

S N E A (P) Organic Geochemistry  
 Computerized GC/MS Analytical Report on Steranes and Terpanes nr. 1753

Sample..... : 25/2-12 B13661. ST NO v  
 Well Depth..... : 3850. to 3855. (Meters)  
 Particularities II. : /  
 Acquisition File Name : B13661STM Mag tape /  
 Submitted by..... : KT July 26. , 1989.  
 Particularities I. : ND

S T E R A N E S		Areas	T E R P A N E S		Areas
C21	Sterane.....	6522.	C23	tricyclic.....	9912.
C22	4-Methyl Sterane	758.	C24	tetracyclic.....	9244.
C27	Sterane.....	4417.	Ts.....		11416.
C27	S Diasterane.....	14182.	Tm.....		8562.
C27	aa S Sterane.....	8118.	29	ab Hopane.....	30800.
C27	bb R Sterane.....	10147.	30	ab Hopane.....	59619.
C27	bb S Sterane.....	10147.	30	ba Hopane.....	3805.
C27	aa R Sterane.....	8625.	31	ab S Homohopane..	16172.
C29	aa S Sterane.....	6222.	31	ab R Homohopane..	7611.
C29	bb R Sterane.....	12712.	32	ab S Homohopane..	8562.
C29	bb S Sterane.....	11496.	32	ab R Homohopane..	4757.
C29	aa R Sterane.....	8115.	TOTAL	TERPANES.....	477320.
TOTAL STERANES.....		332226.			

OPTIONAL ANALYSIS		Areas	OPTIONAL ANALYSIS		Areas
C30	tricyclic, 22 S..	2200.	C35	ab S Homohopane.	nd
C30	tricyclic, 22 R..	2200.	C35	ab R Homohopane.	nd
29	Desmethyl Hopane.	4500.			
C28	Bisnorhopane....	4500.			
C29/5	(RT. > 29 ab)..	7611.			
18	a(H) Oleanane....	ns	"X"		4757.
	Gammacerane.....	ns	nC31		84300.
C33	ab S Homohopane.	nd	C27bb		7800.
C33	ab R Homohopane.	nd	C28bb		7200.
C35	Hexacyclic.....	ns	C29bb		9000.

## RESULTS :

27	bb S / 27	aa R ..	1. 17	C29	DHop / C29 Hop .	0. 14
27	aa S / 27	aa R --	0. 94	C28	BNHop / C29 Hop-	0. 14
27	S dia / 27	aa R .	1. 64	C29/5	/ C29 Hop.....	0. 24
22	4-Me st / 27	aa R	0. 08	18	aH Olean/C30 Hop.	v. low.
%	20 S C27		49. 31	Gammacerane/C30	Hop.	v. low.
%	bb C27		54. 79	30/3(R&S) / C29	Hop-	0. 14
29	bb S / 29	aa R...	1. 41	30/3(R&S) / 23/3.		0. 44
29	aa S / 29	aa R...	0. 76	2. 35Hex/C35Hop	(R&S).	N / A
27	S dia / 29	aa R..	1. 74	C35H(R&S)/C33H	(R&S).	N / A
22	4-Me st / 29	aa R	0. 09	29+30Hop/C35	H(R&S).	N / A
%	20 S C29		45. 96			
%	bb C29		62. 80			
21	st / 22	st	1. 47			
22	4-Me st / 22	st--	0. 17			
C29	H / C30	H.....	0. 51	X/29H		0. 15
Tm	/ Ts		0. 74	nC31/C30H		1. 41
23/3	/ 24/4		1. 07	%nC31/100		0. 09
%	22 S C31		67. 99	%ST/100		0. 37
%	22 S C32		64. 28	%TT/100		0. 53
ba	/ ab	--- X 100 -	6. 38	%27bb/100		0. 32
23/3	/ 21	st	1. 51	%28bb/100		0. 30
TT	/ ST		1. 43	%29bb/100		0. 37
				27-30H/29ST		2. 86
				29bbR/29aaR		1. 56

**(3944.34-3944.47 m, core 4)**

ANNEXES 47 to 52

S N E A (P) Organic Geochemistry  
Computerized GC/MS Analytical Report on Steranes and Terpanes nr. 1742

Sample..... : 25/2-12 B13618. ST NO v  
Well Depth..... : 3944.34 to 3944.47 (Meters)  
Particularities II. : /  
Acquisition File Name : B13618STM Mag tape /  
Submitted by..... : KT July 24. , 1989.  
Particularities I. : CA-K4

S T E R A N E S		Areas	T E R P A N E S		Areas
C21	Sterane.....	648.	C23	tricyclic.....	335.
C22	4-Methyl Sterane	ns	C24	tetracyclic.....	1787.
C22	Sterane.....	222.	Ts.....		13379.
C27	S Diasterane.....	986.	Tm.....		3895.
C27	aa S Sterane.....	nd	29	ab Hopane.....	5949.
C27	bb R Sterane.....	nd	30	ab Hopane.....	10710.
C27	bb S Sterane.....	nd	30	ba Hopane.....	2979.
C27	aa R Sterane.....	nd	31	ab S Homohopane..	4041.
C29	aa S Sterane.....	420.	31	ab R Homohopane..	2638.
C29	bb R Sterane.....	765.	32	ab S Homohopane..	3935.
C29	bb S Sterane.....	1000.	32	ab R Homohopane..	1622.
C29	aa R Sterane.....	706.	TOTAL	TERPANES.....	210443.
TOTAL STERANES		27712.			

OPTIONAL ANALYSIS		Areas	OPTIONAL ANALYSIS		Areas
C30	tricyclic, 22 S..	ns	C35	ab S Homohopane.	nd
C30	tricyclic, 22 R..	ns	C35	ab R Homohopane.	nd
29	Desmethyl Hopane.	ns			
C28	Bisnorhopane.....	ns			
C29/5	(RT. > 29 ab)...	10236.	"X"		12158.
18	a(H) Oleanane.....	ns	nC31		272695.
	Gammacerane.....	nd	C27bb		9000.
C33	ab S Homohopane.	nd	C28bb		9000.
C33	ab R Homohopane.	nd	C29bb		11999.
C35	Hexacyclic.....	ns			

## RESULTS :

27	bb S / 27	aa R ..	N / A	C29	DHop / C29 Hop	v. low.
27	aa S / 27	aa R --	N / A	C28	BNHop / C29 Hop-	v. low.
27	S dia / 27	aa R	N / A	C29/5	/ C29 Hop.....	1.72
22	4-Me st / 27	aa R	N / A	18	aH Olean/C30 Hop.	v. low.
%	20 S C27		N / A		Gammacerane/C30 Hop.	N / A
%	bb C27		N / A		30/3(R&S) / C29 Hop-	v. low.
29	bb S / 29	aa R...	1.41		30/3(R&S) / 23/3.....	0.00
29	aa S / 29	aa R...	0.59	2.	35Hex/C35Hop(R&S).	N / A
27	S dia / 29	aa R...	1.39	C35H	(R&S)/C33H(R&S).	N / A
22	4-Me st / 29	aa R	0.00		29+30Hop/C35 H(R&S).	N / A
%	20 S C29		49.11	X/29H		2.04
%	bb C29		61.04	nC31/C30H		25.45
21	st / 22	st	2.91	%nC31/100		0.53
22	4-Me st / 22	st--	0.00	%ST/100		0.05
C29	H / C30	H.....	0.55	%TT/100		0.41
Tm	/ Ts		0.29	%27bb/100		0.30
23/3	/ 24/4		0.18	%28bb/100		0.30
%	22 S C31		60.50	%29bb/100		0.39
%	22 S C32		70.80	27-30H/29ST		11.73
ba	/ ab	--- X 100 -	27.81	29bbR/29aaR		1.08
23/3	/ 21	st.....	0.51			
TT	/ ST		7.59			

**(3946.30–3946.40 m, core 4)**

ANNEXES 53 to 58

S N E A (P) Organic Geochemistry  
 Computerized GC/MS Analytical Report on Steranes and Terpanes nr. 1743

Sample..... : 25/2-12 B13622. ST NO v  
 Well Depth : 3946.30 to 3946.40 (Meters)  
 Particularities II. : /  
 Acquisition File Name : B13622STM Mag tape /  
 Submitted by..... : KT July 24. , 1989.  
 Particularities I. : CA-K4

S T E R A N E S		Areas	T E R P A N E S		Areas
C21	Sterane.....	577.	C23	tricyclic.....	170.
C22	4-Methyl Sterane	110.	C24	tetracyclic.....	1225.
C22	Sterane.....	195.	Ts.....		13352.
C27	S Diasterane.....	1113.	Tm.....		3179.
C27	aa S Sterane.....	260.	29	ab Hopane.....	8656.
C27	bb R Sterane.....	416.	30	ab Hopane.....	12983.
C27	bb S Sterane.....	416.	30	ba Hopane.....	nd
C27	aa R Sterane.....	542.	31	ab S Homohopane..	4760.
C29	aa S Sterane.....	378.	31	ab R Homohopane..	4327.
C29	bb R Sterane.....	730.	32	ab S Homohopane..	4471.
C29	bb S Sterane.....	900.	32	ab R Homohopane..	3606.
C29	aa R Sterane.....	505.	TOTAL	TERPANES.....	188102.
TOTAL	STERANES.....	26134.			

OPTIONAL ANALYSIS		Areas	OPTIONAL ANALYSIS		Areas
C30	tricyclic, 22 S..	ns	C35	ab S Homohopane.	nd
C30	tricyclic, 22 R..	ns	C35	ab R Homohopane.	nd
29	Desmethyl Hopane.	ns			
C28	Bisnorhopane....	ns			
C29/5	(RT. > 29 ab)..	10962.	"X"		15578.
18	a(H) Oleanane....	ns	nC31		426296.
Gammacerane	.....	ns	C27bb		5000.
C33	ab S Homohopane.	nd	C28bb		8000.
C33	ab R Homohopane.	nd	C29bb		14000.
C35	Hexacyclic.....	ns			

## RESULTS :

27	bb S / 27	aa R ..	0.76	C29	DHop / C29 Hop .	v. low.
27	aa S / 27	aa R --	0.48	C28	BNHop / C29 Hop-	v. low.
27	S dia / 27	aa R	2.05	C29/5	/ C29 Hop.....	1.26
22	4-Me st / 27	aa R	0.20	18	aH Olean/C30 Hop.	v. low.
%	20 S C27		41.38	Gammacerane/C30	Hop.	v. low.
%	bb C27		50.91	30/3(R&S) / C29	Hop-	v. low.
29	bb S / 29	aa R...	1.78	30/3(R&S) / 23/3		0.00
29	aa S / 29	aa R...	0.74	2	35Hex/C35Hop(R&S).	N / A
27	S dia / 29	aa R..	2.20	C35H(R&S)/C33H(R&S).		N / A
22	4-Me st / 29	aa R	0.21	29+30Hop/C35	H(R&S).	N / A
%	20 S C29		50.85			
%	bb C29		64.85			
21	st / 22	st.....	2.95			
22	4-Me st / 22	st--	0.56			
C29	H / C30	H.....	0.66	X/29H		1.79
Tm	/ Ts		0.23	nC31/C30H		32.83
23/3	/ 24/4		0.13	%nC31/100		0.66
%	22 S C31		52.38	%ST/100		0.04
%	22 S C32		55.35	%TT/100		0.29
ba	/ ab	----- X 100 -	N / A	%27bb/100		0.18
				%28bb/100		0.29
				%29bb/100		0.51
23/3	/ 21	st.....	0.29	27-30H/29ST		15.17
TT	/ ST		7.19	29bbR/29aaR		1.44

**(3950.10–3950.20 m, core 4)**

ANNEXES 59 to 64

S N E A (P) Organic Geochemistry  
 Computerized GC/MS Analytical Report on Steranes and Terpanes nr. 1744

Sample..... : 25/2-12 B13630. ST NO v  
 Well Depth..... : 3950.10 to 3950.20 (Meters)  
 Particularities II.. : /  
 Acquisition File Name : B13630STM Mag tape /  
 Submitted by..... : KT July 24. , 1989.  
 Particularities I... : CA-K4

S T E R A N E S		Areas	T E R P A N E S		Areas
C21	Sterane.....	235.	C23	tricyclic.....	84.
C22	4-Methyl Sterane	ns	C24	tetracyclic.....	350.
C22	Sterane.....	113.	Ts	.....	8685.
C27	S Diasterane.....	774.	Tm	.....	1316.
C27	aa S Sterane.....	nd	29	ab Hopane.....	4212.
C27	bb R Sterane.....	nd	30	ab Hopane.....	7390.
C27	bb S Sterane.....	nd	30	ba Hopane.....	ns
C27	aa R Sterane.....	nd	31	ab S Homohopane..	2237.
C29	aa S Sterane.....	nd	31	ab R Homohopane..	2237.
C29	bb R Sterane.....	nd	32	ab S Homohopane..	2632.
C29	bb S Sterane.....	nd	32	ab R Homohopane..	1579.
C29	aa R Sterane.....	nd	TOTAL	TERPANES .....	126323.
TOTAL STERANES .....		11478.			

OPTIONAL ANALYSIS		Areas	OPTIONAL ANALYSIS		Areas
C30	tricyclic, 22 S..	ns	C35	ab S Homohopane.	nd
C30	tricyclic, 22 R..	ns	C35	ab R Homohopane.	nd
C29	Desmethyl Hopane.	ns			
C28	Bisnorhopane....	ns			
C29/5	(RT. > 29 ab)..	6054.			
18	a(H) Oleanane....	ns	"X"	.....	11310.
Gamma	cerane.....	ns	nC31	.....	155127.
C33	ab S Homohopane.	nd	C27bb	.....	nd
C33	ab R Homohopane.	nd	C28bb	.....	nd
C35	Hexacyclic.....	ns	C29bb	.....	nd

## RESULTS :

27	bb S / 27	aa R ..	N / A	C29	DHop / C29 Hop	v. low.
27	aa S / 27	aa R --	N / A	C28	BNHop / C29 Hop-	v. low.
27	S dia / 27	aa R	N / A	C29/5	/ C29 Hop.....	1.43
22	4-Me st / 27	aa R	N / A	18	aH Olean/C30 Hop.	v. low.
%	20 S C27	.....	N / A	Gamma	cerane/C30 Hop.	v. low.
%	bb C27	.....	N / A	30/3	(R&S) / C29 Hop-	v. low.
29	bb S / 29	aa R...	N / A	30/3	(R&S) / 23/3....	0.00
29	aa S / 29	aa R...	N / A	2	.35Hex/C35Hop (R&S).	N / A
27	S dia / 29	aa R...	N / A	C35H	(R&S)/C33H (R&S).	N / A
22	4-Me st / 29	aa R	N / A	29+30	Hop/C35 H (R&S).	N / A
%	20 S C29	.....	N / A			
%	bb C29	.....	N / A			
21	st / 22	st .....	2.07	X/29H	.....	2.68
22	4-Me st / 22	st --	0.00	nC31/C30H	.....	20.99
C29	H / C30	H .....	0.56	%nC31/100	.....	0.52
Tm	/ Ts	.....	0.15	%ST/100	.....	0.03
23/3	/ 24/4	.....	0.24	%TT/100	.....	0.43
%	22 S C31	.....	50.00	%27bb/100	.....	
%	22 S C32	.....	62.50	%28bb/100	.....	
ba	/ ab	----- X 100 -	N / A	%29bb/100	.....	
23/3	/ 21	st .....	0.35	27-30H/29ST	.....	
TT	/ ST	.....	11.00	29bbR/29aaR	.....	

**(3955–3958 m, cuttings)**

ANNEXES 65 to 69



S N E A (P) Organic Geochemistry  
 Computerized GC/MS Analytical Report on Steranes and Terpanes nr. 1754

Sample..... : 25/2-12 B13669 ST ND v  
 Well Depth..... : 3955. to 3958. (Meters)  
 Particularities II... : /  
 Acquisition File Name : B13669STM Mag tape /  
 Submitted by..... : KT July 26. , 1989.  
 Particularities I... : ND

S T E R A N E S		Areas	T E R P A N E S		Areas
C21	Sterane.....	6009.	C23	tricyclic.....	10668.
C22	4-Methyl Sterane	937.	C24	tetracyclic.....	11455.
C22	Sterane.....	4224.	Ts.....		14681.
C27	S Diasterane....	13232.	Tm.....		11293.
C27	aa S Sterane.....	5763.	29	ab Hopane.....	27670.
C27	bb R Sterane.....	9120.	30	ab Hopane.....	73410.
C27	bb S Sterane.....	9120.	30	ba Hopane.....	5082.
C27	aa R Sterane.....	6964.	31	ab S Homohopane..	21457.
C29	aa S Sterane.....	7644.	31	ab R Homohopane..	14681.
C29	bb R Sterane.....	12862.	32	ab S Homohopane..	9599.
C29	bb S Sterane.....	12255.	32	ab R Homohopane..	5082.
C29	aa R Sterane.....	10071.	TOTAL	TERPANES.....	545192.
TOTAL	STERANES.....	356597.			

O P T I O N A L A N A L Y S I S		Areas	O P T I O N A L A N A L Y S I S		Areas
C30	tricyclic, 22 S..	4500.	C35	ab S Homohopane.	nd
C30	tricyclic, 22 R..	4500.	C35	ab R Homohopane.	nd
29	Desmethyl Hopane.	5400.			
C28	Bisnorhopane....	4000.			
C29/5	(RT. > 29 ab)..	9599.			
18	a(H) Oleanane....	ns	"X"		5082.
Gammacerane.....		ns	nC31		93342.
C33	ab S Homohopane.	nd	C27bb		7600.
C33	ab R Homohopane.	nd	C28bb		6200.
C35	Hexacyclic.....	ns	C29bb		8700.

## RESULTS :

27	bb S / 27 aa R ..	1.30	C29	DHop / C29 Hop .	0.19
27	aa S / 27 aa R --	0.82	C28	BNHop / C29 Hop-	0.14
27	S dia / 27 aa R .	1.90	C29/5	/ C29 Hop.....	0.34
22	4-Me st / 27 aa R	0.13	18	aH Olean/C30 Hop.	v. low.
%	20 S C27 .....	48.06	Gammacerane/C30	Hop.	v. low.
%	bb C27 .....	58.90	30/3(R&S) / C29	Hop-	0.32
			30/3(R&S) / 23/3		0.84
29	bb S / 29 aa R...	1.21	2.35Hex/C35Hop	(R&S).	N / A
29	aa S / 29 aa R...	0.75	C35H(R&S)/C33H	(R&S).	N / A
27	S dia / 29 aa R .	1.31	29+30Hop/C35	H(R&S).	N / A
22	4-Me st / 29 aa R	0.09			
%	20 S C29 .....	46.45			
%	bb C29 .....	58.64			
21	st / 22 st .....	1.42			
22	4-Me st / 22 st--	0.22			
			X/29H		0.18
C29	H / C30 H .....	0.37	nC31/C30H		1.27
Tm	/ Ts .....	0.76	%nC31/100		0.09
23/3	/ 24/4 .....	0.93	%ST/100		0.35
%	22 S C31 .....	59.37	%TT/100		0.54
%	22 S C32 .....	65.38	%27bb/100		0.33
ba	/ ab ---- X 100 -	6.92	%28bb/100		0.27
			%29bb/100		0.38
23/3	/ 21 st .....	1.77	27-30H/29ST		2.96
TT	/ ST .....	1.52	29bbR/29aaR		1.27

**(3998.85–3998.96 m, core 5)**

ANNEXES 70 to 75

S N E A (P) Organic Geochemistry  
 Computerized GC/MS Analytical Report on Steranes and Terpanes nr. 1746

Sample..... : 25/2-12 B13634. ST NO v  
 Well Depth..... : 3998.85 to 3998.96 (Meters)  
 Particularities II. : /  
 Acquisition File Name : B13634STM Mag tape /  
 Submitted by..... : KT July 25. , 1989.  
 Particularities I. : CA-K5

S T E R A N E S		Areas	T E R P A N E S		Areas
C21	Sterane.....	1100.	C23	tricyclic.....	3263.
C22	4-Methyl Sterane	ns	C24	tetracyclic.....	7319.
C22	Sterane.....	444.	Ts.....		14821.
C27	S Diasterane....	nd	Tm.....		5434.
C27	aa S Sterane.....	nd	29	ab Hopane.....	7434.
C27	bb R Sterane.....	nd	30	ab Hopane.....	9682.
C27	bb S Sterane.....	nd	30	ba Hopane.....	nd
C27	aa R Sterane.....	nd	31	ab S Homohopane..	nd
C29	aa S Sterane.....	2157.	31	ab R Homohopane..	nd
C29	bb R Sterane.....	5798.	32	ab S Homohopane..	nd
C29	bb S Sterane.....	5124.	32	ab R Homohopane..	nd
C29	aa R Sterane.....	3551.	TOTAL	TERPANES.....	217324.
TOTAL	STERANES.....	71081.			

OPTIONAL ANALYSIS		Areas	OPTIONAL ANALYSIS		Areas
C30	tricyclic, 22 S..	ns	C35	ab S Homohopane.	nd
C30	tricyclic, 22 R..	ns	C35	ab R Homohopane.	nd
29	Desmethyl Hopane.	ns			
C28	Bisnorhopane....	ns			
C29/5	(RT. > 29 ab)..	10370.			
18	a(H) Oleanane....	ns	"X"		14345.
Gammacerane.....		ns	nC31		94130.
C33	ab S Homohopane.	nd	C27bb		800.
C33	ab R Homohopane.	nd	C28bb		1600.
C35	Hexacyclic.....	ns	C29bb		6000.

## RESULTS :

27	bb S / 27	aa R ..	N / A	C29	DHop / C29 Hop	v. low.
27	aa S / 27	aa R --	N / A	C28	BNHop / C29 Hop-	v. low.
27	S dia / 27	aa R	N / A	C29/5	/ C29 Hop.....	1.39
22	4-Me st / 27	aa R	N / A	18	aH Olean/C30 Hop.	v. low.
%	20 S C27		N / A	Gammacerane/C30	Hop.	v. low.
%	bb C27		N / A	30/3(R&S) / C29	Hop-	v. low.
29	bb S / 29	aa R...	1.44	30/3(R&S) / 23/3		v. low.
29	aa S / 29	aa R...	0.60	2	35Hex/C35Hop(R&S).	N / A
27	S dia / 29	aa R.	N / A	C35H(R&S)/C33H(R&S).		N / A
22	4-Me st / 29	aa R	v. low.	29+30Hop/C35	H(R&S).	N / A
%	20 S C29		43.78			
%	bb C29		65.67			
21	st / 22	st	2.47			
22	4-Me st / 22	st--	0.00			
C29	H / C30	H	0.76	X/29H		1.92
Tm	/ Ts		0.36	nC31/C30H		9.72
23/3	/ 24/4		0.44	%nC31/100		0.24
%	22 S C31		N / A	%ST/100		0.18
%	22 S C32		N / A	%TT/100		0.56
ba	/ ab	---- X 100 -	N / A	%27bb/100		0.09
23/3	/ 21	st	2.96	%28bb/100		0.19
TT	/ ST		3.05	%29bb/100		0.71
				27-30H/29ST		2.24
				29bbR/29aaR		1.63

**(4018.50–4018.58 m, core 5)**

ANNEXES 76 to 81

S N E A (P) Organic Geochemistry  
Computerized GC/MS Analytical Report on Steranes and Terpanes nr. 1745

Sample..... : 25/2-12 B13635. ST NO v  
Well Depth : 4018.50 to 4018.58 (Meters)  
Particularities II. : /  
Acquisition File Name : B13635STM Mag tape /  
Submitted by : KT July 25. , 1989.  
Particularities I. : CA-K5

S T E R A N E S		Areas	T E R P A N E S		Areas
C21	Sterane.....	1926.	C23	tricyclic.....	3186.
C22	4-Methyl Sterane	ns	C24	tetracyclic.....	9116.
C22	Sterane.....	1209.	Ts.....		17546.
C27	S Diasterane.....	975.	Tm.....		7908.
C27	aa S Sterane.....	nd	29	ab Hopane.....	12919.
C27	bb R Sterane.....	nd	30	ab Hopane.....	13895.
C27	bb S Sterane.....	nd	30	ba Hopane.....	nd
C27	aa R Sterane.....	nd	31	ab S Homohopane..	nd
C29	aa S Sterane.....	1718.	31	ab R Homohopane..	nd
C29	bb R Sterane.....	2558.	32	ab S Homohopane..	nd
C29	bb S Sterane.....	2854.	32	ab R Homohopane..	nd
C29	aa R Sterane.....	3037.	TOTAL	TERPANES.....	325959.
TOTAL STERANES		69281.			

OPTIONAL ANALYSIS		Areas	OPTIONAL ANALYSIS		Areas
C30	tricyclic, 22 S..	ns	C35	ab S Homohopane.	nd
C30	tricyclic, 22 R..	ns	C35	ab R Homohopane.	nd
C29	Desmethyl Hopane.	ns			
C28	Bisnorhopane.....	ns			
C29/5	(RT. > 29 ab)...	14997.			
18	a(H) Oleanane.....	ns	"X"		19945.
	Gammacerane.....	ns	nC31		24193.
C33	ab S Homohopane.	nd	C27bb		400.
C33	ab R Homohopane.	nd	C28bb		500.
C35	Hexacyclic.....	ns	C29bb		2100.

## RESULTS :

27	bb S / 27	aa R ..	N / A	C29	DHop / C29 Hop	v. low.
27	aa S / 27	aa R --	N / A	C28	BNHop / C29 Hop-	v. low.
27	S dia / 27	aa R	N / A	C29/5	/ C29 Hop.....	1.16
22	4-Me st / 27	aa R	N / A	18	aH Olean/C30 Hop.	v. low.
%	20 S C27		N / A	Gammacerane/C30	Hop.	v. low.
%	bb C27		N / A	30/3(R&S) / C29	Hop-	v. low.
29	bb S / 29	aa R...	0.93	30/3(R&S) / 23/3		v. low.
29	aa S / 29	aa R...	0.56	2.35Hex/C35Hop	(R&S).	N / A
27	S dia / 29	aa R...	0.32	C35H(R&S)/C33H	(R&S).	N / A
22	4-Me st / 29	aa R	v. low.	29+30Hop/C35	H(R&S).	N / A
%	20 S C29		44.96			
%	bb C29		53.23			
21	st / 22	st	1.59			
22	4-Me st / 22	st--	v. low.			
C29	H / C30	H	0.92	X/29H		1.54
Tm	/ Ts		0.45	nC31/C30H		1.74
23/3	/ 24/4		0.34	%nC31/100		0.05
%	22 S C31		N / A	%ST/100		0.16
%	22 S C32		N / A	%TT/100		0.77
ba	/ ab	X 100 -	N / A	%27bb/100		0.13
				%28bb/100		0.16
				%29bb/100		0.69
23/3	/ 21	st	1.65	27-30H/29ST		5.14
TT	/ ST		4.70	29bbR/29aaR		0.84

**WELL 25/2-5**

**(3512.5 m, cuttings)**

ANNEXES 82 to 86

S N E A (P) Organic Geochemistry  
Computerized GC/MS Analytical Report on Steranes and Terpanes nr. 1779

Sample..... : 25/2-5 B18993 ST NO  
Well Depth : 3512.50 to 3512.50 (Meters)  
Particularities II. : /  
Acquisition File Name : B18993STM Mag tape /  
Submitted by : KT september 7. , 1989.  
Particularities I. : ND

S T E R A N E S		Areas	T E R P A N E S		Areas
C21	Sterane	12835.	C23	tricyclic	19108
C23	4-Methyl Sterane	nd	C24	tetracyclic	12581
C23	Sterane	8350.	Ts		22917
C27	S Diasterane	45081.	Tm		54650
C27	aa S Sterane	25059.	29	ab Hopane	137502
C27	bb R Sterane	19680.	30	ab Hopane	264637
C27	bb S Sterane	19680.	30	ba Hopane	47598
C29	aa R Sterane	21062.	31	ab S Homohopane	165708
C29	aa S Sterane	20907.	31	ab R Homohopane	112821
C29	bb R Sterane	22760.	32	ab S Homohopane	88145
C29	bb S Sterane	16400.	32	ab R Homohopane	61701
C29	aa R Sterane	25827.	TOTAL TERPANES		1942970
TOTAL STERANES		728239.			

OPTIONAL ANALYSIS		Areas	OPTIONAL ANALYSIS		Areas
C30	tricyclic, 22 S.	ns	C35	ab S Homohopane.	nd
C30	tricyclic, 22 R.	ns	C35	ab R Homohopane.	nd
29	Desmethyl Hopane.	ns			
C28	Bisnorhopane	ns			
C29/5	(RT. > 29 ab)	42309.			
18	a(H) Oleanane	ns	"X"		26443
Gammacerane		nd	nC31		396999
C33	ab S Homohopane.	nd	C27bb		6400
C33	ab R Homohopane.	nd	C28bb		4200
C35	Hexacyclic	ns	C29bb		7000

## RESULTS :

27 bb S / 27 aa R	0.93	C29 DHop / C29 Hop	v. low.
27 aa S / 27 aa R	1.18	C28 BNHop / C29 Hop	v. low.
27 S dia / 27 aa R	2.14	C29/5 / C29 Hop	0.30
22 4-Me st / 27 aa R	N / A	18 aH Olean/C30 Hop	v. low.
% 20 S C27	52.33	Gammacerane/C30 Hop	N / A
% bb C27	46.04	30/3(R&S) / C29 Hop	v. low.
		30/3(R&S) / 23/3	v. low.
29 bb S / 29 aa R	0.63	2.35Hex/C35Hop(R&S)	N / A
29 aa S / 29 aa R	0.80	C35H(R&S)/C33H(R&S)	N / A
27 S dia / 29 aa R	1.74	29+30Hop/C35 H(R&S)	N / A
22 4-Me st / 29 aa R	N / A		
% 20 S C29	43.33		
% bb C29	45.71		
21 st / 22 st	1.53		
22 4-Me st / 22 st	N / A		
		X/29H	0.19
C29 H / C30 H	0.51	nC31/C30H	1.50
Tm / Ts	2.38	%nC31/100	0.12
23/3 / 24/4	1.51	%ST/100	0.23
% 22 S C31	59.49	%TT/100	0.63
% 22 S C32	58.82	%27bb/100	0.36
ba / ab X 100	17.98	%28bb/100	0.23
		%29bb/100	0.39
23/3 / 21 st	1.48	27-30H/29ST	5.57
TT / ST	2.66	29bbR/29aaR	0.88

**WELL 25/2-5**

(3565 m, cuttings)

ANNEXES 87 to 91



S N E A (P) Organic Geochemistry  
 Computerized GC/MS Analytical Report on Steranes and Terpanes nr. 177B

Sample..... : 25/2-5 B18994. ST NO v  
 Well Depth..... : 3565. to 3565. (Meters)  
 Particularities II. : /  
 Acquisition File Name : B18994STM Mag tape /  
 Submitted by..... : KT september 6. , 1989.  
 Particularities I... : ND

S T E R A N E S		Areas	T E R P A N E S		Areas
C21	Sterane.....	15423.	C23	tricyclic.....	28549
C22	4-Methyl Sterane	nd	C24	tetracyclic.....	14858
C22	Sterane.....	9838.	Ts.....		28615
C27	S Diasterane.....	51643.	Tm.....		61801
C27	aa S Sterane.....	23133.	29	ab Hopane.....	154830
C27	bb R Sterane.....	20740.	30	ab Hopane.....	296891
C27	bb S Sterane.....	20740.	30	ba Hopane.....	50925
C27	aa R Sterane.....	25526.	31	ab S Homohopane..	165901
C29	aa S Sterane.....	24879.	31	ab R Homohopane..	124061
C29	bb R Sterane.....	27543.	32	ab S Homohopane..	101289
C29	bb S Sterane.....	21324.	32	ab R Homohopane..	79620
C29	aa R Sterane.....	30211.	TOTAL	TERPANES.....	2185710
TOTAL	STERANES.....	874667.			

OPTIONAL ANALYSIS		Areas	OPTIONAL ANALYSIS		Areas
C30	tricyclic, 22 S..	ns	C35	ab S Homohopane.	nd
C30	tricyclic, 22 R..	ns	C35	ab R Homohopane.	nd
29	Desmethyl Hopane.	ns			
C28	Bisnorhopane....	ns			
C29/5	(RT. > 29 ab)..	51818.	"X"		27933
18	a(H) Oleanane....	ns	nC31		449999
	Gammacerane.....	nd	C27bb		6800
C33	ab S Homohopane.	nd	C28bb		5000
C33	ab R Homohopane.	nd	C29bb		7000
C35	Hexacyclic.....	ns			

## RESULTS :

27	bb S / 27 aa R ..	0.81	C29	DHop / C29 Hop .	v. low.
27	aa S / 27 aa R --	0.90	C28	BNHop / C29 Hop-	v. low.
27	S dia / 27 aa R	2.02	C29/5	/ C29 Hop.....	0.33
22	4-Me st / 27 aa R	N / A	18	aH Olean/C30 Hop.	v. low.
%	20 S C27 .....	48.67		Gammacerane/C30 Hop.	N / A
%	bb C27 .....	46.01	30/3	(R&S) / C29 Hop-	v. low.
			30/3	(R&S) / 23/3....	v. low.
29	bb S / 29 aa R...	0.70	2.	35Hex/C35Hop(R&S).	N / A
29	aa S / 29 aa R...	0.82	C35H	(R&S)/C33H(R&S).	N / A
27	S dia / 29 aa R..	1.70	29+30	Hop/C35 H(R&S).	N / A
22	4-Me st / 29 aa R	N / A			
%	20 S C29 .....	44.44	X/29H		0.18
%	bb C29 .....	47.00	nC31/C30H		1.51
21	st / 22 st .....	1.56	%nC31/100		0.12
22	4-Me st / 22 st--	N / A	%ST/100		0.24
			%TT/100		0.62
C29	H / C30 H .....	0.52	%27bb/100		0.36
Tm	/ Ts .....	2.15	%28bb/100		0.26
23/3	/ 24/4 .....	1.92	%29bb/100		0.37
%	22 S C31 .....	57.21	27-30H/29ST		5.21
%	22 S C32 .....	55.98	29bbR/29aaR		0.91
ba	/ ab ----- X 100 -	17.15			
23/3	/ 21 st .....	1.85			
TT	/ ST .....	2.49			

**WELL 25/2-7**

**(3838-3844 m, cuttings)**

ANNEXES 92 to 96

S N E A (P) Organic Geochemistry  
 Computerized GC/MS Analytical Report on Steranes and Terpanes nr. 1776

Sample..... : 25/2-7 B18995. ST NO v  
 Well Depth..... : 3838. to 3844. (Meters)  
 Particularities II. : /  
 Acquisition File Name : B18995STM Mag tape /  
 Submitted by..... : KT september 6. , 1989.  
 Particularities I. : ND

S T E R A N E S		Areas	T E R P A N E S		Areas
C21	Sterane.....	4155.	C23	tricyclic.....	ns
C22	4-Methyl Sterane	nd	C24	tetracyclic.....	ns
C23	Sterane.....	1741.	Ts.....		14723.
C27	S Diasterane.....	5696.	Tm.....		228214.
C27	aa S Sterane.....	6822.	29 ab Hopane.....		489561.
C27	bb R Sterane.....	8396.	30 ab Hopane.....		588941.
C27	bb S Sterane.....	8396.	30 ba Hopane.....		110424.
C27	aa R Sterane.....	6297.	31 ab S Homohopane..		342320.
C29	aa S Sterane.....	27126.	31 ab R Homohopane..		261341.
C29	bb R Sterane.....	nd	32 ab S Homohopane..		202446.
C29	bb S Sterane.....	33092.	32 ab R Homohopane..		143552.
C29	aa R Sterane.....	38520.	TOTAL TERPANES.....		4211770.
TOTAL STERANES.....		411943.			

OPTIONAL ANALYSIS		Areas	OPTIONAL ANALYSIS		Areas
C30	tricyclic, 22 S..	ns	C35	ab S Homohopane.	nd
C30	tricyclic, 22 R..	ns	C35	ab R Homohopane.	nd
29	Desmethyl Hopane.	ns			
C28	Bisnorhopane.....	545193.			
C29/5	(RT. > 29 ab)...	nd	"X"		36809.
18	a(H) Oleanane.....	nd	nC31		480000.
Gammacerane	.....	nd	C27bb		1000.
C33	ab S Homohopane.	nd	C28bb		2000.
C33	ab R Homohopane.	nd	C29bb		7500.
C35	Hexacyclic.....	ns			

## RESULTS :

27 bb S / 27 aa R ..	1.33	C29 DHop / C29 Hop .	v. low.
27 aa S / 27 aa R --	1.08	C28 BNHop / C29 Hop-	1.11
27 S dia / 27 aa R .	0.90	C29/5 / C29 Hop.....	N / A
22 4-Me st / 27 aa R	N / A	18 aH Olean/C30 Hop.	v. low.
% 20 S C27 .....	50.87	Gammacerane/C30 Hop.	N / A
% bb C27-----	56.13	30/3(R&S) / C29 Hop-	v. low.
		30/3(R&S) / 23/3....	N / A
29 bb S / 29 aa R...	0.85	2 35Hex/C35Hop(R&S).	N / A
29 aa S / 29 aa R...	0.70	C35H(R&S)/C33H(R&S).	N / A
27 S dia / 29 aa R..	0.14	29+30Hop/C35 H(R&S).	N / A
22 4-Me st / 29 aa R	N / A		
% 20 S C29 .....	N / A		
% bb C29-----	N / A		
21 st / 22 st .....	2.38		
22 4-Me st / 22 st--	N / A		
		X/29H	0.07
C29 H / C30 H .....	0.83	nC31/C30H	0.81
Tm / Ts .....	15.50	%nC31/100	0.09
23/3 / 24/4 .....	N / A	%ST/100	0.08
% 22 S C31 .....	56.70	%TT/100	0.82
% 22 S C32 .....	58.51	%27bb/100	0.09
ba / ab ----- X 100 -	18.74	%28bb/100	0.19
		%29bb/100	0.71
23/3 / 21 st .....	v. low.	27-30H/29ST	
TT / ST .....	10.22	29bbR/29aaR	

**WELL 25/2-7**

**(3866-3876 m, cuttings)**

ANNEXES 97 to 101

S N E A (P) Organic Geochemistry  
 Computerized GC/MS Analytical Report on Steranes and Terpanes nr. 1777

Sample..... : 25/2-7 B18996. ST NO v  
 Well Depth : 3866. to 3876. (Meters)  
 Particularities II. : /  
 Acquisition File Name : B18996STM Mag tape /  
 Submitted by : KT september 6. , 1989.  
 Particularities I. : ND

S T E R A N E S		Areas	T E R P A N E S		Areas
C21	Sterane.....	4291.	C23	tricyclic.....	10091.
C22	4-Methyl Sterane	nd	C24	tetracyclic.....	19178.
C22	Sterane.....	1248.	Ts.....		12502.
C27	S Diasterane.....	8143.	Tm.....		145020.
C27	aa S Sterane.....	6666.	29	ab Hopane.....	320050.
C27	bb R Sterane.....	7035.	30	ab Hopane.....	395060.
C27	bb S Sterane.....	7035.	30	ba Hopane.....	72511.
C27	aa R Sterane.....	6296.	31	ab S Homohopane..	245036.
C29	aa S Sterane.....	20499.	31	ab R Homohopane..	187527.
C29	bb R Sterane.....	nd	32	ab S Homohopane..	135018.
C29	bb S Sterane.....	25526.	32	ab R Homohopane..	100013.
C29	aa R Sterane.....	27112.	TOTAL	TERPANES.....	2906850.
TOTAL STERANES.....		367906.			

OPTIONAL ANALYSIS		Areas	OPTIONAL ANALYSIS		Areas
C30	tricyclic, 22 S..	ns	C35	ab S Homohopane.	nd
C30	tricyclic, 22 R..	ns	C35	ab R Homohopane.	nd
C29	Desmethyl Hopane.	ns			
C28	Bisnorhopane....	202530.			
C29/5	(RT. > 29 ab)...	22503.			
18	a(H) Oleanane....	ns	"X"		27504.
Gammacerane.		nd	nC31		342999.
C33	ab S Homohopane.	nd	C27bb		1700.
C33	ab R Homohopane.	nd	C28bb		2500.
C35	Hexacyclic.....	ns	C29bb		7500.

## RESULTS :

27	bb S / 27	aa R ..	1.11	C29	DHop / C29	Hop	v. low.
27	aa S / 27	aa R --	1.05	C28	BNHop / C29	Hop-	0.63
27	S dia / 27	aa R .	1.29	C29/5	/ C29	Hop.....	0.07
22	4-Me st / 27	aa R	N / A	18	aH Olean/C30	Hop.	v. low.
%	20 S C27		50.68	Gammacerane/C30	Hop.		N / A
%	bb C27		52.04	30/3(R&S) / C29	Hop-		v. low.
29	bb S / 29	aa R...	0.94	30/3(R&S) / 23/3			v. low.
29	aa S / 29	aa R...	0.75	2.35Hex/C35Hop	(R&S).		N / A
27	S dia / 29	aa R..	0.30	C35H(R&S)/C33H	(R&S).		N / A
22	4-Me st / 29	aa R	N / A	29+30Hop/C35	H(R&S).		N / A
%	20 S C29		N / A				
%	bb C29		N / A				
21	st / 22	st	3.43				
22	4-Me st / 22	st--	N / A				
C29	H / C30	H	0.81	X/29H			0.08
Tm / Ts			11.59	nC31/C30H			0.86
23/3 / 24/4			0.52	%nC31/100			0.09
%	22 S C31		56.64	%ST/100			0.10
%	22 S C32		57.44	%TT/100			0.80
ba / ab		X 100 -	18.35	%27bb/100			0.14
				%28bb/100			0.21
				%29bb/100			0.64
23/3 / 21	st		2.35	27-30H/29ST			
TT / ST			7.90	29bbR/29aaR			

**CONDENSATE**

(3697.20, )

ANNEXES 102 to 108

S N E A (P) Organic Geochemistry  
 Computerized GC/MS Analytical Report on Steranes and Terpanes nr. 1755

Sample..... : 25/2-12 B1874B. ST NO v  
 Well Depth..... : 3697.20 to 3697.20 (Meters)  
 Particularities II.. : /  
 Acquisition File Name : B1874BSTM Mag tape /  
 Submitted by..... : KT July 26. , 1989.  
 Particularities I... : HT-CONDENSAT

S T E R A N E S		Areas	T E R P A N E S		Areas
C21	Sterane.....	3768.	C23	tricyclic.....	2299.
C22	4-Methyl Sterane	800.	C24	tetracyclic.....	1840.
C23	Sterane.....	2100.	Ts.....		10577.
C27	S Diasterane.....	9700.	Tm.....		3400.
C27	aa S Sterane.....	nd	29	ab Hopane.....	10800.
C27	bb R Sterane.....	nd	30	ab Hopane.....	24649.
C27	bb S Sterane.....	nd	30	ba Hopane.....	2565.
C27	aa R Sterane.....	nd	31	ab S Homohopane..	11463.
C29	aa S Sterane.....	1750.	31	ab R Homohopane..	7965.
C29	bb R Sterane.....	3500.	32	ab S Homohopane..	9129.
C29	bb S Sterane.....	3571.	32	ab R Homohopane..	6639.
C29	aa R Sterane.....	1900.	TOTAL	TERPANES.....	179596.
TOTAL	STERANES.....	178796.			

OPTIONAL ANALYSIS		Areas	OPTIONAL ANALYSIS		Areas
C30	tricyclic, 22 S..	ns	C35	ab S Homohopane.	nd
C30	tricyclic, 22 R..	ns	C35	ab R Homohopane.	nd
29	Desmethyl Hopane.	ns			
C28	Bisnorhopane....	ns			
C29/5	(RT. > 29 ab)..	9660.	"X"		11200.
18	a(H) Oleanane....	ns	nC31		423366.
	Gammacerane.....	ns	C27bb		4100.
C33	ab S Homohopane.	nd	C28bb		3778.
C33	ab R Homohopane.	nd	C29bb		6708.
C35	Hexacyclic.....	ns			

## RESULTS :

27	bb S / 27	aa R ..	N / A	C29	DHop / C29 Hop	v. low.
27	aa S / 27	aa R --	N / A	C28	BNHop / C29 Hop-	v. low.
27	S dia / 27	aa R	N / A	C29/5	/ C29 Hop.....	0.89
22	4-Me st / 27	aa R	N / A	18	aH Olean/C30 Hop.	v. low.
%	20 S C27		N / A	Gammacerane/C30	Hop.	v. low.
%	bb C27		N / A	30/3(R&S) / C29	Hop-	v. low.
29	bb S / 29	aa R...	1.87	30/3(R&S) / 23/3		v. low.
29	aa S / 29	aa R...	0.92	2	35Hex/C35Hop(R&S).	N / A
27	S dia / 29	aa R..	5.10	C35H(R&S)/C33H(R&S).		N / A
22	4-Me st / 29	aa R	0.42	29+30Hop/C35	H(R&S).	N / A
%	20 S C29		49.63			
%	bb C29		65.95			
21	st / 22	st.....	1.79			
22	4-Me st / 22	st--	0.38			
C29	H / C30	H.....	0.43	X/29H		1.03
Tm	/ Ts		0.32	nC31/C30H		17.17
23/3	/ 24/4		1.24	%nC31/100		0.54
%	22 S C31		59.00	%ST/100		0.22
%	22 S C32		57.89	%TT/100		0.22
ba	/ ab	--- X 100 -	10.40	%27bb/100		0.28
23/3	/ 21	st.....	0.61	%28bb/100		0.25
TT	/ ST		1.00	%29bb/100		0.45
				27-30H/29ST		4.60
				29bbR/29aaR		1.84