



**Combined State Binder  
Group**

Method of Acceptance for  
Asphalt Binders

Round Robin 2004-1  
Summary B

**COMBINED STATE BINDER GROUP ROUND ROBIN 2004-1  
SUMMARY B**

**PG 58-28**

<b>Supplier Number</b>	<b>Rotational Viscosity (Pa.s) @135°C</b>	<b>DSR Original (kPa) @58°C</b>	<b>DSR RTFO (kPa) @58°C</b>	<b>DSR PAV (kPa) @19°C</b>	<b>Mass Loss (%) @163°C</b>	<b>BBR S-value (MPa) @-18C</b>	<b>BBR m-value @-18°C</b>
IADOT	0.285	1.31	3.20	3,834	-0.419	232	0.326
MIDOT	0.275	1.27	3.28	4,072	-0.446	233	0.331
MNDOT	0.300	1.40	3.62	4,102	-0.400	215	0.327
NCSPC	0.250	1.08	2.53	2,191	-0.528	210	0.326
NDDOT	0.285	1.27	3.13	3,775	-0.433	226	0.333
NEDOR		1.39	3.50	4,487	-0.374	204	0.326
SDDOT	0.270	1.43	3.53	4,039	-0.329	218	0.337
UW	0.065	1.28					
WISDOT	0.290	1.24	3.02	3,210	-0.329	213	0.337
A(3)	0.276	1.26	3.22	4,215	-0.434	234	0.335
B(3)	0.277	1.32	3.44	3,719	-0.359	218	0.333
C(4)	0.295	1.23	3.24	3,968	-0.461	230	0.317
E(2)	0.294	1.30	3.43	4,175	-0.505	223	0.324
F(6)	0.308	1.25	3.03	2,778	-0.432	215	0.331
G(2)	0.292	1.32	3.40	3,783	-0.504	234	0.328
I(4)	0.285	1.46	3.69	3,923	-0.363	228	0.333
J(9)	0.286	1.29	3.31	3,885	-0.403	212	0.330
L(2)	0.273	1.26	3.28	3,486	-0.401	212	0.330
M(6)	0.266	1.22	3.19	3,760	-0.379	223	0.328
N(2)	0.280	1.31	3.32	3,861	-0.397	212	0.349
O(2)	0.301	1.24	3.21	1,978	-0.452	233	0.317
P(2)	0.281	1.37	3.61	3,805	-0.415	234	0.339
Q(2)	0.291	1.26	3.22	3,746	-0.425	220	0.338
07	0.300	1.36	2.97	4,585	-0.429	215	0.334
12	0.273	1.28	3.00	3,924	-0.486	224	0.332
16	0.279	1.26	3.32	4,219	-0.437	222	0.323
18	0.288	1.23	3.33	3,890	-0.449	219	0.332
22	0.273	1.36	3.08	3,012	-0.493	220	0.333
24	0.284	1.36	3.49	4,149	-0.349	211	0.337
29	0.282	1.28	3.29	4,824	-0.407	248	0.318
35	0.439	1.24	3.40	4,368	-0.312	234	0.311
42	0.293	1.24	3.35	3,859	-0.560	237	0.323
46	0.285	1.27	3.47	3,894	-0.424	226	0.330
49	0.295	1.28	3.07	3,894	-0.442	228	0.325
61	0.289	1.33	3.51	3,692	-0.514	221	0.319
67	0.280	1.39	3.75	4,480	-0.446	198	0.353
69	0.298	1.38	3.05	4,532	-0.480	225	0.334
70	0.280	1.30	3.17	3,830	-0.400	195	0.335
77	0.288	1.27	3.32	3,817	-0.441	225	0.325
79	0.293	1.30	3.42	4,402	-0.445	208	0.331
87	0.285	1.25	3.79	4,237	-0.446	224	0.333
<b>Average</b>	0.2832	1.2956	3.3036	3,859.90	-0.4287	221.39	0.3300
<b>Std. Dev.</b>	0.0443	0.0686	0.2412	573.97	0.0552	10.95	0.0080
<b>Coef. of Var.</b>	15.646	5.291	7.301	14.870	12.869	4.944	2.431

COMBINED STATE BINDER GROUP ROUND ROBIN 2004-1  
SUMMARY B

A(3)	VISC	ORG DSR	RTFO DSR	PAV DSR	LOSS	S-value	m-value
51	0.276	1.29	3.31	4.170	-0.425	236	0.335
97	0.278	1.25	3.19	4.151	-0.442	229	0.335
98	0.274	1.24	3.15	4.324	-0.436	236	0.334
Average	0.276	1.26	3.22	4.215	-0.434	234	0.335

B(3)	VISC	ORG DSR	RTFO DSR	PAV DSR	LOSS	S-value	m-value
01	0.277	1.32	3.54	3.444	-0.343	210	0.333
17	0.277	1.29	3.39	3.714	-0.363	218	0.334
45	0.277	1.34	3.38	3.998	-0.372	225	0.332
Average	0.277	1.32	3.44	3.719	-0.359	218	0.333

C(4)	VISC	ORG DSR	RTFO DSR	PAV DSR	LOSS	S-value	m-value
21	0.294	1.25	3.24	3.995	-0.461	233	0.317
28	0.293	1.22	3.23	3.994	-0.452	227	0.317
90	0.296	1.21	3.26	4.065	-0.478	231	0.318
99	0.295	1.24	3.21	3.817	-0.453	230	0.316
Average	0.295	1.23	3.24	3.968	-0.461	230	0.317

E(2)	VISC	ORG DSR	RTFO DSR	PAV DSR	LOSS	S-value	m-value
15	0.294	1.3	3.39	4170	-0.483	223	0.324
89	0.293	1.29	3.46	4179	-0.526	222	0.323
Average	0.294	1.30	3.43	4,175	-0.505	223	0.324

F(6)	VISC	ORG DSR	RTFO DSR	PAV DSR	LOSS	S-value	m-value
02	0.290	1.23	3.07	3.398	-0.413	197	0.330
11	0.300	1.20	2.84	3.357	-0.421	208	0.332
34	0.340	1.31	3.00	2.816	-0.503	217	0.329
48	0.300	1.24	2.75	2.230	-0.395	234	0.324
56	0.290	1.28	3.27	2.266	-0.450	214	0.337
62	0.330	1.26	3.22	2.599	-0.412	218	0.334
Average	0.308	1.25	3.03	2.778	-0.432	215	0.331

G(2)	VISC	ORG DSR	RTFO DSR	PAV DSR	LOSS	S-value	m-value
26	0.293	1.32	3.39	3.760	-0.493	233	0.327
36	0.290	1.31	3.41	3.805	-0.514	235	0.328
Average	0.292	1.32	3.40	3,783	-0.504	234	0.328

I(4)	VISC	ORG DSR	RTFO DSR	PAV DSR	LOSS	S-value	m-value
03	0.285	1.52	3.64	4.291	-0.342	217	0.341
09	0.285	1.43	3.62	3.050	-0.364	231	0.333
13	0.285	1.51	3.87	4.246	-0.373	229	0.335
33	0.285	1.38	3.61	4.104	-0.374	236	0.322
Average	0.285	1.46	3.69	3,923	-0.363	228	0.333

J(9)	VISC	ORG DSR	RTFO DSR	PAV DSR	LOSS	S-value	m-value
05	0.281	1.26	3.26	3.873	-0.422	207	0.322
08	0.294	1.29	3.31	3.679	-0.452	211	0.326
10	0.283	1.31	3.34	4.094	-0.444	207	0.331
31	0.288	1.27	3.31	3.889	-0.326	209	0.334
38	0.281	1.29	3.21	3.641	-0.305	208	0.328
41	0.298	1.26	3.36	3.685	-0.466	211	0.333
44	0.281	1.33	3.35	4.104	-0.446	219	0.331
52	0.281	1.27	3.32	3.864	-0.314	212	0.333
74	0.288	1.31	3.30	4,139	-0.452	220	0.330
Average	0.286	1.29	3.31	3,885	-0.403	212	0.330

L(2)	VISC	ORG DSR	RTFO DSR	PAV DSR	LOSS	S-value	m-value
25	0.270	1.25	3.33	3,342	-0.414	211	0.329
59	0.275	1.27	3.22	3,629	-0.388	212	0.330
Average	0.273	1.26	3.28	3,486	-0.401	212	0.330

M(6)	VISC	ORG DSR	RTFO DSR	PAV DSR	LOSS	S-value	m-value
04	0.270	1.19	3.10	3,710	-0.310	228	0.328
37	0.258	1.15	3.23	3,637	-0.415	224	0.323
47	0.275	1.28	3.11	3,680	-0.440	235	0.327
53	0.273	1.14	2.91	3,887	-0.299	212	0.331
57	0.270	1.22	3.59	3,888	-0.403	222	0.334
64	0.250	1.33	3.19	3,756	-0.405	217	0.327
Average	0.266	1.22	3.19	3,760	-0.379	223	0.328

N(2)	VISC	ORG DSR	RTFO DSR	PAV DSR	LOSS	S-value	m-value
43	0.278	1.33	3.32	3,884	-0.394	207	0.351
95	0.282	1.29	3.32	3,837	-0.400	217	0.346
Average	0.280	1.31	3.32	3,861	-0.397	212	0.349

O(2)	VISC	ORG DSR	RTFO DSR	PAV DSR	LOSS	S-value	m-value
76	0.301	1.24	3.51	2334	-0.438	239	0.315
85	0.3	1.23	2.911	1621	-0.466	226	0.319
Average	0.301	1.24	3.21	1,978	-0.452	233	0.317

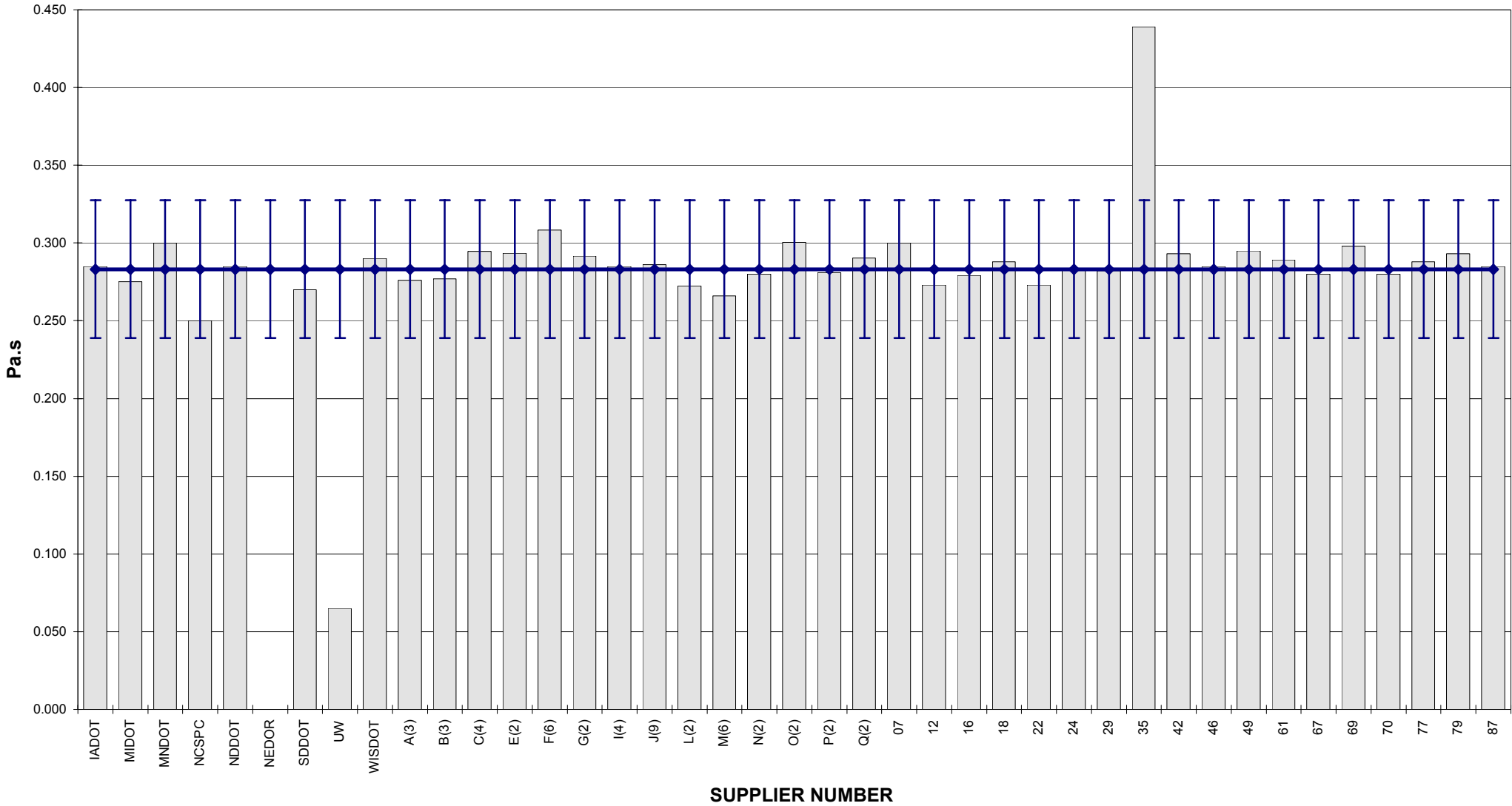
P(2)	VISC	ORG DSR	RTFO DSR	PAV DSR	LOSS	S-value	m-value
71	0.275	1.35	3.81	3,822	-0.540	232	0.341
73	0.287	1.39	3.41	3,788	-0.290	235	0.337
Average	0.281	1.37	3.61	3,805	-0.415	234	0.339

Q(2)	VISC	ORG DSR	RTFO DSR	PAV DSR	LOSS	S-value	m-value
54	0.288	1.25	3.19	3674	-0.404	218	0.339
88	0.293	1.27	3.25	3817	-0.445	221	0.336
Average	0.291	1.26	3.22	3746	-0.425	220	0.338

COMBINED STATE BINDER GROUP ROUND ROBIN 2004-1  
SUMMARY B

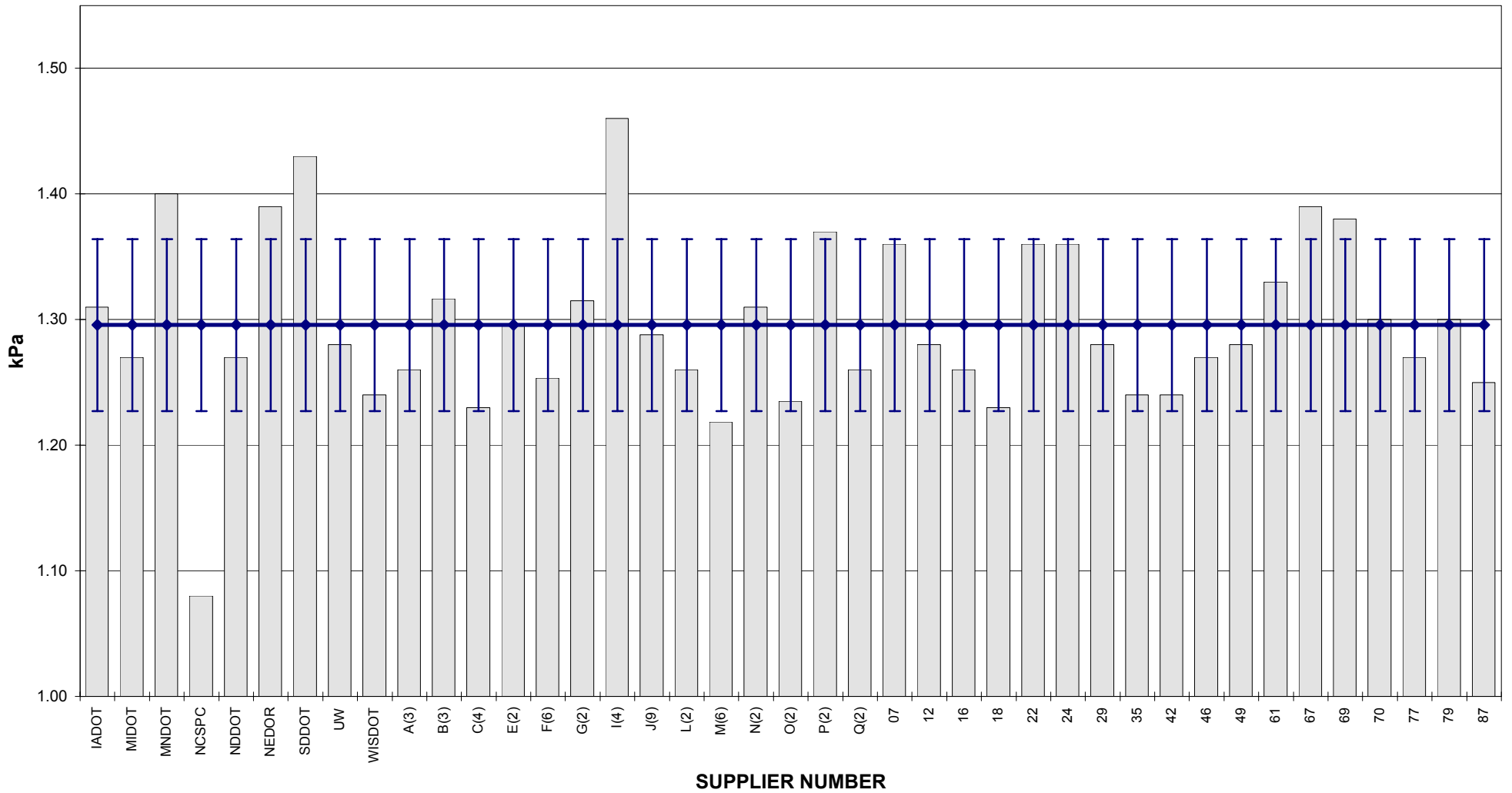
PG 58-28

ROTATIONAL VISCOSITY



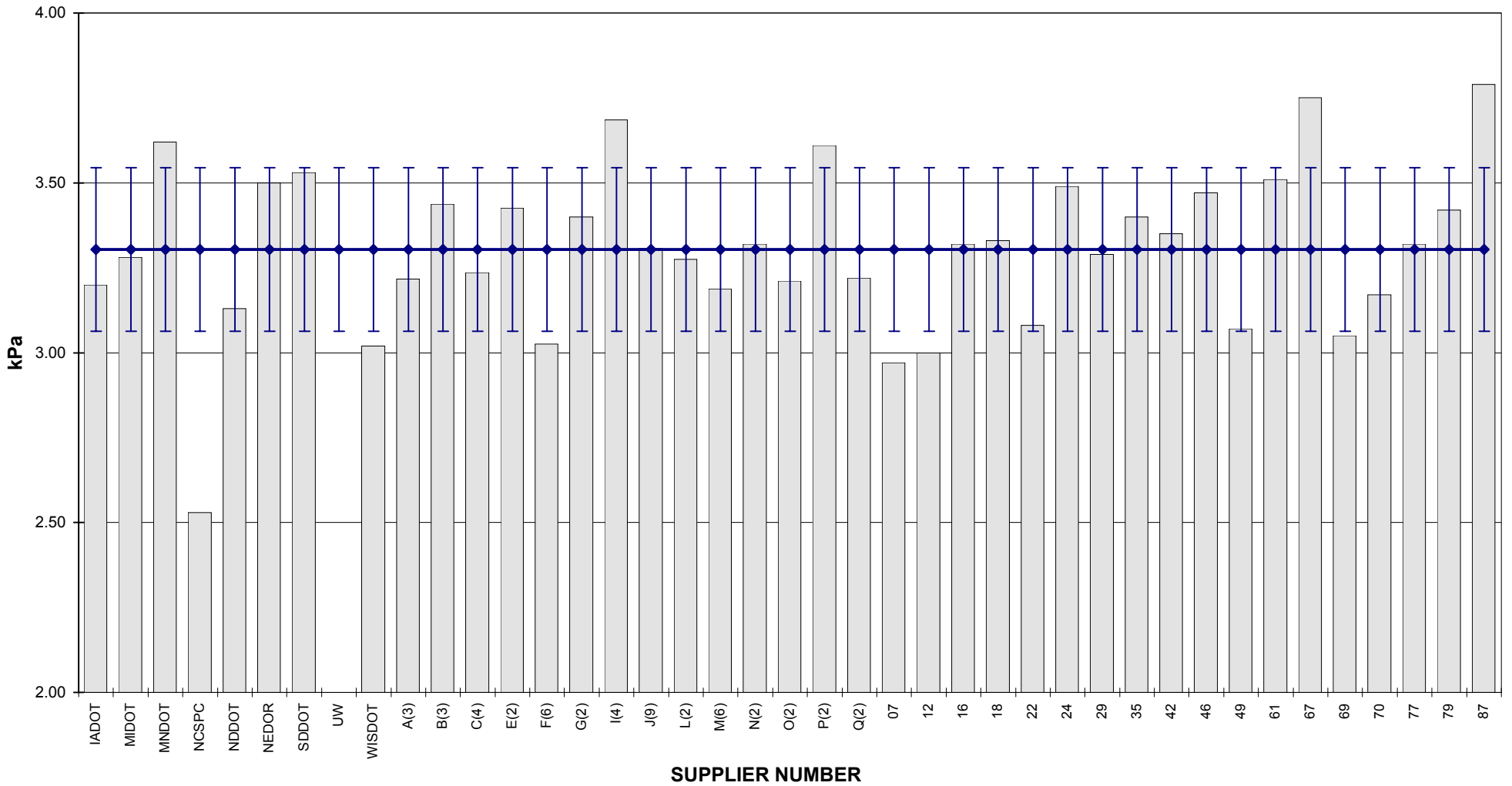
**COMBINED STATE BINDER GROUP ROUND ROBIN 2004-1  
SUMMARY B  
PG 58-28**

**DSR - ORIGINAL**

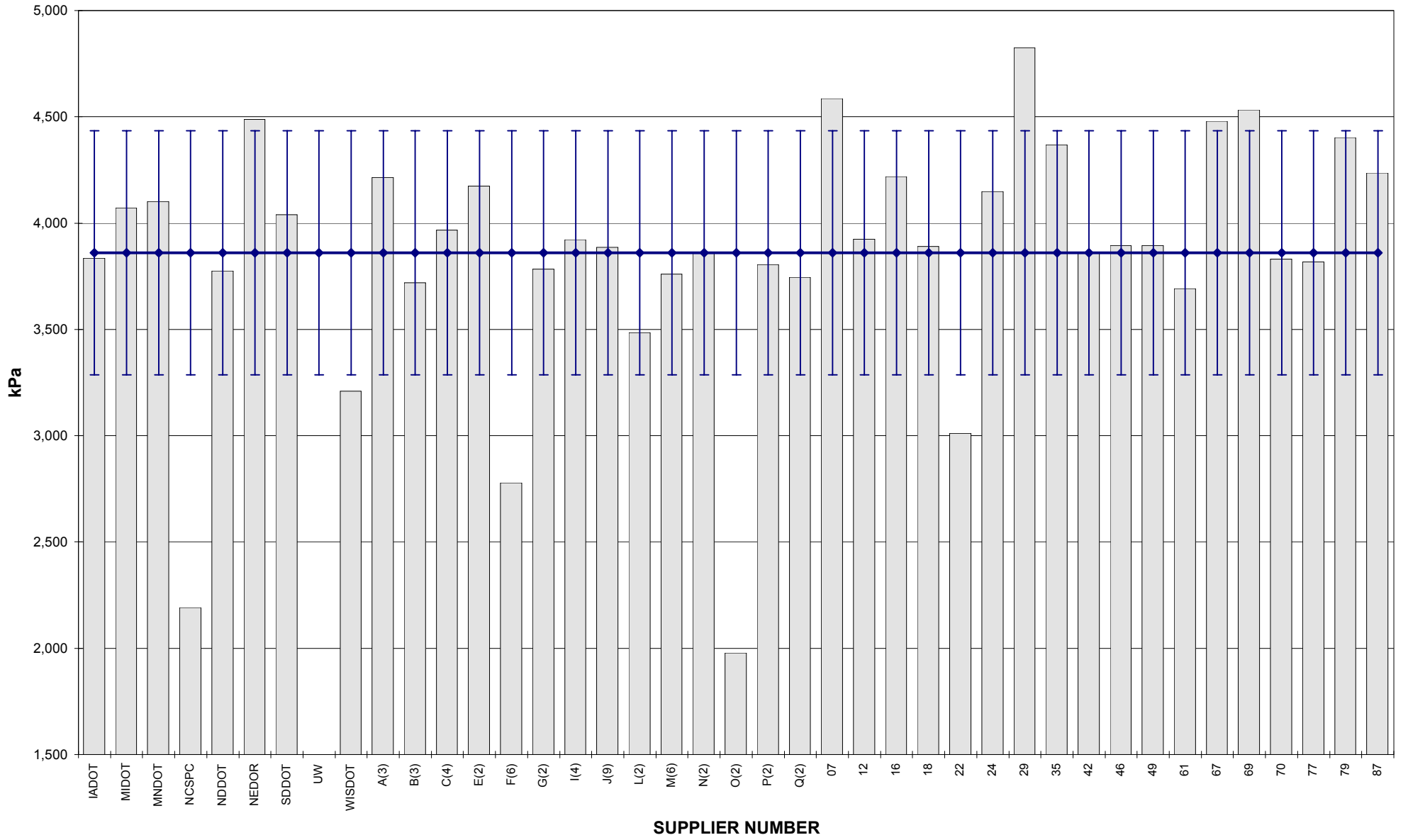


**COMBINED STATE BINDER GROUP ROUND ROBIN 2004-1  
SUMMARY B  
PG 58-28**

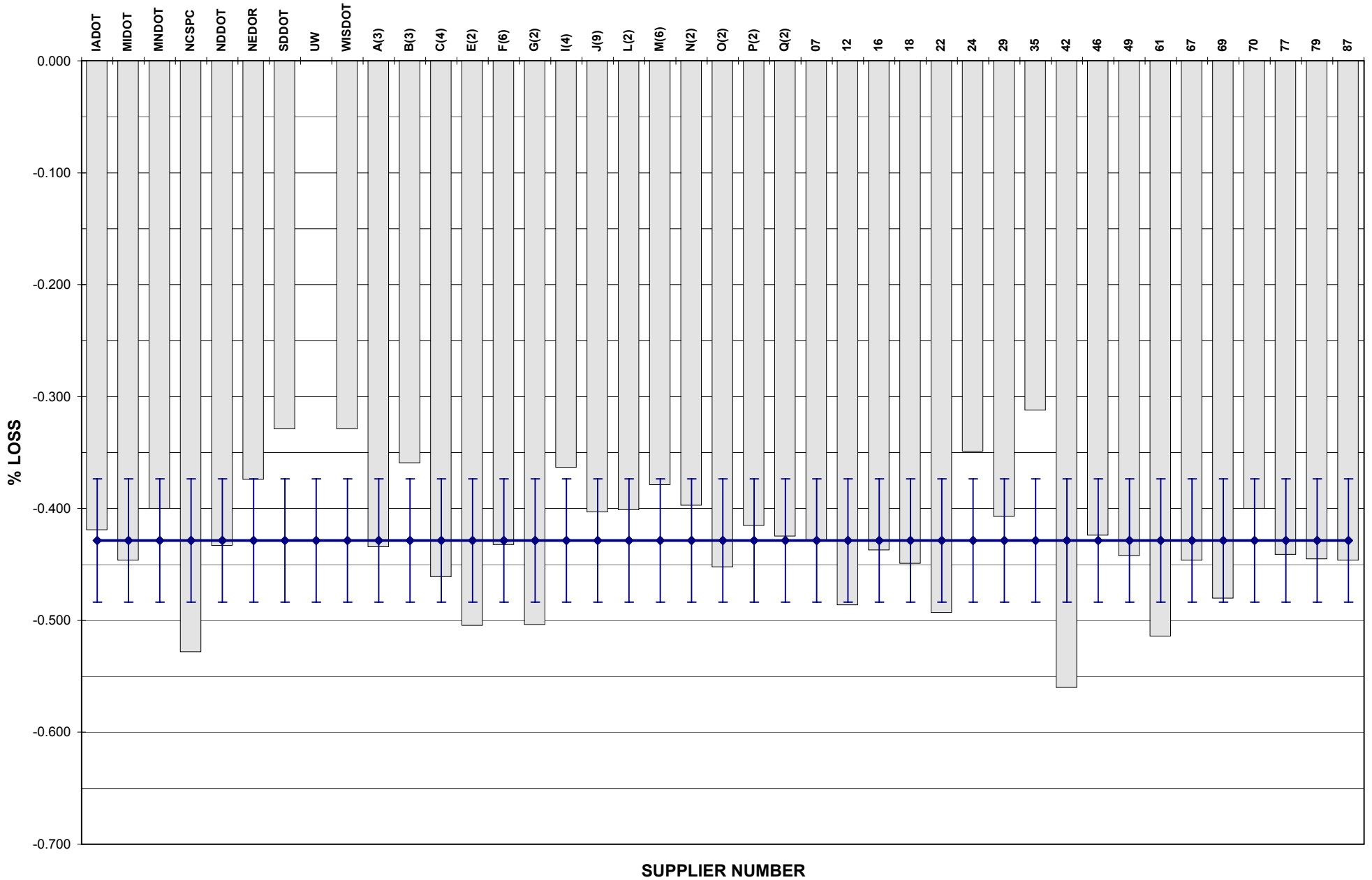
**DSR - RTFO**



**COMBINED STATE BINDER GROUP ROUND ROBIN 2004-1**  
**SUMMARY B**  
**PG 58-28**  
**DSR - PAV**

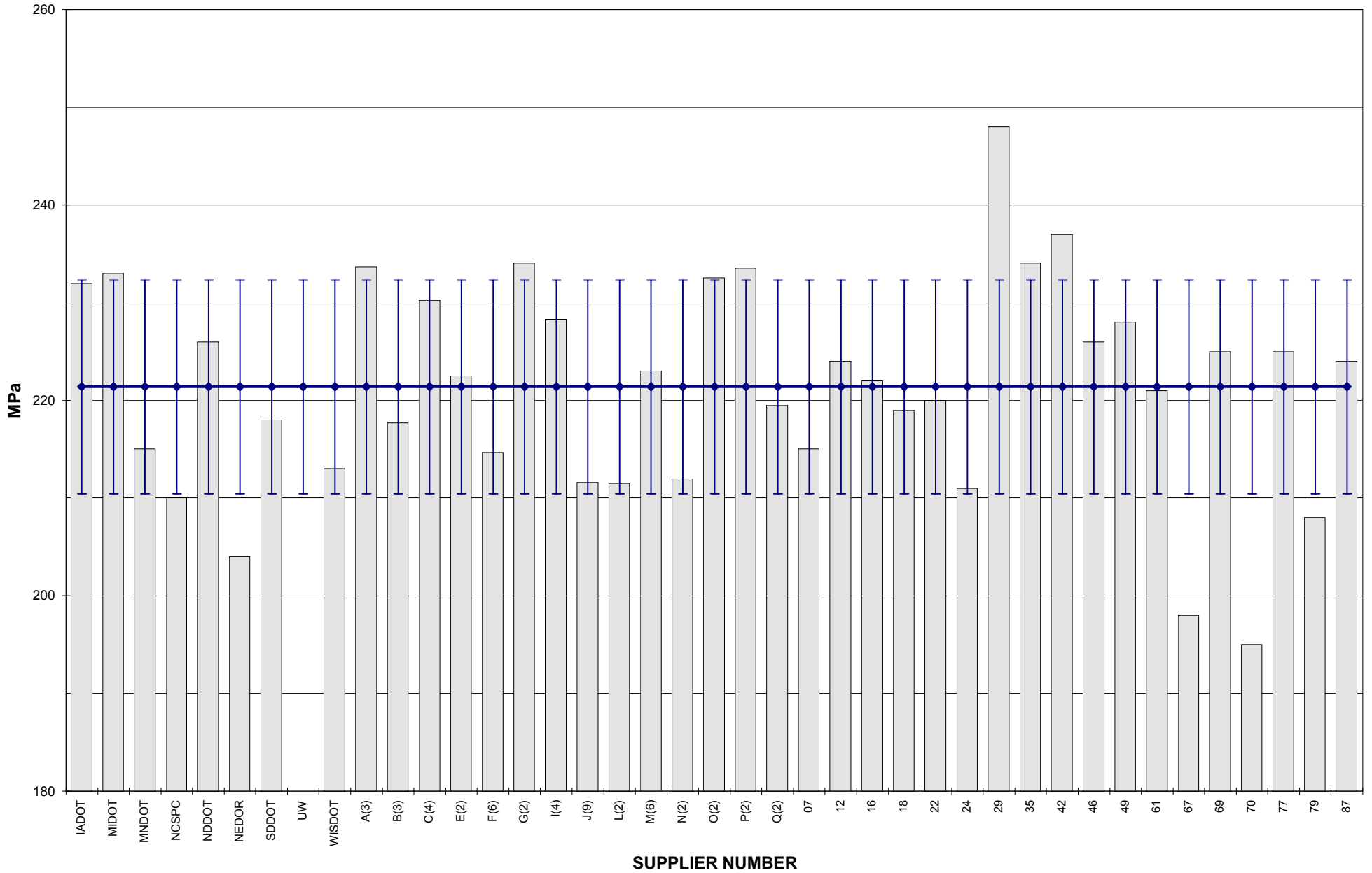


**COMBINED STATE BINDER GROUP ROUND ROBIN 2004-1**  
**SUMMARY B**  
**PG 58-28**  
**RTFO MASS LOSS**





**COMBINED STATE BINDER GROUP ROUND ROBIN 2004-1**  
**SUMMARY B**  
**PG 58-28**  
**BBR STIFFNESS**



**COMBINED STATE BINDER GROUP ROUND ROBIN 2004-1**  
**SUMMARY B**  
**PG 58-28**  
**BBR m-VALUE**

