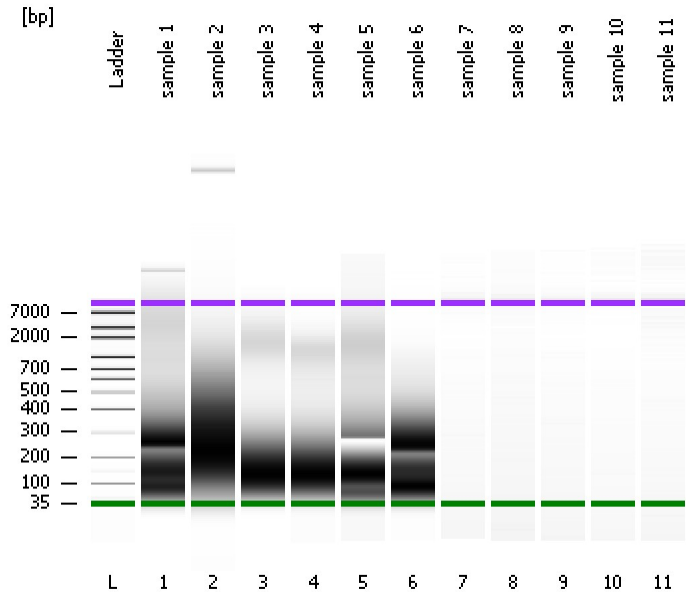


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-30\2013-05-30_002.xad

Created: 5/30/2013 11:45:10 AM
Modified: 5/30/2013 12:26:31 PM

Electrophoresis File Run Summary



Instrument Information:

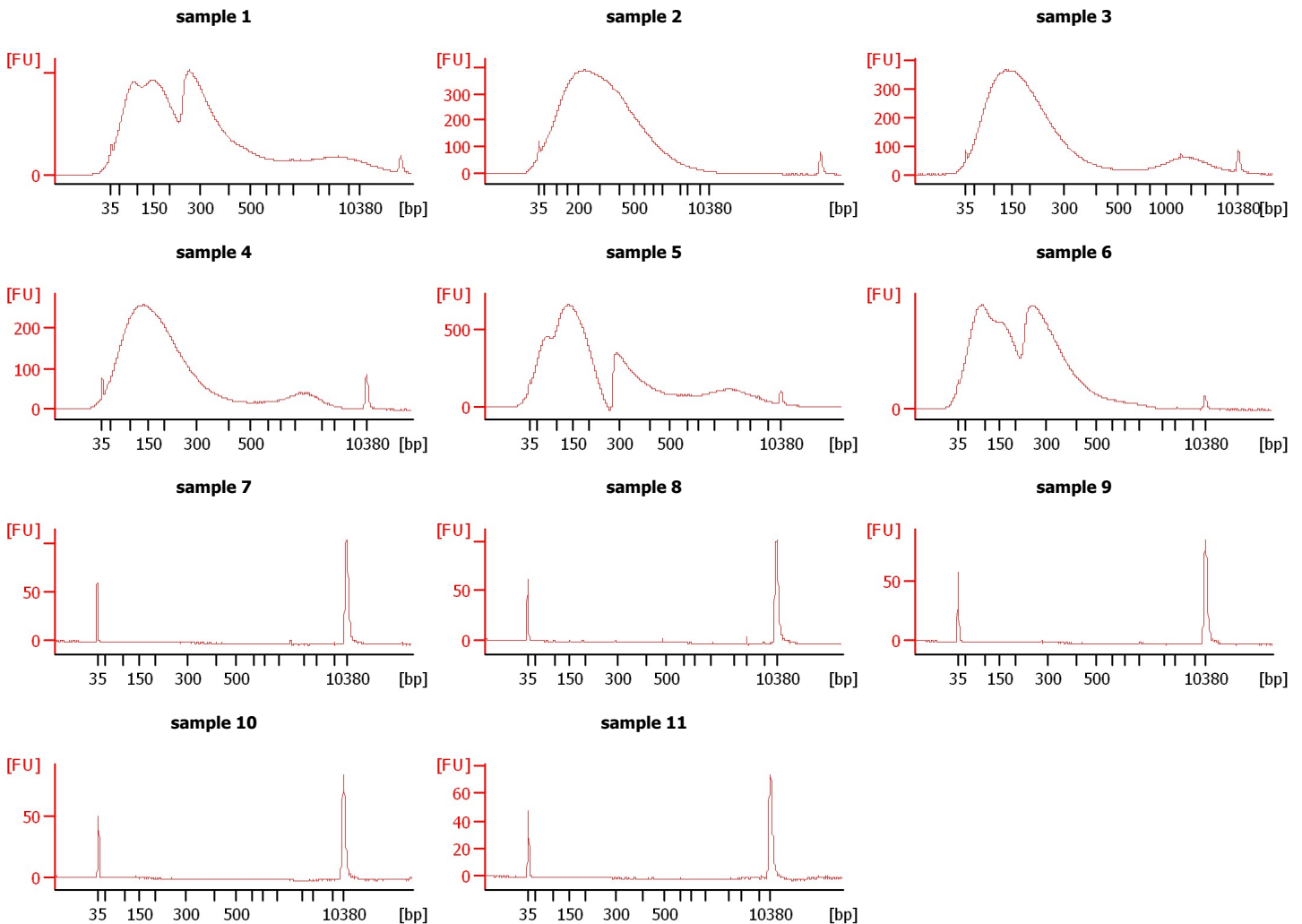
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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\2013-05-30\2013-05-30_002.xad

Created: 5/30/2013 11:45:10 AM
 Modified: 5/30/2013 12:26:31 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 1		<input type="checkbox"/>	✓			
sample 2		<input type="checkbox"/>	✓			
sample 3		<input type="checkbox"/>	✓			
sample 4		<input type="checkbox"/>	✓			
sample 5		<input type="checkbox"/>	✓			
sample 6		<input type="checkbox"/>	✓			
sample 7		<input type="checkbox"/>	✓			
sample 8		<input type="checkbox"/>	✓			
sample 9		<input type="checkbox"/>	✓			
sample 10		<input type="checkbox"/>	✓			
sample 11		<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\2013-05-30\2013-05-30_002.xad

Created: 5/30/2013 11:45:10 AM
Modified: 5/30/2013 12:26:31 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

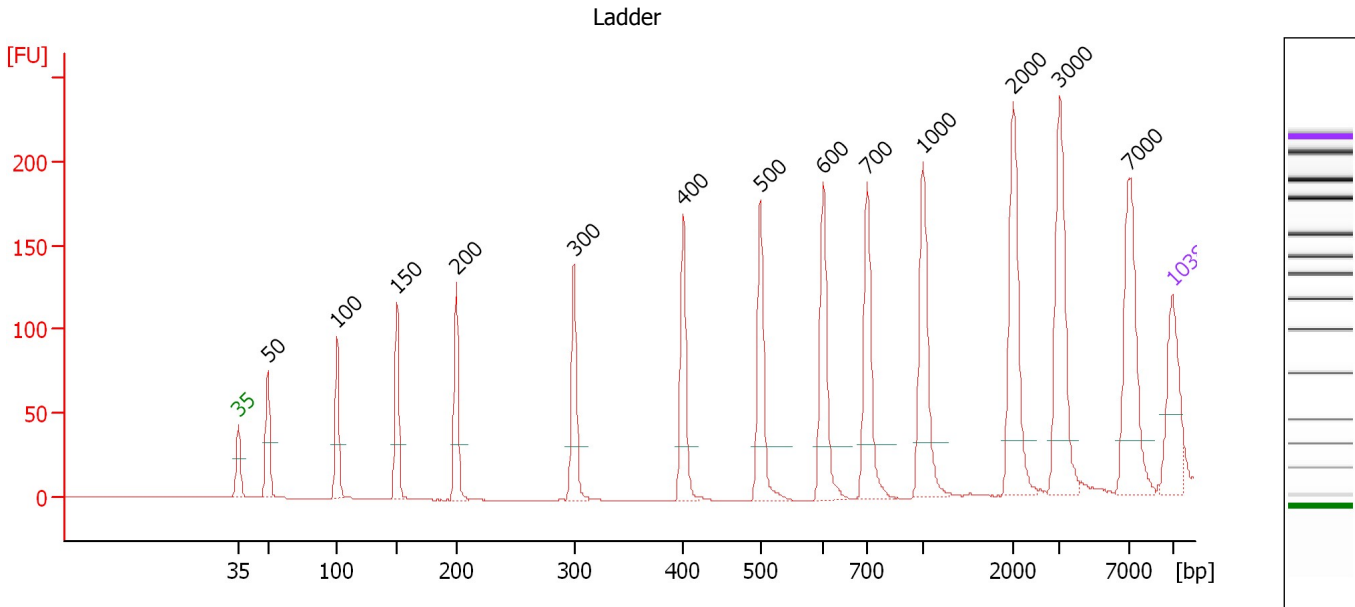
Ladder

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\2013-05-30\2013-05-30_002.xad

Created: 5/30/2013 11:45:10 AM
 Modified: 5/30/2013 12:26:31 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

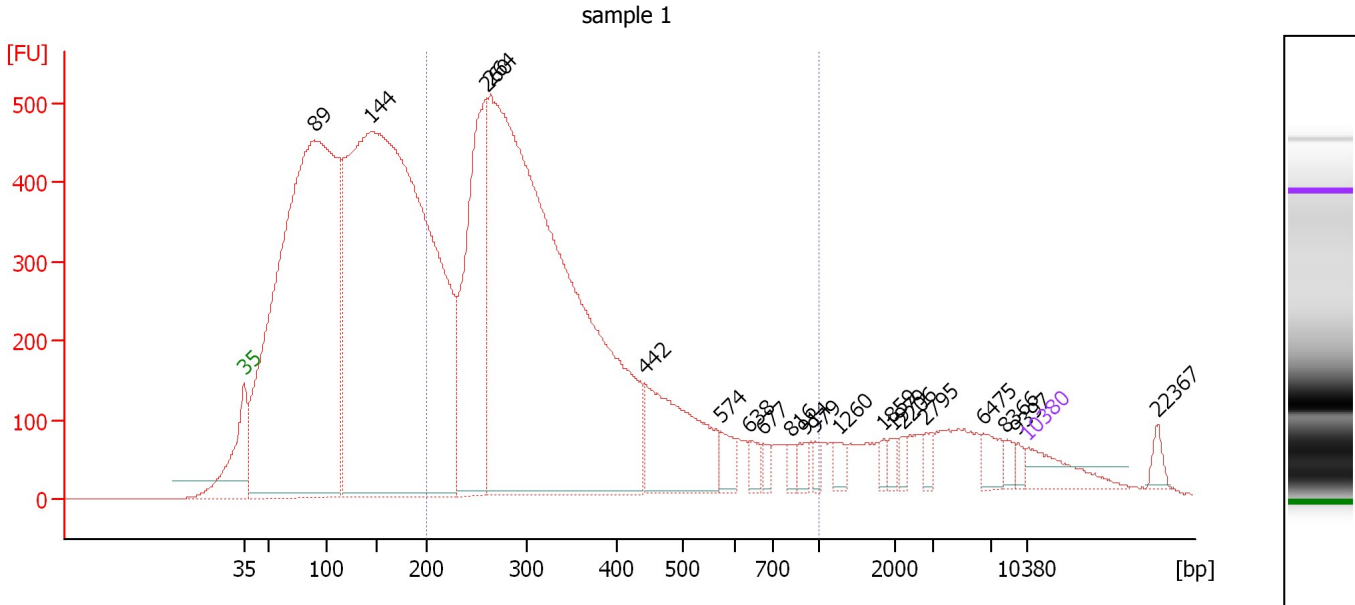
Peak table for Ladder

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\2013-05-30\2013-05-30_002.xad

Created: 5/30/2013 11:45:10 AM
 Modified: 5/30/2013 12:26:31 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 20 Corr. Area 1: 10,167.7
 Noise: 0.2

Peak table for sample 1 : sample 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	89	3,918.07	67,003.4	
3	144	4,826.85	50,742.0	
4	260	915.24	5,327.2	
5	264	3,618.50	20,760.6	
6	442	435.26	1,491.6	
7	574	55.64	146.8	
8	638	34.86	82.8	
9	677	21.98	49.2	
10	816	27.20	50.5	
11	914	27.43	45.5	
12	979	16.68	25.8	
13	1,260	30.51	36.7	
14	1,859	15.43	12.6	
15	1,979	18.85	14.4	
16	2,206	15.91	10.9	
17	2,795	23.75	12.9	
18	6,475	44.04	10.3	
19	8,366	21.71	3.9	
20	9,397	16.67	2.7	
21	10,380	75.00	10.9	Upper Marker
22	22,367	0.00	0.0	

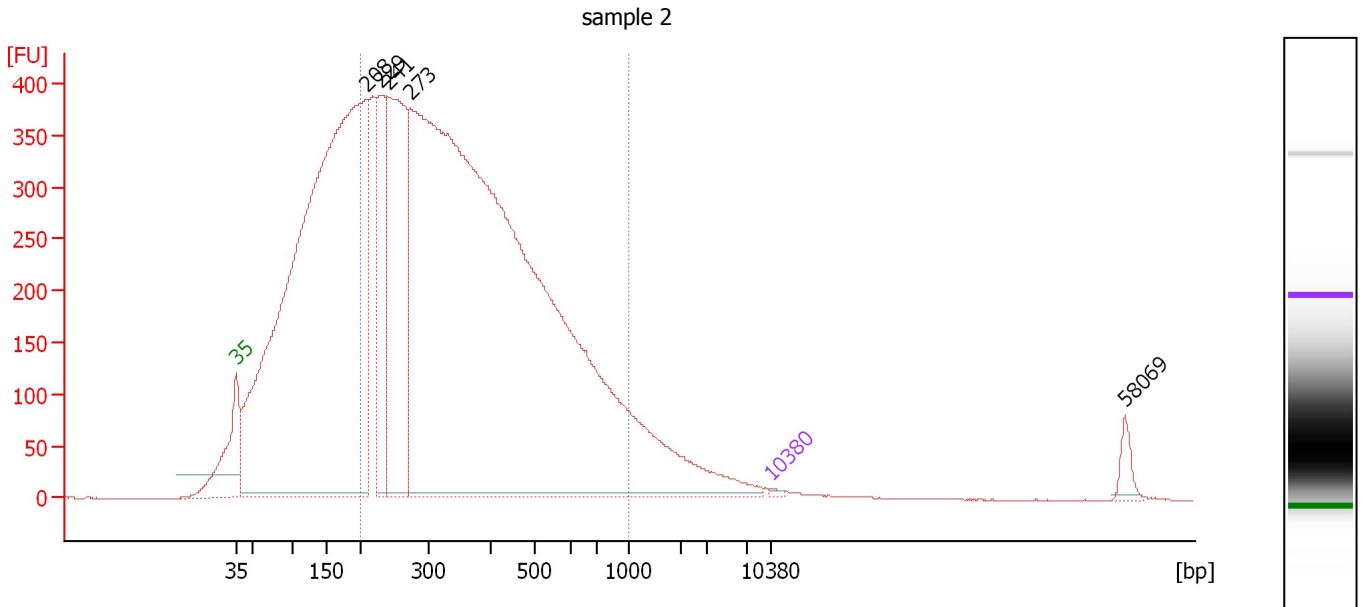
Region table for sample 1 : sample 1

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	351	28,111.3	5,624.23	10,167.7	45	40.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-30\2013-05-30_002.xad

Created: 5/30/2013 11:45:10 AM
 Modified: 5/30/2013 12:26:31 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 5 Corr. Area 1: 9,767.9
 Noise: 0.3

Peak table for sample 2 : sample 2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	208	84,272.17	615,067.6	
3	229	9,164.67	60,659.6	
4	241	19,565.71	123,131.8	
5	273	129,374.27	717,680.4	
6	10,380	75.00	10.9	Upper Marker
7	58,069	0.00	0.0	

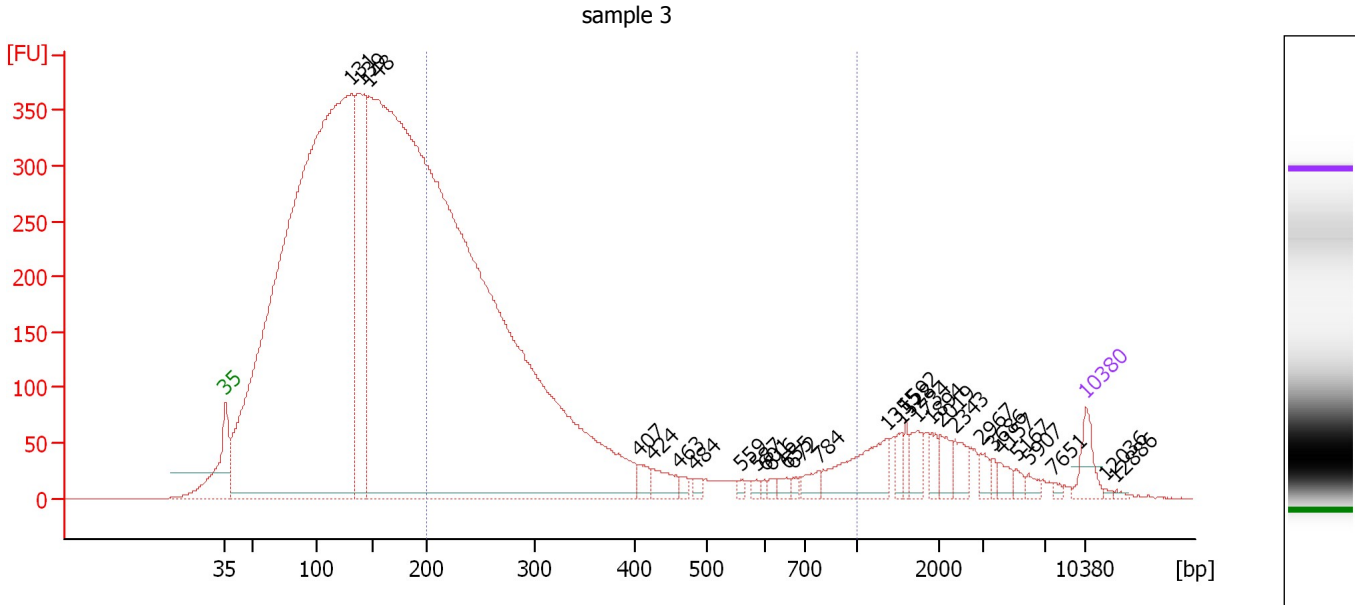
Region table for sample 2 : sample 2

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	384	662,614.3	140,732.02	9,767.8	63	40.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-30\2013-05-30_002.xad

Created: 5/30/2013 11:45:10 AM
 Modified: 5/30/2013 12:26:31 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 29 Corr. Area 1: 4,207.4
 Noise: 0.2

Peak table for sample 3 : sample 3

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	131	8,388.84	96,782.0	
3	139	1,165.73	12,699.3	
4	148	12,956.17	132,812.8	
5	407	52.43	195.4	
6	424	83.41	297.7	
7	463	22.30	73.0	
8	484	21.78	68.2	
9	559	13.10	35.5	
10	587	16.31	42.1	
11	601	12.32	31.1	
12	616	18.92	46.5	
13	655	24.85	57.5	
14	672	14.03	31.6	
15	784	45.97	88.9	
16	1,355	219.42	245.4	
17	1,528	35.69	35.4	
18	1,592	34.73	33.1	
19	1,734	60.56	52.9	
20	1,894	42.66	34.1	
21	2,019	57.41	43.1	
22	2,343	57.55	37.2	
23	2,967	34.72	17.7	
24	3,686	18.78	7.7	
25	4,157	33.87	12.3	
26	5,167	19.04	5.6	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-30\2013-05-30_002.xad


Created: 5/30/2013 11:45:10 AM
 Modified: 5/30/2013 12:26:31 PM

Electropherogram Summary Continued ...

... Peak table for sample 3 : sample 3

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	5,907	20.87	5.4	
28	7,651	9.27	1.8	
29	10,380	75.00	10.9	Upper Marker
30	12,036	0.00	0.0	
31	12,886	0.00	0.0	

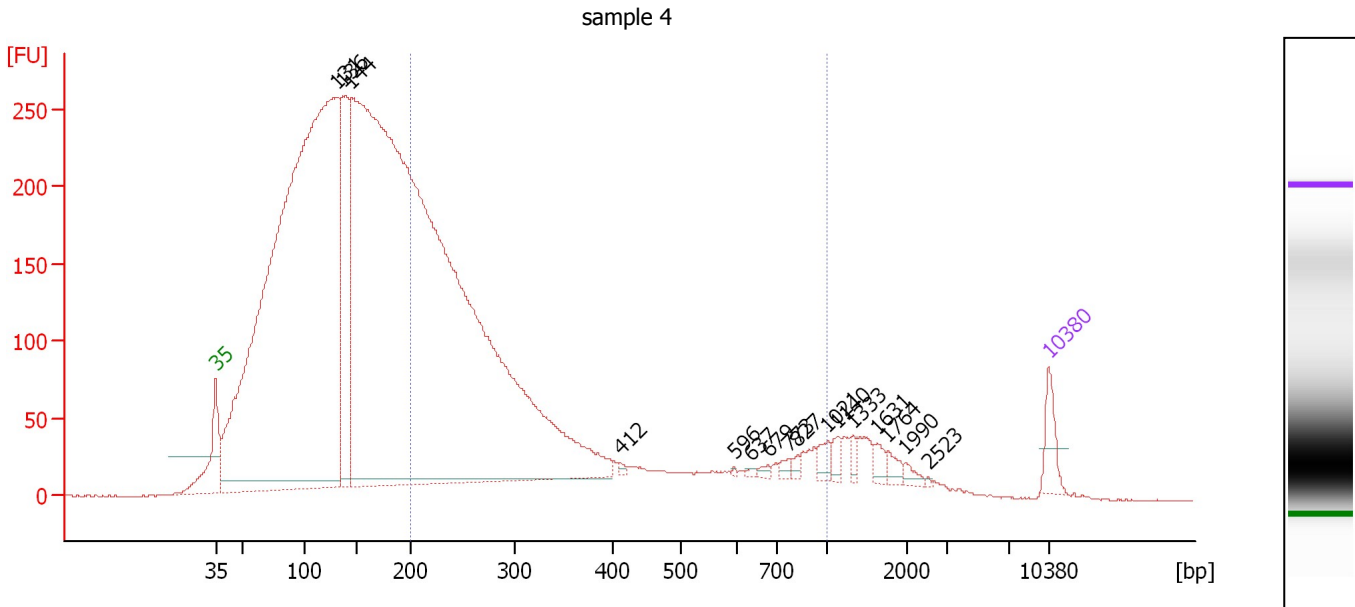
Region table for sample 3 : sample 3

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	316	34,051.4	6,043.45	4,207.4	31	47.9	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-30\2013-05-30_002.xad

Created: 5/30/2013 11:45:10 AM
 Modified: 5/30/2013 12:26:31 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 16 Corr. Area 1: 2,967.9
 Noise: 0.4

Peak table for sample 4 : sample 4

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	131	6,806.68	78,603.8	
3	136	888.21	9,879.7	
4	144	10,239.70	107,567.8	
5	412	11.16	41.0	
6	596	3.91	9.9	
7	637	7.40	17.6	
8	679	13.27	29.6	
9	773	19.77	38.8	
10	827	15.97	29.2	
11	1,021	39.71	58.9	
12	1,140	31.82	42.3	
13	1,333	22.24	25.3	
14	1,631	34.27	31.8	
15	1,764	28.35	24.3	
16	1,990	20.15	15.3	
17	2,523	3.48	2.1	
18	10,380	75.00	10.9	Upper Marker

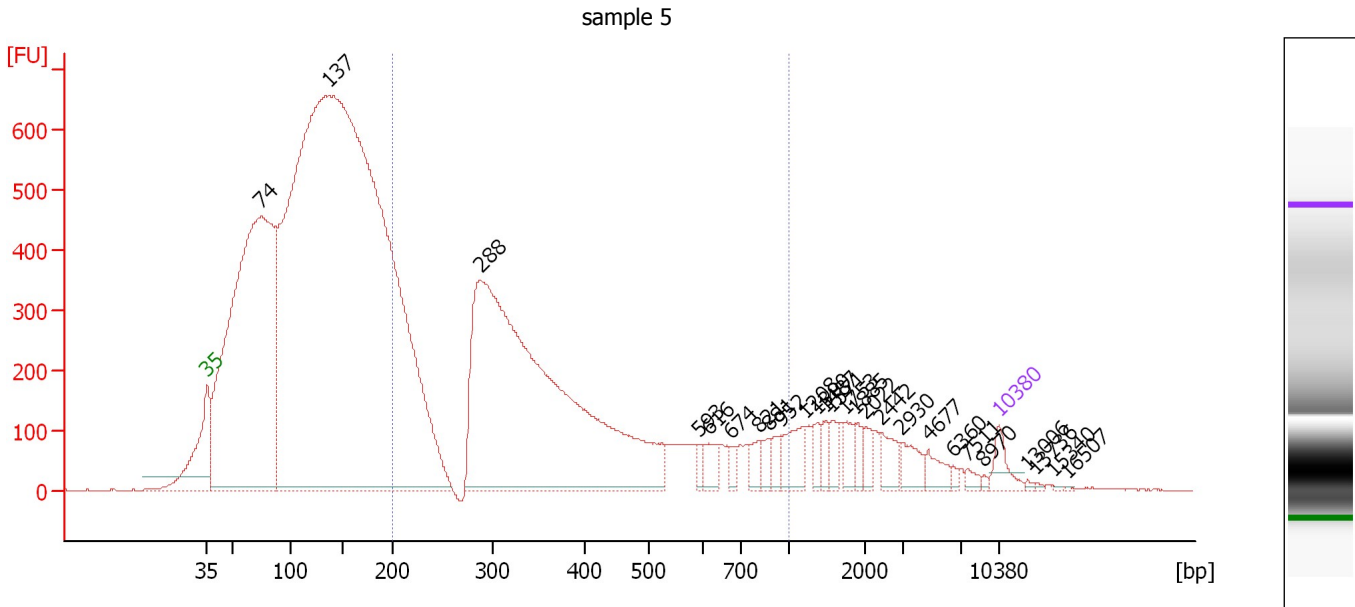
Region table for sample 4 : sample 4

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	336	28,747.7	5,207.92	2,967.9	32	51.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-30\2013-05-30_002.xad

Created: 5/30/2013 11:45:10 AM
 Modified: 5/30/2013 12:26:31 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 26 Corr. Area 1: 6,917.7
 Noise: 0.4

Peak table for sample 5 : sample 5

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	74	5,134.63	104,442.3	
3	137	14,540.81	160,754.3	
4	288	4,447.12	23,418.2	
5	593	41.02	104.8	
6	616	87.58	215.5	
7	674	42.32	95.1	
8	821	69.47	128.2	
9	881	52.87	90.9	
10	952	59.92	95.3	
11	1,208	146.88	184.2	
12	1,390	60.25	65.7	
13	1,487	53.56	54.6	
14	1,571	60.28	58.1	
15	1,753	67.06	58.0	
16	1,885	54.07	43.5	
17	2,022	53.00	39.7	
18	2,442	90.48	56.1	
19	2,930	87.83	45.4	
20	4,677	68.03	22.0	
21	6,360	15.55	3.7	
22	7,511	24.15	4.9	
23	8,970	8.42	1.4	
24	10,380	75.00	10.9	Upper Marker
25	13,006	0.00	0.0	
26	13,736	0.00	0.0	


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-30\2013-05-30_002.xad

Created: 5/30/2013 11:45:10 AM
Modified: 5/30/2013 12:26:31 PM

Electropherogram Summary Continued ...**... Peak table for sample 5 : sample 5**

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations
27	15,340	0.00	0.0	
28	16,507	0.00	0.0	

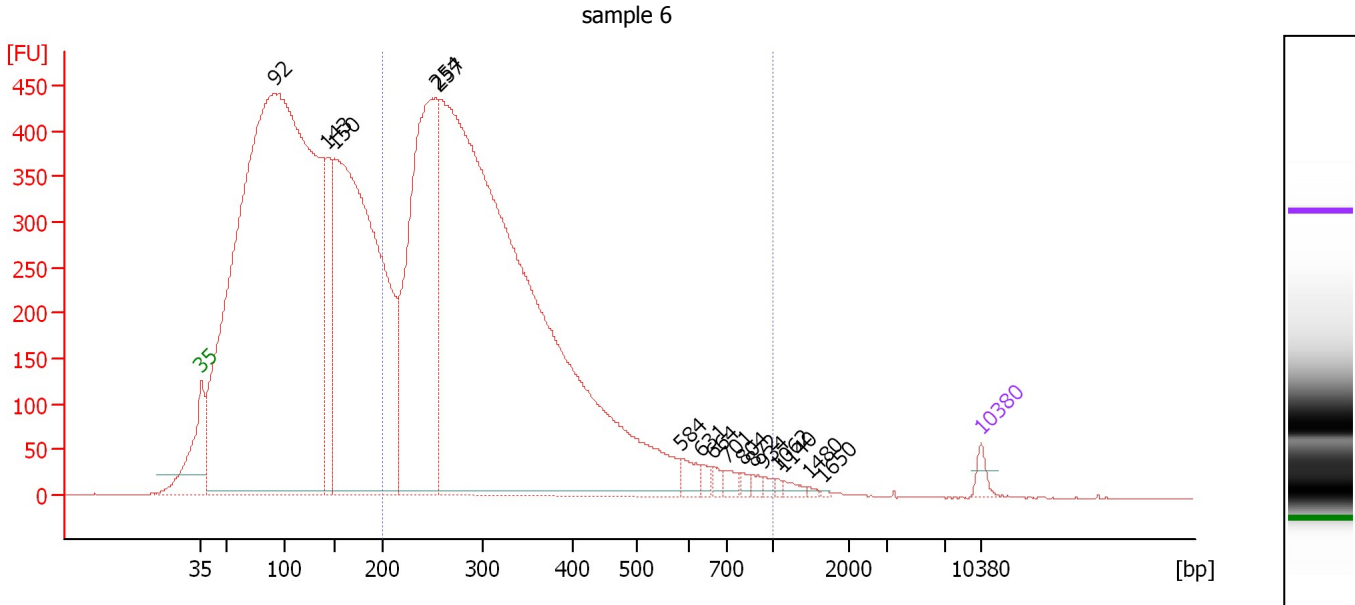
Region table for sample 5 : sample 5

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	389	29,594.3	6,233.57	6,917.7	30	44.3	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-30\2013-05-30_002.xad

Created: 5/30/2013 11:45:10 AM
 Modified: 5/30/2013 12:26:31 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found: 16 Corr. Area 1: 8,984.1
 Noise: 0.4

Peak table for sample 6 : sample 6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	92	22,160.86	364,463.4	
3	143	1,308.06	13,838.2	
4	150	9,256.32	93,388.4	
5	254	5,064.20	30,266.0	
6	257	16,173.55	95,436.0	
7	584	142.69	370.0	
8	631	72.23	173.4	
9	664	59.64	136.0	
10	701	82.08	177.4	
11	804	48.08	90.6	
12	872	44.62	77.5	
13	934	43.46	70.5	
14	1,062	21.35	30.5	
15	1,140	48.17	64.0	
16	1,480	15.98	16.4	
17	1,650	7.41	6.8	
18	10,380	75.00	10.9	Upper Marker

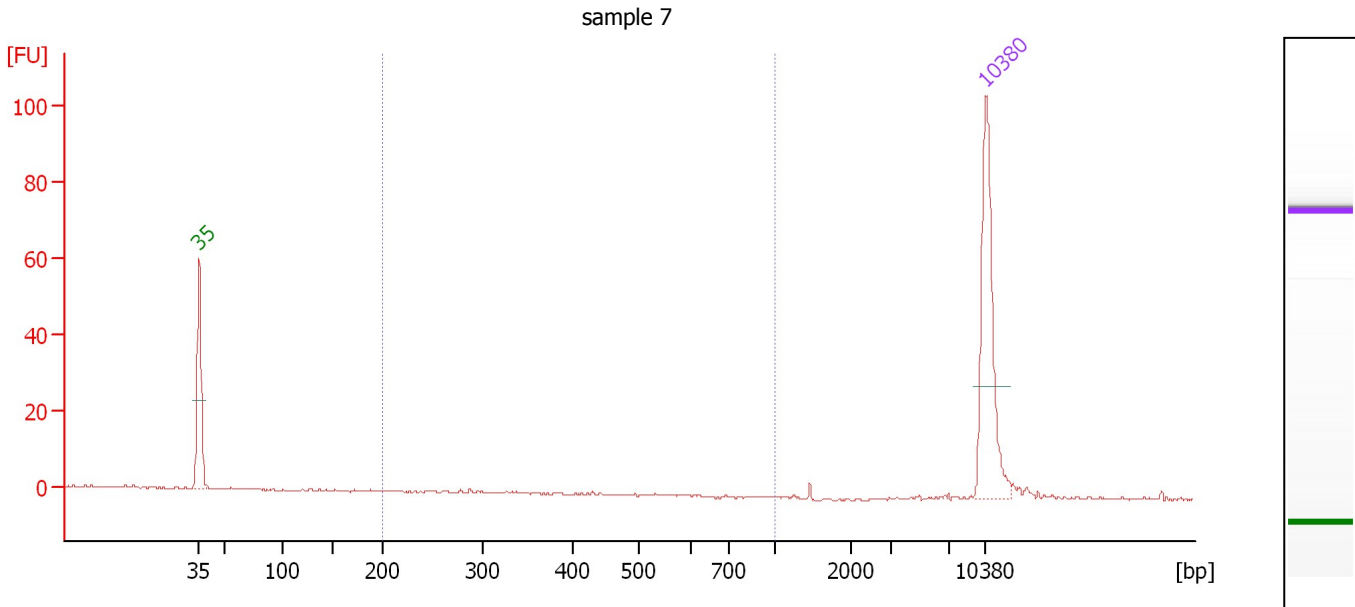
Region table for sample 6 : sample 6

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	327	107,306.6	20,762.00	8,984.1	46	34.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-30\2013-05-30_002.xad

Created: 5/30/2013 11:45:10 AM
 Modified: 5/30/2013 12:26:31 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7

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

Peak table for sample 7 : sample 7

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

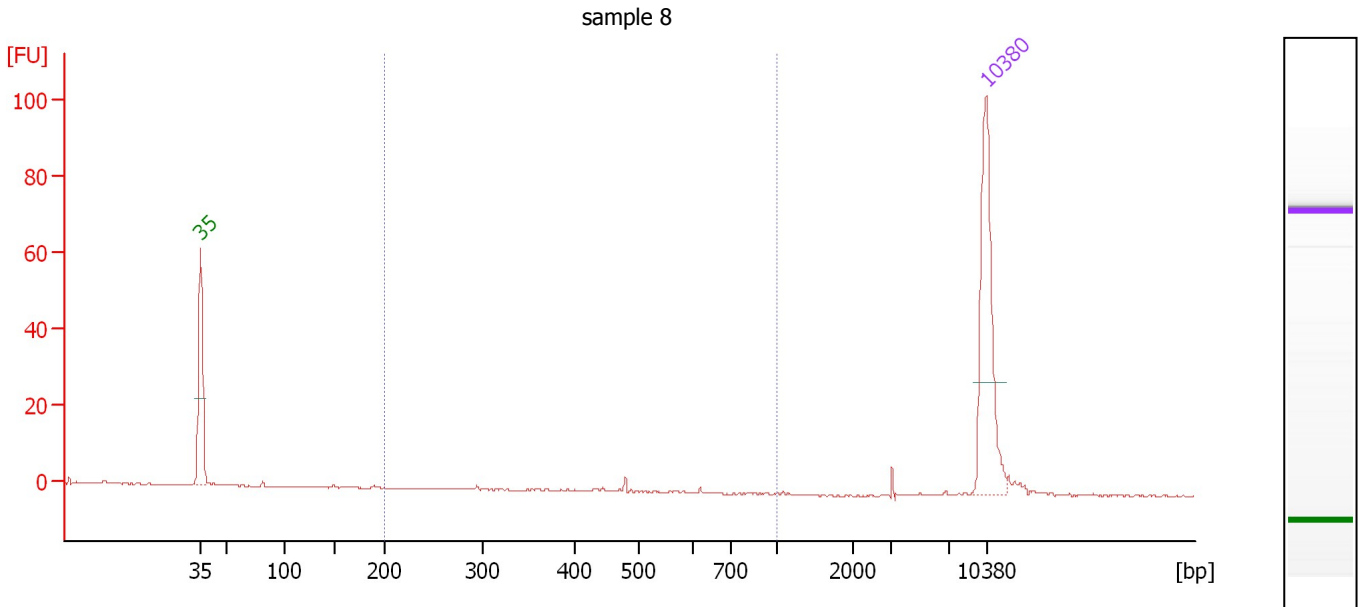
Region table for sample 7 : sample 7

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	309	1.3	0.26	0.2	3	17.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-30\2013-05-30_002.xad

Created: 5/30/2013 11:45:10 AM
 Modified: 5/30/2013 12:26:31 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8

Number of peaks found: 0 Corr. Area 1: 1.1
 Noise: 0.1

Peak table for sample 8 : sample 8

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

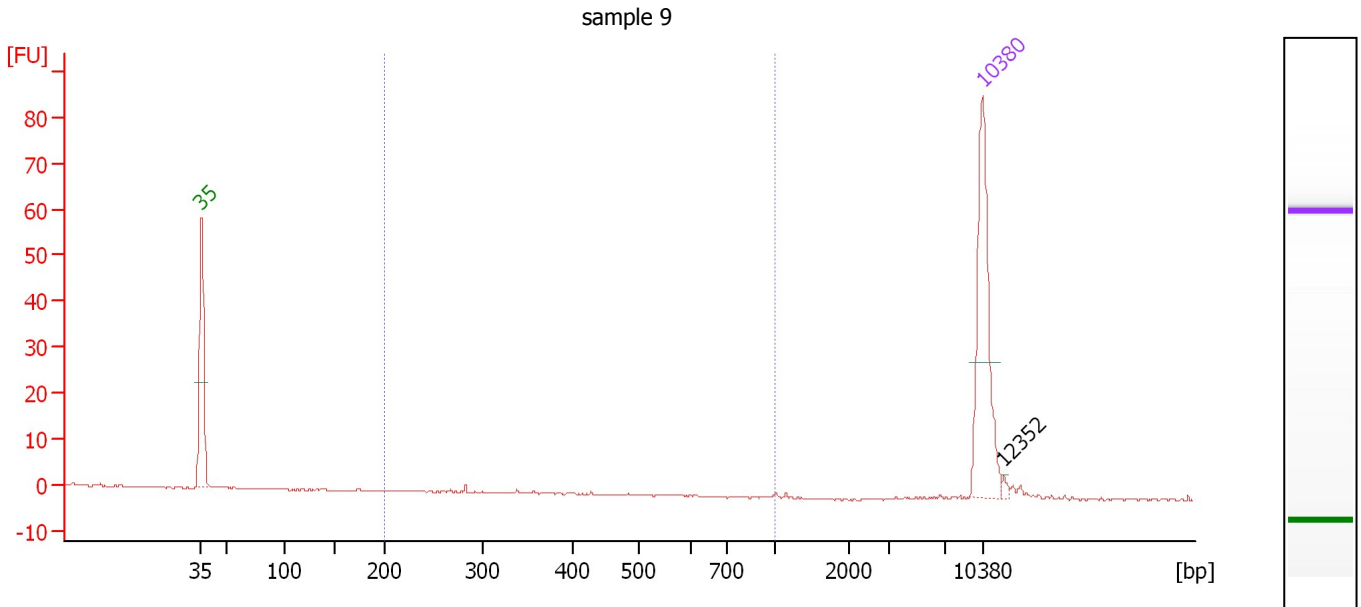
Region table for sample 8 : sample 8

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	470	3.9	1.13	1.1	11	16.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-30\2013-05-30_002.xad

Created: 5/30/2013 11:45:10 AM
 Modified: 5/30/2013 12:26:31 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 9

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

Peak table for sample 9 : sample 9

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker
3	12,352	0.00	0.0	

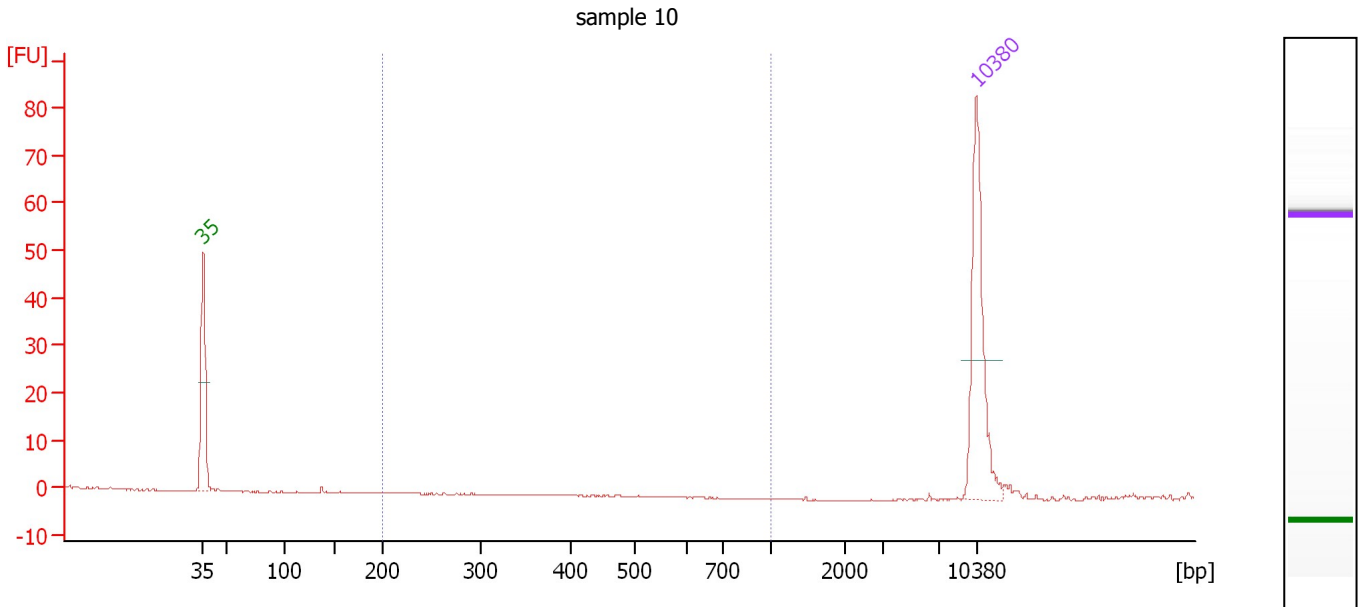
Region table for sample 9 : sample 9

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	283	1.0	0.19	0.1	5	0.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-30\2013-05-30_002.xad

Created: 5/30/2013 11:45:10 AM
 Modified: 5/30/2013 12:26:31 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 10

Number of peaks found: 0 Corr. Area 1: 0.0
 Noise: 0.1

Peak table for sample 10 : sample 10

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

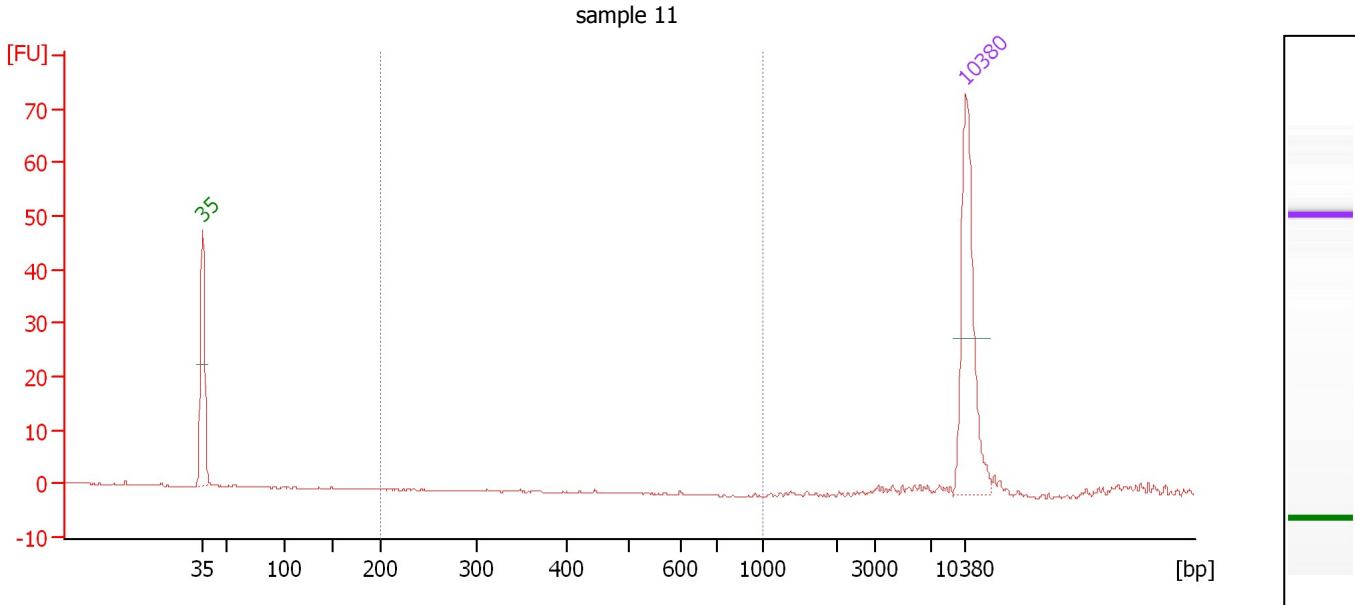
Region table for sample 10 : sample 10

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	0	0.0	0.00	0.0	0	0.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-30\2013-05-30_002.xad

Created: 5/30/2013 11:45:10 AM
 Modified: 5/30/2013 12:26:31 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 11

Number of peaks found: 0 Corr. Area 1: 0.0
 Noise: 0.1

Peak table for sample 11 : sample 11

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

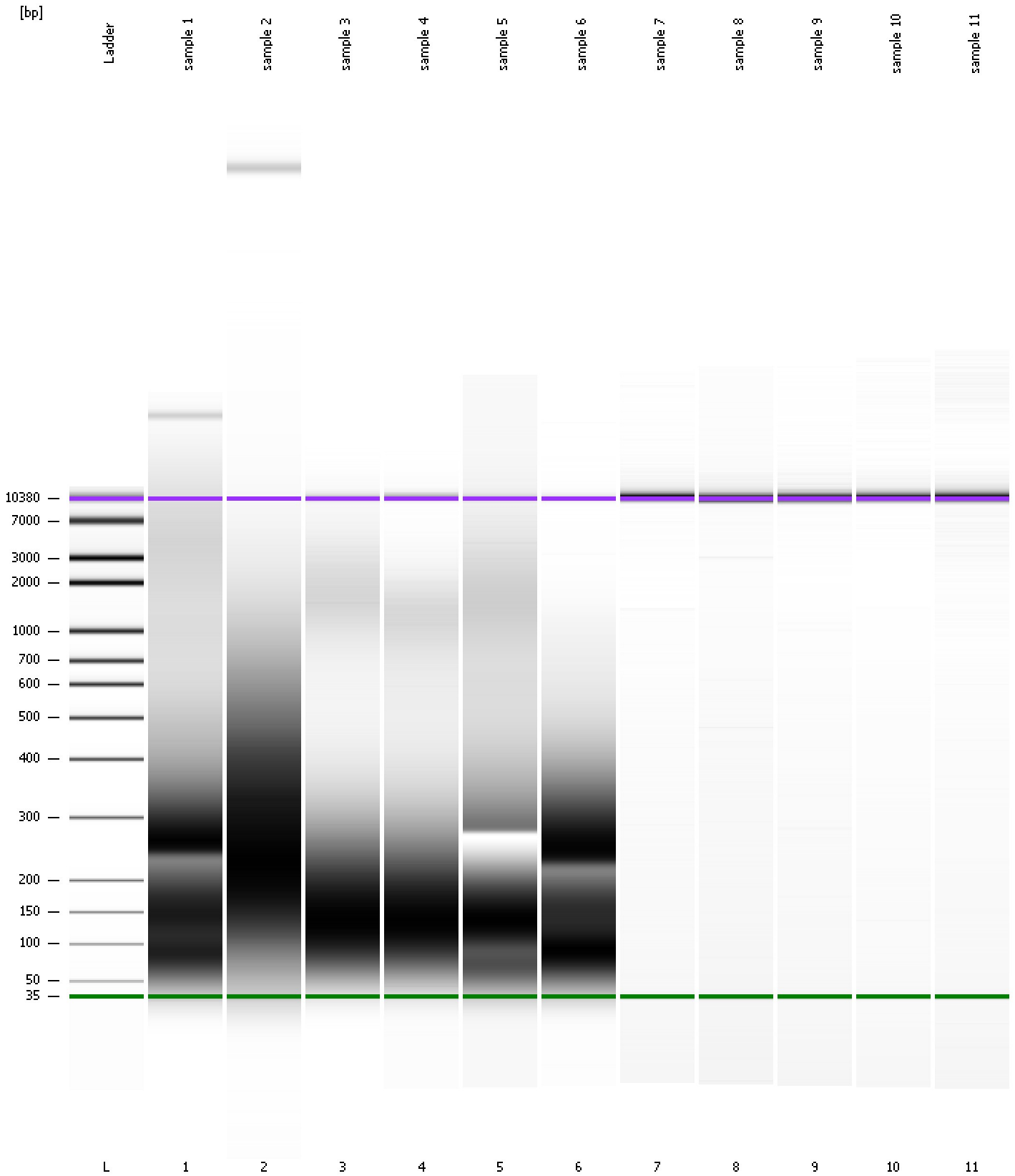
Region table for sample 11 : sample 11

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	0	0.0	0.00	0.0	0	0.0	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-30\2013-05-30_002.xad

Created: 5/30/2013 11:45:10 AM
Modified: 5/30/2013 12:26:31 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-30\2013-05-30_002.xad

Created: 5/30/2013 11:45:10 AM
 Modified: 5/30/2013 12:26:31 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		5/30/2013 12:26:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-05-30\2013-05-30_002.xad)		Instrument	Run		5/30/2013 11:45:16 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		5/30/2013 11:45:16 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		5/30/2013 11:45:16 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		5/30/2013 11:45:16 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		5/30/2013 11:45:16 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		5/30/2013 11:45:16 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		5/30/2013 11:45:16 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1