

**TO DETERMINE MASS SUSCEPTIBILITY OF BULK SLAG SAMPLES
FROM MYERS WOOD SITE (MW02) - PART 1**

<u>Calibration samples</u>	Mass g	Bridge reading	Total susceptibility $K_T \times 10^{-8} \text{ m}^3$	Mass susceptibility $\chi \times 10^{-8} \text{ m}^3 \text{ kg}^{-1}$
Manganese sulphate	50.00	62.6	4.06	81.2
High alumina cement	50.00	536	35.80	716
<u>Test samples</u>	Type			
B209m-A	3.83	1680	112.50	29374
B209m-B	3.29	538	35.93	10922
B209m-C	1.30	470	31.37	24135
B210s-E	24.66	904	60.47	2452
B210s-F	30.25	449	29.97	991
B210s-G	6.86	97	6.37	928
B210s-H	46.58	706	47.20	1013
B210s-I	61.60	1785	119.54	1941
C301/303s-A	40.56	143	9.45	233
C301/303s-B	50.02	247	16.42	328
C301/303s-C	51.45	180	11.93	232
C301/303s-D	48.15	256	17.03	354
C301/303s-E	45.91	228	15.15	330
C301/303s-F	35.84	622	41.57	1160
C301/303s-G	45.46	470	31.37	690
C301/303s-H	74.73	360	24.00	321
C301/303s-I	32.82	116	7.64	233
C301/303s-J	26.33	779	52.09	1978
C301/303s-K	29.10	178	11.80	405
C301/303s-L	30.99	321	21.38	690
C301/303s-M	33.65	276	18.37	546
C301/303s-N	21.57	113	7.44	345
C301/303s-O	26.26	260	17.30	659
C301/303s-P	34.89	212	14.08	403
C301/303s-Q	18.64	190	12.60	676
C301/303s-R	18.48	98	6.43	348
C301/303s-S	16.06	92	6.03	376
C301/303s-T	14.43	128	8.44	585
C301/303s-U	6.59	133	8.78	1332
C301/303m-C	17.77	100	6.57	370
C301/303m-D	9.41	63.4	4.11	437
C301/303m-E	10.74	58.9	3.82	356
C307s-A	33.82	391	26.08	771
C307s-B	16.85	141	9.32	553
C307s-C	37.10	241	16.02	432
C307s-D	20.38	131	8.65	424
C307s-E	34.26	214	14.21	415
C307s-F	39.68	256	17.03	429
C307s-G	41.92	220	14.61	349
C307s-H	30.68	246	16.36	533
C307s-I	28.90	109	7.17	248
C307s-J	23.94	163	10.79	451

C307s-K	19.87	173	11.46	577
C307s-L	20.31	78	5.09	251
C307s-M	19.72	85	5.56	282
C307s-N	18.67	82	5.36	287
C307s-O	8.18	82	5.36	655
C307s-P	15.96	97	6.37	399
C307s-Q	12.48	59.1	3.83	307
C307s-R	14.33	62.9	4.08	285
C307s-S	10.24	108	7.10	694
C307s-T	7.09	70	4.56	643
C307Is	4.37	18.3	1.19	272
C309m-D	90.65	368	24.54	271
C309m-E	21.65	132	8.71	402
C309m-F	16.74	120	7.91	472
C309m-G	11.70	78	5.09	435
C309m-H	8.13	52	3.37	415
C309s-A	23.13	568	37.95	1641
C309s-B	25.50	57.4	3.72	146
C309s-C	29.04	226	15.02	517
C309s-D	15.76	1585	106.13	6734
C309s-E	20.52	120	7.91	385
C309s-F	9.12	45.5	2.95	324
C309s-G	12.16	205	13.61	1119
C309s-H	9.88	1148	76.83	7777
C309s-I	7.50	48.5	3.15	419
C309s-J	5.56	15.8	1.02	184
C309s-K	55.09	217	14.41	262
C309s-L	16.42	126	8.31	506
C309s-M	11.58	89	5.83	503
C309s-N	33.70	173	11.46	340
C309s-O	21.05	287	19.11	908
C309s-P	47.55	226	15.02	316
C309s-Q	22.05	147	9.72	441
C309s-R	29.46	158	10.46	355
C309s-S	12.59	75	4.89	389
C309s-T	7.12	77	5.03	706
D403s-A	56.16	487	32.51	579
D403s-B	33.40	187	12.40	371
D403s-C	16.57	263	17.50	1056
D403s-D	7.76	61.8	4.01	517
D403s-E	10.66	82	5.36	503
D403s-F	8.32	56.6	3.67	441
Mean	)			1474
Median	)			436
Standard Deviation	+/-)			4289

Chart data

Total sus.	Meter	Total sus.	Meter
0	0		
4.06	62.6	4.06	62.6
		35.80	536

Slope & constant values as calculated by data trendline:

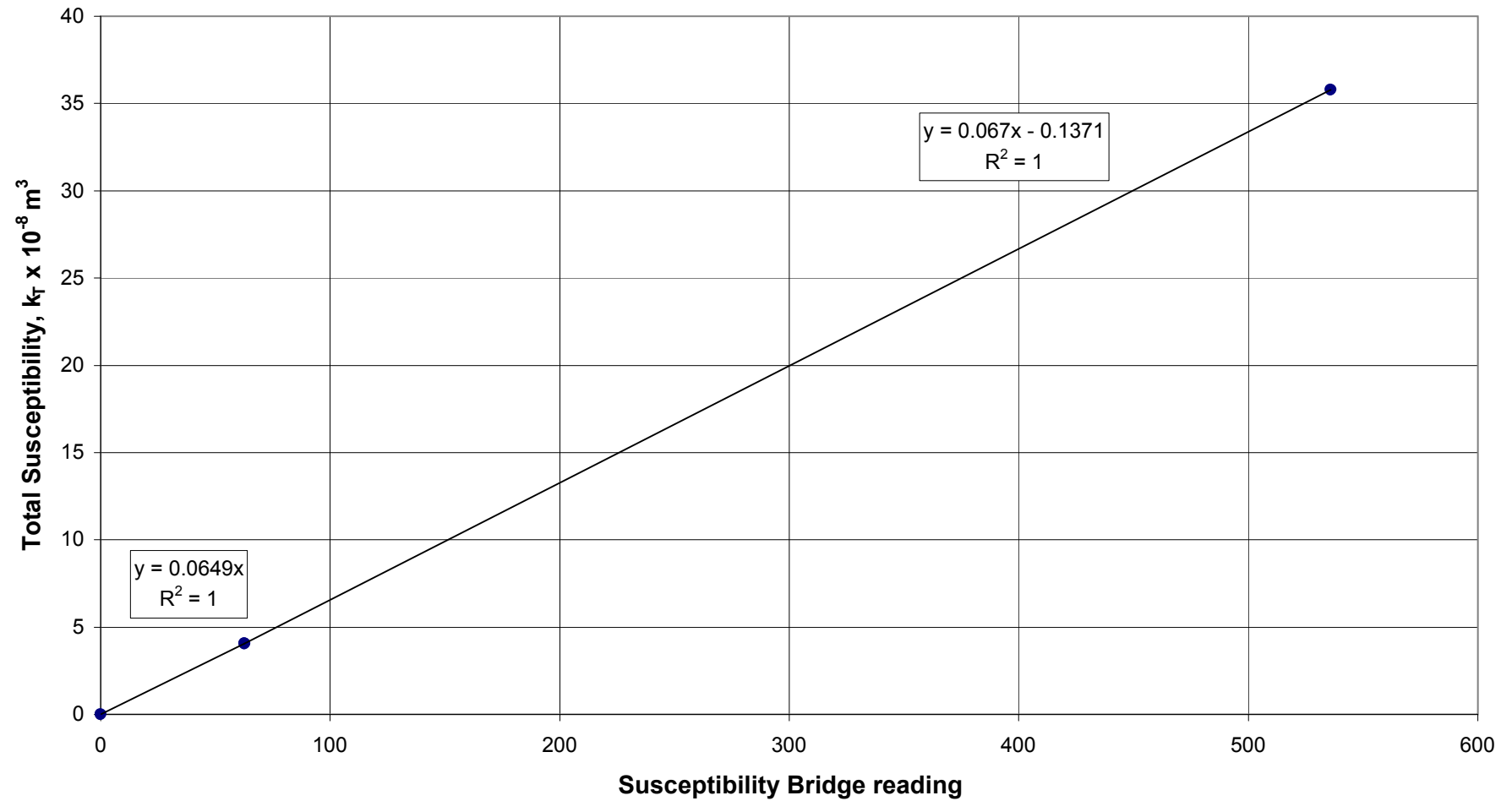
m	c	x	y
0.0649	0	62.6	4.0627
0.0670	-0.1371	62.6	4.0571
0.0670	-0.1371	536	35.7749

Slope & constant values as calculated from raw data:

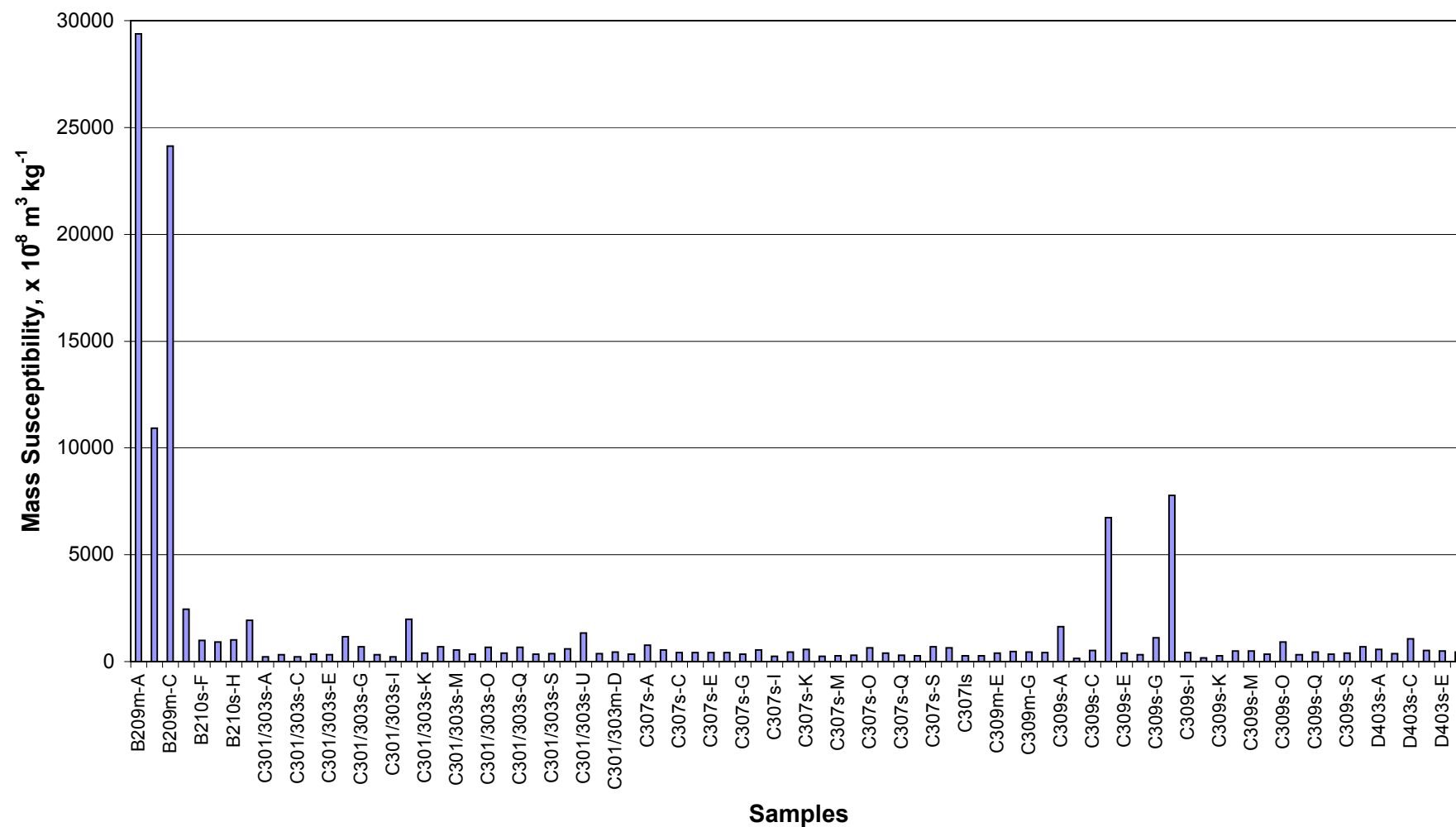
m	c	x	y
0.06486	0	62.6	4.06
0.06705	-0.13714	62.6	4.06
0.06705	-0.13714	536	35.80

Above slope & constant values used in formula to calculate total susceptibility from the corresponding meter reading.

MYERS WOOD BULK SLAG SAMPLES SUSCEPTIBILITY CALIBRATION CURVE - PART 1



MYERS WOOD BULK SLAG SAMPLES MASS SUSCEPTIBILITY - PART 1



**TO DETERMINE MASS QUADRATURE SUSCEPTIBILITY AND MAGNETIC VISCOSITY
OF BULK SLAG SAMPLES FROM MYERS WOOD SITE (MW02) - PART 1**

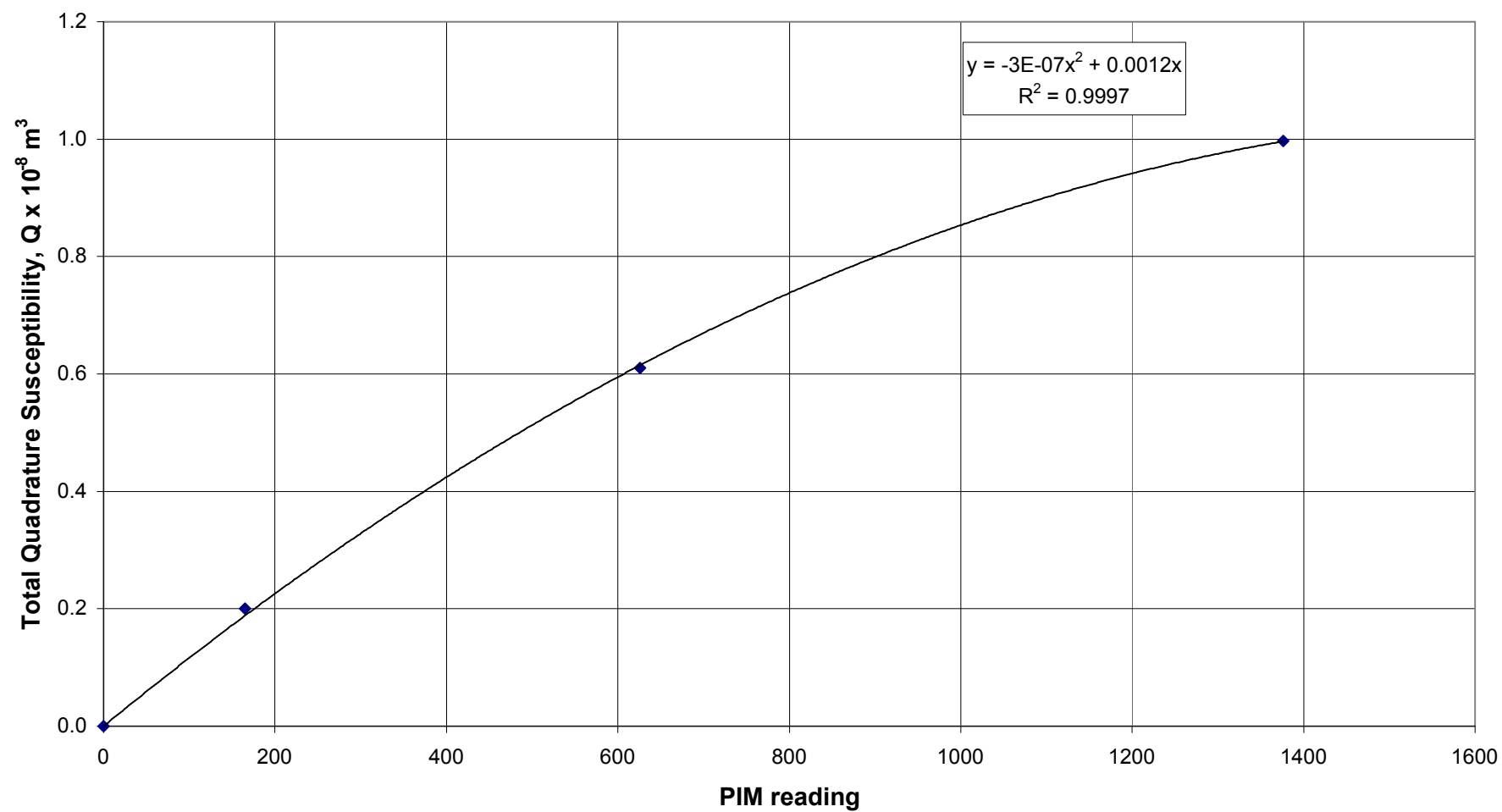
<u>Calibration samples</u>	Mass g	PIM reading	Total quad. sus. $Q \times 10^{-8} \text{ m}^3$	Mass quad. sus. $q \times 10^{-8} \text{ m}^3 \text{ kg}^{-1}$	Magnetic viscosity %
High alumina cement	50.00	165	0.20	4.0	
BS87	50.00	626	0.61	12.2	
BS62	38.20	1376	1.00	26.1	
<u>Test samples</u>					
B209m-A	3.83	215	0.24	64	0.2
B209m-B	3.29	420	0.45	137	1.3
B209m-C	1.30	80	0.09	72	0.3
B210s-E	24.66	112	0.13	5	0.2
B210s-F	30.25	202	0.23	8	0.8
B210s-G	6.86	130	0.15	22	2.4
B210s-H	46.58				
B210s-I	61.60				
C301/303s-A	40.56	112	0.13	3	1.4
C301/303s-B	50.02				
C301/303s-C	51.45	114	0.13	3	1.1
C301/303s-D	48.15				
C301/303s-E	45.91				
C301/303s-F	35.84				
C301/303s-G	45.46	290	0.32	7	1.0
C301/303s-H	74.73	164	0.19	3	0.8
C301/303s-I	32.82	80	0.09	3	1.2
C301/303s-J	26.33	206	0.23	9	0.5
C301/303s-K	29.10	190	0.22	7	1.8
C301/303s-L	30.99	140	0.16	5	0.8
C301/303s-M	33.65	183	0.21	6	1.1
C301/303s-N	21.57	93	0.11	5	1.5
C301/303s-O	26.26	130	0.15	6	0.9
C301/303s-P	34.89	93	0.11	3	0.8
C301/303s-Q	18.64	82	0.10	5	0.8
C301/303s-R	18.48	60	0.07	4	1.1
C301/303s-S	16.06	60	0.07	4	1.2
C301/303s-T	14.43	60	0.07	5	0.8
C301/303s-U	6.59	40	0.05	7	0.5
C301/303m-C	17.77	50	0.06	3	0.9
C301/303m-D	9.41	25	0.03	3	0.7
C301/303m-E	10.74	25	0.03	3	0.8
C307s-A	33.82				
C307s-B	16.85	70	0.08	5	0.9
C307s-C	37.10	110	0.13	3	0.8
C307s-D	20.38	50	0.06	3	0.7
C307s-E	34.26	136	0.16	5	1.1
C307s-F	39.68	130	0.15	4	0.9
C307s-G	41.92	135	0.16	4	1.1
C307s-H	30.68	125	0.15	5	0.9
C307s-I	28.90	40	0.05	2	0.7
C307s-J	23.94	80	0.09	4	0.9

C307s-K	19.87	110	0.13	6	1.1
C307s-L	20.31	40	0.05	2	0.9
C307s-M	19.72	39	0.05	2	0.8
C307s-N	18.67	28	0.03	2	0.6
C307s-O	8.18	18	0.02	3	0.4
C307s-P	15.96	35	0.04	3	0.7
C307s-Q	12.48	32	0.04	3	1.0
C307s-R	14.33	38	0.05	3	1.1
C307s-S	10.24	65	0.08	7	1.1
C307s-T	7.09	18	0.02	3	0.5
C307Is	4.37	90	0.11	24	8.9
C309m-D	90.65				
C309m-E	21.65	95	0.11	5	1.3
C309m-F	16.74	165	0.19	11	2.4
C309m-G	11.70	27	0.03	3	0.6
C309m-H	8.13	18	0.02	3	0.6
C309s-A	23.13	280	0.31	14	0.8
C309s-B	25.50	16	0.02	1	0.5
C309s-C	29.04	176	0.20	7	1.3
C309s-D	15.76	650	0.65	41	0.6
C309s-E	20.52	60	0.07	3	0.9
C309s-F	9.12	22	0.03	3	0.9
C309s-G	12.16	80	0.09	8	0.7
C309s-H	9.88	680	0.68	69	0.9
C309s-I	7.50	20	0.02	3	0.8
C309s-J	5.56	14	0.02	3	1.6
C309s-K	55.09				
C309s-L	16.42	102	0.12	7	1.4
C309s-M	11.58	85	0.10	9	1.7
C309s-N	33.70	63	0.07	2	0.6
C309s-O	21.05	180	0.21	10	1.1
C309s-P	47.55	101	0.12	2	0.8
C309s-Q	22.05	92	0.11	5	1.1
C309s-R	29.46	64	0.08	3	0.7
C309s-S	12.59	48	0.06	5	1.2
C309s-T	7.12	59	0.07	10	1.4
D403s-A	56.16	460	0.49	9	1.5
D403s-B	33.40	95	0.11	3	0.9
D403s-C	16.57	253	0.28	17	1.6
D403s-D	7.76	59	0.07	9	1.7
D403s-E	10.66	159	0.18	17	3.4
D403s-F	8.32	35	0.04	5	1.1
Mean	)			10	1.1
Median	)			5	0.9
Standard Deviation	+/-)			20	1.0

Chart data

Total quad.	PIM
0	0
0.20	165
0.61	626
1.00	1376

MYERS WOOD BULK SLAG SAMPLES QUADRATURE SUSCEPTIBILITY CALIBRATION CURVE - PART 1



MYERS WOOD BULK SLAG SAMPLES MASS QUADRATURE
SUSCEPTIBILITY & MAGNETIC VISCOSITY - PART 1

