

Results from the GC/MS-MRM1 method: MRS1A

- * Detected compounds and annotations.
- * Tabulated peak height data.
- * Normalized bargraphs of the SAT-biomarker distributions.

Detected compounds and annotations according to the "Norwegian Industry Guide to Organic Geochemical Analysis, Feb.1993":

The old codes will be reported until the computerized data handling procedures are updated. The present analytical method will only report data which are listed as 'Old code'.

	Old code	New code	Transition ion, m/z	Identification
Internal standard		24baa		5b(H),14a(H),17a(H)-cholane
TERPANES:	Old code	New code	Transition ion, m/z	Identification
Tricyclic C20-30	20Y	20/3	276.28 -> 191.18	C20H36 tricyclic terpane
	21Y	21/3	290.28 -> 191.18	C21H38 tricyclic terpane
	23Y	23/3	318.33 -> 191.18	C23H42 tricyclic terpane
	24Y	24/3	330.33 -> 191.18	C24H44 tricyclic terpane
	25Y	25/3	346.35 -> 191.18	C25H46 tricyclic terpane
	26Y	26/3R	360.38 -> 191.18	C26H48 tricyclic terpane (22R)
	26YY	26/3S	----- " -----	C26H48 tricyclic terpane (22S)
		28/3R	374.38 -> 191.18	C28H52 tricyclic terpane (22R)
		28/3S	----- " -----	C28H52 tricyclic terpane (22S)
		29/3R	388.38 -> 191.18	C29H54 tricyclic terpane (22R)
		29/3S	----- " -----	C29H54 tricyclic terpane (22S)
Tetracyclic C24	24X	24/4	330.33 -> 191.18	C24H42 tetracyclic terpane
Pentacyclic C27-35	27F	27Ts	370.38 -> 191.18	18a(H)-22,29,30-trisnorhopane
		25nor28ab	----- " -----	17a(H),21b(H)-25,28,30-trisnorhopane
	27A	27Tm	----- " -----	17a(H)-22,29,30-trisnorhopane
	27E	27b	----- " -----	17b(H)-22,29,30-trisnorhopane
		25nor29ab	384.38 -> 191.18	17a(H),21b(H)-25,30-bisnorhopane
	28A	28ab	----- " -----	17a(H),21b(H)-28,30-bisnorhopane
	29N	25nor30ab	398.38 ->191.18	17a(H),21b(H)-25-norhopane
	29A	29ab	----- " -----	17a(H),21b(H)-norhopane
	29F	29Ts	----- " -----	18a(H)-30-neonorhopane
	29C	29ba	----- " -----	17b(H),21a(H)-norhopane
	30F	30D	412.41 -> 191.18	15a-methyl-17a(H)-27-norhopane
	30O	30O	----- " -----	18a(H)-oleanane
	30A	30ab	----- " -----	17a(H),21b(H)-hopane
	30H	30D13	----- " -----	D ¹³⁻¹⁷ -hopene
	30C	30ba	----- " -----	17b(H),21a(H)-hopane
	30G	30G	----- " -----	Gammacerane
	30E	30bb	----- " -----	17b(H),21b(H)-hopane
	31A	31abS	426.42 -> 191.18	17a(H),21b(H)-homohopane (22S)

	31B	31abR	----- " -----	17a(H),21b(H)-homohopane (22R)
	31D	31ba	----- " -----	17b(H),21a(H)-homohopane
	31C	30nor32ab	----- " -----	17a(H),21b(H)-(30-nor)-bishomohopane
	32A	32abS	440 44 -> 191 18	17a(H),21b(H)-bishomohopane (22S)
	32B	32abR	----- " -----	17a(H),21b(H)-bishomohopane (22R)
	33A	33abS	454 45 -> 191 18	17a(H),21b(H)-trishomohopane (22S)
	33B	33abR	----- " -----	17a(H),21b(H)-trishomohopane (22R)
	34A	34abS	468 47 -> 191 18	17a(H),21b(H)-tetrakishomohopane (22S)
	34B	34abR	----- " -----	17a(H),21b(H)-tetrakishomohopane (22R)
	35A	35abS	482 48 -> 191 18	17a(H),21b(H)-pentakishomohopane (22S)
	35B	35abR	----- " -----	17a(H),21b(H)-pentakishomohopane (22R)
STERANES				
Pregnanes C21-23	21a	21aa	288 28 -> 217 20	C21-5a(H),14a(H),17a(H)-pregnane
	21k	21bb	----- " -----	C21-5a(H),14b(H),17b(H)-pregnane
	22a	22aa	302 30 -> 217 20	C22-5a(H),14a(H),17a(H)-pregnane
	22k	22bb	----- " -----	C22-5a(H),14b(H),17b(H)-pregnane
	23a	23aa	316 31 -> 217 20	C23-5a(H),14a(H),17a(H)-pregnane
	23k	23bb	----- " -----	C23-5a(H),14b(H),17b(H)-pregnane
Steranes C27-30	27a	27dbS	372 38 -> 217 20	13b(H),17a(H)-diacholestane (20S)
	27b	27dbR	----- " -----	13b(H),17a(H)-diacholestane (20R)
	27c	27daR	----- " -----	13a(H),17b(H)-diacholestane (20R)
	27d	27daS	----- " -----	13a(H),17b(H)-diacholestane (20S)
	27e	27aaS	----- " -----	5a(H),14a(H),17a(H)-cholestane (20S)
	27f	27bbR	----- " -----	5a(H),14b(H),17b(H)-cholestane (20R)
	27g	27bbS	----- " -----	5a(H),14b(H),17b(H)-cholestane (20S)
	27h	27aaR	----- " -----	5a(H),14a(H),17a(H)-cholestane (20R)
	28a	28dbSA	386 38 -> 217 20	24-methyl-13b(H),17a(H)-diacholestane (20S)-A
	28aa	28dbSB	----- " -----	24-methyl-13b(H),17a(H)-diacholestane (20S)-B
	28b	28dbRA	----- " -----	24-methyl-13b(H),17a(H)-diacholestane (20R)-A
	28bb	28dbRB	----- " -----	24-methyl-13b(H),17a(H)-diacholestane (20R)-B
	28c	28daR	----- " -----	24-methyl-13a(H),17b(H)-diacholestane (20R)
	28d	28daS	----- " -----	24-methyl-13a(H),17b(H)-diacholestane (20S)
	28e	28aaS	----- " -----	24-methyl-5a(H),14a(H),17a(H)-cholestane (20S)
	28f	28bbR	----- " -----	24-methyl-5a(H),14b(H),17b(H)-cholestane (20R)
	28g	28bbS	----- " -----	24-methyl-5a(H),14b(H),17b(H)-cholestane (20S)
	28h	28aaR	----- " -----	24-methyl-5a(H),14a(H),17a(H)-cholestane (20R)
	29a	29dbS	400 41 -> 217 20	24-ethyl-13b(H),17a(H)-diacholestane (20S)
	29b	29dbR	----- " -----	24-ethyl-13b(H),17a(H)-diacholestane (20R)
	29c	29daR	----- " -----	24-ethyl-13a(H),17b(H)-diacholestane (20R)
	29d	29daS	----- " -----	24-ethyl-13a(H),17b(H)-diacholestane (20S)
	29e	29aaS	----- " -----	24-ethyl-5a(H),14a(H),17a(H)-cholestane (20S)
	29f	29bbR	----- " -----	24-ethyl-5a(H),14b(H),17b(H)-cholestane (20R)

29g	29bbS	———— " ———	24-ethyl-5a(H),14b(H),17b(H)-cholestane (20S)
29h	29aaR	———— " ———	24-ethyl-5a(H),14a(H),17a(H)-cholestane (20R)
30a	30dbS	414.42 -> 217.20	24-propyl-13b(H),17a(H)-diacholestane (20S)
30b	30dbR	———— " ———	24-propyl-13b(H),17a(H)-diacholestane (20R)
30c	30daR	———— " ———	24-propyl-13a(H),17b(H)-diacholestane (20R)
30d	30daS	———— " ———	24-propyl-13a(H),17b(H)-diacholestane (20S)
30e	30aaS	———— " ———	24-propyl-5a(H),14a(H),17a(H)-cholestane (20S)
30f	30bbR	———— " ———	24-propyl-5a(H),14b(H),17b(H)-cholestane (20R)
30g	30bbS	———— " ———	24-propyl-5a(H),14b(H),17b(H)-cholestane (20S)
30h	30aaR	———— " ———	24-propyl-5a(H),14a(H),17a(H)-cholestane (20R)

Well 6507/2-3 Saturated biomarkers, GC/MS-MRM1 detection of peak heights

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Depth, end	Depth, st	Depth, end	Type	WELL	Workup	MS-file	Seq.#	Method	Peak:	I.S. 24aaB	20Y
2871.75	2871.75	2871.75	COCH	6507/2-3	9291-42	MRS1A160994A	8	MRS1A	Heights		353000
2877.25	2877.25	2877.25	COCH	6507/2-3	9291-55	MRS1A160994A	9	MRS1A	Heights		532000
3260.34	3260.34	3260.34	COCH	6507/2-3	9291-78	MRS1A160994A	11	MRS1A	Heights		188000
3260.75	3260.75	3260.75	COCH	6507/2-3	9291-83	MRS1A160994A	12	MRS1A	Heights		171000
3845.00	3842.00	3845.00	DC	6507/2-3	Norsk Hydro	MRS1A160994A	2	MRS1A	Heights	941000	517000
3855.00	3852.00	3855.00	DC	6507/2-3	Norsk Hydro	MRS1A160994A	3	MRS1A	Heights	673000	455000
3885.00	3882.00	3885.00	DC	6507/2-3	Norsk Hydro	MRS1A160994A	4	MRS1A	Heights	588000	364000
3915.00	3912.00	3915.00	DC	6507/2-3	Norsk Hydro	MRS1A160994A	5	MRS1A	Heights	735000	377000
3945.00	3942.00	3945.00	DC	6507/2-3	Norsk Hydro	MRS1A160994A	6	MRS1A	Heights	594000	337000
3972.00	3970.00	3972.00	DC	6507/2-3	Norsk Hydro	MRS1A160994A	7	MRS1A	Heights	648000	321000
blom01	biom01	biom01		lab-ref	Norsk Hydro	MRS1A160994A	1	MRS1A	Heights		349000
biom10	biom10	biom10		lab-ref	Norsk Hydro	MRS1A160994A	10	MRS1A	Heights		392000

Well 6507/2-3 Saturated biomarkers, GC/MS-MRM1 detection of peak heights

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Depth, end	21Y	22Y	23Y	24Y	25Y	26Y	26YY	24X	21a	21k	22a	22k	23a	23k	27F	27A
2871.75	175000	0.01	193000	132000	44400	49100	47600	539000	480000	428000	375000	160000	105000	42200	438000	569000
2877.25	283000	0.01	335000	231000	72900	98300	101000	979000	686000	734000	672000	294000	221000	66100	849000	995000
3260.34	133000	0.01	196000	150000	79200	63400	52300	299000	572000	556000	539000	290000	173000	60800	459000	345000
3260.75	146000	0.01	236000	187000	102000	74100	68800	282000	592000	496000	589000	241000	189000	60700	459000	326000
3845.00	780000	0.01	1320000	1300000	639000	348000	347000	1160000	3710000	4270000	2970000	2110000	1110000	449000	2100000	593000
3855.00	597000	0.01	1010000	990000	531000	296000	276000	909000	2930000	3220000	2440000	1620000	960000	350000	1890000	539000
3885.00	458000	0.01	828000	770000	383000	226000	228000	705000	2520000	2440000	2200000	1270000	824000	263000	1540000	381000
3915.00	426000	0.01	689000	605000	322000	194000	192000	696000	2620000	2370000	2260000	1090000	925000	226000	1670000	346000
3945.00	268000	0.01	381000	354000	170000	127000	123000	604000	1750000	1620000	1610000	704000	606000	142000	1720000	270000
3972.00	252000	0.01	362000	332000	153000	111000	105000	617000	1290000	1200000	1330000	573000	458000	112000	1580000	309000
biom01	301000	0.01	460000	384000	216000	153000	141000	494000	1910000	1990000	1420000	950000	548000	226000	875000	586000
biom10	354000	0.01	474000	403000	217000	164000	156000	531000	1970000	1990000	1490000	989000	586000	224000	966000	700000

Well 6507/2-3 Saturated biomarkers, GC/MS-MRM1 detection of peak heights

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Depth, end	27E	28A	28N	29N	29A	29F	29C	30F	30O	30A	30H	30C	30G	30E	31A	31B
2871.75	53600	911000	0.01	93800	2160000	656000	373000	229000	40000	3250000	121000	378000	50000	0.01	824000	594000
2877.25	99100	1640000	0.01	196000	4100000	1210000	687000	409000	50000	5830000	219000	680000	60000	0.01	1540000	1090000
3260.34	51200	337000	0.01	946000	881000	522000	145000	300000	43000	1380000	149000	146000	46700	0.01	535000	372000
3260.75	69400	338000	0.01	1230000	957000	546000	162000	312000	49700	1550000	167000	150000	44000	0.01	604000	418000
3845.00	40000	173000	0.01	10000	2710000	2250000	260000	671000	40000	6960000	519000	380000	100000	0.01	2950000	2260000
3855.00	35000	190000	0.01	80400	2260000	2020000	219000	611000	70000	6120000	500000	343000	80000	0.01	2700000	1930000
3885.00	20000	235000	0.01	78000	1680000	1610000	180000	565000	40000	4680000	357000	243000	100000	0.01	2050000	1490000
3915.00	20000	653000	0.01	139000	1760000	1930000	197000	804000	60000	4980000	323000	253000	120000	0.01	2130000	1540000
3945.00	20000	574000	0.01	147000	1550000	1780000	182000	889000	90000	4860000	307000	254000	90000	0.01	1760000	1310000
3972.00	20000	346000	0.01	174000	1550000	1760000	180000	932000	100000	4720000	313000	257000	132000	0.01	1620000	1260000
biom01	56500	1710000	0.01	661000	2690000	1260000	556000	567000	70000	5820000	331000	433000	150000	0.01	2090000	1430000
biom10	689000	1890000	0.01	693000	2910000	1380000	603000	646000	80000	6530000	389000	501000	160000	0.01	2410000	1650000

Well 6507/2-3 Saturated biomarkers, GC/MS-MRM1 detection of peak heights

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Depth, end	31C	31D	32A	32B	33A	33B	34A	34B	35A	35B	27a	27b	27c	27d	27e	27f
2871.75	146000	26000	331000	230000	109000	75100	38600	27400	12000	5900	511000	379000	117000	147000	183000	114000
2877.25	264000	45500	604000	417000	193000	119000	65700	45800	18900	15100	953000	626000	208000	295000	354000	201000
3260.34	687000	239000	349000	251000	217000	135000	132000	79400	100000	55900	741000	487000	156000	249000	138000	170000
3260.75	75600	29000	451000	314000	289000	192000	187000	117000	126000	74500	996000	650000	199000	309000	166000	207000
3845.00	213000	74400	1830000	1240000	975000	619000	538000	366000	391000	235000	3520000	2270000	736000	1140000	814000	1270000
3855.00	195000	77300	1710000	1140000	900000	600000	500000	328000	407000	251000	3270000	2120000	709000	1040000	717000	1100000
3885.00	155000	60300	1320000	861000	731000	487000	404000	276000	339000	199000	3080000	2050000	660000	941000	573000	873000
3915.00	154000	56000	1390000	913000	790000	512000	430000	287000	370000	232000	3710000	2370000	768000	1090000	521000	843000
3945.00	142000	80000	1270000	789000	655000	441000	370000	250000	267000	166000	2700000	1730000	555000	777000	327000	509000
3972.00	128000	78000	1150000	816000	628000	408000	356000	226000	249000	150000	2030000	1250000	393000	598000	239000	379000
biom01	245000	136000	1280000	896000	902000	607000	472000	298000	366000	227000	2730000	1840000	561000	815000	583000	703000
biom10	273000	150000	1500000	1070000	1090000	701000	578000	376000	449000	284000	2790000	1780000	600000	867000	642000	705000

Well 6507/2-3 Saturated biomarkers, GC/MS-MRM1 detection of peak heights

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Depth, end	27g	27h	28a	28aa	28b	28bb	28c	28d	28e	28f	28g	28h	29a	29b	29c
2871.75	95000	333000	289000	270000	195000	203000	105000	89800	101000	192000	109000	304000	308000	250000	76400
2877.25	162000	661000	530000	554000	390000	401000	212000	170000	184000	388000	205000	598000	586000	457000	156000
3260.34	146000	157000	340000	364000	245000	267000	134000	132000	81100	183000	175000	107000	604000	441000	144000
3260.75	184000	176000	511000	500000	350000	367000	185000	180000	94700	237000	213000	137000	880000	676000	233000
3845.00	1150000	814000	1600000	1670000	1100000	1190000	631000	632000	468000	1240000	1120000	563000	1570000	1150000	411000
3855.00	964000	738000	1550000	1620000	1100000	1200000	591000	609000	437000	1110000	987000	541000	1530000	1120000	401000
3885.00	777000	587000	1450000	1540000	1000000	1110000	560000	557000	342000	907000	797000	395000	1590000	1130000	425000
3915.00	736000	517000	1790000	1750000	1150000	1270000	614000	612000	297000	853000	734000	362000	2260000	1590000	535000
3945.00	455000	290000	1100000	1160000	80000	848000	423000	394000	191000	490000	415000	190000	1840000	1300000	441000
3972.00	336000	233000	850000	878000	590000	617000	310000	325000	156000	369000	330000	160000	1560000	1150000	396000
biom01	619000	515000	1250000	1260000	900000	991000	501000	504000	374000	815000	690000	410000	2140000	1690000	541000
biom10	666000	617000	1250000	1330000	900000	1030000	520000	523000	380000	883000	742000	438000	2300000	1820000	587000

Well 6507/2-3 Saturated biomarkers, GC/MS-MRM1 detection of peak heights

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Depth, end	29d	29e	29f	29g	29h	30a	30b	30c	30d	30e	30f	30g	30h
2871.75	109000	155000	148000	155000	280000	41700	25000	16300	15600	25100	15500	24300	40600
2877.25	192000	295000	270000	310000	555000	72700	50000	35000	26800	48300	37400	46400	95300
3260.34	223000	151000	188000	219000	168000	123000	97900	53100	33500	46300	58000	65800	43100
3260.75	345000	210000	270000	299000	208000	180000	139000	90100	44900	56200	85000	92800	72800
3845.00	606000	747000	900000	999000	545000	620000	456000	376000	171000	282000	420000	472000	304000
3855.00	575000	691000	857000	840000	499000	625000	473000	355000	184000	270000	415000	417000	294000
3885.00	609000	586000	775000	750000	433000	561000	403000	303000	115000	193000	324000	315000	211000
3915.00	783000	633000	804000	790000	440000	671000	512000	401000	138000	184000	290000	307000	197000
3945.00	651000	425000	590000	570000	308000	460000	349000	276000	82000	113000	178000	186000	115000
3972.00	564000	394000	523000	500000	262000	302000	236000	207000	71100	81500	120000	132000	77900
biom01	810000	699000	840000	945000	473000	409000	327000	196000	153000	264000	280000	330000	260000
biom10	891000	762000	850000	1020000	753000	424000	337000	221000	191000	268000	310000	350000	293000

Well 6507/2-3 Saturated biomarkers, GC/MS-MRM1 detection of peak heights

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Depth, end	Sum	%L-Terp	%Terp	%L-Ste.	%Ste		%29aaS	%29nor30ab
2871.75	20287000	8	58	8	27		36	3
2877.25	37072300	7	58	7	28		35	3
3260.34	19185700	6	46	11	36		47	41
3260.75	22215300	6	42	10	43		50	44
3845.00	81484400	8	35	18	39		58	0
3855.00	72228700	7	36	16	41		58	1
3885.00	60482300	7	33	16	45		58	2
3915.00	65573000	5	34	14	47		59	3
3945.00	49547000	5	41	13	41		58	3
3972.00	43277500	5	45	11	38		60	4
biom01	60674500	4	41	12	44		60	10
biom10	66648000	4	43	11	42		50	10



Institutt for energiteknikk

POSTADRESSE	KJELLER Boks 40, 2007 Kjeller	HALDEN Boks 173, 1751 Halden,	TILGJENGELIGHET
TELEFON	+47 63 806000	+47 69 183100	FORTROLIG
TELEKS	76 361 isotp n	76 335 energ n	
TELEFAKS	+47 63 815553		
RAPPORT TYPE	RAPPORT NR. IFE/KR/F-94/089		DATO 1994-06-27
	RAPPORTTITTEL ISOTOPANALYSER, BRØNN 6507/2-3 DATARAPPORT		DATO FOR SISTE REV.
	OPPDRAKSGIVER Norsk Hydro a.s		REV. NR.
	OPPDRAKSGIVERS REF. NHT-B44-02041-00		ANTALL SIDER 14
SAMMENDRAG			DISTRIBUSJON
I gassprøve, RFT 2852.6 m, samt 26 headspacebokser (canned cuttings) fra brønn 6507/2-3 er mottatt og analysert i løpet av april - juni 1994.			Norsk Hydro a.s (12)
C ₁ - C ₅ og CO ₂ er kvantifisert. ¹³ C/ ¹² C isotopforholdet av C ₁ - C ₄ er bestemt i alle prøver hvor konsentrasjonen av enkeltkomponenter har vært tilstrekkelig. I tillegg er D/H isotopforholdet av metan bestemt i flertallet av prøvene.			Andresen, B.
BA 94-1403-1			Råheim, A.
			Throndsen, T.
			Arkiv (2)
STIKKORD			
	NAVN	DATO	SIGNATUR
UTARBEIDET AV	Bjørge Andresen	1994-06-27	<i>Bjørge Andresen</i>
KONTROLLERT AV	Torbjørn Throndsen	1994-06-27	<i>Torbjørn Throndsen</i>
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1 INNLEDNING

En gassprøve; RFT 2852.6 m samt 26 headspacebokser (canned cuttings) fra brønn 6507/2-3 er mottatt og analysert i perioden april til juni, 1994.

C₁ - C₅ og CO₂ er kvantifisert. ¹³C/¹²C isotopforholdet av C₁ - C₄ er bestemt i alle prøver hvor konsentrasjonen av enkeltkomponentene har vært tilstrekkelig. I tillegg er D/H isotopforholdet av metan bestemt i flertallet av prøvene.

2 ANALYSEPROSEDYRER

Gassprøvene er kvantifisert gass-kromatografisk på en Porapak QS kolonne og varmetråds-/flammeionisasjon-detektor. Headspaceboksene er ristet på ristemaskin i ca. 2 timer før 1 ml av headspacegassen er samlet med sprøyte for kvantifisering. Deteksjonsgrenser for bestemmelse av hydrokarboner er 0.01 µl/ml (10 ppm) og 0.01 µl/ml (100 ppm) av CO₂.

For isotopbestemmelser er ca. 20 ml av gassprøvene separert gass-kromatografisk og de forskjellige hydrokarbon komponentene forbrent i individuelle CuO ovner ved 850°C. Forbrenningsproduktene CO₂ og H₂O er samlet og separert ved hjelp av ulike kjølefeller. CO₂ opprinnelig tilstede i prøvene er samlet direkte etter separasjonen for massespektrometrisk analyse.

Vann dannet ved forbrenningen av metan er redusert med Zn i kvarts ampuller for å danne hydrogen for isotopbestemmelser.

Isotopbestemmelsene er foretatt på Finnigan MAT 251 og Finnigan Delta massepektrometere. IFEs verdi på NBS 22 er $29.77 \pm .06\%$ PDB.

3 RESULTATER

Tabell 1 viser volumsammensetningen av RFT-gassen. Resultatene er normaliserte. Tabell 2 viser isotopsammensetningen av den samme gassprøven. Tabell 3 viser konsentrasjonen av de ulike komponentene, tabell 4 normalisert volumsammensetning og tabell 5 isotopsammensetningen av headspacegassen.

Usikkerheten i $\delta^{13}\text{C}$ verdien (bestemt ved gjentatt analyse av standard gass) er $\pm 0.3\text{‰}$ PDB og inkluderer all analysetrinn. Tilsvarende usikkerhet i δD verdien er $\pm 5\text{‰}$ SMOW.

Der hvor ingen konsentrasjoner er oppgitt i tabellene, ligger konsentrasjonen under deteksjonsgrensen.

På grunn av lave konsentrasjoner er $i\text{C}_4$ og $n\text{C}_4$ fra RFT-gassen og flertallet av headspacegassene isotopbestemt i samme fraksjon (markert med * i tabell 5).

Isotopsammensetningen av enkeltkomponentene av RFT-gassen er plottet i modenhetsdiagram etter James (1983) i figur 1. Resultatene er plottet mot dybde i figurene 2 - 6. Figur 7 og 8 viser isotopdata plottet i diagram etter Schoell (1983).

4 LITTERATUR

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Robert, P. (1985). Methods and means of paleothermal analysis. *Organic Methamorphism and Geothermal History*, Elf-Aquitaine and D. Reidel Publishing Company.

Schoell, M. (1983). Genetic characterisation of natural gases. *The American Association of Petroleum Geologists Bulletin*, **67**, 2225-2238.

Tabell 1. Volumsammensetning av RFT-gassprøve fra brønn 6507/2-3.

Sample	IFE no	C ₁ %	C ₂ %	C ₃ %	iC ₄ %	nC ₄ %	iC ₅ %	nC ₅ %	CO ₂ %	ΣC ₁ -C ₅	Wet- ness	iC ₄ / nC ₄ /
RFT 2852.6 m	13851	83.5	1.5	0.3	0.04	0.07	nd	nd	14.5	85.5	0.02	0.52

nd - ikke bestemt

Tabell 2. Isotopsammensetning av RFT-gassprøve fra brønn 6507/2-3.

Sample	IFE no	C ₁ δ ¹³ C ‰ PDB	C ₁ δ D ‰ SMOW	C ₂ δ ¹³ C ‰ PDB	C ₃ δ ¹³ C ‰ PDB	C ₄ δ ¹³ C ‰ PDB	CO ₂ δ ¹³ C ‰ PDB	CO ₂ δ ¹⁸ O ‰ PDB
RFT 2852.6 m	13851	-40.0	-176	-30.1	-28.6	-29.5	-19.1	-3.1

Tabell 3. Konsentrasjon av gasskomponenter i headspacegass, brønn 6507/2-3.

IFE no.	Depth (m)	C ₁ ppm	C ₂ ppm	C ₃ ppm	iC ₄ ppm	nC ₄ ppm	iC ₅ ppm	nC ₅ ppm	CO ₂ ppm
13829	1510	16100	21	13					
13830	1540	27900	55	69					
14031	1620	15300	49	103	10				3800
13832	1710	22600	88	208	68	16			4400
14032	1790	20700	70	110	36	18			4400
13834	1910	25500	152						1000
14033	2020	7100	70						
14034	2050	5600		11					
13836	2110	6300	55	25					
13837	2210	16500	305	154	66	59	73	36	
13838	2310	22200	439	183	70	55	86	44	
13839	2410	24900	670	400	180	139	185	67	240
13840	2510	15400	669	420	185	169	158	55	480
13841	2610	25100	1290	580	210	160	160	50	600
13842	2710	39200	2890	1400	328	255	193	89	1100
13843	2810	21200	2130	1610	250	290	140	80	360
13844	2840	11900	1320	1350	290	470	182	127	840
13868	2910	17000	1740	1480	300	600	520	560	
13869	3110	4500	1950	1680	340	450	167	100	
13940	3310	5500	2100	2830	730	1940	950	720	840
13941	3510	2200	476	325	13	82			1900
13942	3580	2100	390	83					1700
13943	3710	4800	3000	12300	3100	14500	3800	5100	2000
13944	3810	5800	3750	10400	1890	6450	1480	1920	2100
13945	3880	67000	112000	195000	24400	86700	15300	16400	
13946	3960	23100	53100	109400	16200	52900	8250	10300	510

Tabell 4. Volumsammensetning av headspacegass, brønn 6507/2-3.

IFE no	Depth (m)		C ₂ %	C ₃ %	iC ₄ %	nC ₄ %	iC ₅ %	nC ₅ %	Wet-ness	iC ₄ / nC ₄
13829	1510	99.8	0.13	0.08					0.002	
13830	1540	99.5	0.20	0.25	0.02	0.02			0.005	1.17
14031	1620	98.9	0.32	0.67	0.06	0.05			0.011	1.25
13832	1710	98.3	0.38	0.91	0.30	0.07			0.017	4.25
14032	1790	98.9	0.33	0.53	0.17	0.09			0.011	2.00
13834	1910	99.4	0.59	0.03					0.006	
14033	2020	99.0	0.98						0.010	
14034	2050	99.8	0.00	0.20					0.002	
13836	2110	98.6	0.86	0.39	0.09	0.08			0.014	1.20
13837	2210	96.0	1.8	0.90	0.38	0.34	0.42	0.21	0.040	1.12
13838	2310	96.2	1.9	0.79	0.30	0.24	0.37	0.19	0.038	1.27
13839	2410	93.8	2.5	1.5	0.68	0.52	0.70	0.25	0.062	1.29
13840	2510	90.3	3.9	2.5	1.1	0.99	0.93	0.32	0.097	1.09
13841	2610	91.1	4.7	2.1	0.76	0.58	0.58	0.18	0.089	1.31
13842	2710	88.4	6.5	3.2	0.74	0.57	0.44	0.20	0.116	1.29
13843	2810	82.5	8.3	6.3	0.97	1.1	0.54	0.31	0.175	0.86
13844	2840	76.1	8.4	8.6	1.9	3.0	1.2	0.81	0.239	0.62
13868	2910	76.6	7.8	6.7	1.4	2.7	2.3	2.5	0.234	0.50
13869	3110	49.0	21.2	18.3	3.7	4.9	1.8	1.1	0.510	0.76
13940	3310	37.2	14.2	19.2	4.9	13.1	6.4	4.9	0.628	0.38
13941	3510	71.1	15.4	10.5	0.4	2.6			0.289	0.16
13942	3580	81.6	15.2	3.2					0.184	
13943	3710	10.3	6.4	26.4	6.65	31.1	8.2	10.9	0.897	0.21
13944	3810	18.3	11.8	32.8	5.96	20.4	4.7	6.1	0.817	0.29
13945	3880	13.0	21.7	37.7	4.72	16.8	3.0	3.2	0.870	0.28
13946	3960	8.5	19.4	40.0	5.9	19.4	3.0	3.8	0.915	0.31

Tabell 5. Isotopsammensetning av headspacegass, brønn 6507/2-3.

IFE no.	Depth (m)	C ₁ δ ¹³ C ‰ PDB	C ₁ δ D ‰ SMOW	C ₂ δ ¹³ C ‰ PDB	C ₃ δ ¹³ C ‰ PDB	iC ₄ δ ¹³ C ‰ PDB	nC ₄ δ ¹³ C ‰ PDB	CO ₂ δ ¹³ C ‰ PDB	CO ₂ δ ¹⁸ O ‰ PDB
13829	1510	-63.5	-189						
13830	1540	-66.7	nd						
14031	1620	-66.9	-274					-7.3	-6.9
13832	1710	-65.5	-187					-6.1	-2.9
14032	1790	-66.7	-276					-15.9	-6.3
13834	1910	-65.7	-170					-17.4	-5.7
14033	2020	-60.7	nd						
14034	2050	-54.9	nd						
13836	2110	-47.9	nd						
13837	2210	-45.1	-221						
13838	2310	-46.6	-187						
13839	2410	-43.3	-308	-21.7	-26.7	-22.1*			
13840	2510	-42.5	-224	-25.4	-31.1	-28.0*		-23.0	-7.0
13841	2610	-41.6	-234	-31.7	-34.7	-31.0*		-20.9	-6.5
13842	2710	-40.3	-184	-21.7	-24.8	-24.8*			
13843	2810	-40.8	-206	-28.2	-28.8	-27.7*			
13844	2840	-39.9	nd	-27.3	-28.1	-27.0*		-32.4	-9.7
13868	2910	-39.1	nd	-27.9	-26.7	-27.7*			
13869	3110	-39.3	-201	-27.9	-28.0	-28.7*		-16.8	-5.4
13940	3310	-39.0	nd	-30.6	-29.1	-30.8	-33.4	-24.4	-7.1
13941	3510	-42.4	-321	-26.3	-28.1	-22.1*		-33.9	-7.0
13942	3580	-44.8	-234						
13943	3710	-46.2	nd	-37.6	-33.8	-33.8*		-34.5	
13944	3810	-47.2	nd	-35.3	-34.2	-32.5	-33.1	-27.8	-3.3
13945	3880	-48.1	-290	-39.2	-35.3	-33.4	-34.6	-25.3	-4.7
13946	3960	-47.8	-217	-38.5	-34.0	-33.2*	1	-16.8	-5.4

Prepared for

HYDRO

RESERVOIR GEOCHEMICAL DATA, WELL 6507/2-3

Report Number 94/9291/01/01

August 1994

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94-9291-01

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RESERVOIR GEOCHEMICAL DATA, WELL 6507/2-3



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TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

JOB 9291	DEPTH/ IDENTITY	GROSS LITHOLOGIC DESCRIPTION	G S A COLOUR CODE	TOTAL ORGANIC CARBON (Wt. %)
GEOCHEM SAMPLE NUMBER				

WELL: 6507/2-3

9291-001	2850.50m	A100% SANDSTONE - fine grained, quartz cement, mod hard, micaceous, trace coaly debris, no F, no C, very light grey.	N8	
9291-002	2851.00m	A100% SANDSTONE - as 001A, no F, no C, very light grey.	N8	
9291-003	2851.50m	A100% SANDSTONE - as 001A, no F, no C, very light grey.	N8	
9291-004	2852.00m	A100% SANDSTONE - as 001A, no F, no C, very light grey.	N8	
9291-005	2852.50m	A100% SANDSTONE - as 001A, no F, no C, very light grey.	N8	
9291-006	2853.00m	A100% SANDSTONE - as 001A, no F, no C, very light grey.	N8	
9291-007	2853.25m	A100% SANDSTONE - as 001A, no F, no C, very light grey.	N8	
9291-008	2853.75m	A100% SANDSTONE - as 001A, no F, no C, very light grey.	N8	
9291-009	2854.50m	A100% SANDSTONE - as 001A, no F, no C, very light grey.	N8	
9291-010	2855.00m	A100% SANDSTONE - fine grained, quartz cement, mod hard, sl micaceous, trace coaly debris, no F, no C, very light grey.	N8	
9291-011	2855.50m	A100% SANDSTONE - as 010A, no F, no C, very light grey.	N8	
9291-012	2856.00m	A100% SANDSTONE - as 010A, no F, no C, very light grey.	N8	
9291-013	2856.50m	A100% SANDSTONE - as 010A, no F, no C, very light grey.	N8	
9291-014	2857.00m	A100% SANDSTONE - as 010A, no F, no C, very light grey.	N8	
9291-015	2857.50m	A100% SANDSTONE - as 010A, no F, no C, very light grey.	N8	
9291-016	2858.00m	A100% SANDSTONE - as 010A, no F, no C, very light grey.	N8	

Abbreviations = arenaceous, argillaceous, calcareous, Cut, dolomite, Fluorescence, foraminifera fossiliferous, Lost Circulation Material, moderately, occasionally, slightly, very

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

JOB 9291	DEPTH/ IDENTITY	GROSS LITHOLOGIC DESCRIPTION	G S A COLOUR CODE	TOTAL ORGANIC CARBON (Wt. %)
GEOCHEM SAMPLE NUMBER				
9291-017	2858.50m	A100% SANDSTONE - as 010A, no F, no C, very light grey.	N8	
9291-018	2859.25m	A100% SANDSTONE - as 010A, no F, no C, very light grey.	N8	
9291-019	2859.75m	A100% SANDSTONE - fine grained, quartz cement, mod hard, sl micaceous, no F, no C, very light grey.	N8	
9291-020	2860.25m	A100% SANDSTONE - as 019A, no F, no C, very light grey.	N8	
9291-021	2860.75m	A100% SANDSTONE - fine grained, arg, quartz cement, micaceous, common coaly debris, no F, no C, medium light grey to very light grey.	N6 N8	-
9291-022	2861.00m	A100% SANDSTONE - fine grained, quartz cement, micaceous, trace coaly debris, no F, no C, very light grey	N8	
9291-023	2861.50m	A100% SANDSTONE - as 022A, no F, no C, very light grey.	N8	
9291-024	2862.25m	A100% SANDSTONE - as 022A, no F, no C, very light grey.	N8	
9291-025	2862.75m	A100% SANDSTONE - as 022A, no F, no C, very light grey.	N8	
9291-026	2863.50m	A100% SANDSTONE - as 022A, no F, no C, very light grey.	N8	
9291-027	2864.00m	A100% SANDSTONE - as 022A, no F, no C, very light grey.	N8	
9291-028	2864.50m	A100% SANDSTONE - as 022A, no F, no C, very light grey.	N8	
9291-029	2865.00m	A100% SANDSTONE - as 022A, no F, no C, very light grey.	N8	
9291-030	2865.50m	A100% SANDSTONE - fine grained, quartz cement, micaceous, common coaly debris, no F, no C, very light grey	N8	
9291-031	2866.50m	A100% SANDSTONE - fine grained, quartz cement, micaceous, trace coaly debris, no F, no C, very light grey	N8	

Abbreviations = arenaceous, argillaceous, calcareous, Cut, dolomite, Fluorescence, foraminifera fossiliferous, Lost Circulation Material, moderately, occasionally, slightly, very

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

JOB 9291				
GEOCHEM SAMPLE NUMBER	DEPTH/ IDENTITY	GROSS LITHOLOGIC DESCRIPTION	G S A COLOUR CODE	TOTAL ORGANIC CARBON (Wt. %)
9291-032	2867.00m	A100% SANDSTONE - fine to med grained, quartz cement, micaceous, no F, no C, very light grey.	N8	
9291-033	2867.50m	A100% SANDSTONE - as 032A, no F, no C, very light grey.	N8	
9291-034	2868.25m	A100% SANDSTONE - as 032A, no F, no C, very light grey.	N8	
9291-035	2868.75m	A100% ARG SANDSTONE - blocky, v hard, fine grained, sl micaceous, grades to sandy claystone, no F, no C, medium grey to very light grey.	N5 N8	-
9291-036	2869.50m	A100% SANDSTONE - fine to med grained, quartz cement, sl micaceous, mod soft, no F, no C, very light grey.	N8	
9291-037	2870.50m	A100% SANDSTONE - as 036A, no F, no C, very light grey.	N8	
9291-038	2870.75m	A100% SANDSTONE - as 036A, no F, no C, very light grey.	N8	
9291-039	2871.00m	A100% SANDSTONE - as 036A, no F, no C, very light grey.	N8	
9291-040	2871.25m	A100% SANDSTONE - as 036A, no F, no C, very light grey.	N8	
9291-041	2871.50m	A100% SANDSTONE - as 036A, no F, no C, very light grey.	N8	
9291-042	2871.75m	A100% SANDSTONE - as 036A, no F, no C, very light grey.	N8	
9291-043	2872.00m	A100% SANDSTONE - as 036A, no F, no C, very light grey.	N8	
9291-044	2872.25m	A100% SANDSTONE - as 036A, no F, no C, very light grey.	N8	
9291-045	2872.75m	A100% SANDSTONE - as 036A, no F, no C, very light grey.	N8	
9291-046	2873.25m	A100% SANDSTONE - fine to med grained, quartz cement, sl micaceous, mod soft, no F, no C, very light grey.	N8	
9291-047	2873.50m	A100% SANDSTONE - as 046A, no F, no C, very light grey.	N8	

Abbreviations = arenaceous, argillaceous, calcareous, Cut, dolomite, Fluorescence, foraminifera fossiliferous, Lost Circulation Material, moderately, occasionally, slightly, very

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

JOB 9291	DEPTH/ IDENTITY	GROSS LITHOLOGIC DESCRIPTION	G S A COLOUR CODE	TOTAL ORGANIC CARBON (Wt. %)
GEOCHEM SAMPLE NUMBER				
9291-048	2874.00m	A100% SANDSTONE - as 046A, no F, no C, very light grey.	N8	
9291-049	2874.50m	A100% SANDSTONE - as 046A, no F, no C, very light grey.	N8	
9291-050	2875.00m	A100% SANDSTONE - as 046A, no F, no C, very light grey.	N8	
9291-051	2875.50m	A100% SANDSTONE - as 046A, no F, no C, very light grey.	N8	
9291-052	2876.50m	A100% SANDSTONE - as 046A, no F, no C, very light grey.	N8	
9291-053	2876.75m	A100% SANDSTONE - fine to med grained, quartz cement, arg bands, sl micaceous, no F, no C, medium dark grey to very light grey.	N4 N8	-
9291-054	2877.00m	A100% SANDSTONE - fine grained, quartz cement, sl micaceous, no F, no C, very light grey.	N8	
9291-055	2877.25m	A100% SANDSTONE - as 054A, no F, no C, very light grey.	N8	
9291-056	2878.00m	A100% SANDSTONE - as 054A, no F, no C, very light grey.	N8	
9291-057	2878.50m	A100% SANDSTONE - as 054A, no F, no C, very light grey.	N8	
9291-058	2879.00m	A100% SANDSTONE - as 054A, no F, no C, very light grey.	N8	
9291-059	2879.50m	A100% SANDSTONE - as 054A, no F, no C, very light grey.	N8	
9291-060	2880.00m	A100% SANDSTONE - as 054A, no F, no C, very light grey.	N8	
9291-061	2880.50m	A100% SANDSTONE - as 054A, no F, no C, very light grey.	N8	
9291-062	2881.00m	A100% SANDSTONE - as 054A, no F, no C, very light grey.	N8	
9291-063	2881.50m	A100% SANDSTONE - as 054A, no F, no C, very light grey.	N8	

Abbreviations = arenaceous, argillaceous, calcareous, Cut, dolomite, Fluorescence, foraminifera
fossiliferous, Lost Circulation Material, moderately, occasionally, slightly, very

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

JOB 9291				
GEOCHEM SAMPLE NUMBER	DEPTH/ IDENTITY	GROSS LITHOLOGIC DESCRIPTION	G S A COLOUR CODE	TOTAL ORGANIC CARBON (Wt. %)
9291-064	2882.25m	A100% SANDSTONE - fine grained, quartz cement, sl micaceous, no F, no C, very light grey.	N8	
9291-065	2883.75m	A100% SANDSTONE - as 064A, no F, no C, very light grey.	N8	
9291-066	2884.25m	A100% SANDSTONE - as 064A, no F, no C, very light grey.	N8	
9291-067	2885.00m	A100% SANDSTONE - as 064A, no F, no C, very light grey.	N8	
9291-068	2886.50m	A100% SANDSTONE - as 064A, no F, no C, very light grey.	N8	
9291-069	2887.00m	A100% SANDSTONE - as 064A, no F, no C, very light grey.	N8	
9291-070	2887.50m	A100% SANDSTONE - as 064A, no F, no C, very light grey.	N8	
9291-071	3178.5m	A100% SANDSTONE - as 064A, no F, no C, very light grey.	N8	
9291-072	3239.0m	A100% SANDSTONE - as 064A, no F, no C, very light grey.	N8	
9291-073	3259.08m	A100% SANDSTONE - fine grained, blocky, hard, arg, micaceous, no F, no C, medium dark grey to very light grey	N4 N8	-
9291-074	3259.15m	A100% SANDSTONE - as 073A, no F, no C, medium dark grey to very light grey	N4 N8	-
9291-075	3259.25m	A100% SANDSTONE - as 073A, no F, no C, medium dark grey to very light grey	N4 N8	-
9291-076	3260.15m	A100% SANDSTONE - fine grained, common arg laminae, mod hard, micaceous, no F, no C, medium dark grey to very light grey.	N4 N8	- 4.57
9291-077	3260.25m	A100% SANDSTONE - fine grained, common arg laminae, mod hard, micaceous, no F, no C, medium dark grey to very light grey.	N4 N8	- 7.05
9291-078	3260.34m	A100% SANDY SILTSTONE - blocky, hard, common sandstone laminae, dark grey	N3	8.33

Abbreviations = arenaceous, argillaceous, calcareous, Cut, dolomite, Fluorescence, foraminifera fossiliferous, Lost Circulation Material, moderately, occasionally, slightly, very

TABLE 1
ORGANIC CARBON RESULTS AND GROSS LITHOLOGIC DESCRIPTIONS

JOB 9291				
GEOCHEM SAMPLE NUMBER	DEPTH/ IDENTITY	GROSS LITHOLOGIC DESCRIPTION	G S A COLOUR CODE	TOTAL ORGANIC CARBON (Wt. %)
9291-079	3260.44m	A100% ARG SANDSTONE - blocky, mod hard, abundant arg laminae, micaceous, no F, no C, dark grey to medium light grey.	N3 N6	- 4.39
9291-080	3260.50m	A100% ARG SANDSTONE - as 079A, dark grey to medium light grey.	N3 N6	- 2.81, 2.78
9291-081	3260.56m	A100% SANDSTONE - fine grained, blocky, mod hard, quartz cement, micaceous, no F, no C, pale yellowish brown.	10YR6/2	
9291-082	3260.67m	A100% SANDSTONE - as 081A, no F, no C, pale yellowish brown.	10YR6/2	
9291-083	3260.75m	A100% SANDSTONE - as 081A, no F, no C, pale yellowish brown.	10YR6/2	
9291-084	3260.82m	A100% SANDSTONE - as 081A, no F, no C, pale yellowish brown.	10YR6/2	
9291-085	3260.90m	A100% SANDSTONE - as 081A, no F, no C, pale yellowish brown.	10YR6/2	
9291-086	3271.5m	A100% SANDSTONE - as 081A, no F, no C, pale yellowish brown.	10YR6/2	
9291-087	3738.0m	A100% CLAYSTONE - blocky, soft, sandy, sl calc, dark yellowish brown to pale yellowish brown.	10YR4/2- 10YR6/2	

TABLE 2
STANDARD PYROLYSIS DATA

JOB 9291								
GEOCHEM SAMPLE NUMBER	DEPTH/ IDENTITY	ORGANIC CARBON (%)	S0 (mg/g)	S1 (mg/g)	S2 (mg/g)	PRODN INDEX	HYDGN INDEX	TMAX (°C)

WELL: 6507/2-3

9291-076	3260.15m	4.57	0.02	3.42	3.90	0.47	85.3	437
9291-077	3260.25m	7.05	0.02	5.53	6.15	0.47	87.2	440
9291-078	3260.34m	8.33	0.05	5.42	6.43	0.46	77.2	443
9291-079	3260.44m	4.39	0.02	1.88	2.46	0.43	56.0	436
9291-080	3260.50m	2.80	0.01	2.27	2.58	0.47	92.1	439

TABLE 3
STANDARD PYROLYSIS DATA

JOB 9291								
GEOCHEM SAMPLE NUMBER	DEPTH/ IDENTITY	ORGANIC CARBON (%)	S0 (mg/g)	S1 (mg/g)	S2 (mg/g)	PRODN INDEX	HYDGN INDEX	TMAX (°C)

WELL: 6507/2-3

9291-076	3260.15m	3.66	0.02	0.27	2.63	0.09	71.9	446
9291-077	3260.25m	5.89	0.02	0.55	4.24	0.11	72.0	442
9291-078	3260.34m	7.80	0.01	0.55	6.30	0.08	80.8	442
9291-079	3260.44m	3.91	0.01	0.36	2.40	0.13	61.4	441
9291-080	3260.50m	2.22	0.00	0.23	1.40	0.14	63.1	438

EXTRACTED LITHOLOGIES

TABLE 4
CONCENTRATION (PPM) OF EXTRACTED C₁₅₊ MATERIAL IN ROCK

JOB 9291 GEOCHEM SAMPLE NUMBER	L I T H O	DEPTH/ IDENTITY	TOTAL EXTRACT	HYDROCARBONS			NON HYDROCARBONS			
				Saturates	Aromatics	TOTAL	Preciptd. Asphaltenes	Eluted NSO s	Non-Eluted NSO s	TOTAL

WELL: 6507/2-3

9291-001	2850.50m	661	258	41	300	124	236	2	362
9291-002	2851.00m	704	260	44	304	156	243	1	401
9291-003	2851.50m	1070	207	29	236	104	724	7	834
9291-004	2852.00m	949	288	21	309	106	529	5	640
9291-005	2852.50m	737	289	26	315	132	283	7	422
9291-006	2853.00m	965	288	26	314	152	495	4	651
9291-007	2853.25m	644	286	27	312	84	245	2	331
9291-008	2853.75m	1028	421	121	542	289	195	2	486
9291-009	2854.50m	975	286	26	312	113	548	3	664
9291-010	2855.00m	947	212	27	239	89	616	3	708
9291-011	2855.50m	715	182	22	205	75	433	2	510
9291-012	2856.00m	726	173	22	196	158	369	3	530
9291-013	2856.50m	521	195	20	215	112	194	1	307
9291-014	2857.00m	368	132	11	142	108	116	1	226
9291-015	2857.50m	435	129	10	138	69	226	2	297
9291-016	2858.00m	673	135	20	155	135	379	3	518
9291-017	2858.50m	493	157	13	170	89	231	2	323
9291-018	2859.25m	608	111	31	141	104	361	2	466
9291-019	2859.75m	853	304	39	343	123	383	4	510
9291-020	2860.25m	559	191	18	210	116	230	3	349
9291-021	2860.75m	939	304	45	350	383	204	1	589
9291-022	2861.00m	660	86	25	112	317	228	3	549
9291-023	2861.50m	680	282	28	309	149	220	2	371
9291-024	2862.25m	767	310	31	341	197	227	1	425
9291-025	2862.75m	876	220	25	245	177	450	4	631
9291-026	2863.50m	839	212	19	231	127	479	3	608
9291-027	2864.00m	1105	150	32	182	205	714	4	923
9291-028	2864.50m	1009	182	18	200	102	688	2	792
9291-029	2865.00m	695	178	23	200	139	352	3	494
9291-030	2865.50m	2292	1115	144	1259	573	455	4	1033
9291-031	2866.50m	936	259	19	278	76	577	5	658
9291-032	2867.00m	449	152	17	169	117	161	2	280

TABLE 4
CONCENTRATION (PPM) OF EXTRACTED C₁₅₊ MATERIAL IN ROCK

JOB 9291 GEOCHEM SAMPLE NUMBER	L I T H O	DEPTH/ IDENTITY	TOTAL EXTRACT	HYDROCARBONS			NON HYDROCARBONS			
				Saturates	Aromatics	TOTAL	Preciptd. Asphaltenes	Eluted NSO s	Non-Eluted NSO s	TOTAL
9291-033		2867.50m	804	129	23	152	198	451	4	652
9291-034		2868.25m	862	145	27	172	179	508	3	690
9291-035		2868.75m	618	246	27	274	53	288	4	344
9291-036		2869.50m	1430	187	32	219	109	1095	7	1211
9291-037		2870.50m	1295	152	23	175	196	920	5	1120
9291-038		2870.75m	722	148	38	186	193	340	3	536
9291-039		2871.00m	961	362	27	389	59	510	2	572
9291-040		2871.25m	742	209	47	256	136	346	5	486
9291-041		2871.50m	2083	1130	134	1263	296	517	8	820
9291-042		2871.75m	2569	1734	191	1925	235	396	13	644
9291-043		2872.00m	496	105	43	148	64	282	2	349
9291-044		2872.25m	817	129	79	208	279	327	4	610
9291-045		2872.75m	1075	160	98	258	291	521	5	817
9291-046		2873.25m	672	102	50	151	179	338	4	521
9291-047		2873.50m	822	124	84	208	252	358	3	613
9291-048		2874.00m	866	270	40	311	132	420	3	555
9291-049		2874.50m	1039	232	59	291	333	412	3	747
9291-050		2875.00m	603	63	25	88	155	357	3	515
9291-051		2875.50m	906	77	31	107	232	561	6	799
9291-052		2876.50m	866	183	41	224	119	520	4	643
9291-053		2876.75m	1438	665	98	764	208	461	5	675
9291-054		2877.00m	1026	206	51	257	215	550	4	769
9291-055		2877.25m	4393	3091	364	3454	112	817	9	939
9291-056		2878.00m	5935	4086	348	4434	228	1250	23	1501
9291-057		2878.50m	2513	1880	158	2038	159	306	10	475
9291-058		2879.00m	1089	223	18	241	182	663	3	848
9291-059		2879.50m	719	170	36	206	160	350	3	513
9291-060		2880.00m	1048	340	28	368	125	552	2	680
9291-061		2880.50m	1243	325	80	405	252	581	6	838
9291-062		2881.00m	677	211	89	299	148	227	2	377
9291-063		2881.50m	1165	421	141	562	110	489	4	603
9291-064		2882.25m	456	55	16	71	180	204	1	385
9291-065		2883.75m	407	37	17	54	176	175	2	353
9291-066		2884.25m	619	98	36	135	183	298	3	484

TABLE 4
 CONCENTRATION (PPM) OF EXTRACTED C₁₅₊ MATERIAL IN ROCK

JOB 9291 GEOCHEM SAMPLE NUMBER	L I T H O	DEPTH/ IDENTITY	TOTAL EXTRACT	HYDROCARBONS			NON HYDROCARBONS			
				Saturates	Aromatics	TOTAL	Preciptd. Asphaltenes	Eluted NSO s	Non-Eluted NSO s	TOTAL
9291-067		2885.00m	1042	44	8	53	247	736	6	989
9291-068		2886.50m	670	87	54	141	235	292	3	529
9291-069		2887.00m	765	140	43	183	114	465	3	582
9291-070		2887.50m	570	78	29	108	183	277	2	462
9291-071		3178.5m	4477	2939	289	3228	615	622	13	1249
9291-072		3239.0m	3181	1582	285	1867	606	700	8	1314
9291-073		3259.08m	2428	1194	313	1507	460	454	7	921
9291-074		3259.15m	1314	447	129	576	413	322	3	738
9291-075		3259.25m	3733	2365	393	2758	397	564	14	975
9291-076		3260.15m	11452	7488	1403	8891	905	1624	32	2561
9291-077		3260.25m	11213	6603	1336	7939	1387	1866	21	3274
9291-078		3260.34m	12367	7653	1510	9163	1013	2168	23	3204
9291-079		3260.44m	6734	3805	861	4666	835	1221	12	2068
9291-080		3260.50m	5728	3799	678	4477	301	938	11	1251
9291-081		3260.56m	3655	2462	346	2808	226	610	11	847
9291-082		3260.67m	5904	4535	570	5105	149	639	12	800
9291-083		3260.75m	8516	6522	920	7442	301	764	9	1074
9291-084		3260.82m	6703	5145	618	5763	327	599	14	940
9291-085		3260.90m	7974	6200	718	6917	253	780	24	1056
9291-086		3271.5m	6925	5877	592	6469	222	926	16	1165
9291-087		3738.0m	7604	5328	738	6066	294	1228	17	1538

TABLE 5
COMPOSITION (NORMALISED %) OF C₁₅₊ MATERIAL

JOB 9291 GEOCHEM SAMPLE NUMBER	L I T H O	DEPTH/ IDENTITY	HYDROCARBONS		NON HYDROCARBONS		
			Saturates	Aromatics	Preciptd. Asphaltenes	Eluted NSO s	Non-Eluted NSO s

WELL: 6507/2-3

9291-001	2850.50m	39.08	6.23	18.77	35.71	0.28
9291-002	2851.00m	36.86	6.28	22.19	34.49	0.19
9291-003	2851.50m	19.38	2.68	9.69	67.62	0.63
9291-004	2852.00m	30.38	2.22	11.13	55.72	0.55
9291-005	2852.50m	39.22	3.52	17.92	38.35	1.00
9291-006	2853.00m	29.80	2.74	15.74	51.27	0.46
9291-007	2853.25m	44.41	4.13	13.05	38.11	0.30
9291-008	2853.75m	40.94	11.75	28.14	18.96	0.21
9291-009	2854.50m	29.35	2.62	11.59	56.14	0.31
9291-010	2855.00m	22.36	2.90	9.43	65.01	0.30
9291-011	2855.50m	25.52	3.13	10.44	60.61	0.29
9291-012	2856.00m	23.87	3.08	21.80	50.88	0.38
9291-013	2856.50m	37.36	3.83	21.45	37.19	0.17
9291-014	2857.00m	35.80	2.91	29.46	31.57	0.26
9291-015	2857.50m	29.56	2.25	15.90	51.94	0.35
9291-016	2858.00m	20.11	2.90	20.11	56.39	0.48
9291-017	2858.50m	31.85	2.63	18.10	46.92	0.51
9291-018	2859.25m	18.22	5.04	17.05	59.42	0.28
9291-019	2859.75m	35.60	4.60	14.38	44.91	0.52
9291-020	2860.25m	34.26	3.30	20.78	41.13	0.52
9291-021	2860.75m	32.44	4.82	40.83	21.75	0.16
9291-022	2861.00m	13.07	3.84	48.08	34.59	0.43
9291-023	2861.50m	41.39	4.09	21.91	32.26	0.35
9291-024	2862.25m	40.43	4.08	25.64	29.66	0.19
9291-025	2862.75m	25.09	2.85	20.19	51.43	0.43
9291-026	2863.50m	25.26	2.28	15.09	57.02	0.35
9291-027	2864.00m	13.58	2.92	18.54	64.58	0.39
9291-028	2864.50m	18.06	1.76	10.09	68.17	0.25
9291-029	2865.00m	25.58	3.29	20.07	50.62	0.44
9291-030	2865.50m	48.66	6.29	25.00	19.86	0.19
9291-031	2866.50m	27.63	2.05	8.09	61.67	0.56
9291-032	2867.00m	33.78	3.78	26.12	35.82	0.51
9291-033	2867.50m	16.02	2.85	24.57	56.10	0.46
9291-034	2868.25m	16.86	3.12	20.74	58.95	0.33
9291-035	2868.75m	39.87	4.42	8.53	46.60	0.58
9291-036	2869.50m	13.11	2.21	7.61	76.58	0.48
9291-037	2870.50m	11.71	1.77	15.11	71.03	0.38
9291-038	2870.75m	20.50	5.25	26.72	47.10	0.43
9291-039	2871.00m	37.69	2.79	6.15	53.12	0.25
9291-040	2871.25m	28.10	6.34	18.30	46.60	0.65
9291-041	2871.50m	54.22	6.42	14.18	24.79	0.39
9291-042	2871.75m	67.51	7.44	9.13	15.43	0.49
9291-043	2872.00m	21.15	8.63	12.99	56.86	0.37
9291-044	2872.25m	15.75	9.65	34.10	40.02	0.47
9291-045	2872.75m	14.86	9.10	27.09	48.46	0.48
9291-046	2873.25m	15.16	7.37	26.58	50.34	0.55
9291-047	2873.50m	15.13	10.24	30.71	43.53	0.39
9291-048	2874.00m	31.22	4.68	15.25	48.49	0.36
9291-049	2874.50m	22.31	5.73	32.02	39.66	0.27
9291-050	2875.00m	10.39	4.18	25.78	59.11	0.54
9291-051	2875.50m	8.46	3.39	25.61	61.87	0.67
9291-052	2876.50m	21.11	4.70	13.69	60.03	0.47
9291-053	2876.75m	46.26	6.84	14.45	32.08	0.37

TABLE 5
COMPOSITION (NORMALISED %) OF C₁₅₊ MATERIAL

JOB 9291 GEOCHEM SAMPLE NUMBER	L I T H O	DEPTH/ IDENTITY	HYDROCARBONS		NON HYDROCARBONS		
			Saturates	Aromatics	Preciptd. Asphaltenes	Eluted NSO s	Non-Eluted NSO s
9291-054		2877.00m	20.05	4.96	20.97	53.66	0.36
9291-055		2877.25m	70.35	8.28	2.55	18.60	0.22
9291-056		2878.00m	68.85	5.86	3.84	21.05	0.39
9291-057		2878.50m	74.83	6.27	6.34	12.16	0.40
9291-058		2879.00m	20.45	1.64	16.76	60.90	0.25
9291-059		2879.50m	23.67	5.01	22.21	48.73	0.38
9291-060		2880.00m	32.45	2.64	11.96	52.71	0.24
9291-061		2880.50m	26.15	6.45	20.27	46.70	0.45
9291-062		2881.00m	31.12	13.10	21.85	33.59	0.34
9291-063		2881.50m	36.15	12.12	9.40	42.01	0.33
9291-064		2882.25m	11.96	3.57	39.45	44.70	0.31
9291-065		2883.75m	9.04	4.23	43.25	43.02	0.46
9291-066		2884.25m	15.90	5.89	29.67	48.12	0.43
9291-067		2885.00m	4.27	0.81	23.67	70.64	0.62
9291-068		2886.50m	12.99	8.01	35.04	43.54	0.42
9291-069		2887.00m	18.33	5.59	14.89	60.85	0.34
9291-070		2887.50m	13.78	5.14	32.08	48.65	0.35
9291-071		3178.5m	65.65	6.45	13.73	13.89	0.29
9291-072		3239.0m	49.74	8.96	19.07	22.00	0.24
9291-073		3259.08m	49.19	12.89	18.93	18.71	0.28
9291-074		3259.15m	33.99	9.85	31.39	24.52	0.25
9291-075		3259.25m	63.35	10.53	10.64	15.10	0.37
9291-076		3260.15m	65.39	12.25	7.90	14.18	0.28
9291-077		3260.25m	58.88	11.92	12.37	16.64	0.19
9291-078		3260.34m	61.88	12.21	8.19	17.53	0.19
9291-079		3260.44m	56.50	12.78	12.40	18.13	0.19
9291-080		3260.50m	66.32	11.84	5.26	16.38	0.20
9291-081		3260.56m	67.36	9.47	6.18	16.70	0.30
9291-082		3260.67m	76.81	9.65	2.52	10.82	0.20
9291-083		3260.75m	76.59	10.80	3.53	8.97	0.10
9291-084		3260.82m	76.76	9.22	4.88	8.94	0.20
9291-085		3260.90m	77.75	9.00	3.17	9.78	0.30
9291-086		3271.5m	84.86	8.55	3.21	13.38	0.24
9291-087		3738.0m	70.07	9.70	3.86	16.15	0.22

TABLE 6
SIGNIFICANT C₁₅₊ RATIOS

JOB 9291	L I T H O	DEPTH/ IDENTITY	TOC (%)	mg/g TOC						HYDROCARBONS % TOTAL EXTRACT	SATURATES AROMATICCS
				TOTAL EXTRACT	SATURATES	AROMATICCS	TOTAL HYDROCARBONS	ELUTED NSO s	ASPHALTENES		

WELL: 6507/2-3

9291-001	2850.50m	0.34	194.53	76.02	12.12	88.14	69.48	36.51	45.31	6.27
9291-002	2851.00m	0.36	195.69	72.12	12.28	84.40	67.50	43.42	43.13	5.87
9291-003	2851.50m	0.13	823.28	159.58	22.06	181.64	556.70	79.79	22.06	7.23
9291-004	2852.00m	0.08	1186.07	360.30	26.29	386.59	660.85	132.05	32.59	13.70
9291-005	2852.50m	0.09	819.20	321.27	28.81	350.08	314.20	146.77	42.73	11.15
9291-006	2853.00m	0.11	877.47	261.46	24.05	285.51	449.87	138.08	32.54	10.87
9291-007	2853.25m	0.10	643.65	285.85	26.56	312.41	245.29	84.02	48.54	10.76
9291-008	2853.75m	0.63	163.20	66.82	19.18	86.00	30.93	45.92	52.70	3.48
9291-009	2854.50m	0.22	443.36	130.11	11.64	141.74	248.88	51.38	31.97	11.18
9291-010	2855.00m	0.14	676.54	151.28	19.61	170.89	439.81	63.79	25.26	7.72
9291-011	2855.50m	0.10	714.76	182.42	22.39	204.81	433.25	74.63	28.65	8.15
9291-012	2856.00m	0.10	725.95	173.28	22.34	195.62	369.36	158.23	26.95	7.76
9291-013	2856.50m	0.12	434.41	162.30	16.64	178.94	161.57	93.17	41.19	9.76
9291-014	2857.00m	0.11	334.56	119.77	9.72	129.49	105.63	98.55	38.71	12.32
9291-015	2857.50m	0.14	310.80	91.87	6.98	98.86	161.45	49.43	31.81	13.15
9291-016	2858.00m	0.10	672.71	135.29	19.53	154.81	379.36	135.29	23.01	6.93
9291-017	2858.50m	0.09	548.07	174.56	14.41	188.97	257.13	99.20	34.48	12.12
9291-018	2859.25m	0.16	379.88	69.21	19.14	88.35	225.72	64.75	23.26	3.62
9291-019	2859.75m	0.14	609.19	216.84	28.03	244.87	273.59	87.58	40.20	7.74
9291-020	2860.25m	0.25	223.41	76.54	7.38	83.92	91.89	46.43	37.57	10.37
9291-021	2860.75m	0.73	128.56	41.71	6.20	47.91	27.96	52.49	37.26	6.73
9291-022	2861.00m	0.41	161.00	21.04	6.17	27.21	55.69	77.41	16.90	3.41
9291-023	2861.50m	0.13	523.44	216.66	21.39	238.05	168.87	114.70	45.48	10.13
9291-024	2862.25m	0.10	766.75	310.02	31.30	341.32	227.38	196.58	44.52	9.91
9291-025	2862.75m	0.14	625.67	157.01	17.86	174.87	321.77	126.35	27.95	8.79
9291-026	2863.50m	0.15	559.43	141.31	12.78	154.08	319.01	84.40	27.54	11.06
9291-027	2864.00m	0.27	409.38	55.58	11.94	67.52	264.37	75.89	16.49	4.66
9291-028	2864.50m	0.13	775.89	140.15	13.63	153.78	528.89	78.32	19.82	10.28
9291-029	2865.00m	0.23	302.01	77.25	9.92	87.17	152.88	60.62	28.86	7.78
9291-030	2865.50m	3.46	66.23	32.23	4.16	36.39	13.15	16.56	54.94	7.74
9291-031	2866.50m	0.12	779.95	215.49	16.02	231.51	480.97	63.09	29.68	13.45
9291-032	2867.00m	0.14	320.81	108.35	12.11	120.47	114.90	83.80	37.55	8.95

TABLE 6
SIGNIFICANT C₁₅₊ RATIOS

JOB 9291 GEOCHEM SAMPLE NUMBER	L I T H O	DEPTH/ IDENTITY	TOC (%)	mg/g TOC					HYDROCARBONS % TOTAL EXTRACT	SATURATES AROMATICS	
				TOTAL EXTRACT	SATURATES	AROMATICS	TOTAL HYDROCARBONS	ELUTED NSO s			ASPHALTENES
9291-033		2867.50m	0.13	618.35	99.06	17.63	116.69	346.89	151.94	18.87	5.62
9291-034		2868.25m	0.13	662.92	111.76	20.68	132.44	390.78	137.52	19.98	5.40
9291-035		2868.75m	0.26	237.72	94.78	10.51	105.30	110.78	20.27	44.29	9.01
9291-036		2869.50m	0.20	714.96	93.74	15.84	109.57	547.51	54.42	15.33	5.92
9291-037		2870.50m	0.13	996.05	116.61	17.68	134.29	707.54	150.46	13.48	6.60
9291-038		2870.75m	0.14	515.73	105.73	27.06	132.79	242.92	137.82	25.75	3.91
9291-039		2871.00m	0.11	873.62	329.31	24.37	353.67	464.04	53.75	40.48	13.51
9291-040		2871.25m	0.13	570.77	160.41	36.19	196.60	265.99	104.45	34.44	4.43
9291-041		2871.50m	0.21	992.10	537.88	63.71	601.59	245.96	140.72	60.64	8.44
9291-042		2871.75m	0.13	1976.15	1334.06	147.02	1481.08	304.92	180.40	74.95	9.07
9291-043		2872.00m	0.37	134.14	28.37	11.57	39.94	76.28	17.42	29.78	2.45
9291-044		2872.25m	0.40	204.28	32.17	19.71	51.89	81.76	69.67	25.40	1.63
9291-045		2872.75m	0.33	325.66	48.40	29.64	78.05	157.82	88.22	23.97	1.63
9291-046		2873.25m	0.48	140.01	21.23	10.31	31.54	70.48	37.21	22.53	2.06
9291-047		2873.50m	0.42	195.63	29.60	20.02	49.62	85.16	60.07	25.37	1.48
9291-048		2874.00m	0.16	541.28	169.00	25.31	194.31	262.46	82.55	35.90	6.68
9291-049		2874.50m	1.03	100.83	22.50	5.78	28.27	39.99	32.29	28.04	3.90
9291-050		2875.00m	0.16	376.98	39.17	15.77	54.95	222.83	97.17	14.57	2.48
9291-051		2875.50m	0.13	696.97	58.94	23.64	82.58	431.24	178.49	11.85	2.49
9291-052		2876.50m	0.12	721.72	152.34	33.94	186.27	433.26	98.79	25.81	4.49
9291-053		2876.75m	0.36	399.53	184.83	27.34	212.17	128.15	57.74	53.10	6.76
9291-054		2877.00m	0.17	603.36	120.98	29.94	150.92	323.75	126.54	25.01	4.04
9291-055		2877.25m	0.13	3379.49	2377.35	279.91	2657.26	628.63	86.32	78.63	8.49
9291-056		2878.00m	0.16	3709.52	2553.87	217.36	2771.24	781.02	142.63	74.71	11.75
9291-057		2878.50m	0.09	2792.01	2089.21	175.08	2264.29	339.64	176.94	81.10	11.93
9291-058		2879.00m	0.28	388.75	79.51	6.39	85.89	236.76	65.14	22.09	12.45
9291-059		2879.50m	0.30	239.66	56.72	12.01	68.73	116.79	53.22	28.68	4.72
9291-060		2880.00m	0.11	952.62	309.16	25.13	334.29	502.11	113.97	35.09	12.30
9291-061		2880.50m	0.55	226.08	59.11	14.57	73.68	105.57	45.82	32.59	4.06
9291-062		2881.00m	0.31	218.27	67.93	28.58	96.51	73.31	47.70	44.22	2.38
9291-063		2881.50m	0.11	1059.15	382.85	128.32	511.17	444.90	99.57	48.26	2.98
9291-064		2882.25m	0.15	304.13	36.38	10.85	47.23	135.95	119.99	15.53	3.35
9291-065		2883.75m	0.56	72.73	6.57	3.08	9.65	31.29	31.45	13.27	2.14
9291-066		2884.25m	0.21	294.54	46.82	17.35	64.17	141.73	87.38	21.79	2.70

TABLE 6
SIGNIFICANT C₁₅₊ RATIOS

JOB 9291 GEOCHEM SAMPLE NUMBER	L I T H O	DEPTH/ IDENTITY	TOC (%)	mg/g TOC						HYDROCARBONS % TOTAL EXTRACT	SATURATES AROMATICS
				TOTAL EXTRACT	SATURATES	AROMATICS	TOTAL HYDROCARBONS	ELUTED NSO s	ASPHALTENES		
9291-067		2885.00m	0.24	433.96	18.53	3.50	22.03	306.53	102.73	5.08	5.29
9291-068		2886.50m	0.49	136.76	17.77	10.95	28.72	59.54	47.92	21.00	1.62
9291-069		2887.00m	0.28	273.06	50.05	15.27	65.32	166.15	40.66	23.92	3.28
9291-070		2887.50m	0.28	203.40	28.02	10.46	38.48	98.95	65.26	18.92	2.68
9291-071		3178.5m	0.46	973.16	638.88	62.77	701.65	135.14	133.59	72.10	10.18
9291-072		3239.0m	0.60	530.12	263.66	47.47	311.13	116.64	101.07	58.69	5.55
9291-073		3259.08m	1.33	182.54	89.80	23.52	113.32	34.15	34.55	62.08	3.82
9291-074		3259.15m	1.17	112.31	38.18	11.06	49.24	27.54	35.26	43.84	3.45
9291-075		3259.25m	0.52	717.86	454.80	75.62	530.42	108.38	76.39	73.89	6.01
9291-076		3260.15m	3.66	312.90	204.60	38.32	242.92	44.38	24.72	77.64	5.34
9291-077		3260.25m	5.89	190.37	112.10	22.69	134.78	31.69	23.54	70.80	4.94
9291-078		3260.34m	7.80	158.55	98.11	19.36	117.47	27.79	12.98	74.09	5.07
9291-079		3260.44m	3.91	172.23	97.31	22.02	119.33	31.23	21.35	69.29	4.42
9291-080		3260.50m	2.22	258.03	171.12	30.55	201.67	42.27	13.57	78.16	5.60
9291-081		3260.56m	0.84	435.17	293.14	41.20	334.34	72.67	26.87	76.83	7.12
9291-082		3260.67m	0.25	2361.80	1814.09	227.90	2041.99	255.51	59.57	86.46	7.96
9291-083		3260.75m	0.23	3702.54	2835.77	399.91	3235.69	332.11	130.87	87.39	7.09
9291-084		3260.82m	0.22	3046.66	2338.55	281.02	2619.58	272.26	148.59	85.98	8.32
9291-085		3260.90m	0.32	2491.77	1937.37	224.35	2161.72	243.66	78.97	86.75	8.64
9291-086		3271.5m	0.29	2388.03	2026.53	204.24	2230.77	319.44	76.54	93.41	9.92
9291-087		3738.0m	0.98	775.91	543.71	75.27	618.98	125.28	29.97	79.77	7.22

TABLE 7
C₁₅₊ CHROMATOGRAPHY WEIGHTS (grams)

JOB 9291	L I T H O	DEPTH/ IDENTITY	ROCK EXTRACTED	TOTAL EXTRACT	PRECIPTD. ASPHALTENES	NC5	SATURATES	AROMATICS	ELUTED NSO s	NON-ELUTED NSO s
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WELL: 6507/2-3

9291-001		2850.50m	21.5900	0.01428	0.00268	0.01161	0.00558	0.00089	0.00510	0.00004
9291-002		2851.00m	22.8400	0.01609	0.00357	0.01252	0.00593	0.00101	0.00555	0.00003
9291-003		2851.50m	20.9200	0.02239	0.00217	0.02022	0.00434	0.00060	0.01514	0.00014
9291-004		2852.00m	20.9200	0.01985	0.00221	0.01764	0.00603	0.00044	0.01106	0.00011
9291-005		2852.50m	20.4400	0.01507	0.00270	0.01237	0.00591	0.00053	0.00578	0.00015
9291-006		2853.00m	20.4100	0.01970	0.00310	0.01660	0.00587	0.00054	0.01010	0.00009
9291-007		2853.25m	20.7100	0.01333	0.00174	0.01159	0.00592	0.00055	0.00508	0.00004
9291-008		2853.75m	23.0900	0.02374	0.00668	0.01706	0.00972	0.00279	0.00450	0.00005
9291-009		2854.50m	30.0800	0.02934	0.00340	0.02594	0.00861	0.00077	0.01647	0.00009
9291-010		2855.00m	24.4100	0.02312	0.00218	0.02094	0.00517	0.00067	0.01503	0.00007
9291-011		2855.50m	24.1200	0.01724	0.00180	0.01544	0.00440	0.00054	0.01045	0.00005
9291-012		2856.00m	21.9300	0.01592	0.00347	0.01245	0.00380	0.00049	0.00810	0.00006
9291-013		2856.50m	22.5400	0.01175	0.00252	0.00923	0.00439	0.00045	0.00437	0.00002
9291-014		2857.00m	20.5700	0.00757	0.00223	0.00534	0.00271	0.00022	0.00239	0.00002
9291-015		2857.50m	26.5900	0.01157	0.00184	0.00973	0.00342	0.00026	0.00601	0.00004
9291-016		2858.00m	21.5100	0.01447	0.00291	0.01156	0.00291	0.00042	0.00816	0.00007
9291-017		2858.50m	20.0500	0.00989	0.00179	0.00810	0.00315	0.00026	0.00464	0.00005
9291-018		2859.25m	23.8400	0.01449	0.00247	0.01202	0.00264	0.00073	0.00861	0.00004
9291-019		2859.75m	20.3900	0.01739	0.00250	0.01489	0.00619	0.00080	0.00781	0.00009
9291-020		2860.25m	20.5900	0.01150	0.00239	0.00911	0.00394	0.00038	0.00473	0.00006
9291-021		2860.75m	20.3300	0.01908	0.00779	0.01129	0.00619	0.00092	0.00415	0.00003
9291-022		2861.00m	21.3300	0.01408	0.00677	0.00731	0.00184	0.00054	0.00487	0.00006
9291-023		2861.50m	16.9000	0.01150	0.00252	0.00898	0.00476	0.00047	0.00371	0.00004
9291-024		2862.25m	20.4500	0.01568	0.00402	0.01166	0.00634	0.00064	0.00465	0.00003
9291-025		2862.75m	21.2000	0.01857	0.00375	0.01482	0.00466	0.00053	0.00955	0.00008
9291-026		2863.50m	17.2200	0.01445	0.00218	0.01227	0.00365	0.00033	0.00824	0.00005
9291-027		2864.00m	20.7900	0.02298	0.00426	0.01872	0.00312	0.00067	0.01484	0.00009
9291-028		2864.50m	24.2600	0.02447	0.00247	0.02159	0.00442	0.00043	0.01668	0.00006
9291-029		2865.00m	16.2100	0.01126	0.00226	0.00900	0.00288	0.00037	0.00570	0.00005
9291-030		2865.50m	25.2000	0.05775	0.01444	0.04331	0.02810	0.00363	0.01147	0.00011
9291-031		2866.50m	17.1700	0.01607	0.00130	0.01477	0.00444	0.00033	0.00991	0.00009
9291-032		2867.00m	21.8200	0.00980	0.00256	0.00724	0.00331	0.00037	0.00351	0.00005

TABLE 7
C₁₅₊ CHROMATOGRAPHY WEIGHTS (gms)

JOB 9291	L I T H O	DEPTH/ IDENTITY	ROCK EXTRACTED	TOTAL EXTRACT	PRECIPTD. ASPHALTENES	NC5	SATURATES	AROMATICS	ELUTED NSO s	NON-ELUTED NSO s
GEOCHEM SAMPLE NUMBER										
9291-033		2867.50m	21.8200	0.01754	0.00431	0.01323	0.00281	0.00050	0.00984	0.00008
9291-034		2868.25m	21.2000	0.01827	0.00379	0.01448	0.00308	0.00057	0.01077	0.00006
9291-035		2868.75m	25.2400	0.01560	0.00133	0.01427	0.00622	0.00069	0.00727	0.00009
9291-036		2869.50m	27.4700	0.03928	0.00299	0.03629	0.00515	0.00087	0.03008	0.00019
9291-037		2870.50m	20.4500	0.02648	0.00400	0.02248	0.00310	0.00047	0.01881	0.00010
9291-038		2870.75m	22.7000	0.01639	0.00438	0.01201	0.00336	0.00086	0.00772	0.00007
9291-039		2871.00m	25.3700	0.02438	0.00150	0.02288	0.00919	0.00068	0.01295	0.00006
9291-040		2871.25m	20.6200	0.01530	0.00280	0.01250	0.00430	0.00097	0.00713	0.00010
9291-041		2871.50m	23.6200	0.04921	0.00698	0.04223	0.02668	0.00316	0.01220	0.00019
9291-042		2871.75m	20.5100	0.05269	0.00481	0.04788	0.03557	0.00392	0.00813	0.00026
9291-043		2872.00m	21.7200	0.01078	0.00140	0.00938	0.00228	0.00093	0.00613	0.00004
9291-044		2872.25m	20.6700	0.01689	0.00576	0.01113	0.00266	0.00163	0.00676	0.00008
9291-045		2872.75m	21.1600	0.02274	0.00616	0.01658	0.00338	0.00207	0.01102	0.00011
9291-046		2873.25m	24.2400	0.01629	0.00433	0.01196	0.00247	0.00120	0.00820	0.00009
9291-047		2873.50m	21.6400	0.01778	0.00546	0.01232	0.00269	0.00182	0.00774	0.00007
9291-048		2874.00m	16.0500	0.01390	0.00212	0.01178	0.00434	0.00065	0.00674	0.00005
9291-049		2874.50m	17.6500	0.01833	0.00587	0.01246	0.00409	0.00105	0.00727	0.00005
9291-050		2875.00m	24.5700	0.01482	0.00382	0.01100	0.00154	0.00062	0.00876	0.00008
9291-051		2875.50m	23.1000	0.02093	0.00536	0.01557	0.00177	0.00071	0.01295	0.00014
9291-052		2876.50m	22.1000	0.01914	0.00262	0.01652	0.00404	0.00090	0.01149	0.00009
9291-053		2876.75m	20.8300	0.02996	0.00433	0.02563	0.01386	0.00205	0.00961	0.00011
9291-054		2877.00m	19.0600	0.01955	0.00410	0.01545	0.00392	0.00097	0.01049	0.00007
9291-055		2877.25m	18.0000	0.07908	0.00202	0.07706	0.05563	0.00655	0.01471	0.00017
9291-056		2878.00m	20.0700	0.11912	0.00458	0.11454	0.08201	0.00698	0.02508	0.00047
9291-057		2878.50m	17.9600	0.04513	0.00286	0.04227	0.03377	0.00283	0.00549	0.00018
9291-058		2879.00m	22.3700	0.02435	0.00408	0.02027	0.00498	0.00040	0.01483	0.00006
9291-059		2879.50m	21.9200	0.01576	0.00350	0.01226	0.00373	0.00079	0.00768	0.00006
9291-060		2880.00m	20.2600	0.02123	0.00254	0.01869	0.00689	0.00056	0.01119	0.00005
9291-061		2880.50m	19.8400	0.02467	0.00500	0.01967	0.00645	0.00159	0.01152	0.00011
9291-062		2881.00m	17.3800	0.01176	0.00257	0.00919	0.00366	0.00154	0.00395	0.00004
9291-063		2881.50m	25.9300	0.03021	0.00284	0.02737	0.01092	0.00366	0.01269	0.00010
9291-064		2882.25m	20.8900	0.00953	0.00376	0.00577	0.00114	0.00034	0.00426	0.00003
9291-065		2883.75m	21.4600	0.00874	0.00378	0.00496	0.00079	0.00037	0.00376	0.00004
9291-066		2884.25m	22.7800	0.01409	0.00418	0.00991	0.00224	0.00083	0.00678	0.00006

TABLE 7
C₁₅₊ CHROMATOGRAPHY WEIGHTS (gms)

JOB 9291	L I T H O	DEPTH/ IDENTITY	ROCK EXTRACTED	TOTAL EXTRACT	PRECIPTD. ASPHALTENES	NC5	SATURATES	AROMATICS	ELUTED NSO s	NON-ELUTED NSO s
GEOCHEM SAMPLE NUMBER										
9291-067		2885.00m	20.2400	0.02108	0.00499	0.01609	0.00090	0.00017	0.01489	0.00013
9291-068		2886.50m	21.2500	0.01424	0.00499	0.00925	0.00185	0.00114	0.00620	0.00006
9291-069		2887.00m	19.4100	0.01484	0.00221	0.01263	0.00272	0.00083	0.00903	0.00005
9291-070		2887.50m	20.1400	0.01147	0.00368	0.00779	0.00158	0.00059	0.00558	0.00004
9291-071		3178.5m	7.0300	0.03147	0.00432	0.02715	0.02066	0.00203	0.00437	0.00009
9291-072		3239.0m	6.5300	0.02077	0.00396	0.01681	0.01033	0.00186	0.00457	0.00005
9291-073		3259.08m	18.8900	0.04586	0.00868	0.03718	0.02256	0.00591	0.00858	0.00013
9291-074		3259.15m	12.2900	0.01615	0.00507	0.01108	0.00549	0.00159	0.00396	0.00004
9291-075		3259.25m	20.1400	0.07518	0.00800	0.06718	0.04763	0.00792	0.01135	0.00028
9291-076		3260.15m	20.4400	0.23408	0.01849	0.21559	0.15306	0.02867	0.03320	0.00066
9291-077		3260.25m	14.2200	0.15945	0.01972	0.13973	0.09389	0.01900	0.02654	0.00030
9291-078		3260.34m	14.9400	0.18476	0.01513	0.16963	0.11433	0.02256	0.03239	0.00035
9291-079		3260.44m	20.0500	0.13502	0.01674	0.11828	0.07629	0.01726	0.02448	0.00025
9291-080		3260.50m	23.5600	0.13496	0.00710	0.12786	0.08950	0.01598	0.02211	0.00027
9291-081		3260.56m	20.2000	0.07384	0.00456	0.06928	0.04974	0.00699	0.01233	0.00022
9291-082		3260.67m	21.1500	0.12488	0.00315	0.12173	0.09592	0.01205	0.01351	0.00025
9291-083		3260.75m	20.2000	0.17202	0.00608	0.16594	0.13175	0.01858	0.01543	0.00018
9291-084		3260.82m	23.3400	0.15644	0.00763	0.14881	0.12008	0.01443	0.01398	0.00032
9291-085		3260.90m	23.1500	0.18459	0.00585	0.17874	0.14352	0.01662	0.01805	0.00055
9291-086		3271.5m	9.1000	0.06302	0.00202	0.06745	0.05348	0.00539	0.00843	0.00015
9291-087		3738.0m	6.0600	0.04608	0.00178	0.04430	0.03229	0.00447	0.00744	0.00010