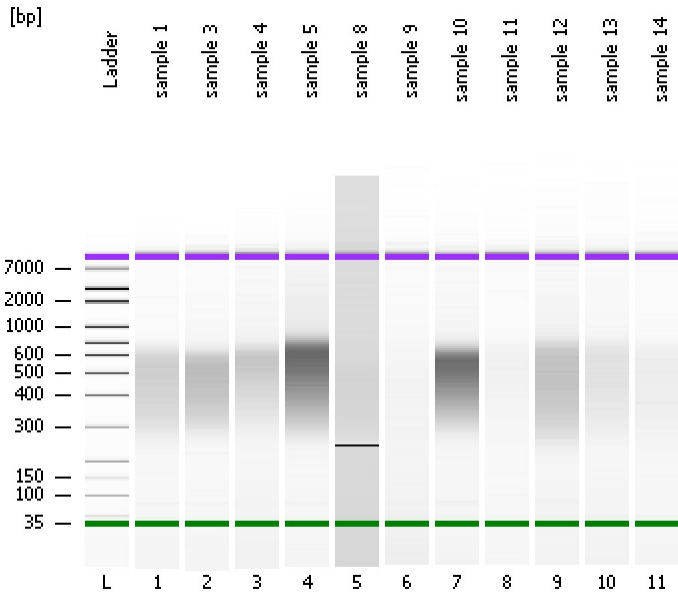


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-19\2015-03-19\_003.xad

Created: 3/19/2015 1:59:00 PM  
Modified: 3/19/2015 2:39:31 PM

### Electrophoresis File Run Summary



#### Instrument Information:

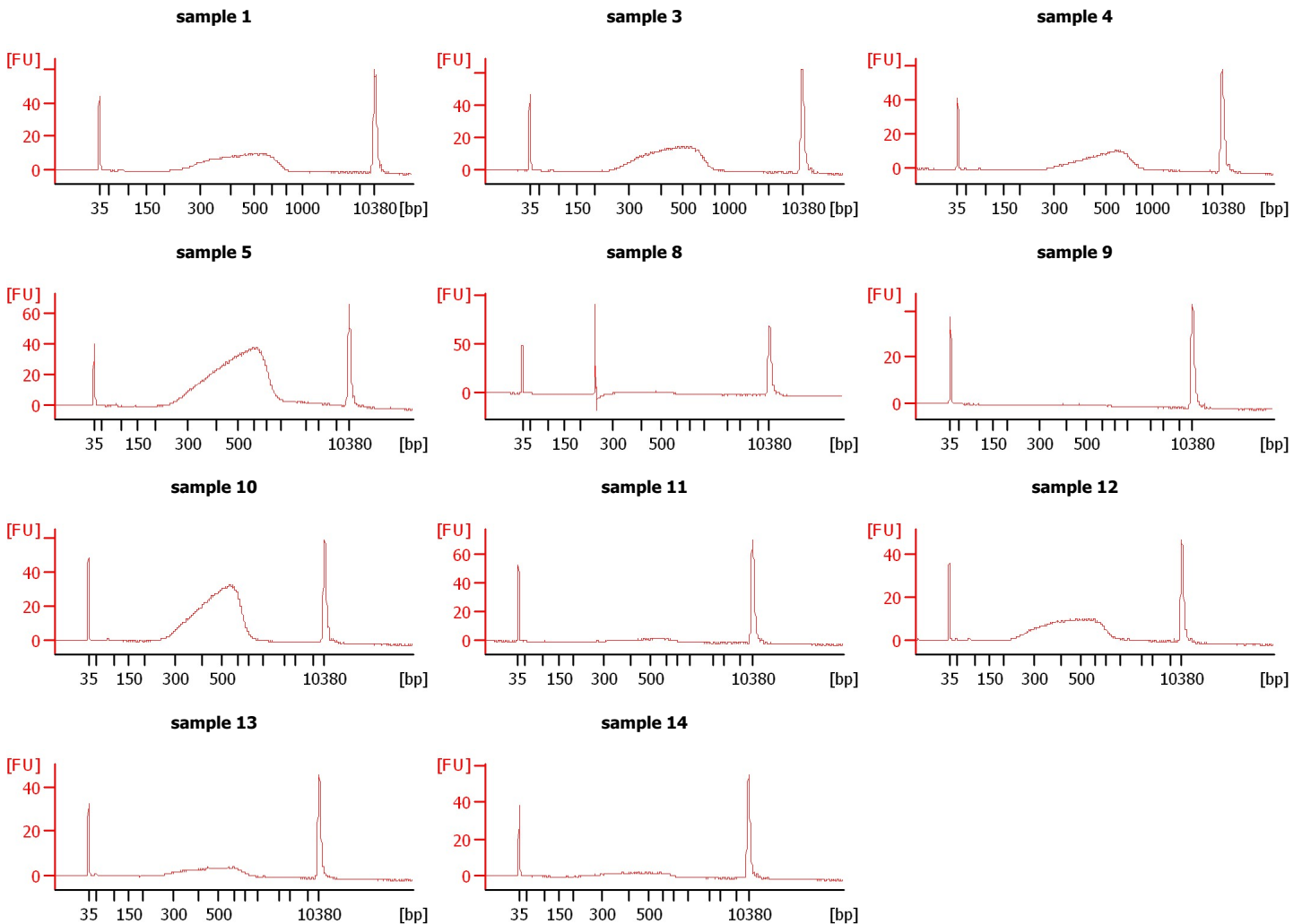
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

#### 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\2015-03-19\2015-03-19\_003.xad

Created: 3/19/2015 1:59:00 PM  
 Modified: 3/19/2015 2:39:31 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 3		<input type="checkbox"/>	✓			
sample 4		<input type="checkbox"/>	✓			
sample 5		<input type="checkbox"/>	✓			
sample 8		<input type="checkbox"/>	✓			
sample 9		<input type="checkbox"/>	✓			
sample 10		<input type="checkbox"/>	✓			
sample 11		<input type="checkbox"/>	✓			
sample 12		<input type="checkbox"/>	✓			
sample 13		<input type="checkbox"/>	✓			
sample 14		<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\2015-03-19\2015-03-19\_003.xad

Created: 3/19/2015 1:59:00 PM  
Modified: 3/19/2015 2:39:31 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

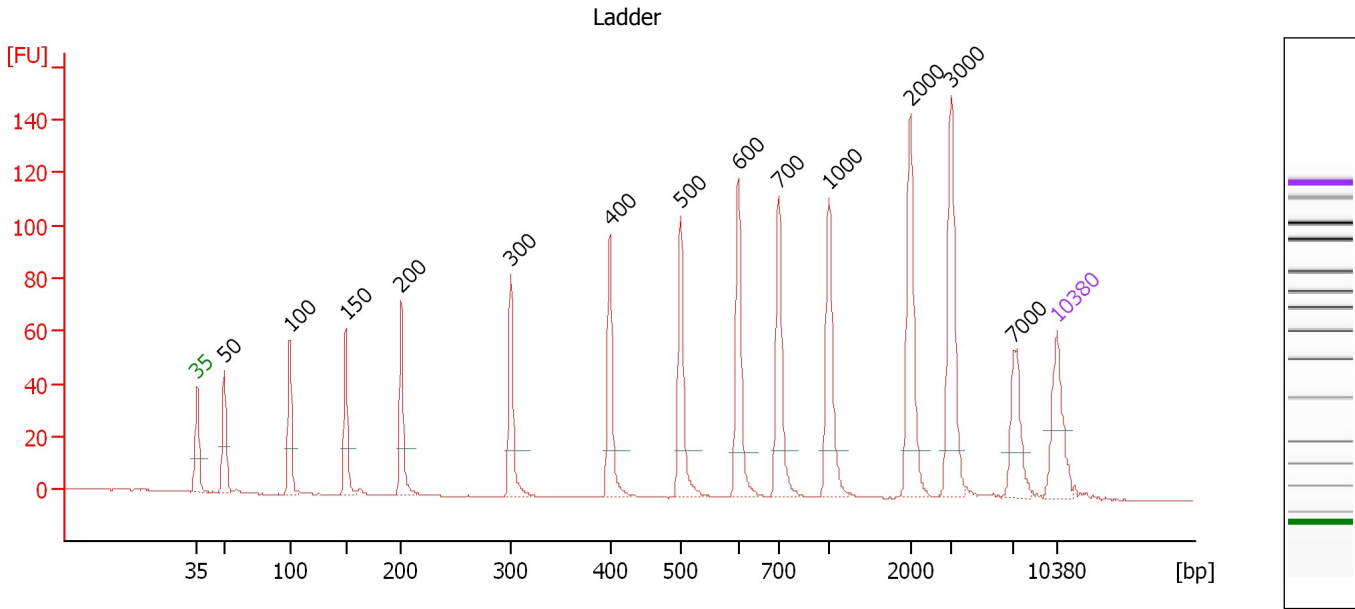
**Ladder**

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:\...ents and Settings\Bioanalyzer\2015-03-19\2015-03-19\_003.xad

Created: 3/19/2015 1:59:00 PM  
 Modified: 3/19/2015 2:39:31 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

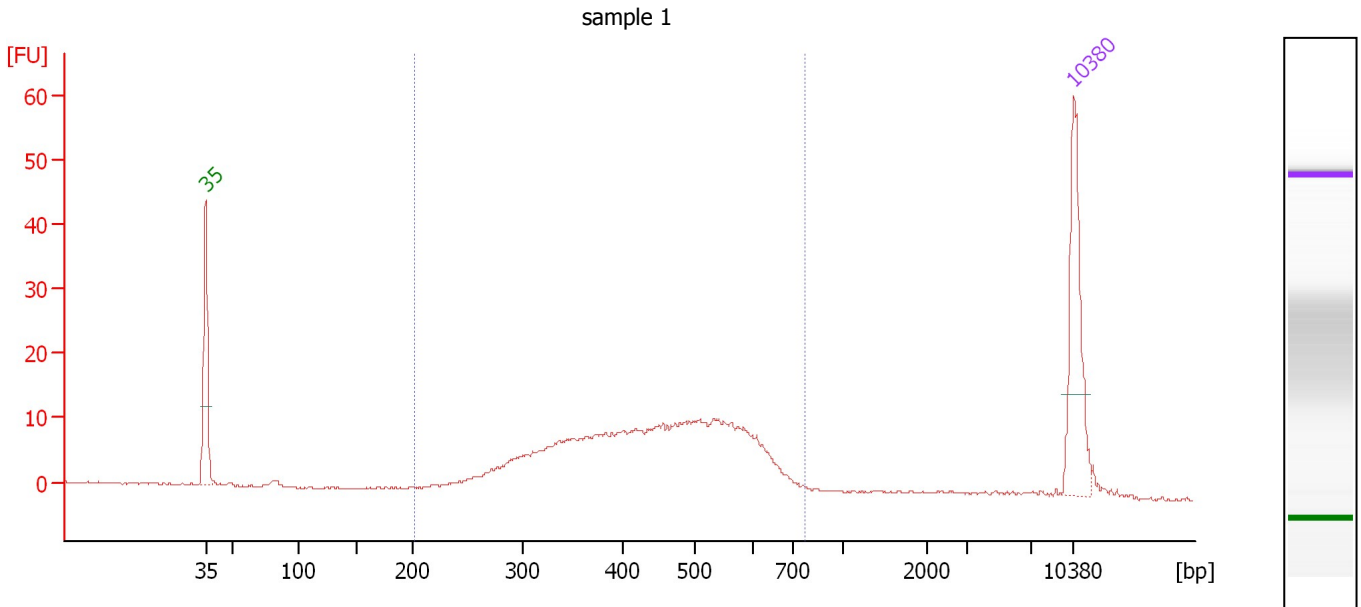
**Peak table for Ladder**

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	45.21
3	100	150.00	2,272.7	Ladder Peak	50.56
4	150	150.00	1,515.2	Ladder Peak	55.12
5	200	150.00	1,136.4	Ladder Peak	59.63
6	300	150.00	757.6	Ladder Peak	68.53
7	400	150.00	568.2	Ladder Peak	76.61
8	500	150.00	454.5	Ladder Peak	82.39
9	600	150.00	378.8	Ladder Peak	87.08
10	700	150.00	324.7	Ladder Peak	90.38
11	1,000	150.00	227.3	Ladder Peak	94.46
12	2,000	150.00	113.6	Ladder Peak	101.10
13	3,000	150.00	75.8	Ladder Peak	104.40
14	7,000	150.00	32.5	Ladder Peak	109.48
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-19\2015-03-19\_003.xad

Created: 3/19/2015 1:59:00 PM  
 Modified: 3/19/2015 2:39:31 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 0                      Corr. Area 1: 268.2  
 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	10,380	75.00	10.9	Upper Marker	113.00

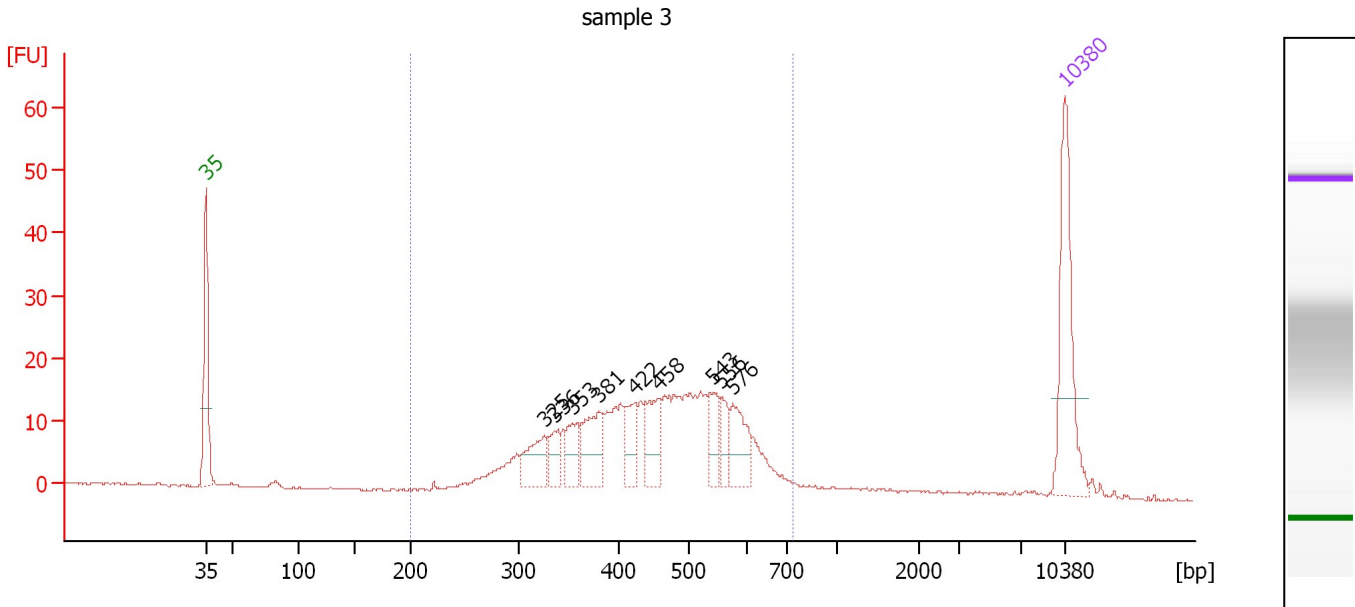
**Region table for sample 1 : sample 1**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
203	449	765	268.2	1,850.2	95	24.1	500.31	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-19\2015-03-19\_003.xad

Created: 3/19/2015 1:59:00 PM  
 Modified: 3/19/2015 2:39:31 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : sample 3**

Number of peaks found: 9                      Corr. Area 1: 357.3  
 Noise: 0.2

**Peak table for sample 2 : 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	325	36.85	171.7		70.57
3	336	21.42	96.6		71.43
4	353	26.72	114.6		72.83
5	381	49.59	197.4		75.04
6	422	31.40	112.8		77.87
7	458	40.66	134.5		79.96
8	543	27.48	76.7		84.39
9	556	19.13	52.1		85.00
10	576	36.57	96.2		85.96
11	10,380	75.00	10.9	Upper Marker	113.00

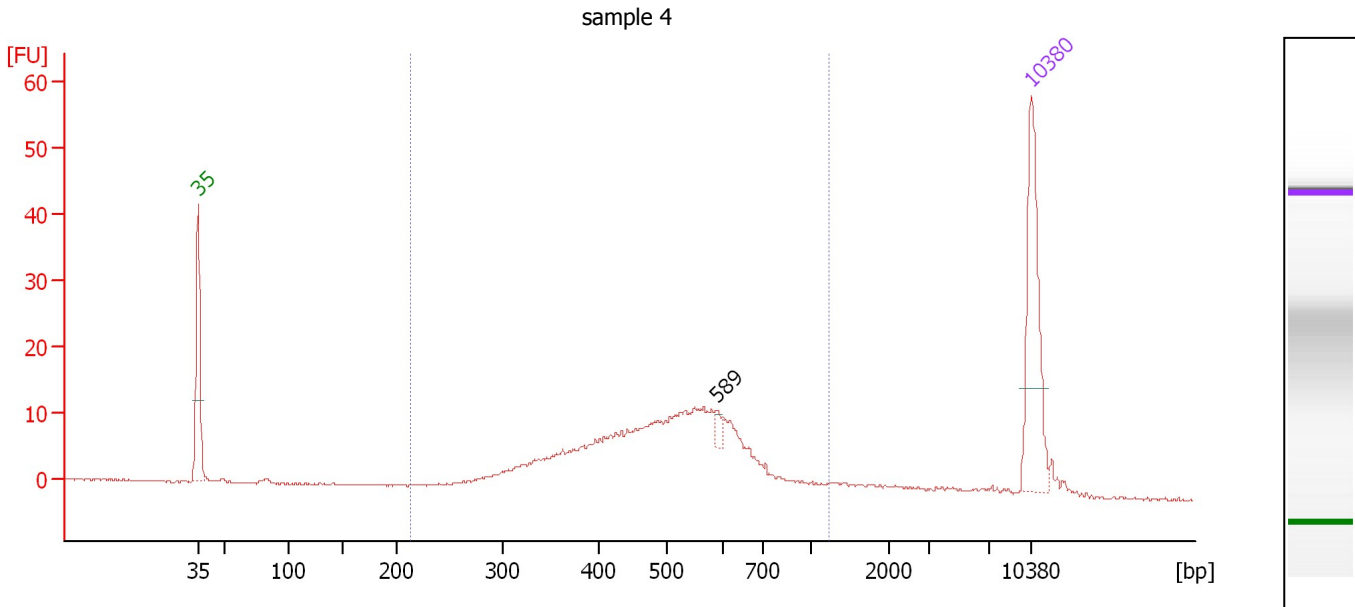
**Region table for sample 2 : sample 3**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	452	732	357.3	2,162.6	93	22.2	597.08	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-19\2015-03-19\_003.xad

Created: 3/19/2015 1:59:00 PM  
 Modified: 3/19/2015 2:39:31 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : sample 4**

Number of peaks found: 1                      Corr. Area 1: 243.9  
 Noise: 0.1

**Peak table for sample 3 : 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	589	6.21	16.0		86.58
3	10,380	75.00	10.9	Upper Marker	113.00

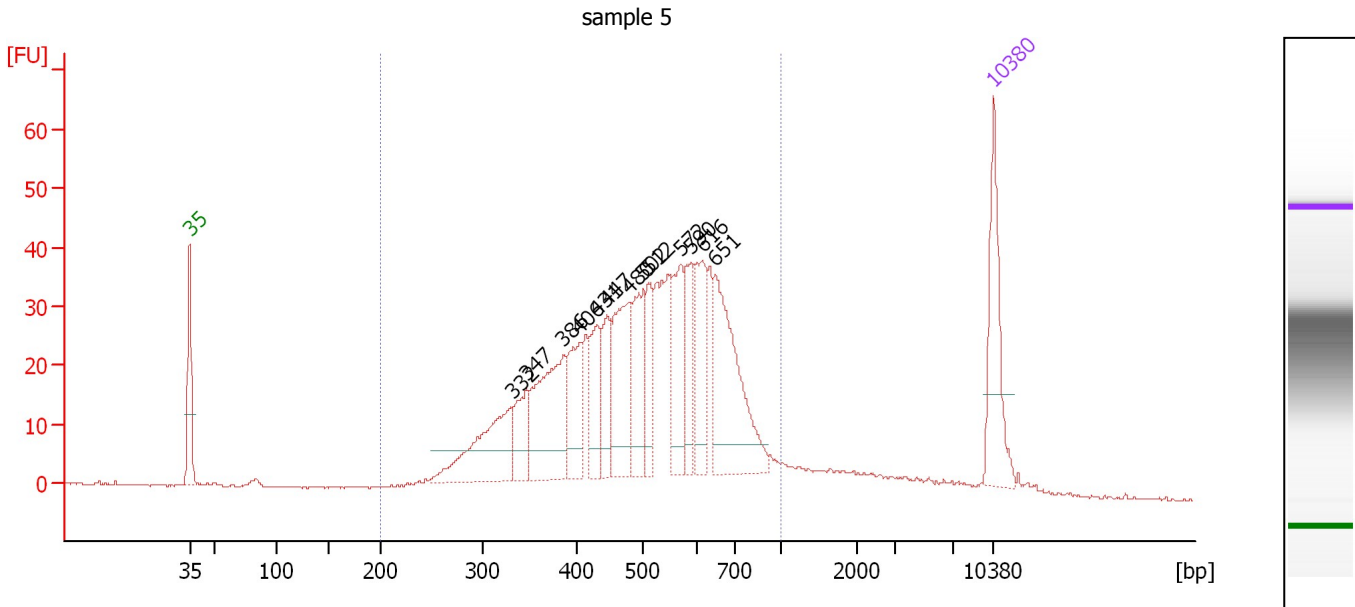
**Region table for sample 3 : sample 4**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
213	507	1,217	243.9	1,392.2	88	27.9	420.01	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-19\2015-03-19\_003.xad

Created: 3/19/2015 1:59:00 PM  
 Modified: 3/19/2015 2:39:31 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : sample 5**

Number of peaks found: 13                      Corr. Area 1: 849.4  
 Noise: 0.2

**Peak table for sample 4 : sample 5**

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	332	131.01	598.7		71.08
3	347	51.75	225.9		72.34
4	386	147.28	577.9		75.49
5	406	69.71	260.4		76.93
6	431	55.26	194.1		78.42
7	447	60.55	205.4		79.30
8	480	111.60	352.6		81.20
9	502	79.49	240.2		82.46
10	512	46.12	136.4		82.97
11	572	74.42	197.2		85.75
12	590	55.18	141.8		86.59
13	616	73.95	181.8		87.61
14	651	158.01	367.6		88.77
15	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 : sample 5**

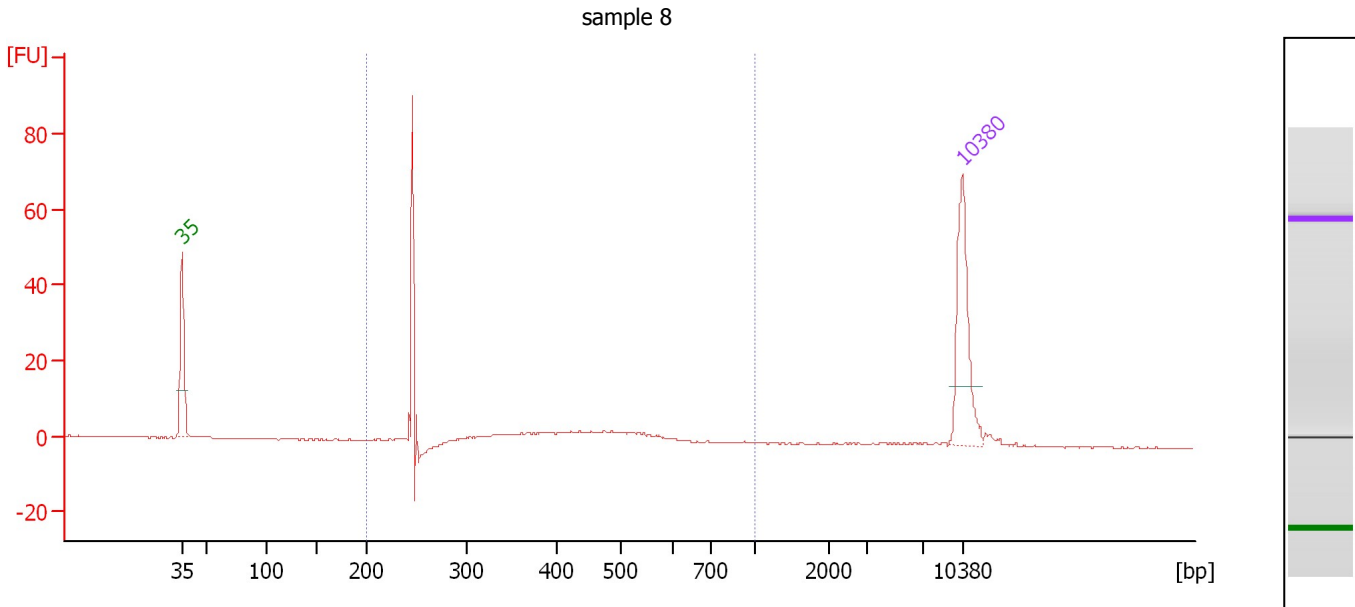
From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	511	1,000	849.4	5,029.2	92	27.1	1,517.78	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-19\2015-03-19\_003.xad

Created: 3/19/2015 1:59:00 PM  
 Modified: 3/19/2015 2:39:31 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : sample 8**

Number of peaks found: 0                      Corr. Area 1: 81.5  
 Noise: 0.2

**Peak table for sample 5 : sample 8**

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

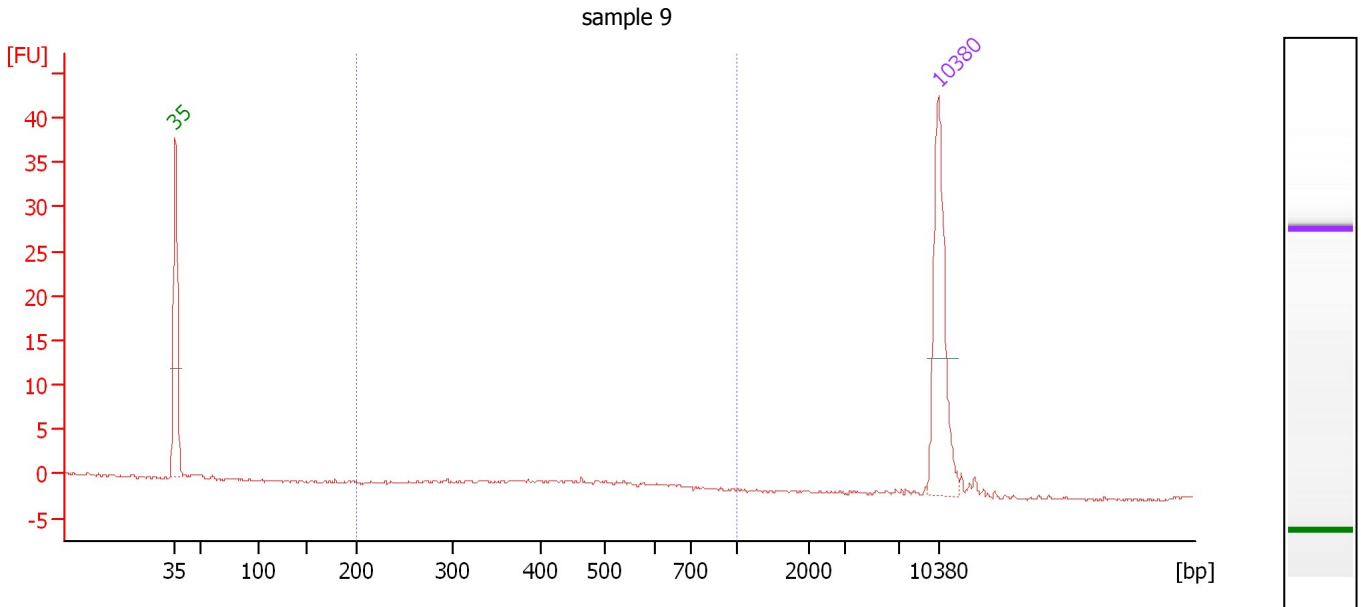
**Region table for sample 5 : sample 8**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	386	1,000	81.5	584.4	89	33.5	125.88	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-19\2015-03-19\_003.xad

Created: 3/19/2015 1:59:00 PM  
 Modified: 3/19/2015 2:39:31 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : sample 9**

Number of peaks found: 0                      Corr. Area 1: 4.9  
 Noise: 0.1

**Peak table for sample 6 : sample 9**

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

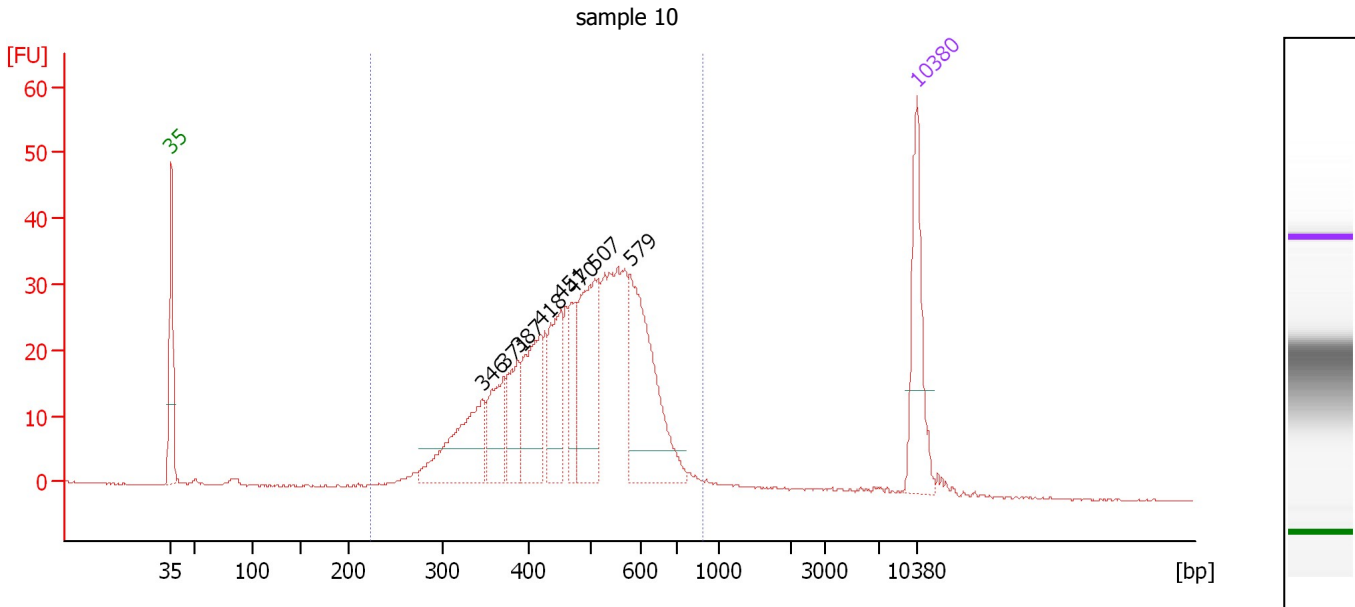
**Region table for sample 6 : sample 9**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	461	1,000	4.9	37.2	68	17.8	10.82	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-19\2015-03-19\_003.xad

Created: 3/19/2015 1:59:00 PM  
 Modified: 3/19/2015 2:39:31 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : sample 10**

Number of peaks found: 8                      Corr. Area 1: 614.7  
 Noise: 0.1

**Peak table for sample 7 : sample 10**

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	346	119.47	523.7		72.22
3	371	64.54	263.5		74.27
4	387	55.72	218.1		75.57
5	418	97.51	353.1		77.67
6	451	85.41	286.7		79.58
7	470	43.53	140.4		80.63
8	507	133.16	397.7		82.73
9	579	171.21	448.2		86.08
10	10,380	75.00	10.9	Upper Marker	113.00

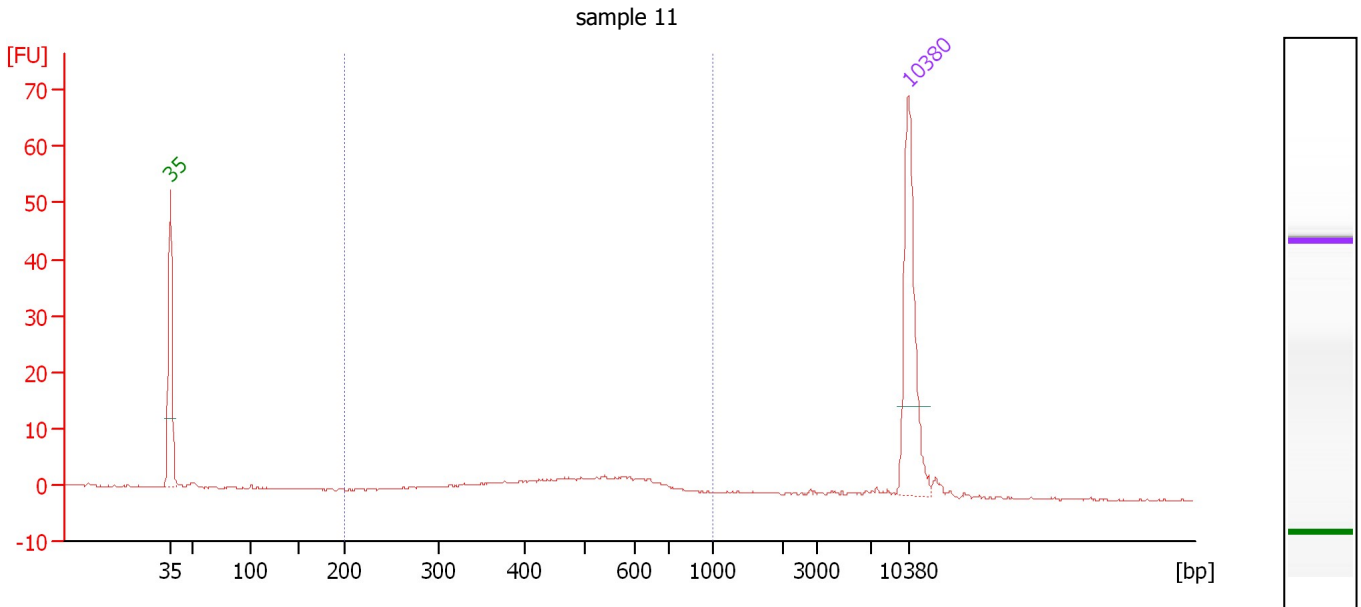
**Region table for sample 7 : sample 10**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
224	482	888	614.7	3,769.7	96	21.8	1,114.93	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-19\2015-03-19\_003.xad

Created: 3/19/2015 1:59:00 PM  
 Modified: 3/19/2015 2:39:31 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : sample 11**

Number of peaks found: 0                      Corr. Area 1: 55.6  
 Noise: 0.1

**Peak table for sample 8 : sample 11**

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

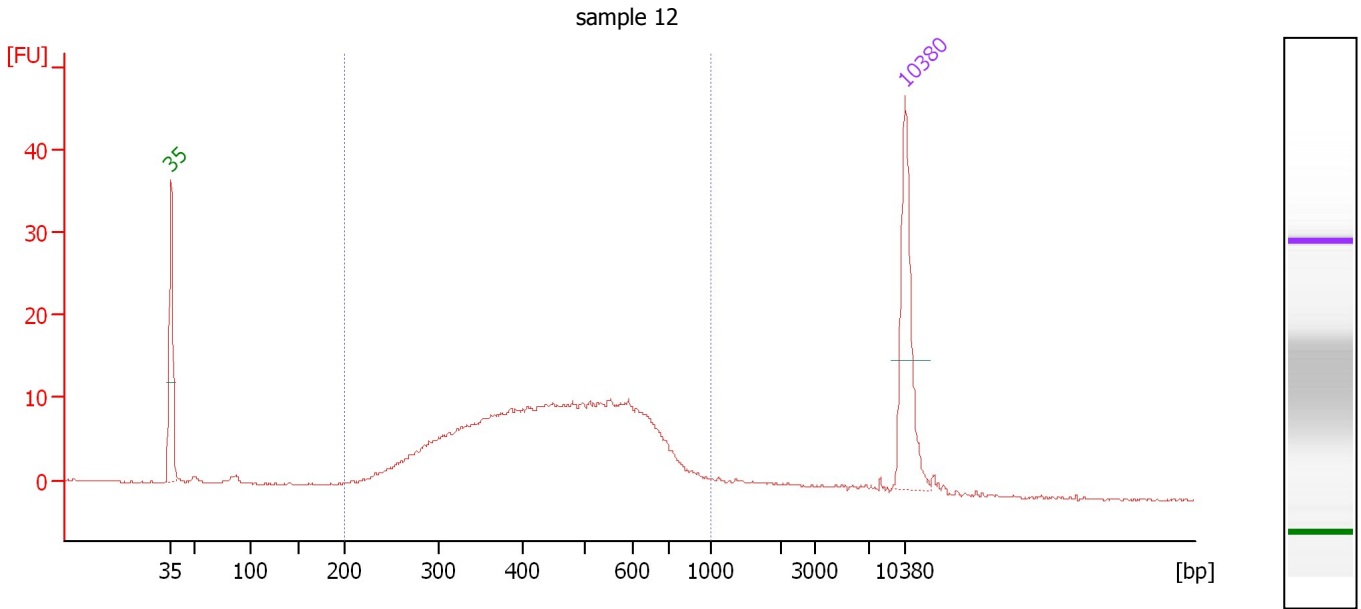
**Region table for sample 8 : sample 11**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	497	1,000	55.6	266.8	81	26.1	79.23	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-19\2015-03-19\_003.xad

Created: 3/19/2015 1:59:00 PM  
 Modified: 3/19/2015 2:39:31 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : sample 12**

Number of peaks found: 0                      Corr. Area 1: 291.2  
 Noise: 0.1

**Peak table for sample 9 : 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	10,380	75.00	10.9	Upper Marker	113.00

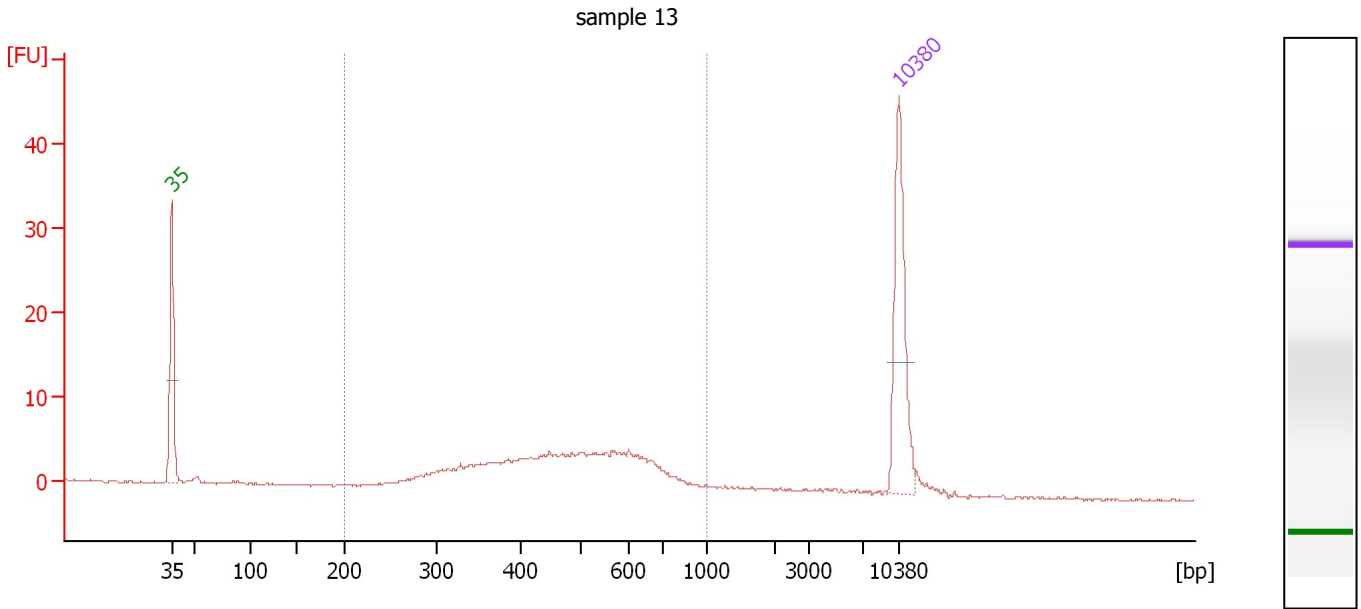
**Region table for sample 9 : sample 12**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	468	1,000	291.2	2,410.8	93	29.8	655.98	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-19\2015-03-19\_003.xad

Created: 3/19/2015 1:59:00 PM  
 Modified: 3/19/2015 2:39:31 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : sample 13**

Number of peaks found: 0                      Corr. Area 1: 107.5  
 Noise: 0.1

**Peak table for sample 10 : 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	10,380	75.00	10.9	Upper Marker	113.00

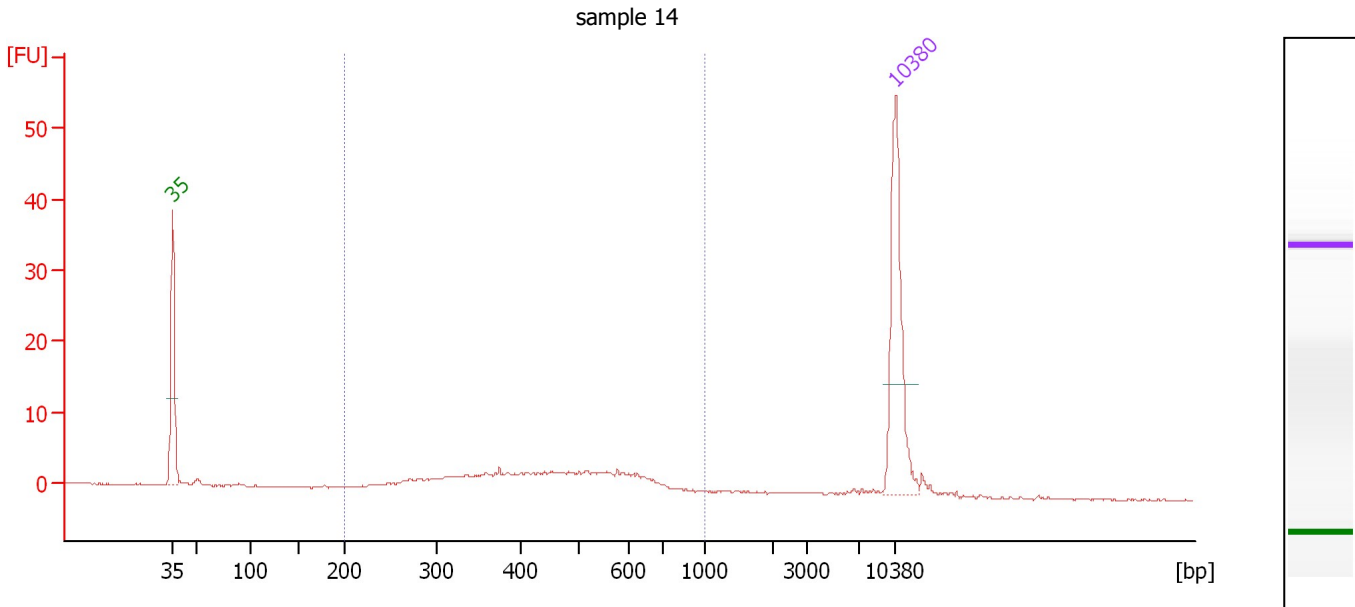
**Region table for sample 10 : sample 13**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	488	1,000	107.5	831.3	90	28.2	238.94	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-19\2015-03-19\_003.xad

Created: 3/19/2015 1:59:00 PM  
 Modified: 3/19/2015 2:39:31 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : sample 14**

Number of peaks found: 0                      Corr. Area 1: 74.0  
 Noise: 0.1

**Peak table for sample 11 : 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	10,380	75.00	10.9	Upper Marker	113.00

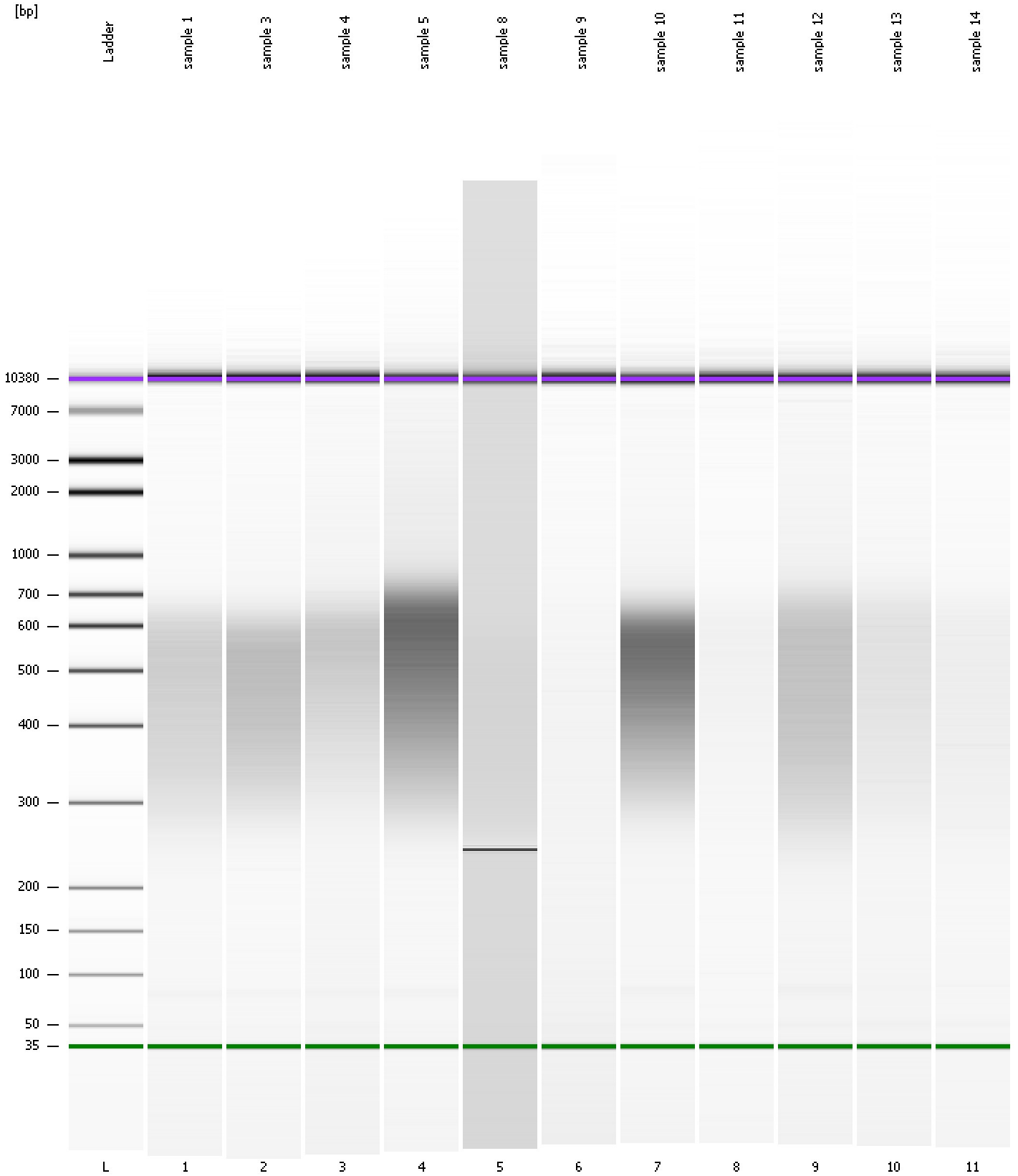
**Region table for sample 11 : sample 14**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	458	1,000	74.0	516.7	86	29.7	137.24	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-19\2015-03-19\_003.xad

Created: 3/19/2015 1:59:00 PM  
Modified: 3/19/2015 2:39:31 PM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-19\2015-03-19\_003.xad

Created: 3/19/2015 1:59:00 PM  
 Modified: 3/19/2015 2:39:31 PM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 12)		Instrument	Run		3/19/2015 2:39:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-03-19\2015-03-19_003.xad)		Instrument	Run		3/19/2015 1:59:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/19/2015 1:59:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/19/2015 1:59:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/19/2015 1:59:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/19/2015 1:59:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/19/2015 1:59:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/19/2015 1:59:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1