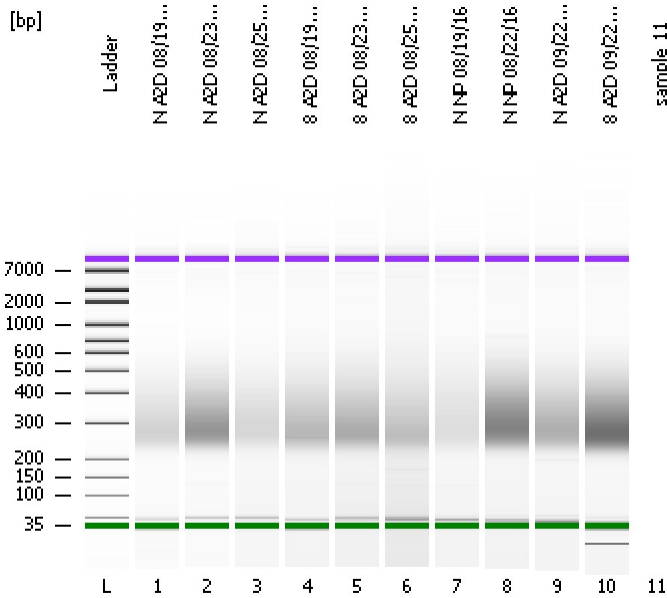


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-03\2016-10-03_002.xad

Created: 10/3/2016 12:51:45 PM
Modified: 10/3/2016 1:30:13 PM

Electrophoresis File Run Summary



Instrument Information:

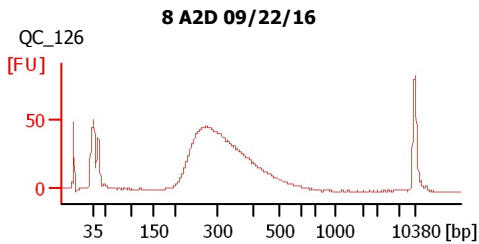
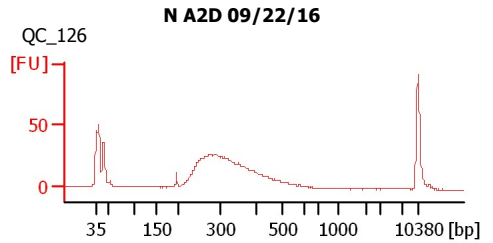
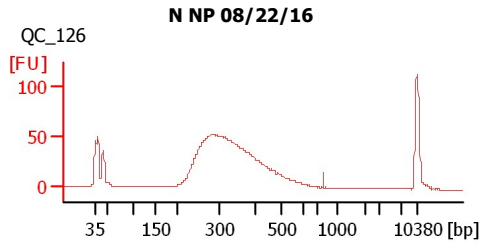
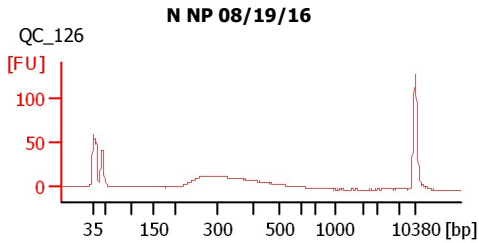
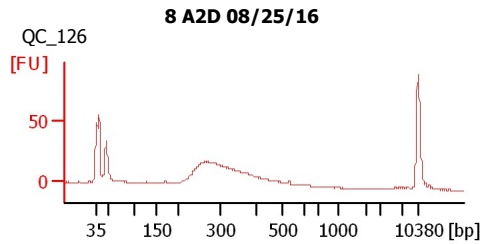
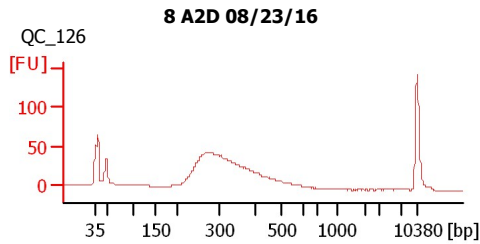
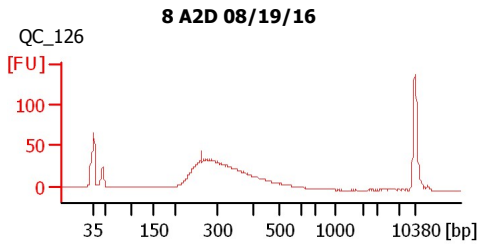
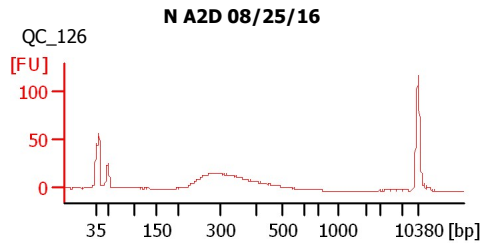
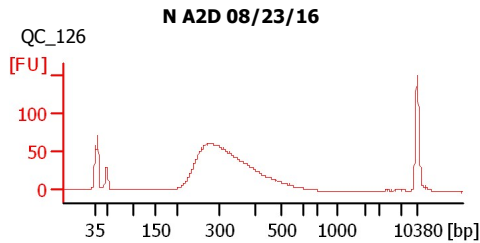
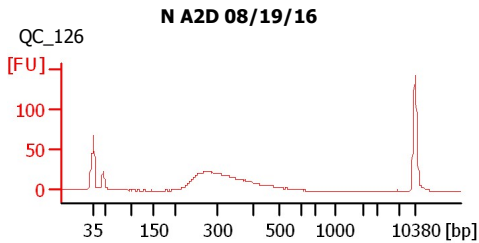
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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:



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-03\2016-10-03_002.xad

Created: 10/3/2016 12:51:45 PM
Modified: 10/3/2016 1:30:13 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
N A2D 08/19/16	QC_126	<input type="checkbox"/>	✓			
N A2D 08/23/16	QC_126	<input type="checkbox"/>	✓			
N A2D 08/25/16	QC_126	<input type="checkbox"/>	✓			
8 A2D 08/19/16	QC_126	<input type="checkbox"/>	✓			
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8 A2D 08/25/16	QC_126	<input type="checkbox"/>	✓			
N NP 08/19/16	QC_126	<input type="checkbox"/>	✓			
N NP 08/22/16	QC_126	<input type="checkbox"/>	✓			
N A2D 09/22/16	QC_126	<input type="checkbox"/>	✓			
8 A2D 09/22/16	QC_126	<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\2016-10-03\2016-10-03_002.xad

Created: 10/3/2016 12:51:45 PM
Modified: 10/3/2016 1:30:13 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

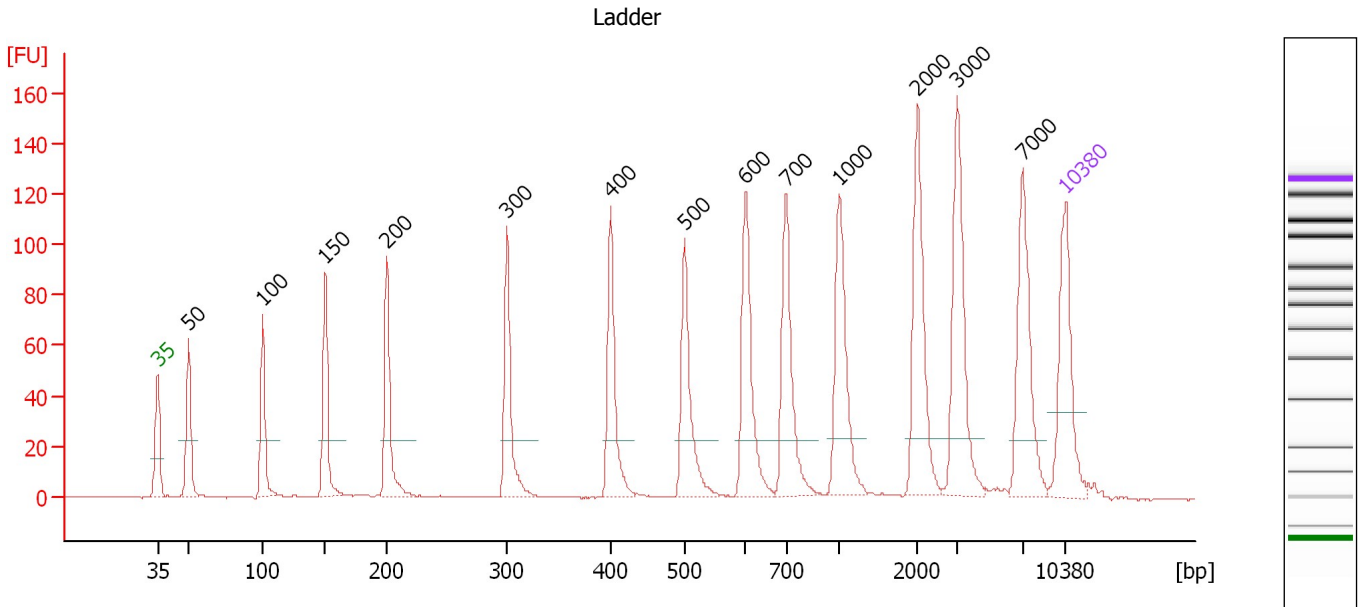
Ladder

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\2016-10-03\2016-10-03_002.xad

Created: 10/3/2016 12:51:45 PM
 Modified: 10/3/2016 1:30:13 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

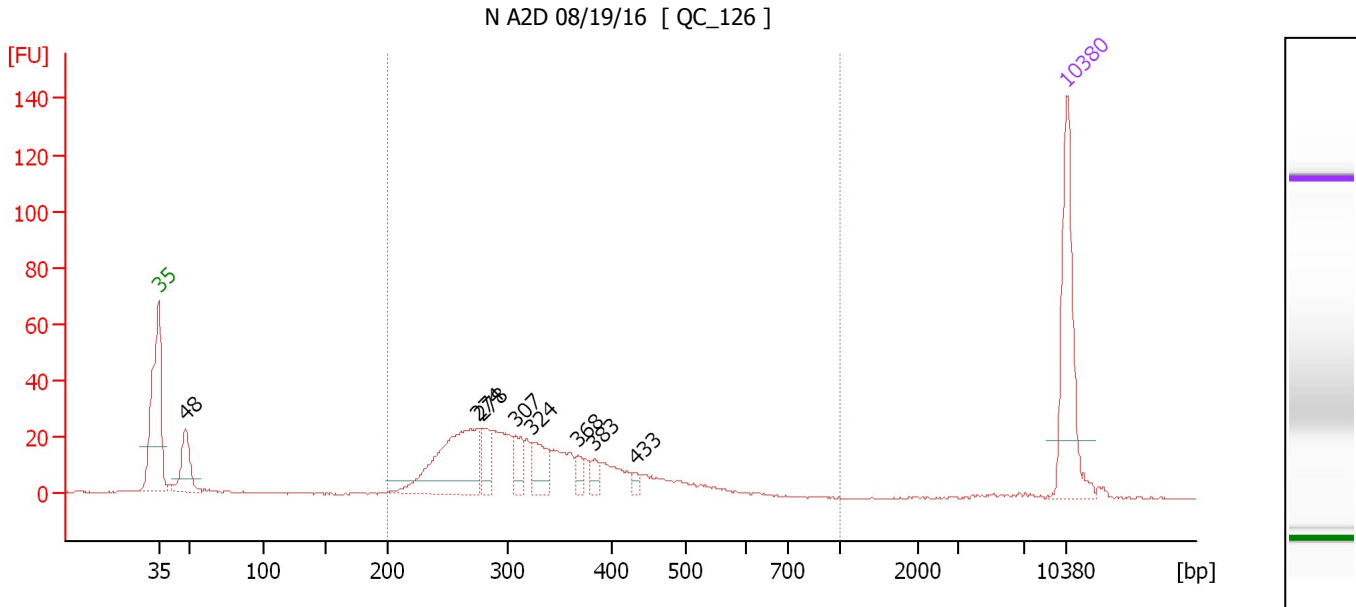
Peak table for Ladder

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	45.40
3	100	150.00	2,272.7	Ladder Peak	51.11
4	150	150.00	1,515.2	Ladder Peak	55.91
5	200	150.00	1,136.4	Ladder Peak	60.67
6	300	150.00	757.6	Ladder Peak	69.93
7	400	150.00	568.2	Ladder Peak	77.90
8	500	150.00	454.5	Ladder Peak	83.62
9	600	150.00	378.8	Ladder Peak	88.32
10	700	150.00	324.7	Ladder Peak	91.44
11	1,000	150.00	227.3	Ladder Peak	95.52
12	2,000	150.00	113.6	Ladder Peak	101.57
13	3,000	150.00	75.8	Ladder Peak	104.65
14	7,000	150.00	32.5	Ladder Peak	109.69
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-03\2016-10-03_002.xad

Created: 10/3/2016 12:51:45 PM
 Modified: 10/3/2016 1:30:13 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : N A2D 08/19/16

Number of peaks found: 8 Corr. Area 1: 464.1
 Noise: 0.2

Peak table for sample 1 : N A2D 08/19/16

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	48	49.31	1,556.8		45.08
3	274	124.05	685.1		67.56
4	278	25.71	140.1		67.90
5	307	22.11	109.1		70.51
6	324	32.30	151.2		71.81
7	368	9.74	40.1		75.34
8	383	9.80	38.7		76.55
9	433	5.00	17.5		79.79
10	10,380	75.00	10.9	Upper Marker	113.00

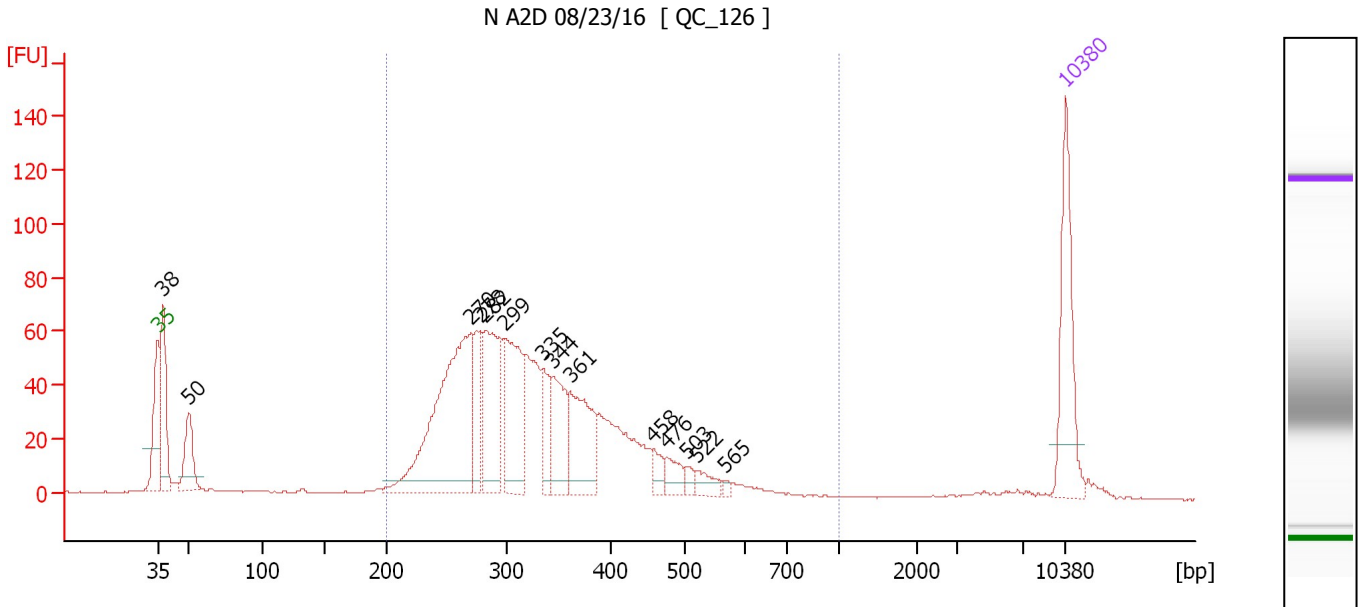
Region table for sample 1 : N A2D 08/19/16

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	335	464.1	2,067.9	424.00	85	25.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-03\2016-10-03_002.xad

Created: 10/3/2016 12:51:45 PM
 Modified: 10/3/2016 1:30:13 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : N A2D 08/23/16

Number of peaks found: 14 Corr. Area 1: 1,196.5
 Noise: 0.2

Peak table for sample 2 : N A2D 08/23/16

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	38	109.86	4,412.6		43.44
3	50	58.74	1,786.2		45.37
4	270	280.50	1,574.0		67.16
5	278	55.03	300.1		67.88
6	282	115.99	623.1		68.27
7	299	110.67	561.3		69.82
8	335	38.75	175.3		72.72
9	344	66.42	292.4		73.45
10	361	85.13	357.2		74.80
11	458	14.76	48.9		81.20
12	476	19.99	63.6		82.26
13	503	7.40	22.3		83.76
14	522	14.14	41.1		84.63
15	565	3.07	8.2		86.67
16	10,380	75.00	10.9	Upper Marker	113.00

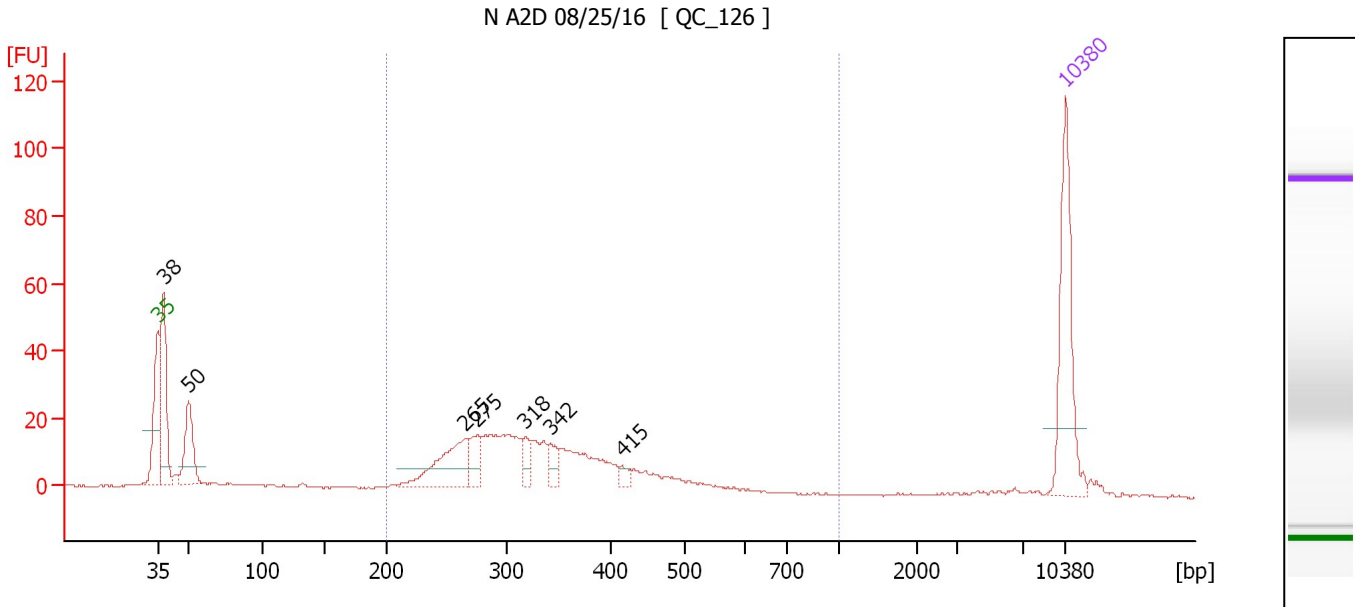
Region table for sample 2 : N A2D 08/23/16

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	336	1,196.5	5,328.4	1,096.33	85	25.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-03\2016-10-03_002.xad

Created: 10/3/2016 12:51:45 PM
 Modified: 10/3/2016 1:30:13 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : N A2D 08/25/16

Number of peaks found: 7 Corr. Area 1: 346.3
 Noise: 0.2

Peak table for sample 3 : N A2D 08/25/16

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	38	105.26	4,191.3		43.49
3	50	61.51	1,865.9		45.39
4	265	66.64	381.2		66.68
5	275	25.78	142.1		67.60
6	318	15.49	73.8		71.36
7	342	15.95	70.7		73.26
8	415	6.08	22.2		78.78
9	10,380	75.00	10.9	Upper Marker	113.00

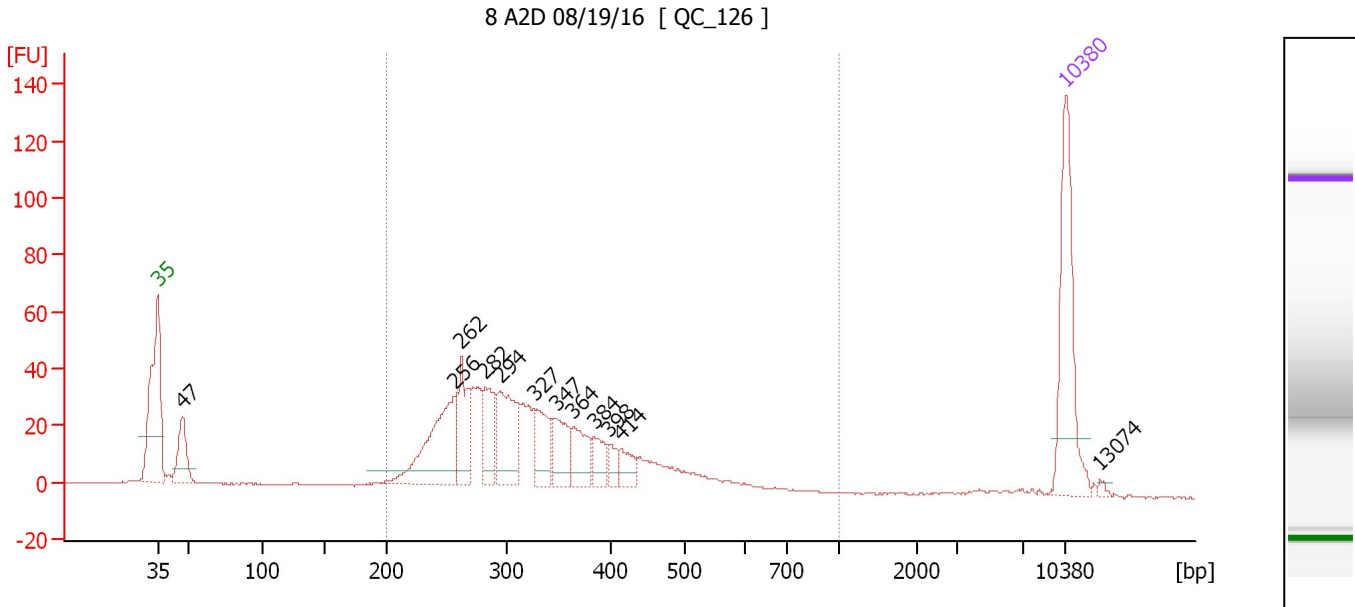
Region table for sample 3 : N A2D 08/25/16

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	342	346.3	1,851.5	387.38	66	26.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-03\2016-10-03_002.xad

Created: 10/3/2016 12:51:45 PM
 Modified: 10/3/2016 1:30:13 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 8 A2D 08/19/16

Number of peaks found: 12 Corr. Area 1: 697.0
 Noise: 0.2

Peak table for sample 4 : 8 A2D 08/19/16

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	47	45.37	1,467.8		44.89
3	256	107.31	634.8		65.87
4	262	46.55	269.1		66.42
5	282	41.53	223.2		68.26
6	294	68.60	353.2		69.41
7	327	40.50	188.0		72.05
8	347	36.51	159.4		73.69
9	364	30.66	127.6		75.04
10	384	20.12	79.4		76.63
11	398	10.52	40.0		77.78
12	414	15.72	57.5		78.72
13	10,380	75.00	10.9	Upper Marker	113.00
14	13,074	0.00	0.0		115.64

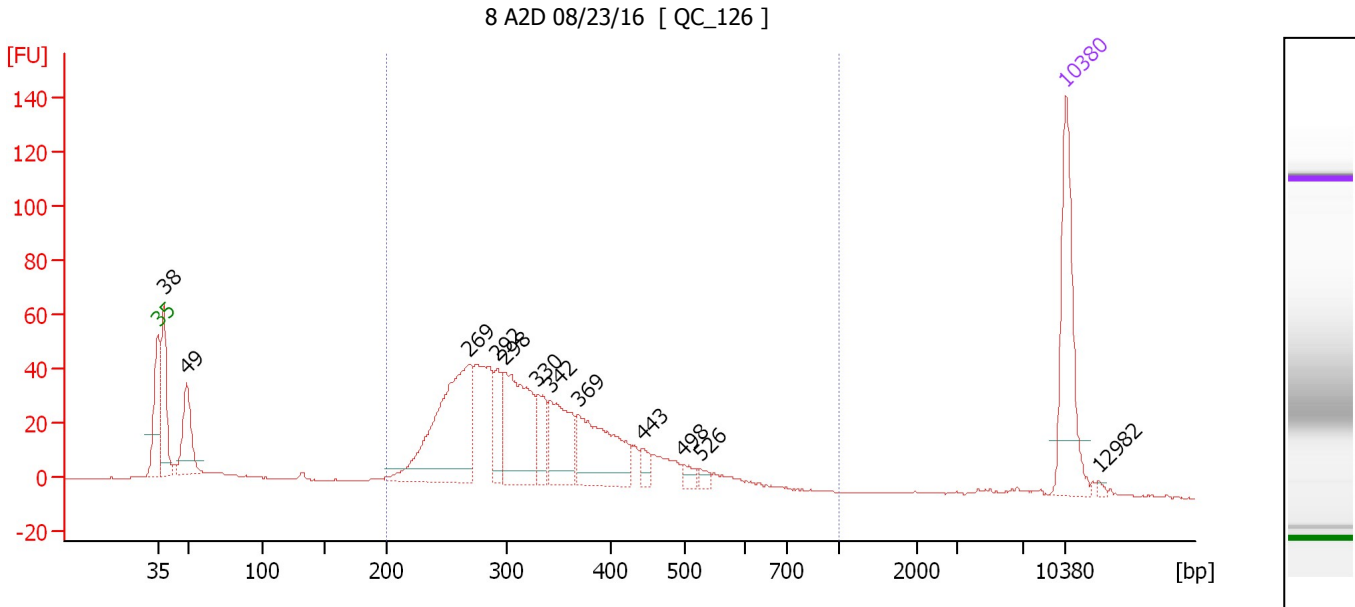
Region table for sample 4 : 8 A2D 08/19/16

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	335	697.0	2,915.3	595.39	89	26.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-03\2016-10-03_002.xad

Created: 10/3/2016 12:51:45 PM
 Modified: 10/3/2016 1:30:13 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 8 A2D 08/23/16

Number of peaks found: 12 Corr. Area 1: 866.7
 Noise: 0.2

Peak table for sample 5 : 8 A2D 08/23/16

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	38	92.71	3,684.4		43.50
3	49	68.98	2,130.5		45.25
4	269	195.50	1,101.7		67.05
5	292	35.45	184.3		69.15
6	298	122.44	622.5		69.75
7	330	31.09	142.9		72.30
8	342	69.49	308.2		73.25
9	369	95.50	392.6		75.40
10	443	11.12	38.0		80.35
11	498	8.50	25.9		83.50
12	526	5.50	15.8		84.85
13	10,380	75.00	10.9	Upper Marker	113.00
14	12,982	0.00	0.0		115.55

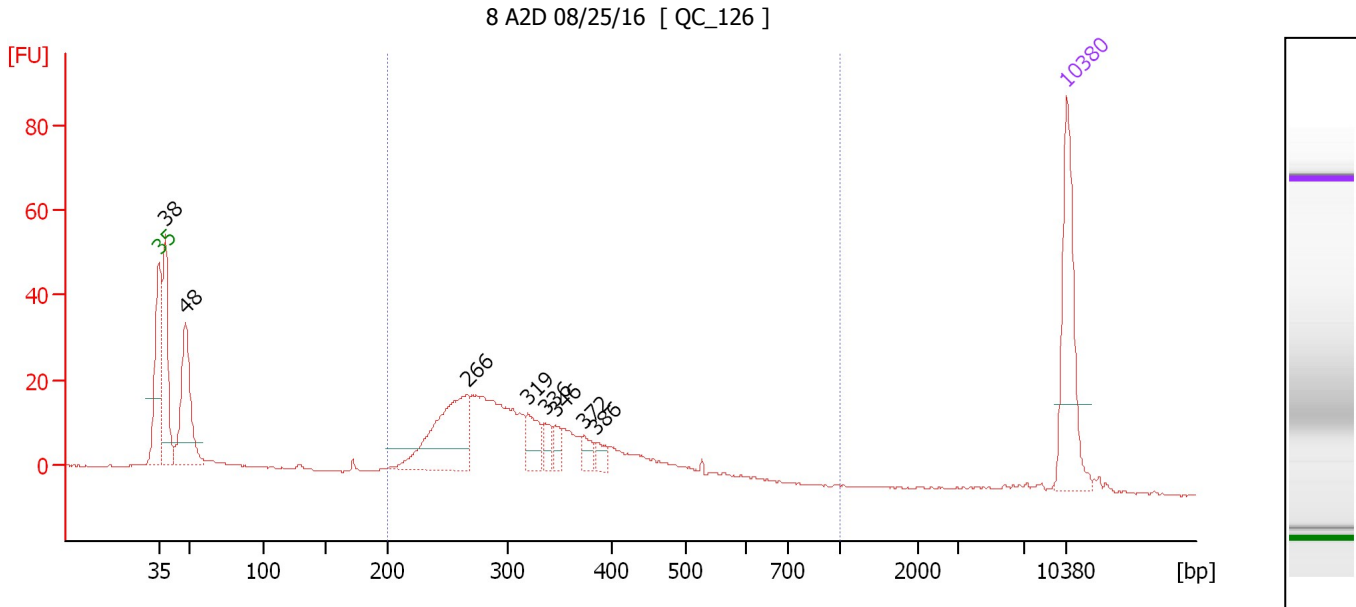
Region table for sample 5 : 8 A2D 08/23/16

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	336	866.7	3,660.2	752.02	78	26.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-03\2016-10-03_002.xad

Created: 10/3/2016 12:51:45 PM
 Modified: 10/3/2016 1:30:13 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 8 A2D 08/25/16

Number of peaks found: 8 Corr. Area 1: 355.3
 Noise: 0.1

Peak table for sample 6 : 8 A2D 08/25/16

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	38	123.48	4,903.7		43.50
3	48	117.34	3,709.3		45.07
4	266	124.42	707.6		66.82
5	319	30.32	143.9		71.46
6	336	14.58	65.7		72.83
7	346	12.65	55.4		73.58
8	372	13.46	54.8		75.70
9	386	9.93	39.0		76.76
10	10,380	75.00	10.9	Upper Marker	113.00

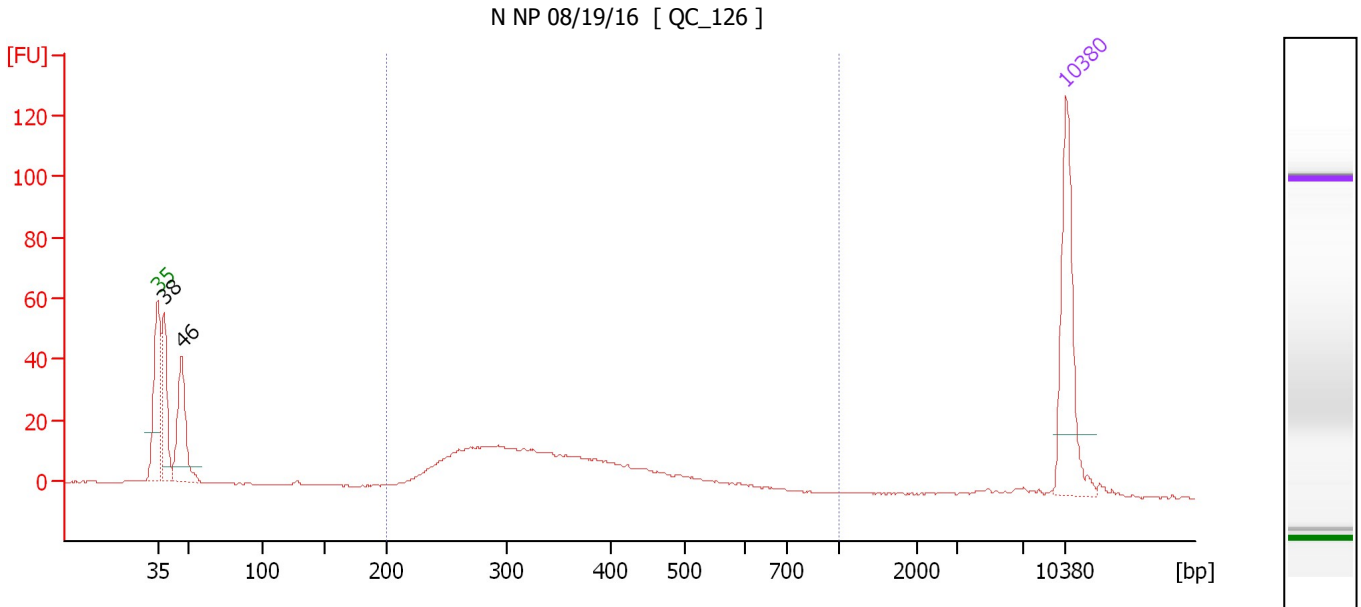
Region table for sample 6 : 8 A2D 08/25/16

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	330	355.3	2,470.6	498.66	67	26.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-03\2016-10-03_002.xad

Created: 10/3/2016 12:51:45 PM
 Modified: 10/3/2016 1:30:13 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : N NP 08/19/16

Number of peaks found: 2 Corr. Area 1: 303.8
 Noise: 0.1

Peak table for sample 7 : N NP 08/19/16

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	38	77.26	3,090.7		43.46
3	46	95.77	3,120.8		44.84
4	10,380	75.00	10.9	Upper Marker	113.00

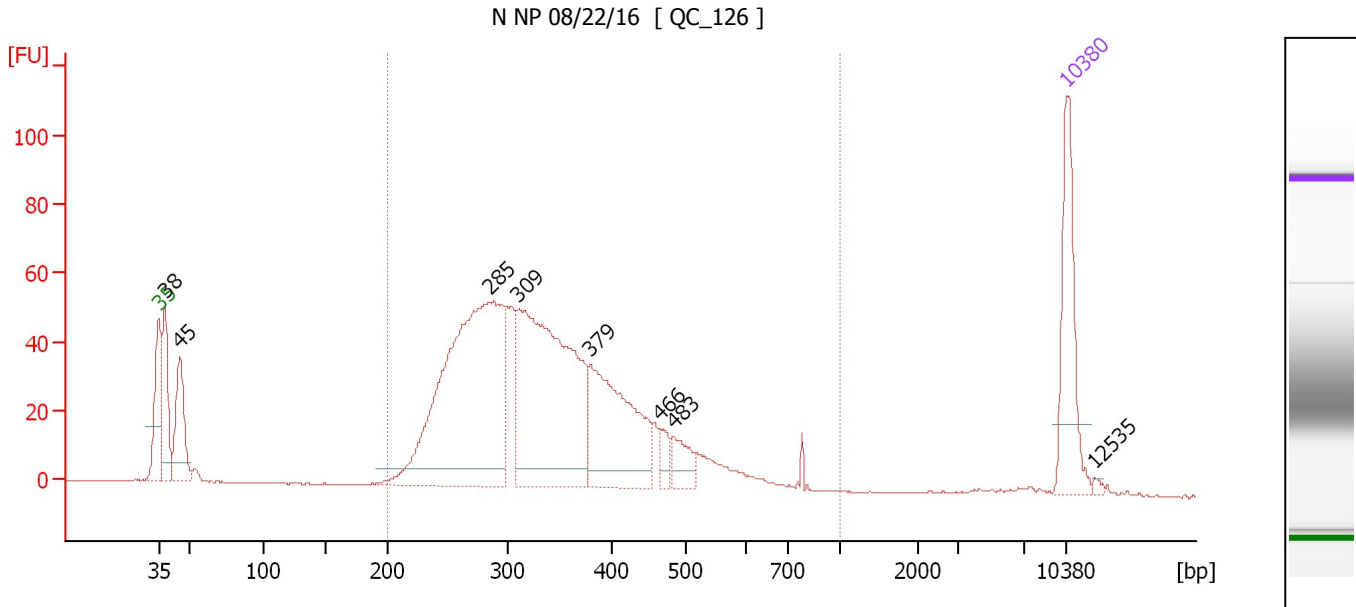
Region table for sample 7 : N NP 08/19/16

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	355	303.8	1,369.2	293.56	65	27.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-03\2016-10-03_002.xad

Created: 10/3/2016 12:51:45 PM
 Modified: 10/3/2016 1:30:13 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : N NP 08/22/16

Number of peaks found: 8 Corr. Area 1: 1,095.2
 Noise: 0.2

Peak table for sample 8 : N NP 08/22/16

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	38	88.86	3,552.8		43.46
3	45	85.86	2,871.8		44.65
4	285	452.29	2,404.2		68.55
5	309	358.50	1,757.2		70.66
6	379	170.31	681.0		76.22
7	466	15.46	50.3		81.68
8	483	27.13	85.0		82.66
9	10,380	75.00	10.9	Upper Marker	113.00
10	12,535	0.00	0.0		115.11

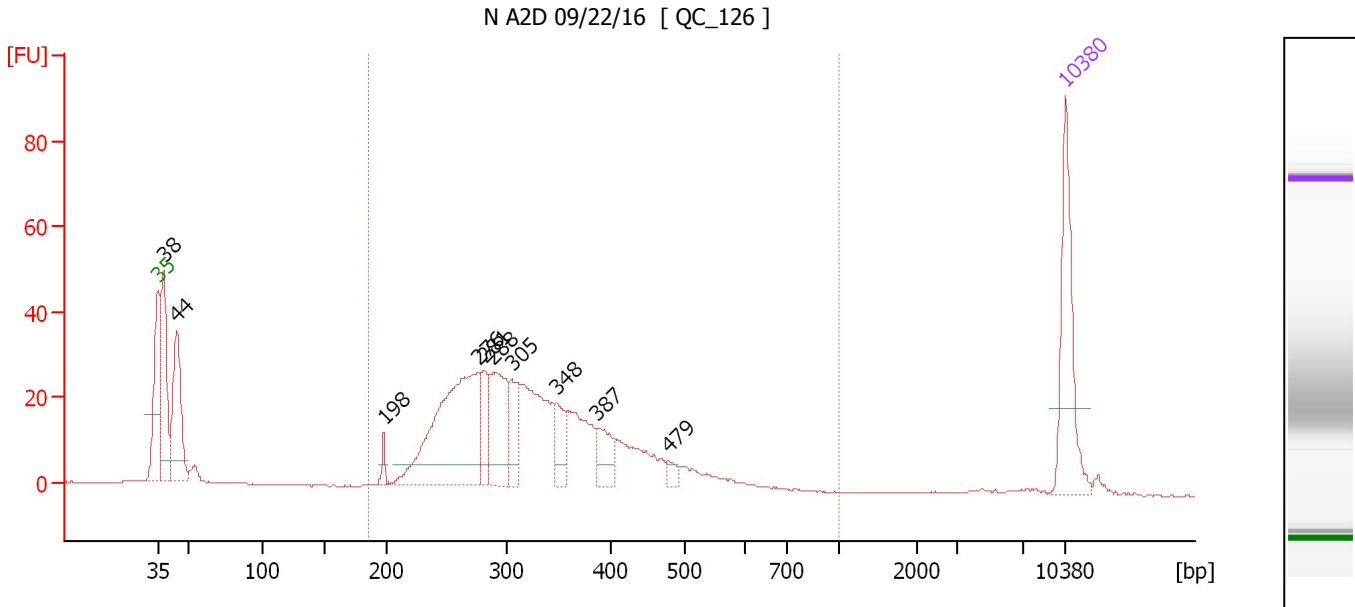
Region table for sample 8 : N NP 08/22/16

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	347	1,095.2	5,409.1	1,141.82	87	26.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-03\2016-10-03_002.xad

Created: 10/3/2016 12:51:45 PM
 Modified: 10/3/2016 1:30:13 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : N A2D 09/22/16

Number of peaks found: 10 Corr. Area 1: 533.8
 Noise: 0.1

Peak table for sample 9 : N A2D 09/22/16

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	38	124.01	4,956.2		43.47
3	44	116.10	3,964.1		44.50
4	198	9.20	70.6		60.44
5	276	236.19	1,298.2		67.68
6	281	40.68	219.6		68.14
7	288	86.61	454.9		68.87
8	305	38.12	189.5		70.32
9	348	33.55	146.0		73.78
10	387	30.46	119.2		76.89
11	479	8.64	27.3		82.42
12	10,380	75.00	10.9	Upper Marker	113.00

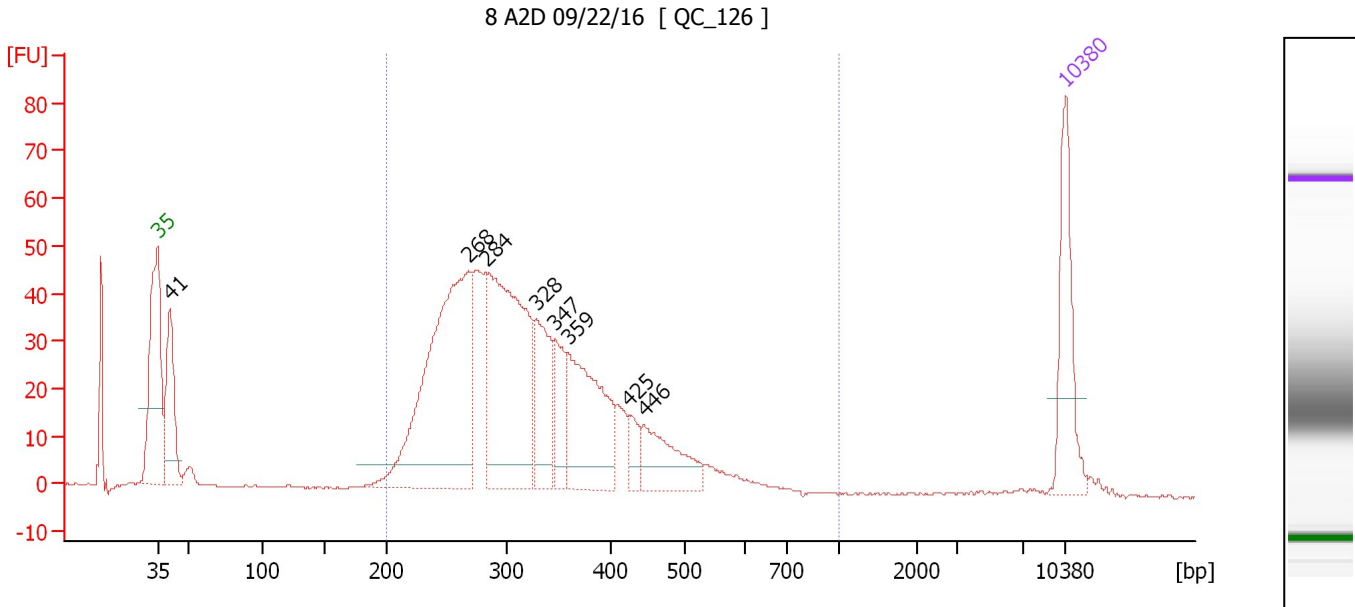
Region table for sample 9 : N A2D 09/22/16

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
185	1,000	336	533.8	3,956.4	809.64	78	26.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-03\2016-10-03_002.xad

Created: 10/3/2016 12:51:45 PM
 Modified: 10/3/2016 1:30:13 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 8 A2D 09/22/16

Number of peaks found: 8 Corr. Area 1: 870.4
 Noise: 0.1

Peak table for sample 10 : 8 A2D 09/22/16

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	41	119.64	4,434.6		43.94
3	268	401.19	2,267.4		66.98
4	284	318.63	1,700.6		68.44
5	328	93.49	432.1		72.15
6	347	53.67	234.5		73.66
7	359	162.23	684.2		74.66
8	425	22.90	81.5		79.36
9	446	73.00	248.2		80.51
10	10,380	75.00	10.9	Upper Marker	113.00

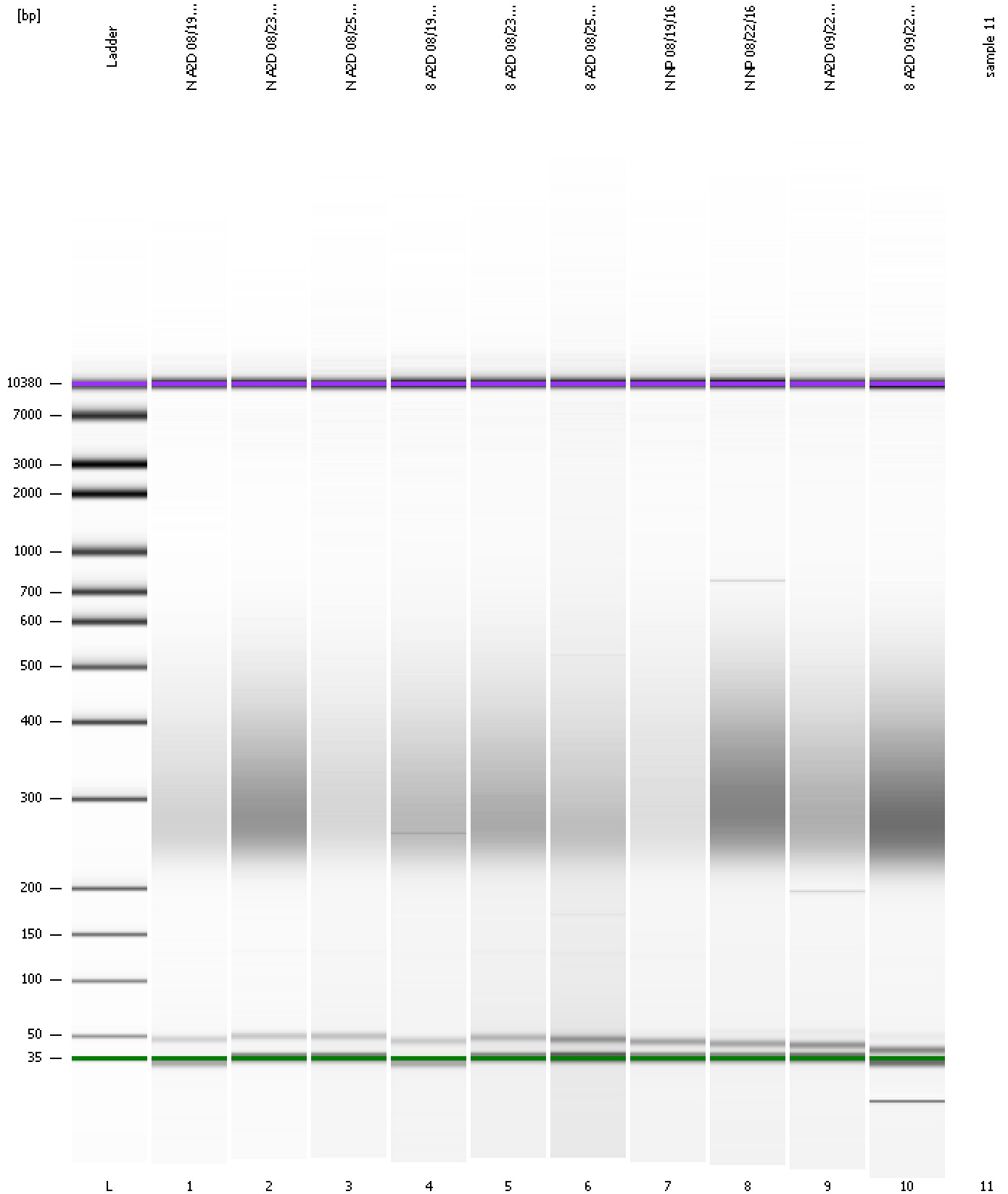
Region table for sample 10 : 8 A2D 09/22/16

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	328	870.4	6,501.4	1,308.67	89	25.5

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-03\2016-10-03_002.xad

Created: 10/3/2016 12:51:45 PM
Modified: 10/3/2016 1:30:13 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-03\2016-10-03_002.xad

Created: 10/3/2016 12:51:45 PM
Modified: 10/3/2016 1:30:13 PM

Invalid Samples

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-03\2016-10-03_002.xad

Created: 10/3/2016 12:51:45 PM
 Modified: 10/3/2016 1:30:13 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 11)		Instrument	Run		10/3/2016 1:30:10 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\2016-10-03\2016-10-03_002.xad)		Instrument	Run		10/3/2016 12:51:51 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		10/3/2016 12:51:51 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		10/3/2016 12:51:51 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		10/3/2016 12:51:51 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		10/3/2016 12:51:51 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		10/3/2016 12:51:51 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		10/3/2016 12:51:51 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1