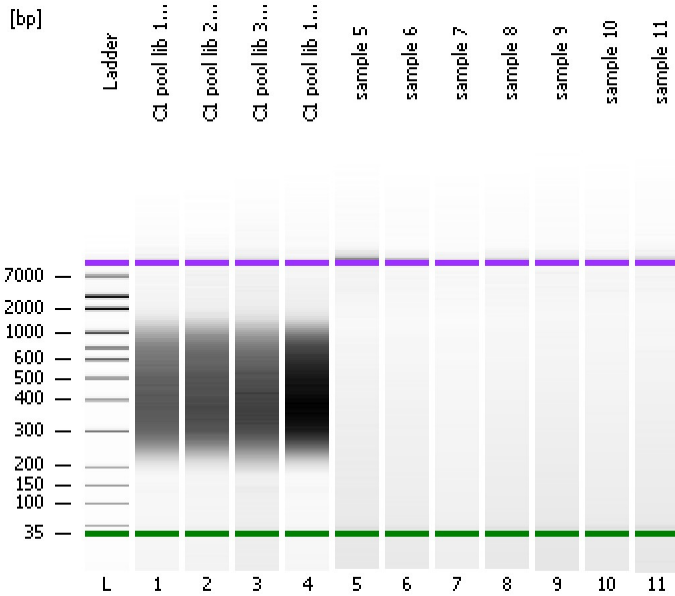


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-01\2015-10-01\_001.xad

Created: 10/1/2015 10:27:39 AM  
Modified: 10/1/2015 11:22:31 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

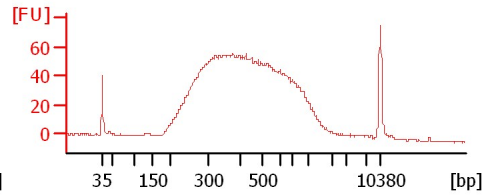
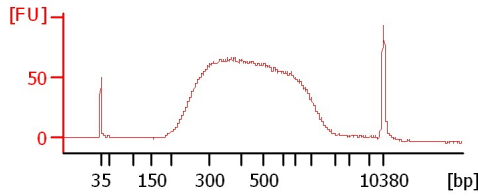
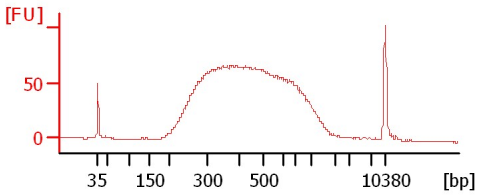
Chip Information:

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

C1 pool lib 1 (1:2 dil)

C1 pool lib 2 (1:2 dil)

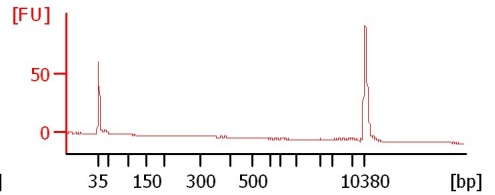
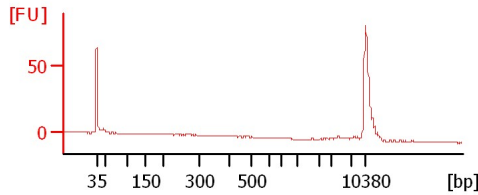
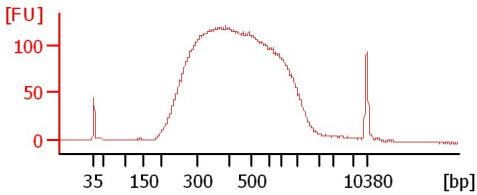
C1 pool lib 3 (1:2 dil)



C1 pool lib 1 (undil)

sample 5

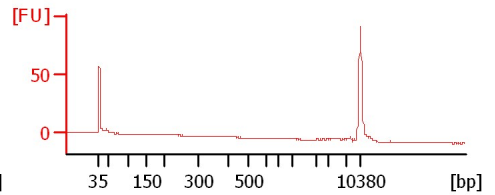
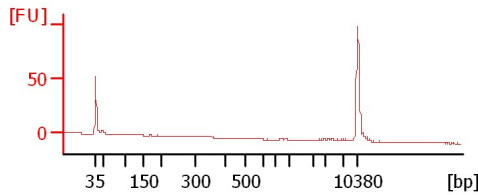
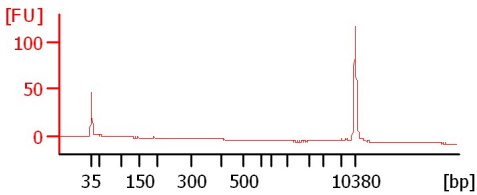
sample 6



sample 7

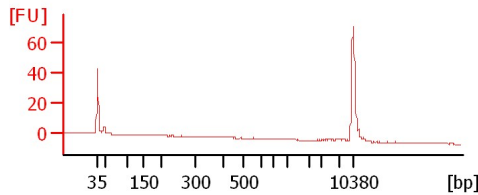
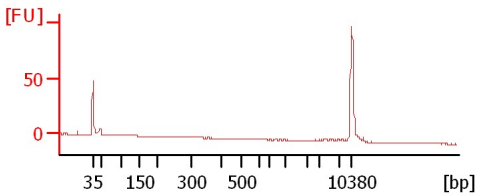
sample 8

sample 9



sample 10

sample 11



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-01\2015-10-01\_001.xad

Created: 10/1/2015 10:27:39 AM  
Modified: 10/1/2015 11:22:31 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
C1 pool lib 1 (1:2 dil)		<input type="checkbox"/>	✓			
C1 pool lib 2 (1:2 dil)		<input type="checkbox"/>	✓			
C1 pool lib 3 (1:2 dil)		<input type="checkbox"/>	✓			
C1 pool lib 1 (undil)		<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\2015-10-01\2015-10-01\_001.xad

Created: 10/1/2015 10:27:39 AM  
Modified: 10/1/2015 11:22:31 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

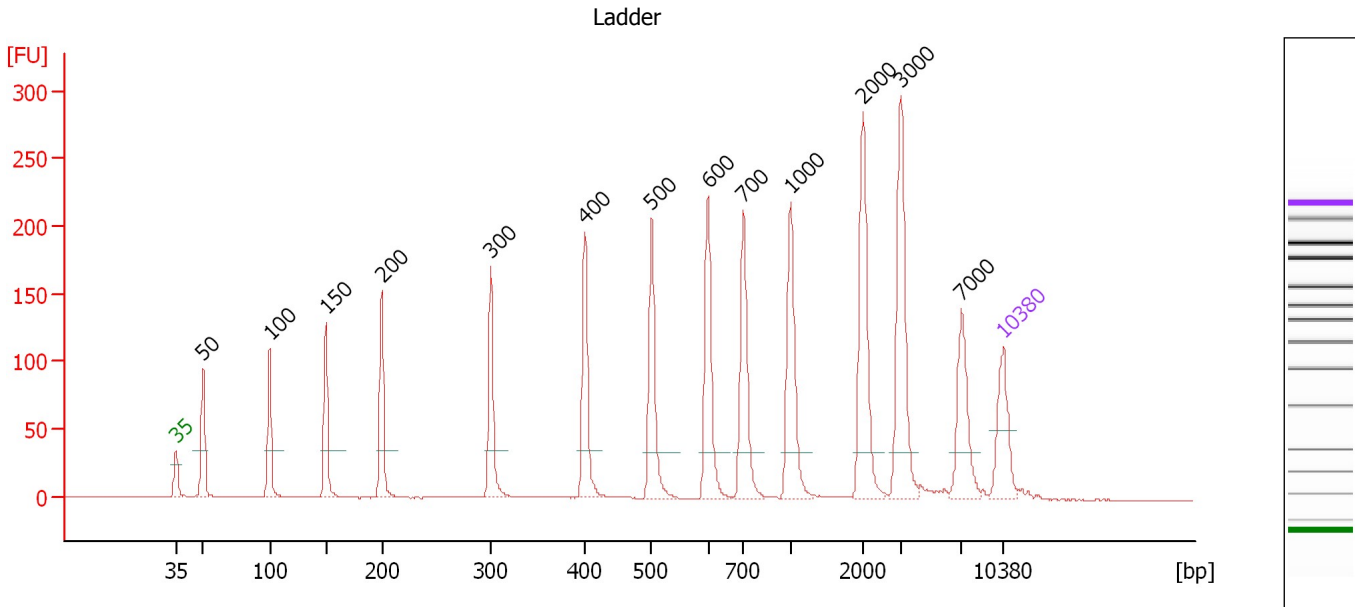
**Ladder**

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\2015-10-01\2015-10-01\_001.xad

Created: 10/1/2015 10:27:39 AM  
 Modified: 10/1/2015 11:22:31 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

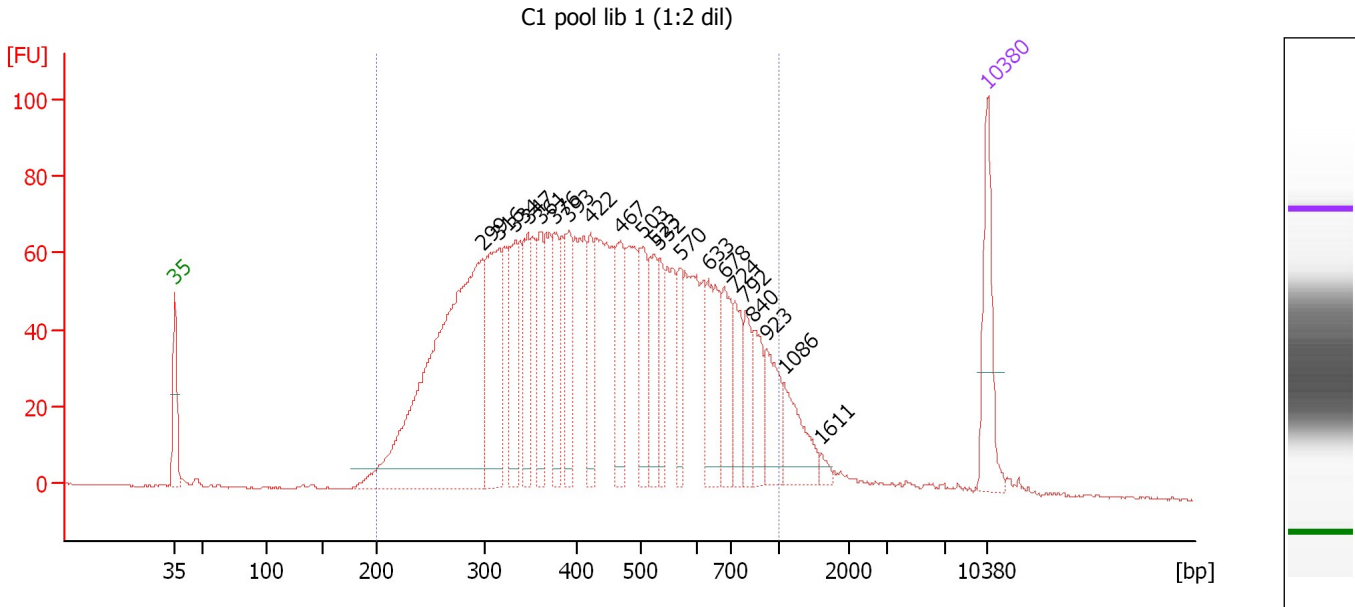
**Peak table for Ladder**

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	45.30
3	100	150.00	2,272.7	Ladder Peak	50.93
4	150	150.00	1,515.2	Ladder Peak	55.67
5	200	150.00	1,136.4	Ladder Peak	60.40
6	300	150.00	757.6	Ladder Peak	69.64
7	400	150.00	568.2	Ladder Peak	77.57
8	500	150.00	454.5	Ladder Peak	83.21
9	600	150.00	378.8	Ladder Peak	87.98
10	700	150.00	324.7	Ladder Peak	90.96
11	1,000	150.00	227.3	Ladder Peak	94.97
12	2,000	150.00	113.6	Ladder Peak	101.10
13	3,000	150.00	75.8	Ladder Peak	104.30
14	7,000	150.00	32.5	Ladder Peak	109.39
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-01\2015-10-01\_001.xad

Created: 10/1/2015 10:27:39 AM  
 Modified: 10/1/2015 11:22:31 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : C1 pool lib 1 (1:2 dil)**

Number of peaks found: 21      Corr. Area 1: 2,431.8  
 Noise: 0.2

**Peak table for sample 1 : C1 pool lib 1 (1:2 dil)**


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	299	681.44	3,458.6		69.50
3	316	198.94	953.2		70.93
4	334	93.19	422.5		72.35
5	347	80.76	352.1		73.41
6	361	78.98	331.6		74.46
7	376	71.03	285.9		75.70
8	393	84.22	325.0		76.99
9	422	65.21	234.0		78.83
10	467	89.63	290.7		81.35
11	503	89.11	268.7		83.33
12	523	71.44	207.1		84.29
13	532	52.46	149.3		84.75
14	570	47.69	126.8		86.54
15	633	94.24	225.4		88.98
16	678	65.96	147.4		90.31
17	724	54.41	113.9		91.27
18	792	43.65	83.5		92.19
19	840	47.32	85.3		92.84
20	923	58.19	95.5		93.94
21	1,086	63.05	87.9		95.50
22	1,611	7.04	6.6		98.72
23	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-01\2015-10-01\_001.xad

Created: 10/1/2015 10:27:39 AM  
Modified: 10/1/2015 11:22:31 AM

**Electropherogram Summary Continued ...**

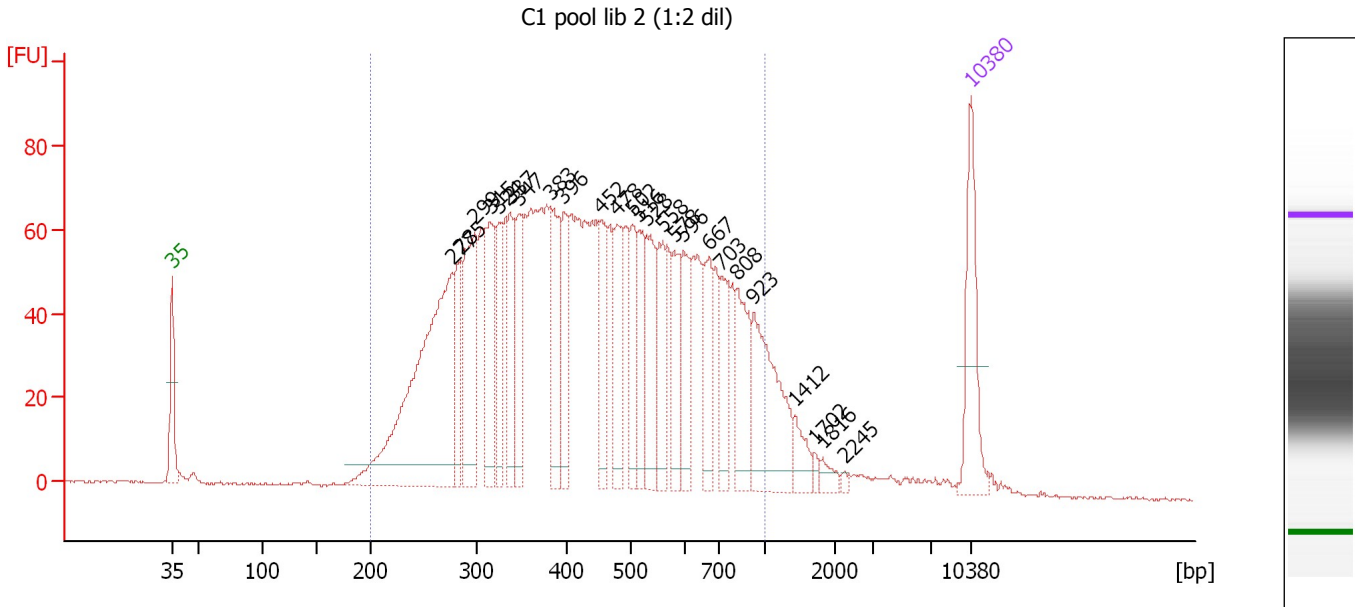
... Region table for sample 1 : C1 pool lib 1 (1:2 dil)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]	Conc. [pg/ $\mu$ l]
200	459	1,000	2,431.8	12,546.1	 94	37.1	3,171.91

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-01\2015-10-01\_001.xad

Created: 10/1/2015 10:27:39 AM  
 Modified: 10/1/2015 11:22:31 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : C1 pool lib 2 (1:2 dil)**

Number of peaks found: 25                      Corr. Area 1: 2,426.1  
 Noise: 0.3

**Peak table for sample 2 : C1 pool lib 2 (1:2 dil)**

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	277	438.77	2,399.8		67.52
3	285	74.92	398.8		68.22
4	299	163.71	830.2		69.52
5	315	123.45	593.7		70.83
6	324	75.22	351.3		71.58
7	337	80.60	362.0		72.61
8	347	78.99	344.5		73.40
9	383	100.00	395.9		76.20
10	396	76.22	291.4		77.28
11	452	75.46	253.0		80.50
12	478	81.91	259.4		81.99
13	502	66.66	201.2		83.30
14	516	63.96	187.9		83.95
15	528	81.55	233.8		84.56
16	558	64.84	176.1		85.96
17	578	60.90	159.6		86.94
18	596	62.47	158.9		87.78
19	667	60.72	137.9		89.98
20	703	56.28	121.2		91.01
21	808	77.78	145.8		92.41
22	923	128.82	211.3		93.95
23	1,412	22.94	24.6		97.50
24	1,702	5.29	4.7		99.27
25	1,816	10.00	8.3		99.97

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-01\2015-10-01\_001.xad

Created: 10/1/2015 10:27:39 AM  
 Modified: 10/1/2015 11:22:31 AM

### Electropherogram Summary Continued ...

#### ... Peak table for sample 2 : C1 pool lib 2 (1:2 dil)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	2,245	3.01	2.0		101.89
27	10,380	75.00	10.9	Upper Marker	113.00

#### Region table for sample 2 : C1 pool lib 2 (1:2 dil)

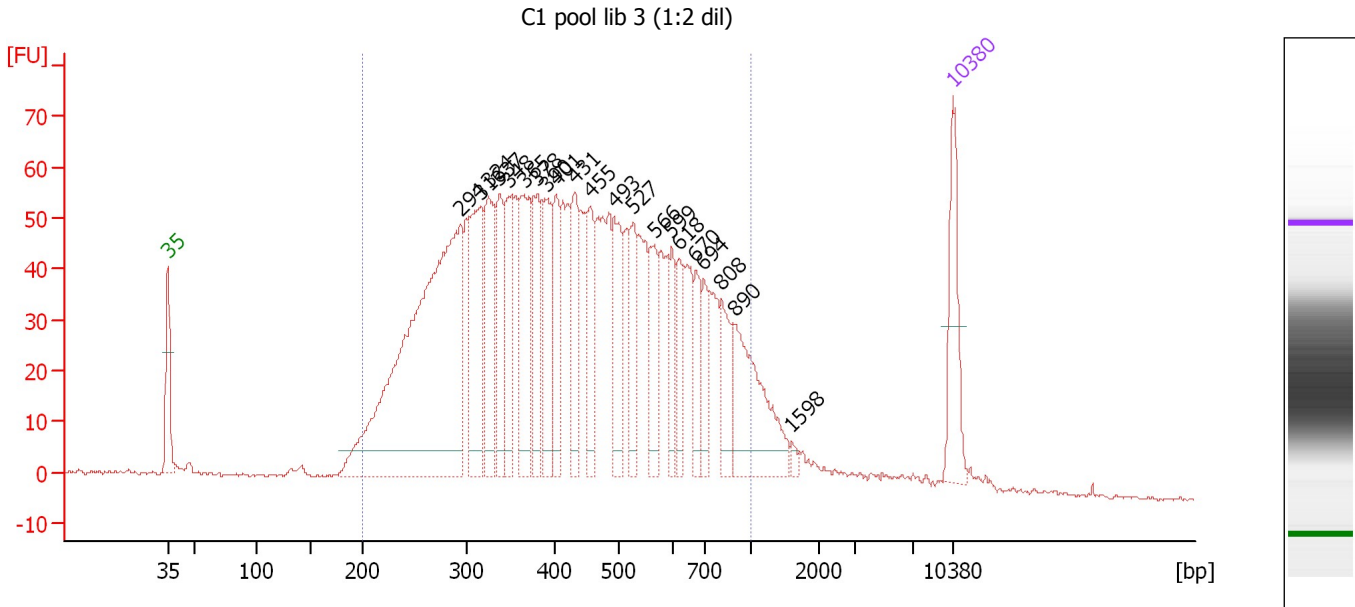
From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]	Conc. [pg/μl]
200	463	1,000	2,426.1	12,050.1	93	37.5	3,063.77



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-01\2015-10-01\_001.xad

Created: 10/1/2015 10:27:39 AM  
 Modified: 10/1/2015 11:22:31 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : C1 pool lib 3 (1:2 dil)**

Number of peaks found: 21                      Corr. Area 1: 2,065.9  
 Noise: 0.4

**Peak table for sample 3 : C1 pool lib 3 (1:2 dil)**

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	294	806.91	4,155.0		69.11
3	316	184.11	882.6		70.91
4	324	138.13	645.0		71.58
5	337	108.09	485.9		72.58
6	348	86.14	374.6		73.48
7	365	153.74	638.8		74.77
8	378	111.71	447.3		75.86
9	390	107.55	418.0		76.76
10	401	93.56	353.6		77.62
11	431	96.95	340.6		79.33
12	455	80.34	267.6		80.66
13	493	99.49	305.9		82.80
14	527	69.89	200.8		84.51
15	566	72.96	195.2		86.37
16	599	48.27	122.1		87.94
17	618	47.09	115.5		88.51
18	670	50.82	114.9		90.08
19	694	45.63	99.6		90.79
20	808	59.77	112.0		92.41
21	890	147.15	250.4		93.50
22	1,598	6.46	6.1		98.64
23	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-01\2015-10-01\_001.xad

Created: 10/1/2015 10:27:39 AM  
Modified: 10/1/2015 11:22:31 AM

**Electropherogram Summary Continued ...**

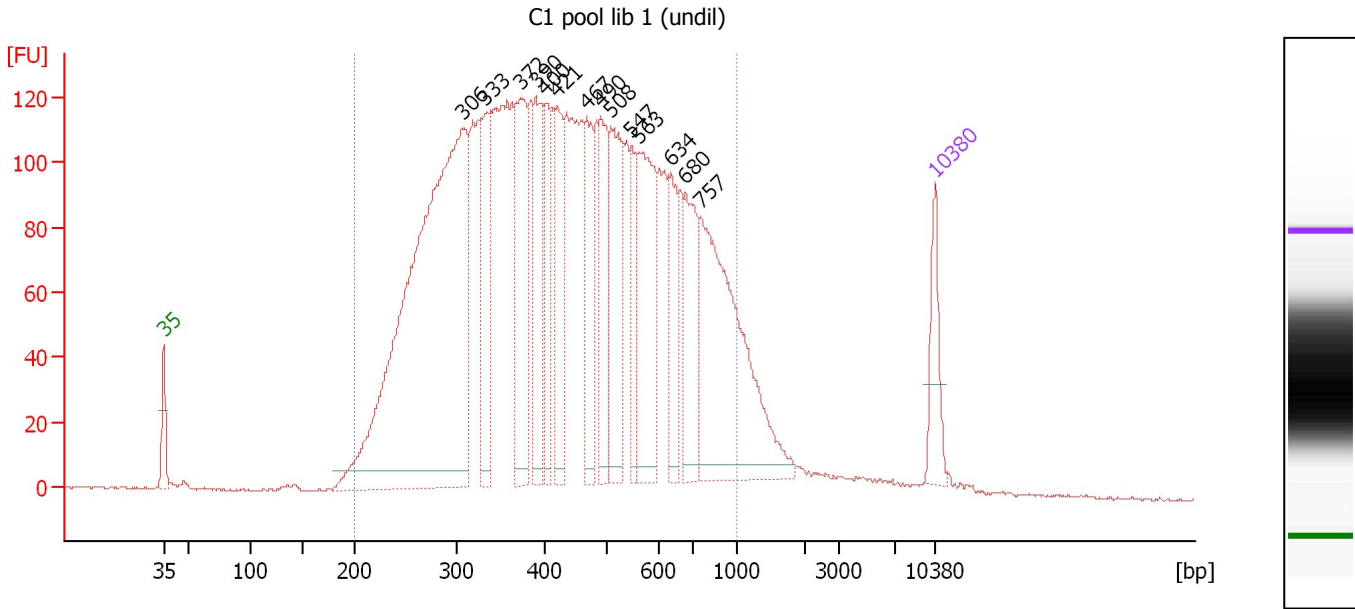
... Region table for sample 3 : C1 pool lib 3 (1:2 dil)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]	Conc. [pg/μl]
200	451	1,000	2,065.9	14,600.2	■ 92	37.8	3,610.91

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-01\2015-10-01\_001.xad

Created: 10/1/2015 10:27:39 AM  
 Modified: 10/1/2015 11:22:31 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : C1 pool lib 1 (undil)**

Number of peaks found: 14                      Corr. Area 1: 4,295.6  
 Noise: 0.4

**Peak table for sample 4 : C1 pool lib 1 (undil)**

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	306	1,633.20	8,094.8		70.09
3	333	212.82	969.7		72.22
4	372	295.36	1,202.5		75.36
5	390	203.74	791.8		76.77
6	400	142.81	541.5		77.54
7	421	190.36	685.2		78.75
8	467	177.85	576.7		81.36
9	490	183.81	567.8		82.67
10	508	248.73	741.9		83.59
11	547	115.47	319.6		85.47
12	563	289.99	780.9		86.20
13	634	131.35	313.7		89.01
14	680	186.28	415.1		90.36
15	757	532.78	1,067.0		91.71
16	10,380	75.00	10.9	Upper Marker	113.00

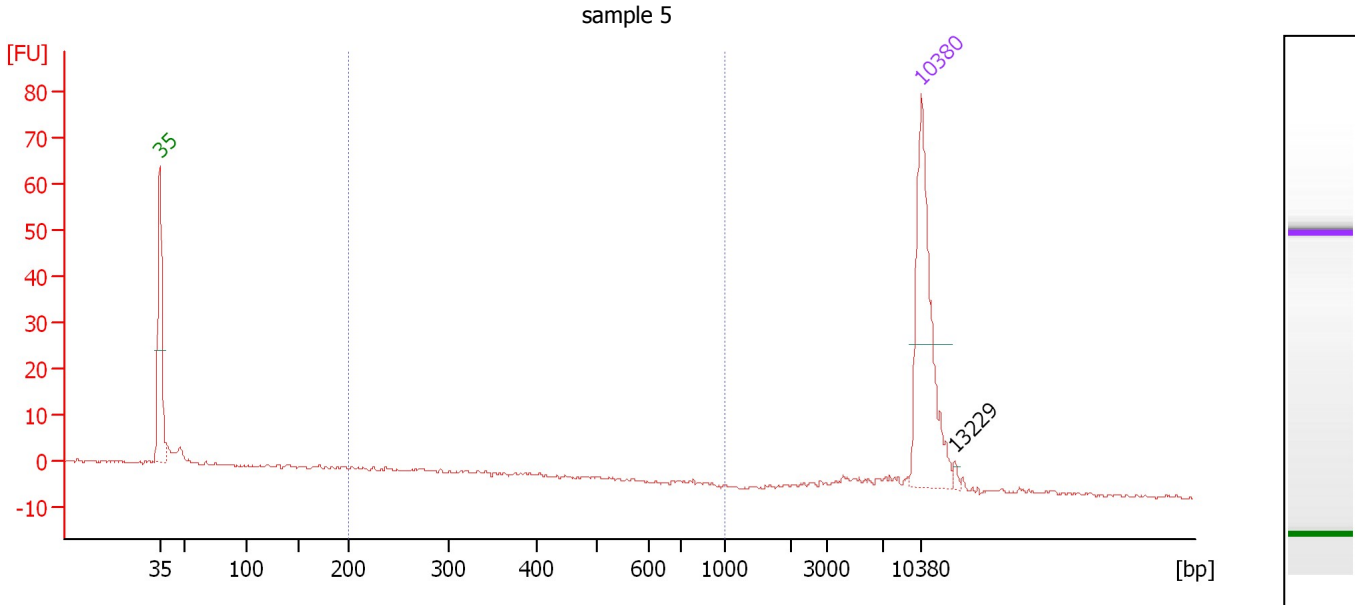
**Region table for sample 4 : C1 pool lib 1 (undil)**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	458	1,000	4,295.6	25,402.0	94	37.2	6,421.51

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-01\2015-10-01\_001.xad

Created: 10/1/2015 10:27:39 AM  
 Modified: 10/1/2015 11:22:31 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 1                      Corr. Area 1: 16.0  
 Noise: 0.3

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

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	10,380	75.00	10.9	Upper Marker	113.00
3	13,229	0.00	0.0		116.04

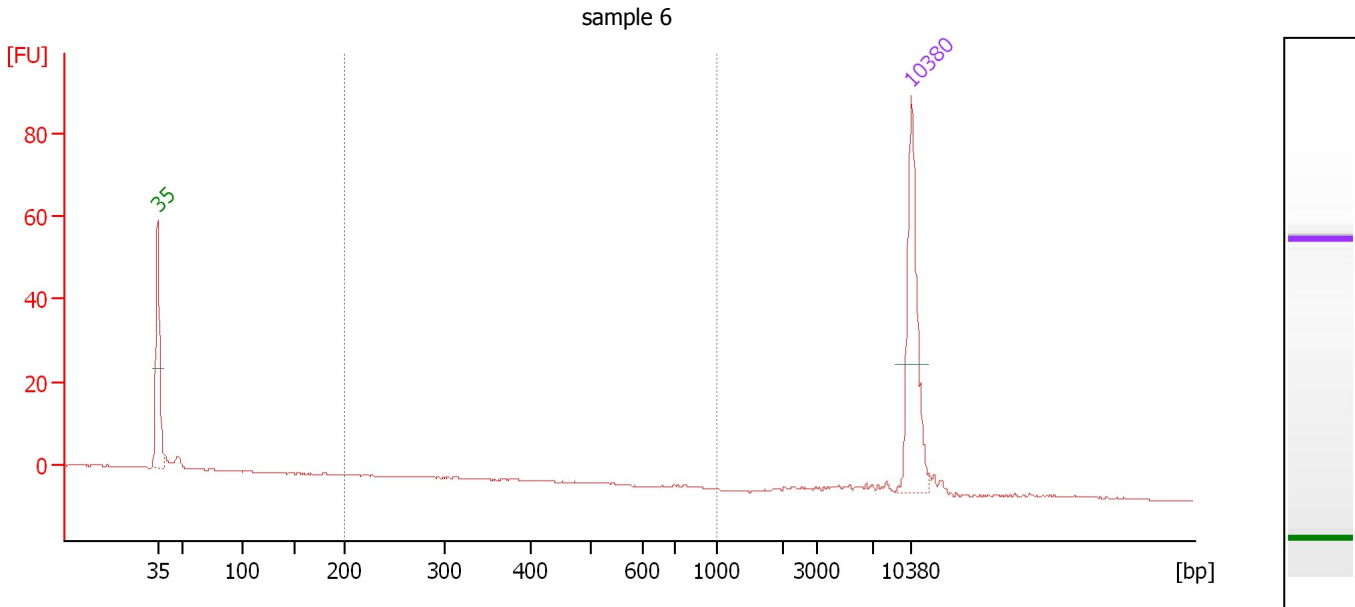
**Region table for sample 5 : sample 5**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	335	1,000	16.0	80.5	24	31.9	15.88

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-01\2015-10-01\_001.xad

Created: 10/1/2015 10:27:39 AM  
 Modified: 10/1/2015 11:22:31 AM

**Electropherogram Summary Continued ...**



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

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

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

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	10,380	75.00	10.9	Upper Marker	113.00

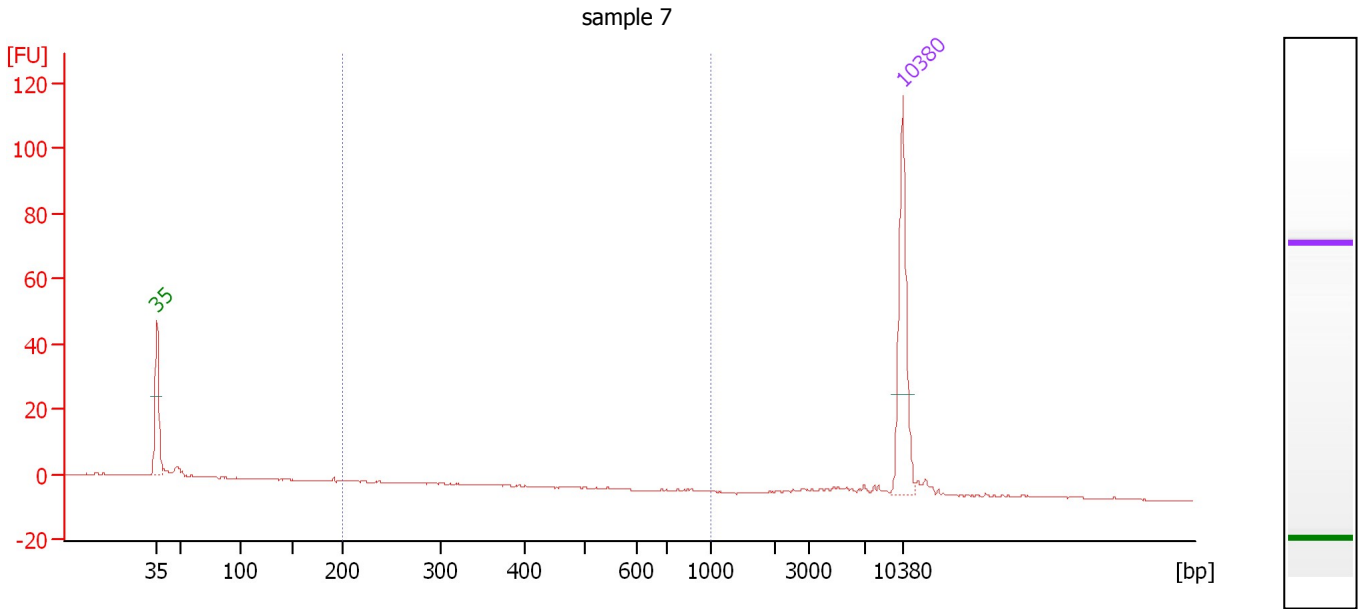
**Region table for sample 6 : sample 6**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	343	1,000	0.1	0.7	0	18.7	0.15

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-01\2015-10-01\_001.xad

Created: 10/1/2015 10:27:39 AM  
 Modified: 10/1/2015 11:22:31 AM

**Electropherogram Summary Continued ...**



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

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

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

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	10,380	75.00	10.9	Upper Marker	113.00

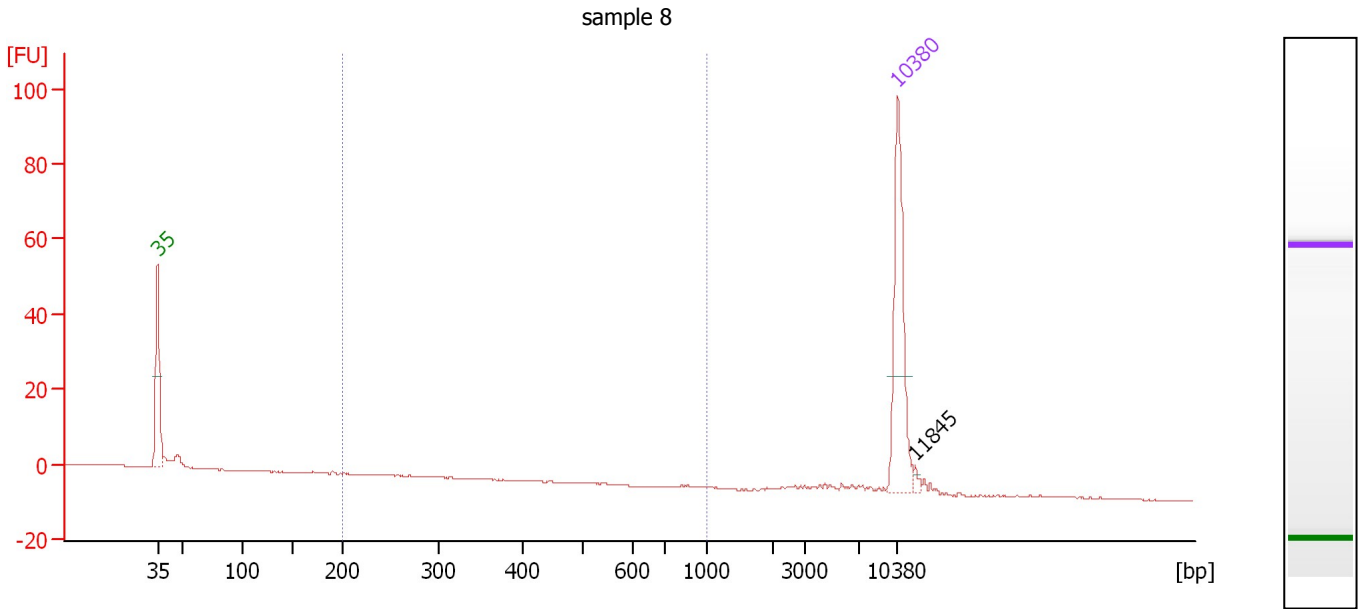
**Region table for sample 7 : sample 7**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	227	1,000	0.0	0.0	0	3.0	0.01

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-01\2015-10-01\_001.xad

Created: 10/1/2015 10:27:39 AM  
 Modified: 10/1/2015 11:22:31 AM

**Electropherogram Summary Continued ...**



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

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

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

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	10,380	75.00	10.9	Upper Marker	113.00
3	11,845	0.00	0.0		114.56

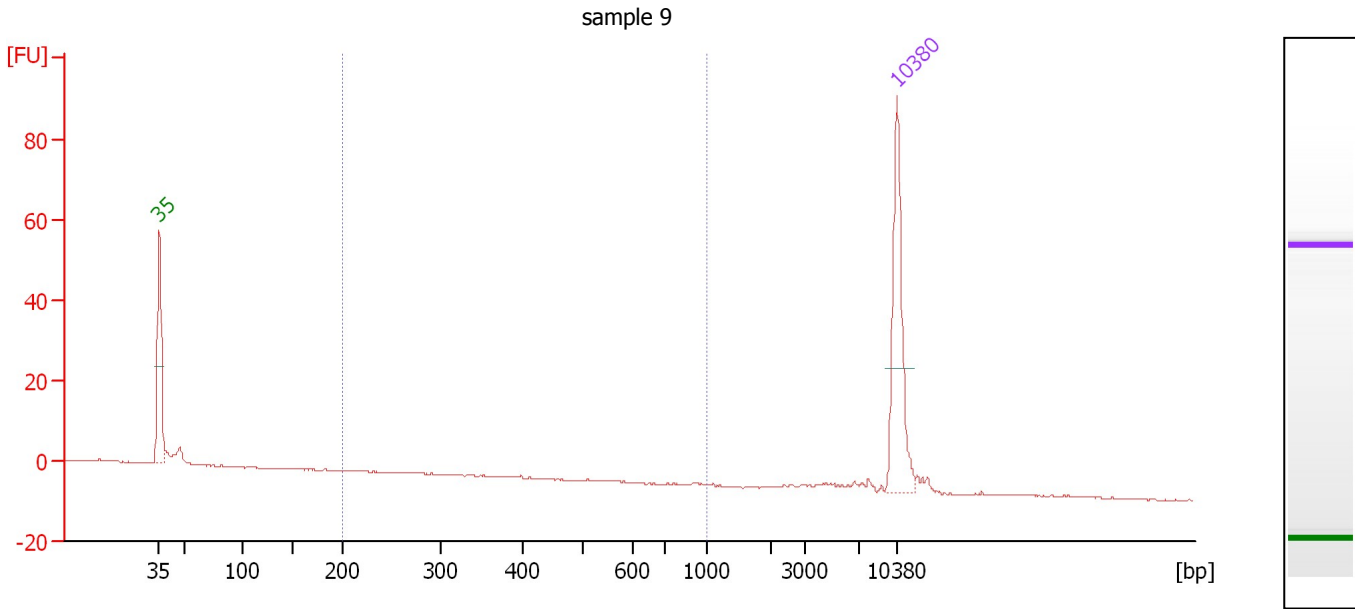
**Region table for sample 8 : sample 8**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]	Conc. [pg/μl]
200	220	1,000	0.0	0.2	0	13.3	0.03

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-01\2015-10-01\_001.xad

Created: 10/1/2015 10:27:39 AM  
 Modified: 10/1/2015 11:22:31 AM

**Electropherogram Summary Continued ...**



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

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

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

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	10,380	75.00	10.9	Upper Marker	113.00

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

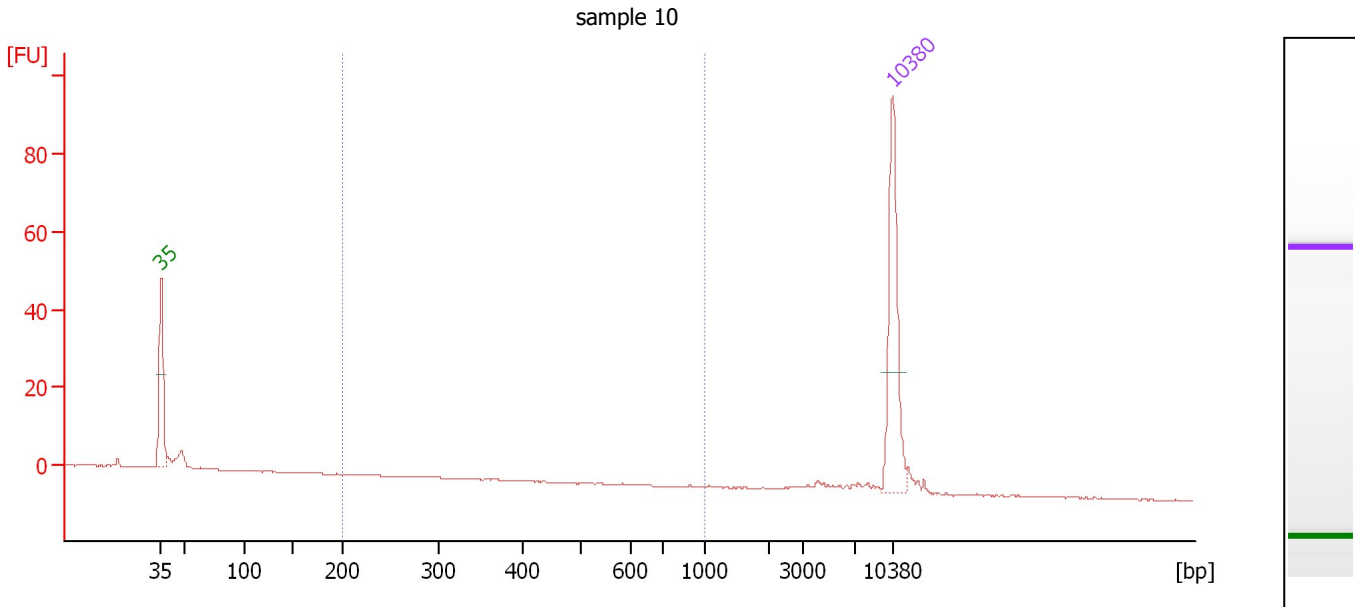
From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	397	1,000	0.0	0.2	0	0.1	0.04



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-01\2015-10-01\_001.xad

Created: 10/1/2015 10:27:39 AM  
 Modified: 10/1/2015 11:22:31 AM

**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	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	10,380	75.00	10.9	Upper Marker	113.00

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

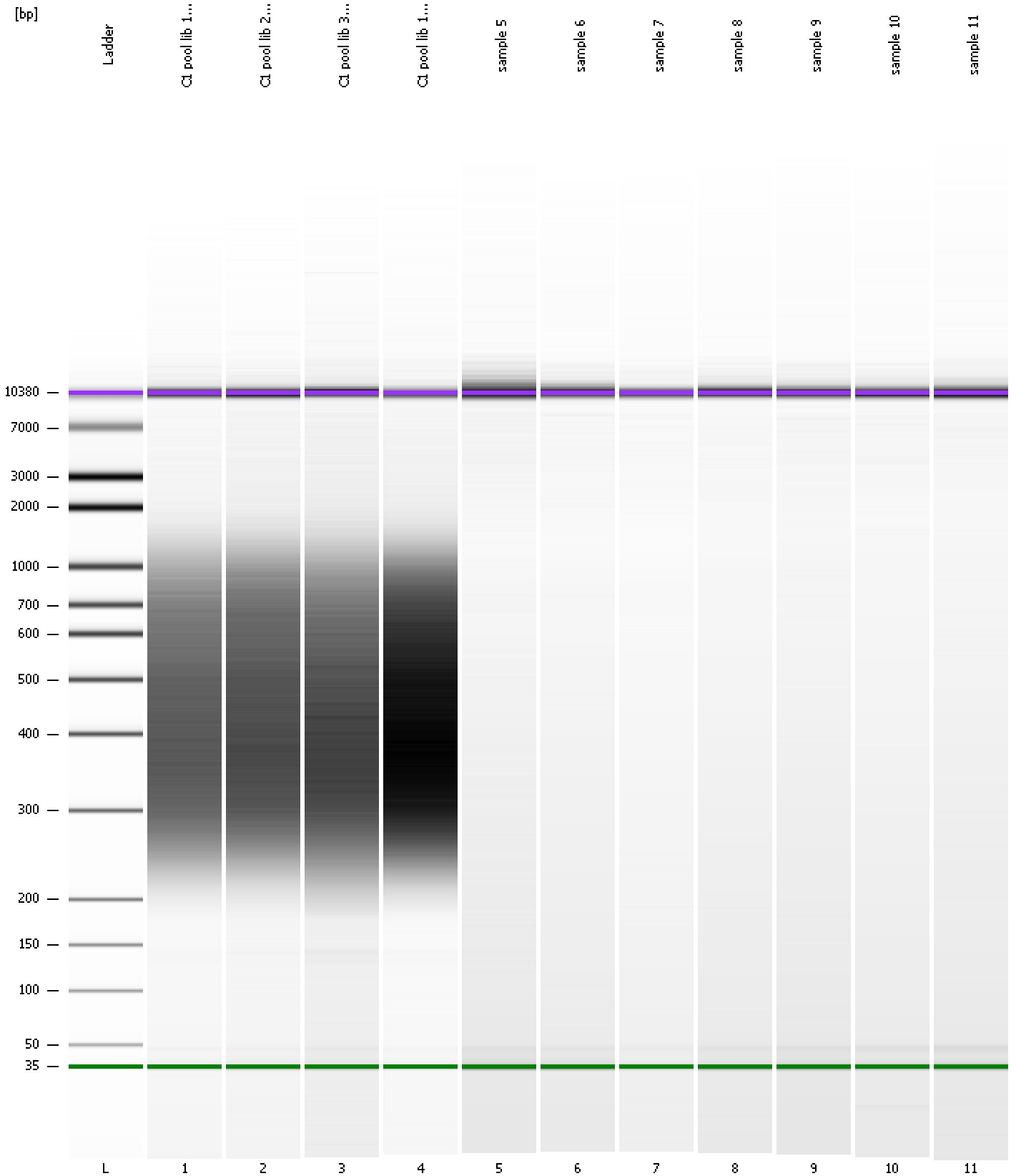
From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	260	1,000	0.0	0.0	0	9.2	0.00



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-01\2015-10-01\_001.xad

Created: 10/1/2015 10:27:39 AM  
Modified: 10/1/2015 11:22:31 AM

**Gel Image**

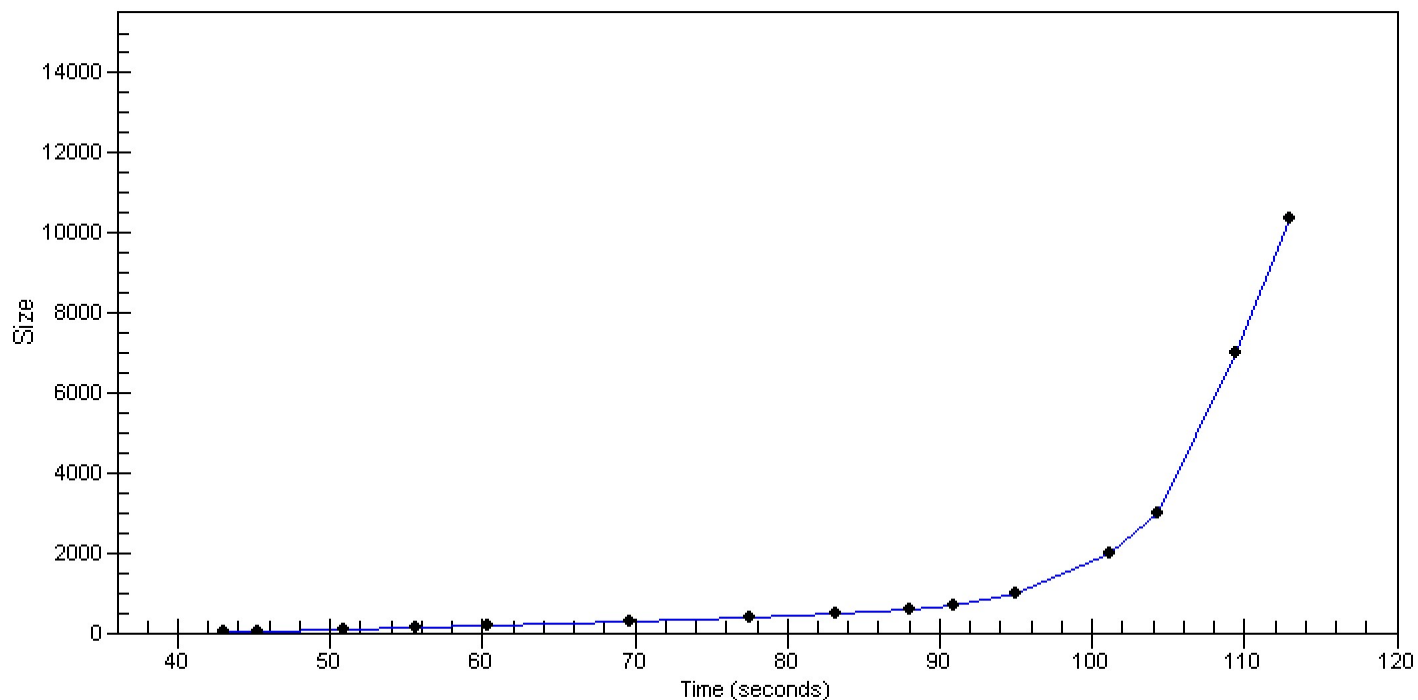


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-01\2015-10-01\_001.xad

Created: 10/1/2015 10:27:39 AM  
Modified: 10/1/2015 11:22:31 AM

**Curves**

**Standard Curve**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-01\2015-10-01\_001.xad

Created: 10/1/2015 10:27:39 AM  
 Modified: 10/1/2015 11:22:31 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		10/1/2015 11:08:56 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-10-01\2015-10-01_001.xad)		Instrument	Run		10/1/2015 10:27:44 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		10/1/2015 10:27:44 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		10/1/2015 10:27:44 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		10/1/2015 10:27:44 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		10/1/2015 10:27:44 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		10/1/2015 10:27:44 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		10/1/2015 10:27:44 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1