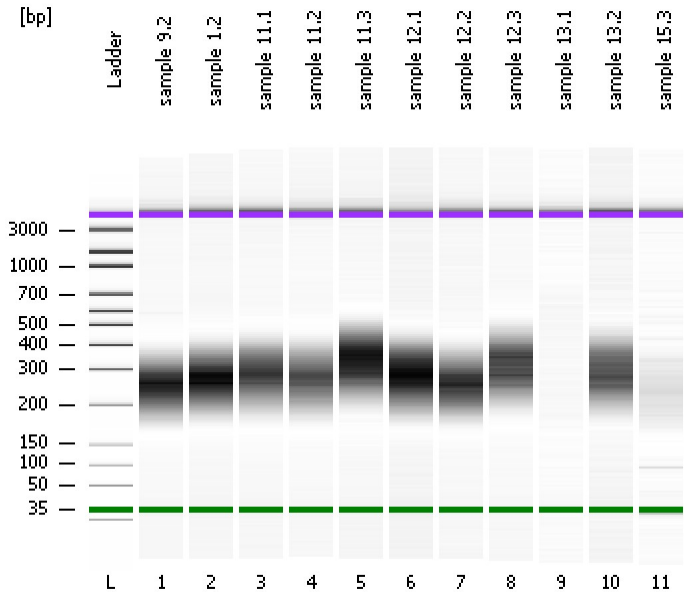


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-10\2014-12-10_006.xad

Created: 12/10/2014 3:29:46 PM
Modified: 12/10/2014 4:15:22 PM

Electrophoresis File Run Summary



Instrument Information:

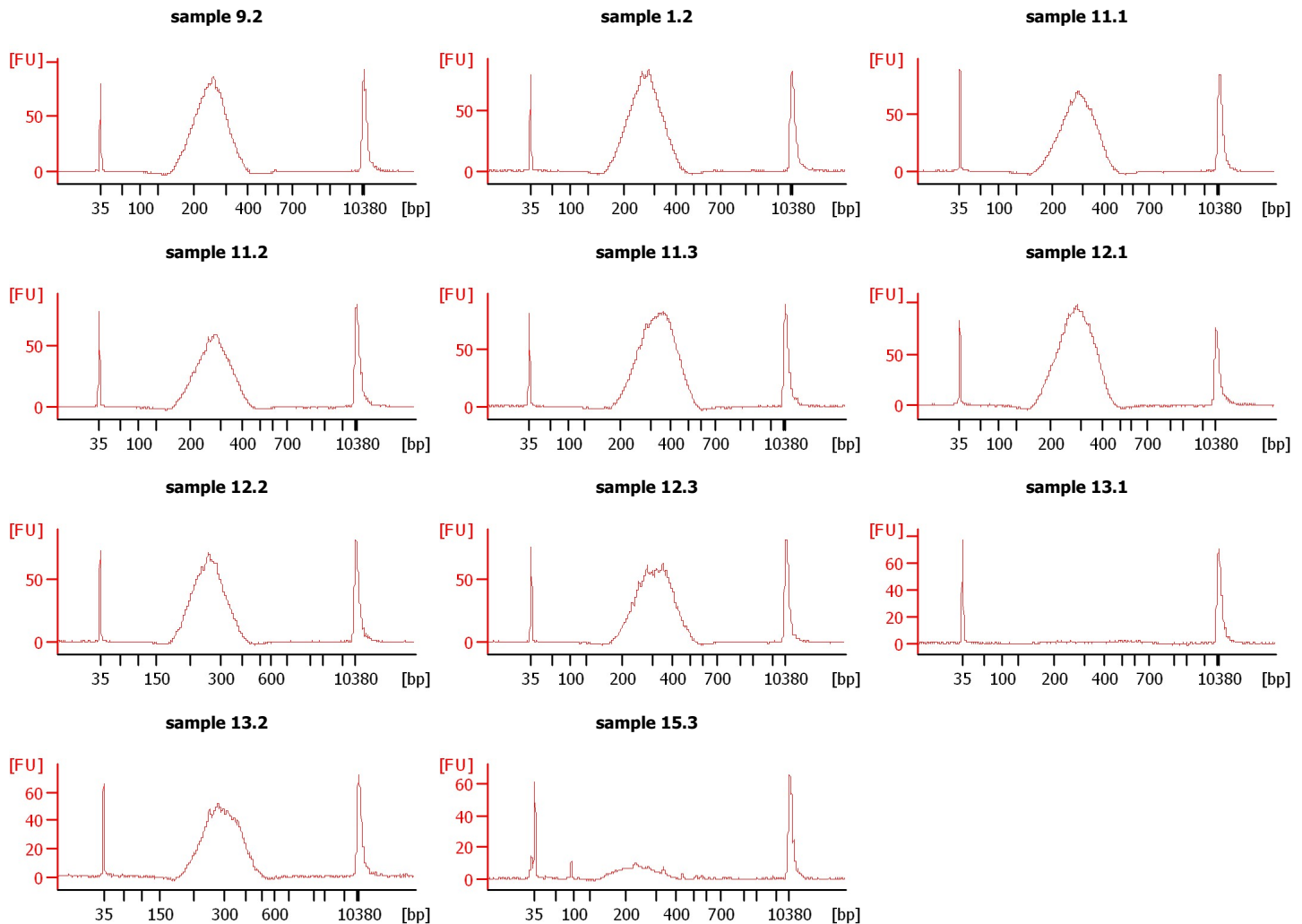
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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:



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-10\2014-12-10_006.xad

Created: 12/10/2014 3:29:46 PM
Modified: 12/10/2014 4:15:22 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 9.2		<input type="checkbox"/>	✓			
sample 1.2		<input type="checkbox"/>	✓			
sample 11.1		<input type="checkbox"/>	✓			
sample 11.2		<input type="checkbox"/>	✓			
sample 11.3		<input type="checkbox"/>	✓			
sample 12.1		<input type="checkbox"/>	✓			
sample 12.2		<input type="checkbox"/>	✓			
sample 12.3		<input type="checkbox"/>	✓			
sample 13.1		<input type="checkbox"/>	✓			
sample 13.2		<input type="checkbox"/>	✓			
sample 15.3		<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\2014-12-10\2014-12-10_006.xad

Created: 12/10/2014 3:29:46 PM
 Modified: 12/10/2014 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

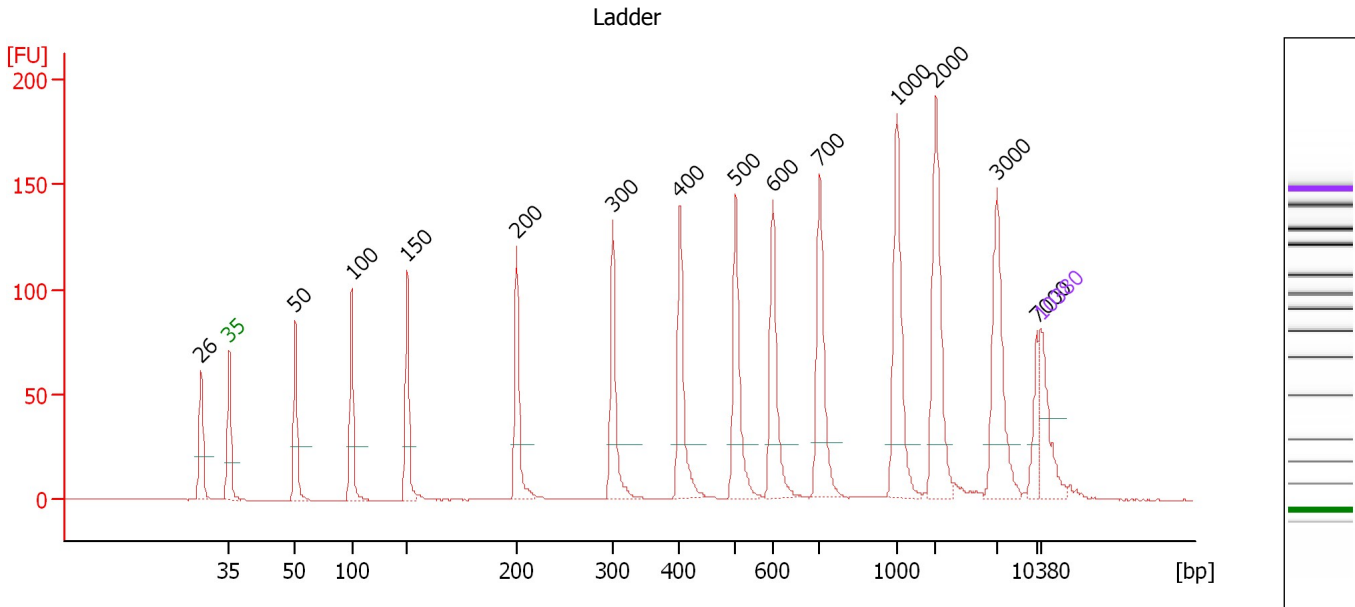
Ladder

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\2014-12-10\2014-12-10_006.xad

Created: 12/10/2014 3:29:46 PM
 Modified: 12/10/2014 4:15:22 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

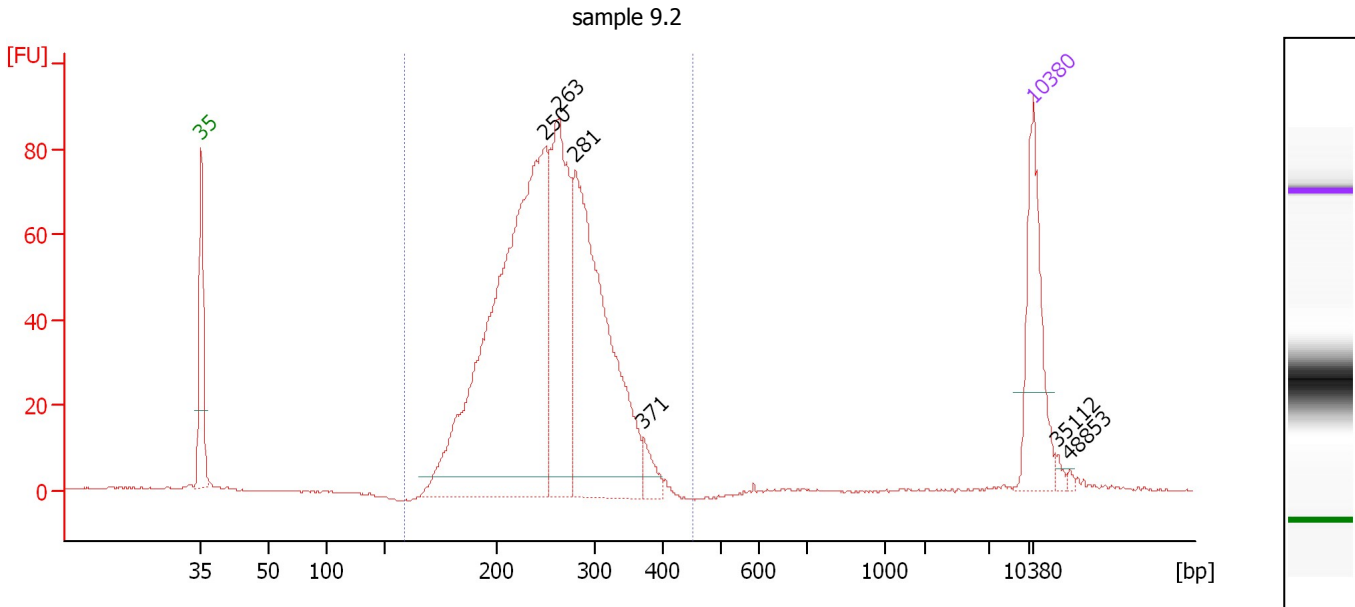
Peak table for Ladder

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	26	0.00	0.0		40.56
2	35	125.00	5,411.3	Lower Marker	43.00
3	50	150.00	4,545.5	Ladder Peak	48.71
4	100	150.00	2,272.7	Ladder Peak	53.59
5	150	150.00	1,515.2	Ladder Peak	58.37
6	200	150.00	1,136.4	Ladder Peak	67.81
7	300	150.00	757.6	Ladder Peak	76.14
8	400	150.00	568.2	Ladder Peak	81.89
9	500	150.00	454.5	Ladder Peak	86.72
10	600	150.00	378.8	Ladder Peak	89.94
11	700	150.00	324.7	Ladder Peak	93.99
12	1,000	150.00	227.3	Ladder Peak	100.62
13	2,000	150.00	113.6	Ladder Peak	103.98
14	3,000	150.00	75.8	Ladder Peak	109.27
15	7,000	150.00	32.5	Ladder Peak	112.72
16	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-10\2014-12-10_006.xad

Created: 12/10/2014 3:29:46 PM
 Modified: 12/10/2014 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 9.2

Number of peaks found: 6 Corr. Area 1: 1,188.7
 Noise: 0.1

Peak table for sample 1 : sample 9.2

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	250	688.77	4,176.4		71.96
3	263	246.95	1,423.7		73.04
4	281	382.20	2,063.7		74.52
5	371	19.41	79.2		80.22
6	10,380	75.00	10.9	Upper Marker	113.00
7	35,112	0.00	0.0		115.02
8	48,853	0.00	0.0		116.14

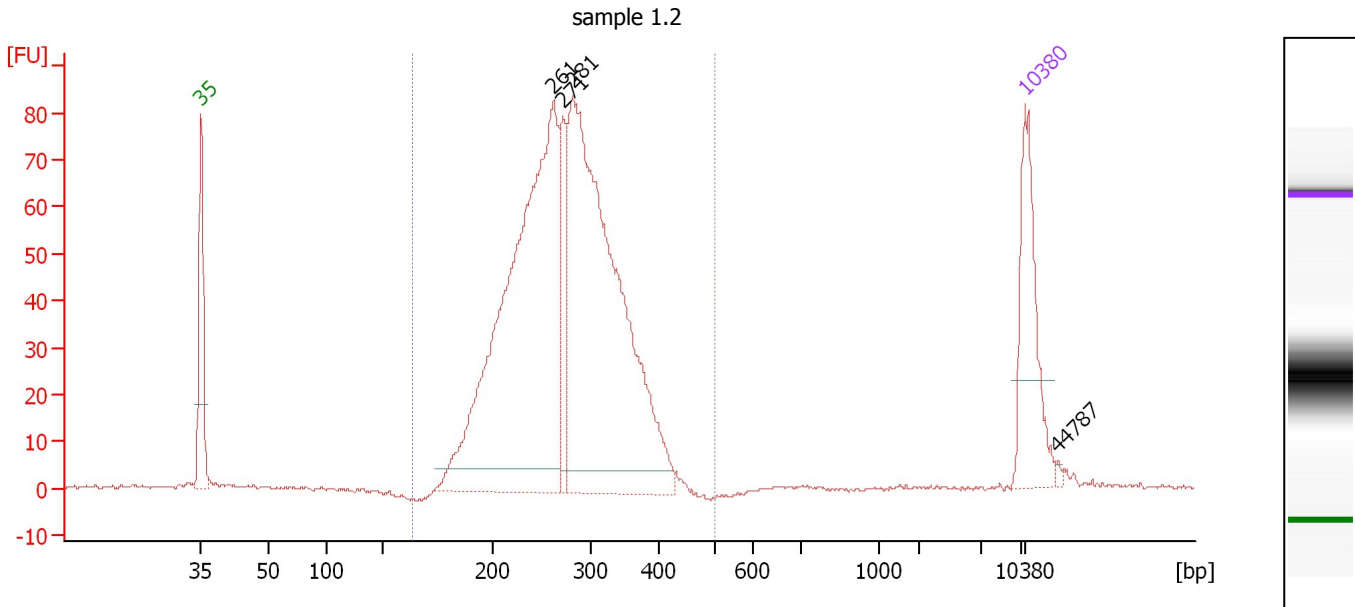
Region table for sample 1 : sample 9.2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
159	256	450	1,188.7	98	18.2	1,324.89	8,144.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-10\2014-12-10_006.xad

Created: 12/10/2014 3:29:46 PM
 Modified: 12/10/2014 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 1.2

Number of peaks found: 4 Corr. Area 1: 1,162.5
 Noise: 0.4

Peak table for sample 2 : sample 1.2

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	261	617.75	3,580.4		72.92
3	271	69.58	388.7		73.74
4	281	594.65	3,206.2		74.55
5	10,380	75.00	10.9	Upper Marker	113.00
6	44,787	0.00	0.0		115.81

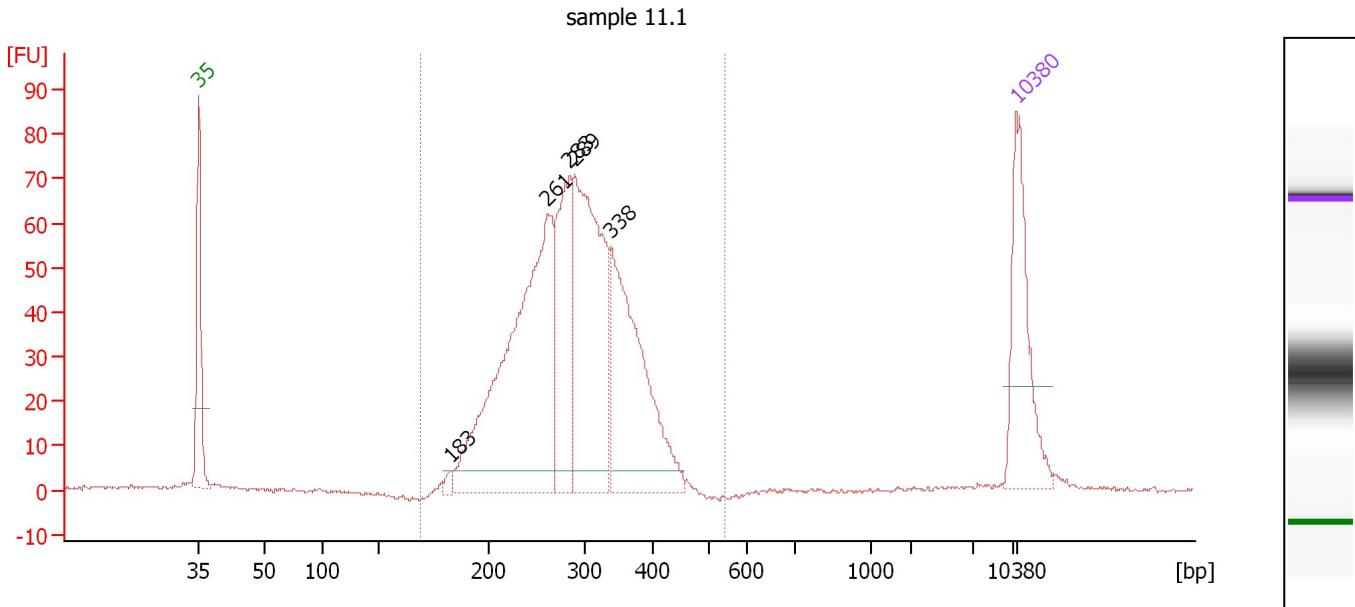
Region table for sample 2 : sample 1.2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
163	275	497	1,162.5	99	19.0	1,239.59	7,115.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-10\2014-12-10_006.xad

Created: 12/10/2014 3:29:46 PM
 Modified: 12/10/2014 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 11.1

Number of peaks found: 5 Corr. Area 1: 1,024.6
 Noise: 0.3

Peak table for sample 3 : sample 11.1

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	183	5.49	45.5		64.55
3	261	402.10	2,336.9		72.86
4	283	142.15	760.6		74.74
5	289	266.72	1,397.3		75.24
6	338	214.37	962.2		78.30
7	10,380	75.00	10.9	Upper Marker	113.00

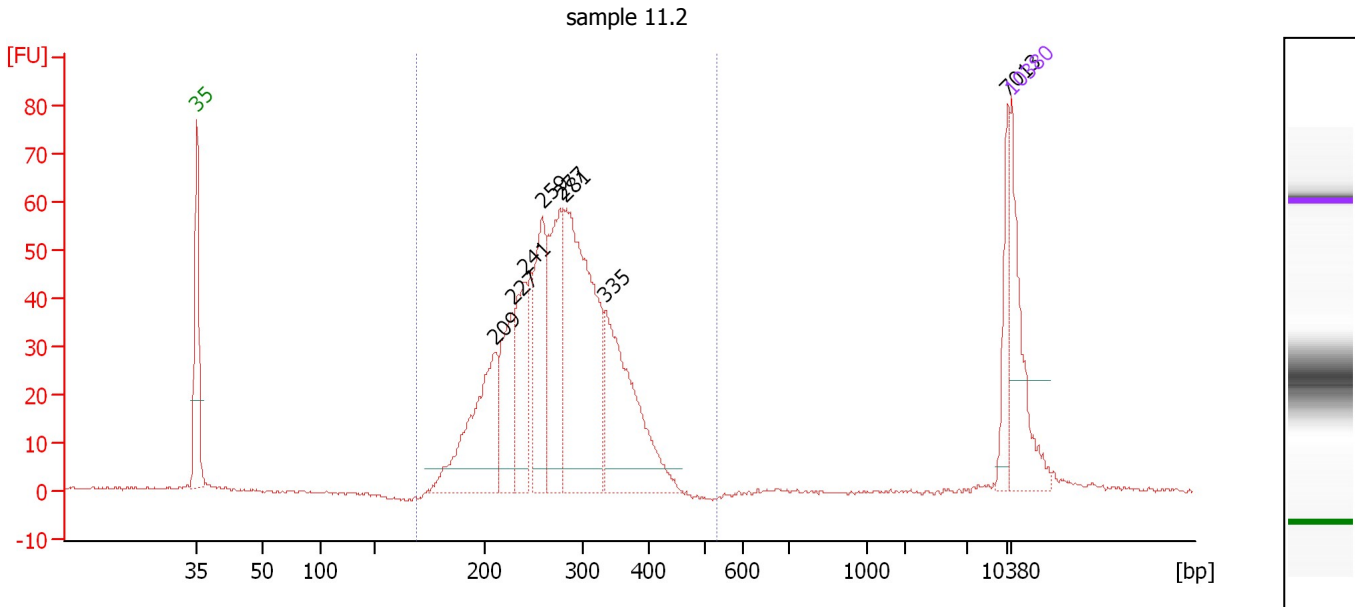
Region table for sample 3 : sample 11.1

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
169	291	541	1,024.6	99	19.8	1,014.38	5,541.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-10\2014-12-10_006.xad

Created: 12/10/2014 3:29:46 PM
 Modified: 12/10/2014 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 11.2

Number of peaks found: 8 Corr. Area 1: 844.0
 Noise: 0.2

Peak table for sample 4 : sample 11.2

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	209	184.95	1,338.9		68.58
3	227	101.78	678.0		70.09
4	241	101.57	639.5		71.19
5	259	122.10	714.8		72.71
6	277	135.27	740.0		74.22
7	281	325.24	1,751.3		74.58
8	335	197.01	890.5		78.16
9	7,013	34.56	7.5		112.72
10	10,380	75.00	10.9	Upper Marker	113.00

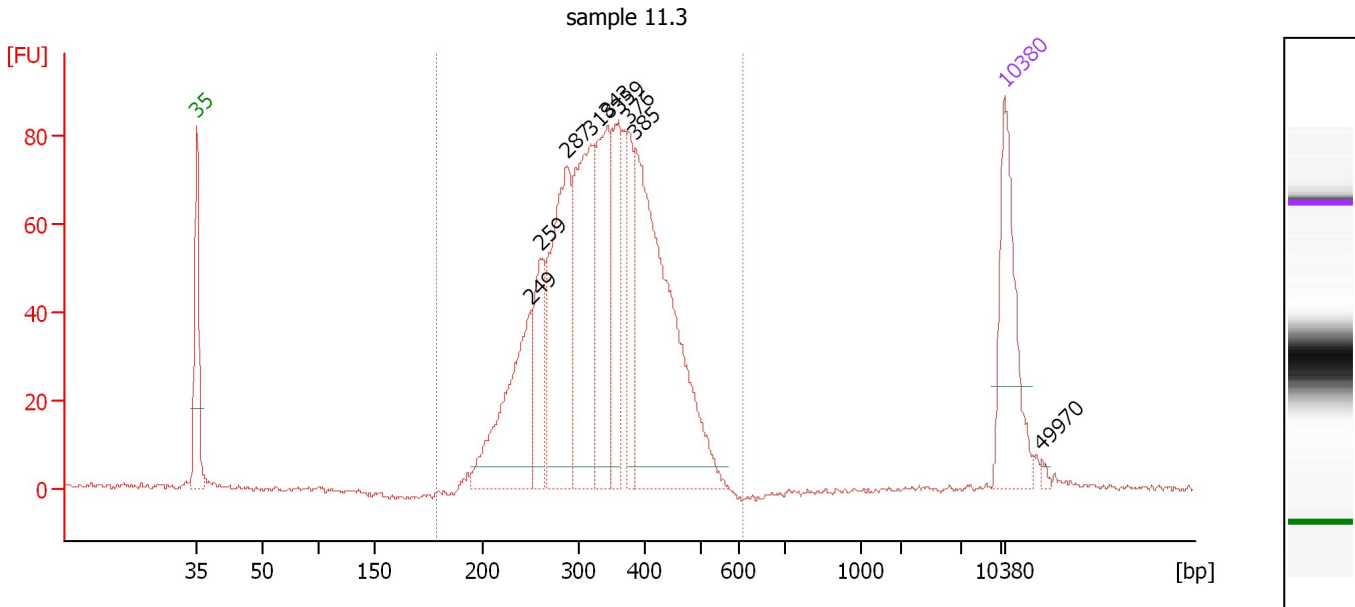
Region table for sample 4 : sample 11.2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
169	280	531	844.0	95	19.7	1,185.97	6,733.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-10\2014-12-10_006.xad

Created: 12/10/2014 3:29:46 PM
 Modified: 12/10/2014 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 11.3

Number of peaks found: 9 Corr. Area 1: 1,323.7
 Noise: 0.6

Peak table for sample 5 : sample 11.3

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	249	153.19	932.6		71.88
3	259	78.89	460.8		72.76
4	287	191.23	1,009.0		75.07
5	318	176.36	839.4		77.19
6	343	135.76	599.3		78.62
7	359	82.77	349.8		79.50
8	376	52.85	212.9		80.52
9	385	307.64	1,210.7		81.03
10	10,380	75.00	10.9	Upper Marker	113.00
11	49,970	0.00	0.0		116.23

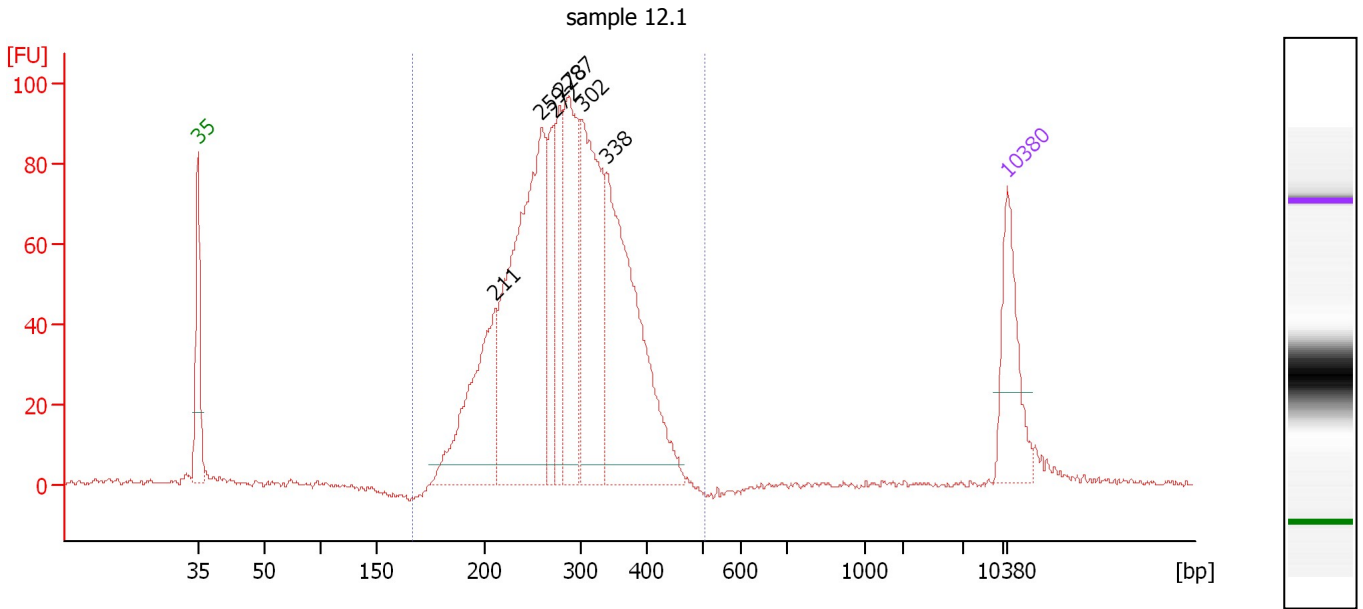
Region table for sample 5 : sample 11.3

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
179	339	609	1,323.7	98	21.3	1,231.31	5,843.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-10\2014-12-10_006.xad

Created: 12/10/2014 3:29:46 PM
 Modified: 12/10/2014 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 12.1

Number of peaks found: 7 Corr. Area 1: 1,520.9
 Noise: 0.4

Peak table for sample 6 : sample 12.1

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	211	226.94	1,631.5		68.70
3	259	486.56	2,846.9		72.72
4	272	93.76	521.8		73.82
5	278	90.10	491.5		74.29
6	287	213.44	1,128.2		75.02
7	302	259.89	1,302.5		76.27
8	338	360.78	1,615.3		78.35
9	10,380	75.00	10.9	Upper Marker	113.00

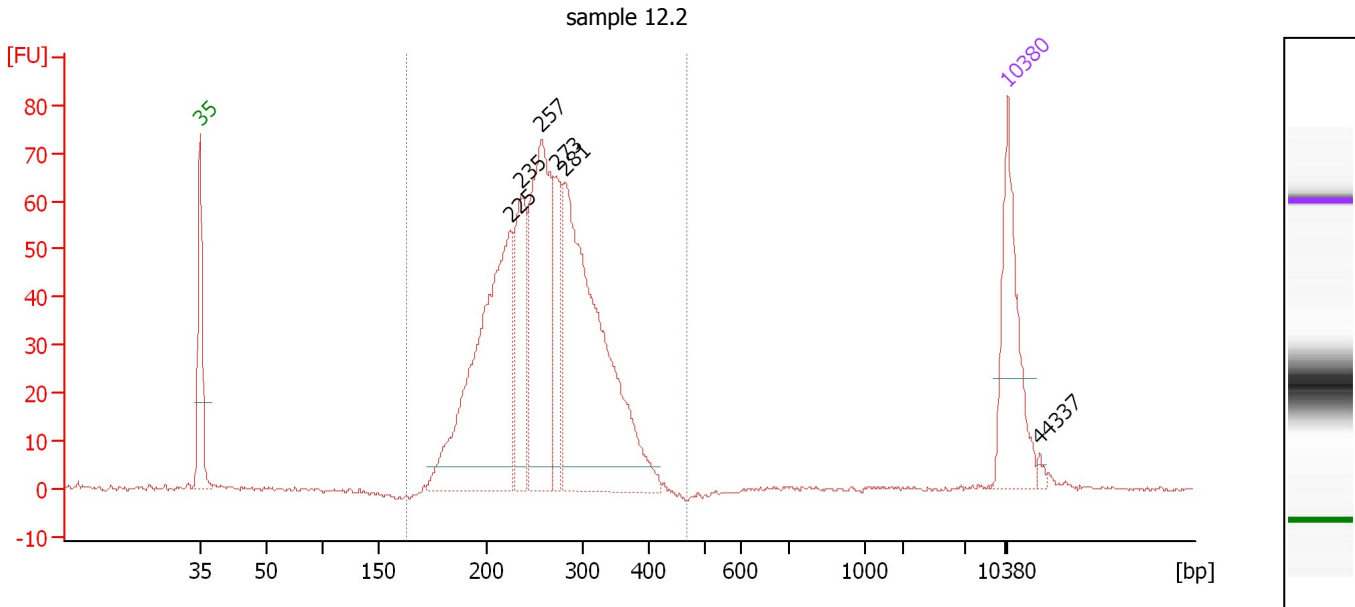
Region table for sample 6 : sample 12.1

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
167	290	506	1,520.9	97	20.7	1,766.74	9,767.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-10\2014-12-10_006.xad

Created: 12/10/2014 3:29:46 PM
 Modified: 12/10/2014 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 12.2

Number of peaks found: 6 Corr. Area 1: 989.4
 Noise: 0.4

Peak table for sample 7 : sample 12.2

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	225	345.03	2,326.6		69.86
3	235	115.38	743.2		70.74
4	257	239.08	1,407.1		72.59
5	273	70.26	390.0		73.89
6	281	378.03	2,040.2		74.53
7	10,380	75.00	10.9	Upper Marker	113.00
8	44,337	0.00	0.0		115.77

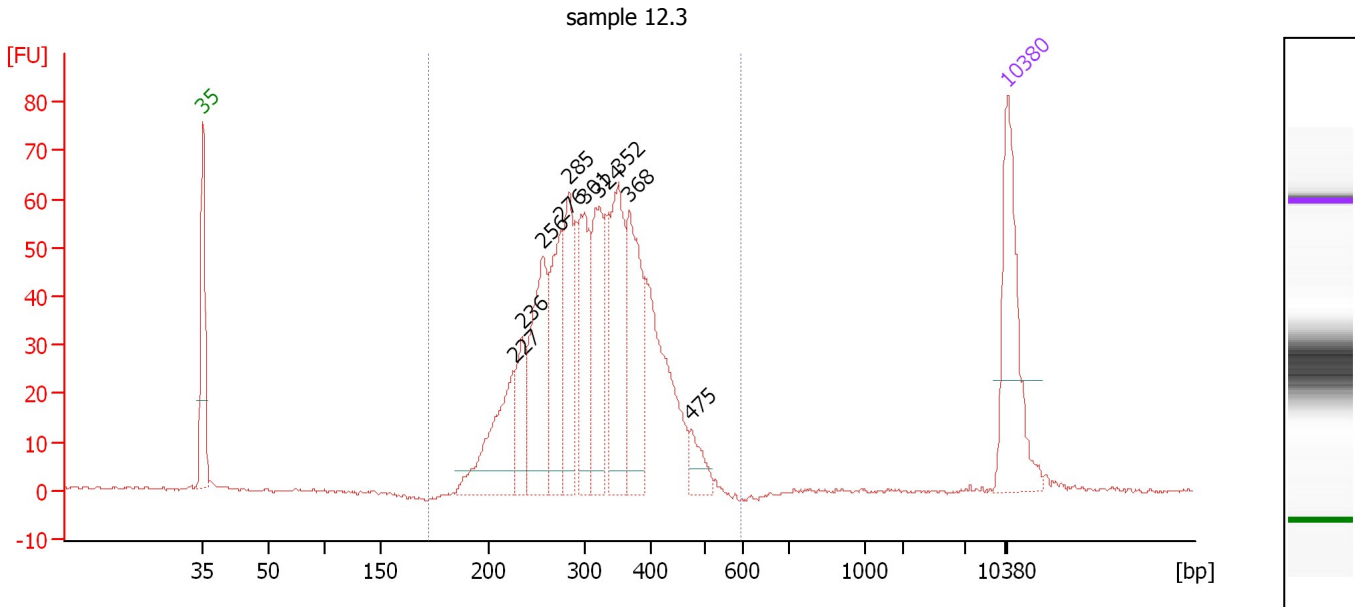
Region table for sample 7 : sample 12.2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
163	263	467	989.4	99	19.0	1,132.83	6,812.1	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-10\2014-12-10_006.xad

Created: 12/10/2014 3:29:46 PM
 Modified: 12/10/2014 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 12.3

Number of peaks found: 10 Corr. Area 1: 967.3
 Noise: 0.3

Peak table for sample 8 : sample 12.3

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	227	101.30	674.9		70.09
3	236	44.60	286.6		70.79
4	256	120.35	711.2		72.50
5	276	89.50	491.6		74.13
6	285	82.56	439.2		74.87
7	301	91.40	460.8		76.17
8	324	86.03	402.4		77.51
9	352	108.64	467.4		79.14
10	368	101.42	417.3		80.06
11	475	19.62	62.7		85.49
12	10,380	75.00	10.9	Upper Marker	113.00

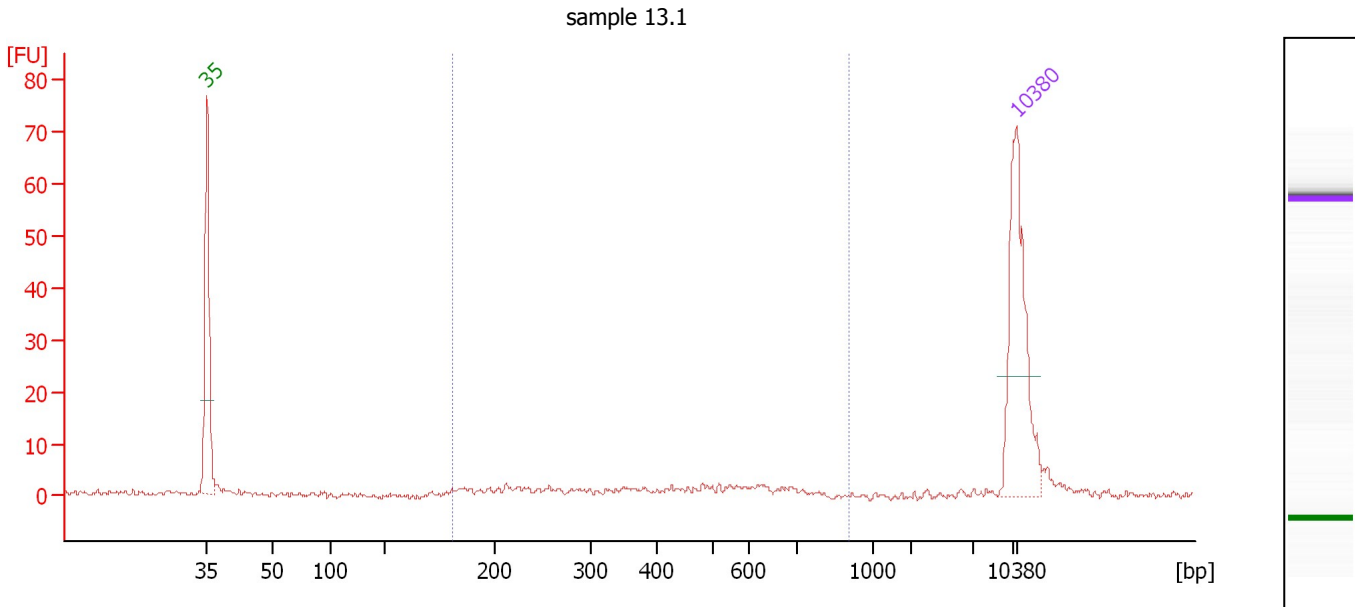
Region table for sample 8 : sample 12.3

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
172	321	597	967.3	99	21.2	1,002.39	5,017.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-10\2014-12-10_006.xad

Created: 12/10/2014 3:29:46 PM
 Modified: 12/10/2014 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 13.1

Number of peaks found: 0 Corr. Area 1: 33.4
 Noise: 0.5

Peak table for sample 9 : sample 13.1

Pea k	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

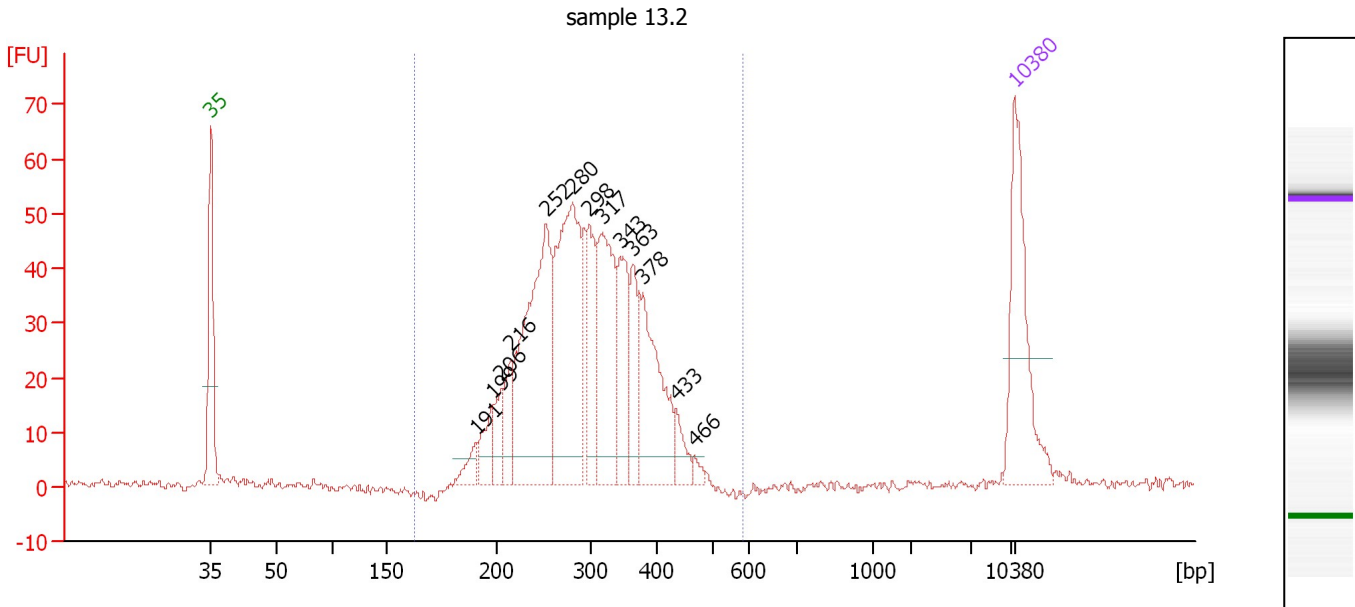
Region table for sample 9 : sample 13.1

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Co lor
181	419	903	33.4	64	39.8	36.93	174.5	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-10\2014-12-10_006.xad

Created: 12/10/2014 3:29:46 PM
 Modified: 12/10/2014 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 13.2

Number of peaks found: 13 Corr. Area 1: 798.1
 Noise: 0.8

Peak table for sample 10 : sample 13.2

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	191	17.49	138.7		66.13
3	199	30.29	231.2		67.53
4	206	26.96	198.8		68.27
5	216	35.19	247.3		69.10
6	252	216.11	1,297.3		72.17
7	280	201.98	1,091.9		74.49
8	298	61.78	314.6		75.93
9	317	116.43	557.1		77.09
10	343	66.19	292.1		78.63
11	363	44.67	186.6		79.74
12	378	97.52	390.9		80.62
13	433	15.83	55.3		83.50
14	466	5.49	17.8		85.08
15	10,380	75.00	10.9	Upper Marker	113.00

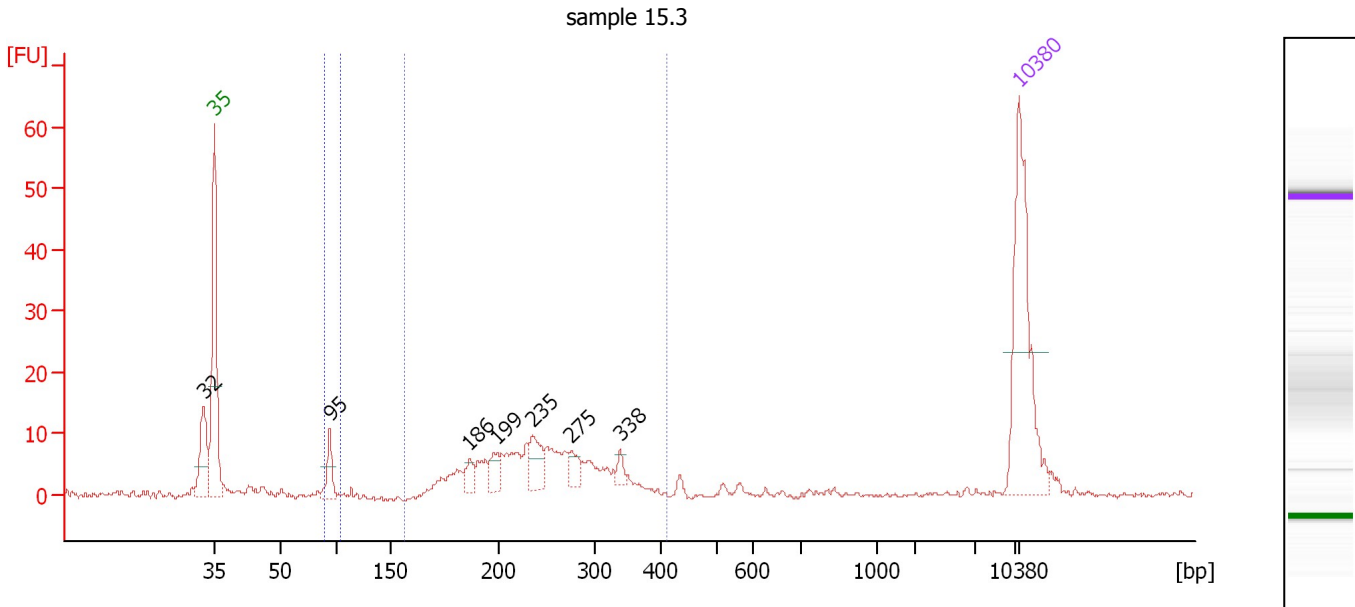
Region table for sample 10 : sample 13.2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
163	300	580	798.1	98	21.2	972.56	5,199.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-10\2014-12-10_006.xad

Created: 12/10/2014 3:29:46 PM
 Modified: 12/10/2014 4:15:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 15.3

Number of peaks found: 7 Corr. Area 1: 145.2
 Noise: 0.4 Corr. Area 2: 9.4

Peak table for sample 11 : sample 15.3

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.07
2	35	125.00	5,411.3	Lower Marker	43.00
3	95	19.94	319.0		53.07
4	186	10.37	84.3		65.22
5	199	13.70	104.3		67.63
6	235	22.37	144.5		70.69
7	275	11.47	63.1		74.08
8	338	5.94	26.6		78.30
9	10,380	75.00	10.9	Upper Marker	113.00

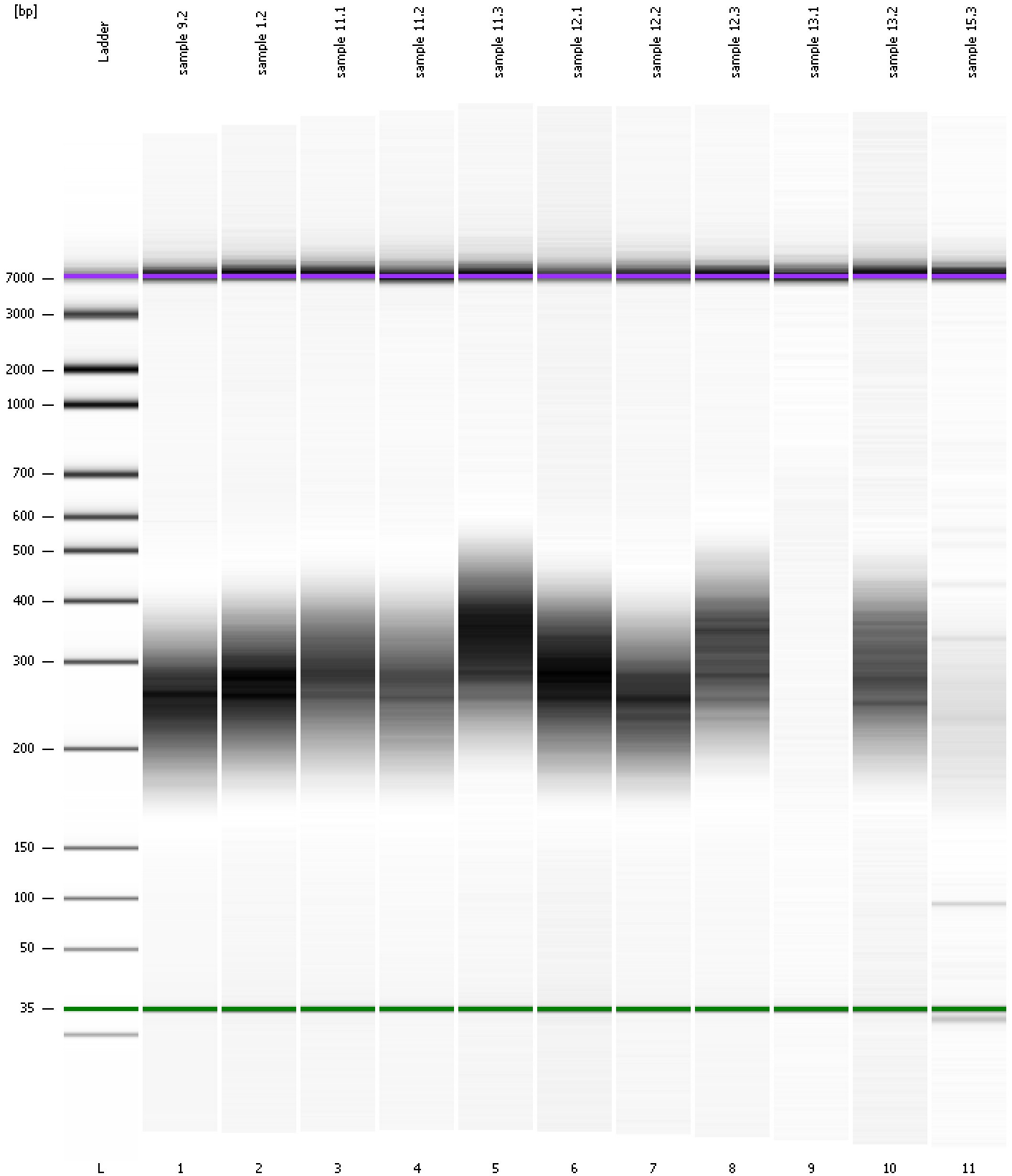
Region table for sample 11 : sample 15.3

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
89	94	104	9.4	4	2.3	17.22	276.4	Blue
156	248	411	145.2	68	21.6	219.23	1,420.2	Dark Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-10\2014-12-10_006.xad

Created: 12/10/2014 3:29:46 PM
Modified: 12/10/2014 4:15:22 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-10\2014-12-10_006.xad

Created: 12/10/2014 3:29:46 PM
 Modified: 12/10/2014 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		12/10/2014 4:10:14 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-12-10\2014-12-10_006.xad)		Instrument	Run		12/10/2014 3:29:51 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		12/10/2014 3:29:51 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		12/10/2014 3:29:51 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		12/10/2014 3:29:51 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		12/10/2014 3:29:51 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		12/10/2014 3:29:51 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		12/10/2014 3:29:51 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1