

**TO DETERMINE MASS SUSCEPTIBILITY OF MYERS WOOD MW03 TRENCH M
ARCHAEOMAGNETIC DATING REMAINDER MATERIAL**

<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	62.0	4.06	81.2
High alumina cement	50.00	533	35.80	716
<u>Test samples</u>				
M329-1	39.55	374	25.09	634
M329-2	31.65	243	16.26	514
M329-3A	64.60	530	35.60	551
M329-3B	63.12	499	33.51	531
M329-5	55.86	417	27.98	501
M329-6	59.78	500	33.58	562
M329-7	3.06	28.4	1.86	608
M329-8	74.87	493	33.10	442
M331-9	2.63	10.5	0.69	261
M331-10A	34.88	698	46.92	1345
M331-10B	30.10	654	43.95	1460
M331-10C	29.49	620	41.66	1413
M331-11	7.12	26.8	1.75	246
M331-12	48.53	430	28.86	595
M332-13	2.87	47.8	3.13	1091
Mean	)			717
Median	)			562
Standard Deviation	+/-)			404

Chart data

Total sus.	Meter	Total sus.	Meter
0	0		
4.06	62.0	4.06	62.0
		35.80	533

Slope & constant values as calculated by data trendline:

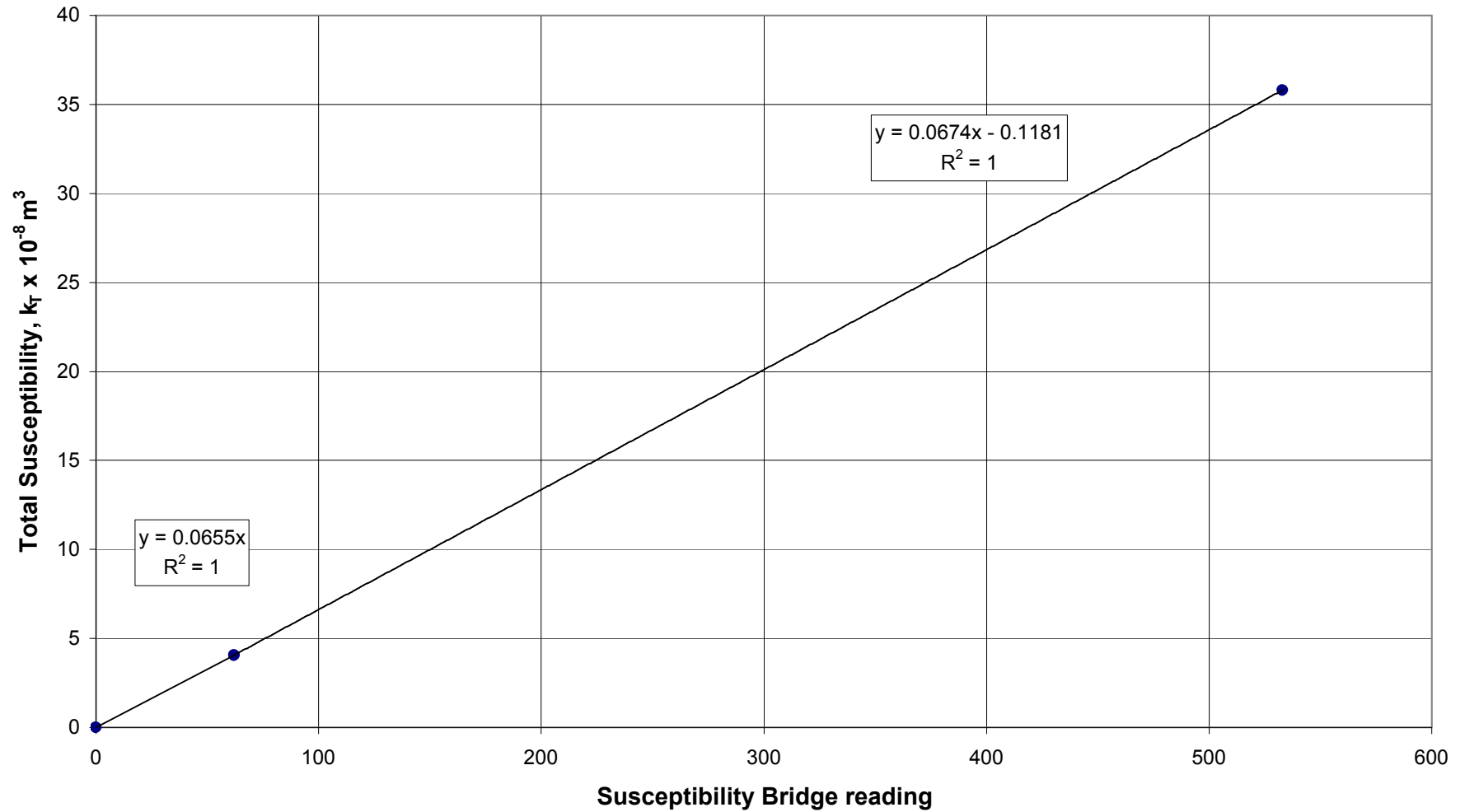
m	c	x	y
0.0655	0	62.0	4.0610
0.0674	-0.1181	62.0	4.0607
0.0674	-0.1181	533	35.8061

Slope & constant values as calculated from raw data:

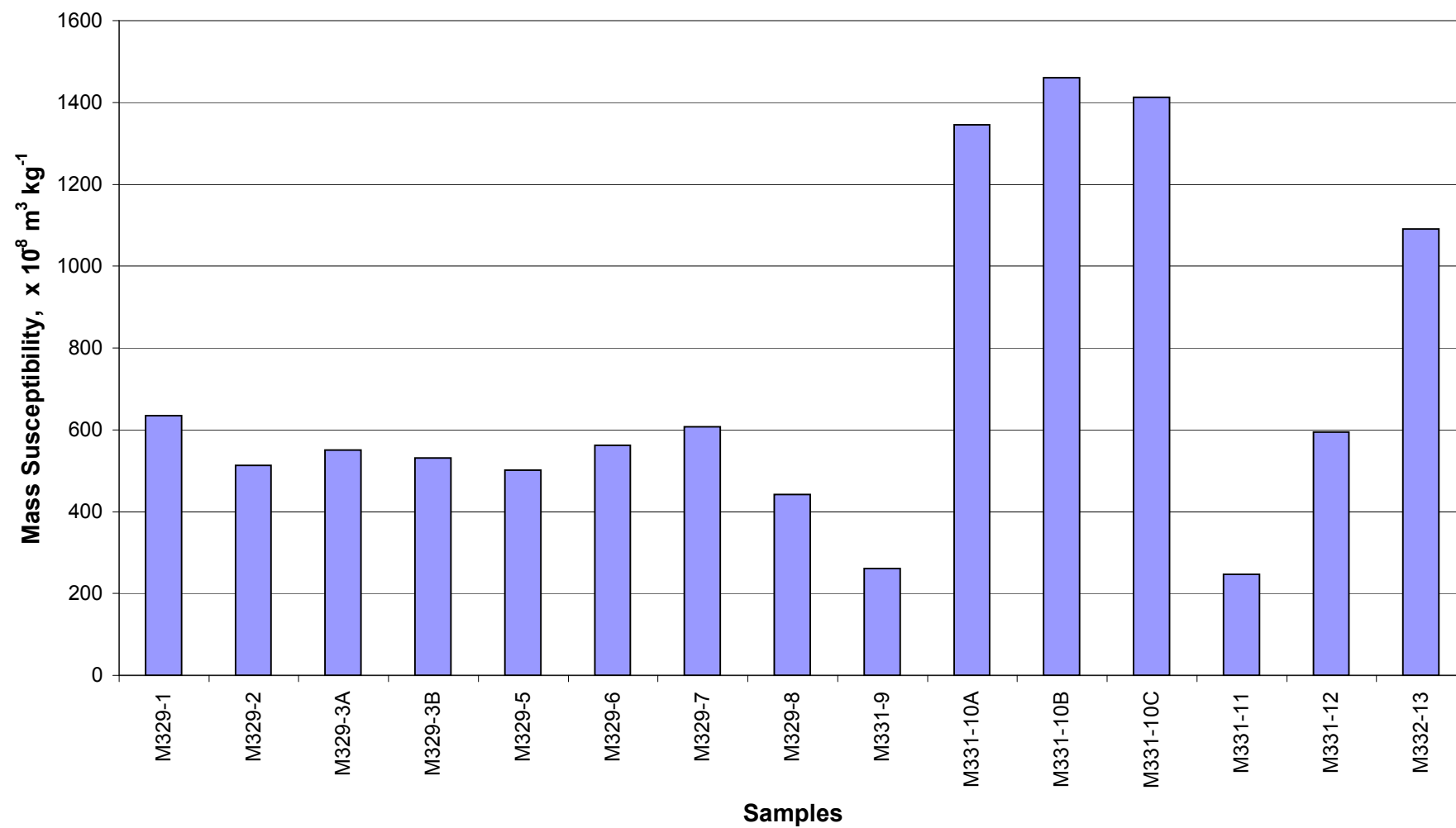
m	c	x	y
0.06548	0	62.0	4.06
0.06739	-0.11809	62.0	4.06
0.06739	-0.11809	533	35.80

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

MW03 TRENCH M A.M.D. MATERIAL SUSCEPTIBILITY CALIBRATION CURVE



MW03 TRENCH M A.M.D. MATERIAL MASS SUSCEPTIBILITY



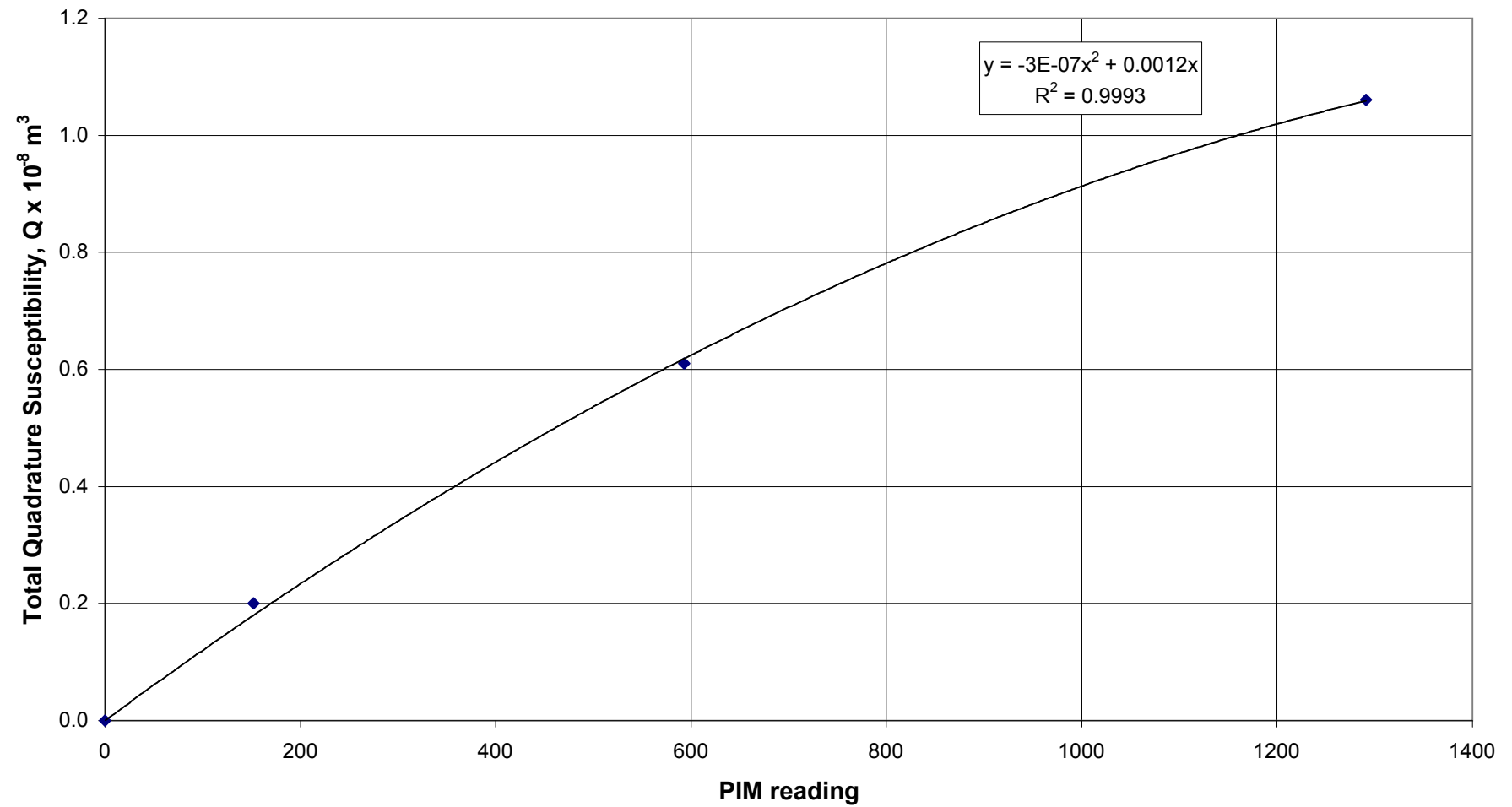
**TO DETERMINE MASS QUADRATURE SUSCEPTIBILITY AND MAGNETIC VISCOSITY OF
MYERS WOOD MW03 TRENCH M ARCHAEOMAGNETIC DATING REMAINDER MATERIAL**

<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	152	0.20	4.0	
BS87	50.00	593	0.61	12.2	
BS62	40.64	1291	1.06	26.1	
<u>Test samples</u>					
M329-1	39.55	753	0.73	19	2.9
M329-2	31.65	702	0.69	22	4.3
M329-3A	64.60	1236	1.02	16	2.9
M329-3B	63.12	1510	1.13	18	3.4
M329-5	55.86	1569	1.14	20	4.1
M329-6	59.78	1230	1.02	17	3.0
M329-7	3.06	56	0.07	22	3.6
M329-8	74.87	1338	1.07	14	3.2
M331-9	2.63	13	0.02	6	2.3
M331-10A	34.88	1984	1.20	34	2.6
M331-10B	30.10	1760	1.18	39	2.7
M331-10C	29.49	1722	1.18	40	2.8
M331-11	7.12	44	0.05	7	3.0
M331-12	48.53	760	0.74	15	2.6
M332-13	2.87	158	0.18	63	5.8
Mean	)			24	3.3
Median	)			19	3.0
Standard Deviation	+/-)			15	0.9

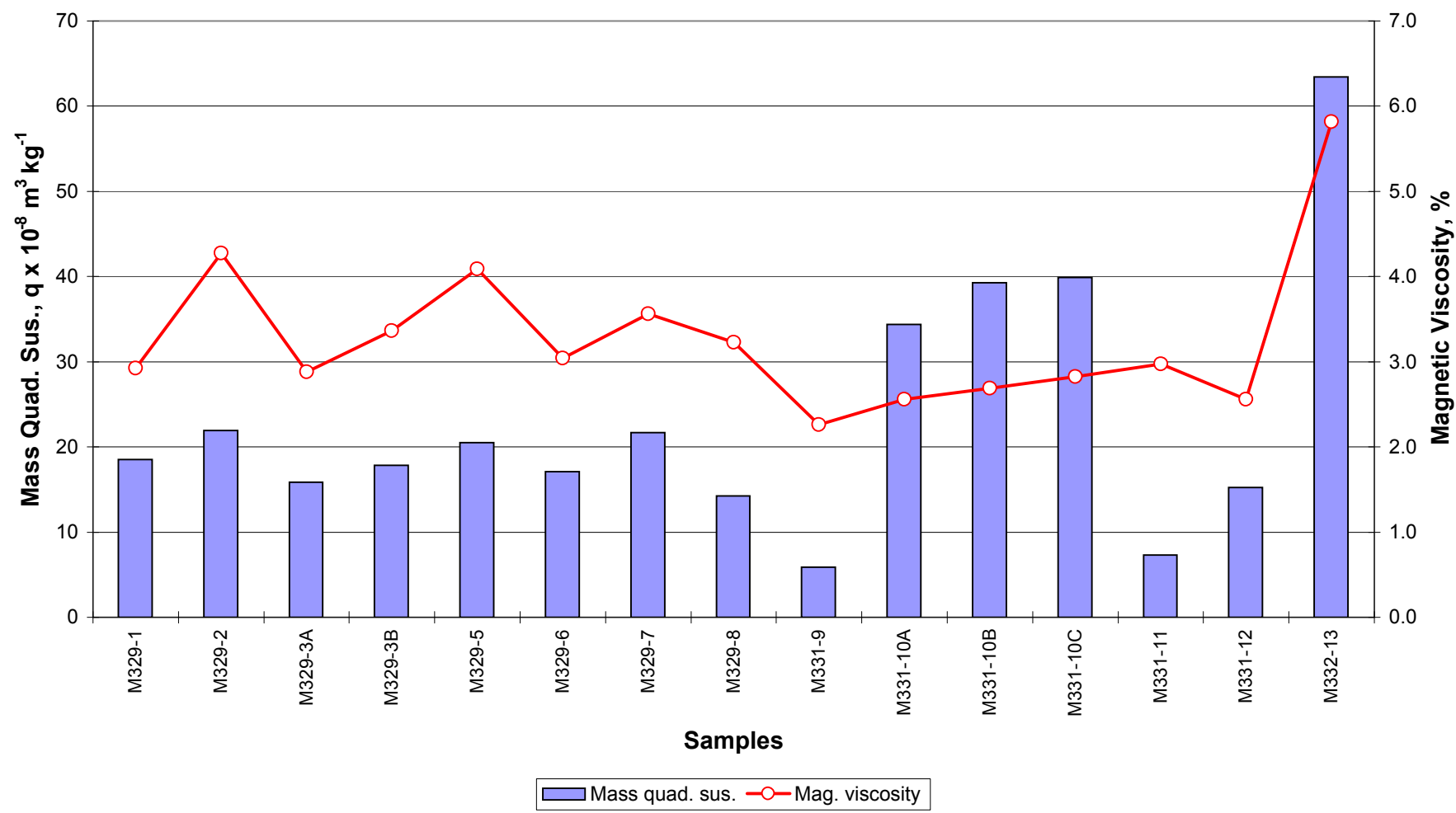
Chart data

Total quad.	PIM
0	0
0.20	152
0.61	593
1.06	1291

MW03 TRENCH M A.M.D. MATERIAL QUADRATURE SUSCEPTIBILITY CALIBRATION CURVE



MW03 TRENCH M A.M.D. MATERIAL
MASS QUADRATURE SUSCEPTIBILITY & MAGNETIC VISCOSITY



As-measured results

	Mass g	Total susceptibility $k_T \times 10^{-8} \text{ m}^3$	Total quad. sus. $Q \times 10^{-8} \text{ m}^3$
M329-1	39.55	25.09	0.73
M329-2	31.65	16.26	0.69
M329-3A	64.60	35.60	1.02
M329-3B	63.12	33.51	1.13
M329-5	55.86	27.98	1.14
M329-6	59.78	33.58	1.02
M329-7	3.06	1.86	0.07
M329-8	74.87	33.10	1.07
M331-9	2.63	0.69	0.02
M331-10A	34.88	46.92	1.20
M331-10B	30.10	43.95	1.18
M331-10C	29.49	41.66	1.18
M331-11	7.12	1.75	0.05
M331-12	48.53	28.86	0.74
M332-13	2.87	3.13	0.18

Recalculated results

	Mass g	Total susceptibility $k_T \times 10^{-8} \text{ m}^3$	Mass susceptibility $\chi \times 10^{-8} \text{ m}^3 \text{ kg}^{-1}$	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 %
M329-1	39.55	25.09	634	0.73	19	2.9
M329-2	31.65	16.26	514	0.69	22	4.3
M329-3	127.72	69.11	541	2.15	17	3.1
M329-5	55.86	27.98	501	1.14	20	4.1
M329-6	59.78	33.58	562	1.02	17	3.0
M329-7	3.06	1.86	608	0.07	22	3.6
M329-8	74.87	33.10	442	1.07	14	3.2
M329-9	2.63	0.69	261	0.02	6	2.3
M329-10	94.47	132.54	1403	3.56	38	2.7
M329-11	7.12	1.75	246	0.05	7	3.0
M329-12	48.53	28.86	595	0.74	15	2.6
M329-13	2.87	3.13	1091	0.18	63	5.8
Mean	)		616		22	3.4
Median	) All samples		551		18	3.1
Standard Deviation	+/-)		326		15	1.0