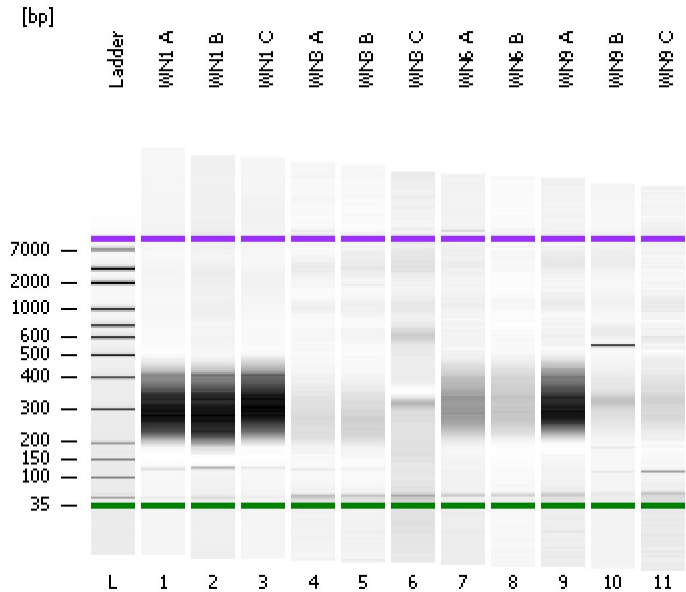


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-10\2016-05-10\_002.xad

Created: 5/10/2016 3:21:46 PM  
Modified: 5/10/2016 5:11:15 PM

### Electrophoresis File Run Summary



#### Instrument Information:

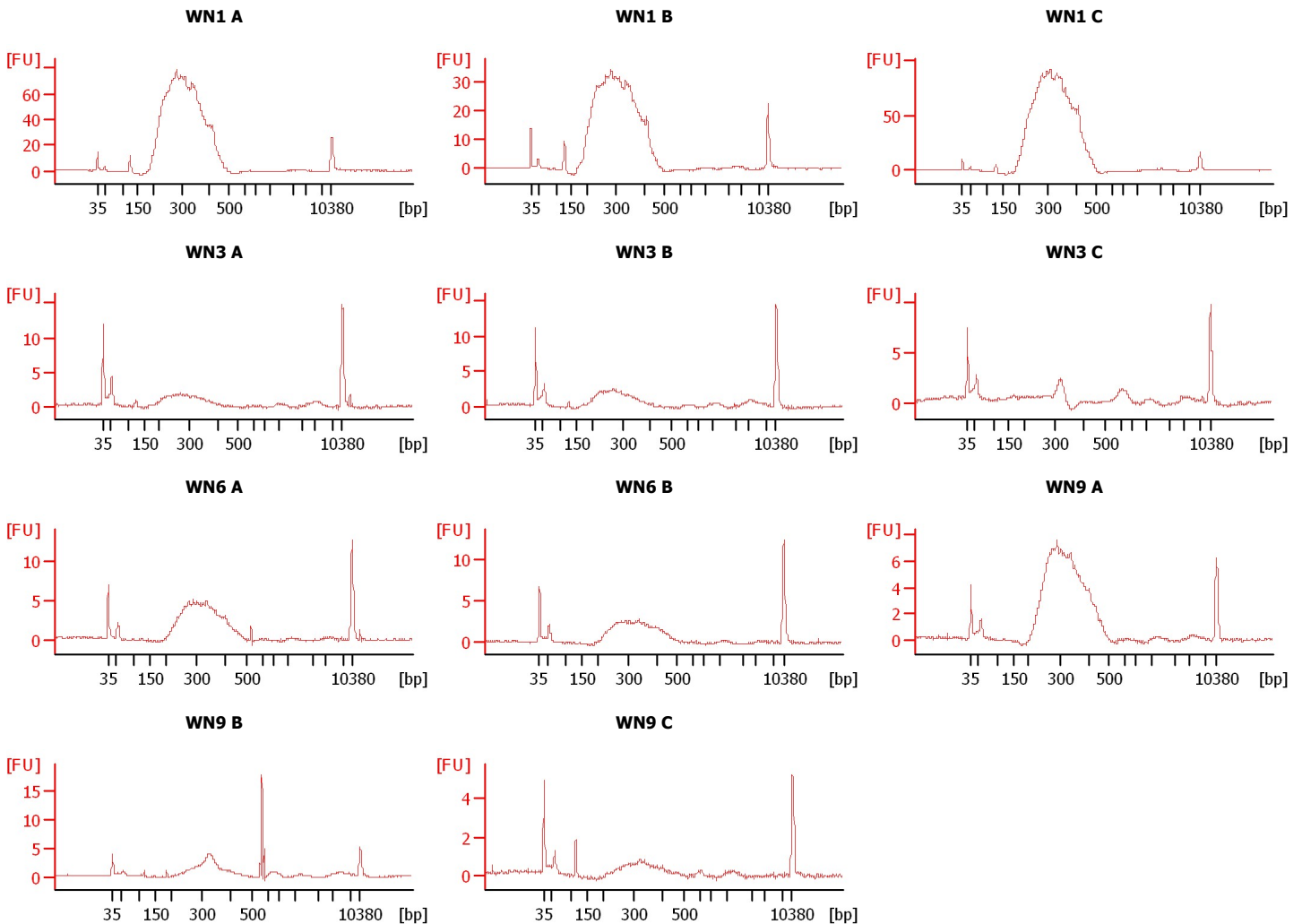
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

#### 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\2016-05-10\2016-05-10\_002.xad

Created: 5/10/2016 3:21:46 PM  
 Modified: 5/10/2016 5:11:15 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
WN1 A		<input type="checkbox"/>	✓			
WN1 B		<input type="checkbox"/>	✓			
WN1 C		<input type="checkbox"/>	✓			
WN3 A		<input type="checkbox"/>	✓			
WN3 B		<input type="checkbox"/>	✓			
WN3 C		<input type="checkbox"/>	✓			
WN6 A		<input type="checkbox"/>	✓			
WN6 B		<input type="checkbox"/>	✓			
WN9 A		<input type="checkbox"/>	✓			
WN9 B		<input type="checkbox"/>	✓			
WN9 C		<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\2016-05-10\2016-05-10\_002.xad

Created: 5/10/2016 3:21:46 PM  
Modified: 5/10/2016 5:11:15 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

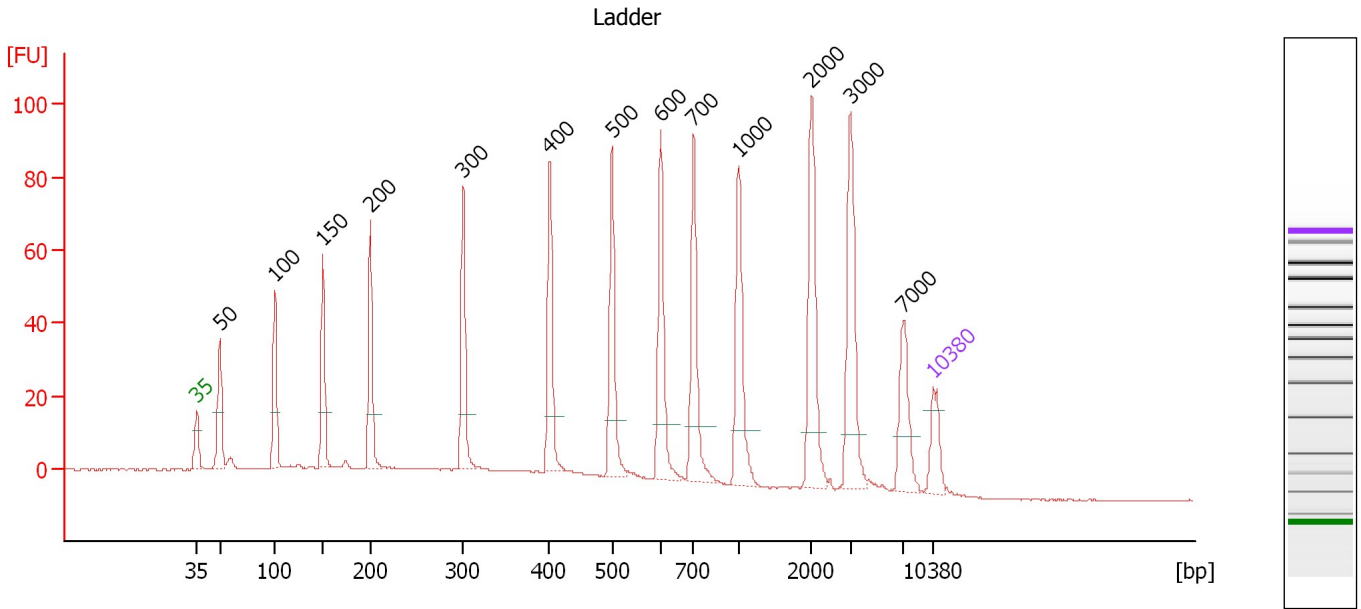
**Ladder**

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\2016-05-10\2016-05-10\_002.xad

Created: 5/10/2016 3:21:46 PM  
 Modified: 5/10/2016 5:11:15 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

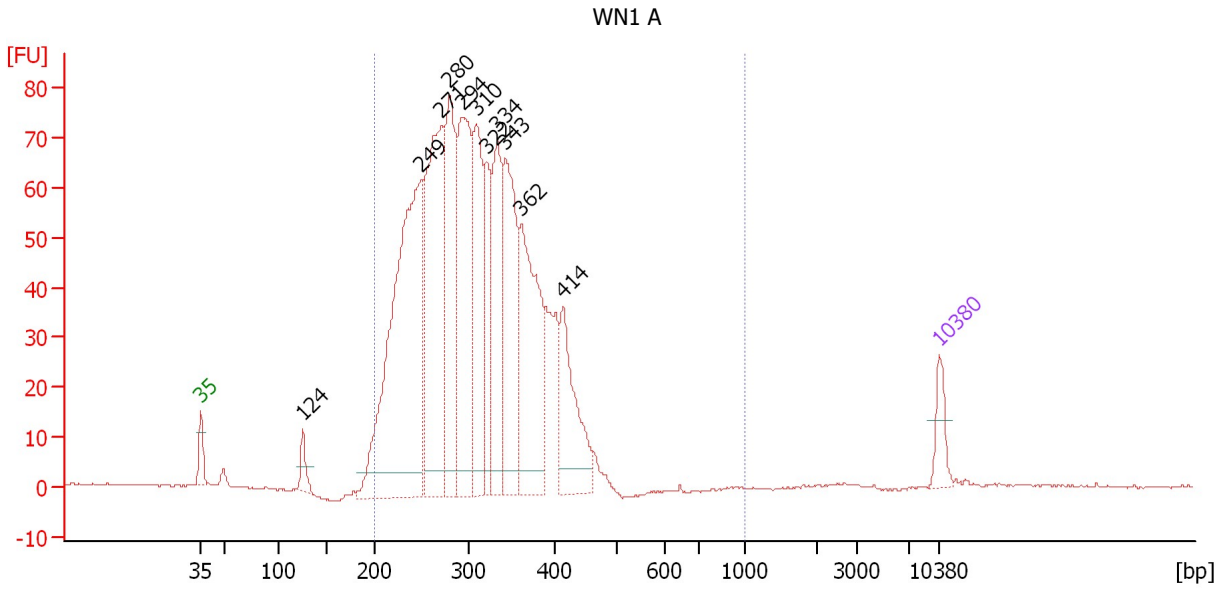
**Peak table for Ladder**

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	45.23
3	100	150.00	2,272.7	Ladder Peak	50.45
4	150	150.00	1,515.2	Ladder Peak	55.01
5	200	150.00	1,136.4	Ladder Peak	59.52
6	300	150.00	757.6	Ladder Peak	68.34
7	400	150.00	568.2	Ladder Peak	76.56
8	500	150.00	454.5	Ladder Peak	82.49
9	600	150.00	378.8	Ladder Peak	87.10
10	700	150.00	324.7	Ladder Peak	90.24
11	1,000	150.00	227.3	Ladder Peak	94.55
12	2,000	150.00	113.6	Ladder Peak	101.44
13	3,000	150.00	75.8	Ladder Peak	105.19
14	7,000	150.00	32.5	Ladder Peak	110.21
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-10\2016-05-10\_002.xad

Created: 5/10/2016 3:21:46 PM  
 Modified: 5/10/2016 5:11:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : WN1 A**

Number of peaks found: 11                      Corr. Area 1: 1,441.7  
 Noise: 0.2

**Peak table for sample 1 : WN1 A**

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	124	84.25	1,027.7		52.66
3	249	1,685.01	10,233.2		63.89
4	271	1,097.61	6,130.4		65.81
5	280	659.97	3,572.8		66.57
6	294	819.54	4,220.4		67.83
7	310	573.95	2,807.0		69.15
8	322	327.28	1,539.4		70.16
9	334	469.61	2,131.4		71.12
10	343	632.42	2,793.1		71.88
11	362	711.58	2,982.1		73.40
12	414	385.51	1,410.5		77.39
13	10,380	75.00	10.9	Upper Marker	113.00

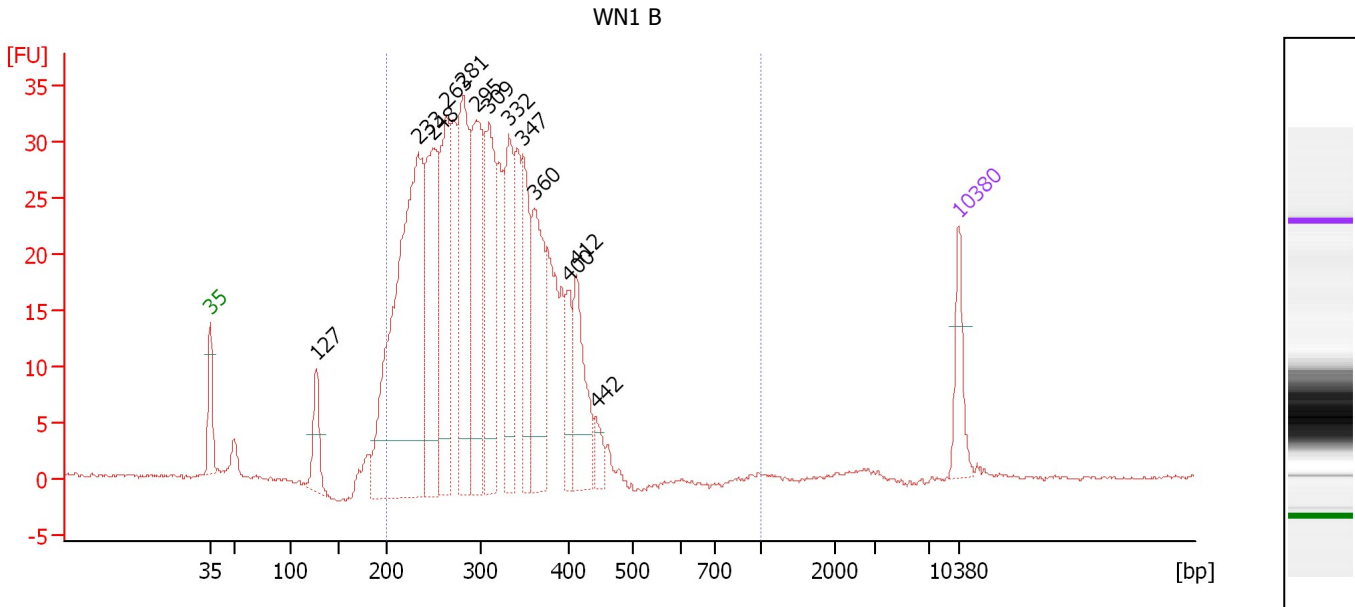
**Region table for sample 1 : WN1 A**

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	310	1,441.7	38,395.6	7,491.63	98	19.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-10\2016-05-10\_002.xad

Created: 5/10/2016 3:21:46 PM  
 Modified: 5/10/2016 5:11:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : WN1 B**

Number of peaks found: 13                      Corr. Area 1: 671.7  
 Noise: 0.1

**Peak table for sample 2 : WN1 B**

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	127	121.15	1,443.6		52.93
3	233	1,176.19	7,639.7		62.46
4	248	428.15	2,616.1		63.76
5	263	382.50	2,201.5		65.10
6	281	422.69	2,280.9		66.65
7	295	395.21	2,030.3		67.90
8	309	334.82	1,641.0		69.09
9	332	277.48	1,267.8		70.94
10	347	202.97	885.2		72.24
11	360	286.29	1,204.3		73.29
12	400	99.99	379.1		76.53
13	412	201.09	739.2		77.28
14	442	44.26	151.6		79.07
15	10,380	75.00	10.9	Upper Marker	113.00

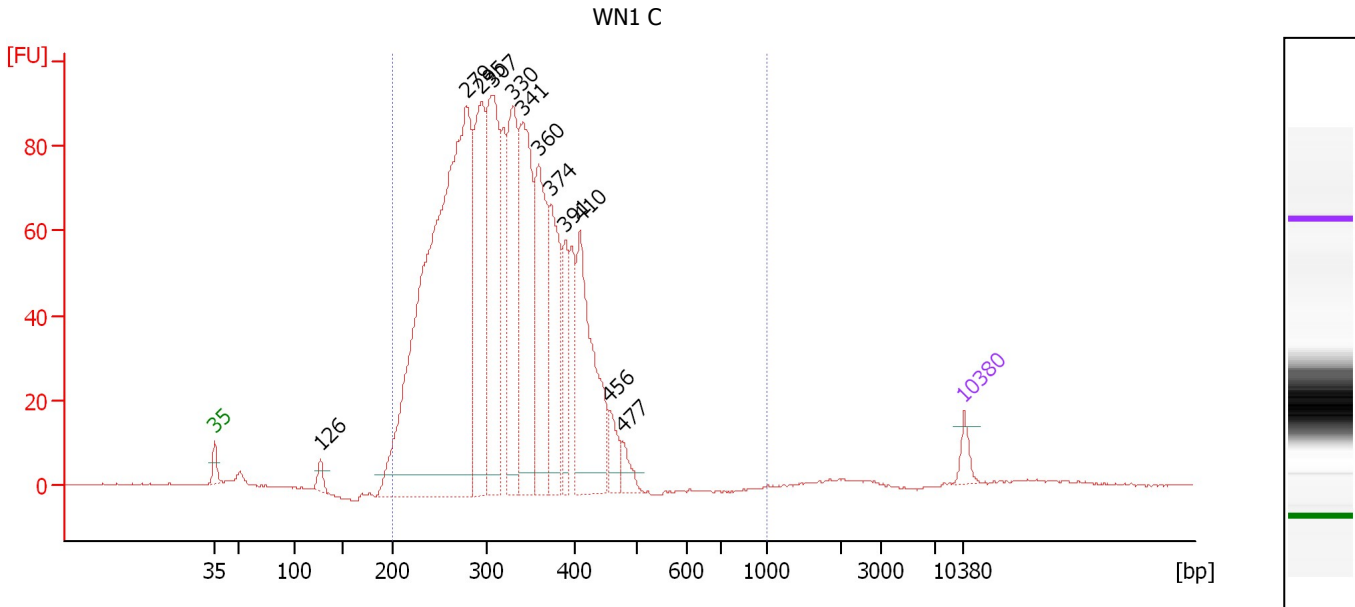
**Region table for sample 2 : WN1 B**

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	305	671.7	25,708.8	4,924.67	95	20.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-10\2016-05-10\_002.xad

Created: 5/10/2016 3:21:46 PM  
 Modified: 5/10/2016 5:11:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : WN1 C**

Number of peaks found: 12                      Corr. Area 1: 1,771.1  
 Noise: 0.2

**Peak table for sample 3 : WN1 C**

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	126	99.49	1,192.1		52.86
3	279	6,135.38	33,286.3		66.52
4	295	1,444.95	7,419.1		67.91
5	307	1,654.03	8,150.7		68.96
6	330	1,197.02	5,497.3		70.80
7	341	1,447.35	6,434.0		71.70
8	360	1,169.16	4,917.2		73.29
9	374	814.37	3,302.7		74.39
10	391	407.30	1,580.0		75.78
11	410	1,200.72	4,441.0		77.13
12	456	178.41	593.0		79.87
13	477	120.08	381.5		81.11
14	10,380	75.00	10.9	Upper Marker	113.00

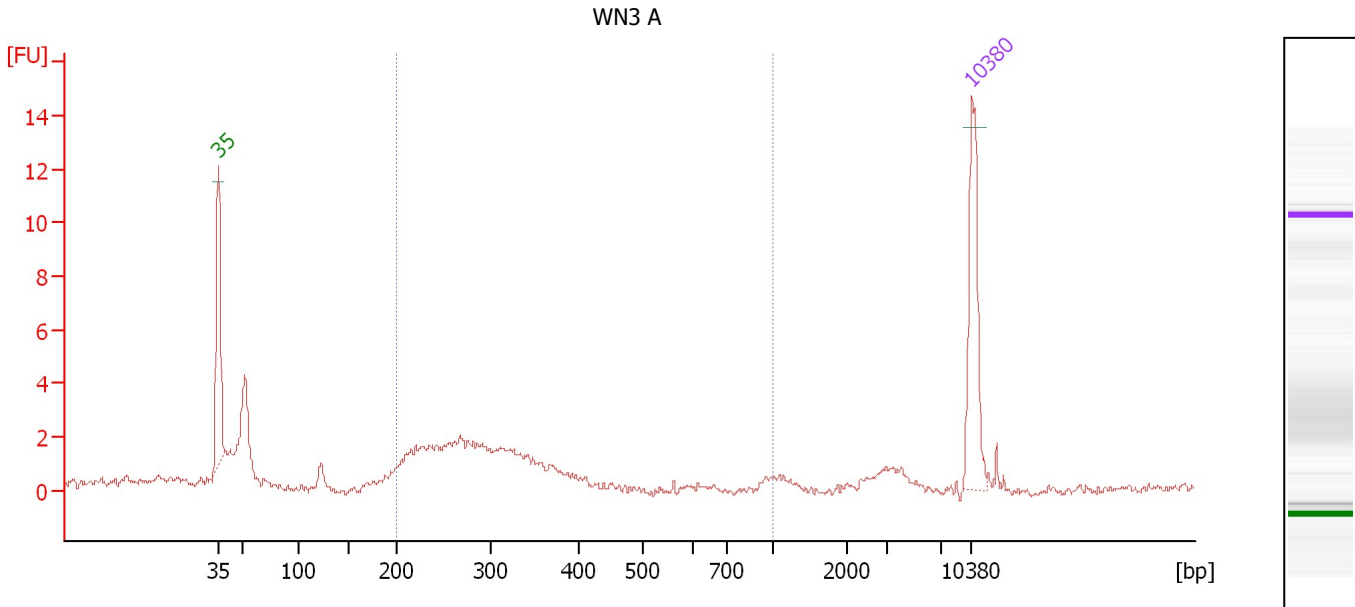
**Region table for sample 3 : WN1 C**

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	321	1,771.1	81,254.4	16,408.93	98	19.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-10\2016-05-10\_002.xad

Created: 5/10/2016 3:21:46 PM  
 Modified: 5/10/2016 5:11:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : WN3 A**

Number of peaks found: 0                      Corr. Area 1: 27.9  
 Noise: 0.2

**Peak table for sample 4 : WN3 A**

Pea k	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 4 : WN3 A**

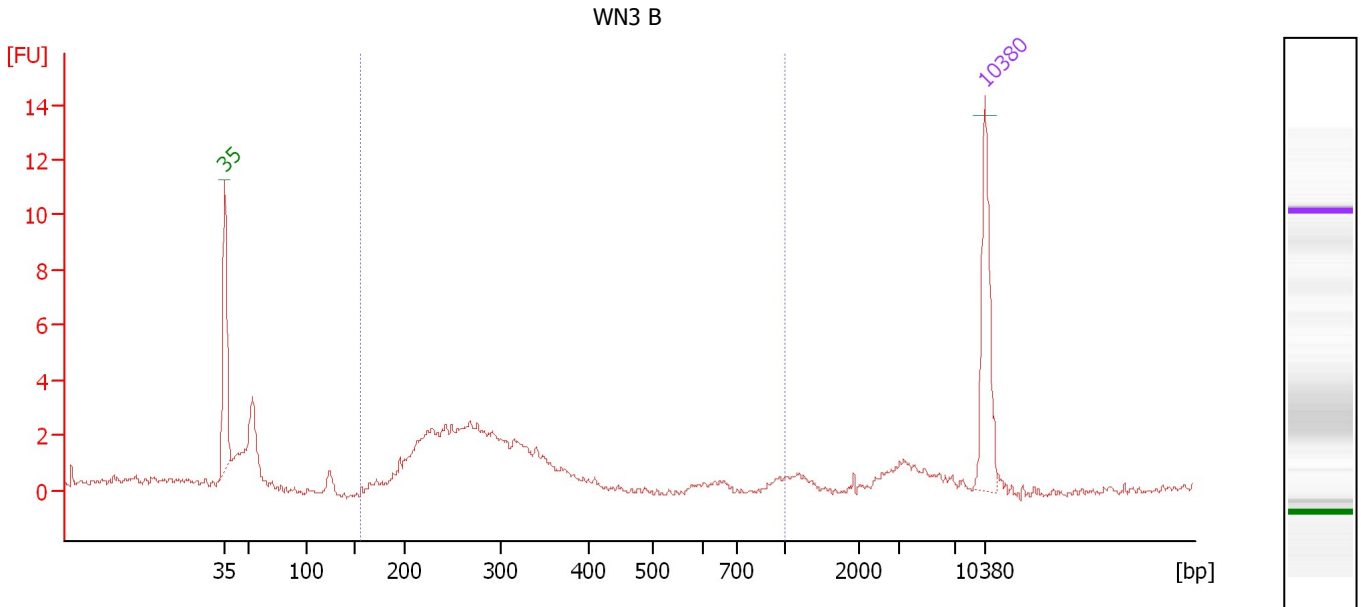
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	300	27.9	1,502.3	276.53	62	35.3



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-10\2016-05-10\_002.xad

Created: 5/10/2016 3:21:46 PM  
 Modified: 5/10/2016 5:11:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : WN3 B**

Number of peaks found: 0                      Corr. Area 1: 37.5  
 Noise: 0.1

**Peak table for sample 5 : WN3 B**

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

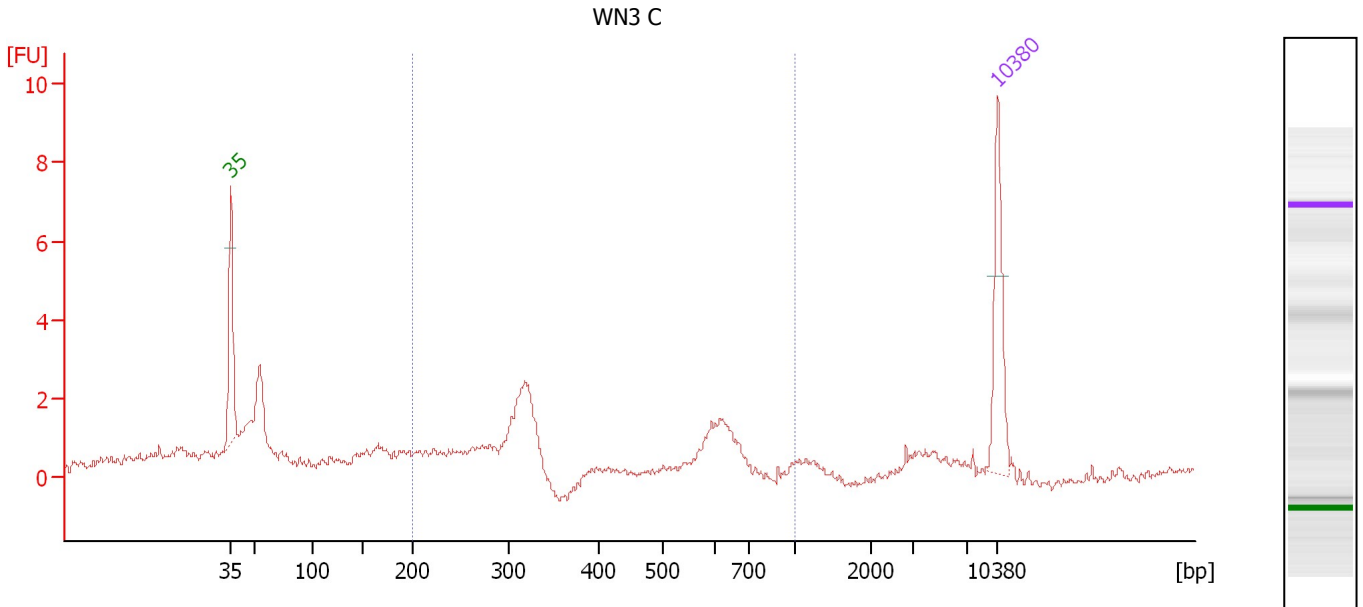
**Region table for sample 5 : WN3 B**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
156	1,000	291	37.5	2,440.2	434.46	66	34.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-10\2016-05-10\_002.xad

Created: 5/10/2016 3:21:46 PM  
 Modified: 5/10/2016 5:11:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : WN3 C**

Number of peaks found: 0                      Corr. Area 1: 14.3  
 Noise: 0.1

**Peak table for sample 6 : WN3 C**

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

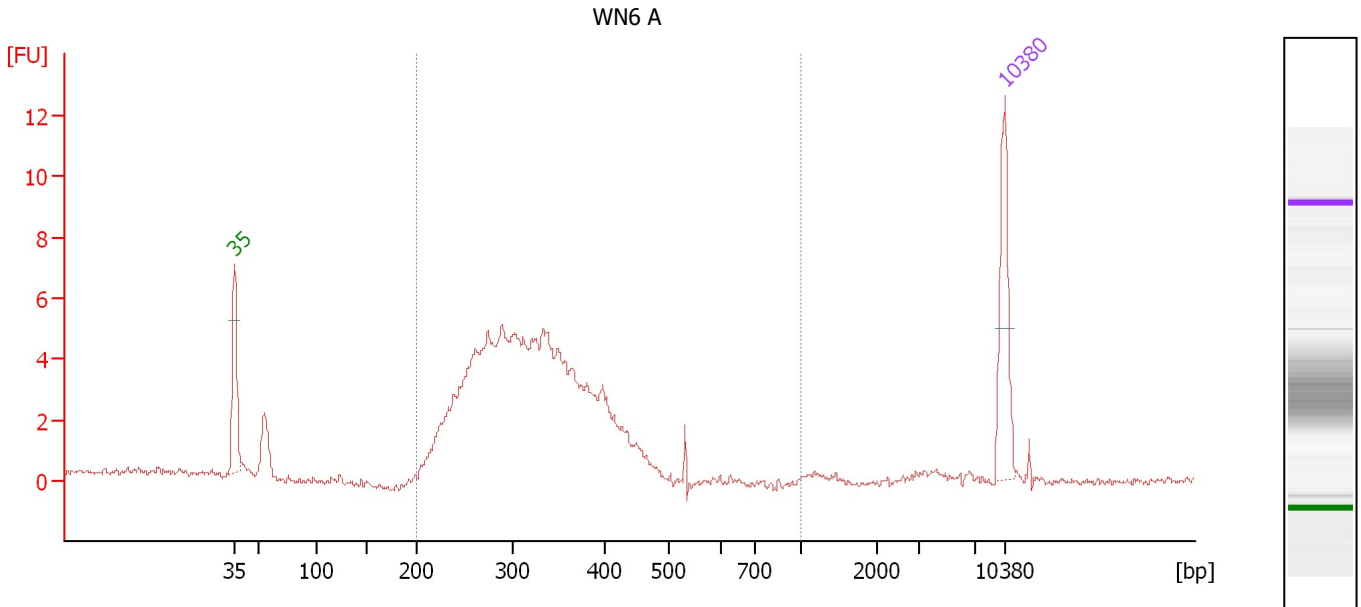
**Region table for sample 6 : WN3 C**

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	398	14.3	1,125.2	242.67	46	40.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-10\2016-05-10\_002.xad

Created: 5/10/2016 3:21:46 PM  
 Modified: 5/10/2016 5:11:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : WN6 A**

Number of peaks found: 0                      Corr. Area 1: 84.9  
 Noise: 0.1

**Peak table for sample 7 : WN6 A**

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

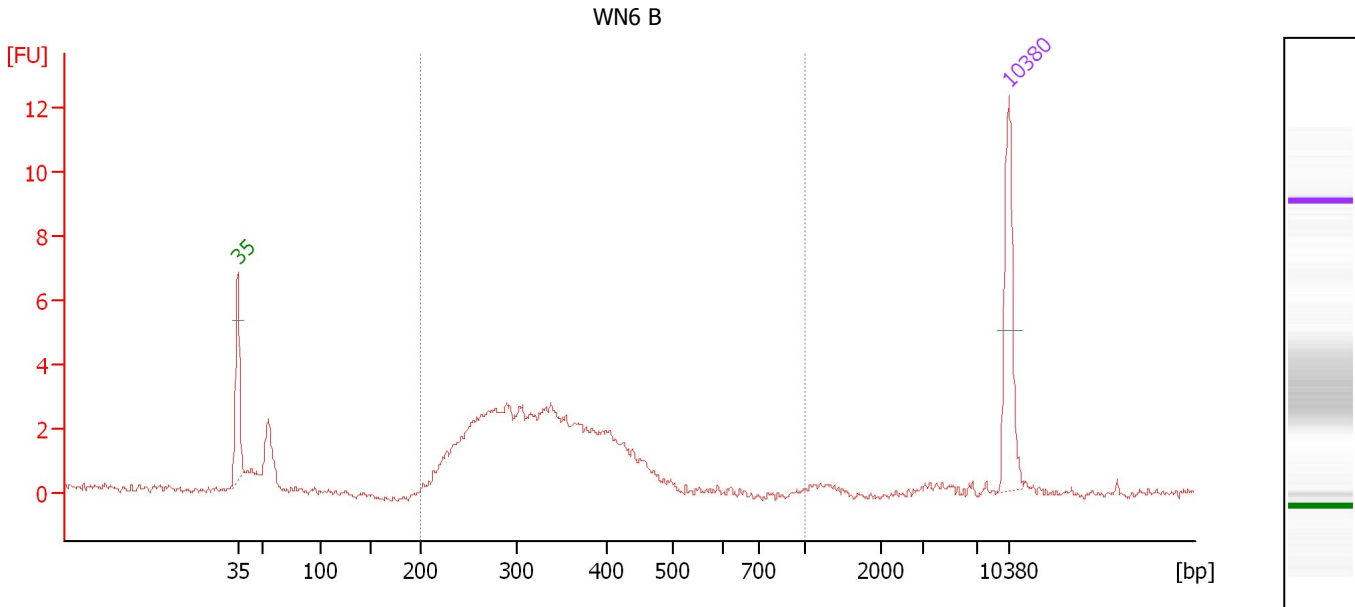
**Region table for sample 7 : WN6 A**

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	321	84.9	5,302.2	1,074.78	94	18.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-10\2016-05-10\_002.xad

Created: 5/10/2016 3:21:46 PM  
 Modified: 5/10/2016 5:11:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : WN6 B**

Number of peaks found: 0                      Corr. Area 1: 49.4  
 Noise: 0.1

**Peak table for sample 8 : WN6 B**

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

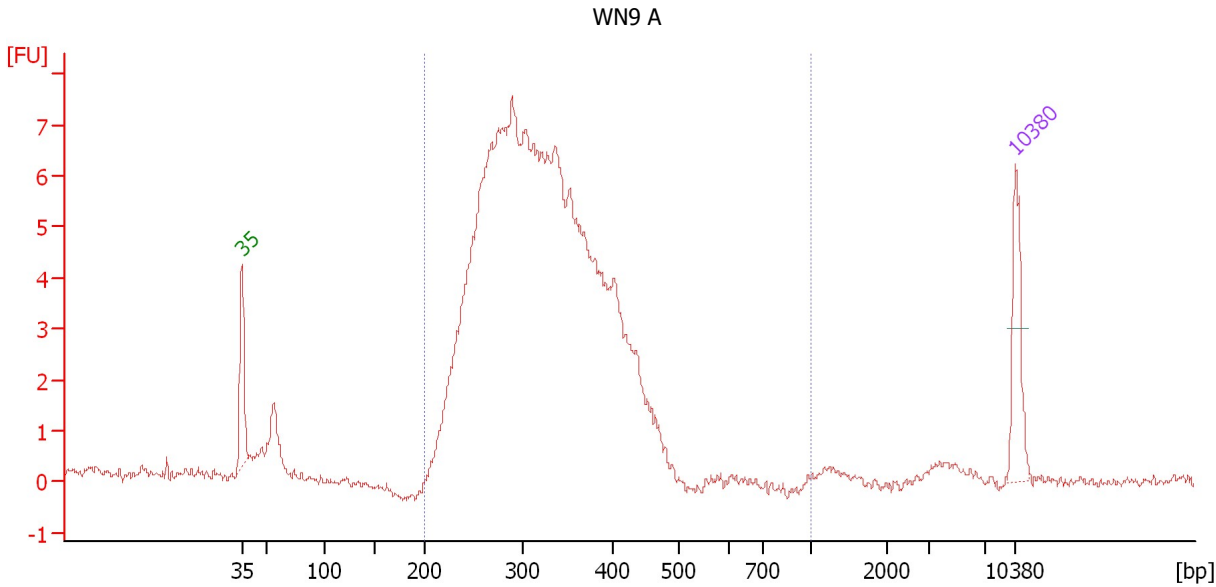
**Region table for sample 8 : WN6 B**

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	329	49.4	3,069.5	632.28	89	19.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-10\2016-05-10\_002.xad

Created: 5/10/2016 3:21:46 PM  
 Modified: 5/10/2016 5:11:15 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 9 : WN9 A**

Height Threshold [FU] : 3

**Overall Results for sample 9 : WN9 A**

Number of peaks found: 0                      Corr. Area 1: 121.1  
 Noise: 0.1

**Peak table for sample 9 : WN9 A**

Pea	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

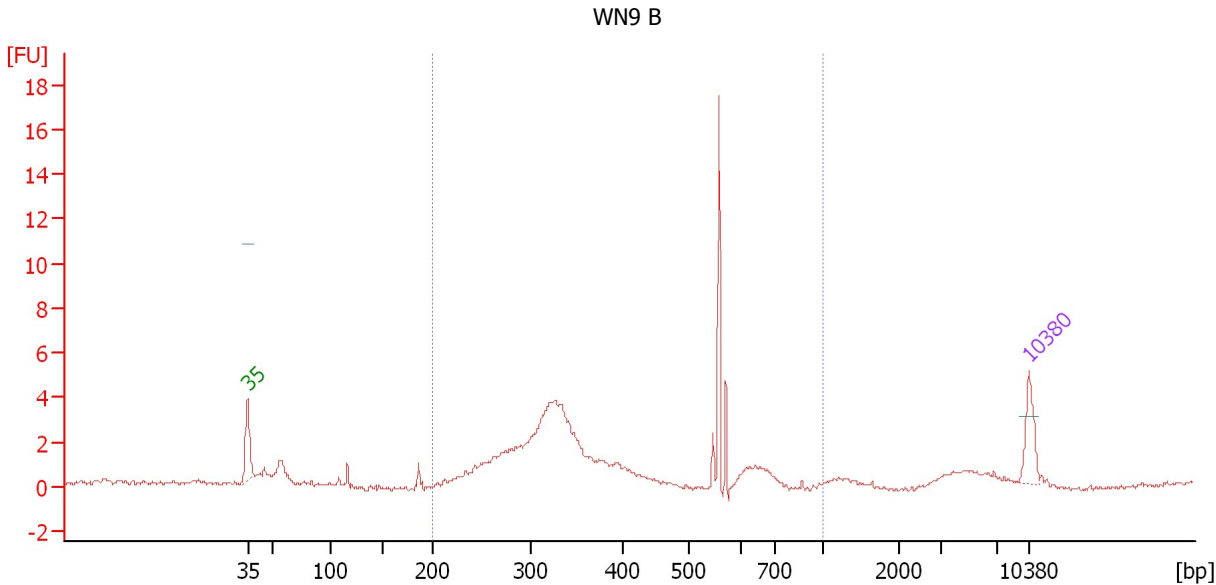
**Region table for sample 9 : WN9 A**

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	322	121.1	14,661.6	2,990.07	96	18.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-10\2016-05-10\_002.xad

Created: 5/10/2016 3:21:46 PM  
 Modified: 5/10/2016 5:11:15 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 10 : WN9 B**

Height Threshold [FU] : 3

**Overall Results for sample 10 : WN9 B**

Number of peaks found: 0                      Corr. Area 1: 42.4  
 Noise: 0.1

**Peak table for sample 10 : WN9 B**

Pea	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

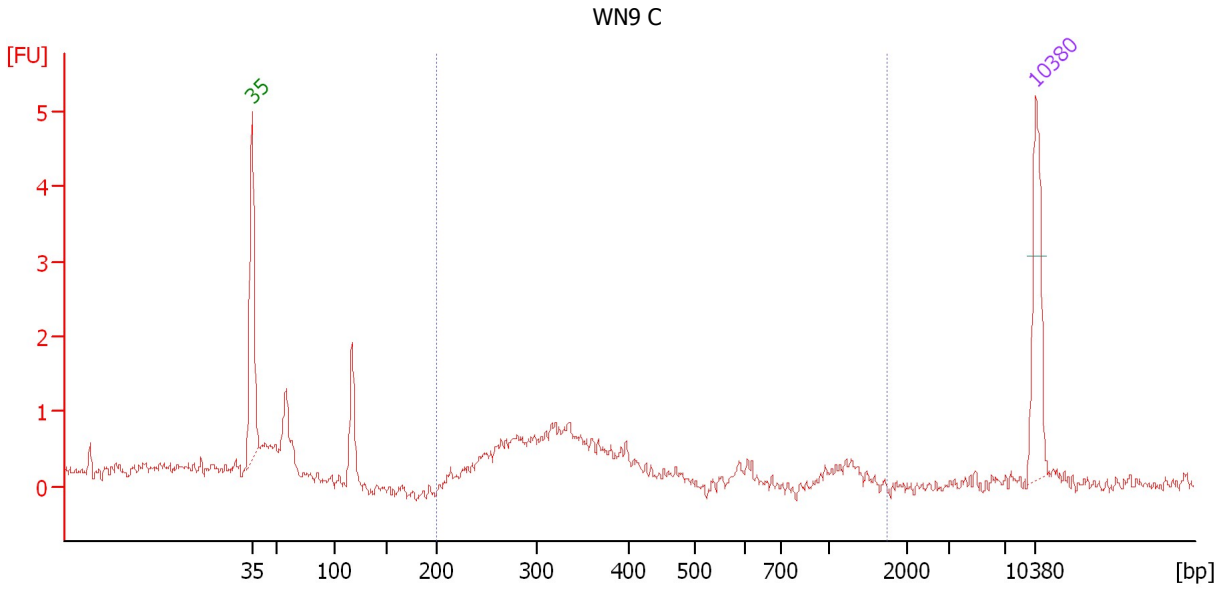
**Region table for sample 10 : WN9 B**

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	380	42.4	6,078.7	1,364.70	80	31.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-10\2016-05-10\_002.xad

Created: 5/10/2016 3:21:46 PM  
 Modified: 5/10/2016 5:11:15 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 11 : WN9 C**

Height Threshold [FU] : 3

**Overall Results for sample 11 : WN9 C**

Number of peaks found: 0                      Corr. Area 1: 8.0  
 Noise: 0.1

**Peak table for sample 11 : WN9 C**

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

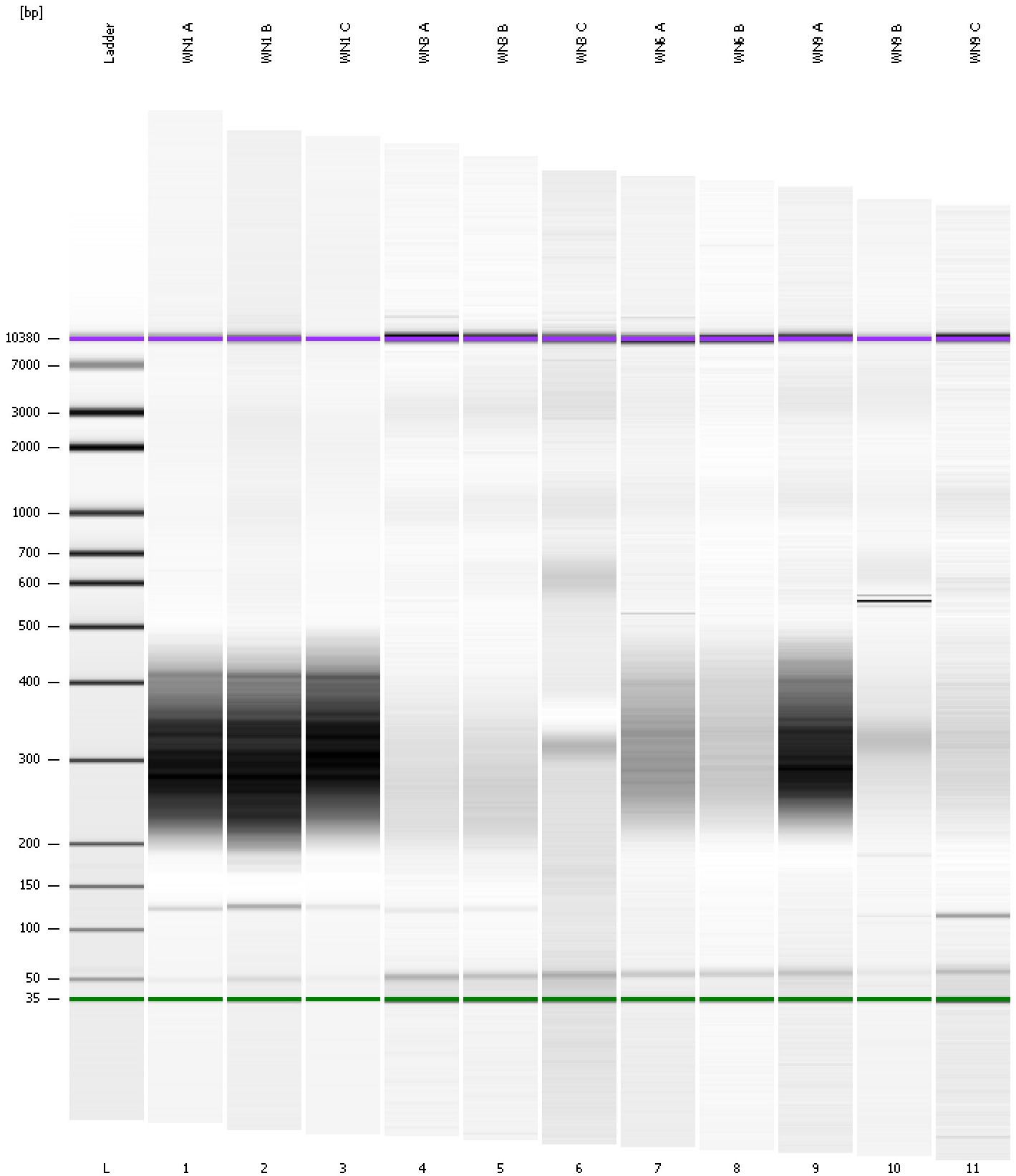
**Region table for sample 11 : WN9 C**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,735	361	8.0	1,159.5	245.58	55	49.8

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-10\2016-05-10\_002.xad

Created: 5/10/2016 3:21:46 PM  
Modified: 5/10/2016 5:11:15 PM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-10\2016-05-10\_002.xad

Created: 5/10/2016 3:21:46 PM  
 Modified: 5/10/2016 5:11:15 PM

**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		5/10/2016 4:03:04 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\2016-05-10\2016-05-10_002.xad)		Instrument	Run		5/10/2016 3:21:52 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		5/10/2016 3:21:52 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		5/10/2016 3:21:52 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		5/10/2016 3:21:52 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		5/10/2016 3:21:52 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		5/10/2016 3:21:52 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		5/10/2016 3:21:52 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1