

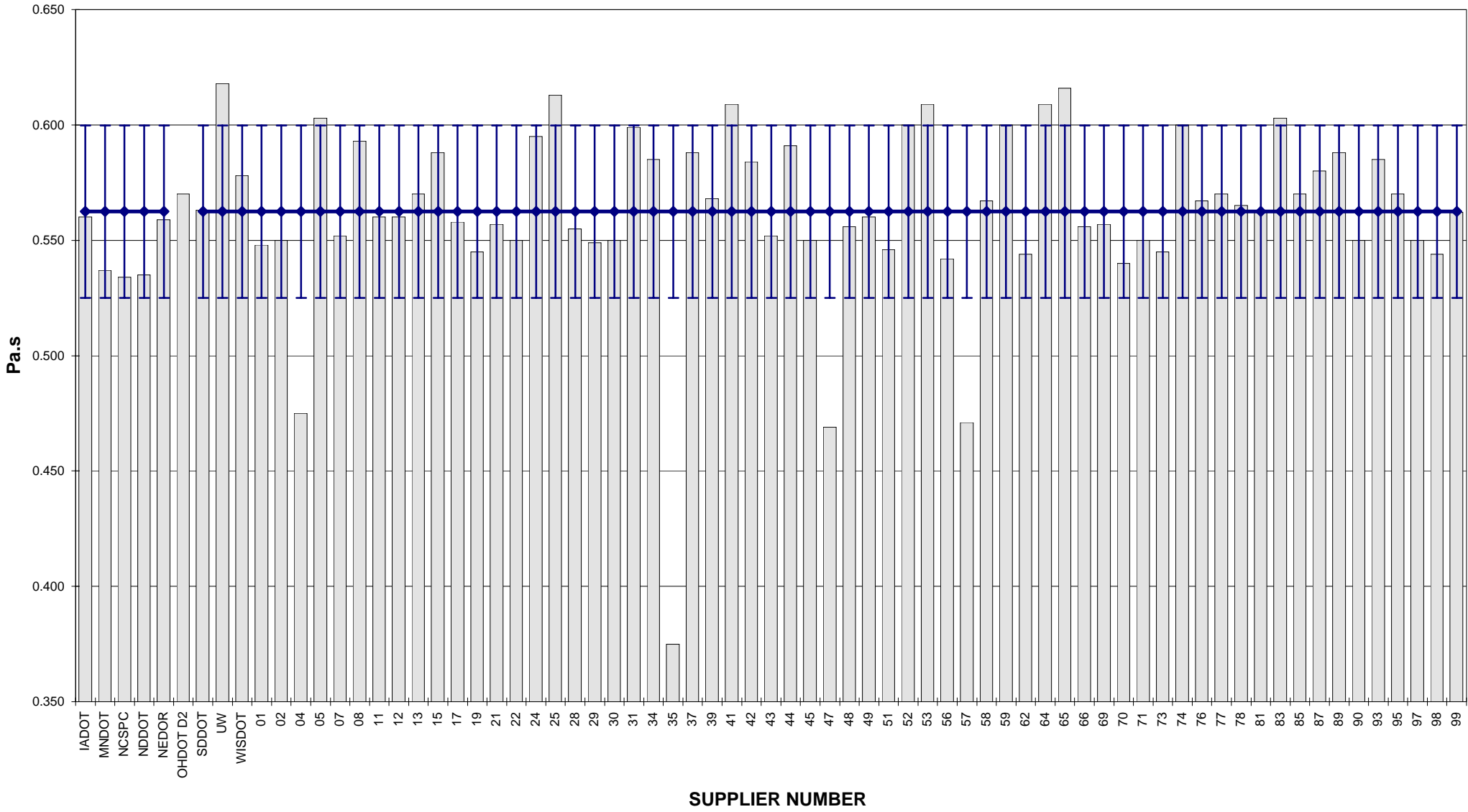
**COMBINED STATE BINDER GROUP ROUND ROBIN 2008-3
SUMMARY A
PG 64-28**

Supplier Number	Rotational Viscosity (Pa.s) @135°C	DSR Original (kPa) @64°C	DSR RTFO (kPa) @64°C	DSR PAV (kPa) @25°C	Mass Loss (%) @163°C	BBR S-value (MPa) @-12°C	BBR m-value @-12°C	DTT Strain (%) @12°C	DTT Stress (MPa) @-12°C	CRITICAL CRACK TEMP (°C)
IADOT	0.560	1.33	2.93	2389	-0.156	192	0.305			1 3 # # #
MNDOT	0.537	1.38	3.37	2815	-0.100	180	0.319			1 3 # # #
NCSPC	0.534	1.46	3.24	2500	-0.129	176	0.316			1 3 # # #
NDDOT	0.535	1.36	2.88	3031	-0.213	185	0.312			1 3 # # #
NEDOR	0.559	1.41	3.43	2700	-0.137	218	0.299			1 3 # # #
OHDOT D2	0.570	1.47	3.21	3158	-0.220	220	0.314			
SDDOT	0.563	1.48	3.17	2725	-0.150	222	0.317			1 3 # # #
UW	0.618	1.43	3.13	2604	-0.452	210	0.304			1 3 # # #
WISDOT	0.578	1.37	2.96	2637	-0.163	175	0.302			1 3 # # #
01	0.548	1.52	3.63	2296	-0.135	201	0.317			1 3 # # #
02	0.550	1.42	3.12	2677	-0.213	208	0.299			1 3 # # #
04	0.475	1.44	3.00	2352	-0.183	195	0.314			1 3 # # #
05	0.603	1.39	3.11	2245	-0.165	184	0.305			1 3 # # #
07	0.552	1.46	3.19	2744	-0.184	192	0.305			1 3 # # #
08	0.593	1.39	3.06	2185	-0.100	181	0.314			1 3 # # #
11	0.560	1.42	3.38	3188	-0.194	210	0.305			1 3 # # #
12	0.560	1.44	3.16	2547	-0.202	202	0.312			1 3 # # #
13	0.570	1.46	3.36	2535	-0.132	198	0.321	2.36	5.19	-31.1
15	0.588	1.33	2.98	2998	-0.192	191	0.318			1 3 # # #
17	0.558	1.52	3.58	2564	-0.112	199	0.306			1 3 # # #
19	0.545	1.40	3.25	2810	-0.188	206	0.314			1 3 # # #
21	0.557	1.31	2.90	2612	-0.279	204	0.307			1 3 # # #
22	0.550	1.32	2.83	3740	-0.166	208	0.314			1 3 # # #
24	0.595	1.46	3.36	2650	-0.153	200	0.319	1.51	3.90	-29.7
25	0.613	1.33	2.79	3151	-0.158	199	0.310			1 3 # # #
28	0.555	1.34	3.18	2865	-0.221	208	0.306			1 3 # # #
29	0.549	1.25	2.91	2845	-0.241	205	0.306			1 3 # # #
30	0.550	1.48	3.43	1873	-0.170	203	0.312			1 3 # # #
31	0.599	1.38	3.13	2307	-0.173	176	0.315			1 3 # # #
34	0.585	1.39	3.04	2564	-0.166	215	0.306			1 3 # # #
35	0.375	1.52	3.31	2840	-0.129	200	0.300			1 3 # # #
37	0.588	1.45	2.67	3136	-0.174	206	0.302	1.84	4.39	-28.2
39	0.568	1.49	3.35	2381	-0.157	198	0.320			1 3 # # #
41	0.609	1.38	3.08	2192	-0.100	180	0.320			1 3 # # #
42	0.584	1.38	3.04	2814	-0.257	204	0.320			1 3 # # #
43	0.552	1.45	3.06	2723	-0.150	213	0.311			1 3 # # #
44	0.591	1.34	2.92	2428	-0.090	186	0.309			1 3 # # #
45	0.550	1.47	3.49	2464	-0.127	178	0.311			1 3 # # #
47	0.469	1.48	3.07	2387	-0.180	191	0.317			1 3 # # #
48	0.556	1.43	3.16	2812	-0.180	210	0.309			1 3 # # #
49	0.560	1.30	3.19	2294	-0.144	193	0.322			1 3 # # #
51	0.546	1.42	3.33	2420	-0.173	202	0.310			1 3 # # #
52	0.600	1.36	3.00	2624	-0.164	188	0.309			1 3 # # #
53	0.609	1.55	3.20	2794	-0.226	191	0.306			1 3 # # #
56	0.542	1.50	3.12	2832	-0.169	199	0.309			1 3 # # #
57	0.471	1.40	2.89	2435	-0.187	196	0.316			1 3 # # #
58	0.567	1.38	3.09	2594	-0.185	203	0.318			1 3 # # #
59	0.600	1.32	3.02	3214	-0.161	202	0.310			1 3 # # #
62	0.544	1.40	3.23	2587	-0.167	210	0.301			1 3 # # #
64	0.609	1.55	3.30	2651	-0.222	188	0.305			1 3 # # #
65	0.616	1.48	3.60	2707	-0.171	184	0.317			1 3 # # #
66	0.556	1.36	2.96	2606	-0.208	207	0.304			1 3 # # #
69	0.557	1.44	2.87	3142	-0.192	204	0.308	2.31	5.23	-30.7
70	0.540	1.41	2.99	2797	-0.141	206	0.312			1 3 # # #
71	0.550	1.42	3.31	2330	-0.107	206	0.316			1 3 # # #
73	0.545	1.37	2.97	2394	-0.156	190	0.316			1 3 # # #
74	0.600	1.35	2.93	2381	-0.096	182	0.315			1 3 # # #
76	0.567	1.35	3.06	2664	-0.107	229	0.304			1 3 # # #
77	0.570	1.75	5.42	3031	-0.536	215	0.307			1 3 # # #
78	0.565	1.35	3.11	2556	-0.185	197	0.321			1 3 # # #
81	0.563	1.39	3.21	2722	-0.189	194	0.315			1 3 # # #
83	0.603	1.38	3.13	1927	-0.159	178	0.319			1 3 # # #
85	0.570	1.28	2.94	2684	-0.132	206	0.306			1 3 # # #
87	0.580	1.45	3.31	2491	-0.151	206	0.316			1 3 # # #
89	0.588	1.32	3.05	2868	-0.213	186	0.317			1 3 # # #
90	0.550	1.36	3.10	2821	-0.162	211	0.305			1 3 # # #
93	0.585	1.43	3.37	2540	-0.142	207	0.315	1.76	4.55	-32.7
95	0.570	1.42	2.98	2399	-0.143	209	0.312			1 3 # # #
97	0.550	1.41	3.26	2610	-0.191	203	0.321			1 3 # # #
98	0.544	1.40	3.15	2581	-0.163	201	0.320			1 3 # # #
99	0.562	1.37	3.02	2752	-0.166	206	0.306			1 3 # # #
Average	0.562	1.41	3.17	2647	-0.176	199	0.311	1.96	4.65	
Std. Dev.	0.0373	0.0758	0.3343	307.38	0.0668	12.02	0.0062	0.3672	0.5630	
Coef. of Var.	6.638	5.372	10.551	11.613	37.942	6.042	1.998	18.773	12.103	

COMBINED STATE BINDER GROUP ROUND ROBIN 2008-3
SUMMARY A

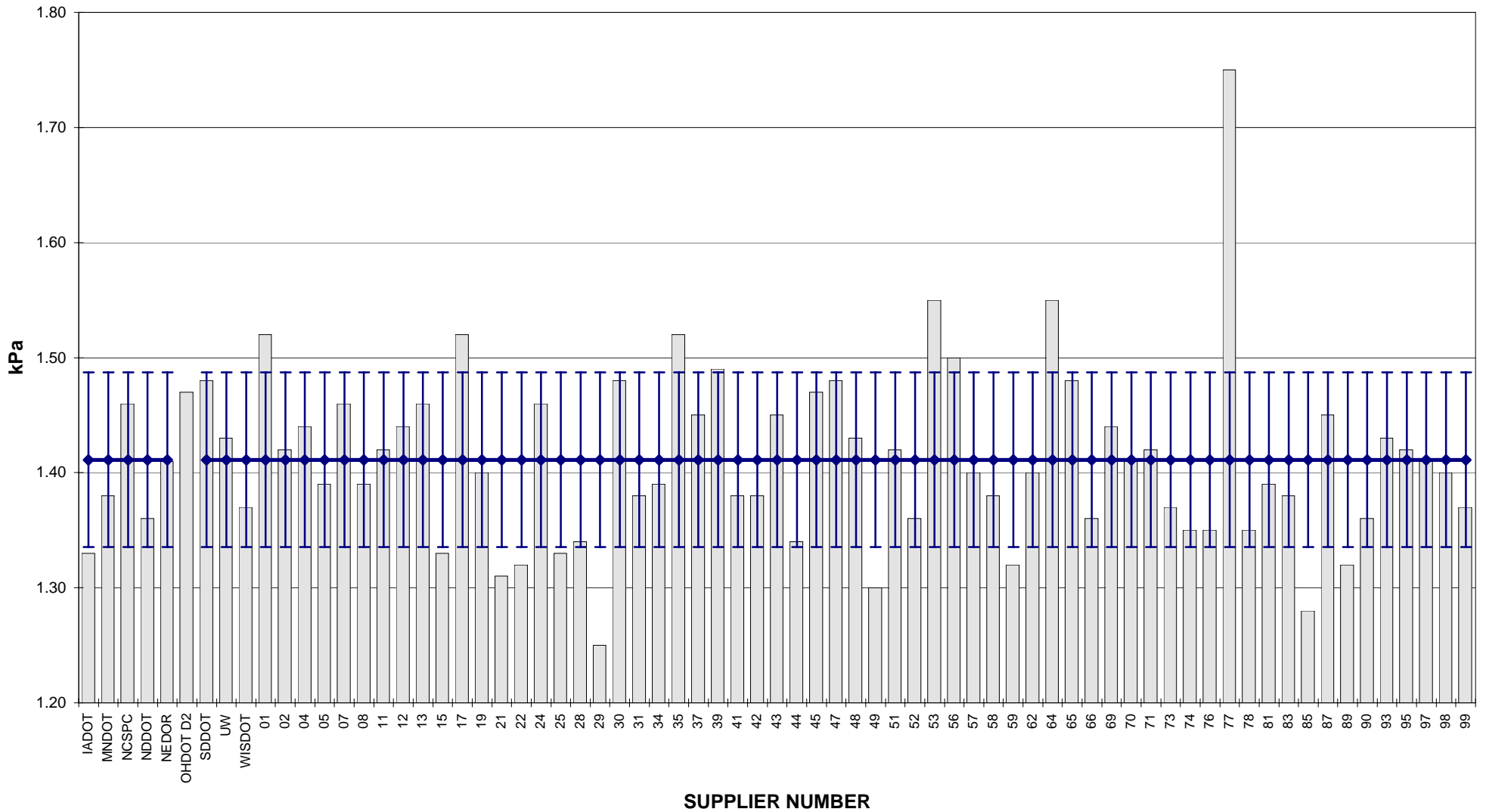
PG 64-28

ROTATIONAL VISCOSITY



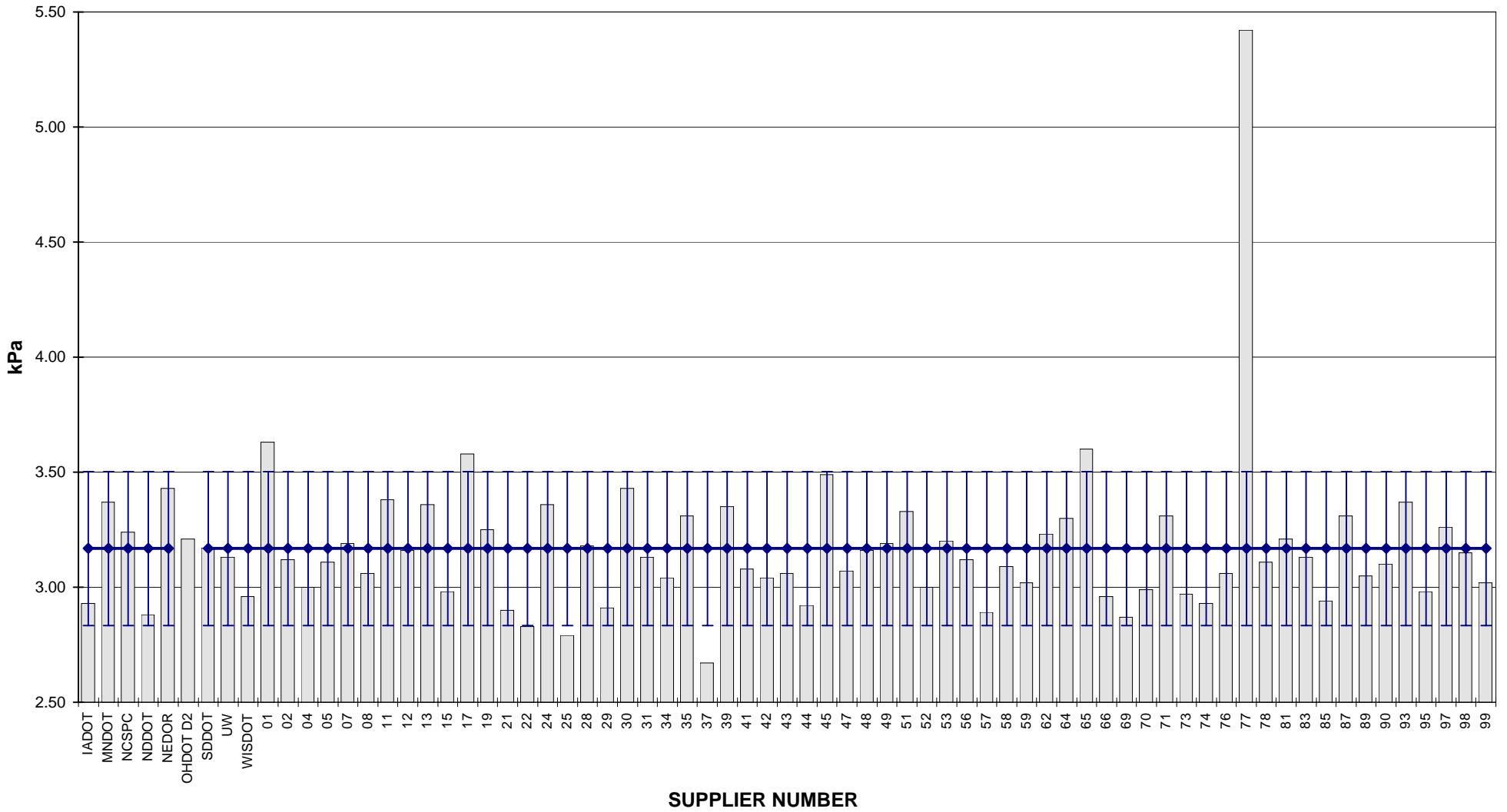
**COMBINED STATE BINDER GROUP ROUND ROBIN 2008-3
SUMMARY A
PG 64-28**

DSR - ORIGINAL

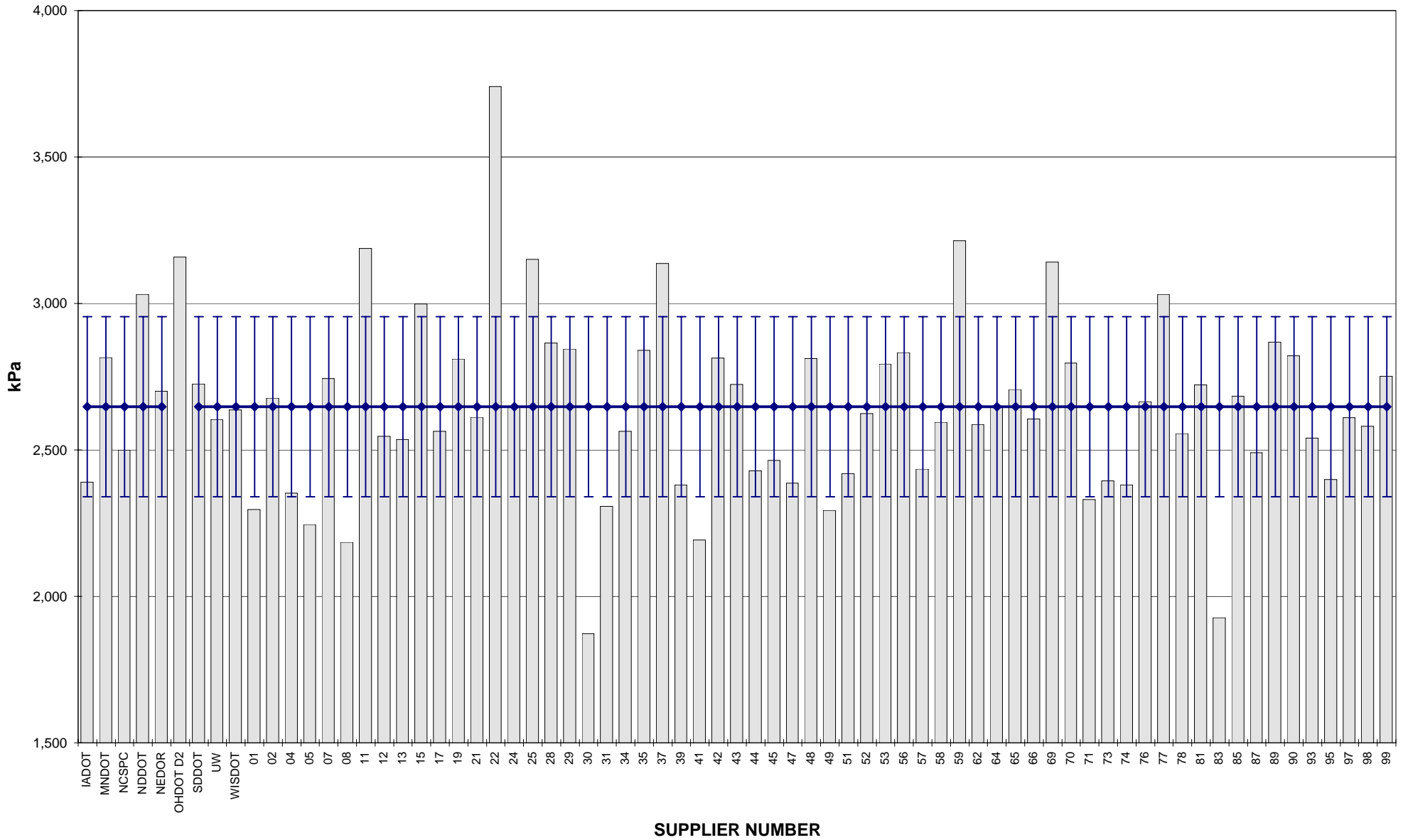


**COMBINED STATE BINDER GROUP ROUND ROBIN 2008-3
SUMMARY A
PG 64-28**

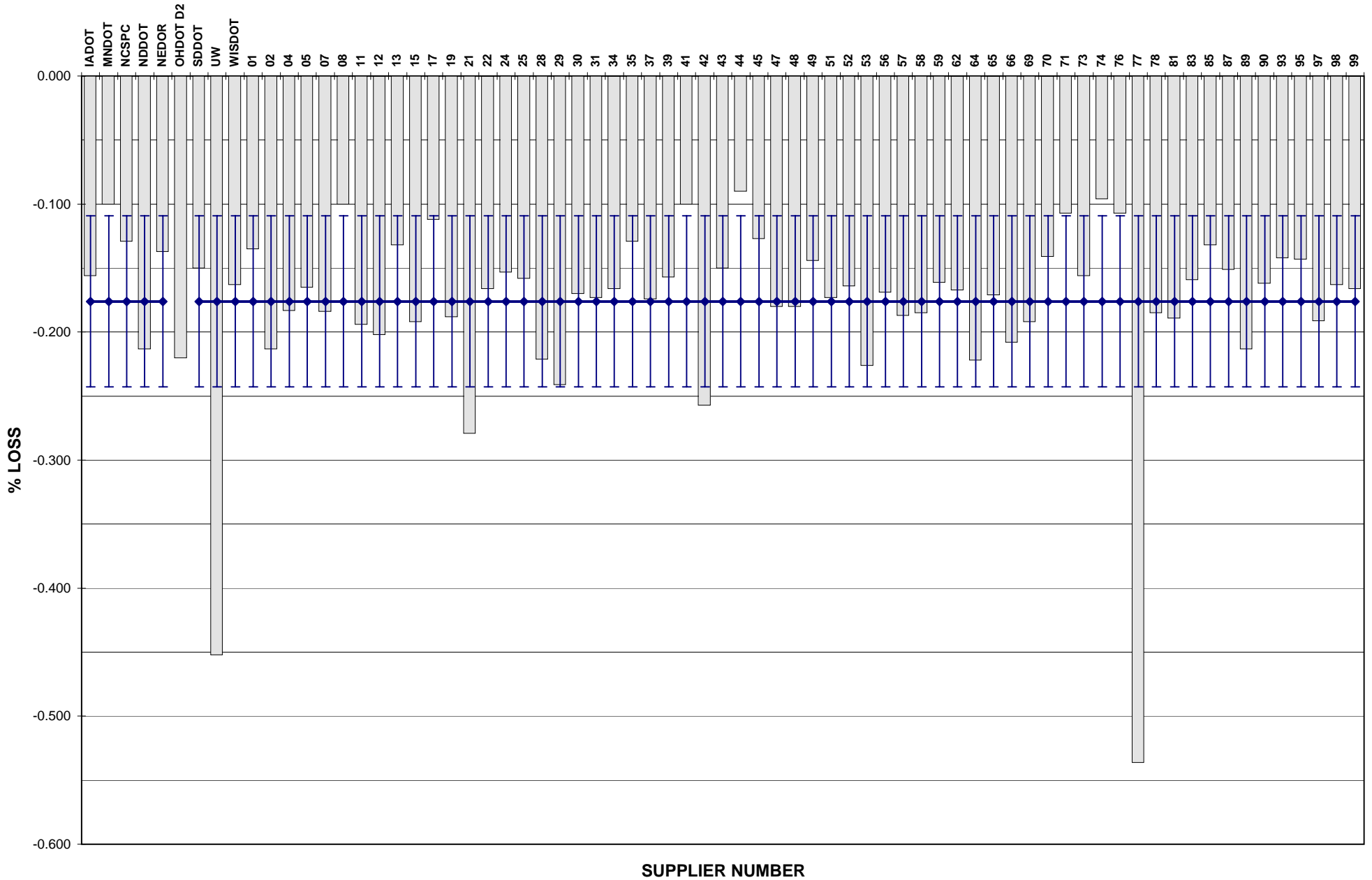
DSR - RTFO



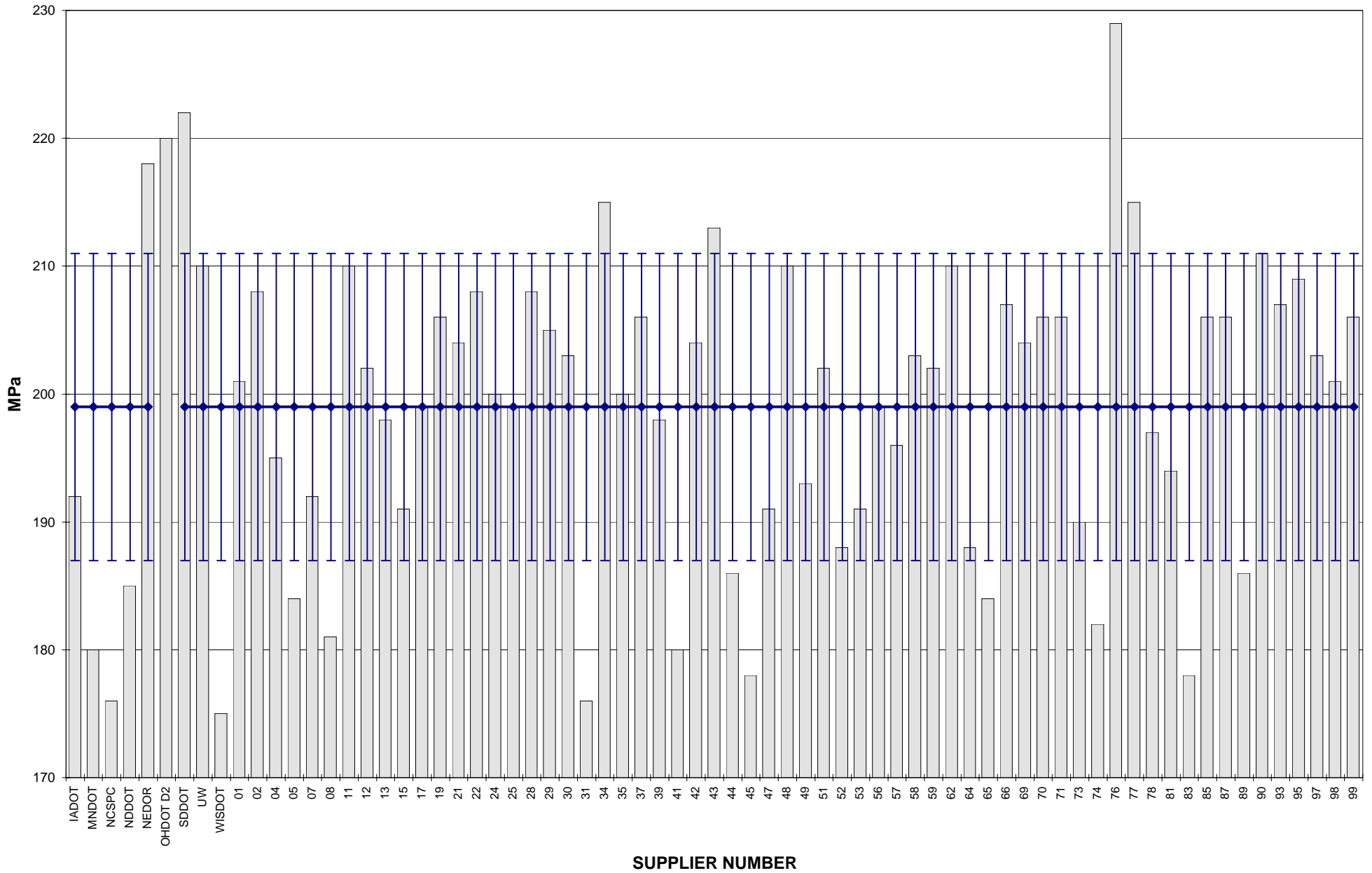
COMBINED STATE BINDER GROUP ROUND ROBIN 2008-3
SUMMARY A
PG 64-28
DSR - PAV



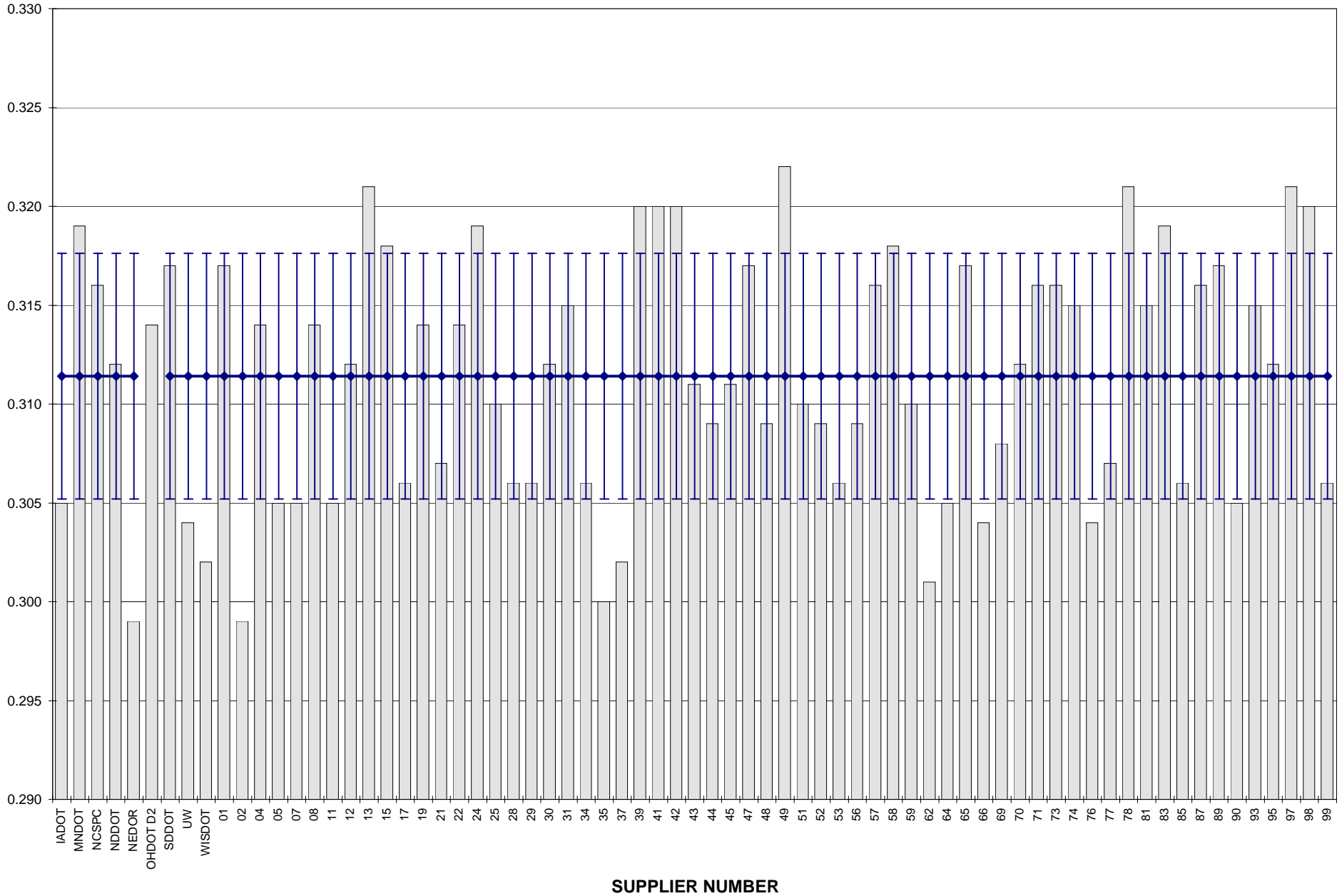
COMBINED STATE BINDER GROUP ROUND ROBIN 2008-3
SUMMARY A
PG 64-28
RTFO MASS LOSS



COMBINED STATE BINDER GROUP ROUND ROBIN 2008-3
SUMMARY A
PG 64-28
BBR STIFFNESS



COMBINED STATE BINDER GROUP ROUND ROBIN 2008-3
SUMMARY A
PG 64-28
BBR m-VALUE



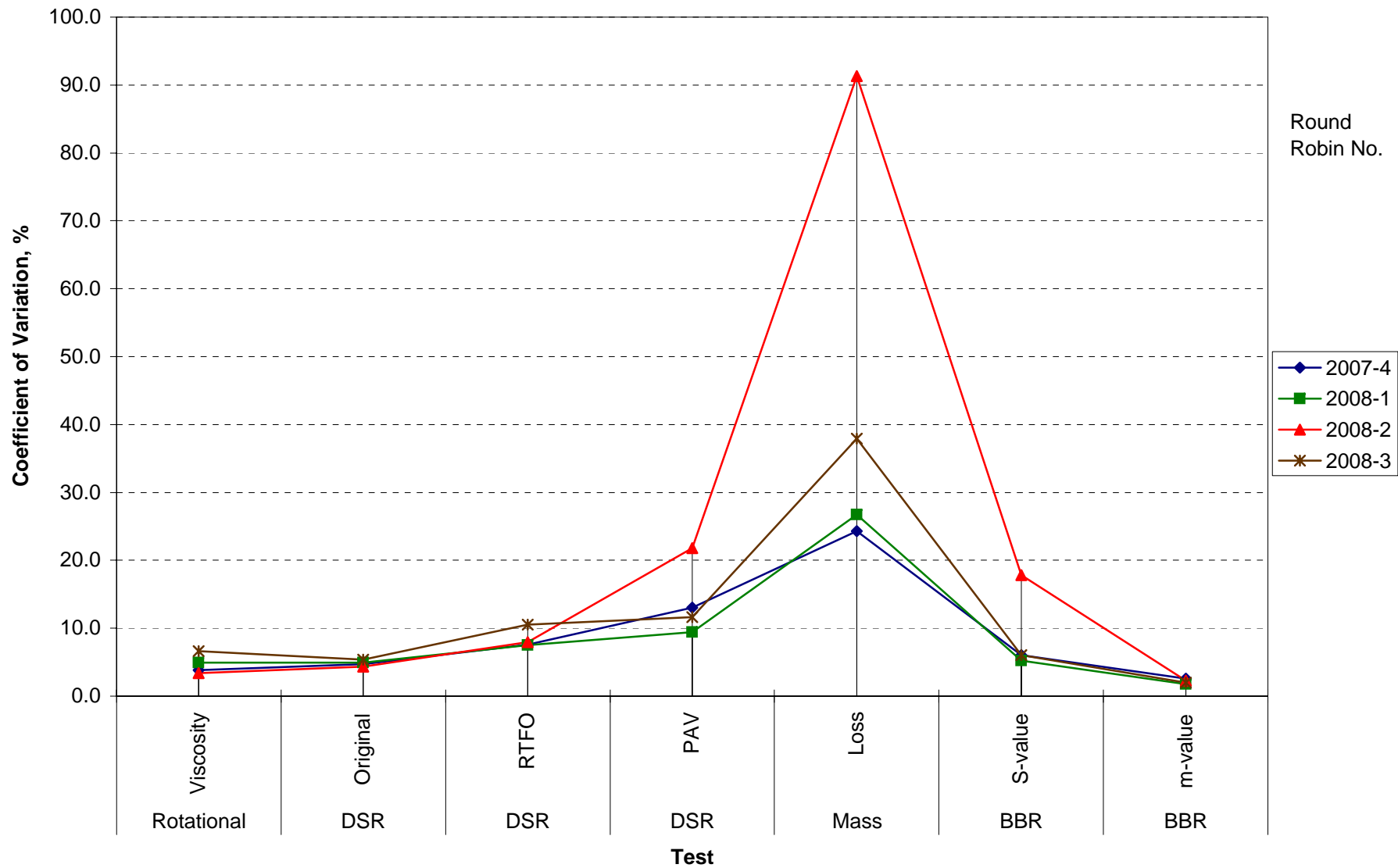
**COMBINED STATE BINDER GROUP ROUND ROBIN 2008-3
SUMMARY A**

COEFFICIENT OF VARIATION

Round Robin No.	Number of Participants	Coefficient of Variation, %							
		Rotational Viscosity	DSR Original	DSR RTFO	DSR PAV	Mass Loss	BBR S-value	BBR m-value	DTT Strain
2007-4	70	3.858	4.680	7.595	13.036	24.298	6.071	2.570	13.213
2008-1	69	4.926	4.964	7.493	9.432	26.727	5.200	1.781	3.449
2008-2	70	3.412	4.312	7.948	21.773	91.315	17.805	2.307	12.466
2008-3	71	6.638	5.372	10.551	11.613	37.942	6.042	1.998	18.773

COMBINED STATE BINDER GROUP ROUND ROBIN 2008-3
SUMMARY A

COEFFICIENT OF VARIATION



**COMBINED STATE BINDER GROUP ROUND ROBIN 2008-3
SUMMARY A
PG 64-28**

STATISTICS WITH OUTLIERS REMOVED:

	Rotational Viscosity (Pa.s) @135°C	DSR Original (kPa) @64°C	DSR RTFO (kPa) @64°C	DSR PAV (kPa) @25°C	Mass Loss (%) @163°C	BBR S-value (MPa) @-12°C	BBR m-value @-12°C
Average	0.569	1.41	3.14	2,631	-0.167	199	0.311
Std. Dev.	0.0229	0.0644	0.1972	279.80	0.0385	12.02	0.0062
Coef. of Var.	4.020	4.578	6.286	10.633	23.070	6.042	1.998