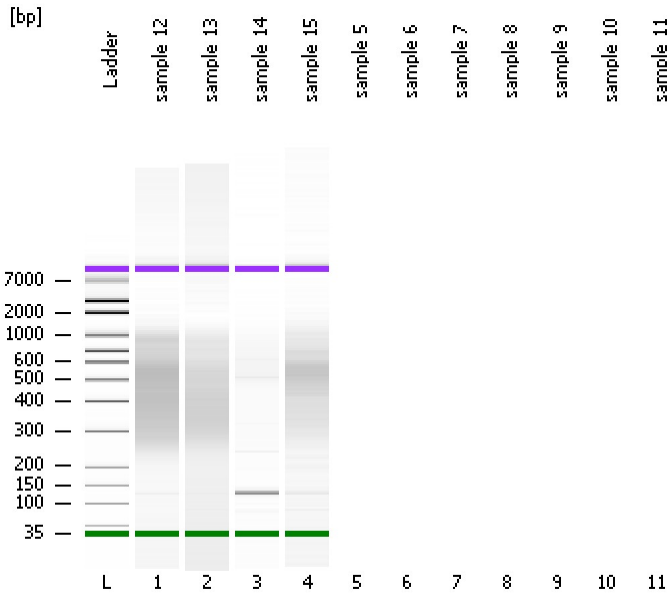


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-24\2019-05-24\_002.xad

Created: 5/24/2019 11:47:54 AM  
Modified: 5/24/2019 12:16:40 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

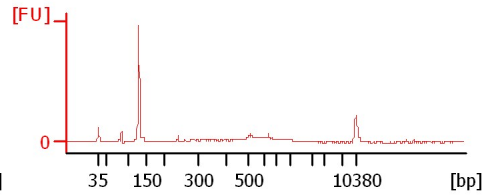
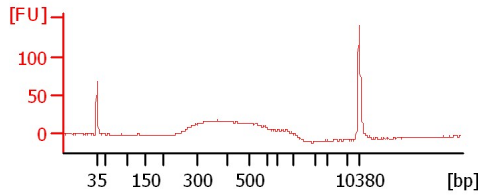
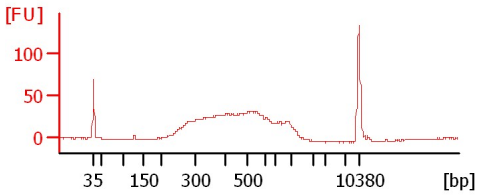
Chip Information:

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

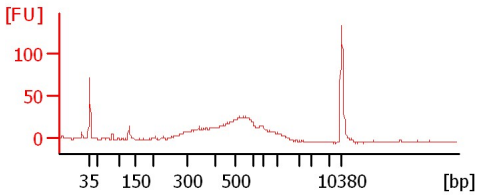
**sample 12**

**sample 13**

**sample 14**



**sample 15**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-24\2019-05-24\_002.xad

Created: 5/24/2019 11:47:54 AM  
 Modified: 5/24/2019 12:16:40 PM

**Electrophoresis File Run Summary (Chip Summary)**

| Sample Name | Sample Comment | Rest. Digest             | Status | Observation | Result Label | Result Color |
|-------------|----------------|--------------------------|--------|-------------|--------------|--------------|
| sample 12   |                | <input type="checkbox"/> | ✓      |             |              |              |
| sample 13   |                | <input type="checkbox"/> | ✓      |             |              |              |
| sample 14   |                | <input type="checkbox"/> | ✓      |             |              |              |
| sample 15   |                | <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\2019-05-24\2019-05-24\_002.xad

Created: 5/24/2019 11:47:54 AM  
Modified: 5/24/2019 12:16:40 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

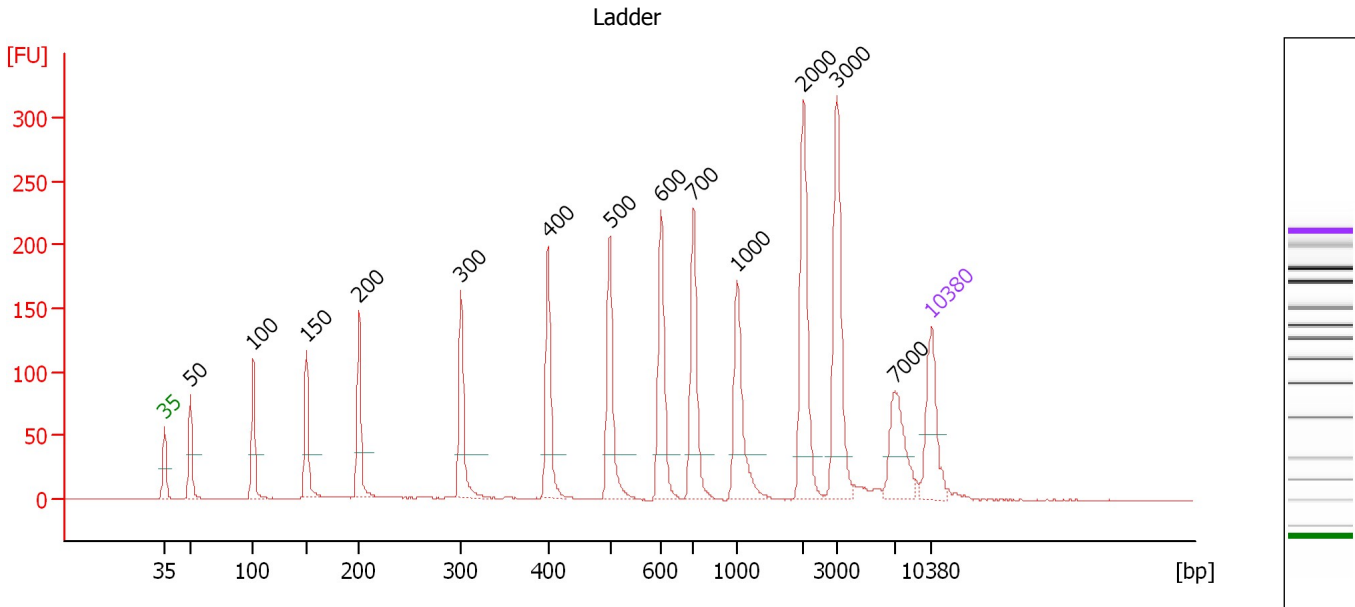
**Ladder**

| 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\2019-05-24\2019-05-24\_002.xad

Created: 5/24/2019 11:47:54 AM  
 Modified: 5/24/2019 12:16:40 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.5

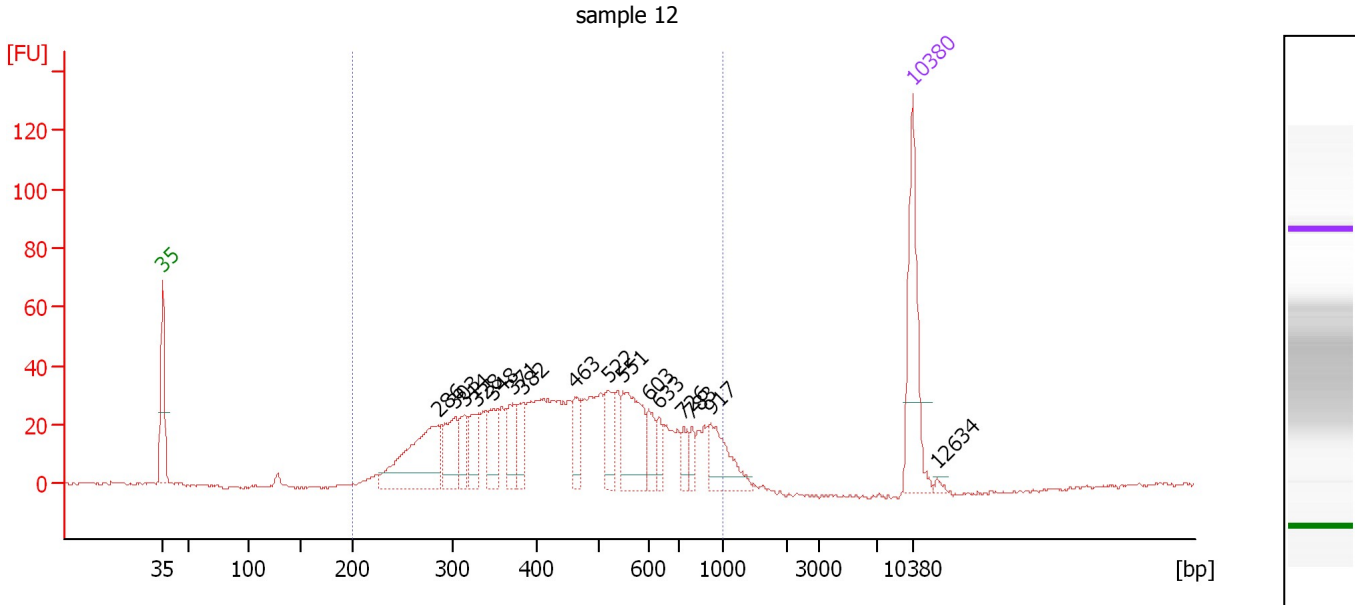
**Peak table for Ladder**

| 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  | 51.08                      |
| 4    | 150       | 150.00        | 1,515.2           | Ladder Peak  | 55.94                      |
| 5    | 200       | 150.00        | 1,136.4           | Ladder Peak  | 60.76                      |
| 6    | 300       | 150.00        | 757.6             | Ladder Peak  | 70.05                      |
| 7    | 400       | 150.00        | 568.2             | Ladder Peak  | 77.98                      |
| 8    | 500       | 150.00        | 454.5             | Ladder Peak  | 83.62                      |
| 9    | 600       | 150.00        | 378.8             | Ladder Peak  | 88.29                      |
| 10   | 700       | 150.00        | 324.7             | Ladder Peak  | 91.26                      |
| 11   | 1,000     | 150.00        | 227.3             | Ladder Peak  | 95.24                      |
| 12   | 2,000     | 150.00        | 113.6             | Ladder Peak  | 101.28                     |
| 13   | 3,000     | 150.00        | 75.8              | Ladder Peak  | 104.34                     |
| 14   | 7,000     | 150.00        | 32.5              | Ladder Peak  | 109.64                     |
| 15   | 10,380    | 75.00         | 10.9              | Upper Marker | 113.00                     |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-24\2019-05-24\_002.xad

Created: 5/24/2019 11:47:54 AM  
 Modified: 5/24/2019 12:16:40 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : sample 12**

Number of peaks found: 16                      Corr. Area 1: 934.3  
 Noise: 0.5

**Peak table for sample 1 : sample 12**

| 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    | 286       | 125.21        | 662.7             |              | 68.77                      |
| 3    | 303       | 50.83         | 253.9             |              | 70.31                      |
| 4    | 314       | 28.42         | 137.1             |              | 71.16                      |
| 5    | 328       | 33.43         | 154.2             |              | 72.30                      |
| 6    | 348       | 39.63         | 172.6             |              | 73.85                      |
| 7    | 371       | 34.10         | 139.2             |              | 75.69                      |
| 8    | 382       | 28.84         | 114.2             |              | 76.58                      |
| 9    | 463       | 24.42         | 79.8              |              | 81.56                      |
| 10   | 522       | 35.43         | 102.9             |              | 84.64                      |
| 11   | 551       | 73.85         | 203.2             |              | 85.99                      |
| 12   | 603       | 22.11         | 55.6              |              | 88.37                      |
| 13   | 633       | 15.78         | 37.8              |              | 89.27                      |
| 14   | 726       | 14.48         | 30.2              |              | 91.61                      |
| 15   | 783       | 12.96         | 25.1              |              | 92.35                      |
| 16   | 917       | 44.74         | 73.9              |              | 94.14                      |
| 17   | 10,380    | 75.00         | 10.9              | Upper Marker | 113.00                     |
| 18   | 12,634    | 0.00          | 0.0               |              | 115.24                     |

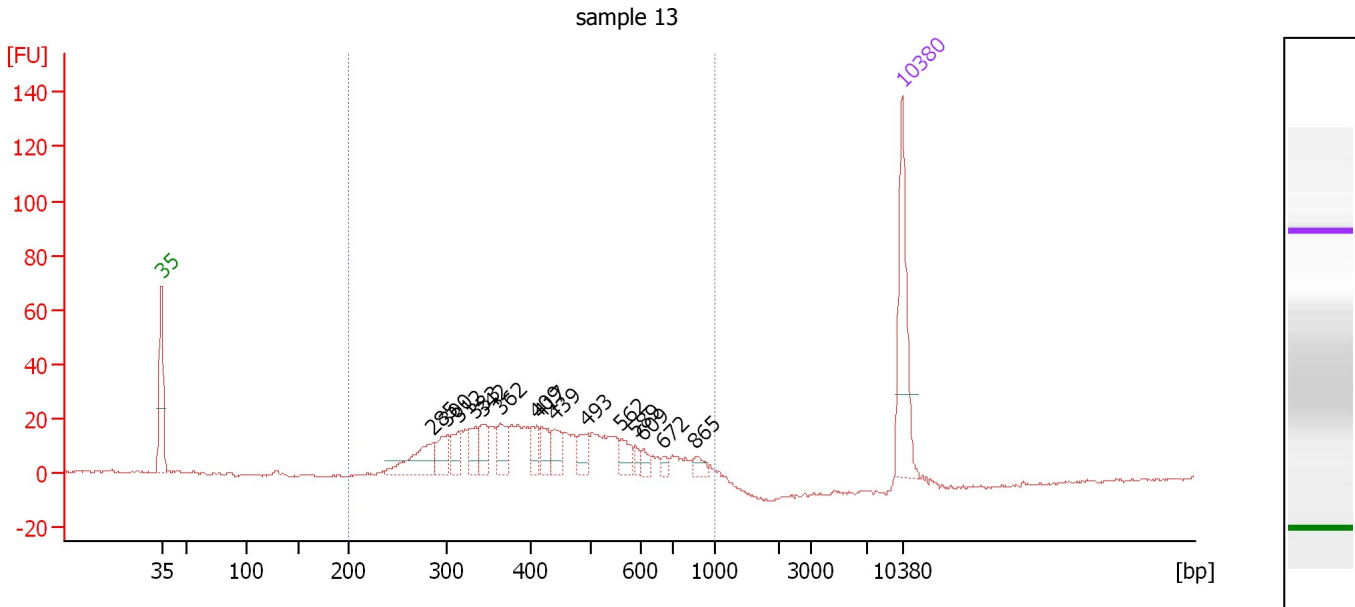
**Region table for sample 1 : sample 12**

| 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   | 475               | 866.64        | 934.3      | 3,260.8           | 97                | 35.6                        |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-24\2019-05-24\_002.xad

Created: 5/24/2019 11:47:54 AM  
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**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : sample 13**

Number of peaks found: 15                      Corr. Area 1: 487.4  
 Noise: 0.5

**Peak table for sample 2 : sample 13**

| 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    | 285       | 50.29         | 267.4             |              | 68.65                      |
| 3    | 300       | 26.89         | 136.0             |              | 70.01                      |
| 4    | 312       | 26.21         | 127.2             |              | 71.02                      |
| 5    | 333       | 24.18         | 109.9             |              | 72.68                      |
| 6    | 342       | 25.02         | 111.0             |              | 73.34                      |
| 7    | 362       | 26.69         | 111.6             |              | 75.00                      |
| 8    | 409       | 17.01         | 63.0              |              | 78.48                      |
| 9    | 417       | 21.37         | 77.7              |              | 78.93                      |
| 10   | 439       | 21.40         | 73.8              |              | 80.19                      |
| 11   | 493       | 20.65         | 63.5              |              | 83.22                      |
| 12   | 562       | 16.64         | 44.9              |              | 86.49                      |
| 13   | 589       | 7.04          | 18.1              |              | 87.75                      |
| 14   | 609       | 7.55          | 18.8              |              | 88.56                      |
| 15   | 672       | 5.19          | 11.7              |              | 90.42                      |
| 16   | 865       | 8.76          | 15.3              |              | 93.45                      |
| 17   | 10,380    | 75.00         | 10.9              | Upper Marker | 113.00                     |

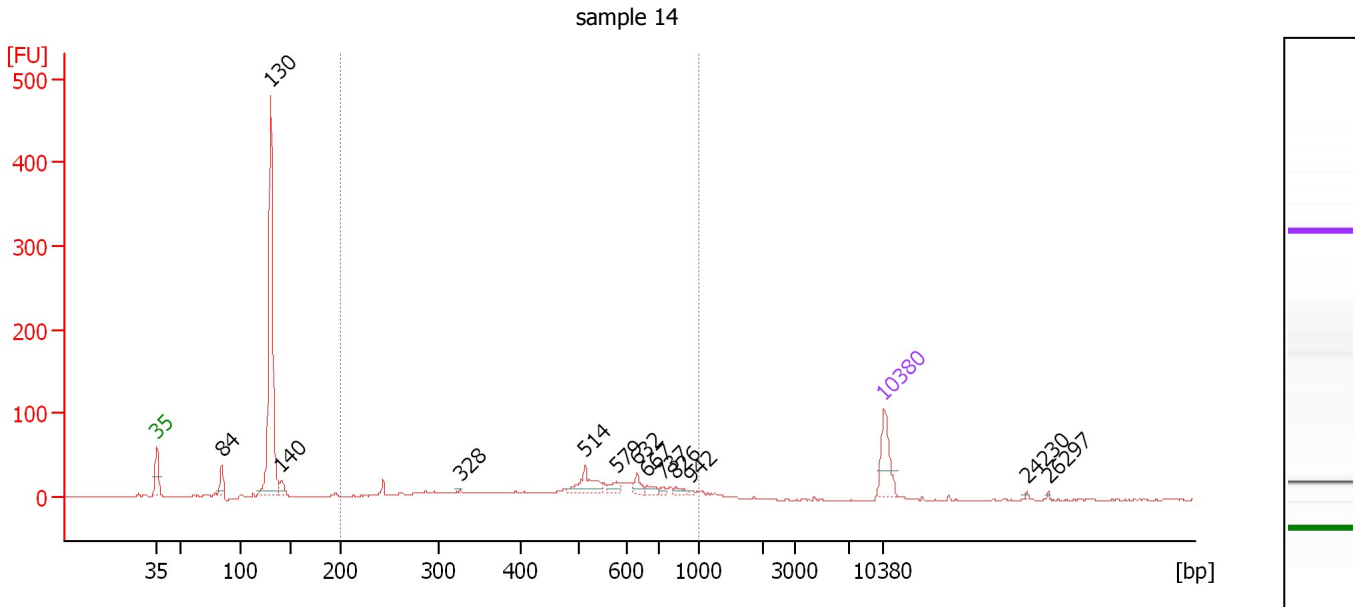
**Region table for sample 2 : sample 13**

| 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   | 443               | 486.94        | 487.4      | 1,885.9           | 99                | 32.4                        |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-24\2019-05-24\_002.xad

Created: 5/24/2019 11:47:54 AM  
 Modified: 5/24/2019 12:16:40 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : sample 14**

Number of peaks found: 13                      Corr. Area 1: 393.3  
 Noise: 0.7

**Peak table for sample 3 : sample 14**

| 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    | 84        | 49.51         | 891.0             |              | 49.26                      |
| 3    | 130       | 744.79        | 8,688.3           |              | 53.98                      |
| 4    | 140       | 25.26         | 272.5             |              | 55.01                      |
| 5    | 328       | 3.39          | 15.6              |              | 72.25                      |
| 6    | 514       | 62.18         | 183.4             |              | 84.26                      |
| 7    | 579       | 18.59         | 48.7              |              | 87.29                      |
| 8    | 632       | 20.42         | 49.0              |              | 89.24                      |
| 9    | 667       | 13.81         | 31.4              |              | 90.27                      |
| 10   | 737       | 6.83          | 14.0              |              | 91.75                      |
| 11   | 826       | 11.05         | 20.3              |              | 92.93                      |
| 12   | 942       | 3.07          | 4.9               |              | 94.47                      |
| 13   | 10,380    | 75.00         | 10.9              | Upper Marker | 113.00                     |
| 14   | 24,230    | 0.00          | 0.0               |              | 126.75                     |
| 15   | 26,297    | 0.00          | 0.0               |              | 128.81                     |

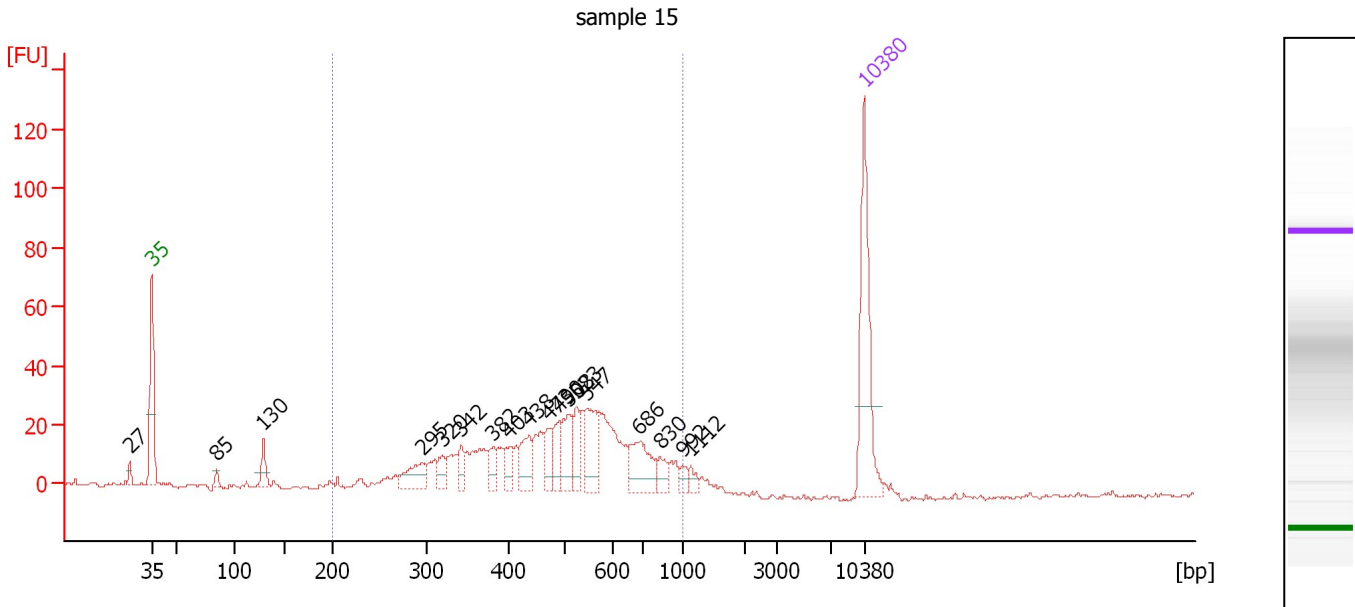
**Region table for sample 3 : sample 14**

| From [bp] | To [bp] | Average Size [bp] | Conc. [pg/μl] | Corr. Area | Molarity [pmol/l] | Co % of lor Total | Size distribution in CV [%] |
|-----------|---------|-------------------|---------------|------------|-------------------|-------------------|-----------------------------|
| 200       | 1,000   | 527               | 467.27        | 393.3      | 1,625.3           | 41                | 33.3                        |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-24\2019-05-24\_002.xad

Created: 5/24/2019 11:47:54 AM  
 Modified: 5/24/2019 12:16:40 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : sample 15**

Number of peaks found: 18                      Corr. Area 1: 504.5  
 Noise: 0.6

**Peak table for sample 4 : sample 15**

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations | Aligned Migration Time [s] |
|------|-----------|---------------|-------------------|--------------|----------------------------|
| 1    | 27        | 0.00          | 0.0               |              | 40.80                      |
| 2    | 35        | 125.00        | 5,411.3           | Lower Marker | 43.00                      |
| 3    | 85        | 5.94          | 105.4             |              | 49.39                      |
| 4    | 130       | 19.66         | 229.9             |              | 53.95                      |
| 5    | 295       | 28.63         | 147.1             |              | 69.56                      |
| 6    | 320       | 14.04         | 66.6              |              | 71.61                      |
| 7    | 342       | 12.70         | 56.2              |              | 73.39                      |
| 8    | 382       | 13.84         | 54.9              |              | 76.53                      |
| 9    | 403       | 16.50         | 62.0              |              | 78.16                      |
| 10   | 438       | 27.73         | 96.0              |              | 80.10                      |
| 11   | 473       | 18.88         | 60.5              |              | 82.09                      |
| 12   | 490       | 22.96         | 71.0              |              | 83.03                      |
| 13   | 508       | 32.04         | 95.6              |              | 83.97                      |
| 14   | 523       | 20.13         | 58.3              |              | 84.71                      |
| 15   | 547       | 39.27         | 108.8             |              | 85.81                      |
| 16   | 686       | 39.63         | 87.5              |              | 90.84                      |
| 17   | 830       | 11.13         | 20.3              |              | 92.99                      |
| 18   | 992       | 6.18          | 9.4               |              | 95.13                      |
| 19   | 1,112     | 6.35          | 8.6               |              | 95.92                      |
| 20   | 10,380    | 75.00         | 10.9              | Upper Marker | 113.00                     |

**Region table for sample 4 : sample 15**

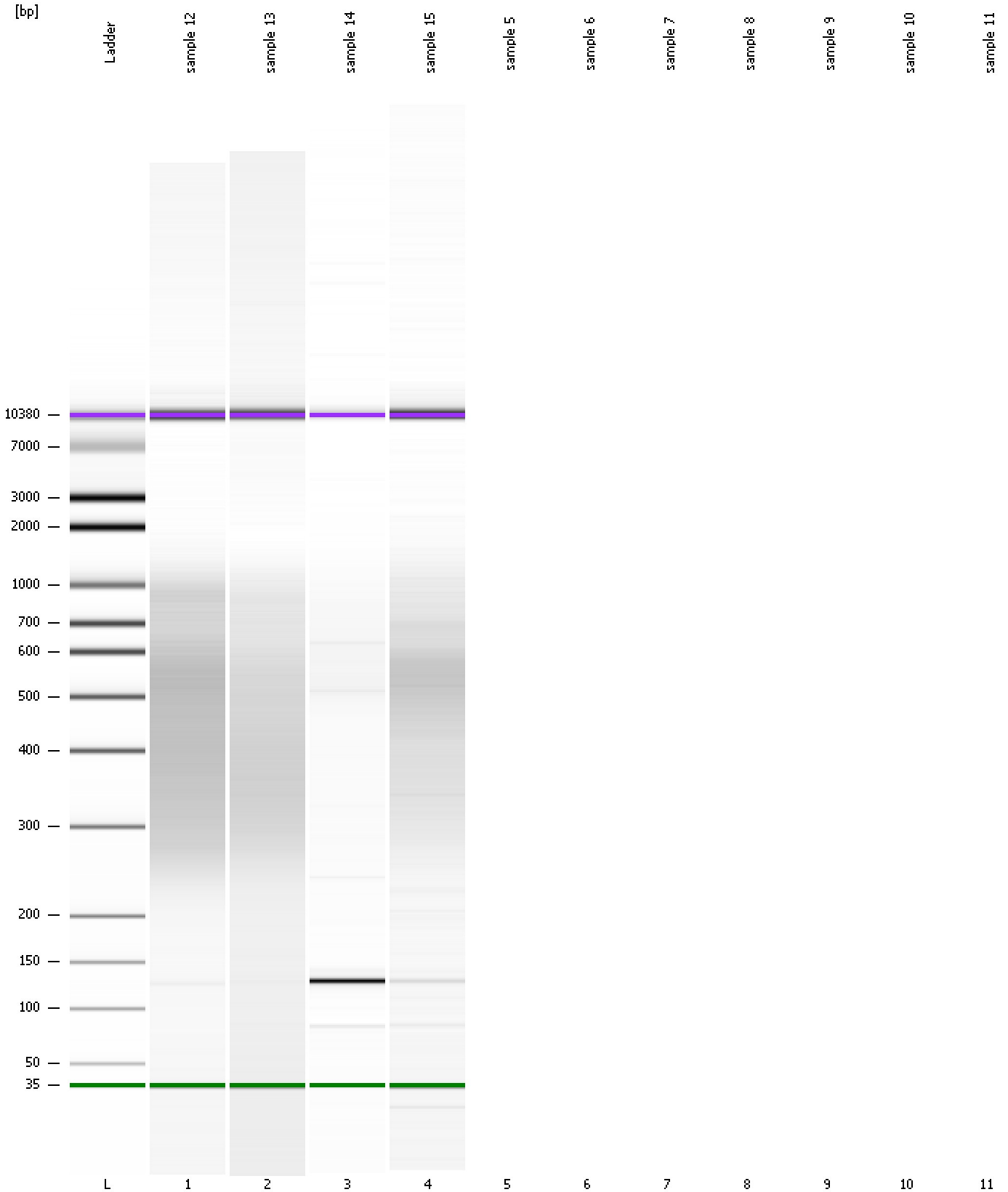
| From [bp] | To [bp] | Average Size [bp] | Conc. [pg/μl] | Corr. Area | Molarity [pmol/l] | Co % of lor Total | Size distribution in CV [%] |
|-----------|---------|-------------------|---------------|------------|-------------------|-------------------|-----------------------------|
| 200       | 1,000   | 508               | 467.68        | 504.5      | 1,579.8           | 93                | 29.7                        |



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-24\2019-05-24\_002.xad

Created: 5/24/2019 11:47:54 AM  
Modified: 5/24/2019 12:16:40 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-24\2019-05-24\_002.xad

Created: 5/24/2019 11:47:54 AM  
 Modified: 5/24/2019 12:16:40 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      |              | 5/24/2019 12:09:13 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\2019-05-24\2019-05-24_002.xad) |        | Instrument | Run      |              | 5/24/2019 11:48:00 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938C  |        | Instrument | Run      |              | 5/24/2019 11:48:00 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name :   |        | Instrument | Run      |              | 5/24/2019 11:48:00 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies  |        | Instrument | Run      |              | 5/24/2019 11:48:00 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE34903152   |        | Instrument | Run      |              | 5/24/2019 11:48:00 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069  |        | Instrument | Run      |              | 5/24/2019 11:48:00 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode  |        | Instrument | Run      |              | 5/24/2019 11:48:00 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |