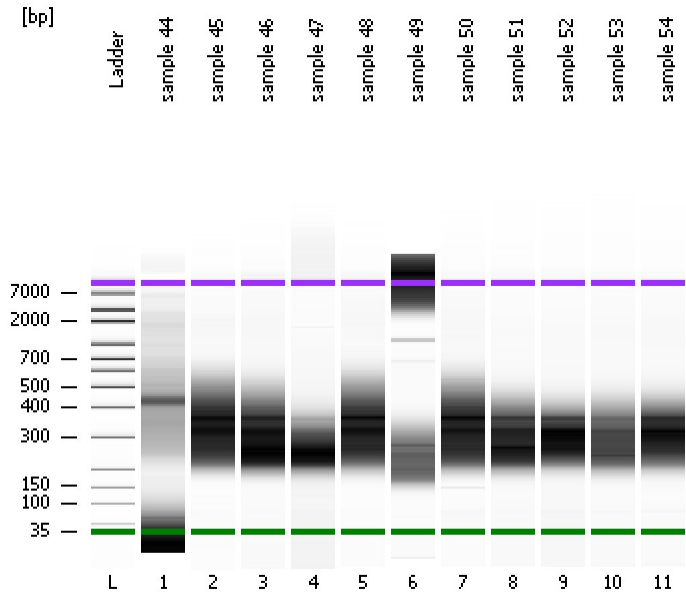


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2018-06-20\2018-06-20\_005.xad

Created: 6/20/2018 4:46:08 PM  
Modified: 6/20/2018 5:26:35 PM

**Electrophoresis File Run Summary**



Instrument Information:

Instrument Name: DE34903152 Firmware: C.01.069  
Serial#: DE34903152 Type: G2938C

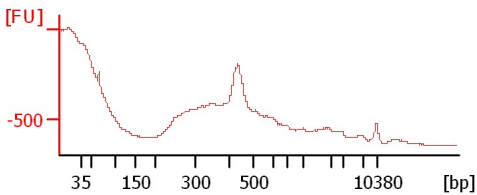
Assay Information:

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

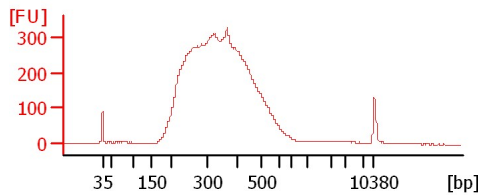
Chip Information:

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

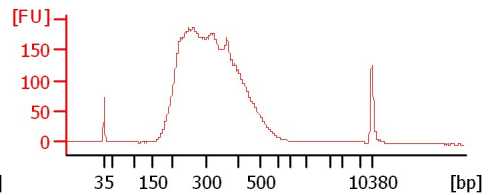
sample 44



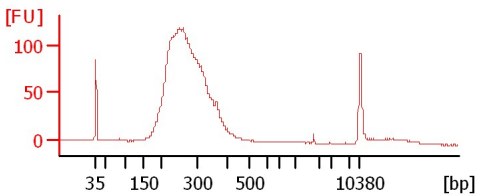
sample 45



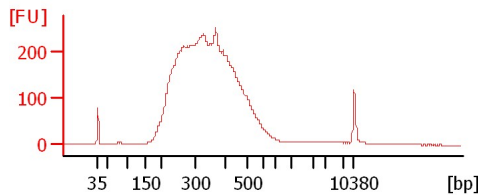
sample 46



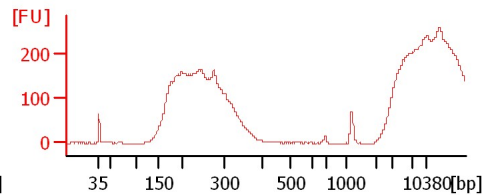
sample 47



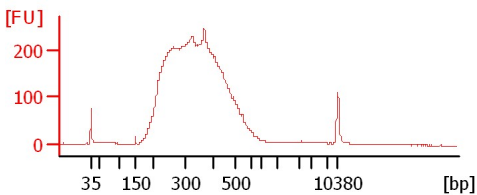
sample 48



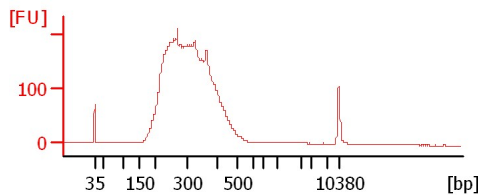
sample 49



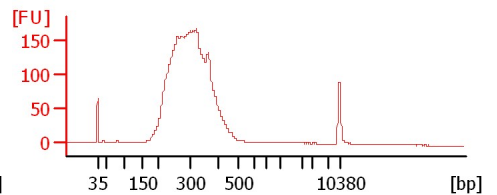
sample 50



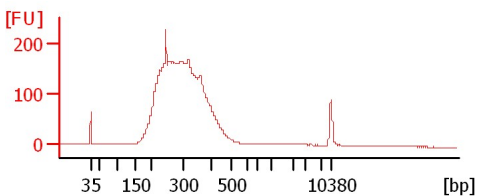
sample 51



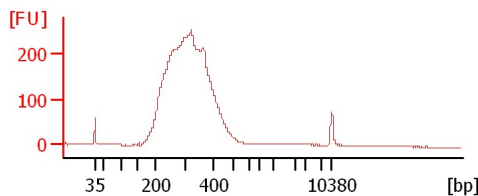
sample 52



sample 53



sample 54



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2018-06-20\2018-06-20\_005.xad

Created: 6/20/2018 4:46:08 PM  
Modified: 6/20/2018 5:26:35 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 44		<input type="checkbox"/>	✓			
sample 45		<input type="checkbox"/>	✓			
sample 46		<input type="checkbox"/>	✓			
sample 47		<input type="checkbox"/>	✓			
sample 48		<input type="checkbox"/>	✓			
sample 49		<input type="checkbox"/>	✓			
sample 50		<input type="checkbox"/>	✓			
sample 51		<input type="checkbox"/>	✓			
sample 52		<input type="checkbox"/>	✓			
sample 53		<input type="checkbox"/>	✓			
sample 54		<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\2018-06-20\2018-06-20\_005.xad

Created: 6/20/2018 4:46:08 PM  
Modified: 6/20/2018 5:26:35 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

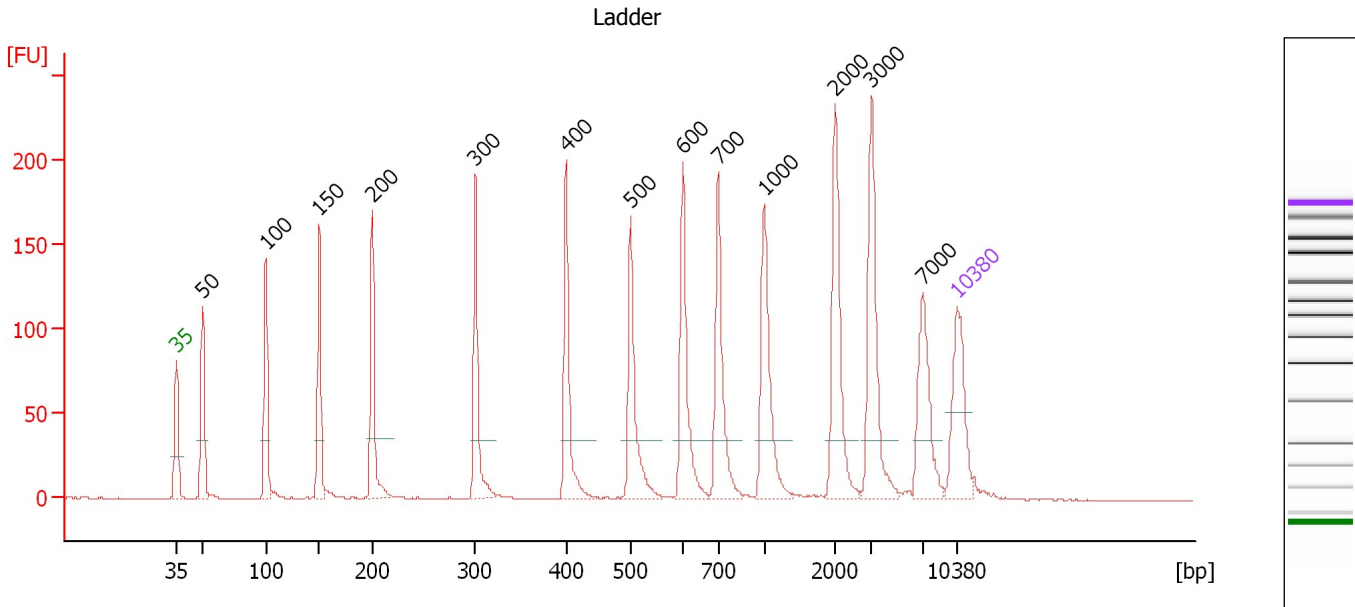
**Ladder**

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\2018-06-20\2018-06-20\_005.xad

Created: 6/20/2018 4:46:08 PM  
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**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.3

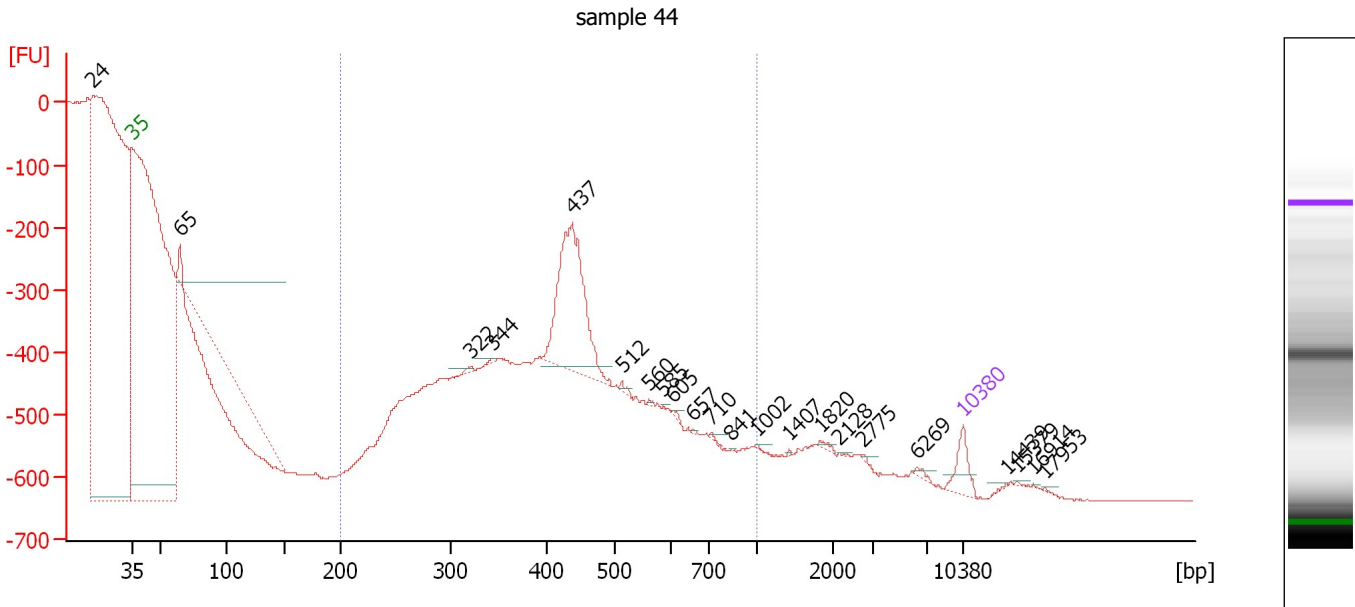
**Peak table for Ladder**

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	45.34
3	100	150.00	2,272.7	Ladder Peak	51.03
4	150	150.00	1,515.2	Ladder Peak	55.81
5	200	150.00	1,136.4	Ladder Peak	60.60
6	300	150.00	757.6	Ladder Peak	69.82
7	400	150.00	568.2	Ladder Peak	77.95
8	500	150.00	454.5	Ladder Peak	83.74
9	600	150.00	378.8	Ladder Peak	88.42
10	700	150.00	324.7	Ladder Peak	91.58
11	1,000	150.00	227.3	Ladder Peak	95.69
12	2,000	150.00	113.6	Ladder Peak	102.10
13	3,000	150.00	75.8	Ladder Peak	105.35
14	7,000	150.00	32.5	Ladder Peak	109.94
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-06-20\2018-06-20\_005.xad

Created: 6/20/2018 4:46:08 PM  
 Modified: 6/20/2018 5:26:35 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : sample 44**

Number of peaks found: 22                      Corr. Area 1: 165.1  
 Noise: 0.7

**Peak table for sample 1 : sample 44**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	24	0.00	0.0		39.73
2	35	125.00	5,411.3	Lower Marker	43.00
3	65	67.77	1,573.8		47.08
4	322	12.03	56.7		71.59
5	344	4.67	20.6		73.43
6	437	761.82	2,640.0		80.11
7	512	10.53	31.1		84.32
8	560	4.60	12.4		86.56
9	585	1.74	4.5		87.72
10	605	6.13	15.3		88.58
11	657	2.41	5.5		90.23
12	710	2.93	6.3		91.71
13	841	1.54	2.8		93.51
14	1,002	1.77	2.7		95.70
15	1,407	2.06	2.2		98.30
16	1,820	10.91	9.1		100.94
17	2,128	2.56	1.8		102.51
18	2,775	3.00	1.6		104.62
19	6,269	8.18	2.0		109.10
20	10,380	75.00	10.9	Upper Marker	113.00
21	14,439	0.00	0.0		116.67
22	15,379	0.00	0.0		117.53
23	16,914	0.00	0.0		118.92
24	17,953	0.00	0.0		119.86

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2018-06-20\2018-06-20\_005.xad

Created: 6/20/2018 4:46:08 PM  
Modified: 6/20/2018 5:26:35 PM

**Electropherogram Summary Continued ...**

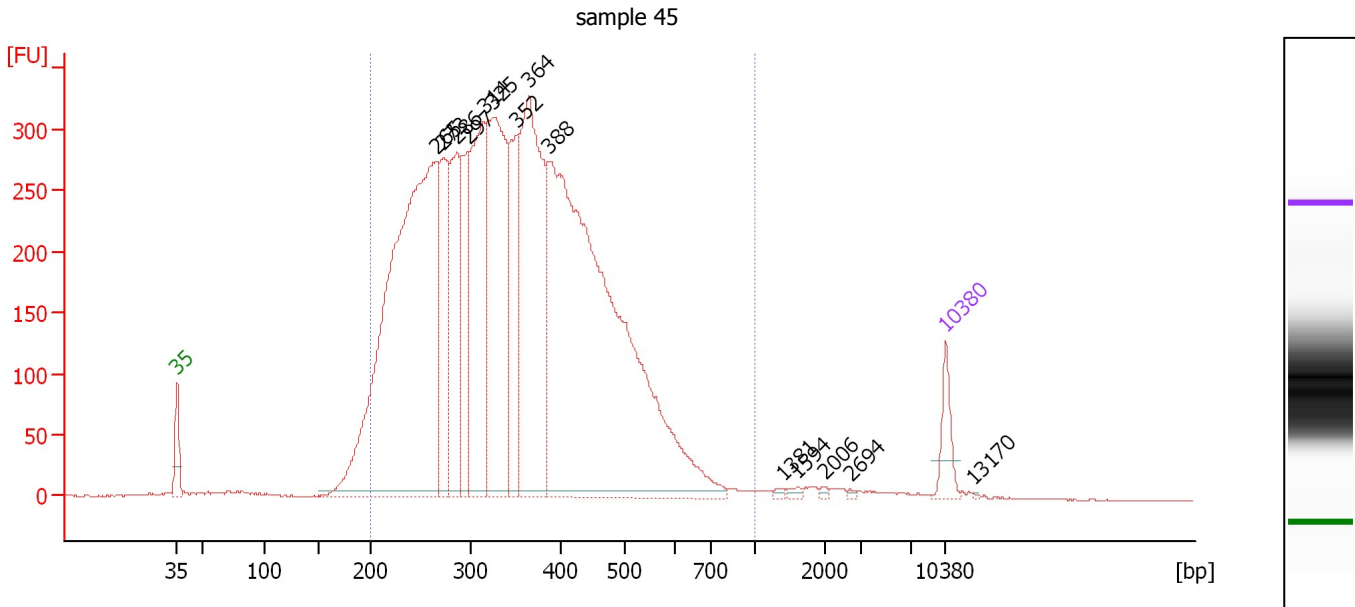
... Region table for sample 1 : sample 44

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/ $\mu$ l]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	435	151.68	165.1	528.9	 57	1.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-06-20\2018-06-20\_005.xad

Created: 6/20/2018 4:46:08 PM  
 Modified: 6/20/2018 5:26:35 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : sample 45**

Number of peaks found: 14                      Corr. Area 1: 8,849.3  
 Noise: 0.5

**Peak table for sample 2 : sample 45**

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	265	2,582.69	14,757.8		66.61
3	273	442.80	2,461.8		67.29
4	286	478.53	2,537.9		68.50
5	297	357.96	1,827.7		69.52
6	314	722.57	3,484.0		70.98
7	325	925.75	4,316.0		71.85
8	352	368.51	1,586.8		74.04
9	364	1,078.51	4,491.3		75.01
10	388	2,729.70	10,666.7		76.96
11	1,381	7.07	7.8		98.14
12	1,594	9.42	9.0		99.50
13	2,006	5.88	4.4		102.12
14	2,694	3.73	2.1		104.35
15	10,380	75.00	10.9	Upper Marker	113.00
16	13,170	0.00	0.0		115.53

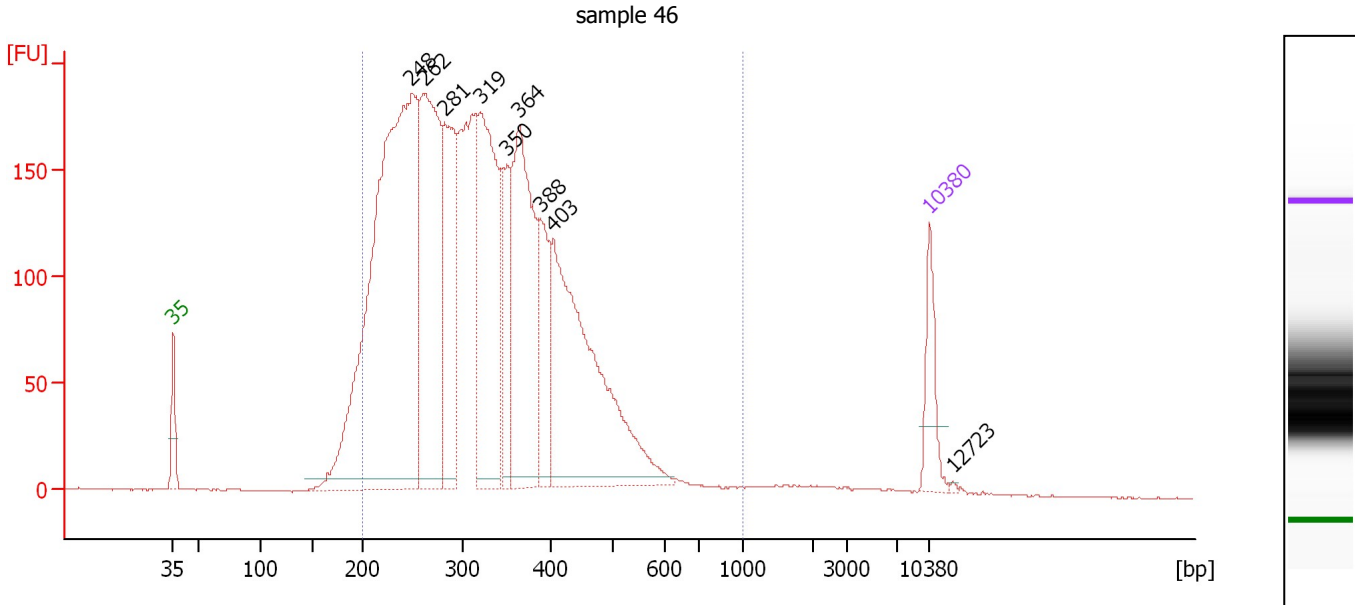
**Region table for sample 2 : sample 45**

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	356	9,483.00	8,849.3	44,942.4	96	29.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-06-20\2018-06-20\_005.xad

Created: 6/20/2018 4:46:08 PM  
 Modified: 6/20/2018 5:26:35 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : sample 46**

Number of peaks found: 9                      Corr. Area 1: 4,880.7  
 Noise: 0.3

**Peak table for sample 3 : sample 46**

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	248	1,682.26	10,266.2		65.05
3	262	673.46	3,892.0		66.33
4	281	365.50	1,967.9		68.11
5	319	538.09	2,556.0		71.37
6	350	148.67	643.8		73.88
7	364	542.75	2,260.0		75.02
8	388	156.44	611.6		76.94
9	403	694.89	2,612.8		78.12
10	10,380	75.00	10.9	Upper Marker	113.00
11	12,723	0.00	0.0		115.12

**Region table for sample 3 : sample 46**

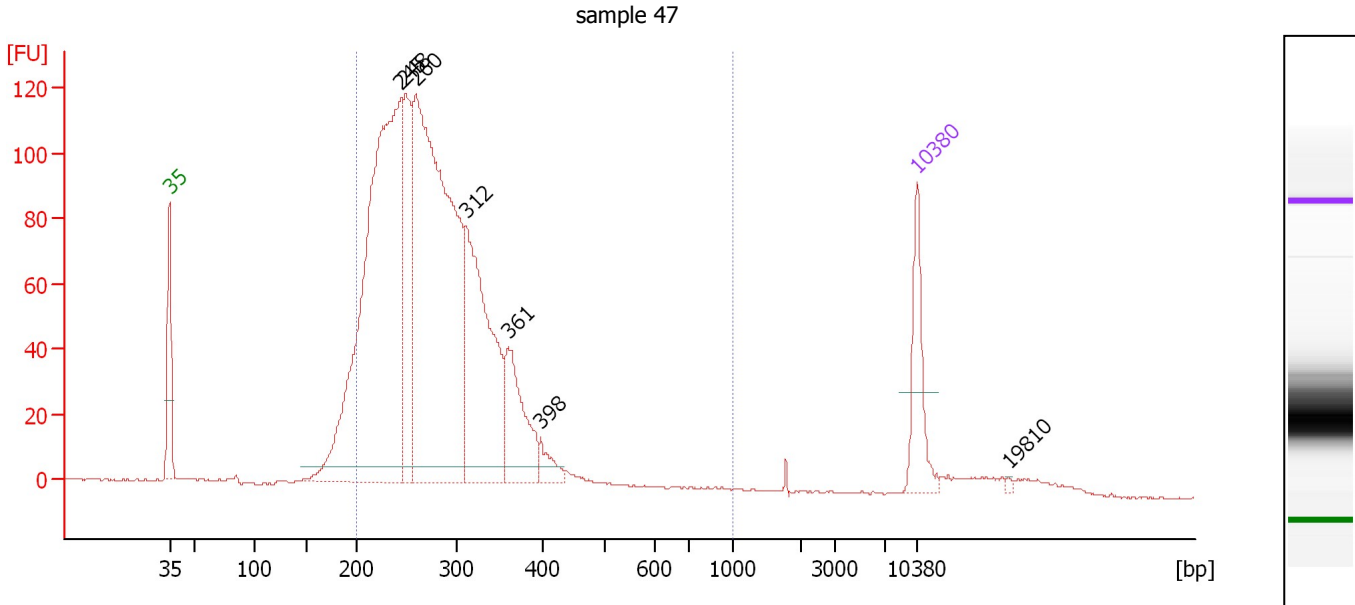
From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	328	5,282.92	4,880.7	26,726.4	95	28.0



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-06-20\2018-06-20\_005.xad

Created: 6/20/2018 4:46:08 PM  
 Modified: 6/20/2018 5:26:35 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 7                      Corr. Area 1: 2,029.7  
 Noise: 0.3

**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	245	1,049.58	6,499.3		64.72
3	248	234.24	1,428.4		65.07
4	260	1,027.93	5,994.1		66.12
5	312	406.06	1,974.9		70.76
6	361	145.66	611.9		74.75
7	398	29.63	112.9		77.75
8	10,380	75.00	10.9	Upper Marker	113.00
9	19,810	0.00	0.0		121.54

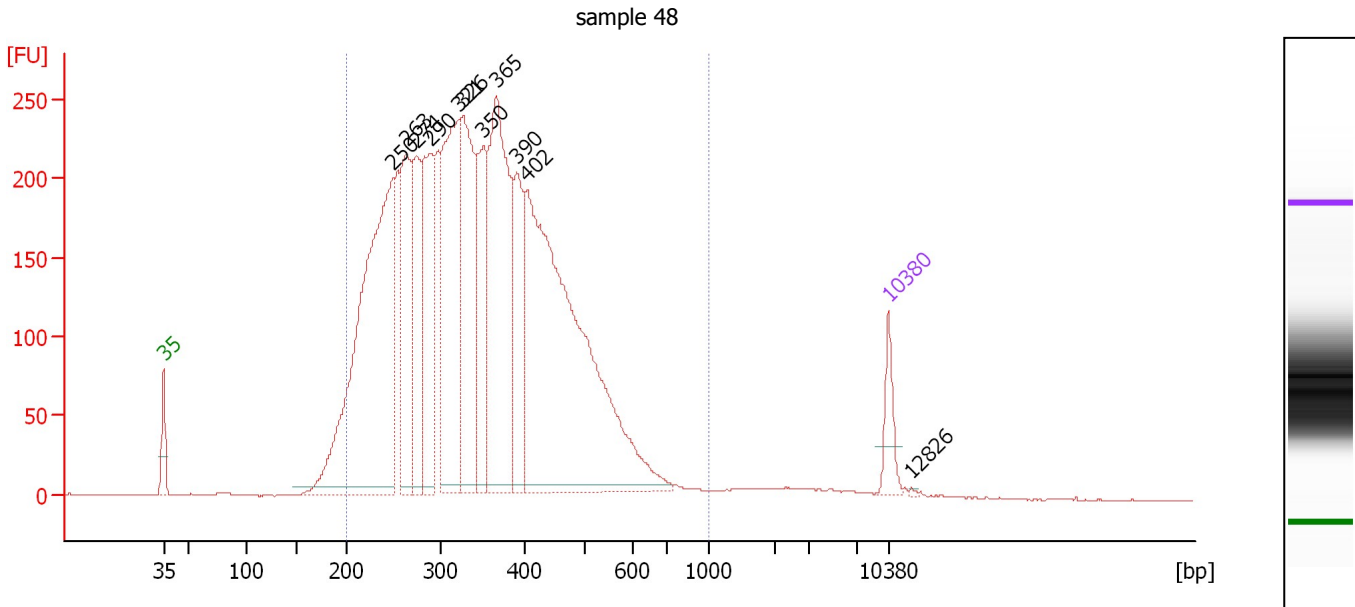
**Region table for sample 4 : sample 47**

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	282	2,789.41	2,029.7	15,643.5	91	22.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-06-20\2018-06-20\_005.xad

Created: 6/20/2018 4:46:08 PM  
 Modified: 6/20/2018 5:26:35 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : sample 48**

Number of peaks found: 11                      Corr. Area 1: 6,498.1  
 Noise: 0.2

**Peak table for sample 5 : sample 48**

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	250	1,664.35	10,091.1		65.20
3	263	544.98	3,136.1		66.44
4	274	377.84	2,085.9		67.47
5	290	517.30	2,707.2		68.86
6	321	788.24	3,719.8		71.54
7	326	651.35	3,026.1		71.95
8	350	359.43	1,555.0		73.91
9	365	938.98	3,893.3		75.14
10	390	329.63	1,280.2		77.15
11	402	1,786.08	6,729.1		78.08
12	10,380	75.00	10.9	Upper Marker	113.00
13	12,826	0.00	0.0		115.21

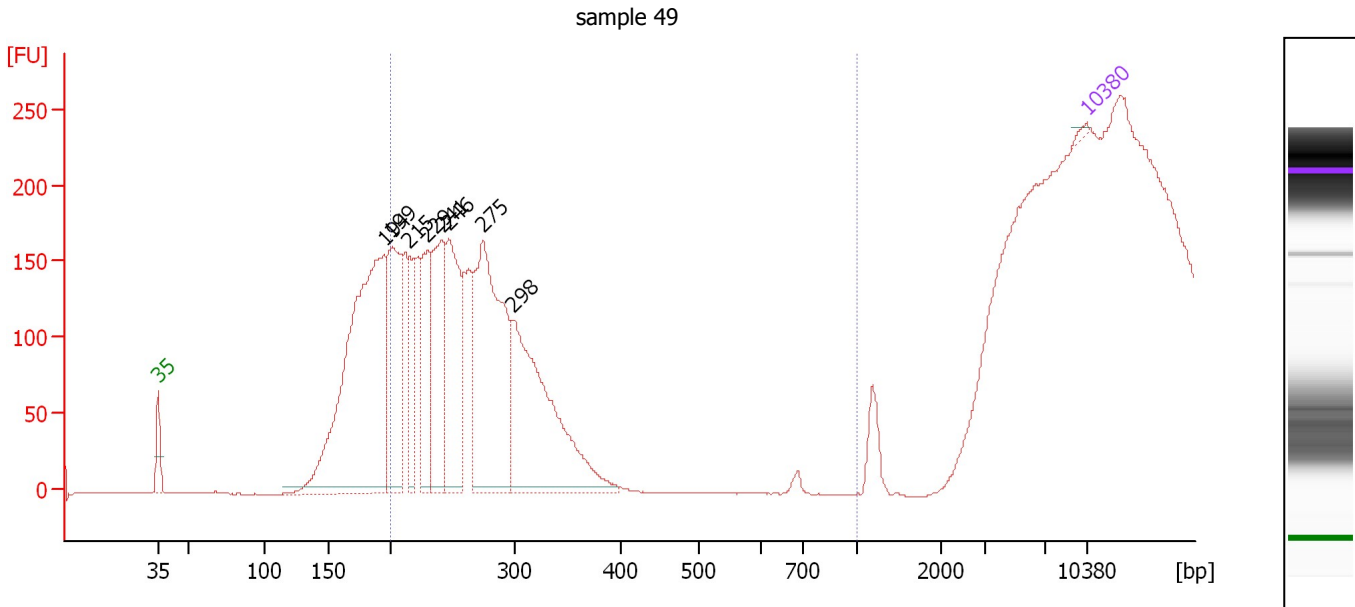
**Region table for sample 5 : sample 48**

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	353	8,330.34	6,498.1	39,656.9	96	28.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-06-20\2018-06-20\_005.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : sample 49**

Number of peaks found: 8                      Corr. Area 1: 1,758.9  
 Noise: 0.3

**Peak table for sample 6 : sample 49**

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	194	16,678.53	130,079.1		60.05
3	199	5,529.45	42,033.7		60.53
4	215	2,383.05	16,829.9		61.94
5	229	3,046.81	20,127.7		63.30
6	241	5,004.65	31,448.5		64.39
7	246	5,265.84	32,387.6		64.87
8	275	9,852.32	54,348.7		67.49
9	298	9,314.19	47,326.2		69.66
10	10,380	75.00	10.9	Upper Marker	113.00

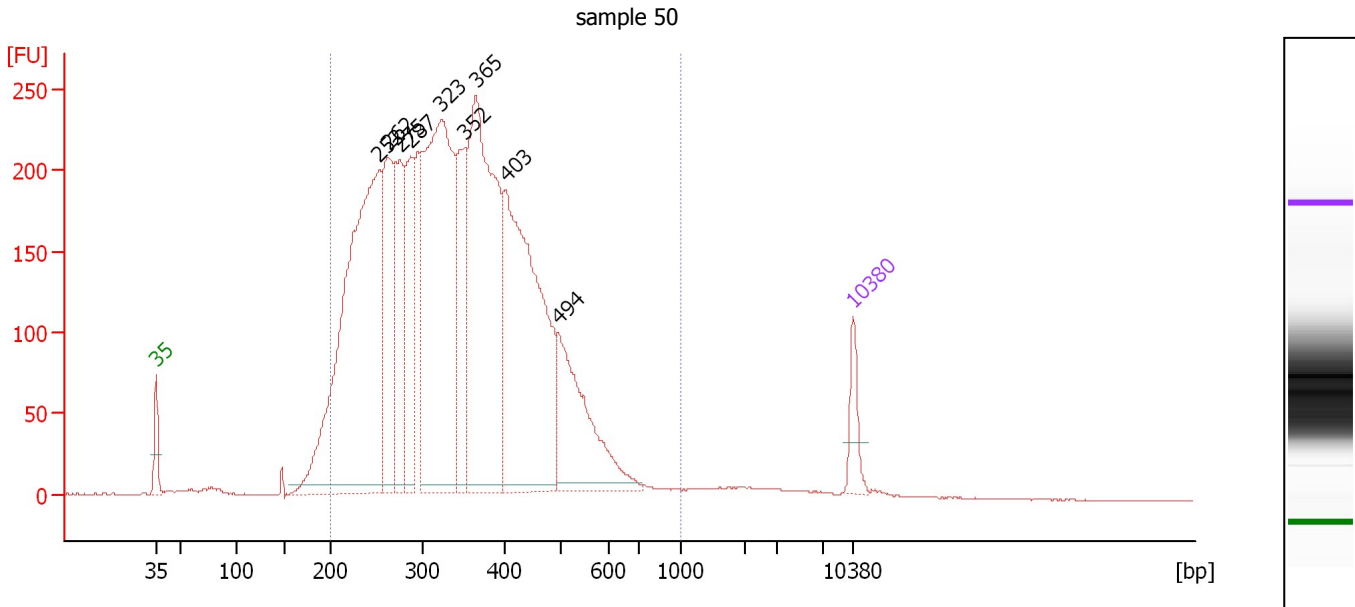
**Region table for sample 6 : sample 49**

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	249	25,709.98	1,758.9	157,031.2	53	12.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-06-20\2018-06-20\_005.xad

Created: 6/20/2018 4:46:08 PM  
 Modified: 6/20/2018 5:26:35 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : sample 50**

Number of peaks found: 9                      Corr. Area 1: 6,271.5  
 Noise: 0.2

**Peak table for sample 7 : sample 50**

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	252	1,939.10	11,662.4		65.39
3	262	589.28	3,410.6		66.30
4	275	387.60	2,139.0		67.48
5	287	379.22	2,003.8		68.60
6	323	1,432.78	6,731.2		71.65
7	352	392.43	1,688.4		74.06
8	365	1,271.22	5,272.1		75.13
9	403	1,204.37	4,526.4		78.13
10	494	498.63	1,529.8		83.38
11	10,380	75.00	10.9	Upper Marker	113.00

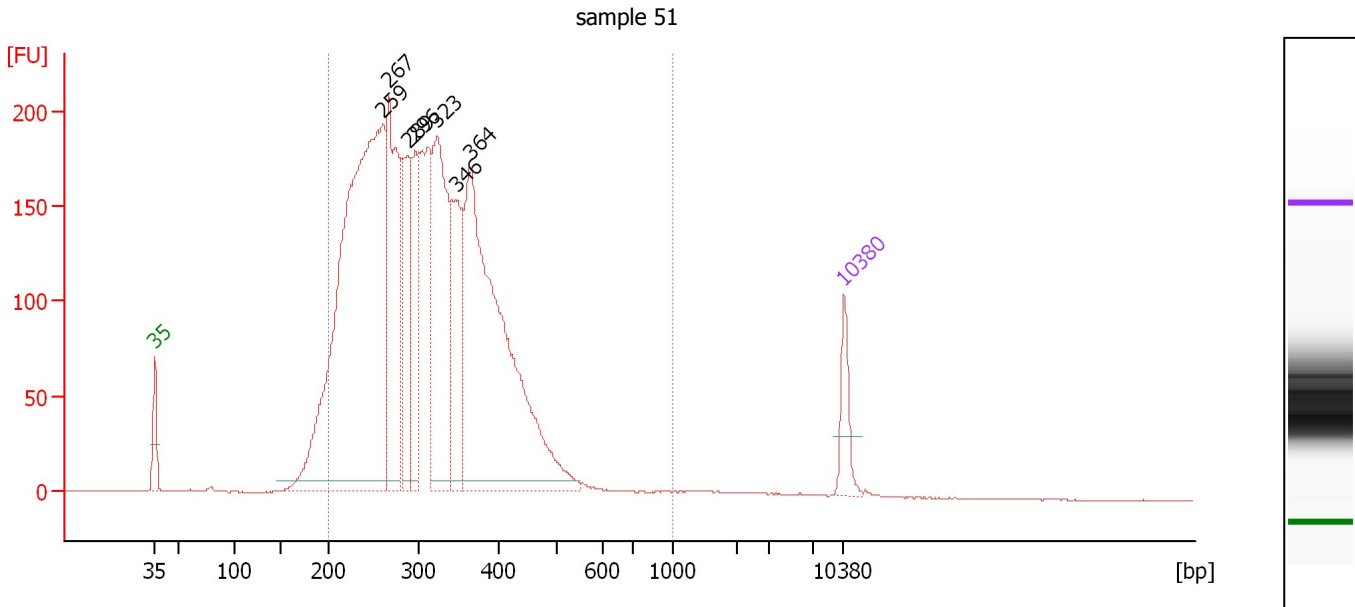
**Region table for sample 7 : sample 50**

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	350	8,373.08	6,271.5	40,134.7	95	28.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-06-20\2018-06-20\_005.xad

Created: 6/20/2018 4:46:08 PM  
 Modified: 6/20/2018 5:26:35 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : sample 51**

Number of peaks found: 7                      Corr. Area 1: 4,422.3  
 Noise: 0.2

**Peak table for sample 8 : sample 51**

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	259	2,184.15	12,765.3		66.06
3	267	613.77	3,477.0		66.82
4	289	344.22	1,807.3		68.77
5	296	246.83	1,265.1		69.42
6	323	636.24	2,984.6		71.69
7	346	302.34	1,322.8		73.59
8	364	1,338.72	5,568.0		75.05
9	10,380	75.00	10.9	Upper Marker	113.00

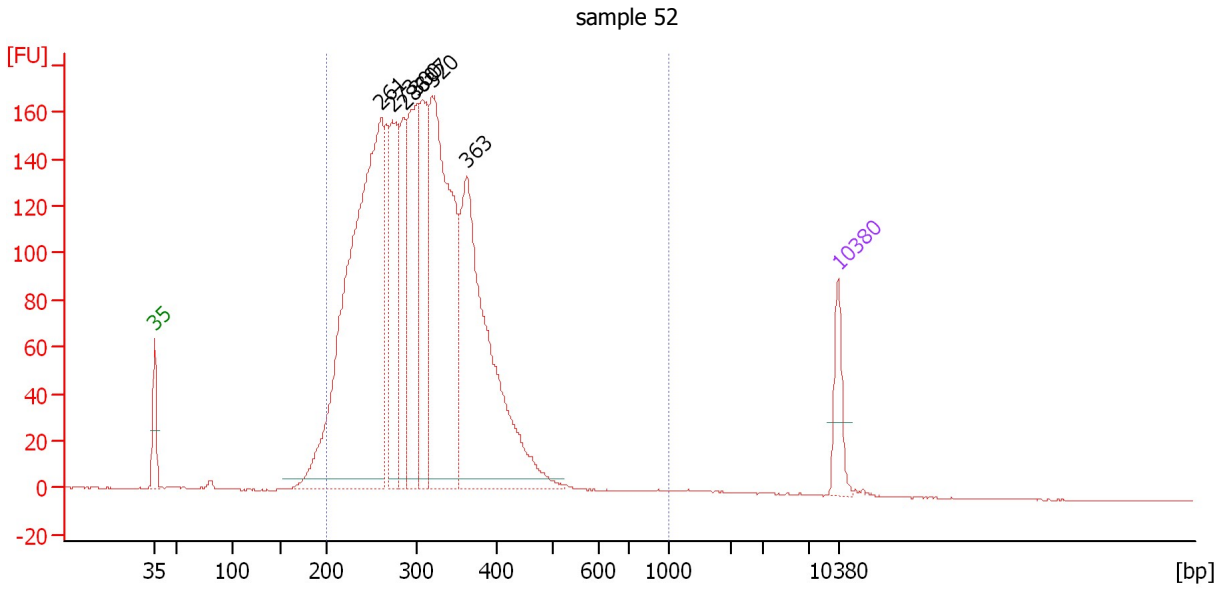
**Region table for sample 8 : sample 51**

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	314	6,064.15	4,422.3	31,306.6	95	24.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-06-20\2018-06-20\_005.xad

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 Modified: 6/20/2018 5:26:35 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : sample 52**

Number of peaks found: 7                      Corr. Area 1: 3,255.7  
 Noise: 0.2

**Peak table for sample 9 : sample 52**

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	261	1,639.46	9,524.8		66.21
3	273	382.61	2,121.8		67.35
4	286	255.59	1,352.9		68.55
5	300	431.22	2,174.3		69.86
6	307	353.74	1,744.6		70.41
7	320	932.11	4,413.7		71.45
8	363	914.85	3,818.9		74.94
9	10,380	75.00	10.9	Upper Marker	113.00

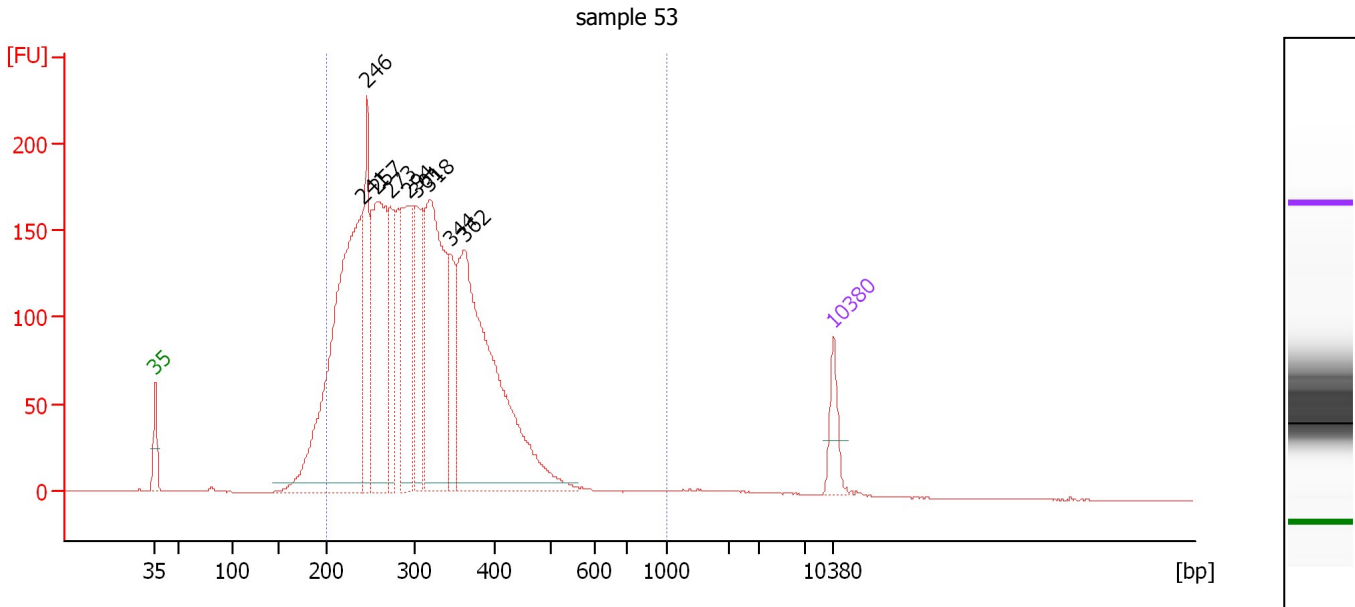
**Region table for sample 9 : sample 52**

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	309	5,110.08	3,255.7	26,412.1	97	22.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-06-20\2018-06-20\_005.xad

Created: 6/20/2018 4:46:08 PM  
 Modified: 6/20/2018 5:26:35 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : sample 53**

Number of peaks found: 9                      Corr. Area 1: 3,850.0  
 Noise: 0.2

**Peak table for sample 10 : sample 53**

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	241	1,502.47	9,441.1		64.39
3	246	356.69	2,192.6		64.89
4	257	707.31	4,176.2		65.82
5	273	273.58	1,520.0		67.30
6	294	443.92	2,291.2		69.23
7	301	335.26	1,684.9		69.94
8	318	799.04	3,810.5		71.26
9	344	219.75	967.6		73.41
10	362	1,242.31	5,204.2		74.84
11	10,380	75.00	10.9	Upper Marker	113.00

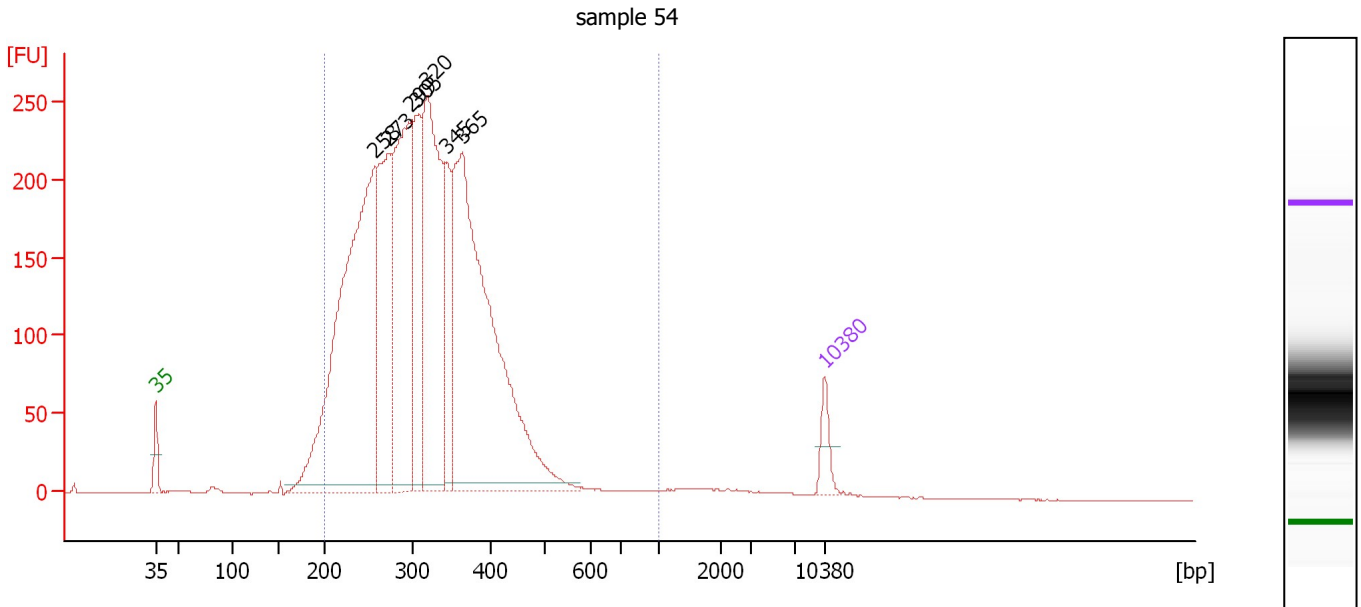
**Region table for sample 10 : sample 53**

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	311	6,011.82	3,850.0	31,338.5	95	25.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-06-20\2018-06-20\_005.xad

Created: 6/20/2018 4:46:08 PM  
 Modified: 6/20/2018 5:26:35 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : sample 54**

Number of peaks found: 7                      Corr. Area 1: 4,965.5  
 Noise: 0.2

**Peak table for sample 11 : sample 54**

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	258	2,522.68	14,829.6		65.92
3	273	902.92	5,002.8		67.37
4	299	1,238.09	6,277.2		69.72
5	305	608.42	3,023.8		70.22
6	320	1,321.30	6,256.9		71.45
7	345	374.59	1,646.7		73.45
8	365	2,273.40	9,430.7		75.13
9	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 11 : sample 54**

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	317	9,015.98	4,965.5	45,634.1	98	21.9



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2018-06-20\2018-06-20\_005.xad

Created: 6/20/2018 4:46:08 PM  
Modified: 6/20/2018 5:26:35 PM

**Gel Image**

