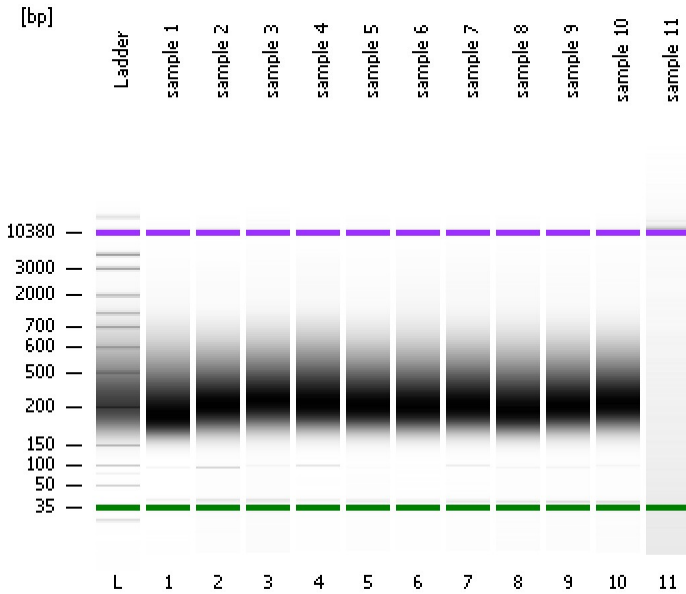


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14\_002.xad

Created: 3/14/2017 11:14:00 AM  
Modified: 3/14/2017 11:54:28 AM

**Electrophoresis File Run Summary**



Instrument Information:

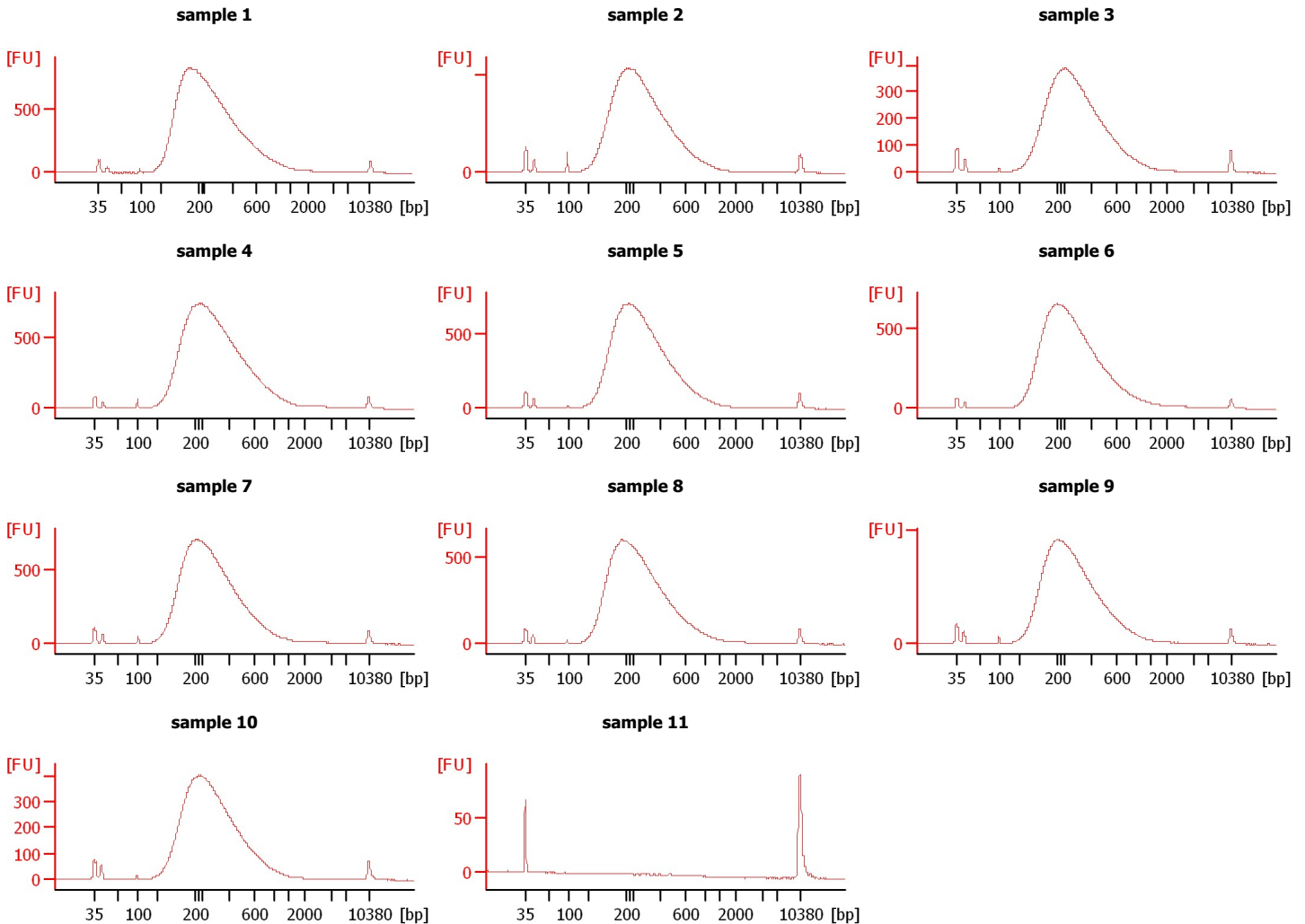
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14\_002.xad

Created: 3/14/2017 11:14:00 AM  
Modified: 3/14/2017 11:54:28 AM

**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\2017-03-14\2017-03-14\_002.xad

Created: 3/14/2017 11:14:00 AM  
Modified: 3/14/2017 11:54:28 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

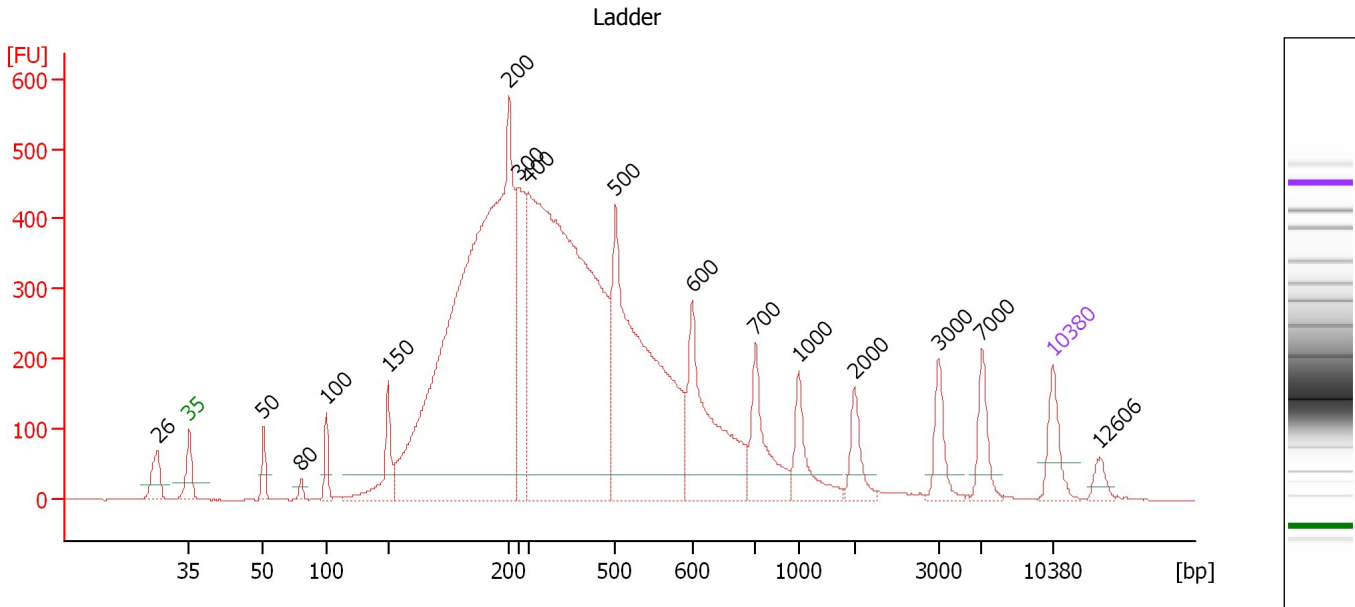
**Ladder**

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:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14\_002.xad

Created: 3/14/2017 11:14:00 AM  
 Modified: 3/14/2017 11:54:28 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

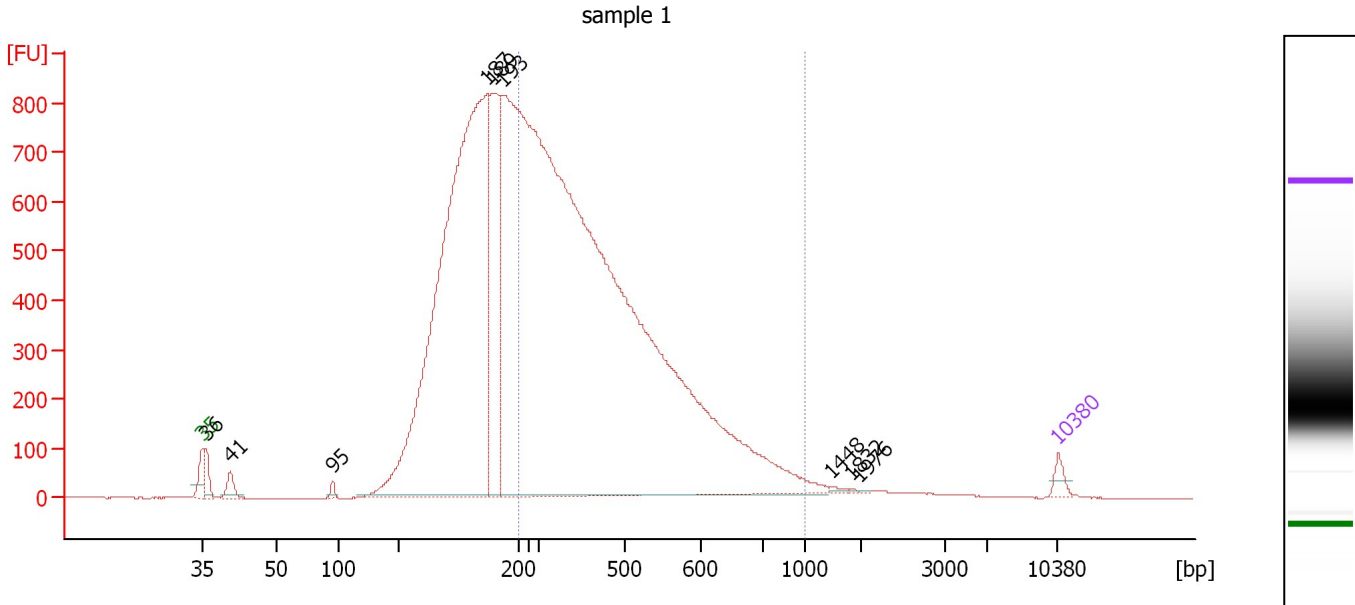
**Peak table for Ladder**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	26	0.00	0.0		40.42
2	35	125.00	5,411.3	Lower Marker	43.00
3	50	150.00	4,545.5	Ladder Peak	49.00
4	80	0.00	0.0		52.05
5	100	150.00	2,272.7	Ladder Peak	54.11
6	150	150.00	1,515.2	Ladder Peak	59.13
7	200	150.00	1,136.4	Ladder Peak	68.93
8	300	150.00	757.6	Ladder Peak	69.68
9	400	150.00	568.2	Ladder Peak	70.47
10	500	150.00	454.5	Ladder Peak	77.55
11	600	150.00	378.8	Ladder Peak	83.74
12	700	150.00	324.7	Ladder Peak	88.90
13	1,000	150.00	227.3	Ladder Peak	92.37
14	2,000	150.00	113.6	Ladder Peak	96.92
15	3,000	150.00	75.8	Ladder Peak	103.72
16	7,000	150.00	32.5	Ladder Peak	107.23
17	10,380	75.00	10.9	Upper Marker	113.00
18	12,606	0.00	0.0		116.80

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14\_002.xad

Created: 3/14/2017 11:14:00 AM  
 Modified: 3/14/2017 11:54:28 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 9                      Corr. Area 1: 11,005.8  
 Noise: 0.4

**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	36	243.95	10,335.0		43.31
3	41	199.19	7,420.3		45.27
4	95	57.26	908.9		53.65
5	187	11,576.29	93,989.9		66.30
6	189	2,338.41	18,762.1		66.74
7	193	27,451.84	215,183.1		67.61
8	1,448	24.44	25.6		94.41
9	1,832	6.76	5.6		96.15
10	1,976	7.36	5.6		96.81
11	10,380	75.00	10.9	Upper Marker	113.00

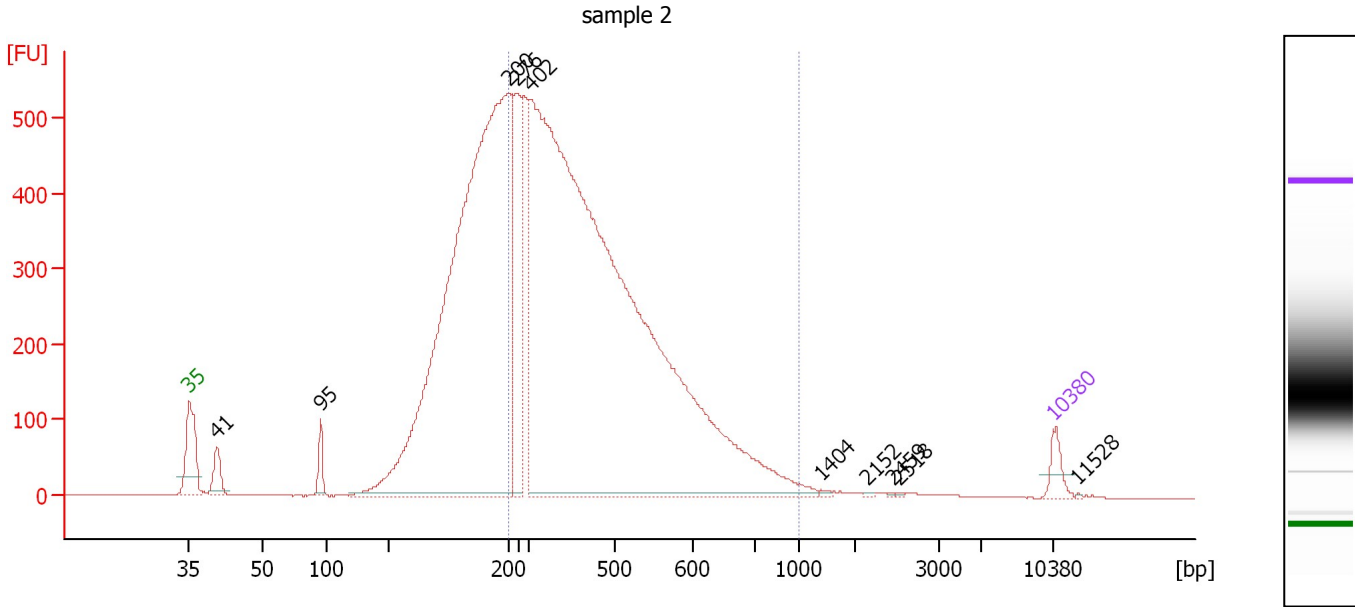
**Region table for sample 1 : sample 1**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	471	11,005.8	59,996.1	16,970.77	53	24.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14\_002.xad

Created: 3/14/2017 11:14:00 AM  
 Modified: 3/14/2017 11:54:28 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 10                      Corr. Area 1: 7,935.2  
 Noise: 0.5

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

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	41	198.97	7,431.6		45.23
3	95	131.36	2,086.0		53.64
4	200	7,108.42	53,928.9		68.87
5	276	866.64	4,764.2		69.49
6	402	8,840.53	33,330.0		70.61
7	1,404	11.08	12.0		94.21
8	2,152	7.18	5.1		97.95
9	2,459	3.77	2.3		100.04
10	2,518	4.74	2.9		100.44
11	10,380	75.00	10.9	Upper Marker	113.00
12	11,528	0.00	0.0		114.96

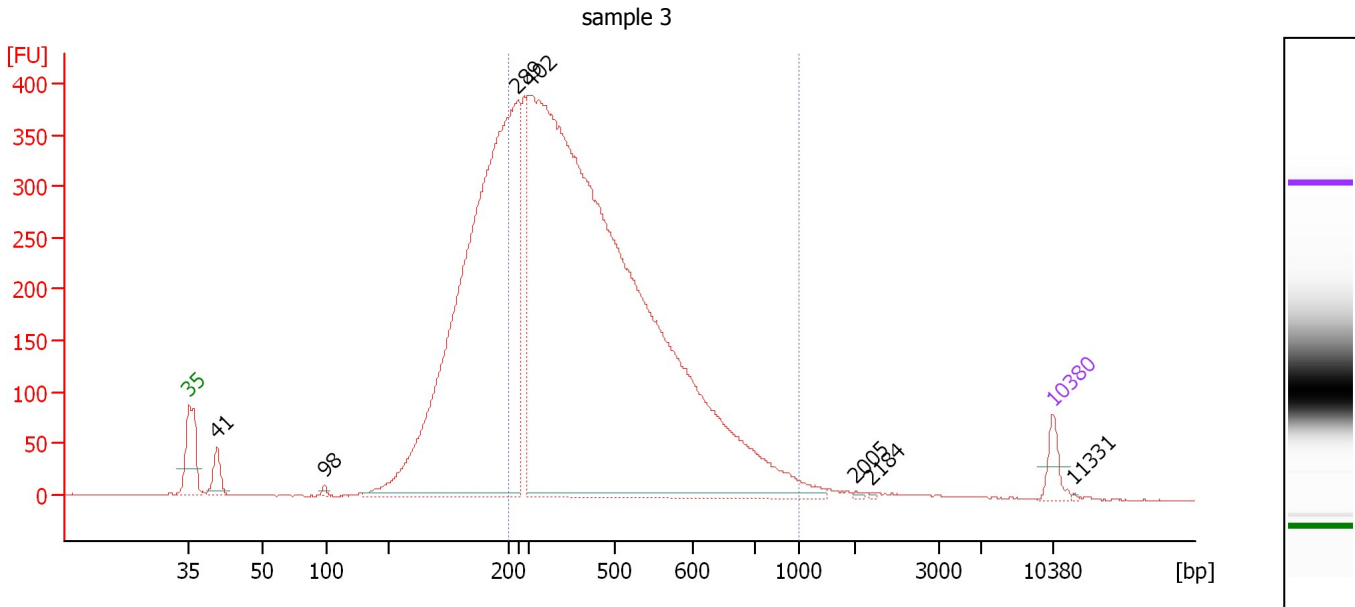
**Region table for sample 2 : sample 2**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	468	7,935.2	34,582.2	9,779.31	62	23.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14\_002.xad

Created: 3/14/2017 11:14:00 AM  
 Modified: 3/14/2017 11:54:28 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 7                      Corr. Area 1: 6,260.9  
 Noise: 0.4

**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	41	163.34	6,107.8		45.21
3	98	17.67	272.0		53.95
4	289	5,030.59	26,393.6		69.59
5	402	8,253.99	31,094.3		70.63
6	2,005	7.22	5.5		96.95
7	2,184	3.71	2.6		98.17
8	10,380	75.00	10.9	Upper Marker	113.00
9	11,331	0.00	0.0		114.62

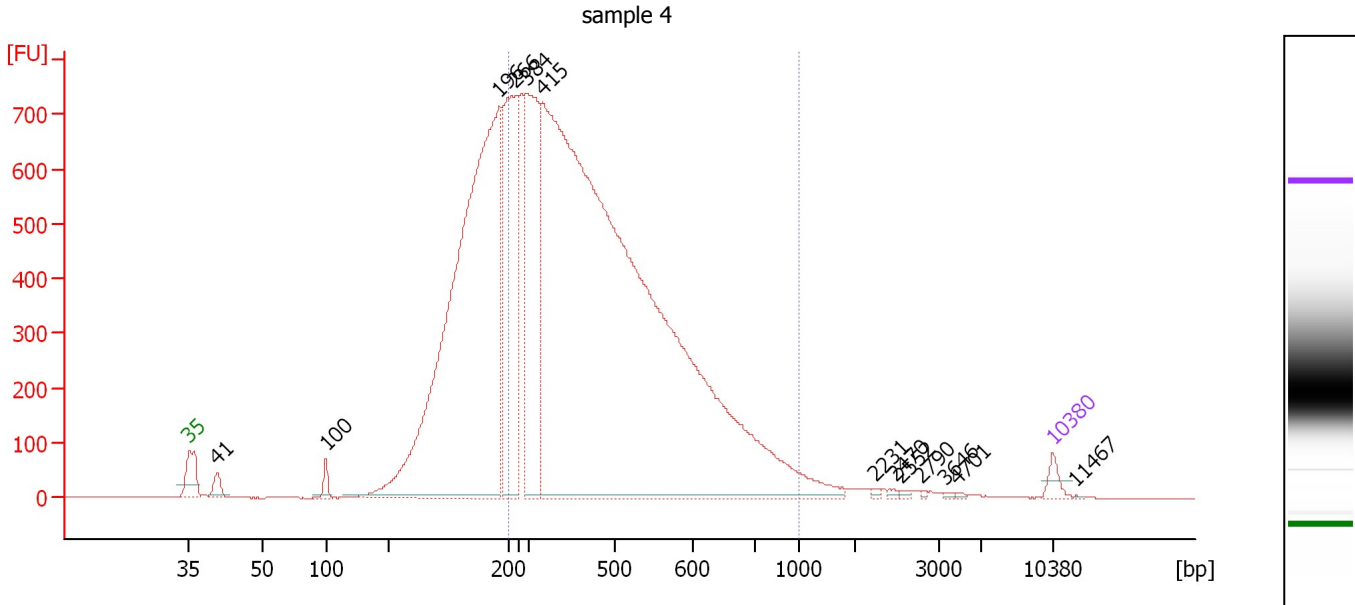
**Region table for sample 3 : sample 3**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	474	6,260.9	30,380.8	8,722.61	68	23.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14\_002.xad

Created: 3/14/2017 11:14:00 AM  
 Modified: 3/14/2017 11:54:28 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 13                      Corr. Area 1: 12,303.4  
 Noise: 0.4

**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	41	169.04	6,314.4		45.23
3	100	112.43	1,709.0		54.08
4	196	8,693.18	67,232.7		68.13
5	266	2,299.88	13,093.2		69.42
6	384	1,908.80	7,522.6		70.35
7	415	15,162.33	55,320.5		71.56
8	2,231	14.77	10.0		98.49
9	2,470	14.59	8.9		100.11
10	2,552	16.00	9.5		100.67
11	2,790	8.24	4.5		102.29
12	3,646	10.22	4.2		104.28
13	4,701	8.38	2.7		105.21
14	10,380	75.00	10.9	Upper Marker	113.00
15	11,467	0.00	0.0		114.85

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

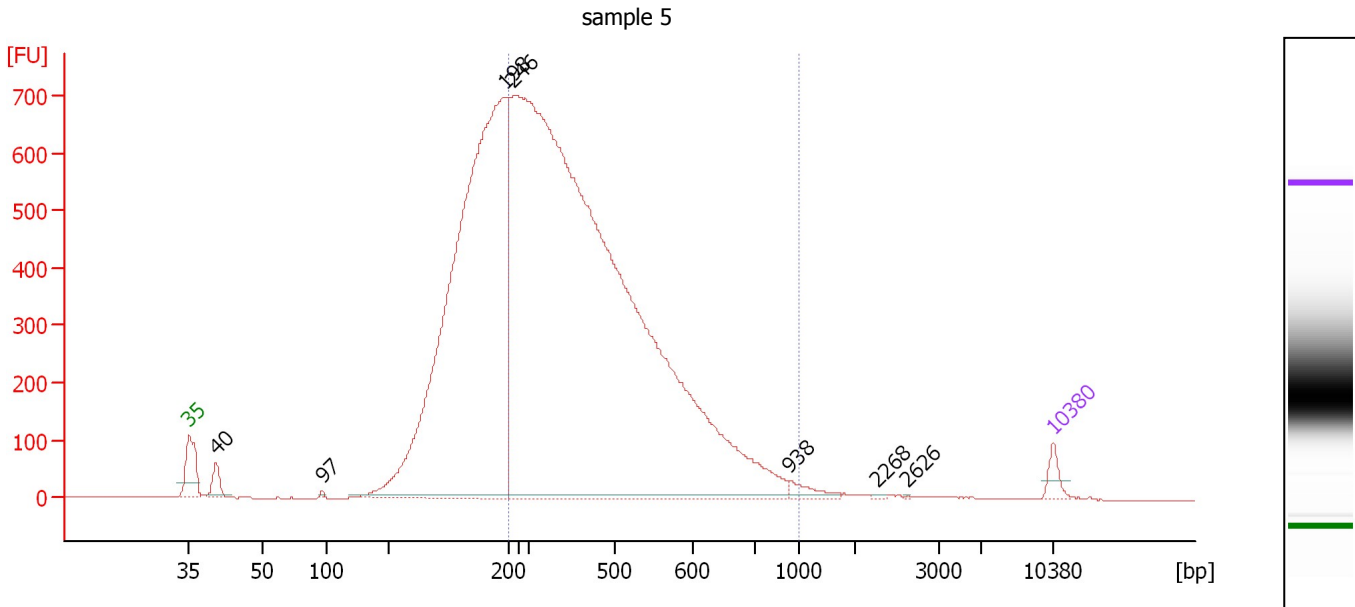
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	481	12,303.4	60,781.0	17,613.31	67	24.2



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14\_002.xad

Created: 3/14/2017 11:14:00 AM  
 Modified: 3/14/2017 11:54:28 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 7                      Corr. Area 1: 10,329.1  
 Noise: 0.4

**Peak table for sample 5 : 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	40	182.06	6,829.0		45.16
3	97	14.94	233.8		53.79
4	198	8,463.04	64,783.0		68.52
5	246	16,330.65	100,544.0		69.27
6	938	83.28	134.5		91.65
7	2,268	7.02	4.7		98.74
8	2,626	2.61	1.5		101.18
9	10,380	75.00	10.9	Upper Marker	113.00

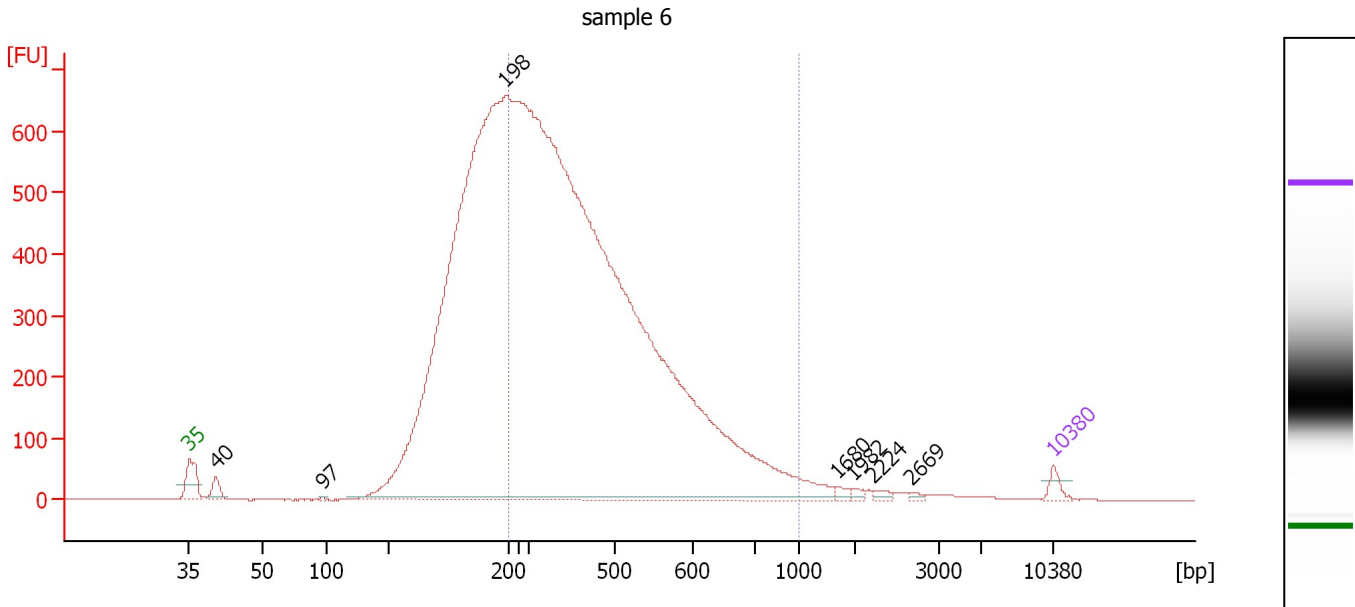
**Region table for sample 5 : sample 5**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	469	10,329.1	44,445.9	12,618.17	63	23.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14\_002.xad

Created: 3/14/2017 11:14:00 AM  
 Modified: 3/14/2017 11:54:28 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 7                      Corr. Area 1: 9,519.5  
 Noise: 0.4

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

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	40	195.66	7,353.2		45.13
3	97	14.47	225.6		53.82
4	198	41,621.86	317,829.3		68.62
5	1,680	41.83	37.7		95.46
6	1,982	32.10	24.5		96.84
7	2,224	39.65	27.0		98.44
8	2,669	19.97	11.3		101.47
9	10,380	75.00	10.9	Upper Marker	113.00

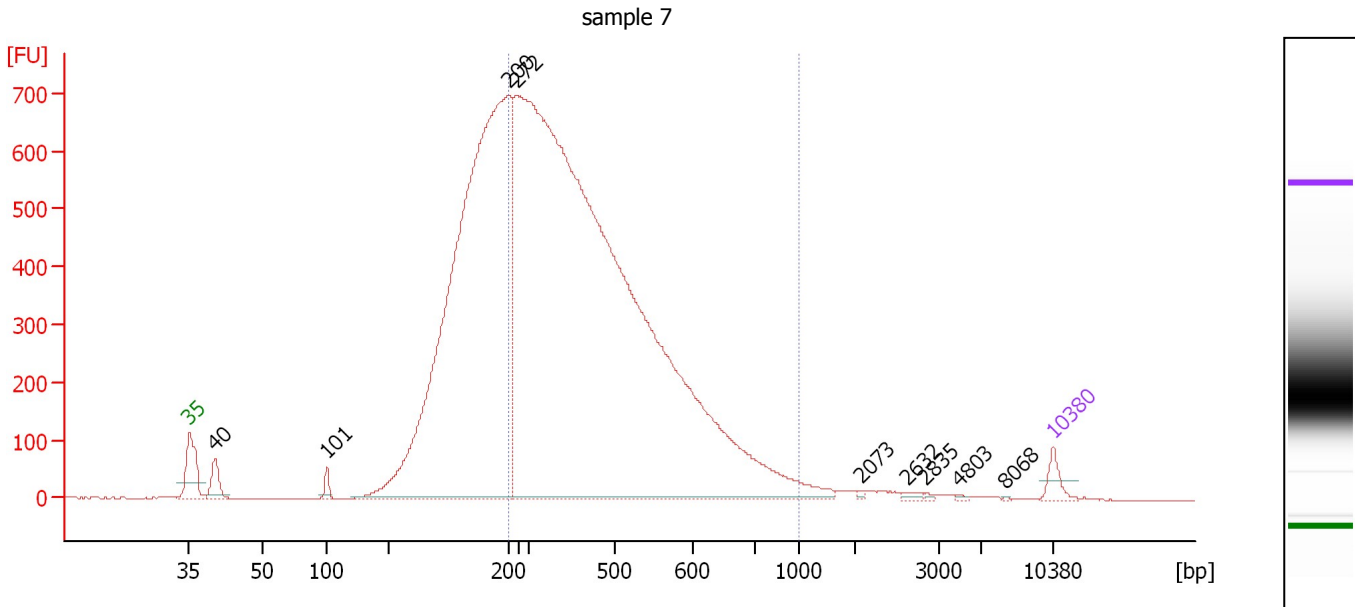
**Region table for sample 6 : sample 6**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	472	9,519.5	68,500.9	19,495.49	61	24.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14\_002.xad

Created: 3/14/2017 11:14:00 AM  
 Modified: 3/14/2017 11:54:28 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 9                      Corr. Area 1: 10,422.5  
 Noise: 0.4

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

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	40	208.16	7,840.4		45.09
3	101	73.81	1,112.1		54.17
4	200	8,910.58	67,552.9		68.90
5	272	15,871.80	88,325.2		69.47
6	2,073	9.26	6.8		97.41
7	2,632	19.68	11.3		101.21
8	2,835	8.38	4.5		102.59
9	4,803	7.16	2.3		105.30
10	8,068	2.92	0.5		109.06
11	10,380	75.00	10.9	Upper Marker	113.00

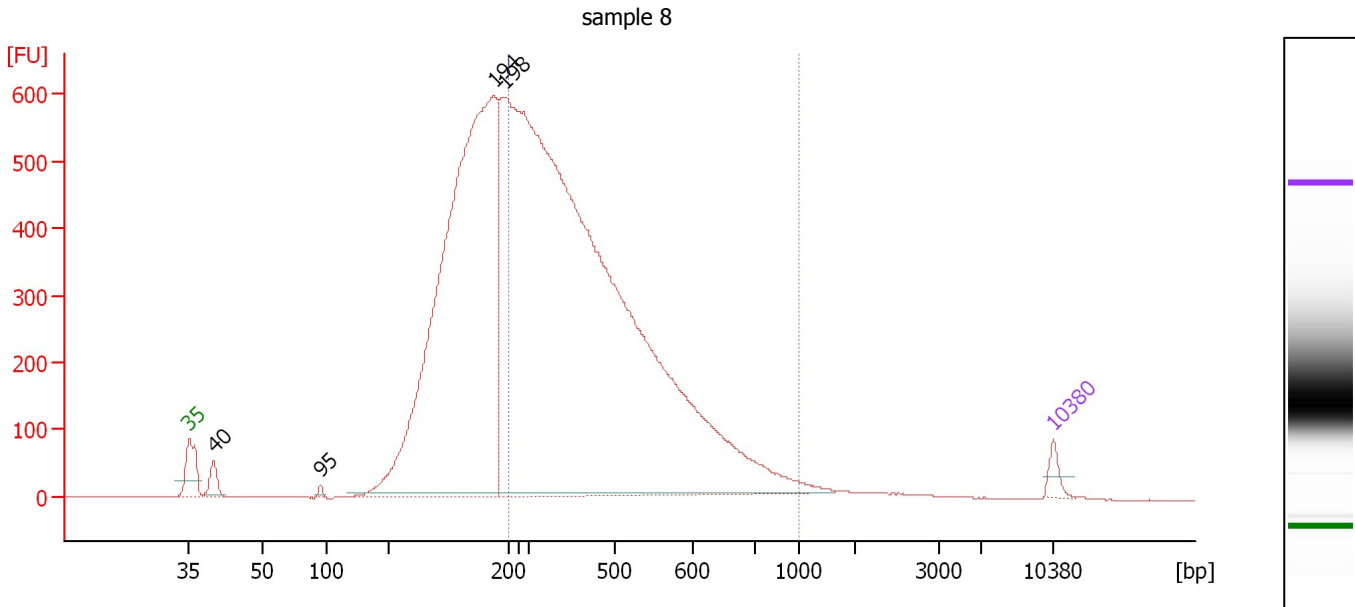
**Region table for sample 7 : sample 7**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	471	10,422.5	44,904.8	12,806.30	63	23.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14\_002.xad

Created: 3/14/2017 11:14:00 AM  
 Modified: 3/14/2017 11:54:28 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 4                      Corr. Area 1: 8,195.0  
 Noise: 0.4

**Peak table for sample 8 : 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	40	200.94	7,632.4		44.96
3	95	30.95	491.5		53.64
4	194	8,853.36	69,295.3		67.67
5	198	17,521.96	134,273.6		68.48
6	10,380	75.00	10.9	Upper Marker	113.00

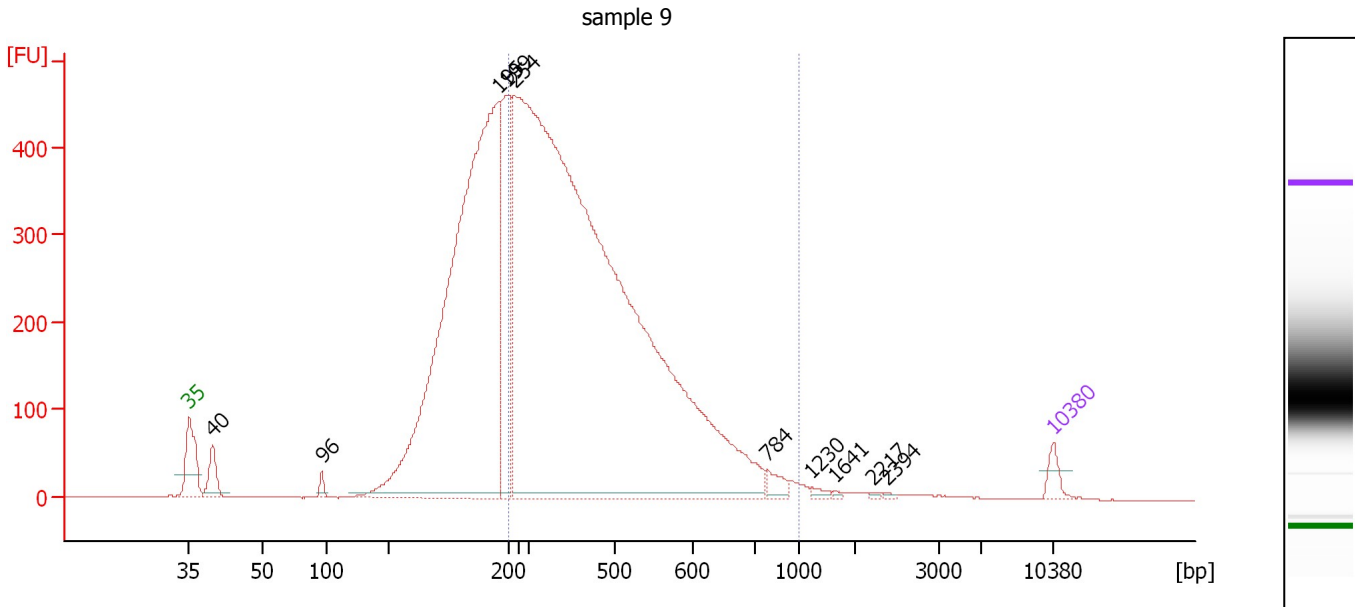
**Region table for sample 8 : sample 8**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	468	8,195.0	42,615.7	12,001.89	58	24.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14\_002.xad

Created: 3/14/2017 11:14:00 AM  
 Modified: 3/14/2017 11:54:28 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 10                      Corr. Area 1: 6,565.7  
 Noise: 0.4

**Peak table for sample 9 : 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	40	270.67	10,338.7		44.87
3	96	60.10	946.5		53.73
4	195	7,436.63	57,714.0		67.99
5	199	1,356.78	10,335.7		68.71
6	254	14,826.27	88,392.8		69.33
7	784	93.19	180.1		89.87
8	1,230	27.13	33.4		93.42
9	1,641	8.76	8.1		95.28
10	2,217	7.45	5.1		98.40
11	2,394	8.73	5.5		99.59
12	10,380	75.00	10.9	Upper Marker	113.00

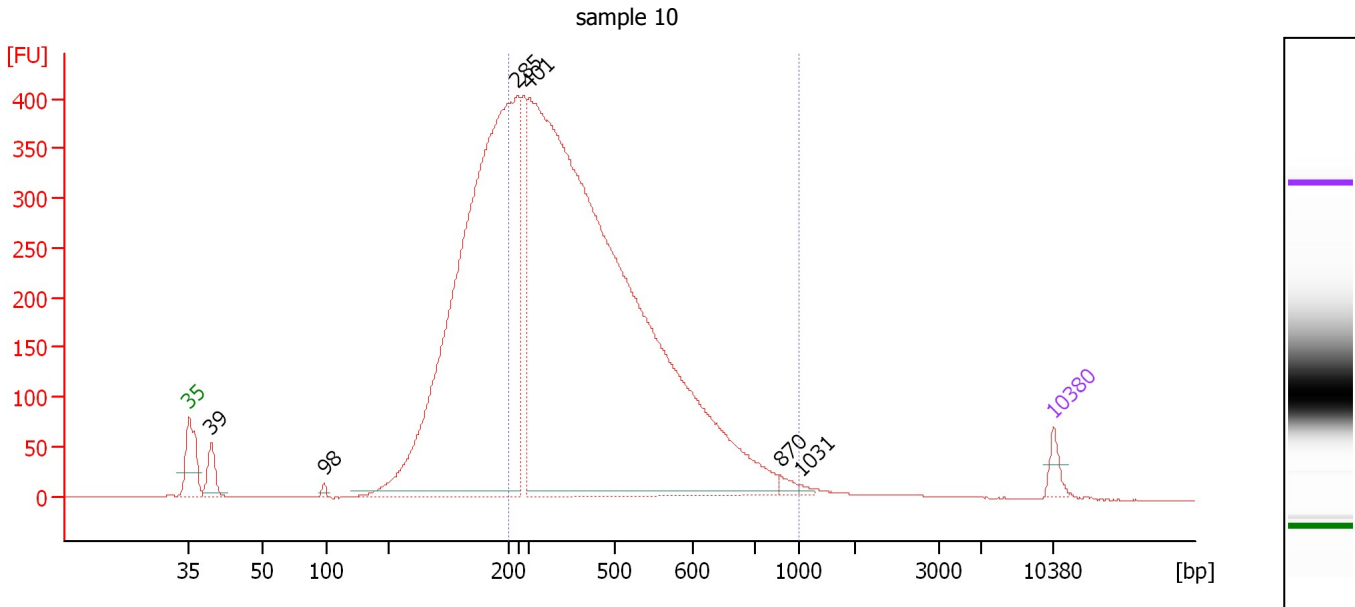
**Region table for sample 9 : sample 9**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	468	6,565.7	42,184.3	11,956.73	62	23.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14\_002.xad

Created: 3/14/2017 11:14:00 AM  
 Modified: 3/14/2017 11:54:28 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 6                      Corr. Area 1: 5,998.9  
 Noise: 0.3

**Peak table for sample 10 : 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	39	271.32	10,418.2		44.78
3	98	30.06	465.2		53.90
4	285	7,238.69	38,518.1		69.56
5	401	10,281.31	38,806.1		70.58
6	870	42.43	73.9		90.87
7	1,031	19.39	28.5		92.51
8	10,380	75.00	10.9	Upper Marker	113.00

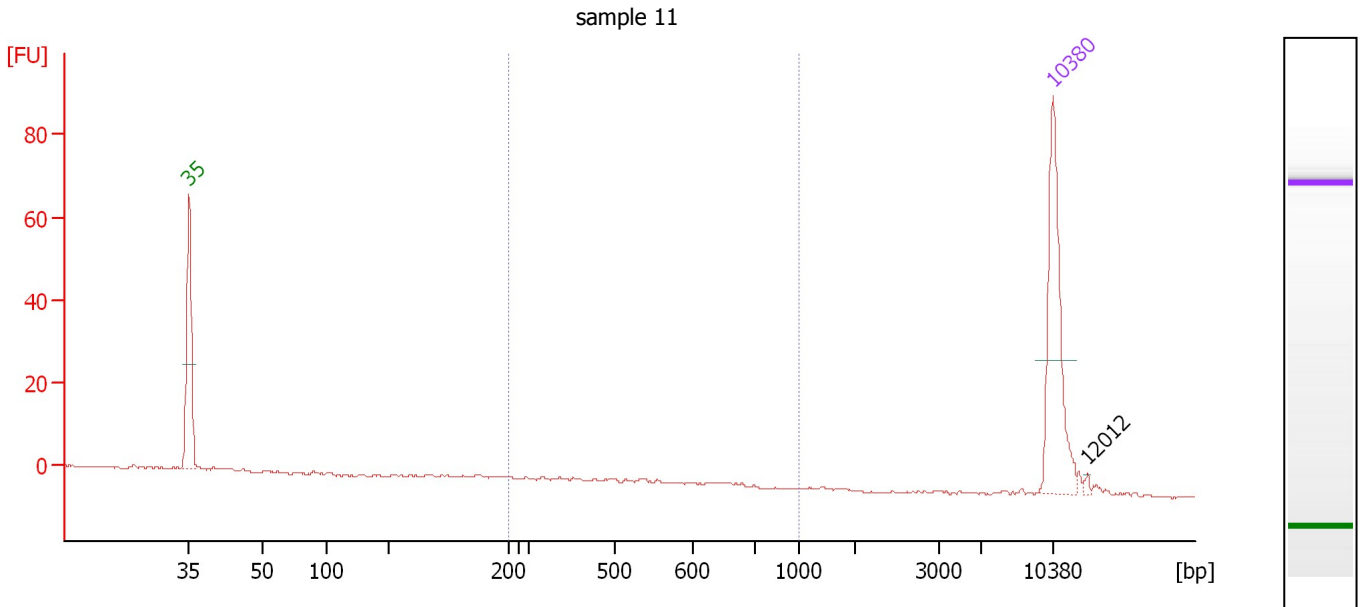
**Region table for sample 10 : sample 10**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	470	5,998.9	39,827.0	11,340.69	65	23.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14\_002.xad

Created: 3/14/2017 11:14:00 AM  
 Modified: 3/14/2017 11:54:28 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 1                      Corr. Area 1: 4.1  
 Noise: 0.2

**Peak table for sample 11 : 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
3	12,012	0.00	0.0		115.78

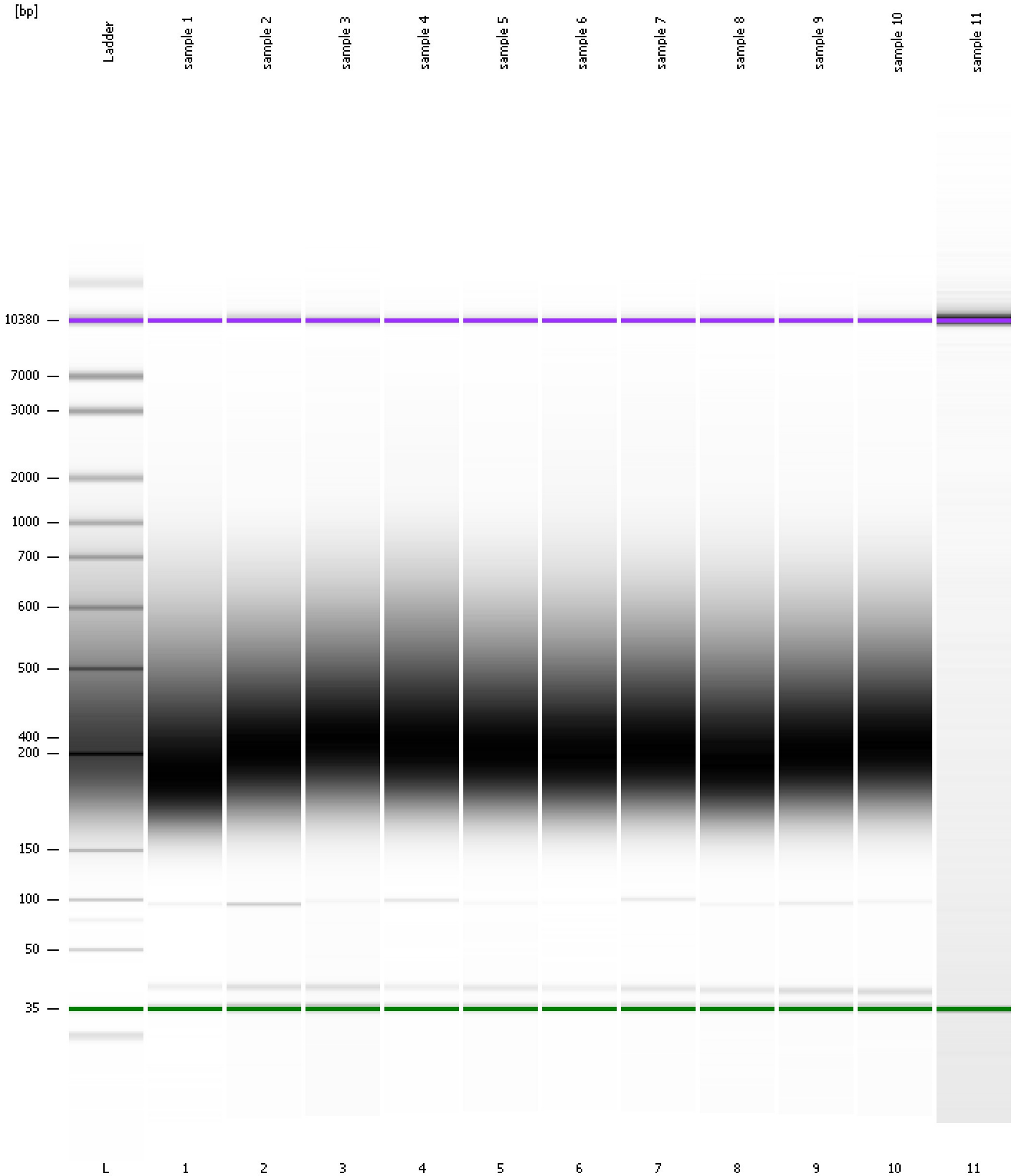
**Region table for sample 11 : sample 11**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	522	4.1	14.0	4.49	23	18.7

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14\_002.xad

Created: 3/14/2017 11:14:00 AM  
Modified: 3/14/2017 11:54:28 AM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14\_002.xad

Created: 3/14/2017 11:14:00 AM  
 Modified: 3/14/2017 11:54:28 AM

**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		3/14/2017 11:54:27 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2017-03-14\2017-03-14_002.xad)		Instrument	Run		3/14/2017 11:14:05 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/14/2017 11:14:05 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/14/2017 11:14:05 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/14/2017 11:14:05 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/14/2017 11:14:05 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/14/2017 11:14:05 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/14/2017 11:14:05 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1