

Geochemical data of the Husky Oil NPR Operations Inc. (U. S. Navy) West Fish Creek No. 1 from cuttings (5,520'-5,550', 5,570'-5,600', 5,660'-5,690', and 5,730'-5,770'),



Received 30 January 2006

Total of 33 pages in report

Alaska Geologic Materials Center Data Report No. 323



April 18, 2005

The enclosed data transmittal contains one copy of geochemical data for various wells from the NPR-A, including:

<u>Well Name,</u>	<u>Well Depth(ft)</u>
West Fish Creek 1,	5520' - 5550'
West Fish Creek 1,	5570' - 5600'
West Fish Creek 1,	5660' - 5690'
West Fish Creek 1,	5730' - 5770'

Regards,


Bradley J. Huizinga

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Total Organic Carbon, Pyrolysis

Company: CONOCOPHILLIPS

Project #: 04-501-A

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SOXHLET

Project #: 05-173-A

Client ID	Lab ID	Rock Weight (g)	Net Extract Weight (g)	% Extract	EOM (ppm)
US136123	CP278360	1.5555	0.0006	0.04	386
US136124	CP278361	0.6044	0.0003	0.05	496
US136125	CP278362	0.7151	0.0001	0.01	140
US136126	CP278363	0.5844	0.0003	0.05	513

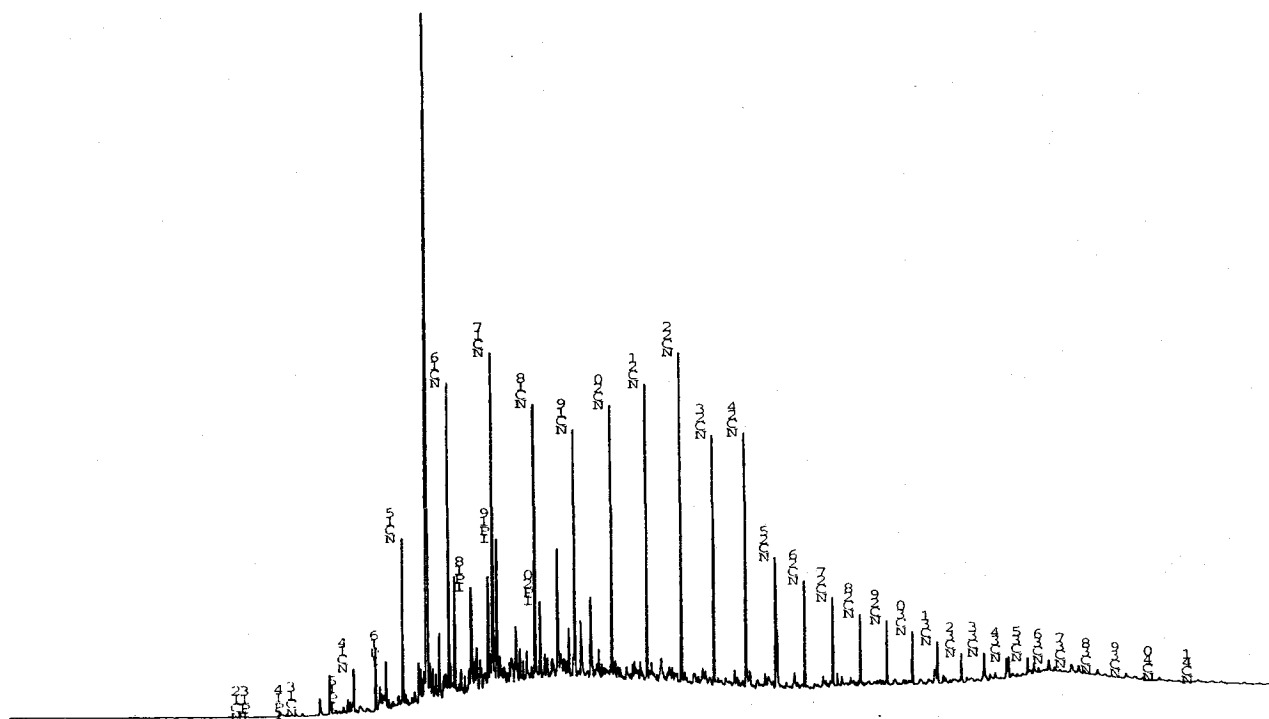
Baseline DGSI - Brazil
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ANALYTICAL LABORATORIES

Client ID:	US136123
Project #:	05-173-A
Lab ID:	CP278360
Sample Type:	CUTTINGS
Sampling Point:	
Formation:	
Geologic Age:	
Top Depth:	5520 FT
Bottom Depth:	5550 FT



Ratios

Pristane/Phytane	1.76
Pristane/ <i>n</i> C ₁₇	0.67
Phytane/ <i>n</i> C ₁₈	0.50
<i>n</i> C ₁₈ / <i>n</i> C ₁₉	1.05
<i>n</i> C ₁₇ / <i>n</i> C ₂₉	4.87
CPI Marzi ⁴	0.87

Resolved Components (%)

Normal Paraffins	31.2
Isoprenoids	5.2
Resolved unknowns	63.6

Company: CONOCOPHILLIPS
Well Name: WEST FISH CREEK 1
Depth: 5520 - 5550 FT
Sampling Point:

Client ID: US136123
Project #: 05-173-A
Lab ID: CP278360
File Name: G2050151.D

Peak Label	Compound Name	Ret. Time	Area	Height	Area%	Hght%
NC9	Normal Alkane C9					
NC10	Normal Alkane C10					
IP11	Isoprenoid C11					
NC11	Normal Alkane C11					
NC12	Normal Alkane C12	35.085	256	44	0.00	0.00
IP13	Isoprenoid C13	35.813	143	28	0.00	0.00
IP14	Isoprenoid C14	38.596	886	125	0.02	0.01
NC13	Normal Alkane C13	39.655	1545	421	0.03	0.04
IP15	Isoprenoid C15	43.082	4209	929	0.08	0.08
NC14	Normal Alkane C14	43.958	18986	5545	0.36	0.48
IP16	Isoprenoid C16	46.612	27211	6039	0.51	0.52
NC15	Normal Alkane C15	48.038	71146	20727	1.34	1.80
NC16	Normal Alkane C16	51.902	138364	38741	2.61	3.36
IP18	Isoprenoid C18	53.783	75465	12940	1.42	1.12
NC17	Normal Alkane C17	55.552	158384	41089	2.99	3.56
IP19	Isoprenoid C19 (Pristane)	55.898	106366	18116	2.01	1.57
NC18	Normal Alkane C18	59.010	121960	33939	2.30	2.94
IP20	Isoprenoid C20 (Phytane)	59.426	60606	9636	1.14	0.84
NC19	Normal Alkane C19	62.308	116658	30496	2.20	2.64
NC20	Normal Alkane C20	65.452	123964	33759	2.34	2.93
NC21	Normal Alkane C21	68.465	143087	36665	2.70	3.18
NC22	Normal Alkane C22	71.344	156089	40644	2.95	3.52
NC23	Normal Alkane C23	74.091	116680	30867	2.20	2.68
NC24	Normal Alkane C24	76.727	119460	31467	2.26	2.73
NC25	Normal Alkane C25	79.268	61896	16211	1.17	1.40
NC26	Normal Alkane C26	81.712	51775	13402	0.98	1.16
NC27	Normal Alkane C27	84.073	44051	11160	0.83	0.97
NC28	Normal Alkane C28	86.346	36237	8932	0.68	0.77
NC29	Normal Alkane C29	88.549	32550	8065	0.61	0.70
NC30	Normal Alkane C30	90.674	26338	6602	0.50	0.57
NC31	Normal Alkane C31	92.736	24574	5288	0.46	0.46
NC32	Normal Alkane C32	94.730	16034	3673	0.30	0.32
NC33	Normal Alkane C33	96.665	18455	3520	0.35	0.31
NC34	Normal Alkane C34	98.545	14346	2576	0.27	0.22
NC35	Normal Alkane C35	100.365	10689	2203	0.20	0.19
NC36	Normal Alkane C36	102.151	9095	1525	0.17	0.13
NC37	Normal Alkane C37	104.048	5683	1109	0.11	0.10
NC38	Normal Alkane C38	106.178	4699	765	0.09	0.07
NC39	Normal Alkane C39	108.605	4841	645	0.09	0.06
NC40	Normal Alkane C40	111.399	3937	454	0.07	0.04
NC41	Normal Alkane C41	114.633	3494	325	0.07	0.03



BASLINE DGSi
ANALYTICAL LABORATORIES

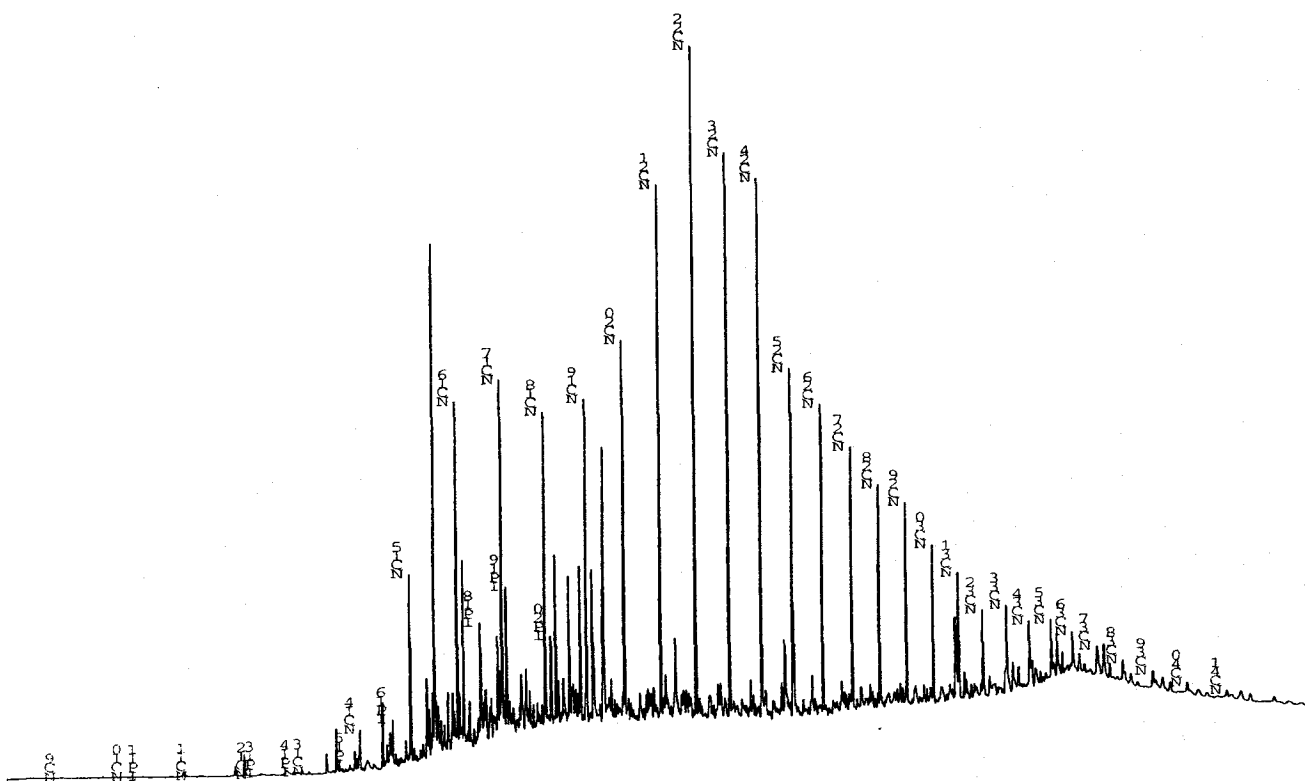
EXTRACT GC

Company: CONOCOPHILLIPS
Country: UNITED STATES
Basin: NORTH SLOPE
Lease:
Block:
Field:
Well Name: WEST FISH CREEK 1
Latitude: 70.32667
Longitude: -152.0606

Client ID: US136124
Project #: 05-173-A
Lab ID: CP278361
Sample Type: CUTTINGS
Sampling Point:
Formation:
Geologic Age:
Top Depth: 5570 FT
Bottom Depth: 5600 FT

Extract GC Trace

G2050152.D



Company: CONOCOPHILLIPS
Well Name: WEST FISH CREEK 1
Depth: 5570 - 5600 FT
Sampling Point:

Client ID: US136124
Project #: 05-173-A
Lab ID: CP278361
File Name: G2050152.D

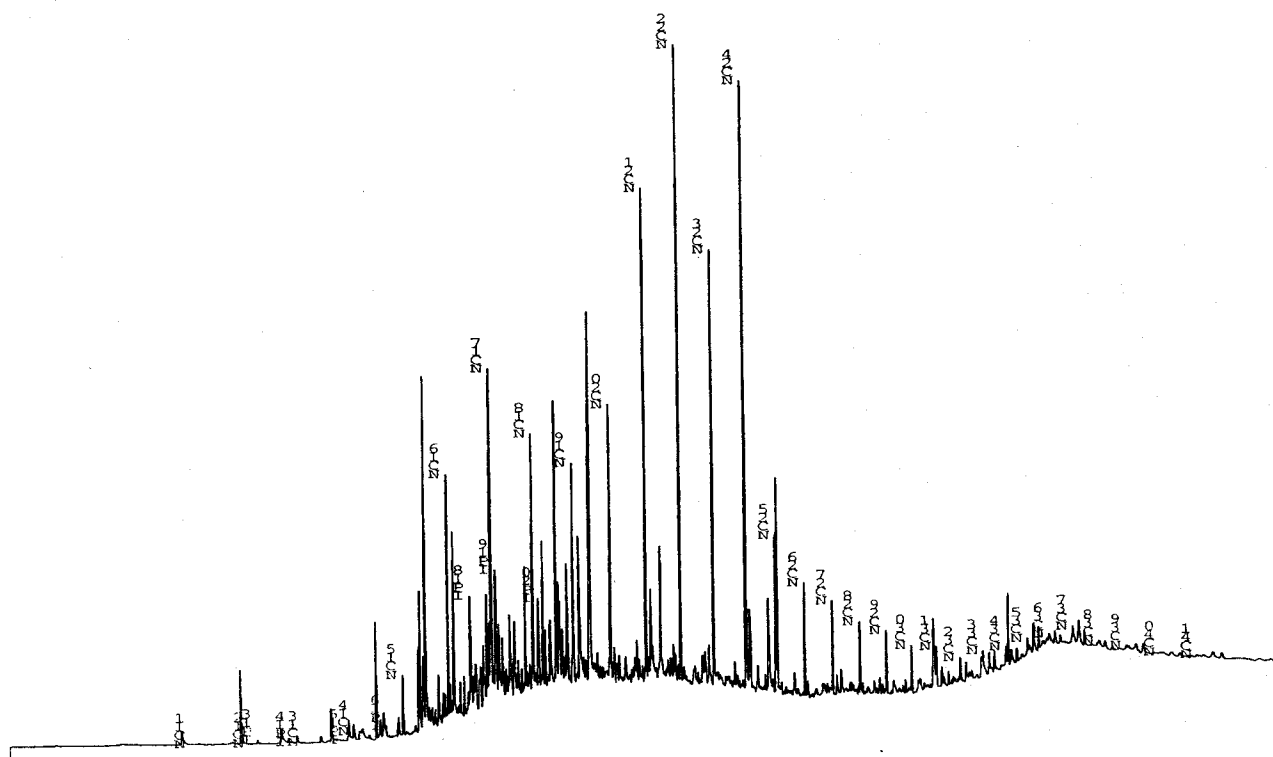
Peak Label	Compound Name	Ret. Time	Area	Height	Area%	Hght%
NC9	Normal Alkane C9	19.473	280	51	0.01	0.01
NC10	Normal Alkane C10	24.986	316	49	0.01	0.01
IP11	Isoprenoid C11	26.236	248	43	0.01	0.00
NC11	Normal Alkane C11	30.202	140	32	0.00	0.00
NC12	Normal Alkane C12	35.077	254	60	0.01	0.01
IP13	Isoprenoid C13	35.783	868	116	0.02	0.01
IP14	Isoprenoid C14	38.602	746	139	0.02	0.01
NC13	Normal Alkane C13	39.659	761	168	0.02	0.02
IP15	Isoprenoid C15	43.072	1412	409	0.03	0.04
NC14	Normal Alkane C14	43.960	8356	2359	0.19	0.25
IP16	Isoprenoid C16	46.607	12742	2713	0.30	0.29
NC15	Normal Alkane C15	48.032	37601	10769	0.87	1.15
NC16	Normal Alkane C16	51.885	70253	19892	1.63	2.12
IP18	Isoprenoid C18	53.776	39839	6931	0.92	0.74
NC17	Normal Alkane C17	55.530	75603	20339	1.75	2.16
IP19	Isoprenoid C19 (Pristane)	55.882	51718	8503	1.20	0.91
NC18	Normal Alkane C18	58.990	62871	17929	1.46	1.91
IP20	Isoprenoid C20 (Phytane)	59.427	33090	5197	0.77	0.55
NC19	Normal Alkane C19	62.291	67540	18504	1.56	1.97
NC20	Normal Alkane C20	65.438	80800	21738	1.87	2.31
NC21	Normal Alkane C21	68.454	111391	30522	2.58	3.27
NC22	Normal Alkane C22	71.340	147116	38327	3.41	4.1
NC23	Normal Alkane C23	74.095	123879	32294	2.87	3.44
NC24	Normal Alkane C24	76.735	119458	30925	2.77	3.29
NC25	Normal Alkane C25	79.279	77197	19881	1.79	2.12
NC26	Normal Alkane C26	81.728	67449	17746	1.56	1.89
NC27	Normal Alkane C27	84.088	60306	15084	1.40	1.61
NC28	Normal Alkane C28	86.365	49678	12720	1.15	1.35
NC29	Normal Alkane C29	88.564	46139	11613	1.07	1.24
NC30	Normal Alkane C30	90.692	36747	9076	0.85	0.97
NC31	Normal Alkane C31	92.755	35887	7299	0.83	0.78
NC32	Normal Alkane C32	94.747	21730	5006	0.50	0.53
NC33	Normal Alkane C33	96.681	25554	5046	0.59	0.54
NC34	Normal Alkane C34	98.568	21859	3842	0.51	0.41
NC35	Normal Alkane C35	100.386	15733	3354	0.36	0.36
NC36	Normal Alkane C36	102.170	14810	2339	0.34	0.25
NC37	Normal Alkane C37	104.071	9090	1750	0.21	0.19
NC38	Normal Alkane C38	106.202	8374	1339	0.19	0.14
NC39	Normal Alkane C39	108.634	7951	1048	0.18	0.11
NC40	Normal Alkane C40	111.450	6361	709	0.15	0.08
NC41	Normal Alkane C41	114.687	5222	531	0.12	0.06

Company:	CONOCOPHILLIPS
Country:	UNITED STATES
Basin:	NORTH SLOPE
Lease:	
Block:	
Field:	
Well Name:	WEST FISH CREEK 1
Latitude:	70.32667
Longitude:	-152.0606

Client ID:	US136125
Project #:	05-173-A
Lab ID:	CP278362
Sample Type:	CUTTINGS
Sampling Point:	
Formation:	
Geologic Age:	
Top Depth:	5660 FT
Bottom Depth:	5690 FT

Extract GC Trace

G2050153.D



EGC parameters

Ratios	
Pristane/Phytane	1.53
Pristane/ <i>n</i> C ₁₇	0.70
Phytane/ <i>n</i> C ₁₈	0.67
<i>n</i> C ₁₈ / <i>n</i> C ₁₉	1.07
<i>n</i> C ₁₇ / <i>n</i> C ₂₉	5.14
CPI Marzi ⁴	0.54

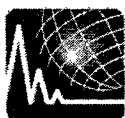
EGC parameters

<u>Resolved Components (%)</u>	
Normal Paraffins	25.6
Isoprenoids	3.4
Resolved unknowns	70.9

Company: CONOCOPHILLIPS
Well Name: WEST FISH CREEK 1
Depth: 5660 - 5690 FT
Sampling Point:

Client ID: US136125
Project #: 05-173-A
Lab ID: CP278362
File Name: G2050153.D

Peak Label	Compound Name	Ret. Time	Area	Height	Area%	Hght%
NC9	Normal Alkane C9					
NC10	Normal Alkane C10					
IP11	Isoprenoid C11					
NC11	Normal Alkane C11	30.207	98	19	0.00	0.00
NC12	Normal Alkane C12	35.092	79	22	0.00	0.00
IP13	Isoprenoid C13	35.777	922	180	0.03	0.03
IP14	Isoprenoid C14	38.608	513	60	0.02	0.01
NC13	Normal Alkane C13	39.671	260	49	0.01	0.01
IP15	Isoprenoid C15	43.077	374	83	0.01	0.01
NC14	Normal Alkane C14	43.967	1223	302	0.04	0.05
IP16	Isoprenoid C16	46.612	2784	574	0.09	0.09
NC15	Normal Alkane C15	48.032	9087	2706	0.30	0.43
NC16	Normal Alkane C16	51.885	38644	11060	1.29	1.74
IP18	Isoprenoid C18	53.784	28882	5298	0.96	0.84
NC17	Normal Alkane C17	55.532	59651	15070	1.99	2.38
IP19	Isoprenoid C19 (Pristane)	55.880	41683	6044	1.39	0.95
NC18	Normal Alkane C18	58.995	40850	11544	1.36	1.82
IP20	Isoprenoid C20 (Phytane)	59.435	27280	4162	0.91	0.66
NC19	Normal Alkane C19	62.296	38344	9815	1.28	1.55
NC20	Normal Alkane C20	65.443	47599	12391	1.59	1.95
NC21	Normal Alkane C21	68.456	81360	22079	2.72	3.48
NC22	Normal Alkane C22	71.344	105402	28451	3.52	4.49
NC23	Normal Alkane C23	74.092	71295	19474	2.38	3.07
NC24	Normal Alkane C24	76.751	123060	27188	4.11	4.29
NC25	Normal Alkane C25	79.276	26112	7114	0.87	1.12
NC26	Normal Alkane C26	81.724	19886	5140	0.66	0.81
NC27	Normal Alkane C27	84.087	16899	4313	0.56	0.68
NC28	Normal Alkane C28	86.362	13180	3335	0.44	0.53
NC29	Normal Alkane C29	88.563	11615	2888	0.39	0.46
NC30	Normal Alkane C30	90.694	9067	2159	0.30	0.34
NC31	Normal Alkane C31	92.755	11139	1891	0.37	0.30
NC32	Normal Alkane C32	94.753	5880	1165	0.20	0.18
NC33	Normal Alkane C33	96.686	6024	1177	0.20	0.19
NC34	Normal Alkane C34	98.586	5570	940	0.19	0.15
NC35	Normal Alkane C35	100.400	4329	844	0.14	0.13
NC36	Normal Alkane C36	102.196	6846	675	0.23	0.11
NC37	Normal Alkane C37	104.177	5860	840	0.20	0.13
NC38	Normal Alkane C38	106.377	3572	366	0.12	0.06
NC39	Normal Alkane C39	108.654	2934	316	0.10	0.05
NC40	Normal Alkane C40	111.467	1212	151	0.04	0.02
NC41	Normal Alkane C41	114.516	1449	140	0.05	0.02



BASLINE DGSi
ANALYTICAL LABORATORIES

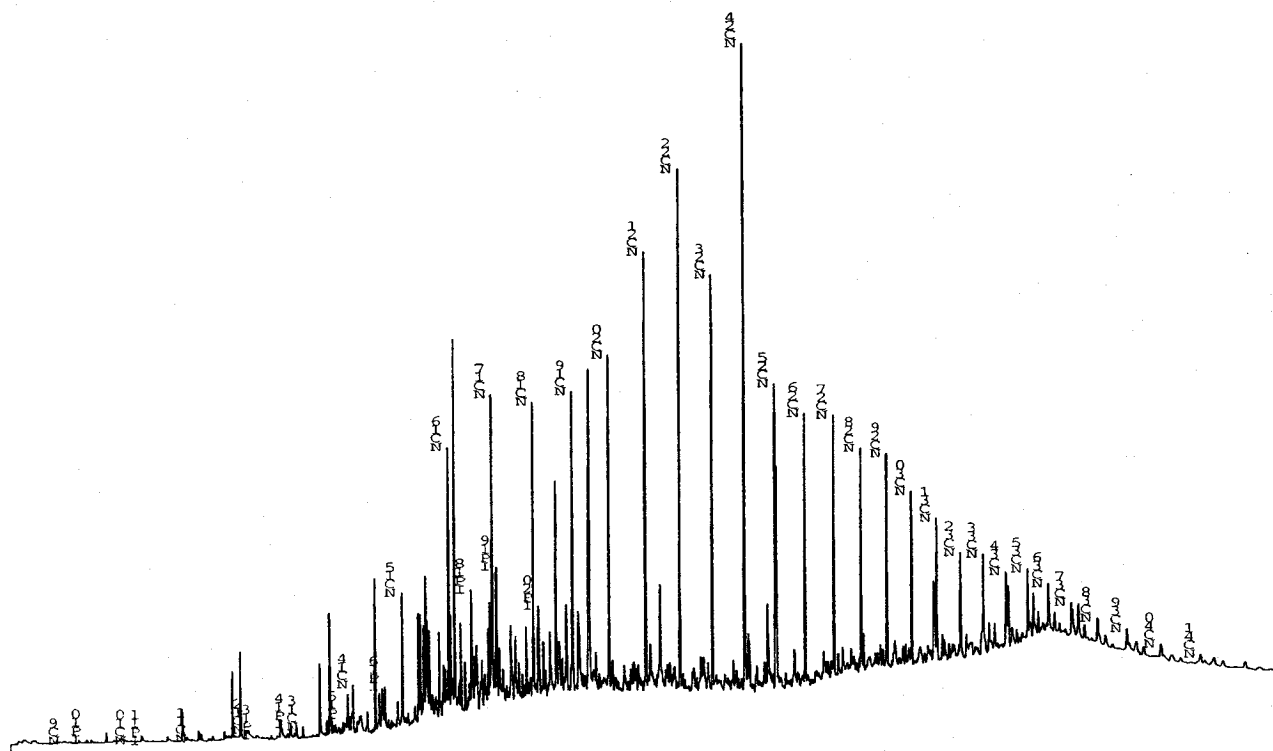
EXTRACT GC

Company: CONOCOPHILLIPS
Country: UNITED STATES
Basin: NORTH SLOPE
Lease:
Block:
Field:
Well Name: WEST FISH CREEK 1
Latitude: 70.32667
Longitude: -152.0606

Client ID: US136126
Project #: 05-173-A
Lab ID: CP278363
Sample Type: CUTTINGS
Sampling Point:
Formation:
Geologic Age:
Top Depth: 5730 FT
Bottom Depth: 5770 FT

Extract GC Trace

G2050154.D



EGC parameters

Ratios

Pristane/Phytane	1.42
Pristane/ nC_{17}	0.72
Phytane/ nC_{18}	0.58
nC_{18}/nC_{19}	0.91
nC_{17}/nC_{29}	1.43
CPI Marzi ⁴	0.76

EGC parameters

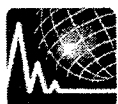
Resolved Components (%)

Normal Paraffins	28.4
Isoprenoids	3.1
Resolved unknowns	68.3

Company: CONOCOPHILLIPS
Well Name: WEST FISH CREEK 1
Depth: 5730 - 5770 FT
Sampling Point:

Client ID: US136126
Project #: 05-173-A
Lab ID: CP278363
File Name: G2050154.D

Peak Label	Compound Name	Ret. Time	Area	Height	Area%	Hght%
NC9	Normal Alkane C9	19.468	381	98	0.01	0.01
NC10	Normal Alkane C10	24.995	602	96	0.01	0.01
IP11	Isoprenoid C11	26.256	363	69	0.01	0.01
NC11	Normal Alkane C11	30.200	563	146	0.01	0.02
NC12	Normal Alkane C12	35.080	2793	554	0.06	0.06
IP13	Isoprenoid C13	35.808	1223	244	0.03	0.03
IP14	Isoprenoid C14	38.577	1476	490	0.03	0.05
NC13	Normal Alkane C13	39.658	2443	648	0.06	0.07
IP15	Isoprenoid C15	43.073	3346	742	0.08	0.08
NC14	Normal Alkane C14	43.959	9452	2728	0.21	0.29
IP16	Isoprenoid C16	46.605	11368	2421	0.26	0.26
NC15	Normal Alkane C15	48.021	25631	7310	0.58	0.78
NC16	Normal Alkane C16	51.866	52805	14593	1.19	1.55
IP18	Isoprenoid C18	53.757	38935	6606	0.88	0.70
NC17	Normal Alkane C17	55.506	66317	16904	1.50	1.79
IP19	Isoprenoid C19 (Pristane)	55.859	47622	7557	1.07	0.80
NC18	Normal Alkane C18	58.966	57374	16088	1.29	1.71
IP20	Isoprenoid C20 (Phytane)	59.392	33542	4996	0.76	0.53
NC19	Normal Alkane C19	62.267	62742	16449	1.41	1.75
NC20	Normal Alkane C20	65.416	68482	18270	1.54	1.94
NC21	Normal Alkane C21	68.432	89689	23901	2.02	2.54
NC22	Normal Alkane C22	71.322	104142	28387	2.35	3.01
NC23	Normal Alkane C23	74.082	86593	22560	1.95	2.39
NC24	Normal Alkane C24	76.741	137257	35130	3.09	3.73
NC25	Normal Alkane C25	79.289	62206	16627	1.40	1.76
NC26	Normal Alkane C26	81.745	57141	14781	1.29	1.57
NC27	Normal Alkane C27	84.114	55360	14353	1.25	1.52
NC28	Normal Alkane C28	86.393	48975	12268	1.10	1.30
NC29	Normal Alkane C29	88.599	46413	11698	1.05	1.24
NC30	Normal Alkane C30	90.729	37735	9476	0.85	1.01
NC31	Normal Alkane C31	92.792	36315	7836	0.82	0.83
NC32	Normal Alkane C32	94.784	24279	5777	0.55	0.61
NC33	Normal Alkane C33	96.723	27996	5481	0.63	0.58
NC34	Normal Alkane C34	98.611	25141	4192	0.57	0.44
NC35	Normal Alkane C35	100.427	17925	3835	0.40	0.41
NC36	Normal Alkane C36	102.210	16073	2712	0.36	0.29
NC37	Normal Alkane C37	104.119	10361	1913	0.23	0.20
NC38	Normal Alkane C38	106.261	9273	1431	0.21	0.15
NC39	Normal Alkane C39	108.706	10184	1270	0.23	0.13
NC40	Normal Alkane C40	111.509	8010	866	0.18	0.09
NC41	Normal Alkane C41	114.785	6098	574	0.14	0.06



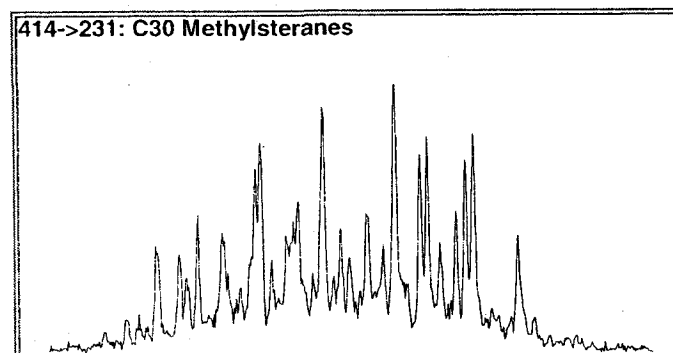
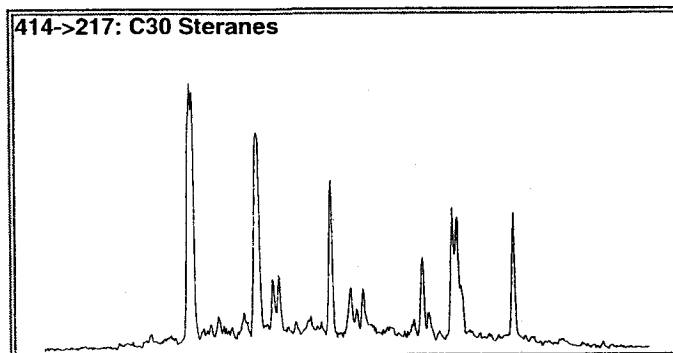
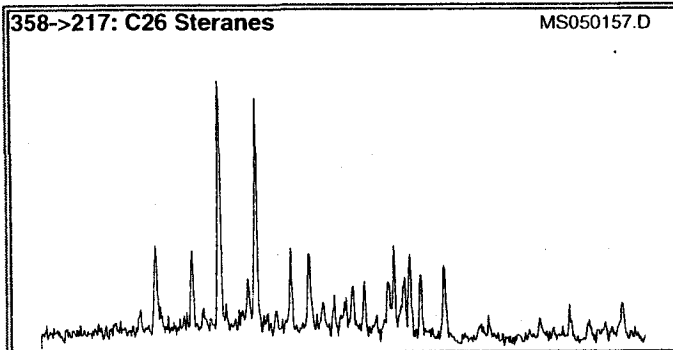
BASELINE DGS

ANALYTICAL LABORATORIES

SATURATE GCMSMS

Company: CONOCOPHILLIPS
Country: UNITED STATES
Basin: NORTH SLOPE
Lease:
Block:
Field:
Well Name: WEST FISH CREEK 1
Latitude: 70.32667
Longitude: -152.0606

Project #: 05-173-A
Lab ID: CP278513
Client ID: US136202
Sample Type: CUTTINGS
Sampling Point:
Formation:
Geologic Age:
Top Depth: 5520 FT
Bottom Depth: 5770 FT



RATIOS (on Area) ¹		Appl ²	TEV ³
Steranes			
%27 Steranes	28.5	D	
%28 Steranes	25.3	D	
%29 Steranes	46.2	D	
%27 Diasteranes	32.1	D	
%28 Diasteranes	27.6	D	
%29 Diasteranes	40.3	D	
C30 Sterane Index	0.07	D	
C30 iso/n-propyl sterane Index		A	
C27 $\alpha\beta/(\alpha\alpha\alpha+\alpha\beta)$	0.48	M	
C28 $\alpha\beta/(\alpha\alpha\alpha+\alpha\beta)$	0.56	M	
C29 $\alpha\beta/(\alpha\alpha\alpha+\alpha\beta)$	0.52	M	
C30 $\alpha\beta/(\alpha\alpha\alpha+\alpha\beta)$	0.55	M	
C27 S/(S+R)	0.50	M	
C28 S/(S+R)	0.39	M	
C29 S/(S+R)	0.36	M	
C30 S/(S+R)	0.43	M	
Diasteranes/Steranes	1.48		
24-Nordiacholestane ratio (NDR)	0.28	A	
24-Norcholestane ratio (NCR)	0.44	A	
21-Norcholestane ratio	0.15	D/M	
Dinosterane ratio	0.32	A	
4-Methyl sterane ratio	0.07	A	
Terpane Ratios			
Oleanane Index (%)		A	
DesA Oleanane Index (%)	43.2	A	
Gammacerane Index (%)	2.1	D	
Bicadinane Index (%)		A/D	
DiaHopane Index (%)	12.3	D	
TPP	0.14	D	

¹On response factored areas. Definition and utility of the ratios can be found on our website www.BaselineDGS.com

²A=Source Age; D=Depositional environment; M= Maturity

³Thermal equilibrium value of the biomarker ratio and in brackets the approximate VR value at which this value is reached

Company:	CONOCOPHILLIPS	Client ID:	US136202
Well Name:	WEST FISH CREEK 1	Lab ID:	CP278513
Top Depth:	5520 FT	Fraction:	SATURATE
Bottom Depth:	5770 FT	File Name:	MS050157.D
Acquisition Parameters: SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=3E-7MBAR CE=25			

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
330.3→217.2: Internal Standard					
ISTD	5β-Cholane				
358.3→217.2: C26 Desmethylsteranes					
D26N24baS	13β,17α,24-nordiacholestane 20S	51.440	36916		
D26N24baR	13β,17α,24-nordiacholestane 20R	52.530	29072		
D26N27baS	13β,17α,27-nordiacholestane 20S	53.328	89456		
D26N24abS	13α,17β,24-nordiacholestane 20S	53.540	8765		
D26N24abR	13α,17β,24-nordiacholestane 20R	54.178	22171		
D26N27baR	13β,17α,27-nordiacholestane 20R	54.418	81573		
D26N27abS	13α,17β,27-nordiacholestane 20S	55.454	27712		
D26N27abR	13α,17β,27-nordiacholestane 20R	55.986	34454		
S26N24aaaS	5α,14α,17α,24-norcholestane 20S	57.103	15779		
S26N24abbR	5α,14β,17β,24-norcholestane 20R	57.315	22293		
S26N24abbS	5α,14β,17β,24-norcholestane 20S	57.661	20153		
S26N24aaaR	5α,14α,17α,24-norcholestane 20R	58.352	21810		
S26N21	21-norcholestane	58.538	33014		
S26N27baaR	5β,14α,17α,27-norcholestane 20S	58.751	21810		
S26N27aaaS	5α,14α,17α,27-norcholestane 20S	58.857	21965		
S26N27abbR	5α,14β,17β,27-norcholestane 20R	59.017	29487		
S26N27abbS	5α,14β,17β,27-norcholestane 20S	59.336	23003		
S26N27aaaR	5α,14α,17α,27-norcholestane 20R	60.027	28165		
372.3→217.2: C27 Desmethylsteranes					
D27baS	13β,17α-diacholestane 20S	55.428	1448416		
D27baR	13β,17α-diacholestane 20R	56.757	988894		
D27abS	13α,17β-diacholestane 20S	57.714	411913		
D27abR	13α,17β-diacholestane 20R	58.405	492924		
S27aaaS	5α,14α,17α-cholestane 20S	61.063	375394		
S27abbR	5α,14β,17β-cholestane 20R	61.382	374177		
S27abbS	5α,14β,17β-cholestane 20S	61.675	328218		
S27aaaR	5α,14α,17α-cholestane 20R	62.472	380165		
386.4→217.2: C28 Desmethylsteranes					
D28baSA	13β,17α-diaergostane 20S (24S)	58.565	610997		
D28baSB	13β,17α-diaergostane 20S (24S)	58.751	616341		
D28baRA	13β,17α-diaergostane 20R (24R)	60.000	421196		
D28baRB	13β,17α-diaergostane 20R (24R)	60.133	442850		
D28abS	13α,17β-diaergostane 20S	60.930	359065		
D28abRA	13α,17β-diaergostane 20R	61.808	224110		
D28abRB	13α,17β-diaergostane 20R	61.914	230068		
C28UNK9	C28 Unknown 9	62.712	202549		
S28aaaSA	5α,14α,17α-ergostane 20S	64.413	103171		
S28aaaSB	5α,14α,17α-ergostane 20S	64.546	116835		
S28abbR	5β,14α,17α-ergostane 20R	64.891	429932		
S28baaR	5α,14β,17β-ergostane 20R				
S28abbS	5α,14β,17β-ergostane 20S	65.184	297820		
S28N21	21-norstigmastane	65.636	59017		
S28aaaR	5α,14α,17α-ergostane 20R	66.194	346656		

Company:	CONOCOPHILLIPS	Client ID:	US136202
Well Name:	WEST FISH CREEK 1	Lab ID:	CP278513
Top Depth:	5520 FT	Fraction:	SATURATE
Bottom Depth:	5770 FT	File Name:	MS050157.D
Acquisition Parameters: SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=3E-7MBAR CE=25			

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
400.4→217.2: C29 Desmethylsteranes					
D29baS	13β,17α-dia-stigmastane 20S	61.382	1696021		
D29baR	18β,17α-dia-stigmastane 20R	62.924	1364470		
D29abS	13α,17β-dia-stigmastane 20S	63.562	459105		
D29abR	13α,17β-dia-stigmastane 20R	64.758	675928		
C29UNK5	C29 Unknown 5	65.476	430004		
S29aaaS	5α,14α,17α-stigmastane 20S	67.204	408752		
S29abbR	5α,14β,17β-stigmastane 20R	67.762	526031		
S29baaR	5β,14α,17α-stigmastane 20R				
S29abbS	5α,14β,17β-stigmastane 20S	67.975	694793		
S29aaaR	5α,14α,17α-stigmastane 20R	69.198	734338		
414.4→217.2: C30 Desmethylsteranes					
D30nPbaSA	13β,17α-dia-24-n-propylcholestane 20S	63.642	246919		
D30nPbaSB	13β,17α-dia-24-n-propylcholestane 20S	63.695	148337		
D30nPbaR	13β,17α-dia-24-n-propylcholestane 20R	65.263	288504		
C30UNK4	13α,17β-dia-24-n-propylcholestane 20S				
C30UNK5	13α,17β-dia-24-n-propylcholestane 20S				
D30nPabS	13α,17β-dia-24-n-propylcholestane 20R				
DC30UNK7	dia-C30 Unknown 7	67.629	55386		
DC30UNK8	dia-C30 Unknown 8	67.762	22301		
DC30UNK8A	dia-C30 Unknown 8A	67.922	52247		
S30nPaaaS	5α,14α,17α-24-n-propylcholestane 20S	69.411	77750		
C30UNK10	C30 Unknown 10	69.570	25312		
S30iPaaaS	5α,14α,17α-24-iso-propylcholestane 20S	69.836	10040		
S30nPabbR	5α,14β,17β-24-n-propylcholestane 20R	70.155	117303		
S30nPabbS	5α,14β,17β-24-n-propylcholestane 20S	70.288	105017		
C30UNK13	5β,14α,17α-24-n-propylcholestane 20R				
S30iPabbR	5α,14β,17β-24-iso-propylcholestane 20R	70.607	10626		
S30nPaaaR	5α,14α,17α-24-n-propylcholestane 20R	71.697	103261		
C30UNK14	C30 Unknown 14	71.803	6567		
S30iPaaaR	5α,14α,17α-24-iso-propylcholestane 20R	71.990	5406		
C30UNK16	C30 Unknown 16				
386.4→231.2: C28 Methylsteranes					
D283MbaS	3β-Methyl-13β,17α-diacholestane 20S	56.916	54433		
DC28UNK16	dia-C28 Unknown 16	57.714	59861		
D283MbaR	3β-Methyl-13β,17α-diacholestane 20R	58.299	40231		
DC28UNK3	dia-C28 Unknown 3	58.511	13703		
DC28UNK17	dia-C28 Unknown 17	59.070	42577		
D284MbaS	4α-Methyl-13β,17α-diacholestane 20S	59.522	143952		
D284MbaR	4α-Methyl-13β,17α-diacholestane 20R	60.824	70162		
S283MaaaS	3β-Methyl-5α,14α,17α-cholestane 20S	62.605	54830		
S283MabbR	3β-Methyl-5α,14β,17β-cholestane 20R	62.951	73235		
S283MabbS	3β-Methyl-5α,14β,17β-cholestane 20S	63.243	71899		
S284MaaaS	4α-Methyl-5α,14α,17α-cholestane 20S	63.775	36063		
S284MabbR	4α-Methyl-5α,14β,17β-cholestane 20R	63.934	74778		
S283MaaaR	3β-Methyl-5α,14α,17α-cholestane 20R	64.014	46457		
S284MabbS	4α-Methyl-5α,14β,17β-cholestane 20S	64.200	55779		
S284MaaaR	4α-Methyl-5α,14α,17α-cholestane 20R	65.157	55302		
XS28aaaR	5α,14α,17α-ergostane 20R	66.141	11376		

Company:	CONOCOPHILLIPS	Client ID:	US136202
Well Name:	WEST FISH CREEK 1	Lab ID:	CP278513
Top Depth:	5520 FT	Fraction:	SATURATE
Bottom Depth:	5770 FT	File Name:	MS050157.D
Acquisition Parameters: SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=3E-7MBAR CE=25			

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
400.4->231.2: C29 Methylsteranes					
D293MbaSA	3 β -Methyl-13 β ,17 α -diaergostane 20S	59.974	26501		
D293MbaSB	3 β -Methyl-13 β ,17 α -diaergostane 20S	60.186	24107		
DC29UNK27	dia-C29 Unknown 27	60.691	29236		
DC29UNK28	dia-C29 Unknown 28	60.930	32304		
D293MbaRA	3 β -Methyl-13 β ,17 α -diaergostane 20R	61.515	16422		
D293MbaRB	3 β -Methyl-13 β ,17 α -diaergostane 20R	61.648	13471		
D294MbaSA	4 α -Methyl-13 β ,17 α -diaergostane 20S	62.552	69548		
D294MbaSB	4 α -Methyl-13 β ,17 α -diaergostane 20S	62.765	80294		
D294MbaRA	4 α -Methyl-13 β ,17 α -diaergostane 20R	64.014	48826		
D294MbaRB	4 α -Methyl-13 β ,17 α -diaergostane 20R	64.147	62454		
D294MabS	4 α -Methyl-13 α ,17 β -diaergostane 20S	64.944	59342		
D294MabRA	4 α -Methyl-13 α ,17 β -diaergostane 20R	65.795	58065		
S293MaaaSA_4abRB	3 β -Methyl-5 α ,14 α ,17 α -ergostane 20S + 4 α -methyl-13 α ,17 β -diaergostane 20R	65.875	42478		
S293MaaaSB	3 β -Methyl-5 α ,14 α ,17 α -ergostane 20S	65.981	20226		
S293MabbR	3 β -Methyl-5 α ,14 β ,17 β -ergostane 20R	66.433	40990		
S293MabbS	3 β -Methyl-5 α ,14 β ,17 β -ergostane 20S	66.699	52639		
S294MaaaSA	4 α -Methyl-5 α ,14 α ,17 α -ergostane 20S	67.045	19108		
S294MaaaSB	4 α -Methyl-5 α ,14 α ,17 α -ergostane 20S	67.151	37572		
S294MabbR	4 α -Methyl-5 α ,14 β ,17 β -ergostane 20R	67.364	70100		
S294MabbS_3MaaaR	4 α -Methyl-5 α ,14 β ,17 β -ergostane 20S + 3 β -Methyl-5 α ,14 α ,17 α -ergostane 20R	67.656	108070		
S294MaaaR	4 α -Methyl-5 α ,14 α ,17 α -ergostane 20R	68.746	51791		
XS29aaaR	5 α ,14 α ,17 α -stigmastane 20R	69.224	34614		
414.4->231.2: C30 Methylsteranes					
S302MaaaS	2 α -Methyl-5 α ,14 α ,17 α -stigmastane 20S	68.267	16929		
S303MaaaS	3 β -Methyl-5 α ,14 α ,17 α -stigmastane 20S + (coelution)	68.640	142423		
S302MabbR	2 α -Methyl-5 α ,14 β ,17 β -stigmastane 20S + (coelution)	68.773	17757		
S302MabbS	2 α -Methyl-5 α ,14 β ,17 β -stigmastane 20S				
S303MabbR	3 β -Methyl-5 α ,14 β ,17 β -stigmastane 20R	69.251	88452		
BBDINO	$\beta\beta$ -dino (?)				
S303MabbS	3 β -Methyl-5 α ,14 β ,17 β -stigmastane 20S + (coelution)	69.437	75568		
S304MaaaS	4 α -Methyl-5 α ,14 α ,17 α -stigmastane 20S	69.756	47002		
S304MabbR	4 α -Methyl-5 α ,14 β ,17 β -stigmastane 20R	70.155	56997		
S304MabbS_2MaaaR	4 α -Methyl-5 α ,14 β ,17 β -stigmastane 20S + 2 α -Methyl-5 α ,14 α ,17 α -stigmastane 20R + (coelution)	70.394	81723		
S303MaaaR	3 β -Methyl-5 α ,14 α ,17 α -stigmastane 20R + (coelution)	70.607	104710		
DS4aSS20R	4 α ,23S,24S-trimethyl-20R-cholestane	71.059	15281		
DS4aSR20R	4 α ,23S,24R-trimethyl-20R-cholestane	71.538	11838		
S304MaaaR	4 α -Methyl-5 α ,14 α ,17 α -stigmastane 20R	71.724	54549		
DS4aRR20R	4 α ,23R,24R-trimethyl-20R-cholestane	71.830	9846		
DS4aRS20R	4 α ,23R,24S-trimethyl-20R-cholestane	72.122	12466		

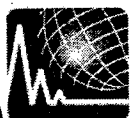
GMC DATA REPORT 3 2 3

Company:	CONOCOPHILLIPS	Client ID:	US136202
Well Name:	WEST FISH CREEK 1	Lab ID:	CP278513
Top Depth:	5520 FT	Fraction:	SATURATE
Bottom Depth:	5770 FT	File Name:	MS050157.D
Acquisition Parameters: SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=3E-7MBAR CE=25			

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
414.4→259.2: Tetracyclic polyprenoids and C30 3βpropylsteranes					
S303PaaaS	3β-Propyl-5α,14α,17α-cholestane 20S	70.527	14680		
PP1	Tetracyclic polyprenoid	70.687	22226		
PP2_S303PabbR	Tetracyclic polyprenoid+ 3β-propyl-5α,14β,17β-cholestane 20R	70.820	37054		
S303PabbS	3β-Propyl-5α,14β,17β-cholestane 20S	71.086	13052		
S303PaaaR	3β-Propyl-5α,14α,17α-cholestane 20R	71.830	14421		
414.2→191.2: Pentacyclic Triterpenoids					
REARNGHOP	Rearranged hopane	64.333	97435		
OLEANOID13	5(4→3)abeo-3α(H), 5β-Oleanane				
TRITERP14	C30 unknown triterpane	67.709	19287		
OLEANOID15A	Oleanoid				
OLEANOID15	Oleanoid				
OLEANOID16	Oleanoid				
C30UNKT2	5(4→3)abeo-3β(H)-Oleanane	68.879	118188		
OLEANOID17	3β-methyl-24-nor-1(10→5)abeo-10β(H), 18α-oleanane	69.304	28245		
TRITERP17A	C30 plant terpane				
DH30	Diahopane	69.889	475402		
TRITERP18	C30 unknown triterpane	70.368	38132		
OL18a	18α Oleanane				
OL18b	18β Oleanane				
H30ab	17α, 21β-Hopane	71.883	3383424		
NOR30HOP	30-Norhomohopane				
C30TS	18α,17β-Neohopane				
C30UNK9	17α, 21α-Hopane				
M30	17β, 21α-Hopane (Moretane)				
GamA	Gammacerane-A	75.765	51684		
GamB	Gammacerane-B	75.978	19572		
414.2→313.3: Bicadinanes					
B30W	Bicadinane W (<i>cis,cis,trans</i>)				
B30T	Bicadinane T (<i>trans, trans,trans</i>)				
B30T1	Bicadinane T1				
B30R	Bicadinane R				
274.3→203.2: Norpregnanes					
NORPREG1	Norpregnane-1				
NORPREG2	Norpregnane-2				
NORPREG3_4	Norpregnane-3+Norpregnane-4	30.998	32857		
NORPREG5	Norpregnane-5	31.237	15683		
NORPREG6	Norpregnane-6	31.583	27835		
NORPREG7	Norpregnane-7	32.088	13329		
NORPREG8_9	Norpregnane-8+Norpregnane-9	32.646	96406		
NORPREG10	Norpregnane-10	32.912	28465		
NORPREG11	Norpregnane-11	33.630	28655		
NORPREG12	Norpregnane-12	34.454	5329		

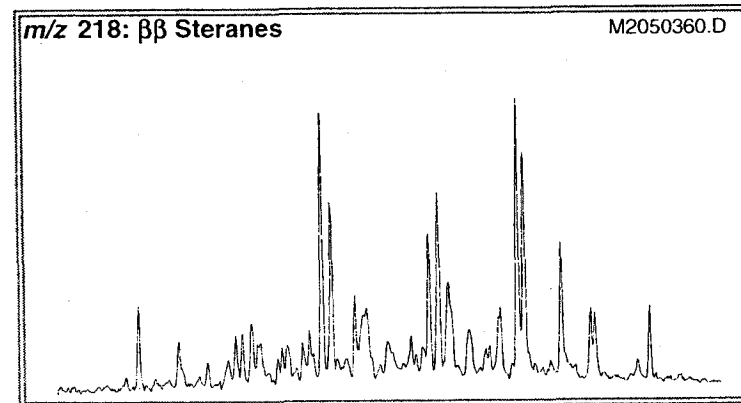
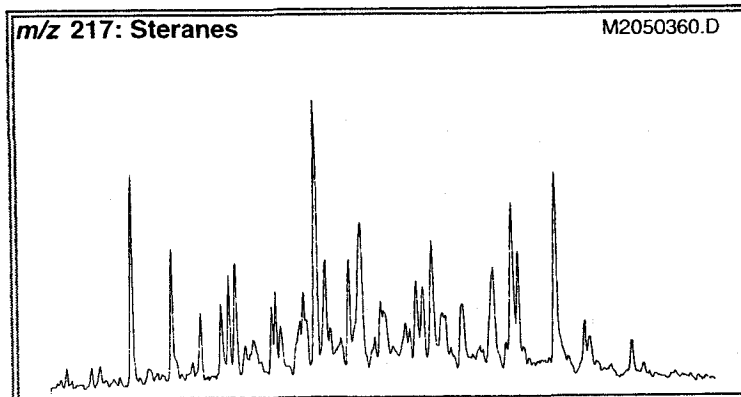
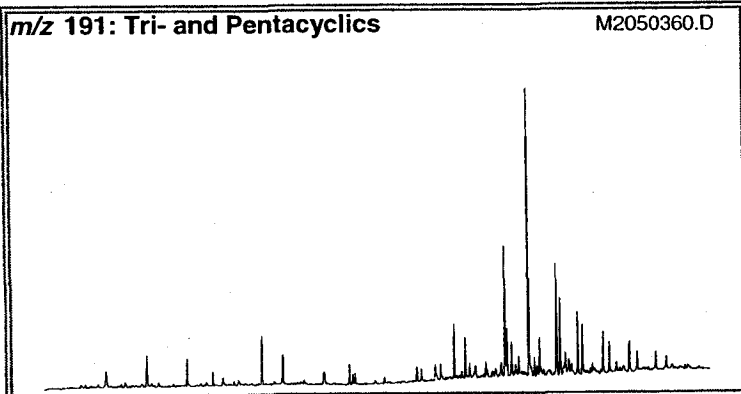
Company:	CONOCOPHILLIPS	Client ID:	US136202
Well Name:	WEST FISH CREEK 1	Lab ID:	CP278513
Top Depth:	5520 FT	Fraction:	SATURATE
Bottom Depth:	5770 FT	File Name:	MS050157.D
Acquisition Parameters: SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=3E-7MBAR CE=25			

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
330.3->191.2: Tetracyclics					
DesAOL	Des-A-Oleanane	46.469	121810		
DesALUP	Des-A-Lupane	46.682	13063		
DesATARAX	Des-A-Taraxastane	49.845	44448		
DesEHOP	Des-E-Hopane	51.254	160373		
410.4->218.2: Monounsaturated C30 Pentacyclic Triterpenoids					
Bicadinene	Bicadinene				
OL1318ene	Olean-13(18)-ene				
OL12ene	Olean-12-ene				
OL18ene	Olean-18-ene				
OL12ene18a	18 α -Olean-12-ene				
Unk_Peak1	Unknown peak 1				
426.4->205.2: C31 Pentacyclic Triterpenoids					
H312Mab	C31 2 α -Methylhopane	72.122	92896		
H31abS	C31 22S 2 α -Methylhopane	75.127	277566		
H31abR	C31 22R 2 α -Methylhopane	75.499	224506		
H313Mab	C31 3 β -Methylhopane	75.924	49042		



Company: CONOCOPHILLIPS
 Country: UNITED STATES
 Basin: NORTH SLOPE
 Lease:
 Block:
 Field:
 Well Name: WEST FISH CREEK 1
 Latitude: 70.32667
 Longitude: -152.0606

Client ID: US136202
 Project #: 05-173-A
 Lab ID: CP278513
 Sample Type: CUTTINGS
 Sampling Point:
 Formation:
 Geologic Age:
 Top Depth: 5520 FT
 Bottom Depth: 5770 FT



RATIOS (on Areas)¹	Appl²	TEV³
Steranes (m/z 217; 218)		
%C ₂₇ $\alpha\beta\beta$ S (218)	29.9	D
%C ₂₈ $\alpha\beta\beta$ S (218)	33.1	D
%C ₂₉ $\alpha\beta\beta$ S (218)	36.9	D
%C ₂₇ $\alpha\alpha\alpha$ R (217)	26.3	D
%C ₂₈ $\alpha\alpha\alpha$ R (217)	28.7	D
%C ₂₉ $\alpha\alpha\alpha$ R (217)	45.0	D
S/(S+R) (C ₂₉ $\alpha\alpha\alpha$) (217)	0.46	M 0.55 (0.8%)
$\beta\beta$ S/($\beta\beta$ S+ $\alpha\alpha$ R) (C ₂₉) (217)	0.37	M 0.70 (0.9%)
(C ₂₁ +C ₂₂)/(C ₂₇ +C ₂₈ +C ₂₉) (217)	0.13	
C ₂₇ /C ₂₉ ($\alpha\beta\beta$ S) (218)	0.81	D
C ₂₈ /C ₂₉ ($\alpha\beta\beta$ S) (218)	0.90	D
Diaster/ $\alpha\alpha\alpha$ Ster (C ₂₇) (217)	1.41	M/D 1.00 (1.4%)
C30 Sterane Index (218)	8.45	D

Terpanes (m/z 191)		
Oleanane/Hopane		D/A
Gammacerane/Hopane	0.04	D
Norhopane/Hopane	0.46	D
Bisnorhopane/Hopane	0.05	
Diahopane/Hopane	0.14	M/D
Moretane/Hopane	0.14	M 0.05 (0.7%)
25-nor-hopane/hopane		B
Ts/(Ts+Tm) trisnorhopanes	0.56	M/D 1.00 (1.4%)
C ₂₉ Ts/C ₂₉ Hopane	0.39	M
H32 S/(R+S) Homohopanes	0.56	M 0.60 (0.6%)
H35/H34 Homohopanes	0.70	D
C ₂₄ Tetracyclic/Hopane	0.08	D
C ₂₄ Tetracyclic/C ₂₆ Tricyclics	0.92	D
C ₂₃ /C ₂₄ Tricyclic terpanes	1.58	D
C ₁₉ /C ₂₃ Tricyclic terpanes	0.54	D
C ₂₆ /C ₂₅ Tricyclic terpanes	0.93	D
(C ₂₈ +C ₂₉ Tricyclics)/Ts	1.22	A
Various (m/z 191; 217)		
Steranes/Hopanes	0.22	D
Tricyclic terpanes/Hopanes	0.30	M 1.00 (1.4%)
Tricyclic terpanes/Steranes	1.38	M/D 1.00 (1.4%)

¹Definition and utility of the ratios can be found on our website www.BaselineDGSi.com

²A=Source Age; D=Depositional environment; M= Maturity; B=Possible Biodegradation

³Thermal equilibrium value of the biomarker ratio and in brackets the approximate VR value at which this value is reached

Company:	CONOCOPHILLIPS	Client ID:	US136202
Well Name:	WEST FISH CREEK 1	Project #:	05-173-A
Depth:	5520 - 5770 FT	Lab ID:	CP278513
Sampling Point:		File Name:	M2050360.D

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
217	CHOL	5 β cholane (internal standard)				0.0	0.0
125	H30_125	C30 17 α (H)-hopane (125)	76.470	1726	320		
125	GCAR	γ -carotane					
125	BCAR	β -carotane	87.954	1223	105		
177	L24BNR1	24,28-bisnorlupane isomer					
177	LA24BNR	17 α (H)24,28-bisnorlupane					
177	LB24BNR	17 β (H)24,28-bisnorlupane					
177	L24BNR2	24,28-bisnorlupane isomer					
177	L24NOR	24-norlupane					
191	TR19	C19 tricyclic terpane	44.568	1414	230		
191	TR20	C20 tricyclic terpane	47.644	2022	436		
191	TR21	C21 tricyclic terpane	50.698	1569	378		
191	TR22	C22 tricyclic terpane	53.428	526	108		
191	TR23	C23 tricyclic terpane	56.406	2633	669		
191	TR24	C24 tricyclic terpane	57.966	1669	416		
191	C24DEOL	C24 des-A-oleanane					
191	C24DELUP	C24 des-A-lupane					
191	TR25A	C25 tricyclic terpane (a)	61.065	738	168		
191	TR25B	C25 tricyclic terpane (b)	61.130	666	174		
191	C24DEURS	C24 des-A-ursane					
191	C24DEHOP	C24 des-E-hopane					
191	TET24	C24 tetracyclic terpane (TET)	63.015	1190	289		
191	TR26A	C26 tricyclic terpane (a)	63.275	646	154		
191	TR26B	C26 tricyclic terpane (b)	63.448	653	164		
191	TR28A	C28 tricyclic terpane (a)	68.107	910	214		
191	TR28B	C28 tricyclic terpane (b)	68.432	705	177		
191	TR29A	C29 tricyclic terpane (a)	69.472	885	226		
191	TR29B	C29 tricyclic terpane (b)	69.862	871	227		
191	TS	Ts 18 α (H)-trisnorhopane	70.858	2769	754		
191	TM	Tm 17 α (H)-trisnorhopane	71.725	2171	567		
191	TR30A	C30 tricyclic terpane (a)	72.050	749	203		
191	TR30B	C30 tricyclic terpane (b)	72.483	867	176		
191	H28	C28 17 α 18 α 21 β (H)-bisnorhopane	73.783	711	89		
191	NOR25H	C29 Nor-25-hopane					
191	H29	C29 Tm 17 α (H)21 β (H)-norhopane	74.694	6909	1768		
191	C29TS	C29 Ts 18 α (H)-norneohopane	74.845	2669	658		
191	DH30	C30 17 α (H)-diahopane	75.192	2026	478		
191	M29	C29 normoretane	75.734	1011	272		
191	OL	oleanane					
191	H30	C30 17 α (H)-hopane	76.492	14928	3891		
191	M30	C30 moretane	77.294	2128	538		
191	TARAX	Taraxerane					
191	H31S	C31 22S 17 α (H) hopane	78.550	6200	1522		
191	H31R	C31 22R 17 α (H) hopane	78.810	4593	1063		
191	GAM	gammacerane	79.135	624	143		

Company: CONOCOPHILLIPS
Well Name: WEST FISH CREEK 1
Depth: 5520 - 5770 FT
Sampling Point:

Client ID: US136202
Project #: 05-173-A
Lab ID: CP278513
File Name: M2050360.D

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
191	H32S	C32 22S 17 α (H) hopane	80.154	3638	853		
191	H32R	C32 22R 17 α (H) hopane	80.522	2843	687		
191	H33S	C33 22S 17 α (H) hopane	82.039	2536	579		
191	H33R	C33 22R 17 α (H) hopane	82.515	1903	439		
191	H34S	C34 22S 17 α (H) hopane	83.967	1766	417		
191	H34R	C34 22R 17 α (H) hopane	84.552	1277	278		
191	H35S	C35 22S 17 α (H) hopane	85.939	1204	268		
191	H35R	C35 22R 17 α (H) hopane	86.697	919	185		
217	S21	C21 sterane	53.818	1704	348		
217	DIA27S	C27 $\beta\alpha$ 20S diasterane	65.702	1915	491		
217	C27R	C27 $\alpha\alpha$ 20R sterane	70.317	1358	284		
217	C28R	C28 $\alpha\alpha$ 20R sterane	72.700	1477	171		
217	C29S	C29 $\alpha\alpha$ 20S sterane	73.350	1971	257		
217	C29BBR	C29 $\beta\beta$ 20R sterane(+5 $\beta\alpha\alpha$)	73.740	2360	403		
217	C29BBS	C29 $\beta\beta$ 20S sterane	73.870	1339	291		
217	C29R	C29 $\alpha\alpha$ 20R sterane	74.650	2319	472		
218	C27ABBR	C27 $\beta\beta$ 20R sterane	69.602	2046	489		
218	C27ABBS	C27 $\beta\beta$ 20S sterane	69.797	1517	329		
218	C28ABBR	C28 $\beta\beta$ 20R sterane	71.877	1287	269		
218	C28ABBS	C28 $\beta\beta$ 20S sterane	72.072	1680	341		
218	C29ABBR	C29 $\beta\beta$ 20R sterane	73.740	2213	507		
218	C29ABBS	C29 $\beta\beta$ 20S sterane	73.870	1871	410		
218	C30ABBR	C30 $\beta\beta$ 20R sterane	75.279	599	127		
218	C30ABBS	C30 $\beta\beta$ 20S sterane	75.365	468	119		
259	D27S	C27 $\beta\alpha$ 20S diasterane	65.702	1048	268		
259	D27R	C27 $\beta\alpha$ 20R diasterane	66.547	779	190		
259	D28SA	C28 $\beta\alpha$ 20S diasterane a	67.760	554	145		
259	D28SB	C28 $\beta\alpha$ 20S diasterane b	67.912	675	154		
259	D28RA	C28 $\beta\alpha$ 20R diasterane a	68.670	525	137		
259	D28RB	C28 $\beta\alpha$ 20R diasterane b	68.757	412	104		
259	D29S	C29 $\beta\alpha$ 20S diasterane	69.623	1625	292		
259	D29R	C29 $\beta\alpha$ 20R diasterane	70.577	1387	183		
259	C30TP1	C30 tetracyclic polyprenoid	75.582	183	51		
259	C30TP2	C30 tetracyclic polyprenoid	75.669	205	54		

Company: CONOCOPHILLIPS
Well Name: WEST FISH CREEK 1
Depth: 5520 - 5770 FT
Sampling Point:

Client ID: US136202
Project #: 05-173-A
Lab ID: CP278513
File Name: M2050360.D

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
135	1MAM	1-Methyladamantane					
135	2MAM	2-Methyladamantane					
135	1EAM	1-Ethyladamantane					
135	2EAM	2-Ethyladamantane					
136	AM	Adamantane					
149	13DMAM	1,3-Dimethyladamantane					
149	C14DMAM	1,4-Dimethyladamantane, cis					
149	T14DMAM	1,4-Dimethyladamantane, trans					
149	12DMAM	1,2-Dimethyladamantane					
149	1E3MAM	1-Ethyl-3-methyladamantane					
163	135TMAM	1,3,5-Trimethyladamantane					
163	136TMAM	1,3,6-Trimethyladamantane					
163	C134TMAM	1,3,4-Trimethyladamantane, cis					
163	T134TMAM	1,3,4-Trimethyladamantane, trans					
163	1E35DMAM	1-Ethyl-3,5-dimethyladamantane					
177	1357TMAM	1,3,5,7-Tetramethyladamantane					
177	1257TMAM	1,2,5,7-Tetramethyladamantane					
187	4MDI	4-Methyldiamantane					
187	1MDI	1-Methyldiamantane					
187	3MDI	3-Methyldiamantane					
188	DI	Diamantane					
201	49DMDI	4,9-Dimethyldiamantane					
201	1424DMDI	1,4 and 2,4-dimethyldiamantane					
201	48DMDI	4,8-Dimethyldiamantane					
201	34DMDI	3,4-Dimethyldiamantane					
215	TMDI	Trimethyldiamantane					

Company: CONOCOPHILLIPS
 Well Name: WEST FISH CREEK 1
 Depth: 5520 - 5770 FT
 Sampling Point:

Client ID: US136202
 Project #: 05-173-A
 Lab ID: CP278513
 File Name: M2050360.D

Miscellaneous Ratios

By Areas

By Heights

Steroids

%C ₂₇ αββS (218)	29.9	30.5
%C ₂₈ αββS (218)	33.1	31.6
%C ₂₉ αββS (218)	36.9	38.0
C ₂₇ /C ₂₉ (αββS) (218)	0.81	0.80
C ₂₈ /C ₂₉ (αββS) (218)	0.90	0.83
C ₂₉ /C ₂₇ (αββS) (218)	1.23	1.25
%C ₂₇ αααR (217)	26.3	30.6
%C ₂₈ αααR (217)	28.7	18.4
%C ₂₉ αααR (217)	45.0	50.9
S/R (C ₂₉ ααα) (217)	0.85	0.54
S/(S+R) (C ₂₉ ααα) (217)	0.46	0.35
ββ/(αα+ββ) (C ₂₉) (217)	0.46	0.49
αββS/αααR (C ₂₉) (217)	0.58	
(C ₂₁ +C ₂₂)/(C ₂₇ +C ₂₈ +C ₂₉) (217)	0.13	0.15
Diaster/ααα Ster (C ₂₇) (217)	1.41	1.73

Terpenoids

C19/C23 Tricyclic terpanes	0.54	0.34
C23/C24 Tricyclic terpanes	1.58	1.61
C26/C25 Tricyclic terpanes	0.93	0.93
C24 Tetracyclic/C26 Tricyclics	0.92	0.91
C24 Tetracyclic/Hopane	0.08	0.07
Ts/Tm trisnorhopanes	1.28	1.33
Ts/(Ts+Tm) trisnorhopanes	0.56	0.57
C29Ts/C29 Hopane	0.39	0.37
Bisnorhopane/Hopane	0.05	0.02
Norhopane/Hopane	0.46	0.45
Diahopane/Hopane	0.14	0.12
Oleanane/Hopane		
Gammacerane/Hopane	0.04	0.04
Moretane/(Moretane+Hopane)	0.12	0.12
H32 S/(S+R) Homohopanes	0.56	0.55
H35/H34 Homohopanes	0.70	0.65
[Steranes]/[Hopanes]	0.22	0.16
[Tricyclic terpanes]/[Hopanes]	0.30	0.28
[Tricyclic terpanes]/[Steranes]	1.38	1.74

DIAMONDOID Ratios

Methyl Adamantane Index
 Methyl Diamantane Index



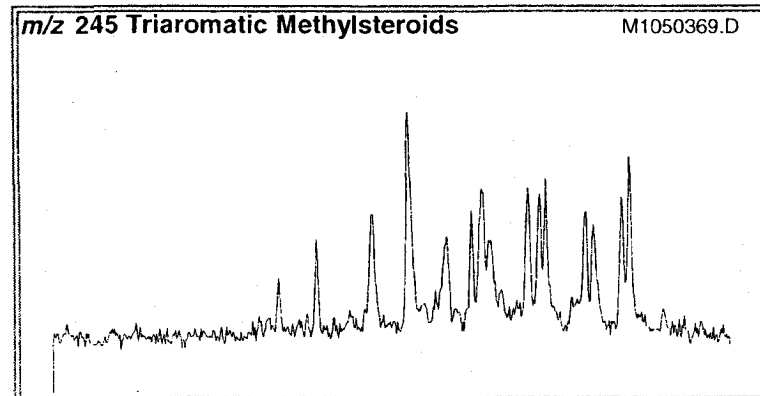
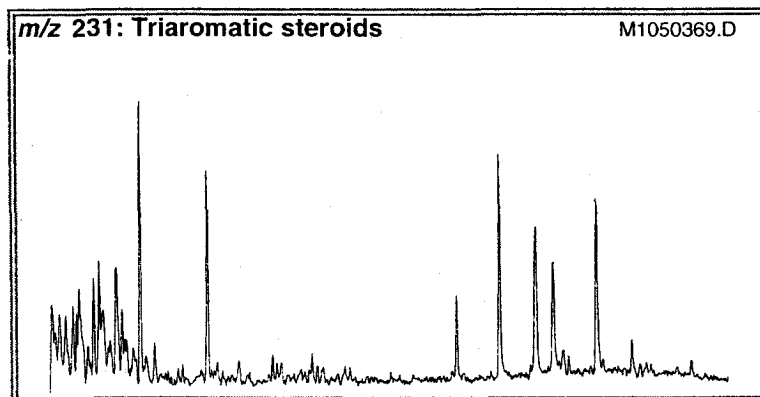
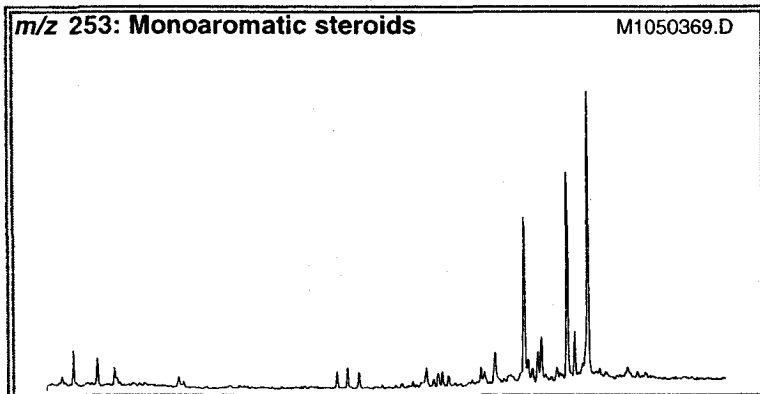
BASELINE DGSi

ANALYTICAL LABORATORIES

AROMATIC GCMS

Company: CONOCOPHILLIPS
Country: UNITED STATES
Basin: NORTH SLOPE
Lease:
Block:
Field:
Well Name: WEST FISH CREEK 1
Latitude: 70.32667
Longitude: -152.0606

Client ID: US136202
Project #: 05-173-A
Lab ID: CP278513
Sample Type: CUTTINGS
Sampling Point:
Formation:
Geologic Age:
Top Depth: 5520 FT
Bottom Depth: 5770 FT



RATIOS (on Areas) ¹		Appl ²	TEV ³
Mono- (MAS) and Triaromatic Steroids (TAS)			
(C20+C21)/Σ TAS	0.33	M	1.0 (1.3%)
TAS #1 20/20+27	0.62	M	
TAS #2 21/21+28	0.51	M	
%26 TAS	17.8	D	
%27 TAS	32.9	D	
%28 TAS	41.6	D	
%29 TAS	7.7	D	
C28/C26 20S TAS	2.65		
C28/C27 20R TAS	1.27		
Dia/Regular C27 MAS	0.78		
%27 MAS	25.7	D	
%28 MAS	33.2	D	
%29 MAS	41.1	D	
(C21+C22)/Σ MAS	0.08	M	1.0 (1.3%)
TAS/(MAS+TAS)	0.58	M	
TA28/(TA28+MA29)	0.52	M	1.0 (0.8%)

Triaromatic Methylsteroids		
Dinosteroid Index	0.30	A
C4/C3+C4 Mester	0.56	A

Phenanthrenes, Naphthalenes, and Dibenzothiophenes		
MPI-1	0.64	M
Rc(a) if Ro < 1.3 (Ro%)	0.75	M
Rc(b) if Ro > 1.3 (Ro%)	1.92	M
MPI-2	0.69	M
DNR-1	2.89	M
DNR-2	0.96	M
TNR1	1.20	M
TDE-1	7.92	M
TDE-2	0.21	M
MDR	3.11	M
Rm (Ro%)	0.75	M
MDR23	0.81	M
MDR1	0.50	M
DBT/Phenanthrene	0.08	D

¹Definition and utility of the ratios can be found on our website www.BaselineDGSi.com

²A=Source Age; D=Depositional environment; M= Maturity

³Thermal equilibrium value of the biomarker ratio and in brackets the approximate VR value at which this value is reached

Company:	CONOCOPHILLIPS	Client ID:	US136202
Well Name:	WEST FISH CREEK 1	Project #:	05-173-A
Depth:	5520 - 5770 FT	Lab ID:	CP278513
Sampling Point:		File Name:	M1050369.D

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
230	OTP	Ortho-terphenyl (internal standard)				0.0	0.0
142	2MN	2-Methylnaphthalene	38.006	38	6		
142	1MN	1-Methylnaphthalene	39.226	32	5		
148	C1BTA	C1 Benzothiophene					
148	C1BTB	C1 Benzothiophene					
148	C1BTC	C1 Benzothiophene					
156	2EN	2-Ethylnaphthalene	46.195	46	8		
156	1EN	1-Ethylnaphthalene	46.335	25	5		
156	26DMN	2,6-Dimethylnaphthalene	47.101	136	23		
156	27DMN	2,7-Dimethylnaphthalene	47.258	133	24		
156	1317DMN	1,3 & 1,7-Dimethylnaphthalenes	48.269	371	49		
156	16DMN	1,6-Dimethylnaphthalene	48.495	343	55		
156	23DMN	2,3-Dimethylnaphthalene	49.680	63	14		
156	14DMN	1,4-Dimethylnaphthalene	49.785	216	33		
156	15DMN	1,5-Dimethylnaphthalene	49.889	93	19		
156	12DMN	1,2-Dimethylnaphthalene	50.847	142	24		
162	C2BTA	C2 Benzothiophene					
162	C2BTB	C2 Benzothiophene					
162	C2BTC	C2 Benzothiophene					
162	C2BTD	C2 Benzothiophene					
162	C2BTE	C2 Benzothiophene					
168	3MBP	3-Methylbiphenyl	53.356	1731	300		
168	4MBP	4-Methylbiphenyl	54.001	1194	202		
168	DBF	Dibenzofuran	55.430	889	141		
170	BB_EMN	Ethyl-methyl-Naphthalene	55.186	835	115		
170	AB_EMN	Ethyl-methyl-Naphthalene	56.406	529	86		
170	137TMN	1,3,7-Trimethylnaphthalene	56.841	2181	385		
170	136TMN	1,3,6-Trimethylnaphthalene	57.207	3928	683		
170	146135T	(1,4,6+1,3,5)-Trimethylnaphthalenes	58.287	3255	541		
170	236TMN	2,3,6-Trimethylnaphthalene	58.549	3895	698		
170	127TMN	1,2,7-Trimethylnaphthalene	59.298	989	199		
170	167126T	(1,6,7+1,2,6)-Trimethylnaphthalenes	59.455	4731	745		
170	124TMN	1,2,4-Trimethylnaphthalene	60.374	424	82		
170	125TMN	1,2,5-Trimethylnaphthalene	60.827	3356	639		
176	C3BT11	C3 BenzothioC3BT11e					
176	C3BT12	C3 BenzothioC3BT12e					
176	C3BT13	C3 BenzothioC3BT13e	55.064	33	6		
176	C3BT1415	C3 BenzothioC3BT1415e	55.203	17	3		
176	C3BT16	C3 BenzothioC3BT16e	56.092	15	4		
176	C3BT17	C3 BenzothioC3BT17e	56.214	55	11		
176	C3BT18	C3 BenzothioC3BT18e	57.416	46	9		
176	C3BT19	C3 BenzothioC3BT19e	60.879	51	9		
178	PHEN	Phenanthrene	70.323	75896	17257		
180	9MF	9-Methylfluorene	61.646	124	12		
180	3MF	3-Methylfluorene					
180	2MF	2-Methylfluorene	66.838	1299	192		
180	1MF	1-Methylfluorene	67.134	1778	404		
180	4MF	4-Methylfluorene	67.675	269	52		

Company: CONOCOPHILLIPS
Well Name: WEST FISH CREEK 1
Depth: 5520 - 5770 FT
Sampling Point:

Client ID: US136202
Project #: 05-173-A
Lab ID: CP278513
File Name: M1050369.D

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
182	DMBP1	Dimethybiphenyl peak 1	60.112	665	118		
182	DMBP2	Dimethylbiphenyl peak 2	60.897	1632	327		
182	DMBP3	Dimethylbiphenyl peak 3	61.106	5038	1029		
182	DMBP4	Dimethylbiphenyl peak 4	61.280	340	69		
182	DMBP5	Dimethylbiphenyl peak 5	61.715	4752	963		
182	DMBP6	Dimethylbiphenyl peak 6	62.151	1077	216		
182	DMBP7	Dimethylbiphenyl peak 7	62.290	20	5		
182	DMBP8	Dimethylbiphenyl peak 8	62.778	4675	906		
182	DMBP9	Dimethylbiphenyl peak 9	63.005	31	9		
182	DMBP10	Dimethylbiphenyl peak 10	63.231	2293	480		
182	DMBP11	Dimethylbiphenyl peak 11	63.528	6045	1002		
182	DMBP12	Dimethylbiphenyl peak 12	63.824	359	61		
182	DMBP13	Dimethylbiphenyl peak 13	63.981	3181	649		
182	DMBP14	Dimethylbiphenyl peak 14	64.259	97	17		
182	DMBP15	Dimethylbiphenyl peak 15	64.538	227	46		
182	DMBP16	Dimethylbiphenyl peak 16	64.852	112	21		
184	1357	1,3,5,7-Tetramethylnaphthalene	64.800	3000	525		
184	1367	1,3,6,7-Tetramethylnaphthalene	65.950	5090	1135		
184	1247	(1,2,4,7+1,2,4,6+1,4,6,7)-Tetramethylnaphthalenes	66.699	2806	554		
184	1257	1,2,5,7-Tetramethylnaphthalene	66.873	2236	466		
184	2367	2,3,6,7-Tetramethylnaphthalene	67.239	1425	312		
184	1267	1,2,6,7-Tetramethylnaphthalene	67.675	1863	402		
184	1237	1,2,3,7-Tetramethylnaphthalene	67.866	702	143		
184	1236	1,2,3,6-Tetramethylnaphthalene	68.128	1463	316		
184	1256	1,2,5,6-Tetramethylnaphthalene	68.859	3851	854		
184	DBT	Dibenzothiophene	69.051	5918	1276		
192	3MP	3-Methylphenanthrene	75.271	31853	7337		
192	2MP	2-Methylphenanthrene	75.446	37062	8894		
192	9MP	9-Methylphenanthrene	76.125	50257	12527		
192	1MP	1-Methylphenanthrene	76.317	35181	8585		
198	CAD	(Cadalene)	66.298	3484	725		
198	4MDBT	4 Methyl Dibenzothiophene	73.599	9110	2180		
198	23MDBT	2 & 3 Methyl Dibenzothiophenes	74.383	4815	1022		
198	1MDBT	1 Methyl Dibenzothiophene	75.184	2931	644		
206	36DMP	3,6-Dimethylphenanthrene	79.488	3831	980		
206	26DMP	2,6-Dimethylphenanthrene	79.749	9380	2381		
206	27DMP	2,7-Dimethylphenanthrene	79.854	5388	1386		
206	39DMP	(3,9+3,10+2,10+1,3)-Dimethylphenanthrenes	80.359	42137	9193		
206	29DMP	(2,9+1,6)-Dimethylphenanthrenes	80.551	21014	3987		
206	17DMP	1,7-Dimethylphenanthrene	80.708	17203	4339		
206	23DMP	2,3-Dimethylphenanthrene	80.986	6710	1619		
206	19DMP	1,9-Dimethylphenanthrene	81.091	9709	2326		
206	18DMP	1,8-Dimethylphenanthrene	81.509	4354	1041		
206	12DMP	1,2-Dimethylphenanthrene	82.014	2671	640		

Company: CONOCOPHILLIPS
Well Name: WEST FISH CREEK 1
Depth: 5520 - 5770 FT
Sampling Point:

Client ID: US136202
Project #: 05-173-A
Lab ID: CP278513
File Name: M1050369.D

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
212	ET4DBT	4-Ethylidibenzothiophene	77.223	651	164		
212	DM46DBT	4,6-Dimethyldibenzothiophene	77.589	4230	1045		
212	DMDBT3	Dimethyldibenzothiophene peak 3	77.885	216	33		
212	DMDBT4	Dimethyldibenzothiophene peak 4	78.146	1667	402		
212	DMDBT5	Dimethyldibenzothiophene peak 5	78.338	4541	782		
212	DMDBT6	Dimethyldibenzothiophene peak 6	78.965	1222	244		
212	DM14DBT	1,4-Dimethyldibenzothiophene	79.157	2574	451		
212	DMDBT7	Dimethyldibenzothiophene peak 7	79.645	1258	172		
212	DMDBT8	Dimethyldibenzothiophene peak 8	79.749	461	118		
212	DMDBT9	Dimethyldibenzothiophene peak 9	80.237	350	66		
226	TMDBT	Trimethyldibenzothiophene	81.683	14972	599		
231	231A20	C20 Triaromatic Steroid	92.347	1830	447		
231	231B21	C21 Triaromatic	94.839	1442	336		
231	231C26	C26 20S Triaromatic	104.004	595	136		
231	231D26	C27 20S & C26 20R Triaromatic	105.589	1759	357		
231	231E28	C28 20S Triaromatic	106.913	1577	242		
231	231F27	C27 20R Triaromatic	107.541	1102	184		
231	231G28	C28 20R Triaromatic	109.144	1395	280		
231	231H29	C29 Triaromatic (24 n-propyl)	110.433	258	59		
245	C3S	C27 20S 3-Methyl Triaromatic Steroid	106.669	122	32		
245	C4S	C27 20S 4-Methyl Triaromatic Steroid	107.279	224	53		
245	E2S	C28 20S 2-Methyl Triaromatic Steroid	107.819	77	15		
245	E3SC3R	C28 20S 3-Methyl & C27 20R 3-Methyl TAS	108.185	482	67		
245	E4SC4R	C28 20S 4-Methyl & C27 20R 4-Methyl TAS	108.778	799	120		
245	S2S	C29 20S 2-Methyl Triaromatic Steroid	109.039	128	17		
245	DA	Triaromatic Dinosteroid a	109.213	96	23		
245	S3S	C29 20S 3-Methyl Triaromatic Steroid	109.405	397	52		
245	DB	Triaromatic Dinosteroid b	109.806	282	66		
245	S4SE2R	C29 20S 4-Methyl & C28 20R 2-Methyl TAS	109.963	558	78		
245	E3R	C28 20R 3-Methyl Triaromatic Steroid	110.085	356	50		
245	E4R	C28 20R 4-Methyl Triaromatic Steroid	110.712	459	78		
245	DC	Triaromatic Dinosteroid c	110.903	365	75		
245	DD	Triaromatic Dinosteroid d	111.008	371	83		
245	S2R	C29 20R 2-Methyl Triaromatic Steroid	111.426	93	19		
245	S3R	C29 20R 3-Methyl Triaromatic Steroid	111.653	348	65		
245	DE	Triaromatic Dinosteroid e	111.775	377	58		
245	S4R	C29 20R 4-Methyl Triaromatic Steroid	112.228	383	74		
245	DF	Triaromatic Dinosteroid f	112.367	413	96		

Company: CONOCOPHILLIPS
Well Name: WEST FISH CREEK 1
Depth: 5520 - 5770 FT
Sampling Point:

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File Name: M1050369.D

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
253	S253A	C21 Ring-C Monoaromatic Steroid	84.611	290	77		
253	S253B	C22 Monoaromatic steroid	87.085	274	47		
253	S253C	C27 Reg 5 β (H),10 β (CH3) 20S	96.999	333	58		
253	S253D	C27 Dia 10 β (H),5 β (CH3) 20S	97.173	260	67		
253	S253E	C27 Dia 10 β H,5 β CH3 20R+Reg5 β H,10 β CH3 20R	98.637	279	73		
253	S253F	C27 Reg 5 α (H),10 β (CH3) 20S	98.776	306	53		
253	S253G	C28 Dia 10 α H,5 α CH3 20s+Reg5 β H,10 β CH3 20S	99.177	827	137		
253	S253H	C27 Reg 5 α (H),10 β (CH3) 20R	100.432	543	100		
253	S253I	C28 Reg 5 α (H),10 β (CH3) 20S	100.606	298	60		
253	S253J	C28 Dia 10 α H,5 α CH3 20R+Reg5 β H,10 β CH3 20R	100.798	652	133		
253	S253K	C29 Dia 10 β H,5 β CH3 20S+Reg5 β H,10 β CH3 20S	100.937	1047	195		
253	S253L	C29 Reg 5 α (H),10 β (CH3) 20S	102.209	969	210		
253	S253M	C28 Reg 5 α (H),10 β (CH3) 20R	102.523	453	74		
253	S253N	C29 Dia 10 β H,5 β CH3 20R+Reg5 β H,10 β CH3 20R	102.627	481	151		
253	S253O	C29 Reg 5 α (H),10 β (CH3) 20R	104.230	259	49		

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Miscellaneous Ratios	By Areas	By Heights
Triaromatic Steroids m/z 231		
(C20+C21)/Σ TAS	0.33	0.38
TAS #1 20/20+27	0.62	0.71
TAS #2 21/21+28	0.51	0.55
%26TAS	17.8	20.6
%27TAS	32.9	27.9
%28TAS	41.6	42.5
%29TAS	7.7	9.0
C28/C26 20S TAS	2.65	1.78
C28/C27 20R TAS	1.27	1.52
Monoaromatic Steroids m/z 253		
Dia/Regular C27 MAS	0.78	1.16
%27 MAS	25.7	25.8
%28 MAS	33.2	29.7
%29 MAS	41.1	44.5
(C21+C22)/Σ MAS	0.08	0.08
TAS/(MAS+TAS)	0.58	0.58
TA28/(TA28+MA29)	0.52	0.46
Triaromatic Methylsteroids m/z 245		
Dinosteroid Index	0.30	0.36
C4/C3+C4 Mester	0.56	0.58
Phenanthrenes and Naphthalenes		
MPI-1	0.64	0.63
MPI-2	0.69	0.70
Rc(a) if Ro < 1.3 (Ro%)	0.75	0.75
Rc(b) if Ro > 1.3 (Ro%)	1.92	1.92
DNR-1	2.89	2.47
DNR-2	0.96	1.00
TNR1	1.20	1.29
TDE-1	7.92	7.79
TDE-2	0.21	0.27
MDR	3.11	3.39
Rm (Ro%)	0.75	0.77
MDR23	0.81	0.80
MDR1	0.50	0.50
DBT/Phenanthrene	0.08	0.07
TPHEN	30.00	28.90
C3BTI	1.36	1.54
RC_S	0.46	0.49