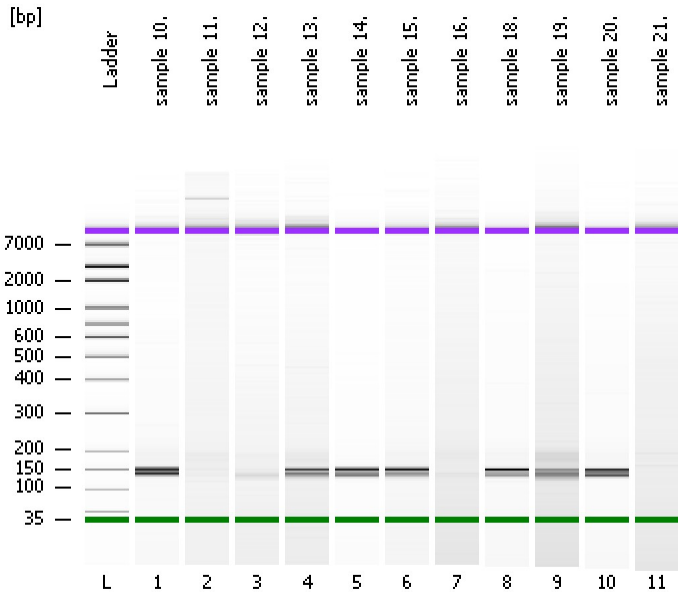


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-09\2015-02-09_001.xad

Created: 2/9/2015 10:53:21 AM
Modified: 2/9/2015 11:35:11 AM

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

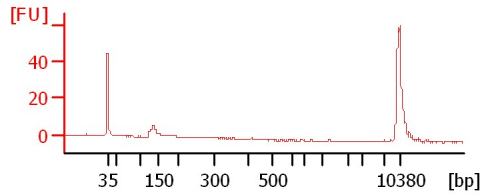
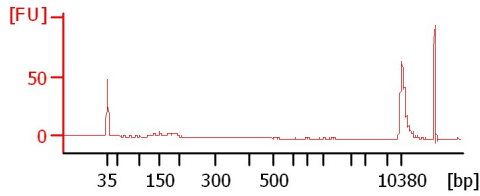
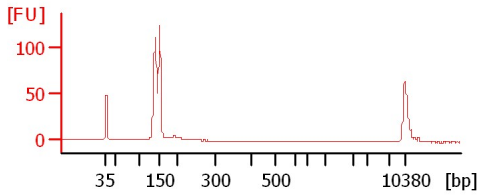
Chip Information:

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

sample 10.

sample 11.

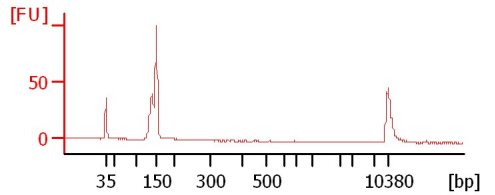
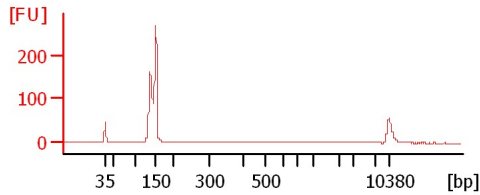
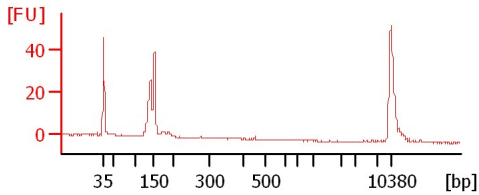
sample 12.



sample 13.

sample 14.

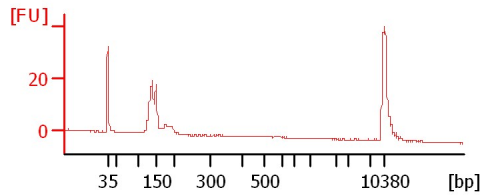
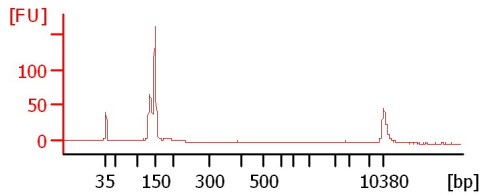
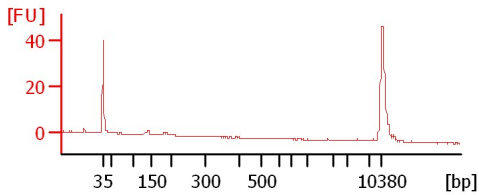
sample 15.



sample 16.

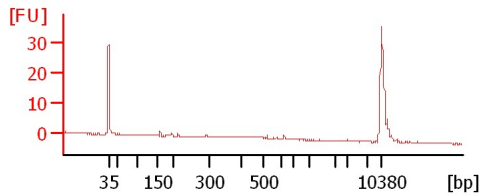
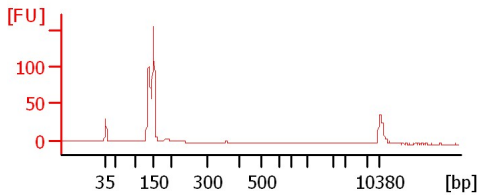
sample 18.

sample 19.



sample 20.

sample 21.



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-09\2015-02-09_001.xad

Created: 2/9/2015 10:53:21 AM
 Modified: 2/9/2015 11:35:11 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 10.		<input type="checkbox"/>	✓			
sample 11.		<input type="checkbox"/>	✓			
sample 12.		<input type="checkbox"/>	✓			
sample 13.		<input type="checkbox"/>	✓			
sample 14.		<input type="checkbox"/>	✓			
sample 15.		<input type="checkbox"/>	✓			
sample 16.		<input type="checkbox"/>	✓			
sample 18.		<input type="checkbox"/>	✓			
sample 19.		<input type="checkbox"/>	✓			
sample 20.		<input type="checkbox"/>	✓			
sample 21.		<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\2015-02-09\2015-02-09_001.xad

Created: 2/9/2015 10:53:21 AM
 Modified: 2/9/2015 11:35:11 AM

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

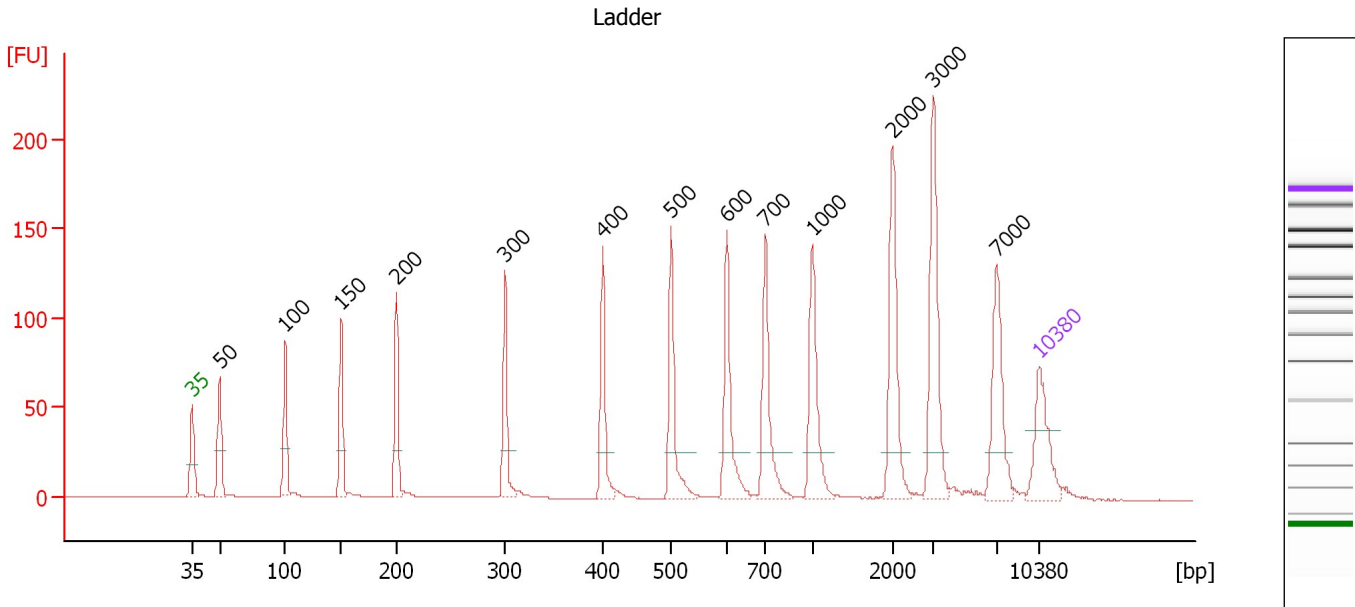
Ladder

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\2015-02-09\2015-02-09_001.xad

Created: 2/9/2015 10:53:21 AM
 Modified: 2/9/2015 11:35:11 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

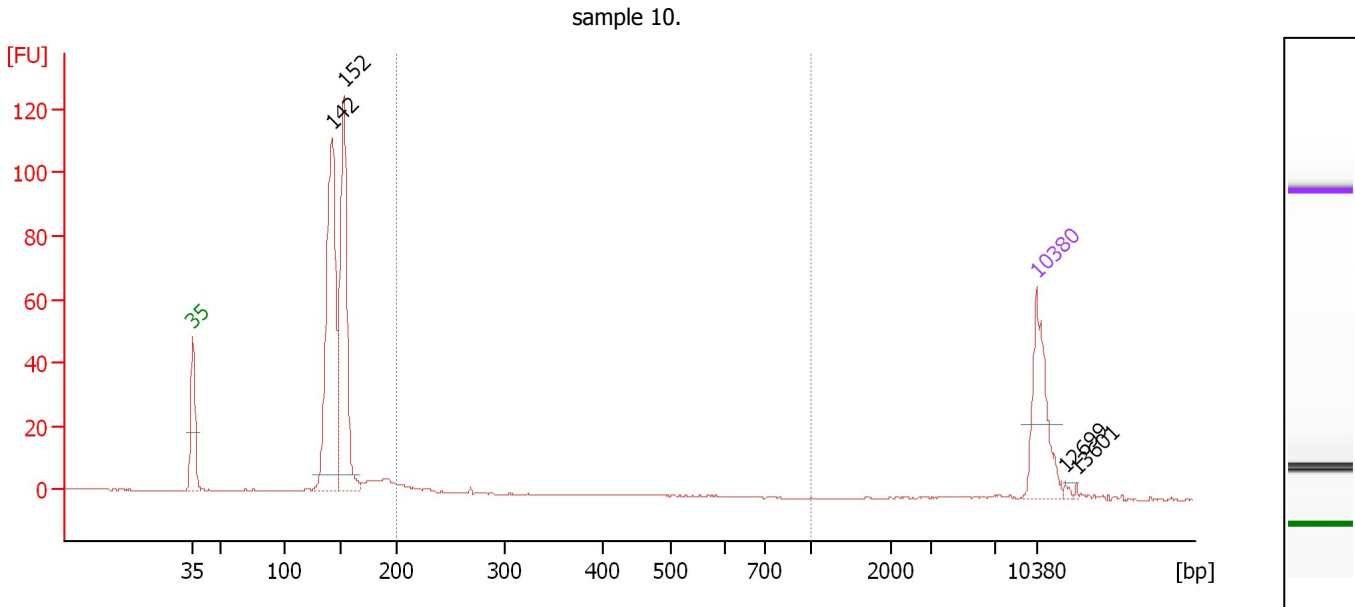
Peak table for Ladder

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	45.25
3	100	150.00	2,272.7	Ladder Peak	50.67
4	150	150.00	1,515.2	Ladder Peak	55.30
5	200	150.00	1,136.4	Ladder Peak	59.88
6	300	150.00	757.6	Ladder Peak	68.83
7	400	150.00	568.2	Ladder Peak	76.94
8	500	150.00	454.5	Ladder Peak	82.58
9	600	150.00	378.8	Ladder Peak	87.17
10	700	150.00	324.7	Ladder Peak	90.39
11	1,000	150.00	227.3	Ladder Peak	94.27
12	2,000	150.00	113.6	Ladder Peak	100.88
13	3,000	150.00	75.8	Ladder Peak	104.23
14	7,000	150.00	32.5	Ladder Peak	109.52
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-09\2015-02-09_001.xad

Created: 2/9/2015 10:53:21 AM
 Modified: 2/9/2015 11:35:11 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 10.

Number of peaks found: 4 Corr. Area 1: 8.0
 Noise: 0.2

Peak table for sample 1 : sample 10.

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	142	375.86	3,999.8		54.59
3	152	309.96	3,080.8		55.52
4	10,380	75.00	10.9	Upper Marker	113.00
5	12,699	0.00	0.0		115.39
6	13,601	0.00	0.0		116.32

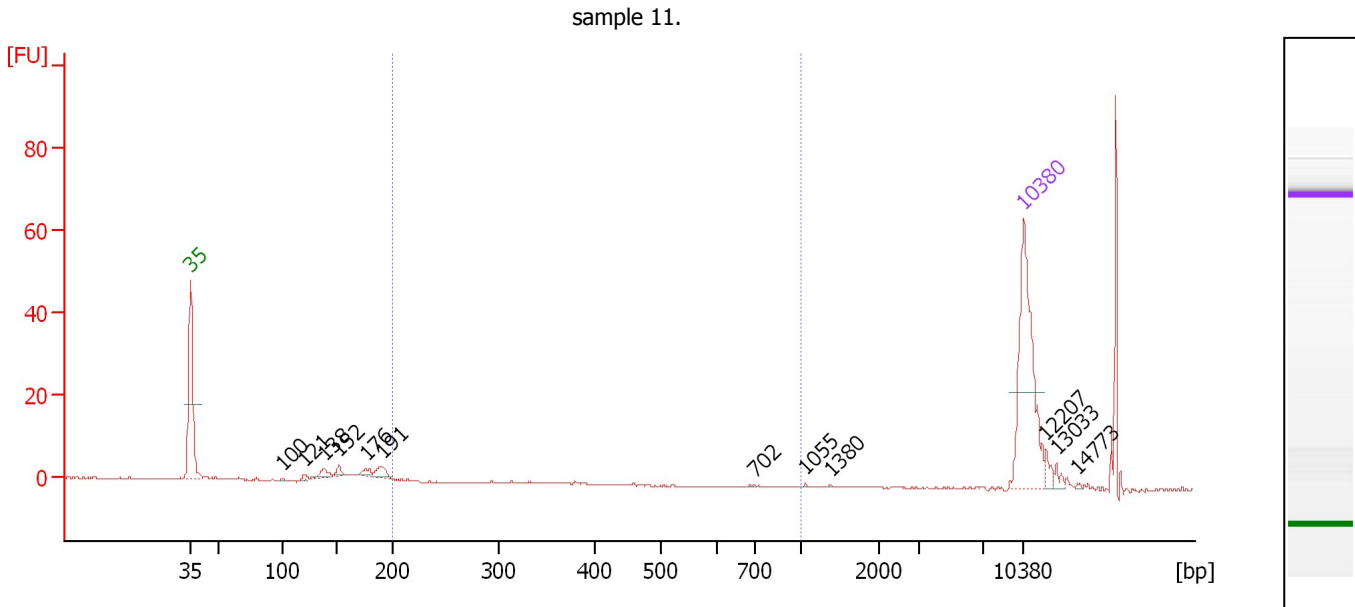
Region table for sample 1 : sample 10.

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	216	1,000	8.0	2	7.2	13.50	94.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-09\2015-02-09_001.xad

Created: 2/9/2015 10:53:21 AM
 Modified: 2/9/2015 11:35:11 AM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 2 : sample 11.

Height Threshold [FU] : 0.1

Overall Results for sample 2 : sample 11.

Number of peaks found: 12 Corr. Area 1: 1.7
 Noise: 0.1

Peak table for sample 2 : sample 11.

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	100	0.95	14.5		50.66
3	121	2.67	33.5		52.59
4	138	7.59	83.2		54.20
5	152	4.36	43.5		55.46
6	176	4.04	34.8		57.70
7	191	8.13	64.6		59.04
8	702	0.34	0.7		90.41
9	1,055	0.32	0.5		94.63
10	1,380	0.20	0.2		96.78
11	10,380	75.00	10.9	Upper Marker	113.00
12	12,207	0.00	0.0		114.88
13	13,033	0.00	0.0		115.73
14	14,773	0.00	0.0		117.53

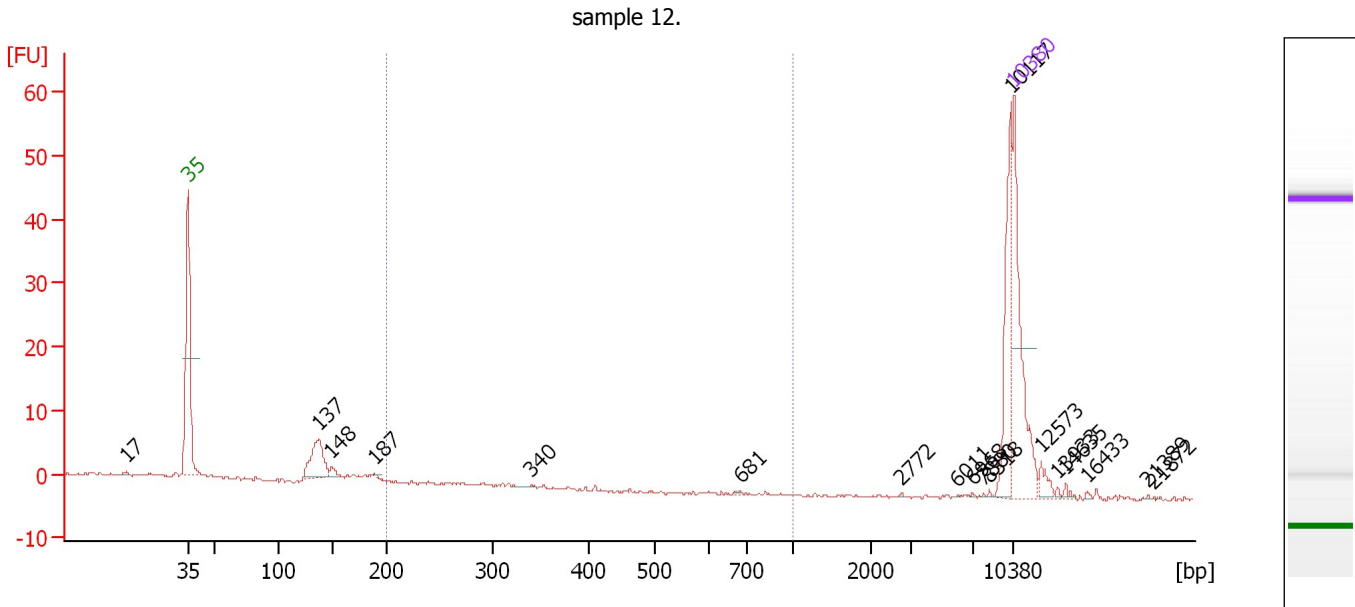
Region table for sample 2 : sample 11.

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	280	1,000	1.7	3	36.5	2.76	17.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-09\2015-02-09_001.xad

Created: 2/9/2015 10:53:21 AM
 Modified: 2/9/2015 11:35:11 AM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 3 : sample 12.

Height Threshold [FU] : 0.1

Overall Results for sample 3 : sample 12.

Number of peaks found: 18 Corr. Area 1: 0.3
 Noise: 0.2

Peak table for sample 3 : sample 12.


Pea k	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	17	0.00	0.0		37.80
2	35	125.00	5,411.3	Lower Marker	43.00
3	137	46.16	509.6		54.12
4	148	5.44	55.5		55.16
5	187	0.91	7.4		58.73
6	340	0.47	2.1		72.10
7	681	0.56	1.2		89.77
8	2,772	0.28	0.2		103.46
9	6,011	0.26	0.1		108.21
10	6,968	0.36	0.1		109.48
11	7,880	0.27	0.1		110.42
12	8,318	0.60	0.1		110.88
13	10,117	48.94	7.3		112.73
14	10,380	75.00	10.9	Upper Marker	113.00
15	12,573	0.00	0.0		115.26
16	13,933	0.00	0.0		116.66
17	14,635	0.00	0.0		117.38
18	16,433	0.00	0.0		119.24
19	21,389	0.00	0.0		124.34
20	21,872	0.00	0.0		124.84

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-09\2015-02-09_001.xad

Created: 2/9/2015 10:53:21 AM
Modified: 2/9/2015 11:35:11 AM

Electropherogram Summary Continued ...

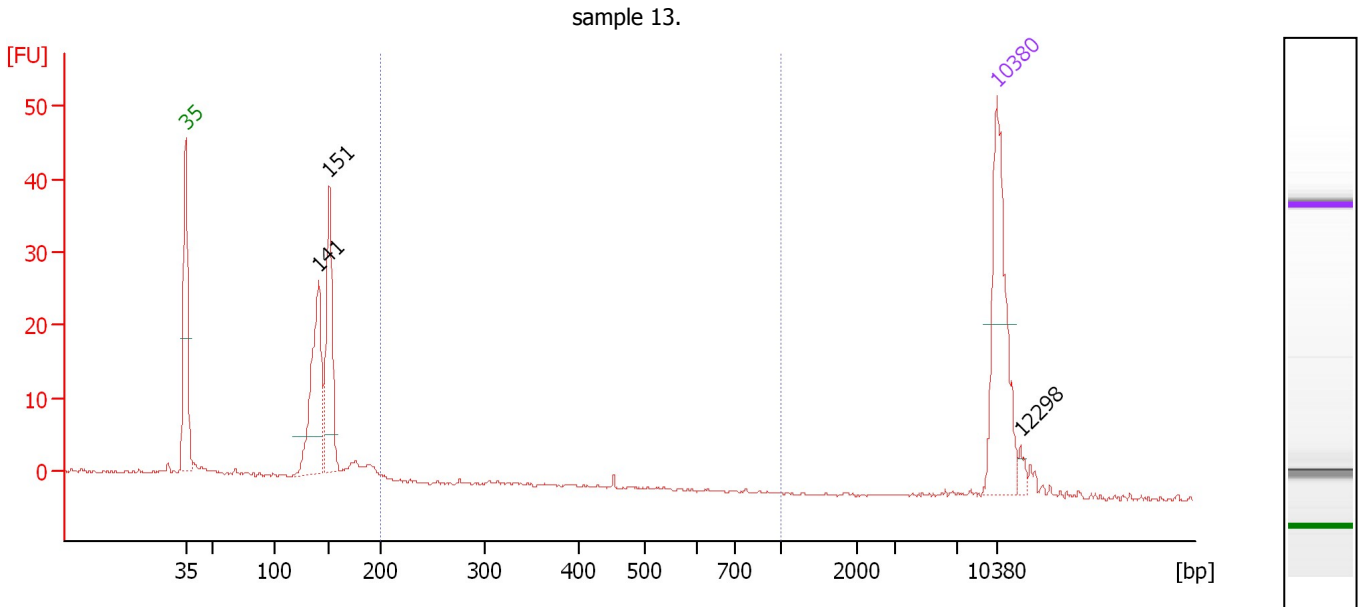
... Region table for sample 3 : sample 12.

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/ μ l]	Molarity [pmol/l]	Color
200	276	1,000	0.3	0	17.8	0.73	4.1	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-09\2015-02-09_001.xad

Created: 2/9/2015 10:53:21 AM
 Modified: 2/9/2015 11:35:11 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 13.

Number of peaks found: 3 Corr. Area 1: 0.8
 Noise: 0.2

Peak table for sample 4 : sample 13.

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	141	114.47	1,227.7		54.49
3	151	98.27	984.7		55.41
4	10,380	75.00	10.9	Upper Marker	113.00
5	12,298	0.00	0.0		114.98

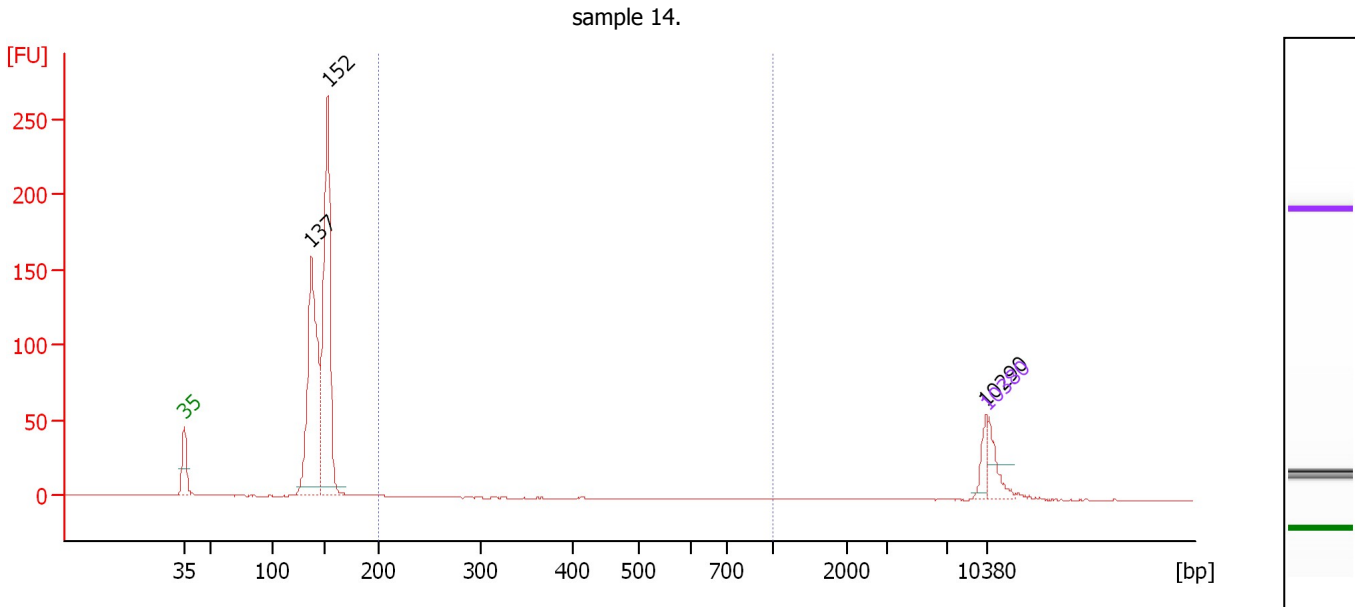
Region table for sample 4 : sample 13.

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	337	1,000	0.8	1	35.5	1.35	7.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-09\2015-02-09_001.xad

Created: 2/9/2015 10:53:21 AM
 Modified: 2/9/2015 11:35:11 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 14.

Number of peaks found: 3 Corr. Area 1: 1.4
 Noise: 0.2

Peak table for sample 5 : sample 14.

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	137	902.04	9,996.1		54.07
3	152	1,012.26	10,068.8		55.51
4	10,290	38.40	5.7		112.91
5	10,380	75.00	10.9	Upper Marker	113.00

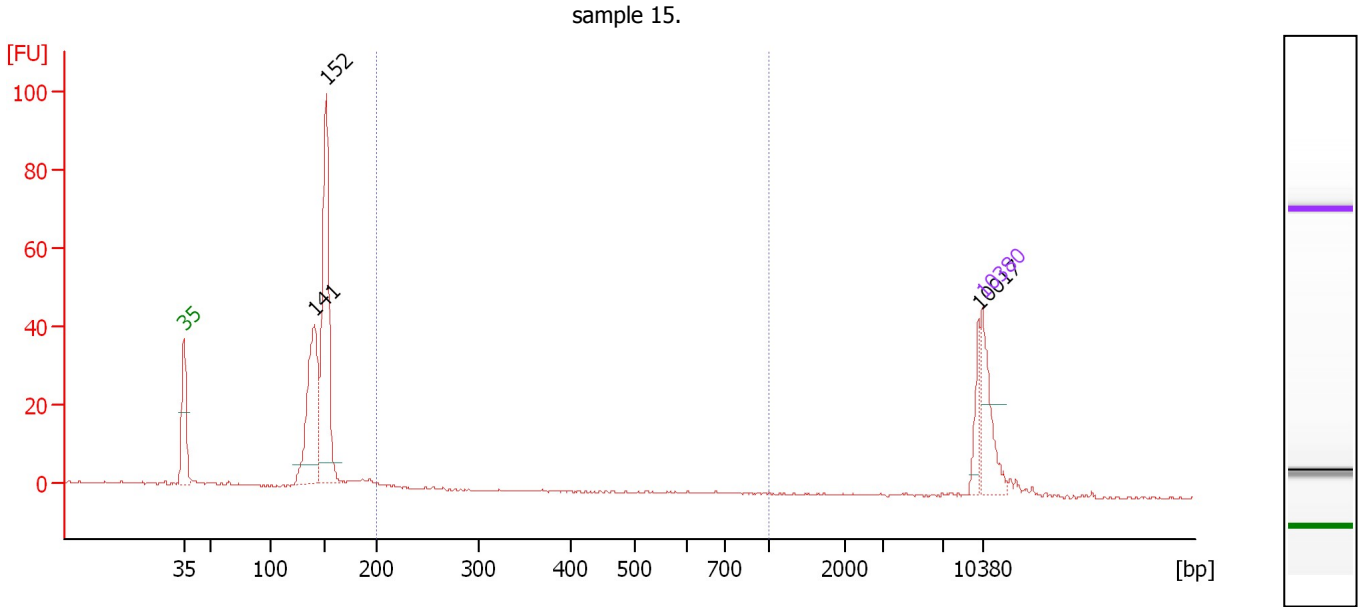
Region table for sample 5 : sample 14.

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	261	1,000	1.4	0	44.2	3.50	23.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-09\2015-02-09_001.xad

Created: 2/9/2015 10:53:21 AM
 Modified: 2/9/2015 11:35:11 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 15.

Number of peaks found: 3 Corr. Area 1: 1.5
 Noise: 0.2

Peak table for sample 6 : sample 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	141	295.21	3,164.9		54.50
3	152	430.21	4,290.0		55.48
4	10,017	34.68	5.2		112.63
5	10,380	75.00	10.9	Upper Marker	113.00

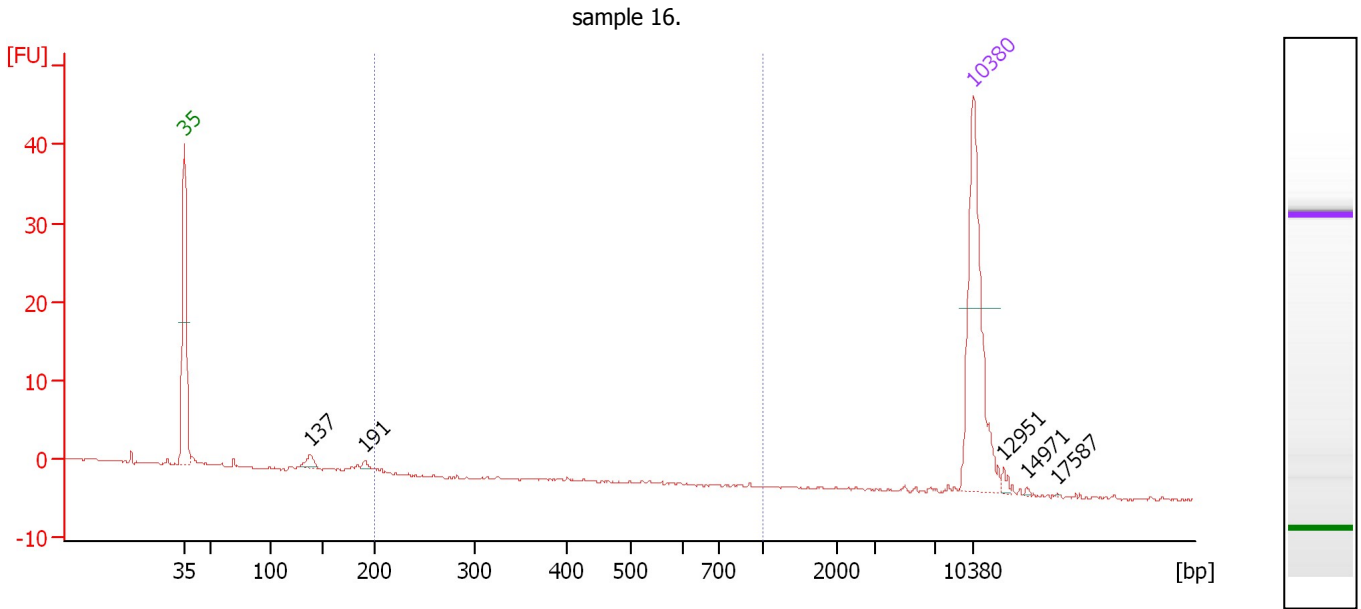
Region table for sample 6 : sample 15.

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	219	1,000	1.5	1	29.8	4.49	32.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-09\2015-02-09_001.xad

Created: 2/9/2015 10:53:21 AM
 Modified: 2/9/2015 11:35:11 AM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 7 : sample 16.

Height Threshold [FU] : 0.1

Overall Results for sample 7 : sample 16.

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

Peak table for sample 7 : sample 16.

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	137	7.30	80.6		54.11
3	191	2.02	16.1		59.03
4	10,380	75.00	10.9	Upper Marker	113.00
5	12,951	0.00	0.0		115.65
6	14,971	0.00	0.0		117.73
7	17,587	0.00	0.0		120.43

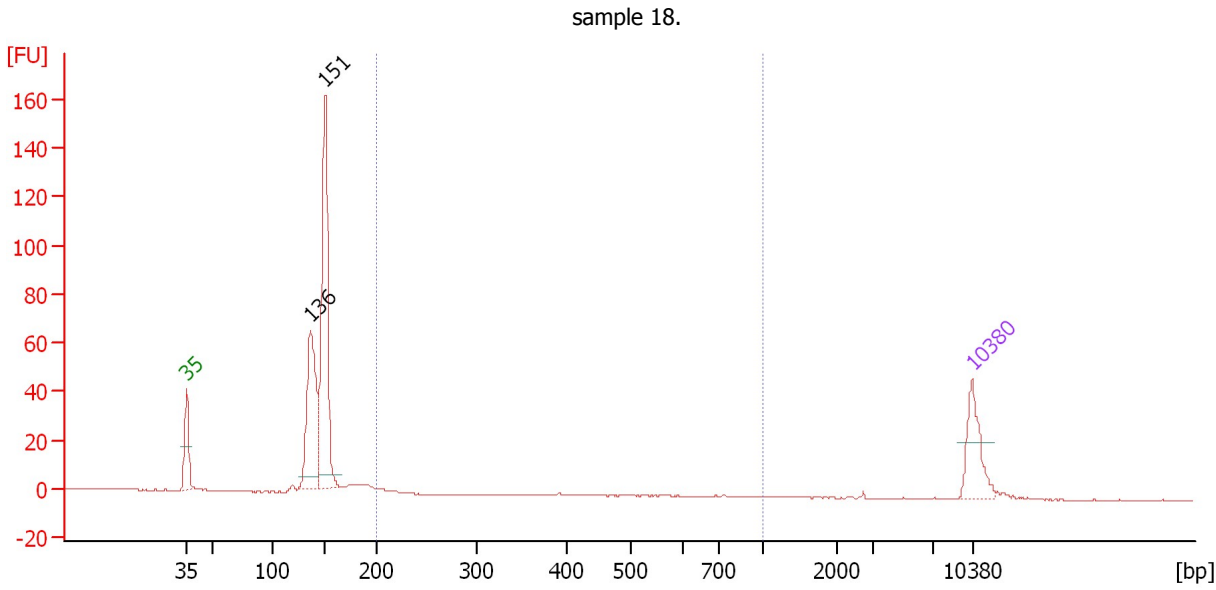
Region table for sample 7 : sample 16.

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	460	1,000	0.1	1	74.0	0.15	0.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-09\2015-02-09_001.xad

Created: 2/9/2015 10:53:21 AM
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Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 18.

Number of peaks found: 2 Corr. Area 1: 2.9
 Noise: 0.2

Peak table for sample 8 : sample 18.

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	136	309.40	3,442.8		54.02
3	151	473.47	4,765.6		55.35
4	10,380	75.00	10.9	Upper Marker	113.00

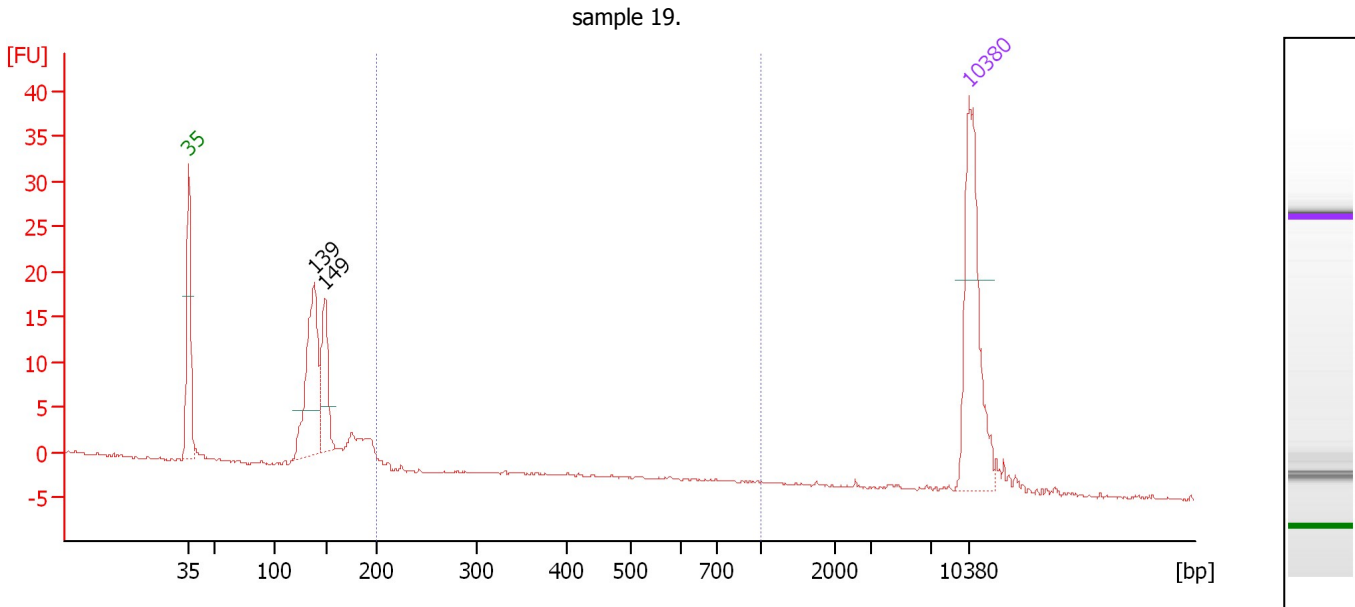
Region table for sample 8 : sample 18.

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	255	1,000	2.9	1	57.0	6.50	45.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-09\2015-02-09_001.xad

Created: 2/9/2015 10:53:21 AM
 Modified: 2/9/2015 11:35:11 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 19.

Number of peaks found: 2 Corr. Area 1: 1.0
 Noise: 0.1

Peak table for sample 9 : sample 19.

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	139	109.69	1,195.3		54.28
3	149	55.95	567.6		55.24
4	10,380	75.00	10.9	Upper Marker	113.00

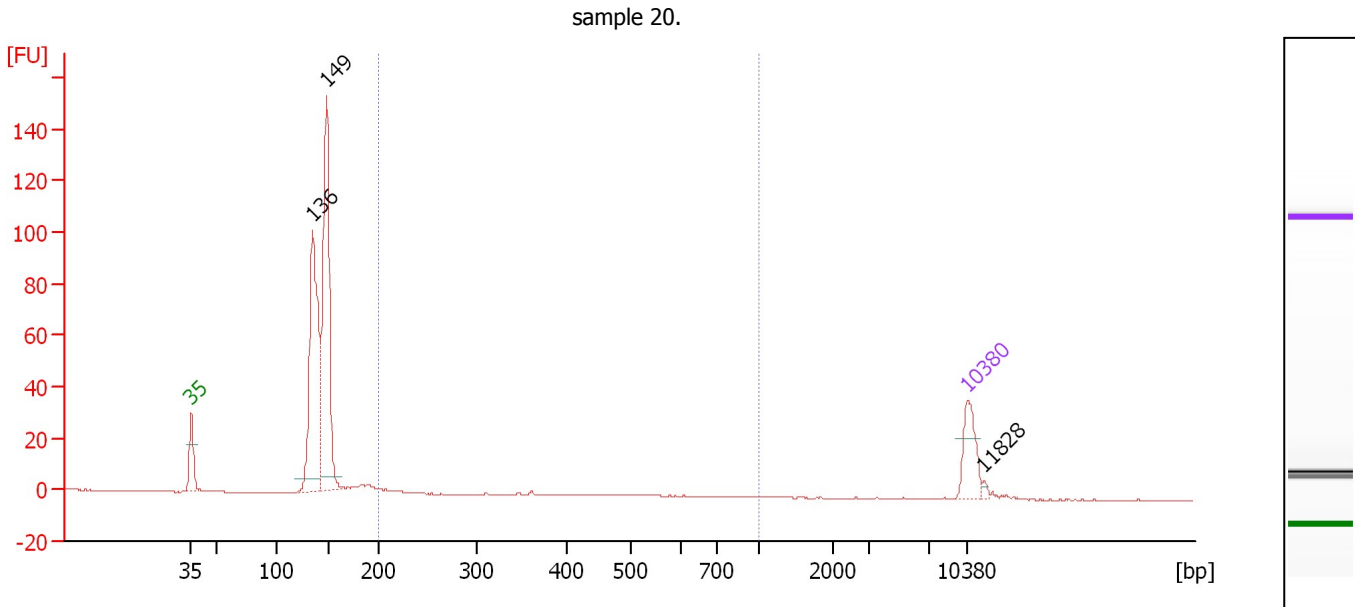
Region table for sample 9 : sample 19.

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	277	1,000	1.0	1	59.0	2.14	14.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-09\2015-02-09_001.xad

Created: 2/9/2015 10:53:21 AM
 Modified: 2/9/2015 11:35:11 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 20.

Number of peaks found: 3 Corr. Area 1: 4.5
 Noise: 0.1

Peak table for sample 10 : sample 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	136	588.57	6,574.7		53.97
3	149	621.40	6,312.4		55.22
4	10,380	75.00	10.9	Upper Marker	113.00
5	11,828	0.00	0.0		114.49

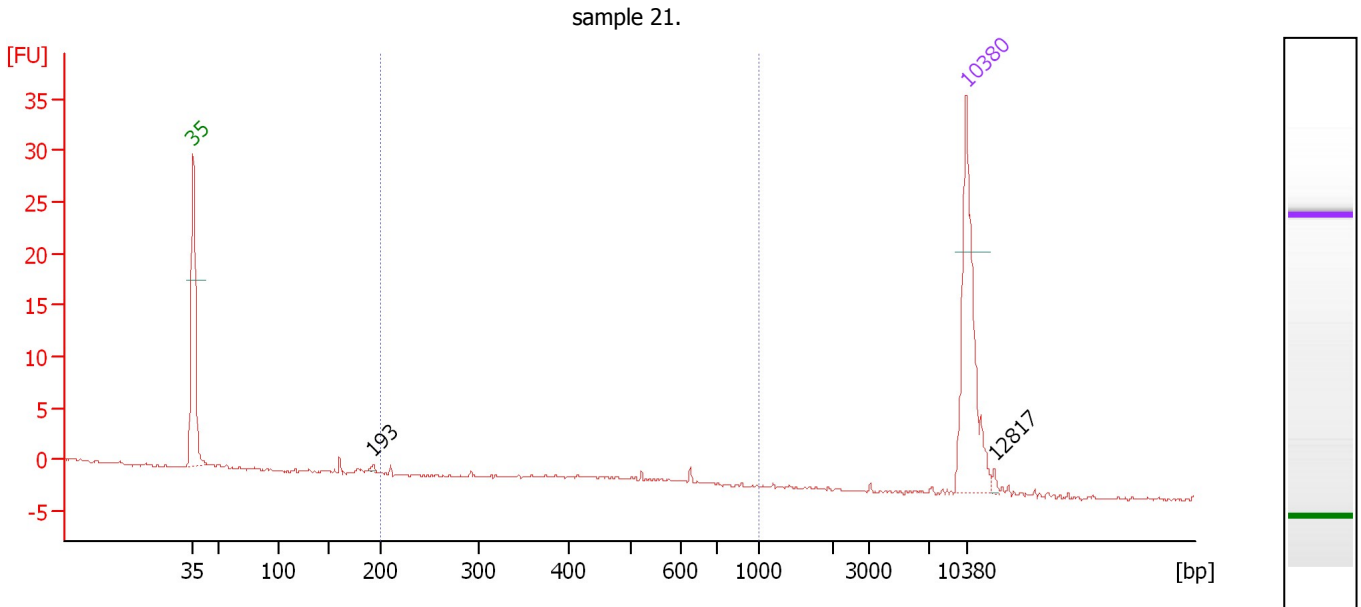
Region table for sample 10 : sample 20.

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	262	1,000	4.5	1	34.2	12.90	84.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-09\2015-02-09_001.xad

Created: 2/9/2015 10:53:21 AM
 Modified: 2/9/2015 11:35:11 AM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 11 : sample 21.

Height Threshold [FU] : 0.1

Overall Results for sample 11 : sample 21.

Number of peaks found: 2 Corr. Area 1: 1.2
 Noise: 0.1

Peak table for sample 11 : sample 21.

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	193	1.71	13.4		59.27
3	10,380	75.00	10.9	Upper Marker	113.00
4	12,817	0.00	0.0		115.51

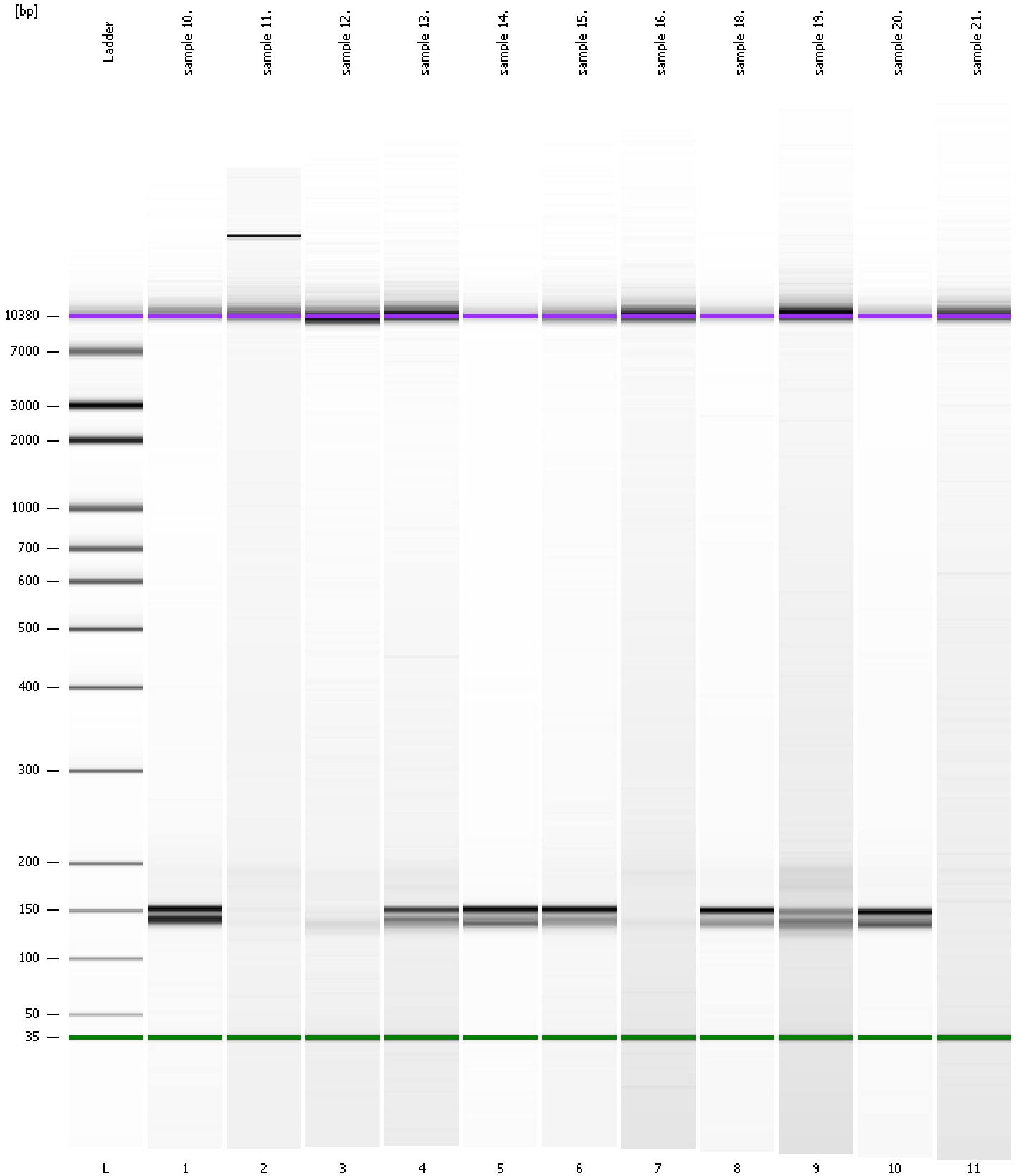
Region table for sample 11 : sample 21.

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	499	1,000	1.2	38	24.2	3.08	10.8	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-09\2015-02-09_001.xad

Created: 2/9/2015 10:53:21 AM
Modified: 2/9/2015 11:35:11 AM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-09\2015-02-09_001.xad

Created: 2/9/2015 10:53:21 AM
 Modified: 2/9/2015 11:35:11 AM

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		2/9/2015 11:34:39 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-02-09\2015-02-09_001.xad)		Instrument	Run		2/9/2015 10:53:26 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		2/9/2015 10:53:26 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		2/9/2015 10:53:26 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		2/9/2015 10:53:26 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		2/9/2015 10:53:26 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		2/9/2015 10:53:26 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		2/9/2015 10:53:26 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1