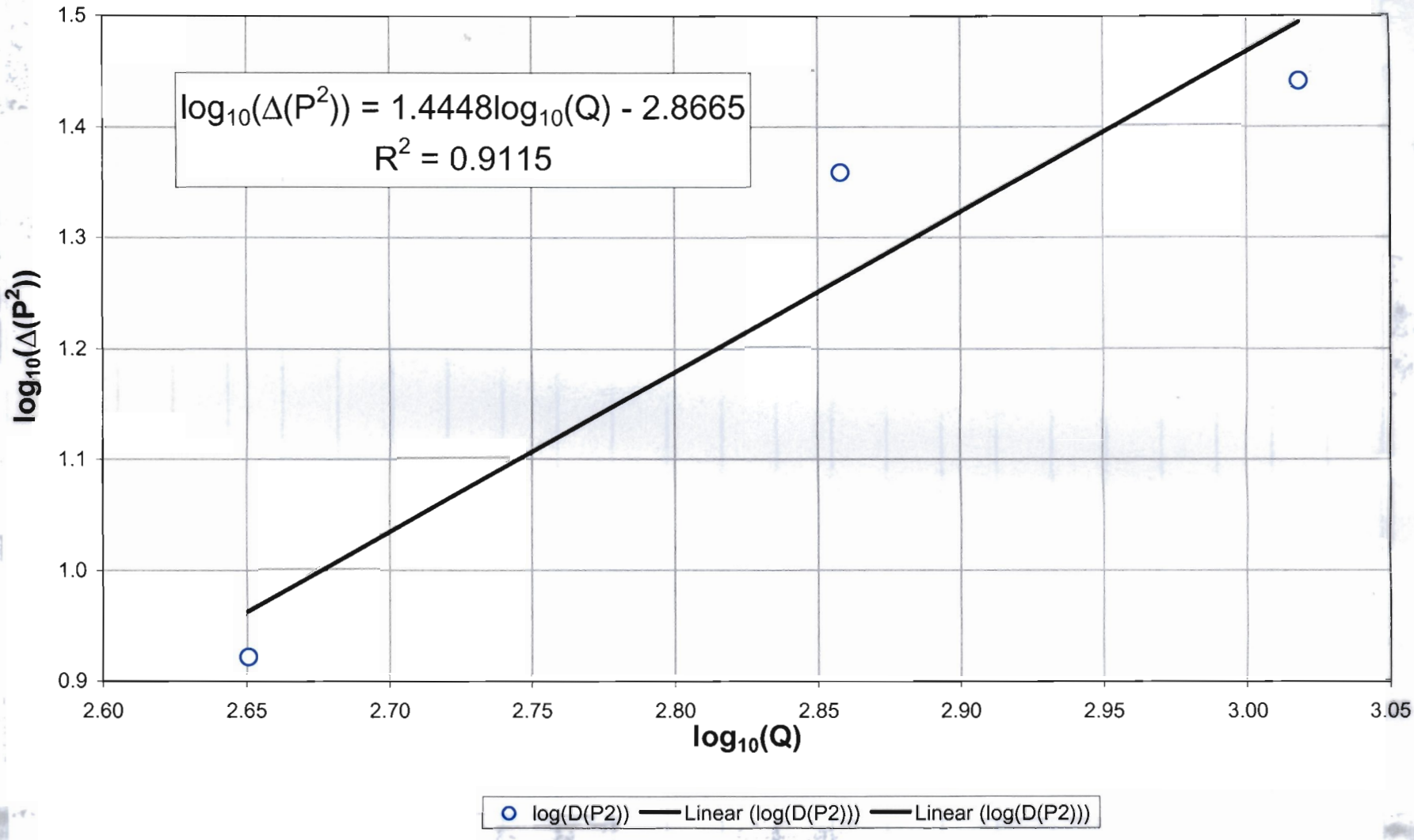
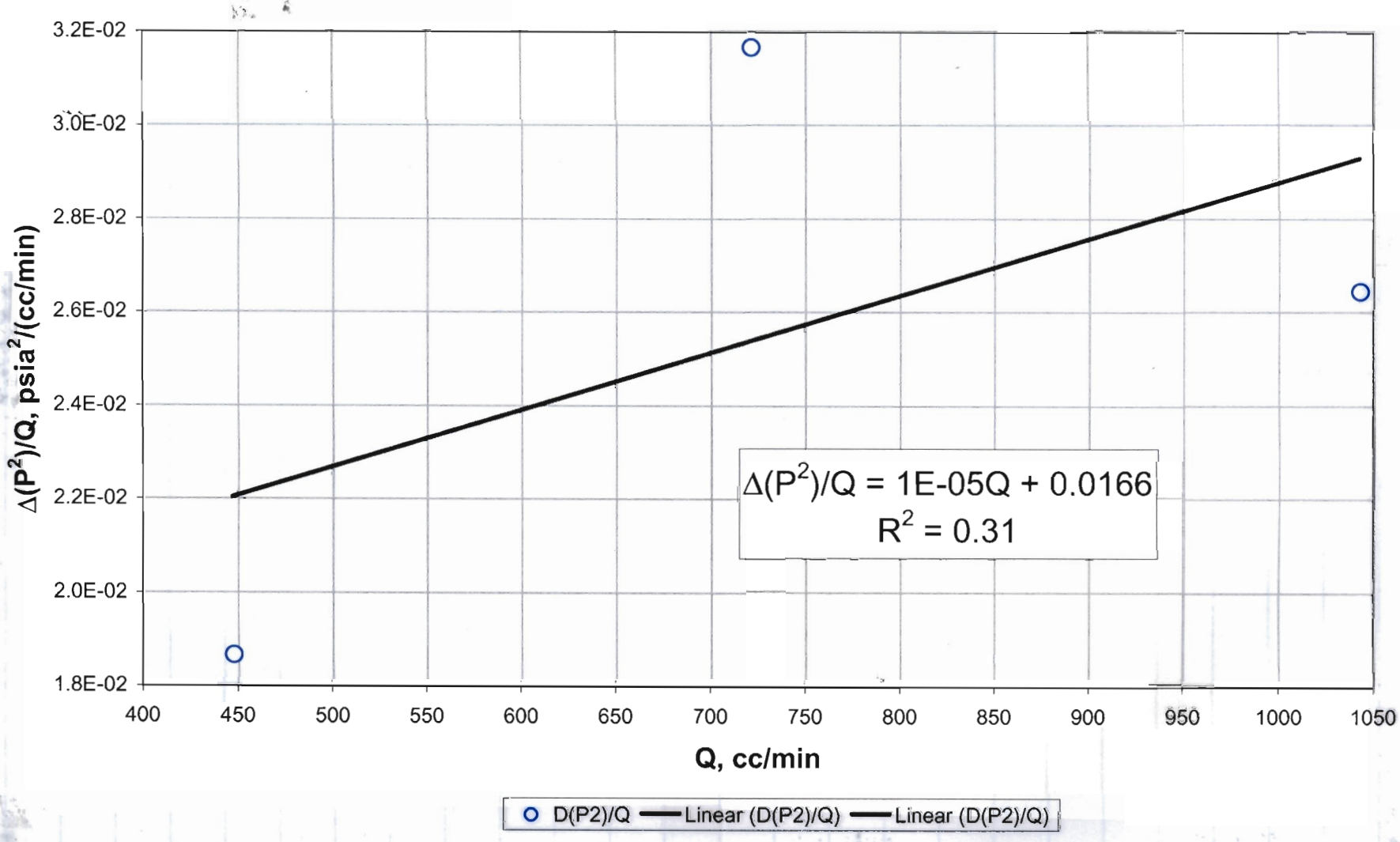
Log-Log plot of differential pressures squared vs. flowrate--used to identify the presence of high-velocity flow effects (when the slope is greater than unity)
V4 Transect: Drillhole 21



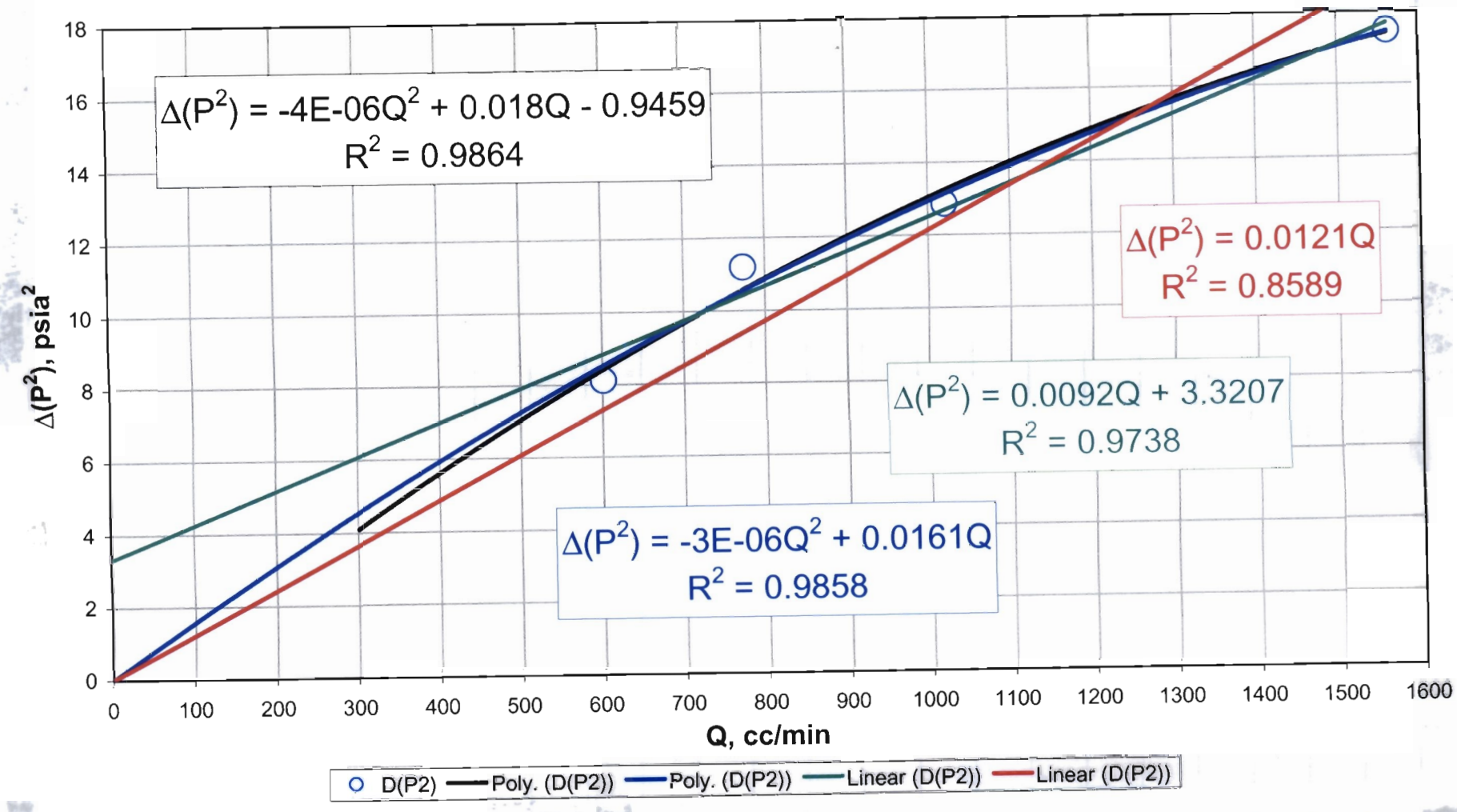
RMD, 01/30/03

Final check for high velocity flow effects:
High velocity flow effects are present when the slope is non-zero and positive.
V4 Transect: Drillhole 21

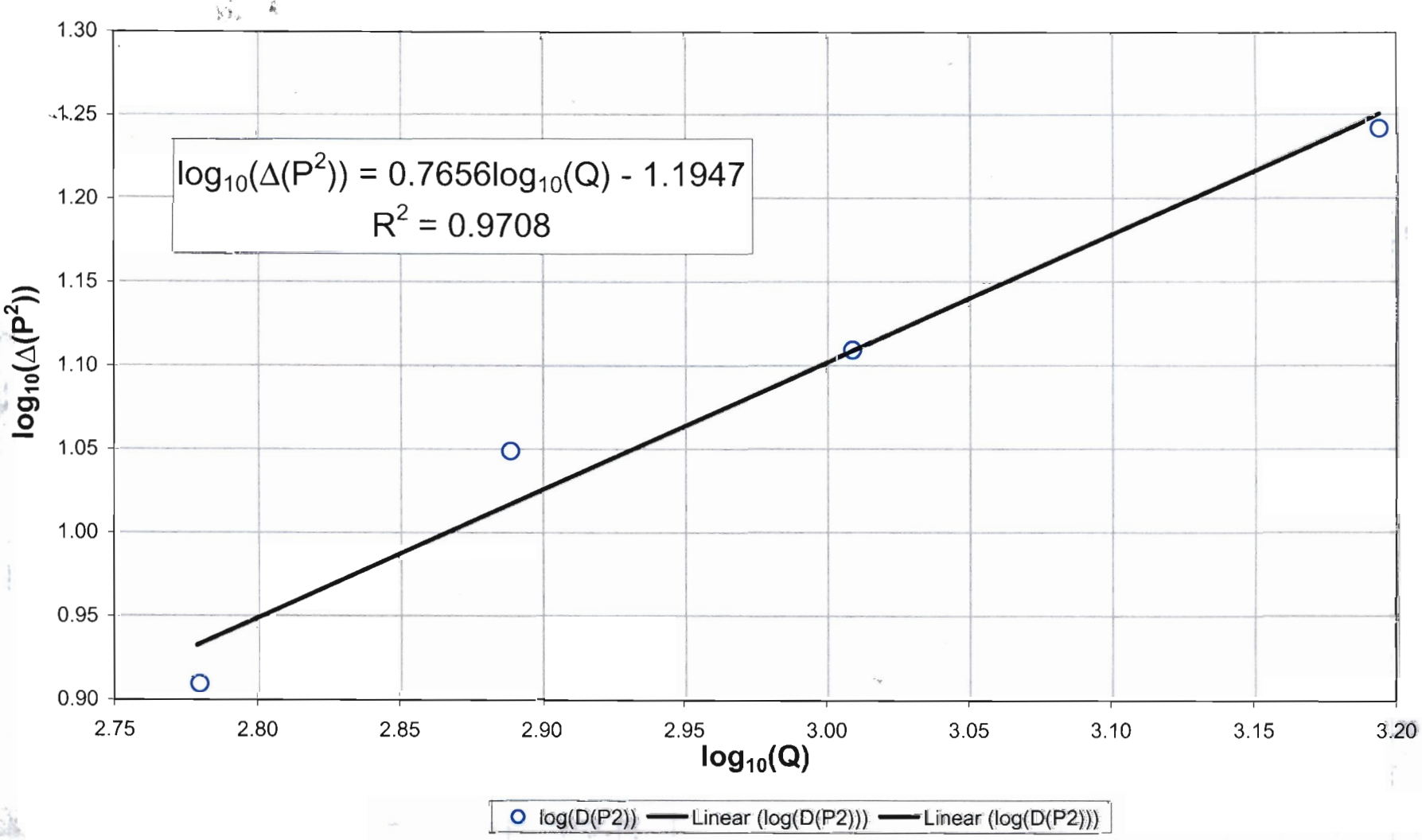


RMD, 01/30/03

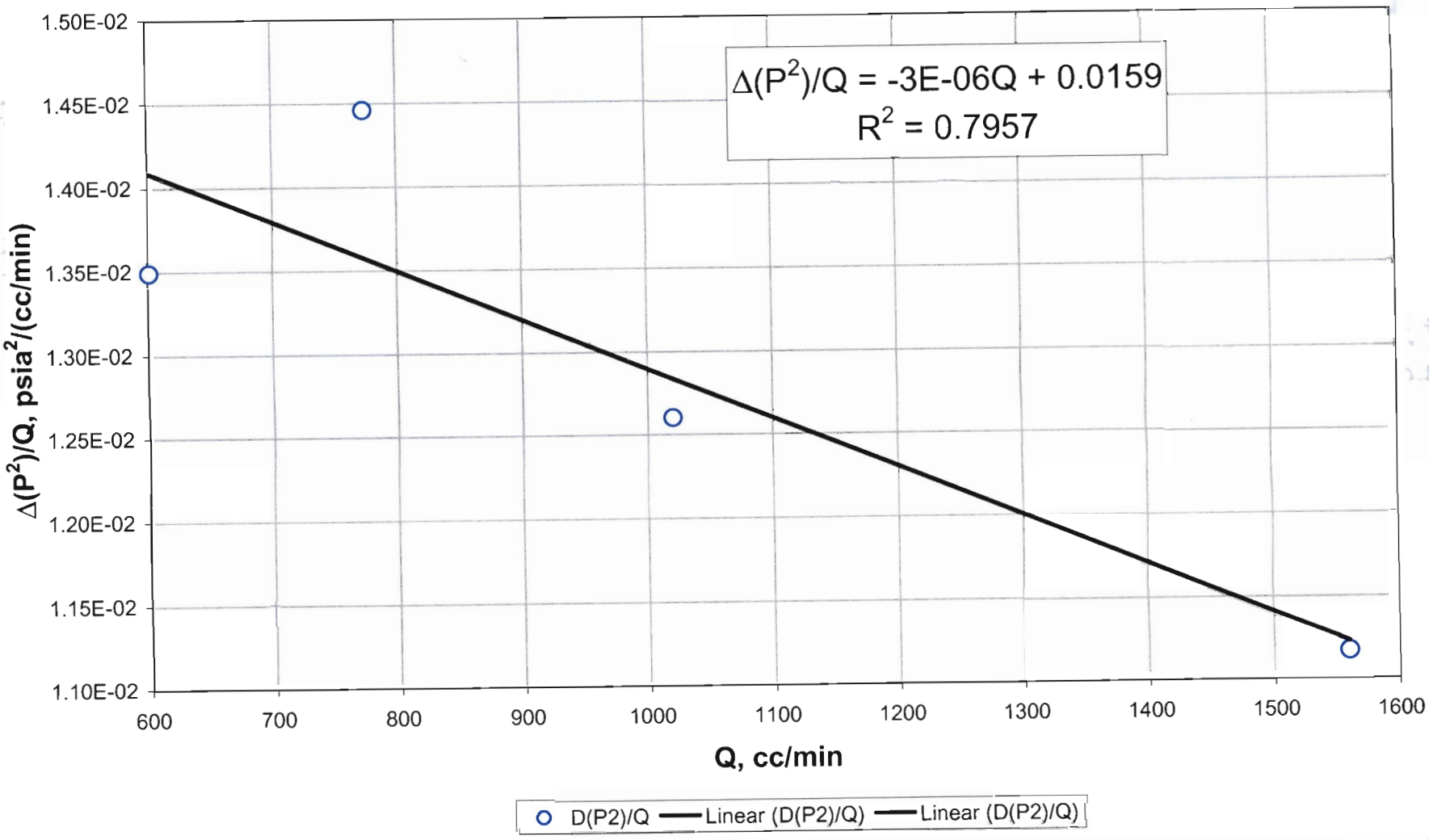
Relationship between steady-state differential pressures squared and flowrate:
If relationship is linear, with the ordinate intercept nearly zero,
there is no high velocity flow effect.
V4 Transect: Drillhole 22



Log-Log plot of differential pressures squared vs. flowrate--used to identify the presence of high-velocity flow effects (when the slope is greater than unity)
V4 Transect: Drillhole 22

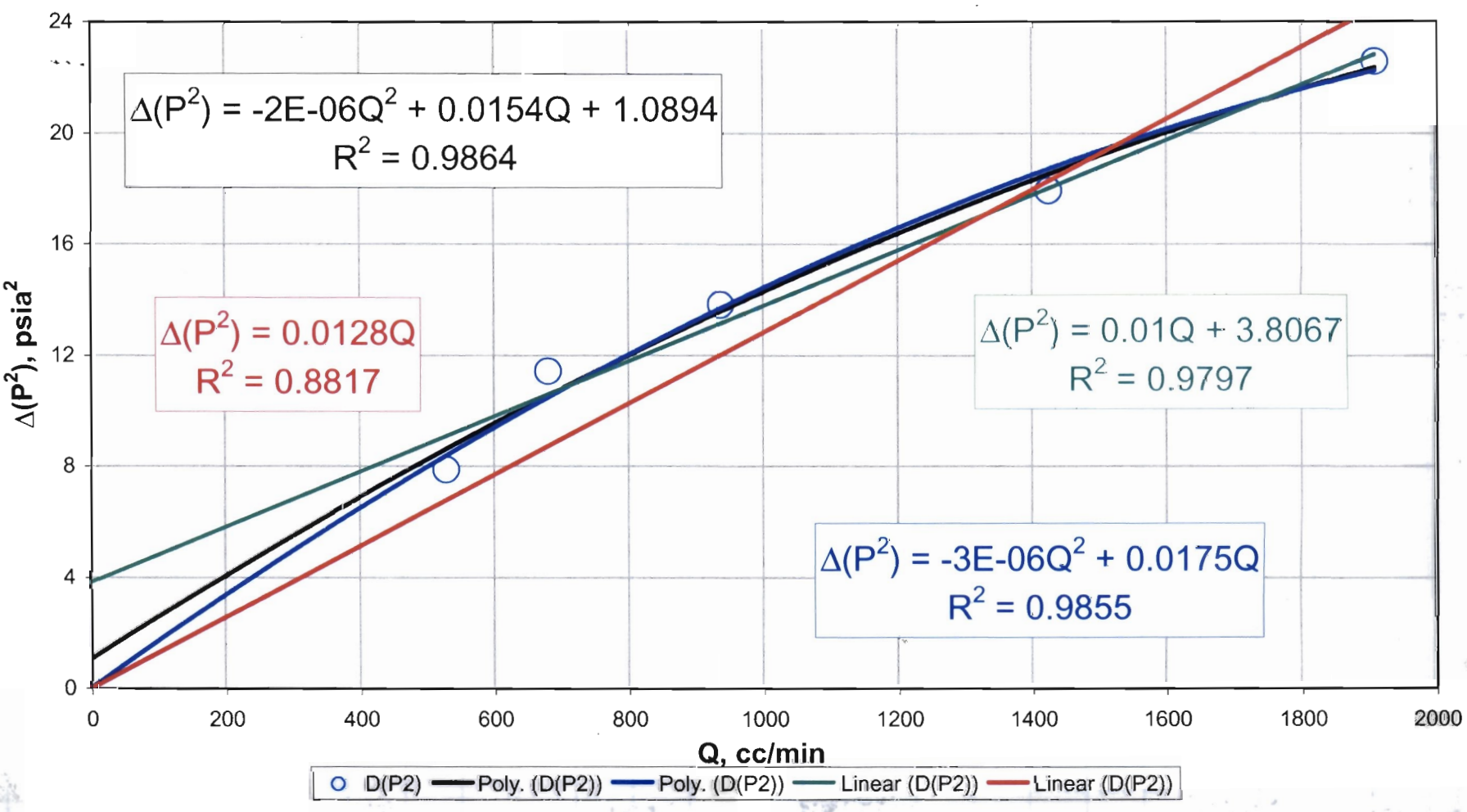


Final check for high velocity flow effects:
High velocity flow effects are present when the slope is non-zero and positive.
V4 Transect: Drillhole 22



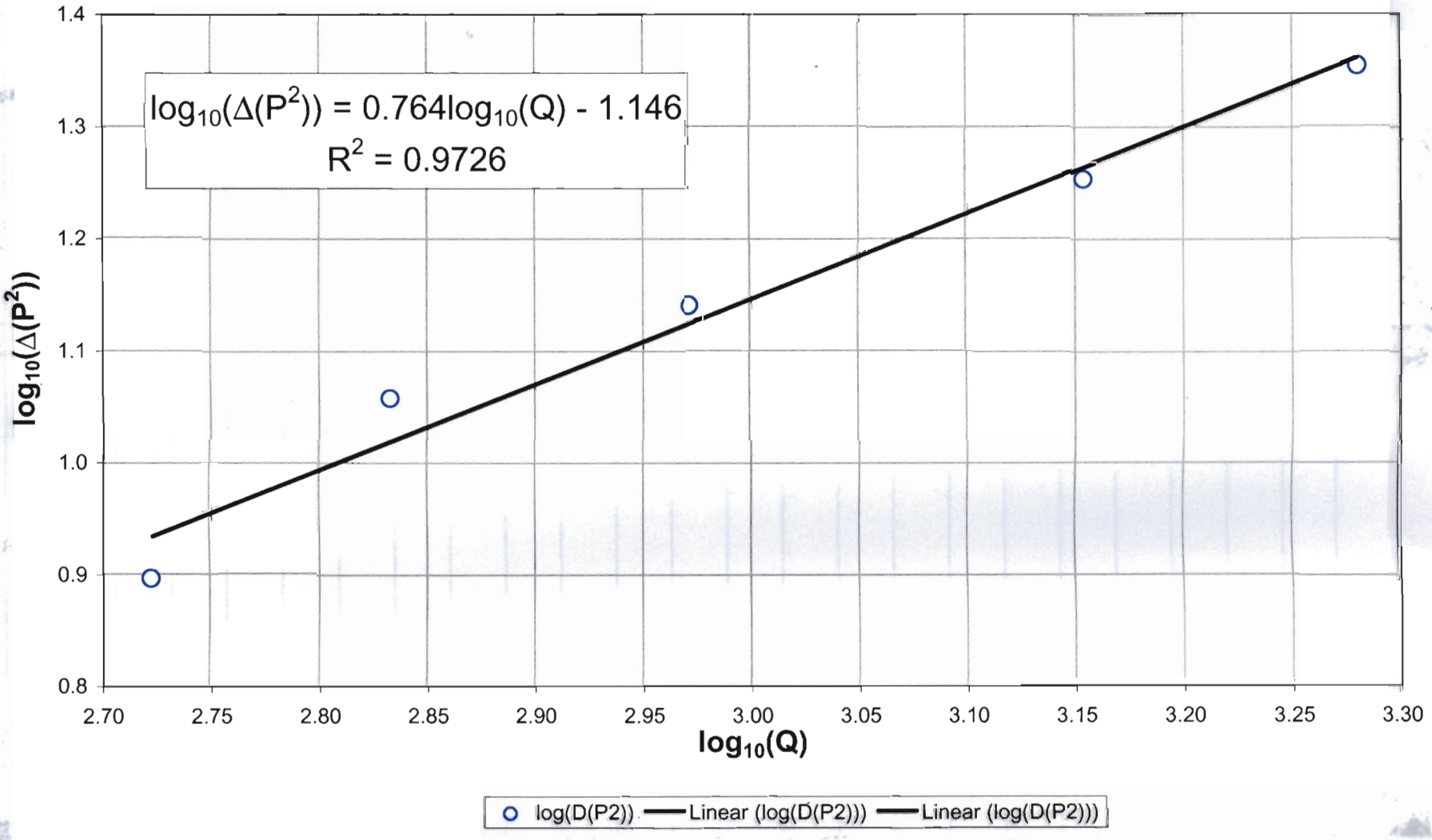
RWM, 01/30/07

Relationship between steady-state differential pressures squared and flowrate:
If relationship is linear, with the ordinate intercept nearly zero,
there is no high velocity flow effect.
V4 Transect: Drillhole 24



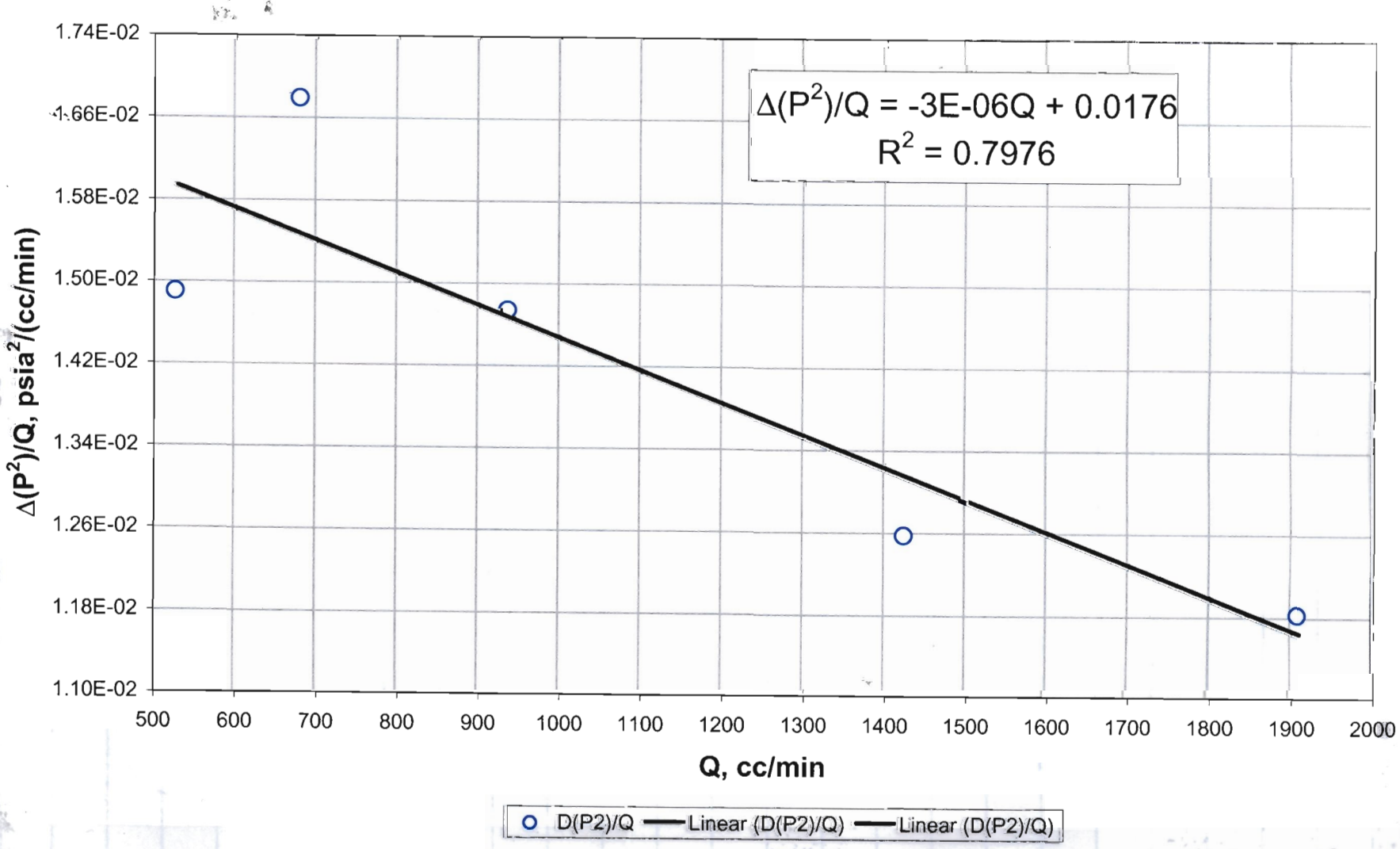
RWM, 01/30/07

Log-Log plot of differential pressures squared vs. flowrate--used to identify the presence of high-velocity flow effects (when the slope is greater than unity)
V4 Transect: Drillhole 24



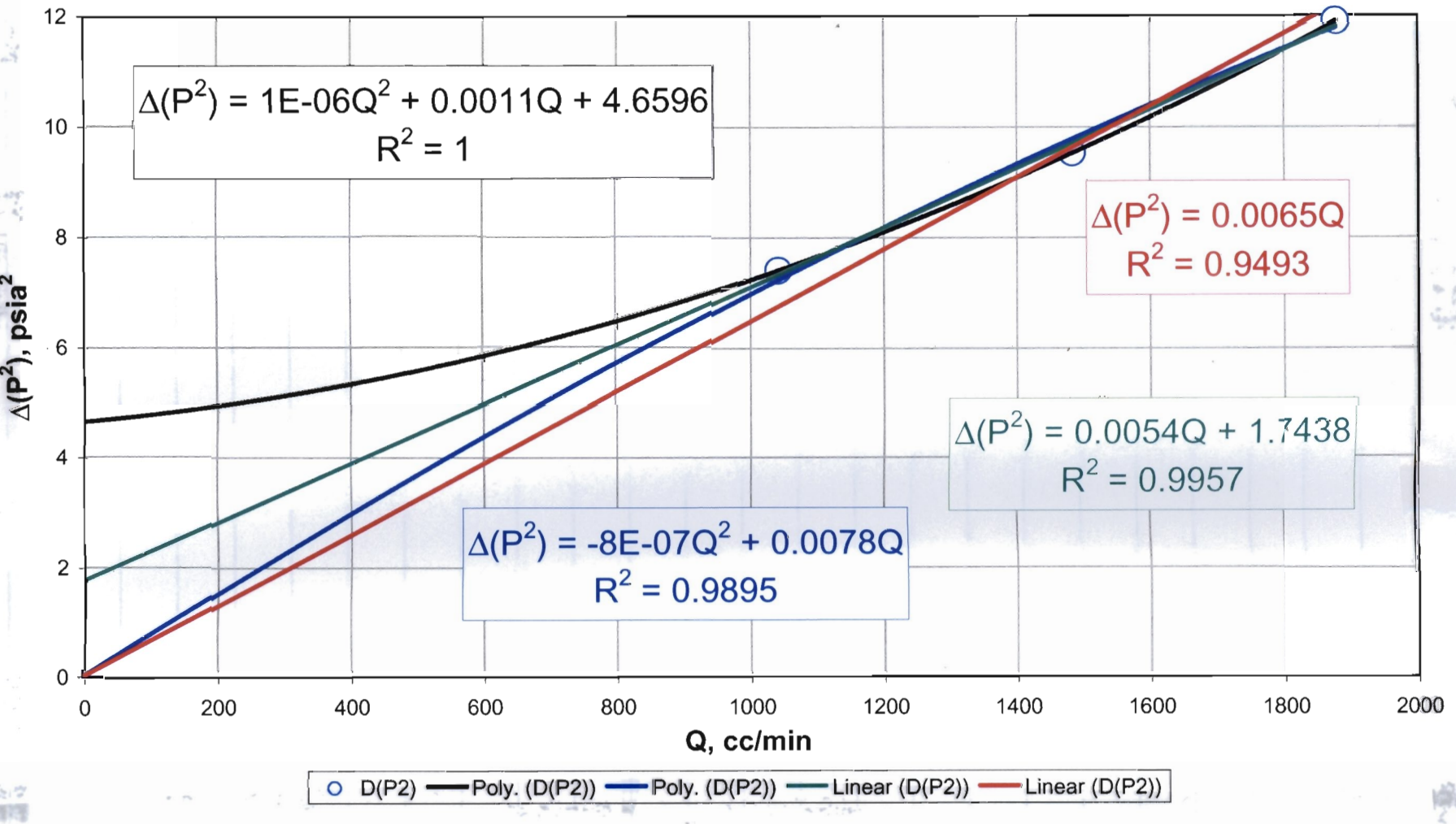
GWM, 01/30/03

Final check for high velocity flow effects:
High velocity flow effects are present when the slope is non-zero and positive.
V4 Transect: Drillhole 24



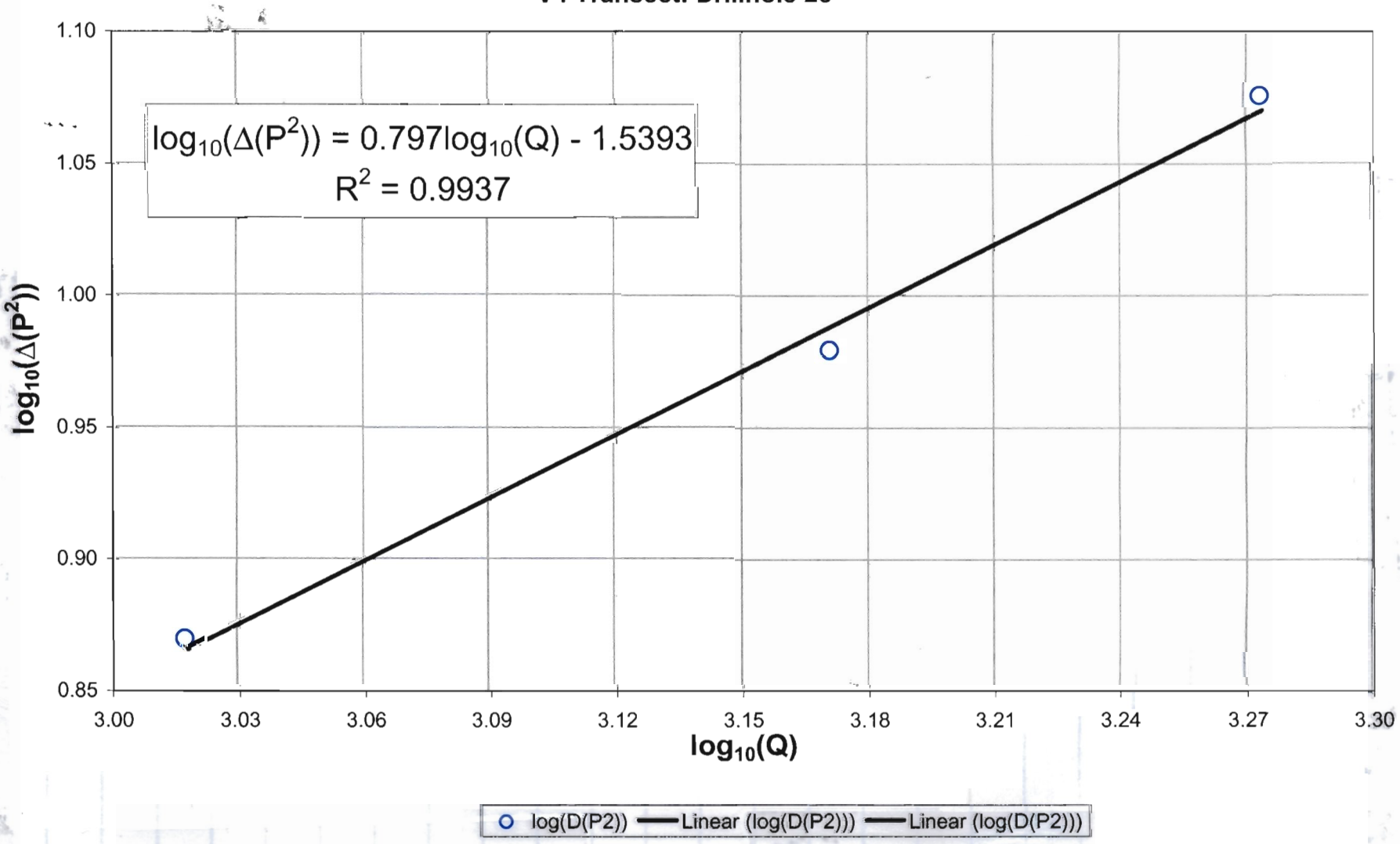
GWM, 01/30/03

Relationship between steady-state differential pressures squared and flowrate:
If relationship is linear, with the ordinate intercept nearly zero,
there is no high velocity flow effect.
V4 Transect: Drillhole 25



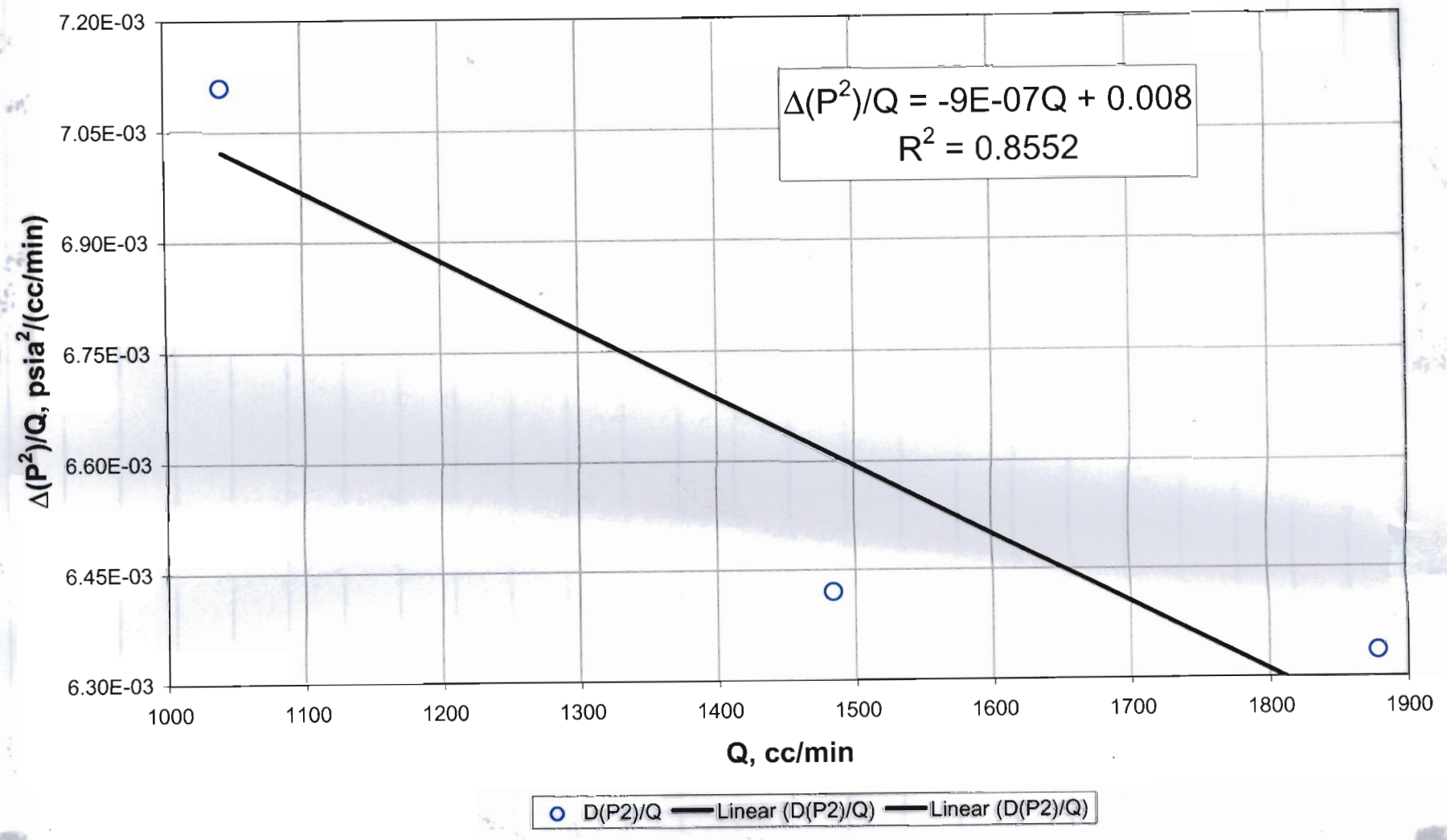
RWM, 01/30/03

Log-Log plot of differential pressures squared vs. flowrate--used to identify the presence of high-velocity flow effects (when the slope is greater than unity)
V4 Transect: Drillhole 25



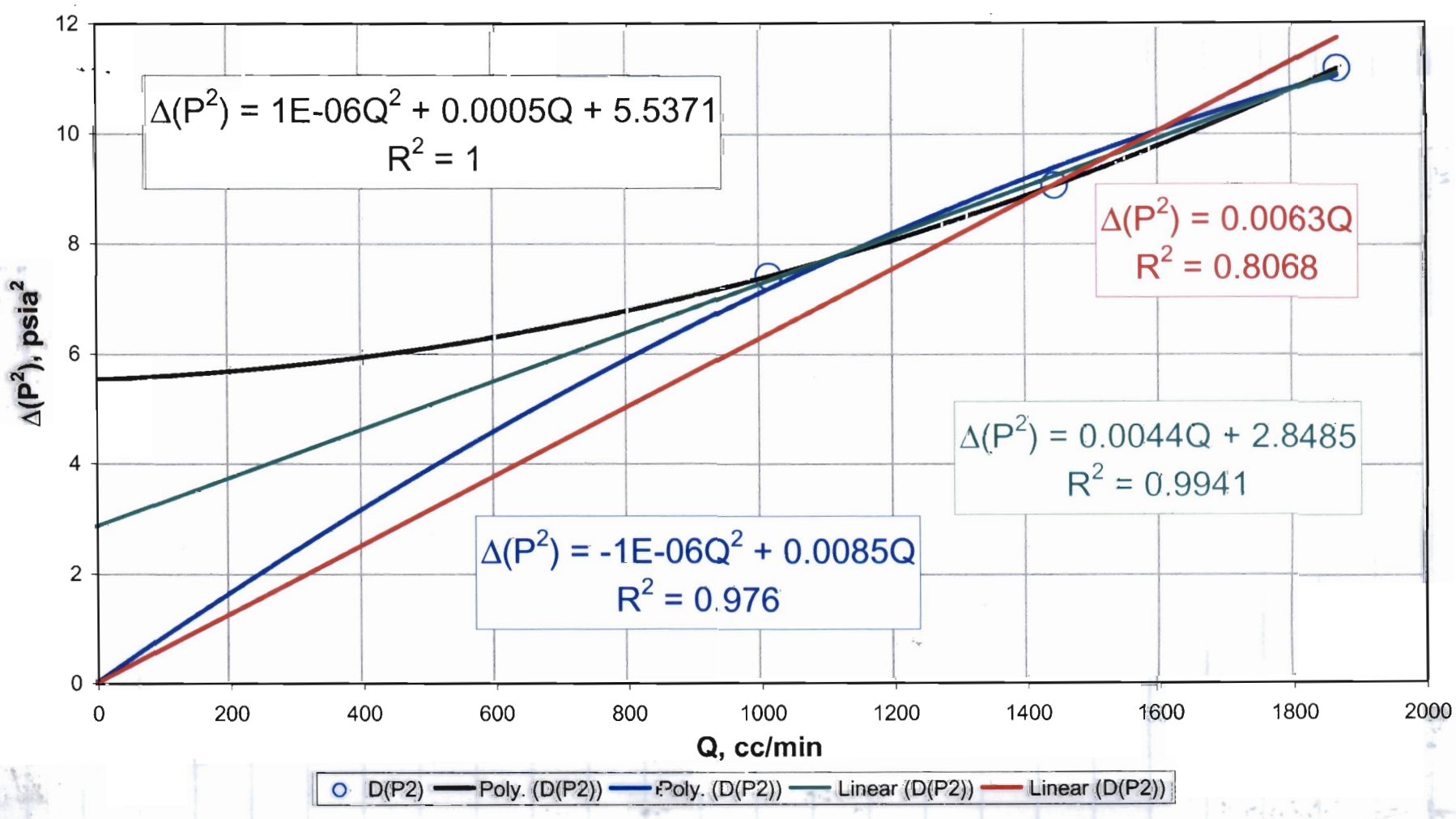
RWM, 01/30/03

Final check for high velocity flow effects:
High velocity flow effects are present when the slope is non-zero and positive.
V4 Transect: Drillhole 25



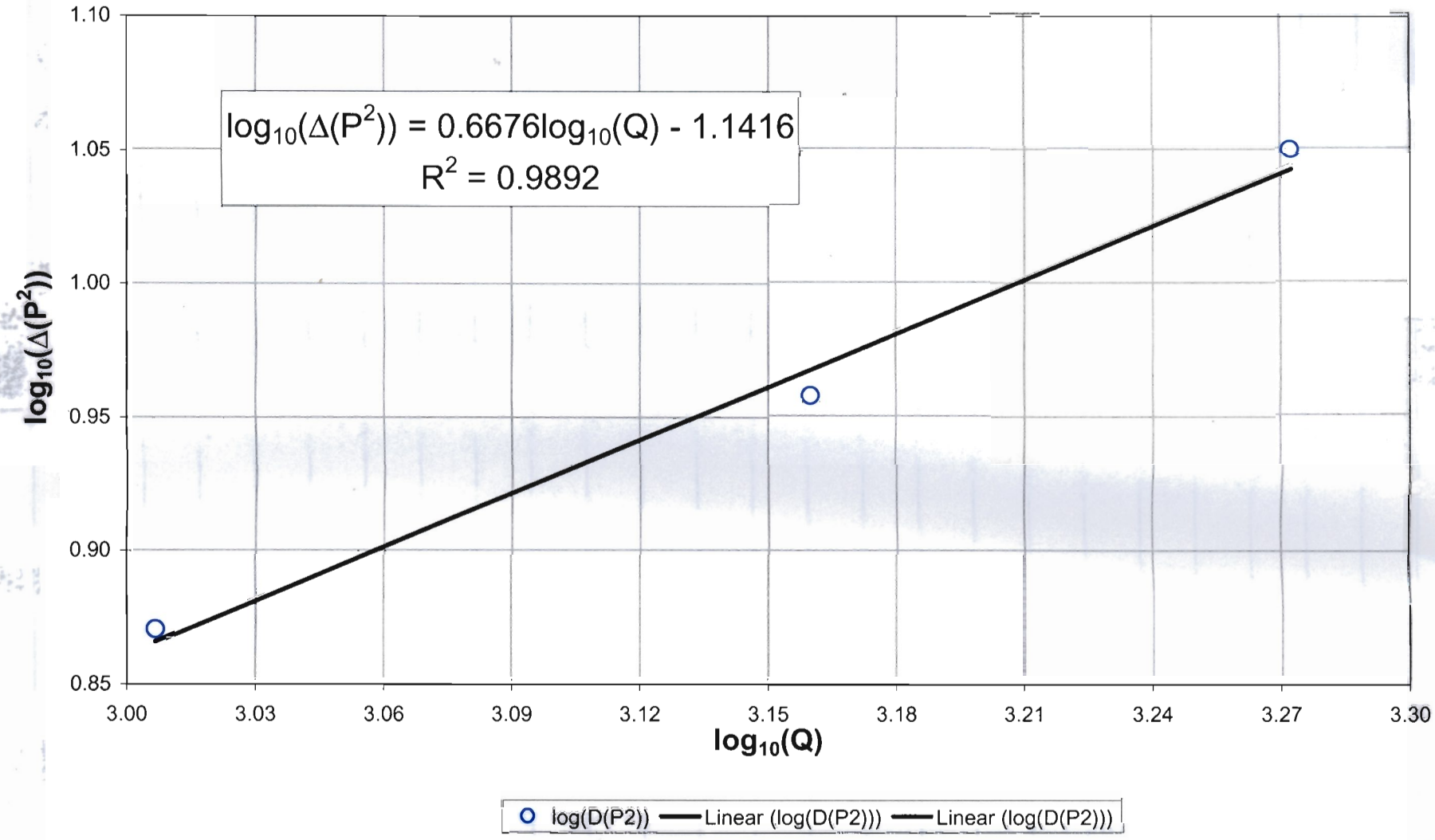
RWA, 01/30/03

Relationship between steady-state differential pressures squared and flowrate:
If relationship is linear, with the ordinate intercept nearly zero,
there is no high velocity flow effect.
V4 Transect: Drillhole 26



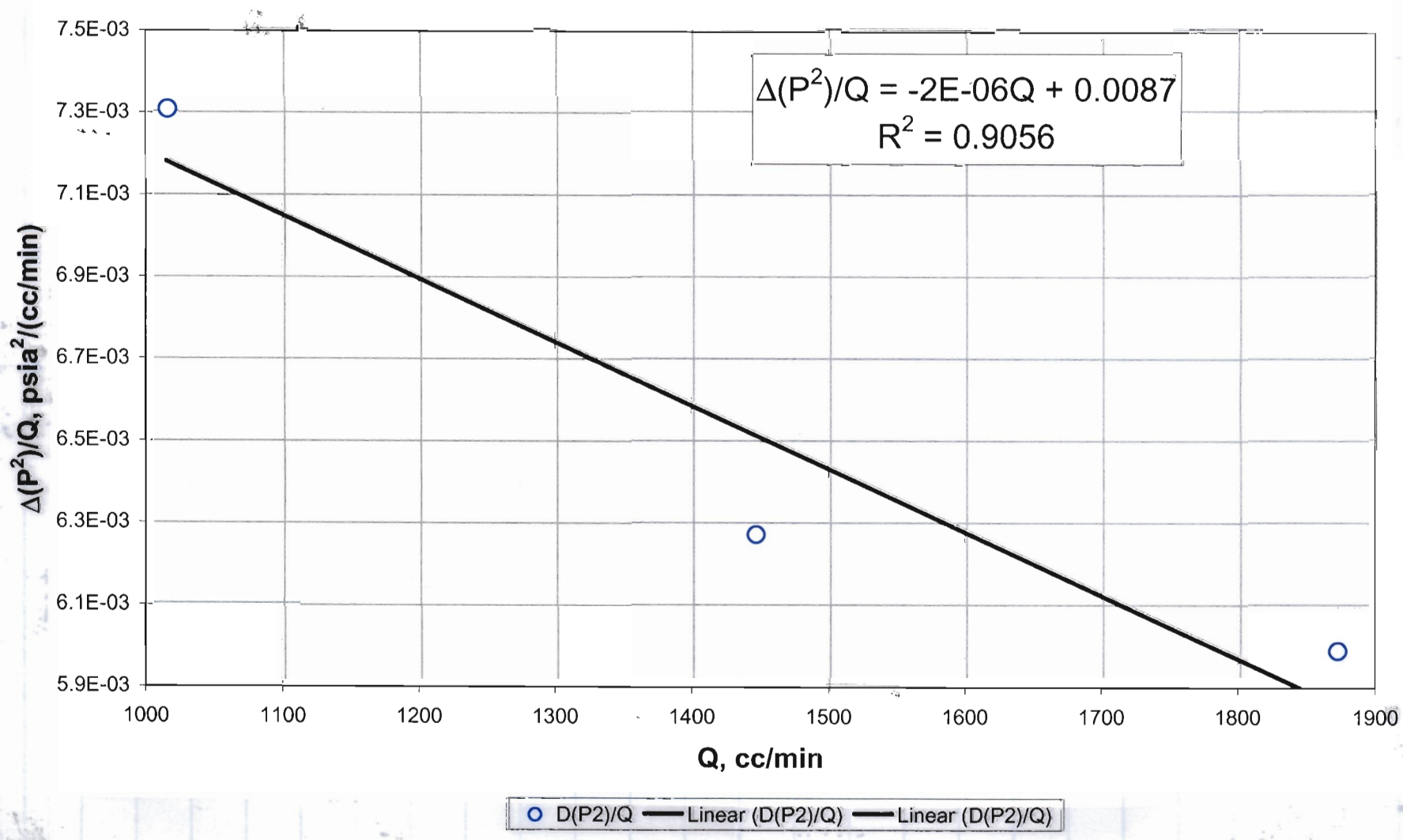
RWA, 01/30/03

Log-Log plot of differential pressures squared vs. flowrate--used to identify the presence of high-velocity flow effects (when the slope is greater than unity)
V4 Transect: Drillhole 26



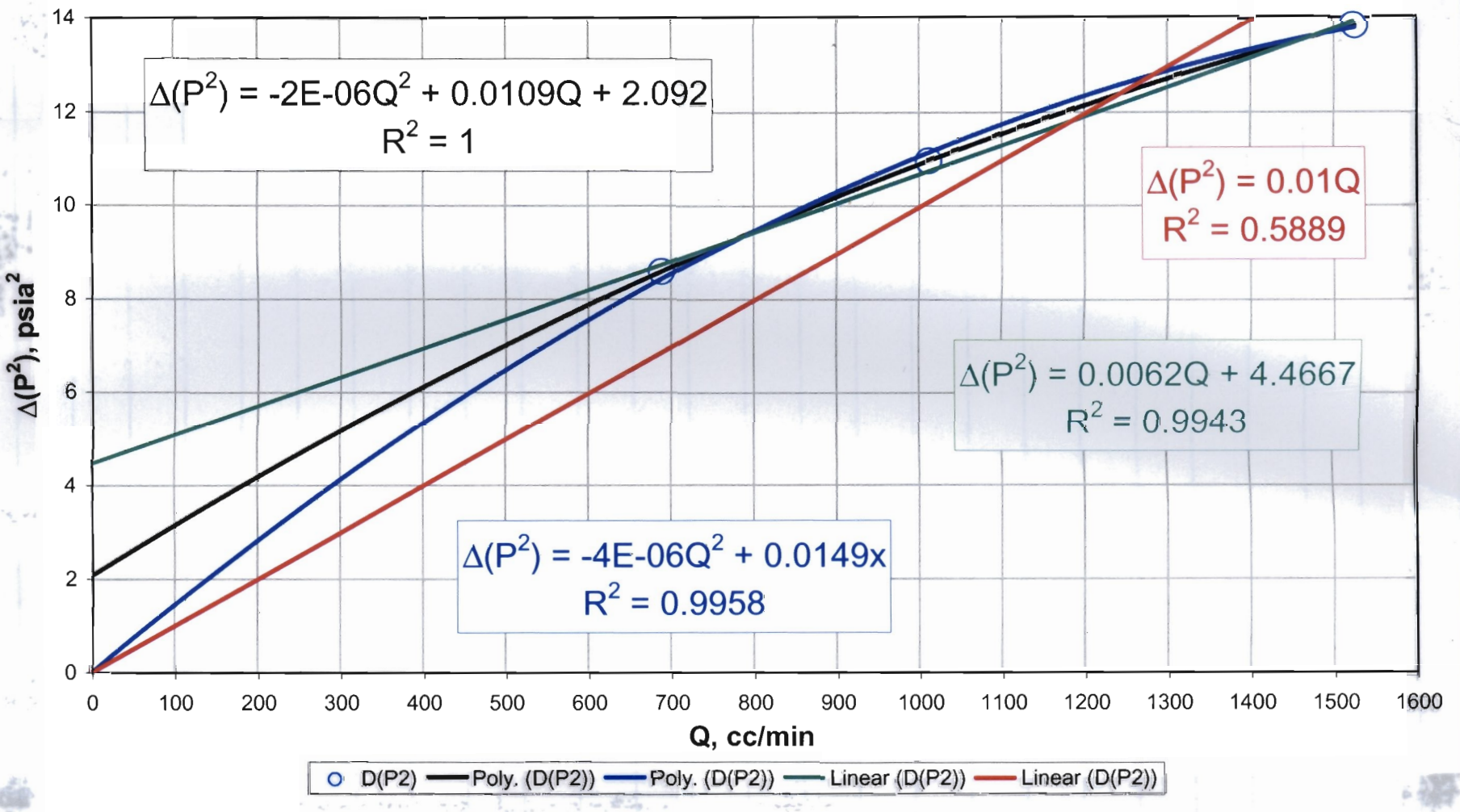
RWA, 01/30/03

Final check for high velocity flow effects:
High velocity flow effects are present when the slope is non-zero and positive.
V4 Transect: Drillhole 26



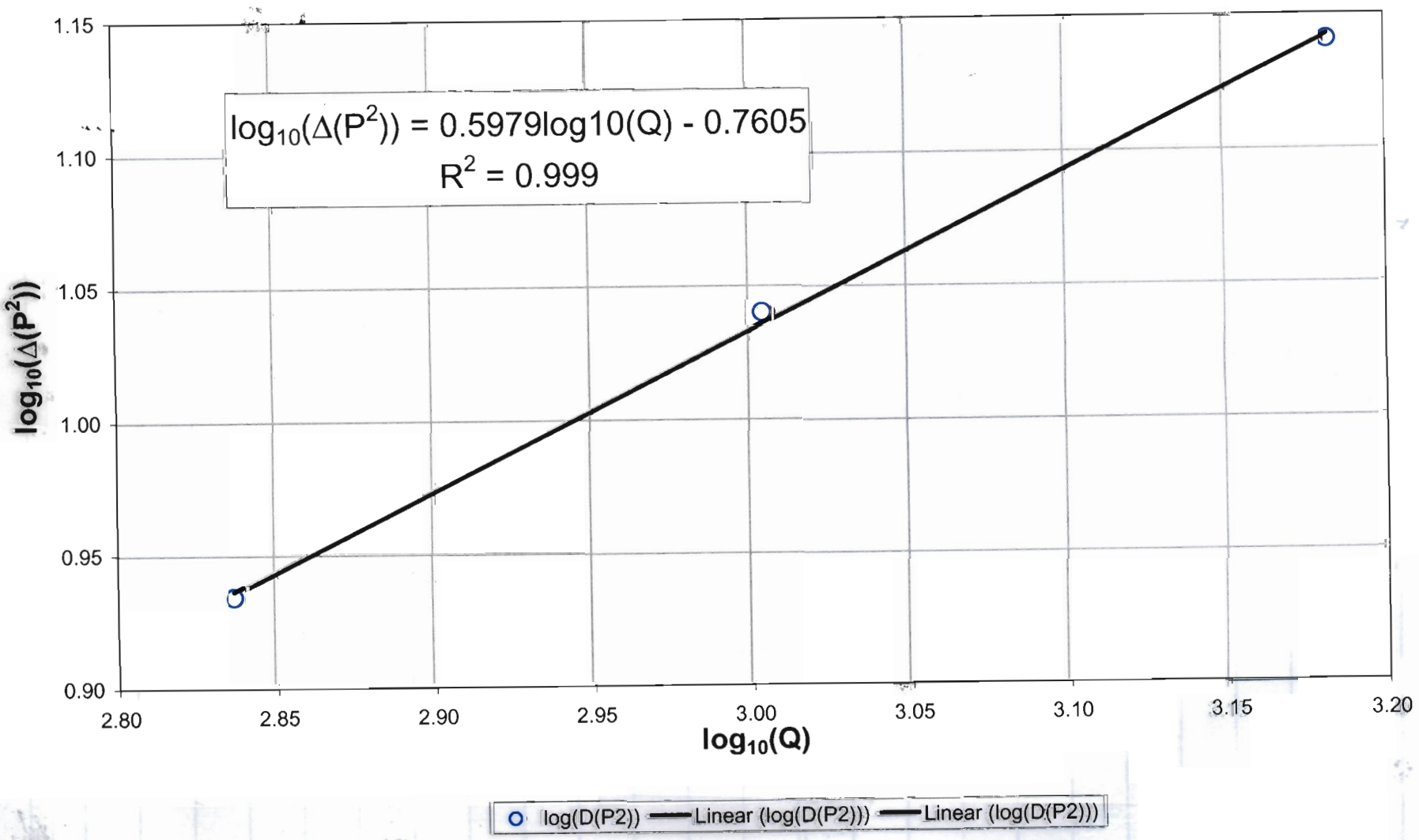
RWA, 01/30/03

Relationship between steady-state differential pressures squared and flowrate:
If relationship is linear, with the ordinate intercept nearly zero,
there is no high velocity flow effect.
V4 Transect: Drillhole 27



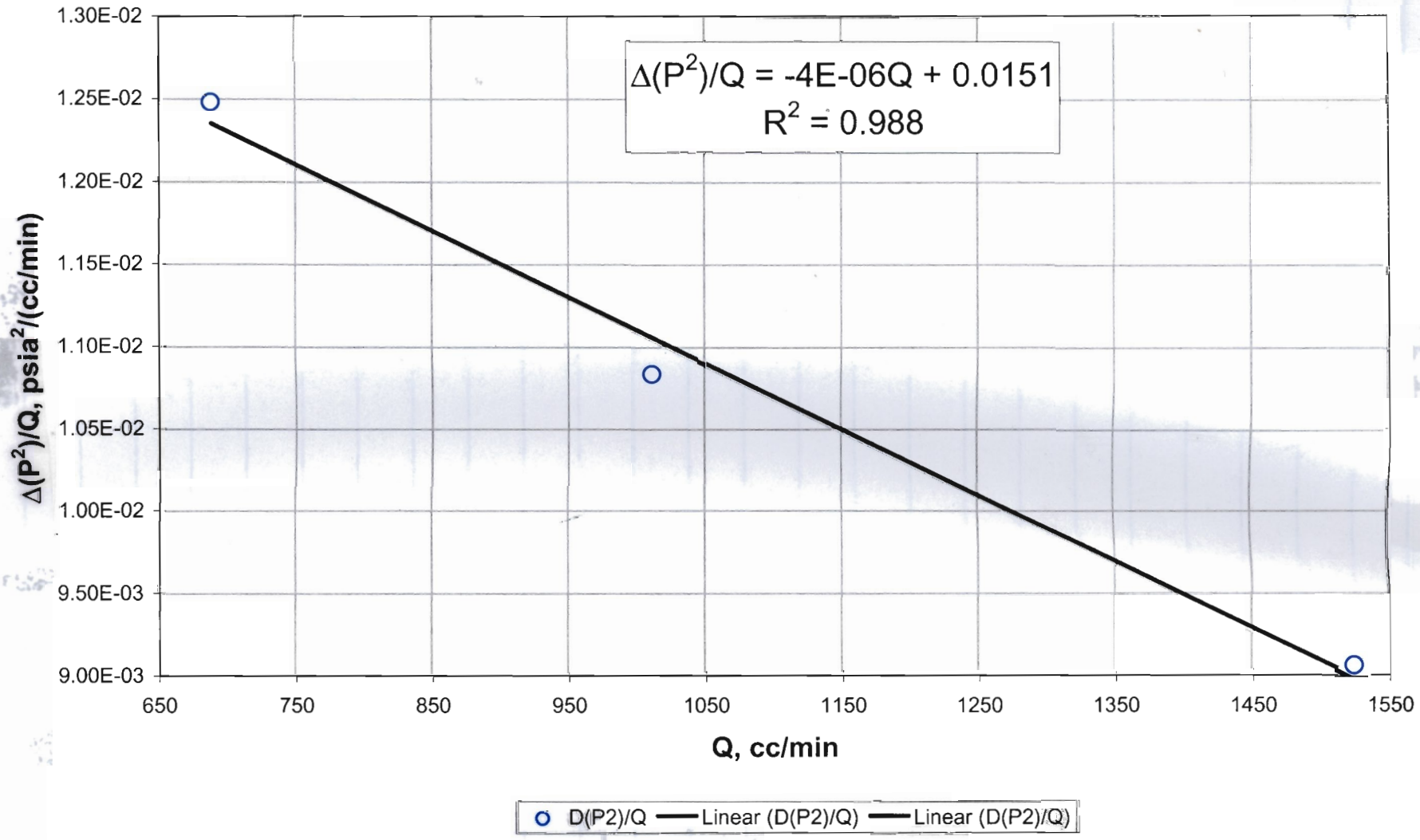
RWM, 01/30/03

Log-Log plot of differential pressures squared vs. flowrate--used to identify the presence of high-velocity flow effects (when the slope is greater than unity)
V4 Transect: Drillhole 27

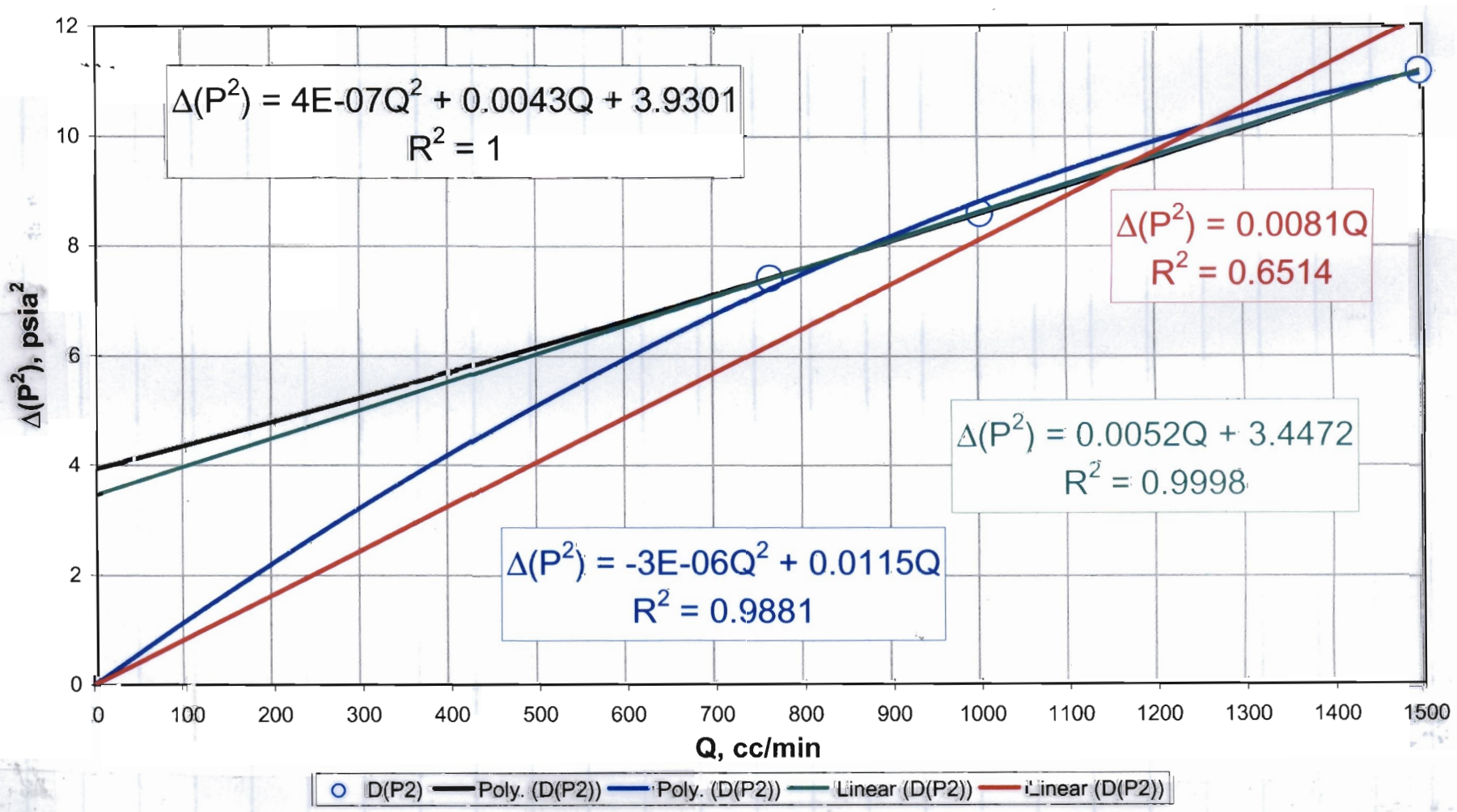


RWM, 01/30/03

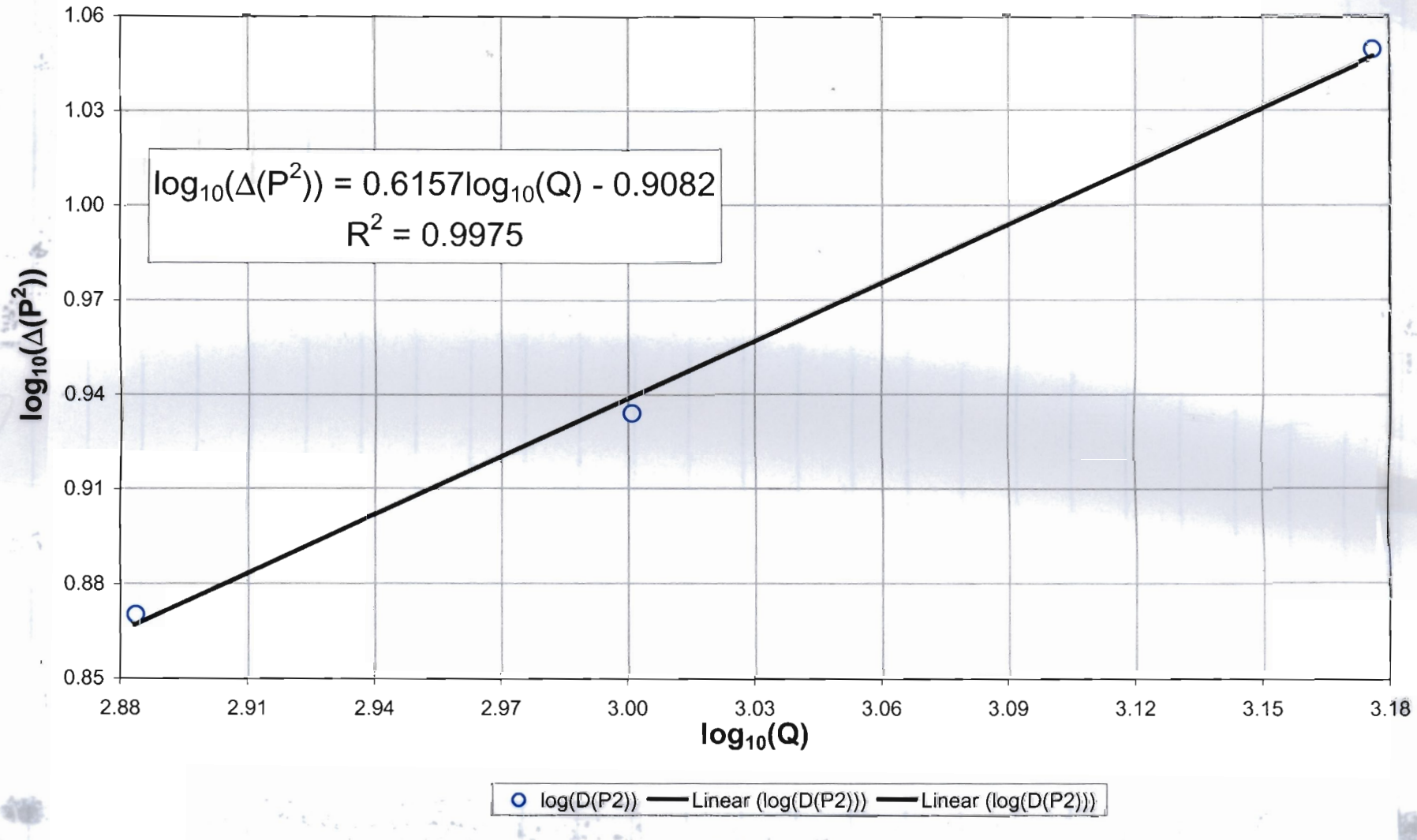
Final check for high velocity flow effects:
High velocity flow effects are present when the slope is non-zero and positive.
V4 Transect: Drillhole 27



Relationship between steady-state differential pressures squared and flowrate:
If relationship is linear, with the ordinate intercept nearly zero,
there is no high velocity flow effect.
V4 Transect: Drillhole 28

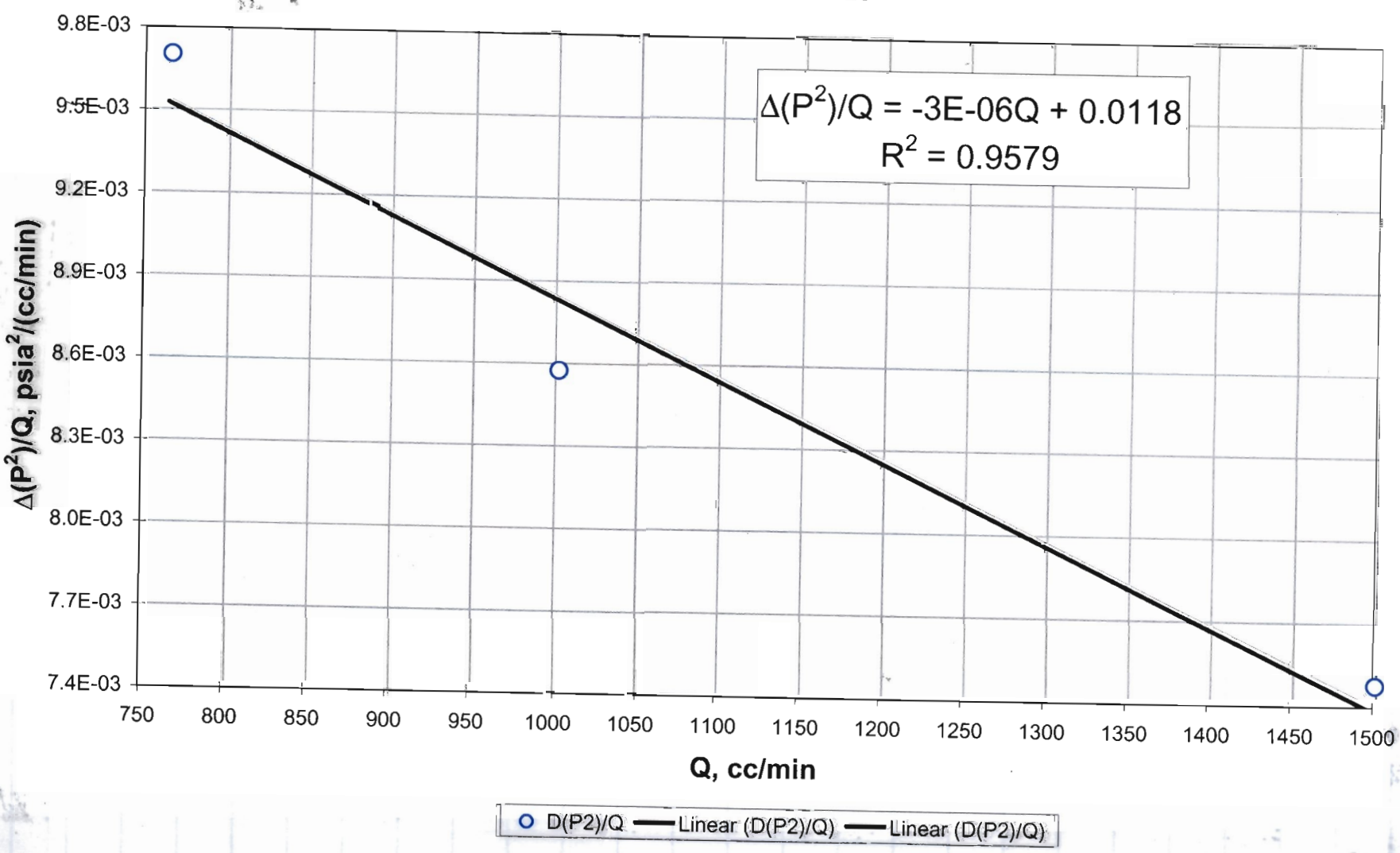


Log-Log plot of differential pressures squared vs. flowrate--used to identify the presence of high-velocity flow effects (when the slope is greater than unity)
V4 Transect: Drillhole 28



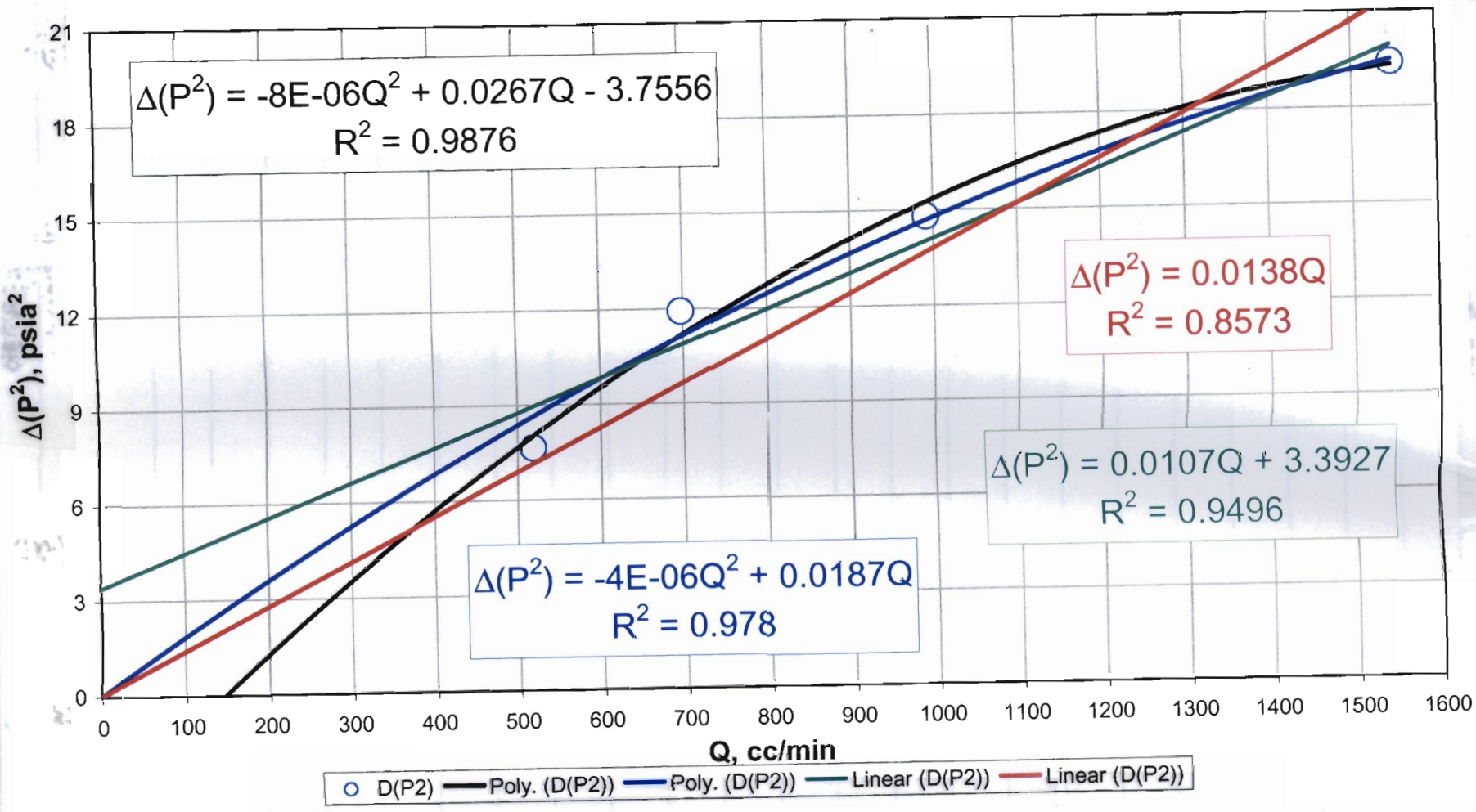
Run, 01/30/03

Final check for high velocity flow effects:
High velocity flow effects are present when the slope is non-zero and positive.
V4 Transect: Drillhole 28



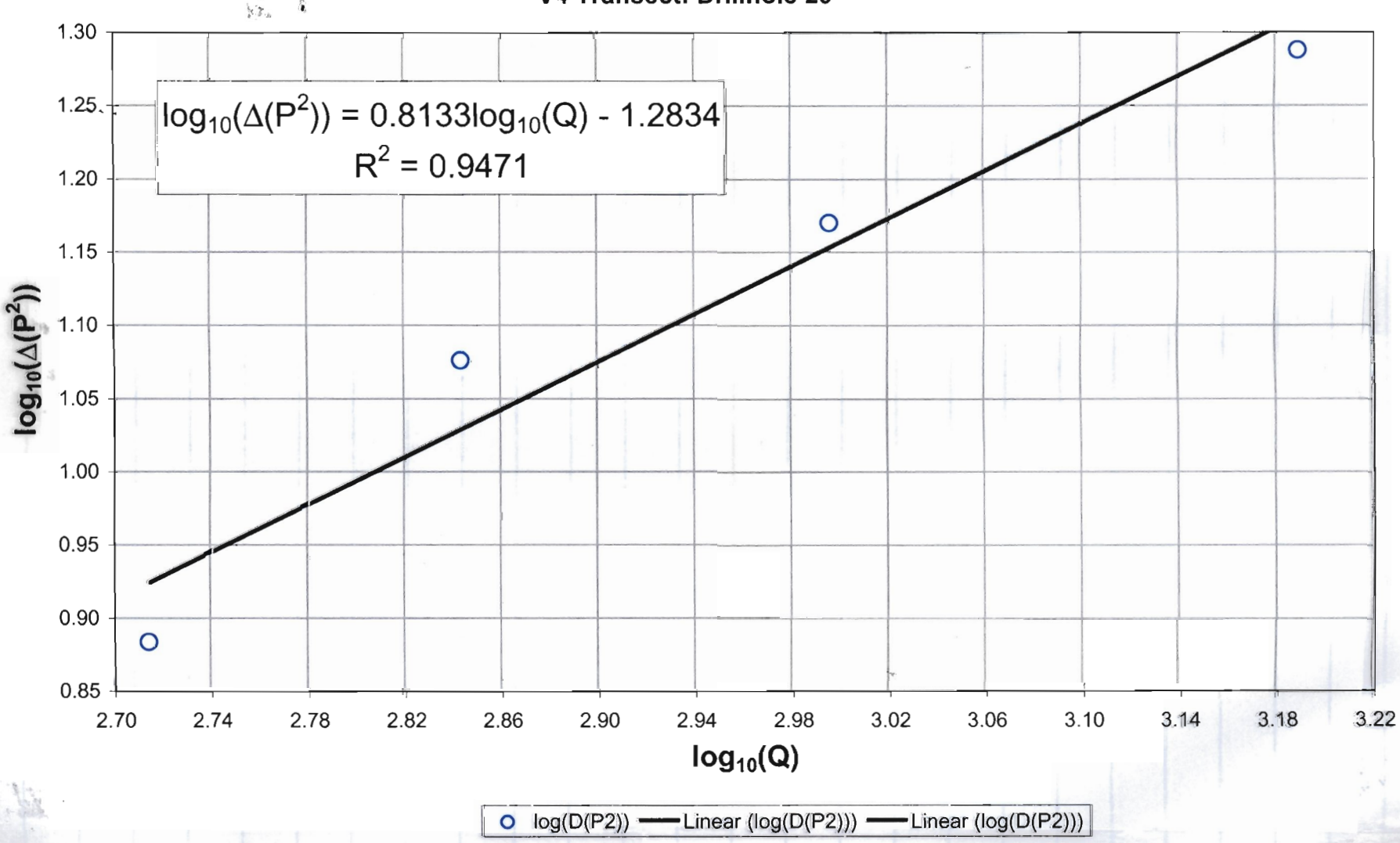
Run, 01/30/03

Relationship between steady-state differential pressures squared and flowrate:
If relationship is linear, with the ordinate intercept nearly zero,
there is no high velocity flow effect.
V4 Transect: Drillhole 29



RWM, 01/30/07

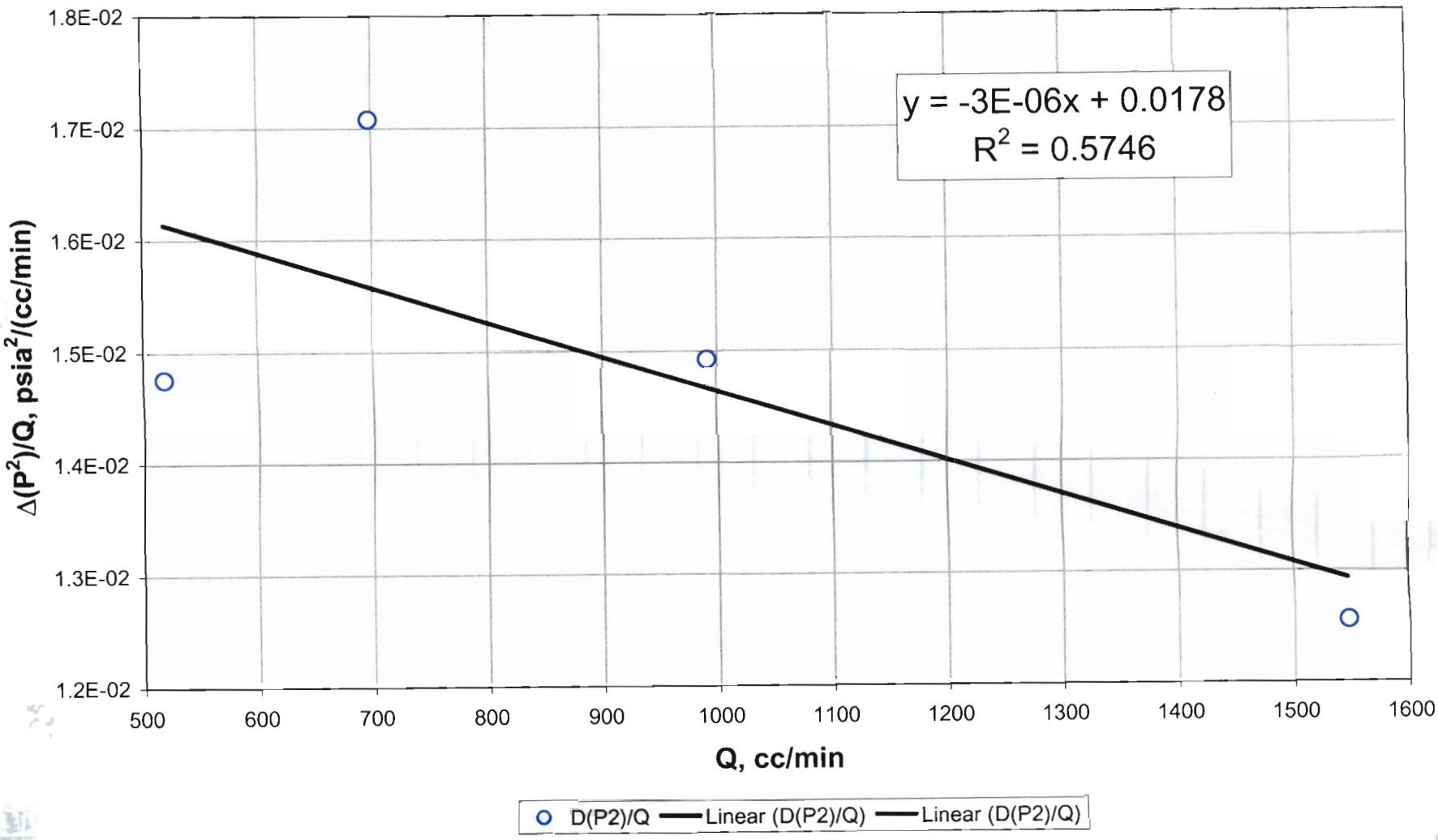
Log-Log plot of differential pressures squared vs. flowrate--used to identify the presence of high-velocity flow effects (when the slope is greater than unity)
V4 Transect: Drillhole 29



RWM, 01/30/07

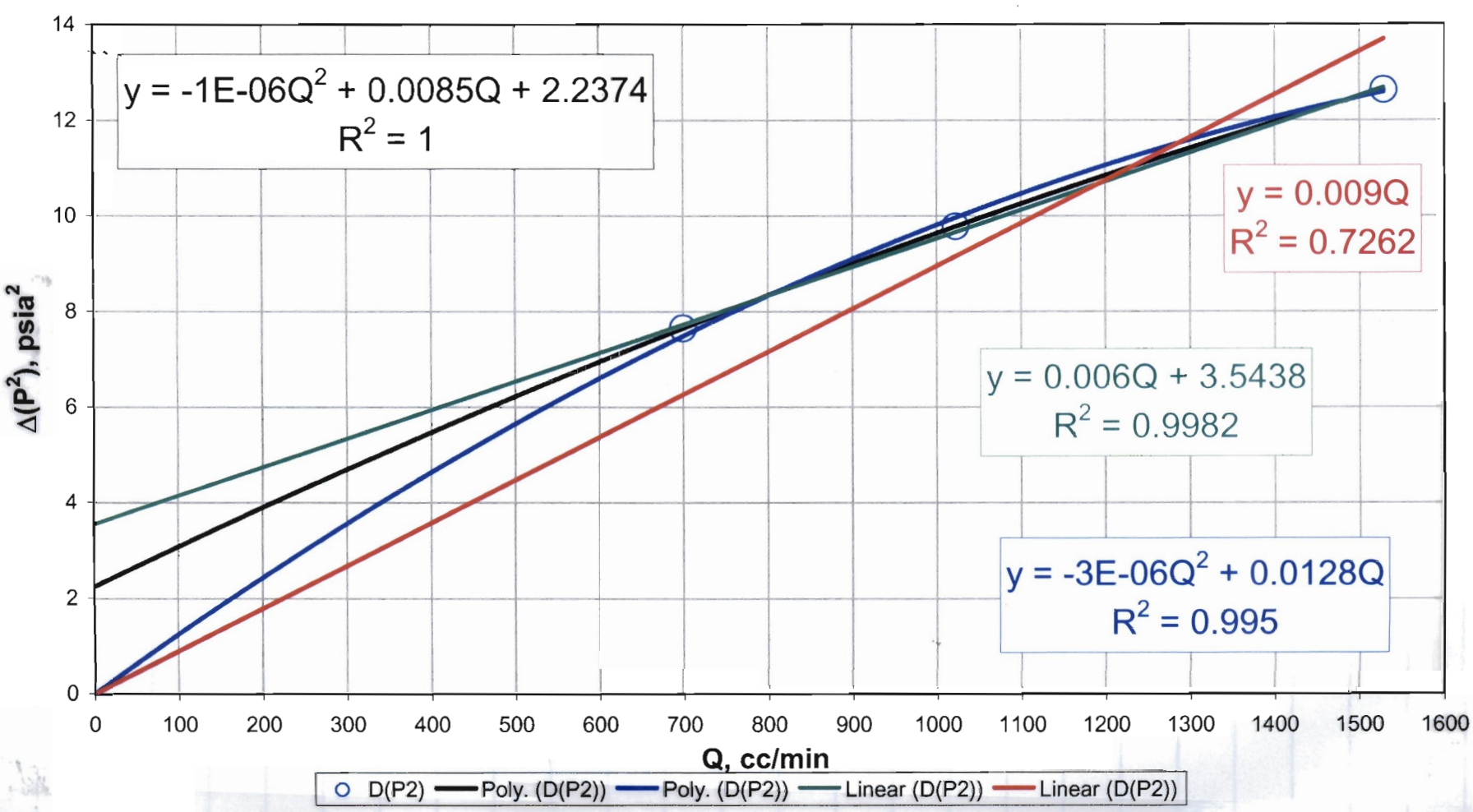
RMM, 01/30/09

Final check for high velocity flow effects:
High velocity flow effects are present when the slope is non-zero and positive.
V4 Transect: Drillhole 29

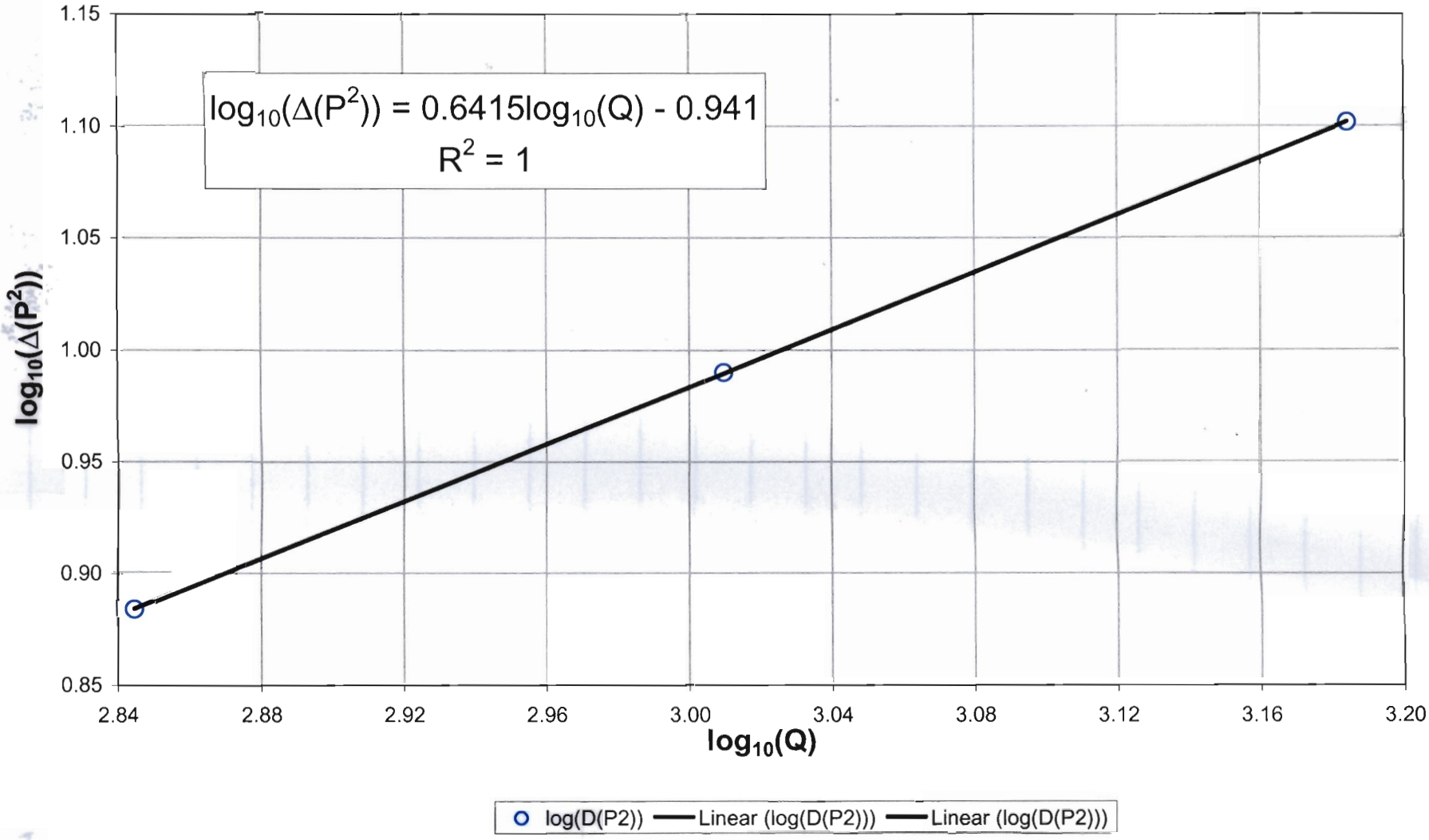


RMM, 01/30/09

Relationship between steady-state differential pressures squared and flowrate:
If relationship is linear, with the ordinate intercept nearly zero,
there is no high velocity flow effect.
V4 Transect: Drillhole 30

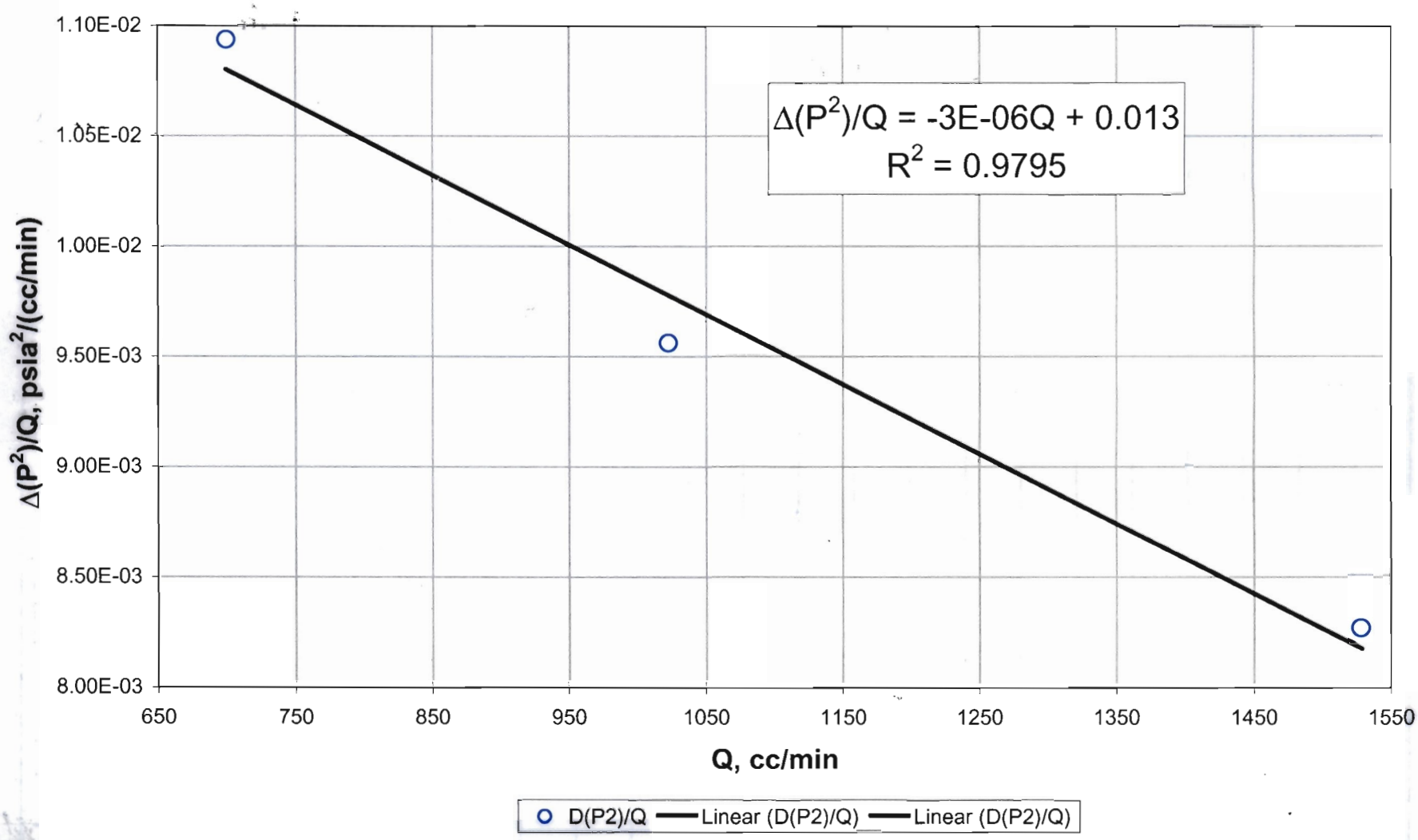


Log-Log plot of differential pressures squared vs. flowrate--used to identify the presence of high-velocity flow effects (when the slope is greater than unity)
V4 Transect: Drillhole 30



RWP, 01/30/03

Final check for high velocity flow effects:
High velocity flow effects are present when the slope is non-zero and positive.
V4 Transect: Drillhole 30



RWP, 01/30/03

The following is data analysis for transects D and H. This is an attempt to identify high velocity flow effects and then correct for HVF.

If $n = <1$, then HVF (fully turbulent)
If $n = .990 - 1.1$, then no HVF (fully Darcian)
If $n = >1.1$, then no HVF (two phase flow)
Also,

$$Q = B\,\Delta(p^2)^n$$

$$\Delta(p^2)^n = \frac{Q}{B}$$

$$\Delta(p^2) = \left[\frac{Q}{B}\right]^{1/n}$$

$$\Delta(p^2) = B^* Q^m = A Q^m$$

where $B^* = 1/B^m$

$m = 1/n$

$m = 2$ = fully turbulent

$m = 1$ = Darcian

$m < 1$ = two-phase

D - transect

D-10: A = .0868
= .0691
no HVF = .072
= .074
$\bar{A}$ = .076
Darcian n = 1.0059

D-9: A = .0648
.0529
no HVF .0604
$\bar{A}$ = .0594
Darcian n = 1.0436

RNM, 06/04/03

D-8: A = .0562
.0404
.056
no HVF .0576
.0626
$\bar{A}$ = .05456
Darcian n = 1.0256

D-7: A = .0475
.0445
no HVF .0452
.0478
$\bar{A}$ =
Darcian n = .9966

D-6: A = .0531
.0497
no HVF .0522
.0533
$\bar{A}$ = .0521
Darcian n = 1.0058

D-5: A = .056
.0447
.0512
HVF .0383
$\bar{A}$ = .04755
n = .8894
w/o LFD (Low flow datums)
A = .0353
.0261
HVF .0519
$\bar{A}$ = .0378
n = 1.4574

D-4: A = .0406
.0473
HVF .0519
.0329
$\bar{A}$ = .043175
RNM 06/04/03 n = .8685
w/o LFD
A =

RNM, 06/04/03

D-3: A = .0596
.0409
no HVF .0503
.0794
$\bar{A}$ = .0576
Darcian n = 1.409

D-2: A = .0745
.0869
HVF .061
$\bar{A}$ = .0741
n = .8631

D-1: A = .0477
.0425
HVF .0502
.0333
$\bar{A}$ = .0434
n = .852

D0: A = .0736
.0534
HVF .0636
.0411
$\bar{A}$ = .0579
n = .8385

D1: A = .0536
.0615
HVF .0369
.042
$\bar{A}$ = .0485
n = .8871

D2: A = .0727
.0629
HVF .0452
$\bar{A}$ = .0603
n = .8489

D3: A = .0281
.0523
HVF .062
.0371
$\bar{A}$ = .044875
n = .8442

D4: A = .0356
.0678
.0488
HVF .0617
$\bar{A}$ = ~~.0594~~ .0535 Rnm, 06/05/03
n = .8076

Rnm/06/05/03

D5
Rnm 06/06/03
~~D-5~~: A = .0112
.0314
HVF .0477
.0129
$\bar{A}$ = .0258
n = .06424

D6: A = .0409
.0758
HVF .0623
.0477
$\bar{A}$ = .0567
n = .8187

D7: A = .0255
.0623
HVF .085
.0351
$\bar{A}$ = .0520
n = .7131

D8: A = .0347
.0382
HVF .0291
.0314
$\bar{A}$ = .0334
n = .9189

D9: A = .0126
.0386
HVF .0584
.0135
A = .0308
n = .6237

D10: A = .0129
.0561
HVF .0408
.0177
$\bar{A}$ = .0319
n = .6753

D11: A = .0251
.039
HVF .0444
.0337
$\bar{A}$ = .0356
n = .8841

D12: A = .0176
.0475
HVF .0607
.0326
$\bar{A}$ = .0396
n = .7892

Rnm, 06/06/03

D 13: A = .0389
.037
HVF .0394
.0354
$\bar{A}$ = .0352
n = .9437

D 14: A = .0417
.0566
HVF .061
.0523
$\bar{A}$ = .0529
n = .9729

D 15: A = .0220
.0363
HVF .0456
.0256
$\bar{A}$ = .0324
n = .7838

D 16: A = .0238
.0375
HVF .0461
.0282
$\bar{A}$ = .0334
n = .8043

D 17: A = .0486
.0628
HVF .0676
.0603
$\bar{A}$ = .0598
n = .9449

D 18: A = .0542
.0412
HVF .0812
$\bar{A}$ = .0587
n = .7651

D 19: A = .0324
.0747
.0601
HVF .0417
$\bar{A}$ = .0522
n = .7902

D 20: A = .0513
.0617
no HVF .0619
.0664
$\bar{A}$ =
Darcian n = 1.0472

RNM, 06/23/03

D 21: A = .0401
.0612
HVF .0728
.0479
$\bar{A}$ = .0555
n = .8435

D 22: A = .05
.0557
HVF .0353
.0466
$\bar{A}$ = .0469
n = .8676

D 23: A = .0394
.0297
HVF .0423
.0389
$\bar{A}$ = .0376
n = .9558

D 24: A = .0453
.0673
HVF .0716
.0695
$\bar{A}$ = .0634
n = .9822

D 25: A = .0394
.0663
HVF .0594
.0532
$\bar{A}$ = .0546
n = .9139

D 26: A = .0483
.0620
no .0631
HVF .0687
$\bar{A}$ = .0605
Darcian n = 1.0302

D 27: A = .0483
.0677
no .0699
HVF .0732
$\bar{A}$ = .0648
Darcian n = 1.0031

D 28: A = .0483
.0673
no .0684
HVF .0763
$\bar{A}$ = .0651
Darcian n = 1.0367

RNM, 06/24/03

D 29 : A = .0361
.0673
HVF .0607
.0567
$\bar{A}$ = .0552
n = .9243

D 30 : A = .0292
.0559
HVF .0625
.0507
$\bar{A}$ = .0496
n = .927

RNM 06/24/03
D 31 : A = .035
.0844
HVF .0714
.0549
$\bar{A}$ = .0614
n = .8518

RNM 06/24/03
D 32 : A = .0591
.1007
HVF .1123
.0934
$\bar{A}$ = .0914
n = .9209

D 33 : A = .0208
.0537
HVF .0634
.0406
$\bar{A}$ = .0446
n = .8576

D 34 : A = .0349
.0585
HVF .0633
.0585
$\bar{A}$ = .0538
n = .967

D 35 : A = .0124
.0451
HVF .0442
.0592
.0184
$\bar{A}$ = .03586
n = .6743

D 36 : A = .0167
.0491
HVF .0479
.0634
.0257
$\bar{A}$ = .04056
n = .7273

RNM, 06/24/03

D 37 : A = .0226
.0754
HVF .06
.0401
$\bar{A}$ = .0495
n = .7823

D 38 : A = .0566
.0986
HVF .1154
.1043
.0989
$\bar{A}$ = .0948
n = .9386

D 39 : A = .0717
.0711
HVF .0565
.0207
.0358
$\bar{A}$ = .05116
n = .7713

D 40 : A = .0211
.0593
HVF .0726
.0416
$\bar{A}$ = .0487
n = .8058

D 41 : A = .0224
.0845
HVF .071
.0538
$\bar{A}$ = .0579
n = .8334

D 42 : A = .0352
.0877
HVF .1045
.0973
.066
$\bar{A}$ = .0781
n = .8482

D 43 : A = .0309
.0798
HVF .0947
.0721
.0601
$\bar{A}$ = .0675
n = .8489

D 44 : A = .0359
.1001
HVF .0857
.0689
$\bar{A}$ = .0727
n = .8619

RNM, 06/24/03

D 45: A = .0961
.1048
HVF .0911
.0374
.0766
$\bar{A}$ = .0812
n = .8887

D 46: A = .0109
.0456
HVF .0624
.0226
$\bar{A}$ = .0354
n = .6993

D 47: A = .0507
.1311
AVF .1651
.1294
.0831
$\bar{A}$ = .1119
n = .7764

D 48: A = .0688
.1594
~~HV~~F .1261
.1921
.1141
$\bar{A}$ = .1321
n = .8279

D 49: A = .0788
.1764
HVF .1602
.134
.1408
$\bar{A}$ = .138
n = .9387

D 50: A = .0451
.1213
HVF .1477
.1168
.0847
$\bar{A}$ = .1031
n = .8173

D 51: A = .0768
.1297
No .1247
HVF .1364
$\bar{A}$ = .117
Darcian n = 1.013

D 52: A = .076
.1432
AVF .159
.1338
$\bar{A}$ = .128
n = .926

RNM, 06/25/03

D 53: A = .0822
.1565
HVF .1773
.1402
$\bar{A}$ = .1391
n = .895

D 54: A = .0942
.0509
HVF .1603
.1567
$\bar{A}$ = .1405
n = .9841

D55: A = .0584
.1072
HVF .0885
.1169
.1064
$\bar{A}$ = .09548
n = .9654

D56: A = .055
.1063
HVF .1243
.1037
.0962
$\bar{A}$ = .0951
n = .8622

D57: A = .0468
.1005
HVF .1208
.0764
$\bar{A}$ = .0861
n = .83

D58: A = .0533
.1121
HVF .1324
.1274
.0892
$\bar{A}$ = .1029
n = .8511

D59: A = .0291
.0725
HVF .0847
.0592
$\bar{A}$ = .0614
n = .8598

D60: A = .0454
.0868
HVF .0939
.087
$\bar{A}$ = .0783
n = .9757

RNM, 06/25/03

D 61 : A = .0686
.1311
HVF .1414
.1322
$\bar{A}$ = .1183
n = .9673

D 62 : A = .0654
.01398
HVF .01539
.01123
.1323
$\bar{A}$ = .1207
n = .957

D 63 : A = .064
.1342
HVF .1554
.1124
$\bar{A}$ = .1162
n = .8749

D 64 : A = .0586
.1278
HVF .141
.1215
.114
$\bar{A}$ = .1128
n = .9522

D 65 : A = .0185
.0463
HVF .0555
.0433
.034
$\bar{A}$ = .03952
n = .8372

D 66 : A = .0428
.0905
HVF .1039
.0696
.0762
$\bar{A}$ = .0766
n = .8933

D 67 : A = .0619
.1345
HVF .1579
.109 Random distribution
$\bar{A}$ = ~~.061~~ .1158
n = .8516

D 68 : A = .0445
.0842
HVF .1029
.0757
$\bar{A}$ = .0781
n = .8776

RNM, 06/26/03

D 69 : A = .0336
.0847
HVF .0996
.0968
.0673
$\bar{A}$ = .0764
n = .8584

D 70 : A = .0623
.1289
HVF .1453
.1161
$\bar{A}$ = .1132
n = .9091

D 71 : A = .0513
.1109
HVF .1329
.126
.0844
$\bar{A}$ = .1011
n = .8338

D 72 : A = .0539
.1141
HVF .0988
.1332
.0918
$\bar{A}$ = .0984
n = .8688

D 73 : A = .0551
.0707
no .0733
HVF .073
$\bar{A}$ = .068
Darcian n = 1.0221

D 74 : A = .0657
.0907
no .096
HVF .091
$\bar{A}$ =
Darcian n = 1.0002

D 75 : A = .0627
.0911
no .0627
HVF .0945
.0971
$\bar{A}$ =
Darcian n = 1.0205

D 76 A = .057
no .0647
HVF .0854
Darcian .0894
.0896
$\bar{A}$ =
n = 1.0143

RNM, 06/26/03

D77 : A = .0408
.0706
no .0744
HVP .0731
.0745
Darcian n = 1.0067

D78 : A = .0749
.1307
HVF .1204
.0957
.119
$\bar{A}$ = .1207
n = .9628

D79 : A = .0501
.0861
HVF .0934
.0676
.0859
$\bar{A}$ = .07662
n = .9694

D80 : A = .0586
.1034
HVF .1184
.0677
.0867
$\bar{A}$ = .087
n = .8864

D81 : A = .0441
.0733
HVF .0787
.0751
$\bar{A}$ = .0678
n = .9726

D82 : A = .0736
.0782
No .0445
HVF .0752
.0768
Darcian n = .9929

D83 : A = .0953
No .1005
HVF .0587
.1008
Darcian n = .9968

D84 : A = .0825
.1271
HVF .1376
.1221
.126
$\bar{A}$ = .1191
n = .9573

RNM, 06/26/03

D85 : A = .0482
No .0781
HVF .0748
.0812
.0793
Darcian n = 1.0134

D86 : A = .0694
.1106
HVF .1211
.0956
.1086
$\bar{A}$ = .1007
n = .946

D87 : A = .0718
.1223
HVF .1148
.1117
.119
$\bar{A}$ = .1079
n = .9853

D88 : A = .0669
.098
HVF .1037
.112
.1034
$\bar{A}$ = .0968
n = .9642

D89 : A = .0499
no .0854
HVF .0814
.0864

D90 : A = .0942
.0567
HVF .0924
.0999
$\bar{A}$ = .0859
n = .9647

Darcian n = ~~.9642~~ RNM 06/30/03 .9944

D91 : A = .0552
.0877
No .092
HVF .094
Darcian n = 1.0034

D92 : A = .0602
.1012
HVF .108
.1041
$\bar{A}$ = .09345
n = .9833

RNM, 06/30/03

D 93 : A = .0599
.1015
HVF .1081
.1058
$\bar{A}$ = .0938
n = .8842

D 94 : A = .0727
.1217
HVF .1356
.1339
.1126
$\bar{A}$ = .1153
n = .9194

D 95 : A = .0474
.0.1225
HVF .1361
.1134
$\bar{A}$ = .1049
n = .9254

D 96 : A = .0297
.0798
HVF .1026
.0513
$\bar{A}$ = .0659
n = .7575

D 97 : A = .0528
.1274
HVF .1535
.1528
.0950
$\bar{A}$ = .1163
n = .8284

D 98 : A = .0586
.0713
HVF .1172
.1352
.0952
$\bar{A}$ = .0955
n = .8862

D 99 : A = .0405
.0425
HVF .0811
.0932
.0659
$\bar{A}$ = .0646
n = .8407

D 100 : A = .0367
.0834
HVF .0709
.0947
.0722
$\bar{A}$ = .0716
n = .8093

RNM, 07/01/03

D 101 : A = .0621
.1592
HVF .1356
.1059
.1062
$\bar{A}$ = .1138
n = .8623

D 102 : A = .0386
A = .0997
HVF .1153
.0984
.0819
$\bar{A}$ = .0868
n = .8835

D 103 : A = .0178
.0538
HVF .0535
.0593
.0489
$\bar{A}$ = .0454
n = .0467

D 104 : A = .0413
.0959
HVF .0824
.1168
.067
$\bar{A}$ = .0807
n = .8163

D 105 : A = .0313
.0625
HVF .0725
.0466
$\bar{A}$ = .0532
n = .8705

D 106 : A = .0333
.0888
HVF .1041
.0821
.0682
$\bar{A}$ = .0754
n = .8612

D 107 : A = .0649
.1348
HVF .1701
.1096
.0866
$\bar{A}$ = .1132
n = .7783

D 108 : A = .0517
.1071
HVF .0629
.1275
.0781
$\bar{A}$ = .0855
n = .8485

RNM, 07/01/03

D 109 : A = .0528
.0753
HVF .1093
.1282
.0841
$\bar{A}$ = .0899
n = .8624

D 110 : A = .0328
.0468
HVF .0902
.0111
.0733
$\bar{A}$ = .0730
n = .8818

D 111 : A = .0565
.075
HVF .1326
.1488
.1146
$\bar{A}$ = .1055
n = .9297

D 112 : A = .0401
.0761
HVF .1309
.1077
.0717
$\bar{A}$ = .0853
n = .8168

D 113 : A = .1074
.126
HVF .0442
.0666
.0798
$\bar{A}$ = .0848
n = .8613

D 114 : A = .031
.0823
HVF .1033
.0411
.0475
$\bar{A}$ = .061
n = .7737

D 115 : A = .0437
.1148
HVF .1393
.0866
.0774
$\bar{A}$ = .0924
n = .819

D 116 : A = .0445
.115
HVF .1413
.0778
.0742
$\bar{A}$ = .0906
n = .8035

RNM, 07/01/03

D 117 : A = .0664
.0485
HVF .0968
.1151
$\bar{A}$ = .0817
n = .8342

D 118 : A = .0736
.0497
HVF .0426
.111
.1341
$\bar{A}$ = .0822
n = .8193

D 119 : A = .0632
.0363
HVF .1002
.1233
.0657
$\bar{A}$ = .0777
n = .8005

D 120 : A = .0308
.0104
HVF .062
.08
.0738
$\bar{A}$ = .0514
n = .7358

D 121 : A = .0556
.0393
HVF .0839
.0998
$\bar{A}$ = .0697
n = .8293

D 122 : A = .0726
.0914
HVF .045
.1213
.1529
$\bar{A}$ = .0966
n = .7754

D 123 : A = .0913
.0564
.1448
.1789
.0983
$\bar{A}$ = .1139
n = .7958

D 124 : A = .0776
.0405
HVF .12
.1474
.1176
$\bar{A}$ = .1006
n = .8015

RNM, 07/01/03

D125 : A = .0384
.0264
HVP .0645
.0778
$\bar{A}$ = .0518
n = .8013

H-10 : A = .0561
.0346
HVF .0556
.0654
.0595
$\bar{A}$ = .0522
n = .9705

H-9 : A = .0738
.041
HVP .0726
.0782
$\bar{A}$ = .0664
n = 9723

H-8 : A = .0802
.0518
HVF .0778
.0826
.0685
$\bar{A}$ = .0724
n = .9877

H-7 : A = .0718
no .0664
HVF .0456
.0668
.0698
Duncan n = .10075

H-6 : A = .0185
.0256
HVF .0281
.0241
$\bar{A}$ = .0241
n = .9204

H-5 : A = .0435
.0231

(cont.) H-5 : A =

RNM, 08/02/03

HD-4 : A = .022
.0196
Klinkenberg .0185
.0201
$\bar{A}$ = .02005
n1 = .9458
A = .0125
.0188
.0280
$\bar{A}$ = .0201
n2 = 1.6128

HD-3 : A = .0154
.0367
HVF .0437
.0411
.0282
$\bar{A}$ = .03312
n = .8432

HD-2 : A = .016
.0374
HVF .0437
.0298
$\bar{A}$ = .0318
n .8578

HD-1 : A = .0175
.0379
HVF .0442
.0312
$\bar{A}$ = .0327
n = .868

HD 0 : A = .0187
.0395
HVF .0452
.0341
$\bar{A}$ = .0344
n = .8912

HD 1 : A = .0217
.042
HVF .048
.0377
.0341
$\bar{A}$ = .0369
n = .8676

RNM, 08/07/03

H 2 : A = .0138
.0324
HVF .0391
.0243
$\bar{A}$ = .0274
n = .8214

H 3 : A = ~~.037~~ RNM 07/07/03
.0319
No .0365
HVF .0353
.0433
.0372
Two Phase Flow n = 1.1049

H 4 : A = .0311
no .0412
HVF .0414
.0471
$\bar{A}$ =
Darcian n = 1.0502

H 5 : A = .039
no .0388
HVF .0296
.0445
.043
Darcian n = 1.0519

H 6 : A = .0312
no .0503
HVF .0456
.0536
.0521
Darcian n = .9899

H 7 : A = .0373
.056
HVF .0601
.0358
.0561
A = .0491
n = .9775

H 8 : A = .0267
~~A~~ RNM 07/07/03 .0501
HVF .0468
.0505
.0468
$\bar{A}$ = .04418
n = .9698

H 9 : A = .017
.0297
HVF .0354
~~.0318~~ RNM 07/07/03
.0232
$\bar{A}$ = ~~.0274~~ RNM 07/07/03 .0263
n = .8412

RNM, 07/07/03

H 10 A = .03
.0611
HVF .068
.0572
$\bar{A}$ = .0541
n = .9279

H 11 : A = .0224
.0408
HVF .0443
.0337
.0403
$\bar{A}$ = .0363
$\bar{n}$ = .9712

H 12 : A = .0209
.0527
HVF .0585
.0498
$\bar{A}$ = .4555
n = .9216

H 13 : A = .0377
.0641
HVF .0756
.0667
$\bar{A}$ = .0623
n = .9496

H 14 : A = .0243
.0491
HVF .0549
.0451
$\bar{A}$ = .0434
n = .9237

H15 : A = .03
.0626
HVF .0679
.0623
$\bar{A}$ = .0557
n = .9596

H 16 : A = .0271
.0558
HVF .0616
.0524
$\bar{A}$ = .0444
n = .9389

H 17 : A = .0453
.0911
HVF .0997
.0888
$\bar{A}$ = .0812
n = .9473

RNM, 07/08/03

H 18 : A = .0387
.096
AVP .1081
.0991
.0867
$\bar{A}$ = .0857
n = .9209

H 19 : A = .026
HVF .0649
.0772
.0636
.0492
$\bar{A}$ = .0562
n = .8462

H 20 : A = .026
.0634
HVF .0731
.0704
.0527
$\bar{A}$ = .0591
n = .884

H 21 : A = .0221
.0525
HVP .0459
.0627
.0392
$\bar{A}$ = .0445
n = .8398

H 22 : A = .0229
.0575
HVP .0666
.0663
.047
$\bar{A}$ = .0521
n = .878

H 23 : A = .0139
.0404
HVP .0471
.0324
$\bar{A}$ = .0335
n = .8648

H 24 : A = .0267
.0679
HVP .08
.0538
$\bar{A}$ = .0571
n = .8487

H 25 : A = .0305
.0483
HVP .0525
.0485
.0512
$\bar{A}$ = .0464
n = .9886

RNM 07/08/03

H 26 : A = .0175
.0308
HVF .0346
.0344
.0278
$\bar{A}$ = .0290
n1 = .9073
A = .0347
Klinkenberg .0336
.0278
$\bar{A}$ = .0320
n2 = .9518

H 27 : A = .0377
.0601
HVP .067
.0509
.0552
$\bar{A}$ = .0532
n = .9284

H 28 : A = .0324
.0621
HVF .0685
.0641
.0598
$\bar{A}$ = .0574
n = .9445

H 29 : A = .042
.0769
HVP .0857
.0659
.0711
$\bar{A}$ = .0683
n = .9286

H 30 : A = .0287
.0597
AVP .0666
.0554
$\bar{A}$ = .0526
n = .9191

H 31 : A = .0663
.1446
HVP .162
.1317
$\bar{A}$ = .1262
n = .9115

RNM, 07/08/03

H 32 : A = .0558
.1045
HVF .1183
.088
$\bar{A}$ = .0917
n = .9104

H 33 : A = .0316
.0389
HVF .0512
.0556
.0506
$\bar{A}$ = .0456
n = .9641

H 34 : A = .0556
no .0925
HVF .0984
.0959
.0962
Darcian n = .9903

H 35 : A = .0483
no .0808
HVF .0854
.0859
Darcian n = .9901

H 36 : A = .0487
.0795
HVF .0801
.0793
$\bar{A}$ .0848
$\bar{A}$ = .0757
n = .9606

H 37 : A = .0402
.0679
HVF .0733
.0652
.0688
$\bar{A}$ = .06308
n = .9711

H 38 : A = .0537
.0949
HVF .1041
.0942
.0919
$\bar{A}$ = .0878
n = .9486

H 39 : A = .0176
.0317
HVF .035
.0306
$\bar{A}$ = .0287
n = .9267

RNM, 07/08/03

H 40 : A = .0488
.0939
HVF .1039
.0927
.0887
$\bar{A}$ = .0856
n = .9396

H 41 : A = .0328
.0677
HVF .0738
.0831
$\bar{A}$ = .0644
n = .957

H 42 : A = .0426
.0899
HVF .1016
.0803
$\bar{A}$ = .0786
n = .9067

H 43 : A = .0473
.1028
HVF .1128
.0996
$\bar{A}$ = .0906
n = .9376

H 44 : A = .0612
.1347
HVF .1513
.1221
$\bar{A}$ = .1173
n = .9107

H 45 : A = .0201
.0546
HVF .0652
.0626
.0411
$\bar{A}$ = .0487
n = .8402

H 46 : A = .0215
.0544
HVF .0646
.0416
$\bar{A}$ = .0455
n = .8444

H 47 : A = .0043
.0291
Klinkenberg .049
.0549
.0056
n = .5623

RNM, 07/09/03

H48 : A = .0101
.0444
HVF .0609
~~.0583~~ RNM 07/09/03
.0203
Ā = ~~.0388~~ .0339
n = .6926

H49 : A = .0078
.0389
HUF .0529
.0188
Ā = .0296
n = .7001

H50 : A = .0187
.0664
HUF .0831
.0806
.0482
Ā = .0582
n = .784

H51 : A = .0385
.0828
HVF .0958
.0695
Ā = .0717
n = .8777

H52 : A = .0383
.0767
HUF .0848
.0814
.0727
Ā = .0708
n = .9402

H53 : A = .0528
.1307
HUF .1528
.1064
Ā = .1107
n = .8549

H54 : A = .0381
.068
HUF .0742
.051
.0656
Ā = .0594
n = .9649

H55 : A = .0314
.0706
HUF .0822
.0582
Ā = .0606
n = .8668

RNM, 07/09/03

H56 : A = .0451
.103
HUF .1242
.0768
Ā = .0873
n = .827

H57 : A = .0321
.0678
HVF .0769
.0594
Ā = .05905
n = .9102

H58 : A = .0142
.0337
HUF .0403
.0255
Ā = .0284
n = .8365

H59 : A = .056
.0292
HUF .0653
.0786
.0476
Ā = .0553
n = .83

H60 : A = .0358
.0736
HUF .0888
.0541
Ā = .0606
n = .8261

H61 : A = .0487
.1357
HUF .1148
.1102
.0888
Ā = .0996
n = .8539

H62 : A = .0472
no .0511
HUF .0507
.0552
Dorsian n = 1.0634

H63 : A = .0635
no .0799
HUF .0814
.086
Dorsian n = 1.0462

RNM . 07/09/03

H64: A = .0537
No .0761
HVF .0791
.0802
Darcian n = 1.0234

H65: A = .042
No .0632
HVF .0603
.0471
.0636
Darcian N = 1.0097

H66: A = .0737
No .1091
HVF .1143
.1138
.1163
$\bar{A}$ = .1054
Darcian n = 1.0043

H67: A = .0528
.0795
HVF .0845
.0819
$\bar{A}$ = .0747
n = .9798

H68: A = .0445
No .0689
HVF .0725
.0736
Darcian n = .9981

H69: A = .0265
.045
HVF .0485
.0421
.045
$\bar{A}$ = .0414
n = .9754

H70: A = .0212
.038
HVF .0407
.0391
$\bar{A}$ = .0348
n = .9836

H71: A = .0337
.0641
HVF .0573
.0572
.0582
$\bar{A}$ = .0529
n = .9163

RNM, 07/10/03

H72: A = .0373
.0679
HVF .0738
.0669
$\bar{A}$ = .0615
n = .9529

H73: A = .0466
.0915
HVF .1049
.079
$\bar{A}$ = .0805
n = .8841

H74: A = .0331
.0768
HVF .0878
.0664
$\bar{A}$ = .0660
n = .8876

H75: A = .026
.0271
HVF .0195
.022
$\bar{A}$ = .0222
n_1 = .8662
A = .0148
Klinkenberg .0213
.0323
$\bar{A}$ = .0228
n_2 = 1.5483

H76: A = .0133
.0291
HVF .0384
.0178
$\bar{A}$ = .0247
n = .7325

H77: A = .0213
.0614
HVF .0758
.042
$\bar{A}$ = .0501
n = .7987

RNM, 07/10/03

H 78 : A = .0288
.0755
HVF .0909
.055
A = .0626
n = .8299

H 79 : A = .0378
.0992
HVF .1194
.0735
$\bar{A}$ = .8248
n = .8285

H 80 : A = .0336
.082
HVF .0979
.0787
.0611
$\bar{A}$ = .0695
n = .8419

H 81 : A = .0366
.0971
HVF .1163
.0787
$\bar{A}$ = .0807
n = .0362

H 82 : A = .0309
.0748
HVF .0939
.0769
.062
$\bar{A}$ = .0687
n = .8605

H 83 : A = .0221
.0934
HVF .1166
.061
$\bar{A}$ = .0733
n = .282

H 84 : A = .05570
.1176
HVF .1351
.1001
$\bar{A}$ = .1021
n = .8838

H 85 : A = .0528
.1257
HVF .1436
.1334
.1086
$\bar{A}$ = .1128
n = .8981

RNM, 07/10/03

H 86 : A = .1035
.0908
HVF .1074
.0719
$\bar{A}$ = .0763
n = .8413

H 87 : A = .0578
.1323
HVF .1466
.1245
$\bar{A}$ = .1153
n = .9333

H 88 : A = .0424
.0979
HVF .1144
.08
$\bar{A}$ = .0837
n = .8614

H 89 : A = .0509
.1077
HVF .12
.1094
.0999
$\bar{A}$ = .0976
n = ~~.9392~~ .9323
RNM 07/14/03

H 90 : A = .0403
.0926
HVF .1072
.0764
$\bar{A}$ = .0791
n = .8804

H 91 : A = .0497
.1078
HVF .1254
.0951
.0878
$\bar{A}$ = .0932
n = .8745

H 92 : A = .0318
.075
HVF .0864
.0632
$\bar{A}$ = .0641
n = .8795

H 93 : A = .0243
.0469
HVF .0544
.0392
.0384
A = .0406
n = .876

RNM, 07/14/03

H 78 : A = .0288
.0755
HVF .0909
.055
A = .0626
n = .8299

H 79 : A = .0378
.0992
HVF .1194
.0735
$\bar{A}$ = .8248
n = .8265

H 80 : A = .0336
.082
HVF .0979
.0727
.0611
$\bar{A}$ = .0695
n = .8419

H 81 : A = .0366
.0971
HVF .1163
.0787
$\bar{A}$ = .0807
n = .0362

H 82 : A = .0309
.0798
HVF .0939
.0769
.062
$\bar{A}$ = .0687
n = .8605

H 83 : A = .0221
.0934
HVF .1166
.081
$\bar{A}$ = .0733
n = .282

H 84 : A = .05570
.1176
HVF .1351
.1001
$\bar{A}$ = .1021
n = .8838

H 85 : A = .0528
.1257
HVF .1436
.1334
.1086
$\bar{A}$ = .1128
n = .8981

RNM, 07/10/03

H 86 : A = .1035
.0908
HVF .1074
.0719
$\bar{A}$ = .0763
n = .8413

H 87 : A = .0578
.1323
HVF .1466
.1245
$\bar{A}$ = .1153
n = .9333

H 88 : A = .0424
.0979
HVF .1144
.08
$\bar{A}$ = .0837
n = .8614

H 89 : A = .0504
.1077
HVF .12
.1094
.0999
$\bar{A}$ = .0976
RNM, 07/14/03
n = ~~.9392~~ .9323

H 90 : A = .0403
.0926
HVF .1072
.0764
$\bar{A}$ = .0791
n = .8804

H 91 : A = .0497
.1078
HVF .1254
.0951
.0878
$\bar{A}$ = .0932
n = .8745

H 92 : A = .0318
.075
HVF .0864
.0632
$\bar{A}$ = .0641
n = .8795

H 93 : A = .0243
.0469
HVF .0544
.0392
.0384
A = .0406
n = .876

RNM . 07/14/03

H 94: A = .0153
.0353
HVP .0413
.0283
$\bar{A}$ = .03005
n = .8594

H 95: A = .0275
.0621
HVF .0716
.071
.0522
$\bar{A}$ = .0569
n = .8831

H 96: A = .0373
.0707
HVF .0822
.0383
.0555
$\bar{A}$ = .0568
n = .8723

H 97: A = .0445
.0831
HVF .0944
.0676
$\bar{A}$ = .0725
n = .8972

H 98: A = .0341
.0614
.0657
.0532
$\bar{A}$ = .0544
n = .9271

H 99: A = .0665
.0453
HVF .0777
.087
$\bar{A}$ = .0691
n = .9246

H 100: A = .0255
HVF .0827
.0996
.061
$\bar{A}$ = .0672
n = .4086

H 101: A = .0426
.4012
HVF .1194
.0784
$\bar{A}$ = .0854
n = .8553

RNM, 07/14/03

H 102: A = .0448
.0831
HVF .0984
.0613
$\bar{A}$ = .0714
n = .844

H 103: A = .0442
.0964
HVF .1091
.0836
$\bar{A}$ = .0833
n = .9182

H 104: A = .0265
.0536
HVF .0593
.0495
$\bar{A}$ = .0472
n = .4552

H 105: A = .0208
.0458
HVF .0542
.0341
$\bar{A}$ = .0387
n = .8521

H 106: A = .0489
.0927
HVF .106
.0503
.0767
$\bar{A}$ = .0749
n = .8974

H 107: A = .0493
.089
HVF .1009
.0739
$\bar{A}$ = .0783
n = .9071

H 108: A = .0635
.1118
HVF .1236
.1015
$\bar{A}$ = .1001
n = .9448

H 109: A = .0436
.0764
HVF .0872
.0613
$\bar{A}$ = .0671
n = .8926

RNM, 07/15/03

H 110 : A = .0505
HVF .0945
.1074
.0784
$\bar{A}$ = .0827
n = .9044

H 111 : A = .0501
.0934
HVF .1091
.0702
$\bar{A}$ = .0807
n = .8607

H 112 : A = .0337
.049
HVF .0526
.0476
$\bar{A}$ = .0457
n = .9796

H 113 : A = .0631
.0995
HVF .1074
.655
.0962
$\bar{A}$ = .0867
n = .9744

H 114 : A = .0671
.0622
No .101
HVF .107
.102
$\bar{A}$ =
Darcian n = .9974

H 115 : A = .0513
No .0882
HVF .0818
.0838
Darcian n = 1.0057

H 116 : A = .0601
.1252
HVF .1142
.1155
.1113
$\bar{A}$ = .1053
n = .8533

H 117 : A = .0584
.1041
HVF .1148
.0868
.0943
$\bar{A}$ = .0927
n = .9438

RNM. 07/15/03

H 118 : A = .0468
.0777
HVF .0836
.0623
.0779
$\bar{A}$ = .0697
n = .9791

H 119 : A = .0523
.0859
HVF .0961
.107
.0892
$\bar{A}$ = .0801
n = .9305

H 120 : A = .0524
.085
HVF .0925
.0828
.084
$\bar{A}$ = .0793
n = .9587

H 121 : A = .0482
.0915
HVF .1046
.0796
$\bar{A}$ = .0800
n = .8868

H 122 : A = .0323
.056
HVF .0607
.069
.0531
$\bar{A}$ = .0542
n = .9002

V1.1 : A = .0349
.0798
HVP .0856
.072
$\bar{A}$ = .0681
n = .9633

V1.2 : A = .0418
No .0554
HVF .0569
.0603
$\bar{A}$ =
Darcian n = 1.0169

V1.3 : A = .0468
No .0604
HVF .0624
.0657
$\bar{A}$ =
Darcian n = .9974

RNM. 07/16/03

V1.4 : A = .0254
No .0342
HVP .0347
.0381
.0363
Darcian n = 1.0416

V1.5 : A = .0172
.0309
HVP .0374
.0369
.0235
$\bar{A}$ = .0292
n = .8207

V1.6 : A = .0473
.0465
HVP .0733
.0809
.0683
$\bar{A}$ = .0633
n = .9367

V1.7 : A = .0256
.0378
HVP .0488
.0547
.0443
$\bar{A}$ = .04224
n = .9255

V1.8 : A = .0575
.0943
HVP .103
.0887
$\bar{A}$ = .0859
n = .9622

V1.9 : A = .026
.0529
HVP .0578
.0401
.0494
$\bar{A}$ = .0453
n = .9587

V1.10 : A = .0405
.0679
HVP .0757
.0435
.0616
$\bar{A}$ = .05784
n = .9166

V1.11 : A = .0[illegible]7
HVP .0926
.1137
.0707
$\bar{A}$ = .0904
n = .7468

RNM, 08/11/03

V1.12 : A = .0219
.0528
HVP .0598
.0465
$\bar{A}$ = .0453
n = .9008

V1.13 : A = .0333
.0836
HVF .0716
.0574
.0615
$\bar{A}$ = .0615
n = .8699

V1.14 : A = .011
No .0094
HVP .0057
.0161
.0165
Two-Phase n = 1.8505

V1.15 : A = .0144
.0491
HVP .057
.0404
$\bar{A}$ = .0402
n = .8524

V1.16 : A = .08
.1474
HVF .1617
.1276
.1409
$\bar{A}$ = .1315
n = .9543

V1.17 : A = .058
.128
HVF .1405
.1198
$\bar{A}$ = .1116
n = .9471

V1.18 : A = .0285
.0604
HVF .0684
.053
$\bar{A}$ = .0526
n = .8902

V1.19 : A = .0154
.0247
Klinkenberg .0336
.0094
n = .5688

RNM, 08/15/03

V1. 19 (Cont.) A = .0259
.0114
.0411
A = .026
Two Phase n = 2.295

V1. 20 A = .0117
Klinkenberg .0283
HVF .0426
.0085
.0084
$\bar{A}$ = .0199
n = .5638
A = .0372
.0299
.0216
$\bar{A}$ .0295
n = .782

V1. 21: A = .0167
.0228
Klinkenberg .0298
.0108
$\bar{A}$ = .02008
n = .5673
A = .024
.0144
.0347
$\bar{A}$ = .0249
Two-Phase n = 1.6984

V1. 22: A = .01
No .0118
HVF .0071
.0136
.0137
Two-Phase n = 1.4426

RNM, 08/15/03

V1. 23: A = .0056
No .004
HVF .0081
.0041
.0082
$\bar{A}$ =
Two Phase n = 1.5103

V1. 24: A = Not Enough Data

V1. 25: A = Not Enough Data

V1. 26: A = .0096
No .0069
HVF .0148
.0138
.015
Two-Phase n = 1.4901

V1. 27: A = .0101
No .0055
HVF .018
.0084
Two Phase n = 2.0874

V1. 28: A = .0129
No HVF .0047
.0081
.0063
.0134
Two Phase n = 1.8874

V1. 29: A = Not Enough Data

V1. 30: A = .0126
~~Klinkenberg~~ RNM 08/14/03
HVF .0068
.0204
.0213
n = 2.0214
~~Two Phase~~ RNM 08/14/03 $\bar{A}$ = .0153

RNM, 08/15/03

V1.31 : A = .0108
No .0069
HVP .0175
.0158
.0176
Two Phase N = 1.5274

V1.32 : A = .0116
No .0055
HVP .0057
.0185
.0189
Two Phase N = 2.1858

V2.1 : A = .0566
No .073
HVP .0746
.0798
Darcian N = 1.0397

V2.2 : A = .0017
No HVF .0015
.0462
.0705
Darcian N = 1.0517

V2.3 : A = .0318
No .0417
HVP .0375
.0476
Darcian N = 1.0525

V2.4 : A = .0659
No .0698
HVP .1026
.1093
.1051
Darcian N = .9956

V2.5 : A = .0626
No .0924
HVP .0967
.0948
.0983
Darcian N = 1.005

V2.6 : A = .0235
.043
HVF .0464
.0401
.043
$\bar{A}$ = .0392
N = .9759

RNM . 08/19/03

V2.7 : A = .0099
.0263
HVF .0415
.0448
$\bar{A}$ = .0229
n = .6491

V2.8 : A = .0374
.0641
HVF .0719
.055
$\bar{A}$ = .0571
n = .9151

V2.9 : A = .021
.0396
HVP .0444
.0242
.0354
$\bar{A}$ = .0329
n = .9273

V2.10 : A = .0502
.0897
HVF .1023
.0636
.0766
$\bar{A}$ = .0765
n = .8947

V2.11 : A = .0434
.0857
HVF .0963
.0777
$\bar{A}$ = .0758
n = .9233

V2.12 : A = .0829
No .1236
HVF .1283
.1336
Darcian n = 1.0138

V2.13 : A = .0184
.027
Klinkenberg .0346
.0132
$\bar{A}$ = .0233
n_1 = .6379

V2.13 (cont.) A = .028
.0253
.0311
$\bar{A}$ = .0281
n_2 = 1.1127

RNM . 08/20/03

V2. 14: A = .043
~~No~~ .0749
HVP .0671
.0821
.0722
$\bar{A}$ = .0679
n = .9515

V2. 15: A = .0185
~~No~~ .0387
HVP RNM 08/29/03 ~~.0821~~ .0456
.0278
.0297
$\bar{A}$ = .0320
n = .8533

V2. 16: A = .0428
.0716
HVP .0821
.0733
.069
$\bar{A}$ = .06776
n = .9468

V2. 17: A = .0537 .0695
.0762
HVP .0821
.0758
$\bar{A}$ = .0675
n = .9062

V2. 18: A = .0324
No .0523
HVP .0821
.0453
.0551
Position n = 1.0052

V2. 19: A = .0612
.0432
HVP .0523
.0821
.0762
$\bar{A}$ = .089
n = .9355

V2. 20: A = .0193
No .0821
HVF .0219
.0503
.0203
Position n = .9856

V2. 21: A = .0147
No .0182
HVP .0107
.0821
.0145
Two-Phase n = 1.3578

RNM, 08/25/03

V2. 22: A = .0165
No = .0113
HVP .0821
.0186
.0164
Two Phase n = 1.5579

V2. 23: A = .0172
Klinkenberg .0246
.0821
.0126
$\bar{A}$ = .0341
n_1 = .6638
A = .0256
.0174
.0343
$\bar{A}$ = .0256
Two Phase n_2 = 1.5013

V2. 24: A =

V. 25: A = .0127
No .0079
HVP .0821
.009
.0128
$\bar{A}$ = .0249
Two Phase n = 2.0865

V. 26: A = .0134
No .0089
HVP .009
.0051
.0041
Two Phase n = 1.847

V. 27: A = .0097
No .0124
HVP .0047
.0078
.0127
Two Phase n = 1.7643

RNM, 09/10/03

V.2.28 : A = .0119
No .0162
HVF .0158
.0095
.0162
$\bar{A}$ = .0139
Two-Phase n = 1.3134

V2.28 : A = .0333
.0108
HVF .0479
.0146
$\bar{A}$ = .0267
n = .6645

V2.30 : A = .0208
HVF .0232
.0214
.0211
$\bar{A}$ = .0216
n = .9245

V3.-4 : A = .0185
HVF .0501
.0576
.0427
$\bar{A}$ = .0422
n = .8841

V3.-3 : A = .0328
HVF .0686
.0798
.063
.056
$\bar{A}$ = .0600
n = .8723

V3.-2 : A = .0131
HVF .0431
.0342
.0223
$\bar{A}$ = .0282
n =

V3.-1 : A = .045
HVF .0904
.1046
.0842
.0754
$\bar{A}$ = .0799
n = .8784

V3.0 : A = .0266
HVF .0564
.0624
.0582
.0533
$\bar{A}$ = .0514
n = .9424

RNM, 09/10/03

V3.1 : A = .051
.1061
HVF .1189
.1168
.0969
$\bar{A}$ = .0979
n = .9207

V3.2 : A = .0768
.1559
HVF .1727
.1465
.1471
$\bar{A}$ = .1398
n = .9416

V3.3 : A = .0626
.0994
HVF .1078
.0829
.0976
$\bar{A}$ = .0901
n = .9619

V3.4 : A = .0314
.0542
HVF .0576
.0558
$\bar{A}$ = .0498
n = .9826

V3.5 : A = .0534
No .0522
HVF .0551
.0543
$\bar{A}$ =
Darcian n = .9917

V3.6 : A = .0366
No .0506
HVF .0523
.0441
.0549
$\bar{A}$ =
Darcian n = 1.0222

V3.7 : A = .0536
.0814
HVF .0882
.0604
.0798
$\bar{A}$ = .0727
n = .961

V3.8 : A = .0423
No .0658
HVF .0693
.0581
.0691
Darcian $\bar{A}$ = .0609
n = .1005

RNM, 09/12/03

V3.9 : A= .0315
No .0483
HVF .051
.0463
.0505
$\bar{A}$ =
Darcian n= .9996

V3.10 : A= .0397
No .052
HVF .0531
.034
.0565
$\bar{A}$ =
Darcian n= 1.0449

V3.11 : A= .043
No .0613
HVF .0633
.0735
.0667
$\bar{A}$ =
Darcian n= 1.0162

V3.12 : A= .0544
No .0769
HVF .0793
.0793
.083
$\bar{A}$ =
Darcian n= 1.0236

V3.13 : A= .0207
No .0275
HVF .0355
.0364
.0378
$\bar{A}$ =
Darcian n= 1.0338

V3.14 : A= .0132
.0111
HVF .0162
.0184
.0133
RNM, 09/17/03
$\bar{A}$ = ~~.8693~~ .01444
n= .8693

V3.15 : A= .0329
.1001
HVF .1156
.109
.0823
$\bar{A}$ = .08798
n= .8851

V3.16 : A= .2286
.6743
HVF .829
.4709
$\bar{A}$ = .5507
n= .8036

RNM, 09/17/03

V3.17 : A= .0397
.1004
HVF .1189
.1182
.0775
$\bar{A}$ = .0909
n= .8496

V3.18 : A= .0192
.0377
Klinkenberg .0285
.012
$\bar{A}$ = .0244
n_1 = .5863
A= .0308
.0372
.0463
$\bar{A}$ = .0314
Two Phase n_2 = 1.8317

V3.19 : A= .0194
.018
Klinkenberg .0236
.0191
$\bar{A}$ = .0200
n_1 = .8036
A= .0196
.0131
.0288 $\bar{A}$ = .0205
Two Phase n_2 = 1.560

V3.20 : A= .017
No .0135
HVF .0228
.0214
Two Phase n= 1.1269

V3.21 : A= .0174
No .0243
HVF .013
.0231
two phase n = 1.204

V3.22 : A= .0088
No .0053
HVF .0045
.0136
.0141
Two Phase n= 1.8043

RNM, 09/24/03

V3.23 : A = .0075
No .0044
HVF .0032
.0112
.0116
Two Phase n = 1.7742

V3.24 : A = .0086
No .0052
HVP .013
.0084
.0132
Two Phase $\bar{n}$ = 1.722

V3.25 : A = .0132
No .0105
HVF .0178
.0167
Two Phase n = 1.1755

V3.26 : A = .0128
No .0176
HVP .0098
.0166
Two Phase n = 1.1656

V3.27 : A = .0127
No .01
HVP .0177
.0164
Two Phase n = 1.1907

V3.28 : A = .0086
No .0129
HVF .0052
.0131
Two Phase n = 1.7344

V3.29 : A = .042
No HVP .0118
.0178
.0168
Two Phase n = 1.1092

V3.30 : A = .0238
Klinkenberg .0272
.0297
.021
$\bar{A}$ = .0254
n_1 = .8211
A = .0297
.0262
.0306
$\bar{A}$ = .0283
Darcian n_2 = 1.0796

RNM, 09/24/03

V4.-7 : A = .019
Klinkenberg .0217
.0282
.0233
$\bar{A}$ = .0231
n_1 = .8098
A = .0133
.022
.0333
.0127
.0342
$\bar{A}$ = .0231
Two Phase n_2 = 1.7517

V4.-6 : A = .0176
Klinkenberg .0193
.0139
.0199
$\bar{A}$ = .0202
n_1 = .8121
A = .0287
.0196
.0124
.0299
$\bar{A}$ = .0227
Two Phase n_2 = 1.6836

V4.-5 : A = .0369
.0361
Klinkenberg .0351
.0285
$\bar{A}$ = .0342
n_1 = .8107
A = .0363
.021
.056
$\bar{A}$ = .0378
Two Phase n_2 = 1.8068

V4.-4 : A = .0612
.0206
HVF .0725
.047
$\bar{A}$ = .0503
n = .842

RNM, 09/25/03

V4.-3: A= .0475
.0578
HVF .0456
.0172
.0327
$\bar{A}$= .842
n= .0402

V4.-2: A= .1551
.0644
HVF .1886
.1368
.1092
$\bar{A}$= .1308
n= .817

V4.-1: A= .0316
.1008
HVF .0821
.0926
.0571
$\bar{A}$= .0728
n= .8075

V4.0: A= .0253
.0631
HVF .0747
.0728
.0488
$\bar{A}$= .0569
n= .8503

V4.1: A= .0098
.0462
HVF .0325
.0464
.0145
$\bar{A}$= .299
n= .8733

V4.2: A= .1443
.0555
HVF .1664
.154
.121
$\bar{A}$= .1282
n= .8875

V4.3: A= .0909
No .1331
HVF .1291
.1244
.1397
Darcian n= 1.0286

V4.4: A= .0969
.082
HVF .035
.0689
.0629
$\bar{A}$= .0691
n= .8535

RNM, 09/25/03

V4.5: A= .0534
.0204
HVF .0633
.075
.0417
$\bar{A}$= .0508
n= .8439

V4.6: A= .0917
.0355
HVF .1071
.0741
$\bar{A}$= .0771
n= .8661

V4.7: A= .0489
.0208
HVF .0565
.0408
$\bar{A}$= .0418
n= .8802

V4.8: A= .0825
.0413
HVF .0914
.0771
$\bar{A}$= .0731
n= .9265

V4.9: A= .0713
.1366
HVF .1497
.1312
$\bar{A}$= .1222
n= .9292

V4.10: A= .1736
.0643
HVF .2077
.1667
.1285
$\bar{A}$= .1795
n= .8384

V4.11: A= .0775
.0447
HVF .0874
.0698
.0689
$\bar{A}$= .0697
n= .9098

V4.12: A= .0655
.0296
HVF .0731
.0594
$\bar{A}$= .0569
n= .9259

RNM, 09/26/03

V4.13: A = .0601
No .053
HVP .0393
.0637
.0627
Darcian n = .9961

V4.14: A = .0968
HVP .1032
.0584
.0935
.0987
$\bar{A}$ = .0901
n = .9863

V4.15: A = .0376
No .0388
HVP .0287
.01
.0392
Darcian n = 1.0305

V4.16: A = .1118
No .1472
HVF .1535
.1499
.0435
Darcian n = 1.0139

V4.17: A = .0664
No .0731
HVP .0727
.0792
Darcian n = 1.0637

V4.18: A = .0953
.0313
HVP .1089
.081
$\bar{A}$ = .0791
n = .8959

V4.19: A = .0109
No .0126
HVF .0148
.014
Darcian n = .9988

V4.20: A = .0202
No .0126
HVP .0155
.0191
Two Phase n = 1.1378

RNM, 09/26/03

V4.21: A = .0244
Klinkenberg .0271
.0318
.0166
$\bar{A}$ =
n_1 = .6309
A = .0281
.0147
.0434
$\bar{A}$ = .0287
Two Phase n_2 = 1.9558

V4.22: A = .0121
No .0092
HVP .0161
.018
.0159
Two Phase n = 1.2681

V4.24: A = .0128
No .01
HVP .0175
.0154
.0176
Two Phase n = 1.273

V4.25: A = .0065
No .0054
HVP .0078
.0011
.008
Two Phase n = 1.2468

V4.26: A = .0063
No .0044
HVP .0085
.0005
.0087
Two Phase n = 1.4817

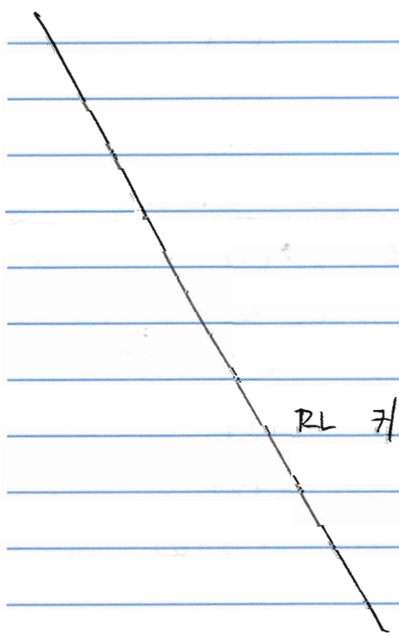
V4.27: A = .01
No .0062
HVP .0149
.0109
.0151
Two Phase n = 1.6709

RNM, 09/30/03

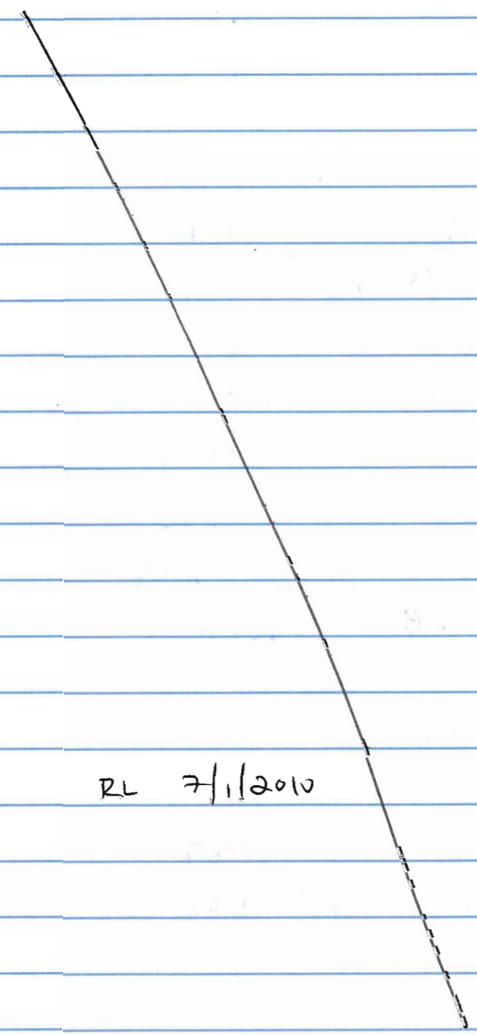
V4.28: A= .0081
No .0052
HVP .0115
.0043
.0118
Two Phase n= 1.6201

V4.29: A= .0138
No .0107
HVP .0187
.0267
.0178
Two Phase n= 1.1645

V4.30: A= .0085
No .009
HVP .006
.0128
.013
Two Phase n= 1.5584



RL 7/1/2010



RL 7/1/2010

RNM, 08/30/03

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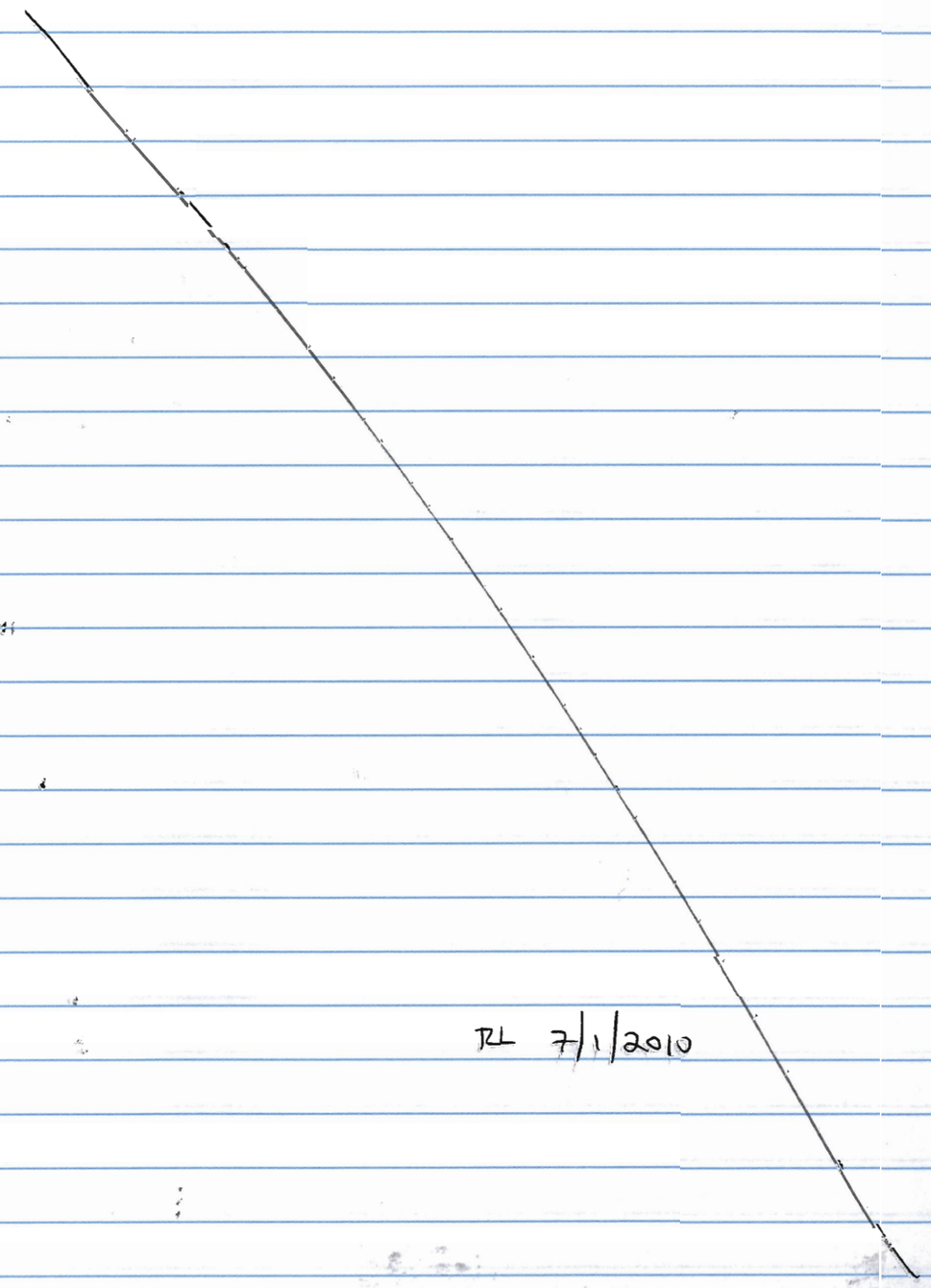

RL 7/1/2010