

**TO DETERMINE MASS SUSCEPTIBILITY OF ORE & SLAG SAMPLES
FROM MYERS WOOD SITE (MW02)**

<u>Calibration samples</u>		Mass	Bridge reading	Total susceptibility	Mass susceptibility
		g		$k_T \times 10^{-8} \text{ m}^3$	$\chi \times 10^{-8} \text{ m}^3 \text{ kg}^{-1}$
Manganese sulphate		50.00	62.2	4.06	81.2
High alumina cement		50.00	538	35.80	716
<u>Test samples</u>	Type				
B203	S	47.73	34.4	2.25	47
B204	S	19.37	380	25.26	1304
B205	S	59.67	286	18.99	318
B210s-A	S	16.32	137	9.05	555
B210s-B	S	9.17	118	7.78	849
B210s-C	S	8.22	86	5.65	687
B210s-D	S	7.58	51	3.33	439
B212	S	37.05	1916	127.72	3447
B219	S	43.76	492	32.73	748
BExtn-A	S	21.48	186	12.32	573
BExtn-B	S	20.06	152	10.05	501
BExtn-C	S	18.17	179	11.85	652
C301r-A	R	5.73	1800	119.99	20940
C301r-B	R	5.13	1318	87.83	17121
C301r-C	R	4.55	320	21.26	4672
C301r-D	R	4.19	444	29.53	7048
C301r-E	R	3.35	268	17.79	5310
C301r-F	R	1.78	815	54.28	30493
C301/303m-A	S	7.37	1525	101.64	13791
C301/303m-B	S	4.46	730	48.61	10899
C302	S	7.84	1690	112.65	14368
C302/303	S	21.92	222	14.72	672
C307/309	S	19.93	716	47.67	2392
C309m-A	S	7.92	130	8.58	1084
C309m-B	S	4.22	90	5.91	1402
C309m-C	S	3.06	198	13.12	4287
Dslag-A	S	43.75	260	17.25	394
Dslag-B	S	31.70	446	29.66	936
Dslag-C	S	16.72	175	11.58	693
Dslag-D	S	13.88	166	10.98	791
Dslag-E	S	13.87	110	7.25	523
Dslag-F	S	12.45	105	6.92	555

SH1b-A	S	27.74	97	6.38	230
SH1b-B	S	27.32	205	13.59	497
SH1b-C	S	25.98	110	7.25	279
SH1b-D	S	25.61	64	4.18	163
SH1b-E	S	22.55	69	4.51	200
SH1b-F	S	18.41	131	8.65	470
SH2r-A	R	6.76	179	11.85	1753
SH2r-B	R	6.58	1755	116.98	17779
SH2r-C	R	6.09	770	51.28	8420
SH2r-D	R	3.93	1976	131.73	33518
SH2r-E	R	3.91	1830	121.99	31199
SH2r-F	R	3.03	1585	105.64	34866
SH6r-A	R	7.73	742	49.41	6392
SH6r-B	R	7.34	1392	92.77	12639
SH6r-C	R	6.02	890	59.28	9847
SH6r-D	R	5.84	1362	90.77	15542
SH6r-E	R	4.02	928	61.82	15377
SH6r-F	R	3.78	1486	99.04	26201
Ironstone-A	O	13.87	8.8	0.57	41
Ironstone-B	O	15.36	11.8	0.77	50
Ironstone-C	O	5.40	1.8	0.12	22

Mean	) Type O	38
Median	) ore	41
Standard Deviation	+/-)	15

Mean	) Type R	16618
Median	) roasted ore	15460
Standard Deviation	+/-)	10724

Mean	) Type S	2023
Median	) slag	662
Standard Deviation	+/-)	3735

Chart data

Total sus.	Meter	Total sus.	Meter
0	0		
4.06	62.2	4.06	62.2
		35.80	538

Slope & constant values as calculated by data trendline:

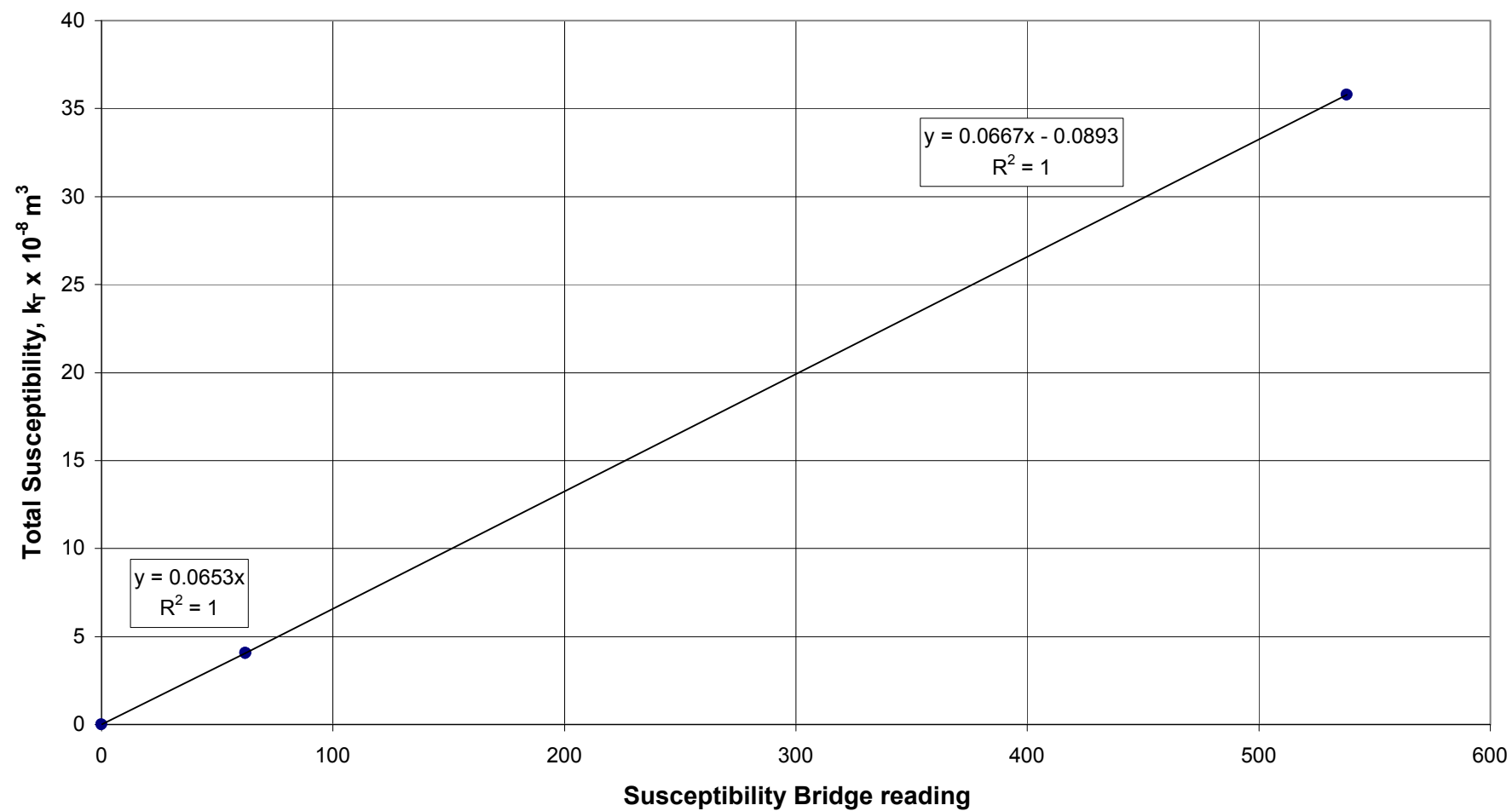
m	c	x	y
0.0653	0	62.2	4.0617
0.0667	-0.0893	62.2	4.0594
0.0667	-0.0893	538	35.7953

Slope & constant values as calculated from raw data:

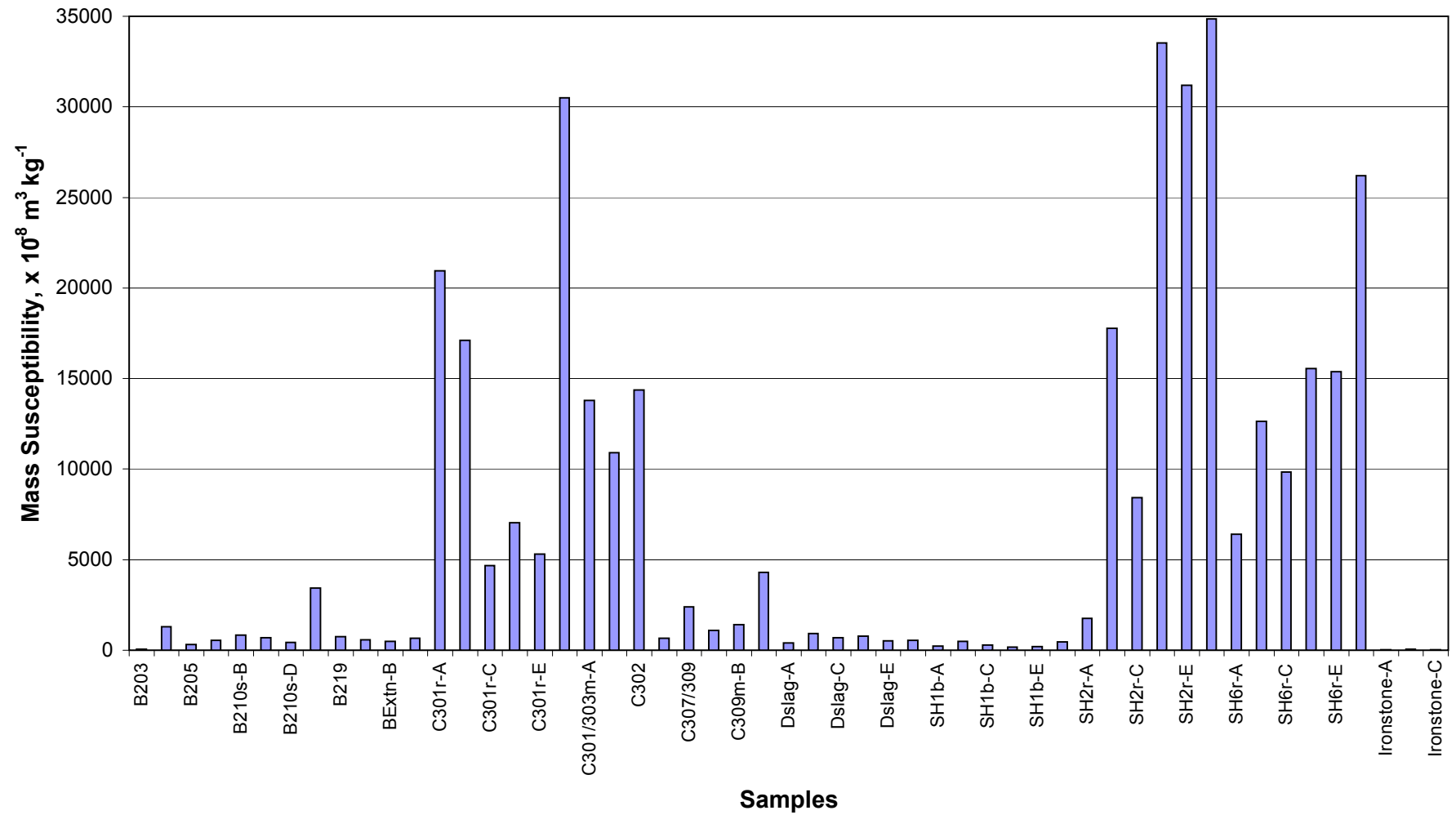
m	c	x	y
0.06527	0	62.2	4.06
0.06671	-0.08928	62.2	4.06
0.06671	-0.08928	538	35.80

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

MYERS WOOD ORE & SLAG SAMPLES SUSCEPTIBILITY CALIBRATION CURVE



MYERS WOOD ORE & SLAG SAMPLES MASS SUSCEPTIBILITY



**TO DETERMINE MASS QUADRATURE SUSCEPTIBILITY AND MAGNETIC VISCOSITY
OF ORE & SLAG SAMPLES FROM MYERS WOOD SITE (MW02)**

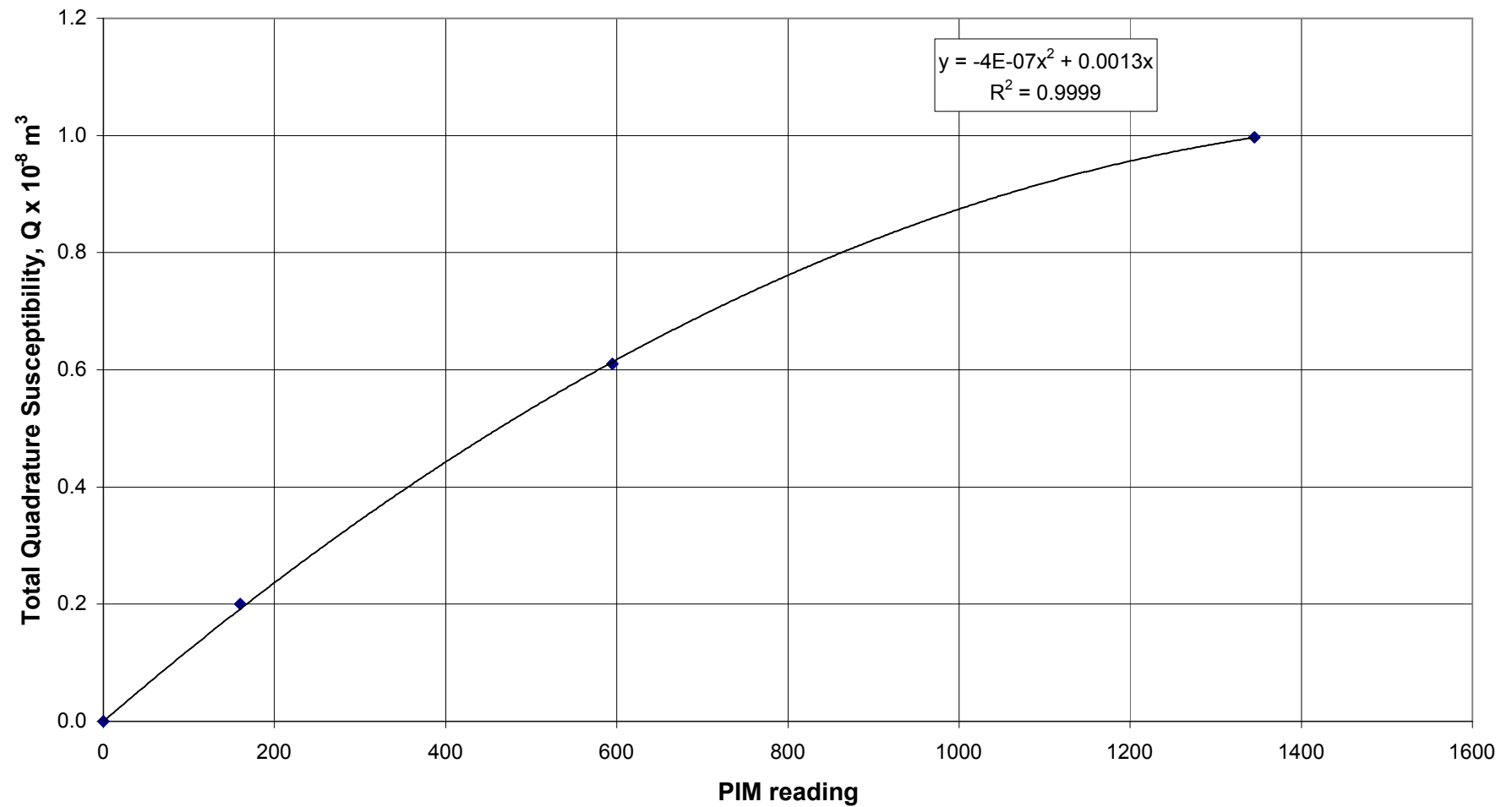
<u>Calibration samples</u>		Mass g	PIM reading	Total quad. sus. $Q \times 10^{-8} \text{ m}^3$	Mass quad. sus. $q \times 10^{-8} \text{ m}^3 \text{ kg}^{-1}$	Magnetic viscosity %
High alumina cement		50.00	160	0.20	4.0	
BS87		50.00	595	0.61	12.2	
BS62		38.20	1345	1.00	26.1	
<u>Test samples</u>	Type					
B203	S	47.73	48	0.06	1	2.7
B204	S	19.37	1965	1.01	52	4.0
B205	S	59.67	220	0.27	4	1.4
B210s-A	S	16.32	90	0.11	7	1.3
B210s-B	S	9.17	117	0.15	16	1.9
B210s-C	S	8.22	96	0.12	15	2.1
B210s-D	S	7.58	75	0.10	13	2.9
B212	S	37.05	1445	1.04	28	0.8
B219	S	43.76	1870	1.03	24	3.2
BExtn-A	S	21.48	162	0.20	9	1.6
BExtn-B	S	20.06	64	0.08	4	0.8
BExtn-C	S	18.17	70	0.09	5	0.8
C301r-A	R	5.73				
C301r-B	R	5.13				
C301r-C	R	4.55	480	0.53	117	2.5
C301r-D	R	4.19				
C301r-E	R	3.35	1320	1.02	304	5.7
C301r-F	R	1.78	1185	0.98	550	1.8
C301/303m-A	S	7.37	655	0.68	92	0.7
C301/303m-B	S	4.46	355	0.41	92	0.8
C302	S	7.84	1850	1.04	132	0.9
C302/303	S	21.92	1138	0.96	44	6.5
C307/309	S	19.93	1840	1.04	52	2.2
C309m-A	S	7.92	149	0.18	23	2.2
C309m-B	S	4.22	130	0.16	38	2.7
C309m-C	S	3.06	90	0.11	37	0.9
Dslag-A	S	43.75				
Dslag-B	S	31.70	142	0.18	6	0.6
Dslag-C	S	16.72	146	0.18	11	1.6
Dslag-D	S	13.88	74	0.09	7	0.9
Dslag-E	S	13.87	80	0.10	7	1.4
Dslag-F	S	12.45	68	0.09	7	1.3

SH1b-A	S	27.74	50	0.06	2	1.0
SH1b-B	S	27.32	120	0.15	5	1.1
SH1b-C	S	25.98	60	0.08	3	1.1
SH1b-D	S	25.61	43	0.06	2	1.3
SH1b-E	S	22.55	40	0.05	2	1.1
SH1b-F	S	18.41	58	0.07	4	0.9
SH2r-A	R	6.76	300	0.35	52	3.0
SH2r-B	R	6.58	1010	0.90	138	0.8
SH2r-C	R	6.09	350	0.41	67	0.8
SH2r-D	R	3.93	1340	1.02	260	0.8
SH2r-E	R	3.91	1012	0.91	232	0.7
SH2r-F	R	3.03	1260	1.00	331	0.9
SH6r-A	R	7.73				
SH6r-B	R	7.34	940	0.87	118	0.9
SH6r-C	R	6.02	1200	0.98	163	1.7
SH6r-D	R	5.84	1180	0.98	167	1.1
SH6r-E	R	4.02	770	0.76	190	1.2
SH6r-F	R	3.78	1004	0.90	239	0.9
Ironstone-A	O	13.87	3	0.00	0	0.7
Ironstone-B	O	15.36	3	0.00	0	0.5
Ironstone-C	O	5.40	3	0.00	1	3.3
Mean	) Type O				0	1.5
Median	) ore				0	0.7
Standard Deviation	+/-	)			0	1.6
Mean	) Type R				209	1.6
Median	) roasted ore				179	1.0
Standard Deviation	+/-	)			129	1.4
Mean	) Type S				24	1.7
Median	) slag				9	1.3
Standard Deviation	+/-	)			32	1.2

Chart data

Total quad.	PIM
0	0
0.20	160
0.61	595
1.00	1345

MYERS WOOD ORE & SLAG SAMPLES QUADRATURE SUSCEPTIBILITY CALIBRATION CURVE



MYERS WOOD ORE & SLAG SAMPLES MASS QUADRATURE SUSCEPTIBILITY & MAGNETIC VISCOSITY

