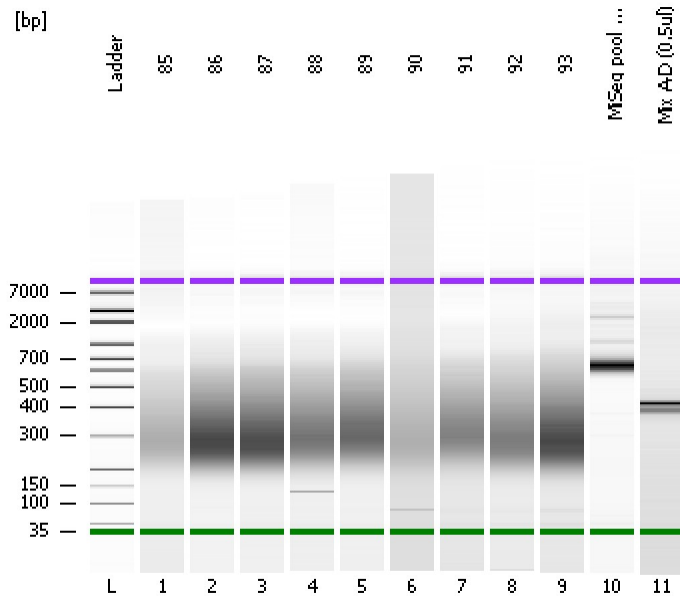


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_002.xad

Created: 9/9/2016 1:02:34 PM  
Modified: 9/9/2016 1:48:50 PM

Electrophoresis File Run Summary



Instrument Information:

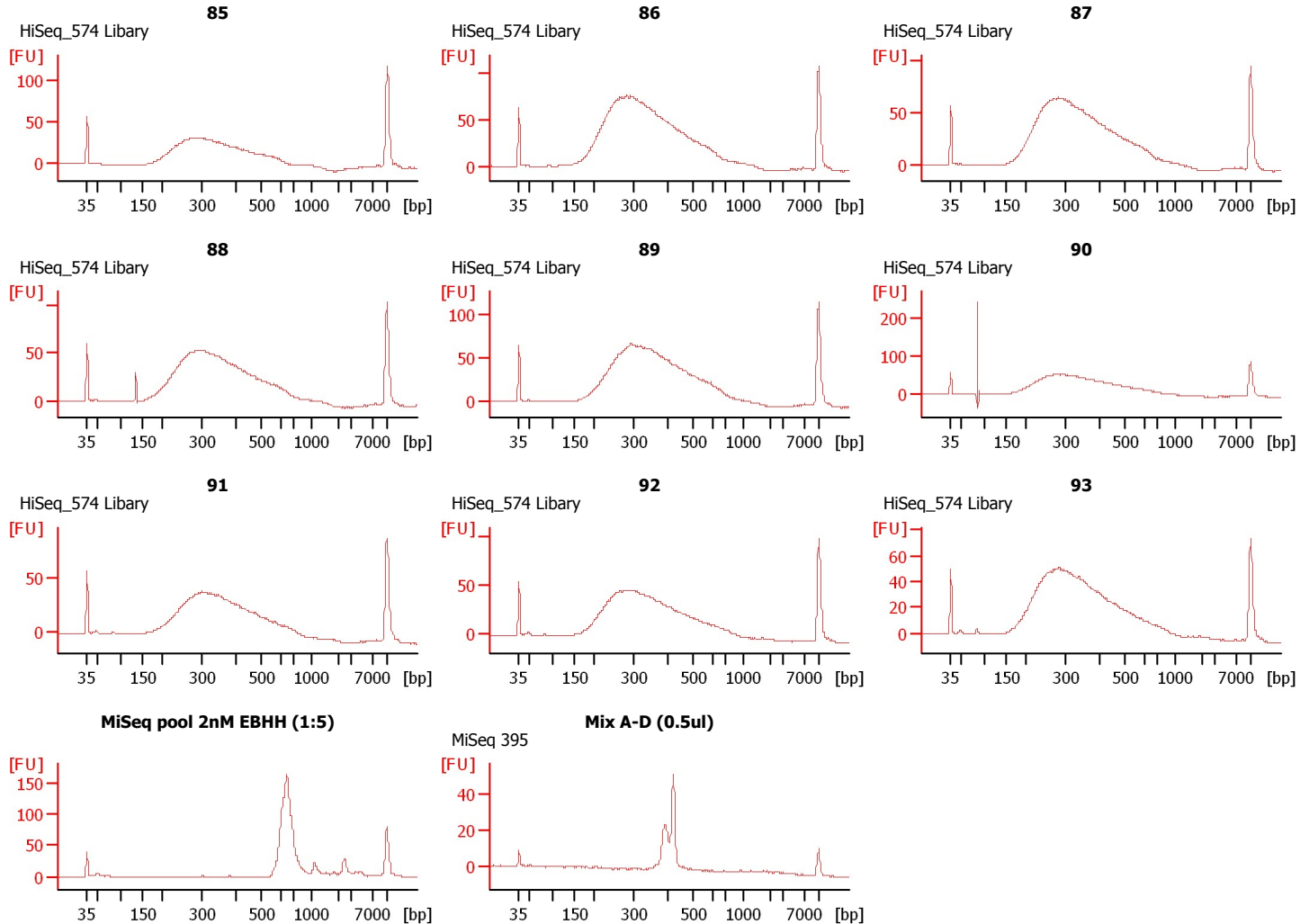
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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\2016-09-09\2016-09-09\_002.xad

Created: 9/9/2016 1:02:34 PM  
Modified: 9/9/2016 1:48:50 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
85	HiSeq_574 Library	<input type="checkbox"/>	✓			
86	HiSeq_574 Library	<input type="checkbox"/>	✓			
87	HiSeq_574 Library	<input type="checkbox"/>	✓			
88	HiSeq_574 Library	<input type="checkbox"/>	✓			
89	HiSeq_574 Library	<input type="checkbox"/>	✓			
90	HiSeq_574 Library	<input type="checkbox"/>	✓			
91	HiSeq_574 Library	<input type="checkbox"/>	✓			
92	HiSeq_574 Library	<input type="checkbox"/>	✓			
93	HiSeq_574 Library	<input type="checkbox"/>	✓			
MiSeq pool 2nM EBHH (1:5)		<input type="checkbox"/>	✓			
Mix A-D (0.5ul)	MiSeq 395	<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\2016-09-09\2016-09-09\_002.xad

Created: 9/9/2016 1:02:34 PM  
Modified: 9/9/2016 1:48:50 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

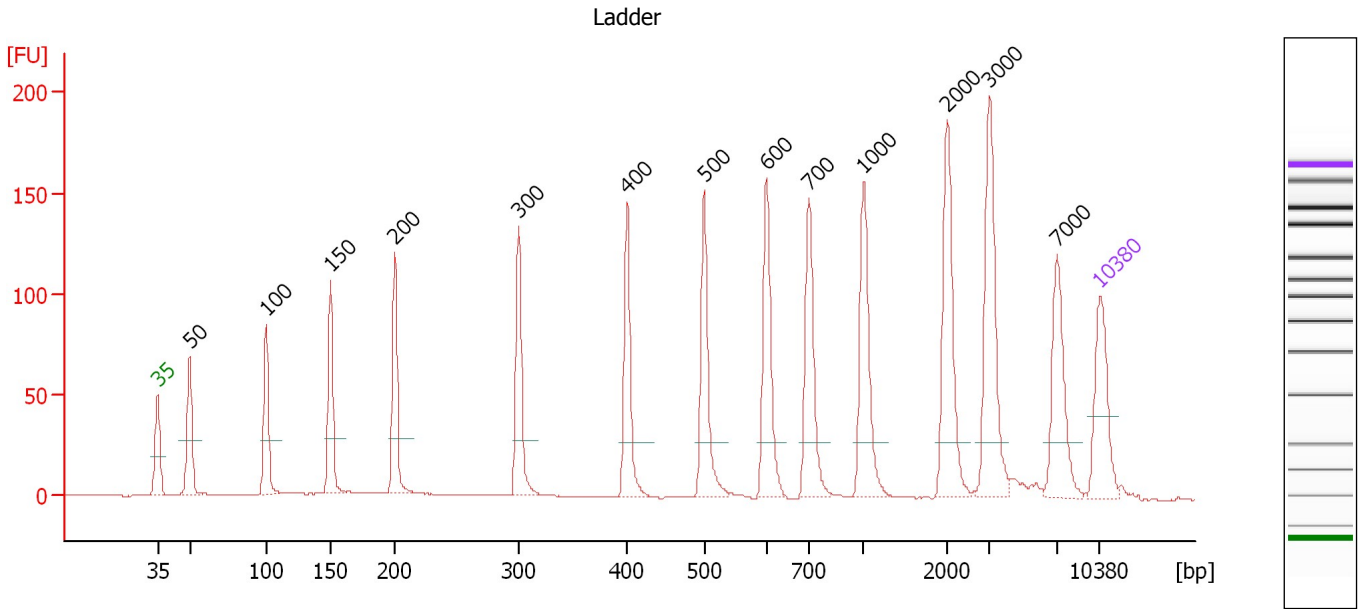
**Ladder**

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\2016-09-09\2016-09-09\_002.xad

Created: 9/9/2016 1:02:34 PM  
 Modified: 9/9/2016 1:48:50 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

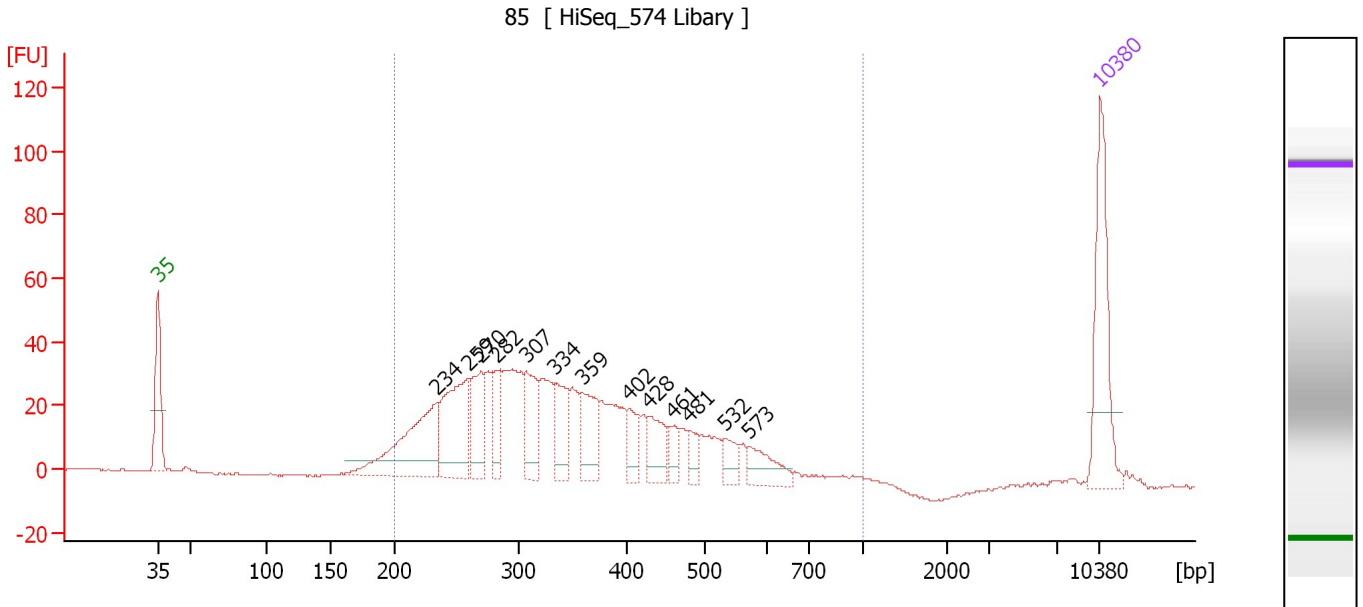
**Peak table for Ladder**

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	45.39
3	100	150.00	2,272.7	Ladder Peak	51.09
4	150	150.00	1,515.2	Ladder Peak	55.86
5	200	150.00	1,136.4	Ladder Peak	60.59
6	300	150.00	757.6	Ladder Peak	69.84
7	400	150.00	568.2	Ladder Peak	77.88
8	500	150.00	454.5	Ladder Peak	83.58
9	600	150.00	378.8	Ladder Peak	88.21
10	700	150.00	324.7	Ladder Peak	91.37
11	1,000	150.00	227.3	Ladder Peak	95.46
12	2,000	150.00	113.6	Ladder Peak	101.65
13	3,000	150.00	75.8	Ladder Peak	104.82
14	7,000	150.00	32.5	Ladder Peak	109.83
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_002.xad

Created: 9/9/2016 1:02:34 PM  
 Modified: 9/9/2016 1:48:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 85**

Number of peaks found: 13                      Corr. Area 1: 830.0  
 Noise: 0.2

**Peak table for sample 1 : 85**

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	234	124.46	806.5		63.72
3	259	106.24	620.9		66.07
4	270	55.13	309.5		67.05
5	282	37.42	201.0		68.18
6	307	53.28	263.1		70.39
7	334	41.18	187.0		72.55
8	359	49.14	207.6		74.56
9	402	23.79	89.7		78.00
10	428	34.44	121.9		79.47
11	461	16.35	53.8		81.34
12	481	13.66	43.0		82.52
13	532	18.94	53.9		85.07
14	573	29.01	76.8		86.93
15	10,380	75.00	10.9	Upper Marker	113.00

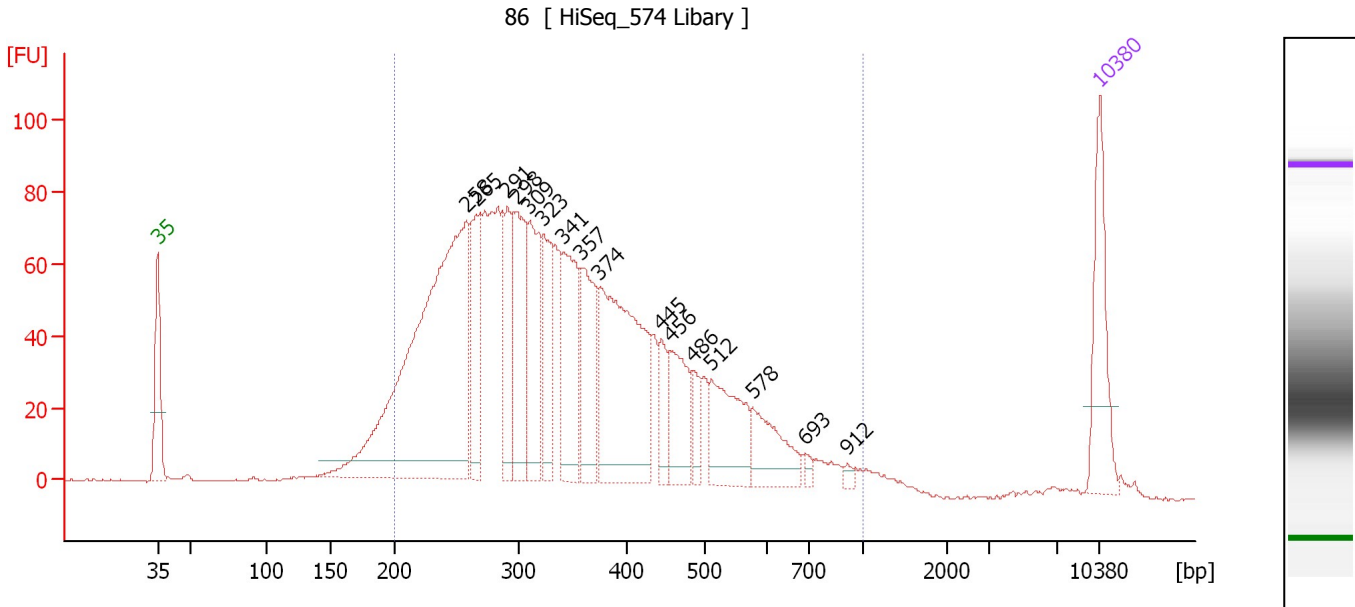
**Region table for sample 1 : 85**

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	349	830.0	4,125.3	857.44	97	29.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_002.xad

Created: 9/9/2016 1:02:34 PM  
 Modified: 9/9/2016 1:48:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 86**

Number of peaks found: 16      Corr. Area 1: 2,057.2  
 Noise: 0.2

**Peak table for sample 2 : 86**

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	258	641.18	3,767.9		65.94
3	265	102.64	586.2		66.63
4	291	85.80	446.8		69.00
5	298	140.53	714.8		69.65
6	309	124.25	608.7		70.58
7	323	87.86	412.4		71.67
8	341	131.44	583.6		73.16
9	357	112.29	476.3		74.44
10	374	275.44	1,114.5		75.82
11	445	35.77	121.9		80.42
12	456	75.77	251.8		81.06
13	486	25.81	80.4		82.80
14	512	96.50	285.6		84.13
15	578	66.64	174.6		87.19
16	693	6.20	13.5		91.15
17	912	5.29	8.8		94.26
18	10,380	75.00	10.9	Upper Marker	113.00

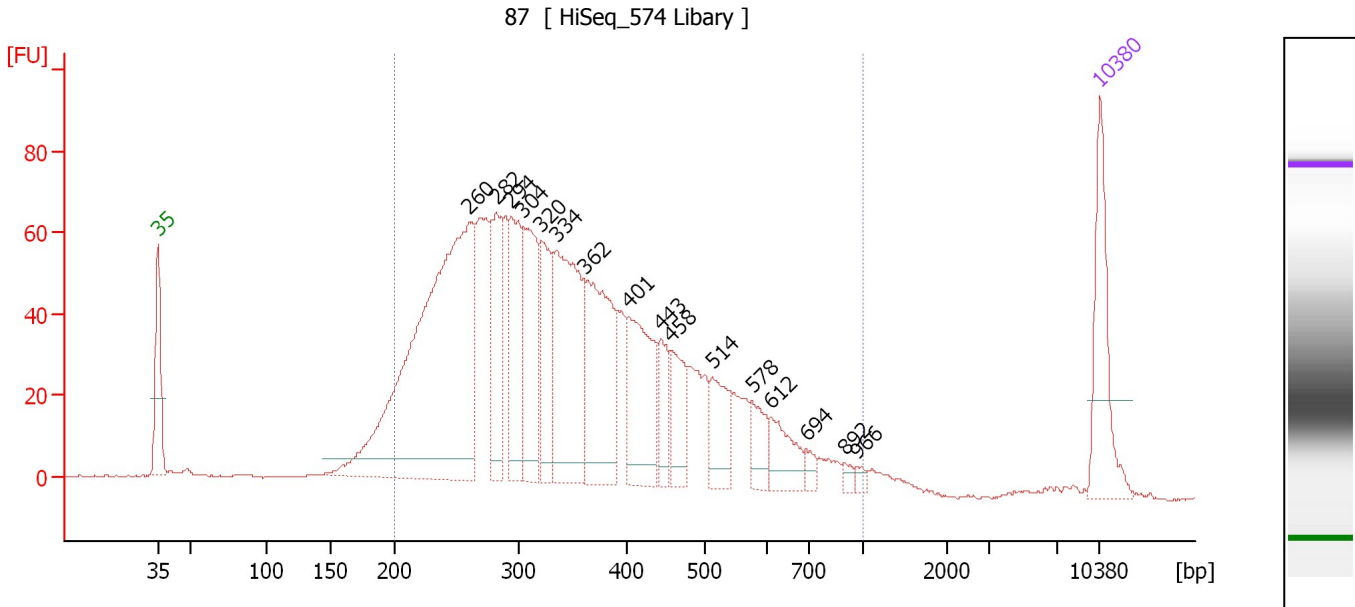
**Region table for sample 2 : 86**

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	361	2,057.2	11,625.4	2,425.58	93	34.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_002.xad

Created: 9/9/2016 1:02:34 PM  
 Modified: 9/9/2016 1:48:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 87**

Number of peaks found: 16      Corr. Area 1: 1,780.1  
 Noise: 0.2

**Peak table for sample 3 : 87**

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	260	623.43	3,628.9		66.17
3	282	104.91	563.7		68.17
4	294	118.05	608.6		69.28
5	304	137.87	686.7		70.18
6	320	95.26	450.4		71.48
7	334	208.90	947.3		72.58
8	362	170.88	716.0		74.79
9	401	122.58	462.9		77.95
10	443	41.62	142.2		80.36
11	458	54.76	181.3		81.16
12	514	51.99	153.3		84.22
13	578	32.98	86.5		87.18
14	612	40.59	100.5		88.58
15	694	9.33	20.4		91.19
16	892	6.36	10.8		94.00
17	966	5.64	8.9		95.00
18	10,380	75.00	10.9	Upper Marker	113.00

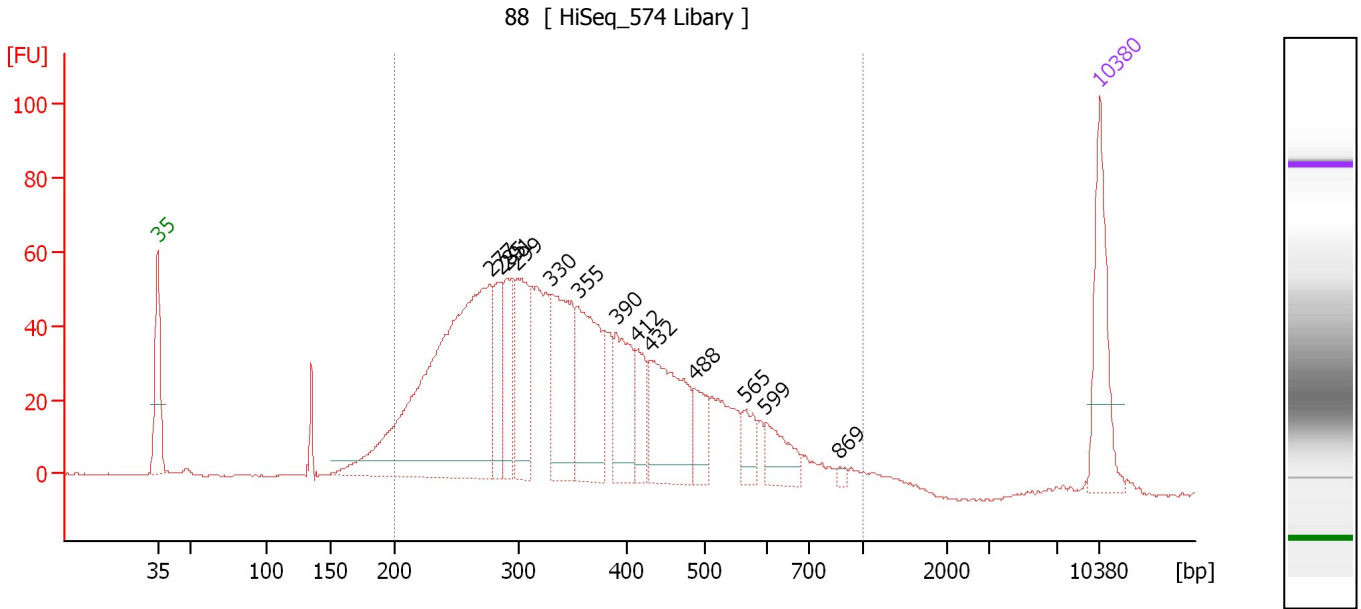
**Region table for sample 3 : 87**

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	364	1,780.1	10,462.7	2,190.76	93	35.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_002.xad

Created: 9/9/2016 1:02:34 PM  
 Modified: 9/9/2016 1:48:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 88**

Number of peaks found: 13                      Corr. Area 1: 1,431.8  
 Noise: 0.2

**Peak table for sample 4 : 88**

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	277	534.05	2,925.3		67.68
3	285	67.76	360.4		68.44
4	291	68.23	355.3		69.00
5	299	123.32	625.6		69.72
6	330	148.62	683.4		72.21
7	355	143.38	612.1		74.25
8	390	81.76	317.8		77.06
9	412	43.28	159.0		78.59
10	432	132.08	463.1		79.71
11	488	37.19	115.6		82.87
12	565	25.85	69.3		86.59
13	599	37.89	95.8		88.17
14	869	3.92	6.8		93.68
15	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 : 88**

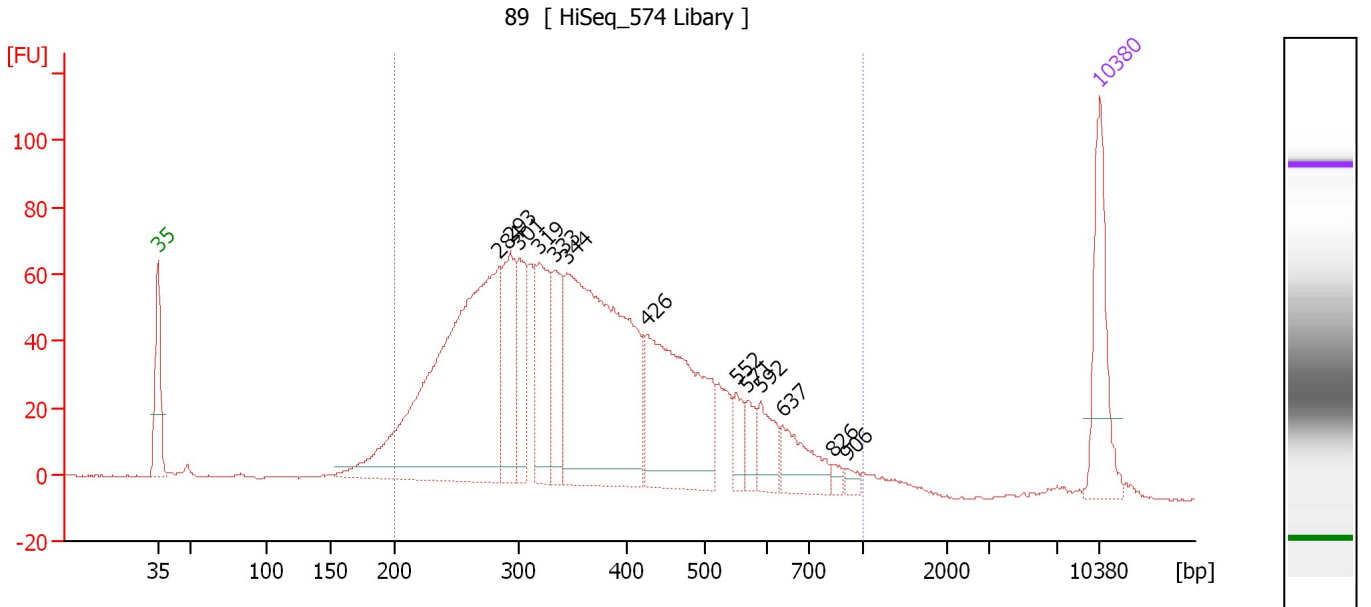
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	367	1,431.8	7,835.1	1,672.86	95	33.3



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_002.xad

Created: 9/9/2016 1:02:34 PM  
 Modified: 9/9/2016 1:48:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 89**

Number of peaks found: 13                      Corr. Area 1: 1,799.8  
 Noise: 0.2

**Peak table for sample 5 : 89**

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	284	552.09	2,942.7		68.38
3	293	109.78	567.3		69.21
4	301	81.80	412.4		69.88
5	319	105.05	498.7		71.38
6	333	76.81	349.1		72.52
7	344	439.43	1,934.0		73.40
8	426	240.22	854.9		79.34
9	552	26.34	72.4		85.96
10	571	22.69	60.3		86.84
11	592	37.60	96.3		87.82
12	637	49.69	118.2		89.37
13	826	7.04	12.9		93.10
14	906	7.24	12.1		94.18
15	10,380	75.00	10.9	Upper Marker	113.00

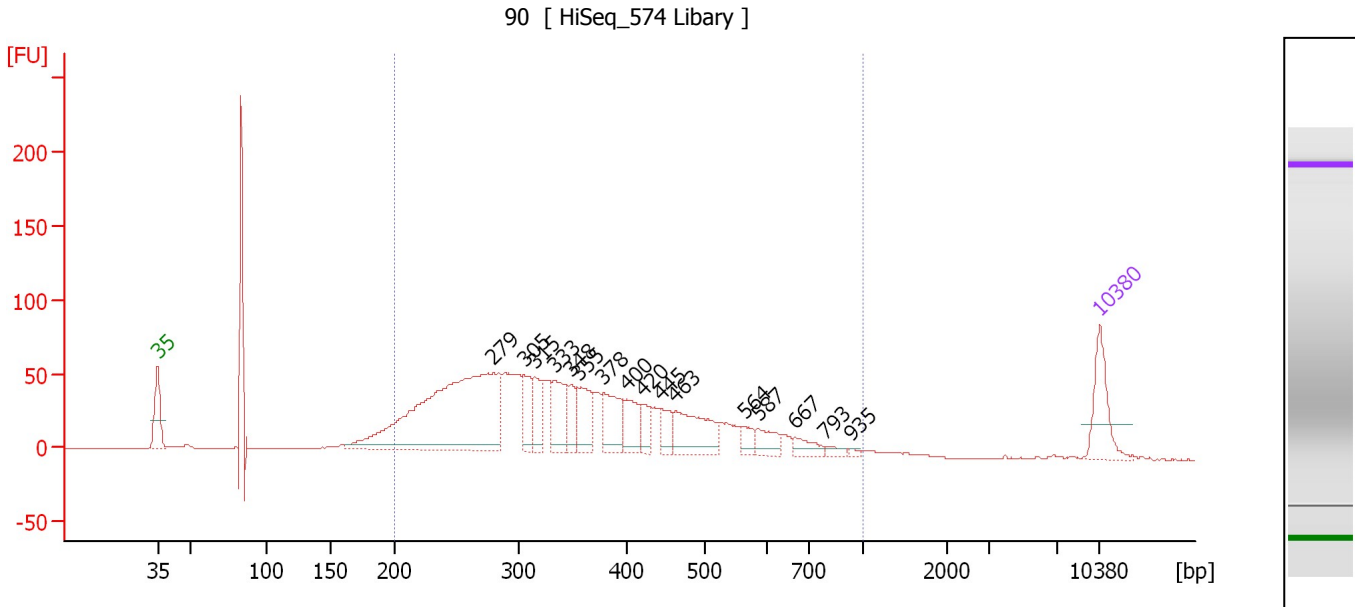
**Region table for sample 5 : 89**

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	379	1,799.8	8,277.1	1,812.48	95	33.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_002.xad

Created: 9/9/2016 1:02:34 PM  
 Modified: 9/9/2016 1:48:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 90**

Number of peaks found: 16                      Corr. Area 1: 1,435.9  
 Noise: 0.2

**Peak table for sample 6 : 90**

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	279	704.84	3,824.1		67.92
3	305	70.05	348.2		70.23
4	315	61.38	295.0		71.06
5	333	90.60	412.5		72.48
6	348	55.83	243.2		73.68
7	355	81.92	349.7		74.26
8	378	91.81	367.6		76.14
9	400	69.36	262.8		77.87
10	420	37.74	136.1		79.02
11	445	40.52	138.0		80.43
12	463	124.93	408.6		81.48
13	564	24.91	66.9		86.56
14	587	37.81	97.6		87.61
15	667	28.05	63.7		90.33
16	793	11.23	21.5		92.63
17	935	4.43	7.2		94.57
18	10,380	75.00	10.9	Upper Marker	113.00

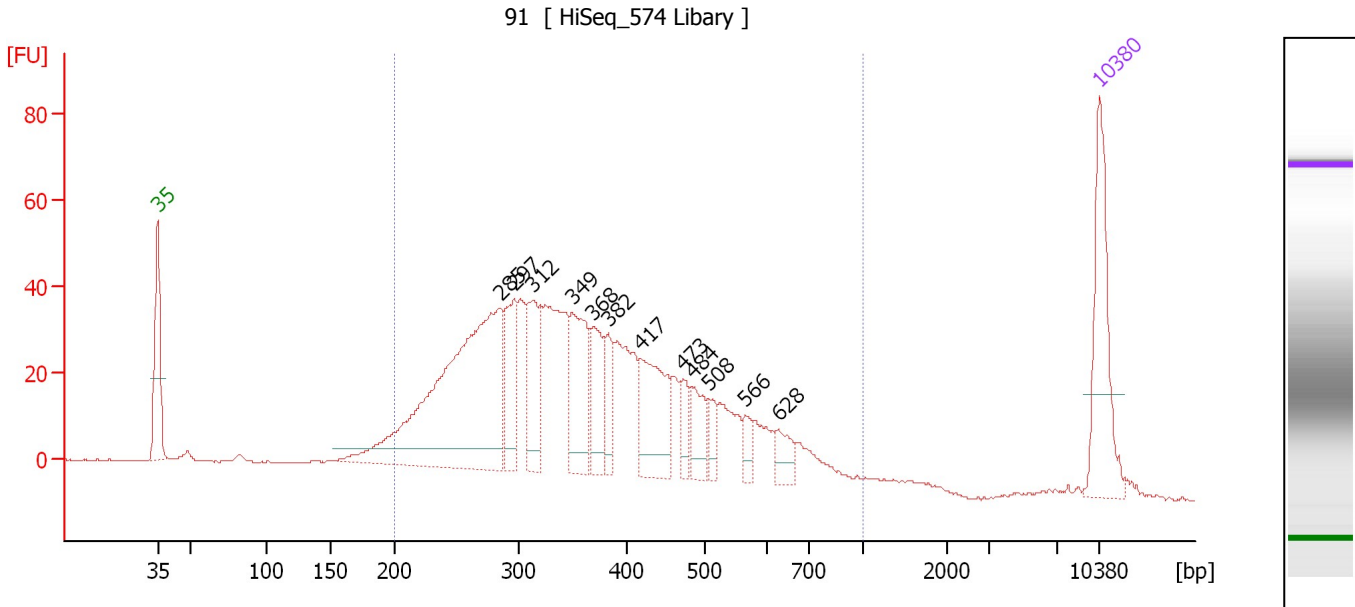
**Region table for sample 6 : 90**

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	365	1,435.9	8,829.0	1,859.82	88	34.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_002.xad

Created: 9/9/2016 1:02:34 PM  
 Modified: 9/9/2016 1:48:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 91**

Number of peaks found: 12                      Corr. Area 1: 1,027.0  
 Noise: 0.2

**Peak table for sample 7 : 91**

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	285	376.19	2,003.1		68.41
3	297	70.68	361.0		69.53
4	312	69.12	335.6		70.81
5	349	85.78	372.2		73.79
6	368	54.68	225.3		75.28
7	382	32.91	130.4		76.46
8	417	86.57	314.5		78.85
9	473	21.11	67.6		82.05
10	484	31.64	99.0		82.69
11	508	16.86	50.3		83.97
12	566	13.61	36.4		86.63
13	628	20.02	48.3		89.08
14	10,380	75.00	10.9	Upper Marker	113.00

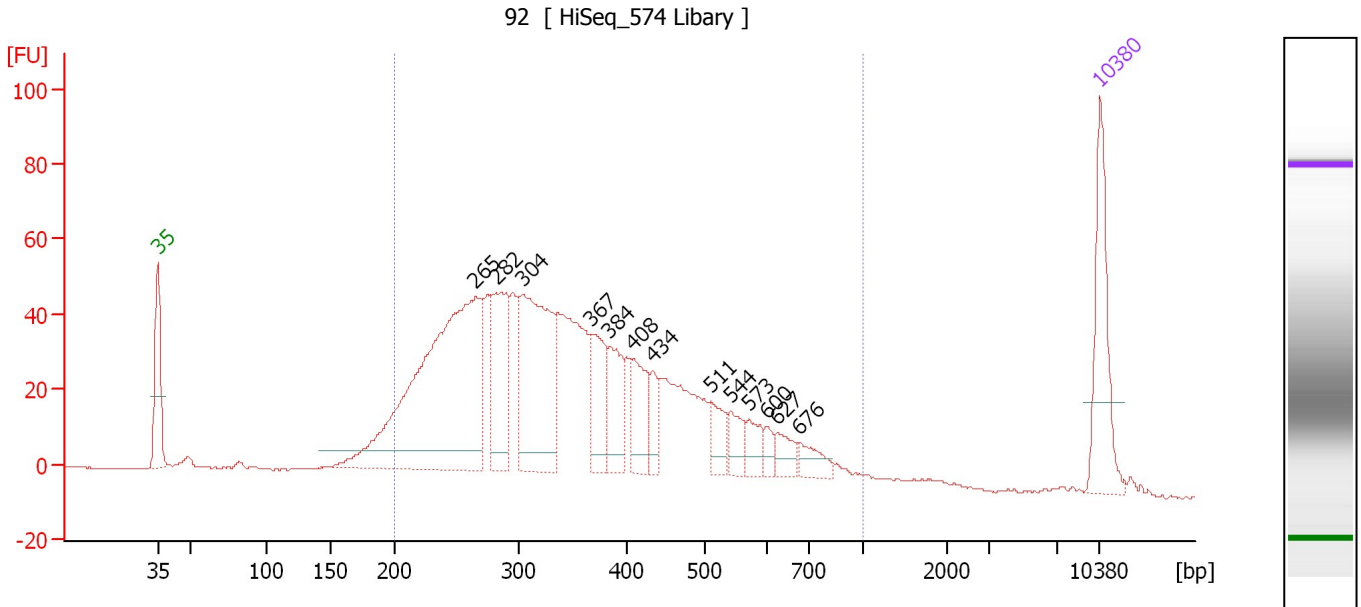
**Region table for sample 7 : 91**

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	374	1,027.0	5,751.8	1,258.99	94	31.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_002.xad

Created: 9/9/2016 1:02:34 PM  
 Modified: 9/9/2016 1:48:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 92**

Number of peaks found: 13                      Corr. Area 1: 1,319.7  
 Noise: 0.2

**Peak table for sample 8 : 92**

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	265	472.59	2,699.8		66.62
3	282	112.75	606.7		68.14
4	304	223.03	1,112.8		70.14
5	367	67.20	277.5		75.22
6	384	61.32	242.1		76.57
7	408	54.30	201.5		78.35
8	434	25.57	89.3		79.81
9	511	30.07	89.2		84.08
10	544	25.04	69.8		85.59
11	573	21.10	55.8		86.95
12	600	10.75	27.2		88.19
13	627	18.70	45.2		89.05
14	676	20.64	46.2		90.62
15	10,380	75.00	10.9	Upper Marker	113.00

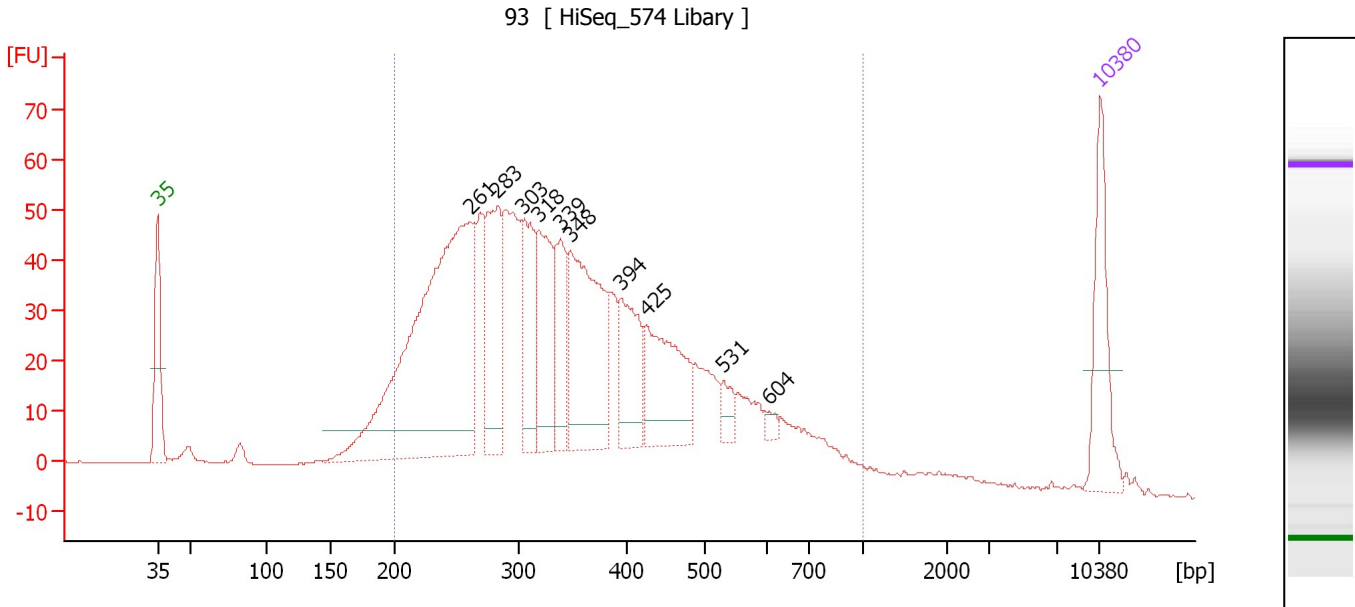
**Region table for sample 8 : 92**

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	368	1,319.7	7,650.4	1,618.09	92	35.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_002.xad

Created: 9/9/2016 1:02:34 PM  
 Modified: 9/9/2016 1:48:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 93**

Number of peaks found: 10                      Corr. Area 1: 1,368.3  
 Noise: 0.2

**Peak table for sample 9 : 93**

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	261	610.74	3,543.8		66.24
3	283	157.66	844.3		68.26
4	303	107.00	534.3		70.12
5	318	127.75	608.0		71.32
6	339	75.15	336.1		72.95
7	348	219.68	957.7		73.66
8	394	91.13	350.1		77.43
9	425	130.93	467.2		79.28
10	531	19.59	55.9		85.01
11	604	7.44	18.6		88.34
12	10,380	75.00	10.9	Upper Marker	113.00

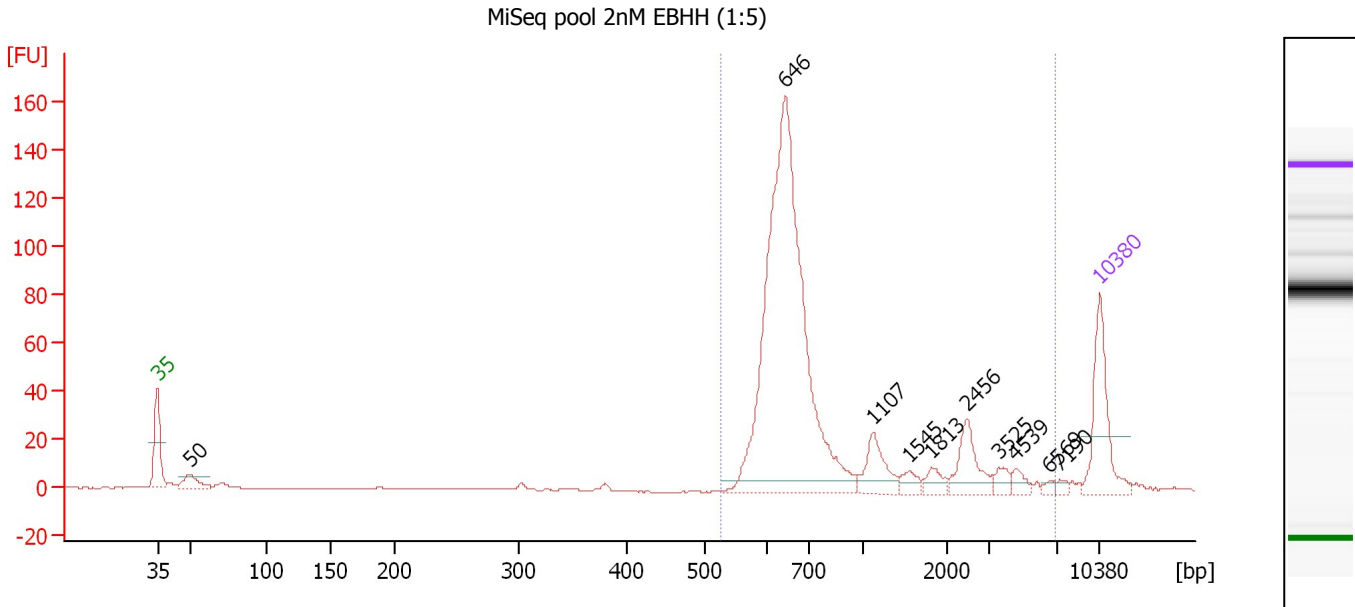
**Region table for sample 9 : 93**

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	365	1,368.3	10,555.8	2,212.54	92	35.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_002.xad

Created: 9/9/2016 1:02:34 PM  
 Modified: 9/9/2016 1:48:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : MiSeq pool 2nM EBHH (1:5)**

Number of peaks found: 10                      Corr. Area 1: 709.9  
 Noise: 0.1

**Peak table for sample 10 : MiSeq pool 2nM EBHH (1:5)**

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	50	27.43	831.9		45.38
3	646	652.57	1,531.6		89.65
4	1,107	44.20	60.5		96.12
5	1,545	12.55	12.3		98.83
6	1,813	14.33	12.0		100.49
7	2,456	43.64	26.9		103.09
8	3,525	10.99	4.7		105.47
9	4,539	10.35	3.5		106.75
10	6,569	4.43	1.0		109.29
11	7,190	4.65	1.0		110.01
12	10,380	75.00	10.9	Upper Marker	113.00

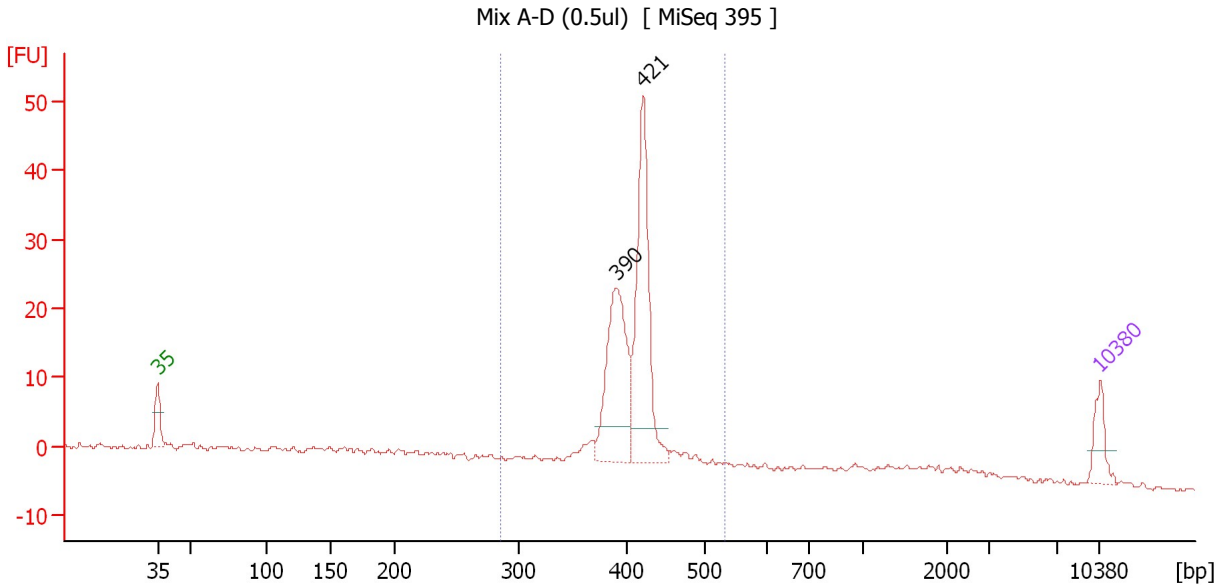
**Region table for sample 10 : MiSeq pool 2nM EBHH (1:5)**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
528	6,846	1,090	709.9	1,639.1	804.65	86	94.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_002.xad

Created: 9/9/2016 1:02:34 PM  
 Modified: 9/9/2016 1:48:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : Mix A-D (0.5ul)**

Number of peaks found: 2                      Corr. Area 1: 146.5  
 Noise: 0.2

**Peak table for sample 11 : Mix A-D (0.5ul)**

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	390	502.17	1,949.0		77.11
3	421	616.31	2,219.2		79.06
4	10,380	75.00	10.9	Upper Marker	113.00

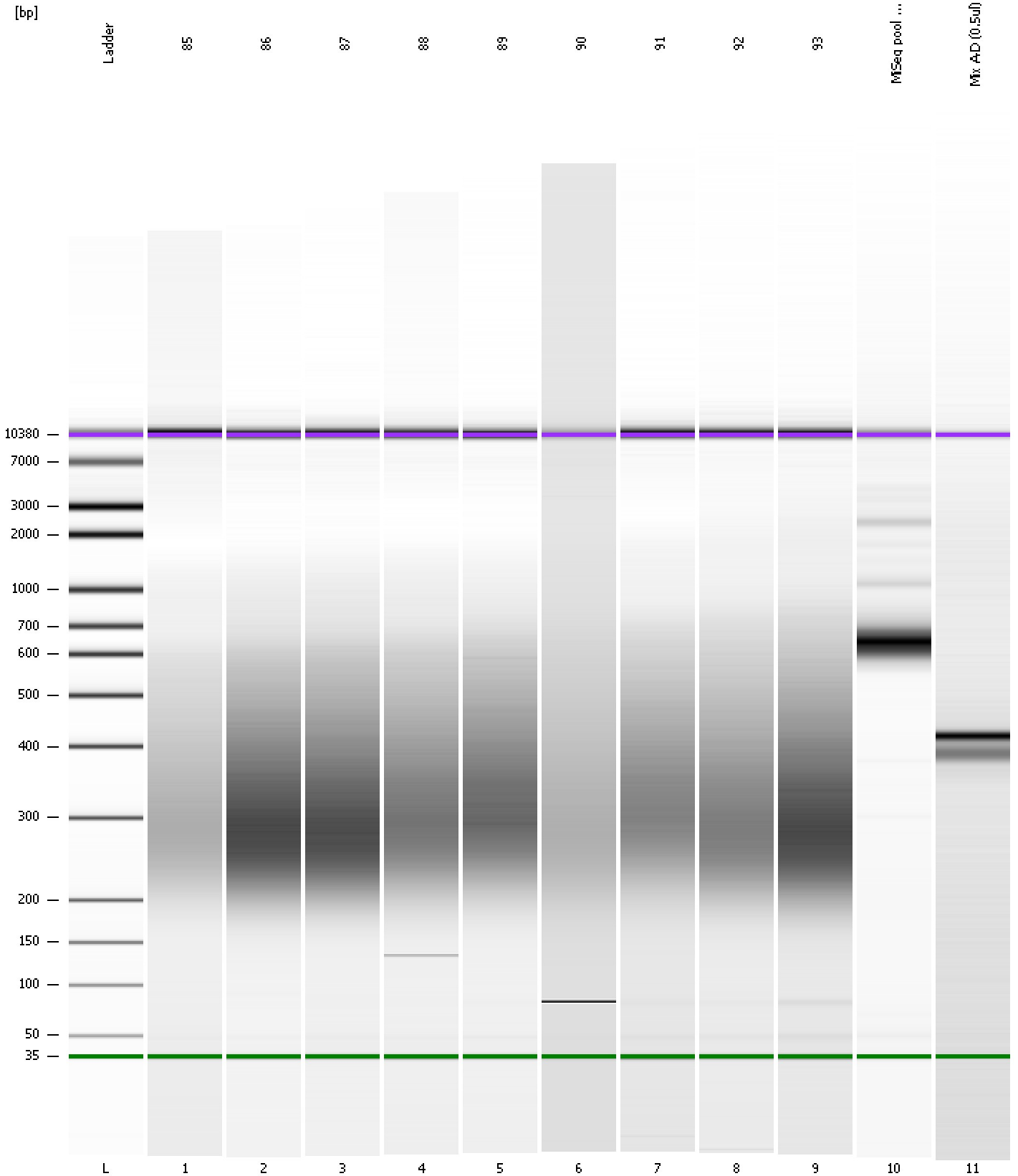
**Region table for sample 11 : Mix A-D (0.5ul)**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
286	533	407	146.5	5,107.2	1,361.21	68	8.0

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_002.xad

Created: 9/9/2016 1:02:34 PM  
Modified: 9/9/2016 1:48:50 PM

**Gel Image**





Assay Class: High Sensitivity DNA Assay Created: 9/9/2016 1:02:34 PM  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_002.xad Modified: 9/9/2016 1:48:50 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		9/9/2016 1:43:52 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\2016-09-09\2016-09-09_002.xad)		Instrument	Run		9/9/2016 1:02:40 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/9/2016 1:02:40 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/9/2016 1:02:40 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/9/2016 1:02:40 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/9/2016 1:02:40 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/9/2016 1:02:40 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/9/2016 1:02:40 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1