```
Last updated:  Thursday, November 01, 2001 (Ambrose)

 ==========================================================================

Priority lists: (extracted from problem list below)
---------------

High-level noise cells:

   SL6-031 (A,063,01-12-3): 00 dead, 05 hot!, 06 warm

      --> Maybe associated with double-pulsing #11 wire.

   SL6-098 (B,237,03-14-1): 00 dead, 00 hot!, 00 warm, 12 null
   SL6-099 (B,237,03-14-1): 00 dead, 09 hot!, 01 warm, 02 null

      --> Extreme null noise on even, hot noise on odd, good occ on all,
          high DTH on all.

   SL6-104 (B,240,03-13-0): 00 dead, 00 hot!, 00 warm, 12 null
   SL6-105 (B,240,03-13-0): 00 dead, 01 hot!, 00 warm, 11 null

      --> Large null noise, half DTH size.

   SL6-108 (B,242,03-13-2): 00 dead, 00 hot!, 01 warm, 08 null
   SL6-109 (B,242,03-13-2): 00 dead, 02 hot!, 03 warm, 04 null

      --> Moderate null noise, good occ, DTH.

   SL6-178 (B,361,05-15-1): 00 dead, 00 hot!, 00 warm, 08 null
   SL6-179 (B,361,05-15-1): 00 dead, 01 hot!, 01 warm, 07 null

      --> Null noise, probably from crossed wire 179#05, low DTH.

   SL7-017 (A,032,01-07-0): 00 dead, 00 hot!, 00 warm, 03 null

      --> Null noise, DTH high, high occ.

   SL7-142 (B,235,03-18-3): 00 dead, 01 hot!, 05 warm, 01 null

      --> Moderate null noise, but occ dead for 143#04?

   SL7-344 (D,632,08-05-0): 00 dead, 00 hot!, 00 warm, 04 null
   SL7-345 (D,632,08-05-0): OKAY

      --> Slight null noise, but smeared DTH points.

   SL7-378 (D,693,09-06-1): 00 dead, 01 hot!, 04 warm
   SL7-379 (D,693,09-06-1): 00 dead, 00 hot!, 09 warm

      --> Large null noise, high DTH.
      --> From May, good calibs at rptr but might be missing 10 ohm,
          see sync noise 80 and 180 ns after leading output (40 ns wide).

   SL8-387 (D,619,18-06-3): 00 dead, 01 hot!, 03 warm, 00 null

      --> High occ with calib noise at high wire end.

   SL8-437 (D,704,19-07-0): 00 dead, 01 hot!, 07 warm, 01 null

      --> Null noise, probably from dead wire #08.

Low-level noise cells:

   SL1-001 (A,008,10-19-0): 00 dead, 01 hot!, 06 warm, 00 null
   SL1-119 (C,547,17-04-3): 00 dead, 01 hot!, 04 warm, 00 null
   SL4-143 (B,377,15-05-1): 00 dead, 01 hot!, 06 warm, 00 null
   SL6-045 (A,070,01-10-2): 00 dead, 03 hot!, 06 warm, 00 null
   SL8-153 (B,230,13-15-2): 00 dead, 01 hot!, 07 warm, 00 null
   SL8-215 (B,353,15-16-1): 00 dead, 01 hot!, 08 warm, 00 null
   SL8-275 (C,431,16-16-3): 00 dead, 03 hot!, 08 warm, 00 null
   SL8-288 (C,438,16-14-2): 00 dead, 01 hot!, 03 warm, 00 null
   SL8-289 (C,438,16-14-2): 00 dead, 01 hot!, 11 warm, 00 null
   SL8-396 (D,664,18-04-0): 00 dead, 01 hot!, 07 warm, 00 null
   SL8-401 (D,666,18-04-2): 00 dead, 01 hot!, 04 warm, 01 null
   SL8-123 (B,195,13-19-3): 00 dead, 00 hot!, 00 warm, 03 null

High-level calib shape or ASDQ problems:

   SL4-078 (B,249,13-08-1): W = 28.1 (32.9+/-2.1) -4.8
   SL4-079 (B,249,13-08-1): W = 28.2 (32.9+/-2.1) -4.7

      --> Low width, low/smeared DTH.
      --> From May, pos calib is double-pulsed.

   SL4-160 (C,418,16-07-2): 00 dead, 12 hot!, 00 warm, 00 null
   SL4-161 (C,418,16-07-2): 00 dead, 12 hot!, 00 warm, 00 null

      --> Double-pulse cells.

   SL5-220 (C,518,17-13-2): 00 dead, 00 hot!, 00 warm, 07 null
   SL5-221 (C,518,17-13-2): 00 dead, 01 hot!, 01 warm, 08 null

      --> Null noise, high DTH, good widths.
      --> Pos calib is double-pulsed (from May).

   SL8-232 (B,366,15-14-2): Q = 32.1 (24.0+/-2.1) +8.1
   SL8-233 (B,366,15-14-2): Q = 31.6 (24.0+/-2.1) +7.5

      --> High QEN widths.

Low-level calib shape problems:

   SL1-055 (B,271,13-06-3): D = 471 (533+/-54) -62
   SL3-162 (C,541,07-10-1): D = 458 (533+/-54) -75
   SL4-077 (B,248,13-08-0): D = 592 (533+/-54) +59 --> 1 TRK
   SL5-242 (C,537,17-10-1): W = 30.6 (32.9+/-2.1) -2.3
                            D = 455 (533+/-54) -78
   SL5-243 (C,537,17-10-1): D = 453 (533+/-54) -80
   SL6-274 (C,537,07-11-1): D = 455 (533+/-54) -78
   SL6-275 (C,537,07-11-1): D = 461 (533+/-54) -72
   SL8-126 (B,205,13-18-1): D = 466 (533+/-54) -67
   SL8-127 (B,205,13-18-1): D = 473 (533+/-54) -60

Hot/high-occupancy channels:

   SL1-041 (A,188,12-17-0): #00/12 N = 1.039 (1.001,0.005,0.067,1.115)
   SL1-042 (B,189,12-17-1): #00/24 N = 1.112 (1.009,0.010,0.116,1.113)
   SL2-073 (B,326,04-06-2): #01/61 N = 8.000 (8.000,8.000,8.000,2.024)
   SL2-074 (B,327,04-06-3): #05/77 N = 0.000 (0.000,0.000,0.000,1.417)

   SL2-102 (C,417,06-08-1): #01/25 D = 470 (544+/-70) -74
   SL2-102 (C,417,06-08-1): #02/26 D = 460 (544+/-70) -84
   SL2-102 (C,417,06-08-1): #06/30 D = 450 (544+/-70) -94
   SL2-102 (C,417,06-08-1): #07/31 D = 450 (544+/-70) -94
   SL2-103 (C,417,06-08-1): #00/36 D = 430 (544+/-70) -114

      --> Strange drop in DTH, wid for these wires only (rest of cell OK).

   SL3-062 (B,195,02-12-3): #01/73 N = 1.000 (1.000,1.000,0.000,1.439)
                                   W = 21.0 (32.9+/-4.5) -11.9
                                   D = 280 (533+/-70) -253
   SL3-063 (B,195,02-12-3): #00/84 W = 24.7 (32.9+/-4.5) -8.1

      --> Possible crossed wires lead to high occ, bad wid.

   SL3-170 (C,557,07-09-1): #00/24 N = 1.434 (1.088,0.117,0.459,1.400)
   SL3-170 (C,557,07-09-1): #01/25 N = 1.225 (1.030,0.026,0.243,1.272)
   SL3-170 (C,557,07-09-1): #03/27 N = 1.053 (1.000,0.003,0.075,1.156)

      --> High occ with calib noise at low wire end.

   SL4-094 (B,301,14-09-1): #11/35 N = 1.338 (1.119,0.145,0.488,1.420)

      --> High occ with calib noise at high wire end.

   SL5-190 (C,407,15-09-3): #09/81 N = 1.005 (1.000,0.000,0.002,1.230)
   SL5-190 (C,407,15-09-3): #10/82 N = 1.005 (1.000,0.000,0.022,1.300)
   SL5-190 (C,407,15-09-3): #11/83 N = 1.002 (1.000,0.000,0.007,1.217)
   SL5-191 (C,407,15-09-3): #05/89 N = 1.000 (1.000,0.000,0.006,1.384)
   SL5-191 (C,407,15-09-3): #06/90 N = 1.002 (1.000,0.000,0.003,1.251)
   SL5-191 (C,407,15-09-3): #08/92 N = 1.002 (1.000,0.000,0.018,1.541)

      --> High occ but calib OK.

   SL5-236 (C,534,17-11-2): #00/48 N = 1.162 (1.024,0.024,0.174,1.462)

      --> High occ with calib noise at low wire end.

   SL5-246 (C,539,17-10-3): #11/83 N = 5.831 (7.225,0.008,0.000,1.969)

      --> High occ with calib noise at high wire end.

   SL6-165 (B,334,05-17-2): #02/62 N = 2.476 (2.093,1.788,0.000,1.924)

      --> Possible crossed wire leads to high occ.

   SL6-182 (B,363,05-15-3): #11/83 N = 1.000 (1.000,1.118,0.000,1.640)
   SL6-183 (B,363,05-15-3): #11/95 N = 0.000 (0.000,0.000,0.000,0.842)

      --> Possible crossed wires lead to high occ.

   SL6-236 (C,458,06-12-2): #00/48 N = 1.000 (1.000,0.000,0.000,1.317)

      --> Zero-width pulse gets high occ, probably lost u-coax leg.

   SL7-122 (B,201,03-20-1): #00/24 N = 1.000 (1.000,1.000,0.000,2.334)
   SL7-123 (B,201,03-20-1): #00/36 N = 3.000 (3.000,3.000,2.000,1.904)

      --> Possible crossed wires give high occ.

   SL7-190 (B,315,04-18-3): #06/78 N = 1.013 (1.000,0.001,0.025,1.433)
   SL7-190 (B,315,04-18-3): #07/79 N = 1.006 (1.000,0.001,0.018,1.194)
   SL7-190 (B,315,04-18-3): #11/83 N = 1.016 (1.001,0.001,0.035,1.290)
   SL7-191 (B,315,04-18-3): #07/91 N = 1.026 (1.000,0.001,0.032,1.433)

      --> High occ with calib noise.

   SL7-236 (C,390,05-19-2): #00/48 N = 1.014 (1.000,0.000,0.000,1.822)

      --> High occ with no associated calib noise.

   SL8-120 (B,194,13-19-2): #09/57 N = 1.056 (1.002,0.002,0.062,1.546)
   SL8-120 (B,194,13-19-2): #10/58 N = 1.074 (1.001,0.004,0.068,1.667)

      --> Leftover noise from similar 8-116, 8-118 problems.

   SL8-138 (B,211,13-17-3): #09/81 N = 0.419 (0.026,0.004,0.000,1.753)

      --> High occ from single broken wire.

   SL8-152 (B,230,13-15-2): #09/57 N = 1.088 (1.003,0.004,0.118,1.520)

      --> High occ, similar to 8-116 noise.

   SL8-270 (C,429,16-16-1): #05/29 N = 1.022 (1.005,0.006,0.084,1.330)
   SL8-270 (C,429,16-16-1): #06/30 N = 1.036 (1.007,0.015,0.133,1.597)
   SL8-271 (C,429,16-16-1): #08/44 N = 1.011 (1.000,0.000,0.007,1.546)
   SL8-271 (C,429,16-16-1): #09/45 N = 1.031 (1.000,0.002,0.009,1.977)
   SL8-271 (C,429,16-16-1): #10/46 N = 1.013 (1.000,0.001,0.004,1.710)
   SL8-271 (C,429,16-16-1): #11/47 N = 1.002 (1.000,0.002,0.001,1.442)

      --> High occ with calib noise at high wire end.

   SL8-313 (C,478,17-19-2): #05/65 N = 0.000 (0.000,0.000,0.000,0.009)
   SL8-313 (C,478,17-19-2): #08/68 N = 1.044 (1.001,0.001,0.056,1.382)

      --> High occ with other dead wire (high DTH) and other low DTH wires.

   SL8-373 (D,612,18-07-0): #00/12 N = 1.100 (1.005,0.014,0.146,1.632)

      --> High occ with calib noise at low wire end.

   SL8-403 (D,667,18-04-3): #00/84 N = 1.000 (1.000,0.000,0.000,1.347)

      --> High occ with calib noise.

 ==========================================================================

HV-related work: (progress so far)
----------------

   SL1-064 (B,324,14-06-0): #10/10 N = 1.000 (1.000,0.000,0.000,0.009)
                                   W = 40.1 (32.9+/-4.5) +7.2
                                   A = 25.5 (20.8+/-4.5) +4.7
                                   D = 700 (533+/-70) +167
```

```
      --> Extensive HV work, probably bad ASDQ motherboard.

   SL1-106 (C,473,16-03-1): #11/35 N = 1.998 (1.995,0.002,0.000,0.070)

      --> Low occ associated with HV trip.  ASDQ 25 ohm fried.
      --> Disabled HV (tied to P12).

   SL1-151 (D,691,19-20-3): #01

      --> Previously high YMon, but intermittent, passes COTASDQ tests.
      --> Will leave for now, use spy under N2 and Ar/Et at HV.

   SL3-061 (B,194,02-12-2): #01

      --> YMon "High Occ", but passes COTASDQ.
      --> Will leave for now, use spy under N2 and Ar/Et at HV.
      --> Might be confused with SL3-062 #01, which is a high occ probably
          crossed with SL3-063 #00.

   SL4-227 (D,579,18-17-3): #05

      --> Bad cap connection, and many HV problems in cell.
      --> Disabled HV (tied to P6), also have blown ASDQ resistor.
      --> Will want to crack gas seal for look in the future.
      --> Still need to replace ASDQ and HV daughterboard.

   SL7-138 (B,233,03-18-1): #05

      --> Associated with HV trips.  Disabled HV (tie to P6).

   SL7-223 (C,375,05-21-3): #00

      --> YMon "high mult" = 3.2, but passes COTASDQ.
      --> Will leave for now, use spy under N2 and Ar/Et at HV.

   SL8-104 (A,178,12-05-2): #09/57 N = 1.915 (1.833,0.000,0.003,0.345) --> HVD
   SL8-105 (A,178,12-05-2): #07/67 N = 1.057 (1.380,0.000,0.000,1.036)
   SL8-105 (A,178,12-05-2): #09/69 N = 1.942 (1.927,0.011,0.048,0.389) --> HVD

      --> HV disabled during 9/10 access.
      --> May want to reinsert one resistor and test under Ar/Et.

   SL8-445 (D,708,19-06-0): #01/13 W = 40.9 (32.9+/-4.5) +8.0
                                   D = 700 (533+/-70) +167
   SL8-445 (D,708,19-06-0): #11/23 N = 2.000 (2.000,0.000,0.000,0.233)

      --> ASDQ resistor blown on #11, HV disabled (tie to P12).
      --> #1 does not have trip history.

 ==========================================================================

Front-end work: (progress so far)
---------------

   SL2-024 (A,046,01-16-2): OKAY

      --> Found u-coax swapped with 2-26 at endplate as expected.
      --> Undid this swap and compensating swap at TDC (10/24).

   SL2-071 (B,325,04-06-1): #08/44 N = 0.000 (0.000,0.000,0.000,0.020)
   SL2-071 (B,325,04-06-1): #11/47 N = 0.000 (0.000,0.000,0.000,0.749)

      --> Found problems at u-coax socket (latching for #08, jumper added
          for #11).

   SL6-096 (B,236,03-14-0): 00 dead, 04 hot!, 03 warm, 05 null

      --> Better ground HV ribbon bundle to f-cage added.

   SL6-336 (D,680,09-09-0): 00 dead, 00 hot!, 00 warm, 12 null

      --> SL6-336:383 null noise probably due to the washer shorting to the
          TREF lines.
      --> Washer found and removed, now fixed (10-23).

   SL7-050 (A,089,01-03-1): 00 dead, 04 hot!, 05 warm, 00 null
   SL7-051 (A,089,01-03-1): 01 dead, 06 hot!, 05 warm, 00 null

      --> Found loose screw on angle bracket, fixed.

   SL7-372 (D,658,08-02-2): 00 dead, 05 hot!, 02 warm, 02 null
   SL7-373 (D,658,08-02-2): 00 dead, 05 hot!, 03 warm, 01 null

      --> Found OD angle bracket unsoldered, fixed.

   SL8-116 (A,192,13-19-0): 00 dead, 07 hot!, 02 warm, 00 null
   SL8-117 (A,192,13-19-0): 00 dead, 10 hot!, 02 warm, 00 null
   SL8-118 (A,193,13-19-1): 00 dead, 09 hot!, 03 warm, 00 null
   SL8-119 (A,193,13-19-1): 00 dead, 01 hot!, 04 warm, 00 null

      --> Extensive investigation here for 116-119 without much luck.
      --> Tried artificially increasing DTH with resistor.
      --> Leaving f-cage off helps.

   SL8-197 (B,320,15-18-0): 00 dead, 04 hot!, 08 warm, 00 null

      --> Original occ coincided with null noise, looked like "odd-cell".
      --> Now looks OK with spy and COTASDQ, so the u-coax responsible
          was probably moved in the process, "odd-cell" noise disappeared.

   SL8-199 (B,321,15-18-1): 03 dead, 00 hot!, 01 warm, 00 null

      --> Bad plug-in at rptr, fixed.

   SL8-271 (C,429,16-16-1): 00 dead, 01 hot!, 10 warm, 00 null

      --> Originally high occ with correlated "odd-cell" looking noise.
      --> Problem appears to have decreased after undoing f-cage and looking
          around, so not sure.

   SL8-363 (D,583,18-09-3): 00 dead, 04 hot!, 08 warm, 00 null

      --> High occ and calib noise, looks like "odd-cell" stuff.
      --> Problem reduced after f-cage reworking.

 ==========================================================================

Complete problem list: (based on October 27 calibrations)
---------------------

Dead/noisy cells:

   SL1-001 (A,008,10-19-0): 00 dead, 01 hot!, 06 warm, 00 null
   SL1-119 (C,547,17-04-3): 00 dead, 01 hot!, 04 warm, 00 null
   SL4-143 (B,377,15-05-1): 00 dead, 01 hot!, 06 warm, 00 null
   SL4-160 (C,418,16-07-2): 00 dead, 12 hot!, 00 warm, 00 null
   SL4-161 (C,418,16-07-2): 00 dead, 12 hot!, 00 warm, 00 null
   SL4-226 (D,579,18-17-3): 12 dead, 00 hot!, 00 warm, 00 null
   SL4-227 (D,579,18-17-3): 10 dead, 02 hot!, 00 warm, 00 null --> 5 HVD  1 TRK
   SL6-031 (A,063,01-12-3): 00 dead, 05 hot!, 06 warm, 00 null
   SL6-045 (A,070,01-10-2): 00 dead, 03 hot!, 06 warm, 00 null
   SL6-099 (B,237,03-14-1): 00 dead, 09 hot!, 01 warm, 02 null
   SL6-109 (B,242,03-13-2): 00 dead, 02 hot!, 03 warm, 04 null
   SL7-142 (B,235,03-18-3): 00 dead, 01 hot!, 05 warm, 01 null
   SL7-378 (D,693,09-06-1): 00 dead, 01 hot!, 04 warm, 07 null
   SL8-153 (B,230,13-15-2): 00 dead, 01 hot!, 07 warm, 00 null
   SL8-215 (B,353,15-16-1): 00 dead, 01 hot!, 08 warm, 00 null
   SL8-275 (C,431,16-16-3): 00 dead, 03 hot!, 08 warm, 00 null
   SL8-288 (C,438,16-14-2): 00 dead, 01 hot!, 03 warm, 00 null
   SL8-289 (C,438,16-14-2): 00 dead, 01 hot!, 11 warm, 00 null
   SL8-387 (D,619,18-06-3): 00 dead, 01 hot!, 03 warm, 00 null
   SL8-396 (D,664,18-04-0): 00 dead, 01 hot!, 07 warm, 00 null
   SL8-401 (D,666,18-04-2): 00 dead, 01 hot!, 04 warm, 01 null
   SL8-437 (D,704,19-07-0): 00 dead, 01 hot!, 07 warm, 01 null

   Total = 22

NULL noise cells:

   SL5-220 (C,518,17-13-2): 00 dead, 00 hot!, 00 warm, 07 null
   SL5-221 (C,518,17-13-2): 00 dead, 01 hot!, 01 warm, 08 null
   SL6-098 (B,237,03-14-1): 00 dead, 00 hot!, 00 warm, 12 null
   SL6-100 (B,238,03-14-2): 00 dead, 00 hot!, 00 warm, 03 null
   SL6-104 (B,240,03-13-0): 00 dead, 00 hot!, 00 warm, 12 null
   SL6-105 (B,240,03-13-0): 00 dead, 01 hot!, 00 warm, 11 null
   SL6-108 (B,242,03-13-2): 00 dead, 00 hot!, 01 warm, 08 null
   SL6-178 (B,361,05-15-1): 00 dead, 00 hot!, 00 warm, 08 null
   SL6-179 (B,361,05-15-1): 00 dead, 01 hot!, 01 warm, 07 null
   SL7-017 (A,032,01-07-0): 00 dead, 00 hot!, 00 warm, 03 null
   SL7-344 (D,632,08-05-0): 00 dead, 00 hot!, 00 warm, 04 null
   SL7-379 (D,693,09-06-1): 00 dead, 00 hot!, 09 warm, 03 null
   SL8-123 (B,195,13-19-3): 00 dead, 00 hot!, 00 warm, 03 null

   Total = 13

Bad time cells:

   SL4-174 (C,465,16-05-1): T = 434.1 (439.8+/-4.5) -5.7
   SL5-001 (A,016,10-12-0): T = 435.0 (439.5+/-4.5) -4.6
   SL5-268 (D,606,18-13-2): T = 444.0 (439.5+/-4.5) +4.5
   SL5-269 (D,606,18-13-2): T = 444.8 (439.5+/-4.5) +5.3
   SL7-070 (A,143,02-07-3): T = 431.3 (437.7+/-4.5) -6.4
   SL7-071 (A,143,02-07-3): T = 432.9 (437.7+/-4.5) -4.8
   SL7-136 (B,232,03-18-0): T = 444.0 (437.7+/-4.5) +6.3
   SL7-137 (B,232,03-18-0): T = 444.6 (437.7+/-4.5) +6.9
   SL7-138 (B,233,03-18-1): T = 445.1 (437.7+/-4.5) +7.4
   SL7-139 (B,233,03-18-1): T = 444.6 (437.7+/-4.5) +6.9
   SL7-140 (B,234,03-18-2): T = 444.8 (437.7+/-4.5) +7.1
   SL7-141 (B,234,03-18-2): T = 445.9 (437.7+/-4.5) +8.2
   SL7-142 (B,235,03-18-3): T = 442.9 (437.7+/-4.5) +5.2
   SL7-143 (B,235,03-18-3): T = 445.2 (437.7+/-4.5) +7.5
   SL8-036 (A,068,11-08-0): T = 428.1 (436.2+/-4.5) -8.1
   SL8-037 (A,068,11-08-0): T = 428.4 (436.2+/-4.5) -7.7
   SL8-038 (A,069,11-08-1): T = 429.6 (436.2+/-4.5) -6.6
   SL8-039 (A,069,11-08-1): T = 430.8 (436.2+/-4.5) -5.4
   SL8-040 (A,070,11-08-2): T = 429.8 (436.2+/-4.5) -6.4
   SL8-041 (A,070,11-08-2): T = 431.3 (436.2+/-4.5) -4.8
   SL8-042 (A,071,11-08-3): T = 430.0 (436.2+/-4.5) -6.1
   SL8-043 (A,071,11-08-3): T = 430.7 (436.2+/-4.5) -5.4
   SL8-382 (D,617,18-06-1): T = 441.6 (436.2+/-4.5) +5.4
   SL8-383 (D,617,18-06-1): T = 443.0 (436.2+/-4.5) +6.9

   Total = 24

Bad width cells:

   SL3-188 (D,602,08-15-2): W = 35.0 (32.9+/-2.1) +2.1
   SL3-214 (D,699,09-14-3): W = 35.0 (32.9+/-2.1) +2.2
   SL3-215 (D,699,09-14-3): W = 35.2 (32.9+/-2.1) +2.4
   SL4-024 (A,058,11-16-2): W = 35.1 (32.9+/-2.1) +2.2
   SL4-025 (A,058,11-16-2): W = 35.2 (32.9+/-2.1) +2.3
   SL4-078 (B,249,13-08-1): W = 28.1 (32.9+/-2.1) -4.8
   SL4-079 (B,249,13-08-1): W = 28.2 (32.9+/-2.1) -4.7
   SL4-160 (C,418,16-07-2): W = 17.0 (32.9+/-2.1) -15.8
   SL4-161 (C,418,16-07-2): W = 17.2 (32.9+/-2.1) -15.7
   SL4-226 (D,579,18-17-3): W =  0.0 (32.9+/-2.1) -32.9
   SL4-227 (D,579,18-17-3): W =  0.9 (32.9+/-2.1) -32.0 --> 5 HVD  1 TRK
   SL5-242 (C,537,17-10-1): W = 30.6 (32.9+/-2.1) -2.3
   SL6-099 (B,237,03-14-1): W = 30.6 (32.9+/-2.1) -2.3
   SL6-104 (B,240,03-13-0): W = 30.1 (32.9+/-2.1) -2.8
   SL6-121 (B,288,04-14-0): W = 35.5 (32.9+/-2.1) +2.6
   SL6-178 (B,361,05-15-1): W = 30.1 (32.9+/-2.1) -2.8
   SL6-179 (B,361,05-15-1): W = 30.6 (32.9+/-2.1) -2.2
   SL6-193 (C,396,05-13-0): W = 35.4 (32.9+/-2.1) +2.6
   SL6-294 (D,587,08-11-3): W = 35.2 (32.9+/-2.1) +2.4
   SL6-345 (D,684,09-08-0): W = 35.3 (32.9+/-2.1) +2.5
   SL7-202 (B,345,04-16-1): W = 30.2 (32.9+/-2.1) -2.7
   SL8-014 (A,029,10-07-1): W = 30.4 (32.9+/-2.1) -2.4
   SL8-349 (C,512,17-14-0): W = 35.1 (32.9+/-2.1) +2.2
   SL8-437 (D,704,19-07-0): W = 30.2 (32.9+/-2.1) -2.7

   Total = 24

Bad ATN cells:

   SL8-275 (C,431,16-16-3): A = 18.5 (20.8+/-2.1) -2.3

   Total = 1

Bad QEN cells:

   SL6-098 (B,237,03-14-1): Q = 21.0 (24.0+/-2.1) -3.0
   SL6-140 (B,302,04-12-2): Q = 26.3 (24.0+/-2.1) +2.2
   SL6-317 (D,618,08-08-2): Q = 21.9 (24.0+/-2.1) -2.1
   SL8-232 (B,366,15-14-2): Q = 32.1 (24.0+/-2.1) +8.1
   SL8-233 (B,366,15-14-2): Q = 31.6 (24.0+/-2.1) +7.5
   SL8-275 (C,431,16-16-3): Q = 21.6 (24.0+/-2.1) -2.4
```

```
   Total = 6

Bad DTH cells:

   SL1-055 (B,271,13-06-3): D = 471 (533+/-54) -62
   SL3-162 (C,541,07-10-1): D = 458 (533+/-54) -75
   SL4-077 (B,248,13-08-0): D = 592 (533+/-54) +59 --> 1 TRK
   SL4-078 (B,249,13-08-1): D = 350 (533+/-54) -183
   SL4-079 (B,249,13-08-1): D = 355 (533+/-54) -178
   SL4-160 (C,418,16-07-2): D = 377 (533+/-54) -156
   SL4-161 (C,418,16-07-2): D = 384 (533+/-54) -149
   SL4-226 (D,579,18-17-3): D = 700 (533+/-54) +167
   SL5-220 (C,518,17-13-2): D = 625 (533+/-54) +92
   SL5-221 (C,518,17-13-2): D = 626 (533+/-54) +93
   SL5-242 (C,537,17-10-1): D = 455 (533+/-54) -78
   SL5-243 (C,537,17-10-1): D = 453 (533+/-54) -80
   SL6-098 (B,237,03-14-1): D = 695 (533+/-54) +162
   SL6-099 (B,237,03-14-1): D = 695 (533+/-54) +162
   SL6-100 (B,238,03-14-2): D = 476 (533+/-54) -57
   SL6-102 (B,239,03-14-3): D = 457 (533+/-54) -76
   SL6-103 (B,239,03-14-3): D = 465 (533+/-54) -68
   SL6-104 (B,240,03-13-0): D = 392 (533+/-54) -141
   SL6-105 (B,240,03-13-0): D = 398 (533+/-54) -135
   SL6-178 (B,361,05-15-1): D = 396 (533+/-54) -137
   SL6-179 (B,361,05-15-1): D = 420 (533+/-54) -113
   SL6-274 (C,537,07-11-1): D = 455 (533+/-54) -78
   SL6-275 (C,537,07-11-1): D = 461 (533+/-54) -72
   SL7-017 (A,032,01-07-0): D = 592 (533+/-54) +59
   SL7-018 (A,033,01-07-1): D = 475 (533+/-54) -58
   SL7-378 (D,693,09-06-1): D = 645 (533+/-54) +112
   SL7-379 (D,693,09-06-1): D = 620 (533+/-54) +87
   SL8-126 (B,205,13-18-1): D = 466 (533+/-54) -67
   SL8-127 (B,205,13-18-1): D = 473 (533+/-54) -60

   Total = 29

HV disabled wires:

   SL2-105 (C,418,06-08-2): #11/71 N = 1.938 (1.589,0.000,0.000,0.188) --> HVD
   SL3-126 (C,403,05-11-3): #00/72 N = 1.155 (1.031,0.000,0.000,0.046) --> HVD
   SL3-126 (C,403,05-11-3): #01/73 N = 1.915 (1.720,0.000,0.000,0.126) --> HVD
   SL4-057 (A,118,12-15-2): #03/63 N = 1.908 (1.816,0.000,0.004,0.284) --> HVD
   SL4-227 (D,579,18-17-3): #00/84 N = 0.072 (0.008,0.002,0.000,0.210) --> HVD
   SL4-227 (D,579,18-17-3): #02/86 N = 2.151 (2.040,1.643,1.795,0.160) --> HVD
   SL4-227 (D,579,18-17-3): #03/87 N = 8.000 (8.000,8.000,8.000,0.124) --> HVD
   SL4-227 (D,579,18-17-3): #04/88 N = 0.022 (0.000,0.000,0.000,0.130) --> HVD
   SL4-227 (D,579,18-17-3): #05/89 N = 0.000 (0.000,0.000,0.000,0.003) --> HVD
   SL5-082 (A,169,12-09-1): #09/33 N = 1.994 (1.987,0.000,0.002,0.316) --> HVD
   SL7-045 (A,082,01-04-2): #08/68 N = 1.959 (1.974,0.000,0.007,0.280) --> HVD
   SL7-292 (C,490,07-20-2): #03/51 N = 1.999 (1.994,0.000,0.000,0.253) --> HVD
   SL7-321 (C,552,07-16-0): #06/18 N = 1.793 (1.660,0.000,0.000,0.205) --> HVD
   SL8-104 (A,178,12-05-2): #09/57 N = 1.915 (1.833,0.000,0.003,0.345) --> HVD
   SL8-105 (A,178,12-05-2): #09/69 N = 1.942 (1.927,0.011,0.048,0.389) --> HVD
   SL8-317 (C,496,17-18-0): #07/19 N = 1.899 (1.868,0.001,0.016,0.794) --> HVD
   SL8-322 (C,499,17-18-3): #06/78 N = 1.000 (1.000,0.000,0.000,0.017) --> HVD
   SL8-417 (D,686,19-10-2): #01/61 N = 1.000 (1.000,0.000,0.000,0.898) --> HVD

   Total = 18

Dead wires:

   SL2-028 (A,104,02-16-0): #01/01 N = 1.000 (0.000,0.002,0.000,1.042)
   SL2-029 (A,104,02-16-0): #00/12 N = 1.000 (0.000,0.000,0.000,0.735)
   SL2-074 (B,327,04-06-3): #05/77 N = 0.000 (0.000,0.000,0.000,1.417)
   SL2-189 (D,732,00-15-0): #00/12 N = 0.000 (0.000,0.000,0.000,1.006)
   SL3-032 (A,084,01-13-0): #05/05 N = 0.000 (0.000,0.000,0.000,0.013)
   SL3-093 (B,318,04-10-2): #11/71 N = 0.000 (0.000,0.000,0.000,0.000)
   SL3-095 (B,319,04-10-3): #04/88 N = 0.465 (0.688,0.000,0.000,0.541)
   SL3-166 (C,543,07-10-3): #11/83 N = 0.001 (0.104,0.000,0.000,1.010)
   SL3-212 (D,698,09-14-2): #09/57 N = 0.000 (0.000,0.000,0.000,0.000) --> TRK
   SL4-070 (A,213,13-09-1): #05/29 N = 0.000 (0.051,0.000,0.000,0.785)
   SL4-254 (D,673,19-17-1): #07/31 N = 0.000 (0.000,0.000,0.000,0.000)
   SL5-064 (A,148,12-11-0): #00/00 N = 0.000 (0.000,0.000,0.000,1.184)
   SL5-193 (C,452,16-11-0): #10/22 N = 0.000 (0.000,0.000,0.000,0.465)
   SL5-209 (C,460,16-09-0): #01/13 N = 0.000 (0.000,0.000,0.000,0.000)
   SL5-264 (D,604,18-13-0): #08/08 N = 0.000 (0.000,0.000,0.000,0.000) --> TRK
   SL6-001 (A,008,00-07-0): #11/23 N = 0.021 (0.000,0.000,0.000,0.727)
   SL6-183 (B,363,05-15-3): #11/95 N = 0.000 (0.000,0.000,0.000,0.842)
   SL6-345 (D,684,09-08-0): #11/23 N = 0.000 (0.000,0.000,0.000,0.929)
   SL6-358 (D,707,09-07-3): #09/81 N = 0.000 (0.000,0.000,0.000,0.754)
   SL6-359 (D,707,09-07-3): #11/95 N = 0.000 (0.000,0.000,0.000,0.120)
   SL7-051 (A,089,01-03-1): #03/39 N = 0.019 (0.000,0.000,0.000,0.328)
   SL7-286 (C,487,07-21-3): #01/73 N = 0.000 (0.000,0.000,0.000,0.000) --> TRK
   SL7-342 (D,631,08-06-3): #02/74 N = 0.000 (0.000,0.000,0.000,0.020)
   SL7-370 (D,657,08-02-1): #11/35 N = 0.001 (0.000,0.000,0.000,0.846)
   SL8-017 (A,030,10-07-2): #09/69 N = 0.004 (0.000,0.000,0.000,0.889)
   SL8-019 (A,031,10-07-3): #05/89 N = 0.000 (0.000,0.000,0.000,0.225)
   SL8-059 (A,091,11-06-3): #01/85 N = 0.000 (0.000,0.000,0.000,0.009)
   SL8-138 (B,211,13-17-3): #09/81 N = 0.419 (0.026,0.004,0.000,1.753)
   SL8-313 (C,478,17-19-2): #05/65 N = 0.000 (0.000,0.000,0.000,0.009)
   SL8-436 (D,704,19-07-0): #08/08 N = 1.066 (0.142,0.000,0.000,0.518)
   SL8-475 (D,747,10-10-3): #11/95 N = 0.000 (0.000,0.000,0.000,0.000)
   SL8-479 (D,733,10-09-1): #01/37 N = 0.000 (0.000,0.000,0.000,0.009)

   Total = 32

Bad time wires:

   SL1-154 (D,725,19-19-1): #00/24 T = 554.3 (442.4+/-7.0) +111.9
   SL2-118 (C,469,06-06-1): #05/29 T = 458.4 (442.6+/-7.0) +15.8
   SL5-141 (B,314,14-13-2): #00/60 T = 448.3 (439.5+/-7.0) +8.8
   SL5-297 (D,676,19-14-0): #04/16 T = 446.6 (439.5+/-7.0) +7.1
   SL6-179 (B,361,05-15-1): #05/41 T = 423.7 (439.7+/-7.0) -16.0
   SL6-236 (C,458,06-12-2): #00/48 T = 565.3 (439.7+/-7.0) +125.6
   SL7-005 (A,026,00-02-2): #10/70 T = 446.2 (437.7+/-7.0) +8.5
   SL7-005 (A,026,00-02-2): #11/71 T = 447.7 (437.7+/-7.0) +10.0
   SL7-122 (B,201,03-20-1): #00/24 T = 472.8 (437.7+/-7.0) +35.1

   Total = 9

Bad width wires:

   SL1-043 (B,189,12-17-1): #05/41 W = 26.4 (32.9+/-4.5) -6.5
   SL1-061 (B,286,13-05-2): #03/63 W = 38.4 (32.9+/-4.5) +5.5
   SL1-064 (B,324,14-06-0): #10/10 W = 40.1 (32.9+/-4.5) +7.2
   SL1-117 (C,546,17-04-2): #03/63 W = 39.1 (32.9+/-4.5) +6.2
   SL1-143 (D,639,18-19-3): #07/91 W = 37.6 (32.9+/-4.5) +4.7
   SL1-154 (D,725,19-19-1): #00/24 W =  0.0 (32.9+/-4.5) -32.9
   SL2-045 (A,220,03-08-0): #10/22 W = 27.6 (32.9+/-4.5) -5.2
   SL2-081 (B,338,05-09-2): #03/63 W = 38.1 (32.9+/-4.5) +5.2
   SL2-102 (C,417,06-08-1): #00/24 W = 37.6 (32.9+/-4.5) +4.8
   SL2-102 (C,417,06-08-1): #06/30 W = 26.7 (32.9+/-4.5) -6.2
   SL2-118 (C,469,06-06-1): #05/29 W = 14.2 (32.9+/-4.5) -18.7
   SL2-128 (C,530,07-07-2): #01/49 W = 27.6 (32.9+/-4.5) -5.3
   SL3-062 (B,195,02-12-3): #01/73 W = 21.0 (32.9+/-4.5) -11.9
   SL3-063 (B,195,02-12-3): #00/84 W = 24.7 (32.9+/-4.5) -8.1
   SL3-090 (B,317,04-10-1): #11/35 W = 28.1 (32.9+/-4.5) -4.7
   SL3-160 (C,540,07-10-0): #01/01 W = 24.1 (32.9+/-4.5) -8.8
   SL3-231 (D,727,09-12-3): #07/91 W = 37.6 (32.9+/-4.5) +4.7
   SL4-040 (A,066,11-14-2): #09/57 W = 28.0 (32.9+/-4.5) -4.9
   SL4-180 (C,480,17-08-0): #05/05 W = 37.7 (32.9+/-4.5) +4.8 --> TRK
   SL4-240 (D,642,18-15-2): #04/52 W = 37.6 (32.9+/-4.5) +4.8
   SL4-287 (D,757,10-17-1): #05/41 W = 28.3 (32.9+/-4.5) -4.6
   SL5-023 (A,051,11-12-3): #01/85 W = 27.6 (32.9+/-4.5) -5.3
   SL5-053 (A,122,12-13-2): #04/64 W = 37.6 (32.9+/-4.5) +4.7
   SL5-140 (B,314,14-13-2): #01/49 W = 27.8 (32.9+/-4.5) -5.1
   SL5-141 (B,314,14-13-2): #00/60 W = 18.2 (32.9+/-4.5) -14.7
   SL5-169 (C,392,15-11-0): #09/21 W = 27.9 (32.9+/-4.5) -5.0
   SL5-278 (D,647,18-12-3): #03/75 W = 37.7 (32.9+/-4.5) +4.8
   SL5-309 (D,714,19-13-2): #07/67 W = 37.9 (32.9+/-4.5) +5.0
   SL6-054 (A,075,01-09-3): #00/72 W = 42.0 (32.9+/-4.5) +9.1
   SL6-129 (B,292,04-13-0): #08/20 W = 38.2 (32.9+/-4.5) +5.4
   SL6-131 (B,293,04-13-1): #03/39 W = 37.8 (32.9+/-4.5) +4.9
   SL6-173 (B,358,05-16-2): #02/62 W = 27.3 (32.9+/-4.5) -5.6
   SL6-236 (C,458,06-12-2): #00/48 W =  0.0 (32.9+/-4.5) -32.9
   SL6-263 (C,519,07-13-3): #04/88 W = 37.4 (32.9+/-4.5) +4.6
   SL6-275 (C,537,07-11-1): #03/39 W = 37.8 (32.9+/-4.5) +4.9
   SL6-291 (D,585,08-11-1): #07/43 W = 37.4 (32.9+/-4.5) +4.6
   SL6-316 (D,618,08-08-2): #00/48 W = 27.6 (32.9+/-4.5) -5.2
   SL6-361 (D,748,00-10-0): #06/18 W = 41.8 (32.9+/-4.5) +8.9
   SL7-005 (A,026,00-02-2): #10/70 W = 26.2 (32.9+/-4.5) -6.7
   SL7-005 (A,026,00-02-2): #11/71 W = 26.6 (32.9+/-4.5) -6.2
   SL7-114 (B,197,03-21-1): #03/27 W = 28.2 (32.9+/-4.5) -4.6
   SL7-117 (B,198,03-21-2): #05/65 W = 26.2 (32.9+/-4.5) -6.7
   SL7-122 (B,201,03-20-1): #00/24 W =  0.0 (32.9+/-4.5) -32.9
   SL7-132 (B,218,03-19-2): #02/50 W = 27.6 (32.9+/-4.5) -5.3
   SL7-157 (B,266,03-16-2): #11/71 W = 37.8 (32.9+/-4.5) +4.9
   SL7-232 (C,388,05-19-0): #02/02 W = 40.3 (32.9+/-4.5) +7.5
   SL7-276 (C,446,06-17-2): #10/58 W = 27.2 (32.9+/-4.5) -5.7
   SL7-334 (D,627,08-07-3): #03/75 W = 37.7 (32.9+/-4.5) +4.8
   SL7-379 (D,693,09-06-1): #00/36 W = 37.6 (32.9+/-4.5) +4.7
   SL8-040 (A,070,11-08-2): #10/58 W = 28.2 (32.9+/-4.5) -4.7
   SL8-059 (A,091,11-06-3): #00/84 W = 27.6 (32.9+/-4.5) -5.3
   SL8-059 (A,091,11-06-3): #02/86 W = 27.7 (32.9+/-4.5) -5.2
   SL8-123 (B,195,13-19-3): #09/93 W = 26.3 (32.9+/-4.5) -6.5
   SL8-163 (B,275,14-19-3): #09/93 W = 27.9 (32.9+/-4.5) -5.0
   SL8-181 (B,292,14-16-0): #03/15 W = 37.5 (32.9+/-4.5) +4.6
   SL8-269 (C,428,16-16-0): #11/23 W = 37.6 (32.9+/-4.5) +4.8
   SL8-322 (C,499,17-18-3): #06/78 W = 41.3 (32.9+/-4.5) +8.5 --> HVD
   SL8-355 (C,515,17-14-3): #08/92 W = 37.6 (32.9+/-4.5) +4.7
   SL8-408 (D,682,19-11-2): #10/58 W = 41.3 (32.9+/-4.5) +8.4
   SL8-422 (D,693,19-09-1): #02/26 W = 43.4 (32.9+/-4.5) +10.5
   SL8-445 (D,708,19-06-0): #01/13 W = 40.9 (32.9+/-4.5) +8.0

   Total = 61

Bad ATN wires:

   SL2-019 (A,043,01-17-3): #00/84 A = 26.9 (20.8+/-4.5) +6.1
   SL3-083 (B,285,03-09-1): #06/42 A = 16.2 (20.8+/-4.5) -4.6
   SL5-072 (A,156,12-10-0): #01/01 A = 16.2 (20.8+/-4.5) -4.6
   SL7-375 (D,659,08-02-3): #10/94 A = 25.6 (20.8+/-4.5) +4.7

   Total = 4

Bad QEN wires:

   SL3-144 (C,460,06-10-0): #05/05 Q = 19.2 (24.0+/-4.5) -4.8
   SL4-020 (A,056,11-16-0): #04/04 Q = 29.1 (24.0+/-4.5) +5.0
   SL4-060 (A,128,12-14-0): #09/09 Q = 18.3 (24.0+/-4.5) -5.7
   SL4-108 (B,316,14-07-0): #10/10 Q = 18.7 (24.0+/-4.5) -5.3
   SL6-344 (D,684,09-08-0): #07/07 Q = 29.0 (24.0+/-4.5) +4.9
   SL7-059 (A,093,01-02-1): #07/43 Q = 28.7 (24.0+/-4.5) +4.7
   SL8-079 (A,153,12-08-1): #02/38 Q = 19.4 (24.0+/-4.5) -4.7

   Total = 7

Bad DTH wires:

   SL1-054 (B,271,13-06-3): #11/83 D = 460 (533+/-70) -73
   SL1-064 (B,324,14-06-0): #10/10 D = 700 (533+/-70) +167
   SL1-074 (B,349,14-05-1): #00/24 D = 450 (533+/-70) -83
   SL2-102 (C,417,06-08-1): #01/25 D = 460 (533+/-70) -73
   SL2-102 (C,417,06-08-1): #02/26 D = 460 (533+/-70) -73
   SL2-102 (C,417,06-08-1): #06/30 D = 450 (533+/-70) -83
   SL2-102 (C,417,06-08-1): #07/31 D = 450 (533+/-70) -83
   SL2-103 (C,417,06-08-1): #00/36 D = 420 (533+/-70) -113
   SL2-118 (C,469,06-06-1): #05/29 D = 290 (533+/-70) -243
   SL2-128 (C,530,07-07-2): #01/49 D = 440 (533+/-70) -93
   SL3-062 (B,195,02-12-3): #01/73 D = 280 (533+/-70) -253
   SL3-063 (B,195,02-12-3): #00/84 D = 370 (533+/-70) -163
   SL3-129 (C,420,05-10-0): #08/20 D = 460 (533+/-70) -73
   SL3-210 (D,697,09-14-1): #11/35 D = 460 (533+/-70) -73
   SL4-076 (B,248,13-08-0): #04/04 D = 610 (533+/-70) +77
   SL4-076 (B,248,13-08-0): #05/05 D = 610 (533+/-70) +77
   SL4-076 (B,248,13-08-0): #06/06 D = 610 (533+/-70) +77
   SL4-153 (C,414,16-08-2): #11/71 D = 460 (533+/-70) -73
   SL4-188 (C,524,17-07-0): #08/08 D = 450 (533+/-70) -83
   SL4-207 (C,565,17-05-1): #08/44 D = 460 (533+/-70) -73
   SL5-023 (A,051,11-12-3): #01/85 D = 440 (533+/-70) -93
   SL5-085 (B,170,12-09-2): #09/69 D = 460 (533+/-70) -73
   SL5-140 (B,314,14-13-2): #01/49 D = 430 (533+/-70) -103
   SL5-141 (B,314,14-13-2): #00/60 D = 390 (533+/-70) -143
   SL5-194 (C,453,16-11-1): #11/35 D = 450 (533+/-70) -83
   SL5-195 (C,453,16-11-1): #10/46 D = 460 (533+/-70) -73
   SL5-254 (D,563,17-09-3): #11/83 D = 430 (533+/-70) -103
   SL5-260 (D,602,18-14-2): #02/50 D = 440 (533+/-70) -93
   SL5-310 (D,715,19-13-3): #00/72 D = 440 (533+/-70) -93
   SL6-106 (B,241,03-13-1): #03/27 D = 610 (533+/-70) +77
   SL6-187 (B,393,05-14-1): #01/37 D = 440 (533+/-70) -93
   SL6-236 (C,458,06-12-2): #00/48 D = 210 (533+/-70) -323
   SL6-251 (C,505,07-14-1): #04/40 D = 460 (533+/-70) -73
   SL6-315 (D,617,08-08-1): #10/46 D = 450 (533+/-70) -83
   SL6-326 (D,675,09-11-3): #01/73 D = 440 (533+/-70) -93
   SL7-005 (A,026,00-02-2): #10/70 D = 270 (533+/-70) -263
   SL7-005 (A,026,00-02-2): #11/71 D = 280 (533+/-70) -253
   SL8-059 (A,091,11-06-3): #00/84 D = 450 (533+/-70) -83
```

```
   SL8-059 (A,091,11-06-3): #02/86 D = 450 (533+/-70) -83
   SL8-133 (B,208,13-17-0): #00/12 D = 450 (533+/-70) -83
   SL8-163 (B,275,14-19-3): #09/93 D = 450 (533+/-70) -83
   SL8-163 (B,275,14-19-3): #11/95 D = 450 (533+/-70) -83
   SL8-313 (C,478,17-19-2): #04/64 D = 440 (533+/-70) -93
   SL8-313 (C,478,17-19-2): #06/66 D = 440 (533+/-70) -93
   SL8-313 (C,478,17-19-2): #07/67 D = 440 (533+/-70) -93
   SL8-322 (C,499,17-18-3): #06/78 D = 700 (533+/-70) +167 --> HVD
   SL8-417 (D,686,19-10-2): #01/61 D = 650 (533+/-70) +117 --> HVD
   SL8-431 (D,701,19-08-1): #11/47 D = 460 (533+/-70) -73
   SL8-445 (D,708,19-06-0): #01/13 D = 700 (533+/-70) +167
   SL8-479 (D,733,10-09-1): #00/36 D = 430 (533+/-70) -103
   SL8-479 (D,733,10-09-1): #02/38 D = 430 (533+/-70) -103
   SL8-479 (D,733,10-09-1): #03/39 D = 430 (533+/-70) -103

   Total = 52

Hot wires:

   SL1-042 (B,189,12-17-1): #00/24 N = 1.112 (1.009,0.010,0.116,1.113)
   SL1-120 (C,568,17-03-0): #00/00 N = 1.117 (1.014,0.022,0.119,1.042)
   SL1-120 (C,568,17-03-0): #01/01 N = 1.129 (1.015,0.025,0.152,1.081)
   SL3-170 (C,557,07-09-1): #00/24 N = 1.129 (1.013,0.023,0.157,1.400)
   SL4-077 (B,248,13-08-0): #08/20 N = 1.414 (1.405,0.001,0.012,1.015) --> TRK
   SL4-094 (B,301,14-09-1): #11/35 N = 1.469 (1.108,0.157,0.517,1.420)
   SL5-236 (C,534,17-11-2): #00/48 N = 1.162 (1.024,0.024,0.174,1.462)
   SL6-165 (B,334,05-17-2): #02/62 N = 2.476 (2.093,1.788,0.000,1.924)
   SL7-123 (B,201,03-20-1): #00/36 N = 3.000 (3.000,3.000,2.000,1.904)
   SL7-138 (B,233,03-18-1): #05/29 N = 2.029 (2.001,0.012,0.114,0.908)
   SL7-340 (D,630,08-06-2): #00/48 N = 1.136 (1.008,0.015,0.200,1.229)
   SL8-005 (A,020,10-08-0): #03/15 N = 1.325 (1.000,0.000,0.032,1.002)
   SL8-105 (A,178,12-05-2): #09/69 N = 1.942 (1.927,0.011,0.048,0.389) --> HVD
   SL8-122 (B,195,13-19-3): #03/75 N = 1.488 (1.169,0.000,0.032,1.002)
   SL8-317 (C,496,17-18-0): #07/19 N = 1.899 (1.868,0.001,0.016,0.794) --> HVD

   Total = 15

Low occupancy wires:

   SL1-064 (B,324,14-06-0): #10/10 N = 1.000 (1.000,0.000,0.000,0.009)
   SL1-106 (C,473,16-03-1): #11/35 N = 1.998 (1.995,0.002,0.000,0.070)
   SL1-154 (D,725,19-19-1): #00/24 N = 1.000 (1.000,0.000,0.000,0.000)
   SL1-154 (D,725,19-19-1): #03/27 N = 1.000 (1.000,0.000,0.000,0.000)
   SL1-158 (D,727,19-19-3): #05/77 N = 1.000 (1.000,0.000,0.000,0.400) --> TRK
   SL2-029 (A,104,02-16-0): #00/12 N = 1.000 (0.000,0.000,0.000,0.735)
   SL2-071 (B,325,04-06-1): #08/44 N = 1.000 (1.000,0.000,0.000,0.020)
   SL2-071 (B,325,04-06-1): #11/47 N = 1.000 (1.000,0.000,0.000,0.749)
   SL2-105 (C,418,06-08-2): #11/71 N = 1.938 (1.589,0.000,0.000,0.188) --> HVD
   SL2-158 (D,661,09-17-1): #00/24 N = 1.000 (1.000,0.000,0.000,0.000)
   SL3-032 (A,084,01-13-0): #05/05 N = 0.000 (0.000,0.000,0.000,0.013)
   SL3-093 (B,318,04-10-2): #11/71 N = 0.000 (0.000,0.000,0.000,0.000)
   SL3-095 (B,319,04-10-3): #04/88 N = 0.465 (0.688,0.000,0.000,0.541)
   SL3-126 (C,403,05-11-3): #00/72 N = 1.155 (1.031,0.000,0.000,0.046) --> HVD
   SL3-126 (C,403,05-11-3): #01/73 N = 1.915 (1.720,0.000,0.000,0.126) --> HVD
   SL3-175 (C,559,07-09-3): #03/87 N = 1.000 (1.000,0.000,0.000,0.000) --> TRK
   SL3-186 (D,601,08-15-1): #08/32 N = 1.000 (1.000,0.000,0.000,0.836)
   SL3-186 (D,601,08-15-1): #09/33 N = 1.000 (1.000,0.000,0.000,0.836)
   SL3-186 (D,601,08-15-1): #10/34 N = 1.000 (1.000,0.000,0.000,0.844)
   SL3-190 (D,603,08-15-3): #08/80 N = 1.000 (1.000,0.000,0.000,0.833)
   SL3-212 (D,698,09-14-2): #09/57 N = 0.000 (0.000,0.000,0.000,0.000) --> TRK
   SL4-057 (A,118,12-15-2): #03/63 N = 1.908 (1.816,0.000,0.004,0.284) --> HVD
   SL4-070 (A,213,13-09-1): #05/29 N = 0.000 (0.051,0.000,0.000,0.785)
   SL4-254 (D,673,19-17-1): #07/31 N = 0.000 (0.000,0.000,0.000,0.000)
   SL5-082 (A,169,12-09-1): #00/24 N = 3.039 (1.947,0.000,0.000,0.785)
   SL5-082 (A,169,12-09-1): #09/33 N = 1.994 (1.987,0.000,0.002,0.316) --> HVD
   SL5-193 (C,452,16-11-0): #10/22 N = 0.000 (0.000,0.000,0.000,0.465)
   SL5-209 (C,460,16-09-0): #01/13 N = 0.000 (0.000,0.000,0.000,0.000)
   SL5-264 (D,604,18-13-0): #08/08 N = 0.000 (0.000,0.000,0.000,0.000) --> TRK
   SL5-282 (D,657,18-11-1): #07/31 N = 1.000 (1.000,0.000,0.000,0.000) --> TRK
   SL5-307 (D,713,19-13-1): #03/39 N = 1.000 (1.000,0.000,0.000,0.000) --> TRK
   SL6-001 (A,008,00-07-0): #11/23 N = 0.021 (0.000,0.000,0.000,0.727)
   SL6-069 (A,130,02-10-2): #11/71 N = 1.000 (1.000,0.000,0.000,0.000)
   SL6-358 (D,707,09-07-3): #09/81 N = 0.000 (0.000,0.000,0.000,0.754)
   SL6-359 (D,707,09-07-3): #11/95 N = 0.000 (0.000,0.000,0.000,0.120)
   SL7-045 (A,082,01-04-2): #08/68 N = 1.959 (1.974,0.000,0.007,0.280) --> HVD
   SL7-051 (A,089,01-03-1): #03/39 N = 0.019 (0.000,0.000,0.000,0.328)
   SL7-143 (B,235,03-18-3): #04/88 N = 1.010 (1.000,0.002,0.040,0.000)
   SL7-237 (C,390,05-19-2): #00/60 N = 1.000 (1.000,0.000,0.000,0.348)
   SL7-286 (C,487,07-21-3): #01/73 N = 0.000 (0.000,0.000,0.000,0.000) --> TRK
   SL7-292 (C,490,07-20-2): #03/51 N = 1.999 (1.994,0.000,0.000,0.253) --> HVD
   SL7-293 (C,490,07-20-2): #11/71 N = 1.000 (1.000,0.000,0.000,0.696)
   SL7-310 (C,499,07-18-3): #03/75 N = 1.000 (1.000,0.000,0.000,0.000) --> TRK
   SL7-321 (C,552,07-16-0): #06/18 N = 1.793 (1.660,0.000,0.000,0.205) --> HVD
   SL7-342 (D,631,08-06-3): #02/74 N = 0.000 (0.000,0.000,0.000,0.020)
   SL8-019 (A,031,10-07-3): #05/89 N = 0.000 (0.000,0.000,0.000,0.225)
   SL8-059 (A,091,11-06-3): #01/85 N = 0.000 (0.000,0.000,0.000,0.009)
   SL8-072 (A,098,11-04-2): #11/59 N = 1.000 (1.000,0.001,0.000,0.414)
   SL8-104 (A,178,12-05-2): #09/57 N = 1.915 (1.833,0.000,0.003,0.345) --> HVD
   SL8-105 (A,178,12-05-2): #09/69 N = 1.942 (1.927,0.011,0.048,0.389) --> HVD
   SL8-115 (A,183,12-04-3): #11/95 N = 1.000 (1.000,0.000,0.000,0.294)
   SL8-199 (B,321,15-18-1): #09/45 N = 1.000 (1.000,0.000,0.003,0.000)
   SL8-199 (B,321,15-18-1): #10/46 N = 1.000 (1.000,0.000,0.002,0.000)
   SL8-199 (B,321,15-18-1): #11/47 N = 1.000 (1.005,0.000,0.001,0.000)
   SL8-313 (C,478,17-19-2): #05/65 N = 0.000 (0.000,0.000,0.000,0.009)
   SL8-322 (C,499,17-18-3): #06/78 N = 1.000 (1.000,0.000,0.000,0.017) --> HVD
   SL8-436 (D,704,19-07-0): #08/08 N = 1.066 (0.142,0.000,0.000,0.518)
   SL8-445 (D,708,19-06-0): #11/23 N = 2.000 (2.000,0.000,0.000,0.233)
   SL8-475 (D,747,10-10-3): #11/95 N = 0.000 (0.000,0.000,0.000,0.000)
   SL8-479 (D,733,10-09-1): #01/37 N = 0.000 (0.000,0.000,0.000,0.009)

   Total = 60

High occupancy wires:

   SL1-041 (A,188,12-17-0): #00/12 N = 1.039 (1.001,0.005,0.067,1.115)
   SL1-042 (B,189,12-17-1): #00/24 N = 1.112 (1.009,0.010,0.116,1.113)
   SL1-131 (D,593,18-20-1): #00/36 N = 1.000 (1.000,0.000,0.000,1.187)
   SL1-157 (D,726,19-19-2): #01/61 N = 1.000 (1.000,0.000,0.000,1.170) --> TRK
   SL2-073 (B,326,04-06-2): #01/61 N = 1.000 (1.000,0.000,0.000,2.024)
   SL2-074 (B,327,04-06-3): #05/77 N = 0.000 (0.000,0.000,0.000,1.417)
   SL2-105 (C,418,06-08-2): #10/70 N = 1.000 (1.000,0.000,0.000,1.142)
   SL3-062 (B,195,02-12-3): #01/73 N = 1.000 (1.000,1.000,0.000,1.439)
   SL3-170 (C,557,07-09-1): #00/24 N = 1.129 (1.013,0.023,0.157,1.400)
   SL3-170 (C,557,07-09-1): #01/25 N = 1.039 (1.002,0.003,0.057,1.272)
   SL3-170 (C,557,07-09-1): #03/27 N = 1.017 (1.000,0.001,0.015,1.156)
   SL4-049 (A,110,12-16-2): #00/60 N = 1.000 (1.000,0.000,0.000,1.213)
   SL4-057 (A,118,12-15-2): #02/62 N = 1.000 (1.000,0.000,0.000,1.189)
   SL4-094 (B,301,14-09-1): #11/35 N = 1.469 (1.108,0.157,0.517,1.420)
   SL5-073 (A,156,12-10-0): #02/14 N = 1.001 (1.000,0.000,0.001,1.217)
   SL5-190 (C,407,15-09-3): #09/81 N = 1.005 (1.000,0.000,0.002,1.230)
   SL5-190 (C,407,15-09-3): #10/82 N = 1.005 (1.000,0.000,0.022,1.300)
   SL5-190 (C,407,15-09-3): #11/83 N = 1.002 (1.000,0.000,0.007,1.217)
   SL5-191 (C,407,15-09-3): #05/89 N = 1.000 (1.000,0.000,0.006,1.384)
   SL5-191 (C,407,15-09-3): #06/90 N = 1.002 (1.000,0.000,0.003,1.251)
   SL5-191 (C,407,15-09-3): #08/92 N = 1.002 (1.000,0.000,0.018,1.541)
   SL5-236 (C,534,17-11-2): #00/48 N = 1.162 (1.024,0.024,0.174,1.462)
   SL5-246 (C,539,17-10-3): #11/83 N = 5.831 (7.225,0.008,0.000,1.969)
   SL6-096 (B,236,03-14-0): #07/07 N = 1.000 (1.000,0.000,0.001,1.268)
   SL6-096 (B,236,03-14-0): #08/08 N = 1.000 (1.000,0.000,0.005,1.355)
   SL6-096 (B,236,03-14-0): #09/09 N = 1.000 (1.000,0.000,0.004,1.470)
   SL6-096 (B,236,03-14-0): #10/10 N = 1.000 (1.000,0.000,0.004,1.519)
   SL6-096 (B,236,03-14-0): #11/11 N = 1.001 (1.000,0.000,0.008,2.252)
   SL6-165 (B,334,05-17-2): #02/62 N = 2.476 (2.093,1.788,0.000,1.924)
   SL6-182 (B,363,05-15-3): #11/83 N = 1.000 (1.000,1.118,0.000,1.640)
   SL6-236 (C,458,06-12-2): #00/48 N = 1.000 (1.000,0.000,0.000,1.317)
   SL7-016 (A,032,01-07-0): #11/11 N = 1.011 (1.000,0.007,0.160,1.365)
   SL7-029 (A,054,01-06-2): #06/66 N = 1.000 (1.000,0.000,0.013,1.310)
   SL7-050 (A,089,01-03-1): #06/30 N = 1.000 (1.000,0.000,0.000,1.331)
   SL7-050 (A,089,01-03-1): #08/32 N = 1.000 (1.000,0.000,0.000,1.563)
   SL7-050 (A,089,01-03-1): #09/33 N = 1.000 (1.000,0.000,0.000,2.177)
   SL7-050 (A,089,01-03-1): #10/34 N = 1.000 (1.000,0.000,0.000,1.945)
   SL7-050 (A,089,01-03-1): #11/35 N = 1.000 (1.000,0.000,0.000,2.689)
   SL7-051 (A,089,01-03-1): #06/42 N = 1.000 (1.000,0.000,0.001,1.665)
   SL7-051 (A,089,01-03-1): #07/43 N = 1.000 (1.000,0.000,0.000,1.502)
   SL7-051 (A,089,01-03-1): #08/44 N = 1.000 (1.000,0.000,0.000,1.727)
   SL7-051 (A,089,01-03-1): #09/45 N = 1.000 (1.000,0.000,0.000,1.495)
   SL7-051 (A,089,01-03-1): #10/46 N = 1.000 (1.000,0.000,0.000,1.515)
   SL7-051 (A,089,01-03-1): #11/47 N = 1.249 (1.036,0.000,0.000,1.590)
   SL7-096 (A,180,02-03-0): #07/07 N = 1.000 (1.000,0.000,0.000,1.297)
   SL7-122 (B,201,03-20-1): #00/24 N = 1.000 (1.000,1.000,0.000,2.334)
   SL7-123 (B,201,03-20-1): #00/36 N = 3.000 (3.000,3.000,2.000,1.904)
   SL7-136 (B,232,03-18-0): #10/10 N = 1.050 (1.003,0.005,0.132,1.283)
   SL7-190 (B,315,04-18-3): #06/78 N = 1.013 (1.000,0.001,0.025,1.433)
   SL7-190 (B,315,04-18-3): #11/83 N = 1.016 (1.001,0.001,0.035,1.290)
   SL7-191 (B,315,04-18-3): #07/91 N = 1.026 (1.000,0.001,0.032,1.433)
   SL7-236 (C,390,05-19-2): #00/48 N = 1.000 (1.000,0.000,0.000,1.822)
   SL7-372 (D,658,08-02-2): #07/55 N = 1.000 (1.000,0.000,0.000,1.884)
   SL7-372 (D,658,08-02-2): #08/56 N = 1.000 (1.000,0.000,0.001,2.095)
   SL7-372 (D,658,08-02-2): #09/57 N = 1.000 (1.000,0.000,0.000,1.945)
   SL7-372 (D,658,08-02-2): #10/58 N = 1.000 (1.000,0.000,0.000,1.870)
   SL7-372 (D,658,08-02-2): #11/59 N = 1.000 (1.000,0.000,0.000,2.088)
   SL7-373 (D,658,08-02-2): #06/66 N = 1.000 (1.000,0.000,0.000,1.549)
   SL7-373 (D,658,08-02-2): #08/68 N = 1.000 (1.000,0.000,0.000,2.061)
   SL7-373 (D,658,08-02-2): #09/69 N = 1.000 (1.000,0.000,0.000,1.577)
   SL7-373 (D,658,08-02-2): #10/70 N = 1.000 (1.000,0.000,0.000,1.972)
   SL7-373 (D,658,08-02-2): #11/71 N = 1.000 (1.000,0.000,0.000,1.679)
   SL8-033 (A,038,10-05-2): #01/61 N = 1.013 (1.000,0.004,0.040,1.390)
   SL8-116 (A,192,13-19-0): #04/04 N = 1.000 (1.000,0.000,0.000,1.684)
   SL8-116 (A,192,13-19-0): #05/05 N = 1.000 (1.000,0.000,0.000,1.382)
   SL8-116 (A,192,13-19-0): #06/06 N = 1.000 (1.000,0.000,0.000,1.615)
   SL8-116 (A,192,13-19-0): #07/07 N = 1.000 (1.000,0.000,0.000,1.856)
   SL8-116 (A,192,13-19-0): #08/08 N = 1.000 (1.000,0.000,0.000,2.159)
   SL8-116 (A,192,13-19-0): #09/09 N = 1.000 (1.000,0.000,0.000,2.435)
   SL8-116 (A,192,13-19-0): #10/10 N = 1.000 (1.000,0.000,0.000,2.288)
   SL8-116 (A,192,13-19-0): #11/11 N = 1.000 (1.000,0.000,0.000,2.141)
   SL8-117 (A,192,13-19-0): #00/12 N = 1.000 (1.000,0.000,0.000,1.528)
   SL8-117 (A,192,13-19-0): #01/13 N = 1.000 (1.000,0.000,0.000,1.926)
   SL8-117 (A,192,13-19-0): #02/14 N = 1.000 (1.000,0.000,0.000,3.065)
   SL8-117 (A,192,13-19-0): #03/15 N = 1.000 (1.000,0.000,0.000,1.770)
   SL8-117 (A,192,13-19-0): #04/16 N = 1.000 (1.000,0.000,0.000,2.737)
   SL8-117 (A,192,13-19-0): #05/17 N = 1.000 (1.000,0.000,0.000,2.979)
   SL8-117 (A,192,13-19-0): #06/18 N = 1.000 (1.000,0.000,0.000,2.815)
   SL8-117 (A,192,13-19-0): #07/19 N = 1.000 (1.000,0.000,0.000,2.254)
   SL8-117 (A,192,13-19-0): #08/20 N = 1.000 (1.000,0.000,0.000,2.046)
   SL8-117 (A,192,13-19-0): #09/21 N = 1.000 (1.000,0.000,0.000,1.701)
   SL8-117 (A,192,13-19-0): #10/22 N = 1.000 (1.000,0.000,0.000,1.356)
   SL8-118 (A,193,13-19-1): #02/26 N = 1.000 (1.000,0.000,0.000,1.347)
   SL8-118 (A,193,13-19-1): #03/27 N = 1.000 (1.000,0.000,0.000,1.580)
   SL8-118 (A,193,13-19-1): #04/28 N = 1.000 (1.000,0.000,0.001,2.124)
   SL8-118 (A,193,13-19-1): #05/29 N = 1.001 (1.000,0.000,0.002,2.262)
   SL8-118 (A,193,13-19-1): #06/30 N = 1.000 (1.000,0.000,0.000,2.107)
   SL8-118 (A,193,13-19-1): #07/31 N = 1.000 (1.000,0.000,0.002,2.150)
   SL8-118 (A,193,13-19-1): #08/32 N = 1.001 (1.000,0.000,0.009,2.642)
   SL8-118 (A,193,13-19-1): #09/33 N = 1.000 (1.000,0.000,0.001,2.685)
   SL8-118 (A,193,13-19-1): #10/34 N = 1.000 (1.000,0.000,0.002,1.770)
   SL8-119 (A,193,13-19-1): #00/36 N = 1.001 (1.000,0.000,0.003,1.364)
   SL8-119 (A,193,13-19-1): #04/40 N = 1.004 (1.000,0.000,0.010,1.546)
   SL8-120 (B,194,13-19-2): #09/57 N = 1.056 (1.002,0.002,0.062,1.546)
   SL8-120 (B,194,13-19-2): #10/58 N = 1.074 (1.001,0.004,0.068,1.667)
   SL8-138 (B,211,13-17-3): #09/81 N = 0.419 (0.026,0.004,0.000,1.753)
   SL8-152 (B,230,13-15-2): #09/57 N = 1.088 (1.003,0.004,0.118,1.520)
   SL8-179 (B,291,14-17-3): #01/85 N = 1.000 (1.000,0.000,0.000,1.347)
   SL8-197 (B,320,15-18-0): #05/17 N = 1.000 (1.000,0.000,0.000,1.425)
   SL8-197 (B,320,15-18-0): #06/18 N = 1.000 (1.000,0.000,0.000,1.347)
   SL8-197 (B,320,15-18-0): #08/20 N = 1.000 (1.000,0.000,0.000,1.779)
   SL8-197 (B,320,15-18-0): #09/21 N = 1.000 (1.000,0.000,0.000,1.451)
   SL8-197 (B,320,15-18-0): #10/22 N = 1.000 (1.000,0.000,0.000,1.477)
   SL8-197 (B,320,15-18-0): #11/23 N = 1.000 (1.000,0.000,0.000,2.098)
   SL8-270 (C,429,16-16-1): #05/29 N = 1.022 (1.005,0.006,0.084,1.330)
   SL8-270 (C,429,16-16-1): #06/30 N = 1.036 (1.007,0.015,0.133,1.597)
   SL8-271 (C,429,16-16-1): #08/44 N = 1.011 (1.000,0.000,0.007,1.546)
   SL8-271 (C,429,16-16-1): #09/45 N = 1.031 (1.000,0.002,0.009,1.977)
   SL8-271 (C,429,16-16-1): #10/46 N = 1.013 (1.000,0.001,0.004,1.710)
   SL8-271 (C,429,16-16-1): #11/47 N = 1.002 (1.000,0.002,0.001,1.442)
   SL8-291 (C,439,16-14-3): #05/89 N = 1.001 (1.000,0.001,0.000,1.407)
   SL8-313 (C,478,17-19-2): #08/68 N = 1.009 (1.000,0.001,0.023,1.382)
   SL8-363 (D,583,18-09-3): #01/85 N = 1.027 (1.000,0.046,0.123,1.442)
   SL8-363 (D,583,18-09-3): #03/87 N = 1.008 (1.000,0.027,0.096,1.407)
   SL8-372 (D,612,18-07-0): #00/00 N = 1.030 (1.003,0.003,0.045,1.330)
   SL8-372 (D,612,18-07-0): #01/01 N = 1.040 (1.006,0.005,0.043,1.390)
   SL8-372 (D,612,18-07-0): #02/02 N = 1.027 (1.000,0.002,0.046,1.330)
   SL8-373 (D,612,18-07-0): #00/12 N = 1.100 (1.005,0.014,0.146,1.632)
   SL8-397 (D,664,18-04-0): #01/13 N = 1.017 (1.000,0.000,0.002,1.356)
   SL8-397 (D,664,18-04-0): #02/14 N = 1.009 (1.000,0.000,0.001,1.347)
   SL8-397 (D,664,18-04-0): #04/16 N = 1.029 (1.000,0.000,0.001,1.382)
   SL8-398 (D,665,18-04-1): #11/35 N = 1.000 (1.000,0.000,0.001,1.330)
   SL8-399 (D,665,18-04-1): #11/47 N = 1.006 (1.001,0.000,0.000,1.433)
   SL8-403 (D,667,18-04-3): #00/84 N = 1.000 (1.000,0.000,0.000,1.347)

   Total = 124
```