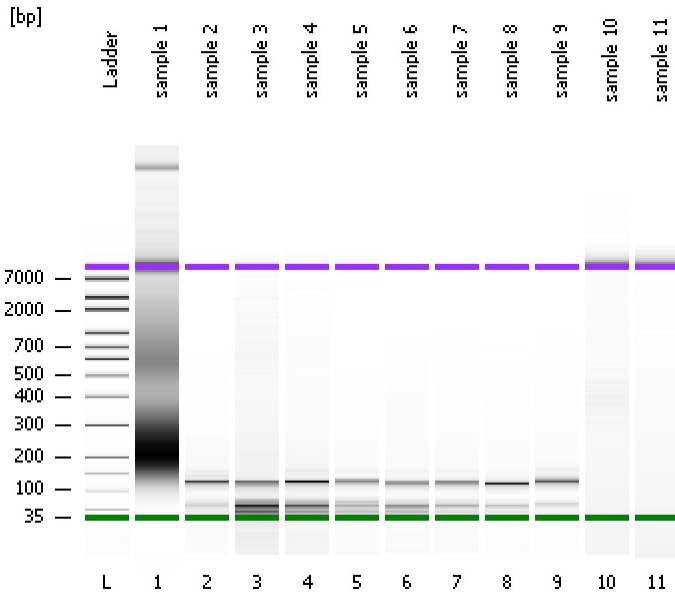


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-29\2014-12-29_001.xad

Created: 12/29/2014 2:20:11 PM
Modified: 12/29/2014 3:02:18 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

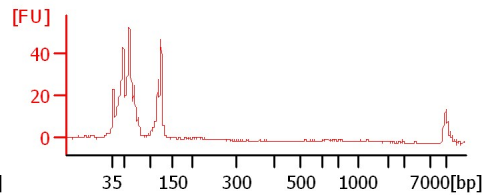
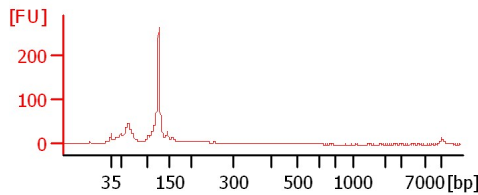
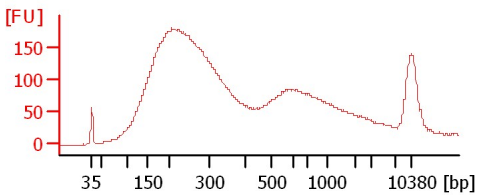
Chip Information:

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

sample 1

sample 2

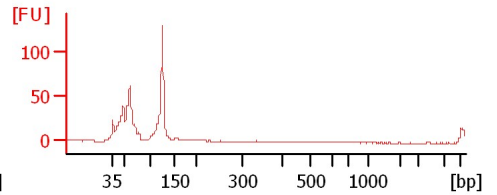
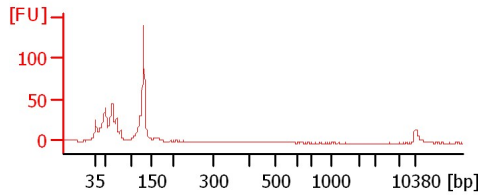
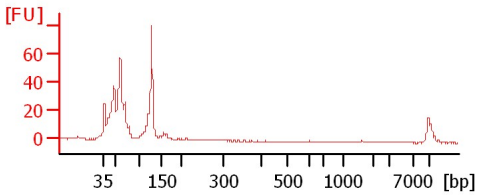
sample 3



sample 4

sample 5

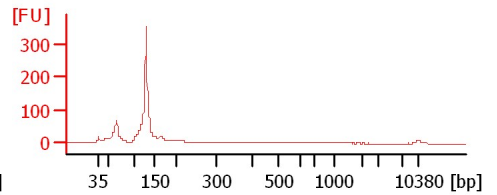
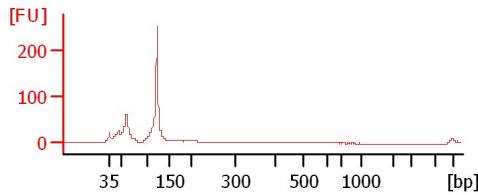
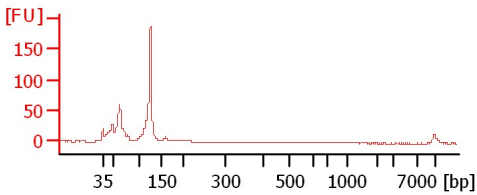
sample 6



sample 7

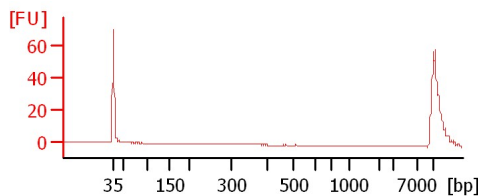
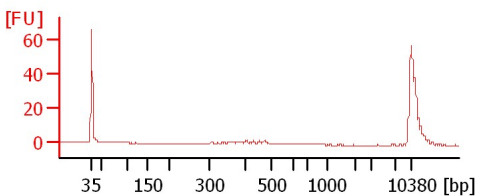
sample 8

sample 9



sample 10

sample 11



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-29\2014-12-29_001.xad

Created: 12/29/2014 2:20:11 PM
Modified: 12/29/2014 3:02:18 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 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:\...ents and Settings\Bioanalyzer\2014-12-29\2014-12-29_001.xad

Created: 12/29/2014 2:20:11 PM
Modified: 12/29/2014 3:02:18 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

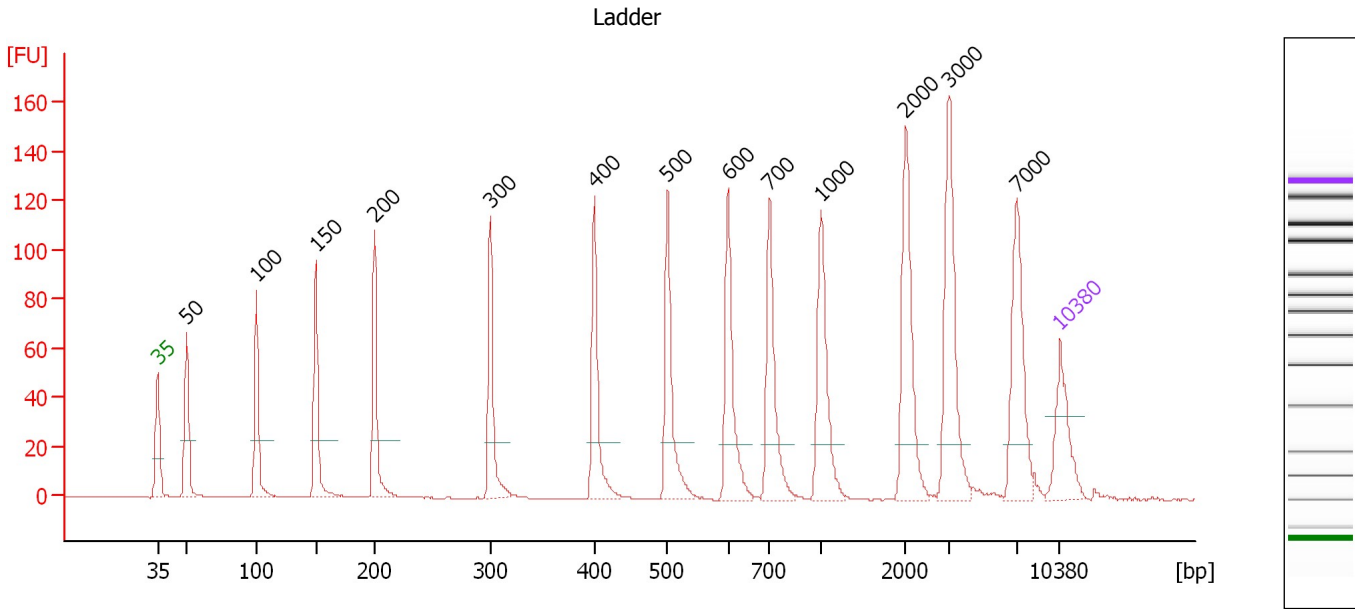
Ladder

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\2014-12-29\2014-12-29_001.xad

Created: 12/29/2014 2:20:11 PM
 Modified: 12/29/2014 3:02:18 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

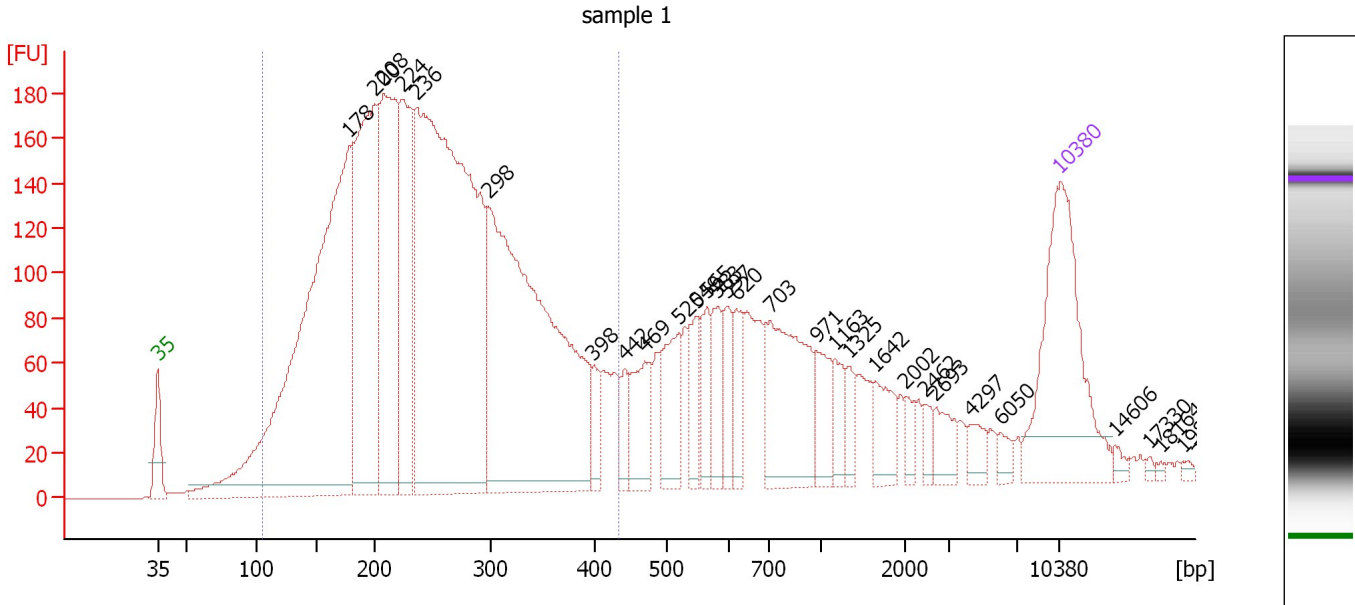
Peak table for Ladder

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	45.26
3	100	150.00	2,272.7	Ladder Peak	50.66
4	150	150.00	1,515.2	Ladder Peak	55.27
5	200	150.00	1,136.4	Ladder Peak	59.84
6	300	150.00	757.6	Ladder Peak	68.84
7	400	150.00	568.2	Ladder Peak	76.89
8	500	150.00	454.5	Ladder Peak	82.55
9	600	150.00	378.8	Ladder Peak	87.24
10	700	150.00	324.7	Ladder Peak	90.46
11	1,000	150.00	227.3	Ladder Peak	94.47
12	2,000	150.00	113.6	Ladder Peak	100.99
13	3,000	150.00	75.8	Ladder Peak	104.39
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\2014-12-29\2014-12-29_001.xad

Created: 12/29/2014 2:20:11 PM
 Modified: 12/29/2014 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 31 Corr. Area 1: 4,363.5
 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	178	377.90	3,212.4		57.85
3	200	176.67	1,336.8		59.86
4	208	147.74	1,077.8		60.53
5	224	91.59	618.4		62.04
6	236	414.87	2,661.4		63.10
7	298	295.74	1,505.9		68.62
8	398	13.27	50.5		76.72
9	442	13.26	45.4		79.28
10	469	29.04	93.8		80.79
11	520	30.05	87.6		83.47
12	549	18.25	50.3		84.87
13	565	18.64	50.0		85.59
14	583	19.75	51.4		86.43
15	597	18.12	46.0		87.10
16	620	15.50	37.9		87.88
17	703	69.84	150.5		90.50
18	971	17.61	27.5		94.08
19	1,163	12.33	16.1		95.53
20	1,325	8.79	10.0		96.59
21	1,642	16.80	15.5		98.65
22	2,002	5.38	4.1		101.00
23	2,462	5.23	3.2		102.56
24	2,693	11.13	6.3		103.34
25	4,297	7.47	2.6		106.08

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-29\2014-12-29_001.xad

Created: 12/29/2014 2:20:11 PM
 Modified: 12/29/2014 3:02:18 PM

Electropherogram Summary Continued ...

... Peak table for sample 1 : sample 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	6,050	4.96	1.2		108.37
27	10,380	75.00	10.9	Upper Marker	113.00
28	14,606	0.00	0.0		117.24
29	17,330	0.00	0.0		119.98
30	18,164	0.00	0.0		120.81
31	19,832	0.00	0.0		122.49
32	21,167	0.00	0.0		123.83
33	24,669	0.00	0.0		127.35
34	37,791	0.00	0.0	excluded peak	140.52
35	42,517	0.00	0.0	excluded peak	145.26

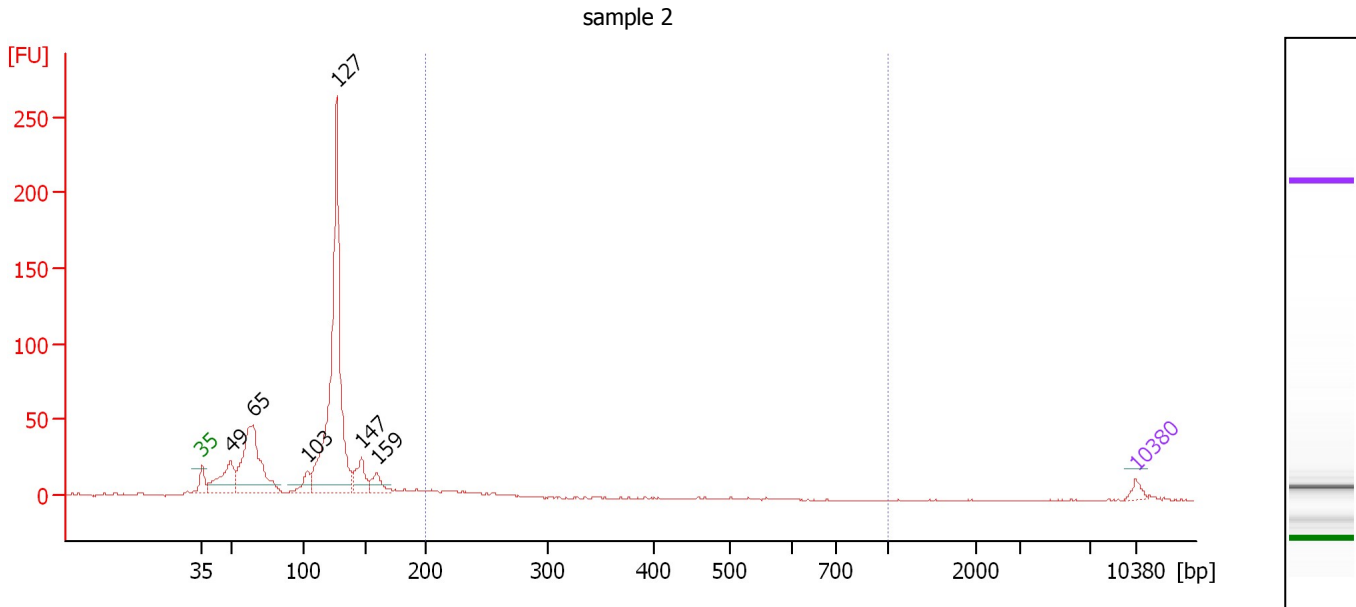
Region table for sample 1 : sample 1

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
105	250	434	4,363.5	70	29.9	1,482.84	10,300.5	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-29\2014-12-29_001.xad

Created: 12/29/2014 2:20:11 PM
 Modified: 12/29/2014 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 6 Corr. Area 1: 32.5
 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	49	1,027.23	31,566.7		45.16
3	65	2,620.48	61,478.3		46.84
4	103	332.74	4,906.4		50.91
5	127	6,090.86	72,906.9		53.11
6	147	545.33	5,623.1		54.99
7	159	337.82	3,216.0		56.11
8	10,380	75.00	10.9	Upper Marker	113.00

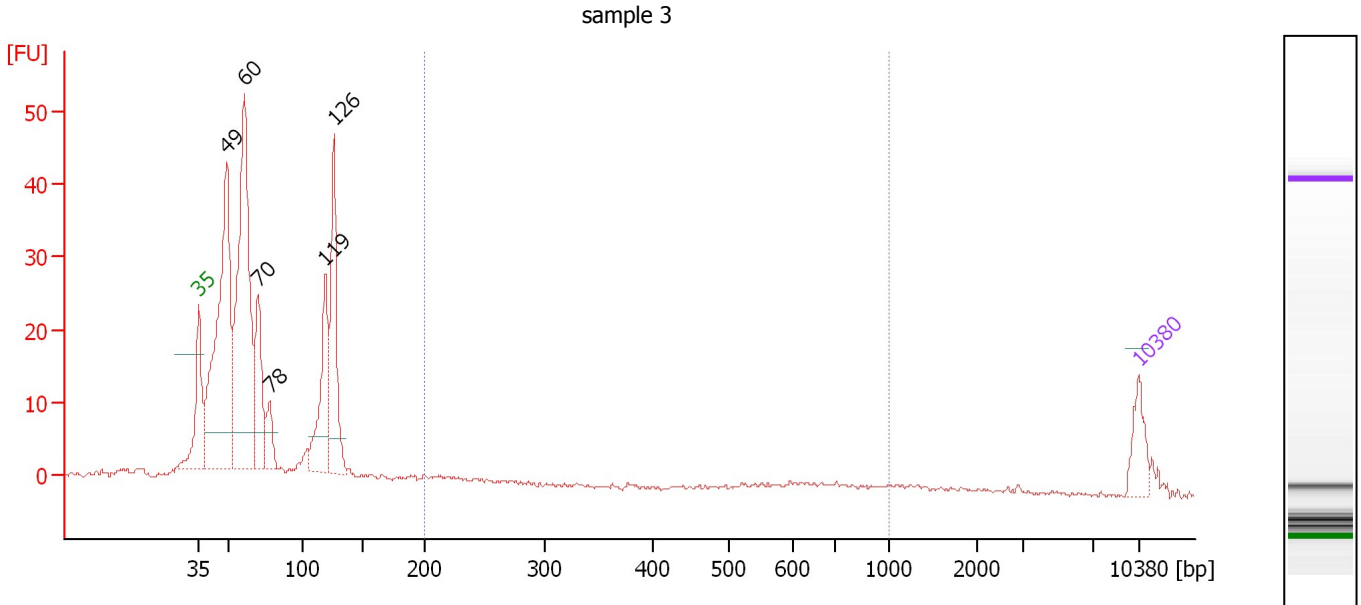
Region table for sample 2 : sample 2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	235	1,000	32.5	4	15.4	393.34	2,568.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-29\2014-12-29_001.xad

Created: 12/29/2014 2:20:11 PM
 Modified: 12/29/2014 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 6 Corr. Area 1: 15.0
 Noise: 0.2

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	49	1,264.10	39,330.6		45.07
3	60	1,275.75	32,039.4		46.38
4	70	337.12	7,307.0		47.41
5	78	119.80	2,327.0		48.28
6	119	405.40	5,158.8		52.42
7	126	477.03	5,718.7		53.09
8	10,380	75.00	10.9	Upper Marker	113.00

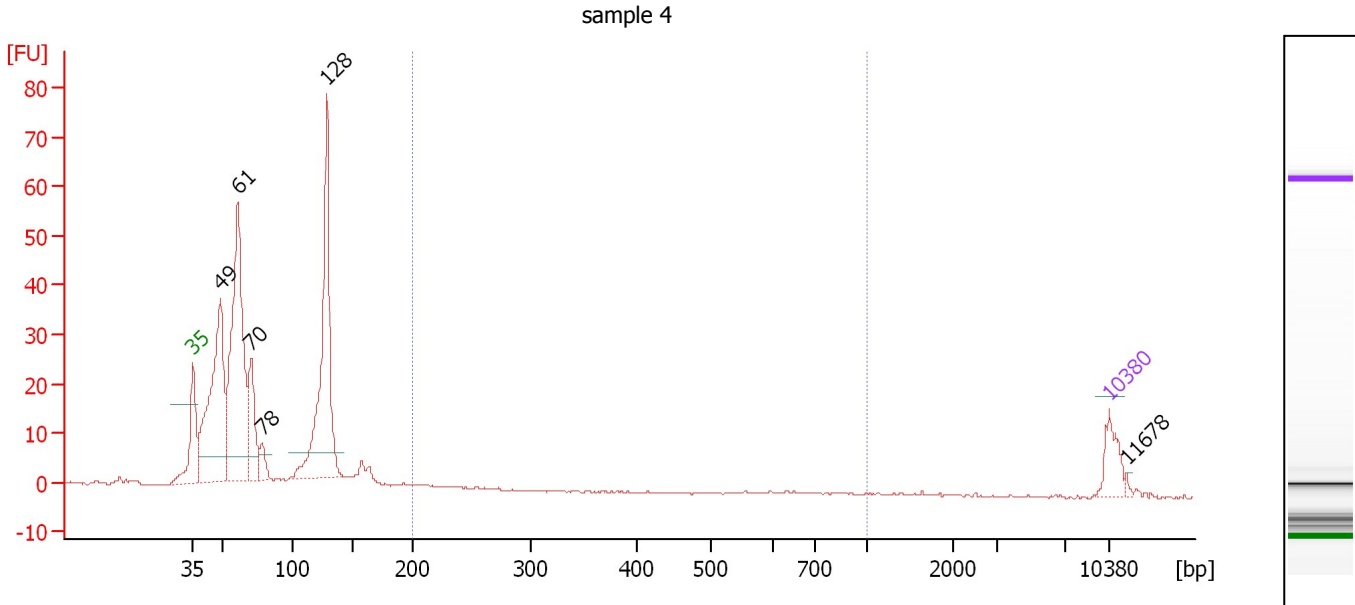
Region table for sample 3 : sample 3

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	535	1,000	15.0	3	43.9	105.41	454.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-29\2014-12-29_001.xad

Created: 12/29/2014 2:20:11 PM
 Modified: 12/29/2014 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 6 Corr. Area 1: 4.1
 Noise: 0.2

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	49	975.49	30,305.6		45.08
3	61	1,204.06	30,037.1		46.42
4	70	287.88	6,216.0		47.44
5	78	79.24	1,537.2		48.29
6	128	958.24	11,360.4		53.22
7	10,380	75.00	10.9	Upper Marker	113.00
8	11,678	0.00	0.0		114.30

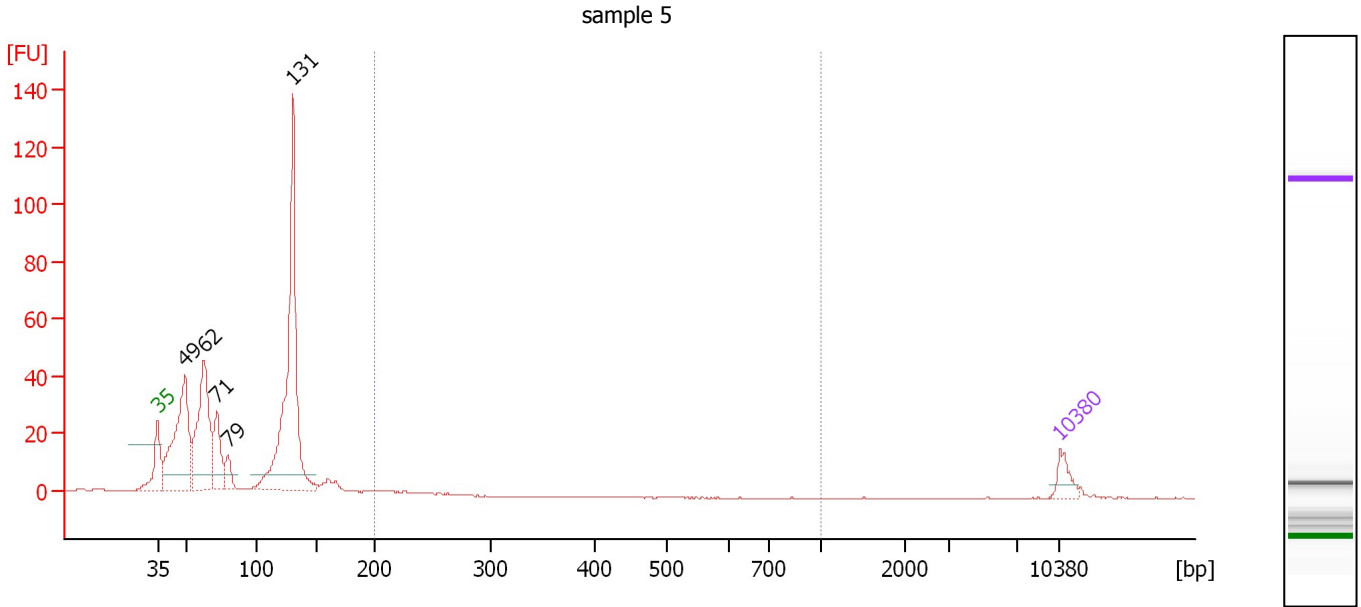
Region table for sample 4 : sample 4

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	403	1,000	4.1	1	61.0	26.82	155.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-29\2014-12-29_001.xad

Created: 12/29/2014 2:20:11 PM
 Modified: 12/29/2014 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 5 Corr. Area 1: 2.2
 Noise: 0.1

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	49	1,137.90	35,059.4		45.14
3	62	1,044.44	25,391.3		46.59
4	71	358.92	7,612.2		47.58
5	79	137.31	2,621.3		48.43
6	131	1,972.41	22,807.1		53.52
7	10,380	75.00	10.9	Upper Marker	113.00

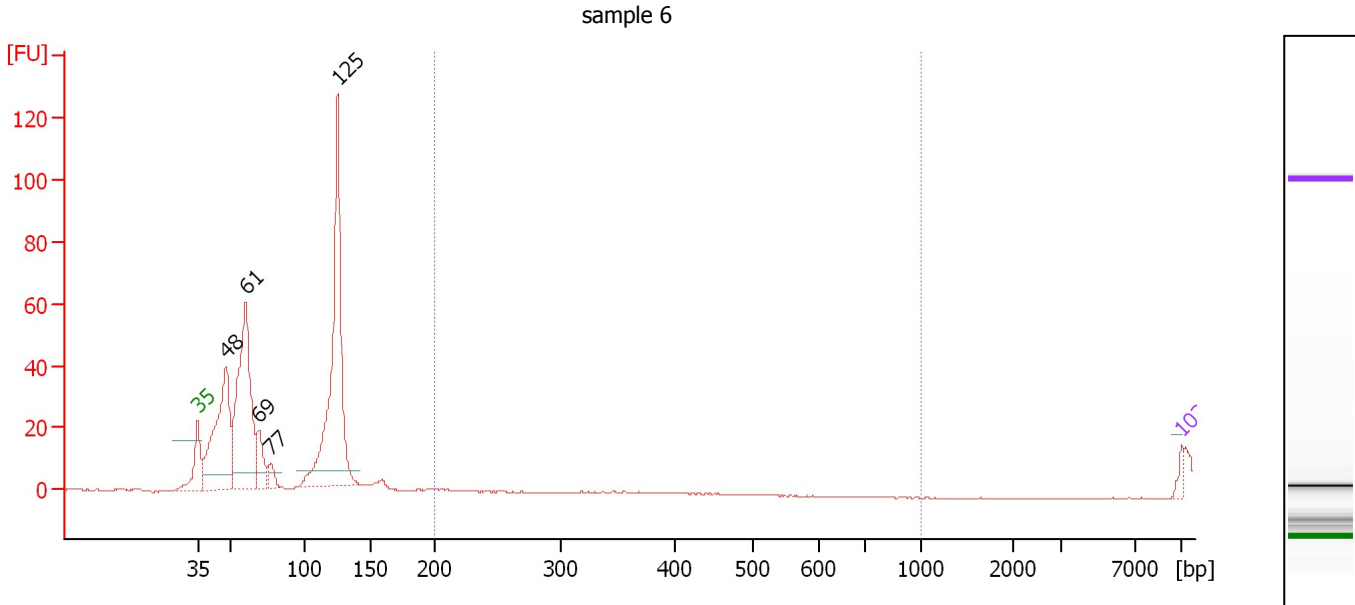
Region table for sample 5 : sample 5

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	215	1,000	2.2	0	4.3	16.78	118.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-29\2014-12-29_001.xad

Created: 12/29/2014 2:20:11 PM
 Modified: 12/29/2014 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found: 5 Corr. Area 1: 0.0
 Noise: 0.1

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	48	3,428.61	107,497.0		45.01
3	61	4,450.87	111,166.4		46.41
4	69	695.75	15,178.8		47.36
5	77	281.09	5,518.1		48.20
6	125	5,450.44	66,007.5		52.97
7	10,380	75.00	10.9	Upper Marker	113.00

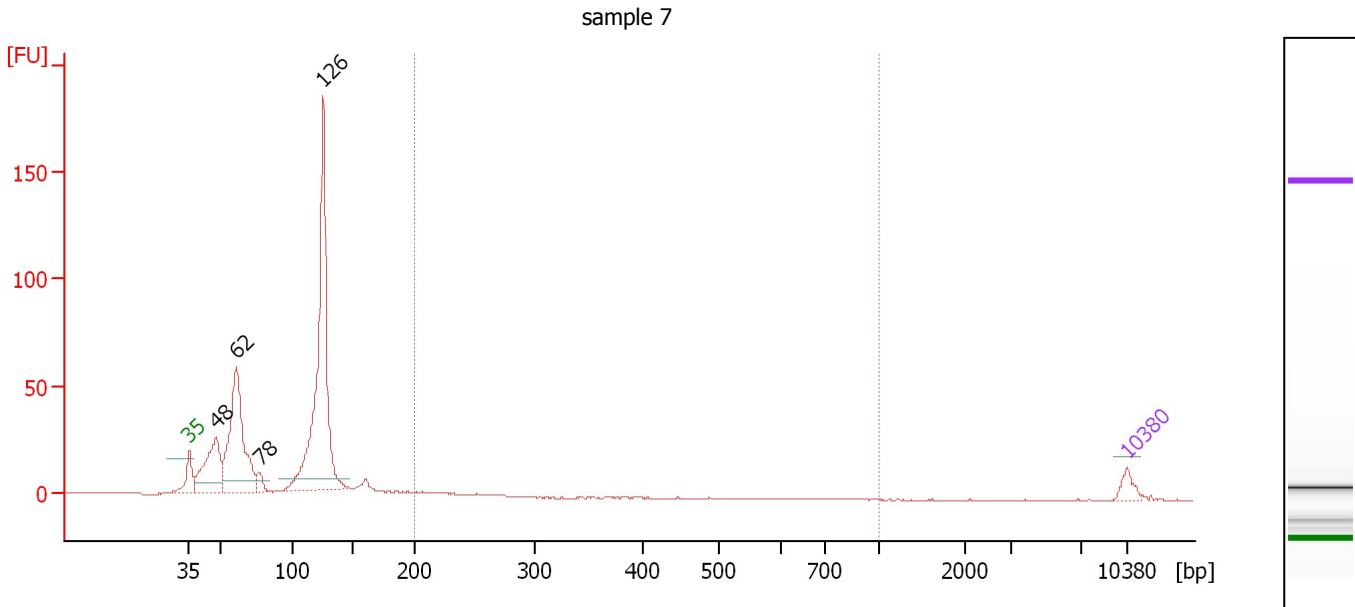
Region table for sample 6 : sample 6

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

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-29\2014-12-29_001.xad

Created: 12/29/2014 2:20:11 PM
 Modified: 12/29/2014 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7

Number of peaks found: 4 Corr. Area 1: 10.3
 Noise: 0.1

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	48	960.99	30,043.5		45.03
3	62	1,898.90	46,775.7		46.50
4	78	125.59	2,447.4		48.26
5	126	3,179.10	38,297.3		53.03
6	10,380	75.00	10.9	Upper Marker	113.00

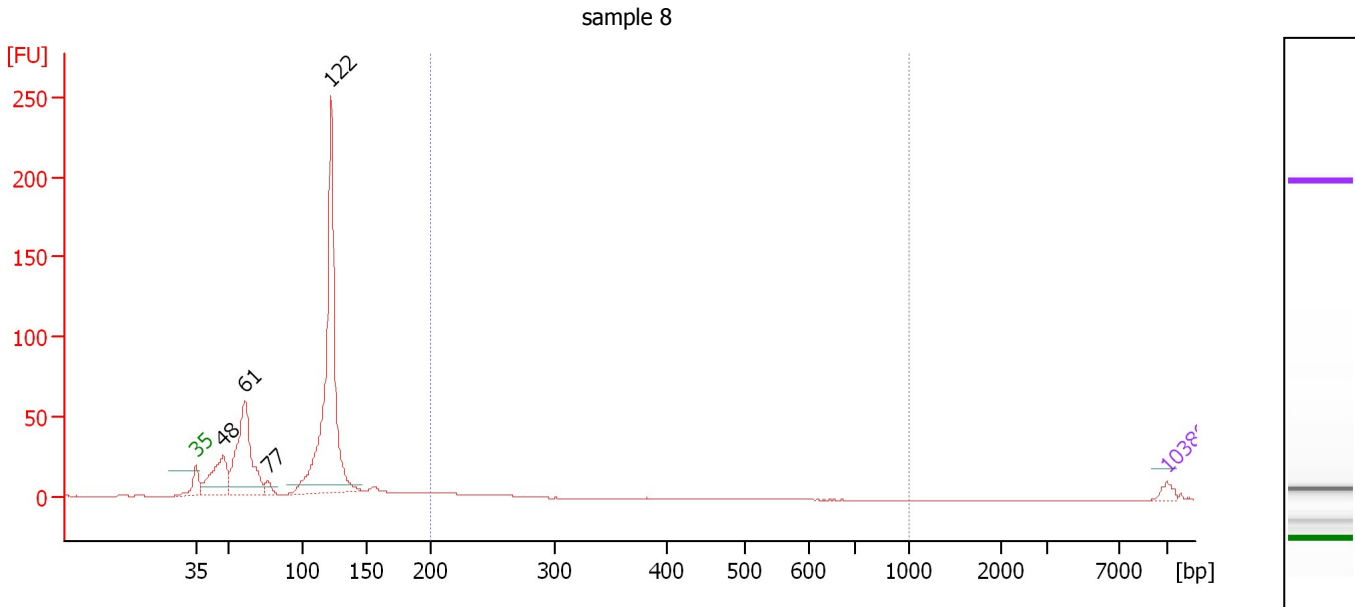
Region table for sample 7 : sample 7

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	227	1,000	10.3	2	8.9	90.58	604.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-29\2014-12-29_001.xad

Created: 12/29/2014 2:20:11 PM
 Modified: 12/29/2014 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8

Number of peaks found: 4 Corr. Area 1: 16.9
 Noise: 0.1

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	48	1,221.80	38,567.9		44.96
3	61	2,519.25	62,112.1		46.50
4	77	153.11	3,007.6		48.19
5	122	5,446.06	67,400.0		52.73
6	10,380	75.00	10.9	Upper Marker	113.00

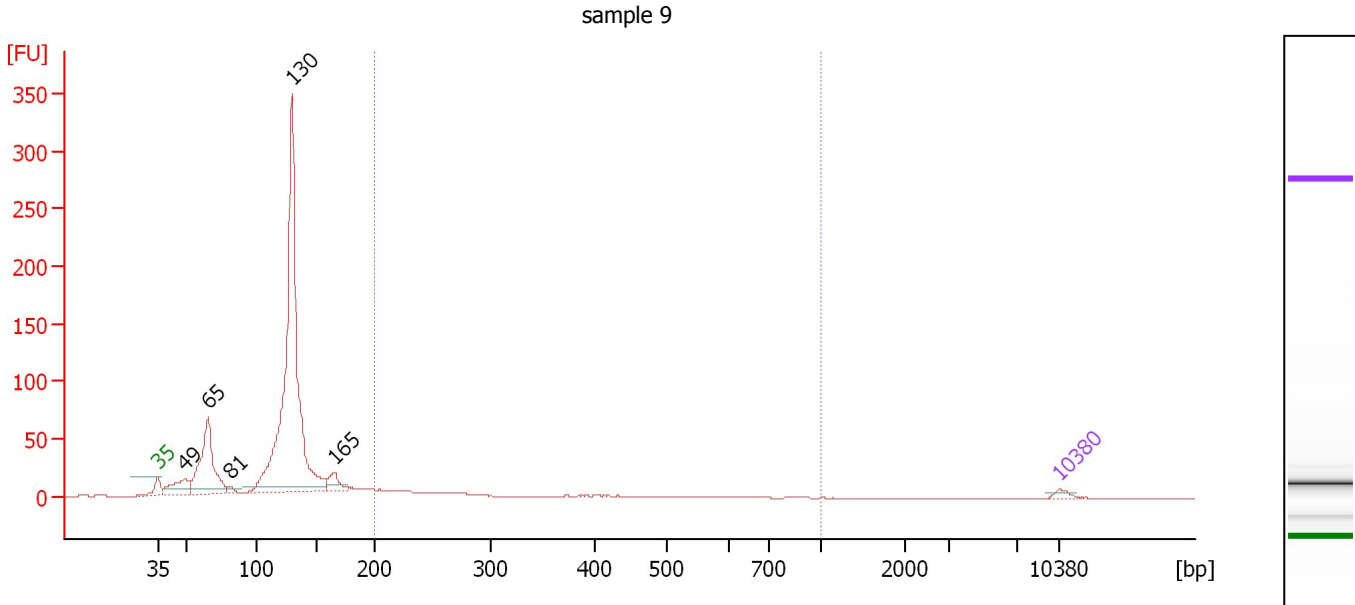
Region table for sample 8 : sample 8

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	227	1,000	16.9	2	8.6	191.19	1,276.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-29\2014-12-29_001.xad

Created: 12/29/2014 2:20:11 PM
 Modified: 12/29/2014 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 9

Number of peaks found: 5 Corr. Area 1: 87.9
 Noise: 0.1

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	49	786.82	24,359.4		45.10
3	65	2,649.62	61,434.9		46.92
4	81	130.51	2,446.0		48.59
5	130	10,266.85	119,734.9		53.42
6	165	413.28	3,788.4		56.67
7	10,380	75.00	10.9	Upper Marker	113.00

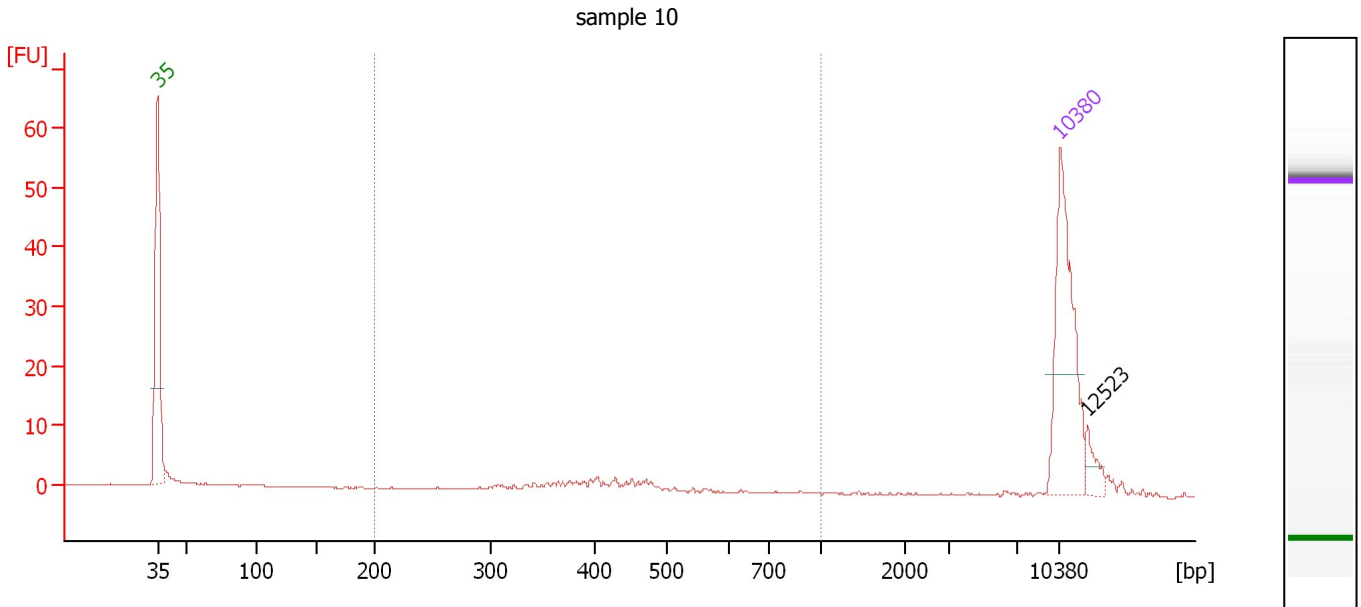
Region table for sample 9 : sample 9

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	322	1,000	87.9	8	40.2	1,062.69	5,860.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-29\2014-12-29_001.xad

Created: 12/29/2014 2:20:11 PM
 Modified: 12/29/2014 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 10

Number of peaks found: 1 Corr. Area 1: 20.4
 Noise: 0.1

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	10,380	75.00	10.9	Upper Marker	113.00
3	12,523	0.00	0.0		115.15

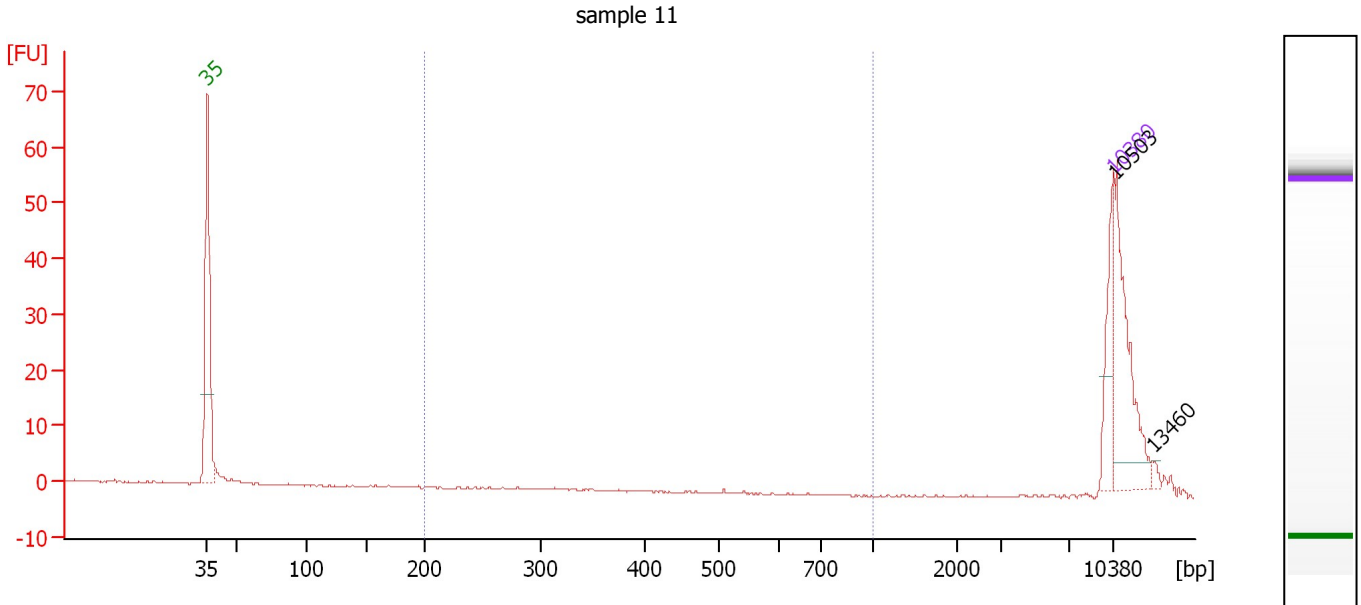
Region table for sample 10 : sample 10

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	424	1,000	20.4	45	22.4	27.27	102.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-29\2014-12-29_001.xad

Created: 12/29/2014 2:20:11 PM
 Modified: 12/29/2014 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 11

Number of peaks found: 2 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	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	10,503	0.00	0.0		113.12
4	13,460	0.00	0.0		116.09

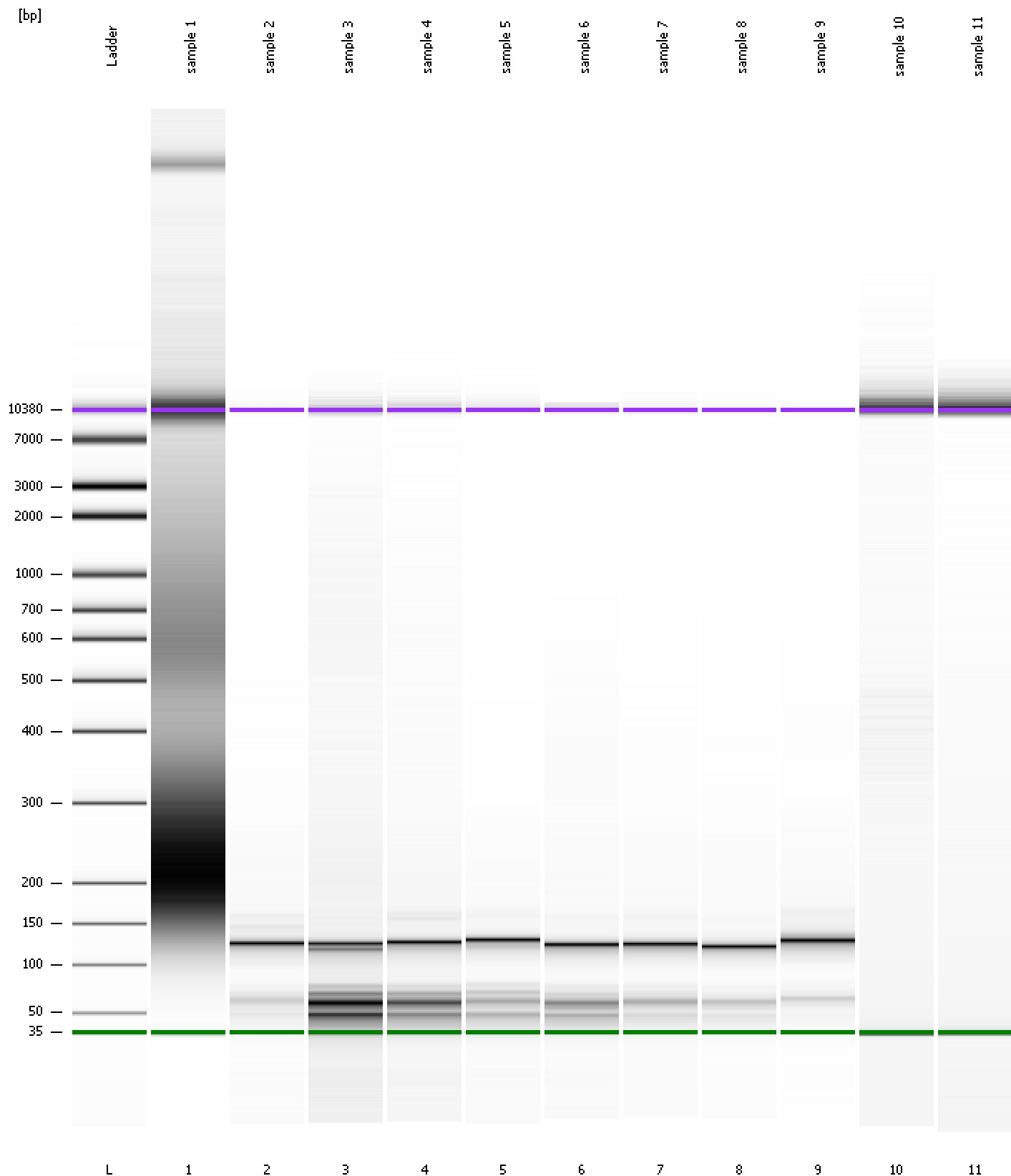
Region table for sample 11 : sample 11

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	508	1,000	0.0	0	0.1	0.02	0.1	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-29\2014-12-29_001.xad

Created: 12/29/2014 2:20:11 PM
Modified: 12/29/2014 3:02:18 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-29\2014-12-29_001.xad

Created: 12/29/2014 2:20:11 PM
 Modified: 12/29/2014 3:02:18 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		12/29/2014 3:01:28 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-12-29\2014-12-29_001.xad)		Instrument	Run		12/29/2014 2:20:16 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		12/29/2014 2:20:16 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		12/29/2014 2:20:16 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		12/29/2014 2:20:16 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		12/29/2014 2:20:16 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		12/29/2014 2:20:16 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		12/29/2014 2:20:16 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1