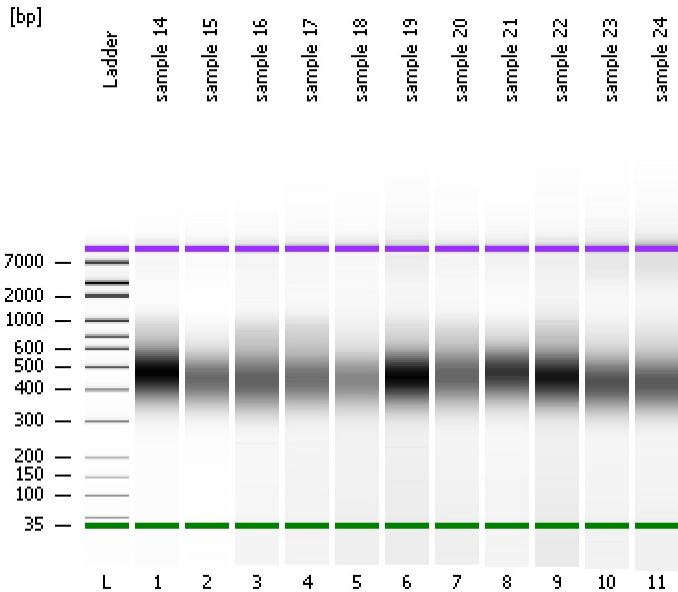


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-18\2015-09-18_002.xad

Created: 9/18/2015 3:34:30 PM
Modified: 9/18/2015 4:14:58 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

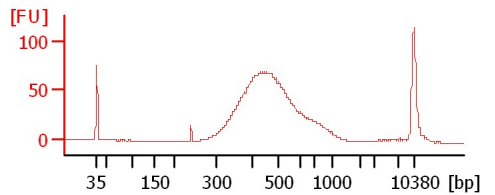
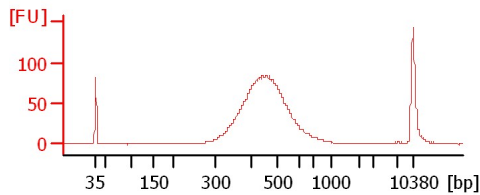
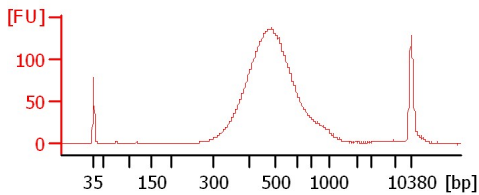
Chip Information:

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

sample 14

sample 15

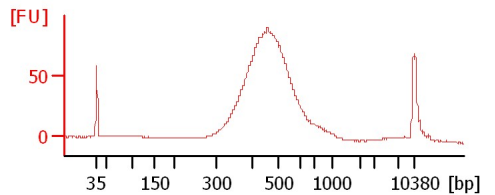
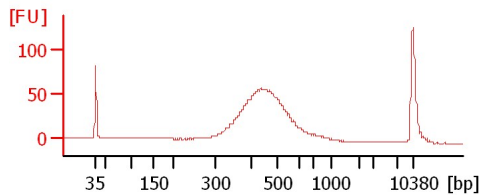
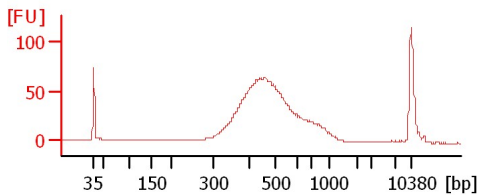
sample 16



sample 17

sample 18

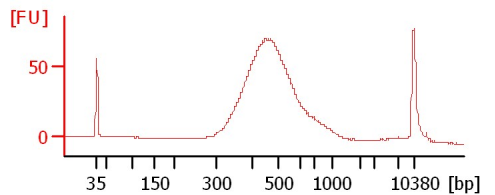
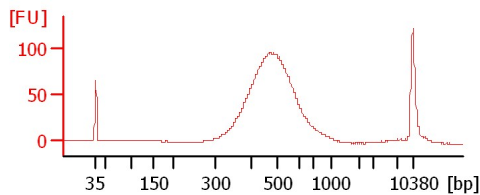
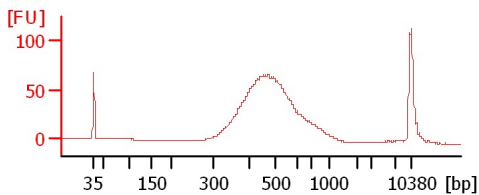
sample 19



sample 20

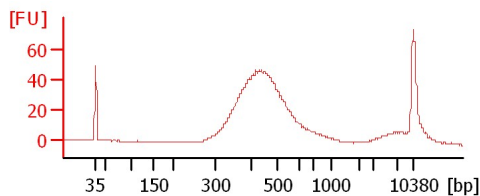
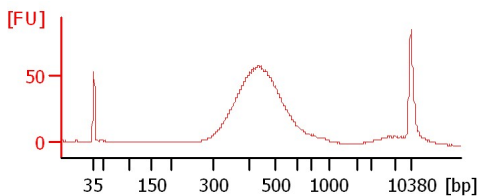
sample 21

sample 22



sample 23

sample 24



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-18\2015-09-18_002.xad

Created: 9/18/2015 3:34:30 PM
Modified: 9/18/2015 4:14:58 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 14		<input type="checkbox"/>	✓			
sample 15		<input type="checkbox"/>	✓			
sample 16		<input type="checkbox"/>	✓			
sample 17		<input type="checkbox"/>	✓			
sample 18		<input type="checkbox"/>	✓			
sample 19		<input type="checkbox"/>	✓			
sample 20		<input type="checkbox"/>	✓			
sample 21		<input type="checkbox"/>	✓			
sample 22		<input type="checkbox"/>	✓			
sample 23		<input type="checkbox"/>	✓			
sample 24		<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\2015-09-18\2015-09-18_002.xad

Created: 9/18/2015 3:34:30 PM
Modified: 9/18/2015 4:14:58 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

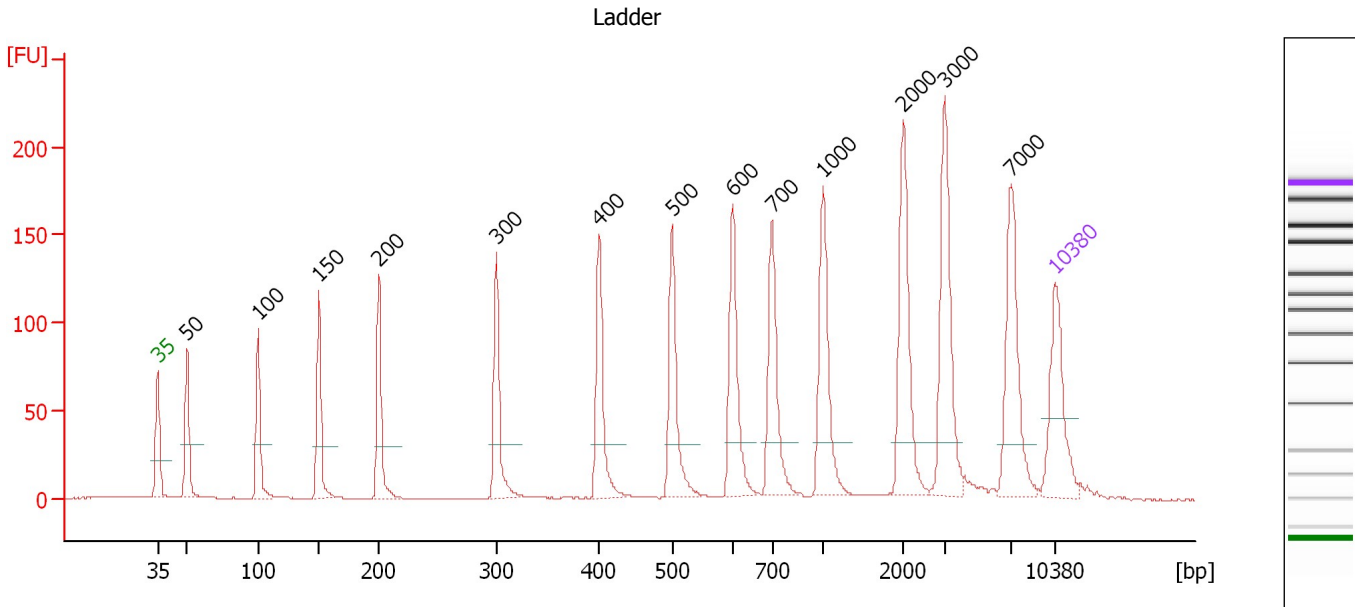
Ladder

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\2015-09-18\2015-09-18_002.xad

Created: 9/18/2015 3:34:30 PM
 Modified: 9/18/2015 4:14:58 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

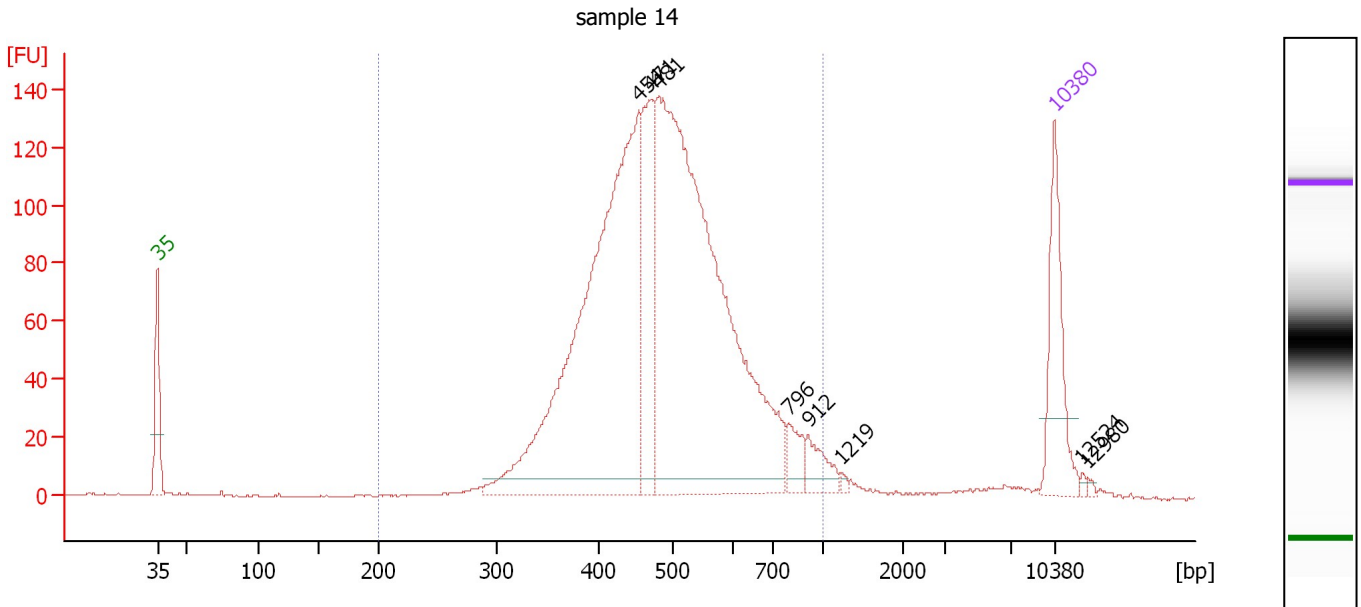
Peak table for Ladder

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	45.29
3	100	150.00	2,272.7	Ladder Peak	50.86
4	150	150.00	1,515.2	Ladder Peak	55.57
5	200	150.00	1,136.4	Ladder Peak	60.29
6	300	150.00	757.6	Ladder Peak	69.45
7	400	150.00	568.2	Ladder Peak	77.48
8	500	150.00	454.5	Ladder Peak	83.19
9	600	150.00	378.8	Ladder Peak	87.90
10	700	150.00	324.7	Ladder Peak	90.95
11	1,000	150.00	227.3	Ladder Peak	94.95
12	2,000	150.00	113.6	Ladder Peak	101.19
13	3,000	150.00	75.8	Ladder Peak	104.42
14	7,000	150.00	32.5	Ladder Peak	109.63
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-18\2015-09-18_002.xad

Created: 9/18/2015 3:34:30 PM
 Modified: 9/18/2015 4:14:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 14

Number of peaks found: 8 Corr. Area 1: 2,155.9
 Noise: 0.2

Peak table for sample 1 : sample 14

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	454	657.32	2,195.2		80.55
3	471	144.34	464.1		81.55
4	481	803.23	2,531.3		82.09
5	796	26.70	50.9		92.23
6	912	27.00	44.9		93.77
7	1,219	2.77	3.4		96.32
8	10,380	75.00	10.9	Upper Marker	113.00
9	12,524	0.00	0.0		115.14
10	12,981	0.00	0.0		115.59

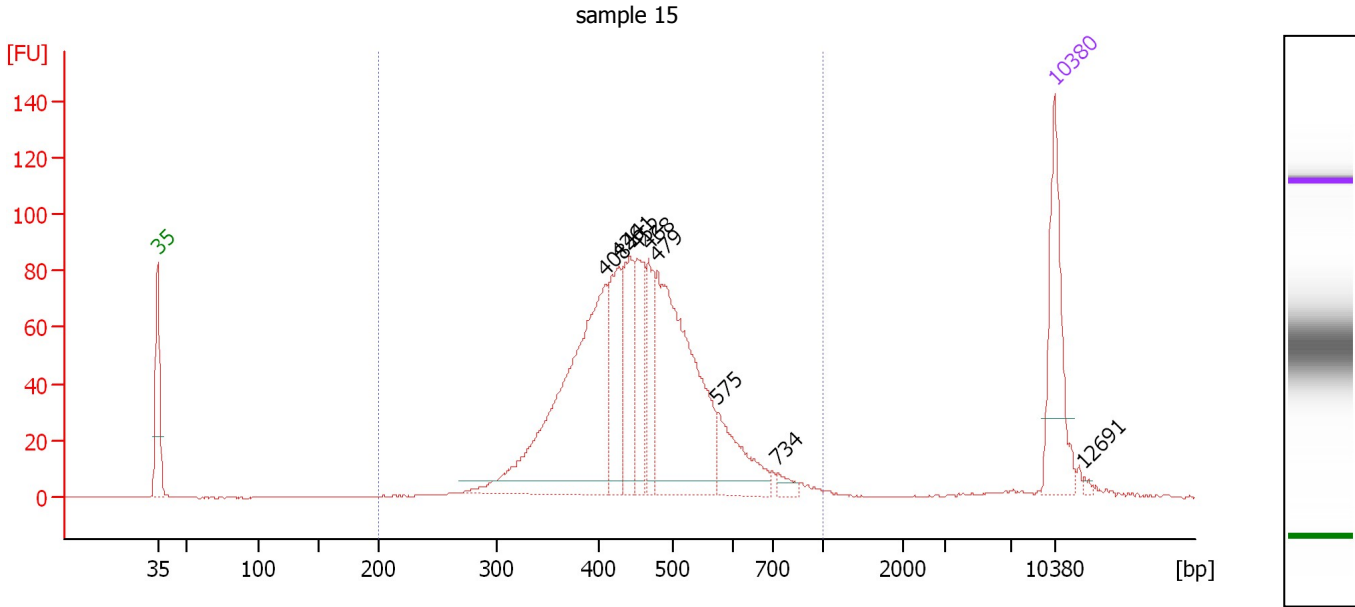
Region table for sample 1 : sample 14

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]	Conc. [pg/μl]
200	498	1,000	2,155.9	5,480.3	96	23.3	1,691.48

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-18\2015-09-18_002.xad

Created: 9/18/2015 3:34:30 PM
 Modified: 9/18/2015 4:14:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 15

Number of peaks found: 9 Corr. Area 1: 1,305.3
 Noise: 0.1

Peak table for sample 2 : sample 15

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	408	312.65	1,160.4		77.95
3	426	83.61	297.4		78.97
4	441	71.78	246.4		79.84
5	452	75.29	252.5		80.44
6	468	54.15	175.3		81.36
7	479	255.15	806.6		82.01
8	575	61.32	161.7		86.70
9	734	8.96	18.5		91.40
10	10,380	75.00	10.9	Upper Marker	113.00
11	12,691	0.00	0.0		115.30

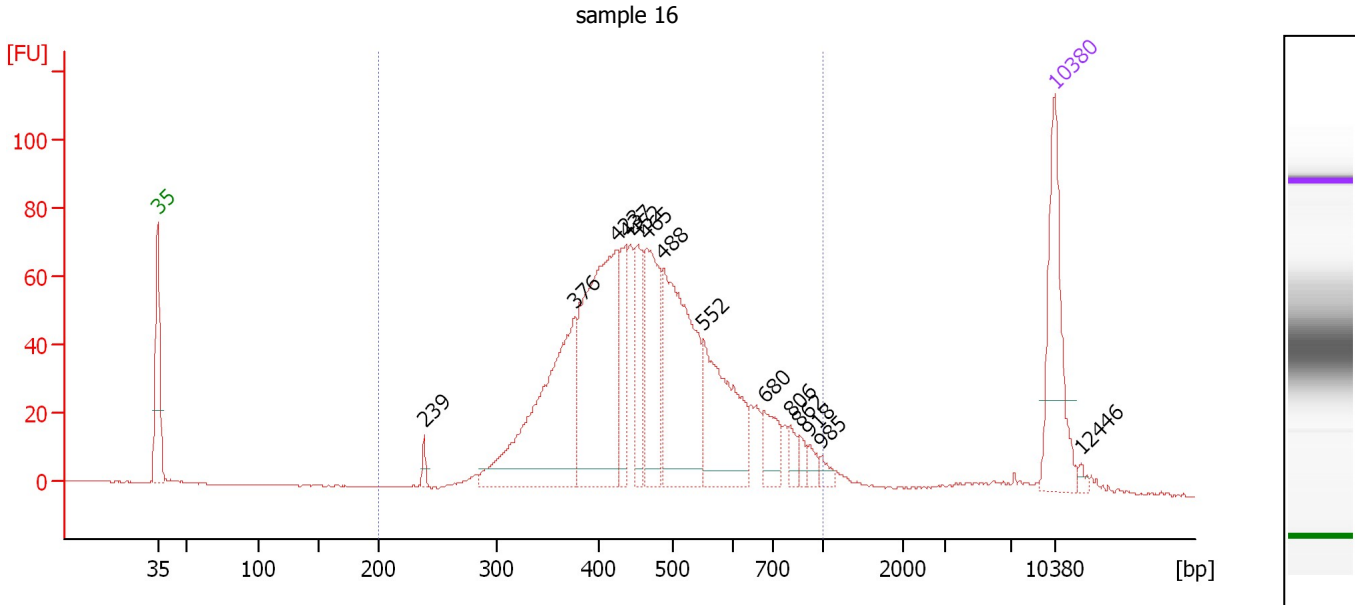
Region table for sample 2 : sample 15

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]	Conc. [pg/μl]
200	460	1,000	1,305.3	3,457.6	96	21.2	994.78

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-18\2015-09-18_002.xad

Created: 9/18/2015 3:34:30 PM
 Modified: 9/18/2015 4:14:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 16

Number of peaks found: 14 Corr. Area 1: 1,321.5
 Noise: 0.2

Peak table for sample 3 : sample 16

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	239	7.07	44.9		63.82
3	376	203.67	820.4		75.57
4	423	229.41	821.7		78.80
5	437	47.19	163.6		79.59
6	452	53.78	180.4		80.43
7	465	91.91	299.6		81.18
8	488	178.65	554.9		82.49
9	552	111.23	305.4		85.63
10	680	28.83	64.2		90.35
11	806	10.59	19.9		92.36
12	862	7.52	13.2		93.11
13	918	7.62	12.6		93.86
14	985	6.47	10.0		94.75
15	10,380	75.00	10.9	Upper Marker	113.00
16	12,446	0.00	0.0		115.06

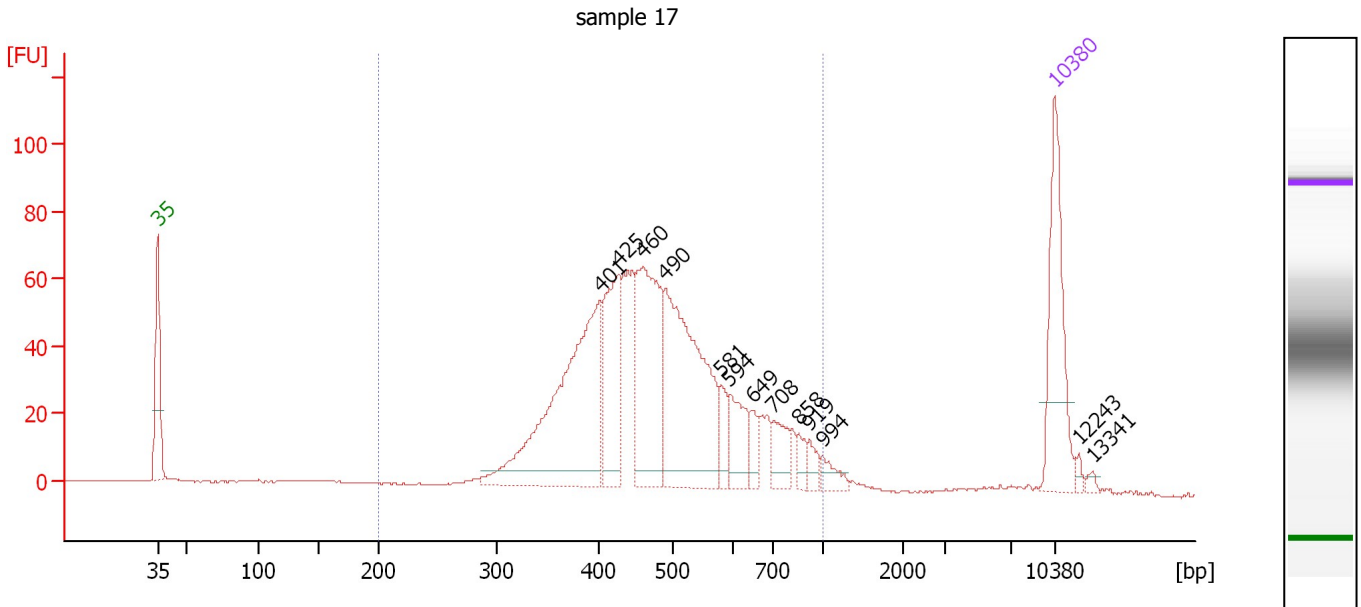
Region table for sample 3 : sample 16

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	482	1,000	1,321.5	3,785.9	95	26.5	1,111.14

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-18\2015-09-18_002.xad

Created: 9/18/2015 3:34:30 PM
 Modified: 9/18/2015 4:14:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 17

Number of peaks found: 13 Corr. Area 1: 1,163.1
 Noise: 0.2

Peak table for sample 4 : sample 17

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	401	245.04	925.6		77.55
3	425	97.36	346.8		78.93
4	460	144.51	475.6		80.93
5	490	204.67	632.3		82.64
6	581	18.06	47.1		87.02
7	594	38.21	97.4		87.64
8	649	13.64	31.8		89.40
9	708	24.75	53.0		91.06
10	858	9.17	16.2		93.06
11	919	10.00	16.5		93.87
12	994	11.00	16.8		94.87
13	10,380	75.00	10.9	Upper Marker	113.00
14	12,243	0.00	0.0		114.86
15	13,341	0.00	0.0		115.95

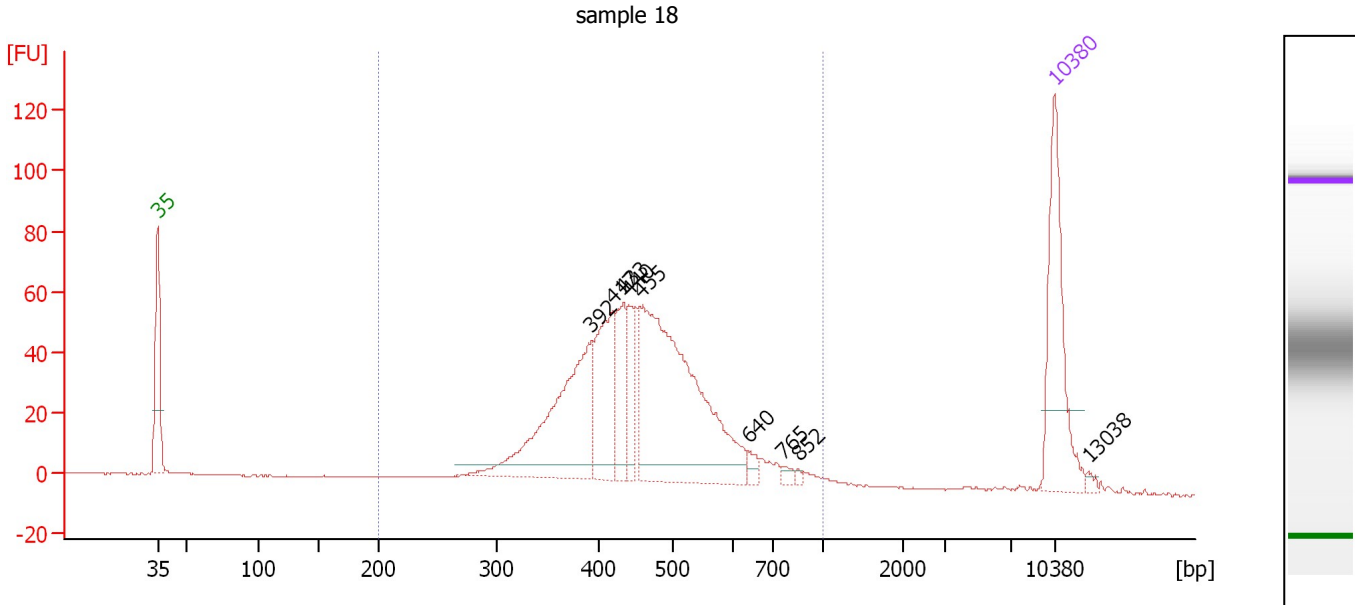
Region table for sample 4 : sample 17

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	492	1,000	1,163.1	3,260.7	92	26.9	972.96

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-18\2015-09-18_002.xad

Created: 9/18/2015 3:34:30 PM
 Modified: 9/18/2015 4:14:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 18

Number of peaks found: 9 Corr. Area 1: 947.5
 Noise: 0.2

Peak table for sample 5 : 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	392	154.01	595.2		76.84
3	417	78.59	285.2		78.48
4	433	47.13	165.0		79.35
5	440	34.78	119.7		79.78
6	455	257.52	856.6		80.65
7	640	6.95	16.5		89.12
8	765	4.23	8.4		91.82
9	852	2.09	3.7		92.97
10	10,380	75.00	10.9	Upper Marker	113.00
11	13,038	0.00	0.0		115.65

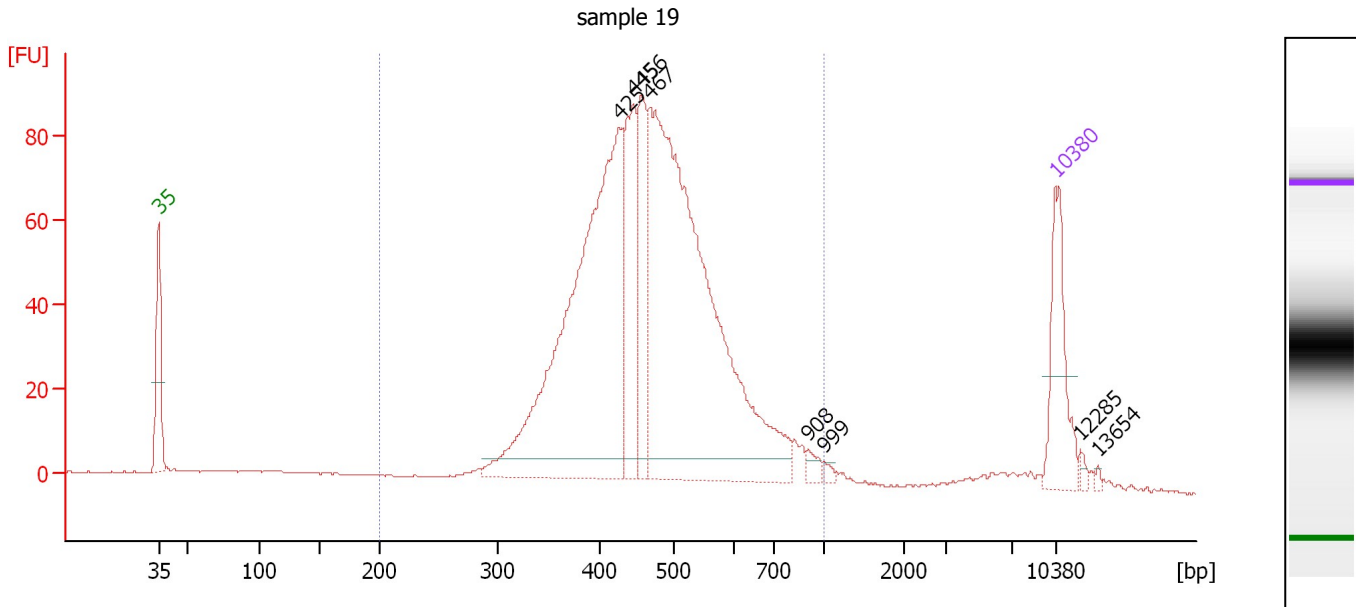
Region table for sample 5 : sample 18

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	462	1,000	947.5	2,304.6	95	23.0	659.27

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-18\2015-09-18_002.xad

Created: 9/18/2015 3:34:30 PM
 Modified: 9/18/2015 4:14:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 19

Number of peaks found: 8 Corr. Area 1: 1,400.7
 Noise: 0.2

Peak table for sample 6 : 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	425	616.57	2,196.7		78.92
3	445	147.68	502.9		80.04
4	456	117.00	388.8		80.68
5	467	758.52	2,460.4		81.31
6	908	9.23	15.4		93.72
7	999	4.47	6.8		94.94
8	10,380	75.00	10.9	Upper Marker	113.00
9	12,285	0.00	0.0		114.90
10	13,654	0.00	0.0		116.26

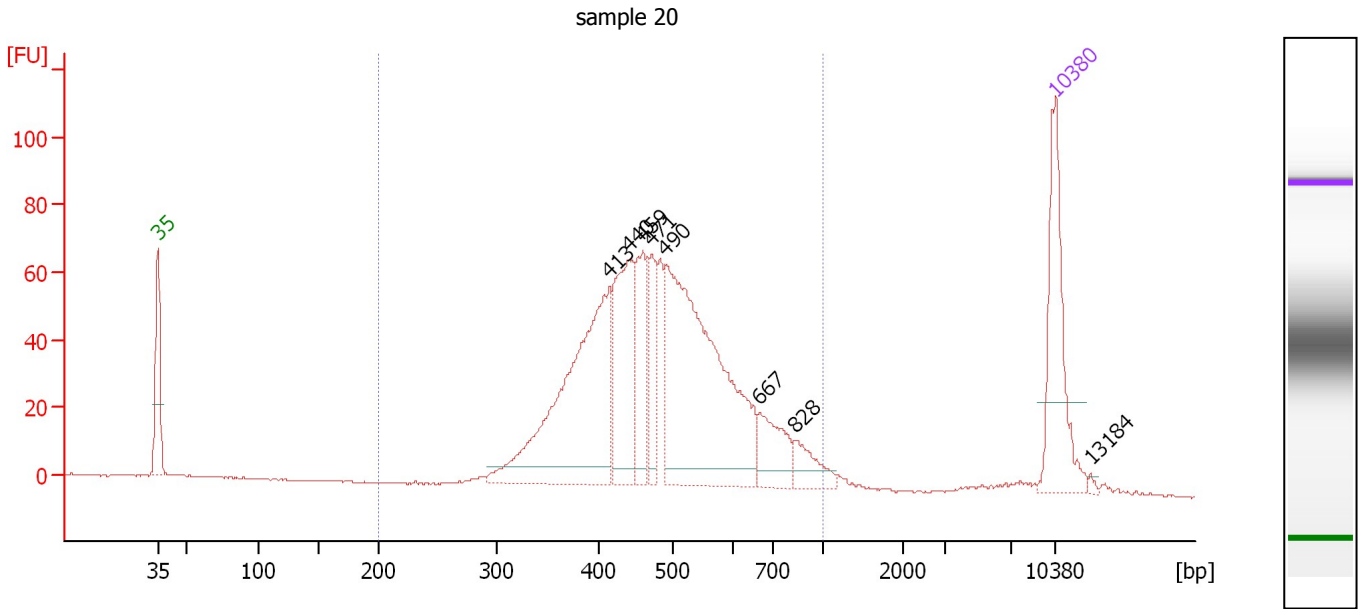
Region table for sample 6 : sample 19

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	475	1,000	1,400.7	5,885.5	92	22.9	1,733.39

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-18\2015-09-18_002.xad

Created: 9/18/2015 3:34:30 PM
 Modified: 9/18/2015 4:14:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 20

Number of peaks found: 8 Corr. Area 1: 1,155.6
 Noise: 0.2

Peak table for sample 7 : 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	413	250.14	916.9		78.25
3	440	110.14	379.3		79.76
4	459	69.12	228.2		80.84
5	471	45.39	146.0		81.53
6	490	303.92	940.0		82.61
7	667	42.04	95.4		89.96
8	828	24.10	44.1		92.66
9	10,380	75.00	10.9	Upper Marker	113.00
10	13,184	0.00	0.0		115.79

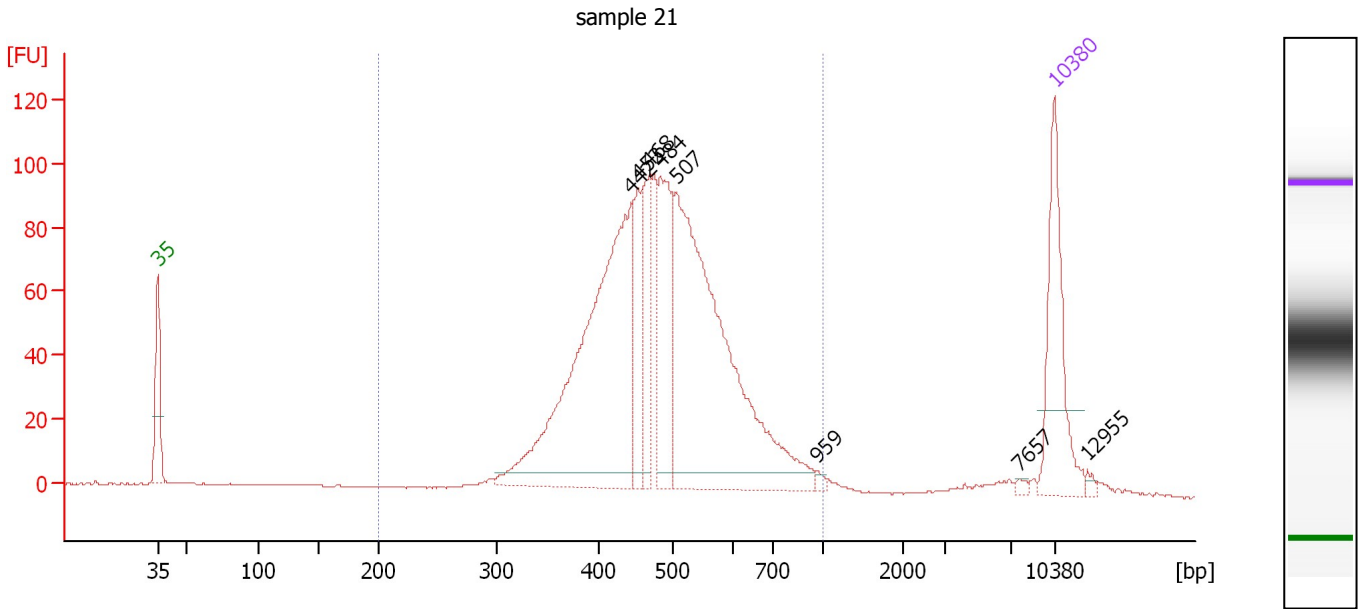
Region table for sample 7 : sample 20

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	494	1,000	1,155.6	2,942.6	95	24.4	896.40

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-18\2015-09-18_002.xad

Created: 9/18/2015 3:34:30 PM
 Modified: 9/18/2015 4:14:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 21

Number of peaks found: 8 Corr. Area 1: 1,445.3
 Noise: 0.1

Peak table for sample 8 : 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	442	379.86	1,301.1		79.90
3	453	55.69	186.4		80.49
4	468	57.12	184.8		81.38
5	484	103.76	324.9		82.27
6	507	389.87	1,165.9		83.50
7	959	3.44	5.4		94.40
8	7,657	2.53	0.5		110.29
9	10,380	75.00	10.9	Upper Marker	113.00
10	12,955	0.00	0.0		115.57

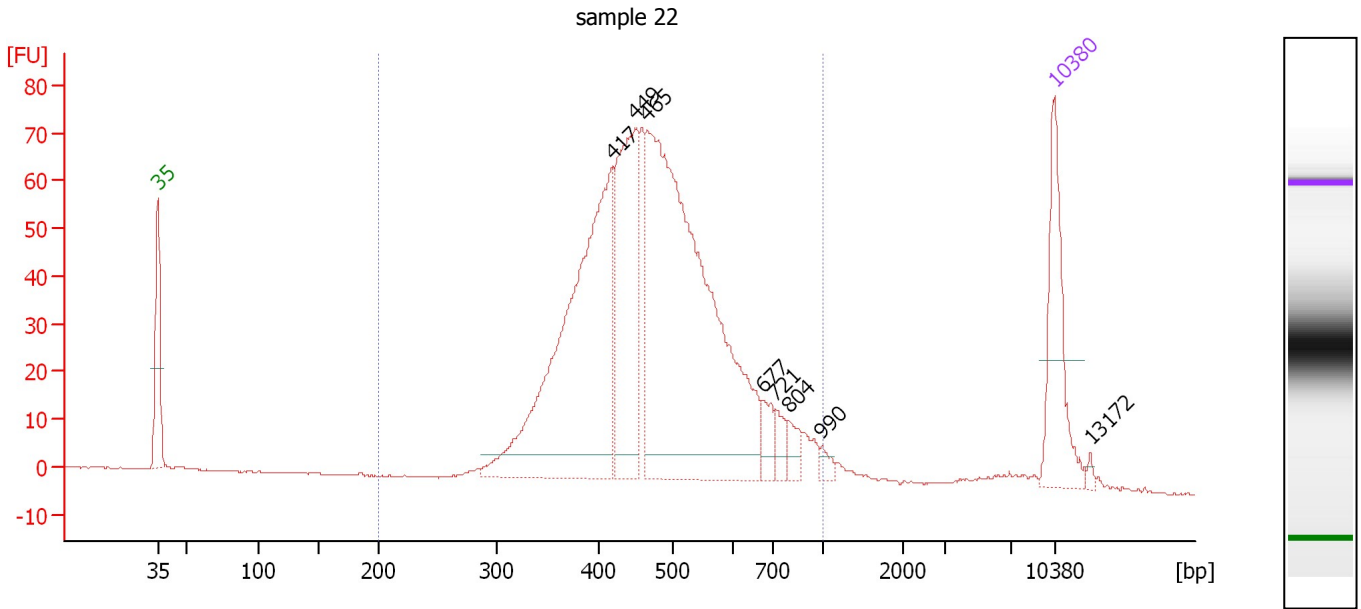
Region table for sample 8 : sample 21

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	490	1,000	1,445.3	3,474.3	96	21.2	1,064.62

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-18\2015-09-18_002.xad

Created: 9/18/2015 3:34:30 PM
 Modified: 9/18/2015 4:14:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 22

Number of peaks found: 8 Corr. Area 1: 1,162.3
 Noise: 0.2

Peak table for sample 9 : 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	417	410.34	1,489.8		78.47
3	449	200.04	675.5		80.26
4	465	584.28	1,902.8		81.20
5	677	19.61	43.9		90.25
6	721	14.15	29.7		91.24
7	804	15.92	30.0		92.33
8	990	7.38	11.3		94.82
9	10,380	75.00	10.9	Upper Marker	113.00
10	13,172	0.00	0.0		115.78

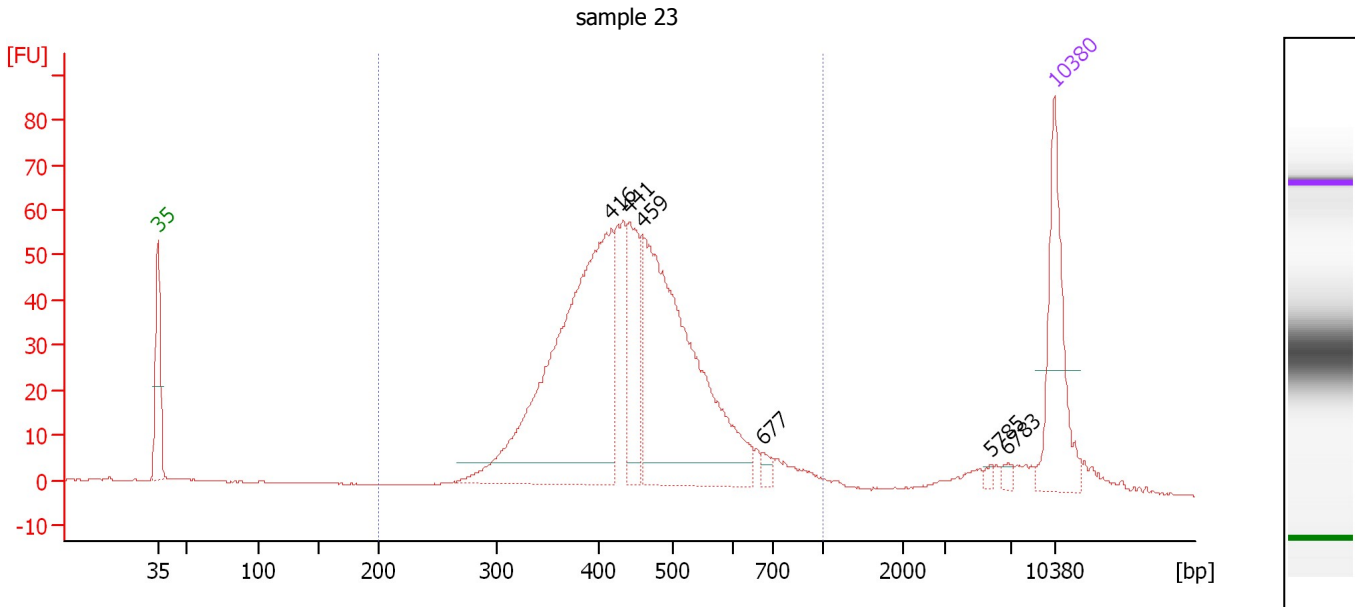
Region table for sample 9 : sample 22

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	485	1,000	1,162.3	4,471.7	95	24.0	1,344.21

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-18\2015-09-18_002.xad

Created: 9/18/2015 3:34:30 PM
 Modified: 9/18/2015 4:14:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 23

Number of peaks found: 6 Corr. Area 1: 927.1
 Noise: 0.1

Peak table for sample 10 : 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	416	403.11	1,468.0		78.40
3	441	79.98	275.0		79.80
4	459	337.55	1,114.2		80.85
5	677	6.89	15.4		90.25
6	5,785	2.71	0.7		108.05
7	6,783	4.16	0.9		109.35
8	10,380	75.00	10.9	Upper Marker	113.00

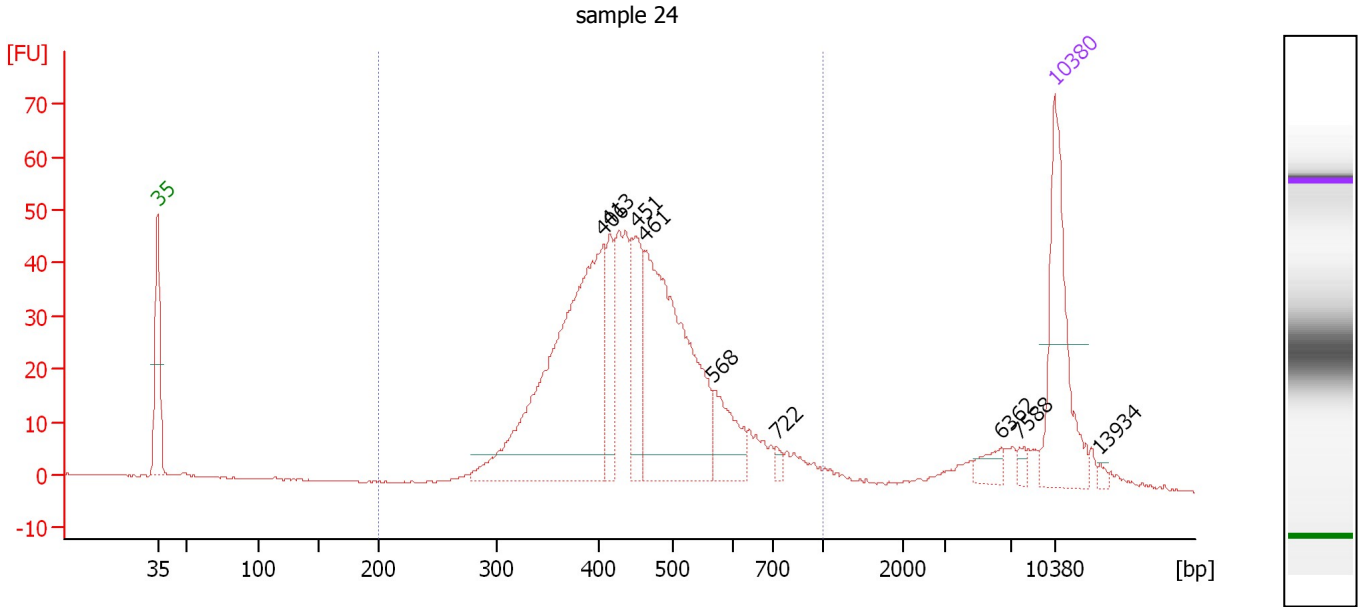
Region table for sample 10 : sample 23

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	454	1,000	927.1	3,484.9	92	22.8	985.37

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-18\2015-09-18_002.xad

Created: 9/18/2015 3:34:30 PM
 Modified: 9/18/2015 4:14:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 24

Number of peaks found: 9 Corr. Area 1: 752.0
 Noise: 0.2

Peak table for sample 11 : 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	406	295.60	1,104.5		77.80
3	413	41.35	151.5		78.25
4	451	58.50	196.6		80.38
5	461	220.01	722.5		80.98
6	568	39.61	105.6		86.40
7	722	4.63	9.7		91.25
8	6,362	10.70	2.5		108.80
9	7,588	4.22	0.8		110.22
10	10,380	75.00	10.9	Upper Marker	113.00
11	13,934	0.00	0.0		116.54

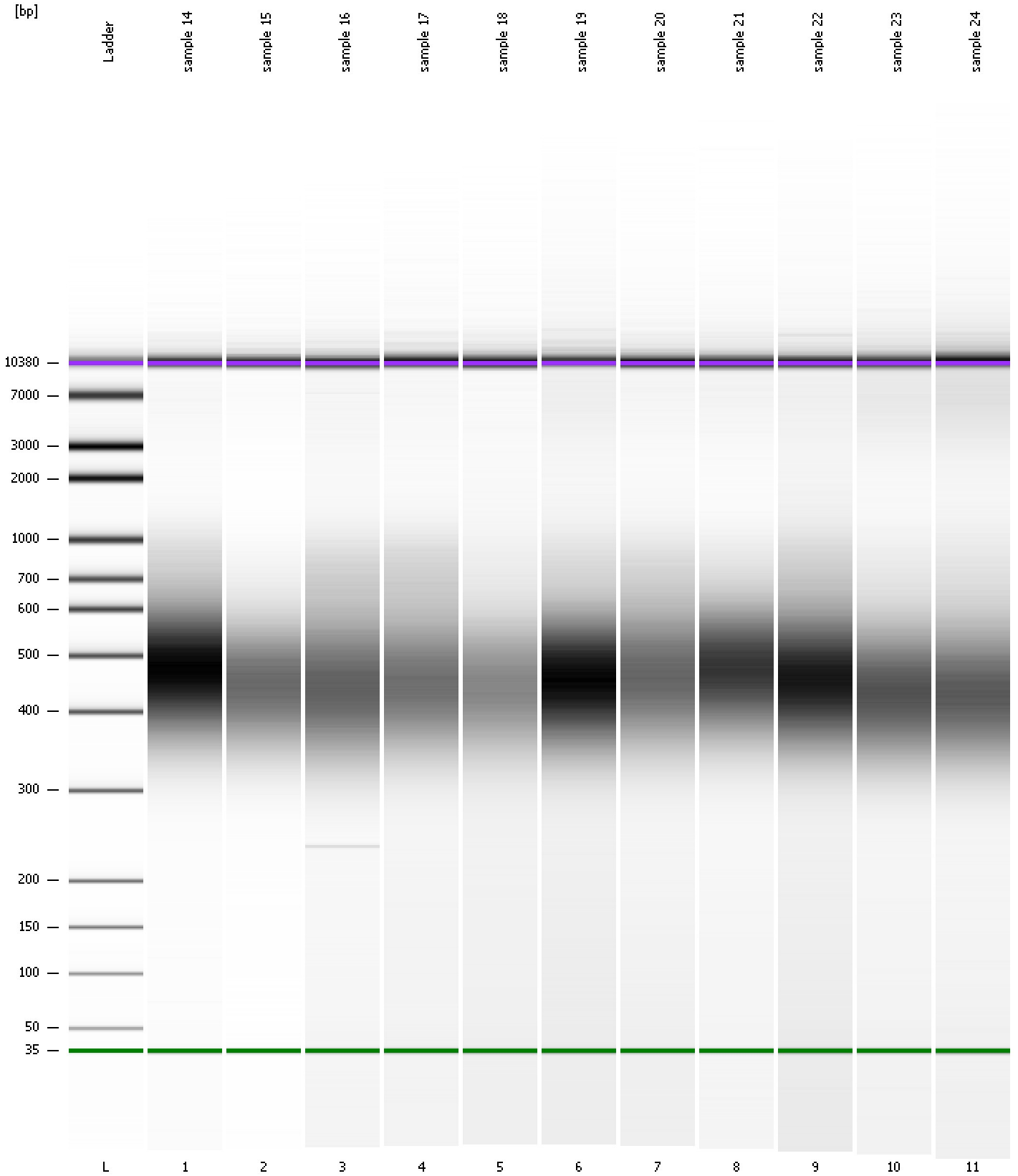
Region table for sample 11 : sample 24

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	460	1,000	752.0	2,869.0	90	23.9	818.47

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-18\2015-09-18_002.xad

Created: 9/18/2015 3:34:30 PM
Modified: 9/18/2015 4:14:58 PM

Gel Image

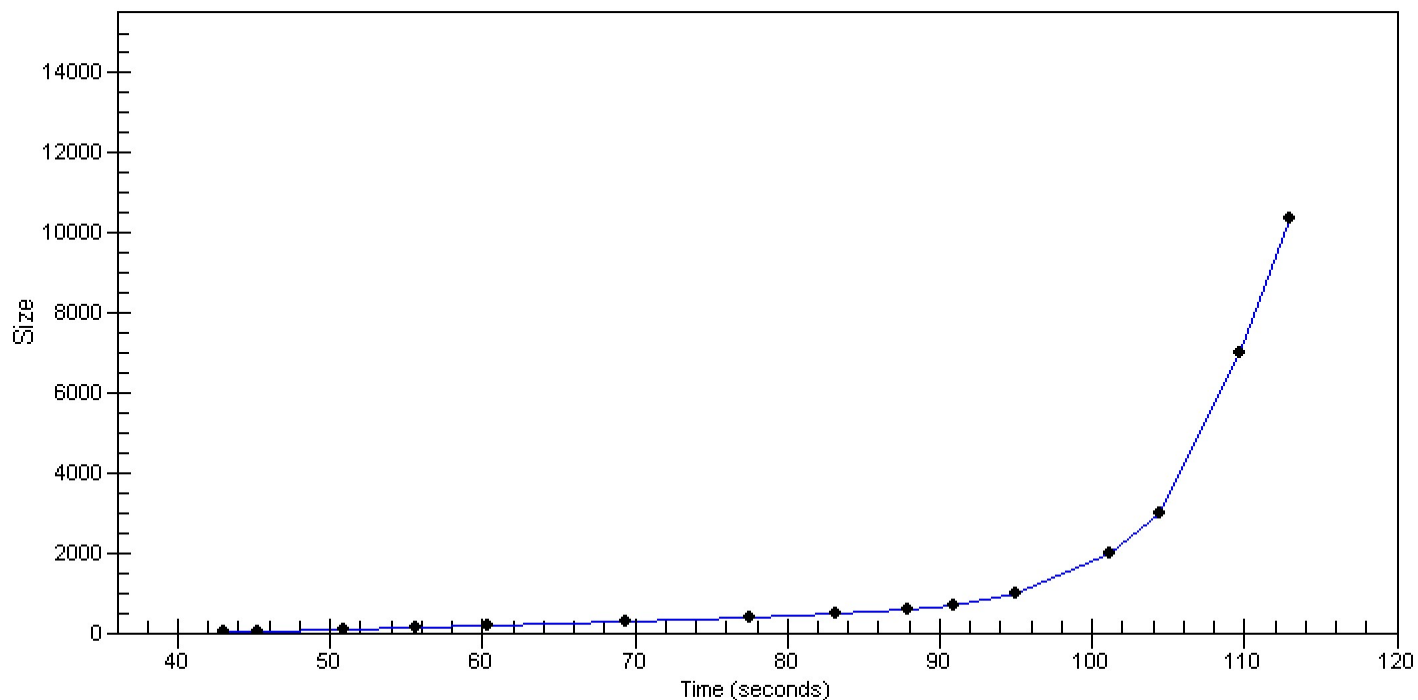


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-18\2015-09-18_002.xad

Created: 9/18/2015 3:34:30 PM
Modified: 9/18/2015 4:14:58 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-18\2015-09-18_002.xad

Created: 9/18/2015 3:34:30 PM
 Modified: 9/18/2015 4:14:58 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		9/18/2015 4:14:57 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-09-18\2015-09-18_002.xad)		Instrument	Run		9/18/2015 3:34:36 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/18/2015 3:34:36 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/18/2015 3:34:36 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/18/2015 3:34:36 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/18/2015 3:34:36 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/18/2015 3:34:36 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/18/2015 3:34:36 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1