

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - IRM - PAH

Field ID	SRM 1491				SRM 1491			
Lab ID	BH87				BH87			
SDG	SDGS004				SDGS004			
File	DX4750.D				DX4797.D			
Sample Type	IRM				IRM			
Matrix	SRM				SRM			
Sample Size	0.1 mL				0.1 mL			
Weight Basis	VOLUME				VOLUME			
Associated Blank	NA				NA			
Field Date	NA				NA			
Extract Date	NA				NA			
Analysis Date	8/21/1997				8/25/1997			
Min Reporting Limit	250				250			
Units	ug/L	T	%D	Q	ug/L	T	%D	Q
<b>PAH</b>								
Naphthalene	7000	6890	1.6		6900	6890	0.14	
C1-Naphthalenes	ND				ND			
C2-Naphthalenes	ND				ND			
C3-Naphthalenes	ND				ND			
C4-Naphthalenes	ND				ND			
Acenaphthylene	6800	6960	-2.3		6900	6960	-0.9	
Acenaphthene	7200	7280	-1.1		7100	7280	-2.5	
Biphenyl	7500	7000	7.1		7600	7000	8.6	
Fluorene	7000	7270	-3.7		7200	7270	-1	
C1-Fluorenes	ND				ND			
C2-Fluorenes	ND				ND			
C3-Fluorenes	ND				ND			
Anthracene	8400	7820	7.4		8700	7820	11	
Phenanthrene	7700	7010	9.8		7900	7010	13	
C1-Phenanthrenes/anthracenes	ND				ND			
C2-Phenanthrenes/anthracenes	ND				ND			
C3-Phenanthrenes/anthracenes	ND				ND			
C4-Phenanthrenes/anthracenes	ND				ND			
Dibenzothiophene	ND				ND			
C1-Dibenzothiophenes	ND				ND			
C2-Dibenzothiophenes	ND				ND			
C3-Dibenzothiophenes	ND				ND			
Fluoranthene	6300	5910	6.6		6800	5910	15	
Pyrene	6600	5890	12		6800	5890	15	
C1-Fluoranthenes/pyrenes	ND				ND			
C2-Fluoranthenes/pyrenes	ND				ND			
C3-Fluoranthenes/pyrenes	ND				ND			
Benzo[a]anthracene	3600	3590	0.28		3800	3590	5.8	
Chrysene	7700	7030	9.5		7600	7030	8.1	
C1-Chrysenes	ND				ND			
C2-Chrysenes	ND				ND			
C3-Chrysenes	ND				ND			
C4-Chrysenes	ND				ND			
Benzo[b]fluoranthene	4900	5250	-6.7		5100	5250	-2.9	
Benzo[k]fluoranthene	6100	5570	9.5		5700	5570	2.3	
Benzo[e]pyrene	6300	5620	12		6200	5620	10	
Benzo[a]pyrene	7300	6790	7.5		7300	6790	7.5	
Perylene	7800	7120	9.6		8000	7120	12	
Indeno[1,2,3,-c,d]pyrene	5700	6290	-9.4		5700	6290	-9.4	
Dibenzo[a,h]anthracene	5000	5180	-3.5		4900	5180	-5.4	
Benzo[g,h,i]perylene	5400	5290	2.1		5400	5290	2.1	
Total PAH	120000				130000			
d8-Naphthalene	107				103			
d10-Acenaphthene	100				97			
d10-Phenanthrene	93				87			
d12-Benzo[a]pyrene	94				94			

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - IRM - PAH

Field ID	SRM 1491				SRM 1491			
Lab ID	BI94				BI94			
SDG	SDGS005				SDGS005			
File	DX5075.D				W1226.D			
Sample Type	IRM				IRM			
Matrix	SRM				SRM			
Sample Size	0.1 mL				0.1 mL			
Weight Basis	VOLUME				VOLUME			
Associated Blank	NA				NA			
Field Date	NA				NA			
Extract Date	NA				NA			
Analysis Date	9/18/1997				8/27/1997			
Min Reporting Limit	250				250			
Units	ug/L	T	%D	Q	ug/L	T	%D	Q
<b>PAH</b>								
Naphthalene	6400	6890	-7.1		6600	6890	-4.2	
C1-Naphthalenes	ND				ND			
C2-Naphthalenes	ND				ND			
C3-Naphthalenes	ND				ND			
C4-Naphthalenes	ND				ND			
Acenaphthylene	6600	6960	-5.2		6900	6960	-0.9	
Acenaphthene	6600	7280	-9.4		7100	7280	-2.5	
Biphenyl	6800	7000	-2.9		7000	7000	0	
Fluorene	6900	7270	-5.1		6900	7270	-5.1	
C1-Fluorenes	ND				ND			
C2-Fluorenes	ND				ND			
C3-Fluorenes	ND				ND			
Anthracene	8700	7820	11		8300	7820	6.1	
Phenanthrene	7300	7010	4.1		7000	7010	-0.1	
C1-Phenanthrenes/anthracenes	ND				ND			
C2-Phenanthrenes/anthracenes	ND				ND			
C3-Phenanthrenes/anthracenes	ND				ND			
C4-Phenanthrenes/anthracenes	ND				ND			
Dibenzothiophene	ND				ND			
C1-Dibenzothiophenes	ND				ND			
C2-Dibenzothiophenes	ND				ND			
C3-Dibenzothiophenes	ND				ND			
Fluoranthene	6000	5910	1.5		5900	5910	-0.2	
Pyrene	6200	5890	5.3		6000	5890	1.9	
C1-Fluoranthenes/pyrenes	ND				ND			
C2-Fluoranthenes/pyrenes	ND				ND			
C3-Fluoranthenes/pyrenes	ND				ND			
Benzo[a]anthracene	3700	3590	3.1		3700	3590	3.1	
Chrysene	7800	7030	11		7200	7030	2.4	
C1-Chrysenes	ND				ND			
C2-Chrysenes	ND				ND			
C3-Chrysenes	ND				ND			
C4-Chrysenes	ND				ND			
Benzo[b]fluoranthene	5200	5250	-1		5200	5250	-1	
Benzo[k]fluoranthene	5700	5570	2.3		5600	5570	0.54	
Benzo[e]pyrene	5900	5620	5		5800	5620	3.2	
Benzo[a]pyrene	7200	6790	6		7000	6790	3.1	
Perylene	7700	7120	8.1		7400	7120	3.9	
Indeno[1,2,3,-c,d]pyrene	5800	6290	-7.8		6100	6290	-3	
Dibenzo[a,h]anthracene	5000	5180	-3.5		5200	5180	0.39	
Benzo[g,h,i]perylene	4900	5290	-7.4		5200	5290	-1.7	
Total PAH	120000				120000			
d8-Naphthalene	93				98			
d10-Acenaphthene	94				97			
d10-Phenanthrene	93				95			
d12-Benzo[a]pyrene	93				94			

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - IRM - PAH

Field ID	SRM 1491
Lab ID	BI94
SDG	SDGS005
File	W1283.D
Sample Type	IRM
Matrix	SRM
Sample Size	0.1 mL
Weight Basis	VOLUME
Associated Blank	NA
Field Date	NA
Extract Date	NA
Analysis Date	9/2/1997
Min Reporting Limit	250
Units	ug/L
	T %D Q

PAH				
Naphthalene	6600	6890	-4.2	
C1-Naphthalenes	ND			
C2-Naphthalenes	ND			
C3-Naphthalenes	ND			
C4-Naphthalenes	ND			
Acenaphthylene	6900	6960	-0.9	
Acenaphthene	7000	7280	-3.8	
Biphenyl	7000	7000	0	
Fluorene	7000	7270	-3.7	
C1-Fluorenes	ND			
C2-Fluorenes	ND			
C3-Fluorenes	ND			
Anthracene	8300	7820	6.1	
Phenanthrene	7100	7010	1.3	
C1-Phenanthrenes/anthracenes	ND			
C2-Phenanthrenes/anthracenes	ND			
C3-Phenanthrenes/anthracenes	ND			
C4-Phenanthrenes/anthracenes	ND			
Dibenzothiophene	ND			
C1-Dibenzothiophenes	ND			
C2-Dibenzothiophenes	ND			
C3-Dibenzothiophenes	ND			
Fluoranthene	5900	5910	-0.2	
Pyrene	6000	5890	1.9	
C1-Fluoranthenes/pyrenes	ND			
C2-Fluoranthenes/pyrenes	ND			
C3-Fluoranthenes/pyrenes	ND			
Benzo[a]anthracene	3700	3590	3.1	
Chrysene	7300	7030	3.8	
C1-Chrysenes	ND			
C2-Chrysenes	ND			
C3-Chrysenes	ND			
C4-Chrysenes	ND			
Benzo[b]fluoranthene	5000	5250	-4.8	
Benzo[k]fluoranthene	5800	5570	4.1	
Benzo[e]pyrene	5700	5620	1.4	
Benzo[a]pyrene	7000	6790	3.1	
Perylene	7200	7120	1.1	
Indeno[1,2,3,-c,d]pyrene	6000	6290	-4.6	
Dibenzo[a,h]anthracene	5100	5180	-1.6	
Benzo[g,h,i]perylene	5200	5290	-1.7	

Total PAH 120000

d8-Naphthalene	98
d10-Acenaphthene	97
d10-Phenanthrene	95
d12-Benzo[a]pyrene	94

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - IRM - PAH

Field ID	SRM 1491				SRM 1491			
Lab ID	BI94				BK22			
SDG	SDGS005				SDGS006			
File	W1364.D				DX6412.D			
Sample Type	IRM				IRM			
Matrix	SRM				SRM			
Sample Size	0.1 mL				0.1 mL			
Weight Basis	VOLUME				VOLUME			
Associated Blank	NA				NA			
Field Date	NA				NA			
Extract Date	NA				NA			
Analysis Date	9/8/1997				12/30/1997			
Min Reporting Limit	250				250			
Units	ug/L	T	%D	Q	ug/L	T	%D	Q
<b>PAH</b>								
Naphthalene	6500	6890	-5.7		6500	6890	-5.7	
C1-Naphthalenes	ND				ND			
C2-Naphthalenes	ND				ND			
C3-Naphthalenes	ND				ND			
C4-Naphthalenes	ND				ND			
Acenaphthylene	6900	6960	-0.9		6300	6960	-9.5	
Acenaphthene	7200	7280	-1.1		6200	7280	-15	
Biphenyl	7100	7000	1.4		6800	7000	-2.9	
Fluorene	7000	7270	-3.7		6200	7270	-15	
C1-Fluorenes	ND				ND			
C2-Fluorenes	ND				ND			
C3-Fluorenes	ND				ND			
Anthracene	8300	7820	6.1		7400	7820	-5.4	
Phenanthrene	7000	7010	-0.1		6900	7010	-1.6	
C1-Phenanthrenes/anthracenes	ND				ND			
C2-Phenanthrenes/anthracenes	ND				ND			
C3-Phenanthrenes/anthracenes	ND				ND			
C4-Phenanthrenes/anthracenes	ND				ND			
Dibenzothiophene	ND				ND			
C1-Dibenzothiophenes	ND				ND			
C2-Dibenzothiophenes	ND				ND			
C3-Dibenzothiophenes	ND				ND			
Fluoranthene	5900	5910	-0.2		5600	5910	-5.2	
Pyrene	6000	5890	1.9		5800	5890	-1.5	
C1-Fluoranthenes/pyrenes	ND				ND			
C2-Fluoranthenes/pyrenes	ND				ND			
C3-Fluoranthenes/pyrenes	ND				ND			
Benzo[a]anthracene	3700	3590	3.1		3400	3590	-5.3	
Chrysene	7200	7030	2.4		7500	7030	6.7	
C1-Chrysenes	ND				ND			
C2-Chrysenes	ND				ND			
C3-Chrysenes	ND				ND			
C4-Chrysenes	ND				ND			
Benzo[b]fluoranthene	5000	5250	-4.8		4900	5250	-6.7	
Benzo[k]fluoranthene	5800	5570	4.1		5400	5570	-3.1	
Benzo[e]pyrene	5800	5620	3.2		5600	5620	-0.4	
Benzo[a]pyrene	7100	6790	4.6		6500	6790	-4.3	
Perylene	7400	7120	3.9		7300	7120	2.5	
Indeno[1,2,3,-c,d]pyrene	6100	6290	-3		5600	6290	-11	
Dibenzo[a,h]anthracene	5200	5180	0.39		4600	5180	-11	
Benzo[g,h,i]perylene	5200	5290	-1.7		4900	5290	-7.4	
Total PAH	120000				110000			
d8-Naphthalene	97				105			
d10-Acenaphthene	96				100			
d10-Phenanthrene	95				94			
d12-Benzo[a]pyrene	95				97			

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - IRM - PAH

Field ID	SRM 1491
Lab ID	BI94
SDG	SDGS009
File	DX5038.D
Sample Type	IRM
Matrix	SRM
Sample Size	0.1 mL
Weight Basis	VOLUME
Associated Blank	NA
Field Date	NA
Extract Date	NA
Analysis Date	9/17/1997
Min Reporting Limit	250
Units	ug/L
	T %D Q

PAH			
Naphthalene	6800	6890	-1.3
C1-Naphthalenes	ND		
C2-Naphthalenes	ND		
C3-Naphthalenes	ND		
C4-Naphthalenes	ND		
Acenaphthylene	7000	6960	0.57
Acenaphthene	7100	7280	-2.5
Biphenyl	7600	7000	8.6
Fluorene	7400	7270	1.8
C1-Fluorenes	ND		
C2-Fluorenes	ND		
C3-Fluorenes	ND		
Anthracene	8400	7820	7.4
Phenanthrene	7100	7010	1.3
C1-Phenanthrenes/anthracenes	ND		
C2-Phenanthrenes/anthracenes	ND		
C3-Phenanthrenes/anthracenes	ND		
C4-Phenanthrenes/anthracenes	ND		
Dibenzothiophene	ND		
C1-Dibenzothiophenes	ND		
C2-Dibenzothiophenes	ND		
C3-Dibenzothiophenes	ND		
Fluoranthene	5800	5910	-1.9
Pyrene	5900	5890	0.17
C1-Fluoranthenes/pyrenes	ND		
C2-Fluoranthenes/pyrenes	ND		
C3-Fluoranthenes/pyrenes	ND		
Benzo[a]anthracene	3600	3590	0.28
Chrysene	7500	7030	6.7
C1-Chrysenes	ND		
C2-Chrysenes	ND		
C3-Chrysenes	ND		
C4-Chrysenes	ND		
Benzo[b]fluoranthene	5400	5250	2.8
Benzo[k]fluoranthene	5600	5570	0.54
Benzo[e]pyrene	5800	5620	3.2
Benzo[a]pyrene	7100	6790	4.6
Perylene	7600	7120	6.7
Indeno[1,2,3,-c,d]pyrene	5700	6290	-9.4
Dibenzo[a,h]anthracene	5200	5180	0.39
Benzo[g,h,i]perylene	5100	5290	-3.6

Total PAH 120000

d8-Naphthalene	93
d10-Acenaphthene	90
d10-Phenanthrene	92
d12-Benzo[a]pyrene	90

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - IRM - PAH

Field ID	SRM 1491				SRM 1491			
Lab ID	BI94				BI20			
SDG	SDGS010				SDGS001			
File	DX5075.D				DZ9895.D			
Sample Type	IRM				IRM			
Matrix	SRM				SRM			
Sample Size	0.1 mL				0.1 mL			
Weight Basis	VOLUME				VOLUME			
Associated Blank	NA				NA			
Field Date	NA				NA			
Extract Date	NA				NA			
Analysis Date	9/18/1997				7/29/1997			
Min Reporting Limit	250				250			
Units	ug/L	T	%D	Q	ug/L	T	%D	Q
<b>PAH</b>								
Naphthalene	6300	6890	-8.6		6200	6890	-10	
C1-Naphthalenes	ND				ND			
C2-Naphthalenes	ND				ND			
C3-Naphthalenes	ND				ND			
C4-Naphthalenes	ND				ND			
Acenaphthylene	6600	6960	-5.2		6200	6960	-11	
Acenaphthene	6600	7280	-9.4		6400	7280	-12	
Biphenyl	6800	7000	-2.9		6600	7000	-5.7	
Fluorene	6900	7270	-5.1		6400	7270	-12	
C1-Fluorenes	ND				ND			
C2-Fluorenes	ND				ND			
C3-Fluorenes	ND				ND			
Anthracene	8700	7820	11		7300	7820	-6.6	
Phenanthrene	7300	7010	4.1		7000	7010	-0.1	
C1-Phenanthrenes/anthracenes	ND				ND			
C2-Phenanthrenes/anthracenes	ND				ND			
C3-Phenanthrenes/anthracenes	ND				ND			
C4-Phenanthrenes/anthracenes	ND				ND			
Dibenzothiophene	ND				ND			
C1-Dibenzothiophenes	ND				ND			
C2-Dibenzothiophenes	ND				ND			
C3-Dibenzothiophenes	ND				ND			
Fluoranthene	6000	5910	1.5		5800	5910	-1.9	
Pyrene	6200	5890	5.3		6000	5890	1.9	
C1-Fluoranthenes/pyrenes	ND				ND			
C2-Fluoranthenes/pyrenes	ND				ND			
C3-Fluoranthenes/pyrenes	ND				ND			
Benzo[a]anthracene	3700	3590	3.1		3400	3590	-5.3	
Chrysene	7700	7030	9.5		7100	7030	1	
C1-Chrysenes	ND				ND			
C2-Chrysenes	ND				ND			
C3-Chrysenes	ND				ND			
C4-Chrysenes	ND				ND			
Benzo[b]fluoranthene	5300	5250	0.95		4900	5250	-6.7	
Benzo[k]fluoranthene	5700	5570	2.3		5400	5570	-3.1	
Benzo[e]pyrene	5900	5620	5		5600	5620	-0.4	
Benzo[a]pyrene	7100	6790	4.6		6500	6790	-4.3	
Perylene	7700	7120	8.1		7000	7120	-1.7	
Indeno[1,2,3,-c,d]pyrene	5800	6290	-7.8		5700	6290	-9.4	
Dibenzo[a,h]anthracene	5000	5180	-3.5		4800	5180	-7.3	
Benzo[g,h,i]perylene	4900	5290	-7.4		4900	5290	-7.4	
Total PAH	120000				110000			
d8-Naphthalene	93				99			
d10-Acenaphthene	94				97			
d10-Phenanthrene	93				96			
d12-Benzo[a]pyrene	93				94			

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - IRM - PAH

Field ID	SRM 1491
Lab ID	BH87
SDG	SDGS002
File	DZ0122.D
Sample Type	IRM
Matrix	SRM
Sample Size	0.1 mL
Weight Basis	VOLUME
Associated Blank	NA
Field Date	NA
Extract Date	NA
Analysis Date	8/14/1997
Min Reporting Limit	250
Units	ug/L
	T %D Q

PAH			
Naphthalene	6900	6890	0.14
C1-Naphthalenes	ND		
C2-Naphthalenes	ND		
C3-Naphthalenes	ND		
C4-Naphthalenes	ND		
Acenaphthylene	7200	6960	3.4
Acenaphthene	7300	7280	0.27
Biphenyl	7500	7000	7.1
Fluorene	7000	7270	-3.7
C1-Fluorenes	ND		
C2-Fluorenes	ND		
C3-Fluorenes	ND		
Anthracene	8700	7820	11
Phenanthrene	7800	7010	11
C1-Phenanthrenes/anthracenes	ND		
C2-Phenanthrenes/anthracenes	ND		
C3-Phenanthrenes/anthracenes	ND		
C4-Phenanthrenes/anthracenes	ND		
Dibenzothiophene	ND		
C1-Dibenzothiophenes	ND		
C2-Dibenzothiophenes	ND		
C3-Dibenzothiophenes	ND		
Fluoranthene	6600	5910	12
Pyrene	6600	5890	12
C1-Fluoranthenes/pyrenes	ND		
C2-Fluoranthenes/pyrenes	ND		
C3-Fluoranthenes/pyrenes	ND		
Benzo[a]anthracene	3900	3590	8.6
Chrysene	7800	7030	11
C1-Chrysenes	ND		
C2-Chrysenes	ND		
C3-Chrysenes	ND		
C4-Chrysenes	ND		
Benzo[b]fluoranthene	5800	5250	10
Benzo[k]fluoranthene	5900	5570	5.9
Benzo[e]pyrene	6300	5620	12
Benzo[a]pyrene	7400	6790	9
Perylene	7900	7120	11
Indeno[1,2,3,-c,d]pyrene	6600	6290	4.9
Dibenzo[a,h]anthracene	5600	5180	8.1
Benzo[g,h,i]perylene	5500	5290	4

Total PAH 130000

d8-Naphthalene	107
d10-Acenaphthene	99
d10-Phenanthrene	92
d12-Benzo[a]pyrene	96

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - IRM - PAH

Field ID	SRM 1491				SRM 1491			
Lab ID	BH87				BH87			
SDG	SDGS002				SDGS003			
File	DZ9931.D				DZ0040.D			
Sample Type	IRM				IRM			
Matrix	SRM				SRM			
Sample Size	0.1 mL				0.1 mL			
Weight Basis	VOLUME				VOLUME			
Associated Blank	NA				NA			
Field Date	NA				NA			
Extract Date	NA				NA			
Analysis Date	7/31/1997				8/8/1997			
Min Reporting Limit	250				250			
Units	ug/L	T	%D	Q	ug/L	T	%D	Q
<b>PAH</b>								
Naphthalene	6800	6890	-1.3		7000	6890	1.6	
C1-Naphthalenes	ND				ND			
C2-Naphthalenes	ND				ND			
C3-Naphthalenes	ND				ND			
C4-Naphthalenes	ND				ND			
Acenaphthylene	6900	6960	-0.9		7100	6960	2	
Acenaphthene	7100	7280	-2.5		7300	7280	0.27	
Biphenyl	7300	7000	4.3		7800	7000	11	
Fluorene	7000	7270	-3.7		7200	7270	-1	
C1-Fluorenes	ND				ND			
C2-Fluorenes	ND				ND			
C3-Fluorenes	ND				ND			
Anthracene	8900	7820	14		8700	7820	11	
Phenanthrene	8000	7010	14		7800	7010	11	
C1-Phenanthrenes/anthracenes	ND				ND			
C2-Phenanthrenes/anthracenes	ND				ND			
C3-Phenanthrenes/anthracenes	ND				ND			
C4-Phenanthrenes/anthracenes	ND				ND			
Dibenzothiophene	ND				ND			
C1-Dibenzothiophenes	ND				ND			
C2-Dibenzothiophenes	ND				ND			
C3-Dibenzothiophenes	ND				ND			
Fluoranthene	6700	5910	13		6600	5910	12	
Pyrene	6800	5890	15		6700	5890	14	
C1-Fluoranthenes/pyrenes	ND				ND			
C2-Fluoranthenes/pyrenes	ND				ND			
C3-Fluoranthenes/pyrenes	ND				ND			
Benzo[a]anthracene	4100	3590	14		4000	3590	11	
Chrysene	7900	7030	12		7900	7030	12	
C1-Chrysenes	ND				ND			
C2-Chrysenes	ND				ND			
C3-Chrysenes	ND				ND			
C4-Chrysenes	ND				ND			
Benzo[b]fluoranthene	5400	5250	2.8		5600	5250	6.7	
Benzo[k]fluoranthene	6200	5570	11		6100	5570	9.5	
Benzo[e]pyrene	6400	5620	14		6400	5620	14	
Benzo[a]pyrene	7400	6790	9		7500	6790	10	
Perylene	8000	7120	12		8000	7120	12	
Indeno[1,2,3,-c,d]pyrene	6500	6290	3.3		6600	6290	4.9	
Dibenzo[a,h]anthracene	5700	5180	10		5500	5180	6.2	
Benzo[g,h,i]perylene	5700	5290	7.8		5600	5290	5.9	
Total PAH	130000				130000			
d8-Naphthalene	104				107			
d10-Acenaphthene	99				96			
d10-Phenanthrene	91				89			
d12-Benzo[a]pyrene	94				97			



**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - IRM - PAH

Field ID	SRM 1491
Lab ID	BI94
SDG	SDGS007
File	DZ2138.D
Sample Type	IRM
Matrix	SRM
Sample Size	0.1 mL
Weight Basis	VOLUME
Associated Blank	NA
Field Date	NA
Extract Date	NA
Analysis Date	8/29/1997
Min Reporting Limit	250
Units	ug/L
	T %D Q

PAH			
Naphthalene	6800	6890	-1.3
C1-Naphthalenes	ND		
C2-Naphthalenes	ND		
C3-Naphthalenes	ND		
C4-Naphthalenes	ND		
Acenaphthylene	7000	6960	0.57
Acenaphthene	7200	7280	-1.1
Biphenyl	7400	7000	5.7
Fluorene	7600	7270	4.5
C1-Fluorenes	ND		
C2-Fluorenes	ND		
C3-Fluorenes	ND		
Anthracene	8900	7820	14
Phenanthrene	7500	7010	7
C1-Phenanthrenes/anthracenes	ND		
C2-Phenanthrenes/anthracenes	ND		
C3-Phenanthrenes/anthracenes	ND		
C4-Phenanthrenes/anthracenes	ND		
Dibenzothiophene	ND		
C1-Dibenzothiophenes	ND		
C2-Dibenzothiophenes	ND		
C3-Dibenzothiophenes	ND		
Fluoranthene	6300	5910	6.6
Pyrene	6500	5890	10
C1-Fluoranthenes/pyrenes	ND		
C2-Fluoranthenes/pyrenes	ND		
C3-Fluoranthenes/pyrenes	ND		
Benzo[a]anthracene	3700	3590	3.1
Chrysene	7800	7030	11
C1-Chrysenes	ND		
C2-Chrysenes	ND		
C3-Chrysenes	ND		
C4-Chrysenes	ND		
Benzo[b]fluoranthene	5200	5250	-1
Benzo[k]fluoranthene	5800	5570	4.1
Benzo[e]pyrene	5900	5620	5
Benzo[a]pyrene	7200	6790	6
Perylene	7800	7120	9.6
Indeno[1,2,3,-c,d]pyrene	5600	6290	-11
Dibenzo[a,h]anthracene	4800	5180	-7.3
Benzo[g,h,i]perylene	5100	5290	-3.6

Total PAH 120000

d8-Naphthalene	96
d10-Acenaphthene	92
d10-Phenanthrene	92
d12-Benzo[a]pyrene	95

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - IRM - PAH

Field ID	SRM 1491				SRM 1491			
Lab ID	BI94				BK22			
SDG	SDGS008				SDGSOD			
File	DZ2173.D				DY7188.D			
Sample Type	IRM				IRM			
Matrix	SRM				SRM			
Sample Size	0.1 mL				0.1 mL			
Weight Basis	VOLUME				VOLUME			
Associated Blank	NA				NA			
Field Date	NA				NA			
Extract Date	NA				NA			
Analysis Date	8/30/1997				1/3/1998			
Min Reporting Limit	250				250			
Units	ug/L	T	%D	Q	ug/L	T	%D	Q
<b>PAH</b>								
Naphthalene	6800	6890	-1.3		6100	6890	-7.1	
C1-Naphthalenes	ND				ND			
C2-Naphthalenes	ND				ND			
C3-Naphthalenes	ND				ND			
C4-Naphthalenes	ND				ND			
Acenaphthylene	7100	6960	2		6300	6960	-8	
Acenaphthene	7400	7280	1.6		6300	7280	-12	
Biphenyl	7500	7000	7.1		6700	7000	-2.9	
Fluorene	7400	7270	1.8		6300	7270	-12	
C1-Fluorenes	ND				ND			
C2-Fluorenes	ND				ND			
C3-Fluorenes	ND				ND			
Anthracene	8900	7820	14		8000	7820	-2.8	
Phenanthrene	7500	7010	7		7400	7010	-0.1	
C1-Phenanthrenes/anthracenes	ND				ND			
C2-Phenanthrenes/anthracenes	ND				ND			
C3-Phenanthrenes/anthracenes	ND				ND			
C4-Phenanthrenes/anthracenes	ND				ND			
Dibenzothiophene	ND				ND			
C1-Dibenzothiophenes	ND				ND			
C2-Dibenzothiophenes	ND				ND			
C3-Dibenzothiophenes	ND				ND			
Fluoranthene	6100	5910	3.2		5800	5910	-6.9	
Pyrene	6200	5890	5.3		6000	5890	-3.2	
C1-Fluoranthenes/pyrenes	ND				ND			
C2-Fluoranthenes/pyrenes	ND				ND			
C3-Fluoranthenes/pyrenes	ND				ND			
Benzo[a]anthracene	3500	3590	-2.5		3500	3590	-8.1	
Chrysene	7500	7030	6.7		8000	7030	8.1	
C1-Chrysenes	ND				ND			
C2-Chrysenes	ND				ND			
C3-Chrysenes	ND				ND			
C4-Chrysenes	ND				ND			
Benzo[b]fluoranthene	5300	5250	0.95		4700	5250	-14	
Benzo[k]fluoranthene	6100	5570	9.5		5900	5570	0.54	
Benzo[e]pyrene	5900	5620	5		5800	5620	-0.4	
Benzo[a]pyrene	7400	6790	9		7100	6790	0.15	
Perylene	7800	7120	9.6		7600	7120	2.5	
Indeno[1,2,3,-c,d]pyrene	6100	6290	-3		NA			
Dibenzo[a,h]anthracene	5100	5180	-1.6		NA			
Benzo[g,h,i]perylene	5200	5290	-1.7		NA			
Total PAH	120000				100000			
d8-Naphthalene	96				105			
d10-Acenaphthene	92				102			
d10-Phenanthrene	93				95			
d12-Benzo[a]pyrene	90				96			

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - IRM - PAH

Field ID	SRM 1491
Lab ID	BK22
SDG	SDGSOD
File	DY7248.D
Sample Type	IRM
Matrix	SRM
Sample Size	0.1 mL
Weight Basis	VOLUME
Associated Blank	NA
Field Date	NA
Extract Date	NA
Analysis Date	1/14/1998
Min Reporting Limit	250
Units	ug/L
	T %D Q

PAH			
Naphthalene	6700	6890	-2.8
C1-Naphthalenes	ND		
C2-Naphthalenes	ND		
C3-Naphthalenes	ND		
C4-Naphthalenes	ND		
Acenaphthylene	6600	6960	-6.6
Acenaphthene	6500	7280	-12
Biphenyl	7000	7000	-1.4
Fluorene	6600	7270	-11
C1-Fluorenes	ND		
C2-Fluorenes	ND		
C3-Fluorenes	ND		
Anthracene	8400	7820	-2.8
Phenanthrene	7700	7010	-1.6
C1-Phenanthrenes/anthracenes	ND		
C2-Phenanthrenes/anthracenes	ND		
C3-Phenanthrenes/anthracenes	ND		
C4-Phenanthrenes/anthracenes	ND		
Dibenzothiophene	ND		
C1-Dibenzothiophenes	ND		
C2-Dibenzothiophenes	ND		
C3-Dibenzothiophenes	ND		
Fluoranthene	6200	5910	-5.2
Pyrene	6200	5890	-4.9
C1-Fluoranthenes/pyrenes	ND		
C2-Fluoranthenes/pyrenes	ND		
C3-Fluoranthenes/pyrenes	ND		
Benzo[a]anthracene	3800	3590	-5.3
Chrysene	8400	7030	8.1
C1-Chrysenes	ND		
C2-Chrysenes	ND		
C3-Chrysenes	ND		
C4-Chrysenes	ND		
Benzo[b]fluoranthene	5400	5250	-6.7
Benzo[k]fluoranthene	6400	5570	4.1
Benzo[e]pyrene	6000	5620	-0.4
Benzo[a]pyrene	7500	6790	3.1
Perylene	8400	7120	9.6
Indeno[1,2,3,-c,d]pyrene	NA		
Dibenzo[a,h]anthracene	NA		
Benzo[g,h,i]perylene	NA		

Total PAH 110000

d8-Naphthalene	100
d10-Acenaphthene	99
d10-Phenanthrene	90
d12-Benzo[a]pyrene	93

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - IRM - PAH

Field ID	SRM 1491				SRM 1491			
Lab ID	BK54				BK05			
SDG	SDGT001REX				SDGT001			
File	DZ4127.D				DZ3357.D			
Sample Type	IRM				IRM			
Matrix	SRM				SRM			
Sample Size	0.1 mL				0.1 mL			
Weight Basis	VOLUME				VOLUME			
Associated Blank	NA				NA			
Field Date	NA				NA			
Extract Date	NA				NA			
Analysis Date	2/20/1998				11/25/1997			
Min Reporting Limit	250				250			
Units	ug/L	T	%D	Q	ug/L	T	%D	Q
<b>PAH</b>								
Naphthalene	6300	6890	-7.1		6000	6890	-7.1	
C1-Naphthalenes	ND				ND			
C2-Naphthalenes	ND				ND			
C3-Naphthalenes	ND				ND			
C4-Naphthalenes	ND				ND			
Acenaphthylene	7300	6960	-0.9		6400	6960	-8	
Acenaphthene	7200	7280	-6.6		6400	7280	-12	
Biphenyl	7200	7000	-2.9		6800	7000	-2.9	
Fluorene	7200	7270	-6.5		6600	7270	-9.2	
C1-Fluorenes	ND				ND			
C2-Fluorenes	ND				ND			
C3-Fluorenes	ND				ND			
Anthracene	9300	7820	14		7200	7820	-6.6	
Phenanthrene	7100	7010	-3		6500	7010	-5.8	
C1-Phenanthrenes/anthracenes	ND				ND			
C2-Phenanthrenes/anthracenes	ND				ND			
C3-Phenanthrenes/anthracenes	ND				ND			
C4-Phenanthrenes/anthracenes	ND				ND			
Dibenzothiophene	ND				ND			
C1-Dibenzothiophenes	ND				ND			
C2-Dibenzothiophenes	ND				ND			
C3-Dibenzothiophenes	ND				ND			
Fluoranthene	5700	5910	-6.9		5400	5910	-6.9	
Pyrene	5700	5890	-6.6		5500	5890	-4.9	
C1-Fluoranthenes/pyrenes	ND				ND			
C2-Fluoranthenes/pyrenes	ND				ND			
C3-Fluoranthenes/pyrenes	ND				ND			
Benzo[a]anthracene	3800	3590	0.28		3100	3590	-11	
Chrysene	7200	7030	-1.8		6400	7030	-7.5	
C1-Chrysenes	ND				ND			
C2-Chrysenes	ND				ND			
C3-Chrysenes	ND				ND			
C4-Chrysenes	ND				ND			
Benzo[b]fluoranthene	5600	5250	2.8		4500	5250	-12	
Benzo[k]fluoranthene	5700	5570	-1.3		5000	5570	-8.4	
Benzo[e]pyrene	6000	5620	3.2		5200	5620	-5.7	
Benzo[a]pyrene	7600	6790	9		6200	6790	-7.2	
Perylene	8000	7120	9.6		6600	7120	-5.9	
Indeno[1,2,3,-c,d]pyrene	6400	6290	-1.4		5300	6290	-14	
Dibenzo[a,h]anthracene	5400	5180	0.39		4600	5180	-11	
Benzo[g,h,i]perylene	5400	5290	-1.7		4600	5290	-13	
Total PAH	120000				110000			
d8-Naphthalene	101				107			
d10-Acenaphthene	95				100			
d10-Phenanthrene	96				102			
d12-Benzo[a]pyrene	97				101			

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - IRM - PAH

Field ID	SRM 1491
Lab ID	BI94
SDG	SDGW001
File	DZ2506.D
Sample Type	IRM
Matrix	SRM
Sample Size	0.1 mL
Weight Basis	VOLUME
Associated Blank	NA
Field Date	NA
Extract Date	NA
Analysis Date	9/24/1997
Min Reporting Limit	250
Units	ug/L
	T %D Q

PAH				
Naphthalene	7000	6890	0.14	
C1-Naphthalenes	ND			
C2-Naphthalenes	ND			
C3-Naphthalenes	ND			
C4-Naphthalenes	ND			
Acenaphthylene	7700	6960	3.4	
Acenaphthene	8100	7280	3	
Biphenyl	8100	7000	7.1	
Fluorene	8100	7270	3.2	
C1-Fluorenes	ND			
C2-Fluorenes	ND			
C3-Fluorenes	ND			
Anthracene	10000	7820	15	
Phenanthrene	8800	7010	11	
C1-Phenanthrenes/anthracenes	ND			
C2-Phenanthrenes/anthracenes	ND			
C3-Phenanthrenes/anthracenes	ND			
C4-Phenanthrenes/anthracenes	ND			
Dibenzothiophene	ND			
C1-Dibenzothiophenes	ND			
C2-Dibenzothiophenes	ND			
C3-Dibenzothiophenes	ND			
Fluoranthene	7000	5910	4.9	
Pyrene	7200	5890	8.6	
C1-Fluoranthenes/pyrenes	ND			
C2-Fluoranthenes/pyrenes	ND			
C3-Fluoranthenes/pyrenes	ND			
Benzo[a]anthracene	4400	3590	8.6	
Chrysene	8800	7030	11	
C1-Chrysenes	ND			
C2-Chrysenes	ND			
C3-Chrysenes	ND			
C4-Chrysenes	ND			
Benzo[b]fluoranthene	5500	5250	-6.7	
Benzo[k]fluoranthene	6700	5570	7.7	
Benzo[e]pyrene	6300	5620	6.8	
Benzo[a]pyrene	7600	6790	7.5	
Perylene	8100	7120	9.6	
Indeno[1,2,3,-c,d]pyrene	NA			
Dibenzo[a,h]anthracene	NA			
Benzo[g,h,i]perylene	NA			

Total PAH 120000

d8-Naphthalene	99
d10-Acenaphthene	93
d10-Phenanthrene	89
d12-Benzo[a]pyrene	96