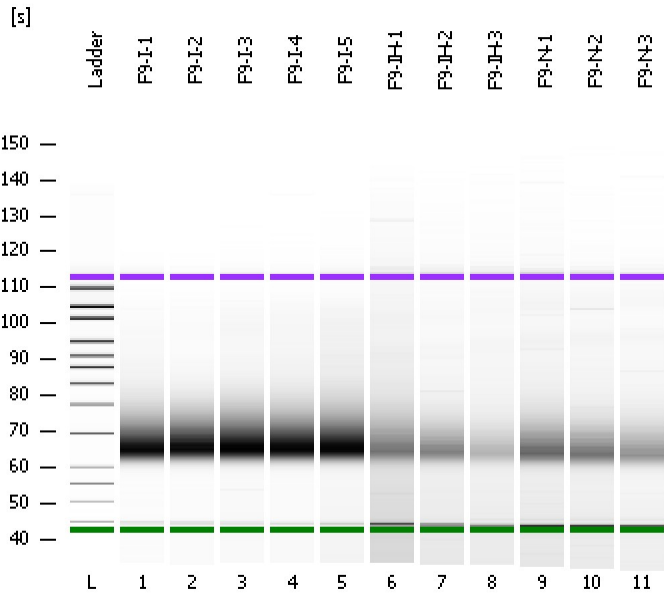


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-15\2016-07-15\_004.xad

Created: 7/15/2016 6:30:22 PM  
Modified: 7/15/2016 7:18:22 PM

Electrophoresis File Run Summary



Instrument Information:

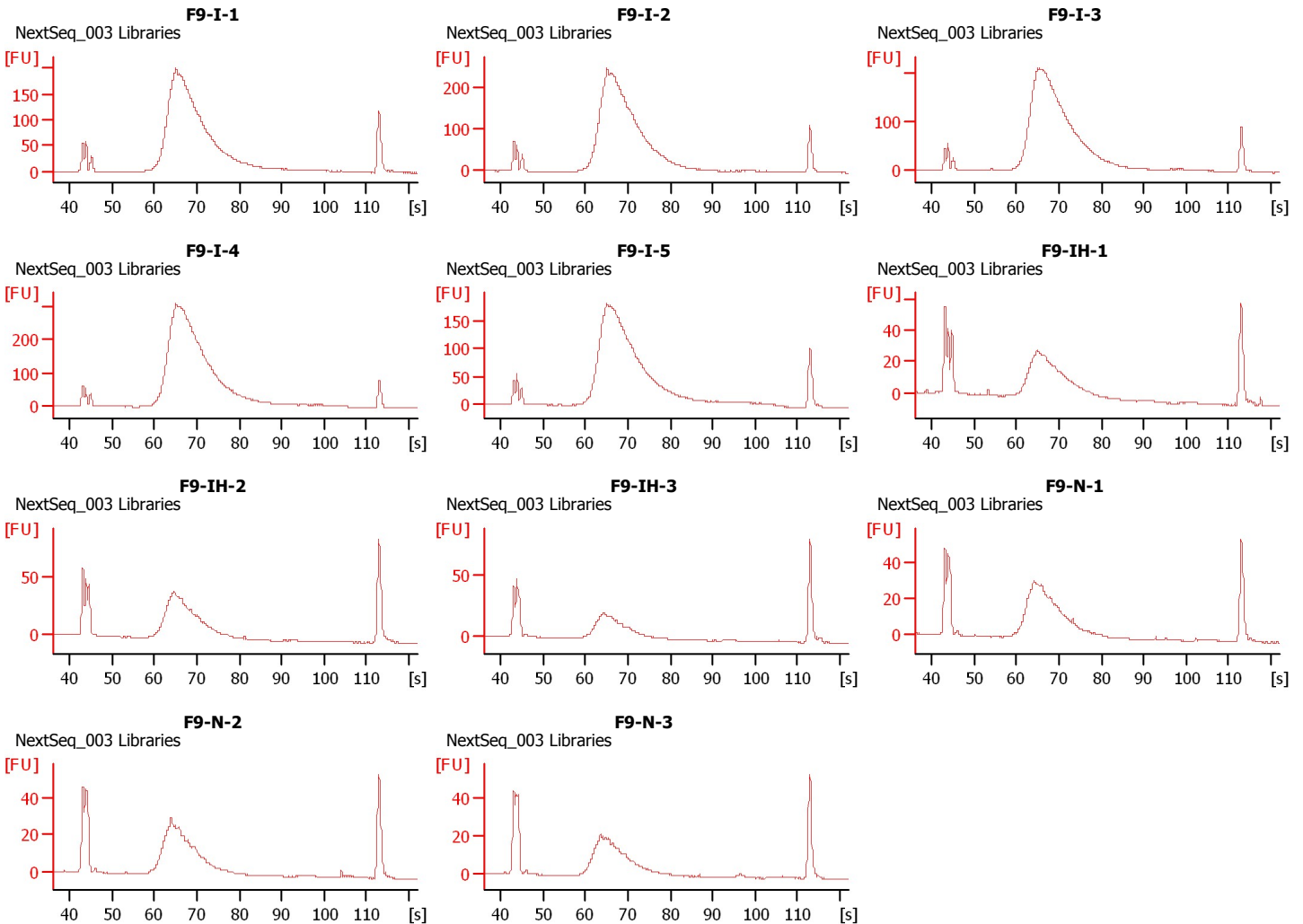
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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\2016-07-15\2016-07-15\_004.xad

Created: 7/15/2016 6:30:22 PM  
 Modified: 7/15/2016 7:18:22 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
F9-I-1	NextSeq_003 Libraries	<input type="checkbox"/>	✓			
F9-I-2	NextSeq_003 Libraries	<input type="checkbox"/>	✓			
F9-I-3	NextSeq_003 Libraries	<input type="checkbox"/>	✓			
F9-I-4	NextSeq_003 Libraries	<input type="checkbox"/>	✓			
F9-I-5	NextSeq_003 Libraries	<input type="checkbox"/>	✓			
F9-IH-1	NextSeq_003 Libraries	<input type="checkbox"/>	✓			
F9-IH-2	NextSeq_003 Libraries	<input type="checkbox"/>	✓			
F9-IH-3	NextSeq_003 Libraries	<input type="checkbox"/>	✓			
F9-N-1	NextSeq_003 Libraries	<input type="checkbox"/>	✓			
F9-N-2	NextSeq_003 Libraries	<input type="checkbox"/>	✓			
F9-N-3	NextSeq_003 Libraries	<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\2016-07-15\2016-07-15\_004.xad

Created: 7/15/2016 6:30:22 PM  
Modified: 7/15/2016 7:18:22 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

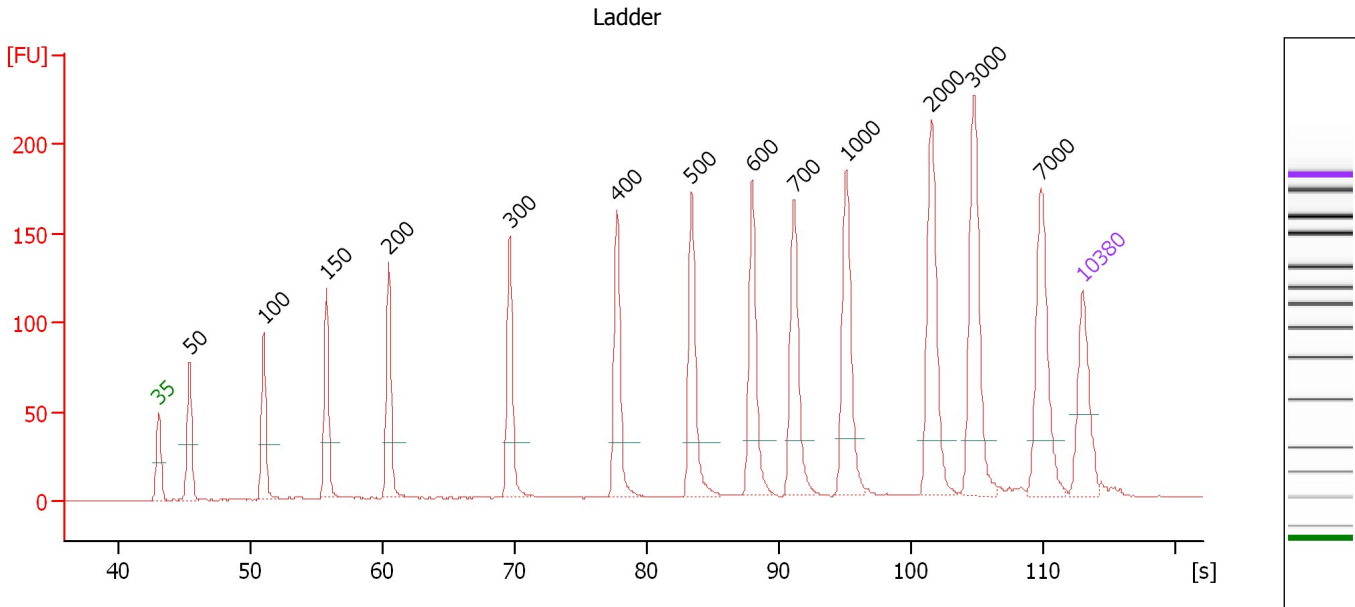
**Ladder**

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\2016-07-15\2016-07-15\_004.xad

Created: 7/15/2016 6:30:22 PM  
 Modified: 7/15/2016 7:18:22 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

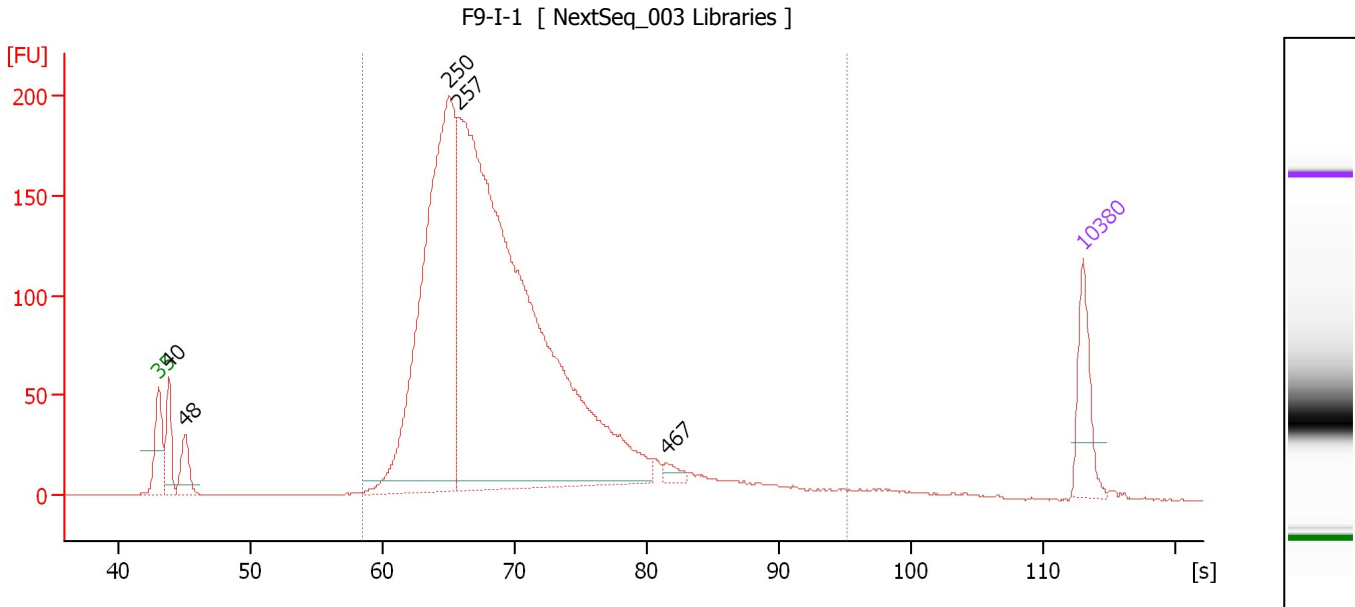
**Peak table for Ladder**

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	50.99
4	150	150.00	1,515.2	Ladder Peak	55.74
5	200	150.00	1,136.4	Ladder Peak	60.44
6	300	150.00	757.6	Ladder Peak	69.63
7	400	150.00	568.2	Ladder Peak	77.68
8	500	150.00	454.5	Ladder Peak	83.37
9	600	150.00	378.8	Ladder Peak	87.97
10	700	150.00	324.7	Ladder Peak	91.12
11	1,000	150.00	227.3	Ladder Peak	95.06
12	2,000	150.00	113.6	Ladder Peak	101.51
13	3,000	150.00	75.8	Ladder Peak	104.71
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\2016-07-15\2016-07-15\_004.xad

Created: 7/15/2016 6:30:22 PM  
 Modified: 7/15/2016 7:18:22 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : F9-I-1**

Number of peaks found: 5                      Corr. Area 1: 2,926.0  
 Noise: 0.2

**Peak table for sample 1 : F9-I-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	40	94.99	3,598.7		43.80
3	48	70.11	2,222.5		45.05
4	250	1,031.23	6,258.4		65.00
5	257	2,065.83	12,167.0		65.70
6	467	16.94	55.0		81.47
7	10,380	75.00	10.9	Upper Marker	113.00

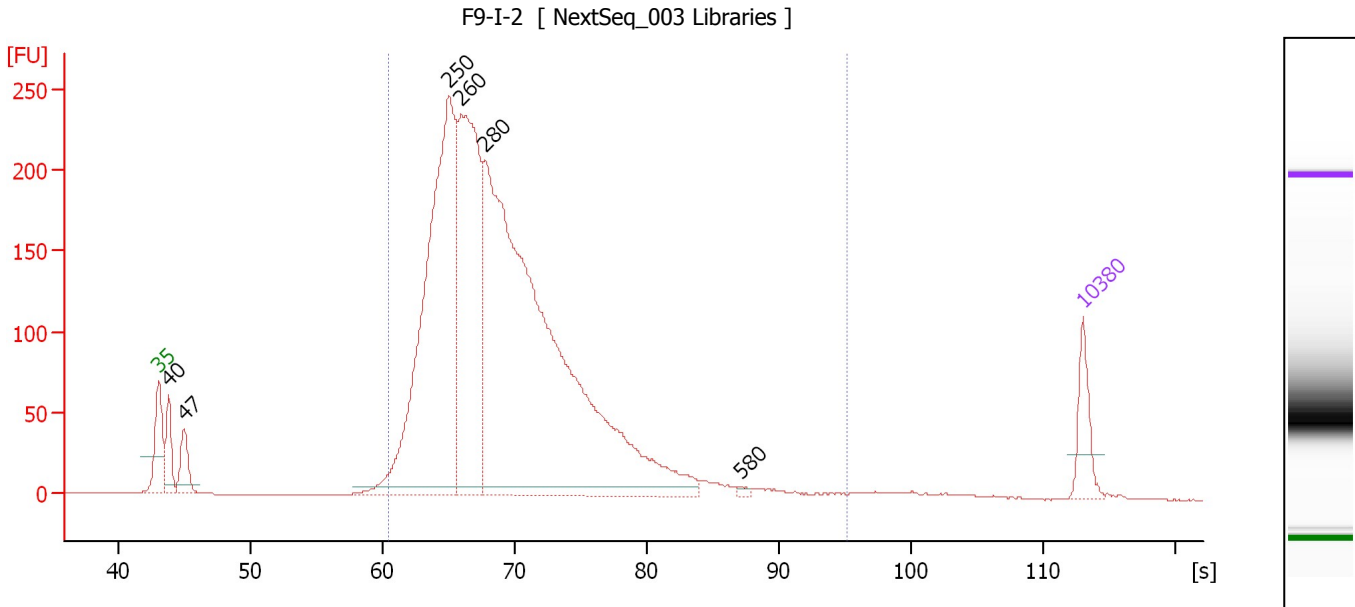
**Region table for sample 1 : F9-I-1**

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
58.43	95.06	305	2,926.0	16,995.6	3,176.20	94	29.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-15\2016-07-15\_004.xad

Created: 7/15/2016 6:30:22 PM  
 Modified: 7/15/2016 7:18:22 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : F9-I-2**

Number of peaks found: 6                      Corr. Area 1: 3,566.4  
 Noise: 0.2

**Peak table for sample 2 : F9-I-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	40	116.88	4,460.8		43.75
3	47	109.38	3,509.6		44.95
4	250	1,454.71	8,811.4		65.05
5	260	905.62	5,278.5		65.95
6	280	2,513.53	13,622.1		67.75
7	580	7.58	19.8		87.04
8	10,380	75.00	10.9	Upper Marker	113.00

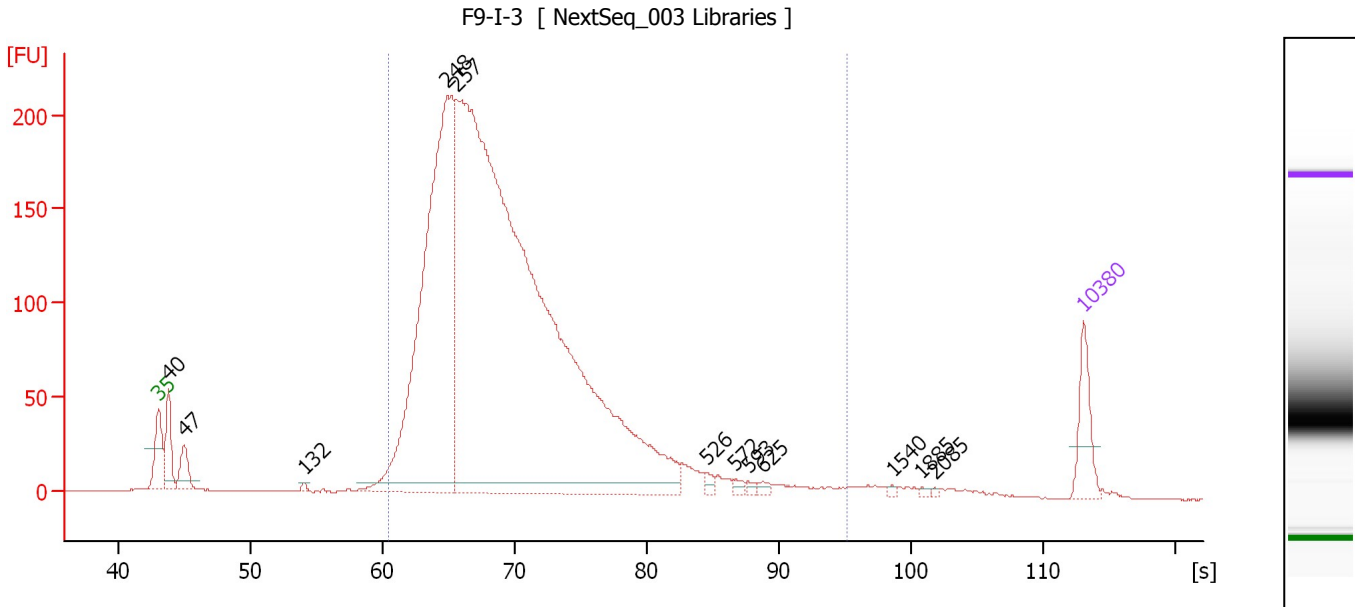
**Region table for sample 2 : F9-I-2**

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
60.44	95.06	302	3,566.4	24,639.6	4,638.44	95	25.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-15\2016-07-15\_004.xad

Created: 7/15/2016 6:30:22 PM  
 Modified: 7/15/2016 7:18:22 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : F9-I-3**

Number of peaks found: 12                      Corr. Area 1: 3,330.3  
 Noise: 0.2

**Peak table for sample 3 : F9-I-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	40	121.52	4,632.9		43.76
3	47	77.68	2,503.4		44.92
4	132	7.63	87.3		54.07
5	248	1,454.26	8,871.5		64.88
6	257	3,843.08	22,690.8		65.64
7	526	13.03	37.6		84.55
8	572	10.35	27.4		86.67
9	593	7.58	19.4		87.63
10	625	10.25	24.9		88.74
11	1,540	4.66	4.6		98.55
12	1,885	4.20	3.4		100.77
13	2,085	2.91	2.1		101.78
14	10,380	75.00	10.9	Upper Marker	113.00

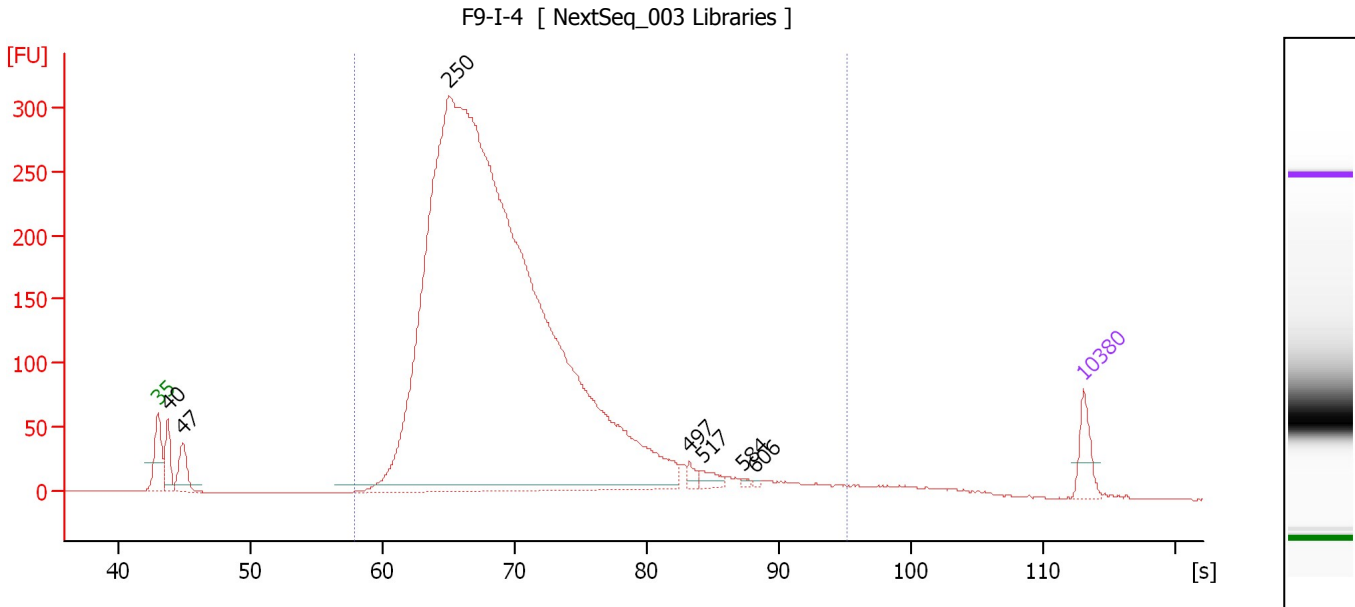
**Region table for sample 3 : F9-I-3**

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
60.44	95.06	310	3,330.3	26,270.0	4,992.09	94	29.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-15\2016-07-15\_004.xad

Created: 7/15/2016 6:30:22 PM  
 Modified: 7/15/2016 7:18:22 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : F9-I-4**

Number of peaks found: 7                      Corr. Area 1: 4,746.9  
 Noise: 0.2

**Peak table for sample 4 : F9-I-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	40	143.27	5,493.7		43.72
3	47	136.03	4,422.3		44.86
4	250	8,486.65	51,487.8		65.01
5	497	29.23	89.1		83.21
6	517	36.80	107.9		84.13
7	584	8.22	21.3		87.23
8	606	5.82	14.6		88.15
9	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 : F9-I-4**

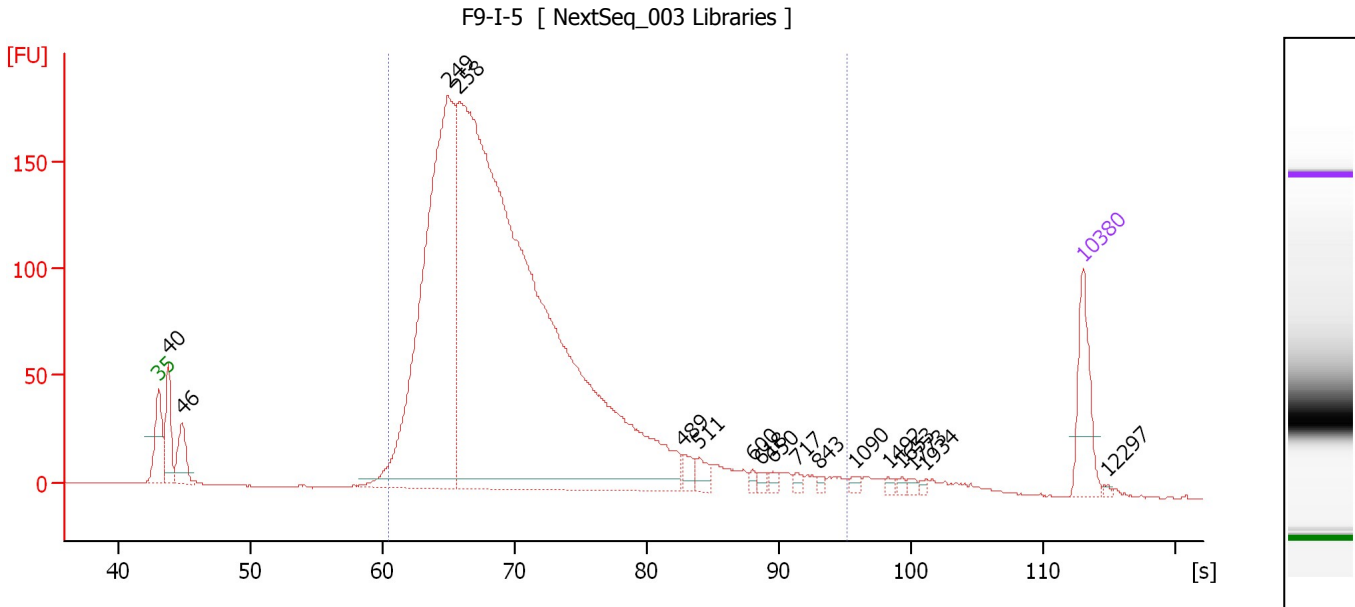
From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
57.89	95.06	311	4,746.9	43,185.1	8,176.15	95	31.1



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-15\2016-07-15\_004.xad

Created: 7/15/2016 6:30:22 PM  
 Modified: 7/15/2016 7:18:22 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : F9-I-5**

Number of peaks found: 17                      Corr. Area 1: 2,869.5  
 Noise: 0.2

**Peak table for sample 5 : F9-I-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	40	105.58	4,013.0		43.78
3	46	75.10	2,472.6		44.76
4	249	1,068.51	6,509.0		64.92
5	258	2,716.89	15,971.3		65.75
6	489	21.92	67.9		82.74
7	511	21.38	63.4		83.88
8	600	7.67	19.4		87.97
9	618	8.38	20.5		88.54
10	650	7.40	17.3		89.53
11	717	7.41	15.7		91.34
12	843	5.54	10.0		93.00
13	1,090	7.23	10.1		95.64
14	1,492	4.71	4.8		98.23
15	1,653	4.98	4.6		99.27
16	1,773	4.90	4.2		100.05
17	1,934	3.78	3.0		101.08
18	10,380	75.00	10.9	Upper Marker	113.00
19	12,297	0.00	0.0		114.81

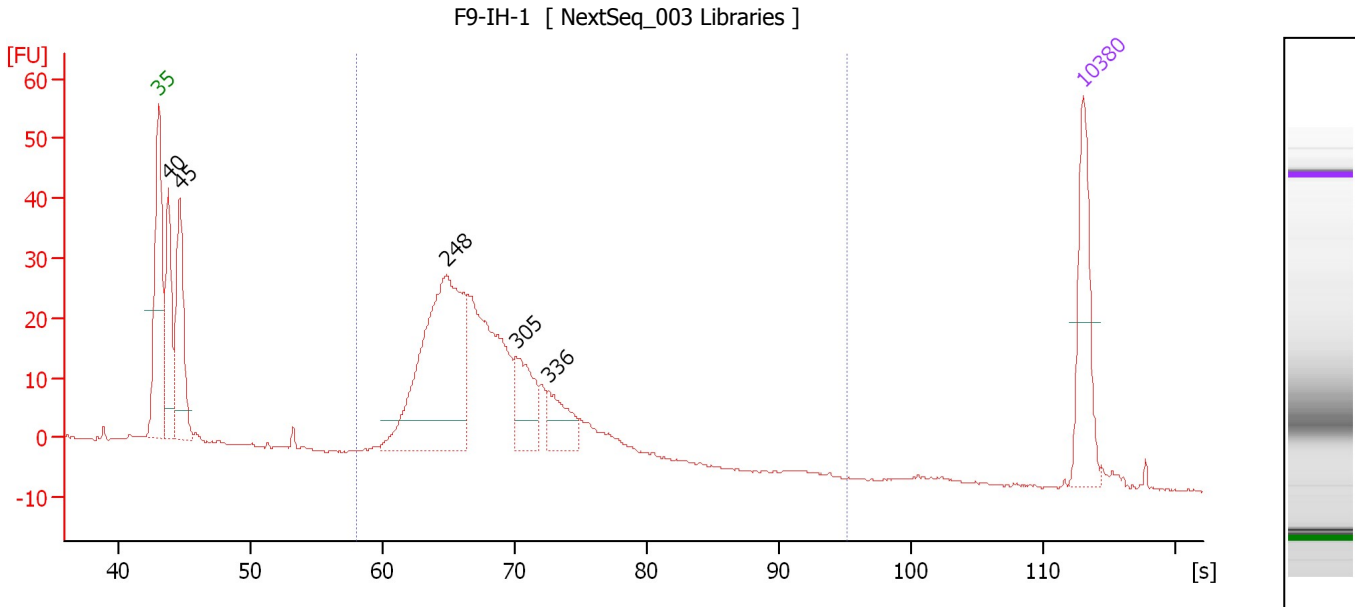
**Region table for sample 5 : F9-I-5**

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
60.44	95.06	317	2,869.5	18,702.5	3,580.51	93	33.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-15\2016-07-15\_004.xad

Created: 7/15/2016 6:30:22 PM  
 Modified: 7/15/2016 7:18:22 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : F9-IH-1**

Number of peaks found: 5                      Corr. Area 1: 399.1  
 Noise: 0.2

**Peak table for sample 6 : F9-IH-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	40	132.88	5,040.7		43.79
3	45	162.65	5,450.7		44.63
4	248	358.47	2,194.4		64.81
5	305	76.34	378.6		70.07
6	336	48.06	217.0		72.50
7	10,380	75.00	10.9	Upper Marker	113.00

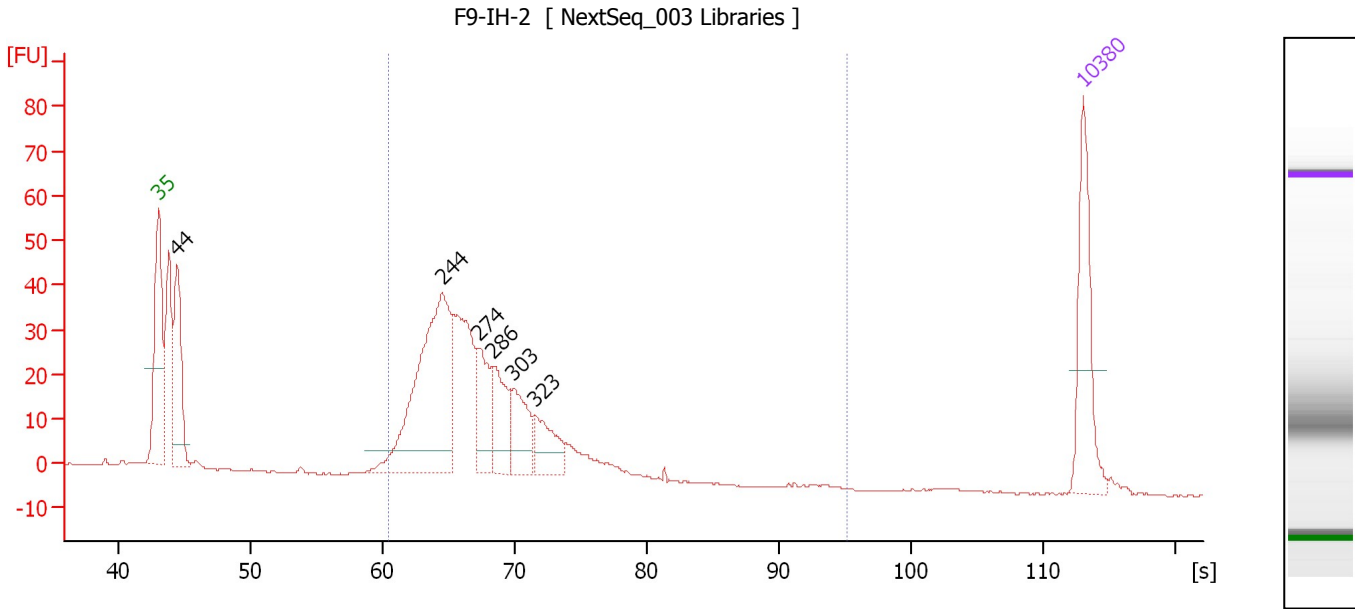
**Region table for sample 6 : F9-IH-1**

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
58.08	95.06	285	399.1	4,487.3	815.51	75	18.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-15\2016-07-15\_004.xad

Created: 7/15/2016 6:30:22 PM  
 Modified: 7/15/2016 7:18:22 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : F9-IH-2**

Number of peaks found: 6                      Corr. Area 1: 460.4  
 Noise: 0.2

**Peak table for sample 7 : F9-IH-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	44	124.05	4,265.2		44.45
3	244	291.45	1,806.3		64.53
4	274	65.93	364.2		67.26
5	286	62.40	330.7		68.34
6	303	57.56	287.6		69.89
7	323	47.26	221.5		71.50
8	10,380	75.00	10.9	Upper Marker	113.00

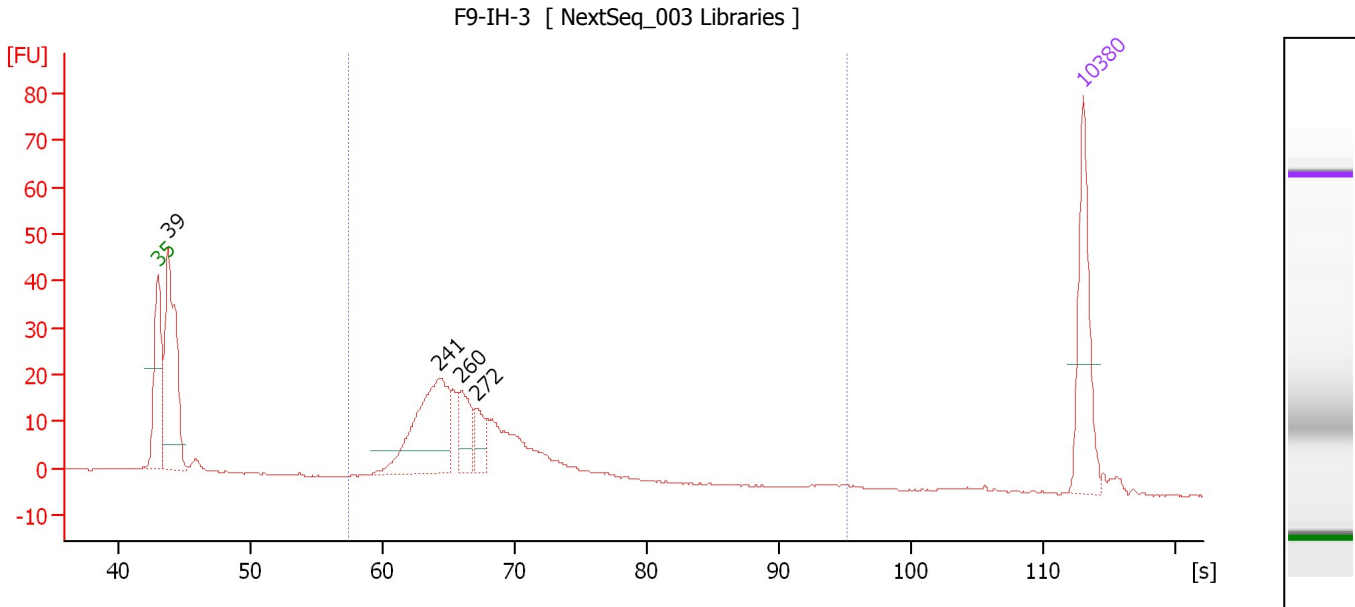
**Region table for sample 7 : F9-IH-2**

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
60.44	95.06	275	460.4	3,986.9	704.87	77	16.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-15\2016-07-15\_004.xad

Created: 7/15/2016 6:30:22 PM  
 Modified: 7/15/2016 7:18:22 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : F9-IH-3**

Number of peaks found: 4                      Corr. Area 1: 235.1  
 Noise: 0.1

**Peak table for sample 8 : F9-IH-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	39	231.91	8,914.1		43.71
3	241	164.39	1,031.5		64.25
4	260	48.33	281.9		65.93
5	272	30.20	168.5		67.02
6	10,380	75.00	10.9	Upper Marker	113.00

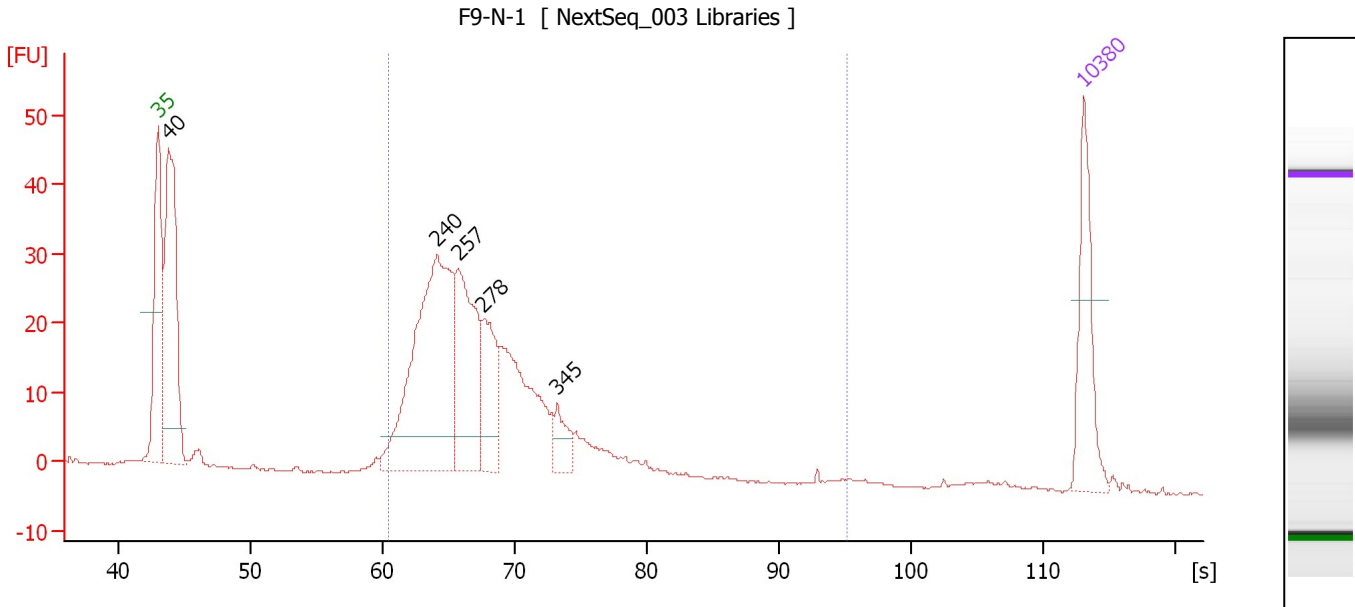
**Region table for sample 8 : F9-IH-3**

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
57.45	95.06	270	235.1	2,401.2	417.43	67	16.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-15\2016-07-15\_004.xad

Created: 7/15/2016 6:30:22 PM  
 Modified: 7/15/2016 7:18:22 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : F9-N-1**

Number of peaks found: 5                      Corr. Area 1: 394.0  
 Noise: 0.2

**Peak table for sample 9 : F9-N-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	40	311.29	11,847.3		43.77
3	240	384.96	2,432.1		64.10
4	257	180.85	1,065.5		65.69
5	278	94.87	516.9		67.62
6	345	30.74	135.1		73.22
7	10,380	75.00	10.9	Upper Marker	113.00

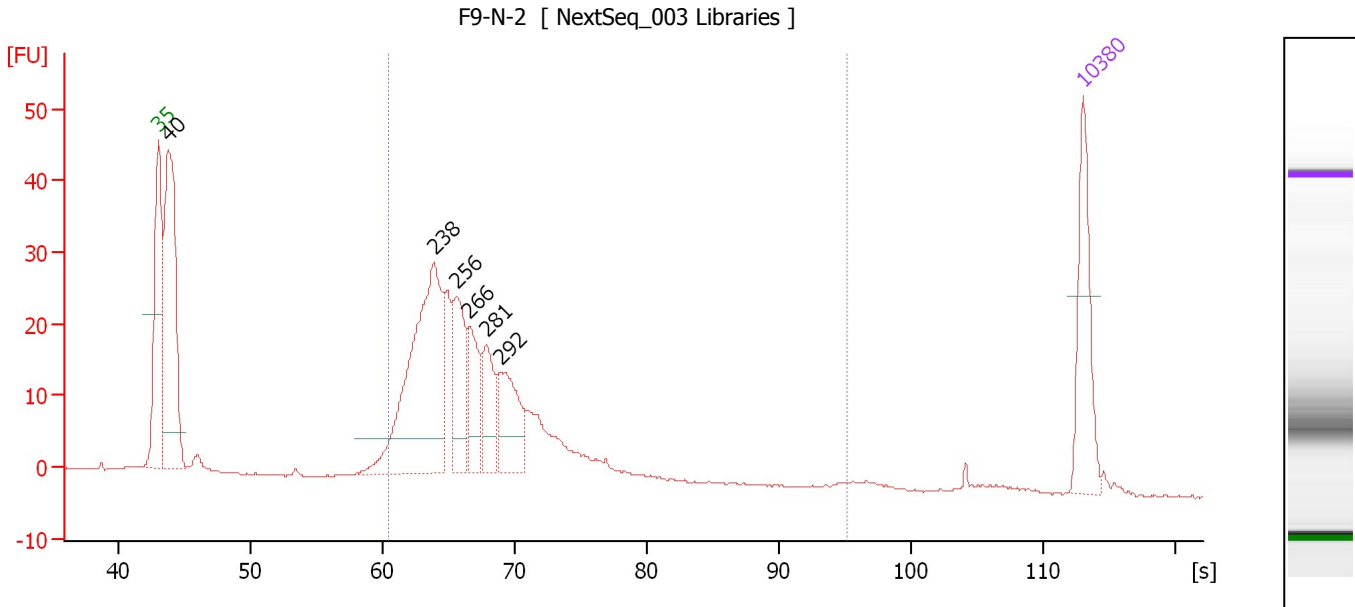
**Region table for sample 9 : F9-N-1**

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
60.44	95.06	282	394.0	5,207.0	929.69	77	22.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-15\2016-07-15\_004.xad

Created: 7/15/2016 6:30:22 PM  
 Modified: 7/15/2016 7:18:22 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : F9-N-2**

Number of peaks found: 6                      Corr. Area 1: 326.9  
 Noise: 0.1

**Peak table for sample 10 : F9-N-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	40	314.52	11,965.7		43.77
3	238	320.29	2,042.9		63.89
4	256	90.83	537.3		65.60
5	266	68.17	387.8		66.54
6	281	63.17	341.0		67.86
7	292	85.78	445.9		68.85
8	10,380	75.00	10.9	Upper Marker	113.00

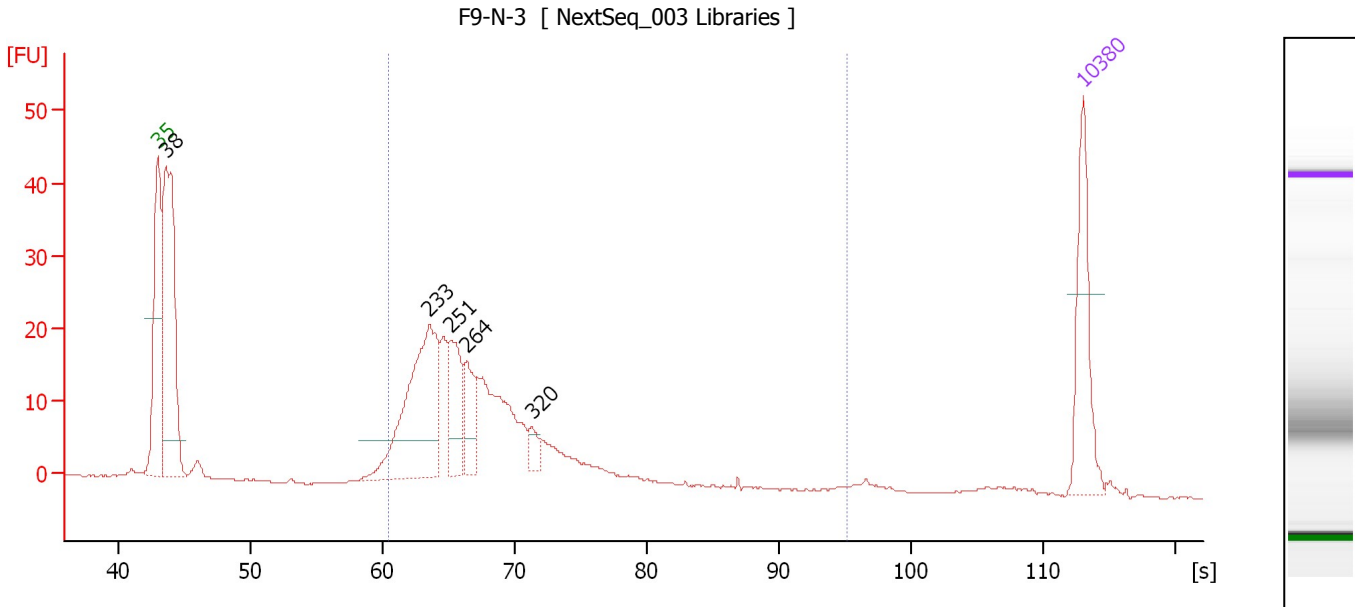
**Region table for sample 10 : F9-N-2**

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
60.44	95.06	271	326.9	4,745.4	825.77	74	19.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-15\2016-07-15\_004.xad

Created: 7/15/2016 6:30:22 PM  
 Modified: 7/15/2016 7:18:22 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : F9-N-3**

Number of peaks found: 5                      Corr. Area 1: 243.8  
 Noise: 0.1

**Peak table for sample 11 : F9-N-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	38	311.48	12,268.9		43.55
3	233	229.09	1,487.3		63.51
4	251	75.29	453.7		65.17
5	264	57.02	327.1		66.33
6	320	16.21	76.7		71.27
7	10,380	75.00	10.9	Upper Marker	113.00

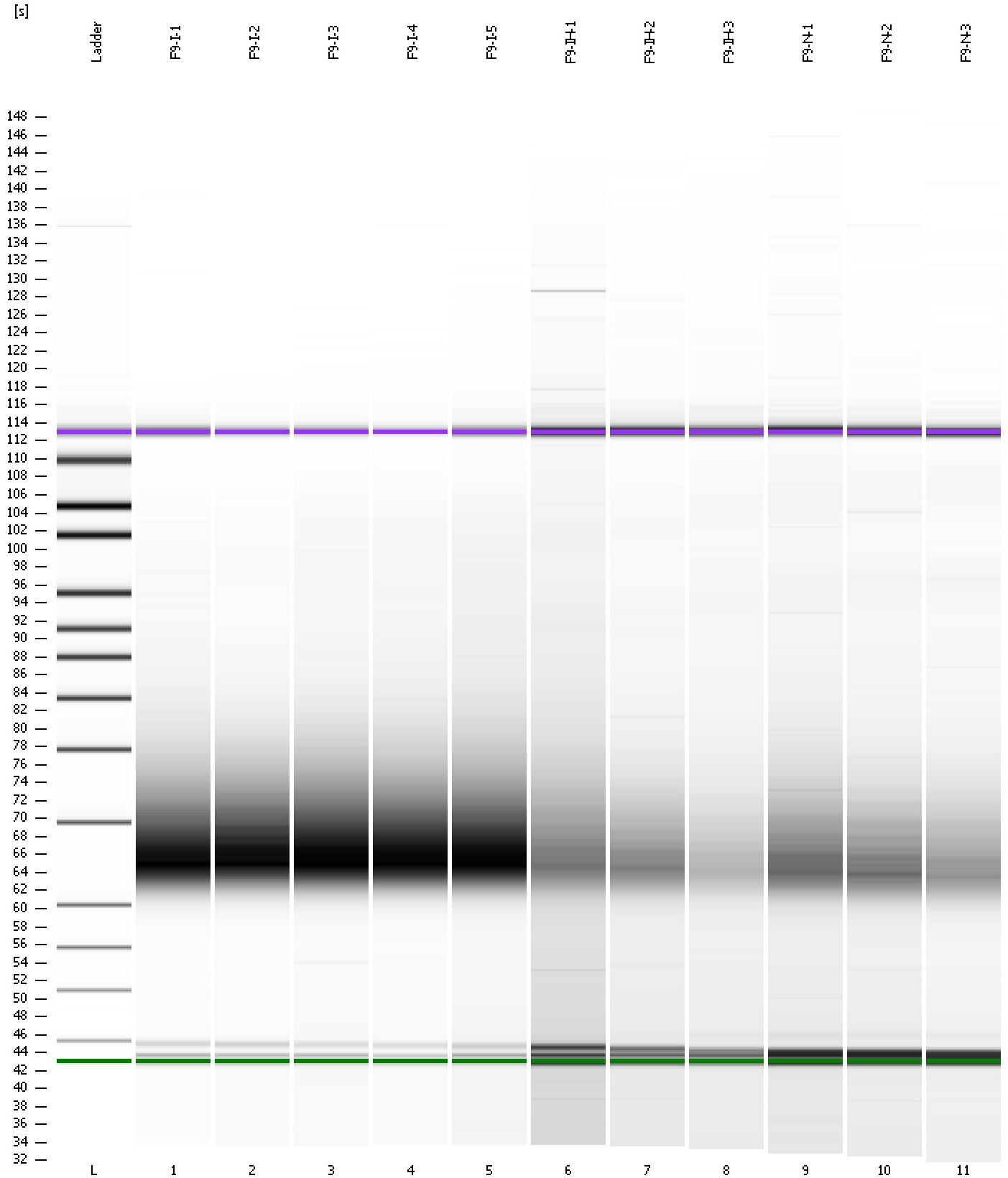
**Region table for sample 11 : F9-N-3**

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
60.44	95.06	270	243.8	3,660.3	635.80	71	17.5

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-15\2016-07-15\_004.xad

Created: 7/15/2016 6:30:22 PM  
Modified: 7/15/2016 7:18:22 PM

Gel Image





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-15\2016-07-15\_004.xad

Created: 7/15/2016 6:30:22 PM  
 Modified: 7/15/2016 7:18:22 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		7/15/2016 7:10:48 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\2016-07-15\2016-07-15_004.xad)		Instrument	Run		7/15/2016 6:30:27 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		7/15/2016 6:30:27 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		7/15/2016 6:30:27 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		7/15/2016 6:30:27 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		7/15/2016 6:30:27 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		7/15/2016 6:30:27 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		7/15/2016 6:30:27 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1