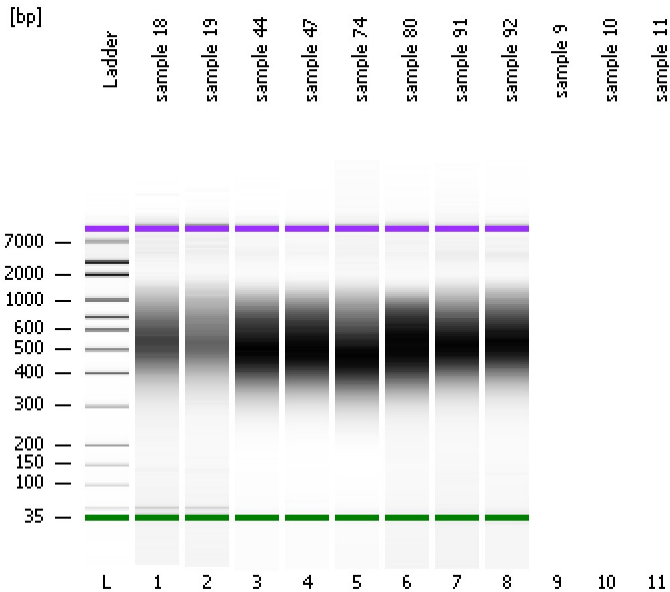


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_003.xad

Created: 11/11/2015 10:32:02 AM  
Modified: 11/11/2015 12:25:18 PM

**Electrophoresis File Run Summary**



Instrument Information:

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

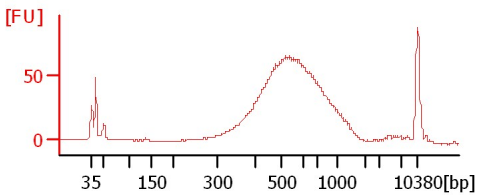
Assay Information:

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

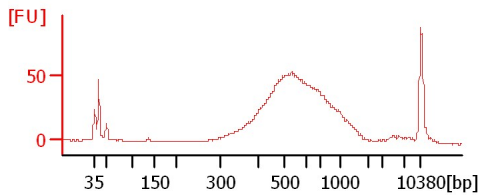
Chip Information:

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

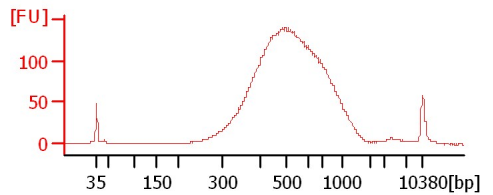
sample 18



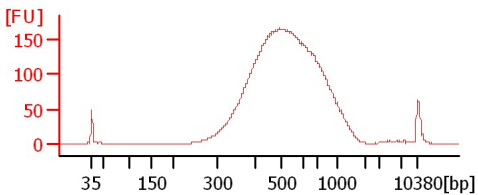
sample 19



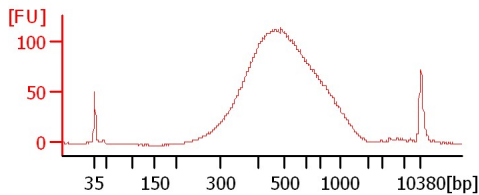
sample 44



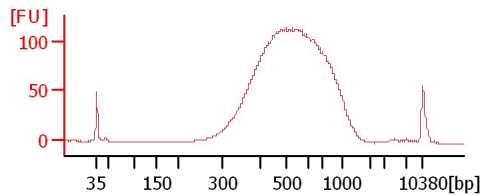
sample 47



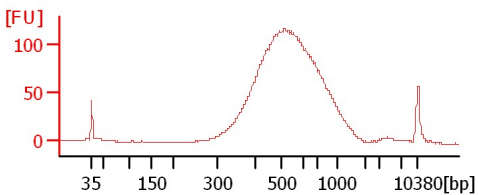
sample 74



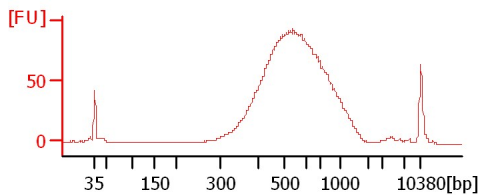
sample 80



sample 91



sample 92



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_003.xad

Created: 11/11/2015 10:32:02 AM  
Modified: 11/11/2015 12:25:18 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 18		<input type="checkbox"/>	✓			
sample 19		<input type="checkbox"/>	✓			
sample 44		<input type="checkbox"/>	✓			
sample 47		<input type="checkbox"/>	✓			
sample 74		<input type="checkbox"/>	✓			
sample 80		<input type="checkbox"/>	✓			
sample 91		<input type="checkbox"/>	✓			
sample 92		<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:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_003.xad

Created: 11/11/2015 10:32:02 AM  
Modified: 11/11/2015 12:25:18 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

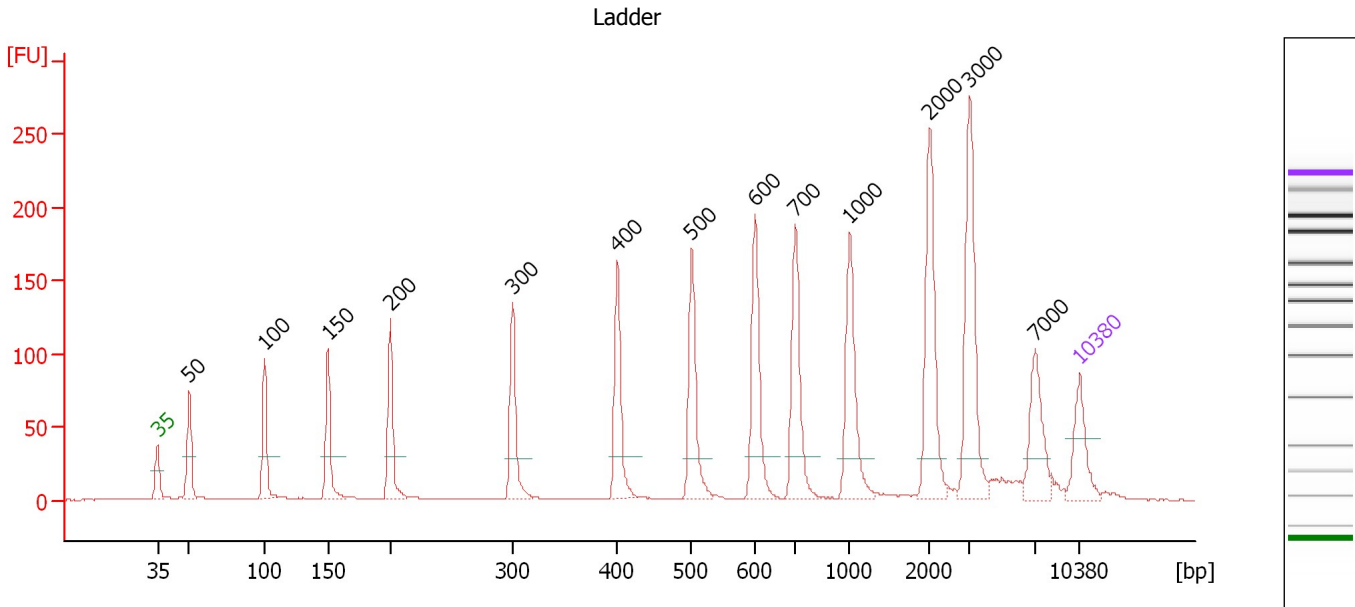
**Ladder**

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\2015-11-11\2015-11-11\_003.xad

Created: 11/11/2015 10:32:02 AM  
 Modified: 11/11/2015 12:25:18 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

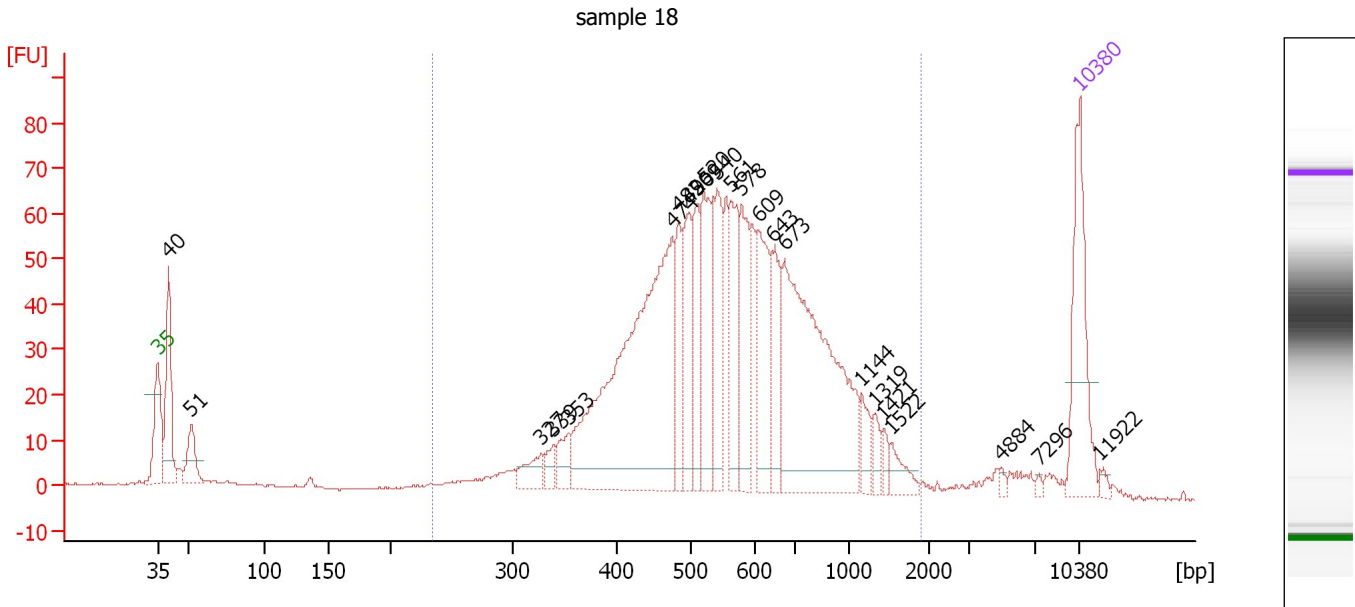
**Peak table for Ladder**

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	45.41
3	100	150.00	2,272.7	Ladder Peak	51.12
4	150	150.00	1,515.2	Ladder Peak	55.94
5	200	150.00	1,136.4	Ladder Peak	60.67
6	300	150.00	757.6	Ladder Peak	69.95
7	400	150.00	568.2	Ladder Peak	77.93
8	500	150.00	454.5	Ladder Peak	83.55
9	600	150.00	378.8	Ladder Peak	88.37
10	700	150.00	324.7	Ladder Peak	91.41
11	1,000	150.00	227.3	Ladder Peak	95.56
12	2,000	150.00	113.6	Ladder Peak	101.62
13	3,000	150.00	75.8	Ladder Peak	104.66
14	7,000	150.00	32.5	Ladder Peak	109.61
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_003.xad

Created: 11/11/2015 10:32:02 AM  
 Modified: 11/11/2015 12:25:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : sample 18**

Number of peaks found: 23                      Corr. Area 1: 1,304.8  
 Noise: 0.3

**Peak table for sample 1 : sample 18**

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	98.75	3,719.3		43.84
3	51	37.72	1,112.9		45.56
4	327	22.95	106.4		72.08
5	339	12.93	57.8		73.05
6	353	22.29	95.6		74.20
7	474	390.67	1,250.1		82.07
8	482	50.93	160.0		82.55
9	496	68.46	209.0		83.35
10	509	53.45	159.3		83.97
11	520	87.73	255.9		84.50
12	540	69.15	194.1		85.47
13	561	65.24	176.3		86.48
14	578	68.54	179.6		87.32
15	609	79.64	198.1		88.65
16	643	54.17	127.7		89.67
17	673	275.91	620.9		90.59
18	1,144	17.27	22.9		96.43
19	1,319	11.18	12.8		97.49
20	1,421	7.48	8.0		98.11
21	1,522	14.44	14.4		98.73
22	4,884	2.89	0.9		106.99
23	7,296	2.09	0.4		109.91
24	10,380	75.00	10.9	Upper Marker	113.00
25	11,922	0.00	0.0		114.55

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_003.xad

Created: 11/11/2015 10:32:02 AM  
Modified: 11/11/2015 12:25:18 PM

**Electropherogram Summary Continued ...**

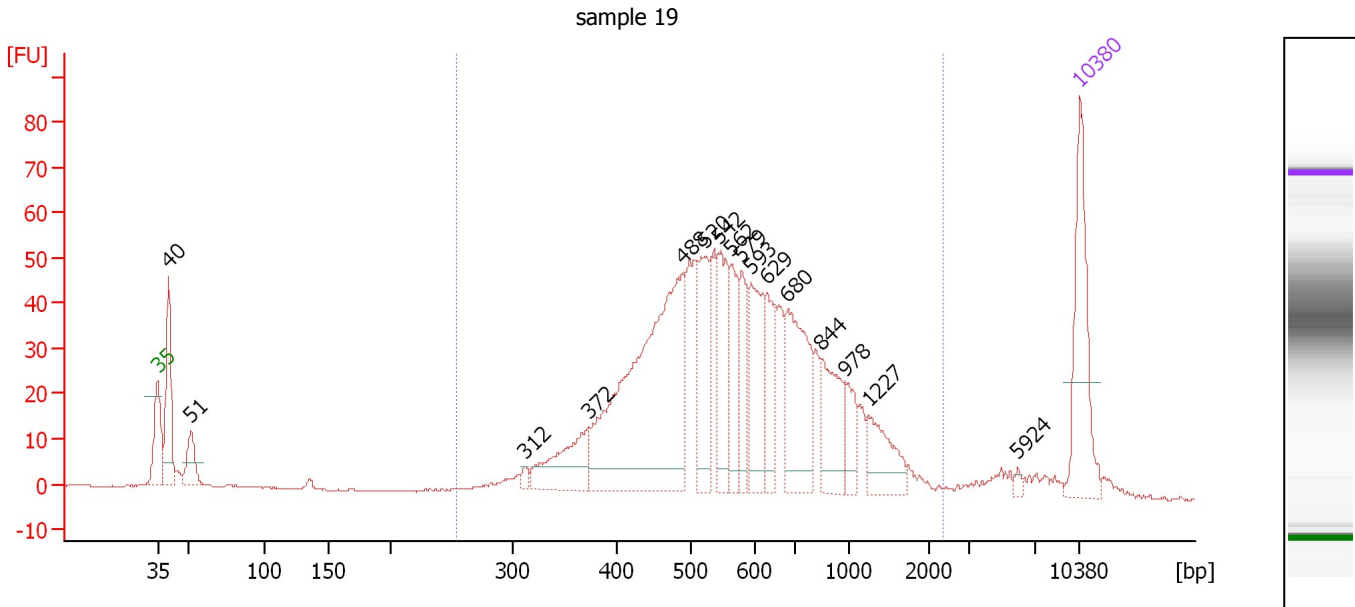
... Region table for sample 1 : sample 18

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
235	1,890	609	1,304.8	4,417.4	■ 1,522.35	89	40.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_003.xad

Created: 11/11/2015 10:32:02 AM  
 Modified: 11/11/2015 12:25:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : sample 19**

Number of peaks found: 16                      Corr. Area 1: 1,047.9  
 Noise: 0.2

**Peak table for sample 2 : sample 19**

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	95.78	3,608.2		43.84
3	51	36.54	1,086.9		45.52
4	312	6.29	30.6		70.89
5	372	68.38	278.4		75.70
6	488	344.75	1,071.3		82.85
7	520	78.77	229.4		84.53
8	542	62.91	175.8		85.59
9	562	48.70	131.2		86.56
10	579	42.92	112.3		87.36
11	593	74.47	190.4		88.02
12	629	47.85	115.2		89.25
13	680	106.45	237.2		90.80
14	844	58.53	105.0		93.40
15	978	24.13	37.4		95.26
16	1,227	41.01	50.6		96.93
17	5,924	3.06	0.8		108.28
18	10,380	75.00	10.9	Upper Marker	113.00

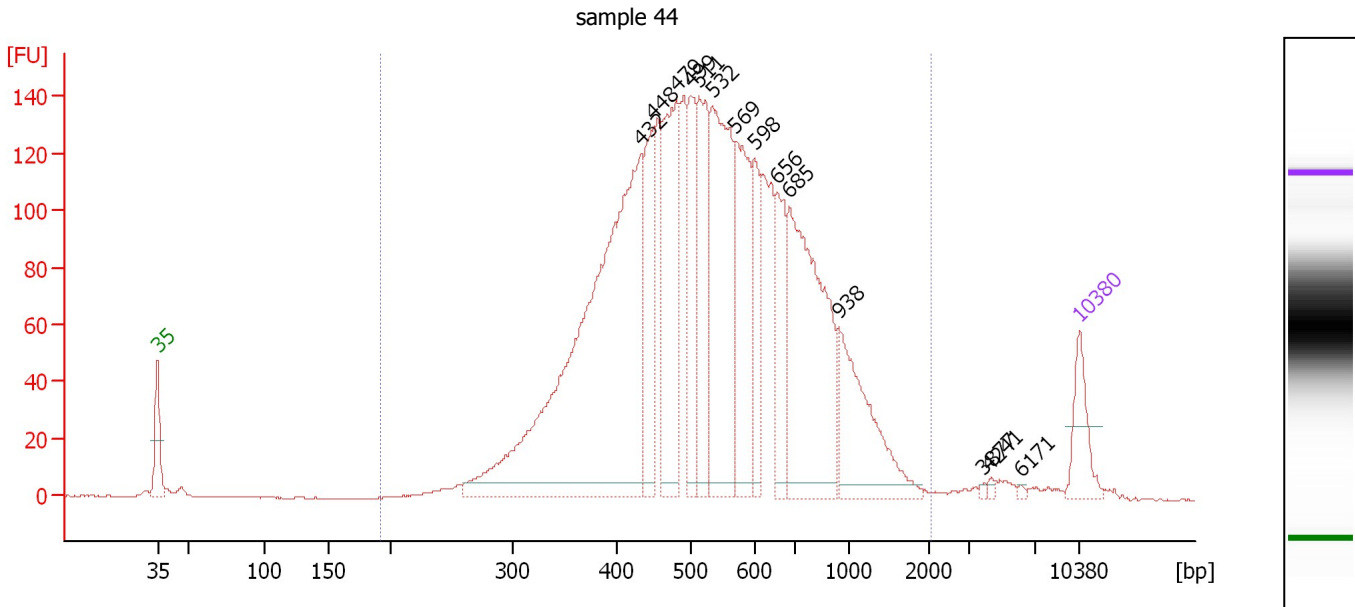
**Region table for sample 2 : sample 19**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
254	2,313	634	1,047.9	3,518.5	1,246.93	90	44.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_003.xad

Created: 11/11/2015 10:32:02 AM  
 Modified: 11/11/2015 12:25:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : sample 44**

Number of peaks found: 14                      Corr. Area 1: 3,089.5  
 Noise: 0.2

**Peak table for sample 3 : sample 44**

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	432	1,415.28	4,963.1		79.74
3	448	219.96	743.7		80.64
4	479	398.69	1,260.2		82.39
5	499	196.46	597.0		83.48
6	511	267.32	791.9		84.11
7	532	493.08	1,404.1		85.10
8	569	297.03	791.6		86.86
9	598	150.37	380.7		88.30
10	656	169.36	391.5		90.06
11	685	564.41	1,248.0		90.96
12	938	262.30	423.6		94.70
13	3,877	3.97	1.6		105.74
14	4,241	5.90	2.1		106.19
15	6,171	3.34	0.8		108.58
16	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 3 : sample 44**

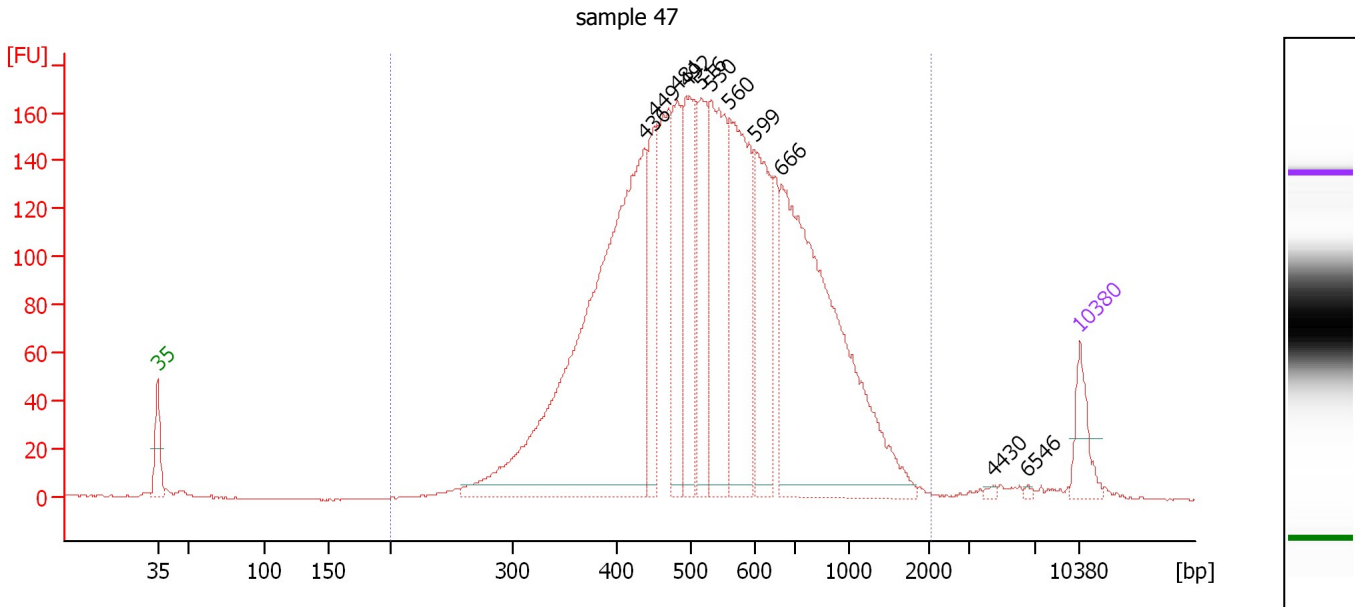
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
192	2,023	570	3,089.5	15,787.0	5,123.31	98	39.4



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_003.xad

Created: 11/11/2015 10:32:02 AM  
 Modified: 11/11/2015 12:25:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : sample 47**

Number of peaks found: 11                      Corr. Area 1: 3,683.2  
 Noise: 0.2

**Peak table for sample 4 : sample 47**

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	436	1,655.14	5,752.6		79.95
3	449	261.60	882.7		80.69
4	481	276.05	869.7		82.48
5	492	323.56	995.7		83.12
6	516	253.55	744.7		84.32
7	530	483.81	1,382.6		85.01
8	560	524.66	1,420.1		86.43
9	599	344.49	871.6		88.32
10	666	1,170.28	2,660.9		90.39
11	4,430	5.29	1.8		106.43
12	6,546	3.67	0.8		109.05
13	10,380	75.00	10.9	Upper Marker	113.00

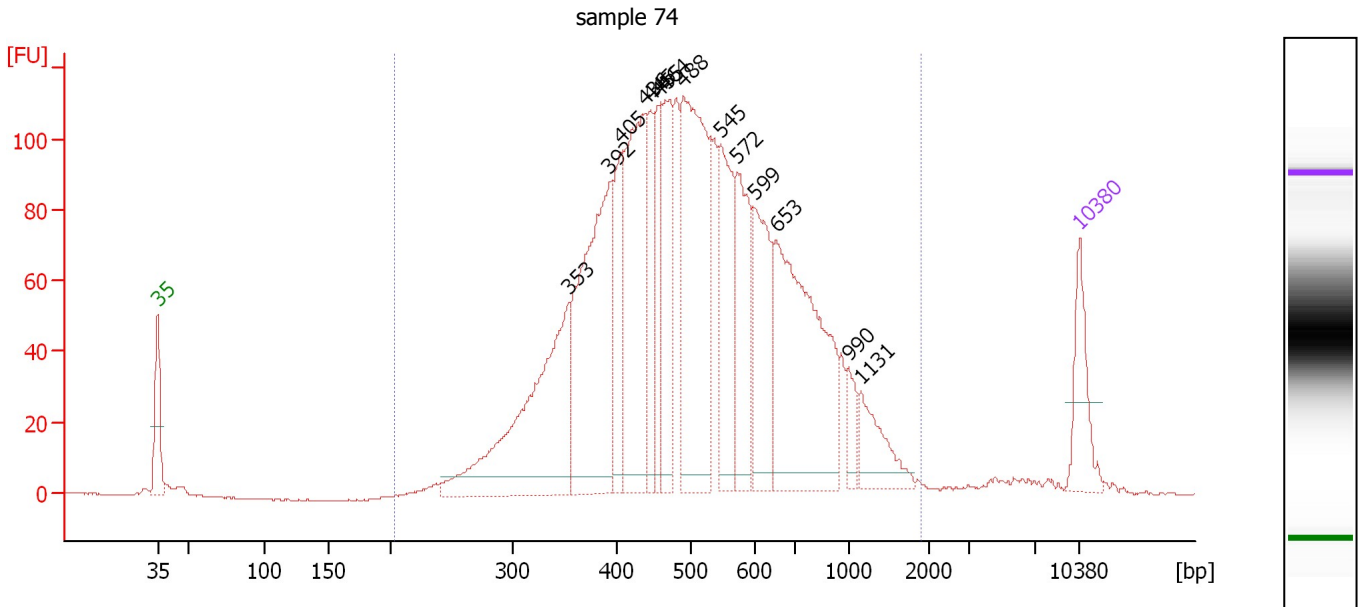
**Region table for sample 4 : sample 47**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	2,056	576	3,683.2	18,020.0	5,922.05	98	39.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_003.xad

Created: 11/11/2015 10:32:02 AM  
 Modified: 11/11/2015 12:25:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : sample 74**

Number of peaks found: 14                      Corr. Area 1: 2,497.9  
 Noise: 0.2

**Peak table for sample 5 : sample 74**

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	353	473.66	2,030.9		74.21
3	392	464.52	1,793.7		77.33
4	405	157.61	589.8		78.21
5	436	348.41	1,212.1		79.93
6	445	127.56	434.7		80.44
7	455	128.40	427.2		81.05
8	464	178.64	582.7		81.56
9	488	462.29	1,436.4		82.86
10	545	206.90	574.7		85.74
11	572	188.04	497.7		87.05
12	599	189.30	479.2		88.30
13	653	453.01	1,051.3		89.98
14	990	38.33	58.7		95.42
15	1,131	80.26	107.5		96.35
16	10,380	75.00	10.9	Upper Marker	113.00

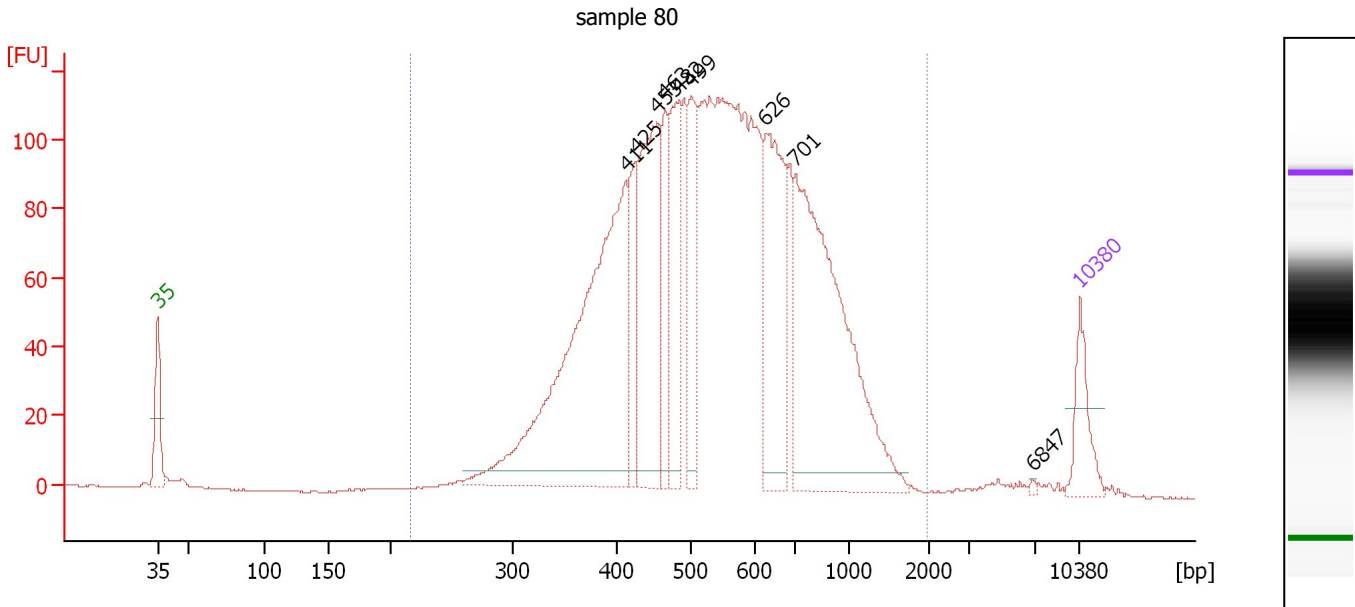
**Region table for sample 5 : sample 74**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
203	1,902	545	2,497.9	12,380.7	3,825.40	98	40.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_003.xad

Created: 11/11/2015 10:32:02 AM  
 Modified: 11/11/2015 12:25:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : sample 80**

Number of peaks found: 9                      Corr. Area 1: 2,611.1  
 Noise: 0.2

**Peak table for sample 6 : sample 80**

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	411	987.94	3,639.8		78.57
3	425	136.39	486.6		79.32
4	453	438.49	1,466.1		80.92
5	463	155.11	507.4		81.49
6	482	241.58	758.6		82.57
7	499	193.43	587.1		83.51
8	626	350.49	848.2		89.16
9	701	779.84	1,684.7		91.43
10	6,847	3.34	0.7		109.42
11	10,380	75.00	10.9	Upper Marker	113.00

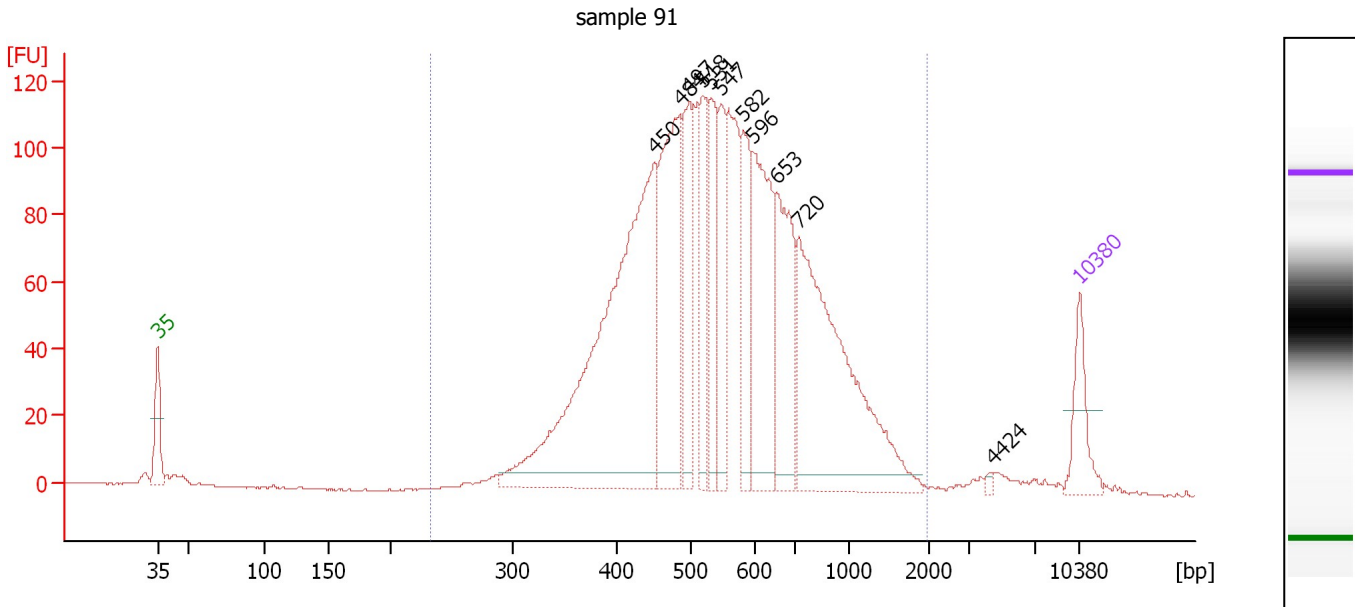
**Region table for sample 6 : sample 80**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
217	1,964	574	2,611.1	14,491.7	4,783.60	99	36.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_003.xad

Created: 11/11/2015 10:32:02 AM  
 Modified: 11/11/2015 12:25:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : sample 91**

Number of peaks found: 11                      Corr. Area 1: 2,280.7  
 Noise: 0.2

**Peak table for sample 7 : sample 91**

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	450	1,078.95	3,636.5		80.72
3	484	429.28	1,343.0		82.67
4	497	217.10	661.8		83.39
5	518	167.80	490.5		84.44
6	531	163.01	465.0		85.06
7	547	145.80	403.9		85.82
8	582	176.07	458.6		87.49
9	596	322.77	821.2		88.16
10	653	251.25	583.3		89.97
11	720	625.44	1,315.9		91.69
12	4,424	5.44	1.9		106.42
13	10,380	75.00	10.9	Upper Marker	113.00

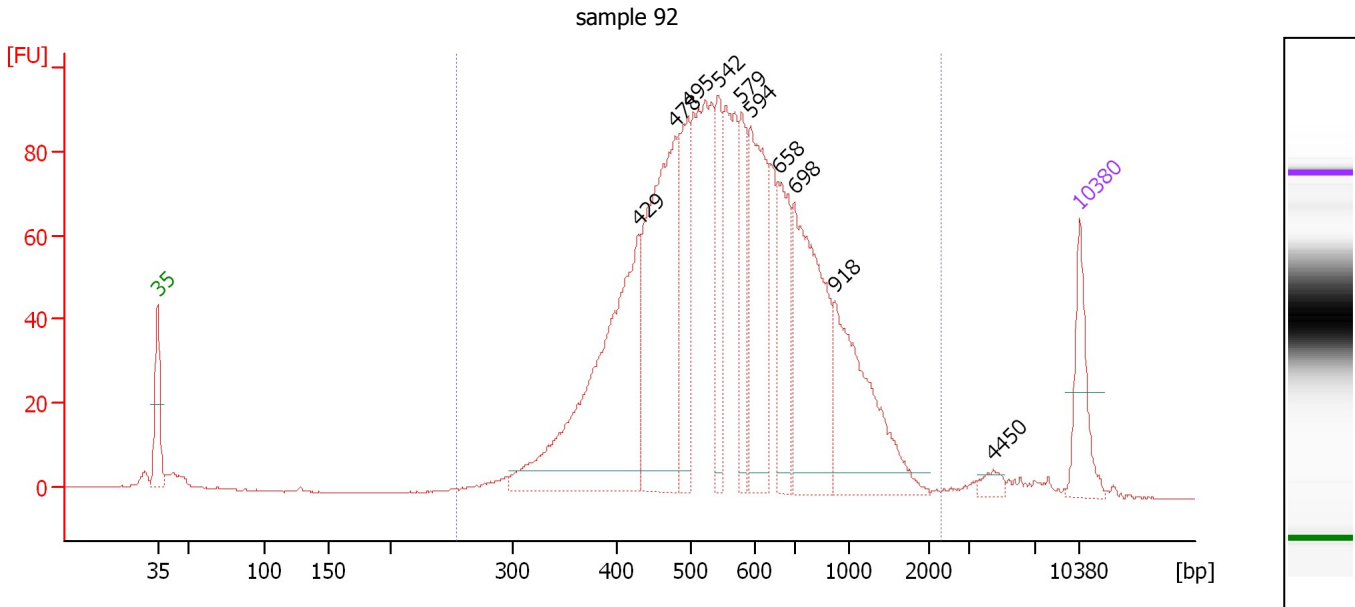
**Region table for sample 7 : sample 91**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
233	1,978	590	2,280.7	11,909.5	4,054.73	97	38.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_003.xad

Created: 11/11/2015 10:32:02 AM  
 Modified: 11/11/2015 12:25:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : sample 92**

Number of peaks found: 10                      Corr. Area 1: 1,805.8  
 Noise: 0.1

**Peak table for sample 8 : sample 92**

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	429	550.65	1,946.6		79.54
3	478	475.64	1,506.8		82.33
4	495	165.26	505.4		83.30
5	542	118.56	331.7		85.56
6	579	115.09	301.4		87.34
7	594	255.45	652.1		88.06
8	658	143.22	329.8		90.13
9	698	329.84	716.3		91.34
10	918	254.53	420.3		94.42
11	4,450	14.09	4.8		106.45
12	10,380	75.00	10.9	Upper Marker	113.00

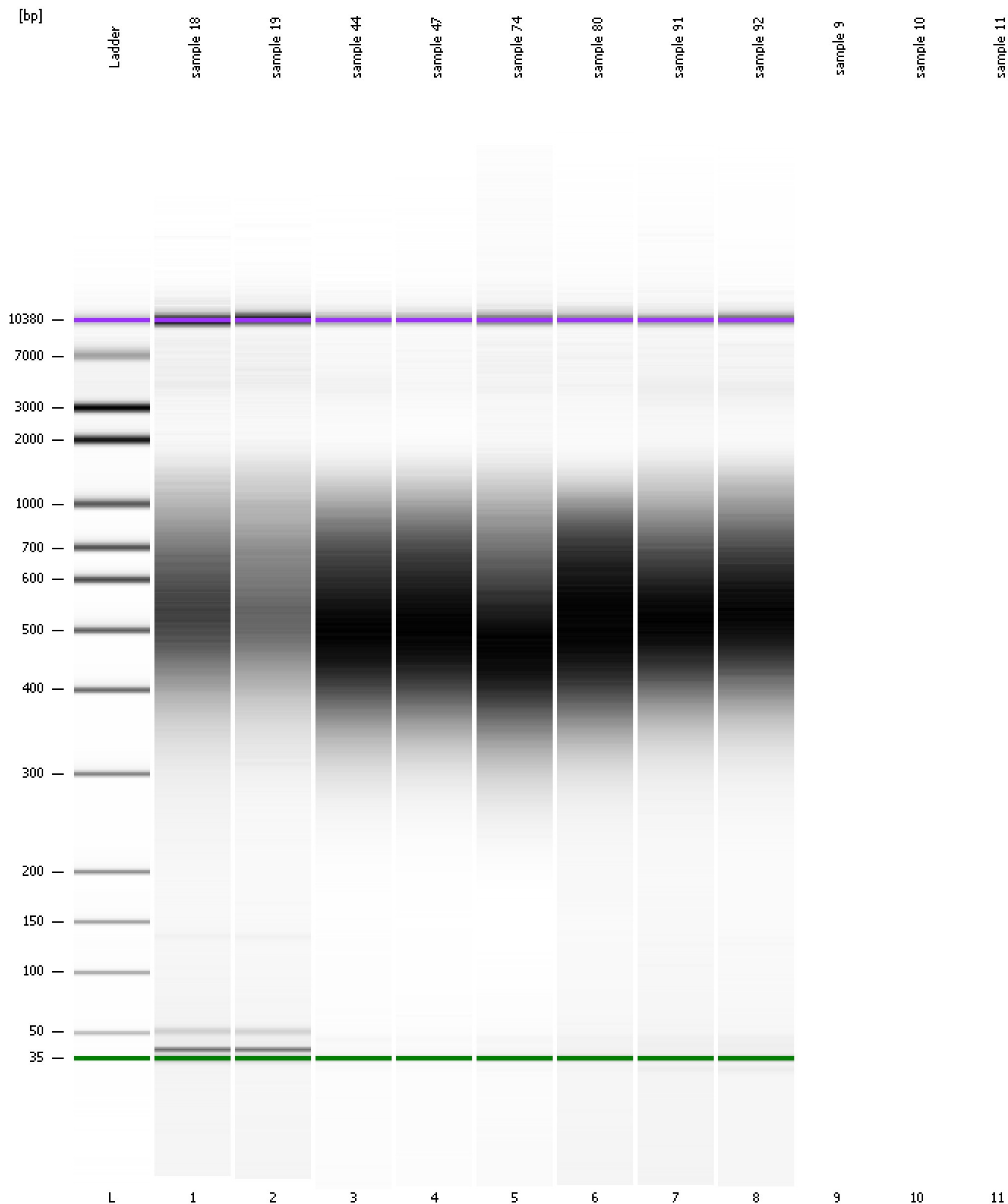
**Region table for sample 8 : sample 92**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
254	2,270	611	1,805.8	8,954.8	3,135.46	97	39.6

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_003.xad

Created: 11/11/2015 10:32:02 AM  
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**Gel Image**

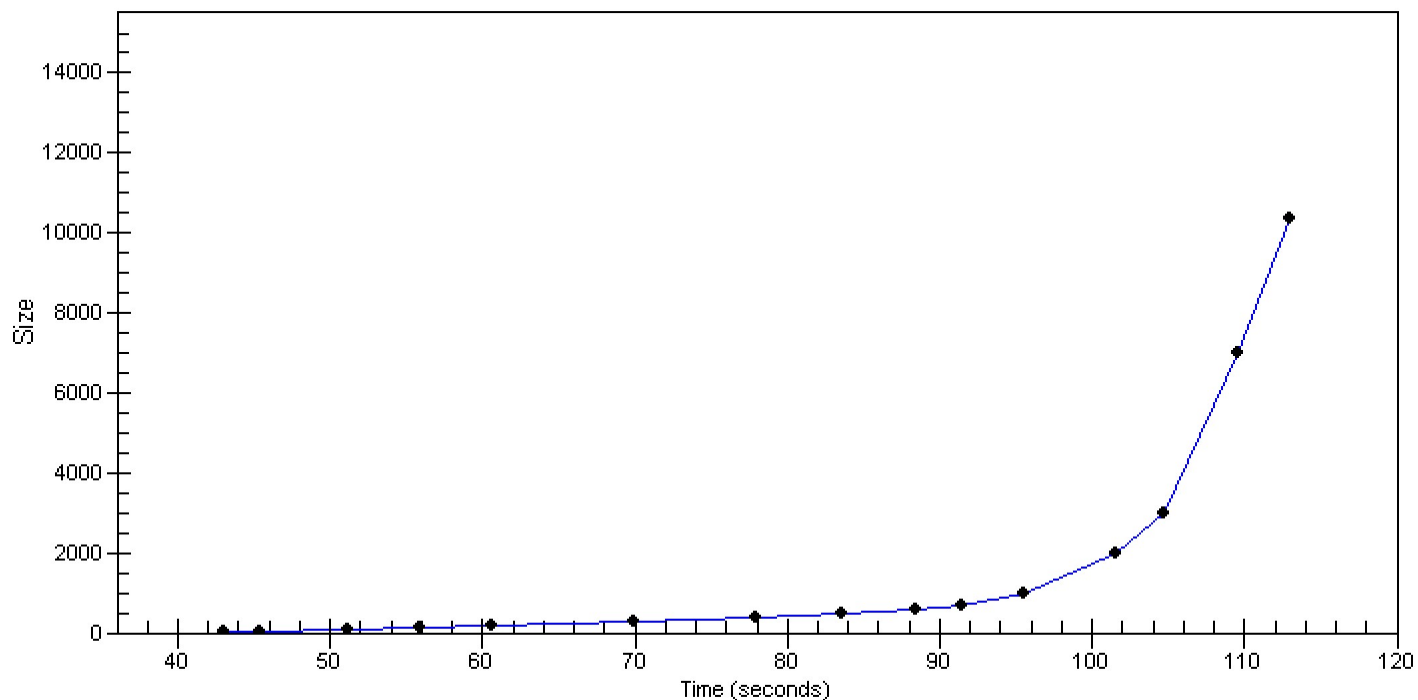


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_003.xad

Created: 11/11/2015 10:32:02 AM  
Modified: 11/11/2015 12:25:18 PM

**Curves**

**Standard Curve**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_003.xad

Created: 11/11/2015 10:32:02 AM  
Modified: 11/11/2015 12:25:18 PM

**Invalid Samples**

Sample 9 has not been run, no results available.

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_003.xad

Created: 11/11/2015 10:32:02 AM  
 Modified: 11/11/2015 12:25:18 PM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 9)		Instrument	Run		11/11/2015 11:04:46 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-11-11\2015-11-11_003.xad)		Instrument	Run		11/11/2015 10:32:07 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		11/11/2015 10:32:07 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		11/11/2015 10:32:07 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		11/11/2015 10:32:07 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		11/11/2015 10:32:07 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		11/11/2015 10:32:07 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		11/11/2015 10:32:07 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1