 | 3.11 | 4.14 | 4.39 | 8.32 | 4.52 | 5.68 | 6.06 | 4.45 | 3.28 | 2.90 | 2.87 | 2.70 | 2.79 | 2.14 | 2.27 | 1.48 | 1.43 | 1.10 | 0.92 | 0.81 | 0.00 | 0.00 |

Table 9b: Saturated Hydrocarbon Ratios (peak area) for NOCS 6608/10-6

| Well | Description | Pristane / nC17 | Pristane / Phytane | Pristane/nC17 / Phytane/nC18 | Phytane / nC18 | CPI1 | nC17 / nC17+nC27 | Sample |
|---|---|---|---|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | 0.87 | 1.76 | 1.72 | 0.50 | 1.13 | 0.74 | T91/0001 |
| 6608/10-6 | 1910.5 MDT | 2.09 | 1.31 | 1.24 | 1.69 | 2.07 | 0.71 | T91/0002 |
| 6608/10-6 | 1940.5 MDT | 1.89 | 1.47 | 1.51 | 1.26 | 1.17 | 0.66 | T91/0003 |

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## Table 5ca[1] Peak areas Aromatic Hydrocarbon GC data

| Lower depth | Desc | 2MN | 1MN | BPh | 2EN | 1EN | 2.6+2.7DMN | 1.6DMN | 1.5DMN | 1.3.7TMN | 1.3.6TMN | 1.3.5TMN | 1.4.6+2.3.6TMN | P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1826.7 | 1826.7 MDT | 273072 | 159375 | 156732 | 125151 | 109685 | 436669 | 400111 | 79778 | 240148 | 387651 | 340928 | 312915 | 239094 |
| 1910.5 | 1910.5 MDT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 63928 | 91014 | 132100 | 109460 | 284946 |
| 1940.5 | 1940.5 MDT | 72863 | 32012 | 45126 | 0 | 0 | 104904 | 109513 | 0 | 101251 | 142611 | 184721 | 147531 | 275868 |

| Lower depth | Desc | 3MP | 2MP | 9MP | 1MP | DBT | 4MDBT | 2+3MDBT | 1MDBT | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|
| 1826.7 | 1826.7 MDT | 145526 | 180972 | 126019 | 99093 | 168635 | 235974 | 113229 | 0 | T91/0001-0 |
| 1910.5 | 1910.5 MDT | 69002 | 98984 | 100151 | 57207 | 0 | 0 | 0 | 0 | T91/0002-0 |
| 1940.5 | 1940.5 MDT | 62526 | 116691 | 92059 | 49291 | 0 | 0 | 0 | 0 | T91/0003-0 |

Table 9ca: Aromatic Hydrocarbon Ratios (peak area) for NOCS 6608/10-6

| Well | Description | MNR | DMNR | BPhR | 2/1MP | MPI1 | MPI2 | Rc | DBT/P | 4/1MDBT | (3+2) /1MDBT | Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | 1.71 | 5.47 | 0.39 | 1.83 | 1.06 | 1.17 | 1.03 | 0.71 | - | - | T91/0001 |
| 6608/10-6 | 1910.5 MDT | - | - | - | 1.73 | 0.57 | 0.67 | 0.74 | - | - | - | T91/0002 |
| 6608/10-6 | 1940.5 MDT | 2.28 | - | 0.41 | 2.37 | 0.64 | 0.84 | 0.79 | - | - | - | T91/0003 |

Table 9cb: Aromatic Hydrocarbon Ratios (peak area) for NOCS 6608/10-6

| Well | Description | F1 | F2 | Sample |
|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | 0.59 | 0.33 | T91/0001 |
| 6608/10-6 | 1910.5 MDT | 0.52 | 0.30 | T91/0002 |
| 6608/10-6 | 1940.5 MDT | 0.56 | 0.36 | T91/0003 |

Table 10a: Tabulation of carbon isotope data on oils for NOCS 6608/10-6

| Well | Descript. | Whole oil | Topped oil | Saturated | Aromatic | NSO | Asphaltenes | Sample |
|---|---|---|---|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | - | -27.80 | -28.40 | -27.31 | -27.87 | -28.64 | T91/0001 |
| 6608/10-6 | 1910.5 MDT | - | -27.90 | -28.51 | -27.26 | -27.88 | -28.57 | T91/0002 |
| 6608/10-6 | 1940.5 MDT | - | -27.83 | -28.47 | -27.28 | -27.94 | -26.17 | T91/0003 |

Table 10b: Tabulation of cv values from carbon isotope data for NOCS 6608/10-6

| Well | Descript. | Saturated | Aromatic | cv value | Interpretation | Sample |
|---|---|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | -28.40 | -27.31 | -0.43 | Marine | T91/0001 |
| 6608/10-6 | 1910.5 MDT | -28.51 | -27.26 | -0.04 | Marine | T91/0002 |
| 6608/10-6 | 1940.5 MDT | -28.47 | -27.28 | -0.18 | Marine | T91/0003 |

Table 11a: Variation in Triterpane Distribution (peak height) SIR for NOCS 6608/10-6 

| Well | Descript. | Ratio1 | Ratio2 | Ratio3 | Ratio4 | Ratio5 | Ratio6 | Ratio7 | Ratio8 | Ratio9 | Rat.10 | Rat.11 | Rat.12 | Rat.13 | Rat.14 | Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | 1.14 | 0.53 | 0.14 | 0.47 | 0.32 | 0.08 | 0.09 | 0.19 | 0.08 | 0.07 | 0.91 | 0.33 | 0.11 | 61.54 | T91/0001 |
| 6608/10-6 | 1910.5 MDT | 1.12 | 0.53 | 0.15 | 0.49 | 0.33 | 0.08 | 0.10 | 0.20 | 0.09 | 0.08 | 0.91 | 0.34 | 0.12 | 61.96 | T91/0002 |
| 6608/10-6 | 1940.5 MDT | 1.10 | 0.52 | 0.14 | 0.48 | 0.32 | 0.08 | 0.09 | 0.20 | 0.09 | 0.08 | 0.91 | 0.33 | 0.11 | 61.74 | T91/0003 |

List of Triterpane Distribution Ratios

Ratio 1: 27Tm / 27Ts

Ratio 2: 27Tm / 27Tm+27Ts

Ratio 3: 27Tm / 27Tm+30aß+30ßa

Ratio 4: 29aß / 30aß

Ratio 5: 29aß / 29aß+30aß

Ratio 6: 30d / 30aß

Ratio 7: 28aß / 30aß

Ratio 8: 28aß / 29aß

Ratio 9: 28aß / 28aß+30aß

Ratio 10: 24/3 / 30aß

Ratio 11: 30aß / 30aß+30ßa

Ratio 12: 29aß+29ßa / 29aß+29ßa+30aß+30ßa

Ratio 13: 29ßa+30ßa / 29aß+30aß

Ratio 14: 32aßS / 32aßS+32aßR (%)

Table 11b: Variation in Sterane Distribution (peak height) SIR for NOCS 6608/10-6



| Well | Descript. | Ratio1 | Ratio2 | Ratio3 | Ratio4 | Ratio5 | Ratio6 | Ratio7 | Ratio8 | Ratio9 | Ratio10 | Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | 0.70 | 49.22 | 78.88 | 1.02 | 0.79 | 0.38 | 0.26 | 0.65 | 0.97 | 3.68 | T91/0001 |
| 6608/10-6 | 1910.5 MDT | 0.70 | 49.20 | 78.77 | 0.96 | 0.79 | 0.35 | 0.25 | 0.65 | 0.97 | 3.65 | T91/0002 |
| 6608/10-6 | 1940.5 MDT | 0.70 | 49.26 | 79.71 | 0.98 | 0.80 | 0.39 | 0.27 | 0.66 | 0.97 | 3.87 | T91/0003 |

List of Sterane Distribution Ratios

Ratio 1: 27dßS / 27dßS+27aaR

Ratio 2: 29aaS / 29aaS+29aaR (%)

Ratio 3: 2*(29ßßR+29ßßS) / (29aaS+29aaR + 2*(29ßßR+29ßßS)) (%)

Ratio 4: 27dßS+27dßR+27daR+27daS / 29dßS+29dßR+29daR+29daS

Ratio 5: 29ßßR+29ßßS / 29ßßR+29ßßS+29aaS

Ratio 6: 21a+22a / 21a+22a+29aaS+29ßßR+29ßßS+29aaR

Ratio 7: 21a+22a / 21a+22a+28daS+28aaS+29daR+29aaS+29ßßR+29ßßS+29aaR

Ratio 8: 29ßßR+29ßßS / 29aaS+29ßßR+29ßßS+29aaR

Ratio 9: 29aaS / 29aaR

Ratio 10: 29ßßR+29ßßS / 29aaR

Table 11c: Raw triterpane data (peak height) m/z 191 SIR for NOCS 6608/10-6



| Well | Descript. | 23/3 | 24/3 | 25/3 | 24/4 | 26/3 | 27Ts | 27Tm | 28aß | 25nor30aß | Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 29aß | 29Ts | 30d | 29ßa | 30O | 30aß | 30ßa | 30G | 31aßS | |
| | | 31aßR | 32aßS | 32aßR | 33aßS | 33aßR | 34aßS | 34aßR | 35aßS | 35aßR | |
| 6608/10-6 | 1826.7 MDT | 19717.2 | 17067.5 | 6420.3 | 20815.8 | 4938.9 | 34257.0 | 39220.5 | 20387.8 | 15727.4 | T91/0001 |
| | | 107296.1 | 32250.1 | 17973.1 | 15748.6 | 0.0 | 229360.5 | 21802.0 | 0.0 | 65333.0 | |
| | | 41560.3 | 40089.5 | 25050.2 | 24044.3 | 15803.9 | 14626.8 | 9311.6 | 10629.5 | 6420.6 | |
| 6608/10-6 | 1910.5 MDT | 17105.0 | 15280.1 | 5946.9 | 17835.5 | 3972.5 | 33253.7 | 37342.8 | 19145.3 | 17231.6 | T91/0002 |
| | | 94337.7 | 28167.4 | 16150.5 | 14121.1 | 0.0 | 193684.0 | 19469.6 | 0.0 | 54338.8 | |
| | | 35736.1 | 35391.4 | 21731.6 | 21726.2 | 13763.4 | 12876.9 | 8536.9 | 8049.7 | 5648.9 | |
| 6608/10-6 | 1940.5 MDT | 16574.6 | 14411.1 | 5524.1 | 17316.7 | 4116.1 | 32147.1 | 35366.1 | 18112.6 | 15264.3 | T91/0003 |
| | | 91584.1 | 27140.5 | 15575.8 | 13647.2 | 0.0 | 192113.8 | 18888.2 | 0.0 | 53466.5 | |
| | | 34577.8 | 34522.4 | 21396.8 | 20775.2 | 13320.3 | 12212.3 | 8019.5 | 7990.5 | 5354.5 | |

Table 11d: Raw sterane data (peak height) m/z 217 SIR for NOCS 6608/10-6



| Well | Descript. | 21a | 22a | 27dßS | 27dßR | 27daR | 27daS | 28dßS | 28dßR | 28daR* | Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 29dßS* | 28daS* | 27aaR | 29dßR | 29daR | 28aaS | 29daS* | 28ßßS | | |
| | | 28aaR | 29aaS | 29ßßR | 29ßßS | 29aaR | | | | | |
| 6608/10-6 | 1826.7 MDT | 34521.3 | 13804.9 | 38665.6 | 30264.3 | 10649.5 | 11556.9 | 18591.0 | 12548.1 | 16446.1 | T91/0001 |
| | | 32646.7 | 30705.0 | 16459.0 | 28462.8 | 11083.3 | 10946.3 | 16849.1 | 28695.6 | | |
| | | 6995.3 | 13728.2 | 28357.2 | 23742.8 | 14163.7 | | | | | |
| 6608/10-6 | 1910.5 MDT | 30045.4 | 11776.9 | 33166.8 | 25746.8 | 9397.9 | 9528.6 | 16941.7 | 11766.8 | 15407.0 | T91/0002 |
| | | 28855.9 | 22053.0 | 14515.3 | 25813.8 | 10209.5 | 10736.4 | 16195.7 | 21175.9 | | |
| | | 7088.1 | 13282.6 | 27022.3 | 23066.1 | 13711.9 | | | | | |
| 6608/10-6 | 1940.5 MDT | 30394.8 | 11506.5 | 30418.9 | 23361.8 | 7997.1 | 8438.9 | 15172.7 | 10281.9 | 12808.8 | T91/0003 |
| | | 25946.4 | 22462.3 | 13014.5 | 23006.1 | 8541.3 | 8842.0 | 13887.1 | 20642.6 | | |
| | | 5434.9 | 11053.9 | 23974.5 | 20099.9 | 11384.3 | | | | | |

* 28daR coel with 27aaS, 29dßS coel with 27ßßR, 28daS coel with 27ßßS, 29daS coel with 28ßßR

Table 11e: Raw sterane data (peak height) m/z 218 SIR for NOCS 6608/10-6

| Well | Descript. | 27ßßR | 27ßßS | 28ßßR | 28ßßS | 29ßßR | 29ßßS | 30ßßR | 30ßßS | Sample |
|---|---|---|---|---|---|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | 37299.3 | 40938.7 | 26687.8 | 40314.5 | 47849.3 | 42241.1 | 11852.3 | 11698.2 | T91/0001 |
| 6608/10-6 | 1910.5 MDT | 31306.4 | 29070.2 | 23969.6 | 28749.5 | 42375.9 | 37938.9 | 10465.2 | 10758.8 | T91/0002 |
| 6608/10-6 | 1940.5 MDT | 29177.0 | 31754.0 | 23107.3 | 31234.3 | 39541.5 | 35872.6 | 9805.4 | 9762.6 | T91/0003 |

Table 11f: Raw triterpane data (peak height) m/z 177 SIR for NOCS 6608/10-6

| Well | Descript. | 25nor28aß | 25nor30aß | Sample |
|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | 15743.8 | 9005.6 | T91/0001 |
| 6608/10-6 | 1910.5 MDT | 15235.4 | 11863.3 | T91/0002 |
| 6608/10-6 | 1940.5 MDT | 13807.0 | 9554.1 | T91/0003 |

Table 11g: Amount of triterpanes (ppb) m/z 191 SIR for NOCS 6608/10-6



| Well | Descript. | 23/3 | 24/3 | 25/3 | 24/4 | 26/3 | 27Ts | 27Tm | 28aß | 25nor30aß | Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 29aß | 29Ts | 30d | 29ßa | 30O | 30aß | 30ßa | 30G | 31aßS | |
| | | 31aßR | 32aßS | 32aßR | 33aßS | 33aßR | 34aßS | 34aßR | 35aßS | 35aßR | |
| 6608/10-6 | 1826.7 MDT | 125128.6 | 108313.6 | 40744.2 | 132100.9 | 31343.0 | 217400.9 | 248900.3 | 129384.8 | 99808.8 | T91/0001 |
| | | 680920.7 | 204664.7 | 114060.8 | 99943.5 | 0.0 | 1455563.6 | 138359.7 | 0.0 | 414614.9 | |
| | | 263749.3 | 254415.5 | 158973.1 | 152589.2 | 100294.2 | 92824.2 | 59093.0 | 67456.7 | 40746.2 | |
| 6608/10-6 | 1910.5 MDT | 156603.2 | 139895.6 | 54445.9 | 163291.0 | 36370.1 | 304451.1 | 341887.9 | 175283.2 | 157761.7 | T91/0002 |
| | | 863699.1 | 257883.5 | 147864.1 | 129284.4 | 0.0 | 1773253.6 | 178252.1 | 0.0 | 497492.8 | |
| | | 327177.7 | 324021.9 | 198961.5 | 198911.6 | 126009.2 | 117892.9 | 78159.0 | 73697.8 | 51717.5 | |
| 6608/10-6 | 1940.5 MDT | 124656.1 | 108384.6 | 41546.5 | 130237.6 | 30957.1 | 241775.4 | 265984.9 | 136222.9 | 114801.7 | T91/0003 |
| | | 688795.3 | 204120.8 | 117144.0 | 102639.3 | 0.0 | 1444869.6 | 142056.1 | 0.0 | 402116.6 | |
| | | 260056.4 | 259639.8 | 160922.9 | 156248.6 | 100180.8 | 91847.6 | 60314.1 | 60095.5 | 40270.7 | |

Table 11h: Amount of steranes (ppb) m/z 217 SIR for NOCS 6608/10-6

| Well | Descript. | 21a | 22a | 27dßS | 27dßR | 27daR | 27daS | 28dßS | 28dßR | 28daR* | Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 29dßS* | 28daS* | 27aaR | 29dßR | 29daR | 28aaS | 29daS* | 28ßßS | | |
| | | 28aaR | 29aaS | 29ßßR | 29ßßS | 29aaR | | | | | |
| 6608/10-6 | 1826.7 MDT | 219078.5 | 87608.5 | 245379.2 | 192062.7 | 67583.5 | 73342.2 | 117982.1 | 79632.4 | 104370.0 | T91/0001 |
| | | 207182.0 | 194859.3 | 104451.6 | 180630.4 | 70336.5 | 69467.5 | 106927.5 | 182107.8 | | |
| | | 44393.6 | 87121.5 | 179960.0 | 150676.2 | 89885.4 | | | | | |
| 6608/10-6 | 1910.5 MDT | 275077.6 | 107822.0 | 303654.7 | 235722.5 | 86041.1 | 87237.9 | 155108.0 | 107729.7 | 141056.8 | T91/0002 |
| | | 264187.2 | 201903.9 | 132893.2 | 236335.9 | 93471.6 | 98296.2 | 148278.2 | 193874.1 | | |
| | | 64894.4 | 121607.4 | 247399.6 | 211179.2 | 125538.0 | | | | | |
| 6608/10-6 | 1940.5 MDT | 228596.2 | 86539.5 | 228777.7 | 175702.1 | 60145.4 | 63467.8 | 114112.7 | 77329.5 | 96333.7 | T91/0003 |
| | | 195140.3 | 168936.9 | 97881.0 | 173027.0 | 64238.2 | 66499.7 | 104443.9 | 155250.7 | | |
| | | 40875.1 | 83135.6 | 180310.2 | 151169.7 | 85620.0 | | | | | |

* 28daR coel with 27aaS, 29dßS coel with 27ßßR, 28daS coel with 27ßßS, 29daS coel with 28ßßR

Table 11i: Amount of standard and weight of sample for NOCS 6608/10-6

| Well | Descript. | Standard | Amount | Weight | Sample |
|---|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | 16969.6 | 1.400 | 13.0 | T91/0001 |
| 6608/10-6 | 1910.5 MDT | 11327.1 | 1.400 | 13.5 | T91/0002 |
| 6608/10-6 | 1940.5 MDT | 11707.4 | 1.400 | 15.9 | T91/0003 |

Table 12a: Variation in Triaromatic Sterane Distribution (peak height) for NOCS 6608/10-6

| Well | Descript. | Ratio1 | Ratio2 | Ratio3 | Ratio4 | Ratio5 | Sample |
|---|---|---|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | 0.58 | 0.60 | 0.34 | 0.31 | 0.43 | T91/0001 |
| 6608/10-6 | 1910.5 MDT | 0.59 | 0.60 | 0.35 | 0.32 | 0.45 | T91/0002 |
| 6608/10-6 | 1940.5 MDT | 0.57 | 0.58 | 0.34 | 0.31 | 0.43 | T91/0003 |

Ratio1: a1 / a1 + g1
Ratio2: b1 / b1 + g1
Ratio3: a1 + b1 / a1 + b1 + c1 + d1 + e1 + f1 + g1
Ratio4: a1 / a1 + e1 + f1 + g1
Ratio5: a1 / a1 + d1

Table 12b: Variation in Monoaromatic Sterane Distribution (peak height) for NOCS 6608/10-6

| Well | Descript. | Ratio1 | Ratio2 | Ratio3 | Ratio4 | Sample |
|---|---|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | 0.44 | 0.33 | 0.30 | 0.25 | T91/0001 |
| 6608/10-6 | 1910.5 MDT | 0.44 | 0.33 | 0.29 | 0.25 | T91/0002 |
| 6608/10-6 | 1940.5 MDT | 0.43 | 0.33 | 0.28 | 0.24 | T91/0003 |

Ratio1: A1 / A1 + E1
Ratio2: B1 / B1 + E1
Ratio3: A1 / A1 + E1 + G1
Ratio4: A1+B1 / A1+B1+C1+D1+E1+F1+G1+H1+I1

Table 12c: Aromatisation of Steranes (peak height) for NOCS 6608/10-6

| Well | Descript. | Ratio1 | Ratio2 | Sample |
|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | 0.46 | 0.83 | T91/0001 |
| 6608/10-6 | 1910.5 MDT | 0.45 | 0.85 | T91/0002 |
| 6608/10-6 | 1940.5 MDT | 0.45 | 0.86 | T91/0003 |

$$\text{Ratio1: } \frac{C1+D1+E1+F1+G1+H1+I1}{C1+D1+E1+F1+G1+H1+I1 + c1+d1+e1+f1+g1}$$

Ratio2: g1 / g1 + I1

Table 12d: Raw triaromatic sterane data (peak height) m/z 231 for NOCS 6608/10-6

| Well | Descript. | a1 | b1 | c1 | d1 | e1 | f1 | g1 | Sample |
|---|---|---|---|---|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | 23412.2 | 25491.0 | 9555.3 | 31301.8 | 21318.8 | 13890.6 | 17304.1 | T91/0001 |
| 6608/10-6 | 1910.5 MDT | 24288.6 | 25541.5 | 9624.1 | 29874.9 | 21420.0 | 14233.2 | 16692.9 | T91/0002 |
| 6608/10-6 | 1940.5 MDT | 23778.5 | 24860.6 | 9443.8 | 31550.0 | 21095.9 | 14665.6 | 17861.6 | T91/0003 |

Table 12e: Raw monoaromatic sterane data (peak height) m/z 253 for NOCS 6608/10-6

| Well | Descript. | A1 | B1 | C1 | D1 | E1 | F1 | G1 | H1 | I1 | Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | 16359.4 | 10016.2 | 11797.7 | 8816.0 | 20644.6 | 5392.7 | 18088.1 | 11269.3 | 3430.7 | T91/0001 |
| 6608/10-6 | 1910.5 MDT | 15311.6 | 9705.9 | 10948.0 | 8410.4 | 19777.4 | 4255.2 | 17144.3 | 10593.5 | 2921.1 | T91/0002 |
| 6608/10-6 | 1940.5 MDT | 14475.7 | 9590.2 | 11531.4 | 8456.2 | 19367.2 | 5261.9 | 18067.6 | 10798.1 | 2891.1 | T91/0003 |

Table 13A: Light Hydrocarbons from Whole Oil GC for NOCS 6608/10-6

| Well | Description | 2,2DMC4 | 2,3DMC4 | nC6 | MCyC5 | Benz | Sample |
|---|---|---|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | 0.17 | 0.44 | 2.49 | 3.30 | 0.11 | T91/0001 |
| 6608/10-6 | 1910.5 MDT | 0.40 | 0.30 | 0.54 | 1.82 | 0.08 | T91/0002 |
| 6608/10-6 | 1940.5 MDT | 0.26 | 0.37 | 0.88 | 2.83 | 0.06 | T91/0003 |

Table 13B: Light Hydrocarbons from Whole Oil GC for NOCS 6608/10-6

| Well | Description | CyC6 | 2MC6 | 3MC6 | 1,3ci-DMCyC5 | 1,3tr-DMCyC5 | 1,2tr-DMCyC5 | nC7 | MCyC6 | Tol | nC8 | p/m-Xylene | Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | 5.91 | 1.81 | 1.43 | 0.84 | 0.79 | 1.45 | 3.38 | 12.69 | 3.23 | 4.51 | 6.64 | T91/0001 |
| 6608/10-6 | 1910.5 MDT | 5.38 | 1.00 | 0.48 | 1.47 | 1.30 | 1.18 | 0.31 | 5.09 | 0.90 | 1.93 | 0.63 | T91/0002 |
| 6608/10-6 | 1940.5 MDT | 6.73 | 0.95 | 0.81 | 1.20 | 1.12 | 1.66 | 0.24 | 13.47 | 0.21 | 1.60 | 2.46 | T91/0003 |

Table 13C: Thompson's indices for NOCS 6608/10-6



| Well | Description | A | B | X | W | C | I | F | H | U | R | S | Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6608/10-6 | 1826.7 MDT | 0.04 | 0.96 | 1.47 | 0.19 | 0.32 | 1.05 | 0.27 | 11.76 | 1.79 | 1.87 | 14.65 | T91/0001 |
| 6608/10-6 | 1910.5 MDT | 0.15 | 2.90 | 0.33 | 0.15 | 0.08 | 0.37 | 0.06 | 1.88 | 2.96 | 0.31 | 1.35 | T91/0002 |
| 6608/10-6 | 1940.5 MDT | 0.07 | 0.88 | 1.54 | 0.09 | 0.06 | 0.44 | 0.02 | 0.90 | 2.38 | 0.25 | 3.38 | T91/0003 |

## THOMPSON'S INDICES

$$A = \frac{\text{Benzene}}{\text{nC6}} \qquad B = \frac{\text{Toluene}}{\text{nC7}} \qquad X = \frac{\text{p/m-xylene}}{\text{nC8}} \qquad W = \frac{\text{Benzene} * 10}{\text{CyC6}}$$

$$C = \frac{\text{nC6} + \text{nC7}}{\text{CyC6} + \text{MCyC6}} \qquad I = \frac{\text{2MC6} + \text{3MC6}}{\text{1,3ciDMCyC5} + \text{1,3trDMCyC5} + \text{1,2trDMCyC5}} \qquad F = \frac{\text{nC7}}{\text{MCyC6}}$$

$$H = \frac{\text{nC7} * 100}{\text{CyC6} + \text{2MC6} + \text{2,3DMC4} + \text{3MC6} + \text{1,3ciDMCyC5} + \text{1,3trDMCyC5} + \text{1,2trDMCyC5} + \text{nC7} + \text{MCyC6}}$$

$$U = \frac{\text{CyC6}}{\text{MCyC5}} \qquad R = \frac{\text{nC7}}{\text{2MC6}} \qquad S = \frac{\text{nC6}}{\text{2,2DMC4}}$$

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Table 14 a: Volume composition of Gas Samples from well NOCS 6608/10-6

| Well name | Depth UOM | Upper depth | Lower depth | Sample type | Desc | C1 (%) | C2 (%) | C3 (%) | iC4 (%) | nC4 (%) | iC5 (%) | nC5 (%) | CO2 (%) | Sum C1-C5 (%) | Wetness | iC4/nC4 | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOCS 6608/10-6 | m | 1826.7 | 1826.7 | gas | MDT | 93.9 | 2.2 | 1.3 | 0.62 | 0.64 | 0.31 | 0.19 | 0.93 | 99.2 | 0.05 | 0.97 | T91/0004-0 |
| NOCS 6608/10-6 | m | 1910.5 | 1910.5 | gas | MDT | 98.3 | 0.68 | 0.11 | 0.04 | 0.05 | 0.02 | 0.01 | 0.76 | 99.2 | 0.01 | 0.8 | T91/0005-0 |
| NOCS 6608/10-6 | m | 1940.5 | 1940.5 | gas | MDT | 94.8 | 1.9 | 0.85 | 0.39 | 0.43 | 0.21 | 0.14 | 1.3 | 98.7 | 0.04 | 0.91 | T91/0006-0 |

Table 14 b: Isotopic Composition of Gas Samples from well NOCS 6608/10-6

| Well name | Depth UOM | Upper depth | Lower depth | Sample type | Desc | C1 d13C | C1 dD | C2 d13C | C3 d13C | iC4 d13C | nC4 d13C | CO2 d13C | CO2 d18O | Sample number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOCS 6608/10-6 | m | 1826.7 | 1826.7 | gas | MDT | -47.3 | -203 | -27.3 | -25.2 | -25.4 | -26.1 | *-7.8 | 0 | T91/0004-0 |
| NOCS 6608/10-6 | m | 1910.5 | 1910.5 | gas | MDT | -46.1 | -205 | -27 | -24.3 | *-22.6 | *-23 | *-1.7 | 0 | T91/0005-0 |
| NOCS 6608/10-6 | m | 1940.5 | 1940.5 | gas | MDT | -46.5 | -209 | -27.6 | -26.1 | -22.4 | -26.2 | -2 | -10.6 | T91/0006-0 |

* analysis performed on GC-IRMS instrument (for additional GC-IRMS data see the IFE report in appendix 4)

## 1 Introduction

Three gas samples from well 6608/10-6; 1910.5m 1826.7m and 1940.5m are analysed for gas and isotopic composition.

On the samples $C_1$ - $C_5$ and $CO_2$ are quantified. The $\delta^{13}C$ value is measured on methane, ethane, propane, the butanes and $CO_2$. In addition the $\delta D$ value is measured on methane.

## 2 Analytical procedures

Aliquots of 0.2 ml are sampled with a syringe for analysis on a Porabond Q column connected with flame ionisation (FID) and thermal conductivity (TCD) detectors. The detection limit for the hydrocarbon gas components is 0.001 µl/ml, for $CO_2$ 0.05 µl/ml.

Due to low concentration of wet gas components the isotope values are determined in two different ways, standard procedure for test gases and with GC-C-IRMS. For the isotope analysis by standard procedure 5-10 ml of the gas is sampled with a syringe and then separated into the different gas components by a Carlo Erba 4200 gas chromatograph. The hydrocarbon gas components are oxidised in separate CuO-ovens in order to prevent cross contamination. The combustion products $CO_2$ and $H_2O$ are frozen into collection vessels and separated.

The combustion water is reduced with zinc metal in sealed quarts tubes to prepare hydrogen for isotopic analysis. The isotopic measurements are performed on a Finnigan MAT 251 and a Finnigan Delta mass spectrometer.

The analytical procedures are tested with a laboratory gas standard mixture. Based on repeated analysis of the gas standard, the reproducibility in the $\delta^{13}C$ value is better than 0.5‰ PDB for all components. The reproducibility in the $\delta D$ value is likewise better than 10‰.

For the GC-C-IRMS analysis aliquots are sampled with a syringe and analysed on a VG Isochrom connected on line to a VG Optima Mass spectrometer. A HP 5890 II with a Poraplot Q column is used for the separation and helium is used as a carrier gas. The injections are performed both in splitless and split mode, depending on the individual

methane concentrations. Determination of hydrogen or oxygen isotopic composition is not included in the analytical procedure.

The uncertainty in the reported results is ± 1 ‰ for methane, ethane and $CO_2$ and ± 0.5 ‰ for the other components based on repeated analysis of IFEs laboratory standard (test gas concentration) over a period of 3 years.

IFEs value on NBS 22 is -29.77 ± .06‰ PDB.

## 3 Results

The normalised volume composition of the gas samples is shown in Table 1. The stable isotope composition is shown in Table 2. The results from the standard procedure are shown in the first line of each sample while the GC-C-IRMS results are shown in the second line.

The molecular composition related to the carbon isotope variations in methane from the samples are plotted in Figure 1 (Schoell, 1983), the carbon and hydrogen variations in methane are plotted in Figure 2 (Schoell, 1983) and the carbon isotope variation in ethane related to the carbon isotope variations in methane in Figure 3 (Schoell, 1983).

*Table 1* *Volume composition of gas samples (normalised values) from well 6608/10-6*

| Depth m | IFE no GEO | $C_1$ % | $C_2$ % | $C_3$ % | $iC_4$ % | $nC_4$ % | $iC_5$ % | $nC_5$ % | $CO_2$ % | $\Sigma C_1$- $C_5$ % | Wet-ness | $iC_4/nC_4$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1910.5 | 20000740 | 98.3 | 0.68 | 0.11 | 0.04 | 0.05 | 0.02 | 0.01 | 0.76 | 99.2 | 0.01 | 0.94 |
| 1826.7 | 20000741 | 93.9 | 2.2 | 1.3 | 0.62 | 0.64 | 0.31 | 0.19 | 0.93 | 99.1 | 0.05 | 0.97 |
| 1940.5 | 20000742 | 94.8 | 1.9 | 0.85 | 0.39 | 0.43 | 0.21 | 0.14 | 1.3 | 98.7 | 0.04 | 0.91 |

*Table 2 Isotopic composition of gas samples from well 6608/10-6*

| Well | Sample depth m | IFE no GEO | $C_1$ $\delta^{13}C$ ‰ PDB | $C_1$ $\delta D$ ‰ SMOW | $C_2$ $\delta^{13}C$ ‰ PDB | $C_3$ $\delta^{13}C$ ‰ PDB | $iC_4$ $\delta^{13}C$ ‰ PDB | $nC_4$ $\delta^{13}C$ ‰ PDB | $CO_2$ $\delta^{13}C$ ‰ PDB | $CO_2$ $\delta^{18}O$ ‰ PDB |
|---|---|---|---|---|---|---|---|---|---|---|
| MDT, | 1910.5 | 20000740 | -46.1 | -205 | -27.0 | -24.3 | - | - | - | - |
| | | * | - | | -26.6 | -22.3 | -22.6 | -23.0 | -1.7 | - |
| MDT, | 1826.7 | 20000741 | -47.3 | -203 | -27.3 | -25.2 | -25.4 | -26.1 | - | - |
| | | * | - | | -26.8 | -24.4 | -26.0 | -25.4 | -7.8 | - |
| MDT, | 1940.5 | 20000742 | -46.5 | -209 | -27.6 | -26.1 | -22.4 | -26.2 | -2.0 | -10.6 |
| | | * | - | | - | -24.9 | -25.3 | -25.5 | -2.8 | - |

* GC-C-IRMS

## 4 Literature

Schoell, M. (1983). Genetic characterisation of natural gases. *The American Association of Petroleum Geologists Bulletin*, **67**,2225-2238.