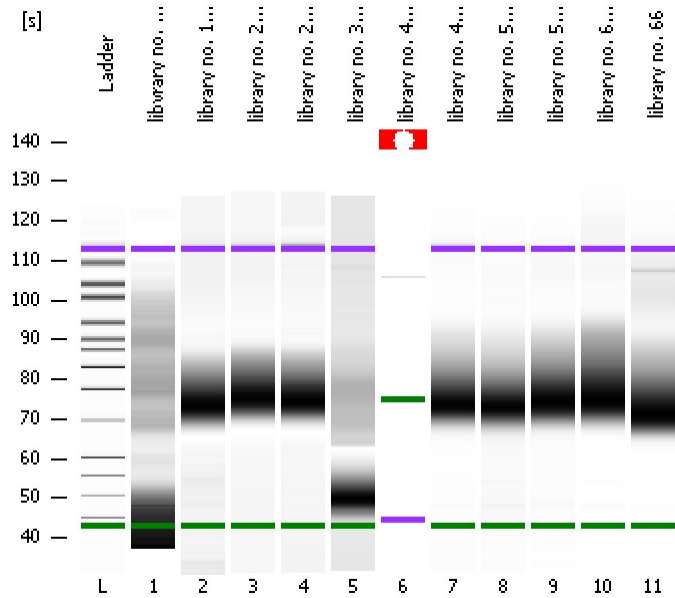


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-09-06\2013-09-06_002.xad

Created: 9/6/2013 10:09:01 AM
Modified: 9/6/2013 10:50:17 AM

Electrophoresis File Run Summary



Instrument Information:

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

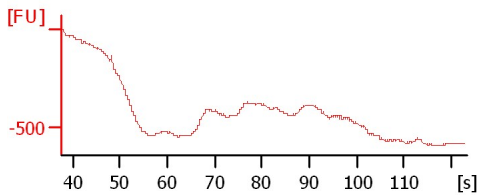
Assay Information:

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

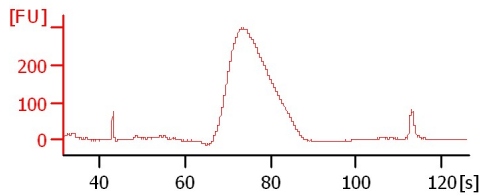
Chip Information:

Chip Lot #:
Reagent Kit Lot #:
Chip Comments:

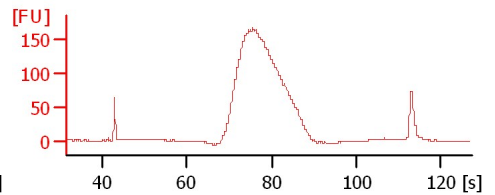
library no. 2 - washed 2nd time



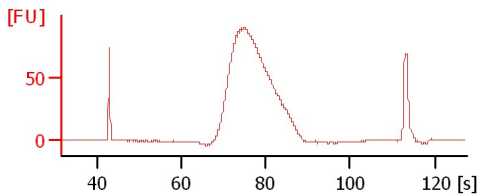
library no. 17 - 12 cycles



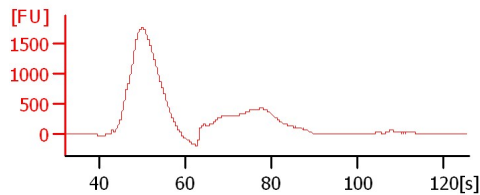
library no. 25 - washed 2nd time



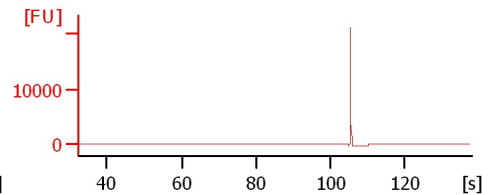
library no. 29 - washed 2nd time



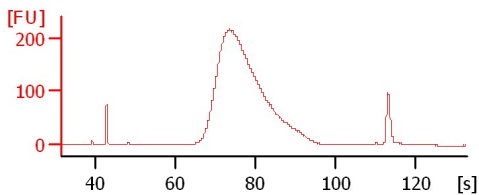
library no. 30 - 12 cycles



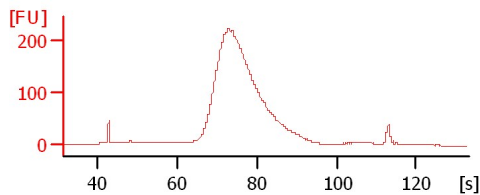
library no. 41 - 12 cycles



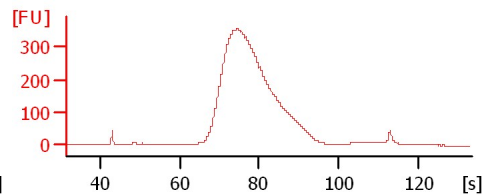
library no. 49 - repeated run



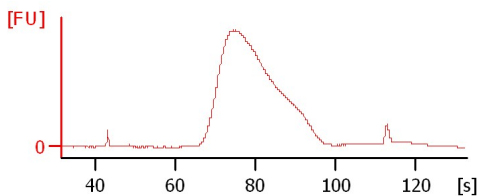
library no. 50 - repeated run



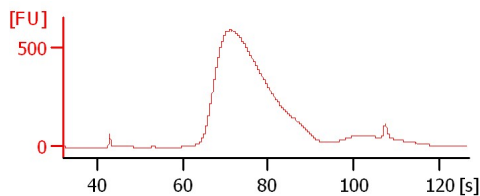
library no. 59 - 12 cycles



library no. 62 - repeated run



library no. 66



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-09-06\2013-09-06_002.xad

Created: 9/6/2013 10:09:01 AM
Modified: 9/6/2013 10:50:17 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
library no. 2 - washed 2nd time		<input type="checkbox"/>				
library no. 17 - 12 cycles		<input type="checkbox"/>				
library no. 25 - washed 2nd time		<input type="checkbox"/>				
library no. 29- washed 2nd time		<input type="checkbox"/>				
library no. 30 - 12 cycles		<input type="checkbox"/>				
library no. 41 - 12 cycles		<input type="checkbox"/>				
library no. 49 - repeated run		<input type="checkbox"/>				
library no. 50 - repeated run		<input type="checkbox"/>				
library no. 59 - 12 cycles		<input type="checkbox"/>				
library no. 62 - repeated run		<input type="checkbox"/>				
library no. 66		<input type="checkbox"/>				
Ladder		<input type="checkbox"/>				

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-09-06\2013-09-06_002.xad

Created: 9/6/2013 10:09:01 AM
 Modified: 9/6/2013 10:50:17 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

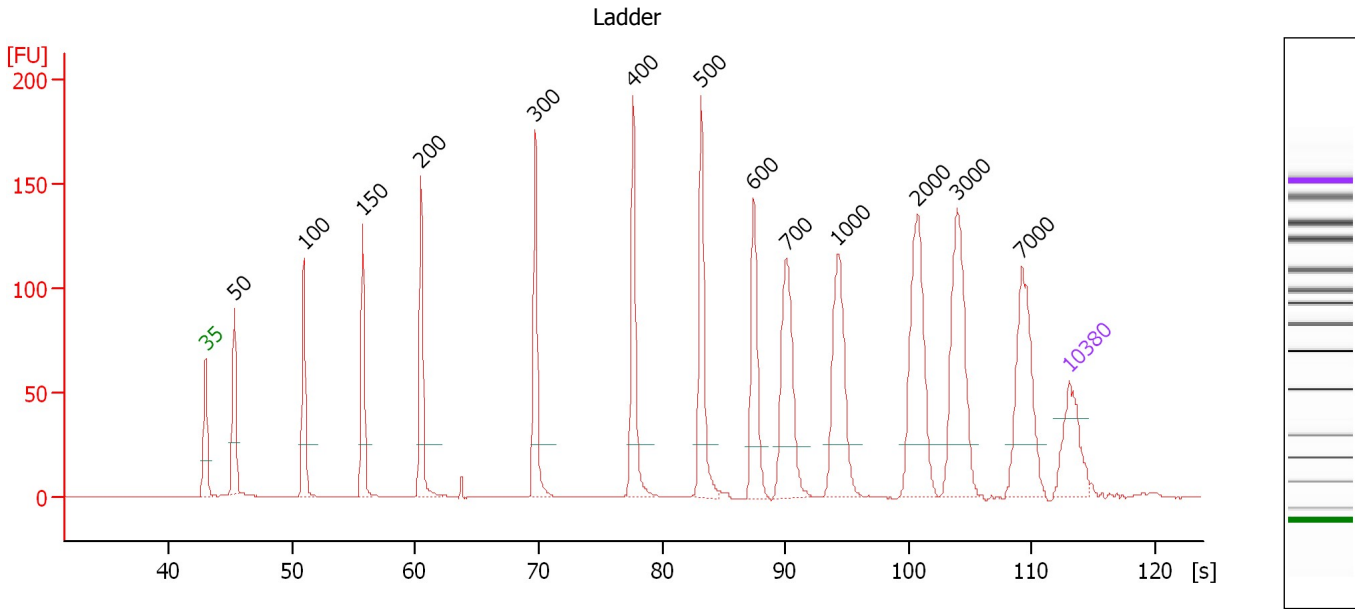
Ladder

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\2013-09-06\2013-09-06_002.xad

Created: 9/6/2013 10:09:01 AM
 Modified: 9/6/2013 10:50:17 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

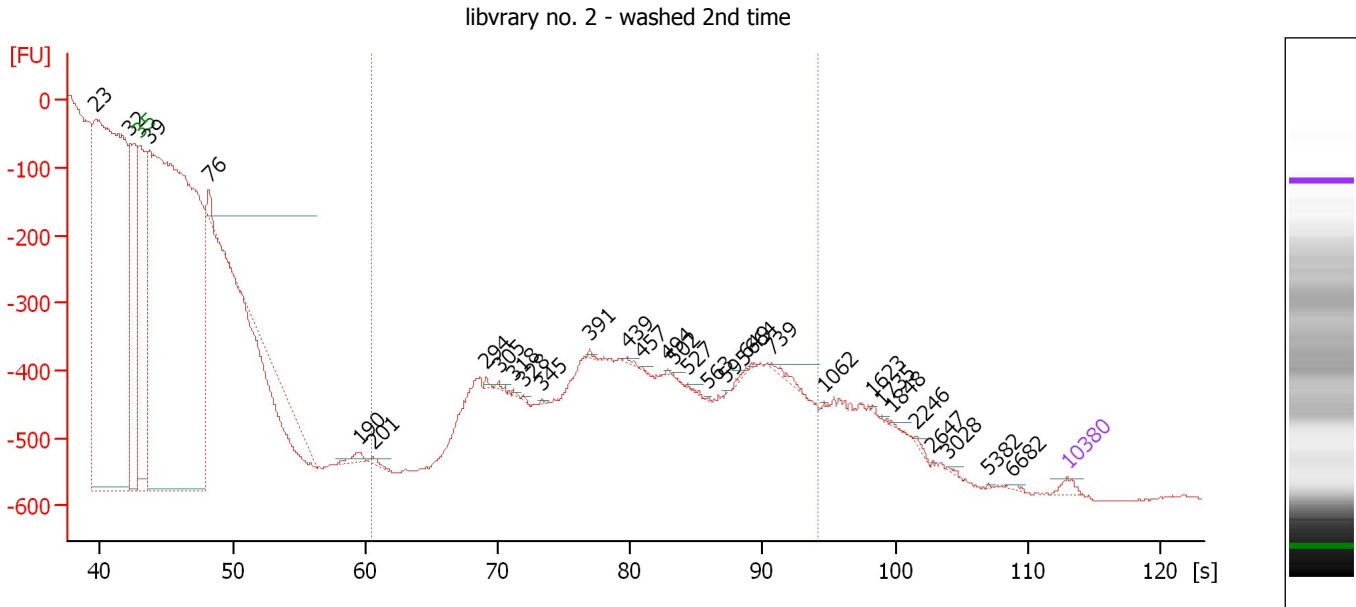
Peak table for Ladder

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	150.00	4,545.5	Ladder Peak
3	100	150.00	2,272.7	Ladder Peak
4	150	150.00	1,515.2	Ladder Peak
5	200	150.00	1,136.4	Ladder Peak
6	300	150.00	757.6	Ladder Peak
7	400	150.00	568.2	Ladder Peak
8	500	150.00	454.5	Ladder Peak
9	600	150.00	378.8	Ladder Peak
10	700	150.00	324.7	Ladder Peak
11	1,000	150.00	227.3	Ladder Peak
12	2,000	150.00	113.6	Ladder Peak
13	3,000	150.00	75.8	Ladder Peak
14	7,000	150.00	32.5	Ladder Peak
15	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-09-06\2013-09-06_002.xad

Created: 9/6/2013 10:09:01 AM
 Modified: 9/6/2013 10:50:17 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : library no. 2 - washed 2nd time

Number of peaks found: 31 Corr. Area 1: 0.0
 Noise: 1.1

Peak table for sample 1 : library no. 2 - washed 2nd time

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	23	0.00	0.0	
2	32	0.00	0.0	
3	35	125.00	5,411.3	Lower Marker
4	39	34,488.74	1,323,952.0	
5	76	203.23	4,067.4	
6	190	141.03	1,123.2	
7	201	60.43	454.5	
8	294	33.00	170.1	
9	305	36.14	179.8	
10	318	17.57	83.6	
11	328	13.49	62.4	
12	345	16.43	72.1	
13	391	26.98	104.6	
14	439	22.43	77.4	
15	457	7.77	25.7	
16	494	8.39	25.8	
17	502	6.22	18.8	
18	527	14.42	41.5	
19	563	5.38	14.5	
20	595	4.72	12.0	
21	649	36.18	84.5	
22	664	11.99	27.4	
23	739	64.75	132.8	
24	1,062	3.73	5.3	
25	1,623	7.13	6.7	
26	1,735	4.19	3.7	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-09-06\2013-09-06_002.xad


Created: 9/6/2013 10:09:01 AM
Modified: 9/6/2013 10:50:17 AM

Electropherogram Summary Continued ...

... Peak table for sample 1 : library no. 2 - washed 2nd time

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	1,848	7.82	6.4	
28	2,246	24.25	16.4	
29	2,647	6.76	3.9	
30	3,028	16.53	8.3	
31	5,382	6.74	1.9	
32	6,682	16.03	3.6	
33	10,380	75.00	10.9	Upper Marker

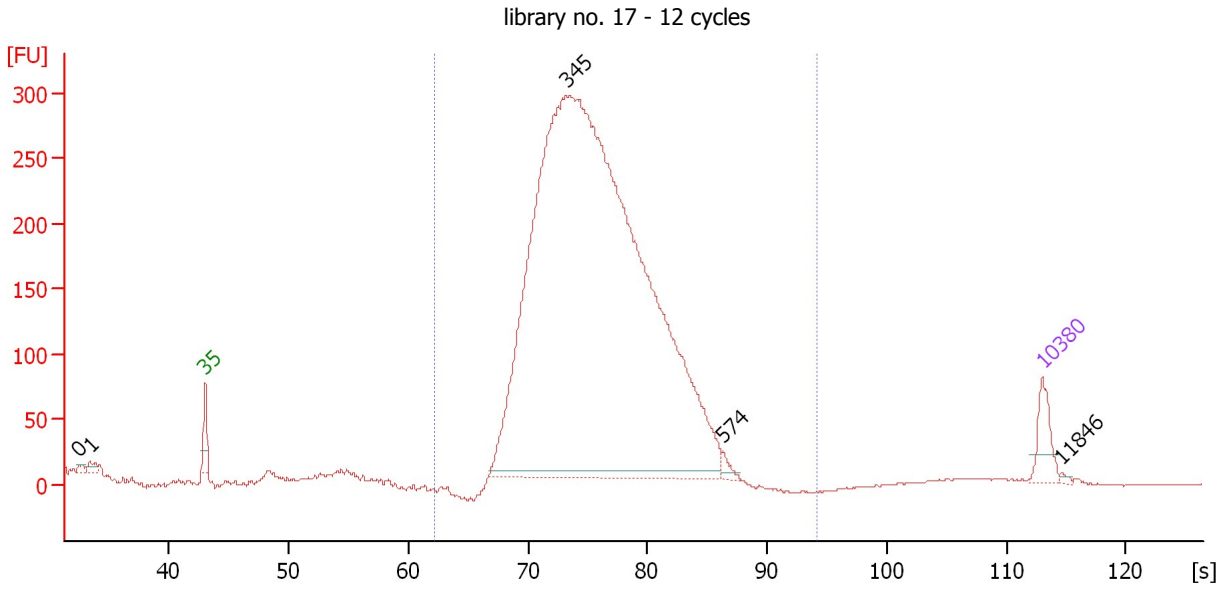
Region table for sample 1 : library no. 2 - washed 2nd time

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
60.46	94.24	0	0.0	0.00	0.0	0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-09-06\2013-09-06_002.xad

Created: 9/6/2013 10:09:01 AM
 Modified: 9/6/2013 10:50:17 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : library no. 17 - 12 cycles

Number of peaks found: 5 Corr. Area 1: 4,338.0
 Noise: 0.4

Peak table for sample 2 : library no. 17 - 12 cycles

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	
2	1	0.00	0.0	
3	35	125.00	5,411.3	Lower Marker
4	345	5,872.26	25,818.9	
5	574	23.07	60.9	
6	10,380	75.00	10.9	Upper Marker
7	11,846	0.00	0.0	

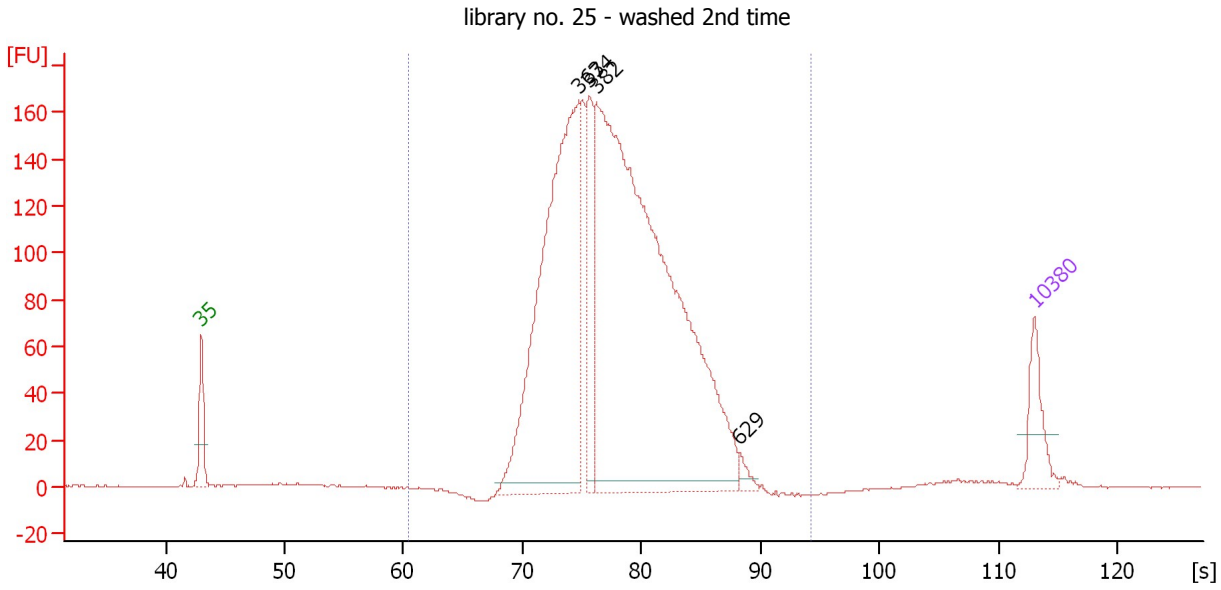
Region table for sample 2 : library no. 17 - 12 cycles

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
62.17	94.24	381	22,822.9	5,553.66	4,338.0	99	16.5	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-09-06\2013-09-06_002.xad

Created: 9/6/2013 10:09:01 AM
 Modified: 9/6/2013 10:50:17 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : library no. 25 - washed 2nd time

Number of peaks found: 4 Corr. Area 1: 2,573.5
 Noise: 0.2

Peak table for sample 3 : library no. 25 - washed 2nd time

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	363	1,135.27	4,744.8	
3	374	207.08	837.8	
4	382	2,091.94	8,299.7	
5	629	19.72	47.5	
6	10,380	75.00	10.9	Upper Marker

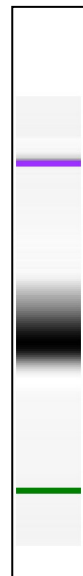
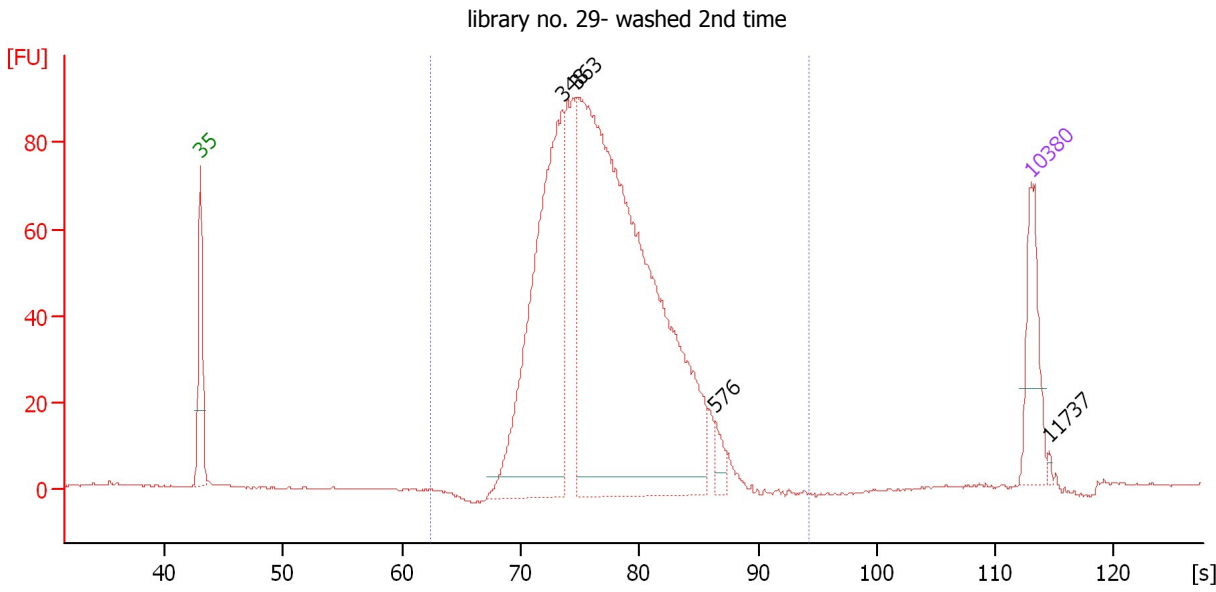
Region table for sample 3 : library no. 25 - washed 2nd time

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
60.46	94.24	411	13,037.7	3,411.51	2,573.5 99	17.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-09-06\2013-09-06_002.xad

Created: 9/6/2013 10:09:01 AM
 Modified: 9/6/2013 10:50:17 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : library no. 29- washed 2nd time

Number of peaks found: 4 Corr. Area 1: 1,321.5
 Noise: 0.2

Peak table for sample 4 : library no. 29- washed 2nd time

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	348	573.19	2,498.7	
3	363	1,292.21	5,393.8	
4	576	21.00	55.2	
5	10,380	75.00	10.9	Upper Marker
6	11,737	0.00	0.0	

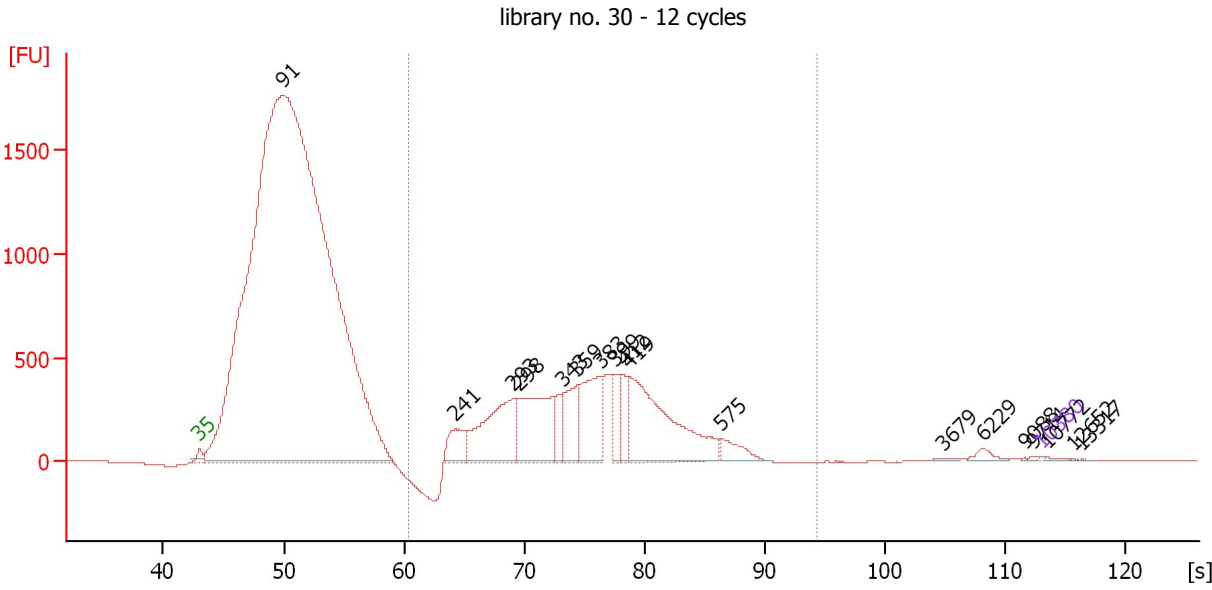
Region table for sample 4 : library no. 29- washed 2nd time

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
62.33	94.24	399	7,434.0	1,894.82	1,321.5 99	16.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-09-06\2013-09-06_002.xad

Created: 9/6/2013 10:09:01 AM
 Modified: 9/6/2013 10:50:17 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : library no. 30 - 12 cycles

Number of peaks found: 18 Corr. Area 1: 8,867.8
 Noise: 0.3

Peak table for sample 5 : library no. 30 - 12 cycles

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	91	392,543.75	6,522,449.5	
3	241	4,525.03	28,443.8	
4	293	15,124.72	78,281.5	
5	298	15,796.86	80,444.8	
6	343	3,276.31	14,470.6	
7	359	5,970.78	25,178.8	
8	383	10,451.58	41,304.9	
9	399	3,512.20	13,353.4	
10	412	2,972.71	10,945.1	
11	419	20,741.73	75,050.3	
12	575	2,444.54	6,444.8	
13	3,679	236.81	97.5	
14	6,229	734.56	178.7	
15	9,088	56.87	9.5	
16	9,714	82.59	12.9	
17	10,380	75.00	10.9	Upper Marker
18	10,772	0.00	0.0	
19	12,652	0.00	0.0	
20	13,317	0.00	0.0	

Region table for sample 5 : library no. 30 - 12 cycles

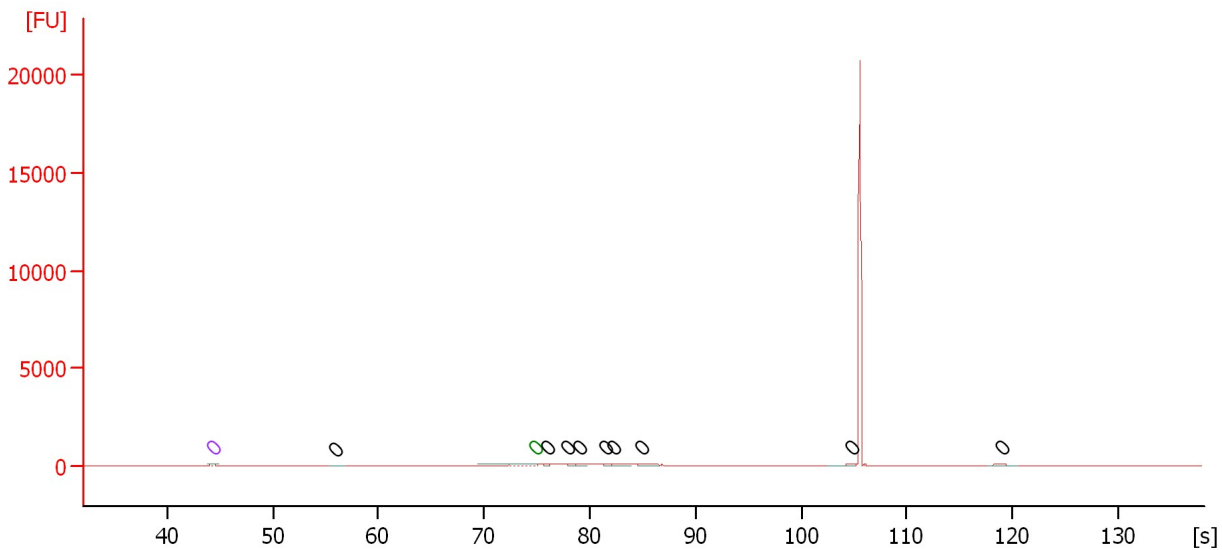
From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
60.46	94.24	380	371,230.5	86,594.60	8,867.8 24	23.0	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-09-06\2013-09-06_002.xad

Created: 9/6/2013 10:09:01 AM
 Modified: 9/6/2013 10:50:17 AM

Electropherogram Summary Continued ...

library no. 41 - 12 cycles



Overall Results for sample 6 : library no. 41 - 12 cycles

Number of peaks found: 9 Noise: 0.3

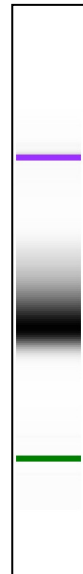
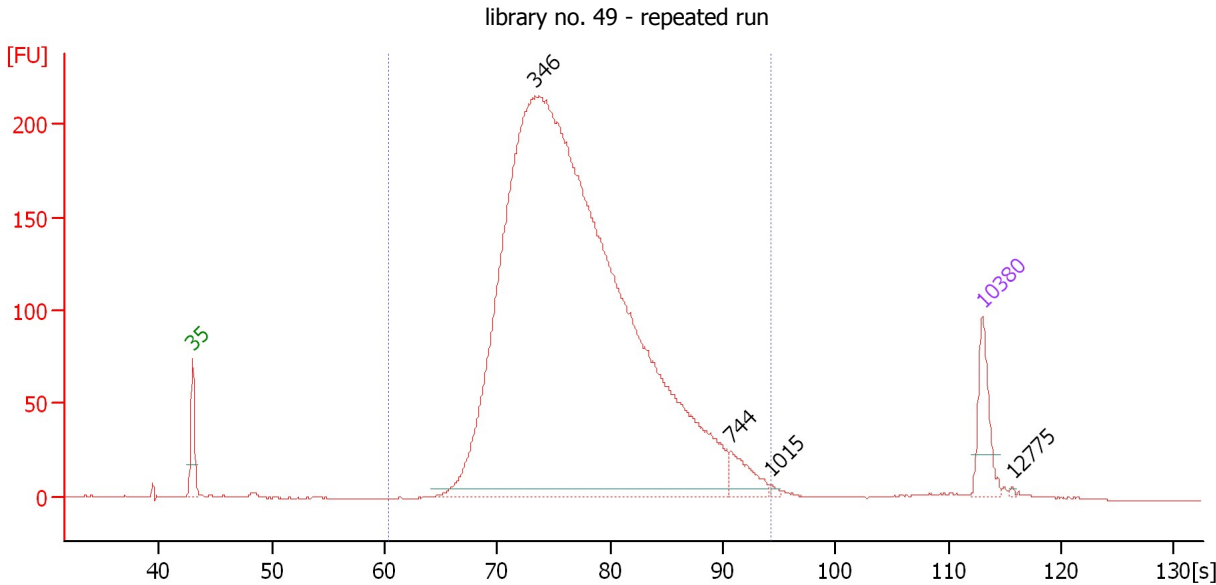
Peak table for sample 6 : library no. 41 - 12 cycles

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	Upper Marker
2	0	0.00	0.0	
3	0	125.00	0.0	Lower Marker
4	0	172.92	0.0	
5	0	168.66	0.0	
6	0	254.18	0.0	
7	0	148.58	0.0	
8	0	336.75	0.0	
9	0	235.64	0.0	
10	0	158.63	0.0	
11	0	197.61	0.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-09-06\2013-09-06_002.xad

Created: 9/6/2013 10:09:01 AM
 Modified: 9/6/2013 10:50:17 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : library no. 49 - repeated run

Number of peaks found: 4 Corr. Area 1: 3,568.7
 Noise: 0.2

Peak table for sample 7 : library no. 49 - repeated run

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	346	4,250.67	18,608.8	
3	744	64.15	130.6	
4	1,015	5.23	7.8	
5	10,380	75.00	10.9	Upper Marker
6	12,775	0.00	0.0	

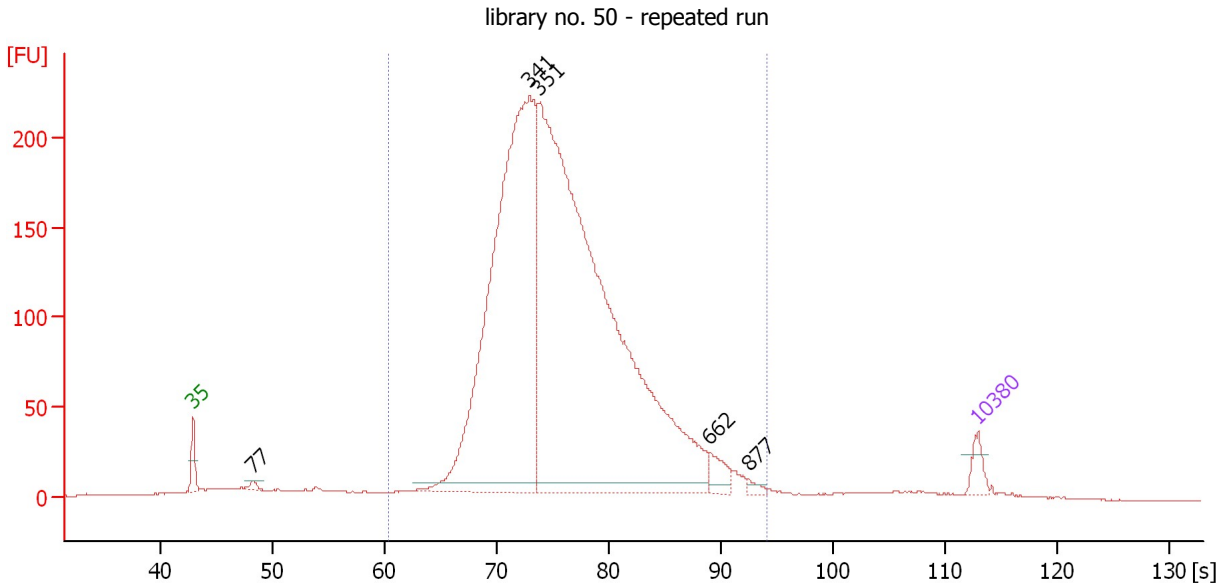
Region table for sample 7 : library no. 49 - repeated run

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
60.46	94.24	411	16,026.8	4,054.17	3,568.7	98	26.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-09-06\2013-09-06_002.xad

Created: 9/6/2013 10:09:01 AM
 Modified: 9/6/2013 10:50:17 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : library no. 50 - repeated run

Number of peaks found: 5 Corr. Area 1: 3,603.9
 Noise: 0.2

Peak table for sample 8 : library no. 50 - repeated run

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	77	39.42	779.8	
3	341	4,593.09	20,396.3	
4	351	6,897.32	29,732.6	
5	662	124.53	285.0	
6	877	30.45	52.6	
7	10,380	75.00	10.9	Upper Marker

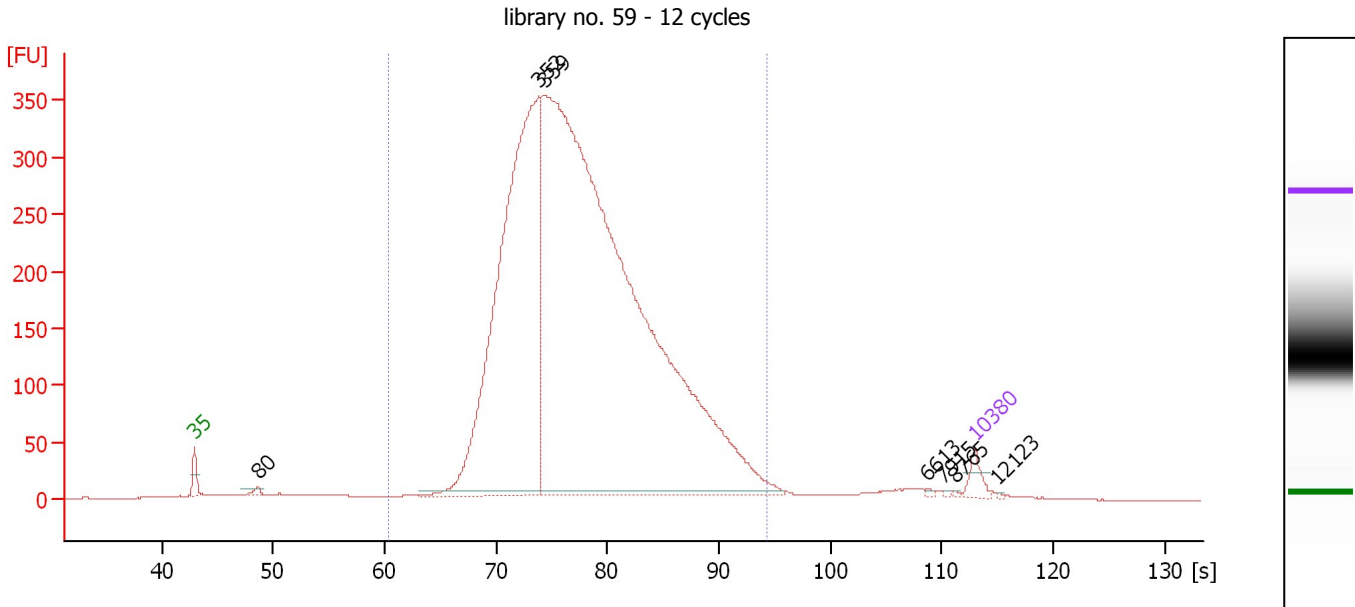
Region table for sample 8 : library no. 50 - repeated run

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
60.46	94.24	394	48,476.0	11,770.76	3,603.9	94	26.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-09-06\2013-09-06_002.xad

Created: 9/6/2013 10:09:01 AM
 Modified: 9/6/2013 10:50:17 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : library no. 59 - 12 cycles

Number of peaks found: 7 Corr. Area 1: 6,401.1
 Noise: 0.2

Peak table for sample 9 : library no. 59 - 12 cycles

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	80	36.04	684.0	
3	352	5,085.31	21,864.0	
4	359	11,267.11	47,540.0	
5	6,613	11.07	2.5	
6	7,915	6.51	1.2	
7	8,765	5.62	1.0	
8	10,380	75.00	10.9	Upper Marker
9	12,123	0.00	0.0	

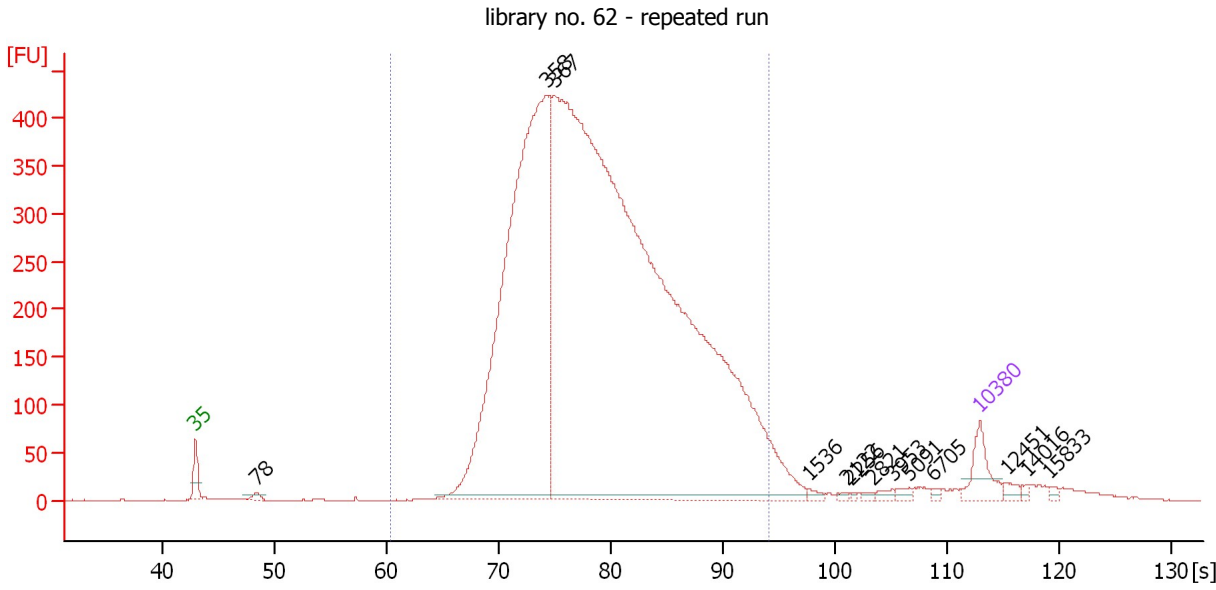
Region table for sample 9 : library no. 59 - 12 cycles

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
60.46	94.24	422	61,158.3	15,729.06	6,401.1	95	27.4	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-09-06\2013-09-06_002.xad

Created: 9/6/2013 10:09:01 AM
 Modified: 9/6/2013 10:50:17 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : library no. 62 - repeated run

Number of peaks found: 13 Corr. Area 1: 8,711.4
 Noise: 0.3

Peak table for sample 10 : library no. 62 - repeated run

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	78	18.64	362.6	
3	358	2,506.70	10,605.1	
4	367	6,180.42	25,543.6	
5	1,536	10.07	9.9	
6	2,122	5.18	3.7	
7	2,256	2.99	2.0	
8	2,821	5.54	3.0	
9	3,953	10.18	3.9	
10	5,091	11.96	3.6	
11	6,705	6.01	1.4	
12	10,380	75.00	10.9	Upper Marker
13	12,451	0.00	0.0	
14	14,016	0.00	0.0	
15	15,833	0.00	0.0	

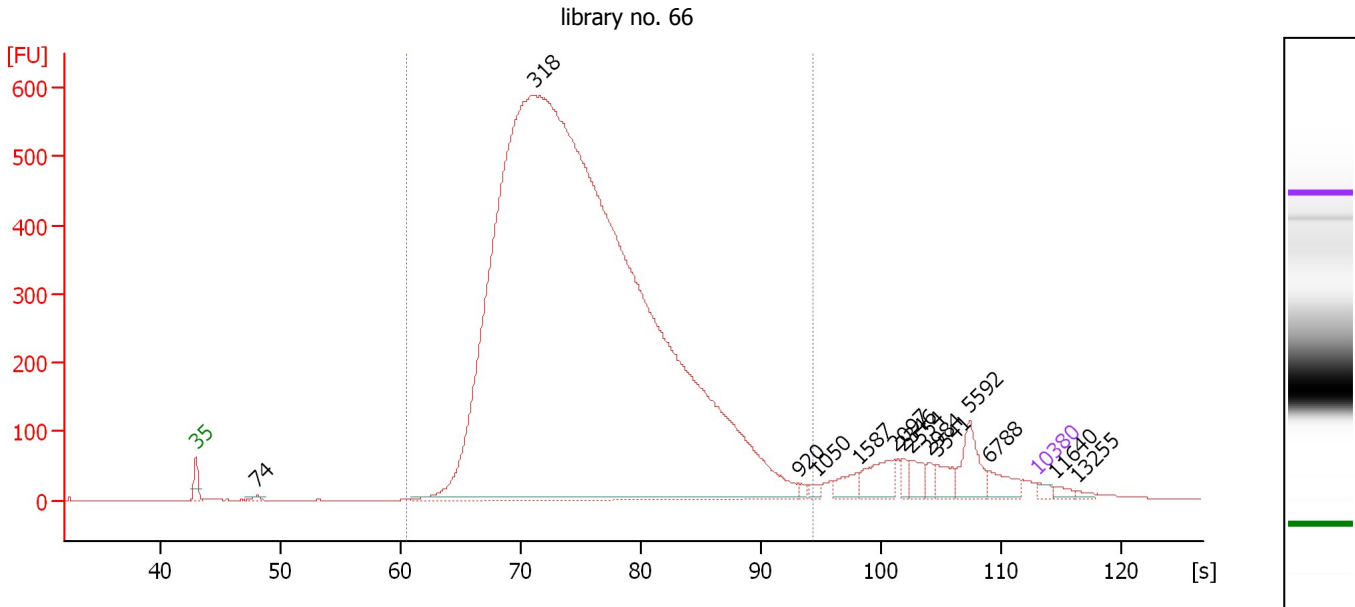
Region table for sample 10 : library no. 62 - repeated run

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
60.46	94.24	453	29,478.2	7,971.03	8,711.4	95	30.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-09-06\2013-09-06_002.xad

Created: 9/6/2013 10:09:01 AM
 Modified: 9/6/2013 10:50:17 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : library no. 66

Number of peaks found: 14 Corr. Area 1: 11,727.4
 Noise: 0.2

Peak table for sample 11 : library no. 66

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	74	72.40	1,478.6	
3	318	57,633.01	274,926.7	
4	920	68.97	113.6	
5	1,050	84.34	121.7	
6	1,587	264.85	252.9	
7	2,097	488.52	353.0	
8	2,346	124.38	80.3	
9	2,554	224.25	133.0	
10	2,984	130.28	66.2	
11	3,541	245.76	105.2	
12	5,592	566.93	153.6	
13	6,788	285.49	63.7	
14	10,380	75.00	10.9	Upper Marker
15	11,640	0.00	0.0	
16	13,255	0.00	0.0	

Region table for sample 11 : library no. 66

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
60.46	94.24	384	224,935.9	52,560.88	11,727.4 93	27.6	Blue