

**MOBIL EXPLORATION NORWAY INC.**

**WELL 7228/2-1**

**HOLE/CASING/MUD/CEMENTING DATA**

<b>HOLE SIZE/MUD TYPE</b>	<b>CASING AND THREAD</b>	<b>SHOE DEPTH (mRKB)</b>	<b>CEMENTING</b>
36": M.L.-474m SEAWATER/VISCOUS PILLS	30", 310 LB/FT DRIL-QUIP NS60, GRADE B	473	1884 Sx G 6 gal/Sx A-7L 15.8 PPG SEAWATER
26":474m-1013m SEAWATER/VISCOUS PILLS	20", 133 LB/FT DRIL-QUIP S 60, GRADE X-56	997	3500 Sx G 2.25% gel 1000 Sx G 13.0 PPG SEAWATER 15.86 PPG SEAWATER
17 1/2": 1013m-2206m KCL/POLYMER	3 3/8", 72 LB/FT BTC, GRADE L-80	2186	2107 Sx G 2.25% gel 5% D-31 LN 10% R-12 L 650 Sx G 10% R-12 L 13.02 PPG SEAWATER 15.86 PPG SEAWATER
12 1/4": 2206m-3663m LIGNOSULFONATE	9 5/8" 53.5 LB/FT VAM, GRADE L-80	3633	1700 Sx G 1% gel 0.1 gal/Sx R-12 L 500 Sx G 0.9% D-19 0.1 gal/Sx D-31 LN 0.1 gal/Sx R-12 L 14.0 PPG SEAWATER 15.86 PPG SEAWATER
8 1/2": 3663m-4300m KCL/POLYMER			

**ABANDONMENT PLUGS (mRKB)**

**CEMENT PLUGS SET AT**

4300-3980  
3980-3686  
3686-3502  
2060-2020  
630- 410

**Figure 1.4**

2.9 REPEAT FORMATION TESTS

A total of three RFT runs were performed on 7228/2-1, two runs in the 17-1/2" section and one in the 8-1/2" hole section. No RFT was run in the 12-1/4" hole section as the hole was generally washed out beyond the maximum operating size for the tool.

A segregated fluid sample was collected on the second RFT run and was analyzed as being mud filtrate.

During the third RFT run in the 8-1/2" hole, 7 pressure tests were attempted of which four indicated tight formation and the remaining three tests failed to establish a seal. No attempt was made to collect a formation sample due to the tight nature of the sands.

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**RFT RESULTS**

Date/Run No.	Depth mRKB	Depth mTVD	Hydrostatic Mud Pressure psia	Formation Pressure		Remarks
				psia	M pa	
<b>01/10/89 Run 2D</b>						
1	1290.0	1289.6	2332.4	2016.9	13.91	Initially slow, then rapid buildup
2	1295.5	1295.1	2342.9	2059.5	14.20	Slow buildup, supercharged
3	1311.0	1310.5	2370.8	2049.0	14.13	Moderate permeability
4	1351.0	1350.4	2443.2	2113.8	14.57	Moderate permeability
5	1378.5	1377.9	2493.5	2172.8	14.98	Poor permeability, supercharged
6	1381.5	1380.9	2498.9	2162.7	14.91	Good permeability
7	1384.0	1383.3	2503.5	2166.8	14.94	Good permeability
8	1389.5	1388.8	2513.5	2175.7	15.00	Good permeability
9	1392.0	1391.3	2518.2	2179.8	15.03	Moderate permeability
10	1401.5	1400.8	2535.5	2195.4	15.14	Good permeability
11	1412.5	1411.8	2555.6	2213.3	15.26	Good permeability
12	1452.5	1451.8	2627.2	2281.1	15.73	Good permeability
13	1527.0	1526.2	2760.5	2405.8	16.59	Good permeability
14	1544.0	1543.2	2791.2	2433.9	16.78	Good permeability
15	1573.0	1572.0	2843.5	2482.9	17.12	Moderate permeability
16	1648.0	1646.9	2977.5	2618.5	18.05	Poor permeability
17	1683.0	1681.2	3039.5	2674.1	18.44	Moderate permeability
18	1922.5	1913.9	3456.2	3036.2	21.62	Poor permeability. Tool stuck in hole.
<b>04/10/89 Run 2E</b>						
1	1310.0	1309.5	2220.5	2047.1	14.11	Good permeability segregated sample taken
<b>14/12/89 Run 4E</b>						
1	3888.0	3624.7	7527.0			Dry test
2	3887.3	3624.0	7526.0			Dry test
3	3886.0	3622.7	7520.8			Seal failure
4	3885.8	3622.5	7521.4			Seal failure
5	3891.5	3628.2	7532.7			Seal failure
6	3892.5	3629.2	7533.7			Seal failure
7	3892.0	3628.7	7534.0			Dry test

**Figure 2.20**

## DAILY DRILLING MUD PROPERTIES

Well name: 7228/2-1	Rig name: Ross Rig	Mud Engineers: Hillmann
Spud date: 21-Aug-89		Rasmussen
TD (m): 4300		Bruland
		Braut
		Gullesen

Date	Time	Depth	Mud Density	Funnel Viscosity	Plastic Viscosity	Yield Point	10 sec gel	10 min gel	pH	HTHP Filtrate	Chloride Content in	Calcium in	Sand Content	Solids Content corr	Oil Content	Water Content corr	Methylene Blue Capacity	KCl Content
			ppg	sec/qt	cp	lbs/100 ft	lbs/100 ft	lbs/100 ft		ml/30 min	ppm	mg/l	% vol	% vol	% vol	% vol	ppb	ppb
21-Aug-89	24 00 hrs	495	11.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
22-Aug-89	24 00 hrs	659	11.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
23-Aug-89	24 00 hrs	659	11.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
24-Aug-89	24 00 hrs	659	11.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
25-Aug-89	24 00 hrs	911	8.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
26-Aug-89	24 00 hrs	1005	8.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
27-Aug-89	24 00 hrs	674	8.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
28-Aug-89	24 00 hrs	843	8.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
29-Aug-89	24 00 hrs	961	8.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
2 Sep-89	24 00 hrs	1102	10.0	45	11	17	3	4	9.5	0	31000	280	0.3	6.4	0	93.6	2.5	19.8
3-Sep-89	24 00 hrs	1171	10.0	50	15	19	4	7	8.8	0	31000	360	0.2	6.4	0	93.6	5.0	20.8
4-Sep-89	24 00 hrs	1214	10.0	49	14	19	4	6	8.9	0	32000	400	0.2	6.3	0	93.7	7.5	19.8
5-Sep-89	24 00 hrs	1296	10.1	0	13	18	4	5	8.9	0	33000	440	0.2	7.3	0	92.7	7.5	17.8
6-Sep-89	24 00 hrs	1362	10.0	45	12	17	3	6	8.6	0	36000	400	0.2	7.1	0	92.9	7.5	16.3
7-Sep-89	24 00 hrs	1363	10.0	0	12	16	3	6	10	0	34000	440	0.5	7.2	0	92.8	7.5	17.0
8-Sep-89	24 00 hrs	1363	10.0	0	13	16	3	6	9.7	0	35000	80	0.5	7.1	0	92.9	7.5	16.8
9-Sep-89	24 00 hrs	1363	10.0	0	13	15	3	6	9.5	0	35000	80	0.5	7.1	0	92.9	7.5	16.8
10-Sep-89	24 00 hrs	1195	10.1	50	19	29	3	4	9.9	0	32000	320	0	6.3	0	93.7	2.5	17.8
11-Sep-89	24 00 hrs	1374	10.2	58	19	25	4	5	11.4	0	29000	80	0.5	7.5	0	92.5	7.0	14.8
12-Sep-89	24 00 hrs	1384	10.6	120	35	60	21	49	9.9	0	27000	200	0.5	9.7	0	90.3	12.0	14.8
13-Sep-89	24 00 hrs	1405	10.6	92	29	46	20	50	9.3	0	23000	200	0.75	8.9	0	91.1	12.0	12.9
14-Sep-89	24 00 hrs	1466	10.6	80	23	47	18	41	8.5	0	21000	0	0.5	10.0	0	90.0	15.0	12.9
15-Sep-89	24 00 hrs	1538	10.6	62	22	40	14	39	8.7	0	26000	0	0.25	9.7	0	90.3	12.5	13.4
16-Sep-89	24 00 hrs	1575	10.6	57	19	35	13	37	8.7	0	26000	240	0.5	9.7	0	90.3	12.5	14.4
17-Sep-89	24 00 hrs	1673	10.6	56	20	34	12	33	8.6	0	27000	260	0.5	9.7	0	90.3	10.0	15.3
18-Sep-89	24 00 hrs	1793	10.6	54	21	37	18	52	8.5	0	26000	0	0.5	9.7	0	90.3	12.5	13.9
19-Sep-89	24 00 hrs	1847	10.6	52	17	33	14	55	8.5	0	27000	0	0.25	9.7	0	90.3	13.0	13.9
20-Sep-89	24 00 hrs	1890	10.6	51	18	28	13	48	8.5	0	28000	0	0.5	9.6	0	90.4	12.5	14.8
21-Sep-89	24 00 hrs	1931	10.6	56	18	29	14	48	8.3	0	29000	360	0.3	9.5	0	90.5	12.5	14.8
22-Sep-89	24 00 hrs	1990	10.6	53	18	30	16	56	8.4	0	29500	320	0.25	9.5	0	90.5	12.5	13.9
23-Sep-89	24 00 hrs	1999	10.5	54	17	28	15	52	8.5	0	29000	360	0.2	9.5	0	90.5	12.5	13.4
24-Sep-89	24 00 hrs	2032	10.5	52	18	27	14	49	8.6	0	27000	280	0.1	9.7	0	90.3	12.0	12.9
25-Sep-89	24 00 hrs	2058	10.5	51	18	31	14	53	8.8	0	26500	180	0	9.7	0	90.3	12.0	12.9
26-Sep-89	24 00 hrs	2084	10.5	51	18	31	14	51	8.5	0	25500	280	0.1	9.7	0	90.3	12.0	12.4
27-Sep-89	24 00 hrs	2114	10.5	50	18	26	13	48	8.4	0	26500	320	0.1	9.7	0	90.3	12.0	12.9
28-Sep-89	24 00 hrs	2134	10.5	53	16	30	13	55	9	0	25500	200	0	9.7	0	90.3	12.5	11.9
29-Sep-89	24 00 hrs	2185	10.5	49	14	29	15	60	9.1	0	26500	200	0.1	9.7	0	90.3	12.5	13.4
30-Sep-89	24 00 hrs	2206	10.5	50	17	29	15	57	8.7	0	26500	280	0.1	9.7	0	90.3	12.5	12.9

## DAILY DRILLING MUD PROPERTIES

Well name: 7228/2-1	Rig name: Ross Rig	Mud Engineers: Hilmann
Spud date: 21-Aug-89		Rasmussen
TD (m): 4300		Bruland
		Braut
		Gullesen

Date	Time	Depth	Mud Density	Funnel Viscosity	Plastic Viscosity	Yield Point	10 sec gel	10 min gel	pH	HTHP Filtrate	Chloride Content in	Calcium in	Sand Content	Solids Content corr	Oil Content	Water Content corr	Methylene Blue Capacity	KCl Content
			ppg	sec/qt	cp	lbs/100 ft	lbs/100 ft	lbs/100 ft		ml/30 min	ppm	mg/l	% vol	% vol	% vol	% vol	ppb	ppb
1-Oct-89	24 00 hrs	2206	10.5	0	17	29	14	57	8.6	0	26500	240	0.1	9.7	0	90.3	12.5	12.9
2-Oct-89	24 00 hrs	2206	10.5	0	16	28	14	56	8.6	0	26500	240	0.1	9.7	0	90.3	12.5	12.9
3-Oct-89	24 00 hrs	2206	9.8	0	15	18	5	22	9.3	0	26500	200	0	5.6	0	94.4	10.0	11.9
4-Oct-89	24 00 hrs	2206	9.8	47	16	14	4	20	9	0	26000	200	0	5.7	0	94.3	10.0	11.9
5-Oct-89	24 00 hrs	2206	9.8	0	15	16	6	22	8.8	0	24000	280	0.25	5.8	0	94.2	10.0	10.0
6-Oct-89	24 00 hrs	2206	9.8	0	14	18	6	20	10.3	0	24000	300	0.25	5.8	0	94.2	10.0	0.0
7-Oct-89	24 00 hrs	2238	9.8	90	18	25	13	43	10	0	2200	100	0	6.9	0	93.1	17.5	0.0
8-Oct-89	24 00 hrs	2260	9.8	0	19	22	14	50	9.6	0	2400	80	0	6.8	0	93.2	17.5	0.0
9-Oct-89	24 00 hrs	2308	9.8	72	21	26	15	70	8.8	0	2800	80	0	6.8	0	93.2	15.0	0.0
10-Oct-89	24 00 hrs	2321	9.8	0	18	22	15	65	8.8	0	3200	80	0	6.8	0	93.2	16.0	0.0
11-Oct-89	24 00 hrs	2439	9.9	0	17	21	15	71	8.8	0	3400	100	0.25	6.8	0	93.2	15.0	0.0
12-Oct-89	24 00 hrs	2461	9.9	0	12	19	22	59	9.1	0	3300	120	0	6.8	0	93.2	17.5	0.0
13-Oct-89	24 00 hrs	2484	10.0	50	13	19	14	59	8.8	0	3300	180	0	7.8	0	92.2	18.0	0.0
14-Oct-89	24 00 hrs	2524	10.0	54	13	20	20	59	8.7	0	3300	160	0	7.8	0	92.2	17.5	0.0
15-Oct-89	24 00 hrs	2613	10.0	48	14	20	13	55	9.2	0	3200	80	0	7.8	0	92.2	17.5	0.0
16-Oct-89	24 00 hrs	2690	10.0	47	11	14	9	42	9.2	0	3200	100	0	7.8	0	92.2	17.5	0.0
17-Oct-89	24 00 hrs	2790	10.0	64	17	19	12	50	9.5	0	3300	80	0	7.8	0	92.2	20.0	0.0
18-Oct-89	24 00 hrs	2816	10.0	0	15	13	11	28	9.6	0	3100	80	0	8.8	0	91.2	20.0	0.0
19-Oct-89	24 00 hrs	2871	10.0	56	15	16	11	41	9.7	0	3300	80	0	8.8	0	91.2	18.0	0.0
20-Oct-89	24 00 hrs	2902	10.0	0	14	15	10	35	9.5	0	3200	80	0	8.8	0	91.2	18.0	0.0
21-Oct-89	24 00 hrs	2902	10.0	63	14	15	9	33	9.4	0	3400	120	0	8.8	0	91.2	18.0	0.0
22-Oct-89	24 00 hrs	2902	10.0	0	15	15	10	38	9.4	0	3500	120	0	8.8	0	91.2	18.0	0.0
23-Oct-89	24 00 hrs	2902	10.0	0	15	16	12	44	9.3	0	3500	120	0	8.8	0	91.2	18.0	0.0
24-Oct-89	24 00 hrs	2902	10.0	62	15	17	10	41	9.2	0	3500	120	0	8.8	0	91.2	18.0	0.0
25-Oct-89	24 00 hrs	2690	10.0	55	15	14	8	32	10.2	0	3400	160	0	8.8	0	91.2	17.5	0.0
26-Oct-89	24 00 hrs	2701	10.0	0	16	16	10	40	10.1	0	3400	80	0	8.8	0	91.2	17.5	0.0
27-Oct-89	24 00 hrs	2717	10.0	0	15	17	8	45	10.1	0	3700	60	0	8.8	0	91.2	17.5	0.0
28-Oct-89	24 00 hrs	2743	10.0	65	18	16	8	52	9.8	0	3800	120	0	8.8	0	91.2	17.5	0.0
29-Oct-89	24 00 hrs	2842	10.0	65	18	16	8	48	9.7	0	3900	120	0	8.8	0	91.2	17.5	0.0
30-Oct-89	24 00 hrs	2833	10.0	69	17	17	8	55	9.7	0	4000	120	0	8.8	0	91.2	18.5	0.0
31-Oct-89	24 00 hrs	2952	10.0	0	15	14	7	36	9.6	0	4200	80	0	8.7	0	91.3	20.0	0.0
1-Nov-89	24 00 hrs	3021	10.0	59	12	16	7	34	9.7	0	3900	100	0	8.8	0	91.2	18.0	0.0
2-Nov-89	24 00 hrs	3070	10.0	0	12	15	6	36	9.5	0	3900	80	0.2	8.8	0	91.2	17.5	0.0
3-Nov-89	24 00 hrs	3099	10.0	55	15	17	12	38	9.7	0	4000	80	0.1	8.8	0	91.2	17.5	0.0
4-Nov-89	24 00 hrs	3151	10.0	64	14	16	8	33	9.7	0	4100	80	0.1	8.7	0	91.3	17.5	0.0
5-Nov-89	24 00 hrs	3165	10.0	0	13	16	8	30	9.6	0	4100	80	0.1	8.7	0	91.3	17.5	0.0
6-Nov-89	24 00 hrs	3203	10.0	59	15	17	8	30	9.8	0	4000	100	0.1	8.8	0	91.2	18.5	0.0
7-Nov-89	24 00 hrs	3272	10.0	56	15	15	8	34	9.6	0	4000	120	0.1	8.8	0	91.2	19.0	0.0
8-Nov-89	24 00 hrs	3352	10.3	61	16	18	8	36	10.1	17.5	4000	80	0.1	10.3	0	89.7	18.0	0.0
9-Nov-89	24 00 hrs	3359	10.3	0	19	19	8	45	9.8	19	3800	80	0.1	10.3	0	89.7	17.5	0.0

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Spud date: 21-Aug-89		Rasmussen
TD (m): 4300		Bruland
		Braut
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Date	Time	Depth	Mud Density	Funnel Viscosity	Plastic Viscosity	Yield Point	10 sec gel	10 min gel	pH	HTHP Filtrate	Chlonde Content in	Calcium in	Sand Content	Solids Content corr	Oil Content	Water Content corr	Methylene Blue Capacity	KCl Content
			ppg	sec/qt	cp	lbs/100 ft	lbs/100 ft	lbs/100 ft		ml/30 min	ppm	mg/l	% vol	% vol	% vol	% vol	ppb	ppb
10-Nov-89	24 00 hrs	3404	10.3	63	15	18	8	34	10.2	0	3900	80	0.1	9.8	0	90.2	17.5	0.0
11 Nov 89	24 00 hrs	3474	11.0	55	16	18	8	36	9.8	0	4100	80	0.1	8	0	88.2	17.5	0.0
12 Nov 89	24 00 hrs	3474	11.0	0	16	19	8	34	9.7	0	4100	80	0.1	1.8	0	88.2	17.5	0.0
13 Nov 89	24 00 hrs	3508	11.0	56	15	17	7	32	10.3	0	4300	80	0.1	12.2	0	87.8	17.5	0.0
14 Nov 89	24 00 hrs	3583	11.2	56	15	18	8	35	10.2	0	4300	80	0.1	13.2	0	86.8	17.5	0.0
15-Nov-89	24 00 hrs	3602	11.1	0	15	16	8	32	10.3	0	4100	80	0.1	12.8	0	87.2	17.5	0.0
16 Nov 89	24 00 hrs	3605	11.2	50	15	18	9	38	10.3	0	4100	80	0.1	12.8	0	87.2	18.0	0.0
17-Nov-89	24 00 hrs	3605	11.1	52	14	17	8	35	10.3	15.6	4100	80	0.1	12.8	0	87.2	18.0	0.0
18-Nov 89	24 00 hrs	3609	11.5	55	15	16	8	34	10	0	4000	80	0.1	14.3	0	85.7	17.5	0.0
19 Nov-89	24 00 hrs	3614	11.5	52	13	17	7	36	10.3	15.2	4000	60	0	14.3	1	84.7	17.5	0.0
20 Nov 89	24 00 hrs	3649	11.5	58	15	17	8	35	10.1	0	3900	80	0	14.3	1	84.7	18.0	0.0
21-Nov 89	24 00 hrs	3663	11.6	63	16	19	9	41	10.1	15.6	3900	80	0	14.8	1	84.2	18.0	0.0
22-Nov 89	24 00 hrs	3663	12.0	55	17	19	10	38	9.5	0	0	0	0	16.0	1	83.0	18.0	0.0
23 Nov 89	24 00 hrs	3663	12.0	62	18	22	11	42	9.4	0	3700	100	0	15.8	1	83.2	18.0	0.0
24-Nov-89	24 00 hrs	3663	12.0	0	19	18	10	39	9.4	15.5	3700	100	0	15.8	1	83.2	18.0	0.0
25 Nov 89	24 00 hrs	3663	12.0	0	18	19	10	40	9.4	15.5	3700	100	0	15.8	1	83.2	18.0	0.0
26-Nov-89	24 00 hrs	3663	12.0	0	16	18	9	30	9.3	0	3700	100	0	15.8	1	83.2	12.5	0.0
27-Nov-89	24 00 hrs	3663	12.0	0	16	19	10	29	9.3	14.6	3700	100	0	15.8	1	83.2	17.5	0.0
28-Nov-89	24 00 hrs	3633	12.0	0	16	18	8	28	9.3	0	3800	100	0	15.8	1	83.2	17.5	0.0
29 Nov-89	24 00 hrs	3601	12.0	61	18	16	8	27	9.3	16	3800	160	0	15.8	1	83.2	17.5	0.0
30-Nov-89	24 00 hrs	3671	12.0	48	15	15	2	4	10.5	0	19500	160	0	15.2	0	84.8	2.5	14.4
1-Dec-89	24 00 hrs	3690	12.0	50	20	15	4	9	9.3	0	28000	200	0	14.7	0	85.3	3.8	19.8
2 Dec 89	24 00 hrs	3855	12.0	45	17	13	3	7	9.2	18	31000	200	0	14.5	0	85.5	5.0	21.8
3 Dec-89	24 00 hrs	3956	12.0	52	16	13	4	10	9.3	0	32000	200	0	14.4	0	85.6	6.0	22.8
4 Dec 89	24 00 hrs	4003	12.1	0	20	14	4	10	9.3	0	32000	200	0	15.5	0	84.5	5.0	22.8
5 Dec 89	24 00 hrs	4120	12.2	58	22	13	4	11	8.7	0	33000	360	0	14.9	0	85.1	5.0	22.8
6-Dec 89	24 00 hrs	4188	12.2	0	23	15	4	9	9	0	33000	200	0	15.4	0	84.6	5.0	23.8
7-Dec-89	24 00 hrs	4199	12.2	0	24	13	4	9	9	0	33000	200	0	15.4	0	84.6	6.0	22.8
8-Dec-89	24 00 hrs	4272	12.2	61	26	13	4	8	9.4	0	34000	160	0	15.4	0	84.6	6.0	23.8
9-Dec-89	24 00 hrs	4300	12.2	0	25	14	5	10	9.3	0	34000	200	0	15.4	0	84.6	6.0	23.8
10-Dec-89	24 00 hrs	4300	12.2	61	25	17	5	12	9.3	18	33000	240	0	15.4	0	84.6	5.5	22.8
11-Dec-89	24 00 hrs	4300	12.2	0	26	14	5	11	9.2	18	33000	200	0	15.4	0	84.6	5.5	22.8
12 Dec-89	24 00 hrs	4300	12.2	0	25	15	5	12	9	18	32000	240	0	15.5	0	84.5	6.5	22.8
13 Dec-89	24 00 hrs	4300	12.2	0	25	15	5	10	9	18	32000	200	0	15.5	0	84.5	6.5	22.8
14-Dec-89	24 00 hrs	4300	12.2	0	26	19	6	13	9.1	18	31000	200	0	15.5	0	84.5	6.5	21.8
15-Dec-89	24 00 hrs	4300	12.2	80	26	18	6	12	9	18	32000	260	0	15.5	0	84.5	6.5	21.8
16-Dec-89	24 00 hrs	4300	12.3	0	25	19	6	15	9.7	0	32000	380	0	15.5	0	84.5	6.5	21.8
17-Dec-89	24 00 hrs	4300	12.3	0	25	19	6	15	9.7	0	32000	380	0	15.5	0	84.5	6.5	21.8
18-Dec-89	24 00 hrs	4300	12.3	0	25	19	6	15	9.7	0	32000	380	0	15.5	0	84.5	6.5	21.8

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OLJEDIREKTORATET  
AVD KONTROLLINSTRASJONEN  
Journal nr.: 90/4354 - 2  
dato 15 APR 1990

GEOCHEMICAL ANALYSIS REPORT  
WELL NOCS 7228/2-1

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BA-90-741-1  
3 APR. 1990  
**REGISTRERT**  
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## INTRODUCTION

Well NOCS 7228/2-1 is situated in on the western rim of the North Cape Basin in the Norwegian sector of the Barents Sea. The total drilled depth is 4300 m (drillers depth). The well is located at 72°51'09.75"N, 28°25'29.61"E in a water depth of 349.5 m. Elevation of Kelly Bushing (KB) was 23.5 m. All depths are relative to KB and in drillers depth unless otherwise specified. Samples were supplied between 500 m and 4300 m by Mobil Exploration Norway. A total of 402 samples were described. The analysed section of the well is from 500 m to 4290 m. One hundred and forty-seven samples were analysed for headspace and occluded gas. A careful selection of suitable samples was made for screening analysis (i.e. TOC and Rock-Eval analysis). Two hundred and sixty-five samples were selected for this analysis, and from the data obtained, samples were chosen for follow-up analyses. These were:

Thermal extraction - pyrolysis - gas chromatography	52 samples
Extraction, MPLC fractionation, saturated and aromatic hydrocarbon gas chromatography	26 samples
Vitrinite reflectance microscopy	76 samples
Visual kerogen microscopy	35 samples
Isotope analysis of C15+ fractions	10 samples
Gas chromatography - mass spectrometry	10 samples

Tables listing in detail which samples were analysed and the results are located in Appendix 1.



Table 1a: C1 to C7 hydrocarbons in HEADSPACE gas  
 ( $\mu\text{l}$  gas/kg rock)

Project: NOCS 7228/2-1

Well: NOCS 7228/2-1

Depth unit of measure: m

\* Indicated values in ml gas/kg rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
1021.00	682	18	7	-	-	39	707	25	3.5	-
1045.00	47570	109	19	1	1	2	47700	130	0.3	1.00
1063.00	524	21	32	4	9	211	590	66	11.2	0.44
1093.00	2508	74	138	11	20	12	2751	243	8.8	0.55
1105.00	9590	455	328	27	52	7	10452	862	8.3	0.52
1117.00	2619	122	56	3	5	17	2805	186	6.6	0.60
1129.00	557	74	66	-	-	3	697	140	20.1	-
1141.00	707	30	35	10	25	64	807	100	12.4	0.40
1153.00	2191	163	134	13	28	11	2529	338	13.4	0.46
1159.00	549	54	50	6	17	17	676	127	18.8	0.35
1165.00	-	-	-	-	-	-	-	-	-	-
1177.00	3249	239	213	26	75	39	3802	553	14.5	0.35
1189.00	19532	1487	1248	127	363	214	22757	3225	14.2	0.35
1213.00	18785	1260	906	78	222	103	21251	2466	11.6	0.35
1237.00	42783	2225	1897	200	561	253	47666	4883	10.2	0.36
1261.00	4885	457	531	61	144	64	6078	1193	19.6	0.42
1285.00	4557	733	1978	869	1818	4102	9955	5398	54.2	0.48
1309.00	4053	508	774	138	340	285	5813	1760	30.3	0.41
1333.00	3353	394	555	78	167	101	4547	1194	26.3	0.47
1357.00	1791	441	585	128	175	126	3120	1329	42.6	0.73
1369.00	4905	834	792	93	164	80	6788	1883	27.7	0.57
1381.00	14127	1455	916	165	213	163	16876	2749	16.3	0.77
1405.00	19707	2407	1477	234	351	251	24176	4469	18.5	0.67

Table 1a: C1 to C7 hydrocarbons in HEADSPACE gas  
 ( $\mu\text{l}$  gas/kg rock)

Project: NOCS 7228/2-1

Well: NOCS 7228/2-1

Depth unit of measure: m

\* Indicated values in ml gas/kg rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
1417.00	2871	757	433	40	82	42	4183	1312	31.4	0.49
1429.00	6580	1121	864	118	212	170	8895	2315	26.0	0.56
1453.00	1436	688	460	61	80	41	2725	1289	47.3	0.76
1477.00	1635	866	660	100	126	76	3387	1752	51.7	0.79
1501.00	1484	775	1294	258	646	717	4457	2973	66.7	0.40
1522.00	343	297	151	23	22	7	836	493	59.0	1.05
1546.00	51	50	29	6	7	4	143	92	64.3	0.86
1570.00	486	316	108	19	18	7	947	461	48.7	1.06
1594.00	582	406	145	27	25	11	1185	603	50.9	1.08
1618.00	1771	534	476	96	156	92	3033	1262	41.6	0.62
1642.00	1046	321	259	46	71	37	1743	697	40.0	0.65
1666.00	1694	177	97	14	18	9	2000	306	15.3	0.78
1690.00	3101	349	158	18	21	8	3547	546	15.0	0.86
1714.00	2346	522	353	50	58	27	3329	983	29.5	0.86
1738.00	4348	713	427	58	66	30	5612	1264	22.5	0.88
1762.00	5459	877	418	45	60	28	6859	1400	20.4	0.75
1786.00	3078	367	207	20	33	18	3705	627	16.9	0.61
1810.00	6631	1019	581	51	82	41	8364	1733	20.7	0.62
1834.00	7093	809	273	15	25	5	8215	1122	13.7	0.60
1858.00	1008	168	78	5	10	3	1269	261	20.6	0.50
1882.00	1516	327	204	16	28	10	2091	575	27.5	0.57
1906.00	3909	753	507	51	98	44	5318	1409	26.5	0.52
1930.00	2253	286	174	19	36	22	2768	515	18.6	0.53

Table 1a: C1 to C7 hydrocarbons in HEADSPACE gas  
 ( $\mu\text{l}$  gas/kg rock)

Project: NOCS 7228/2-1

Well: NOCS 7228/2-1

Depth unit of measure: m

\* Indicated values in ml gas/kg rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
1942.00	4266	696	384	40	75	41	5461	1195	21.9	0.53
1954.00	13350	1445	627	64	121	76	15607	2257	14.5	0.53
1966.00	7248	1258	810	98	181	117	9595	2347	24.5	0.54
1978.00	9544	1288	671	73	136	84	11712	2168	18.5	0.54
2002.00	8961	1163	759	99	193	164	11175	2214	19.8	0.51
2026.00	4755	515	424	77	160	166	5931	1176	19.8	0.48
2050.00	2439	335	338	70	148	165	3330	891	26.8	0.47
2074.00	1104	230	180	31	68	83	1613	509	31.6	0.46
2098.00	6428	1757	895	86	204	193	9370	2942	31.4	0.42
2110.00	6936	1477	827	79	177	114	9496	2560	27.0	0.45
2122.00	32340	5059	1659	88	227	141	39373	7033	17.9	0.39
2134.00	14529	3282	2066	198	492	349	20567	6038	29.4	0.40
2158.00	62754	16719	16637	2029	6567	7397	104726	41972	40.1	0.31
2176.00	31624	5608	2071	123	343	263	39769	8145	20.5	0.36
2188.00	6612	1590	1321	143	406	401	10072	3460	34.4	0.35
2194.00	11634	2093	1231	122	365	411	15445	3811	24.7	0.33
2206.00	3720	810	830	115	339	395	5814	2094	36.0	0.34
2230.00	3347	3252	6537	1118	3057	4513	17311	13964	80.7	0.37
2254.00	4185	1502	2048	282	757	832	8774	4589	52.3	0.37
2278.00	21635	12991	19763	2414	6208	4609	63011	41376	65.7	0.39
2302.00	18512	8457	14322	1873	4194	2331	47358	28846	60.9	0.45
2326.00	13280	6512	6219	518	1048	519	27577	14297	51.8	0.49
2350.00	39764	22446	27807	3326	5941	3072	99284	59520	60.0	0.56

Table 1a: C1 to C7 hydrocarbons in HEADSPACE gas  
 ( $\mu\text{l}$  gas/kg rock)

Project: NOCS 7228/2-1

Well: NOCS 7228/2-1

Depth unit of measure: m \* Indicated values in ml gas/kg rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
2374.00	37118	15149	16911	2239	3894	2093	75311	38193	50.7	0.57
2398.00	44601	18080	23156	4539	8539	6256	98915	54314	54.9	0.53
2422.00	35975	18175	24269	5442	12631	12284	96492	60517	62.7	0.43
2446.00	311309	118*62639		8034	15158	13662	514953	204*	39.6	0.53
2470.00	189346	80656	44178	4464	8827	5456	327471	138*	42.2	0.51
2494.00	196053	84322	43738	4644	7910	5969	336667	141*	41.8	0.59
2518.00	72384	26316	14128	1620	27692	2262	142140	69756	49.1	0.06
2542.00	50466	20669	10419	1070	1927	1735	84551	34085	40.3	0.56
2569.00	14584	9115	6488	921	1414	1765	32522	17938	55.2	0.65
2590.00	30075	18338	10705	1057	1955	1303	62130	32055	51.6	0.54
2614.00	29740	13636	7481	850	1436	1101	53143	23403	44.0	0.59
2641.00	28622	12517	7968	1045	1561	1128	51713	23091	44.7	0.67
2665.00	27552	14019	6532	723	1046	922	49872	22320	44.8	0.69
2713.00	13331	7551	2922	280	400	441	24484	11153	45.6	0.70
2737.00	73886	30839	11586	1216	1688	1746	119215	45329	38.0	0.72
2761.00	8252	6079	3794	428	594	490	19147	10895	56.9	0.72
2785.00	10978	7247	4546	659	857	862	24297	13319	54.8	0.76
2809.00	37940	21728	11864	1479	2301	2075	75312	37372	49.6	0.64
2833.00	26544	20859	10880	1206	1696	1715	61185	34641	56.6	0.71
2857.00	100580	49900	23478	2626	403	4283	176987	76407	43.2	6.52
2887.00	86410	24298	6937	685	884	724	119214	32804	27.5	0.77
2905.00	426643	56557	7554	705	789	809	492248	65605	13.3	0.89
2929.00	119157	29824	5740	566	700	841	155987	36830	23.6	0.81

Table 1a: C1 to C7 hydrocarbons in HEADSPACE gas  
 ( $\mu\text{l}$  gas/kg rock)

Project: NOCS 7228/2-1

Well: NOCS 7228/2-1

Depth unit of measure: m

\* Indicated values in ml gas/kg rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
2953.00	15789	8926	5671	803	1283	1310	32472	16683	51.4	0.63
2977.00	59073	45636	11115	1011	1259	1367	118094	59021	50.0	0.80
3001.00	32365	17192	6415	733	812	864	57517	25152	43.7	0.90
3025.00	28806	18669	5960	668	612	979	54715	25909	47.4	1.09
3049.00	14615	13437	4451	563	594	1001	33660	19045	56.6	0.95
3073.00	35784	8935	2859	452	499	647	48529	12745	26.3	0.91
3097.00	28637	11332	2428	267	275	476	42939	14302	33.3	0.97
3127.00	71026	10951	2766	415	387	658	85545	14519	17.0	1.07
3145.00	20523	5548	1484	228	191	294	27974	7451	26.6	1.19
3169.00	21206	5530	1056	160	119	208	28071	6865	24.5	1.34
3193.00	15459	4322	1493	210	336	468	21820	6361	29.2	0.63
3217.00	26397	6175	1670	258	278	487	34778	8381	24.1	0.93
3235.00	13782	4765	1025	222	129	324	19923	6141	30.8	1.72
3265.00	5222	1586	412	136	101	119	7457	2235	30.0	1.35
3289.00	3946	1523	528	171	91	167	6259	2313	37.0	1.88
3313.00	2857	1244	385	373	101	98	4960	2103	42.4	3.69
3337.00	4400	1313	352	267	77	102	6409	2009	31.4	3.47
3355.00	2440	1955	487	67	80	97	5029	2589	51.5	0.84
3385.00	1746	867	242	44	44	64	2943	1197	40.7	1.00
3409.00	7526	1656	408	82	71	177	9743	2217	22.8	1.15
3433.00	17655	3989	1523	402	405	1053	23974	6319	26.4	0.99
3457.00	25219	5032	1772	482	489	1363	32994	7775	23.6	0.99
3475.00	22513	4262	1408	398	407	1170	28988	6475	22.3	0.98

Table 1a: C1 to C7 hydrocarbons in HEADSPACE gas  
( $\mu\text{l}$  gas/kg rock)

Project: NOCS 7228/2-1

Well: NOCS 7228/2-1

Depth unit of measure: m

\* Indicated values in ml gas/kg rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
3505.00	20688	4009	1137	312	300	1115	26446	5758	21.8	1.04
3529.00	13527	2161	557	127	113	317	16485	2958	17.9	1.12
3553.00	29752	3629	1049	327	264	973	35021	5269	15.1	1.24
3577.00	14059	2380	558	137	115	540	17249	3190	18.5	1.19
3595.00	13894	2466	822	233	230	582	17645	3751	21.3	1.01
3637.00	6318	942	159	50	59	152	7528	1210	16.1	0.85
3655.00	3905	-	7	16	14	54	3942	37	0.9	1.14
3682.00	4281	28	-	-	-	24	4309	28	0.7	-
3706.00	11723	33	-	-	-	298	11756	33	0.3	-
3730.00	858	-	-	-	-	199	858	-	-	-
3754.00	10785	-	-	-	-	81	10785	-	-	-
3778.00	12424	395	40	6	7	757	12872	448	3.5	0.86
3808.00	9399	-	-	-	-	122	9399	-	-	-
3832.00	6239	-	-	-	60	200	6299	60	1.0	-
3856.00	33306	-	-	-	-	249	33306	-	-	-
3874.00	25415	-	-	-	-	257	25415	-	-	-
3928.00	5282	-	-	-	-	68	5282	-	-	-
3946.00	9565	-	-	-	-	5	9565	-	-	-
3976.00	73771	469	-	-	-	361	74240	469	0.6	-
4006.00	7776	-	-	-	-	136	7776	-	-	-
4030.00	19954	40	-	-	-	26	19994	40	0.2	-
4054.00	5639	148	10	3	2	56	5802	163	2.8	1.50
4078.00	11619	-	-	-	-	27	11619	-	-	-

Table 1a: C1 to C7 hydrocarbons in HEADSPACE gas  
 ( $\mu\text{l}$  gas/kg rock)

Project: NOCS 7228/2-1

Well: NOCS 7228/2-1

Depth unit of measure: m \* Indicated values in ml gas/kg rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
4102.00	87273	-	-	-	-	6388	87273	-	-	-
4126.00	17422	-	-	-	-	542	17422	-	-	-
4150.00	8567	-	-	-	-	386	8567	-	-	-
4174.00	25936	-	-	-	-	337	25936	-	-	-
4198.00	20273	-	-	-	-	241	20273	-	-	-
4222.00	6430	177	20	3	3	129	6633	203	3.1	1.00
4246.00	10633	-	-	-	-	637	10633	-	-	-
4282.00	7605	187	21	2	3	101	7818	213	2.7	0.67
4300.00	5302	-	-	-	-	586	5302	-	-	-

Table 1b: C1 to C7 hydrocarbons in CUTTINGS gas  
( $\mu\text{l}$  gas/kg rock)

Project: NOCS 7228/2-1

Well: NOCS 7228/2-1

Depth unit of measure: m

\* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
1021.00	32	9	18	2	2	1	63	31	49.2	1.00
1045.00	17	15	34	2	4	62	72	55	76.4	0.50
1063.00	11	4	23	3	7	117	48	37	77.1	0.43
1093.00	32	6	21	4	14	5	77	45	58.4	0.29
1105.00	46	12	423	7	27	9	515	469	91.1	0.26
1117.00	238	195	451	55	148	39	1087	849	78.1	0.37
1129.00	134	21	53	9	31	18	248	114	46.0	0.29
1141.00	2123	188	153	15	38	16	2517	394	15.7	0.39
1153.00	1621	140	151	20	61	34	1993	372	18.7	0.33
1159.00	294	35	85	15	51	29	480	186	38.8	0.29
1165.00	553	409	987	134	456	255	2539	1986	78.2	0.29
1177.00	1292	1014	2050	275	8793	34	13424	12132	90.4	0.03
1189.00	2110	1621	4212	750	2314	1671	11017	8907	80.9	0.33
1213.00	4116	2588	4885	679	1930	985	14198	10082	71.0	0.35
1237.00	6756	3853	5678	658	1552	619	18497	11741	63.5	0.42
1261.00	241	250	927	184	528	288	2130	1889	88.7	0.35
1285.00	155	220	1043	332	1005	1492	2755	2600	94.4	0.33
1309.00	396	431	1786	484	1457	1608	4534	4158	91.3	0.33
1333.00	375	237	788	163	484	371	2047	1672	81.7	0.34
1357.00	93	47	299	125	291	384	855	762	89.1	0.43
1369.00	116	121	350	69	200	152	856	740	86.5	0.35
1381.00	849	467	582	146	342	621	2386	1537	64.4	0.43
1405.00	417	241	402	88	217	171	1365	948	69.5	0.41



Table 1b: C1 to C7 hydrocarbons in CUTTINGS gas  
 ( $\mu\text{l}$  gas/kg rock)

Project: NOCS 7228/2-1

Well: NOCS 7228/2-1

Depth unit of measure: m

\* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
1417.00	166	297	643	119	297	192	1522	1356	89.1	0.40
1429.00	310	216	474	99	276	365	1375	1065	77.5	0.36
1453.00	103	129	323	82	159	139	796	693	87.1	0.52
1477.00	126	164	454	117	222	163	1083	957	88.4	0.53
1501.00	217	146	254	56	123	124	796	579	72.7	0.46
1522.00	155	124	183	45	87	63	594	439	73.9	0.52
1546.00	117	63	46	18	34	70	278	161	57.9	0.53
1570.00	136	185	127	42	67	57	557	421	75.6	0.63
1594.00	165	157	147	47	82	66	598	433	72.4	0.57
1618.00	186	113	157	41	84	65	581	395	68.0	0.49
1642.00	176	96	187	44	99	74	602	426	70.8	0.44
1666.00	58	33	71	16	38	28	216	158	73.2	0.42
1690.00	112	44	67	12	25	16	260	148	56.9	0.48
1714.00	198	56	115	22	48	36	439	241	54.9	0.46
1738.00	186	91	64	8	20	18	369	183	49.6	0.40
1762.00	172	66	56	7	17	16	318	146	45.9	0.41
1786.00	73	32	66	9	31	27	211	138	65.4	0.29
1810.00	54	40	66	9	29	19	198	144	72.7	0.31
1834.00	153	237	188	17	49	23	644	491	76.2	0.35
1858.00	148	232	285	33	107	69	805	657	81.6	0.31
1882.00	114	145	246	32	108	80	645	531	82.3	0.30
1906.00	57	40	96	14	48	37	255	198	77.7	0.29
1930.00	151	130	232	36	126	120	675	524	77.6	0.29

Table 1b: C1 to C7 hydrocarbons in CUTTINGS gas  
 (µl gas/kg rock)

Project: NOCS 7228/2-1

Well: NOCS 7228/2-1

Depth unit of measure: m \* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
1942.00	173	257	462	73	224	177	1189	1016	85.5	0.33
1954.00	547	626	799	106	351	287	2429	1882	77.5	0.30
1966.00	185	283	486	82	266	316	1302	1117	85.8	0.31
1978.00	523	589	862	131	428	455	2533	2010	79.4	0.31
2002.00	1284	780	958	154	507	551	3683	2399	65.1	0.30
2026.00	1030	804	1145	206	686	1022	3871	2841	73.4	0.30
2050.00	395	307	571	123	404	738	1800	1405	78.1	0.30
2074.00	301	189	389	91	298	622	1268	967	76.3	0.31
2098.00	590	503	745	119	435	790	2392	1802	75.3	0.27
2110.00	508	568	805	115	401	501	2397	1889	78.8	0.29
2122.00	6603	4023	2905	241	971	1044	14743	8140	55.2	0.25
2134.00	1222	688	958	149	531	747	3548	2326	65.6	0.28
2158.00	28679	12886	16574	171	7826	11311	66136	37457	56.6	0.02
2176.00	3229	902	916	123	430	521	5600	2371	42.3	0.29
2188.00	1498	539	884	132	492	631	3545	2047	57.7	0.27
2194.00	2992	1357	1163	121	486	625	6119	3127	51.1	0.25
2206.00	2013	480	763	115	459	632	3850	1837	47.7	0.25
2230.00	7051	9703	18197	2231	10314	20734	47496	40445	85.2	0.22
2254.00	3454	2484	12933	2264	9941	19779	31076	27622	88.9	0.23
2278.00	3653	1567	8183	1385	6518	1184	21306	17653	82.9	0.21
2302.00	2577	1556	8463	1306	597	9085	14499	11922	82.2	2.19
2326.00	903	1707	6356	797	2859	3853	12622	11719	92.9	0.28
2350.00	8993	15418	57651	7836	27161	32015	117059	108*	92.3	0.29

Table 1b: C1 to C7 hydrocarbons in CUTTINGS gas  
( $\mu$ l gas/kg rock)

Project: NOCS 7228/2-1

Well: NOCS 7228/2-1

Depth unit of measure: m \* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
2374.00	9853	16263	68328	13880	47473	62752	155797	146*	93.7	0.29
2398.00	12768	14453	73441	23171	71846	107*	195679	183*	93.5	0.32
2422.00	12607	14510	83362	31757	93683	172*	235919	223*	94.7	0.34
2446.00	47373	159*	436*	116*	346*	434*	1105*	1057*	95.7	0.34
2470.00	27907	92474	233*59025		172*	284*	584795	557*	95.2	0.34
2494.00	28328	94601	259*67406		189*	284*	638050	610*	95.6	0.36
2518.00	24396	57734	157*41605		115*	200*	395770	371*	93.8	0.36
2542.00	22605	67516	239*69043		191*	325*	589289	567*	96.2	0.36
2569.00	12559	24050	75177	18616	52666	83316	183068	171*	93.1	0.35
2590.00	20329	56665	172*45546		126*	189*	421251	401*	95.2	0.36
2614.00	47977	73607	173*45192		118*	177*	458257	410*	89.5	0.38
2641.00	2397	7717	18404	4667	12056	21659	45241	42844	94.7	0.39
2665.00	3573	12196	17193	3420	7927	11101	44309	40736	91.9	0.43
2713.00	1692	4248	7075	1839	4652	7554	19506	17814	91.3	0.40
2737.00	15482	47290	40300	6574	14513	21460	124159	109*	87.5	0.45
2761.00	22275	40479	105*29138		74994	142*	272309	250*	91.8	0.39
2785.00	52153	60955	160*49132		120*	245*	442700	391*	88.2	0.41
2809.00	18769	54701	190*62152		157*	371*	483109	464*	96.1	0.39
2833.00	15788	74770	240*69591		173*	358*	573760	558*	97.3	0.40
2857.00	13903	47987	173*47008		119*	215*	400399	386*	96.5	0.40
2887.00	90312	154*	124*29955		62116	117*	460088	370*	80.4	0.48
2905.00	2311*	2148*	538*60967		67045	76526	5125*	2814*	54.9	0.91
2929.00	314398	762*	410*67648		113*	191*	1667*	1353*	81.1	0.60

Table 1b: C1 to C7 hydrocarbons in CUTTINGS gas  
( $\mu$ l gas/kg rock)

Project: NOCS 7228/2-1

Well: NOCS 7228/2-1

Depth unit of measure: m

\* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
2953.00	47131	7459	193*51567	130*	298*	429023	382*	89.0	0.40	
2977.00	65431	173*	212*53659	125*	263*	628749	563*	89.6	0.43	
3001.00	35487	87377	180*49791	127*	301*	479532	444*	92.6	0.39	
3025.00	42884	96053	179*48233	119*	251*	484886	442*	91.2	0.41	
3049.00	49864	81756	106*23655	48850	107*	309864	260*	83.9	0.48	
3073.00	157286	175*	137*33731	62505	127*	565702	408*	72.2	0.54	
3097.00	13871	34833	36845	8560	17798	32596	111907	98036	87.6	0.48
3127.00	18022	26534	35814	8948	20671	42522	109989	91967	83.6	0.43
3145.00	20581	31904	27536	6257	12876	23129	99154	78573	79.2	0.49
3169.00	18565	30954	16686	3198	4931	7160	74334	55769	75.0	0.65
3193.00	35259	52766	45270	9212	18120	27313	160627	125*	78.1	0.51
3217.00	21961	44277	42469	9893	18579	32171	137179	115*	84.0	0.53
3235.00	11193	15413	15103	3757	5941	11720	51407	40214	78.2	0.63
3265.00	18864	27579	25092	6150	9572	16628	87257	68393	78.4	0.64
3289.00	9557	22147	27027	7168	10406	17001	76305	66748	87.5	0.69
3313.00	8917	21946	26873	7196	10557	16622	75489	66572	88.2	0.68
3337.00	8492	8075	11070	3276	3642	7054	34555	26063	75.4	0.90
3355.00	10501	26091	27482	6731	8852	16148	79657	69156	86.8	0.76
3385.00	11660	21853	23881	6213	6327	7259	69934	58274	83.3	0.98
3409.00	45447	94810	122*32763	50315	89116	345591	300*	86.9	0.65	
3433.00	18016	31927	41970	11501	20140	42991	123554	106*	85.4	0.57
3457.00	14572	37044	58579	16874	31856	76920	158925	144*	90.8	0.53
3475.00	38047	40983	34974	9244	14294	30601	137542	99495	72.3	0.65

Table 1b: C1 to C7 hydrocarbons in CUTTINGS gas  
( $\mu$ l gas/kg rock)

Project: NOCS 7228/2-1

Well: NOCS 7228/2-1

Depth unit of measure: m

\* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
3505.00	11350	23950	22932	6381	8816	17287	73429	62079	84.5	0.72
3529.00	13316	26839	26507	6881	10072	16811	83615	70299	84.1	0.68
3553.00	16263	20848	21797	5351	8927	15173	73186	56923	77.8	0.60
3577.00	11501	22686	22667	5960	10128	18121	72942	61441	84.2	0.59
3595.00	9397	17952	24039	6039	10815	17621	68242	58845	86.2	0.56
3637.00	17630	4383	2646	523	792	1430	25974	8344	32.1	0.66
3655.00	7912	7740	6797	1458	2537	5305	26444	18532	70.1	0.57
3682.00	2024	456	335	110	176	655	3101	1077	34.7	0.63
3706.00	2106	323	87	20	16	1095	2552	446	17.5	1.25
3730.00	1389	131	105	22	43	228	1690	301	17.8	0.51
3754.00	1536	138	56	12	18	132	1760	224	12.7	0.67
3778.00	1764	108	40	7	10	622	1929	165	8.6	0.70
3808.00	478	149	123	47	75	260	872	394	45.2	0.63
3832.00	7139	1623	1007	204	306	791	10279	3140	30.6	0.67
3856.00	1141	98	76	10	15	300	1340	199	14.9	0.67
3874.00	4565	340	171	55	48	762	5179	614	11.9	1.15
3928.00	475	90	35	6	9	149	615	140	22.8	0.67
3946.00	3557	214	90	14	20	85	3895	338	8.7	0.70
3976.00	855	256	209	78	123	359	1521	666	43.8	0.63
4006.00	1843	538	348	92	214	742	3035	1192	39.3	0.43
4030.00	4002	2058	1699	374	621	1347	8754	4752	54.3	0.60
4054.00	1493	94	26	6	6	336	1625	132	8.1	1.00
4078.00	2894	140	38	7	11	564	3090	196	6.3	0.64

Table 1b: C1 to C7 hydrocarbons in CUTTINGS gas  
( $\mu\text{l}$  gas/kg rock)

Project: NOCS 7228/2-1

Well: NOCS 7228/2-1

Depth unit of measure: m

\* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
4102.00	3671	692	417	83	130	1928	4993	1322	26.5	0.64
4126.00	4279	209	92	24	51	2080	4655	376	8.1	0.47
4150.00	1861	180	56	11	14	2817	2122	261	12.3	0.79
4174.00	3134	132	43	11	19	1749	3339	205	6.1	0.58
4198.00	2456	224	102	17	24	252	2823	367	13.0	0.71
4222.00	1110	79	25	4	7	49	1225	115	9.4	0.57
4246.00	2673	220	92	18	29	959	3032	359	11.8	0.62
4282.00	744	53	18	2	5	43	822	78	9.5	0.40
4300.00	1034	104	40	11	11	674	1200	166	13.8	1.00

Table 1c: C1 to C7 hydrocarbons in HEADSPACE and CUTTINGS gas  
 ( $\mu\text{l}$  gas/kg rock)

Project: NOCS 7228/2-1

Well: NOCS 7228/2-1

Depth unit of measure: m

\* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
1021.00	714	27	25	2	2	40	770	56	7.3	1.00
1045.00	47587	124	53	3	5	64	47772	185	0.4	0.60
1063.00	535	25	55	7	16	328	638	103	16.1	0.44
1093.00	2540	80	159	15	34	17	2828	288	10.2	0.44
1105.00	9636	467	751	34	79	16	10967	1331	12.1	0.43
1117.00	2857	317	507	58	153	56	3892	1035	26.6	0.38
1129.00	691	95	119	9	31	21	945	254	26.9	0.29
1141.00	2830	218	188	25	63	80	3324	494	14.9	0.40
1153.00	3812	303	285	33	89	45	4522	710	15.7	0.37
1159.00	843	89	135	21	68	46	1156	313	27.1	0.31
1165.00	553	409	987	134	456	255	2539	1986	78.2	0.29
1177.00	4541	1253	2263	301	8868	73	17226	12685	73.6	0.03
1189.00	21642	3108	5460	887	2677	1885	33774	12132	35.9	0.33
1213.00	22901	3848	5791	757	2152	1088	35449	12548	35.4	0.35
1237.00	49539	6078	7575	858	2113	872	66163	16624	25.1	0.41
1261.00	5126	707	1458	245	672	352	8208	3082	37.6	0.36
1285.00	4712	953	3021	1201	2823	5594	12710	7998	62.9	0.43
1309.00	4449	939	2560	622	1797	1893	10367	5918	57.1	0.35
1333.00	3728	631	1343	241	651	472	6594	2866	43.5	0.37
1357.00	1884	488	884	253	466	510	3975	2091	52.6	0.54
1369.00	5021	955	1142	162	364	232	7644	2623	34.3	0.45
1381.00	14976	1922	1498	311	555	784	19262	4286	22.3	0.56

Table 1c: C1 to C7 hydrocarbons in HEADSPACE and CUTTINGS gas  
( $\mu\text{l}$  gas/kg rock)

Project: NOCS 7228/2-1

Well: NOCS 7228/2-1

Depth unit of measure: m

\* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
1405.00	20124	2648	1879	322	568	422	25541	5417	21.2	0.57
1417.00	3037	1054	1076	159	379	234	5705	2668	46.8	0.42
1429.00	6890	1337	1338	217	488	535	10270	3380	32.9	0.44
1453.00	1539	817	783	143	239	180	3521	1982	56.3	0.60
1477.00	1761	1030	1114	217	348	239	4470	2709	60.6	0.62
1501.00	1701	921	1548	314	769	841	5253	3552	67.6	0.41
1522.00	498	421	334	68	109	70	1430	932	65.2	0.62
1546.00	168	113	75	24	41	74	421	253	60.1	0.59
1570.00	622	501	235	61	85	64	1504	882	58.6	0.72
1594.00	747	563	292	74	107	77	1783	1036	58.1	0.69
1618.00	1957	647	633	137	240	157	3614	1657	45.9	0.57
1642.00	1222	417	446	90	170	111	2345	1123	47.9	0.53
1666.00	1752	210	168	30	56	37	2216	464	20.9	0.54
1690.00	3213	393	225	30	46	24	3907	694	17.8	0.65
1714.00	2544	578	468	72	106	63	3768	1224	32.5	0.68
1738.00	4534	804	491	66	86	48	5981	1447	24.2	0.77
1762.00	5631	943	474	52	77	44	7177	1546	21.5	0.68
1786.00	3151	399	273	29	64	45	3916	763	19.5	0.45
1810.00	6685	1059	647	60	111	60	8562	1877	21.9	0.54
1834.00	7246	1046	461	32	74	28	8859	1613	18.2	0.43
1858.00	1156	400	363	38	117	72	2074	918	44.3	0.32
1882.00	1630	472	450	48	136	90	2736	1106	40.4	0.35



Table 1c: C1 to C7 hydrocarbons in HEADSPACE and CUTTINGS gas  
 ( $\mu\text{l}$  gas/kg rock)

Project: NOCS 7228/2-1

Well: NOCS 7228/2-1

Depth unit of measure: m

\* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
1906.00	3966	793	603	65	146	81	5573	1607	28.8	0.45
1930.00	2404	416	406	55	162	142	3443	1039	30.2	0.34
1942.00	4439	953	846	113	299	218	6650	2211	33.3	0.38
1954.00	13897	2071	1426	170	472	363	18036	4139	23.0	0.36
1966.00	7433	1541	1296	180	447	433	10897	3464	31.8	0.40
1978.00	10067	1877	1533	204	564	539	14245	4178	29.3	0.36
2002.00	10245	1943	1717	253	700	715	14858	4613	31.1	0.36
2026.00	5785	1319	1569	283	846	1188	9802	4017	41.0	0.33
2050.00	2834	642	909	193	552	903	5130	2296	44.8	0.35
2074.00	1405	419	569	122	366	705	2881	1476	51.2	0.33
2098.00	7018	2260	1640	205	639	983	11762	4744	40.3	0.32
2110.00	7444	2045	1632	194	578	615	11893	4449	37.4	0.34
2122.00	38943	9082	4564	329	1198	1185	54116	15173	28.0	0.27
2134.00	15751	3970	3024	347	1023	1096	24115	8364	34.7	0.34
2158.00	91433	29605	33231	2200	14393	18708	170862	79429	46.5	0.15
2176.00	34853	6510	2987	246	773	784	45369	10516	23.2	0.32
2188.00	8110	2129	2205	275	898	1032	13617	5507	40.4	0.31
2194.00	14626	3450	2394	243	851	1036	21564	6938	32.2	0.29
2206.00	5733	1290	1613	230	798	1027	9664	3931	40.7	0.29
2230.00	10398	12955	24734	3349	13371	25247	64807	54409	84.0	0.25
2254.00	7639	3986	14981	2546	10698	20611	39850	32211	80.8	0.24
2278.00	25288	14558	27946	3799	12726	5793	84317	59029	70.0	0.30

Table 1c: C1 to C7 hydrocarbons in HEADSPACE and CUTTINGS gas  
 ( $\mu\text{l}$  gas/kg rock)

Project: NOCS 7228/2-1

Well: NOCS 7228/2-1

Depth unit of measure: m

\* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
2302.00	21089	10013	22785	3179	4791	11416	61857	40768	65.9	0.66
2326.00	14183	8219	12575	1315	3907	4372	40199	26016	64.7	0.34
2350.00	48757	37864	85458	11162	33102	35087	216343	168*	77.5	0.34
2374.00	46971	31412	85239	16119	51367	64845	231108	184*	79.7	0.31
2398.00	57369	32533	96597	27710	80385	113*294594		237*	80.5	0.34
2422.00	48582	32685	108*37199		106*	184*332411		284*	85.4	0.35
2446.00	358682	277*	498*	124*	361*	448*	1620*	1261*	77.9	0.34
2470.00	217253	173*	278*63489		181*	289*912266		695*	76.2	0.35
2494.00	224381	179*	303*72050		197*	290*974717		750*	77.0	0.37
2518.00	96780	84050	171*43225		143*	202*537910		441*	82.0	0.30
2542.00	73071	88185	250*70113		193*	327*673840		601*	89.2	0.36
2569.00	27143	33165	81665	19537	54080	85081	215590	188*	87.4	0.36
2590.00	50404	75003	183*46603		128*	191*483381		433*	89.6	0.36
2614.00	77717	87243	181*46042		120*	178*511400		434*	84.8	0.38
2641.00	31019	20234	26372	5712	13617	22787	96954	65935	68.0	0.42
2665.00	31125	26215	23725	4143	8973	12023	94181	63056	67.0	0.46
2713.00	15023	11799	9997	2119	5052	7995	43990	28967	65.9	0.42
2737.00	89368	78129	51886	7790	16201	23206	243374	154*	63.3	0.48
2761.00	30527	46558	109*29566		75588	142*291456		261*	89.5	0.39
2785.00	63131	68212	165*49791		121*	246*466997		404*	86.5	0.41
2809.00	56709	76429	202*63631		160*	373*558421		502*	89.8	0.40
2833.00	42332	95629	251*70797		175*	359*634945		593*	93.3	0.40

Table 1c: C1 to C7 hydrocarbons in HEADSPACE and CUTTINGS gas  
 ( $\mu\text{l}$  gas/kg rock)

Project: NOCS 7228/2-1

Well: NOCS 7228/2-1

Depth unit of measure: m \* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
2857.00	114483	97887	196*49634	119*	219*577386	463*	80.2	0.42		
2887.00	176722	178*	131*30640	63000	118*579302	403*	69.5	0.49		
2905.00	2738*	2205*	546*61672	67834	77335	5618*	2880*	51.3	0.91	
2929.00	433555	792*	416*68214	113*	192*	1823*	1389*	76.2	0.60	
2953.00	62920	16385	199*52370	131*	299*461495	399*	86.4	0.40		
2977.00	124504	219*	223*54670	126*	265*746843	622*	83.3	0.43		
3001.00	67852	105*	186*50524	128*	302*537049	469*	87.4	0.39		
3025.00	71690	115*	185*48901	119*	252*539601	468*	86.7	0.41		
3049.00	64479	95193	110*24218	49444	108*343524	279*	81.2	0.49		
3073.00	193070	184*	140*34183	63004	128*614231	421*	68.6	0.54		
3097.00	42508	46165	39273	8827	18073	33072	154846	112*	72.6	0.49
3127.00	89048	37485	38580	9363	21058	43180	195534	106*	54.5	0.44
3145.00	41104	37452	29020	6485	13067	23423	127128	86024	67.7	0.50
3169.00	39771	36484	17742	3358	5050	7368	102405	62634	61.2	0.66
3193.00	50718	57088	46763	9422	18456	27781	182447	132*	72.2	0.51
3217.00	48358	50452	44139	10151	18857	32658	171957	124*	71.9	0.54
3235.00	24975	20178	16128	3979	6070	12044	71330	46355	65.0	0.66
3265.00	24086	29165	25504	6286	9673	16747	94714	70628	74.6	0.65
3289.00	13503	23670	27555	7339	10497	17168	82564	69061	83.7	0.70
3313.00	11774	23190	27258	7569	10658	16720	80449	68675	85.4	0.71
3337.00	12892	9388	11422	3543	3719	7156	40964	28072	68.5	0.95
3355.00	12941	28046	27969	6798	8932	16245	84686	71745	84.7	0.76

Table 1c: C1 to C7 hydrocarbons in HEADSPACE and CUTTINGS gas  
 ( $\mu$ l gas/kg rock)

Project: NOCS 7228/2-1

Well: NOCS 7228/2-1

Depth unit of measure: m

\* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
3385.00	13406	22720	24123	6257	6371	7323	72877	59471	81.6	0.98
3409.00	52973	96466	123*32845	50386	89293	355334	302*	85.1	0.65	
3433.00	35671	35916	43493	11903	20545	44044	147528	112*	75.8	0.58
3457.00	39791	42076	60351	17356	32345	78283	191919	152*	79.3	0.54
3475.00	60560	45245	36382	9642	14701	31771	166530	106*	63.6	0.66
3505.00	32038	27959	24069	6693	9116	18402	99875	67837	67.9	0.73
3529.00	26843	29000	27064	7008	10185	17128	100100	73257	73.2	0.69
3553.00	46015	24477	22846	5678	9191	16146	108207	62192	57.5	0.62
3577.00	25560	25066	23225	6097	10243	18661	90191	64631	71.7	0.60
3595.00	23291	20418	24861	6272	11045	18203	85887	62596	72.9	0.57
3637.00	23948	5325	2805	573	851	1582	33502	9554	28.5	0.67
3655.00	11817	7740	6804	1474	2551	5359	30386	18569	61.1	0.58
3682.00	6305	484	335	110	176	679	7410	1105	14.9	0.63
3706.00	13829	356	87	20	16	1393	14308	479	3.4	1.25
3730.00	2247	131	105	22	43	427	2548	301	11.8	0.51
3754.00	12321	138	56	12	18	213	12545	224	1.8	0.67
3778.00	14188	503	80	13	17	1379	14801	613	4.1	0.76
3808.00	9877	149	123	47	75	382	10271	394	3.8	0.63
3832.00	13378	1623	1007	204	366	991	16578	3200	19.3	0.56
3856.00	34447	98	76	10	15	549	34646	199	0.6	0.67
3874.00	29980	340	171	55	48	1019	30594	614	2.0	1.15
3928.00	5757	90	35	6	9	217	5897	140	2.4	0.67

Table 1c: C1 to C7 hydrocarbons in HEADSPACE and CUTTINGS gas  
 ( $\mu\text{l}$  gas/kg rock)

Project: NOCS 7228/2-1

Well: NOCS 7228/2-1

Depth unit of measure: m

\* Indicated values in ml gas/kg source rock

Depth	C1	C2	C3	iC4	nC4	C5+	sum C1-C4	sum C2-C4	%wet ness	iC4 --- nC4
3946.00	13122	214	90	14	20	91	13460	338	2.5	0.70
3976.00	74626	725	209	78	123	720	75761	1135	1.5	0.63
4006.00	9619	538	348	92	214	878	10811	1192	11.0	0.43
4030.00	23956	2098	1699	374	621	1373	28748	4792	16.7	0.60
4054.00	7132	242	36	9	8	392	7427	295	4.0	1.13
4078.00	14513	140	38	7	11	591	14709	196	1.3	0.64
4102.00	90944	692	417	83	130	8316	92266	1322	1.4	0.64
4126.00	21701	209	92	24	51	2622	22077	376	1.7	0.47
4150.00	10428	180	56	11	14	3203	10689	261	2.4	0.79
4174.00	29070	132	43	11	19	2086	29275	205	0.7	0.58
4198.00	22729	224	102	17	24	493	23096	367	1.6	0.71
4222.00	7540	256	45	7	10	178	7858	318	4.1	0.70
4246.00	13306	220	92	18	29	1596	13665	359	2.6	0.62
4282.00	8349	240	39	4	8	144	8640	291	3.4	0.50
4300.00	6336	104	40	11	11	1260	6502	166	2.6	1.00

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type			Trb	Sample
Int	Cvd	TOC%	%		
Lithology description					
500.00	swc				0001
		1.45	100		0001-1L
					Sh/Clst: ol gy
560.00	swc				0002
		0.54	100		0002-1L
					Sh/Clst: ol gy
608.50	swc				0003
		1.06	100		0003-1L
					Sh/Clst: ol gy
640.00	swc				0004
		0.95	100		0004-1L
					Sh/Clst: ol gy
700.00	swc				0005
		1.01	100		0005-1L
					Sh/Clst: ol gy to drk gy
750.00	swc				0006
		1.04	100		0006-1L
					Sh/Clst: ol gy to drk gy
820.00	swc				0007
		1.22	100		0007-1L
					Sh/Clst: ol gy to drk gy

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type			Trb	Sample
Int	Cvd	TOC%	%	Lithology description	
880.00	swc				0008
		0.99	100	Sh/Clst: ol gy to drk gy	0008-1L
940.00	swc				0009
		1.04	100	Sh/Clst: ol gy to drk gy	0009-1L
1000.00	swc				0010
		0.83	100	Sh/Clst: ol gy	0010-1L
1005.00	swc				0011
			100	Sh/Clst: drk gy, s	0011-1L
1021.00					0076
			90	Sh/Clst: drk gy, slt	0076-1L
			10	Cont : Mica-ad, cem, prp	0076-2L
1025.00	swc				0012
		0.61	100	Sh/Clst: drk gy, slt	0012-1L
1040.00	swc				0033
			100	Ca : w	0033-1L
1045.00					0077
		0.58	80	Sh/Clst: drk gy	0077-1L
			20	Cont : ns	0077-2L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type	Trb	Sample
Int	Cvd	TOC%	% Lithology description
1050.00	swc		0013
	0.50	100	Sh/Clst: drk gy 0013-1L
1063.00			0078
	0.46	90	Sh/Clst: drk gy 0078-1L
		10	Cont : ns 0078-2L
1075.00	swc		0034
	0.09	100	Sh/Clst: red brn, calc 0034-1L
1093.00			0079
		70	Cont : ns 0079-2L
		20	S/Sst : lt gy to lt gn gy, glauc, f, cem 0079-3L
		10	Sh/Clst: drk gy 0079-1L
1095.00	swc		0035
	3.85	100	Sh/Clst: dsk y brn, calc 0035-1L
1105.00	swc		0014
	0.62	100	Sh/Clst: drk gy 0014-1L
1105.00			0080
		40	S/Sst : m gy to lt gn gy, glauc, f, cem 0080-3L
		30	Sh/Clst: drk gy, slt 0080-1L
		30	Cont : ns 0080-2L



Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type	Trb	Sample
Int Cvd	TOC% %		
Lithology description			
1115.00	swc		0015
	0.28 100		0015-1L
1117.00			0081
	50 Cont : ns		0081-2L
	30 Ca : w to lt gy		0081-3L
	10 Sh/Clst: drk gy		0081-1L
	10 Sh/Clst: blk		0081-4L
1125.00	swc		0036
	0.08 100		0036-1L
1129.00			0082
	35 Sh/Clst: red brn, calc, slt		0082-5L
	25 Cont : ns		0082-2L
	25 Ca : w to lt gy		0082-3L
	10 Sh/Clst: m gy to drk gy		0082-1L
	5 Sh/Clst: blk		0082-4L
1141.00			0083
	0.06 50 Cont : ns		0083-2L
	30 Sh/Clst: red brn, calc, slt		0083-5L
	10 Ca : w to lt gy		0083-3L
	10 Sh/Clst: lt gn gy to m lt gy, calc		0083-6L
	tr Sh/Clst: m gy to drk gy		0083-1L
	tr Sh/Clst: blk		0083-4L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type			Trb	Sample
Int	Cvd	TOC%	%	Lithology description	
1145.00	swc				0037
		0.62	100	Ca : red brn	0037-1L
1153.00					0084
		0.06		45 Sh/Clst: red brn, calc, slt	0084-4L
				40 Sh/Clst: lt gn gy to m lt gy, calc	0084-5L
				10 Ca : w to lt gy	0084-2L
				5 Sh/Clst: gy blk	0084-3L
				tr Cont : ns	0084-1L
1159.00					0085
		0.08		45 Sh/Clst: red brn, calc, slt	0085-3L
				45 Sh/Clst: lt gn gy to m lt gy, calc	0085-4L
				10 Ca : w to lt gy	0085-1L
				tr Sh/Clst: gy blk	0085-2L
1165.00					0086
				50 Sh/Clst: gy blk to dsk y brn	0086-2L
	cvd			20 Sh/Clst: red brn, calc, slt	0086-3L
	cvd			20 Sh/Clst: lt gn gy to m lt gy, calc	0086-4L
	cvd			10 Ca : w to lt gy	0086-1L
1166.50	swc				0038
		1.18	100	Sh/Clst: gy blk	0038-1L
1174.21	ccp				0072
		3.09	100	Sh/Clst: dsk y brn	0072-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type	TOC%	%	Lithology description	Trb	Sample
Int	Cvd	-----	-----	-----	-----	-----
1177.00						0087
		3.94	50	Sh/Clst: gy blk to dsk y brn		0087-2L
	cvd		20	Sh/Clst: red brn, calc, slt		0087-3L
	cvd		20	Sh/Clst: lt gn gy to m lt gy, calc		0087-4L
	cvd		10	Ca : w to lt gy		0087-1L
1182.50	swc					0016
		3.62	100	Sh/Clst: dsk y brn		0016-1L
1189.00						0088
		4.04	90	Sh/Clst: dsk y brn		0088-1L
	cvd		5	Sh/Clst: red brn, calc, slt		0088-2L
	cvd		5	Sh/Clst: lt gn gy to m lt gy, calc		0088-3L
1205.00	swc					0039
		4.48	100	Sh/Clst: dsk y brn		0039-1L
1210.00	swc					0017
		5.42	100	Sh/Clst: dsk y brn		0017-1L
1213.00						0089
		6.31	100	Sh/Clst: dsk y brn		0089-1L
1225.00	swc					0040
		4.36	100	Sh/Clst: dsk y brn		0040-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type	Trb	Sample
Int Cvd	TOC%	%	Lithology description
1237.00			0090
	6.39	90	Sh/Clst: dsk y brn
		10	Cont : ns
		tr	Sh/Clst: m gy
			0090-1L
			0090-2L
			0090-3L
1248.50	swc		0041
	0.63	100	Sh/Clst: m gy to drk gy, calc
			0041-1L
1255.00	swc		0042
	0.52	100	Sh/Clst: m gy to drk gy
			0042-1L
1261.00			0091
	0.65	90	Sh/Clst: m gy to drk gy
		10	Sh/Clst: dsk y brn
		tr	Sh/Clst: red brn, calc
			0091-2L
			0091-1L
			0091-3L
1275.00	swc		0043
	0.36	100	Sh/Clst: m gy to drk gy
			0043-1L
1285.00			0092
		65	Sh/Clst: m gy to drk gy
		30	S/Sst : lt gy, lt brn gy
		5	Sh/Clst: dsk y brn
		tr	Sh/Clst: red brn, calc
			0092-2L
			0092-4L
			0092-1L
			0092-3L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type	Trb	Sample
Int Cvd	TOC%	%	Lithology description
1286.30	ccp		0074
	0.05	100	S/Sst : lt gy to lt brn gy, calc, glauc, cem 0074-1L
1289.30	ccp		0075
	0.11	100	S/Sst : lt gy to lt brn gy, calc, glauc, cem 0075-1L
1291.30	ccp		0073
	0.16	100	S/Sst : lt gy to lt brn gy, calc, glauc, cem 0073-1L
1300.00	swc		0044
	0.16	100	S/Sst : lt gy, gn, lt brn gy, calc, glauc, f, cem 0044-1L
1309.00			0093
	0.08	70	S/Sst : lt gy, calc, f, cem 0093-4L
cvd		10	Sh/Clst: dsk y brn 0093-1L
cvd		10	Sh/Clst: m gy to drk gy 0093-2L
cvd		10	Sh/Clst: red brn, calc 0093-3L
1316.50	swc		0045
	0.45	100	S/Sst : lt gy, f, cem 0045-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type	Trb	Sample
Int	Cvd	TOC%	% Lithology description
1333.00			0094
	cvd	0.09	80 S/Sst : lt gy, calc, f, cem 10 Sh/Clst: dsk y brn 5 Sh/Clst: m gy to drk gy 5 Sh/Clst: red brn, calc
	cvd		0094-4L
	cvd		0094-1L
	cvd		0094-2L
	cvd		0094-3L
1347.00	swc		0046
		0.05	100 S/Sst : w to lt gy, f, cem
			0046-1L
1357.00			0095
		0.04	55 S/Sst : w to lt gy, cem 25 Sh/Clst: m gy to drk gy 20 Sltst : gy brn to pl brn, s tr Sh/Clst: gy red tr Cont : prp
			0095-1L
			0095-3L
			0095-2L
			0095-4L
			0095-5L
1367.00	swc		0047
		0.36	100 S/Sst : lt gy to brn gy, cly, f
			0047-1L
1369.00			0131
			60 S/Sst : w to lt gy, cem 25 Sh/Clst: m gy to drk gy 10 Sh/Clst: gy red 5 Sh/Clst: dsk y brn to brn blk
			0131-1L
			0131-2L
			0131-3L
			0131-4L
1375.50	swc		0048
		0.18	100 Sh/Clst: lt brn gy
			0048-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type			Trb	Sample
Int	Cvd	TOC%	%	Lithology description	
1378.00	swc				0049
		0.16	100	Sh/Clst: lt brn gy, slt	0049-1L
1381.00					0096
				95 S/Sst : w, cem	0096-1L
				5 Sh/Clst: m gy to drk gy	0096-3L
				tr Slstst : brn blk, pl brn, carb, s	0096-2L
				tr Sh/Clst: gy red	0096-4L
				tr Cont : st	0096-5L
				tr Other : carb	0096-6L
1387.45	ccp				0071
		0.01	100	S/Sst : w, cem	0071-1L
1405.00	swc				0018
		0.16	100	Sh/Clst: lt brn gy	0018-1L
1405.00					0097
		0.03	90	S/Sst : w to lt gy, crs, l	0097-1L
			10	Sh/Clst: m gy	0097-2L
				tr Sh/Clst: gy red	0097-3L
				tr Other : carb	0097-4L
1417.00					0132
			60	S/Sst : w to lt gy, cem, l	0132-1L
			25	Sh/Clst: m gy	0132-2L
			10	Sh/Clst: gy red	0132-3L
			5	Sh/Clst: dsk y brn to brn blk	0132-4L
				tr Cont : Coal-ad	0132-5L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type			Trb	Sample
Int	Cvd	TOC%	%	Lithology description	
1419.00	swc				0050
		0.68	90	Sh/Clst: lt brn gy	0050-1L
			10	Coal : blk	0050-2L
1429.00					0098
		0.40	65	Sh/Clst: gn gy, brn gy, calc	0098-5L
			20	S/Sst : w to lt gy, cem	0098-1L
			10	Sh/Clst: gy red	0098-3L
			5	Sh/Clst: m gy	0098-2L
			tr	Other : carb	0098-4L
1430.00	swc				0064
			100	Sh/Clst: m gy to drk gy, calc	0064-1L
1436.50	swc				0051
		0.30	100	Sh/Clst: m gy to drk gy	0051-1L
1453.00					0099
		0.34	50	S/Sst : w to lt gy, cem, l	0099-1L
			35	Sh/Clst: lt gy to m gy	0099-3L
			15	Sh/Clst: dsk y brn to brn blk	0099-4L
			tr	Sh/Clst: gy red	0099-2L
			tr	Ca : lt brn gy	0099-5L
1464.00	swc				0052
		0.28	100	Sh/Clst: m gy to drk gy	0052-1L



Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Lithology description	Trb	Sample
Int Cvd	TOC%	%			
1477.00					0100
	0.38	50	Sh/Clst: lt gy to m gy		0100-3L
		45	S/Sst : w to lt gy, cem, l		0100-1L
		5	Sh/Clst: dsk y brn to brn blk		0100-4L
			tr Sh/Clst: gy red		0100-2L
			tr Ca : lt brn gy		0100-5L
			tr Cont : prp, tar-ad		0100-6L
1494.00	swc				0053
	0.92	100	Sh/Clst: m gy to drk gy, s		0053-1L
1501.00					0101
	0.04	80	S/Sst : w to lt gy, cem, l		0101-1L
		20	Sh/Clst: lt gy to m gy, slt		0101-3L
			tr Sh/Clst: gy red		0101-2L
			tr Sh/Clst: dsk y brn to brn blk		0101-4L
			tr Ca : lt brn gy		0101-5L
1512.00	swc				0054
	0.58	50	S/Sst : lt gy, f, cem		0054-1L
		50	Sh/Clst: drk gy		0054-2L
1522.00					0102
	0.04	95	S/Sst : w to lt gy, cem, l		0102-1L
		5	Slst : lt gy to m gy		0102-3L
			tr Sh/Clst: gy red		0102-2L
			tr Sh/Clst: dsk y brn to brn blk		0102-4L
			tr Ca : lt brn gy		0102-5L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Lithology description	Trb	Sample
Int	Cvd	TOC%	%		
1533.00	swc				0019
		0.09	100	S/Sst : w to lt gy, dol	0019-1L
1546.00					0103
		0.14	100	S/Sst : w, crs, l	0103-1L
				tr Sh/Clst: gy red	0103-2L
				tr Sltst : lt gy to m gy	0103-3L
				tr Sh/Clst: dsk y brn to brn blk	0103-4L
				tr Ca : lt brn gy	0103-5L
1570.00	swc				0021
		0.03	100	S/Sst : w	0021-1L
1570.00					0104
			90	S/Sst : w, cem	0104-1L
			10	Sltst : lt gy to m gy, s	0104-3L
				tr Sh/Clst: gy red	0104-2L
				tr Sh/Clst: dsk y brn to brn blk	0104-4L
				tr Ca : lt brn gy	0104-5L
1592.00	swc				0022
		1.03	100	Sh/Clst: dsk y brn	0022-1L
1594.00					0105
			95	S/Sst : w to lt gy, cem	0105-1L
			5	Sltst : lt gy to m gy	0105-3L
				tr Sh/Clst: gy red	0105-2L
				tr Sh/Clst: dsk y brn to brn blk	0105-4L
				tr Ca : lt brn gy	0105-5L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type			Trb	Sample
Int	Cvd	TOC%	%	Lithology description	
1618.00					0106
		1.61	55	Sltst : m gy	0106-3L
			45	S/Sst : w to lt gy, cem	0106-1L
				tr Sh/Clst: gy red	0106-2L
				tr Sh/Clst: dsk y brn to brn blk	0106-4L
1619.00	swc				0055
			50	S/Sst : lt gy, f	0055-1L
			50	Sh/Clst: drk gy	0055-2L
		0.64		bulk	0055-0B
1640.00	swc				0056
		0.06	100	S/Sst : w	0056-1L
1642.00					0107
			50	S/Sst : w to lt gy, cem	0107-1L
			50	Sltst : m gy, cly	0107-3L
				tr Sh/Clst: gy red	0107-2L
1666.00					0108
		1.19	70	S/Sst : w to lt gy, cem	0108-1L
			30	Sltst : m gy, cly	0108-3L
				tr Sh/Clst: gy red	0108-2L
1672.00	swc				0020
		0.46	100	Sh/Clst: dsk y brn	0020-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type	Trb	Sample
Int	Cvd	TOC%	% Lithology description
1690.00			0109
	0.06	95 S/Sst : w to lt gy, cem 5 Sltst : m gy, cly tr Sh/Clst: gy red	0109-1L 0109-3L 0109-2L
1704.00	swc		0057
	1.78	100 S/Sst : lt gy, drk brn gy, f	0057-1L
1714.00			0110
	0.02	90 S/Sst : w to lt gy, cem 10 Sltst : m gy, brn gy tr Sh/Clst: gy red	0110-1L 0110-3L 0110-2L
1735.50	swc		0058
	0.83	100 Sh/Clst: dsk y brn, f	0058-1L
1738.00			0111
		90 S/Sst : w to lt gy, cem 10 Sltst : brn gy to dsk brn tr Sh/Clst: gy red	0111-1L 0111-3L 0111-2L
1762.00			0112
	0.01	50 S/Sst : w to lt gy to gy gn, cem 50 Sltst : brn gy to dsk brn, gy gn tr Sh/Clst: gy red	0112-1L 0112-3L 0112-2L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Lithology description	Trb	Sample
Int Cvd	TOC%	%			
1766.50	swc				0023
	0.76	100	Sh/Clst: dsk y brn, f		0023-1L
1772.00	swc				0059
	0.19	100	Sh/Clst: m gy, calc		0059-1L
1786.00					0113
	0.41	55	Sh/Clst: brn gy to dsk brn, gy gn, slt		0113-3L
		45	S/Sst : w to lt gy to gy gn, cem		0113-1L
		tr	Sh/Clst: gy red		0113-2L
1790.00	swc				0060
	6.24	100	Coal : blk, pyr		0060-1L
1810.00					0114
		50	S/Sst : w to lt gy to gy gn, cem		0114-1L
		50	Sh/Clst: brn gy to dsk brn, gy gn, slt		0114-3L
		tr	Sh/Clst: gy red		0114-2L
1811.00	swc				0024
	0.26	100	Sh/Clst: ol gy		0024-1L
1832.50	swc				0025
	0.17	100	Sh/Clst: m gy, calc		0025-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Lithology description	Trb	Sample
Int	Cvd	TOC%	%		
1834.00					0115
			50 S/Sst : w to lt gy to gy gn, cem		0115-5L
			50 Sh/Clst: brn gy to dsk brn, gy gn, carb, slt		0115-7L
			tr Sh/Clst: gy red		0115-6L
1852.00	swc				0061
		0.03	100 Sh/Clst: m gy		0061-1L
1858.00					0116
		0.40	65 Sh/Clst: brn gy to dsk brn, gy gn, lt pu, slt		0116-3L
			35 S/Sst : w to lt gy to gy gn, cem		0116-1L
			tr Sh/Clst: gy red		0116-2L
1882.00					0117
			65 S/Sst : w to lt gy to gy gn, cem		0117-1L
			35 Sh/Clst: brn gy to dsk brn, gy gn, lt pu, slt		0117-3L
			tr Sh/Clst: gy red		0117-2L
1883.00	swc				0062
		0.25	100 Sh/Clst: drk gy		0062-1L
1906.00					0118
		0.23	50 S/Sst : w to lt gy to gy gn, cem		0118-1L
			50 Sh/Clst: brn gy to dsk y brn, gy gn, lt pu, slt		0118-3L
			tr Sh/Clst: gy red		0118-2L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type			Trb	Sample
Int Cvd	TOC%	%	Lithology description		
1911.00	swc				0026
	0.99	100	Sh/Clst: drk gy		0026-1L
1921.00	swc				0063
	0.11	100	Sh/Clst: dsk gn		0063-1L
1930.00					0119
	1.00	60	Sh/Clst: brn gy to dsk y brn, gy gn, carb		0119-3L
		40	S/Sst : w to lt gy to gy gn, cem		0119-1L
		tr	Sh/Clst: gy red		0119-2L
1942.00					0133
	0.04	60	Sh/Clst: brn gy to dsk y brn, gn gy, carb		0133-2L
		40	S/Sst : w to lt gy to lt gn gy, cem		0133-1L
		tr	Sh/Clst: gy red		0133-3L
1954.00					0120
	0.95	50	S/Sst : w to lt gy to gy gn, cem		0120-1L
		50	Sh/Clst: brn gy to dsk y brn, gy gn, carb		0120-3L
		tr	Sh/Clst: gy red		0120-2L
		tr	Coal : blk		0120-4L
1963.00	swc				0027
	0.13	100	Sh/Clst: m gy		0027-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Lithology description	Trb	Sample
Int	Cvd	TOC%	%		
1966.00					0134
			60 S/Sst : w to lt gy to lt gn gy, cem		0134-1L
			40 Sh/Clst: brn gy to dsk y brn, gn gy, carb		0134-2L
			tr Sh/Clst: gy red		0134-3L
1975.00	swc				0028
			100 Sltst : m gy		0028-1L
1978.00					0121
		0.06	70 S/Sst : w to lt gy to gy gn, cem		0121-1L
			30 Sh/Clst: brn gy to dsk y brn, gn gy		0121-3L
			tr Sh/Clst: gy red		0121-2L
2002.00					0122
			60 Sh/Clst: brn gy to dsk y brn, gn gy		0122-3L
			40 S/Sst : w to lt gy to gy gn, cem		0122-1L
			tr Sh/Clst: gy red		0122-2L
			tr Cont : prp		0122-4L
			tr Coal : blk		0122-5L
2003.00	swc				0065
		0.16	100 S/Sst : w to lt gy, calc, f, cem		0065-1L
2026.00					0123
			60 S/Sst : w to lt gy to gy gn, cem		0123-1L
			40 Sh/Clst: brn gy to dsk y brn, gy gn		0123-3L
			tr Sh/Clst: gy red		0123-2L
			tr Cont : prp		0123-4L
			tr Coal : blk		0123-5L



Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type	Trb	Sample
Int Cvd	TOC%	%	Lithology description
2030.00	swc		0066
	0.26	100	Sh/Clst: ol gy 0066-1L
2042.00	swc		0029
	0.07	100	S/Sst : w to lt gy, pyr, f, cem 0029-1L
2050.00			0124
	1.08	75	S/Sst : w to lt gy, cem 0124-1L
		25	Sltst : brn gy to dsk y brn, gy gn, cly 0124-2L
		tr Cont	: prp 0124-3L
2072.00	swc		0067
	1.04	100	Sh/Clst: dsk y brn 0067-1L
2074.00			0125
		85	S/Sst : w to lt gy, calc, pyr, cem 0125-1L
		15	Sh/Clst: brn gy to dsk y brn, gy gn, slt 0125-2L
		tr Cont	: prp 0125-3L
2093.00	swc		0068
	27.30	100	Coal : brn blk 0068-1L
2098.00			0126
	12.67	55	S/Sst : w to lt gy, calc, pyr, cem 0126-1L
		20	Sh/Clst: dsk brn to dsk y brn, carb 0126-5L
		15	Other : trbofsgs 0126-4L
		10	Sh/Clst: gy brn, gy gn, slt 0126-2L
		tr Cont	: prp 0126-3L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Lithology description	Trb	Sample
Int	Cvd	TOC%	%		
2103.00	swc				0030
		0.51	100	Sh/Clst: m gy	0030-1L
2110.00					0135
		0.04	50	S/Sst : w to lt gy, calc, pyr, cem	0135-1L
			30	Sh/Clst: dsk brn to dsk y brn, carb	0135-2L
			10	Sh/Clst: brn gy, gn gy, slt	0135-3L
			10	Other : trbofgs	0135-4L
2122.00					0127
		12.29	55	Sh/Clst: dsk brn to brn blk, carb	0127-5L
			20	S/Sst : w to lt gy, calc, pyr, cem	0127-1L
			20	Sh/Clst: gy brn, gy gn, slt	0127-2L
			5	Coal : blk	0127-6L
			tr	Cont : prp	0127-3L
			tr	Other : trbofgs	0127-4L
2134.00					0136
			50	Sh/Clst: dsk brn to dsk y brn, carb	0136-2L
			20	S/Sst : w to lt gy, calc, pyr, cem	0136-1L
			15	Sh/Clst: brn gy, gn gy, slt	0136-3L
			15	Other : trbofgs	0136-4L
			tr	Cont : Coal-ad	0136-5L
2138.00	swc				0031
		0.42	100	Ca : m gy	0031-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type	Trb	Sample
Int Cvd	TOC%	%	Lithology description
2146.00			0472
		70	Sh/Clst: m gy to dsk y brn, trbofgs 0472-1L
		20	S/Sst : w to lt gy, calc, pyr, cem 0472-2L
		5	Sltst : brn gy 0472-3L
		5	Sh/Clst: gn gy 0472-4L
2150.00	swc		0032
	1.36	100	Sh/Clst: drk gy 0032-1L
2152.00			0141
		70	Sh/Clst: m gy to dsk y brn, trbofgs 0141-2L
		20	S/Sst : w to lt gy, calc, pyr, cem 0141-1L
		5	Sltst : brn gy 0141-3L
		5	Sh/Clst: gn gy 0141-4L
2158.00			0385
		50	S/Sst : w to lt gy, calc, pyr, cem 0385-1L
		50	Sh/Clst: m gy to dsk y brn, trbofgs 0385-2L
		tr	Sltst : brn gy 0385-3L
		tr	Sh/Clst: gn gy 0385-4L
2161.50	swc		0069
	1.68	100	Sh/Clst: dsk y brn 0069-1L
2176.00			0128
		90	Other : trbofgs 0128-4L
		10	S/Sst : w to lt gy, calc, pyr, cem 0128-1L
		tr	Sh/Clst: gy brn, gy gn, slt 0128-2L
		tr	Cont : prp 0128-3L
		tr	Sh/Clst: dsk brn to brn blk, carb 0128-5L
		tr	Coal : blk 0128-6L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Lithology description	Trb	Sample
Int	Cvd	TOC%	%		
2187.50	swc				0070
		0.51	100	Sh/Clst: dsk y brn	0070-1L
2188.00					0137
			65	Sh/Clst: m gy to drk gy, trbofgs	0137-4L
			10	S/Sst : w to lt gy, calc, pyr, cem	0137-1L
			10	Sh/Clst: dsk brn to dsk y brn, carb	0137-2L
			10	Sh/Clst: brn gy, gn gy, slt	0137-3L
			5	Cont : Coal-ad	0137-5L
2194.00					0129
			70	Other : trbofgs	0129-4L
			20	S/Sst : w to lt gy, calc, pyr, cem	0129-1L
			10	Slstst : brn gy to brn blk, carb	0129-5L
			tr	Sh/Clst: gy brn, gy gn, slt	0129-2L
			tr	Cont : prp	0129-3L
			tr	Coal : blk	0129-6L
2194.95	swc				0363
		2.20	100	Sh/Clst: blk, slt	0363-1L
2206.00					0138
		0.40	65	Sh/Clst: m gy to drk gy, trbofgs	0138-4L
			20	S/Sst : w to lt gy, calc, pyr, cem	0138-1L
			10	Sh/Clst: dsk brn to dsk y brn, carb	0138-2L
			5	Sh/Clst: brn gy, gn gy, slt	0138-3L
			tr	Cont : Coal-ad	0138-5L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	%		
Lithology description				
2218.00				0146
		50 Cont : cem		0146-1L
		25 S/Sst : w to lt gy, pi, calc		0146-2L
		25 Sh/Clst: m gy to dsk y brn, trbofgs		0146-3L
2223.04	swc			0364
	2.38	100 Slstst : lt brn gy, calc, carb		0364-1L
2224.00				0473
		100 S/Sst : lt brn gy, f, cem		0473-1L
		tr Sh/Clst: gn gy		0473-2L
2230.00				0386
		60 S/Sst : w to lt gy, calc, cem		0386-1L
		40 Sh/Clst: m gy to dsk y brn		0386-2L
2238.00	swc			0365
	1.45	100 Sh/Clst: m gy to dsk y brn		0365-1L
2245.05	swc			0366
	1.11	100 Slstst : drk gy to dsk y brn		0366-1L
2250.00	swc			0337
	0.68	100 S/Sst : lt gy, brn gy, calc, cly, f		0337-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type	Trb	Sample
Int Cvd	TOC%	%	Lithology description
2254.00			0387
		70	Sh/Clst: m gy to dsk y brn, slt
		30	S/Sst : lt gy to m gy, f, cem
			0387-2L 0387-1L
2272.00			0155
		70	Sh/Clst: m gy to dsk y brn, slt
		30	S/Sst : m gy, f, cem
			0155-2L 0155-1L
2276.01	swc		0367
	0.48	100	Sh/Clst: drk gy to dsk y brn
			0367-1L
2278.00			0388
		70	Sh/Clst: m gy to dsk y brn, slt
		30	S/Sst : lt gy to m gy, f, cem
			0388-2L 0388-1L
2302.00			0389
		80	Sh/Clst: m gy to dsk y brn, slt, s
		20	S/Sst : lt gy to m gy, f, cem
			0389-2L 0389-1L
2304.80	swc		0368
	0.98	100	S/Sst : lt gy, f
			0368-1L
2314.00			0474
		70	Sh/Clst: m gy to dsk y brn, slt
		30	S/Sst : brn gy to m gy, f, cem
			0474-1L 0474-2L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type	Trb	Sample
Int Cvd	TOC%	%	Lithology description
2316.00	ccp		0362
	0.34	100	Sh/Clst: drk gy, dol 0362-1L
2325.00	swc		0338
	0.92	100	Sh/Clst: dsk y brn, slt 0338-1L
2325.06	swc		0369
		100	Sltst : m gy to dsk y brn 0369-1L
2326.00			0164
		90	Sh/Clst: m gy to dsk y brn, slt 0164-1L
		10	S/Sst : lt gy to m gy, calc, f, cem 0164-2L
2332.00			0165
	0.69	80	Sh/Clst: m gy to dsk y brn, slt 0165-2L
		20	S/Sst : m gy, f, cem 0165-1L
2346.53	swc		0370
		100	Sh/Clst: drk gy 0370-1L
2350.00			0168
	0.90	100	Sh/Clst: m gy to dsk y brn, slt 0168-1L
		tr	S/Sst : lt gy to m gy, calc, f, cem 0168-2L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Lithology description	Trb	Sample
Int	Cvd	TOC%	%		
2374.00					0172
		0.79	100	Sh/Clst: m gy to dsk y brn, slt tr S/Sst : lt gy to m gy, calc, f, cem	0172-1L 0172-2L
2386.00					0475
			100	Sh/Clst: dsk y brn, slt	0475-1L
2387.74	swc				0371
		1.08	100	Sh/Clst: drk gy to dsk y brn, slt	0371-1L
2392.00					0175
			100	Sh/Clst: dsk y brn, slt	0175-1L
2398.00					0176
			100	Sh/Clst: dsk y brn, slt	0176-1L
2402.00	swc				0339
		0.71	100	Sh/Clst: dsk y brn, slt, dol	0339-1L
2402.00	swc				0372
			100	Sh/Clst: dsk y brn, slt	0372-1L
2422.00					0180
		1.00	100	Sh/Clst: dsk y brn, slt	0180-1L



Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type			Trb	Sample
Int Cvd	TOC%	%	Lithology description		
2443.70	swc				0340
	2.58	100	Sh/Clst: dsk y brn, slt, dol		0340-1L
2446.00					0184
			90 Sh/Clst: dsk y brn, slt		0184-1L
			10 S/Sst : lt gy, calc, f, cem		0184-2L
2452.00					0185
	1.17	90	Sh/Clst: dsk y brn, dol		0185-1L
		10	S/Sst : lt gy, calc, f, cem		0185-2L
2470.00					0188
	1.10	90	Sh/Clst: dsk y brn, dol		0188-1L
		10	S/Sst : lt gy, calc, f, cem		0188-2L
2477.53	swc				0373
	0.51	100	Sh/Clst: drk gy to dsk y brn		0373-1L
2494.00					0192
			95 Sh/Clst: dsk y brn, dol		0192-1L
		5	S/Sst : lt gy, calc, f, cem		0192-2L
2498.00	swc				0341
		50	Sh/Clst: brn gy, slt		0341-1L
		50	S/Sst : lt gy, calc, f		0341-2L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type			Trb	Sample
Int	Cvd	TOC%	%	Lithology description	
2498.31	swc				0374
	0.67	100		Sh/Clst: drk gy to dsk y brn, slt	0374-1L
2512.00					0195
	1.04	80		Sh/Clst: dsk y brn, dol	0195-1L
		20		S/Sst : lt gy, calc, f, cem	0195-2L
2518.00					0196
		75		Sh/Clst: dsk y brn, dol	0196-1L
		25		S/Sst : lt gy, f, cem	0196-2L
2530.06	swc				0375
	0.58	100		S/Sst : lt gy to lt brn gy, cly, f	0375-1L
2542.00					0200
	0.94	80		Sh/Clst: dsk y brn, dol	0200-1L
		20		S/Sst : lt gy, calc, f, cem	0200-2L
2566.06	swc				0376
	0.67	100		Sh/Clst: m gy to dsk y brn	0376-1L
2569.00					0204
		80		Sh/Clst: dsk y brn, dol	0204-1L
		20		S/Sst : lt gy, calc, f, cem	0204-2L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type			Trb	Sample
Int	Cvd	TOC%	%	Lithology description	
2572.00	swc				0342
		0.72	100	Sh/Clst: dsk y brn	0342-1L
2575.00					0205
				50 Sh/Clst: drk y brn to dsk y brn, dol	0205-1L
				50 S/Sst : lt gy, calc, f, cem	0205-2L
2590.00					0207
		0.88	80	Sh/Clst: dsk y brn, dol	0207-1L
			20	S/Sst : lt gy, calc, f, cem	0207-2L
2594.50	swc				0343
		0.84	100	Sh/Clst: dsk y brn	0343-1L
2595.99	swc				0377
			100	S/Sst : m gy, f	0377-1L
2614.00					0211
		0.99	80	Sh/Clst: dsk y brn, dol	0211-1L
			20	S/Sst : lt gy, calc, f, cem	0211-2L
2622.06	swc				0378
		1.04	100	Sltst : drk gy to dsk y brn	0378-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type			Trb	Sample
Int	Cvd	TOC%	%	Lithology description	
2635.00					0214
			50	Cont : Coal-ad	0214-1L
			25	Sh/Clst: drk y brn to dsk y brn, calc	0214-2L
			25	S/Sst : lt gy, calc, f, cem	0214-3L
2641.00					0215
			50	Cont : Coal-ad	0215-3L
			25	Sh/Clst: drk y brn to dsk y brn	0215-1L
			25	S/Sst : lt gy, calc, f, cem	0215-2L
2656.50	swc				0379
		1.26	100	Sh/Clst: drk gy to dsk y brn, slt	0379-1L
2665.00					0219
			50	Cont : Coal-ad	0219-3L
			25	Sh/Clst: drk y brn to dsk y brn	0219-1L
			25	S/Sst : lt gy, calc, f, cem	0219-2L
2678.50	swc				0327
		0.95	100	Sh/Clst: dsk y brn	0327-1L
2688.05	swc				0380
		1.09	100	Slstst : m gy to dsk y brn, s, cly	0380-1L
2695.00					0224
			50	Cont : Coal-ad	0224-1L
			25	Sh/Clst: drk y brn to dsk y brn, calc	0224-2L
			25	S/Sst : lt gy, calc, f, cem	0224-3L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Lithology description	Trb	Sample
Int	Cvd	TOC%	%		
2713.00					0227
			40 S/Sst : lt gy, calc, f, cem		0227-2L
			30 Sh/Clst: drk y brn to dsk y brn		0227-1L
			30 Cont : Coal-ad		0227-3L
2717.00	swc				0328
		0.86	100 Sh/Clst: dsk y brn		0328-1L
2725.00					0476
			50 Sh/Clst: drk y brn to dsk y brn		0476-1L
			50 S/Sst : lt gy to m gy, calc, f, cem		0476-2L
2737.00					0390
			70 Cont : Coal-ad		0390-3L
			15 S/Sst : lt gy, calc, f, cem		0390-1L
			15 Sh/Clst: m gy to dsk y brn, slt, s		0390-2L
2748.47	swc				0381
		0.49	100 Sh/Clst: m gy, slt		0381-1L
2749.00					0477
			70 Sh/Clst: drk y brn to dsk y brn to ol blk		0477-1L
			30 S/Sst : lt gy to m gy, calc, f, cem		0477-2L
			tr Cont : Coal-ad		0477-3L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Trb	Sample
Int	Cvd	TOC%	%	Lithology description
2755.00				0234
			70	Sh/Clst: m gy to dsk y brn
			20	S/Sst : lt gy, calc, f, cem
			10	Cont : Coal-ad
2761.00				0235
	1.41		60	Sh/Clst: drk y brn to dsk y brn
			20	S/Sst : lt gy, calc, f, cem
			20	Cont : Coal-ad
2774.00	swc			0329
			100	Sh/Clst: drk y gn to dsk y brn, slt, s
2774.02	swc			0382
	2.27		100	Sh/Clst: m gy to drk y brn, slt
2785.00				0239
	0.88		70	Sh/Clst: m gy to dsk y brn
			20	S/Sst : lt gy, calc, f, cem
			10	Cont : Coal-ad
2809.00				0243
			80	Sh/Clst: m gy to dsk y brn
			20	S/Sst : lt gy, calc, f, cem
			tr	Cont : Coal-ad

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type			Trb	Sample
Int Cvd	TOC%	%	Lithology description		
2810.50	swc				0330
	0.59	100	Sh/Clst: dsk y brn		0330-1L
2815.00					0244
		80	Sh/Clst: drk gy to dsk y brn		0244-1L
		20	S/Sst : lt gy, calc, f, cem		0244-2L
2823.00	swc				0331
	0.64	90	S/Sst : lt gy, calc, f		0331-2L
		10	Sh/Clst: dsk y brn		0331-1L
2823.95	swc				0384
		100	Sh/Clst: drk gy to dsk y brn		0384-1L
2833.00					0247
	0.95	80	Sh/Clst: drk gy to dsk y brn		0247-1L
		20	S/Sst : lt gy, calc, f, cem		0247-2L
		tr	Cont : Coal-ad		0247-3L
2857.00					0251
		90	Sh/Clst: drk gy to dsk y brn		0251-1L
		10	S/Sst : lt gy, calc, f, cem		0251-2L
		tr	Cont : Coal-ad		0251-3L
2861.53	swc				0383
	0.69	100	Sh/Clst: m gy		0383-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Lithology description	Trb	Sample
Int	Cvd	TOC%	%		
2875.00					0254
		0.80	80	Sh/Clst: m gy to dsk y brn	0254-1L
			20	S/Sst : lt gy, f, cem	0254-2L
2887.00					0256
			90	Sh/Clst: drk gy to dsk y brn	0256-1L
			10	S/Sst : lt gy, calc, f, cem	0256-2L
2888.09	swc				0354
		1.09	100	Sh/Clst: dsk y brn	0354-1L
2903.04	swc				0355
		0.70	100	S/Sst : lt gy, calc, f	0355-1L
2905.00					0259
			70	Sh/Clst: m gy to dsk y brn	0259-1L
			20	S/Sst : lt gy, f, cem	0259-2L
			10	Cont : Coal-ad	0259-3L
2929.00					0263
		1.34	80	Sh/Clst: m gy to dsk y brn	0263-1L
			20	S/Sst : lt gy, f, cem	0263-2L
2935.00					0264
			70	Sh/Clst: m gy to dsk y brn	0264-1L
			30	S/Sst : lt gy, f, cem	0264-2L



Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type			Trb	Sample
Int	Cvd	TOC%	%	Lithology description	
2944.03	swc				0356
		0.60	100	Sh/Clst: dsk y brn	0356-1L
2953.00					0267
				90 Sh/Clst: m gy to dsk y brn	0267-1L
				10 S/Sst : lt gy, f, cem	0267-2L
2971.00	swc				0332
				50 Sh/Clst: dsk y brn	0332-1L
				50 S/Sst : lt gy, f	0332-2L
		0.95		bulk	0332-0B
2977.00					0271
				80 Sh/Clst: m gy to dsk y brn	0271-1L
				10 S/Sst : lt gy, f, cem	0271-2L
				10 Cont : brn blk, Coal-ad	0271-3L
2995.00					0274
				50 Sh/Clst: m gy to dsk y brn, gy blk	0274-1L
				50 S/Sst : lt gy, f, cem	0274-2L
2995.25	swc				0333
				50 Sh/Clst: dsk y brn	0333-1L
				50 S/Sst : lt gy, f	0333-2L
		0.93		bulk	0333-0B

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	%		
Lithology description				
3001.00				0275
		80 Sh/Clst:		0275-1L
		10 S/Sst :		0275-2L
		10 Cont :		0275-3L
3019.00	swc			0334
	0.70	100 S/Sst :		0334-1L
3025.00				0279
		80 Sh/Clst:		0279-1L
		10 S/Sst :		0279-2L
		10 Cont :		0279-3L
3038.50	swc			0335
	0.60	100 S/Sst :		0335-1L
3049.00				0283
	0.28	60 S/Sst :		0283-2L
		30 Sh/Clst:		0283-1L
		10 Cont :		0283-3L
3061.00				0285
		65 S/Sst :		0285-2L
		35 Sh/Clst:		0285-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type			Lithology description	Trb	Sample
Int	Cvd	TOC%	%			
3061.50	swc					0336
		0.25	100	S/Sst : lt gy, calc, f		0336-1L
3073.00						0287
				95 Sh/Clst: m gy to dsk y brn		0287-1L
				5 S/Sst : lt gy, f, cem		0287-2L
3077.00	swc					0317
		3.27	100	Sh/Clst: dsk y brn		0317-1L
3077.04	swc					0357
				100 Sh/Clst: dsk y brn		0357-1L
3085.00						0478
				90 Sh/Clst: m gy to dsk y brn		0478-1L
				10 S/Sst : lt gy, f, cem		0478-2L
3092.48	swc					0358
		1.05	100	S/Sst : lt gy, f		0358-1L
3097.00						0291
				90 Sh/Clst: m gy to dsk y brn		0291-1L
				10 S/Sst : lt gy, f, cem		0291-2L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	%		
Lithology description				
3111.00	swc			0318
	0.51	100	S/Sst : lt gy, cly, f	0318-1L
3121.00				0295
	0.76	45	Sh/Clst: m gy to dsk y brn	0295-1L
		45	S/Sst : lt gy to m gy, calc, f, cem	0295-2L
		10	Cont : Coal-ad, prp	0295-3L
3127.00				0296
		60	Sh/Clst: m gy to dsk y brn	0296-1L
		20	Cont : blk, Coal-ad	0296-3L
		10	S/Sst : lt gy, f, cem	0296-2L
		10	Cont : prp	0296-4L
3130.01	swc			0359
		100	Sh/Clst: drk y brn	0359-1L
3142.49	swc			0360
	0.75	100	Sh/Clst: drk gy	0360-1L
3145.00				0299
		75	Sh/Clst: m gy to dsk y brn	0299-1L
		10	S/Sst : lt gy, f, cem	0299-2L
		10	Cont : blk, Coal-ad	0299-3L
		5	Cont : prp	0299-4L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Lithology description	Trb	Sample
Int Cvd	TOC%	%			
3164.50	swc				0319
	0.71	100	Sh/Clst: drk gy to drk y brn		0319-1L
3169.00					0303
			90 Sh/Clst: m gy to dsk y brn		0303-1L
			10 S/Sst : lt gy, calc, f, cem		0303-2L
			tr Cont : Coal-ad, prp		0303-3L
3181.00					0305
			45 Sh/Clst: m gy to dsk y brn		0305-1L
			35 S/Sst : lt gy to m gy, calc, f, cem		0305-2L
			20 Cont : Coal-ad		0305-3L
			tr Cont : prp		0305-4L
3184.44	swc				0361
	0.53	100	Sh/Clst: drk y brn to dsk y brn		0361-1L
3193.00					0391
			80 Sh/Clst: m gy to dsk y brn		0391-2L
			20 S/Sst : lt gy to m gy, calc, f, cem		0391-1L
3207.56	swc				0344
	0.30	100	S/Sst : lt gy to m gy, calc, cly, f		0344-1L
3217.00					0392
			50 Cont : Coal-ad		0392-3L
			25 S/Sst : lt gy to m gy, calc, f, cem		0392-1L
			25 Sh/Clst: m gy to dsk y brn		0392-2L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	%		
Lithology description				
3234.00	swc			0320
	0.46	50	Sh/Clst: drk gy	0320-1L
		50	S/Sst : lt gy to m gy, f	0320-2L
			bulk	0320-0B
3235.00				0393
		60	S/Sst : lt gy to m gy, calc, f, cem	0393-1L
		40	Sh/Clst: m gy to dsk y brn	0393-2L
3241.00				0306
		50	Sh/Clst: drk gy	0306-1L
		50	S/Sst : lt gy to m gy, calc, cem	0306-2L
		tr	Cont : prp	0306-3L
3248.01	swc			0345
	0.43	90	S/Sst : lt gy to m gy, f	0345-2L
		10	Sh/Clst: drk gy	0345-1L
3265.00				0394
		90	Sh/Clst: m gy to dsk y brn	0394-2L
		10	S/Sst : lt gy to m gy, calc, f, cem	0394-1L
3272.56	swc			0346
	0.33	100	Sh/Clst: drk gy	0346-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Lithology description	Trb	Sample
Int	Cvd	TOC%	%		
3289.00					0395
			95 Sh/Clst: m gy to dsk y brn		0395-2L
			5 S/Sst : lt gy to m gy, calc, f, cem		0395-1L
3296.50	swc				0321
		0.41	100 Sh/Clst: drk gy		0321-1L
3301.00					0307
			60 Sh/Clst: drk gy		0307-1L
			40 S/Sst : lt gy to m gy, calc, cem		0307-2L
			tr Cont : prp		0307-3L
3317.00					0396
			90 Sh/Clst: m gy to drk gy		0396-2L
			10 S/Sst : lt gy to m gy, calc, f, cem		0396-1L
			tr Cont : Coal-ad, prp		0396-3L
3318.01	swc				0347
		0.30	100 Sh/Clst: drk gy		0347-1L
3337.00					0397
			70 Cont : Coal-ad		0397-3L
			25 Sh/Clst: m gy to drk gy		0397-2L
			5 S/Sst : lt gy to m gy, calc, f, cem		0397-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Trb	Sample	
Int Cvd	TOC%	%			
Lithology description					
3341.05	swc			0348	
	0.39	100	Sh/Clst:	drk gy	0348-1L
3355.00				0398	
		70	Sh/Clst:	m gy to drk gy	0398-2L
		20	Cont	: lt y	0398-4L
		10	Cont	: Coal-ad	0398-3L
		tr	S/Sst	: lt gy to m gy, calc, f, cem	0398-1L
3361.00				0308	
	0.42	90	Sh/Clst:	drk gy	0308-1L
		10	S/Sst	: lt gy to m gy, calc, cem	0308-2L
		tr	Cont	: pfp	0308-3L
3385.00				0399	
		90	Sh/Clst:	m gy to drk gy	0399-2L
		10	Cont	: Coal-ad, Mica-ad	0399-3L
		tr	S/Sst	: lt gy to m gy, calc, f, cem	0399-1L
3389.00	swc			0322	
		100	S/Sst	: lt gy	0322-1L
3396.98	swc			0349	
	0.15	100	S/Sst	: lt gy to m gy, f	0349-1L



Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type			Trb	Sample
Int	Cvd	TOC%	%	Lithology description	
3397.00					0479
			70	Sh/Clst: drk gy	0479-1L
			30	S/Sst : lt gy to m gy, f, cem	0479-2L
			tr	Cont : Coal-ad, Mica-ad	0479-3L
3409.00					0400
			70	Sh/Clst: drk gy	0400-2L
			20	S/Sst : lt gy to m gy, f, cem	0400-1L
			10	Cont : Coal-ad, Mica-ad	0400-3L
3421.00					0309
	0.49		50	Sh/Clst: drk gy	0309-1L
			50	S/Sst : lt gy to m gy	0309-2L
			tr	Cont : prp	0309-3L
3421.05	swc				0350
	0.49	100		Sh/Clst: drk gy	0350-1L
3433.00					0401
			80	Sh/Clst: drk gy, st	0401-2L
			10	S/Sst : lt gy to m gy, f, cem, st	0401-1L
			10	Cont : st, Coal-ad, tar-ad	0401-3L
3444.00	swc				0323
	0.57	100		Sh/Clst: drk gy, s	0323-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type	Trb	Sample
Int	Cvd	TOC%	% Lithology description
3457.00			0402
		80	Sh/Clst: drk gy
		20	Cont : st, Coal-ad, tar-ad
		tr	S/Sst : lt gy to m gy, f, cem
3473.08	swc		0351
	0.38	100	Sh/Clst: drk gy
3475.00			0403
		100	Sh/Clst: drk gy
		tr	S/Sst : lt gy to m gy, f, cem
3481.00			0310
	0.52	90	Sh/Clst: drk gy
		10	S/Sst : lt gy to m gy, calc, cem
		tr	Cont : prp
3494.44	swc		0352
	0.12	100	Ca : drk gy, s, cly
3505.00			0404
		70	Sh/Clst: drk gy
		20	Cont : Coal-ad
		10	S/Sst : lt gy to m gy, f, cem

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type			Trb	Sample
Int	Cvd	TOC%	%	Lithology description	
3506.00	swc				0324
		0.45	100	Sh/Clst: drk gy, dol	0324-1L
3523.50	swc				0325
		0.30	100	Sh/Clst: drk gy, dol	0325-1L
3529.00					0405
				90 Sh/Clst: m gy to drk gy, slt, dol	0405-2L
				10 S/Sst : lt gy to m gy, calc, cem	0405-1L
3541.00					0311
				90 Sh/Clst: m gy to drk gy	0311-1L
				10 S/Sst : lt gy to m gy, calc, cem	0311-2L
				tr Cont : prp	0311-3L
3543.00	swc				0326
				100 Sltst : m gy to drk gy, cly	0326-1L
3553.00					0406
				80 Sh/Clst: m gy to drk gy	0406-2L
				20 Cont : Coal-ad	0406-3L
				tr S/Sst : lt gy to m gy, calc, cem	0406-1L
3563.00	swc				0313
		0.37	100	Sh/Clst: drk gy	0313-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type			Trb	Sample
Int	Cvd	TOC%	%		
-----					
Lithology description					
-----					
3577.00					0407
			90 Sh/Clst: m gy to drk gy		0407-2L
			10 S/Sst : lt gy to m gy, calc, cem		0407-1L
3584.00	swc				0314
		0.15	75 Sh/Clst: drk gy		0314-1L
			25 S/Sst : lt gy to m gy, f		0314-2L
3591.50	swc				0315
		0.53	100 Sh/Clst: drk gy, dol		0315-1L
3595.00					0408
			80 Sh/Clst: m gy to drk gy		0408-2L
			10 S/Sst : lt gy to m gy, calc, cem		0408-1L
			10 Cont : Coal-ad		0408-3L
3601.00					0312
			95 Sh/Clst: m gy to drk gy		0312-1L
			5 S/Sst : lt gy to m gy, calc, cem		0312-2L
3602.00	swc				0316
			50 Sh/Clst: drk gy, dol		0316-1L
			50 S/Sst : lt gy, dol, f		0316-2L
		0.34	bulk		0316-0B

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type			Trb	Sample
Int	Cvd	TOC%	%	Lithology description	
3625.07	swc				0353
		0.34	100	Sh/Clst: m gy to drk gy	0353-1L
3637.00					0420
				80 Sh/Clst: m gy to drk gy, calc	0420-1L
				20 S/Sst : lt gy to m gy, calc, f, cem	0420-2L
3655.00					0421
				90 Sh/Clst: m gy to drk gy to gy blk	0421-1L
				10 S/Sst : lt gy to m gy, calc, f, cem	0421-2L
3670.00					0409
				90 Sh/Clst: drk gy, mic	0409-1L
				10 Cont : cem	0409-2L
3679.00	swc				0480
				100 Sh/Clst: m gy to drk gy	0480-1L
3682.00					0422
				80 Sh/Clst: m gy to drk gy	0422-1L
				10 S/Sst : lt gy to m gy, calc, f, cem	0422-2L
				10 Cont : prp, dd	0422-3L
3686.00	swc				0481
				100 Sh/Clst: drk gy	0481-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Lithology description	Trb	Sample
Int	Cvd	TOC%	%		
3695.00	swc		100 Sh/Clst: drk gy		0482 0482-1L
3706.00			70 Sh/Clst: m gy to drk gy, mic 30 Cont : Coal-ad		0410 0410-1L 0410-2L
3706.00	swc		100 Sh/Clst: drk gy		0483 0483-1L
3714.00	swc		100 Sh/Clst: m gy to drk gy		0484 0484-1L
3725.00	swc		100 Sh/Clst: m gy to drk gy, slt		0485 0485-1L
3730.00			70 Sh/Clst: m gy to drk gy 20 S/Sst : lt gy to m gy, calc, f, cem 10 Cont : prp, dd		0424 0424-1L 0424-2L 0424-3L
3752.00	swc		100 Sh/Clst: m gy to drk gy		0486 0486-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type	Trb	Sample
Int Cvd	TOC%	%	Lithology description
3754.00			0425
		90	Sh/Clst: m gy to drk gy
		5	S/Sst : lt gy to m gy, calc, f, cem
		5	Cont : prp, dd
3766.00			0411
		60	S/Sst : lt gy to m gy, dol, glauc, f, cem
		40	Sh/Clst: m gy to drk gy, mic
3766.50	swc		0487
		100	Sh/Clst: m gy to drk gy, slt
3778.00			0426
		80	Sh/Clst: m gy to drk gy
		20	S/Sst : lt gy to m gy, calc, f, cem
		tr	Cont : prp, dd
3790.00			0413
		50	Sh/Clst: m gy to drk gy, mic
		50	S/Sst : lt gy to m gy, dol, glauc, f, cem
		tr	Cont : Coal-ad, prp
3792.50	swc		0488
		100	Sh/Clst: lt gy to drk gy, slt

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	% Lithology description		
3806.00	swc			0489
		100 Sh/Clst: m gy to drk gy		0489-1L
3808.00				0427
		90 Sh/Clst: m gy to drk gy		0427-1L
		10 S/Sst : lt gy to m gy, calc, f, cem		0427-2L
		tr Cont : prp, dd		0427-3L
3817.00	swc			0490
		100 Sh/Clst: m gy to drk gy, slt		0490-1L
3820.00				0416
		80 Sh/Clst: m gy to drk gy, mic		0416-1L
		20 S/Sst : lt gy to m gy, dol, glauc, f, cem		0416-2L
		tr Cont : Coal-ad, prp		0416-3L
3828.00	swc			0491
		100 Sh/Clst: m gy to drk gy		0491-1L
3832.00				0428
		90 Sh/Clst: m gy to drk gy		0428-1L
		5 S/Sst : lt gy to m gy, calc, f, cem		0428-2L
		5 Cont : Coal-ad, prp		0428-3L
3836.00	swc			0492
		100 Sh/Clst: m gy to drk gy		0492-1L



Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type	Trb	Sample
Int Cvd	TOC%	%	Lithology description
3846.00	swc		0493
		100	Sh/Clst: m gy to drk gy 0493-1L
3850.00			0418
		90	Sh/Clst: m gy to drk gy, mic 0418-1L
		10	S/Sst : lt gy to m gy, dol, glauc, f, cem 0418-2L
		tr	Cont : Coal-ad, prp 0418-3L
3856.00			0429
		95	Sh/Clst: drk gy 0429-1L
		5	S/Sst : lt gy to m gy, calc, f, cem 0429-2L
		tr	Cont : Coal-ad, prp 0429-3L
3856.00	swc		0494
		100	Sh/Clst: drk gy 0494-1L
3865.00	swc		0495
		100	Sh/Clst: drk gy 0495-1L
3874.00			0430
		80	Sh/Clst: drk gy 0430-1L
		15	S/Sst : lt gy to m gy, calc, f, cem 0430-2L
		5	Cont : Coal-ad, prp 0430-3L
3880.00			0415
		70	S/Sst : lt gy to m gy, dol, glauc, f, cem 0415-2L
		30	Sh/Clst: m gy to drk gy, mic 0415-1L
		tr	Cont : Coal-ad, prp 0415-3L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type	Trb	Sample
Int Cvd	TOC%	%	Lithology description
3895.00	swc		0496
		100	Sh/Clst: drk gy, slt 0496-1L
3904.00			0431
		90	Sh/Clst: drk gy 0431-1L
		5	S/Sst : lt gy to m gy, calc, f, cem 0431-2L
		5	Cont : Coal-ad, prp 0431-3L
3904.00	swc		0497
		100	Sh/Clst: drk gy to brn blk, slt 0497-1L
3910.00			0417
		95	Sh/Clst: drk gy to blk, mic 0417-1L
		5	S/Sst : lt gy to m gy, dol, glauc, f, cem 0417-2L
		tr	Cont : Coal-ad, prp 0417-3L
3916.00	swc		0498
		100	Sh/Clst: drk gy 0498-1L
3928.00			0432
		60	Sh/Clst: drk gy 0432-1L
		25	Cont : cem 0432-4L
		10	S/Sst : lt gy to m gy, calc, f, cem 0432-2L
		5	Cont : Coal-ad, prp 0432-3L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	% Lithology description		
3928.00	swc			0499
		100 Sh/Clst: drk gy, slt		0499-1L
3940.00	swc			0500
		100 Sh/Clst: lt gy to drk gy, slt		0500-1L
3946.00				0433
		80 Sh/Clst: drk gy, trbofgs		0433-1L
		10 Cont : cem		0433-4L
		5 S/Sst : lt gy to m gy, calc, f, cem		0433-2L
		5 Cont : Coal-ad, prp		0433-3L
3950.00				0414
		90 Sh/Clst: drk gy to blk, mic		0414-1L
		10 Cont : cem		0414-3L
		tr S/Sst : lt gy to m gy, dol, glauc, f, cem		0414-2L
3954.00	swc			0501
		100 Sh/Clst: drk gy		0501-1L
3965.00	swc			0502
		100 Sh/Clst: brn blk		0502-1L
3974.00	swc			0503
		100 Sh/Clst: gy blk		0503-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type	Trb	Sample
Int Cvd	TOC%		
-----			
	%	Lithology description	
-----			
3976.00			0434
	90	Sh/Clst: gy blk, trbofgs	0434-1L
	5	Ca : w to lt gy, Mica-ad	0434-2L
	5	Cont : Coal-ad, prp	0434-3L
3981.00	swc		0504
	100	Sh/Clst: brn blk	0504-1L
3994.00			0412
	40	Sh/Clst: m gy, trbofgs	0412-1L
	30	Ca : w	0412-4L
	20	S/Sst : lt gy, dol, f, cem	0412-2L
	10	Cont : Coal-ad	0412-3L
3996.00	swc		0505
	100	Sh/Clst: m gy, slt	0505-1L
4006.00			0436
	50	Cont : cem	0436-4L
	40	Sh/Clst: m gy to drk gy, trbofgs	0436-1L
	5	S/Sst : lt gy, calc, f, cem	0436-2L
	5	Cont : Coal-ad, prp	0436-3L
4007.50	swc		0506
	100	Sh/Clst: m gy to drk gy	0506-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	% Lithology description		
4020.00	swc			0507
		100 Sh/Clst: lt gy, dol		0507-1L
4028.00	swc			0508
		100 Sh/Clst: lt gy to m gy		0508-1L
4030.00				0435
		50 Sh/Clst: lt gy to m gy		0435-1L
		40 S/Sst : lt gy, dol, f, cem		0435-2L
		10 Cont, : Coal-ad, prp		0435-3L
		tr Cont : cem		0435-4L
4035.00	swc			0509
		100 Sh/Clst: lt gy to m gy		0509-1L
4043.00	swc			0510
		100 Sh/Clst: lt gy to m gy		0510-1L
4054.00				0437
		55 Sh/Clst: lt gy to m gy		0437-1L
		40 S/Sst : lt gy, dol, f, cem		0437-2L
		5 Cont : Coal-ad, prp		0437-3L
4059.00	swc			0511
		100 Sh/Clst: gn gy		0511-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Trb	Sample
Int	Cvd	TOC%	%	Lithology description
4069.00	swc			0512
			100	Sh/Clst: lt gy to gn gy, calc
				0512-1L
4078.00				0438
			50	Sh/Clst: lt gy to m gy
			45	S/Sst : lt gy, dol, f, cem
			5	Cont : Coal-ad, prp
				0438-1L
				0438-2L
				0438-3L
4080.00	swc			0513
			100	S/Sst : lt gy, calc
				0513-1L
4090.00	swc			0514
			100	Sh/Clst: lt gy to m gy, calc
				0514-1L
4102.00				0439
			50	S/Sst : lt gy, dol, f, cem
			40	Sh/Clst: lt gy to m gy
			10	Cont : Coal-ad, prp
				0439-2L
				0439-1L
				0439-3L
4104.00	swc			0515
			100	Sh/Clst: lt gy to m gy to gn gy
				0515-1L
4120.00	swc			0516
			100	Sh/Clst: lt gy to drk gy
				0516-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Trb	Sample
Int Cvd	TOC%	% Lithology description		
4126.00				0440
		50 S/Sst : lt gy, dol, f, cem		0440-2L
		30 Cont : Coal-ad, prp		0440-3L
		20 Sh/Clst: lt gy to m gy		0440-1L
4129.00	swc			0517
		100 Sh/Clst: m gy		0517-1L
4134.00	swc			0518
		100 S/Sst : lt gy, calc, f, cem		0518-1L
4146.00	swc			0519
		100 Sh/Clst: lt gy to drk gy, slt		0519-1L
4150.00				0441
		40 Sh/Clst: lt gy to m gy		0441-1L
		40 S/Sst : lt gy, dol, f, cem		0441-2L
		20 Cont : Coal-ad, prp		0441-3L
4155.00	swc			0520
		100 S/Sst : drk gy		0520-1L
4171.00	swc			0521
		100 S/Sst : drk gy		0521-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type		Trb	Sample
Int	Cvd	TOC%	%	Lithology description
4174.00				0442
			40	Sh/Clst: lt gy to m gy
			40	S/Sst : lt gy, dol, f, cem
			20	Cont : Coal-ad, prp
4178.00	swc			0522
			100	S/Sst : m gy, mic
4189.00	ccp			0460
			100	Sh/Clst: lt gy to m gy, pyr, slt
4189.50	ccp			0461
			100	Sh/Clst: m gy, mic
4190.00	ccp			0462
			100	Sh/Clst: m gy
4190.00	swc			0523
			100	Ca : lt gy, s
4191.00	ccp			0463
			100	Sh/Clst: m gy to drk gy, slt



Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type	Trb	Sample
Int Cvd	TOC%		
Lithology description			
4192.00	ccp		0464
	100 Sh/Clst:	m gy to drk gy	0464-1L
4193.00	ccp		0465
	100 S/Sst	: lt gy to m gy, calc, f, cem	0465-1L
4194.00	ccp		0466
	100 S/Sst	: lt gy to m gy, calc, mic, f, cem	0466-1L
4194.00	swc		0524
	100 Sh/Clst:	lt gy to m gy	0524-1L
4195.00	ccp		0467
	100 S/Sst	: lt gy, cly, mic, f, cem	0467-1L
4196.00	ccp		0468
	100 Sh/Clst:	lt ol gy	0468-1L
4197.00	ccp		0469
	100 Sh/Clst:	lt ol gy to m gy, slt	0469-1L
4198.00			0443
	50 Cont	: Coal-ad, prp	0443-3L
	25 Sh/Clst:	lt gy to m gy	0443-1L
	25 S/Sst	: lt gy, dol, f, cem	0443-2L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type			Trb	Sample
Int	Cvd	TOC%	%	Lithology description	
4198.00	ccp				0470
			100	Sh/Clst: drk gy	0470-1L
4198.60	ccp				0471
			100	Sh/Clst: drk gy	0471-1L
4215.00	swc				0525
			100	Sh/Clst: lt gy to m gy, calc	0525-1L
4222.00					0444
			70	S/Sst : lt gy, dol, f, cem	0444-2L
			30	Sh/Clst: lt gy to m gy	0444-1L
			tr	Cont : Coal-ad, prp	0444-3L
4226.00	swc				0526
			100	Sh/Clst: drk gy	0526-1L
4234.50	swc				0527
			100	S/Sst : lt gy, calc	0527-1L
4242.00	swc				0528
			100	Sh/Clst: drk gy	0528-1L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type	Int Cvd	TOC%	%	Lithology description	Trb	Sample
4246.00							0445
				65	S/Sst : lt gy, dol, f, cem		0445-2L
				30	Sh/Clst: lt gy to m gy		0445-1L
				5	Cont : Coal-ad, cem, prp		0445-3L
4254.00	swc						0529
				100	Sh/Clst: m gy, calc		0529-1L
4268.00	swc						0530
				100	Sh/Clst: drk gy		0530-1L
4280.00	swc						0531
				100	Sh/Clst: drk gy		0531-1L
4282.00							0446
				60	Sh/Clst: lt gy to m gy		0446-1L
				40	S/Sst : lt gy, dol, f, cem		0446-2L
				tr	Cont : Coal-ad, cem, prp		0446-3L
4290.00	swc						0532
				100	Sh/Clst: drk gy		0532-1L
4300.00							0447
				50	Cont : Coal-ad		0447-3L
				30	Sh/Clst: lt gy to m gy		0447-1L
				20	S/Sst : lt gy, dol, f, cem		0447-2L

Table 2 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type			Trb	Sample
Int Cvd	TOC%	%	Lithology description		
4300.00	swc				0533
		100 Ca	: m gy to drk gy		0533-1L

Table 3 : Rock-Eval table for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
500.00	swc	Sh/Clst: ol gy	0.04	0.36	0.53	0.68	1.45	25	37	0.4	0.10	429	0001-1L
560.00	swc	Sh/Clst: ol gy	0.02	0.14	0.25	0.56	0.54	26	46	0.2	0.13	427	0002-1L
608.50	swc	Sh/Clst: ol gy	-	0.17	0.13	1.31	1.06	16	12	0.2	-	423	0003-1L
640.00	swc	Sh/Clst: ol gy	0.03	0.24	0.14	1.71	0.95	25	15	0.3	0.11	424	0004-1L
700.00	swc	Sh/Clst: ol gy to drk gy	0.01	0.17	0.15	1.13	1.01	17	15	0.2	0.06	422	0005-1L
760.00	swc	Sh/Clst: ol gy to drk gy	0.02	0.14	0.08	1.75	1.04	13	8	0.2	0.13	428	0006-1L
820.00	swc	Sh/Clst: ol gy to drk gy	0.02	0.27	0.08	3.38	1.22	22	7	0.3	0.07	430	0007-1L
880.00	swc	Sh/Clst: ol gy to drk gy	0.03	0.19	0.08	2.38	0.99	19	8	0.2	0.14	425	0008-1L
940.00	swc	Sh/Clst: ol gy to drk gy	0.01	0.11	0.11	1.00	1.04	11	11	0.1	0.08	428	0009-1L
1000.00	swc	Sh/Clst: ol gy	0.03	-	1.20	-	0.83	-	145	-	1.00	406	0010-1L
1025.00	swc	Sh/Clst: drk gy	0.02	0.36	0.04	9.00	0.61	59	7	0.4	0.05	432	0012-1L
1045.00	cut	Sh/Clst: drk gy	0.02	0.18	0.08	2.25	0.58	31	14	0.2	0.10	427	0077-1L
1050.00	swc	Sh/Clst: drk gy	0.01	0.20	0.01	20.00	0.50	40	2	0.2	0.05	479	0013-1L
1063.00	cut	Sh/Clst: drk gy	0.01	0.07	0.68	0.10	0.46	15	148	0.1	0.13	433	0078-1L
1075.00	swc	Sh/Clst: red brn	-	0.03	0.91	0.03	0.09	33	1011	-	-	336	0034-1L

Table 3 : Rock-Eval table for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
1095.00	swc	Sh/Clst: dsk y brn	1.40	21.96	0.14	156.86	3.85	570	4	23.4	0.06	433	0035-1L
1105.00	swc	Sh/Clst: drk gy	0.04	0.17	0.54	0.31	0.62	27	87	0.2	0.19	419	0014-1L
1115.00	swc	Sh/Clst: drk gy	-	0.15	0.40	0.38	0.28	54	143	0.2	-	475	0015-1L
1125.00	swc	Sh/Clst: red brn	0.02	0.03	0.90	0.03	0.08	38	1125	0.1	0.40	353	0036-1L
1141.00	cut	Sh/Clst: red brn	0.03	0.04	0.26	0.15	0.06	67	433	0.1	0.43	296	0083-5L
1145.00	swc	Ca : red brn	0.04	0.36	0.60	0.60	0.62	58	97	0.4	0.10	433	0037-1L
1153.00	cut	Sh/Clst: red brn	0.01	0.04	0.21	0.19	0.06	67	350	0.1	0.20	334	0084-4L
1159.00	cut	Sh/Clst: red brn	0.03	0.06	0.23	0.26	0.08	75	288	0.1	0.33	263	0085-3L
1165.00	cut	Sh/Clst: gy blk to dsk y brn	2.64	41.29	0.80	51.61	7.56	546	11	43.9	0.06	433	0086-2L
1166.50	swc	Sh/Clst: gy blk	0.18	2.45	0.48	5.10	1.18	208	41	2.6	0.07	437	0038-1L
1171.10	ccp	Sh/Clst: dsk y brn	1.70	23.62	0.26	90.85	6.06	390	4	25.3	0.07	430	0546-1L
1172.20	ccp	Sh/Clst: dsk y brn	2.54	26.58	0.33	80.55	7.19	370	5	29.1	0.09	427	0535-1L
1173.30	ccp	Sh/Clst: dsk y brn	1.62	22.36	0.27	82.81	5.65	396	5	24.0	0.07	427	0538-1L
1174.21	ccp	Sh/Clst: dsk y brn	1.10	18.28	0.26	70.31	4.17	438	6	19.4	0.06	429	0072-1L
1175.50	ccp	Sh/Clst: dsk y brn	2.72	29.02	0.31	93.61	7.80	372	4	31.7	0.09	424	0543-1L

Table 3 : Rock-Eval table for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
1177.00	cut	Sh/Clst: gy blk to dsk y brn	1.43	28.20	0.25	112.80	3.94	716	6	29.6	0.05	433	0087-2L
1182.50	swc	Sh/Clst: dsk y brn	0.94	15.95	0.12	132.92	3.62	441	3	16.9	0.06	434	0016-1L
1189.00	cut	Sh/Clst: dsk y brn	1.32	20.25	0.18	112.50	4.04	501	4	21.6	0.06	431	0088-1L
1205.00	swc	Sh/Clst: dsk y brn	1.46	17.79	0.20	88.95	4.48	397	4	19.3	0.08	432	0039-1L
1210.00	swc	Sh/Clst: dsk y brn	1.88	20.73	0.42	49.36	5.42	382	8	22.6	0.08	430	0017-1L
1213.00	cut	Sh/Clst: dsk y brn	2.14	23.05	0.31	74.35	6.31	365	5	25.2	0.08	429	0089-1L
1225.00	swc	Sh/Clst: dsk y brn	1.90	21.89	0.34	64.38	4.36	502	8	23.8	0.08	433	0040-1L
1237.00	cut	Sh/Clst: dsk y brn	2.28	24.67	0.31	79.58	6.39	386	5	27.0	0.08	427	0090-1L
1248.50	swc	Sh/Clst: m gy to drk gy	0.06	0.77	0.16	4.81	0.63	122	25	0.8	0.07	438	0041-1L
1255.00	swc	Sh/Clst: m gy to drk gy	0.05	0.53	0.07	7.57	0.52	102	13	0.6	0.09	434	0042-1L
1261.00	cut	Sh/Clst: m gy to drk gy	0.06	0.39	0.19	2.05	0.65	60	29	0.4	0.13	435	0091-2L
1275.00	swc	Sh/Clst: m gy to drk gy	0.07	0.36	0.28	1.29	0.36	100	78	0.4	0.16	429	0043-1L
1286.30	ccp	S/Sst : lt gy to lt brn gy	0.35	0.18	1.21	0.15	0.05	360	2420	0.5	0.66	374	0074-1L
1289.30	ccp	S/Sst : lt gy to lt brn gy	0.12	0.18	0.38	0.47	0.11	164	345	0.3	0.40	427	0075-1L
1291.30	ccp	S/Sst : lt gy to lt brn gy	0.31	0.27	0.08	3.38	0.16	169	50	0.6	0.53	374	0073-1L

Table 3 : Rock-Eval table for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
1300.00	swc	S/Sst : lt gy, gn, lt brn gy	0.06	0.13	1.31	0.10	0.16	81	819	0.2	0.32	436	0044-1L
1309.00	cut	S/Sst : lt gy	0.01	0.08	0.06	1.33	0.08	100	75	0.1	0.11	435	0093-4L
1316.50	swc	S/Sst : lt gy	0.32	1.15	0.61	1.89	0.45	256	136	1.5	0.22	441	0045-1L
1333.00	cut	S/Sst : lt gy	0.02	0.12	0.03	4.00	0.09	133	33	0.1	0.14	440	0094-4L
1347.00	swc	S/Sst : w to lt gy	0.01	0.38	0.06	6.33	0.05	760	120	0.4	0.03	503	0046-1L
1357.00	cut	S/Sst : w to lt gy	0.05	0.03	-	-	0.04	75	-	0.1	0.63	439	0095-1L
1367.00	swc	S/Sst : lt gy to brn gy	0.13	0.89	-	-	0.36	247	-	1.0	0.13	444	0047-1L
1375.50	swc	Sh/Clst: lt brn gy	0.02	0.23	2.31	0.10	0.18	128	1283	0.3	0.08	436	0048-1L
1378.00	swc	Sh/Clst: lt brn gy	0.04	0.26	0.04	6.50	0.16	163	25	0.3	0.13	473	0049-1L
1387.45	ccp	S/Sst : w	-	-	-	-	0.01	-	-	-	-	330	0071-1L
1405.00	swc	Sh/Clst: lt brn gy	0.04	0.37	0.14	2.64	0.16	231	88	0.4	0.10	452	0018-1L
1405.00	cut	S/Sst : w to lt gy	0.03	0.02	0.07	0.29	0.03	67	233	0.1	0.60	459	0097-1L
1419.00	swc	Sh/Clst: lt brn gy	0.20	0.94	0.30	3.13	0.68	138	44	1.1	0.18	444	0050-1L
1429.00	cut	Sh/Clst: gn gy, brn gy	0.03	0.20	0.06	3.33	0.40	50	15	0.2	0.13	432	0098-5L
1436.50	swc	Sh/Clst: m gy to drk gy	0.03	0.35	1.82	0.19	0.30	117	607	0.4	0.08	485	0051-1L



Table 3 : Rock-Eval table for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
1453.00	cut	Sh/Clst: lt gy to m gy	0.02	0.15	0.16	0.94	0.34	44	47	0.2	0.12	432	0099-3L
1464.00	swc	Sh/Clst: m gy to drk gy	0.02	0.31	0.40	0.77	0.28	111	143	0.3	0.06	478	0052-1L
1477.00	cut	Sh/Clst: lt gy to m gy	0.04	0.20	0.24	0.83	0.38	53	63	0.2	0.17	436	0100-3L
1494.00	swc	Sh/Clst: m gy to drk gy	0.10	0.73	1.20	0.61	0.92	79	130	0.8	0.12	449	0053-1L
1501.00	cut	S/Sst : w to lt gy	-	0.01	0.09	0.11	0.04	25	225	-	-	445	0101-1L
1512.00	swc	S/Sst : lt gy	0.05	0.26	2.12	0.12	0.58	45	366	0.3	0.16	445	0054-1L
1522.00	cut	S/Sst : w to lt gy	0.01	0.02	0.03	0.67	0.04	50	75	-	0.33	395	0102-1L
1533.00	swc	S/Sst : w to lt gy	0.08	0.15	0.27	0.56	0.09	167	300	0.2	0.35	513	0019-1L
1546.00	cut	S/Sst : w	0.03	0.07	-	-	0.14	50	-	0.1	0.30	407	0103-1L
1570.00	swc	S/Sst : w	0.02	0.02	0.10	0.20	0.03	67	333	-	0.50	417	0021-1L
1592.00	swc	Sh/Clst: dsk y brn	0.13	1.22	1.47	0.83	1.03	118	143	1.4	0.10	441	0022-1L
1618.00	cut	Sltst : m gy	0.11	1.72	0.37	4.65	1.61	107	23	1.8	0.06	444	0106-3L
1619.00	swc	bulk	0.15	0.68	0.68	1.00	0.64	106	106	0.8	0.18	442	0055-0B
1640.00	swc	S/Sst : w	0.08	0.08	0.33	0.24	0.06	133	550	0.2	0.50	493	0056-1L
1642.00	cut	Sltst : m gy	0.08	0.72	0.42	1.71	0.94	77	45	0.8	0.10	444	0107-3L

Table 3 : Rock-Eval table for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
1666.00	cut	Sltst : m gy	0.07	0.96	0.12	8.00	1.19	81	10	1.0	0.07	444	0108-3L
1672.00	swc	Sh/Clst: dsk y brn	0.11	0.81	0.22	3.68	0.46	176	48	0.9	0.12	444	0020-1L
1690.00	cut	S/Sst : w to lt gy	-	-	-	-	0.06	-	-	-	-	446	0109-1L
1704.00	swc	S/Sst : lt gy, drk brn gy	7.94	7.23	0.36	20.08	1.78	406	20	15.2	0.52	428	0057-1L
1714.00	cut	S/Sst : w to lt gy	-	-	-	-	0.02	-	-	-	-	412	0110-1L
1735.50	swc	Sh/Clst: dsk y brn	0.09	0.77	0.57	1.35	0.83	93	69	0.9	0.10	441	0058-1L
1738.00	cut	S/Sst : w to lt gy	0.01	0.03	0.11	0.27	0.08	38	138	-	0.25	448	0111-1L
1762.00	cut	S/Sst : w to lt gy to gy gn	0.01	0.03	-	-	0.01	300	-	-	0.25	321	0112-1L
1766.50	swc	Sh/Clst: dsk y brn	0.06	0.52	0.90	0.58	0.76	68	118	0.6	0.10	451	0023-1L
1772.00	swc	Sh/Clst: m gy	0.05	0.21	1.75	0.12	0.19	111	921	0.3	0.19	511	0059-1L
1786.00	cut	Sh/Clst: brn gy to dsk brn, gy gn	0.02	0.40	0.07	5.71	0.41	98	17	0.4	0.05	440	0113-3L
1790.00	swc	Coal : blk	0.48	25.18	-	-	6.24	404	-	25.7	0.02	447	0060-1L
1810.00	cut	Sh/Clst: brn gy to dsk brn, gy gn	0.01	0.28	0.14	2.00	0.35	80	40	0.3	0.03	446	0114-3L
1811.00	swc	Sh/Clst: ol gy	0.01	0.09	0.18	0.50	0.26	35	69	0.1	0.10	500	0024-1L
1832.50	swc	Sh/Clst: m gy	0.03	0.19	0.24	0.79	0.17	112	141	0.2	0.14	465	0025-1L

Table 3 : Rock-Eval table for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
1834.00	cut	Sh/Clst: brn gy to dsk brn, gy gn	0.01	0.12	0.13	0.92	0.25	48	52	0.1	0.08	445	0115-7L
1852.00	swc	Sh/Clst: m gy	-	0.15	0.14	1.07	0.03	500	467	0.2	-	462	0061-1L
1858.00	cut	Sh/Clst: brn gy to dsk brn, gy gn, lt pu	0.02	0.22	0.09	2.44	0.40	55	23	0.2	0.08	446	0116-3L
1882.00	cut	Sh/Clst: brn gy to dsk brn, gy gn, lt pu	-	-	0.09	-	0.10	-	90	-	-	425	0117-3L
1883.00	swc	Sh/Clst: drk gy	0.02	0.38	0.22	1.73	0.25	152	88	0.4	0.05	500	0062-1L
1906.00	cut	Sh/Clst: brn gy to dsk y brn, gy gn, lt pu	0.01	0.04	0.11	0.36	0.23	17	48	0.1	0.20	446	0118-3L
1911.00	swc	Sh/Clst: drk gy	0.18	0.75	0.38	1.97	0.99	76	38	0.9	0.19	449	0026-1L
1921.00	swc	Sh/Clst: dsk gn	0.01	0.06	0.15	0.40	0.11	55	136	0.1	0.14	419	0063-1L
1930.00	cut	Sh/Clst: brn gy to dsk y brn, gy gn	0.10	1.38	0.15	9.20	1.00	138	15	1.5	0.07	445	0119-3L
1942.00	cut	S/Sst : w to lt gy to lt gn gy	-	0.01	0.07	0.14	0.04	25	175	-	-	444	0133-1L
1954.00	cut	Sh/Clst: brn gy to dsk y brn, gy gn	0.12	0.68	0.18	3.78	0.95	72	19	0.8	0.15	447	0120-3L
1963.00	swc	Sh/Clst: m gy	0.04	0.17	0.34	0.50	0.13	131	262	0.2	0.19	507	0027-1L

Table 3 : Rock-Eval table for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
1966.00	cut	Sh/Clst: brn gy to dsk y brn, gn gy	0.01	0.21	0.17	1.24	0.37	57	46	0.2	0.05	451	0134-2L
1978.00	cut	S/Sst : w to lt gy to gy gn	-	-	0.09	-	0.06	-	150	-	-	451	0121-1L
2002.00	cut	Sh/Clst: brn gy to dsk y brn, gn gy	0.04	0.33	0.33	1.00	0.48	69	69	0.4	0.11	453	0122-3L
2003.00	swc	S/Sst : w to lt gy	0.19	0.10	0.75	0.13	0.16	63	469	0.3	0.66	356	0065-1L
2026.00	cut	S/Sst : w to lt gy to gy gn	0.03	0.15	0.21	0.71	0.18	83	117	0.2	0.17	450	0123-1L
2030.00	swc	Sh/Clst: ol gy	0.08	0.29	0.32	0.91	0.26	112	123	0.4	0.22	474	0066-1L
2042.00	swc	S/Sst : w to lt gy	0.05	0.22	0.26	0.85	0.07	314	371	0.3	0.19	538	0029-1L
2050.00	cut	Sltst : brn gy to dsk y brn, gy gn	0.13	1.89	0.19	9.95	1.08	175	18	2.0	0.06	452	0124-2L
2072.00	swc	Sh/Clst: dsk y brn	0.34	1.09	0.26	4.19	1.04	105	25	1.4	0.24	448	0067-1L
2074.00	cut	S/Sst : w to lt gy	0.01	0.03	0.07	0.43	0.12	25	58	-	0.25	461	0125-1L
2093.00	swc	Coal : brn blk	16.52	114.78	-	-	27.30	420	-	131.3	0.13	453	0068-1L
2098.00	cut	Sh/Clst: dsk brn to dsk y brn	4.27	36.24	0.22	164.73	12.67	286	2	40.5	0.11	450	0126-5L
2103.00	swc	Sh/Clst: m gy	0.11	0.38	0.31	1.23	0.51	75	61	0.5	0.22	451	0030-1L

Table 3 : Rock-Eval table for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
2110.00	cut	S/Sst : w to lt gy	-	-	0.06	-	0.04	-	150	-	-	343	0135-1L
2122.00	cut	Sh/Clst: dsk brn to brn blk	3.02	39.63	0.50	79.26	12.29	322	4	42.7	0.07	445	0127-5L
2134.00	cut	Sh/Clst: dsk brn to dsk y brn	0.45	6.55	0.16	40.94	1.43	458	11	7.0	0.06	445	0136-2L
2138.00	swc	Ca : m gy	0.07	0.15	2.93	0.05	0.42	36	698	0.2	0.32	463	0031-1L
2146.00	cut	Sh/Clst: m gy to dsk y brn	0.28	4.69	0.25	18.76	1.65	284	15	5.0	0.06	445	0472-1L
2150.00	swc	Sh/Clst: drk gy	0.36	1.12	0.30	3.73	1.36	82	22	1.5	0.24	451	0032-1L
2158.00	cut	S/Sst : w to lt gy	-	0.01	0.11	0.09	0.20	5	55	-	-	447	0385-1L
2161.50	swc	Sh/Clst: dsk y brn	0.50	2.85	0.13	21.92	1.68	170	8	3.3	0.15	450	0069-1L
2187.50	swc	Sh/Clst: dsk y brn	0.16	0.65	0.13	5.00	0.51	127	25	0.8	0.20	458	0070-1L
2188.00	cut	Sh/Clst: m gy to drk gy	0.02	0.06	0.13	0.46	0.20	30	65	0.1	0.25	456	0137-4L
2194.95	swc	Sh/Clst: blk	0.54	6.47	-	-	2.20	294	-	7.0	0.08	458	0363-1L
2206.00	cut	Sh/Clst: m gy to drk gy	0.12	0.25	0.16	1.56	0.40	63	40	0.4	0.32	444	0138-4L
2223.04	swc	Sltst : lt brn gy	2.86	15.39	0.89	17.29	5.03	306	18	18.3	0.16	444	0364-1L
2224.00	cut	S/Sst : lt brn gy	0.20	0.66	0.09	7.33	0.71	93	13	0.9	0.23	453	0473-1L
2230.00	cut	Sh/Clst: m gy to dsk y brn	0.24	1.45	0.19	7.63	0.93	156	20	1.7	0.14	447	0386-2L

Table 3 : Rock-Eval table for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
2238.00	swc	Sh/Clst: m gy to dsk y brn	0.57	2.17	0.35	6.20	1.45	150	24	2.7	0.21	455	0365-1L
2245.05	swc	Sltst : drk gy to dsk y brn	0.31	0.81	0.82	0.99	1.11	73	74	1.1	0.28	455	0366-1L
2250.00	swc	S/Sst : lt gy, brn gy	0.36	0.70	1.02	0.69	0.68	103	150	1.1	0.34	443	0337-1L
2254.00	cut	Sh/Clst: m gy to dsk y brn	0.49	1.26	0.24	5.25	0.98	129	24	1.8	0.28	450	0387-2L
2276.01	swc	Sh/Clst: drk gy to dsk y brn	0.12	0.40	-	-	0.48	83	-	0.5	0.23	456	0367-1L
2278.00	cut	Sh/Clst: m gy to dsk y brn	0.19	1.36	0.14	9.71	0.91	149	15	1.6	0.12	440	0388-2L
2302.00	cut	Sh/Clst: m gy to dsk y brn	0.20	1.12	0.21	5.33	0.91	123	23	1.3	0.15	442	0389-2L
2304.80	swc	S/Sst : lt gy	0.31	0.84	0.28	3.00	0.98	86	29	1.1	0.27	455	0368-1L
2314.00	cut	Sh/Clst: m gy to dsk y brn	0.13	0.61	0.12	5.08	0.68	90	18	0.7	0.18	453	0474-1L
2316.00	ccp	Sh/Clst: drk gy	0.03	0.11	0.31	0.35	0.34	32	91	0.1	0.21	461	0362-1L
2325.00	swc	Sh/Clst: dsk y brn	0.27	0.72	0.08	9.00	0.92	78	9	1.0	0.27	454	0338-1L
2326.00	cut	Sh/Clst: m gy to dsk y brn	0.14	0.56	0.06	9.33	0.70	80	9	0.7	0.20	455	0164-1L
2332.00	cut	Sh/Clst: m gy to dsk y brn	0.14	0.64	-	-	0.69	93	-	0.8	0.18	456	0165-2L
2350.00	cut	Sh/Clst: m gy to dsk y brn	0.25	0.79	-	-	0.90	88	-	1.0	0.24	457	0168-1L
2374.00	cut	Sh/Clst: m gy to dsk y brn	0.19	0.54	-	-	0.79	68	-	0.7	0.26	458	0172-1L

Table 3 : Rock-Eval table for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
2387.74	swc	Sh/Clst: drk gy to dsk y brn	0.37	1.11	0.02	55.50	1.08	103	2	1.5	0.25	461	0371-1L
2392.00	cut	Sh/Clst: dsk y brn	0.17	0.58	0.14	4.14	0.68	85	21	0.8	0.23	458	0175-1L
2398.00	cut	Sh/Clst: dsk y brn	0.16	0.55	0.06	9.17	0.57	96	11	0.7	0.23	456	0176-1L
2402.00	swc	Sh/Clst: dsk y brn	0.26	0.78	-	-	0.71	110	-	1.0	0.25	459	0339-1L
2422.00	cut	Sh/Clst: dsk y brn	0.48	0.94	-	-	1.00	94	-	1.4	0.34	458	0180-1L
2443.70	swc	Sh/Clst: dsk y brn	2.85	5.07	-	-	2.58	197	-	7.9	0.36	452	0340-1L
2446.00	cut	Sh/Clst: dsk y brn	0.69	1.54	0.04	38.50	0.97	159	4	2.2	0.31	457	0184-1L
2452.00	cut	Sh/Clst: dsk y brn	0.74	1.54	0.02	77.00	1.17	132	2	2.3	0.32	459	0185-1L
2470.00	cut	Sh/Clst: dsk y brn	0.82	1.47	-	-	1.10	134	-	2.3	0.36	457	0188-1L
2477.53	swc	Sh/Clst: drk gy to dsk y brn	0.13	0.40	-	-	0.51	78	-	0.5	0.25	464	0373-1L
2494.00	cut	Sh/Clst: dsk y brn	0.61	1.58	0.13	12.15	0.88	180	15	2.2	0.28	459	0192-1L
2498.31	swc	Sh/Clst: drk gy to dsk y brn	0.25	0.45	0.06	7.50	0.67	67	9	0.7	0.36	464	0374-1L
2512.00	cut	Sh/Clst: dsk y brn	0.66	1.45	-	-	1.04	139	-	2.1	0.31	459	0195-1L
2518.00	cut	Sh/Clst: dsk y brn	0.45	1.03	1.18	0.87	0.82	126	144	1.5	0.30	459	0196-1L
2530.06	swc	S/Sst : lt gy to lt brn gy	0.18	0.58	0.08	7.25	0.58	100	14	0.8	0.24	454	0375-1L

Table 3 : Rock-Eval table for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
2542.00	cut	Sh/Clst: dsk y brn	0.41	0.99	-	-	0.94	105	-	1.4	0.29	458	0200-1L
2566.06	swc	Sh/Clst: m gy to dsk y brn	0.32	0.58	0.32	1.81	0.67	87	48	0.9	0.36	456	0376-1L
2569.00	cut	Sh/Clst: dsk y brn	0.25	0.74	0.54	1.37	0.68	109	79	1.0	0.25	458	0204-1L
2572.00	swc	Sh/Clst: dsk y brn	0.55	1.15	0.07	16.43	0.72	160	10	1.7	0.32	449	0342-1L
2575.00	cut	Sh/Clst: drk y brn to dsk y brn	0.26	0.82	0.12	6.83	0.72	114	17	1.1	0.24	459	0205-1L
2590.00	cut	Sh/Clst: dsk y brn	0.41	0.99	-	-	0.88	113	-	1.4	0.29	459	0207-1L
2594.50	swc	Sh/Clst: dsk y brn	0.23	0.64	-	-	0.84	76	-	0.9	0.26	465	0343-1L
2614.00	cut	Sh/Clst: dsk y brn	0.65	1.33	-	-	0.99	134	-	2.0	0.33	457	0211-1L
2622.06	swc	Siltst : drk gy to dsk y brn	0.33	0.77	-	-	1.04	74	-	1.1	0.30	474	0378-1L
2656.50	swc	Sh/Clst: drk gy to dsk y brn	0.41	1.41	-	-	1.26	112	-	1.8	0.23	470	0379-1L
2678.50	swc	Sh/Clst: dsk y brn	0.24	0.57	0.16	3.56	0.95	60	17	0.8	0.30	471	0327-1L
2688.05	swc	Siltst : m gy to dsk y brn	1.01	2.18	1.04	2.10	1.09	200	95	3.2	0.32	427	0380-1L
2713.00	cut	Sh/Clst: drk y brn to dsk y brn	0.32	0.99	0.11	9.00	0.82	121	13	1.3	0.24	461	0227-1L
2717.00	swc	Sh/Clst: dsk y brn	0.15	0.41	-	-	0.86	48	-	0.6	0.27	476	0328-1L
2748.47	swc	Sh/Clst: m gy	0.17	0.40	0.06	6.67	0.49	82	12	0.6	0.30	462	0381-1L



Table 3 : Rock-Eval table for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
2755.00	cut	Sh/Clst: m gy to dsk y brn	0.30	0.89	0.11	8.09	0.78	114	14	1.2	0.25	461	0234-3L
2761.00	cut	Sh/Clst: drk y brn to dsk y brn	0.47	1.21	-	-	1.41	86	-	1.7	0.28	460	0235-1L
2774.02	swc	Sh/Clst: m gy to drk y brn	0.90	2.74	0.50	5.48	2.27	121	22	3.6	0.25	462	0382-1L
2785.00	cut	Sh/Clst: m gy to dsk y brn	0.43	0.95	0.11	8.64	0.88	108	13	1.4	0.31	457	0239-1L
2809.00	cut	Sh/Clst: m gy to dsk y brn	0.43	1.21	0.09	13.44	0.85	142	11	1.6	0.26	461	0243-1L
2810.50	swc	Sh/Clst: dsk y brn	0.13	0.35	0.14	2.50	0.59	59	24	0.5	0.27	473	0330-1L
2815.00	cut	Sh/Clst: drk gy to dsk y brn	0.49	1.28	0.09	14.22	0.90	142	10	1.8	0.28	458	0244-1L
2823.00	swc	S/Sst : lt gy	0.13	0.27	0.20	1.35	0.64	42	31	0.4	0.32	484	0331-2L
2833.00	cut	Sh/Clst: drk gy to dsk y brn	0.36	0.94	0.06	15.67	0.95	99	6	1.3	0.28	462	0247-1L
2857.00	cut	Sh/Clst: drk gy to dsk y brn	0.33	1.08	0.13	8.31	0.79	137	16	1.4	0.23	460	0251-1L
2861.53	swc	Sh/Clst: m gy	0.21	0.37	0.17	2.18	0.69	54	25	0.6	0.36	479	0383-1L
2875.00	cut	Sh/Clst: m gy to dsk y brn	0.39	0.88	0.07	12.57	0.80	110	9	1.3	0.31	459	0254-1L
2887.00	cut	Sh/Clst: drk gy to dsk y brn	0.34	1.00	0.09	11.11	0.89	112	10	1.3	0.25	455	0256-1L
2888.09	swc	Sh/Clst: dsk y brn	0.28	0.54	0.15	3.60	1.09	50	14	0.8	0.34	484	0354-1L
2903.04	swc	S/Sst : lt gy	0.37	0.59	0.44	1.34	0.70	84	63	1.0	0.39	426	0355-1L

Table 3 : Rock-Eval table for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
2929.00	cut	Sh/Clst: m gy to dsk y brn	0.49	1.49	0.07	21.29	1.34	111	5	2.0	0.25	463	0263-1L
2935.00	cut	Sh/Clst: m gy to dsk y brn	0.30	0.92	0.09	10.22	0.78	118	12	1.2	0.25	460	0264-1L
2944.03	swc	Sh/Clst: dsk y brn	0.20	0.39	0.05	7.80	0.60	65	8	0.6	0.34	477	0356-1L
2953.00	cut	Sh/Clst: m gy to dsk y brn	0.25	0.73	0.11	6.64	0.73	100	15	1.0	0.26	456	0267-1L
2971.00	swc	bulk	0.36	0.89	0.35	2.54	0.95	94	37	1.3	0.29	448	0332-0B
2977.00	cut	Sh/Clst: m gy to dsk y brn	0.32	0.82	0.06	13.67	0.81	101	7	1.1	0.28	459	0271-1L
2995.00	cut	Sh/Clst: m gy to dsk y brn, gy blk	0.30	0.88	0.05	17.60	0.79	111	6	1.2	0.25	457	0274-1L
2995.25	swc	bulk	0.35	0.88	0.30	2.93	0.93	95	32	1.2	0.28	461	0333-0B
3019.00	swc	S/Sst : m gy to brn gy	0.17	0.40	0.14	2.86	0.70	57	20	0.6	0.30	476	0334-1L
3025.00	cut	Sh/Clst: m gy to dsk y brn	0.44	1.25	0.08	15.63	0.92	136	9	1.7	0.26	457	0279-1L
3038.50	swc	S/Sst : lt gy	0.15	0.28	0.16	1.75	0.60	47	27	0.4	0.35	486	0335-1L
3049.00	cut	S/Sst : lt gy	0.04	0.09	0.09	1.00	0.28	32	32	0.1	0.31	493	0283-2L
3061.50	swc	S/Sst : lt gy	0.05	0.07	0.10	0.70	0.25	28	40	0.1	0.42	456	0336-1L
3077.00	swc	Sh/Clst: dsk y brn	0.73	2.84	0.08	35.50	3.27	87	2	3.6	0.20	482	0317-1L
3085.00	cut	Sh/Clst: m gy to dsk y brn	0.26	0.76	0.17	4.47	0.79	96	22	1.0	0.25	460	0478-1L

Table 3 : Rock-Eval table for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
3092.48	swc	S/Sst : lt gy	0.16	0.54	0.13	4.15	1.05	51	12	0.7	0.23	488	0358-1L
3111.00	swc	S/Sst : lt gy	0.35	0.60	0.55	1.09	0.51	118	108	1.0	0.37	422	0318-1L
3121.00	cut	Sh/Clst: m gy to dsk y brn	0.25	0.64	0.10	6.40	0.76	84	13	0.9	0.28	460	0295-1L
3142.49	swc	Sh/Clst: drk gy	0.10	0.29	0.10	2.90	0.75	39	13	0.4	0.26	494	0360-1L
3145.00	cut	Sh/Clst: m gy to dsk y brn	0.23	0.50	0.18	2.78	0.74	68	24	0.7	0.32	461	0299-1L
3164.50	swc	Sh/Clst: drk gy to drk y brn	0.11	0.27	0.06	4.50	0.71	38	8	0.4	0.29	491	0319-1L
3184.44	swc	Sh/Clst: drk y brn to dsk y brn	0.08	0.29	0.12	2.42	0.53	55	23	0.4	0.22	493	0361-1L
3207.56	swc	S/Sst : lt gy to m gy	0.03	0.10	0.11	0.91	0.30	33	37	0.1	0.23	499	0344-1L
3234.00	swc	bulk	0.10	0.27	0.17	1.59	0.46	59	37	0.4	0.27	432	0320-0B
3241.00	cut	Sh/Clst: drk gy	0.29	0.99	0.08	12.38	1.00	99	8	1.3	0.23	464	0306-1L
3248.01	swc	S/Sst : lt gy to m gy	0.04	0.12	0.04	3.00	0.43	28	9	0.2	0.25	499	0345-2L
3272.56	swc	Sh/Clst: drk gy	0.04	0.07	0.18	0.39	0.33	21	55	0.1	0.36	403	0346-1L
3289.00	cut	Sh/Clst: m gy to dsk y brn	0.14	0.33	0.07	4.71	0.63	52	11	0.5	0.30	469	0395-2L
3296.50	swc	Sh/Clst: drk gy	0.03	0.13	0.07	1.86	0.41	32	17	0.2	0.19	510	0321-1L
3318.01	swc	Sh/Clst: drk gy	0.02	0.07	0.05	1.40	0.30	23	17	0.1	0.22	416	0347-1L

Table 3 : Rock-Eval table for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
3341.05	swc	Sh/Clst: drk gy	0.02	0.11	0.03	3.67	0.39	28	8	0.1	0.15	503	0348-1L
3361.00	cut	Sh/Clst: drk gy	0.04	0.13	0.29	0.45	0.42	31	69	0.2	0.24	490	0308-1L
3385.00	cut	Sh/Clst: m gy to drk gy	0.09	0.19	0.08	2.38	0.52	37	15	0.3	0.32	469	0399-2L
3396.98	swc	S/Sst : lt gy to m gy	0.01	0.01	0.06	0.17	0.15	7	40	-	0.50	426	0349-1L
3409.00	cut	Sh/Clst: drk gy	0.13	0.34	0.07	4.86	0.56	61	13	0.5	0.28	458	0400-2L
3421.00	cut	Sh/Clst: drk gy	0.10	0.24	0.06	4.00	0.49	49	12	0.3	0.29	465	0309-1L
3421.05	swc	Sh/Clst: drk gy	0.14	0.33	0.19	1.74	0.49	67	39	0.5	0.30	408	0350-1L
3444.00	swc	Sh/Clst: drk gy	0.03	0.19	0.08	2.38	0.57	33	14	0.2	0.14	509	0323-1L
3473.08	swc	Sh/Clst: drk gy	-	0.06	0.07	0.86	0.38	16	18	0.1	-	507	0351-1L
3481.00	cut	Sh/Clst: drk gy	0.10	0.30	0.05	6.00	0.52	58	10	0.4	0.25	463	0310-1L
3494.44	swc	Ca : drk gy	-	0.01	0.07	0.14	0.12	8	58	-	-	471	0352-1L
3506.00	swc	Sh/Clst: drk gy	0.13	0.45	0.25	1.80	0.45	100	56	0.6	0.22	418	0324-1L
3523.50	swc	Sh/Clst: drk gy	-	0.02	0.05	0.40	0.30	7	17	-	-	381	0325-1L
3541.00	cut	Sh/Clst: m gy to drk gy	0.07	0.21	0.05	4.20	0.47	45	11	0.3	0.25	484	0311-1L
3563.00	swc	Sh/Clst: drk gy	-	0.06	0.02	3.00	0.37	16	5	0.1	-	439	0313-1L

Table 3 : Rock-Eval table for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
3584.00	swc	Sh/Clst: drk gy	0.02	0.06	0.07	0.86	0.15	40	47	0.1	0.25	338	0314-1L
3591.50	swc	Sh/Clst: drk gy	0.17	0.45	0.08	5.63	0.53	85	15	0.6	0.27	453	0315-1L
3602.00	swc	bulk	0.17	0.26	0.05	5.20	0.34	76	15	0.4	0.40	452	0316-0B
3625.07	swc	Sh/Clst: m gy to drk gy	0.17	0.55	0.25	2.20	0.34	162	74	0.7	0.24	420	0353-1L
3655.00	cut	Sh/Clst: m gy to drk gy to gy blk	0.05	0.12	0.01	12.00	0.37	32	3	0.2	0.29	467	0421-1L
3695.00	swc	Sh/Clst: drk gy	0.04	0.18	0.33	0.55	0.38	47	87	0.2	0.18	460	0482-1L
3725.00	swc	Sh/Clst: m gy to drk gy	0.04	0.13	0.39	0.33	0.25	52	156	0.2	0.24	399	0485-1L
3766.50	swc	Sh/Clst: m gy to drk gy	0.04	0.23	0.34	0.68	0.27	85	126	0.3	0.15	543	0487-1L
3790.00	cut	S/Sst : lt gy to m gy	0.02	0.02	0.16	0.13	0.10	20	160	-	0.50	423	0413-2L
3806.00	swc	Sh/Clst: m gy to drk gy	0.02	0.07	0.31	0.23	0.13	54	238	0.1	0.22	369	0489-1L
3836.00	swc	Sh/Clst: m gy to drk gy	0.02	0.08	0.32	0.25	0.17	47	188	0.1	0.20	400	0492-1L
3865.00	swc	Sh/Clst: drk gy	0.03	0.07	0.23	0.30	0.30	23	77	0.1	0.30	384	0495-1L
3880.00	cut	S/Sst : lt gy to m gy	0.11	0.29	1.58	0.18	0.34	85	465	0.4	0.28	414	0415-2L
3904.00	swc	Sh/Clst: drk gy to brn blk	0.03	0.08	0.23	0.35	0.52	15	44	0.1	0.27	418	0497-1L
3928.00	swc	Sh/Clst: drk gy	0.04	0.05	0.73	0.07	0.20	25	365	0.1	0.44	332	0499-1L

Depth unit of measure: m

Depth	Typ	Lithology	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
3965.00	swc	Sh/Clst: brn blk	0.04	0.19	0.21	0.90	1.09	17	19	0.2	0.17	354	0502-1L
4043.00	swc	Sh/Clst: lt gy to m gy	0.05	0.13	0.38	0.34	0.16	81	238	0.2	0.28	424	0510-1L
4120.00	swc	Sh/Clst: lt gy to drk gy	0.04	0.13	0.31	0.42	0.13	100	238	0.2	0.24	415	0516-1L
4129.00	swc	Sh/Clst: m gy	0.03	0.16	0.25	0.64	0.13	123	192	0.2	0.16	414	0517-1L
4150.00	cut	S/Sst : lt gy	0.03	0.11	0.09	1.22	0.11	100	82	0.1	0.21	426	0441-2L
4171.00	swc	S/Sst : drk gy	0.07	0.23	0.41	0.56	0.15	153	273	0.3	0.23	413	0521-1L
4189.00	ccp	Sh/Clst: lt gy to m gy	0.06	0.02	0.05	0.40	0.11	18	45	0.1	0.75	436	0460-1L
4190.00	ccp	Sh/Clst: m gy	0.03	-	0.18	-	0.07	-	257	-	1.00	278	0462-1L
4191.00	ccp	Sh/Clst: m gy to drk gy	0.04	0.03	0.02	1.50	0.11	27	18	0.1	0.57	296	0463-1L
4193.00	ccp	S/Sst : lt gy to m gy	0.14	0.20	0.11	1.82	0.81	25	14	0.3	0.41	549	0465-1L
4195.00	ccp	S/Sst : lt gy	0.04	0.07	0.01	7.00	0.09	78	11	0.1	0.36	376	0467-1L
4198.00	ccp	Sh/Clst: drk gy	0.06	0.12	0.01	12.00	0.15	80	7	0.2	0.33	376	0470-1L
4242.00	swc	Sh/Clst: drk gy	0.04	0.20	0.28	0.71	0.19	105	147	0.2	0.17	408	0528-1L
4268.00	swc	Sh/Clst: drk gy	0.03	0.13	0.63	0.21	0.23	57	274	0.2	0.19	400	0530-1L
4290.00	swc	Sh/Clst: drk gy	0.02	0.02	0.40	0.05	0.05	40	800	-	0.50	295	0532-1L

Table 4 : Pyrolysis GC Data (S2 peak) as Percentage of Total Area for Well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	C1	C2-C5	C6-C14	C15+	S2 from Rock-Eval	Sample
500.00	swc	Sh/Clst: ol gy	14.81	38.82	43.00	3.38	0.36	0001-1L
1025.00	swc	Sh/Clst: drk gy	12.43	34.76	49.78	3.03	0.36	0012-1L
1095.00	swc	Sh/Clst: dsk y brn	4.83	16.77	32.94	45.46	21.96	0035-1L
1166.50	swc	Sh/Clst: gy blk	5.35	19.26	40.17	35.22	2.45	0038-1L
1172.20	ccp	Sh/Clst: dsk y brn	4.82	10.88	32.99	51.31	26.58	0535-1L
1174.21	ccp	Sh/Clst: dsk y brn	8.84	31.06	50.26	9.85	14.56	0072-1L
1182.50	swc	Sh/Clst: dsk y brn	4.49	16.01	32.47	47.04	15.95	0016-1L
1205.00	swc	Sh/Clst: dsk y brn	4.48	16.66	31.89	46.97	17.79	0039-1L
1225.00	swc	Sh/Clst: dsk y brn	5.37	17.28	29.56	47.76	21.89	0040-1L
1248.50	swc	Sh/Clst: m gy to drk gy	7.10	28.98	42.60	21.02	0.77	0041-1L
1275.00	swc	Sh/Clst: m gy to drk gy	10.05	35.57	48.83	5.55	0.36	0043-1L
1286.30	ccp	S/Sst : lt gy to lt brn gy	13.61	27.77	50.88	7.74	0.18	0074-1L
1289.30	ccp	S/Sst : lt gy to lt brn gy	9.31	28.51	52.73	9.45	0.18	0075-1L
1291.30	ccp	S/Sst : lt gy to lt brn gy	9.00	24.64	56.83	9.53	0.27	0073-1L

Table 4 : Pyrolysis GC Data (S2 peak) as Percentage of Total Area for Well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	C1	C2-C5	C6-C14	C15+	S2 from Rock-Eval	Sample
1300.00	swc	S/Sst : lt gy, gn, lt brn gy	7.84	34.38	52.27	5.52	0.13	0044-1L
1316.50	swc	S/Sst : lt gy	5.87	20.23	35.56	38.35	1.15	0045-1L
1367.00	swc	S/Sst : lt gy to brn gy	6.50	19.15	32.15	42.21	0.89	0047-1L
1419.00	swc	Sh/Clst: lt brn gy	13.16	23.95	29.77	32.99	0.94	0050-1L
1494.00	swc	Sh/Clst: m gy to drk gy	17.32	27.17	33.49	22.02	0.73	0053-1L
1592.00	swc	Sh/Clst: dsk y brn	11.61	20.37	34.22	33.80	1.22	0022-1L
1704.00	swc	S/Sst : lt gy, drk brn gy	3.88	18.85	35.84	41.44	7.23	0057-1L
1735.50	swc	Sh/Clst: dsk y brn	8.87	22.15	37.12	31.86	0.77	0058-1L
1790.00	swc	Coal : blk	10.02	18.76	22.57	48.65	25.18	0060-1L
1911.00	swc	Sh/Clst: drk gy	11.14	21.10	33.06	34.70	0.75	0026-1L
2003.00	swc	S/Sst : w to lt gy	8.70	34.41	47.18	9.70	0.10	0065-1L
2050.00	cut	Sltst : brn gy to dsk y brn, gy gn	5.19	19.64	40.27	34.90	1.89	0124-2L
2072.00	swc	Sh/Clst: dsk y brn	8.68	19.65	31.65	40.02	1.09	0067-1L
2093.00	swc	Coal : brn blk	11.90	20.01	21.11	46.98	114.78	0068-1L



Table 4 : Pyrolysis GC Data (S2 peak) as Percentage of Total Area for Well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	C1	C2-C5	C6-C14	C15+	S2 from Rock-Eval	Sample
2098.00	cut	Sh/Clst: dsk brn to dsk y brn	10.24	18.41	25.61	45.74	36.24	0126-5L
2138.00	swc	Ca : m gy	5.39	42.84	40.56	11.22	0.15	0031-1L
2161.50	swc	Sh/Clst: dsk y brn	11.29	20.22	30.20	38.30	2.85	0069-1L
2223.04	swc	Sltst : lt brn gy	15.73	19.99	22.81	41.46	15.39	0364-1L
2238.00	swc	Sh/Clst: m gy to dsk y brn	8.23	19.65	34.02	38.10	2.17	0365-1L
2316.00	ccp	Sh/Clst: drk gy	17.89	9.97	41.96	30.19	0.11	0362-1L
2387.74	swc	Sh/Clst: drk gy to dsk y brn	13.96	32.64	36.66	16.74	1.11	0371-1L
2443.70	swc	Sh/Clst: dsk y brn	5.29	17.82	39.84	37.05	5.07	0340-1L
2512.00	cut	Sh/Clst: dsk y brn	8.58	16.76	49.46	25.20	1.45	0195-1L
2572.00	swc	Sh/Clst: dsk y brn	9.91	30.58	45.72	13.80	1.15	0342-1L
2614.00	cut	Sh/Clst: dsk y brn	9.66	25.69	38.69	25.97	1.33	0211-1L
2656.50	swc	Sh/Clst: drk gy to dsk y brn	17.28	30.74	33.75	18.23	1.41	0379-1L
2688.05	swc	Sltst : m gy to dsk y brn	6.55	19.70	41.97	30.91	2.18	0380-1L
2774.02	swc	Sh/Clst: m gy to drk y brn	16.04	21.74	34.69	27.53	2.74	0382-1L

Table 4 : Pyrolysis GC Data (S2 peak) as Percentage of Total Area for Well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	C1	C2-C5	C6-C14	C15+	S2 from Rock-Eval	Sample
2875.00	cut	Sh/Clst: m gy to dsk y brn	13.46	31.65	44.50	10.40	0.88	0254-1L
2929.00	cut	Sh/Clst: m gy to dsk y brn	14.75	28.03	34.48	22.67	1.49	0263-1L
2995.25	swc	bulk	14.68	31.01	39.60	14.71	0.88	0333-0B
3111.00	swc	S/Sst : lt gy	9.54	24.37	44.29	21.80	0.60	0318-1L
3121.00	cut	Sh/Clst: m gy to dsk y brn	17.26	35.77	37.55	9.42	0.64	0295-1L
3421.05	swc	Sh/Clst: drk gy	13.36	36.21	34.20	16.23	0.33	0350-1L
3506.00	swc	Sh/Clst: drk gy	0.55	25.64	16.72	57.10	0.45	0324-1L
3625.07	swc	Sh/Clst: m gy to drk gy	5.76	30.23	48.60	15.41	0.55	0353-1L
3880.00	cut	S/Sst : lt gy to m gy	8.39	34.27	50.54	6.80	0.29	0415-2L
4193.00	ccp	S/Sst : lt gy to m gy	16.91	33.42	41.23	8.44	0.20	0465-1L

Table 5 a: Weight of EOM and Chromatographic Fraction for well NOCS 7228/2-1

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
1174.21	ccp	Sh/Clst: dsk y brn	9.8	30.9	5.7	8.6	9.2	7.4	14.3	16.6	4.74	0072-1L
1182.50	swc	Sh/Clst: dsk y brn	11.9	35.9	7.2	8.1	12.8	7.8	15.3	20.6	4.15	0016-1L
1210.00	swc	Sh/Clst: dsk y brn	10.0	44.4	7.1	9.9	19.9	7.5	17.0	27.4	6.30	0017-1L
1225.00	swc	Sh/Clst: dsk y brn	6.5	24.4	3.5	6.5	12.6	1.8	10.0	14.4	7.87	0040-1L
1286.30	ccp	S/Sst : lt gy to lt brn gy	10.3	16.2	7.5	4.2	2.2	2.3	11.7	4.5	0.23	0074-1L
1289.30	ccp	S/Sst : lt gy to lt brn gy	10.0	8.2	3.9	2.1	0.3	1.9	6.0	2.2	0.23	0075-1L
1291.30	ccp	S/Sst : lt gy to lt brn gy	9.7	13.5	7.8	4.5	0.5	0.7	12.3	1.2	0.24	0073-1L
1316.50	swc	S/Sst : lt gy	9.2	5.3	1.4	1.2	2.0	0.7	2.6	2.7	0.51	0045-1L
1704.00	swc	S/Sst : lt gy, drk brn gy	10.3	69.2	10.6	27.5	27.7	3.4	38.1	31.1	1.94	0057-1L
1790.00	swc	Coal : blk	9.9	88.2	5.4	8.8	67.7	6.3	14.2	74.0	21.50	0060-1L
2093.00	swc	Coal : brn blk	2.0	115.6	20.6	20.6	64.4	10.0	41.2	74.4	46.40	0068-1L
2122.00	com	Composite sample - see table 5 e	1.8	12.2	1.9	2.7	6.7	0.9	4.6	7.6	6.97	0130-0B
2161.50	swc	Sh/Clst: dsk y brn	10.1	13.8	4.0	2.2	5.0	2.6	6.2	7.6	1.49	0069-1L
2223.04	swc	Sltst : lt brn gy	10.6	14.9	1.1	2.7	8.1	3.0	3.8	11.1	1.86	0364-1L

Table 5 a: Weight of EOM and Chromatographic Fraction for well NOCS 7228/2-1

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
2325.00	swc	Sh/Clst: dsk y brn	10.5	5.8	2.0	1.2	1.4	1.2	3.2	2.6	1.30	0338-1L
2443.70	swc	Sh/Clst: dsk y brn	8.3	39.3	26.5	8.8	1.3	2.7	35.3	4.0	2.80	0340-1L
2512.00	cut	Sh/Clst: dsk y brn	8.9	11.6	6.8	2.6	0.6	1.6	9.4	2.2	1.39	0195-1L
2572.00	swc	Sh/Clst: dsk y brn	7.3	7.9	2.3	0.5	0.1	5.0	2.8	5.1	0.85	0342-1L
2688.05	swc	Sltst : m gy to dsk y brn	9.8	6.6	2.4	1.4	1.6	1.2	3.8	2.8	0.89	0380-1L
2774.02	swc	Sh/Clst: m gy to drk y brn	12.5	12.1	5.3	2.5	3.5	0.8	7.8	4.3	1.63	0382-1L
2875.00	cut	Sh/Clst: m gy to dsk y brn	9.6	7.6	4.1	1.4	0.3	1.8	5.5	2.1	1.26	0254-1L
2929.00	cut	Sh/Clst: m gy to dsk y brn	1.6	3.4	0.6	0.9	1.5	0.4	1.5	1.9	3.87	0263-1L
3025.00	cut	Sh/Clst: m gy to dsk y brn	7.1	5.7	2.3	0.6	0.5	2.3	2.9	2.8	1.15	0279-1L
3077.00	swc	Sh/Clst: dsk y brn	5.1	4.9	0.3	1.1	3.1	0.4	1.4	3.5	2.65	0317-1L
3591.50	swc	Sh/Clst: drk gy	9.4	5.9	0.5	0.3	0.1	5.0	0.8	5.1	0.48	0315-1L
4193.00	ccp	S/Sst : lt gy to m gy	9.8	1.1	0.2	0.3	0.5	0.1	0.5	0.6	1.08	0465-1L

Table 5 b: Concentration of EOM and Chromatographic Fraction (wt ppm rock) for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	EOM	Sat	Aro	Asph	NSO	HC	Non-HC	Sample
1174.21	ccp	Sh/Clst: dsk y brn	3143	579	874	935	752	1454	1688	0072-1L
1182.50	swc	Sh/Clst: dsk y brn	3011	604	679	1073	654	1283	1728	0016-1L
1210.00	swc	Sh/Clst: dsk y brn	4440	710	989	1990	750	1700	2740	0017-1L
1225.00	swc	Sh/Clst: dsk y brn	3771	540	1004	1947	278	1545	2225	0040-1L
1286.30	ccp	S/Sst : lt gy to lt brn gy	1571	727	407	213	223	1134	436	0074-1L
1289.30	ccp	S/Sst : lt gy to lt brn gy	821	390	210	30	190	601	220	0075-1L
1291.30	ccp	S/Sst : lt gy to lt brn gy	1397	807	465	51	72	1273	124	0073-1L
1316.50	swc	S/Sst : lt gy	576	152	130	217	76	282	293	0045-1L
1704.00	swc	S/Sst : lt gy, drk brn gy	6705	1027	2664	2684	329	3691	3013	0057-1L
1790.00	swc	Coal : blk	8891	544	887	6824	635	1431	7459	0060-1L
2093.00	swc	Coal : brn blk	57227	10198	10198	31881	4950	20396	36831	0068-1L
2122.00	com	Composite sample - see table 5 e	6777	1055	1500	3722	499	2555	4222	0130-0B
2161.50	swc	Sh/Clst: dsk y brn	1373	398	218	497	258	616	756	0069-1L
2223.04	swc	Sltst : lt brn gy	1403	103	254	762	282	357	1045	0364-1L

Table 5 b: Concentration of EOM and Chromatographic Fraction (wt ppm rock) for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	EOM	Sat	Aro	Asph	NSO	HC	Non-HC	Sample
2325.00	swc	Sh/Clst: dsk y brn	553	191	114	133	114	305	248	0338-1L
2443.70	swc	Sh/Clst: dsk y brn	4712	3177	1055	155	323	4232	479	0340-1L
2512.00	cut	Sh/Clst: dsk y brn	1306	765	292	67	180	1058	247	0195-1L
2572.00	swc	Sh/Clst: dsk y brn	1086	316	68	13	687	385	701	0342-1L
2688.05	swc	Sltst : m gy to dsk y brn	673	244	142	163	122	387	285	0380-1L
2774.02	swc	Sh/Clst: m gy to drk y brn	968	424	200	280	64	624	344	0382-1L
2875.00	cut	Sh/Clst: m gy to dsk y brn	789	425	145	31	186	571	218	0254-1L
2929.00	cut	Sh/Clst: m gy to dsk y brn	2073	365	548	914	243	914	1158	0263-1L
3025.00	cut	Sh/Clst: m gy to dsk y brn	806	325	84	70	325	410	396	0279-1L
3077.00	swc	Sh/Clst: dsk y brn	960	58	215	607	78	274	686	0317-1L
3591.50	swc	Sh/Clst: drk gy	631	53	32	10	534	85	545	0315-1L
4193.00	ccp	S/Sst : lt gy to m gy	112	20	30	51	10	51	61	0465-1L

Table 5 c: Concentration of EOM and Chromatographic Fraction (mg/g TOC(e)) for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	EOM	Sat	Aro	Asph	NSO	HC	Non-HC	Sample
1174.21	ccp	Sh/Clst: dsk y brn	66.32	12.23	18.46	19.74	15.88	30.69	35.63	0072-1L
1182.50	swc	Sh/Clst: dsk y brn	72.57	14.55	16.37	25.88	15.77	30.93	41.64	0016-1L
1210.00	swc	Sh/Clst: dsk y brn	70.48	11.27	15.71	31.59	11.90	26.98	43.49	0017-1L
1225.00	swc	Sh/Clst: dsk y brn	47.92	6.87	12.77	24.75	3.54	19.64	28.28	0040-1L
1286.30	ccp	S/Sst : lt gy to lt brn gy	683.17	316.28	177.12	92.78	96.99	493.40	189.77	0074-1L
1289.30	ccp	S/Sst : lt gy to lt brn gy	357.24	169.91	91.49	13.07	82.77	261.39	95.84	0075-1L
1291.30	ccp	S/Sst : lt gy to lt brn gy	582.30	336.44	194.10	21.57	30.19	530.54	51.76	0073-1L
1316.50	swc	S/Sst : lt gy	112.96	29.84	25.58	42.63	14.92	55.41	57.54	0045-1L
1704.00	swc	S/Sst : lt gy, drk brn gy	345.64	52.94	137.36	138.36	16.98	190.30	155.34	0057-1L
1790.00	swc	Coal : blk	41.35	2.53	4.13	31.74	2.95	6.66	34.70	0060-1L
2093.00	swc	Coal : brn blk	123.34	21.98	21.98	68.71	10.67	43.96	79.38	0068-1L
2122.00	com	Composite sample - see table 5 e	97.24	15.14	21.52	53.40	7.17	36.67	60.58	0130-0B
2161.50	swc	Sh/Clst: dsk y brn	92.16	26.71	14.69	33.39	17.36	41.40	50.75	0069-1L
2223.04	swc	Sltst : lt brn gy	75.43	5.57	13.67	41.01	15.19	19.24	56.19	0364-1L

Table 5 c: Concentration of EOM and Chromatographic Fraction (mg/g TOC(e)) for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	EOM	Sat	Aro	Asph	NSO	HC	Non-HC	Sample
2325.00	swc	Sh/Clst: dsk y brn	42.61	14.69	8.82	10.29	8.82	23.51	19.10	0338-1L
2443.70	swc	Sh/Clst: dsk y brn	168.29	113.48	37.68	5.57	11.56	151.16	17.13	0340-1L
2512.00	cut	Sh/Clst: dsk y brn	93.98	55.09	21.06	4.86	12.96	76.16	17.82	0195-1L
2572.00	swc	Sh/Clst: dsk y brn	127.84	37.22	8.09	1.62	80.91	45.31	82.53	0342-1L
2688.05	swc	Sltst : m gy to dsk y brn	75.67	27.52	16.05	18.34	13.76	43.57	32.10	0380-1L
2774.02	swc	Sh/Clst: m gy to drk y brn	59.43	26.03	12.28	17.19	3.93	38.31	21.12	0382-1L
2875.00	cut	Sh/Clst: m gy to dsk y brn	62.63	33.79	11.54	2.47	14.83	45.33	17.31	0254-1L
2929.00	cut	Sh/Clst: m gy to dsk y brn	53.57	9.45	14.18	23.63	6.30	23.63	29.94	0263-1L
3025.00	cut	Sh/Clst: m gy to dsk y brn	70.11	28.29	7.38	6.15	28.29	35.67	34.44	0279-1L
3077.00	swc	Sh/Clst: dsk y brn	36.26	2.22	8.14	22.94	2.96	10.36	25.90	0317-1L
3591.50	swc	Sh/Clst: drk gy	131.46	11.14	6.68	2.23	111.41	17.83	113.64	0315-1L
4193.00	ccp	S/Sst : lt gy to m gy	10.40	1.89	2.84	4.73	0.95	4.73	5.67	0465-1L



Table 5 d: Composition of material extracted from the rock (%) for well NOCS 7228/2-1

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	
1174.21	ccp	Sh/Clst: dsk y brn	18.45	27.83	29.77	23.95	46.28	53.72	66.28	86.14	0072-1L
1182.50	swc	Sh/Clst: dsk y brn	20.06	22.56	35.65	21.73	42.62	57.38	88.89	74.27	0016-1L
1210.00	swc	Sh/Clst: dsk y brn	15.99	22.30	44.82	16.89	38.29	61.71	71.72	62.04	0017-1L
1225.00	swc	Sh/Clst: dsk y brn	14.34	26.64	51.64	7.38	40.98	59.02	53.85	69.44	0040-1L
1286.30	ccp	S/Sst : lt gy to lt brn gy	46.30	25.93	13.58	14.20	72.22	27.78	178.57	260.00	0074-1L
1289.30	ccp	S/Sst : lt gy to lt brn gy	47.56	25.61	3.66	23.17	73.17	26.83	185.71	272.73	0075-1L
1291.30	ccp	S/Sst : lt gy to lt brn gy	57.78	33.33	3.70	5.19	91.11	8.89	173.33	1025.00	0073-1L
1316.50	swc	S/Sst : lt gy	26.42	22.64	37.74	13.21	49.06	50.94	116.67	96.30	0045-1L
1704.00	swc	S/Sst : lt gy, drk brn gy	15.32	39.74	40.03	4.91	55.06	44.94	38.55	122.51	0057-1L
1790.00	swc	Coal : blk	6.12	9.98	76.76	7.14	16.10	83.90	61.36	19.19	0060-1L
2093.00	swc	Coal : brn blk	17.82	17.82	55.71	8.65	35.64	64.36	100.00	55.38	0068-1L
2122.00	com	Composite sample - see table 5 e	15.57	22.13	54.92	7.38	37.70	62.30	70.37	60.53	0130-0B
2161.50	swc	Sh/Clst: dsk y brn	28.99	15.94	36.23	18.84	44.93	55.07	181.82	81.58	0069-1L
2223.04	swc	Sltst : lt brn gy	7.38	18.12	54.36	20.13	25.50	74.50	40.74	34.23	0364-1L

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	
2325.00	swc	Sh/Clst: dsk y brn	34.48	20.69	24.14	20.69	55.17	44.83	166.67	123.08	0338-1L
2443.70	swc	Sh/Clst: dsk y brn	67.43	22.39	3.31	6.87	89.82	10.18	301.14	882.50	0340-1L
2512.00	cut	Sh/Clst: dsk y brn	58.62	22.41	5.17	13.79	81.03	18.97	261.54	427.27	0195-1L
2572.00	swc	Sh/Clst: dsk y brn	29.11	6.33	1.27	63.29	35.44	64.56	460.00	54.90	0342-1L
2688.05	swc	Sltst : m gy to dsk y brn	36.36	21.21	24.24	18.18	57.58	42.42	171.43	135.71	0380-1L
2774.02	swc	Sh/Clst: m gy to drk y brn	43.80	20.66	28.93	6.61	64.46	35.54	212.00	181.40	0382-1L
2875.00	cut	Sh/Clst: m gy to dsk y brn	53.95	18.42	3.95	23.68	72.37	27.63	292.86	261.90	0254-1L
2929.00	cut	Sh/Clst: m gy to dsk y brn	17.65	26.47	44.12	11.76	44.12	55.88	66.67	78.95	0263-1L
3025.00	cut	Sh/Clst: m gy to dsk y brn	40.35	10.53	8.77	40.35	50.88	49.12	383.33	103.57	0279-1L
3077.00	swc	Sh/Clst: dsk y brn	6.12	22.45	63.27	8.16	28.57	71.43	27.27	40.00	0317-1L
3591.50	swc	Sh/Clst: drk gy	8.47	5.08	1.69	84.75	13.56	86.44	166.67	15.69	0315-1L
4193.00	ccp	S/Sst : lt gy to m gy	18.18	27.27	45.45	9.09	45.45	54.55	66.67	83.33	0465-1L

Depth unit of measure: m

NOTE: Depths shown in tables 5 a to d correspond to the composite samples' lower depth.

<u>Upper depth</u>	<u>Lower depth</u>	<u>Typ</u>	<u>Sample</u>	<u>Depth</u>	<u>Typ</u>	<u>Lithology</u>	<u>Sample</u>
2098.00	2122.00	com	0130-0B is composed of:	2098.00	cut	Sh/Clst: dsk brn to dsk y brn, carb	0126-5L
				2122.00	cut	Sh/Clst: dsk brn to brn blk, carb	0127-5L

Table 6 : Saturated Hydrocarbon Ratios for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	Pristane	Pristane	Pristane + Phytane	Phytane	CPI	Sample
			nC17	Phytane	nC17 + nC18	nC18		
1174.21	ccp	Sh/Clst: dsk y brn	3.48	2.04	2.79	1.99	1.19	0072-1L
1182.50	swc	Sh/Clst: dsk y brn	2.62	2.04	2.12	1.52	1.37	0016-1L
1210.00	swc	Sh/Clst: dsk y brn	2.56	1.94	2.16	1.66	1.25	0017-1L
1225.00	swc	Sh/Clst: dsk y brn	2.51	1.85	2.12	1.64	1.21	0040-1L
1286.30	ccp	S/Sst : lt gy to lt brn gy	0.16	2.28	0.17	0.19	2.02	0074-1L
1289.30	ccp	S/Sst : lt gy to lt brn gy	0.54	1.79	0.47	0.39	1.41	0075-1L
1291.30	ccp	S/Sst : lt gy to lt brn gy	0.38	0.77	0.53	0.75	2.54	0073-1L
1316.50	swc	S/Sst : lt gy	1.58	4.52	1.02	0.39	1.44	0045-1L
1704.00	swc	S/Sst : lt gy, drk brn gy	0.45	0.83	0.52	0.61	2.36	0057-1L
1790.00	swc	Coal : blk	1.76	5.64	1.03	0.31	1.13	0060-1L
2093.00	swc	Coal : brn blk	0.72	4.30	0.43	0.16	1.10	0068-1L
2122.00	com	bulk	1.45	2.58	1.06	0.62	1.10	0130-0B
2161.50	swc	Sh/Clst: dsk y brn	0.45	3.15	0.29	0.14	1.06	0069-1L
2223.04	swc	Sltst : lt brn gy	0.48	2.00	0.40	0.29	1.41	0364-1L

Table 6 : Saturated Hydrocarbon Ratios for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	Pristane	Pristane	Pristane + Phytane	Phytane	CPI	Sample
			nC17	Phytane	nC17 + nC18	nC18		
2325.00	swc	Sh/Clst: dsk y brn	0.28	2.01	0.23	0.17	1.08	0338-1L
2443.70	swc	Sh/Clst: dsk y brn	0.53	1.67	0.46	0.37	1.08	0340-1L
2512.00	cut	Sh/Clst: dsk y brn	0.34	1.95	0.27	0.19	1.22	0195-1L
2572.00	swc	Sh/Clst: dsk y brn	0.13	1.48	0.11	0.09	1.02	0342-1L
2688.05	swc	Sltst : m gy to dsk y brn	0.26	1.23	0.26	0.25	1.31	0380-1L
2774.02	swc	Sh/Clst: m gy to drk y brn	0.18	1.30	0.17	0.15	1.12	0382-1L
2875.00	cut	Sh/Clst: m gy to dsk y brn	0.28	2.19	0.22	0.15	1.10	0254-1L
2929.00	cut	Sh/Clst: m gy to dsk y brn	0.20	1.70	0.17	0.13	1.09	0263-1L
3025.00	cut	Sh/Clst: m gy to dsk y brn	0.27	1.98	0.21	0.15	1.07	0279-1L
3077.00	swc	Sh/Clst: dsk y brn	0.11	1.12	0.11	0.11	1.05	0317-1L
3591.50	swc	Sh/Clst: drk gy	0.26	1.18	0.25	0.25	1.31	0315-1L
4193.00	ccp	S/Sst : lt gy to m gy	0.69	1.74	0.57	0.44	1.04	0465-1L

Table 7 : Aromatic Hydrocarbon Ratios for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	MNR	DMNR	BPhR	2/1MP	MPI1	MPI2	Rc	DBT/P	4/1MDBT	(3+2) /1MDBT	Sample
1174.21	ccp	Sh/Clst: dsk y brn	1.08	2.10	0.12	0.76	0.60	0.54	0.76	0.66	0.35	0.31	0072-1L
1182.50	swc	Sh/Clst: dsk y brn	1.02	1.84	-	0.72	0.60	0.50	0.76	0.44	0.28	0.24	0016-1L
1210.00	swc	Sh/Clst: dsk y brn	1.07	1.90	-	0.83	0.70	0.65	0.82	0.57	0.35	0.29	0017-1L
1225.00	swc	Sh/Clst: dsk y brn	0.95	1.89	-	0.88	0.68	0.67	0.81	0.50	0.44	0.36	0040-1L
1286.30	ccp	S/Sst : lt gy to lt brn gy	0.70	2.31	0.05	0.81	0.50	0.55	0.70	-	-	-	0074-1L
1289.30	ccp	S/Sst : lt gy to lt brn gy	0.44	2.00	-	0.93	0.61	0.63	0.77	-	-	-	0075-1L
1291.30	ccp	S/Sst : lt gy to lt brn gy	0.80	2.06	0.04	0.96	0.58	0.64	0.75	-	-	-	0073-1L
1316.50	swc	S/Sst : lt gy	0.55	1.67	-	0.71	0.44	0.48	0.66	0.14	4.22	1.56	0045-1L
1704.00	swc	S/Sst : lt gy, drk brn gy	-	-	-	-	2.99	2.82	2.19	-	-	-	0057-1L
1790.00	swc	Coal : blk	0.72	2.23	1.64	1.02	0.55	0.56	0.73	0.19	3.33	1.67	0060-1L
2093.00	swc	Coal : brn blk	1.17	2.68	0.26	0.95	0.62	0.66	0.77	0.14	5.72	3.34	0068-1L
2122.00	com	bulk	0.92	2.24	0.11	0.93	0.58	0.63	0.75	0.15	3.07	1.44	0130-0B
2161.50	swc	Sh/Clst: dsk y brn	-	1.80	-	0.96	0.48	0.53	0.69	-	-	-	0069-1L
2223.04	swc	Sltst : lt brn gy	1.34	3.18	0.10	1.15	0.70	0.79	0.82	0.14	-	-	0364-1L
2325.00	swc	Sh/Clst: dsk y brn	1.06	2.75	0.18	0.95	0.68	0.72	0.81	0.18	10.53	4.37	0338-1L

Table 7 : Aromatic Hydrocarbon Ratios for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	MNR	DMNR	BPhR	2/1MP	MPI1	MPI2	Rc	DBT/P	4/1MDBT	(3+2) /1MDBT	Sample
2443.70	swc	Sh/Clst: dsk y brn	1.52	3.54	0.07	0.88	0.69	0.77	0.81	-	-	-	0340-1L
2512.00	cut	Sh/Clst: dsk y brn	1.49	4.60	0.07	1.06	0.81	0.96	0.89	-	-	-	0195-1L
2572.00	swc	Sh/Clst: dsk y brn	1.22	5.17	0.08	1.26	0.91	1.01	0.95	0.13	20.48	4.93	0342-1L
2688.05	swc	Sltst : m gy to dsk y brn	1.77	5.55	0.14	1.64	1.04	1.13	1.02	0.22	13.75	3.80	0380-1L
2774.02	swc	Sh/Clst: m gy to drk y brn	2.15	6.58	0.14	1.82	1.16	1.30	1.10	0.17	38.16	7.78	0382-1L
2875.00	cut	Sh/Clst: m gy to dsk y brn	1.42	4.28	0.07	0.98	0.81	0.90	0.89	0.10	-	-	0254-1L
2929.00	cut	Sh/Clst: m gy to dsk y brn	1.90	12.94	0.17	1.78	1.20	1.32	1.12	0.17	-	-	0263-1L
3025.00	cut	Sh/Clst: m gy to dsk y brn	-	3.48	-	1.09	0.80	0.88	0.88	0.09	-	-	0279-1L
3077.00	swc	Sh/Clst: dsk y brn	2.24	2.93	0.36	2.44	1.46	1.68	1.28	0.13	233.78	38.19	0317-1L
3591.50	swc	Sh/Clst: drk gy	-	1.18	-	1.76	0.85	0.95	0.91	0.13	-	-	0315-1L
4193.00	ccp	S/Sst : lt gy to m gy	-	-	-	-	-	-	0.40	-	-	-	0465-1L

Table 8 : Thermal Maturity Data for well NOCS 7228/2-1

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
500.00	swc	bulk	0.67	4	0.06	4-5 (?)	-	-	0001-0B
500.00	swc	Sh/Clst: ol gy	-	-	-	-	4.0	429	0001-1L
560.00	swc	bulk	NDP	-	-	4-5 (?)	-	-	0002-0B
608.50	swc	bulk	0.65	1	0.00	5	-	-	0003-0B
640.00	swc	bulk	0.55	2	0.06	5	-	-	0004-0B
700.00	swc	bulk	0.60	2	0.02	5	-	-	0005-0B
760.00	swc	bulk	0.61	3	0.02	5	-	-	0006-0B
820.00	swc	bulk	0.58	4	0.04	5-6 (??)	-	-	0007-0B
820.00	swc	Sh/Clst: ol gy to drk gy	-	-	-	-	4.0-5.0	430	0007-1L
880.00	swc	bulk	0.94	4	0.01	5-6 (??)	-	-	0008-0B
940.00	swc	bulk	1.05	3	0.02	5/5-6 (?)	-	-	0009-0B
1000.00	swc	bulk	1.00	4	0.06	5/5-6 (?)	-	-	0010-0B
1050.00	swc	bulk	0.49	3	0.09	4	-	-	0013-0B
1095.00	swc	Sh/Clst: dsk y brn	-	-	-	-	4.5-5.0(??)	433	0035-1L



Table 8 : Thermal Maturity Data for well NOCS 7228/2-1

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
1166.50	swc bulk	0.39	21	0.05	4+5	-	-	0038-0B
1166.50	swc Sh/Clst: gy blk	-	-	-	-	4.5-5.0	437	0038-1L
1172.20	ccp Sh/Clst: dsk y brn	-	-	-	-	4.5(?)	427	0535-1L
1174.21	ccp bulk	0.45	17	0.03	4	-	-	0072-0B
1174.21	ccp Sh/Clst: dsk y brn	-	-	-	-	4.5-5.0	433	0072-1L
1225.00	swc Sh/Clst: dsk y brn	-	-	-	-	5.0	433	0040-1L
1275.00	swc bulk	0.71	18	0.06	4-6	-	-	0043-0B
1275.00	swc Sh/Clst: m gy to drk gy	-	-	-	-	5.0	429	0043-1L
1378.00	swc Sh/Clst: lt brn gy	-	-	-	-	6.0(?)	473	0049-1L
1419.00	swc bulk	0.66	12	0.06	4	-	-	0050-0B
1419.00	swc Sh/Clst: lt brn gy	-	-	-	-	5.5-6.0	444	0050-1L
1494.00	swc bulk	0.62	14	0.03	5-6	-	-	0053-0B
1494.00	swc Sh/Clst: m gy to drk gy	-	-	-	-	4.5-5.5	449	0053-1L
1592.00	swc bulk	0.59	16	0.05	5-6	-	-	0022-0B

Table 8 : Thermal Maturity Data for well NOCS 7228/2-1

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
1592.00	swc Sh/Clst: dsk y brn	-	-	-	-	4.5-5.0	441	0022-1L
1672.00	swc Sh/Clst: dsk y brn	-	-	-	-	5.0	444	0020-1L
1735.50	swc bulk	0.46	6	0.03	4-6	-	-	0058-0B
1735.50	swc Sh/Clst: dsk y brn	-	-	-	-	5.5	441	0058-1L
1790.00	swc bulk	0.61	16	0.05	5-6	-	-	0060-0B
1790.00	swc Coal : blk	-	-	-	-	5.5-6.0	447	0060-1L
1832.50	swc Sh/Clst: m gy	-	-	-	-	5.5-6.0	465	0025-1L
1883.00	swc bulk	NDP	-	-	4	-	-	0062-0B
1883.00	swc Sh/Clst: drk gy	-	-	-	-	5.5(?)	500	0062-1L
1963.00	swc bulk	0.60	4	0.07	6-7	-	-	0027-0B
1963.00	swc Sh/Clst: m gy	-	-	-	-	5.5	507	0027-1L
2030.00	swc Sh/Clst: ol gy	-	-	-	-	5.5-6.0(?)	474	0066-1L
2093.00	swc bulk	0.71	6	0.04	6-7	-	-	0068-0B
2093.00	swc Coal : brn blk	-	-	-	-	6.0-6.5	453	0068-1L

Table 8 : Thermal Maturity Data for well NOCS 7228/2-1

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
2122.00	cut Sh/Clst: dsk brn to brn blk	-	-	-	-	4.5-6.0	445	0127-5L
2152.00	cut bulk	0.79	9	0.05	NDP	-	-	0141-0B
2161.50	swc Sh/Clst: dsk y brn	-	-	-	-	6.0-6.5	450	0069-1L
2194.95	swc bulk	0.46	11	0.04	NDP	-	-	0363-0B
2218.00	cut bulk	0.85	13	0.08	7-8	-	-	0146-0B
2238.00	swc Sh/Clst: m gy to dsk y brn	-	-	-	-	6.0(6.5)	455	0365-1L
2272.00	cut bulk	0.75	12	0.07	7-8	-	-	0155-0B
2316.00	ccp Sh/Clst: drk gy	-	-	-	-	6.5	461	0362-1L
2332.00	cut bulk	0.77	10	0.07	7-8	-	-	0165-0B
2392.00	cut bulk	0.94	8	0.07	7	-	-	0175-0B
2443.70	swc Sh/Clst: dsk y brn	-	-	-	-	6.5	452	0340-1L
2452.00	cut bulk	0.97	4	0.03	6-7	-	-	0185-0B
2512.00	cut bulk	0.93	6	0.04	7-8	-	-	0195-0B
2566.06	swc Sh/Clst: m gy to dsk y brn	-	-	-	-	6.5-7.0	456	0376-1L

Table 8 : Thermal Maturity Data for well NOCS 7228/2-1

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
2575.00	cut bulk	0.92	16	0.10	7-8	-	-	0205-0B
2635.00	cut bulk	0.85	9	0.04	7-8	-	-	0214-0B
2656.50	swc bulk	0.95	16	0.09	NDP	-	-	0379-0B
2688.05	swc Sltst : m gy to dsk y brn	-	-	-	-	6.5-7.0	427	0380-1L
2695.00	cut bulk	0.99	8	0.06	7-8	-	-	0224-0B
2755.00	cut bulk	0.95	10	0.08	7-8	-	-	0234-0B
2810.50	swc Sh/Clst: dsk y brn	-	-	-	-	7.0-8.0	473	0330-1L
2815.00	cut bulk	1.03	9	0.06	7-8	-	-	0244-0B
2875.00	cut bulk	1.00	11	0.06	7-8	-	-	0254-0B
2888.09	swc bulk	1.07	10	0.10	NDP	-	-	0354-0B
2888.09	swc Sh/Clst: dsk y brn	-	-	-	-	8.0	484	0354-1L
2935.00	cut bulk	0.93	6	0.04	7-8	-	-	0264-0B
2995.00	cut bulk	1.09	5	0.07	7-8	-	-	0274-0B
2995.25	swc bulk	-	-	-	-	7.0-8.0	461	0333-0B

Table 8 : Thermal Maturity Data for well NOCS 7228/2-1

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
3061.00	cut bulk	1.14	5	0.06	7-8	-	-	0285-0B
3121.00	cut bulk	1.09	4	0.14	7-8	-	-	0295-0B
3121.00	cut Sh/Clst: m gy to dsk y brn	-	-	-	-	6.5-7.0	460	0295-1L
3181.00	cut bulk	1.10	9	0.08	7-8	-	-	0305-0B
3241.00	cut bulk	1.01	3	0.05	NDP	-	-	0306-0B
3296.50	swc Sh/Clst: drk gy	-	-	-	-	8.0	510	0321-1L
3301.00	cut bulk	1.01	4	0.03	NDP	-	-	0307-0B
3361.00	cut bulk	0.98	6	0.06	NDP	-	-	0308-0B
3421.00	cut bulk	0.97	6	0.06	7	-	-	0309-0B
3481.00	cut bulk	1.25	1	0.00	NDP	-	-	0310-0B
3506.00	swc Sh/Clst: drk gy	-	-	-	-	8.0-9.0	418	0324-1L
3541.00	cut bulk	1.26	1	0.00	NDP	-	-	0311-0B
3601.00	cut bulk	0.82	6	0.07	NDP	-	-	0312-0B
3625.07	swc Sh/Clst: m gy to drk gy	-	-	-	-	8.0-9.0	420	0353-1L

Table 8 : Thermal Maturity Data for well NOCS 7228/2-1

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
3670.00	cut	bulk	1.20	7	0.05	NDP	-	-	0409-0B
3695.00	swc	bulk	1.55	8	0.13	NDP	-	-	0482-0B
3706.00	cut	bulk	1.22	1	0.00	NDP	-	-	0410-0B
3725.00	swc	bulk	1.60	2	0.11	NDP	-	-	0485-0B
3766.00	cut	bulk	1.37	2	0.06	NDP	-	-	0411-0B
3766.50	swc	bulk	1.57	3	0.19	NDP	-	-	0487-0B
3790.00	cut	bulk	1.01	7	0.04	NDP	-	-	0413-0B
3806.00	swc	bulk	1.96	2	0.03	NDP	-	-	0489-0B
3820.00	cut	bulk	1.35	1	0.00	NDP	-	-	0416-0B
3836.00	swc	bulk	1.63	6	0.14	NDP	-	-	0492-0B
3850.00	cut	bulk	1.51	2	0.08	NDP	-	-	0418-0B
3865.00	swc	bulk	1.80	3	0.12	NDP	-	-	0495-0B
3880.00	cut	bulk	1.53	2	0.06	6	-	-	0415-0B
3904.00	swc	bulk	1.56	1	0.00	NDP	-	-	0497-0B

Table 8 : Thermal Maturity Data for well NOCS 7228/2-1

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
3910.00	cut	bulk	1.27	1	0.00	NDP	-	-	0417-0B
3928.00	swc	bulk	NDP	-	-	NDP	-	-	0499-0B
3950.00	cut	bulk	1.61	1	0.00	NDP	-	-	0414-0B
3965.00	swc	bulk	1.78	3	0.16	NDP	-	-	0502-0B
3965.00	swc	Sh/Clst: brn blk	-	-	-	-	9.0(?)	354	0502-1L
3994.00	cut	bulk	NDP	-	-	NDP	-	-	0412-0B
4043.00	swc	bulk	1.78	2	0.09	NDP	-	-	0510-0B
4120.00	swc	bulk	1.90	4	0.19	NDP	-	-	0516-0B
4129.00	swc	bulk	1.97	1	0.00	NDP	-	-	0517-0B
4171.00	swc	bulk	1.75	2	0.06	NDP	-	-	0521-0B
4242.00	swc	bulk	2.12	4	0.07	NDP	-	-	0528-0B
4268.00	swc	bulk	2.17	3	0.16	NDP	-	-	0530-0B
4290.00	swc	bulk	2.20	2	0.06	NDP	-	-	0532-0B

Table 9 : Visual Kerogen Composition Data for well NOCS 7228/2-1

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		%
500.00	swc	Sh/Clst: ol gy	25			*	*		*	*	20		*			55	*	*	**	0001-1L	
820.00	swc	Sh/Clst: ol gy to drk gy	15			*	**	*	**	*	40		*		45	**	*	*	0007-1L		
1095.00	swc	Sh/Clst: dsk y brn	95	*	*	*	*	**	*		TR		*		5	*	*		0035-1L		
1166.50	swc	Sh/Clst: gy blk	85	**		*		**	*	*	TR		*		15	**	*		0038-1L		
1172.20	ccp	Sh/Clst: dsk y brn	100	**	**	*	*	**			TR		*	*	TR	*		*	0535-1L		
1174.21	ccp	Sh/Clst: dsk y brn	100	**	**	*		**	*		TR		*		TR	*		*	0072-1L		
1225.00	swc	Sh/Clst: dsk y brn	85	**	**	*		**	*		5		*		10	*	*	*	0040-1L		
1275.00	swc	Sh/Clst: m gy to drk gy	10			*	**	*	*		20	*	*		70	*	*	**	0043-1L		
1378.00	swc	Sh/Clst: lt brn gy	TR			*		*		*	10		*		90	**	*		0049-1L		
1419.00	swc	Sh/Clst: lt brn gy	5			**	*	*			5		*		90	**	*		0050-1L		
1494.00	swc	Sh/Clst: m gy to drk gy	10			**	*	*			20		*		70	**	*		0053-1L		
1592.00	swc	Sh/Clst: dsk y brn	20			**	*	*			20		*		60	**	*		0022-1L		



Table 9 : Visual Kerogen Composition Data for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	L	A	L	S	C	D	I	S	I	M	S	V	C	V	A	Sample							
			I	m	i	p	u	R	A	A	B	N	F	e	n	i	c		B	I	T	e	l	D	r
			P	r	D	P	i	s	g	o	r	t	R	s	F	D	r	e	t	R	i	n	t	V	V
			T	e	o	c	i	a	f	i	t	L	%	n	s	t	n	o	I	%	n	n	t	V	V
1672.00	swc	Sh/Clst: dsk y brn	50		**	*			15	*				35	**	*									0020-1L
1735.50	swc	Sh/Clst: dsk y brn	10		**	*	*		20	*				70	**	*									0058-1L
1790.00	swc	Coal : blk	40	*	**	*	*	*	5		*			55	*	*	**								0060-1L
1832.50	swc	Sh/Clst: m gy	TR		**		*		30	*				70	*	*									0025-1L
1883.00	swc	Sh/Clst: drk gy	NDP						NDP					NDP											0062-1L
1963.00	swc	Sh/Clst: m gy	TR		*				30	*				70	**	*									0027-1L
2030.00	swc	Sh/Clst: ol gy	TR		*	*			50	*				50	*	*									0066-1L
2093.00	swc	Coal : brn blk	TR		**	*	*		TR	*				100	*	*	**	*							0068-1L
2122.00	cut	Sh/Clst: dsk brn to brn blk	20	*	*	**	*	*	TR	*	*			80	**	*	*								0127-5L
2161.50	swc	Sh/Clst: dsk y brn	20		*	**	*		5	*	*			75	**	*									0069-1L
2238.00	swc	Sh/Clst: m gy to dsk y brn	40		**	*			5	*				55	**	*									0365-1L
2316.00	ccp	Sh/Clst: drk gy	5		*	*	*		15		*			80	*	**									0362-1L

Table 9 : Visual Kerogen Composition Data for well NOCS 7228/2-1

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	%	n	i
2443.70	swc	Sh/Clst: dsk y brn	65	*	*	**	*	*	10	*				25	*	*	*	0340-1L					
2566.06	swc	Sh/Clst: m gy to dsk y brn	60	*		*	*	*	10	*				30	*	*		0376-1L					
2688.05	swc	Sltst : m gy to dsk y brn	30			*	*	*	15	**	*			55	*	*	*	0380-1L					
2810.50	swc	Sh/Clst: dsk y brn	15			**	?	*	15	*				70	**	*	*	0330-1L					
2888.09	swc	Sh/Clst: dsk y brn	30			*		*	25	**	*			45	**	*		0354-1L					
2995.25	swc	bulk	50			*	?	*	10	**	*			40	**	*		0333-0B					
3121.00	cut	Sh/Clst: m gy to dsk y brn	50			**	*	*	25	*				25	**	*		0295-1L					
3296.50	swc	Sh/Clst: drk gy	50			*	*	*	30	**	*			20	*	*	*	0321-1L					
3506.00	swc	Sh/Clst: drk gy	50	*		*	*	*	40	**	*			10	**	*		0324-1L					
3625.07	swc	Sh/Clst: m gy to drk gy	NDP						NDP					NDP				0353-1L					
3965.00	swc	Sh/Clst: brn blk	45	**		*	?		TR	*	*			55	*	*		0502-1L					

Table 10a : Tabulation of carbon isotope data for EOM/EOM - fractions or Oils for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	EOM/Oil	Saturated	Aromatic	NSO	Asphaltenes	Kerogen	Sample
1174.21	ccp		-30.65	-31.93	-31.50	-30.47	-29.55	-	0072-1L
1286.30	ccp		-28.07	-27.79	-28.51	-28.18	-27.74	-	0074-1L
1289.30	ccp		-	-27.80	-28.25	-28.34	-28.08	-	0075-1L
1291.30	ccp		-28.00	-27.86	-28.25	-28.38	-27.87	-	0073-1L
1704.00	swc		-27.79	-27.31	-27.81	-27.94	-28.01	-	0057-1L
2161.50	swc		-27.34	-27.60	-26.56	-27.10	-26.15	-	0069-1L
2325.00	swc		-	-28.84	-26.14	-26.77	-25.51	-	0338-1L
2572.00	swc		-	-29.57	-27.06	-27.87	-27.35	-	0342-1L
2875.00	cut		-	-30.10	-27.45	-27.84	-26.94	-	0254-1L
3077.00	swc		-	-25.51	-25.80	-26.72	-26.42	-	0317-1L

Table 10b : Tabulation of cv values from carbon isotope data for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	Saturated	Aromatic	cv value	Sample
1174.21	ccp		-31.93	-31.50	-0.80	0072-1L
1286.30	ccp		-27.79	-28.51	-4.63	0074-1L
1289.30	ccp		-27.80	-28.25	-4.03	0075-1L
1291.30	ccp		-27.86	-28.25	-3.88	0073-1L
1704.00	swc		-27.31	-27.81	-4.29	0057-1L
2161.50	swc		-27.60	-26.56	-0.79	0069-1L
2325.00	swc		-28.84	-26.14	3.28	0338-1L
2572.00	swc		-29.57	-27.06	3.09	0342-1L
2875.00	cut		-30.10	-27.45	3.56	0254-1L
3077.00	swc		-25.51	-25.80	-4.39	0317-1L

Table 11A: Variation in Triterpane Distribution (peak height) for Well NOCS 7228/2-1

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	E/E+F	C+D		J1		Sample
				B+E+F										C+D+E+F	D+F/C+E	J1+J2%		
1174.21	Sh/Clst	2.28	0.70	0.19	0.66	0.40	0.06	-	-	-	0.05	0.77	0.38	0.28	57.84		0072-1	
1286.30	S/Sst	0.98	0.49	0.25	0.91	0.48	0.17	0.35	0.38	0.26	0.88	0.79	0.46	0.24	52.77		0074-1	
1289.30	S/Sst	1.30	0.57	0.22	0.77	0.44	0.16	0.28	0.37	0.22	0.65	0.86	0.44	0.17	59.41		0075-1	
1291.30	S/Sst	1.38	0.58	0.30	0.41	0.29	0.19	0.36	0.87	0.26	1.23	0.89	0.31	0.15	53.33		0073-1	
1704.00	S/Sst	0.45	0.31	0.45	1.95	0.66	1.33	2.93	1.50	0.75	8.35	0.72	0.66	0.36	-		0057-1	
2161.50	Sh/Clst	2.19	0.69	0.20	0.74	0.42	0.17	0.03	0.04	0.03	0.20	0.92	0.42	0.08	61.31		0069-1	
2325.00	Sh/Clst	0.85	0.46	0.20	1.05	0.51	0.25	0.22	0.21	0.18	0.37	0.94	0.50	0.03	72.84		0338-1	
2572.00	Sh/Clst	0.54	0.35	0.14	1.01	0.50	0.05	0.09	0.09	0.08	0.33	0.94	0.52	0.09	55.48		0342-1	
2875.00	Sh/Clst	2.48	0.71	0.69	-	1.00	-	-	-	-	-	-	0.52	0.91	-		0254-1	
3077.00	Sh/Clst	1.59	0.61	0.24	1.15	0.53	-	-	-	-	0.44	1.00	0.56	0.05	-		0317-1	

Table 11B: Variation in Sterane Distribution (peak height) for Well NOCS 7228/2-1

Depth unit of measure: m

Depth	Lithology	Ratio1	Ratio2	Ratio3	Ratio4	Ratio5	Ratio6	Ratio7	Ratio8	Ratio9	Ratio10	Sample
1174.21	Sh/Clst	0.38	25.43	50.11	0.98	0.66	0.12	0.09	0.33	0.34	0.67	0072-1
1286.30	S/Sst	0.80	51.64	73.49	0.96	0.73	0.40	0.28	0.58	1.07	2.87	0074-1
1289.30	S/Sst	0.66	40.58	73.20	0.91	0.77	0.40	0.30	0.58	0.68	2.30	0075-1
1291.30	S/Sst	0.73	45.28	76.83	0.91	0.79	0.57	0.43	0.62	0.83	3.03	0073-1
1704.00	S/Sst	0.77	48.31	85.85	1.08	0.86	0.41	0.31	0.75	0.93	5.87	0057-1
2161.50	Sh/Clst	0.70	46.18	78.45	0.90	0.80	0.38	0.31	0.65	0.86	3.38	0069-1
2325.00	Sh/Clst	0.62	45.54	80.98	1.20	0.82	0.36	0.27	0.68	0.84	3.91	0338-1
2572.00	Sh/Clst	0.61	58.04	81.04	1.06	0.79	0.36	0.28	0.68	1.38	5.09	0342-1
2875.00	Sh/Clst	-	-	-	-	-	-	-	-	-	-	0254-1
3077.00	Sh/Clst	0.51	46.85	75.50	0.83	0.77	0.45	0.35	0.61	0.88	2.90	0317-1

Ratio1:  $a / a + j$ Ratio2:  $g / q + t * 100\%$ 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 11C: Raw GCMS triterpane data (peak height) for Well NOCS 7228/2-1

Depth unit of measure: m

Depth	Lithology	p	q	r	s	t	a	b	z	c	Sample
		x	d	e	f	g	h	i	jl		
		j2	k1	k2	l1	l2	m1	m2			
1174.21	Sh/Clst	236.94	79.76	92.04	76.89	43.82	239.88	546.89	0.00	1167.31	0072-1
		103.06	273.05	1765.20	540.99	848.39	650.41	294.39	396.54		
		289.03	269.58	226.15	238.71	204.13	137.90	116.81			
1286.30	S/Sst	85.62	52.68	35.61	26.96	23.06	25.28	24.71	20.77	54.70	0074-1
		9.92	11.21	60.11	15.82	31.08	13.23	28.91	22.92		
		20.51	6.62	0.00	0.00	0.00	0.00	0.00			
1289.30	S/Sst	118.53	72.96	51.82	38.01	32.18	28.04	36.56	32.09	87.07	0075-1
		18.04	15.70	112.92	18.22	29.71	21.48	25.90	21.09		
		14.41	15.92	9.10	8.88	5.16	7.01	7.61			
1291.30	S/Sst	100.49	58.90	34.09	28.42	22.46	16.58	22.82	17.22	19.77	0073-1
		9.03	4.09	47.87	6.10	11.44	10.97	13.91	8.00		
		7.00	3.23	0.00	0.00	0.00	0.00	0.00			
1704.00	S/Sst	285.74	171.47	111.62	14.01	82.43	50.57	22.89	60.06	40.08	0057-1
		27.21	14.14	20.53	7.79	0.00	0.00	0.00	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00	0.00			

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			
2161.50	Sh/Clst	33.55	18.71	10.60	13.51	4.43	11.59	25.36	2.64	70.05	0069-1
		16.27	3.93	94.81	8.70	42.13	27.58	3.44	26.61		
		16.79	9.15	4.90	5.42	2.15	0.00	0.00			
2325.00	Sh/Clst	19.54	10.56	7.57	10.95	3.33	8.99	7.67	6.18	29.97	0338-1
		7.16	0.00	28.63	1.76	10.25	20.02	1.21	5.98		
		2.23	2.01	0.95	1.58	0.00	0.00	0.00			
2572.00	Sh/Clst	9.92	4.90	3.55	3.80	3.22	4.80	2.59	1.38	15.00	0342-1
		0.72	1.82	14.86	0.92	6.13	7.69	1.03	3.24		
		2.60	2.31	1.95	1.37	1.49	1.53	0.00			
2875.00	Sh/Clst	0.82	0.00	0.00	0.00	0.00	1.17	2.90	0.00	1.44	0254-1
		2.28	0.00	0.00	0.00	1.31	0.00	0.00	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00	0.00			
3077.00	Sh/Clst	10.71	4.83	2.55	2.49	1.81	2.14	3.41	0.00	12.62	0317-1
		0.00	1.10	10.98	0.00	3.77	3.64	0.00	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00	0.00			



Table 11D: Raw GCMS sterane data (peak height) for Well NOCS 7228/2-1

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					
1174.21	Sh/Clst	145.89	112.26	758.80	513.19	233.15	387.13	421.27	304.95	660.41	0072-1
		641.65	276.55	1247.67	572.73	461.09	281.29	248.73	362.90		
		867.26	331.34	327.18	327.18	971.43					
1286.30	S/Sst	22.06	14.37	33.88	21.15	8.22	12.32	14.64	13.40	13.03	0074-1
		33.24	16.75	8.54	21.49	12.74	10.33	10.85	16.34		
		5.30	11.96	18.13	13.97	11.20					
1289.30	S/Sst	35.48	21.44	46.02	26.39	10.75	17.56	19.97	12.60	17.34	0075-1
		52.51	22.09	23.42	29.21	15.16	10.87	13.77	24.94		
		12.70	14.77	26.77	22.95	21.63					
1291.30	S/Sst	36.65	15.28	28.44	14.79	7.27	10.83	13.52	8.05	13.95	0073-1
		32.89	13.39	10.51	16.19	8.10	6.21	10.49	11.64		
		3.66	6.77	14.57	10.22	8.18					
1704.00	S/Sst	53.48	23.90	90.01	53.17	21.92	47.74	47.74	33.25	19.00	0057-1
		82.10	29.28	27.21	52.83	34.47	0.00	27.10	43.62		
		11.17	13.45	42.23	42.23	14.39					

Table 11D: Raw GCMS sterane data (peak height) for Well NOCS 7228/2-1

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					
2161.50	Sh/Clst	15.63 26.00 4.41	12.74 8.57 7.49	19.48 8.52 14.76	12.06 14.69 14.76	3.76 5.58 8.73	12.12 1.18	12.12 6.55	9.97 9.26	6.78	0069-1
2325.00	Sh/Clst	13.50 24.65 7.98	9.67 12.22 5.92	26.29 15.81 13.84	16.95 14.13 13.84	3.68 4.42 7.08	15.08 0.00	15.08 8.59	11.82 11.77	11.72	0338-1
2572.00	Sh/Clst	8.74 11.32 2.27	3.67 6.41 4.08	10.38 6.64 7.51	6.02 5.89 7.51	1.61 1.30 2.95	5.45 0.00	5.45 3.55	3.11 4.67	5.73	0342-1
2875.00	Sh/Clst	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	0.00 0.00	0.00 0.00	0.00	0254-1
3077.00	Sh/Clst	6.53 6.00 1.79	2.58 3.56 2.08	4.68 4.42 3.42	3.19 3.72 3.42	0.92 1.87 2.36	2.84 0.00	2.84 2.35	1.85 2.59	3.83	0317-1

Depth unit of measure: m

Depth	Lithology	Ratio1	Ratio2	Ratio3	Ratio4	Sample
1174.21	Sh/Clst	0.17	0.09	0.09	0.07	0072-1
1286.30	S/Sst	0.69	0.50	0.50	0.41	0074-1
1289.30	S/Sst	0.60	0.42	0.40	0.31	0075-1
1291.30	S/Sst	0.61	0.47	0.41	0.32	0073-1
1704.00	S/Sst	0.82	0.64	0.65	0.53	0057-1
2161.50	Sh/Clst	0.24	0.21	0.10	0.09	0069-1
2325.00	Sh/Clst	-	-	-	-	0338-1
2572.00	Sh/Clst	0.28	0.21	0.14	0.11	0342-1
2875.00	Sh/Clst	-	-	-	-	0254-1
3077.00	Sh/Clst	-	-	-	-	0317-1

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 11F: Variation in Triaromatic Sterane Distribution for Well NOCS 7228/2-1

Depth unit of measure: m

Depth	Lithology	Ratio1	Ratio2	Ratio3	Ratio4	Ratio5	Sample
1174.21	Sh/Clst	0.24	0.24	0.06	0.07	0.06	0072-1
1286.30	S/Sst	0.64	0.60	0.38	0.37	0.52	0074-1
1289.30	S/Sst	0.34	0.29	0.15	0.15	0.25	0075-1
1291.30	S/Sst	0.30	0.22	0.12	0.12	0.22	0073-1
1704.00	S/Sst	0.54	0.57	0.27	0.24	0.35	0057-1
2161.50	Sh/Clst	-	1.00	0.60	-	-	0069-1
2325.00	Sh/Clst	-	-	-	-	-	0338-1
2572.00	Sh/Clst	-	-	-	-	-	0342-1
2875.00	Sh/Clst	-	-	-	-	-	0254-1
3077.00	Sh/Clst	-	-	-	-	-	0317-1

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 11G: Aromatisation of Steranes for Well NOCS 7228/2-1

Depth unit of measure: m

Depth	Lithology	Ratio1	Ratio2	Sample
1174.21	Sh/Clst	0.47	0.70	0072-1
1286.30	S/Sst	0.32	0.90	0074-1
1289.30	S/Sst	0.28	0.87	0075-1
1291.30	S/Sst	0.25	0.88	0073-1
1704.00	S/Sst	0.25	1.00	0057-1
2161.50	Sh/Clst	0.71	-	0069-1
2325.00	Sh/Clst	1.00	-	0338-1
2572.00	Sh/Clst	1.00	-	0342-1
2875.00	Sh/Clst	1.00	-	0254-1
3077.00	Sh/Clst	1.00	-	0317-1

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

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

Depth unit of measure: m

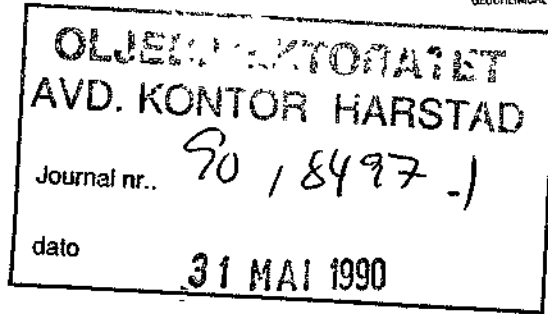
Depth	Lithology	al	bl	cl	dl	el	f1	g1	hl	i1	Sample
1174.21	Sh/Clst	25.40	13.16	89.48	68.33	127.24	17.95	119.87	45.96	22.44	0072-1
1286.30	S/Sst	24.56	10.68	8.04	5.00	10.80	3.32	13.35	8.60	2.39	0074-1
1289.30	S/Sst	41.21	19.83	21.83	14.86	27.49	4.11	33.52	26.52	10.22	0075-1
1291.30	S/Sst	46.02	25.93	24.64	17.21	29.42	3.51	36.62	27.33	11.44	0073-1
1704.00	S/Sst	22.76	9.34	5.97	3.39	5.15	3.68	7.28	2.90	0.00	0057-1
2161.50	Sh/Clst	1.17	1.01	1.57	3.54	3.77	3.69	6.69	3.05	1.08	0069-1
2325.00	Sh/Clst	0.00	0.00	1.84	4.96	4.73	14.35	8.17	7.21	2.39	0338-1
2572.00	Sh/Clst	3.92	2.59	6.26	6.56	9.84	6.28	13.75	7.21	1.81	0342-1
2875.00	Sh/Clst	0.00	0.00	0.00	3.00	0.00	10.42	8.01	3.17	1.85	0254-1
3077.00	Sh/Clst	0.00	0.00	0.00	11.47	0.00	14.17	6.21	4.87	1.38	0317-1

Table 111: Raw GCMS trioaromatic sterane data (peak height) for Well NOCS 7228/2-1

Depth unit of measure: m

Depth	Lithology	a1	b1	c1	d1	e1	f1	g1	Sample
1174.21	Sh/Clst	16.47	16.75	113.26	238.65	61.03	98.79	52.19	0072-1
1286.30	S/Sst	35.98	31.05	15.65	32.92	27.84	11.69	20.58	0074-1
1289.30	S/Sst	35.47	29.04	49.99	108.34	89.74	45.00	70.03	0075-1
1291.30	S/Sst	35.48	24.34	60.73	128.88	113.37	53.96	83.96	0073-1
1704.00	S/Sst	14.46	16.26	11.48	26.96	24.99	9.33	12.21	0057-1
2161.50	Sh/Clst	0.00	14.06	0.00	6.24	3.20	0.00	0.00	0069-1
2325.00	Sh/Clst	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0338-1
2572.00	Sh/Clst	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0342-1
2875.00	Sh/Clst	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0254-1
3077.00	Sh/Clst	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0317-1

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HYDROUS PYROLYSIS OF HEKKINGEN FM. CORE

FROM WELL NOCS 7228/2-1

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## INTRODUCTION

This report contains the analytical data and the interpretation of a hydrous pyrolysis experiment performed on the claystone material from a core taken from 1174.21 m (depth at base of core) in well NOCS 7228/2-1. The project was authorised by Mobil Exploration Norway to assess the potential for hydrocarbon generation and the degree of correlation with oils.

Material was pyrolysed in 1 litre bombs at five different temperatures (320°C, 330°C, 335°C, 340°C and 350°C) with water and in an inert atmosphere (helium). The samples were pyrolysed for 72 hours for each temperature. The same bomb and assembly of valves, tubes etc. were used each time, also. As close as possible to 100 grams of rock material was used each time. The material was homogenised before the analyses commenced.

A comparison with the unpyrolysed material was also performed, where this was considered logical. The analytical data of the core material is somewhat different to that reported from the 1174.21 m sample in the "Geochemical Report on Well NOCS 7228/2-1" previously written for Mobil Exploration.

The results quoted in this report are from a homogenised 0.5 kg sample and hence are regarded to be much more representative than the 10 g sample analysed in the previous report.

Table 1 a: Hydrous pyrolysis yield of microl gas per g source rock for well NOCS 7228/2-1

Depth unit of measure : m

Sample	Temperature (°C)	Depth	Methane	Ethane	Ethylene	Propene	C3-propane	Isobutane
HE	320	1174.21	75.38	35.32	1.34	2.38	20.81	3.70
HE	330	1174.21	114.71	53.19	2.67	4.91	31.07	5.06
HE	335	1174.21	156.70	74.06	1.48	4.01	41.85	7.56
HE	340	1174.21	199.73	92.25	1.67	5.02	53.99	10.24
HE	350	1174.21	317.75	140.23	1.77	7.31	86.83	17.35

Table 1 b: Hydrous pyrolysis yield of microl gas per g source rock for well NOCS 7228/2-1

Depth unit of measure : m

Sample	Temperature (°C)	Depth	C4-butane	Butene	Neopentane	Cyclopentane	2-Methylbutane	Pentane
HE	320	1174.21	10.73	0.49	0.01	2.25	4.79	6.82
HE	330	1174.21	13.60	0.81	0.02	1.41	4.84	5.95
HE	335	1174.21	20.15	1.00	0.02	4.20	8.92	13.46
HE	340	1174.21	25.11	1.17	0.02	3.93	10.98	13.98
HE	350	1174.21	41.85	2.16	0.03	7.58	19.64	24.20

Table 1 c: Hydrous pyrolysis yield of microl gas per g source rock for well NOCS 7228/2-1

Depth unit of measure : m

Sample	Temperature (°C)	Depth	Pentene	2,2-Dimethylbutane	Cyclohexane	Methylcyclopentane	2-Methylpentane	3-Methylpentane
HE	320	1174.21	0.27	0.01	8.54	1.80	2.48	1.51
HE	330	1174.21	0.30	0.01	4.20	0.71	1.79	0.97
HE	335	1174.21	0.50	0.03	18.86	4.21	4.81	3.05
HE	340	1174.21	0.54	0.03	15.04	2.90	5.10	3.05
HE	350	1174.21	1.00	0.05	23.88	3.71	8.27	4.88

Table 1 d: Hydrous pyrolysis yield of microl gas per g source rock for well NOCS 7228/2-1

Depth unit of measure :m

Sample	Temp. (°C)	Depth	Hexane	Hexene	Methylcyclohexane	Heptane	Benzene	Octane	Toluene
HE	320	1174.21	7.68	0.15	3.22	1.56	0.70	0.47	0.78
HE	330	1174.21	4.57	0.12	1.16	0.60	0.45	0.15	0.30
HE	335	1174.21	16.56	0.25	10.79	4.19	1.62	1.31	3.94
HE	340	1174.21	14.65	0.27	4.42	2.20	1.68	0.41	0.93
HE	350	1174.21	22.85	0.46	8.85	3.36	2.32	0.57	1.87

Table 2 : Hydrous Pyrolysis Gas Ratios for well MOBIL 7228/2-1 HYPY, 1174,21 m ccp

Pyrolysis Temp. ( °C )	<u>ethene</u> ethane	<u>propene</u> propane	<u>ethene</u> + <u>propene</u> ethane propane	<u>isobutane</u> butane	<u>isopentane</u> pentane	butane + pentane ( x 10 <sup>4</sup> )	isobutane + isopentane ( x 10 <sup>4</sup> )
320	0.04	0.10	0.14	0.37	0.69	6.91	3.34
330	0.05	0.16	0.21	0.45	0.79	21.13	11.64
335	0.02	0.08	0.10	0.40	0.63	8.17	3.98
340	0.02	0.08	0.10	0.43	0.73	6.67	3.55
350	0.01	0.08	0.20	0.46	0.76	11.54	6.56

Table 3 : Rock-Eval table for well 7228/2-1 HYPY 1174,21 m ccp

Pyrolysis Temp. (°C)	S1	S2	S3	S2/S3	TOC	HI	OI	PP	PI	Tmax	Sample
UNHEATED	1.10	18.28	0.26	70.31	6.64	275	4	19.4	0.06	429	0006-0B
320	0.75	14.04	0.63	22.29	5.34	263	12	14.8	0.05	446	0001-0B
330	0.59	6.99	0.57	12.26	5.33	131	11	7.6	0.08	452	0002-0B
335	0.86	6.34	0.50	12.68	5.07	125	10	7.2	0.12	451	0003-0B
340	0.61	3.52	0.56	6.29	4.17	84	13	4.1	0.15	453	0004-0B
350	0.79	3.06	0.60	5.10	4.27	72	14	3.8	0.21	459	0005-0B

Table 5 a: Weight of EOM and Chromatographic Fraction for well 7228/2-1 HYPY 1174,21 m ccp

## Whole Rock, Pyrolysate

Pyrolysis Temp. (°C)	Rock Extracted (g)	EOM (mg)	Sat (mg)	Aro (mg)	Asph (mg)	NSO (mg)	HC (mg)	Non-HC (mg)	TOC(e) (%)	Sample
320	100.0	1419.4	245.8	283.7	498.7	391.2	529.5	889.9	6.64	0001-0B
330	100.1	1807.6	347.8	387.1	744.4	328.3	734.9	1072.7	6.64	0002-0B
335	100.0	1718.2	349.4	374.7	514.8	479.3	724.1	994.1	6.64	0003-0B
340	99.8	1670.3	307.6	383.6	423.3	555.8	691.2	979.1	6.64	0004-0B
350	100.0	1640.4	329.9	307.6	507.0	495.9	637.5	1002.9	6.64	0005-0B



Table 4 : Hydrous Pyrolysis yield for well MOBIL 7228/2-1 HYPY, 1174,21m ccp

Pyrolysis Temp. (°C)	Expelled oil/g rock (mg/g)	Pyrolysate yield/g rock (mg/g)	Gas yield/g rock (ml/g)	Bitumen yield/g rock (mg/g)
320	4.70	14.19	5.38	6.25
330	2.07	18.06	13.23	3.64
335	3.21	17.18	8.76	4.80
340	3.90	16.74	10.72	2.79
350	1.01	16.41	11.21	2.93

## . Bitumen Extract

Pyrolysis Temp. (°C)	Rock Extracted (g)	EOM (mg)	Sat (mg)	Aro (mg)	Asph (mg)	NSO (mg)	HC (mg)	Non-HC (mg)	TOC(e) (%)	Sample
UNHEATED	9.8	30.9	5.7	8.6	9.2	7.4	14.3	16.6	6.64	0001-0B
320	9.8	61.0	2.7	12.3	26.7	19.3	15.0	46.0	5.34	0002-0B
330	9.8	35.7	0.9	7.4	14.1	13.3	8.3	27.4	5.33	0003-0B
335	10.6	50.7	2.9	13.9	23.6	10.3	16.8	33.9	5.07	0004-0B
340	9.9	27.5	0.9	7.7	7.1	11.8	8.6	18.9	4.17	0005-0B
350	9.9	29.1	0.2	10.5	7.0	11.4	10.7	18.4	4.27	0006-0B

Whole Rock, Pyrolysate

Pyrolysis Temp. (°C)	EOM	Sat	Aro	Asph	NSO	HC	Non-HC	Sample
320	14189	2457	2836	4985	3910	5293	8896	0001-0B
330	18061	3475	3867	7438	3280	7343	10718	0002-0B
335	17180	3493	3746	5147	4792	7240	9940	0003-0B
340	16741	3083	3844	4242	5570	6927	9813	0004-0B
350	16410	3300	3077	5072	4960	6377	10033	0005-0B

Bitumen Extract

Pyrolysis Temp. (°C)	EOM	Sat	Aro	Asph	NSO	HC	Non-HC	Sample
UNHEATED	3143	579	874	935	752	1454	1688	0001-0B
320	6250	276	1260	2735	1977	1536	4713	0002-0B
330	3642	91	755	1438	1357	846	2795	0003-0B
335	4801	274	1316	2234	975	1590	3210	0004-0B
340	2789	91	780	720	1196	872	1916	0005-0B
350	2933	20	1058	705	1149	1078	1854	0006-0B

Table 5 c: Concentration of EOM and Chromatographic Fraction (mg/g TOC(e)) for well 7228/2-1 HYPY 1174,21 m ccp

Whole Rock, Pyrolysate

Pyrolysis Temp. (°C)	EOM	Sat	Aro	Asph	NSO	HC	Non-HC	Sample
320	213.70	37.01	42.71	75.08	58.90	79.72	133.98	0001-0B
330	272.01	52.34	58.25	112.02	49.40	110.59	161.42	0002-0B
335	258.74	52.62	56.43	77.52	72.18	109.04	149.70	0003-0B
340	252.13	46.43	57.90	63.90	83.90	104.34	147.79	0004-0B
350	247.15	49.70	46.34	76.39	74.71	96.05	151.10	0005-0B

## Bitumen Extract

Pyrolysis Temp. (°C)	EOM	Sat	Aro	Asph	NSO	HC	Non-HC	Sample
UNHEATED	47.34	0.73	13.18	14.10	11.34	21.91	25.43	0001-0B
320	117.04	5.18	23.60	51.23	37.03	28.78	88.26	0002-0B
330	68.35	1.72	14.17	26.99	25.46	15.89	52.46	0003-0B
335	94.70	5.42	25.96	44.08	19.24	31.38	63.32	0004-0B
340	66.88	2.19	18.73	17.27	28.70	20.92	45.97	0005-0B
350	68.70	0.47	24.79	16.53	26.91	25.26	43.44	0006-0B

Table 5 d: Composition of material extracted from the rock (%) for well 7228/2-1 HYPY 1174,21 m ccp

Whole Rock, Pyrolysate

Pyrolysis Temp. (°C)	Sat	Aro	Asph	NSO	HC	Non-HC	Sat	HC	Sample
	EOM	EOM	EOM	EOM	EOM	EOM	Aro	Non-HC	
320	17.32	19.99	35.13	27.56	37.30	62.70	86.64	59.50	0001-0B
330	19.24	21.42	41.18	18.16	40.66	59.34	89.85	68.51	0002-0B
335	20.34	21.81	29.96	27.90	42.14	57.86	93.25	72.84	0003-0B
340	18.42	22.97	25.34	33.28	41.38	58.62	80.19	70.60	0004-0B
350	20.11	18.75	30.91	30.23	38.86	61.14	107.25	63.57	0005-0B

Table 5 d: Composition of material extracted from the rock (%) for well 7228/2-1 HYPY 1174,21 m ccp

## Bitumen Extract

Pyrolysis Temp. (°C)	Sat	Aro	Asph	NSO	HC	Non-HC	Sat	HC	Sample
	EOM	EOM	EOM	EOM	EOM	EOM	Aro	Non-HC	
UNHEATED	18.45	27.83	29.77	23.95	46.28	53.72	66.28	86.14	0001-0B
320	4.43	20.16	43.77	31.64	24.59	75.41	21.95	32.61	0002-0B
330	2.52	20.73	39.50	37.25	23.25	76.75	12.16	30.29	0003-0B
335	5.72	27.42	46.55	20.32	33.14	66.86	20.86	49.56	0004-0B
340	3.27	28.00	25.82	42.91	31.27	68.73	11.69	45.50	0005-0B
350	0.69	36.08	24.05	39.18	36.77	63.23	1.90	58.15	0006-0B



Table 6 : Saturated Hydrocarbon Ratios for well 7228/2-1 HYPY 1174,21 m ccp

Whole Rock, Pyrolysate

Pyrolysis Temp. (°C)	Pristane	Pristane	Pristane + Phytane	Phytane	CPI	Sample
	nC17	Phytane	nC17 + nC18	nC18		
320	1.69	2.28	1.36	0.94	1.27	0001-0B
330	1.35	2.33	1.07	0.72	1.20	0002-0B
335	1.10	2.32	0.86	0.58	1.27	0003-0B
340	0.97	2.30	0.77	0.51	1.17	0004-0B
350	0.76	2.32	0.60	0.41	1.16	0005-0B

Table 6 : Saturated Hydrocarbon Ratios for well 7228/2-1 HYPY 1174,21 m ccp

Bitumen Extract

Pyrolysis Temp. (°C)	Pristane	Pristane	Pristane + Phytane	Phytane	CPI	Sample
	nC17	Phytane	nC17 + nC18	nC18		
UNHEATED	3.48	2.04	2.79	1.99	1.19	0001-0B
320	1.08	2.15	0.82	0.55	1.17	0002-0B
330	0.85	1.82	0.67	0.48	1.17	0003-0B
335	0.85	2.02	0.66	0.46	1.28	0004-0B
340	0.63	1.77	0.53	0.40	1.05	0005-0B
350	0.52	1.71	0.39	0.27	1.16	0006-0B

Table 7 : Aromatic Hydrocarbon Ratios for well 7228/2-1 HYPY 1174,21 m ccp

Whole Rock, Pyrolysate

Pyrolysis Temp. (°C)	MNR	DMNR	BPhR	2/1MP	MPI1	MPI2	Rc	DBT/P	4/1MDBT	(3+2) /1MDBT	Sample
320	1.47	1.52	-	-	-	-	-	-	0.59	0.68	0001-0B
330	1.44	1.42	-	-	-	-	-	-	0.63	0.77	0002-0B
335	1.42	2.16	0.17	-	-	-	-	-	0.66	0.70	0003-0B
340	1.42	2.09	-	-	-	-	-	-	0.64	0.75	0004-0B
350	1.28	2.46	-	-	-	-	-	-	0.63	0.57	0005-0B

Table 7 : Aromatic Hydrocarbon Ratios for well 7228/2-1 HYPY 1174,21 m ccp

Bitumen Extract											
Pyrolysis Temp. (°C)	MNR	DMNR	BPhR	2/1MP	MPI1	MPI2	Rc	DBT/P	4/1MDBT	(3+2) /1MDBT	Sample
UNHEATED	1.08	2.10	0.12	0.76	0.60	0.54	0.76	0.66	0.35	0.31	0001-0B
320	1.26	2.59	0.06	0.77	0.64	0.65	0.78	267.80	0.51	0.55	0002-0B
330	1.14	2.37	0.07	-	1.08	1.10	1.05	324.04	0.48	0.43	0003-0B
335	0.02	2.56	0.06	0.86	0.72	0.76	0.83	0.42	-	0.52	0004-0B
340	0.93	2.29	0.06	-	1.11	1.16	1.63	265.24	0.51	0.41	0005-0B
350	1.12	2.53	0.06	-	0.58	-	1.95	289.32	0.51	0.43	0006-0B

Table 8 : Thermal Maturity Data for well 7228/2-1 HYPY 1174,21 m ccp

Pyrolysis Temp. (°C)	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation	Spore Fluorescence Colour	SCI	T <sub>max</sub> (°C)	Sample
UNHEATED	0.45	17	0.03	-	4.5-5.0	429	0006-0B
320	0.51	16	0.04	-	7.0-7.5	446	0001-0B
330	0.84	21	0.06	-	7.5	452	0002-0B
335	0.99	15	0.06	-	8.0	451	0003-0B
340	1.21	13	0.08	-	8.5-(?)9.0	453	0004-0B
350	1.43	10	0.12	-	8.0-9.0	459	0005-0B

Table 9 : Visual Kerogen Composition Data for well 7228/2-1 HYPY 1174,21 m ccp

Pyrolysis Temp. (°C)	L	A	L	S	C		D	I	S	I	M	S	V	C	V	A	Sample
	I	m	i	p	u	R	A	N	F	e	n	c	I	T	e	l	
	P	o	p	/	t	e	l	E	u	m	t	c	R	l	l	D	
	T	r	D	P	i	s	g	R	s	F	D	r	e	i	e	r	
	%	L	t	l	l	n	e	%	n	s	t	n	o	I	%	n	
UNHEATED	100	**	**	*		**	*	TR		*			TR	*	*	0006-0B	
320	90	**	*	*	*	*		5	*	*			5	*	*	0001-0B	
330	100	**		*	*	*		TR		*			TR		*	0002-0B	
335	NDP							NDP					NDP			0003-0B	
340	95	**		*		*		5	*	*			TR		*	0004-0B	
350	95			*		?		TR	*	*			5		*	0005-0B	

Table 10: Pyrolysis GC Data (S2 peak) as Percentage of Total Area for Well 7228/2-1 HYPY 1174,21 m ccp

Pyrolysis Temp. (°C)	C1	C2-C5	C6-C14	C15+	S2 from Rock-Eval	Sample
UNHEATED	5.03	15.02	34.09	45.86	18.28	0006-0B
320	6.80	17.09	34.46	41.65	14.04	0001-0B
330	8.20	21.39	38.70	31.71	6.99	0002-0B
335	7.94	20.02	35.75	36.29	6.34	0003-0B
340	9.69	24.83	40.16	25.33	3.52	0004-0B
350	12.97	24.49	34.47	28.07	3.06	0005-0B

Table 11a : Tabulation of carbon isotope data for EOM/EOM - fractions or Oils for well 7228/2-1 HYPY 1174.21m

<u>Pyrolysis Temp. ( °C)</u>	<u>EOM/Oil</u>	<u>Saturated</u>	<u>Aromatic</u>	<u>NSO</u>	<u>Asphaltenes</u>	<u>Kerogen</u>	<u>Sample</u>
UNHEATED	-30.65	-31.93	-31.50	-30.47	-29.55	-	0006-0B
320	-30.42	-31.19	-31.42	-30.55	-29.36	-	0001-0B
330	-30.34	-30.53	-31.21	-30.48	-29.32	-	0002-0B
335	-30.24	-30.43	-30.89	-29.63	-28.79	-	0003-0B
340	-30.02	-30.30	-30.79	-29.76	-28.97	-	0004-0B
350	-29.76	-29.89	-30.56	-29.20	-28.76	-	0005-0B



Table 11b : Tabulation of cv values from carbon isotope data for well 7228/2-1 HYPY 1174.21m

<u>Pyrolysis Temp. (°C)</u>	<u>Saturated</u>	<u>Aromatic</u>	<u>cv value</u>	<u>Sample</u>
UNHEATED	-31.93	-31.50	-0.80	0006-0B
320	-31.19	-31.42	-2.49	0001-0B
330	-30.53	-31.21	-3.70	0002-0B
335	-30.43	-30.89	-3.24	0003-0B
340	-30.30	-30.79	-3.34	0004-0B
350	-29.89	-30.56	-3.87	0005-0B

Table 12A: Variation in Triterpane Distribution (peak height) for Well 7228/2-1 HYPY 1174,21 m ccp

## Whole Rock, Pyrolysate

Pyrolysis Temp. (°C)	B/A	B/B+A	B		C/E	C/C+E	X/E	Z/E	Z/C	Z/Z+E	Q/E	E/E+F	C+D		J1		Sample
			B+E+F										C+D+E+F	D+F/C+E	J1+J2%		
320	14.57	0.94	0.22	0.70	0.41	-	-	-	-	0.06	0.77	0.39	0.25	48.90	0001-0		
330	18.41	0.95	0.21	0.81	0.45	-	-	-	-	0.03	0.74	0.44	0.33	42.86	0002-0		
335	20.89	0.95	0.25	0.91	0.48	-	-	-	-	0.07	0.78	0.46	0.24	51.92	0003-0		
340	15.25	0.94	0.23	0.85	0.46	-	-	-	-	0.05	0.79	0.43	0.20	55.81	0004-0		
350	15.67	0.94	0.32	1.04	0.51	-	-	-	-	0.04	0.90	0.50	0.09	53.18	0005-0		

Table 12A: Variation in Triterpane Distribution (peak height) for Well 7228/2-1 HYPY 1174,21 m ccp

## Bitumen Extract

Pyrolysis Temp. (°C)			B							C+D			J1		Sample
	B/A	B/B+A	B+E+F	C/E	C/C+E	X/E	Z/E	Z/C	Z/Z+E	Q/E	E/E+F	C+D+E+F	D+F/C+E	J1+J2%	
UNHEATED	2.89	0.74	0.23	0.74	0.42	0.05	-	-	-	0.06	0.74	0.40	0.29	55.20	0001-0
320	8.98	0.90	0.18	0.67	0.40	0.01	-	-	-	0.04	0.69	0.38	0.39	47.98	0002-0
330	8.84	0.90	0.26	0.69	0.41	-	-	-	-	0.05	0.74	0.41	0.35	51.18	0003-0
335	10.96	0.92	0.25	0.84	0.46	-	-	-	-	0.05	0.77	0.43	0.25	47.42	0004-0
340	6.81	0.87	0.34	1.10	0.52	-	0.01	0.01	0.01	0.07	0.78	0.50	0.21	52.99	0005-0
350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0006-0

Table 12B: Variation in Sterane Distribution (peak height) for Well 7228/2-1 HYPY 1174,21 m ccp

Whole Rock, Pyrolysate											
Pyrolysis Temp. (°C)	Ratio1	Ratio2	Ratio3	Ratio4	Ratio5	Ratio6	Ratio7	Ratio8	Ratio9	Ratio10	Sample
320	0.50	37.50	47.72	1.98	0.55	0.56	0.48	0.31	0.60	0.73	0001-0
330	0.55	31.25	42.65	1.94	0.54	0.56	0.51	0.27	0.45	0.54	0002-0
335	0.74	57.26	55.53	2.30	0.52	0.71	0.65	0.38	1.34	1.46	0003-0
340	0.60	51.51	54.15	1.60	0.53	0.73	0.64	0.37	1.06	1.22	0004-0
350	0.82	100.00	78.66	2.28	0.65	0.91	0.88	0.65	-	-	0005-0

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 12B: Variation in Sterane Distribution (peak height) for Well 7228/2-1 HYPY 1174, 21 m ccp

Bitumen Extract

Pyrolysis Temp. (°C)	Ratio1	Ratio2	Ratio3	Ratio4	Ratio5	Ratio6	Ratio7	Ratio8	Ratio9	Ratio10	Sample
UNHEATED	0.44	35.10	43.63	1.16	0.52	0.13	0.10	0.28	0.54	0.60	0001-0
320	0.34	39.75	44.28	0.96	0.50	0.34	0.29	0.28	0.66	0.66	0002-0
330	0.43	53.34	56.10	1.24	0.55	0.69	0.62	0.39	1.14	1.37	0003-0
335	0.76	69.27	63.05	1.80	0.55	0.82	0.73	0.46	2.25	2.78	0004-0
340	0.69	56.84	67.00	1.45	0.64	0.80	0.67	0.50	1.32	2.35	0005-0
350	-	-	-	-	-	-	-	-	-	-	0006-0

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:  $u + v / u + v + g + r + s + t$   
 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 12C: Raw GCMS triterpane data (peak height) for Well 7228/2-1 HYPY 1174,21 m ccp

Whole Rock, Pyrolysate																				
Pyrolysis Temp. (°C)	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							
320	56.49	21.17	11.28	5.80	4.30	8.28	120.68	0.00	233.90	0001-0										
	0.00	40.41	333.51	101.62	68.61	61.00	19.19	18.83												
	19.68	7.06	7.18	3.15	3.31	1.82	1.06													
330	46.06	11.55	9.22	9.53	2.61	6.80	125.21	0.00	284.38	0002-0										
	0.00	88.72	350.10	120.74	96.90	81.26	22.58	22.34												
	29.78	11.19	8.81	8.56	5.53	3.33	1.36													
335	41.39	12.97	5.16	8.02	1.19	3.95	82.52	0.00	174.55	0003-0										
	0.00	35.37	192.83	54.36	32.41	42.35	7.91	10.81												
	10.01	6.35	2.81	2.55	2.03	0.00	0.00													
340	39.99	11.00	6.08	5.40	2.13	5.29	80.68	0.00	177.02	0004-0										
	0.00	23.97	208.95	54.75	34.84	27.57	8.79	10.66												
	8.44	4.46	3.67	2.11	2.34	0.00	0.00													
350	7.02	0.99	1.59	1.91	0.00	0.85	13.32	0.00	26.87	0005-0										
	0.00	2.00	25.72	2.81	1.82	2.75	0.78	1.17												
	1.03	0.77	2.67	0.00	0.00	0.00	0.00													

Table 12C: Raw GCMS triterpane data (peak height) for Well 7228/2-1 HYPY 1174,21 m ccp

## Bitumen Extract

Pyrolysis Temp.  
(°C)

	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												
UNHEATED	694.12	175.89	250.72	116.76	108.59	412.43	1193.69	0.00	2204.82	0001-0									
	142.44	505.32	2996.83	1026.82	1828.26	1435.42	756.31	879.86											
	714.13	762.72	484.30	519.42	469.58	293.72	279.76												
320	221.60	86.92	52.77	48.61	36.56	88.21	792.33	0.00	1662.87	0002-0									
	25.22	514.96	2463.95	1109.31	833.21	801.85	441.55	445.97											
	483.58	347.77	280.16	218.66	210.75	113.79	96.01												
330	130.10	34.45	21.06	26.08	12.03	39.93	352.94	0.00	510.27	0003-0									
	3.66	175.04	737.21	259.88	204.28	160.26	74.68	89.65											
	85.53	56.24	30.22	19.27	21.42	7.77	4.11												
335	111.56	31.87	18.70	26.27	6.46	24.86	272.53	0.00	524.99	0004-0									
	1.82	101.80	625.71	190.32	166.13	129.75	57.11	59.68											
	66.18	38.64	22.36	19.03	9.66	7.80	4.23												
340	101.94	27.45	22.88	44.16	9.65	38.09	259.37	4.12	433.93	0005-0									
	1.53	64.27	393.09	109.08	96.11	81.81	28.90	38.75											
	34.38	18.94	14.25	6.98	6.37	4.29	1.23												

Table 12C: Raw GCMS triterpane data (peak height) for Well 7228/2-1 HYPY 1174,21 m ccp

Bitumen Extract																			
Pyrolysis Temp. (°C)	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												
350	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	0.00	0006-0
	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	0.00	0.00	



Table 12D: Raw GCMS sterane data (peak height) for Well 7228/2-1 HYPY 1174,21 m ccp

Whole Rock, Pyrolysate												Sample
Pyrolysis Temp. (°C)	u	v	a	b	c	d	e	f	g			
	h	i	j	k	l	m	n	o				
	p	q	r	s	t							
320	37.21	9.07	60.91	28.23	7.39	14.01	16.54	14.16	33.00	0001-0		
	17.12	0.00	60.22	14.77	10.12	0.00	13.82	3.80				
	25.42	9.40	5.72	5.72	15.67							
330	31.41	6.70	56.29	20.24	4.47	9.85	13.80	12.91	36.99	0002-0		
	17.77	0.00	45.64	14.50	7.97	0.00	6.67	7.82				
	21.54	6.96	2.74	5.54	15.31							
335	15.33	4.41	26.66	13.60	3.15	5.59	7.71	4.22	13.58	0003-0		
	10.31	0.00	9.57	5.36	2.98	0.00	2.68	3.26				
	5.56	2.88	1.57	1.57	2.15							
340	21.14	4.39	29.27	19.20	3.14	6.86	11.26	6.14	19.04	0004-0		
	17.49	0.00	19.59	9.36	4.73	0.00	4.90	2.56				
	9.93	3.07	1.76	1.76	2.89							
350	13.17	1.21	7.92	8.32	0.80	1.88	2.32	2.53	2.24	0005-0		
	4.47	0.00	1.70	2.09	1.16	0.00	0.59	1.05				
	0.86	0.51	0.47	0.47	0.00							

Table 12D: Raw GCMS sterane data (peak height) for Well 7228/2-1 HYPY 1174,21 m ccp

Bitumen Extract										
Pyrolysis Temp. (°C)	u	v	a	b	c	d	e	f	g	Sample
	h	i	j	k	l	m	n	o		
	p	q	r	s	t					
UNHEATED	383.22	163.80	1554.24	1229.08	523.41	879.63	807.62	721.46	1730.99	0001-0
	1277.90	365.51	1973.19	806.02	679.25	0.00	775.29	491.46		
	1758.75	912.70	503.10	503.10	1687.65					
320	137.86	50.75	159.11	113.80	45.22	62.23	87.40	69.68	275.43	0002-0
	140.19	0.00	310.82	101.22	60.78	0.00	95.96	56.68		
	247.92	101.87	42.49	59.33	154.42					
330	75.60	19.21	55.13	44.24	10.58	19.48	22.62	18.82	69.90	0003-0
	52.40	0.00	73.27	26.40	9.30	0.00	16.62	11.36		
	45.84	13.75	6.19	10.28	12.03					
335	77.52	13.51	57.84	38.62	9.69	13.82	23.94	13.14	33.47	0004-0
	33.85	5.51	18.30	18.41	6.96	0.00	7.42	7.68		
	8.71	7.64	4.52	4.89	3.39					
340	84.71	19.67	68.03	43.94	8.65	6.52	15.17	23.44	38.30	0005-0
	46.38	14.21	31.11	19.93	9.13	0.00	12.25	11.97		
	11.48	7.15	6.11	6.66	5.43					

Bitumen Extract													Sample
Pyrolysis Temp. (°C)	u	v	a	b	c	d	e	f	g				
	h	i	j	k	l	m	n	o					
	p	q	r	s	t								
350	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0006-0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

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BA-92-776-1

23.07.1992

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AVD. KONTOR HARSTAD

Journal nr.: 91,267-1

dato 20 AUG. 1991

**CHARACTERISATION AND CORRELATION  
OF HYDROCARBONS IN SOURCE ROCKS AND  
OIL SHOWS OF WELL NOCS 7228/2-1S**

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**INTRODUCTION**

The objectives of this study were to identify, and correlate oil shows to each other and to potential source rocks in 7228/2-1 (Location Figure 1, Stratigraphy Figure 2). In order to do this, results have been drawn together from the geochemical well report on 7228/2-1, a report on hydrous pyrolysis of shale from 7228/2-1 and analyses of oil shows obtained specifically for this study.

**ANALYTICAL PROGRAM**

In accordance with Mobil Exploration the following analytical program was performed on 17 oil show samples from well 7228/2-1:

<u>Analysis type</u>	<u>No of samples</u>
Lithology description	17
Thermal extraction GC (GHM, S <sub>1</sub> )	17
Pyrolysis GC	17
Solvent extraction	14
MPLC separation	14
Saturated Hydrocarbon GC	14
Aromatic Hydrocarbon GC	14
Isotopic composition C <sub>15</sub> +fractions	2
Isotope-GC	4*
GC-MS of saturated HC	5

- \* This analysis was performed on three shale samples and an oil show from a sandstone core which were analysed in detail for the earlier well report.

Table 1 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
1347.00	swc					0612
			100	Sltst : w to lt or, l, s		0612-1L
1367.00	swc					0613
			100	Sltst : w to lt or, l, s		0613-1L
1384.50	ccp					0614
			100	S/Sst : w to lt or to lt brn gy, crs, st		0614-1L
1385.50	ccp					0615
			100	S/Sst : w to lt or to lt brn gy, crs, st		0615-1L
1386.50	ccp					0616
			100	S/Sst : w to lt gy, crs		0616-1L
1528.00						0617
			90	S/Sst : w to lt gy, crs		0617-1L
			10	Sh/Clst: m gy, slt		0617-2L
			tr	Sh/Clst: m brn, calc		0617-3L
1549.00						0618
			100	S/Sst : lt gy, crs, l		0618-1L

Table 1 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
1570.00	swc					0619
			100	Sltst : w, l		0619-1L
1619.00	swc					0620
			90	Sltst : w, s, l		0620-1L
			10	Sh/Clst: lt gy to lt brn gy, slt		0620-2L
1963.00	swc					0621
			100	Sltst : w to lt gn gy		0621-1L
2042.00	swc					0622
			100	S/Sst : w to lt or, f, l, pyr		0622-1L
2053.00						0623
			95	S/Sst : lt gy, crs, l, pyr		0623-1L
			5	Sh/Clst: m gy to drk gy		0623-2L
2062.00						0624
			85	S/Sst : lt gy, crs, l, kln		0624-1L
			15	Sh/Clst: m gy to drk gy, slt		0624-2L
2071.00						0625
			90	S/Sst : lt gy, crs, l, kln		0625-1L
			10	Sh/Clst: m gy to drk gy, slt		0625-2L
			tr	Cont : prp		0625-3L



Table 1 : Lithology description for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Type	Grp	Frm	Age	Trb	Sample
Int	Cvd	TOC%	%	Lithology description		
2083.00						0626
				85 S/Sst : lt gy to w, crs, l, kln, pyr		0626-1L
				15 Sh/Clst: m gy to drk gy to brn blk, slt		0626-2L
3433.00						0627
				75 Sh/Clst: drk gy to brn blk		0627-1L
				25 S/Sst : lt gy, crs, kln		0627-2L
				tr Cont : fib		0627-3L
3494.44	swc					0628
				100 Sltst : w to m gy, s, calc		0628-1L
				tr Sh/Clst: drk gy		0628-2L

Table 2 : Pyrolysis GC Data (S2 peak) as Percentage of Total Area for Well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	C1	C2-C5	C6-C14	C15+	S2 from Rock-Eval	Sample
1347.00	swc	Sltst : w to lt or	0.50	31.31	29.68	38.51	-	0612-1L
1367.00	swc	Sltst : w to lt or	6.96	30.36	46.60	16.08	-	0613-1L
1384.50	ccp	S/Sst : w to lt or to lt brn gy	12.39	37.12	31.95	18.54	-	0614-1L
1385.50	ccp	S/Sst : w to lt or to lt brn gy	6.82	35.33	47.57	10.28	-	0615-1L
1386.50	ccp	S/Sst : w to lt gy	4.15	32.13	49.24	14.49	-	0616-1L
1528.00	cut	S/Sst : w to lt gy	13.32	35.64	43.81	7.24	-	0617-1L
1549.00	cut	S/Sst : lt gy	6.92	33.82	53.81	5.45	-	0618-1L
1570.00	swc	Sltst : w	7.01	25.84	60.18	6.96	-	0619-1L
1619.00	swc	Sltst : w	10.23	23.62	38.13	28.03	-	0620-1L
1963.00	swc	Sltst : w to lt gn gy	7.98	34.03	48.90	9.09	-	0621-1L
2042.00	swc	S/Sst : w to lt or	9.14	31.68	52.22	6.96	-	0622-1L
2053.00	cut	S/Sst : lt gy	8.33	29.91	43.63	18.14	-	0623-1L
2062.00	cut	S/Sst : lt gy	4.93	28.23	51.71	15.13	-	0624-1L
2071.00	cut	S/Sst : lt gy	7.42	30.48	47.37	14.72	-	0625-1L

Table 2: Pyrolysis GC Data (S2 peak) as Percentage of Total Area for Well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	C1	C2-C5	C6-C14	C15+	S2 from Rock-Eval	Sample
2083.00	cut	S/Sst : lt gy to w	9.36	33.42	49.07	8.15	-	0626-1L
3433.00	cut	S/Sst : lt gy	7.95	32.56	42.89	16.60	-	0627-2L
3494.44	swc	Sltst : w to m gy	15.37	38.11	40.80	5.72	-	0628-1L

Table 3a: Weight of EOM and Chromatographic Fraction for well NOCS 7228/2-1

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
1347.00	swc	Sltst : w to lt or	5.3	1.2	0.5	0.2	0.2	0.3	0.7	0.5	0.18	0612-1L
1367.00	swc	Sltst : w to lt or	3.0	1.5	0.5	0.2	0.5	0.3	0.7	0.8	0.61	0613-1L
1384.50	ccp	S/Sst : w to lt or to lt brn gy	15.6	0.9	0.3	0.2	0.3	0.1	0.5	0.4	0.68	0614-1L
1385.50	ccp	S/Sst : w to lt or to lt brn gy	21.5	1.5	0.5	0.2	0.3	0.5	0.7	0.8	0.03	0615-1L
1386.50	ccp	S/Sst : w to lt gy	17.1	0.9	0.2	0.2	0.2	0.3	0.4	0.5	0.02	0616-1L
1528.00	cut	S/Sst : w to lt gy	10.6	1.6	0.3	0.3	0.4	0.6	0.6	1.0	0.29	0617-1L
1570.00	swc	Sltst : w	9.1	2.3	0.9	0.3	0.5	0.6	1.2	1.1	0.20	0619-1L
1619.00	swc	Sltst : w	8.9	2.4	0.6	0.5	0.7	0.6	1.1	1.3	0.92	0620-1L
1963.00	swc	Sltst : w to lt gn gy	7.9	1.3	0.3	0.3	0.4	0.3	0.6	0.7	0.21	0621-1L
2042.00	swc	S/Sst : w to lt or	11.1	1.6	0.6	0.2	0.3	0.5	0.8	0.8	0.17	0622-1L
2053.00	cut	S/Sst : lt gy	6.1	1.2	0.3	0.3	0.3	0.3	0.6	0.6	0.24	0623-1L
2062.00	cut	S/Sst : lt gy	7.9	1.1	0.3	0.3	0.2	0.3	0.6	0.5	0.19	0624-1L
2083.00	cut	S/Sst : lt gy to w	9.2	1.4	0.2	0.3	0.3	0.6	0.5	0.9	0.12	0626-1L
3494.44	swc	Sltst : w to m gy	7.6	1.0	0.3	0.3	0.1	0.3	0.6	0.4	0.19	0628-1L

Depth unit of measure: m

Depth	Typ Lithology	EOM	Sat	Aro	Asph	NSO	HC	Non-HC	Sample
1347.00	swc Sltst : w to lt or	227	94	37	37	56	132	94	0612-1L
1367.00	swc Sltst : w to lt or	508	169	67	169	101	237	271	0613-1L
1384.50	ccp S/Sst : w to lt or to lt brn gy	57	19	12	19	6	32	25	0614-1L
1385.50	ccp S/Sst : w to lt or to lt brn gy	69	23	9	13	23	32	37	0615-1L
1386.50	ccp S/Sst : w to lt gy	52	11	11	11	17	23	29	0616-1L
1528.00	cut S/Sst : w to lt gy	150	28	28	37	56	56	93	0617-1L
1570.00	swc Sltst : w	252	98	32	54	65	131	120	0619-1L
1619.00	swc Sltst : w	270	67	56	78	67	123	146	0620-1L
1963.00	swc Sltst : w to lt gn gy	164	38	38	50	38	76	88	0621-1L
2042.00	swc S/Sst : w to lt or	144	54	18	27	45	72	72	0622-1L
2053.00	cut S/Sst : lt gy	197	49	49	49	49	98	98	0623-1L
2062.00	cut S/Sst : lt gy	139	38	38	25	38	76	63	0624-1L
2083.00	cut S/Sst : lt gy to w	152	21	32	32	65	54	98	0626-1L
3494.44	swc Sltst : w to m gy	132	39	39	13	39	79	52	0628-1L

Table 3 c: Concentration of EOM and Chromatographic Fraction (mg/g TOC(e)) for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	EOM	Sat	Aro	Asph	NSO	HC	Non-HC	Sample
1347.00	swc	Sltst : w to lt or	126.50	52.71	21.08	21.08	31.63	73.79	52.71	0612-1L
1367.00	swc	Sltst : w to lt or	83.36	27.79	11.11	27.79	16.67	38.90	44.46	0613-1L
1384.50	ccp	S/Sst : w to lt or to lt brn gy	8.48	2.83	1.88	2.83	0.94	4.71	3.77	0614-1L
1385.50	ccp	S/Sst : w to lt or to lt brn gy	233.10	77.70	31.08	46.62	77.70	108.78	124.32	0615-1L
1386.50	ccp	S/Sst : w to lt gy	263.47	58.55	58.55	58.55	87.82	117.10	146.37	0616-1L
1528.00	cut	S/Sst : w to lt gy	51.81	9.71	9.71	12.95	19.43	19.43	32.38	0617-1L
1570.00	swc	Sltst : w	126.10	49.34	16.45	27.41	32.89	65.79	60.31	0619-1L
1619.00	swc	Sltst : w	29.38	7.34	6.12	8.57	7.34	13.46	15.91	0620-1L
1963.00	swc	Sltst : w to lt gn gy	78.56	18.13	18.13	24.17	18.13	36.26	42.30	0621-1L
2042.00	swc	S/Sst : w to lt or	84.94	31.85	10.62	15.93	26.54	42.47	42.47	0622-1L
2053.00	cut	S/Sst : lt gy	82.37	20.59	20.59	20.59	20.59	41.19	41.19	0623-1L
2062.00	cut	S/Sst : lt gy	73.66	20.09	20.09	13.39	20.09	40.18	33.48	0624-1L
2083.00	cut	S/Sst : lt gy to w	127.23	18.18	27.26	27.26	54.53	45.44	81.79	0626-1L
3494.44	swc	Sltst : w to m gy	69.62	20.89	20.89	6.96	20.89	41.77	27.85	0628-1L

Depth unit of measure: m

Depth	Typ	Lithology	Sat	Aro	Asph	NSO	HC	Non-HC	Sat	HC	Sample
			EOM	EOM	EOM	EOM	EOM	EOM	Aro	Non-HC	
1347.00	swc	Sltst : w to lt or	41.67	16.67	16.67	25.00	58.33	41.67	250.00	140.00	0612-1L
1367.00	swc	Sltst : w to lt or	33.33	13.33	33.33	20.00	46.67	53.33	250.00	87.50	0613-1L
1384.50	ccp	S/Sst : w to lt or to lt brn gy	33.33	22.22	33.33	11.11	55.56	44.44	150.00	125.00	0614-1L
1385.50	ccp	S/Sst : w to lt or to lt brn gy	33.33	13.33	20.00	33.33	46.67	53.33	250.00	87.50	0615-1L
1386.50	ccp	S/Sst : w to lt gy	22.22	22.22	22.22	33.33	44.44	55.56	100.00	80.00	0616-1L
1528.00	cut	S/Sst : w to lt gy	18.75	18.75	25.00	37.50	37.50	62.50	100.00	60.00	0617-1L
1570.00	swc	Sltst : w	39.13	13.04	21.74	26.09	52.17	47.83	300.00	109.09	0619-1L
1619.00	swc	Sltst : w	25.00	20.83	29.17	25.00	45.83	54.17	120.00	84.62	0620-1L
1963.00	swc	Sltst : w to lt gn gy	23.08	23.08	30.77	23.08	46.15	53.85	100.00	85.71	0621-1L
2042.00	swc	S/Sst : w to lt or	37.50	12.50	18.75	31.25	50.00	50.00	300.00	100.00	0622-1L
2053.00	cut	S/Sst : lt gy	25.00	25.00	25.00	25.00	50.00	50.00	100.00	100.00	0623-1L
2062.00	cut	S/Sst : lt gy	27.27	27.27	18.18	27.27	54.55	45.45	100.00	120.00	0624-1L
2083.00	cut	S/Sst : lt gy to w	14.29	21.43	21.43	42.86	35.71	64.29	66.67	55.56	0626-1L
3494.44	swc	Sltst : w to m gy	30.00	30.00	10.00	30.00	60.00	40.00	100.00	150.00	0628-1L

Table 4 : Saturated Hydrocarbon Ratios for well NOCS 7228/2-1

Depth unit of measure: m

Depth	Typ	Lithology	Pristane	Pristane	Pristane + Phytane	Phytane	CPI	Sample
			nC17	Phytane	nC17 + nC18	nC18		
1347.00	swc	Sltst : w to lt or	0.96	1.95	0.77	0.56	1.29	0612-1L
1367.00	swc	Sltst : w to lt or	0.81	2.79	0.52	0.27	1.23	0613-1L
1384.50	ccp	S/Sst : w to lt or to lt brn gy	0.63	1.09	0.54	0.46	1.33	0614-1L
1385.50	ccp	S/Sst : w to lt or to lt brn gy	0.65	1.36	0.56	0.47	1.28	0615-1L
1386.50	ccp	S/Sst : w to lt gy	0.67	1.07	0.54	0.45	1.16	0616-1L
1528.00	cut	S/Sst : w to lt gy	0.89	2.64	0.66	0.39	1.13	0617-1L
1570.00	swc	Sltst : w	0.92	1.30	0.76	0.62	-	0619-1L
1619.00	swc	Sltst : w	0.96	2.68	0.74	0.47	1.32	0620-1L
1963.00	swc	Sltst : w to lt gn gy	0.83	2.17	0.71	0.53	1.76	0621-1L
2042.00	swc	S/Sst : w to lt or	1.15	2.19	1.08	0.94	1.38	0622-1L
2053.00	cut	S/Sst : lt gy	0.30	1.84	0.24	0.17	1.14	0623-1L
2062.00	cut	S/Sst : lt gy	0.32	1.56	0.26	0.21	1.19	0624-1L
2083.00	cut	S/Sst : lt gy to w	0.33	1.53	0.28	0.22	1.10	0626-1L
3494.44	swc	Sltst : w to m gy	0.48	2.20	0.42	0.34	0.98	0628-1L



Depth unit of measure: m

Depth	Typ	Lithology	MNR	DMNR	BPhR	2/1MP	MP11	MP12	Rc	DBT/P	4/1MDBT (3+2) /1MDBT	Sample
1347.00	swc	Sltst : w to lt or	-	-	-	1.04	0.76	0.80	0.86	-	-	0612-1L
1367.00	swc	Sltst : w to lt or	-	-	-	0.80	0.60	0.65	0.76	-	-	0613-1L
1384.50	ccp	S/Sst : w to lt or to lt brn gy	-	-	-	-	-	-	-	-	-	0614-1L
1385.50	ccp	S/Sst : w to lt or to lt brn gy	-	-	-	-	-	-	-	-	-	0615-1L
1386.50	ccp	S/Sst : w to lt gy	-	-	-	-	-	-	-	-	-	0616-1L
1528.00	cut	S/Sst : w to lt gy	-	-	-	1.10	0.82	0.82	0.89	-	-	0617-1L
1570.00	swc	Sltst : w	-	-	-	1.10	0.85	0.98	0.91	-	-	0619-1L
1619.00	swc	Sltst : w	-	-	-	1.19	0.72	0.75	0.83	-	-	0620-1L
1963.00	swc	Sltst : w to lt gn gy	-	-	-	1.21	0.85	0.95	0.91	-	-	0621-1L
2042.00	swc	S/Sst : w to lt or	-	-	-	1.41	0.81	0.97	0.89	-	-	0622-1L
2053.00	cut	S/Sst : lt gy	-	-	-	0.98	0.72	0.84	0.83	-	-	0623-1L
2062.00	cut	S/Sst : lt gy	-	-	-	1.06	0.74	0.86	0.84	-	-	0624-1L
2083.00	cut	S/Sst : lt gy to w	-	-	-	1.34	0.89	1.11	0.93	-	-	0626-1L
3494.44	swc	Sltst : w to m gy	-	-	-	-	-	-	-	-	-	0628-1L

Table 6a : Tabulation of carbon isotope data for EOM/Oil - fractions or Oils for well NOCS 7228/2-1

Depth unit of measure: m

<u>Depth</u>	<u>Typ</u>	<u>Lithology</u>	<u>EOM/Oil</u>	<u>Saturated</u>	<u>Aromatic</u>	<u>NSO</u>	<u>Asphaltenes</u>	<u>Kerogen</u>	<u>Sample</u>
1367.00	swc		-	-28.50	* -25.91	-27.06	-25.70	-	0613-1L
1570.00	swc		-	-28.60	# -	-27.54	-25.96	-	0619-1L

\* To little material for rerun.

# To little material for run.

Depth unit of measure: m

Depth	Typ	Lithology	Saturated	Aromatic	cv value	Sample
1367.00	swc		-28.50	-25.91	2.93	0613-1L
1570.00	swc		-28.60	-	60.71	0619-1L

Table 7 : MOBIL 7228/2-1.  
Isotope GC Analysis of Saturated Fractions.  
Delta 13C Values in ‰ versus PDB-Standard.

Compound	Sample 1174.2m	Sample 1286.3m	Sample 2161.5m	Sample 2572m	Sample	Sample
n-C13	-	-30.1	-	-29.6		
i-C15	-	-28.7	-	-		
n-C14	-34.5	-29.6	-29.1	-29.8		
i-C16	-33.7	-28.5	-28.2	-		
n-C15	-33.0	-28.8	-28.8	-29.5		
n-C16	-32.5	-28.3	-31.4	-29.0		
Norprist.	-33.8	-27.4	-28.3	-		
n-C17	-33.4	-28.2	-31.4	-30.1		
Pristane	-34.0	-27.5	-28.1	-30.2		
n-C18	-32.5	-27.4	-31.1	-30.4		
Phytane	-33.2	-27.4	-27.6	-29.5		
n-C19	-32.1	-27.1	-30.1	-31.5		
n-C20	-32.1	-27.3	-30.0	-31.2		
n-C21	-32.4	-27.2	-29.6	-31.6		
n-C22	-32.5	-27.4	-29.2	-30.8		
n-C23	-32.2	-27.5	-29.0	-30.5		
n-C24	-32.2	-27.4	-28.7	-30.9		
n-C25	-31.3	-27.2	-28.6	-29.4		
n-C26	-31.8	-27.3	-29.1	-30.1		
n-C27	-31.1	-27.4	-29.2	-30.2		
n-C28	-31.5	-27.4	-29.3	-29.9		
n-C29	-31.0	-27.4	-29.8	-30.2		
n-C30	-	-27.5	-29.9	-30.0		

Table 7 : MOBIL 7228/2-1.  
 Isotope GC Analysis of Saturated Fractions.  
 Delta 13C Values in ‰ versus PDB-Standard.

Compound	Sample 1174.2m	Sample 1286.3m	Sample 2161.5m	Sample 2572m	Sample	Sample
n-C31	-	-27.1	-30.2	-29.6		
n-C32	-	-27.0	-30.3	-29.3		
n-C33	-	-26.8	-30.2	-		
n-C34	-	-	-30.0	-		

Table 8A: Variation in Triterpane Distribution (peak height) for Well NOCS 7228/2-1

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	E/E+F	C+D		J1		Sample
				B+E+F										C+D+E+F	D+F/C+E	J1+J2%		
1347.00	Sltst	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0612-1
1385.50	S/Sst	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0615-1
1570.00	Sltst	0.99	0.50	0.31	1.05	0.51	0.05	0.23	0.22	0.19	0.52	0.96	0.52	0.05	73.34			0619-1
1619.00	Sltst	3.29	0.77	0.26	1.00	0.50	0.02	0.03	0.03	0.03	0.30	0.91	0.49	0.07	59.46			0620-1
2042.00	S/Sst	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0622-1

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>
1347.00	Sltst	-	-	-	-	-	-	-	-	-	-	0612-1
1385.50	S/Sst	-	-	-	-	-	-	-	-	-	-	0615-1
1570.00	Sltst	0.79	49.77	78.21	1.38	0.78	0.55	0.37	0.64	0.99	3.57	0619-1
1619.00	Sltst	0.82	39.77	72.20	1.21	0.77	0.62	0.46	0.56	0.66	2.16	0620-1
2042.00	S/Sst	-	-	-	-	-	-	-	-	-	-	0622-1

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: Raw GCMS triterpane data (peak height) for Well NOCS 7228/2-1

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					
1347.00	Sltst	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	0612-1
		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		
1385.50	S/Sst	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	0615-1
		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	
1570.00	Sltst	66.38	40.89	23.37	39.31	12.56	37.62	37.21	17.93	82.03	0619-1								
		3.83	4.55	78.20	3.32	20.74	11.06	0.00	6.52										
		2.37	1.68	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	
1619.00	Sltst	7.17	4.02	1.34	2.91	0.50	1.56	5.13	0.40	13.29	0620-1								
		0.31	0.68	13.26	1.25	3.12	1.98	0.40	1.10										
		0.75	0.45	0.21	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	
2042.00	S/Sst	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	0622-1
		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	



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						
1347.00	Sltst	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0612-1
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1385.50	S/Sst	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0615-1
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1570.00	Sltst	57.15	30.17	99.47	58.77	19.47	18.06	38.27	20.94	28.16	0619-1	
		69.87	38.56	27.20	39.39	10.51	12.53	22.10	24.40			
		11.67	12.92	27.35	19.24	13.04						
1619.00	Sltst	4.29	2.06	5.96	3.12	0.70	0.76	1.97	1.08	1.47	0620-1	
		5.26	1.90	1.34	2.02	0.43	0.55	0.97	1.49			
		0.57	0.68	1.36	0.86	1.03						
2042.00	S/Sst	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0622-1	
		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						