

BA-93-558-1

15 MARS 1993

RECEIVED

OLJEDIREKTORATET

## Geochemical Report for Well NOCS 9/2-1

Authors:

Geir Hansen

Ian L. Ferriday

Geolab Nor A/S

P.O. Box 5740 Fossegrenda

7002 Trondheim

Norway

Date :

23.12.92

## Chapter 1

# INTRODUCTION

The NOCS well 9/2-1, analysed on behalf of Norsk Agip, is located south of the Egersund Basin, situated 57°49'58.10" N, 04°31'27.92" E. The well was drilled by Statoil in 1987 to a total depth of 3756 m in the Triassic Skagerak Fm. and plugged/abandoned as an oil/gas discovery. The water depth at the location is 99 m and the KBE was 29 m. All depths given are relative to KB unless otherwise specified. The location of the well is shown in Figure 1.

The objectives of analysing this well, which is part of a larger study, are as follows:

- Evaluation of potential source rock units within the Jurassic.
- Point out any hydrocarbon bearing intervals present in the well.
- Evaluation of the thermal maturity trend throughout the well.

Both screening and optical analyses were performed on samples from the interval 2422 - 3718 m. The samples were 241 cuttings samples and 50 conventional cores. All analyses were conducted by Geolab Nor and the report is divided into chapters according to the various analytical methods used. Within the chapters the results are mainly discussed in a stratigraphic context.

## 1.1 General Comments

The cuttings samples, collected at the Norwegian Petroleum Directorate, were washed,

lithologically described and selected lithologies picked before analyses commenced. The conventional cores, available as core-chips, were analysed after cleansing of any superficial contamination.

## 1.2 Analytical Program

In accordance with the contract and sample availability, the following analytical programme was executed for well NOCS 9/2-1 in the interval 793 - 3754 m.

<u>Analysis type</u>	<u>No of sample</u>	<u>Figures</u>	<u>Tables</u>
Lithology description	241	2	1
TOC	83	2,3	1,2
Rock-Eval pyrolysis	83	3,4,5	2
Vitrinite reflectance	33	6	3
Visual kerogen microscopy	20	7	4,5

## 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

## ***Analytical Methods***

This is a brief description of the various analytical methods and instruments used by Geolab Nor, the importance and use of the results. Interpretation limits of numeric values are given in the "Interpretation Limits".

### **TOC**

Total organic carbon analysis of a rock indicates how much organic material is present in wt %. Either from a LECO or Rock-Eval instrument. Important for quantifying source rocks.

### **Rock-Eval**

This instrument determines the amounts of free hydrocarbons (S1), the amounts of material (pyrolysate) generated from kerogen (S2) and oxidised organic material (S3) plus gives a maturity indication (Tmax). It is used to identify zones of migrated hydrocarbons (high S1), rich source rocks (high S2), oxidized kerogen (high S3) and to get a first estimate of the maturity (empirical Tmax scale). Kerogen type can be estimated by the hydrogen index (HI). This parameter is however, maturity dependent. See "Interpretation Limits" for interpretation of values.

### **Vitrinite Reflectance**

This is the primary maturation parameter. The Ro is measured in percent by the use of a special microscope and can empirically be related to the temperatures in which oil generation occurs (e.g. Geolab Nor consider that oil generation starts in earnest at 0.6 % Ro, and is mostly finished by 1.0 % Ro for a rich oil-prone source rock).

### **Visual Kerogen Microscopy**

The examination of kerogen concentrate smear slides under a special microscope can give estimates as to the amount and quality of the kerogen (e.g. oil- or gas-prone) and its maturity using spore colour (SCI or TAI). The SCI maturity scale can be related to the vitrinite reflectance maturity scale.



# Appendix 1

## Tables

- 1-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
793.00						0089
			75	Ca	: w, fos	0089-1L
			25	Cont	: cem, prp, dd	0089-2L
843.00						0090
			85	Ca	: w	0090-1L
			15	Chert	: lt brn gy, hd	0090-2L
			tr	Cont	: prp	0090-3L
892.00						0091
			70	Ca	: w, fos	0091-1L
			25	Chert	: lt brn gy, hd	0091-2L
			5	Sh/Clst	: lt gy, calc	0091-4L
			tr	Cont	: prp	0091-3L
934.00						0092
			90	Ca	: w, fos	0092-1L
			10	Chert	: lt brn gy, hd	0092-2L
			tr	Cont	: prp	0092-3L
			tr	Sh/Clst	: lt gy, calc	0092-4L
976.00						0093
			90	Ca	: w, fos	0093-1L
			10	Chert	: lt brn gy, hd	0093-2L
			tr	Cont	: prp	0093-3L
			tr	Sh/Clst	: lt gy, calc	0093-4L

- 2-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
1024.00						0094
			95	Ca : w		0094-1L
			5	Chert : lt brn gy, hd		0094-2L
			tr	Cont : prp		0094-3L
1060.00						0095
			95	Ca : w		0095-1L
			5	Chert : lt brn gy, hd		0095-2L
			tr	Cont : prp		0095-3L
1096.00						0096
			100	Ca : w		0096-1L
			tr	Chert : lt brn gy, hd		0096-2L
			tr	Cont : prp		0096-3L
			tr	Sh/Clst: lt gy, calc, pyr		0096-4L
1132.00						0097
			100	Ca : w		0097-1L
			tr	Cont : prp		0097-2L
			tr	Sh/Clst: lt gy, calc, pyr		0097-3L
1174.00						0098
			100	Ca : w		0098-1L
			tr	Cont : prp		0098-2L
			tr	Sh/Clst: lt gy, calc		0098-3L
1210.00						0099
			100	Ca : w		0099-1L
			tr	Cont : prp		0099-2L
			tr	Sh/Clst: lt gy, calc		0099-3L

- 3-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample	
Int Cvd	TOC%	%	Lithology description				
1246.00						0100	
		100 Ca		: w		0100-1L	
		tr Cont		: prp		0100-2L	
		tr Sh/Clst:	lt gy, calc			0100-3L	
1270.00						0101	
		100 Ca		: w		0101-1L	
		tr Sh/Clst:	lt gy, calc			0101-2L	
1300.00						0102	
		100 Ca		: w		0102-1L	
		tr Sh/Clst:	lt gy, calc			0102-2L	
1330.00						0103	
		100 Ca		: w		0103-1L	
		tr Sh/Clst:	lt gy, calc			0103-2L	
1363.00						0104	
		80 Ca		: w		0104-1L	
		20 Marl		: lt gy w		0104-2L	
1399.00						0105	
		70 Ca		: w		0105-1L	
		30 Marl		: lt gy w		0105-2L	
		tr Cont		: prp		0105-3L	

- 4 -

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
1435.00						0106
			95	Ca : w		0106-1L
			5	Sh/Clst: lt gy		0106-2L
1474.00						0107
			75	Ca : w, slt, glauc		0107-1L
			25	Slstst : gy w, calc, glauc		0107-2L
1513.00						0108
			60	Cont : dd, prp		0108-1L
			30	Ca : w		0108-2L
			10	Sh/Clst: brn gy to drk gy, hd, pyr, calc		0108-3L
1549.00						0109
			35	Sh/Clst: brn gy to drk gy, hd, pyr, calc		0109-3L
			30	Cont : dd, prp		0109-1L
			20	Sh/Clst: y gy, calc		0109-4L
			15	Ca : w		0109-2L
1594.00						0110
			45	Cont : dd, prp		0110-1L
			40	Sh/Clst: brn gy to drk gy, hd, pyr, calc		0110-3L
			10	Ca : w		0110-2L
			5	Sh/Clst: y gy, calc		0110-4L
1630.00						0111
			85	Sh/Clst: brn gy to drk gy, calc		0111-3L
			15	Ca : w		0111-2L
			tr	Cont : dd, prp		0111-1L

- 5 -

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
1666.00						0112
			75	Sh/Clst:	brn gy to drk gy, calc	0112-3L
			15	Cont	: dd, prp	0112-1L
			10	Ca	: w	0112-2L
1705.00						0113
			90	Sh/Clst:	brn gy to drk gy, calc	0113-3L
			5	Ca	: w	0113-2L
			5	Marl	: or gy	0113-4L
			tr	Cont	: dd, prp	0113-1L
1735.00						0114
			80	Sh/Clst:	m gy to drk gy, slt, calc	0114-1L
			20	Ca	: w	0114-2L
1777.00						0115
			90	Sh/Clst:	m gy to drk gy, slt, calc	0115-1L
			10	Ca	: w	0115-2L
			tr	Cont	: prp	0115-3L
1807.00						0116
			80	Sh/Clst:	m gy to drk gy, slt, calc	0116-1L
			10	Ca	: w	0116-2L
			10	Cont	: prp, dd	0116-3L
1849.00						0117
			55	Sh/Clst:	m gy to drk gy, slt, calc	0117-1L
			35	Cont	: prp, dd	0117-3L
			10	Ca	: w	0117-2L

- 6 -

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
1888.00						0118
				85 Sh/Clst: m gy, slt, calc		0118-1L
				10 Cont : prp, dd		0118-3L
				5 Ca : w		0118-2L
1924.00						0119
				90 Sh/Clst: m gy, slt, calc		0119-1L
				10 Cont : prp, dd		0119-3L
				tr Ca : w		0119-2L
				tr Marl : or gy		0119-4L
1960.00						0120
				95 Sh/Clst: m gy, slt, calc		0120-1L
				5 Cont : prp, dd		0120-3L
				tr Ca : w		0120-2L
				tr Marl : or gy		0120-4L
1996.00						0121
				60 Sh/Clst: m gy, slt		0121-1L
				35 S/Sst : lt gy w, f, l		0121-2L
				5 Ca : w, fos		0121-3L
				tr Marl : or gy		0121-4L
2026.00						0122
				70 Sh/Clst: m gy, slt		0122-1L
				20 S/Sst : lt gy w, f, l		0122-2L
				5 Ca : w, fos		0122-3L
				5 Cont : dd		0122-5L
				tr Marl : or gy		0122-4L

- 7-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2056.00						0123
			55	Sh/Clst: m gy, slt		0123-1L
			40	S/Sst : lt gy w, f, l		0123-2L
			5	Ca : w, fos		0123-3L
			tr	Marl : or gy		0123-4L
			tr	Cont : dd		0123-5L
2092.00						0124
			50	S/Sst : lt gy w, f, l		0124-2L
			40	Sh/Clst: m gy, slt		0124-1L
			10	Cont : dd		0124-4L
			tr	Ca : w, fos		0124-3L
2128.00						0125
			70	Sh/Clst: m gy, slt		0125-1L
			25	S/Sst : lt gy w, f, l		0125-2L
			5	Cont : prp		0125-4L
			tr	Ca : w		0125-3L
			tr	Marl : or gy		0125-5L
2164.00						0126
			60	S/Sst : lt gy w, f, slt, l		0126-2L
			30	Sh/Clst: m gy, slt, calc		0126-1L
			5	Cont : prp, dd		0126-4L
			5	Marl : or gy		0126-5L
			tr	Ca : w		0126-3L
2194.00						0127
			85	Sh/Clst: m gy, slt, calc		0127-1L
			10	S/Sst : lt gy w, f, l		0127-2L
			5	Marl : or gy to lt or		0127-5L
			tr	Ca : w		0127-3L
			tr	Cont : prp, dd		0127-4L



- 8-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2230.00						0128
				80 Sh/Clst: m gy, slt, calc		0128-1L
				10 Marl : or gy to lt or		0128-4L
				5 S/Sst : lt gy w, f, l		0128-2L
				5 Cont : prp, dd		0128-3L
2269.00						0129
				70 Sh/Clst: m gy, slt, calc		0129-1L
				25 Cont : prp, dd		0129-2L
				5 Marl : or gy to lt or		0129-3L
2302.00						0130
				50 Sh/Clst: m gy, slt		0130-1L
				45 Cont : dd, prp, fib		0130-2L
				5 Marl : or gy to lt or		0130-3L
2338.00						0131
				95 Sh/Clst: m gy, slt		0131-1L
				5 Marl : or gy to lt or		0131-2L
2383.00						0132
				85 Sh/Clst: m gy, slt		0132-1L
				15 Marl : or gy to lt or		0132-2L
				tr Cont : dd, prp		0132-3L
2404.00						0133
				80 Sh/Clst: m gy, slt		0133-1L
				15 Cont : dd, prp		0133-3L
				5 Marl : or gy to lt or		0133-2L

- 9-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2413.00						0134
				90 Sh/Clst: m gy to brn gy		0134-1L
				10 Cont : dd, prp		0134-3L
				tr Marl : or gy to lt or		0134-2L
2422.00						0135
	0.87			95 Sh/Clst: m gy to drk gy, slt		0135-1L
				5 Cont : dd, prp		0135-3L
				tr Marl : or gy to lt or		0135-2L
2431.00						0136
				90 Sh/Clst: m gy to drk gy, slt		0136-1L
				10 Cont : dd, prp		0136-3L
				tr Marl : or gy to lt or		0136-2L
2440.00						0137
	0.82			100 Sh/Clst: m gy to drk gy, slt, fis		0137-1L
				tr Marl : or gy to lt or		0137-2L
				tr Cont : dd, prp		0137-3L
2449.00						0138
	0.89			90 Sh/Clst: m gy to drk gy, slt, fis		0138-1L
				10 Cont : dd, prp		0138-2L
2458.00						0139
				75 Sh/Clst: m gy to drk gy, slt, fis		0139-1L
				25 Cont : prp, dd		0139-2L

- 10-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2467.00						0140
			70	Sh/Clst: m gy to drk gy, slt, fis		0140-1L
			30	Cont : prp, dd		0140-2L
2476.00						0141
	0.82		75	Sh/Clst: m gy, slt, fis		0141-1L
			25	Cont : prp, dd		0141-2L
2482.00						0142
			75	Sh/Clst: m gy, slt, fis		0142-1L
			25	Cont : prp, dd		0142-2L
2491.00						0143
			85	Sh/Clst: m gy to brn gy		0143-1L
			15	Cont : prp, dd		0143-2L
2500.00						0144
	0.80		90	Sh/Clst: m gy to drk gy		0144-1L
			10	Cont : prp, dd		0144-2L
2509.00						0145
			65	Sh/Clst: m gy to drk gy		0145-1L
			35	Cont : dd, prp		0145-2L
2518.00						0146
	0.86		95	Sh/Clst: m gy to drk gy		0146-1L
			5	Cont : dd, prp		0146-2L

- 11 -

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2527.00						0147
				95 Sh/Clst: m gy to drk gy		0147-1L
				5 Cont : dd, prp		0147-2L
2536.00						0148
				95 Sh/Clst: m gy to drk gy to brn gy		0148-1L
				5 Cont : dd, prp		0148-2L
2545.00						0149
	0.82			75 Sh/Clst: m gy to drk gy		0149-1L
				25 Cont : dd, prp		0149-2L
2554.00						0150
				65 Sh/Clst: m gy to drk gy to brn gy		0150-1L
				35 Cont : dd, prp		0150-2L
2563.00						0151
	0.92			80 Sh/Clst: m gy to drk gy to brn gy		0151-1L
				20 Cont : dd, prp		0151-2L
2572.00						0152
				75 Sh/Clst: m gy to drk gy to brn gy		0152-1L
				25 Cont : dd, prp		0152-2L
2581.00						0153
	0.94			70 Sh/Clst: m gy to drk gy to brn gy		0153-1L
				30 Cont : dd, prp		0153-2L

- 12-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2590.00						0154
				70 Sh/Clst: m gy to drk gy to brn gy		0154-1L
				30 Cont : dd, prp		0154-2L
2599.00						0155
	0.86			75 Sh/Clst: m gy to drk gy		0155-1L
				25 Cont : dd, prp		0155-2L
2608.00						0156
				50 Sh/Clst: m gy to drk gy		0156-1L
				50 Cont : cem, prp, dd, tar-ad		0156-2L
2617.00						0157
	0.92			60 Sh/Clst: m gy to drk gy		0157-1L
				40 Cont : cem, prp, dd, tar-ad		0157-2L
2626.00						0158
				50 Sh/Clst: m gy to drk gy		0158-1L
				50 Cont : cem, prp, dd, tar-ad		0158-2L
2635.00						0159
				80 Sh/Clst: m gy to drk gy, fis		0159-1L
				20 Cont : cem, prp, dd		0159-2L
2644.00						0160
	0.82			65 Sh/Clst: m gy to drk gy, fis		0160-1L
				35 Cont : cem, prp, dd		0160-2L

- 13-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2653.00						0161
				50 Sh/Clst: m gy to drk gy, fis		0161-1L
				50 Cont : cem, prp, dd		0161-2L
2662.00						0162
	0.97			70 Sh/Clst: m gy to drk gy, fis		0162-1L
				30 Cont : cem, prp, dd		0162-2L
2671.00						0163
				80 Sh/Clst: m gy to drk gy, fis		0163-1L
				20 Cont : cem, prp, dd		0163-2L
2680.00						0164
				70 Sh/Clst: m gy to drk gy, fis		0164-1L
				30 Cont : cem, prp, dd		0164-2L
2689.00						0165
	0.92			80 Sh/Clst: m gy to drk gy, fis		0165-1L
				20 Cont : prp, dd		0165-2L
2698.00						0166
				85 Sh/Clst: m gy to drk gy, fis		0166-1L
				15 Cont : prp, dd, cem		0166-2L
2707.00						0167
				90 Sh/Clst: m gy to drk gy, fis		0167-1L
				10 Cont : prp, dd, cem		0167-2L

- 14 -

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2716.00						0168
	0.76		85	Sh/Clst: m gy to drk gy, fis		0168-1L
			15	Cont : prp, dd, cem, tar-ad		0168-2L
2725.00						0169
			95	Sh/Clst: m gy to drk gy, fis		0169-1L
			5	Cont : prp, dd, cem		0169-2L
2734.00						0170
			90	Sh/Clst: m gy to drk gy, fis		0170-1L
			10	Cont : prp, dd		0170-2L
2743.00						0171
			90	Sh/Clst: m gy to drk gy, fis		0171-1L
			10	Cont : prp, dd		0171-2L
2752.00						0172
	0.81		90	Sh/Clst: m gy to drk gy		0172-1L
			10	Cont : prp, dd		0172-2L
2761.00						0173
			85	Sh/Clst: m gy to drk gy		0173-1L
			15	Cont : prp, dd		0173-2L
2770.00						0174
			95	Sh/Clst: m gy to drk gy		0174-1L
			5	Cont : prp, dd		0174-2L

- 15-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2779.00						0175
				85 Sh/Clst: m gy to drk gy		0175-1L
				15 Cont : prp, dd		0175-2L
2788.00						0176
	0.75			85 Sh/Clst: m gy to drk gy		0176-1L
				15 Cont : prp, dd		0176-2L
2797.00						0177
	0.88			90 Sh/Clst: m gy to drk gy		0177-1L
				10 Cont : prp, dd		0177-2L
2806.00						0178
				90 Sh/Clst: m gy to drk gy		0178-1L
				10 Cont : prp, dd		0178-2L
2815.00						0179
				95 Sh/Clst: m gy to drk gy, fis		0179-1L
				5 Cont : prp, dd		0179-2L
2824.00						0180
	0.76			95 Sh/Clst: m gy to drk gy, fis		0180-1L
				5 Cont : prp, dd		0180-2L
2833.00						0181
				65 Sh/Clst: m gy to drk gy, fis		0181-1L
				35 Cont : prp, dd		0181-2L



- 16-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2842.00						0182
				90 Sh/Clst: m gy to drk gy, fis		0182-1L
				10 Cont : prp, dd		0182-2L
2851.00						0183
	0.68			90 Sh/Clst: m gy to drk gy, fis		0183-1L
				10 Cont : prp, dd		0183-2L
2860.00						0184
				95 Sh/Clst: m gy to drk gy, fis		0184-1L
				5 Cont : prp, dd		0184-2L
2869.00						0185
	0.61			95 Sh/Clst: m gy to drk gy, fis		0185-1L
				5 Cont : prp, dd		0185-2L
2878.00						0186
				85 Sh/Clst: m gy to drk gy, fis		0186-1L
				15 Cont : prp, dd		0186-2L
2887.00						0187
	0.76			90 Sh/Clst: m gy to drk gy, fis		0187-1L
				10 Cont : prp, dd		0187-2L
2896.00						0188
				100 Sh/Clst: m gy to drk gy, fis		0188-1L
				tr Cont : prp, dd		0188-2L

- 17-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2905.00						0189
		0.60	95	Sh/Clst: m gy to drk gy, calc, slt 5 Cont : dd		0189-1L 0189-2L
2914.00						0190
				85 Sh/Clst: m gy to drk gy, slt 10 Marl : lt gy w to lt gy 5 Cont : dd		0190-1L 0190-3L 0190-2L
2923.00						0191
				100 Sh/Clst: m gy to drk gy, fis tr Cont : dd tr Marl : lt gy w to lt gy		0191-1L 0191-2L 0191-3L
2932.00						0192
		0.66	100	Sh/Clst: m gy to drk gy, fis tr Cont : dd tr Marl : lt gy w to lt gy		0192-1L 0192-2L 0192-3L
2941.00						0193
				100 Sh/Clst: m gy to drk gy, fis tr Cont : dd		0193-1L 0193-2L
2950.00						0194
		0.70	100	Sh/Clst: m gy to drk gy, fis tr Cont : dd		0194-1L 0194-2L

- 18-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int Cvd	TOC%	%	Lithology description			
2959.00						0195
		100	Sh/Clst: m gy to drk gy, fis			0195-1L
			tr Cont : dd			0195-2L
2968.00						0196
	0.79	100	Sh/Clst: m gy to drk gy, fis			0196-1L
			tr Cont : dd			0196-2L
			tr Marl : lt gy w to lt gy			0196-3L
2977.00						0197
		100	Sh/Clst: m gy to drk gy, fis			0197-1L
			tr Cont : dd			0197-2L
			tr Marl : lt gy w to lt gy			0197-3L
2986.00						0198
		100	Sh/Clst: m gy to drk gy, fis			0198-1L
			tr Marl : lt gy w to lt gy			0198-2L
2995.00						0199
	0.88	100	Sh/Clst: m gy to drk gy, fis			0199-1L
			tr Marl : lt gy w to lt gy			0199-2L
3004.00						0200
	2.45	100	Sh/Clst: drk gy to brn gy to dsk y brn			0200-1L
			tr Marl : lt gy w to lt gy			0200-2L

- 19-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3013.00						0201
	3.06	100	Sh/Clst:	drk gy to drk brn gy		0201-1L
			tr Coal	: blk, wx		0201-2L
3022.00						0202
	4.30	100	Sh/Clst:	drk gy to drk brn gy		0202-1L
3031.00						0203
	3.15	100	Sh/Clst:	drk gy to brn blk		0203-1L
3040.00						0204
	3.97	100	Sh/Clst:	drk gy to brn blk		0204-1L
			tr Cont	: prp		0204-2L
3049.00						0205
	3.18	100	Sh/Clst:	drk gy to brn blk		0205-1L
3058.00						0206
	2.07	100	Sh/Clst:	m gy to drk gy to brn blk		0206-1L
3067.00						0208
			100	Sh/Clst: m gy to drk gy to brn blk		0208-1L

- 20-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3076.00						0209
	1.03	100		Sh/Clst: m gy to drk gy		0209-1L
3085.00						0210
	1.20	100		Sh/Clst: m gy to drk gy		0210-1L
3094.00						0211
	1.16	100		Sh/Clst: m gy to drk gy		0211-1L
3103.00						0212
				100 Sh/Clst: m gy to drk gy		0212-1L
				tr Coal : blk, wx		0212-2L
3111.00	ccp					0281
				100 Sh/Clst: m gy to drk gy		0281-1L
3112.00						0213
	1.12	100		Sh/Clst: m gy to drk gy		0213-1L
				tr Coal : blk, wx		0213-2L
3112.00	ccp					0282
				100 Sh/Clst: drk gy		0282-1L

- 21-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int Cvd	TOC%	%	Lithology description			
3113.00	ccp					0283
		100	Sh/Clst: m gy to drk gy, fis			0283-1L
3114.00	ccp					0284
		100	Sh/Clst: m gy to drk gy, fis			0284-1L
3115.00	ccp					0285
	1.15	100	Sh/Clst: m gy to drk gy, fis			0285-1L
3116.00	ccp					0286
		100	Sh/Clst: m gy to drk gy, mic			0286-1L
3117.00	ccp					0287
	0.93	100	Sh/Clst: drk gy, mic			0287-1L
3117.75	ccp					0288
	1.13	100	Sh/Clst: m gy, mic			0288-1L
3120.00	ccp					0289
		100	Sh/Clst: m gy			0289-1L
3121.00						0214
		100	Sh/Clst: drk gy, fis			0214-1L

- 22 -

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3123.00	ccp					0290
	1.00	100		Sh/Clst: m gy to drk gy, fis		0290-1L
3130.00						0215
	1.17	100		Sh/Clst: m gy to drk gy, fis		0215-1L
3139.00						0216
				85 Sh/Clst: m gy to drk gy, fis		0216-1L
				15 Sh/Clst: brn gy, mic		0216-2L
				tr Marl : lt or to or gy		0216-3L
3148.00						0217
	1.21	80		Sh/Clst: m gy to drk gy, fis		0217-1L
		15		Sh/Clst: lt brn gy to brn gy, mic		0217-2L
		5		Marl : lt or to or gy		0217-3L
3157.00						0218
				70 Sh/Clst: m gy to drk gy, fis		0218-1L
				30 Sh/Clst: lt brn gy to brn gy, mic		0218-2L
				tr Marl : lt or to or gy		0218-3L
3166.00						0219
				75 Sh/Clst: m gy to drk gy, fis		0219-1L
				20 Sh/Clst: lt brn gy to brn gy, mic		0219-2L
				5 S/Sst : lt gy, slt		0219-3L

- 23-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3174.30	ccp					0291
	0.66	100	Sltst	: gy w to lt brn gy		0291-1L
3174.70	ccp					0292
		100	Sltst	: or gy to lt brn gy, hd		0292-1L
3175.00						0220
		70	Sh/Clst:	m gy to drk gy to brn gy, fis		0220-1L
		30	Sltst	: lt gy w to lt gy, s, glauc		0220-2L
3178.55	ccp					0293
		100	Sltst	: drk y brn to pl y brn, hd		0293-1L
3181.00	ccp					0294
	1.00	100	Sltst	: pl y brn, hd		0294-1L
3182.80	ccp					0295
		100	S/Sst	: or gy to pl y brn, f, crs, hd		0295-1L
3184.00						0221
		60	Sh/Clst:	m gy to drk gy, fis		0221-1L
		40	S/Sst	: lt gy w to gy w, slt, l		0221-2L
			tr Cont	: dd		0221-3L



- 24-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3186.30	ccp					0296
			100	S/Sst : or gy to pl y brn, f, crs, hd		0296-1L
3189.70	ccp					0297
			100	S/Sst : pl y brn, f, hd		0297-1L
3192.40	ccp					0298
		0.88	100	S/Sst : gy w to y gy, f, slt, hd		0298-1L
3193.00						0222
			75	Sh/Clst: m gy to drk gy, fis		0222-1L
			25	S/Sst : lt gy w to gy w, slt, l		0222-2L
			tr	Cont : dd		0222-3L
3195.70	ccp					0299
			100	Slstst : lt gy, mic, hd		0299-1L
3197.50	ccp					0305
			100	Slstst : gy w to lt gy, mic, hd		0305-1L
3198.65	ccp					0303
		0.32	100	Slstst : gy w to lt gy, mic, hd		0303-1L

- 25-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3199.10	ccp					0311
		100	S/Sst	: lt gy w to gy w, f, hd, fe		0311-1L
3199.40	ccp					0312
		100	S/Sst	: gy w to lt gy, crs, cnsl, hd		0312-1L
3199.55	ccp					0300
		100	S/Sst	: lt or to m y brn to pl y brn, crs, hd		0300-1L
3200.00	ccp					0304
		100	S/Sst	: m y brn to pl y brn, crs, hd		0304-1L
3201.00	ccp					0301
		100	S/Sst	: lt or to m y brn to pl y brn, crs, hd		0301-1L
3202.00	ccp					0306
		100	S/Sst	: lt brn gy to m y brn to pl y brn, crs, hd		0306-1L
3203.85	ccp					0302
		100	Slstst	: gy w to lt gy, hd		0302-1L

- 26-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int Cvd	TOC%	%	Lithology description			
3205.00						0223
		95	Sh/Clst:	m gy to drk gy, fis		0223-1L
		.5	S/Sst	: lt gy w to gy w, slt, l		0223-2L
			tr Cont	: dd		0223-3L
3205.90	ccp					0307
	0.84	100	S/Sst	: lt or to pl y brn, f, slt, hd		0307-1L
3207.20	ccp					0308
		100	S/Sst	: lt brn gy to pl y brn, f, hd		0308-1L
3210.20	ccp					0309
		100	sltst	: gy w to y gy, s, hd		0309-1L
3213.50	ccp					0310
		100	S/Sst	: lt brn gy to pl y brn, f, hd		0310-1L
3214.00						0224
		50	S/Sst	: lt gy w to gy w, slt, l		0224-2L
		40	Sh/Clst:	m gy to drk gy, fis		0224-1L
		10	Cont	: dd		0224-3L
3215.70	ccp					0313
	0.11	100	S/Sst	: lt brn gy to pl y brn, f, mic, hd		0313-1L

- 27-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3223.00						0225
				60 Sh/Clst: m gy to drk gy, fis		0225-1L
				35 S/Sst : lt gy w to gy w, slt, l		0225-2L
				5 Cont : dd, fib		0225-3L
3231.00	ccp					0314
	0.68	100	sltst	: m gy, mic, hd		0314-1L
3232.00						0226
				90 Sh/Clst: drk gy to brn blk		0226-1L
				5 S/Sst : lt gy w to gy w, slt, l		0226-2L
				5 Cont : dd, fib		0226-3L
3234.00	ccp					0315
				100 sltst : lt gy w to gy w, s, hd, fe		0315-1L
3238.00	ccp					0316
				100 sltst : lt brn gy, hd, fe		0316-1L
3241.00						0227
				60 Sh/Clst: m gy to drk gy to brn blk		0227-1L
				40 Cont : dd		0227-2L
3242.00	ccp					0317
				100 sltst : lt brn gy, hd, fe		0317-1L

- 28-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3246.50	ccp					0318
		100	S/Sst	: lt gy w, f, slt, hd		0318-1L
3250.00						0228
		65	Sh/Clst:	m gy to drk gy		0228-1L
		35	Cont	: dd		0228-2L
		tr	Coal	: blk, wx		0228-3L
3250.50	ccp					0319
		100	S/Sst	: lt gy w, f, slt, hd		0319-1L
3252.25	ccp					0320
		100	S/Sst	: gy w to drk gy, f, cly, mic, hd		0320-1L
3253.90	ccp					0321
		100	Slstst	: lt brn gy, mic, carb, hd		0321-1L
3256.50	ccp					0322
		100	Slstst	: lt gy w, Mica-ad, carb, hd		0322-1L
3258.80	ccp					0323
	70.68	75	Coal	: blk, wx		0323-1L
		25	Slstst	: lt brn gy, carb		0323-2L

- 29 -

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3259.00						0229
				55 Sh/Clst: m gy to drk gy, fis		0229-1L
				40 S/Sst : lt gy w to gy w, f, slt, l		0229-4L
				5 Cont : dd		0229-2L
				tr Coal : blk, wx		0229-3L
3262.85	ccp					0324
				100 Sltst : lt brn gy, mic, hd		0324-1L
3266.00	ccp					0325
				100 Sltst : lt brn gy to brn gy, mic, hd		0325-1L
3268.00						0230
				95 Sh/Clst: m gy to drk gy, fis		0230-1L
				5 Cont : dd		0230-2L
				tr Coal : blk, wx		0230-3L
				tr S/Sst : lt gy w to gy w, f, slt, l		0230-4L
3271.54	ccp					0326
	1.74			100 Sltst : gy w to lt gy, carb, s, hd, fe		0326-1L
3276.65	ccp					0327
				100 Congl : lt gy to lt brn to brn gy, hd		0327-1L
3277.00						0231
				60 Sh/Clst: m gy to drk gy, fis		0231-1L
				35 S/Sst : lt gy w to gy w, f, slt, l		0231-4L
				5 Cont : dd		0231-2L
				tr Coal : blk, wx		0231-3L

- 30-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3279.75	ccp					0328
			100	S/Sst : gy w to m gy, f, mic, lam		0328-1L
3282.55	ccp					0329
			100	S/Sst : gy w to m gy, f, mic, lam		0329-1L
3285.45	ccp					0330
			100	S/Sst : lt gy w to gy w, f, slt, hd		0330-1L
3286.00						0232
	1.63	100	Sh/Clst: m gy to drk gy, fis			0232-1L
			tr Cont : dd			0232-2L
			tr Coal : blk, wx			0232-3L
			tr S/Sst : lt gy w to gy w, f, slt, l			0232-4L
3294.00						0233
			50	Sh/Clst: m gy to drk gy		0233-1L
			35	Slstst : lt gy w to lt or gy		0233-2L
			15	Kaolin : w		0233-3L
3304.00						0234
			50	Slstst : lt gy w to lt or gy		0234-2L
			40	Sh/Clst: m gy to drk gy		0234-1L
			10	Kaolin : w		0234-3L

- 31-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3313.00						0235
	17.51	75	Sh/Clst:	brn blk to y brn, carb, wx		0235-3L
		15	Sh/Clst:	m gy to drk gy		0235-1L
		10	Sltst	: lt gy w to lt or gy		0235-2L
3322.00						0236
	3.10	70	Sh/Clst:	m gy to drk gy		0236-1L
		25	Sltst	: lt gy w to lt or gy		0236-2L
		5	Coal	: brn blk to blk, wx		0236-3L
3331.00						0237
	4.51	60	Sh/Clst:	brn blk to dsk y brn, carb, wx		0237-3L
		30	Sh/Clst:	m gy to drk gy		0237-1L
		10	Sltst	: lt gy w to lt or gy		0237-2L
3340.00						0238
		65	Sltst	: lt gy w to lt or gy		0238-2L
		30	Sh/Clst:	m gy to drk gy		0238-1L
		5	Cont	: dd		0238-4L
		tr	Sh/Clst:	brn blk to dsk y brn, carb, wx		0238-3L
3349.00						0239
		75	S/Sst	: lt gy w to lt or gy, f, slt		0239-2L
		25	Sh/Clst:	m gy to drk gy		0239-1L
		tr	Kaolin	: w		0239-3L
3358.00						0240
	1.21	75	Sh/Clst:	m gy to drk gy		0240-1L
		20	S/Sst	: lt gy w to lt or gy, f, slt		0240-2L
		5	Kaolin	: w		0240-3L



- 32 -

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3367.00						0241
				80 Sh/Clst: m gy to drk gy		0241-1L
				15 S/Sst : lt gy w to lt or gy, f, slt		0241-2L
				5 Kaolin : w		0241-3L
				tr Sh/Clst: brn blk to dsk y brn, wx, carb		0241-4L
3376.00						0242
	1.37			50 Sh/Clst: m gy to drk gy to lt brn gy		0242-1L
				50 S/Sst : lt gy w to lt or gy, f, slt		0242-2L
				tr Coal : blk, wx		0242-3L
3385.00						0243
				80 S/Sst : lt gy w to lt or gy, f, slt		0243-2L
				20 Sh/Clst: m gy to drk gy to lt brn gy		0243-1L
				tr Kaolin : w		0243-3L
3396.00						0244
	0.79			60 Sh/Clst: m gy to drk gy to lt brn gy		0244-1L
				40 S/Sst : lt gy w to lt or gy, f, slt		0244-2L
				tr Kaolin : w		0244-3L
3403.00						0245
				80 S/Sst : lt gy w, f, crs, l		0245-2L
				20 Sh/Clst: m gy to drk gy to lt brn gy		0245-1L
				tr Kaolin : w		0245-3L
3412.00						0246
	1.43			90 Sh/Clst: m gy to drk gy to lt brn gy		0246-1L
				10 S/Sst : lt gy w, f, crs, l		0246-2L
				tr Cont : prp, dd		0246-3L

- 33-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int Cvd	TOC%	%	Lithology description			
3421.00						0247
	0.52	70	Sh/Clst: m gy to drk gy to lt brn gy to brn gy			0247-1L
		20	Kaolin : w			0247-3L
		10	Sltst : lt gy w to lt or gy, s			0247-2L
3430.00						0248
	0.91	60	Sh/Clst: m gy to drk gy to lt brn gy to brn gy			0248-1L
		35	Sltst : lt gy w to lt or gy, s			0248-2L
		5	Kaolin : w			0248-3L
		tr	Cont : prp, dd			0248-4L
3439.00						0249
		65	Sh/Clst: m gy to drk gy to lt brn gy to brn gy			0249-1L
		35	Sltst : lt gy w to lt or gy, s			0249-2L
		tr	Kaolin : w			0249-3L
		tr	Coal : blk, wx			0249-4L
3448.00						0250
	1.21	65	Sh/Clst: m gy to drk gy to lt brn gy to brn gy			0250-1L
		35	Sltst : lt gy w to lt or gy, s			0250-2L
		tr	Kaolin : w			0250-3L
		tr	Coal : blk, wx			0250-4L
3457.00						0251
	0.71	60	Sh/Clst: m gy to drk gy to lt brn gy to brn gy			0251-1L
		40	Sltst : lt gy w to lt or gy, s			0251-2L
		tr	Kaolin : w			0251-3L
		tr	Coal : blk, wx			0251-4L

- 34-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3466.00						0252
				75 S/Sst : lt gy w, f, crs, l		0252-2L
				20 Sh/Clst: m gy to drk gy		0252-1L
				5 Coal : blk, wx		0252-4L
				tr Kaolin : w		0252-3L
3475.00						0253
				90 S/Sst : lt gy w, crs, l		0253-1L
				10 Sh/Clst: m gy to drk gy		0253-2L
3484.00						0254
				60 Sh/Clst: m gy to drk gy		0254-2L
				40 Sltst : lt gy w		0254-1L
3494.00						0255
	1.80			100 Sh/Clst: m gy to lt brn gy to brn gy		0255-2L
				tr Sltst : lt gy w		0255-1L
3502.00						0256
				100 Sh/Clst: m gy to drk gy to brn gy		0256-2L
				tr Sltst : lt gy w		0256-1L
3511.00						0257
	2.92			100 Sh/Clst: m gy to drk gy to brn gy		0257-2L
				tr Sltst : lt gy w		0257-1L

- 35-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3520.00						0258
	2.53	100	Sh/Clst:	m gy to drk gy to brn gy		0258-2L
			tr Sltst	: lt gy w		0258-1L
3529.00						0259
		100	Sh/Clst:	m gy to drk gy to brn gy		0259-2L
			tr Sltst	: lt gy w		0259-1L
3538.00						0260
		100	Sh/Clst:	m gy to drk gy to brn gy		0260-2L
			tr Ca	: w, fos		0260-1L
3547.00						0261
	3.81	100	Sh/Clst:	m gy to drk gy to brn gy		0261-2L
			tr Marl	: or gy to lt or		0261-1L
3556.00						0262
	7.12	40	Sh/Clst:	m gy to brn gy		0262-1L
		35	S/Sst	: lt gy w, f, l		0262-2L
		25	Sh/Clst:	brn blk to dsk y brn, wx		0262-3L
3565.00						0263
		60	S/Sst	: lt gy w, f, l		0263-2L
		35	Sh/Clst:	m gy to brn gy		0263-1L
		5	Sh/Clst:	brn blk to dsk y brn, wx		0263-3L

- 36-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3574.00						0264
				60 S/Sst : lt gy w, f, crs, l		0264-2L
				35 Sh/Clst: m gy to brn gy, fis		0264-1L
				5 Sh/Clst: brn blk to dsk y brn, wx		0264-3L
3583.00						0265
				70 S/Sst : lt gy w, f, crs, l		0265-2L
				30 Sh/Clst: m gy to brn gy, fis		0265-1L
				tr Sh/Clst: brn blk to dsk y brn, wx		0265-3L
3592.00						0266
				50 S/Sst : lt gy w, f, crs, l		0266-2L
				35 Sh/Clst: brn blk to dsk y brn, wx		0266-3L
				15 Sh/Clst: m gy to brn gy, fis		0266-1L
3601.00						0267
				80 S/Sst : lt gy w, crs, l		0267-2L
				15 Sh/Clst: m gy to brn gy, fis		0267-1L
				5 Sh/Clst: brn blk to dsk y brn, wx		0267-3L
3610.00						0268
	1.58			70 Sh/Clst: m gy to brn gy, fis		0268-1L
				25 S/Sst : lt gy w, crs, l		0268-2L
				5 Sh/Clst: lt or gy to lt or brn, mrl		0268-3L
3619.00						0269
	1.25			95 Sh/Clst: m gy to drk gy to brn blk		0269-1L
				5 S/Sst : lt gy w, f, crs, l		0269-2L

- 37-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3628.00						0270
	1.58	45	Sh/Clst:	m gy to brn gy		0270-1L
		45	Sltst	: lt gy w to lt or gy		0270-2L
		5	Kaolin	: w		0270-3L
		5	Cont	: dd, prp		0270-4L
3637.00						0271
	0.39	65	Sltst	: lt gy w to lt or gy		0271-2L
		30	Sh/Clst:	m gy to brn gy		0271-1L
		5	Kaolin	: w		0271-3L
3646.00						0272
	1.88	60	Sltst	: lt gy w to lt or gy		0272-2L
		30	Sh/Clst:	m gy to brn gy		0272-1L
		10	Kaolin	: w		0272-3L
3655.00						0273
	1.73	50	Sh/Clst:	m gy to brn gy		0273-1L
		35	Sltst	: lt or gy to lt gy		0273-2L
		10	Cont	: dd, prp		0273-4L
		5	Kaolin	: w		0273-3L
3664.00						0274
	1.93	75	Sh/Clst:	m gy to brn gy to drk gy		0274-1L
		15	Sltst	: lt gy		0274-2L
		10	S/Sst	: lt gy w, crs, l		0274-3L

- 38-

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3673.00						0275
	1.41	60	Sh/Clst:	m gy to brn gy to drk gy		0275-1L
		25	Sltst	: lt gy		0275-2L
		15	S/Sst	: lt gy w, crs, l		0275-3L
		tr	Cont	: dd		0275-4L
3682.00						0276
	1.15	50	Sh/Clst:	m gy to brn gy to drk gy		0276-1L
		30	S/Sst	: lt gy w, crs, l		0276-3L
		20	Sltst	: lt gy		0276-2L
		tr	Kaolin	: w		0276-4L
3700.00						0277
		35	Sh/Clst:	m gy to drk gy to brn gy		0277-1L
		30	S/Sst	: lt gy w, f, crs, l		0277-2L
		25	Marl	: m or brn to m brn to drk brn		0277-3L
		10	Sh/Clst:	gn gy to gy gn, fis		0277-4L
3718.00						0278
	0.42	70	Sh/Clst:	brn gy to dsk brn		0278-1L
		15	Sh/Clst:	m brn to drk brn, mrl		0278-3L
		10	S/Sst	: lt gy w, f, crs, l		0278-2L
		5	Sh/Clst:	gn gy to gy gn, fis		0278-4L
3736.00						0279
		50	Sh/Clst:	brn gy to dsk brn		0279-1L
		30	Sh/Clst:	m brn to drk brn, mrl		0279-3L
		20	S/Sst	: lt gy w, f, crs, l		0279-2L
		tr	Sh/Clst:	gn gy to gy gn, fis		0279-4L

- 39 -

Table 1 : Lithology description for well NOCS 9/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
3754.00						0280
				60 S/Sst : lt gy w to m brn, f, crs, l		0280-2L
				25 Sh/Clst: brn gy to dsk brn		0280-1L
				15 Sh/Clst: m brn to drk brn, calc		0280-3L
				tr Sh/Clst: gn gy to gy gn, fis		0280-4L



Table 2 : Rock-Eval table for well NOCS 9/2-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
2422.00	cut	Sh/Clst: m gy to drk gy	0.15	1.06	0.28	3.79	0.87	122	32	1.2	0.12	427	0135-1L
2440.00	cut	Sh/Clst: m gy to drk gy	0.11	0.84	0.26	3.23	0.82	102	32	0.9	0.12	424	0137-1L
2449.00	cut	Sh/Clst: m gy to drk gy	0.15	1.00	0.30	3.33	0.89	112	34	1.1	0.13	426	0138-1L
2476.00	cut	Sh/Clst: m gy	0.13	1.09	0.22	4.95	0.82	133	27	1.2	0.11	426	0141-1L
2500.00	cut	Sh/Clst: m gy to drk gy	0.14	1.20	0.69	1.74	0.80	150	86	1.3	0.10	430	0144-1L
2518.00	cut	Sh/Clst: m gy to drk gy	0.16	1.22	0.63	1.94	0.86	142	73	1.4	0.12	429	0146-1L
2545.00	cut	Sh/Clst: m gy to drk gy	0.11	1.02	0.63	1.62	0.82	124	77	1.1	0.10	427	0149-1L
2563.00	cut	Sh/Clst: m gy to drk gy to brn gy	0.15	1.11	0.98	1.13	0.92	121	107	1.3	0.12	426	0151-1L
2581.00	cut	Sh/Clst: m gy to drk gy to brn gy	0.11	1.25	0.39	3.21	0.94	133	41	1.4	0.08	430	0153-1L
2599.00	cut	Sh/Clst: m gy to drk gy	0.14	1.17	0.42	2.79	0.86	136	49	1.3	0.11	431	0155-1L
2617.00	cut	Sh/Clst: m gy to drk gy	0.32	1.36	0.23	5.91	0.92	148	25	1.7	0.19	427	0157-1L
2644.00	cut	Sh/Clst: m gy to drk gy	0.15	1.04	0.21	4.95	0.82	127	26	1.2	0.13	429	0160-1L
2662.00	cut	Sh/Clst: m gy to drk gy	0.17	1.57	0.16	9.81	0.97	162	16	1.7	0.10	429	0162-1L
2689.00	cut	Sh/Clst: m gy to drk gy	0.20	1.44	0.18	8.00	0.92	157	20	1.6	0.12	429	0165-1L
2716.00	cut	Sh/Clst: m gy to drk gy	0.17	0.95	0.42	2.26	0.76	125	55	1.1	0.15	428	0168-1L

Table 2 : Rock-Eval table for well NOCS 9/2-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
2752.00	cut	Sh/Clst: m gy to drk gy	0.12	0.96	0.19	5.05	0.81	119	23	1.1	0.11	427	0172-1L
2788.00	cut	Sh/Clst: m gy to drk gy	0.14	1.12	0.18	6.22	0.75	149	24	1.3	0.11	424	0176-1L
2797.00	cut	Sh/Clst: m gy to drk gy	0.10	1.00	0.61	1.64	0.88	114	69	1.1	0.09	428	0177-1L
2824.00	cut	Sh/Clst: m gy to drk gy	0.18	0.96	0.16	6.00	0.76	126	21	1.1	0.16	427	0180-1L
2851.00	cut	Sh/Clst: m gy to drk gy	0.11	0.86	0.18	4.78	0.68	126	26	1.0	0.11	426	0183-1L
2869.00	cut	Sh/Clst: m gy to drk gy	0.11	0.62	0.13	4.77	0.61	102	21	0.7	0.15	424	0185-1L
2887.00	cut	Sh/Clst: m gy to drk gy	0.14	0.70	0.15	4.67	0.76	92	20	0.8	0.17	427	0187-1L
2905.00	cut	Sh/Clst: m gy to drk gy	0.05	0.41	0.27	1.52	0.60	68	45	0.5	0.11	422	0189-1L
2932.00	cut	Sh/Clst: m gy to drk gy	0.10	0.68	0.16	4.25	0.66	103	24	0.8	0.13	429	0192-1L
2950.00	cut	Sh/Clst: m gy to drk gy	0.11	0.82	0.18	4.56	0.70	117	26	0.9	0.12	429	0194-1L
2968.00	cut	Sh/Clst: m gy to drk gy	0.17	1.17	0.50	2.34	0.79	148	63	1.3	0.13	433	0196-1L
2995.00	cut	Sh/Clst: m gy to drk gy	0.17	1.43	0.21	6.81	0.88	163	24	1.6	0.11	432	0199-1L
3004.00	cut	Sh/Clst: drk gy to brn gy to dsk y brn	0.80	9.70	0.41	23.66	2.45	396	17	10.5	0.08	430	0200-1L
3013.00	cut	Sh/Clst: drk gy to drk brn gy	0.85	13.57	0.38	35.71	3.06	443	12	14.4	0.06	432	0201-1L

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
3022.00	cut	Sh/Clst: drk gy to drk brn gy	1.57	22.84	0.45	50.76	4.30	531	10	24.4	0.06	430	0202-1L
3031.00	cut	Sh/Clst: drk gy to brn blk	1.17	17.70	0.48	36.88	3.15	562	15	18.9	0.06	431	0203-1L
3040.00	cut	Sh/Clst: drk gy to brn blk	1.40	19.61	0.59	33.24	3.97	494	15	21.0	0.07	431	0204-1L
3049.00	cut	Sh/Clst: drk gy to brn blk	1.02	14.46	0.34	42.53	3.18	455	11	15.5	0.07	432	0205-1L
3058.00	cut	Sh/Clst: m gy to drk gy to brn blk	0.62	6.21	0.23	27.00	2.07	300	11	6.8	0.09	440	0206-1L
3067.00	cut	Sh/Clst: m gy to drk gy to brn blk	0.41	3.13	0.31	10.10	-	-	-	3.5	0.12	438	0208-1L
3076.00	cut	Sh/Clst: m gy to drk gy	0.18	1.78	0.21	8.48	1.03	173	20	2.0	0.09	442	0209-1L
3085.00	cut	Sh/Clst: m gy to drk gy	0.18	1.72	0.15	11.47	1.20	143	13	1.9	0.09	439	0210-1L
3094.00	cut	Sh/Clst: m gy to drk gy	0.17	1.63	0.14	11.64	1.16	141	12	1.8	0.09	443	0211-1L
3112.00	cut	Sh/Clst: m gy to drk gy	0.13	2.11	0.36	5.86	1.12	188	32	2.2	0.06	441	0213-1L
3115.00	ccp	Sh/Clst: m gy to drk gy	0.16	2.05	0.05	41.00	1.15	178	4	2.2	0.07	439	0285-1L
3117.00	ccp	Sh/Clst: drk gy	0.13	1.00	0.05	20.00	0.93	108	5	1.1	0.12	435	0287-1L
3117.75	ccp	Sh/Clst: m gy	0.17	1.79	0.21	8.52	1.13	158	19	2.0	0.09	436	0288-1L
3123.00	ccp	Sh/Clst: m gy to drk gy	0.18	2.13	0.13	16.38	1.00	213	13	2.3	0.08	441	0290-1L
3130.00	cut	Sh/Clst: m gy to drk gy	0.20	1.73	0.38	4.55	1.17	148	32	1.9	0.10	443	0215-1L

Table 2 : Rock-Eval table for well NOCS 9/2-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
3148.00	cut	Sh/Clst: m gy to drk gy	0.20	1.81	0.45	4.02	1.21	150	37	2.0	0.10	442	0217-1L
3174.30	ccp	Sltst : gy w to lt brn gy	4.90	1.40	0.06	23.33	0.66	212	9	6.3	0.78	411	0291-1L
3181.00	ccp	Sltst : pl y brn	9.39	1.88	0.06	31.33	1.00	188	6	11.3	0.83	415	0294-1L
3192.40	ccp	S/Sst : gy w to y gy	7.59	1.37	0.07	19.57	0.88	156	8	9.0	0.85	409	0298-1L
3198.65	ccp	Sltst : gy w to lt gy	2.10	0.49	0.08	6.13	0.32	153	25	2.6	0.81	385	0303-1L
3205.90	ccp	S/Sst : lt or to pl y brn	7.55	1.46	0.01	146.00	0.84	174	1	9.0	0.84	378	0307-1L
3215.70	ccp	S/Sst : lt brn gy to pl y brn	0.16	0.40	0.13	3.08	0.11	364	118	0.6	0.29	370	0313-1L
3231.00	ccp	Sltst : m gy	5.88	0.92	0.06	15.33	0.68	135	9	6.8	0.86	385	0314-1L
3258.80	ccp	Coal : blk	28.00	297.60	2.00	148.80	70.68	421	3	325.6	0.09	421	0323-1L
3271.54	ccp	Sltst : gy w to lt gy	0.52	2.63	0.14	18.79	1.74	151	8	3.2	0.17	429	0326-1L
3286.00	cut	Sh/Clst: m gy to drk gy	0.81	4.42	0.26	17.00	1.63	271	16	5.2	0.15	430	0232-1L
3313.00	cut	Sh/Clst: brn blk to y brn	9.50	87.20	1.27	68.66	17.51	498	7	96.7	0.10	436	0235-3L
3322.00	cut	Sh/Clst: m gy to drk gy	0.51	5.79	0.79	7.33	3.10	187	25	6.3	0.08	440	0236-1L
3331.00	cut	Sh/Clst: brn blk to dsk y brn	0.52	10.01	0.51	19.63	4.51	222	11	10.5	0.05	442	0237-3L
3358.00	cut	Sh/Clst: m gy to drk gy	0.31	1.80	1.31	1.37	1.21	149	108	2.1	0.15	440	0240-1L

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
3376.00	cut	Sh/Clst: m gy to drk gy to lt brn gy	0.21	1.57	0.50	3.14	1.37	115	36	1.8	0.12	439	0242-1L
3396.00	cut	Sh/Clst: m gy to drk gy to lt brn gy	0.30	2.44	0.16	15.25	0.79	309	20	2.7	0.11	433	0244-1L
3412.00	cut	Sh/Clst: m gy to drk gy to lt brn gy	0.26	2.75	0.48	5.73	1.43	192	34	3.0	0.09	444	0246-1L
3421.00	cut	Sh/Clst: m gy to drk gy to lt brn gy to brn gy	0.04	0.39	0.87	0.45	0.52	75	167	0.4	0.09	434	0247-1L
3430.00	cut	Sh/Clst: m gy to drk gy to lt brn gy to brn gy	0.26	2.10	0.14	15.00	0.91	231	15	2.4	0.11	429	0248-1L
3448.00	cut	Sh/Clst: m gy to drk gy to lt brn gy to brn gy	0.15	1.73	1.12	1.54	1.21	143	93	1.9	0.08	446	0250-1L
3457.00	cut	Sh/Clst: m gy to drk gy to lt brn gy to brn gy	0.14	1.03	0.12	8.58	0.71	145	17	1.2	0.12	433	0251-1L
3494.00	cut	Sh/Clst: m gy to lt brn gy to brn gy	0.27	2.49	0.83	3.00	1.80	138	46	2.8	0.10	445	0255-2L
3511.00	cut	Sh/Clst: m gy to drk gy to brn gy	0.43	6.02	0.79	7.62	2.92	206	27	6.4	0.07	435	0257-2L
3520.00	cut	Sh/Clst: m gy to drk gy to brn gy	0.38	5.92	1.03	5.75	2.53	234	41	6.3	0.06	443	0258-2L
3547.00	cut	Sh/Clst: m gy to drk gy to brn gy	0.62	6.46	2.45	2.64	3.81	170	64	7.1	0.09	438	0261-2L

Table 2 : Rock-Eval table for well NOCS 9/2-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
3556.00	cut	Sh/Clst: m gy to brn gy	0.77	12.47	0.62	20.11	7.12	175	9	13.2	0.06	437	0262-1L
3610.00	cut	Sh/Clst: m gy to brn gy	0.34	3.15	0.20	15.75	1.58	199	13	3.5	0.10	435	0268-1L
3619.00	cut	Sh/Clst: m gy to drk gy to brn blk	0.76	3.32	0.17	19.53	1.25	266	14	4.1	0.19	437	0269-1L
3628.00	cut	Sh/Clst: m gy to brn gy	0.36	4.09	0.16	25.56	1.58	259	10	4.5	0.08	436	0270-1L
3637.00	cut	Sltst : lt gy w to lt or gy	0.06	0.15	0.17	0.88	0.39	38	44	0.2	0.29	438	0271-2L
3646.00	cut	Sh/Clst: m gy to brn gy	0.53	5.13	0.13	39.46	1.88	273	7	5.7	0.09	435	0272-1L
3655.00	cut	Sh/Clst: m gy to brn gy	0.39	4.43	0.19	23.32	1.73	256	11	4.8	0.08	431	0273-1L
3664.00	cut	Sh/Clst: m gy to brn gy to drk gy	0.47	4.99	0.18	27.72	1.93	259	9	5.5	0.09	432	0274-1L
3673.00	cut	Sh/Clst: m gy to brn gy to drk gy	0.33	3.20	0.18	17.78	1.41	227	13	3.5	0.09	436	0275-1L
3682.00	cut	Sh/Clst: m gy to brn gy to drk gy	0.22	2.00	0.13	15.38	1.15	174	11	2.2	0.10	436	0276-1L
3718.00	cut	Sh/Clst: brn gy to dsk brn	0.03	0.21	0.32	0.66	0.42	50	76	0.2	0.13	437	0278-1L

Table 3 : Thermal Maturity Data for well NOCS 9/2-1

Depth unit of measure: m

Depth	Typ Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation	Spore Fluorescence Colour	SCI	T <sub>max</sub> (°C)	Sample
892.00	cut bulk	NDP	-	-	0	-	-	0091-0B
1060.00	cut Ca : w	NDP	-	-	0	-	-	0095-1L
1132.00	cut Ca : w	NDP	-	-	0	-	-	0097-1L
1246.00	cut Ca : w	NDP	-	-	0	-	-	0100-1L
1363.00	cut Marl : lt gy w	NDP	-	-	3	-	-	0104-2L
1474.00	cut Sltst : gy w	0.43	1	0.00	0	-	-	0107-2L
1594.00	cut Sh/Clst: brn gy to drk gy	0.37	20	0.04	0	-	-	0110-3L
1666.00	cut Sh/Clst: brn gy to drk gy	0.40	12	0.04	3	-	-	0112-3L
1735.00	cut Sh/Clst: m gy to drk gy	0.44	3	0.04	3	-	-	0114-1L
1849.00	cut Sh/Clst: m gy to drk gy	0.42	6	0.07	3-4	-	-	0117-1L
1960.00	cut Sh/Clst: m gy	0.42	20	0.03	3-4	-	-	0120-1L
2056.00	cut Sh/Clst: m gy	0.34	20	0.04	3-4	-	-	0123-1L
2128.00	cut Sh/Clst: m gy	0.41	20	0.03	3+4	-	-	0125-1L
2269.00	cut Sh/Clst: m gy	0.41	20	0.03	3-4	-	-	0129-1L

Table 3 : Thermal Maturity Data for well NOCS 9/2-1

Depth unit of measure: m

Depth	Typ Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation	Spore Fluorescence Colour	SCI	T <sub>max</sub> (°C)	Sample
2338.00	cut Sh/Clst: m gy	0.42	20	0.05	3-4	-	-	0131-1L
2449.00	cut Sh/Clst: m gy to drk gy	0.38	20	0.05	3+4	4.0-4.5	426	0138-1L
2545.00	cut Sh/Clst: m gy to drk gy	0.39	20	0.04	3+4	4.5-5.0	427	0149-1L
2644.00	cut Sh/Clst: m gy to drk gy	0.40	4	0.06	3-4	4.5	429	0160-1L
2752.00	cut Sh/Clst: m gy to drk gy	0.42	2	0.06	3+4	4.5	427	0172-1L
2851.00	cut Sh/Clst: m gy to drk gy	0.44	2	0.01	4	4.5-5.0	426	0183-1L
2950.00	cut Sh/Clst: m gy to drk gy	0.46	7	0.03	3+4	4.5-5.0	429	0194-1L
3004.00	cut Sh/Clst: drk gy to brn gy to dsk y brn	-	-	-	-	5.0(?)	430	0200-1L
3049.00	cut Sh/Clst: drk gy to brn blk	0.46	20	0.06	3-4	5.0-5.5	432	0205-1L
3111.00	ccp Sh/Clst: m gy to drk gy	0.50	9	0.06	5+6	-	-	0281-1L
3115.00	ccp Sh/Clst: m gy to drk gy	-	-	-	-	5.5-6.0	439	0285-1L
3123.00	ccp Sh/Clst: m gy to drk gy	0.49	13	0.04	4-5	6.0-6.5	441	0290-1L
3148.00	cut Sh/Clst: m gy to drk gy	-	-	-	-	6.0-6.5	442	0217-1L



Depth unit of measure: m

Depth	Typ Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation	Spore Fluorescence Colour	SCI	T <sub>max</sub> (°C)	Sample
3198.65	ccp Slstst : gy w to lt gy	NDP	-	-	0	-	385	0303-1L
3231.00	ccp Slstst : m gy	NDP	-	-	0	-	385	0314-1L
3258.80	ccp Coal : blk	0.52	20	0.03	0	NDP	421	0323-1L
3286.00	cut Sh/Clst: m gy to drk gy	-	-	-	-	6.5-7.0(??)	430	0232-1L
3322.00	cut Sh/Clst: m gy to drk gy	-	-	-	-	7.0	440	0236-1L
3358.00	cut Sh/Clst: m gy to drk gy	0.58	14	0.06	4+5	-	440	0240-1L
3448.00	cut Sh/Clst: m gy to drk gy to lt brn gy to brn gy	0.58	8	0.07	5+6	7.0	446	0250-1L
3511.00	cut Sh/Clst: m gy to drk gy to brn gy	-	-	-	-	6.5-7.0(??)	435	0257-2L
3547.00	cut Sh/Clst: m gy to drk gy to brn gy	0.76	20	0.12	5+6	6.5-7.0(??)	438	0261-2L
3619.00	cut Sh/Clst: m gy to drk gy to brn blk	-	-	-	-	6.5(??)	437	0269-1L
3655.00	cut Sh/Clst: m gy to brn gy	0.60	12	0.07	3-7	-	431	0273-1L
3664.00	cut Sh/Clst: m gy to brn gy to drk gy	-	-	-	-	6.5-7.0(??)	432	0274-1L
3682.00	cut Sh/Clst: m gy to brn gy to drk gy	-	-	-	-	6.5-7.0(??)	436	0276-1L

Table 3 : Thermal Maturity Data for well NOCS 9/2-1

Depth unit of measure: m

Depth	Typ Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation	Spore Fluorescence Colour.	SCI	T <sub>max</sub> (°C)	Sample
3718.00	cut Sh/Clst: brn gy to dsk brn	0.49	12	0.08	4-7	-	437	0278-1L
3754.00	com bulk	0.61	20	0.08	3-7	-	-	0331-0B

Depth unit of measure: m

Depth	Typ	Lithology	L	A	L	S	C		D		I	S	I	M	S	V	C	V	A	Sample	
			%	L	t	l	l	n	e	l	t	L	%	n	s	t	n	o	I		%
2449.00	cut	Sh/Clst: m gy to drk gy	20	**	*	*		*	*		15	**	*			65	**	*	*		0138-1L
2545.00	cut	Sh/Clst: m gy to drk gy	40	*	*	**	*		*	*	30	*	**			30	*		**		0149-1L
2644.00	cut	Sh/Clst: m gy to drk gy	25	*		**	*		*	*	40	**	*			35	**	*	*		0160-1L
2752.00	cut	Sh/Clst: m gy to drk gy	10	*		**	*		*	*	25	**	*			65	**	*	*		0172-1L
2851.00	cut	Sh/Clst: m gy to drk gy	15			*			*	**	60	*	**			25	*	*	**		0183-1L
2950.00	cut	Sh/Clst: m gy to drk gy	5	*	*	**			*	*	35	*	**			60	*		**		0194-1L
3004.00	cut	Sh/Clst: drk gy to brn gy to dsk y brn	95	**		*			**	*	?	5		*		TR			*		0200-1L
3049.00	cut	Sh/Clst: drk gy to brn blk	80	**	*	*	*		**	*	5	*		**		15	*		**		0205-1L
3115.00	ccp	Sh/Clst: m gy to drk gy	50	*	*	**			*		10	*	*			40	**	*	*		0285-1L
3123.00	ccp	Sh/Clst: m gy to drk gy	40		*	**			*		10		*			50	**	*	*	?	0290-1L
3148.00	cut	Sh/Clst: m gy to drk gy	30	*	*	*			*	*	30	**	*			40	*	*	*		0217-1L
3258.80	ccp	Coal : blk	TR			?					TR	*	*			100	*		*	*	0323-1L

Table 4 : Visual Kerogen Composition Data for well NOCS 9/2-1

Depth unit of measure: m

Depth	Typ	Lithology	L	A	L	S	C	R	A	D	I	S	I	M	S	V	C	V	A	Sample	
			P	m	i	u	e	n	n	F	n	c	I	T	o	i	T	l	D		m
			T	r	p	p	i	s	g	f	R	s	F	D	r	R	l	l	D		
			%	L	t	l	l	n	e	l	%	n	u	e	n	I	%	n	t	V	V
3286.00	cut	Sh/Clst: m gy to drk gy	50	**	*	*		*	*		20	*	**			30	*	**		0232-1L	
3322.00	cut	Sh/Clst: m gy to drk gy	45	**	*	*		*	*		35	*	**			20	*	**		0236-1L	
3448.00	cut	Sh/Clst: m gy to drk gy to lt brn gy to brn gy	75	**	*	*		*	*		5	*	*	**		20	*	**		0250-1L	
3511.00	cut	Sh/Clst: m gy to drk gy to brn gy	60	*	*	**	*	*			20	*	*	**		20	*	**		0257-2L	
3547.00	cut	Sh/Clst: m gy to drk gy to brn gy	45	*	*	**	*	**	*		30	*	*	**		25	*	**		0261-2L	
3619.00	cut	Sh/Clst: m gy to drk gy to brn blk	20		*	**	*	*		*	30	*	**			30		*	**	0269-1L	
3664.00	cut	Sh/Clst: m gy to brn gy to drk gy	50	*		**	*	**			30	**	*			20	**	*	*	0274-1L	
3682.00	cut	Sh/Clst: m gy to brn gy to drk gy	35	*		**	*	**			30	*	**			35	*	**		0276-1L	