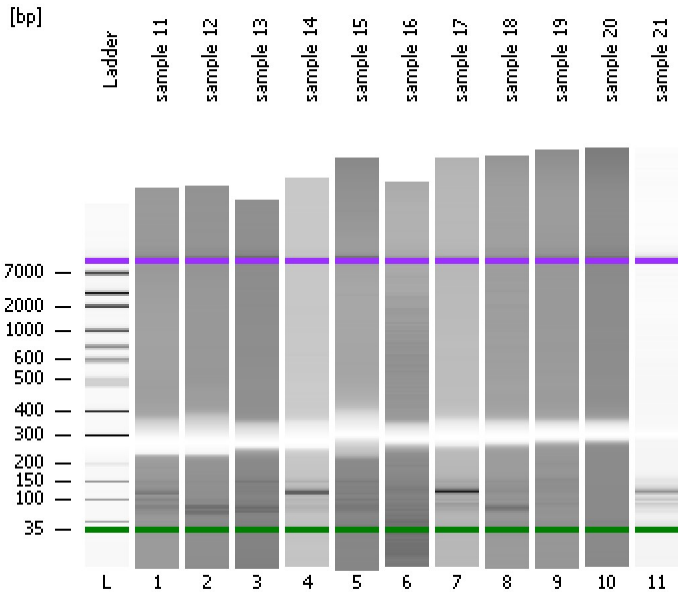


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-22\2014-09-22\_003.xad

Created: 9/22/2014 11:16:49 AM  
Modified: 9/22/2014 11:57:21 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

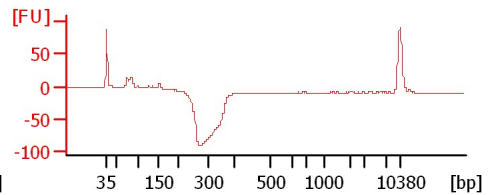
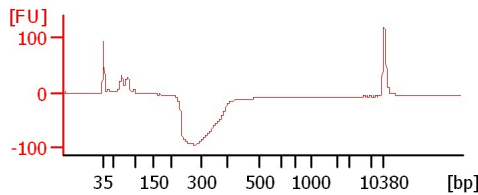
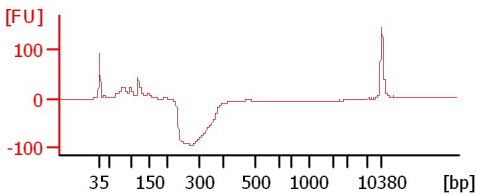
Chip Information:

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

sample 11

sample 12

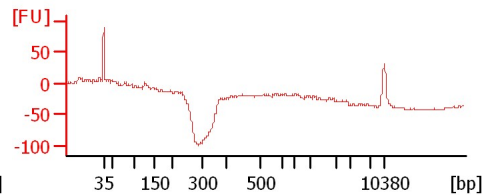
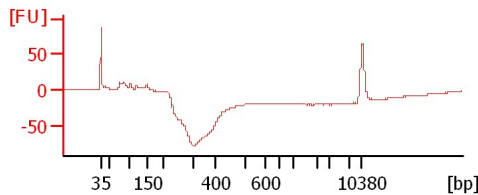
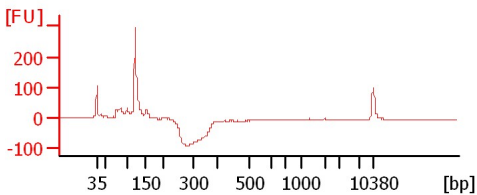
sample 13



sample 14

sample 15

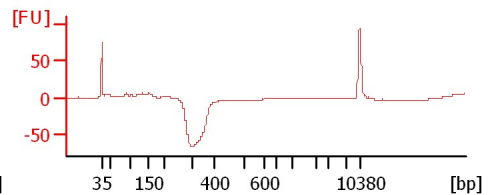
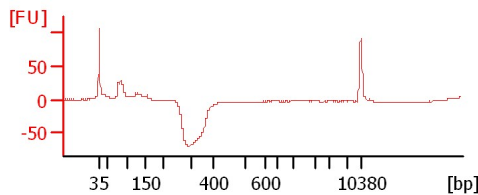
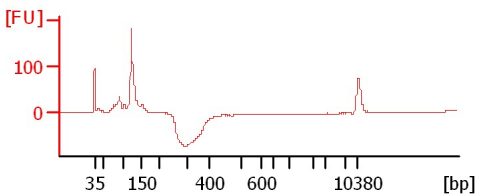
sample 16



sample 17

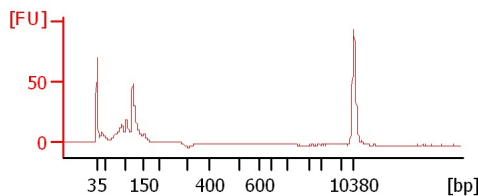
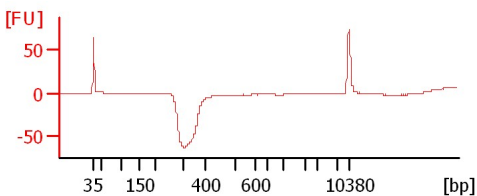
sample 18

sample 19



sample 20

sample 21



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-22\2014-09-22\_003.xad

Created: 9/22/2014 11:16:49 AM  
 Modified: 9/22/2014 11:57:21 AM

**Electrophoresis File Run Summary (Chip Summary)**

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
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 17		<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\2014-09-22\2014-09-22\_003.xad

Created: 9/22/2014 11:16:49 AM  
 Modified: 9/22/2014 11:57:21 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

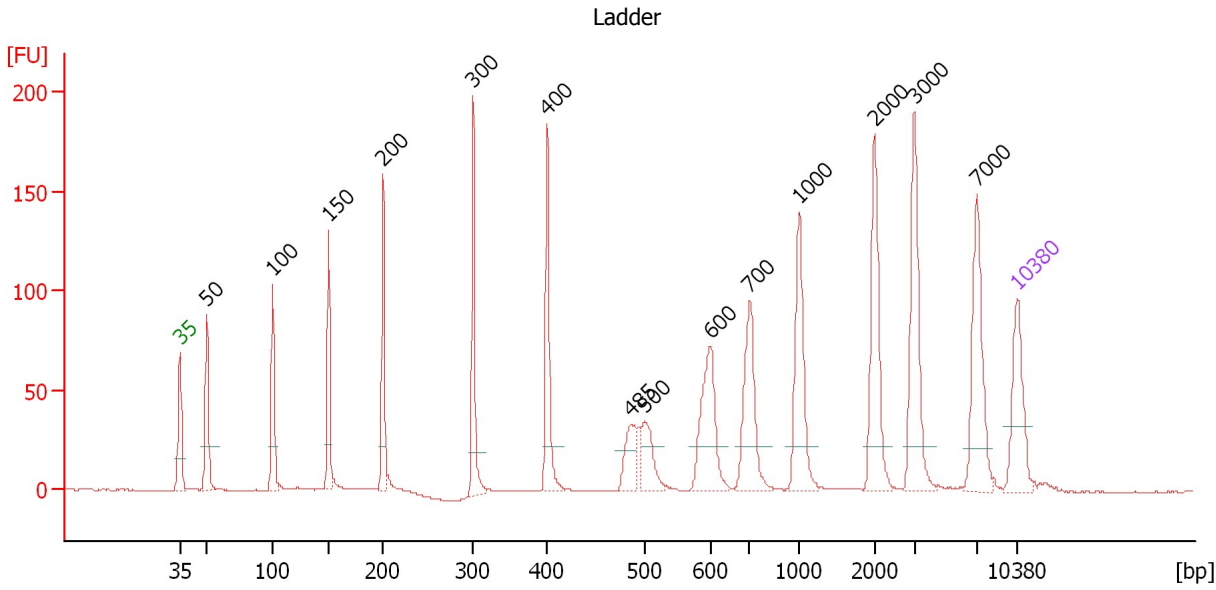
**Ladder**

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\2014-09-22\2014-09-22\_003.xad

Created: 9/22/2014 11:16:49 AM  
 Modified: 9/22/2014 11:57:21 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

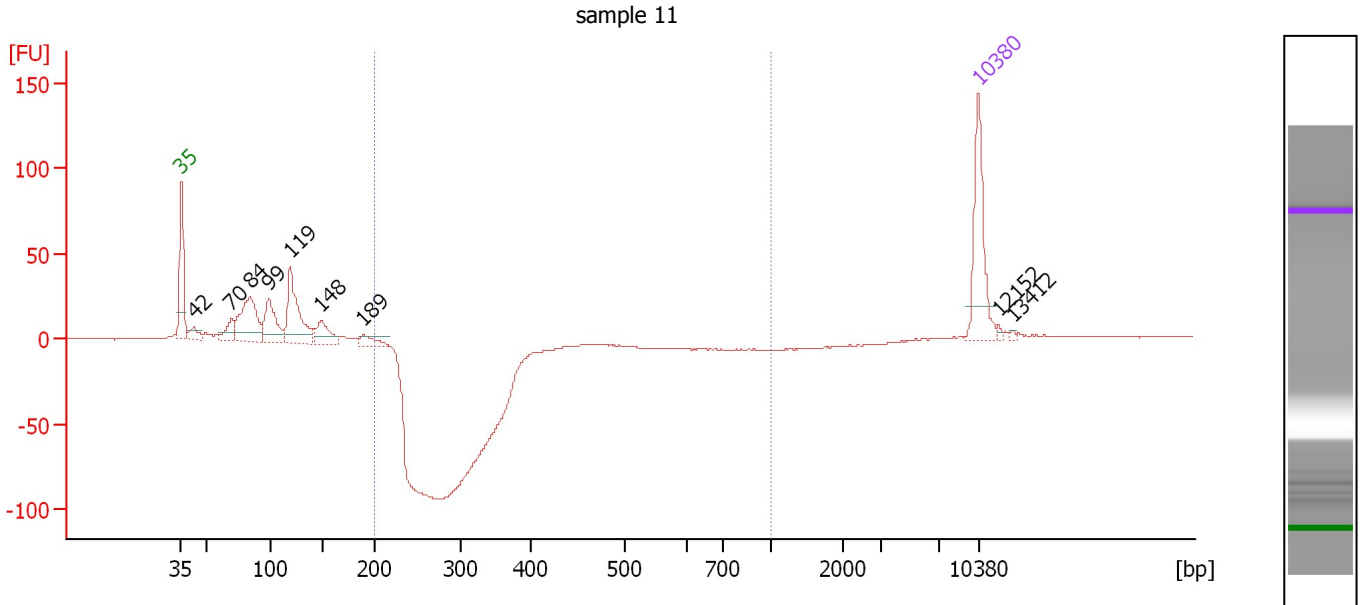
**Peak table for Ladder**

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	485	0.00	0.0	
9	500	150.00	454.5	Ladder Peak
10	600	150.00	378.8	Ladder Peak
11	700	150.00	324.7	Ladder Peak
12	1,000	150.00	227.3	Ladder Peak
13	2,000	150.00	113.6	Ladder Peak
14	3,000	150.00	75.8	Ladder Peak
15	7,000	150.00	32.5	Ladder Peak
16	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-22\2014-09-22\_003.xad

Created: 9/22/2014 11:16:49 AM  
 Modified: 9/22/2014 11:57:21 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : sample 11**

Number of peaks found: 9                      Corr. Area 1: 0.0  
 Noise: 0.2

**Peak table for sample 1 : sample 11**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	42	19.38	695.1	
3	70	29.26	637.0	
4	84	115.59	2,075.3	
5	99	75.91	1,159.4	
6	119	114.56	1,458.4	
7	148	40.47	412.9	
8	189	19.31	154.8	
9	10,380	75.00	10.9	Upper Marker
10	12,152	0.00	0.0	
11	13,412	0.00	0.0	

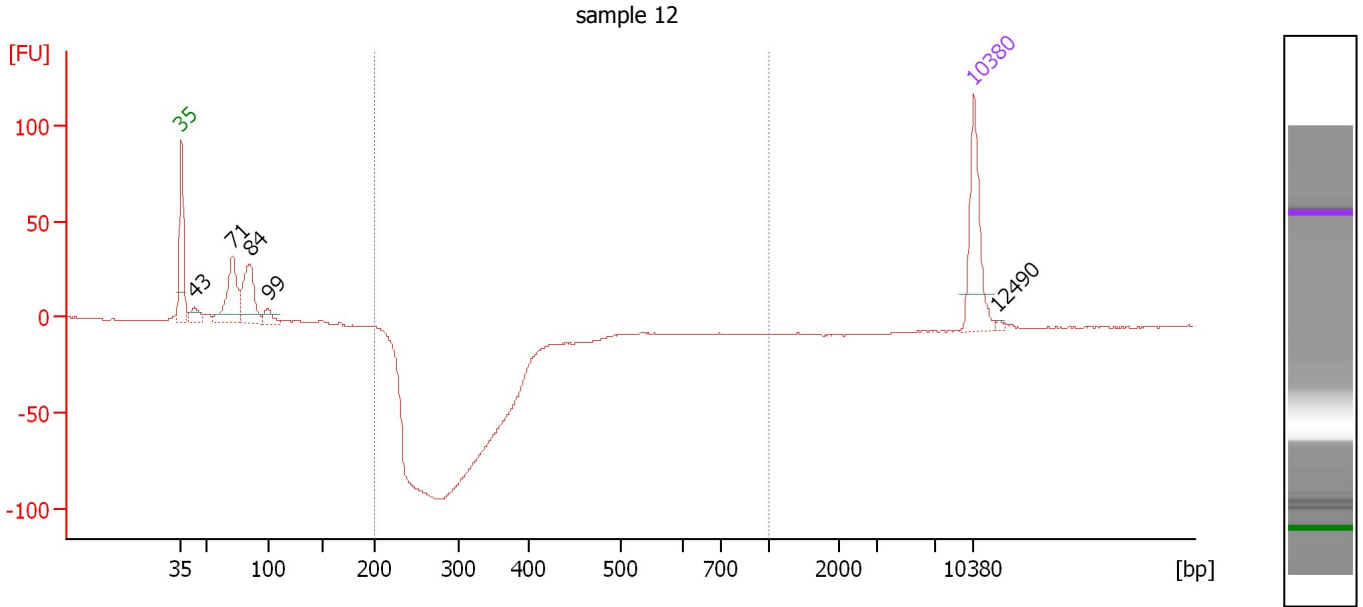
**Region table for sample 1 : sample 11**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	0	1,000	0.0	0	0.0	0.00	0.0	■

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-22\2014-09-22\_003.xad

Created: 9/22/2014 11:16:49 AM  
 Modified: 9/22/2014 11:57:21 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : sample 12**

Number of peaks found: 5                      Corr. Area 1: 0.0  
 Noise: 0.2

**Peak table for sample 2 : sample 12**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	43	25.94	923.0	
3	71	113.83	2,441.1	
4	84	108.55	1,951.9	
5	99	21.60	331.6	
6	10,380	75.00	10.9	Upper Marker
7	12,490	0.00	0.0	

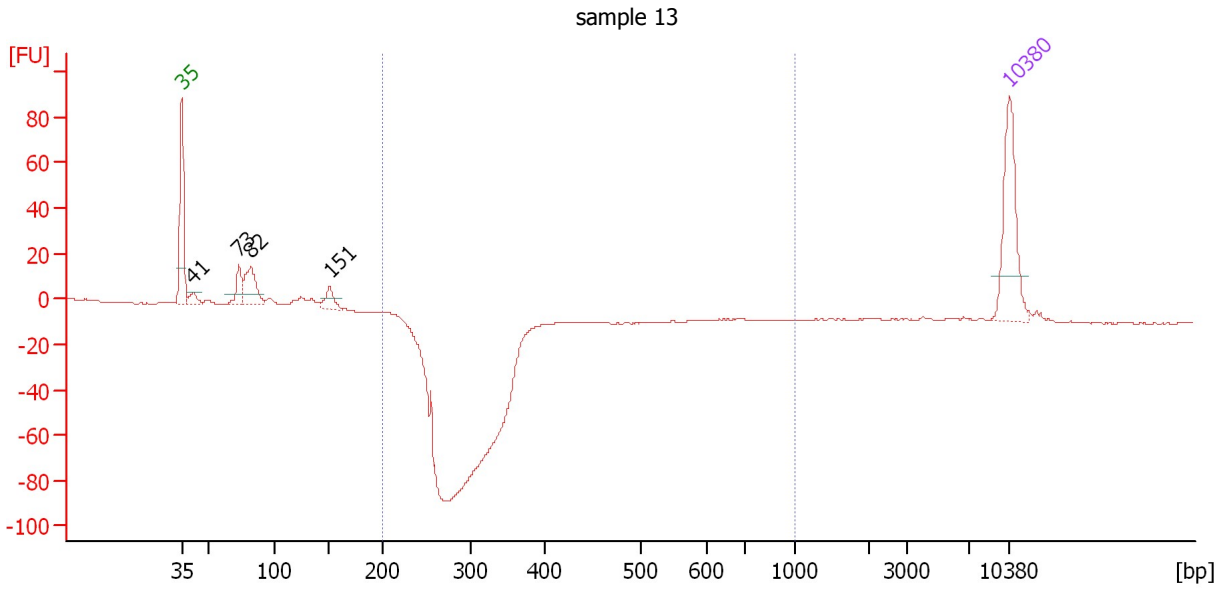
**Region table for sample 2 : sample 12**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	0	1,000	0.0	0	0.0	0.00	0.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-22\2014-09-22\_003.xad

Created: 9/22/2014 11:16:49 AM  
 Modified: 9/22/2014 11:57:21 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : sample 13**

Number of peaks found: 4                      Corr. Area 1: 0.0  
 Noise: 0.2

**Peak table for sample 3 : sample 13**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	41	15.52	568.5	
3	73	31.04	640.6	
4	82	57.52	1,057.7	
5	151	20.59	206.7	
6	10,380	75.00	10.9	Upper Marker

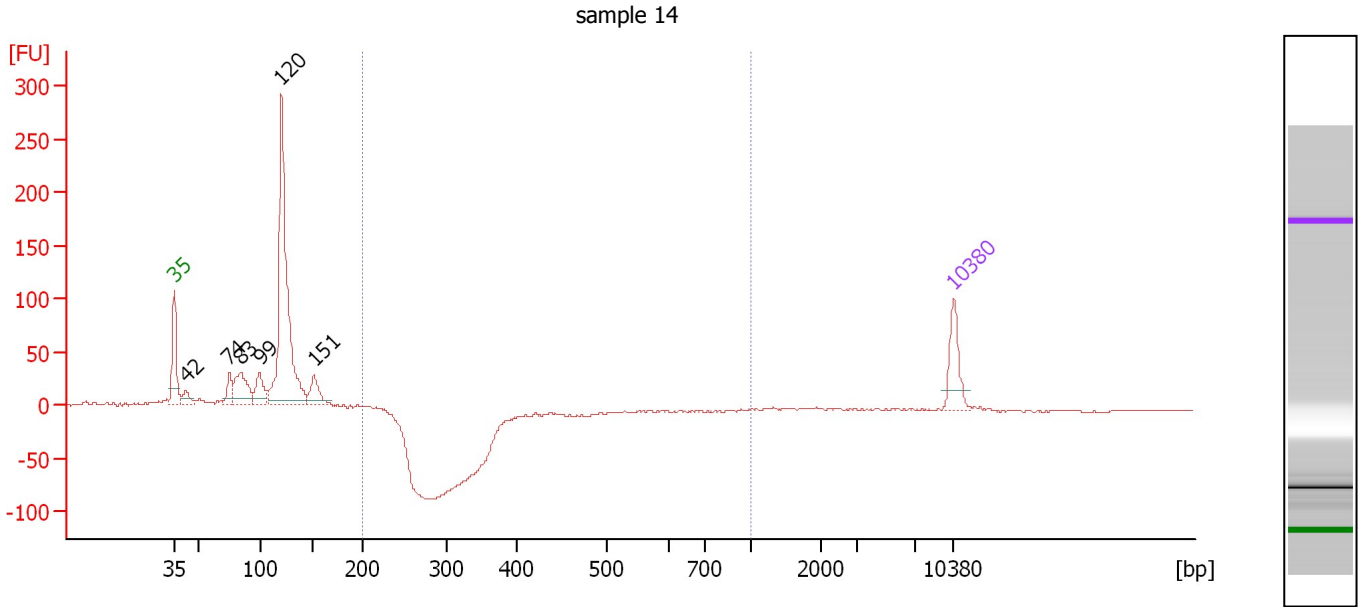
**Region table for sample 3 : sample 13**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	0	1,000	0.0	0	0.0	0.00	0.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-22\2014-09-22\_003.xad

Created: 9/22/2014 11:16:49 AM  
 Modified: 9/22/2014 11:57:21 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : sample 14**

Number of peaks found: 6                      Corr. Area 1: 0.0  
 Noise: 0.3

**Peak table for sample 4 : sample 14**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	42	42.15	1,529.3	
3	74	55.35	1,127.1	
4	83	142.11	2,578.8	
5	99	87.09	1,331.8	
6	120	798.43	10,093.2	
7	151	77.96	782.0	
8	10,380	75.00	10.9	Upper Marker

**Region table for sample 4 : sample 14**

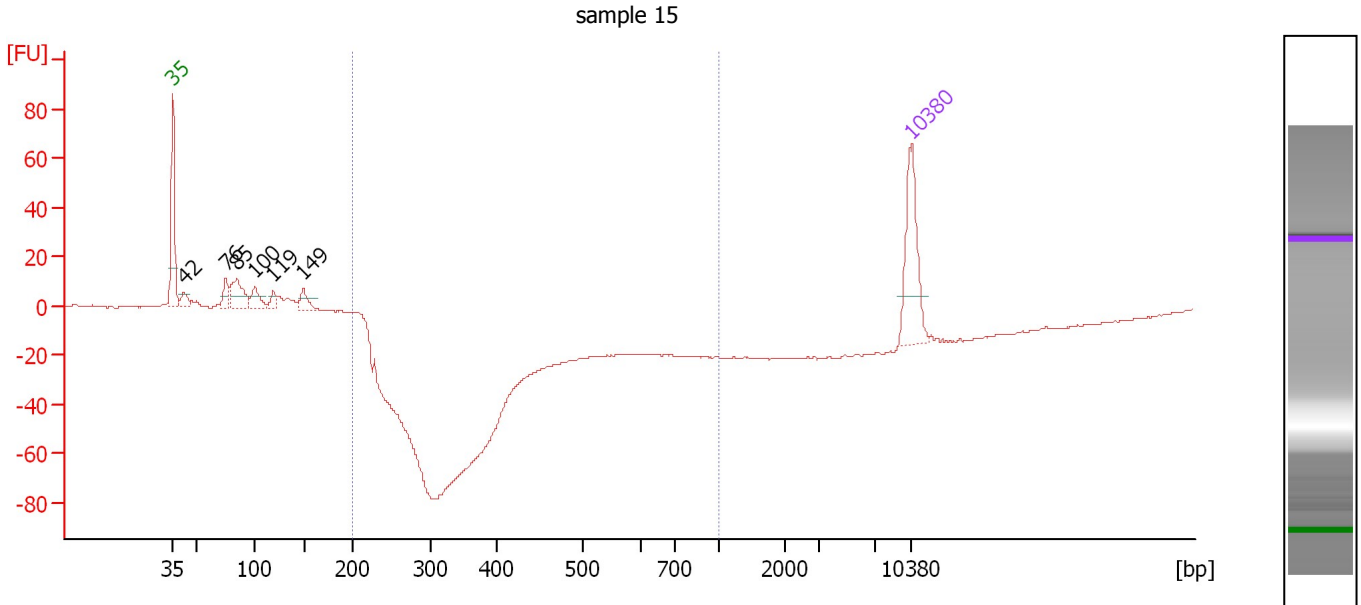
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	0	1,000	0.0	0	0.0	0.00	0.0	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-22\2014-09-22\_003.xad

Created: 9/22/2014 11:16:49 AM  
 Modified: 9/22/2014 11:57:21 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : sample 15**

Number of peaks found: 6                      Corr. Area 1: 0.0  
 Noise: 0.2

**Peak table for sample 5 : sample 15**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	42	17.30	621.8	
3	76	22.65	453.8	
4	85	54.45	973.3	
5	100	27.78	419.3	
6	119	13.38	169.9	
7	149	21.14	214.9	
8	10,380	75.00	10.9	Upper Marker

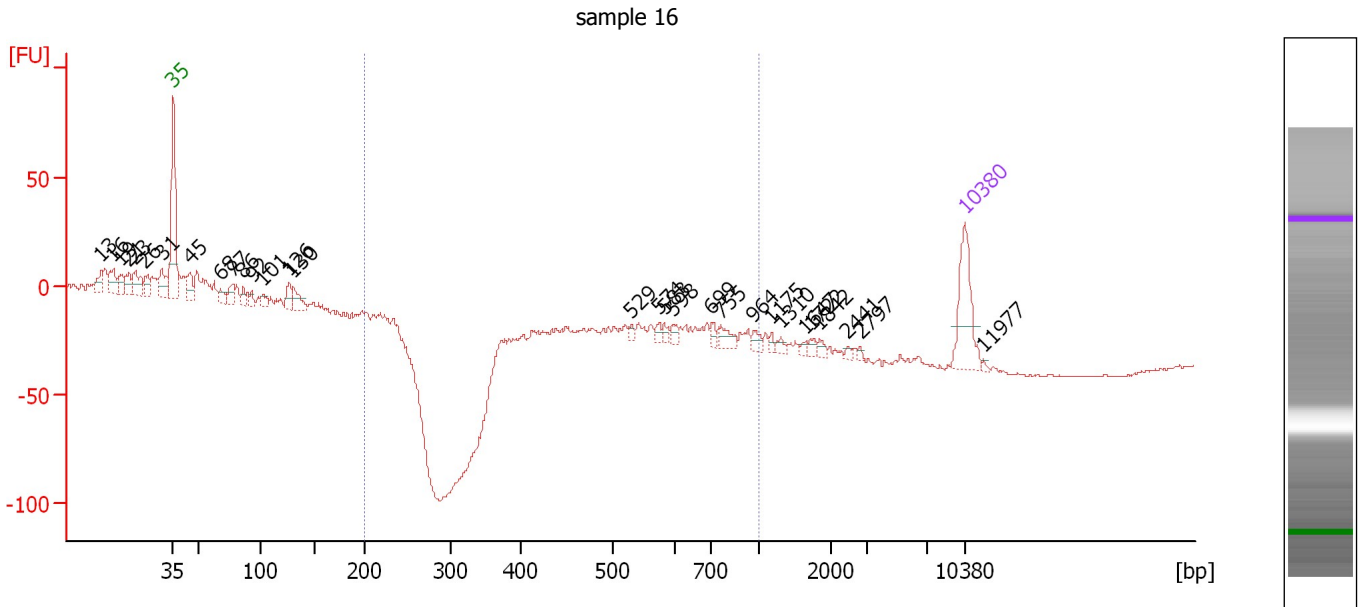
**Region table for sample 5 : sample 15**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	0	1,000	0.0	0	0.0	0.00	0.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-22\2014-09-22\_003.xad

Created: 9/22/2014 11:16:49 AM  
 Modified: 9/22/2014 11:57:21 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : sample 16**

Number of peaks found: 30                      Corr. Area 1: 15.1  
 Noise: 0.3

**Peak table for sample 6 : sample 16**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	13	0.00	0.0	
2	16	0.00	0.0	
3	19	0.00	0.0	
4	21	0.00	0.0	
5	23	0.00	0.0	
6	26	0.00	0.0	
7	31	0.00	0.0	
8	35	125.00	5,411.3	Lower Marker
9	45	38.32	1,295.4	
10	68	19.38	433.5	
11	77	20.31	401.4	
12	86	15.96	282.5	
13	92	13.53	221.8	
14	101	13.79	206.6	
15	126	24.78	297.5	
16	130	30.90	359.4	
17	529	6.07	17.4	
18	574	7.89	20.8	
19	583	7.29	18.9	
20	598	8.07	20.5	
21	699	9.28	20.1	
22	755	19.43	39.0	
23	964	10.30	16.2	
24	1,175	5.27	6.8	
25	1,310	6.21	7.2	
26	1,647	4.49	4.1	

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-22\2014-09-22\_003.xad


Created: 9/22/2014 11:16:49 AM  
Modified: 9/22/2014 11:57:21 AM

**Electropherogram Summary Continued ...**

**... Peak table for sample 6 : sample 16**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	1,722	6.31	5.6	
28	1,842	6.52	5.4	
29	2,441	3.81	2.4	
30	2,797	2.70	1.5	
31	10,380	75.00	10.9	Upper Marker
32	11,977	0.00	0.0	

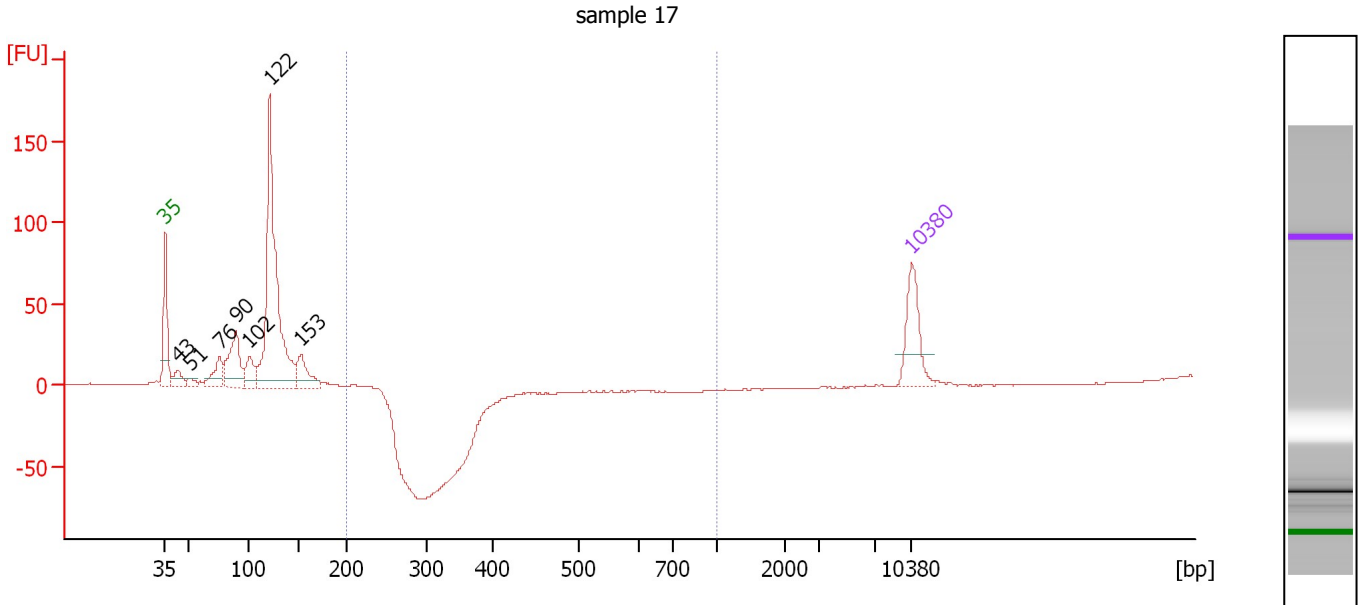
**Region table for sample 6 : sample 16**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	701	1,000	15.1	6	17.0	19.62	43.5	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-22\2014-09-22\_003.xad

Created: 9/22/2014 11:16:49 AM  
 Modified: 9/22/2014 11:57:21 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : sample 17**

Number of peaks found: 7                      Corr. Area 1: 0.0  
 Noise: 0.3

**Peak table for sample 7 : sample 17**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	43	38.56	1,366.8	
3	51	16.15	483.2	
4	76	63.99	1,275.8	
5	90	138.19	2,325.9	
6	102	55.96	834.7	
7	122	587.56	7,304.0	
8	153	76.11	753.9	
9	10,380	75.00	10.9	Upper Marker

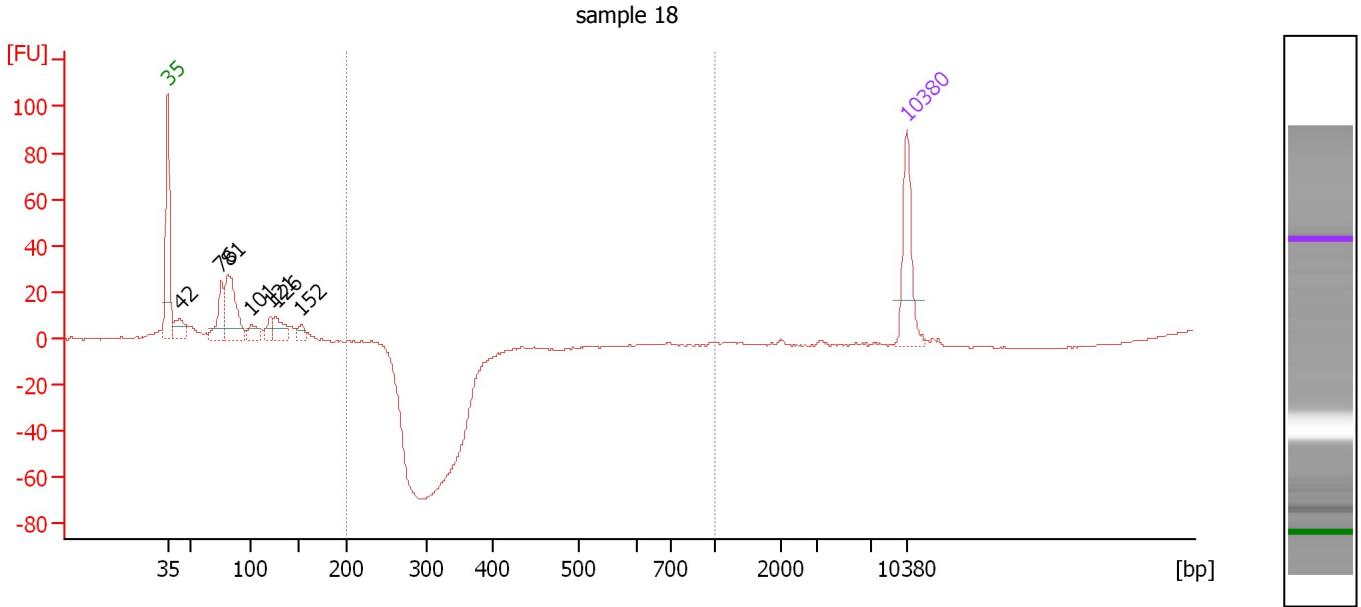
**Region table for sample 7 : sample 17**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	0	1,000	0.0	0	0.0	0.00	0.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-22\2014-09-22\_003.xad

Created: 9/22/2014 11:16:49 AM  
 Modified: 9/22/2014 11:57:21 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : sample 18**

Number of peaks found: 7                      Corr. Area 1: 0.0  
 Noise: 0.2

**Peak table for sample 8 : sample 18**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	42	45.98	1,640.0	
3	76	71.27	1,430.1	
4	81	137.49	2,557.5	
5	101	25.47	381.0	
6	121	23.56	295.7	
7	126	43.00	516.7	
8	152	19.59	195.2	
9	10,380	75.00	10.9	Upper Marker

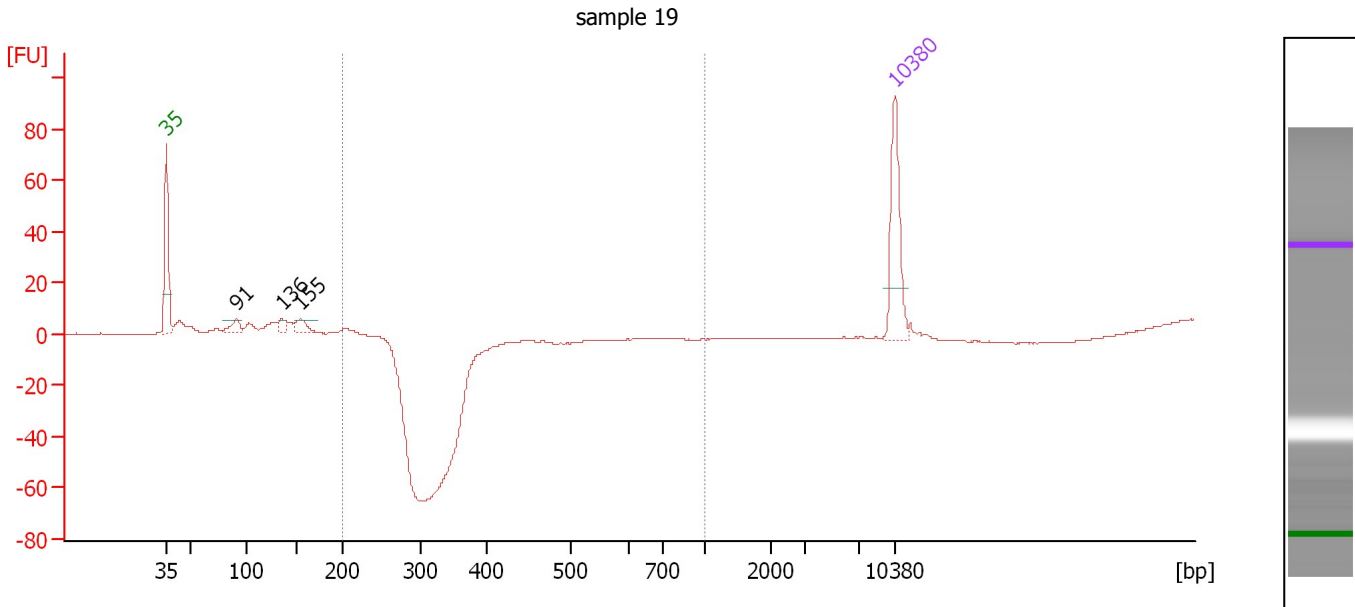
**Region table for sample 8 : sample 18**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	0	1,000	0.0	0	0.0	0.00	0.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-22\2014-09-22\_003.xad

Created: 9/22/2014 11:16:49 AM  
 Modified: 9/22/2014 11:57:21 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : sample 19**

Number of peaks found: 3                      Corr. Area 1: 0.7  
 Noise: 0.1

**Peak table for sample 9 : sample 19**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	91	20.30	338.1	
3	136	14.42	160.9	
4	155	22.55	221.1	
5	10,380	75.00	10.9	Upper Marker

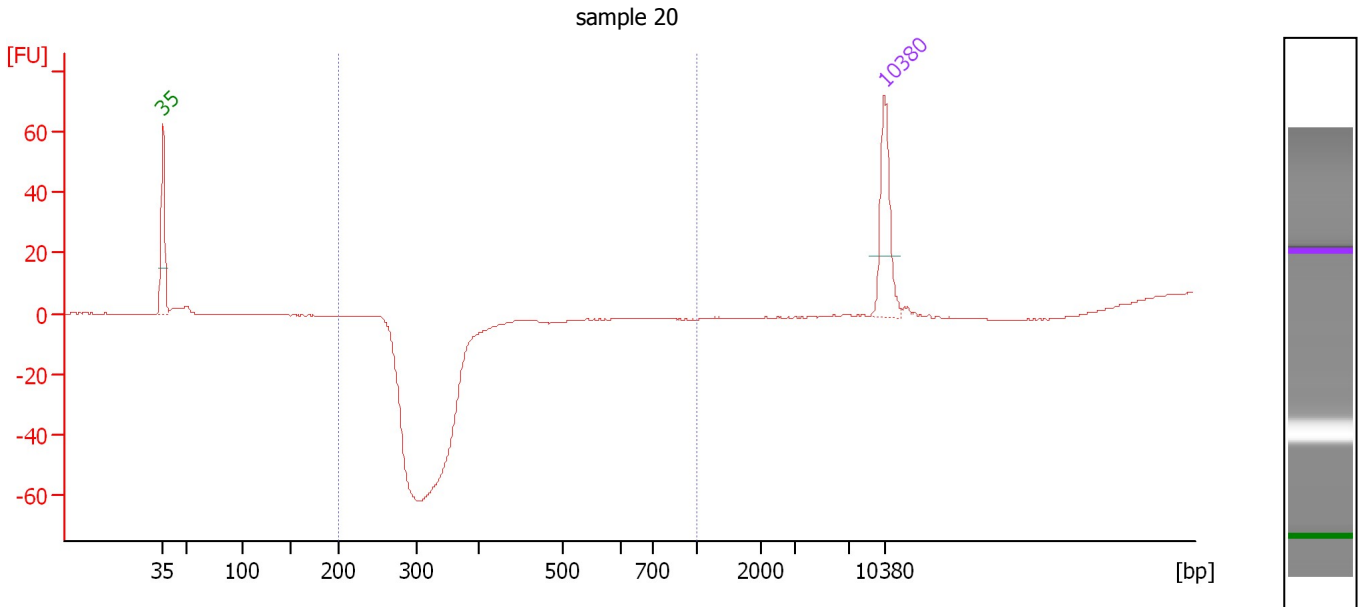
**Region table for sample 9 : sample 19**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	204	1,000	0.7	1	1.3	1.13	8.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-22\2014-09-22\_003.xad

Created: 9/22/2014 11:16:49 AM  
 Modified: 9/22/2014 11:57:21 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : sample 20**

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

**Peak table for sample 10 : sample 20**

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

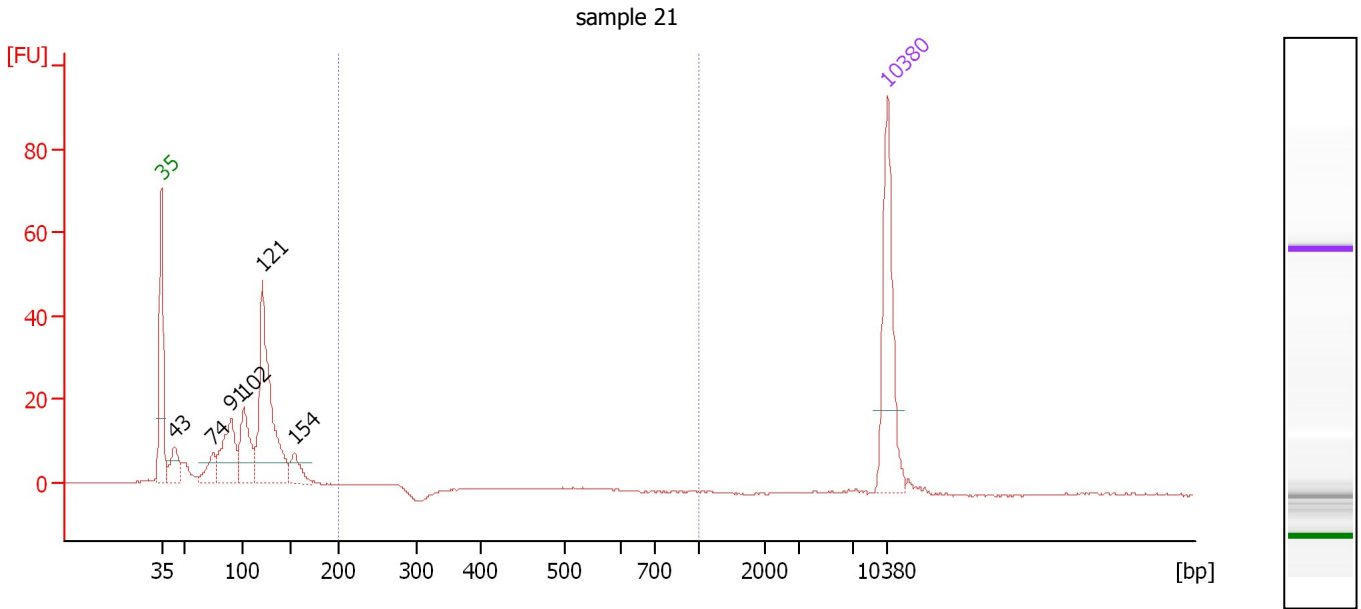
**Region table for sample 10 : sample 20**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	0	1,000	0.0	0	0.0	0.00	0.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-22\2014-09-22\_003.xad

Created: 9/22/2014 11:16:49 AM  
 Modified: 9/22/2014 11:57:21 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : sample 21**

Number of peaks found: 6                      Corr. Area 1: 2.7  
 Noise: 0.1

**Peak table for sample 11 : sample 21**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	43	32.66	1,142.7	
3	74	25.31	515.1	
4	91	74.13	1,238.0	
5	102	64.88	961.6	
6	121	187.20	2,346.3	
7	154	24.66	241.8	
8	10,380	75.00	10.9	Upper Marker

**Region table for sample 11 : sample 21**

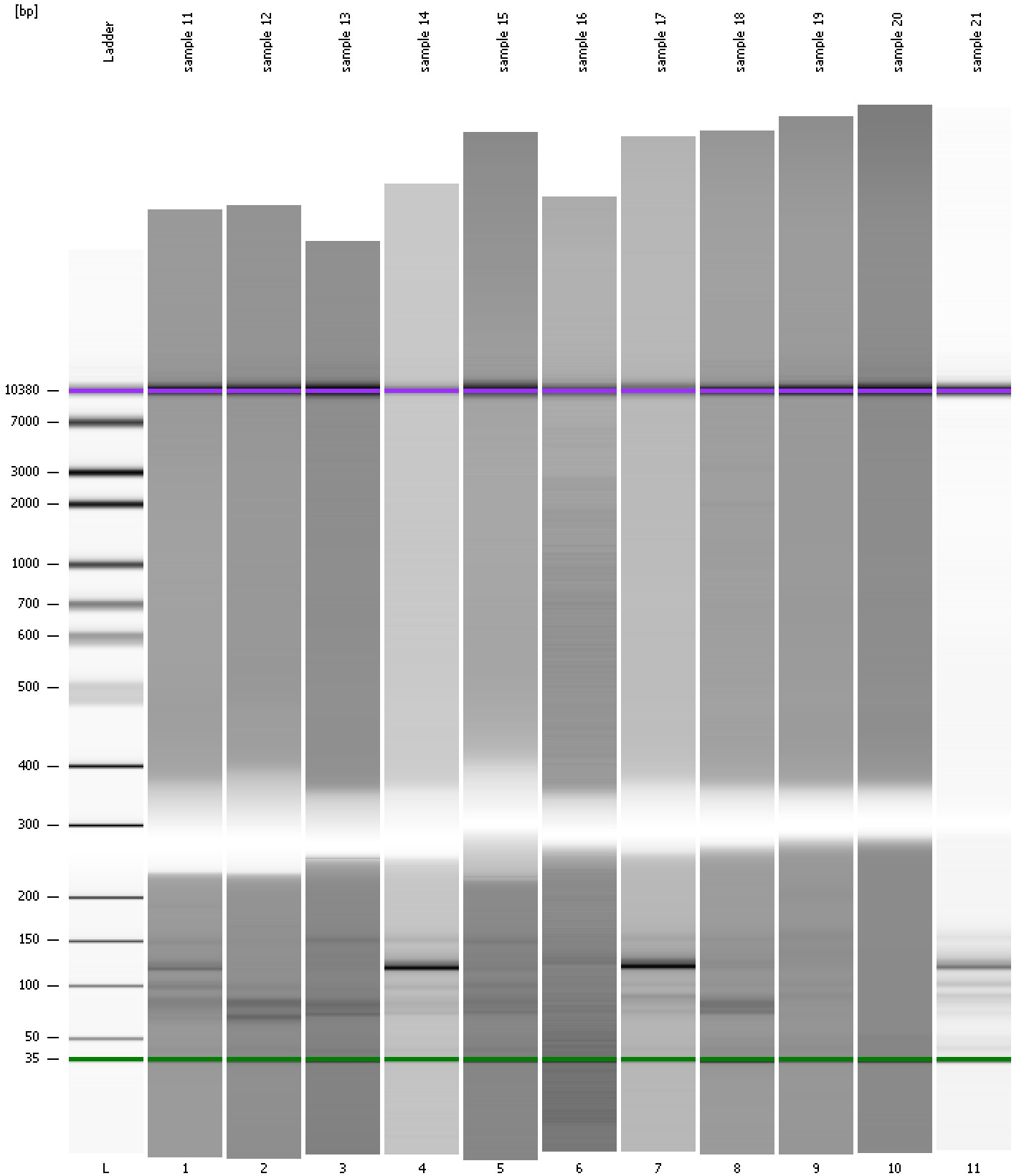
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	290	1,000	2.7	1	37.9	3.64	21.5	Blue



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-22\2014-09-22\_003.xad

Created: 9/22/2014 11:16:49 AM  
Modified: 9/22/2014 11:57:21 AM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-22\2014-09-22\_003.xad

Created: 9/22/2014 11:16:49 AM  
 Modified: 9/22/2014 11:57:21 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		9/22/2014 11:57:17 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-09-22\2014-09-22_003.xad)		Instrument	Run		9/22/2014 11:16:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/22/2014 11:16:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/22/2014 11:16:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/22/2014 11:16:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/22/2014 11:16:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/22/2014 11:16:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/22/2014 11:16:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1