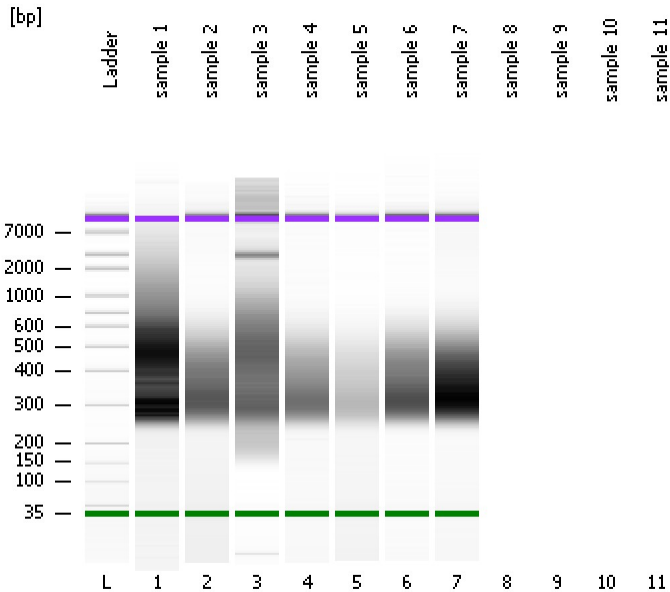


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-28\2013-03-28_003.xad

Created: 3/28/2013 4:03:59 PM
Modified: 3/28/2013 4:36:59 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

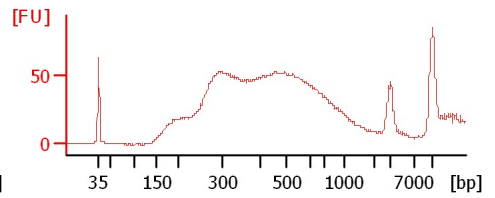
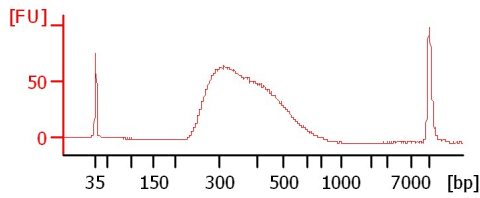
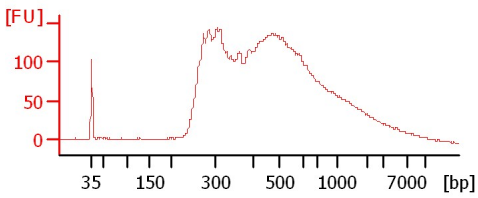
Chip Information:

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

sample 1

sample 2

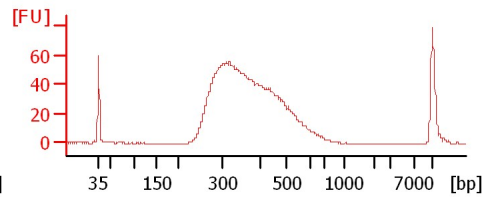
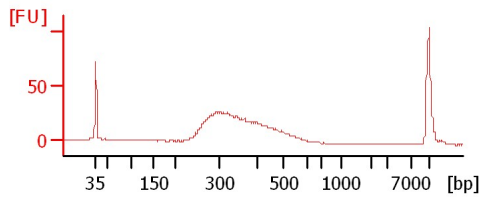
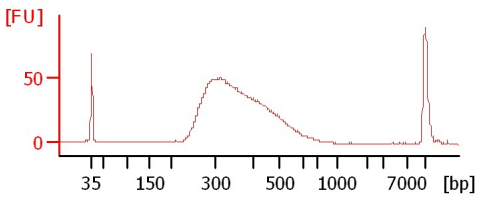
sample 3



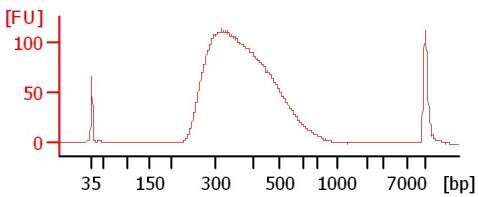
sample 4

sample 5

sample 6



sample 7



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-28\2013-03-28_003.xad

Created: 3/28/2013 4:03:59 PM
 Modified: 3/28/2013 4:36:59 PM

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\2013-03-28\2013-03-28_003.xad

Created: 3/28/2013 4:03:59 PM
 Modified: 3/28/2013 4:36:59 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

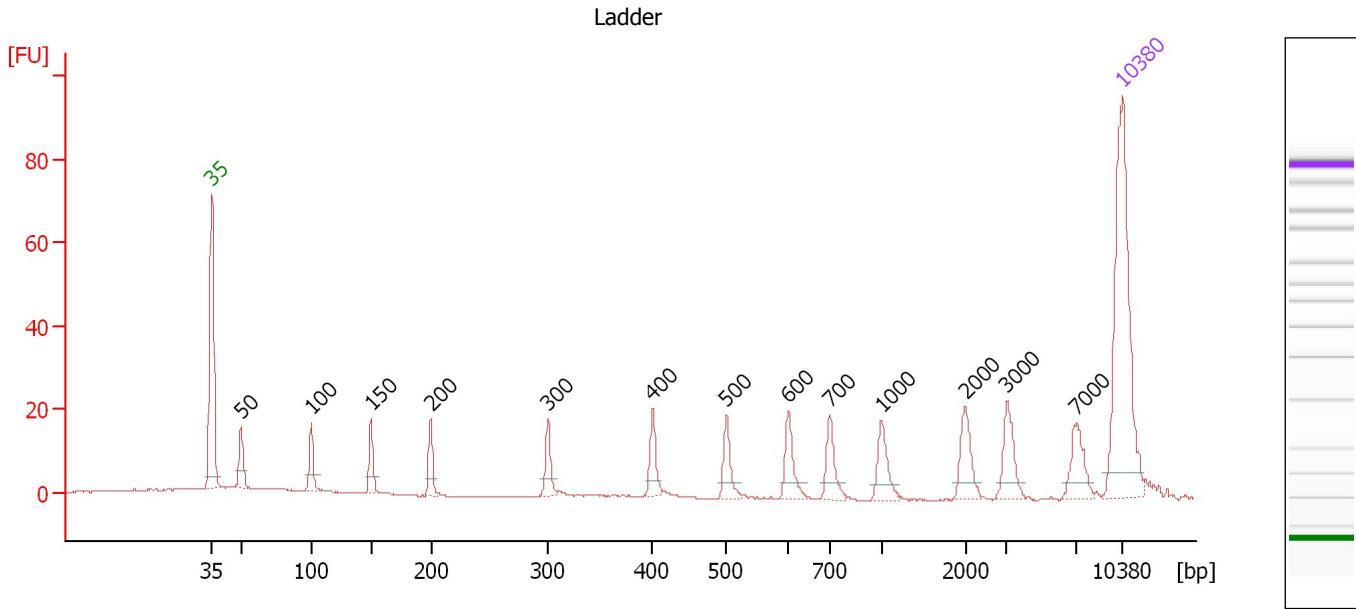
Ladder

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:\...ents and Settings\Bioanalyzer\2013-03-28\2013-03-28_003.xad

Created: 3/28/2013 4:03:59 PM
 Modified: 3/28/2013 4:36:59 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

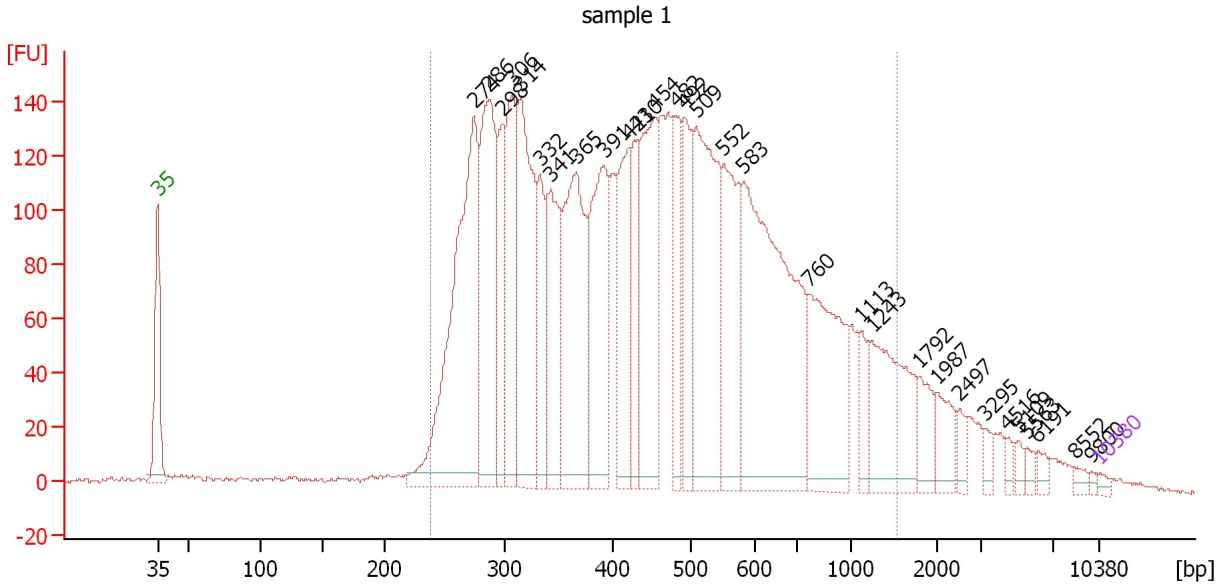
Peak table for Ladder

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\2013-03-28\2013-03-28_003.xad

Created: 3/28/2013 4:03:59 PM
 Modified: 3/28/2013 4:36:59 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 30 Corr. Area 1: 4,561.6
 Noise: 0.4

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	274	8,088.50	44,728.8	
3	286	4,789.77	25,342.6	
4	298	2,091.97	10,646.9	
5	306	3,189.55	15,787.5	
6	314	4,775.44	23,027.8	
7	332	1,750.61	7,985.7	
8	341	2,917.94	12,949.7	
9	365	4,696.21	19,487.4	
10	391	3,629.53	14,058.5	
11	421	2,525.90	9,090.4	
12	430	1,558.43	5,491.5	
13	454	3,798.52	12,686.8	
14	482	1,857.86	5,837.6	
15	492	1,931.83	5,949.2	
16	509	5,108.69	15,207.4	
17	552	2,865.07	7,864.0	
18	583	7,473.77	19,413.4	
19	760	3,300.34	6,578.2	
20	1,113	588.38	801.0	
21	1,243	2,393.34	2,917.5	
22	1,792	606.82	513.1	
23	1,987	609.34	464.6	
24	2,497	254.09	154.2	
25	3,295	172.49	79.3	
26	4,516	136.36	45.7	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-28\2013-03-28_003.xad


Created: 3/28/2013 4:03:59 PM
 Modified: 3/28/2013 4:36:59 PM

Electropherogram Summary Continued ...

... Peak table for sample 1 : sample 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	5,109	145.17	43.0	
28	5,563	136.97	37.3	
29	6,191	155.96	38.2	
30	8,552	113.81	20.2	
31	9,800	52.25	8.1	
32	10,380	75.00	10.9	Upper Marker

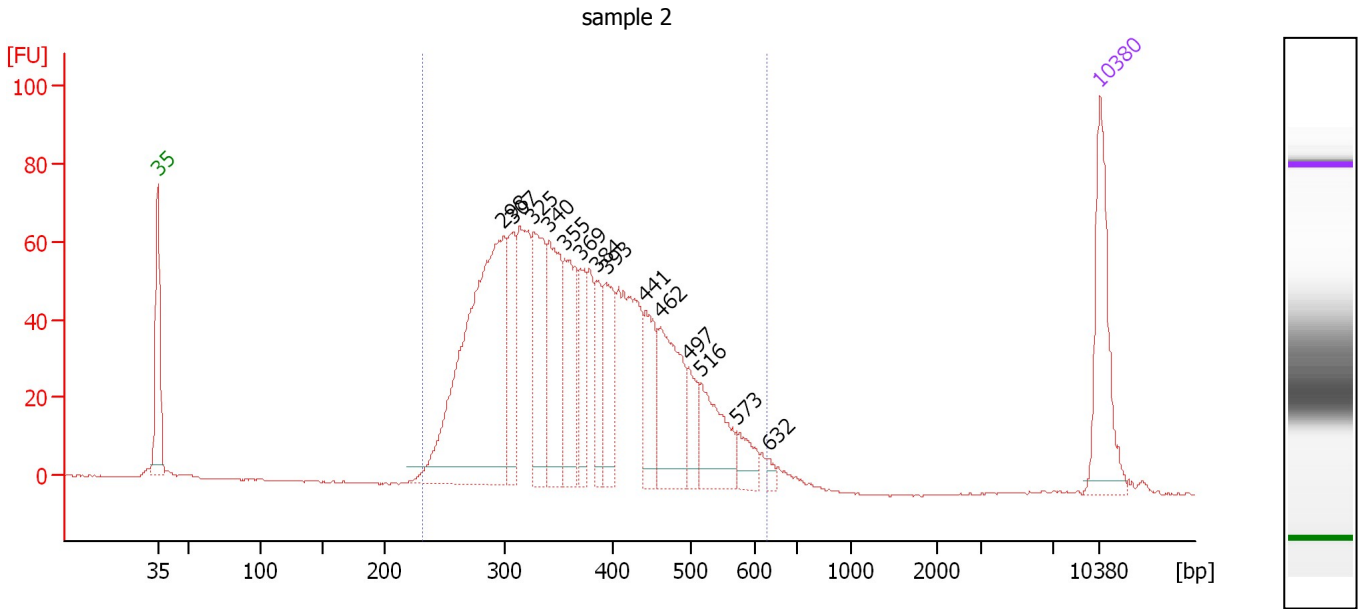
Region table for sample 1 : sample 1

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
238	1,534	501	276,759.1	73,181.70	4,561.6	90	48.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-28\2013-03-28_003.xad

Created: 3/28/2013 4:03:59 PM
 Modified: 3/28/2013 4:36:59 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 14 Corr. Area 1: 1,494.0
 Noise: 0.1

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	298	406.58	2,066.5	
3	307	75.46	371.9	
4	325	111.77	520.3	
5	340	118.40	527.2	
6	355	93.31	398.7	
7	369	49.18	201.7	
8	384	47.86	188.7	
9	393	67.64	260.9	
10	441	56.66	194.5	
11	462	103.05	338.2	
12	497	30.03	91.6	
13	516	69.13	203.0	
14	573	23.61	62.4	
15	632	5.65	13.5	
16	10,380	75.00	10.9	Upper Marker

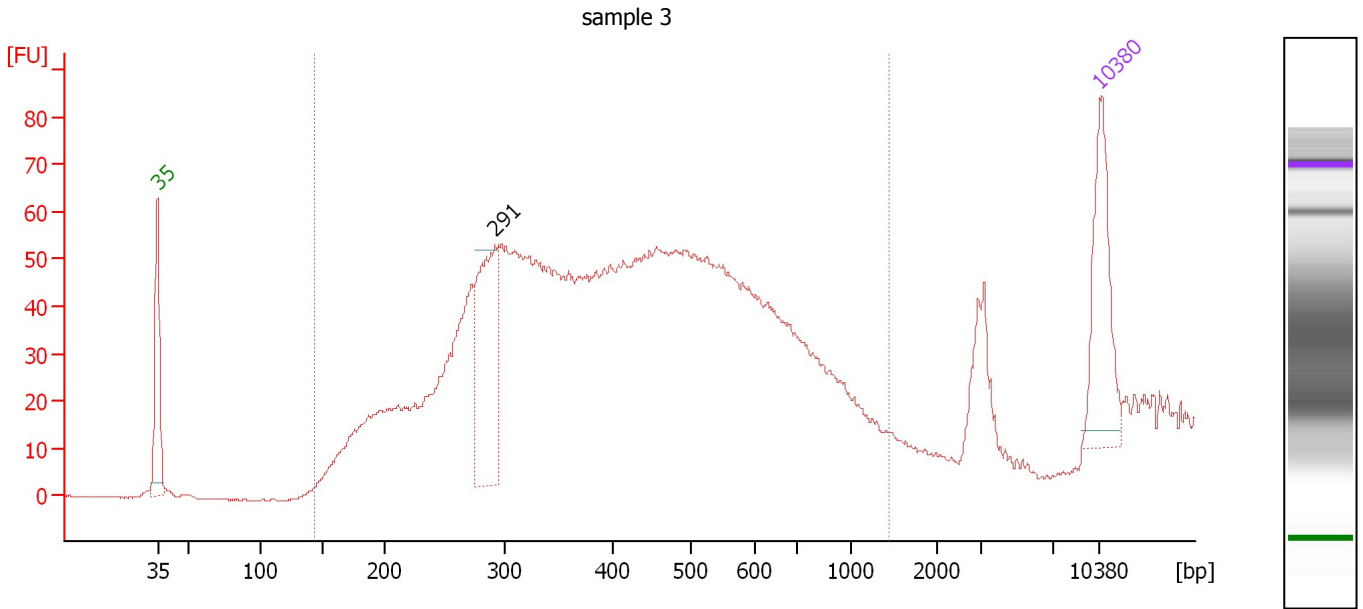
Region table for sample 2 : sample 2

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
232	628	375	6,880.4	1,588.09	1,494.0	97	22.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-28\2013-03-28_003.xad

Created: 3/28/2013 4:03:59 PM
 Modified: 3/28/2013 4:36:59 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 3 : sample 3

Height Threshold [FU] : 50

Overall Results for sample 3 : sample 3

Number of peaks found: 1 Corr. Area 1: 1,783.7
 Noise: 0.2

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	291	163.67	850.7	
3	10,380	75.00	10.9	Upper Marker

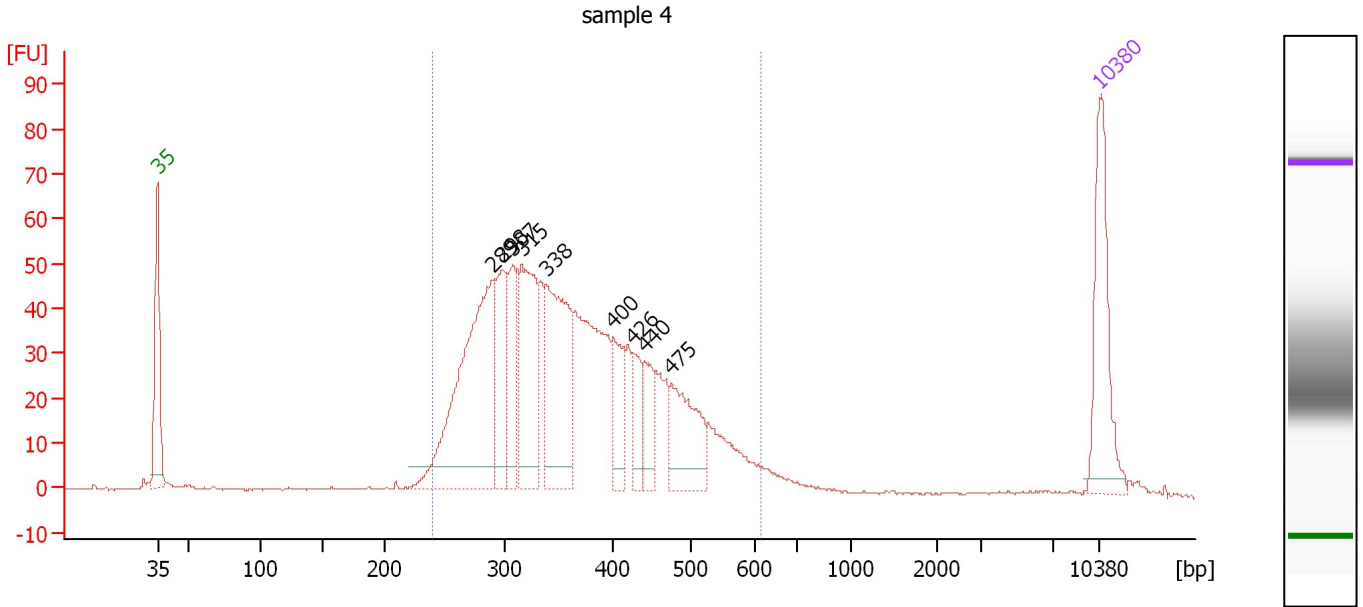
Region table for sample 3 : sample 3

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
143	1,434	445	8,884.4	2,067.55	1,783.7	94	43.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-28\2013-03-28_003.xad

Created: 3/28/2013 4:03:59 PM
 Modified: 3/28/2013 4:36:59 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 9 Corr. Area 1: 1,057.0
 Noise: 0.2

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	289	269.79	1,415.2	
3	298	79.31	403.6	
4	307	75.04	370.6	
5	315	136.74	657.5	
6	338	158.48	709.8	
7	400	42.44	160.9	
8	426	32.04	113.9	
9	440	35.17	121.1	
10	475	80.00	255.1	
11	10,380	75.00	10.9	Upper Marker

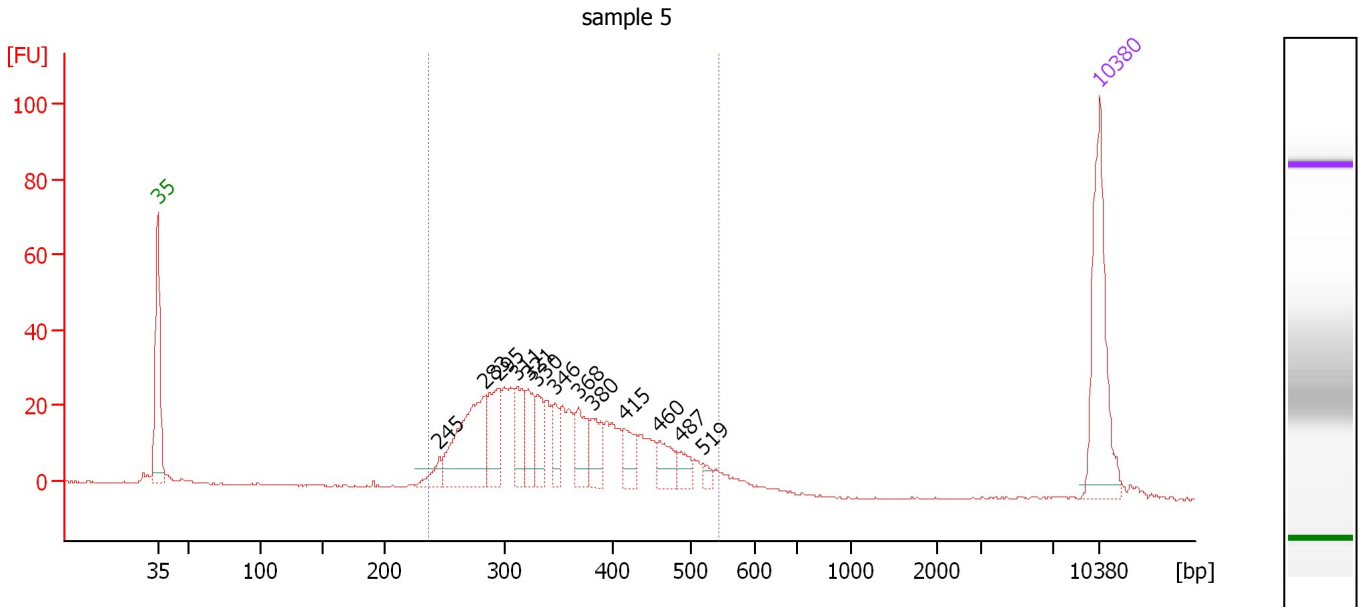
Region table for sample 4 : sample 4

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
240	616	368	5,596.1	1,273.72	1,057.0	94	22.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-28\2013-03-28_003.xad

Created: 3/28/2013 4:03:59 PM
 Modified: 3/28/2013 4:36:59 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 13 Corr. Area 1: 532.3
 Noise: 0.2

Peak table for sample 5 : sample 5

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	245	13.45	83.0	
3	283	98.99	530.1	
4	295	49.97	256.7	
5	311	31.52	153.8	
6	321	31.61	149.1	
7	330	25.88	119.0	
8	346	19.70	86.3	
9	368	30.67	126.3	
10	380	26.24	104.6	
11	415	22.50	82.2	
12	460	21.47	70.8	
13	487	13.18	41.0	
14	519	5.62	16.4	
15	10,380	75.00	10.9	Upper Marker

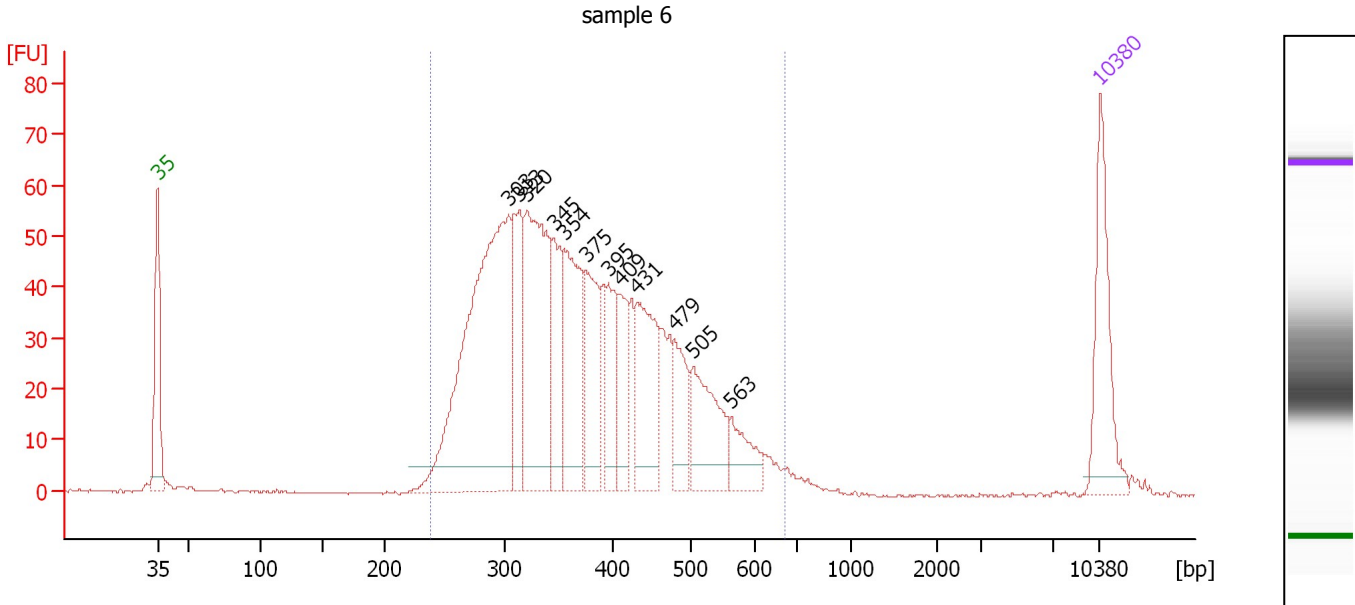
Region table for sample 5 : sample 5

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
237	544	355	2,597.1	575.37	532.3	94	20.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-28\2013-03-28_003.xad

Created: 3/28/2013 4:03:59 PM
 Modified: 3/28/2013 4:36:59 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found: 12 Corr. Area 1: 1,201.2
 Noise: 0.2

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	303	459.94	2,298.6	
3	313	99.20	480.5	
4	320	224.98	1,066.4	
5	345	95.25	418.7	
6	354	128.82	550.8	
7	375	90.97	367.8	
8	395	66.33	254.6	
9	409	53.30	197.7	
10	431	109.60	385.3	
11	479	54.04	170.9	
12	505	90.79	272.6	
13	563	39.37	105.9	
14	10,380	75.00	10.9	Upper Marker

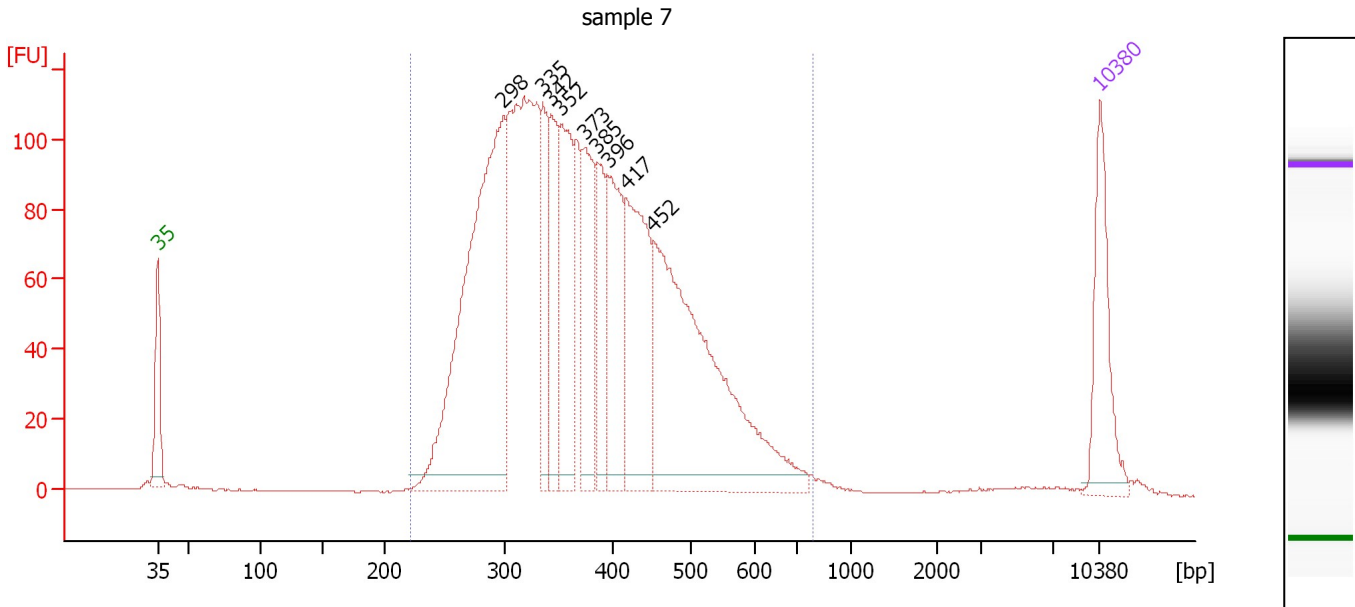
Region table for sample 6 : sample 6

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
239	670	379	7,308.4	1,699.10	1,201.2	97	23.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-28\2013-03-28_003.xad

Created: 3/28/2013 4:03:59 PM
 Modified: 3/28/2013 4:36:59 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7

Number of peaks found: 9 Corr. Area 1: 2,538.9
 Noise: 0.2

Peak table for sample 7 : sample 7

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	298	530.61	2,696.0	
3	335	95.10	430.4	
4	342	104.35	462.0	
5	352	148.01	637.1	
6	373	110.30	447.8	
7	385	82.49	324.9	
8	396	122.91	470.7	
9	417	187.99	683.8	
10	452	419.15	1,404.5	
11	10,380	75.00	10.9	Upper Marker

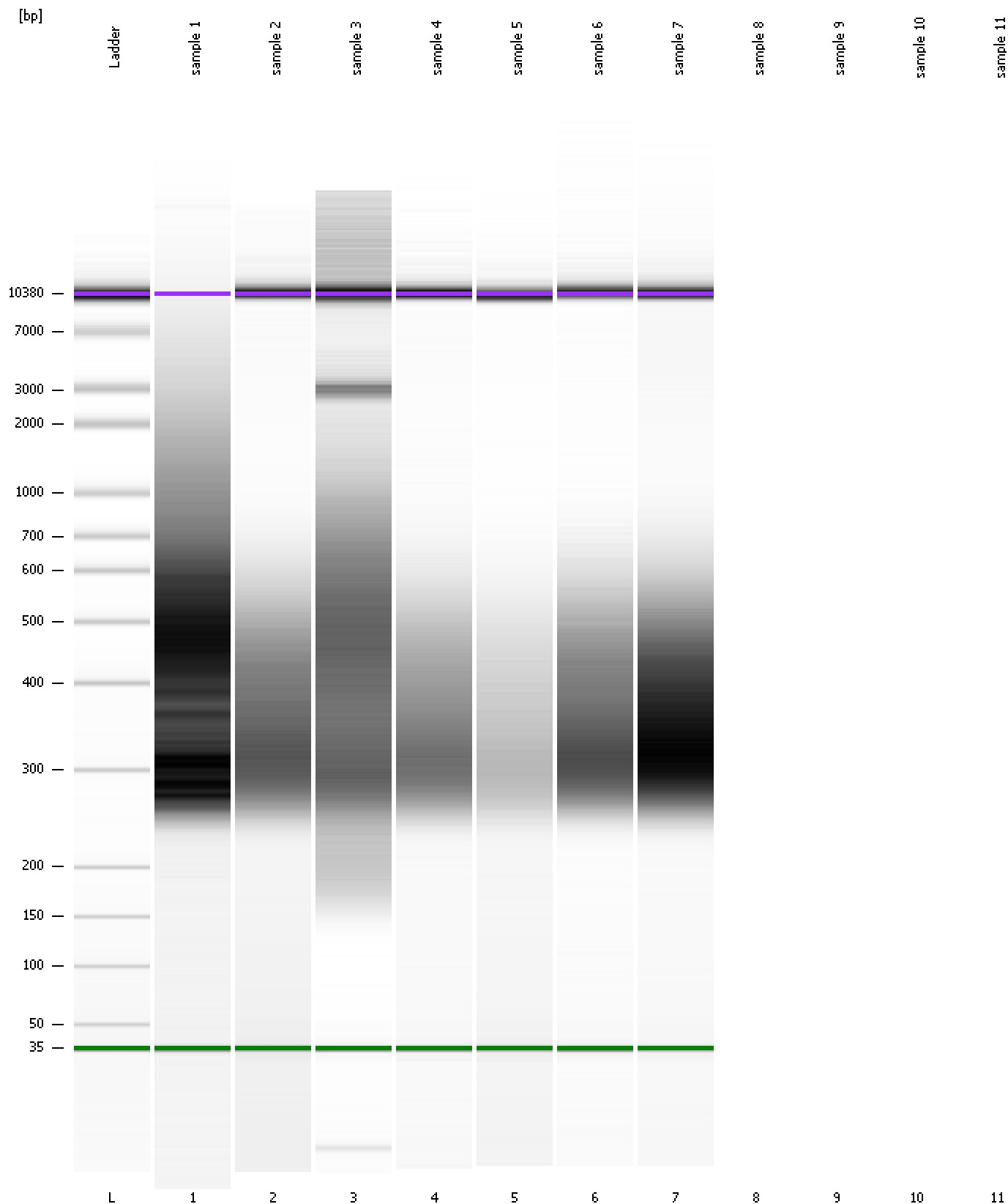
Region table for sample 7 : sample 7

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
221	788	382	9,900.7	2,316.08	2,538.9	97	24.4	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-28\2013-03-28_003.xad

Created: 3/28/2013 4:03:59 PM
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Gel Image

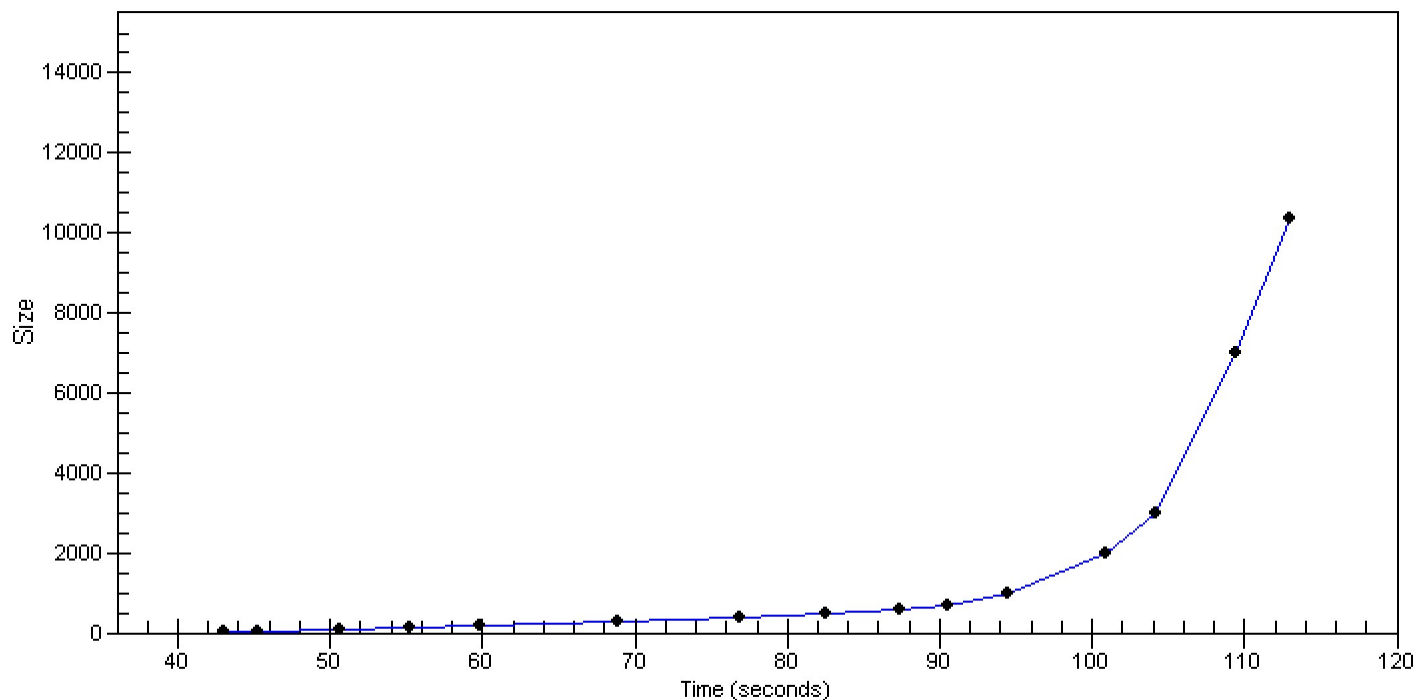


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-28\2013-03-28_003.xad

Created: 3/28/2013 4:03:59 PM
Modified: 3/28/2013 4:36:59 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-28\2013-03-28_003.xad

Created: 3/28/2013 4:03:59 PM
Modified: 3/28/2013 4:36:59 PM

Invalid Samples

Sample 8 has not been run, no results available.

Sample 9 has not been run, no results available.

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-28\2013-03-28_003.xad

Created: 3/28/2013 4:03:59 PM
 Modified: 3/28/2013 4:36:59 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 8)		Instrument	Run		3/28/2013 4:33:52 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-03-28\2013-03-28_003.xad)		Instrument	Run		3/28/2013 4:04:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/28/2013 4:04:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/28/2013 4:04:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/28/2013 4:04:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/28/2013 4:04:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/28/2013 4:04:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/28/2013 4:04:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1