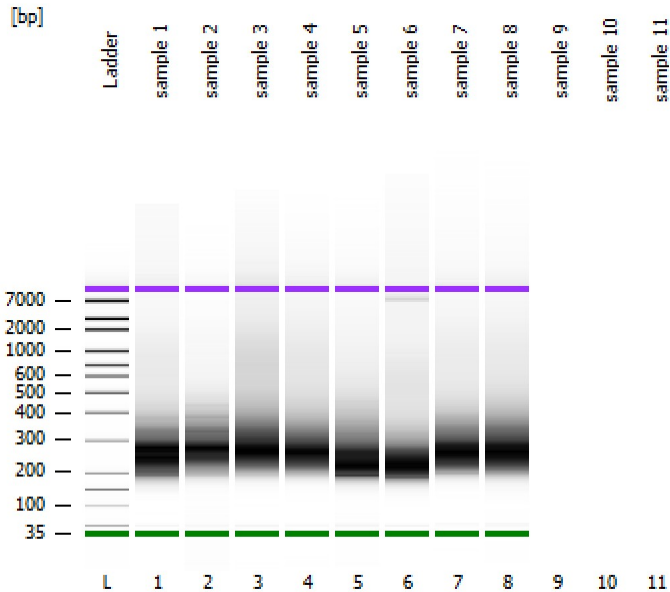


Assay Class: High Sensitivity DNA Assay  
Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-12-20\_001.xad

Created: 12/20/2019 4:15:15 PM  
Modified: 12/20/2019 4:48:01 PM

**Electrophoresis File Run Summary**



Instrument Information:

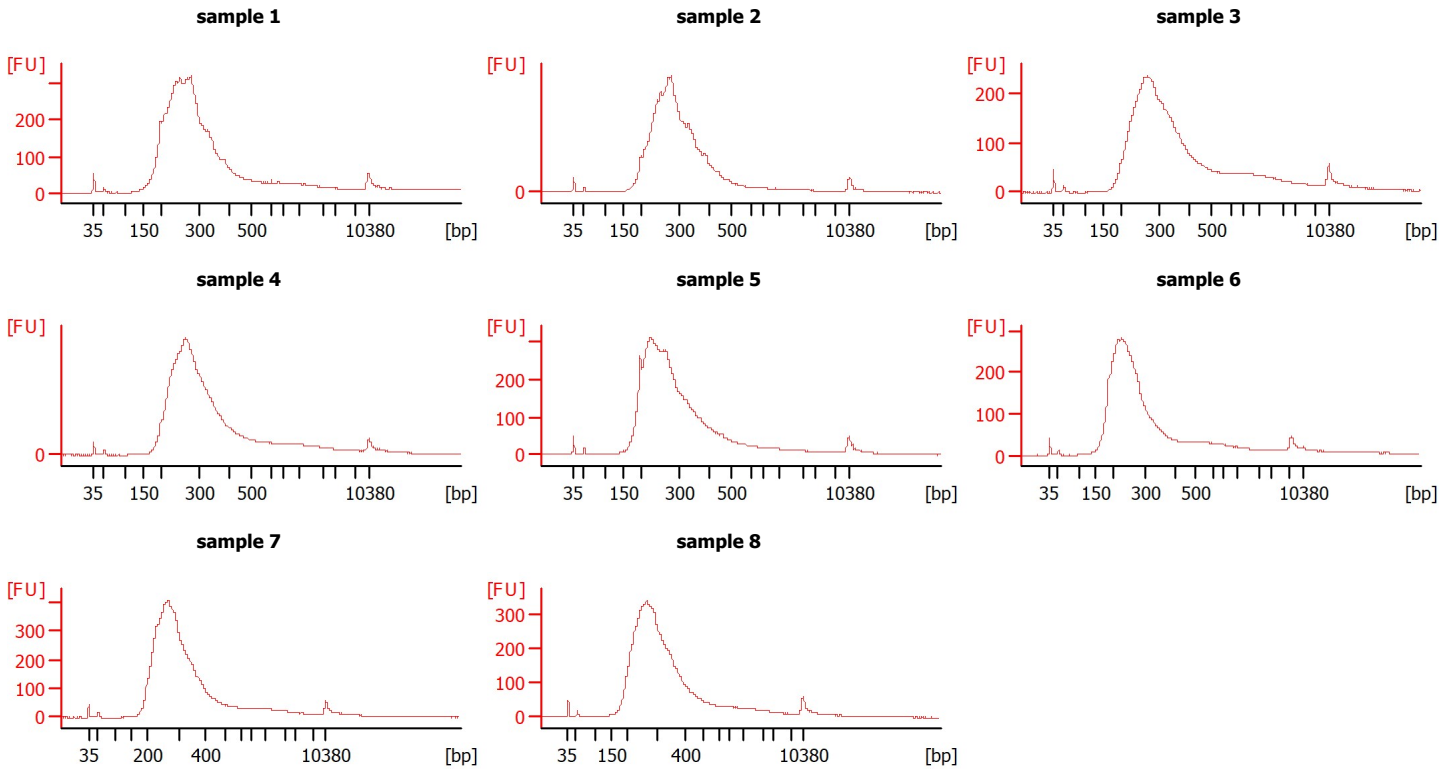
Instrument Name: DE34903152      Firmware: C.01.069  
Serial#: DE34903152      Type: G2938C

Assay Information:

Assay Origin Path: C:\Program Files (x86)\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: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-12-20\_001.xad

Created: 12/20/2019 4:15:15 PM  
 Modified: 12/20/2019 4:48:01 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: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-12-20\_001.xad

Created: 12/20/2019 4:15:15 PM  
 Modified: 12/20/2019 4:48:01 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

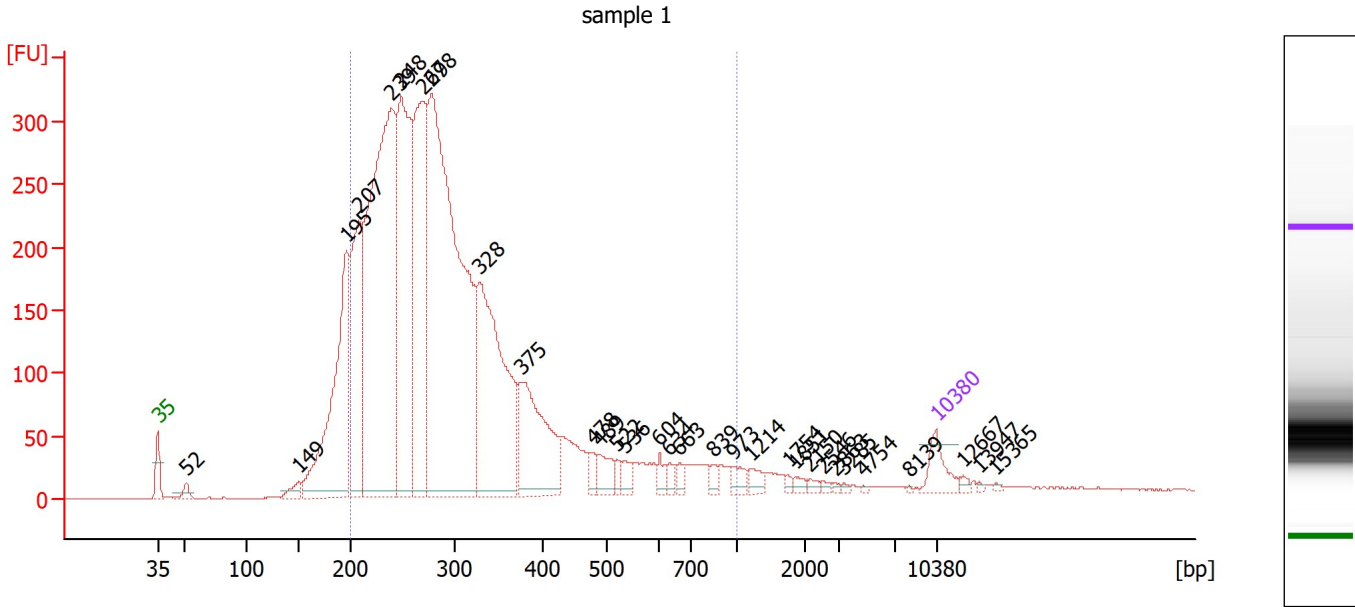
**Ladder**

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: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-12-20\_001.xad

Created: 12/20/2019 4:15:15 PM  
 Modified: 12/20/2019 4:48:01 PM

**Electropherogram Summary**



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

Number of peaks found: 31                      Corr. Area 1: 6,060.0  
 Noise: 0.5

**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	52	41.99	1,232.3	
3	149	53.73	545.0	
4	195	1,058.77	8,231.2	
5	207	713.64	5,222.8	
6	239	2,416.53	15,325.6	
7	248	1,278.67	7,797.2	
8	269	1,064.46	6,003.2	
9	278	2,709.99	14,786.4	
10	328	1,100.07	5,074.4	
11	375	530.79	2,145.3	
12	478	42.52	134.7	
13	489	81.51	252.7	
14	522	31.17	90.5	
15	536	49.07	138.8	
16	604	36.02	90.4	
17	634	28.32	67.7	
18	663	32.37	74.0	
19	839	28.10	50.7	
20	973	41.59	64.8	
21	1,214	37.28	46.5	
22	1,754	11.02	9.5	
23	1,851	16.15	13.2	
24	2,150	12.75	9.0	
25	2,546	9.36	5.6	
26	2,863	5.95	3.1	

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-12-20\_001.xad

Created: 12/20/2019 4:15:15 PM  
 Modified: 12/20/2019 4:48:01 PM

**Electropherogram Summary Continued ...**

**... Peak table for sample 1 : sample 1**

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
27	3,285	6.00	2.8	
28	4,754	4.43	1.4	
29	8,139	2.59	0.5	
30	10,380	75.00	10.9	Upper Marker
31	12,667	0.00	0.0	
32	13,947	0.00	0.0	
33	15,365	0.00	0.0	

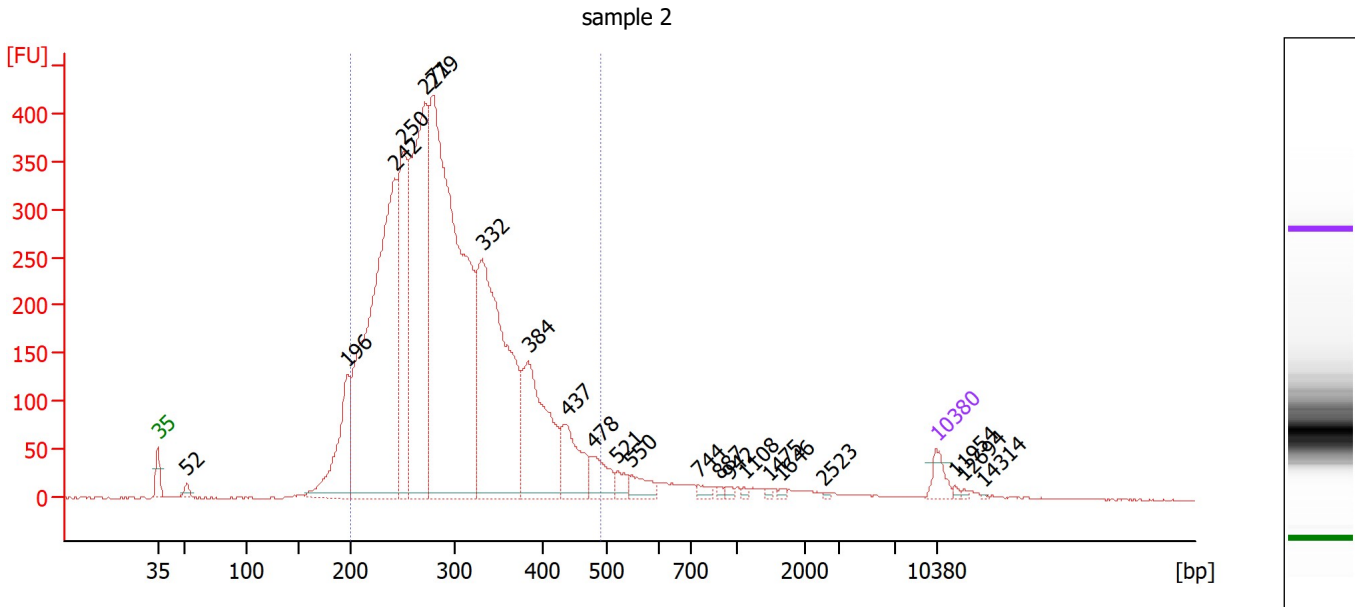
**Region table for sample 1 : sample 1**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/µl]	Molarity [pmol/l]	Color
200	1,000	6,060.0	88	313	38.2	10,359.21	56,036.4	

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-12-20\_001.xad

Created: 12/20/2019 4:15:15 PM  
 Modified: 12/20/2019 4:48:01 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 22                      Corr. Area 1: 6,852.4  
 Noise: 0.6

**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	52	44.78	1,296.4	
3	196	679.53	5,252.7	
4	242	3,189.98	19,956.5	
5	250	1,094.22	6,624.8	
6	271	2,193.20	12,251.8	
7	279	4,031.74	21,872.0	
8	332	2,105.52	9,620.0	
9	384	890.25	3,516.4	
10	437	355.31	1,232.8	
11	478	183.14	580.6	
12	521	67.94	197.6	
13	550	96.45	265.9	
14	744	33.08	67.3	
15	887	13.03	22.3	
16	942	19.72	31.7	
17	1,108	13.06	17.9	
18	1,475	10.54	10.8	
19	1,646	11.98	11.0	
20	2,523	6.85	4.1	
21	10,380	75.00	10.9	Upper Marker
22	11,954	0.00	0.0	
23	12,694	0.00	0.0	
24	14,314	0.00	0.0	

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-12-20\_001.xad

Created: 12/20/2019 4:15:15 PM  
 Modified: 12/20/2019 4:48:01 PM

**Electropherogram Summary Continued ...**

... Region table for sample 2 :

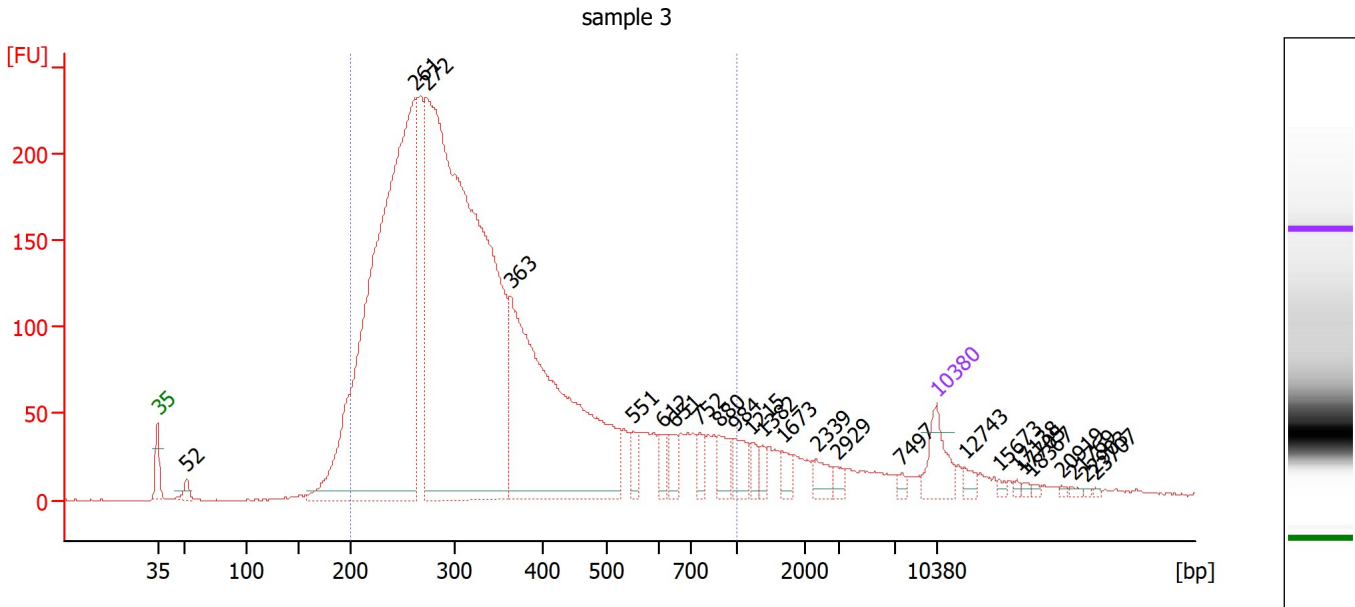
sample 2

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	491	6,852.4	90	297	20.6	13,817.10	73,920.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-12-20\_001.xad

Created: 12/20/2019 4:15:15 PM  
 Modified: 12/20/2019 4:48:01 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 25                      Corr. Area 1: 4,939.9  
 Noise: 0.5

**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	52	29.13	849.9	
3	261	2,351.38	13,633.4	
4	272	2,936.60	16,340.0	
5	363	1,197.78	4,999.3	
6	551	46.57	128.0	
7	612	39.68	98.2	
8	651	37.37	87.0	
9	752	36.39	73.3	
10	880	53.71	92.5	
11	984	51.48	79.2	
12	1,215	23.78	29.7	
13	1,382	20.67	22.7	
14	1,673	24.73	22.4	
15	2,339	31.78	20.6	
16	2,929	15.52	8.0	
17	7,497	9.52	1.9	
18	10,380	75.00	10.9	Upper Marker
19	12,743	0.00	0.0	
20	15,673	0.00	0.0	
21	17,138	0.00	0.0	
22	17,705	0.00	0.0	
23	18,367	0.00	0.0	
24	20,919	0.00	0.0	
25	21,769	0.00	0.0	
26	22,903	0.00	0.0	



Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-12-20\_001.xad

Created: 12/20/2019 4:15:15 PM  
 Modified: 12/20/2019 4:48:01 PM

**Electropherogram Summary Continued ...**

**... Peak table for sample 3 : sample 3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	23,707	0.00	0.0	

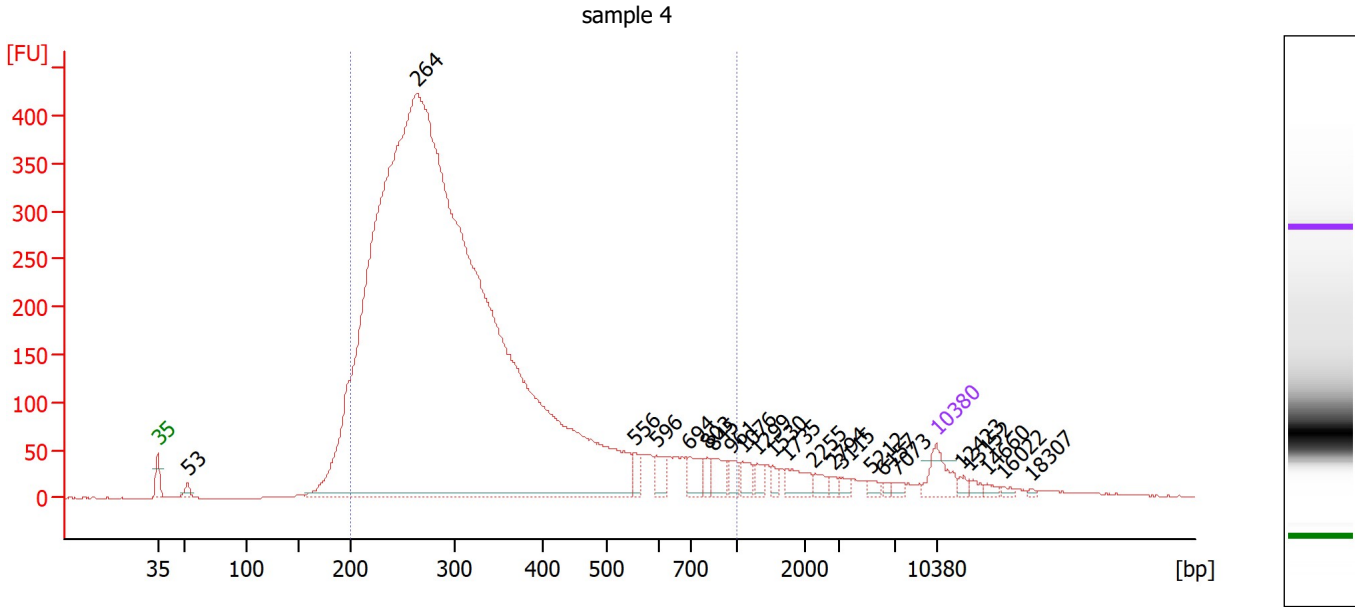
**Region table for sample 3 : sample 3**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	4,939.9	88	352	41.5	6,882.39	34,451.8	

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-12-20\_001.xad

Created: 12/20/2019 4:15:15 PM  
 Modified: 12/20/2019 4:48:01 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 23                      Corr. Area 1: 7,729.7  
 Noise: 0.7

**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	53	28.77	821.4	
3	264	10,664.52	61,319.3	
4	556	39.33	107.3	
5	596	56.51	143.7	
6	694	70.26	153.3	
7	803	33.88	63.9	
8	845	64.07	114.9	
9	961	41.29	65.1	
10	1,076	43.41	61.1	
11	1,299	32.84	38.3	
12	1,530	22.81	22.6	
13	1,735	57.35	50.1	
14	2,255	27.58	18.5	
15	2,794	14.66	8.0	
16	3,115	16.08	7.8	
17	5,212	16.12	4.7	
18	6,157	9.70	2.4	
19	7,073	14.85	3.2	
20	10,380	75.00	10.9	Upper Marker
21	12,423	0.00	0.0	
22	13,152	0.00	0.0	
23	14,660	0.00	0.0	
24	16,022	0.00	0.0	
25	18,307	0.00	0.0	

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-12-20\_001.xad

Created: 12/20/2019 4:15:15 PM  
 Modified: 12/20/2019 4:48:01 PM

**Electropherogram Summary Continued ...**

... Region table for sample 4 :

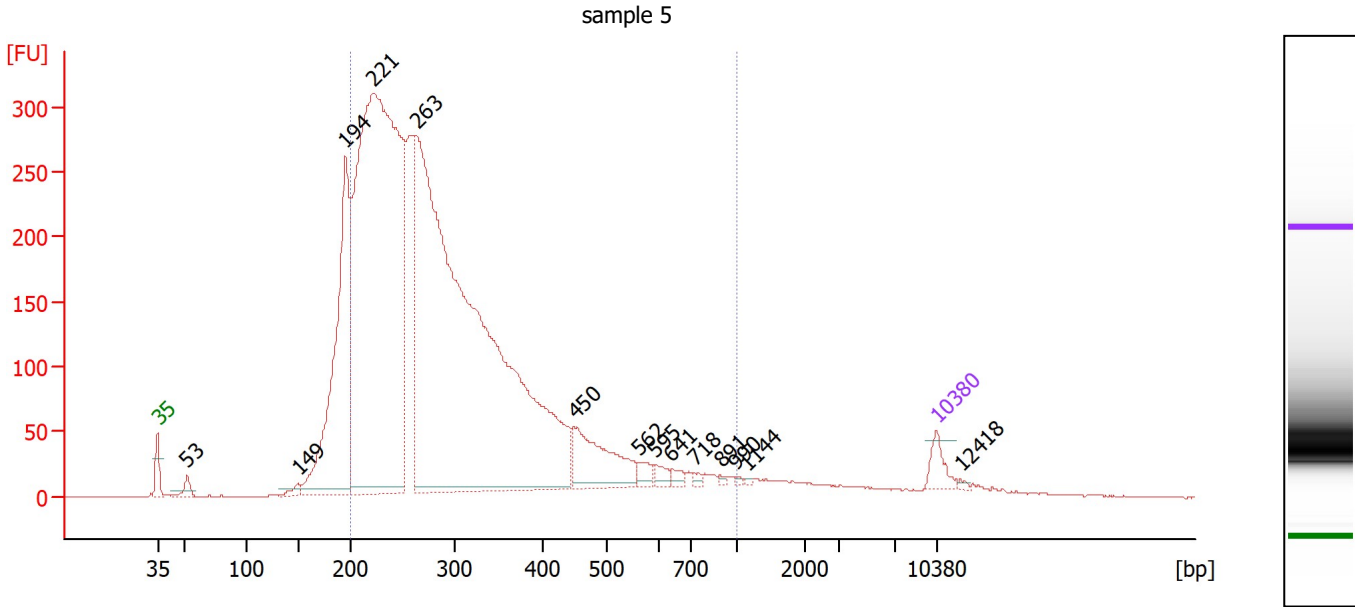
sample 4

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	7,729.7	90	332	40.2	10,163.52	52,948.6	■

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-12-20\_001.xad

Created: 12/20/2019 4:15:15 PM  
 Modified: 12/20/2019 4:48:01 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 14                      Corr. Area 1: 5,688.8  
 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	53	67.96	1,955.7	
3	149	40.78	415.7	
4	194	1,761.84	13,752.5	
5	221	5,376.95	36,837.7	
6	263	6,427.78	37,067.6	
7	450	446.50	1,504.1	
8	562	55.41	149.3	
9	595	41.51	105.7	
10	641	32.71	77.4	
11	718	17.44	36.8	
12	891	11.60	19.7	
13	990	8.53	13.0	
14	1,144	5.98	7.9	
15	10,380	75.00	10.9	Upper Marker
16	12,418	0.00	0.0	

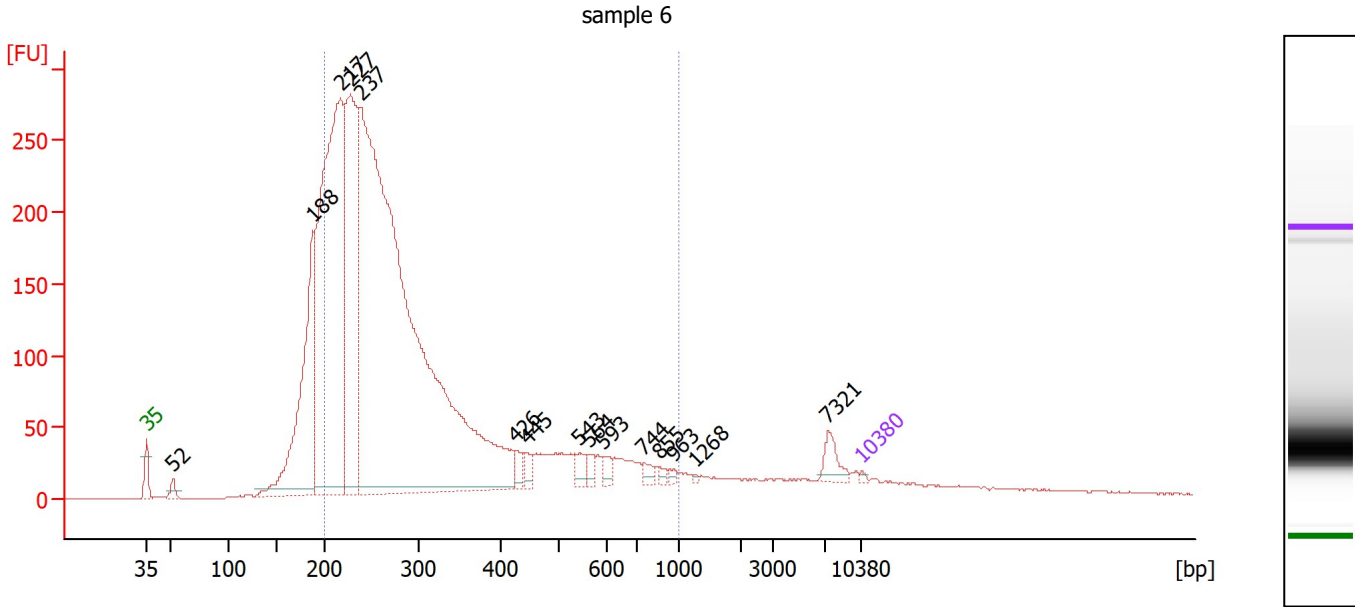
**Region table for sample 5 : sample 5**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	5,688.8	85	312	38.1	12,907.49	70,622.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-12-20\_001.xad

Created: 12/20/2019 4:15:15 PM  
 Modified: 12/20/2019 4:48:01 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 15                      Corr. Area 1: 4,505.1  
 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	52	567.76	16,659.2	
3	188	13,096.54	105,700.6	
4	217	29,598.77	206,786.1	
5	227	16,291.10	108,723.8	
6	237	66,701.49	426,094.2	
7	426	588.62	2,092.5	
8	445	618.88	2,108.9	
9	543	544.46	1,518.7	
10	564	399.57	1,072.8	
11	593	449.96	1,149.3	
12	744	390.30	795.3	
13	855	212.42	376.3	
14	963	139.35	219.3	
15	1,268	69.94	83.6	
16	7,321	778.96	161.2	
17	10,380	75.00	10.9	Upper Marker

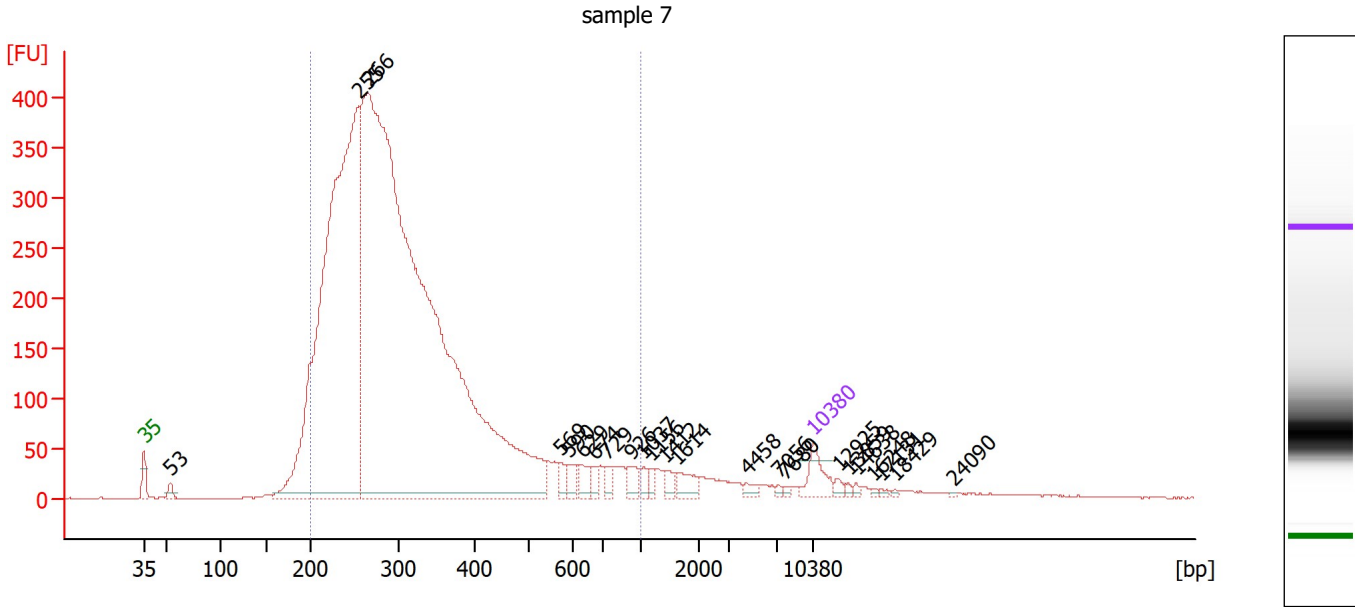
**Region table for sample 6 : sample 6**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	4,505.1	79	311	43.6	109,846.31	618,089.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-12-20\_001.xad

Created: 12/20/2019 4:15:15 PM  
 Modified: 12/20/2019 4:48:01 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 23                      Corr. Area 1: 7,295.2  
 Noise: 0.6

**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	53	34.91	994.0	
3	255	3,527.94	20,991.0	
4	266	7,039.32	40,079.3	
5	569	39.34	104.8	
6	590	41.44	106.4	
7	629	48.81	117.5	
8	674	28.65	64.4	
9	729	38.92	80.9	
10	926	46.65	76.3	
11	1,037	22.49	32.8	
12	1,156	21.34	28.0	
13	1,412	28.54	30.6	
14	1,614	53.47	50.2	
15	4,458	19.52	6.6	
16	7,056	7.56	1.6	
17	7,680	7.86	1.6	
18	10,380	75.00	10.9	Upper Marker
19	12,925	0.00	0.0	
20	13,859	0.00	0.0	
21	14,638	0.00	0.0	
22	16,248	0.00	0.0	
23	17,131	0.00	0.0	
24	18,429	0.00	0.0	
25	24,090	0.00	0.0	

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-12-20\_001.xad

Created: 12/20/2019 4:15:15 PM  
 Modified: 12/20/2019 4:48:01 PM

**Electropherogram Summary Continued ...**

... Region table for sample 7 :

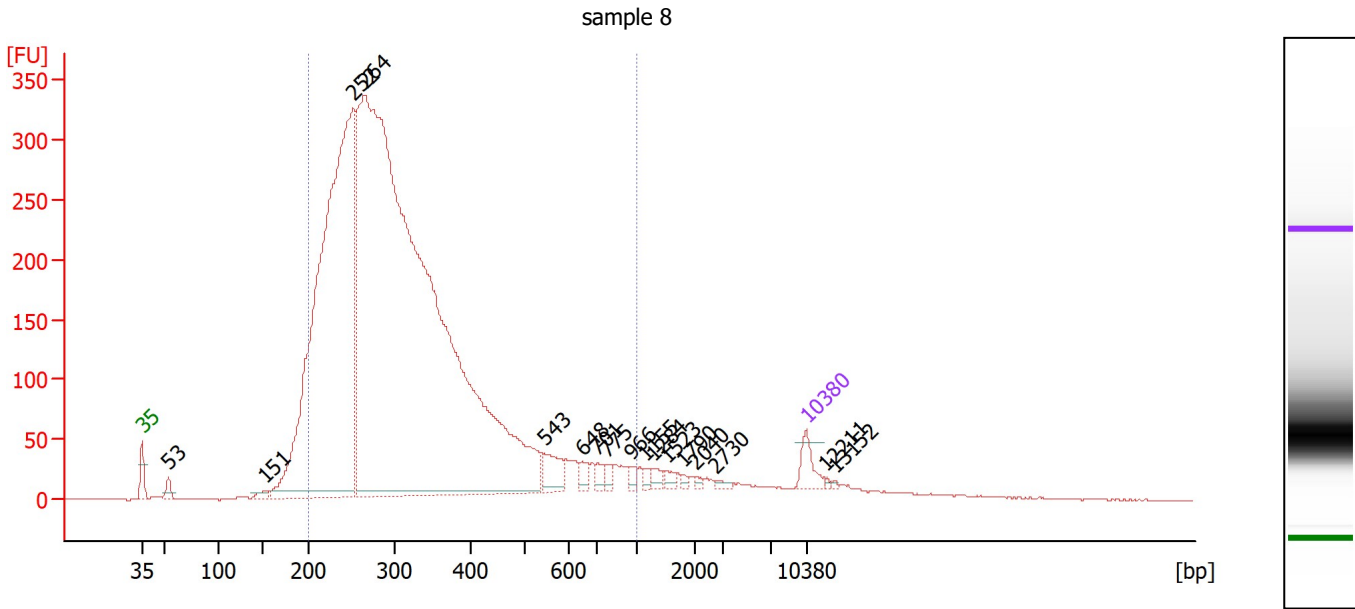
sample 7

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	7,295.2	91	323	37.9	9,965.81	52,452.5	■

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-12-20\_001.xad

Created: 12/20/2019 4:15:15 PM  
 Modified: 12/20/2019 4:48:01 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 17                      Corr. Area 1: 6,600.2  
 Noise: 0.6

**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	53	59.15	1,678.5	
3	151	30.93	309.5	
4	252	4,517.60	27,145.4	
5	264	9,528.13	54,620.3	
6	543	138.63	386.6	
7	648	44.82	104.8	
8	701	39.47	85.4	
9	775	29.69	58.0	
10	966	26.00	40.8	
11	1,155	22.92	30.1	
12	1,284	30.31	35.8	
13	1,523	24.16	24.0	
14	1,790	13.33	11.3	
15	2,040	11.57	8.6	
16	2,730	13.06	7.2	
17	10,380	75.00	10.9	Upper Marker
18	12,211	0.00	0.0	
19	13,152	0.00	0.0	

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

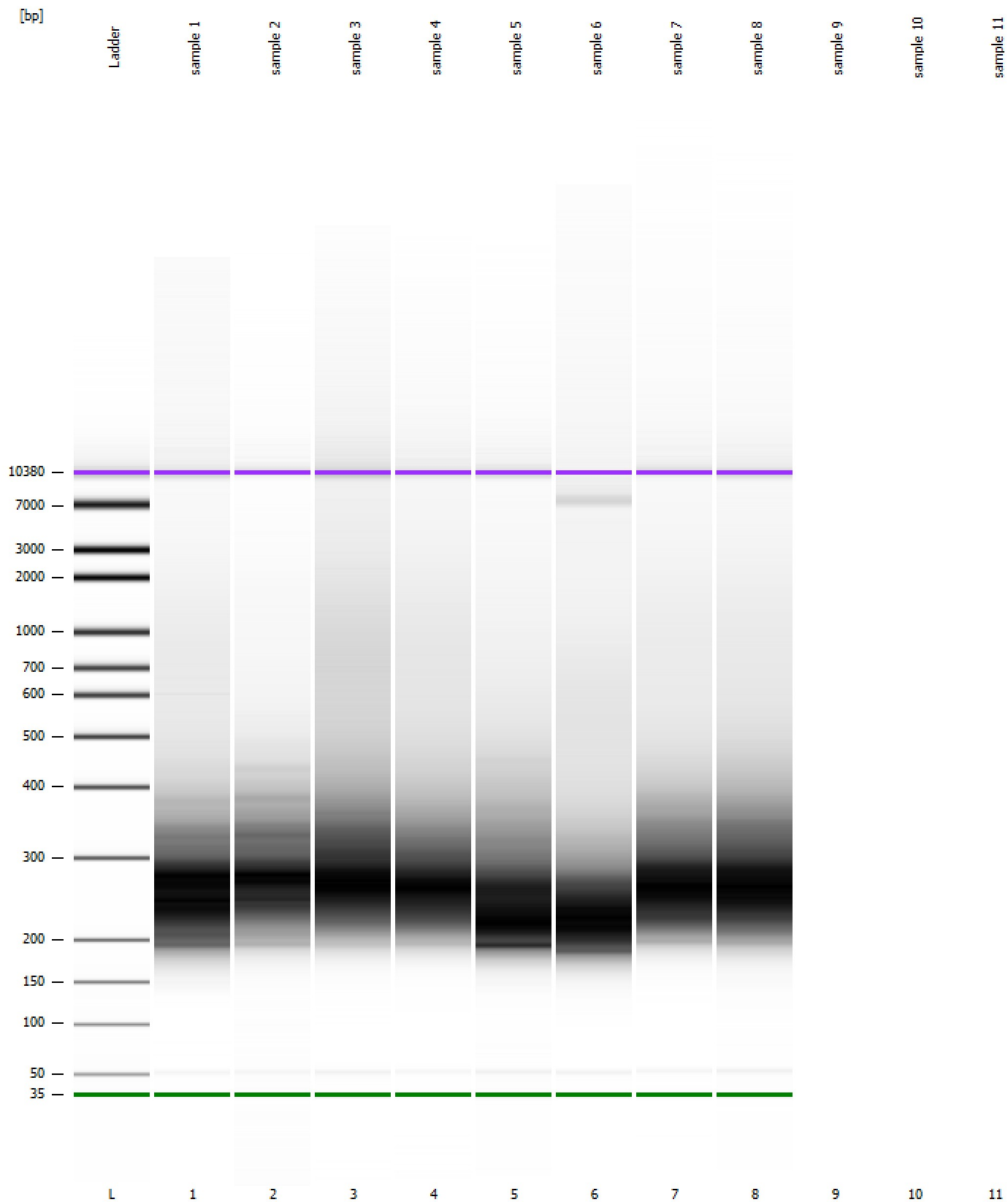
From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	6,600.2	90	329	37.9	13,418.13	69,708.3	Blue



Assay Class: High Sensitivity DNA Assay  
Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-12-20\_001.xad

Created: 12/20/2019 4:15:15 PM  
Modified: 12/20/2019 4:48:01 PM

**Gel Image**

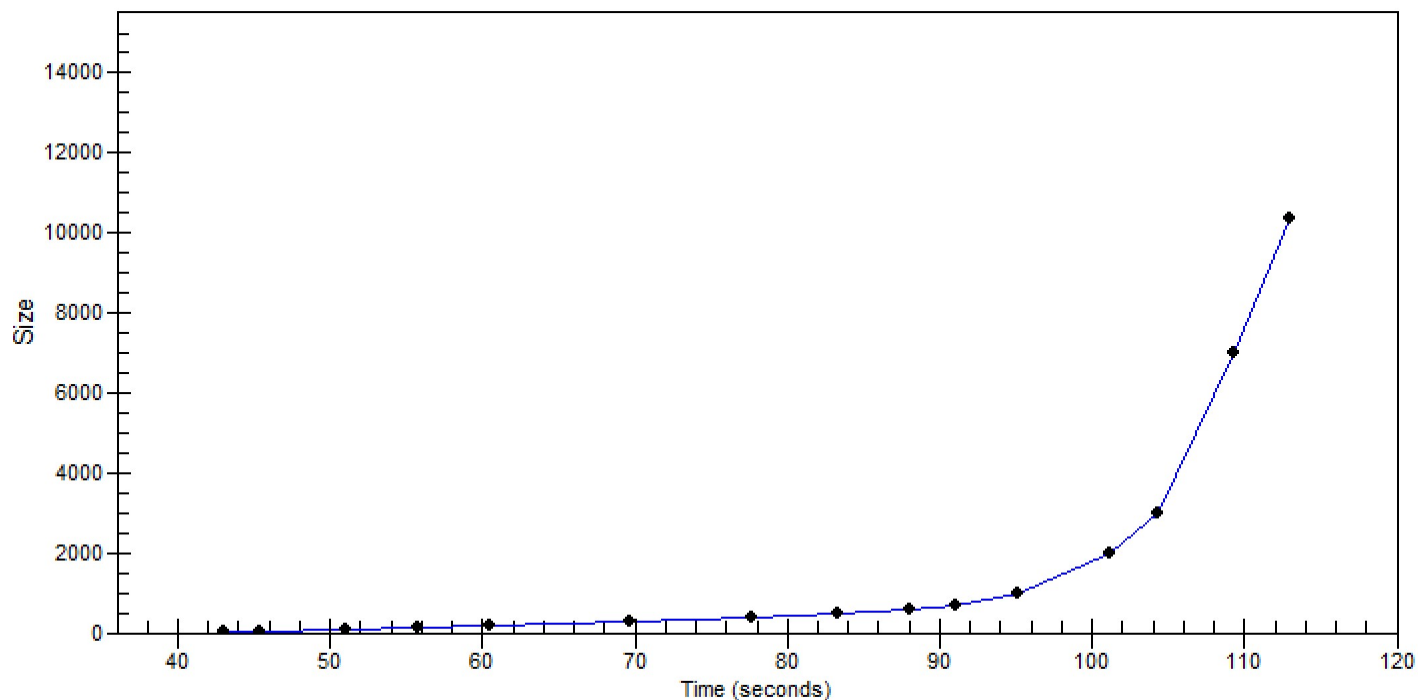


Assay Class: High Sensitivity DNA Assay  
Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-12-20\_001.xad

Created: 12/20/2019 4:15:15 PM  
Modified: 12/20/2019 4:48:01 PM

**Curves**

**Standard Curve**



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Assay Class: High Sensitivity DNA Assay  
Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-12-20\_001.xad

Created: 12/20/2019 4:15:15 PM  
Modified: 12/20/2019 4:48:01 PM

**Invalid Samples**

Sample 9 has not been run, no results available.

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-12-20\_001.xad

Created: 12/20/2019 4:15:15 PM  
 Modified: 12/20/2019 4:48:01 PM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 9)		Instrument	Run		12/20/2019 4:47:59 PM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Run started on port 1 (File: Z:\XADs\2019-12-20\Bioanalyze r1_High Sensitivity DNA Assay_2019-12-20_001.xad)		Instrument	Run		12/20/2019 4:15:21 PM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Product Number : G2938C		Instrument	Run		12/20/2019 4:15:21 PM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Name :		Instrument	Run		12/20/2019 4:15:21 PM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Vendor : Agilent Technologies		Instrument	Run		12/20/2019 4:15:21 PM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Serial# : DE34903152		Instrument	Run		12/20/2019 4:15:21 PM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Firmware : C.01.069		Instrument	Run		12/20/2019 4:15:21 PM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Cartridge : Electrode		Instrument	Run		12/20/2019 4:15:21 PM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB