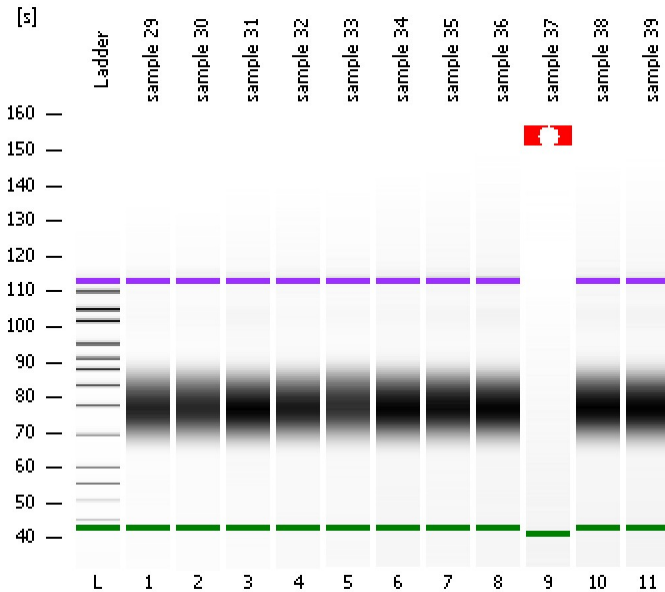


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-22\2015-10-22\_001.xad

Created: 10/22/2015 10:11:38 AM  
Modified: 10/22/2015 10:52:56 AM

**Electrophoresis File Run Summary**



Instrument Information:

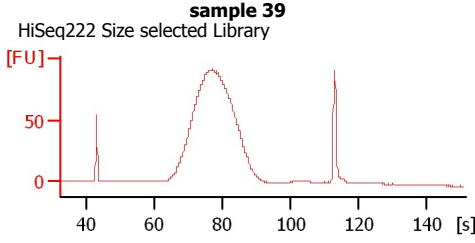
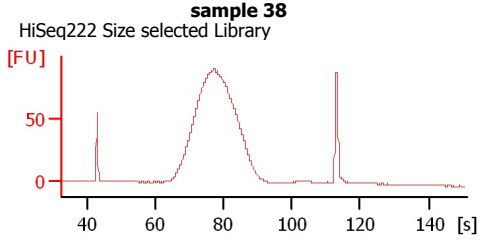
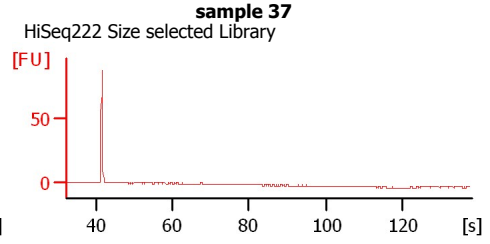
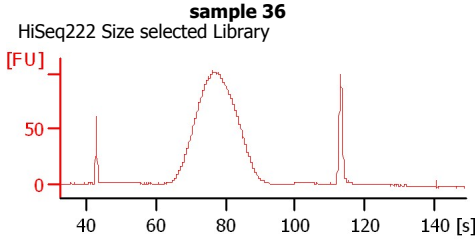
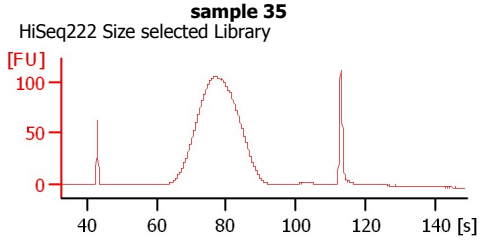
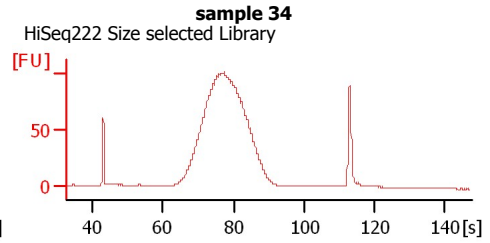
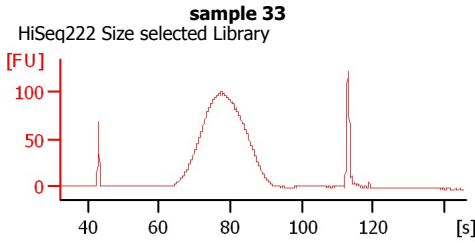
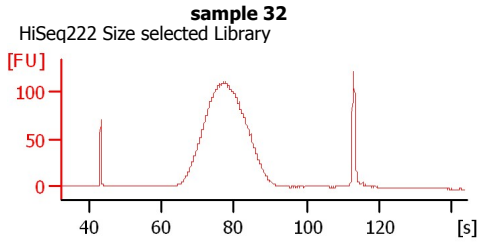
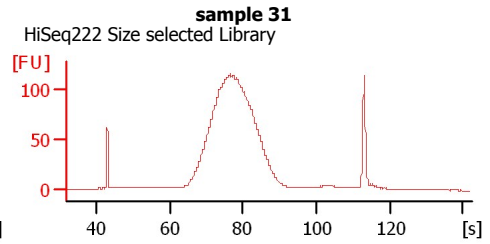
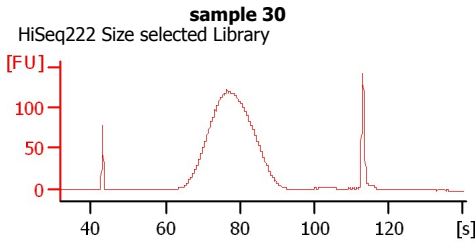
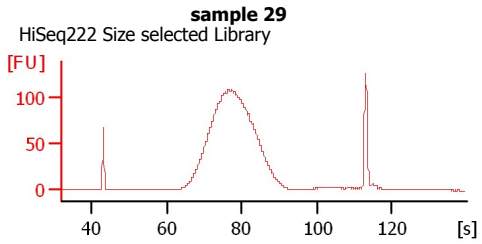
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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:\...ents and Settings\Bioanalyzer\2015-10-22\2015-10-22\_001.xad

Created: 10/22/2015 10:11:38 AM  
Modified: 10/22/2015 10:52:56 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 29	HiSeq222 Size selected Library	<input type="checkbox"/>	✓			
sample 30	HiSeq222 Size selected Library	<input type="checkbox"/>	✓			
sample 31	HiSeq222 Size selected Library	<input type="checkbox"/>	✓			
sample 32	HiSeq222 Size selected Library	<input type="checkbox"/>	✓			
sample 33	HiSeq222 Size selected Library	<input type="checkbox"/>	✓			
sample 34	HiSeq222 Size selected Library	<input type="checkbox"/>	✓			
sample 35	HiSeq222 Size selected Library	<input type="checkbox"/>	✓			
sample 36	HiSeq222 Size selected Library	<input type="checkbox"/>	✓			
sample 37	HiSeq222 Size selected Library	<input type="checkbox"/>	✓			
sample 38	HiSeq222 Size selected Library	<input type="checkbox"/>	✓			
sample 39	HiSeq222 Size selected Library	<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			
<b>Chip Lot #</b>				<b>Reagent Kit Lot #</b>		

**Chip Comments :**

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-22\2015-10-22\_001.xad

Created: 10/22/2015 10:11:38 AM  
Modified: 10/22/2015 10:52:56 AM

**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

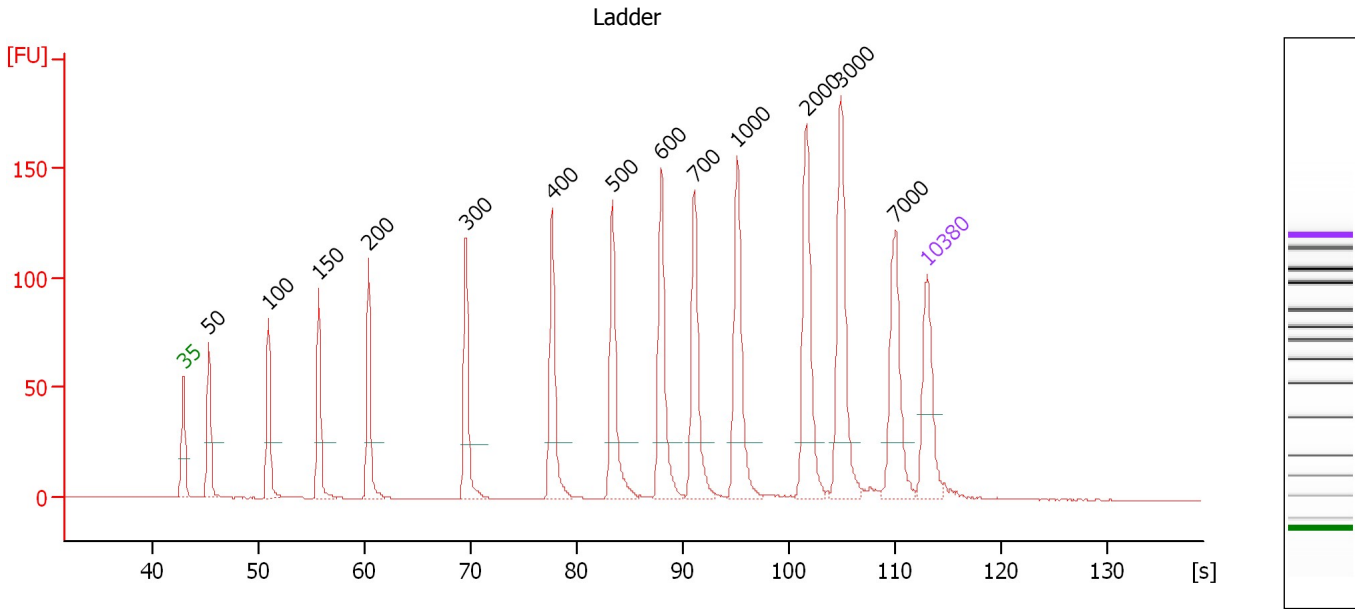
**Ladder**

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:\...ents and Settings\Bioanalyzer\2015-10-22\2015-10-22\_001.xad

Created: 10/22/2015 10:11:38 AM  
 Modified: 10/22/2015 10:52:56 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

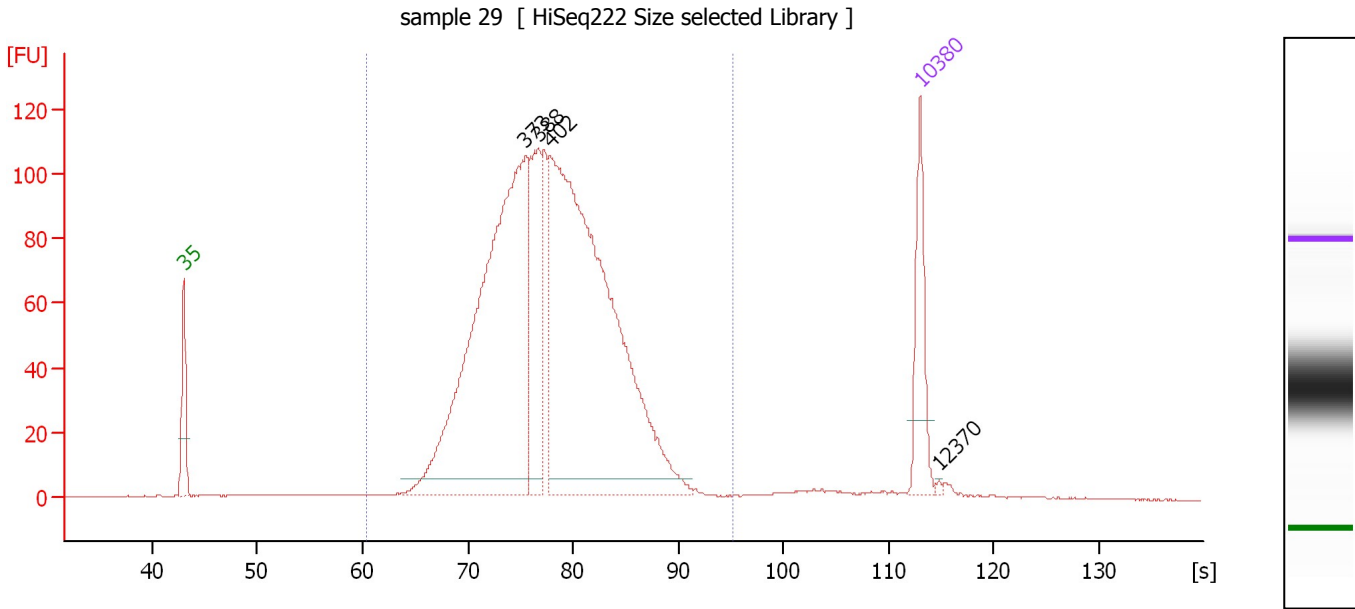
**Peak table for Ladder**

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	45.38
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	69.58
7	400	150.00	568.2	Ladder Peak	77.67
8	500	150.00	454.5	Ladder Peak	83.38
9	600	150.00	378.8	Ladder Peak	87.98
10	700	150.00	324.7	Ladder Peak	91.06
11	1,000	150.00	227.3	Ladder Peak	95.11
12	2,000	150.00	113.6	Ladder Peak	101.63
13	3,000	150.00	75.8	Ladder Peak	104.86
14	7,000	150.00	32.5	Ladder Peak	109.97
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-22\2015-10-22\_001.xad

Created: 10/22/2015 10:11:38 AM  
 Modified: 10/22/2015 10:52:56 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : sample 29**

Number of peaks found: 4                      Corr. Area 1: 1,936.7  
 Noise: 0.1

**Peak table for sample 1 : sample 29**

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	373	799.71	3,247.2		75.50
3	388	176.86	690.1		76.72
4	402	944.50	3,558.3		77.80
5	10,380	75.00	10.9	Upper Marker	113.00
6	12,370	0.00	0.0		114.79

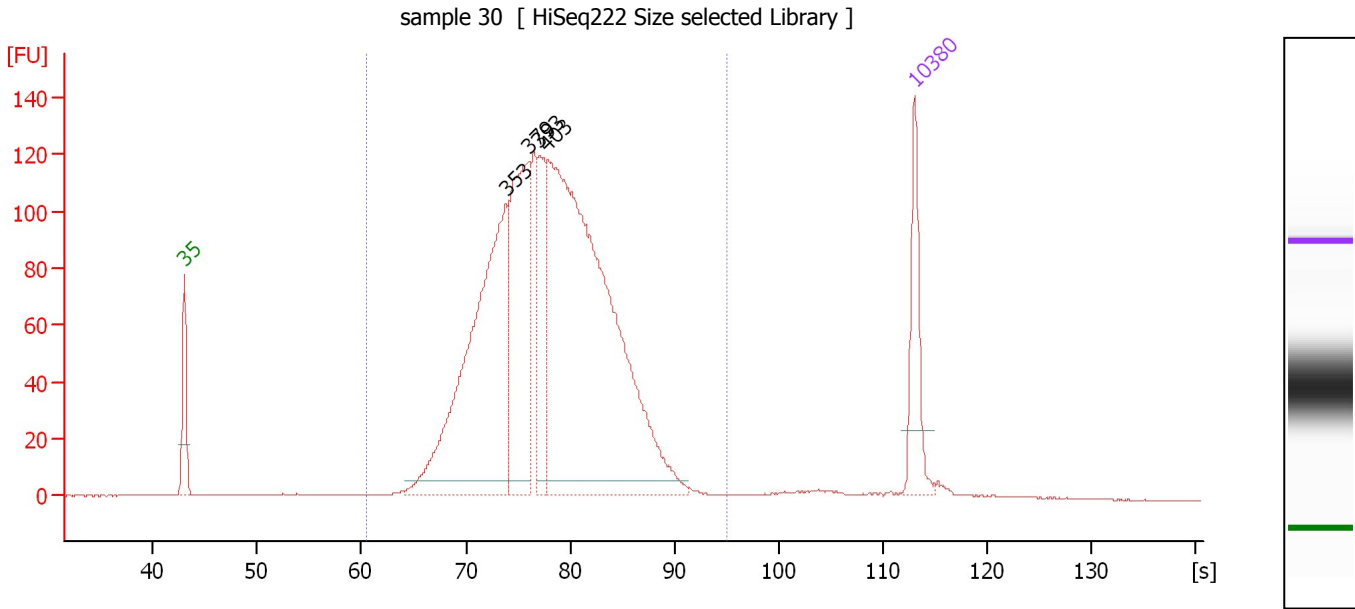
**Region table for sample 1 : sample 29**

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	412	1,936.7	8,119.4	2,088.52	96	20.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-22\2015-10-22\_001.xad

Created: 10/22/2015 10:11:38 AM  
 Modified: 10/22/2015 10:52:56 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : sample 30**

Number of peaks found: 4                      Corr. Area 1: 2,158.2  
 Noise: 0.1

**Peak table for sample 2 : sample 30**

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	353	562.41	2,417.4		73.83
3	379	297.17	1,187.3		75.99
4	393	133.29	514.4		77.07
5	403	964.11	3,624.3		77.85
6	10,380	75.00	10.9	Upper Marker	113.00

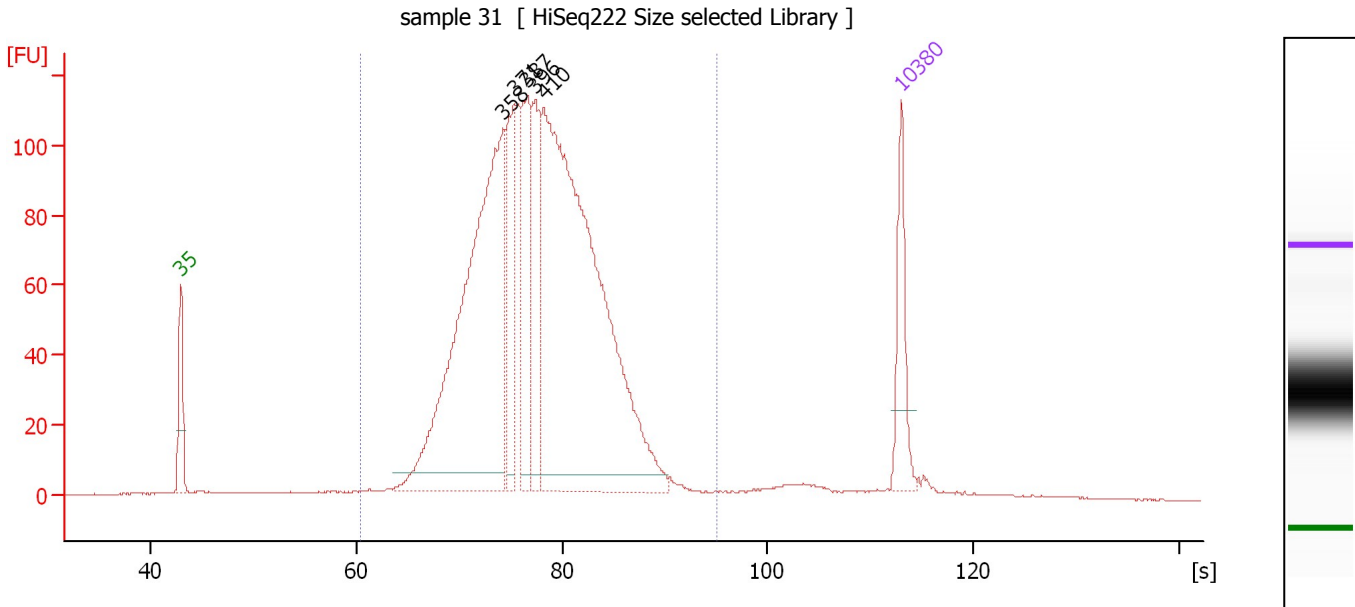
**Region table for sample 2 : sample 30**

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	415	2,158.2	8,128.3	2,103.43	96	20.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-22\2015-10-22\_001.xad

Created: 10/22/2015 10:11:38 AM  
 Modified: 10/22/2015 10:52:56 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : sample 31**

Number of peaks found: 5                      Corr. Area 1: 2,035.5  
 Noise: 0.2

**Peak table for sample 3 : sample 31**

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	358	808.70	3,420.1		74.30
3	371	167.86	685.2		75.34
4	387	176.89	692.0		76.64
5	396	153.66	587.4		77.37
6	410	1,067.30	3,941.1		78.26
7	10,380	75.00	10.9	Upper Marker	113.00

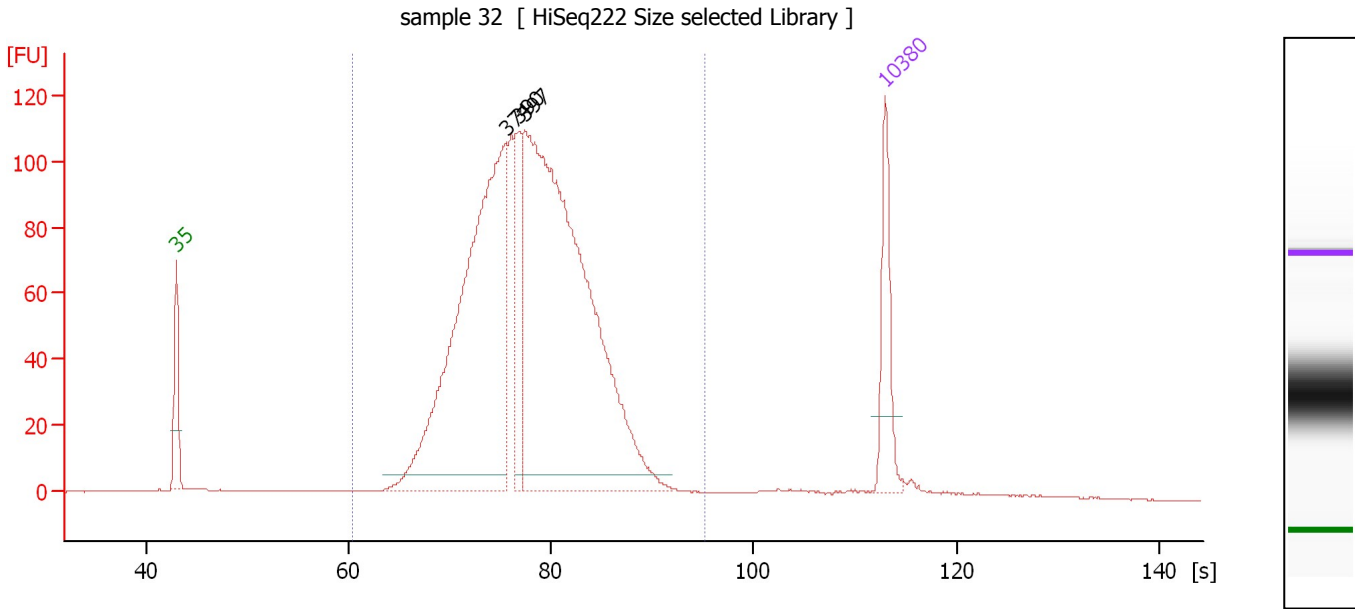
**Region table for sample 3 : sample 31**

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	410	2,035.5	10,190.9	2,602.40	95	21.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-22\2015-10-22\_001.xad

Created: 10/22/2015 10:11:38 AM  
 Modified: 10/22/2015 10:52:56 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : sample 32**

Number of peaks found: 3                      Corr. Area 1: 1,929.1  
 Noise: 0.1

**Peak table for sample 4 : sample 32**

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	374	763.42	3,096.1		75.54
3	390	115.57	449.0		76.86
4	397	1,019.43	3,895.3		77.39
5	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 : sample 32**

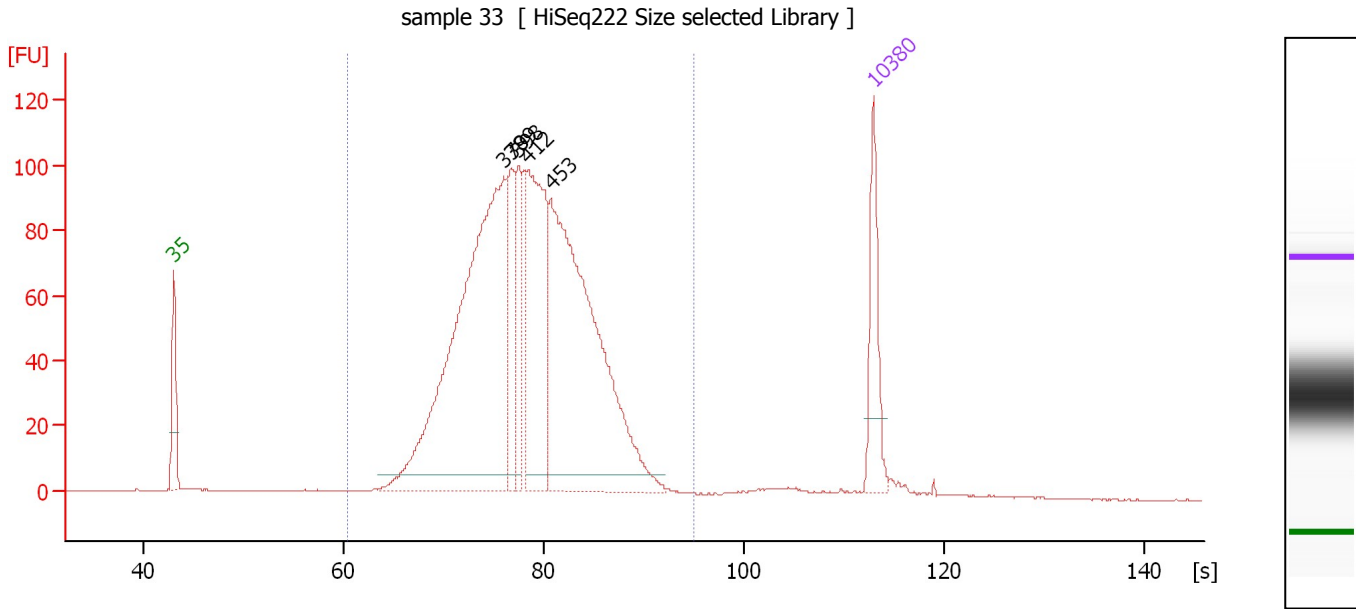
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	414	1,929.1	8,053.9	2,081.33	96	20.9



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-22\2015-10-22\_001.xad

Created: 10/22/2015 10:11:38 AM  
 Modified: 10/22/2015 10:52:56 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : sample 33**

Number of peaks found: 5                      Corr. Area 1: 1,822.9  
 Noise: 0.1

**Peak table for sample 5 : sample 33**

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	379	754.84	3,016.5		75.99
3	389	108.89	424.0		76.79
4	398	93.25	355.2		77.49
5	412	278.33	1,023.9		78.35
6	453	634.49	2,121.0		80.71
7	10,380	75.00	10.9	Upper Marker	113.00

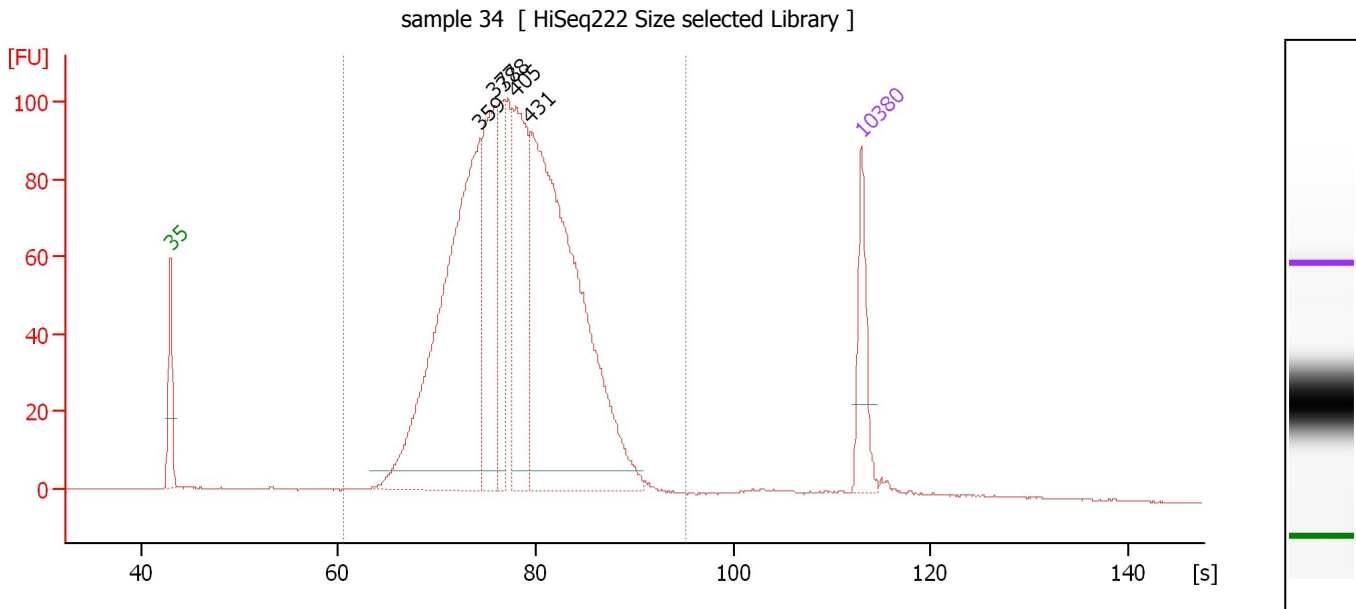
**Region table for sample 5 : sample 33**

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	422	1,822.9	7,634.1	2,005.97	96	21.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-22\2015-10-22\_001.xad

Created: 10/22/2015 10:11:38 AM  
 Modified: 10/22/2015 10:52:56 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : sample 34**

Number of peaks found: 5                      Corr. Area 1: 1,832.1  
 Noise: 0.1

**Peak table for sample 6 : sample 34**

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	359	772.59	3,257.6		74.38
3	377	270.68	1,088.4		75.80
4	388	132.94	519.7		76.67
5	405	291.50	1,089.8		77.97
6	431	882.67	3,103.0		79.44
7	10,380	75.00	10.9	Upper Marker	113.00

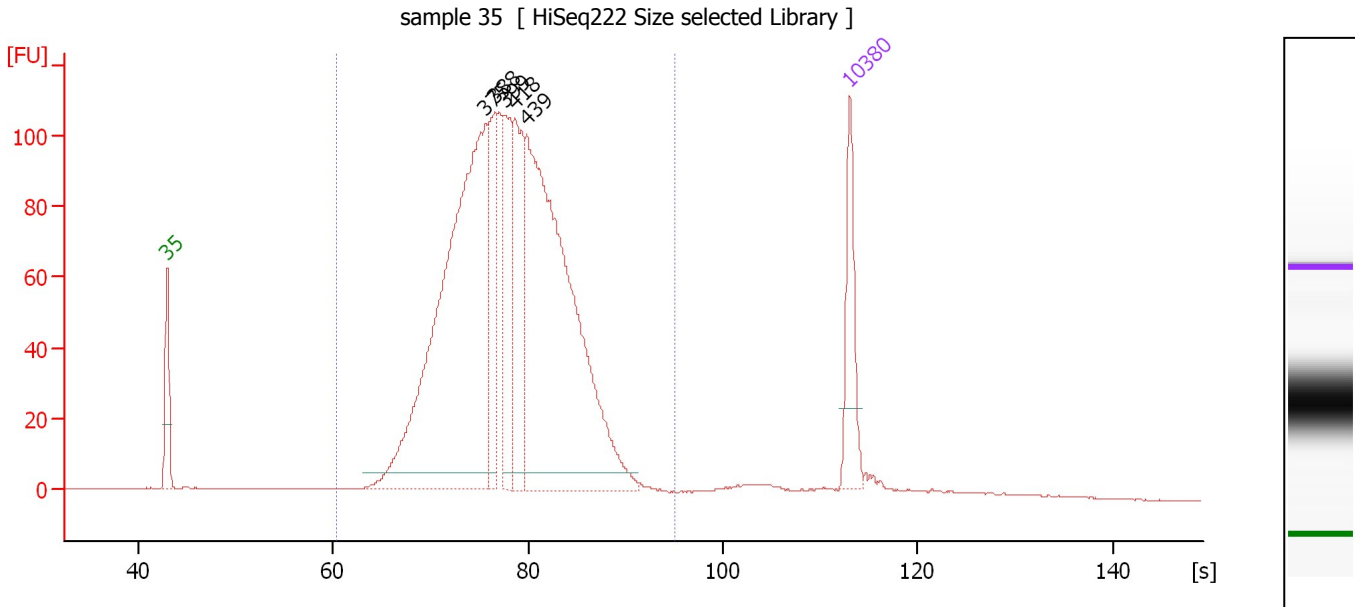
**Region table for sample 6 : sample 34**

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	414	1,832.1	9,926.7	2,561.07	96	21.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-22\2015-10-22\_001.xad

Created: 10/22/2015 10:11:38 AM  
 Modified: 10/22/2015 10:52:56 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : sample 35**

Number of peaks found: 5                      Corr. Area 1: 1,904.9  
 Noise: 0.1

**Peak table for sample 7 : sample 35**

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	375	811.66	3,278.4		75.66
3	388	141.19	551.3		76.71
4	399	145.70	553.3		77.59
5	418	170.70	619.0		78.69
6	439	745.38	2,572.5		79.90
7	10,380	75.00	10.9	Upper Marker	113.00

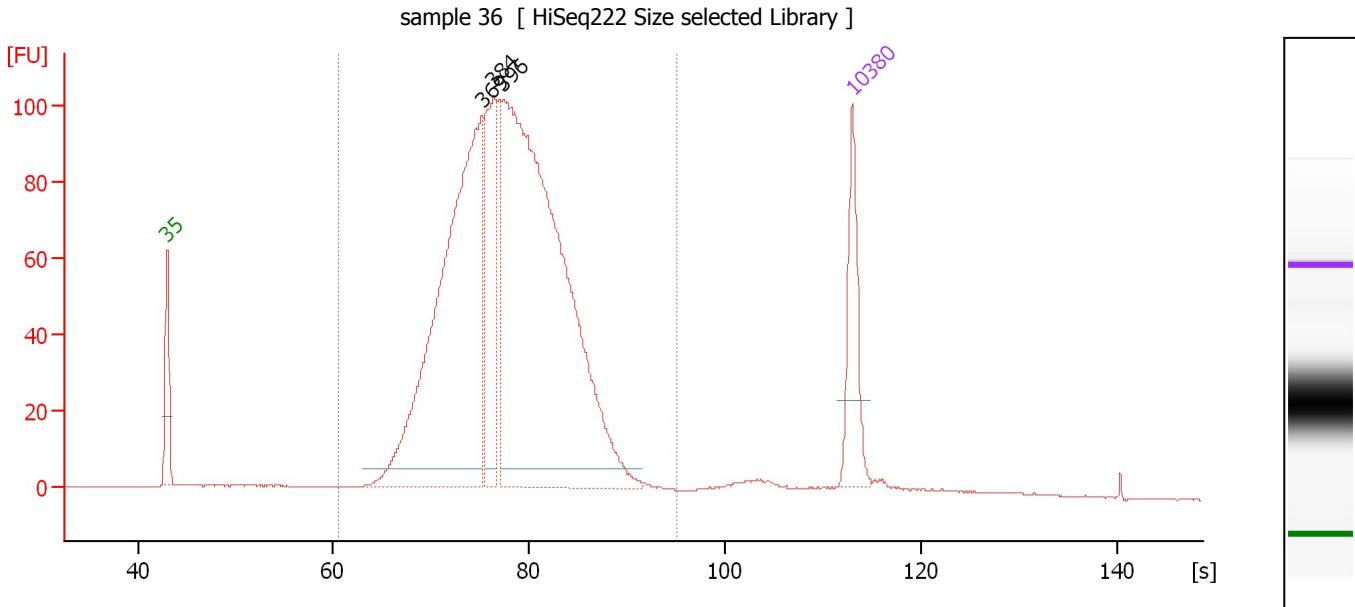
**Region table for sample 7 : sample 35**

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	417	1,904.9	8,423.8	2,192.42	95	20.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-22\2015-10-22\_001.xad

Created: 10/22/2015 10:11:38 AM  
 Modified: 10/22/2015 10:52:56 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : sample 36**

Number of peaks found: 3                      Corr. Area 1: 1,794.6  
 Noise: 0.1

**Peak table for sample 8 : sample 36**

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	369	678.74	2,783.5		75.20
3	384	179.53	708.9		76.35
4	396	964.26	3,690.1		77.34
5	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 8 : sample 36**

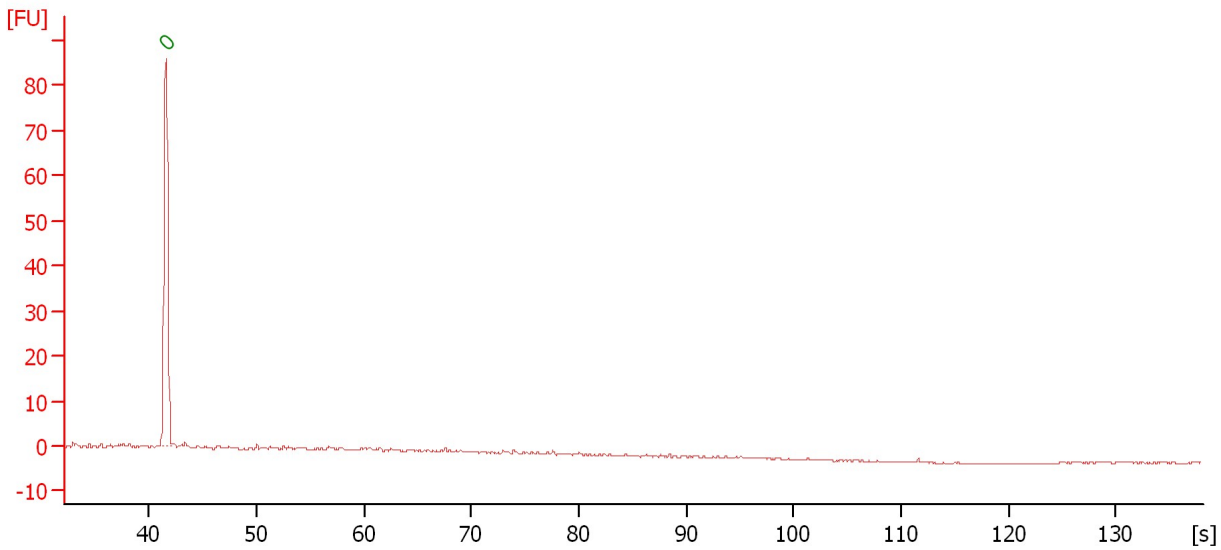
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	412	1,794.6	7,578.4	1,953.00	95	20.7

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-22\2015-10-22\_001.xad

Created: 10/22/2015 10:11:38 AM  
Modified: 10/22/2015 10:52:56 AM

**Electropherogram Summary Continued ...**

sample 37 [ HiSeq222 Size selected Library ]



**Overall Results for sample 9 : sample 37**

Number of peaks found: 0                      Noise: 0.1

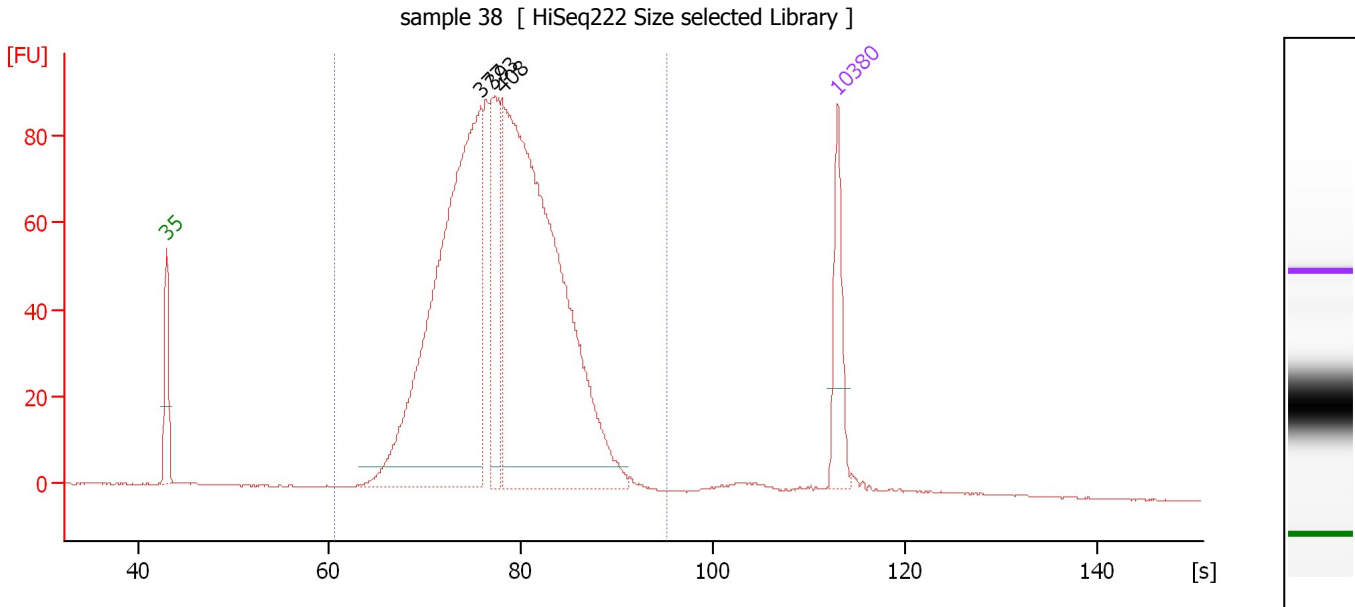
**Peak table for sample 9 : sample 37**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0	Lower Marker	41.55

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-22\2015-10-22\_001.xad

Created: 10/22/2015 10:11:38 AM  
 Modified: 10/22/2015 10:52:56 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : sample 38**

Number of peaks found: 3                      Corr. Area 1: 1,578.3  
 Noise: 0.1

**Peak table for sample 10 : sample 38**

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	377	882.25	3,545.2		75.82
3	393	169.81	654.7		77.10
4	408	1,037.90	3,857.1		78.11
5	10,380	75.00	10.9	Upper Marker	113.00

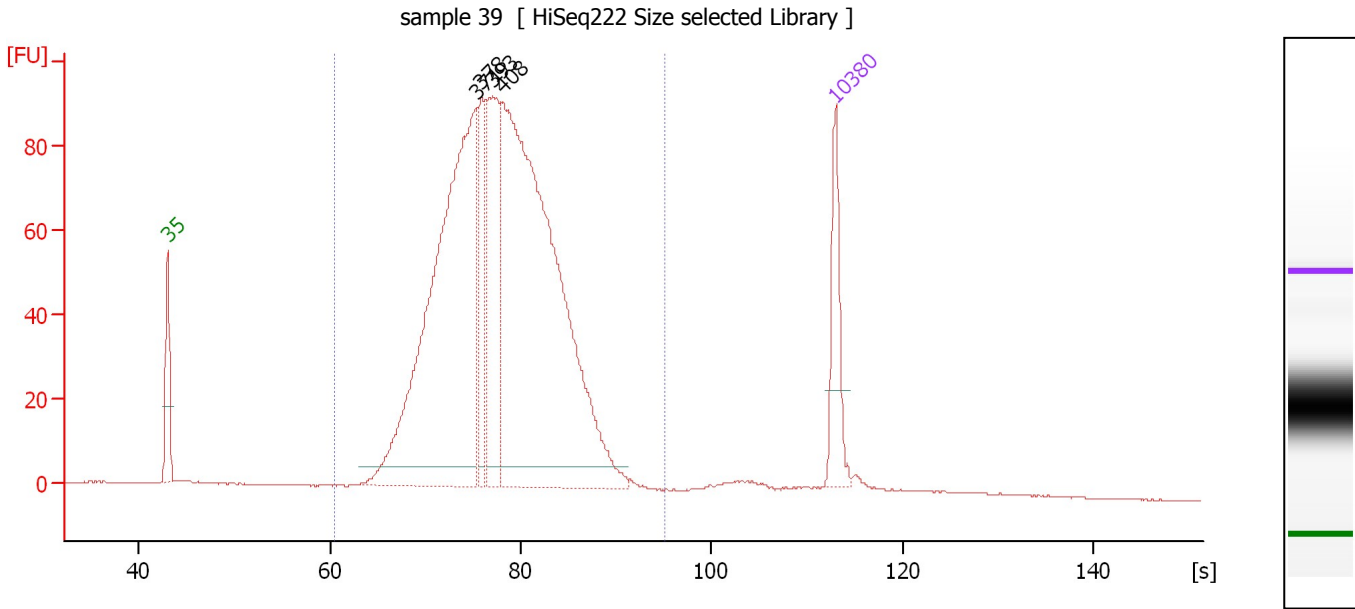
**Region table for sample 10 : sample 38**

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	416	1,578.3	8,894.7	2,311.16	96	20.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-22\2015-10-22\_001.xad

Created: 10/22/2015 10:11:38 AM  
 Modified: 10/22/2015 10:52:56 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : sample 39**

Number of peaks found: 4                      Corr. Area 1: 1,629.9  
 Noise: 0.1

**Peak table for sample 11 : sample 39**

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	371	827.79	3,377.4		75.36
3	378	124.89	500.2		75.92
4	393	226.46	873.2		77.10
5	408	998.32	3,709.9		78.11
6	10,380	75.00	10.9	Upper Marker	113.00

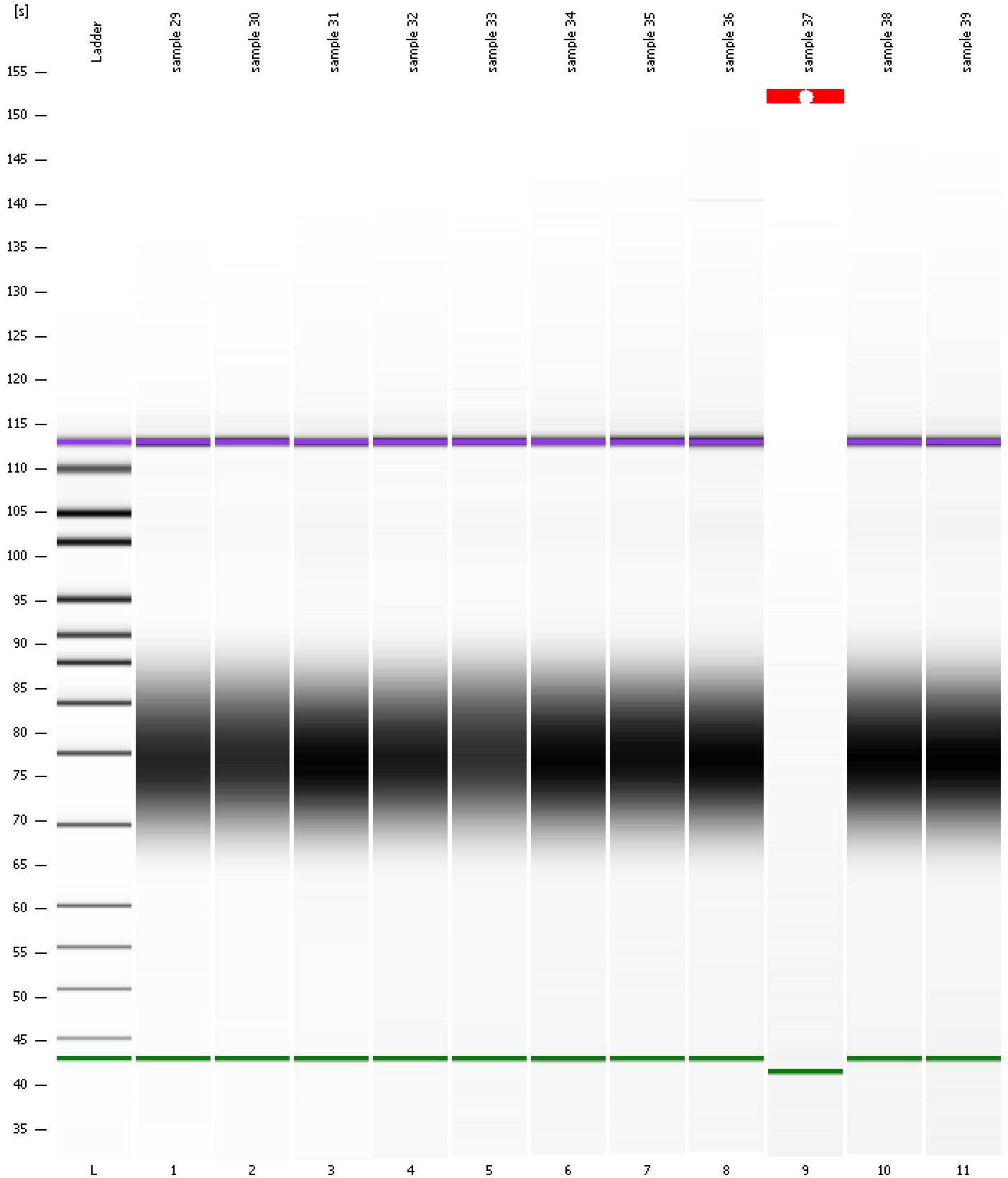
**Region table for sample 11 : sample 39**

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	412	1,629.9	8,772.1	2,261.68	97	20.5

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-22\2015-10-22\_001.xad

Created: 10/22/2015 10:11:38 AM  
Modified: 10/22/2015 10:52:56 AM

**Gel Image**



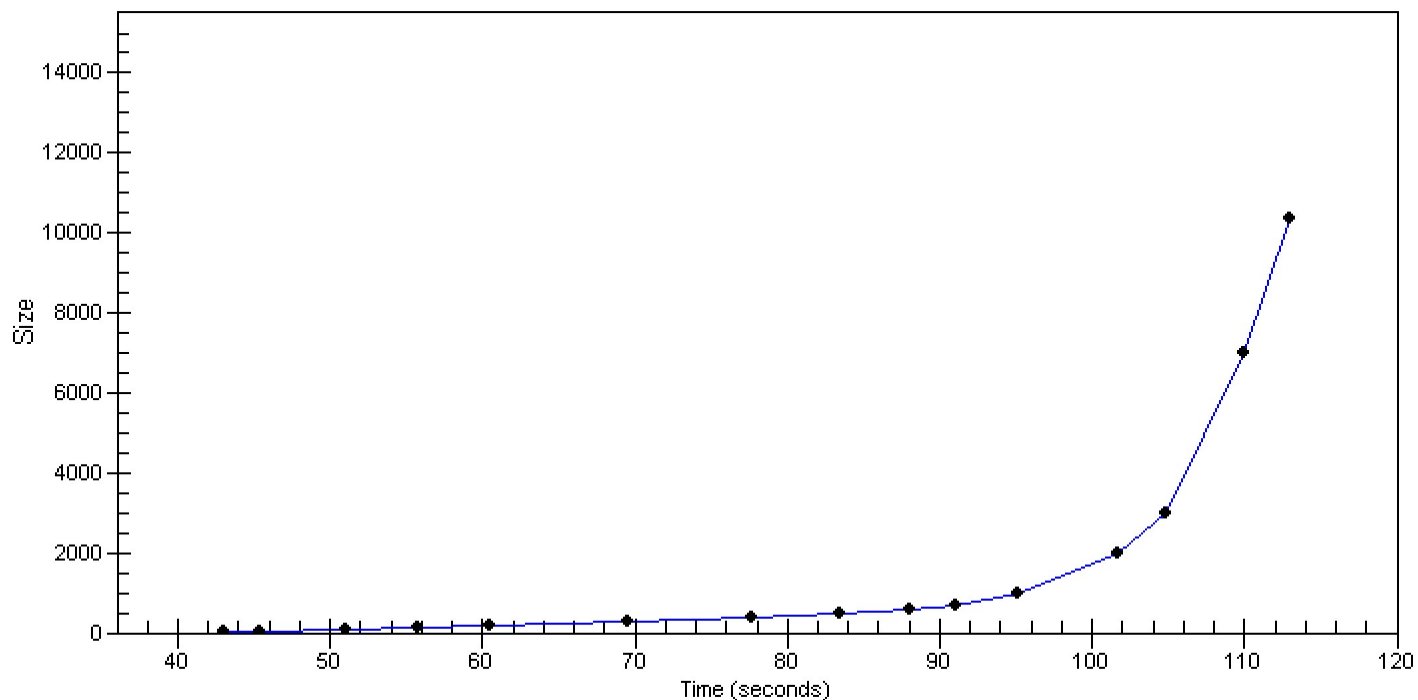


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-22\2015-10-22\_001.xad

Created: 10/22/2015 10:11:38 AM  
Modified: 10/22/2015 10:52:56 AM

**Curves**

**Standard Curve**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-22\2015-10-22\_001.xad

Created: 10/22/2015 10:11:38 AM  
 Modified: 10/22/2015 10:52:56 AM

**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		10/22/2015 10:52:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-10-22\2015-10-22_001.xad)		Instrument	Run		10/22/2015 10:11:43 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		10/22/2015 10:11:43 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		10/22/2015 10:11:43 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		10/22/2015 10:11:43 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		10/22/2015 10:11:43 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		10/22/2015 10:11:43 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		10/22/2015 10:11:43 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1