

**COMBINED STATE BINDER GROUP ROUND ROBIN 2011-2 SUMMARY B
PG 70-28**

Supplier Number	Rotational Viscosity (Pa.s) @135°C	DSR Original (kPa) @64°C	DSR RTFO (kPa) @64°C	DSR PAV (kPa) @22°C	Mass Loss (%) @163°C	BBR S-value (MPa) @-18°C	BBR m-value @-18°C
IADOT	1.350	1.34	2.96	1430	-0.519	211	0.330
MNDOT	1.225	1.31	2.75	1409	-0.688	203	0.334
NCSPC	1.337	1.38	2.75	1440	-0.984	210	0.335
NDDOT	1.260	1.29	2.87	1432	-0.592	221	0.344
NEDOR	1.351	1.39	3.16	1378	-0.451	207	0.355
SDDOT	1.409	1.38	3.04	1517	-0.654	212	0.339
UW	1.361	1.34	3.17	1681	-1.205	230	0.329
WISDOT	1.345	1.23	2.78	1487	-0.581	202	0.345
07	1.335	1.24	2.65	1485	-0.570	205	0.353
12	1.347	1.40	2.89	1482	-0.602	210	0.352
35	1.320	1.40	2.92	1780	-0.504	255	0.320
37							
42	1.320	1.34	2.62	1330	-0.687	200	0.344
43	1.210	1.32	2.93	1510	-0.564	240	0.343
49	1.320	1.32	3.33	1410	-0.585	219	0.348
60	1.410	1.29	2.76	1530	-0.694	214	0.346
65	1.270	1.35	3.00	1380	-0.597	182	0.358
69	1.335	1.26	2.86	1460	-0.591	221	0.343
70	1.315	1.40	3.06	1608	-0.541	225	0.343
77							
95	1.325	1.34	3.31	1455	-0.496	211	0.351
A	1.196	1.34	3.04	1377	-0.630	228	0.352
B	1.290	1.32	3.13	1850	-0.560	200	0.341
C	1.288	1.31	3.00	1374	-0.529	248	0.328
E	1.432	1.26	2.66	1519	-0.614	192	0.350
F	1.395	1.43	3.08	1,692	-0.607	229	0.341
J	1.373	1.38	3.14	1456	-0.629	212	0.342
L	1.460	1.25	2.75	1455	-0.637	222	0.342
M	1.454	1.35	2.93	1305	-0.563	223	0.337
O	1.407	1.32	3.11	1,405	-0.526	208	0.339
P	1.289	1.38	2.67	1221	-0.526	212	0.352
S	1.469	1.18	2.62	1608	-0.715	226	0.330
U	1.352	1.34	3.08	1348	-0.506	201	0.356
V	1.257	1.33	2.94	1483	-0.686	213	0.347
Average	1.338	1.33	2.94	1,478	-0.620	215	0.343
Std. Dev.	0.0696	0.0573	0.1963	133.90	0.1431	15.24	0.0091
Coef. of Var.	5.204	4.313	6.685	9.060	23.095	7.076	2.641

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A	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
19	1.194	1.35	3.08	1412	-0.627	228	0.349
51	1.198	1.34	3.06	1397	-0.631	224	0.350
97	1.194	1.34	3.07	1390	-0.620	230	0.352
98	1.198	1.33	2.94	1308	-0.642	229	0.357
Average	1.196	1.34	3.04	1,377	-0.630	228	0.352

B	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
01	1.305	1.32	3.15	1905	-0.576	202	0.340
17	1.300	1.29	3.21	1895	-0.557	202	0.346
45	1.265	1.36	3.03	1751	-0.546	196	0.338
Average	1.290	1.32	3.13	1,850	-0.560	200	0.341

C	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
28	1.295	1.33	3.19	1353	-0.541	241	0.328
66	1.285	1.29	3.43	1162	-0.549	245	0.330
90	1.276	1.31	2.72	1480	-0.528	250	0.330
99	1.296	1.32	2.67	1501	-0.499	255	0.325
Average	1.288	1.31	3.00	1374	-0.529	248	0.328

E	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
15	1.438	1.26	2.58	1452	-0.611	200	0.350
89	1.425	1.25	2.74	1585	-0.616	184	0.349
Average	1.432	1.26	2.66	1519	-0.614	192	0.350

F	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
02	1.396	1.47	2.85	1602	-0.597	230	0.348
11	1.385	1.39	3.10	1648	-0.605	229	0.338
29	1.392	1.41	3.17	1913	-0.554	237	0.338
34	1.398	1.45	3.21	1895	-0.616	229	0.349
48	1.390	1.43	3.30	1692	-0.596	224	0.333
56	1.404	1.42	2.89	1600	-0.663	227	0.337
62	1.401	1.45	3.03	1497	-0.616	224	0.344
Average	1.395	1.43	3.08	1,692	-0.607	229	0.341

J	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
05	1.388	1.44	3.52	1310	-0.612	207	0.342
08	1.388	1.37	3.51	1389	-0.663	206	0.340
22	1.388	1.35	2.90	1274	-0.623	197	0.345
31	1.396	1.39	3.16	1375	-0.616	220	0.343
39	1.324	1.24	2.68	1710	-0.566	233	0.339
41	1.387	1.41	3.01	1654	-0.650	216	0.347
44	1.371	1.41	3.19	1448	-0.667	217	0.342
52	1.388	1.37	3.22	1380	-0.612	206	0.339
83	1.300	1.41	3.41	1353	-0.673	204	0.343
87	1.400	1.37	2.79	1669	-0.611	211	0.344
Average	1.373	1.38	3.14	1456	-0.629	212	0.342

L	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
25	1.454	1.25	2.77	1449	-0.656	224	0.344
59	1.466	1.25	2.73	1460	-0.617	220	0.339
Average	1.460	1.25	2.75	1455	-0.637	222	0.342

M	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
04	1.445	1.38	2.93	1314	-0.553	223	0.337
47	1.472	1.33	2.93	1293	-0.588	222	0.339
57	1.444	1.33	2.93	1307	-0.547	224	0.335
Average	1.454	1.35	2.93	1305	-0.563	223	0.337

O	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
76	1.425	1.31	2.87	1390	-0.518	206	0.343
85	1.388	1.32	3.34	1420	-0.534	209	0.334
Average	1.407	1.32	3.11	1405	-0.526	208	0.339

P	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
30	1.268	1.35	2.71	1133	-0.546	208	0.347
71	1.295	1.41	2.73	1202	-0.519	220	0.352
73	1.303	1.39	2.57	1328	-0.514	209	0.356
Average	1.289	1.38	2.67	1221	-0.526	212	0.352

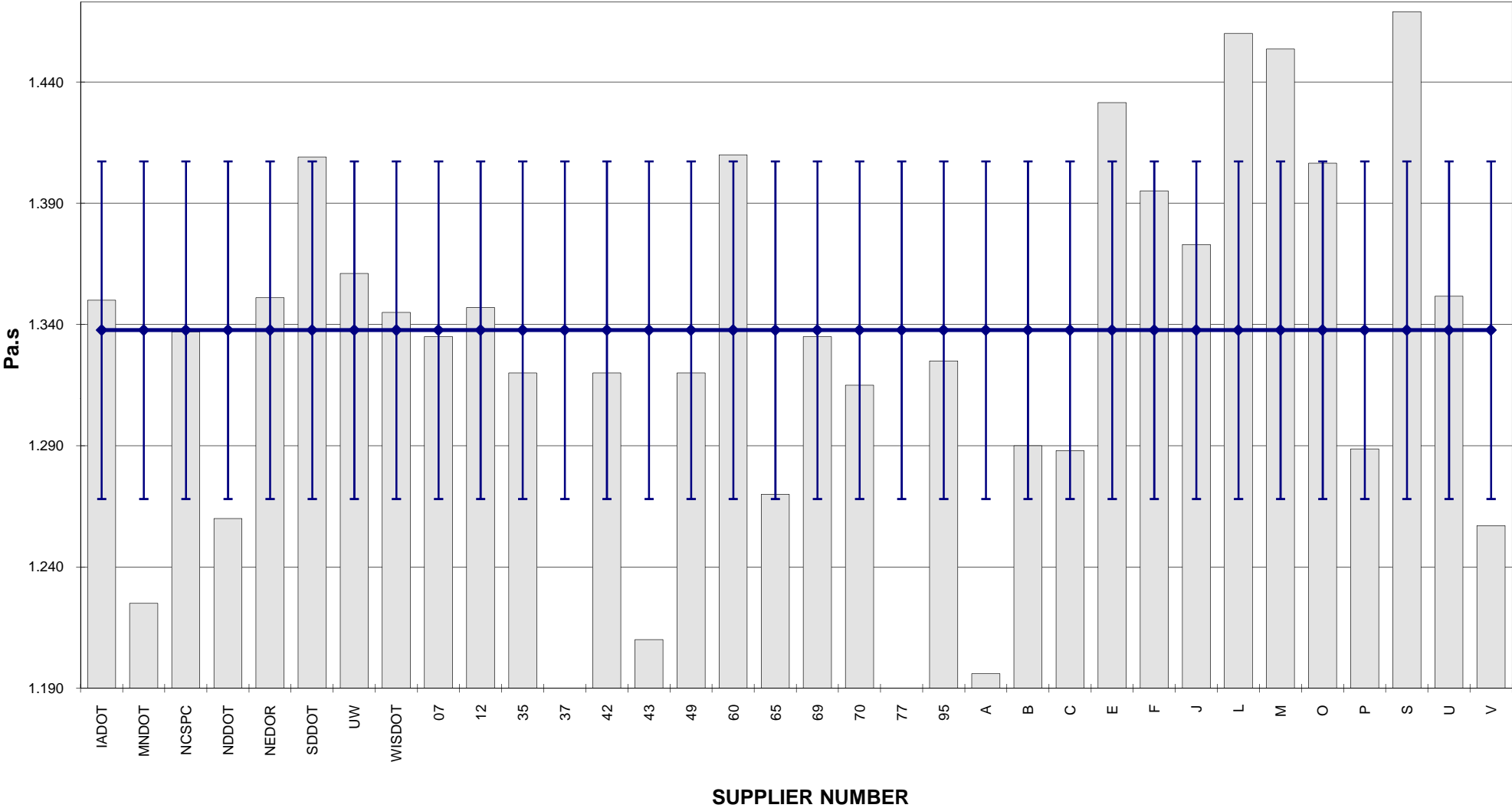
S	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
53							
64	1.469	1.18	2.62	1608	-0.715	226	0.330
Average	1.469	1.18	2.62	1608	-0.715	226	0.330

U	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
13	1.355	1.34	2.99	1420	-0.517	203	0.365
24	1.345	1.29	3.05	1420	-0.517	221	0.350
93	1.355	1.40	3.20	1205	-0.483	179	0.353
Average	1.352	1.34	3.08	1348	-0.506	201	0.356

V	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
58	1.260	1.34	2.88	1420	-0.690	211	0.350
78	1.259	1.32	2.97	1500	-0.679	211	0.347
81	1.252	1.32	2.97	1530	-0.688	218	0.343
Average	1.257	1.33	2.94	1483	-0.686	213	0.347

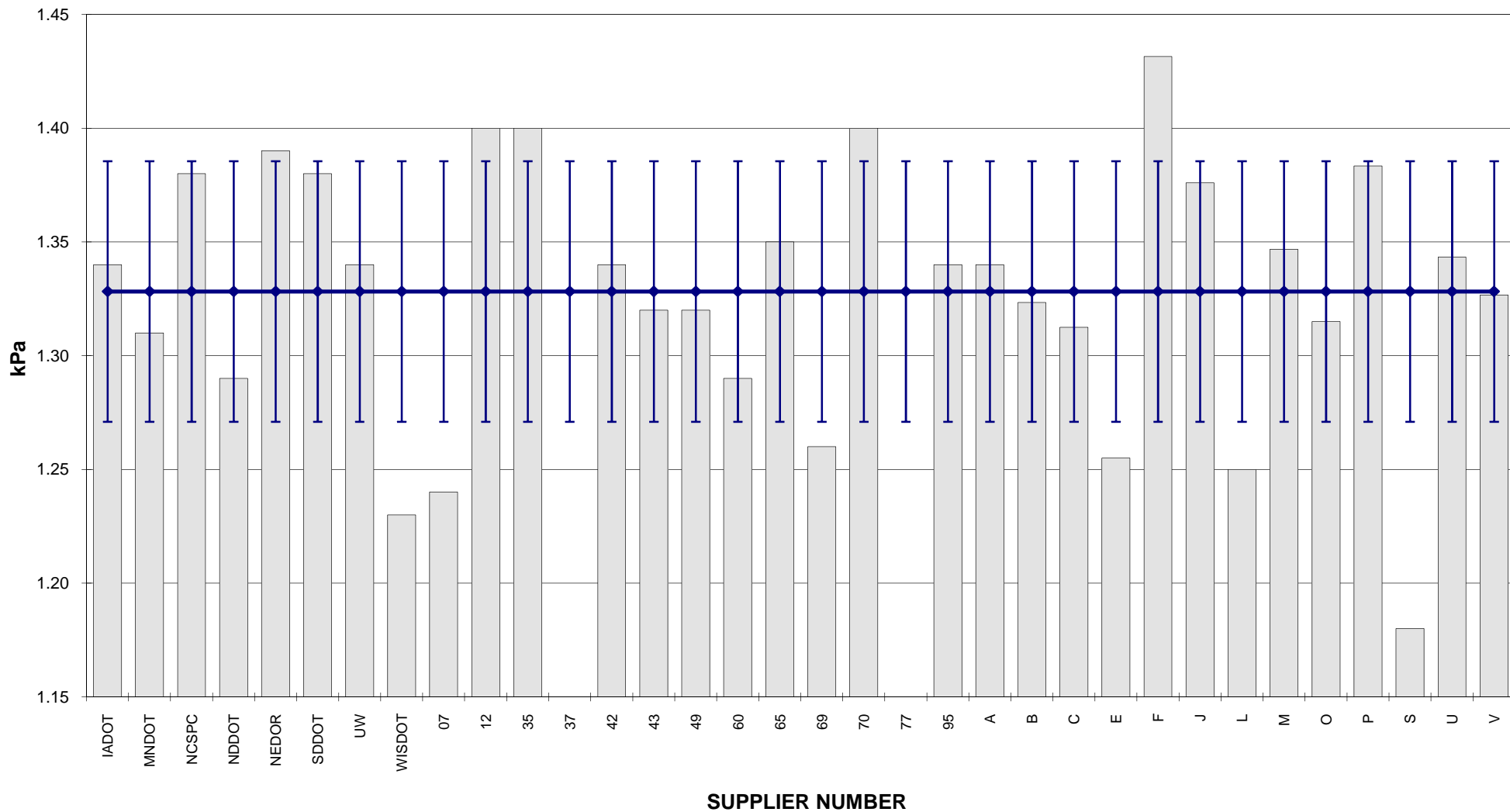
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ROTATIONAL VISCOSITY



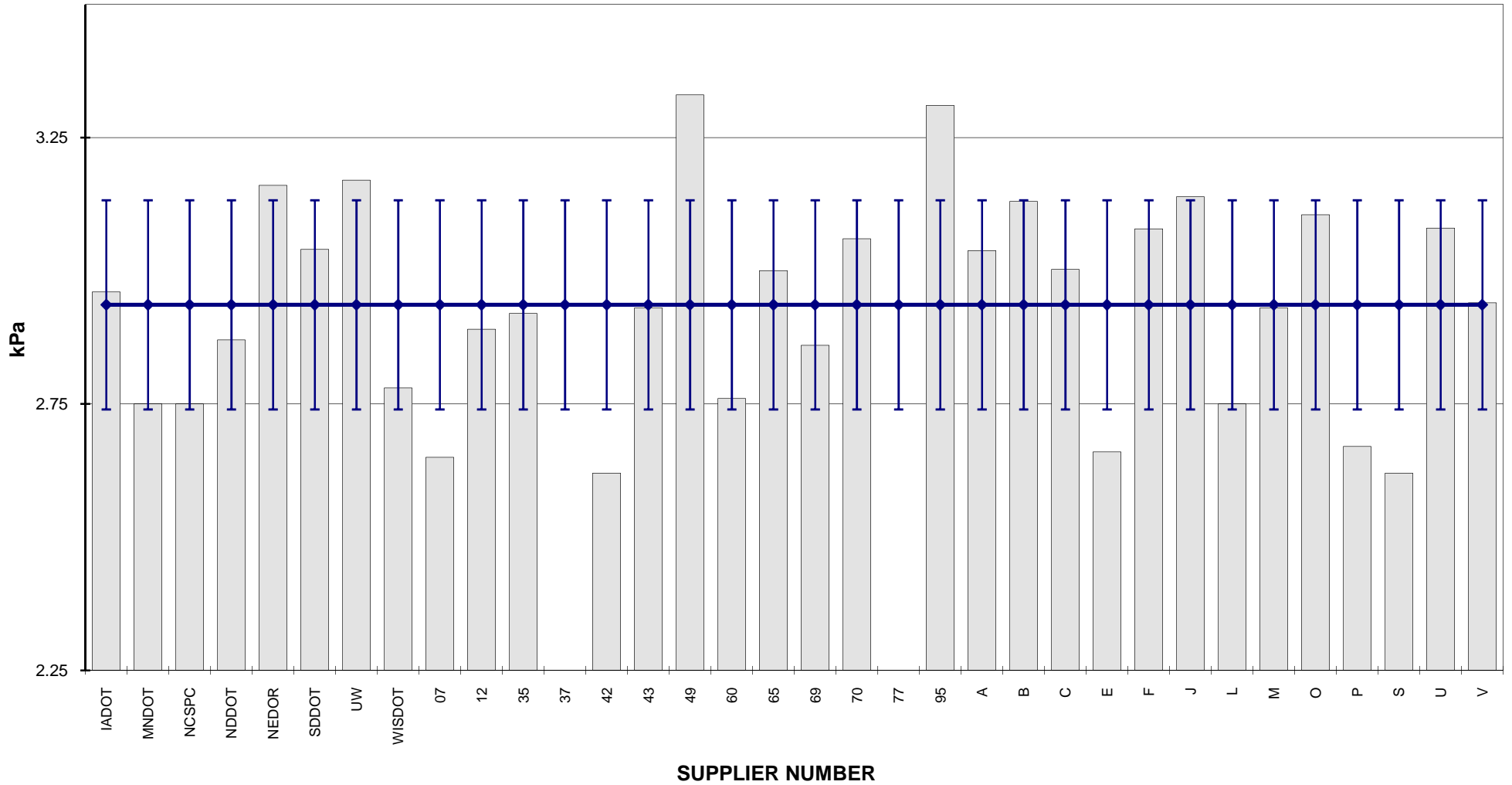
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DSR - ORIGINAL

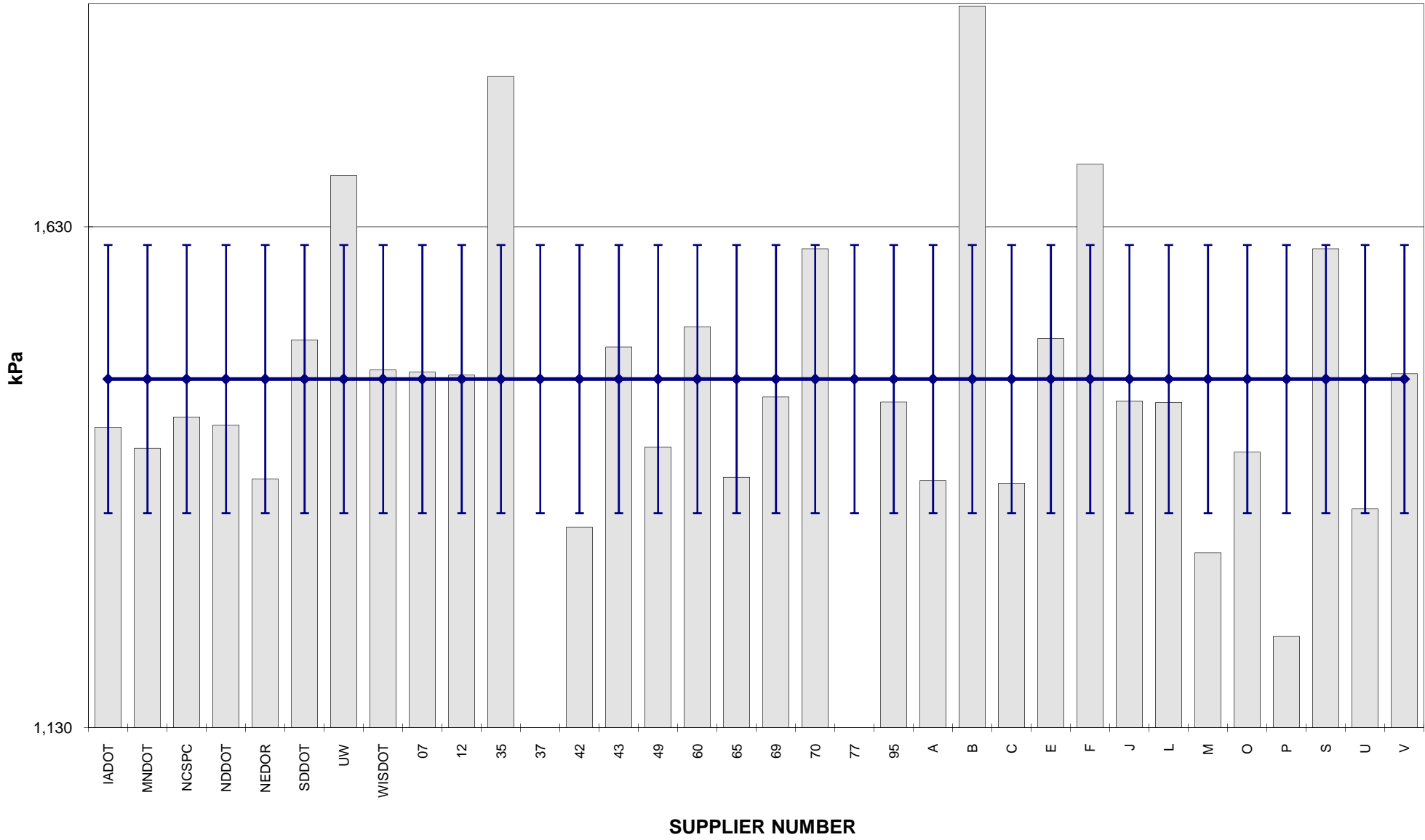


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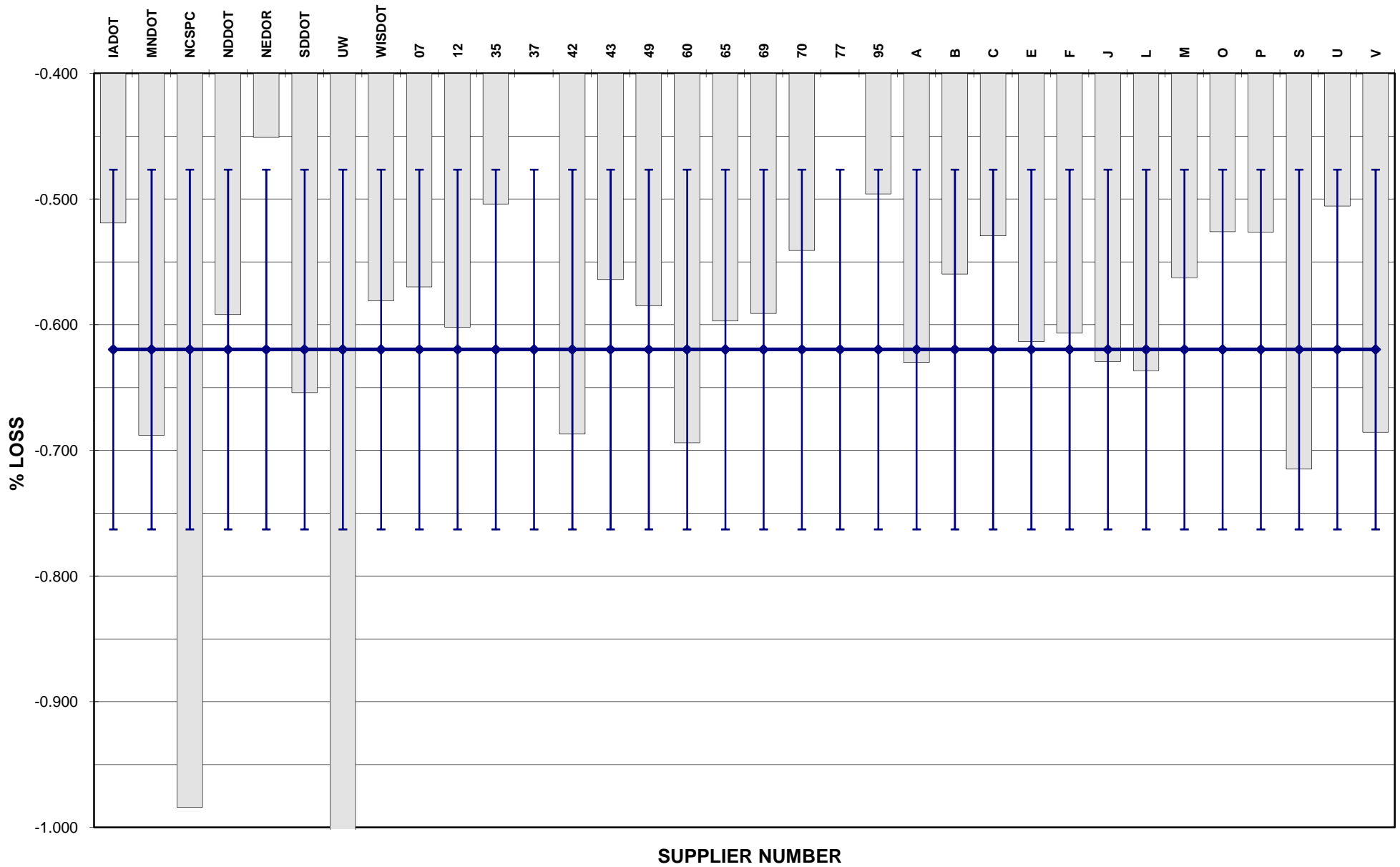
DSR - RTFO



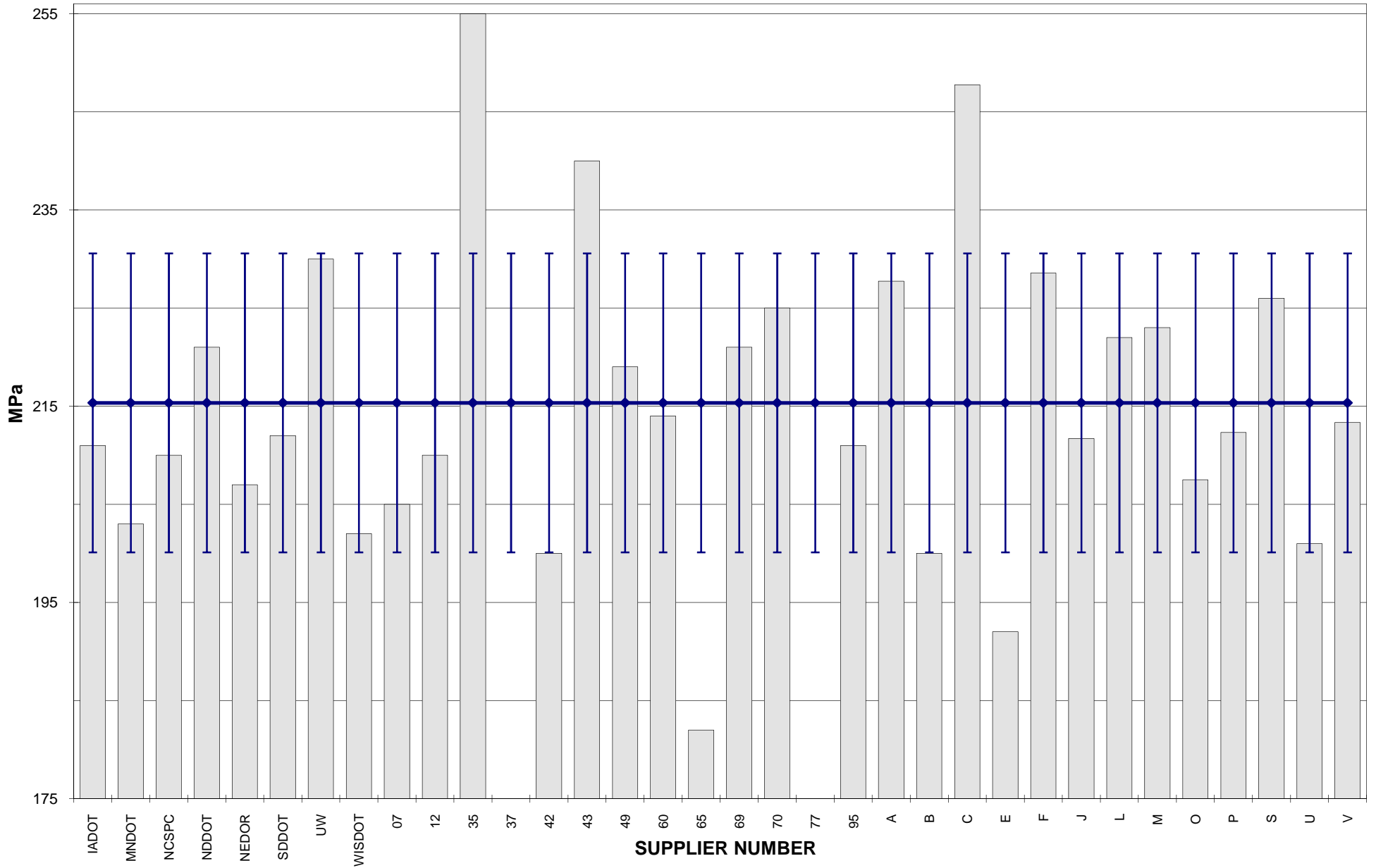
COMBINED STATE BINDER GROUP ROUND ROBIN 2011-2
SUMMARY B
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DSR - PAV



RTFO MASS LOSS



COMBINED STATE BINDER GROUP ROUND ROBIN 2011-2
SUMMARY B
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BBR STIFFNESS



COMBINED STATE BINDER GROUP ROUND ROBIN 2011-2
SUMMARY B
PG 70-28
BBR m-VALUE

