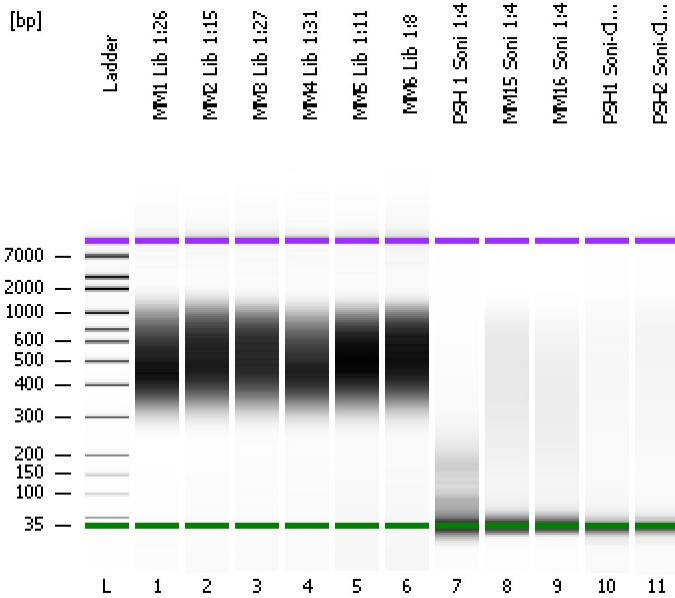


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-07\2013-08-07\_005.xad

Created: 8/7/2013 4:47:41 PM  
Modified: 8/7/2013 5:34:27 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

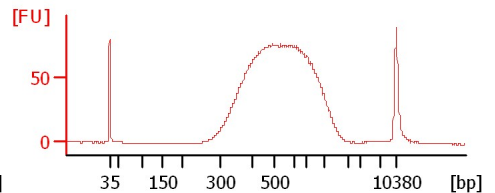
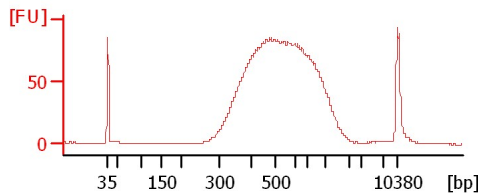
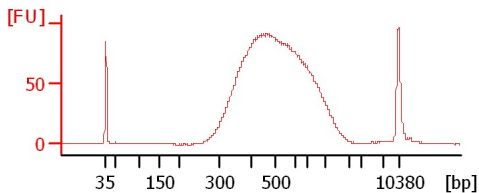
Chip Information:

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

MM1 Lib 1:26

MM2 Lib 1:15

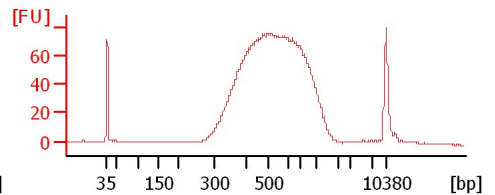
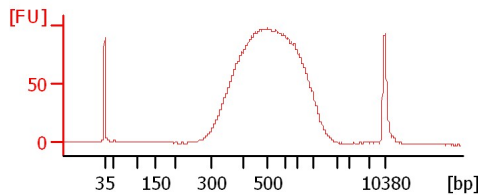
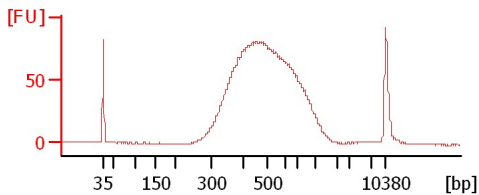
MM3 Lib 1:27



MM4 Lib 1:31

MM5 Lib 1:11

MM6 Lib 1:8

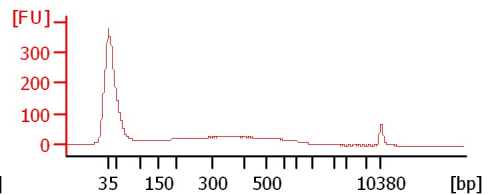
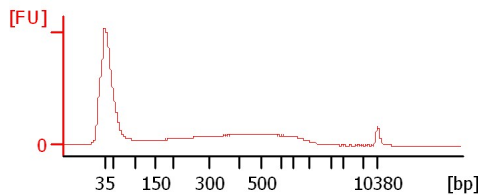
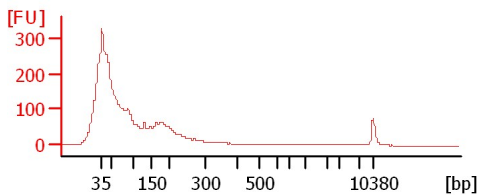


PSH1 Soni 1:4

MM15 Soni 1:4

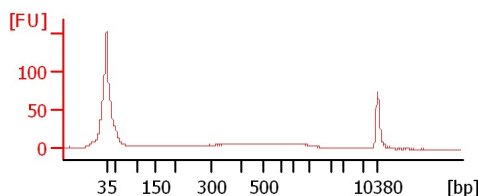
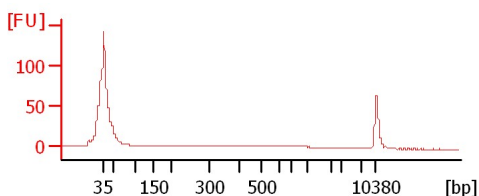
MM16 Soni 1:4

5Cycles(20s.on/90s.off)



PSH1 Soni-Cleaned 1:2

PSH2 Soni-Cleaned 1:2



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-07\2013-08-07\_005.xad

Created: 8/7/2013 4:47:41 PM  
Modified: 8/7/2013 5:34:27 PM

**Electrophoresis File Run Summary (Chip Summary)**

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
MM1 Lib 1:26		<input type="checkbox"/>	✓			
MM2 Lib 1:15		<input type="checkbox"/>	✓			
MM3 Lib 1:27		<input type="checkbox"/>	✓			
MM4 Lib 1:31		<input type="checkbox"/>	✓			
MM5 Lib 1:11		<input type="checkbox"/>	✓			
MM6 Lib 1:8		<input type="checkbox"/>	✓			
PSH 1 Soni 1:4	5Cycles(20s.on/90s.off )	<input type="checkbox"/>	✓			
MM15 Soni 1:4		<input type="checkbox"/>	✓			
MM16 Soni 1:4		<input type="checkbox"/>	✓			
PSH1 Soni-Cleaned 1:2		<input type="checkbox"/>	✓			
PSH2 Soni-Cleaned 1:2		<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\2013-08-07\2013-08-07\_005.xad

Created: 8/7/2013 4:47:41 PM  
Modified: 8/7/2013 5:34:27 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

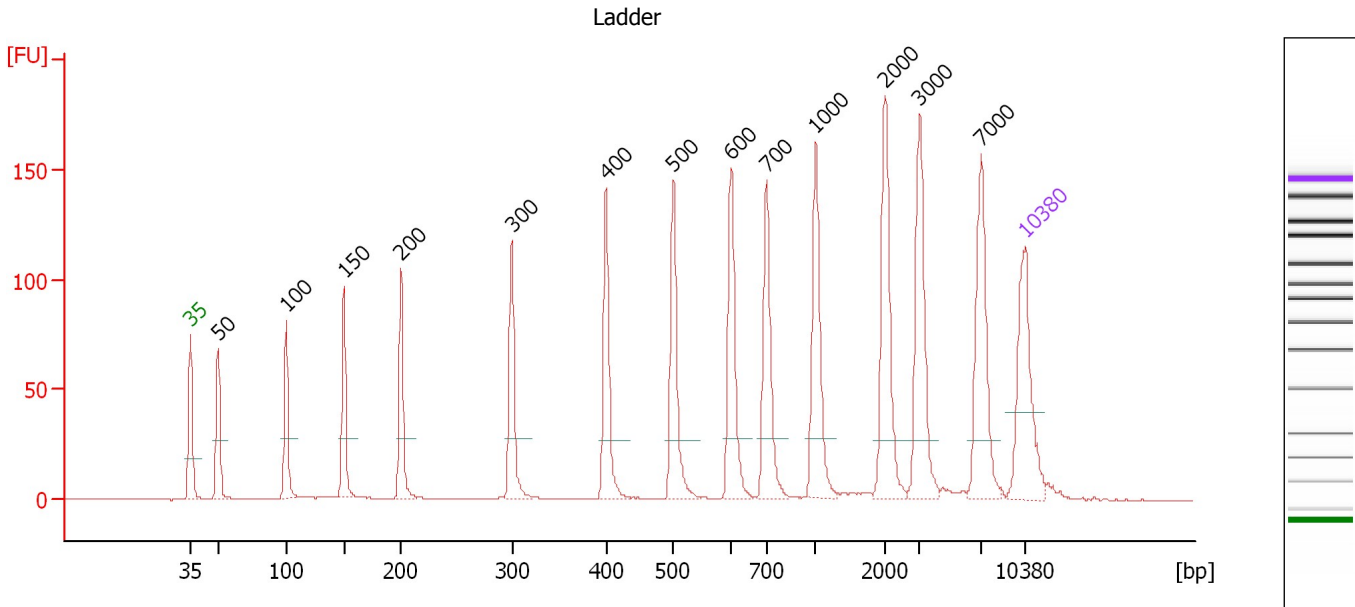
**Ladder**

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\2013-08-07\2013-08-07\_005.xad

Created: 8/7/2013 4:47:41 PM  
 Modified: 8/7/2013 5:34:27 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

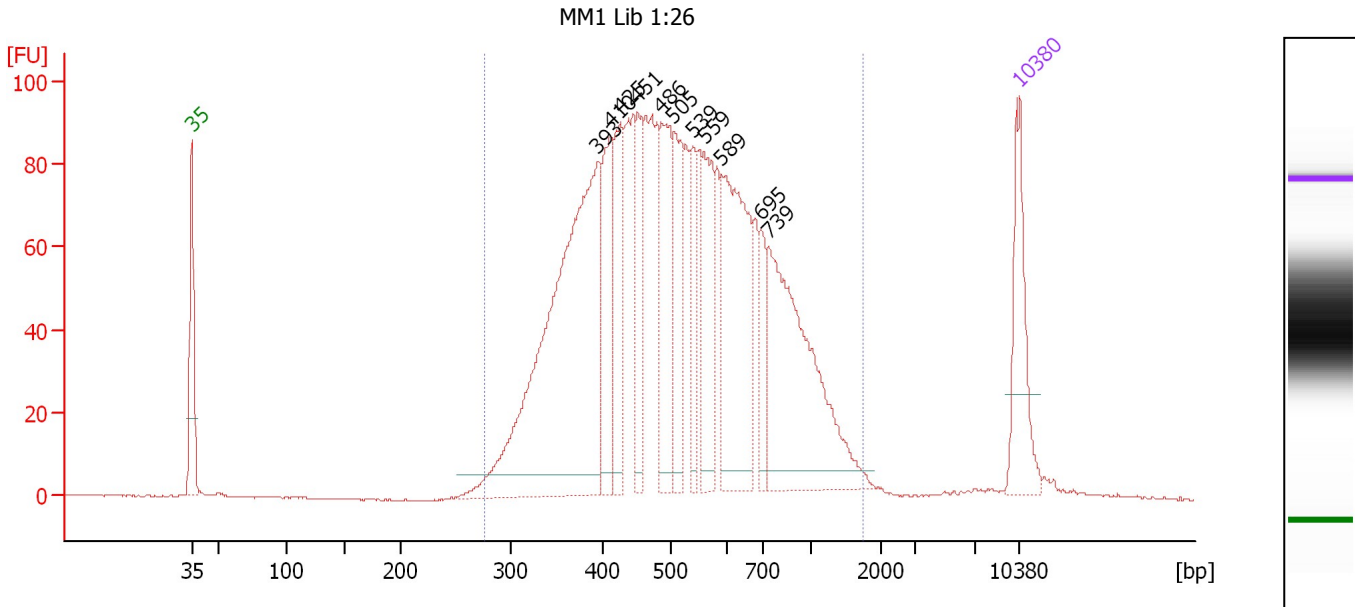
**Peak table for Ladder**

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\2013-08-07\2013-08-07\_005.xad

Created: 8/7/2013 4:47:41 PM  
 Modified: 8/7/2013 5:34:27 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : MM1 Lib 1:26**

Number of peaks found: 11      Corr. Area 1: 2,276.4  
 Noise: 0.1

**Peak table for sample 1 : MM1 Lib 1:26**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	393	579.04	2,230.0	
3	410	122.87	454.1	
4	425	99.26	353.7	
5	451	78.29	263.1	
6	486	132.14	412.0	
7	505	100.38	301.1	
8	539	60.01	168.8	
9	559	108.25	293.3	
10	589	218.43	561.7	
11	695	47.16	102.7	
12	739	277.95	569.6	
13	10,380	75.00	10.9	Upper Marker

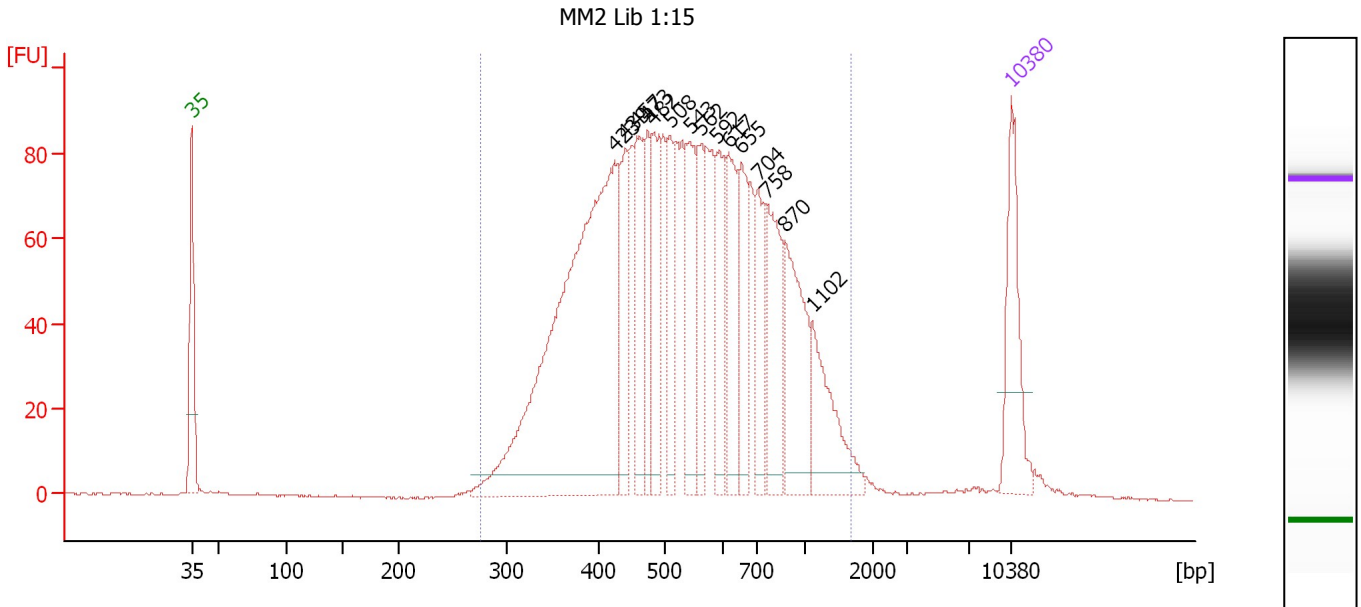
**Region table for sample 1 : MM1 Lib 1:26**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
277	1,754	554	7,444.5	2,350.86	2,276.4	98	39.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-07\2013-08-07\_005.xad

Created: 8/7/2013 4:47:41 PM  
 Modified: 8/7/2013 5:34:27 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : MM2 Lib 1:15**

Number of peaks found: 15      Corr. Area 1: 2,184.6  
 Noise: 0.2

**Peak table for sample 2 : MM2 Lib 1:15**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	423	634.17	2,273.8	
3	439	95.69	330.5	
4	457	99.36	329.8	
5	473	73.04	234.1	
6	482	93.28	293.5	
7	508	65.04	194.1	
8	543	102.25	285.5	
9	562	67.52	181.9	
10	592	79.94	204.7	
11	617	93.66	230.0	
12	655	75.21	174.0	
13	704	65.80	141.5	
14	758	104.31	208.6	
15	870	116.99	203.7	
16	1,102	84.52	116.3	
17	10,380	75.00	10.9	Upper Marker

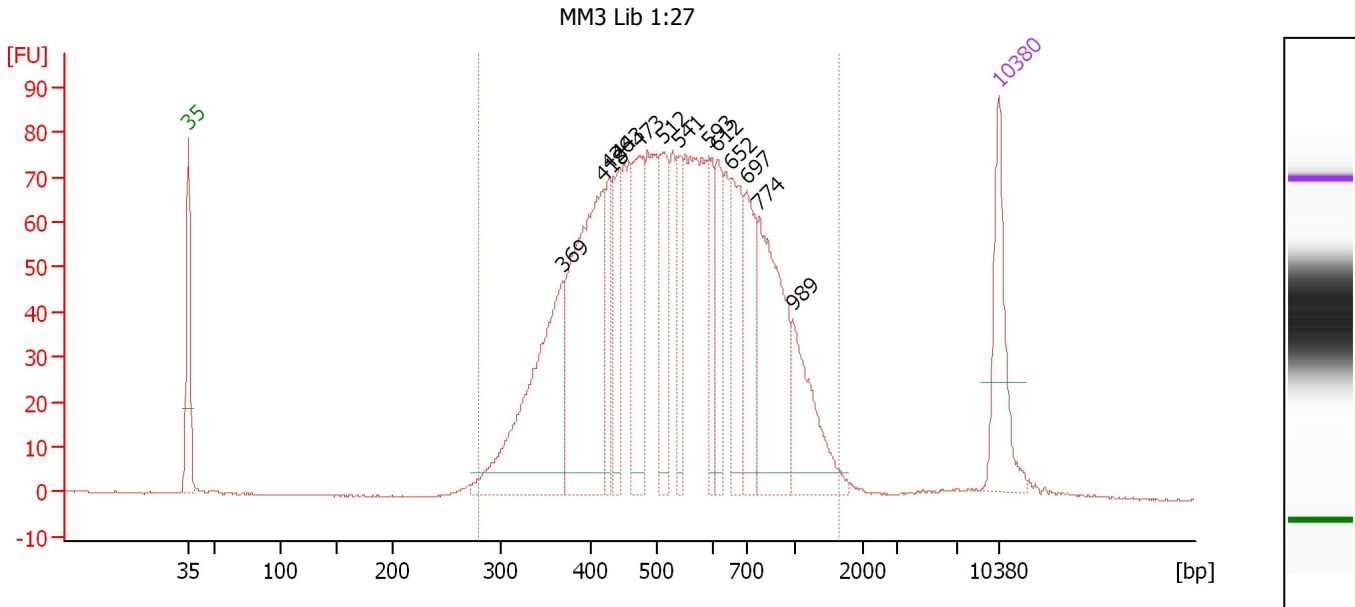
**Region table for sample 2 : MM2 Lib 1:15**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
276	1,671	583	6,889.4	2,268.16	2,184.6	98	39.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-07\2013-08-07\_005.xad

Created: 8/7/2013 4:47:41 PM  
 Modified: 8/7/2013 5:34:27 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : MM3 Lib 1:27**

Number of peaks found: 13      Corr. Area 1: 1,937.9  
 Noise: 0.2

**Peak table for sample 3 : MM3 Lib 1:27**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	369	278.75	1,145.1	
3	418	309.71	1,121.8	
4	426	63.55	225.8	
5	443	89.54	306.4	
6	473	122.05	390.9	
7	512	98.62	291.6	
8	541	61.11	171.1	
9	593	55.75	142.3	
10	612	63.07	156.0	
11	652	99.06	230.1	
12	697	93.45	203.1	
13	774	177.72	347.9	
14	989	93.25	142.9	
15	10,380	75.00	10.9	Upper Marker

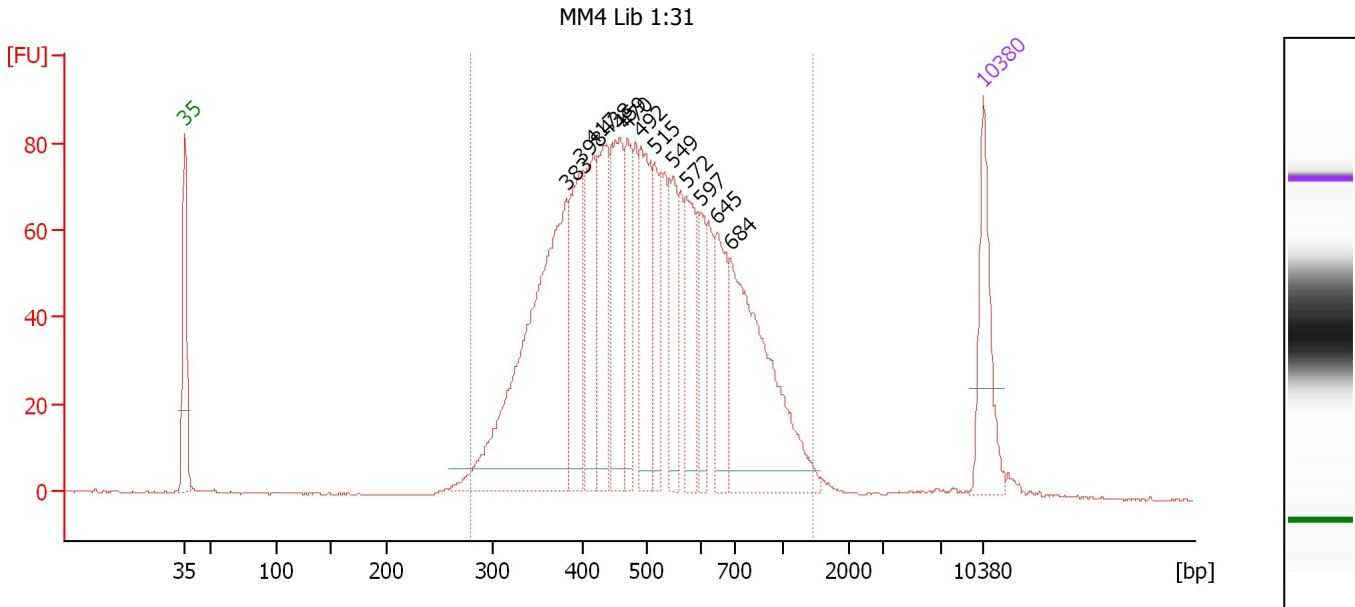
**Region table for sample 3 : MM3 Lib 1:27**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
281	1,649	574	6,707.1	2,201.07	1,937.9	98	37.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-07\2013-08-07\_005.xad

Created: 8/7/2013 4:47:41 PM  
 Modified: 8/7/2013 5:34:27 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : MM4 Lib 1:31**

Number of peaks found: 13      Corr. Area 1: 1,915.1  
 Noise: 0.2

**Peak table for sample 4 : MM4 Lib 1:31**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	383	453.28	1,794.2	
3	398	147.10	559.8	
4	417	122.02	443.0	
5	438	130.66	451.9	
6	459	147.51	487.2	
7	470	81.10	261.2	
8	492	137.92	424.8	
9	515	71.92	211.7	
10	549	78.50	216.8	
11	572	94.14	249.4	
12	597	54.20	137.5	
13	645	84.11	197.5	
14	684	272.51	603.4	
15	10,380	75.00	10.9	Upper Marker

**Region table for sample 4 : MM4 Lib 1:31**

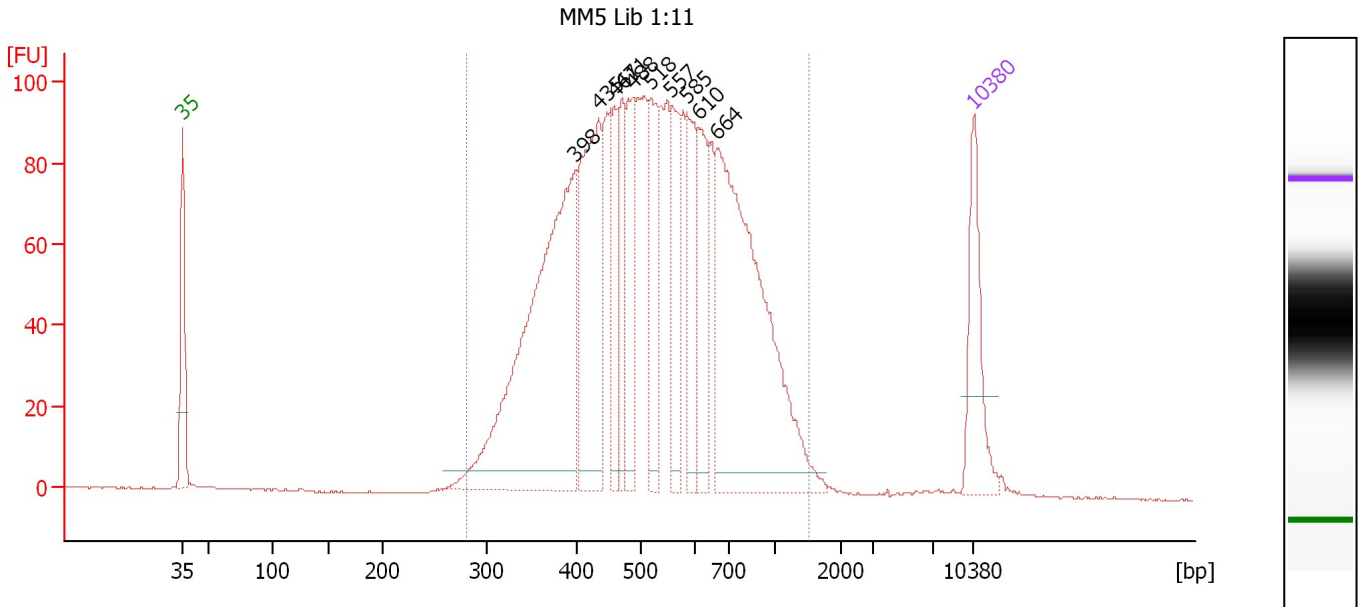
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
280	1,470	529	7,014.4	2,170.95	1,915.1	98	34.2	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-07\2013-08-07\_005.xad

Created: 8/7/2013 4:47:41 PM  
 Modified: 8/7/2013 5:34:27 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : MM5 Lib 1:11**

Number of peaks found: 10      Corr. Area 1: 2,371.2  
 Noise: 0.2

**Peak table for sample 5 : MM5 Lib 1:11**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	398	534.71	2,036.6	
3	435	243.37	848.5	
4	461	75.81	249.4	
5	471	82.07	263.8	
6	488	104.99	325.9	
7	518	112.03	327.4	
8	557	93.12	253.1	
9	585	106.15	275.0	
10	610	95.71	237.7	
11	664	452.16	1,032.3	
12	10,380	75.00	10.9	Upper Marker

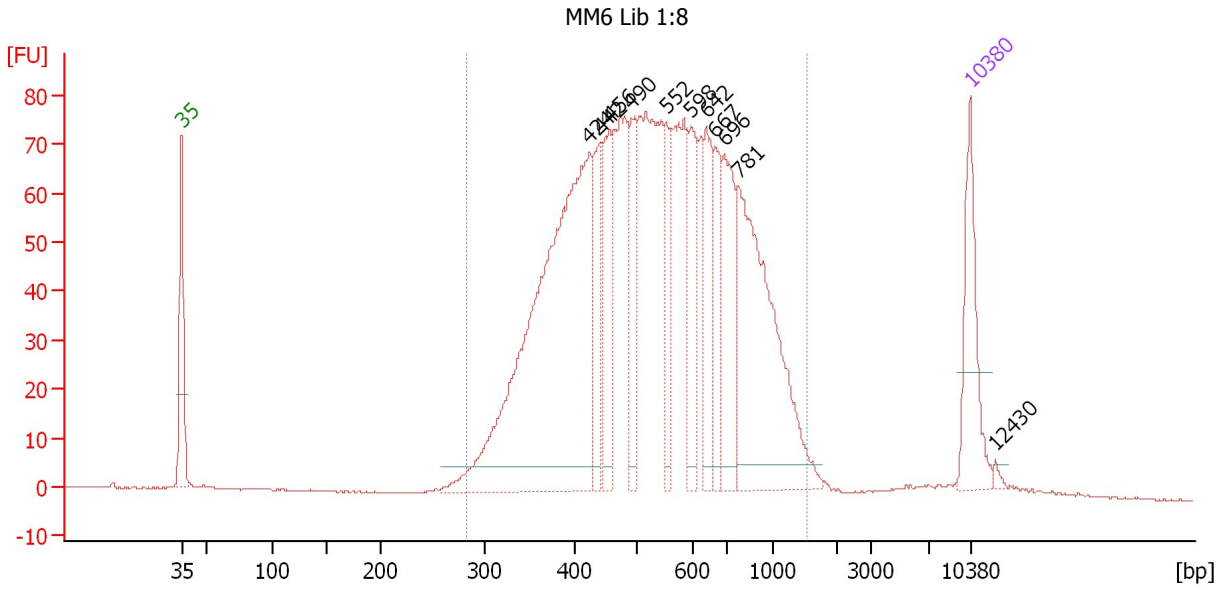
**Region table for sample 5 : MM5 Lib 1:11**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
281	1,522	557	7,404.7	2,391.94	2,371.2	98	34.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-07\2013-08-07\_005.xad

Created: 8/7/2013 4:47:41 PM  
 Modified: 8/7/2013 5:34:27 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : MM6 Lib 1:8**

Number of peaks found: 11      Corr. Area 1: 1,926.3  
 Noise: 0.1

**Peak table for sample 6 : MM6 Lib 1:8**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	424	654.15	2,336.5	
3	442	85.55	293.4	
4	456	93.00	308.9	
5	490	94.69	293.0	
6	552	65.19	179.0	
7	598	87.51	221.8	
8	642	81.55	192.4	
9	667	65.56	148.8	
10	696	112.98	246.0	
11	781	302.53	587.2	
12	10,380	75.00	10.9	Upper Marker
13	12,430	0.00	0.0	

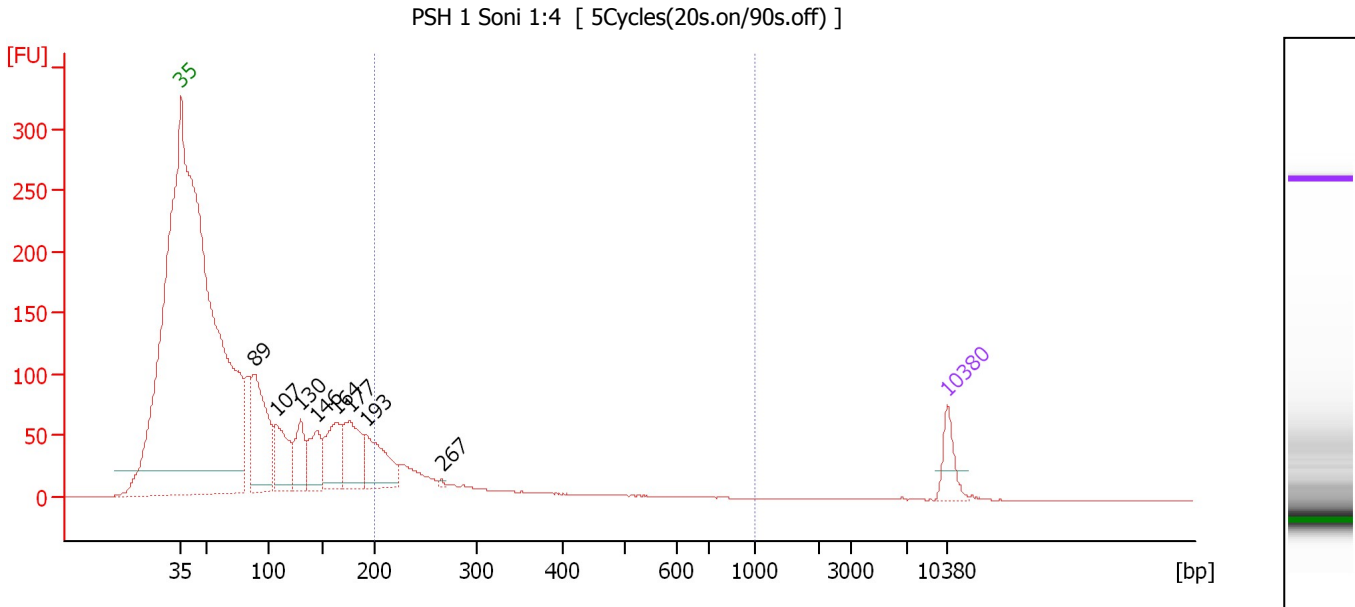
**Region table for sample 6 : MM6 Lib 1:8**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
282	1,539	574	7,135.9	2,349.49	1,926.3	97	36.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-07\2013-08-07\_005.xad

Created: 8/7/2013 4:47:41 PM  
 Modified: 8/7/2013 5:34:27 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : PSH 1 Soni 1:4**

Number of peaks found: 8                      Corr. Area 1: 408.8  
 Noise: 0.2

**Peak table for sample 7 : PSH 1 Soni 1:4**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	89	611.25	10,426.3	
3	107	290.29	4,112.8	
4	130	214.34	2,495.2	
5	146	211.91	2,202.3	
6	164	266.05	2,464.3	
7	177	299.51	2,566.5	
8	193	268.94	2,115.7	
9	267	6.19	35.1	
10	10,380	75.00	10.9	Upper Marker

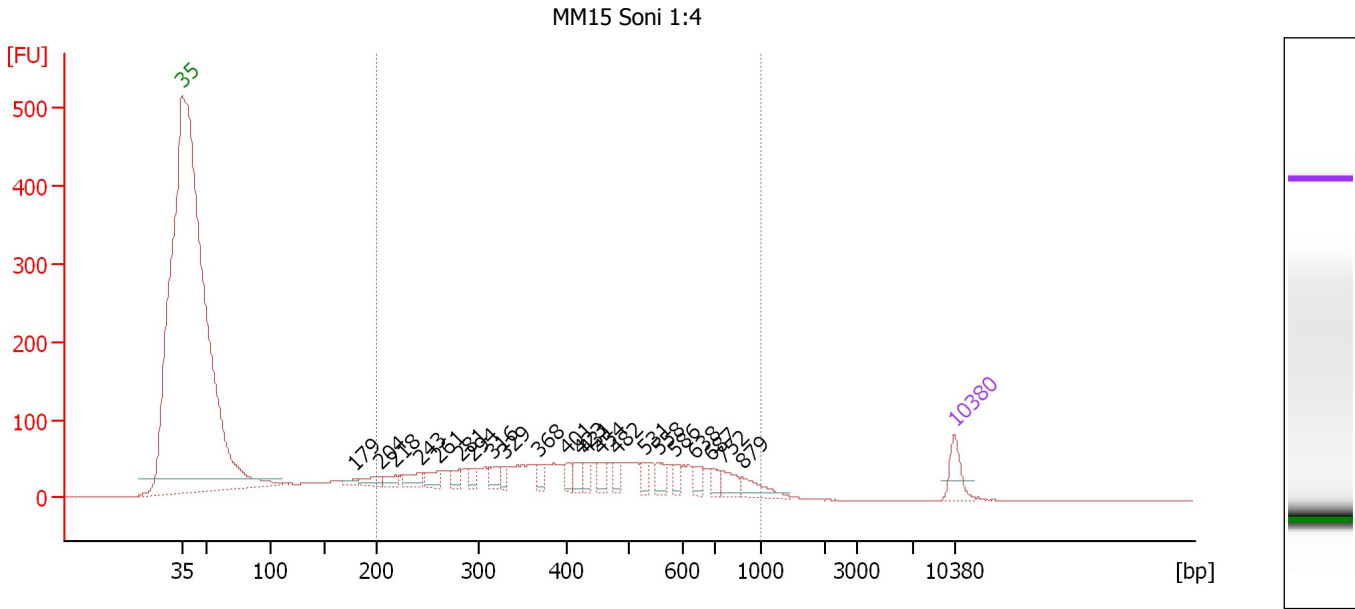
**Region table for sample 7 : PSH 1 Soni 1:4**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	294	3,618.0	617.43	408.8	23	40.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-07\2013-08-07\_005.xad

Created: 8/7/2013 4:47:41 PM  
 Modified: 8/7/2013 5:34:27 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : MM15 Soni 1:4**

Number of peaks found: 22                      Corr. Area 1: 1,818.7  
 Noise: 0.2

**Peak table for sample 8 : MM15 Soni 1:4**


Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	179	24.58	208.1	
3	204	52.41	389.5	
4	218	45.55	316.0	
5	243	72.33	451.3	
6	261	62.49	363.4	
7	281	44.35	238.9	
8	294	31.97	164.6	
9	316	60.87	291.4	
10	329	34.25	157.9	
11	368	44.36	182.8	
12	401	47.26	178.6	
13	423	47.39	169.6	
14	431	45.16	158.7	
15	454	45.41	151.5	
16	482	39.80	125.2	
17	531	43.37	123.8	
18	558	51.46	139.8	
19	586	35.94	93.0	
20	638	40.72	96.7	
21	687	44.44	98.1	
22	752	63.20	127.3	
23	879	72.02	124.2	
24	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-07\2013-08-07\_005.xad

Created: 8/7/2013 4:47:41 PM  
Modified: 8/7/2013 5:34:27 PM

**Electropherogram Summary Continued ...**

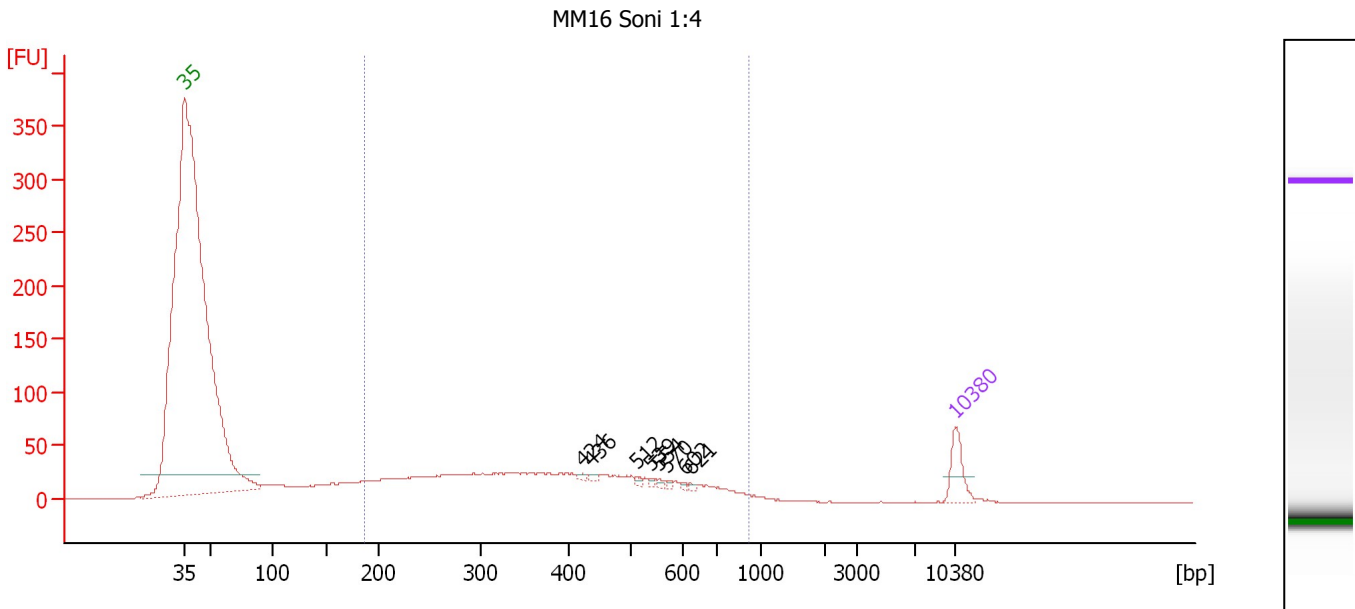
... Region table for sample 8 : MM15 Soni 1:4

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ $\mu$ l]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	449	9,587.0	2,305.23	1,818.7	82	38.9	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-07\2013-08-07\_005.xad

Created: 8/7/2013 4:47:41 PM  
 Modified: 8/7/2013 5:34:27 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : MM16 Soni 1:4**

Number of peaks found: 8                      Corr. Area 1: 1,005.6  
 Noise: 0.1

**Peak table for sample 9 : MM16 Soni 1:4**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	424	7.65	27.3	
3	436	8.53	29.6	
4	512	9.62	28.5	
5	539	7.68	21.6	
6	554	9.58	26.2	
7	570	7.09	18.8	
8	602	6.68	16.8	
9	621	6.93	16.9	
10	10,380	75.00	10.9	Upper Marker

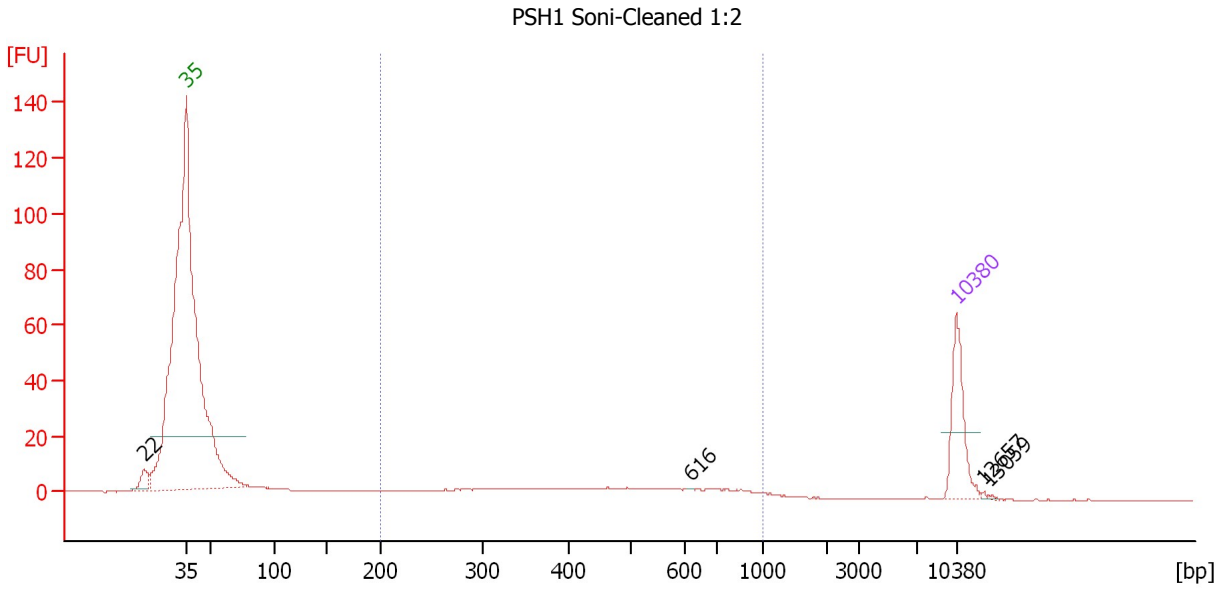
**Region table for sample 9 : MM16 Soni 1:4**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
187	918	398	6,990.9	1,512.30	1,005.6	79	37.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-07\2013-08-07\_005.xad

Created: 8/7/2013 4:47:41 PM  
 Modified: 8/7/2013 5:34:27 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 10 : PSH1 Soni-Cleaned 1:2**

Height Threshold [FU] : 0.5

**Overall Results for sample 10 : PSH1 Soni-Cleaned 1:2**

Number of peaks found: 4                      Corr. Area 1: 100.8  
 Noise: 0.1

**Peak table for sample 10 : PSH1 Soni-Cleaned 1:2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	22	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	616	0.29	0.7	
4	10,380	75.00	10.9	Upper Marker
5	12,657	0.00	0.0	
6	13,059	0.00	0.0	

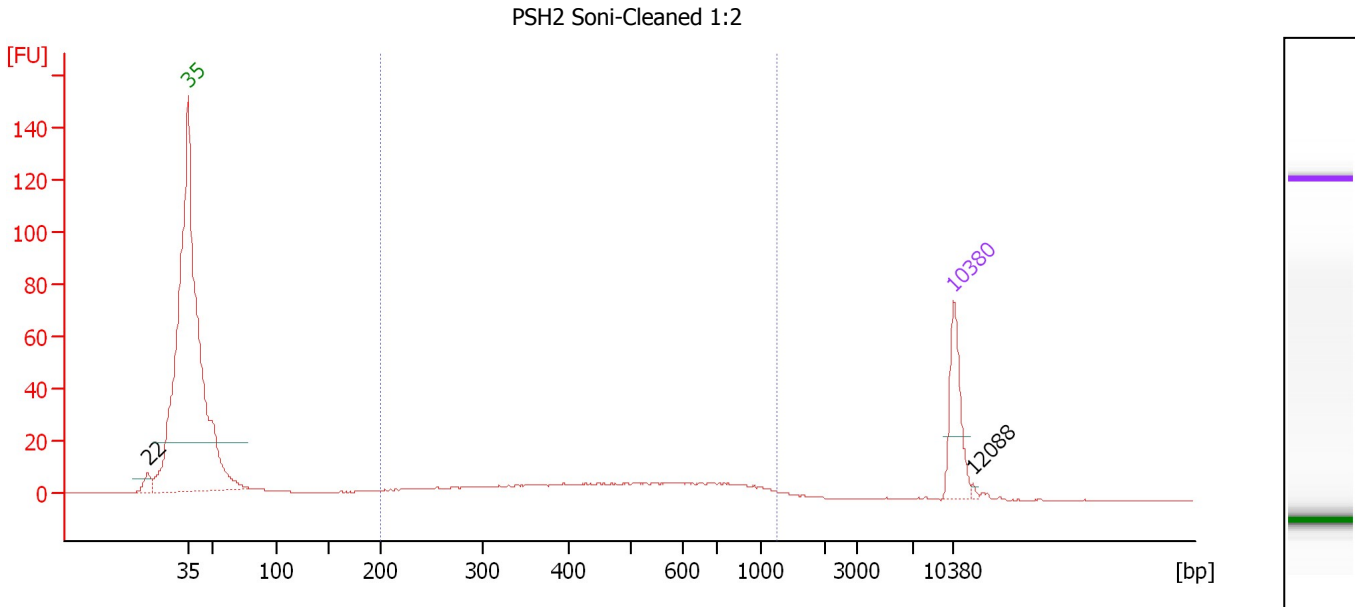
**Region table for sample 10 : PSH1 Soni-Cleaned 1:2**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	477	595.2	151.33	100.8	65	38.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-07\2013-08-07\_005.xad

Created: 8/7/2013 4:47:41 PM  
 Modified: 8/7/2013 5:34:27 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : PSH2 Soni-Cleaned 1:2**

Number of peaks found: 2                      Corr. Area 1: 196.1  
 Noise: 0.1

**Peak table for sample 11 : PSH2 Soni-Cleaned 1:2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	22	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	10,380	75.00	10.9	Upper Marker
4	12,088	0.00	0.0	

**Region table for sample 11 : PSH2 Soni-Cleaned 1:2**

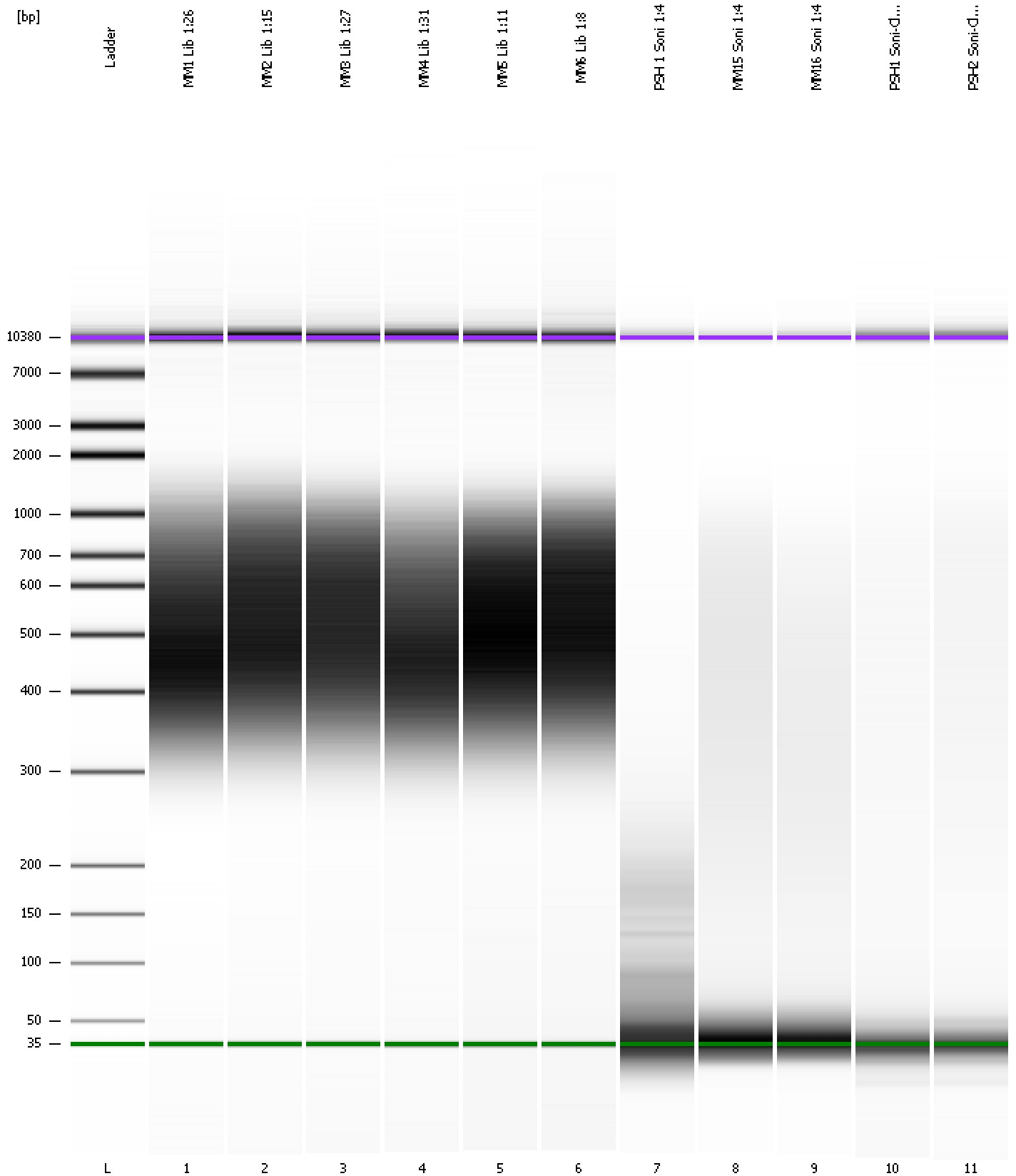
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,258	506	1,053.4	274.34	196.1	76	43.0	Blue



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-07\2013-08-07\_005.xad

Created: 8/7/2013 4:47:41 PM  
Modified: 8/7/2013 5:34:27 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-07\2013-08-07\_005.xad

Created: 8/7/2013 4:47:41 PM  
 Modified: 8/7/2013 5:34:27 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		8/7/2013 5:28:11 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-08-07\2013-08-07_005.xad)		Instrument	Run		8/7/2013 4:47:47 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		8/7/2013 4:47:47 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		8/7/2013 4:47:47 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		8/7/2013 4:47:47 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		8/7/2013 4:47:47 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		8/7/2013 4:47:47 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		8/7/2013 4:47:47 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1