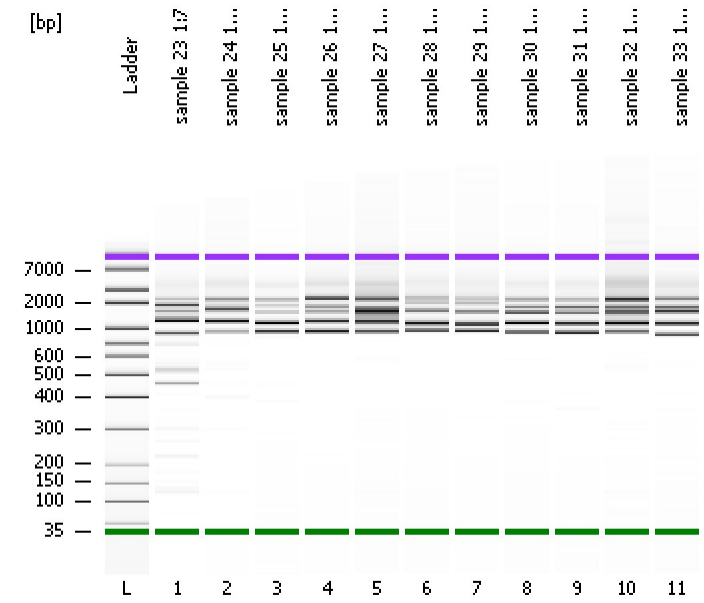
Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-01\2013-04-01_006.xad

Created: 4/1/2013 3:15:29 PM
Modified: 4/1/2013 3:59:25 PM

Electrophoresis File Run Summary



Instrument Information:

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

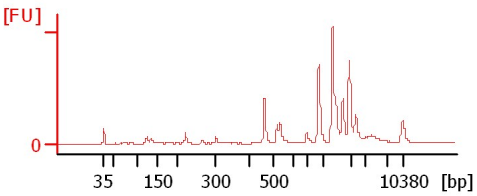
Assay Information:

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

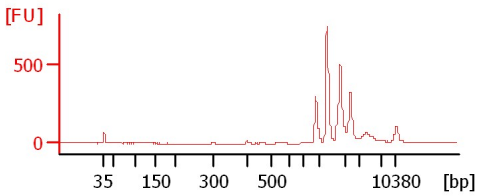
Chip Information:

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

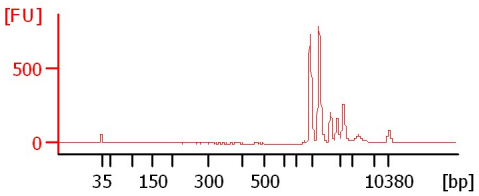
sample 23 1:7



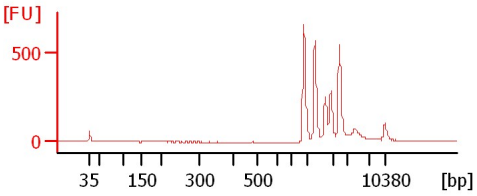
sample 24 1:18



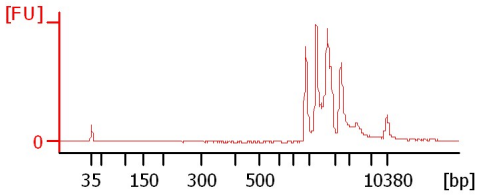
sample 25 1:25



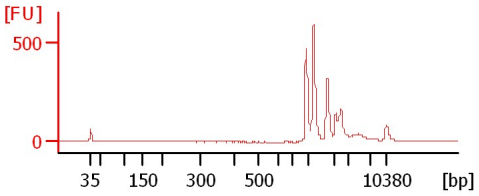
sample 26 1:28



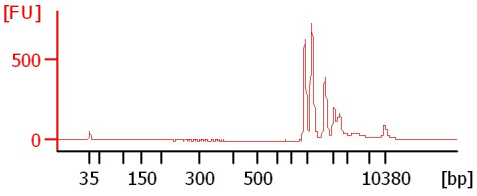
sample 27 1:22



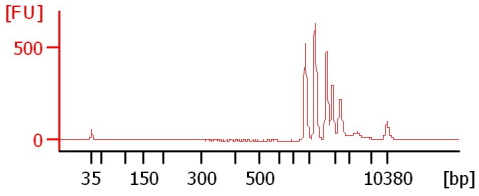
sample 28 1:26



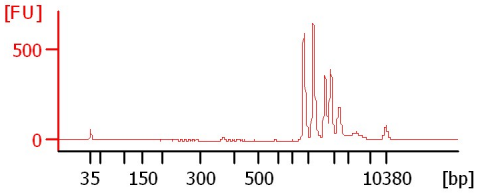
sample 29 1:27



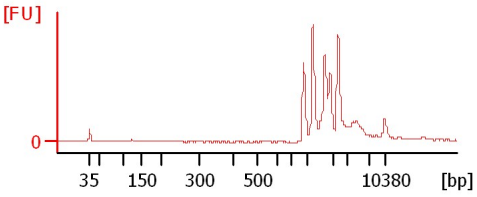
sample 30 1:24



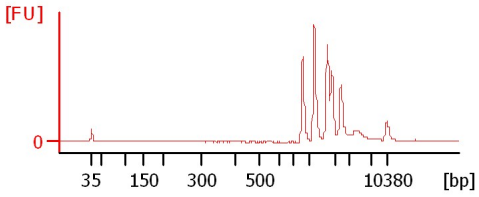
sample 31 1:19



sample 32 1:19



sample 33 1:26



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-01\2013-04-01_006.xad

Created: 4/1/2013 3:15:29 PM
Modified: 4/1/2013 3:59:25 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 23 1:7		☐	✔			
sample 24 1:18		☐	✔			
sample 25 1:25		☐	✔			
sample 26 1:28		☐	✔			
sample 27 1:22		☐	✔			
sample 28 1:26		☐	✔			
sample 29 1:27		☐	✔			
sample 30 1:24		☐	✔			
sample 31 1:19		☐	✔			
sample 32 1:19		☐	✔			
sample 33 1:26		☐	✔			
Ladder		☐	✔			

Chip Lot # **Reagent Kit Lot #**

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-01\2013-04-01_006.xad

Created: 4/1/2013 3:15:29 PM
Modified: 4/1/2013 3:59:25 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

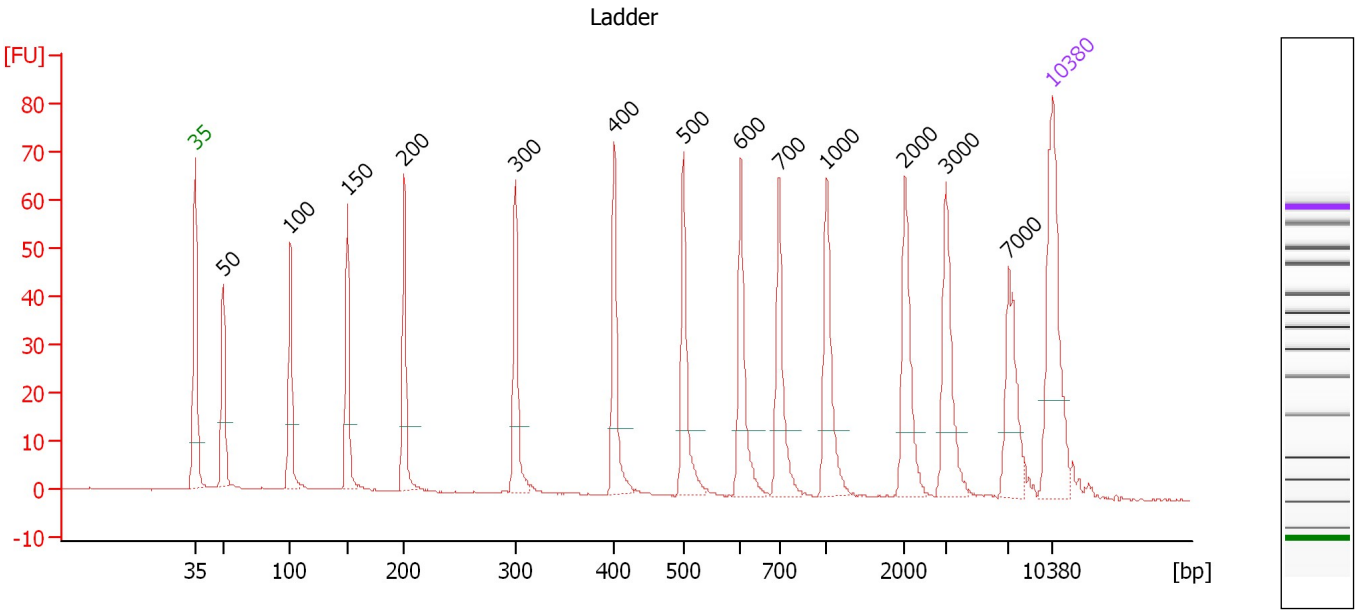
Ladder

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\2013-04-01\2013-04-01_006.xad

Created: 4/1/2013 3:15:29 PM
Modified: 4/1/2013 3:59:25 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

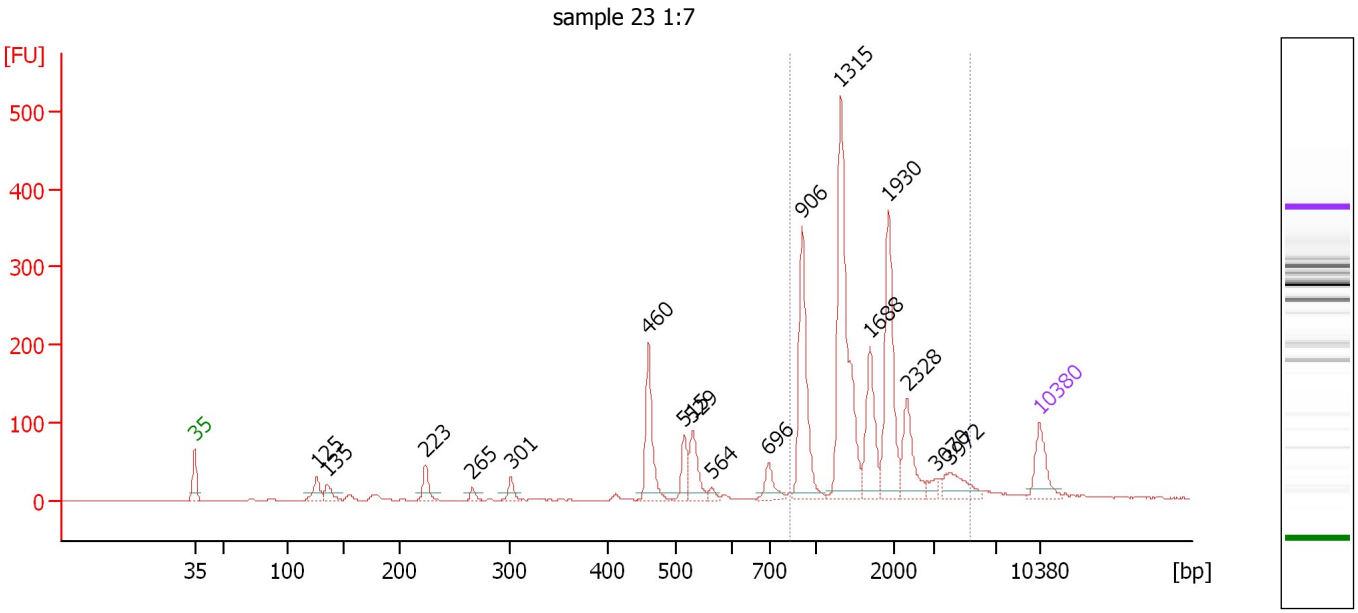
Peak table for Ladder

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\2013-04-01\2013-04-01_006.xad

Created: 4/1/2013 3:15:29 PM
Modified: 4/1/2013 3:59:25 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 1 : sample 23 1:7

Height Threshold [FU] : 10

Overall Results for sample 1 : sample 23 1:7

Number of peaks found:	17	Corr. Area 1:	1,530.8
Noise:	0.2		

Peak table for sample 1 : sample 23 1:7

Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	◀	35	125.00	5,411.3	Lower Marker
2		125	63.51	767.1	
3		135	47.54	533.8	
4		223	59.40	404.0	
5		265	19.61	111.9	
6		301	34.24	172.6	
7		460	183.93	606.0	
8		515	65.60	193.0	
9		529	96.74	277.0	
10		564	14.13	37.9	
11		696	51.55	112.2	
12		906	292.04	488.1	
13		1,315	478.56	551.2	
14		1,688	147.28	132.2	
15		1,930	255.29	200.4	
16		2,328	108.06	70.3	
17		3,070	18.89	9.3	
18		3,972	64.72	24.7	
19	▶	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-01\2013-04-01_006.xad

Created: 4/1/2013 3:15:29 PM
Modified: 4/1/2013 3:59:25 PM

Electropherogram Summary Continued ...

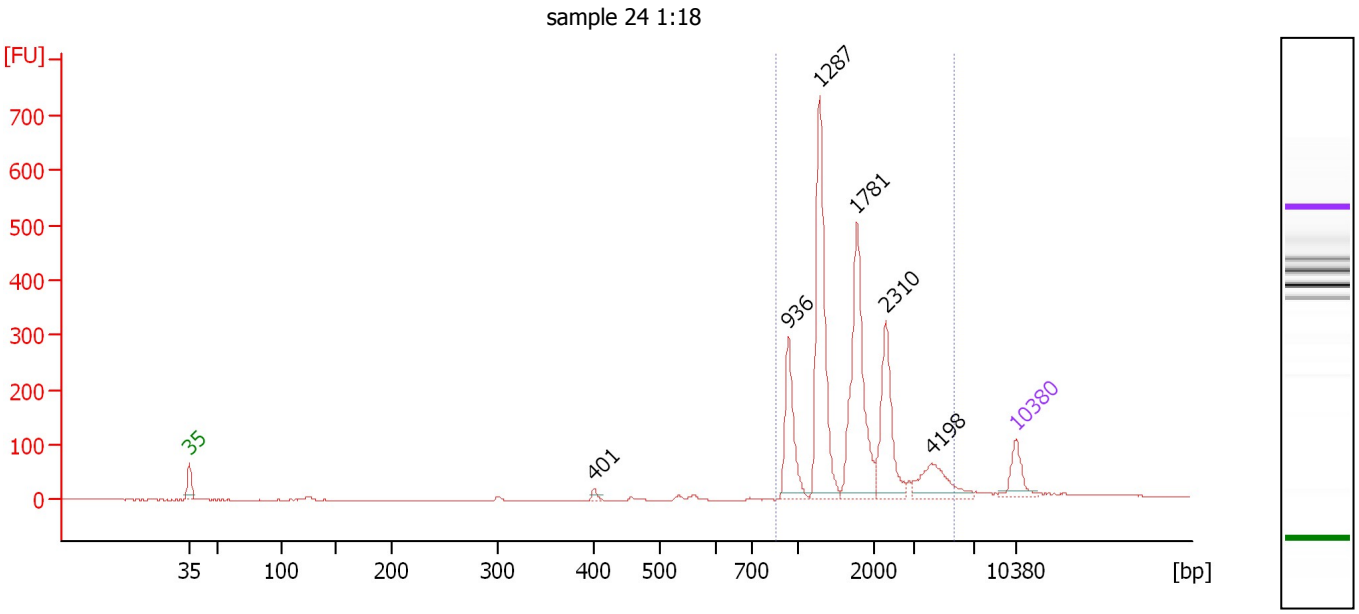
... Region table for sample 1 : sample 23 1:7

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
827	5,269	1,689	1,401.4	1,342.67	1,530.8	72	44.1	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-01\2013-04-01_006.xad

Created: 4/1/2013 3:15:29 PM
Modified: 4/1/2013 3:59:25 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 2 : sample 24 1:18

Height Threshold [FU] : 10

Overall Results for sample 2 : sample 24 1:18

Number of peaks found:	6	Corr. Area 1:	2,036.0
Noise:	0.6		

Peak table for sample 2 : sample 24 1:18

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	401	14.01	52.9	
3	936	225.81	365.5	
4	1,287	525.13	618.1	
5	1,781	446.97	380.2	
6	2,310	249.25	163.5	
7	4,198	128.76	46.5	
8	10,380	75.00	10.9	Upper Marker

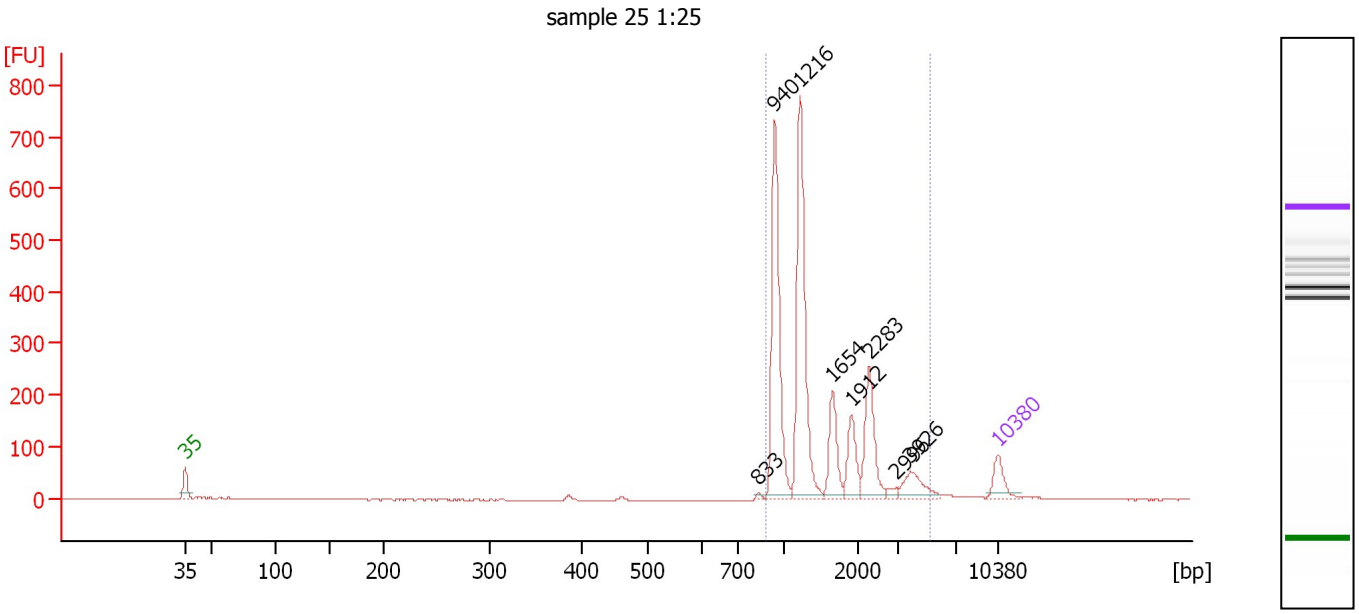
Region table for sample 2 : sample 24 1:18

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
857	5,685	1,832	1,492.6	1,542.99	2,036.0	95	47.2	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-01\2013-04-01_006.xad

Created: 4/1/2013 3:15:29 PM
Modified: 4/1/2013 3:59:25 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 3 : sample 25 1:25

Height Threshold [FU] : 10

Overall Results for sample 3 : sample 25 1:25

Number of peaks found:	8	Corr. Area 1:	1,983.9
Noise:	0.6		

Peak table for sample 3 : sample 25 1:25

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	833	8.69	15.8	
3	940	647.11	1,043.1	
4	1,216	676.73	843.2	
5	1,654	164.77	151.0	
6	1,912	128.85	102.1	
7	2,283	220.04	146.0	
8	2,996	18.94	9.6	
9	3,926	99.85	38.5	
10	10,380	75.00	10.9	Upper Marker

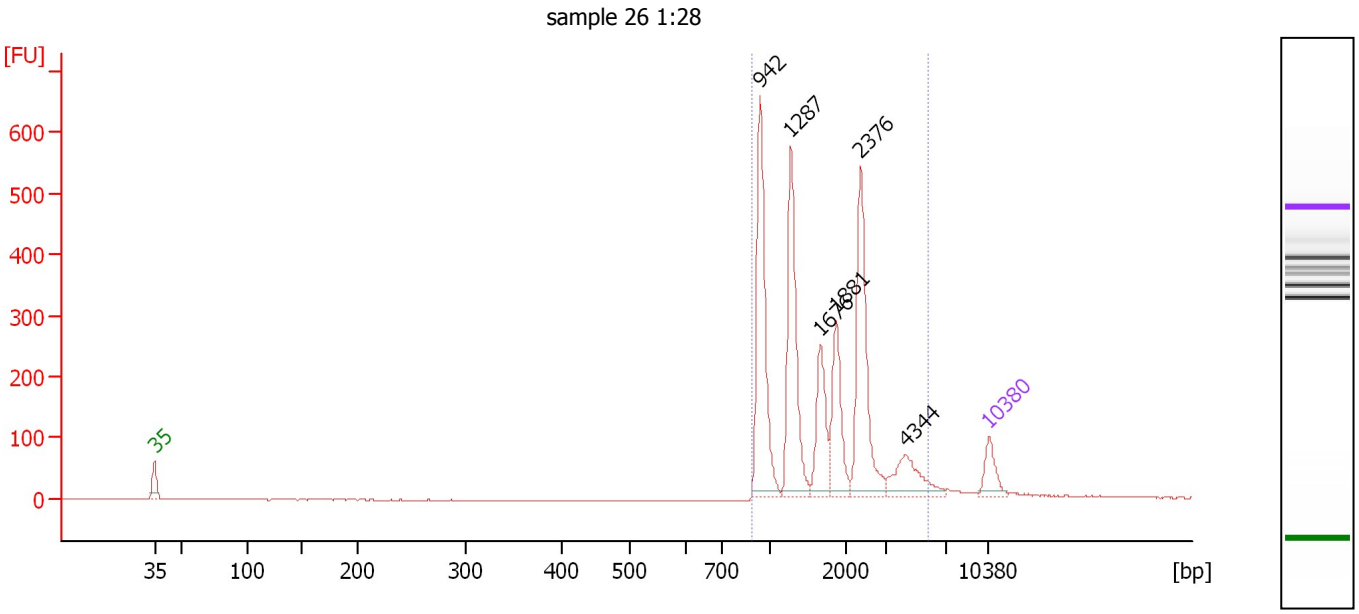
Region table for sample 3 : sample 25 1:25

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
878	5,276	1,553	2,238.0	1,931.84	1,983.9	96	50.6	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-01\2013-04-01_006.xad

Created: 4/1/2013 3:15:29 PM
Modified: 4/1/2013 3:59:25 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 4 : sample 26 1:28

Height Threshold [FU] : 10

Overall Results for sample 4 : sample 26 1:28

Number of peaks found:	6	Corr. Area 1:	2,306.2
Noise:	0.6		

Peak table for sample 4 : sample 26 1:28

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	942	545.58	877.2	
3	1,287	453.82	534.2	
4	1,676	193.45	174.9	
5	1,881	213.81	172.2	
6	2,376	423.35	270.0	
7	4,344	149.66	52.2	
8	10,380	75.00	10.9	Upper Marker

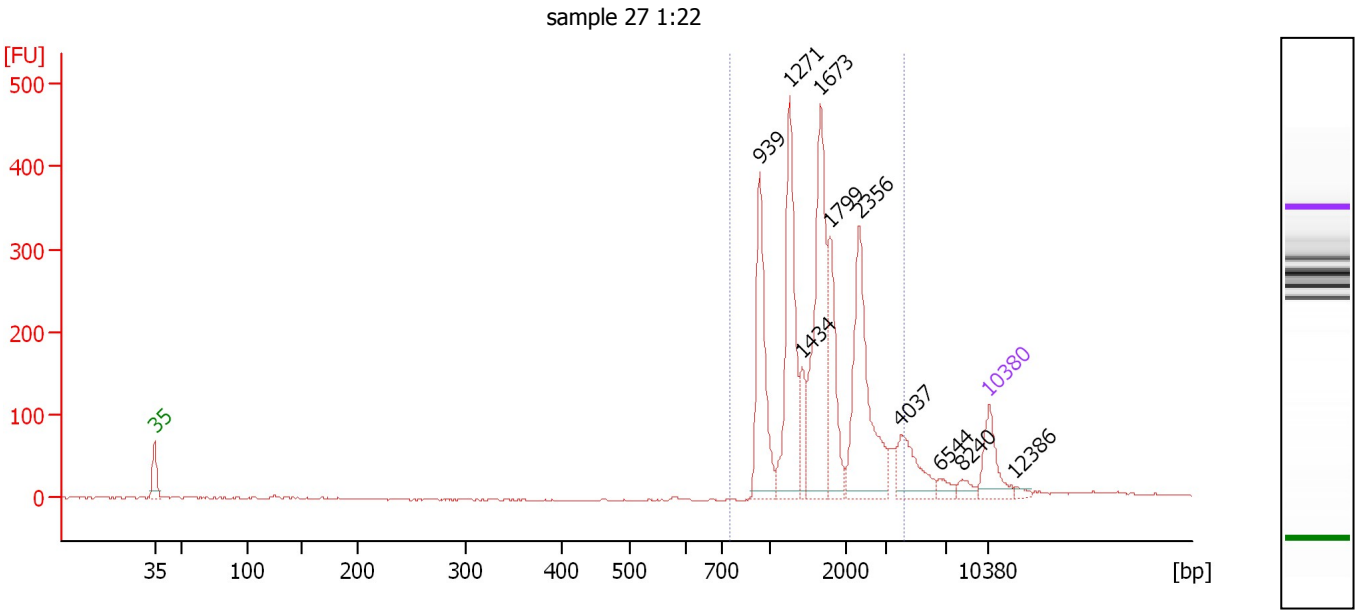
Region table for sample 4 : sample 26 1:28

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
891	5,879	1,839	2,006.8	1,962.78	2,306.2	96	51.5	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-01\2013-04-01_006.xad

Created: 4/1/2013 3:15:29 PM
Modified: 4/1/2013 3:59:25 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 5 : sample 27 1:22

Height Threshold [FU] : 10

Overall Results for sample 5 : sample 27 1:22

Number of peaks found:	10	Corr. Area 1:	2,237.2
Noise:	0.8		

Peak table for sample 5 : sample 27 1:22

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	939	260.38	420.3	
3	1,271	310.87	370.7	
4	1,434	65.26	68.9	
5	1,673	352.33	319.1	
6	1,799	158.69	133.6	
7	2,356	301.22	193.7	
8	4,037	99.29	37.3	
9	6,544	19.35	4.5	
10	8,240	18.52	3.4	
11	10,380	75.00	10.9	Upper Marker
12	12,386	0.00	0.0	

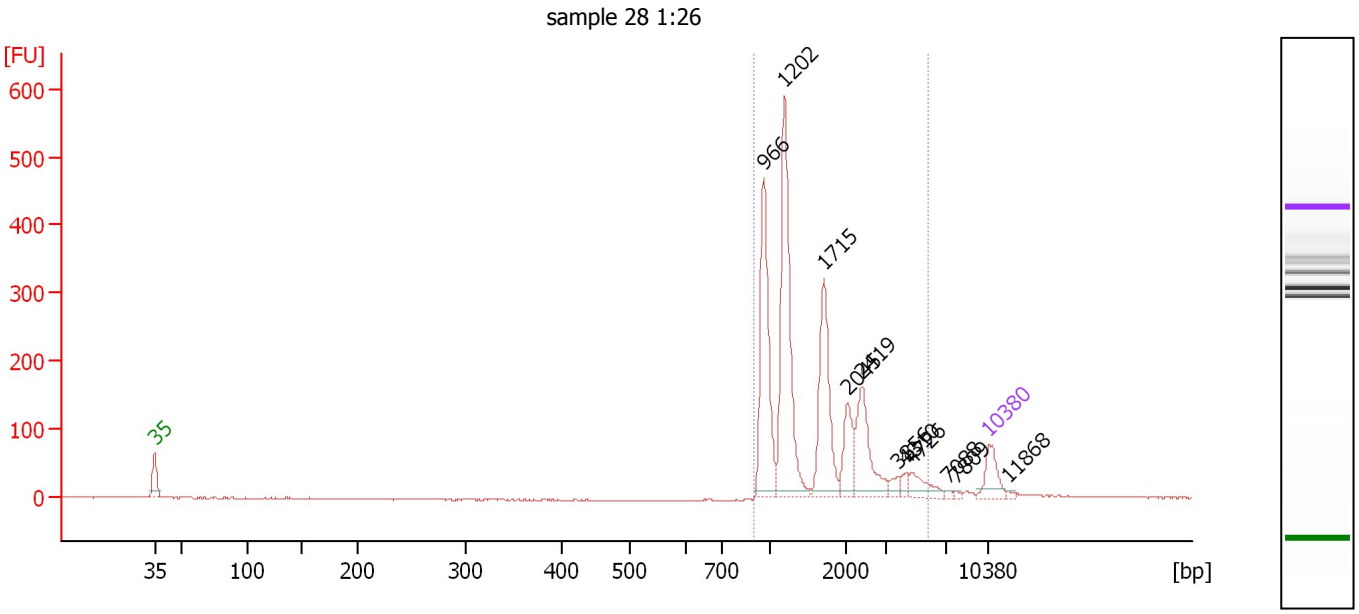
Region table for sample 5 : sample 27 1:22

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
750	4,276	1,746	1,454.0	1,470.73	2,237.2	92	37.6	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-01\2013-04-01_006.xad

Created: 4/1/2013 3:15:29 PM
Modified: 4/1/2013 3:59:25 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 6 : sample 28 1:26

Height Threshold [FU] : 10

Overall Results for sample 6 : sample 28 1:26

Number of peaks found:	11	Corr. Area 1:	1,726.1
Noise:	0.6		

Peak table for sample 6 : sample 28 1:26

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	966	438.14	687.3	
3	1,202	575.08	724.7	
4	1,715	307.55	271.8	
5	2,045	121.04	89.7	
6	2,419	201.01	125.9	
7	3,856	24.83	9.8	
8	4,310	22.70	8.0	
9	4,726	63.89	20.5	
10	7,088	6.77	1.4	
11	7,809	5.14	1.0	
12	10,380	75.00	10.9	Upper Marker
13	11,868	0.00	0.0	

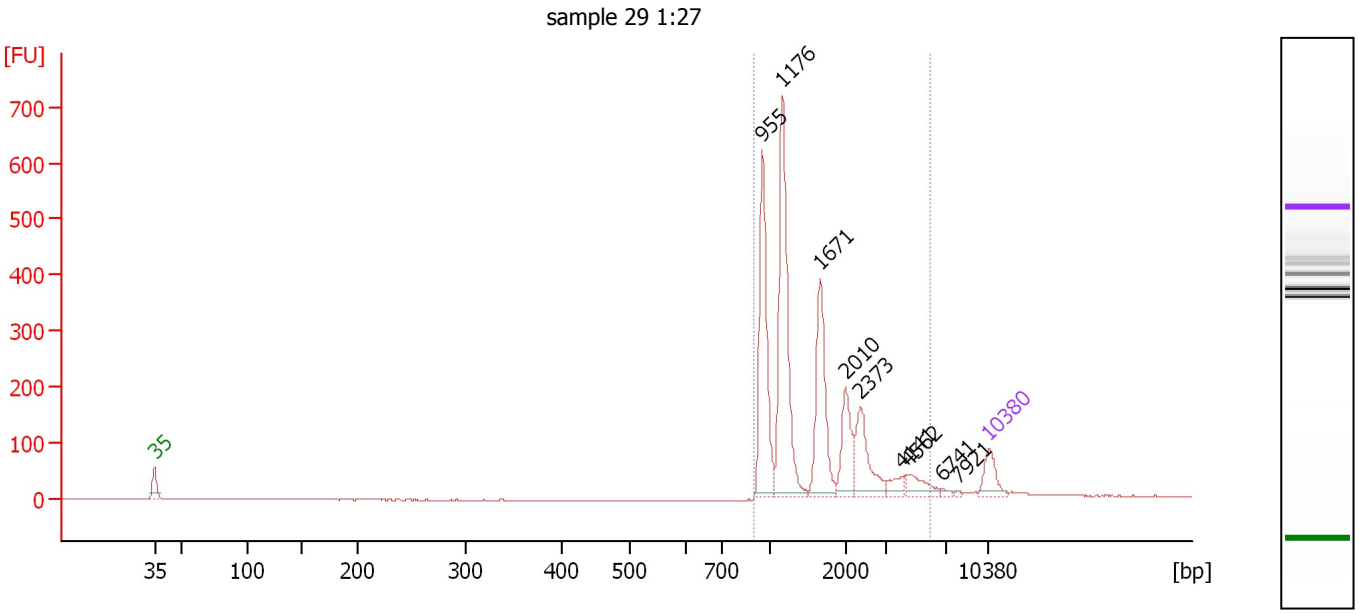
Region table for sample 6 : sample 28 1:26

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
903	5,861	1,702	1,844.7	1,733.78	1,726.1	95	52.8	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-01\2013-04-01_006.xad

Created: 4/1/2013 3:15:29 PM
Modified: 4/1/2013 3:59:25 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 7 : sample 29 1:27

Height Threshold [FU] : 10

Overall Results for sample 7 : sample 29 1:27

Number of peaks found:	9	Corr. Area 1:	1,999.4
Noise:	0.7		

Peak table for sample 7 : sample 29 1:27

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	955	482.97	765.9	
3	1,176	618.69	796.9	
4	1,671	328.24	297.7	
5	2,010	155.96	117.5	
6	2,373	184.14	117.6	
7	4,141	42.65	15.6	
8	4,562	68.87	22.9	
9	6,741	10.41	2.3	
10	7,921	4.99	1.0	
11	10,380	75.00	10.9	Upper Marker

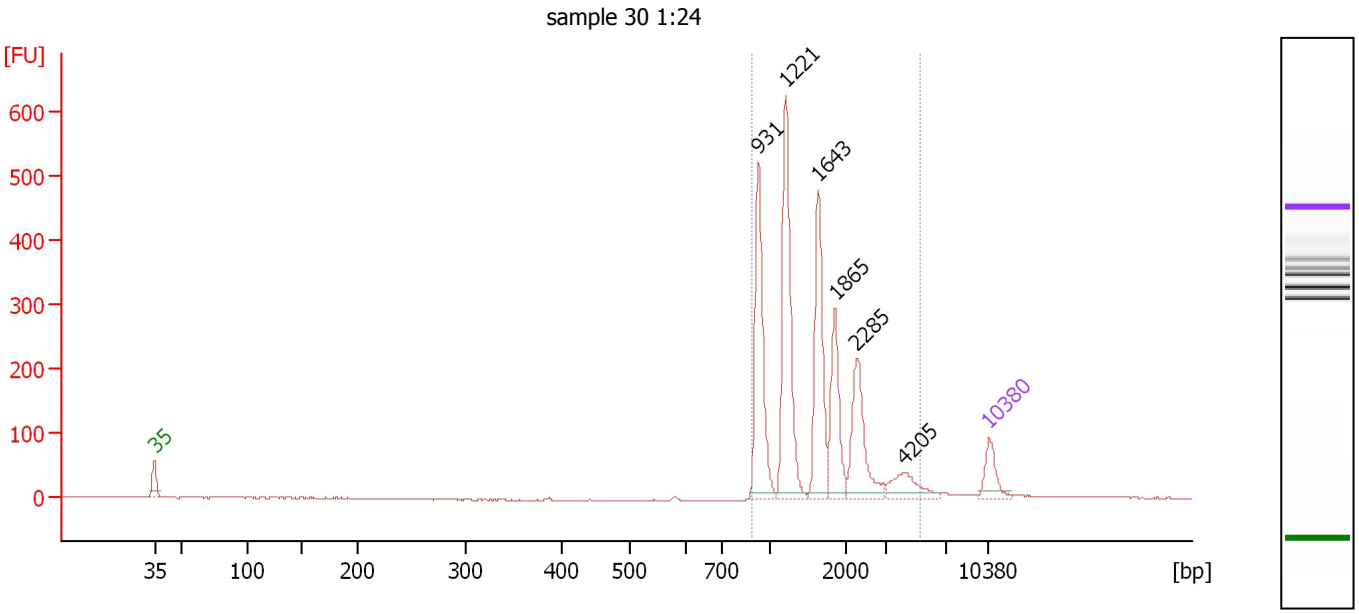
Region table for sample 7 : sample 29 1:27

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
903	5,978	1,658	2,025.6	1,854.50	1,999.4	97	54.0	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-01\2013-04-01_006.xad

Created: 4/1/2013 3:15:29 PM
Modified: 4/1/2013 3:59:25 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 8 : sample 30 1:24

Height Threshold [FU] : 10

Overall Results for sample 8 : sample 30 1:24

Number of peaks found: 6
Noise: 1.1
Corr. Area 1: 1,916.5

Peak table for sample 8 : sample 30 1:24

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	931	417.42	679.6	
3	1,221	480.63	596.6	
4	1,643	330.49	304.8	
5	1,865	201.74	163.9	
6	2,285	223.82	148.4	
7	4,205	91.27	32.9	
8	10,380	75.00	10.9	Upper Marker

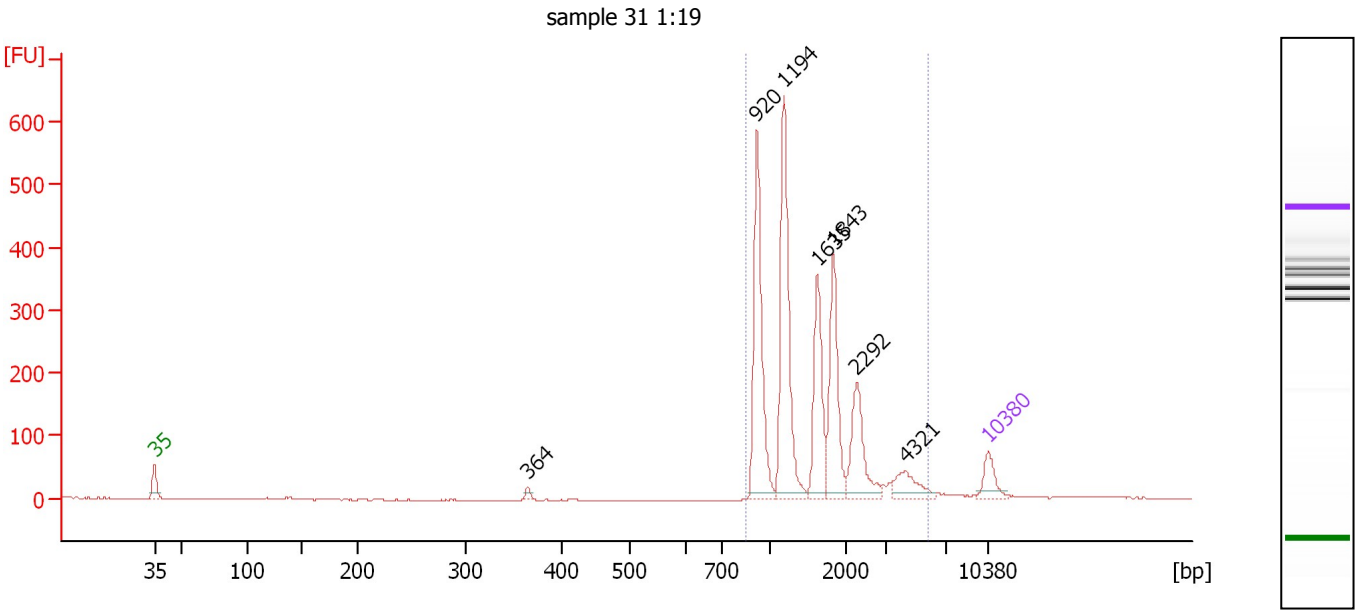
Region table for sample 8 : sample 30 1:24

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
894	5,295	1,642	1,835.9	1,711.48	1,916.5	95	45.4	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-01\2013-04-01_006.xad

Created: 4/1/2013 3:15:29 PM
Modified: 4/1/2013 3:59:25 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 9 : sample 31 1:19

Height Threshold [FU] : 10

Overall Results for sample 9 : sample 31 1:19

Number of peaks found:	7	Corr. Area 1:	1,978.8
Noise:	0.9		

Peak table for sample 9 : sample 31 1:19

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	364	14.78	61.5	
3	920	597.23	983.6	
4	1,194	635.17	805.9	
5	1,635	321.05	297.6	
6	1,843	343.08	282.0	
7	2,292	234.14	154.8	
8	4,321	100.85	35.4	
9	10,380	75.00	10.9	Upper Marker

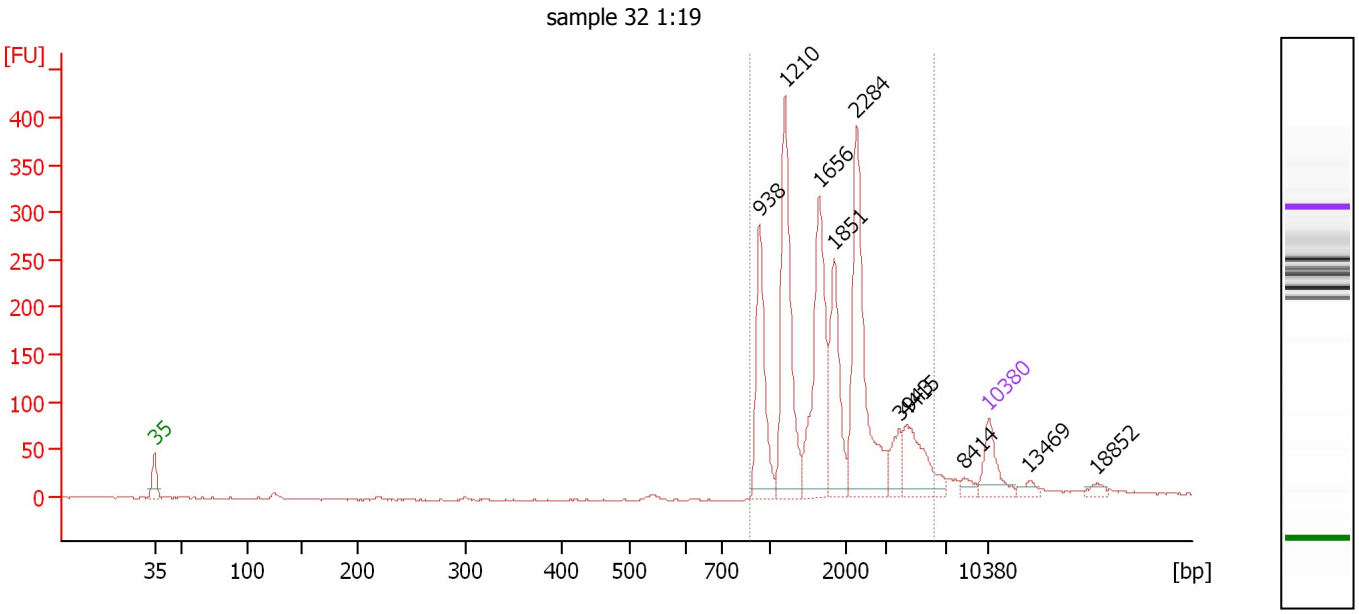
Region table for sample 9 : sample 31 1:19

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
852	5,775	1,629	2,456.6	2,236.62	1,978.8	96	49.9	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-01\2013-04-01_006.xad

Created: 4/1/2013 3:15:29 PM
Modified: 4/1/2013 3:59:25 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 10 : sample 32 1:19

Height Threshold [FU] : 10

Overall Results for sample 10 : sample 32 1:19

Number of peaks found:	10	Corr. Area 1:	1,931.5
Noise:	0.8		

Peak table for sample 10 : sample 32 1:19

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	938	249.06	402.5	
3	1,210	377.63	472.8	
4	1,656	330.80	302.7	
5	1,851	196.84	161.1	
6	2,284	382.42	253.7	
7	3,943	59.07	22.7	
8	4,415	135.20	46.4	
9	8,414	18.42	3.3	
10	10,380	75.00	10.9	Upper Marker
11	13,469	0.00	0.0	
12	18,852	0.00	0.0	

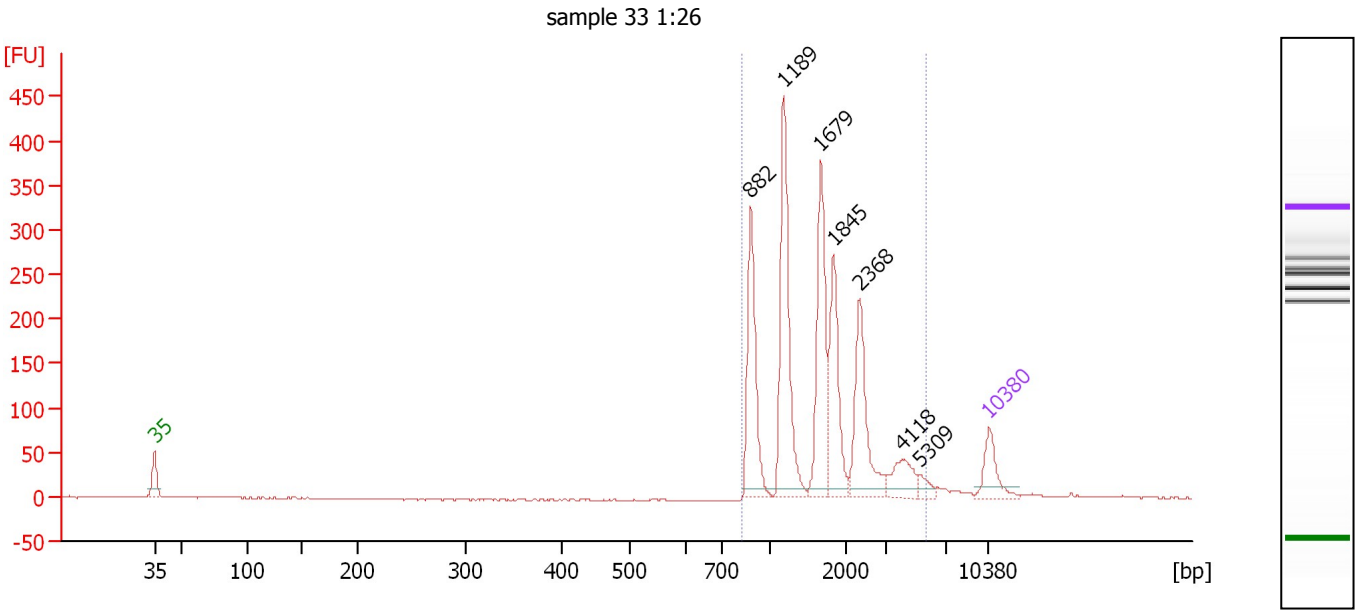
Region table for sample 10 : sample 32 1:19

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
877	6,209	2,016	1,553.8	1,677.07	1,931.5	94	53.3	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-01\2013-04-01_006.xad

Created: 4/1/2013 3:15:29 PM
Modified: 4/1/2013 3:59:25 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 11 : sample 33 1:26

Height Threshold [FU] : 10

Overall Results for sample 11 : sample 33 1:26

Number of peaks found:	7	Corr. Area 1:	1,580.3
Noise:	0.9		

Peak table for sample 11 : sample 33 1:26

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	882	305.02	523.8	
3	1,189	407.01	518.6	
4	1,679	302.23	272.7	
5	1,845	225.33	185.0	
6	2,368	231.66	148.2	
7	4,118	79.97	29.4	
8	5,309	26.07	7.4	
9	10,380	75.00	10.9	Upper Marker

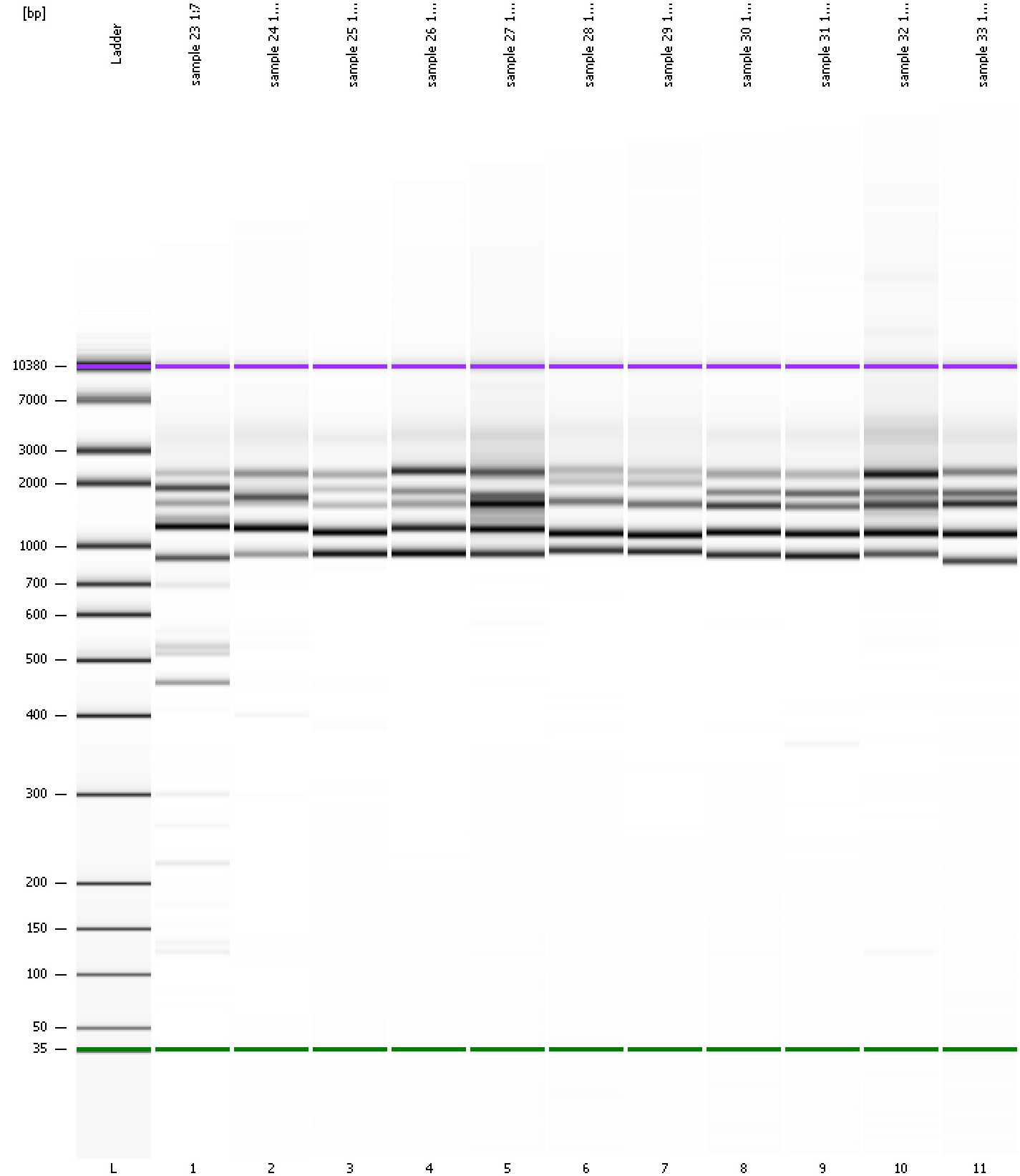
Region table for sample 11 : sample 33 1:26

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
824	5,662	1,774	1,618.2	1,570.24	1,580.3	95	49.6	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-01\2013-04-01_006.xad

Created: 4/1/2013 3:15:29 PM
Modified: 4/1/2013 3:59:25 PM

Gel Image

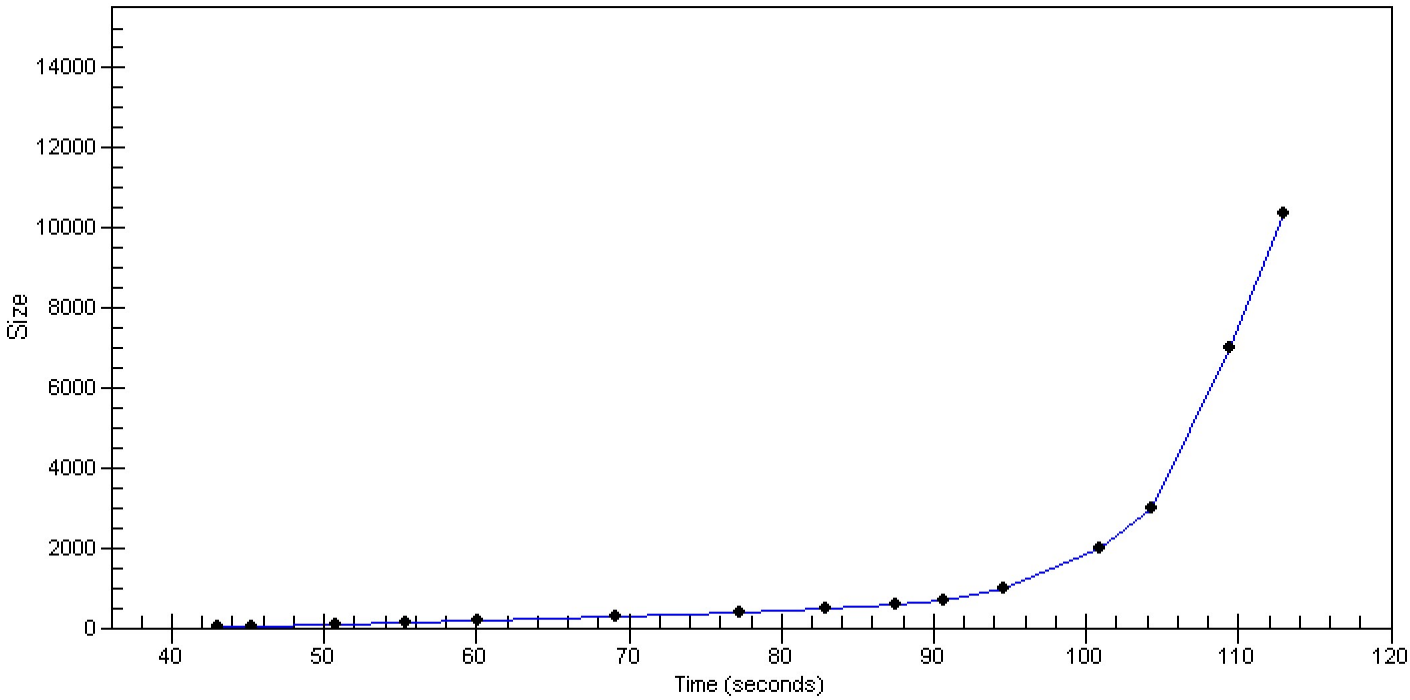


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-01\2013-04-01_006.xad

Created: 4/1/2013 3:15:29 PM
Modified: 4/1/2013 3:59:25 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-01\2013-04-01_006.xad

Created: 4/1/2013 3:15:29 PM
Modified: 4/1/2013 3:59:25 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		4/1/2013 3:56:48 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-04-01\2013-04-01_006.xad)		Instrument	Run		4/1/2013 3:15:35 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/1/2013 3:15:35 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/1/2013 3:15:35 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/1/2013 3:15:35 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/1/2013 3:15:35 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/1/2013 3:15:35 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/1/2013 3:15:35 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1