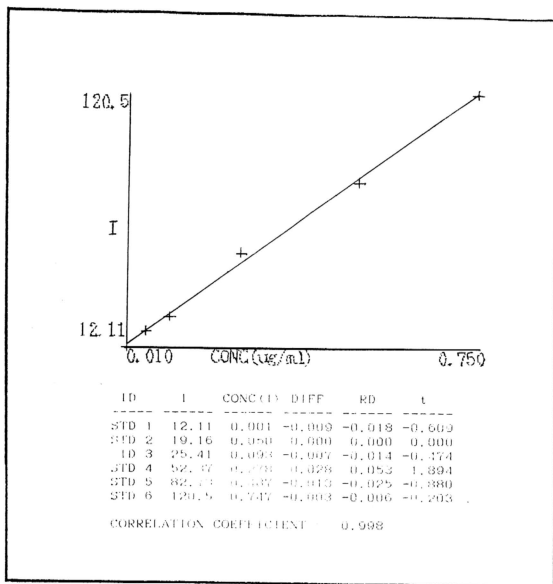


## *Appendices*

Appendix A : **Representative calibration curves for petrogenic hydrocarbon analysis using UV-fluorescence.**



**Figure A-1: Representative calibration curve for water samples using UVF analysis with Seligi crude oil as standard**

Appendix A : **Representative calibration curves for petrogenic hydrocarbon analysis using UV-fluorescence.**

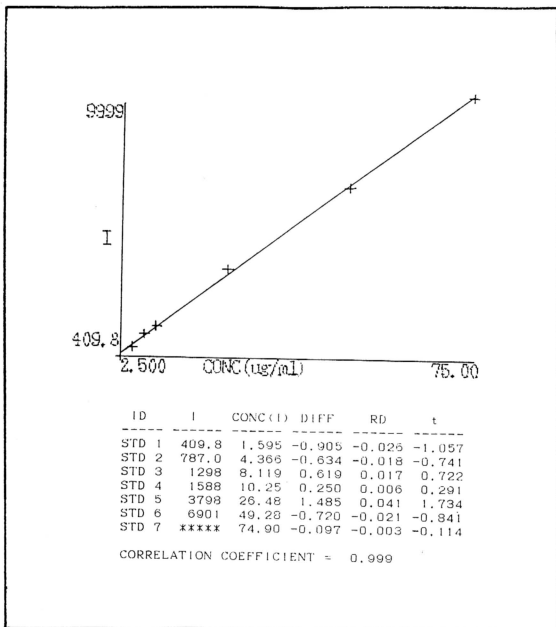
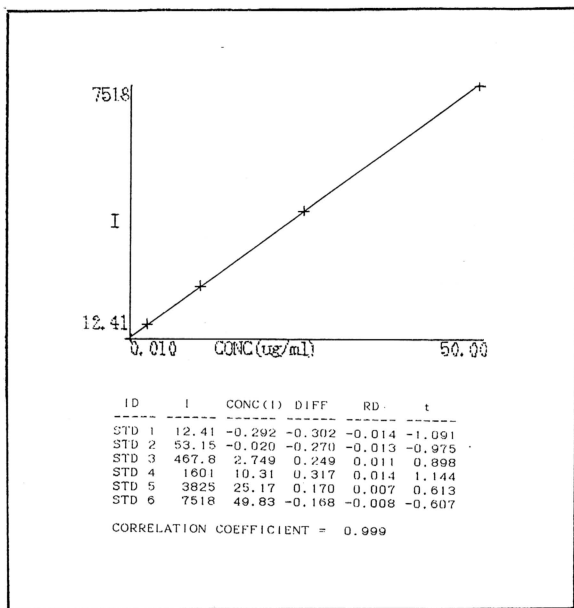


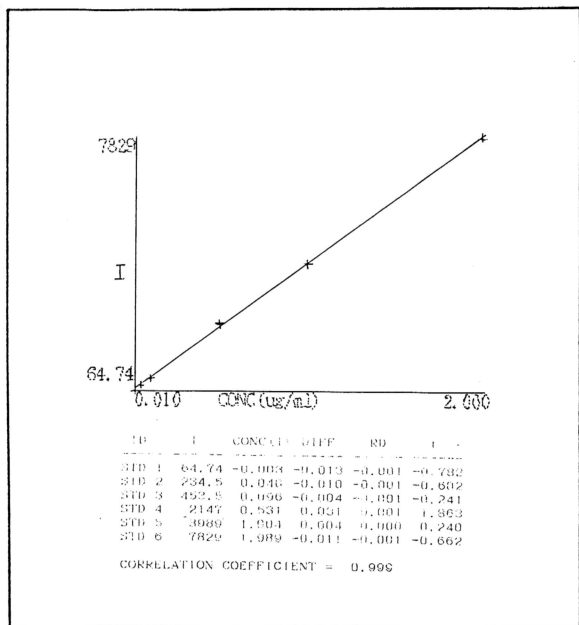
Figure A-2 : Representative calibration curve for sediment samples using UVF analysis with Seligi crude oil as standard

Appendix A : **Representative calibration curves for petrogenic hydrocarbon analysis UV-fluorescence.**



**Figure A-3 : Representative calibration curve for tissue samples using UVF analysis with Seligi crude oil as standard**

Appendix A : **Representative calibration curves for petrogenic hydrocarbon analysis using UV-fluorescence.**



**Figure A-4 : Representative calibration curve for samples using UVF analysis with chrysene as standard**

Appendix B: Results of petrogenic hydrocarbon measurements using UV-Fluorescence

Stations	Replicates	Seligi Crude Oil Equivalent (µg/L)				Chrysene Equivalent (µg/L)			
		Fractions			Total HCs	Fractions			Total HCs
		F1	F2	F3		F1	F2	F3	
T1	A	0.238	9.400	3.184		0.002	0.166	0.067	
	B	0.122	5.503	3.203		0.001	0.101	0.066	
	C	0.091	12.760	3.078		0.001	0.239	0.063	
	Average	0.150	11.08	3.155	14.385	0.001	0.248	0.086	0.336
T2	A	0.086	17.550	1.254		0.005	0.311	0.247	
	B	0.073	18.740	1.287		0.000	0.373	0.261	
	C	0.072	14.880	1.603		0.000	0.289	0.360	
	Average	0.077	17.057	1.381	18.515	0.002	0.324	0.289	0.615
T3	A	2.309	6.121	0.660		0.039	0.116	0.126	
	B	0.466	6.246	0.905		0.007	0.130	0.189	
	C	0.129	7.141	0.974		0.002	0.141	0.199	
	Average	0.298	6.503	0.846	7.647	0.016	0.129	0.171	0.316
T4	A	0.101	5.355	0.814		0.001	0.110	0.153	
	B	0.093	5.096	0.994		0.001	0.113	0.133	
	C	0.207	5.131	0.807		0.001	0.110	0.107	
	Average	0.097	5.194	0.872	6.163	0.001	0.111	0.131	0.243
T5	A	1.027	4.980	0.769		0.021	0.113	0.139	
	B	0.925	5.127	0.510		0.018	0.121	0.086	
	C	0.951	5.045	0.488		0.020	0.115	0.085	
	Average	0.968	5.051	0.589	6.607	0.020	0.116	0.103	0.239

Stations	Replicates	Seligi crude oil equivalent				Chrysene Equivalent			
		Fractions			Total HCs	Fractions			Total HCs
		F1	F2	F3		F1	F2	F3	
KS1	A	0.038	10.020	1.262		0.001	0.331	0.045	
	B	0.030	10.030	1.669		0.000	0.769	0.061	
	C	0.035	21.960	0.890		0.000	0.053	0.009	
	Average	0.034	10.025	1.274	11.333	0.000	0.550	0.053	0.603
KS2	A	0.000	12.860	1.248		0.000	0.467	0.048	
	B	0.080	11.880	1.582		0.002	0.399	0.062	
	C	0.014	9.988	1.234		0.000	0.340	0.047	
	Average	0.031	11.576	1.355	12.962	0.001	0.402	0.052	0.455
KS3	A	0.050	10.690	0.993		0.000	0.384	0.038	
	B	0.039	14.030	0.960		0.000	0.487	0.036	
	C	0.060	13.170	1.100		0.001	0.465	0.043	
	Average	0.050	12.630	1.018	13.697	0.000	0.445	0.039	0.485
KS4	A	0.000	18.070	1.026		0.000	0.625	0.040	
	B	0.013	12.550	1.330		0.000	0.441	0.048	
	C	0.043	17.650	1.127		0.000	0.608	0.042	
	Average	0.019	16.090	1.161	17.270	0.000	0.558	0.043	0.601
KS5	A	0.039	11.610	0.793		0.001	0.406	0.031	
	B	0.055	6.778	0.702		0.000	0.281	0.019	
	C	0.069	12.460	0.535		0.002	0.498	0.026	
	Average	0.054	12.035	0.677	12.766	0.001	0.452	0.025	0.478

Table B-1 Results of petrogenic hydrocarbon measurements for water samples using UV-Fluorescence

Appendix B: Results of petrogenic hydrocarbon measurements using UV-Fluorescence

Stations	Replicates	Seligi Crude Oil Equivalent				Chrysene Equivalent			
		Fractions			Total HCs	Fractions			Total HCs
		F1	F2	F3		F1	F2	F3	
T1	A	0.165	35.91	7.18		0.005	1.025	0.236	
	B	0.152	36.06	8.044		0.002	1.369	0.300	
	C	0.178	32.88	7.862		0.005	1.024	0.212	
	Average	0.165	34.95	7.695	42.81	0.004	1.139	0.249	1.393
T2	A	0.188	28.05	15.95		0.003	1.093	0.554	
	B	0.427	30.9	13.33		0.013	1.097	0.477	
	C	0.286	32.46	14.9		0.007	1.105	0.492	
	Average	0.3	30.47	14.73	45.497	0.008	1.098	0.508	1.614
T3	A	0.206	9.516	12.34		0.003	0.373	0.500	
	B	0.142	7.211	10.67		0.004	0.256	0.367	
	C	0.19	8.262	10.89		0.003	0.262	0.382	
	Average	0.179	8.33	11.3	19.809	0.003	0.297	0.416	0.717
T4	A	0.179	23.41	1.689		0.003	0.859	0.057	
	B	0.206	18.74	3.305		0.004	0.708	0.124	
	C	0.162	20.98	2.902		0.003	0.725	0.146	
	Average	0.182	21.04	2.632	23.858	0.003	0.764	0.135	0.902
T5	A	0.14	17.03	2.885		0.001	0.593	0.105	
	B	0.683	17.08	1.446		0.022	0.584	0.046	
	C	0.182	18.06	2.088		0.001	0.506	0.081	
	Average	0.335	17.39	2.14	19.865	0.001	0.561	0.093	0.655

Stations	Replicates	Seligi Crude Oil Equivalent (µg/g)				Chrysene Equivalent (µg/g)			
		Fractions			Total HCs	Fractions			Total HCs
		F1	F2	F3		F1	F2	F3	
KS1	A	0.521	17.800	1.285		0.016	0.616	0.044	
	B	0.396	16.270	1.161		0.007	0.542	0.418	
	C	0.428	18.240	1.582		0.091	0.582	0.412	
	Average	0.448	17.437	1.343	19.228	0.038	0.580	0.291	0.909
KS2	A	0.091	11.090	1.557		0.002	0.398	0.057	
	B	0.098	10.500	1.178		0.020	0.972	0.381	
	C	0.089	8.209	1.232		0.001	0.527	0.426	
	Average	0.093	9.933	1.322	11.348	0.008	0.632	0.288	0.928
KS3	A	0.187	28.890	0.760		0.006	1.380	0.024	
	B	0.077	22.210	0.924		0.002	0.777	0.174	
	C	0.126	25.340	0.420		0.003	1.026	0.127	
	Average	0.130	25.480	0.701	26.311	0.004	1.061	0.108	1.173
KS4	A	0.242	1.178	0.852		0.008	0.031	0.042	
	B	0.083	1.680	0.781		0.000	0.058	0.028	
	C	0.188	1.252	0.992		0.003	0.047	0.058	
	Average	0.171	1.370	0.875	2.416	0.004	0.045	0.043	0.092
KS5	A	0.045	1.028	1.741		0.001	0.128	0.025	
	B	0.072	0.753	3.528		0.001	0.025	0.017	
	C	0.054	0.479	1.824		0.001	0.060	0.024	
	Average	0.057	0.753	2.364	3.175	0.001	0.071	0.022	0.094

Table B-2 Results of petrogenic hydrocarbon measurements for sediment samples using UV-Fluorescence

**Appendix B: Results of petrogenic hydrocarbon measurements using UV-Fluorescence**

Stations	Replicates	Seligi Crude Oil Equivalent ( $\mu\text{g/g}$ )				Chrysene Equivalent ( $\mu\text{g/g}$ )			
		Fractions			Total HCs	Fractions			Total HCs
		F1	F2	F3		F1	F2	F3	
T1	A	0.898	14.890	6.701		0.042	1.355	0.244	
	B	0.824	11.360	5.210		0.039	1.091	0.257	
	C	0.521	13.290	7.067		0.015	0.484	0.249	
	Average	0.861	13.180	6.326	20.367	0.041	1.223	0.250	1.514
T2	A	0.442	7.377	2.745		0.012	0.026	0.103	
	B	0.385	7.125	2.443		0.010	0.262	0.089	
	C	0.285	6.616	2.936		0.028	0.541	0.112	
	Average	0.371	7.039	2.708	10.118	0.011	0.402	0.101	0.514
T3	A	0.285	9.612	3.128		0.005	0.411	0.079	
	B	0.258	11.030	4.182		0.004	0.091	0.082	
	C	0.312	10.040	3.342		0.003	0.086	0.087	
	Average	0.285	10.227	3.551	14.063	0.004	0.089	0.083	0.175
T4	A	0.199	2.525	2.496		0.009	0.723	0.092	
	B	0.360	3.124	2.730		0.000	0.110	0.077	
	C	0.314	3.056	2.220		0.001	0.238	0.084	
	Average	0.337	2.902	2.482	5.721	0.001	0.174	0.084	0.259
T5	A	1.151	92.750	9.927		0.040	3.608	0.330	
	B	1.426	35.340	5.070		0.007	0.338	0.177	
	C	1.269	20.100	9.021		0.005	0.232	0.105	
	Average	1.282	27.720	9.474	38.476	0.006	0.285	0.141	0.432

Stations	Replicates	Seligi Crude Oil Equivalent ( $\mu\text{g/g}$ )				Chrysene Equivalent ( $\mu\text{g/g}$ )			
		Fractions			Total HCs	Fractions			Total HCs
		F1	F2	F3		F1	F2	F3	
KS1	A	0.987	20.160	10.230		0.031	0.708	1.104	
	B	0.364	14.440	5.898		0.010	0.477	0.207	
	C	0.391	32.000	8.587		0.011	0.350	0.293	
	Average	0.378	22.200	8.238	30.816	0.011	0.414	0.250	0.674
KS2	A	0.125	3.028	1.128		0.000	0.097	0.097	
	B	0.116	3.197	0.840		0.000	0.045	0.024	
	C	0.421	4.100	0.625		0.010	0.133	0.098	
	Average	0.121	3.442	0.864	4.427	0.000	0.092	0.098	0.189
KS3	A	0.326	12.220	3.254		0.006	0.521	0.152	
	B	0.233	11.210	2.705		0.004	0.351	0.091	
	C	0.166	12.710	4.777		0.002	0.406	0.148	
	Average	0.242	12.047	3.579	15.867	0.004	0.426	0.130	0.560
KS4	A	0.473	16.170	3.379		0.011	0.578	0.117	
	B	0.247	12.780	2.014		0.004	0.187	0.063	
	C	0.356	14.260	3.226		0.008	0.482	0.126	
	Average	0.359	14.403	2.873	17.635	0.008	0.530	0.122	0.659
KS5	A	0.426	12.120	2.900		0.004	0.482	0.064	
	B	0.279	7.968	3.120		0.006	0.290	0.070	
	C	0.571	10.180	5.420		0.009	0.329	0.102	
	Average	0.425	10.089	3.010	13.525	0.006	0.367	0.079	0.452

**Table B-3 Results of petrogenic hydrocarbon measurements for tissue samples using UV-Fluorescence**