

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

sample: **Heavy Atmospheric Gas Oil**

data file/run date 107450 8/7/03

TAC ref: example

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

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

Iso/normal paraffin ratio  
 weighted average 0.89

average carbon # of n-paraffins 20.2

**Z number Summary**

+2	41.71	Paraffins:	41.71
+0	25.73		
-2	12.71		
-4	4.83	Cyclanes:	43.27
-6p	0.00	Phenols	
-6	6.75		
-8	3.74		
-10b	0.00	Benzothiophenes	
-10	0.70	Monoaros:	11.19
-12	0.85		
-14	1.62		
-15	0.00	Carbazoles	
-16db	0.00	Dibenzothiophenes	
-16	0.33	Diaros:	2.80
-18	0.68		
-20	0.06		
-22bn	0.00	Benzonaphthothiophenes	
-22	0.25	Triaros:	1.00
-24	0.03		
-26	0.00		
-28	0.00	Tetraaros:	0.03
-30	0.00		
-32	0.00	Pentaaros:	0.00
			100.00

average # of carbons	17.1
average # of hydrogens	33.3
phenolic oxygen	0.00 wt %
thiophenic sulfur	0.00 wt %
carbazolic nitrogen	0.00 wt %

Triton Analytics Corporation  
 16840 Barker Springs, #302  
 Houston, TX 77084  
**Z-Type vs. Carbon Number**

sample: **Heavy Atmospheric Gas Oil**

data file/run date: 107450 8/7/03  
 TAC ref: example  
 Assumed HTSD recovery: 100 % boiling below 1000F

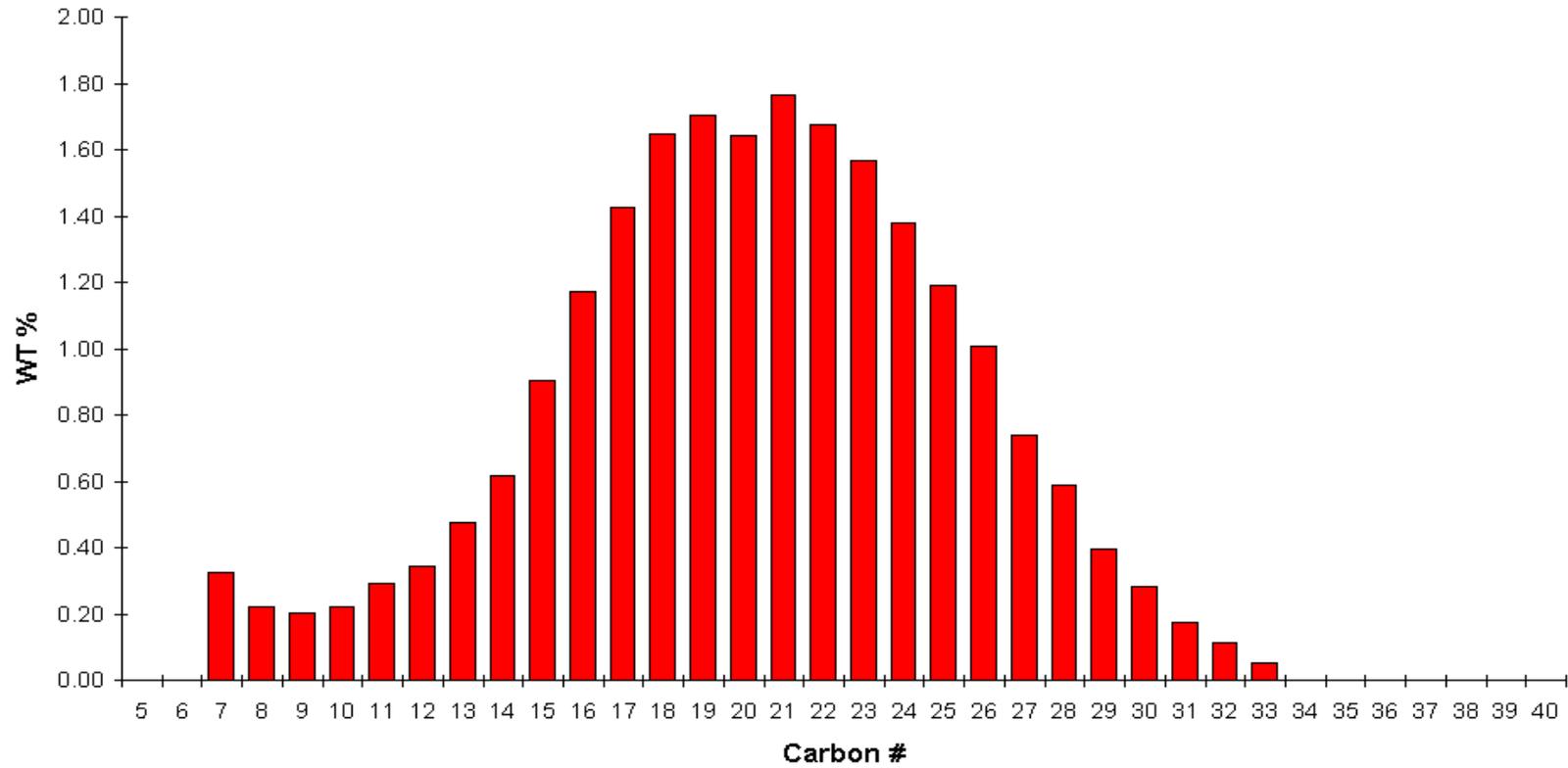
Note: values reported represent only a "best estimate"

Z number C#	+2(i)	+2(n)	0	-2	-4	-6	-6	-8	-10	-12	-14	-15	-16	-16	-18	-20	-22	-24	-26	-28	-30	-32	
					phenols			benzo-	thiophenes			carbazole:	dibenzo-	thiophenes	benzo-	naphtho-							
5	0.25	0.00	0.00																				
6	0.54	0.00	0.63			0.00	0.08																
7	0.60	0.32	2.28	0.03		0.00	0.74																
8	0.57	0.22	2.90	0.05		0.00	1.14	0.01	0.00														
9	0.52	0.20	2.65	0.27	0.00	0.00	1.01	0.08	0.00	0.00													
10	0.44	0.22	1.69	0.74	0.00	0.00	0.50	0.42	0.00	0.02	0.06												
11	0.42	0.29	1.02	1.15	0.04	0.00	0.37	0.82	0.00	0.04	0.18												
12	0.40	0.34	0.68	1.01	0.11	0.00	0.48	0.78	0.00	0.05	0.21	0.03	0.00	0.00	0.00								
13	0.48	0.48	0.66	0.86	0.20	0.00	0.45	0.45	0.00	0.08	0.12	0.17	0.00	0.00	0.01								
14	0.51	0.62	0.64	0.77	0.25	0.00	0.30	0.24	0.00	0.10	0.07	0.36	0.00	0.00	0.03	0.02							
15	0.66	0.90	0.77	0.84	0.30	0.00	0.19	0.15	0.00	0.09	0.05	0.37	0.00	0.00	0.05	0.04							
16	0.81	1.17	0.87	0.78	0.37		0.16	0.10	0.00	0.05	0.03	0.23	0.00	0.00	0.05	0.04	0.00	0.00	0.02				
17	1.00	1.42	1.03	0.76	0.44		0.14	0.07	0.00	0.03	0.02	0.13	0.00	0.00	0.04	0.04	0.01	0.00	0.07				
18	1.25	1.65	1.13	0.75	0.48		0.14	0.06	0.00	0.02	0.01	0.06	0.00	0.00	0.02	0.03	0.01	0.00	0.09	0.01			
19	1.47	1.71	1.25	0.76	0.47		0.13	0.06	0.00	0.02	0.02	0.05	0.00	0.00	0.02	0.02	0.02	0.00	0.05	0.01			
20	1.50	1.64	1.24	0.71	0.41		0.13	0.05	0.00	0.02	0.01	0.04		0.00	0.01	0.02	0.01	0.00	0.01	0.01	0.00	0.00	
21	1.36	1.76	1.27	0.69	0.37		0.12	0.06	0.00	0.03	0.02	0.04		0.00	0.03	0.04	0.01	0.00	0.00	0.01	0.00	0.00	
22	1.28	1.67	1.09	0.58	0.31		0.12	0.06	0.00	0.03	0.01	0.02		0.00	0.01	0.06	0.00	0.00	0.00	0.00	0.00	0.00	
23	1.36	1.57	1.01	0.51	0.28		0.11	0.06		0.03	0.02	0.03		0.00	0.01	0.07	0.00	0.00	0.00	0.00	0.00	0.00	
24	1.06	1.38	0.79	0.40	0.21		0.11	0.05		0.02	0.01	0.02		0.00	0.01	0.08	0.00	0.00	0.00	0.00	0.00	0.00	
25	0.87	1.19	0.66	0.33	0.19		0.08	0.04		0.02	0.01	0.02		0.01	0.07	0.00		0.00	0.00	0.00	0.00	0.00	
26	0.68	1.01	0.48	0.24	0.13		0.06	0.03		0.02	0.00	0.01		0.01	0.05	0.00		0.00	0.00	0.00	0.00	0.00	
27	0.50	0.74	0.37	0.18	0.11		0.06	0.04		0.02	0.01	0.02		0.01	0.04			0.00	0.00				
28	0.39	0.59	0.25	0.13	0.07		0.04	0.03		0.01	0.00	0.00		0.00	0.02			0.00	0.00				
29	0.26	0.40	0.16	0.09	0.05		0.04	0.04		0.01	0.00	0.00		0.00	0.02			0.00	0.00				
30	0.17	0.28	0.10	0.04	0.03		0.03	0.03		0.00	0.00	0.00		0.00	0.01								
31	0.11	0.17	0.06	0.03	0.02		0.01	0.01		0.00	0.00	0.00		0.00	0.01								
32	0.06	0.11	0.03	0.02	0.01		0.01	0.00		0.00	0.00	0.00		0.00	0.00								
33	0.04	0.05	0.02	0.01	0.00		0.00	0.00		0.00	0.00	0.00		0.00	0.00								
34	0.02	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00		0.00	0.00								
35	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00		0.00	0.00								
36	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00		0.00	0.00								
37	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00		0.00	0.00								
38	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00		0.00	0.00								
39	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00		0.00	0.00								
40	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00		0.00	0.00								
sum	19.58	22.13	25.73	12.71	4.83	0.00	6.75	3.74	0.00	0.70	0.85	1.62	0.00	0.00	0.33	0.68	0.06	0.00	0.25	0.03	0.00	0.00	0.00



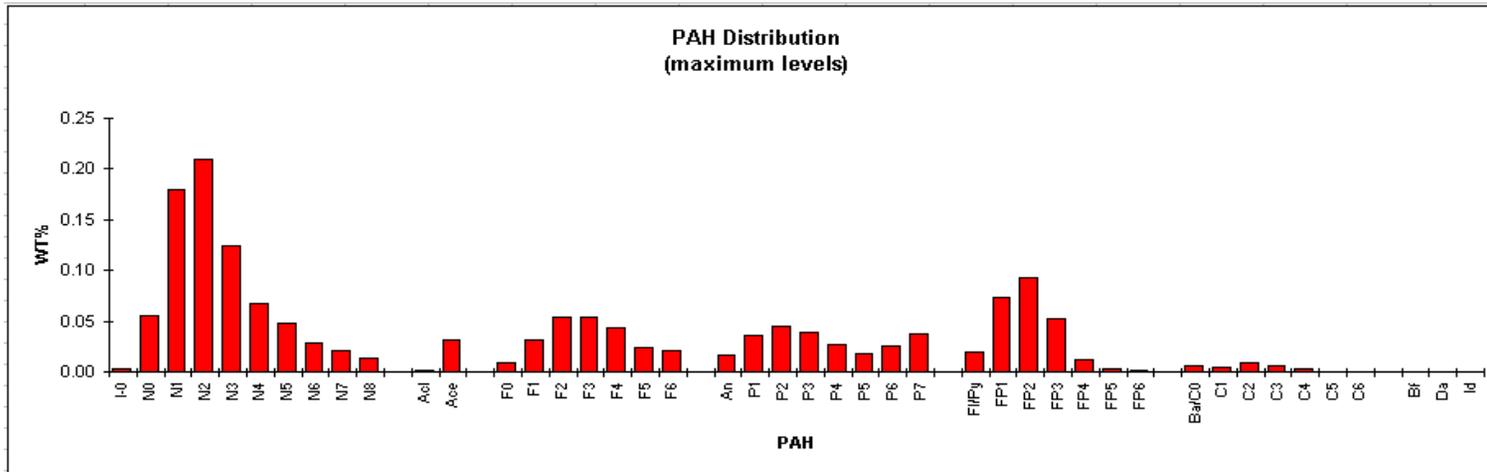
Triton Analytics Corporation  
16840 Barker Springs, #302  
Houston, TX 77084  
**Normal Paraffin Distribution**

### Heavy Atmospheric Gas Oil



sample name: **Heavy Atmospheric Gas Oil**  
 run date: 8/7/03

data file: **107450**  
 TAC ref: example



I0	Indene	F0	Fluorene	Fl/Py	Fluoranthene/pyrene
N0	naphthalene	F1	C1-fluorenes	FP1	C1-fluoranthene/pyrenes
N1	C1-naphthalenes	F2	C2-fluorenes	FP2	C2-fluoranthene/pyrenes
N2	C2-naphthalenes	F3	C3-fluorenes	FP3	C3-fluoranthene/pyrenes
N3	C3-naphthalenes	F4	C4-fluorenes	FP4	C4-fluoranthene/pyrenes
N4	C4-naphthalenes	F5	C5-fluorenes	FP5	C5-fluoranthene/pyrenes
N5	C5-naphthalenes	F6	C6-fluorenes	FP6	C6-fluoranthene/pyrenes
N6	C6-naphthalenes	An	Anthracene/phenanthrene	Ba/C0	Benzo(a)anthracene/chrysene
N7	C7-naphthalenes	P1	C1-anthracene/phenanthrenes	C1	C1-Benzo(a)anthracene/chrysenes
N8	C8-naphthalenes	P2	C2-anthracene/phenanthrenes	C2	C2-Benzo(a)anthracene/chrysenes
AcI	Acenaphthylene	P3	C3-anthracene/phenanthrenes	C3	C3-Benzo(a)anthracene/chrysenes
Ace	Acenaphthene	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	Bf	Benzo(b),(k)fluoranthenes/(a)pyrene
		P8	C8-anthracene/phenanthrenes	Da	Dibenz(a,h)anthracene
				Id	Indeno(1,2,3-cd)pyrene/benzo(ghi)perylene

**Reconstructed Ion Chromatogram  
Heavy Atmospheric Gas Oil**

