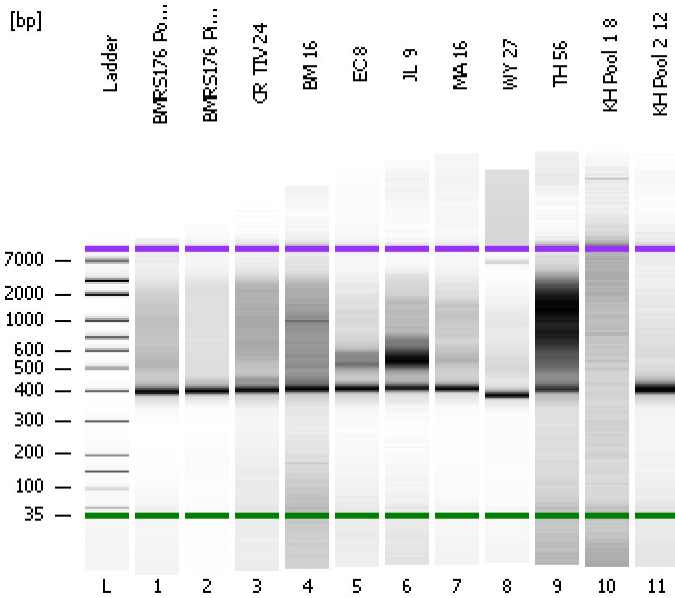


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-23\2017-02-23\_002.xad

Created: 2/23/2017 9:48:11 AM  
Modified: 2/23/2017 11:14:20 AM

### Electrophoresis File Run Summary



#### Instrument Information:

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

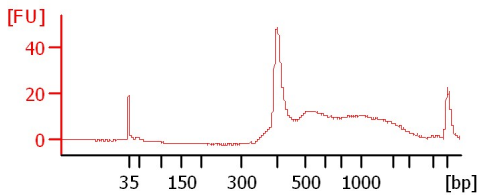
#### Assay Information:

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

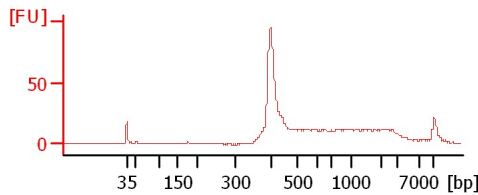
#### Chip Information:

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

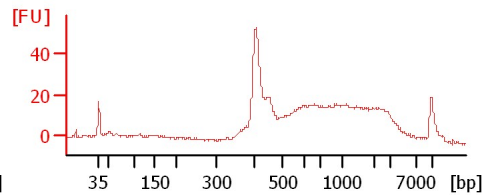
**BMRS176 Pool no Pippin**



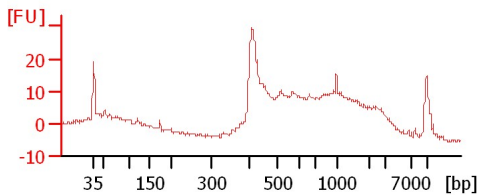
**BMRS176 Pippin clean**



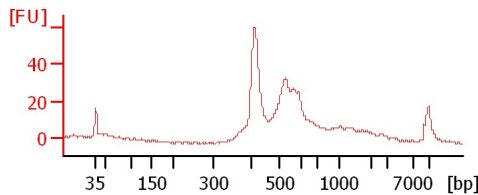
**CR TIV 24**



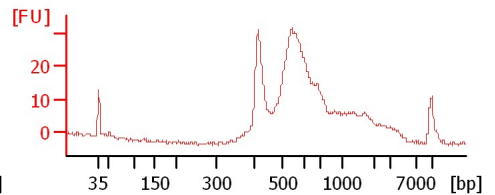
**BM 16**



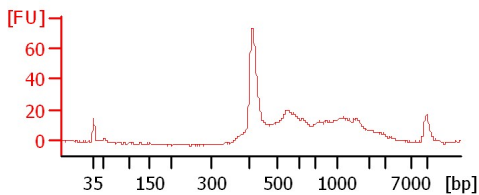
**EC 8**



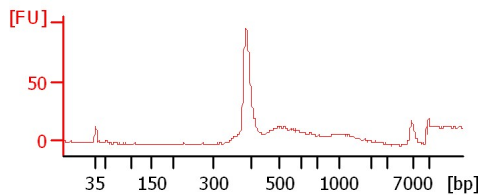
**JL 9**



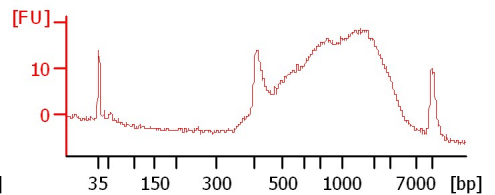
**MA 16**



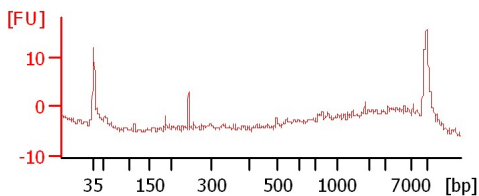
**WY 27**



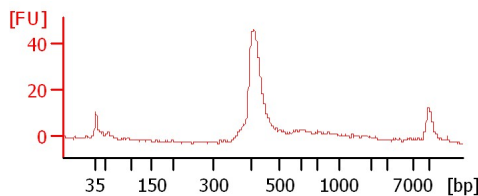
**TH 56**



**KH Pool 1 8**



**KH Pool 2 12**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-23\2017-02-23\_002.xad

Created: 2/23/2017 9:48:11 AM  
 Modified: 2/23/2017 11:14:20 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
BMRS176 Pool no Pippin		<input type="checkbox"/>	✓			
BMRS176 Pippin clean		<input type="checkbox"/>	✓			
CR TIV 24		<input type="checkbox"/>	✓			
BM 16		<input type="checkbox"/>	✓			
EC 8		<input type="checkbox"/>	✓			
JL 9		<input type="checkbox"/>	✓			
MA 16		<input type="checkbox"/>	✓			
WY 27		<input type="checkbox"/>	✓			
TH 56		<input type="checkbox"/>	✓			
KH Pool 1 8		<input type="checkbox"/>	✓			
KH Pool 2 12		<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\2017-02-23\2017-02-23\_002.xad

Created: 2/23/2017 9:48:11 AM  
Modified: 2/23/2017 11:14:20 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

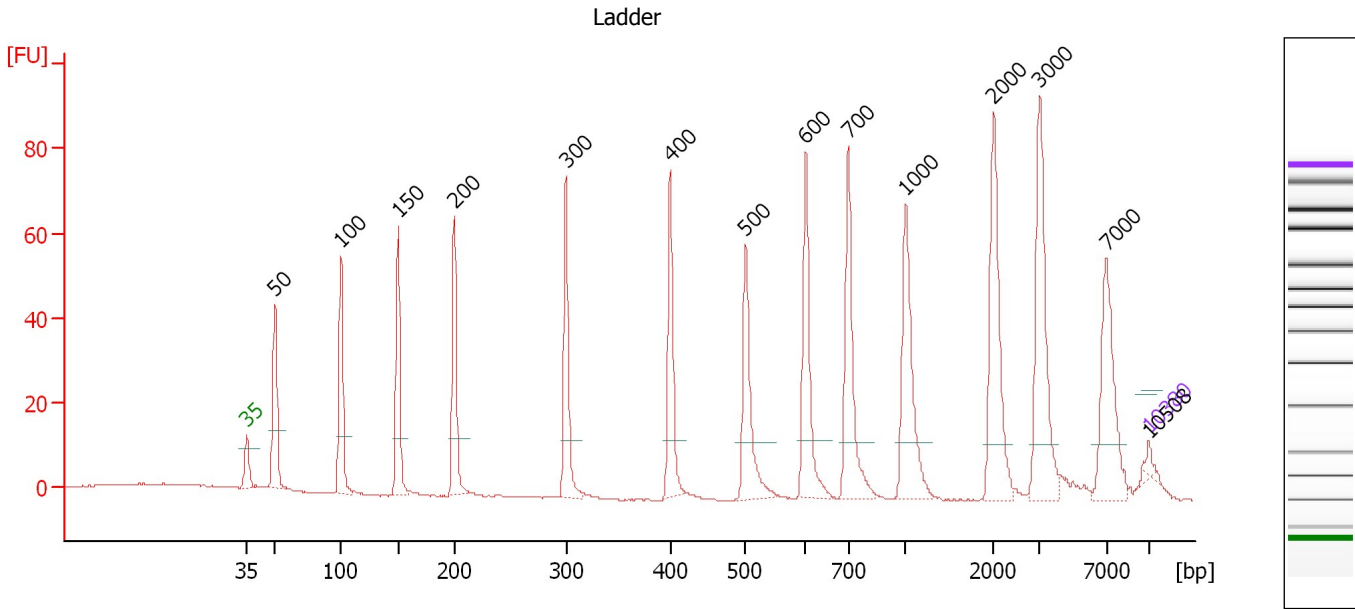
**Ladder**

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:\... bioanalyzer\2100 expert\data\2017-02-23\2017-02-23\_002.xad

Created: 2/23/2017 9:48:11 AM  
 Modified: 2/23/2017 11:14:20 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

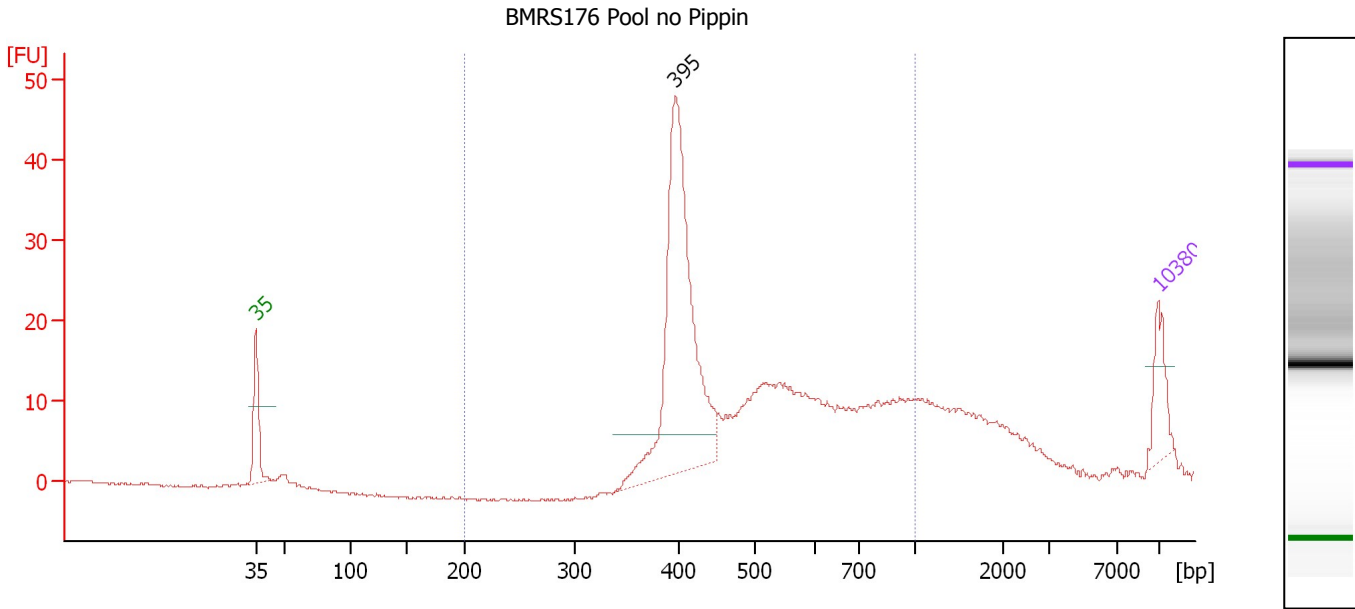
**Peak table for Ladder**

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	45.19
3	100	150.00	2,272.7	Ladder Peak	50.33
4	150	150.00	1,515.2	Ladder Peak	54.76
5	200	150.00	1,136.4	Ladder Peak	59.14
6	300	150.00	757.6	Ladder Peak	67.80
7	400	150.00	568.2	Ladder Peak	75.87
8	500	150.00	454.5	Ladder Peak	81.75
9	600	150.00	378.8	Ladder Peak	86.38
10	700	150.00	324.7	Ladder Peak	89.69
11	1,000	150.00	227.3	Ladder Peak	94.12
12	2,000	150.00	113.6	Ladder Peak	100.95
13	3,000	150.00	75.8	Ladder Peak	104.56
14	7,000	150.00	32.5	Ladder Peak	109.73
15	10,380	75.00	10.9	Upper Marker	113.00
16	10,508	0.00	0.0		113.12

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-23\2017-02-23\_002.xad

Created: 2/23/2017 9:48:11 AM  
 Modified: 2/23/2017 11:14:20 AM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 1 : BMRS176 Pool no Pippin**

Width Threshold [s] : 5

**Overall Results for sample 1 : BMRS176 Pool no Pippin**

Number of peaks found: 1                      Corr. Area 1: 315.3  
 Noise: 0.2

**Peak table for sample 1 : BMRS176 Pool no Pippin**

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	395	840.01	3,218.7		75.50
3	10,380	75.00	10.9	Upper Marker	113.00

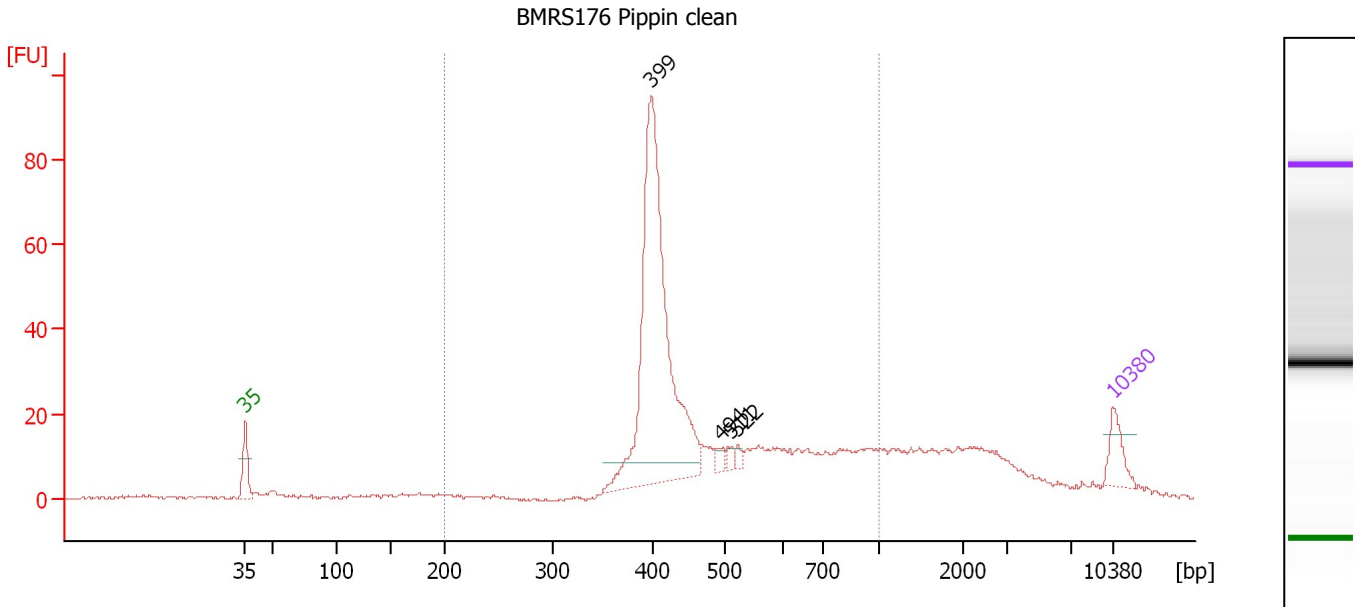
**Region table for sample 1 : BMRS176 Pool no Pippin**

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	538	315.3	5,458.2	1,754.77	80	30.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-23\2017-02-23\_002.xad

Created: 2/23/2017 9:48:11 AM  
 Modified: 2/23/2017 11:14:20 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : BMRS176 Pippin clean**

Number of peaks found: 4                      Corr. Area 1: 493.6  
 Noise: 0.3

**Peak table for sample 2 : BMRS176 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	399	1,486.26	5,644.4		75.78
3	494	29.81	91.4		81.42
4	511	23.14	68.7		82.24
5	522	16.83	48.9		82.75
6	10,380	75.00	10.9	Upper Marker	113.00

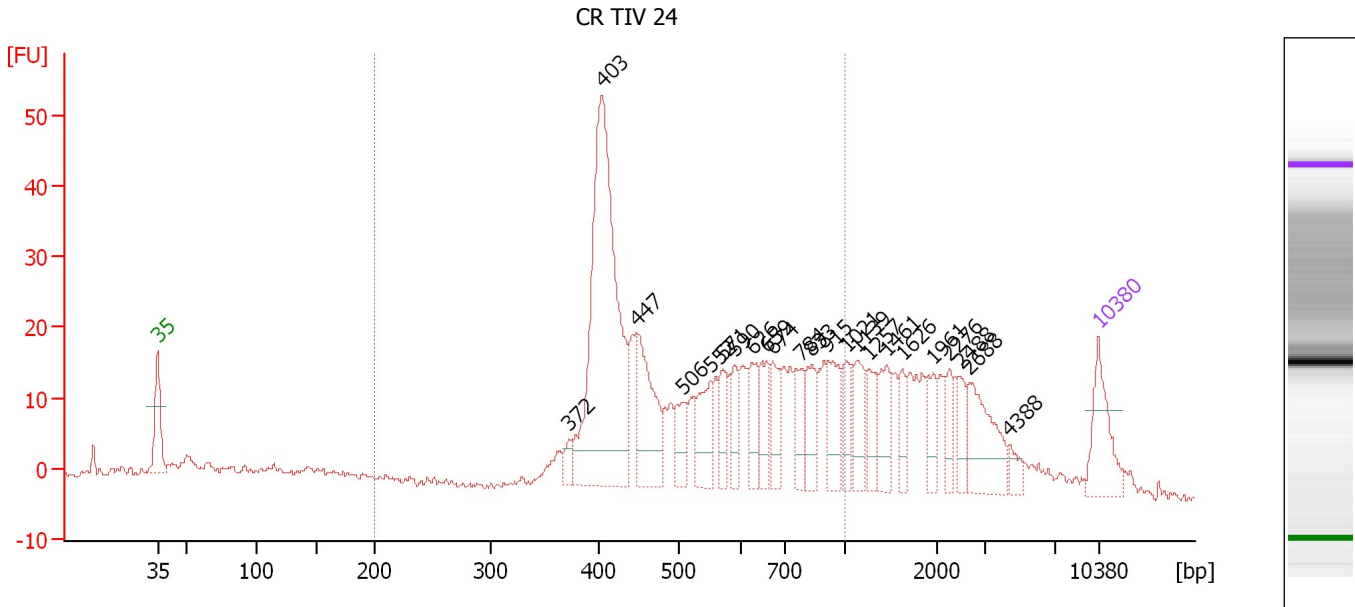
**Region table for sample 2 : BMRS176 Pippin clean**

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	506	493.6	8,375.7	2,550.52	76	30.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-23\2017-02-23\_002.xad

Created: 2/23/2017 9:48:11 AM  
 Modified: 2/23/2017 11:14:20 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : CR TIV 24**

Number of peaks found: 23                      Corr. Area 1: 468.0  
 Noise: 0.6

**Peak table for sample 3 : CR TIV 24**

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	372	20.29	82.7		73.60
3	403	622.00	2,336.2		76.07
4	447	161.54	547.6		78.63
5	506	56.69	169.6		82.04
6	552	77.90	213.8		84.16
7	571	48.33	128.2		85.05
8	590	45.39	116.6		85.91
9	626	56.60	136.9		87.26
10	659	60.92	140.1		88.33
11	674	53.26	119.7		88.83
12	784	52.43	101.3		90.94
13	833	54.81	99.7		91.66
14	915	69.24	114.6		92.87
15	1,021	42.99	63.8		94.26
16	1,139	52.91	70.4		95.07
17	1,257	46.51	56.0		95.88
18	1,461	55.19	57.2		97.27
19	1,626	30.97	28.9		98.40
20	1,961	39.43	30.5		100.69
21	2,276	28.71	19.1		101.95
22	2,488	33.55	20.4		102.71
23	2,688	96.74	54.5		103.43
24	4,388	18.91	6.5		106.35
25	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-23\2017-02-23\_002.xad

Created: 2/23/2017 9:48:11 AM  
Modified: 2/23/2017 11:14:20 AM

**Electropherogram Summary Continued ...**

... Region table for sample 3 :

CR TIV 24

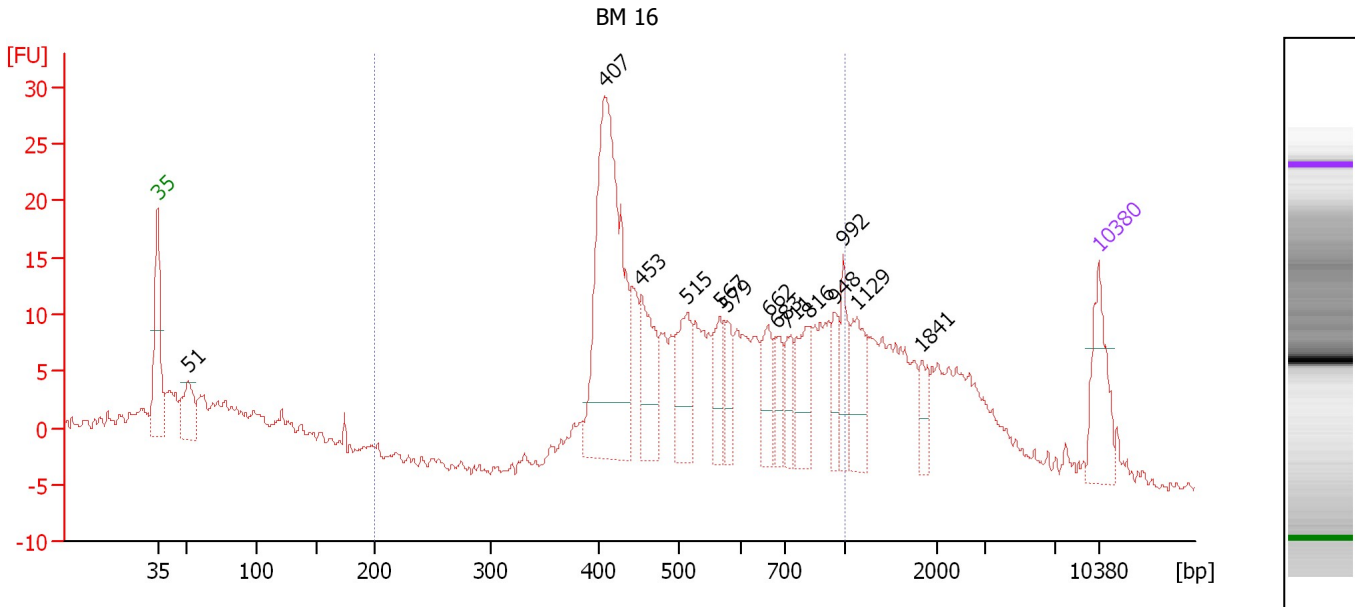
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	564	468.0	5,442.2	1,812.11	65	30.5



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-23\2017-02-23\_002.xad

Created: 2/23/2017 9:48:11 AM  
 Modified: 2/23/2017 11:14:20 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : BM 16**

Number of peaks found: 14                      Corr. Area 1: 305.7  
 Noise: 0.4

**Peak table for sample 4 : BM 16**

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	51	80.02	2,369.3		45.31
3	407	456.07	1,699.8		76.25
4	453	104.21	348.4		78.99
5	515	96.05	282.6		82.44
6	567	53.81	143.8		84.85
7	579	43.38	113.5		85.42
8	662	55.09	126.1		88.44
9	683	42.23	93.6		89.15
10	711	42.09	89.7		89.86
11	816	72.15	133.9		91.41
12	948	37.73	60.3		93.35
13	992	47.41	72.4		94.01
14	1,129	75.29	101.1		95.00
15	1,841	27.05	22.3		99.87
16	10,380	75.00	10.9	Upper Marker	113.00

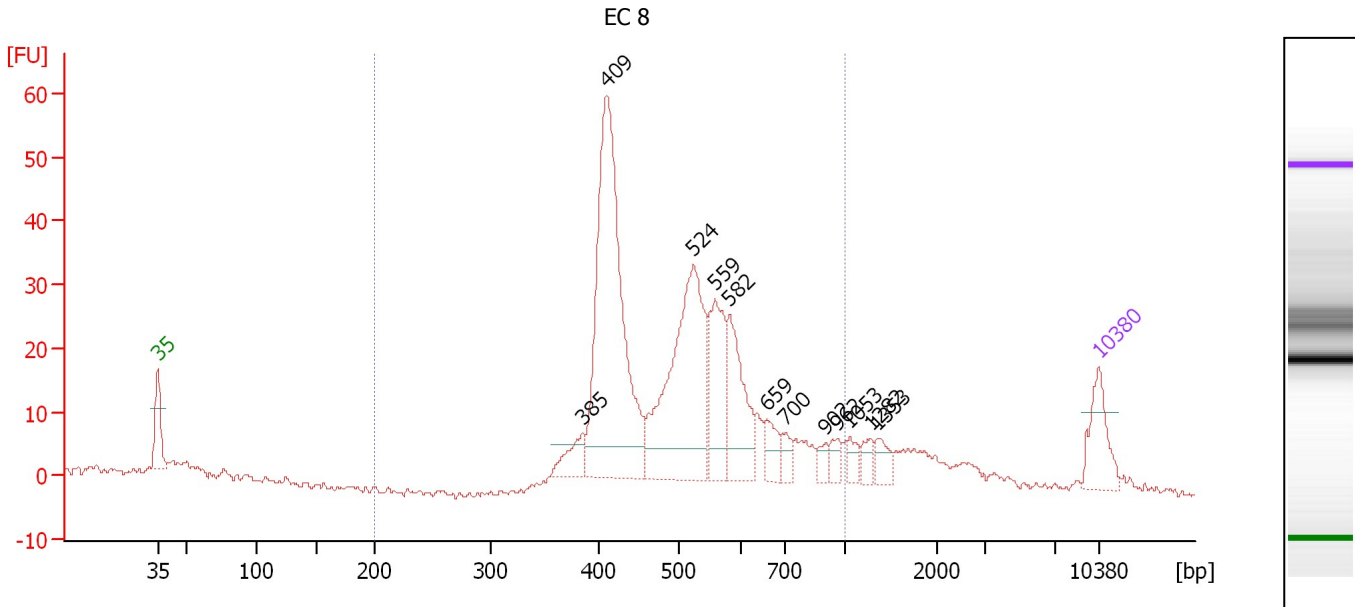
**Region table for sample 4 : BM 16**

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	574	305.7	4,278.1	1,469.11	60	29.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-23\2017-02-23\_002.xad

Created: 2/23/2017 9:48:11 AM  
 Modified: 2/23/2017 11:14:20 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : EC 8**

Number of peaks found: 12                      Corr. Area 1: 468.1  
 Noise: 0.5

**Peak table for sample 5 : EC 8**

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	385	57.94	228.0		74.65
3	409	723.84	2,679.8		76.41
4	524	495.89	1,433.8		82.86
5	559	168.48	456.8		84.47
6	582	173.62	452.0		85.55
7	659	49.61	114.1		88.33
8	700	25.93	56.1		89.70
9	902	20.77	34.9		92.68
10	962	24.15	38.0		93.56
11	1,053	24.14	34.7		94.49
12	1,282	24.62	29.1		96.05
13	1,353	28.48	31.9		96.54
14	10,380	75.00	10.9	Upper Marker	113.00

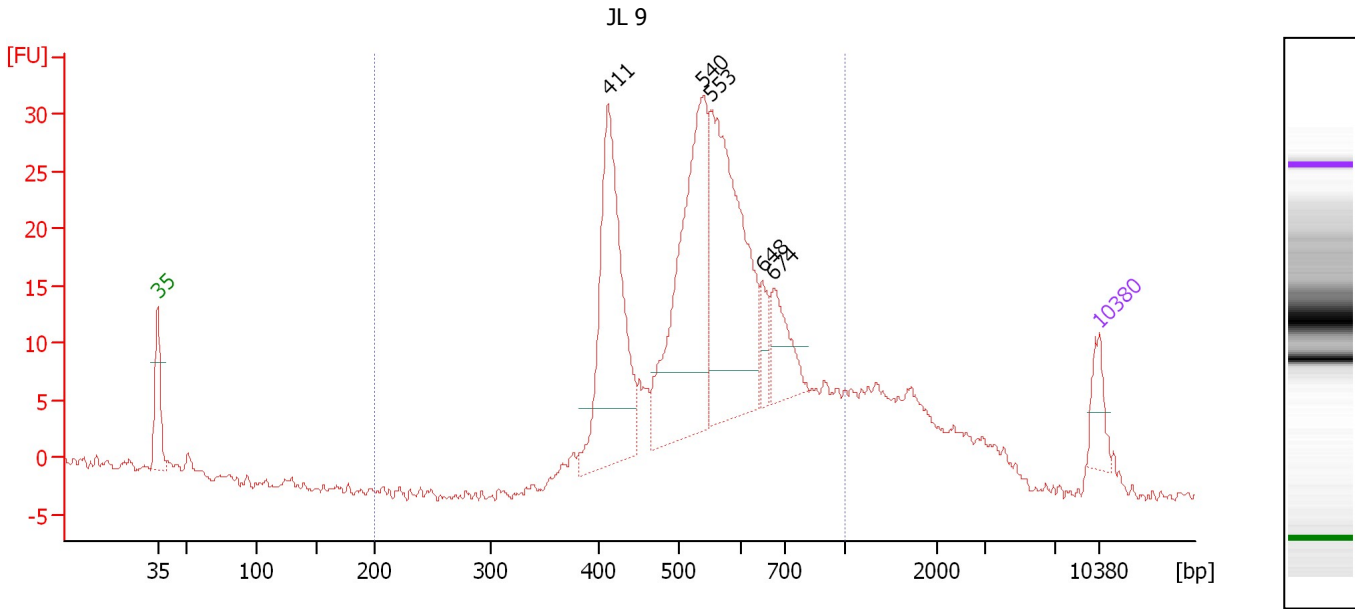
**Region table for sample 5 : EC 8**

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	524	468.1	6,083.9	1,972.41	80	24.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-23\2017-02-23\_002.xad

Created: 2/23/2017 9:48:11 AM  
 Modified: 2/23/2017 11:14:20 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : JL 9**

Number of peaks found: 5                      Corr. Area 1: 383.4  
 Noise: 0.4

**Peak table for sample 6 : JL 9**

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	411	767.75	2,831.5		76.50
3	540	831.82	2,335.5		83.58
4	553	804.50	2,206.1		84.18
5	648	68.98	161.3		87.97
6	674	160.13	360.2		88.82
7	10,380	75.00	10.9	Upper Marker	113.00

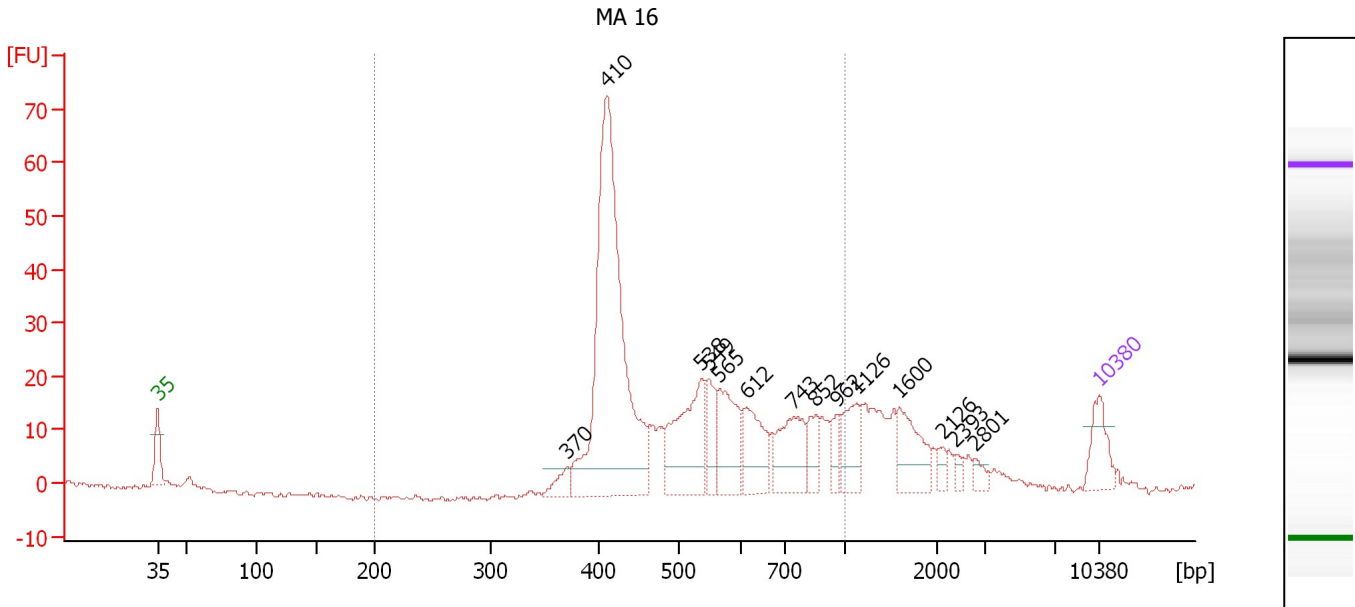
**Region table for sample 6 : JL 9**

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	568	383.4	10,273.7	3,626.67	82	22.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-23\2017-02-23\_002.xad

Created: 2/23/2017 9:48:11 AM  
 Modified: 2/23/2017 11:14:20 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : MA 16**

Number of peaks found: 14                      Corr. Area 1: 414.2  
 Noise: 0.4

**Peak table for sample 7 : MA 16**

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	370	42.08	172.2		73.47
3	410	1,061.18	3,921.5		76.46
4	538	275.59	776.6		83.49
5	549	87.63	242.0		84.00
6	565	174.00	466.7		84.76
7	612	147.87	366.1		86.78
8	743	162.56	331.6		90.32
9	852	61.64	109.6		91.94
10	962	42.15	66.4		93.56
11	1,126	99.92	134.5		94.98
12	1,600	120.73	114.3		98.22
13	2,126	19.28	13.7		101.41
14	2,393	15.67	9.9		102.37
15	2,801	20.62	11.2		103.84
16	10,380	75.00	10.9	Upper Marker	113.00

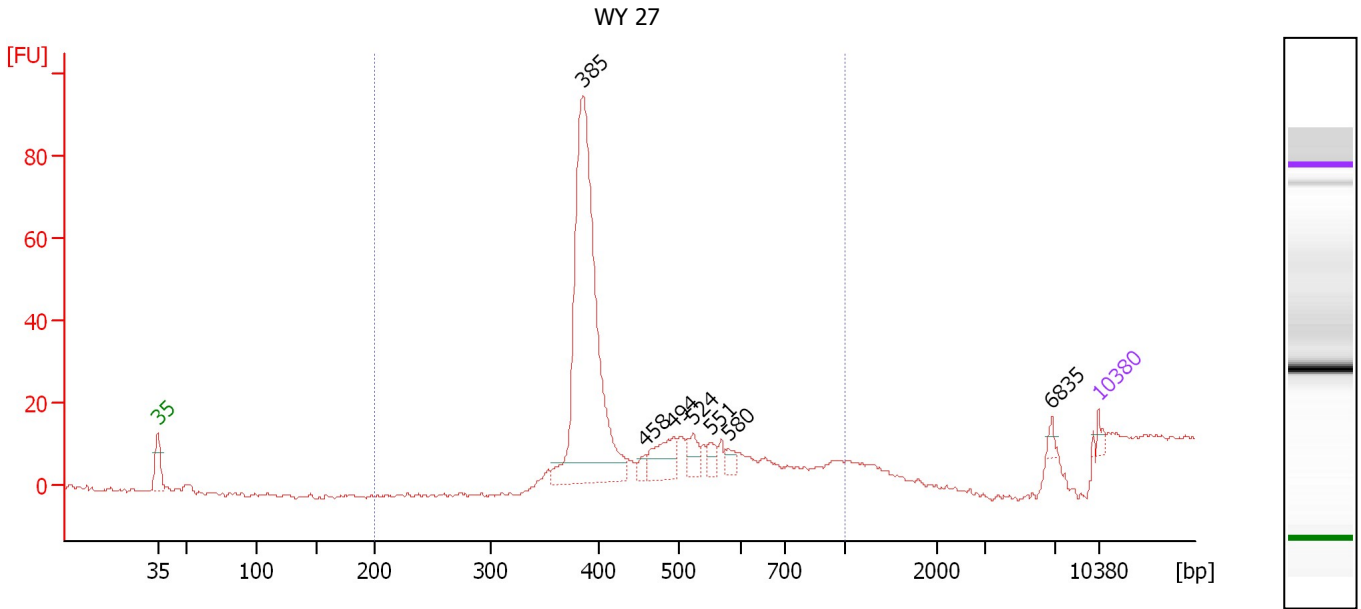
**Region table for sample 7 : MA 16**

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	543	414.2	6,191.3	2,026.20	78	29.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-23\2017-02-23\_002.xad

Created: 2/23/2017 9:48:11 AM  
 Modified: 2/23/2017 11:14:20 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : WY 27**

Number of peaks found: 7                      Corr. Area 1: 260.2  
 Noise: 0.5

**Peak table for sample 8 : WY 27**

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	385	4,626.54	18,218.9		74.64
3	458	94.71	313.3		79.28
4	494	446.96	1,370.1		81.41
5	524	222.01	641.9		82.86
6	551	139.59	383.7		84.12
7	580	103.39	269.9		85.47
8	6,835	69.69	15.4		109.52
9	10,380	75.00	10.9	Upper Marker	113.00

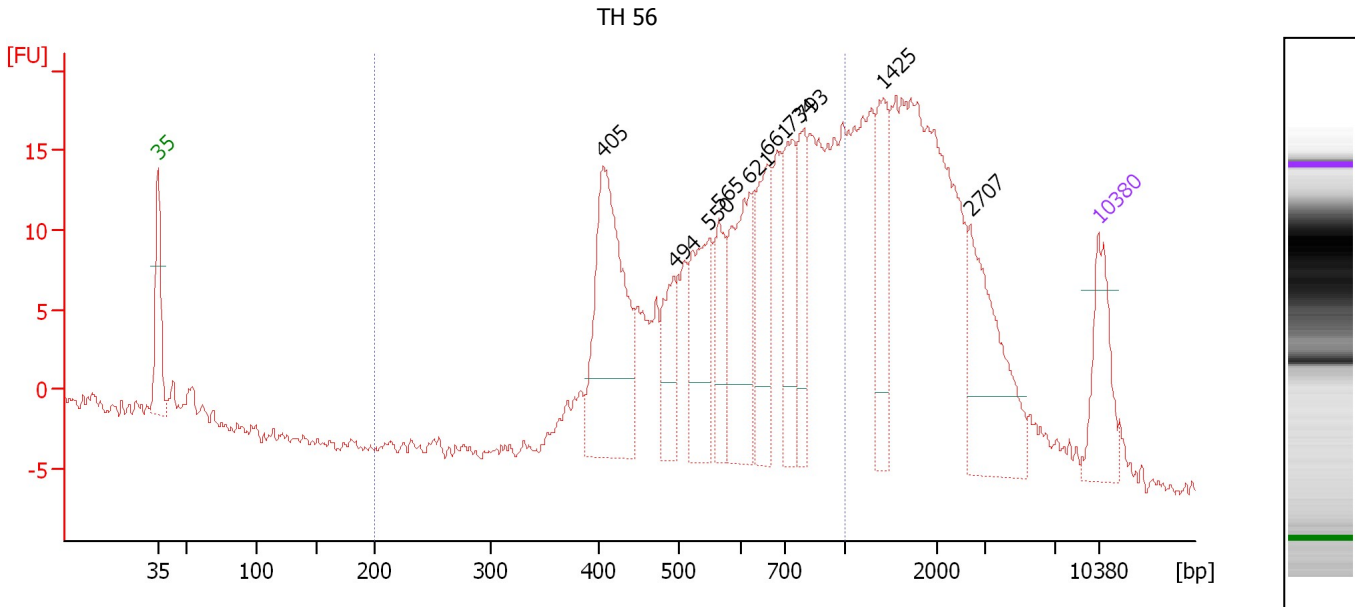
**Region table for sample 8 : WY 27**

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	419	260.2	18,687.4	5,044.58	86	14.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-23\2017-02-23\_002.xad

Created: 2/23/2017 9:48:11 AM  
 Modified: 2/23/2017 11:14:20 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : TH 56**

Number of peaks found: 10                      Corr. Area 1: 290.8  
 Noise: 0.4

**Peak table for sample 9 : TH 56**

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	405	297.18	1,111.1		76.18
3	494	84.41	258.7		81.42
4	550	129.61	356.8		84.09
5	565	70.83	190.0		84.75
6	621	157.79	385.2		87.06
7	661	123.99	284.2		88.40
8	734	103.41	213.4		90.20
9	793	81.35	155.4		91.07
10	1,425	92.90	98.8		97.03
11	2,707	151.03	84.5		103.50
12	10,380	75.00	10.9	Upper Marker	113.00

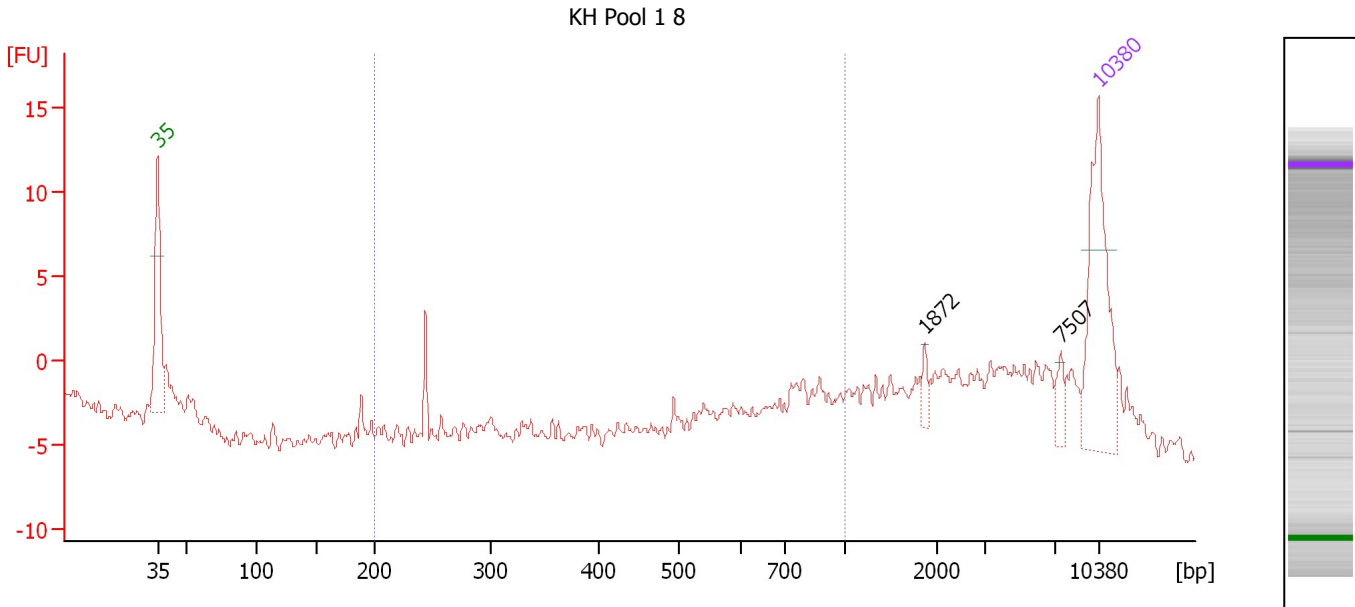
**Region table for sample 9 : TH 56**

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	638	290.8	3,717.9	1,422.22	57	26.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-23\2017-02-23\_002.xad

Created: 2/23/2017 9:48:11 AM  
 Modified: 2/23/2017 11:14:20 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : KH Pool 1 8**

Number of peaks found: 2                      Corr. Area 1: 19.2  
 Noise: 0.6

**Peak table for sample 10 : KH Pool 1 8**

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	1,872	6.68	5.4		100.08
3	7,507	9.27	1.9		110.22
4	10,380	75.00	10.9	Upper Marker	113.00

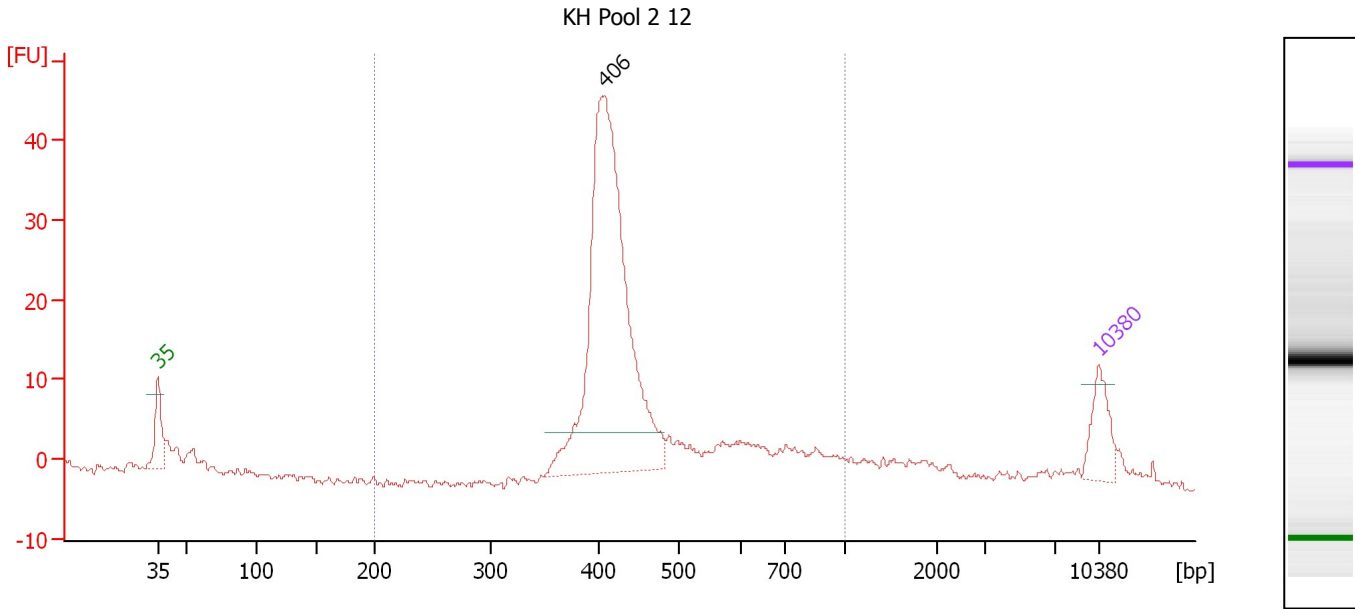
**Region table for sample 10 : KH Pool 1 8**

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	731	19.2	170.2	69.23	19	24.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-23\2017-02-23\_002.xad

Created: 2/23/2017 9:48:11 AM  
 Modified: 2/23/2017 11:14:20 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : KH Pool 2 12**

Number of peaks found: 1                      Corr. Area 1: 255.7  
 Noise: 0.5

**Peak table for sample 11 : KH Pool 2 12**

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	406	1,103.37	4,114.6		76.24
3	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 11 : KH Pool 2 12**

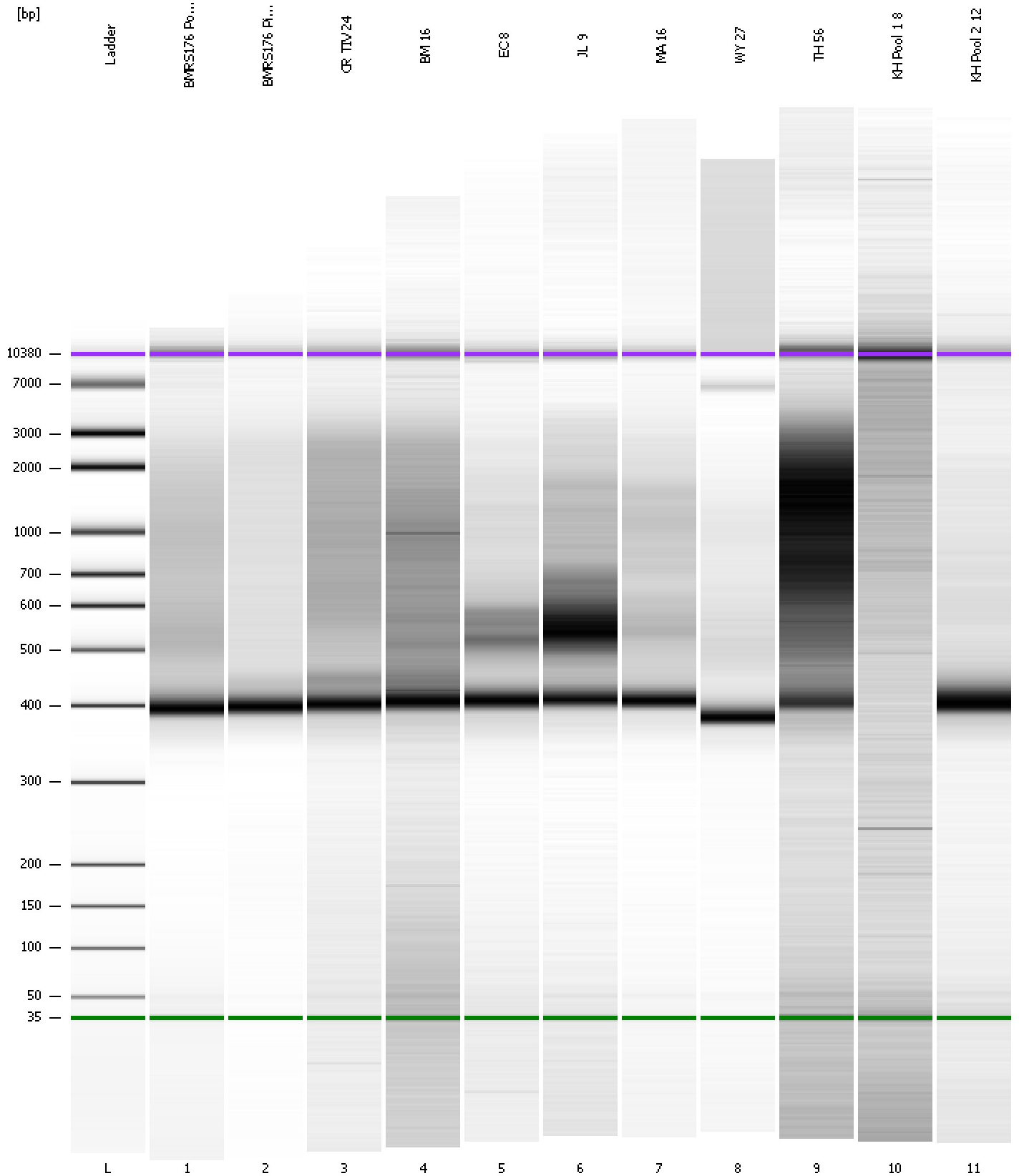
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	477	255.7	4,910.5	1,451.17	80	27.0



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-23\2017-02-23\_002.xad

Created: 2/23/2017 9:48:11 AM  
Modified: 2/23/2017 11:14:20 AM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-23\2017-02-23\_002.xad

Created: 2/23/2017 9:48:11 AM  
 Modified: 2/23/2017 11:14:20 AM

**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		2/23/2017 10:28:34 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2017-02-23\2017-02-23_002.xad)		Instrument	Run		2/23/2017 9:48:11 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		2/23/2017 9:48:11 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		2/23/2017 9:48:11 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		2/23/2017 9:48:11 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		2/23/2017 9:48:11 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		2/23/2017 9:48:11 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		2/23/2017 9:48:11 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1