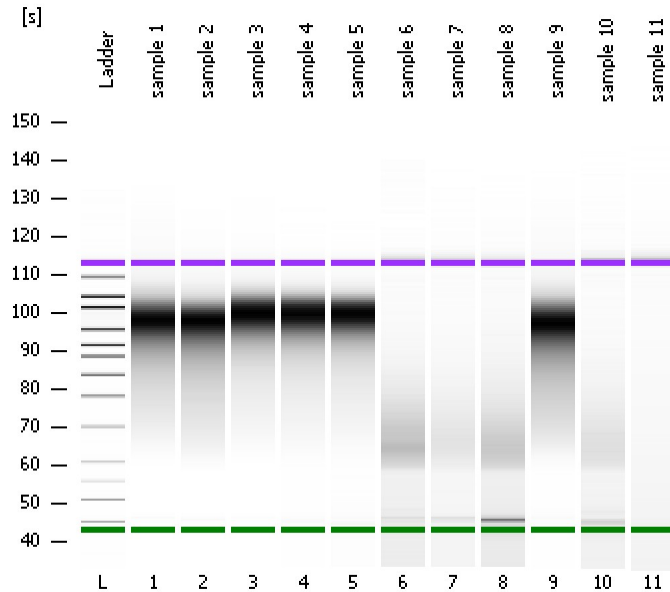


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06\_006.xad

Created: 8/6/2013 2:15:33 PM  
Modified: 8/6/2013 2:59:28 PM

**Electrophoresis File Run Summary**



Instrument Information:

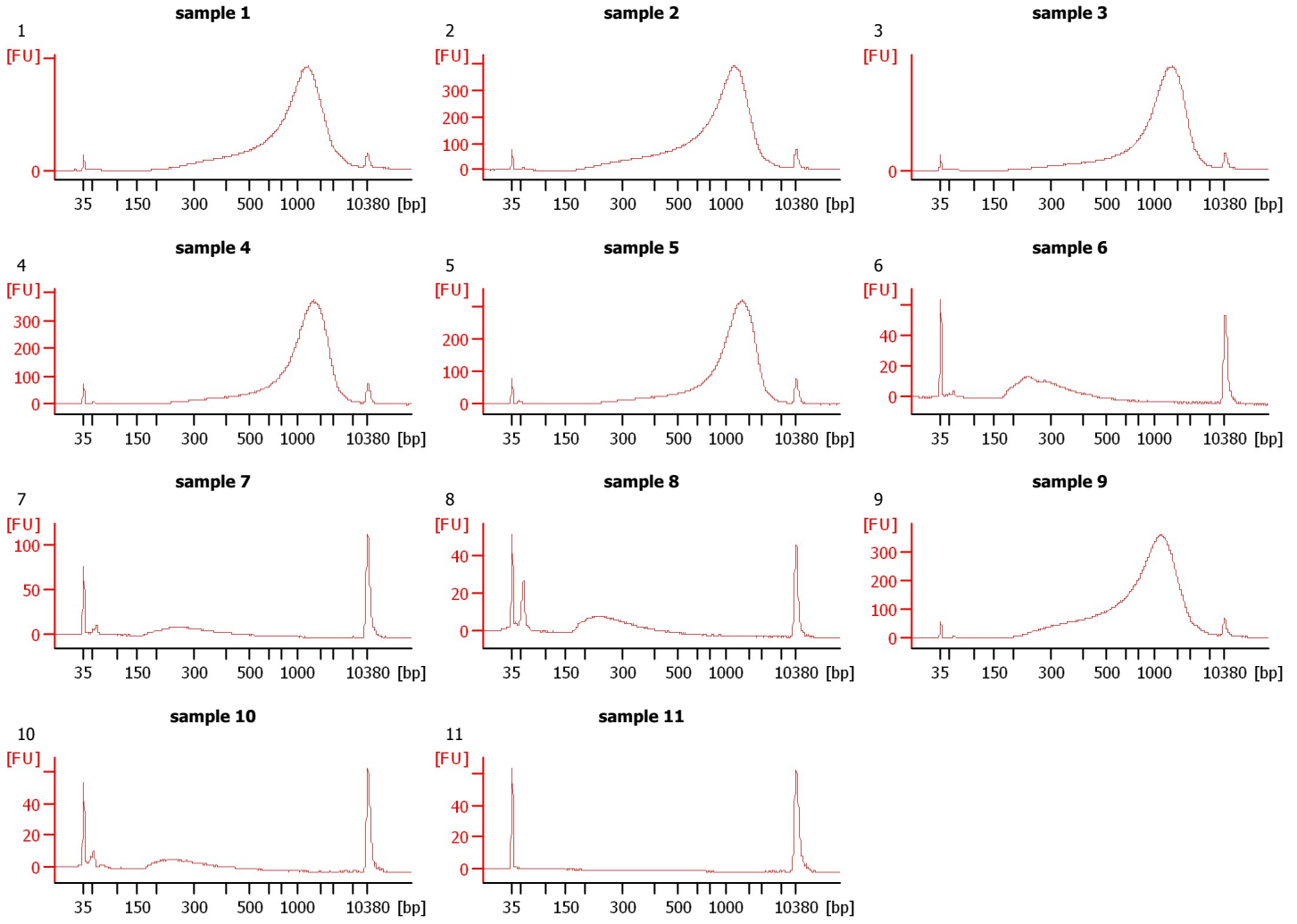
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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\2013-08-06\2013-08-06\_006.xad

Created: 8/6/2013 2:15:33 PM  
 Modified: 8/6/2013 2:59:28 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 1	1	<input type="checkbox"/>	✓			
sample 2	2	<input type="checkbox"/>	✓			
sample 3	3	<input type="checkbox"/>	✓			
sample 4	4	<input type="checkbox"/>	✓			
sample 5	5	<input type="checkbox"/>	✓			
sample 6	6	<input type="checkbox"/>	✓			
sample 7	7	<input type="checkbox"/>	✓			
sample 8	8	<input type="checkbox"/>	✓			
sample 9	9	<input type="checkbox"/>	✓			
sample 10	10	<input type="checkbox"/>	✓			
sample 11	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\2013-08-06\2013-08-06\_006.xad

Created: 8/6/2013 2:15:33 PM  
Modified: 8/6/2013 2:59:28 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

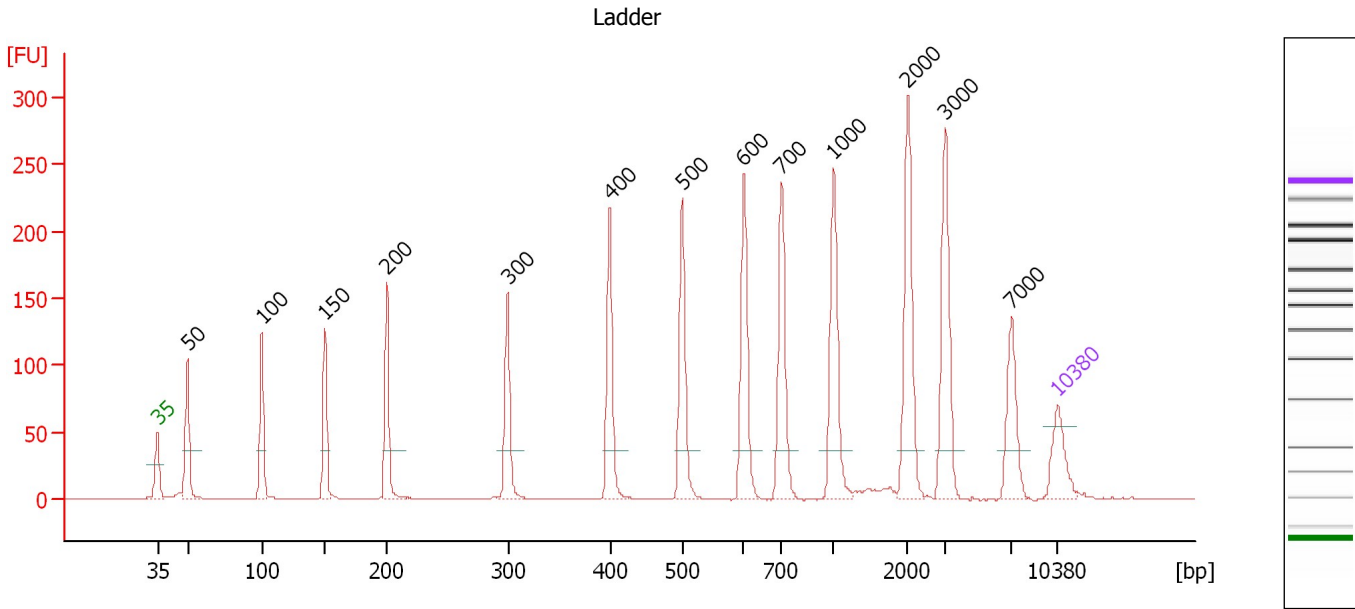
**Ladder**

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\2013-08-06\2013-08-06\_006.xad

Created: 8/6/2013 2:15:33 PM  
 Modified: 8/6/2013 2:59:28 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

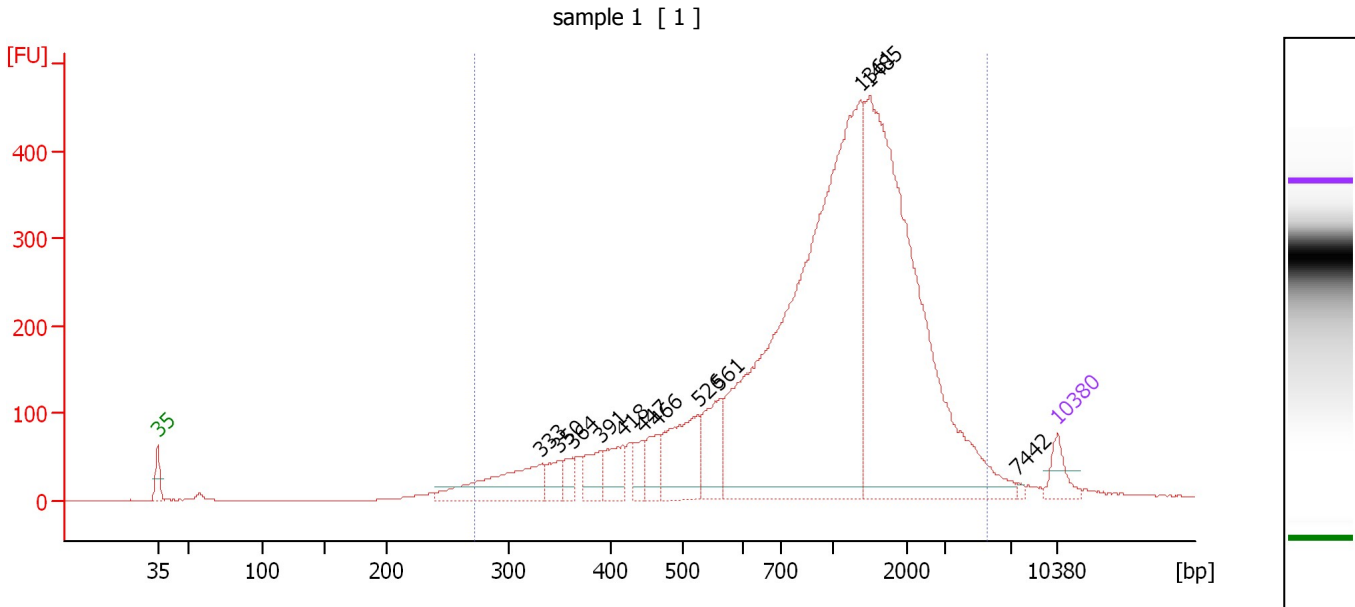
**Peak table for Ladder**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	150.00	4,545.5	Ladder Peak
3	100	150.00	2,272.7	Ladder Peak
4	150	150.00	1,515.2	Ladder Peak
5	200	150.00	1,136.4	Ladder Peak
6	300	150.00	757.6	Ladder Peak
7	400	150.00	568.2	Ladder Peak
8	500	150.00	454.5	Ladder Peak
9	600	150.00	378.8	Ladder Peak
10	700	150.00	324.7	Ladder Peak
11	1,000	150.00	227.3	Ladder Peak
12	2,000	150.00	113.6	Ladder Peak
13	3,000	150.00	75.8	Ladder Peak
14	7,000	150.00	32.5	Ladder Peak
15	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06\_006.xad

Created: 8/6/2013 2:15:33 PM  
 Modified: 8/6/2013 2:59:28 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 1 : sample 1**

Height Threshold [FU] : 15

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

Number of peaks found: 12                      Corr. Area 1: 6,824.8  
 Noise: 0.2

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	333	409.24	1,862.5	
3	350	102.43	443.1	
4	364	77.42	322.3	
5	391	143.53	556.5	
6	418	153.97	557.8	
7	447	96.74	328.0	
8	466	130.26	423.9	
9	526	379.50	1,093.5	
10	561	244.69	660.5	
11	1,361	2,855.27	3,178.8	
12	1,485	2,219.22	2,264.8	
13	7,442	9.20	1.9	
14	10,380	75.00	10.9	Upper Marker

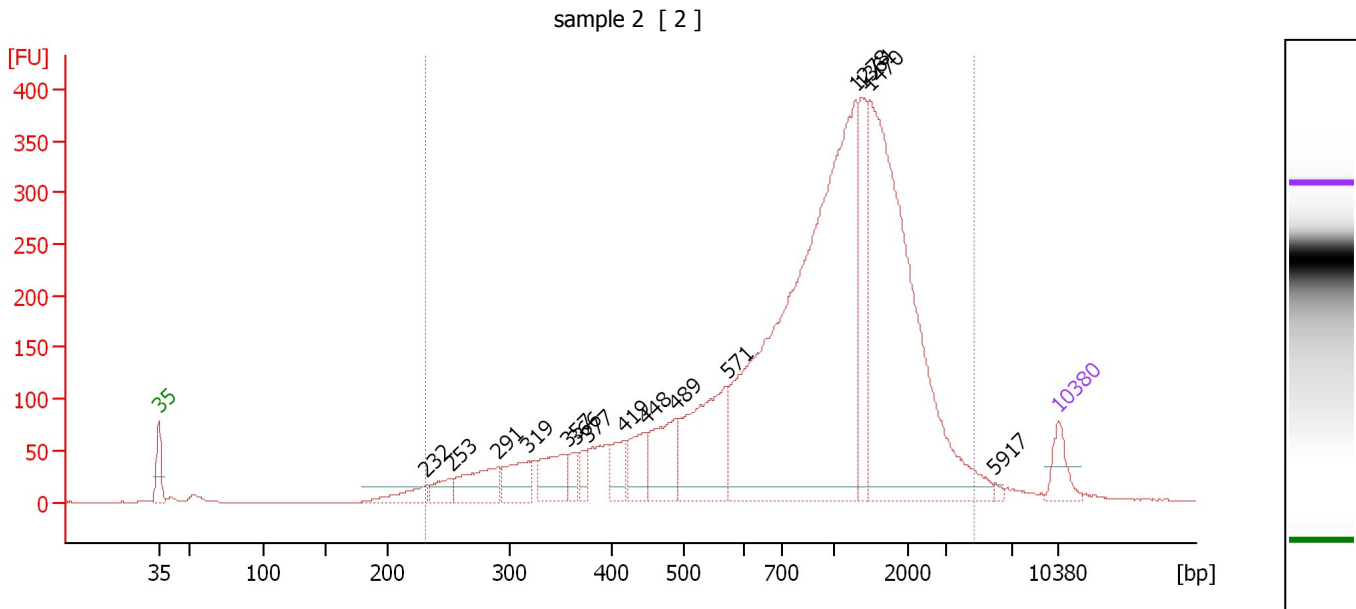
**Region table for sample 1 : sample 1**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
272	5,495	1,262	13,938.4	7,099.97	6,824.8	96	65.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06\_006.xad

Created: 8/6/2013 2:15:33 PM  
 Modified: 8/6/2013 2:59:28 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 2 : sample 2**

Height Threshold [FU] : 15

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

Number of peaks found: 15      Corr. Area 1: 6,015.6  
 Noise: 0.3

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

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	232	90.87	594.4	
3	253	86.61	519.6	
4	291	206.74	1,074.9	
5	319	158.55	752.1	
6	357	180.37	765.8	
7	366	53.75	222.6	
8	377	54.62	219.3	
9	419	106.13	383.5	
10	448	152.93	516.7	
11	489	246.66	763.5	
12	571	481.44	1,276.4	
13	1,278	2,279.52	2,702.7	
14	1,361	259.55	288.9	
15	1,470	1,514.88	1,561.5	
16	5,917	9.44	2.4	
17	10,380	75.00	10.9	Upper Marker

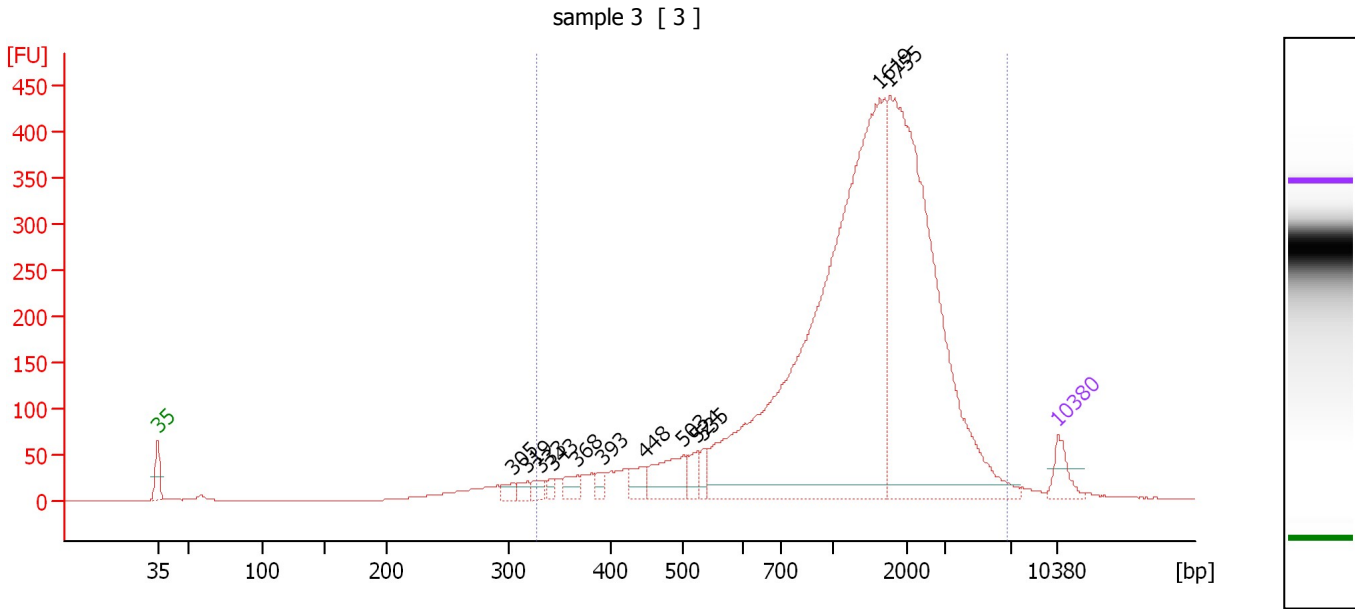
**Region table for sample 2 : sample 2**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
231	4,623	1,123	14,072.5	6,327.04	6,015.6	97	61.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06\_006.xad

Created: 8/6/2013 2:15:33 PM  
 Modified: 8/6/2013 2:59:28 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 3 : sample 3**

Height Threshold [FU] : 15

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

Number of peaks found: 12                      Corr. Area 1: 5,477.9  
 Noise: 0.2

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	305	43.71	217.1	
3	319	40.05	190.1	
4	333	46.67	212.5	
5	343	27.85	122.9	
6	368	68.06	279.9	
7	393	34.95	134.7	
8	448	82.01	277.1	
9	503	208.41	627.9	
10	524	67.79	195.9	
11	535	52.54	148.7	
12	1,619	2,888.85	2,703.7	
13	1,755	1,952.19	1,685.5	
14	10,380	75.00	10.9	Upper Marker

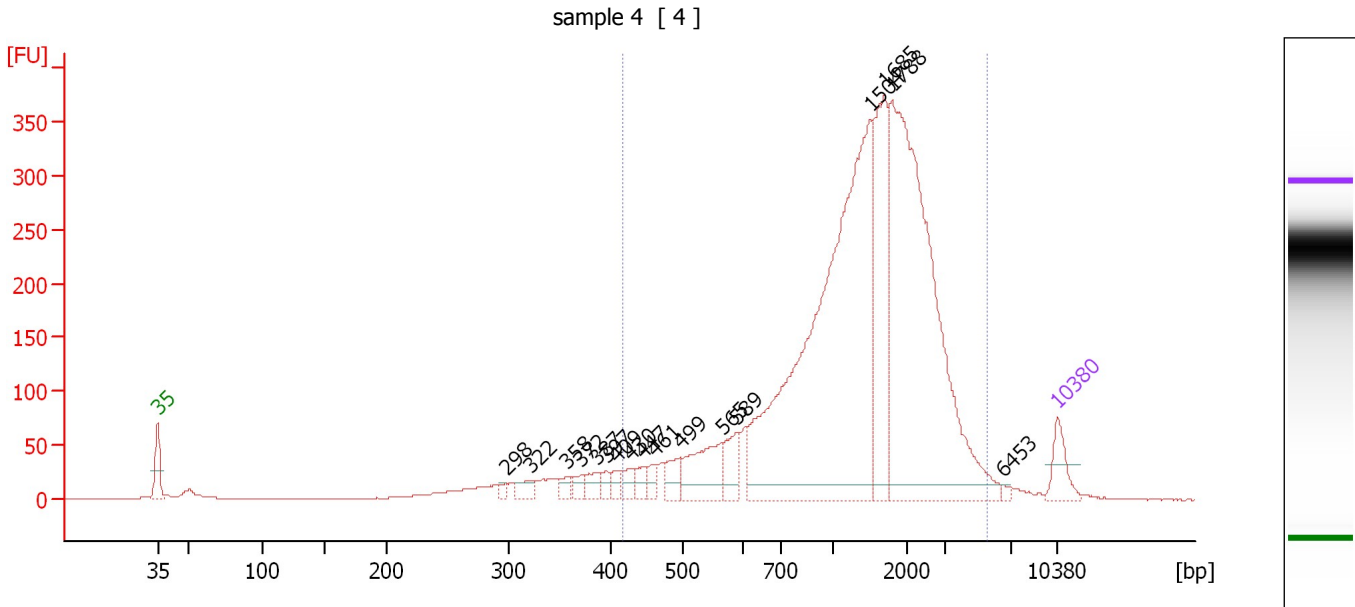
**Region table for sample 3 : sample 3**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
328	6,672	1,580	9,114.7	5,964.29	5,477.9	95	62.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06\_006.xad

Created: 8/6/2013 2:15:33 PM  
 Modified: 8/6/2013 2:59:28 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 4 : sample 4**

Height Threshold [FU] : 15

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

Number of peaks found: 17      Corr. Area 1: 4,287.3  
 Noise: 0.3

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	298	19.91	101.1	
3	322	49.69	233.5	
4	358	39.11	165.3	
5	372	38.96	158.6	
6	387	47.79	187.1	
7	397	32.37	123.6	
8	409	38.16	141.4	
9	430	49.10	173.0	
10	447	41.59	141.0	
11	461	38.59	126.8	
12	499	75.16	228.3	
13	565	209.99	562.6	
14	589	100.02	257.2	
15	1,504	1,872.90	1,886.8	
16	1,685	442.17	397.7	
17	1,788	1,477.43	1,252.1	
18	6,453	7.82	1.8	
19	10,380	75.00	10.9	Upper Marker



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06\_006.xad

Created: 8/6/2013 2:15:33 PM  
Modified: 8/6/2013 2:59:28 PM

**Electropherogram Summary Continued ...**

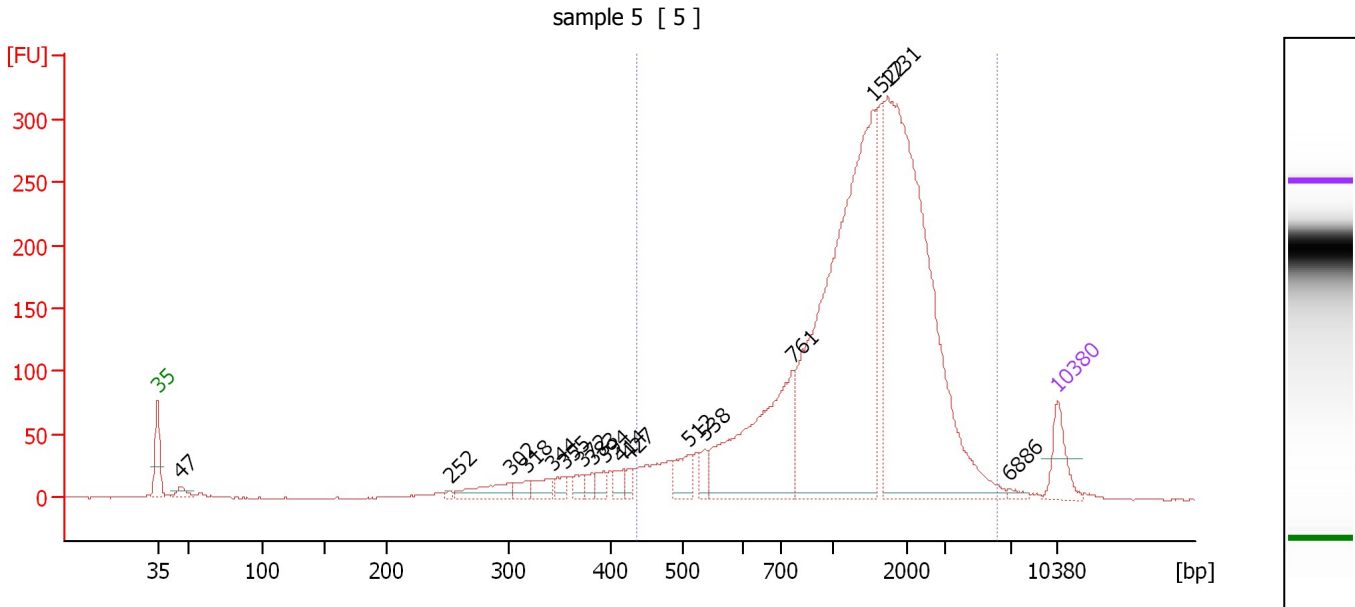
... Region table for sample 4 : sample 4

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ $\mu$ l]	Corr. Area	% of Total	Size distribution in CV [%]	Color
418	5,461	1,555	6,358.6	4,569.22	4,287.3	90	53.9	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06\_006.xad

Created: 8/6/2013 2:15:33 PM  
 Modified: 8/6/2013 2:59:28 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 17                      Corr. Area 1: 3,528.8  
 Noise: 0.3

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

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	47	36.40	1,177.0	
3	252	7.33	44.0	
4	302	81.05	406.5	
5	318	35.79	170.3	
6	344	46.40	204.6	
7	355	28.44	121.4	
8	372	30.23	123.0	
9	383	21.29	84.3	
10	394	29.20	112.1	
11	414	30.63	112.0	
12	427	24.61	87.3	
13	512	74.94	221.6	
14	538	35.41	99.7	
15	761	538.83	1,072.9	
16	1,522	1,297.32	1,291.3	
17	1,731	1,290.17	1,129.5	
18	6,886	10.26	2.3	
19	10,380	75.00	10.9	Upper Marker

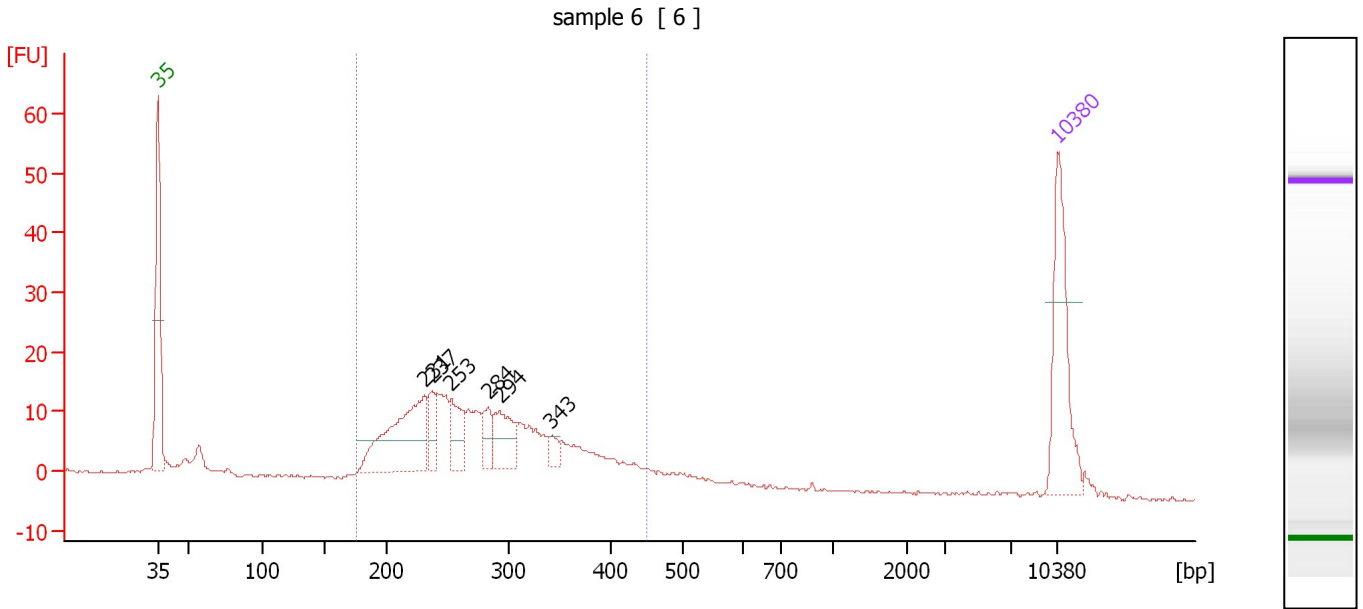
**Region table for sample 5 : sample 5**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
438	6,117	1,552	4,973.8	3,630.15	3,528.8	90	54.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06\_006.xad

Created: 8/6/2013 2:15:33 PM  
 Modified: 8/6/2013 2:59:28 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 6                      Corr. Area 1: 275.6  
 Noise: 0.2

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	231	133.17	873.5	
3	237	30.17	192.5	
4	253	39.19	234.7	
5	284	21.44	114.6	
6	294	45.00	232.1	
7	343	10.53	46.5	
8	10,380	75.00	10.9	Upper Marker

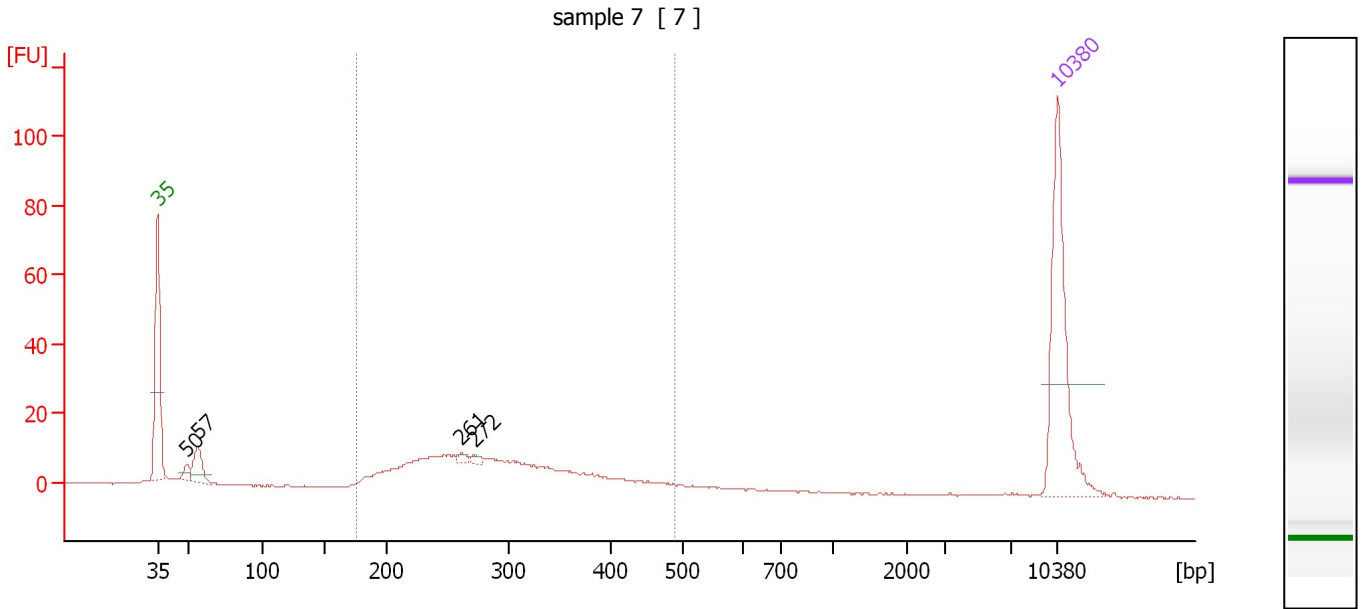
**Region table for sample 6 : sample 6**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
175	452	282	3,113.6	546.09	275.6	90	21.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06\_006.xad

Created: 8/6/2013 2:15:33 PM  
 Modified: 8/6/2013 2:59:28 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 7 : sample 7**

Height Threshold [FU] : 2

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

Number of peaks found: 4                      Corr. Area 1: 211.5  
 Noise: 0.2

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	6.74	205.8	
3	57	21.62	575.2	
4	261	3.12	18.1	
5	272	3.21	17.9	
6	10,380	75.00	10.9	Upper Marker

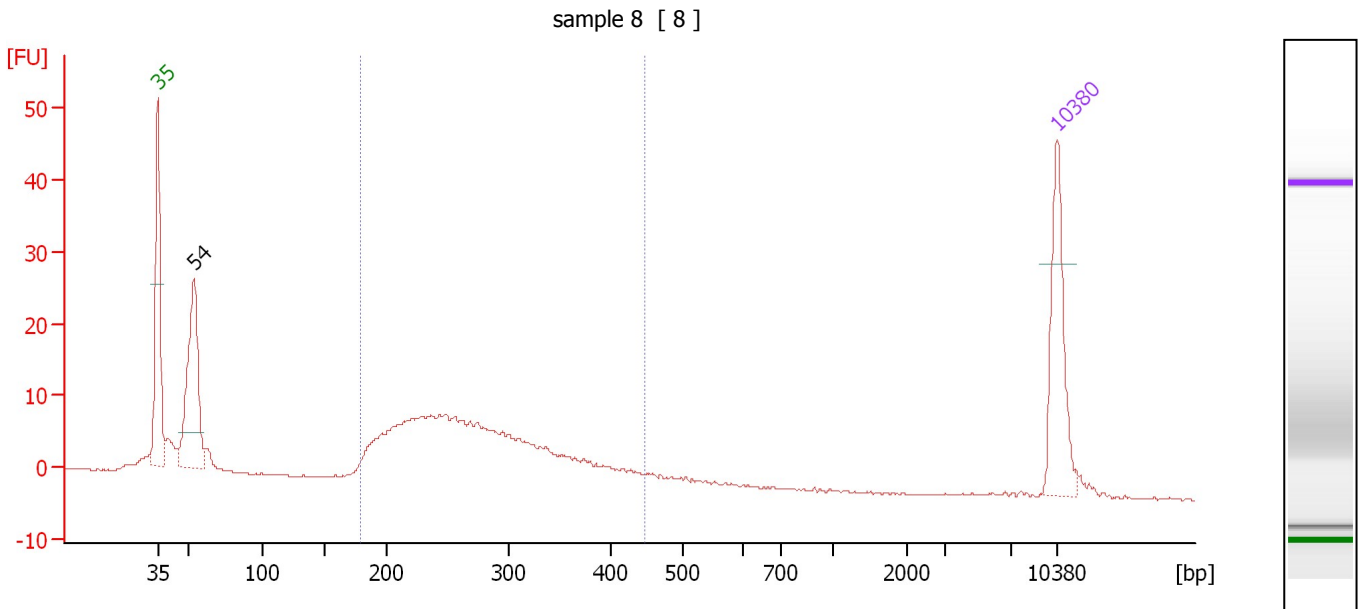
**Region table for sample 7 : sample 7**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
175	491	295	1,141.3	206.79	211.5	80	23.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06\_006.xad

Created: 8/6/2013 2:15:33 PM  
 Modified: 8/6/2013 2:59:28 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 1                      Corr. Area 1: 171.2  
 Noise: 0.1

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	54	173.83	4,876.1	
3	10,380	75.00	10.9	Upper Marker

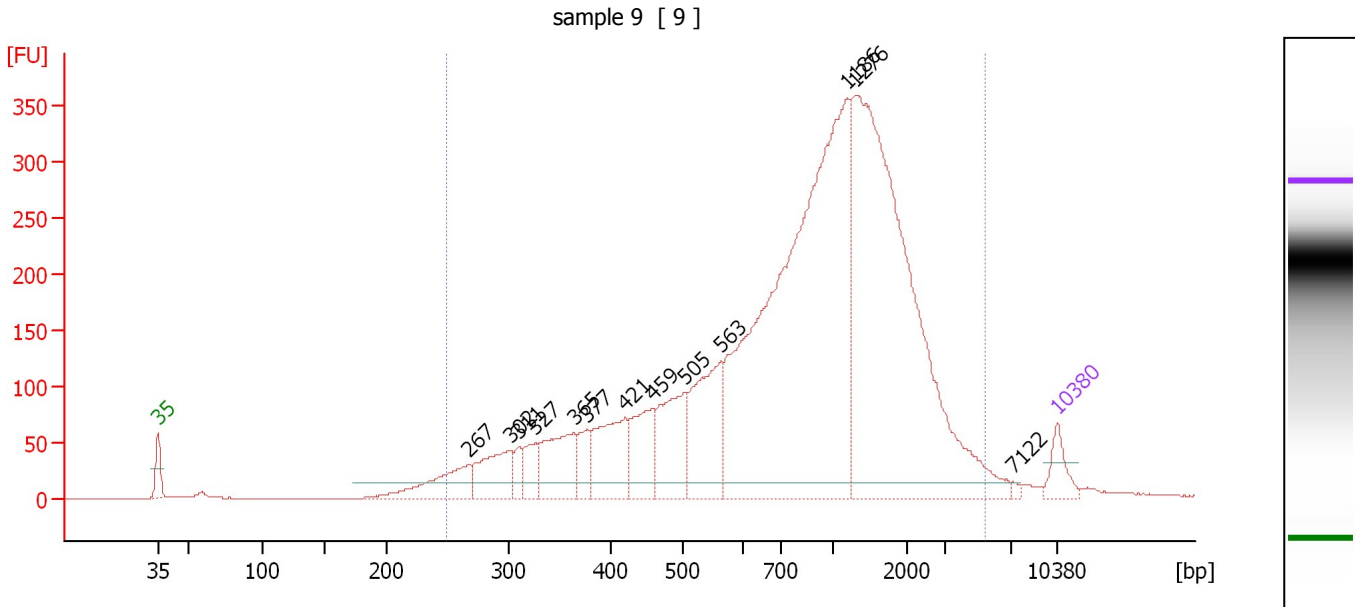
**Region table for sample 8 : sample 8**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
179	447	274	2,513.5	429.25	171.2	67	21.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06\_006.xad

Created: 8/6/2013 2:15:33 PM  
 Modified: 8/6/2013 2:59:28 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 9 : sample 9**

Height Threshold [FU] : 15

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

Number of peaks found: 13      Corr. Area 1: 6,098.8  
 Noise: 0.1

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	267	274.88	1,557.8	
3	302	261.04	1,307.7	
4	311	63.91	311.4	
5	327	122.08	566.4	
6	365	295.80	1,227.8	
7	377	107.47	431.5	
8	421	334.71	1,205.7	
9	459	248.52	819.6	
10	505	350.45	1,050.6	
11	563	447.40	1,203.0	
12	1,186	2,529.08	3,230.5	
13	1,276	2,198.90	2,610.5	
14	7,122	9.50	2.0	
15	10,380	75.00	10.9	Upper Marker

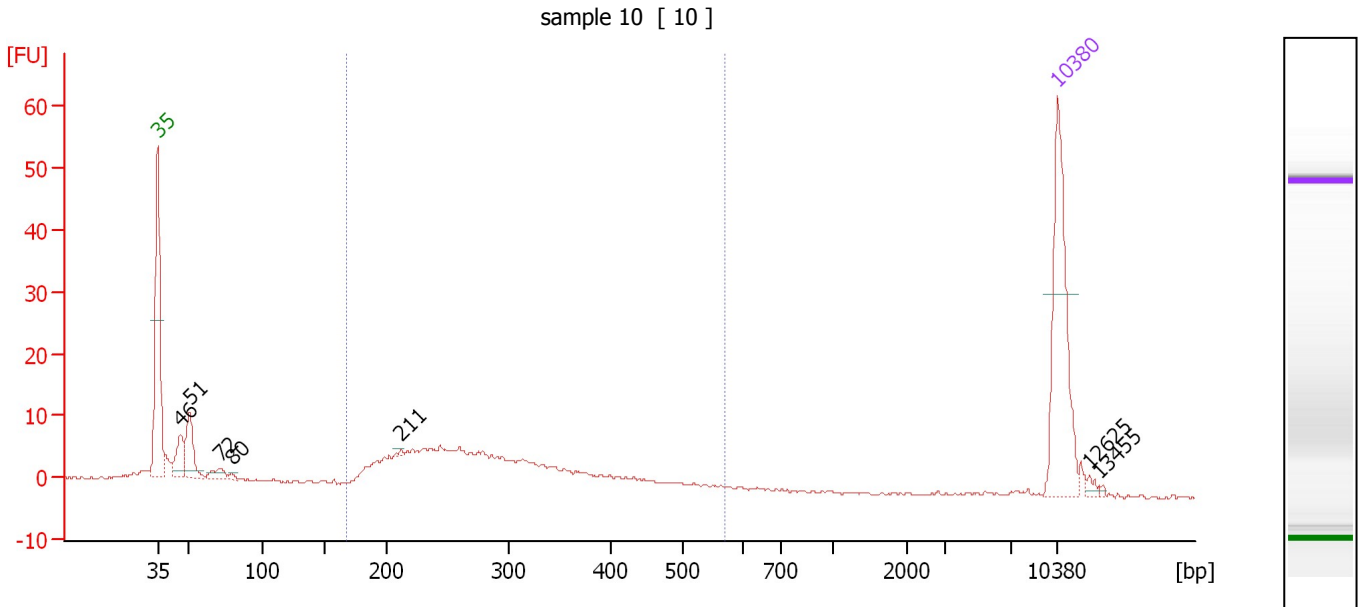
**Region table for sample 9 : sample 9**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
250	5,430	1,120	16,640.9	7,337.81	6,098.8	96	69.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06\_006.xad

Created: 8/6/2013 2:15:33 PM  
 Modified: 8/6/2013 2:59:28 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 10 : sample 10**

Height Threshold [FU] : 1

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

Number of peaks found: 7                      Corr. Area 1: 128.7  
 Noise: 0.2

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	46	24.77	809.7	
3	51	35.38	1,043.6	
4	72	9.73	206.2	
5	80	2.42	46.1	
6	211	1.68	12.0	
7	10,380	75.00	10.9	Upper Marker
8	12,625	0.00	0.0	
9	13,455	0.00	0.0	

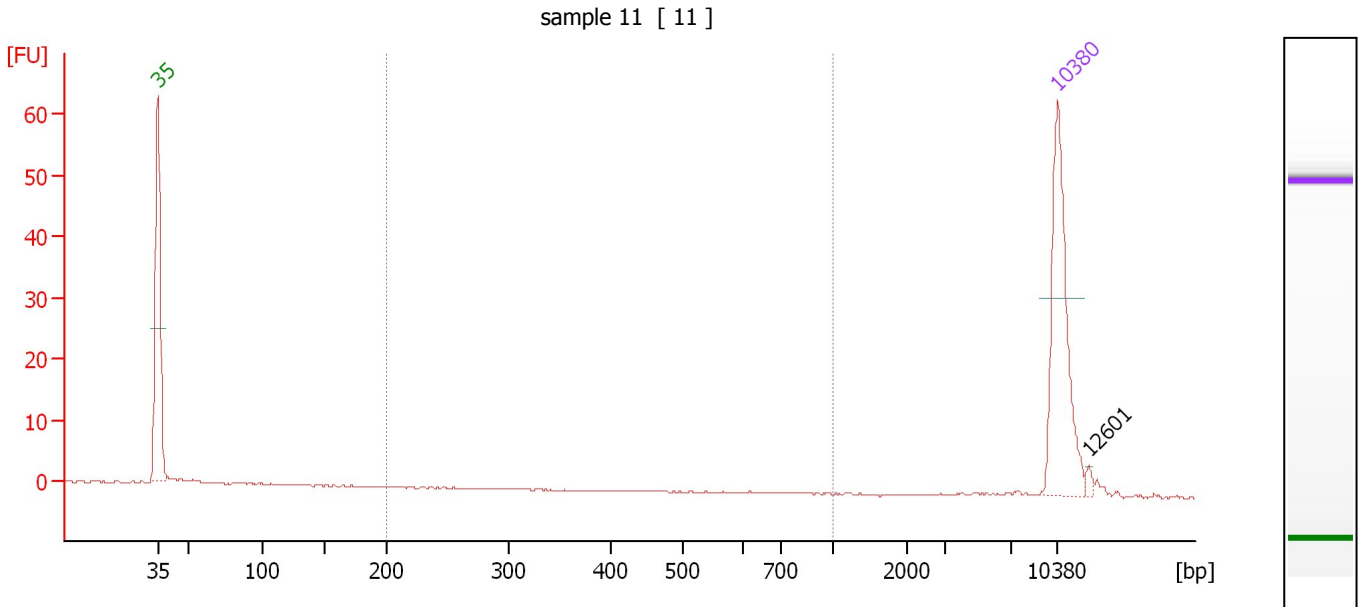
**Region table for sample 10 : sample 10**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
168	570	291	1,362.8	239.22	128.7	69	27.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06\_006.xad

Created: 8/6/2013 2:15:33 PM  
 Modified: 8/6/2013 2:59:28 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 1                      Corr. Area 1: 0.0  
 Noise: 0.1

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker
3	12,601	0.00	0.0	

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

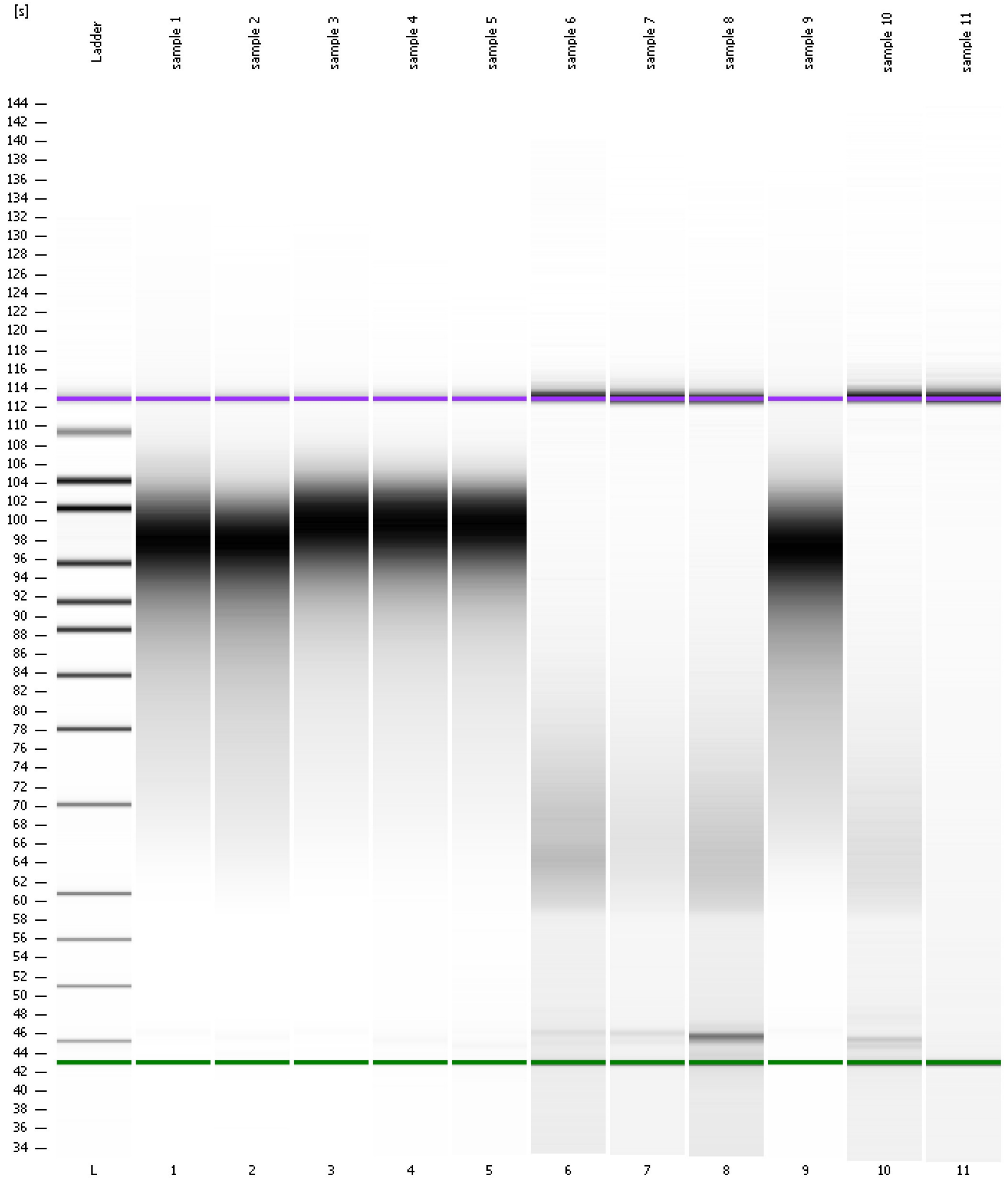
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	255	0.0	0.00	0.0	0	0.1	Blue



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06\_006.xad

Created: 8/6/2013 2:15:33 PM  
Modified: 8/6/2013 2:59:28 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay Created: 8/6/2013 2:15:33 PM  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06\_006.xad Modified: 8/6/2013 2:59:28 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		8/6/2013 2:56:50 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-08-06\2013-08-06_006.xad)		Instrument	Run		8/6/2013 2:15:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		8/6/2013 2:15:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		8/6/2013 2:15:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		8/6/2013 2:15:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		8/6/2013 2:15:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		8/6/2013 2:15:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		8/6/2013 2:15:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1