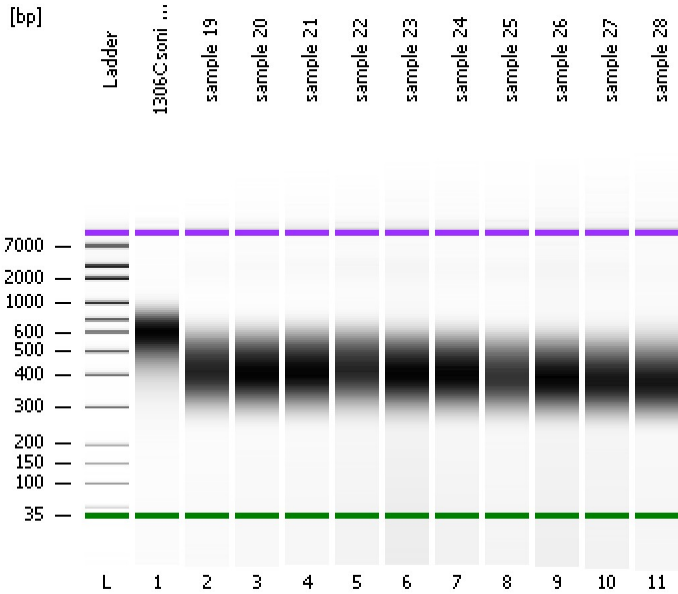


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-21\2015-10-21_003.xad

Created: 10/21/2015 3:34:54 PM
Modified: 10/21/2015 4:15:22 PM

Electrophoresis File Run Summary



Instrument Information:

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

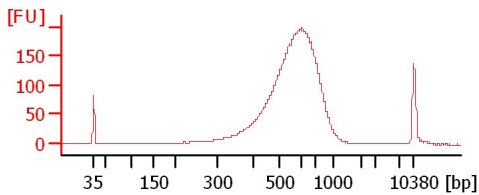
Assay Information:

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

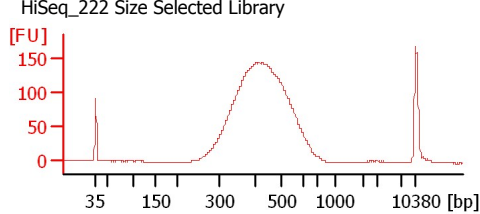
Chip Information:

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

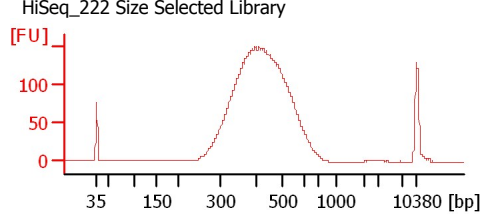
1306C soni 0.55x right/0.6x left



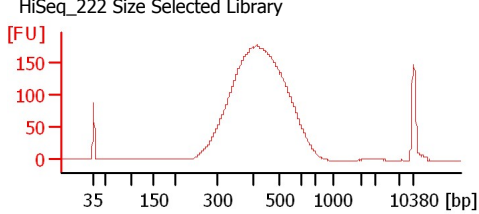
sample 19



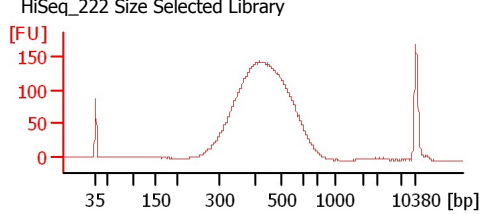
sample 20



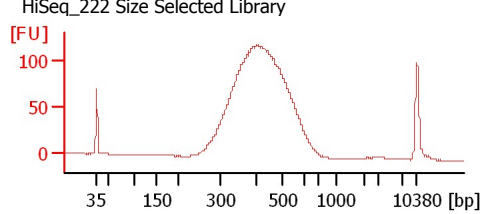
sample 21



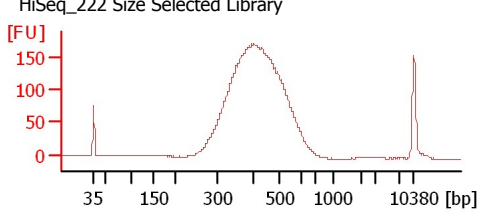
sample 22



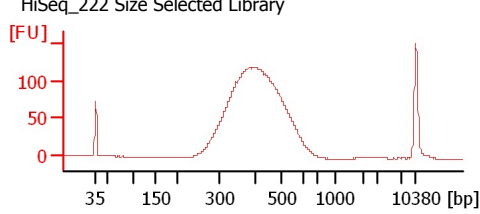
sample 23



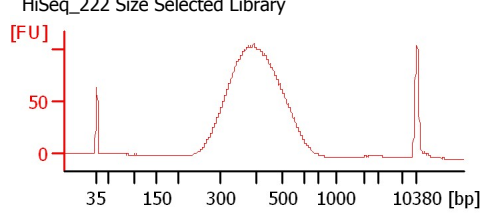
sample 24



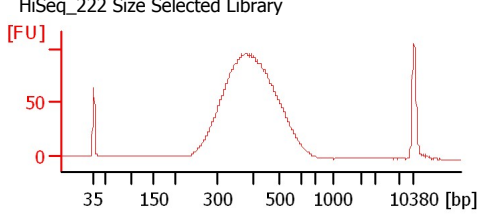
sample 25



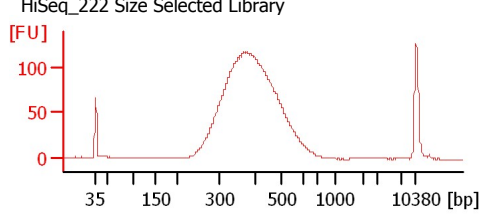
sample 26



sample 27



sample 28



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-21\2015-10-21_003.xad

Created: 10/21/2015 3:34:54 PM
Modified: 10/21/2015 4:15:22 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
1306C soni 0.55x right/0.6x left		<input type="checkbox"/>	✓			
sample 19	HiSeq_222 Size Selected Library	<input type="checkbox"/>	✓			
sample 20	HiSeq_222 Size Selected Library	<input type="checkbox"/>	✓			
sample 21	HiSeq_222 Size Selected Library	<input type="checkbox"/>	✓			
sample 22	HiSeq_222 Size Selected Library	<input type="checkbox"/>	✓			
sample 23	HiSeq_222 Size Selected Library	<input type="checkbox"/>	✓			
sample 24	HiSeq_222 Size Selected Library	<input type="checkbox"/>	✓			
sample 25	HiSeq_222 Size Selected Library	<input type="checkbox"/>	✓			
sample 26	HiSeq_222 Size Selected Library	<input type="checkbox"/>	✓			
sample 27	HiSeq_222 Size Selected Library	<input type="checkbox"/>	✓			
sample 28	HiSeq_222 Size Selected Library	<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\2015-10-21\2015-10-21_003.xad

Created: 10/21/2015 3:34:54 PM
Modified: 10/21/2015 4:15:22 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

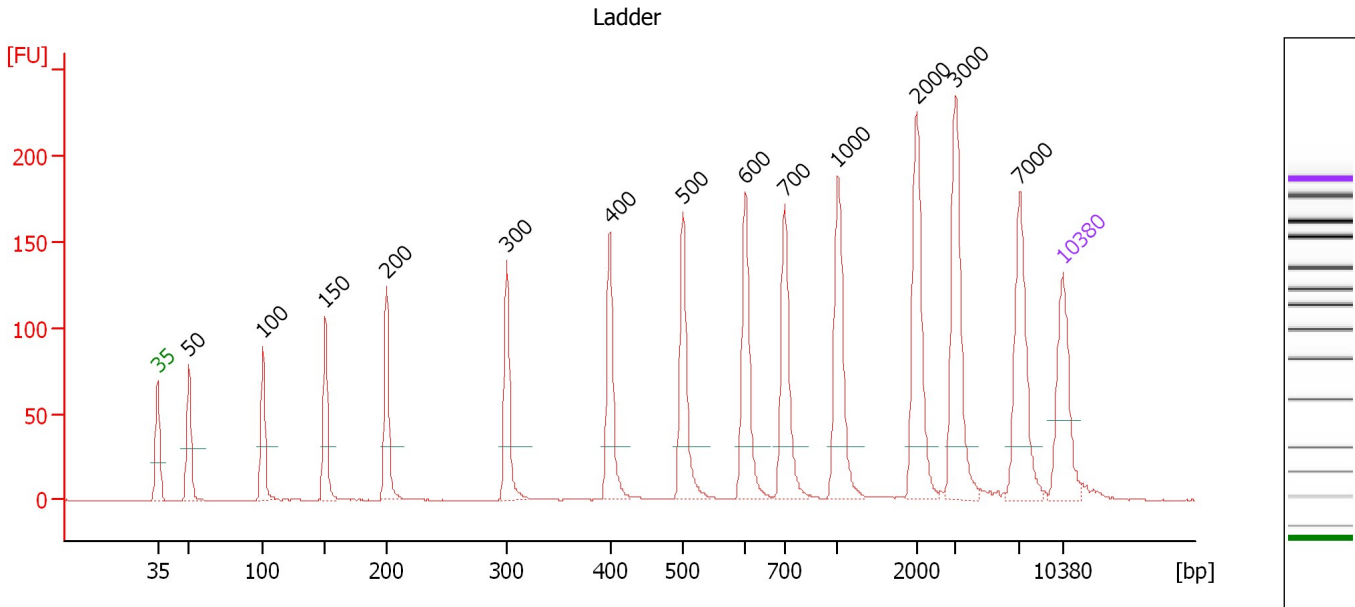
Ladder

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\2015-10-21\2015-10-21_003.xad

Created: 10/21/2015 3:34:54 PM
 Modified: 10/21/2015 4:15:22 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

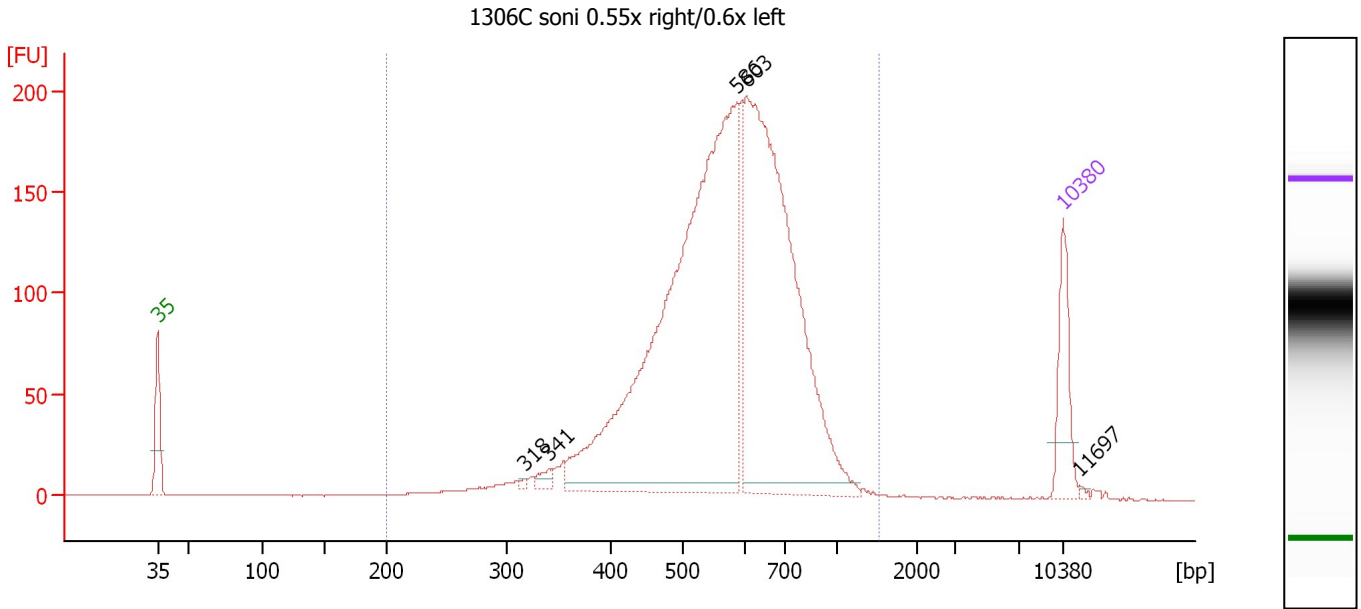
Peak table for Ladder

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	45.42
3	100	150.00	2,272.7	Ladder Peak	51.14
4	150	150.00	1,515.2	Ladder Peak	55.97
5	200	150.00	1,136.4	Ladder Peak	60.71
6	300	150.00	757.6	Ladder Peak	70.02
7	400	150.00	568.2	Ladder Peak	77.98
8	500	150.00	454.5	Ladder Peak	83.61
9	600	150.00	378.8	Ladder Peak	88.44
10	700	150.00	324.7	Ladder Peak	91.49
11	1,000	150.00	227.3	Ladder Peak	95.60
12	2,000	150.00	113.6	Ladder Peak	101.68
13	3,000	150.00	75.8	Ladder Peak	104.73
14	7,000	150.00	32.5	Ladder Peak	109.65
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-21\2015-10-21_003.xad

Created: 10/21/2015 3:34:54 PM
 Modified: 10/21/2015 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 1306C soni 0.55x right/0.6x left

Number of peaks found: 5 Corr. Area 1: 2,718.2
 Noise: 0.2

Peak table for sample 1 : 1306C soni 0.55x right/0.6x left

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	318	4.06	19.4		71.44
3	341	15.59	69.4		73.24
4	586	1,170.80	3,028.2		87.76
5	603	838.80	2,108.8		88.52
6	10,380	75.00	10.9	Upper Marker	113.00
7	11,697	0.00	0.0		114.31

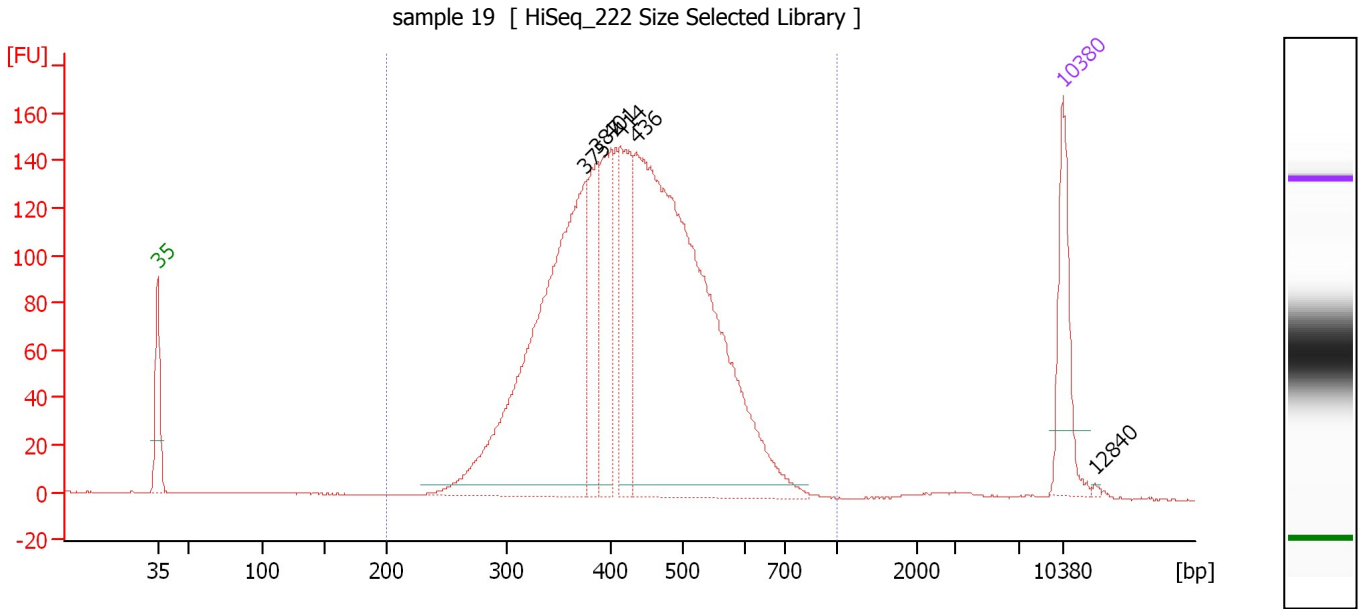
Region table for sample 1 : 1306C soni 0.55x right/0.6x left

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,513	583	2,718.2	6,725.8	2,379.56	98	24.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-21\2015-10-21_003.xad

Created: 10/21/2015 3:34:54 PM
 Modified: 10/21/2015 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 19

Number of peaks found: 6 Corr. Area 1: 2,723.5
 Noise: 0.1

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	375	611.82	2,470.1		76.01
3	387	125.47	491.0		76.96
4	401	132.71	501.2		78.05
5	414	157.41	576.0		78.77
6	436	872.81	3,035.2		79.99
7	10,380	75.00	10.9	Upper Marker	113.00
8	12,840	0.00	0.0		115.44

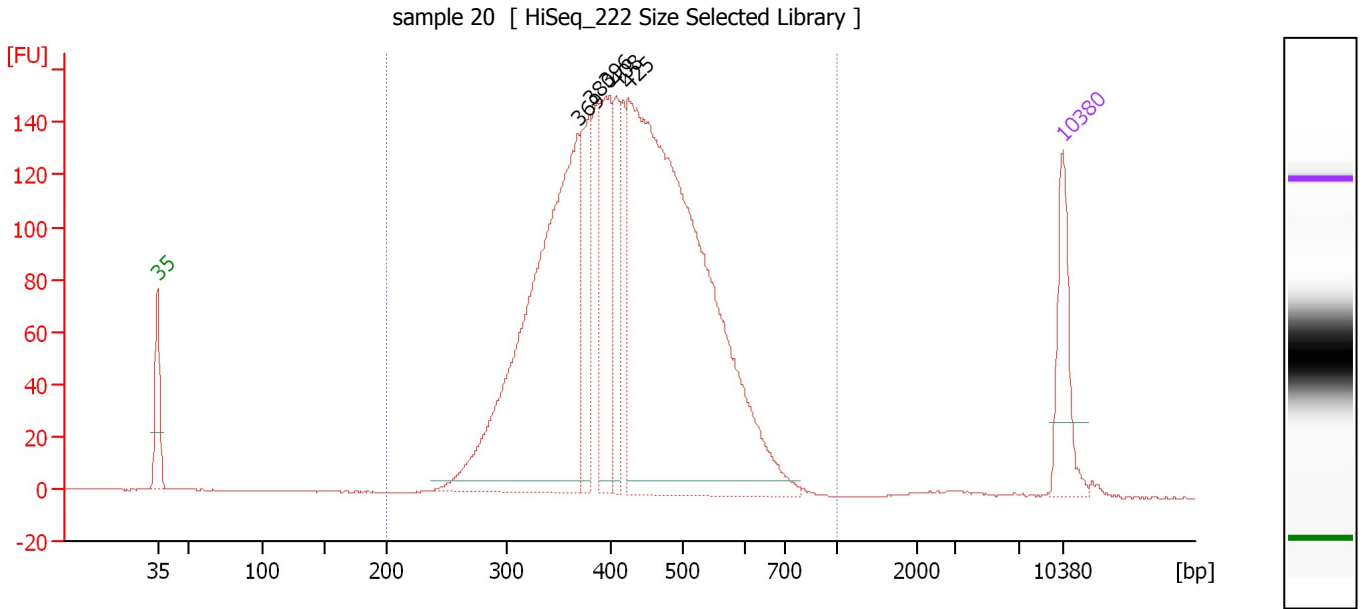
Region table for sample 2 : sample 19

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	433	2,723.5	7,233.2	1,955.38	98	20.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-21\2015-10-21_003.xad

Created: 10/21/2015 3:34:54 PM
 Modified: 10/21/2015 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 20

Number of peaks found: 5 Corr. Area 1: 2,843.9
 Noise: 0.2

Peak table for sample 3 : sample 20

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	369	739.62	3,036.8		75.51
3	380	142.86	568.9		76.42
4	396	185.94	711.5		77.66
5	408	99.35	368.9		78.43
6	425	1,140.44	4,064.7		79.39
7	10,380	75.00	10.9	Upper Marker	113.00

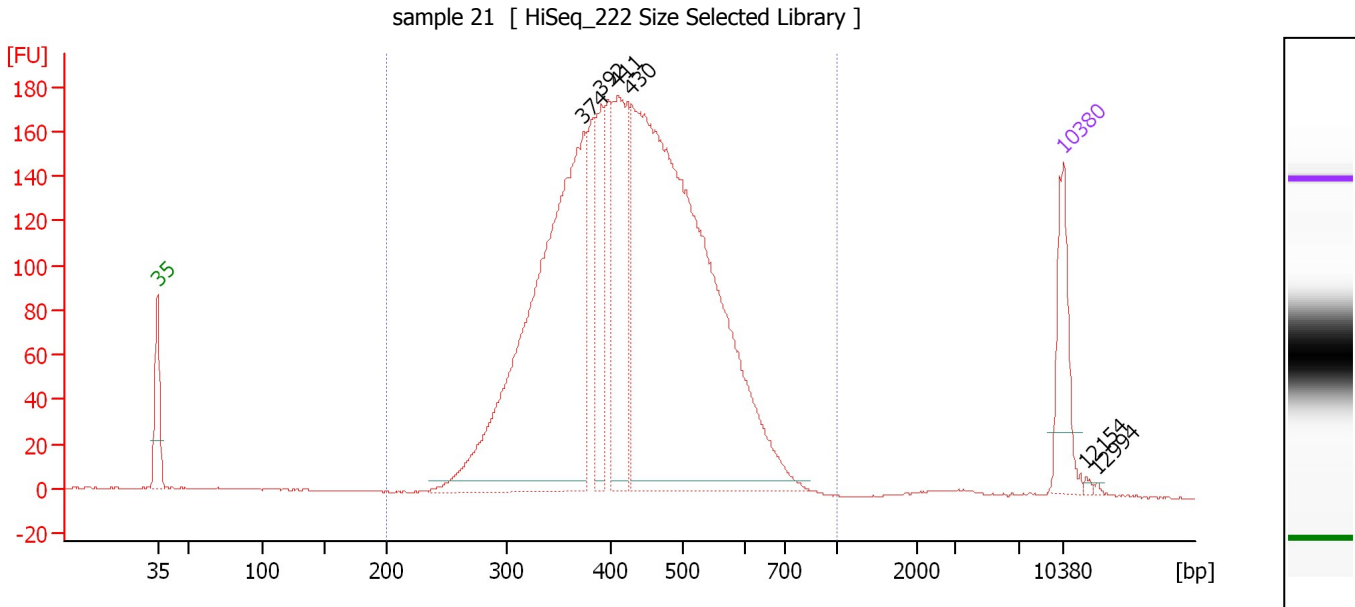
Region table for sample 3 : sample 20

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	428	2,843.9	9,261.7	2,475.08	98	20.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-21\2015-10-21_003.xad

Created: 10/21/2015 3:34:54 PM
 Modified: 10/21/2015 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 21

Number of peaks found: 6 Corr. Area 1: 3,351.2
 Noise: 0.2

Peak table for sample 4 : sample 21

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	374	821.70	3,325.4		75.94
3	392	136.51	527.8		77.33
4	411	217.57	802.7		78.58
5	430	1,163.81	4,104.8		79.64
6	10,380	75.00	10.9	Upper Marker	113.00
7	12,154	0.00	0.0		114.76
8	12,994	0.00	0.0		115.59

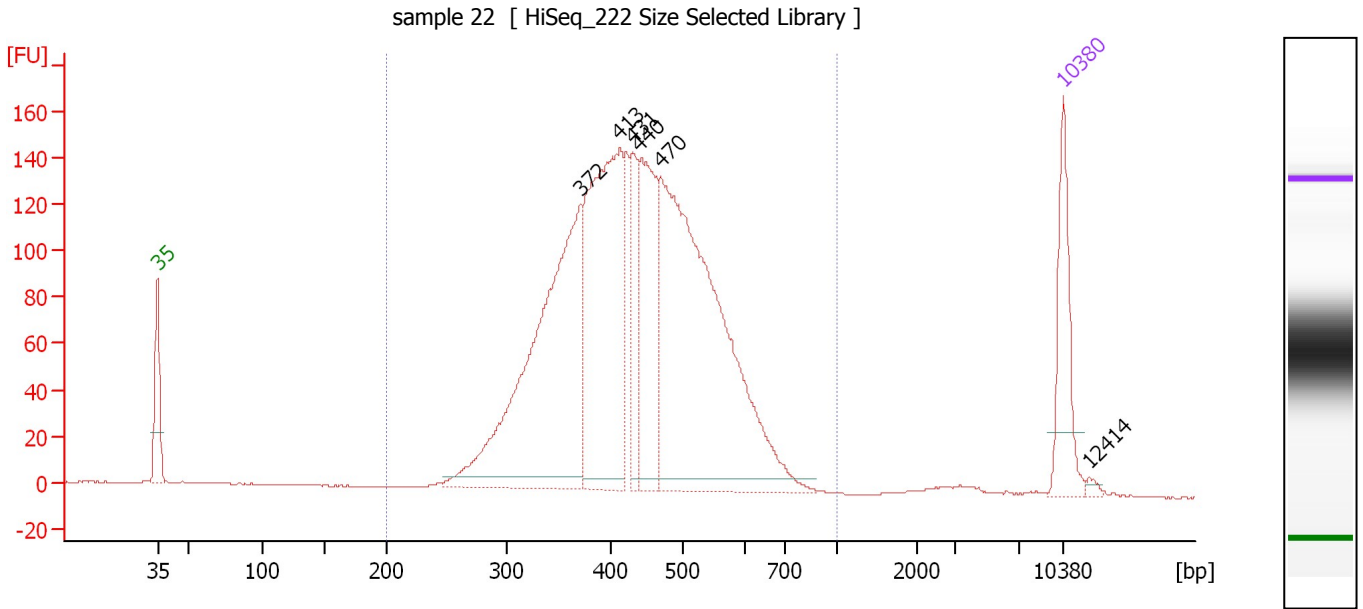
Region table for sample 4 : sample 21

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	433	3,351.2	9,695.4	2,612.18	98	21.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-21\2015-10-21_003.xad

Created: 10/21/2015 3:34:54 PM
 Modified: 10/21/2015 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 22

Number of peaks found: 6 Corr. Area 1: 2,706.7
 Noise: 0.2

Peak table for sample 5 : sample 22

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	372	504.91	2,058.2		75.72
3	413	398.40	1,460.5		78.73
4	431	83.75	294.5		79.71
5	440	189.09	651.2		80.23
6	470	632.10	2,037.9		81.92
7	10,380	75.00	10.9	Upper Marker	113.00
8	12,414	0.00	0.0		115.02

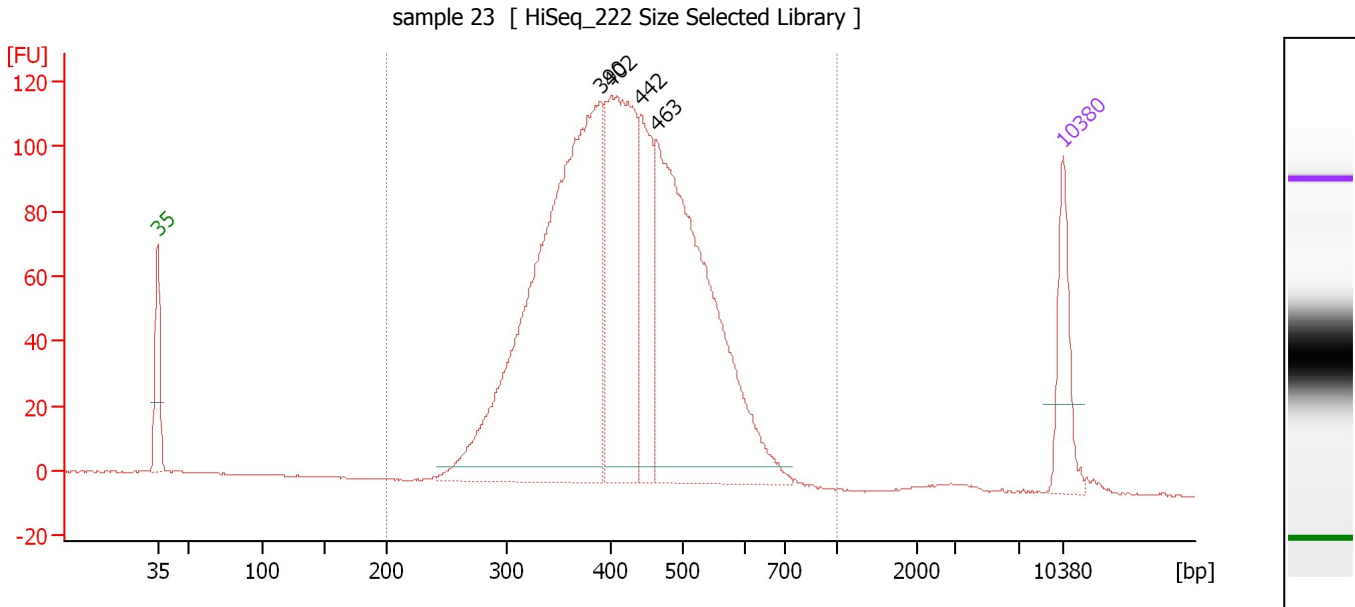
Region table for sample 5 : sample 22

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	439	2,706.7	6,960.8	1,903.00	97	20.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-21\2015-10-21_003.xad

Created: 10/21/2015 3:34:54 PM
 Modified: 10/21/2015 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 23

Number of peaks found: 4 Corr. Area 1: 2,183.9
 Noise: 0.2

Peak table for sample 6 : sample 23

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	390	1,018.31	3,951.8		77.22
3	402	447.25	1,687.1		78.07
4	442	187.94	644.0		80.35
5	463	718.62	2,350.6		81.54
6	10,380	75.00	10.9	Upper Marker	113.00

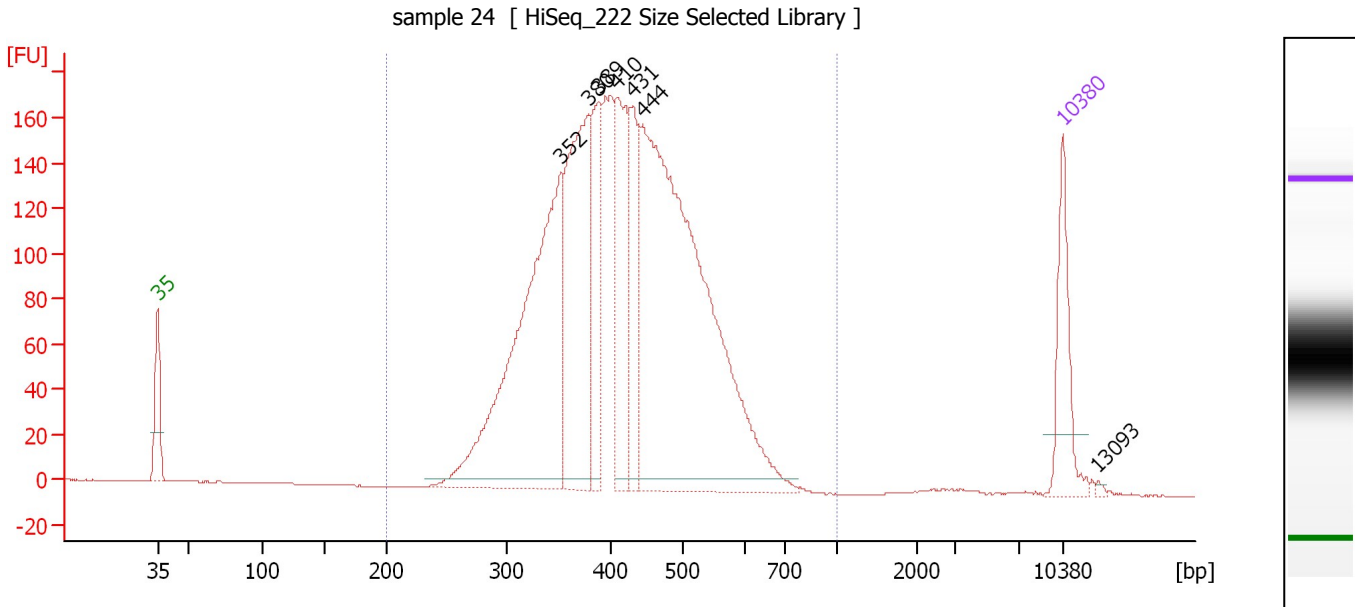
Region table for sample 6 : sample 23

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	425	2,183.9	9,290.2	2,469.38	98	20.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-21\2015-10-21_003.xad

Created: 10/21/2015 3:34:54 PM
 Modified: 10/21/2015 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 24

Number of peaks found: 7 Corr. Area 1: 3,113.7
 Noise: 0.2

Peak table for sample 7 : sample 24

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	352	586.18	2,523.3		74.15
3	380	326.91	1,304.3		76.37
4	389	146.21	569.8		77.09
5	410	182.44	674.6		78.53
6	431	121.95	428.6		79.73
7	444	876.14	2,990.5		80.45
8	10,380	75.00	10.9	Upper Marker	113.00
9	13,093	0.00	0.0		115.69

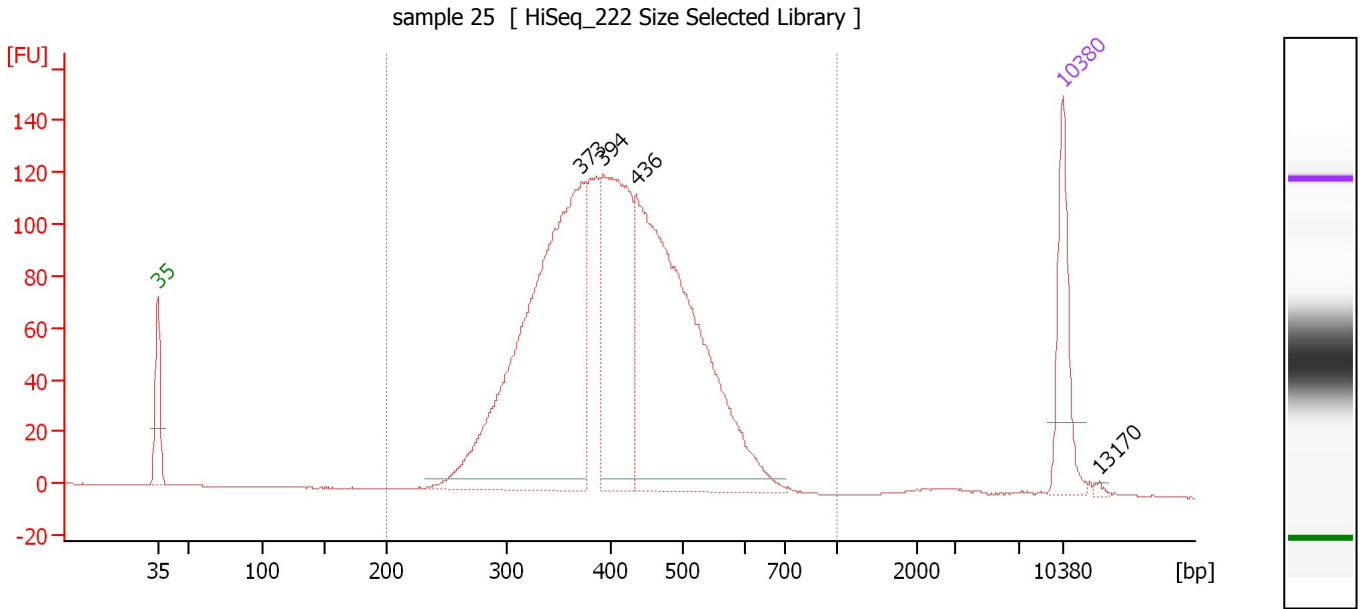
Region table for sample 7 : sample 24

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	423	3,113.7	9,071.1	2,401.29	98	19.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-21\2015-10-21_003.xad

Created: 10/21/2015 3:34:54 PM
 Modified: 10/21/2015 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 25

Number of peaks found: 4 Corr. Area 1: 2,202.9
 Noise: 0.1

Peak table for sample 8 : sample 25

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	373	693.88	2,822.2		75.79
3	394	322.61	1,241.0		77.49
4	436	627.30	2,179.1		80.02
5	10,380	75.00	10.9	Upper Marker	113.00
6	13,170	0.00	0.0		115.77

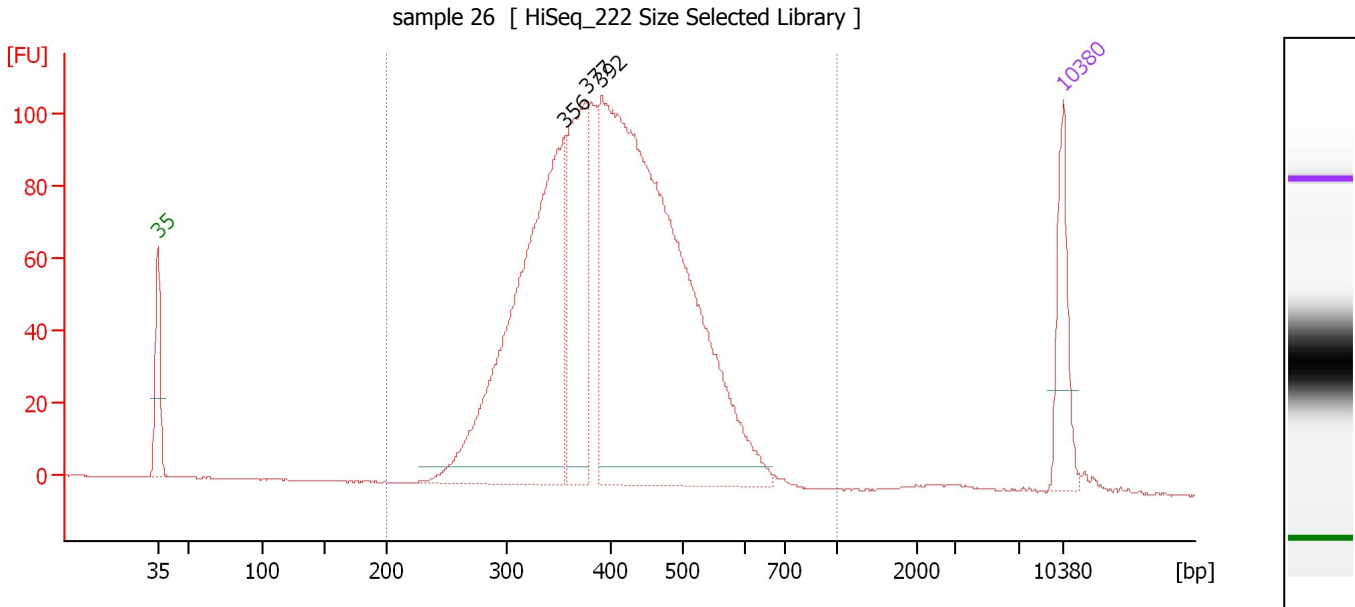
Region table for sample 8 : sample 25

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	413	2,202.9	6,963.1	1,803.00	98	19.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-21\2015-10-21_003.xad

Created: 10/21/2015 3:34:54 PM
 Modified: 10/21/2015 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 26

Number of peaks found: 3 Corr. Area 1: 1,908.8
 Noise: 0.1

Peak table for sample 9 : sample 26

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	356	701.45	2,987.6		74.45
3	377	283.06	1,138.7		76.12
4	392	1,200.59	4,640.7		77.34
5	10,380	75.00	10.9	Upper Marker	113.00

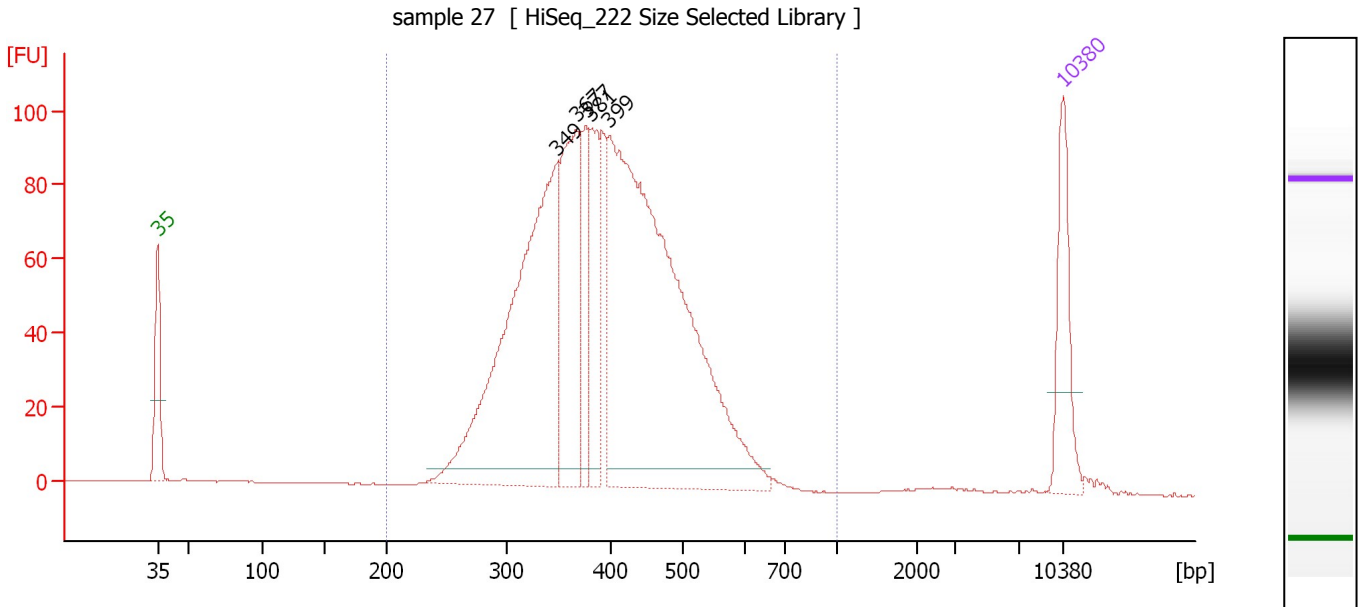
Region table for sample 9 : sample 26

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	409	1,908.8	9,043.2	2,314.53	97	20.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-21\2015-10-21_003.xad

Created: 10/21/2015 3:34:54 PM
 Modified: 10/21/2015 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 27

Number of peaks found: 5 Corr. Area 1: 1,747.4
 Noise: 0.1

Peak table for sample 10 : sample 27

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	349	569.88	2,475.7		73.90
3	367	218.30	900.6		75.37
4	377	87.57	352.4		76.11
5	381	112.78	447.9		76.50
6	399	830.28	3,150.1		77.93
7	10,380	75.00	10.9	Upper Marker	113.00

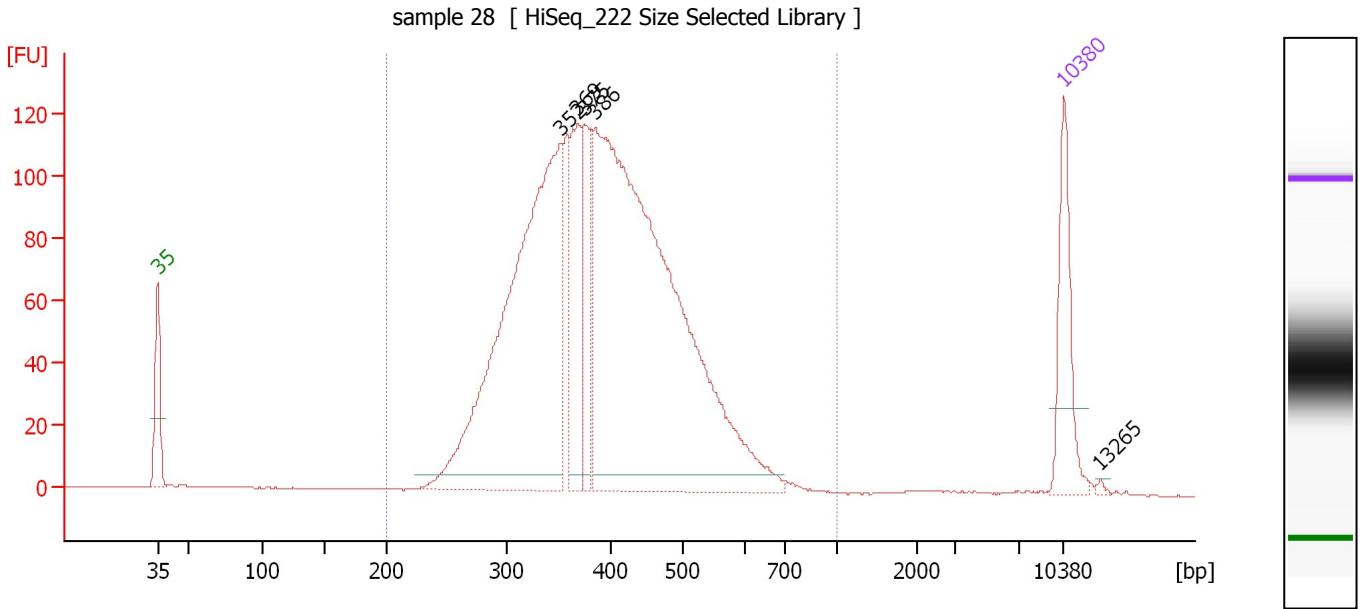
Region table for sample 10 : sample 27

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	402	1,747.4	7,658.8	1,926.55	97	20.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-21\2015-10-21_003.xad

Created: 10/21/2015 3:34:54 PM
 Modified: 10/21/2015 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 28

Number of peaks found: 5 Corr. Area 1: 2,127.3
 Noise: 0.1

Peak table for sample 11 : sample 28

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	352	678.07	2,919.4		74.15
3	369	140.64	578.0		75.48
4	375	104.56	422.6		75.98
5	386	984.18	3,862.9		76.86
6	10,380	75.00	10.9	Upper Marker	113.00
7	13,265	0.00	0.0		115.86

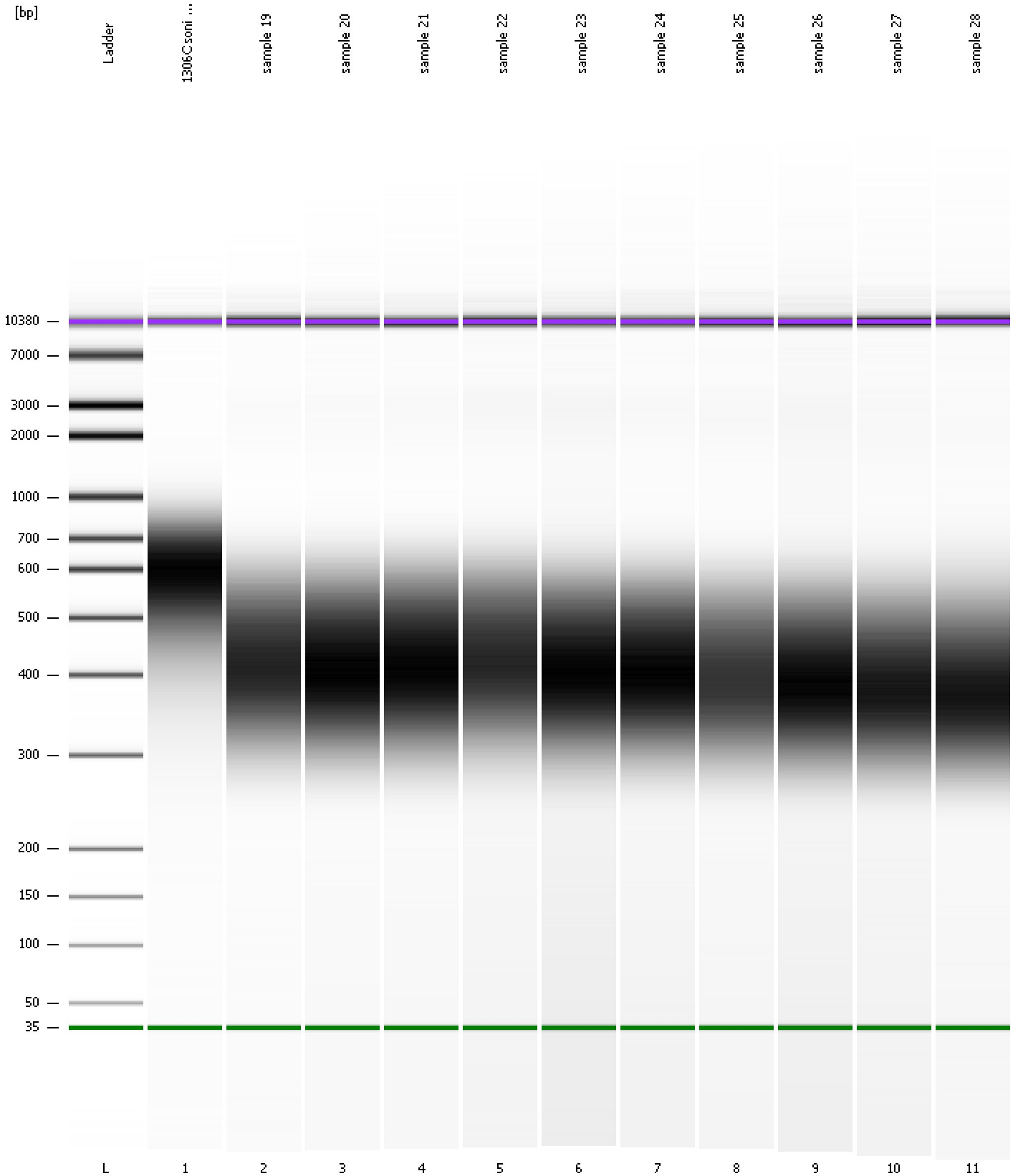
Region table for sample 11 : sample 28

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	400	2,127.3	8,080.4	2,012.98	97	21.7

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-21\2015-10-21_003.xad

Created: 10/21/2015 3:34:54 PM
Modified: 10/21/2015 4:15:22 PM

Gel Image

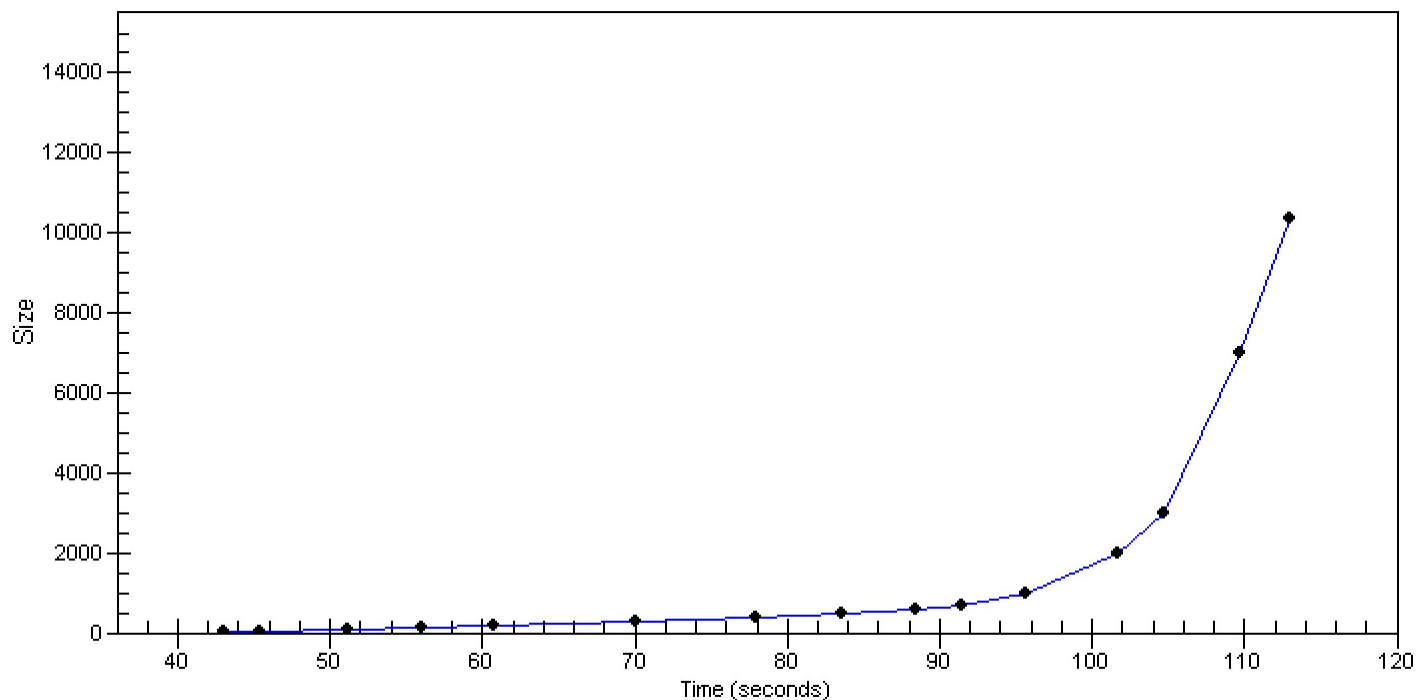


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-21\2015-10-21_003.xad

Created: 10/21/2015 3:34:54 PM
Modified: 10/21/2015 4:15:22 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-21\2015-10-21_003.xad

Created: 10/21/2015 3:34:54 PM
 Modified: 10/21/2015 4:15:22 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		10/21/2015 4:15:21 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-10-21\2015-10-21_003.xad)		Instrument	Run		10/21/2015 3:34:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		10/21/2015 3:34:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		10/21/2015 3:34:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		10/21/2015 3:34:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		10/21/2015 3:34:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		10/21/2015 3:34:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		10/21/2015 3:34:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1