

**TO DETERMINE MASS SUSCEPTIBILITY OF ROASTED ORE FROM MYERS WOOD  
TRENCH A ORE ROASTING AREA**

| <u>Calibration samples</u> | Mass<br>g | Bridge reading | Total susceptibility<br>$K_T \times 10^{-8} \text{ m}^3$ | Mass susceptibility<br>$\chi \times 10^{-8} \text{ m}^3 \text{ kg}^{-1}$ |
|----------------------------|-----------|----------------|----------------------------------------------------------|--------------------------------------------------------------------------|
| Manganese sulphate         | 50.00     | 61.6           | 4.06                                                     | 81.2                                                                     |
| High alumina cement        | 50.00     | 542            | 35.80                                                    | 716                                                                      |
| <u>Test samples</u>        |           |                |                                                          |                                                                          |
| MWA G1                     | 2.00      | 670            | 44.26                                                    | 22128                                                                    |
| MWA G3A                    | 3.17      | 1020           | 67.38                                                    | 21256                                                                    |
| MWA G5                     | 3.39      | 850            | 56.15                                                    | 16563                                                                    |
| MWA H1A                    | 13.66     | 84             | 5.54                                                     | 406                                                                      |
| MWA H1B                    | 9.99      | 247            | 16.31                                                    | 1633                                                                     |
| MWA H1C                    | 3.38      | 220            | 14.53                                                    | 4297                                                                     |
| MWA H1D                    | 4.66      | 1540           | 101.74                                                   | 21832                                                                    |
| MWA H1E                    | 6.53      | 1880           | 124.20                                                   | 19020                                                                    |
| MWA H1F                    | 3.59      | 605            | 39.96                                                    | 11132                                                                    |
| MWA H1G                    | 1.97      | 255            | 16.84                                                    | 8547                                                                     |
| MWA H1H                    | 1.51      | 601            | 39.70                                                    | 26290                                                                    |
| MWA H1I                    | 1.25      | 825            | 54.50                                                    | 43598                                                                    |
| MWA H3A                    | 1.20      | 464            | 30.65                                                    | 25539                                                                    |
| MWA H4A                    | 0.49      | 320            | 21.13                                                    | 43127                                                                    |
| MWA H5A                    | 1.92      | 1165           | 76.96                                                    | 40084                                                                    |
| MWA H5B                    | 14.01     | 242            | 15.98                                                    | 1141                                                                     |
| Mean                       | )         |                |                                                          | 19162                                                                    |
| Median                     | )         |                |                                                          | 20138                                                                    |
| Standard Deviation         | +/- )     |                |                                                          | 14398                                                                    |

#### Chart data

| Total sus. | Meter | Total sus. | Meter |
|------------|-------|------------|-------|
| 0          | 0     |            |       |
| 4.06       | 61.6  | 4.06       | 61.6  |
|            |       | 35.80      | 542   |

Slope & constant values as calculated by data trendline:

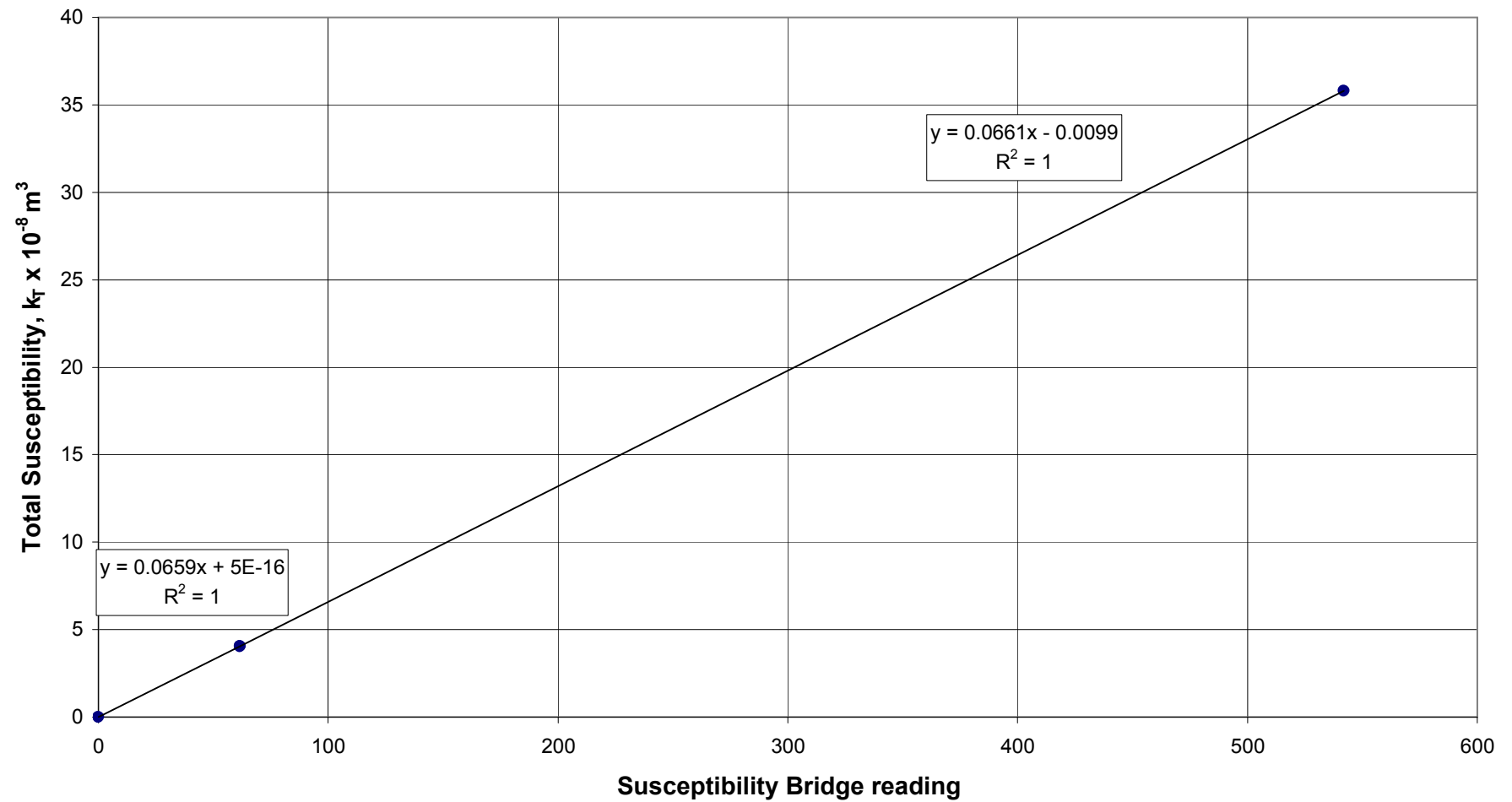
| m      | c       | x    | y       |
|--------|---------|------|---------|
| 0.0659 | 0       | 61.6 | 4.0594  |
| 0.0661 | -0.0099 | 61.6 | 4.0619  |
| 0.0661 | -0.0099 | 542  | 35.8163 |

Slope & constant values as calculated from raw data:

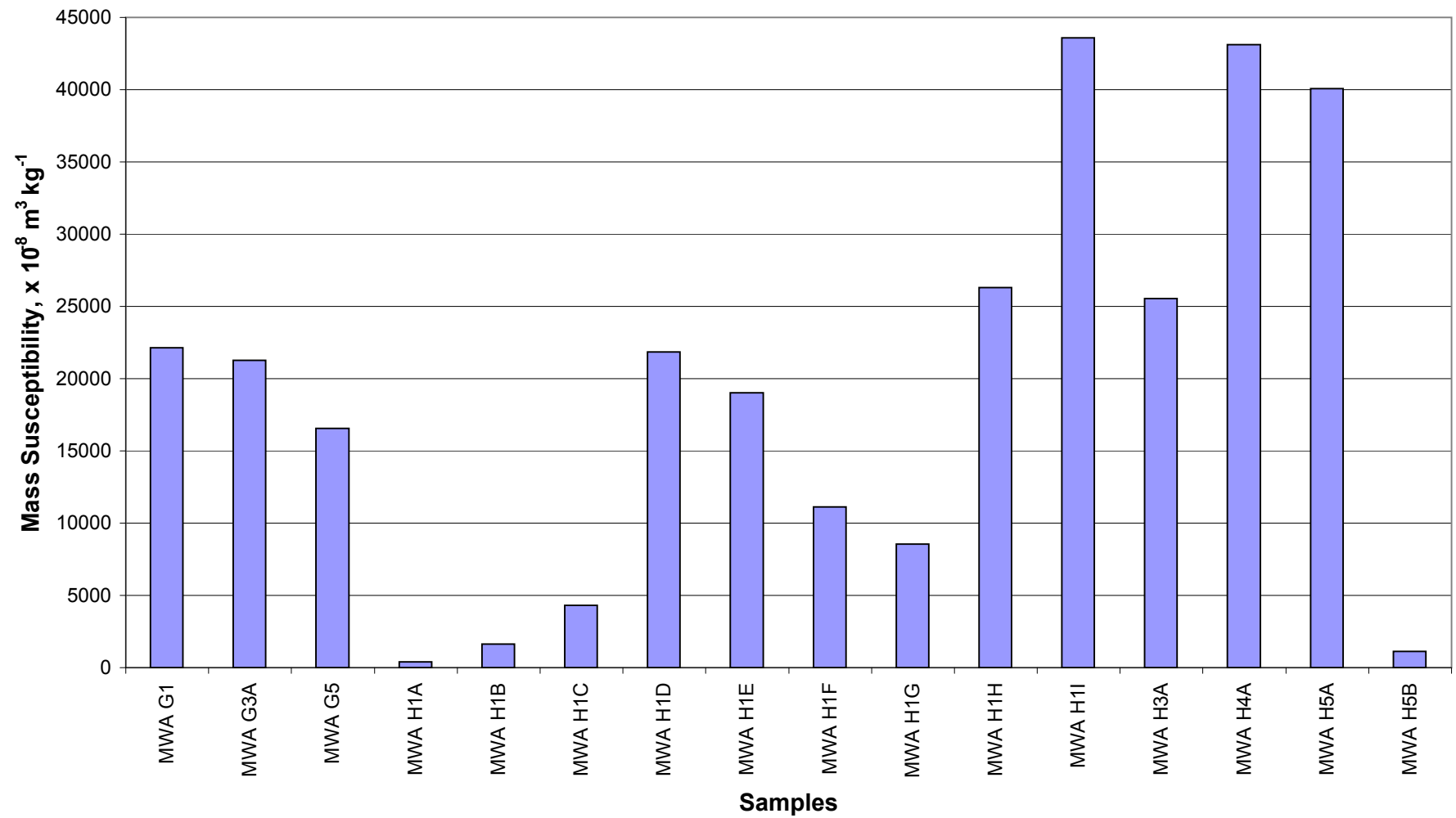
| m       | c        | x    | y     |
|---------|----------|------|-------|
| 0.06591 | 0        | 61.6 | 4.06  |
| 0.06607 | -0.00991 | 61.6 | 4.06  |
| 0.06607 | -0.00991 | 542  | 35.80 |

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

## MYERS WOOD ROASTED ORE SAMPLES SUSCEPTIBILITY CALIBRATION CURVE



## MYERS WOOD ROASTED ORE SAMPLES MASS SUSCEPTIBILITY



**TO DETERMINE MASS QUADRATURE SUSCEPTIBILITY AND MAGNETIC VISCOSITY OF  
ROASTED ORE FROM MYERS WOOD TRENCH A ORE ROASTING AREA**

| <u>Calibration samples</u> | Mass<br>g | PIM reading | Total quad. sus.<br>$Q \times 10^{-8} \text{ m}^3$ | Mass quad. sus.<br>$q \times 10^{-8} \text{ m}^3 \text{ kg}^{-1}$ | Magnetic<br>viscosity<br>% |
|----------------------------|-----------|-------------|----------------------------------------------------|-------------------------------------------------------------------|----------------------------|
| High alumina cement        | 50.00     | 174         | 0.20                                               | 4.0                                                               |                            |
| BS87                       | 50.00     | 666         | 0.61                                               | 12.2                                                              |                            |
| BS62                       | 38.20     | 1510        | 1.00                                               | 26.1                                                              |                            |
| <u>Test samples</u>        | Type      |             |                                                    |                                                                   |                            |
| MWA G1                     | 2.00      | 1390        | 2.11                                               | 1054                                                              | 4.8                        |
| MWA G3A                    | 3.17      | 1999        | 3.40                                               | 1072                                                              | 5.0                        |
| MWA G5                     | 3.39      | 1999        | 3.40                                               | 1002                                                              | 6.1                        |
| MWA H1A                    | 13.66     | 135         | 0.15                                               | 11                                                                | 2.8                        |
| MWA H1B                    | 9.99      | 846         | 1.15                                               | 115                                                               | 7.0                        |
| MWA H1C                    | 3.38      | 769         | 1.02                                               | 303                                                               | 7.0                        |
| MWA H1D                    | 4.66      | 1999        | 3.40                                               | 729                                                               | 3.3                        |
| MWA H1E                    | 6.53      | 1730        | 2.80                                               | 429                                                               | 2.3                        |
| MWA H1F                    | 3.59      | 944         | 1.31                                               | 364                                                               | 3.3                        |
| MWA H1G                    | 1.97      | 645         | 0.83                                               | 424                                                               | 5.0                        |
| MWA H1H                    | 1.51      | 930         | 1.28                                               | 849                                                               | 3.2                        |
| MWA H1I                    | 1.25      | 1100        | 1.57                                               | 1258                                                              | 2.9                        |
| MWA H3A                    | 1.20      | 1040        | 1.47                                               | 1224                                                              | 4.8                        |
| MWA H4A                    | 0.49      | 848         | 1.15                                               | 2344                                                              | 5.4                        |
| MWA H5A                    | 1.92      | 1999        | 3.40                                               | 1770                                                              | 4.4                        |
| MWA H5B                    | 14.01     | 1250        | 1.84                                               | 132                                                               | 11.5                       |
| Mean                       | )         |             |                                                    | 817                                                               | 4.9                        |
| Median                     | )         |             |                                                    | 789                                                               | 4.8                        |
| Standard Deviation         | +/- )     |             |                                                    | 640                                                               | 2.3                        |

Chart data

| Total quad. | PIM  |
|-------------|------|
| 0           | 0    |
| 0.20        | 174  |
| 0.61        | 666  |
| 1.00        | 1510 |

## MYERS WOOD ROASTED ORE SAMPLES QUADRATURE SUSCEPTIBILITY CALIBRATION CURVE

