

**TO DETERMINE MASS SUSCEPTIBILITY OF MYERS WOOD MW03 TRENCH G
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	62.2	4.06	81.2
High alumina cement	50.00	534	35.80	716
<u>Test samples</u>				
G712-1	14.46	196	13.06	903
G712-2	17.42	257	17.17	985
G712-3	13.91	220	14.68	1055
G712-4	6.24	118	7.81	1252
G712-5	21.48	533	35.73	1664
G712-6A	16.68	348	23.29	1396
G712-6B	13.86	287	19.18	1384
G719-7	29.73	196	13.06	439
G719-8	41.19	366	24.50	595
G719-9	5.52	43.0	2.81	508
G719-10	33.46	132	8.76	262
G705-11A	8.27	50.0	3.26	395
G705-11B	24.77	222	14.81	598
G705-11C	20.82	166	11.04	530
G705-12	27.53	828	55.58	2019
Mean	)			932
Median	)			903
Standard Deviation	+/-)			521

Chart data

Total sus.	Meter	Total sus.	Meter
0	0		
4.06	62.2	4.06	62.2
		35.80	534

Slope & constant values as calculated by data trendline:

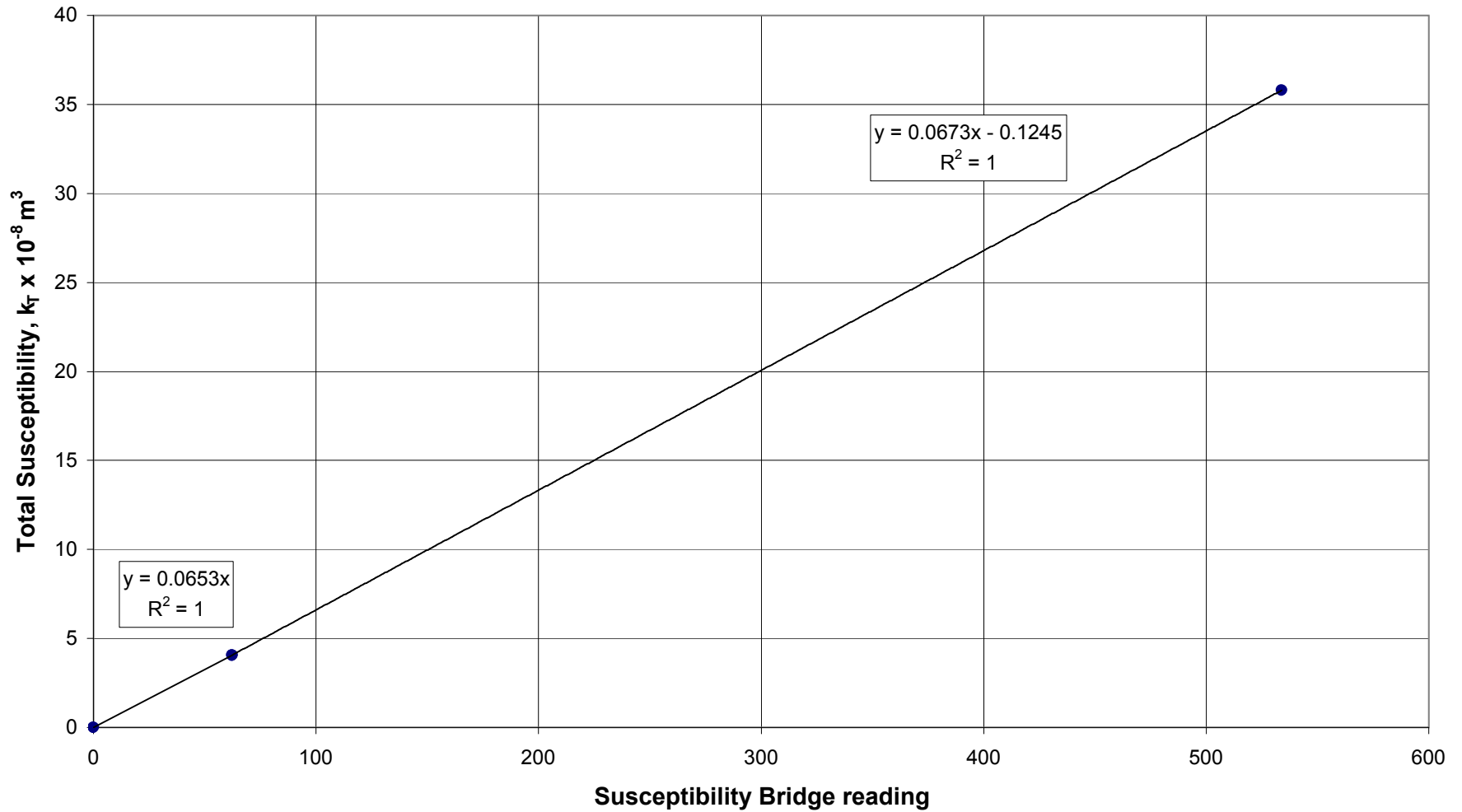
m	c	x	y
0.0653	0	62.2	4.0617
0.0673	-0.1245	62.2	4.0616
0.0673	-0.1245	534	35.8137

Slope & constant values as calculated from raw data:

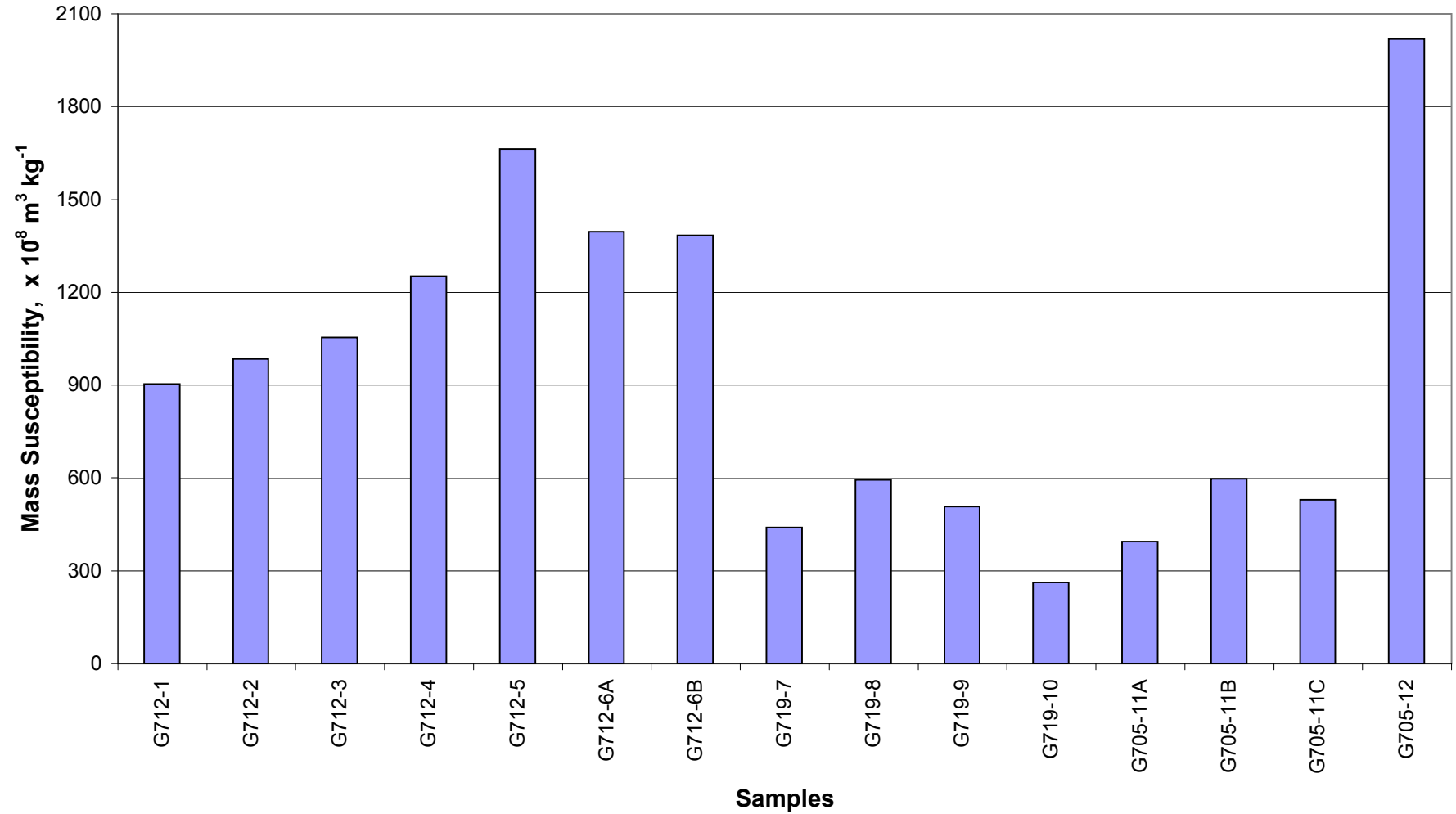
m	c	x	y
0.06527	0	62.2	4.06
0.06727	-0.12446	62.2	4.06
0.06727	-0.12446	534	35.80

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

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



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



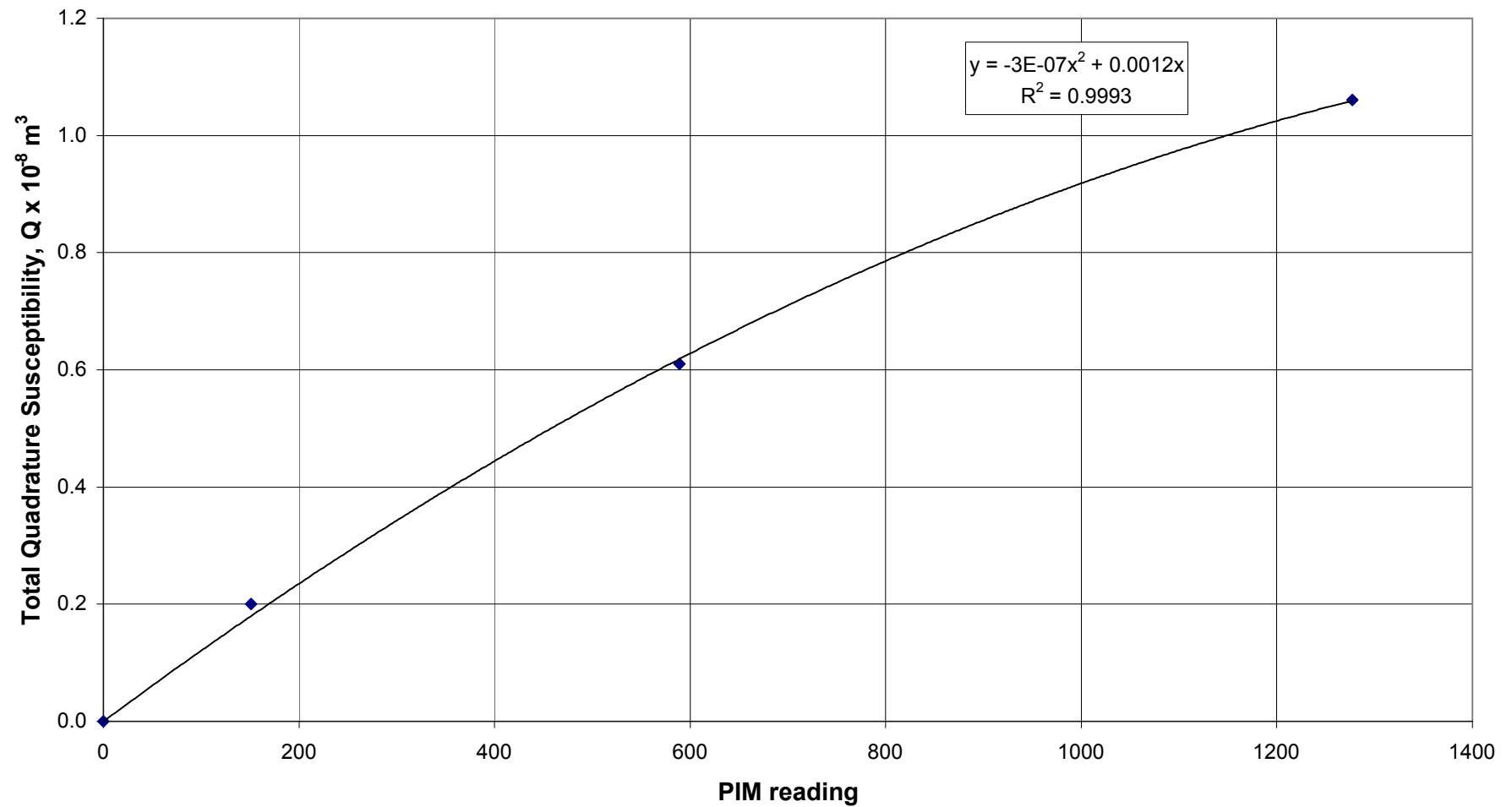
**TO DETERMINE MASS QUADRATURE SUSCEPTIBILITY AND MAGNETIC VISCOSITY OF
MYERS WOOD MW03 TRENCH G ARCHAEOMAGNETIC DATING REMAINDER MATERIAL**

<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	151	0.20	4.0	
BS87	50.00	589	0.61	12.2	
BS62	40.64	1277	1.06	26.1	
<u>Test samples</u>					
G712-1	14.46	770	0.75	52	5.7
G712-2	17.42	925	0.85	49	5.0
G712-3	13.91	700	0.69	50	4.7
G712-4	6.24	398	0.43	69	5.5
G712-5	21.48	1950	1.20	56	3.4
G712-6A	16.68	1540	1.14	68	4.9
G712-6B	13.86	1290	1.05	76	5.5
G719-7	29.73	800	0.77	26	5.9
G719-8	41.19	1585	1.15	28	4.7
G719-9	5.52	175	0.20	36	7.2
G719-10	33.46	460	0.49	15	5.6
G705-11A	8.27	16	0.02	2	0.6
G705-11B	24.77	136	0.16	6	1.1
G705-11C	20.82	164	0.19	9	1.7
G705-12	27.53	318	0.35	13	0.6
Mean	)			37	4.1
Median	)			36	4.9
Standard Deviation	+/-)			25	2.1

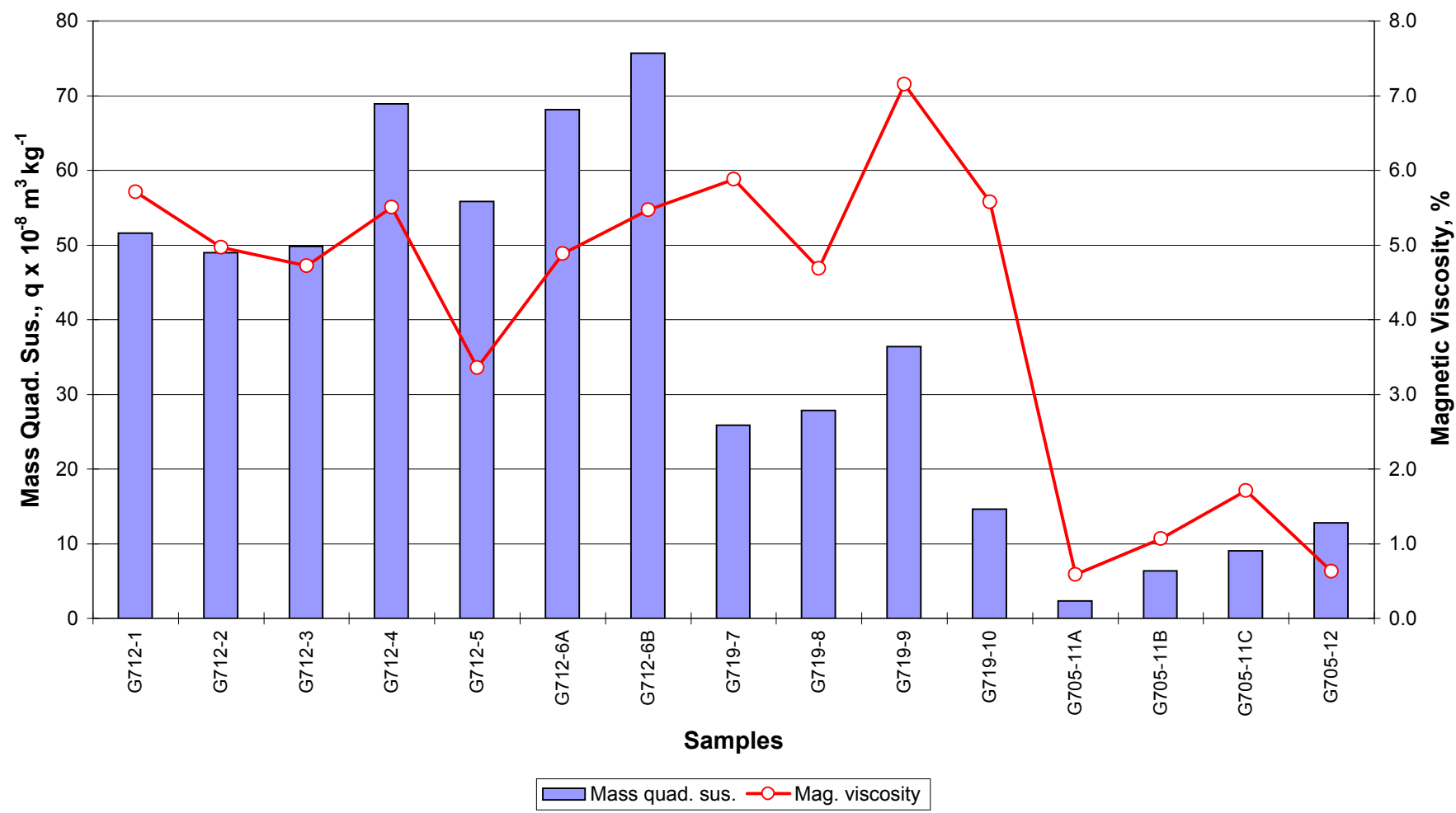
Chart data

Total quad.	PIM
0	0
0.20	151
0.61	589
1.06	1277

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



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



As-measured results

	Mass	Total susceptibility	Total quad. sus.
	g	$k_T \times 10^{-8} \text{ m}^3$	$Q \times 10^{-8} \text{ m}^3$
G712-1	14.46	13.06	0.75
G712-2	17.42	17.17	0.85
G712-3	13.91	14.68	0.69
G712-4	6.24	7.81	0.43
G712-5	21.48	35.73	1.20
G712-6A	16.68	23.29	1.14
G712-6B	13.86	19.18	1.05
G719-7	29.73	13.06	0.77
G719-8	41.19	24.50	1.15
G719-9	5.52	2.81	0.20
G719-10	33.46	8.76	0.49
G705-11A	8.27	3.26	0.02
G705-11B	24.77	14.81	0.16
G705-11C	20.82	11.04	0.19
G705-12	27.53	55.58	0.35

Recalculated results

	Mass	Total susceptibility	Mass susceptibility	Total quad. sus.	Mass quad. sus.	Magnetic
	g	$k_T \times 10^{-8} \text{ m}^3$	$\chi \times 10^{-8} \text{ m}^3 \text{ kg}^{-1}$	$Q \times 10^{-8} \text{ m}^3$	$q \times 10^{-8} \text{ m}^3 \text{ kg}^{-1}$	viscosity %
G712-1	14.46	13.06	903	0.75	52	5.7
G712-2	17.42	17.17	985	0.85	49	5.0
G712-3	13.91	14.68	1055	0.69	50	4.7
G712-4	6.24	7.81	1252	0.43	69	5.5
G712-5	21.48	35.73	1664	1.20	56	3.4
G712-6	30.54	42.47	1391	2.19	72	5.1
G719-7	29.73	13.06	439	0.77	26	5.9
G719-8	41.19	24.50	595	1.15	28	4.7
G719-9	5.52	2.81	508	0.20	36	7.2
G719-10	33.46	8.76	262	0.49	15	5.6
G705-11	53.86	29.12	541	0.37	7	1.3
G705-12	27.53	55.58	2019	0.35	13	0.6
Mean	)		968		39	4.6
Median	) All samples		944		43	5.1
Standard Deviation	+/-)		537		22	1.9