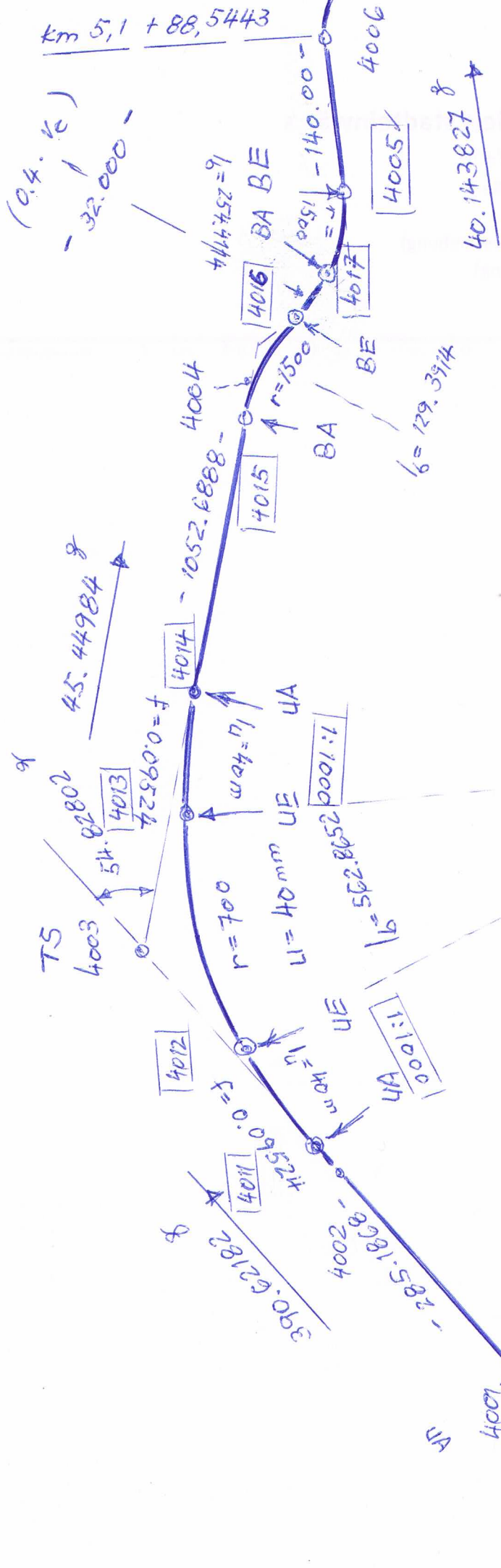


# Anbindung Flughafen KS-Calden

## Trasse S1 - Voruntersuchung



$v_e = 80 \text{ km/h}$

max  $v = 100 \text{ km/h}$  ( $u_f = 130 \text{ mm}$ )

M700

4021

Berechnungen durch:  
im Juni 2012

Ute Robbach

Vermessungs- und Planungsbüro  
Helfensteinstr. 47

34127 Kassel  
Tel. 0561-898164

Scharh, dipl. Ing. (FH)

# Kassel – Calden

## Voruntersuchung Trasse S 1 (Gewerbegebiet alter Flughafen)

Trasse GLEIS-S1 (07.06.12 13:00:49)  
 \*\*\*\*\* Koordinaten: KSCALDEN

| Station       | Y               | X            | Richtung     | Radien ü (mm) |      |
|---------------|-----------------|--------------|--------------|---------------|------|
| 2.6 + 52.0000 | 3525610.0000    | 5695865.0000 | 390.621820   | 0.000         |      |
| 1 Gerade      | L= 285.1868     |              |              | 0.000         |      |
| 2.9 + 37.1868 | 3525568.1403    | 5696147.0980 | 390.621820   | 0.000         | 0.0  |
| 2 Klotoide    | L= 40.0000 R1=  |              | 0.0000 R2=   | 700.000       | 40.0 |
| 2.9 + 77.1868 | 3525562.6464    | 5696186.7174 | 392.440734   | 700.000       | 40.0 |
| 3 Kreis       | L= 562.8652 R = |              | 700.0000     | 700.000       | 40.0 |
| 3.5 + 40.0520 | 3525715.7802    | 5696712.7029 | 43.630893    | 700.000       | 40.0 |
| 4 Klotoide    | L= 40.0000 R1=  |              | 700.0000 R2= | 0.000         | 0.0  |
| 3.5 + 80.0520 | 3525741.6824    | 5696743.1818 | 45.449807    | 0.000         |      |
| 5 Gerade      | L=1052.6888     |              |              | 0.000         |      |
| 4.6 + 32.7408 | 3526430.9877    | 5697538.8022 | 45.449807    | 1500.000      |      |
| 6 Kreis       | L= 129.3914 R = |              | 1500.0000    | 1500.000      |      |
| 4.7 + 62.1322 | 3526519.8240    | 5697632.8228 | 50.941348    | 0.000         |      |
| 7 Gerade      | L= 32.0000      |              |              | 0.000         |      |
| 4.7 + 94.1322 | 3526542.7835    | 5697655.1131 | 50.941348    | -1500.000     |      |
| 8 Kreis       | L= 254.4114 R = |              | -1500.0000   | -1500.000     |      |
| 5.0 + 48.5436 | 3526709.4533    | 5697846.9238 | 40.143793    | 0.000         |      |
| 9 Gerade      | L= 140.0000     |              |              | 0.000         |      |
| 5.1 + 88.5436 | 3526791.9989    | 5697960.0000 | 40.143793    | 0.000         |      |
| 10 Gerade     | L= 0.0100       |              |              | 0.000         |      |
| 5.1 + 88.5536 | 3526792.0048    | 5697960.0081 | 40.143793    | 0.000         |      |

Gradiente GLEIS-S1 (07.06.12 13:00:52)  
 \*\*\*\*\* Koordinaten: KSCALDEN

| Pkt.Nr. | Station     | Höhe     | Radius     | ta      | ya     | lfd.Nr |
|---------|-------------|----------|------------|---------|--------|--------|
| 0.5 +   | 55.3910     | 305.6030 | 20000.000  | 219.200 | 1.201  | 1      |
|         | -19.9997 %. |          | 2245.938 m |         |        |        |
| 2.8 +   | 1.3290      | 260.6850 | 12000.000  | 274.652 | 3.143  | 2      |
|         | 25.7757 %.  |          | 788.146 m  |         |        |        |
| 3.5 +   | 89.4750     | 281.0000 | -5000.000  | 119.988 | -1.440 | 3      |
|         | -22.2194 %. |          | 193.525 m  |         |        |        |
| 3.7 +   | 83.0000     | 276.7000 | 5000.000   | 48.643  | 0.237  | 4      |
|         | -2.7622 %.  |          | 615.450 m  |         |        |        |
| 4.3 +   | 98.4500     | 275.0000 | -5000.000  | 54.322  | -0.295 | 5      |
|         | -24.4910 %. |          | 331.550 m  |         |        |        |
| 4.7 +   | 30.0000     | 266.8800 | -20000.000 | 99.276  | -0.246 | 6      |
|         | -34.4186 %. |          | 258.000 m  |         |        |        |
| 4.9 +   | 88.0000     | 258.0000 | 2000.000   | 63.693  | 1.014  | 7      |
|         | 29.2742 %.  |          | 124.000 m  |         |        |        |
| 5.1 +   | 12.0000     | 261.6300 | -2000.000  | 29.274  | -0.214 | 8      |
|         | 0.0000 %.   |          | 200.000 m  |         |        |        |
| 5.3 +   | 12.0000     | 261.6300 | o.A.       |         |        | 9      |

# Kassel – Calden

## Voruntersuchung Trasse S 1 (Gewerbegebiet alter Flughafen)

### Umgeformte Geländepunkte

Trassenumformung GLEIS-S1 (07.06.12 13:00:57)  
\*\*\*\*\* Koordinaten: KSCALDEN

Gradiente:GLEIS-S1

Abstand: + = rechts der Trasse (Linksverschiebung)

dH: + = unterhalb der Gradiente (Hebung)

Die Abstandmaße sind reduziert um: 0.0000 (Trassenabstand)

| Pkt.Nr | Station   | Abstand  | Richtung | Radius  | ü (mm) | Höhe    | dH     | Abstand |
|--------|-----------|----------|----------|---------|--------|---------|--------|---------|
| 0.0001 | 3341.9627 | -42.1546 | 25.61553 | 700.000 | 40.0   | 274.620 | -1.092 |         |
| 0.0002 | 3324.6501 | -38.8441 | 24.04102 | 700.000 | 40.0   | 274.174 | -0.721 |         |
| 0.0003 | 3331.6887 | -15.7631 | 24.68115 | 700.000 | 40.0   | 274.355 | -0.476 |         |
| 0.0004 | 3307.3113 | -6.9951  | 22.46413 | 700.000 | 40.0   | 273.727 | -0.099 |         |
| 0.0005 | 3284.5836 | -0.8811  | 20.39715 | 700.000 | 40.0   | 273.141 | 0.259  |         |
| 0.0006 | 3280.0280 | -14.8848 | 19.98284 | 700.000 | 40.0   | 273.024 | 0.191  |         |
| 0.0007 | 3257.7324 | -11.4050 | 17.95514 | 700.000 | 40.0   | 272.449 | -0.045 |         |
| 0.0008 | 3260.3217 | 3.6702   | 18.19063 | 700.000 | 40.0   | 272.516 | -0.081 |         |
| 0.0009 | 3234.4658 | 9.1007   | 15.83914 | 700.000 | 40.0   | 271.849 | 0.136  |         |
| 0.0010 | 3230.9852 | -7.9098  | 15.52260 | 700.000 | 40.0   | 271.760 | 0.361  |         |
| 0.0011 | 3208.4748 | -6.7574  | 13.47538 | 700.000 | 40.0   | 271.179 | 0.916  |         |
| 0.0012 | 3209.8167 | 13.4407  | 13.59742 | 700.000 | 40.0   | 271.214 | 0.710  |         |
| 0.0013 | 3180.4992 | 17.5398  | 10.93112 | 700.000 | 40.0   | 270.458 | 2.352  |         |
| 0.0014 | 3183.4027 | 17.0549  | 11.19518 | 700.000 | 40.0   | 270.533 | 2.349  |         |
| 0.0015 | 3186.2278 | 16.7015  | 11.45211 | 700.000 | 40.0   | 270.606 | 1.692  |         |
| 0.0016 | 3183.0424 | -4.9419  | 11.16241 | 700.000 | 40.0   | 270.524 | 2.274  |         |
| 0.0017 | 3180.0591 | -4.6327  | 10.89110 | 700.000 | 40.0   | 270.447 | 3.008  |         |
| 0.0018 | 3177.1590 | -4.1377  | 10.62734 | 700.000 | 40.0   | 270.372 | 3.058  |         |
| 0.0019 | 3174.4170 | -24.3274 | 10.37797 | 700.000 | 40.0   | 270.302 | 3.545  |         |
| 0.0020 | 3177.2036 | -24.7712 | 10.63140 | 700.000 | 40.0   | 270.373 | 3.554  |         |
| 0.0021 | 3174.1584 | -49.0362 | 10.35445 | 700.000 | 40.0   | 270.295 | 3.691  |         |
| 0.0022 | 3171.2279 | -48.8363 | 10.08794 | 700.000 | 40.0   | 270.219 | 3.801  |         |
| 0.0023 | 3168.6945 | -69.1111 | 9.85754  | 700.000 | 40.0   | 270.154 | 3.407  |         |
| 0.0024 | 3171.4470 | -69.0537 | 10.10786 | 700.000 | 40.0   | 270.225 | 3.322  |         |
| 0.0025 | 3174.5001 | -69.2944 | 10.38553 | 700.000 | 40.0   | 270.304 | 2.582  |         |
| 0.0026 | 3177.3160 | -47.9963 | 10.64162 | 700.000 | 40.0   | 270.376 | 3.158  |         |
| 0.0027 | 3180.3724 | -25.0987 | 10.91959 | 700.000 | 40.0   | 270.455 | 2.907  |         |
| 0.0028 | 3202.8380 | -25.6381 | 12.96273 | 700.000 | 40.0   | 271.034 | 1.758  |         |
| 0.0029 | 3199.2315 | -47.3732 | 12.63474 | 700.000 | 40.0   | 270.941 | 2.160  |         |
| 0.0030 | 3196.6594 | -65.8277 | 12.40082 | 700.000 | 40.0   | 270.875 | 1.585  |         |
| 0.0031 | 3220.6092 | -63.9224 | 14.57895 | 700.000 | 40.0   | 271.492 | 1.012  |         |
| 0.0032 | 3224.0558 | -45.4831 | 14.89241 | 700.000 | 40.0   | 271.581 | 1.284  |         |
| 0.0033 | 3228.0366 | -27.5625 | 15.25444 | 700.000 | 40.0   | 271.684 | 1.027  |         |
| 0.0034 | 3252.3564 | -28.3815 | 17.46622 | 700.000 | 40.0   | 272.311 | 0.382  |         |
| 0.0035 | 3247.8977 | -45.4065 | 17.06072 | 700.000 | 40.0   | 272.196 | 0.518  |         |
| 0.0036 | 3244.6911 | -63.5869 | 16.76909 | 700.000 | 40.0   | 272.113 | 0.026  |         |
| 0.0037 | 3267.6033 | -63.2527 | 18.85286 | 700.000 | 40.0   | 272.704 | -0.667 |         |
| 0.0038 | 3272.0502 | -46.4004 | 19.25729 | 700.000 | 40.0   | 272.818 | -0.364 |         |
| 0.0039 | 3276.5764 | -31.2874 | 19.66892 | 700.000 | 40.0   | 272.935 | -0.022 |         |

# Kassel – Calden

## Voruntersuchung Trasse S 1 (Gewerbegebiet alter Flughafen)

### Umgeformte Geländepunkte

Trassenumformung GLEIS-S1 (07.06.12 13:00:57)  
\*\*\*\*\* Koordinaten: KSCALDEN

Gradiente:GLEIS-S1

Abstand: + = rechts der Trasse (Linksverschiebung)

dH: + = unterhalb der Gradiente (Hebung)

Die Abstandmaße sind reduziert um: 0.0000 (Trassenabstand)

| Pkt.Nr | Station   | Abstand  | Richtung | Radius   | ü (mm) | Höhe    | dH     | Abstand |
|--------|-----------|----------|----------|----------|--------|---------|--------|---------|
| 0.0040 | 3300.0453 | -37.1724 | 21.80332 | 700.000  | 40.0   | 273.540 | -0.259 |         |
| 0.0041 | 3290.8192 | -62.8474 | 20.96425 | 700.000  | 40.0   | 273.302 | -0.654 |         |
| 0.0042 | 3315.4351 | -64.1195 | 23.20296 | 700.000  | 40.0   | 273.936 | -0.954 |         |
| 0.0043 | 3333.5858 | -65.8138 | 24.85369 | 700.000  | 40.0   | 274.404 | -1.394 |         |
| 0.0044 | 3350.3390 | -67.7585 | 26.37731 | 700.000  | 40.0   | 274.836 | -1.437 |         |
| 0.0045 | 3376.0078 | -32.2022 | 28.71178 | 700.000  | 40.0   | 275.498 | -1.314 |         |
| 0.0046 | 3371.1111 | -33.0744 | 28.26644 | 700.000  | 40.0   | 275.372 | -1.207 |         |
| 0.0047 | 3366.4033 | -32.1683 | 27.83829 | 700.000  | 40.0   | 275.250 | -1.099 |         |
| 0.0048 | 3362.2424 | -29.8673 | 27.45988 | 700.000  | 40.0   | 275.143 | -1.080 |         |
| 0.0049 | 3345.3032 | -15.9350 | 25.91933 | 700.000  | 40.0   | 274.706 | -0.731 |         |
| 0.0050 | 3343.6519 | -19.1259 | 25.76915 | 700.000  | 40.0   | 274.664 | -0.687 |         |
| 0.0051 | 3358.9528 | -31.8756 | 27.16071 | 700.000  | 40.0   | 275.058 | -1.068 |         |
| 0.0052 | 3363.9411 | -38.3922 | 27.61436 | 700.000  | 40.0   | 275.187 | -1.185 |         |
| 0.0053 | 3365.8452 | -43.5858 | 27.78754 | 700.000  | 40.0   | 275.236 | -1.317 |         |
| 0.0054 | 3365.9255 | -48.1423 | 27.79484 | 700.000  | 40.0   | 275.238 | -1.411 |         |
| 0.0055 | 3364.9962 | -52.1914 | 27.71032 | 700.000  | 40.0   | 275.214 | -1.472 |         |
| 0.0056 | 3361.5760 | -59.4015 | 27.39927 | 700.000  | 40.0   | 275.126 | -1.534 |         |
| 0.0057 | 3363.8382 | -60.7730 | 27.60500 | 700.000  | 40.0   | 275.184 | -1.605 |         |
| 0.0058 | 3368.1179 | -53.2073 | 27.99423 | 700.000  | 40.0   | 275.294 | -1.503 |         |
| 0.0059 | 3371.9207 | -58.8137 | 28.34008 | 700.000  | 40.0   | 275.392 | -1.377 |         |
| 0.0060 | 3373.5882 | -55.9655 | 28.49173 | 700.000  | 40.0   | 275.435 | -1.392 |         |
| 0.0061 | 3370.3107 | -51.4096 | 28.19365 | 700.000  | 40.0   | 275.351 | -1.468 |         |
| 0.0062 | 3369.4203 | -47.7705 | 28.11268 | 700.000  | 40.0   | 275.328 | -1.390 |         |
| 0.0063 | 3370.0571 | -43.8521 | 28.17059 | 700.000  | 40.0   | 275.344 | -1.358 |         |
| 0.0064 | 3372.5849 | -40.4165 | 28.40048 | 700.000  | 40.0   | 275.410 | -1.323 |         |
| 0.0065 | 3378.3585 | -35.6673 | 28.92557 | 700.000  | 40.0   | 275.558 | -1.377 |         |
| 0.0066 | 3389.7554 | -31.2278 | 29.96207 | 700.000  | 40.0   | 275.852 | -1.410 |         |
| 0.0067 | 3412.6953 | -25.2039 | 32.04836 | 700.000  | 40.0   | 276.443 | -2.001 |         |
| 0.0068 | 3436.3887 | -20.7240 | 34.20317 | 700.000  | 40.0   | 277.054 | -2.020 |         |
| 0.0069 | 3460.4175 | -16.6183 | 36.38847 | 700.000  | 40.0   | 277.673 | -1.659 |         |
| 0.0070 | 3485.2046 | -13.3741 | 38.64276 | 700.000  | 40.0   | 278.288 | -1.449 |         |
| 0.0071 | 3508.7145 | -11.3613 | 40.78089 | 700.000  | 40.0   | 278.764 | -1.502 |         |
| 0.0072 | 3534.1112 | -10.3158 | 43.09060 | 700.000  | 40.0   | 279.155 | -1.665 |         |
| 0.0073 | 3558.0345 | -9.9894  | 44.89871 | 1271.714 | 22.0   | 279.406 | -1.450 |         |
| 0.0074 | 3576.7719 | -10.3419 | 45.43758 | 8536.375 | 3.3    | 279.522 | -1.087 |         |
| 0.0075 | 3580.9147 | -13.8625 | 45.44981 | 0.000    |        | 279.538 | -1.068 |         |
| 0.0076 | 3580.4915 | -17.3778 | 45.44981 | 0.000    |        | 279.536 | -1.070 |         |
| 0.0077 | 3584.2021 | -19.4005 | 45.44981 | 0.000    |        | 279.548 | -1.136 |         |
| 0.0078 | 3589.7781 | -11.5336 | 45.44981 | 0.000    |        | 279.561 | -0.892 |         |

# Kassel – Calden

## Voruntersuchung Trasse S 1 (Gewerbegebiet alter Flughafen)

### Umgeformte Geländepunkte

Trassenumformung GLEIS-S1 (07.06.12 13:00:57)  
\*\*\*\*\* Koordinaten: KSCALDEN

Gradiente:GLEIS-S1

Abstand: + = rechts der Trasse (Linksverschiebung)

dH: + = unterhalb der Gradiente (Hebung)

Die Abstandmaße sind reduziert um: 0.0000 (Trassenabstand)

| Pkt.Nr | Station   | Abstand  | Richtung | Radius   | ü (mm) | Höhe    | dH     | Abstand |
|--------|-----------|----------|----------|----------|--------|---------|--------|---------|
| 0.0079 | 3594.2297 | -9.7460  | 45.44981 | 0.000    |        | 279.566 | -0.824 |         |
| 0.0080 | 3609.3299 | -9.2044  | 45.44981 | 0.000    |        | 279.556 | -0.592 |         |
| 0.0081 | 3633.8165 | -9.2228  | 45.44981 | 0.000    |        | 279.443 | -0.107 |         |
| 0.0082 | 3658.0716 | -9.1373  | 45.44981 | 0.000    |        | 279.212 | 0.309  |         |
| 0.0083 | 3678.9489 | -9.2227  | 45.44981 | 0.000    |        | 278.919 | 0.383  |         |
| 0.0084 | 3682.9037 | -13.6546 | 45.44981 | 0.000    |        | 278.854 | 0.462  |         |
| 0.0085 | 3681.3397 | -16.2967 | 45.44981 | 0.000    |        | 278.880 | 0.603  |         |
| 0.0086 | 3683.4877 | -17.6231 | 45.44981 | 0.000    |        | 278.844 | 0.556  |         |
| 0.0087 | 3688.5519 | -9.4001  | 45.44981 | 0.000    |        | 278.755 | 0.412  |         |
| 0.0088 | 3707.1427 | -9.3238  | 45.44981 | 0.000    |        | 278.385 | 0.469  |         |
| 0.0089 | 3733.3433 | -9.4194  | 45.44981 | 0.000    |        | 277.803 | 0.257  |         |
| 0.0090 | 3758.3112 | -9.3772  | 45.44981 | 0.000    |        | 277.306 | 0.184  |         |
| 0.0091 | 3783.0987 | -9.4989  | 45.44981 | 0.000    |        | 276.935 | 0.263  |         |
| 0.0092 | 3783.3942 | -6.6165  | 45.44981 | 0.000    |        | 276.932 | 0.218  |         |
| 0.0093 | 3758.2139 | -6.6917  | 45.44981 | 0.000    |        | 277.308 | 0.154  |         |
| 0.0094 | 3734.3558 | -6.6488  | 45.44981 | 0.000    |        | 277.781 | 0.237  |         |
| 0.0095 | 3707.4503 | -6.5696  | 45.44981 | 0.000    |        | 278.378 | 0.422  |         |
| 0.0096 | 3684.1681 | -6.5309  | 45.44981 | 0.000    |        | 278.832 | 0.365  |         |
| 0.0097 | 3658.4396 | -6.3852  | 45.44981 | 0.000    |        | 279.207 | 0.304  |         |
| 0.0098 | 3634.0711 | -6.4228  | 45.44981 | 0.000    |        | 279.441 | -0.151 |         |
| 0.0099 | 3608.9180 | -6.3826  | 45.44981 | 0.000    |        | 279.557 | -0.606 |         |
| 0.0100 | 3583.2505 | -6.3665  | 45.44981 | 0.000    |        | 279.545 | -0.984 |         |
| 0.0101 | 3559.0490 | -6.3334  | 44.94832 | 1333.142 | 21.0   | 279.414 | -1.335 |         |
| 0.0102 | 3535.1317 | -7.0938  | 43.18342 | 700.000  | 40.0   | 279.168 | -1.598 |         |
| 0.0103 | 3509.7568 | -8.3878  | 40.87567 | 700.000  | 40.0   | 278.783 | -1.488 |         |
| 0.0104 | 3485.3928 | -10.4484 | 38.65987 | 700.000  | 40.0   | 278.292 | -1.443 |         |
| 0.0105 | 3460.3505 | -13.3212 | 36.38238 | 700.000  | 40.0   | 277.672 | -1.640 |         |
| 0.0106 | 3434.8752 | -17.3875 | 34.06552 | 700.000  | 40.0   | 277.015 | -2.093 |         |
| 0.0107 | 3412.0410 | -22.2865 | 31.98885 | 700.000  | 40.0   | 276.427 | -2.081 |         |
| 0.0108 | 3388.8135 | -28.1707 | 29.87640 | 700.000  | 40.0   | 275.828 | -1.389 |         |