

Table 4e: MPLC Bulk Composition: Ratios for well NOCS 6507/5-2

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Depth unit of measure: m

Depth	Typ	Lithology	Sat	HC	Asp	Sample
			Aro	Non-HC	NSO	
3718.70	ccp	S/Sst : m brn to w	0.50	0.39	6.67	0029-1L
3730.10	ccp	Sh/Clst: m gy to lt gy to w	1.20	0.63	0.74	0030-1L
3740.10	ccp	Sh/Clst: drk gy	1.00	0.66	2.05	0031-1L
3755.10	ccp	Sh/Clst: drk gy	0.40	0.86	1.03	0032-1L
3765.10	ccp	Sh/Clst: drk gy to m gy	0.67	0.50	0.67	0033-1L
3777.50	ccp	Sltst : lt gy to w	1.00	0.48	0.40	0034-1L
3778.30	ccp	S/Sst : lt gy to w	-	-	-	0035-1L
3785.10	ccp	S/Sst : lt gy to w to m gy	-	-	-	0036-1L
3790.10	ccp	S/Sst : lt gy to w to m gy	2.00	0.49	1.05	0037-1L

Table 5a: Quantitative Analysis of Saturated Fraction for Well NOCS 6507/5-2

sample	nC15 mg/g sat	nC16 mg/g sat	iC18 mg/g sat	nC17 mg/g sat	Pr mg/g sat	nC18 mg/g sat	Ph mg/g sat	nC19 mg/g sat	nC20 mg/g sat	nC21 mg/g sat	nC22 mg/g sat	nC23 mg/g sat	nC24 mg/g sat	nC25 mg/g sat	nC26 mg/g sat	nC27 mg/g sat	nC28 mg/g sat	nC29 mg/g sat	nC30 mg/g sat	nC31 mg/g sat	nC32 mg/g sat	nC33 mg/g sat	nC34 mg/g sat	
2856.70m	45.34	51.23	21.31	20.78	14.22	2.52	1.45	0.22	0.07	0.05	0.05	0.05	0.05	0.06	0.05	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2864.00m	43.69	46.46	19.53	18.46	12.78	2.16	1.27	0.19	0.06	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
2989.50m	40.85	45.04	17.93	18.25	12.26	2.11	1.21	0.24	0.08	0.06	0.05	0.05	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3019.00m	38.72	44.48	20.06	18.77	13.76	2.44	1.41	0.36	0.19	0.13	0.11	0.10	0.08	0.08	0.09	0.07	0.09	0.04	0.03	0.03	0.02	0.00	0.00	0.00
3024.50m	40.99	48.20	20.28	20.62	14.41	3.28	1.93	1.20	1.00	0.81	0.73	0.59	0.62	0.45	0.40	0.30	0.26	0.22	0.16	0.14	0.11	0.14	0.14	0.15
3029.00m	42.41	48.50	21.17	19.90	14.51	2.89	1.77	0.76	0.57	0.42	0.37	0.30	0.24	0.20	0.21	0.15	0.11	0.10	0.08	0.06	0.05	0.05	0.05	0.07
3032.20m	40.98	45.90	19.04	18.92	13.24	2.29	1.38	0.25	0.12	0.09	0.08	0.06	0.06	0.05	0.07	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3035.50m	34.70	42.87	22.71	19.02	16.01	2.53	1.82	0.28	0.12	0.08	0.08	0.08	0.07	0.09	0.10	0.10	0.07	0.08	0.05	0.00	0.00	0.00	0.00	0.00
3054.50m	43.85	51.91	23.55	20.94	15.45	2.64	1.63	0.21	0.06	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
3061.00m	45.28	54.17	22.86	21.86	16.11	2.70	1.65	0.23	0.06	0.04	0.03	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
3628.50m	2.83	10.93	6.20	15.58	12.56	16.07	10.43	17.31	14.26	10.70	9.53	8.11	6.76	5.93	4.91	3.66	2.99	2.21	1.68	1.16	0.89	0.85	0.75	0.75
3633.89m	19.96	22.54	10.01	21.11	17.28	17.66	11.40	17.27	13.02	10.33	8.52	6.87	5.92	4.82	3.82	2.77	2.21	1.57	1.08	0.82	0.55	0.60	0.50	0.50
3643.75m	16.67	21.97	9.86	22.35	19.06	19.50	12.69	19.43	14.53	12.62	10.58	8.49	7.10	6.26	4.44	3.21	2.54	1.77	1.22	0.83	0.63	0.65	0.65	0.65
3653.10m	4.69	28.86	18.45	50.94	41.51	57.13	34.26	59.91	49.17	39.55	36.75	30.92	28.54	24.11	18.60	14.86	11.42	8.63	5.80	4.75	3.32	3.31	3.30	3.30
3667.10m	9.23	12.41	5.26	12.77	10.09	12.88	7.49	14.22	12.86	11.81	11.23	10.26	9.65	8.40	6.86	5.34	4.42	3.68	2.73	1.92	1.72	1.97	1.97	2.08
3670.10m	8.31	9.64	4.00	10.27	8.09	9.81	5.94	10.67	9.74	8.86	8.40	7.61	7.21	6.30	5.98	4.67	4.32	3.26	2.55	1.91	1.42	1.85	1.90	1.90
3672.10m	5.66	14.57	7.49	18.31	14.98	17.48	9.95	19.86	17.27	16.20	14.87	13.37	12.47	11.05	9.28	7.11	6.53	4.98	3.75	2.88	2.35	2.46	2.57	2.57
3679.90m	8.21	9.47	3.89	10.54	7.34	10.30	5.50	12.02	10.72	10.84	9.97	9.73	8.97	7.94	7.50	5.52	4.99	3.84	3.30	2.52	1.97	2.04	2.27	2.27
3693.05m	13.00	41.21	18.33	64.18	62.13	65.95	19.44	74.14	64.55	61.61	56.53	55.48	46.97	46.44	37.09	35.34	25.43	24.40	13.77	11.61	7.59	7.74	4.78	4.78
3700.20m	0.19	3.22	2.03	11.21	9.99	20.51	6.63	25.28	24.95	20.91	20.44	17.71	16.00	14.33	12.38	10.24	8.29	7.82	5.05	4.07	3.04	2.91	2.31	2.31
3710.20m	0.00	0.00	0.00	2.36	2.00	5.54	2.19	8.40	9.27	7.66	7.49	6.89	7.63	5.79	5.37	4.53	3.49	3.39	2.31	1.84	1.36	1.30	1.17	1.17
3718.70m	1.70	6.98	3.67	10.20	7.52	11.57	3.93	10.53	11.71	8.78	9.56	7.87	8.09	6.72	6.15	4.72	3.63	3.55	2.21	1.90	1.39	1.38	1.29	1.29
3730.10m	5.70	15.61	6.45	21.45	14.26	19.48	6.00	18.44	17.61	15.54	14.03	12.56	10.29	9.27	7.31	5.67	5.07	3.56	2.22	2.01	1.54	1.64	1.54	1.54
3740.10m	16.51	20.56	7.67	22.03	18.14	18.46	4.93	20.73	17.24	16.83	15.12	14.91	12.43	12.34	9.82	8.60	6.71	5.99	3.43	3.17	2.14	2.31	1.53	1.53
3755.10m	11.51	33.57	14.19	47.14	32.42	42.83	12.79	45.71	37.45	36.37	33.86	30.59	25.13	23.18	18.99	14.98	12.26	9.30	6.12	5.70	3.90	4.59	3.67	3.67
3765.10m	9.90	23.78	11.32	32.39	25.11	29.88	10.05	32.41	32.89	34.38	27.91	27.51	20.74	18.27	12.86	9.67	7.48	5.88	4.19	3.58	2.93	2.97	3.10	3.10

Table 5a: Quantitative Analysis of Saturated Fraction for Well NOCS 6507/5-2

sample	nC15 mg/g sat	nC16 mg/g sat	iC18 mg/g sat	nC17 mg/g sat	Pr mg/g sat	nC18 mg/g sat	Ph mg/g sat	nC19 mg/g sat	nC20 mg/g sat	nC21 mg/g sat	nC22 mg/g sat	nC23 mg/g sat	nC24 mg/g sat	nC25 mg/g sat	nC26 mg/g sat	nC27 mg/g sat	nC28 mg/g sat	nC29 mg/g sat	nC30 mg/g sat	nC31 mg/g sat	nC32 mg/g sat	nC33 mg/g sat	nC34 mg/g sat
3777.50m	0.92	2.24	0.00	7.64	2.34	13.11	7.95	16.05	16.35	14.55	12.77	11.92	9.68	9.52	5.89	5.11	6.08	3.30	2.21	1.91	1.44	1.19	0.81
3790.10m	1.46	3.02	1.46	7.42	2.53	12.16	1.47	15.86	16.40	16.16	14.49	14.47	11.87	11.73	8.66	8.70	6.21	6.17	4.09	3.60	3.23	2.87	1.39

Table 5B: Saturated Hydrocarbon Ratios (peak area) for well NOCS 6507/5-2

Depth unit of measure: m

Depth	Typ	Lithology	Pristane	Pristane	Pristane/nC17	Phytane	CPI1	nC17	Sample
			nC17	Phytane	Phytane/nC18	nC18		nC17+nC27	
2856.70	swc	S/Sst : w to m lt gy	0.68	9.83	1.19	0.58	1.35	1.00	0040-1L
2864.00	swc	S/Sst : w to m lt gy	0.69	10.04	1.18	0.59	-	1.00	0039-1L
2989.50	swc	S/Sst : drk y brn	0.67	10.17	1.18	0.57	-	1.00	0038-1L
3019.00	swc	Sh/Clst: m gn gy	0.73	9.74	1.27	0.58	0.84	1.00	0047-1L
3024.50	swc	S/Sst : m drk y brn	0.70	7.46	1.19	0.59	0.97	0.99	0041-1L
3029.00	swc	Sh/Clst: m gy to w	0.73	8.21	1.19	0.61	0.98	0.99	0042-1L
3032.20	swc	Sh/Clst: drk gy	0.70	9.58	1.16	0.60	0.71	1.00	0043-1L
3035.50	swc	Sh/Clst: m gy to drk gy	0.84	8.80	1.17	0.72	1.10	0.99	0046-1L
3054.50	swc	Sh/Clst: lt gy	0.74	9.49	1.20	0.62	-	1.00	0044-1L
3061.00	swc	Sh/Clst: m gy to drk gy	0.74	9.79	1.21	0.61	-	1.00	0045-1L
3628.50	ccp	S/Sst : lt brn to w	0.81	1.20	1.24	0.65	1.02	0.81	0017-1L
3633.89	ccp	S/Sst : lt brn to w	0.82	1.52	1.27	0.65	1.03	0.88	0018-1L
3643.75	ccp	S/Sst : m brn to w	0.85	1.50	1.31	0.65	1.08	0.87	0019-1L
3653.10	ccp	S/Sst : lt brn to w	0.82	1.21	1.36	0.60	1.08	0.77	0020-1L
3667.10	ccp	S/Sst : m lt brn to w	0.79	1.35	1.36	0.58	1.02	0.71	0022-1L

Table 5B: Saturated Hydrocarbon Ratios (peak area) for well NOCS 6507/5-2

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Depth unit of measure: m

Depth	Typ	Lithology	Pristane	Pristane	Pristane/nC17	Phytane	CPI1	nC17	Sample
			nC17	Phytane	Phytane/nC18	nC18		nC17+nC27	
3670.10	ccp	S/Sst : m brn to m gy to w	0.79	1.36	1.30	0.61	0.97	0.69	0023-1L
3672.10	ccp	S/Sst : lt gy	0.82	1.51	1.44	0.57	1.00	0.72	0024-1L
3679.90	ccp	S/Sst : lt gy to lt brn	0.70	1.33	1.30	0.53	0.96	0.66	0025-1L
3693.05	ccp	Sh/Clst: drk gy	0.97	3.20	3.28	0.29	1.18	0.64	0026-1L
3700.20	ccp	Sltst : m lt gy to w	0.89	1.51	2.76	0.32	1.07	0.52	0027-1L
3710.20	ccp	Sltst : m lt gy to w	0.85	0.91	2.14	0.39	1.03	0.34	0028-1L
3718.70	ccp	S/Sst : m brn to w	0.74	1.91	2.17	0.34	1.05	0.68	0029-1L
3730.10	ccp	Sh/Clst: m gy to lt gy to w	0.67	2.38	2.16	0.31	1.05	0.79	0030-1L
3740.10	ccp	Sh/Clst: drk gy	0.82	3.68	3.08	0.27	1.15	0.72	0031-1L
3755.10	ccp	Sh/Clst: drk gy	0.69	2.54	2.30	0.30	1.07	0.76	0032-1L
3765.10	ccp	Sh/Clst: drk gy to m gy	0.78	2.50	2.30	0.34	1.09	0.77	0033-1L
3777.50	ccp	Sltst : lt gy to w	0.31	0.29	0.50	0.61	1.05	0.60	0034-1L
3790.10	ccp	S/Sst : lt gy to w to m gy	0.34	1.72	2.82	0.12	1.17	0.46	0037-1L

Table 6a: Aromatic Hydrocarbon Ratios (peak area) for well NOCS 6507/5-2

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Depth unit of measure: m

Depth	Typ	Lithology	MNR	DMNR	BPhR	2/1MP	MPI1	MPI2	Rc	DBT/P	4/1MDBT (3+2) /1MDBT	Sample	
2856.70	swc	S/Sst : w to m lt gy	-	-	-	-	-	-	-	-	-	0040-1L	
2864.00	swc	S/Sst : w to m lt gy	-	-	-	-	-	-	-	-	-	0039-1L	
2989.50	swc	S/Sst : drk y brn	-	-	-	-	-	-	-	-	-	0038-1L	
3019.00	swc	Sh/Clst: m gn gy	1.24	4.38	0.80	1.56	0.84	0.98	0.91	-	9.67	1.84	0047-1L
3024.50	swc	S/Sst : m drk y brn	0.97	1.52	0.34	-	-	-	-	-	-	-	0041-1L
3029.00	swc	Sh/Clst: m gy to w	1.00	2.37	0.44	1.56	0.94	0.96	0.96	-	-	-	0042-1L
3032.20	swc	Sh/Clst: drk gy	-	-	-	-	-	-	-	-	-	-	0043-1L
3035.50	swc	Sh/Clst: m gy to drk gy	-	1.66	-	1.38	0.64	0.69	0.78	-	-	-	0046-1L
3054.50	swc	Sh/Clst: lt gy	-	-	-	-	-	-	-	-	-	-	0044-1L
3061.00	swc	Sh/Clst: m gy to drk gy	0.67	1.12	-	0.87	0.36	0.37	0.62	-	-	-	0045-1L
3628.50	ccp	S/Sst : lt brn to w	-	-	-	1.45	1.15	1.41	1.09	0.99	20.80	1.89	0017-1L
3633.89	ccp	S/Sst : lt brn to w	-	1.43	0.32	1.51	1.02	1.23	1.01	0.50	7.80	2.07	0018-1L
3643.75	ccp	S/Sst : m brn to w	-	-	-	1.56	1.05	1.33	1.03	0.79	8.36	2.12	0019-1L
3653.10	ccp	S/Sst : lt brn to w	-	-	-	1.43	0.91	0.97	0.94	-	-	-	0020-1L
3667.10	ccp	S/Sst : m lt brn to w	-	1.43	-	1.20	0.96	1.07	0.98	0.73	6.44	2.15	0022-1L
3670.10	ccp	S/Sst : m brn to m gy to w	1.00	4.03	0.20	1.13	0.91	0.99	0.95	0.76	5.00	1.78	0023-1L

Table 6a: Aromatic Hydrocarbon Ratios (peak area) for well NOCS 6507/5-2

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Depth unit of measure: m

Depth	Typ	Lithology	MNR	DMNR	BPhR	2/1MP	MPI1	MPI2	Rc	DBT/P	4/1MDBT	(3+2) /1MDBT	Sample
3672.10	ccp	S/Sst : lt gy	-	-	-	1.00	0.75	0.82	0.85	0.11	13.99	2.83	0024-1L
3679.90	ccp	S/Sst : lt gy to lt brn	1.42	4.08	0.16	1.22	0.87	0.93	0.92	0.55	6.45	2.20	0025-1L
3693.05	ccp	Sh/Clst: drk gy	-	-	-	1.21	0.49	0.58	0.69	-	-	-	0026-1L
3700.20	ccp	Sltst : m lt gy to w	-	-	-	1.39	0.75	1.00	0.85	-	-	-	0027-1L
3710.20	ccp	Sltst : m lt gy to w	-	-	-	1.32	0.84	1.12	0.90	-	-	-	0028-1L
3718.70	ccp	S/Sst : m brn to w	-	-	-	1.32	0.80	1.01	0.88	-	-	-	0029-1L
3730.10	ccp	Sh/Clst: m gy to lt gy to w	-	-	-	1.04	0.66	0.77	0.80	0.19	1.81	1.03	0030-1L
3740.10	ccp	Sh/Clst: drk gy	0.48	2.38	0.07	1.09	0.68	0.83	0.81	0.18	1.95	0.38	0031-1L
3755.10	ccp	Sh/Clst: drk gy	-	-	-	1.24	0.70	0.84	0.82	0.18	-	-	0032-1L
3765.10	ccp	Sh/Clst: drk gy to m gy	-	-	-	1.29	0.69	0.84	0.82	0.18	2.33	1.48	0033-1L
3777.50	ccp	Sltst : lt gy to w	-	-	-	1.28	1.03	1.40	1.02	-	-	-	0034-1L
3790.10	ccp	S/Sst : lt gy to w to m gy	-	-	-	1.07	0.75	0.91	0.85	-	-	-	0037-1L

Table 6b: Aromatic Hydrocarbon Ratios (peak area) for well NOCS 6507/5-2

Depth unit of measure: m

Depth	Typ	Lithology	F1	F2	Sample
2856.70	swc	S/Sst : w to m lt gy	-	-	0040-1L
2864.00	swc	S/Sst : w to m lt gy	-	-	0039-1L
2989.50	swc	S/Sst : drk y brn	-	-	0038-1L
3019.00	swc	Sh/Clst: m gn gy	0.53	0.31	0047-1L
3024.50	swc	S/Sst : m drk y brn	-	-	0041-1L
3029.00	swc	Sh/Clst: m gy to w	0.60	0.30	0042-1L
3032.20	swc	Sh/Clst: drk gy	-	-	0043-1L
3035.50	swc	Sh/Clst: m gy to drk gy	0.55	0.29	0046-1L
3054.50	swc	Sh/Clst: lt gy	-	-	0044-1L
3061.00	swc	Sh/Clst: m gy to drk gy	0.39	0.20	0045-1L
3628.50	ccp	S/Sst : lt brn to w	0.53	0.33	0017-1L
3633.89	ccp	S/Sst : lt brn to w	0.53	0.32	0018-1L
3643.75	ccp	S/Sst : m brn to w	0.52	0.33	0019-1L
3653.10	ccp	S/Sst : lt brn to w	0.51	0.27	0020-1L
3667.10	ccp	S/Sst : m lt brn to w	0.51	0.28	0022-1L
3670.10	ccp	S/Sst : m brn to m gy to w	0.48	0.26	0023-1L

Table 6b: Aromatic Hydrocarbon Ratios (peak area) for well NOCS 6507/5-2

Depth unit of measure: m

Depth	Typ	Lithology	F1	F2	Sample
3672.10	ccp	S/Sst : lt gy	0.46	0.25	0024-1L
3679.90	ccp	S/Sst : lt gy to lt brn	0.49	0.26	0025-1L
3693.05	ccp	Sh/Clst: drk gy	0.47	0.28	0026-1L
3700.20	ccp	Sltst : m lt gy to w	0.49	0.32	0027-1L
3710.20	ccp	Sltst : m lt gy to w	0.48	0.32	0028-1L
3718.70	ccp	S/Sst : m brn to w	0.48	0.31	0029-1L
3730.10	ccp	Sh/Clst: m gy to lt gy to w	0.45	0.26	0030-1L
3740.10	ccp	Sh/Clst: drk gy	0.46	0.28	0031-1L
3755.10	ccp	Sh/Clst: drk gy	0.48	0.28	0032-1L
3765.10	ccp	Sh/Clst: drk gy to m gy	0.47	0.29	0033-1L
3777.50	ccp	Sltst : lt gy to w	0.47	0.32	0034-1L
3790.10	ccp	S/Sst : lt gy to w to m gy	0.44	0.27	0037-1L

Table 7 : Thermal Maturity Data for well NOCS 6507/5-2

Depth unit of measure: m

Depth	Typ Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation (%)	Spore Fluorescence Colour	SCI	Tmax (°C)	Sample
1060.00	cut bulk	0.25	21	0.04	-	-	-	0110-0B
1210.00	cut bulk	NDP	-	-	-	-	-	0111-0B
1360.00	cut bulk	0.27	21	0.05	-	-	-	0112-0B
1510.00	cut bulk	0.24	20	0.05	-	-	-	0113-0B
1660.00	cut bulk	0.24	20	0.04	-	-	-	0114-0B
1810.00	cut bulk	0.24	21	0.04	-	-	-	0115-0B
1960.00	cut bulk	0.28	12	0.03	-	-	-	0116-0B
2110.00	cut bulk	0.29	8	0.02	-	-	-	0117-0B
2260.00	cut bulk	0.40	22	0.07	-	-	-	0118-0B
2410.00	cut bulk	0.38	23	0.08	-	-	-	0119-0B
2500.00	cut bulk	0.32	24	0.04	-	-	-	0120-0B
2600.00	cut bulk	0.38	18	0.06	-	-	-	0121-0B
2700.00	cut bulk	0.39	25	0.06	-	-	-	0122-0B
2802.00	cut bulk	0.49	21	0.07	-	-	-	0123-0B
2904.00	cut bulk	0.49	8	0.06	-	-	-	0124-0B

Table 7 : Thermal Maturity Data for well NOCS 6507/5-2

Page: 2

Depth unit of measure: m

Depth	Typ	Lithology	Vitrinite Reflectance (%)	Number of Readings	Standard Deviation (%)	Spore Fluorescence Colour	SCI	Tmax (°C)	Sample
3000.00	cut	bulk	0.56	6	0.07	-	-	-	0125-0B
3102.00	cut	bulk	0.52	8	0.05	-	-	-	0126-0B
3210.00	cut	bulk	0.57	13	0.07	-	-	424	0068-0B
3318.00	cut	bulk	0.58	22	0.08	-	-	-	0127-0B
3402.00	cut	bulk	0.60	20	0.05	-	-	-	0128-0B
3501.00	cut	bulk	0.66	22	0.06	-	-	-	0129-0B
3600.00	cut	bulk	0.68	22	0.04	-	-	-	0130-0B
3760.00	cut	bulk	0.70	25	0.09	-	-	-	0132-0B
3813.00	cut	bulk	0.71	22	0.08	-	-	-	0131-0B
3897.00	cut	bulk	0.68	22	0.06	-	-	442	0090-0B

Table 8a: Variation in Triterpane Distribution (peak height) SIR for Well NOCS 6507/5-2

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Depth unit of measure: m

Depth	Lithology	Ratio1	Ratio2	Ratio3	Ratio4	Ratio5	Ratio6	Ratio7	Ratio8	Ratio9	Rat.10	Rat.11	Rat.12	Rat.13	Rat.14	Sample
3024.50	S/Sst	0.74	0.42	0.18	0.52	0.34	0.14	0.12	0.22	0.10	0.17	0.91	0.35	0.12	59.70	0041-1
3024.51	bulk	0.72	0.42	0.14	0.45	0.31	0.11	0.10	0.22	0.09	0.05	0.91	0.33	0.13	59.70	0133-0
3029.00	Sh/Clst	0.89	0.47	0.19	0.58	0.37	0.11	0.10	0.18	0.09	0.17	0.90	0.37	0.13	53.41	0042-1
3029.01	bulk	0.88	0.47	0.16	0.51	0.34	0.10	0.09	0.18	0.08	0.10	0.89	0.35	0.15	54.68	0134-0
3633.89	S/Sst	0.75	0.43	0.15	0.51	0.34	0.09	0.16	0.32	0.14	0.16	0.92	0.35	0.10	60.11	0018-1
3667.10	S/Sst	0.87	0.46	0.12	0.48	0.33	0.07	0.16	0.34	0.14	0.06	0.92	0.34	0.10	58.76	0022-1
3679.90	S/Sst	0.79	0.44	0.13	0.51	0.34	0.09	0.17	0.34	0.15	0.08	0.92	0.35	0.10	59.86	0025-1
3693.05	Sh/Clst	11.51	0.92	0.30	0.74	0.43	0.06	-	-	-	0.02	0.81	0.41	0.20	59.45	0026-1
3700.20	Sltst	2.71	0.73	0.17	0.53	0.35	0.10	0.08	0.15	0.07	0.03	0.86	0.35	0.16	58.74	0027-1
3790.10	S/Sst	1.70	0.63	0.16	0.50	0.33	0.07	0.04	0.08	0.04	0.02	0.88	0.33	0.13	59.94	0037-1

List of Triterpane Distribution Ratios

Ratio 1: $27Tm / 27Ts$

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

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

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

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

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

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

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

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

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

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

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

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

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

Table 8b: Variation in Sterane Distribution (peak height) SIR for Well NOCS 6507/5-2

Page: 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>
3024.50	S/Sst	0.55	49.62	77.87	1.16	0.78	0.36	0.24	0.64	0.99	3.49	0041-1
3024.51	bulk	0.50	46.51	77.08	1.66	0.78	0.13	0.07	0.63	0.87	3.14	0133-0
3029.00	Sh/Clst	0.33	21.56	60.11	0.93	0.78	0.29	0.21	0.43	0.27	0.96	0042-1
3029.01	bulk	0.30	18.11	54.44	1.77	0.77	0.23	0.17	0.37	0.22	0.73	0134-0
3633.89	S/Sst	0.73	51.84	79.81	1.03	0.79	0.43	0.30	0.66	1.08	4.10	0018-1
3667.10	S/Sst	0.70	50.81	80.20	0.79	0.80	0.25	0.17	0.67	1.03	4.12	0022-1
3679.90	S/Sst	0.72	51.38	81.46	0.87	0.81	0.29	0.19	0.69	1.06	4.52	0025-1
3693.05	Sh/Clst	0.64	46.76	68.05	0.73	0.69	0.24	0.18	0.52	0.88	2.00	0026-1
3700.20	Sltst	0.67	50.79	75.28	0.87	0.75	0.33	0.24	0.60	1.03	3.09	0027-1
3790.10	S/Sst	0.62	58.22	69.15	0.55	0.66	0.33	0.26	0.53	1.39	2.68	0037-1

List of Sterane Distribution Ratios

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

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

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

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

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

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

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

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

Ratio 9: $29aaS / 29aaR$

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

Table 8c: Raw triterpane data (peak height) m/z 191 SIR for Well NOCS 6507/5-2

Depth unit of measure: m

Depth	Lithology	23/3	24/3	25/3	24/4	26/3	27Ts	27Tm	28aß	25nor30aß	Sample
		29aß	29Ts	30d	29ßa	300	30aß	30ßa	30G	31aßS	
		31aßR	32aßS	32aßR	33aßS	33aßR	34aßS	34aßR	35aßS	35aßR	
3024.50	S/Sst	8499.4 12679.3 6021.6	4110.9 6060.0 5204.6	1964.4 3299.8 3513.1	3176.0 1929.3 3289.7	1304.6 455.1 1966.1	7857.9 24427.3 2090.0	5803.8 2528.2 1174.7	2841.9 772.8 1376.0	4944.9 8636.0 833.7	0041-1
3024.51	bulk	1788.0 23519.1 11456.3	2800.1 11814.1 12090.5	2098.4 5931.0 8162.8	3703.6 4417.7 7877.5	2106.2 951.6 4960.5	12704.2 52073.5 5045.9	9121.6 5461.8 3149.0	5267.5 2007.1 4073.6	10258.0 18043.9 2344.6	0133-0
3029.00	Sh/Clst	6372.2 10317.3 5340.7	2963.9 4222.2 3949.6	1363.6 1912.7 3445.6	2708.8 1614.1 2211.3	717.2 298.7 1844.9	5248.9 17898.1 1465.7	4654.4 2045.1 1252.7	1876.4 580.3 966.4	3199.2 6920.3 714.5	0042-1
3029.01	bulk	2750.4 12232.6 6710.6	2458.8 5323.7 6000.6	1229.9 2282.5 4973.0	2821.7 2443.2 3526.9	905.4 315.1 2958.6	5878.3 23885.0 2398.4	5178.2 2942.6 2112.9	2189.0 1050.5 1755.8	4028.1 9040.9 1467.9	0134-0
3633.89	S/Sst	90505.1 182383.9 81540.3	57776.2 74766.9 65100.8	27258.9 31614.6 43209.9	52367.3 22552.9 34993.8	17770.6 2912.4 21337.6	92725.8 355183.6 18482.8	69370.0 29511.7 10599.3	57862.1 7886.2 11303.2	7190.6 124085.4 6014.2	0018-1
3667.10	S/Sst	75415.0 439829.1 232096.3	51962.2 160727.1 203655.7	27409.9 62572.0 142909.6	64088.6 55688.1 119066.7	17680.8 12294.3 76380.7	160602.1 909111.2 67665.0	139399.2 73732.2 40762.4	149644.8 20603.0 48492.4	15474.8 372460.3 26595.3	0022-1
3679.90	S/Sst	26145.6 94659.2 48791.6	14252.4 36638.1 41842.0	7160.9 16199.4 28054.8	17969.7 12112.9 24371.4	4427.1 1491.2 15201.7	39840.7 186903.7 13652.6	31546.4 15395.7 8078.3	31974.7 4525.6 9669.1	4232.5 70854.7 5343.7	0025-1

Table 8c: Raw triterpane data (peak height) m/z 191 SIR for Well NOCS 6507/5-2

Depth unit of measure: m

Depth	Lithology	23/3	24/3	25/3	24/4	26/3	27Ts	27Tm	28aß	25nor30aß	Sample
		29aß	29Ts	30d	29ßa	300	30aß	30ßa	30G	31aßS	
		31aßR	32aßS	32aßR	33aßS	33aßR	34aßS	34aßR	35aßS	35aßR	
3693.05	Sh/Clst	18988.0	9204.5	3169.4	34173.6	1982.5	18483.5	212656.7	0.0	0.0	0026-1
		293420.4	21236.6	24013.1	47768.7	0.0	394150.8	91538.6	0.0	199117.1	
		136592.1	82206.3	56064.1	32773.8	20704.8	16807.8	10058.8	5931.9	3296.6	
3700.20	Sltst	11540.9	3837.3	1389.1	11212.1	844.3	9839.4	26704.6	8842.3	3048.6	0027-1
		58219.0	15229.8	11491.9	9507.2	0.0	110273.2	18112.6	0.0	46458.4	
		30233.6	24167.3	16978.6	12441.1	7928.5	7582.1	4470.3	2816.8	1729.5	
3790.10	S/Sst	5175.5	2046.8	0.0	13578.7	0.0	13730.6	23320.6	4395.6	1807.4	0037-1
		51946.6	20624.4	7611.5	6467.2	0.0	104483.6	13835.3	0.0	33387.1	
		22797.9	15986.7	10684.1	6902.1	4341.3	3970.9	2359.3	1592.1	1007.2	

Table 8d: Raw sterane data (peak height) m/z 217 SIR for Well NOCS 6507/5-2

Depth unit of measure: m

Depth	Lithology	21a	22a	27dBS	27dBR	27daR	27daS	28dBS	28dBR	28daR*	Sample
		29dBS*	28daS*	27aaR	29dBR	29daR	28aaS	29daS*	28BS		
		28aaR	29aaS	29BSR	29BS	29aaR					
3024.50	S/Sst	4753.9 10014.2 1999.5	2705.8 4828.6 2340.3	11294.1 9159.1 4622.3	7466.9 5554.7 3675.2	3139.5 2878.5 2375.9	3140.1 2438.0	5838.5 3126.8	3566.9 4299.4	6678.5	0041-1
3024.51	bulk	1144.0 8238.2 1677.6	833.7 6284.6 2346.3	12541.1 12621.8 4477.9	14563.0 6661.1 4004.4	3376.9 2342.7 2698.9	3372.7 1863.0	4968.7 3165.4	3894.4 4679.1	7096.4	0133-0
3029.00	Sh/Clst	3704.9 6126.7 5695.1	2235.7 2901.2 1785.5	5771.0 11550.9 3843.0	4261.9 3782.9 2398.9	1560.3 1747.2 6497.6	1566.8 1933.9	3460.0 2517.6	2179.7 2631.6	6976.1	0042-1
3029.01	bulk	2615.0 3368.3 5074.2	1092.1 2624.0 1402.2	4938.9 11673.0 2794.0	7995.8 2771.1 1831.4	1671.6 1043.8 6340.1	1557.1 1164.6	2411.0 1938.8	1782.9 2100.0	5535.6	0134-0
3633.89	S/Sst	78200.5 135595.1 20999.4	47970.8 63777.7 28553.7	130486.4 48823.3 59783.6	80747.1 64393.9 49084.5	34090.8 29539.6 26521.6	33758.0 30241.6	65250.0 40660.3	39124.1 52233.7	45473.7	0018-1
3667.10	S/Sst	71439.1 233021.6 41772.6	51452.8 113658.6 62370.2	178461.4 76600.8 134100.4	104502.6 107561.0 114520.8	42460.7 49031.1 60392.7	44383.9 54258.0	91144.8 81007.6	54800.0 103611.9	75272.2	0022-1

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

Table 8d: Raw sterane data (peak height) m/z 217 SIR for Well NOCS 6507/5-2

Depth unit of measure: m

Depth	Lithology	21a	22a	27dBS	27dBR	27daR	27daS	28dBS	28dBR	28daR*	Sample
		29dBS*	28daS*	27aaR	29dBR	29daR	28aaS	29daS*	28BS		
		28aaR	29aaS	29BR	29BS	29aaR					
3679.90	S/Sst	20236.2	13484.9	45053.2	27800.2	13155.2	13166.6	25239.7	14829.1	19722.0	0025-1
		57031.5	27231.2	17658.0	26202.4	11767.3	13465.2	18617.1	24117.1		
		8490.1	13127.1	30888.5	25249.4	12424.0					
3693.05	Sh/Clst	13120.1	7086.1	21274.1	12475.4	6496.1	6393.3	10491.5	6020.2	13444.3	0026-1
		34092.9	10889.0	12052.5	16604.2	6444.0	7631.7	6654.6	8079.8		
		5636.8	14761.3	20306.8	13302.1	16804.9					
3700.20	Slst	5981.7	2609.8	9498.2	5566.2	2949.2	2895.3	4439.2	2755.2	4904.9	0027-1
		11938.4	4400.4	4720.4	6533.5	2989.3	3190.5	2701.3	3401.2		
		1884.2	3456.6	5712.0	4650.7	3349.6					
3790.10	S/Sst	2564.8	1139.2	1707.5	1110.0	643.0	624.0	840.3	542.7	1121.5	0037-1
		3477.1	1068.5	1037.2	1714.7	1371.5	805.5	924.4	667.0		
		367.1	2091.5	2219.6	1806.8	1501.0					

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

Table 8e: Raw sterane data (peak height) m/z 218 SIR for Well NOCS 6507/5-2

Depth unit of measure: m

Depth	Lithology	27BBR	27BBS	28BBR	28BBS	29BBR	29BBS	30BBR	30BBS	Sample
3024.50	S/Sst	6423.8	4257.8	2990.1	3580.2	5189.5	4309.3	1225.9	1174.6	0041-1
3024.51	bulk	6717.5	6653.1	4792.6	6465.6	6123.4	5944.9	2042.0	2075.1	0133-0
3029.00	Sh/Clst	4253.3	2775.9	2538.1	2596.7	3640.2	2885.9	747.5	967.8	0042-1
3029.01	bulk	3007.4	3023.5	2379.2	2879.6	3139.5	2623.7	773.0	943.3	0134-0
3633.89	S/Sst	102117.5	71024.7	53987.4	58241.9	75906.0	63608.9	16984.1	15573.4	0018-1
3667.10	S/Sst	185665.0	133847.7	111774.6	122178.8	177652.4	147922.6	42825.6	39303.2	0022-1
3679.90	S/Sst	46297.3	32991.4	26889.2	29260.7	42510.0	35131.2	10192.7	9335.3	0025-1
3693.05	Sh/Clst	21302.2	12453.8	9325.6	10047.5	25995.7	19264.7	2291.8	2117.6	0026-1
3700.20	Sltst	7151.7	4159.5	3101.2	3462.7	6597.6	5317.5	929.4	872.6	0027-1
3790.10	S/Sst	1798.8	926.9	652.1	730.6	2462.0	1990.8	170.4	64.9	0037-1

Table 8f: Raw triterpane data (peak height) m/z 177 SIR for Well NOCS 6507/5-2

Depth unit of measure: m

Depth	Lithology	25nor28aß	25nor30aß	Sample
3024.50	S/Sst	5412.5	3520.4	0041-1
3024.51	bulk	9200.6	6672.0	0133-0
3029.00	Sh/Clst	3407.9	2193.9	0042-1
3029.01	bulk	3948.8	2553.1	0134-0
3633.89	S/Sst	60905.7	4998.3	0018-1
3667.10	S/Sst	142545.4	10586.7	0022-1
3679.90	S/Sst	28167.8	2447.3	0025-1
3693.05	Sh/Clst	5136.4	0.0	0026-1
3700.20	Sltst	31348.2	664.7	0027-1
3790.10	S/Sst	30311.9	1131.9	0037-1

Table 9a: Variation in Triaromatic Sterane Distribution (peak height) for Well NOCS 6507/5-2

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Ratio3</u>	<u>Ratio4</u>	<u>Ratio5</u>	<u>Sample</u>
3024.50	S/Sst	0.56	0.52	0.28	0.29	0.36	0041-1
3029.00	Sh/Clst	0.70	0.69	0.41	0.42	0.48	0042-1
3633.89	S/Sst	0.76	0.72	0.52	0.51	0.62	0018-1
3667.10	S/Sst	0.57	0.55	0.33	0.30	0.42	0022-1
3679.90	S/Sst	0.59	0.61	0.38	0.33	0.47	0025-1
3693.05	Sh/Clst	0.52	0.44	0.32	0.31	0.51	0026-1
3700.20	Slst	0.66	0.56	0.39	0.42	0.54	0027-1
3790.10	S/Sst	0.68	0.58	0.50	0.47	0.73	0037-1

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 9b: Variation in Monoaromatic Sterane Distribution (peak height) for Well NOCS 6507/5-2

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Ratio3</u>	<u>Ratio4</u>	<u>Sample</u>
3024.50	S/Sst	0.50	0.37	0.36	0.31	0041-1
3029.00	Sh/Clst	0.24	0.20	0.18	0.17	0042-1
3633.89	S/Sst	0.67	0.51	0.54	0.46	0018-1
3667.10	S/Sst	0.49	0.34	0.34	0.28	0022-1
3679.90	S/Sst	0.43	0.31	0.31	0.26	0025-1
3693.05	Sh/Clst	0.34	0.27	0.20	0.17	0026-1
3700.20	Sltst	0.49	0.37	0.34	0.29	0027-1
3790.10	S/Sst	0.58	0.41	0.40	0.34	0037-1

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 9c: Aromatisation of Steranes (peak height) for Well NOCS 6507/5-2

Depth unit of measure: m

<u>Depth</u>	<u>Lithology</u>	<u>Ratio1</u>	<u>Ratio2</u>	<u>Sample</u>
3024.50	S/Sst	0.42	0.87	0041-1
3029.00	Sh/Clst	0.23	0.95	0042-1
3633.89	S/Sst	0.43	0.91	0018-1
3667.10	S/Sst	0.42	0.92	0022-1
3679.90	S/Sst	0.47	0.90	0025-1
3693.05	Sh/Clst	0.15	0.97	0026-1
3700.20	Sltst	0.26	0.96	0027-1
3790.10	S/Sst	0.30	0.95	0037-1

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

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

Table 9d: Raw triaromatic sterane data (peak height) m/z 231 for Well NOCS 6507/5-2

Page: 1

Depth unit of measure: m

Depth	Lithology	a1	b1	c1	d1	e1	f1	g1	Sample
3024.50	S/Sst	41276.6	34427.2	21812.8	73772.4	35580.5	33253.3	31801.4	0041-1
3029.00	Sh/Clst	89691.0	83880.8	31567.6	97703.8	43628.9	42955.2	37768.7	0042-1
3633.89	S/Sst	26691.8	22221.8	4126.4	16541.9	8975.6	7770.8	8635.7	0018-1
3667.10	S/Sst	32764.7	30501.8	8940.2	45938.3	27487.1	22590.0	25134.4	0022-1
3679.90	S/Sst	49566.6	52858.9	13217.8	56695.4	37662.1	27662.5	33822.4	0025-1
3693.05	Sh/Clst	10142.8	7427.5	4395.5	9751.7	8704.7	4605.6	9314.9	0026-1
3700.20	Sltst	43859.9	29278.3	16801.7	38101.7	23721.1	13111.7	23072.7	0027-1
3790.10	S/Sst	35835.2	23417.3	5452.2	13214.1	18422.3	4734.1	17020.9	0037-1

Table 9e: Raw monoaromatic sterane data (peak height) m/z 253 for Well NOCS 6507/5-2

Depth unit of measure: m

Depth	Lithology	A1	B1	C1	D1	E1	F1	G1	H1	I1	Sample
3024.50	S/Sst	41264.3	24737.1	23649.2	19418.6	41857.6	7445.6	30643.5	16106.5	4773.0	0041-1
3029.00	Sh/Clst	8787.5	6766.6	9530.2	10087.2	27314.6	4179.4	13429.9	7763.7	2159.5	0042-1
3633.89	S/Sst	19720.1	10230.9	6937.9	4660.9	9778.5	1877.0	7126.6	4081.7	808.8	0018-1
3667.10	S/Sst	23582.4	12650.9	17260.4	11803.7	24462.9	4984.4	21042.7	12933.7	2084.3	0022-1
3679.90	S/Sst	32811.5	19606.2	26627.4	19085.0	42825.8	7071.2	31289.0	18089.8	3668.8	0025-1
3693.05	Sh/Clst	759.4	533.4	775.5	623.5	1477.7	466.3	1626.9	1113.3	241.0	0026-1
3700.20	Sltst	9975.5	6033.6	6053.2	3917.7	10236.5	3155.2	8937.0	6329.6	964.1	0027-1
3790.10	S/Sst	8459.2	4173.0	2903.4	2049.0	6060.3	904.0	6834.7	5075.7	850.7	0037-1

Table 10a: Tabulation of carbon isotope data for EOM/EOM - fractions for well NOCS 6507/5-2

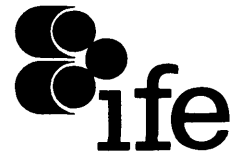
Depth unit of measure: m

Depth	Typ	Lithology	EOM	Saturated	Aromatic	NSO	Asphaltenes	Kerogen	Sample
3024.50	swc	bulk	-30.50	-30.07	-28.50	-28.63	-28.10	-	0041-0
3029.00	swc	bulk	-30.40	-30.06	-27.92	-28.54	-27.15	-	0042-0
3633.89	ccp	bulk	-28.35	-29.04	-27.67	-27.45	-26.99	-	0018-0
3637.00	oil	bulk	-	-29.48	-27.74	-28.09	-	-	0135-0
3647.00	oil	bulk	-	-29.41	-27.68	-27.40	-	-	0136-0
3667.10	ccp	bulk	-28.87	-29.06	-28.22	-28.21	-27.59	-	0022-0
3679.90	ccp	bulk	-28.65	-29.05	-28.16	-28.40	-27.80	-	0025-0
3693.05	ccp	bulk	-	-28.27	-26.40	-26.08	-25.19	-	0026-0
3700.20	ccp	bulk	-	-	-26.27	-26.78	-26.54	-	0027-0
3790.10	ccp	bulk	-	-29.03	-27.08	-27.03	-26.04	-	0037-0

Table 10b: Tabulation of cv values from carbon isotope data for well NOCS 6507/5-2

Depth unit of measure: m

<u>Depth</u>	<u>Typ</u>	<u>Lithology</u>	<u>Saturated</u>	<u>Aromatic</u>	<u>cv value</u>	<u>Sample</u>
3024.50	swc	bulk	-30.07	-28.50	1.16	0041-0
3029.00	swc	bulk	-30.06	-27.92	2.42	0042-0
3633.89	ccp	bulk	-29.04	-27.67	0.39	0018-0
3637.00	oil	bulk	-29.48	-27.74	1.35	0135-0
3647.00	oil	bulk	-29.41	-27.68	1.31	0136-0
3667.10	ccp	bulk	-29.06	-28.22	-0.78	0022-0
3679.90	ccp	bulk	-29.05	-28.16	-0.67	0025-0
3693.05	ccp	bulk	-28.27	-26.40	1.27	0026-0
3700.20	ccp	bulk	-	-26.27	-	0027-0
3790.10	ccp	bulk	-29.03	-27.08	1.68	0037-0



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1 Introduction

This report gives the result of routine vitrinite reflectance analyses of 25 samples from well 6507/5-2 offshore Norway.

2 Material

The material was provided from the client as 25 cuttings samples. Information on stratigraphy in well 6507/5-2 was not provided from the client.

3 Analytical techniques

3.1 Preparation

The cuttings samples were treated with hydrochloric and hydrofluoric acid prior to further preparation. The aim was to avoid soft and expanding mineral phases in order to ensure good polishing quality. The sample material resulting from the acid treatment was embedded in an epoxy resin to make briquettes, ground flat and polished using 0.25 micron diamond paste and magnesium oxide as the two final steps.

3.2 Analysis

The analytical equipment being used was a Zeiss MPM 03 photometer microscope equipped with an Epiplan-Neofluar 40/0.90 oil objective. The sensitive measuring spot was kept constant for all measurements at about 2.5 micron in diameter. The measurements were made through a green band pass filter (546 nm) and in oil immersion (refractive index 1.515 at 18°C). The readings were made without a polarizer and using a stationary stage. This procedure is called measurement of random reflectance (%Rm). The photometer is calibrated daily against a standard of known reflectance (%Rm=0.588) and routinely (daily) checked against two other standards of significant different reflectances (%Rm=0.879 and 1.696). A deviation from these values of less than ± 0.01 and ± 0.02 respectively is considered as acceptable. The calibration is routinely checked

during the course of measurements at least every hour, and a deviation of less than ± 0.005 is considered as acceptable.

For each sample at least 20 points were measured if possible, and quality ratings are given to various important aspects which may affect the measurements. These aspects are abundance of vitrinite, uncertainties in the identification of indigenous vitrinite, type of vitrinite, particle size, particle surface quality and abundance of pyrite.

3.3 Presentation of results

The raw data from the measurements are presented in appendix for each sample both as tabulated data and histograms. A true vitrinite population is selected among the readings based on observations made during the measurements, and arithmetic mean values and standard deviation are calculated for this population and other populations. A quality rating is given to the true population. The results are listed in table 1. Figure 1 shows a vitrinite reflectance versus depth plot.

4 Results

Possible mud additives and hydrocarbon staining made some samples difficult to analyse. See table 1. Though, it has been possible to establish a fairly reliable vitrinite reflectance towards depth trend for well 6507/5-2.

Table 1. Vitrinite reflectance data table well 6507/5-2

Analysis type:		Vitrinite reflectance							
Well:		6507/5-2							
Number of samples:		25							
Time period for analysis:		des-99							
Analysis performed by:		Kristine Aasgaard, Institutt for energiteknikk							
Analysis ordered by:		Geolab Nor							
IFE sample code	Depth (m)	Sample type	Lithology	Vitr. refl. (%Rm)	Stand. dev.	Number of readings	Sample description	Sample quality	Sample prep.
992394	1060	DC	clyst	0.26	0.04	21	0000-0	M/G	HF
992395	1210	DC	clyst	barren					HF
992396	1360	DC	clyst	0.27	0.05	21	000--0	M	HF
992397	1510	DC	clyst	0.24	0.05	20	000--0	M	HF
992398	1660	DC	clyst	0.25	0.04	20	000-00	M/G	HF
992399	1810	DC	clyst	0.24	0.04	21	000--0	M	HF
992400	1960	DC	clyst	0.28	0.03	12	-00--+	M/P	HF
992401	2110	DC	clyst	0.29	0.02	8	-0000+	M/P	HF
992402	2260	DC	clyst	0.38	0.06	20	0±-0+	P-S	HF
992403	2410	DC	clyst	0.39	0.08	23	00-0+	P/M-S	HF
992404	2500	DC	clyst	0.32	0.04	24	0000-0	M/G-S	HF
992405	2600	DC	clyst	0.39	0.06	18	000--+	M-S	HF
992406	2700	DC	clyst	0.40	0.06	25	0000-0	M/G-S	HF
992407	2802	DC	clyst	0.49	0.07	21	000--0	M-S	HF
992408	2904	DC	clyst/sst	0.49	0.06	8	-0-0-0	P-S	HF
992409	3000	DC	clyst/sst	0.56	0.07	6	-0-0-0	P-S	HF
992410	3102	DC	clyst/sst	0.52	0.05	8	-00--0	P/M-S	HF
992411	3210	DC	clyst	0.57	0.07	13	-00-00	M-S	HF
992412	3318	DC	clyst/sst	0.57	0.07	20	000-0+	M-S	HF
992413	3402	DC	clyst	0.60	0.05	20	000--+	M-S	HF
992414	3501	DC	clyst	0.66	0.06	22	000--+	M-S	HF
992415	3600	DC	clyst	0.68	0.04	22	000--+	M-S	HF
992416	3760	DC	clyst	0.70	0.1	26	0±000+	P/G	HF
992417	3813	DC	clyst	0.71	0.08	21	00000+	G	HF
992418	3897	DC	clyst	0.68	0.06	22	000--+	M	HF

Table 1 A: Light Hydrocarbons from Whole Oil GC for 6507/5-2 oils

Well	Description	2,2DMC4	2,3DMC4	nC6	MCyC5	Benz	Sample
6507/5-2	3637.0m Co	0.03	0.20	3.36	1.77	1.46	T21/0135
6507/5-2	3647.0m Co	0.03	0.20	3.22	1.71	1.41	T21/0136

Table 1 B: Light Hydrocarbons from Whole Oil GC for 6507/5-2 oils

Well	Description	CyC6	2MC6	3MC6	1,3ci- DMCyC5	1,3tr- DMCyC5	1,2tr- DMCyC5	nC7	MCyC6	Tol	nC8	p/m- Xylene	Sample
6507/5-2	3637.0m Co	3.48	1.98	1.78	0.56	0.53	1.17	6.24	8.78	8.24	7.88	7.39	T21/0135
6507/5-2	3647.0m Co	3.38	1.93	1.73	0.55	0.52	1.15	6.10	8.60	8.19	7.88	7.55	T21/0136

Table 1 C: Thompson's indices for 6507/5-2 oils

Well	Description	A	B	X	W	C	I	F	H	U	R	S	Sample
6507/5-2	3637.0m Co	0.43	1.32	0.94	4.20	0.78	1.66	0.71	25.24	1.97	3.15	112.00	T21/0135
6507/5-2	3647.0m Co	0.44	1.34	0.96	4.17	0.78	1.65	0.71	25.25	1.98	3.16	107.33	T21/0136

THOMPSON'S INDICES

$$A = \frac{\text{Benzene}}{nC6}$$

$$B = \frac{\text{Toluene}}{nC7}$$

$$X = \frac{p/m\text{-xylene}}{nC8}$$

$$W = \frac{\text{Benzene} * 10}{CyC6}$$

$$C = \frac{nC6 + nC7}{CyC6 + MCyC6}$$

$$I = \frac{2MC6 + 3MC6}{1,3ciDMCyC5 + 1,3trDMCyC5 + 1,2trDMCyC5}$$

$$F = \frac{nC7}{MCyC6}$$

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

$$U = \frac{CyC6}{MCyC5}$$

$$R = \frac{nC7}{2MC6}$$

$$S = \frac{nC6}{2,2DMC4}$$

Table 2a: MPLC Bulk Composition: Weight of Oil and Fraction for 6507/5-2 oils

Well	Description	Whole oil (mg)	Light (mg)	Topped (mg)	Sat (mg)	Aro (mg)	Asph (mg)	NSO (mg)	HC (mg)	Non-HC (mg)	Sample
6507/5-2	cyl1561ea	147.6	79.7	67.9	51.0	15.4	0.3	1.2	66.4	1.5	T21/0135
6507/5-2	cyl5837ma	130.0	65.3	64.7	48.8	14.4	0.3	1.2	63.2	1.5	T21/0136

Table 2b: MPLC Bulk Composition: Comparison of topped oil (%) for 6507/5-2 oils

Well	Description	Sat	Aro	Asph	NSO	Total	HC	Non-HC	Recov. MPLC	Recov. Asph	Sample
6507/5-2	cyl1561ea	75.18	22.61	0.44	1.76	100.00	97.80	2.20	-	0.98	T21/0135
6507/5-2	cyl5837ma	75.36	22.29	0.46	1.88	100.00	97.65	2.35	-	0.97	T21/0136

Table 2c: MPLC Bulk Composition: Ratios in topped oil for 6507/5-2 oils

Well	Description	Sat Aro	HC Non-HC	Asp NSO	Sample
6507/5-2	cyl1561ea	3.32	44.37	0.25	T21/0135
6507/5-2	cyl5837ma	3.38	41.60	0.25	T21/0136

Table 3: Saturated Hydrocarbon Ratios (peak area) for 6507/5-2 oils

Well	Description	$\frac{\text{Pristane}}{\text{nC17}}$	$\frac{\text{Pristane}}{\text{Phytane}}$	$\frac{\text{Pristane/nC17}}{\text{Phytane/nC18}}$	$\frac{\text{Phytane}}{\text{nC18}}$	CPI1	$\frac{\text{nC17}}{\text{nC17+nC27}}$	Sample
6507/5-2	cy11561ea	0.82	1.62	1.27	0.64	1.03	0.90	T21/0135
6507/5-2	cy15837ma	0.85	1.75	1.32	0.64	0.99	0.91	T21/0136

Table 4 a: Aromatic Hydrocarbon Ratios (peak area) for 6507/5-2 oils

Well	Description	MNR	DMNR	BPhR	2/1MP	MPI1	MPI2	Rc	DBT/P	4/1MDBT	(3+2) /1MDBT	Sample
6507/5-2	cyl1561ea	1.43	4.35	0.26	1.56	1.05	1.24	1.03	1.07	5.95	1.87	T21/0135
6507/5-2	cyl15837ma	1.42	4.21	0.24	1.34	0.97	1.15	0.98	1.17	8.13	2.66	T21/0136

Table 4b: Aromatic Hydrocarbon Ratios (peak area) for 6507/5-2 oils

Well	Description	F1	F2	Sample
6507/5-2	cyl1561ea	0.56	0.33	T21/0135
6507/5-2	cyl15837ma	0.53	0.32	T21/0136

Table 5.a: Variation in Triterpane Distribution (peak height) SIR for 6507/5-2 oils

Well	Descript.	Ratio1	Ratio2	Ratio3	Ratio4	Ratio5	Ratio6	Ratio7	Ratio8	Ratio9	Rat.10	Rat.11	Rat.12	Rat.13	Rat.14	Sample
6507/5-2	3637.0m Co	0.67	0.40	0.13	0.47	0.32	0.07	0.14	0.31	0.13	0.30	0.92	0.33	0.09	61.53	T21/0135
6507/5-2	3647.0m Co	0.70	0.41	0.14	0.50	0.33	0.08	0.15	0.30	0.13	0.32	0.92	0.34	0.09	62.22	T21/0136

List of Triterpane Distribution Ratios

Ratio 1: 27Tm / 27Ts

Ratio 2: 27Tm / 27Tm+27Ts

Ratio 3: 27Tm / 27Tm+30aβ+30βa

Ratio 4: 29aβ / 30aβ

Ratio 5: 29aβ / 29aβ+30aβ

Ratio 6: 30d / 30aβ

Ratio 7: 28aβ / 30aβ

Ratio 8: 28aβ / 29aβ

Ratio 9: 28aβ / 28aβ+30aβ

Ratio 10: 24/3 / 30aβ

Ratio 11: 30aβ / 30aβ+30βa

Ratio 12: 29aβ+29βa / 29aβ+29βa+30aβ+30βa

Ratio 13: 29βa+30βa / 29aβ+30aβ

Ratio 14: 32aβS / 32aβS+32aβR (%)

Table 5'b: Variation in Sterane Distribution (peak height) SIR for 6507/5-2 oils

Well	Descript.	Ratio1	Ratio2	Ratio3	Ratio4	Ratio5	Ratio6	Ratio7	Ratio8	Ratio9	Ratio10	Sample
6507/5-2	cyl1561ea	0.81	53.53	78.96	1.53	0.78	0.63	0.47	0.65	1.15	4.04	T21/0135
6507/5-2	cyl5837ma	0.81	50.93	78.86	1.53	0.79	0.66	0.49	0.65	1.04	3.80	T21/0136

List of Sterane Distribution Ratios

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

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

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

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

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

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

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

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

Ratio 9: $29aaS / 29aaR$

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

Table .5c: Raw triterpane data (peak height) m/z 191 SIR for 6507/5-2 oils

Well	Descript.	23/3	24/3	25/3	24/4	26/3	27Ts	27Tm	28aß	25nor30aß	Sample
		29aß	29Ts	30d	29ßa	300	30aß	30ßa	30G	31aßS	
		31aßR	32aßS	32aßR	33aßS	33aßR	34aßS	34aßR	35aßS	35aßR	
6507/5-2	cyl1561ea	16737.4	14521.4	4997.1	8903.0	2871.2	11687.2	7797.5	7066.0	1709.8	T21/0135
		22884.7	9252.6	3648.3	2648.2	560.1	48815.3	4036.3	1647.3	17548.4	
		10690.6	10767.4	6730.8	6170.9	3945.1	3441.4	2097.1	2430.9	1380.3	
6507/5-2	cyl15837ma	10568.0	9443.3	3203.7	5429.4	1842.1	7320.0	5151.3	4478.9	1074.2	T21/0136
		14910.4	5980.3	2479.4	1573.4	288.1	29698.1	2571.3	785.8	10539.8	
		6797.4	6637.3	4029.7	3732.3	2368.4	2075.5	1224.0	1337.0	795.3	