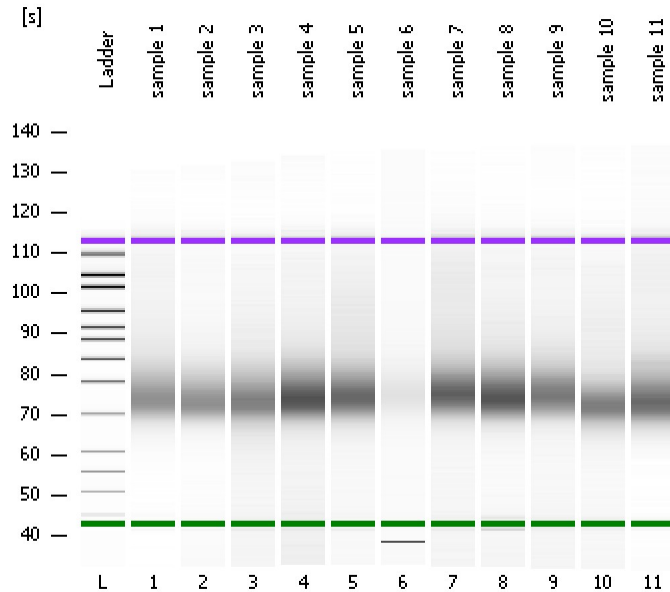


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-11\2013-06-11_001.xad

Created: 6/11/2013 9:49:25 AM
Modified: 6/11/2013 10:30:45 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

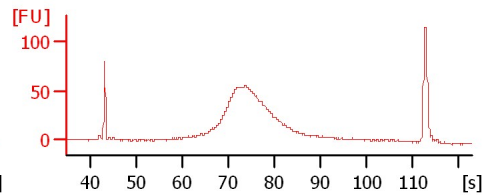
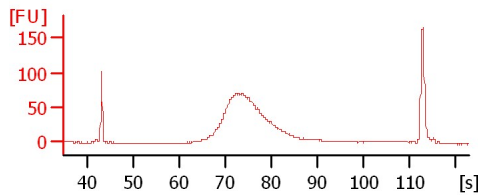
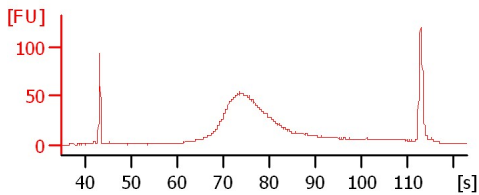
Chip Information:

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

sample 1

sample 2

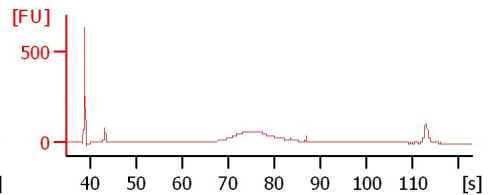
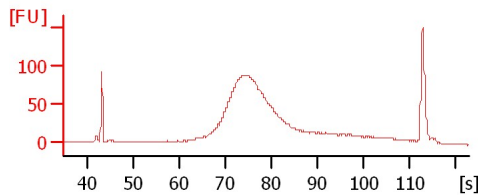
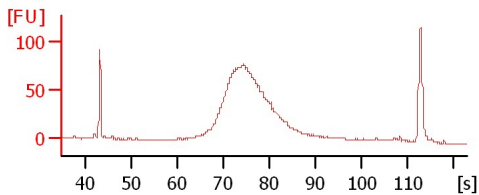
sample 3



sample 4

sample 5

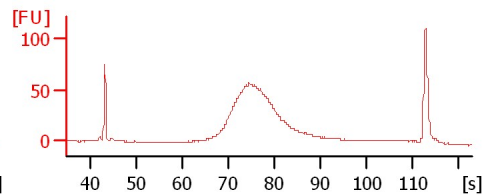
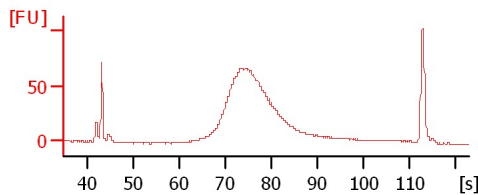
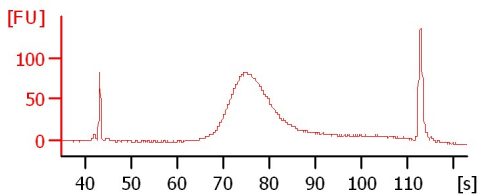
sample 6



sample 7

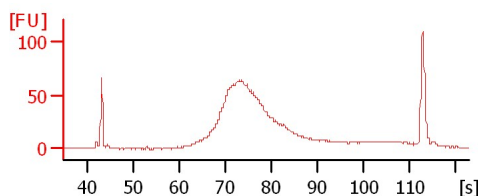
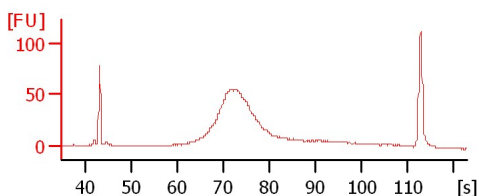
sample 8

sample 9



sample 10

sample 11



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-11\2013-06-11_001.xad

Created: 6/11/2013 9:49:25 AM
Modified: 6/11/2013 10:30:45 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 1		<input type="checkbox"/>	✓			
sample 2		<input type="checkbox"/>	✓			
sample 3		<input type="checkbox"/>	✓			
sample 4		<input type="checkbox"/>	✓			
sample 5		<input type="checkbox"/>	✓			
sample 6		<input type="checkbox"/>	✓			
sample 7		<input type="checkbox"/>	✓			
sample 8		<input type="checkbox"/>	✓			
sample 9		<input type="checkbox"/>	✓			
sample 10		<input type="checkbox"/>	✓			
sample 11		<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\2013-06-11\2013-06-11_001.xad

Created: 6/11/2013 9:49:25 AM
 Modified: 6/11/2013 10:30:45 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

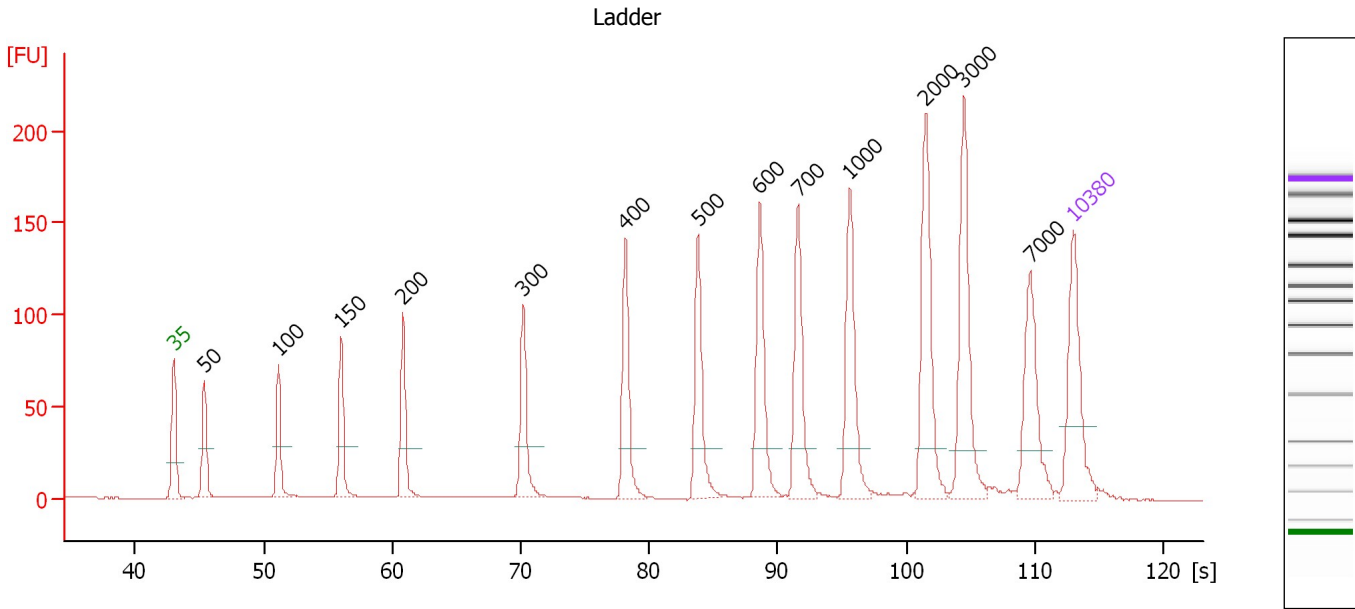
Ladder

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\2013-06-11\2013-06-11_001.xad

Created: 6/11/2013 9:49:25 AM
 Modified: 6/11/2013 10:30:45 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

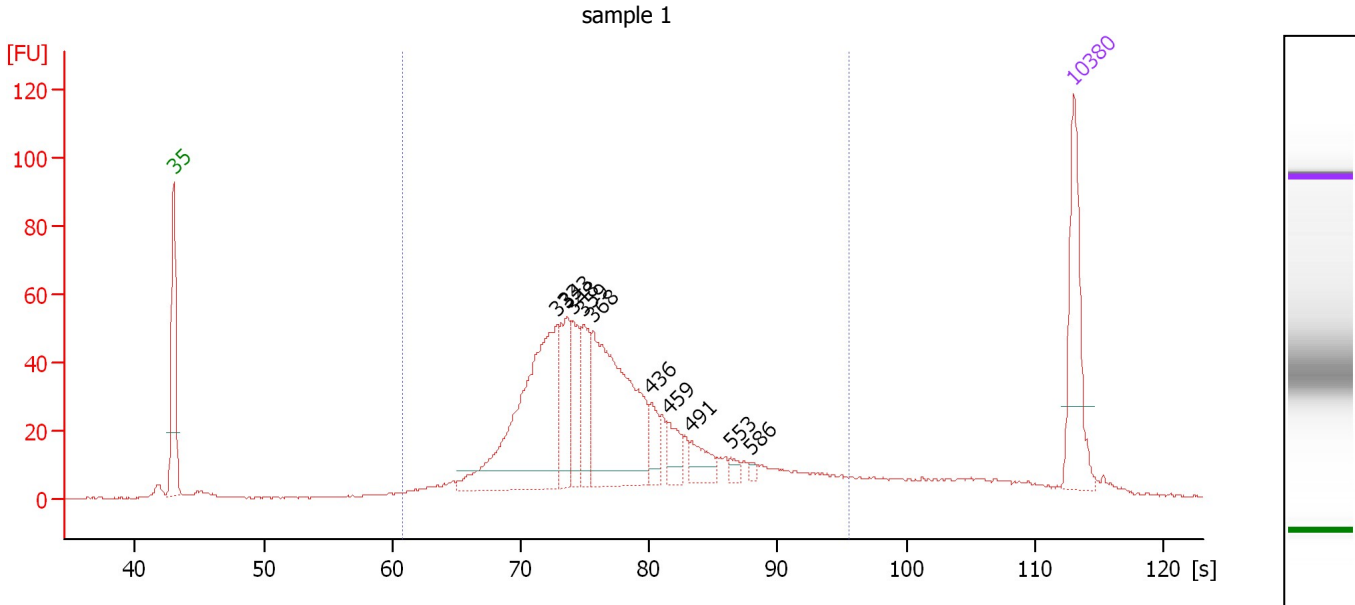
Peak table for Ladder

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\2013-06-11\2013-06-11_001.xad

Created: 6/11/2013 9:49:25 AM
 Modified: 6/11/2013 10:30:45 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 10 Corr. Area 1: 931.3
 Noise: 0.2

Peak table for sample 1 : sample 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	333	266.45	1,211.1	
3	343	66.66	294.2	
4	348	50.97	221.9	
5	359	51.79	218.5	
6	368	229.28	942.9	
7	436	24.79	86.1	
8	459	24.56	81.1	
9	491	26.18	80.8	
10	553	7.01	19.2	
11	586	3.48	9.0	
12	10,380	75.00	10.9	Upper Marker

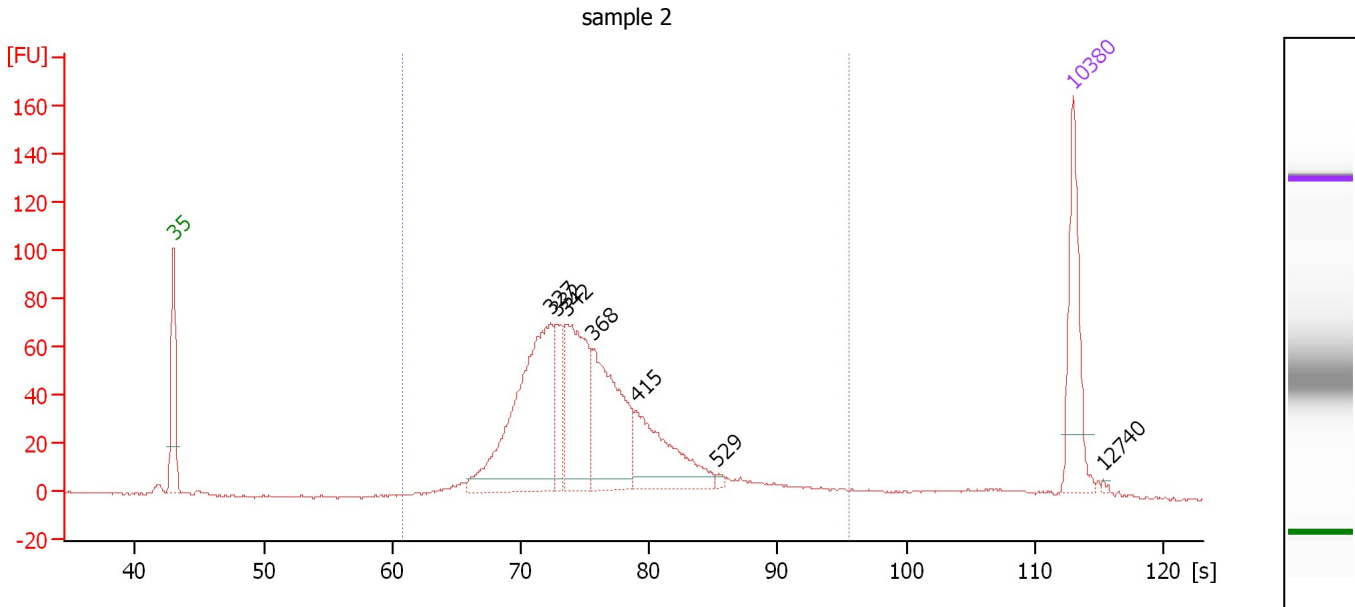
Region table for sample 1 : sample 1

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
60.84	95.61	404	4,145.5	1,001.79	931.3 88	31.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-11\2013-06-11_001.xad

Created: 6/11/2013 9:49:25 AM
 Modified: 6/11/2013 10:30:45 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 7 Corr. Area 1: 1,035.0
 Noise: 0.3

Peak table for sample 2 : sample 2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	327	284.95	1,321.0	
3	332	61.33	279.8	
4	342	162.73	721.8	
5	368	162.38	669.3	
6	415	111.71	407.9	
7	529	3.97	11.4	
8	10,380	75.00	10.9	Upper Marker
9	12,740	0.00	0.0	

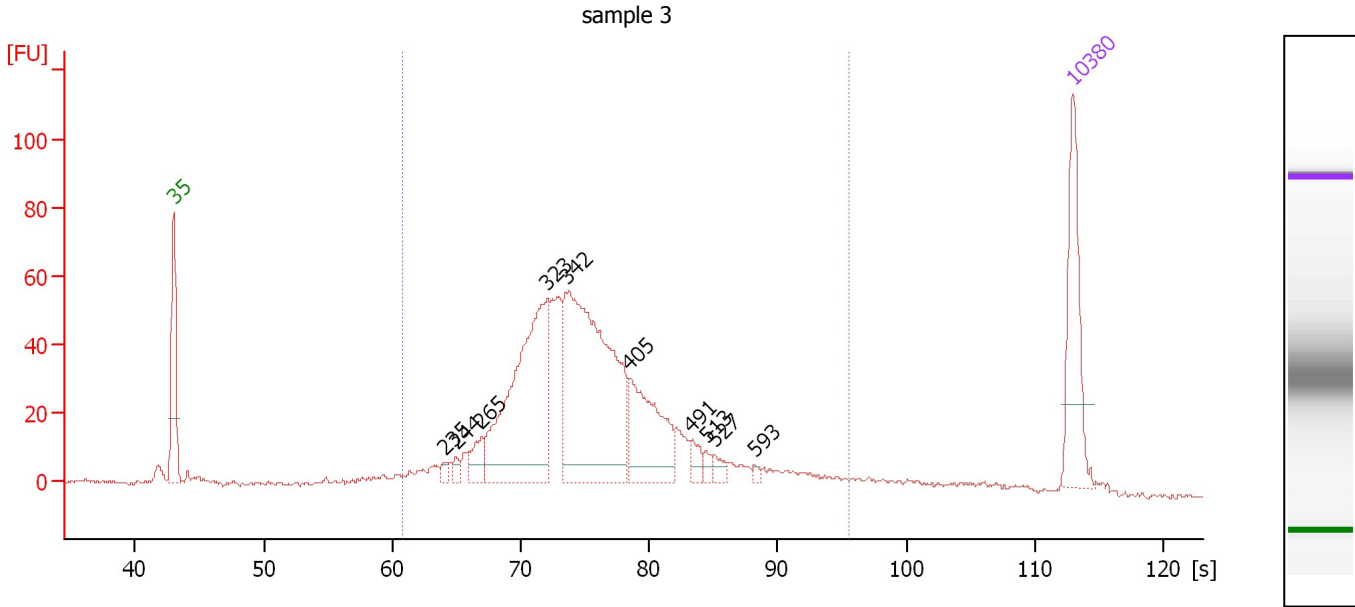
Region table for sample 2 : sample 2

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
60.84	95.61	373	3,616.8	844.57	1,035.0 98	23.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-11\2013-06-11_001.xad

Created: 6/11/2013 9:49:25 AM
 Modified: 6/11/2013 10:30:45 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 10 Corr. Area 1: 934.3
 Noise: 0.5

Peak table for sample 3 : sample 3

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	235	8.37	54.1	
3	244	8.60	53.4	
4	265	24.82	141.8	
5	323	270.48	1,267.7	
6	342	350.85	1,555.6	
7	405	110.90	414.8	
8	491	14.14	43.6	
9	513	7.00	20.7	
10	527	8.87	25.5	
11	593	3.25	8.3	
12	10,380	75.00	10.9	Upper Marker

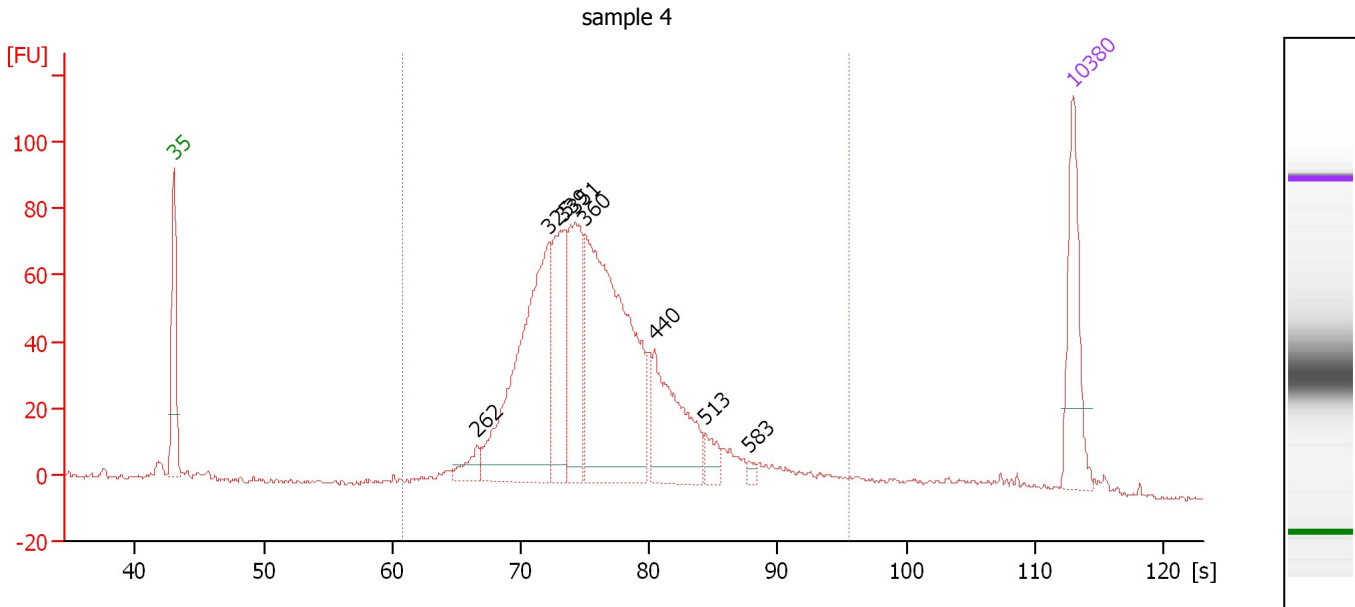
Region table for sample 3 : sample 3

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
60.84	95.61	377	4,364.6	1,004.81	934.3 95	27.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-11\2013-06-11_001.xad

Created: 6/11/2013 9:49:25 AM
 Modified: 6/11/2013 10:30:45 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 8 Corr. Area 1: 1,214.1
 Noise: 0.5

Peak table for sample 4 : sample 4

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	262	24.15	139.8	
3	325	320.60	1,492.9	
4	339	131.97	589.4	
5	351	142.46	615.5	
6	360	393.66	1,655.4	
7	440	128.24	441.8	
8	513	19.68	58.2	
9	583	4.73	12.3	
10	10,380	75.00	10.9	Upper Marker

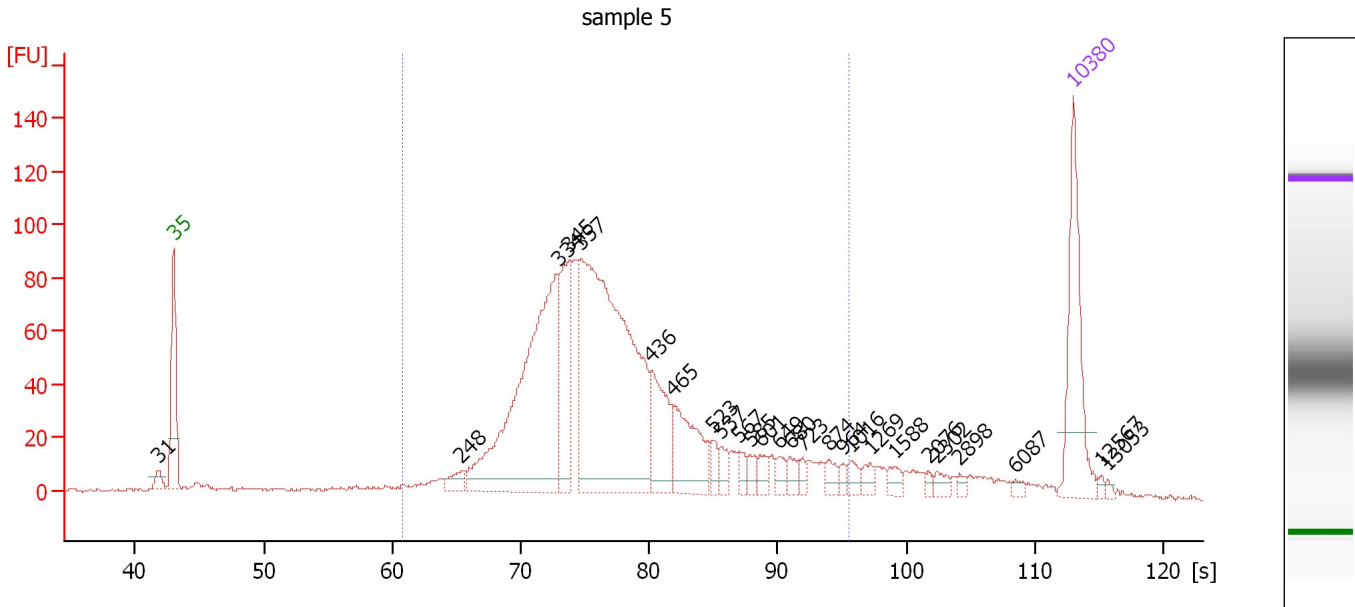
Region table for sample 4 : sample 4

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
60.84	95.61	385	5,234.9	1,250.84	1,214.1 96	24.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-11\2013-06-11_001.xad

Created: 6/11/2013 9:49:25 AM
 Modified: 6/11/2013 10:30:45 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 26 Corr. Area 1: 1,518.2
 Noise: 0.8

Peak table for sample 5 : sample 5

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	31	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	248	14.44	88.1	
4	334	325.45	1,475.8	
5	345	89.09	391.2	
6	357	427.63	1,813.7	
7	436	65.63	227.9	
8	465	71.41	232.6	
9	523	11.68	33.8	
10	537	11.48	32.4	
11	567	8.75	23.4	
12	585	9.69	25.1	
13	601	9.52	24.0	
14	649	9.63	22.5	
15	680	9.84	21.9	
16	723	7.03	14.7	
17	874	9.32	16.2	
18	964	4.96	7.8	
19	1,016	8.39	12.5	
20	1,269	7.68	9.2	
21	1,588	7.58	7.2	
22	2,076	3.04	2.2	
23	2,302	5.97	3.9	
24	2,898	3.51	1.8	
25	6,087	3.20	0.8	
26	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-11\2013-06-11_001.xad

Created: 6/11/2013 9:49:25 AM
Modified: 6/11/2013 10:30:45 AM

Electropherogram Summary Continued ...**... Peak table for sample 5 : sample 5**

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations
27	12,567	0.00	0.0	
28	13,053	0.00	0.0	

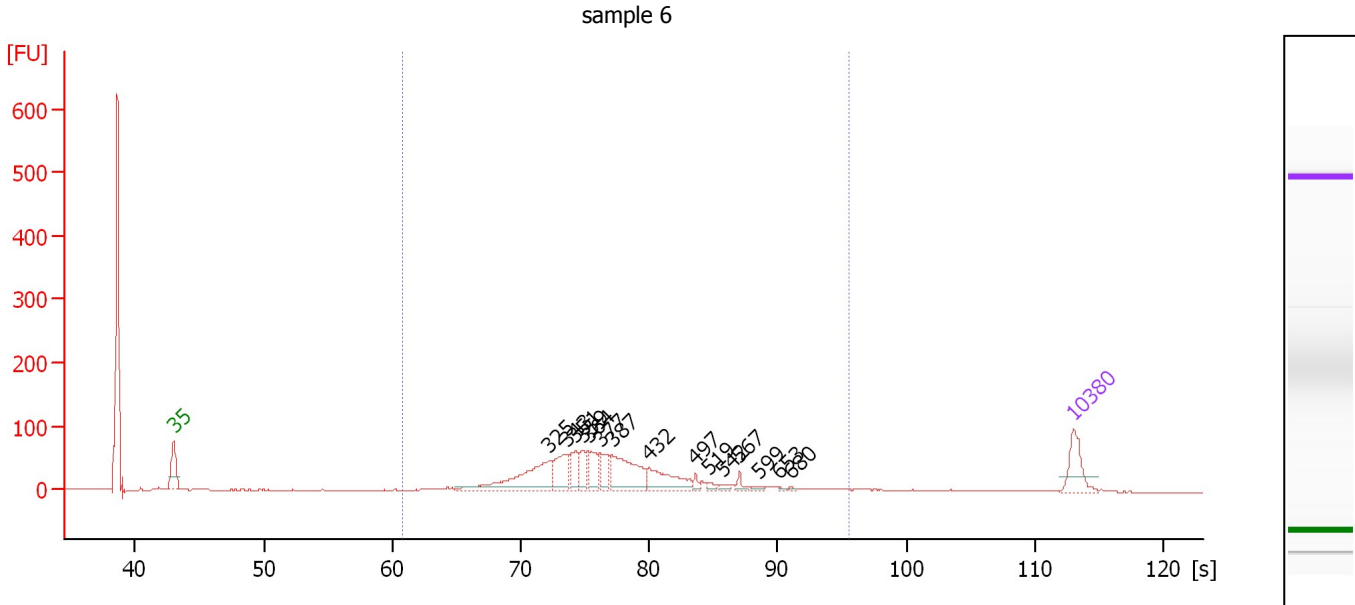
Region table for sample 5 : sample 5

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Corr. Area % of Total	Size distribution in CV [%]	Color
60.84	95.61	409	4,975.2	1,216.80	1,518.2 88	31.9	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-11\2013-06-11_001.xad

Created: 6/11/2013 9:49:25 AM
 Modified: 6/11/2013 10:30:45 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found: 15 Corr. Area 1: 974.3
 Noise: 0.5

Peak table for sample 6 : sample 6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	325	238.19	1,108.8	
3	343	116.16	512.8	
4	351	63.96	275.9	
5	359	60.31	254.9	
6	364	79.90	332.6	
7	377	61.97	249.1	
8	387	184.93	723.5	
9	432	124.33	436.2	
10	497	16.25	49.5	
11	519	12.18	35.6	
12	542	11.24	31.4	
13	567	17.47	46.7	
14	599	8.99	22.7	
15	653	4.25	9.9	
16	680	4.38	9.8	
17	10,380	75.00	10.9	Upper Marker

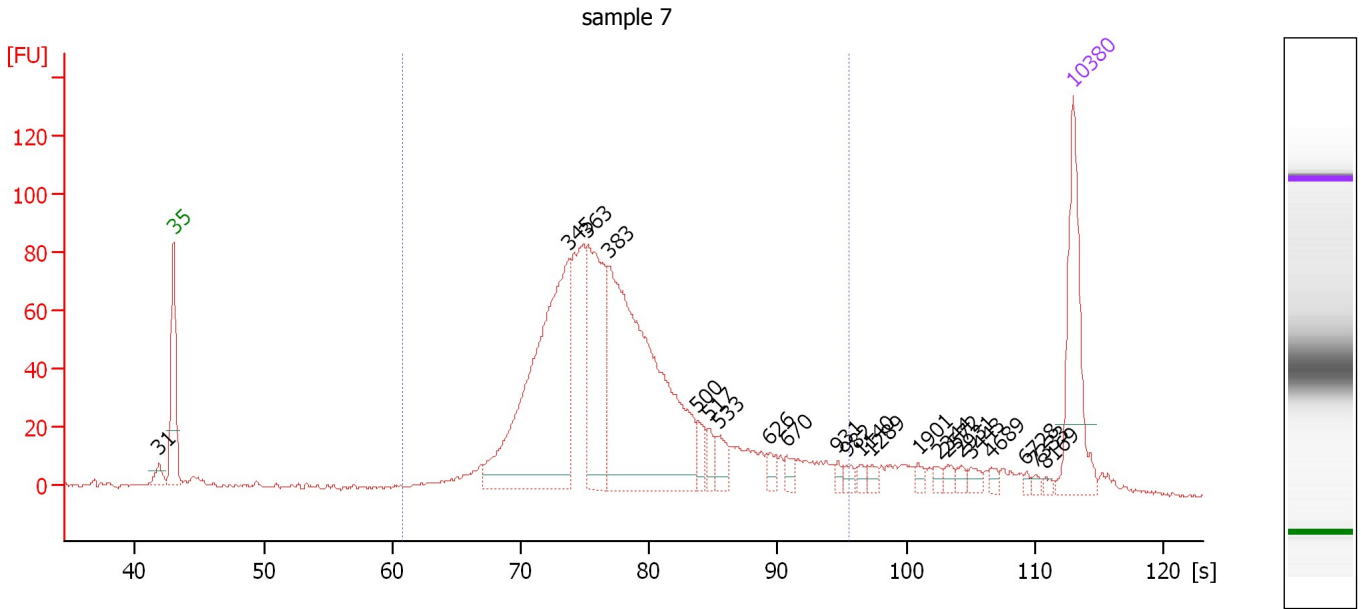
Region table for sample 6 : sample 6

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
60.84	95.61	398	4,461.1	1,091.04	974.3 68	26.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-11\2013-06-11_001.xad

Created: 6/11/2013 9:49:25 AM
 Modified: 6/11/2013 10:30:45 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7

Number of peaks found: 22 Corr. Area 1: 1,356.3
 Noise: 0.5

Peak table for sample 7 : sample 7


Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	31	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	345	313.15	1,374.9	
4	363	139.47	582.3	
5	383	354.97	1,403.4	
6	500	14.79	44.8	
7	517	12.85	37.7	
8	533	17.03	48.4	
9	626	9.64	23.3	
10	670	7.89	17.8	
11	931	4.38	7.1	
12	982	5.55	8.6	
13	1,140	5.40	7.2	
14	1,289	4.90	5.8	
15	1,901	4.78	3.8	
16	2,344	4.26	2.8	
17	2,572	4.83	2.8	
18	2,931	4.41	2.3	
19	3,443	5.48	2.4	
20	4,689	4.09	1.3	
21	6,728	2.33	0.5	
22	7,333	2.70	0.6	
23	8,169	2.47	0.5	
24	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-11\2013-06-11_001.xad

Created: 6/11/2013 9:49:25 AM
Modified: 6/11/2013 10:30:45 AM

Electropherogram Summary Continued ...

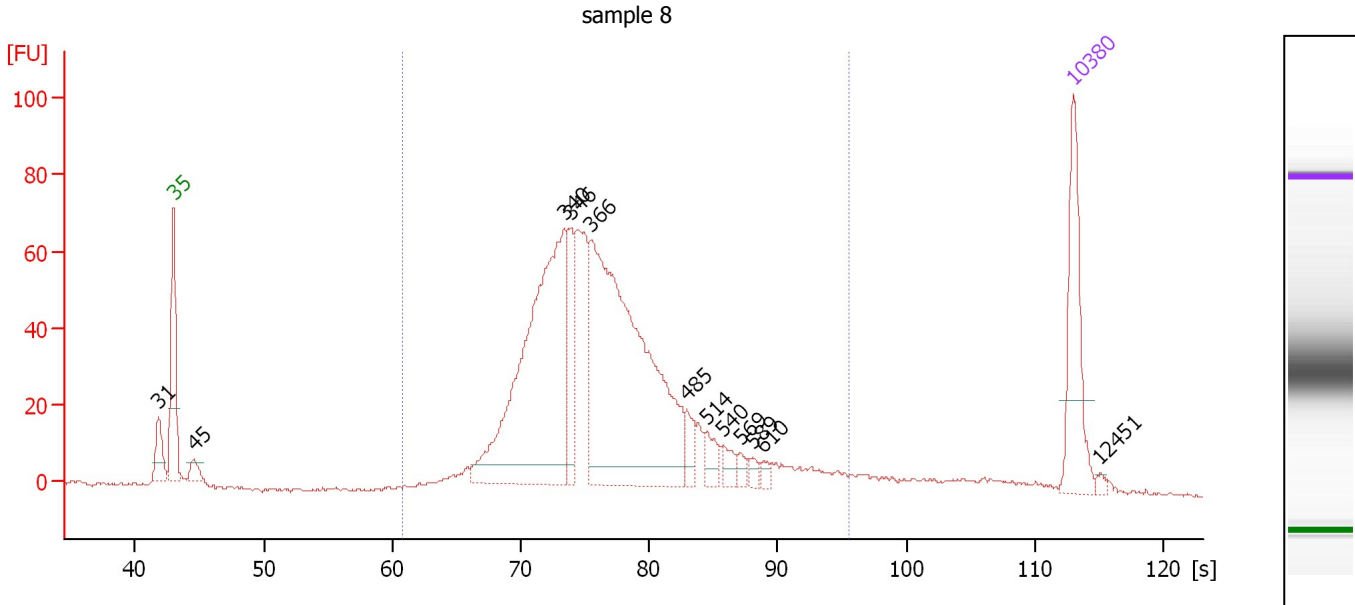
... Region table for sample 7 : sample 7

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Corr. Area % of Total	Size distribution in CV [%]	Color
60.84	95.61	415	4,392.4	1,102.82	1,356.3 88	29.9	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-11\2013-06-11_001.xad

Created: 6/11/2013 9:49:25 AM
 Modified: 6/11/2013 10:30:45 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8

Number of peaks found: 12 Corr. Area 1: 1,069.2
 Noise: 0.5

Peak table for sample 8 : sample 8

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	31	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	45	16.46	556.9	
4	340	398.92	1,779.4	
5	346	67.56	296.0	
6	366	464.25	1,920.8	
7	485	18.96	59.3	
8	514	19.14	56.5	
9	540	13.04	36.6	
10	569	7.82	20.8	
11	589	6.64	17.1	
12	610	6.70	16.6	
13	10,380	75.00	10.9	Upper Marker
14	12,451	0.00	0.0	

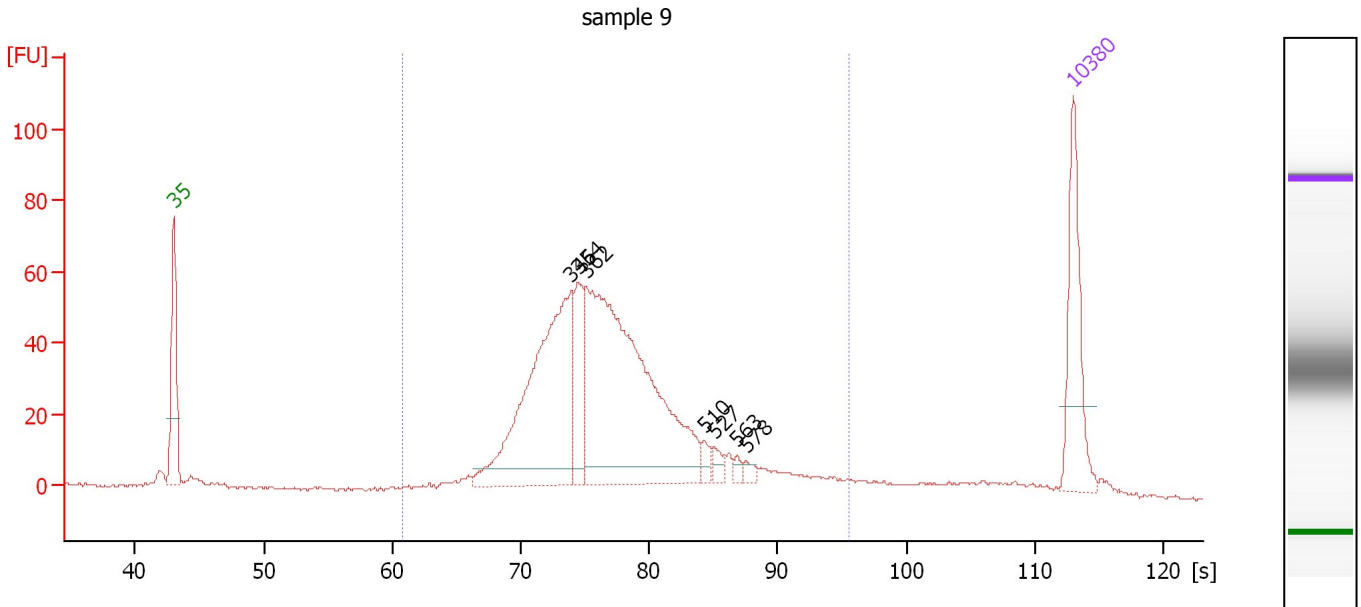
Region table for sample 8 : sample 8

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
60.84	95.61	397	5,023.5	1,222.06	1,069.2 91	27.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-11\2013-06-11_001.xad

Created: 6/11/2013 9:49:25 AM
 Modified: 6/11/2013 10:30:45 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 9

Number of peaks found: 7 Corr. Area 1: 877.5
 Noise: 0.5

Peak table for sample 9 : sample 9

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	346	314.54	1,376.4	
3	354	68.90	295.1	
4	362	447.70	1,875.2	
5	510	9.95	29.6	
6	527	9.25	26.6	
7	563	5.62	15.1	
8	578	6.49	17.0	
9	10,380	75.00	10.9	Upper Marker

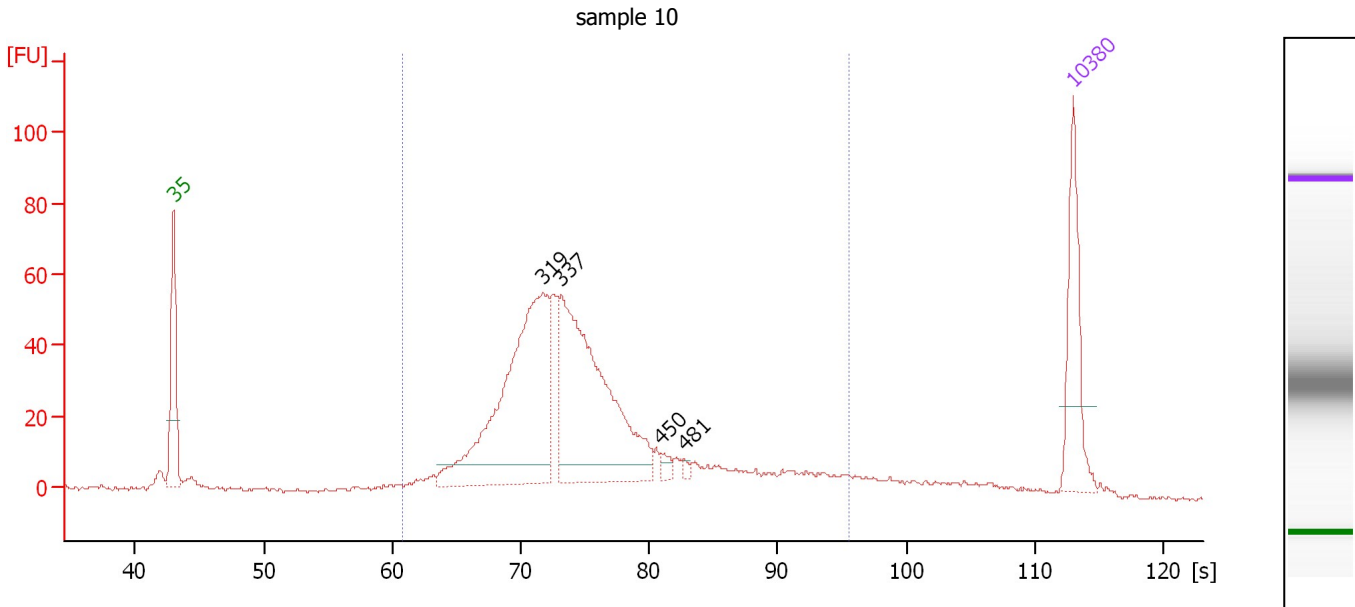
Region table for sample 9 : sample 9

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
60.84	95.61	399	3,806.4	938.59	877.5 94	26.0	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-11\2013-06-11_001.xad

Created: 6/11/2013 9:49:25 AM
 Modified: 6/11/2013 10:30:45 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 10

Number of peaks found: 4 Corr. Area 1: 842.2
 Noise: 0.5

Peak table for sample 10 : sample 10

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	319	385.58	1,830.6	
3	337	355.06	1,598.6	
4	450	8.23	27.7	
5	481	4.34	13.7	
6	10,380	75.00	10.9	Upper Marker

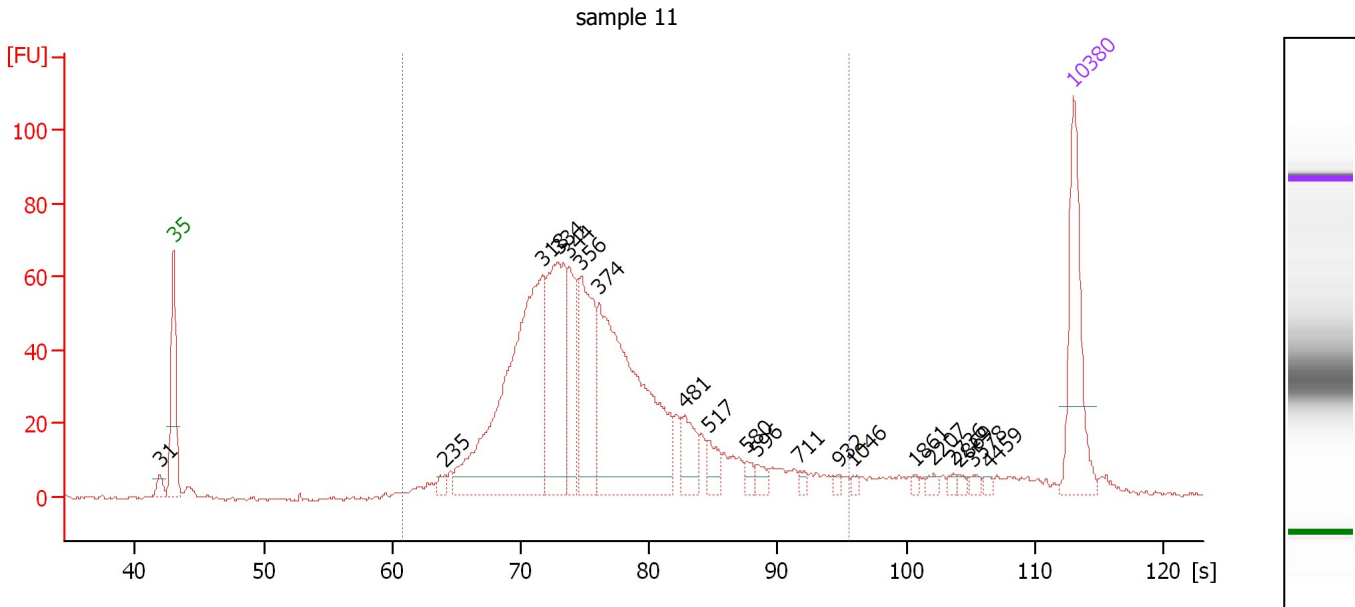
Region table for sample 10 : sample 10

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
60.84	95.61	375	4,479.2	1,006.54	842.2	91	33.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-11\2013-06-11_001.xad

Created: 6/11/2013 9:49:25 AM
 Modified: 6/11/2013 10:30:45 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 11

Number of peaks found: 20 Corr. Area 1: 1,083.7
 Noise: 0.6

Peak table for sample 11 : sample 11

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	31	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	235	8.75	56.4	
4	318	352.20	1,677.8	
5	334	163.37	740.5	
6	344	73.37	322.9	
7	356	118.57	504.4	
8	374	298.03	1,206.6	
9	481	33.02	104.0	
10	517	19.15	56.1	
11	580	7.28	19.0	
12	596	8.76	22.3	
13	711	4.29	9.1	
14	932	3.46	5.6	
15	1,046	3.13	4.5	
16	1,861	2.56	2.1	
17	2,207	3.90	2.7	
18	2,736	3.10	1.7	
19	2,869	2.62	1.4	
20	3,578	3.80	1.6	
21	4,459	2.61	0.9	
22	10,380	75.00	10.9	Upper Marker

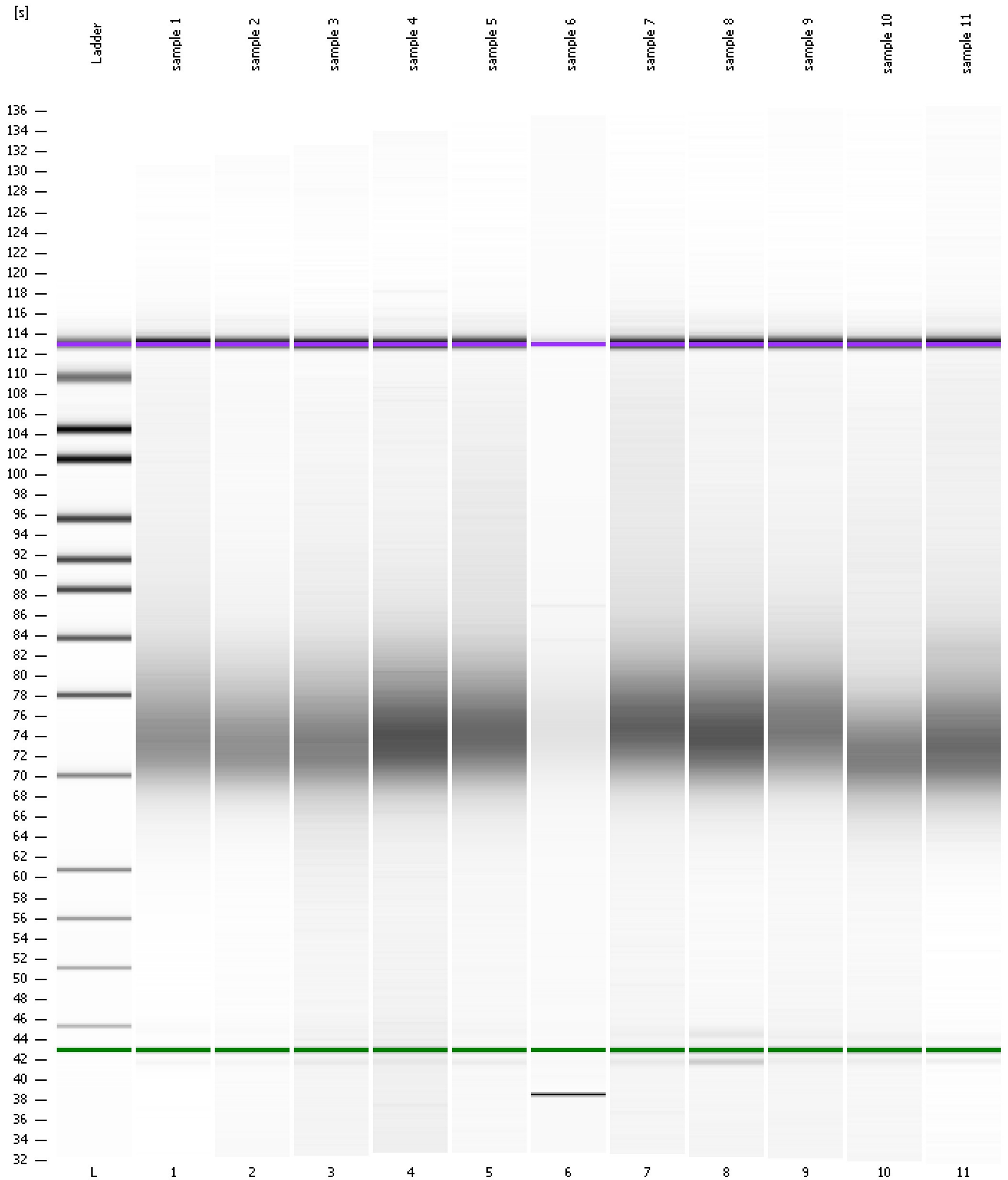
Region table for sample 11 : sample 11

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
60.84	95.61	388	5,141.3	1,204.53	1,083.7 91	30.2	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-11\2013-06-11_001.xad

Created: 6/11/2013 9:49:25 AM
Modified: 6/11/2013 10:30:45 AM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-11\2013-06-11_001.xad

Created: 6/11/2013 9:49:25 AM
 Modified: 6/11/2013 10:30:45 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		6/11/2013 10:30:42 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-06-11\2013-06-11_001.xad)		Instrument	Run		6/11/2013 9:49:30 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		6/11/2013 9:49:30 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		6/11/2013 9:49:30 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		6/11/2013 9:49:30 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		6/11/2013 9:49:30 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		6/11/2013 9:49:30 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		6/11/2013 9:49:30 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1