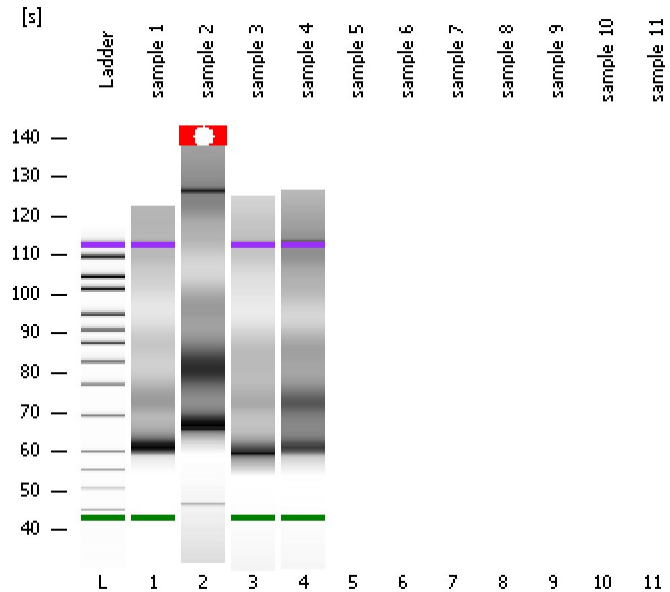


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-04\2019-10-04_001.xad

Created: 10/4/2019 4:14:06 PM
Modified: 10/4/2019 4:35:25 PM

Electrophoresis File Run Summary



Instrument Information:

Instrument Name: DE34903152 Firmware: C.01.069
Serial#: DE34903152 Type: G2938C

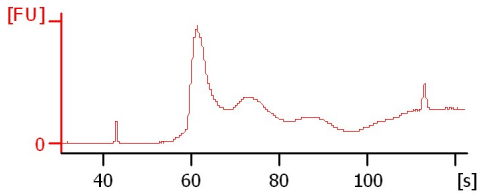
Assay Information:

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

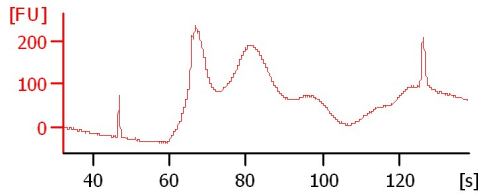
Chip Information:

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

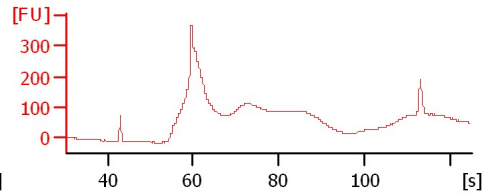
sample 1



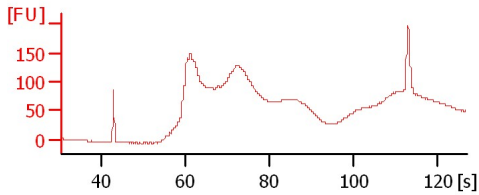
sample 2



sample 3



sample 4



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-04\2019-10-04_001.xad

Created: 10/4/2019 4:14:06 PM
 Modified: 10/4/2019 4:35:25 PM

Electrophoresis File Run Summary (Chip Summary)

| Sample Name | Sample Comment | Rest. Digest | Status | Observation | Result Label | Result Color |
|-------------|----------------|--------------------------|--------|-------------|--------------|--------------|
| sample 1 | | <input type="checkbox"/> | ✓ | | | |
| sample 2 | | <input type="checkbox"/> | ✓ | | | |
| sample 3 | | <input type="checkbox"/> | ✓ | | | |
| sample 4 | | <input type="checkbox"/> | ✓ | | | |
| sample 5 | | <input type="checkbox"/> | | | | |
| sample 6 | | <input type="checkbox"/> | | | | |
| sample 7 | | <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:\... bioanalyzer\2100 expert\data\2019-10-04\2019-10-04_001.xad

Created: 10/4/2019 4:14:06 PM
Modified: 10/4/2019 4:35:25 PM

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

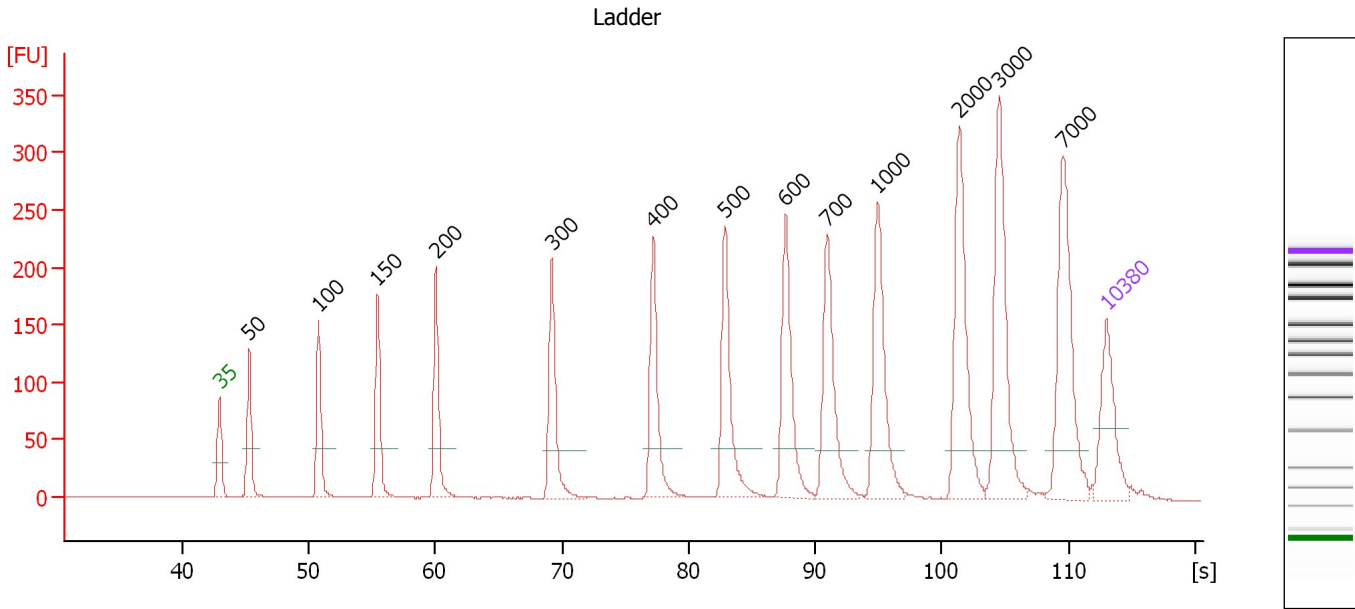
Ladder

| 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:\... bioanalyzer\2100 expert\data\2019-10-04\2019-10-04_001.xad

Created: 10/4/2019 4:14:06 PM
 Modified: 10/4/2019 4:35:25 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

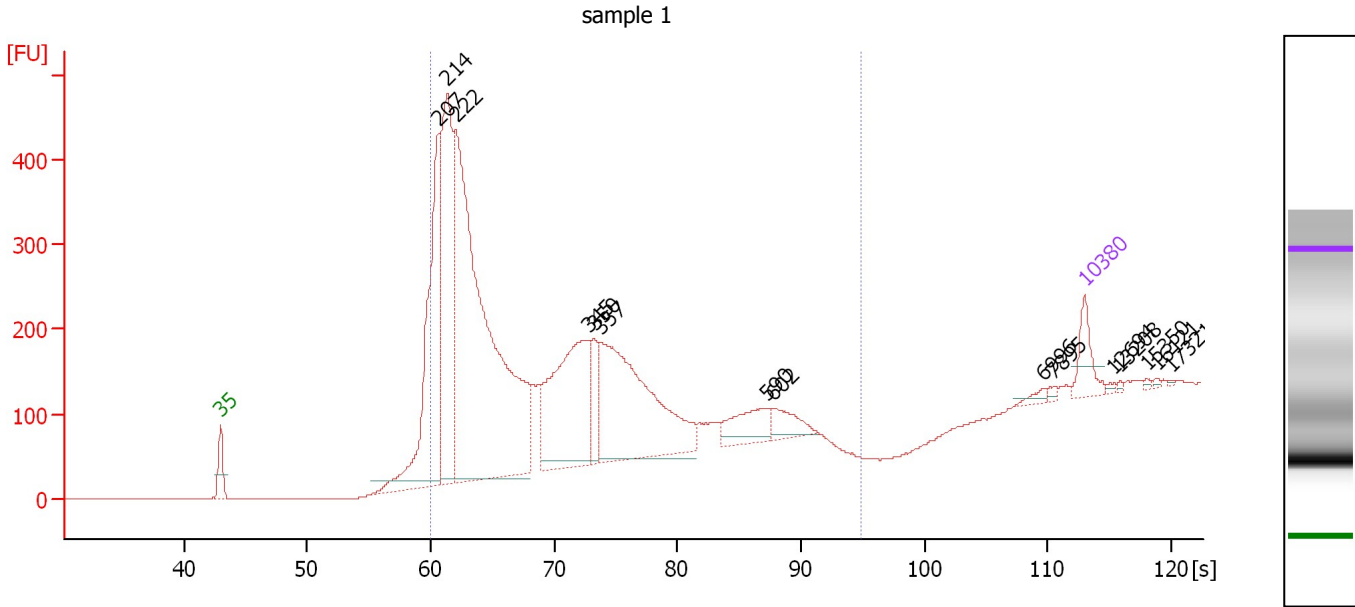
Peak table for Ladder

| 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 | 45.33 |
| 3 | 100 | 150.00 | 2,272.7 | Ladder Peak | 50.80 |
| 4 | 150 | 150.00 | 1,515.2 | Ladder Peak | 55.46 |
| 5 | 200 | 150.00 | 1,136.4 | Ladder Peak | 60.08 |
| 6 | 300 | 150.00 | 757.6 | Ladder Peak | 69.23 |
| 7 | 400 | 150.00 | 568.2 | Ladder Peak | 77.24 |
| 8 | 500 | 150.00 | 454.5 | Ladder Peak | 82.87 |
| 9 | 600 | 150.00 | 378.8 | Ladder Peak | 87.66 |
| 10 | 700 | 150.00 | 324.7 | Ladder Peak | 90.97 |
| 11 | 1,000 | 150.00 | 227.3 | Ladder Peak | 94.95 |
| 12 | 2,000 | 150.00 | 113.6 | Ladder Peak | 101.35 |
| 13 | 3,000 | 150.00 | 75.8 | Ladder Peak | 104.53 |
| 14 | 7,000 | 150.00 | 32.5 | Ladder Peak | 109.57 |
| 15 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-04\2019-10-04_001.xad

Created: 10/4/2019 4:14:06 PM
 Modified: 10/4/2019 4:35:25 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 15 Corr. Area 1: 4,659.7
 Noise: 0.2

Peak table for sample 1 : sample 1

| 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 | 207 | 877.12 | 6,423.6 | | 60.71 |
| 3 | 214 | 883.39 | 6,254.0 | | 61.36 |
| 4 | 222 | 2,211.73 | 15,120.7 | | 62.06 |
| 5 | 345 | 686.90 | 3,020.1 | | 72.80 |
| 6 | 350 | 105.37 | 456.1 | | 73.24 |
| 7 | 357 | 835.12 | 3,548.7 | | 73.76 |
| 8 | 590 | 129.09 | 331.3 | | 87.20 |
| 9 | 602 | 77.88 | 196.0 | | 87.72 |
| 10 | 6,996 | 16.12 | 3.5 | | 109.56 |
| 11 | 7,895 | 8.49 | 1.6 | | 110.48 |
| 12 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |
| 13 | 12,694 | 0.00 | 0.0 | | 115.35 |
| 14 | 13,208 | 0.00 | 0.0 | | 115.87 |
| 15 | 15,350 | 0.00 | 0.0 | | 118.05 |
| 16 | 16,121 | 0.00 | 0.0 | | 118.83 |
| 17 | 17,321 | 0.00 | 0.0 | | 120.05 |

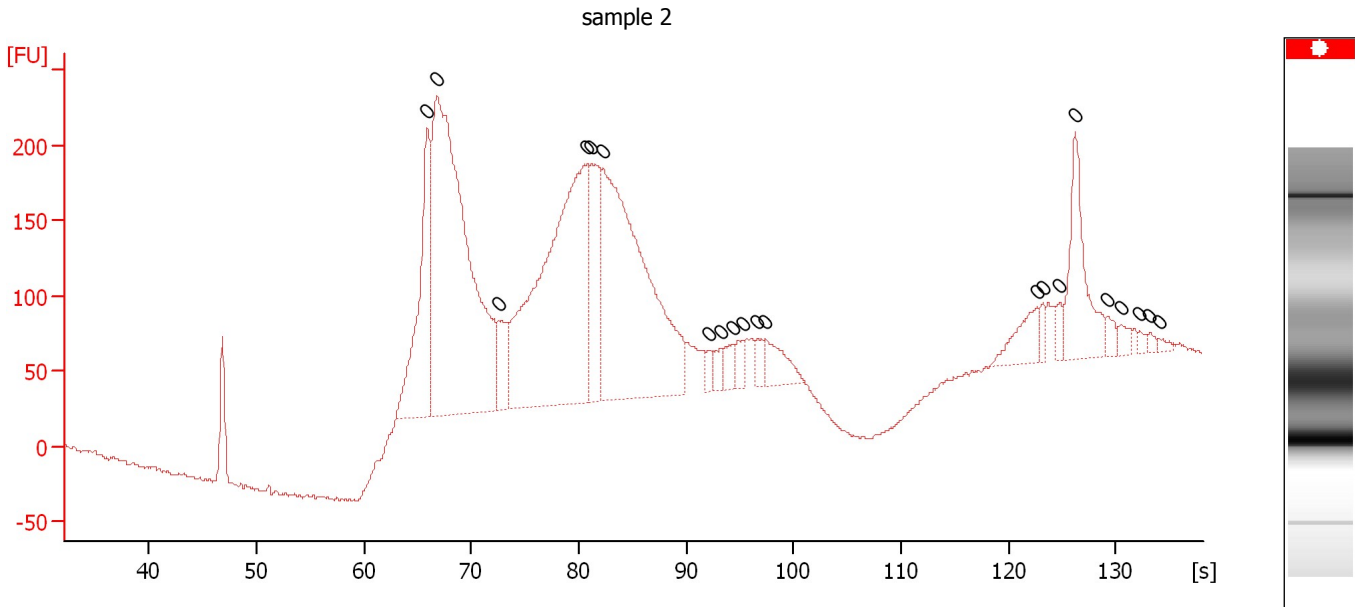
Region table for sample 1 : sample 1

| From [bp] | To [bp] | Average Size [bp] | Conc. [pg/μl] | Corr. Area | Molarity [pmol/l] | Co % of Ior Total | Size distribution in CV [%] |
|-----------|---------|-------------------|---------------|------------|-------------------|-------------------|-----------------------------|
| 200 | 1,000 | 291 | 4,586.06 | 4,659.7 | 26,421.4 | 93 | 31.2 |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-04\2019-10-04_001.xad

Created: 10/4/2019 4:14:06 PM
 Modified: 10/4/2019 4:35:25 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 0 Noise: 1.5

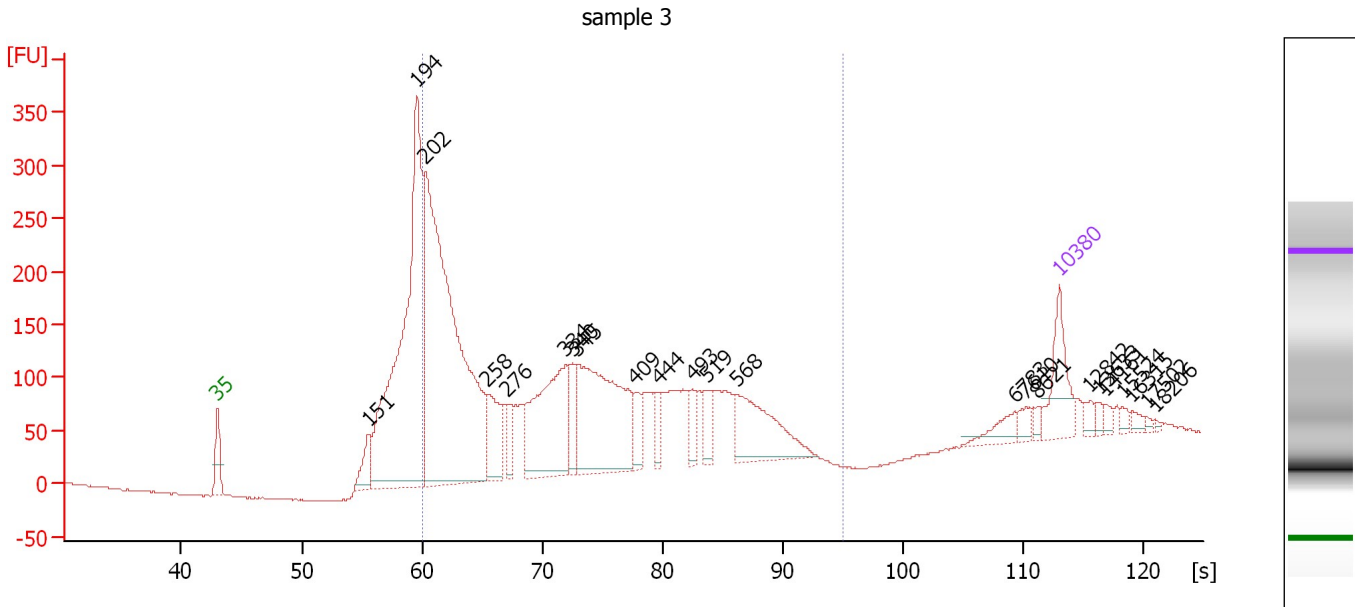
Peak table for sample 2 : sample 2

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations | Aligned Migration Time [s] |
|------|-----------|---------------|-------------------|--------------|----------------------------|
| 1 | 0 | 0.00 | 0.0 | | 65.85 |
| 2 | 0 | 0.00 | 0.0 | | 66.80 |
| 3 | 0 | 0.00 | 0.0 | | 72.50 |
| 4 | 0 | 0.00 | 0.0 | | 80.75 |
| 5 | 0 | 0.00 | 0.0 | | 81.20 |
| 6 | 0 | 0.00 | 0.0 | | 82.30 |
| 7 | 0 | 0.00 | 0.0 | | 92.05 |
| 8 | 0 | 0.00 | 0.0 | | 93.25 |
| 9 | 0 | 0.00 | 0.0 | | 94.40 |
| 10 | 0 | 0.00 | 0.0 | | 95.20 |
| 11 | 0 | 0.00 | 0.0 | | 96.65 |
| 12 | 0 | 0.00 | 0.0 | | 97.40 |
| 13 | 0 | 0.00 | 0.0 | | 122.65 |
| 14 | 0 | 0.00 | 0.0 | | 123.20 |
| 15 | 0 | 0.00 | 0.0 | | 124.80 |
| 16 | 0 | 0.00 | 0.0 | | 126.25 |
| 17 | 0 | 0.00 | 0.0 | | 129.20 |
| 18 | 0 | 0.00 | 0.0 | | 130.50 |
| 19 | 0 | 0.00 | 0.0 | | 132.25 |
| 20 | 0 | 0.00 | 0.0 | | 133.20 |
| 21 | 0 | 0.00 | 0.0 | | 134.00 |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-04\2019-10-04_001.xad

Created: 10/4/2019 4:14:06 PM
 Modified: 10/4/2019 4:35:25 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 23 Corr. Area 1: 3,430.9
 Noise: 0.7

Peak table for sample 3 : sample 3


| 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 | 151 | 69.05 | 690.9 | | 55.59 |
| 3 | 194 | 930.34 | 7,249.6 | | 59.56 |
| 4 | 202 | 1,149.87 | 8,616.8 | | 60.28 |
| 5 | 258 | 112.39 | 659.3 | | 65.41 |
| 6 | 276 | 44.40 | 243.9 | | 67.02 |
| 7 | 334 | 293.00 | 1,330.3 | | 71.93 |
| 8 | 340 | 64.97 | 289.2 | | 72.46 |
| 9 | 345 | 386.42 | 1,695.0 | | 72.87 |
| 10 | 409 | 41.77 | 154.8 | | 77.73 |
| 11 | 444 | 35.26 | 120.2 | | 79.74 |
| 12 | 493 | 31.21 | 96.0 | | 82.46 |
| 13 | 519 | 41.03 | 119.9 | | 83.76 |
| 14 | 568 | 161.82 | 431.7 | | 86.13 |
| 15 | 6,783 | 28.07 | 6.3 | | 109.29 |
| 16 | 7,610 | 15.68 | 3.1 | | 110.19 |
| 17 | 8,621 | 9.79 | 1.7 | | 111.21 |
| 18 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |
| 19 | 12,842 | 0.00 | 0.0 | | 115.50 |
| 20 | 13,633 | 0.00 | 0.0 | | 116.30 |
| 21 | 14,161 | 0.00 | 0.0 | | 116.84 |
| 22 | 15,524 | 0.00 | 0.0 | | 118.22 |
| 23 | 16,315 | 0.00 | 0.0 | | 119.03 |
| 24 | 17,502 | 0.00 | 0.0 | | 120.23 |
| 25 | 18,206 | 0.00 | 0.0 | | 120.95 |

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-04\2019-10-04_001.xad

Created: 10/4/2019 4:14:06 PM
Modified: 10/4/2019 4:35:25 PM

Electropherogram Summary Continued ...

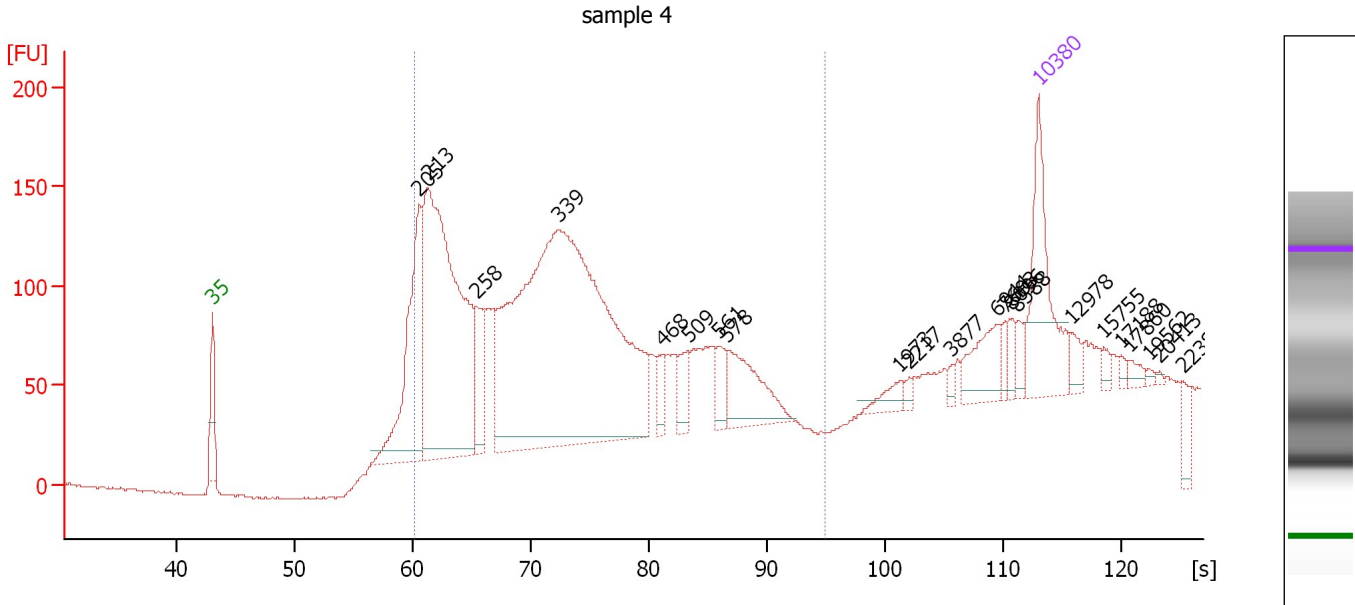
... Region table for sample 3 : sample 3

| From [bp] | To [bp] | Average Size [bp] | Conc. [pg/ μ l] | Corr. Area | Molarity [pmol/l] | Co % of lor Total | Size distribution in CV [%] |
|-----------|---------|-------------------|---------------------|------------|-------------------|--|-----------------------------|
| 200 | 1,000 | 348 | 2,344.33 | 3,430.9 | 12,180.7 |  72 | 36.8 |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-04\2019-10-04_001.xad

Created: 10/4/2019 4:14:06 PM
 Modified: 10/4/2019 4:35:25 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 22 Corr. Area 1: 2,940.0
 Noise: 0.5

Peak table for sample 4 : sample 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 | 205 | 187.12 | 1,384.7 | | 60.51 |
| 3 | 213 | 463.55 | 3,302.0 | | 61.24 |
| 4 | 258 | 54.14 | 318.0 | | 65.38 |
| 5 | 339 | 749.69 | 3,352.5 | | 72.34 |
| 6 | 468 | 17.93 | 58.1 | | 81.07 |
| 7 | 509 | 22.65 | 67.4 | | 83.30 |
| 8 | 561 | 21.35 | 57.6 | | 85.80 |
| 9 | 578 | 66.55 | 174.4 | | 86.62 |
| 10 | 1,973 | 11.41 | 8.8 | | 101.17 |
| 11 | 2,217 | 4.29 | 2.9 | | 102.04 |
| 12 | 3,877 | 4.14 | 1.6 | | 105.63 |
| 13 | 6,944 | 36.15 | 7.9 | | 109.50 |
| 14 | 7,603 | 7.86 | 1.6 | | 110.18 |
| 15 | 8,096 | 8.51 | 1.6 | | 110.68 |
| 16 | 8,588 | 9.29 | 1.6 | | 111.18 |
| 17 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |
| 18 | 12,978 | 0.00 | 0.0 | | 115.64 |
| 19 | 15,755 | 0.00 | 0.0 | | 118.46 |
| 20 | 17,188 | 0.00 | 0.0 | | 119.91 |
| 21 | 17,860 | 0.00 | 0.0 | | 120.60 |
| 22 | 19,562 | 0.00 | 0.0 | | 122.32 |
| 23 | 20,413 | 0.00 | 0.0 | | 123.19 |
| 24 | 22,384 | 0.00 | 0.0 | | 125.19 |

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-04\2019-10-04_001.xad

Created: 10/4/2019 4:14:06 PM
Modified: 10/4/2019 4:35:25 PM

Electropherogram Summary Continued ...

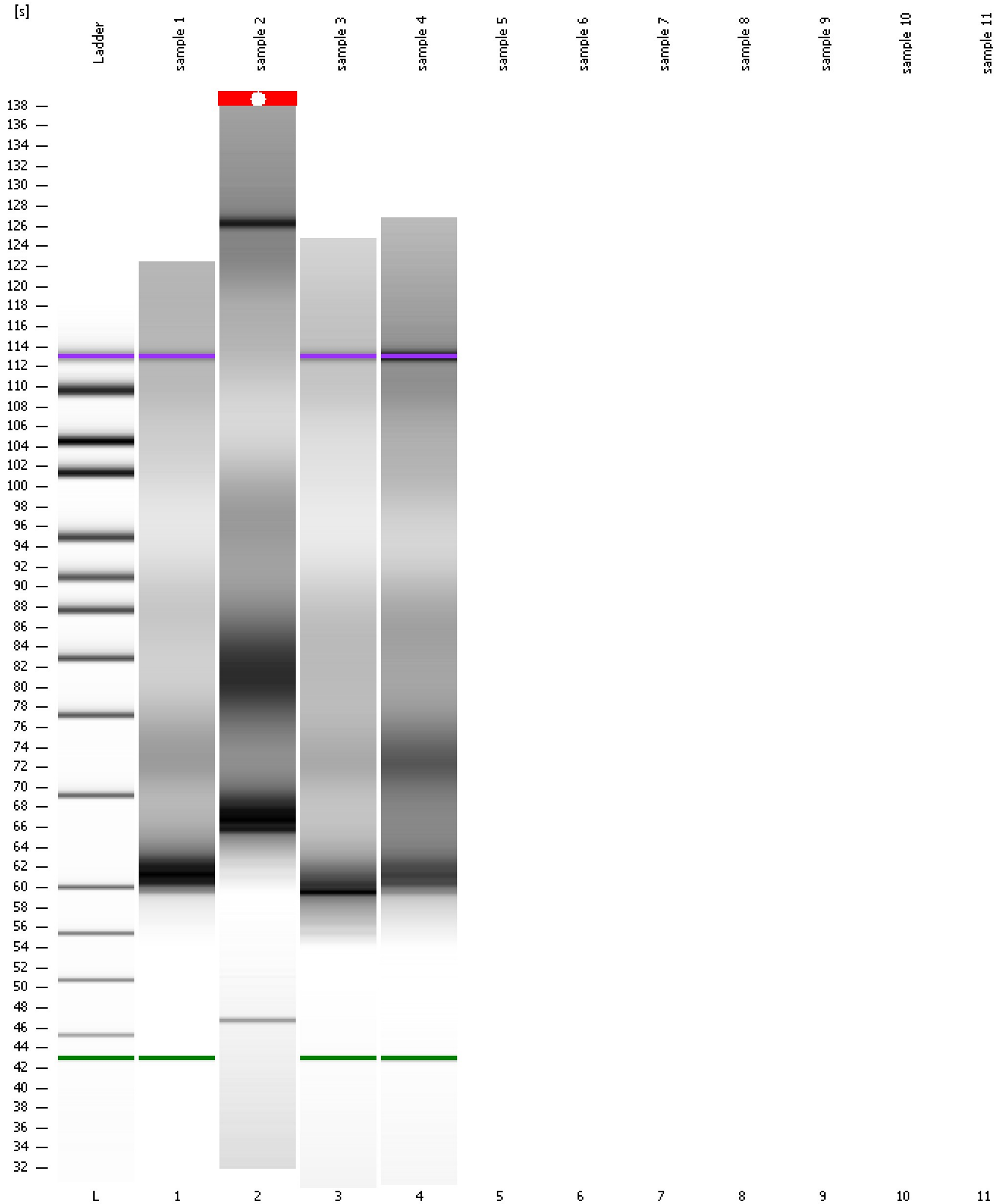
... Region table for sample 4 : sample 4

| From [bp] | To [bp] | Average Size [bp] | Conc. [pg/ μ l] | Corr. Area | Molarity [pmol/l] | Co % of lor Total | Size distribution in CV [%] |
|-----------|---------|-------------------|---------------------|------------|-------------------|--|-----------------------------|
| 200 | 1,000 | 349 | 1,586.10 | 2,940.0 | 7,948.0 |  83 | 34.0 |

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-04\2019-10-04_001.xad

Created: 10/4/2019 4:14:06 PM
Modified: 10/4/2019 4:35:25 PM

Gel Image

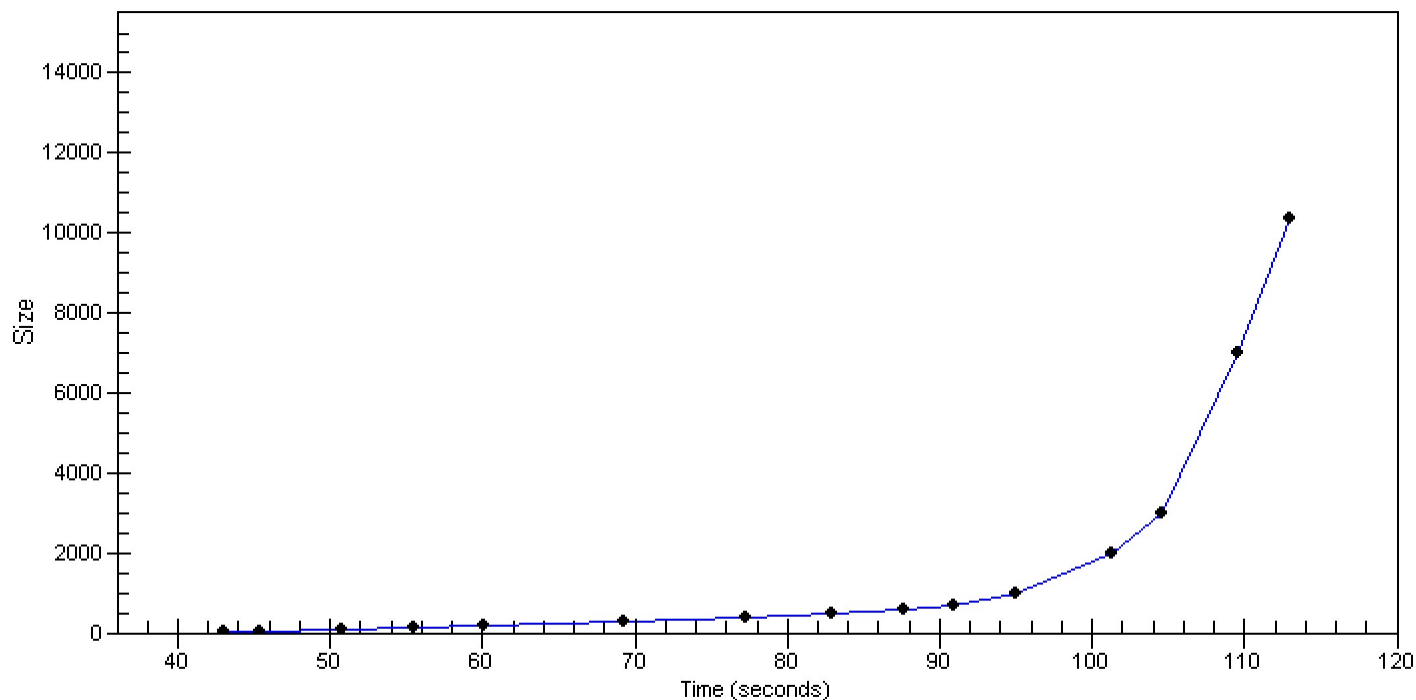


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-04\2019-10-04_001.xad

Created: 10/4/2019 4:14:06 PM
Modified: 10/4/2019 4:35:25 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-04\2019-10-04_001.xad

Created: 10/4/2019 4:14:06 PM
 Modified: 10/4/2019 4:35:25 PM

Run Logbook

| Description | Number | Source | Category | Sub Category | Time | Time Zone | User | Host |
|--|--------|------------|----------|--------------|----------------------|-------------------------------------|----------|----------|
| Run ended on port 1 (Number of wells acquired: 5) | | Instrument | Run | | 10/4/2019 4:35:24 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2019-10-04\2019-10-04_001.xad) | | Instrument | Run | | 10/4/2019 4:14:12 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938C | | Instrument | Run | | 10/4/2019 4:14:12 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name : | | Instrument | Run | | 10/4/2019 4:14:12 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies | | Instrument | Run | | 10/4/2019 4:14:12 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE34903152 | | Instrument | Run | | 10/4/2019 4:14:12 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069 | | Instrument | Run | | 10/4/2019 4:14:12 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode | | Instrument | Run | | 10/4/2019 4:14:12 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |