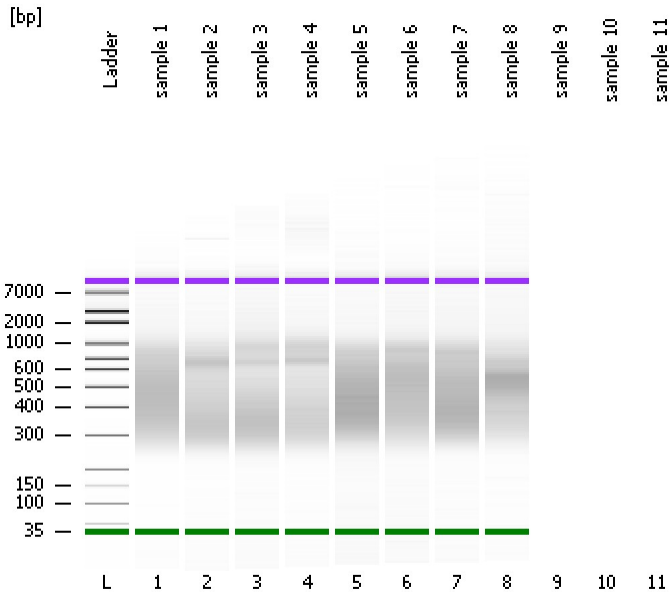


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad

Created: 6/21/2019 1:24:21 PM
Modified: 6/21/2019 1:57:05 PM

Electrophoresis File Run Summary



Instrument Information:

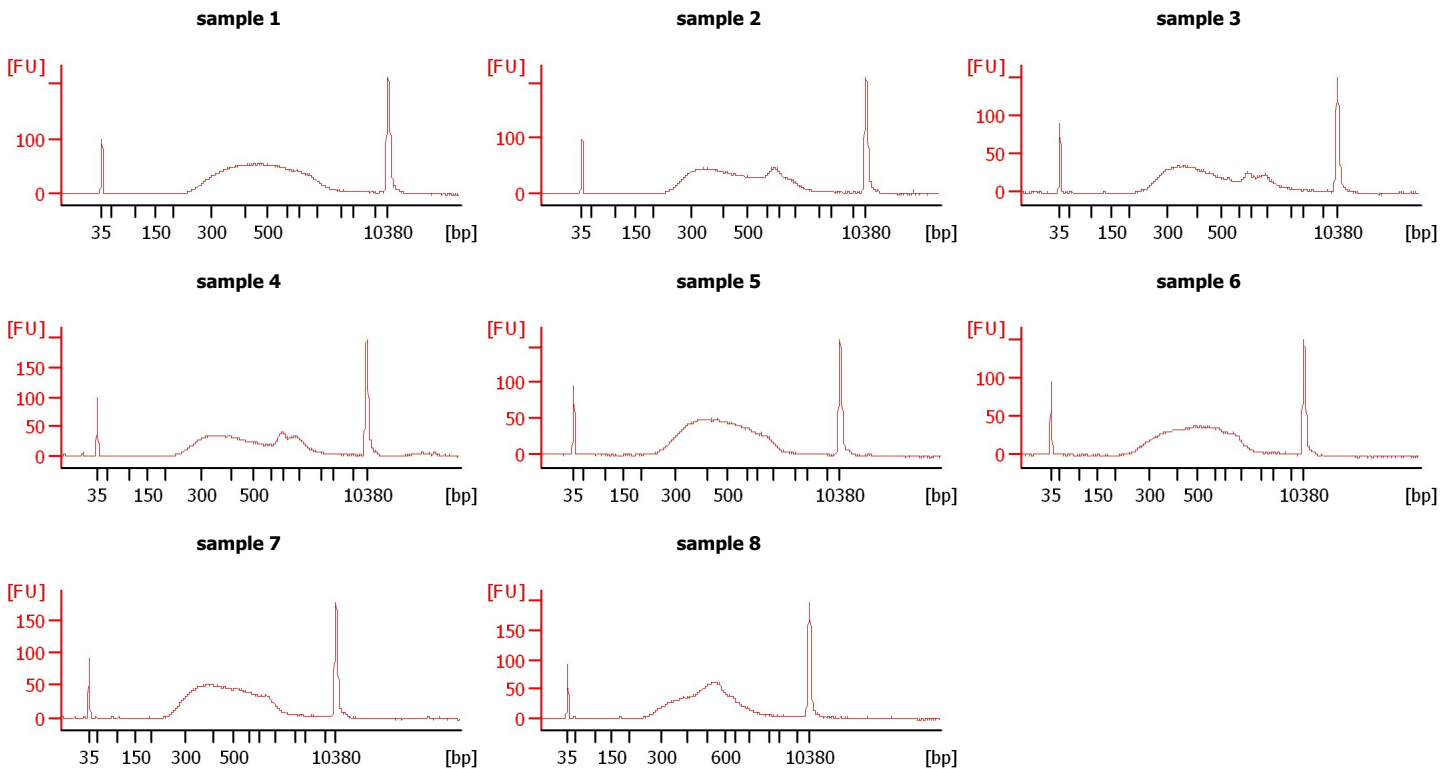
Instrument Name: DE34903152 Firmware: C.01.069
Serial#: DE34903152 Type: G2938C

Assay Information:

Assay Origin Path: C:\Program Files\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: C:\... bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad

Created: 6/21/2019 1:24:21 PM
 Modified: 6/21/2019 1:57:05 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: C:\... bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad

Created: 6/21/2019 1:24:21 PM
Modified: 6/21/2019 1:57:05 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

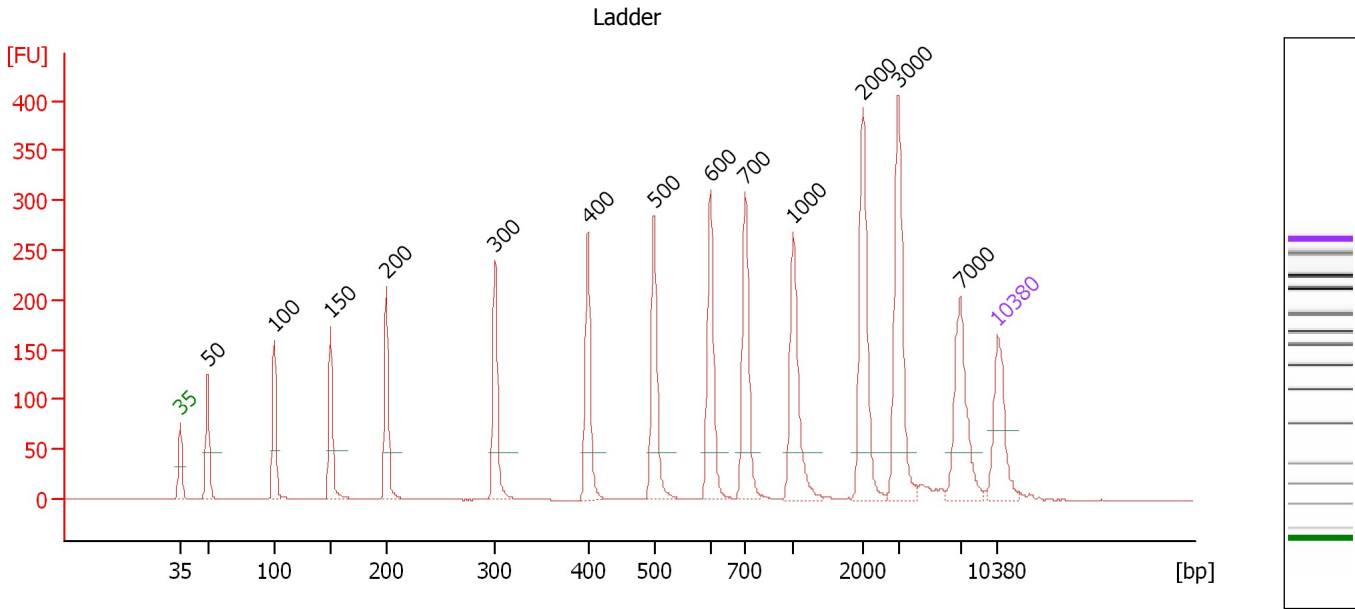
Ladder

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:\... bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad

Created: 6/21/2019 1:24:21 PM
 Modified: 6/21/2019 1:57:05 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

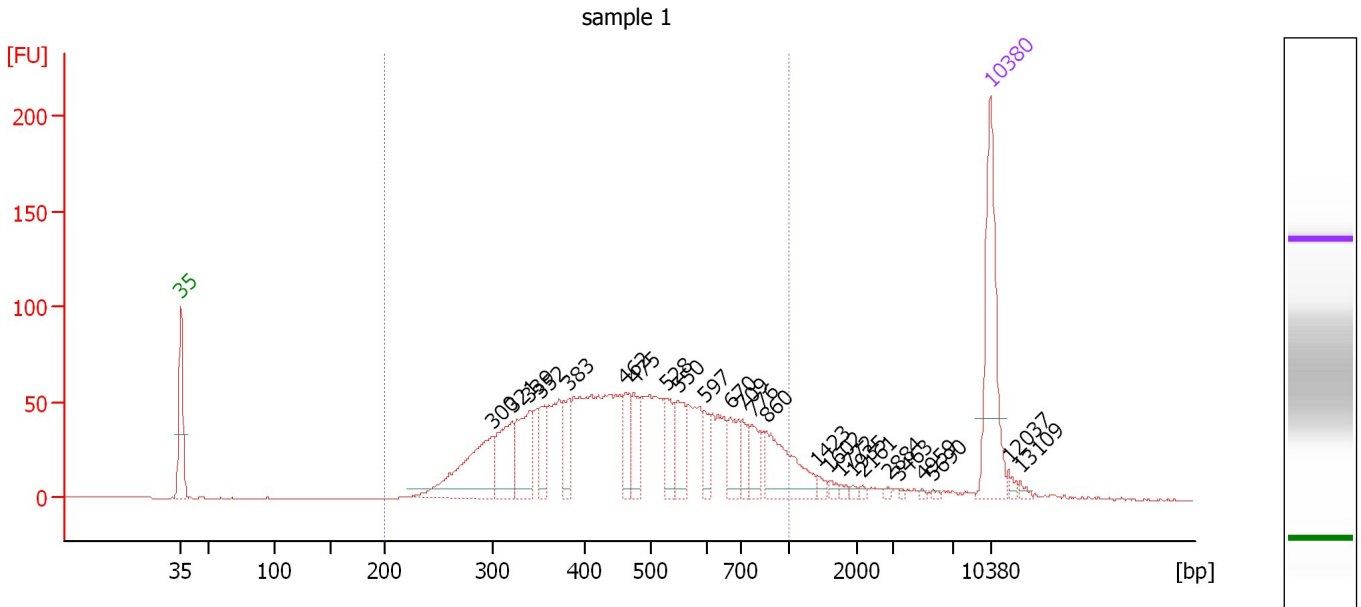
Peak table for Ladder

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	45.37
3	100	150.00	2,272.7	Ladder Peak	51.08
4	150	150.00	1,515.2	Ladder Peak	55.88
5	200	150.00	1,136.4	Ladder Peak	60.67
6	300	150.00	757.6	Ladder Peak	69.99
7	400	150.00	568.2	Ladder Peak	77.93
8	500	150.00	454.5	Ladder Peak	83.59
9	600	150.00	378.8	Ladder Peak	88.43
10	700	150.00	324.7	Ladder Peak	91.40
11	1,000	150.00	227.3	Ladder Peak	95.51
12	2,000	150.00	113.6	Ladder Peak	101.45
13	3,000	150.00	75.8	Ladder Peak	104.51
14	7,000	150.00	32.5	Ladder Peak	109.80
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad

Created: 6/21/2019 1:24:21 PM
 Modified: 6/21/2019 1:57:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 25 Corr. Area 1: 1,669.6
 Noise: 0.3

Peak table for sample 1 : sample 1

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	300	93.52	472.8		69.96
3	321	54.34	256.4		71.66
4	339	52.90	236.4		73.09
5	352	27.76	119.3		74.15
6	383	29.43	116.6		76.55
7	462	27.11	88.9		81.43
8	475	28.08	89.6		82.17
9	528	26.81	77.0		84.94
10	550	32.19	88.7		86.00
11	597	15.22	38.6		88.30
12	670	25.98	58.8		90.51
13	709	16.57	35.4		91.53
14	776	21.27	41.5		92.45
15	860	54.62	96.2		93.60
16	1,423	3.96	4.2		98.02
17	1,602	3.15	3.0		99.08
18	1,772	2.42	2.1		100.10
19	1,935	2.20	1.7		101.06
20	2,161	1.55	1.1		101.94
21	2,884	1.54	0.8		104.15
22	3,463	1.23	0.5		105.12
23	4,959	1.21	0.4		107.10
24	5,690	1.40	0.4		108.07
25	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad

Created: 6/21/2019 1:24:21 PM
Modified: 6/21/2019 1:57:05 PM

Electropherogram Summary Continued ...**... Peak table for sample 1 : sample 1**

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	12,037	0.00	0.0		114.57
27	13,109	0.00	0.0		115.58

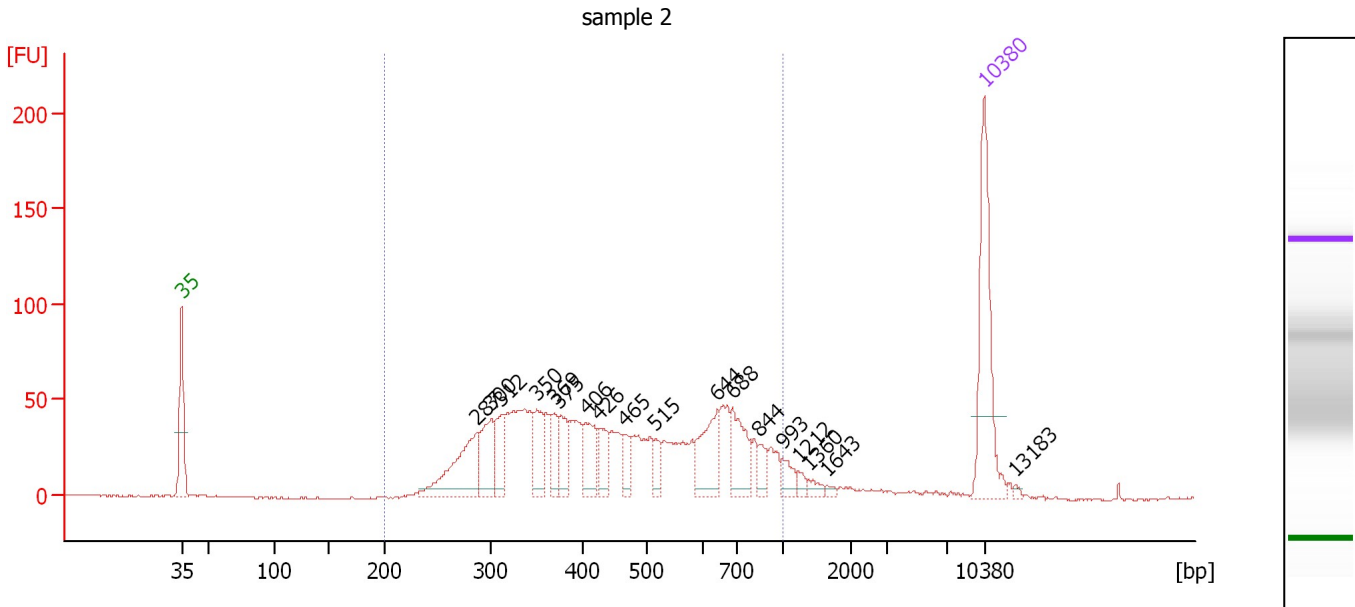
Region table for sample 1 : sample 1

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/ μ l]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	489	884.14	1,669.6	3,168.0	 91	33.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad

Created: 6/21/2019 1:24:21 PM
 Modified: 6/21/2019 1:57:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 18 Corr. Area 1: 1,344.8
 Noise: 0.5

Peak table for sample 2 : sample 2

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	287	78.93	416.8		68.77
3	300	45.23	228.1		70.02
4	312	30.42	147.9		70.91
5	350	33.00	142.8		73.98
6	369	22.87	93.9		75.47
7	375	27.44	110.9		75.93
8	406	30.95	115.6		78.26
9	426	21.75	77.3		79.42
10	465	13.24	43.2		81.60
11	515	14.14	41.6		84.30
12	644	45.79	107.7		89.74
13	688	37.76	83.2		91.05
14	844	12.28	22.1		93.37
15	993	11.52	17.6		95.42
16	1,212	4.68	5.8		96.77
17	1,360	5.54	6.2		97.65
18	1,643	2.66	2.5		99.33
19	10,380	75.00	10.9	Upper Marker	113.00
20	13,183	0.00	0.0		115.65

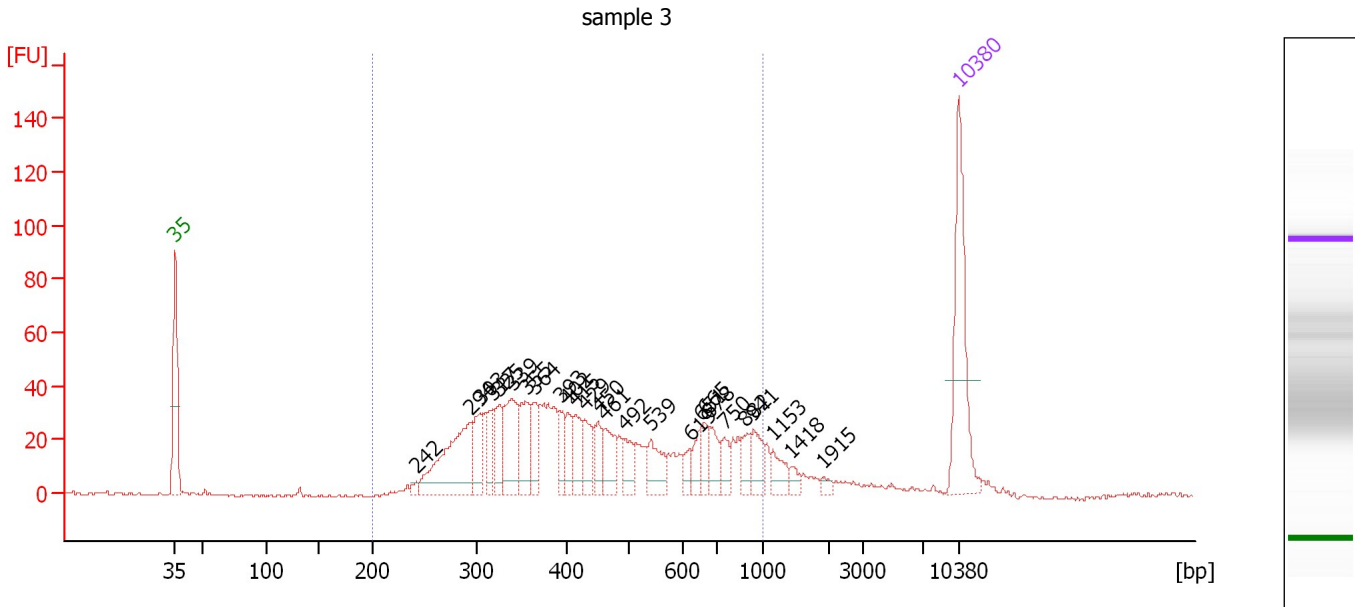
Region table for sample 2 : sample 2

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	478	723.46	1,344.8	2,713.1	94	36.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad

Created: 6/21/2019 1:24:21 PM
 Modified: 6/21/2019 1:57:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 26 Corr. Area 1: 948.4
 Noise: 0.6

Peak table for sample 3 : sample 3

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	242	4.19	26.3		64.54
3	294	102.85	530.6		69.40
4	303	31.75	158.9		70.21
5	317	23.85	113.9		71.35
6	325	28.27	131.8		71.97
7	339	55.44	248.0		73.07
8	355	36.42	155.4		74.35
9	364	26.66	111.0		75.07
10	393	19.74	76.1		77.36
11	402	18.79	70.7		78.07
12	415	24.85	90.7		78.79
13	429	24.01	84.7		79.60
14	450	18.02	60.6		80.79
15	461	27.71	91.2		81.36
16	492	16.99	52.4		83.12
17	539	25.62	72.0		85.51
18	619	10.40	25.5		88.98
19	651	14.55	33.9		89.94
20	665	14.97	34.1		90.37
21	678	19.30	43.1		90.75
22	750	13.57	27.4		92.08
23	882	13.11	22.5		93.89
24	941	19.00	30.6		94.70
25	1,153	13.81	18.1		96.42

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad

Created: 6/21/2019 1:24:21 PM
Modified: 6/21/2019 1:57:05 PM

Electropherogram Summary Continued ...**... Peak table for sample 3 : sample 3**

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	1,418	6.20	6.6		97.99
27	1,915	3.62	2.9		100.94
28	10,380	75.00	10.9	Upper Marker	113.00

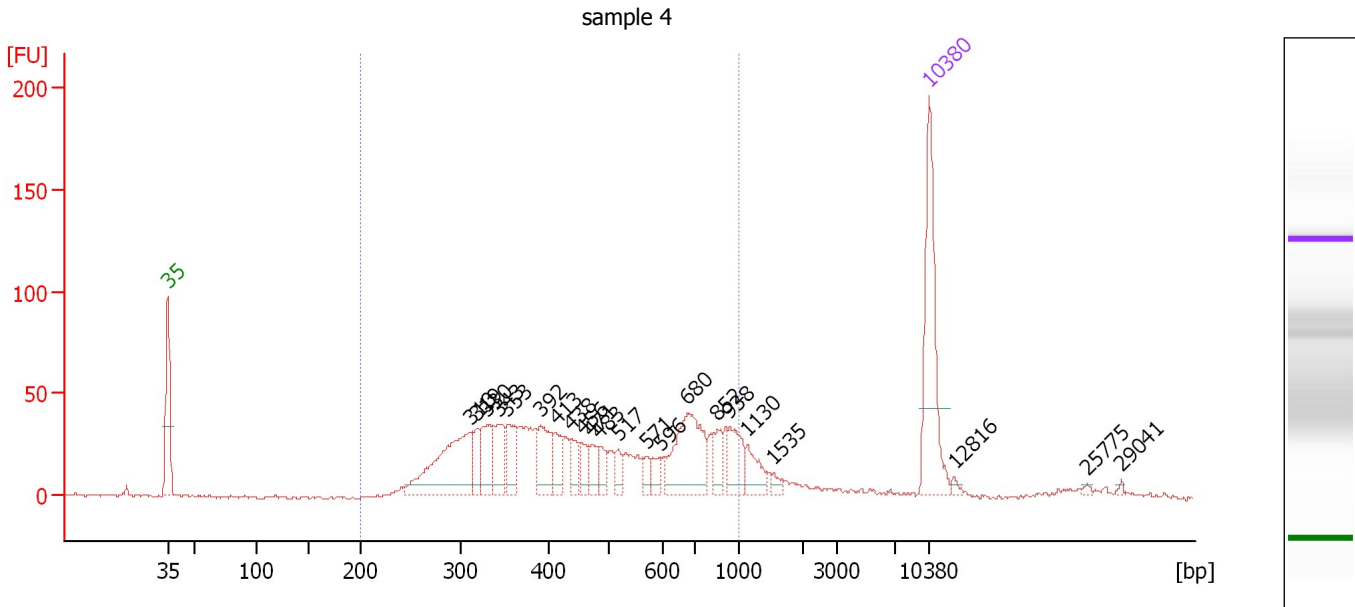
Region table for sample 3 : sample 3

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/ μ l]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	468	740.55	948.4	2,844.2	90	38.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad

Created: 6/21/2019 1:24:21 PM
 Modified: 6/21/2019 1:57:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 22 Corr. Area 1: 1,043.6
 Noise: 0.7

Peak table for sample 4 : sample 4

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	310	105.24	514.1		70.79
3	319	20.19	96.0		71.48
4	330	33.99	156.1		72.36
5	343	30.63	135.1		73.44
6	353	31.06	133.2		74.23
7	392	36.63	141.7		77.26
8	413	20.79	76.2		78.69
9	438	16.54	57.2		80.11
10	456	14.31	47.6		81.09
11	471	14.48	46.6		81.97
12	483	13.54	42.4		82.66
13	517	10.01	29.3		84.42
14	571	8.65	23.0		87.02
15	596	10.31	26.2		88.25
16	680	75.42	168.2		90.79
17	852	14.74	26.2		93.49
18	938	25.83	41.7		94.67
19	1,130	17.20	23.1		96.28
20	1,535	4.62	4.6		98.69
21	10,380	75.00	10.9	Upper Marker	113.00
22	12,816	0.00	0.0		115.30
23	25,775	0.00	0.0		127.56
24	29,041	0.00	0.0		130.65

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad

Created: 6/21/2019 1:24:21 PM
Modified: 6/21/2019 1:57:05 PM

Electropherogram Summary Continued ...

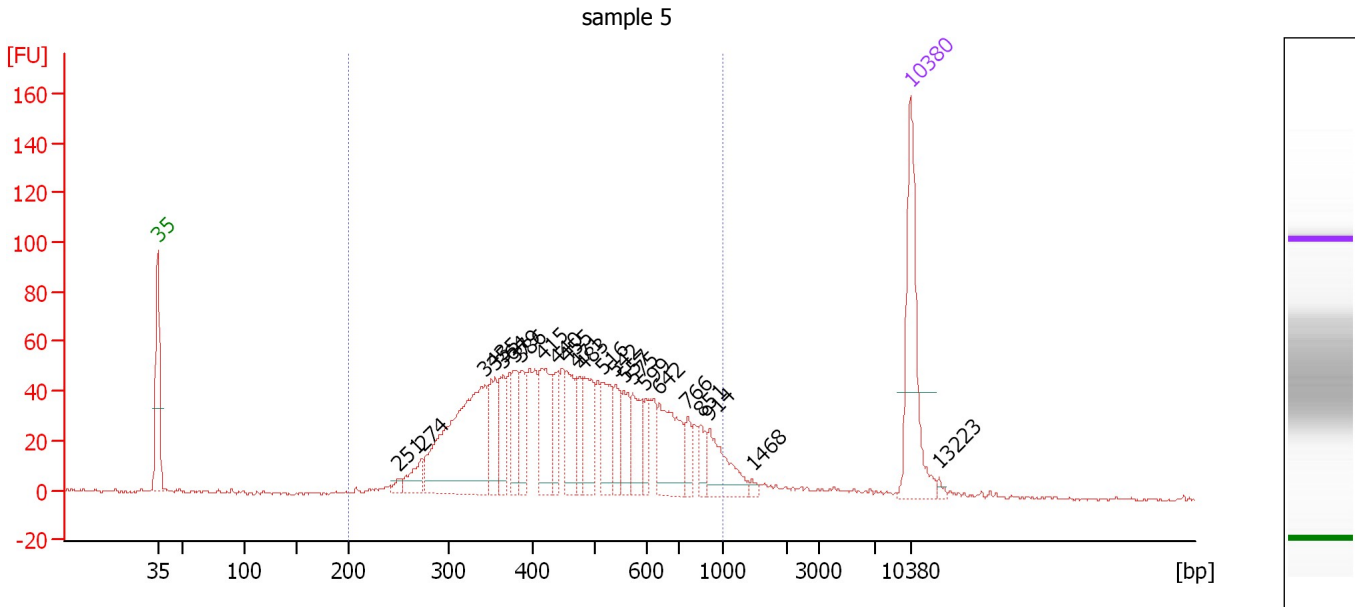
... Region table for sample 4 : sample 4

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/ μ l]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	497	613.84	1,043.6	2,255.0	 88	38.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad

Created: 6/21/2019 1:24:21 PM
 Modified: 6/21/2019 1:57:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 23 Corr. Area 1: 1,382.0
 Noise: 0.6

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	251	5.96	36.0		65.42
3	274	21.25	117.3		67.60
4	343	183.77	810.8		73.43
5	355	40.32	172.1		74.35
6	364	34.01	141.4		75.11
7	379	32.44	129.6		76.28
8	386	29.55	115.9		76.83
9	415	57.04	208.4		78.76
10	440	27.63	95.2		80.18
11	455	39.27	130.8		81.04
12	471	26.00	83.6		81.96
13	483	42.95	134.8		82.62
14	516	37.70	110.6		84.39
15	542	25.05	70.1		85.61
16	557	24.88	67.6		86.37
17	575	30.43	80.2		87.23
18	599	17.85	45.1		88.40
19	642	57.35	135.5		89.67
20	766	14.46	28.6		92.30
21	851	14.30	25.5		93.47
22	914	36.44	60.4		94.33
23	1,468	3.20	3.3		98.29
24	10,380	75.00	10.9	Upper Marker	113.00
25	13,223	0.00	0.0		115.69

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad

Created: 6/21/2019 1:24:21 PM
Modified: 6/21/2019 1:57:05 PM

Electropherogram Summary Continued ...

... Region table for sample 5 :

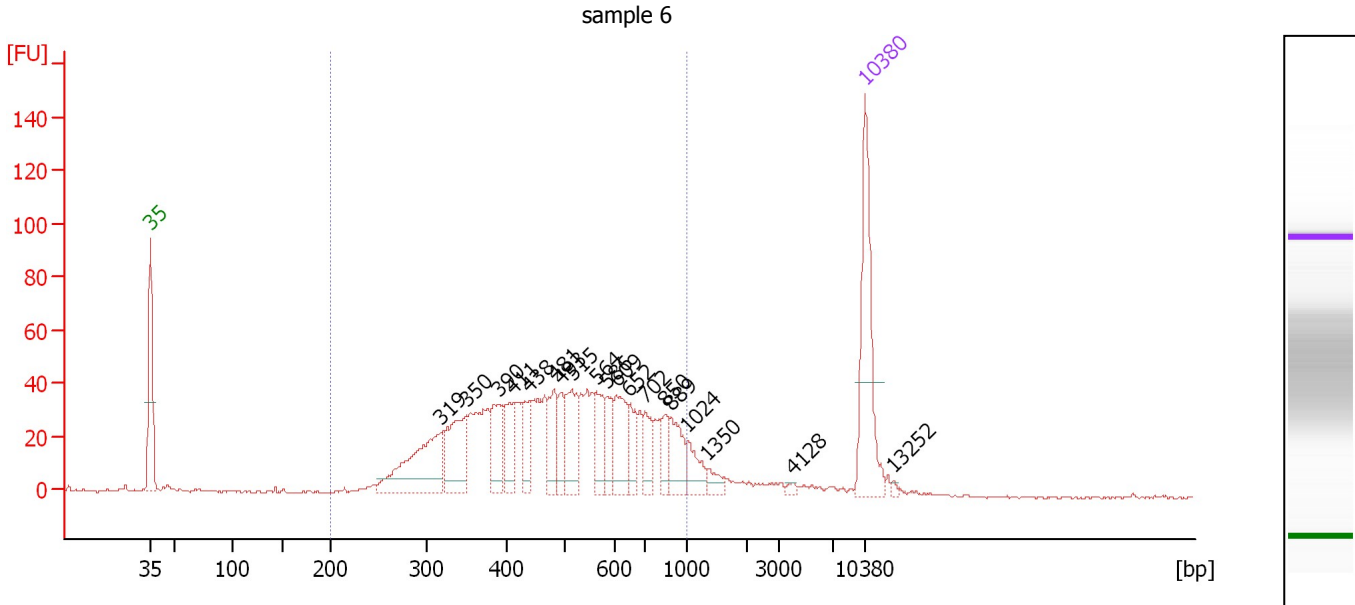
sample 5

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/ μ l]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	484	934.63	1,382.0	3,341.2	 95	32.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad

Created: 6/21/2019 1:24:21 PM
 Modified: 6/21/2019 1:57:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found: 19 Corr. Area 1: 1,076.0
 Noise: 0.5

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	319	98.94	470.4		71.47
3	350	62.41	270.0		73.98
4	390	39.85	154.7		77.16
5	411	36.46	134.3		78.57
6	438	26.50	91.7		80.09
7	481	32.88	103.5		82.54
8	493	22.31	68.6		83.17
9	515	44.03	129.5		84.32
10	564	32.54	87.5		86.67
11	586	21.84	56.4		87.77
12	609	38.08	94.7		88.71
13	652	21.57	50.2		89.96
14	702	21.01	45.4		91.43
15	850	17.00	30.3		93.46
16	889	29.49	50.3		93.99
17	1,024	18.18	26.9		95.66
18	1,350	8.43	9.5		97.59
19	4,128	2.53	0.9		106.00
20	10,380	75.00	10.9	Upper Marker	113.00
21	13,252	0.00	0.0		115.72

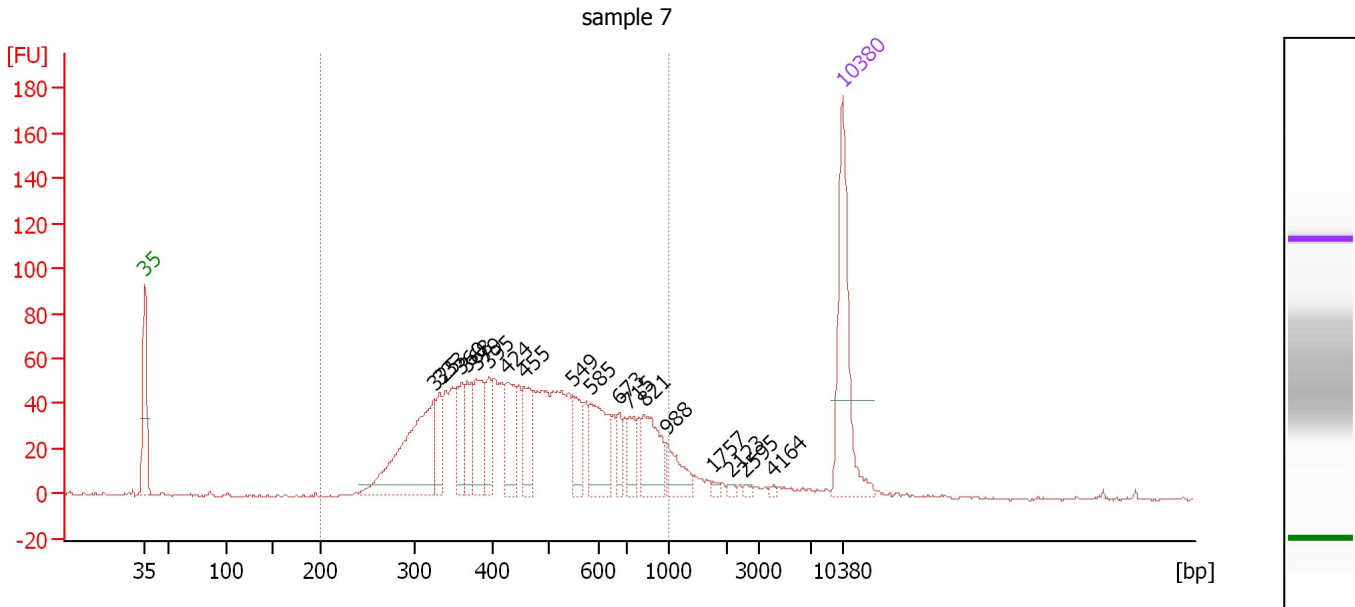
Region table for sample 6 : sample 6

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	509	778.33	1,076.0	2,686.1	90	33.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad

Created: 6/21/2019 1:24:21 PM
 Modified: 6/21/2019 1:57:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7

Number of peaks found: 18 Corr. Area 1: 1,481.6
 Noise: 0.5

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	325	131.66	613.5		71.98
3	333	25.81	117.6		72.57
4	360	35.02	147.3		74.76
5	368	31.05	128.0		75.35
6	379	45.25	180.9		76.26
7	395	26.08	100.0		77.55
8	424	43.22	154.3		79.31
9	455	37.08	123.6		81.02
10	549	30.07	83.1		85.94
11	585	51.05	132.2		87.71
12	673	14.44	32.5		90.59
13	715	19.43	41.2		91.61
14	821	42.27	78.1		93.05
15	988	21.16	32.4		95.35
16	1,757	2.34	2.0		100.01
17	2,123	2.03	1.4		101.82
18	2,595	2.11	1.2		103.27
19	4,164	1.51	0.6		106.05
20	10,380	75.00	10.9	Upper Marker	113.00

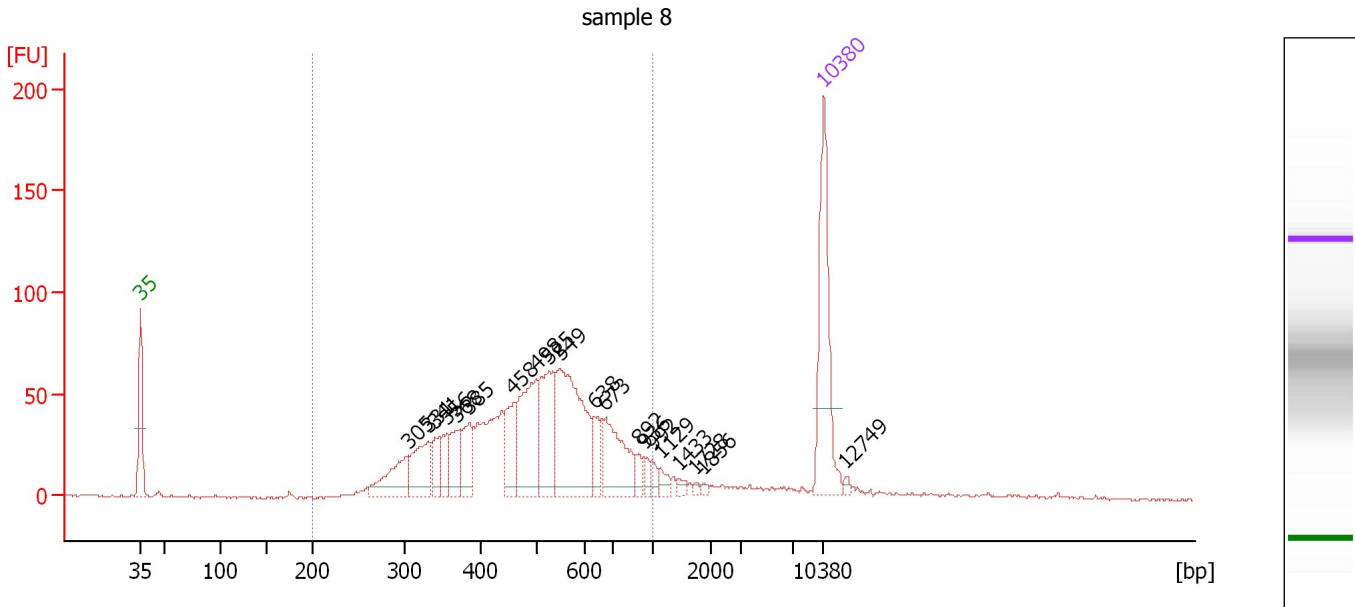
Region table for sample 7 : sample 7

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	488	831.65	1,481.6	2,972.5	90	33.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad

Created: 6/21/2019 1:24:21 PM
 Modified: 6/21/2019 1:57:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8

Number of peaks found: 20 Corr. Area 1: 1,253.8
 Noise: 0.6

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	305	44.05	218.9		70.38
3	331	44.38	203.1		72.45
4	341	18.75	83.4		73.22
5	356	20.32	86.5		74.42
6	368	29.04	119.7		75.35
7	385	30.02	118.2		76.72
8	458	35.72	118.3		81.20
9	498	78.65	239.2		83.49
10	525	65.47	188.9		84.80
11	549	119.94	331.2		85.95
12	638	20.12	47.8		89.56
13	673	56.56	127.4		90.60
14	892	7.18	12.2		94.04
15	936	6.37	10.3		94.64
16	992	5.31	8.1		95.40
17	1,129	6.33	8.5		96.28
18	1,433	3.64	3.8		98.08
19	1,728	1.84	1.6		99.83
20	1,856	1.96	1.6		100.60
21	10,380	75.00	10.9	Upper Marker	113.00
22	12,749	0.00	0.0		115.24


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad

Created: 6/21/2019 1:24:21 PM
Modified: 6/21/2019 1:57:05 PM

Electropherogram Summary Continued ...

... Region table for sample 8 :

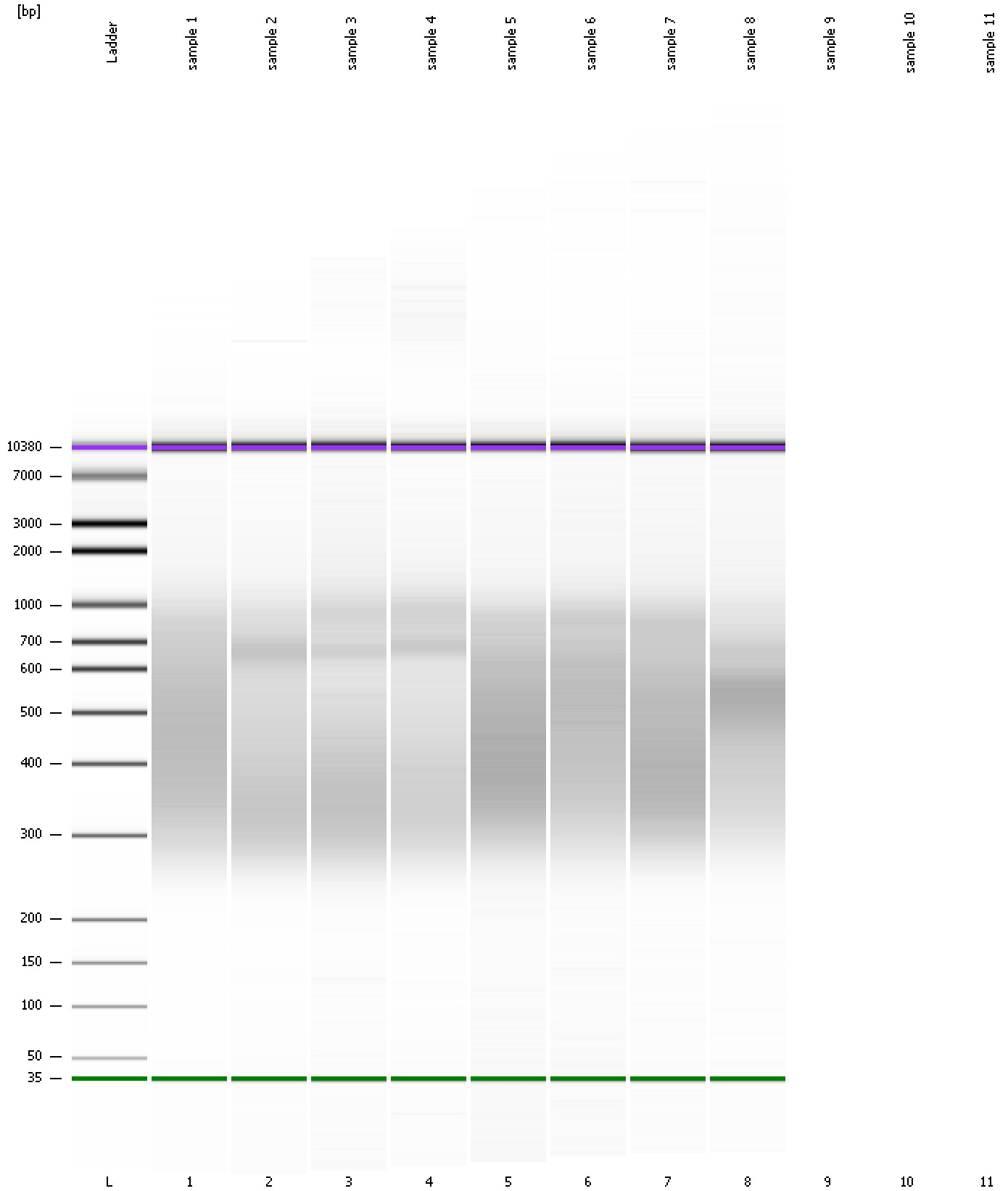
sample 8

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/ μ l]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	507	677.88	1,253.8	2,276.7	 89	29.4

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad

Created: 6/21/2019 1:24:21 PM
Modified: 6/21/2019 1:57:05 PM

Gel Image

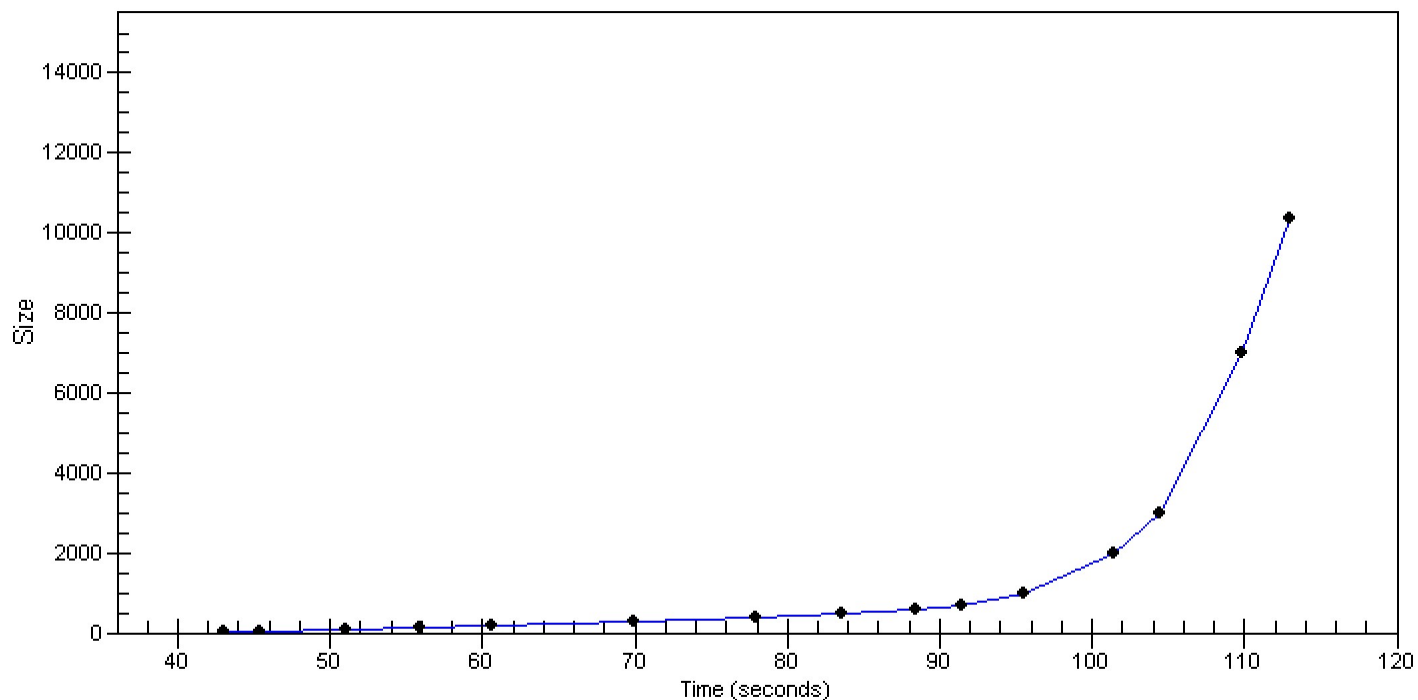


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad

Created: 6/21/2019 1:24:21 PM
Modified: 6/21/2019 1:57:05 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad

Created: 6/21/2019 1:24:21 PM
Modified: 6/21/2019 1:57:05 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: C:\... bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad

Created: 6/21/2019 1:24:21 PM
 Modified: 6/21/2019 1:57:05 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		6/21/2019 1:57:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2019-06-21\2019-06-21_001.xad)		Instrument	Run		6/21/2019 1:24:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		6/21/2019 1:24:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		6/21/2019 1:24:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		6/21/2019 1:24:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		6/21/2019 1:24:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		6/21/2019 1:24:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		6/21/2019 1:24:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1