

COMBINED STATE BINDER GROUP ROUND ROBIN 2014-2 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) @19°C	Mass Loss (%) @163°C	BBR S-value (MPa) @-24°C	BBR m-value @-24°C	Jnr @ 100 Pa @ 58°C	% Recov. @ 100 Pa @ 58°C	Jnr @ 3200 Pa @ 58°C	% Recov. @ 3200 Pa @ 58°C
IADOT	1.143	1.17	2.98	1770	-0.658	228	0.326	0.175	70.59	0.24	61.48
MNDOT											
NCSPC	1.146	1.16	3.36	1630	-1.197	210	0.337	0.167	67.84	0.19	64.73
NDDOT	1.085	1.18	3.16	1889	-0.765	229	0.332	0.162	73.25	0.22	64.90
NEDOR											
SDDOT	1.079	1.12	3.22	1677	-0.882	212	0.325	0.182	69.24	0.20	67.26
UW	1.336	1.24	3.19	1210	-0.889	200	0.365				
WISDOT	1.263	1.17	3.04	2067	-0.647	221	0.329	0.183	67.10	0.21	63.35
07	1.117	1.16	2.87	2022	-0.749	224	0.329	0.300	56.64	0.33	54.16
12											
25											
29	1.083	1.26	3.54	1913	-0.774	209	0.339	0.165	69.41	0.18	66.74
35											
37	1.055	1.21	2.82	1854	-0.674	217	0.334	0.228	66.52	0.26	62.78
39	1.100	1.07	3.48	2023	-1.144	225	0.320	0.156	69.50	0.18	65.44
42											
43	0.576	1.15	3.25	1970	-0.665	232	0.336	0.180	66.82	0.20	63.22
49	1.025	1.12	3.00	1770	-0.881	218	0.327	0.170	72.17	0.23	63.70
59											
60											
62											
65	1.172	1.35	2.95	1853	-0.750	192	0.332	0.170	67.32	0.19	64.17
69	1.140	1.15	3.16	2170	-0.978	225	0.328	0.262	58.71	0.28	56.57
70	1.052	1.18	3.56	1671	-0.868	208	0.334				
77											
83	1.180	1.13	3.32	1910	-0.744	220	0.322	0.175	69.26	0.19	66.85
94	1.090	1.17	3.12	1821	-0.709	209	0.323	0.180	68.07	0.21	64.75
95	1.120	1.22	3.15	1508	-0.631	219	0.341	0.200	66.00	0.22	61.80
A	1.035	1.19	3.08	1784	-0.726	216	0.334	0.203	66.73	0.22	63.68
B	1.095	1.23	3.45	1712	-0.637	203	0.327	0.154	68.32	0.17	65.32
C	1.014	1.12	3.41	1700	-0.703	215	0.331	0.169	69.26	0.18	67.00
E	1.230	1.13	3.22	1672	-0.619	210	0.340	0.180	67.65	0.20	64.72
F	1.093	1.16	3.18	1,890	-0.742	223	0.330	0.180	68.33	0.20	65.92
J	1.115	1.09	3.28	1963	-1.040	227	0.322	0.165	69.13	0.19	64.77
M											
O	1.050	1.13	3.31	1,674	-0.658	229	0.325	0.180	65.55	0.19	65.45
P	1.098	1.20	3.83	1943	-0.719	225	0.325	0.099	77.00	0.13	70.33
Q	1.123	1.23	3.17	1554	-0.738	216	0.341	0.170	71.79	0.22	63.22
S	1.176	1.15	2.88	1835	-0.675	206	0.335	0.202	66.50	0.23	62.55
U	1.080	1.16	3.18	1815	-0.612	211	0.335	0.145	73.60	0.20	65.91
V											
Average	1.099	1.17	3.21	1,802	-0.775	216	0.332	0.182	68.23	0.21	64.10
Std. Dev.	0.1230	0.0564	0.2272	192.5601	0.1532	9.7392	0.0087	0.0368	4.0265	0.0368	3.1622
Coef. of Var.	11.192	4.818	7.073	10.684	19.764	4.499	2.627	20.298	5.901	17.604	4.933

COMBINED STATE BINDER GROUP ROUND ROBIN 2014-2
SUMMARY B
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A	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value	Jnr @ 100 Pa	% Rec. 100 Pa	Jnr @ 3200 Pa	% Rec. @ 3200 Pa
19	1.027	1.17	3.29	1951	-0.740	218	0.330	0.186	67.40	0.200	64.70
51	1.023	1.18	3.04	1674	-0.713	219	0.333	0.210	66.30	0.228	63.20
97	1.037	1.19	3.00	1809	-0.746	216	0.335	0.204	66.60	0.226	63.40
98	1.053	1.21	2.98	1701	-0.706	212	0.337	0.211	66.60	0.231	63.40
Average	1.035	1.188	3.078	1,783.750	-0.726	216.250	0.334	0.203	66.73	0.221	63.68

B	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value	Jnr @ 100 Pa	% Rec. 100 Pa	Jnr @ 3200 Pa	% Rec. @ 3200 Pa
01	1.107	1.23	3.37	1835	-0.625	202	0.322	0.167	68.08	0.187	64.66
17	1.072	1.22	3.64	1761	-0.664	206	0.330	0.136	69.21	0.149	66.62
45	1.105	1.24	3.33	1540	-0.623	200	0.329	0.158	67.67	0.176	64.69
Average	1.095	1.23	3.45	1,712	-0.637	203	0.327	0.154	68.32	0.171	65.32

C	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value	Jnr @ 100 Pa	% Rec. 100 Pa	Jnr @ 3200 Pa	% Rec. @ 3200 Pa
28	1.042	1.17	3.46	1938	-0.679	204	0.333	0.161	68.69	0.175	66.42
66	0.970	1.06	3.32	1960	-0.722	223	0.333	0.180	69.01	0.195	66.90
90	1.006	1.14	3.43	1047	-0.705	208	0.334	0.158	70.10	0.171	68.12
99	1.037	1.10	3.41	1854	-0.707	226	0.324	0.176	69.23	0.193	66.55
Average	1.014	1.12	3.41	1700	-0.703	215	0.331	0.169	69.26	0.184	67.00

E	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value	Jnr @ 100 Pa	% Rec. 100 Pa	Jnr @ 3200 Pa	% Rec. @ 3200 Pa
15	1.263	1.13	3.27	1726	-0.624	211	0.342	0.170	68.02	0.191	65.31
89	1.196	1.12	3.17	1617	-0.614	209	0.338	0.190	67.28	0.206	64.12
Average	1.230	1.13	3.22	1672	-0.619	210	0.340	0.180	67.65	0.199	64.72

F	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value	Jnr @ 100 Pa	% Rec. 100 Pa	Jnr @ 3200 Pa	% Rec. @ 3200 Pa
02	1.093	1.16	3.18	1890	-0.742	223	0.330	0.180	68.33	0.200	65.92
11											
34											
48											
56											
62											
Average	1.093	1.16	3.18	1,890	-0.742	223	0.330	0.180	68.33	0.200	65.92

J	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value	Jnr @ 100 Pa	% Rec. 100 Pa	Jnr @ 3200 Pa	% Rec. @ 3200 Pa
05	1.081	1.03	3.20	1778	-1.313	228	0.319	0.171	68.61	0.195	64.62
08	1.181	1.21	3.04	1920	-0.651	220	0.326	0.187	67.47	0.213	63.41
10	1.144	1.12	3.44	2076	-0.876	230	0.317	0.153	69.80	0.172	66.32
22	1.103	1.06	3.26	2021	-1.137	229	0.319	0.164	69.27	0.195	64.38
31	1.108	1.04	3.22	1923	-1.269	219	0.316	0.177	68.12	0.198	64.59
41	1.100	1.07	3.48	2023	-1.144	225	0.320	0.156	69.50	0.180	65.44
44	1.144	1.14	3.14	2041	-0.718	238	0.331	0.167	69.30	0.199	64.36
52	1.092	1.08	3.50	1971	-1.049	222	0.320	0.149	70.67	0.180	65.77
87	1.083	1.03	3.21	1913	-1.203	230	0.326	0.164	69.40	0.199	64.01
Average	1.115	1.09	3.28	1963	-1.040	227	0.322	0.165	69.127	0.192	64.767

M	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value	Jnr @ 100 Pa	% Rec. 100 Pa	Jnr @ 3200 Pa	% Rec. @ 3200 Pa
04											
47											
57											
Average	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

O	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value	Jnr @ 100 Pa	% Rec. 100 Pa	Jnr @ 3200 Pa	% Rec. @ 3200 Pa
76	1.067	1.16	3.08	1670	-0.657	231	0.331	0.200	65.30	0.215	64.30
85	1.033	1.10	3.54	1678	-0.658	227	0.319	0.160	65.80	0.173	66.60
Average	1.050	1.13	3.31	1674	-0.658	229	0.325	0.180	65.550	0.194	65.450

P	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value	Jnr @ 100 Pa	% Rec. 100 Pa	Jnr @ 3200 Pa	% Rec. @ 3200 Pa
30	1.085	1.12	3.29	1862	-0.740	233	0.331				
68	1.133	1.23	4.16	1949	-0.689	226	0.319	0.093	77.50	0.123	70.90
71	1.072	1.24	3.97	2032	-0.695	223	0.324	0.100	76.90	0.132	70.20
73	1.100	1.21	3.91	1929	-0.751	217	0.326	0.103	76.60	0.135	69.90
Average	1.098	1.20	3.83	1943	-0.719	225	0.325	0.099	77.000	0.130	70.333

Q	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value	Jnr @ 100 Pa	% Rec. 100 Pa	Jnr @ 3200 Pa	% Rec. @ 3200 Pa
23	1.112	1.19	3.27	1539	-0.825	221	0.341	0.160	71.75	0.207	63.42
93	1.133	1.26	3.07	1569	-0.651	210	0.340	0.180	71.83	0.237	63.02
Average	1.123	1.23	3.17	1554	-0.738	216	0.341	0.170	71.790	0.222	63.220

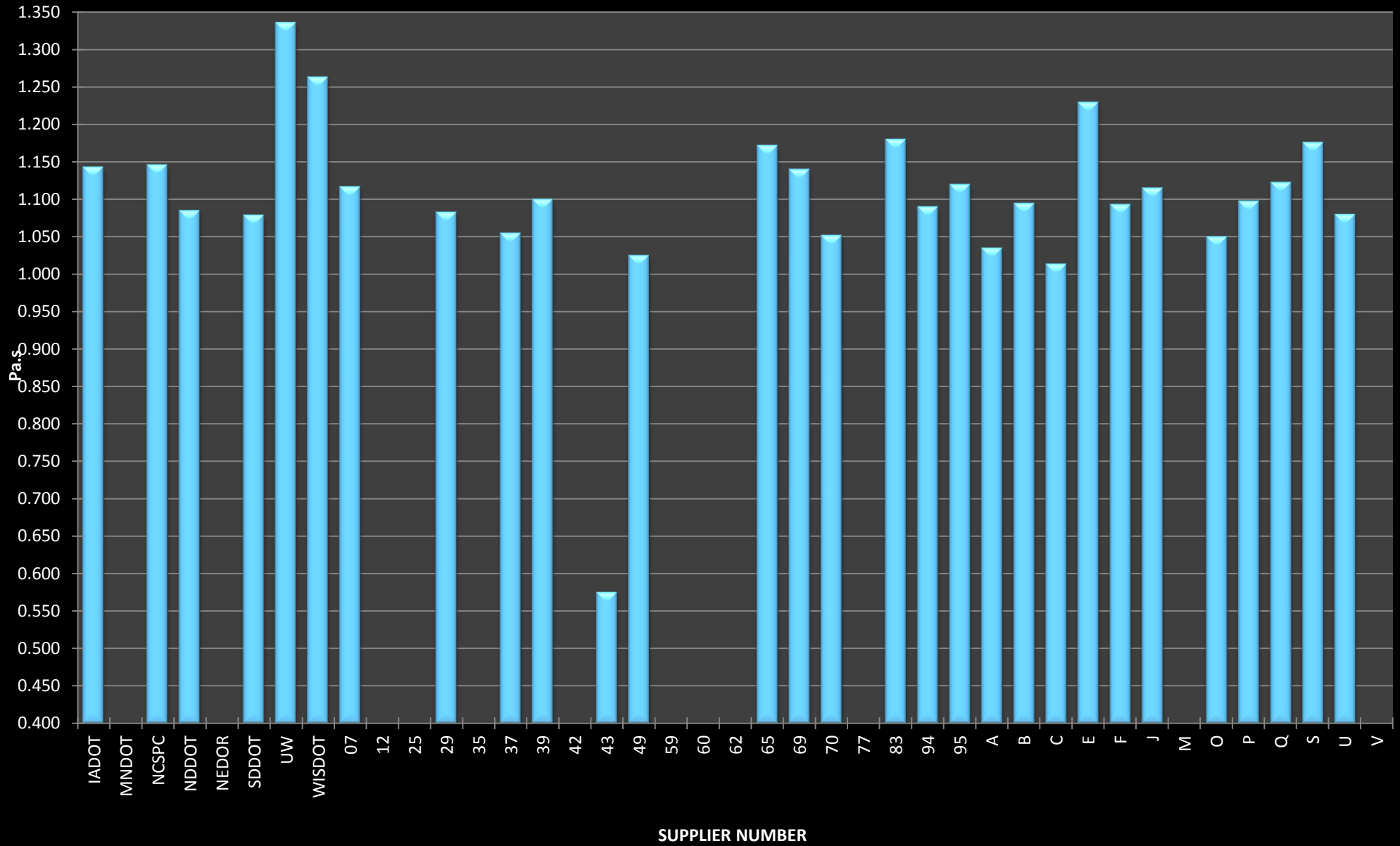
S	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value	Jnr @ 100 Pa	% Rec. 100 Pa	Jnr @ 3200 Pa	% Rec. @ 3200 Pa
53	1.091	1.12	2.70	1830	-0.745	207	0.334	0.210	65.86	0.242	61.59
64	1.261	1.17	3.06	1840	-0.605	204	0.336	0.194	67.14	0.218	63.51
Average	1.176	1.15	2.88	1835	-0.675	206	0.335	0.202	66.500	0.230	62.550

U	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value	Jnr @ 100 Pa	% Rec. 100 Pa	Jnr @ 3200 Pa	% Rec. @ 3200 Pa
13	1.085	1.16	3.38	1790	-0.501	210	0.336	0.130	74.15	0.173	67.04
24	1.075	1.16	2.97	1840	-0.722	211	0.333	0.160	73.04	0.218	64.77
Average	1.080	1.160	3.175	1815.000	-0.612	210.500	0.335	0.145	73.595	0.196	65.905

V	Rot. Visc.	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value	Jnr @ 100 Pa	% Rec. 100 Pa	Jnr @ 3200 Pa	% Rec. @ 3200 Pa
58											
78											
81											
Average	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

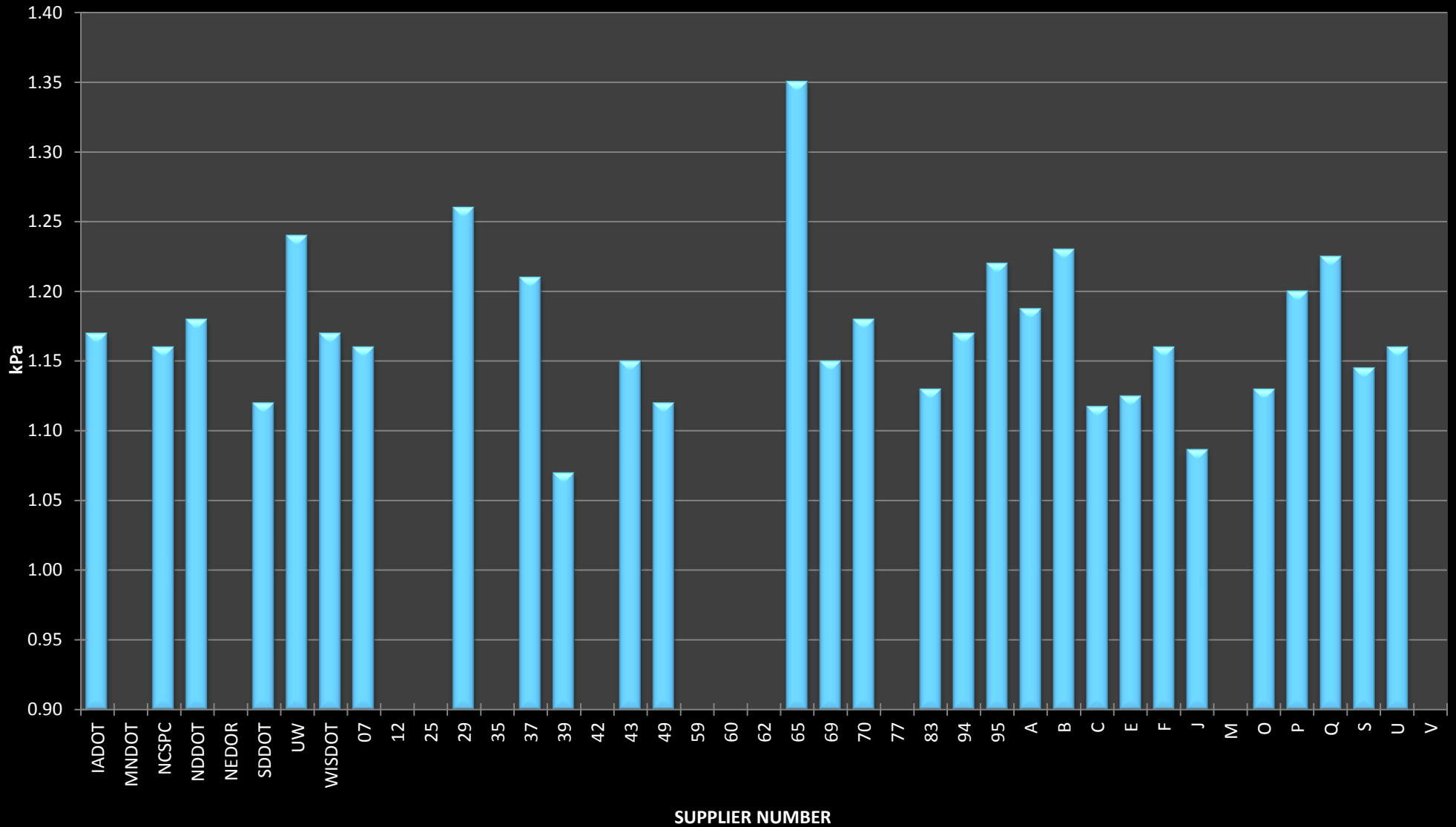
COMBINED STATE BINDER GROUP ROUND ROBIN 2014-2
SUMMARY B

ROTATIONAL VISCOSITY



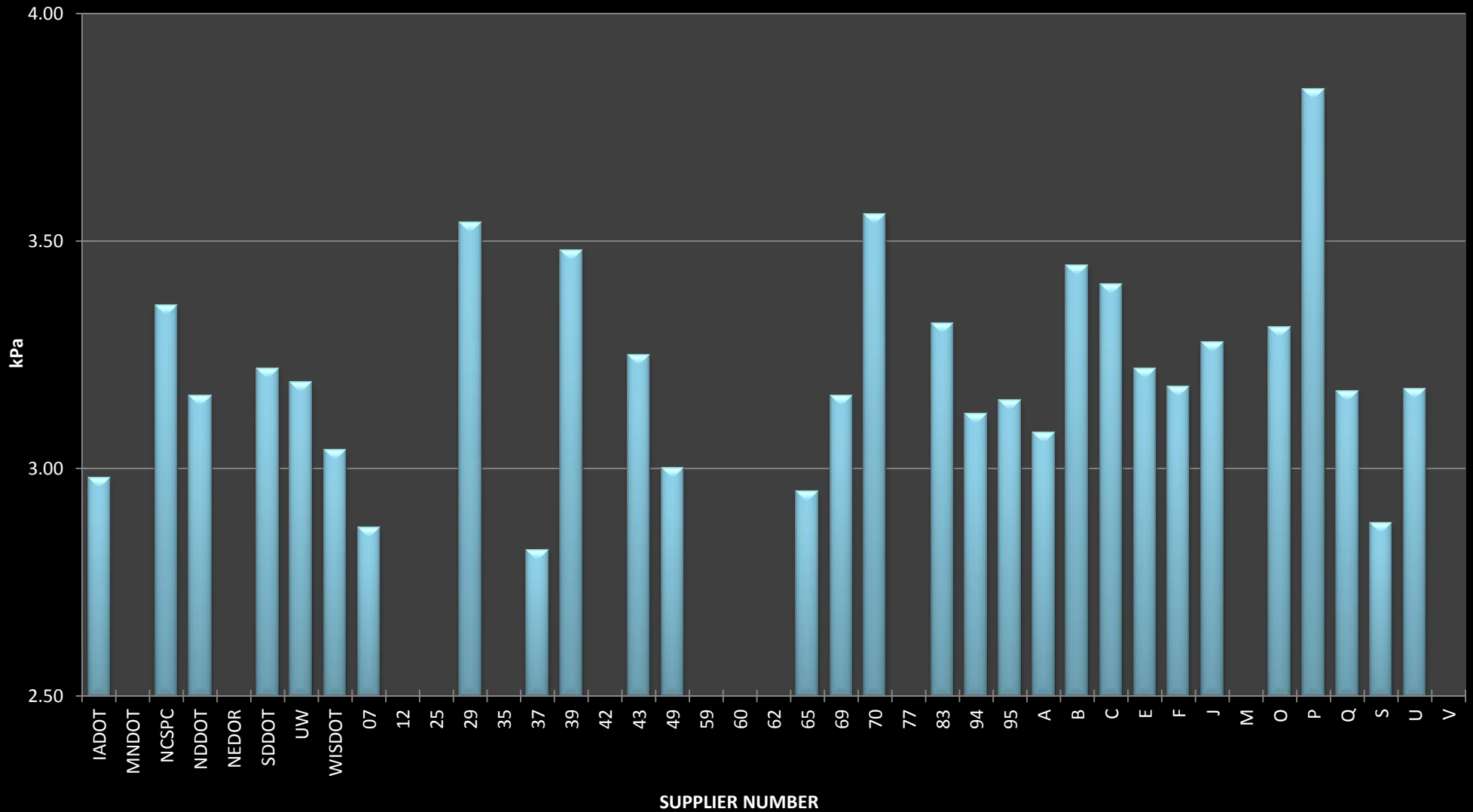
COMBINED STATE BINDER GROUP ROUND ROBIN 2014-2
SUMMARY B

DSR - ORIGINAL



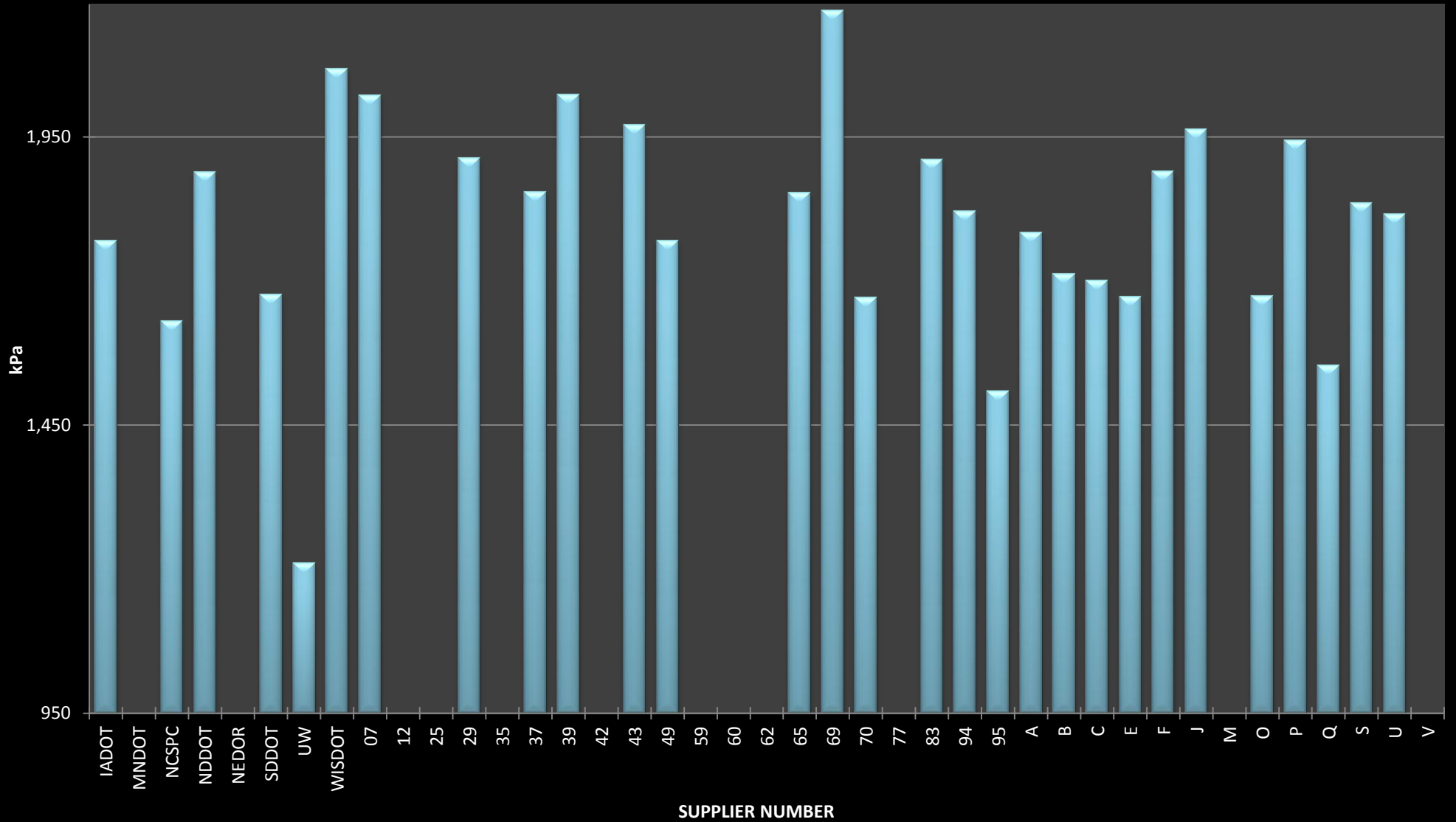
COMBINED STATE BINDER GROUP ROUND ROBIN 2014-2
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DSR - RTFO

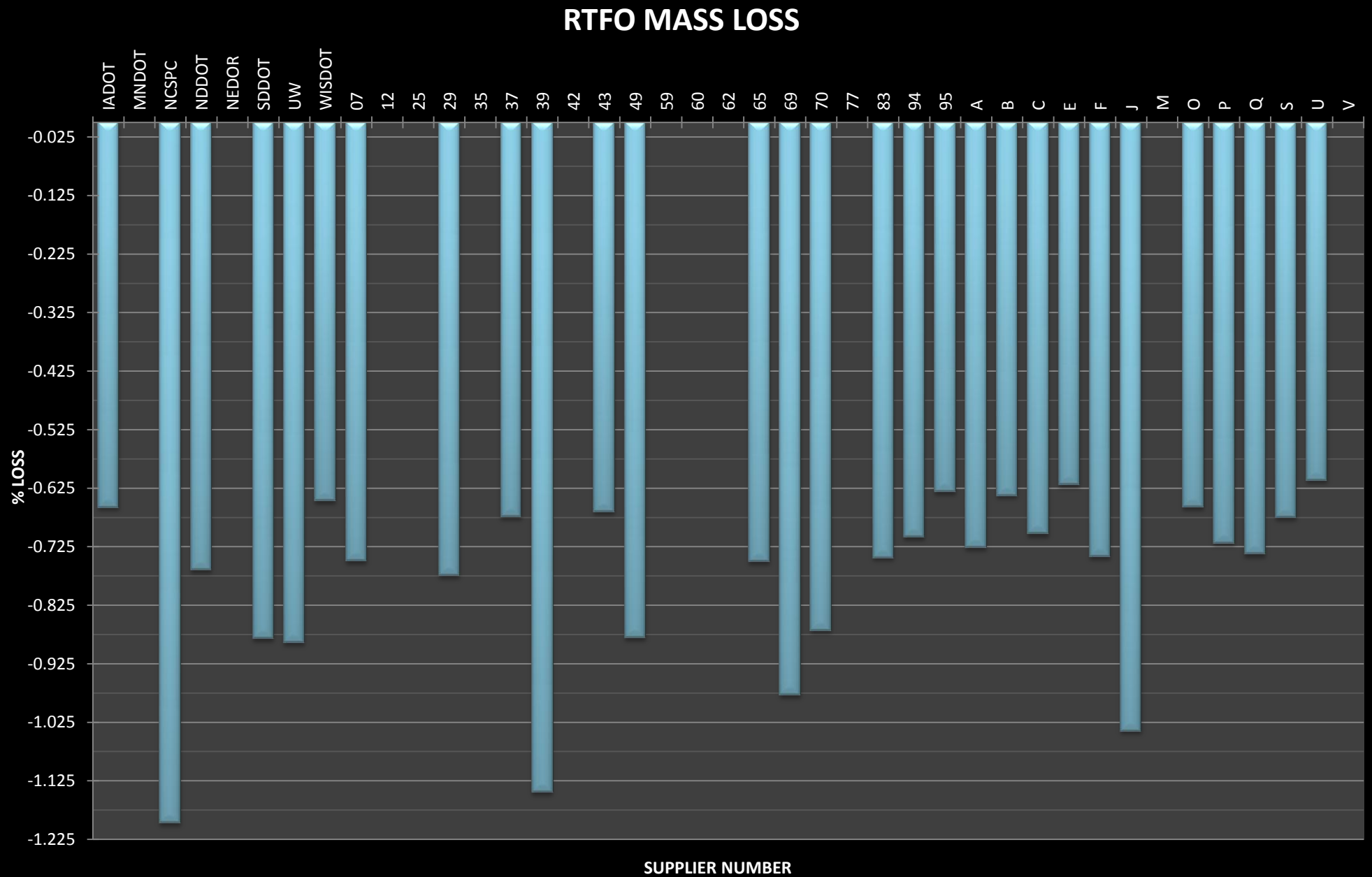


COMBINED STATE BINDER GROUP ROUND ROBIN 2014-2
SUMMARY B

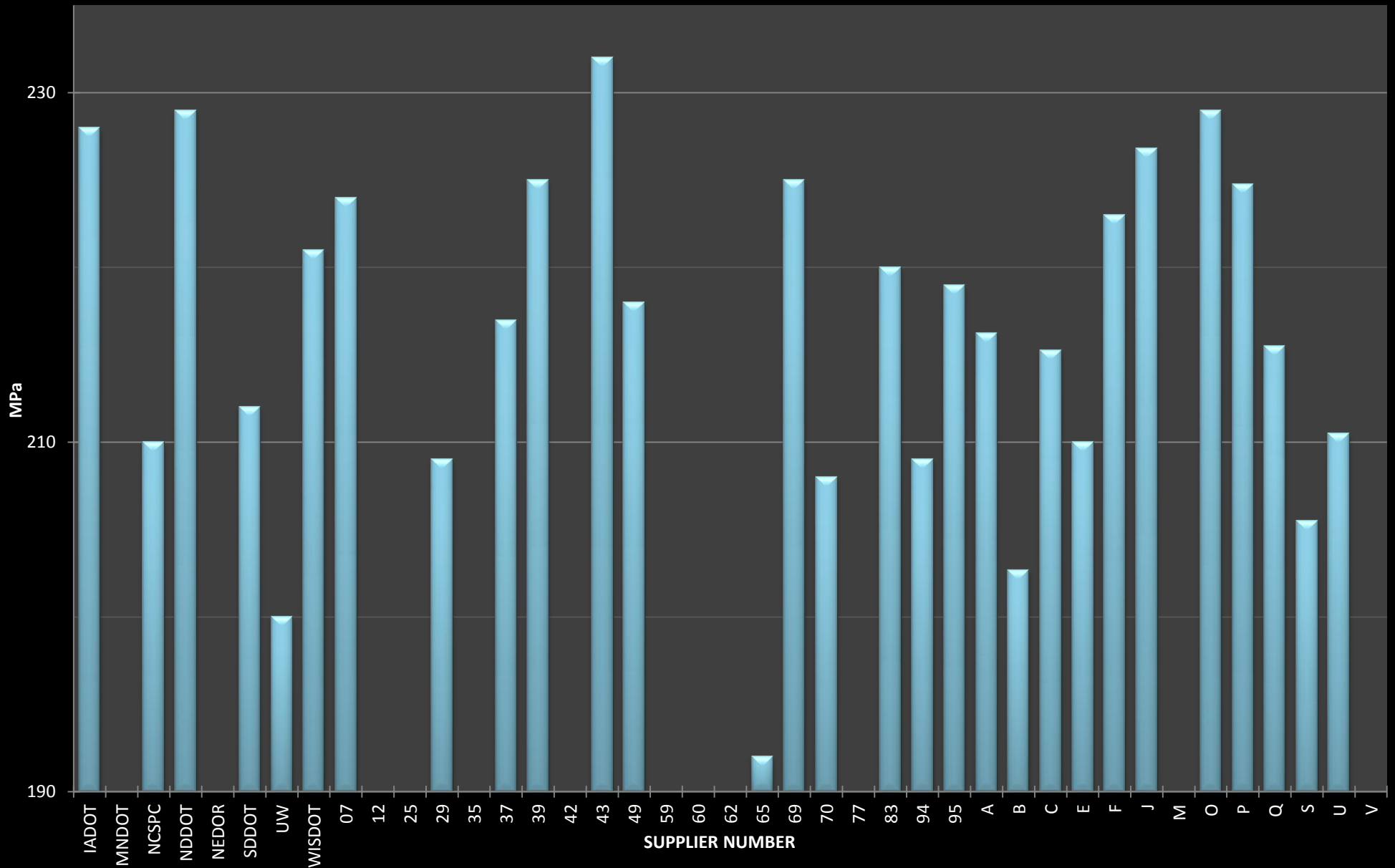
DSR - PAV



COMBINED STATE BINDER GROUP ROUND ROBIN 2014-2
SUMMARY B

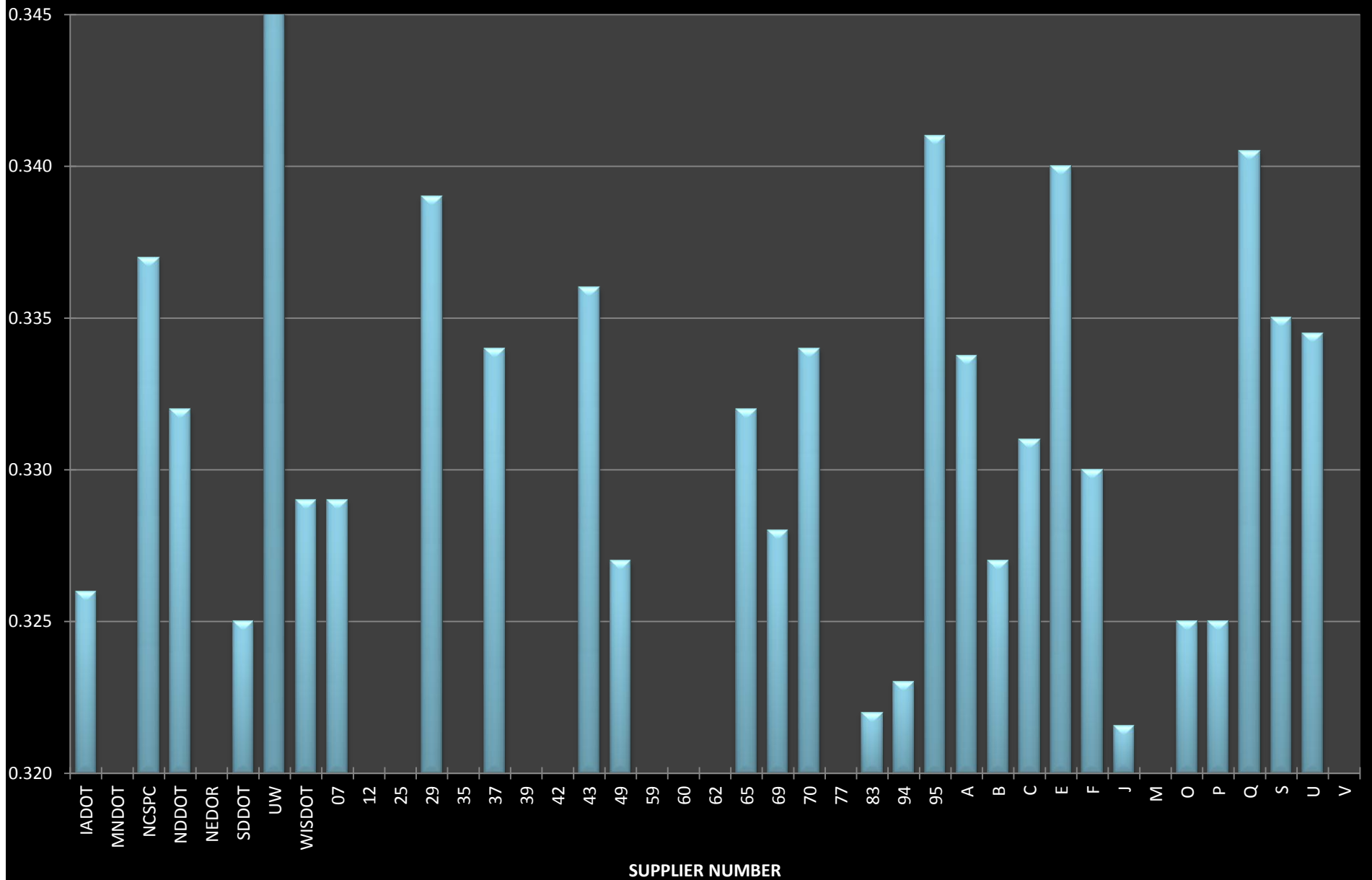


BBR STIFFNESS



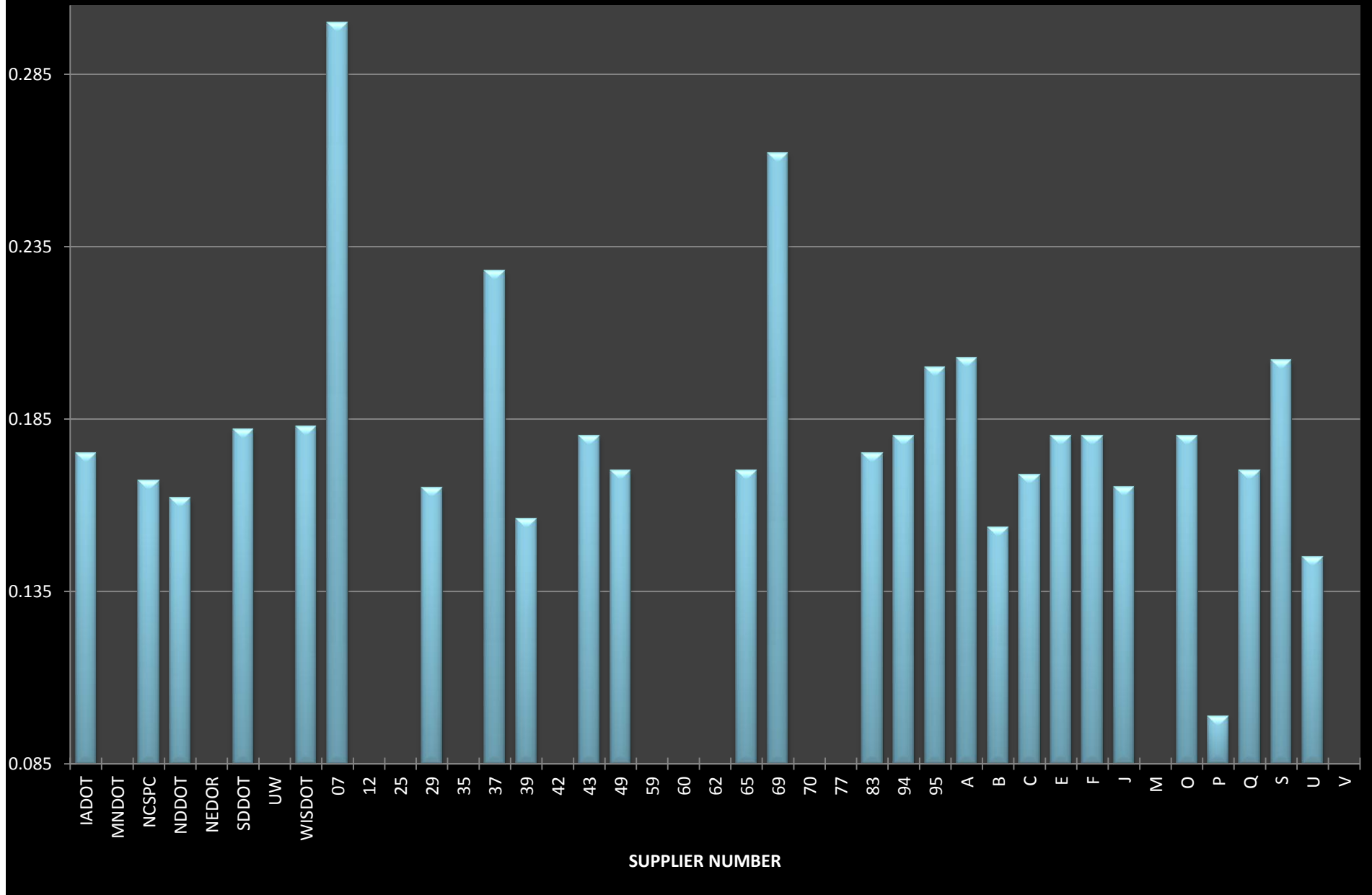
COMBINED STATE BINDER GROUP ROUND ROBIN 2014-2
SUMMARY B

BBR m-VALUE



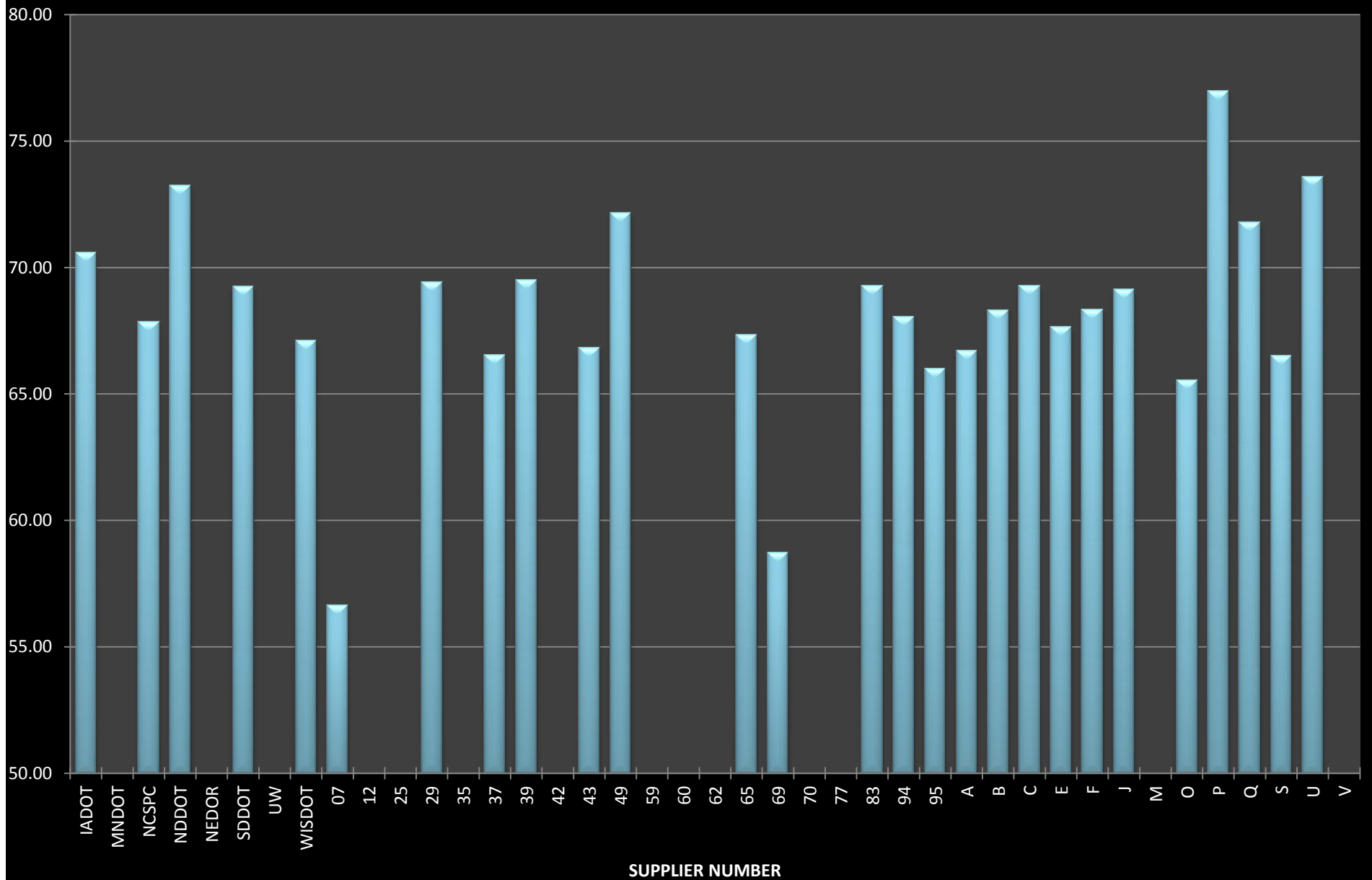
COMBINED STATE BINDER GROUP ROUND ROBIN 2014-2
SUMMARY B

Jnr @ 100 Pa



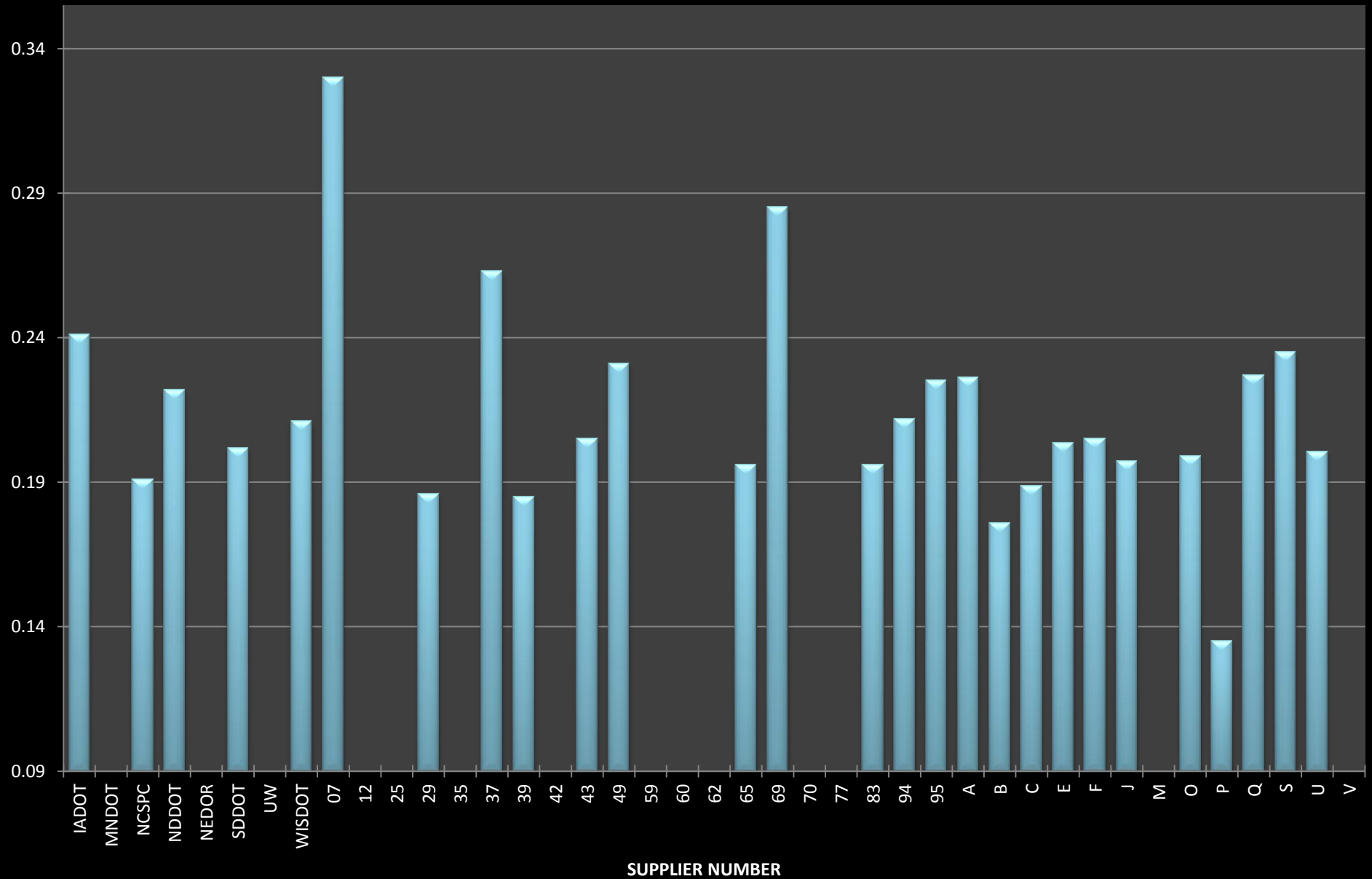
COMBINED STATE BINDER GROUP ROUND ROBIN 2014-2
SUMMARY B

% Recovery @ 100 Pa



COMBINED STATE BINDER GROUP ROUND ROBIN 2014-2
SUMMARY B

Jnr @ 3200 Pa



COMBINED STATE BINDER GROUP ROUND ROBIN 2014-2
SUMMARY B

% Recovery @ 3200 Pa

