Nuclear Regulatory Commission
Exhibit # - NRC00001S-MA-CM01
Docket # - 05200027 | 05200028
Identified: 10/12/2011

Admitted: 10/12/2011 Withdrawn:
Rejected: Stricken:

NRC00001S

8992GA040506.Raw April 05, 2006

Raw Data Report

Line# Record Type

1
2
3 4
5 6
7 8
9 10 11 12 13 14 15
16 17 18 19 20

1 Job: **Job Name: 8992GA040506**
Date: 04-05-2006 Time: 06:06:42
2 Mode Setup: Azimuth Direction: North
Distance Unit: Feet Scale Factor: 1.0
Earth Curvature: Off EDM Offset: 0.0ft
Angle Unit: Degrees
3 Note: Switch projection mode to H: Mapping Plane and V: Localization (+ Geoid)
4 Note: No projection record is defined.
5 Ellipsoid: Ellipsoid Radius: ---
Ellipse Inverse Flattening: Ellipse Name:
6 Projection: Projection Type: Unknown
Latitude: Longitude:
Height: Northing: ---
Easting: --- Elevation: --- Scale Factor: 1.0000000000 Orientation One : Orientation Two :
7 Coordinate System Identity: Coordinate System Option: Scale only
Zone Group: Zone Name:
Datum Name:
8 Note: Select zone record from data base
9 Ellipsoid: Ellipsoid Radius: 20925646.325459ft
Ellipse Inverse Flattening: 298.2572215381 Ellipse Name: Geodetic Ref System 1980
10 Local Site Settings: Latitude:
Longitude: Height:
Scale Factor: 1.0000000000 Northing: 0.0ft
Easting: 0.0ft
11 Projection: Projection Type: Lambert Conformal Conic Two Parallel Latitude: 31.5000 Longitude: -81.0000
Height: Northing: 0.0ft
Easting: 2000000.0ft Elevation: --- Scale Factor: North Parallel : 34.5000 South Parallel : 32.3000
12 Datum: Datum Type: Molodensky
Ellipsoid Radius: 20925646.325459ft Ellipse Inverse Flattening: 298.2572229329 Rotation X: 0.00000000 Rotation Y: 0.00000000
Rotation Z: 0.00000000 Translation X: 0.0ft
Translation Y: 0.0ft Translation Z: 0.0ft ppm Scale Factor: 0.000000
13 Horizontal Calibration (Adjust): Northing: ---
Easting: --- Translation North: ---
Translation East: --- Rotation about Origin:
Scale Factor:
14 Vertical Calibration: Type of Vertical Adjustment: 2
Northing: --- Easting: ---
Translation Z: --- Slope North:
Slope East: Geoid Model Name: GEOID99 (Conus)
15 COGO Settings: Azimuth Orientation: North
Grid Orientation: NE
16 Coordinate System Identity: Coordinate System Option: Chosen from library **Zone Group: US State Plane 1983** **Zone Name: South Carolina 3900** **Datum**

Name: NAD 1983 (Conus)
17 Note: Geodetic coordinates computed from plane coordinates for base setup.
18 GPS Edit Point: Geodetic Flags: 0
Setup Group: 0
19 Geodetic Position: Time: 12:04:27
Latitude: 34.173590453 Longitude: -81.190117299
Height: 334.66628 Horizontal RMS from Receiver: 0.0
Vertical RMS from Receiver: 0.0 GPS Measurement Method: User Input
Classification: Normal
20 GPS Point: Point Name: 1009
GPS Point Type: USER_INPUT
21 Note: 07:04:37,Set BASE receiver at known position
22 Receiver Setup: Reciever Mode: BASE
Reduced Antenna Height: 6.193731ft Recording Interval: 0
File Name:
23 Equipment: **Reciever Mode: BASE**
Receiver Type: Legacy E **Receiver Serial Number: AG3VLIT08HS**
Antenna Index: 0 Antenna Number: 1
Antenna Type: PGA-1 Antenna Serial Number: Tape
Adjustment: 0.0 Horizontal Offset: 0.226378ft Vertical Offset: 0.087927ft
24 GPS Antenna Height: Reciever Mode: BASE
Measured Antenna Height: 6.11ft Measurement Method: Uncorrected
Reduced Antenna Height: 6.193731ft
25 Set Base Receiver Pos.: Point Name: 1009
Latitude: 34.173590453 Longitude: -81.190117299
Height: 334.66628 Setup Group: 0
26 Note: 07:05:36,Set ROVER receiver with base reference position:LA34.173590453,LN-81.190117299,HT334.66628
27 Receiver Setup: Reciever Mode: ROVER
Reduced Antenna Height: 6.909449ft Recording Interval: 0
File Name:
28 Equipment: **Reciever Mode: ROVER**
Receiver Type: Legacy E **Receiver Serial Number: 8RHNB0238JK**
Antenna Index: 0 Antenna Number: 0
Antenna Type: Topcon HiPer GGD Antenna Serial Number: Tape
Adjustment: 0.0 Horizontal Offset: 0.0ft Vertical Offset: 0.347769ft
29 GPS Antenna Height: Reciever Mode: ROVER
Measured Antenna Height: 6.56168ft Measurement Method: Uncorrected
Reduced Antenna Height: 6.909449ft
30 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00007", Lng: 0.00003", Ht: 0.017
31 Geodetic Position: Time: 07:21:35
Latitude: 34.192427554 Longitude: -81.171331724
Height: 344.239226 Horizontal RMS from Receiver: 0.026013
Vertical RMS from Receiver: 0.040468 HDOP from Receiver: 0.792796 VDOP from Receiver: 1.233766 GPS Measurement Method: Fixed Classification: Normal
32 GPS Store Point: Point Name: 2008
Northing: 906102.377365ft Easting: 1913343.971267ft
Elevation: 444.310302ft Description: qa ck 101
33 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00004", Lng: 0.00005", Ht: 0.019
34 Geodetic Position: Time: 07:35:36
Latitude: 34.15478559 Longitude: -81.182587763
Height: 335.442978 Horizontal RMS from Receiver: 0.026509
Vertical RMS from Receiver: 0.041633 HDOP from Receiver: 0.80815 VDOP from Receiver: 1.269018 GPS Measurement Method: Fixed Classification: Normal
35 GPS Store Point: Point Name: 2010
Northing: 884244.603149ft Easting: 1907193.908813ft
Elevation: 435.464412ft Description: qa ck 1020

36 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00004", Lng: 0.00014", Ht: 0.005
37 Geodetic Position: Time: 07:47:10
Latitude: 34.154404124 Longitude: -81.194757188
Height: 227.375219 Horizontal RMS from Receiver: 0.032606
Vertical RMS from Receiver: 0.050093 HDOP from Receiver: 0.806019 VDOP
from Receiver: 1.238188 GPS Measurement Method: Fixed Classification: Normal
38 GPS Store Point: Point Name: 2011
Northing: 883880.159781ft Easting: 1900336.857135ft
Elevation: 327.372774ft Description: qa ck 1021
39 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00015", Lng: 0.00011", Ht: 0.007
40 Geodetic Position: Time: 10:51:02
Latitude: 34.164237603 Longitude: -81.190421606
Height: 300.858979 Horizontal RMS from Receiver: 0.032543
Vertical RMS from Receiver: 0.041976 HDOP from Receiver: 1.151331 VDOP
from Receiver: 1.485047 GPS Measurement Method: Fixed Classification: Normal
41 GPS Store Point: Point Name: 76
Northing: 889765.073332ft Easting: 1903993.476203ft
Elevation: 400.87372ft Description: c 403
42 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00012", Lng: 0.00034", Ht: 0.047
43 Geodetic Position: Time: 11:40:11
Latitude: 34.165084392 Longitude: -81.191774613
Height: 290.696452 Horizontal RMS from Receiver: 0.021742
Vertical RMS from Receiver: 0.039107 HDOP from Receiver: 0.788893 VDOP
from Receiver: 1.419194 GPS Measurement Method: Fixed Classification: Normal
44 GPS Store Point: Point Name: 77
Northing: 890624.498681ft Easting: 1902860.889858ft
Elevation: 390.709158ft Description: t nail
45 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00004", Lng: 0.00009", Ht: 0.031
46 Geodetic Position: Time: 11:45:07
Latitude: 34.165106356 Longitude: -81.191497007
Height: 292.965938 Horizontal RMS from Receiver: 0.020356
Vertical RMS from Receiver: 0.036168 HDOP from Receiver: 0.709642 VDOP
from Receiver: 1.258896 GPS Measurement Method: Fixed Classification: Normal
47 GPS Store Point: Point Name: 78
Northing: 890645.974623ft Easting: 1903093.879793ft
Elevation: 392.979277ft Description: t nail
48 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00022", Lng: 0.00014", Ht: 0.020
49 Geodetic Position: Time: 12:04:48
Latitude: 34.164980922 Longitude: -81.192042732
Height: 300.68089 Horizontal RMS from Receiver: 0.035082
Vertical RMS from Receiver: 0.056204 HDOP from Receiver: 1.131602 VDOP
from Receiver: 1.809405 GPS Measurement Method: Fixed Classification: Normal
50 GPS Store Point: Point Name: 79
Northing: 890520.614027ft Easting: 1902635.602916ft
Elevation: 400.692884ft Description: b616
51 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00019", Lng: 0.00006", Ht: 0.054
52 Geodetic Position: Time: 12:20:28
Latitude: 34.165036691 Longitude: -81.191222344
Height: 298.895251 Horizontal RMS from Receiver: 0.025784
Vertical RMS from Receiver: 0.053559 HDOP from Receiver: 0.93434 VDOP
from Receiver: 1.94013 GPS Measurement Method: Fixed Classification: Normal
53 GPS Store Point: Point Name: 80
Northing: 890574.845282ft Easting: 1903324.113101ft
Elevation: 398.909107ft Description: c 402 s
54 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00018", Lng: 0.00003", Ht: 0.039
55 Geodetic Position: Time: 12:40:44

Latitude: 34.164579793 Longitude: -81.191438523
Height: 284.33633 Horizontal RMS from Receiver: 0.047612
Vertical RMS from Receiver: 0.116737 HDOP from Receiver: 1.711294 VDOP from Receiver: 4.190018 GPS Measurement Method: Fixed Classification: Normal
56 GPS Store Point: Point Name: 99
Northing: 890113.586386ft Easting: 1903141.298693ft
Elevation: 384.349091ft Description: Offset Reference
57 GPS Offset Shot: Point Name: 81
Azimuth: 243.0000 Zenith Angle: 90.0000
Slope Distance: 5.0ft Height of Instrument: 0.0ft
Height of Rod: 0.0ft Description: b 406
58 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00010", Lng: 0.00013", Ht: 0.010
59 Geodetic Position: Time: 12:55:33
Latitude: 34.165104199 Longitude: -81.190631624
Height: 301.045881 Horizontal RMS from Receiver: 0.021718
Vertical RMS from Receiver: 0.031093 HDOP from Receiver: 0.788924 VDOP from Receiver: 1.129252 GPS Measurement Method: Fixed Classification: Normal
60 GPS Store Point: Point Name: 106
Northing: 890641.549403ft Easting: 1903819.958108ft
Elevation: 401.0612ft Description: b 403
61 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00010", Lng: 0.00011", Ht: 0.016
62 Geodetic Position: Time: 13:02:19
Latitude: 34.165563297 Longitude: -81.19041006
Height: 304.717982 Horizontal RMS from Receiver: 0.021726
Vertical RMS from Receiver: 0.03101 HDOP from Receiver: 0.800446 VDOP from Receiver: 1.143386 GPS Measurement Method: Fixed Classification: Normal
63 GPS Store Point: Point Name: 107
Northing: 891105.021726ft Easting: 1904007.284837ft
Elevation: 404.73444ft Description: b 402
64 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00013", Lng: 0.00021", Ht: 0.027
65 Geodetic Position: Time: 13:15:45
Latitude: 34.1651528 Longitude: -81.185981832
Height: 308.469064 Horizontal RMS from Receiver: 0.021822
Vertical RMS from Receiver: 0.029488 HDOP from Receiver: 0.793962 VDOP from Receiver: 1.073056 GPS Measurement Method: Fixed Classification: Normal
66 GPS Store Point: Point Name: 108
Northing: 890688.998775ft Easting: 1904365.305855ft
Elevation: 408.486036ft Description: c401
67 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00008", Lng: 0.00016", Ht: 0.021
68 Geodetic Position: Time: 13:27:01
Latitude: 34.164696941 Longitude: -81.190200429
Height: 310.06361 Horizontal RMS from Receiver: 0.022389
Vertical RMS from Receiver: 0.029137 HDOP from Receiver: 0.803665 VDOP from Receiver: 1.042263 GPS Measurement Method: Fixed Classification: Normal
69 GPS Store Point: Point Name: 109
Northing: 890228.789954ft Easting: 1904180.481641ft
Elevation: 410.079463ft Description: b404
70 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00016", Lng: 0.00027", Ht: 0.013
71 Geodetic Position: Time: 13:47:57
Latitude: 34.165554435 Longitude: -81.191466925
Height: 299.639838 Horizontal RMS from Receiver: 0.038477
Vertical RMS from Receiver: 0.057106 HDOP from Receiver: 1.415812 VDOP from Receiver: 2.101172 GPS Measurement Method: Fixed Classification: Normal
72 GPS Store Point: Point Name: 110
Northing: 891098.80382ft Easting: 1903120.525141ft
Elevation: 399.653868ft Description: t nail
73 Note: Geodetic coordinate stored with over ride of projection check.

74 GPS Edit Point: Geodetic Flags: 0
Setup Group: 0
75 Geodetic Position: Time: 18:53:18
Latitude: 34.165554435 Longitude: -81.191466925
Height: 299.639838 Horizontal RMS from Receiver: 0.0
Vertical RMS from Receiver: 0.0 GPS Measurement Method: User Input
Classification: Normal
76 Store Point: Point Name: 73
Northing: 891297.261ft Easting: 1903167.829ft
Elevation: 390.366ft Description: t nail
77 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00015", Lng: 0.00013", Ht: 0.027
78 Geodetic Position: Time: 14:19:34
Latitude: 34.170037284 Longitude: -81.191130532
Height: 295.880176 Horizontal RMS from Receiver: 0.028088
Vertical RMS from Receiver: 0.060682 HDOP from Receiver: 0.922854 VDOP
from Receiver: 1.994922 GPS Measurement Method: Fixed Classification: Normal
79 GPS Store Point: Point Name: 111
Northing: 891585.98124ft Easting: 1903404.276192ft
Elevation: 395.895634ft Description: t nail
80 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00017", Lng: 0.00025", Ht: 0.065
81 Geodetic Position: Time: 14:32:01
Latitude: 34.170385789 Longitude: -81.190852309
Height: 301.006845 Horizontal RMS from Receiver: 0.040447
Vertical RMS from Receiver: 0.111531 HDOP from Receiver: 1.061232 VDOP
from Receiver: 2.928469 GPS Measurement Method: Fixed Classification: Normal
82 GPS Store Point: Point Name: 112
Northing: 891937.521114ft Easting: 1903638.794808ft
Elevation: 401.023429ft Description: point on rr tie
83 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00017", Lng: 0.00012", Ht: 0.032
84 Geodetic Position: Time: 14:48:19
Latitude: 34.170037084 Longitude: -81.19113045
Height: 295.969654 Horizontal RMS from Receiver: 0.067374
Vertical RMS from Receiver: 0.088589 HDOP from Receiver: 2.212796 VDOP
from Receiver: 2.909058 GPS Measurement Method: Fixed Classification: Normal
85 GPS Store Point: Point Name: 111
Northing: 891585.778781ft Easting: 1903404.344155ft
Elevation: 395.985112ft Description: t nail rr trks
86 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00014", Lng: 0.00005", Ht: 0.011
87 Geodetic Position: Time: 15:16:48
Latitude: 34.165902205 Longitude: -81.191029912
Height: 296.147419 Horizontal RMS from Receiver: 0.030276
Vertical RMS from Receiver: 0.053566 HDOP from Receiver: 1.099271 VDOP
from Receiver: 1.81577 GPS Measurement Method: Fixed Classification: Normal
88 GPS Store Point: Point Name: 113
Northing: 891449.185513ft Easting: 1903488.275049ft
Elevation: 396.162907ft Description: t nail
89 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00005", Lng: 0.00009", Ht: 0.021
90 Geodetic Position: Time: 15:24:10
Latitude: 34.16546252 Longitude: -81.19096347
Height: 309.200892 Horizontal RMS from Receiver: 0.018428
Vertical RMS from Receiver: 0.033096 HDOP from Receiver: 0.67748 VDOP
from Receiver: 1.211228 GPS Measurement Method: Fixed Classification: Normal
91 GPS Store Point: Point Name: 114
Northing: 891004.59016ft Easting: 1903542.647191ft
Elevation: 409.215916ft Description: t nail
92 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00005", Lng: 0.00009", Ht: 0.004
93 Geodetic Position: Time: 15:57:39

Latitude: 34.192427612 Longitude: -81.171331668
Height: 344.308377 Horizontal RMS from Receiver: 0.023527
Vertical RMS from Receiver: 0.028364 HDOP from Receiver: 0.716255 VDOP from Receiver: 0.862273 GPS Measurement Method: Fixed Classification: Normal
94 GPS Store Point: Point Name: 2013
Northing: 906102.435498ft Easting: 1913344.018522ft
Elevation: 444.379453ft Description: qa ck 101

Raw Data Report

Line# Record Type

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

1 Job: **Job Name: 8992gb040506**
Date: 04-05-2006 Time: 07:08:56
2 Mode Setup: Azimuth Direction: North
Distance Unit: Feet Scale Factor: 1.0
Earth Curvature: Off EDM Offset: 0.0ft Angle Unit: Degrees
3 Note: **Data Collector Serial Number: SS05A00978**
4 Note: Foresight Target:My Prism, HR:5.1 (5.1 + 0.0 Offset), Prism Const.:0.0mm
5 Note: Activating GPS Receiver: Topcon TPS HiPer [rover], COM1, 115200 baud, no parity
6 Note: Switch projection mode to H: Mapping Plane and V: Localization (+ Geoid)
7 Note: No coordinate system is defined.
8 Ellipsoid: Ellipsoid Radius: ---
Ellipse Inverse Flattening: Ellipse Name:
9 Projection: Projection Type: Unknown
Latitude: Longitude:
Height: Northing: --- Easting: ---
Elevation: --- Scale Factor: 1.0000000000 Orientation One : Orientation Two :
10 Coordinate System Identity: Coordinate System Option: Scale only
Zone Group: Zone Name:
Datum Name:
11 Note: Select zone record from database
12 Ellipsoid: Ellipsoid Radius: 20925646.325459ft
Ellipse Inverse Flattening: 298.2572215381 Ellipse Name: Geodetic Ref System 1980
13 Local Site Settings: Latitude:
Longitude: Height:
Scale Factor: 1.0000000000 Northing: 0.0ft Easting: 0.0ft
14 Projection: Projection Type: Lambert Conformal Conic Two Parallel Latitude: 31.5000
Longitude: -81.0000 Height:
Northing: 0.0ft Easting: 2000000.0ft Elevation: ---
Scale Factor: North Parallel : 34.5000 South Parallel : 32.3000
15 Datum: Datum Type: Molodensky
Ellipsoid Radius: 20925646.325459ft Ellipse Inverse Flattening: 298.2572229329 Rotation X: 0.00000000 Rotation Y: 0.00000000
Rotation Z: 0.00000000 Translation X: 0.0ft Translation Y: 0.0ft Translation Z: 0.0ft ppm Scale Factor: 0.000000
16 Horizontal Calibration (Adjust): Northing: ---
Easting: --- Translation North: ---
Translation East: --- Rotation about Origin: Scale Factor:
17 Vertical Calibration: Type of Vertical Adjustment: 2
Northing: --- Easting: ---
Translation Z: --- Slope North: Slope East:
Geoid Model Name: Geoid03 (Conus)
18 COGO Settings: Azimuth Orientation: North
Grid Orientation: NE
19 Coordinate System Identity: Coordinate System Option: Keyed in

Zone Group: US State Plane 1983 Zone Name: South Carolina 3900
Datum Name: NAD 1983 (Conus)
20 Note: >>
21 Note: >> Begin Adjust with Projection.
22 Note: >> End Adjust with Projection.
23 Note: >>
24 Note: **Activating Total Station: Topcon GTS-800 [820/8200 DIRECT CABLE]**, COM1, 1200 baud, even parity
25 Note: Calculate survey scale factor for projection South Carolina 3900 at point 1009.
26 Mode Setup: Azimuth Direction: North
Distance Unit: Feet Scale Factor: 0.999837
Earth Curvature: Off EDM Offset: 0.0ft Angle Unit: Degrees
27 Note: Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
28 Note: Data Collector Serial Number: SS05A00978
29 Note: Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
30 Store Point: Point Name: 75
Northing: 892701.387ft Easting: 1903481.975ft
Elevation: 423.382ft Description: t nail
31 Occupy Pt: Occupy Point: 58
Northing: 892095.935107ft Easting: 1903016.218891ft
Elevation: 419.281577ft Description: t nail
32 Note: HR:5.0 (5.0 + 0.0 Offset)
33 Line of Sight (HI/HR): Height of Instrument: 5.31ft
Height of Rod: 5.0ft
34 Backsight: Occupy Point: 58
Backsight Point: 75 Backsight Azimuth: 37.3412
Backsight Circle: 0.0000
35 Note: Fixed HR at Backsight:5.56 (5.56 + 0.0 Offset), Prism Const.:0.0mm
36 Note: BS check 58 - 75:ZE89.4029,SD764.051528,HD err= 0.042338, VD err= -0.010945
37 Note: BS Circle check : angular err= 0.0000
38 Side Shot: Occupy Point: 58
Foresight Point: 645 Angle Right: 68.1607
Zenith Angle: 90.4406 Slope Distance: 102.165204ft Description: C-307(S)
39 Store Point: Point Name: 673
Northing: 892068.058122ft Easting: 1903114.481193ft
Elevation: 418.28102ft Description: C-307(S)
40 Deleted Point: Point Name: 645
41 Side Shot: Occupy Point: 58
Foresight Point: 674 Angle Right: 93.0947
Zenith Angle: 91.1051 Slope Distance: 131.205262ft Description: b-310
42 Side Shot: Occupy Point: 58
Foresight Point: 675 Angle Right: 158.1448
Zenith Angle: 90.5257 Slope Distance: 85.660171ft Description: C-304
43 Side Shot: Occupy Point: 58
Foresight Point: 676 Angle Right: 161.1235
Zenith Angle: 90.5800 Slope Distance: 148.480297ft Description: b-302
44 Side Shot: Occupy Point: 58
Foresight Point: 677 Angle Right: 162.0241
Zenith Angle: 90.5328 Slope Distance: 199.280399ft Description: B-301(DH)
45 Side Shot: Occupy Point: 58
Foresight Point: 678 Angle Right: 162.3304
Zenith Angle: 91.0141 Slope Distance: 251.205502ft Description: B-303
46 Side Shot: Occupy Point: 58
Foresight Point: 679 Angle Right: 127.1433

Zenith Angle: 91.2446 Slope Distance: 180.385361ft Description: B-304
47 Occupy Pt: Occupy Point: 58
Northing: 892095.935107ft Easting: 1903016.218891ft
Elevation: 419.281577ft Description: t nail
48 Backsight: Occupy Point: 58
Backsight Point: 75 Backsight Azimuth: 37.3412
Backsight Circle: 0.0000
49 Note: Fixed HR at Backsight:5.56 (5.56 + 0.0 Offset), Prism Const.:0.0mm
50 Note: BS check 58 - 75:ZE89.4025,SD764.056528,HD err= 0.047263, VD err= 0.002048
51 Note: BS Circle check : angular err= 0.0000
52 Side Shot: Occupy Point: 58
Foresight Point: 680 Angle Right: 128.2259
Zenith Angle: 91.3050 Slope Distance: 248.945498ft Description: B-306(DH)
53 Side Shot: Occupy Point: 58
Foresight Point: 681 Angle Right: 108.2419
Zenith Angle: 91.2639 Slope Distance: 262.165524ft Description: C-305
54 Side Shot: Occupy Point: 58
Foresight Point: 682 Angle Right: 93.1624
Zenith Angle: 91.2747 Slope Distance: 229.78546ft Description: B-326
55 Side Shot: Occupy Point: 58
Foresight Point: 683 Angle Right: 195.2911
Zenith Angle: 89.4551 Slope Distance: 258.050516ft Description: C-301
56 Occupy Pt: Occupy Point: 58
Northing: 892095.935107ft Easting: 1903016.218891ft
Elevation: 419.281577ft Description: t nail
57 Backsight: Occupy Point: 58
Backsight Point: 75 Backsight Azimuth: 37.3412
Backsight Circle: 0.0000
58 Note: Fixed HR at Backsight:5.56 (5.56 + 0.0 Offset), Prism Const.:0.0mm
59 Note: BS check 58 - 75:ZE89.4026,SD764.056528,HD err= 0.047284, VD err= -0.001656
60 Note: BS Circle check : angular err= 0.0000
61 Note: Foresight Target:My Prism, HR:6.0 (6.0 + 0.0 Offset), Prism Const.:0.0mm
62 Note: HR:6.0 (6.0 + 0.0 Offset)
63 Line of Sight (HI/HR): Height of Instrument: 5.31ft
Height of Rod: 6.0ft
64 Side Shot: Occupy Point: 58
Foresight Point: 684 Angle Right: 187.5041
Zenith Angle: 90.1623 Slope Distance: 271.570543ft Description: B-314
65 Note: Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
66 Note: HR:5.0 (5.0 + 0.0 Offset)
67 Line of Sight (HI/HR): Height of Instrument: 5.31ft
Height of Rod: 5.0ft
68 Side Shot: Occupy Point: 58
Foresight Point: 685 Angle Right: 134.0905
Zenith Angle: 91.0856 Slope Distance: 430.710861ft Description: B-327/ow-327
69 Note: Foresight Target:My Prism, HR:5.44 (5.44 + 0.0 Offset), Prism Const.:0.0mm
70 Note: HR:5.44 (5.44 + 0.0 Offset)
71 Line of Sight (HI/HR): Height of Instrument: 5.31ft
Height of Rod: 5.44ft
72 Repeat Directional: Backsight Direct
Set: 1 Angle: 359.5957
73 Note: BS zenith: 89.4025, slope dist: 764.051528
74 Repeat Backsight: Occupy Point: 58

Backsight Point: 75 Angle Right: 359.5957
Zenith Angle: 89.4025 Slope Distance: 764.051528ft Height of Rod: 5.56ft Description: t nail
75 Repeat Directional: Foresight Direct
Set: 1 Angle: 198.3706
76 Repeat Directional: Zenith Direct
Set: 1 Zenith: 89.4850
77 Multiple Distances: Set: 1
Slope Distance: 276.820554ft
78 Repeat Foresight: Occupy Point: 58
Foresight Point: 686 Angle Right: 198.3706
Zenith Angle: 89.4850 Slope Distance: 276.820554ft Height of Rod: 5.44ft Description: TR-t nail
79 Repeat Directional: Foresight Reverse
Set: 1 Angle: 18.3702
80 Note: RD,ZV 1:270.1056
81 Note: Not shooting reverse distances.
82 Repeat Directional: Backsight Reverse
Set: 1 Angle: 179.5959
83 Note: Horizontal Angle Error: 0.0006
84 Note: Zenith Angle Error: 0.0000
85 Note: Horizontal Angle Error compares to the average: 0.0000
86 Note: Zenith Angle Error compares to the average: 0.0000
87 Note: Slope Distance Error compares to the average: 0.0
88 Traverse: Occupy Point: 58
Foresight Point: 686 Angle Right: 198.3707
Zenith Angle: 89.4850 Slope Distance: 276.820554ft Description: TR-t nail
89 Occupy Pt: Occupy Point: 686
Northing: 891941.920763ft Easting: 1902786.255008ft
Elevation: 420.051429ft Description: TR-t nail
90 Backsight: Occupy Point: 686
Backsight Point: 58 Backsight Azimuth: 56.1119
Backsight Circle: 0.0000
91 Note: Fixed HR at Backsight:5.56 (5.56 + 0.0 Offset), Prism Const.:0.0mm
92 Note: Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
93 Occupy Pt: Occupy Point: 686
Northing: 891941.920763ft Easting: 1902786.255008ft
Elevation: 420.051429ft Description: TR-t nail
94 Note: HR:5.0 (5.0 + 0.0 Offset)
95 Line of Sight (HI/HR): Height of Instrument: 5.27ft
Height of Rod: 5.0ft
96 Backsight: Occupy Point: 686
Backsight Point: 58 Backsight Azimuth: 56.1119
Backsight Circle: 0.0000
97 Note: Fixed HR at Backsight:5.3 (5.3 + 0.0 Offset), Prism Const.:0.0mm
98 Note: BS check 686 - 58:ZE90.0905,SD276.815554,HD err= -0.004501, VD err= 0.009113
99 Note: BS Circle check : angular err= 0.0000
100 Side Shot: Occupy Point: 686
Foresight Point: 687 Angle Right: 160.4149
Zenith Angle: 96.4201 Slope Distance: 148.885298ft Description: B-330
101 Side Shot: Occupy Point: 686
Foresight Point: 688 Angle Right: 219.3503
Zenith Angle: 95.4339 Slope Distance: 73.260147ft Description: B-315
102 Side Shot: Occupy Point: 686
Foresight Point: 689 Angle Right: 276.4155

Zenith Angle: 89.3033 Slope Distance: 92.580185ft Description: B-319
103 Side Shot: Occupy Point: 686
Foresight Point: 690 Angle Right: 229.1552
Zenith Angle: 95.4138 Slope Distance: 180.485361ft Description: B-307(DH)
104 Side Shot: Occupy Point: 686
Foresight Point: 691 Angle Right: 231.2301
Zenith Angle: 94.0913 Slope Distance: 264.450529ft Description: B-316
105 Side Shot: Occupy Point: 686
Foresight Point: 692 Angle Right: 218.2935
Zenith Angle: 93.4845 Slope Distance: 304.250609ft Description: C-308
106 Note: Foresight Target:My Prism, HR:8.5 (8.5 + 0.0 Offset), Prism Const.:0.0mm
107 Note: HR:8.5 (8.5 + 0.0 Offset)
108 Line of Sight (HI/HR): Height of Instrument: 5.27ft
Height of Rod: 8.5ft
109 Note: Foresight Target:My Prism, HR:6.0 (6.0 + 0.0 Offset), Prism Const.:0.0mm
110 Note: HR:6.0 (6.0 + 0.0 Offset)
111 Line of Sight (HI/HR): Height of Instrument: 5.27ft
Height of Rod: 6.0ft
112 Side Shot: Occupy Point: 686
Foresight Point: 693 Angle Right: 211.3803
Zenith Angle: 94.3725 Slope Distance: 258.310517ft Description: B-332
113 Store Point: Point Name: 77
Northing: 890624.499ft Easting: 1902860.89ft
Elevation: 390.709ft Description: t nail
114 Store Point: Point Name: 78
Northing: 890645.975ft Easting: 1903093.88ft
Elevation: 392.979ft Description: t nail
115 Occupy Pt: Occupy Point: 77
Northing: 890624.499ft Easting: 1902860.89ft
Elevation: 390.709ft Description: t nail
116 Backsight: Occupy Point: 77
Backsight Point: 58 Backsight Azimuth: 6.0134
Backsight Circle: 0.0000
117 Note: Fixed HR at Backsight:5.35 (5.35 + 0.0 Offset), Prism Const.:0.0mm
118 Occupy Pt: Occupy Point: 77
Northing: 890624.499ft Easting: 1902860.89ft
Elevation: 390.709ft Description: t nail
119 Note: HR:6.0 (6.0 + 0.0 Offset)
120 Line of Sight (HI/HR): Height of Instrument: 5.25ft
Height of Rod: 6.0ft
121 Backsight: Occupy Point: 77
Backsight Point: 78 Backsight Azimuth: 84.4401
Backsight Circle: 0.0000
122 Note: Fixed HR at Backsight:5.35 (5.35 + 0.0 Offset), Prism Const.:0.0mm
123 Note: BS check 77 - 78:ZE89.2359,SD234.020468,HD err= -0.00825, VD err= 0.082314
124 Note: BS Circle check : angular err= 0.0000
125 Side Shot: Occupy Point: 77
Foresight Point: 694 Angle Right: 268.0536
Zenith Angle: 98.5108 Slope Distance: 115.660231ft Description: C-610
126 Store Point: Point Name: 110
Northing: 891098.804ft Easting: 1903120.525ft
Elevation: 399.654ft Description: t nail
127 Note: Data Collector Serial Number: SS05A00978
128 Store Point: Point Name: 73
Northing: 891297.261ft Easting: 1903167.829ft
Elevation: 390.366ft Description: t nail

129 Note: Foresight Target:My Prism, HR:6.0 (6.0 + 0.0 Offset), Prism Const.:0.0mm
130 Note: Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
131 Occupy Pt: Occupy Point: 110
Northing: 891098.804ft Easting: 1903120.525ft
Elevation: 399.654ft Description: t nail
132 Note: HR:5.0 (5.0 + 0.0 Offset)
133 Line of Sight (HI/HR): Height of Instrument: 5.25ft
Height of Rod: 5.0ft
134 Backsight: Occupy Point: 110
Backsight Point: 73 Backsight Azimuth: 13.2424
Backsight Circle: 0.0000
135 Note: Fixed HR at Backsight:5.51 (5.51 + 0.0 Offset), Prism Const.:0.0mm
136 Note: BS check 110 - 73:ZE92.3014,SD204.275409,HD err= 0.030294, VD err= 0.10378
137 Note: BS Circle check : angular err= 0.0001
138 Note: Foresight Target:My Prism, HR:8.3 (8.3 + 0.0 Offset), Prism Const.:0.0mm
139 Note: HR:8.3 (8.3 + 0.0 Offset)
140 Line of Sight (HI/HR): Height of Instrument: 5.25ft
Height of Rod: 8.3ft
141 Side Shot: Occupy Point: 110
Foresight Point: 695 Angle Right: 196.2640
Zenith Angle: 92.0923 Slope Distance: 198.775398ft Description: B-615
142 Store Point: Point Name: 111
Northing: 891585.981ft Easting: 1903404.276ft
Elevation: 395.896ft Description: t nail
143 Store Point: Point Name: 112
Northing: 891937.521ft Easting: 1903638.795ft
Elevation: 401.023ft Description: punch mark in rr
144 Occupy Pt: Occupy Point: 112
Northing: 891937.521ft Easting: 1903638.795ft
Elevation: 401.023ft Description: punch mark in rr
145 Note: HR:8.3 (8.3 + 0.0 Offset)
146 Line of Sight (HI/HR): Height of Instrument: 5.44ft
Height of Rod: 8.3ft
147 Backsight: Occupy Point: 112
Backsight Point: 111 Backsight Azimuth: 213.4229
Backsight Circle: 0.0000
148 Note: Fixed HR at Backsight:5.44 (5.44 + 0.0 Offset), Prism Const.:0.0mm
149 Note: BS check 112 - 111:ZE90.3933,SD422.685845,HD err= 0.002196, VD err= 0.264264
150 Note: BS Circle check : angular err= 0.0001
151 Occupy Pt: Occupy Point: 112
Northing: 891937.521ft Easting: 1903638.795ft
Elevation: 401.023ft Description: punch mark in rr
152 Backsight: Occupy Point: 112
Backsight Point: 111 Backsight Azimuth: 213.4229
Backsight Circle: 0.0000
153 Note: Fixed HR at Backsight:5.44 (5.44 + 0.0 Offset), Prism Const.:0.0mm
154 Note: BS check 112 - 111:ZE90.3934,SD422.680845,HD err= -0.002815, VD err= 0.263297
155 Note: BS Circle check : angular err= 0.0001
156 Occupy Pt: Occupy Point: 1
Northing: 893794.762271ft Easting: 1904878.075988ft
Elevation: 447.105776ft Description: t nail
157 Backsight: Occupy Point: 1
Backsight Point: 2 Backsight Azimuth: 266.5444
Backsight Circle: 0.0000

158 Note: Fixed HR at Backsight:5.44 (5.44 + 0.0 Offset), Prism Const.:0.0mm
159 Store Point: Point Name: 111
Northing: 891585.779ft Easting: 1903404.344ft
Elevation: 395.985ft Description: t nail
160 Occupy Pt: Occupy Point: 112
Northing: 891937.521ft Easting: 1903638.795ft
Elevation: 401.023ft Description: punch mark in rr
161 Backsight: Occupy Point: 112
Backsight Point: 111 Backsight Azimuth: 213.4107
Backsight Circle: 0.0000
162 Note: Fixed HR at Backsight:5.45 (5.45 + 0.0 Offset), Prism Const.:0.0mm
163 Note: BS check 112 - 111:ZE90.3944,SD422.680845,HD err= -0.133398, VD err= 0.142781
164 Note: BS Circle check : angular err= 0.0000
165 Note: Foresight Target:My Prism, HR:6.0 (6.0 + 0.0 Offset), Prism Const.:0.0mm
166 Note: HR:6.0 (6.0 + 0.0 Offset)
167 Line of Sight (HI/HR): Height of Instrument: 5.44ft
Height of Rod: 6.0ft
168 Side Shot: Occupy Point: 112
Foresight Point: 696 Angle Right: 312.5829
Zenith Angle: 103.0555 Slope Distance: 150.395301ft Description: C-407
169 Side Shot: Occupy Point: 112
Foresight Point: 697 Angle Right: 224.1717
Zenith Angle: 98.5125 Slope Distance: 79.320159ft Description: B-613
170 Side Shot: Occupy Point: 112
Foresight Point: 698 Angle Right: 95.5814
Zenith Angle: 86.2127 Slope Distance: 144.730289ft Description: B-423
171 Store Point: Point Name: 113
Northing: 891449.186ft Easting: 1903488.275ft
Elevation: 396.163ft Description: t nail
172 Store Point: Point Name: 114
Northing: 891004.59ft Easting: 1903542.647ft
Elevation: 409.216ft Description: t nail
173 Occupy Pt: Occupy Point: 113
Northing: 891449.186ft Easting: 1903488.275ft
Elevation: 396.163ft Description: t nail
174 Note: HR:6.0 (6.0 + 0.0 Offset)
175 Line of Sight (HI/HR): Height of Instrument: 5.35ft
Height of Rod: 6.0ft
176 Backsight: Occupy Point: 113
Backsight Point: 114 Backsight Azimuth: 173.0139
Backsight Circle: 0.0000
177 Note: Fixed HR at Backsight:5.21 (5.21 + 0.0 Offset), Prism Const.:0.0mm
178 Note: BS check 113 - 114:ZE88.2038,SD448.165896,HD err= -0.002779, VD err= 0.039249
179 Note: BS Circle check : angular err= 0.0000
180 Side Shot: Occupy Point: 113
Foresight Point: 699 Angle Right: 239.5700
Zenith Angle: 96.3231 Slope Distance: 342.570685ft Description: B-424

Raw Data Report

Line# **Record Type**

1
2
3 4
5 6
7 8
9 10 11 12 13 14 15
16 17 18 19 20

1 Job: Job Name: 8992g040706
Date: 04-07-2006 Time: 08:05:47
2 Mode Setup: Azimuth Direction: North
Distance Unit: Feet Scale Factor: 1.0
Earth Curvature: Off EDM Offset: 0.0ft
Angle Unit: Degrees
3 Note: Data Collector Serial Number:
SS05A00978
4 Note: Activating GPS Receiver: Topcon TPS
HiPer [rover], COM1, 115200 baud, no parity
5 Note: Activating GPS Receiver: Topcon TPS
Legacy E [base], COM1, 115200 baud, no parity
6 Note: 09:04:34,Get autonomous base position
at BASE:LA34.173586069,LN-81.190116297,HT328.152654
7 Note: Geodetic coordinates added to point by
GPS autonomous base setup.
8 GPS Edit Point: Geodetic Flags: 14
Setup Group: 407090443
9 Geodetic Position: Time: 09:04:43
Latitude: 34.173586069 Longitude: -81.190116297
Height: 328.152654 Horizontal RMS from Receiver: 0.0
Vertical RMS from Receiver: 0.0 GPS Measurement Method: User Input
Classification: Normal
10 GPS Point: Point Name: 1009
GPS Point Type: USER_INPUT
11 Note: Setup TDS Localization Projection:
TDS_1009_407090443
12 Ellipsoid: Ellipsoid Radius: 20925646.325459ft
Ellipse Inverse Flattening: 298.2572229329 Ellipse Name: World Geodetic System
1984
13 Local Site Settings: Latitude:
Longitude: Height:
Scale Factor: 1.0000000000 Northing: 0.0ft
Easting: 0.0ft
14 Projection: Projection Type: Oblique Stereographic
Latitude: 34.173586069 Longitude: -81.190116297
Height: Northing: 328083.989501ft
Easting: 328083.989501ft Elevation: --- Scale
Factor: 1.0000156652 Orientation One : Orientation Two :
15 Datum: Datum Type: WGS84
Ellipsoid Radius: 20925646.325459ft Ellipse Inverse Flattening:
298.2572229329 Rotation X: 0.00000000 Rotation Y: 0.00000000
Rotation Z: 0.00000000 Translation X: 0.0ft
Translation Y: 0.0ft Translation Z: 0.0ft ppm Scale Factor:
0.000000
16 Horizontal Calibration (Adjust): Northing: ---
Easting: --- Translation North: ---
Translation East: --- Rotation about Origin:
Scale Factor:
17 Vertical Calibration: Type of Vertical Adjustment: 2
Northing: --- Easting: ---
Translation Z: --- Slope North:

Slope East: Geoid Model Name: Geoid03 (Conus)
18 COGO Settings: Azimuth Orientation: North
Grid Orientation: NE
19 Coordinate System Identity: Coordinate System Option: Keyed in
Zone Group: TDS Localization ZoneGroup Zone Name: TDS_1009_407090443
Datum Name: WGS 1984
20 Note: 04/07:09:04:43,Set BASE receiver at
autonomous position
21 Receiver Setup: Reciever Mode: BASE
Reduced Antenna Height: 7.174312ft Recording Interval: 0
File Name:
22 Equipment: Reciever Mode: BASE
Receiver Type: Legacy E Receiver Serial Number: AG3VLIT08HS
Antenna Index: 0 Antenna Number: 1
Antenna Type: PGA-1 Antenna Serial Number: Tape
Adjustment: 0.0 Horizontal Offset: 0.226378ft Vertical Offset:
0.087927ft
23 GPS Antenna Height: Reciever Mode: BASE
Measured Antenna Height: 7.09ft Measurement Method: Uncorrected
Reduced Antenna Height: 7.174312ft
24 Set Base Receiver Pos.: Point Name: 1009
Latitude: 34.173586069 Longitude: -81.190116297
Height: 328.152654 Setup Group: 407090443
25 Note: Switch projection mode to H: Mapping
Plane and V: Localization (+ Geoid)
26 Note: No coordinate system is defined.
27 Ellipsoid: Ellipsoid Radius: ---
Ellipse Inverse Flattening: Ellipse Name:
28 Projection: Projection Type: Unknown
Latitude: Longitude:
Height: Northing: ---
Easting: --- Elevation: --- Scale
Factor: 1.0000000000 Orientation One : Orientation Two :
29 Coordinate System Identity: Coordinate System Option: Scale only
Zone Group: Zone Name:
Datum Name:
30 Note: Select zone record from database
31 Ellipsoid: Ellipsoid Radius: 20925646.325459ft
Ellipse Inverse Flattening: 298.2572215381 Ellipse Name: Geodetic Ref System
1980
32 Local Site Settings: Latitude:
Longitude: Height:
Scale Factor: 1.0000000000 Northing: 0.0ft
Easting: 0.0ft
33 Projection: Projection Type: Lambert Conformal
Conic Two Parallel Latitude:
31.5000 Longitude: -81.0000
Height: Northing: 0.0ft
Easting: 2000000.0ft Elevation: --- Scale
Factor: North Parallel : 34.5000 South Parallel : 32.3000
34 Datum: Datum Type: Molodensky
Ellipsoid Radius: 20925646.325459ft Ellipse Inverse Flattening:
298.2572229329 Rotation X: 0.00000000 Rotation Y: 0.00000000
Rotation Z: 0.00000000 Translation X: 0.0ft
Translation Y: 0.0ft Translation Z: 0.0ft ppm Scale Factor:
0.000000
35 Horizontal Calibration (Adjust): Northing: ---
Easting: --- Translation North: ---
Translation East: --- Rotation about Origin:
Scale Factor:
36 Vertical Calibration: Type of Vertical Adjustment: 2
Northing: --- Easting: ---
Translation Z: --- Slope North:

Slope East: Geoid Model Name: Geoid03 (Conus)
37 COGO Settings: Azimuth Orientation: North
Grid Orientation: NE
38 Coordinate System Identity: Coordinate System Option: Keyed in
Zone Group: US State Plane 1983 Zone Name: South Carolina 3900
Datum Name: NAD 1983 (Conus)
39 Note: >>
40 Note: >> Begin Adjust with Projection.
41 Note: >> End Adjust with Projection.
42 Note: >>
43 Note: 09:08:04,Set BASE receiver at known
position
44 Receiver Setup: Reciever Mode: BASE
Reduced Antenna Height: 7.174312ft Recording Interval: 0
File Name:
45 Equipment: Reciever Mode: BASE
Receiver Type: Legacy E Receiver Serial Number: AG3VLIT08HS
Antenna Index: 0 Antenna Number: 1
Antenna Type: PGA-1 Antenna Serial Number: Tape
Adjustment: 0.0 Horizontal Offset: 0.226378ft Vertical Offset:
0.087927ft
46 GPS Antenna Height: Reciever Mode: BASE
Measured Antenna Height: 7.09ft Measurement Method: Uncorrected
Reduced Antenna Height: 7.174312ft
47 Set Base Receiver Pos.: Point Name: 1009
Latitude: 34.173586069 Longitude: -81.190116297
Height: 328.152654 Setup Group: 407090443
48 Note: Activating GPS Receiver: Topcon TPS
HiPer [rover], COM1, 115200 baud, no parity
49 Note: 09:08:42,Set ROVER receiver with base
reference position:LA34.173586069,LN-81.190116297,HT328.152654
50 Receiver Setup: Reciever Mode: ROVER
Reduced Antenna Height: 6.907769ft Recording Interval: 0
File Name:
51 Equipment: Reciever Mode: ROVER
Receiver Type: HiPer Receiver Serial Number: 8RHNB0238JK
Antenna Index: 0 Antenna Number: 0
Antenna Type: Topcon HiPer GGD Antenna Serial Number: Tape
Adjustment: 0.0 Horizontal Offset: 0.0ft Vertical Offset:
0.347769ft
52 GPS Antenna Height: Reciever Mode: ROVER
Measured Antenna Height: 6.56ft Measurement Method: Uncorrected
Reduced Antenna Height: 6.907769ft
53 Note: Solve calibration from control points.
54 Calibration Point: Point Name: 1009
Dimensions Used: 1 Horizontal RMS from Receiver: 0.0
Vertical RMS from Receiver: 0.0
55 Geodetic Position: Time: 13:10:09
Latitude: 34.173586069 Longitude: -81.190116297
Height: 328.152654 Horizontal RMS from Receiver: 0.0
Vertical RMS from Receiver: 0.0 GPS Measurement Method: User Input
Classification: Control
56 Local Coord. of Calibration Pt : Point Name: 1009
Northing: 895174.828ft Easting: 1904265.403ft
Elevation: 434.69ft Description:
57 Note: Solve calibration from control points.
58 Horizontal Calibration (Adjust): Northing: 895170.393782ft
Easting: 1904266.229666ft Translation North: 4.434218ft
Translation East: -0.826666ft Rotation about Origin: 0.0000
Scale Factor: 1.0000000000
59 Vertical Calibration: Type of Vertical Adjustment: 3
Northing: 895174.828ft Easting: 1904265.403ft
Translation Z: 6.532925ft Slope North: 0.00000

Slope East: 0.00000 Geoid Model Name: Geoid03 (Conus)
60 Coordinate System Identity: Coordinate System Option: Keyed in
Zone Group: Site Zone Name: 8992g040706
Datum Name: NAD 1983 (Conus)
61 Note: >>
62 Note: >> Begin Adjust with Projection.
63 Note: >> End Adjust with Projection.
64 Note: >>
65 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00005", Lng: 0.00003", Ht: 0.012
66 Geodetic Position: Time: 10:01:08
Latitude: 34.154399718 Longitude: -81.194756153
Height: 220.801203 Horizontal RMS from Receiver: 0.025635
Vertical RMS from Receiver: 0.045522 HDOP from Receiver: 0.77266 VDOP
from Receiver: 1.372341 GPS Measurement Method: Fixed Classification: Normal
67 GPS Store Point: Point Name: 1013
Northing: 883880.138375ft Easting: 1900336.884715ft
Elevation: 327.318572ft Description: qa ck 1021
68 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00004", Lng: 0.00004", Ht: 0.014
69 Geodetic Position: Time: 10:08:03
Latitude: 34.154781182 Longitude: -81.182586757
Height: 328.926789 Horizontal RMS from Receiver: 0.027529
Vertical RMS from Receiver: 0.056872 HDOP from Receiver: 0.839376 VDOP
from Receiver: 1.734376 GPS Measurement Method: Fixed Classification: Normal
70 GPS Store Point: Point Name: 1014
Northing: 884244.578954ft Easting: 1907193.912767ft
Elevation: 435.463596ft Description: qa ck 1020
71 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00005", Lng: 0.00005", Ht: 0.009
72 Geodetic Position: Time: 10:26:21
Latitude: 34.192423178 Longitude: -81.171330711
Height: 337.699459 Horizontal RMS from Receiver: 0.021127
Vertical RMS from Receiver: 0.035479 HDOP from Receiver: 0.643644 VDOP
from Receiver: 1.081017 GPS Measurement Method: Fixed Classification: Normal
73 GPS Store Point: Point Name: 1015
Northing: 906102.385717ft Easting: 1913343.981231ft
Elevation: 444.273902ft Description: qa ck 101
74 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00007", Lng: 0.00007", Ht: 0.014
75 Geodetic Position: Time: 10:48:11
Latitude: 34.171637732 Longitude: -81.191699559
Height: 271.292085 Horizontal RMS from Receiver: 0.025891
Vertical RMS from Receiver: 0.034003 HDOP from Receiver: 1.004445 VDOP
from Receiver: 1.333677 GPS Measurement Method: Fixed Classification: Normal
76 GPS Store Point: Point Name: 115
Northing: 893209.593151ft Easting: 1902931.062516ft
Elevation: 377.824112ft Description: t nail
77 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00009", Lng: 0.00008", Ht: 0.022
78 Geodetic Position: Time: 10:50:25
Latitude: 34.171531375 Longitude: -81.191484476
Height: 291.129596 Horizontal RMS from Receiver: 0.018793
Vertical RMS from Receiver: 0.031991 HDOP from Receiver: 0.733148 VDOP
from Receiver: 1.242794 GPS Measurement Method: Fixed Classification: Normal
79 GPS Store Point: Point Name: 116
Northing: 893101.52869ft Easting: 1903111.17531ft
Elevation: 397.661795ft Description: t nail
80 Note: Activating Total Station: Topcon GTS-
800 [820/8200 DIRECT CABLE], COM1, 1200 baud, even parity
81 Note: Foresight Target:My Prism, HR:5.5 (5.5
+ 0.0 Offset), Prism Const.:0.0mm
82 Note: Calculate survey scale factor for

projection South Carolina 3900 at point 1009.
83 Mode Setup: Azimuth Direction: North
Distance Unit: Feet Scale Factor: 0.999837
Earth Curvature: Off EDM Offset: 0.0ft
Angle Unit: Degrees
84 Note: Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
85 Occupy Pt: Occupy Point: 115
Northing: 893209.593151ft Easting: 1902931.062516ft
Elevation: 377.824112ft Description: t nail
86 Note: HR:5.0 (5.0 + 0.0 Offset)
87 Line of Sight (HI/HR): Height of Instrument: 5.26ft
Height of Rod: 5.0ft
88 Backsight: Occupy Point: 115
Backsight Point: 116 Backsight Azimuth: 120.5747
Backsight Circle: 0.0000
89 Note: Fixed HR at Backsight:5.72 (5.72 + 0.0 Offset), Prism Const.:0.0mm
90 Note: BS check 115 - 116:ZE84.2858,SD211.075422,HD err= 0.019215, VD err= -0.003847
91 Note: BS Circle check : angular err= 0.0000
92 Side Shot: Occupy Point: 115
Foresight Point: 700 Angle Right: 89.2417
Zenith Angle: 74.5424 Slope Distance: 122.675245ft
Description: r-5/r-6
93 Occupy Pt: Occupy Point: 115
Northing: 893209.593151ft Easting: 1902931.062516ft
Elevation: 377.824112ft Description: t nail
94 Backsight: Occupy Point: 115
Backsight Point: 116 Backsight Azimuth: 120.5747
Backsight Circle: 0.0000
95 Note: Fixed HR at Backsight:5.72 (5.72 + 0.0 Offset), Prism Const.:0.0mm
96 Note: BS check 115 - 116:ZE84.2903,SD211.075422,HD err= 0.019658, VD err= -0.008431
97 Note: BS Circle check : angular err= 0.0023
98 Note: Activating GPS Receiver: Topcon TPS HiPer [rover], COM1, 115200 baud, no parity
99 Note: Activating Total Station: Topcon GTS-800 [820/8200 DIRECT CABLE], COM1, 1200 baud, even parity
100 Occupy Pt: Occupy Point: 30
Northing: 892414.440674ft Easting: 1902901.956066ft
Elevation: 426.664029ft Description: t nail
101 Note: HR:5.0 (5.0 + 0.0 Offset)
102 Line of Sight (HI/HR): Height of Instrument: 5.52ft
Height of Rod: 5.0ft
103 Backsight: Occupy Point: 30
Backsight Point: 31 Backsight Azimuth: 112.3835
Backsight Circle: 0.0000
104 Note: Fixed HR at Backsight:5.52 (5.52 + 0.0 Offset), Prism Const.:0.0mm
105 Note: BS check 30 - 31:ZE90.5416,SD282.370565,HD err= 0.010835, VD err= 0.163223
106 Note: BS Circle check : angular err= 0.0000
107 Occupy Pt: Occupy Point: 30
Northing: 892414.440674ft Easting: 1902901.956066ft
Elevation: 426.664029ft Description: t nail
108 Backsight: Occupy Point: 30
Backsight Point: 31 Backsight Azimuth: 112.3835
Backsight Circle: 0.0000
109 Note: Fixed HR at Backsight:5.73 (5.73 + 0.0 Offset), Prism Const.:0.0mm
110 Note: BS check 30 -

31:ZE90.5419,SD282.370565,HD err= 0.01077, VD err= -0.050883
111 Note: BS Circle check : angular err= 0.0000
112 Side Shot: Occupy Point: 30
Foresight Point: 701 Angle Right: 136.2108
Zenith Angle: 90.4145 Slope Distance: 393.680787ft
Description: r-3/r-4
113 Note: Activating GPS Receiver: Topcon TPS HiPer [rover], COM1, 115200 baud, no parity
114 Note: Position averaged from 5 epochs. Std.Dev. Lat: 0.00004", Lng: 0.00016", Ht: 0.011
115 Note: Position averaged from 5 epochs. Std.Dev. Lat: 0.00027", Lng: 0.00020", Ht: 0.016
116 Geodetic Position: Time: 12:12:08
Latitude: 34.171525001 Longitude: -81.190355401
Height: 309.128516 Horizontal RMS from Receiver: 0.027741
Vertical RMS from Receiver: 0.041425 HDOP from Receiver: 1.052588 VDOP from Receiver: 1.572161 GPS Measurement Method: Fixed Classification: Normal
117 GPS Store Point: Point Name: 702
Northing: 893092.160578ft Easting: 1904058.412902ft
Elevation: 415.662499ft Description: c-605
118 Note: Position averaged from 5 epochs. Std.Dev. Lat: 0.00007", Lng: 0.00009", Ht: 0.009
119 Geodetic Position: Time: 12:19:47
Latitude: 34.171016338 Longitude: -81.190043872
Height: 300.789451 Horizontal RMS from Receiver: 0.020337
Vertical RMS from Receiver: 0.031329 HDOP from Receiver: 0.784156 VDOP from Receiver: 1.208349 GPS Measurement Method: Fixed Classification: Normal
120 GPS Store Point: Point Name: 703
Northing: 892577.212981ft Easting: 1904318.199112ft
Elevation: 407.32338ft Description: c-607
121 Note: Position averaged from 5 epochs. Std.Dev. Lat: 0.00008", Lng: 0.00014", Ht: 0.015
122 Geodetic Position: Time: 12:27:33
Latitude: 34.171327405 Longitude: -81.18587822
Height: 298.5621 Horizontal RMS from Receiver: 0.022595
Vertical RMS from Receiver: 0.035549 HDOP from Receiver: 0.879807 VDOP from Receiver: 1.384675 GPS Measurement Method: Fixed Classification: Normal
123 GPS Store Point: Point Name: 704
Northing: 892891.206562ft Easting: 1904458.140461ft
Elevation: 405.096688ft Description: b-611
124 Note: Position averaged from 5 epochs. Std.Dev. Lat: 0.00004", Lng: 0.00013", Ht: 0.027
125 Geodetic Position: Time: 12:32:47
Latitude: 34.171647135 Longitude: -81.185862471
Height: 305.868172 Horizontal RMS from Receiver: 0.024699
Vertical RMS from Receiver: 0.045602 HDOP from Receiver: 0.894745 VDOP from Receiver: 1.641862 GPS Measurement Method: Fixed Classification: Normal
126 GPS Store Point: Point Name: 705
Northing: 893214.341641ft Easting: 1904472.343009ft
Elevation: 412.403167ft Description: c-606
127 Note: Position averaged from 5 epochs. Std.Dev. Lat: 0.00044", Lng: 0.00021", Ht: 0.069
128 Geodetic Position: Time: 12:49:12
Latitude: 34.171873817 Longitude: -81.190276688
Height: 316.210191 Horizontal RMS from Receiver: 0.026441
Vertical RMS from Receiver: 0.049072 HDOP from Receiver: 1.054033 VDOP from Receiver: 1.966188 GPS Measurement Method: Fixed Classification: Normal
129 GPS Store Point: Point Name: 117
Northing: 893444.532513ft Easting: 1904125.532918ft
Elevation: 422.744738ft Description: t nail
130 Note: Activating Total Station: Topcon GTS-800 [820/8200 DIRECT CABLE], COM1, 1200 baud, even parity
131 Occupy Pt: Occupy Point: 117

Northing: 893444.532513ft Easting: 1904125.532918ft
Elevation: 422.744738ft Description: t nail
132 Note: HR:5.0 (5.0 + 0.0 Offset)
133 Line of Sight (HI/HR): Height of Instrument: 5.27ft
Height of Rod: 5.0ft
134 Backsight: Occupy Point: 117
Backsight Point: 5 Backsight Azimuth: 194.1757
Backsight Circle: 0.0000
135 Note: Fixed HR at Backsight:5.92 (5.92 + 0.0
Offset), Prism Const.:0.0mm
136 Note: BS check 117 -
5:ZE91.0700,SD246.980494,HD err= 0.012333, VD err= 0.054297
137 Note: BS Circle check : angular err= 0.0000
138 Side Shot: Occupy Point: 117
Foresight Point: 706 Angle Right: 250.0005
Zenith Angle: 87.4634 Slope Distance: 61.240122ft
Description: b-610
139 Note: Activating GPS Receiver: Topcon TPS
HiPer [rover], COM1, 115200 baud, no parity
140 Note: Position averaged from 3 epochs.
Std.Dev. Lat: 0.01417", Lng: 0.00530", Ht: 7.101
141 Geodetic Position: Time: 13:29:28
Latitude: 34.170690657 Longitude: -81.190604702
Height: 298.933724 Horizontal RMS from Receiver: 0.038532
Vertical RMS from Receiver: 0.110274 HDOP from Receiver: 0.912805 VDOP
from Receiver: 1.59931 GPS Measurement Method: Float Classification: Normal
142 GPS Store Point: Point Name: 118
Northing: 892249.467418ft Easting: 1903846.65953ft
Elevation: 405.466295ft Description: t nail
143 Note: Activating Total Station: Topcon GTS-
800 [820/8200 DIRECT CABLE], COM1, 1200 baud, even parity
144 Occupy Pt: Occupy Point: 118
Northing: 892249.467418ft Easting: 1903846.65953ft
Elevation: 405.466295ft Description: t nail
145 Note: HR:5.0 (5.0 + 0.0 Offset)
146 Line of Sight (HI/HR): Height of Instrument: 5.59ft
Height of Rod: 5.0ft
147 Backsight: Occupy Point: 118
Backsight Point: 1 Backsight Azimuth: 33.4317
Backsight Circle: 0.0000
148 Note: Fixed HR at Backsight:5.4 (5.4 + 0.0
Offset), Prism Const.:0.0mm
149 Note: BS check 118 -
1:ZE90.4159,SD797.586595,HD err= -1060.49296, VD err= -51.187797
150 Note: BS Circle check : angular err= 0.0000
151 Occupy Pt: Occupy Point: 118
Northing: 892249.467418ft Easting: 1903846.65953ft
Elevation: 405.466295ft Description: t nail
152 Backsight: Occupy Point: 118
Backsight Point: 112 Backsight Azimuth: 213.4039
Backsight Circle: 0.0000
153 Note: Fixed HR at Backsight:5.4 (5.4 + 0.0
Offset), Prism Const.:0.0mm
154 Note: BS check 118 -
112:ZE90.4157,SD797.581595,HD err= 422.534713, VD err= -5.09959
155 Note: BS Circle check : angular err= 0.0000
156 Occupy Pt: Occupy Point: 118
Northing: 892249.467418ft Easting: 1903846.65953ft
Elevation: 405.466295ft Description: t nail
157 Backsight: Occupy Point: 118
Backsight Point: 112 Backsight Azimuth: 213.4039
Backsight Circle: 0.0000
158 Note: Fixed HR at Backsight:5.4 (5.4 + 0.0

Offset), Prism Const.:0.0mm
159 Note: BS check 118 -
112:ZE90.4154,SD797.581595,HD err= 422.534878, VD err= -5.086057
160 Note: BS Circle check : angular err= 0.0000
161 Occupy Pt: Occupy Point: 118
Northing: 892249.467418ft Easting: 1903846.65953ft
Elevation: 405.466295ft Description: t nail
162 Backsight: Occupy Point: 118
Backsight Point: 112 Backsight Azimuth: 213.4039
Backsight Circle: 0.0000
163 Note: Fixed HR at Backsight:5.4 (5.4 + 0.0
Offset), Prism Const.:0.0mm
164 Note: BS check 118 -
112:ZE90.4151,SD797.581595,HD err= 422.535019, VD err= -5.074457
165 Note: BS Circle check : angular err= 0.0000
166 Occupy Pt: Occupy Point: 118
Northing: 892249.467418ft Easting: 1903846.65953ft
Elevation: 405.466295ft Description: t nail
167 Backsight: Occupy Point: 118
Backsight Point: 111 Backsight Azimuth: 213.4053
Backsight Circle: 0.0000
168 Note: Fixed HR at Backsight:5.4 (5.4 + 0.0
Offset), Prism Const.:0.0mm
169 Note: BS check 118 -
111:ZE90.4152,SD797.586595,HD err= -0.177164, VD err= -0.040068
170 Note: BS Circle check : angular err= 0.0000
171 Side Shot: Occupy Point: 118
Foresight Point: 707 Angle Right: 252.5512
Zenith Angle: 97.3137 Slope Distance: 153.825308ft
Description: c-608
172 Note: Activating GPS Receiver: Topcon TPS
HiPer [rover], COM1, 115200 baud, no parity
173 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00017", Lng: 0.00011", Ht: 0.010
174 Geodetic Position: Time: 14:17:56
Latitude: 34.154399705 Longitude: -81.194756106
Height: 220.764841 Horizontal RMS from Receiver: 0.028097
Vertical RMS from Receiver: 0.035241 HDOP from Receiver: 0.846877 VDOP
from Receiver: 1.062145 GPS Measurement Method: Fixed Classification: Normal
175 GPS Store Point: Point Name: 1016
Northing: 883880.124536ft Easting: 1900336.92383ft
Elevation: 327.28221ft Description: qa ck 1021
176 Note: Position averaged from 5 epochs.
Std.Dev. Lat: 0.00015", Lng: 0.00008", Ht: 0.024
177 Geodetic Position: Time: 14:25:49
Latitude: 34.154781191 Longitude: -81.18258676
Height: 328.860247 Horizontal RMS from Receiver: 0.027656
Vertical RMS from Receiver: 0.034745 HDOP from Receiver: 0.840483 VDOP
from Receiver: 1.054308 GPS Measurement Method: Fixed Classification: Normal
178 GPS Store Point: Point Name: 1017
Northing: 884244.588592ft Easting: 1907193.910653ft
Elevation: 435.397054ft Description: qa ck 1020

Chapter

4

QUALITY ASSURANCE REPORTS

INITIAL STAKING

BORE LOCATION STAKING COMPARISON BY POINT INVERSE

- **HORIZONTAL OFFSET FROM PLANNED LOCATION SHOWN.**
- **VERTICAL COMPARISON IS NON-APPLICABLE**

8992g.pro March 31, 2006

Inverse Point to Point

Point 1	Point 2	H Distance	Direction	Latitude	Departure	V Distance
101	1022	0.0641	S42°14'48"E	-0.0475	0.0431	0.01
101	20	0.0179	N18°31'41"E	0.0170	0.0057	0.03
1020	1023	0.0380	N71°52'17"W	0.0118	-0.0361	0.03
1020	19	0.0327	N23°21'08"W	0.0300	-0.0129	-0.05
1021	1024	0.0180	N47°50'09"W	0.0121	-0.0133	0.03
1021	18	0.0339	S36°30'17"E	-0.0272	0.0202	-0.03
479	3	0.5721	N52°36'43"W	0.3474	-0.4545	40.85
478	4	0.0781	S40°28'12"E	-0.0594	0.0507	31.61
482	7	0.0673	N89°39'42"E	0.0004	0.0672	25.53
482	8	24.8137	N88°40'30"W	0.5738	-24.8070	17.21
476	9	0.3092	N84°10'29"W	0.0314	-0.3076	20.98
475	10	0.0905	S66°11'54"E	-0.0365	0.0828	-18.46
474	11	0.0478	N56°30'12"W	0.0264	-0.0398	5.21
483	12	0.2229	N44°30'51"W	0.1589	-0.1563	-81.54
473	13	1.6971	S87°06'10"E	-0.0858	1.6950	-81.76
472	14	0.0614	N51°09'58"E	0.0385	0.0478	47.12
466	15	0.0406	S20°37'13"E	-0.0380	0.0143	5.34
468	16	0.0236	N30°37'47"W	0.0203	-0.0120	-8.22
481	17	0.0971	N36°47'13"E	0.0778	0.0582	0.91

8992g.pro March 31, 2006

Inverse Point to Point

Point 1	Point 2	H Distance	Direction	Latitude	Departure	V Distance
101	1025	0.0304	S70°08'31"E	-0.0103	0.0286	0.01
1020	1026	0.0259	N76°32'14"E	0.0060	0.0252	-0.01
1021	1027	0.0229	N4°13'00"W	0.0228	-0.0017	-0.06
1021	52	0.0175	N80°03'38"W	0.0030	-0.0173	-0.04
471	23	0.4423	S56°27'28"W	-0.2444	-0.3686	-25.31
480	25	0.0979	N21°05'13"W	0.0913	-0.0352	-54.41
470	27	0.2565	N33°19'28"E	0.2143	0.1409	5.43
463	28	0.0264	S52°59'08"W	-0.0159	-0.0211	20.51
331	29	0.0573	N65°24'00"W	0.0239	-0.0521	28.69
372	32	0.0989	N48°04'13"E	0.0661	0.0736	23.51
345	33	0.0522	N64°49'39"E	0.0222	0.0472	23.95
359	34	0.0325	S21°56'20"E	-0.0301	0.0121	20.09
360	35	0.0550	N44°56'28"W	0.0389	-0.0389	18.88
361	36	0.0813	S88°20'41"W	-0.0023	-0.0812	21.13
431	37	0.1032	N51°35'58"E	0.0641	0.0809	29.76
462	38	0.7654	N28°28'11"W	0.6728	-0.3649	25.17
371	39	0.2807	N9°23'35"E	0.2770	0.0458	27.10
356	41	0.1946	N38°06'21"E	0.1531	0.1201	22.65
341	42	0.0874	N7°51'08"E	0.0866	0.0119	24.01
341	42	0.0874	N7°51'08"E	0.0866	0.0119	24.01
358	43	0.0097	N36°47'42"E	0.0077	0.0058	25.47
357	44	0.0810	N80°50'51"W	0.0129	-0.0800	22.40
423	45	0.1277	N61°09'52"E	0.0616	0.1119	20.92
354	46	0.2961	S76°39'05"W	-0.0684	-0.2881	19.51
424	47	0.1327	N54°50'02"W	0.0764	-0.1084	18.21
353	48	0.0628	S63°33'56"W	-0.0279	-0.0562	14.86
344	49	0.0276	S73°16'23"E	-0.0080	0.0265	19.01
427	50	0.0357	S88°36'35"W	-0.0009	-0.0356	17.20

8992g.pro March 31, 2006

Inverse Point to Point

Point 1	Point 2	H Distance	Direction	Latitude	Departure	V Distance
459	102	0.0522	S27°25'26"W	-0.0463	-0.0240	26.09
305	105	0.0646	S40°03'26"E	-0.0494	0.0415	22.90
454	105	0.0646	S40°03'26"E	-0.0494	0.0415	22.90
455	105	0.0646	S40°03'26"E	-0.0494	0.0415	22.90
101	1000	0.0221	S29°12'09"E	-0.0193	0.0108	-0.03
101	1003	0.0121	N21°33'06"E	0.0112	0.0044	0.03
1020	1001	0.0163	S24°29'12"W	-0.0149	-0.0068	-0.05
1021	1002	0.0235	N19°52'28"E	0.0221	0.0080	-0.06

8992G QA REPORT 040306 PRIMARY CONTROL 101,1020,1021 L:\SCE&G NND\8946-NEW NUCLEAR DEPLOYMENT\JOBS\8992-BORE LOCATIONS\MACTEC\QA REPORTS\8992G QA REPORT 040306.rtf 4/24/2006 8:02 AM

8992g.pro April 03, 2006

Inverse Point to Point

Point 1	Point 2	H Distance	Direction	Latitude	Departure	V Distance
101	1004	0.0424	N6°21'10"W	0.0421	-0.0047	0.11
101	1007	0.0617	N7°04'59"W	0.0612	-0.0076	-0.05
1020	1005	0.0293	N82°42'41"W	0.0037	-0.0290	0.04
1021	1006	0.0359	N69°08'08"W	0.0128	-0.0336	-0.02
314	59	0.0724	S13°12'12"W	-0.0704	-0.0165	23.38
315	60	0.0506	N17°34'53"E	0.0483	0.0153	23.49
412	61	0.0261	S20°41'08"E	-0.0244	0.0092	23.37
307	62	0.0388	S46°59'07"W	-0.0265	-0.0284	23.46
322	63	0.0716	S28°28'44"W	-0.0629	-0.0341	23.61
332	65	0.0668	S47°58'16"W	-0.0447	-0.0496	23.95
419	66	0.1779	S48°49'45"E	-0.1171	0.1339	23.64
420	67	0.0199	N66°32'32"E	0.0079	0.0182	26.92
387	69	0.1009	S28°54'29"W	-0.0883	-0.0488	29.16
600	311	0.0238	N17°47'40"W	0.0227	-0.0073	-24.40
601	303	0.0840	S77°47'29"W	-0.0178	-0.0821	-23.66
602	301	0.0764	N86°48'28"E	0.0043	0.0763	-23.84
603	302	0.2102	N34°37'34"W	0.1729	-0.1194	-23.90
604	304	0.5286	S25°35'44"W	-0.4767	-0.2283	-25.03
605	306	0.2008	S59°38'24"W	-0.1015	-0.1733	-24.36
606	416	0.1737	N30°06'30"E	0.1503	0.0872	-23.49
607	326	0.0843	N8°43'20"E	0.0834	0.0128	-19.77
608	310	0.2263	S49°33'50"E	-0.1468	0.1722	-17.87
610	415	0.2076	N83°07'56"E	0.0248	0.2061	-28.54
611	324	0.2131	N75°22'34"E	0.0538	0.2062	-20.75
612	323	0.2442	S55°23'42"E	-0.1387	0.2010	-9.69
613	418	0.2041	S9°29'46"W	-0.2013	-0.0337	-12.99
614	313	0.1525	N71°14'01"W	0.0491	-0.1444	-0.36
614	457	0.1525	N71°14'01"W	0.0491	-0.1444	-0.36
615	325	0.2731	S55°09'32"E	-0.1560	0.2241	-24.87
616	309	0.4257	N7°47'07"W	0.4218	-0.0577	-8.72
617	336	0.1910	N62°15'47"W	0.0889	-0.1690	19.39
619	421	0.0694	N8°39'49"W	0.0686	-0.0105	31.91
621	312	0.2651	S36°21'41"W	-0.2135	-0.1572	1.05
621	456	0.2651	S36°21'41"W	-0.2135	-0.1572	1.05
622	335	0.0221	N11°40'39"W	0.0217	-0.0045	21.11
624	334	0.0578	N35°13'35"E	0.0472	0.0333	-20.69
625	417	0.0848	S79°25'54"E	-0.0155	0.0833	-20.37
626	308	0.1300	N14°19'51"W	0.1260	-0.0322	-21.80
627	413	0.0954	S39°39'14"E	-0.0735	0.0609	-22.77
628	318	0.3683	N24°05'48"W	0.3362	-0.1504	-22.97
630	414	0.0119	S52°26'43"E	-0.0072	0.0094	-23.18
631	317	0.2699	S77°10'13"E	-0.0599	0.2632	-23.32
632	320	0.1842	N9°28'40"E	0.1817	0.0303	-21.77
633	321	0.1466	S59°37'50"W	-0.0741	-0.1264	-21.81
634	319	0.1037	S68°11'41"W	-0.0385	-0.0963	-23.25
635	316	0.2463	N83°05'34"E	0.0296	0.2445	-23.65
636	330	0.0708	N10°24'21"W	0.0696	-0.0128	-24.39
638	329	0.0450	N36°53'41"W	0.0360	-0.0270	-23.31
639	328	0.2553	S61°39'36"W	-0.1212	-0.2247	-19.18
641	439	0.1130	N41°04'27"W	0.0852	-0.0742	-33.66
642	386	0.2427	N67°18'02"E	0.0937	0.2239	-38.26
643	390	1.0874	N78°52'15"W	0.2099	-1.0669	-25.88

8992G QA REPORT 040406 PRIMARY CONTROL 101,1009,1020,1021

8992g.pro April 04, 2006

Inverse Point to Point

Point 1	Point 2	H Distance	Direction	Latitude	Departure	V Distance
101	1008	0.0365	143°34'11"	-0.0294	0.0217	0.01
101	1010	0.0355	203°42'34"	-0.0325	-0.0143	0.06
1020	1011	0.0141	288°38'14"	0.0045	-0.0134	-0.05
1021	1012	0.0264	324°24'13"	0.0215	-0.0154	-0.10
391	70	0.0425	142°38'15"	-0.0338	0.0258	31.75
380	71	0.0777	0°32'16"	0.0777	0.0007	11.33
446	72	0.0740	191°49'19"	-0.0724	-0.0152	-1.75
347	74	0.0452	332°21'55"	0.0400	-0.0210	17.72
385	645	0.1534	311°48'57"	0.1023	-0.1143	18.46
438	646	0.2587	92°59'59"	-0.0135	0.2584	33.93
388	648	0.1527	35°32'11"	0.1242	0.0887	14.49
370	649	0.2569	3°24'47"	0.2564	0.0153	18.32
440	651	0.0791	67°41'57"	0.0300	0.0732	18.80
448	652	0.1235	57°01'29"	0.0672	0.1036	20.96
449	652	0.1235	57°01'29"	0.0672	0.1036	20.96
389	653	0.1210	208°03'43"	-0.1067	-0.0569	30.82
441	654	0.0464	322°28'09"	0.0368	-0.0283	26.86
392	656	0.0756	132°07'59"	-0.0507	0.0560	6.81
393	657	0.0219	170°17'41"	-0.0216	0.0037	7.36
369	658	0.2933	309°35'57"	0.1870	-0.2260	-12.58
465	658	0.2933	309°35'57"	0.1870	-0.2260	-12.58
367	660	0.1280	216°45'54"	-0.1025	-0.0766	-30.85
379	662	0.2388	216°04'28"	-0.1930	-0.1406	-33.14
430	663	0.0656	64°15'33"	0.0285	0.0591	-2.85
365	665	0.2214	203°38'27"	-0.2029	-0.0888	9.00
436	667	0.1223	165°25'11"	-0.1184	0.0308	-9.56
364	668	0.0247	175°19'39"	-0.0246	0.0020	28.23
327	670	0.1509	180°05'17"	-0.1509	-0.0002	22.29
458	670	0.1509	180°05'17"	-0.1509	-0.0002	22.29

8992G QA REPORT 040506 PRIMARY CONTROL 101,1009,1020,1021

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Inverse Point to Point

Point 1	Point 2	H Distance	Direction	Latitude	Departure	V Distance
434	76	0.0357	S41°44'38"W	-0.0267	-0.0238	0.87
400	79	0.2860	S0°35'03"E	-0.2860	0.0029	0.69
433	80	0.0563	S13°27'53"E	-0.0547	0.0131	-1.09
378	81	0.0943	S27°35'06"E	-0.0836	0.0437	-15.65
375	106	0.0648	N40°17'48"W	0.0494	-0.0419	1.06
374	107	0.0797	S10°57'48"W	-0.0783	-0.0152	4.73
432	108	0.0060	S78°10'58"E	-0.0012	0.0059	8.49
376	109	0.0209	S61°18'45"W	-0.0100	-0.0184	10.08
2008	101	0.0154	N34°39'05"E	0.0126	0.0087	-0.03
2010	1020	0.0288	S12°23'46"E	-0.0281	0.0062	0.02
2011	1021	0.0430	S49°47'31"E	-0.0278	0.0329	0.02
2013	101	0.0596	S40°15'13"W	-0.0455	-0.0385	-0.10
428	673	0.0611	N17°55'50"W	0.0581	-0.0188	18.28
346	674	0.1794	N32°35'38"W	0.1511	-0.0966	16.89
425	675	0.1602	S7°51'21"W	-0.1587	-0.0219	18.27
338	676	0.1076	N18°06'45"E	0.1023	0.0334	17.09
337	677	0.1768	N13°18'30"E	0.1720	0.0407	16.49
339	678	0.1804	S69°48'36"W	-0.0622	-0.1693	15.08
340	679	0.1772	S17°51'09"E	-0.1686	0.0543	15.14
342	680	0.1257	N62°43'45"E	0.0576	0.1117	13.01
426	681	0.2130	N42°14'09"E	0.1577	0.1432	12.98
362	682	0.1806	S67°22'04"E	-0.0695	0.1667	13.72
422	683	0.0930	S68°13'59"W	-0.0345	-0.0864	20.65
350	684	0.0704	N61°07'17"W	0.0340	-0.0617	17.30
363	685	0.0919	S69°28'22"W	-0.0322	-0.0861	10.96
464	685	0.0919	S69°28'22"W	-0.0322	-0.0861	10.96
366	687	0.1749	S41°41'50"E	-0.1306	0.1164	2.95
351	688	0.1546	S15°46'52"E	-0.1488	0.0420	13.01
355	689	0.0939	S18°20'31"W	-0.0891	-0.0296	21.11
343	690	0.2254	S53°19'55"E	-0.1346	0.1808	2.41
352	691	0.2874	N61°29'11"W	0.1372	-0.2525	1.17
429	692	0.0404	S80°16'15"E	-0.0068	0.0398	0.09
368	693	0.3155	N82°45'47"E	0.0397	0.3129	-1.50
447	694	0.1399	N60°39'01"E	0.0686	0.1220	-27.84
399	695	0.1550	N10°52'21"W	0.1522	-0.0292	-10.87
435	696	0.3017	N44°40'20"W	0.2146	-0.2121	-33.62
397	697	0.1707	N73°15'59"W	0.0491	-0.1634	-11.75
381	698	0.1385	N53°32'44"E	0.0823	0.1114	9.66
382	699	0.1902	N17°42'13"E	0.1812	0.0578	-43.52

8992G QA REPORT 040706 PRIMARY CONTROL 101,1009,1020,1021

8992g.pro April 11, 2006

Inverse Point to Point

Point 1	Point 2	H Distance	Direction	Latitude	Departure	V Distance
1021	1013	0.0083	N39°39'34"W	0.0064	-0.0053	-0.08
1020	1014	0.0045	N29°27'19"W	0.0040	-0.0022	-0.02
101	1015	0.0045	S16°02'08"E	-0.0043	0.0012	-0.01
452	700	0.4905	S38°40'26"W	-0.3829	-0.3065	10.03
450	701	0.1365	N63°11'50"E	0.0615	0.1218	22.40
442	702	0.0619	N12°01'24"E	0.0606	0.0129	15.66
444	703	0.0130	N3°54'48"W	0.0130	-0.0009	7.32
395	704	0.0410	N80°47'17"E	0.0066	0.0405	5.10
443	705	0.0706	N53°50'45"W	0.0416	-0.0570	12.40
394	706	0.1148	N85°42'35"E	0.0086	0.1145	25.39
445	707	0.2707	N41°18'25"E	0.2033	0.1787	-14.09
1021	1016	0.0346	S77°33'29"E	-0.0075	0.0338	-0.11
1020	1017	0.0143	N17°44'07"W	0.0136	-0.0043	-0.08

8992G QA REPORT 041106 PRIMARY CONTROL 101,109,1020,1021
INITIAL STAKE-OUT COMPARISON

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Inverse Point to Point

Point 1	Point 2	H Distance	Direction	Latitude	Departure	V Distance
301	602	0.0764	S86°48'28"W	-0.0043	-0.0763	23.84
302	603	0.2102	S34°37'34"E	-0.1729	0.1194	23.90
303	601	0.0840	N77°47'29"E	0.0178	0.0821	23.66
304	604	0.5286	N25°35'44"E	0.4767	0.2283	25.03
305	105	0.0646	S40°03'26"E	-0.0494	0.0415	22.90
306	605	0.2008	N59°38'24"E	0.1015	0.1733	24.36
307	62	0.0388	S46°59'07"W	-0.0265	-0.0284	23.46
308	626	0.1300	S14°19'51"E	-0.1260	0.0322	21.80
309	616	0.4257	S7°47'07"E	-0.4218	0.0577	8.72
310	608	0.2263	N49°33'50"W	0.1468	-0.1722	17.87
311	600	0.0238	S17°47'40"E	-0.0227	0.0073	24.40
312	621	0.2651	N36°21'41"E	0.2135	0.1572	-1.05
313	614	0.1525	S71°14'01"E	-0.0491	0.1444	0.36
314	59	0.0724	S13°12'12"W	-0.0704	-0.0165	23.38
315	60	0.0506	N17°34'53"E	0.0483	0.0153	23.49
316	635	0.2463	S83°05'34"W	-0.0296	-0.2445	23.65
317	631	0.2699	N77°10'13"W	0.0599	-0.2632	23.32
318	628	0.3683	S24°05'48"E	-0.3362	0.1504	22.97
319	634	0.1037	N68°11'41"E	0.0385	0.0963	23.25
320	632	0.1842	S9°28'40"W	-0.1817	-0.0303	21.77
321	633	0.1466	N59°37'50"E	0.0741	0.1264	21.81
322	63	0.0716	S28°28'44"W	-0.0629	-0.0341	23.61
323	612	0.2442	N55°23'42"W	0.1387	-0.2010	9.69
324	611	0.2131	S75°22'34"W	-0.0538	-0.2062	20.75
615	325	0.2731	S55°09'32"E	-0.1560	0.2241	-24.87
326	607	0.0843	S8°43'20"W	-0.0834	-0.0128	19.77
327	670	0.1509	S0°05'17"W	-0.1509	-0.0002	22.29
328	639	0.2553	N61°39'36"E	0.1212	0.2247	19.18
329	638	0.0450	S36°53'41"E	-0.0360	0.0270	23.31
330	636	0.0708	S10°24'21"E	-0.0696	0.0128	24.39
331	29	0.0573	N65°24'00"W	0.0239	-0.0521	28.69
332	65	0.0668	S47°58'16"W	-0.0447	-0.0496	23.95
333	102	0.0522	S27°25'26"W	-0.0463	-0.0240	26.09
334	624	0.0578	S35°13'35"W	-0.0472	-0.0333	20.69
335	622	0.0221	S11°40'39"E	-0.0217	0.0045	-21.11
336	617	0.1910	S62°15'47"E	-0.0889	0.1690	-19.39
337	677	0.1768	N13°18'30"E	0.1720	0.0407	16.49
338	676	0.1076	N18°06'45"E	0.1023	0.0334	17.09
339	678	0.1804	S69°48'36"W	-0.0622	-0.1693	15.08
340	679	0.1772	S17°51'09"E	-0.1686	0.0543	15.14
341	42	0.0874	N7°51'08"E	0.0866	0.0119	24.01
342	680	0.1257	N62°43'45"E	0.0576	0.1117	13.01
343	690	0.2254	S53°19'55"E	-0.1346	0.1808	2.41
344	49	0.0276	S73°16'23"E	-0.0080	0.0265	19.01
345	33	0.0522	N64°49'39"E	0.0222	0.0472	23.95
346	674	0.1794	N32°35'38"W	0.1511	-0.0966	16.89
347	74	0.0452	N27°38'05"W	0.0400	-0.0210	17.72
348	38	0.7654	N28°28'11"W	0.6728	-0.3649	25.17
349	28	0.0264	S52°59'08"W	-0.0159	-0.0211	20.51
350	684	0.0704	N61°07'17"W	0.0340	-0.0617	17.30
351	688	0.1546	S15°46'52"E	-0.1488	0.0420	13.01
352	691	0.2874	N61°29'11"W	0.1372	-0.2525	1.17
353	48	0.0628	S63°33'56"W	-0.0279	-0.0562	14.86
354	46	0.2961	S76°39'05"W	-0.0684	-0.2881	19.51

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355	689	0.0939	S18°20'31"W	-0.0891	-0.0296	21.11
356	41	0.1946	N38°06'21"E	0.1531	0.1201	22.65
357	44	0.0810	N80°50'51"W	0.0129	-0.0800	22.40
358	43	0.0097	N36°47'42"E	0.0077	0.0058	25.47
359	34	0.0325	S21°56'20"E	-0.0301	0.0121	20.09
360	35	0.0550	N44°56'28"W	0.0389	-0.0389	18.88
361	36	0.0813	S88°20'41"W	-0.0023	-0.0812	21.13
362	682	0.1806	S67°22'04"E	-0.0695	0.1667	13.72
363	685	0.0919	S69°28'22"W	-0.0322	-0.0861	10.96
364	668	0.0247	S4°40'21"E	-0.0246	0.0020	28.23
365	665	0.2214	S23°38'27"W	-0.2029	-0.0888	9.00
366	687	0.1749	S41°41'50"E	-0.1306	0.1164	2.95
367	660	0.1280	S36°45'54"W	-0.1025	-0.0766	-30.85
368	693	0.3155	N82°45'47"E	0.0397	0.3129	-1.50
369	658	0.2933	N50°24'03"W	0.1870	-0.2260	-12.58
370	649	0.2569	N3°24'47"E	0.2564	0.0153	18.32
371	39	0.2807	N9°23'35"E	0.2770	0.0458	27.10
372	32	0.0989	N48°04'13"E	0.0661	0.0736	23.51
373	15	0.0406	S20°37'13"E	-0.0380	0.0143	5.34
374	107	0.0797	S10°57'48"W	-0.0783	-0.0152	4.73
375	106	0.0648	N40°17'48"W	0.0494	-0.0419	1.06
376	109	0.0209	S61°18'45"W	-0.0100	-0.0184	10.08
377	16	0.0236	N30°37'47"W	0.0203	-0.0120	-8.22
378	81	0.0943	S27°35'06"E	-0.0836	0.0437	-15.65
379	662	0.2388	S36°04'28"W	-0.1930	-0.1406	-33.14
380	71	0.0777	N0°32'16"E	0.0777	0.0007	11.33
381	698	0.1385	N53°32'44"E	0.0823	0.1114	9.66
382	699	0.1902	N17°42'13"E	0.1812	0.0578	-43.52
383	383	0.0000	N90°00'00"W	0.0000	0.0000	0.00
384	384	0.0000	N90°00'00"W	0.0000	0.0000	0.00
385	645	0.1534	N48°11'03"W	0.1023	-0.1143	18.46
386	642	0.2427	S67°18'02"W	-0.0937	-0.2239	38.26
387	69	0.1009	S28°54'29"W	-0.0883	-0.0488	29.16
388	648	0.1527	N35°32'11"E	0.1242	0.0887	14.49
389	653	0.1210	S28°03'43"W	-0.1067	-0.0569	30.82
390	643	1.0874	S78°52'15"E	-0.2099	1.0669	25.88
391	70	0.0425	S37°21'45"E	-0.0338	0.0258	31.75
392	656	0.0756	S47°52'01"E	-0.0507	0.0560	6.81
393	657	0.0219	S9°42'19"E	-0.0216	0.0037	7.36
394	706	0.1148	N85°42'35"E	0.0086	0.1145	25.39
395	704	0.0410	N80°47'17"E	0.0066	0.0405	5.10
396	27	0.2565	N33°19'28"E	0.2143	0.1409	5.43
397	697	0.1707	N73°15'59"W	0.0491	-0.1634	-11.75
398	23	0.4423	S56°27'28"W	-0.2444	-0.3686	-25.31
399	695	0.1550	N10°52'21"W	0.1522	-0.0292	-10.87
400	79	0.2860	S0°35'03"E	-0.2860	0.0029	0.69
401	14	0.0614	N51°09'58"E	0.0385	0.0478	47.12
402	13	1.6971	S87°06'10"E	-0.0858	1.6950	-81.76
403	11	0.0478	N56°30'12"W	0.0264	-0.0398	5.21
404	10	0.0905	S66°11'54"E	-0.0365	0.0828	-18.46
405	9	0.3092	N84°10'29"W	0.0314	-0.3076	20.98
406	4	0.0781	S40°28'12"E	-0.0594	0.0507	31.61
407	3	0.5721	N52°36'43"W	0.3474	-0.4545	40.85
408	25	0.0979	N21°05'13"W	0.0913	-0.0352	-54.41
409	17	0.0971	N36°47'13"E	0.0778	0.0582	0.91
410	7	0.0673	N89°39'42"E	0.0004	0.0672	25.53
411	12	0.2229	N44°30'51"W	0.1589	-0.1563	-81.54

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412	61	0.0261	S20°41'08"E	-0.0244	0.0092	23.37
413	627	0.0954	N39°39'14"W	0.0735	-0.0609	22.77
414	630	0.0119	N52°26'43"W	0.0072	-0.0094	23.18
415	610	0.2076	S83°07'56"W	-0.0248	-0.2061	28.54
416	606	0.1737	S30°06'30"W	-0.1503	-0.0872	23.49
417	625	0.0848	N79°25'54"W	0.0155	-0.0833	20.37
418	613	0.2041	N9°29'46"E	0.2013	0.0337	12.99
419	66	0.1779	S48°49'45"E	-0.1171	0.1339	23.64
420	67	0.0199	N66°32'32"E	0.0079	0.0182	26.92
421	619	0.0694	S8°39'49"E	-0.0686	0.0105	-31.91
422	683	0.0930	S68°13'59"W	-0.0345	-0.0864	20.65
423	45	0.1277	N61°09'52"E	0.0616	0.1119	20.92
424	47	0.1327	N54°50'02"W	0.0764	-0.1084	18.21
425	675	0.1602	S7°51'21"W	-0.1587	-0.0219	18.27
426	681	0.2130	N42°14'09"E	0.1577	0.1432	12.98
427	50	0.0357	S88°36'35"W	-0.0009	-0.0356	17.20
428	673	0.0611	N17°55'50"W	0.0581	-0.0188	18.28
429	692	0.0404	S80°16'15"E	-0.0068	0.0398	0.09
430	663	0.0656	N64°15'33"E	0.0285	0.0591	-2.85
431	37	0.1032	N51°35'58"E	0.0641	0.0809	29.76
432	108	0.0060	S78°10'58"E	-0.0012	0.0059	8.49
433	80	0.0563	S13°27'53"E	-0.0547	0.0131	-1.09
434	76	0.0357	S41°44'38"W	-0.0267	-0.0238	0.87
435	696	0.3017	N44°40'20"W	0.2146	-0.2121	-33.62
436	667	0.1223	S14°34'49"E	-0.1184	0.0308	-9.56
437	437	0.0000	N90°00'00"W	0.0000	0.0000	0.00
438	646	0.2587	S87°00'01"E	-0.0135	0.2584	33.93
439	641	0.1130	S41°04'27"E	-0.0852	0.0742	33.66
440	651	0.0791	N67°41'57"E	0.0300	0.0732	18.80
441	654	0.0464	N37°31'51"W	0.0368	-0.0283	26.86
442	702	0.0619	N12°01'24"E	0.0606	0.0129	15.66
443	705	0.0706	N53°50'45"W	0.0416	-0.0570	12.40
444	703	0.0130	N3°54'48"W	0.0130	-0.0009	7.32
445	707	0.2707	N41°18'25"E	0.2033	0.1787	-14.09
446	72	0.0740	S11°49'19"W	-0.0724	-0.0152	-1.75
447	694	0.1399	N60°39'01"E	0.0686	0.1220	-27.84
448	652	0.1235	N57°01'29"E	0.0672	0.1036	20.96
449	652	0.1235	N57°01'29"E	0.0672	0.1036	20.96
450	701	0.1365	N63°11'50"E	0.0615	0.1218	22.40
451	701	0.1365	N63°11'50"E	0.0615	0.1218	22.40
452	700	0.4905	S38°40'26"W	-0.3829	-0.3065	10.03
453	700	0.4905	S38°40'26"W	-0.3829	-0.3065	10.03
454	105	0.0646	S40°03'26"E	-0.0494	0.0415	22.90
455	105	0.0646	S40°03'26"E	-0.0494	0.0415	22.90
456	621	0.2651	N36°21'41"E	0.2135	0.1572	-1.05
457	614	0.1525	S71°14'01"E	-0.0491	0.1444	0.36
458	670	0.1509	S0°05'17"W	-0.1509	-0.0002	22.29
459	102	0.0522	S27°25'26"W	-0.0463	-0.0240	26.09
460	42	0.0874	N7°51'08"E	0.0866	0.0119	24.01
461	42	0.0874	N7°51'08"E	0.0866	0.0119	24.01
462	38	0.7654	N28°28'11"W	0.6728	-0.3649	25.17
463	28	0.0264	S52°59'08"W	-0.0159	-0.0211	20.51
464	685	0.0919	S69°28'22"W	-0.0322	-0.0861	10.96
465	658	0.2933	N50°24'03"W	0.1870	-0.2260	-12.58
466	15	0.0406	S20°37'13"E	-0.0380	0.0143	5.34
467	15	0.0406	S20°37'13"E	-0.0380	0.0143	5.34
468	16	0.0236	N30°37'47"W	0.0203	-0.0120	-8.22

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469	469	0.0000	N90°00'00"W	0.0000	0.0000	0.00
470	27	0.2565	N33°19'28"E	0.2143	0.1409	5.43
471	23	0.4423	S56°27'28"W	-0.2444	-0.3686	-25.31
472	14	0.0614	N51°09'58"E	0.0385	0.0478	47.12
473	13	1.6971	S87°06'10"E	-0.0858	1.6950	-81.76
474	11	0.0478	N56°30'12"W	0.0264	-0.0398	5.21
475	10	0.0905	S66°11'54"E	-0.0365	0.0828	-18.46
476	9	0.3092	N84°10'29"W	0.0314	-0.3076	20.98
477	9	0.3092	N84°10'29"W	0.0314	-0.3076	20.98
478	4	0.0781	S40°28'12"E	-0.0594	0.0507	31.61
479	3	0.5721	N52°36'43"W	0.3474	-0.4545	40.85
480	25	0.0979	N21°05'13"W	0.0913	-0.0352	-54.41
481	17	0.0971	N36°47'13"E	0.0778	0.0582	0.91
482	7	0.0673	N89°39'42"E	0.0004	0.0672	25.53
483	12	0.2229	N44°30'51"W	0.1589	-0.1563	-81.54
484	12	0.2229	N44°30'51"W	0.1589	-0.1563	-81.54

Chapter

5A

RAW DATA FILES

FIELD DATA ACQUISITION DATES

1) AUGUST 28,2006
2) AUGUST 29,2006
3) AUGUST 30,2006
4) AUGUST 31,2006
5) SEPTEMBER 5,2006
6) SEPTEMBER 11,2006
7) SEPTEMBER 12,2006
8) SEPTEMBER 14,2006
9) SEPTEMBER 18,2006

8992G082806.RAW

```
JB,NM8992G082806,DT08-28-2006,TM06:58:52
MO,AD0,UN0,SF1.0,EC0,EO0.0,AU0
--Data Collector Serial Number: SS05A00978
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--Activating GPS Receiver: Topcon TPS HiPer [rover], COM1, 115200 baud, no
parity
--Switch projection mode to H: Mapping Plane and V: Localization (+ Geoid)
--No coordinate system is defined.
ES,RD,IF,EM
PJ,TP2048,LA,LN,HT,N ,E ,EL,SC1.0000000000,OO,OT
CS,CO2,ZG,ZN,DN
--Select zone record from database
ES,RD20925646.325459,IF298.2572215381,EMGeodetic Ref System 1980
ST,LA,LN,HT,SC1.0000000000,N 0.0,E 0.0
PJ,TP2066,LA31.5000,LN-81.0000,HT,N 0.0,E 2000000.0,EL,SC,OO34.5000,OT32.3000
DT,DA513,RD20925646.325459,IF298.2572229329,OX0.00000000,OY0.00000000,OZ0.000000
00,LX0.0,LY0.0,LZ0.0,SP0.000000
HA,N ,E ,TH,TE,RT,SC
VA,PV2,N ,E ,LZ,SO,SA,GNGeoid03 (Conus)
CG,AO1,GO1
CS,CO3,ZGUS State Plane 1983,ZNSouth Carolina 3900,DNNAD 1983 (Conus)
-->>
-->>  Begin Adjust with Projection.
-->>  End Adjust with Projection.
-->>
--Data Collector Serial Number: SS05A00978
--Switch projection mode to H: Mapping Plane and V: Localization (+ Geoid)
--No coordinate system is defined.
ES,RD,IF,EM
PJ,TP2048,LA,LN,HT,N ,E ,EL,SC1.0000000000,OO,OT
CS,CO2,ZG,ZN,DN
--Select zone record from database
ES,RD20925646.325459,IF298.2572215381,EMGeodetic Ref System 1980
ST,LA,LN,HT,SC1.0000000000,N 0.0,E 0.0
PJ,TP2066,LA31.5000,LN-81.0000,HT,N 0.0,E 2000000.0,EL,SC,OO34.5000,OT32.3000
DT,DA513,RD20925646.325459,IF298.2572229329,OX0.00000000,OY0.00000000,OZ0.000000
00,LX0.0,LY0.0,LZ0.0,SP0.000000
HA,N ,E ,TH,TE,RT,SC
VA,PV2,N ,E ,LZ,SO,SA,GNGeoid03 (Conus)
CG,AO1,GO1
CS,CO3,ZGUS State Plane 1983,ZNSouth Carolina 3900,DNNAD 1983 (Conus)
-->>
-->>  Begin Adjust with Projection.
-->>  End Adjust with Projection.
-->>
--Activating GPS Receiver: Topcon TPS Legacy E [base], COM1, 115200 baud, no
parity
--GPS Antenna:PGA-1, Measured:7.13, Radius: 0.226 / Offset: 0.088, Measured
to:Slant measure mark, Notch:1, Serial#:
--Geodetic coordinates computed from plane coordinates for base setup.
EE,GF0,SG0
EP,TM13:27:31,LA34.173590453,LN-81.190117299,HT334.685575,RH0.0,RV0.0,GM1,CL1
GP,PN1009,PTUSER_INPUT
--09:27:34,Set BASE receiver at known position
RX,DCBASE,RA7.214332,RE0,FI
EQ,DCBASE,RXLegacy E,RSAG3VLIT08HS,AN0,AI1,ATPGA-
1,TS,TA0.0,HO0.226378,VO0.087927
```

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AH,DCBASE,MA7.13,ME2,RA7.214332
BP,PN1009,LA34.173590453,LN-81.190117299,HT334.685575,SG0
--Activating GPS Receiver: Topcon TPS HiPer [rover], COM1, 115200 baud, no
parity
--09:28:20,Set ROVER receiver with base reference position:LA34.173590453,LN-
81.190117299,HT334.685575
RX,DCROVER,RA6.907769,RE0,FI
EQ,DCROVER,RXHiPer,RS8RHNB0238JK,AN0,AI0,ATTopcon HiPer
GGD,TS,TA0.0,HO0.0,VO0.347769
AH,DCROVER,MA6.56,ME2,RA6.907769
--Activating Total Station: Topcon GTS-800 [820/8200 DIRECT CABLE], COM1, 1200
baud, even parity
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--Activating GPS Receiver: Topcon TPS HiPer [rover], COM1, 115200 baud, no
parity
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00015", Lng: 0.00011", Ht:
0.018
EP,TM10:00:42,LA34.154785543,LN-
81.182587777,HT335.475194,RH0.048435,RV0.061855,DH1.091253,DV1.814206,GM4,CL1
GS,PN1,N 884244.555222,E 1907193.896423,EL435.479073,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00015", Lng: 0.00008", Ht:
0.011
EP,TM10:01:51,LA34.154785519,LN-
81.182587781,HT335.474558,RH0.040975,RV0.063494,DH1.150275,DV1.868622,GM4,CL1
GS,PN2,N 884244.53167,E 1907193.89341,EL435.478437,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00013", Lng: 0.00015", Ht:
0.011
EP,TM10:02:42,LA34.154785554,LN-
81.18258775,HT335.465366,RH0.041325,RV0.065064,DH1.145684,DV1.874445,GM4,CL1
GS,PN3,N 884244.56612,E 1907193.919532,EL435.469245,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00006", Lng: 0.00015", Ht:
0.048
EP,TM10:16:24,LA34.192427512,LN-
81.171331685,HT344.284891,RH0.046947,RV0.077731,DH1.035384,DV1.885466,GM4,CL1
GS,PN4,N 906102.334841,E 1913344.003822,EL444.326408,--q c 101
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00006", Lng: 0.00003", Ht:
0.013
EP,TM10:17:37,LA34.192427544,LN-
81.171331717,HT344.233819,RH0.038051,RV0.067308,DH1.033164,DV1.89243,GM4,CL1
GS,PN5,N 906102.367044,E 1913343.977022,EL444.275336,--q c 101
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00014", Lng: 0.00005", Ht:
0.027
EP,TM10:18:42,LA34.192427573,LN-
81.171331704,HT344.23095,RH0.038999,RV0.06758,DH1.031467,DV1.898522,GM4,CL1
GS,PN6,N 906102.395856,E 1913343.988241,EL444.272467,--q c 101
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00009", Lng: 0.00011", Ht:
0.009
EP,TM10:56:02,LA34.18020314,LN-
81.190798262,HT331.909515,RH0.03296,RV0.047532,DH1.007245,DV1.672508,GM4,CL1
GS,PN7,N 897817.439136,E 1903702.283616,EL431.916699,--501
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00017", Lng: 0.00020", Ht:
0.038
EP,TM10:56:48,LA34.180203207,LN-
81.190797875,HT329.968915,RH0.034226,RV0.0478,DH1.008875,DV1.673439,GM4,CL1
GS,PN8,N 897817.505826,E 1903702.608791,EL429.976099,--501
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00012", Lng: 0.00005", Ht:
0.010
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EP,TM10:57:13,LA34.18020322,LN-
81.190796635,HT329.530193,RH0.06272,RV0.070449,DH1.009734,DV1.673955,GM4,CL1
GS,PN9,N 897817.515951,E 1903703.648842,EL429.537379,--501
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00006", Lng: 0.00003", Ht:
0.032
EP,TM10:59:23,LA34.180201039,LN-
81.19080845,HT330.022671,RH0.052693,RV0.072617,DH1.112036,DV2.054739,GM4,CL1
GS,PN10,N 897815.342402,E 1903693.730572,EL430.029838,--b-501
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00003", Lng: 0.00015", Ht:
0.009
EP,TM10:59:46,LA34.18019968,LN-
81.19081419,HT329.986264,RH0.036392,RV0.059009,DH1.111175,DV2.050619,GM4,CL1
GS,PN11,N 897813.983497,E 1903688.911895,EL429.99342,--b-501a
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00005", Lng: 0.00012", Ht:
0.020
EP,TM11:00:40,LA34.180227008,LN-
81.190740398,HT328.80344,RH0.069534,RV0.076588,DH1.10934,DV2.041456,GM4,CL1
GS,PN12,N 897841.41525,E 1903750.897085,EL428.810741,--b-502
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00002", Lng: 0.00012", Ht:
0.008
EP,TM11:02:09,LA34.180171908,LN-
81.190672208,HT327.918793,RH0.048774,RV0.090924,DH1.205109,DV2.974491,GM4,CL1
GS,PN13,N 897785.544277,E 1903807.92528,EL427.926109,--c-501
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00012", Lng: 0.00010", Ht:
0.009
EP,TM11:43:08,LA34.173118646,LN-
81.190239461,HT336.563587,RH0.034873,RV0.051974,DH1.076791,DV1.785714,GM4,CL1
GS,PN204,N 894698.248864,E 1904161.454941,EL436.567174,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00007", Lng: 0.00007", Ht:
0.014
EP,TM11:49:51,LA34.172569379,LN-
81.190274973,HT340.49622,RH0.032926,RV0.047273,DH1.02815,DV1.650312,GM4,CL1
GS,PN205,N 894143.153625,E 1904129.958175,EL440.498737,--t nail
--Activating Total Station: Topcon GTS-800 [820/8200 DIRECT CABLE], COM1, 1200
baud, even parity
--Calculate survey scale factor for projection South Carolina 3900 at point
1009.
MO,AD0,UN0,SF0.999837,EC0,EO0.0,AU0
--Foresight Target:My Prism, HR:3.3 (3.3 + 0.0 Offset), Prism Const.:0.0mm
OC,OP205,N 894143.153625,E 1904129.958175,EL440.498737,--t nail
--HR:3.3 (3.3 + 0.0 Offset)
LS,HI5.33,HR3.3
BK,OP205,BP204,BS3.1451,BC0.0000
--Fixed HR at Backsight:5.76 (5.76 + 0.0 Offset), Prism Const.:0.0mm
--BS check 205 - 204:ZE90.2157,SD556.086112,HD err= -0.004054, VD err= -0.04902
--BS Circle check : angular err= 0.0000
--RD,BD 1:0.0001
--RD,FD 1:352.1050
--RD,ZD 1:90.4154
--MD,SD 1:149.530299
--RF,OP205,FP,AR352.1050,ZE90.4154,SD149.530299,HR3.3,--
--RD,FV 1:180.0000
--RD,ZV 1:
--MD,SD 1:
--RF,OP205,FP,AR180.0000,ZE,SD,HR3.3,--
--RD,BV 1:180.0000
--Horizontal Angle Error: 0.0000
```

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--Zenith Angle Error: 0.0000
OC,OP205,N 894143.153625,E 1904129.958175,EL440.498737,--t nail
BK,OP205,BP204,BS3.1451,BC0.0000
--Fixed HR at Backsight:5.76 (5.76 + 0.0 Offset), Prism Const.:0.0mm
--BS check 205 - 204:ZE90.2156,SD556.086112,HD err= -0.004028, VD err= -0.044976
--BS Circle check : angular err= 0.0001
--RD,BD 1:0.0000
--RD,FD 1:0.0000
--RD,ZD 1:
--MD,SD 1:
--RF,OP205,FP,AR0.0000,ZE,SD,HR3.3,--
--RD,FV 1:180.0000
--RD,ZV 1:
--MD,SD 1:
--RF,OP205,FP,AR180.0000,ZE,SD,HR3.3,--
--RD,BV 1:180.0000
--Horizontal Angle Error: 0.0000
--Zenith Angle Error: 0.0000
RD,BD 1:0.0001
RD,FD 1:352.1105
RD,ZD 1:90.4152
MD,SD 1:149.530299
RF,OP205,FP808,AR352.1105,ZE90.4152,SD149.530299,HR3.3,--ow-622
RD,FV 1:172.1103
RD,ZV 1:269.1748
MD,SD 1:149.535299
RF,OP205,FP808,AR172.1103,ZE269.1748,SD149.535299,HR3.3,--ow-622
RD,BV 1:180.0003
--Horizontal Angle Error: 0.0005
--Zenith Angle Error: 0.0021
--Slope Distance Error: 0.005
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
--Slope Distance Error compares to the average: 0.0
SS,OP205,FP808,AR352.1102,ZE90.4202,SD149.532799,--ow-622
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.33,HR5.0
SS,OP205,FP809,AR352.1623,ZE90.5406,SD149.455299,--ow-622
SS,OP205,FP810,AR352.3710,ZE91.0259,SD149.395299,--ow-622
SS,OP205,FP811,AR358.2521,ZE91.1103,SD149.340299,--b-622
--Activating GPS Receiver: Topcon TPS HiPer [rover], COM1, 115200 baud, no
parity
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00003", Lng: 0.00003", Ht:
0.007
EP,TM13:38:53,LA34.170720059,LN-
81.191429099,HT322.023522,RH0.039266,RV0.050263,DH0.928135,DV1.670693,GM4,CL1
GS,PN206,N 892276.890728,E 1903155.917454,EL422.021868,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00015", Lng: 0.00018", Ht:
0.035
EP,TM13:43:24,LA34.170886029,LN-
81.19169314,HT326.860089,RH0.109024,RV0.098608,DH1.281182,DV1.948555,GM4,CL1
GS,PN207,N 892445.337485,E 1902934.911645,EL426.858243,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00015", Lng: 0.00013", Ht:
0.011
EP,TM13:44:15,LA34.170912235,LN-
81.19166504,HT327.001769,RH0.036691,RV0.055439,DH1.198596,DV1.935485,GM4,CL1
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GS,PN801,N 892471.752712,E 1902958.569441,EL426.999997,--c-209s
EE,GF0,SG0
EP,TM17:44:53,LA34.170912235,LN-81.19166504,HT327.001769,RH0.0,RV0.0,GM1,CL1
SP,PN812,N 892471.752712,E 1902958.569441,EL426.999997,--c-209s
DP,PN801
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00002", Lng: 0.00014", Ht:
0.011
EP,TM13:48:53,LA34.170801598,LN-
81.191533689,HT324.263378,RH0.048598,RV0.064842,DH1.067877,DV1.990811,GM4,CL1
GS,PN813,N 892359.58046,E 1903068.423819,EL424.261665,--b-336
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00006", Lng: 0.00011", Ht:
0.019
EP,TM13:55:58,LA34.171192321,LN-
81.190993218,HT324.565014,RH0.049894,RV0.075503,DH1.150253,DV2.473503,GM4,CL1
GS,PN201,N 892753.109649,E 1903523.09204,EL424.564614,--t nail
EE,GF0,SG0
EP,TM17:56:04,LA34.171192321,LN-81.190993218,HT324.565014,RH0.0,RV0.0,GM1,CL1
SP,PN202,N 892753.109649,E 1903523.09204,EL424.564614,--t nail
DP,PN201
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00010", Lng: 0.00008", Ht:
0.016
EP,TM13:57:59,LA34.171115761,LN-
81.190956764,HT322.725145,RH0.043994,RV0.076624,DH1.115852,DV2.588403,GM4,CL1
GS,PN201,N 892675.629959,E 1903553.437233,EL422.724711,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00006", Lng: 0.00016", Ht:
0.014
EP,TM14:01:14,LA34.17130827,LN-
81.190527268,HT315.473512,RH0.03716,RV0.057444,DH0.929648,DV2.063991,GM4,CL1
GS,PN203,N 892869.102332,E 1903914.373862,EL415.474016,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00006", Lng: 0.00003", Ht:
0.011
EP,TM14:09:17,LA34.171141992,LN-
81.191322891,HT323.566008,RH0.049896,RV0.075287,DH0.964589,DV1.97682,GM4,CL1
GS,PN208,N 892703.094219,E 1903246.346392,EL423.565033,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00017", Lng: 0.00011", Ht:
0.028
EP,TM14:17:33,LA34.171350589,LN-
81.191737889,HT323.144253,RH0.078826,RV0.122025,DH1.146426,DV2.647225,GM4,CL1
GS,PN209,N 892915.020804,E 1902898.828221,EL423.142929,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00006", Lng: 0.00004", Ht:
0.014
EP,TM14:36:24,LA34.171132294,LN-
81.193086222,HT306.340914,RH0.04136,RV0.063904,DH0.891177,DV1.769485,GM4,CL1
GS,PN210,N 892697.912708,E 1901766.92064,EL406.338569,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00019", Lng: 0.00007", Ht:
0.008
EP,TM14:47:26,LA34.171401997,LN-
81.192680336,HT308.888607,RH0.080147,RV0.073817,DH1.094315,DV1.828914,GM4,CL1
GS,PN211,N 892969.452681,E 1902108.304785,EL408.886103,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00012", Lng: 0.00007", Ht:
0.016
EP,TM14:55:55,LA34.170577928,LN-
81.192982021,HT331.966615,RH0.031114,RV0.05192,DH0.92973,DV1.708878,GM4,CL1
GS,PN814,N 892137.297486,E 1901852.58063,EL431.962653,--b-607
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00018", Lng: 0.00009", Ht:
0.022
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EP,TM15:02:41,LA34.17049681,LN-
81.192799071,HT312.122188,RH0.062677,RV0.059966,DH0.919737,DV1.710154,GM4,CL1
GS,PN815,N 892054.82337,E 1902005.81743,EL412.118348,--b-608a
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00011", Lng: 0.00025", Ht:
0.036
EP,TM15:03:58,LA34.170496162,LN-
81.192797756,HT311.702857,RH0.066841,RV0.05783,DH1.001406,DV1.854154,GM4,CL1
GS,PN816,N 892054.164642,E 1902006.918476,EL411.699018,--b-608
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00010", Lng: 0.00015", Ht:
0.034
EP,TM15:34:58,LA34.171334896,LN-
81.192169652,HT328.504215,RH0.041568,RV0.07901,DH1.083709,DV2.585462,GM4,CL1
GS,PN212,N 892900.287654,E 1902536.542094,EL428.502275,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00012", Lng: 0.00008", Ht:
0.011
EP,TM15:44:30,LA34.170885247,LN-
81.191263106,HT321.383048,RH0.054075,RV0.07667,DH1.139198,DV2.521763,GM4,CL1
GS,PN213,N 892443.426659,E 1903295.701241,EL421.381851,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00012", Lng: 0.00010", Ht:
0.046
EP,TM15:55:46,LA34.170402803,LN-
81.191666833,HT317.612277,RH0.064579,RV0.094154,DH1.305194,DV3.1917,GM4,CL1
GS,PN214,N 891956.835466,E 1902955.464344,EL417.609883,--t nail
--Activating Total Station: Topcon GTS-800 [820/8200 DIRECT CABLE], COM1, 1200
baud, even parity
OC,OP214,N 891956.835466,E 1902955.464344,EL417.609883,--t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.49,HR5.0
BK,OP214,BP206,BS32.0333,BC0.0000
--Fixed HR at Backsight:5.59 (5.59 + 0.0 Offset), Prism Const.:0.0mm
--BS check 214 - 206:ZE89.1722,SD377.810756,HD err= 0.073642, VD err= 0.173327
--BS Circle check : angular err= 0.0000
OC,OP214,N 891956.835466,E 1902955.464344,EL417.609883,--t nail
BK,OP214,BP206,BS32.0333,BC0.0000
--Fixed HR at Backsight:5.59 (5.59 + 0.0 Offset), Prism Const.:0.0mm
--BS check 214 - 206:ZE89.1721,SD377.810756,HD err= 0.073608, VD err= 0.176074
--BS Circle check : angular err= 0.0000
SS,OP214,FP817,AR356.5119,ZE89.2020,SD111.480223,--b-324
SS,OP214,FP818,AR339.3408,ZE89.2238,SD181.270363,--b-323
SS,OP214,FP819,AR10.1820,ZE89.2940,SD246.840494,--b-323
SP,PN819,N 892139.18154,E 1903121.76382,EL420.277878,--b-313a
SS,OP214,FP820,AR76.0015,ZE91.2547,SD113.400227,--b-304
SS,OP214,FP821,AR97.5450,ZE91.4122,SD158.895318,--b-306
SS,OP214,FP822,AR66.3644,ZE93.1038,SD15.655031,--b-302
SS,OP214,FP823,AR155.0500,ZE91.1128,SD50.305101,--b-301
SS,OP214,FP824,AR157.3415,ZE91.4209,SD62.795126,--b-301a
SS,OP214,FP825,AR166.2751,ZE91.4303,SD100.700201,--b-303
SS,OP214,FP826,AR169.4634,ZE89.3913,SD226.010452,--b-311
SS,OP214,FP827,AR125.0507,ZE91.2041,SD312.375625,--b-327
SS,OP214,FP828,AR217.0546,ZE90.0646,SD145.375291,--b-314
SS,OP214,FP829,AR217.4710,ZE90.0352,SD150.475301,--b-314a
SS,OP214,FP830,AR258.0425,ZE87.1013,SD118.620237,--b-305(udp)
--Foresight Target:My Prism, HR:0.79 (0.79 + 0.0 Offset), Prism Const.:0.0mm
--HR:0.79 (0.79 + 0.0 Offset)
LS,HI5.49,HR0.79
SS,OP214,FP831,AR262.2222,ZE87.3001,SD125.650251,--305a
SS,OP214,FP832,AR262.3215,ZE86.4503,SD125.750252,--305a/conc
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SS,OP214,FP833,AR263.0207,ZE86.5516,SD125.615251,--305a/gnd
SS,OP214,FP834,AR260.0313,ZE87.4930,SD105.870212,--305b
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.49,HR5.0
SS,OP214,FP835,AR260.1246,ZE86.4415,SD106.005212,--305b/conc
SS,OP214,FP836,AR260.4231,ZE86.5730,SD106.175212,--305b/gnd
SS,OP214,FP837,AR264.2729,ZE86.5621,SD107.910216,--b-305
SS,OP214,FP838,AR306.2943,ZE89.0431,SD137.675275,--b-325
SS,OP214,FP839,AR309.3740,ZE89.1209,SD138.350277,--b-325(udp)
SS,OP214,FP840,AR298.5851,ZE88.5352,SD233.060466,--b-309
SS,OP214,FP841,AR1.1700,ZE89.5959,SD68.120136,--c-304
SS,OP214,FP842,AR134.3728,ZE92.3011,SD58.280117,--tp-301
SS,OP214,FP843,AR132.4758,ZE92.1929,SD66.180132,--tp-301
SS,OP214,FP844,AR136.1514,ZE92.1444,SD68.270137,--tp-301
SS,OP214,FP845,AR139.0110,ZE92.2604,SD59.640119,--tp-301
--Activating GPS Receiver: Topcon TPS HiPer [rover], COM1, 115200 baud, no
parity
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00004", Lng: 0.00017", Ht:
0.026
EP,TM18:02:32,LA34.154785525,LN-
81.182587788,HT335.456018,RH0.03837,RV0.06782,DH1.217532,DV2.162407,GM4,CL1
GS,PN14,N 884244.537582,E 1907193.887813,EL435.459897,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00006", Lng: 0.00005", Ht:
0.009
EP,TM18:03:18,LA34.154785554,LN-
81.182587785,HT335.484212,RH0.047713,RV0.07487,DH1.227258,DV2.375643,GM4,CL1
GS,PN15,N 884244.566681,E 1907193.89005,EL435.48809,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00011", Lng: 0.00008", Ht:
0.039
EP,TM18:04:03,LA34.154785548,LN-
81.182587744,HT335.496001,RH0.039848,RV0.075038,DH1.199262,DV2.308793,GM4,CL1
GS,PN16,N 884244.560916,E 1907193.92478,EL435.499879,--q c 1020
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JB,NM8992G082906,DT08-29-2006,TM07:12:45
MO,AD0,UN0,SF1.0,EC0,EO0.0,AU0
--Data Collector Serial Number: SS05A00978
--Switch projection mode to H: Mapping Plane and V: Localization (+ Geoid)
--No coordinate system is defined.
ES,RD,IF,EM
PJ,TP2048,LA,LN,HT,N ,E ,EL,SC1.0000000000,OO,OT
CS,CO2,ZG,ZN,DN
--Select zone record from database
ES,RD20925646.325459,IF298.2572215381,EMGeodetic Ref System 1980
ST,LA,LN,HT,SC1.0000000000,N 0.0,E 0.0
PJ,TP2066,LA31.5000,LN-81.0000,HT,N 0.0,E 2000000.0,EL,SC,OO34.5000,OT32.3000
DT,DA513,RD20925646.325459,IF298.2572229329,OX0.00000000,OY0.00000000,OZ0.000000
00,LX0.0,LY0.0,LZ0.0,SP0.000000
HA,N ,E ,TH,TE,RT,SC
VA,PV2,N ,E ,LZ,SO,SA,GNGeoid03 (Conus)
CG,AO1,GO1
CS,CO3,ZGUS State Plane 1983,ZNSouth Carolina 3900,DNNAD 1983 (Conus)
-->>
-->>  Begin Adjust with Projection.
-->>  End Adjust with Projection.
-->>
--Activating GPS Receiver: Topcon TPS Legacy E [base], COM1, 115200 baud, no
parity
--Geodetic coordinates computed from plane coordinates for base setup.
EE,GF0,SG0
EP,TM11:57:15,LA34.173590453,LN-81.190117299,HT334.685575,RH0.0,RV0.0,GM1,CL1
GP,PN1009,PTUSER_INPUT
--07:57:17,Set BASE receiver at known position
RX,DCBASE,RA7.584509,RE0,FI
EQ,DCBASE,RXLegacy E,RSAG3VLIT08HS,AN0,AI1,ATPGA-
1,TS,TA0.0,HO0.226378,VO0.087927
AH,DCBASE,MA7.5,ME2,RA7.584509
BP,PN1009,LA34.173590453,LN-81.190117299,HT334.685575,SG0
--Activating GPS Receiver: Topcon TPS HiPer [rover], COM1, 115200 baud, no
parity
--07:57:56,Set ROVER receiver with base reference position:LA34.173590453,LN-
81.190117299,HT334.685575
RX,DCROVER,RA6.907769,RE0,FI
EQ,DCROVER,RXHiPer,RS8RHNB0238JK,AN0,AI0,ATTopcon HiPer
GGD,TS,TA0.0,HO0.0,VO0.347769
AH,DCROVER,MA6.56,ME2,RA6.907769
DP,PN16
DP,PN1
DP,PN2
DP,PN3
DP,PN4
DP,PN5
DP,PN6
SP,PN807,N 897785.544277,E 1903807.92528,EL427.926109,--c-501
DP,PN13
DP,PN14
DP,PN15
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00011", Lng: 0.00008", Ht:
0.055
EP,TM08:20:37,LA34.192427566,LN-
81.171331669,HT344.251522,RH0.061781,RV0.109347,DH1.232044,DV2.760396,GM4,CL1
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GS,PN1,N 906102.388582,E 1913344.017327,EL444.293038,--q c 101
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00008", Lng: 0.00008", Ht:
0.029
EP,TM08:21:44,LA34.19242754,LN-
81.171331682,HT344.284952,RH0.052356,RV0.104482,DH1.235832,DV2.761997,GM4,CL1
GS,PN2,N 906102.362727,E 1913344.006039,EL444.326468,--q c 101
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00005", Lng: 0.00011", Ht:
0.049
EP,TM08:27:25,LA34.192427619,LN-
81.171331688,HT344.186294,RH0.062378,RV0.109384,DH1.252358,DV2.737516,GM4,CL1
GS,PN3,N 906102.442363,E 1913344.001192,EL444.227811,--q c 101
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00007", Lng: 0.00004", Ht:
0.014
EP,TM08:38:49,LA34.154785551,LN-
81.182587735,HT335.504518,RH0.045118,RV0.075141,DH1.262606,DV2.362761,GM4,CL1
GS,PN4,N 884244.563732,E 1907193.931562,EL435.508397,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00005", Lng: 0.00014", Ht:
0.031
EP,TM08:39:54,LA34.154785531,LN-
81.182587748,HT335.498197,RH0.048833,RV0.083066,DH1.262735,DV2.348441,GM4,CL1
GS,PN5,N 884244.543002,E 1907193.921122,EL435.502075,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00006", Lng: 0.00019", Ht:
0.013
EP,TM08:41:20,LA34.154785549,LN-
81.182587748,HT335.492121,RH0.044262,RV0.07456,DH1.262739,DV2.325501,GM4,CL1
GS,PN6,N 884244.56201,E 1907193.920804,EL435.495999,--q c 1020
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00020", Lng: 0.00015", Ht:
0.029
EP,TM09:00:54,LA34.171123087,LN-
81.191120349,HT324.324389,RH0.054478,RV0.052686,DH1.693674,DV1.666191,GM4,CL1
GS,PN846,N 892683.459702,E 1903416.215871,EL424.323703,--b-206
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00010", Lng: 0.00008", Ht:
0.009
EP,TM09:03:33,LA34.171135177,LN-
81.191296038,HT323.480417,RH0.081759,RV0.058745,DH1.821381,DV1.509494,GM4,CL1
GS,PN847,N 892696.136288,E 1903268.854766,EL423.479474,--b-203
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00023", Lng: 0.00008", Ht:
0.036
EP,TM09:06:53,LA34.171179531,LN-
81.191276806,HT323.687624,RH0.06642,RV0.086297,DH1.9047,DV2.896784,GM4,CL1
GS,PN848,N 892740.918603,E 1903285.128346,EL423.686765,--B-201(DH)
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00021", Lng: 0.00013", Ht:
0.012
EP,TM09:10:44,LA34.171210823,LN-
81.191438303,HT323.394108,RH0.050595,RV0.049252,DH1.45577,DV1.433289,GM4,CL1
GS,PN849,N 892772.967642,E 1903149.734473,EL423.393044,--c-201
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00014", Lng: 0.00007", Ht:
0.012
EP,TM09:11:45,LA34.171173955,LN-
81.191427521,HT323.399295,RH0.079842,RV0.06425,DH2.725475,DV2.256223,GM4,CL1
GS,PN850,N 892735.674344,E 1903158.664337,EL423.398201,--b-214
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00011", Lng: 0.00009", Ht:
0.018
EP,TM09:14:14,LA34.171277658,LN-
81.191379591,HT323.052317,RH0.05474,RV0.057034,DH1.502564,DV1.639136,GM4,CL1
GS,PN851,N 892840.369592,E 1903199.201725,EL423.051425,--b-205
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--Position averaged from 4 epochs. Std.Dev. Lat: 0.00024", Lng: 0.00031", Ht:
0.028
EP,TM09:15:37,LA34.171279691,LN-
81.191387557,HT324.974986,RH0.072095,RV0.070832,DH2.107937,DV2.05126,GM4,CL1
GS,PN852,N 892842.445233,E 1903192.524738,EL424.974085,--205b/well
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00049", Lng: 0.00043", Ht:
0.043
EP,TM09:16:12,LA34.171279581,LN-
81.191387272,HT323.439372,RH0.051467,RV0.050509,DH1.249277,DV1.433254,GM4,CL1
GS,PN853,N 892842.333918,E 1903192.764173,EL423.438471,--205b/conc
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00013", Lng: 0.00009", Ht:
0.014
EP,TM09:16:39,LA34.171279265,LN-
81.191386364,HT322.878726,RH0.044922,RV0.058239,DH1.098979,DV1.346052,GM4,CL1
GS,PN854,N 892842.01171,E 1903193.524235,EL422.877825,--205b/gnd
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00014", Lng: 0.00022", Ht:
0.021
EP,TM09:19:00,LA34.171266756,LN-
81.191390507,HT323.713003,RH0.076197,RV0.084783,DH2.52644,DV2.868419,GM4,CL1
GS,PN856,N 892829.37921,E 1903190.009776,EL423.71208,--205a/conc
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00012", Lng: 0.00017", Ht:
0.020
EP,TM09:25:32,LA34.171266299,LN-
81.191389471,HT323.32273,RH0.045996,RV0.055117,DH1.543405,DV1.863357,GM4,CL1
GS,PN855,N 892828.914173,E 1903190.876935,EL423.321808,--205a/gnd
EE,GF0,SG0
EP,TM13:25:39,LA34.171266299,LN-81.191389471,HT323.32273,RH0.0,RV0.0,GM1,CL1
SP,PN857,N 892828.914173,E 1903190.876935,EL423.321808,--205a/gnd
DP,PN855
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00059", Lng: 0.00012", Ht:
0.046
EP,TM09:30:30,LA34.171254121,LN-
81.191496246,HT323.218616,RH0.088437,RV0.114364,DH1.882315,DV2.520854,GM4,CL1
GS,PN858,N 892816.883079,E 1903101.257538,EL423.21752,--r-6 center
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00013", Lng: 0.00012", Ht:
0.023
EP,TM09:31:18,LA34.171227302,LN-
81.191553276,HT323.373307,RH0.05759,RV0.053106,DH1.707228,DV1.724839,GM4,CL1
GS,PN859,N 892789.923664,E 1903053.326241,EL423.372093,--b-215
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00005", Lng: 0.00029", Ht:
0.012
EP,TM09:33:45,LA34.17126144,LN-
81.191676952,HT323.926606,RH0.057307,RV0.060727,DH1.337806,DV1.928016,GM4,CL1
GS,PN860,N 892824.751737,E 1902949.673102,EL423.925255,--b-207(dh)
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00017", Lng: 0.00005", Ht:
0.019
EP,TM09:37:02,LA34.171369213,LN-
81.191738591,HT323.321714,RH0.10047,RV0.082384,DH3.290203,DV2.76956,GM4,CL1
GS,PN861,N 892933.847721,E 1902898.298021,EL423.320413,--b-217
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00021", Lng: 0.00015", Ht:
0.017
EP,TM09:45:56,LA34.171039812,LN-
81.191021583,HT323.399747,RH0.046218,RV0.064045,DH1.461675,DV2.164025,GM4,CL1
GS,PN862,N 892599.030675,E 1903498.817779,EL423.399117,--r-6/east ehd
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00028", Lng: 0.00024", Ht:
0.047
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EP,TM09:47:35,LA34.171163334,LN-
81.190981666,HT322.312383,RH0.078826,RV0.089173,DH1.802471,DV2.371323,GM4,CL1
GS,PN863,N 892723.780758,E 1903532.693567,EL422.311967,--b-226
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00010", Lng: 0.00016", Ht:
0.022
EP,TM09:57:24,LA34.17123083,LN-
81.191256143,HT323.905787,RH0.050653,RV0.060857,DH1.282493,DV1.916377,GM4,CL1
GS,PN864,N 892792.716866,E 1903302.624659,EL423.905024,--b-202
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00013", Lng: 0.00012", Ht:
0.023
EP,TM10:02:14,LA34.17128652,LN-
81.191224196,HT328.292111,RH0.071329,RV0.080559,DH2.150004,DV2.379281,GM4,CL1
GS,PN865,N 892848.923753,E 1903329.602196,EL428.291466,--c-204
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00010", Lng: 0.00006", Ht:
0.020
EP,TM10:05:00,LA34.171362958,LN-
81.19135945,HT325.15372,RH0.060632,RV0.089502,DH1.333036,DV2.649126,GM4,CL1
GS,PN866,N 892926.537132,E 1903216.367084,EL425.152966,--b
--Activating Total Station: Topcon GTS-800 [820/8200 DIRECT CABLE], COM1, 1200
baud, even parity
--Calculate survey scale factor for projection South Carolina 3900 at point
1009.
MO,AD0,UN0,SF0.999837,EC0,EO0.0,AU0
OC,OP208,N 892703.094219,E 1903246.346392,EL423.565033,--t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.49,HR5.0
BK,OP208,BP209,BS301.2234,BC0.0000
--Fixed HR at Backsight:5.42 (5.42 + 0.0 Offset), Prism Const.:0.0mm
OC,OP208,N 892703.094219,E 1903246.346392,EL423.565033,--t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.62,HR5.0
BK,OP208,BP209,BS301.2234,BC0.0000
--Fixed HR at Backsight:5.42 (5.42 + 0.0 Offset), Prism Const.:0.0mm
--BS check 208 - 209:ZE90.0423,SD407.075814,HD err= -0.031173, VD err= 0.104045
--BS Circle check : angular err= 0.0000
OC,OP208,N 892703.094219,E 1903246.346392,EL423.565033,--t nail
BK,OP208,BP209,BS301.2234,BC0.0000
--Fixed HR at Backsight:5.42 (5.42 + 0.0 Offset), Prism Const.:0.0mm
--BS check 208 - 209:ZE90.0425,SD407.080814,HD err= -0.026181, VD err= 0.099105
--BS Circle check : angular err= 0.0000
SS,OP208,FP867,AR112.0808,ZE90.2044,SD58.300117,--b-201(udp)
SS,OP208,FP868,AR104.4052,ZE90.3023,SD61.080122,--tp-201
SS,OP208,FP869,AR100.3724,ZE90.3950,SD68.130136,--tp-201
SS,OP208,FP870,AR104.0215,ZE90.3916,SD69.91514,--tp-201
SS,OP208,FP871,AR108.2955,ZE90.2432,SD65.440131,--tp-201
OC,OP208,N 892703.094219,E 1903246.346392,EL423.565033,--t nail
BK,OP208,BP209,BS301.2234,BC0.0000
--Fixed HR at Backsight:5.42 (5.42 + 0.0 Offset), Prism Const.:0.0mm
--BS check 208 - 209:ZE90.0513,SD407.075814,HD err= -0.031311, VD err= 0.005367
--BS Circle check : angular err= 0.0001
SS,OP208,FP872,AR130.0716,ZE89.5304,SD162.225324,--b-204
SS,OP208,FP873,AR146.1220,ZE90.1424,SD252.965506,--C-205
SS,OP208,FP874,AR30.1245,ZE90.1726,SD200.740401,--b-222
--Foresight Target:My Prism, HR:0.13 (0.13 + 0.0 Offset), Prism Const.:0.0mm
--HR:0.13 (0.13 + 0.0 Offset)
LS,HI5.62,HR0.13
SS,OP208,FP855,AR34.2916,ZE91.1809,SD138.390277,--205a/well
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--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.62,HR5.0
SS,OP208,FP875,AR28.0926,ZE90.2936,SD268.425537,--b-221
SS,OP208,FP876,AR252.2152,ZE90.4842,SD137.095274,--b-211
SS,OP208,FP877,AR255.2856,ZE90.5903,SD140.750282,--b-211a
SS,OP208,FP878,AR256.2320,ZE90.1041,SD323.855648,--b-229
SS,OP208,FP879,AR200.5106,ZE90.2045,SD269.93554,--tp-227
SS,OP208,FP880,AR199.5916,ZE90.2217,SD276.360553,--tp-227
SS,OP208,FP881,AR200.3740,ZE90.2218,SD277.685555,--tp-227
SS,OP208,FP882,AR201.2433,ZE90.1819,SD270.995542,--tp-227
--Foresight Target:My Prism, HR:0.13 (0.13 + 0.0 Offset), Prism Const.:0.0mm
--HR:0.13 (0.13 + 0.0 Offset)
LS,HI5.62,HR0.13
SS,OP208,FP883,AR200.5500,ZE90.5125,SD264.410529,--tp-227
SP,PN883,N 892493.964883,E 1903408.023241,EL425.100524,--227/well
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.62,HR5.0
SS,OP208,FP884,AR200.5833,ZE90.1423,SD264.465529,--227/conc
SS,OP208,FP885,AR201.1043,ZE90.1929,SD264.390529,--227/gnd
OC,OP209,N 892915.020804,E 1902898.828221,EL423.142929,--t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.38,HR5.0
BK,OP209,BP208,BS121.2234,BC0.0000
--Fixed HR at Backsight:5.88 (5.88 + 0.0 Offset), Prism Const.:0.0mm
--BS check 209 - 208:ZE89.5308,SD407.080814,HD err= -0.026659, VD err= -0.108001
--BS Circle check : angular err= 0.0000
--Foresight Target:My Prism, HR:6.0 (6.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:6.0 (6.0 + 0.0 Offset)
LS,HI5.38,HR6.0
SS,OP209,FP886,AR337.4814,ZE90.0122,SD165.960332,--c-202
SS,OP209,FP887,AR340.5046,ZE90.2509,SD76.365153,--b-218
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.38,HR5.0
DP,PN887
SS,OP209,FP887,AR340.5032,ZE90.2427,SD76.340153,--b-218
SS,OP209,FP888,AR328.1232,ZE90.5949,SD41.535083,--c-203
SS,OP209,FP889,AR260.2943,ZE91.1514,SD81.615163,--b-208
SS,OP209,FP890,AR229.1654,ZE91.1833,SD131.245262,--c-206
SS,OP209,FP891,AR345.3556,ZE90.1011,SD189.93038,--b-219
SS,OP209,FP892,AR332.5124,ZE90.2949,SD79.490159,--b-218(udp)
SS,OP209,FP893,AR82.1154,ZE90.2425,SD56.145112,--b-216(udp)
SS,OP209,FP894,AR77.1814,ZE90.3349,SD45.845092,--b-216
OC,OP209,N 892915.020804,E 1902898.828221,EL423.142929,--t nail
BK,OP209,BP208,BS121.2234,BC0.0000
--Fixed HR at Backsight:5.88 (5.88 + 0.0 Offset), Prism Const.:0.0mm
--BS check 209 - 208:ZE89.5310,SD407.075814,HD err= -0.031648, VD err= -0.112945
--BS Circle check : angular err= 0.0000
--BS check 209 - 208:ZE89.5312,SD407.075814,HD err= -0.03164, VD err= -0.116892
--BS Circle check : angular err= 0.0000
--Foresight Target:My Prism, HR:6.0 (6.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:6.0 (6.0 + 0.0 Offset)
LS,HI5.38,HR6.0
RD,BD 1:359.5956
--BS zenith: 89.5310, slope dist: 407.080814
```

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RB,OP209,BP208,AR359.5956,ZE89.5310,SD407.080814,HR5.88,--t nail
RD,FD 1:227.0725
RD,ZD 1:90.5305
MD,SD 1:148.230296
RF,OP209,FP215,AR227.0725,ZE90.5305,SD148.230296,HR6.0,--TR-t nail
RD,FV 1:47.0729
RD,ZV 1:269.0645
MD,SD 1:148.220296
RF,OP209,FP215,AR47.0729,ZE269.0645,SD148.220296,HR6.0,--TR-t nail
RD,BV 1:180.0005
--BS zenith: 270.0653, slope dist: 407.080814
RB,OP209,BP208,AR180.0005,ZE270.0653,SD407.080814,HR5.88,--t nail
--Horizontal Angle Error: 0.0006
--Zenith Angle Error: 0.0010
--Slope Distance Error: 0.01
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
--Slope Distance Error compares to the average: 0.0
TR,OP209,FP215,AR227.0727,ZE90.5310,SD148.225296,--TR-t nail
OC,OP215,N 893060.229439,E 1902869.285555,EL420.230634,--TR-t nail
BK,OP215,BP209,BS168.3000,BC0.0000
--Fixed HR at Backsight:5.88 (5.88 + 0.0 Offset), Prism Const.:0.0mm
OC,OP215,N 893060.229439,E 1902869.285555,EL420.230634,--TR-t nail
--HR:6.0 (6.0 + 0.0 Offset)
LS,HI5.84,HR6.0
BK,OP215,BP209,BS168.3000,BC0.0000
--Fixed HR at Backsight:5.42 (5.42 + 0.0 Offset), Prism Const.:0.0mm
--BS check 215 - 209:ZE89.0212,SD148.220296,HD err= -0.008222, VD err= -0.000335
--BS Circle check : angular err= 0.0000
--Foresight Target:My Prism, HR:8.0 (8.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:8.0 (8.0 + 0.0 Offset)
LS,HI5.84,HR8.0
SS,OP215,FP895,AR194.0002,ZE97.1517,SD42.020084,--r-5/end north
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.84,HR5.0
SS,OP215,FP896,AR111.2122,ZE89.5917,SD68.940138,--b-234
OC,OP209,N 892915.020804,E 1902898.828221,EL423.142929,--t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.38,HR5.0
BK,OP209,BP208,BS121.2234,BC0.0000
--Fixed HR at Backsight:5.88 (5.88 + 0.0 Offset), Prism Const.:0.0mm
--BS check 209 - 208:ZE89.5310,SD407.080814,HD err= -0.026651, VD err= -0.111949
--BS Circle check : angular err= 0.0000
--Foresight Target:My Prism, HR:5.74 (5.74 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.74 (5.74 + 0.0 Offset)
LS,HI5.38,HR5.74
RD,BD 1:0.0001
--BS zenith: 89.5304, slope dist: 407.075814
RB,OP209,BP208,AR0.0001,ZE89.5304,SD407.075814,HR5.88,--t nail
RD,FD 1:192.1634
RD,ZD 1:90.1721
MD,SD 1:199.025398
RF,OP209,FP216,AR192.1634,ZE90.1721,SD199.025398,HR5.74,--TR-t nail
RD,FV 1:12.1642
RD,ZV 1:269.4239
MD,SD 1:199.025398
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RF,OP209,FP216,AR12.1642,ZE269.4239,SD199.025398,HR5.74,--TR-t nail
RD,BV 1:180.0010
--BS zenith: 270.0653, slope dist: 407.075814
RB,OP209,BP208,AR180.0010,ZE270.0653,SD407.075814,HR5.88,--t nail
--Horizontal Angle Error: 0.0001
--Zenith Angle Error: 0.0001
--Slope Distance Error: 0.0
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
--Slope Distance Error compares to the average: 0.0
TR,OP209,FP216,AR192.1632,ZE90.1721,SD199.025398,--TR-t nail
OC,OP216,N 893052.378356,E 1902754.848781,EL421.778711,--TR-t nail
BK,OP216,BP209,BS133.3906,BC0.0000
--Fixed HR at Backsight:5.88 (5.88 + 0.0 Offset), Prism Const.:0.0mm
OC,OP216,N 893052.378356,E 1902754.848781,EL421.778711,--TR-t nail
--HR:5.74 (5.74 + 0.0 Offset)
LS,HI5.56,HR5.74
BK,OP216,BP209,BS133.3906,BC0.0000
--Fixed HR at Backsight:5.42 (5.42 + 0.0 Offset), Prism Const.:0.0mm
--BS check 216 - 209:ZE89.3916,SD199.025398,HD err= -0.001089, VD err= -0.023404
--BS Circle check : angular err= 0.0000
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.56,HR5.0
SS,OP216,FP897,AR168.5951,ZE103.2802,SD64.600129,--r-6/end west
OC,OP212,N 892900.287654,E 1902536.542094,EL428.502275,--t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.3,HR5.0
BK,OP212,BP213,BS121.0222,BC0.0000
--Fixed HR at Backsight:5.46 (5.46 + 0.0 Offset), Prism Const.:0.0mm
--BS check 212 - 213:ZE90.2549,SD886.206772,HD err= 0.009795, VD err= 0.307431
--BS Circle check : angular err= 0.0000
OC,OP212,N 892900.287654,E 1902536.542094,EL428.502275,--t nail
BK,OP212,BP213,BS121.0222,BC0.0000
--Fixed HR at Backsight:5.46 (5.46 + 0.0 Offset), Prism Const.:0.0mm
--BS check 212 - 213:ZE90.2546,SD886.206772,HD err= 0.009876, VD err= 0.318172
--BS Circle check : angular err= 0.0000
OC,OP212,N 892900.287654,E 1902536.542094,EL428.502275,--t nail
BK,OP212,BP213,BS121.0222,BC0.0000
--Fixed HR at Backsight:5.46 (5.46 + 0.0 Offset), Prism Const.:0.0mm
--BS check 212 - 213:ZE90.2549,SD886.206772,HD err= 0.009795, VD err= 0.307431
--BS Circle check : angular err= 0.0000
--BS check 212 - 213:ZE90.2549,SD886.206772,HD err= 0.009779, VD err= 0.305283
--BS Circle check : angular err= 0.0001
--Activating GPS Receiver: Topcon TPS HiPer [rover], COM1, 115200 baud, no
parity
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00012", Lng: 0.00019", Ht:
0.024
EP,TM15:25:57,LA34.170885211,LN-
81.191263035,HT321.36017,RH0.048163,RV0.05906,DH1.183651,DV1.754397,GM4,CL1
GS,PN898,N 892443.390107,E 1903295.760671,EL421.358972,--t nail 213
EE,GF0,SG0
EP,TM19:26:05,LA34.170885211,LN-81.191263035,HT321.36017,RH0.0,RV0.0,GM1,CL1
SP,PN13,N 892443.390107,E 1903295.760671,EL421.358972,--t nail 213
DP,PN898
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JB,NM8992G083006,DT08-30-2006,TM07:32:01
MO,AD0,UN0,SF1.0,EC0,EO0.0,AU0
--Data Collector Serial Number: SS05A00978
--Activating GPS Receiver: Topcon TPS HiPer [rover], COM1, 115200 baud, no
parity
--Switch projection mode to H: Mapping Plane and V: Localization (+ Geoid)
--No coordinate system is defined.
ES,RD,IF,EM
PJ,TP2048,LA,LN,HT,N ,E ,EL,SC1.0000000000,OO,OT
CS,CO2,ZG,ZN,DN
--Select zone record from database
ES,RD20925646.325459,IF298.2572215381,EMGeodetic Ref System 1980
ST,LA,LN,HT,SC1.0000000000,N 0.0,E 0.0
PJ,TP2066,LA31.5000,LN-81.0000,HT,N 0.0,E 2000000.0,EL,SC,OO34.5000,OT32.3000
DT,DA513,RD20925646.325459,IF298.2572229329,OX0.00000000,OY0.00000000,OZ0.000000
00,LX0.0,LY0.0,LZ0.0,SP0.000000
HA,N ,E ,TH,TE,RT,SC
VA,PV2,N ,E ,LZ,SO,SA,GNGeoid03 (Conus)
CG,AO1,GO1
CS,CO3,ZGUS State Plane 1983,ZNSouth Carolina 3900,DNNAD 1983 (Conus)
-->>
-->>  Begin Adjust with Projection.
-->>  End Adjust with Projection.
-->>
--Activating GPS Receiver: Topcon TPS Legacy E [base], COM1, 115200 baud, no
parity
--Geodetic coordinates computed from plane coordinates for base setup.
EE,GF0,SG0
EP,TM12:03:27,LA34.173590453,LN-81.190117299,HT334.685575,RH0.0,RV0.0,GM1,CL1
GP,PN1009,PTUSER_INPUT
--08:03:32,Set BASE receiver at known position
RX,DCBASE,RA7.604518,RE0,FI
EQ,DCBASE,RXLegacy E,RSAG3VLIT08HS,AN0,AI1,ATPGA-
1,TS,TA0.0,HO0.226378,VO0.087927
AH,DCBASE,MA7.52,ME2,RA7.604518
BP,PN1009,LA34.173590453,LN-81.190117299,HT334.685575,SG0
--Activating GPS Receiver: Topcon TPS HiPer [rover], COM1, 115200 baud, no
parity
--08:04:11,Set ROVER receiver with base reference position:LA34.173590453,LN-
81.190117299,HT334.685575
RX,DCROVER,RA6.907769,RE0,FI
EQ,DCROVER,RXHiPer,RS8RHNB0238JK,AN0,AI0,ATTopcon HiPer
GGD,TS,TA0.0,HO0.0,VO0.347769
AH,DCROVER,MA6.56,ME2,RA6.907769
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00009", Lng: 0.00008", Ht:
0.022
EP,TM08:33:43,LA34.192427577,LN-
81.171331666,HT344.194679,RH0.04614,RV0.070302,DH1.130517,DV1.84974,GM4,CL1
GS,PN1,N 906102.400498,E 1913344.019671,EL444.236196,--q c 101
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00010", Lng: 0.00009", Ht:
0.015
EP,TM08:39:23,LA34.192427526,LN-
81.171331738,HT344.227415,RH0.070474,RV0.091671,DH1.088879,DV1.777115,GM4,CL1
GS,PN2,N 906102.348284,E 1913343.959086,EL444.268932,--q c 101
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00016", Lng: 0.00007", Ht:
0.025
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EP,TM08:42:26,LA34.19242759,LN-
81.17133172,HT344.194825,RH0.048128,RV0.069543,DH1.086672,DV1.742564,GM4,CL1
GS,PN3,N 906102.412907,E 1913343.974846,EL444.236342,--q c 101
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00001", Lng: 0.00005", Ht:
0.014
EP,TM08:56:01,LA34.154785534,LN-
81.182587735,HT335.461609,RH0.048597,RV0.062793,DH1.083482,DV1.588247,GM4,CL1
GS,PN4,N 884244.545995,E 1907193.931878,EL435.465488,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00006", Lng: 0.00003", Ht:
0.008
EP,TM08:57:56,LA34.154785551,LN-
81.182587764,HT335.427258,RH0.070259,RV0.067562,DH1.093405,DV1.569914,GM4,CL1
GS,PN5,N 884244.563581,E 1907193.907759,EL435.431137,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00004", Lng: 0.00010", Ht:
0.018
EP,TM08:59:19,LA34.154785533,LN-
81.18258773,HT335.451331,RH0.071282,RV0.051487,DH1.070321,DV1.530166,GM4,CL1
GS,PN6,N 884244.545717,E 1907193.935705,EL435.45521,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00019", Lng: 0.00010", Ht:
0.009
DP,PN212
EP,TM09:33:13,LA34.171334836,LN-
81.19216968,HT328.200651,RH0.083906,RV0.084574,DH1.647132,DV1.717729,GM4,CL1
GS,PN212,N 892900.227076,E 1902536.518068,EL428.198711,--t nail
--Activating Total Station: Topcon GTS-800 [820/8200 DIRECT CABLE], COM1, 1200
baud, even parity
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--Calculate survey scale factor for projection South Carolina 3900 at point
1009.
MO,AD0,UN0,SF0.999837,EC0,EO0.0,AU0
OC,OP212,N 892900.227076,E 1902536.518068,EL428.198711,--t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.44,HR5.0
BK,OP212,BP213,BS121.0207,BC0.0000
--Fixed HR at Backsight:5.52 (5.52 + 0.0 Offset), Prism Const.:0.0mm
--BS check 212 - 213:ZE90.2613,SD886.221772,HD err= 0.03466, VD err= -0.019359
--BS Circle check : angular err= 0.0000
--Foresight Target:My Prism, HR:0.13 (0.13 + 0.0 Offset), Prism Const.:0.0mm
--HR:0.13 (0.13 + 0.0 Offset)
LS,HI5.44,HR0.13
SS,OP212,FP898,AR4.5351,ZE91.3209,SD193.850388,--ow-233
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.44,HR5.0
SS,OP212,FP899,AR4.5436,ZE90.3736,SD193.480387,--ow-233/conc
SS,OP212,FP900,AR4.5518,ZE90.4323,SD192.550385,--ow-233/gnd
SS,OP212,FP901,AR6.3241,ZE90.4544,SD189.83538,--b-233
OC,OP212,N 892900.227076,E 1902536.518068,EL428.198711,--t nail
BK,OP212,BP213,BS121.0207,BC0.0000
--Fixed HR at Backsight:5.52 (5.52 + 0.0 Offset), Prism Const.:0.0mm
--BS check 212 - 213:ZE90.2610,SD886.221772,HD err= 0.034758, VD err= -0.00647
--BS Circle check : angular err= 0.0000
SS,OP212,FP902,AR0.4700,ZE90.2844,SD364.010728,--b-233
SP,PN217,N 892708.347585,E 1902845.764867,EL425.596276,--t nail
DP,PN902
SS,OP212,FP902,AR1.3032,ZE90.2356,SD450.340901,--b-233
SP,PN902,N 892658.012434,E 1902916.074379,EL425.503497,--r-5/center
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SS,OP212,FP903,AR63.4109,ZE89.4529,SD164.200328,--b-233
SP,PN903,N 892736.611994,E 1902523.006051,EL429.332082,--b-603
SS,OP212,FP904,AR60.3811,ZE89.4917,SD174.510349,--r-1/end
SS,OP212,FP905,AR124.2259,ZE87.2841,SD220.770442,--c-602
SP,PN905,N 892808.492884,E 1902335.983347,EL438.353591,--b-602
--Foresight Target:My Prism, HR:7.2 (7.2 + 0.0 Offset), Prism Const.:0.0mm
--HR:7.2 (7.2 + 0.0 Offset)
LS,HI5.44,HR7.2
SS,OP212,FP906,AR93.4518,ZE88.3353,SD281.470563,--c-602
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--Foresight Target:My Prism, HR:5.57 (5.57 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.57 (5.57 + 0.0 Offset)
LS,HI5.44,HR5.57
--RD,BD 1:359.5954
--BS zenith: 90.2615, slope dist: 886.221772
--RB,OP212,BP213,AR359.5954,ZE90.2615,SD886.221772,HR5.52,--t nail
--RD,FD 1:1.0009
--RD,ZD 1:90.2331
--MD,SD 1:372.630745
--RF,OP212,FP,AR1.0009,ZE90.2331,SD372.630745,HR5.57,--
--RD,FV 1:180.0000
--RD,ZV 1:
--MD,SD 1:
--RF,OP212,FP,AR180.0000,ZE,SD,HR5.57,--
--RD,BV 1:180.0000
--BS zenith: , slope dist:
--RB,OP212,BP213,AR180.0000,ZE,SD,HR5.52,--t nail
--Horizontal Angle Error: 0.0000
--Zenith Angle Error: 0.0000
--RD,BD 1:0.0000
--BS zenith: 90.2616, slope dist: 886.216772
--RB,OP212,BP213,AR0.0000,ZE90.2616,SD886.216772,HR5.52,--t nail
--RD,FD 1:1.0015
--RD,ZD 1:90.2336
--MD,SD 1:372.630745
--RF,OP212,FP217,AR1.0015,ZE90.2336,SD372.630745,HR5.57,--TR-t nail
--RD,FV 1:181.0021
--RD,ZV 1:269.3642
--MD,SD 1:372.625745
--RF,OP212,FP217,AR181.0021,ZE269.3642,SD372.625745,HR5.57,--TR-t nail
--RD,BV 1:180.0005
--BS zenith: 269.3349, slope dist: 886.216772
--RB,OP212,BP213,AR180.0005,ZE269.3349,SD886.216772,HR5.52,--t nail
--Horizontal Angle Error: 0.0002
--Zenith Angle Error: 0.0018
--Slope Distance Error: 0.005
--Horizontal Angle Error compares to the average: 0.0001
--Zenith Angle Error compares to the average: 0.0001
--Slope Distance Error compares to the average: 0.0
RD,BD 1:0.0000
--BS zenith: 90.2616, slope dist: 886.216772
RB,OP212,BP213,AR0.0000,ZE90.2616,SD886.216772,HR5.52,--t nail
RD,FD 1:1.0015
RD,ZD 1:90.2333
MD,SD 1:372.630745
RF,OP212,FP217,AR1.0015,ZE90.2333,SD372.630745,HR5.57,--TR-t nail
RD,FV 1:181.0024
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RD,ZV 1:269.3636
MD,SD 1:372.625745
RF,OP212,FP217,AR181.0024,ZE269.3636,SD372.625745,HR5.57,--TR-t nail
RD,BV 1:180.0006
--BS zenith: 269.3351, slope dist: 886.216772
RB,OP212,BP213,AR180.0006,ZE269.3351,SD886.216772,HR5.52,--t nail
--Horizontal Angle Error: 0.0004
--Zenith Angle Error: 0.0009
--Slope Distance Error: 0.005
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
--Slope Distance Error compares to the average: 0.0
DP,PN217
TR,OP212,FP217,AR1.0017,ZE90.2328,SD372.628245,--TR-t nail
OC,OP217,N 892702.580651,E 1902852.328016,EL425.524653,--TR-t nail
BK,OP217,BP212,BS302.0224,BC0.0000
--Fixed HR at Backsight:5.52 (5.52 + 0.0 Offset), Prism Const.:0.0mm
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
OC,OP217,N 892702.580651,E 1902852.328016,EL425.524653,--TR-t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.4,HR5.0
BK,OP217,BP212,BS302.0224,BC0.0000
--Fixed HR at Backsight:5.44 (5.44 + 0.0 Offset), Prism Const.:0.0mm
--BS check 217 - 212:ZE89.3243,SD372.625745,HD err= -0.00555, VD err= 0.243218
--BS Circle check : angular err= 0.0000
OC,OP217,N 892702.580651,E 1902852.328016,EL425.524653,--TR-t nail
BK,OP217,BP212,BS302.0224,BC0.0000
--Fixed HR at Backsight:5.7 (5.7 + 0.0 Offset), Prism Const.:0.0mm
--BS check 217 - 212:ZE89.3242,SD372.625745,HD err= -0.005571, VD err= -0.014072
--BS Circle check : angular err= 0.0000
SS,OP217,FP907,AR38.3702,ZE91.2347,SD104.275209,--c-208
SS,OP217,FP908,AR69.0722,ZE91.4234,SD65.770132,--b-232
SS,OP217,FP909,AR161.3839,ZE90.2649,SD186.925374,--b-230
SS,OP217,FP218,AR178.1559,ZE90.2701,SD513.681027,--t nail 213
--Foresight Target:My Prism, HR:5.52 (5.52 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.52 (5.52 + 0.0 Offset)
LS,HI5.4,HR5.52
DP,PN218
SS,OP217,FP218,AR178.1559,ZE90.2659,SD513.681027,--t nail 213
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
OC,OP207,N 892445.337485,E 1902934.911645,EL426.858243,--t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.48,HR5.0
BK,OP207,BP206,BS127.1850,BC0.0000
--Fixed HR at Backsight:5.7 (5.7 + 0.0 Offset), Prism Const.:0.0mm
--BS check 207 - 206:ZE90.5734,SD277.935556,HD err= -0.029802, VD err= -0.037567
--BS Circle check : angular err= 0.0001
OC,OP207,N 892445.337485,E 1902934.911645,EL426.858243,--t nail
BK,OP207,BP206,BS127.1850,BC0.0000
--Fixed HR at Backsight:5.67 (5.67 + 0.0 Offset), Prism Const.:0.0mm
--BS check 207 - 206:ZE90.5733,SD277.935556,HD err= -0.029768, VD err= -0.005547
--BS Circle check : angular err= 0.0000
SS,OP207,FP910,AR355.2208,ZE91.0541,SD158.650317,--b-336
DP,PN910
SS,OP207,FP910,AR181.4520,ZE89.2851,SD116.860234,--b-231
SS,OP207,FP911,AR127.2150,ZE89.5405,SD148.385297,--c-310
--Foresight Target:My Prism, HR:6.0 (6.0 + 0.0 Offset), Prism Const.:0.0mm
```

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--HR:6.0 (6.0 + 0.0 Offset)
LS,HI5.48,HR6.0
SS,OP207,FP912,AR127.2207,ZE90.0043,SD342.970686,--b-335
SS,OP207,FP913,AR106.3236,ZE90.1341,SD298.345597,--b-312
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.48,HR5.0
SS,OP207,FP914,AR102.4320,ZE90.0245,SD293.990588,--ow-312
SS,OP207,FP915,AR102.4119,ZE90.1925,SD293.595587,--ow-312/conc
SS,OP207,FP916,AR102.3601,ZE90.2643,SD292.695585,--ow-312/gnd
--Foresight Target:My Prism, HR:5.58 (5.58 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.58 (5.58 + 0.0 Offset)
LS,HI5.48,HR5.58
RD,BD 1:0.0000
--BS zenith: 90.5732, slope dist: 277.935556
RB,OP207,BP206,AR0.0000,ZE90.5732,SD277.935556,HR5.67,--t nail
RD,FD 1:84.5806
RD,ZD 1:90.3226
MD,SD 1:398.880798
RF,OP207,FP219,AR84.5806,ZE90.3226,SD398.880798,HR5.58,--TR-t nail
RD,FV 1:264.5809
RD,ZV 1:269.2732
MD,SD 1:398.875798
RF,OP207,FP219,AR264.5809,ZE269.2732,SD398.875798,HR5.58,--TR-t nail
RD,BV 1:180.0005
--BS zenith: 269.0222, slope dist: 277.940556
RB,OP207,BP206,AR180.0005,ZE269.0222,SD277.940556,HR5.67,--t nail
--Horizontal Angle Error: 0.0002
--Zenith Angle Error: 0.0003
--Slope Distance Error: 0.005
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
--Slope Distance Error compares to the average: 0.0
TR,OP207,FP219,AR84.5805,ZE90.3227,SD398.878298,--TR-t nail
OC,OP219,N 892108.184248,E 1902721.919857,EL422.992675,--TR-t nail
BK,OP219,BP207,BS32.1655,BC0.0000
--Fixed HR at Backsight:5.67 (5.67 + 0.0 Offset), Prism Const.:0.0mm
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
OC,OP219,N 892108.184248,E 1902721.919857,EL422.992675,--TR-t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.64,HR5.0
BK,OP219,BP207,BS32.1655,BC0.0000
--Fixed HR at Backsight:5.74 (5.74 + 0.0 Offset), Prism Const.:0.0mm
--BS check 219 - 207:ZE88.5852,SD277.940556,HD err= -120.944177, VD err=
0.976779
--BS Circle check : angular err= 0.0000
OC,OP206,N 892276.890728,E 1903155.917454,EL422.021868,--t nail
BK,OP206,BP207,BS307.1850,BC0.0000
--Fixed HR at Backsight:5.74 (5.74 + 0.0 Offset), Prism Const.:0.0mm
--BS check 206 - 207:ZE88.5852,SD277.940556,HD err= -0.029793, VD err= 0.006646
--BS Circle check : angular err= 0.0000
--Foresight Target:My Prism, HR:0.13 (0.13 + 0.0 Offset), Prism Const.:0.0mm
--HR:0.13 (0.13 + 0.0 Offset)
LS,HI5.64,HR0.13
SS,OP206,FP917,AR244.4557,ZE91.5318,SD111.845224,--ow-313
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
```

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LS,HI5.64,HR5.0
SS,OP206,FP918,AR244.4007,ZE90.4139,SD111.615223,--ow-313/conc
SS,OP206,FP919,AR244.3030,ZE90.5550,SD110.760222,--ow-313/gnd
--Foresight Target:My Prism, HR:8.5 (8.5 + 0.0 Offset), Prism Const.:0.0mm
--HR:8.5 (8.5 + 0.0 Offset)
LS,HI5.64,HR8.5
SS,OP206,FP920,AR248.2130,ZE89.2426,SD130.375261,--b-313
--Foresight Target:My Prism, HR:6.0 (6.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:6.0 (6.0 + 0.0 Offset)
LS,HI5.64,HR6.0
SS,OP206,FP921,AR246.3501,ZE90.3703,SD142.175284,--b-313a
SS,OP206,FP922,AR241.2907,ZE90.5918,SD269.685539,--b-310
SS,OP206,FP923,AR243.4610,ZE90.4938,SD204.645409,--C-307(S)
SS,OP206,FP924,AR228.5046,ZE91.2450,SD351.135702,--b-326
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.64,HR5.0
SS,OP206,FP925,AR136.1344,ZE90.4932,SD240.710481,--b-228
--Activating GPS Receiver: Topcon TPS HiPer [rover], COM1, 115200 baud, no
parity
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00008", Lng: 0.00010", Ht:
0.017
EP,TM14:51:14,LA34.154785538,LN-
81.182587708,HT335.466605,RH0.039173,RV0.061944,DH0.892591,DV1.704596,GM4,CL1
GS,PN7,N 884244.550526,E 1907193.954386,EL435.470484,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00005", Lng: 0.00003", Ht:
0.021
EP,TM14:52:07,LA34.154785528,LN-
81.18258772,HT335.496084,RH0.033272,RV0.056098,DH0.891847,DV1.697937,GM4,CL1
GS,PN8,N 884244.539735,E 1907193.944393,EL435.499963,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00010", Lng: 0.00005", Ht:
0.009
EP,TM14:53:08,LA34.154785569,LN-
81.182587722,HT335.497399,RH0.03027,RV0.055129,DH0.891039,DV1.690286,GM4,CL1
GS,PN9,N 884244.581678,E 1907193.942804,EL435.501278,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00006", Lng: 0.00006", Ht:
0.016
EP,TM15:05:33,LA34.192427604,LN-
81.171331693,HT344.260071,RH0.052704,RV0.06475,DH0.88964,DV1.570931,GM4,CL1
GS,PN10,N 906102.427948,E 1913343.997217,EL444.301587,--q c 101
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00004", Lng: 0.00004", Ht:
0.024
EP,TM15:08:00,LA34.192427548,LN-
81.171331738,HT344.218926,RH0.054963,RV0.082707,DH0.89305,DV1.550221,GM4,CL1
GS,PN11,N 906102.371287,E 1913343.959049,EL444.260442,--q c 101
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00002", Lng: 0.00005", Ht:
0.010
EP,TM15:09:46,LA34.192427576,LN-
81.17133171,HT344.19245,RH0.035532,RV0.057649,DH0.895964,DV1.535403,GM4,CL1
GS,PN12,N 906102.398987,E 1913343.983059,EL444.233966,--q c 101
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JB,NM8992G083106,DT08-31-2006,TM19:57:56
MO,AD0,UN0,SF1.0,EC0,EO0.0,AU0
--Data Collector Serial Number: SS05A00978
--Switch projection mode to H: Mapping Plane and V: Localization (+ Geoid)
--No coordinate system is defined.
ES,RD,IF,EM
PJ,TP2048,LA,LN,HT,N ,E ,EL,SC1.0000000000,OO,OT
CS,CO2,ZG,ZN,DN
--Select zone record from database
ES,RD20925646.325459,IF298.2572215381,EMGeodetic Ref System 1980
ST,LA,LN,HT,SC1.0000000000,N 0.0,E 0.0
PJ,TP2066,LA31.5000,LN-81.0000,HT,N 0.0,E 2000000.0,EL,SC,OO34.5000,OT32.3000
DT,DA513,RD20925646.325459,IF298.2572229329,OX0.00000000,OY0.00000000,OZ0.000000
00,LX0.0,LY0.0,LZ0.0,SP0.000000
HA,N ,E ,TH,TE,RT,SC
VA,PV2,N ,E ,LZ,SO,SA,GNGeoid03 (Conus)
CG,AO1,GO1
CS,CO3,ZGUS State Plane 1983,ZNSouth Carolina 3900,DNNAD 1983 (Conus)
-->>
-->>  Begin Adjust with Projection.
-->>  End Adjust with Projection.
-->>
--Activating Total Station: Topcon GTS-800 [820/8200 DIRECT CABLE], COM1, 1200
baud, even parity
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--Calculate survey scale factor for projection South Carolina 3900 at point
1009.
MO,AD0,UN0,SF0.999837,EC0,EO0.0,AU0
OC,OP218,N 892443.41544,E 1903295.723147,EL421.372743,--t nail 213
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.4,HR5.0
BK,OP218,BP207,BS270.1819,BC0.0000
--Fixed HR at Backsight:5.36 (5.36 + 0.0 Offset), Prism Const.:0.0mm
--BS check 218 - 207:ZE89.2711,SD398.905798,HD err= 38.00591, VD err= -1.636644
--BS Circle check : angular err= 0.0001
OC,OP219,N 892108.184248,E 1902721.919857,EL422.992675,--TR-t nail
BK,OP219,BP207,BS32.1655,BC0.0000
--Fixed HR at Backsight:5.36 (5.36 + 0.0 Offset), Prism Const.:0.0mm
--BS check 219 - 207:ZE89.2710,SD398.910798,HD err= 0.032076, VD err= -0.015697
--BS Circle check : angular err= 0.0000
SS,OP219,FP926,AR122.1002,ZE91.2614,SD225.985452,--b-314
DP,PN926
SS,OP219,FP926,AR119.2658,ZE90.4241,SD188.830378,--c-301
SS,OP219,FP927,AR120.3154,ZE90.3940,SD129.555259,--r-4/end south
SS,OP219,FP928,AR150.2837,ZE93.3130,SD163.290327,--b-315
SS,OP219,FP929,AR142.5455,ZE92.1009,SD56.345113,--c-302(s)
SS,OP219,FP930,AR149.0246,ZE92.3901,SD61.555123,--b-319
SS,OP219,FP931,AR91.0229,ZE88.5916,SD108.385217,--b-322
--Foresight Target:My Prism, HR:0.13 (0.13 + 0.0 Offset), Prism Const.:0.0mm
--HR:0.13 (0.13 + 0.0 Offset)
LS,HI5.4,HR0.13
SS,OP219,FP1,AR97.3327,ZE90.1458,SD155.410311,--305a ck
SP,PN1,N 892008.63964,E 1902841.229946,EL427.586079,--ow-305a ck
SS,OP219,FP2,AR97.1103,ZE90.4132,SD175.740351,--ow-305b ck
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.4,HR5.0
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SS,OP219,FP932,AR65.2258,ZE90.3610,SD51.845104,--b-321
SS,OP219,FP933,AR272.0557,ZE90.5643,SD57.070114,--b-320
SS,OP219,FP934,AR210.0006,ZE92.0402,SD89.535179,--b-318
SS,OP219,FP935,AR203.3152,ZE93.3301,SD120.390241,--c-302
SS,OP219,FP936,AR234.5007,ZE93.0616,SD138.350277,--r-2/end south
SS,OP219,FP3,AR234.5711,ZE93.0736,SD138.255277,--r-2/end south
SS,OP219,FP4,AR235.0111,ZE92.4338,SD126.455253,--r-2/end south
SS,OP219,FP5,AR233.1831,ZE93.0140,SD137.990276,--r-2/end south
SS,OP219,FP937,AR232.4802,ZE92.5952,SD151.575303,--b-317
SS,OP219,FP938,AR233.1105,ZE92.5932,SD155.485311,--b-317a
SS,OP219,FP939,AR256.4519,ZE92.0401,SD142.195284,--b-308
SS,OP219,FP6,AR256.4634,ZE92.0433,SD142.250285,--b-308
SS,OP219,FP940,AR267.1210,ZE91.3915,SD207.620415,--c-306
DP,PN6
SS,OP219,FP941,AR263.5456,ZE90.5622,SD287.875576,--b-334
SS,OP219,FP942,AR279.1139,ZE90.1035,SD249.7555,--r-3
--Foresight Target:My Prism, HR:5.57 (5.57 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.57 (5.57 + 0.0 Offset)
LS,HI5.4,HR5.57
RD,BD 1:359.5959
--BS zenith: 89.2709, slope dist: 398.905798
RB,OP219,BP207,AR359.5959,ZE89.2709,SD398.905798,HR5.36,--t nail
RD,FD 1:197.2120
RD,ZD 1:94.5534
MD,SD 1:283.720567
RF,OP219,FP220,AR197.2120,ZE94.5534,SD283.720567,HR5.57,--TR-t nail
RD,FV 1:17.2127
RD,ZV 1:265.0418
MD,SD 1:283.715567
RF,OP219,FP220,AR17.2127,ZE265.0418,SD283.715567,HR5.57,--TR-t nail
RD,BV 1:180.0002
--BS zenith: 270.3246, slope dist: 398.905798
RB,OP219,BP207,AR180.0002,ZE270.3246,SD398.905798,HR5.36,--t nail
--Horizontal Angle Error: 0.0005
--Zenith Angle Error: 0.0009
--Slope Distance Error: 0.005
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
--Slope Distance Error compares to the average: 0.0
TR,OP219,FP220,AR197.2123,ZE94.5538,SD283.718067,--TR-t nail
OC,OP220,N 891925.154606,E 1902506.568577,EL398.453704,--TR-t nail
BK,OP220,BP219,BS49.3818,BC0.0000
--Fixed HR at Backsight:5.36 (5.36 + 0.0 Offset), Prism Const.:0.0mm
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
OC,OP220,N 891925.154606,E 1902506.568577,EL398.453704,--TR-t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.41,HR5.0
BK,OP220,BP219,BS49.3818,BC0.0000
--Fixed HR at Backsight:5.66 (5.66 + 0.0 Offset), Prism Const.:0.0mm
--BS check 220 - 219:ZE84.5907,SD283.755568,HD err= -0.000219, VD err= 0.015275
--BS Circle check : angular err= 0.0000
SS,OP220,FP943,AR11.2325,ZE88.1858,SD118.955238,--b-307a
SS,OP220,FP944,AR9.2522,ZE88.1726,SD124.455249,--b-307
SS,OP220,FP945,AR329.3108,ZE88.2648,SD85.565171,--b-316
SS,OP220,FP946,AR282.1721,ZE90.0024,SD47.595095,--c-308
SS,OP220,FP947,AR25.1002,ZE91.0713,SD24.290049,--b-332
SS,OP220,FP948,AR70.3133,ZE89.1526,SD211.565423,--b-330
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--Foresight Target:My Prism, HR:5.66 (5.66 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.66 (5.66 + 0.0 Offset)
LS,HI5.41,HR5.66
RD,BD 1:0.0009
--BS zenith: 84.5912, slope dist: 283.750568
RB,OP220,BP219,AR0.0009,ZE84.5912,SD283.750568,HR5.66,--TR-t nail
RD,FD 1:30.0115
RD,ZD 1:85.3726
MD,SD 1:325.09065
RF,OP220,FP221,AR30.0115,ZE85.3726,SD325.09065,HR5.66,--TR-t nail
RD,FV 1:210.0119
RD,ZV 1:274.2230
MD,SD 1:325.08565
RF,OP220,FP221,AR210.0119,ZE274.2230,SD325.08565,HR5.66,--TR-t nail
RD,BV 1:180.0008
--BS zenith: 275.0044, slope dist: 283.750568
RB,OP220,BP219,AR180.0008,ZE275.0044,SD283.750568,HR5.66,--TR-t nail
--Horizontal Angle Error: 0.0006
--Zenith Angle Error: 0.0005
--Slope Distance Error: 0.005
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
--Slope Distance Error compares to the average: 0.0
TR,OP220,FP221,AR30.0108,ZE85.3728,SD325.08815,--TR-t nail
OC,OP221,N 891983.339567,E 1902825.390449,EL423.005863,--TR-t nail
BK,OP221,BP220,BS259.3926,BC0.0000
--Fixed HR at Backsight:5.66 (5.66 + 0.0 Offset), Prism Const.:0.0mm
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
OC,OP221,N 891983.339567,E 1902825.390449,EL423.005863,--TR-t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.63,HR5.0
BK,OP221,BP220,BS259.3926,BC0.0000
--Fixed HR at Backsight:5.57 (5.57 + 0.0 Offset), Prism Const.:0.0mm
--BS check 221 - 220:ZE94.2029,SD325.07565,HD err= 0.002328, VD err= 0.005028
--BS Circle check : angular err= 0.0000
--Foresight Target:My Prism, HR:5.84 (5.84 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.84 (5.84 + 0.0 Offset)
LS,HI5.63,HR5.84
RD,BD 1:359.5958
--BS zenith: 94.2033, slope dist: 325.07565
RB,OP221,BP220,AR359.5958,ZE94.2033,SD325.07565,HR5.57,--TR-t nail
RD,FD 1:264.3759
RD,ZD 1:91.4620
MD,SD 1:270.12054
RF,OP221,FP222,AR264.3759,ZE91.4620,SD270.12054,HR5.84,--TR-t nail
RD,FV 1:84.3807
RD,ZV 1:268.1338
MD,SD 1:270.12054
RF,OP221,FP222,AR84.3807,ZE268.1338,SD270.12054,HR5.84,--TR-t nail
RD,BV 1:180.0005
--BS zenith: 265.3933, slope dist: 325.08065
RB,OP221,BP220,AR180.0005,ZE265.3933,SD325.08065,HR5.57,--TR-t nail
--Horizontal Angle Error: 0.0002
--Zenith Angle Error: 0.0003
--Slope Distance Error: 0.0
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
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--Slope Distance Error compares to the average: 0.0
TR,OP221,FP222,AR264.3801,ZE91.4621,SD270.12054,--TR-t nail
OC,OP222,N 891723.475036,E 1902898.47898,EL414.44043,--TR-t nail
BK,OP222,BP221,BS344.1728,BC0.0000
--Fixed HR at Backsight:5.57 (5.57 + 0.0 Offset), Prism Const.:0.0mm
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
OC,OP222,N 891723.475036,E 1902898.47898,EL414.44043,--TR-t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.58,HR5.0
BK,OP222,BP221,BS344.1728,BC0.0000
--Fixed HR at Backsight:5.66 (5.66 + 0.0 Offset), Prism Const.:0.0mm
--BS check 222 - 221:ZE88.0958,SD270.13554,HD err= 0.005895, VD err= -0.000573
--BS Circle check : angular err= 0.0001
--Foresight Target:My Prism, HR:0.13 (0.13 + 0.0 Offset), Prism Const.:0.0mm
--HR:0.13 (0.13 + 0.0 Offset)
LS,HI5.58,HR0.13
SS,OP222,FP949,AR121.5849,ZE91.5552,SD193.540387,--ow-327
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.58,HR5.0
SS,OP222,FP950,AR122.0344,ZE91.0745,SD193.455387,--ow-327/conc
SS,OP222,FP951,AR122.2032,ZE91.1644,SD193.165386,--ow-327/gnd
SS,OP222,FP952,AR206.3650,ZE90.3615,SD306.980614,--b-422
--Foresight Target:My Prism, HR:5.54 (5.54 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.54 (5.54 + 0.0 Offset)
LS,HI5.58,HR5.54
RD,BD 1:359.5955
--BS zenith: 88.1003, slope dist: 270.13054
RB,OP222,BP221,AR359.5955,ZE88.1003,SD270.13054,HR5.66,--TR-t nail
RD,FD 1:29.2658
RD,ZD 1:89.1749
MD,SD 1:240.24548
RF,OP222,FP223,AR29.2658,ZE89.1749,SD240.24548,HR5.54,--TR-t nail
RD,FV 1:209.2705
RD,ZV 1:270.4215
MD,SD 1:240.250481
RF,OP222,FP223,AR209.2705,ZE270.4215,SD240.250481,HR5.54,--TR-t nail
RD,BV 1:179.5957
--BS zenith: 271.5001, slope dist: 270.13554
RB,OP222,BP221,AR179.5957,ZE271.5001,SD270.13554,HR5.66,--TR-t nail
--Horizontal Angle Error: 0.0004
--Zenith Angle Error: 0.0004
--Slope Distance Error: 0.005
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
--Slope Distance Error compares to the average: 0.0
--Traverse later to point: 223
SS,OP222,FP223,AR29.2706,ZE89.1747,SD240.24798,--TR-t nail
OC,OP223,N 891956.789753,E 1902955.538604,EL417.430681,--TR-t nail
--HR:5.54 (5.54 + 0.0 Offset)
LS,HI5.37,HR5.54
BK,OP223,BP222,BS193.4433,BC0.0000
--Fixed HR at Backsight:5.66 (5.66 + 0.0 Offset), Prism Const.:0.0mm
--BS check 223 - 222:ZE90.3611,SD240.24048,HD err= -0.002685, VD err= 0.172275
--BS Circle check : angular err= 0.0000
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
```

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```
LS,HI5.37,HR5.0
SS,OP223,FP953,AR286.5907,ZE91.1336,SD225.760452,--c-305
--Foresight Target:My Prism, HR:5.85 (5.85 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.85 (5.85 + 0.0 Offset)
LS,HI5.37,HR5.85
RD,BD 1:0.0001
--BS zenith: 90.3609, slope dist: 240.24048
RB,OP223,BP222,AR0.0001,ZE90.3609,SD240.24048,HR5.66,--TR-t nail
RD,FD 1:198.1752
RD,ZD 1:89.1353
MD,SD 1:377.785756
RF,OP223,FP224,AR198.1752,ZE89.1353,SD377.785756,HR5.85,--TR-t nail
RD,FV 1:18.1758
RD,ZV 1:270.4610
MD,SD 1:377.785756
RF,OP223,FP224,AR18.1758,ZE270.4610,SD377.785756,HR5.85,--TR-t nail
RD,BV 1:180.0005
--BS zenith: 269.2355, slope dist: 240.24048
RB,OP223,BP222,AR180.0005,ZE269.2355,SD240.24048,HR5.66,--TR-t nail
--Horizontal Angle Error: 0.0003
--Zenith Angle Error: 0.0003
--Slope Distance Error: 0.0
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
--Slope Distance Error compares to the average: 0.0
TR,OP223,FP224,AR198.1752,ZE89.1352,SD377.785756,--TR-t nail
OC,OP224,N 892276.947904,E 1903155.909681,EL422.020736,--TR-t nail
BK,OP224,BP223,BS212.0225,BC0.0000
--Fixed HR at Backsight:5.66 (5.66 + 0.0 Offset), Prism Const.:0.0mm
--Adjustment begin: Traverse Adjust
--Compass Rule
--  Adjusting Elevations
--  Closing to Known Location: N:892276.890728, E:1903155.917454, Z:422.021868
--Original
--  Error Distance: 0.058
--  Error Azimuth:  172°15'31"
--  Precision:      1:37628
--  Length:         2,171.216
--  Perimeter:      2,171.273
--Adjusted
--  Error Distance: 0.000
--  Error Azimuth:  ---
--  Precision:      Perfect
--  Length:         2,171.216
--  Perimeter:      2,171.216
--Traverse Point
--The first point (206) is always fixed.
--Traverse Point
AP,PN207,N 892445.330167,E 1902934.91264,EL426.858388,--t nail
--Traverse Point
AP,PN219,N 892108.166429,E 1902721.922279,EL422.993028,--TR-t nail
--Sideshots
AP,PN926,N 891904.380528,E 1902819.348924,EL421.049013,--c-301
AP,PN926,N 891941.897822,E 1902811.33443,EL421.049013,--c-301
AP,PN927,N 891992.95115,E 1902781.102463,EL421.898493,--r-4/end south
AP,PN928,N 891945.400387,E 1902714.081185,EL413.353672,--b-315
AP,PN929,N 892052.068613,E 1902726.636525,EL421.260498,--c-302(s)
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AP,PN930,N 892046.703672,E 1902720.498298,EL420.546745,--b-319
AP,PN931,N 892048.643938,E 1902812.45918,EL425.30799,--b-322
AP,PN1,N 892008.623571,E 1902841.233829,EL427.586431,--ow-305a ck
AP,PN2,N 891996.490442,E 1902857.563575,EL426.140288,--ow-305b ck
AP,PN932,N 892101.253812,E 1902773.29305,EL422.847729,--b-321
AP,PN933,N 892140.38329,E 1902674.835945,EL422.451654,--b-320
AP,PN934,N 892066.556751,E 1902642.725439,EL420.163314,--b-318
AP,PN935,N 892040.659127,E 1902622.542781,EL415.937935,--c-302
AP,PN936,N 892101.217705,E 1902583.972473,EL415.900828,--r-2/end south
AP,PN3,N 892101.506008,E 1902584.056126,EL415.852095,--r-2/end south
AP,PN4,N 892102.219079,E 1902595.770976,EL417.376156,--r-2/end south
AP,PN5,N 892097.571763,E 1902584.555074,EL416.104702,--r-2/end south
AP,PN937,N 892095.190858,E 1902571.136358,EL415.46606,--b-317
AP,PN938,N 892095.893468,E 1902567.16016,EL415.27701,--b-317a
AP,PN939,N 892154.508279,E 1902587.612784,EL418.264792,--b-308
AP,PN940,N 892210.293484,E 1902541.294684,EL417.399723,--c-306
AP,PN941,N 892235.212249,E 1902463.692932,EL418.673116,--b-334
AP,PN942,N 892273.550866,E 1902534.826439,EL422.62414,--r-3
--Traverse Point
AP,PN220,N 891925.129344,E 1902506.572012,EL398.454204,--TR-t nail
--Sideshots
AP,PN943,N 891982.715974,E 1902610.578246,EL402.359725,--b-307a
AP,PN944,N 891989.078088,E 1902613.253004,EL402.577131,--b-307
AP,PN945,N 892005.913772,E 1902534.634577,EL401.183866,--b-316
AP,PN946,N 891967.117679,E 1902484.177066,EL398.858666,--c-308
AP,PN947,N 891931.493905,E 1902530.004486,EL398.389302,--b-332
AP,PN948,N 891818.852283,E 1902689.446258,EL401.606844,--b-330
--Traverse Point
AP,PN221,N 891983.30577,E 1902825.395043,EL423.006532,--TR-t nail
--Traverse Point
AP,PN222,N 891723.434131,E 1902898.484541,EL414.44124,--TR-t nail
--Sideshots
AP,PN949,N 891669.245779,E 1903084.136797,EL413.369342,--ow-327
AP,PN950,N 891668.983875,E 1903084.046972,EL411.209399,--ow-327/conc
AP,PN951,N 891668.163718,E 1903083.490736,EL410.710456,--ow-327/gnd
AP,PN952,N 891422.062978,E 1902840.421627,EL411.785026,--b-422
--Traverse Point
AP,PN223,N 891956.742522,E 1902955.545024,EL417.431616,--TR-t nail
--Sideshots
AP,PN953,N 891841.431197,E 1903149.532392,EL412.968595,--c-305
--Traverse Point
AP,PN224,N 892276.890728,E 1903155.917454,EL422.021868,--TR-t nail
--Adjustment end
```

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```
JB,NM8992G090506,DT09-05-2006,TM07:07:55
MO,AD0,UN0,SF1.0,EC0,EO0.0,AU0
--Data Collector Serial Number: SS05A00978
--Foresight Target:My Prism, HR:5.85 (5.85 + 0.0 Offset), Prism Const.:0.0mm
--Activating GPS Receiver: Topcon TPS HiPer [rover], COM1, 115200 baud, no
parity
--Switch projection mode to H: Mapping Plane and V: Localization (+ Geoid)
--No coordinate system is defined.
ES,RD,IF,EM
PJ,TP2048,LA,LN,HT,N ,E ,EL,SC1.0000000000,OO,OT
CS,CO2,ZG,ZN,DN
--Select zone record from database
ES,RD20925646.325459,IF298.2572215381,EMGeodetic Ref System 1980
ST,LA,LN,HT,SC1.0000000000,N 0.0,E 0.0
PJ,TP2066,LA31.5000,LN-81.0000,HT,N 0.0,E 2000000.0,EL,SC,OO34.5000,OT32.3000
DT,DA513,RD20925646.325459,IF298.2572229329,OX0.00000000,OY0.00000000,OZ0.000000
00,LX0.0,LY0.0,LZ0.0,SP0.000000
HA,N ,E ,TH,TE,RT,SC
VA,PV2,N ,E ,LZ,SO,SA,GNGeoid03 (Conus)
CG,AO1,GO1
CS,CO3,ZGUS State Plane 1983,ZNSouth Carolina 3900,DNNAD 1983 (Conus)
-->>
-->>  Begin Adjust with Projection.
-->>  End Adjust with Projection.
-->>
--Activating GPS Receiver: Topcon TPS Legacy E [base], COM1, 115200 baud, no
parity
--Geodetic coordinates computed from plane coordinates for base setup.
EE,GF0,SG0
EP,TM11:57:14,LA34.173590453,LN-81.190117299,HT334.685575,RH0.0,RV0.0,GM1,CL1
GP,PN1009,PTUSER_INPUT
--07:57:17,Set BASE receiver at known position
RX,DCBASE,RA7.554496,RE0,FI
EQ,DCBASE,RXLegacy E,RSAG3VLIT08HS,AN0,AI1,ATPGA-
1,TS,TA0.0,HO0.226378,VO0.087927
AH,DCBASE,MA7.47,ME2,RA7.554496
BP,PN1009,LA34.173590453,LN-81.190117299,HT334.685575,SG0
--Activating GPS Receiver: Topcon TPS HiPer [rover], COM1, 115200 baud, no
parity
--07:57:52,Set ROVER receiver with base reference position:LA34.173590453,LN-
81.190117299,HT334.685575
RX,DCROVER,RA6.907769,RE0,FI
EQ,DCROVER,RXHiPer,RS8RHNB0238JK,AN0,AI0,ATTopcon HiPer
GGD,TS,TA0.0,HO0.0,VO0.347769
AH,DCROVER,MA6.56,ME2,RA6.907769
SP,PN101,N 906102.39,E 1913343.98,EL444.28,--lake monticello
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00003", Lng: 0.00003", Ht:
0.014
EP,TM08:15:11,LA34.19242756,LN-
81.171331633,HT344.218127,RH0.073225,RV0.077138,DH1.120069,DV1.781458,GM4,CL1
GS,PN1,N 906102.382405,E 1913344.047363,EL444.259644,--q c 101
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00008", Lng: 0.00008", Ht:
0.021
EP,TM08:17:23,LA34.192427563,LN-
81.171331688,HT344.203919,RH0.044341,RV0.064426,DH1.116512,DV1.754654,GM4,CL1
GS,PN2,N 906102.385702,E 1913344.001555,EL444.245435,--q c 101
```

```
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00005", Lng: 0.00007", Ht:
0.006
EP,TM08:18:47,LA34.192427535,LN-
81.171331709,HT344.281832,RH0.058891,RV0.069299,DH1.114395,DV1.737628,GM4,CL1
GS,PN3,N 906102.357839,E 1913343.98392,EL444.323349,--q c 101
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00008", Lng: 0.00002", Ht:
0.012
EP,TM08:32:35,LA34.154785567,LN-
81.182587762,HT335.454769,RH0.045935,RV0.054049,DH1.103181,DV1.582535,GM4,CL1
GS,PN4,N 884244.579957,E 1907193.909239,EL435.458648,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00007", Lng: 0.00004", Ht:
0.017
EP,TM08:33:43,LA34.154785529,LN-
81.182587761,HT335.489886,RH0.036539,RV0.04973,DH1.103439,DV1.571362,GM4,CL1
GS,PN5,N 884244.54102,E 1907193.909871,EL435.493765,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00005", Lng: 0.00003", Ht:
0.016
EP,TM08:35:09,LA34.154785556,LN-
81.182587737,HT335.495311,RH0.056752,RV0.066362,DH1.104039,DV1.557856,GM4,CL1
GS,PN6,N 884244.568466,E 1907193.929908,EL435.49919,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00009", Lng: 0.00008", Ht:
0.018
EP,TM09:21:16,LA34.171335839,LN-
81.185885144,HT305.362642,RH0.054577,RV0.050826,DH1.143222,DV1.804822,GM4,CL1
GS,PN954,N 892895.314558,E 1904453.18448,EL405.364303,--b-611
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00020", Lng: 0.00015", Ht:
0.018
EP,TM09:23:39,LA34.171648818,LN-
81.185859093,HT312.034248,RH0.050658,RV0.064213,DH1.125407,DV1.807098,GM4,CL1
GS,PN955,N 893211.600406,E 1904476.008287,EL412.036326,--c-606
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00007", Lng: 0.00005", Ht:
0.035
EP,TM09:28:37,LA34.17101878,LN-
81.190044878,HT307.183616,RH0.059491,RV0.057424,DH1.096304,DV1.816864,GM4,CL1
GS,PN956,N 892575.249596,E 1904318.189506,EL407.18462,--c-607
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00010", Lng: 0.00005", Ht:
0.011
EP,TM09:34:38,LA34.170925535,LN-
81.190122604,HT309.167996,RH0.062104,RV0.074906,DH1.25279,DV2.023404,GM4,CL1
GS,PN225,N 892481.199852,E 1904252.689882,EL409.168753,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00010", Lng: 0.00003", Ht:
0.013
EP,TM09:39:53,LA34.171196112,LN-
81.19060567,HT316.235556,RH0.046868,RV0.062747,DH1.382818,DV1.926262,GM4,CL1
GS,PN226,N 892755.938157,E 1903848.247767,EL416.235793,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00010", Lng: 0.00008", Ht:
0.021
EP,TM09:47:11,LA34.171656533,LN-
81.190324951,HT317.759578,RH0.089568,RV0.127605,DH1.30043,DV2.832735,GM4,CL1
GS,PN227,N 893220.596903,E 1904085.194682,EL417.760848,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00004", Lng: 0.00004", Ht:
0.017
EP,TM10:03:49,LA34.172155407,LN-
81.185516487,HT356.747905,RH0.071737,RV0.063477,DH1.078627,DV1.587628,GM4,CL1
GS,PN228,N 893722.770719,E 1904765.005306,EL456.751224,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00008", Lng: 0.00038", Ht:
0.012
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EP,TM10:08:56,LA34.171862886,LN-
81.185500479,HT352.661375,RH0.062513,RV0.059254,DH1.881948,DV1.975256,GM4,CL1
GS,PN229,N 893427.056128,E 1904777.533175,EL452.664367,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00010", Lng: 0.00006", Ht:
0.004
EP,TM10:14:00,LA34.172429004,LN-
81.190359062,HT336.605524,RH0.042419,RV0.050067,DH1.021343,DV1.494958,GM4,CL1
GS,PN957,N 894001.48213,E 1904058.97655,EL436.607717,--
DP,PN957
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00016", Lng: 0.00011", Ht:
0.022
EP,TM10:19:06,LA34.17217138,LN-
81.190821542,HT321.459549,RH0.089861,RV0.074324,DH1.203323,DV1.813744,GM4,CL1
GS,PN957,N 893742.276285,E 1903670.178592,EL421.46066,--b-621
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00013", Lng: 0.00045", Ht:
0.032
EP,TM10:20:26,LA34.172161895,LN-
81.190814348,HT323.47096,RH0.032521,RV0.053143,DH1.030267,DV1.649489,GM4,CL1
GS,PN958,N 893732.66995,E 1903676.184478,EL423.47207,--ow-621a
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00013", Lng: 0.00009", Ht:
0.031
EP,TM10:21:00,LA34.172162208,LN-
81.190814336,HT321.72813,RH0.046618,RV0.065808,DH1.045508,DV1.832645,GM4,CL1
GS,PN959,N 893732.986706,E 1903676.195755,EL421.729241,--ow-621a/pad
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00014", Lng: 0.00006", Ht:
0.006
EP,TM10:21:22,LA34.172163103,LN-
81.190814099,HT320.885325,RH0.058379,RV0.076368,DH1.08814,DV2.039064,GM4,CL1
GS,PN960,N 893733.890971,E 1903676.397236,EL420.886437,--ow-621a/gnd
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00008", Lng: 0.00012", Ht:
0.021
EP,TM10:22:35,LA34.172171681,LN-
81.190812508,HT323.560226,RH0.067551,RV0.063302,DH1.166982,DV2.148737,GM4,CL1
GS,PN961,N 893742.556588,E 1903677.758491,EL423.561352,--ow-621b
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00003", Lng: 0.00010", Ht:
0.015
EP,TM10:23:15,LA34.172171957,LN-
81.190812553,HT321.867161,RH0.053058,RV0.05264,DH1.080302,DV1.836354,GM4,CL1
GS,PN962,N 893742.836382,E 1903677.721356,EL421.868287,--ow-621b/pad
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00008", Lng: 0.00008", Ht:
0.013
EP,TM10:23:41,LA34.172172763,LN-
81.190812234,HT321.17959,RH0.052389,RV0.065586,DH1.080968,DV1.838941,GM4,CL1
GS,PN963,N 893743.649969,E 1903677.991774,EL421.180718,--ow-621b/gnd
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00004", Lng: 0.00016", Ht:
0.068
EP,TM10:32:51,LA34.172029457,LN-
81.191606633,HT281.694042,RH0.042152,RV0.084887,DH1.173919,DV2.758265,GM4,CL1
GS,PN964,N 893600.862607,E 1903011.080584,EL381.693795,--b-620
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00012", Lng: 0.00019", Ht:
0.019
EP,TM10:35:59,LA34.172022501,LN-
81.191599268,HT284.962577,RH0.051118,RV0.080284,DH1.171417,DV2.790705,GM4,CL1
GS,PN965,N 893593.81331,E 1903017.237908,EL384.962331,--ow-620
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00009", Lng: 0.00020", Ht:
0.015
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EP,TM10:37:18,LA34.172022776,LN-
81.191598954,HT283.076492,RH0.065321,RV0.084275,DH1.17122,DV2.803324,GM4,CL1
GS,PN966,N 893594.089869,E 1903017.502266,EL383.076246,--ow-620/pad
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00013", Lng: 0.00015", Ht:
0.015
EP,TM10:37:40,LA34.17202337,LN-
81.191598268,HT282.785652,RH0.109159,RV0.136715,DH1.171266,DV2.806684,GM4,CL1
GS,PN967,N 893594.689162,E 1903018.079187,EL382.785408,--ow-620/gnd
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00006", Lng: 0.00015", Ht:
0.005
EP,TM11:12:56,LA34.165759704,LN-
81.191462457,HT290.464554,RH0.099223,RV0.100358,DH1.353175,DV2.514509,GM4,CL1
GS,PN968,N 891306.272988,E 1903124.917998,EL390.461733,--c-409
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00004", Lng: 0.00010", Ht:
0.025
EP,TM11:21:03,LA34.165408092,LN-
81.191688221,HT286.622749,RH0.080046,RV0.106607,DH1.387514,DV2.632449,GM4,CL1
GS,PN230,N 890951.461168,E 1902934.39352,EL386.619181,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00007", Lng: 0.00010", Ht:
0.012
EP,TM11:31:35,LA34.16561227,LN-
81.191475972,HT301.689145,RH0.051722,RV0.091798,DH1.790379,DV3.215278,GM4,CL1
GS,PN231,N 891157.285705,E 1903113.115873,EL401.686138,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00019", Lng: 0.00011", Ht:
0.011
EP,TM11:42:28,LA34.165471085,LN-
81.19091297,HT306.79489,RH0.050897,RV0.062771,DH0.979457,DV1.444093,GM4,CL1
GS,PN969,N 891013.116862,E 1903585.044707,EL406.792667,--ow-401b
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00015", Lng: 0.00007", Ht:
0.019
EP,TM11:44:01,LA34.165470941,LN-
81.190913197,HT304.768965,RH0.034863,RV0.045597,DH1.018743,DV1.520696,GM4,CL1
GS,PN970,N 891012.972098,E 1903584.853568,EL404.766742,--ow-401b pad
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00017", Lng: 0.00004", Ht:
0.008
EP,TM11:44:30,LA34.165470667,LN-
81.190913969,HT304.125279,RH0.043029,RV0.062725,DH1.360557,DV2.078267,GM4,CL1
GS,PN971,N 891012.697311,E 1903584.205509,EL404.123054,--ow-401b gnd
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00008", Lng: 0.00009", Ht:
0.013
EP,TM11:45:57,LA34.165475704,LN-
81.190900482,HT306.277513,RH0.044195,RV0.053293,DH0.979024,DV1.444738,GM4,CL1
GS,PN972,N 891017.7528,E 1903595.537193,EL406.275317,--ow-401a
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00006", Lng: 0.00008", Ht:
0.011
EP,TM11:46:38,LA34.165475472,LN-
81.190900716,HT304.429069,RH0.074439,RV0.065429,DH0.978985,DV1.444926,GM4,CL1
GS,PN973,N 891017.518979,E 1903595.340362,EL404.426873,--ow-401a/pad
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00006", Lng: 0.00022", Ht:
0.012
EP,TM11:47:05,LA34.165475033,LN-
81.190901579,HT304.114587,RH0.066692,RV0.064681,DH0.978967,DV1.445064,GM4,CL1
GS,PN974,N 891017.07809,E 1903594.614189,EL404.112389,--ow-401a/gnd
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00006", Lng: 0.00002", Ht:
0.015
EP,TM11:48:15,LA34.165486186,LN-
81.19090824,HT303.978265,RH0.053788,RV0.069306,DH0.978956,DV1.44548,GM4,CL1
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GS,PN975,N 891028.368493,E 1903589.060828,EL403.976066,--b-401
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00011", Lng: 0.00023", Ht:
0.003
EP,TM12:33:40,LA34.165103253,LN-
81.190631869,HT300.698555,RH0.035471,RV0.04359,DH0.956732,DV1.316355,GM4,CL1
GS,PN976,N 890640.593671,E 1903819.749986,EL400.696455,--b-403
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00013", Lng: 0.00018", Ht:
0.016
EP,TM12:40:02,LA34.164647469,LN-
81.190832252,HT295.384944,RH0.041089,RV0.048741,DH0.87005,DV1.323351,GM4,CL1
GS,PN977,N 890180.416962,E 1903650.199977,EL395.382036,--ow-405
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00017", Lng: 0.00008", Ht:
0.004
EP,TM12:41:43,LA34.164647803,LN-
81.190832382,HT292.796448,RH0.029018,RV0.038445,DH0.869847,DV1.325878,GM4,CL1
GS,PN978,N 890180.754605,E 1903650.09134,EL392.793541,--ow-405 pad
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00016", Lng: 0.00011", Ht:
0.014
EP,TM12:42:31,LA34.164648599,LN-
81.190832372,HT292.575829,RH0.028422,RV0.038984,DH0.960351,DV1.401,GM4,CL1
GS,PN979,N 890181.560006,E 1903650.10215,EL392.572922,--ow-405 grd
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00010", Lng: 0.00018", Ht:
0.019
EP,TM12:43:17,LA34.164652902,LN-
81.190834037,HT292.427157,RH0.047105,RV0.058259,DH0.869767,DV1.328707,GM4,CL1
GS,PN980,N 890185.913226,E 1903648.719266,EL392.424251,--tp-405
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00014", Lng: 0.00017", Ht:
0.010
EP,TM12:44:01,LA34.164660769,LN-
81.190833693,HT292.53642,RH0.031565,RV0.040073,DH0.869772,DV1.330024,GM4,CL1
GS,PN981,N 890193.864256,E 1903649.032235,EL392.533523,--tp-405
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00012", Lng: 0.00015", Ht:
0.010
EP,TM12:44:40,LA34.16465874,LN-
81.190844451,HT292.206998,RH0.034137,RV0.047347,DH0.900677,DV1.441458,GM4,CL1
GS,PN982,N 890191.841553,E 1903639.999697,EL392.204079,--tp-405
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00005", Lng: 0.00010", Ht:
0.014
EP,TM12:45:03,LA34.164651964,LN-
81.19084452,HT292.293966,RH0.04267,RV0.05201,DH0.900721,DV1.442639,GM4,CL1
GS,PN983,N 890184.992414,E 1903639.920655,EL392.29104,--tp-405
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00016", Lng: 0.00015", Ht:
0.008
EP,TM12:45:50,LA34.164647074,LN-
81.190850398,HT292.02606,RH0.0323,RV0.043098,DH0.900835,DV1.445225,GM4,CL1
GS,PN984,N 890180.064605,E 1903634.972806,EL392.023119,--b-405
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00007", Lng: 0.00006", Ht:
0.010
EP,TM12:53:46,LA34.164575824,LN-
81.191389806,HT284.670719,RH0.065549,RV0.060985,DH0.922968,DV1.41872,GM4,CL1
GS,PN985,N 890109.447786,E 1903182.161713,EL384.666764,--b-406
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00034", Lng: 0.00006", Ht:
0.018
EP,TM13:00:51,LA34.16467496,LN-
81.190248962,HT310.946795,RH0.05308,RV0.052454,DH0.851036,DV1.342756,GM4,CL1
GS,PN986,N 890206.697748,E 1904139.691665,EL410.944999,--b-404
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--Position averaged from 4 epochs. Std.Dev. Lat: 0.00005", Lng: 0.00004", Ht:
0.008
EP,TM13:04:57,LA34.164277692,LN-
81.190467075,HT300.977814,RH0.055984,RV0.054447,DH0.882931,DV1.43408,GM4,CL1
GS,PN987,N 889805.711851,E 1903955.450163,EL400.97524,--c-403
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00011", Lng: 0.00020", Ht:
0.023
EP,TM13:30:37,LA34.165560671,LN-
81.190419016,HT303.893887,RH0.076006,RV0.096604,DH1.034882,DV2.421242,GM4,CL1
GS,PN988,N 891102.391344,E 1903999.762448,EL403.892634,--b-402
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00009", Lng: 0.00016", Ht:
0.030
EP,TM13:33:25,LA34.165436716,LN-
81.185843519,HT307.888397,RH0.06259,RV0.09024,DH0.830805,DV1.848023,GM4,CL1
GS,PN989,N 890975.619065,E 1904482.232432,EL407.888104,--c-401
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00014", Lng: 0.00017", Ht:
0.006
EP,TM14:39:45,LA34.164369082,LN-
81.185273406,HT305.865229,RH0.038717,RV0.057325,DH0.799621,DV1.501381,GM4,CL1
GS,PN990,N 889895.021092,E 1904957.285794,EL405.865142,--ow-625
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00005", Lng: 0.00035", Ht:
0.016
EP,TM14:40:12,LA34.164368766,LN-
81.185273357,HT303.672489,RH0.035381,RV0.053464,DH0.799045,DV1.496829,GM4,CL1
GS,PN991,N 889894.701797,E 1904957.325802,EL403.672402,--ow-625/pad
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00018", Lng: 0.00015", Ht:
0.005
EP,TM14:40:33,LA34.164367912,LN-
81.185273536,HT303.196635,RH0.035845,RV0.052866,DH0.798652,DV1.493574,GM4,CL1
GS,PN992,N 889893.838716,E 1904957.173564,EL403.196547,--ow-625/gnd
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00020", Lng: 0.00014", Ht:
0.027
EP,TM14:42:26,LA34.164363796,LN-
81.185296411,HT304.174211,RH0.028431,RV0.046744,DH0.88816,DV1.607726,GM4,CL1
GS,PN993,N 889889.736782,E 1904937.967109,EL404.174071,--b-625
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00005", Lng: 0.00013", Ht:
0.017
EP,TM15:34:12,LA34.154785537,LN-
81.182587786,HT335.255764,RH0.03843,RV0.065862,DH1.121695,DV2.075581,GM4,CL1
GS,PN7,N 884244.549259,E 1907193.889292,EL435.259643,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00009", Lng: 0.00004", Ht:
0.006
EP,TM15:37:50,LA34.154785553,LN-
81.182587809,HT335.279687,RH0.033272,RV0.052915,DH0.995999,DV1.637736,GM4,CL1
GS,PN8,N 884244.565341,E 1907193.87014,EL435.283566,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00011", Lng: 0.00012", Ht:
0.015
EP,TM15:38:52,LA34.154785549,LN-
81.182587835,HT335.283732,RH0.03424,RV0.051477,DH1.001109,DV1.642392,GM4,CL1
GS,PN9,N 884244.561888,E 1907193.847706,EL435.28761,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00016", Lng: 0.00003", Ht:
0.025
EP,TM15:55:48,LA34.192427593,LN-
81.171331682,HT344.3301,RH0.077267,RV0.143079,DH1.748683,DV3.936845,GM4,CL1
GS,PN10,N 906102.41633,E 1913344.006733,EL444.371617,--q c 101
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00009", Lng: 0.00007", Ht:
0.019
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EP,TM15:57:02,LA34.192427564,LN-
81.1713317,HT344.221757,RH0.067337,RV0.138399,DH1.721709,DV3.817935,GM4,CL1
GS,PN11,N 906102.386912,E 1913343.991217,EL444.263274,--q c 101
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00011", Lng: 0.00015", Ht:
0.025
EP,TM15:58:12,LA34.192427538,LN-
81.171331706,HT344.187821,RH0.060913,RV0.131394,DH1.693465,DV3.69937,GM4,CL1
GS,PN12,N 906102.361023,E 1913343.986356,EL444.229338,--q c 101
--Data Collector Serial Number: SS05A00978
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JB,NM8992G091106,DT09-11-2006,TM07:14:57
MO,AD0,UN0,SF1.0,EC0,EO0.0,AU0
--Data Collector Serial Number: SS05A00978
--Switch projection mode to H: Mapping Plane and V: Localization (+ Geoid)
--No coordinate system is defined.
ES,RD,IF,EM
PJ,TP2048,LA,LN,HT,N ,E ,EL,SC1.0000000000,OO,OT
CS,CO2,ZG,ZN,DN
--Select zone record from database
ES,RD20925646.325459,IF298.2572215381,EMGeodetic Ref System 1980
ST,LA,LN,HT,SC1.0000000000,N 0.0,E 0.0
PJ,TP2066,LA31.5000,LN-81.0000,HT,N 0.0,E 2000000.0,EL,SC,OO34.5000,OT32.3000
DT,DA513,RD20925646.325459,IF298.2572229329,OX0.00000000,OY0.00000000,OZ0.000000
00,LX0.0,LY0.0,LZ0.0,SP0.000000
HA,N ,E ,TH,TE,RT,SC
VA,PV2,N ,E ,LZ,SO,SA,GNGeoid03 (Conus)
CG,AO1,GO1
CS,CO3,ZGUS State Plane 1983,ZNSouth Carolina 3900,DNNAD 1983 (Conus)
-->>
-->>  Begin Adjust with Projection.
-->>  End Adjust with Projection.
-->>
--Activating GPS Receiver: Topcon TPS Legacy E [base], COM1, 115200 baud, no
parity
--GPS Antenna:PGA-1, Measured:7.45, Radius: 0.226 / Offset: 0.088, Measured
to:Slant measure mark, Notch:1, Serial#:
--Geodetic coordinates computed from plane coordinates for base setup.
EE,GF0,SG0
EP,TM11:51:50,LA34.173590453,LN-81.190117299,HT334.685575,RH0.0,RV0.0,GM1,CL1
GP,PN1009,PTUSER_INPUT
--07:51:52,Set BASE receiver at known position
RX,DCBASE,RA7.534486,RE0,FI
EQ,DCBASE,RXLegacy E,RSAG3VLIT08HS,AN0,AI1,ATPGA-
1,TS,TA0.0,HO0.226378,VO0.087927
AH,DCBASE,MA7.45,ME2,RA7.534486
BP,PN1009,LA34.173590453,LN-81.190117299,HT334.685575,SG0
--Activating GPS Receiver: Topcon TPS HiPer [rover], COM1, 115200 baud, no
parity
--07:53:14,Set ROVER receiver with base reference position:LA34.173590453,LN-
81.190117299,HT334.685575
RX,DCROVER,RA6.907769,RE0,FI
EQ,DCROVER,RXHiPer,RS8RHNB0238JK,AN0,AI0,ATTopcon HiPer
GGD,TS,TA0.0,HO0.0,VO0.347769
AH,DCROVER,MA6.56,ME2,RA6.907769
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00012", Lng: 0.00004", Ht:
0.034
EP,TM08:07:57,LA34.192427523,LN-
81.171331722,HT344.204316,RH0.048778,RV0.069373,DH1.103991,DV1.585193,GM4,CL1
GS,PN1,N 906102.345583,E 1913343.972787,EL444.245833,--q c 101
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00010", Lng: 0.00007", Ht:
0.010
EP,TM08:09:00,LA34.192427547,LN-
81.171331735,HT344.204948,RH0.043388,RV0.060496,DH1.104174,DV1.574738,GM4,CL1
GS,PN2,N 906102.370136,E 1913343.961664,EL444.246464,--q c 101
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00009", Lng: 0.00004", Ht:
0.016
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EP,TM08:10:17,LA34.192427567,LN-
81.17133177,HT344.18465,RH0.081009,RV0.071726,DH1.104626,DV1.562336,GM4,CL1
GS,PN3,N 906102.390214,E 1913343.932839,EL444.226167,--q c 101
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00009", Lng: 0.00006", Ht:
0.043
EP,TM09:21:18,LA34.154785571,LN-
81.182587724,HT335.480457,RH0.047217,RV0.058676,DH1.329156,DV1.762056,GM4,CL1
GS,PN4,N 884244.583961,E 1907193.941622,EL435.484336,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00008", Lng: 0.00006", Ht:
0.005
EP,TM09:23:12,LA34.15478556,LN-
81.182587758,HT335.408752,RH0.046202,RV0.054276,DH1.301385,DV1.642051,GM4,CL1
GS,PN5,N 884244.572388,E 1907193.912742,EL435.412631,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00004", Lng: 0.00005", Ht:
0.014
EP,TM09:24:37,LA34.154785535,LN-
81.18258775,HT335.445147,RH0.051828,RV0.05725,DH1.292326,DV1.644481,GM4,CL1
GS,PN6,N 884244.547871,E 1907193.91948,EL435.449025,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00023", Lng: 0.00011", Ht:
0.017
EP,TM10:09:48,LA34.171268701,LN-
81.191525589,HT323.241899,RH0.063879,RV0.094717,DH1.504958,DV3.246883,GM4,CL1
GS,PN232,N 892831.69712,E 1903076.685285,EL423.240778,--t nail
--Activating Total Station: Geodimeter Manual Trigger [geodimeter 640], COM1,
9600 baud, no parity
--Foresight Target:My Prism, HR:5.85 (5.85 + 0.0 Offset), Prism Const.:0.0mm
--Calculate survey scale factor for projection South Carolina 3900 at point
1009.
MO,AD0,UN0,SF0.999837,EC0,EO0.0,AU0
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
OC,OP209,N 892915.020804,E 1902898.828221,EL423.142929,--t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.45,HR5.0
BK,OP209,BP208,BS121.2234,BC0.0000
--Fixed HR at Backsight:5.73 (5.73 + 0.0 Offset), Prism Const.:0.0mm
--Activating Total Station: Topcon GTS-800 [820/8200 DIRECT CABLE], COM1, 1200
baud, even parity
OC,OP209,N 892915.020804,E 1902898.828221,EL423.142929,--t nail
BK,OP209,BP208,BS121.2234,BC0.0000
--Fixed HR at Backsight:5.73 (5.73 + 0.0 Offset), Prism Const.:0.0mm
--BS check 209 - 208:ZE89.5456,SD407.075814,HD err= -0.031287, VD err= -0.101155
--BS Circle check : angular err= 0.0000
SS,OP209,FP994,AR260.1623,ZE91.1953,SD81.495163,--b-208a
SS,OP209,FP995,AR258.0616,ZE91.0808,SD79.380159,--b-208
OC,OP232,N 892831.69712,E 1903076.685285,EL423.240778,--t nail
BK,OP232,BP209,BS295.0609,BC0.0000
--Fixed HR at Backsight:5.48 (5.48 + 0.0 Offset), Prism Const.:0.0mm
--BS check 232 - 209:ZE90.0124,SD196.435393,HD err= -0.004341, VD err= -0.012148
--BS Circle check : angular err= 0.0001
SS,OP232,FP996,AR40.1836,ZE90.4649,SD159.025318,--b-220
SS,OP232,FP997,AR82.4539,ZE91.0740,SD108.435217,--b-221a
SS,OP232,FP998,AR83.1525,ZE91.0556,SD102.390205,--b-221
--Activating GPS Receiver: Topcon TPS HiPer [rover], COM1, 115200 baud, no
parity
--Activating Total Station: Topcon GTS-800 [820/8200 DIRECT CABLE], COM1, 1200
baud, even parity
OC,OP228,N 893722.770719,E 1904765.005306,EL456.751224,--t nail
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--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.4,HR5.0
BK,OP228,BP229,BS177.3427,BC0.0000
--Fixed HR at Backsight:5.96 (5.96 + 0.0 Offset), Prism Const.:0.0mm
--BS check 228 - 229:ZE90.4209,SD296.065592,HD err= 0.015194, VD err= -0.103094
--BS Circle check : angular err= 0.0000
--Foresight Target:My Prism, HR:0.38 (0.38 + 0.0 Offset), Prism Const.:0.0mm
--HR:0.38 (0.38 + 0.0 Offset)
LS,HI5.4,HR0.38
SS,OP228,FP1101,AR244.1351,ZE95.3340,SD206.525413,--ow-623
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.4,HR5.0
SS,OP228,FP1102,AR244.1856,ZE94.4223,SD206.220412,--ow-623/pad
SS,OP228,FP1103,AR244.3523,ZE94.5204,SD206.580413,--ow-623/gnd
SS,OP228,FP1104,AR246.0527,ZE94.5316,SD206.465413,--b-623
--Activating GPS Receiver: Topcon TPS HiPer [rover], COM1, 115200 baud, no
parity
--Activating Total Station: Topcon GTS-800 [820/8200 DIRECT CABLE], COM1, 1200
baud, even parity
OC,OP225,N 892481.199852,E 1904252.689882,EL409.168753,--t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.46,HR5.0
BK,OP225,BP226,BS304.1118,BC0.0000
--Fixed HR at Backsight:5.59 (5.59 + 0.0 Offset), Prism Const.:0.0mm
--BS check 225 - 226:ZE89.0930,SD489.060978,HD err= -0.003654, VD err= -0.011878
--BS Circle check : angular err= 0.0001
--Foresight Target:My Prism, HR:0.38 (0.38 + 0.0 Offset), Prism Const.:0.0mm
--HR:0.38 (0.38 + 0.0 Offset)
LS,HI5.46,HR0.38
SS,OP225,FP1105,AR256.5500,ZE93.5707,SD70.580141,--ow-612
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.46,HR5.0
SS,OP225,FP1106,AR257.1326,ZE91.4740,SD70.580141,--ow-612/pad
SS,OP225,FP1107,AR258.1157,ZE92.1556,SD70.975142,--ow-612/gnd
SS,OP225,FP1108,AR252.3937,ZE92.4559,SD78.480157,--c-608
SS,OP225,FP1109,AR255.3135,ZE92.5538,SD90.500181,--b-612
OC,OP226,N 892755.938157,E 1903848.247767,EL416.235793,--t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.56,HR5.0
BK,OP226,BP225,BS124.1118,BC0.0000
--Fixed HR at Backsight:5.73 (5.73 + 0.0 Offset), Prism Const.:0.0mm
--BS check 226 - 225:ZE90.4835,SD489.020978,HD err= -0.039697, VD err= -0.01373
--BS Circle check : angular err= 0.0000
SS,OP226,FP1110,AR74.2544,ZE90.5056,SD266.850534,--b-613
--Foresight Target:My Prism, HR:5.89 (5.89 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.89 (5.89 + 0.0 Offset)
LS,HI5.56,HR5.89
RD,BD 1:359.5806
--BS zenith: 90.4831, slope dist: 489.020978
RB,OP226,BP225,AR359.5806,ZE90.4831,SD489.020978,HR5.73,--t nail
RD,FD 1:84.0206
RD,ZD 1:90.4958
MD,SD 1:779.121558
RF,OP226,FP233,AR84.0206,ZE90.4958,SD779.121558,HR5.89,--TR-t nail
RD,FV 1:264.0218
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RD,ZV 1:269.0959
MD,SD 1:779.121558
RF,OP226,FP233,AR264.0218,ZE269.0959,SD779.121558,HR5.89,--TR-t nail
RD,BV 1:179.5820
--BS zenith: 269.1122, slope dist: 489.025978
RB,OP226,BP225,AR179.5820,ZE269.1122,SD489.025978,HR5.73,--t nail
--Horizontal Angle Error: 0.0002
--Zenith Angle Error: 0.0003
--Slope Distance Error: 0.0
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
--Slope Distance Error compares to the average: 0.0
TR,OP226,FP233,AR84.0359,ZE90.5000,SD779.121558,--TR-t nail
OC,OP233,N 892069.831283,E 1903479.518364,EL404.576217,--TR-t nail
BK,OP233,BP226,BS28.1517,BC0.0000
--Fixed HR at Backsight:5.73 (5.73 + 0.0 Offset), Prism Const.:0.0mm
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
OC,OP233,N 892069.831283,E 1903479.518364,EL404.576217,--TR-t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.72,HR5.0
BK,OP233,BP226,BS28.1517,BC0.0000
--Fixed HR at Backsight:5.59 (5.59 + 0.0 Offset), Prism Const.:0.0mm
--BS check 233 - 226:ZE89.0922,SD779.121558,HD err= -0.002156, VD err= -0.052702
--BS Circle check : angular err= 0.0000
SS,OP233,FP1111,AR102.5152,ZE87.1218,SD54.92011,--b-423
--Activating GPS Receiver: Topcon TPS HiPer [rover], COM1, 115200 baud, no
parity
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00020", Lng: 0.00030", Ht:
0.014
EP,TM13:09:35,LA34.171343321,LN-
81.191155739,HT315.123041,RH0.094064,RV0.081136,DH1.269708,DV1.673355,GM4,CL1
GS,PN234,N 892906.159135,E 1903387.213065,EL415.122573,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00019", Lng: 0.00012", Ht:
0.011
EP,TM13:15:28,LA34.171537816,LN-
81.19147642,HT297.362133,RH0.059055,RV0.067446,DH1.708036,DV2.071499,GM4,CL1
GS,PN235,N 893103.583778,E 1903118.781286,EL397.361427,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00016", Lng: 0.00006", Ht:
0.019
DP,PN227
EP,TM13:35:03,LA34.171656558,LN-
81.19032486,HT317.58865,RH0.05822,RV0.08021,DH1.578202,DV2.059209,GM4,CL1
GS,PN227,N 893220.622033,E 1904085.271002,EL417.589921,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00010", Lng: 0.00017", Ht:
0.016
EP,TM13:38:54,LA34.171889517,LN-
81.190298887,HT322.460726,RH0.074674,RV0.068674,DH1.256568,DV2.316779,GM4,CL1
GS,PN1112,N 893456.024467,E 1904107.784316,EL422.462329,--B-610
--Activating Total Station: Topcon GTS-800 [820/8200 DIRECT CABLE], COM1, 1200
baud, even parity
OC,OP227,N 893220.622033,E 1904085.271002,EL417.589921,--t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.67,HR5.0
BK,OP227,BP226,BS207.0130,BC0.0000
--Fixed HR at Backsight:5.59 (5.59 + 0.0 Offset), Prism Const.:0.0mm
--BS check 227 - 226:ZE90.0846,SD521.691043,HD err= -0.038481, VD err= 0.105019
--BS Circle check : angular err= 0.0001
```

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SS,OP227,FP1113,AR262.0146,ZE91.0019,SD61.825124,--B-626
--Foresight Target:My Prism, HR:0.38 (0.38 + 0.0 Offset), Prism Const.:0.0mm
--HR:0.38 (0.38 + 0.0 Offset)
LS,HI5.67,HR0.38
SS,OP227,FP1114,AR265.1420,ZE94.5156,SD48.400097,--ow-626
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.67,HR5.0
SS,OP227,FP1115,AR265.3900,ZE91.4100,SD48.340097,--ow-626/pad
SS,OP227,FP1116,AR266.4202,ZE92.1050,SD48.535097,--ow-626/gnd
--Activating GPS Receiver: Topcon TPS HiPer [rover], COM1, 115200 baud, no
parity
--Activating Total Station: Topcon GTS-800 [820/8200 DIRECT CABLE], COM1, 1200
baud, even parity
OC,OP226,N 892755.938157,E 1903848.247767,EL416.235793,--t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.56,HR5.0
BK,OP226,BP227,BS27.0130,BC0.0000
--Fixed HR at Backsight:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--BS check 226 - 227:ZE89.5526,SD521.696043,HD err= -0.032249, VD err= -0.101113
--BS Circle check : angular err= 0.0001
SS,OP226,FP1117,AR6.1724,ZE90.1232,SD402.850806,--c-605
--Activating GPS Receiver: Topcon TPS HiPer [rover], COM1, 115200 baud, no
parity
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00015", Lng: 0.00007", Ht:
0.065
EP,TM14:12:19,LA34.171318994,LN-
81.192632386,HT318.764822,RH0.057528,RV0.071869,DH1.153616,DV2.300043,GM4,CL1
GS,PN1118,N 892885.428437,E 1902148.27018,EL418.762266,--b-601
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00008", Lng: 0.00007", Ht:
0.013
EP,TM14:15:29,LA34.171172295,LN-
81.192563835,HT333.606096,RH0.068349,RV0.088141,DH1.119147,DV2.174765,GM4,CL1
GS,PN1119,N 892736.968314,E 1902205.318207,EL433.60343,--c-601
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00008", Lng: 0.00009", Ht:
0.030
EP,TM14:31:06,LA34.170699261,LN-
81.192549967,HT330.021974,RH0.07217,RV0.104031,DH1.11399,DV2.439118,GM4,CL1
GS,PN236,N 892258.800063,E 1902215.455719,EL430.018711,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00009", Lng: 0.00016", Ht:
0.013
EP,TM16:28:08,LA34.16560696,LN-
81.190424635,HT309.961749,RH0.072069,RV0.085104,DH1.235812,DV1.665136,GM4,CL1
GS,PN237,N 891149.1927,E 1903995.191733,EL409.960532,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00005", Lng: 0.00004", Ht:
0.020
EP,TM16:35:06,LA34.165627837,LN-
81.19063119,HT312.40001,RH0.123756,RV0.183197,DH1.717535,DV3.54109,GM4,CL1
GS,PN238,N 891170.828419,E 1903821.953333,EL412.398444,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00018", Lng: 0.00010", Ht:
0.031
EP,TM16:36:42,LA34.165627874,LN-
81.190631189,HT312.29195,RH0.065793,RV0.103202,DH1.747163,DV3.634727,GM4,CL1
GS,PN239,N 891170.865695,E 1903821.954034,EL412.290384,--t nail
EE,GF0,SG0
EP,TM20:37:09,LA34.165627874,LN-81.190631189,HT312.29195,RH0.0,RV0.0,GM1,CL1
SP,PN238,N 891170.865695,E 1903821.954034,EL412.290384,--t nail
```

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DP,PN239
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00009", Lng: 0.00011", Ht:
0.022
EP,TM16:46:15,LA34.17005055,LN-
81.185676936,HT261.577471,RH0.047559,RV0.068353,DH1.135998,DV1.977903,GM4,CL1
GS,PN239,N 891595.640361,E 1904623.895963,EL361.578114,--ow624
EE,GF0,SG0
EP,TM20:46:57,LA34.17005055,LN-81.185676936,HT261.577471,RH0.0,RV0.0,GM1,CL1
SP,PN1120,N 891595.640361,E 1904623.895963,EL361.578114,--ow-624
DP,PN239
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00004", Lng: 0.00006", Ht:
0.020
EP,TM17:05:51,LA34.165324535,LN-
81.185509561,HT315.027265,RH0.040861,RV0.042065,DH0.861337,DV1.324654,GM4,CL1
GS,PN239,N 890861.372533,E 1904762.085567,EL415.027528,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00002", Lng: 0.00010", Ht:
0.018
EP,TM17:19:16,LA34.164979099,LN-
81.193816027,HT303.942237,RH0.040425,RV0.047082,DH0.913932,DV1.495635,GM4,CL1
GS,PN240,N 890523.447944,E 1901147.737828,EL403.936182,--t nail
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00004", Lng: 0.00009", Ht:
0.007
EP,TM17:42:51,LA34.15478556,LN-
81.182587756,HT335.428481,RH0.032991,RV0.043761,DH0.920717,DV1.26021,GM4,CL1
GS,PN7,N 884244.572185,E 1907193.914751,EL435.43236,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00004", Lng: 0.00010", Ht:
0.015
EP,TM17:44:25,LA34.154785529,LN-
81.18258777,HT335.495847,RH0.050509,RV0.045769,DH0.92363,DV1.253861,GM4,CL1
GS,PN8,N 884244.541654,E 1907193.902363,EL435.499725,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00004", Lng: 0.00008", Ht:
0.029
EP,TM17:45:18,LA34.154785559,LN-
81.18258777,HT335.504641,RH0.029863,RV0.039657,DH0.925404,DV1.250619,GM4,CL1
GS,PN9,N 884244.571344,E 1907193.902188,EL435.50852,--q c 1020
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00004", Lng: 0.00009", Ht:
0.018
EP,TM17:57:45,LA34.192427533,LN-
81.171331668,HT344.246431,RH0.049371,RV0.065366,DH1.00332,DV1.408475,GM4,CL1
GS,PN10,N 906102.355626,E 1913344.018146,EL444.287948,--q c 101
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00014", Lng: 0.00004", Ht:
0.020
EP,TM18:01:52,LA34.192427554,LN-
81.171331688,HT344.230415,RH0.05227,RV0.061929,DH1.002347,DV1.407104,GM4,CL1
GS,PN11,N 906102.377302,E 1913344.001047,EL444.271932,--q c 101
--Position averaged from 4 epochs. Std.Dev. Lat: 0.00003", Lng: 0.00002", Ht:
0.010
EP,TM18:02:53,LA34.192427572,LN-
81.17133166,HT344.207132,RH0.070173,RV0.079848,DH1.075096,DV1.609059,GM4,CL1
GS,PN12,N 906102.395472,E 1913344.02464,EL444.248649,--q c 101
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JB,NM8992G091206,DT09-12-2006,TM06:59:24
MO,AD0,UN0,SF1.0,EC0,EO0.0,AU0
--Data Collector Serial Number: SS05A00978
--Switch projection mode to H: Mapping Plane and V: Localization (+ Geoid)
--No coordinate system is defined.
ES,RD,IF,EM
PJ,TP2048,LA,LN,HT,N ,E ,EL,SC1.0000000000,OO,OT
CS,CO2,ZG,ZN,DN
--Select zone record from database
ES,RD20925646.325459,IF298.2572215381,EMGeodetic Ref System 1980
ST,LA,LN,HT,SC1.0000000000,N 0.0,E 0.0
PJ,TP2066,LA31.5000,LN-81.0000,HT,N 0.0,E 2000000.0,EL,SC,OO34.5000,OT32.3000
DT,DA513,RD20925646.325459,IF298.2572229329,OX0.00000000,OY0.00000000,OZ0.000000
00,LX0.0,LY0.0,LZ0.0,SP0.000000
HA,N ,E ,TH,TE,RT,SC
VA,PV2,N ,E ,LZ,SO,SA,GNGeoid03 (Conus)
CG,AO1,GO1
CS,CO3,ZGUS State Plane 1983,ZNSouth Carolina 3900,DNNAD 1983 (Conus)
-->>
-->>  Begin Adjust with Projection.
-->>  End Adjust with Projection.
-->>
--Activating Total Station: Topcon GTS-800 [820/8200 DIRECT CABLE], COM1, 1200
baud, even parity
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--Calculate survey scale factor for projection South Carolina 3900 at point
1009.
MO,AD0,UN0,SF0.999837,EC0,EO0.0,AU0
OC,OP234,N 892906.159135,E 1903387.213065,EL415.122573,--t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.62,HR5.0
BK,OP234,BP235,BS306.2001,BC0.0000
--Fixed HR at Backsight:5.38 (5.38 + 0.0 Offset), Prism Const.:0.0mm
--BS check 234 - 235:ZE93.0522,SD333.810668,HD err= 0.056317, VD err= 0.010469
--BS Circle check : angular err= 0.0000
SS,OP234,FP1121,AR185.5418,ZE89.3254,SD94.75519,--b-210
SS,OP234,FP1122,AR146.2409,ZE92.2437,SD64.430129,--c-207
SS,OP234,FP1123,AR297.0121,ZE84.4731,SD36.360073,--b-224(udp)
SS,OP234,FP1124,AR310.0837,ZE85.2850,SD44.225088,--b-224
SS,OP234,FP1125,AR5.1036,ZE93.3605,SD84.250169,--b-223
SS,OP234,FP1126,AR95.1523,ZE97.3414,SD108.330217,--b-213
--Foresight Target:My Prism, HR:0.13 (0.13 + 0.0 Offset), Prism Const.:0.0mm
--HR:0.13 (0.13 + 0.0 Offset)
LS,HI5.62,HR0.13
SS,OP234,FP1127,AR98.5550,ZE99.1714,SD99.9952,--ow-213
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.62,HR5.0
SS,OP234,FP1128,AR99.0404,ZE97.3134,SD99.420199,--ow-213/pad
SS,OP234,FP1129,AR99.2608,ZE97.5902,SD98.505197,--ow-213/gnd
RD,BD 1:359.5959
--BS zenith: 93.0518, slope dist: 333.810668
RB,OP234,BP235,AR359.5959,ZE93.0518,SD333.810668,HR5.38,--t nail
RD,FD 1:35.3155
RD,ZD 1:96.4223
MD,SD 1:311.050622
RF,OP234,FP241,AR35.3155,ZE96.4223,SD311.050622,HR5.0,--TR-t nail
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RD,FV 1:215.3204
RD,ZV 1:263.1737
MD,SD 1:311.050622
RF,OP234,FP241,AR215.3204,ZE263.1737,SD311.050622,HR5.0,--TR-t nail
RD,BV 1:180.0006
--BS zenith: 266.5441, slope dist: 333.805668
RB,OP234,BP235,AR180.0006,ZE266.5441,SD333.805668,HR5.38,--t nail
--Horizontal Angle Error: 0.0003
--Zenith Angle Error: 0.0001
--Slope Distance Error: 0.0
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
--Slope Distance Error compares to the average: 0.0
--Traverse later to point: 241
SS,OP234,FP241,AR35.3157,ZE96.4223,SD311.050622,--TR-t nail
OC,OP235,N 893103.583778,E 1903118.781286,EL397.361427,--t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.35,HR5.0
BK,OP235,BP234,BS126.2001,BC0.0000
--Fixed HR at Backsight:5.88 (5.88 + 0.0 Offset), Prism Const.:0.0mm
--BS check 235 - 234:ZE86.5150,SD333.825668,HD err= 0.056531, VD err= -0.028165
--BS Circle check : angular err= 0.0000
SS,OP235,FP1130,AR7.3151,ZE85.2528,SD128.140256,--b-209
SS,OP235,FP1131,AR141.5146,ZE90.1909,SD91.405183,--b-212
SS,OP235,FP1132,AR140.5632,ZE89.5626,SD87.110174,--b-212a
--Foresight Target:My Prism, HR:0.13 (0.13 + 0.0 Offset), Prism Const.:0.0mm
--HR:0.13 (0.13 + 0.0 Offset)
LS,HI5.35,HR0.13
SS,OP235,FP1133,AR144.4142,ZE92.1842,SD82.040164,--ow-212
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.35,HR5.0
SS,OP235,FP1134,AR144.5408,ZE90.0839,SD81.940164,--ow-212/pad
SS,OP235,FP1135,AR145.5303,ZE91.0433,SD81.760164,--ow-212/gnd
SS,OP235,FP1136,AR170.1543,ZE95.1529,SD199.660399,--b-235
OC,OP241,N 893199.689889,E 1903291.080113,EL379.41762,--TR-t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.64,HR5.0
BK,OP241,BP234,BS161.5158,BC0.0000
--Fixed HR at Backsight:5.88 (5.88 + 0.0 Offset), Prism Const.:0.0mm
--BS check 241 - 234:ZE83.1253,SD311.095622,HD err= -0.005711, VD err= 0.811377
--BS Circle check : angular err= 0.0000
SS,OP241,FP1137,AR13.5513,ZE94.3729,SD67.025134,--b-236
SS,OP241,FP1138,AR10.4621,ZE95.2713,SD59.82012,--b-236a
SS,OP241,FP1139,AR122.2723,ZE94.1241,SD168.260337,--c-210
OC,OP214,N 891956.835466,E 1902955.464344,EL417.609883,--t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.49,HR5.0
BK,OP214,BP203,BS46.2540,BC0.0000
--Fixed HR at Backsight:5.69 (5.69 + 0.0 Offset), Prism Const.:0.0mm
--BS check 214 - 203:ZE89.1635,SD377.815756,HD err= -945.808522, VD err=
6.707325
--BS Circle check : angular err= 0.0000
OC,OP214,N 891956.835466,E 1902955.464344,EL417.609883,--t nail
BK,OP214,BP207,BS357.3527,BC0.0000
--Fixed HR at Backsight:5.69 (5.69 + 0.0 Offset), Prism Const.:0.0mm
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--BS check 214 - 207:ZE89.1634,SD377.820756,HD err= -111.205234, VD err= -
4.674091
--BS Circle check : angular err= 0.0000
--BS check 214 - 207:ZE89.1632,SD377.815756,HD err= -111.210268, VD err= -
4.671407
--BS Circle check : angular err= 0.0000
OC,OP214,N 891956.835466,E 1902955.464344,EL417.609883,--t nail
BK,OP214,BP206,BS32.0333,BC0.0000
--Fixed HR at Backsight:5.69 (5.69 + 0.0 Offset), Prism Const.:0.0mm
--BS check 214 - 206:ZE89.1631,SD377.815756,HD err= 0.077459, VD err= 0.167715
--BS Circle check : angular err= 0.0000
--BS check 214 - 206:ZE89.1631,SD377.815756,HD err= 0.077459, VD err= 0.167715
--BS Circle check : angular err= 0.0000
--Foresight Target:My Prism, HR:5.95 (5.95 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.95 (5.95 + 0.0 Offset)
LS,HI5.49,HR5.95
RD,BD 1:0.0000
--BS zenith: 89.1635, slope dist: 377.815756
RB,OP214,BP206,AR0.0000,ZE89.1635,SD377.815756,HR5.69,--t nail
RD,FD 1:161.3723
RD,ZD 1:90.3212
MD,SD 1:414.315829
RF,OP214,FP242,AR161.3723,ZE90.3212,SD414.315829,HR5.95,--TR-t nail
RD,FV 1:341.3731
RD,ZV 1:269.2745
MD,SD 1:414.320829
RF,OP214,FP242,AR341.3731,ZE269.2745,SD414.320829,HR5.95,--TR-t nail
RD,BV 1:180.0004
--BS zenith: 270.4323, slope dist: 377.810756
RB,OP214,BP206,AR180.0004,ZE270.4323,SD377.810756,HR5.69,--t nail
--Horizontal Angle Error: 0.0005
--Zenith Angle Error: 0.0004
--Slope Distance Error: 0.005
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
--Slope Distance Error compares to the average: 0.0
TR,OP214,FP242,AR161.3725,ZE90.3213,SD414.318329,--TR-t nail
OC,OP242,N 891554.35874,E 1902857.479259,EL413.266675,--TR-t nail
BK,OP242,BP214,BS13.4058,BC0.0000
--Fixed HR at Backsight:5.69 (5.69 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.95 (0.0 + 0.0 Offset)
LS,HI5.69,HR5.95
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
OC,OP242,N 891554.35874,E 1902857.479259,EL413.266675,--TR-t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.69,HR5.0
BK,OP242,BP214,BS13.4058,BC0.0000
--Fixed HR at Backsight:5.66 (5.66 + 0.0 Offset), Prism Const.:0.0mm
--BS check 242 - 214:ZE89.2415,SD414.325829,HD err= 0.003294, VD err= -0.004607
--BS Circle check : angular err= 0.0000
SS,OP242,FP1140,AR264.5252,ZE94.3341,SD49.9001,--b-329
--Foresight Target:My Prism, HR:5.4 (5.4 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.4 (5.4 + 0.0 Offset)
LS,HI5.69,HR5.4
RD,BD 1:0.0003
--BS zenith: 89.2419, slope dist: 414.325829
RB,OP242,BP214,AR0.0003,ZE89.2419,SD414.325829,HR5.66,--t nail
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RD,FD 1:187.4234
RD,ZD 1:89.1537
MD,SD 1:128.545257
RF,OP242,FP243,AR187.4234,ZE89.1537,SD128.545257,HR5.4,--TR-t nail
RD,FV 1:7.4235
RD,ZV 1:270.4422
MD,SD 1:128.545257
RF,OP242,FP243,AR7.4235,ZE270.4422,SD128.545257,HR5.4,--TR-t nail
RD,BV 1:180.0004
--BS zenith: 270.3542, slope dist: 414.320829
RB,OP242,BP214,AR180.0004,ZE270.3542,SD414.320829,HR5.66,--t nail
--Horizontal Angle Error: 0.0001
--Zenith Angle Error: 0.0002
--Slope Distance Error: 0.0
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
--Slope Distance Error compares to the average: 0.0
TR,OP242,FP243,AR187.4231,ZE89.1538,SD128.545257,--TR-t nail
OC,OP243,N 891434.698437,E 1902810.605479,EL415.215912,--TR-t nail
BK,OP243,BP242,BS21.2329,BC0.0000
--Fixed HR at Backsight:5.66 (5.66 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.4 (0.0 + 0.0 Offset)
LS,HI5.37,HR5.4
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
OC,OP243,N 891434.698437,E 1902810.605479,EL415.215912,--TR-t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.37,HR5.0
BK,OP243,BP242,BS21.2329,BC0.0000
--Fixed HR at Backsight:5.95 (5.95 + 0.0 Offset), Prism Const.:0.0mm
--BS check 243 - 242:ZE90.3623,SD128.540257,HD err= -0.00149, VD err= 0.008859
--BS Circle check : angular err= 0.0001
SS,OP243,FP1141,AR251.1145,ZE94.5410,SD226.605453,--b-421a
SS,OP243,FP1142,AR251.4835,ZE94.5851,SD225.640451,--b-421
OC,OP243,N 891434.698437,E 1902810.605479,EL415.215912,--TR-t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.27,HR5.0
BK,OP243,BP242,BS21.2329,BC0.0000
--Fixed HR at Backsight:5.9 (5.9 + 0.0 Offset), Prism Const.:0.0mm
OC,OP220,N 891925.129344,E 1902506.572012,EL398.454204,--TR-t nail
BK,OP220,BP221,BS79.3932,BC0.0000
--Fixed HR at Backsight:5.9 (5.9 + 0.0 Offset), Prism Const.:0.0mm
--BS check 220 - 221:ZE85.3320,SD325.08565,HD err= -0.032211, VD err= 0.010132
--BS Circle check : angular err= 0.0000
--Foresight Target:My Prism, HR:6.02 (6.02 + 0.0 Offset), Prism Const.:0.0mm
--HR:6.02 (6.02 + 0.0 Offset)
LS,HI5.27,HR6.02
RD,BD 1:0.0018
--BS zenith: 85.3315, slope dist: 325.08565
RB,OP220,BP221,AR0.0018,ZE85.3315,SD325.08565,HR5.9,--TR-t nail
RD,FD 1:193.3902
RD,ZD 1:89.1655
MD,SD 1:269.130538
RF,OP220,FP244,AR193.3902,ZE89.1655,SD269.130538,HR6.02,--t nail
RD,FV 1:13.3903
RD,ZV 1:270.4303
MD,SD 1:269.130538
RF,OP220,FP244,AR13.3903,ZE270.4303,SD269.130538,HR6.02,--t nail
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RD,BV 1:180.0016
--BS zenith: 274.2638, slope dist: 325.08065
RB,OP220,BP221,AR180.0016,ZE274.2638,SD325.08065,HR5.9,--TR-t nail
--Horizontal Angle Error: 0.0003
--Zenith Angle Error: 0.0003
--Slope Distance Error: 0.0
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
--Slope Distance Error compares to the average: 0.0
SS,OP220,FP244,AR193.3845,ZE89.1656,SD269.130538,--t nail
--Foresight Target:My Prism, HR:5.7 (5.7 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.7 (5.7 + 0.0 Offset)
LS,HI5.27,HR5.7
RD,BD 1:0.0017
--BS zenith: 85.3310, slope dist: 325.08065
RB,OP220,BP221,AR0.0017,ZE85.3310,SD325.08065,HR5.9,--TR-t nail
RD,FD 1:117.2434
RD,ZD 1:102.3659
MD,SD 1:198.715397
RF,OP220,FP245,AR117.2434,ZE102.3659,SD198.715397,HR5.7,--TR-t nail
RD,FV 1:297.2444
RD,ZV 1:257.2305
MD,SD 1:198.705397
RF,OP220,FP245,AR297.2444,ZE257.2305,SD198.705397,HR5.7,--TR-t nail
RD,BV 1:180.0017
--BS zenith: 274.2639, slope dist: 325.08565
RB,OP220,BP221,AR180.0017,ZE274.2639,SD325.08565,HR5.9,--TR-t nail
--Horizontal Angle Error: 0.0011
--Zenith Angle Error: 0.0004
--Slope Distance Error: 0.01
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
--Slope Distance Error compares to the average: 0.0
TR,OP220,FP245,AR117.2422,ZE102.3657,SD198.710397,--TR-t nail
OC,OP245,N 891739.784204,E 1902449.676384,EL354.623521,--TR-t nail
BK,OP245,BP220,BS17.0354,BC0.0000
--Fixed HR at Backsight:5.9 (5.9 + 0.0 Offset), Prism Const.:0.0mm
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
OC,OP245,N 891739.784204,E 1902449.676384,EL354.623521,--TR-t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.44,HR5.0
BK,OP245,BP220,BS17.0354,BC0.0000
--Fixed HR at Backsight:5.3 (5.3 + 0.0 Offset), Prism Const.:0.0mm
BK,OP245,BP220,BS17.0354,BC88.4440
--Fixed HR at Backsight:5.3 (5.3 + 0.0 Offset), Prism Const.:0.0mm
BK,OP245,BP220,BS17.0354,BC0.0000
--Fixed HR at Backsight:5.3 (5.3 + 0.0 Offset), Prism Const.:0.0mm
--BS check 245 - 220:ZE77.1814,SD198.770398,HD err= -0.002625, VD err= -0.004457
--BS Circle check : angular err= 0.0000
SS,OP245,FP1143,AR131.2029,ZE94.2122,SD30.14006,--b-331
OC,OP244,N 891940.640211,E 1902237.953955,EL401.075998,--t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.5,HR5.0
BK,OP244,BP220,BS93.1817,BC0.0000
--Fixed HR at Backsight:5.3 (5.3 + 0.0 Offset), Prism Const.:0.0mm
--BS check 244 - 220:ZE90.3547,SD269.125538,HD err= 0.00155, VD err= 0.021183
--BS Circle check : angular err= 0.0000
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SS,OP244,FP1144,AR261.3616,ZE84.5327,SD254.500509,--c-604
SS,OP244,FP1145,AR252.5922,ZE84.1358,SD45.440091,--b-609
SS,OP244,FP1146,AR352.3528,ZE94.5830,SD82.360165,--b-333
--Foresight Target:My Prism, HR:0.13 (0.13 + 0.0 Offset), Prism Const.:0.0mm
--HR:0.13 (0.13 + 0.0 Offset)
LS,HI5.5,HR0.13
SS,OP244,FP1147,AR347.0813,ZE96.2759,SD83.315167,--ow-333
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.5,HR5.0
SS,OP244,FP1148,AR347.2330,ZE94.2438,SD83.180166,--ow-333/pad
SS,OP244,FP1149,AR348.0910,ZE94.5321,SD83.060166,--ow-333/gnd
--Foresight Target:My Prism, HR:8.5 (8.5 + 0.0 Offset), Prism Const.:0.0mm
--HR:8.5 (8.5 + 0.0 Offset)
LS,HI5.5,HR8.5
SS,OP244,FP1,AR5.4200,ZE97.1436,SD137.975276,--rock
SP,PN1,N 891919.220935,E 1902373.119199,EL380.679586,--rock outcrop
--Foresight Target:My Prism, HR:5.53 (5.53 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.53 (5.53 + 0.0 Offset)
LS,HI5.5,HR5.53
RD,BD 1:359.5900
--BS zenith: 90.3552, slope dist: 269.125538
RB,OP244,BP220,AR359.5900,ZE90.3552,SD269.125538,HR5.3,--TR-t nail
RD,FD 1:109.5145
RD,ZD 1:97.0626
MD,SD 1:383.020766
RF,OP244,FP246,AR109.5145,ZE97.0626,SD383.020766,HR5.53,--TR-t nail
RD,FV 1:289.5150
RD,ZV 1:262.5323
MD,SD 1:383.020766
RF,OP244,FP246,AR289.5150,ZE262.5323,SD383.020766,HR5.53,--TR-t nail
RD,BV 1:179.5908
--BS zenith: 269.2359, slope dist: 269.125538
RB,OP244,BP220,AR179.5908,ZE269.2359,SD269.125538,HR5.3,--TR-t nail
--Horizontal Angle Error: 0.0003
--Zenith Angle Error: 0.0011
--Slope Distance Error: 0.0
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
--Slope Distance Error compares to the average: 0.0
TR,OP244,FP246,AR109.5244,ZE97.0632,SD383.020766,--TR-t nail
OC,OP246,N 891591.312605,E 1902088.350355,EL353.646021,--TR-t nail
BK,OP246,BP244,BS23.1101,BC0.0000
--Fixed HR at Backsight:5.3 (5.3 + 0.0 Offset), Prism Const.:0.0mm
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
OC,OP246,N 891591.312605,E 1902088.350355,EL353.646021,--TR-t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.31,HR5.0
BK,OP246,BP244,BS23.1101,BC0.0000
--Fixed HR at Backsight:5.65 (5.65 + 0.0 Offset), Prism Const.:0.0mm
--BS check 246 - 244:ZE82.4934,SD383.070766,HD err= -0.004641, VD err= 0.069239
--BS Circle check : angular err= 0.0000
OC,OP246,N 891591.312605,E 1902088.350355,EL353.646021,--TR-t nail
BK,OP246,BP244,BS23.1101,BC0.0000
--Fixed HR at Backsight:5.77 (5.77 + 0.0 Offset), Prism Const.:0.0mm
--BS check 246 - 244:ZE82.4934,SD383.065766,HD err= -0.009601, VD err= -0.051385
--BS Circle check : angular err= 0.0000
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OC,OP246,N 891591.312605,E 1902088.350355,EL353.646021,--TR-t nail
BK,OP246,BP244,BS23.1101,BC0.0000
--Fixed HR at Backsight:5.71 (5.71 + 0.0 Offset), Prism Const.:0.0mm
--BS check 246 - 244:ZE82.4934,SD383.065766,HD err= -0.009485, VD err= 0.007693
--BS Circle check : angular err= 0.0000
SS,OP246,FP1150,AR149.5857,ZE94.3652,SD355.17071,--OW-627a
--Foresight Target:My Prism, HR:0.13 (0.13 + 0.0 Offset), Prism Const.:0.0mm
--HR:0.13 (0.13 + 0.0 Offset)
LS,HI5.31,HR0.13
DP,PN1150
SS,OP246,FP1150,AR149.5855,ZE94.3652,SD355.17071,--OW-627a
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.31,HR5.0
SS,OP246,FP1151,AR150.0320,ZE94.1008,SD354.89571,--OW-627a/pad
SS,OP246,FP1152,AR150.1326,ZE94.1516,SD354.82571,--OW-627a/gnd
--Foresight Target:My Prism, HR:0.13 (0.13 + 0.0 Offset), Prism Const.:0.0mm
--HR:0.13 (0.13 + 0.0 Offset)
LS,HI5.31,HR0.13
SS,OP246,FP1153,AR150.1523,ZE94.3728,SD363.330727,--OW-627b
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.31,HR5.0
SS,OP246,FP1154,AR150.1912,ZE94.1233,SD363.155726,--OW-627b/pad
SS,OP246,FP1155,AR150.2628,ZE94.1601,SD363.185726,--OW-627b/gnd
SS,OP246,FP1156,AR150.3009,ZE94.1833,SD368.310737,--b-627
--Foresight Target:My Prism, HR:5.71 (5.71 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.71 (5.71 + 0.0 Offset)
LS,HI5.31,HR5.71
RD,BD 1:359.5948
--BS zenith: 82.4941, slope dist: 383.065766
RB,OP246,BP244,AR359.5948,ZE82.4941,SD383.065766,HR5.71,--t nail
RD,FD 1:359.5951
RD,ZD 1:82.4940
MD,SD 1:383.065766
RF,OP246,FP247,AR359.5951,ZE82.4940,SD383.065766,HR5.71,--TR-t nail 244
RD,FV 1:179.5952
RD,ZV 1:277.1020
MD,SD 1:383.065766
RF,OP246,FP247,AR179.5952,ZE277.1020,SD383.065766,HR5.71,--TR-t nail 244
RD,BV 1:179.5953
--BS zenith: 277.1020, slope dist: 383.070766
RB,OP246,BP244,AR179.5953,ZE277.1020,SD383.070766,HR5.71,--t nail
--Horizontal Angle Error: 0.0004
--Zenith Angle Error: 0.0001
--Slope Distance Error: 0.0
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
--Slope Distance Error compares to the average: 0.0
TR,OP246,FP247,AR0.0001,ZE82.4940,SD383.065766,--TR-t nail 244
OC,OP247,N 891940.632099,E 1902237.952485,EL401.072175,--TR-t nail 244
BK,OP247,BP246,BS203.1102,BC0.0000
--Fixed HR at Backsight:5.71 (5.71 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.71 (0.0 + 0.0 Offset)
LS,HI5.5,HR5.71
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
OC,OP247,N 891940.632099,E 1902237.952485,EL401.072175,--TR-t nail 244
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--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.5,HR5.0
BK,OP247,BP246,BS203.1102,BC0.0000
--Fixed HR at Backsight:5.53 (5.53 + 0.0 Offset), Prism Const.:0.0mm
--BS check 247 - 246:ZE97.0633,SD383.020766,HD err= 0.007806, VD err= -0.005666
--BS Circle check : angular err= 0.0001
--Foresight Target:My Prism, HR:5.4 (5.4 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.4 (5.4 + 0.0 Offset)
LS,HI5.5,HR5.4
RD,BD 1:359.5958
--BS zenith: 97.0623, slope dist: 383.020766
RB,OP247,BP246,AR359.5958,ZE97.0623,SD383.020766,HR5.53,--TR-t nail
RD,FD 1:82.5205
RD,ZD 1:88.0049
MD,SD 1:232.325465
RF,OP247,FP248,AR82.5205,ZE88.0049,SD232.325465,HR5.4,--TR-t nail
RD,FV 1:262.5212
RD,ZV 1:271.5908
MD,SD 1:232.325465
RF,OP247,FP248,AR262.5212,ZE271.5908,SD232.325465,HR5.4,--TR-t nail
RD,BV 1:180.0004
--BS zenith: 262.5325, slope dist: 383.015766
RB,OP247,BP246,AR180.0004,ZE262.5325,SD383.015766,HR5.53,--TR-t nail
--Horizontal Angle Error: 0.0001
--Zenith Angle Error: 0.0004
--Slope Distance Error: 0.0
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
--Slope Distance Error compares to the average: 0.0
TR,OP247,FP248,AR82.5208,ZE88.0050,SD232.325465,--TR-t nail
OC,OP248,N 892004.825951,E 1902014.856421,EL409.223652,--TR-t nail
BK,OP248,BP247,BS106.0310,BC0.0000
--Fixed HR at Backsight:5.53 (5.53 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.4 (0.0 + 0.0 Offset)
LS,HI5.37,HR5.4
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
OC,OP248,N 892004.825951,E 1902014.856421,EL409.223652,--TR-t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.37,HR5.0
BK,OP248,BP247,BS106.0310,BC0.0000
--Fixed HR at Backsight:5.71 (5.71 + 0.0 Offset), Prism Const.:0.0mm
--BS check 248 - 247:ZE91.5450,SD232.315465,HD err= -0.000039, VD err= 0.052733
--BS Circle check : angular err= 0.0000
--Foresight Target:My Prism, HR:5.53 (5.53 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.53 (5.53 + 0.0 Offset)
LS,HI5.37,HR5.53
RD,BD 1:0.0001
--BS zenith: 91.5451, slope dist: 232.320465
RB,OP248,BP247,AR0.0001,ZE91.5451,SD232.320465,HR5.71,--TR-t nail 244
RD,FD 1:278.4856
RD,ZD 1:85.2328
MD,SD 1:217.900436
RF,OP248,FP249,AR278.4856,ZE85.2328,SD217.900436,HR5.53,--TR-t nail
RD,FV 1:98.4852
RD,ZV 1:274.3635
MD,SD 1:217.895436
RF,OP248,FP249,AR98.4852,ZE274.3635,SD217.895436,HR5.53,--TR-t nail
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RD,BV 1:179.5955
--BS zenith: 268.0507, slope dist: 232.320465
RB,OP248,BP247,AR179.5955,ZE268.0507,SD232.320465,HR5.71,--TR-t nail 244
--Horizontal Angle Error: 0.0002
--Zenith Angle Error: 0.0003
--Slope Distance Error: 0.005
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
--Slope Distance Error compares to the average: 0.0
--Traverse later to point: 249
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.37,HR5.0
SS,OP248,FP1157,AR245.3115,ZE87.0722,SD49.490099,--b-608a
SS,OP248,FP1158,AR248.0617,ZE87.2923,SD49.725099,--b-608
SS,OP248,FP1159,AR273.5421,ZE90.5306,SD81.005162,--r-1/end south
--HR:5.53 (5.53 + 0.0 Offset)
LS,HI5.37,HR5.53
SS,OP248,FP249,AR278.4856,ZE85.2327,SD217.897936,--TR-t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.37,HR5.0
OC,OP249,N 892201.848171,E 1902106.178688,EL426.573844,--TR-t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.36,HR5.0
BK,OP249,BP248,BS204.5206,BC0.0000
--Fixed HR at Backsight:5.4 (5.4 + 0.0 Offset), Prism Const.:0.0mm
--BS check 249 - 248:ZE94.3322,SD217.880436,HD err= -0.001302, VD err= 0.002781
--BS Circle check : angular err= 0.0000
SS,OP249,FP1160,AR89.4703,ZE91.4828,SD17.020034,--r-3/end west
SS,OP249,FP1161,AR106.5641,ZE92.5934,SD91.490183,--c-603
--Foresight Target:My Prism, HR:5.69 (5.69 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.69 (5.69 + 0.0 Offset)
LS,HI5.36,HR5.69
RD,BD 1:359.5958
--BS zenith: 94.3324, slope dist: 217.875436
RB,OP249,BP248,AR359.5958,ZE94.3324,SD217.875436,HR5.4,--TR-t nail
RD,FD 1:217.3819
RD,ZD 1:88.1518
MD,SD 1:123.325247
RF,OP249,FP250,AR217.3819,ZE88.1518,SD123.325247,HR5.69,--TR-t nail 236
RD,FV 1:37.3822
RD,ZV 1:271.4438
MD,SD 1:123.320247
RF,OP249,FP250,AR37.3822,ZE271.4438,SD123.320247,HR5.69,--TR-t nail 236
RD,BV 1:180.0003
--BS zenith: 265.2629, slope dist: 217.880436
RB,OP249,BP248,AR180.0003,ZE265.2629,SD217.880436,HR5.4,--TR-t nail
--Horizontal Angle Error: 0.0002
--Zenith Angle Error: 0.0004
--Slope Distance Error: 0.005
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
--Slope Distance Error compares to the average: 0.0
TR,OP249,FP250,AR217.3820,ZE88.1520,SD123.322747,--TR-t nail 236
OC,OP250,N 892258.742857,E 1902215.505917,EL429.997985,--TR-t nail 236
BK,OP250,BP249,BS242.3026,BC0.0000
--Fixed HR at Backsight:5.4 (5.4 + 0.0 Offset), Prism Const.:0.0mm
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--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
OC,OP250,N 892258.742857,E 1902215.505917,EL429.997985,--TR-t nail 236
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.45,HR5.0
BK,OP250,BP249,BS242.3026,BC0.0000
--Fixed HR at Backsight:5.53 (5.53 + 0.0 Offset), Prism Const.:0.0mm
--BS check 250 - 249:ZE91.3236,SD123.305247,HD err= -0.005067, VD err= 0.023461
--BS Circle check : angular err= 0.0001
--Adjustment begin: Traverse Adjust
--Compass Rule
--  Adjusting Elevations
--  Closing to Known Location: N:892258.800063, E:1902215.455719, Z:430.018711
--Original
--  Error Distance: 0.076
--  Error Azimuth:  318°43'59"
--  Precision:      1:25302
--  Length:         1,925.725
--  Perimeter:      2,594.926
--Adjusted
--  Error Distance: 0.000
--  Error Azimuth:  ---
--  Precision:      Perfect
--  Length:         1,925.749
--  Perimeter:      2,595.020
--Traverse Point
--The first point (221) is always fixed.
--Traverse Point
AP,PN220,N 891925.138971,E 1902506.563564,EL398.457692,--TR-t nail
--Traverse Point
AP,PN244,N 891940.657832,E 1902237.938493,EL401.082382,--t nail
--Sideshots
AP,PN1144,N 892193.106678,E 1902215.456129,EL424.246581,--c-604
AP,PN1145,N 891984.573708,E 1902227.22957,EL406.148636,--b-609
AP,PN1146,N 891946.526807,E 1902319.764784,EL394.44022,--b-333
AP,PN1147,N 891954.399827,E 1902319.561395,EL397.0696,--ow-333
AP,PN1148,N 891954.060852,E 1902319.768414,EL395.185601,--ow-333/pad
AP,PN1149,N 891952.946563,E 1902319.765322,EL394.503285,--ow-333/gnd
AP,PN1,N 891919.234422,E 1902373.103083,EL380.68597,--rock outcrop
--Traverse Point
AP,PN246,N 891591.341514,E 1902088.324987,EL353.656495,--TR-t nail
--Sideshots
AP,PN1150,N 891239.89311,E 1902130.430925,EL330.263794,--OW-627a
AP,PN1150,N 891239.893518,E 1902130.434333,EL330.263794,--OW-627a
AP,PN1151,N 891239.902041,E 1902129.975386,EL328.167623,--OW-627a/pad
AP,PN1152,N 891239.88918,E 1902128.930212,EL327.644307,--OW-627a/gnd
AP,PN1153,N 891231.621892,E 1902129.678622,EL329.543253,--OW-627b
AP,PN1154,N 891231.548115,E 1902129.282425,EL327.31168,--OW-627b/pad
AP,PN1155,N 891231.459508,E 1902128.522124,EL326.945116,--OW-627b/gnd
AP,PN1156,N 891226.357817,E 1902128.69607,EL326.292266,--b-627
--Traverse Point
AP,PN247,N 891940.672297,E 1902237.917212,EL401.086739,--TR-t nail 244
--Traverse Point
AP,PN248,N 892004.873045,E 1902014.815096,EL409.240714,--TR-t nail
--Sideshots
AP,PN1157,N 892053.759347,E 1902007.574175,EL412.095034,--b-608a
AP,PN1158,N 892054.284413,E 1902009.760027,EL411.788724,--b-608
AP,PN1159,N 892080.990941,E 1902042.459195,EL408.359741,--r-1/end south
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--Traverse Point
AP,PN249,N 892201.901715,E 1902106.131702,EL426.593243,--TR-t nail
--Sideshots
AP,PN1160,N 892208.99575,E 1902090.672934,EL426.416363,--r-3/end west
AP,PN1161,N 892262.802818,E 1902038.043755,EL422.176534,--c-603
--Traverse Point
AP,PN250,N 892258.800063,E 1902215.455719,EL430.018711,--TR-t nail 236
--Adjustment end
OC,OP236,N 892258.800063,E 1902215.455719,EL430.018711,--t nail
BK,OP236,BP244,BS175.5728,BC0.0000
--Fixed HR at Backsight:5.53 (5.53 + 0.0 Offset), Prism Const.:0.0mm
OC,OP236,N 892258.800063,E 1902215.455719,EL430.018711,--t nail
BK,OP236,BP244,BS175.5728,BC0.0000
--Fixed HR at Backsight:5.54 (5.54 + 0.0 Offset), Prism Const.:0.0mm
--BS check 236 - 244:ZE95.1002,SD320.24564,HD err= -0.043508, VD err= 0.004098
--BS Circle check : angular err= 0.0000
SS,OP236,FP1162,AR245.0829,ZE92.0339,SD174.690349,--b-606
SS,OP236,FP1163,AR208.0044,ZE90.1550,SD207.285415,--r-1/r-2 center
SS,OP236,FP1164,AR196.4715,ZE89.0313,SD370.275741,--r-4/end north
--Foresight Target:My Prism, HR:3.0 (3.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:3.0 (3.0 + 0.0 Offset)
LS,HI5.45,HR3.0
SS,OP236,FP1165,AR175.0129,ZE90.0601,SD181.275363,--b-605
OC,OP210,N 892697.912708,E 1901766.92064,EL406.338569,--t nail
--HR:3.0 (3.0 + 0.0 Offset)
LS,HI5.16,HR3.0
BK,OP210,BP211,BS51.3003,BC0.0000
--Fixed HR at Backsight:5.58 (5.58 + 0.0 Offset), Prism Const.:0.0mm
--BS check 210 - 211:ZE89.3653,SD436.285873,HD err= -0.002798, VD err= -0.03381
--BS Circle check : angular err= 0.0001
SS,OP210,FP1166,AR91.5919,ZE89.2715,SD129.345259,--ow-619
SP,PN1166,N 892593.973333,E 1901843.861043,EL407.730769,--ow-619
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.16,HR5.0
SS,OP210,FP1167,AR92.0316,ZE90.0203,SD128.920258,--ow-619/pad
SS,OP210,FP1168,AR92.1301,ZE90.2132,SD127.935256,--ow-619/gnd
SS,OP210,FP1169,AR93.1900,ZE90.3510,SD136.085272,--b-619
SS,OP210,FP1170,AR77.2358,ZE88.2729,SD302.125604,--b-604
OC,OP238,N 891170.865695,E 1903821.954034,EL412.290384,--t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.25,HR5.0
BK,OP238,BP237,BS97.0751,BC0.0000
--Fixed HR at Backsight:5.96 (5.96 + 0.0 Offset), Prism Const.:0.0mm
--BS check 238 - 237:ZE90.3224,SD174.600349,HD err= -0.024029, VD err= -0.02527
--BS Circle check : angular err= 0.0001
SS,OP238,FP1171,AR244.0631,ZE101.5720,SD121.970244,--b-424
OC,OP230,N 890951.461168,E 1902934.39352,EL386.619181,--t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.43,HR5.0
BK,OP230,BP231,BS40.5807,BC0.0000
--Fixed HR at Backsight:5.7 (5.7 + 0.0 Offset), Prism Const.:0.0mm
--BS check 230 - 231:ZE89.1748,SD269.98054,HD err= -2.674052, VD err= -12.022899
--BS Circle check : angular err= 0.0001
OC,OP230,N 890951.461168,E 1902934.39352,EL386.619181,--t nail
BK,OP230,BP231,BS40.5807,BC0.0000
--Fixed HR at Backsight:5.7 (5.7 + 0.0 Offset), Prism Const.:0.0mm
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--BS check 230 - 231:ZE89.1748,SD269.98554,HD err= -2.669061, VD err= -12.022183
--BS Circle check : angular err= 0.0001
OC,OP230,N 890951.461168,E 1902934.39352,EL386.619181,--t nail
BK,OP230,BP231,BS40.5807,BC0.0000
--Fixed HR at Backsight:5.7 (5.7 + 0.0 Offset), Prism Const.:0.0mm
--BS check 230 - 231:ZE89.1748,SD269.98554,HD err= -2.669053, VD err= -12.022837
--BS Circle check : angular err= 0.0000
OC,OP239,N 890861.372533,E 1904762.085567,EL415.027528,--t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.36,HR5.0
BK,OP239,BP229,BS0.2042,BC0.0000
--Fixed HR at Backsight:5.95 (5.95 + 0.0 Offset), Prism Const.:0.0mm
--BS check 239 - 229:ZE89.0909,SD2566.440133,HD err= 0.010585, VD err= -0.2663
--BS Circle check : angular err= 0.0000
--Foresight Target:My Prism, HR:5.51 (5.51 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.51 (5.51 + 0.0 Offset)
LS,HI5.36,HR5.51
--RD,BD 1:0.0000
--BS zenith: , slope dist:
--RB,OP239,BP229,AR0.0000,ZE,SD,HR5.95,--t nail
--RD,FD 1:0.0000
--RD,ZD 1:
--MD,SD 1:
--RF,OP239,FP,AR0.0000,ZE,SD,HR5.51,--
--RD,FV 1:180.0000
--RD,ZV 1:
--MD,SD 1:
--RF,OP239,FP,AR180.0000,ZE,SD,HR5.51,--
--RD,BV 1:180.0000
--BS zenith: , slope dist:
--RB,OP239,BP229,AR180.0000,ZE,SD,HR5.95,--t nail
--Horizontal Angle Error: 0.0000
--Zenith Angle Error: 0.0000
RD,BD 1:0.0002
--BS zenith: 89.0910, slope dist: 2566.445133
RB,OP239,BP229,AR0.0002,ZE89.0910,SD2566.445133,HR5.95,--t nail
RD,FD 1:358.4818
RD,ZD 1:94.3553
MD,SD 1:710.356421
RF,OP239,FP251,AR358.4818,ZE94.3553,SD710.356421,HR5.51,--TR-t nail
RD,FV 1:178.4822
RD,ZV 1:265.2413
MD,SD 1:710.351421
RF,OP239,FP251,AR178.4822,ZE265.2413,SD710.351421,HR5.51,--TR-t nail
RD,BV 1:180.0002
--BS zenith: 270.5054, slope dist: 2566.435133
RB,OP239,BP229,AR180.0002,ZE270.5054,SD2566.435133,HR5.95,--t nail
--Horizontal Angle Error: 0.0005
--Zenith Angle Error: 0.0005
--Slope Distance Error: 0.005
--Horizontal Angle Error compares to the average: 0.0000
--Zenith Angle Error compares to the average: 0.0000
--Slope Distance Error compares to the average: 0.0
TR,OP239,FP251,AR358.4818,ZE94.3550,SD710.353921,--TR-t nail
OC,OP251,N 891569.247627,E 1904751.581972,EL357.942236,--TR-t nail
BK,OP251,BP239,BS179.0900,BC0.0000
--Fixed HR at Backsight:5.95 (5.95 + 0.0 Offset), Prism Const.:0.0mm
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--HR:5.51 (0.0 + 0.0 Offset)
LS,HI5.48,HR5.51
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
OC,OP251,N 891569.247627,E 1904751.581972,EL357.942236,--TR-t nail
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.48,HR5.0
BK,OP251,BP239,BS179.0900,BC0.0000
--Fixed HR at Backsight:5.54 (5.54 + 0.0 Offset), Prism Const.:0.0mm
--BS check 251 - 239:ZE85.2315,SD710.376421,HD err= 0.007081, VD err= -0.017672
--BS Circle check : angular err= 0.0000
--Foresight Target:My Prism, HR:0.13 (0.13 + 0.0 Offset), Prism Const.:0.0mm
--HR:0.13 (0.13 + 0.0 Offset)
LS,HI5.48,HR0.13
DP,PN1171
SS,OP251,FP1171,AR102.3144,ZE90.4401,SD130.475261,--ow-624
--Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
--HR:5.0 (5.0 + 0.0 Offset)
LS,HI5.48,HR5.0
SS,OP251,FP1172,AR102.4223,ZE89.2556,SD130.345261,--ow-624/pad
SS,OP251,FP1173,AR103.0851,ZE89.3757,SD130.21526,--ow-624/gnd
SS,OP251,FP1174,AR106.5527,ZE89.4643,SD143.155286,--b-624
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