

### 3.3 Formation Pressure Summary / FMT Sampling

1 FMT run was performed in well 16/1-5. 11 pressure measurements were attempted, of which 8 gave moderate to good pressure tests and 3 did not achieve stabilized pressure.

1 segregated water sample was taken at 2024.5 m MD RT. FMT pressure plot is shown in Fig. 3.1. The results of the pressure measurements are listed in Table 3.1 and plotted in Fig. 3.1.

No	Depth m MD RT	Depth m TVD RT	Hydrost. pressure before kPa	QDYNE Formation pressure kPa	Hydrost. pressure after kPa	Flowing pressure kPa	Fill time sec.	Temp °C	G o o d s e a l Y / N	Remarks
1	2024.5	2023.7	23145	20319	23152	19600	9.8	66.2	Y	Good
2	2031.2	2030.4	23226	20393	23234	15333	10.8	66.4	Y	Moderate
3	2042.0	2041.1	23346	20499	23360	16990	10.0	66.9	Y	Moderate
4	2055.0	2054.1	23490	20628	23493	20622	12.0	67.5	Y	Very good
5	2068.0	2067.0	23638	20759	23652	20758	11.8	68.1	Y	Very good
6	2090.0	2088.9	23880	20979	23922	14148	10.8	69.0	Y	Moderate
7	2123.0	2121.8	24249	21313	24289	16974	3.5	70.0	Y	Good
8	2184.5	2183.0	24941		24939			71.3	?	Pressure not stabilised
9	2183.5	2182.0	24927		24930			72.0	?	Pressure not stabilised
10	2202.5	2200.9	25146	22257	25146	22226	11.8	72.6	?	Supercharged
11	2024.5	2023.7	23180	20350	23169	19014	11.0	71.9	Y	Segregated sample

**Water sample at 2024.5 m:** The 2 3/4 preflush chamber contained 20 liter of filtrate/formation water. Chlorides: 48000 mg/l.  
 Opening pressure: 0 bar  
 4 liter PVT chamber: Opening pressure 103 bar . Calculated mud content in the sample is 31 %. For further details, see report: "Well 16/1-5 Formation Water Properties FMT Sample", report no. 99S9700006693.

Table 3.2

# FINAL WELL SCHEMATIC

## PERMANENT P&A 16/1-5 & 16/1-5 A

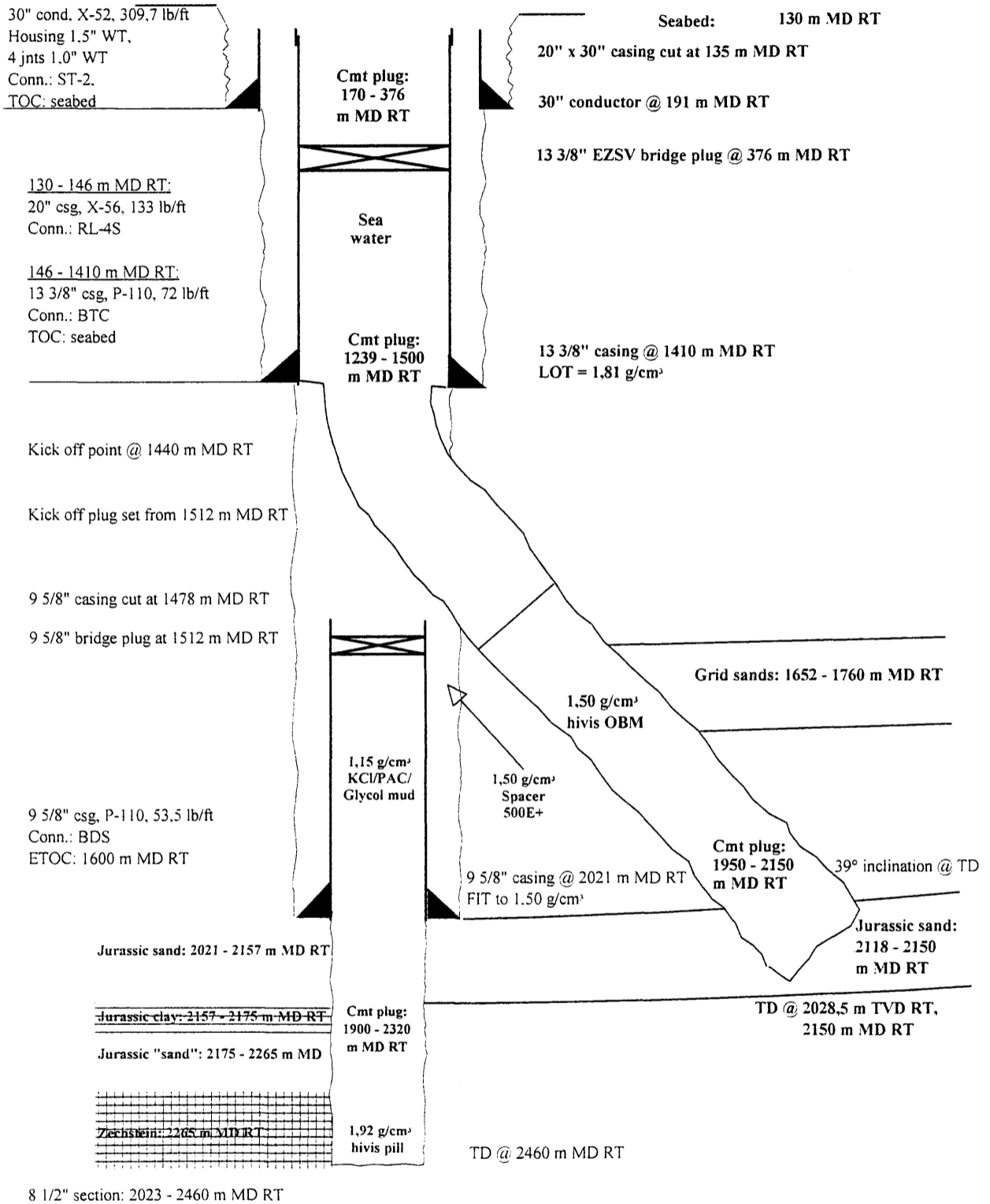
### BYFORD DOLPHIN

Not to scale

Reference level: RT

Reference level: 0 m

Sea level: 25 m



Title: <b>Geochemical Study, Wells 16/1-5 and 16/1-5A</b>		
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## Chapter 1

# INTRODUCTION

### 1.1 General Well Information

Samples from the wells NOCS 16/1-5 (cuttings and core ) and 16/1-5A (core samples only), together with representative samples of the muds and base oils used, were supplied for analyses.

Well 16/1-5 was drilled using a glycol based system down to the top of the Hugin Fm., water-based mud being used thereafter. Well 16/1-5A was drilled using an oil-based mud system (Information supplied by Statoil).

The analytical results are discussed / interpreted according to method, with separate sections for each well, within which the different muds used are also discussed.

### 1.2 Analytical Program

The analytical program for these wells was determined by Statoil and the number of samples for the individual analyses are listed in Tables 1 in appendices A and B.

Table 1: Analytical Program for Well NOCS 16/1-5

Sample Depth (m)	Sample Type	Sample Code	Lithology Description	Picking for screening	Prepreparing	Leco TOC	RockEval	Thermal Extraction/Pyrolysis G	Picking for Extraction	Iatroscan	SOXTEC Extraction	B.Elut/MPLC & Deasphaltene	EOM GC	Whole Oil GC	Sat GC (Quantitative)	Aro GC (Non Quantitative)	Sat GCMS (Quantitative)	Aro GCMS (Non-Q)	Isotope of EOM/fracions
Table nos	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1440.00	cS		x	x	x	x	x	x	x	**	x	x	x		x	x	x*		
1460.00	cS		x	x	x	x	x												
1500.00	cS		x	x	x	x	x												
1550.00	cS		x	x	x	x	x												
1600.00	cS		x	x	x	x	x												
1630.00	cS		x	x	x	x	x												
1710.00	cS		x	x	x	x	x												
1750.00	cS		x	x	x	x	x												
1800.00	cS		x	x	x	x	x												
1851.00	cS		x	x	x	x	x	x											
1899.00	cS		x	x	x	x	x												
1929.00	cS		x	x	x	x	x												
1950.00	cS		x	x	x	x	x	x											
1974.00	cS		x	x	x	x	x												
2001.00	cS		x	x	x	x	x												
2020.70	sR						x		x	x	x	x		x	x	x			
2022.28	pR						x		**	x	x	x		x	x	x*			
2024.20	pR						x			x		x							
2027.47	pR						x			x		x							
2031.72	pR						x			x		x							
1984.0	mud					x	x		x	x	x	x		x	x	x*			
<b>Total</b>		<b>0</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>16</b>	<b>21</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>7</b>	<b>4</b>	<b>7</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>2+2</b>	<b>0</b>	<b>0</b>
Sample type key c = Cuttings s = SWC p = Conv core/ plug										R = Reservoir S = Source									
* EOM GC-MS performed due to lack of material for good separation																			
** Insufficient EOM, this being used for GC-MS																			

Table 3 : Lithology description for well NOCS 16/1-5

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	% Lithology description		
1440.00				0005
	2.64	85 Sh/Clst: lt brn gy to m gy 15 Cont : lt gy, cem		0005-2L 0005-1L
1460.00				0006
	2.28	60 Sh/Clst: lt brn gy to gy brn to m gy 40 Cont : lt gy, cem		0006-2L 0006-1L
1500.00				0007
	1.94	100 Sh/Clst: lt brn gy to gy brn to m gy, slt tr Cont : lt gy, cem		0007-2L 0007-1L
1550.00				0008
	1.86	90 Cont : lt gy, cem 10 Sh/Clst: lt brn gy to gy brn to m gy, slt tr Cont : prp, dd		0008-1L 0008-2L 0008-3L
1600.00				0009
	1.26	95 Sh/Clst: lt gn gy to m gy 5 Sh/Clst: lt brn gy to gy brn, slt tr Cont : lt gy, cem tr Cont : prp, dd		0009-4L 0009-2L 0009-1L 0009-3L
1630.00				0010
	1.25	90 Sh/Clst: lt gn gy to m gy to lt gy, pyr 10 Sh/Clst: lt brn gy to gy brn, slt tr Cont : lt gy, cem tr Cont : prp, dd tr Ca : y brn		0010-4L 0010-2L 0010-1L 0010-3L 0010-5L
1710.00				0011
	1.16	100 Sh/Clst: lt gn gy to m gy to lt gy, brn gy to gy brn, pyr tr Ca : y brn		0011-1L 0011-2L

Table 3 : Lithology description for well NOCS 16/1-5

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	%		
Lithology description				
1750.00				0012
	0.93	100	Sh/Clst: lt gn gy to m gy to lt gy, brn gy to gy brn, pyr	0012-1L
			tr Ca : y brn to lt gy	0012-2L
1800.00				0013
	1.25	100	Sh/Clst: lt gn gy to m gy to lt gy, brn gy to gy brn to dsk brn, pyr	0013-1L
			tr Ca : y brn to lt gy	0013-2L
1851.00				0014
	1.80	100	Sh/Clst: lt gn gy to m gy to lt gy, brn gy to gy brn to dsk brn, pyr	0014-1L
			tr Ca : y brn to lt gy	0014-2L
1899.00				0015
	1.76	100	Sltst : m gy to brn gy, s	0015-3L
			tr Sh/Clst: lt gn gy to m gy to lt gy, brn gy to gy brn to dsk brn, pyr	0015-1L
			tr Ca : y brn to lt gy	0015-2L
1929.00				0016
	1.83	80	Sltst : m gy to brn gy to gy brn	0016-3L
		20	Sh/Clst: lt gn gy to m gy to lt gy, brn gy to gy brn to dsk brn, pyr	0016-1L
			tr Ca : y brn to lt gy	0016-2L
1950.00				0017
	1.08	100	Sh/Clst: lt gy to m gy	0017-1L
			tr Sh/Clst: brn gy to gy brn, slt	0017-2L
1974.00				0018
	1.01	100	Sh/Clst: lt gy to m gy, gy brn to gy red, gy gn, slt, s	0018-1L
			tr S/Sst : lt gy	0018-2L

Table 3 : Lithology description for well NOCS 16/1-5

Depth unit of measure: m

Depth	Type			Trb	Sample
Int Cvd	TOC%	%	Lithology description		
2001.00					0019
	0.78	100	Sh/Clst: lt gy to lt gy gn, gy brn to gy red		0019-1L
			tr Ca : w		0019-2L
2020.70	swc				0024
		100	S/Sst : gy brn, crs, rnd		0024-1L
2022.28	ccp				0001
		100	S/Sst : w, crs, cem, fos		0001-1L
2024.23	ccp				0002
		100	S/Sst : w, crs, cem, fos		0002-1L
2027.47	ccp				0003
		100	S/Sst : lt gy, crs, cem		0003-1L
2031.72	ccp				0004
		100	S/Sst : lt gy, crs, cem, l		0004-1L



Table 3 : Lithology description for well NOCS 16/1-5

Depth unit of measure: m

<u>Depth</u>	<u>Type</u>			<u>Trb</u>	<u>Sample</u>
<u>Int</u>	<u>Cvd</u>	<u>TOC%</u>	<u>%</u>		<u>Lithology description</u>

Errors occurred in the description of samples at the following depths:

Total number of errors found was 0

Table 4 : Thermal Maturity Data for well NOCS 16/1-5

Depth unit of measure: m

Depth	Typ Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation (%)	Spore Fluorescence Colour	SCI	Tmax (°C)	Sample
1440.00	cut bulk	0.25	20	0.03	-	-	382	0005-0B
1460.00	cut bulk	0.25	20	0.03	-	-	378	0006-0B
1500.00	cut bulk	0.29	20	0.04	-	-	420	0007-0B
1550.00	cut bulk	0.25	5	0.06	-	-	373	0008-0B
1600.00	cut bulk	0.29	14	0.04	-	-	-	0009-0B
1630.00	cut bulk	0.30	21	0.04	-	-	-	0010-0B
1710.00	cut bulk	0.30	20	0.04	-	-	355	0011-0B
1750.00	cut bulk	0.27	4	0.02	-	-	354	0012-0B
1800.00	cut bulk	0.31	22	0.05	-	-	356	0013-0B
1851.00	cut bulk	0.35	12	0.03	-	-	348	0014-0B
1899.00	cut bulk	0.27	20	0.03	-	-	365	0015-0B
1929.00	cut bulk	0.30	21	0.05	-	-	418	0016-0B
1950.00	cut bulk	NDP	-	-	-	-	351	0017-0B
1974.00	cut bulk	0.33	21	0.04	-	-	349	0018-0B
2001.00	cut bulk	0.30	20	0.05	-	-	353	0019-0B

Table 5A: Rock-Eval table for well NOCS 16/1-5

Depth unit of measure: m

Depth	Typ	Form	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
1440.00	cut		Sh/Clst: lt brn gy to m gy	6.53	10.72	-	-	2.64	406	-	17.2	0.38	382	0005-2L
1460.00	cut		Sh/Clst: lt brn gy to gy brn to m gy	1.86	11.42	-	-	2.28	501	-	13.3	0.14	378	0006-2L
1500.00	cut		Sh/Clst: lt brn gy to gy brn to m gy	0.51	4.90	-	-	1.94	253	-	5.4	0.09	420	0007-2L
1550.00	cut		Sh/Clst: lt brn gy to gy brn to m gy	0.74	9.54	-	-	1.86	513	-	10.3	0.07	373	0008-2L
1600.00	com		bulk	0.45	4.72	-	-	-	-	-	5.2	0.09	358	0022-0B
1630.00	com		bulk	0.59	5.23	-	-	-	-	-	5.8	0.10	354	0023-0B
1710.00	cut		Sh/Clst: lt gn gy to m gy to lt gy, brn gy to gy brn	0.57	4.69	-	-	1.16	404	-	5.3	0.11	355	0011-1L
1750.00	cut		Sh/Clst: lt gn gy to m gy to lt gy, brn gy to gy brn	0.36	3.56	-	-	0.93	383	-	3.9	0.09	354	0012-1L
1800.00	cut		Sh/Clst: lt gn gy to m gy to lt gy, brn gy to gy brn to dsk brn	0.48	4.17	-	-	1.25	334	-	4.7	0.10	356	0013-1L
1851.00	cut		Sh/Clst: lt gn gy to m gy to lt gy, brn gy to gy brn to dsk brn	1.11	8.79	-	-	1.80	488	-	9.9	0.11	348	0014-1L
1899.00	cut		Sltst : m gy to brn gy	1.08	5.85	-	-	1.76	332	-	6.9	0.16	365	0015-3L

Table 5A: Rock-Eval table for well NOCS 16/1-5

Depth unit of measure: m

Depth	Typ	Form	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
1929.00	cut		Sltst : m gy to brn gy to gy brn	1.34	6.28	-	-	1.83	343	-	7.6	0.18	418	0016-3L
1950.00	cut		Sh/Clst: lt gy to m gy	0.87	7.14	-	-	1.08	661	-	8.0	0.11	351	0017-1L
1974.00	cut		Sh/Clst: lt gy to m gy, gy brn to gy red, gy gn	0.81	5.35	-	-	1.01	530	-	6.2	0.13	349	0018-1L
1984.00	mud		bulk	3.73	13.40	-	-	0.88	1523	-	17.1	0.22	344	0020-0B
2001.00	cut		Sh/Clst: lt gy to lt gy gn, gy brn to gy red	0.34	2.65	-	-	0.78	340	-	3.0	0.11	353	0019-1L
2022.58	ccp		S/Sst : w	0.07	0.22	-	-	-	-	-	0.3	0.24	351	0001-1L
2024.23	ccp		S/Sst : w	0.06	0.10	-	-	-	-	-	0.2	0.37	349	0002-1L
2027.47	ccp		S/Sst : lt gy	0.14	0.38	-	-	-	-	-	0.5	0.27	413	0003-1L
2031.72	ccp		S/Sst : lt gy	0.12	0.22	-	-	-	-	-	0.3	0.35	339	0004-1L

Table 5B: Rock-Eval table for well BLACK VEN MARL

Depth unit of measure: m

Depth	Typ	Form	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
1.00	std		bulk	0.34	19.15	-	-	-	-	-	19.5	0.02	419	0210-0B
2.00	std		bulk	0.34	19.27	-	-	-	-	-	19.6	0.02	418	0211-0B

Table 6 : Pyrolysis GC Data (S2 peak) as Percentage of Total Area for Well NOCS 16/1-5

Depth unit of measure: m

Depth	Typ	Lithology	C1	C2-C5	C6-C14	C15+	S2 from Rock-Eval	Sample
1440.00	cut	bulk	3.04	37.47	49.28	10.22	-	0005-0B
1851.00	cut	bulk	1.76	40.25	53.56	4.44	-	0014-0B
1950.00	cut	bulk	1.23	40.03	55.64	3.10	-	0017-0B

Table 8E: Iatroscan TLC Bulk Composition: Absolute yields in mg/g rock for well NOCS 16/1-5

Depth unit of measure: m

<u>Depth</u>	<u>Typ</u>	<u>Lithology</u>	<u>Sat HC</u>	<u>Aro HC</u>	<u>NSO</u>	<u>Asp</u>	<u>HC</u>	<u>Non-HC</u>	<u>EOM</u>	<u>Sample</u>
2020.70	swc	S/Sst	4.54	2.73	3.80	3.31	7.27	7.11	14.38	0024-1L

Table 8F: Iatroscan TLC Bulk Composition: Rel. percentages of sep. fractions for well NOCS 16/1-5

Depth unit of measure: m

<u>Depth</u>	<u>Typ</u>	<u>Lithology</u>	<u>Sat HC</u>	<u>Aro HC</u>	<u>NSO</u>	<u>Asp</u>	<u>Total</u>	<u>HC</u>	<u>Non-HC</u>	<u>Recov. Iatr.</u>	<u>Recov. Asp</u>	<u>Sample</u>
2020.70	swc	S/Sst	31.61	18.97	26.40	23.02	100.00	50.58	49.42	1.11	1.02	0024-1L



Table 9a: Quantative Analysis of Saturated Fraction, NOCS 16/1-5

sample	nC15	nC16	iC18	nC17	Pr	nC18	Ph	nC19	nC20	nC21	nC22	nC23
	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat
2020.70	0,364	0,516	0,835	2,160	0,553	0,907	0,734	0,654	1,343	0,519	0,391	0,244

Table Ja: Quantative Analysis of Saturated Fraction, NOCS 16/1-5

sample	nC24	nC25	nC26	nC27	nC28	nC29	nC30	nC31	nC32	nC33	nC34	Sum alk
	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat
2020.70	0,394	0,293	0,374	0,946	0,000	0,000	0,000	0,000	0,000	0,000	0,000	11,227

Table 9B: Saturated Hydrocarbon Ratios (peak area) for well NOCS 16/1-5

Depth unit of measure: m

Depth	Typ	Lithology	$\frac{\text{Pristane}}{\text{nC17}}$	$\frac{\text{Pristane}}{\text{Phytane}}$	$\frac{\text{Pristane/nC17}}{\text{Phytane/nC18}}$	$\frac{\text{Phytane}}{\text{nC18}}$	CPI1	$\frac{\text{nC17}}{\text{nC17+nC27}}$	Sample
2020.70	swc	bulk	0.26	0.75	0.32	0.81	2.46	0.70	0024-0B

Table 9Ca: Aromatic Hydrocarbon Ratios (peak area) for well NOCS 16/1-5

Depth unit of measure: m

Depth	Typ	Lithology	MNR	DMNR	BPhR	2/1MP	MPI1	MPI2	Rc	DBT/P	4/1MDBT	(3+2) /1MDBT	Sample
2020.70	swc	bulk	-	1.31	0.06	1.00	0.80	0.73	0.88	0.47	3.42	1.09	0024-0B

Table 9Cb: Aromatic Hydrocarbon Ratios (peak area) for well NOCS 16/1-5

Depth unit of measure: m

Depth	Typ	Lithology	F1	F2	Sample
2020.70	swc	bulk	0.48	0.22	0024-0B

Table 11a: Variation in Triterpane Distribution (peak height) SIR for Well NOCS 16/1-5

Depth unit of measure: m

Depth	Lithology	Ratio1	Ratio2	Ratio3	Ratio4	Ratio5	Ratio6	Ratio7	Ratio8	Ratio9	Rat.10	Rat.11	Rat.12	Rat.13	Rat.14	Sample
1440.00	bulk	1.44	0.59	0.16	4.51	0.82	0.14	5.92	1.31	0.86	0.10	0.53	0.73	0.25	59.27	0005-0
2020.70	bulk	1.96	0.66	0.15	0.48	0.32	0.04	0.20	0.42	0.17	0.04	0.94	0.34	0.09	60.77	0024-0
2022.28	bulk	1.43	0.59	0.12	0.56	0.36	0.03	0.12	0.22	0.11	0.08	0.92	0.37	0.10	59.93	0001-0

List of Triterpane Distribution Ratios

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Ratio 1:  $27Tm / 27Ts$

Ratio 2:  $27Tm / 27Tm+27Ts$

Ratio 3:  $27Tm / 27Tm+30a\beta+30\beta a$

Ratio 4:  $29a\beta / 30a\beta$

Ratio 5:  $29a\beta / 29a\beta+30a\beta$

Ratio 6:  $30d / 30a\beta$

Ratio 7:  $28a\beta / 30a\beta$

Ratio 8:  $28a\beta / 29a\beta$

Ratio 9:  $28a\beta / 28a\beta+30a\beta$

Ratio 10:  $24/3 / 30a\beta$

Ratio 11:  $30a\beta / 30a\beta+30\beta a$

Ratio 12:  $29a\beta+29\beta a / 29a\beta+29\beta a+30a\beta+30\beta a$

Ratio 13:  $29\beta a+30\beta a / 29a\beta+30a\beta$

Ratio 14:  $32a\beta S / 32a\beta S+32a\beta R$  (%)

Table 11b: Variation in Sterane Distribution (peak height) SIR for Well NOCS 16/1-5

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Ratio3</u>	<u>Ratio4</u>	<u>Ratio5</u>	<u>Ratio6</u>	<u>Ratio7</u>	<u>Ratio8</u>	<u>Ratio9</u>	<u>Ratio10</u>	<u>Sample</u>
1440.00	bulk	0.39	38.06	85.89	0.28	0.89	0.23	0.18	0.75	0.61	4.91	0005-0
2020.70	bulk	0.60	45.01	77.77	0.80	0.80	0.17	0.11	0.64	0.82	3.18	0024-0
2022.28	bulk	0.59	40.21	75.59	0.81	0.79	0.15	0.10	0.61	0.67	2.59	0001-0



List of Sterane Distribution Ratios

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Ratio 1:  $27d\beta S / 27d\beta S + 27aaR$

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

Ratio 3:  $2 * (29\beta\beta R + 29\beta\beta S) / (29aaS + 29aaR + 2 * (29\beta\beta R + 29\beta\beta S))$  (%)

Ratio 4:  $27d\beta S + 27d\beta R + 27daR + 27daS / 29d\beta S + 29d\beta R + 29daR + 29daS$

Ratio 5:  $29\beta\beta R + 29\beta\beta S / 29\beta\beta R + 29\beta\beta S + 29aaS$

Ratio 6:  $21a + 22a / 21a + 22a + 29aaS + 29\beta\beta R + 29\beta\beta S + 29aaR$

Ratio 7:  $21a + 22a / 21a + 22a + 28daS + 28aaS + 29daR + 29aaS + 29\beta\beta R + 29\beta\beta S + 29aaR$

Ratio 8:  $29\beta\beta R + 29\beta\beta S / 29aaS + 29\beta\beta R + 29\beta\beta S + 29aaR$

Ratio 9:  $29aaS / 29aaR$

Ratio 10:  $29\beta\beta R + 29\beta\beta S / 29aaR$

Table 11c: Raw triterpane data (peak height) m/z 191 SIR for Well NOCS 16/1-5

Depth unit of measure: m

Depth	Lithology	23/3	24/3	25/3	24/4	26/3	27Ts	27Tm	28a $\beta$	25nor30a $\beta$	Sample
		29a $\beta$	29Ts	30d	29 $\beta$ a	300	30a $\beta$	30 $\beta$ a	30G	31a $\beta$ S	
		31a $\beta$ R	32a $\beta$ S	32a $\beta$ R	33a $\beta$ S	33a $\beta$ R	34a $\beta$ S	34a $\beta$ R	35a $\beta$ S	35a $\beta$ R	
1440.00	bulk	359.1 4694.3 2273.4	107.6 199.5 254.5	82.0 150.2 174.9	106.4 502.7 202.4	39.5 0.0 206.3	257.8 1039.8 119.6	370.7 925.5 0.0	6157.8 738.5 0.0	151.5 325.5 0.0	0005-0
2020.70	bulk	25035.9 206675.1 142754.5	15754.8 58686.0 132703.8	8124.4 16695.7 85649.3	18494.1 29418.8 93132.0	4770.4 0.0 61443.5	40366.7 432154.5 47160.8	79159.4 27969.8 29893.8	87053.5 11755.2 41957.8	0.0 209987.2 26545.3	0024-0
2022.28	bulk	600.5 2474.8 1552.4	363.8 569.8 1300.1	181.1 142.4 869.2	212.0 359.8 993.9	120.9 0.0 630.9	463.5 4429.3 509.5	663.3 362.2 325.2	546.7 145.3 537.7	247.8 2454.5 279.7	0001-0

Table 11d: Raw sterane data (peak height) m/z 217 SIR for Well NOCS 16/1-5

Depth unit of measure: m

Depth	Lithology	21a	22a	27dBS	27dBR	27daR	27daS	28dBS	28dBR	28daR*	Sample
		29dBS*	28daS*	27aaR	29dBR	29daR	28aaS	29daS*	28BS		
		28aaR	29aaS	29BSR	29BS	29aaR					
1440.00	bulk	173.5 125.7 71.6	65.4 65.6 75.8	91.5 142.9 538.4	62.6 101.4 67.3	43.7 466.6 123.3	35.1 82.3	41.9 133.2	26.7 85.4	58.0	0005-0
2020.70	bulk	47031.0 152547.0 34104.5	22739.5 102419.7 55437.3	118522.7 78416.5 121705.4	76163.1 57103.7 93758.6	26129.9 24340.8 67739.1	27561.7 42715.6	49775.9 77992.9	26980.3 80832.1	72437.5	0024-0
2022.28	bulk	238.7 696.0 224.5	106.9 471.2 310.5	612.6 424.9 680.7	339.9 271.8 515.2	129.8 116.1 461.7	119.8 176.3	267.1 398.4	114.9 431.4	298.8	0001-0

\* 28daR coel with 27aaS, 29dBS coel with 27BSR, 28daS coel with 27BS, 29daS coel with 28BSR

Table 11e: Raw sterane data (peak height) m/z 218 SIR for Well NOCS 16/1-5

Depth unit of measure: m

Depth	Lithology	27 $\beta$ SR	27 $\beta$ SS	28 $\beta$ SR	28 $\beta$ SS	29 $\beta$ SR	29 $\beta$ SS	30 $\beta$ SR	30 $\beta$ SS	Sample
1440.00	bulk	105.8	59.1	89.7	291.9	161.8	201.2	45.7	16.3	0005-0
2020.70	bulk	201088.8	159738.3	130889.5	129434.1	182073.5	163395.8	34347.9	31073.9	0024-0
2022.28	bulk	1107.1	832.9	735.2	798.3	1142.0	1120.6	164.8	125.3	0001-0

Table 11f: Raw triterpane data (peak height) m/z 177 SIR for Well NOCS 16/1-5

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>25nor28aß</u>	<u>25nor30aß</u>	<u>Sample</u>
1440.00	bulk	0.0	0.0	0005-0
2020.70	bulk	0.0	0.0	0024-0
2022.28	bulk	280.4	208.0	0001-0

Table 11g: Amount of triterpanes (ppb) m/z 191 SIR for Well NOCS 16/1-5

Depth unit of measure: m

Depth	Lithology	23/3	24/3	25/3	24/4	26/3	27Ts	27Tm	28aß	25nor30aß	Sample
		29aß	29Ts	30d	29Ba	300	30aß	30Ba	30G	31aßS	
		31aßR	32aßS	32aßR	33aßS	33aßR	34aßS	34aßR	35aßS	35aßR	
1440.00	bulk	29028.5	8700.8	6625.0	8596.8	3193.3	20838.8	29964.9	497728.4	12243.1	0005-0
		379434.7	16126.4	12141.6	40636.8	0.0	84044.8	74804.5	59691.1	26310.8	
		183754.6	20567.4	14136.6	16363.4	16675.6	9666.8	0.0	0.0	0.0	
2020.70	bulk	265944.7	167356.2	86301.9	196454.4	50674.2	428797.1	840873.5	924729.8	0.0	0024-0
		2195414.5	623394.8	177350.5	312502.1	0.0	4590578.5	297110.6	124869.7	2230597.5	
		1516415.5	1409651.5	909813.3	989298.4	652685.9	500967.1	317548.5	445698.0	281978.8	
2022.28	bulk	4750.9	2877.8	1432.9	1677.1	956.3	3666.8	5247.2	4324.8	1960.3	0001-0
		19578.5	4508.1	1126.2	2846.2	0.0	35041.2	2865.3	1149.5	19418.1	
		12281.8	10285.2	6876.7	7862.9	4991.1	4030.4	2573.0	4254.1	2213.1	

Table 11h: Amount of steranes (ppb) m/z 217 SIR for Well NOCS 16/1-5

Depth unit of measure: m

Depth	Lithology	21a	22a	27dBS	27dBR	27daR	27daS	28dBS	28dBR	28daR*	Sample
		29dBS*	28daS*	27aaR	29dBR	29daR	28aaS	29daS*	28BS		
		28aaR	29aaS	29BBR	29BS	29aaR					
1440.00	bulk	14021.2	5285.6	7395.3	5058.5	3535.9	2837.7	3389.4	2157.7	4691.3	0005-0
		10162.0	5306.0	11549.0	8193.5	37717.9	6650.7	10770.2	6904.5		
		5784.3	6123.4	43520.5	5441.8	9967.2					
2020.70	bulk	499589.1	241551.7	1259012.2	809045.8	277566.1	292775.2	528746.6	286599.0	769470.8	0024-0
		1620436.6	1087957.5	832982.1	606586.4	258560.7	453748.6	828483.1	858642.6		
		362276.8	588885.0	1292820.5	995954.3	719561.4					
2022.28	bulk	1888.3	845.6	4846.8	2689.0	1026.6	947.5	2113.3	908.8	2364.2	0001-0
		5506.6	3728.2	3361.5	2150.6	918.2	1395.0	3152.0	3413.1		
		1776.3	2456.6	5385.1	4075.9	3652.6					

\* 28daR coel with 27aaS, 29dBS coel with 27BBR, 28daS coel with 27BS, 29daS coel with 28BBR

Table 11i: Amount of standard and weight of sample for Well NOCS 16/1-5

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>Standard</u>	<u>Amount</u>	<u>Weight</u>	<u>Sample</u>
1440.00	bulk	2014.0	0.700	4.3	0005-0
2020.70	bulk	8670.7	0.700	7.6	0024-0
2022.28	bulk	22687.5	0.700	3.9	0001-0



Table 12a: Variation in Triaromatic Sterane Distribution (peak height) for Well NOCS 16/1-5

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Ratio3</u>	<u>Ratio4</u>	<u>Ratio5</u>	<u>Sample</u>
1440.00	bulk	0.46	0.38	0.20	0.27	0.29	0005-0
2022.28	bulk	0.18	0.18	0.07	0.07	0.08	0001-0

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 16/1-5

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Ratio3</u>	<u>Ratio4</u>	<u>Sample</u>
1440.00	bulk	0.37	0.27	0.23	0.18	0005-0
2022.28	bulk	0.15	0.11	0.08	0.08	0001-0

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 16/1-5

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Sample</u>
1440.00	bulk	0.53	0.62	0005-0
2022.28	bulk	0.37	0.96	0001-0

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

$$\text{Ratio2: } \text{g1} / \text{g1} + \text{I1}$$

Table 12d: Raw triaromatic sterane data (peak height) m/z 231 for Well NOCS 16/1-5

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>a1</u>	<u>b1</u>	<u>c1</u>	<u>d1</u>	<u>e1</u>	<u>f1</u>	<u>g1</u>	<u>Sample</u>
1440.00	bulk	106.2	78.0	175.8	259.9	114.7	52.6	126.5	0005-0
2022.28	bulk	145.9	144.9	275.8	1735.2	616.0	650.9	649.2	0001-0

Table 12e: Raw monoaromatic sterane data (peak height) m/z 253 for Well NOCS 16/1-5

Depth unit of measure: m

Depth	Lithology	A1	B1	C1	D1	E1	F1	G1	H1	I1	Sample
1440.00	bulk	109.7	69.6	89.3	89.5	187.7	32.0	177.1	180.4	76.1	0005-0
2022.28	bulk	125.9	82.8	295.0	322.6	689.5	67.4	681.2	237.2	27.4	0001-0

Table 1: Analytical Program for Well NOCS 16/1-5A

Sample Depth (m)	Sample Type	Sample Code	Lithology Description	Picking for screening	Prøvepreparing	Leco TOC	RockEval	Thermal Extraciuon GC	Picking for Extraction	Iatroscan	SOXTEC Extraction	MPLC & Deasphaltene	EOM GC	Whole Oil GC	Sat GC (Quantitative)	Aro GC (Non Quantitative)	Sat GCMS (Quantitative)	Aro GCMS (Non-Q)	Isotope of EOM/fractions
Table nos.			3			5	5			8	8	8		13	9	9	11	12	10
2123.22	pR						x			x	x	x	x		x	x	x		
2124.20	pR						x												
2127.80	pR						x												
2128.12	pR						x												
2143.98	pR						x												
2100.0 mud						x	x			x	x	x	x		x	x	x		
Base Oil 95-11										x		x	x	x	x	x	x	x	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>0</b>
Sample type key c = Cuttings s = SWC p = Conv core/ plug										R = Reservoir S = Source									

Table 5A: Rock-Eval table for well NOCS 16/1-5A

Depth unit of measure: m

Depth	Typ	Form	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
2100.00	mud		bulk	189.48	18.81	-	-	4.08	461	-	208.3	0.91	404	0006-0B
2123.22	ccp		S/Sst : pl brn	11.07	1.01	-	-	-	-	-	12.1	0.92	401	0001-1L
2124.20	ccp		S/Sst : pl brn	9.63	1.25	-	-	-	-	-	10.9	0.89	403	0002-1L
2127.80	ccp		S/Sst : m brn to dsk brn	16.84	1.70	-	-	-	-	-	18.5	0.91	408	0003-1L
2128.12	ccp		S/Sst : pl brn to m brn	18.24	1.72	-	-	-	-	-	20.0	0.91	401	0004-1L
2143.98	ccp		S/Sst : w	13.33	0.40	-	-	-	-	-	13.7	0.97	561	0005-1L

Table 5B: Rock-Eval table for well BLACK VEN MARL

Depth unit of measure: m

Depth	Typ	Form	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
1.00	std		bulk	0.34	19.15	-	-	-	-	-	19.5	0.02	419	0210-0B
2.00	std		bulk	0.34	19.27	-	-	-	-	-	19.6	0.02	418	0211-0B



Table 8E: Iatroscan TLC Bulk Composition: Absolute yields in mg/g rock for well NOCS 16/1-5A

Depth unit of measure: m

<u>Depth</u>	<u>Typ</u>	<u>Lithology</u>	<u>Sat HC</u>	<u>Aro HC</u>	<u>NSO</u>	<u>Asp</u>	<u>HC</u>	<u>Non-HC</u>	<u>EOM</u>	<u>Sample</u>
2123.22	ccp	S/Sst	12.50	0.97	1.39	0.54	13.46	1.93	15.39	0001-1L

Table 8F: Iatroscan TLC Bulk Composition: Rel. percentages of sep. fractions for well NOCS 16/1-5A

Depth unit of measure: m

<u>Depth</u>	<u>Typ</u>	<u>Lithology</u>	<u>Sat HC</u>	<u>Aro HC</u>	<u>NSO</u>	<u>Asp</u>	<u>Total</u>	<u>HC</u>	<u>Non-HC</u>	<u>Recov. Iatr.</u>	<u>Recov. Asp</u>	<u>Sample</u>
2100.00	mud	bulk	89.67	-	0.59	9.73	100.00	89.67	10.33	1.09	0.17	0006-0B
2123.22	ccp	S/Sst	81.19	6.27	9.02	3.52	100.00	87.47	12.53	1.12	0.87	0001-1L
9511.00	add	bulk	87.37	-	0.18	12.45	100.00	87.37	12.63	1.06	0.77	0007-0B

Table 9a: Quantative Analysis of Saturated Fraction, NOCS 16/1-5A

Sample	nC15	nC16	iC18	nC17	Pr	nC18	Ph	nC19	nC20	nC21	nC22	nC23
	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat
2100.00	15,522	14,164	4,381	12,557	5,004	9,376	3,839	5,274	2,686	1,429	0,880	0,434
2123.22	14,441	13,864	4,368	11,952	4,245	8,949	3,208	5,205	3,113	1,772	0,937	0,480
EDC Base Oil	15,679	11,567	3,783	10,991	4,769	8,621	3,751	4,563	2,696	1,512	0,814	0,433

Table 9a: Quantative Analysis of Saturated Fraction, NOCS 16/1-5A

Sample	nC24	nC25	nC26	nC27	nC28	nC29	nC30	nC31	nC32	nC33	nC34	Sum alk
	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat	mg/g sat
2100.00	0,208	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	75,756
2123.22	0,244	0,086	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	72,867
EDC Base Oil	0,211	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	69,391

Table 9B: Saturated Hydrocarbon Ratios (peak area) for well NOCS 16/1-5A

Depth unit of measure: m

Depth	Typ	Lithology	<u>Pristane</u> <u>nC17</u>	<u>Pristane</u> <u>Phytane</u>	<u>Pristane/nC17</u> <u>Phytane/nC18</u>	<u>Phytane</u> <u>nC18</u>	<u>CPI1</u>	<u>nC17</u> <u>nC17+nC27</u>	<u>Sample</u>
2100.00	mud	bulk	0.40	1.30	0.97	0.41	-	1.00	0006-0B
2123.22	ccp	bulk	0.36	1.32	0.99	0.36	-	1.00	0001-0B
EDC 95-11			0.43	1.27	1.00	0.44	-	1.00	0007-0B

Table 9Ca: Aromatic Hydrocarbon Ratios (peak area) for well NOCS 16/1-5A

Depth unit of measure: m

Depth	Typ	Lithology	MNR	DMNR	BPhR	2/1MP	MPI1	MPI2	Rc	DBT/P	4/1MDBT	(3+2) /1MDBT	Sample
2123.22	ccp	bulk	0.90	1.39	0.48	0.73	0.69	0.66	0.82	0.40	5.16	1.39	0001-0B

Table 9Cb: Aromatic Hydrocarbon Ratios (peak area) for well NOCS 16/1-5A

Depth unit of measure: m

Depth	Typ	Lithology	F1	F2	Sample
2123.22	ccp	bulk	0.43	0.20	0001-0B

Table 11a: Variation in Triterpane Distribution (peak height) SIR for Well NOCS 16/1-5A

Depth unit of measure: m

Depth	Lithology	Ratio1	Ratio2	Ratio3	Ratio4	Ratio5	Ratio6	Ratio7	Ratio8	Ratio9	Rat.10	Rat.11	Rat.12	Rat.13	Rat.14	Sample
2100.00	bulk	0.64	0.39	0.11	0.50	0.33	0.06	0.14	0.29	0.13	1.00	0.92	0.34	0.10	54.65	0006-0
2123.22	bulk	1.29	0.56	0.13	0.44	0.31	0.06	0.16	0.37	0.14	0.06	0.93	0.32	0.10	60.18	0001-0
9511.00	bulk	0.37	0.27	0.20	0.89	0.47	-	0.26	0.29	0.21	7.66	1.00	0.47	-	-	0007-0



List of Triterpane Distribution Ratios

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Ratio 1:  $27Tm / 27Ts$

Ratio 2:  $27Tm / 27Tm+27Ts$

Ratio 3:  $27Tm / 27Tm+30a\beta+30\beta a$

Ratio 4:  $29a\beta / 30a\beta$

Ratio 5:  $29a\beta / 29a\beta+30a\beta$

Ratio 6:  $30d / 30a\beta$

Ratio 7:  $28a\beta / 30a\beta$

Ratio 8:  $28a\beta / 29a\beta$

Ratio 9:  $28a\beta / 28a\beta+30a\beta$

Ratio 10:  $24/3 / 30a\beta$

Ratio 11:  $30a\beta / 30a\beta+30\beta a$

Ratio 12:  $29a\beta+29\beta a / 29a\beta+29\beta a+30a\beta+30\beta a$

Ratio 13:  $29\beta a+30\beta a / 29a\beta+30a\beta$

Ratio 14:  $32a\beta S / 32a\beta S+32a\beta R$  (%)

Table 11b: Variation in Sterane Distribution (peak height) SIR for Well NOCS 16/1-5A

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Ratio3</u>	<u>Ratio4</u>	<u>Ratio5</u>	<u>Ratio6</u>	<u>Ratio7</u>	<u>Ratio8</u>	<u>Ratio9</u>	<u>Ratio10</u>	<u>Sample</u>
2100.00	bulk	0.09	36.47	73.55	2.32	0.79	0.77	0.70	0.58	0.57	2.19	0006-0
2123.22	bulk	0.58	44.49	76.58	0.87	0.79	0.34	0.24	0.62	0.80	2.94	0001-0
9511.00	bulk	0.02	-	100.00	1.20	1.00	0.94	0.94	1.00	-	-	0007-0

List of Sterane Distribution Ratios

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Ratio 1:  $27d\beta S / 27d\beta S + 27aaR$

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

Ratio 3:  $2 * (29\beta\beta R + 29\beta\beta S) / (29aaS + 29aaR + 2 * (29\beta\beta R + 29\beta\beta S))$  (%)

Ratio 4:  $27d\beta S + 27d\beta R + 27daR + 27daS / 29d\beta S + 29d\beta R + 29daR + 29daS$

Ratio 5:  $29\beta\beta R + 29\beta\beta S / 29\beta\beta R + 29\beta\beta S + 29aaS$

Ratio 6:  $21a + 22a / 21a + 22a + 29aaS + 29\beta\beta R + 29\beta\beta S + 29aaR$

Ratio 7:  $21a + 22a / 21a + 22a + 28daS + 28aaS + 29daR + 29aaS + 29\beta\beta R + 29\beta\beta S + 29aaR$

Ratio 8:  $29\beta\beta R + 29\beta\beta S / 29aaS + 29\beta\beta R + 29\beta\beta S + 29aaR$

Ratio 9:  $29aaS / 29aaR$

Ratio 10:  $29\beta\beta R + 29\beta\beta S / 29aaR$

Table 11c: Raw triterpane data (peak height) m/z 191 SIR for Well NOCS 16/1-5A

Depth unit of measure: m

Depth	Lithology	23/3	24/3	25/3	24/4	26/3	27Ts	27Tm	28a $\beta$	25nor30a $\beta$	Sample
		29a $\beta$	29Ts	30d	29 $\beta$ a	300	30a $\beta$	30 $\beta$ a	30G	31a $\beta$ S	
		31a $\beta$ R	32a $\beta$ S	32a $\beta$ R	33a $\beta$ S	33a $\beta$ R	34a $\beta$ S	34a $\beta$ R	35a $\beta$ S	35a $\beta$ R	
2100.00	bulk	1319.4 114.6 54.8	230.1 28.9 60.0	38.2 12.8 49.8	40.9 13.9 55.9	16.6 0.0 99.1	48.5 229.4 50.4	31.1 20.5 41.7	33.1 0.0 78.6	0.0 103.2 37.0	0006-0
2123.22	bulk	1125.3 4295.8 3140.2	604.9 1431.6 3035.3	248.3 541.7 2008.2	528.0 612.6 2289.3	127.3 0.0 1491.0	1181.7 9708.8 1187.8	1522.7 719.5 778.6	1591.6 344.0 1120.8	0.0 4715.6 744.4	0001-0
9511.00	bulk	772.9 10.5 5.4	89.9 5.0 0.0	7.5 0.0 0.0	6.1 0.0 0.0	2.9 0.0 0.0	7.8 11.7 0.0	2.9 0.0 0.0	3.0 0.0 0.0	0.0 11.5 0.0	0007-0

Table 11d: Raw sterane data (peak height) m/z 217 SIR for Well NOCS 16/1-5A

Depth unit of measure: m

Depth	Lithology	21a	22a	27d $\beta$ S	27d $\beta$ R	27daR	27daS	28d $\beta$ S	28d $\beta$ R	28daR*	Sample
		29d $\beta$ S*	28daS*	27aaR	29d $\beta$ R	29daR	28aaS	29daS*	28 $\beta$ $\beta$ S		
		28aaR	29aaS	29 $\beta$ $\beta$ R	29 $\beta$ $\beta$ S	29aaR					
2100.00	bulk	252.4	59.6	52.8	89.6	16.8	14.6	20.7	10.0	229.9	0006-0
		38.7	21.5	564.6	14.1	6.7	5.5	15.5	15.6		
		9.3	14.1	29.4	24.3	24.5					
2123.22	bulk	2049.5	846.9	1997.0	1558.2	512.2	522.9	955.1	543.5	1150.9	0001-0
		2535.7	1678.6	1438.7	1040.6	421.0	665.6	1249.2	1329.8		
		525.6	946.3	1926.0	1551.2	1180.8					
9511.00	bulk	64.4	9.2	3.7	0.0	0.0	0.0	0.0	0.0	74.7	0007-0
		3.1	0.0	165.7	0.0	0.0	0.0	0.0	0.0	0.0	
		0.0	0.0	2.9	2.2	0.0					

\* 28daR coel with 27aaS, 29d $\beta$ S coel with 27 $\beta$  $\beta$ R, 28daS coel with 27 $\beta$  $\beta$ S, 29daS coel with 28 $\beta$  $\beta$ R

Table 11e: Raw sterane data (peak height) m/z 218 SIR for Well NOCS 16/1-5A

Depth unit of measure: m

Depth	Lithology	27 $\beta$ BR	27 $\beta$ BS	28 $\beta$ BR	28 $\beta$ BS	29 $\beta$ BR	29 $\beta$ BS	30 $\beta$ BR	30 $\beta$ BS	Sample
2100.00	bulk	55.1	40.2	33.3	26.9	48.9	43.6	6.8	5.3	0006-0
2123.22	bulk	3027.2	2478.0	2054.9	2083.1	2882.3	2789.8	674.6	549.4	0001-0
9511.00	bulk	4.4	2.7	3.6	2.7	4.7	4.4	0.0	0.0	0007-0

Table 11f: Raw triterpane data (peak height) m/z 177 SIR for Well NOCS 16/1-5A

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>25nor28aß</u>	<u>25nor30aß</u>	<u>Sample</u>
2100.00	bulk	0.0	0.0	0006-0
2123.22	bulk	0.0	0.0	0001-0
9511.00	bulk	0.0	0.0	0007-0

Table 11g: Amount of triterpanes (ppb) m/z 191 SIR for Well NOCS 16/1-5A

Depth unit of measure: m

Depth	Lithology	23/3	24/3	25/3	24/4	26/3	27Ts	27Tm	28aß	25nor30aß	Sample
		29aß	29Ts	30d	29ßa	300	30aß	30ßa	30G	31aßS	
		31aßR	32aßS	32aßR	33aßS	33aßR	34aßS	34aßR	35aßS	35aßR	
2100.00	bulk	12150.0 1055.3 504.4	2119.1 266.4 552.3	351.4 117.5 458.4	376.7 128.3 514.7	152.7 0.0 912.3	446.3 2112.1 464.2	286.6 188.8 383.6	305.2 0.0 723.7	0.0 950.6 340.4	0006-0
2123.22	bulk	30419.3 116121.6 84883.7	16352.4 38698.7 82048.6	6712.8 14643.2 54286.1	14272.5 16559.7 61884.0	3442.3 0.0 40303.6	31944.3 262446.3 32108.1	41161.3 19448.4 21046.2	43022.7 9298.1 30295.8	0.0 127471.7 20123.6	0001-0
9511.00	bulk	8722.7 118.1 60.7	1014.6 56.2 0.0	84.1 0.0 0.0	68.9 0.0 0.0	32.8 0.0 0.0	88.5 132.5 0.0	33.1 0.0 0.0	34.4 0.0 0.0	0.0 129.4 0.0	0007-0



Table 11h: Amount of steranes (ppb) m/z 217 SIR for Well NOCS 16/1-5A

Depth unit of measure: m

Depth	Lithology	21a	22a	27d $\beta$ S	27d $\beta$ R	27daR	27daS	28d $\beta$ S	28d $\beta$ R	28daR*	Sample	
		29d $\beta$ S*	28daS*	27aaR	29d $\beta$ R	29daR	28aaS	29daS*	28 $\beta$ $\beta$ S			
		28aaR	29aaS	29 $\beta$ $\beta$ R	29 $\beta$ $\beta$ S	29aaR						
2100.00	bulk	2324.5 356.3 85.4	548.7 198.3 129.6	486.6 5198.8 270.7	825.3 130.0 223.4	154.9 61.6 225.8	134.7	190.3 50.5	91.7 142.5	2116.8 143.2	0006-0	
2123.22	bulk	55400.9 68543.1 14208.1	22894.1 45375.1 25578.9	53981.2 38891.1 52063.2	42120.3 28128.1 41932.8	13845.5 11380.1 31918.7	14133.7	25818.2 17992.4	14692.3 33768.7	31111.9 35945.7	0001-0	
9511.00	bulk	727.1 35.3 0.0	104.0 0.0 0.0	42.3 1870.6 33.1	0.0 0.0 24.6	0.0 0.0 0.0	0.0	0.0 0.0	0.0 0.0	0.0 0.0	842.8 0.0 0.0	0007-0

\* 28daR coel with 27aaS, 29d $\beta$ S coel with 27 $\beta$  $\beta$ R, 28daS coel with 27 $\beta$  $\beta$ S, 29daS coel with 28 $\beta$  $\beta$ R

Table 11i: Amount of standard and weight of sample for Well NOCS 16/1-5A

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>Standard</u>	<u>Amount</u>	<u>Weight</u>	<u>Sample</u>
2100.00	bulk	7274.4	1.400	20.9	0006-0
2123.22	bulk	2332.9	1.400	22.2	0001-0
9511.00	bulk	3065.5	2.100	60.7	0007-0

Table 12a: Variation in Triaromatic Sterane Distribution (peak height) for Well NOCS 16/1-5A

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Ratio3</u>	<u>Ratio4</u>	<u>Ratio5</u>	<u>Sample</u>
9511.00	bulk	0.79	0.67	0.57	0.58	0.75	0007-0

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 16/1-5A

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Ratio3</u>	<u>Ratio4</u>	<u>Sample</u>
9511.00	bulk	0.86	0.72	0.81	0.75	0007-0

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 16/1-5A

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Sample</u>
9511.00	bulk	0.47	0.95	0007-0

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

$$\text{Ratio2: } \text{g1} / \text{g1} + \text{I1}$$

Table 12d: Raw triaromatic sterane data (peak height) m/z 231 for Well NOCS 16/1-5A

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>a1</u>	<u>b1</u>	<u>c1</u>	<u>d1</u>	<u>e1</u>	<u>f1</u>	<u>g1</u>	<u>Sample</u>
9511.00	bulk	681.8	368.0	62.5	225.4	165.5	150.8	178.1	0007-0

Table 12e: Raw monoaromatic sterane data (peak height) m/z 253 for Well NOCS 16/1-5A

Depth unit of measure: m

Depth	Lithology	A1	B1	C1	D1	E1	F1	G1	H1	I1	Sample
9511.00	bulk	1458.4	596.2	141.9	99.0	232.4	29.1	119.2	59.3	9.8	0007-0