TO DETERMINE MASS SUSCEPTIBILITY OF MYERS WOOD MW03 TRENCH B CONTEXTS 267/270/271 ARCHAEOMAGNETIC DATING REMAINDER MATERIAL

Calibration samples	Mass	Bridge reading	Total susceptibility	Mass susceptibility
	g		$k_T \times 10^{-8}\ m^3$	$\chi \times 10^{-8}\ m^3\ kg^{-1}$
Manganese sulphate	50.00	61.9	4.06	81.2
High alumina cement	50.00	534	35.80	716
Test samples				
B270-1	19.08	250	16.71	876
B270-2	8.37	172	11.46	1369
B270-3	21.59	361	24.17	1119
B270-4A	15.42	419	28.07	1820
B270-4B	12.68	320	21.41	1689
B270-5A	20.92	418	28.00	1338
B270-5B	14.22	376	25.18	1771
B270-5C	15.18	402	26.93	1774
B270-6A	17.44	252	16.84	966
B270-6B	14.98	231	15.43	1030
B271-1A	30.98	460	30.82	995
B271-1B	29.55	446	29.88	1011
B271-2	15.75	300	20.07	1274
B271-3	7.35	146	9.71	1322
B271-4A	17.62	468	31.36	1780
B271-4B	14.66	308	20.61	1406
B271-5A	14.62	424	28.40	1943
B271-5B	12.32	482	32.30	2622
B271-6	8.32	109	7.23	869
B267-9	10.89	588	39.43	3621
B267-10	12.38	628	42.12	3402

Mean	)	1619
Median	)	1369
Standard Deviation +/-	)	765

Chart data

Total sus.	Meter	Total sus.	Meter
0	0		
4.06	61.9	4.06	61.9
		35.80	534

Slope & constant values as calculated by data trendline:

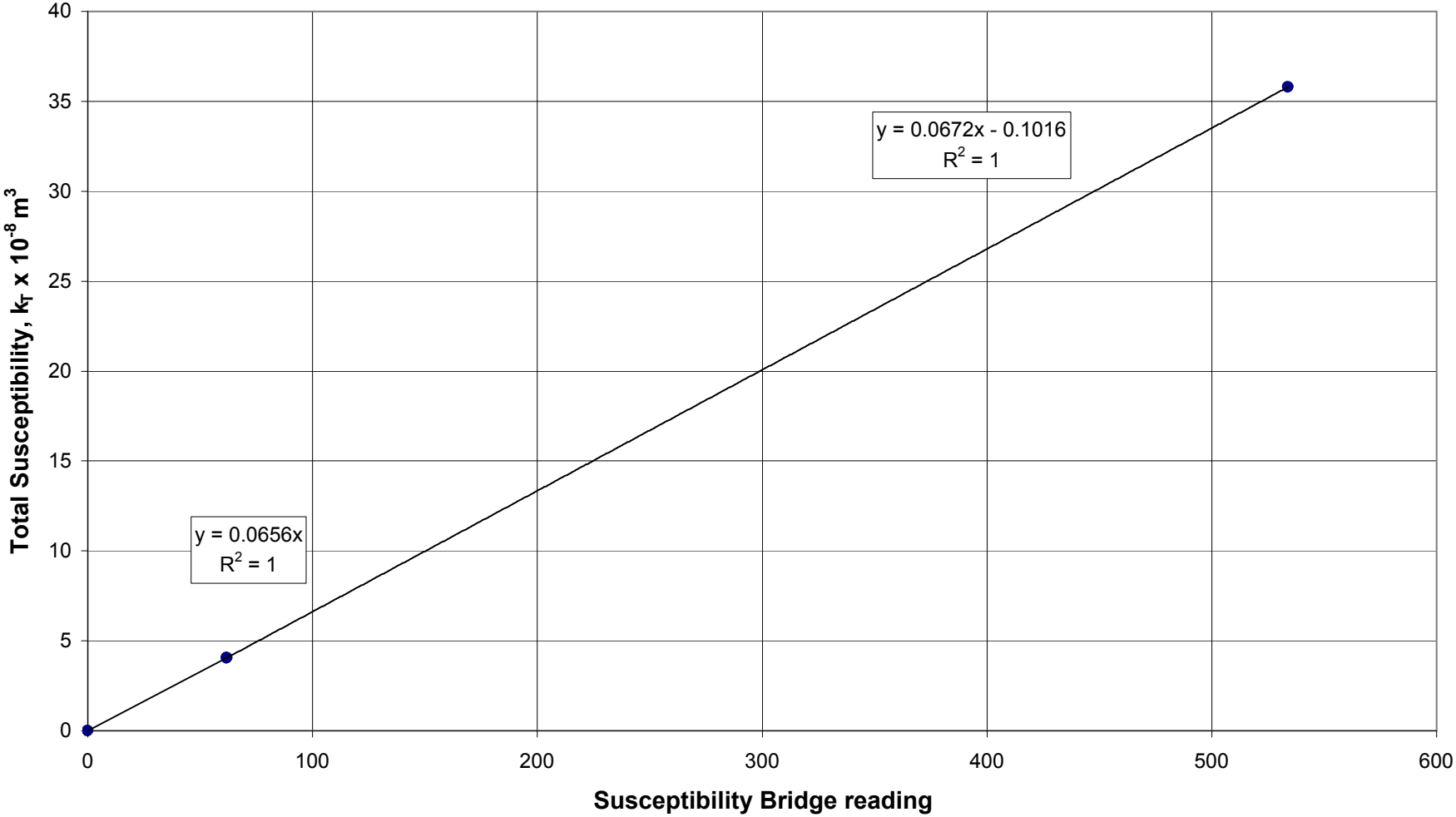
m	c	x	y
0.0656	0	61.9	4.0606
0.0672	-0.1016	61.9	4.0581
0.0672	-0.1016	534	35.7832

Slope & constant values as calculated from raw data:

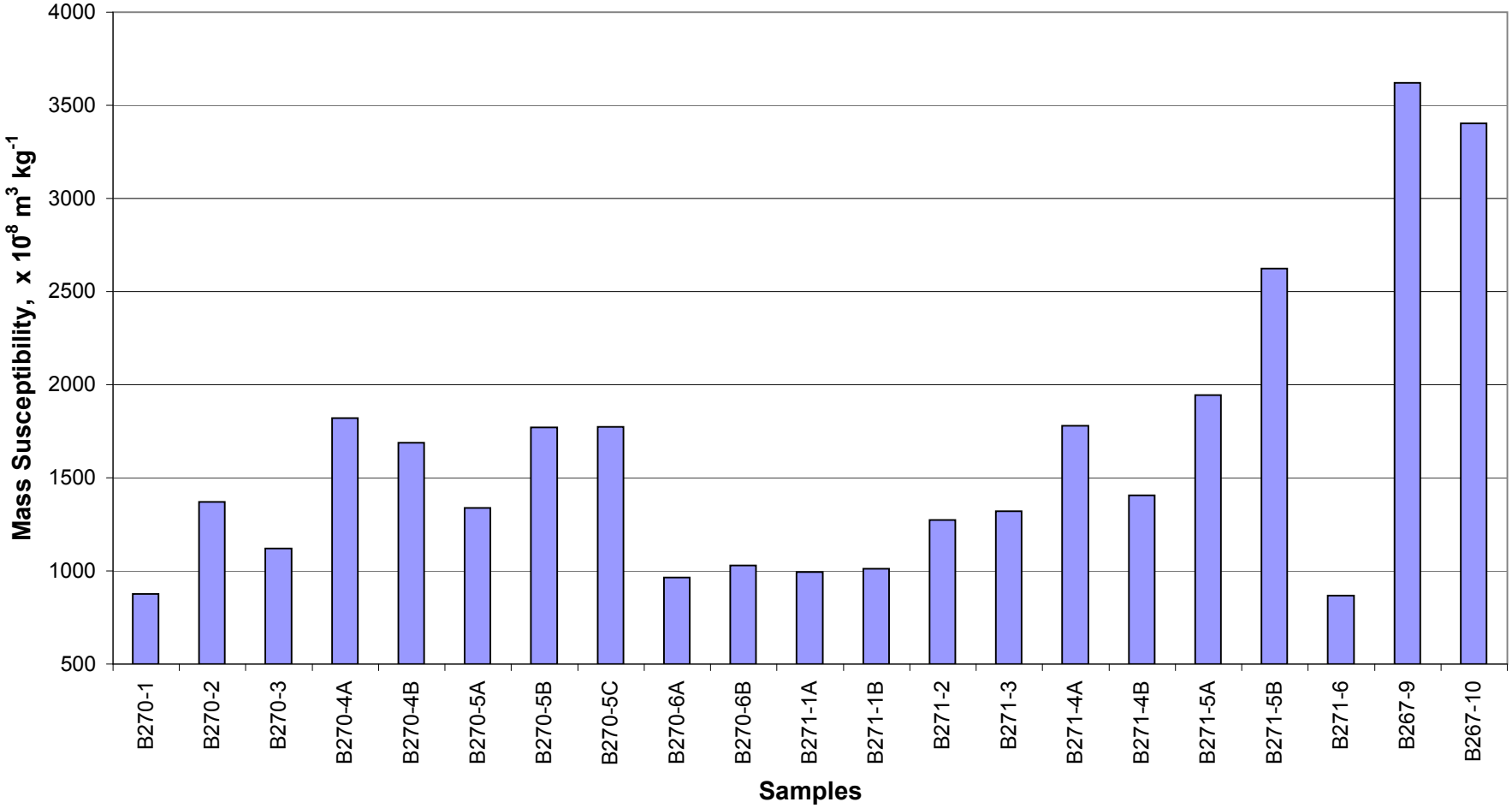
m	c	x	y
0.06559	0	61.9	4.06
0.06723	-0.10163	61.9	4.06
0.06723	-0.10163	534	35.80

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

MW03 TRENCH B CONTEXTS 267/270/271 A.M.D. MATERIAL SUSCEPTIBILITY CALIBRATION CURVE



MW03 TRENCH B CONTEXTS 267/270/271 A.M.D. MATERIAL MASS SUSCEPTIBILITY



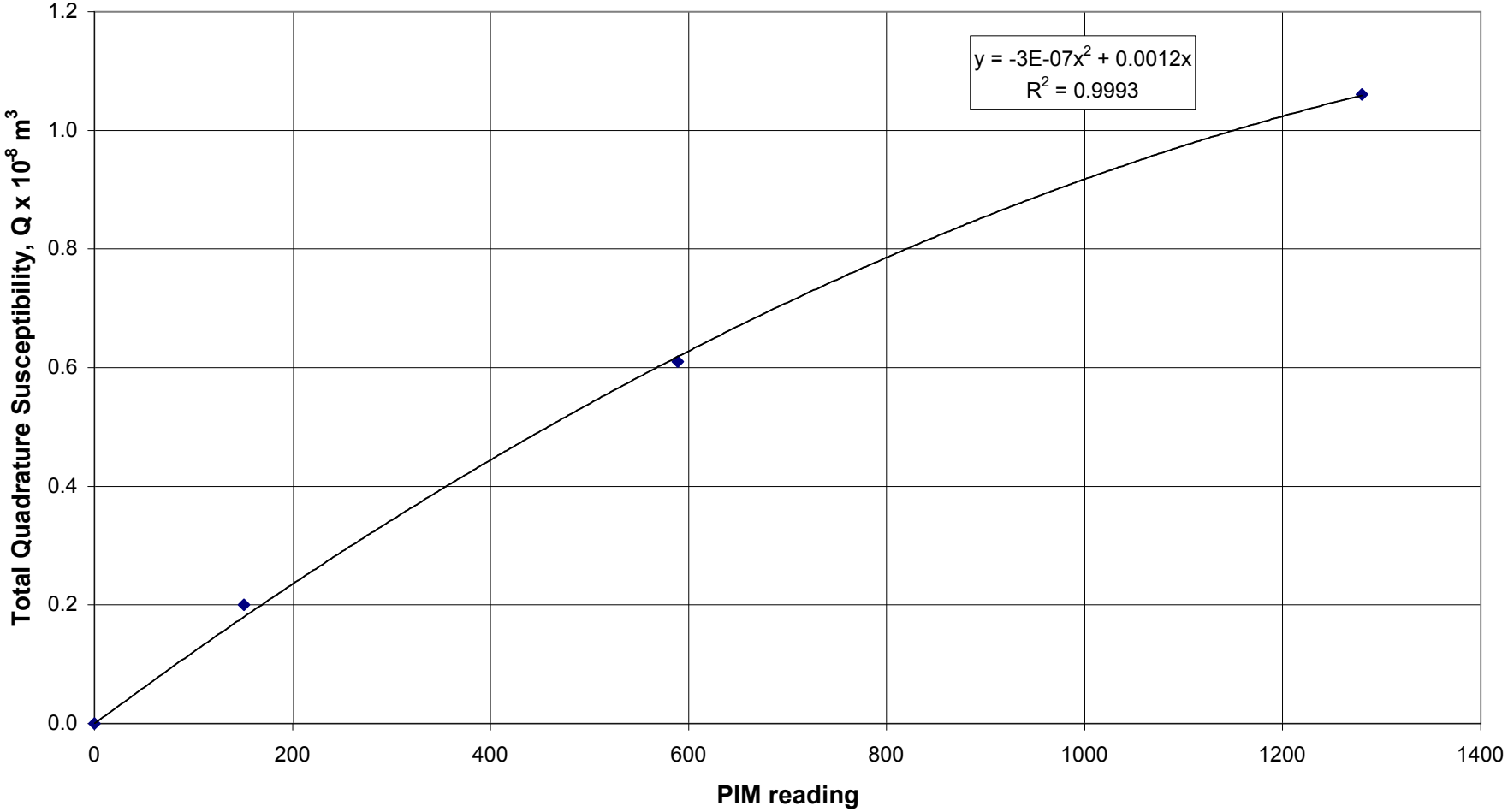
TO DETERMINE MASS QUADRATURE SUSCEPTIBILITY AND MAGNETIC VISCOSITY OF MYERS WOC
MW03 TRENCH B CONTEXTS 267/270/271 ARCHAEOMAGNETIC DATING REMAINDER MATERIA

Calibration samples	Mass g	PIM reading	Total quad. sus. $Q \times 10^{-8}\ m^3$	Mass quad. sus. $q \times 10^{-8}\ m^3\ kg^{-1}$	Magnetic viscosity %
High alumina cement	50.00	151	0.20	4.0	
BS87	50.00	589	0.61	12.2	
BS62	40.64	1280	1.06	26.1	
Test samples					
B270-1	19.08	970	0.88	46	5.3
B270-2	8.37	804	0.77	92	6.7
B270-3	21.59	1840	1.19	55	4.9
B270-4A	15.42	1760	1.18	77	4.2
B270-4B	12.68	1460	1.11	88	5.2
B270-5A	20.92	1770	1.18	57	4.2
B270-5B	14.22	1708	1.17	83	4.7
B270-5C	15.18	1940	1.20	79	4.5
B270-6A	17.44	1244	1.03	59	6.1
B270-6B	14.98	1140	0.98	65	6.3
B271-1A	30.98	1930	1.20	39	3.9
B271-1B	29.55	1994	1.20	41	4.0
B271-2	15.75	660	0.66	42	3.3
B271-3	7.35	264	0.30	40	3.0
B271-4A	17.62	1996	1.20	68	3.8
B271-4B	14.66	1460	1.11	76	5.4
B271-5A	14.62	1907	1.20	82	4.2
B271-5B	12.32	1902	1.20	97	3.7
B271-6	8.32	202	0.23	28	3.2
B267-9	10.89	320	0.35	32	0.9
B267-10	12.38	340	0.37	30	0.9
Mean	)			61	4.2
Median	)			59	4.2
Standard Deviation +/-	)			22	1.5

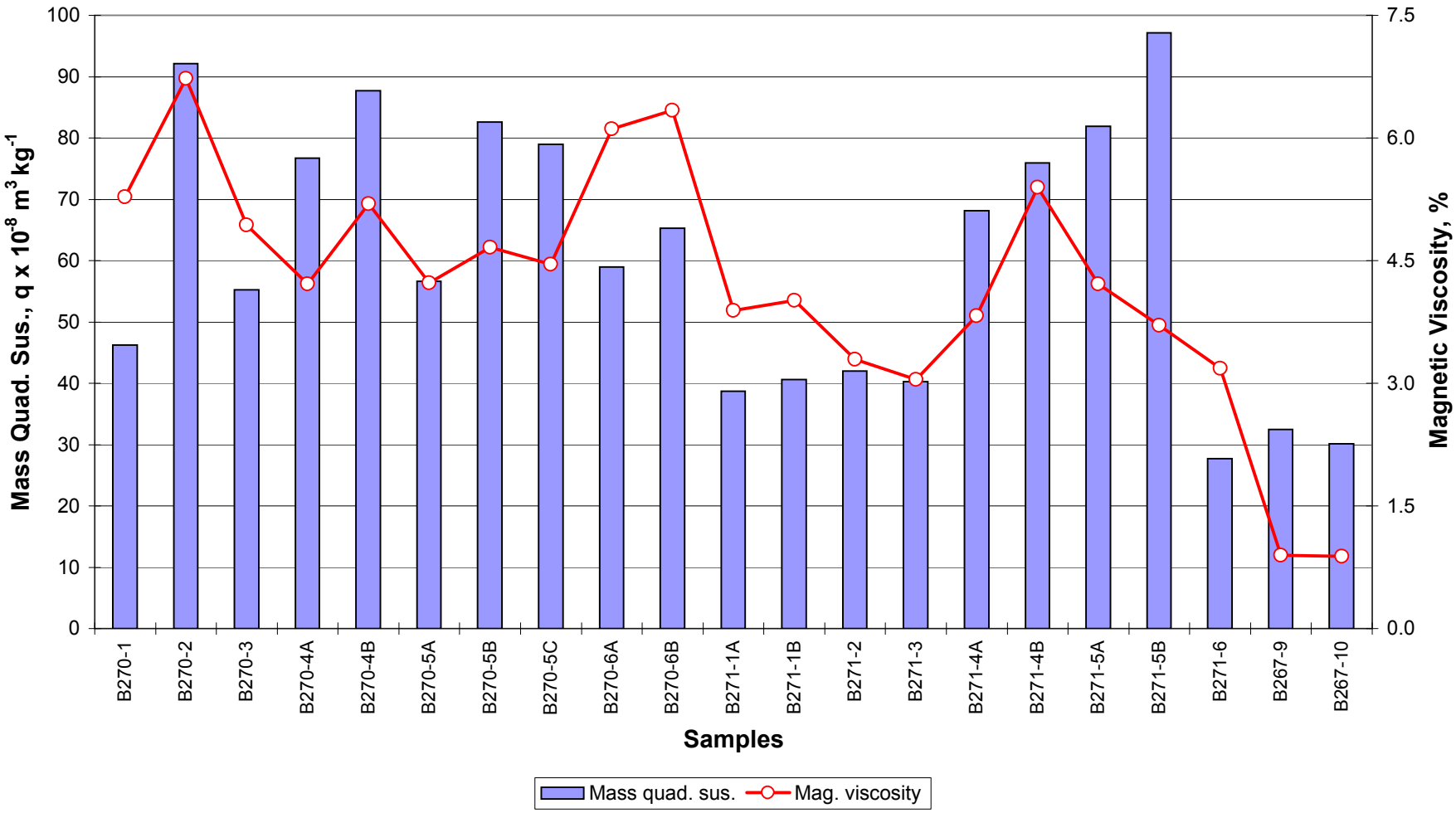
Chart data

Total quad.	PIM
0	0
0.20	151
0.61	589
1.06	1280

MW03 TRENCH B CONTEXTS 267/270/271 A.M.D. MATERIAL
QUADRATURE SUSCEPTIBILITY CALIBRATION CURVE



MW03 TRENCH B CONTEXTS 267/270/271 A.M.D. MATERIAL
MASS QUADRATURE SUSCEPTIBILITY & MAGNETIC VISCOSITY



As-measured results

	Mass	Total susceptibility	Total quad. sus.
	g	k_T x 10^{-8} m^3	Q x 10-8 m3
B270-1	19.08	16.71	0.88
B270-2	8.37	11.46	0.77
B270-3	21.59	24.17	1.19
B270-4A	15.42	28.07	1.18
B270-4B	12.68	21.41	1.11
B270-5A	20.92	28.00	1.18
B270-5B	14.22	25.18	1.17
B270-5C	15.18	26.93	1.20
B270-6A	17.44	16.84	1.03
B270-6B	14.98	15.43	0.98
B271-1A	30.98	30.82	1.20
B271-1B	29.55	29.88	1.20
B271-2	15.75	20.07	0.66
B271-3	7.35	9.71	0.30
B271-4A	17.62	31.36	1.20
B271-4B	14.66	20.61	1.11
B271-5A	14.62	28.40	1.20
B271-5B	12.32	32.30	1.20
B271-6	8.32	7.23	0.23
B267-9	10.89	39.43	0.35
B267-10	12.38	42.12	0.37

Recalculated results

	Mass	Total susceptibility	Mass susceptibility	Total quad. sus.	Mass quad. sus.	Magnetic
	g	k_T x 10^{-8} m^3	χ x 10^{-8} m^3 kg^{-1}	Q x 10^{-8} m^3	q x 10^{-8} m^3 kg^{-1}	viscosity
						%
B270-1	19.08	16.71	876	0.88	46	5.3
B270-2	8.37	11.46	1369	0.77	92	6.7
B270-3	21.59	24.17	1119	1.19	55	4.9
B270-4	28.10	49.48	1761	2.30	82	4.6
B270-5	50.32	80.10	1592	3.56	71	4.4
B270-6	32.42	32.27	995	2.01	62	6.2
B271-1	60.53	60.71	1003	2.40	40	4.0
B271-2	15.75	20.07	1274	0.66	42	3.3
B271-3	7.35	9.71	1322	0.30	40	3.0
B271-4	32.28	51.97	1610	2.31	72	4.4
B271-5	26.94	60.71	2253	2.39	89	3.9
B271-6	8.32	7.23	869	0.58	70	8.1
B267-9	10.89	39.43	3621	0.35	32	0.9
B267-10	12.38	42.12	3402	0.37	30	0.9
Mean		)	1648		59	4.3
Median		) All samples	1346		59	4.4
Standard Deviation	+/-	)	877		21	2.0