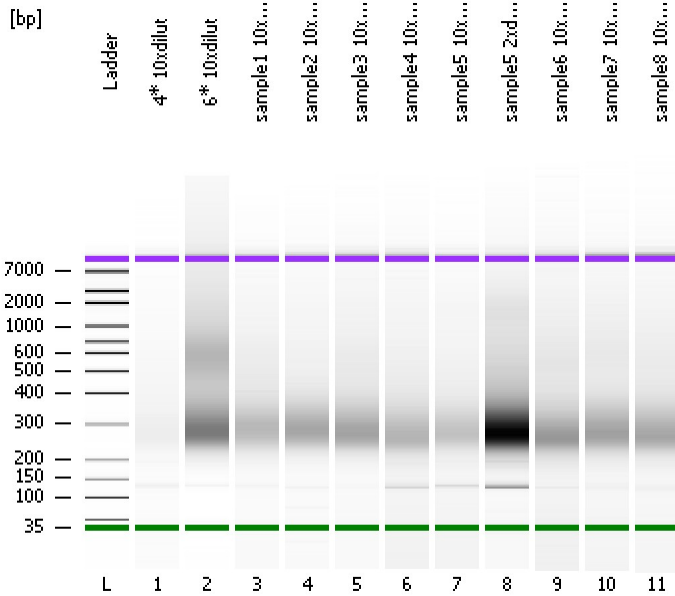


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-31\2013-07-31_005.xad

Created: 7/31/2013 3:10:04 PM
Modified: 7/31/2013 3:51:59 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

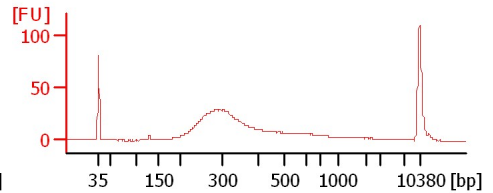
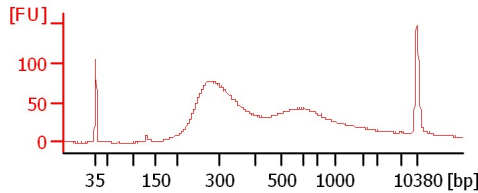
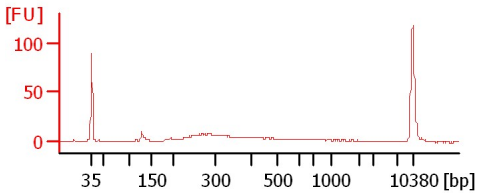
Chip Information:

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

4* 10xdilut

6* 10xdilut

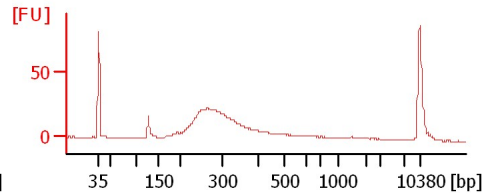
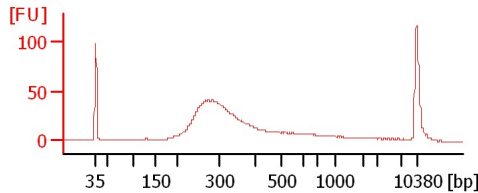
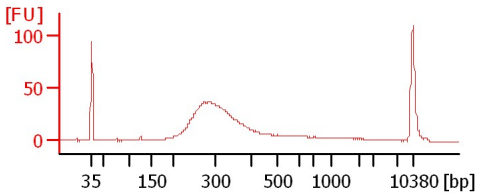
sample1 10xdilut



sample2 10xdilut

sample3 10xdilut

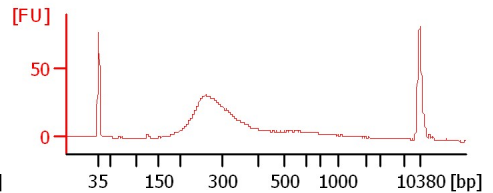
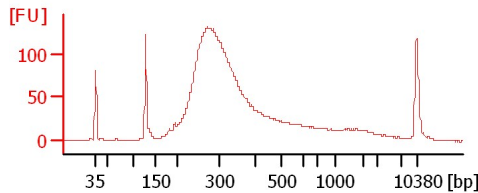
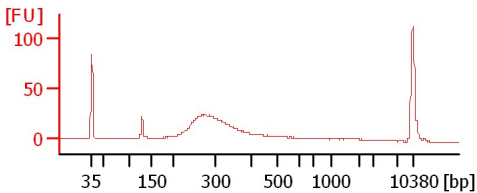
sample4 10xdilut



sample5 10xdilut

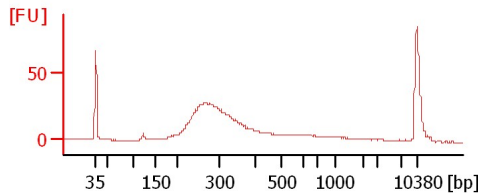
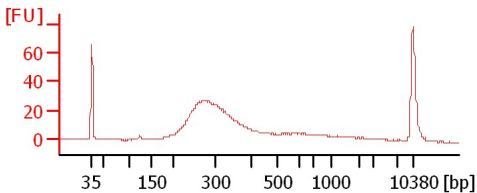
sample5 2xdilut

sample6 10xdilut



sample7 10xdilut

sample8 10xdilut



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-31\2013-07-31_005.xad

Created: 7/31/2013 3:10:04 PM
 Modified: 7/31/2013 3:51:59 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
4* 10xdilut		<input type="checkbox"/>	✓			
6* 10xdilut		<input type="checkbox"/>	✓			
sample1 10xdilut		<input type="checkbox"/>	✓			
sample2 10xdilut		<input type="checkbox"/>	✓			
sample3 10xdilut		<input type="checkbox"/>	✓			
sample4 10xdilut		<input type="checkbox"/>	✓			
sample5 10xdilut		<input type="checkbox"/>	✓			
sample5 2xdilut		<input type="checkbox"/>	✓			
sample6 10xdilut		<input type="checkbox"/>	✓			
sample7 10xdilut		<input type="checkbox"/>	✓			
sample8 10xdilut		<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\2013-07-31\2013-07-31_005.xad

Created: 7/31/2013 3:10:04 PM
Modified: 7/31/2013 3:51:59 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

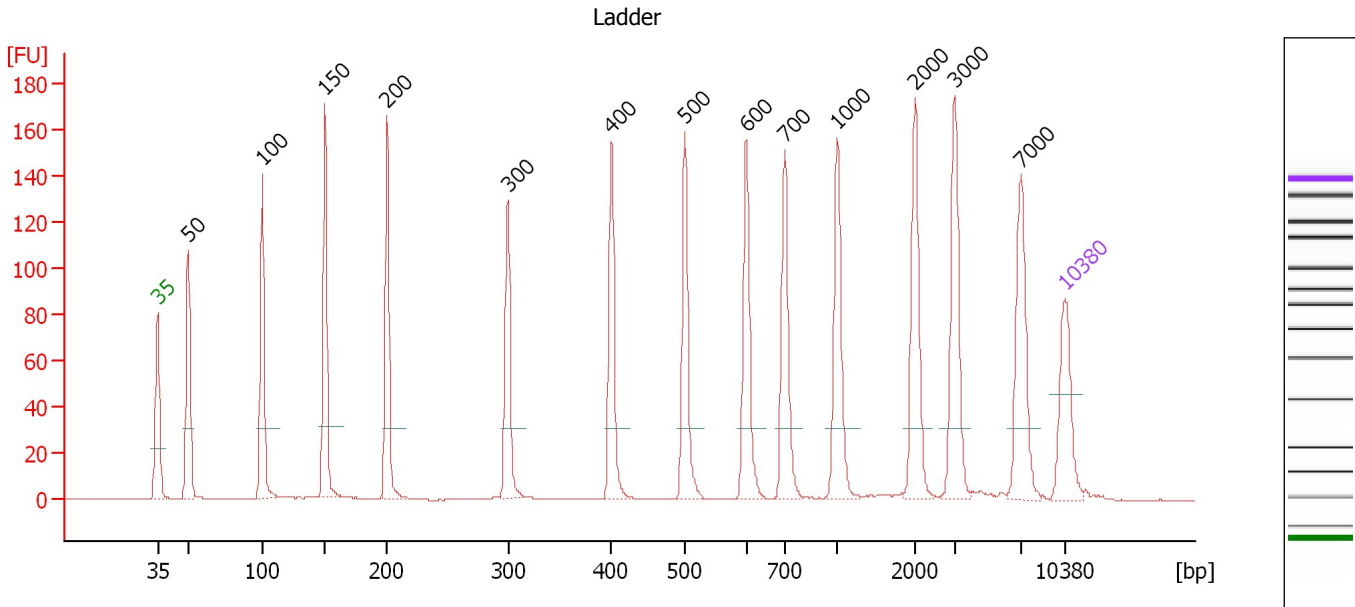
Ladder

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\2013-07-31\2013-07-31_005.xad

Created: 7/31/2013 3:10:04 PM
 Modified: 7/31/2013 3:51:59 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

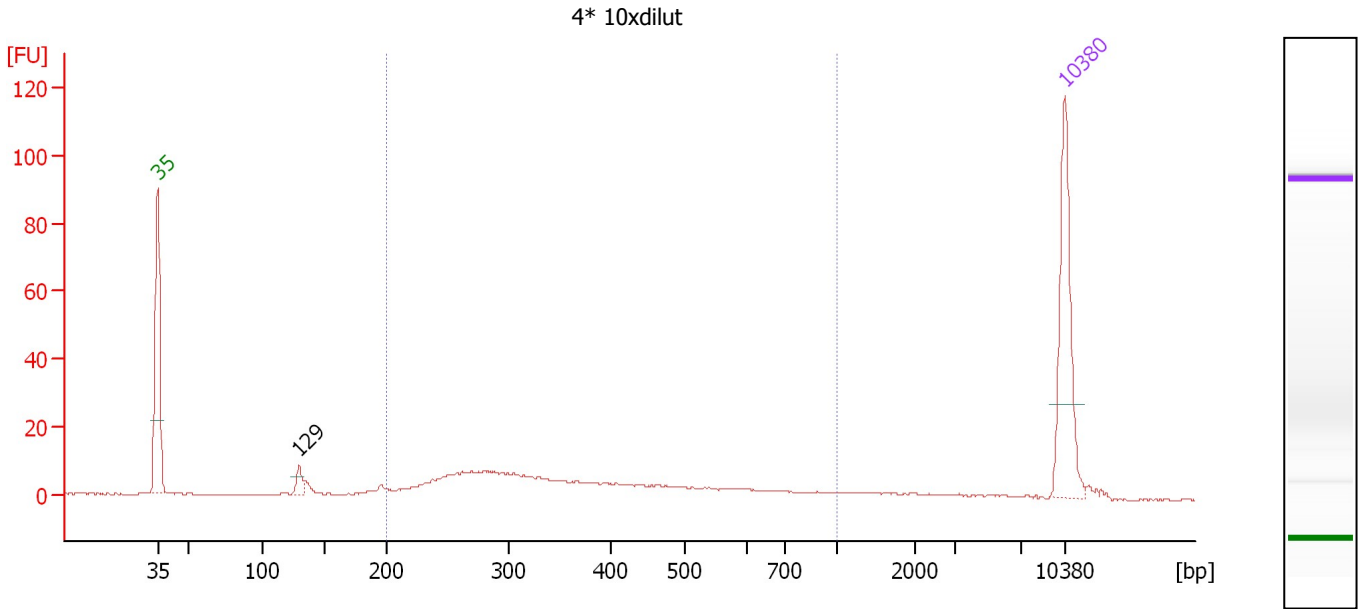
Peak table for Ladder

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	150.00	4,545.5	Ladder Peak
3	100	150.00	2,272.7	Ladder Peak
4	150	150.00	1,515.2	Ladder Peak
5	200	150.00	1,136.4	Ladder Peak
6	300	150.00	757.6	Ladder Peak
7	400	150.00	568.2	Ladder Peak
8	500	150.00	454.5	Ladder Peak
9	600	150.00	378.8	Ladder Peak
10	700	150.00	324.7	Ladder Peak
11	1,000	150.00	227.3	Ladder Peak
12	2,000	150.00	113.6	Ladder Peak
13	3,000	150.00	75.8	Ladder Peak
14	7,000	150.00	32.5	Ladder Peak
15	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-31\2013-07-31_005.xad

Created: 7/31/2013 3:10:04 PM
 Modified: 7/31/2013 3:51:59 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 4* 10xdilut

Number of peaks found: 1 Corr. Area 1: 186.6
 Noise: 0.1

Peak table for sample 1 : 4* 10xdilut

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	129	12.87	150.8	
3	10,380	75.00	10.9	Upper Marker

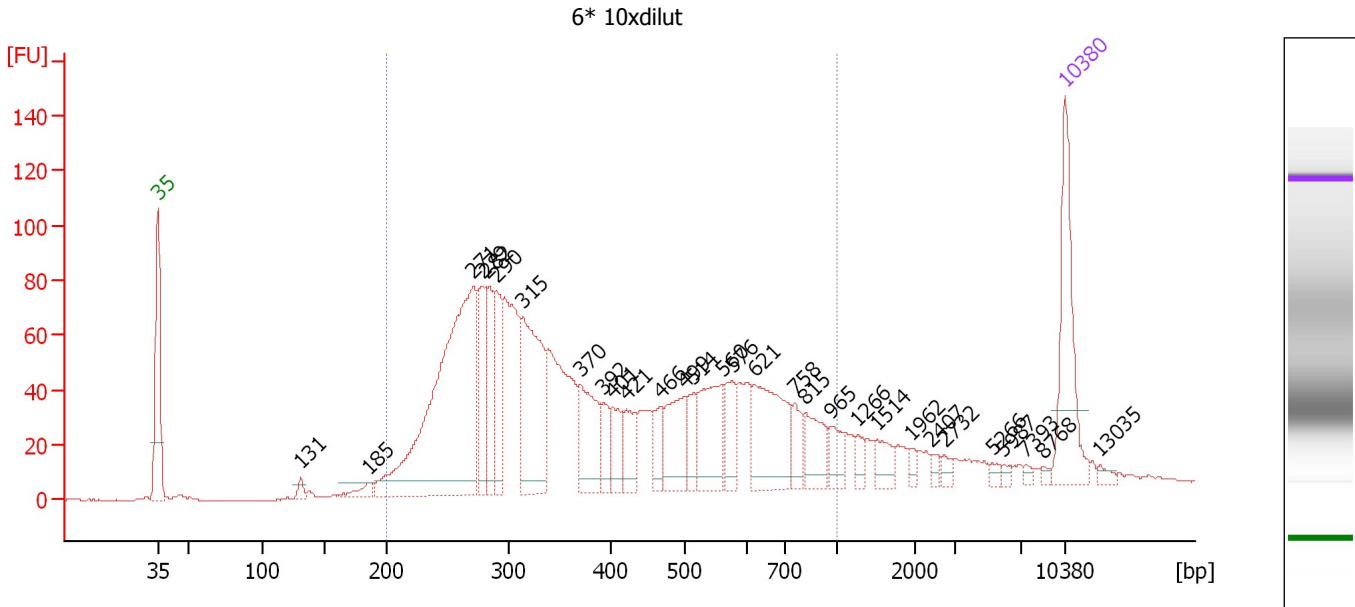
Region table for sample 1 : 4* 10xdilut

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	390	961.9	208.35	186.6	76	40.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-31\2013-07-31_005.xad

Created: 7/31/2013 3:10:04 PM
 Modified: 7/31/2013 3:51:59 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 6* 10xdilut

Number of peaks found: 30 Corr. Area 1: 1,923.0
 Noise: 0.2

Peak table for sample 2 : 6* 10xdilut

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	131	8.17	94.6	
3	185	11.43	93.6	
4	271	389.18	2,173.5	
5	279	65.05	353.8	
6	282	64.23	344.9	
7	290	61.42	320.4	
8	315	145.76	701.7	
9	370	68.99	282.8	
10	392	24.37	94.2	
11	401	27.20	102.7	
12	421	33.12	119.3	
13	466	21.64	70.3	
14	499	56.26	171.0	
15	514	25.69	75.8	
16	560	66.76	180.6	
17	576	29.21	76.8	
18	621	89.71	219.0	
19	758	19.70	39.4	
20	815	35.90	66.7	
21	965	18.70	29.4	
22	1,266	9.63	11.5	
23	1,514	16.22	16.2	
24	1,962	5.17	4.0	
25	2,407	4.64	2.9	
26	2,732	5.14	2.9	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-31\2013-07-31_005.xad


Created: 7/31/2013 3:10:04 PM
 Modified: 7/31/2013 3:51:59 PM

Electropherogram Summary Continued ...

... Peak table for sample 2 : 6* 10xdilut

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	5,266	3.88	1.1	
28	5,987	2.86	0.7	
29	7,393	3.02	0.6	
30	8,768	2.92	0.5	
31	10,380	75.00	10.9	Upper Marker
32	13,035	0.00	0.0	

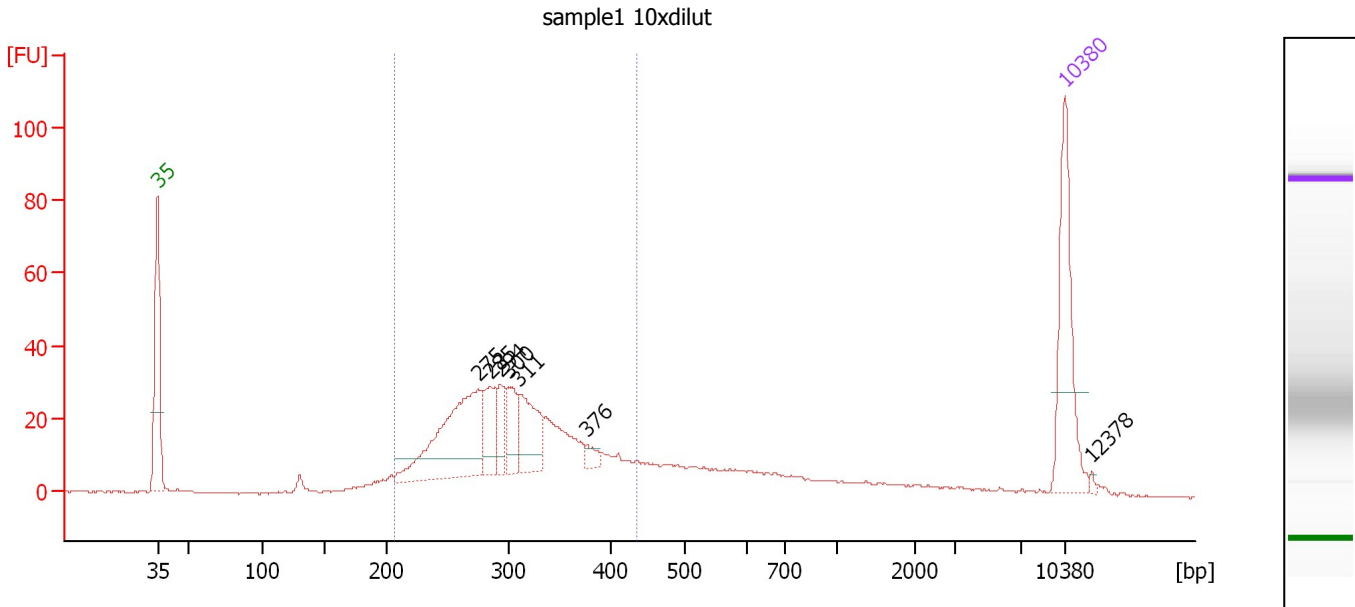
Region table for sample 2 : 6* 10xdilut

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	421	7,121.1	1,620.08	1,922.9	86	41.6	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-31\2013-07-31_005.xad

Created: 7/31/2013 3:10:04 PM
 Modified: 7/31/2013 3:51:59 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample1 10xdilut

Number of peaks found: 7 Corr. Area 1: 505.5
 Noise: 0.2

Peak table for sample 3 : sample1 10xdilut

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	275	157.94	869.2	
3	285	44.17	234.7	
4	294	25.76	132.7	
5	300	35.34	178.3	
6	311	58.40	284.9	
7	376	8.07	32.5	
8	10,380	75.00	10.9	Upper Marker
9	12,378	0.00	0.0	

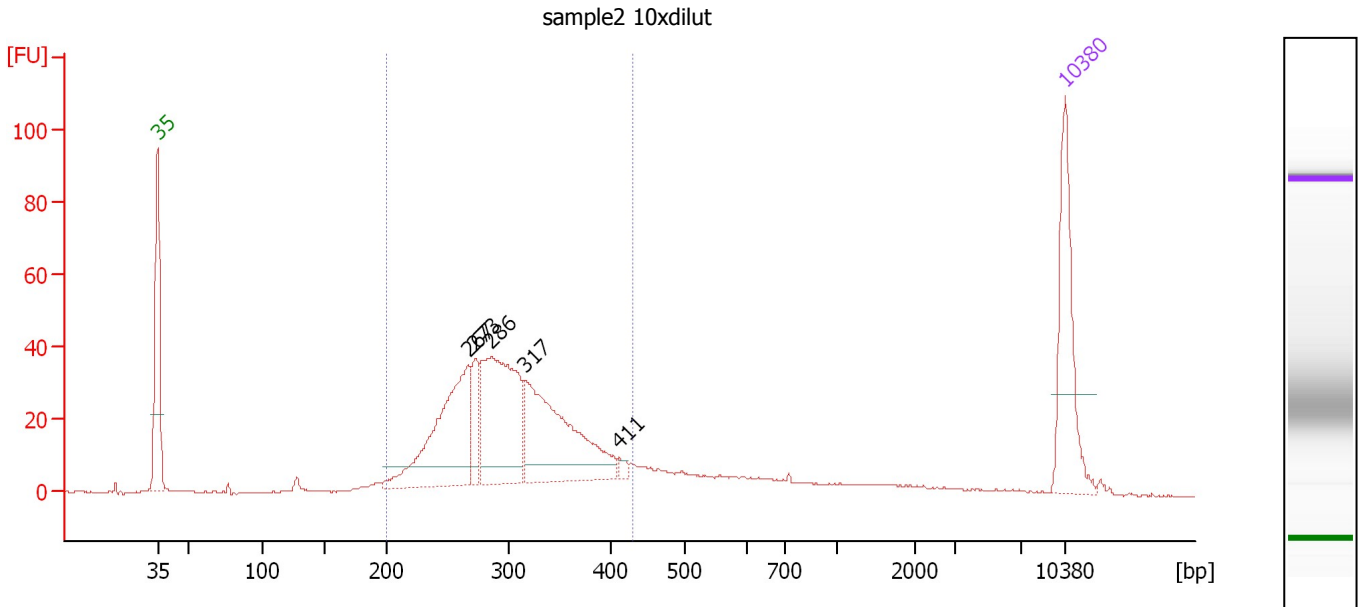
Region table for sample 3 : sample1 10xdilut

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
206	434	306	2,940.9	574.08	505.5	70	17.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-31\2013-07-31_005.xad

Created: 7/31/2013 3:10:04 PM
 Modified: 7/31/2013 3:51:59 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample2 10xdilut

Number of peaks found: 5 Corr. Area 1: 604.3
 Noise: 0.2

Peak table for sample 4 : sample2 10xdilut

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	267	175.10	994.7	
3	273	36.77	204.1	
4	286	183.03	971.1	
5	317	176.11	842.4	
6	411	5.43	20.0	
7	10,380	75.00	10.9	Upper Marker

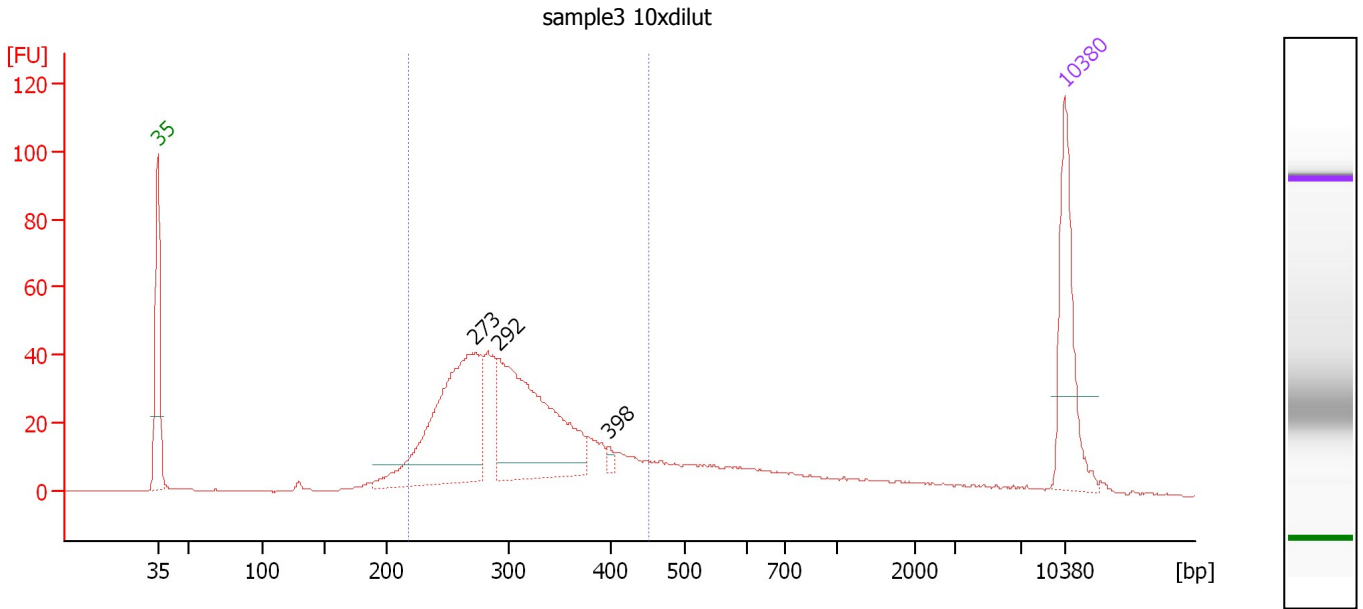
Region table for sample 4 : sample2 10xdilut

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	430	304	3,385.7	657.02	604.3	77	16.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-31\2013-07-31_005.xad

Created: 7/31/2013 3:10:04 PM
 Modified: 7/31/2013 3:51:59 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample3 10xdilut

Number of peaks found: 3 Corr. Area 1: 682.8
 Noise: 0.2

Peak table for sample 5 : sample3 10xdilut

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	273	248.20	1,378.8	
3	292	234.81	1,219.5	
4	398	4.95	18.8	
5	10,380	75.00	10.9	Upper Marker

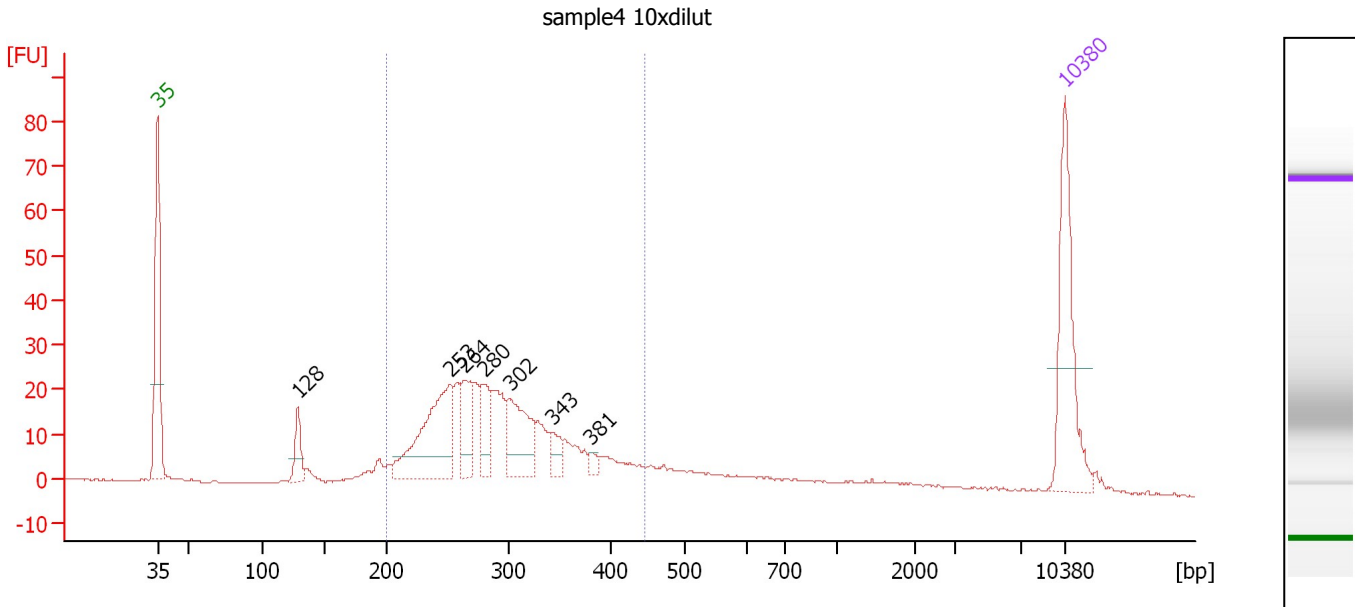
Region table for sample 5 : sample3 10xdilut

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
218	450	307	3,423.3	668.53	682.8	72	17.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-31\2013-07-31_005.xad

Created: 7/31/2013 3:10:04 PM
 Modified: 7/31/2013 3:51:59 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample4 10xdilut

Number of peaks found: 7 Corr. Area 1: 391.8
 Noise: 0.2

Peak table for sample 6 : sample4 10xdilut

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	128	27.19	320.8	
3	253	121.63	729.8	
4	264	42.52	243.9	
5	280	34.80	188.3	
6	302	62.38	313.0	
7	343	13.25	58.6	
8	381	6.05	24.1	
9	10,380	75.00	10.9	Upper Marker

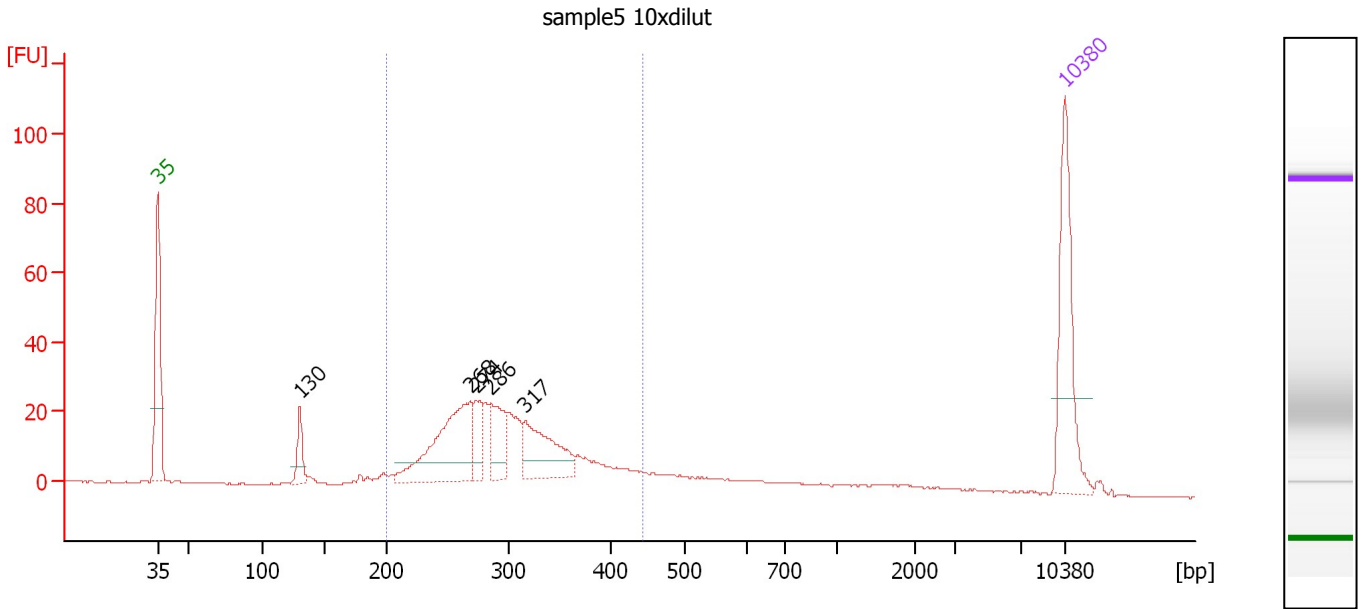
Region table for sample 6 : sample4 10xdilut

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	446	297	2,781.7	524.23	391.8	74	18.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-31\2013-07-31_005.xad

Created: 7/31/2013 3:10:04 PM
 Modified: 7/31/2013 3:51:59 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample5 10xdilut

Number of peaks found: 5 Corr. Area 1: 384.3
 Noise: 0.2

Peak table for sample 7 : sample5 10xdilut

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	130	28.69	333.7	
3	268	128.89	727.9	
4	274	29.26	162.0	
5	286	44.81	237.4	
6	317	71.78	343.4	
7	10,380	75.00	10.9	Upper Marker

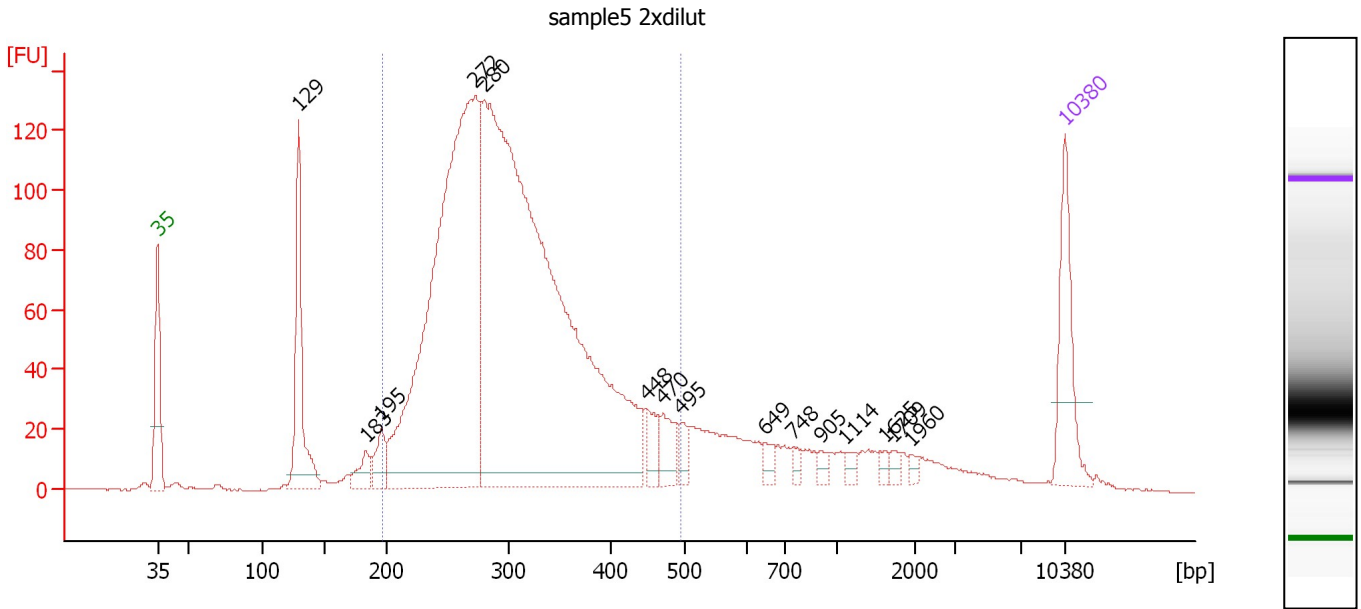
Region table for sample 7 : sample5 10xdilut

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	444	301	2,254.4	432.90	384.3	75	17.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-31\2013-07-31_005.xad

Created: 7/31/2013 3:10:04 PM
 Modified: 7/31/2013 3:51:59 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample5 2xdilut

Number of peaks found: 15 Corr. Area 1: 2,196.1
 Noise: 0.2

Peak table for sample 8 : sample5 2xdilut

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	129	177.54	2,085.7	
3	183	28.50	236.5	
4	195	37.39	290.4	
5	272	925.30	5,147.4	
6	280	1,473.48	7,974.7	
7	448	30.27	102.3	
8	470	38.09	122.7	
9	495	18.51	56.6	
10	649	12.74	29.8	
11	748	8.66	17.5	
12	905	8.02	13.4	
13	1,114	8.66	11.8	
14	1,625	6.36	5.9	
15	1,709	7.08	6.3	
16	1,960	5.57	4.3	
17	10,380	75.00	10.9	Upper Marker

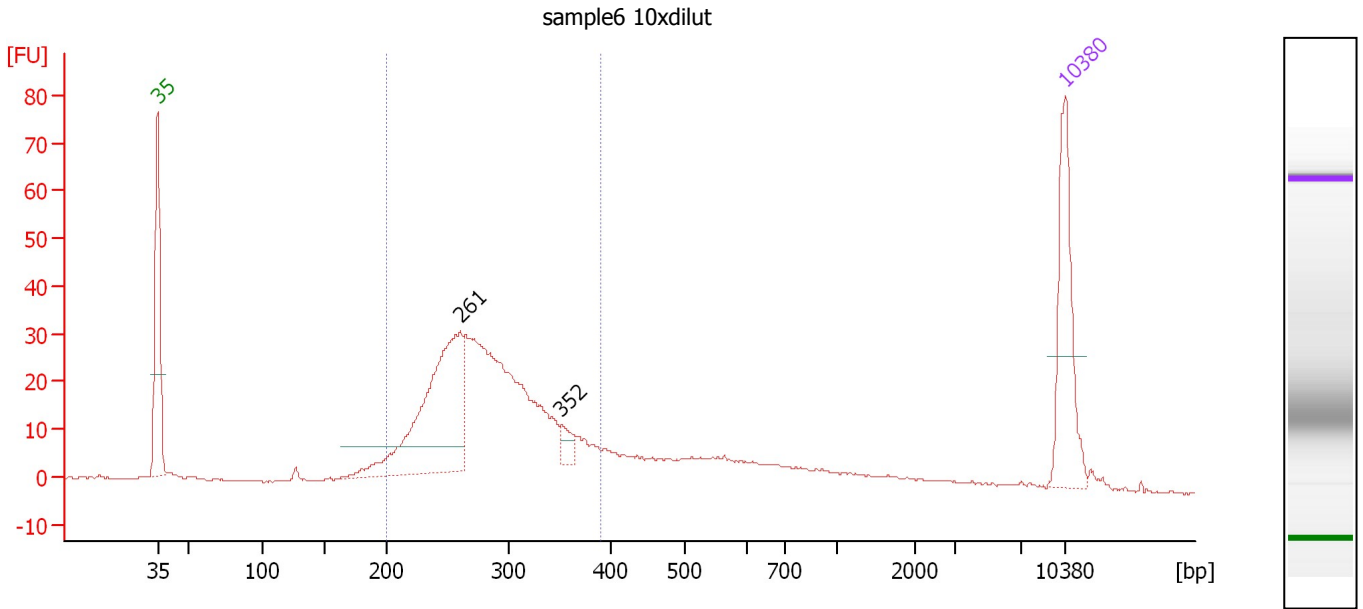
Region table for sample 8 : sample5 2xdilut

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
197	494	309	12,640.1	2,450.42	2,196.1	77	20.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-31\2013-07-31_005.xad

Created: 7/31/2013 3:10:04 PM
 Modified: 7/31/2013 3:51:59 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample6 10xdilut

Number of peaks found: 2 Corr. Area 1: 450.7
 Noise: 0.2

Peak table for sample 9 : sample6 10xdilut

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	261	230.11	1,337.7	
3	352	15.97	68.7	
4	10,380	75.00	10.9	Upper Marker

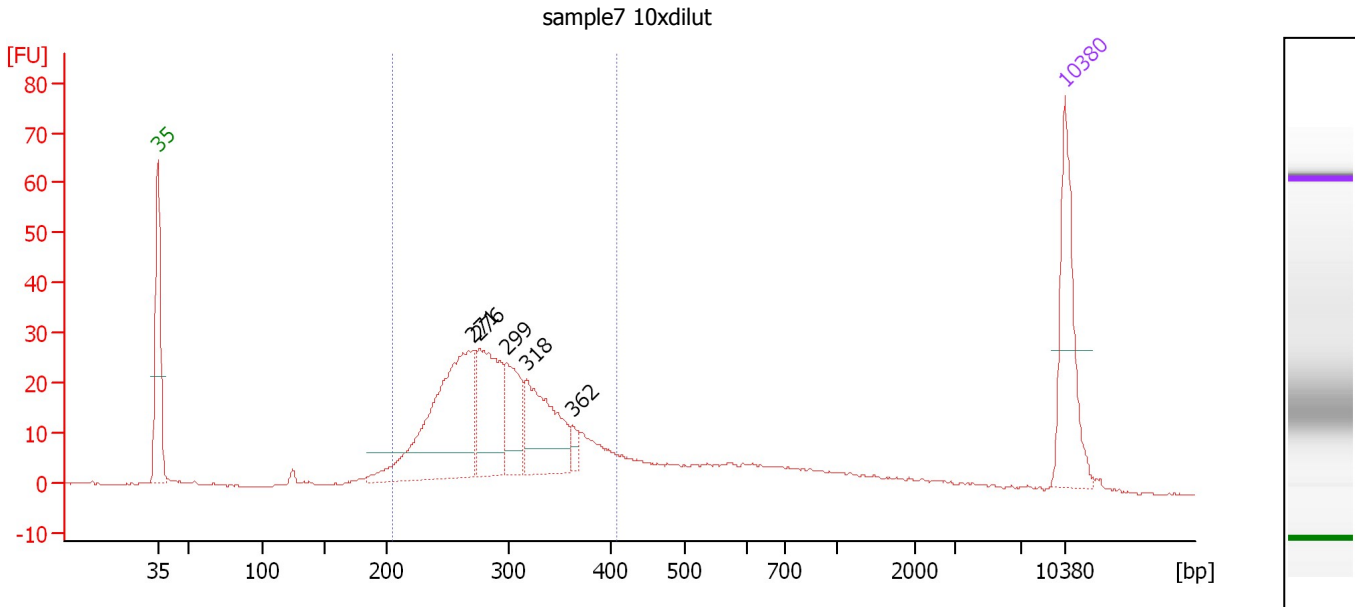
Region table for sample 9 : sample6 10xdilut

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	390	285	3,537.7	648.92	450.7	69	15.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-31\2013-07-31_005.xad

Created: 7/31/2013 3:10:04 PM
 Modified: 7/31/2013 3:51:59 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample7 10xdilut

Number of peaks found: 5 Corr. Area 1: 428.7
 Noise: 0.1

Peak table for sample 10 : sample7 10xdilut

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	271	228.50	1,276.9	
3	276	114.00	625.5	
4	299	63.92	324.2	
5	318	102.00	486.1	
6	362	10.59	44.3	
7	10,380	75.00	10.9	Upper Marker

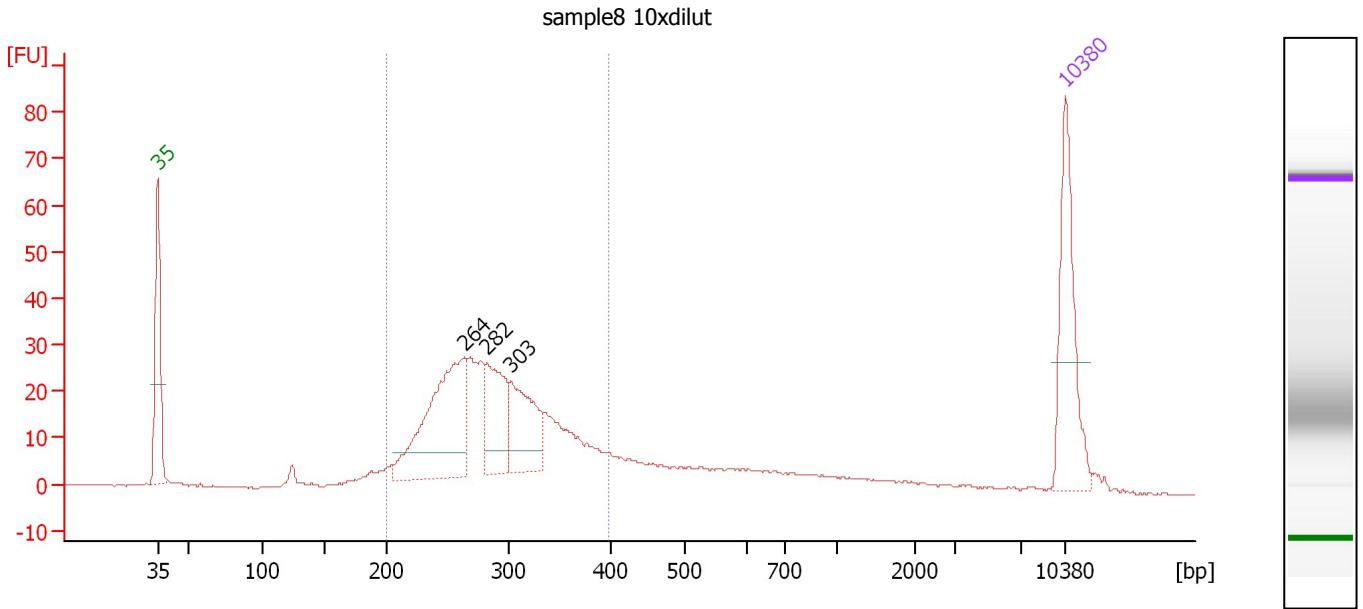
Region table for sample 10 : sample7 10xdilut

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
205	409	296	3,408.1	646.44	428.7	71	15.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-31\2013-07-31_005.xad

Created: 7/31/2013 3:10:04 PM
 Modified: 7/31/2013 3:51:59 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample8 10xdilut

Number of peaks found: 3 Corr. Area 1: 427.2
 Noise: 0.1

Peak table for sample 11 : sample8 10xdilut

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	264	166.69	955.4	
3	282	75.26	404.0	
4	303	74.49	372.0	
5	10,380	75.00	10.9	Upper Marker

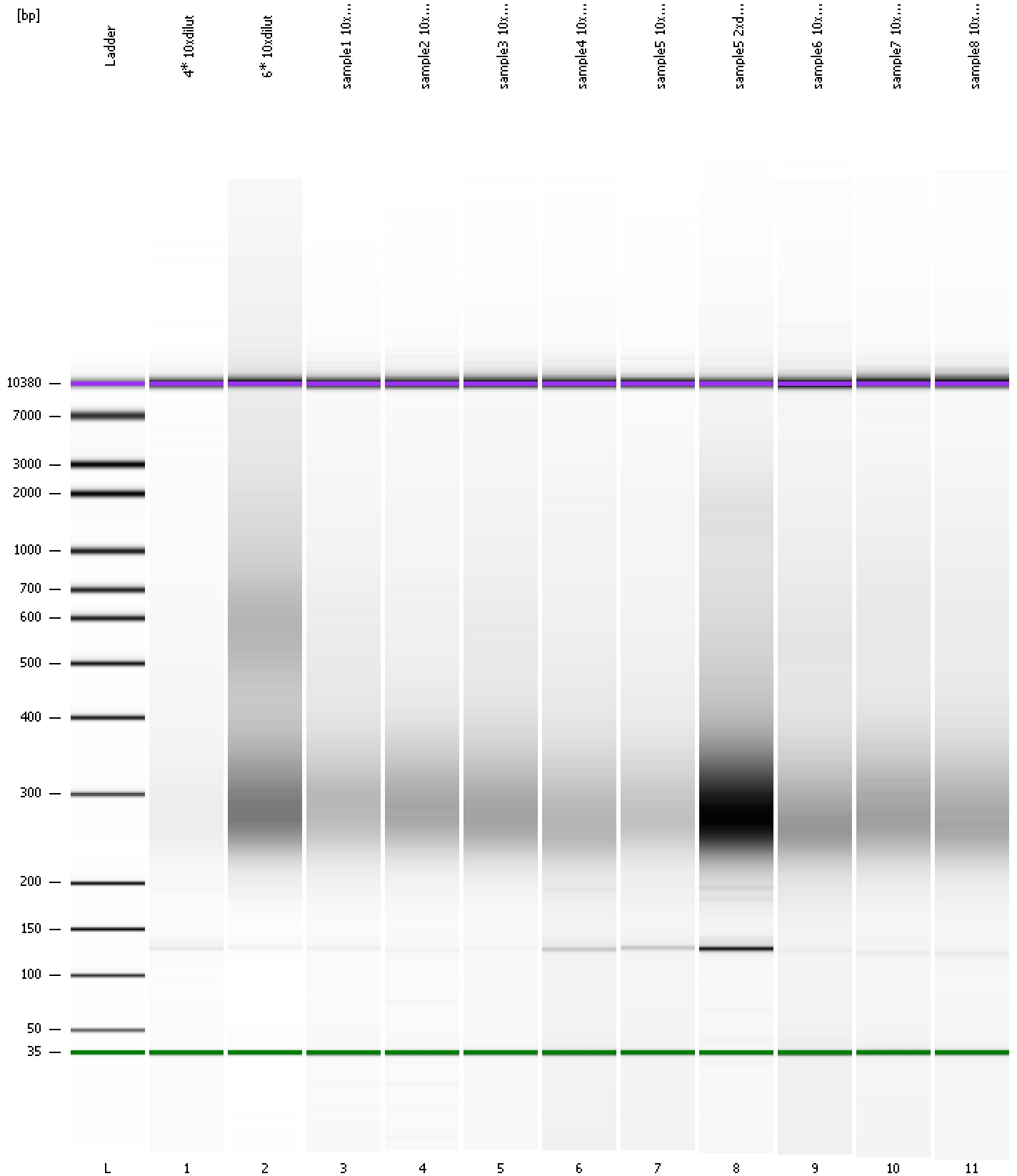
Region table for sample 11 : sample8 10xdilut

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	398	291	2,993.7	558.76	427.2	71	16.0	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-31\2013-07-31_005.xad

Created: 7/31/2013 3:10:04 PM
Modified: 7/31/2013 3:51:59 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-31\2013-07-31_005.xad

Created: 7/31/2013 3:10:04 PM
 Modified: 7/31/2013 3:51:59 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		7/31/2013 3:51:23 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-07-31\2013-07-31_005.xad)		Instrument	Run		7/31/2013 3:10:10 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		7/31/2013 3:10:10 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		7/31/2013 3:10:10 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		7/31/2013 3:10:10 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		7/31/2013 3:10:10 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		7/31/2013 3:10:10 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		7/31/2013 3:10:10 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1