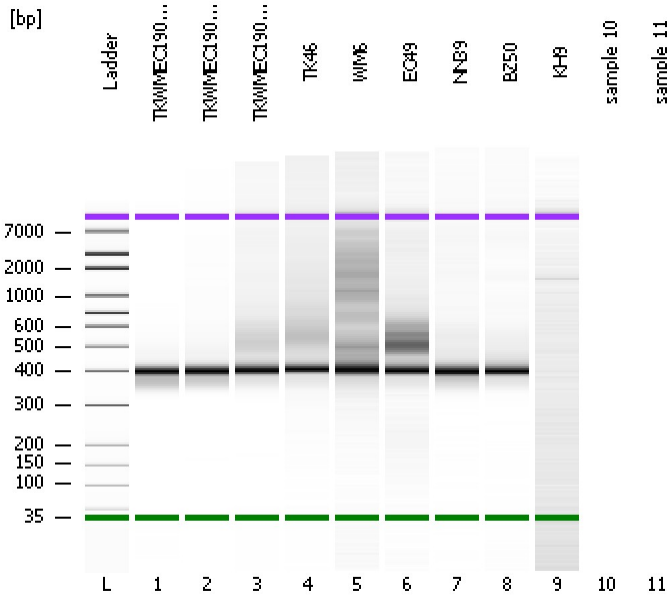


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-05-03\2017-05-03\_002.xad

Created: 5/3/2017 11:14:06 AM  
Modified: 5/3/2017 11:58:03 AM

**Electrophoresis File Run Summary**



Instrument Information:

Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

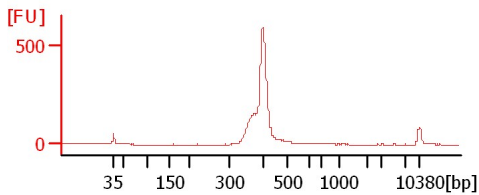
Assay Information:

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

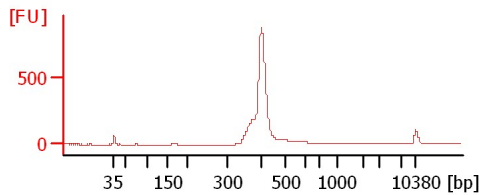
Chip Information:

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

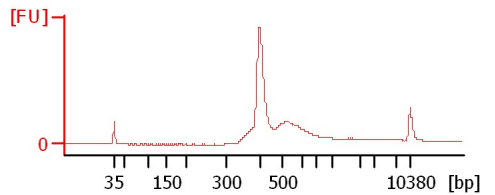
**TKWMEC190-1 Pippin Clean**



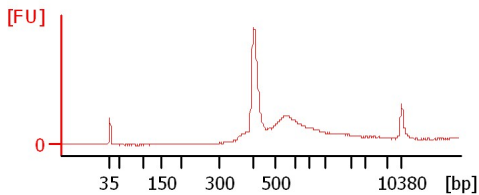
**TKWMEC190-2 Pippin Clean**



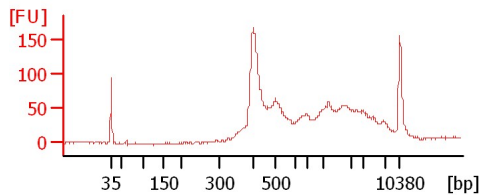
**TKWMEC190 Pool**



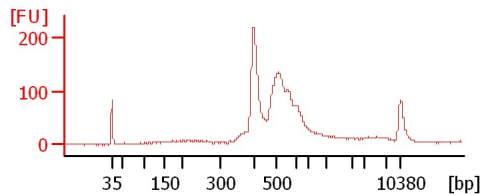
**TK46**



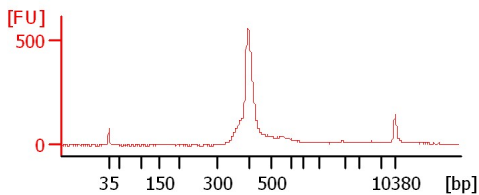
**WM6**



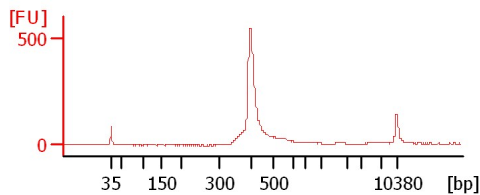
**EC49**



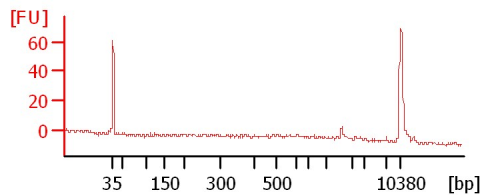
**NN39**



**BZ50**



**KH9**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-05-03\2017-05-03\_002.xad

Created: 5/3/2017 11:14:06 AM  
 Modified: 5/3/2017 11:58:03 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
TKWMEC190-1 Pippin Clean		<input type="checkbox"/>	✓			
TKWMEC190-2 Pippin Clean		<input type="checkbox"/>	✓			
TKWMEC190 Pool		<input type="checkbox"/>	✓			
TK46		<input type="checkbox"/>	✓			
WM6		<input type="checkbox"/>	✓			
EC49		<input type="checkbox"/>	✓			
NN39		<input type="checkbox"/>	✓			
BZ50		<input type="checkbox"/>	✓			
KH9		<input type="checkbox"/>	✓			
sample 10		<input type="checkbox"/>				
sample 11		<input type="checkbox"/>				
Ladder		<input type="checkbox"/>	✓			

**Chip Lot #**

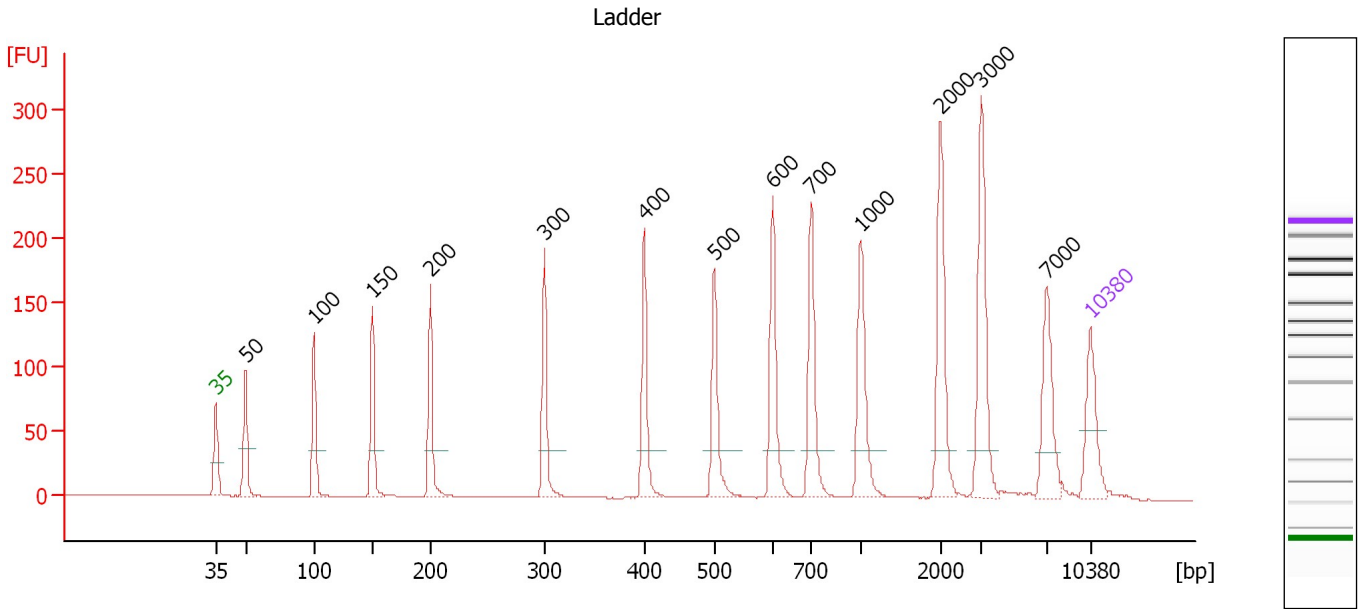
**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-05-03\2017-05-03\_002.xad

Created: 5/3/2017 11:14:06 AM  
 Modified: 5/3/2017 11:58:03 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

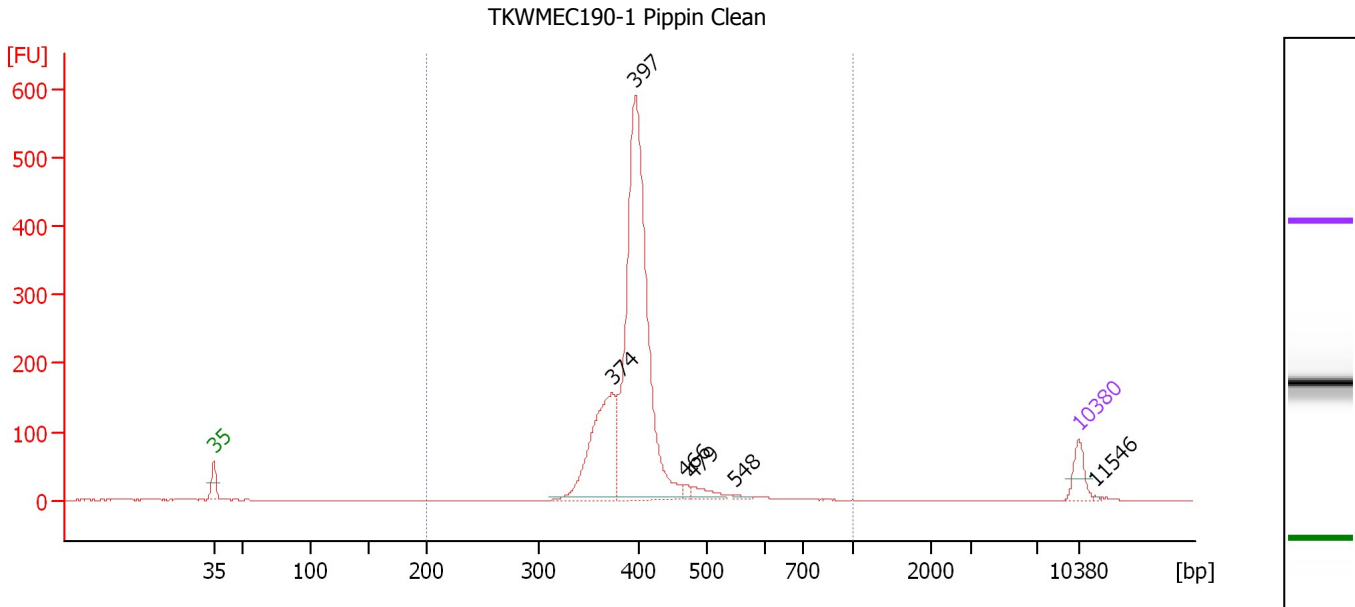
**Peak table for Ladder**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	50	150.00	4,545.5	Ladder Peak	45.39
3	100	150.00	2,272.7	Ladder Peak	50.90
4	150	150.00	1,515.2	Ladder Peak	55.55
5	200	150.00	1,136.4	Ladder Peak	60.16
6	300	150.00	757.6	Ladder Peak	69.29
7	400	150.00	568.2	Ladder Peak	77.32
8	500	150.00	454.5	Ladder Peak	82.91
9	600	150.00	378.8	Ladder Peak	87.56
10	700	150.00	324.7	Ladder Peak	90.68
11	1,000	150.00	227.3	Ladder Peak	94.65
12	2,000	150.00	113.6	Ladder Peak	101.01
13	3,000	150.00	75.8	Ladder Peak	104.29
14	7,000	150.00	32.5	Ladder Peak	109.50
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-05-03\2017-05-03\_002.xad

Created: 5/3/2017 11:14:06 AM  
 Modified: 5/3/2017 11:58:03 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : TKWMEC190-1 Pippin Clean**

Number of peaks found: 6                      Corr. Area 1: 2,191.2  
 Noise: 0.2

**Peak table for sample 1 : TKWMEC190-1 Pippin Clean**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	374	686.57	2,780.5		75.24
3	397	2,007.31	7,666.8		77.05
4	466	20.44	66.4		81.02
5	479	60.03	189.8		81.75
6	548	11.26	31.1		85.16
7	10,380	75.00	10.9	Upper Marker	113.00
8	11,546	0.00	0.0		114.21

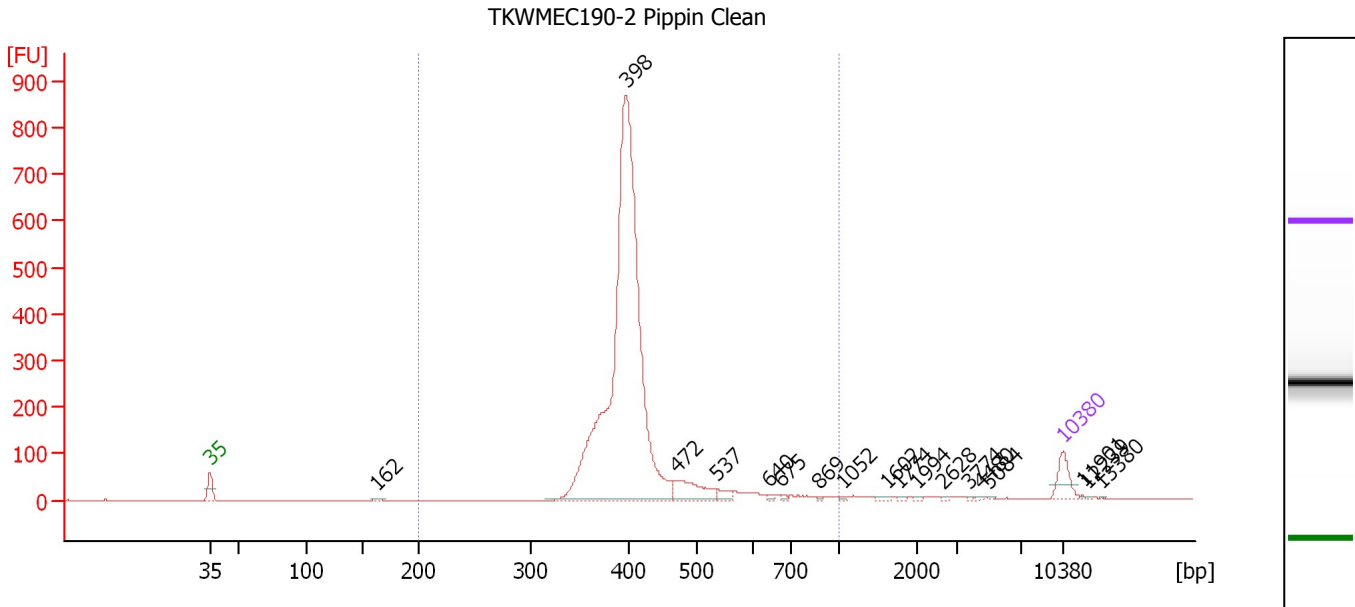
**Region table for sample 1 : TKWMEC190-1 Pippin Clean**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	401	2,191.2	10,950.0	2,866.27	98	11.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-05-03\2017-05-03\_002.xad

Created: 5/3/2017 11:14:06 AM  
 Modified: 5/3/2017 11:58:03 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : TKWMEC190-2 Pippin Clean**

Number of peaks found: 18                      Corr. Area 1: 3,184.6  
 Noise: 0.2

**Peak table for sample 2 : TKWMEC190-2 Pippin Clean**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	162	10.85	101.2		56.69
3	398	3,043.88	11,599.2		77.13
4	472	155.81	499.7		81.37
5	537	34.19	96.4		84.65
6	640	8.08	19.1		88.81
7	675	7.11	16.0		89.90
8	869	5.23	9.1		92.92
9	1,052	4.47	6.4		94.97
10	1,602	8.29	7.8		98.47
11	1,774	5.06	4.3		99.57
12	1,994	4.07	3.1		100.97
13	2,628	3.28	1.9		103.07
14	3,774	2.33	0.9		105.30
15	4,480	2.58	0.9		106.22
16	5,084	3.13	0.9		107.01
17	10,380	75.00	10.9	Upper Marker	113.00
18	11,901	0.00	0.0		114.58
19	12,239	0.00	0.0		114.93
20	13,380	0.00	0.0		116.11

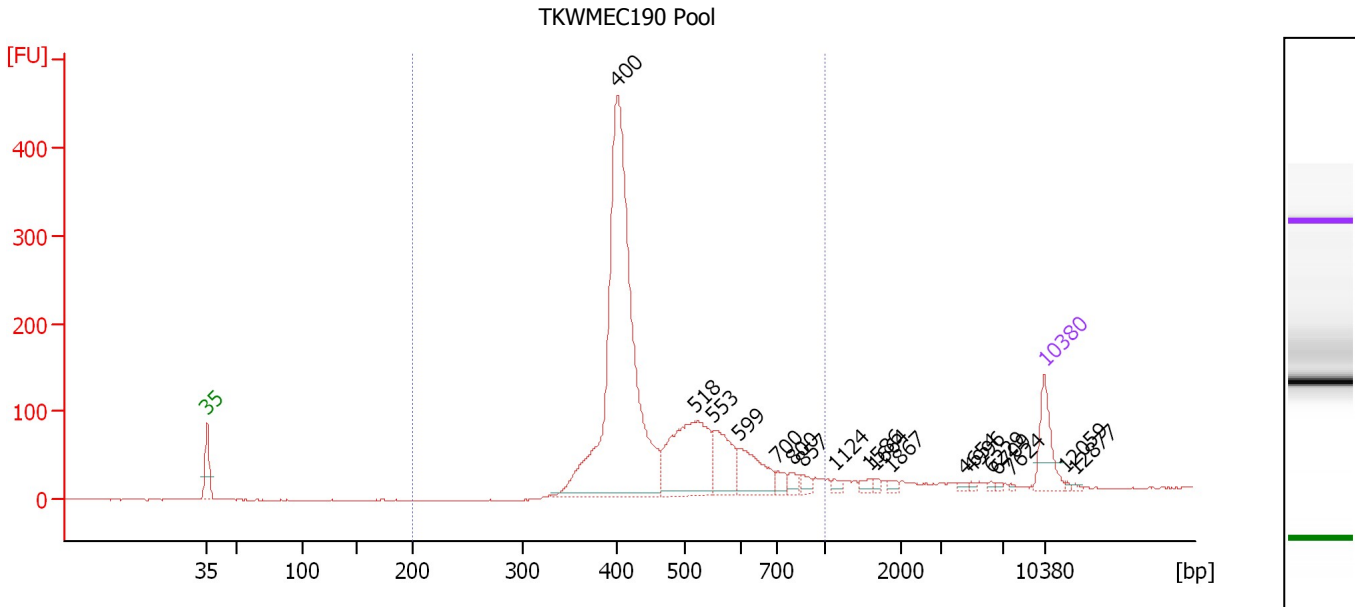
**Region table for sample 2 : TKWMEC190-2 Pippin Clean**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	413	3,184.6	12,320.5	3,294.90	98	15.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-05-03\2017-05-03\_002.xad

Created: 5/3/2017 11:14:06 AM  
 Modified: 5/3/2017 11:58:03 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : TKWMEC190 Pool**

Number of peaks found: 18                      Corr. Area 1: 2,167.3  
 Noise: 0.7

**Peak table for sample 3 : TKWMEC190 Pool**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	400	1,228.80	4,658.9		77.29
3	518	323.66	946.5		83.75
4	553	123.97	339.9		85.36
5	599	113.28	286.7		87.50
6	700	23.96	51.9		90.66
7	800	19.98	37.8		92.00
8	857	16.76	29.6		92.76
9	1,124	10.86	14.6		95.43
10	1,586	11.56	11.0		98.38
11	1,664	7.24	6.6		98.87
12	1,867	8.03	6.5		100.16
13	4,654	5.18	1.7		106.45
14	4,996	4.23	1.3		106.89
15	6,229	3.40	0.8		108.50
16	6,709	4.08	0.9		109.12
17	7,624	2.45	0.5		110.15
18	10,380	75.00	10.9	Upper Marker	113.00
19	12,059	0.00	0.0		114.74
20	12,877	0.00	0.0		115.59

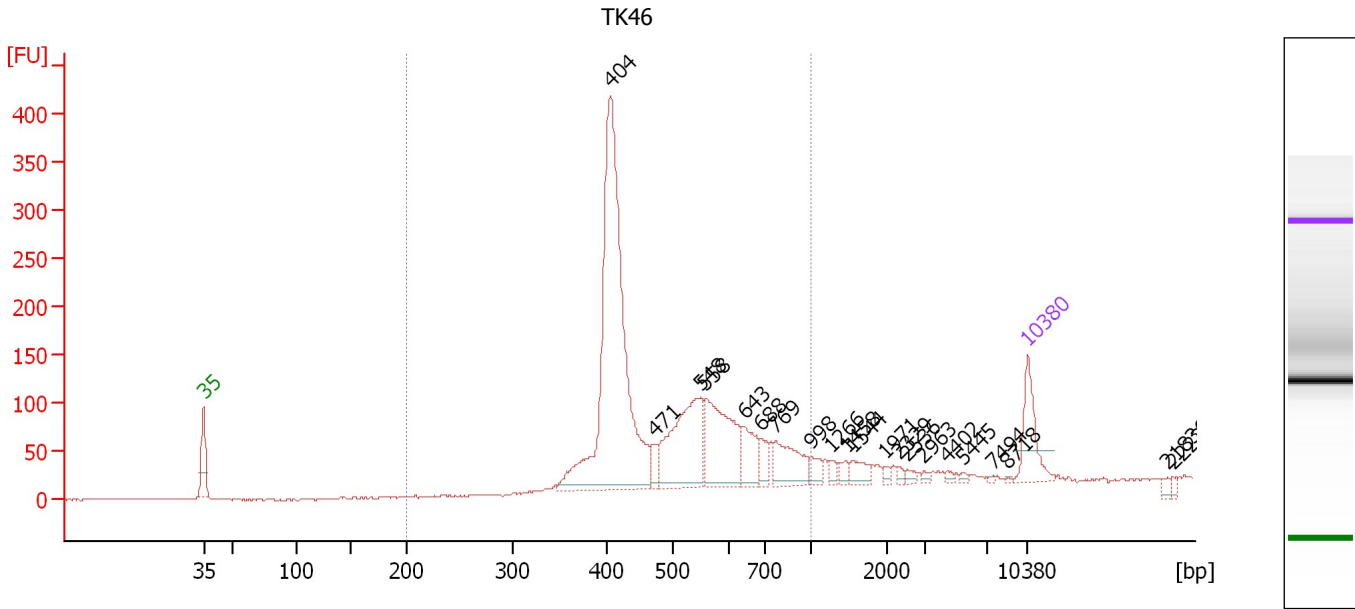
**Region table for sample 3 : TKWMEC190 Pool**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	471	2,167.3	6,047.4	1,785.14	93	23.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-05-03\2017-05-03\_002.xad

Created: 5/3/2017 11:14:06 AM  
 Modified: 5/3/2017 11:58:03 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : TK46**

Number of peaks found: 21                      Corr. Area 1: 2,073.7  
 Noise: 1.0

**Peak table for sample 4 : TK46**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	404	927.05	3,475.8		77.55
3	471	29.77	95.9		81.26
4	548	260.46	719.8		85.15
5	558	222.23	603.4		85.61
6	643	72.98	171.9		88.91
7	688	33.95	74.7		90.32
8	769	95.19	187.7		91.58
9	998	24.38	37.0		94.62
10	1,266	13.20	15.8		96.34
11	1,458	15.22	15.8		97.56
12	1,544	26.52	26.0		98.10
13	1,971	7.42	5.7		100.82
14	2,329	6.09	4.0		102.09
15	2,536	8.19	4.9		102.77
16	2,963	4.92	2.5		104.17
17	4,402	5.02	1.7		106.12
18	5,445	4.74	1.3		107.48
19	7,494	2.29	0.5		110.01
20	8,718	1.52	0.3		111.28
21	10,380	75.00	10.9	Upper Marker	113.00
22	21,836	0.00	0.0		124.86
23	22,230	0.00	0.0		125.27

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-05-03\2017-05-03\_002.xad

Created: 5/3/2017 11:14:06 AM  
Modified: 5/3/2017 11:58:03 AM

**Electropherogram Summary Continued ...**

... Region table for sample 4 : TK46

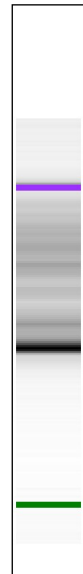
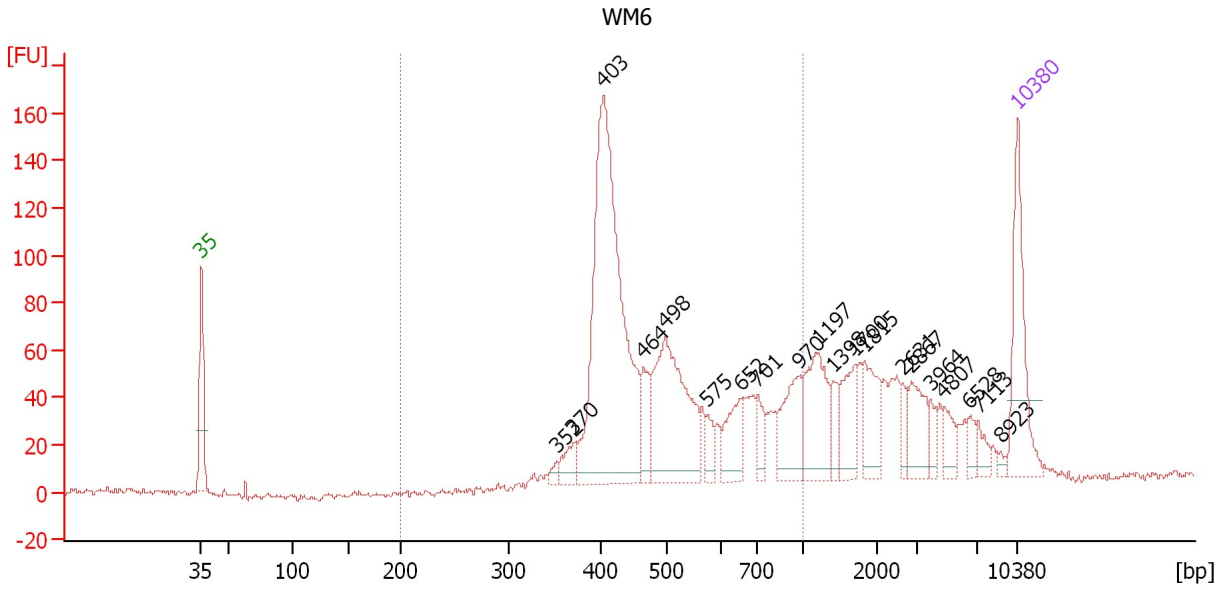
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	510	2,073.7	5,245.0	1,640.41	90	26.5



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-05-03\2017-05-03\_002.xad

Created: 5/3/2017 11:14:06 AM  
 Modified: 5/3/2017 11:58:03 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : WM6**

Number of peaks found: 20                      Corr. Area 1: 1,231.8  
 Noise: 1.5

**Peak table for sample 5 : WM6**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	352	7.03	30.3		73.45
3	370	22.42	91.8		74.91
4	403	438.09	1,647.8		77.47
5	464	37.87	123.6		80.90
6	498	177.78	541.3		82.78
7	575	17.46	46.0		86.39
8	652	43.69	101.5		89.18
9	701	19.86	42.9		90.69
10	970	55.76	87.1		94.25
11	1,197	72.23	91.4		95.90
12	1,398	18.42	20.0		97.18
13	1,700	38.93	34.7		99.10
14	1,815	42.28	35.3		99.83
15	2,631	12.56	7.2		103.08
16	2,867	35.32	18.7		103.86
17	3,964	11.30	4.3		105.55
18	4,807	16.13	5.1		106.64
19	6,528	10.60	2.5		108.89
20	7,113	11.42	2.4		109.62
21	8,923	3.38	0.6		111.49
22	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-05-03\2017-05-03\_002.xad

Created: 5/3/2017 11:14:06 AM  
Modified: 5/3/2017 11:58:03 AM

**Electropherogram Summary Continued ...**

... Region table for sample 5 :

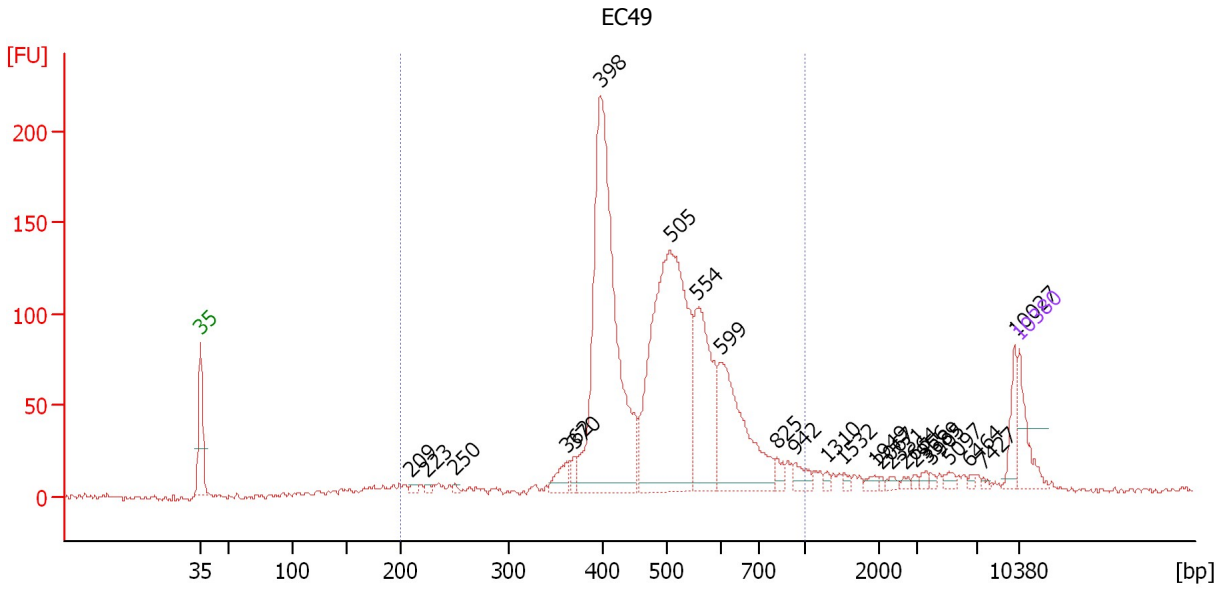
WM6

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	526	1,231.8	2,794.2	■ 883.92	67	30.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-05-03\2017-05-03\_002.xad

Created: 5/3/2017 11:14:06 AM  
 Modified: 5/3/2017 11:58:03 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : EC49**

Number of peaks found: 24                      Corr. Area 1: 1,823.4  
 Noise: 1.7

**Peak table for sample 6 : EC49**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	209	14.17	102.5		61.02
3	223	9.44	64.2		62.26
4	250	7.04	42.6		64.77
5	362	49.09	205.2		74.30
6	370	26.34	107.7		74.94
7	398	1,060.89	4,035.9		77.18
8	505	968.62	2,904.3		83.16
9	554	339.82	928.8		85.44
10	599	339.07	857.0		87.54
11	825	23.01	42.3		92.33
12	942	32.20	51.8		93.88
13	1,310	8.58	9.9		96.62
14	1,532	8.76	8.7		98.03
15	1,949	10.35	8.0		100.68
16	2,067	4.79	3.5		101.23
17	2,331	8.87	5.8		102.09
18	2,664	6.54	3.7		103.19
19	2,956	6.57	3.4		104.15
20	3,589	8.19	3.5		105.06
21	3,905	6.26	2.4		105.47
22	5,097	11.48	3.4		107.02
23	6,464	5.21	1.2		108.80
24	7,427	4.68	1.0		109.94
25	10,027	52.66	8.0		112.63

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-05-03\2017-05-03\_002.xad

Created: 5/3/2017 11:14:06 AM  
Modified: 5/3/2017 11:58:03 AM

**Electropherogram Summary Continued ...****... Peak table for sample 6 : EC49**

Peak	Size [bp]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	10,380	75.00	10.9	Upper Marker	113.00

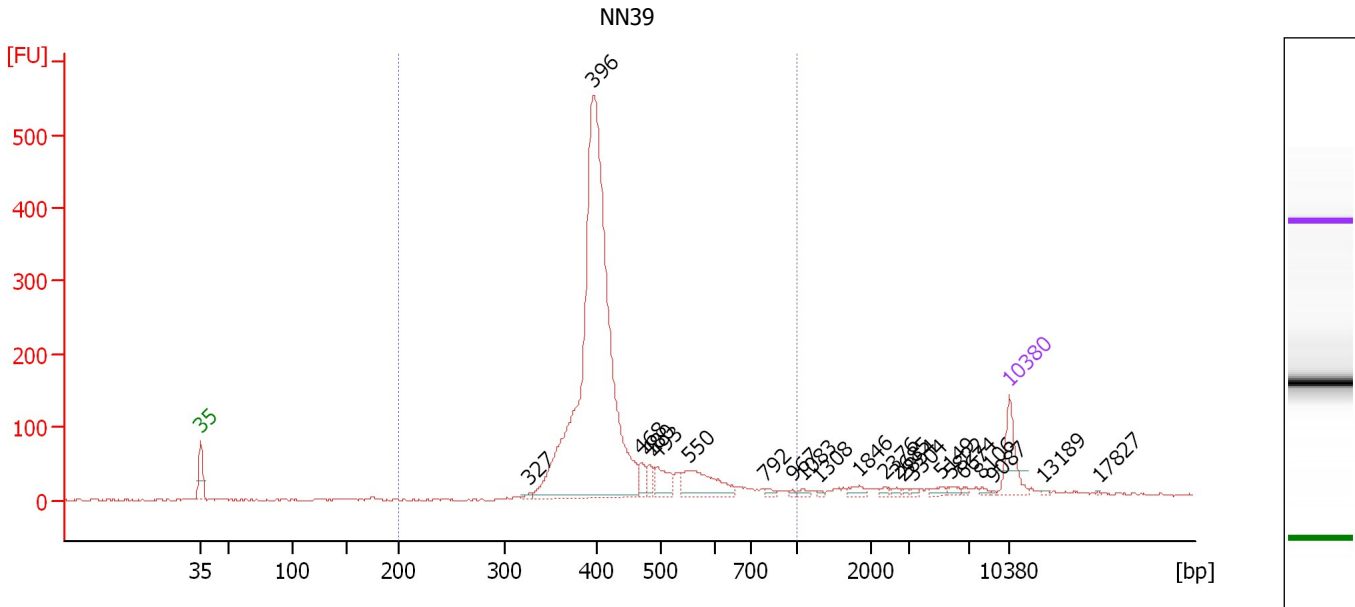
**Region table for sample 6 : EC49**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/ $\mu$ l]	% of Total	Size distribution in CV [%]
200	1,000	501	1,823.4	9,679.1	2,968.53	89	23.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-05-03\2017-05-03\_002.xad

Created: 5/3/2017 11:14:06 AM  
 Modified: 5/3/2017 11:58:03 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : NN39**

Number of peaks found: 22                      Corr. Area 1: 2,355.9  
 Noise: 1.4

**Peak table for sample 7 : NN39**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	327	7.14	33.1		71.44
3	396	1,775.48	6,795.8		76.98
4	468	32.82	106.4		81.09
5	480	30.51	96.3		81.79
6	493	62.87	193.2		82.53
7	550	131.99	363.4		85.25
8	792	10.32	19.7		91.90
9	967	4.39	6.9		94.21
10	1,083	9.21	12.9		95.18
11	1,308	3.42	4.0		96.61
12	1,846	14.72	12.1		100.03
13	2,376	6.43	4.1		102.24
14	2,685	6.20	3.5		103.26
15	2,854	4.27	2.3		103.81
16	3,304	4.08	1.9		104.69
17	5,149	11.44	3.4		107.09
18	5,822	8.53	2.2		107.97
19	6,674	4.59	1.0		109.08
20	8,106	5.32	1.0		110.65
21	9,087	2.25	0.4		111.66
22	10,380	75.00	10.9	Upper Marker	113.00
23	13,189	0.00	0.0		115.91
24	17,827	0.00	0.0		120.71


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-05-03\2017-05-03\_002.xad

Created: 5/3/2017 11:14:06 AM  
Modified: 5/3/2017 11:58:03 AM

**Electropherogram Summary Continued ...**

... Region table for sample 7 :

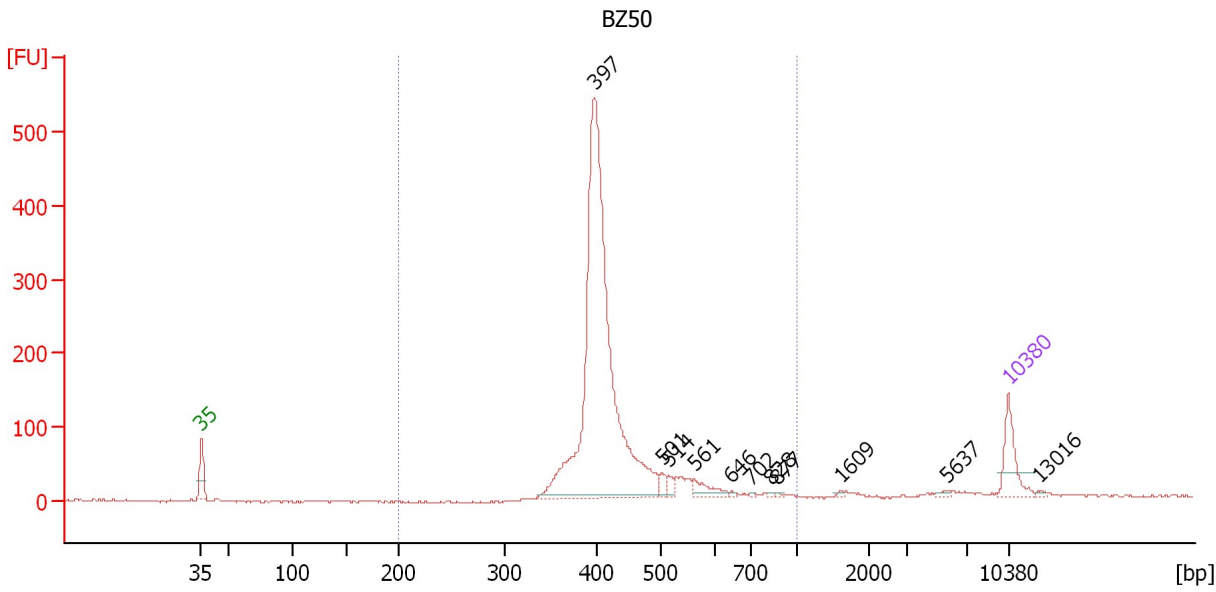
NN39

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	431	2,355.9	7,722.0	 2,122.79	92	20.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-05-03\2017-05-03\_002.xad

Created: 5/3/2017 11:14:06 AM  
 Modified: 5/3/2017 11:58:03 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : BZ50**

Number of peaks found: 11                      Corr. Area 1: 1,936.6  
 Noise: 1.6

**Peak table for sample 8 : BZ50**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	397	1,464.69	5,594.3		77.05
3	501	20.61	62.3		82.97
4	514	17.19	50.7		83.58
5	561	43.39	117.2		85.75
6	646	3.37	7.9		88.99
7	702	3.59	7.8		90.70
8	828	2.82	5.2		92.37
9	877	3.25	5.6		93.01
10	1,609	3.50	3.3		98.52
11	5,637	6.00	1.6		107.73
12	10,380	75.00	10.9	Upper Marker	113.00
13	13,016	0.00	0.0		115.73

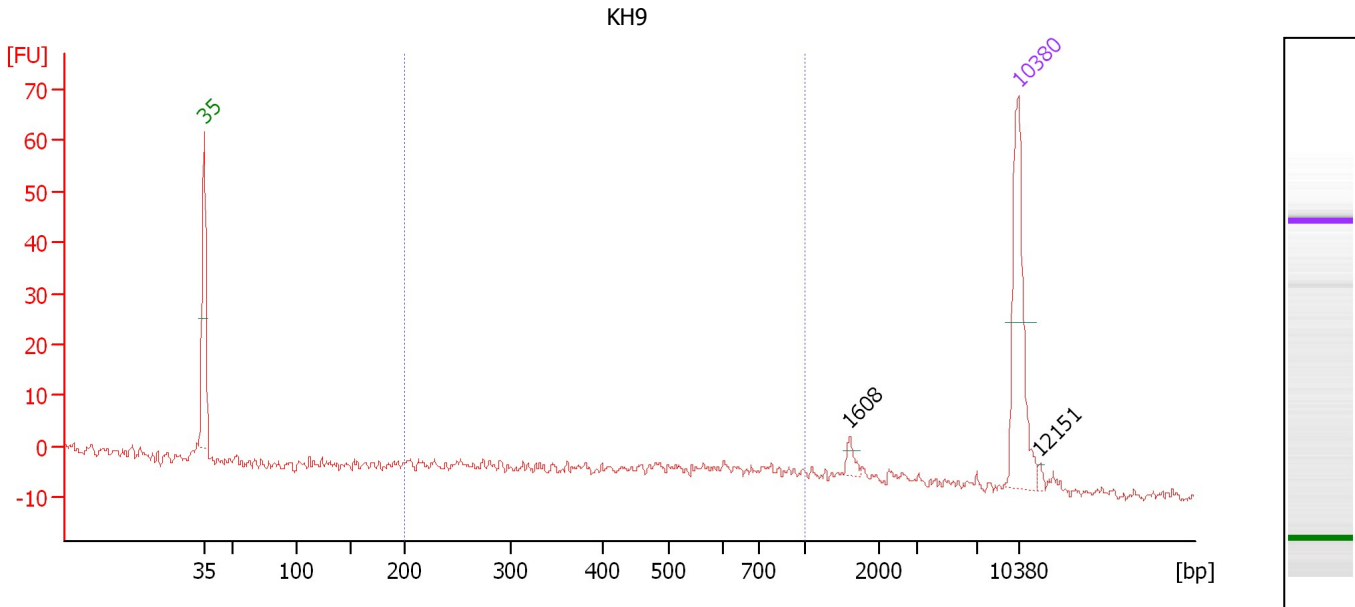
**Region table for sample 8 : BZ50**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	428	1,936.6	5,876.9	1,621.18	96	16.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-05-03\2017-05-03\_002.xad

Created: 5/3/2017 11:14:06 AM  
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**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : KH9**

Number of peaks found: 2                      Corr. Area 1: 31.1  
 Noise: 1.1

**Peak table for sample 9 : KH9**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	1,608	6.48	6.1		98.51
3	10,380	75.00	10.9	Upper Marker	113.00
4	12,151	0.00	0.0		114.83

**Region table for sample 9 : KH9**

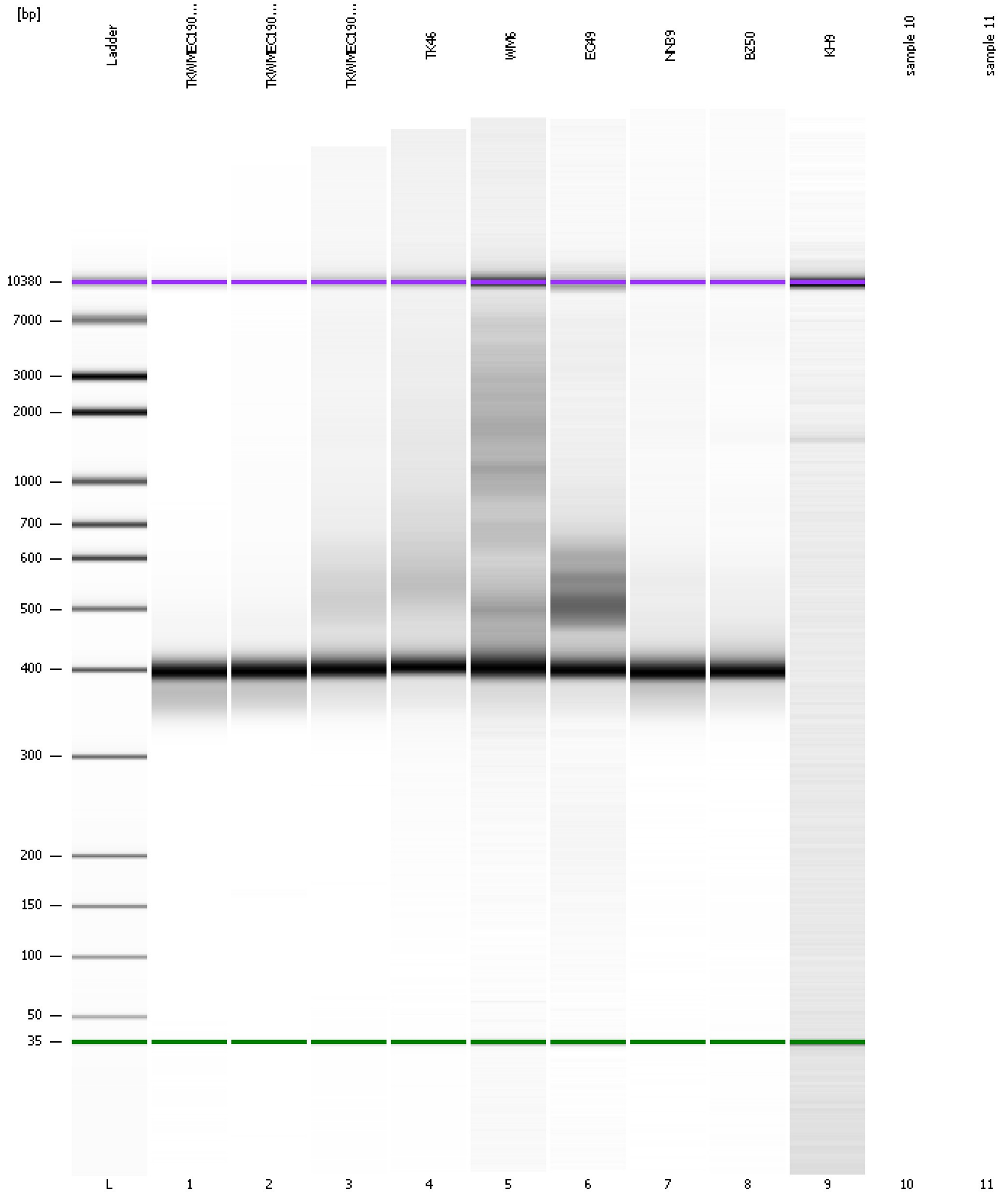
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	608	31.1	121.9	42.68	43	29.0



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-05-03\2017-05-03\_002.xad

Created: 5/3/2017 11:14:06 AM  
Modified: 5/3/2017 11:58:03 AM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-05-03\2017-05-03\_002.xad

Created: 5/3/2017 11:14:06 AM  
Modified: 5/3/2017 11:58:03 AM

**Invalid Samples**

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.