

Orebody Modelling for Exploration: The Western Mineralisation, Broken Hill

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B.S. (Honours) in Accounting

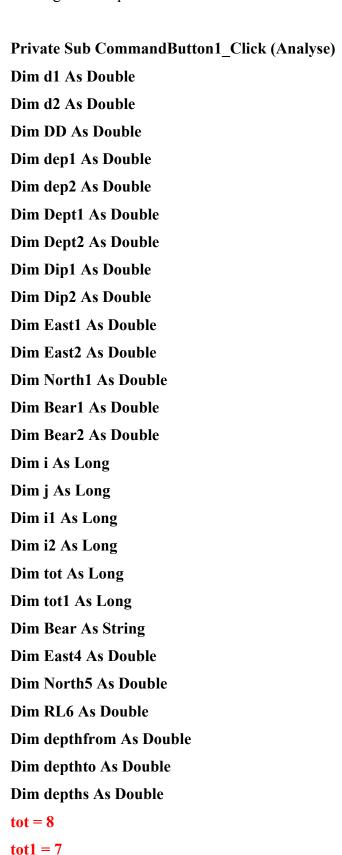
B.S. (Honours) in Mining Engineering (Exploration)

M.S. in Mining Engineering (Exploration)

Geology and Geophysics School of Earth and Environmental Sciences The University of Adelaide

Thesis submitted as fulfilment of the requirements for the degree of Doctor of Philosophy in the Faculty of Science, University of Adelaide

The VBA codes of "Analyse" program for calculation of the spatial coordinates of each investigated samples of the Western Mineralisation



For i = 2 To tot

```
Do
  Bear = Worksheets ("sheet1").Cells (i, 2)
  Dip = Worksheets ("sheet1").Cells (i, 3)
  If (Bear <> "") Then
   Exit Do
  End If
  i = i + 1
 Loop
  Bear1 = Worksheets ("sheet1").Cells (i, 2)
Dip1 = Worksheets ("sheet1").Cells (i, 3)
 dep1 = Worksheets ("sheet1").Cells (i, 1)
 i1 = i
 i = i + 1
 Do
  Bear = Worksheets ("sheet1").Cells (i, 2)
  Dip = Worksheets ("sheet1").Cells (i, 3)
  If (Bear <> "") Then
   Exit Do
  End If
  i = i + 1
 Loop
Bear2 = Worksheets ("sheet1").Cells (i, 2)
 Dip2 = Worksheets ("sheet1").Cells (i, 3)
 dep2 = Worksheets ("sheet1").Cells (i, 1)
 i2 = i
 For j = i1 To i2
   DD = Worksheets ("sheet1").Cells (j, 1)
   d1 = (DD - dep1) * (Bear2 - Bear1) / (dep2 - dep1)
   d2 = (DD - dep1) * (Dip2 - Dip1) / (dep2 - dep1)
   Worksheets ("sheet1"). Cells (j, 2) = Bear1 + d1
   Worksheets ("sheet1"). Cells (j, 3) = Dip1 + d2
 Next
 If (i \ge tot) Then
 Else
  i = i - 1
```

```
End If
Next
For i = 2 To tot
Dept1 = Worksheets ("sheet1").Cells (i, 1)
Dept2 = Worksheets ("sheet1"). Cells (i + 1, 1)
Dip1 = Worksheets ("sheet1").Cells (i, 3)
Dip2 = Worksheets ("sheet1"). Cells (i + 1, 3)
Bear1 = Worksheets ("sheet1").Cells (i, 2)
Bear2 = Worksheets ("sheet1"). Cells (i + 1, 2)
East1 = Worksheets ("sheet1").Cells (i, 4)
East = East1 - (Dept2 - Dept1) * Sin ((Dip2 - 90) / 57.295779531) * Sin (Bear2 /
57.2957795)
Worksheets ("sheet1"). Cells (i + 1, 4) = East
North1 = Worksheets ("sheet1").Cells (i, 5)
North = North1 - (Dept2 - Dept1) * Sin ((Dip2 - 90) / 57.295779531) * Cos (Bear2 /
57.2957795)
Worksheets ("sheet1"). Cells (i + 1, 5) = North
RL1 = Worksheets ("sheet1").Cells (i, 6)
RL = RL1 - Cos ((90 - Dip2) / 57.295779531) * (Dept2 - Dept1)
Worksheets ("sheet1"). Cells (i + 1, 6) = RL
Worksheets ("sheet1"). Cells (i + 1, 7) = Dept2 - Dept1
Next
For i = 2 To tot
East1 = Worksheets ("sheet1").Cells (i, 4)
East = Worksheets ("sheet1"). Cells (i + 1, 4)
North1 = Worksheets ("sheet1").Cells (i, 5)
North = Worksheets ("sheet1"). Cells (i + 1, 5)
RL1 = Worksheets ("sheet1").Cells (i, 6)
RL = Worksheets ("sheet1").Cells (i + 1, 6)
L = (East - East1) ^2 + (North - North1) ^2 + (RL - RL1) ^2
Worksheets ("sheet1"). Cells (i + 1, 8) = L \wedge (1/2)
Next
For j = 2 To tot1
```

depthfrom = Worksheets("sheet2").Cells(j, 1)

For i = 2 To tot

```
depths = Worksheets("sheet1").Cells(i, 1)
```

If (depthfrom = depths) Then

East4 = Worksheets ("sheet1").Cells (i, 4)

North5 = Worksheets ("sheet1").Cells (i, 5)

RL6 = Worksheets ("sheet1").Cells (i, 6)

Worksheets ("sheet2"). Cells (j, 3) = East4

Worksheets ("sheet2"). Cells (j, 4) = North5

Worksheets ("sheet2"). Cells (j, 5) = RL6

End If

Next

Next

For j = 2 To tot1

depthto = Worksheets("sheet2").Cells(j, 2)

For i = 2 To tot

depths = Worksheets("sheet1").Cells(i, 1)

If (depths = depthto) Then

East4 = Worksheets ("sheet1").Cells (i, 4)

North5 = Worksheets ("sheet1").Cells (i, 5)

RL6 = Worksheets ("sheet1").Cells (i, 6)

Worksheets ("sheet2").Cells (j, 6) = East4

Worksheets ("sheet2"). Cells (j, 7) = North5

Worksheets ("sheet2"). Cells (j, 8) = RL6

End If

Next

Next

End Sub

Table A.1: An example of the entry data (red values) and the calculated data (black values) in Excel Sheet 1 after running the Analyse code.

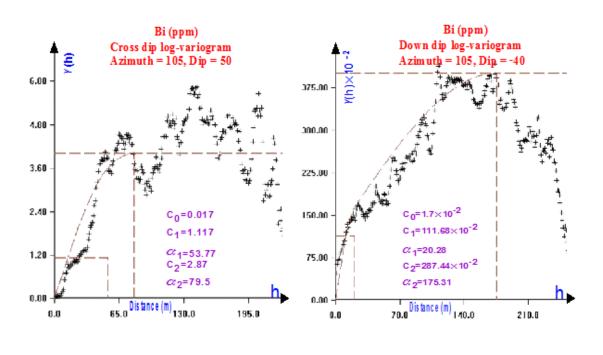
Depth	Bearing	Dip	Easting	Northing	RL		Estimated distance
0.0	270	0	-677.5	726	-85.98		
0.9	270	0	-678.4	726	-85.98	0.9	0.9
1.5	270	0	-679.0	726	-85.98	0.6	0.6
2.6	270	0	-680.1	726	-85.98	1.1	1.1
2.8	270	0	-680.3	726	-85.98	0.2	0.2
4.6	270	0	-682.1	726	-85.98	1.8	1.8
6.6	270	0	-684.1	726	-85.98	2.0	2.0

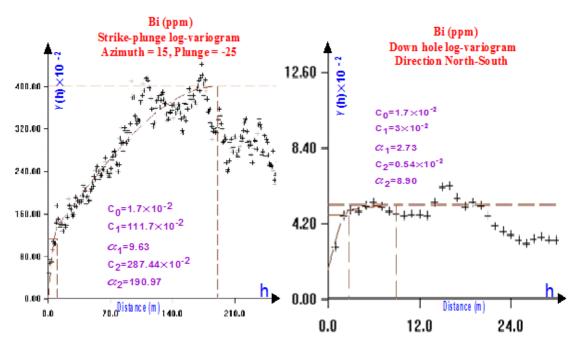
Table A.2: An example of the entry data (red values) and the calculated data (black values) in Excel Sheet 2 after running the Analyse code.

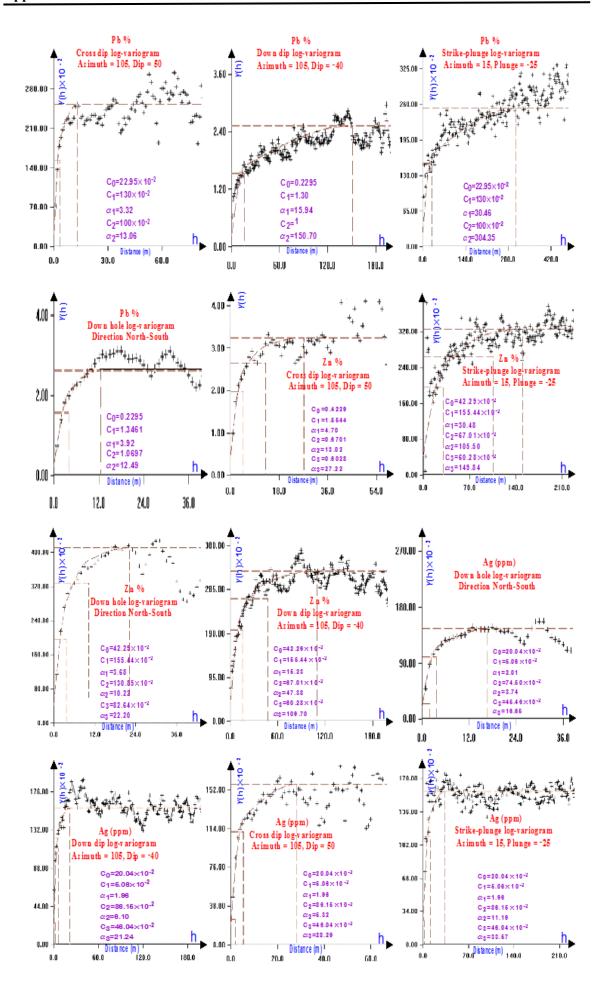
From	То	East-From	North-From	RL-From	East-To	North-To	RL-To
0.0	0.9	-677.5	726	-85.98	-678.4	726	-85.98
0.9	1.5	-678.4	726	-85.98	-679.0	726	-85.98
1.50	2.6	-679.0	726	-85.98	-680.1	726	-85.98
2.6	2.8	-680.1	726	-85.98	-680.3	726	-85.98
2.8	4.6	-680.3	726	-85.98	-682.1	726	-85.98
4.6	6.6	-682.1	726	-85.98	-684.1	726	-85.98

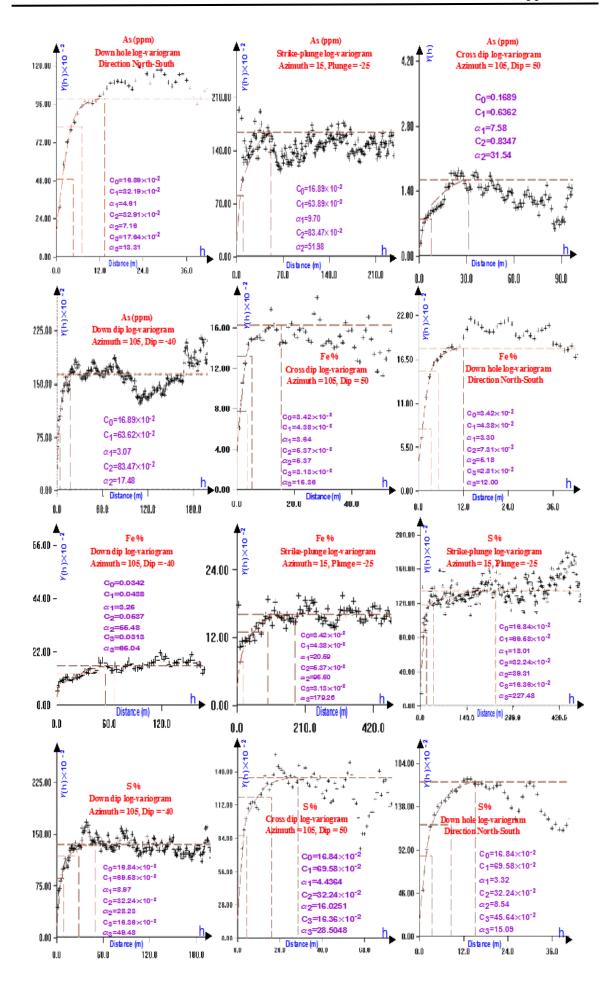
In order to convert the calculated values of Tables A.1 and A.2 to local territory of the Western Mineralisation, the 10000, 1000 and 10000 should be added to the easting, northing and RL data of those Tables respectively (Sections 2.2.1 and 2.2.2).

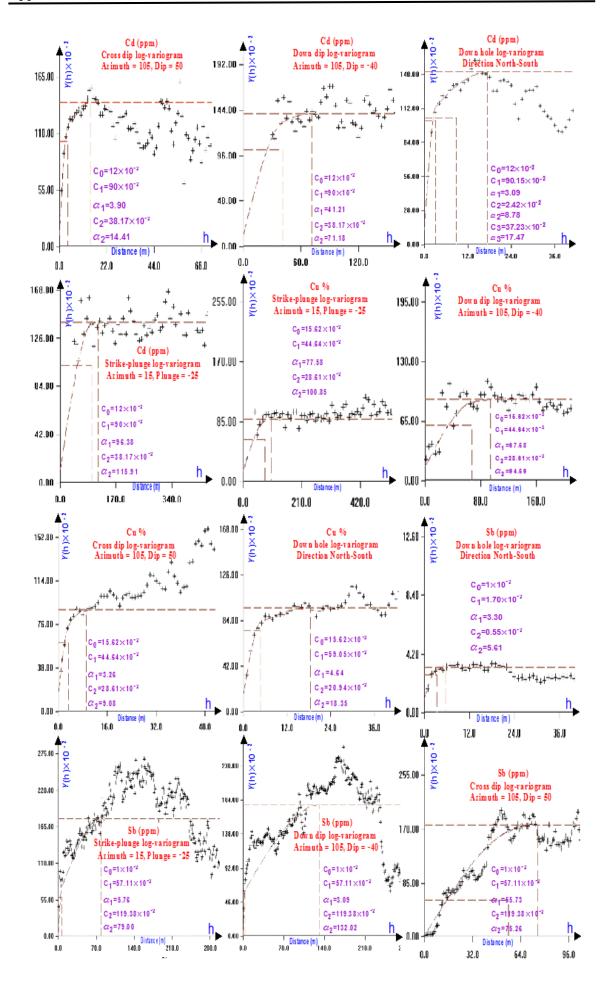
The following diagrams show down-hole variograms, three-dimensional variograms and variogram parameters for element concentrations, minerals, rock types, magnetic susceptibility, specific gravity and sulphide textures of the Western Mineralisation.

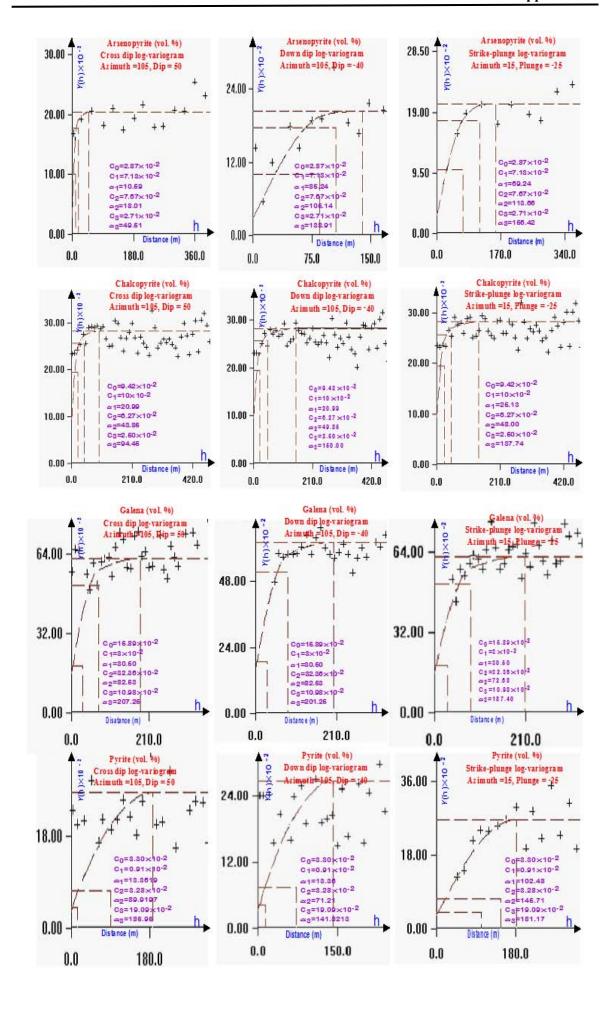


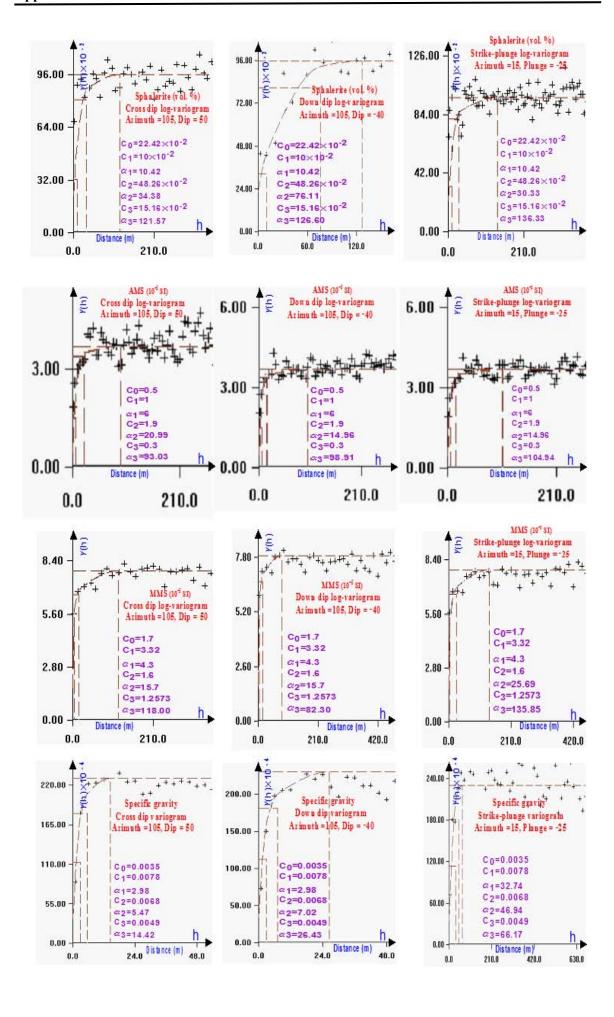


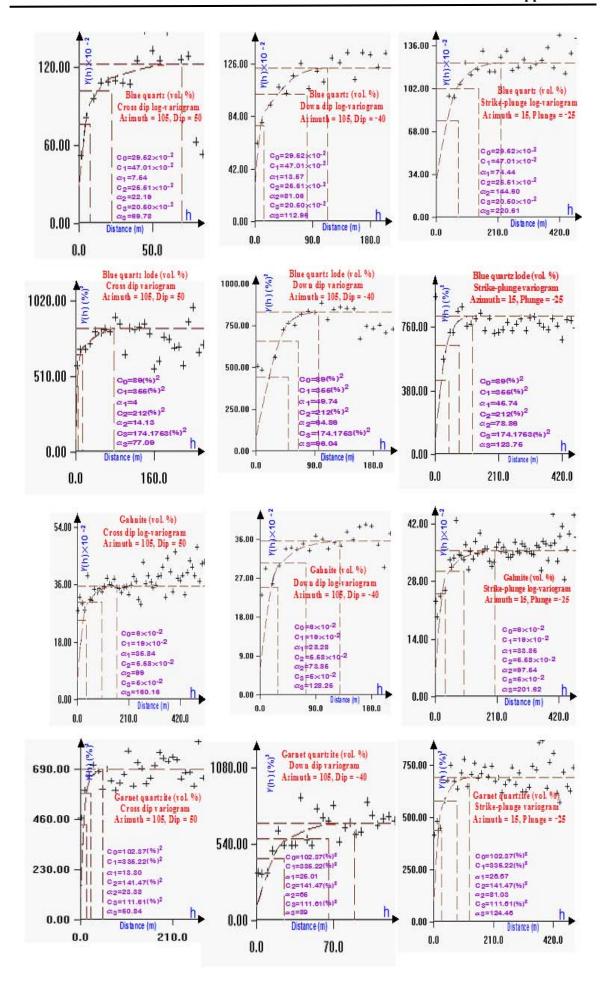


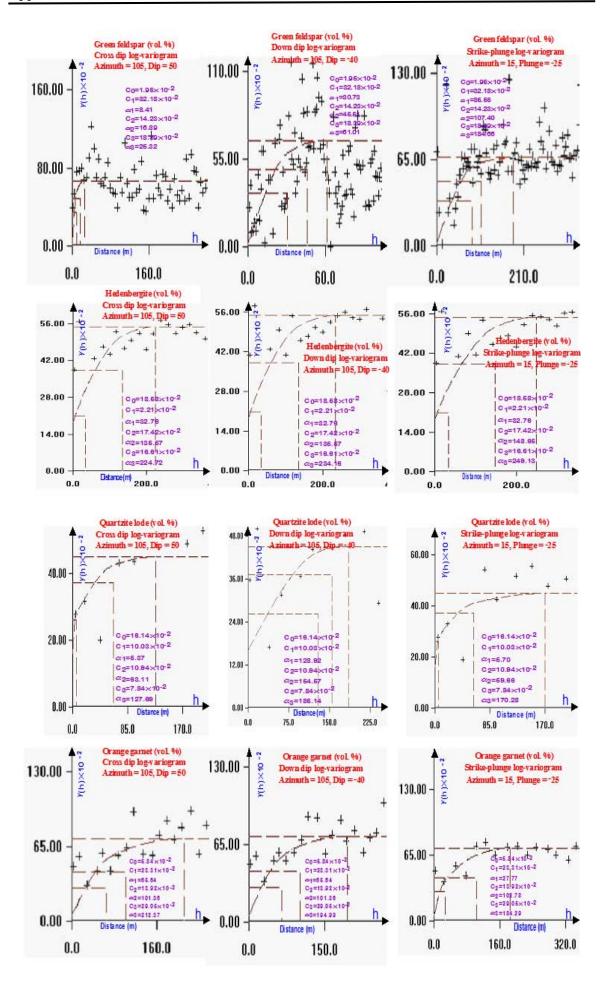


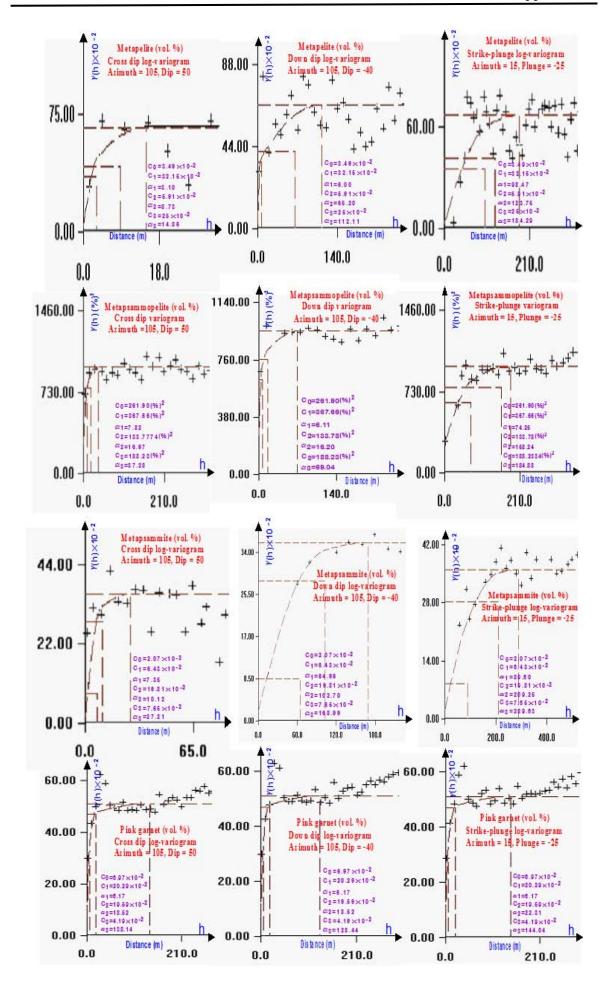


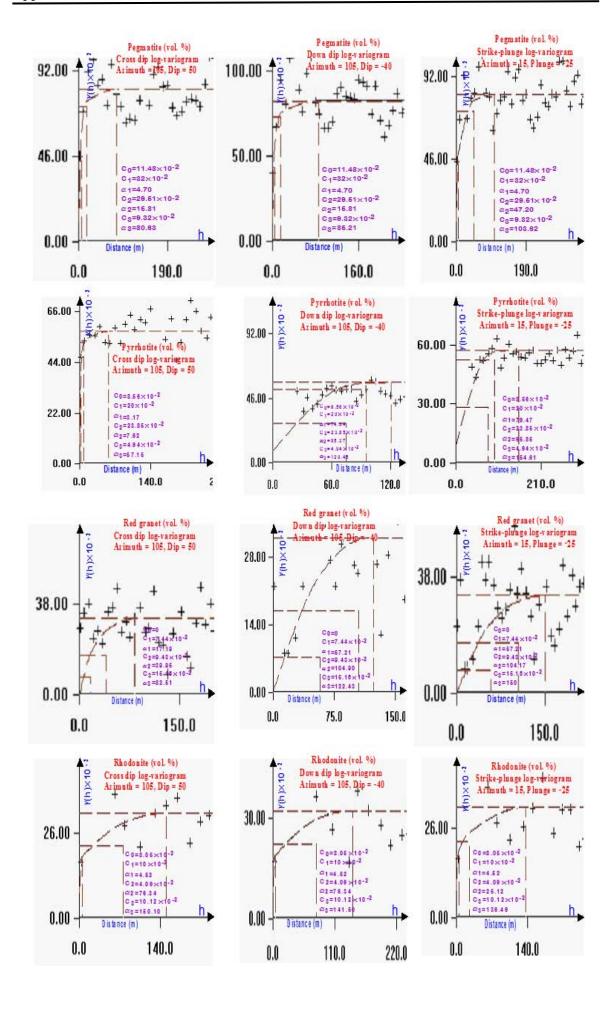


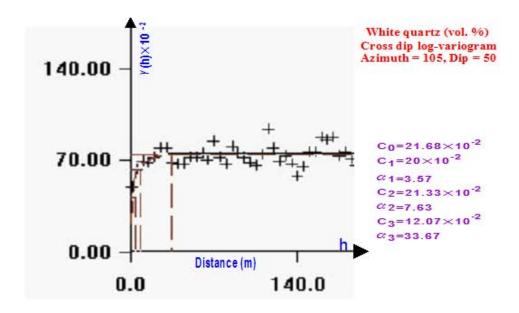


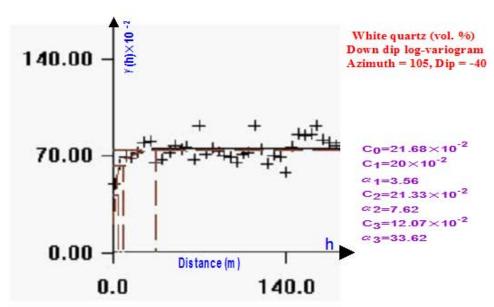


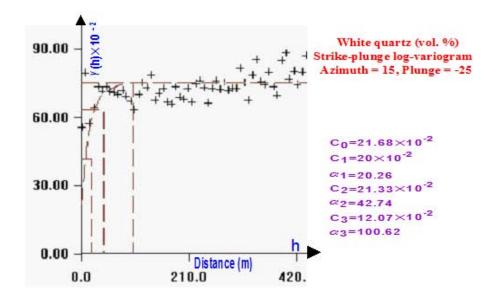


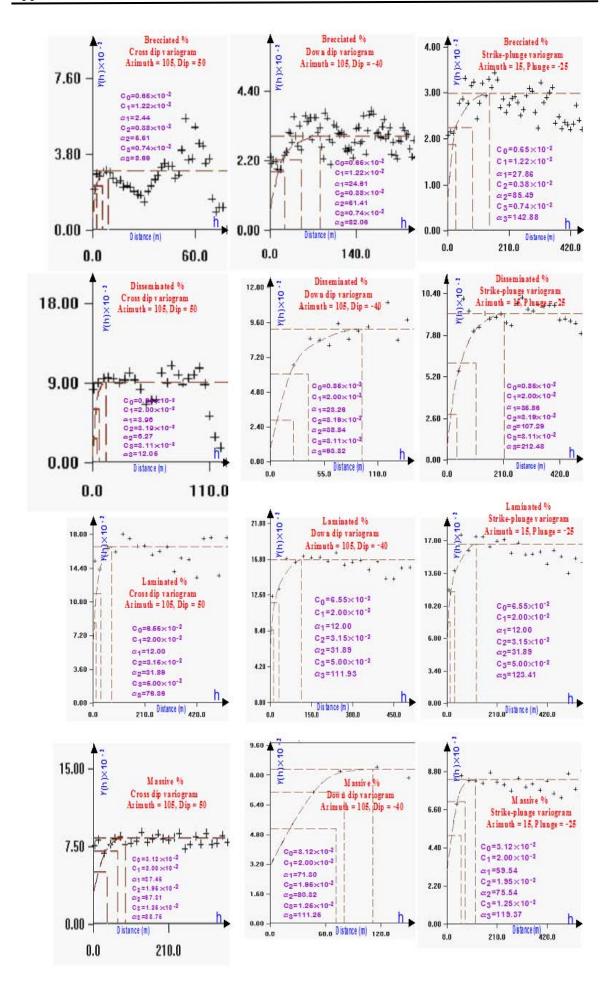


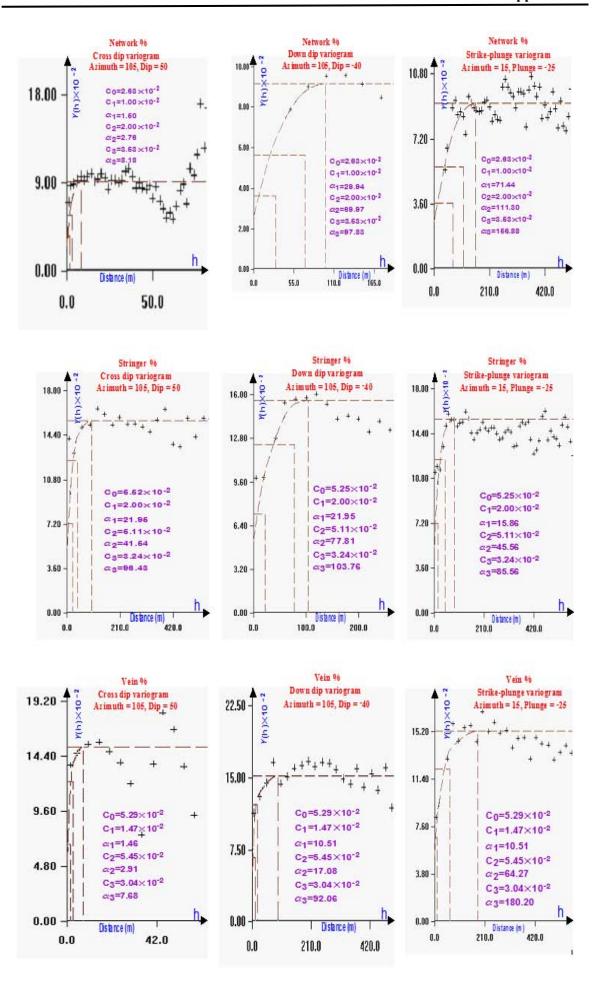


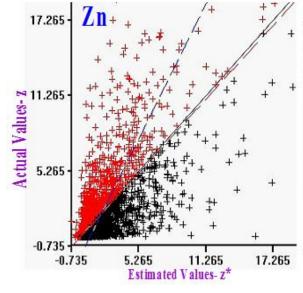








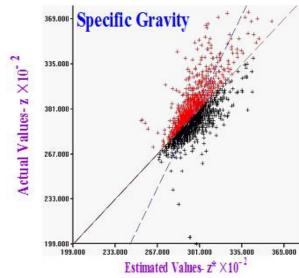




General Information: Transform:NONE Total no. samples: 3013 Mean trans. data: 1.986 Var. trans. data: 12.7915

No. estimated=3005 No. un-estimated = 8 Mean of z = 1.979 Var. of z = 12.4452 Mean of z* = 1.998 Var. of z* = 7.1083 Mean of K.Var.=4.1989

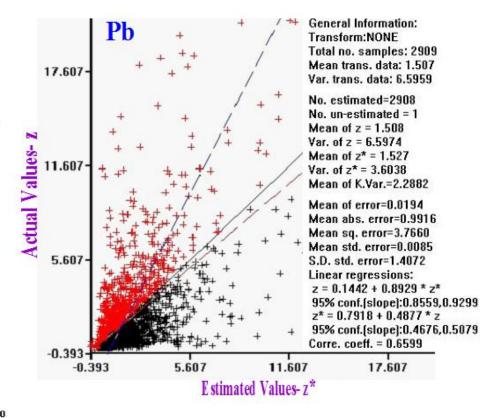
Mean of error=0.0188
Mean abs. error=1.2713
Mean sq. error=5.6723
Mean std. error=0.0060
S.D. std. error=1.2116
Linear regressions:
z = 0.0283 + 0.9764 * z*
95% conf.(slope):0.9445,1.0084
z* = 0.8943 + 0.5577 * z
95% conf.(slope):0.5395,0.5760
Corre. coeff. = 0.7379

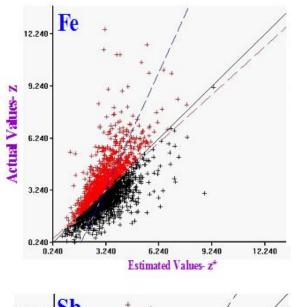


General Information: Transform:NONE Total no. samples: 2502 Mean trans. data: 2.944 Var. trans. data: 0.0257

No. estimated=2500 No. un-estimated = 2 Mean of z = 2.944 Var. of z = 0.0240 Mean of z* = 2.946 Var. of z* = 0.0125 Mean of K.Var.=0.0113

Mean of error=0.0015
Mean abs. error=0.0679
Mean sq. error=0.0115
Mean std. error=0.0094
S.D. std. error=1.0017
Linear regressions:
z = 0.0002 + 0.9994 * z*
95% conf.[slope]:0.9619,1.0370
z* = 1.4103 + 0.5215 * z
95% conf.[slope]:0.5019,0.5411
Corre. coeff. = 0.7219

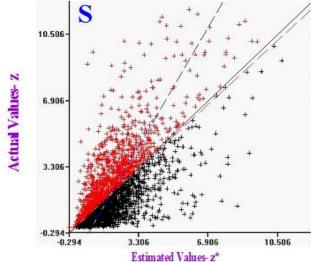




General Information: Transform:NONE Total no. samples: 2997 Mean trans. data: 3.131 Var. trans. data: 1.8642

No. estimated = 2996 No. un-estimated = 1 Mean of z = 3.123 Var. of z = 1.6675 Mean of z* = 3.133 Var. of z* = 0.8107 Mean of K.Var.=0.9089

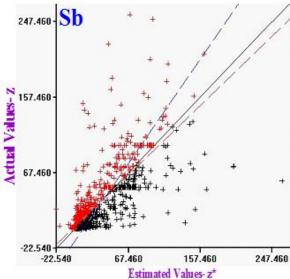
Mean of error=0.0094
Mean abs. error=0.6521
Mean sq. error=0.9819
Mean std. error=0.0068
S.D. std. error=1.0521
Linear regressions:
z = 0.2321 + 0.9229 * z*
95% conf.[slope]:0.8836,0.9622
z* = 1.7313 + 0.4487 * z
95% conf.[slope]:0.4296,0.4678
Corre. coeff. = 0.6435



General Information: Transform:NONE Total no. samples: 2965 Mean trans. data: 1.859 Var. trans. data: 4.0556

No. estimated=2965 No. un-estimated = 0 Mean of z = 1.859 Var. of z = 4.0556 Mean of z* = 1.877 Var. of z* = 2.3356 Mean of K.Var.=1.4022

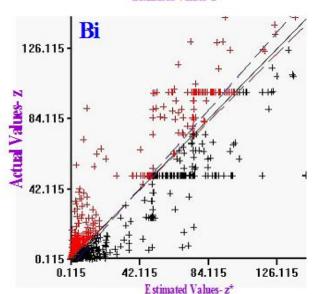
Mean of error=0.0177
Mean abs. error=0.8724
Mean sq. error=1.8834
Mean std. error=0.0090
S.D. std. error=1.1541
Linear regressions:
z = 0.0478 + 0.9651 * z*
95% conf.[slope]:0.9328,0.9974
z* = 0.8435 + 0.5558 * z
95% conf.[slope]:0.5372,0.5744
Corre. coeff. = 0.7324



General Information: Transform:NONE Total no. samples: 2886 Mean trans. data: 36.206 Var. trans. data: 854.2525

No. estimated=2886 No. un-estimated = 0 Mean of z = 36.206 Var. of z = 854.2524 Mean of z* = 36.335 Var. of z* = 674.2799 Mean of K.Var.=91.8427

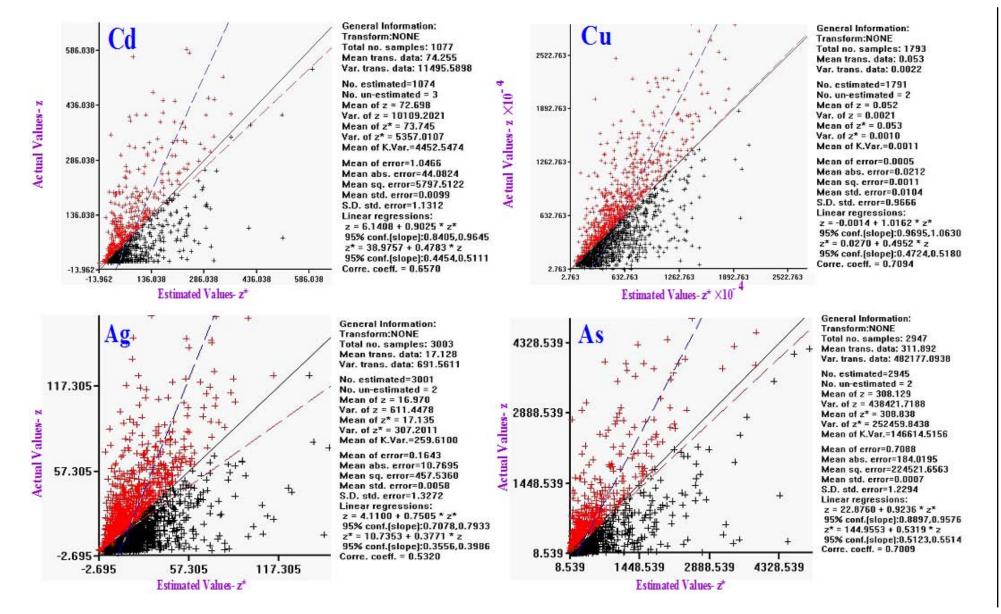
Mean of error=0.1284 Mean abs. error=5.6115 Mean sq. error=288.6331 Mean std. error=0.0062 S.D. std. error=1.7009 Linear regressions: z = 2.7987 + 0.9194 * z* 95% conf.(slope):0.8957,0.9431 z* = 10.0586 + 0.7257 * z 95% conf.(slope):0.7070,0.7444 Corre. coeff. = 0.8169

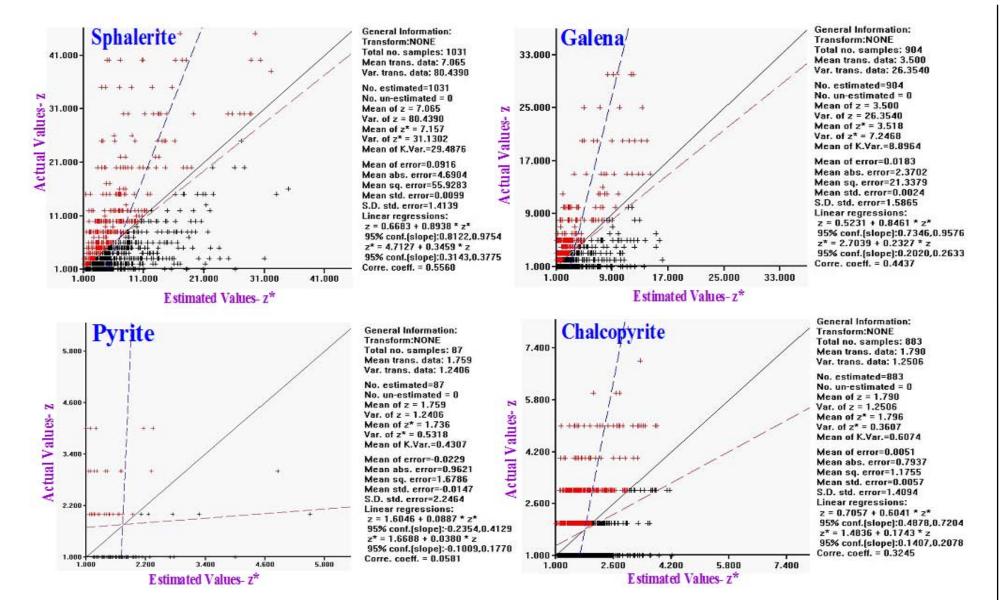


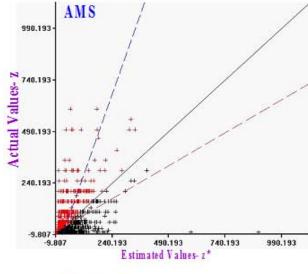
General Information: Transform:NONE Total no. samples: 2886 Mean trans. data: 33.894 Var. trans. data: 890.1743

No. estimated=2883 No. un-estimated = 3 Mean of z = 33.755 Var. of z = 814.4020 Mean of z* = 33.858 Var. of z* = 757.2276 Mean of K.Var.=34.9165

Mean of error=0.1030 Mean abs. error=3.4265 Mean sq. error=104.2475 Mean std. error=0.0071 S.D. std. error=1.7548 Linear regressions: z = 0.9491 + 0.9689 * z* 95% conf.(slope):0.9554,0.9824 z* = 3.4480 + 0.9009 * z 95% conf.[slope]:0.8883,0.9135 Corre. coeff. = 0.9343



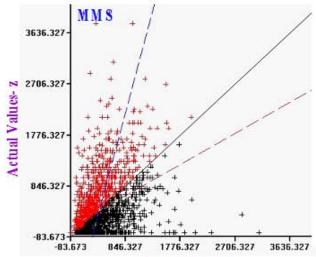




General Information: Transform:NONE Total no. samples: 1924 Mean trans. data: 34.222 Var. trans. data: 5676.5010

No. estimated=1924 No. un-estimated = 0 Mean of z = 34.222 Var. of z = 5676.5010 Mean of z* = 34.514 Var. of z* = 2857.2646 Mean of K.Var.=1732.0903

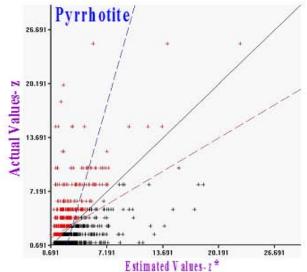
Mean of error=0.2921
Mean abs. error=30.0200
Mean sq. error=4881.5200
Mean std. error=0.0024
S.D. std. error=1.6680
Linear regressions:
z = 12.1629 + 0.6391 * z*
95% conf.[slope]:0.5830,0.6953
z* = 23.5047 + 0.3217 * z
95% conf.[slope]:0.2934,0.3500
Corre. coeff. = 0.4534



General Information: Transform:NONE Total no. samples: 1924 Mean trans. data: 407.888 Var. trans. data: 291664.3438

No. estimated=1924 No. un-estimated = 0 Mean of z = 407.888 Var. of z = 291664.3438 Mean of z* = 408.581 Var. of z* = 119292.5313 Mean of K,Var.=139098.0781

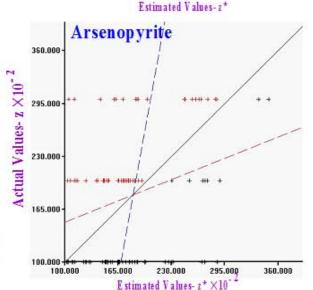
Mean of error=0.6928 Mean abs. error=312.4486 Mean sq. error=265661.2813 Mean std. error=-0.0001 S.D. std. error=1.3810 Linear regressions: z = 159.0661 + 0.6090 * z* 95% conf.[slope]:0.5446,0.6734 z*= 306.9835 + 0.2491 * z 95% conf.[slope]:0.2227,0.2754 Corre. coeff. = 0.3895



General Information: Transform:NONE Total no. samples: 995 Mean trans. data: 3.178 Var. trans. data: 10.7754

No. estimated=995 No. un-estimated = 0 Mean of z = 3.178 Var. of z = 10.7754 Mean of z* = 3.228 Var. of z* = 4.7467 Mean of K.Var.=5.7088

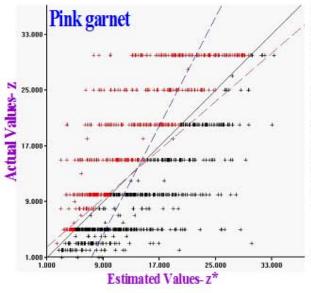
Mean of error=0.0501 Mean abs. error=1.9002 Mean sq. error=9.6627 Mean std. error=0.0104 S.D. std. error=1.3874 Linear regressions: z = 1.1847 + 0.6175 * z* 95% conf.[slope]:0.5320.0.7030 z* = 2.3636 + 0.2720 * z 95% conf.[slope]:0.2343,0.3097 Corre. coeff. = 0.4098



General Information: Transform:NONE Total no. samples: 111 Mean trans. data: 1.829 Var. trans. data: 0.8085

No. estimated=111 No. un-estimated = 0 Mean of z = 1.829 Var. of z = 0.8085 Mean of z^* = 1.832 Var. of z^* = 0.3657 Mean of K.Var.=0.4569

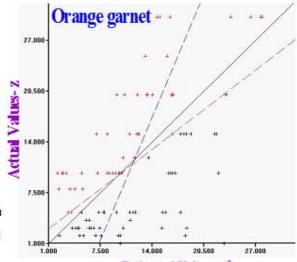
Mean of error=0.0034
Mean abs. error=0.7062
Mean sq. error=0.8806
Mean std. error=0.0162
S.D. std. error=1.5585
Linear regressions:
z = 1.0933 + 0.4014 * z*
95% conf.(slope):0.1326,0.6702
z* = 1.5002 + 0.1815 * z
95% conf.(slope):0.0600,0.3031
Corre. coeff. = 0.2700



General Information: Transform:NONE Total no. samples: 1261 Mean trans. data: 13.573 Var. trans. data: 78.5667

No. estimated=1261 No. un-estimated = 0 Mean of z = 13.573 Var. of z = 78.5667 Mean of z* = 13.728 Var. of z* = 46.4209 Mean of K.Var.=28.8569

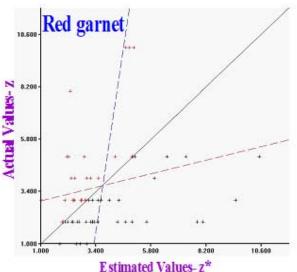
Mean of error=0.1555
Mean abs. error=5.0442
Mean sq. error=44.1584
Mean std. error=0.0148
S.D. std. error=1.2609
Linear regressions:
z = 1.6171 + 0.8709 * z*
95% conf.(slope):0.8175,0.9243
z* = 6.7443 + 0.5146 * z
95% conf.(slope):0.4830,0.5461
Corre. coeff. = 0.6694



General Information: Transform:NONE Total no. samples: 101 Mean trans. data: 11.139 Var. trans. data: 70.9313

No. estimated=101 No. un-estimated = 0 Mean of z = 11.139 Var. of z = 70.9313 Mean of z* = 11.507 Var. of z*= 37.4801 Mean of K,Var.=17.6081

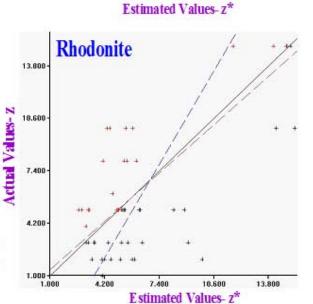
Mean of error=0.3687 Mean abs. error=5.3477 Mean sq. error=50.0937 Mean std. error=0.0506 S.D. std. error=1.9851 Linear regressions: $z=2.1653+0.7798*z^*$ 95% conf.[slope]:0.5565,1.0030 $z^*=6.9177+0.4120*z$ 95% conf.[slope]:0.2941,0.5300 Corre. coeff. = 0.5668



General Information: Transform:NONE Total no. samples: 64 Mean trans. data: 3.672 Var. trans. data: 6.2205

No. estimated=64 No. un-estimated = 0 Mean of z = 3.672 Var. of z = 6.2205 Mean of z* = 3.701 Var. of z* = 3.4367 Mean of K,Var.=2.1122

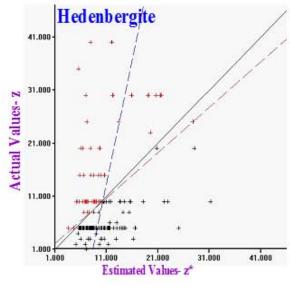
Mean of error=0.0293
Mean abs. error=1.8826
Mean sq. error=7.8750
Mean std. error=0.0326
S.D. std. error=3.2493
Linear regressions:
z = 2.7118 + 0.2594 * z*
95% conf.(slope):-0.0692,0.5880
z* = 3.1750 + 0.1433 * z
95% conf.(slope):-0.0382,0.3249
Corre. coeff. = 0.1928



General Information: Transform:NONE Total no. samples: 56 Mean trans. data: 6.714 Var. trans. data: 24.0612

No. estimated=56 No. un-estimated = 0 Mean of z = 6.714 Var. of z = 24.0612 Mean of z* = 6.798 Var. of z* = 14.6184 Mean of K.Var.=16.0232

Mean of error=0.0841
Mean abs. error=2.5584
Mean sq. error=11.6977
Mean std. error=0.0085
S.D. std. error=0.9382
Linear regressions:
z = 0.4386 + 0.9231 * z*
95% conf.[slope]:0.6855,1.1608
z* = 3.0328 + 0.5608 * z
95% conf.[slope]:0.4165,0.7052
Corre. coeff. = 0.7195

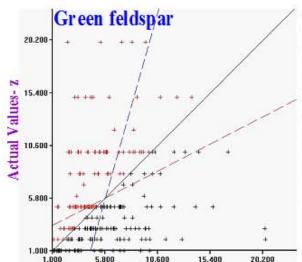


General Information: Transform:NONE Total no. samples: 197 Mean trans. data: 10.010 Var. trans. data: 89.7461

No. estimated=197 No. un-estimated = 0 Mean of z = 10.010Var. of z = 89.7461 Mean of z* = 10.222 Var. of z* = 22,7393 Mean of K.Var.=42.6385

Mean of error=0.2116

Mean abs. error=5.7957 Mean sq. error=73.6293 Mean std. error=0.0158 S.D. std. error=1.3735 Linear regressions: z = 1.2668 + 0.8554 * z* 95% conf.(slope):0.6037,1.1070 z* = 8.0523 + 0.2167 * z 95% conf.(slope):0.1530,0.2805 Corre. coeff. = 0.4306



10.600

Estimated Values- z

1.000

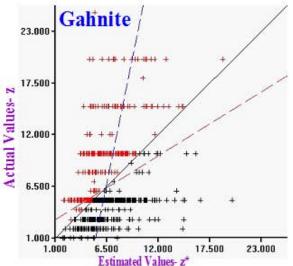
5.800

15,400

General Information: Transform:NONE Total no. samples: 263 Mean trans. data: 5.795 Var. trans. data: 29.0681

No. estimated=263 No. un-estimated = 0 Mean of z = 5.795Var. of z = 29.0681 Mean of $z^* = 5.792$ Var. of z* = 15.9492 Mean of K.Var.=10.7304

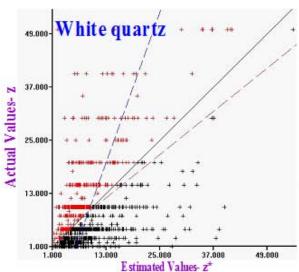
Mean of error=-0.0023 Mean abs. error=3.4409 Mean sq. error=28.5385 Mean std. error=0.0007 S.D. std. error=1.8665 Linear regressions: z = 2.8023 + 0.5166 * z* 95% conf.(slope):0.3653,0.6679 $z^* = 4.1498 + 0.2835 * z$ 95% conf.(slope):0.2004,0.3665 Corre. coeff. = 0.3827



General Information: Transform:NONE Total no. samples: 777 Mean trans. data: 6.337 Var. trans. data: 18.3368

No. estimated=777 No. un-estimated = 0 Mean of z = 6.337Var. of z = 18.3368Mean of z* = 6.398 Var. of $z^* = 6.1420$ Mean of K.Var.=5.1261

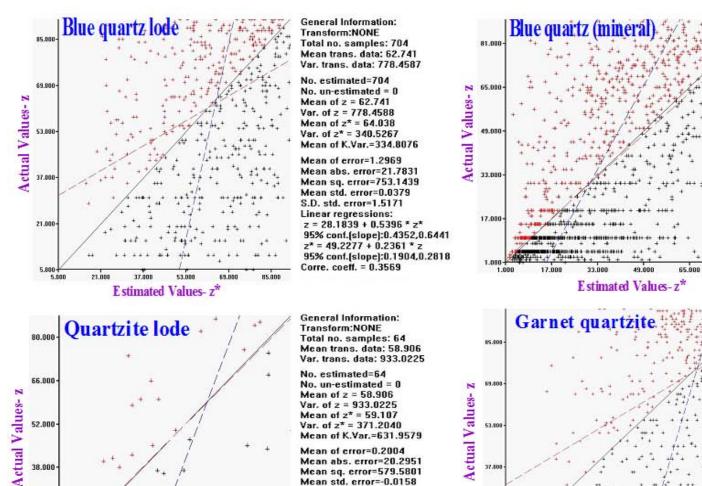
Mean of error=0.0605 Mean abs. error=2.8515 Mean sq. error=16.9111 Mean std. error=0.0143 S.D. std. error=1.8641 Linear regressions: z = 2.3939 + 0.6164 * z* 95% conf.(slope):0.5027,0.7300 z* = 5.0894 + 0.2065 * z 95% conf.(slope):0.1684,0.2445 Corre. coeff. = 0.3567



General Information: Transform:NONE Total no. samples: 1275 Mean trans. data: 8.945 Var. trans. data: 93.7382

No. estimated=1275 No. un-estimated = 0 Mean of z = 8.945 Var. of z = 93.7382 Mean of $z^* = 9.059$ Var. of $z^* = 41.0293$ Mean of K.Var.=58.7238

Mean of error=0.1136 Mean abs. error=5.3195 Mean sq. error=68.2527 Mean std. error=0.0091 S.D. std. error=1.1024 Linear regressions: z = 1.6009 + 0.8107 * z*95% conf.(slope):0.7407,0.8808 z* = 5.8844 + 0.3549 * z 95% conf.[slope]:0.3242,0.3855 Corre. coeff. = 0.5364



Mean of z* = 59.107

Var. of $z^* = 371.2040$

Mean of error=0.2004

Mean of K.Var.=631.9579

Mean abs. error=20.2951

Mean sq. error=579.5801

Mean std. error=-0.0158

z = 1.2105 + 0.9761 * z*

z* = 36.2301 + 0.3884 * z

95% conf.(slope):0.6652.1.2871

95% conf.(slope):0.2646,0.5121

S.D. std. error=0.9600

Linear regressions:

Corre. coeff. = 0.6157

52.000

38,000

24.000

10.000

24,000

38,000

52,000

Estimated Values- z*

66,000

80.000

Actual Values-53,000 37,400 21,400 5.000 21.000 85.000 Estimated Values-z*

General Information: Transform:NONE Total no. samples: 727 Mean trans. data: 74.404 Var. trans. data: 686.2299 No. estimated=727

General Information:

No. estimated=1520

No. un-estimated = 0

Mean of z = 29.974

Var. of z = 802.7540

Mean of $z^* = 30.316$

Var. of z* = 441.8587

Mean of error=0.3417

Mean of K.Var.=337.5867

Mean abs. error=14.5848

Mean sq. error=402.7575

z = 1.0904 + 0.9528 * z*

95% conf.(slope):0.9048,1.0007 z* = 14.5967 + 0.5244 * z

95% conf.(slope):0.4980,0.5508

Mean std. error=0.0101

S.D. std. error=1.0947

Linear regressions:

Corre. coeff. = 0.7069

81,000

Total no. samples: 1520

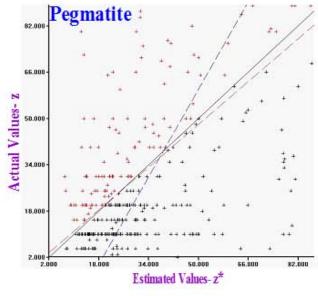
Mean trans. data: 29.974

Var. trans. data: 802.7540

Transform:NONE

No. un-estimated = 0 Mean of z = 74.404Var. of z = 686,2296 Mean of $z^* = 75.236$ Var. of $z^* = 307.3492$ Mean of K.Var.=215.9773

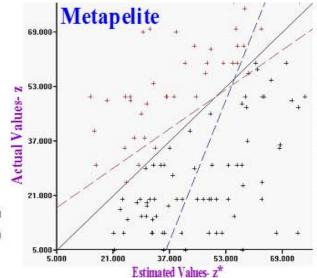
Mean of error=0.8319 Mean abs. error=18.1030 Mean sq. error=607.5396 Mean std. error=0.0297 S.D. std. error=1.6898 Linear regressions: z = 27.0708 + 0.6291 * z*95% conf.(slope):0.5305,0.7278 z* = 54.2709 + 0.2818 * z 95% conf.[slope]:0.2376,0.3260 Corre. coeff. = 0.4210



General Information: Transform:NONE Total no. samples: 415 Mean trans. data: 36.414 Var. trans. data: 982.0789

No. estimated=415 No. un-estimated = 0 Mean of z = 36.414 Var. of z = 982.0788 Mean of z* = 37.452 Var. of z* = 561.8824 Mean of K.Var.=543.6827

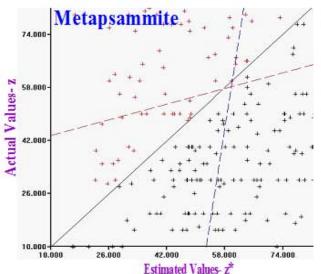
Mean of error=1.0377
Mean abs. error=16.4834
Mean sq. error=506.4270
Mean std. error=0.0255
S.D. std. error=0.9938
Linear regressions:
z = 1.8002 + 0.9242 * z*
95% conf.[slope]:0.8331,1.0154
z* = 18.1969 + 0.5288 * z
95% conf.[slope]:0.4766,0.5809
Corre. coeff. = 0.6991



General Information: Transform:NONE Total no. samples: 175 Mean trans. data: 53.429 Var. trans. data: 986.9420

No. estimated=175 No. un-estimated = 0 Mean of z = 53.429 Var. of z = 986.9422 Mean of z* = 54.626 Var. of z* = 528.5266 Mean of K.Var.=644.9731

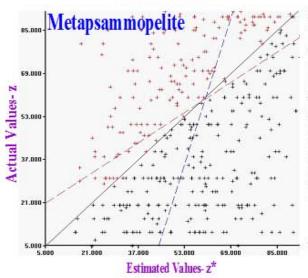
Mean of error=1.1970
Mean abs. error=21.7155
Mean sq. error=753.5180
Mean std. error=0.0232
S.D. std. error=1.1494
Linear regressions:
z = 13.9790 + 0.7222 * z*
95% conf.(slope):0.5493,0.8951
z* = 33.9625 + 0.3867 * z
95% conf.(slope):0.2942,0.4793
Corre. coeff. = 0.5285



General Information: Transform:NONE Total no. samples: 307 Mean trans. data: 58.264 Var. trans. data: 829.3929

No. estimated=307 No. un-estimated = 0 Mean of z = 58.264 Var. of z = 829.3928 Mean of z* = 59.850 Var. of z* = 402.6765 Mean of K.Var.=290.2220

Mean of error=1.5862 Mean abs. error=26.0863 Mean sq. error=97.3988 Mean std. error=0.0464 S.D. std. error=2.0394 Linear regressions: z = 40.6373 + 0.2945 * z* 95% conf.(slope):0.1369,0.4522 z* = 51.5190 + 0.1430 * z 95% conf.(slope):0.0665,0.2195 Corre. coeff. = 0.2052



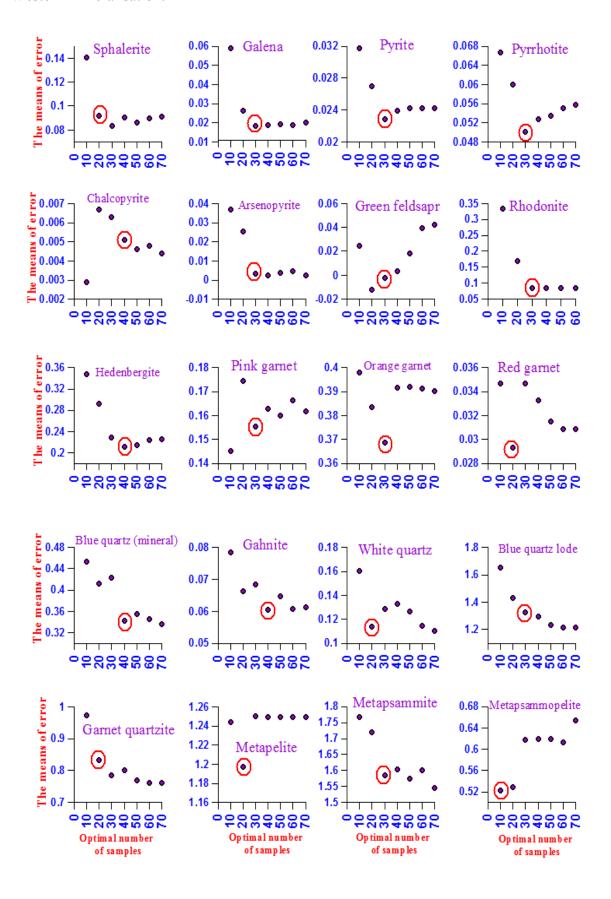
General Information: Transform:NONE Total no. samples: 535 Mean trans. data: 59.578 Var. trans. data: 976.7524

No. estimated=535 No. un-estimated = 0 Mean of z = 59.578 Var. of z = 976.7523 Mean of z* = 60.100 Var. of z* = 408.1651 Mean of K.Var.=551.8510

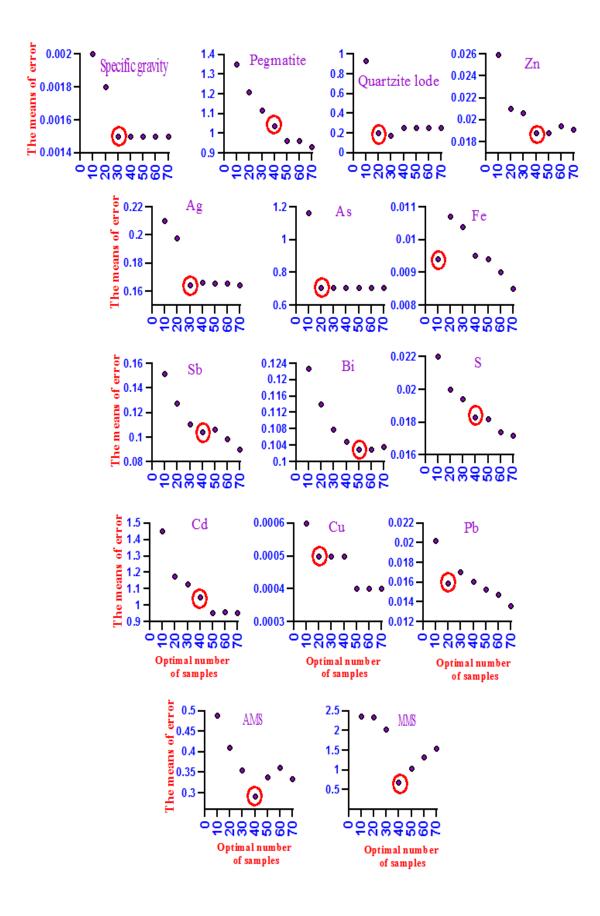
Mean of error=0.5223 Mean abs. error=22.9263 Mean sq. error=811.6739 Mean std. error=0.0050 S.D. std. error=1.2419 Linear regressions: z = 17.3542 + 0.7026 * z* 95% conf.(slope):0.5855,0.8196 z* = 42.6089 + 0.2936 * z 95% conf.(slope):0.2447,0.3425 Corre. coeff. = 0.4542

Appendix D

The means of error versus the optimal number of samples for elements, minerals, rock types, magnetic susceptibility and specific gravity and textures of the Western Mineralisation.



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