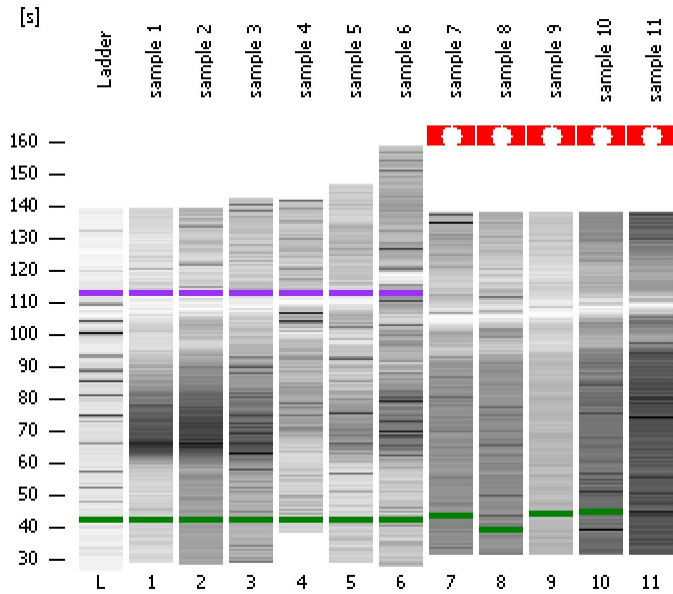


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22\_003.xad

Created: 5/22/2013 2:19:51 PM  
Modified: 5/22/2013 3:05:43 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

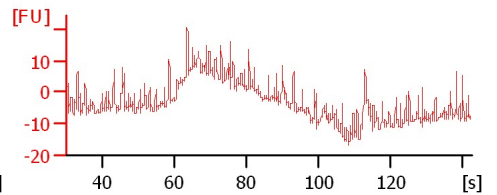
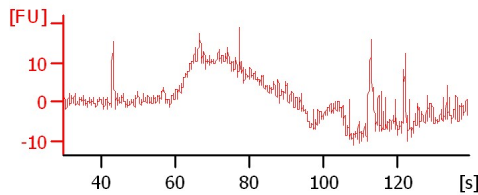
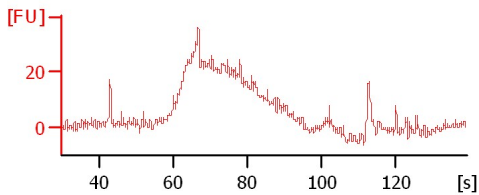
#### Chip Information:

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

sample 1

sample 2

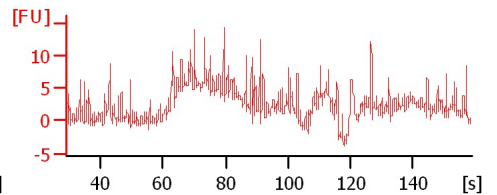
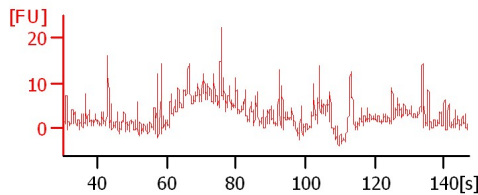
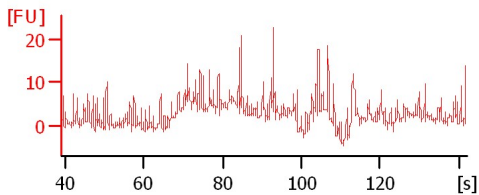
sample 3



sample 4

sample 5

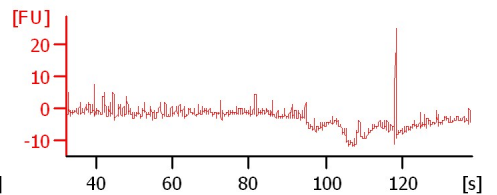
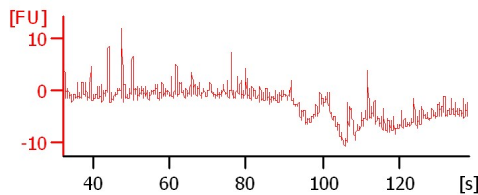
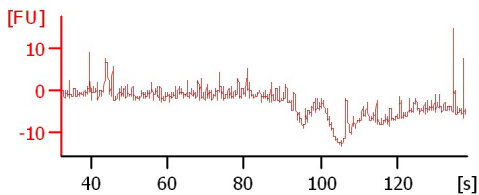
sample 6



sample 7

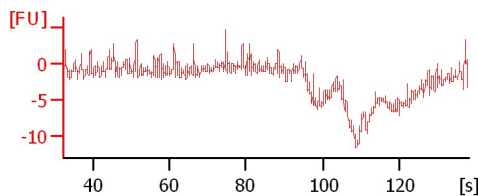
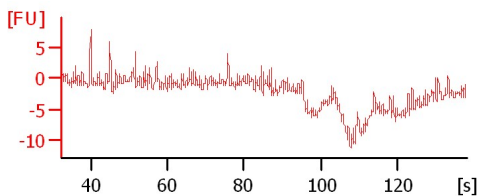
sample 8

sample 9



sample 10

sample 11



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22\_003.xad

Created: 5/22/2013 2:19:51 PM  
 Modified: 5/22/2013 3:05:43 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\2013-05-22\2013-05-22\_003.xad

Created: 5/22/2013 2:19:51 PM  
Modified: 5/22/2013 3:05:43 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

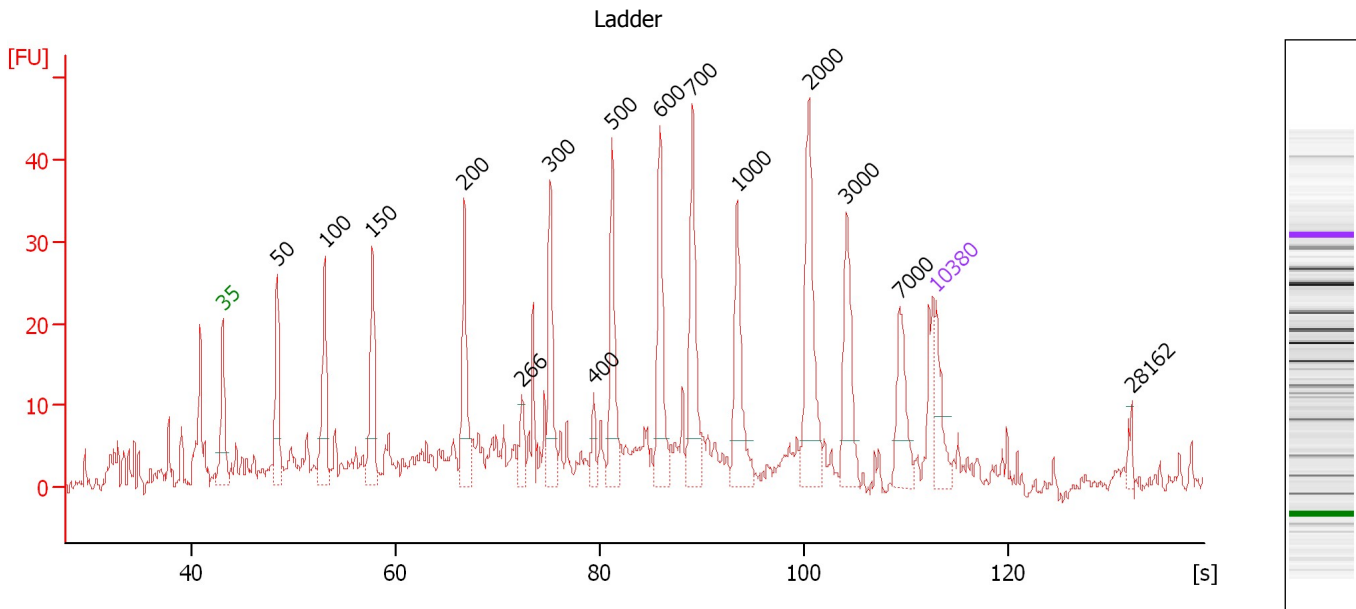
**Ladder**

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\2013-05-22\2013-05-22\_003.xad

Created: 5/22/2013 2:19:51 PM  
 Modified: 5/22/2013 3:05:43 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 1.1

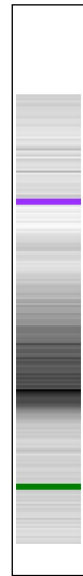
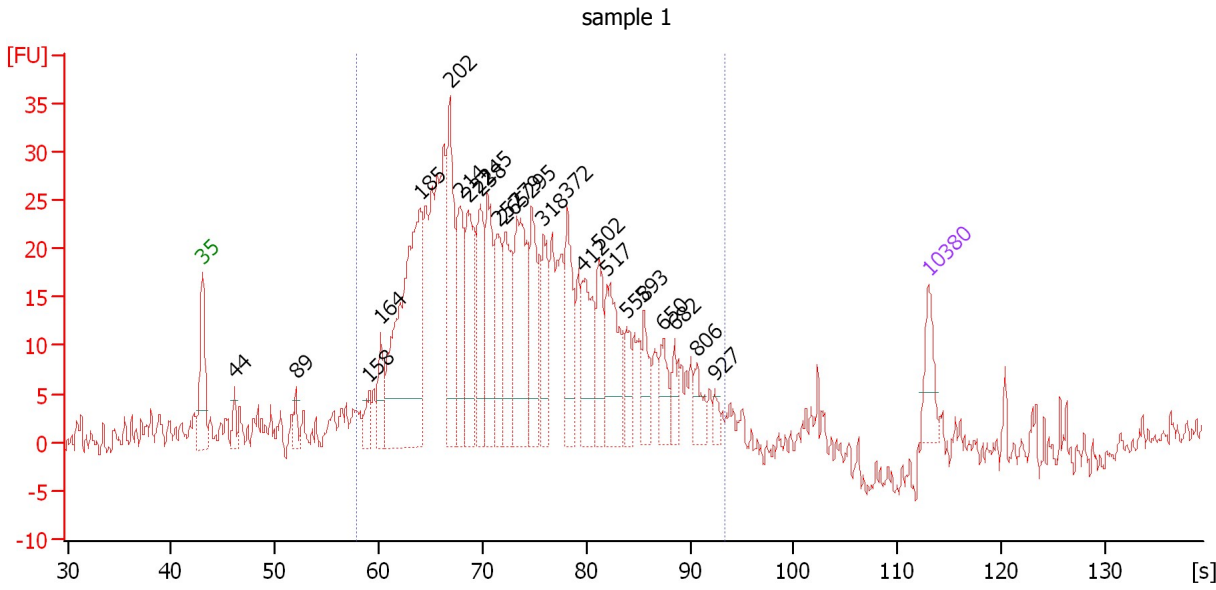
**Peak table for Ladder**

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	266	0.00	0.0	
7	300	150.00	757.6	Ladder Peak
8	400	150.00	568.2	Ladder Peak
9	500	150.00	454.5	Ladder Peak
10	600	150.00	378.8	Ladder Peak
11	700	150.00	324.7	Ladder Peak
12	1,000	150.00	227.3	Ladder Peak
13	2,000	150.00	113.6	Ladder Peak
14	3,000	150.00	75.8	Ladder Peak
15	7,000	150.00	32.5	Ladder Peak
16	10,380	75.00	10.9	Upper Marker
17	28,162	0.00	0.0	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22\_003.xad

Created: 5/22/2013 2:19:51 PM  
 Modified: 5/22/2013 3:05:43 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 25                      Corr. Area 1: 716.0  
 Noise: 1.7

**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	44	53.65	1,867.5	
3	89	52.51	891.7	
4	158	62.34	598.5	
5	164	120.72	1,116.3	
6	185	923.61	7,571.4	
7	202	374.94	2,812.7	
8	214	247.62	1,756.1	
9	222	300.99	2,052.0	
10	238	233.86	1,491.3	
11	245	274.39	1,697.1	
12	257	202.98	1,198.3	
13	265	232.97	1,330.7	
14	279	359.77	1,955.4	
15	295	229.05	1,175.0	
16	318	191.78	915.1	
17	372	211.18	859.8	
18	412	191.05	703.1	
19	502	139.31	420.8	
20	517	225.98	662.2	
21	558	74.11	201.3	
22	593	82.41	210.5	
23	650	83.34	194.3	
24	682	48.53	107.8	
25	806	56.05	105.4	
26	927	23.89	39.1	


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22\_003.xad

Created: 5/22/2013 2:19:51 PM  
Modified: 5/22/2013 3:05:43 PM

**Electropherogram Summary Continued ...****... Peak table for sample 1 : sample 1**

Peak	Size [bp]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Observations
27	10,380	75.00	10.9	Upper Marker

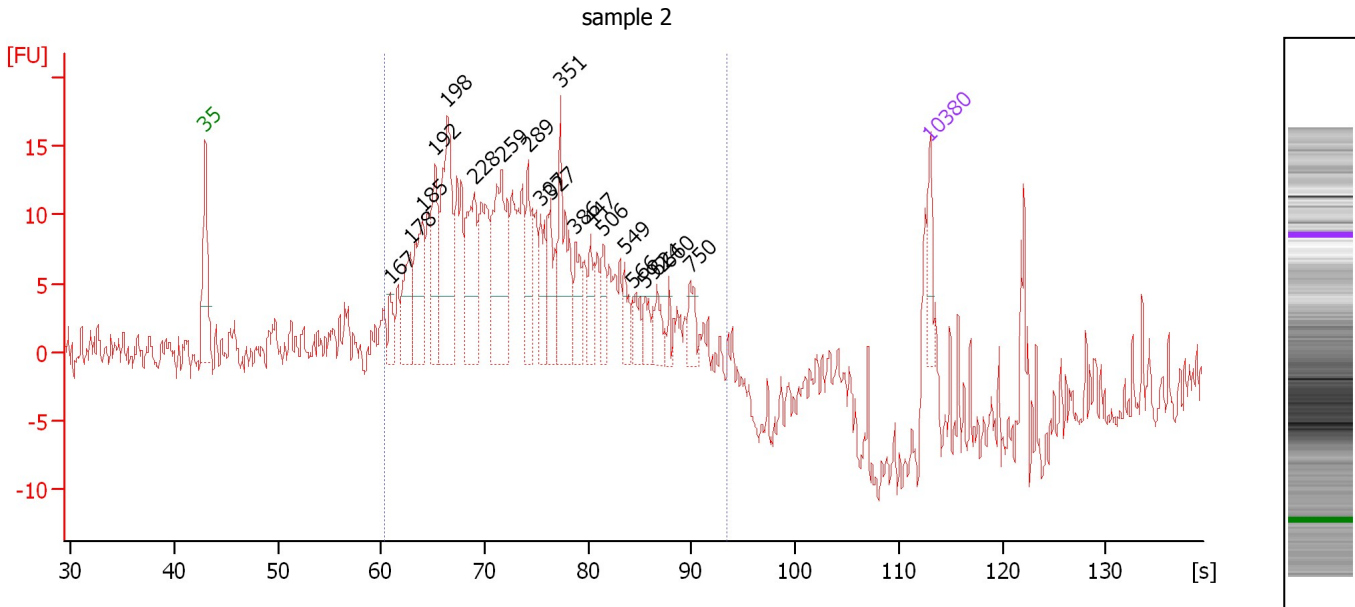
**Region table for sample 1 : sample 1**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ $\mu$ l]	Corr. Area	% of Total	Size distribution in CV [%]	Color
151	1,000	330	38,273.1	6,381.77	716.0	86	51.5	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22\_003.xad

Created: 5/22/2013 2:19:51 PM  
 Modified: 5/22/2013 3:05:43 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 20                      Corr. Area 1: 374.3  
 Noise: 1.8

**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	167	87.85	794.9	
3	178	224.57	1,907.5	
4	185	311.80	2,557.6	
5	192	289.13	2,282.7	
6	198	559.67	4,277.6	
7	228	375.99	2,502.8	
8	259	498.90	2,918.6	
9	289	181.90	953.2	
10	307	160.47	793.2	
11	327	179.65	832.0	
12	351	317.63	1,369.2	
13	386	124.51	489.3	
14	447	92.51	313.9	
15	506	90.36	270.5	
16	549	62.95	173.7	
17	566	74.50	199.5	
18	592	57.31	146.6	
19	624	81.45	197.6	
20	660	31.27	71.8	
21	750	69.79	140.9	
22	10,380	75.00	10.9	Upper Marker

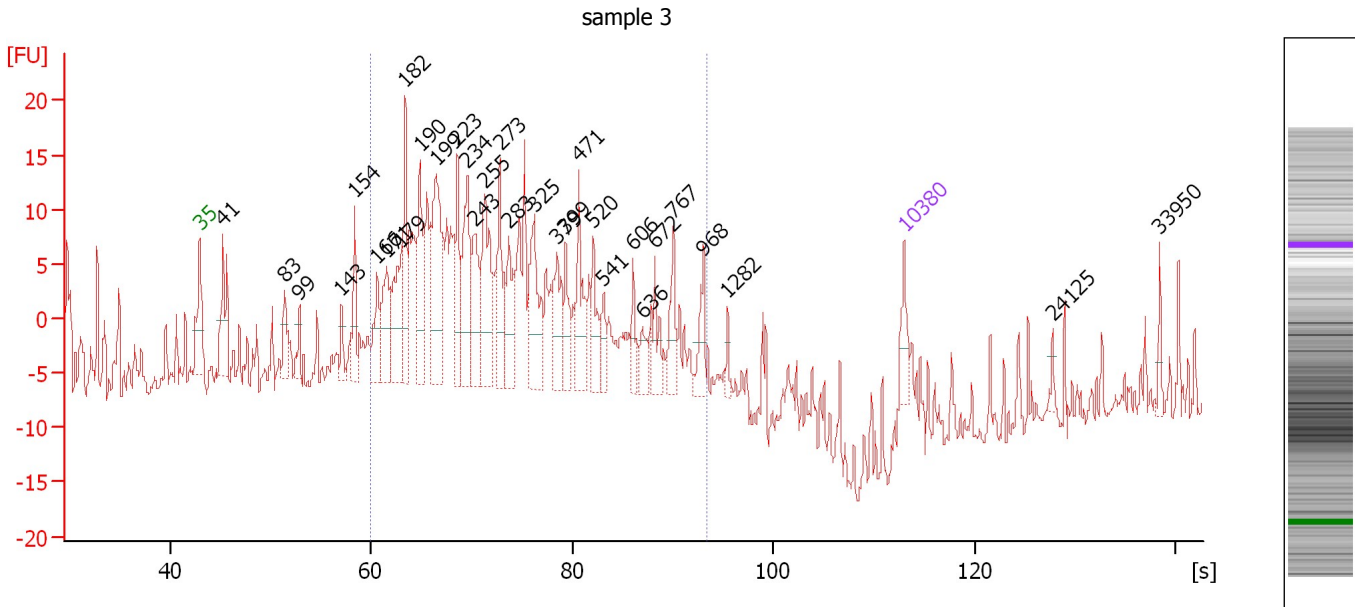
**Region table for sample 2 : sample 2**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
165	1,000	338	37,164.3	6,409.31	374.3	72	50.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22\_003.xad

Created: 5/22/2013 2:19:51 PM  
 Modified: 5/22/2013 3:05:43 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 31                      Corr. Area 1: 317.7  
 Noise: 1.6

**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	41	287.25	10,511.5	
3	83	108.67	1,984.3	
4	99	76.78	1,180.8	
5	143	63.59	671.5	
6	154	158.61	1,560.3	
7	166	171.27	1,561.7	
8	171	236.02	2,085.3	
9	179	266.05	2,245.8	
10	182	316.57	2,637.5	
11	190	289.40	2,309.5	
12	199	486.54	3,703.7	
13	223	233.56	1,589.5	
14	234	325.92	2,110.0	
15	243	226.02	1,409.8	
16	255	353.02	2,098.2	
17	273	219.14	1,217.8	
18	283	234.17	1,251.9	
19	325	280.01	1,306.4	
20	379	161.94	648.2	
21	399	114.57	435.6	
22	471	179.74	578.2	
23	520	131.98	384.8	
24	541	73.86	206.8	
25	606	69.23	173.2	
26	636	58.29	139.0	



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22\_003.xad


Created: 5/22/2013 2:19:51 PM  
 Modified: 5/22/2013 3:05:43 PM

### Electropherogram Summary Continued ...

#### ... Peak table for sample 3 : sample 3

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	672	102.87	231.9	
28	767	108.97	215.4	
29	968	97.49	152.6	
30	1,282	29.25	34.6	
31	10,380	75.00	10.9	Upper Marker
32	24,125	0.00	0.0	
33	33,950	0.00	0.0	

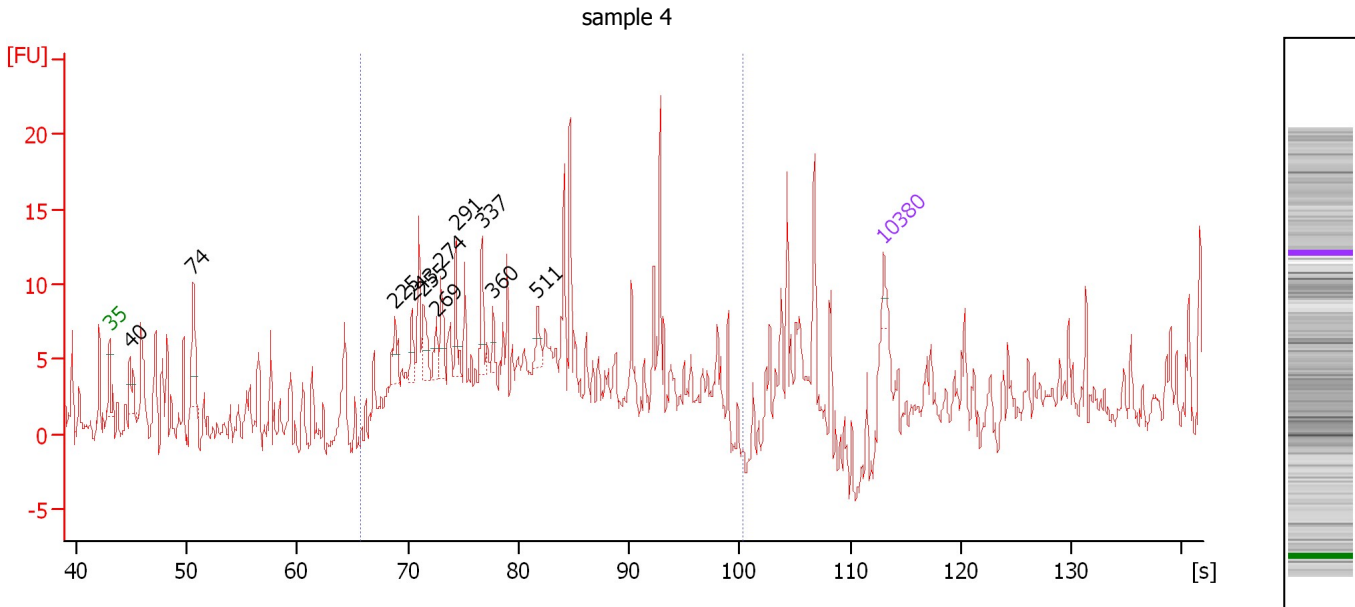
#### Region table for sample 3 : sample 3

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
163	1,000	311	30,139.7	4,861.59	317.7	81	53.4	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22\_003.xad

Created: 5/22/2013 2:19:51 PM  
 Modified: 5/22/2013 3:05:43 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 4 : sample 4**

Height Threshold [FU] : 2

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

Number of peaks found: 11      Corr. Area 1: 229.0  
 Noise: 1.4

**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	40	305.02	11,509.5	
3	74	613.34	12,593.5	
4	225	233.00	1,566.2	
5	243	185.13	1,153.0	
6	255	264.33	1,568.3	
7	269	139.26	783.8	
8	274	255.14	1,408.8	
9	291	242.20	1,263.0	
10	337	224.94	1,011.0	
11	360	93.05	391.7	
12	511	126.32	374.3	
13	10,380	75.00	10.9	Upper Marker

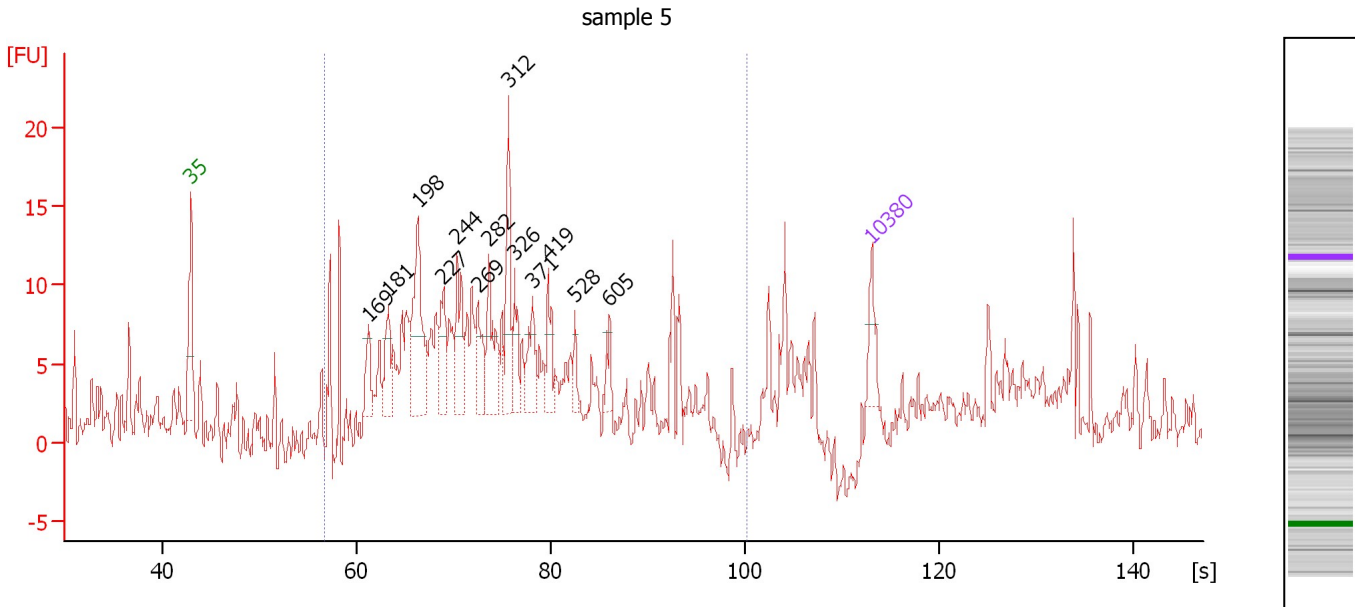
**Region table for sample 4 : sample 4**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
194	1,978	581	53,097.7	13,173.88	229.0	54	65.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22\_003.xad

Created: 5/22/2013 2:19:51 PM  
 Modified: 5/22/2013 3:05:43 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 13                      Corr. Area 1: 77.4  
 Noise: 1.5

**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	169	116.91	1,046.1	
3	181	144.96	1,213.5	
4	198	428.67	3,282.8	
5	227	157.84	1,054.1	
6	244	213.18	1,324.2	
7	269	145.76	821.5	
8	282	215.60	1,158.6	
9	312	259.99	1,261.6	
10	326	107.26	497.7	
11	371	123.82	506.3	
12	419	103.70	374.8	
13	528	49.19	141.1	
14	605	55.16	138.1	
15	10,380	75.00	10.9	Upper Marker

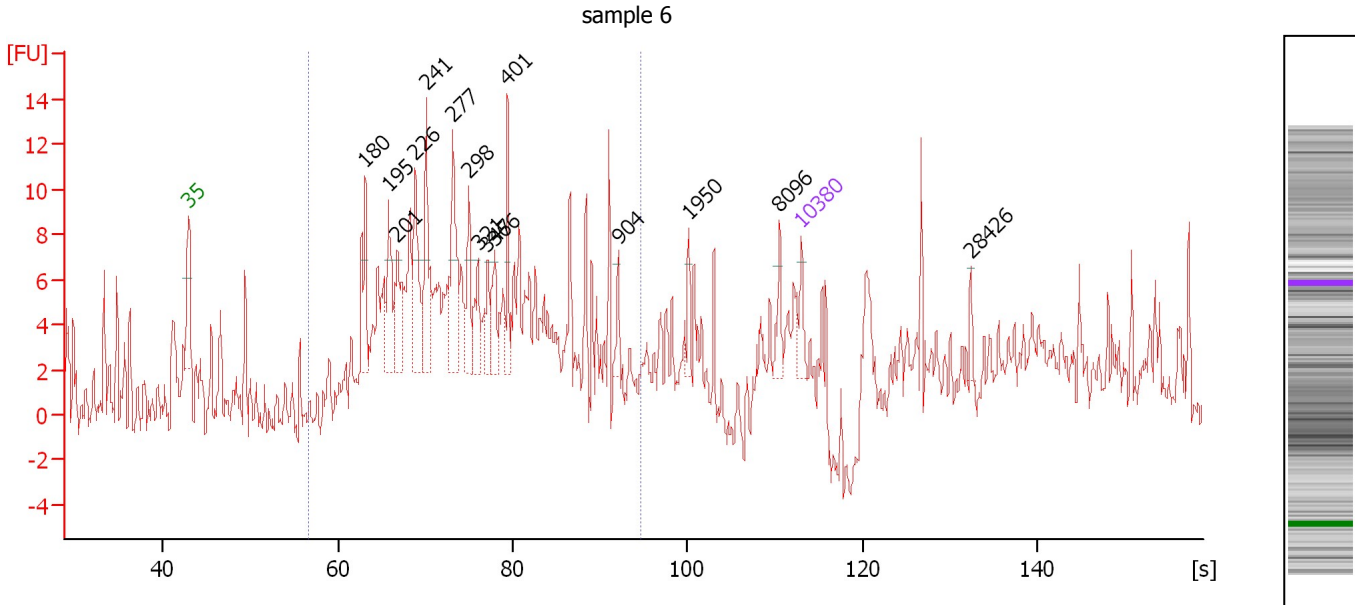
**Region table for sample 5 : sample 5**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
141	1,949	340	9,704.7	1,634.17	77.4	65	65.2	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22\_003.xad

Created: 5/22/2013 2:19:51 PM  
 Modified: 5/22/2013 3:05:43 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 15      Corr. Area 1: 127.0  
 Noise: 1.4

**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	180	333.84	2,806.5	
3	195	325.68	2,532.1	
4	201	226.61	1,704.4	
5	226	391.78	2,623.9	
6	241	355.90	2,239.4	
7	277	392.52	2,150.9	
8	298	227.00	1,152.8	
9	321	174.87	824.8	
10	347	140.07	611.4	
11	366	151.60	627.9	
12	401	196.97	744.4	
13	904	64.07	107.4	
14	1,950	63.37	49.2	
15	8,096	85.08	15.9	
16	10,380	75.00	10.9	Upper Marker
17	28,426	0.00	0.0	

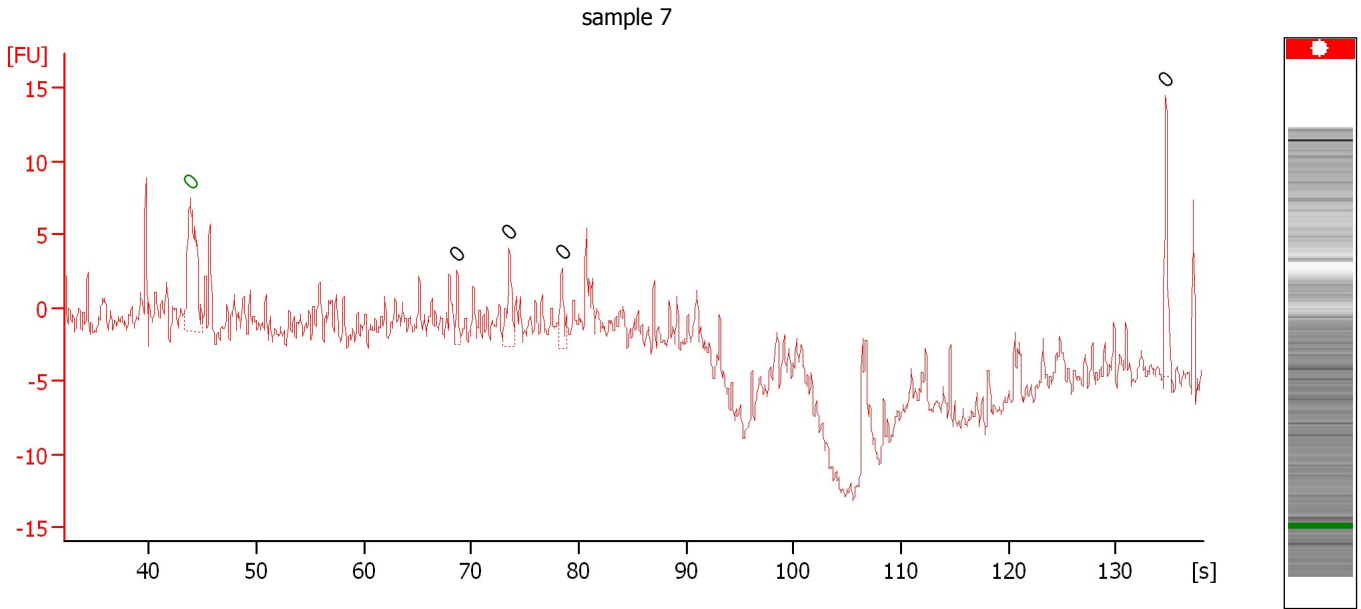
**Region table for sample 6 : sample 6**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
139	1,168	373	30,525.7	5,682.42	127.0	61	51.5	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22\_003.xad

Created: 5/22/2013 2:19:51 PM  
Modified: 5/22/2013 3:05:43 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 4                      Noise: 1.2

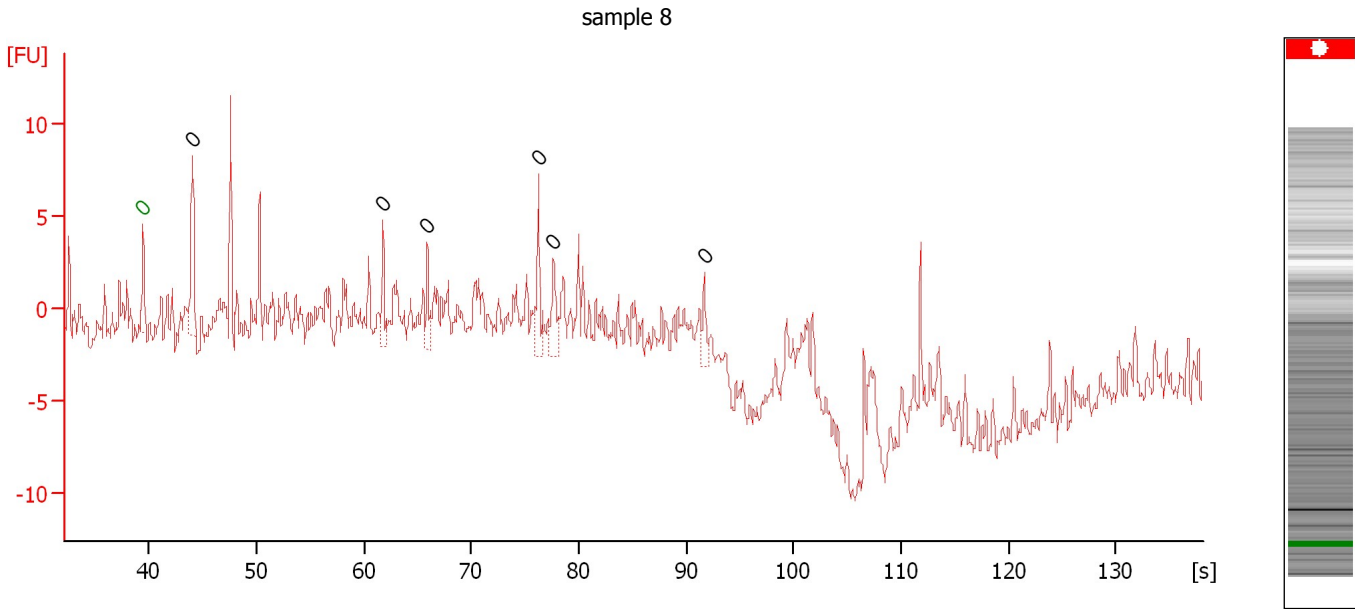
**Peak table for sample 7 : sample 7**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	Lower Marker
2	0	0.00	0.0	
3	0	0.00	0.0	
4	0	0.00	0.0	
5	0	0.00	0.0	

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22\_003.xad

Created: 5/22/2013 2:19:51 PM  
Modified: 5/22/2013 3:05:43 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 6                      Noise: 1.0

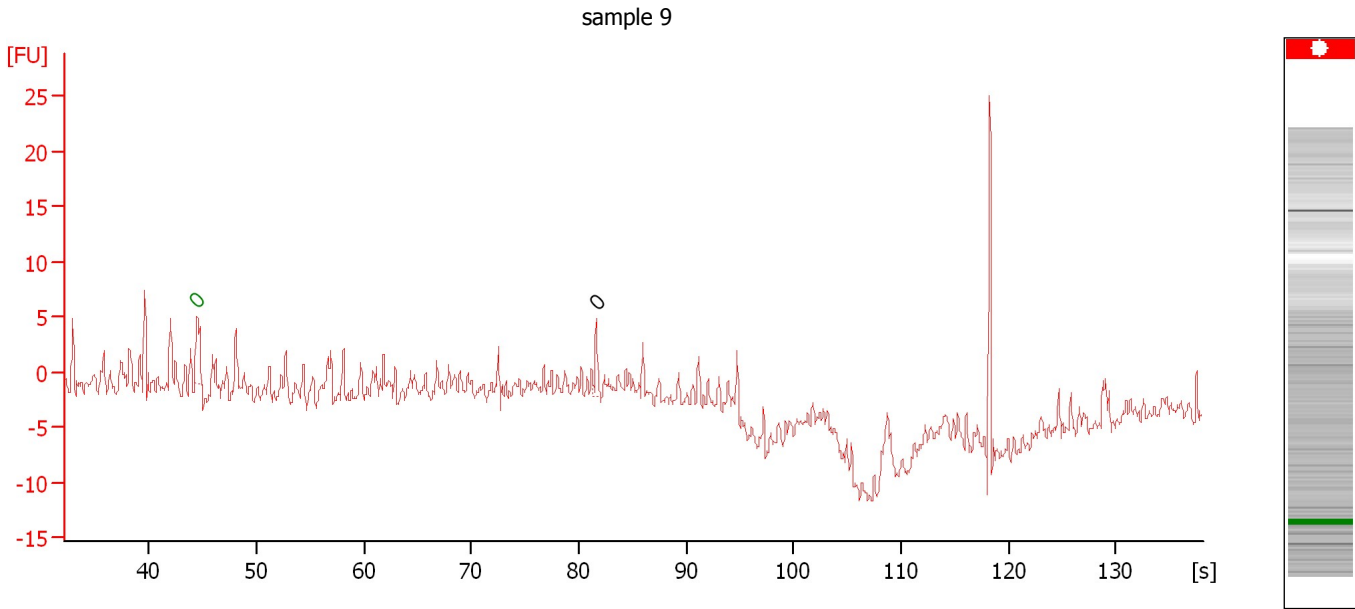
**Peak table for sample 8 : sample 8**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	Lower Marker
2	0	0.00	0.0	
3	0	0.00	0.0	
4	0	0.00	0.0	
5	0	0.00	0.0	
6	0	0.00	0.0	
7	0	0.00	0.0	

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22\_003.xad

Created: 5/22/2013 2:19:51 PM  
Modified: 5/22/2013 3:05:43 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 1                      Noise: 1.4

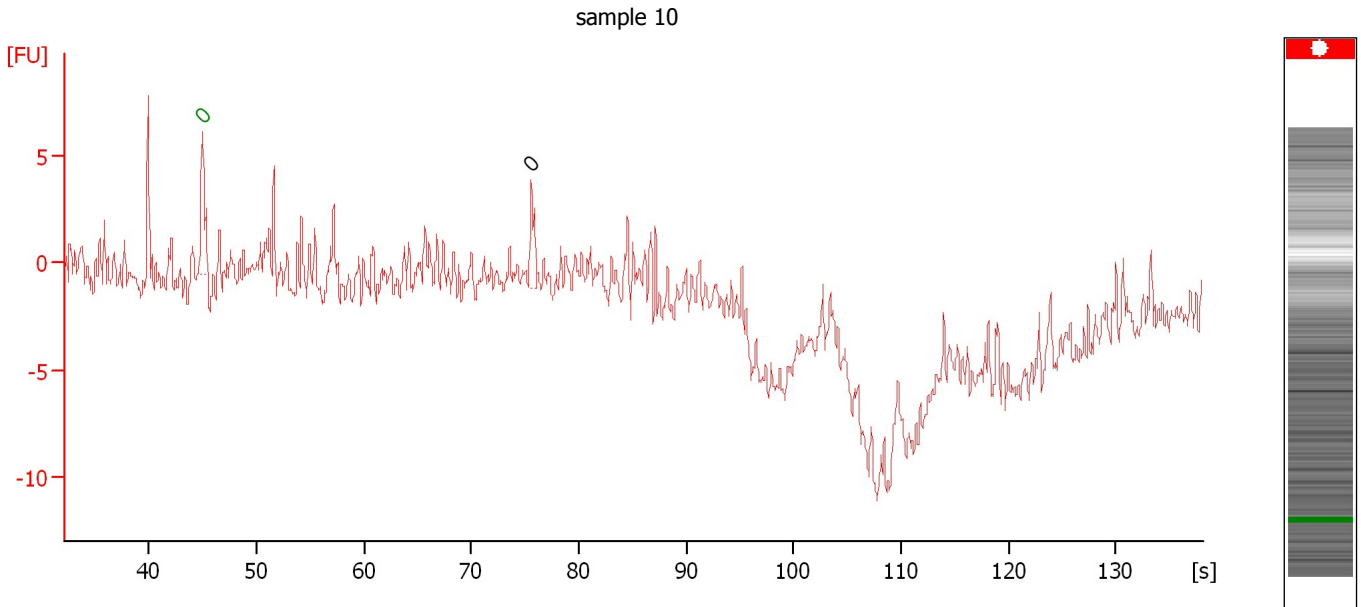
**Peak table for sample 9 : sample 9**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	Lower Marker
2	0	0.00	0.0	

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22\_003.xad

Created: 5/22/2013 2:19:51 PM  
Modified: 5/22/2013 3:05:43 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 1                      Noise: 1.1

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

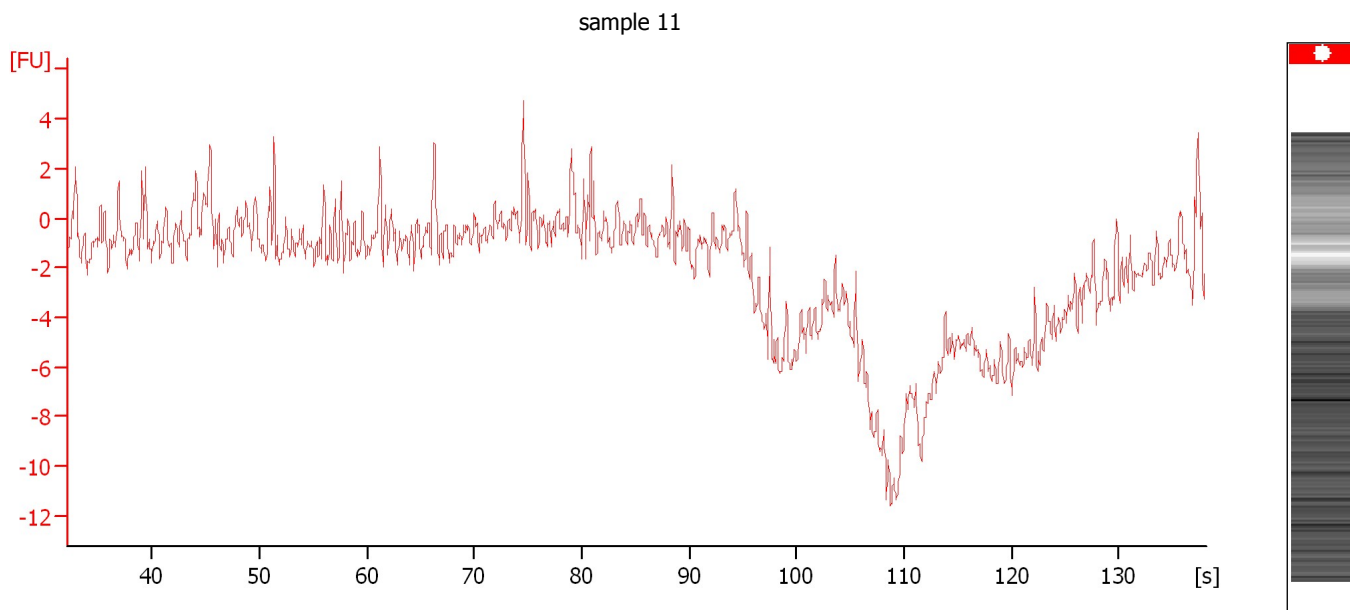
Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	Lower Marker
2	0	0.00	0.0	



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22\_003.xad

Created: 5/22/2013 2:19:51 PM  
Modified: 5/22/2013 3:05:43 PM

**Electropherogram Summary Continued ...**



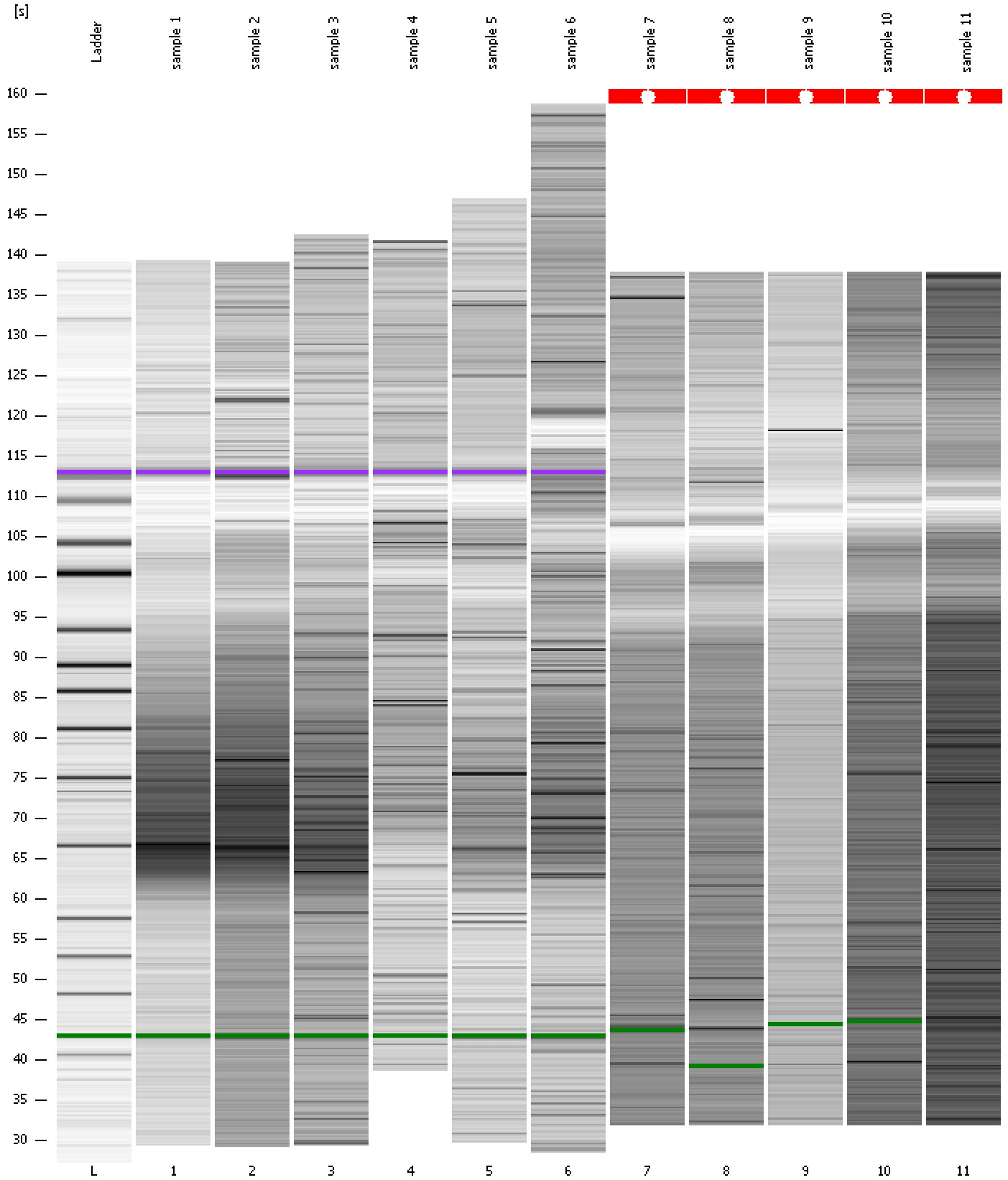
**Overall Results for sample 11 : sample 11**

Noise: 1.0

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22\_003.xad

Created: 5/22/2013 2:19:51 PM  
Modified: 5/22/2013 3:05:43 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22\_003.xad

Created: 5/22/2013 2:19:51 PM  
 Modified: 5/22/2013 3:05:43 PM

**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		5/22/2013 3:01:08 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-05-22\2013-05-22_003.xad)		Instrument	Run		5/22/2013 2:19:57 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		5/22/2013 2:19:57 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		5/22/2013 2:19:57 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		5/22/2013 2:19:57 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		5/22/2013 2:19:57 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		5/22/2013 2:19:57 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		5/22/2013 2:19:57 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1