

Table 3.8.1c

CONOCO NORWAY INC

WELL NO: 25/7-2

RIG: DYVI STENA

COST SUMMARY: 36" / 26" SECTION

PRODUCT	UNIT SIZE	UNIT COST	36" / 26"		inch HOLE
			USED	COST	COST/m
BARITE	1 MT	570.00	246	140220.00	130.92
BENTONITE	1 MT	1510.00	160	241600.00	225.58
CAUSTIC	25 Kg	80.00	94	7520.00	7.02
LIME	20 Kg	26.00	52	1352.00	1.26
SOD. BICARBONATE	25 Kg	94.25	2	188.50	.18
XCD POLYMER	25 Kg	1645.00	19	31255.00	29.18
SECTION COST				422135.50	
SECTION DAYS				12	
COST PER DAY				35177.96	
SECTION LENGTH				1071	
COST PER METRE				394.15	

Table 3.8.2c

CONOCO NORWAY INC

WELL NO: 25/7-2 RIG : DYVI STENA

COST SUMMARY: 17 1/2" SECTION

PRODUCT	UNIT SIZE	UNIT COST	17 1/2" inch HOLE		
			USED	COST	COST/m
BARITE	1 MT	570.00	1093	623010.00	355.19
BENTONITE	1 MT	1510.00	26	39260.00	22.38
BENTONITE	25 Kg	75.00	185	13875.00	7.91
SPERCELL C	25 Kg	136.50			
POT. HYDROXIDE	25 Kg	168.00	412	69216.00	39.46
CAUSTIC	25 Kg	80.00	1	80.00	.05
LIME	20 Kg	26.00	4	104.00	.06
POT. CARBONATE	25 Kg	186.00	97	18042.00	10.29
SODA ASH	25 Kg	55.00			
S.A.P.P	25 Kg	213.00			
SOD. BICARBONATE	25 Kg	94.25			
ALUMINIUM STEARATE	25 Kg	513.50			
ANCO PHPA	50 lbs	778.00	82	63796.00	36.37
WBS 200	50 lbs	950.00	832	790400.00	450.63
DRISPAC SUPERLO	50 lbs	735.00	657	482895.00	275.31
DRISPAC REGULAR	50 lbs	735.00	183	134505.00	76.68
XCD POLYMER	25 Kg	1645.00	314	516530.00	294.49
HOSTADRILL 3118	25 lbs	1800.00			
NARLEX D-72	25 Kg	1840.00			
ANCO LIG C	25 Kg	154.00			
ANCO RESIN	25 Kg	288.00			
SOLTEX	50 lbs	246.00			
ANCO POL	30 Kg	419.00	25	10475.00	5.97
ANCO THIN	25 Kg	860.00	60	51600.00	29.42
POT. CHLORIDE	25 Kg	50.00	1798	89900.00	51.25
ANCO FREE PIPE W	200 ltr	2980.00			
ANCO LUBE G	200 ltr	1270.00	8	10160.00	5.79
ANCO CIDE	25 ltr	308.00	63	19404.00	11.06
KD-40	200 ltr	7750.00	7	54250.00	30.93
ANCONOL DEFOAMER	200 ltr	2800.00			
ANCO DEFOAMER	25 ltr	230.00	22	5060.00	2.88
MICA FINE	25 Kg	78.00	18	1404.00	.80
MICA COARSE	25 Kg	78.00	29	2262.00	1.29
NUTPLUG FINE	25 Kg	78.00	54	4212.00	2.40
NUTPLUG COARSE	25 Kg	78.00			
ANCO DETERGENT	200 ltr	2178.00	3	6534.00	3.73
ANCO PEANUT OIL	200 ltr	3025.00	4	12100.00	6.90
SECTION COST				3019074	
SECTION DAYS				57	
COST PER DAY				52966.21	
SECTION LENGTH				1754	
COST PER METRE				1721.25	

Table 3.8.3c

CONOCO NORWAY INC.

WELL 25/7-2.

RIG: DYVI STENA

COST SUMMARY: 12 1/4" SECTION

PRODUCT	UNIT SIZE	UNIT COST	12 1/4" inch HOLE		
			USED	COST	COST/m
BARITE	1 MT	570.00	554	315780.00	336.65
BENTONITE	1 MT	1510.00			
BENTONITE	25 Kg	75.00			
SPERCELL C	25 Kg	136.50			
POT. HYDROXIDE	25 Kg	168.00	161	27048.00	28.84
CAUSTIC	25 Kg	80.00			
LIME	20 Kg	26.00			
POT. CARBONATE	25 Kg	186.00	2	372.00	.40
SODA ASH	25 Kg	55.00			
S.A.P.P	25 Kg	213.00			
SOD. BICARBONATE	25 Kg	94.25			
ALUMINIUM STEARATE	25 Kg	513.50			
ANCO PHPA	50 lbs	778.00			
WBS 200	50 lbs	950.00	174	165300.00	176.23
DRISPAC SUPERLO	50 lbs	735.00	355	260925.00	278.17
DRISPAC REGULAR	50 lbs	735.00	18	13230.00	14.10
XCD POLYMER	25 Kg	1645.00	35	57575.00	61.38
HOSADRILL 3118	25 lbs	1800.00	32	57600.00	61.41
NARLEX D-72	25 Kg	1840.00	30	55200.00	58.85
ANCO LIG C	25 Kg	154.00	90	13860.00	14.78
ANCO RESIN	25 Kg	288.00	100	28800.00	30.70
SOLTEX	50 lbs	246.00			
ANCO POL	30 Kg	419.00			
ANCO THIN	25 Kg	860.00	36	30960.00	33.01
POT. CHLORIDE	25 Kg	50.00	552	27600.00	29.42
ANCO FREE PIPE W	200 ltr	2980.00			
ANCO LUBE G	200 ltr	1270.00			
ANCO CIDE	25 ltr	308.00	40	12320.00	13.13
KD-40	200 ltr	7750.00	6	46500.00	49.57
ANCONOL DEFOAMER	200 ltr	2800.00			
ANCO DEFOAMER	25 ltr	230.00	3	690.00	.74
MICA FINE	25 Kg	78.00			
MICA COARSE	25 Kg	78.00			
NUTPLUG FINE	25 Kg	78.00			
NUTPLUG COARSE	25 Kg	78.00			
ANCO DETERGENT	200 ltr	2178.00			
ANCO PEANUT OIL	200 ltr	3025.00			
ANCO GT	25 Kg	180.00			
ZINC OXIDE	25 Kg	385.00			
SECTION COST				1113760	
SECTION DAYS				22	
COST PER DAY				50625.45	
SECTION LENGTH				938	
COST PER METRE				1187.38	

Table 3.8.4c

CONOCO NORWAY INC

WELL NO: 25/7-2

RIG: DYVI STENA

COST SUMMARY: 8 1/2" SECTION

PRODUCT	UNIT SIZE	UNIT COST	8 1/2" inch HOLE		
			USED	COST	COST/m
BARITE	1 MT	570.00	968	551760.00	588.23
BENTONITE	1 MT	1510.00	6	9060.00	9.66
BENTONITE	25 Kg	75.00	15	1125.00	1.20
SPERCELL C	25 Kg	136.50			
POT. HYDROXIDE	25 Kg	168.00	54	9072.00	9.67
CAUSTIC	25 Kg	80.00	139	11120.00	11.86
LIME	20 Kg	26.00	69	1794.00	1.91
POT. CARBONATE	25 Kg	186.00	15	2790.00	2.97
SODA ASH	25 Kg	55.00			
S.A.P.P	25 Kg	213.00			
SOD. BICARBONATE	25 Kg	94.25			
ALUMINIUM STEARATE	25 Kg	513.50	11	5648.50	6.02
ANCO PHPA	50 lbs	778.00			
WBS 200	50 lbs	950.00			
DRISPAC SUPERLO	50 lbs	735.00			
DRISPAC REGULAR	50 lbs	735.00			
XCD POLYMER	25 Kg	1645.00	5	8225.00	8.77
HOSTADRILL 3118	25 lbs	1800.00	288	518400.00	552.67
NARLEX D-72	25 Kg	1840.00	231	425040.00	453.13
ANCO LIG C	25 Kg	154.00	243	37422.00	39.90
ANCO RESIN	25 Kg	288.00	354	101952.00	108.69
SOLTEX	50 lbs	246.00			
ANCO POL	30 Kg	419.00	1	419.00	.45
ANCO THIN	25 Kg	860.00	34	29240.00	31.17
POT. CHLORIDE	25 Kg	50.00			
ANCO FREE PIPE W	200 ltr	2980.00	5	14900.00	15.88
ANCO LUBE G	200 ltr	1270.00	4	5080.00	5.42
ANCO CIDE	25 ltr	308.00	56	17248.00	18.39
KD-40	200 ltr	7750.00	4	31000.00	33.05
ANCONOL DEFOAMER	200 ltr	2800.00	42	117600.00	125.37
ANCO DEFOAMER	25 ltr	230.00	79	18170.00	19.37
MICA FINE	25 Kg	78.00			
MICA COARSE	25 Kg	78.00			
NUTPLUG FINE	25 Kg	78.00			
NUTPLUG COARSE	25 Kg	78.00			
ANCO DETERGENT	200 ltr	2178.00	3	6534.00	6.97
ANCO PEANUT OIL	200 ltr	3025.00	28	84700.00	90.30
ANCO GT	25 Kg	180.00	1	180.00	.19
ZINC OXIDE	25 Kg	385.00			
DESCO	25 lbs	263.25	67	17637.75	18.80
SODIUM SULPHITE	50 Kg	238.00	5	1190.00	1.27
SECTION COST				2027307.25	
SECTION DAYS				53	
COST PER DAY				38251.08	
SECTION LENGTH				938	
COST PER METRE				2161.31	

DRILL STEM TESTING SUMMARY

A single drill stem test was conducted over the hydrocarbon bearing interval
The main objectives of the test were:

- * To ascertain the types of hydrocarbon present.
- * To see if the well could flow at commercial rates.
- * To evaluate the near well bore area by pressure transient analysis.

A total of 75m was perforated with 4 1/2" wireline conveyed guns in six 12 1/2m runs. Gun specifications were: 5 shots per foot at 60 deg phasing, 37 grm HMX charges. The perforated intervals of the well were:

4148 - 4173m
4194 - 4219m
4248 - 4273m

After perforating a junk basket/gauge ring was run to the top of the DST interval. A wireline set permanent packer was then set at 4130m.

The DST string was run with a full cushion of drill water to surface, which gave an underbalance of 3800 psi. A high underbalance was run to give the interval a chance to clean up mud from the perforations and to expel any solids from drilling the interval.

The PCT was opened for an initial flow period at 1325 hours, 10 July 1990 through a 24/64" adjustable choke. The initial flow period lasted 6 minutes. An estimated 20 bbls of cushion was unloaded during the initial flow.

The well was then shut in downhole for initial build up which lasted 59 minutes.

A main flow period of 15 hours and 55 minutes was conducted through a 40/64" fixed choke. Gas came to surface after 25 minutes and flow was diverted to the separator after seven hours and 23 minutes.

The final flowing wellhead pressure was 1287 psia at 102°F. Final flow rates were 8.085 mmscf/d of gas, 886 bbls/d of condensate and 17.2 bbls/d of water.

The well was then shut in downhole for 31 hours and 3 minutes for the main build up. Downhole pressure increased from the final flowing pressure of 2774 psia to 7070 psia at 4150m at the end of the build up.

The test string was bled off to 0 psi, then displaced from the PCT to the surface with 16.0 ppg mud.

The PCT was then opened, and mud was bullheaded into the formation. The PCT was then closed and the SHORT functioned. The testing contents were reversed out to get rid of any retained gas in the tubing. The string was unstung from the packer and pulled out of the hole.

Flow Data

Initial Flow: 6 mins
Final Flow: 15 hrs 55 mins

Initial build up: 59 mins
Final build up: 31 hrs 3 mins

FFWHP = 1287 psia
FFWHT = 102 degF

FFBHP = 277 psia @ 4150m
FFBHT = 264 degF

Initial Qg = 9.030 mmscf/d
Initial Qcond = 1435 bbls/d

Final Qg = 8.085 mmscf/d
Final Qcond = 886 bbls/d

Choke Size = 40/64"
Qwater = 17.2 bbls/d
GS&W = 13%
Psep = 372 psia
Tsep = 123 degF

Final Sep GOR = 9123 scf/stb
Final Cond Yield = 109.6 bbl/mmscf
Gas SG (sep) = 0.710 (relative to air)
Cond SG (sept) = 49 deg API @ 60 deg F
CO₂ = 2.05%

Water Chlorides = 16000 mg/l
H₂S = 0%

Pressure Analysis

Pi = 9757 psia @ 4150m (13.78 ppg)
P* = 7953 psia @ 4150m (11.22 ppg)
Apparent Depletion = 1804 psi or 18%

Initial Hydrostatic = 11269 psia (16.03 ppg)
Final Hydrostatic = 11154 psia (15.86 ppg)
Depletion Analysis Gives IGIP = 65 mmscf

kgh = 225.4 mD - ft
kg = 32.2 mD
St = + 7.318

Analysis shows two intersecting boundaries. Distance to nearest boundary = 230'.

Formation Temperature = 283 degF @ 4150m
Temperature Gradient = 1.85 degF/100 ft

5.6 FLUID ANALYSIS

Schlumberger Aberdeen, performed the PVT analysis. The results are listed below.

Relative Density Gas (air = 1.0)	: 0.756
Stock Tank Oil Density	: 0.775 g/cc
Stock Tank Liquid API Gravity	: 51.0
Gas Liquid Ratio	: 7176 scf/bbl
Dew Point Pressure	: 5677 psia
Viscosity Well Stream	: 0.0316 cp @ 5677 psia, 283F

U-628

3

GEOCHEMICAL REPORT

WELL NOCS 25/7-2

BA90-2174-1

12 DES. 1990

REGISTRERT

OLJEDIREKTORATET

Client : Conoco Norway Inc.

Authors: Ian L. Ferriday
Kjell Arne Bakken

Geolab Nor A/S
Hornebergveien 5
7038 Trondheim
Norway

Date : 03.12.90

INTRODUCTION

Nine core-chip samples of sandstone from well NOCS 25/7-2 were supplied by Conoco Norway, these being from the intervals 4145.8 - 4166.1 m (6 samples) and 4468.5 - 4485.7 m (3 samples). The analyses performed are in addition to those previously performed by Geolab Nor on the same well (on rocks and one condensate) which are treated in a separate report: Geochemical Report Well 25/7-2, Authors: K. A. Bakken, S. Bharati, I. L. Ferriday, 30.08.90.

Rock-Eval with TOC	9 samples
Thermal extraction/pyrolysis gas chromatography	9 samples
Extraction, separation and gas chromatography of saturate and aromatic fractions	3 samples
Gas chromatography - mass spectrometry of saturate and aromatic fractions	3 samples
Carbon isotope analysis of C ₁₅ + fractions	3 samples

Table 1 : Lithology description for well NOCS 25/7-2

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
4072.00	swc					0002
	5.24	100	Sltst	: brn blk, carb, sft		0002-1L
4075.00	swc					0003
	2.67	100	Sltst	: brn blk, carb, sft		0003-1L
4078.00	swc					0004
	4.08	100	Sltst	: brn blk, carb, sft		0004-1L
4081.00	swc					0005
	3.43	100	Sltst	: brn blk, carb, sft		0005-1L
4100.00						0041
			40	Other : lt gy to m gy, brn blk, trbofgs		0041-2L
			35	Sh/Clst: brn blk		0041-4L
			20	Cont : prp		0041-3L
			5	Sltst : lt gy to m gy, s, mrl		0041-1L
4105.00	swc					0006
	1.40	100	Sh/Clst:	brn blk, carb, slt, sft		0006-1L
4108.00	swc					0007
	3.28	100	Sh/Clst:	brn blk, carb, slt, sft		0007-1L

Table 1 : Lithology description for well NOCS 25/7-2

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int Cvd	TOC%	%	Lithology description			
4145.80	ccp					0045
	0.51	100	S/Sst	:	gy brn, st	0045-1L
4146.20	ccp					0046
	0.50	100	S/Sst	:	gy brn, st	0046-1L
4147.70	ccp					0047
	0.62	100	S/Sst	:	gy brn, st	0047-1L
4152.30	ccp					0048
	0.40	100	S/Sst	:	gy brn, st	0048-1L
4154.20	ccp					0049
	1.04	100	S/Sst	:	gy brn to dsk brn, st	0049-1L
4166.10	ccp					0050
	0.15	100	S/Sst	:	dsk brn to lt gy, st	0050-1L
4188.00	swc					0008
	0.50	100	Sltst	:	brn blk, carb, mic, sft	0008-1L
4199.00						0042
		70	S/Sst	:	w to drk y brn, l	0042-4L
		20	Cont	:	prp	0042-2L
		5	Other	:	lt gy to m gy, brn blk, trbofgs	0042-1L
		5	Sh/Clst:	:	brn blk	0042-3L

Table 1 : Lithology description for well NOCS 25/7-2

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int Cvd	TOC%	%	Lithology description			
4245.00	swc					0009
	1.66	100	Sltst : brn blk, carb, mic, sft			0009-1L
4299.00	swc					0010
	1.77	100	Sh/Clst: brn blk, carb, slt, mic, sft			0010-1L
4301.00						0043
			70 S/Sst : w to drk y brn, l			0043-4L
			15 Sh/Clst: brn blk, brn gy, carb			0043-3L
			10 Cont : prp			0043-2L
			5 Other : lt gy to m gy, brn blk, trbofgs			0043-1L
4305.00	swc					0011
	2.10	100	Sh/Clst: brn blk, carb, slt, sft			0011-1L
4310.00	swc					0012
	1.36	100	Sh/Clst: brn blk, carb, slt, sft			0012-1L
4315.00	swc					0013
	1.66	100	Sh/Clst: brn blk to dsk y brn, carb, slt, sft			0013-1L
4340.00	swc					0014
	1.72	100	Sltst : brn blk to dsk y brn, carb			0014-1L

Table 1 : Lithology description for well NOCS 25/7-2

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int Cvd	TOC%	%	Lithology description			
4365.00	swc					0015
	1.09	100	Sh/Clst: brn blk to dsk y brn, carb, slt, sft			0015-1L
4370.00	swc					0016
	1.31	100	Sh/Clst: brn blk to dsk y brn, carb, slt, sft			0016-1L
4415.00	swc					0017
	1.24	100	Sh/Clst: brn blk to dsk y brn, carb, slt, sft			0017-1L
4425.00	swc					0018
	1.42	100	Sh/Clst: brn blk to dsk y brn, carb, slt, sft			0018-1L
4468.50	ccp					0051
	0.64	100	S/Sst : m gy to drk gy, st			0051-1L
4469.80	ccp					0052
	0.40	100	S/Sst : m gy, st			0052-1L
4485.70	ccp					0053
	0.13	100	S/Sst : m gy, slt			0053-1L

Table 1 : Lithology description for well NOCS 25/7-2

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
4615.00	swc					0019
	0.50	100	Sltst	: m gy, s		0019-1L
4640.00	swc					0020
	1.66	100	Sltst	: brn blk, carb, mic		0020-1L

Table 2 : Rock-Eval table for well NOCS 25/7-2

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
4145.80	ccp	S/Sst : gy brn	3.56	0.76	0.09	8.44	0.51	149	18	4.3	0.82	425	0045-1L
4146.20	ccp	S/Sst : gy brn	4.21	0.67	0.12	5.58	0.50	134	24	4.9	0.86	427	0046-1L
4147.70	ccp	S/Sst : gy brn	4.00	0.94	0.11	8.55	0.62	152	18	4.9	0.81	430	0047-1L
4152.30	ccp	S/Sst : gy brn	2.70	0.45	0.12	3.75	0.40	113	30	3.2	0.86	443	0048-1L
4154.20	ccp	S/Sst : gy brn to dsk brn	4.23	2.10	0.10	21.00	1.04	202	10	6.3	0.67	457	0049-1L
4166.10	ccp	S/Sst : dsk brn to lt gy	1.25	0.23	0.08	2.88	0.15	153	53	1.5	0.84	437	0050-1L
4468.50	ccp	S/Sst : m gy to drk gy	0.60	0.72	0.03	24.00	0.64	113	5	1.3	0.45	468	0051-1L
4469.80	ccp	S/Sst : m gy	0.52	0.43	0.03	14.33	0.40	108	7	0.9	0.55	467	0052-1L
4485.70	ccp	S/Sst : m gy	0.07	0.09	0.22	0.41	0.13	69	169	0.2	0.44	419	0053-1L

Table 3 : Pyrolysis GC Data (S2 peak) as Percentage of Total Area for Well NOCS 25/7-2

Depth unit of measure: m

Depth	Typ	Lithology	C1	C2-C5	C6-C14	C15+	S2 from Rock-Eval	Sample
4145.80	ccp	S/Sst : gy brn	10.15	38.41	38.82	12.63	0.76	0045-1L
4146.20	ccp	S/Sst : gy brn	11.31	41.64	33.35	13.70	0.67	0046-1L
4147.70	ccp	S/Sst : gy brn	12.79	38.29	36.62	12.31	0.94	0047-1L
4152.30	ccp	S/Sst : gy brn	13.13	38.65	36.91	11.31	0.45	0048-1L
4154.20	ccp	S/Sst : gy brn to dsk brn	13.47	26.31	27.45	32.76	2.10	0049-1L
4166.10	ccp	S/Sst : dsk brn to lt gy	6.97	36.87	42.11	14.06	0.23	0050-1L
4468.50	ccp	S/Sst : m gy to drk gy	9.91	40.46	40.39	9.24	0.72	0051-1L
4469.80	ccp	S/Sst : m gy	12.36	37.53	40.28	9.83	0.43	0052-1L
4485.70	ccp	S/Sst : m gy	17.98	42.96	26.55	12.51	0.09	0053-1L

Table 4 a: Weight of EOM and Chromatographic Fraction for well NOCS 25/7-2

Depth unit of measure: m

Depth	Typ	Lithology	Rock Extracted (g)	EOM (mg)	Sat (mg)	Aro (mg)	Asph (mg)	NSO (mg)	HC (mg)	Non-HC (mg)	TOC(e) (%)	Sample
4147.70	ccp	S/Sst : gy brn	11.5	60.0	35.6	17.7	1.6	5.1	53.3	6.7	0.80	0047-1L
4154.20	ccp	S/Sst : gy brn to dsk brn	11.0	70.4	43.9	16.7	4.2	5.6	60.6	9.8	1.68	0049-1L
4468.50	ccp	S/Sst : m gy to drk gy	10.5	11.0	5.6	2.9	1.4	1.1	8.5	2.5	0.90	0051-1L

Table 4 b: Concentration of EOM and Chromatographic Fraction (wt ppm rock) for well NOCS 25/7-2

Depth unit of measure: m

Depth	Typ	Lithology	EOM	Sat	Aro	Asph	NSO	HC	Non-HC	Sample
4147.70	ccp	S/Sst : gy brn	5235	3106	1544	139	445	4650	584	0047-1L
4154.20	ccp	S/Sst : gy brn to dsk brn	6382	3980	1514	380	507	5494	888	0049-1L
4468.50	ccp	S/Sst : m gy to drk gy	1048	533	276	133	104	810	238	0051-1L

Table 4 c: Concentration of EOM and Chromatographic Fraction (mg/g TOC(e)) for well NOCS 25/7-2

Depth unit of measure: m

Depth	Typ	Lithology	EOM	Sat	Aro	Asph	NSO	HC	Non-HC	Sample
4147.70	ccp	S/Sst : gy brn	654.45	388.31	193.06	17.45	55.63	581.37	73.08	0047-1L
4154.20	ccp	S/Sst : gy brn to dsk brn	379.92	236.91	90.12	22.67	30.22	327.03	52.89	0049-1L
4468.50	ccp	S/Sst : m gy to drk gy	116.51	59.32	30.72	14.83	11.65	90.03	26.48	0051-1L

Table 4 d: Composition of material extracted from the rock (%) for well NOCS 25/7-2

Depth unit of measure: m

Depth	Typ	Lithology	Sat	Aro	Asph	NSO	HC	Non-HC	Sat	HC	Sample
			EOM	EOM	EOM	EOM	EOM	EOM	EOM	Aro	
4147.70	ccp	S/Sst : gy brn	59.33	29.50	2.67	8.50	88.83	11.17	201.13	795.52	0047-1L
4154.20	ccp	S/Sst : gy brn to dsk brn	62.36	23.72	5.97	7.95	86.08	13.92	262.87	618.37	0049-1L
4468.50	ccp	S/Sst : m gy to drk gy	50.91	26.36	12.73	10.00	77.27	22.73	193.10	340.00	0051-1L

Table 5 : Saturated Hydrocarbon Ratios for well NOCS 25/7-2

Depth unit of measure: m

Depth	Typ	Lithology	Pristane	Pristane	Pristane + Phytane	Phytane	CPI	Sample
			nC17	Phytane	nC17 + nC18	nC18		
4147.70	ccp	S/Sst : gy brn	0.39	0.94	0.40	0.42	0.96	0047-1L
4154.20	ccp	S/Sst : gy brn to dsk brn	0.44	1.02	0.45	0.45	0.99	0049-1L
4468.50	ccp	S/Sst : m gy to drk gy	0.36	2.00	0.30	0.22	1.06	0051-1L

Table 1 : Lithology description for well NOCS 25/7-2

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2099.00						0021
			95	Sh/Clst: m gy, slt		0021-1L
			5	Ca : w to lt gy		0021-2L
2201.00						0023
			100	Sltst : lt gy to m gy, cly		0023-1L
				tr Ca : w to lt gy		0023-2L
				tr Other : trbofgs		0023-3L
2300.00						0022
			85	S/Sst : lt gy, l		0022-4L
			15	Sh/Clst		0022-5L
				tr Sltst : lt gy to m gy, cly		0022-1L
				tr Ca : w to lt gy		0022-2L
				tr Other : trbofgs		0022-3L
2399.00						0024
			100	S/Sst : lt gy, l		0024-3L
				tr Sltst : lt gy to m gy, cly		0024-1L
				tr Ca : w to lt gy		0024-2L
				tr Sh/Clst: gy red, pl y gn		0024-4L
2501.00						0025
			100	Sh/Clst: m gy, slt		0025-1L
				tr Ca : w to lt gy		0025-2L
				tr S/Sst : lt gy, l		0025-3L
				tr Sh/Clst: gy red, pl y gn		0025-4L

Table 1 : Lithology description for well NOCS 25/7-2

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2600.00						0026
				90 S/Sst : lt gy, l		0026-2L
				10 Sh/Clst: m gy to drk gy, slt		0026-1L
				tr Sh/Clst: gy red, pl y gn		0026-3L
2699.00						0027
				50 S/Sst : lt gy, l		0027-2L
				40 Sh/Clst: m gy to drk gy, slt		0027-1L
				10 Sh/Clst: gy red, pl y gn		0027-3L
2801.00						0028
				95 Ca : w, chk		0028-4L
				5 Marl : lt gy to m gy		0028-1L
				tr Sh/Clst: gy red, pl y gn		0028-2L
				tr Other : lt gy to m gy, trbofgs		0028-3L
2900.00						0029
				50 Marl : lt gy to m gy		0029-1L
				50 Ca : w, chk		0029-4L
				tr Sh/Clst: gy red, pl y gn		0029-2L
				tr Other : lt gy to m gy, trbofgs		0029-3L
2999.00						0030
				100 Marl : gy red, lt gy to m gy, slt		0030-1L
				tr Other : lt gy to m gy, gy red, trbofgs		0030-3L
				tr Ca : w, chk		0030-4L

Table 6 : Aromatic Hydrocarbon Ratios for well NOCS 25/7-2

Depth unit of measure: m

Depth	Typ	Lithology	MNR	DMNR	BPhR	2/1MP	MPI1	MPI2	Rc	DBT/P	4/1MDBT	(3+2) /1MDBT	Sample
4147.70	ccp	S/Sst : gy brn	1.34	1.68	0.29	0.87	0.65	0.69	0.79	0.29	36.84	2.89	0047-1L
4154.20	ccp	S/Sst : gy brn to dsk brn	1.22	1.91	0.34	0.95	0.66	0.78	0.80	0.27	20.73	2.47	0049-1L
4468.50	ccp	S/Sst : m gy to drk gy	1.62	1.83	0.33	1.46	0.89	1.05	0.93	0.13	92.60	7.14	0051-1L

Table 7a : Tabulation of carbon isotope data for EOM/EOM - fractions or Oils for well NOCS 25/7-2

Depth unit of measure: m

Depth	Typ	Lithology	EOM/Oil	Saturated	Aromatic	NSO	Asphaltenes	Kerogen	Sample
4060.00	swc		-28.79	-29.88	-28.96	-28.17	-28.11	-	0001-1L
4105.00	swc		-28.84	-29.45	-28.71	-28.27	-28.68	-	0006-1L
*4147.70	ccp		-28.80	-29.35	-27.96	-26.63	-27.71	-	0047-1L
*4154.20	ccp		-28.28	-28.96	-27.44	-27.28	-27.25	-	0049-1L
4245.00	swc		-26.24	-27.14	-25.34	-25.60	-25.37	-	0009-1L
4272.00	oil		-28.74	-29.19	-27.65	-26.98	-28.63	-	0044-0B
4340.00	swc		-25.35	-26.15	-24.91	-25.39	-24.74	-	0014-1L
4425.00	swc		-25.21	-26.00	-24.85	-25.01	-24.69	-	0018-1L
*4468.50	ccp		-26.53	-27.56	-25.18	-26.50	-26.01	-	0051-1L
4640.00	swc		-25.68	-26.81	-24.71	-25.89	-25.26	-	0020-1L

Table 7b : Tabulation of cv values from carbon isotope data for well NOCS 25/7-2

Depth unit of measure: m

Depth	Typ	Lithology	Saturated	Aromatic	cv value	Sample
4060.00	swc		-29.88	-28.96	-0.34	0001-1L
4105.00	swc		-29.45	-28.71	-0.88	0006-1L
*4147.70	ccp		-29.35	-27.96	0.53	0047-1L
*4154.20	ccp		-28.96	-27.44	0.70	0049-1L
4245.00	swc		-27.14	-25.34	0.76	0009-1L
4272.00	oil		-29.19	-27.65	0.82	0044-0B
4340.00	swc		-26.15	-24.91	-0.79	0014-1L
4425.00	swc		-26.00	-24.85	-1.04	0018-1L
*4468.50	ccp		-27.56	-25.18	2.18	0051-1L
4640.00	swc		-26.81	-24.71	1.32	0020-1L

Table 8 A: Variation in Triterpane Distribution (peak height) for Well NOCS 25/7-2

Depth unit of measure: m

Depth	Lithology	B/A	B/B+A	B		C/E	C/C+E	X/E	Z/E	Z/C	Z/Z+E	Q/E	C+D		J1		Sample
				B+E+F	C/E								E/E+F	C+D+E+F	D+F/C+E	J1+J2%	
4060.00	Sltst	0.04	0.04	0.06	0.71	0.42	0.34	0.34	0.48	0.25	1.04	1.00	0.42	-	63.04	0001-1	
4105.00	Sh/Clst	-	-	-	0.94	0.48	0.62	0.32	0.34	0.24	2.02	0.83	0.44	0.10	65.02	0006-1	
* 4147.70	S/Sst	0.16	0.14	0.14	0.40	0.29	0.32	0.29	0.73	0.23	0.97	0.88	0.26	0.10	60.10	0047-1	
* 4154.20	S/Sst	0.16	0.14	0.08	0.40	0.29	0.25	0.31	0.78	0.24	0.46	0.92	0.27	0.06	60.74	0049-1	
4245.00	Sltst	-	-	-	1.05	0.51	3.39	0.77	0.73	0.43	2.43	1.00	0.51	-	63.75	0009-1	
4272.00	bulk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0044-0	
4340.00	Sltst	-	-	-	1.12	0.53	8.18	2.10	1.88	0.68	1.11	1.00	0.53	-	-	0014-1	
4425.00	Sh/Clst	-	-	-	1.18	0.54	6.81	1.32	1.12	0.57	2.71	1.00	0.54	-	-	0018-1	
* 4468.50	S/Sst	0.17	0.15	0.11	0.79	0.44	0.77	0.33	0.42	0.25	0.69	0.81	0.39	0.13	52.54	0051-1	
4640.00	Sltst	-	-	-	-	-	2.91	0.80	-	0.45	1.64	1.00	-	-	-	0020-1	

Table 8B: Variation in Sterane Distribution (peak height) for Well NOCS 25/7-2

Depth unit of measure: m

Depth	Lithology	Ratio1	Ratio2	Ratio3	Ratio4	Ratio5	Ratio6	Ratio7	Ratio8	Ratio9	Ratio10	Sample
4060.00	sltst	0.90	43.44	86.27	1.84	0.88	0.74	0.62	0.76	0.77	5.55	0001-1
4105.00	Sh/Clst	0.91	44.54	81.32	1.99	0.83	0.83	0.72	0.69	0.80	3.92	0006-1
* 4147.70	S/Sst	0.89	50.04	80.38	1.54	0.80	0.64	0.50	0.67	1.00	4.10	0047-1
* 4154.20	S/Sst	0.91	49.05	79.90	1.32	0.80	0.51	0.38	0.67	0.96	3.90	0049-1
4245.00	sltst	0.96	61.86	71.98	1.75	0.67	0.72	0.54	0.56	1.62	3.37	0009-1
4272.00	bulk	1.00	-	-	2.69	-	1.00	0.83	-	-	-	0044-0
4340.00	sltst	0.73	-	-	1.42	-	1.00	0.80	-	-	-	0014-1
4425.00	Sh/Clst	0.74	-	-	1.64	-	1.00	0.71	-	-	-	0018-1
* 4468.50	S/Sst	0.86	48.64	77.49	1.27	0.78	0.57	0.44	0.63	0.95	3.35	0051-1
4640.00	sltst	1.00	-	-	1.91	-	1.00	1.00	-	-	-	0020-1

Ratio1: $a / a + j$
Ratio2: $q / q + t * 100\%$
Ratio3: $2(r + s) / (q + t + 2(r + s)) * 100\%$
Ratio4: $a + b + c + d / h + k + l + n$
Ratio5: $r + s / r + s + q$

Ratio6: $u + v / u + v + q + r + s + t$
Ratio7: $u + v / u + v + i + m + n + q + r + s + t$
Ratio8: $r + s / q + r + s + t$
Ratio9: q / t
Ratio10: $r + s / t$

Table 8C: Variation in Triaromatic Sterane Distribution for Well NOCS 25/7-2

Depth unit of measure: m

Depth	Lithology	Ratio1	Ratio2	Ratio3	Ratio4	Ratio5	Sample
4060.00	Sltst	0.91	0.90	0.78	0.78	0.85	0001-1
4105.00	Sh/Clst	0.91	0.88	0.78	0.80	0.85	0006-1
* 4147.70	S/Sst	1.00	1.00	1.00	1.00	1.00	0047-1
* 4154.20	S/Sst	1.00	1.00	1.00	1.00	1.00	0049-1
4245.00	Sltst	1.00	1.00	1.00	1.00	1.00	0009-1
4272.00	bulk	1.00	1.00	1.00	1.00	1.00	0044-0
4340.00	Sltst	1.00	1.00	1.00	1.00	1.00	0014-1
4425.00	Sh/Clst	1.00	1.00	1.00	1.00	1.00	0018-1
* 4468.50	S/Sst	-	-	-	-	-	0051-1
4640.00	Sltst	1.00	1.00	1.00	1.00	1.00	0020-1

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 8 D: Variation in Monoaromatic Sterane Distribution for Well NOCS 25/7-2

Depth unit of measure: m

Depth	Lithology	Ratio1	Ratio2	Ratio3	Ratio4	Sample
4060.00	Sltst	0.79	0.60	0.55	0.46	0001-1
4105.00	Sh/Clst	0.79	0.60	0.52	0.45	0006-1
* 4147.70	S/Sst	0.91	0.78	0.80	0.62	0047-1
* 4154.20	S/Sst	0.88	0.76	0.78	0.62	0049-1
4245.00	Sltst	0.69	0.35	0.51	0.35	0009-1
4272.00	bulk	0.89	0.77	0.81	0.73	0044-0
4340.00	Sltst	0.54	-	0.17	0.11	0014-1
4425.00	Sh/Clst	0.64	-	0.28	0.18	0018-1
* 4468.50	S/Sst	-	-	-	-	0051-1
4640.00	Sltst	0.72	-	0.40	0.30	0020-1

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 8 E: Aromatisation of Steranes for Well NOCS 25/7-2

Depth unit of measure: m

	<u>Depth</u>	<u>Lithology</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Sample</u>
	4060.00	Sltst	0.42	0.90	0001-1
	4105.00	Sh/Clst	0.43	0.93	0006-1
*	4147.70	S/Sst	1.00	-	0047-1
*	4154.20	S/Sst	1.00	-	0049-1
	4245.00	Sltst	1.00	-	0009-1
	4272.00	bulk	1.00	-	0044-0
	4340.00	Sltst	1.00	-	0014-1
	4425.00	Sh/Clst	1.00	-	0018-1
*	4468.50	S/Sst	1.00	-	0051-1
	4640.00	Sltst	1.00	-	0020-1

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

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

Table 8 F: Raw GCMS triterpane data (peak height) for Well NOCS 25/7-2

Depth unit of measure: m

Depth	Lithology	p		q		r		s		t		a		b		z		c		Sample
		x		d		e		f		g		h		i		j1				
		j2	k1	k2	l1	l2	m1	m2												
4060.00	Sltst	84.17	70.35	31.69	31.18	18.21	99.07	3.96	23.15	48.35	0001-1									
		12.09	23.06	0.00	67.71	0.00	26.90	17.18	3.10	20.62										
4105.00	Sh/Clst	48.21	31.76	15.43	13.56	9.63	41.22	0.00	5.05	14.76	0006-1									
		1.91	9.81	0.00	15.74	3.18	4.69	3.55	0.00	3.55										
* 4147.70	S/Sst	60.99	44.41	23.83	22.78	12.06	54.82	8.84	13.44	18.40	0047-1									
		9.14	14.53	0.00	45.90	6.26	19.21	15.27	0.00	13.77										
* 4154.20	S/Sst	76.06	55.96	31.21	31.65	14.05	78.12	12.28	38.38	49.16	0049-1									
		28.09	30.28	0.00	122.96	10.87	51.82	35.30	5.83	43.45										
4245.00	Sltst	33.58	23.20	7.22	9.42	5.36	31.15	0.00	7.33	10.07	0009-1									
		1.95	32.43	0.00	9.56	0.00	3.58	4.65	3.10	3.43										

Table 8.F: Raw GCMS triterpane data (peak height) for Well NOCS 25/7-2

Depth unit of measure: m

Depth	Lithology	p		q		r		s		t		a		b		z		c	Sample
		x		d		e		f		g		h		i		j1			
		j2	k1	k2	l1	l2	m1	m2											
4272.00	bulk	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0044-0
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4340.00	sltst	6.03	2.44	0.00	0.00	0.00	0.00	0.00	0.00	16.26	0.00	0.00	0.00	4.62	2.46	0014-1			
		17.99	0.00	0.00	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
4425.00	sh/clst	4.02	4.93	0.00	0.00	0.00	0.00	0.00	0.00	11.35	0.00	0.00	0.00	2.40	2.15	0018-1			
		12.39	0.00	0.00	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
* 4468.50	s/sst	30.44	15.82	6.63	5.92	4.31	20.02	3.46	7.61	18.28	0051-1								
		17.86	0.00	0.00	23.08	5.44	6.18	7.57	6.69	5.59									
		5.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00									
4640.00	sltst	3.13	3.52	0.00	0.00	0.00	6.36	0.00	1.73	0.00	0020-1								
		6.26	0.00	0.00	2.15	0.00	0.00	0.00	0.00	0.00									
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00									

Table 8 G: Raw GCMS sterane data (peak height) for Well NOCS 25/7-2

Depth unit of measure: m

Depth	Lithology	u	v	a	b	c	d	e	f	g	Sample
		h	i	j	k	l	m	n	o		
		p	q	r	s	t					
4060.00	Sltst	132.41 38.03 3.95	36.69 21.15 6.19	81.44 8.75 24.94	48.38 28.66 19.81	20.21 7.03 8.06	16.35 7.11	29.36 16.59	17.10 28.22	9.58	0001-1
4105.00	Sh/Clst	74.42 21.07 0.00	12.35 9.21 2.53	43.48 4.37 5.92	27.81 13.95 6.44	10.60 3.64 3.15	6.70 0.00	18.08 5.81	6.17 7.33	3.03	0006-1
* 4147.70	S/Sst	101.57 54.69 5.78	22.66 25.66 11.54	89.13 10.59 26.90	56.65 36.78 20.34	20.78 10.76 11.52	20.34 8.24	37.98 18.78	23.11 24.73	13.85	0047-1
* 4154.20	S/Sst	141.55 121.19 14.21	39.35 62.45 28.91	171.64 16.87 66.28	106.58 82.02 50.89	37.54 23.62 30.03	32.31 15.96	77.35 37.18	56.24 57.44	39.68	0049-1
4245.00	Sltst	25.61 24.98 0.00	7.16 5.99 3.52	47.31 1.89 3.87	28.27 19.31 3.44	13.84 4.94 2.17	11.65 0.00	14.40 8.68	5.55 3.53	3.72	0009-1

Table 8G: Raw GCMS sterane data (peak height) for Well NOCS 25/7-2

Depth unit of measure: m

Depth	Lithology	u	v	a	b	c	d	e	f	g	Sample
		h	i	j	k	l	m	n	o		
		p	q	r	s	t					
4272.00	bulk	5.19	1.25	6.34	3.59	1.06	1.30	2.72	0.00	0.00	0.00 0044-0
		0.00	2.02	0.00	0.00	0.00	0.00	0.00	0.00	1.60	
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4340.00	sltst	8.20	2.33	10.11	5.84	3.12	2.02	3.57	2.35	2.00	0014-1
		0.00	7.05	0.00	0.00	0.00	0.00	0.00	2.61	2.26	
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4425.00	Sh/Clst	6.38	2.11	9.14	5.02	2.87	2.34	3.75	1.19	0.00	0018-1
		0.00	5.92	0.00	0.00	0.00	0.00	0.00	1.31	1.63	
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
* 4468.50	S/Sst	45.92	11.27	42.48	30.37	8.82	10.22	20.92	13.55	9.76	0051-1
		4.29	31.74	6.71	6.71	6.38	5.33	11.00	17.46		
		0.00	7.85	15.17	12.61	8.29	0.00	0.00	0.00	0.00	
4640.00	sltst	4.17	0.00	4.03	2.73	1.99	1.54	1.81	0.00	2.22	0020-1
		0.00	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Table 8H: Raw GCMS trioaromatic sterane data (peak height) for Well NOCS 25/7-2

Depth unit of measure: m

Depth	Lithology	a1	b1	c1	d1	e1	f1	g1	Sample
4060.00	sltst	312.43	287.69	22.88	53.59	32.59	24.56	32.27	0001-1
4105.00	Sh/Clst	322.47	233.03	20.63	56.93	30.02	22.44	30.46	0006-1
* 4147.70	S/Sst	353.74	250.02	0.00	0.00	0.00	0.00	0.00	0047-1
* 4154.20	S/Sst	492.10	384.74	0.00	0.00	0.00	0.00	0.00	0049-1
4245.00	sltst	38.52	22.57	0.00	0.00	0.00	0.00	0.00	0009-1
4272.00	bulk	33.26	28.71	0.00	0.00	0.00	0.00	0.00	0044-0
4340.00	sltst	30.81	22.44	0.00	0.00	0.00	0.00	0.00	0014-1
4425.00	Sh/Clst	26.73	23.79	0.00	0.00	0.00	0.00	0.00	0018-1
* 4468.50	S/Sst	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0051-1
4640.00	sltst	12.53	7.06	0.00	0.00	0.00	0.00	0.00	0020-1

Table 8I: Raw GCMS monoaromatic sterane data (peak height) for Well NOCS 25/7-2

Depth unit of measure: m

Depth	Lithology	a1	b1	c1	d1	e1	f1	g1	h1	i1	Sample
4060.00	Sltst	74.04	29.89	13.30	12.64	20.07	19.14	41.13	9.79	3.63	0001-1
4105.00	Sh/Clst	70.47	28.20	7.42	16.17	18.72	20.16	46.26	8.13	2.45	0006-1
* 4147.70	S/Sst	141.89	53.21	26.96	15.90	14.61	27.16	21.02	12.10	0.00	0047-1
* 4154.20	S/Sst	212.22	88.99	31.78	25.79	27.78	53.95	32.68	13.97	0.00	0049-1
4245.00	Sltst	6.96	1.74	1.70	2.82	3.19	3.12	3.46	1.62	0.00	0009-1
4272.00	bulk	40.92	16.64	2.80	3.04	5.05	3.48	4.24	2.59	0.00	0044-0
4340.00	Sltst	3.94	0.00	1.54	1.71	3.30	9.49	16.23	1.05	0.00	0014-1
4425.00	Sh/Clst	8.85	0.00	0.00	3.22	4.97	13.46	18.20	0.00	0.00	0018-1
* 4468.50	S/Sst	0.00	0.00	23.82	58.11	14.63	47.11	46.63	10.90	0.00	0051-1
4640.00	Sltst	3.71	0.00	0.00	0.00	1.45	3.14	4.17	0.00	0.00	0020-1