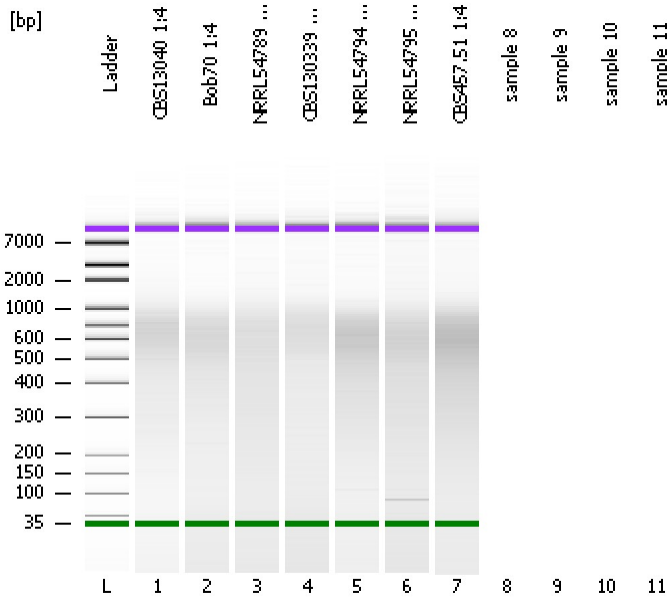


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27_003.xad

Created: 4/27/2015 10:22:31 AM
Modified: 4/27/2015 10:52:23 AM

Electrophoresis File Run Summary



Instrument Information:

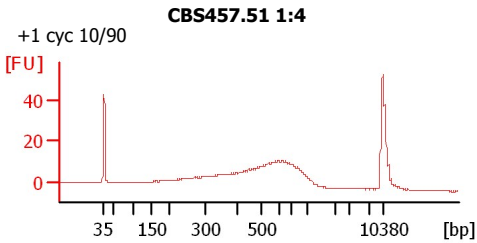
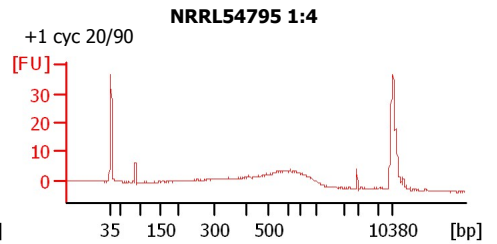
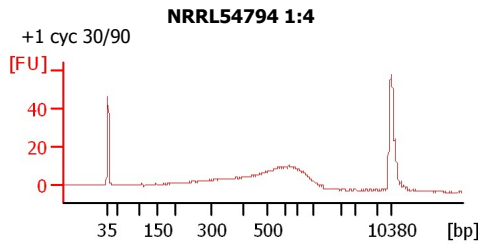
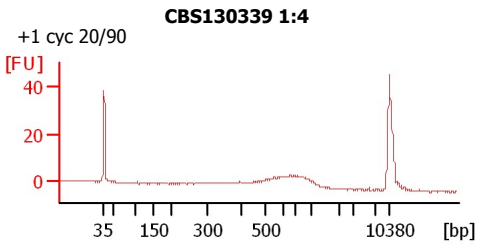
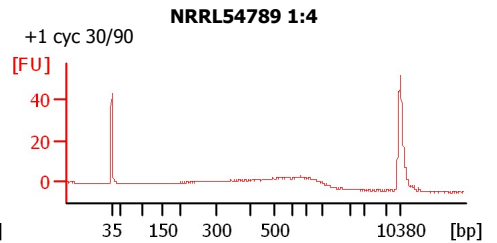
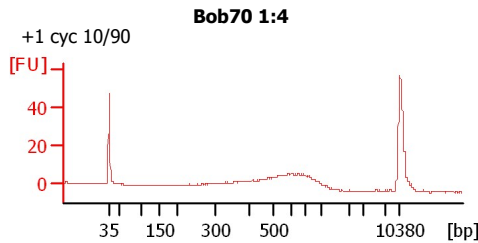
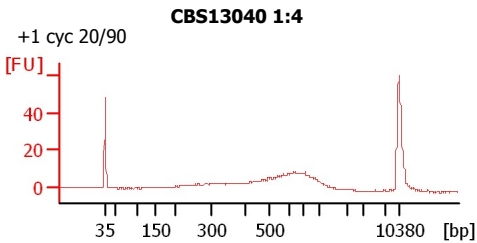
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

Assay Information:

Assay Origin Path: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\assays\dsDNA\High Sensitivity DNA.xsy
Assay Class: High Sensitivity DNA Assay
Version: 1.03
Assay Comments: Copyright © 2003-2010 Agilent Technologies

Chip Information:

Chip Lot #:
Reagent Kit Lot #:
Chip Comments:



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27_003.xad

Created: 4/27/2015 10:22:31 AM
 Modified: 4/27/2015 10:52:23 AM

Electrophoresis File Run Summary (Chip Summary)

| Sample Name | Sample Comment | Rest. Digest | Status | Observation | Result Label | Result Color |
|---------------|----------------|--------------------------|--------|-------------|--------------|--------------|
| CBS13040 1:4 | +1 cyc 20/90 | <input type="checkbox"/> | ✓ | | | |
| Bob70 1:4 | +1 cyc 10/90 | <input type="checkbox"/> | ✓ | | | |
| NRRL54789 1:4 | +1 cyc 30/90 | <input type="checkbox"/> | ✓ | | | |
| CBS130339 1:4 | +1 cyc 20/90 | <input type="checkbox"/> | ✓ | | | |
| NRRL54794 1:4 | +1 cyc 30/90 | <input type="checkbox"/> | ✓ | | | |
| NRRL54795 1:4 | +1 cyc 20/90 | <input type="checkbox"/> | ✓ | | | |
| CBS457.51 1:4 | +1 cyc 10/90 | <input type="checkbox"/> | ✓ | | | |
| sample 8 | | <input type="checkbox"/> | | | | |
| sample 9 | | <input type="checkbox"/> | | | | |
| sample 10 | | <input type="checkbox"/> | | | | |
| sample 11 | | <input type="checkbox"/> | | | | |
| Ladder | | <input type="checkbox"/> | ✓ | | | |

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27_003.xad

Created: 4/27/2015 10:22:31 AM
Modified: 4/27/2015 10:52:23 AM

Electrophoresis Assay Details

General Analysis Settings

Number of Available Sample and Ladder Wells (Max.) : 12
Minimum Visible Range [s] : 32
Maximum Visible Range [s] : 138
Start Analysis Time Range [s] : 33
End Analysis Time Range [s] : 137.5
Ladder Concentration [pg/μl] : 1950
Uses Standard Area for Ladder Fragments
Lower Marker Concentration [pg/μl] : 125
Upper Marker Concentration [pg/μl] : 75
Used Upper Marker for Quantitation
Standard Curve Fit is Point to Point
Show Data Aligned to Lower and Upper Marker

Integrator Settings

Integration Start Time [s] : 33.05
Integration End Time [s] : 137
Slope Threshold : 0.8
Height Threshold [FU] : 5
Area Threshold : 0.1
Width Threshold [s] : 0.6
Baseline Plateau [s] : 0.5

Filter Settings

Filter Width [s] : 0.5
Polynomial Order : 4

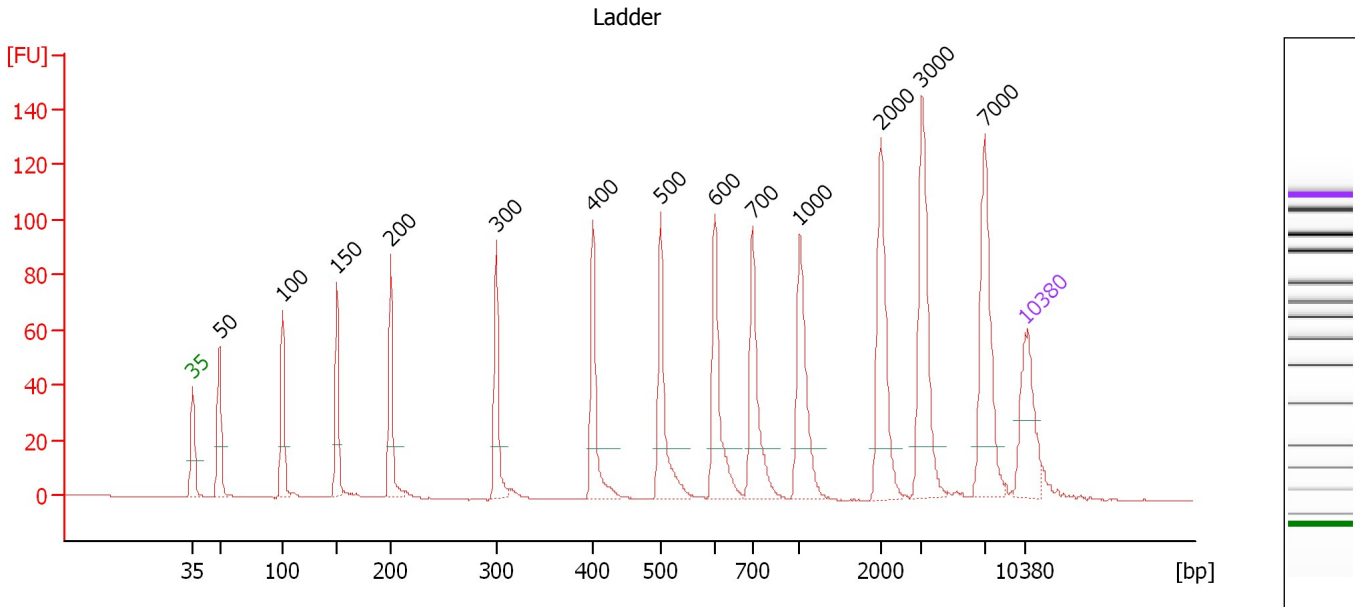
Ladder

| Ladder Peak | Size | Area |
|-------------|-------|------|
| 1 | 35 | 160 |
| 2 | 50 | 210 |
| 3 | 100 | 208 |
| 4 | 150 | 221 |
| 5 | 200 | 242 |
| 6 | 300 | 270 |
| 7 | 400 | 305 |
| 8 | 500 | 306 |
| 9 | 600 | 336 |
| 10 | 700 | 321 |
| 11 | 1000 | 366 |
| 12 | 2000 | 413 |
| 13 | 3000 | 411 |
| 14 | 7000 | 400 |
| 15 | 10380 | 214 |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27_003.xad

Created: 4/27/2015 10:22:31 AM
 Modified: 4/27/2015 10:52:23 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

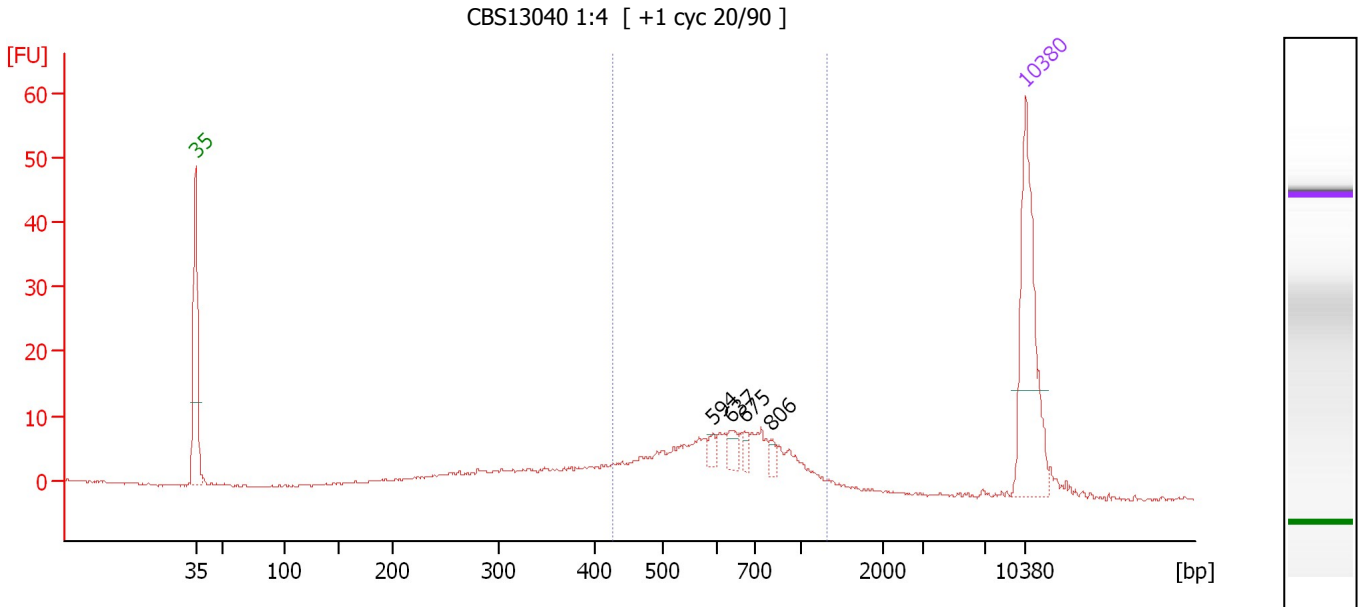
Peak table for Ladder

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations | Aligned Migration Time [s] |
|------|-----------|---------------|-------------------|--------------|----------------------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker | 43.00 |
| 2 | 50 | 150.00 | 4,545.5 | Ladder Peak | 45.24 |
| 3 | 100 | 150.00 | 2,272.7 | Ladder Peak | 50.54 |
| 4 | 150 | 150.00 | 1,515.2 | Ladder Peak | 55.12 |
| 5 | 200 | 150.00 | 1,136.4 | Ladder Peak | 59.65 |
| 6 | 300 | 150.00 | 757.6 | Ladder Peak | 68.53 |
| 7 | 400 | 150.00 | 568.2 | Ladder Peak | 76.65 |
| 8 | 500 | 150.00 | 454.5 | Ladder Peak | 82.35 |
| 9 | 600 | 150.00 | 378.8 | Ladder Peak | 86.93 |
| 10 | 700 | 150.00 | 324.7 | Ladder Peak | 90.12 |
| 11 | 1,000 | 150.00 | 227.3 | Ladder Peak | 94.06 |
| 12 | 2,000 | 150.00 | 113.6 | Ladder Peak | 100.88 |
| 13 | 3,000 | 150.00 | 75.8 | Ladder Peak | 104.34 |
| 14 | 7,000 | 150.00 | 32.5 | Ladder Peak | 109.63 |
| 15 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27_003.xad

Created: 4/27/2015 10:22:31 AM
 Modified: 4/27/2015 10:52:23 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : CBS13040 1:4

Number of peaks found: 4 Corr. Area 1: 140.6
 Noise: 0.1

Peak table for sample 1 : CBS13040 1:4

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations | Aligned Migration Time [s] |
|------|-----------|---------------|-------------------|--------------|----------------------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker | 43.00 |
| 2 | 594 | 5.28 | 13.5 | | 86.65 |
| 3 | 637 | 8.57 | 20.4 | | 88.09 |
| 4 | 675 | 5.53 | 12.4 | | 89.31 |
| 5 | 806 | 4.48 | 8.4 | | 91.51 |
| 6 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |

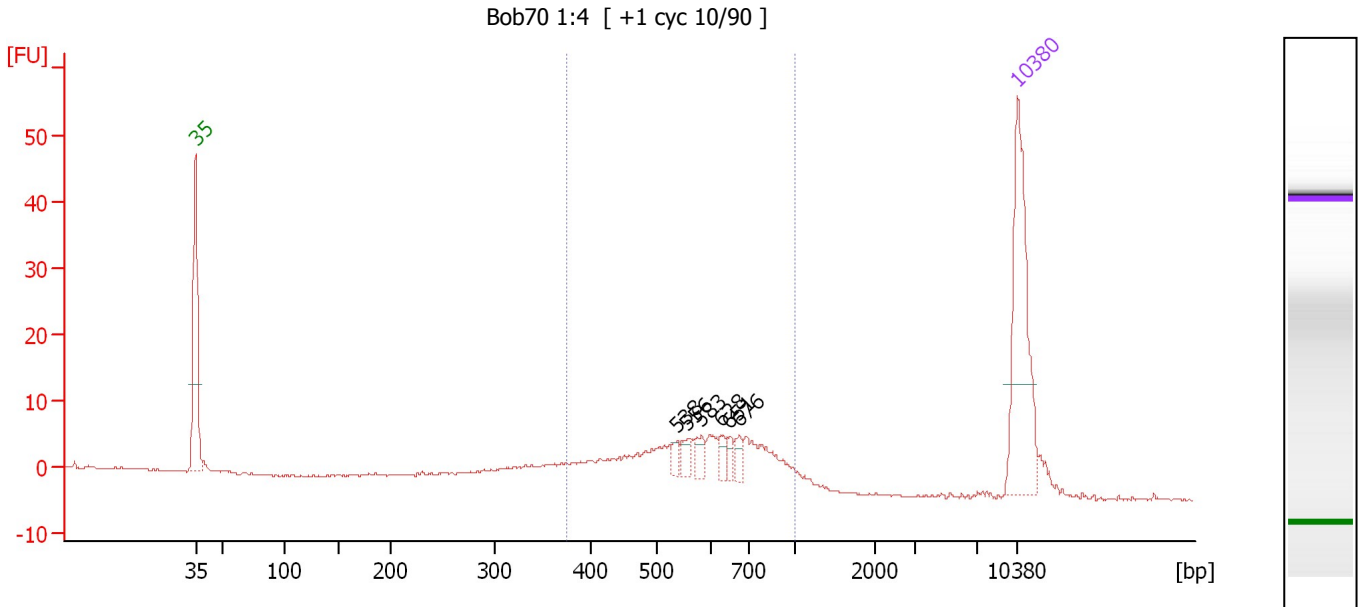
Region table for sample 1 : CBS13040 1:4

| From [bp] | Average Size [bp] | To [bp] | Corr. Area | Molarity [pmol/l] | % of Total | Size distribution in CV [%] | Conc. [pg/μl] | Color |
|-----------|-------------------|---------|------------|-------------------|------------|-----------------------------|---------------|-------|
| 426 | 663 | 1,308 | 140.6 | 457.2 | 62 | 27.2 | 184.55 | Blue |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27_003.xad

Created: 4/27/2015 10:22:31 AM
 Modified: 4/27/2015 10:52:23 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : Bob70 1:4

Number of peaks found: 6 Corr. Area 1: 116.9
 Noise: 0.2

Peak table for sample 2 : Bob70 1:4

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations | Aligned Migration Time [s] |
|------|-----------|---------------|-------------------|--------------|----------------------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker | 43.00 |
| 2 | 538 | 5.30 | 14.9 | | 84.09 |
| 3 | 556 | 7.46 | 20.3 | | 84.91 |
| 4 | 583 | 8.20 | 21.3 | | 86.14 |
| 5 | 628 | 5.91 | 14.3 | | 87.82 |
| 6 | 651 | 5.85 | 13.6 | | 88.55 |
| 7 | 676 | 6.94 | 15.5 | | 89.36 |
| 8 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |

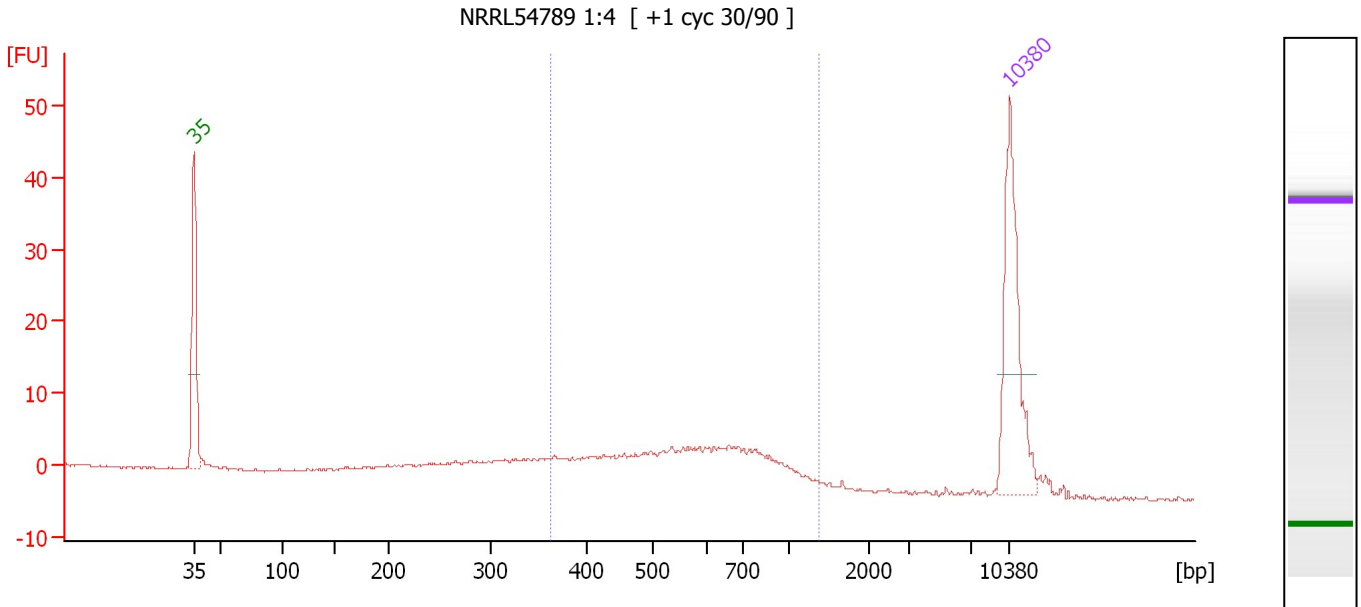
Region table for sample 2 : Bob70 1:4

| From [bp] | Average Size [bp] | To [bp] | Corr. Area | Molarity [pmol/l] | % of Total | Size distribution in CV [%] | Conc. [pg/μl] | Color |
|-----------|-------------------|---------|------------|-------------------|------------|-----------------------------|---------------|-------|
| 375 | 600 | 1,000 | 116.9 | 428.6 | 79 | 23.9 | 157.96 | Blue |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27_003.xad

Created: 4/27/2015 10:22:31 AM
 Modified: 4/27/2015 10:52:23 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : NRRL54789 1:4

Number of peaks found: 0 Corr. Area 1: 110.2
 Noise: 0.2

Peak table for sample 3 : NRRL54789 1:4

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations | Aligned Migration Time [s] |
|------|-----------|---------------|-------------------|--------------|----------------------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker | 43.00 |
| 2 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |

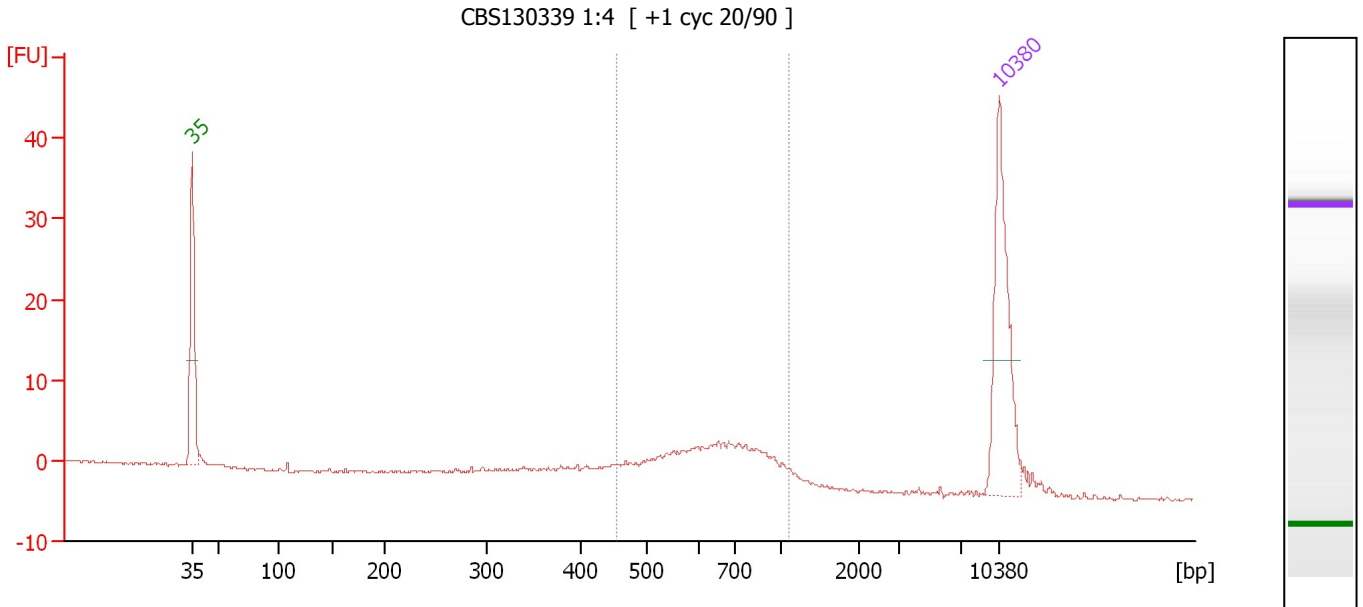
Region table for sample 3 : NRRL54789 1:4

| From [bp] | Average Size [bp] | To [bp] | Corr. Area | Molarity [pmol/l] | % of Total | Size distribution in CV [%] | Conc. [pg/μl] | Color |
|-----------|-------------------|---------|------------|-------------------|------------|-----------------------------|---------------|-------|
| 363 | 610 | 1,364 | 110.2 | 455.5 | 61 | 32.1 | 163.23 | Blue |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27_003.xad

Created: 4/27/2015 10:22:31 AM
 Modified: 4/27/2015 10:52:23 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : CBS130339 1:4

Number of peaks found: 0 Corr. Area 1: 61.6
 Noise: 0.2

Peak table for sample 4 : CBS130339 1:4

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations | Aligned Migration Time [s] |
|------|-----------|---------------|-------------------|--------------|----------------------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker | 43.00 |
| 2 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |

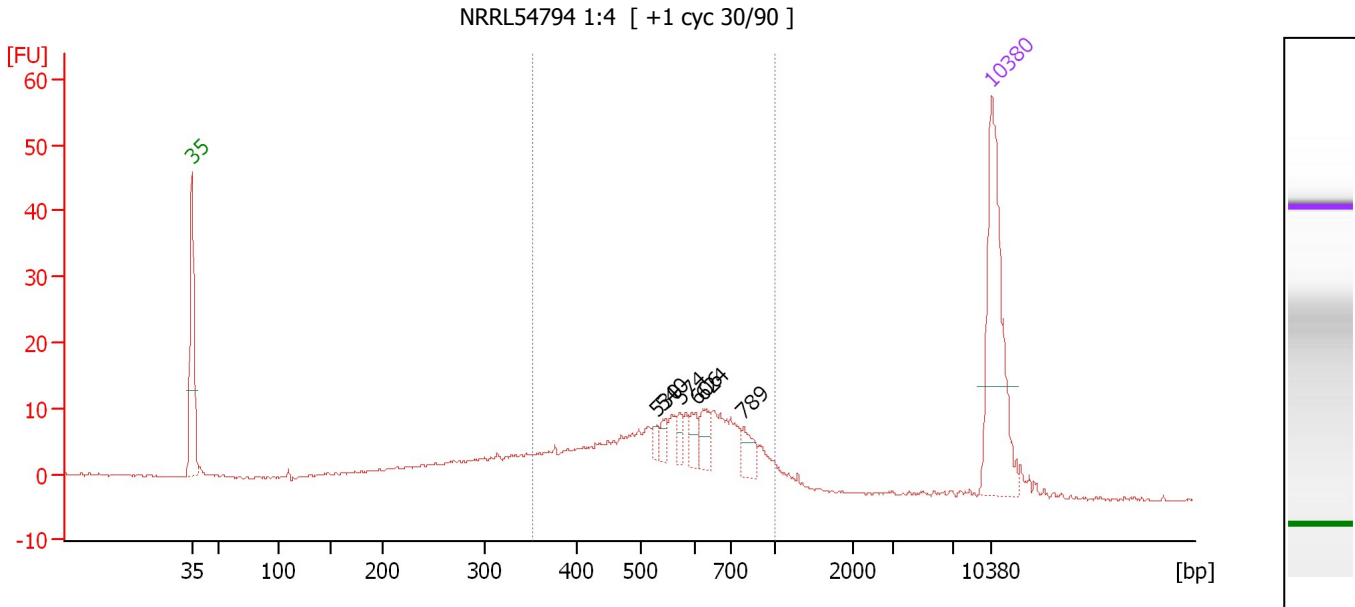
Region table for sample 4 : CBS130339 1:4

| From [bp] | Average Size [bp] | To [bp] | Corr. Area | Molarity [pmol/l] | % of Total | Size distribution in CV [%] | Conc. [pg/μl] | Color |
|-----------|-------------------|---------|------------|-------------------|------------|-----------------------------|---------------|-------|
| 456 | 673 | 1,111 | 61.6 | 246.0 | 68 | 22.5 | 103.12 | Blue |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27_003.xad

Created: 4/27/2015 10:22:31 AM
 Modified: 4/27/2015 10:52:23 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : NRRL54794 1:4

Number of peaks found: 6 Corr. Area 1: 207.3
 Noise: 0.2

Peak table for sample 5 : NRRL54794 1:4

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations | Aligned Migration Time [s] |
|------|-----------|---------------|-------------------|--------------|----------------------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker | 43.00 |
| 2 | 530 | 5.17 | 14.8 | | 83.72 |
| 3 | 540 | 5.62 | 15.8 | | 84.19 |
| 4 | 574 | 6.68 | 17.6 | | 85.73 |
| 5 | 606 | 9.38 | 23.4 | | 87.13 |
| 6 | 624 | 12.11 | 29.4 | | 87.69 |
| 7 | 789 | 12.35 | 23.7 | | 91.29 |
| 8 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |

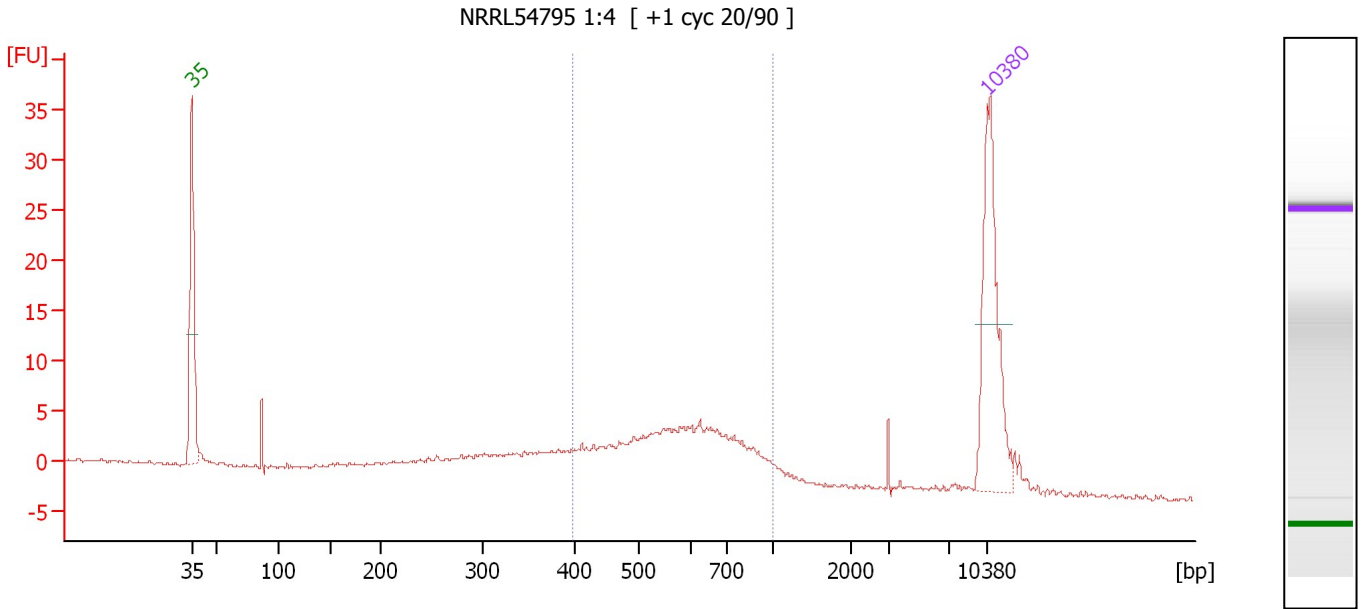
Region table for sample 5 : NRRL54794 1:4

| From [bp] | Average Size [bp] | To [bp] | Corr. Area | Molarity [pmol/l] | % of Total | Size distribution in CV [%] | Conc. [pg/μl] | Color |
|-----------|-------------------|---------|------------|-------------------|------------|-----------------------------|---------------|-------|
| 354 | 578 | 1,000 | 207.3 | 746.6 | 67 | 25.7 | 261.70 | Blue |

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27_003.xad

Created: 4/27/2015 10:22:31 AM
Modified: 4/27/2015 10:52:23 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : NRRL54795 1:4

Number of peaks found: 0 Corr. Area 1: 86.9
Noise: 0.2

Peak table for sample 6 : NRRL54795 1:4

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations | Aligned Migration Time [s] |
|------|-----------|---------------|-------------------|--------------|----------------------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker | 43.00 |
| 2 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |

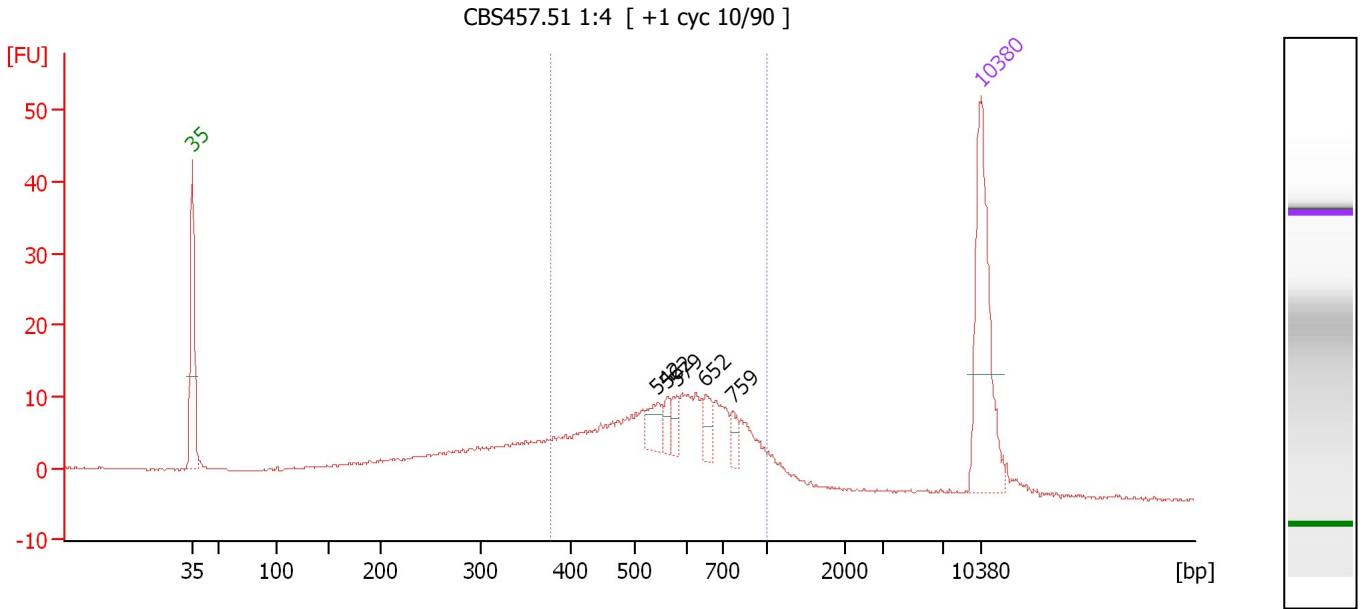
Region table for sample 6 : NRRL54795 1:4

| From [bp] | Average Size [bp] | To [bp] | Corr. Area | Molarity [pmol/l] | % of Total | Size distribution in CV [%] | Conc. [pg/μl] | Color |
|-----------|-------------------|---------|------------|-------------------|------------|-----------------------------|---------------|-------|
| 398 | 600 | 1,000 | 86.9 | 454.6 | 55 | 23.2 | 169.08 | Blue |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27_003.xad

Created: 4/27/2015 10:22:31 AM
 Modified: 4/27/2015 10:52:23 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : CBS457.51 1:4

Number of peaks found: 5 Corr. Area 1: 216.1
 Noise: 0.1

Peak table for sample 7 : CBS457.51 1:4

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations | Aligned Migration Time [s] |
|------|-----------|---------------|-------------------|--------------|----------------------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker | 43.00 |
| 2 | 542 | 15.61 | 43.6 | | 84.27 |
| 3 | 562 | 8.34 | 22.5 | | 85.17 |
| 4 | 579 | 8.85 | 23.1 | | 85.97 |
| 5 | 652 | 14.31 | 33.3 | | 88.58 |
| 6 | 759 | 8.88 | 17.7 | | 90.90 |
| 7 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |

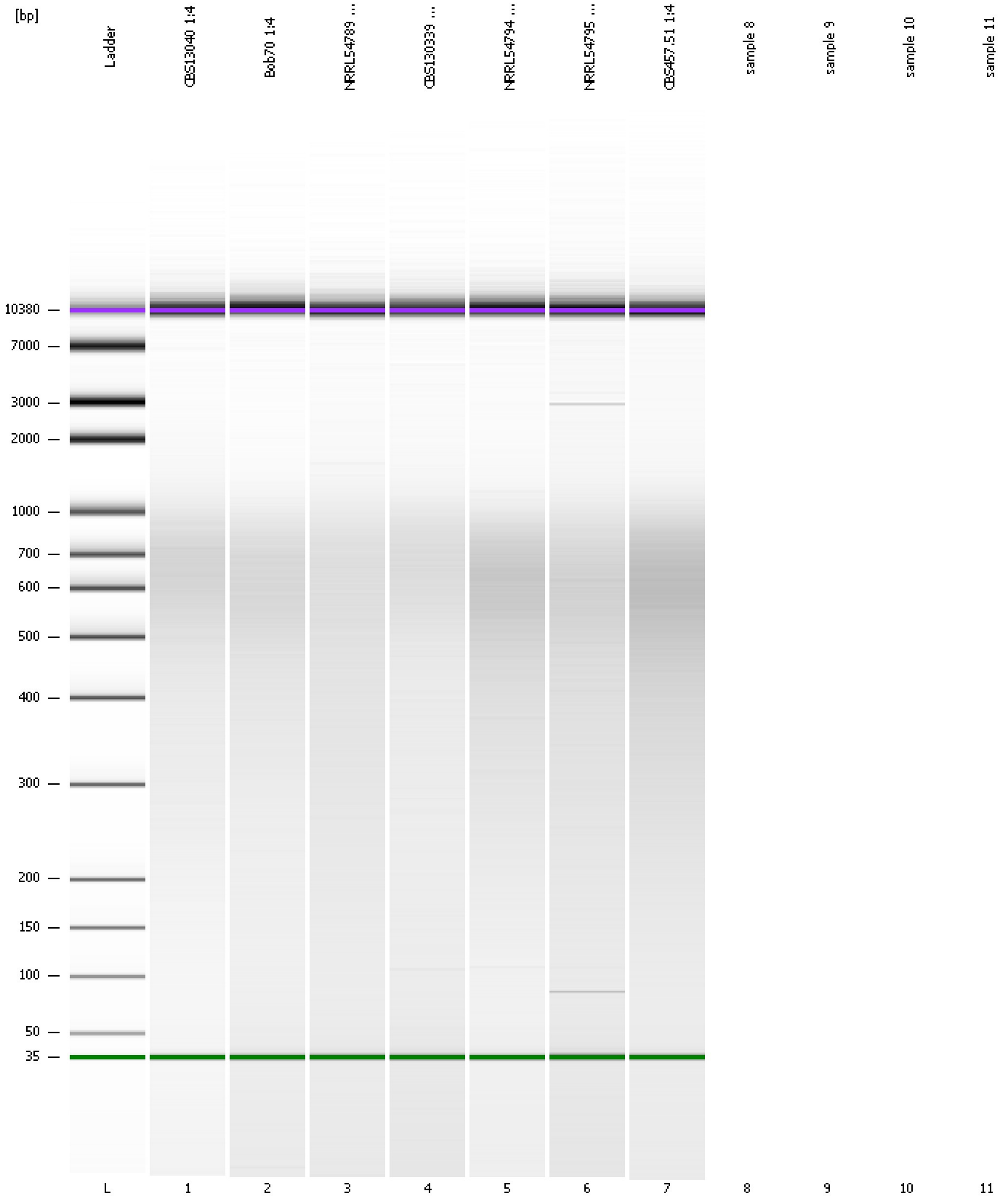
Region table for sample 7 : CBS457.51 1:4

| From [bp] | Average Size [bp] | To [bp] | Corr. Area | Molarity [pmol/l] | % of Total | Size distribution in CV [%] | Conc. [pg/μl] | Color |
|-----------|-------------------|---------|------------|-------------------|------------|-----------------------------|---------------|-------|
| 377 | 588 | 1,000 | 216.1 | 871.2 | 61 | 24.6 | 314.15 | Blue |

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27_003.xad

Created: 4/27/2015 10:22:31 AM
Modified: 4/27/2015 10:52:23 AM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27_003.xad

Created: 4/27/2015 10:22:31 AM
Modified: 4/27/2015 10:52:23 AM

Invalid Samples

Sample 8 has not been run, no results available.

Sample 9 has not been run, no results available.

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27_003.xad

Created: 4/27/2015 10:22:31 AM
 Modified: 4/27/2015 10:52:23 AM

Run Logbook

| Description | Number | Source | Category | Sub Category | Time | Time Zone | User | Host |
|---|--------|------------|----------|--------------|-----------------------|-------------------------------------|----------|----------|
| Run ended on port 1 (Number of wells acquired: 8) | | Instrument | Run | | 4/27/2015 10:51:49 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-04-27\2015-04-27_003.xad) | | Instrument | Run | | 4/27/2015 10:22:37 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938B | | Instrument | Run | | 4/27/2015 10:22:37 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name : | | Instrument | Run | | 4/27/2015 10:22:37 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies | | Instrument | Run | | 4/27/2015 10:22:37 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE13701086 | | Instrument | Run | | 4/27/2015 10:22:37 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069 | | Instrument | Run | | 4/27/2015 10:22:37 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode | | Instrument | Run | | 4/27/2015 10:22:37 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |