

Triton Analytics Corporation  
 16840 Barker Springs, #302  
 Houston, TX 77084  
**Z-type Summary**

sample: **Alaskan Crude Oil**

data file/run date 123621 11/27/2007

TAC ref: qa

Assumed HTSD recovery: **100 % boiling below 1000F**

**Note: values reported represent only a "best estimate"**

**Weight Percentage**

**Iso/normal paraffin ratio**  
 weighted average 0.69  
 average carbon # of n-paraffins 19.2

**Z number Summary**

+2	45.59	Paraffins:	45.59
+0	24.19		
-2	8.93		
-4	3.47	Cyclanes:	36.59
-6p	0.00	Phenols	
-6	6.90		
-8	2.19		
-10b	0.06	Benzothiophenes	
-10	1.53	Monoaros:	10.67
-12	2.14		
-14	1.87		
-15	0.00	Carbazoles	
-16db	0.33	Dibenzothiophenes	
-16	0.81	Diaros:	5.15
-18	1.00		
-20	0.28		
-22bn	0.06	Benzenaphthothiophenes	
-22	0.31	Triaros:	1.66
-24	0.16		
-26	0.08		
-28	0.06	Tetraaros:	0.29
-30	0.03		
-32	0.02	Pentaaros:	0.05

100.00

average # of carbons 16.9  
 average # of hydrogens 32.6  
 average # of oxygens 0.00  
 average # of sulfurs 0.00  
 average # of nitrogens 0.00  
 average molecular weight 235.8

phenolic oxygen 0.00 wt %  
 thiophenic sulfur 0.07 wt %  
 carbazolic nitrogen 0.00 wt %

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**Z-Type vs. Carbon Number**

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TAC ref: qa

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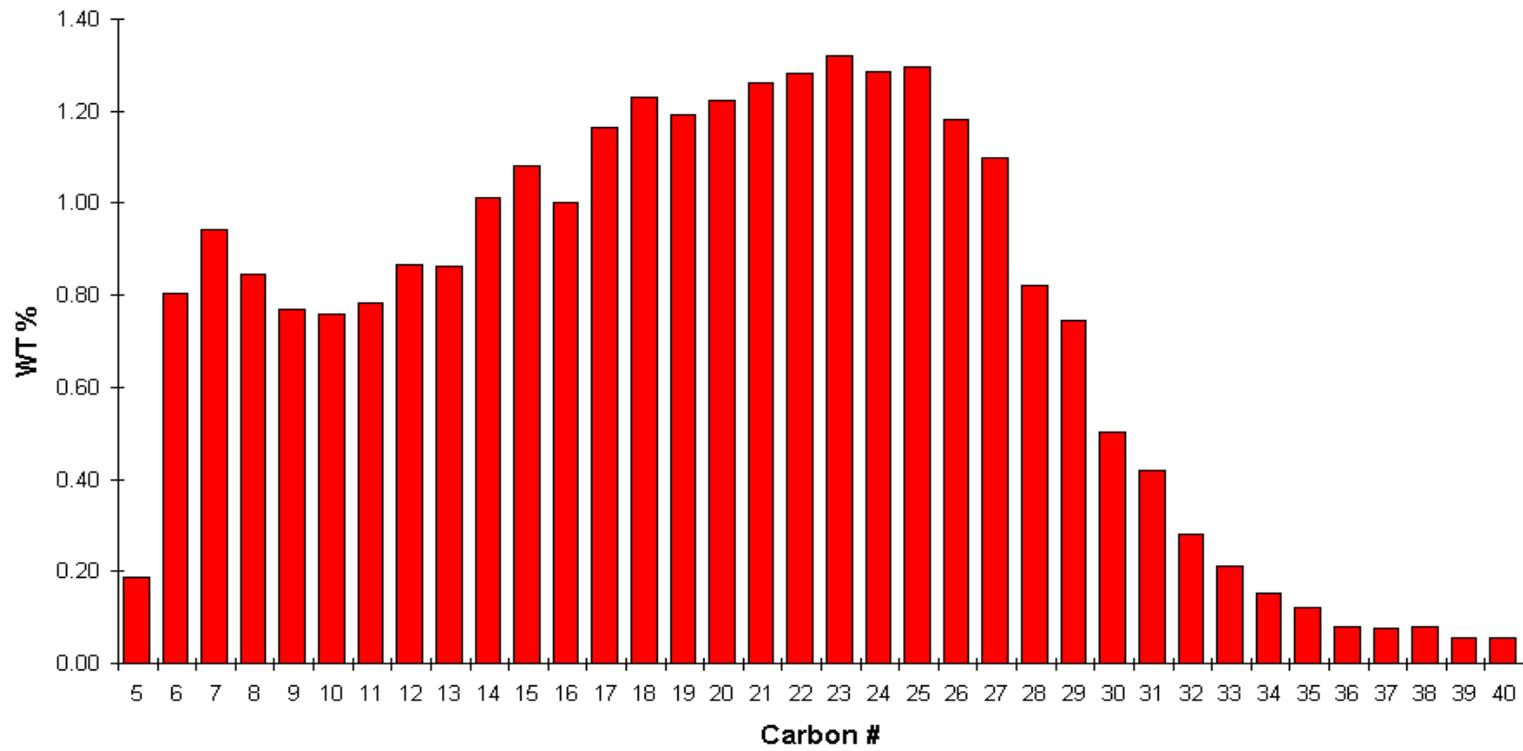
**Note: values reported represent only a "best estimate"**

Z number C#	+2(i)	+2(n)	0	-2	-4	-6	-6	-8	-10	-10	-12	-14	-15	-16	-16	-18	-20	-22	-24	-26	-28	-30	-32		
						phenols			-10 benzo- thiophenes					-16 dibenzo- carbazole: thiophenes			-22 benzo- naphtho- thiophenes								
5	0.77	0.19	0.01																						
6	1.71	0.80	0.94			0.00	0.11																		
7	1.31	0.94	3.88	0.09		0.00	0.54																		
8	1.35	0.84	3.75	0.14		0.00	0.91	0.00	0.00																
9	1.25	0.77	2.75	0.41		0.00	0.83	0.01	0.00	0.00															
10	1.16	0.76	1.78	0.57	0.00	0.00	0.56	0.04	0.02	0.00	0.05														
11	0.85	0.78	1.22	0.80	0.04	0.00	0.33	0.09	0.01	0.01	0.23														
12	0.65	0.87	0.88	0.82	0.12	0.00	0.21	0.13	0.01	0.01	0.44	0.02	0.00	0.03	0.00										
13	0.78	0.86	0.82	0.87	0.20	0.00	0.19	0.17	0.01	0.03	0.32	0.08	0.00	0.07	0.01										
14	0.76	1.01	0.73	0.78	0.28	0.00	0.19	0.17	0.00	0.07	0.14	0.12	0.00	0.10	0.03	0.03									
15	0.71	1.08	0.66	0.66	0.31	0.00	0.20	0.13	0.00	0.09	0.07	0.13	0.00	0.07	0.05	0.07									
16	0.72	1.00	0.59	0.42	0.27		0.19	0.10	0.00	0.10	0.05	0.15	0.00	0.04	0.05	0.11	0.00	0.00	0.00						
17	0.53	1.16	0.54	0.32	0.22		0.18	0.09	0.00	0.09	0.05	0.14	0.00	0.02	0.05	0.08	0.01	0.01	0.01						
18	0.62	1.23	0.51	0.29	0.20		0.18	0.08	0.00	0.10	0.05	0.11	0.00	0.01	0.05	0.06	0.03	0.02	0.02	0.01					
19	0.68	1.19	0.45	0.25	0.18		0.17	0.08	0.00	0.08	0.06	0.10	0.00	0.00	0.06	0.04	0.03	0.02	0.03	0.01					
20	0.52	1.22	0.42	0.22	0.14		0.16	0.07	0.00	0.07	0.05	0.09	0.00	0.00	0.06	0.04	0.04	0.01	0.03	0.02	0.02	0.02	0.01	0.01	
21	0.39	1.26	0.40	0.19	0.11		0.15	0.08	0.00	0.07	0.05	0.08		0.00	0.05	0.04	0.04	0.00	0.03	0.02	0.01	0.01			
22	0.36	1.28	0.36	0.17	0.10		0.14	0.07	0.00	0.07	0.05	0.07		0.00	0.05	0.05	0.03	0.00	0.03	0.02	0.01	0.00	0.01	0.00	
23	0.34	1.32	0.32	0.14	0.09		0.13	0.07		0.06	0.05	0.06		0.00	0.04	0.05	0.03	0.00	0.03	0.02	0.01	0.01	0.00	0.01	
24	0.31	1.29	0.30	0.15	0.08		0.12	0.06		0.06	0.04	0.07		0.00	0.04	0.05	0.03	0.00	0.03	0.01	0.01	0.01	0.01	0.00	
25	0.28	1.30	0.28	0.13	0.08		0.11	0.06		0.06	0.04	0.06			0.03	0.04	0.02		0.02	0.02	0.01	0.01	0.00	0.01	
26	0.28	1.18	0.27	0.13	0.07		0.13	0.05		0.05	0.04	0.07			0.04	0.05	0.02		0.04	0.01	0.00	0.00	0.00	0.00	
27	0.24	1.10	0.25	0.12	0.08		0.17	0.08		0.07	0.04	0.08			0.04	0.05			0.03	0.02					
28	0.25	0.82	0.24	0.12	0.07		0.15	0.06		0.05	0.04	0.07			0.03	0.05			0.02	0.01					
29	0.21	0.74	0.22	0.11	0.07		0.18	0.08		0.06	0.04	0.06			0.03	0.03			0.00	0.00					
30	0.20	0.50	0.19	0.10	0.07		0.14	0.09		0.06	0.04	0.05			0.02	0.03									
31	0.18	0.42	0.19	0.10	0.07		0.11	0.08		0.05	0.03	0.05			0.01	0.02									
32	0.17	0.28	0.18	0.12	0.07		0.09	0.06		0.04	0.03	0.04			0.02	0.03									
33	0.15	0.21	0.17	0.11	0.07		0.08	0.04		0.04	0.02	0.03			0.01	0.02									
34	0.15	0.15	0.17	0.11	0.08		0.07	0.04		0.03	0.03	0.03			0.01	0.02									
35	0.14	0.12	0.15	0.10	0.07		0.06	0.03		0.03	0.02	0.03			0.01	0.01									
36	0.12	0.08	0.16	0.12	0.07		0.05	0.03		0.02	0.02	0.03			0.01	0.01									
37	0.11	0.08	0.12	0.07	0.06		0.03	0.02		0.03	0.02	0.03			0.01	0.01									
38	0.12	0.08	0.12	0.09	0.07		0.03	0.02		0.02	0.01	0.01			0.00	0.00									
39	0.10	0.06	0.10	0.08	0.05		0.02	0.01		0.02	0.01	0.01			0.00	0.00									
40	0.09	0.06	0.10	0.06	0.08		0.01	0.01		0.01	0.01	0.01			0.00	0.00									
sum	18.54	27.04	24.19	8.93	3.47	0.00	6.90	2.19	0.06	1.53	2.14	1.87	0.00	0.33	0.81	1.00	0.28	0.06	0.31	0.16	0.08	0.06	0.03	0.02	100.00



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**Normal Paraffin Distribution**

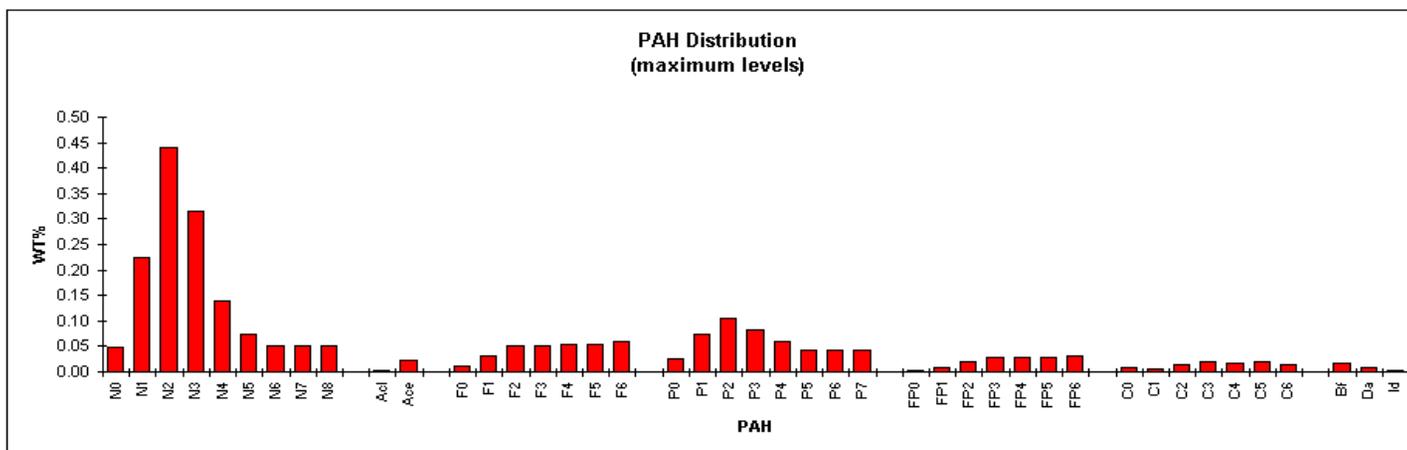
### Alaskan Crude Oil



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 16840 Barker Springs, #302  
 Houston, TX 77084

sample name: **Alaskan Crude Oil**  
 run date: 11/27/2007

data file: **123621**  
 TAC ref: qa

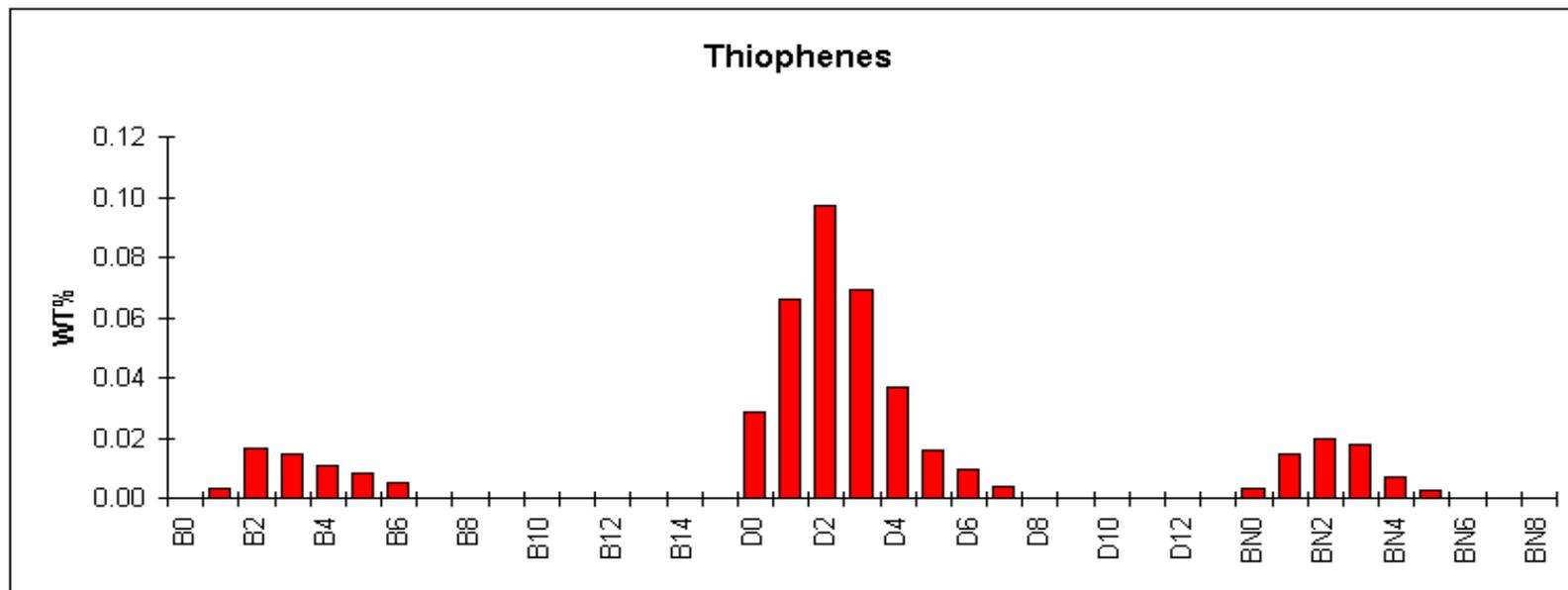


N0	naphthalene	F0	Fluorene	FP0	Fluoranthene/pyrene
N1	C1-naphthalenes	F1	C1-fluorenes	FP1	C1-fluoranthene/pyrenes
N2	C2-naphthalenes	F2	C2-fluorenes	FP2	C2-fluoranthene/pyrenes
N3	C3-naphthalenes	F3	C3-fluorenes	FP3	C3-fluoranthene/pyrenes
N4	C4-naphthalenes	F4	C4-fluorenes	FP4	C4-fluoranthene/pyrenes
N5	C5-naphthalenes	F5	C5-fluorenes	FP5	C5-fluoranthene/pyrenes
N6	C6-naphthalenes	F6	C6-fluorenes	FP6	C6-fluoranthene/pyrenes
N7	C7-naphthalenes				
N8	C8-naphthalenes				
AcI	Acenaphthylene	P0	Anthracene/phenanthrene	C0	Benzo(a)anthracene/chrysenes
Ace	Acenaphthene	P1	C1-anthracene/phenanthrenes	C1	C1-Benzo(a)anthracene/chrysenes
		P2	C2-anthracene/phenanthrenes	C2	C2-Benzo(a)anthracene/chrysenes
		P3	C3-anthracene/phenanthrenes	C3	C3-Benzo(a)anthracene/chrysenes
		P4	C4-anthracene/phenanthrenes	C4	C4-Benzo(a)anthracene/chrysenes
		P5	C5-anthracene/phenanthrenes	C5	C5-Benzo(a)anthracene/chrysenes
		P6	C6-anthracene/phenanthrenes	C6	C6-Benzo(a)anthracene/chrysenes
		P7	C7-anthracene/phenanthrenes		
		P8	C8-anthracene/phenanthrenes	Bf	Benzo(b),(k)fluoranthenes/(a)pyrene
				Da	Dibenz(a,h)anthracene
				Id	Indeno(1,2,3-cd)pyrene/benzo(ghi)perylene

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B0	Benzothiophene	D0	Dibenzothiophene	BN0	Benzonaphthothiophene
B1	C1-benzothiophenes	D1	C1-dibenzothiophenes	BN1	C1-Benzonaphthothiophenes
B2	C2-benzothiophenes	D2	C2-dibenzothiophenes	BN2	C2-Benzonaphthothiophenes
B3	C3-benzothiophenes	D3	C3-dibenzothiophenes	BN3	C3-Benzonaphthothiophenes
B4	C4-benzothiophenes	D4	C4-dibenzothiophenes	BN4	C4-Benzonaphthothiophenes
B5	C5-benzothiophenes	D5	C5-dibenzothiophenes	BN5	C5-Benzonaphthothiophenes
B6	C6-benzothiophenes	D6	C6-dibenzothiophenes	BN6	C6-Benzonaphthothiophenes
B7	C7-benzothiophenes	D7	C7-dibenzothiophenes	BN7	C7-Benzonaphthothiophenes
B8	C8-benzothiophenes	D8	C8-dibenzothiophenes	BN8	C8-Benzonaphthothiophenes

average molecular weights

169.9 Benzothiophenes

211.0 Dibenzothiophenes

261.3 Benzonaphthothiophenes

weight percent thiophenic sulfur

0.04 %