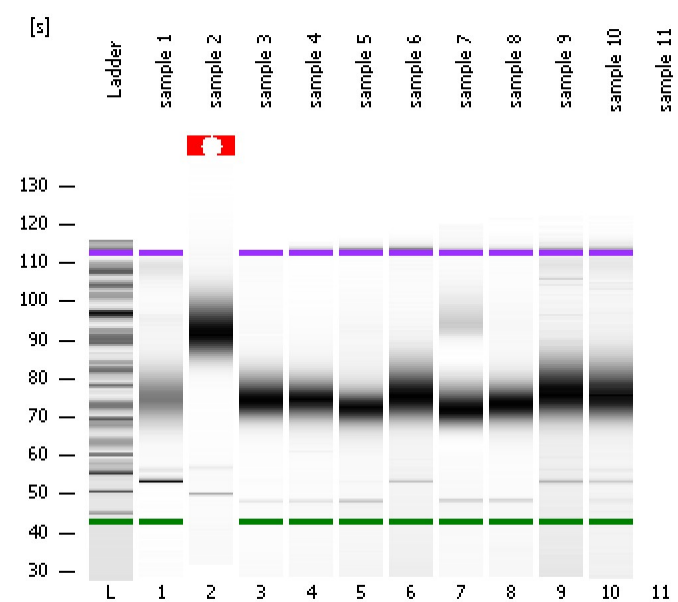


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
Modified: 3/27/2014 11:28:07 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

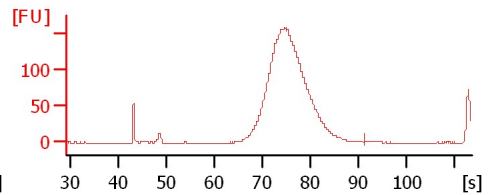
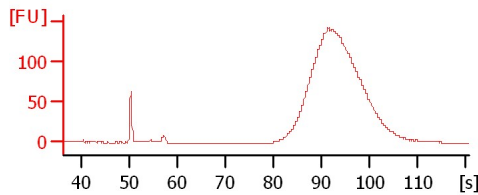
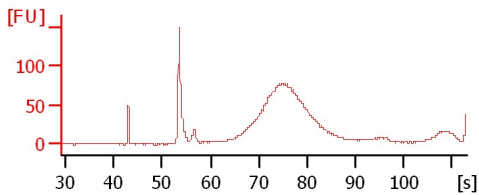
Chip Information:

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

sample 1

sample 2

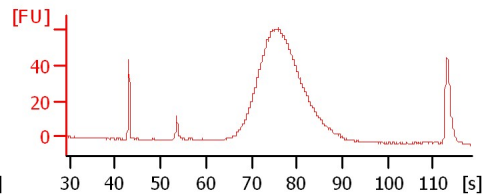
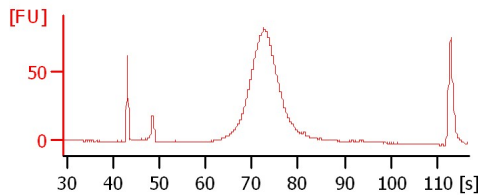
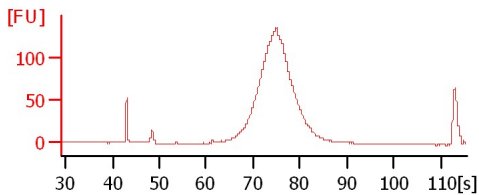
sample 3



sample 4

sample 5

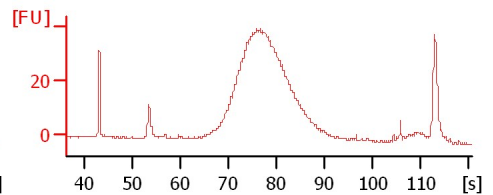
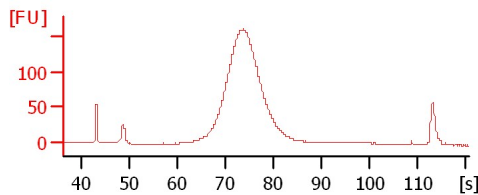
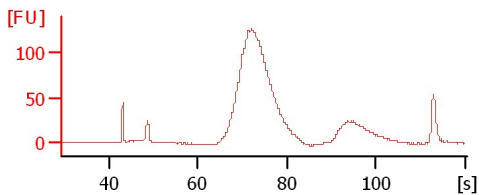
sample 6



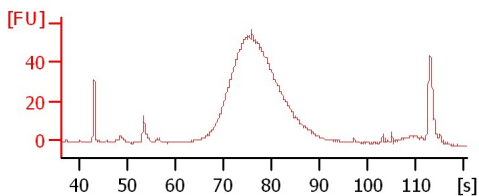
sample 7

sample 8

sample 9



sample 10



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
 Modified: 3/27/2014 11:28:07 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\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
Modified: 3/27/2014 11:28:07 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

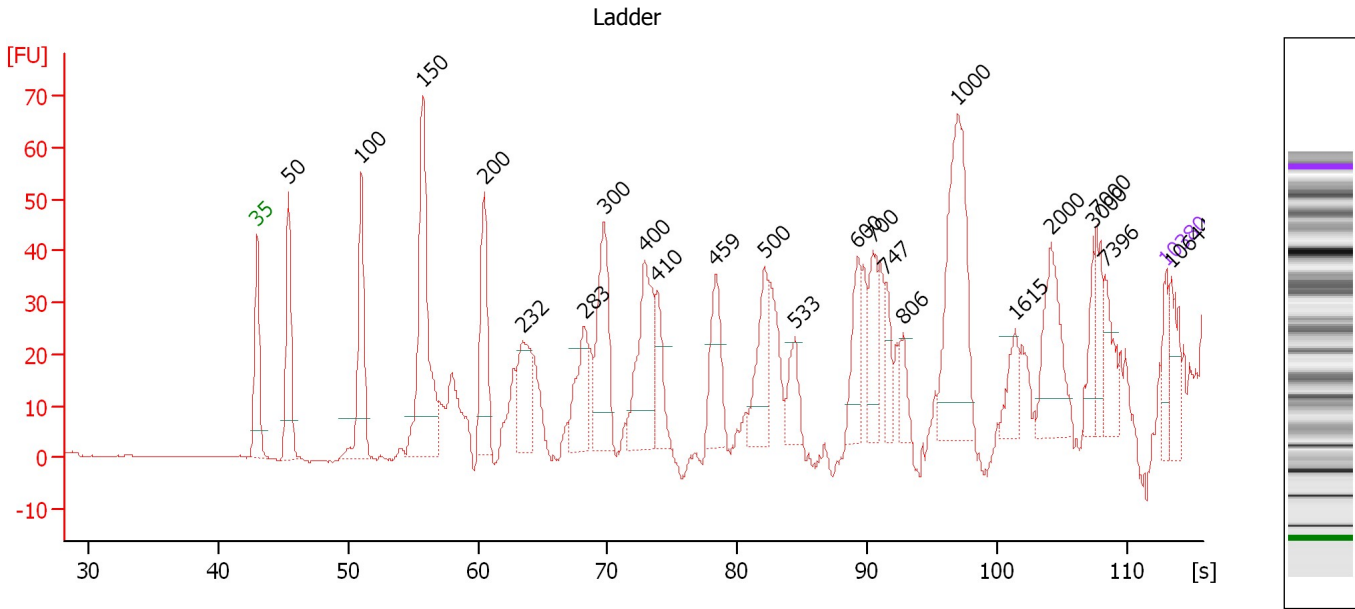
Ladder

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\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
 Modified: 3/27/2014 11:28:07 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

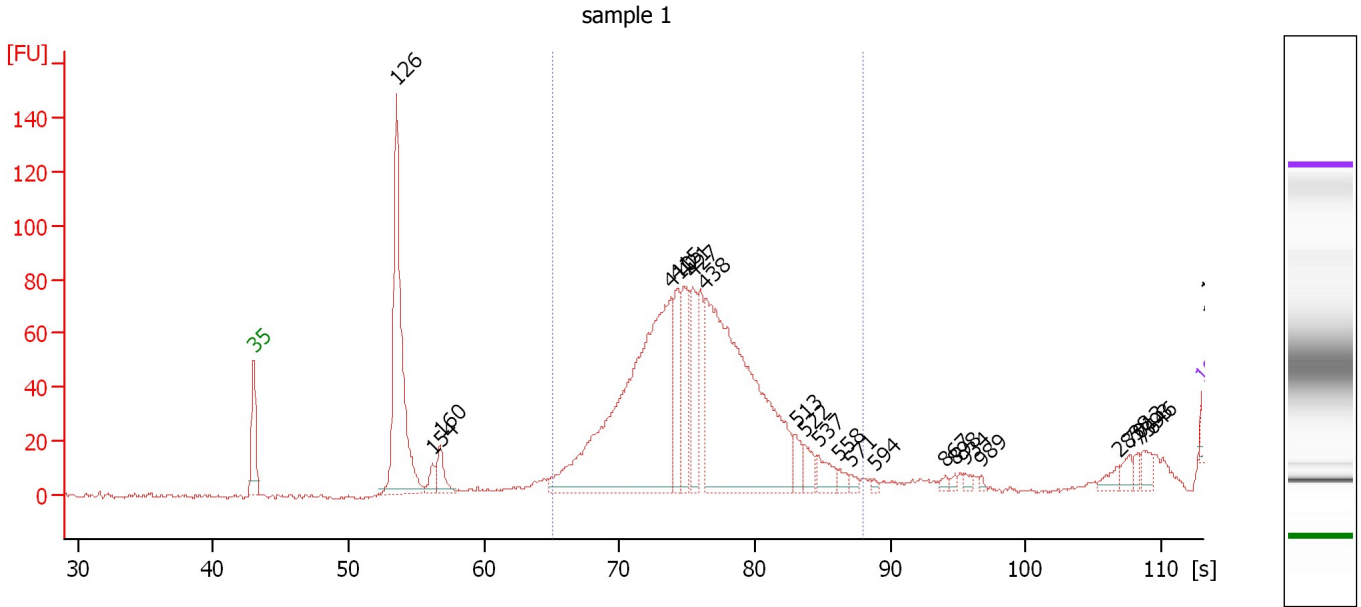
Peak table for Ladder

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	45.40	50	150.00	4,545.5	Ladder Peak
3	51.03	100	150.00	2,272.7	Ladder Peak
4	55.78	150	150.00	1,515.2	Ladder Peak
5	60.50	200	150.00	1,136.4	Ladder Peak
6	63.44	232	0.00	0.0	
7	68.24	283	0.00	0.0	
8	69.77	300	150.00	757.6	Ladder Peak
9	72.87	400	150.00	568.2	Ladder Peak
10	73.82	410	0.00	0.0	
11	78.33	459	0.00	0.0	
12	82.10	500	150.00	454.5	Ladder Peak
13	84.45	533	0.00	0.0	
14	89.25	600	150.00	378.8	Ladder Peak
15	90.41	700	150.00	324.7	Ladder Peak
16	91.45	747	0.00	0.0	
17	92.73	806	0.00	0.0	
18	96.99	1,000	150.00	227.3	Ladder Peak
19	101.42	1,615	0.00	0.0	
20	104.19	2,000	150.00	113.6	Ladder Peak
21	107.41	3,000	150.00	75.8	Ladder Peak
22	107.70	7,000	150.00	32.5	Ladder Peak
23	108.33	7,396	0.00	0.0	
24	113.00	10,380	75.00	10.9	Upper Marker
25	113.41	10,644	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

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Electropherogram Summary Continued ...



Setpoint Deviations for sample 1 : sample 1

Height Threshold [FU] : 2

Overall Results for sample 1 : sample 1

Number of peaks found: 24 Corr. Area 1: 1,079.2
 Noise: 0.6

Peak table for sample 1 : sample 1

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	53.51	126	59,588.32	715,957.5	
3	56.17	154	3,291.06	32,365.9	
4	56.76	160	5,796.67	54,765.3	
5	73.82	410	90,990.27	336,046.3	
6	74.21	415	13,903.45	50,815.9	
7	74.77	421	14,052.16	50,624.5	
8	75.40	427	12,934.06	45,846.6	
9	76.35	438	86,552.56	299,567.2	
10	83.06	513	3,458.57	10,206.5	
11	83.69	522	3,644.98	10,574.0	
12	84.72	537	4,153.43	11,725.5	
13	86.27	558	1,477.13	4,008.7	
14	87.14	571	999.38	2,654.2	
15	88.81	594	513.57	1,310.5	
16	94.08	867	820.59	1,433.4	
17	94.76	898	572.61	966.0	
18	95.55	934	812.92	1,318.3	
19	96.74	989	470.70	721.4	
20	106.89	2,838	1,470.78	785.2	
21	107.73	7,013	1,676.80	362.3	
22	108.32	7,393	1,112.04	227.9	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

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Electropherogram Summary Continued ...

... Peak table for sample 1 : sample 1

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations
23	108.72	7,646	2,042.65	404.8	
24	113.40	10,633	5,829.93	830.7	
25	113.00	10,380	75.00	10.9	Upper Marker
26	113.52	10,709	0.00	0.0	

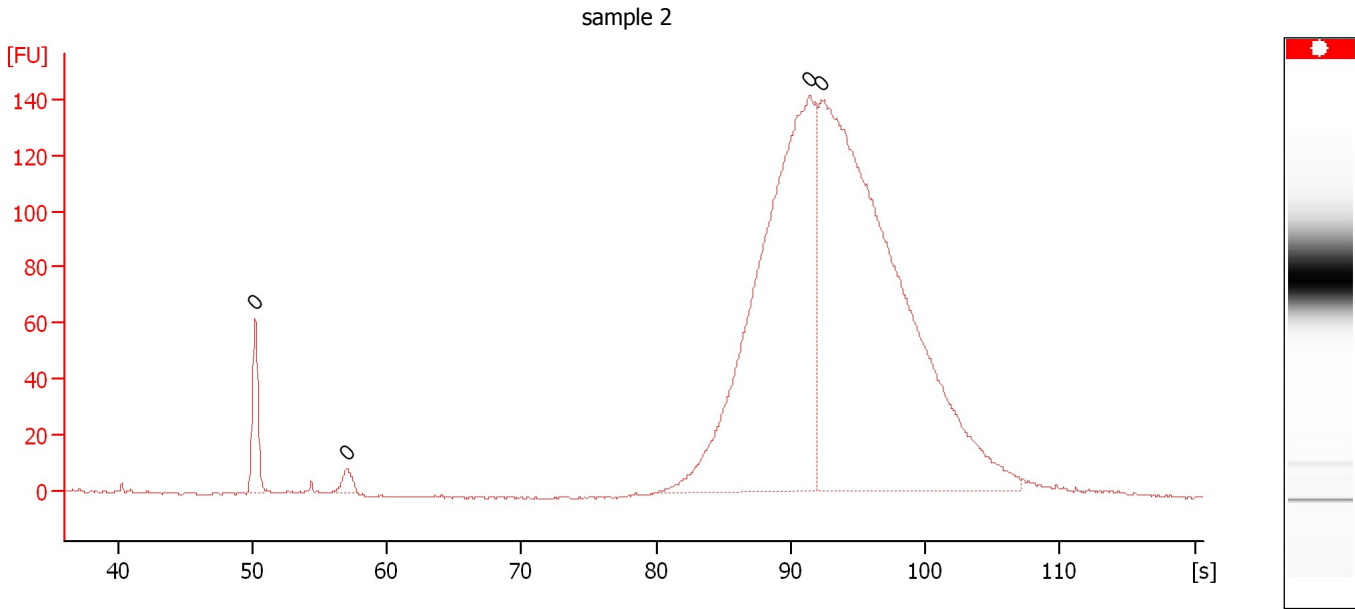
Region table for sample 1 : sample 1

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Co Corr. for Area	% of Total	Size distribution in CV [%]
248	583	417	870,570.9	230,118.30	1,079.2	81	15.6

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
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Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 0 Noise: 0.4

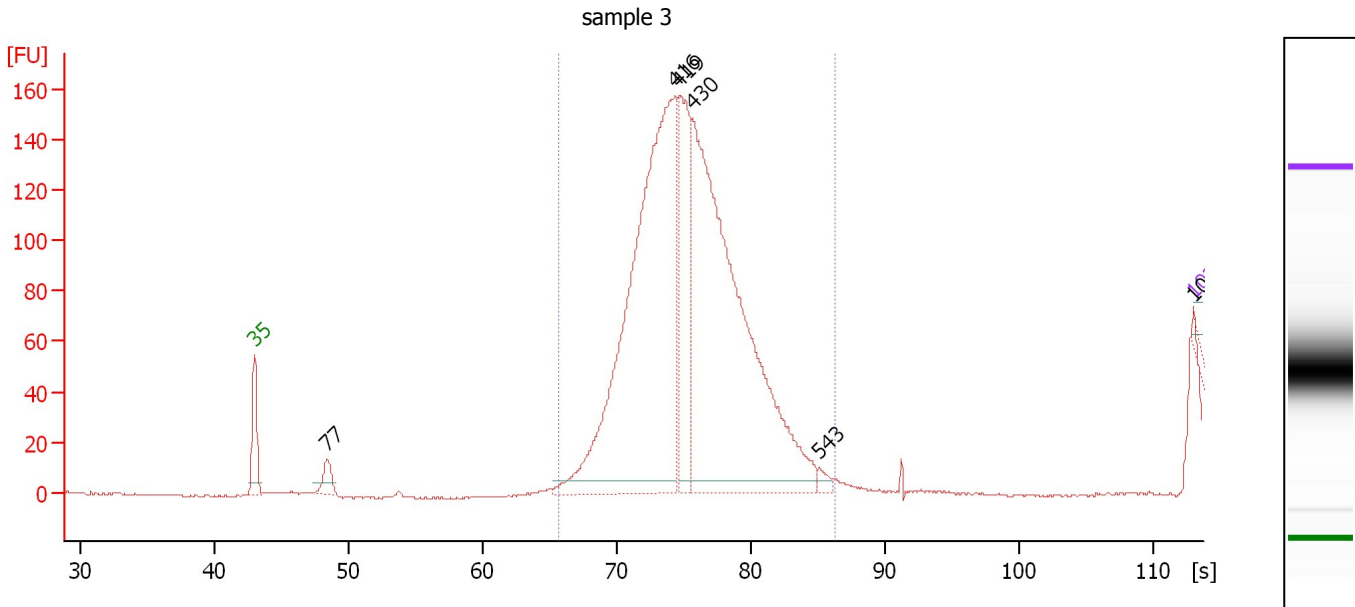
Peak table for sample 2 : sample 2

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	50.20	0	0.00	0.0	
2	57.05	0	0.00	0.0	
3	91.35	0	0.00	0.0	
4	92.30	0	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

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 Modified: 3/27/2014 11:28:07 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 6 Corr. Area 1: 1,145.4
 Noise: 0.3

Peak table for sample 3 : sample 3

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	48.40	77	816.23	16,125.8	
3	74.38	416	20,762.15	75,557.0	
4	74.66	419	5,034.12	18,187.4	
5	75.66	430	20,661.05	72,762.9	
6	85.14	543	236.87	661.4	
7	113.00	10,380	75.00	10.9	Upper Marker
8	113.04	10,406	0.00	0.0	

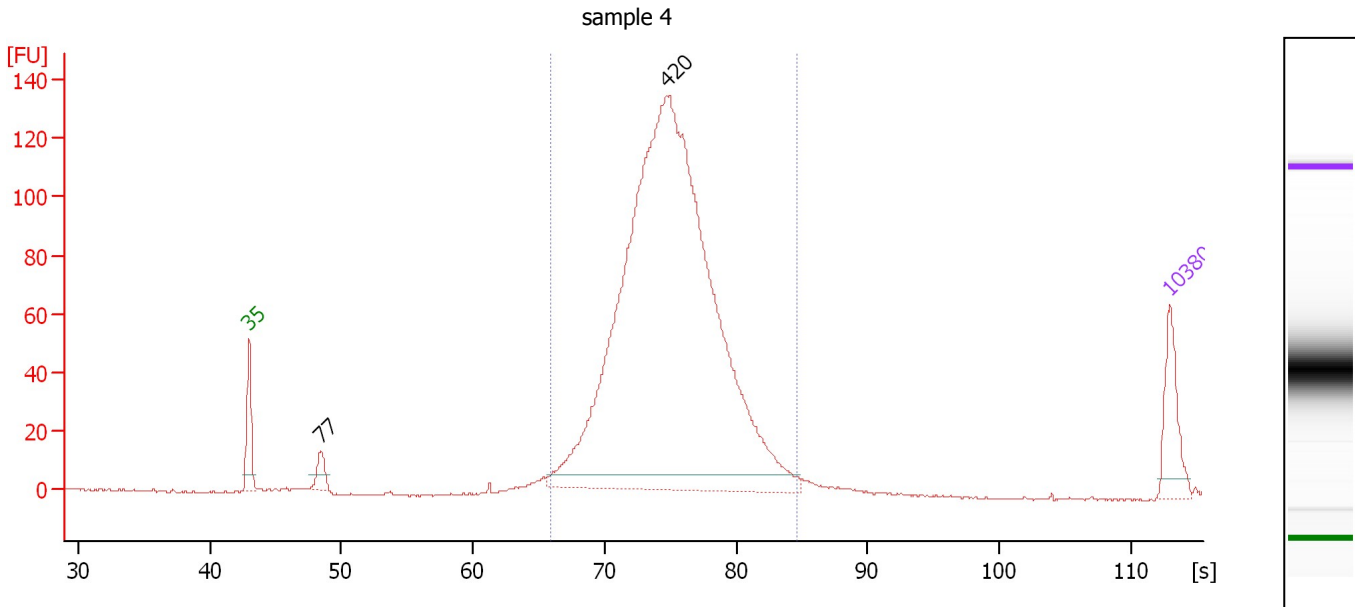
Region table for sample 3 : sample 3

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
257	557	415	103,754.7	28,136.64	1,145.4	100	9.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
 Modified: 3/27/2014 11:28:07 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 2 Corr. Area 1: 1,451.6
 Noise: 0.3

Peak table for sample 4 : sample 4

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	48.47	77	47.34	928.1	
3	74.71	420	2,352.42	8,486.6	
4	113.00	10,380	75.00	10.9	Upper Marker

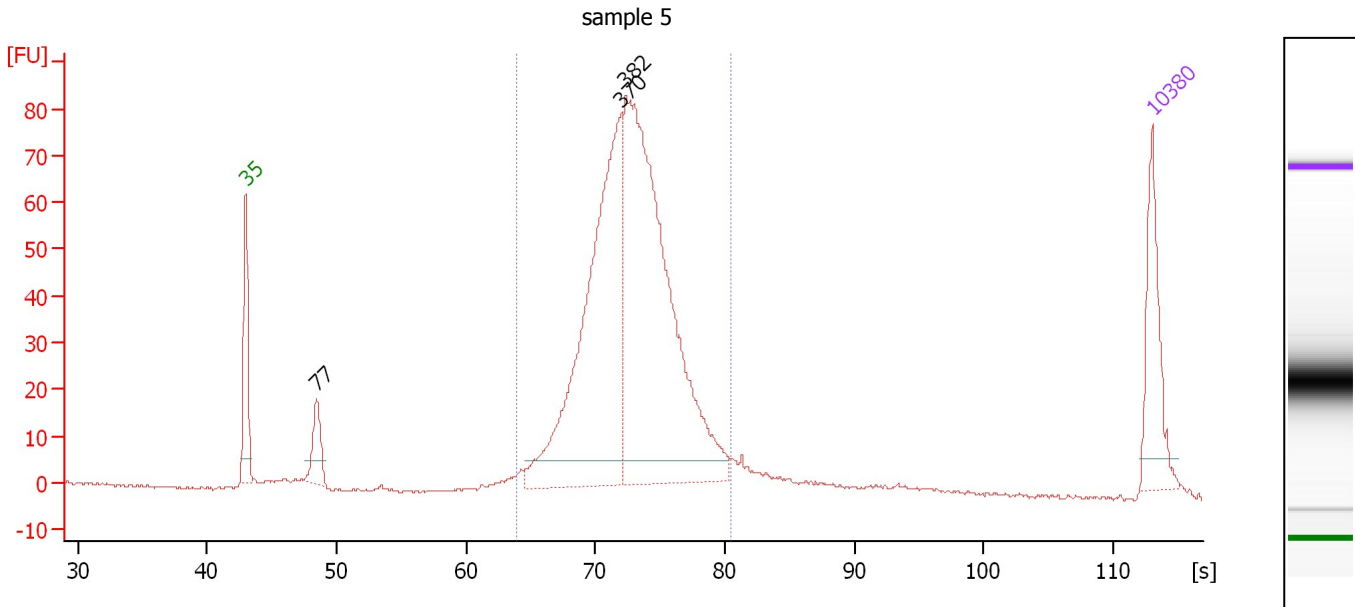
Region table for sample 4 : sample 4

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
258	534	412	8,909.8	2,359.89	1,451.6	98	12.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

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Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 3 Corr. Area 1: 855.6
 Noise: 0.3

Peak table for sample 5 : sample 5

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	48.47	77	57.73	1,131.2	
3	71.95	370	515.16	2,108.4	
4	72.32	382	672.02	2,663.9	
5	113.00	10,380	75.00	10.9	Upper Marker

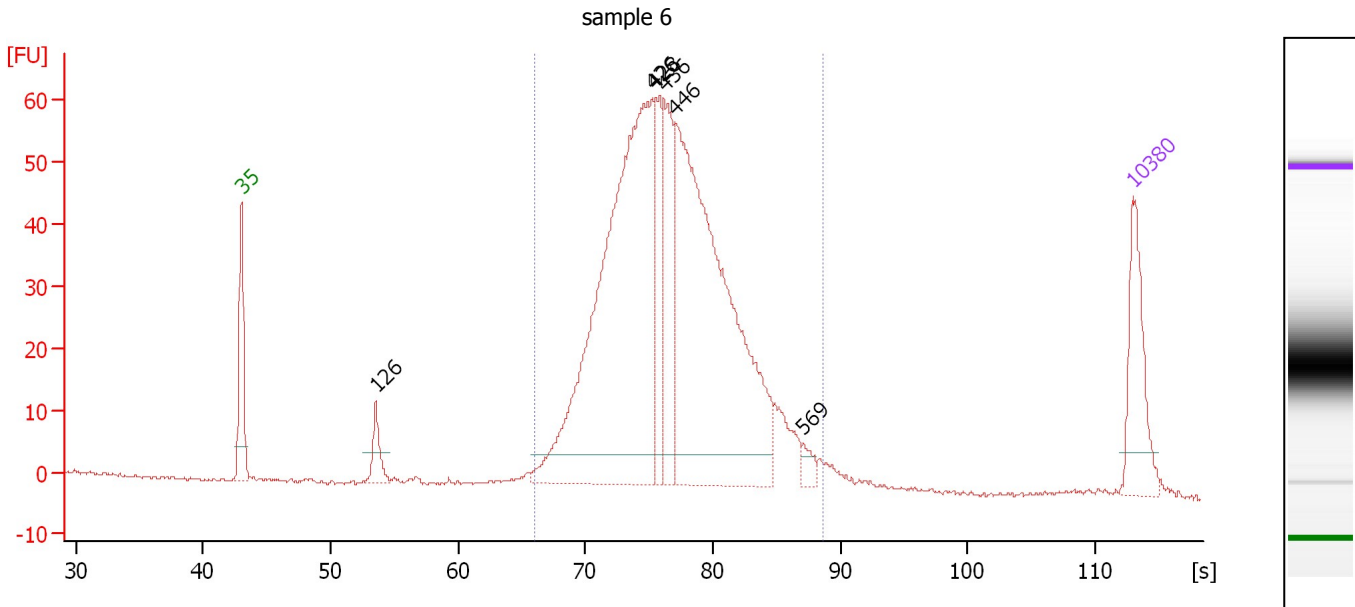
Region table for sample 5 : sample 5

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
236	481	375	5,249.1	1,252.29	855.6	90	15.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

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Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found: 6 Corr. Area 1: 914.3
 Noise: 0.3

Peak table for sample 6 : sample 6

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	53.54	126	40.99	491.2	
3	75.26	426	738.91	2,628.7	
4	75.47	428	100.41	355.3	
5	76.19	436	122.27	424.9	
6	77.07	446	666.63	2,266.9	
7	87.07	569	14.51	38.6	
8	113.00	10,380	75.00	10.9	Upper Marker

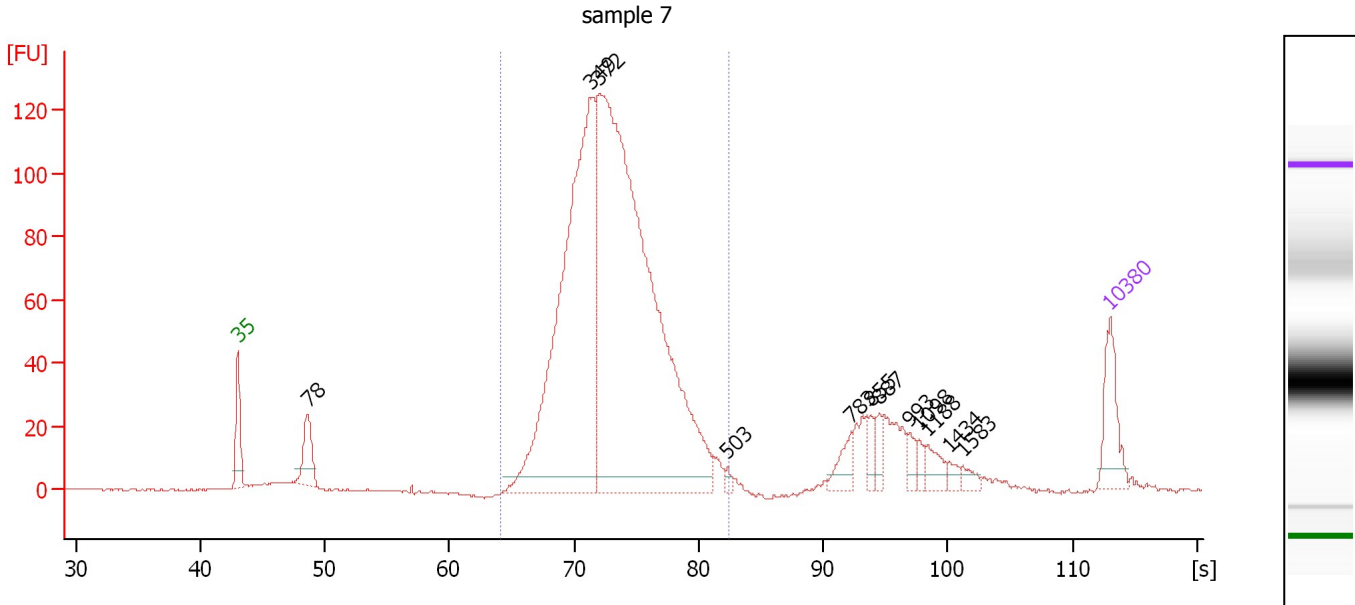
Region table for sample 6 : sample 6

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
260	593	434	6,237.2	1,730.55	914.3	97	14.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

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Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7

Number of peaks found: 12 Corr. Area 1: 1,418.0
 Noise: 0.2

Peak table for sample 7 : sample 7

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	48.60	78	100.74	1,945.1	
3	71.28	349	1,119.69	4,866.3	
4	72.01	372	1,745.11	7,103.2	
5	82.31	503	8.96	27.0	
6	92.22	783	44.20	85.6	
7	93.82	855	23.83	42.2	
8	94.51	887	23.73	40.5	
9	96.84	993	20.61	31.5	
10	97.70	1,098	14.82	20.4	
11	98.34	1,188	31.94	40.7	
12	100.11	1,434	13.29	14.0	
13	101.19	1,583	13.84	13.2	
14	113.00	10,380	75.00	10.9	Upper Marker

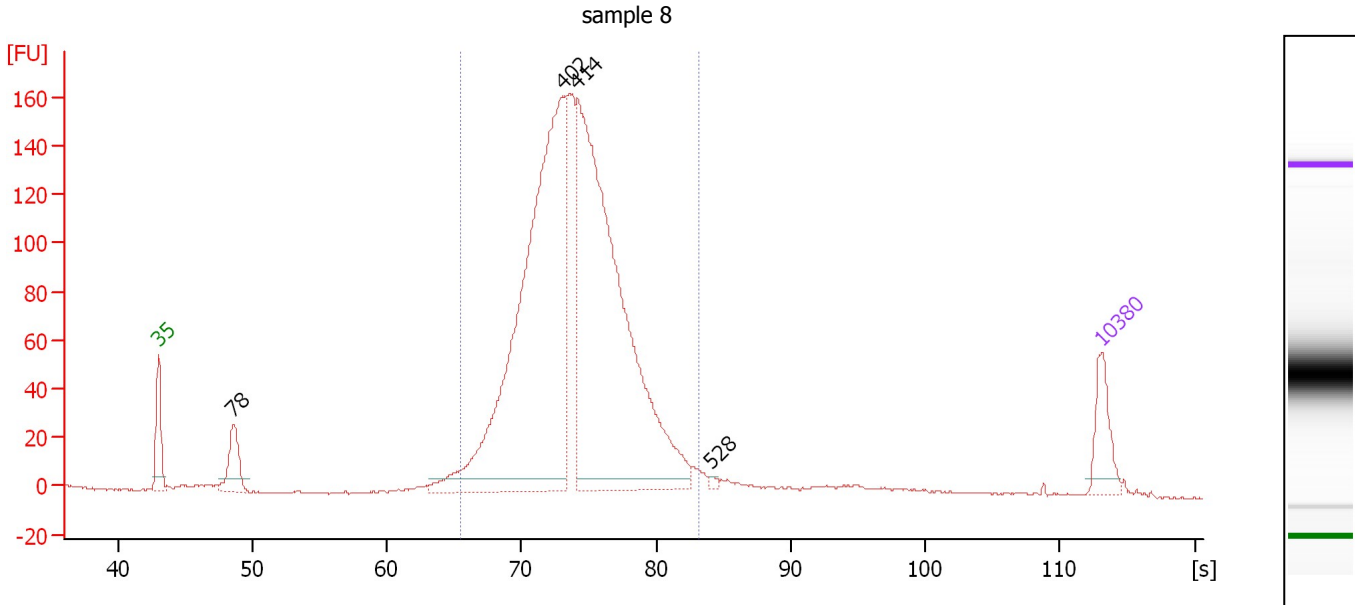
Region table for sample 7 : sample 7

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
238	506	380	11,597.8	2,805.79	1,418.0	84	15.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

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Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8

Number of peaks found: 4 Corr. Area 1: 1,823.2
 Noise: 0.4

Peak table for sample 8 : sample 8

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	48.57	78	127.48	2,471.7	
3	73.03	402	1,393.84	5,257.6	
4	74.16	414	1,384.26	5,065.7	
5	84.07	528	6.08	17.5	
6	113.00	10,380	75.00	10.9	Upper Marker

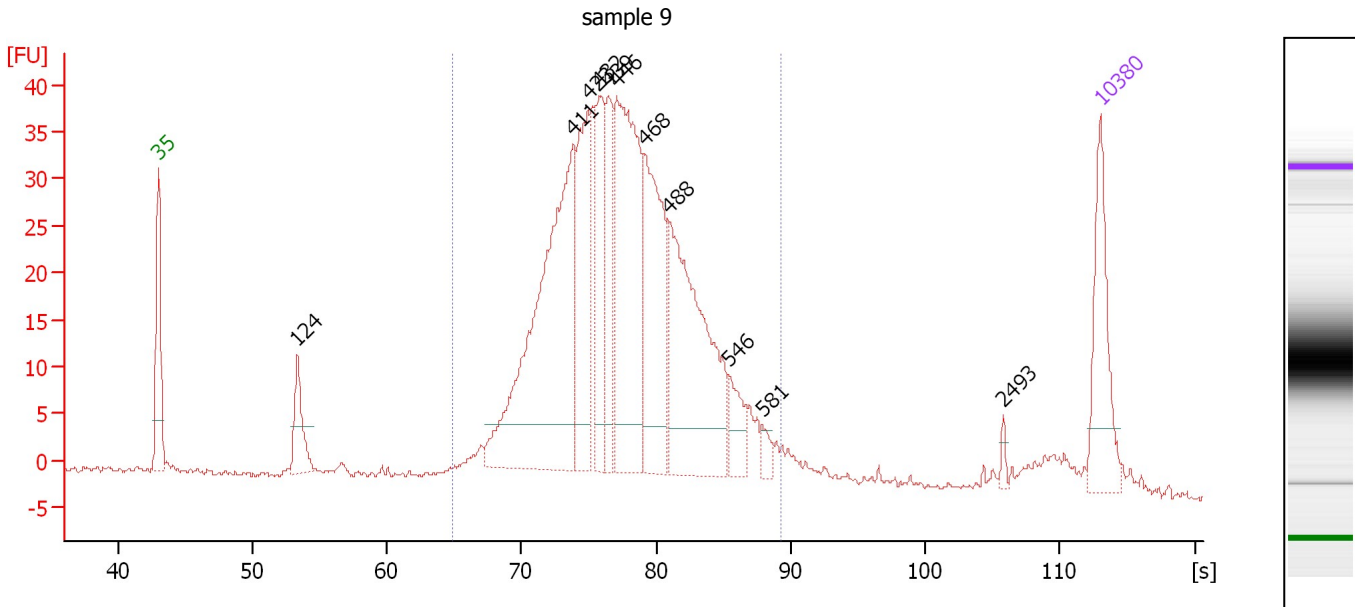
Region table for sample 8 : sample 8

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. for Area	% of Total	Size distribution in CV [%]
253	516	396	12,409.7	3,138.79	1,823.2	93	14.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

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Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 9

Number of peaks found: 11 Corr. Area 1: 639.4
 Noise: 0.4

Peak table for sample 9 : sample 9

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	53.35	124	58.54	713.1	
3	73.86	411	392.93	1,449.4	
4	74.96	423	142.86	512.1	
5	75.80	432	97.52	342.2	
6	76.50	439	78.54	270.8	
7	77.08	446	272.66	927.1	
8	79.10	468	185.73	601.9	
9	80.99	488	269.70	837.3	
10	85.40	546	35.62	98.8	
11	87.86	581	11.48	30.0	
12	105.78	2,493	5.09	3.1	
13	113.00	10,380	75.00	10.9	Upper Marker

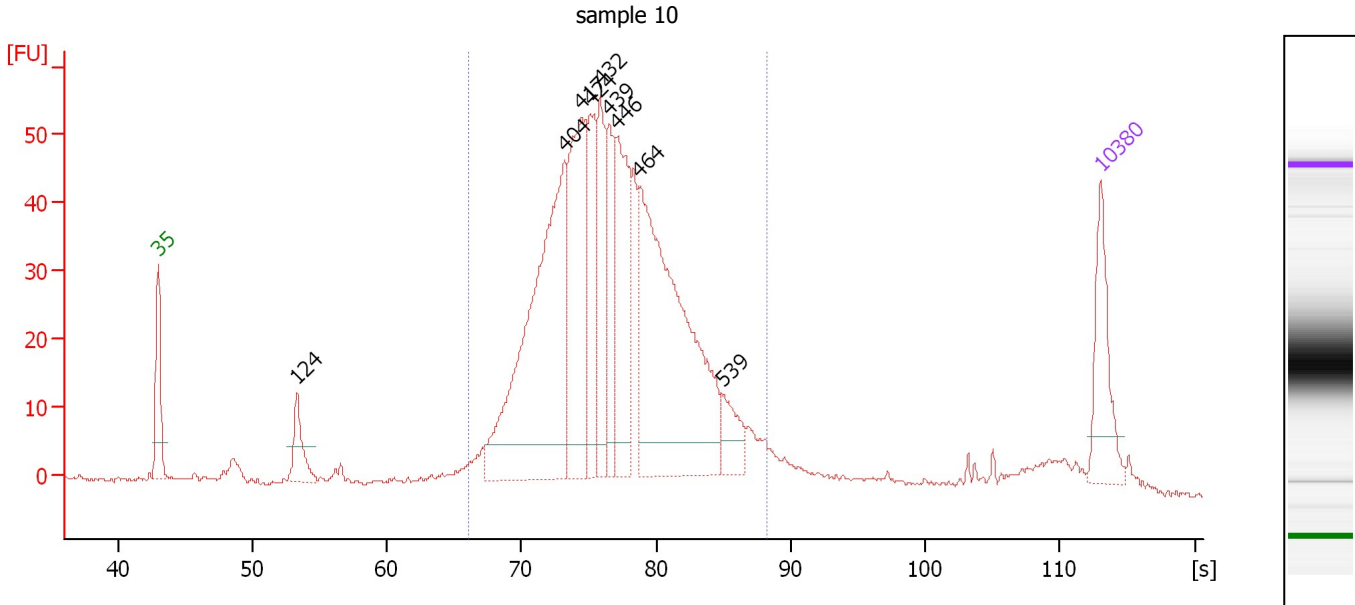
Region table for sample 9 : sample 9

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
247	607	444	5,988.6	1,694.28	639.4	91	14.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

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Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 10

Number of peaks found: 9 Corr. Area 1: 825.9
 Noise: 0.3

Peak table for sample 10 : sample 10

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	53.32	124	60.80	742.5	
3	73.20	404	473.85	1,779.2	
4	74.44	417	224.23	814.8	
5	75.10	424	134.72	481.2	
6	75.85	432	112.64	394.8	
7	76.47	439	105.97	365.7	
8	77.14	446	177.30	602.0	
9	78.73	464	490.04	1,601.8	
10	84.88	539	46.57	130.9	
11	113.00	10,380	75.00	10.9	Upper Marker

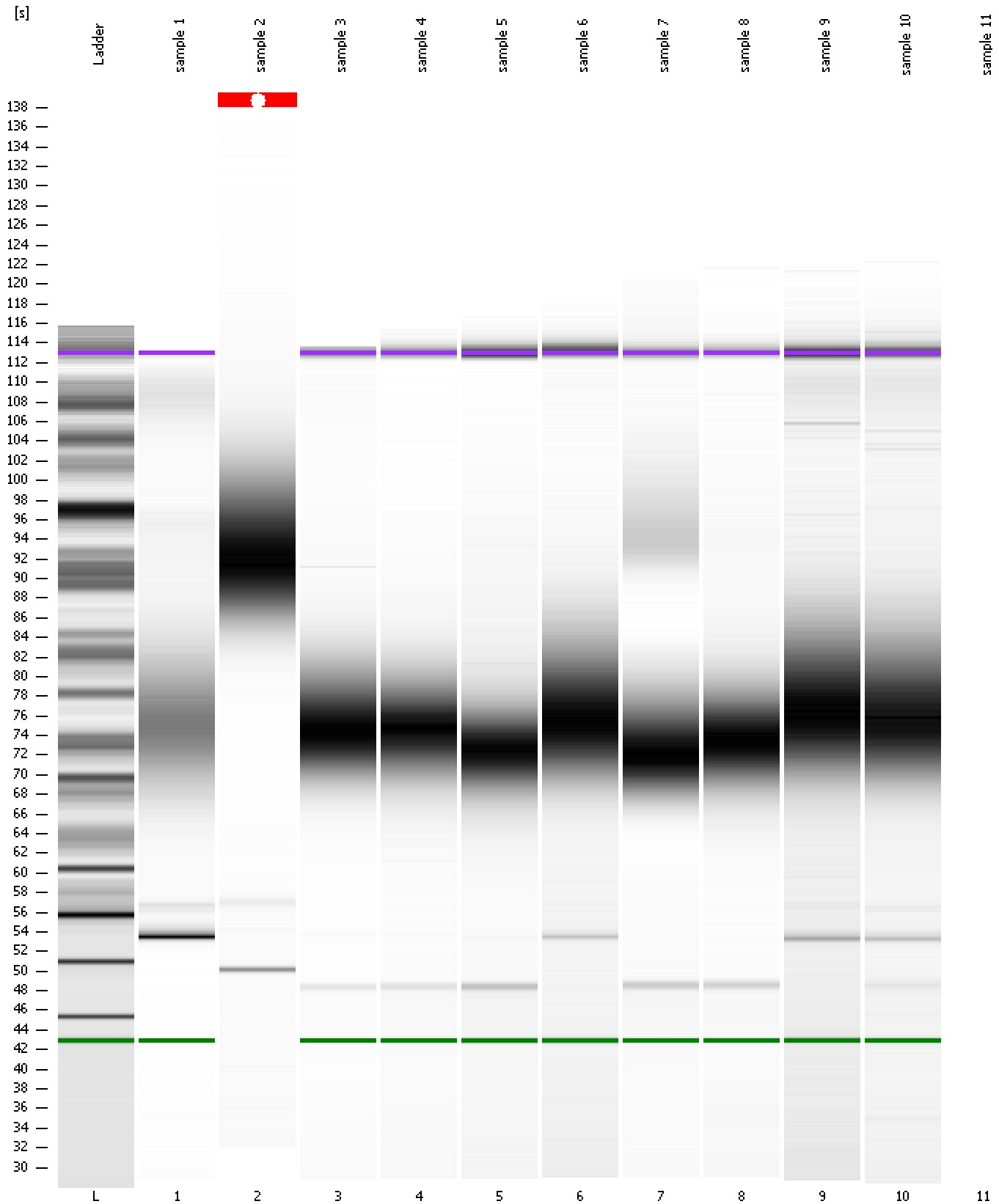
Region table for sample 10 : sample 10

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
261	586	435	7,215.4	2,000.06	825.9	89	14.8

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
Modified: 3/27/2014 11:28:07 AM

Gel Image

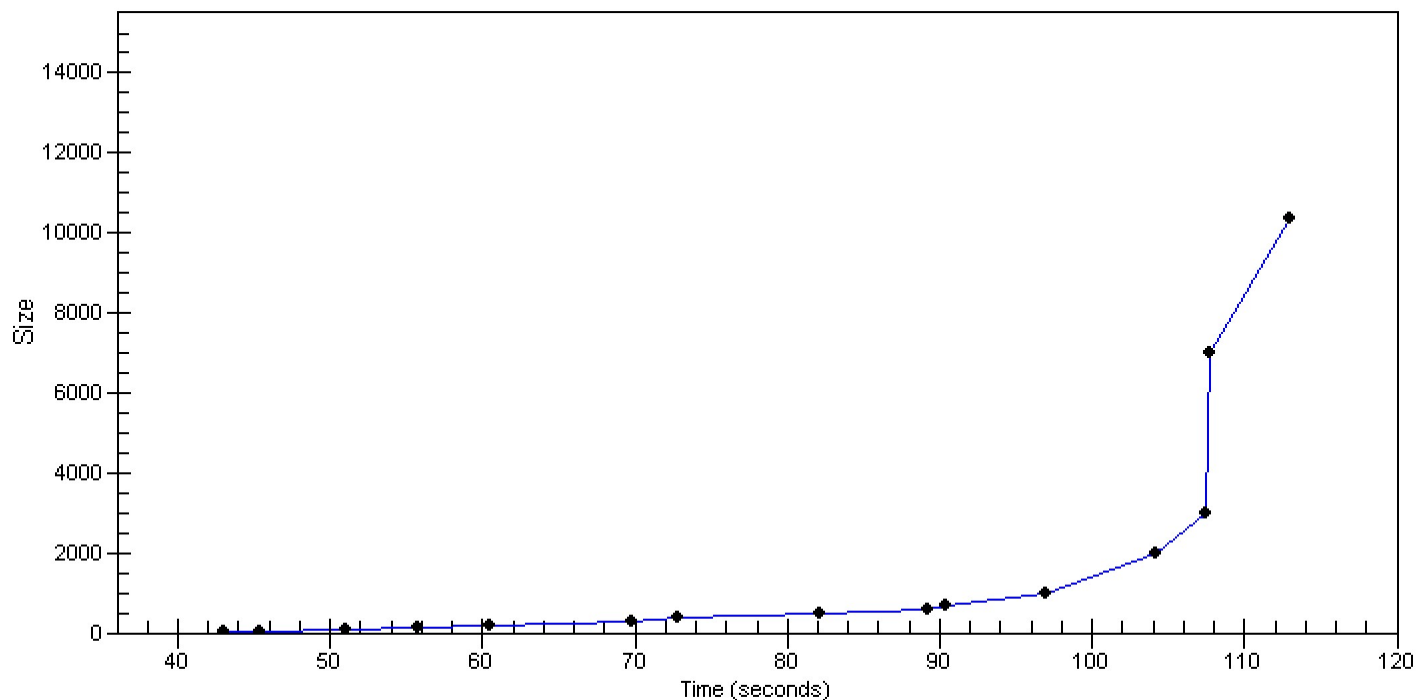


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
Modified: 3/27/2014 11:28:07 AM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
Modified: 3/27/2014 11:28:07 AM

Invalid Samples

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
 Modified: 3/27/2014 11:28:07 AM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 11)		Instrument	Run		3/26/2014 3:08:48 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad)		Instrument	Run		3/26/2014 2:30:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/26/2014 2:30:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/26/2014 2:30:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/26/2014 2:30:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/26/2014 2:30:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/26/2014 2:30:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/26/2014 2:30:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1