

COMBINED STATE BINDER GROUP ROUND ROBIN 2012-4 SUMMARY B
PG 64-22

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
IADOT	0.456	1.48	3.51	4550	-0.264	237	0.322
MNDOT	0.438	1.51	3.94	4787	-0.198	214	0.317
NCSPC	0.440	1.54	4.17	3710	-0.302	219	0.332
NDDOT	0.430	1.56	3.83	4896	-0.249	248	0.315
NEDOR	0.414	1.49	4.48	4902	-0.192	251	0.316
SDDOT	0.429	1.55	3.95	4423	-0.179	201	0.316
UW	0.443	1.48	4.40	4610	-0.228	251	0.322
WISDOT	0.480	1.45	3.32	4961	-0.200	221	0.316
07	0.432	1.37	3.11	4732	-0.267	234	0.322
12	0.441	1.51	3.77	4556	-0.316	233	0.328
29	0.457	1.49	4.25	4455	-0.254	199	0.339
35	0.445	1.58	4.57	4990	-0.251	255	0.308
37	0.470	1.40	3.24	4811	-0.257	237	0.325
42	0.397		3.82	4420	-0.297	227	0.324
43	0.450	1.58		4760	-0.228	242	0.326
49	0.443	1.50	3.66	4700	-0.229	223	0.329
60	0.495	1.52	3.27	5090	-0.255	226	0.325
65							
69	0.435	1.39	3.16	4360	-0.263	226	0.330
70							
77	0.450	1.55	6.02	4720	-0.229	225	0.323
83	0.453	1.55	3.70	4547	-0.221	246	0.330
95	0.451	1.59	4.01	4860	-0.217	243	0.325
A	0.429	1.47	3.88	4278	-0.253	238	0.330
B	0.441	1.56	4.31	4935	-0.175	224	0.322
C	0.458	1.50	4.09	4908	-0.225	249	0.315
E	0.438	1.53	3.83	4365	-0.265	224	0.328
F	0.461	1.52	3.65	3,941	-0.199	217	0.342
J	0.454	1.47	3.74	4896	-0.262	240	0.328
L	0.487	1.48	3.85	4853	-0.241	246	0.323
M	0.480	1.72	4.21	3931	-0.223	257	0.314
O	0.449	1.48	3.72	3,865	-0.314	204	0.346
P	0.434	1.46	3.84	4475	-0.260	230	0.325
Q	0.458	1.54	3.98	4606	-0.242	238	0.328
S	0.471	1.53	4.37	4860	-0.332	270	0.310
U	0.467	1.46	3.97	4603	-0.245	224	0.339
V	0.437	1.52	3.94	4762	-0.248	234	0.329
Average	0.449	1.51	3.93	4,603	-0.245	233	0.325
Std. Dev.	0.0200	0.0640	0.5222	338.94	0.0374	16.05	0.0086
Coef. of Var.	4.460	4.241	13.295	7.363	15.245	6.894	2.641

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A	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
19	0.428	1.53	3.78	4480	-0.277	235	0.330
51	0.428	1.40	3.78	4380	-0.220	244	0.328
97	0.430	1.39	4.06	4240	-0.301	233	0.330
98	0.428	1.54	3.90	4010	-0.212	239	0.331
Average	0.429	1.47	3.88	4,278	-0.253	238	0.330

B	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
01	0.435	1.55	4.23	4813	-0.173	221	0.332
17	0.450	1.57	4.36	4913	-0.166	220	0.313
45	0.437	1.55	4.35	5080	-0.187	232	0.322
Average	0.441	1.56	4.31	4,935	-0.175	224	0.322

C	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
28	0.464	1.49	3.86	4571	-0.224	244	0.322
66	0.455	1.51	4.22	4975	-0.234	250	0.315
90	0.456	1.50	4.05	5139	-0.229	256	0.315
99	0.455	1.51	4.21	4946	-0.212	247	0.308
Average	0.458	1.50	4.09	4,908	-0.225	249	0.315

E	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
15	0.438	1.52	3.83	4320	-0.261	225	0.329
89	0.438	1.53	3.83	4410	-0.268	222	0.327
Average	0.438	1.53	3.83	4,365	-0.265	224	0.328

F	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
02	0.461	1.52	3.53	3672	-0.205	211	0.338
11	0.456	1.52	3.85	3756	-0.215	219	0.344
29	0.464	1.52	3.68	3675	-0.177	222	0.347
34	0.468	1.48	3.69	3989	-0.180	218	0.341
48	0.453	1.56	3.79	4129	-0.244	189	0.350
56	0.464	1.52	3.33	4427	-0.174	240	0.330
62	0.435	1.39	3.83	3817	-0.133	193	0.332
Average	0.457	1.50	3.67	3,924	-0.190	213	0.340

J	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
05	0.458	1.46	3.78	4867	-0.269	240	0.330
08	0.456	1.44	3.73	4859	-0.257	235	0.329
10	0.457	1.44	3.73	5344	-0.279	250	0.324
22							
31	0.461	1.44	3.76	4783	-0.267	233	0.330
39	0.432	1.52	3.78	4740	-0.238	241	0.322
41	0.460	1.53	3.82	4784	-0.244	229	0.331
44	0.454	1.49	3.63	5005	-0.262	250	0.332
52	0.453	1.44	3.72	4783	-0.282	241	0.329
87							
Average	0.454	1.47	3.74	4,896	-0.262	240	0.328

L	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
25	0.470	1.48	3.98	4971	-0.225	239	0.323
59	0.504	1.48	3.71	4735	-0.257	253	0.322
Average	0.487	1.48	3.85	4,853	-0.241	246	0.323

M	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
04	0.482	1.72	4.21	3923	-0.225	257	0.314
47	0.480	1.72	4.21	3891	-0.223	258	0.314
57	0.477	1.72	4.22	3979	-0.222	256	0.313
Average	0.480	1.72	4.21	3,931	-0.223	257	0.314

O	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
76	0.449	1.47	3.68	4560	-0.292	183	0.359
85	0.448	1.49	3.76	3170	-0.335	224	0.333
Average	0.449	1.48	3.72	3,865	-0.314	204	0.346

P	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
30	0.438	1.42	3.64	4477	-0.252	221	0.327
71	0.433	1.49	3.83	4257	-0.270	228	0.324
73	0.432	1.47	4.05	4692	-0.257	241	0.323
Average	0.434	1.46	3.84	4,475	-0.260	230	0.325

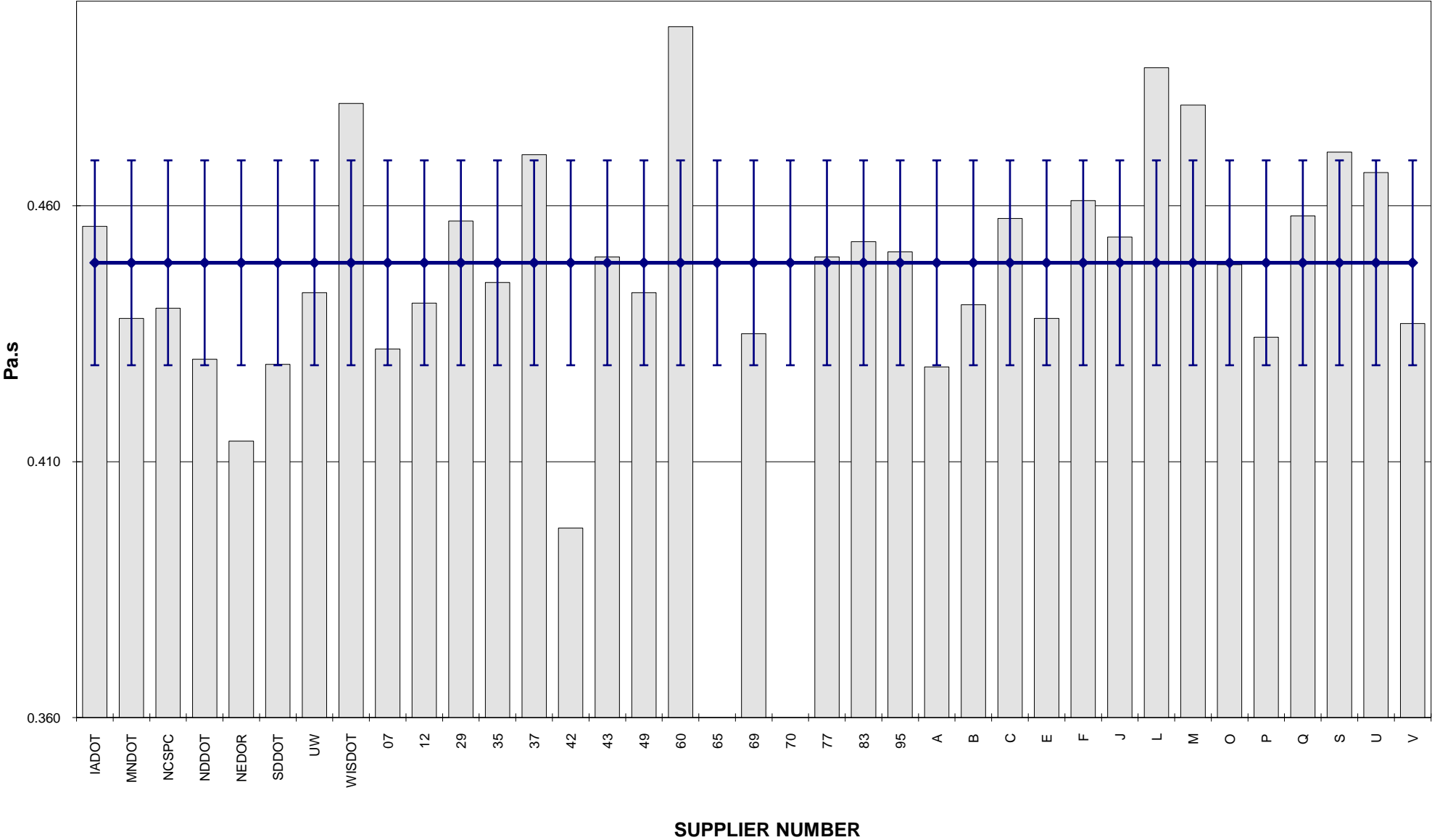
Q	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
23							
93	0.445	1.39	3.58	4350	-0.196	193	0.332
Average	0.445	1.39	3.58	4,350	-0.196	193	0.332

S	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
53	0.473	1.52	4.12	4800	-0.366	265	0.313
64	0.468	1.53	4.61	4920	-0.298	274	0.306
Average	0.471	1.53	4.37	4,860	-0.332	270	0.310

U	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
13	0.465	1.44	3.87	4490	-0.256	216	0.353
24	0.468	1.48	4.07	4715	-0.233	231	0.324
Average	0.467	1.46	3.97	4,603	-0.245	224	0.339

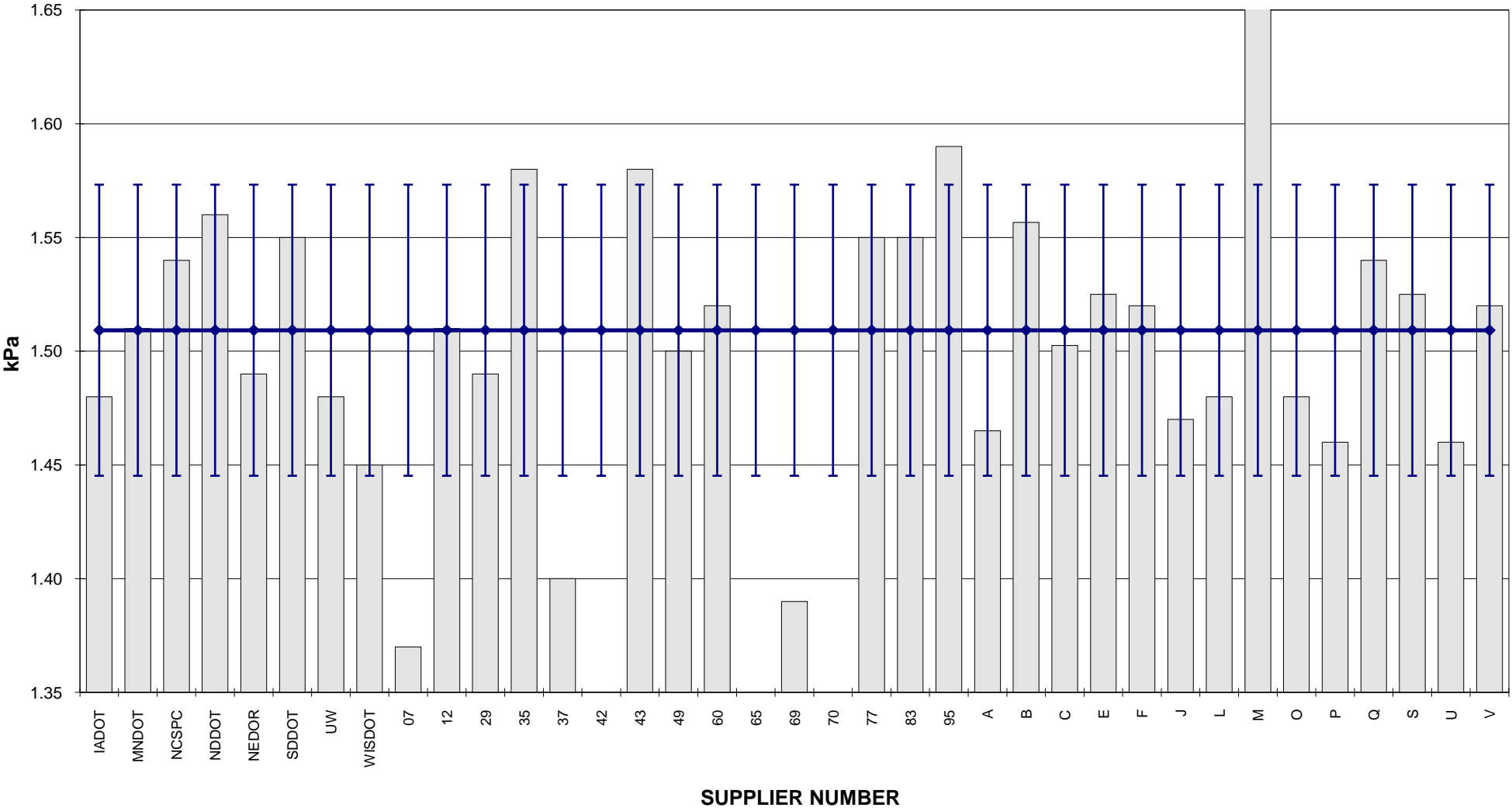
V	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
58	0.441	1.54	3.92	4775	-0.268	233	0.330
78	0.434	1.51	3.99	4740	-0.234	235	0.331
81	0.436	1.51	3.90	4770	-0.241	233	0.327
Average	0.437	1.52	3.94	4,762	-0.248	234	0.329

ROTATIONAL VISCOSITY



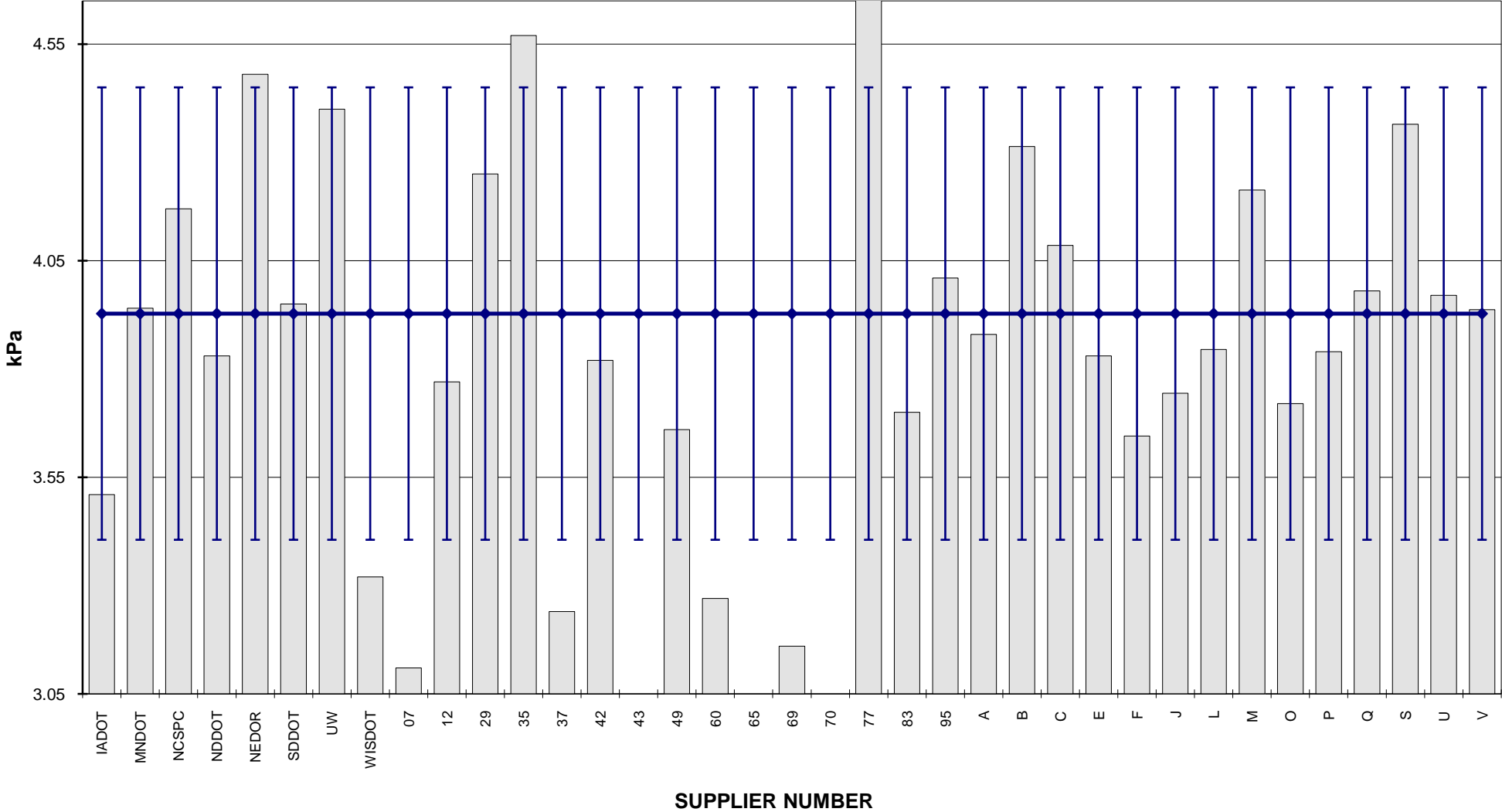
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DSR - ORIGINAL

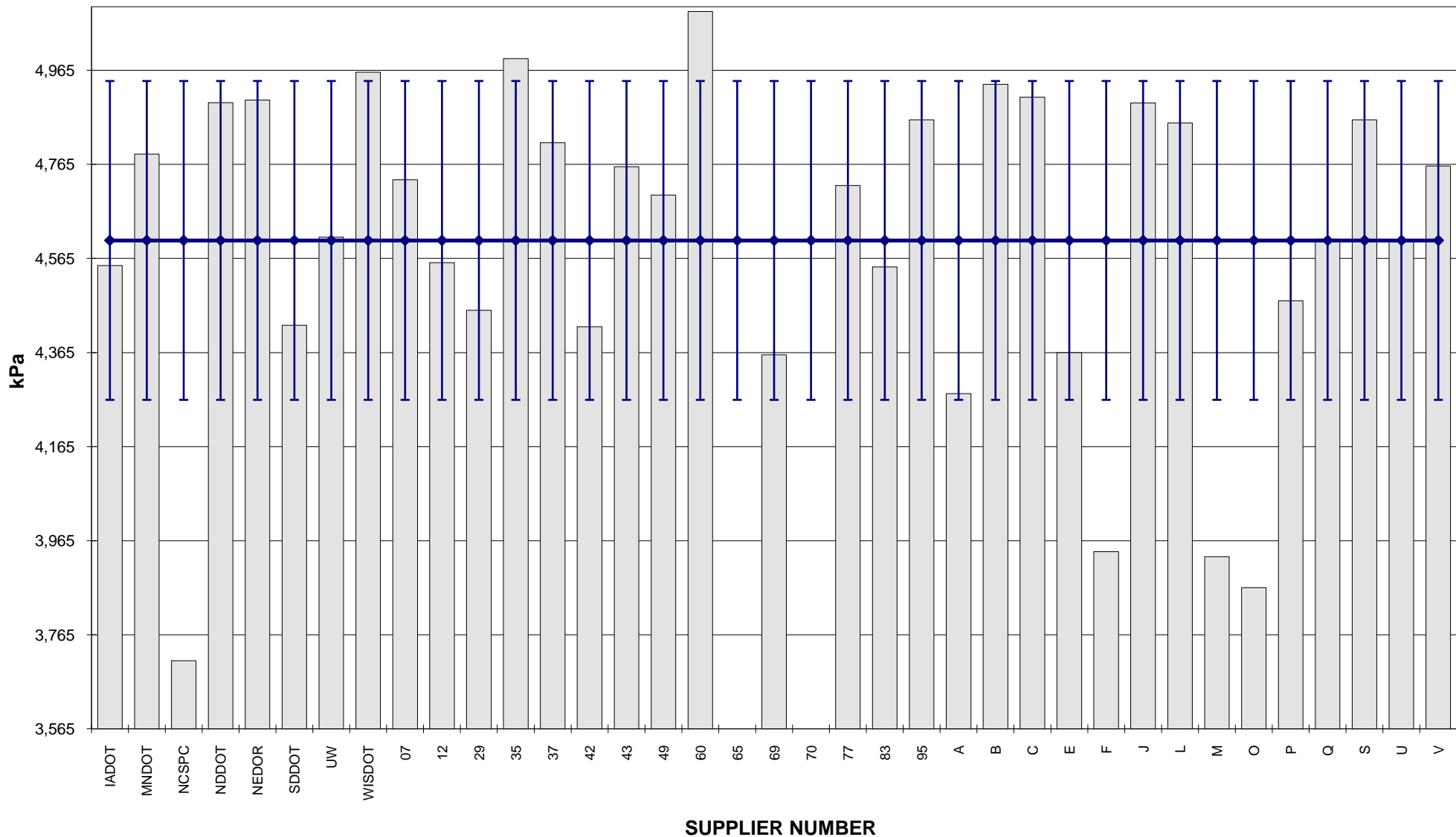


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DSR - RTFO

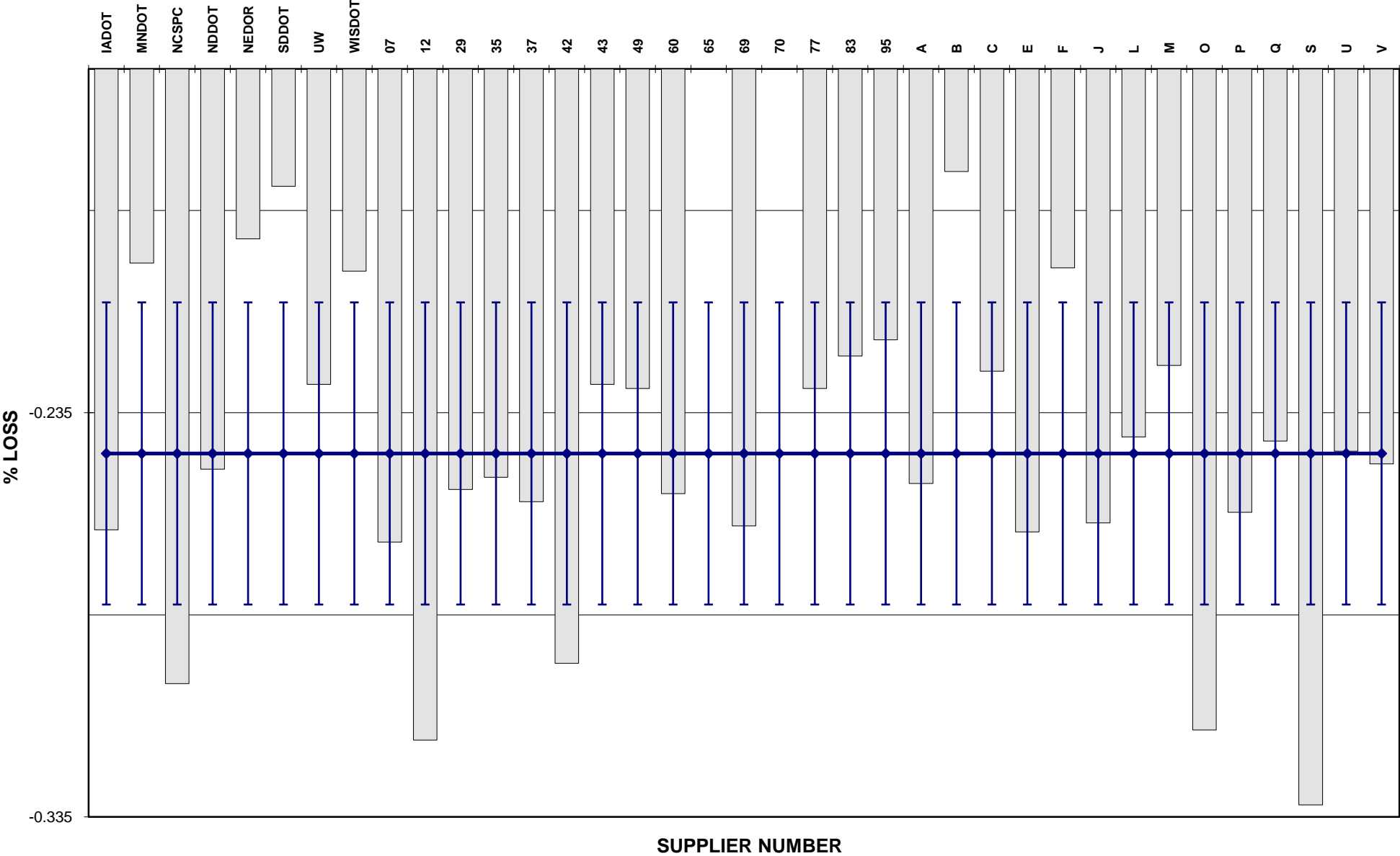


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DSR - PAV

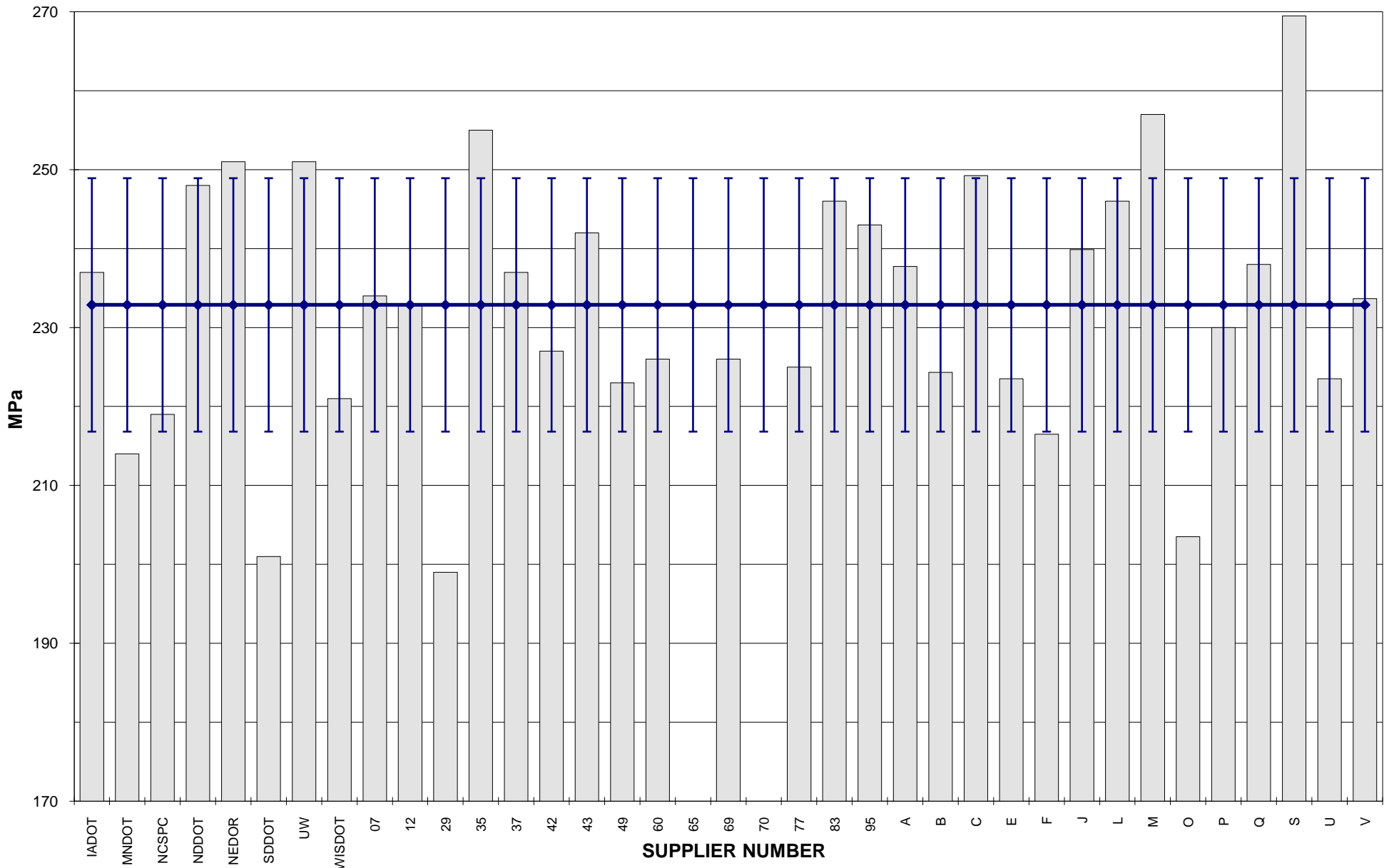


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RTFO MASS LOSS



COMBINED STATE BINDER GROUP ROUND ROBIN 2012-4
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BBR STIFFNESS



COMBINED STATE BINDER GROUP ROUND ROBIN 2012-4
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BBR m-VALUE

