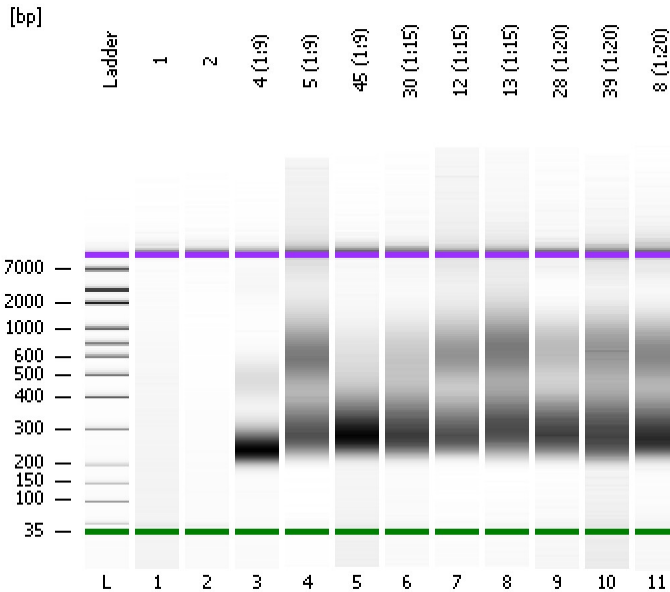


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28_002.xad

Created: 1/28/2015 12:19:34 PM
Modified: 1/28/2015 2:03:42 PM

Electrophoresis File Run Summary



Instrument Information:

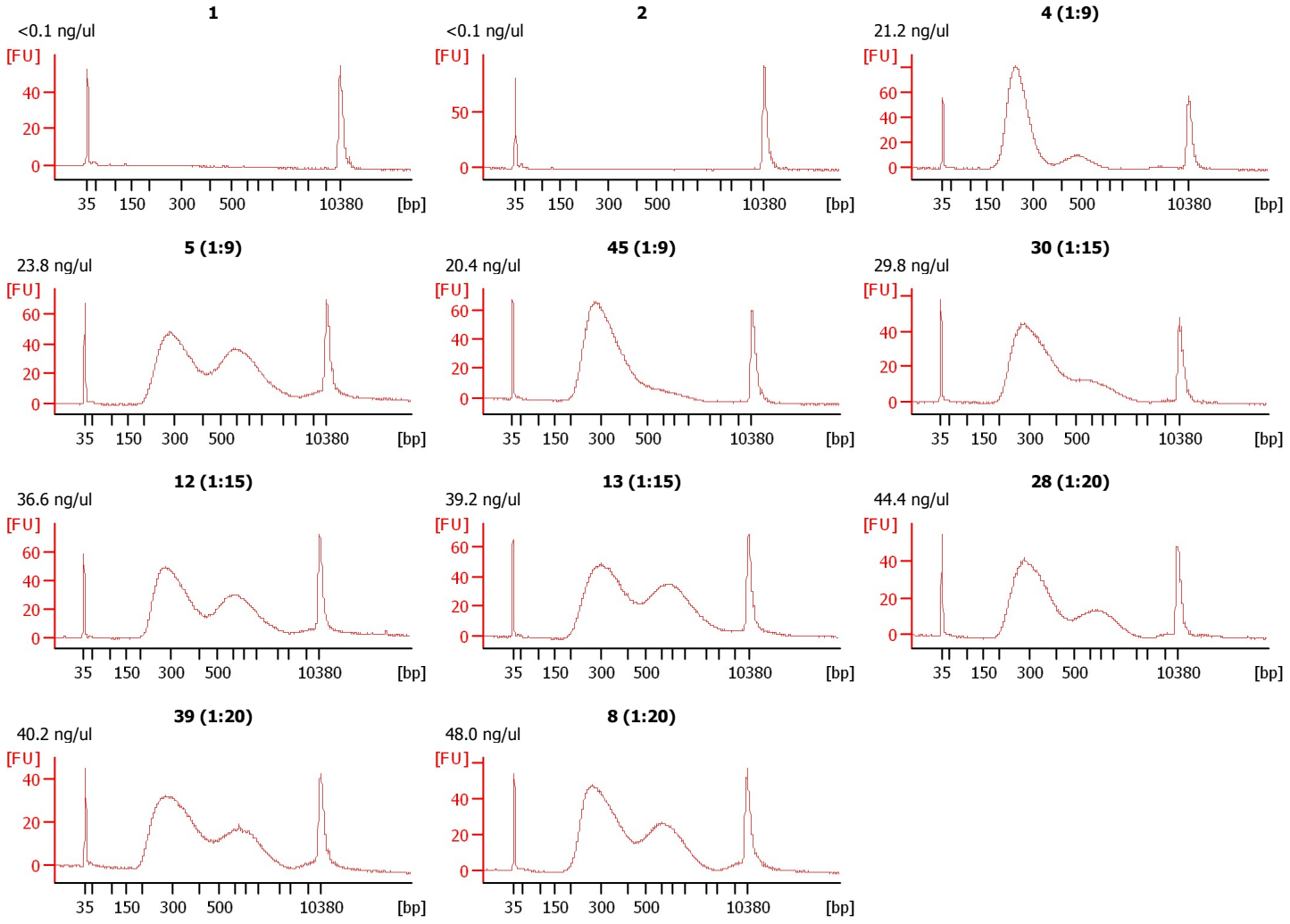
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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\2015-01-28\2015-01-28_002.xad

Created: 1/28/2015 12:19:34 PM
 Modified: 1/28/2015 2:03:42 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
1	<0.1 ng/ul	<input type="checkbox"/>	✓			
2	<0.1 ng/ul	<input type="checkbox"/>	✓			
4 (1:9)	21.2 ng/ul	<input type="checkbox"/>	✓			
5 (1:9)	23.8 ng/ul	<input type="checkbox"/>	✓			
45 (1:9)	20.4 ng/ul	<input type="checkbox"/>	✓			
30 (1:15)	29.8 ng/ul	<input type="checkbox"/>	✓			
12 (1:15)	36.6 ng/ul	<input type="checkbox"/>	✓			
13 (1:15)	39.2 ng/ul	<input type="checkbox"/>	✓			
28 (1:20)	44.4 ng/ul	<input type="checkbox"/>	✓			
39 (1:20)	40.2 ng/ul	<input type="checkbox"/>	✓			
8 (1:20)	48.0 ng/ul	<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\2015-01-28\2015-01-28_002.xad

Created: 1/28/2015 12:19:34 PM
Modified: 1/28/2015 2:03:42 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

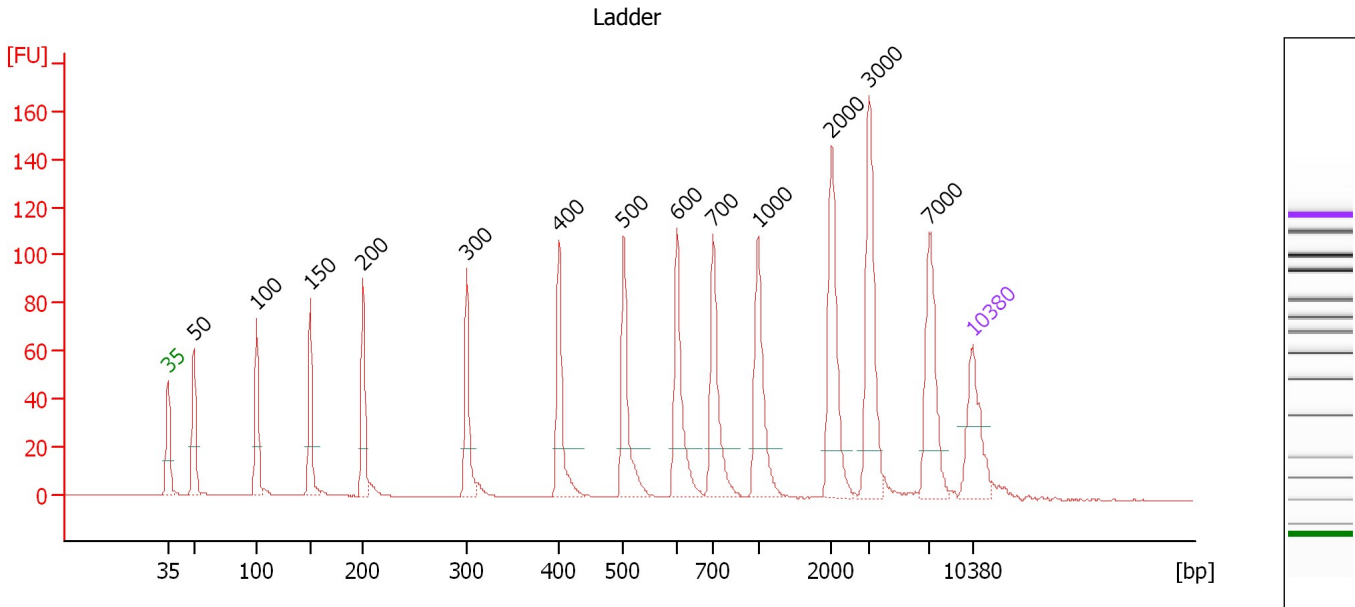
Ladder

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\2015-01-28\2015-01-28_002.xad

Created: 1/28/2015 12:19:34 PM
 Modified: 1/28/2015 2:03:42 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

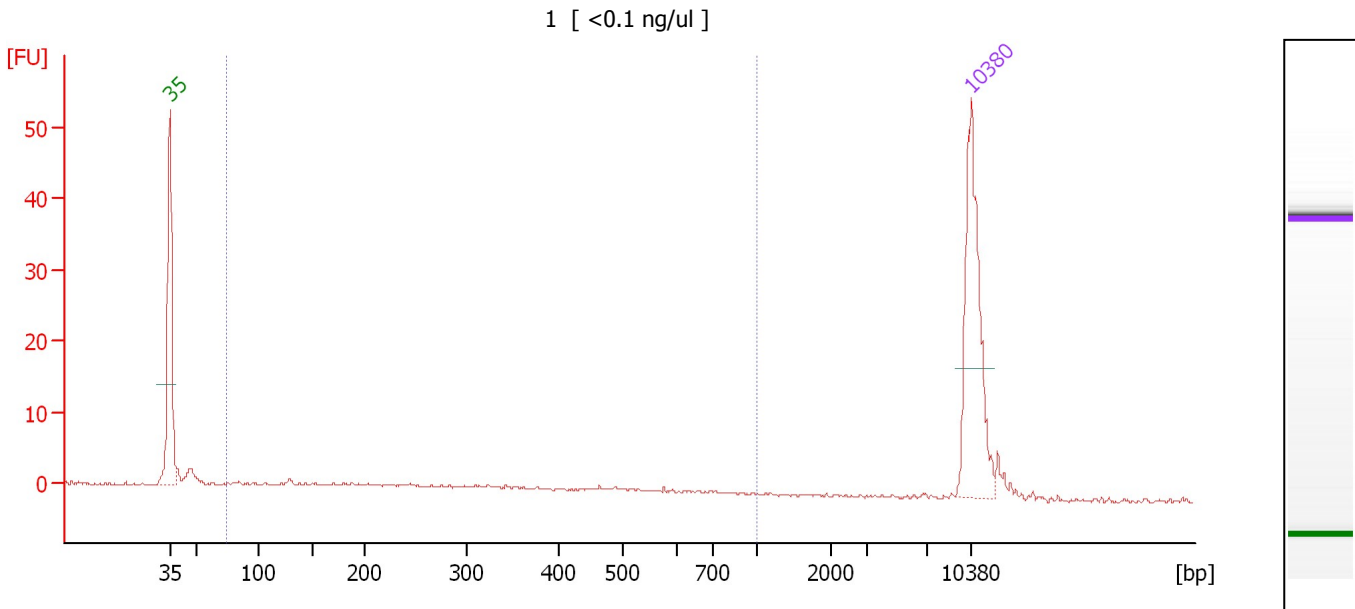
Peak table for Ladder

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	45.27
3	100	150.00	2,272.7	Ladder Peak	50.74
4	150	150.00	1,515.2	Ladder Peak	55.38
5	200	150.00	1,136.4	Ladder Peak	59.97
6	300	150.00	757.6	Ladder Peak	69.01
7	400	150.00	568.2	Ladder Peak	77.03
8	500	150.00	454.5	Ladder Peak	82.64
9	600	150.00	378.8	Ladder Peak	87.27
10	700	150.00	324.7	Ladder Peak	90.42
11	1,000	150.00	227.3	Ladder Peak	94.32
12	2,000	150.00	113.6	Ladder Peak	100.72
13	3,000	150.00	75.8	Ladder Peak	103.96
14	7,000	150.00	32.5	Ladder Peak	109.20
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28_002.xad

Created: 1/28/2015 12:19:34 PM
 Modified: 1/28/2015 2:03:42 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 1

Number of peaks found: 0 Corr. Area 1: 29.6
 Noise: 0.2

Peak table for sample 1 : 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	10,380	75.00	10.9	Upper Marker	113.00

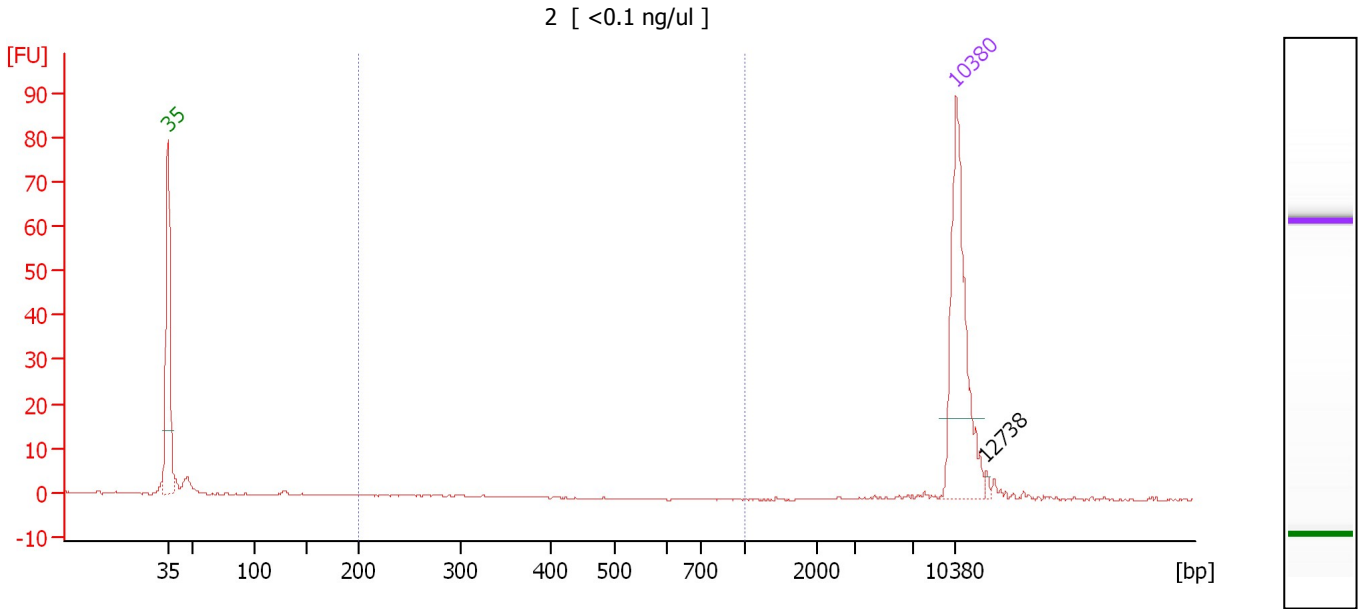
Region table for sample 1 : 1

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
75	303	1,000	29.6	62	55.6	52.32	425.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28_002.xad

Created: 1/28/2015 12:19:34 PM
 Modified: 1/28/2015 2:03:42 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 2

Number of peaks found: 1 Corr. Area 1: 0.2
 Noise: 0.1

Peak table for sample 2 : 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	10,380	75.00	10.9	Upper Marker	113.00
3	12,738	0.00	0.0		115.65

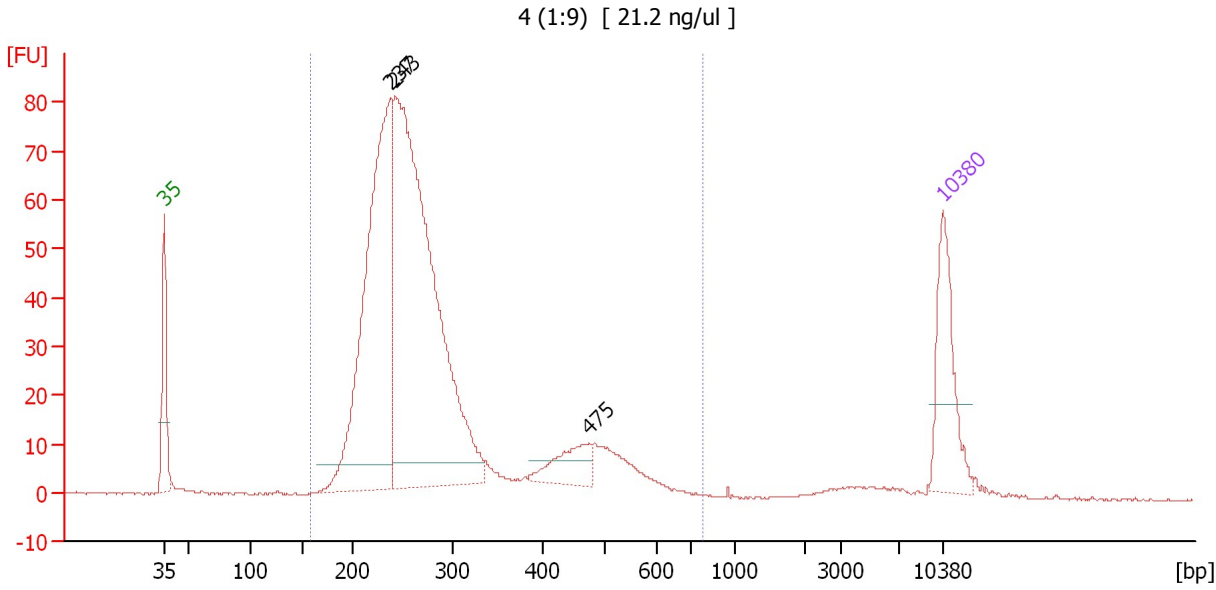
Region table for sample 2 : 2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	275	1,000	0.2	1	13.7	0.22	1.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28_002.xad

Created: 1/28/2015 12:19:34 PM
 Modified: 1/28/2015 2:03:42 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 4 (1:9)

Number of peaks found: 3 Corr. Area 1: 1,069.1
 Noise: 0.2

Peak table for sample 3 : 4 (1:9)

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	237	515.82	3,292.9		63.34
3	243	766.61	4,786.8		63.82
4	475	46.03	146.8		81.24
5	10,380	75.00	10.9	Upper Marker	113.00

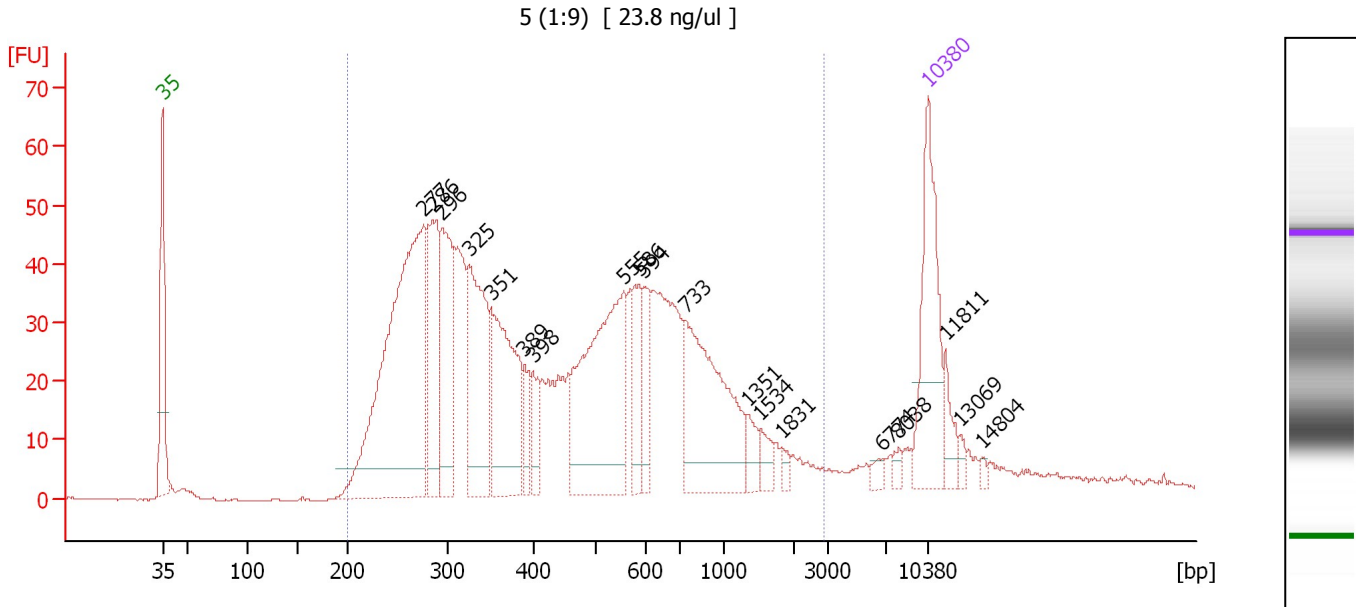
Region table for sample 3 : 4 (1:9)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
159	286	780	1,069.1	97	31.6	1,463.24	8,470.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28_002.xad

Created: 1/28/2015 12:19:34 PM
 Modified: 1/28/2015 2:03:42 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 5 (1:9)

Number of peaks found: 19 Corr. Area 1: 1,451.8
 Noise: 0.1

Peak table for sample 4 : 5 (1:9)

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	277	372.94	2,041.9		66.90
3	286	105.46	558.9		67.73
4	296	106.68	546.8		68.61
5	325	129.61	603.4		71.05
6	351	129.19	557.7		73.10
7	389	22.24	86.7		76.12
8	398	24.92	94.8		76.90
9	555	177.94	485.6		85.20
10	586	39.37	101.8		86.61
11	594	30.41	77.5		87.00
12	733	138.52	286.3		90.85
13	1,351	12.40	13.9		96.56
14	1,534	9.97	9.9		97.73
15	1,831	5.13	4.2		99.63
16	6,774	5.10	1.1		108.90
17	8,038	4.31	0.8		110.37
18	10,380	75.00	10.9	Upper Marker	113.00
19	11,811	0.00	0.0		114.61
20	13,069	0.00	0.0		116.02
21	14,804	0.00	0.0		117.98

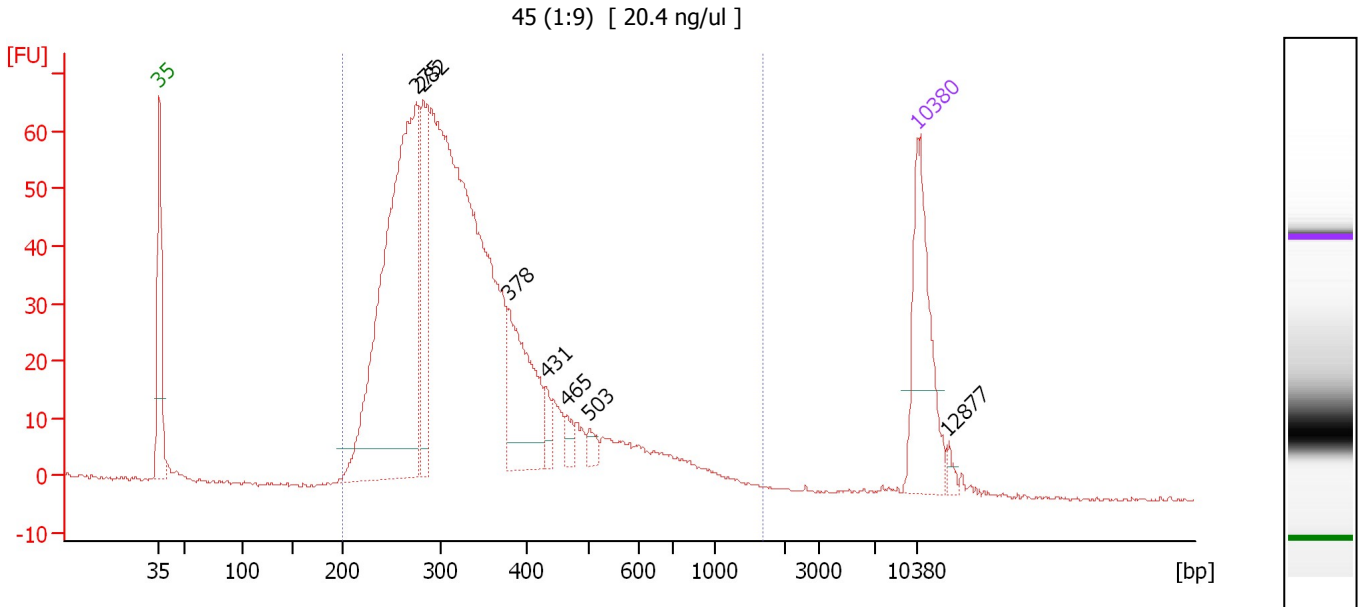
Region table for sample 4 : 5 (1:9)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	535	2,878	1,451.8	93	69.5	1,647.20	6,703.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28_002.xad

Created: 1/28/2015 12:19:34 PM
 Modified: 1/28/2015 2:03:42 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 45 (1:9)

Number of peaks found: 7 Corr. Area 1: 1,281.0
 Noise: 0.3

Peak table for sample 5 : 45 (1:9)

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	275	446.08	2,458.0		66.74
3	282	98.28	527.9		67.38
4	378	102.78	411.9		75.27
5	431	12.31	43.3		78.76
6	465	9.55	31.1		80.68
7	503	8.54	25.7		82.75
8	10,380	75.00	10.9	Upper Marker	113.00
9	12,877	0.00	0.0		115.81

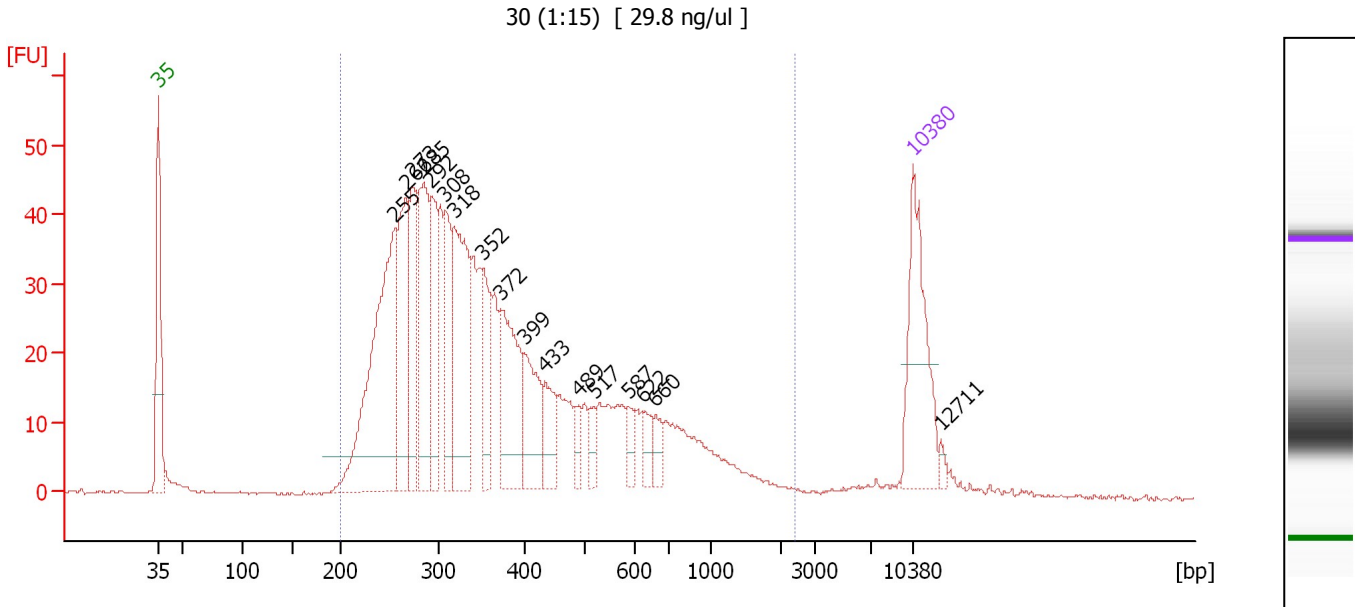
Region table for sample 5 : 45 (1:9)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	353	1,696	1,281.0	98	41.0	1,437.09	6,965.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28_002.xad

Created: 1/28/2015 12:19:34 PM
 Modified: 1/28/2015 2:03:42 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 30 (1:15)

Number of peaks found: 17 Corr. Area 1: 1,060.0
 Noise: 0.2

Peak table for sample 6 : 30 (1:15)

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	255	248.15	1,472.8		64.96
3	266	117.90	671.0		65.95
4	273	75.05	416.0		66.60
5	285	110.22	585.1		67.69
6	292	74.31	384.9		68.33
7	308	67.19	330.3		69.66
8	318	136.87	652.0		70.46
9	352	55.72	239.9		73.18
10	372	94.99	387.2		74.76
11	399	58.05	220.5		76.94
12	433	34.73	121.6		78.87
13	489	14.21	44.0		82.03
14	517	13.47	39.5		83.42
15	587	14.47	37.3		86.68
16	622	15.45	37.6		87.97
17	660	12.95	29.7		89.16
18	10,380	75.00	10.9	Upper Marker	113.00
19	12,711	0.00	0.0		115.62

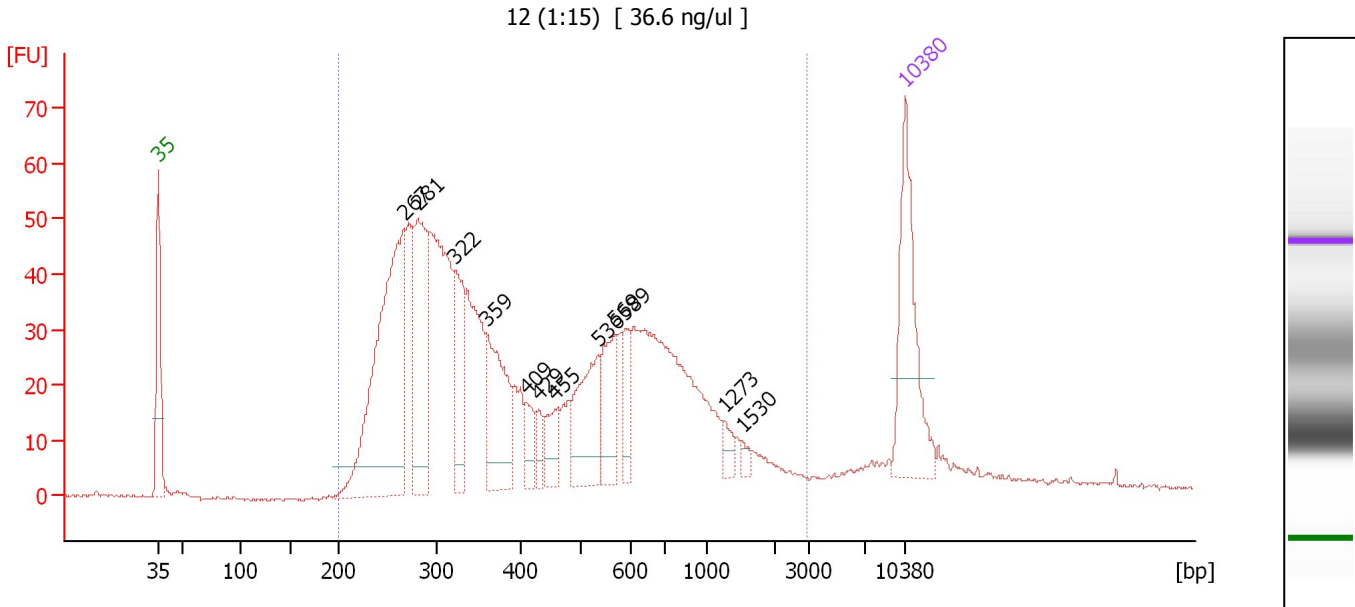
Region table for sample 6 : 30 (1:15)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	415	2,423	1,060.0	97	58.7	1,580.29	7,227.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28_002.xad

Created: 1/28/2015 12:19:34 PM
 Modified: 1/28/2015 2:03:42 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 12 (1:15)

Number of peaks found: 12 Corr. Area 1: 1,322.3
 Noise: 0.3

Peak table for sample 7 : 12 (1:15)

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	267	274.23	1,555.5		66.03
3	281	125.69	676.5		67.33
4	322	67.57	317.8		70.78
5	359	88.10	371.3		73.78
6	409	20.53	76.1		77.53
7	429	12.13	42.8		78.67
8	455	21.50	71.6		80.12
9	536	65.49	185.0		84.32
10	569	44.72	119.2		85.82
11	589	21.98	56.5		86.77
12	1,273	9.62	11.5		96.06
13	1,530	4.06	4.0		97.71
14	10,380	75.00	10.9	Upper Marker	113.00

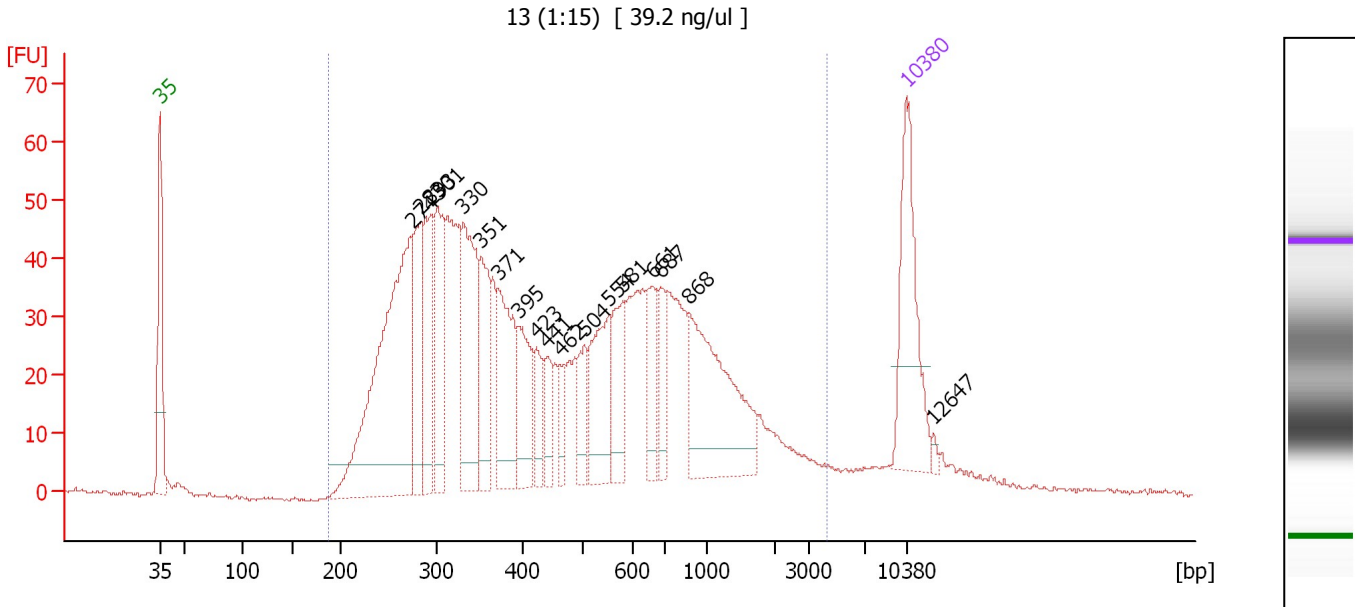
Region table for sample 7 : 12 (1:15)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	514	2,936	1,322.3	96	70.0	1,442.64	6,044.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28_002.xad

Created: 1/28/2015 12:19:34 PM
 Modified: 1/28/2015 2:03:42 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 13 (1:15)

Number of peaks found: 18 Corr. Area 1: 1,594.6
 Noise: 0.3

Peak table for sample 8 : 13 (1:15)

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	274	308.20	1,704.7		66.65
3	283	82.46	441.0		67.50
4	293	83.38	431.6		68.35
5	301	91.58	461.7		69.05
6	330	120.27	551.4		71.45
7	351	68.13	294.1		73.10
8	371	84.00	343.1		74.70
9	395	58.79	225.7		76.60
10	423	25.92	92.9		78.30
11	441	24.27	83.3		79.35
12	462	18.49	60.7		80.50
13	504	28.83	86.8		82.80
14	554	69.42	189.8		85.15
15	581	44.44	115.9		86.40
16	661	38.11	87.3		89.20
17	687	28.51	62.9		90.00
18	868	127.90	223.3		92.60
19	10,380	75.00	10.9	Upper Marker	113.00
20	12,647	0.00	0.0		115.55

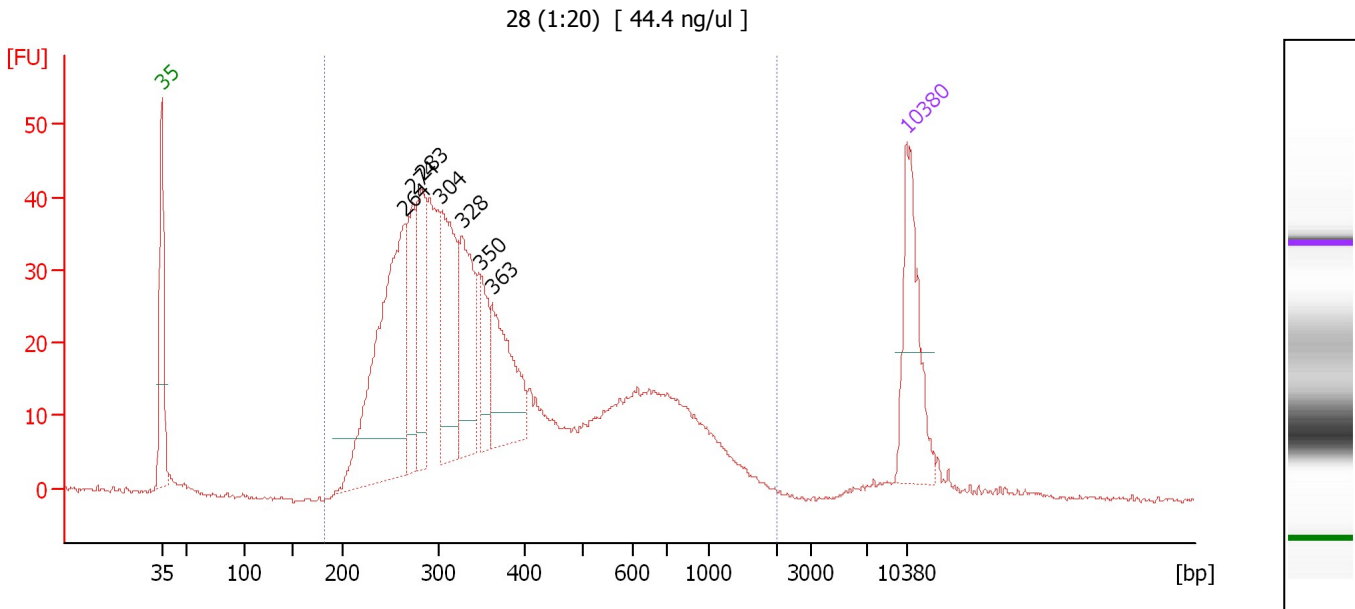
Region table for sample 8 : 13 (1:15)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
188	603	4,238	1,594.6	96	83.6	1,757.82	6,903.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28_002.xad

Created: 1/28/2015 12:19:34 PM
 Modified: 1/28/2015 2:03:42 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 28 (1:20)

Number of peaks found: 7 Corr. Area 1: 951.4
 Noise: 0.4

Peak table for sample 9 : 28 (1:20)

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	264	288.45	1,653.4		65.78
3	274	84.67	468.6		66.63
4	283	101.54	543.3		67.48
5	304	131.17	654.8		69.29
6	328	106.47	491.1		71.29
7	350	48.44	209.9		72.99
8	363	95.52	398.2		74.09
9	10,380	75.00	10.9	Upper Marker	113.00

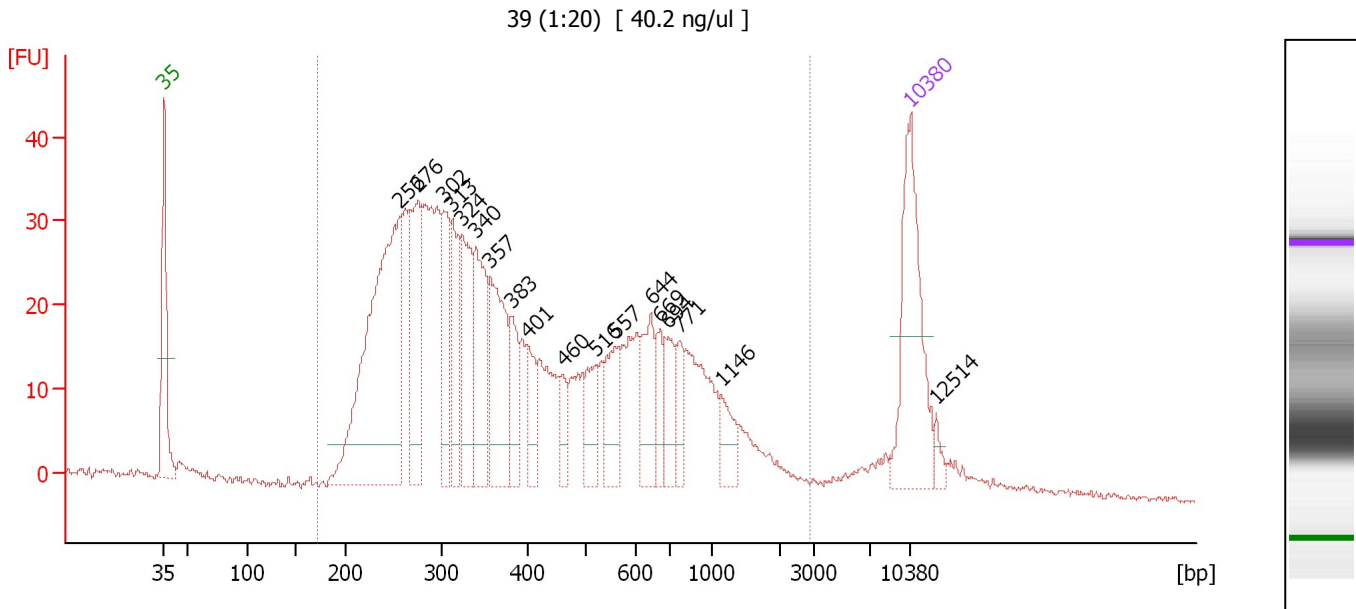
Region table for sample 9 : 28 (1:20)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
182	431	2,021	951.4	98	57.5	1,500.39	6,772.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28_002.xad

Created: 1/28/2015 12:19:34 PM
 Modified: 1/28/2015 2:03:42 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 39 (1:20)

Number of peaks found: 18 Corr. Area 1: 1,020.8
 Noise: 0.4

Peak table for sample 10 : 39 (1:20)

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	256	278.68	1,647.9		65.05
3	276	85.15	468.1		66.80
4	302	60.08	301.0		69.20
5	313	52.09	252.2		70.05
6	324	68.54	320.3		70.95
7	340	71.58	318.6		72.25
8	357	82.04	347.9		73.60
9	383	32.70	129.4		75.65
10	401	24.66	93.1		77.10
11	460	15.95	52.5		80.40
12	516	26.45	77.6		83.40
13	557	31.78	86.4		85.30
14	644	36.47	85.8		88.65
15	669	20.18	45.7		89.45
16	694	25.75	56.2		90.25
17	771	15.95	31.3		91.35
18	1,146	16.28	21.5		95.25
19	10,380	75.00	10.9	Upper Marker	113.00
20	12,514	0.00	0.0		115.40

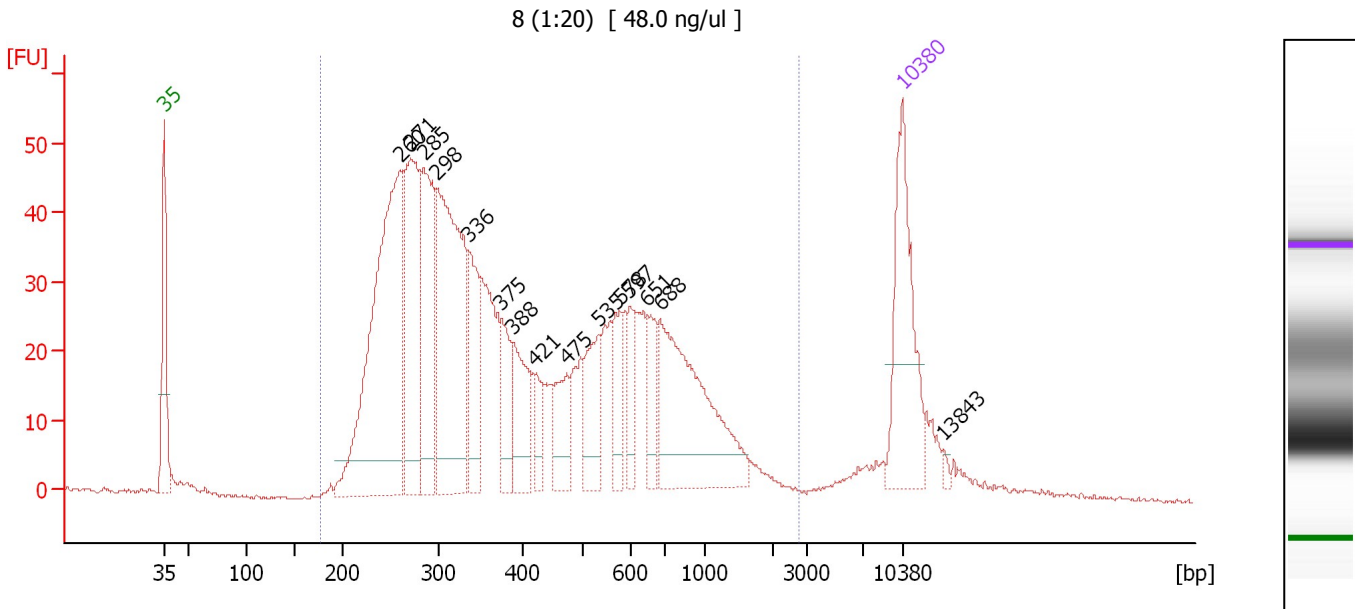
Region table for sample 10 : 39 (1:20)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
171	491	2,877	1,020.8	95	68.9	1,409.09	6,153.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28_002.xad

Created: 1/28/2015 12:19:34 PM
 Modified: 1/28/2015 2:03:42 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 8 (1:20)

Number of peaks found: 15 Corr. Area 1: 1,308.8
 Noise: 0.3

Peak table for sample 11 : 8 (1:20)

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	260	310.36	1,807.5		65.41
3	271	143.89	805.1		66.37
4	285	124.54	662.6		67.63
5	298	222.03	1,128.1		68.85
6	336	62.84	283.5		71.88
7	375	36.74	148.5		75.02
8	388	52.75	205.9		76.08
9	421	19.10	68.7		78.20
10	475	34.74	110.8		81.24
11	535	44.01	124.6		84.27
12	578	27.98	73.4		86.24
13	597	21.66	54.9		87.15
14	651	28.05	65.3		88.87
15	688	144.26	317.8		90.04
16	10,380	75.00	10.9	Upper Marker	113.00
17	13,843	0.00	0.0		116.89

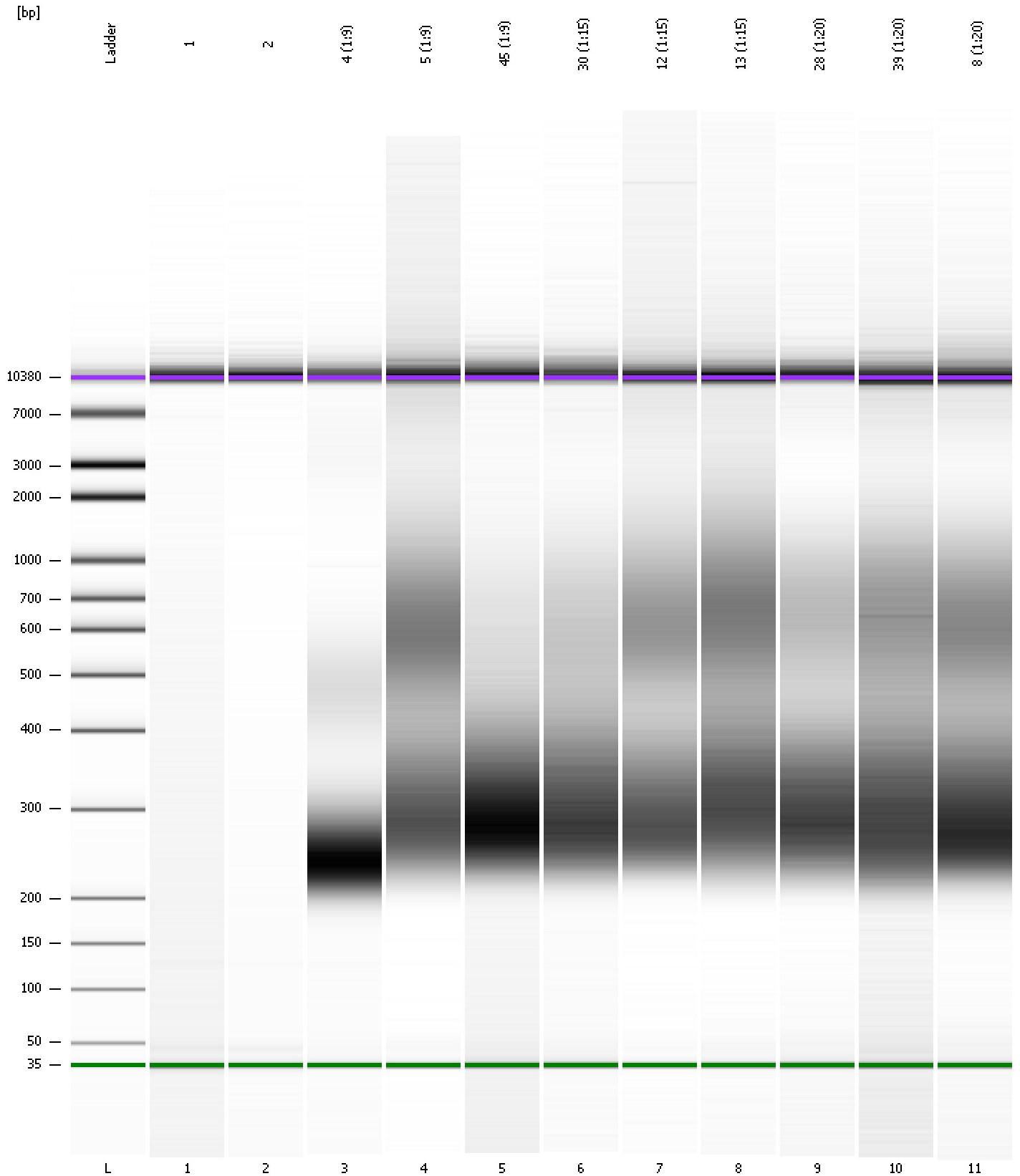
Region table for sample 11 : 8 (1:20)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
177	477	2,793	1,308.8	96	63.3	1,542.32	6,704.0	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28_002.xad

Created: 1/28/2015 12:19:34 PM
Modified: 1/28/2015 2:03:42 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28_002.xad

Created: 1/28/2015 12:19:34 PM
 Modified: 1/28/2015 2:03:42 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		1/28/2015 1:00:52 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-01-28\2015-01-28_002.xad)		Instrument	Run		1/28/2015 12:19:40 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		1/28/2015 12:19:40 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		1/28/2015 12:19:40 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		1/28/2015 12:19:40 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		1/28/2015 12:19:40 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		1/28/2015 12:19:40 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		1/28/2015 12:19:40 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1