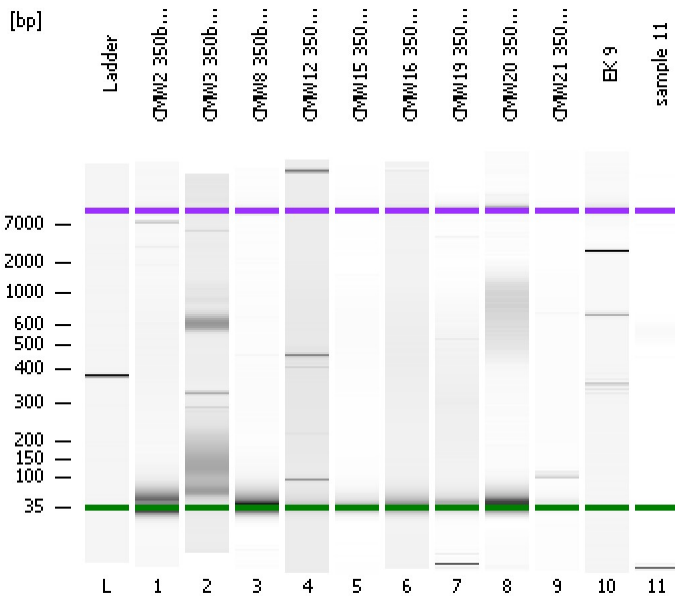


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-12\2012-04-12_002.xad

Created: 4/12/2012 10:22:11 AM
Modified: 4/12/2012 11:16:33 AM

Electrophoresis File Run Summary



Instrument Information:

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

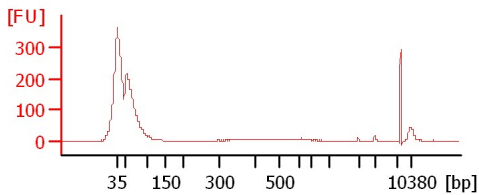
Assay Information:

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

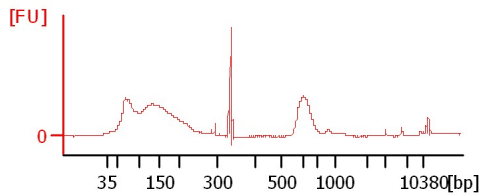
Chip Information:

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

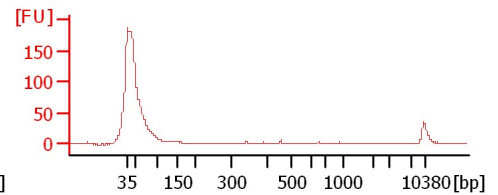
CMW2 350bp 29Cycles 1:5



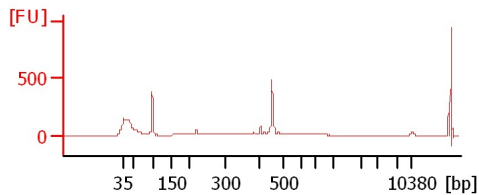
CMW3 350bp 28Cycles 1:5



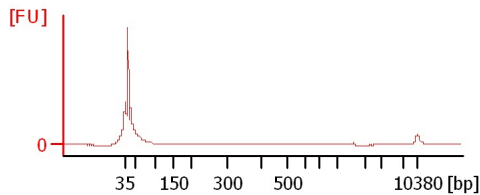
CMW8 350bp 30Cycles 1:5



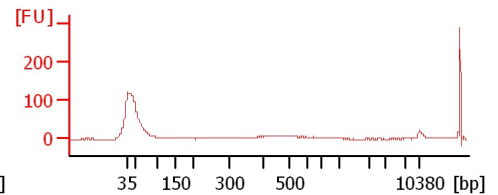
CMW12 350bp 23Cycles 1:5



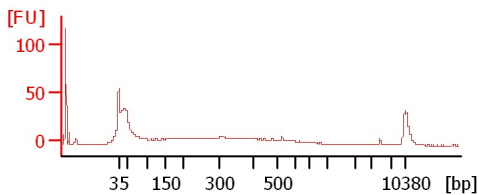
CMW15 350bp 28Cycles 1:5



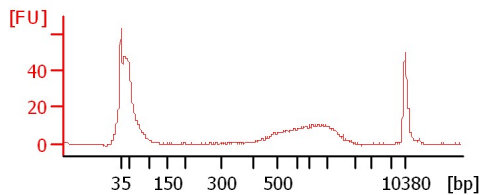
CMW16 350bp 23Cycles 1:5



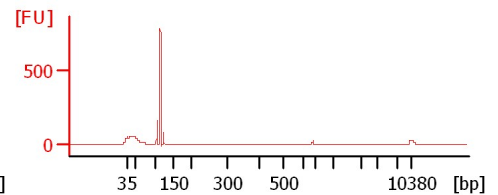
CMW19 350bp 24Cycles 1:2



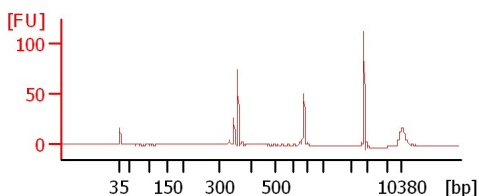
CMW20 350bp 27Cycles 1:20



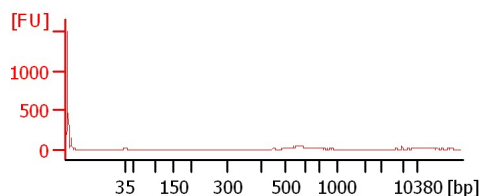
CMW21 350bp 17Cycles 1:23



EK 9



sample 11



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-12\2012-04-12_002.xad

Created: 4/12/2012 10:22:11 AM
 Modified: 4/12/2012 11:16:33 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
CMW2 350bp 29Cycles 1:5		<input type="checkbox"/>	✓			
CMW3 350bp 28Cycles 1:5		<input type="checkbox"/>	✓			
CMW8 350bp 30Cycles 1:5		<input type="checkbox"/>	✓			
CMW12 350bp 23Cycles 1:5		<input type="checkbox"/>	✓			
CMW15 350bp 28Cycles 1:5		<input type="checkbox"/>	✓			
CMW16 350bp 23Cycles 1:5		<input type="checkbox"/>	✓			
CMW19 350bp 24Cycles 1:2		<input type="checkbox"/>	✓			
CMW20 350bp 27Cycles 1:20		<input type="checkbox"/>	✓			
CMW21 350bp 17Cycles 1:23		<input type="checkbox"/>	✓			
EK 9		<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\2012-04-12\2012-04-12_002.xad

Created: 4/12/2012 10:22:11 AM
Modified: 4/12/2012 11:16:33 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

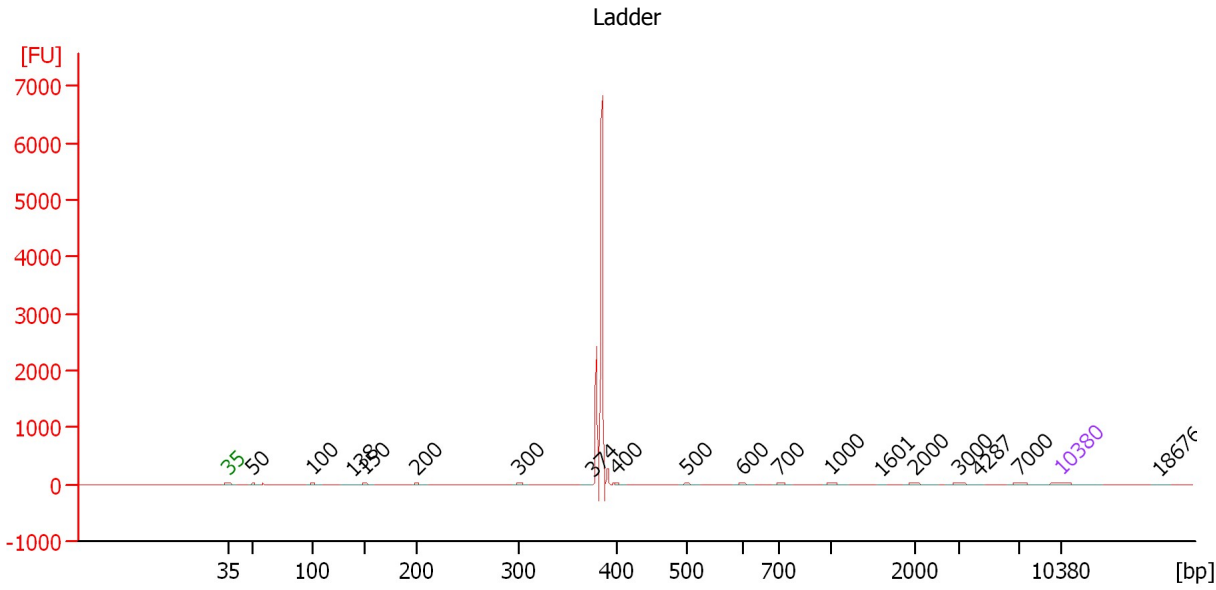
Ladder

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\2012-04-12\2012-04-12_002.xad

Created: 4/12/2012 10:22:11 AM
 Modified: 4/12/2012 11:16:33 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

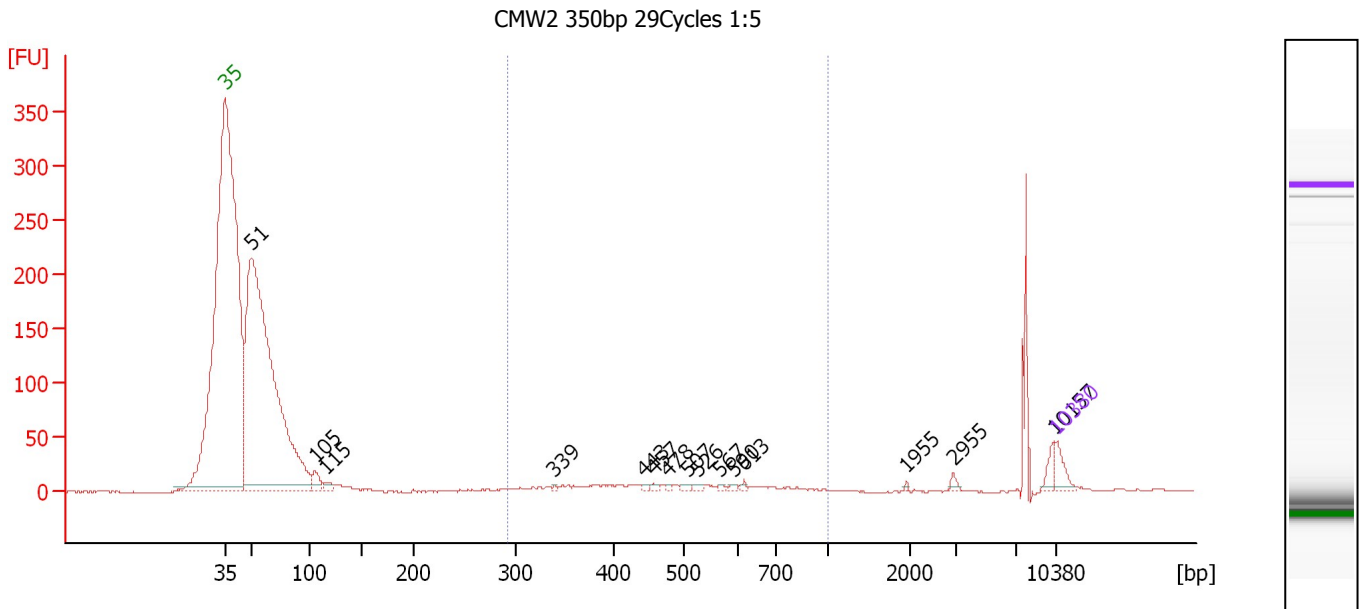
Peak table for Ladder

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	138	0.00	0.0	
5	150	150.00	1,515.2	Ladder Peak
6	200	150.00	1,136.4	Ladder Peak
7	300	150.00	757.6	Ladder Peak
8	374	0.00	0.0	
9	400	150.00	568.2	Ladder Peak
10	500	150.00	454.5	Ladder Peak
11	600	150.00	378.8	Ladder Peak
12	700	150.00	324.7	Ladder Peak
13	1,000	150.00	227.3	Ladder Peak
14	1,601	0.00	0.0	
15	2,000	150.00	113.6	Ladder Peak
16	3,000	150.00	75.8	Ladder Peak
17	4,287	0.00	0.0	
18	7,000	150.00	32.5	Ladder Peak
19	10,380	75.00	10.9	Upper Marker
20	18,676	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-12\2012-04-12_002.xad

Created: 4/12/2012 10:22:11 AM
 Modified: 4/12/2012 11:16:33 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : CMW2 350bp 29Cycles 1:5

Number of peaks found: 15 Corr. Area 1: 158.7
 Noise: 0.7

Peak table for sample 1 : CMW2 350bp 29Cycles 1:5

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	51	5,317.62	158,719.4	
3	105	108.02	1,562.6	
4	115	47.46	625.9	
5	339	10.17	45.5	
6	443	13.19	45.1	
7	457	17.19	57.0	
8	478	13.44	42.6	
9	507	18.59	55.5	
10	526	19.56	56.4	
11	567	11.20	29.9	
12	590	12.59	32.4	
13	613	12.34	30.5	
14	1,955	6.23	4.8	
15	2,955	19.66	10.1	
16	10,157	49.49	7.4	
17	10,380	75.00	10.9	Upper Marker

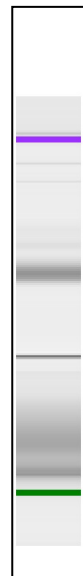
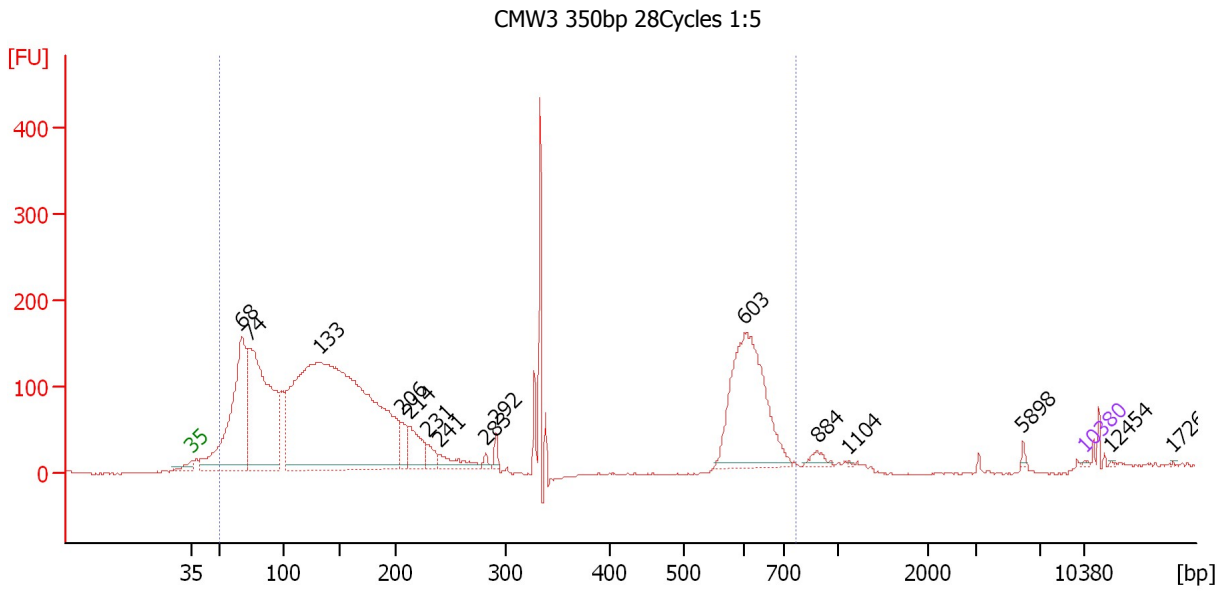
Region table for sample 1 : CMW2 350bp 29Cycles 1:5

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
292	1,524.4	493	448.42	1,000	158.7	10	28.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-12\2012-04-12_002.xad

Created: 4/12/2012 10:22:11 AM
 Modified: 4/12/2012 11:16:33 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : CMW3 350bp 28Cycles 1:5

Number of peaks found: 15 Corr. Area 1: 4,275.0
 Noise: 1.3

Peak table for sample 2 : CMW3 350bp 28Cycles 1:5

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	68	24,731.39	553,917.8	
3	74	31,689.41	653,231.2	
4	133	83,129.12	947,721.0	
5	206	2,388.23	17,576.9	
6	214	4,028.64	28,509.1	
7	231	1,413.15	9,285.7	
8	241	2,266.63	14,264.3	
9	283	460.66	2,467.0	
10	292	700.67	3,634.0	
11	603	17,232.41	43,309.8	
12	884	831.69	1,425.2	
13	1,104	90.16	123.8	
14	5,898	177.38	45.6	
15	10,380	75.00	10.9	Upper Marker
16	12,454	0.00	0.0	
17	17,266	0.00	0.0	

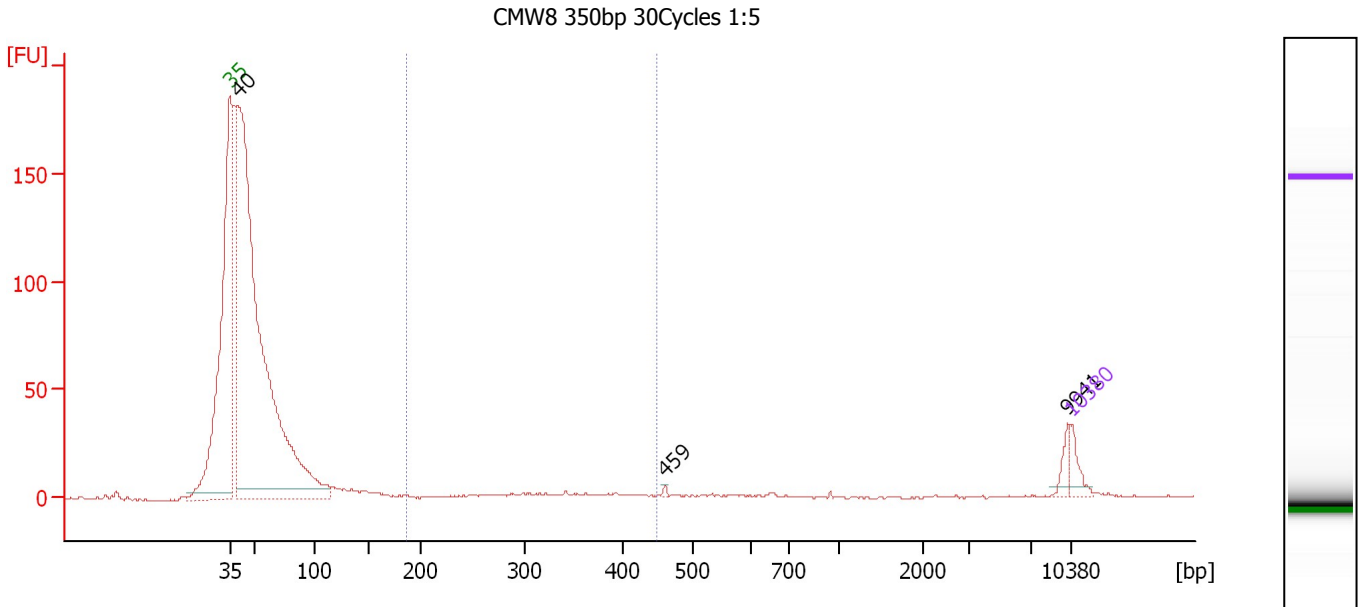
Region table for sample 2 : CMW3 350bp 28Cycles 1:5

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
50	2,134,266.3	252	173,435.53	763	4,275.0	96	81.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-12\2012-04-12_002.xad

Created: 4/12/2012 10:22:11 AM
 Modified: 4/12/2012 11:16:33 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : CMW8 350bp 30Cycles 1:5

Number of peaks found: 3 Corr. Area 1: 39.7
 Noise: 0.5

Peak table for sample 3 : CMW8 350bp 30Cycles 1:5

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	40	6,551.14	248,129.4	
3	459	10.08	33.2	
4	9,941	68.34	10.4	
5	10,380	75.00	10.9	Upper Marker

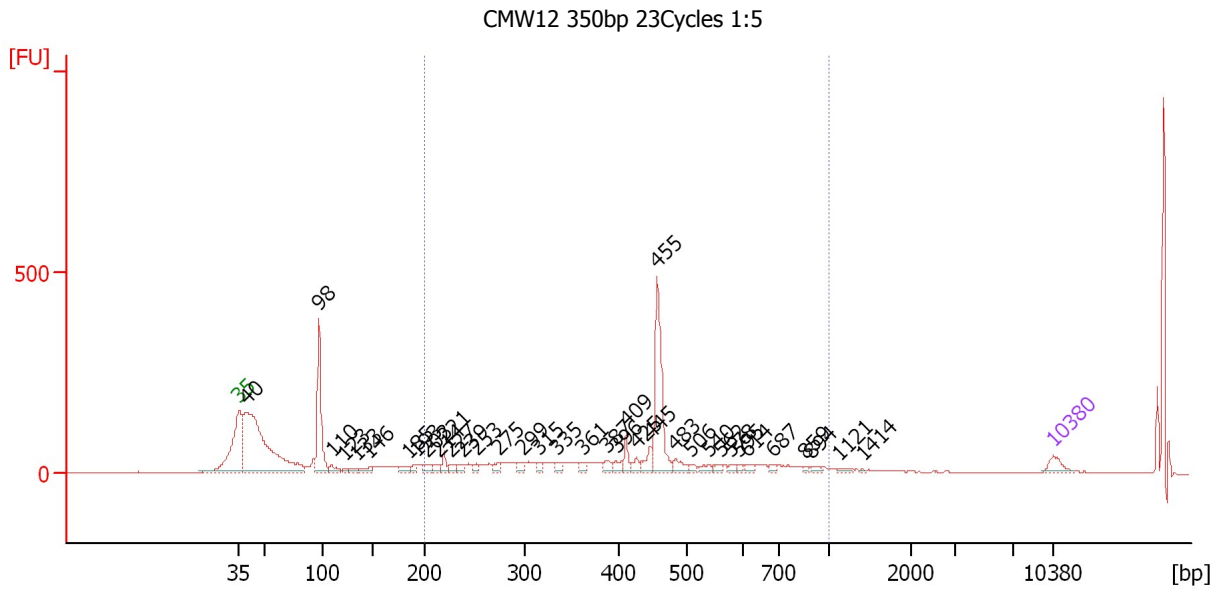
Region table for sample 3 : CMW8 350bp 30Cycles 1:5

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
186	958.1	324	192.80	449	39.7	3	19.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-12\2012-04-12_002.xad

Created: 4/12/2012 10:22:11 AM
 Modified: 4/12/2012 11:16:33 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : CMW12 350bp 23Cycles 1:5

Number of peaks found: 37 Corr. Area 1: 1,462.3
 Noise: 0.3

Peak table for sample 4 : CMW12 350bp 23Cycles 1:5

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	40	2,673.02	102,524.0	
3	98	923.08	14,339.8	
4	110	72.44	1,001.8	
5	123	26.61	327.9	
6	133	43.47	494.3	
7	146	64.38	670.0	
8	185	71.23	582.1	
9	193	45.97	361.3	
10	203	69.54	519.6	
11	214	54.51	386.2	
12	221	82.97	569.6	
13	227	56.76	379.7	
14	239	61.75	391.2	
15	253	53.07	318.0	
16	275	60.64	334.7	
17	299	68.87	349.2	
18	315	49.37	237.5	
19	335	59.64	269.8	
20	361	50.16	210.8	
21	387	59.24	232.1	
22	396	65.70	251.3	
23	409	106.01	392.4	
24	425	70.53	251.5	
25	445	113.33	385.6	
26	455	843.71	2,807.2	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-12\2012-04-12_002.xad


Created: 4/12/2012 10:22:11 AM
 Modified: 4/12/2012 11:16:33 AM

Electropherogram Summary Continued ...

... Peak table for sample 4 : CMW12 350bp 23Cycles 1:5

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
27	483	98.17	308.2	
28	506	30.50	91.4	
29	540	51.40	144.3	
30	562	30.28	81.6	
31	578	30.86	80.8	
32	595	24.83	63.2	
33	614	36.17	89.2	
34	687	29.69	65.5	
35	859	18.42	32.5	
36	894	28.90	49.0	
37	1,121	23.01	31.1	
38	1,414	8.32	8.9	
39	▶ 10,380	75.00	10.9	Upper Marker

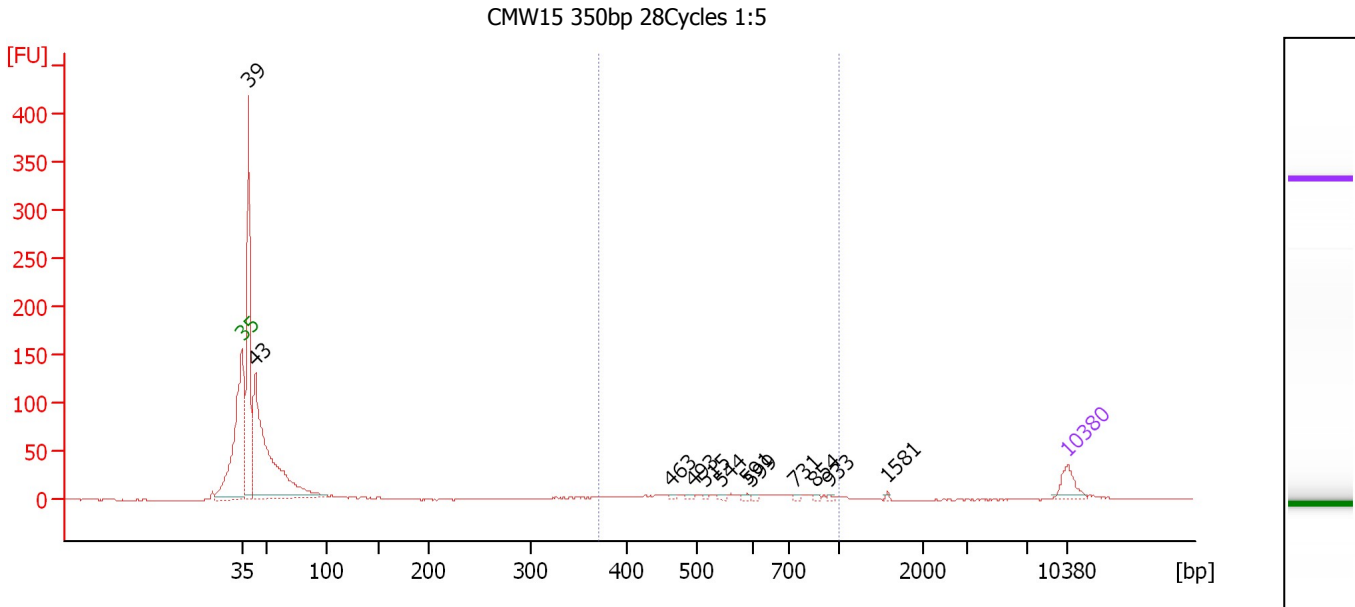
Region table for sample 4 : CMW12 350bp 23Cycles 1:5

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/µl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	13,324.5	441	3,289.98	1,000	1,462.3	46	34.5	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-12\2012-04-12_002.xad

Created: 4/12/2012 10:22:11 AM
 Modified: 4/12/2012 11:16:33 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : CMW15 350bp 28Cycles 1:5

Number of peaks found: 12 Corr. Area 1: 92.7
 Noise: 0.2

Peak table for sample 5 : CMW15 350bp 28Cycles 1:5

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	39	1,169.99	45,281.1	
3	43	1,627.71	57,382.2	
4	463	9.93	32.5	
5	493	13.19	40.5	
6	515	10.07	29.7	
7	544	14.05	39.2	
8	591	11.68	30.0	
9	599	10.15	25.7	
10	731	10.05	20.8	
11	854	7.89	14.0	
12	933	7.83	12.7	
13	1,581	6.49	6.2	
14	10,380	75.00	10.9	Upper Marker

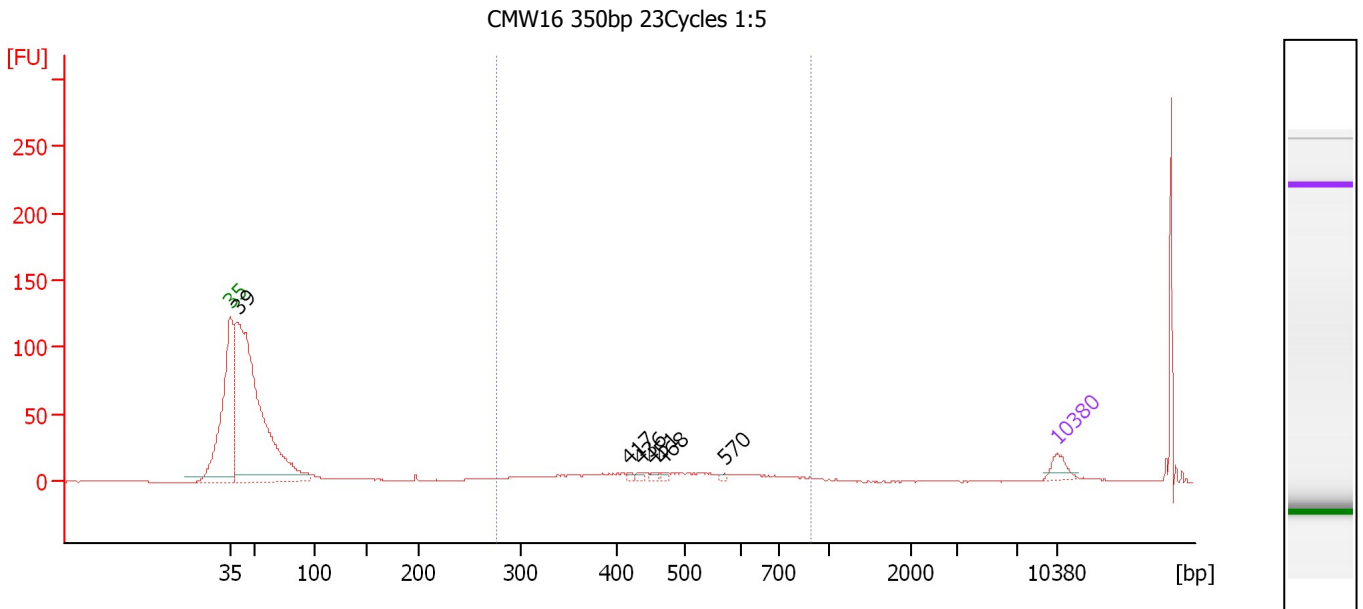
Region table for sample 5 : CMW15 350bp 28Cycles 1:5

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
370	612.1	585	218.88	1,000	92.7	10	25.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-12\2012-04-12_002.xad

Created: 4/12/2012 10:22:11 AM
 Modified: 4/12/2012 11:16:33 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : CMW16 350bp 23Cycles 1:5

Number of peaks found: 6 Corr. Area 1: 155.2
 Noise: 0.3

Peak table for sample 6 : CMW16 350bp 23Cycles 1:5

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	39	4,344.22	166,807.0	
3	417	18.38	66.8	
4	436	24.10	83.8	
5	451	22.03	74.0	
6	468	16.98	55.0	
7	570	16.00	42.6	
8	10,380	75.00	10.9	Upper Marker

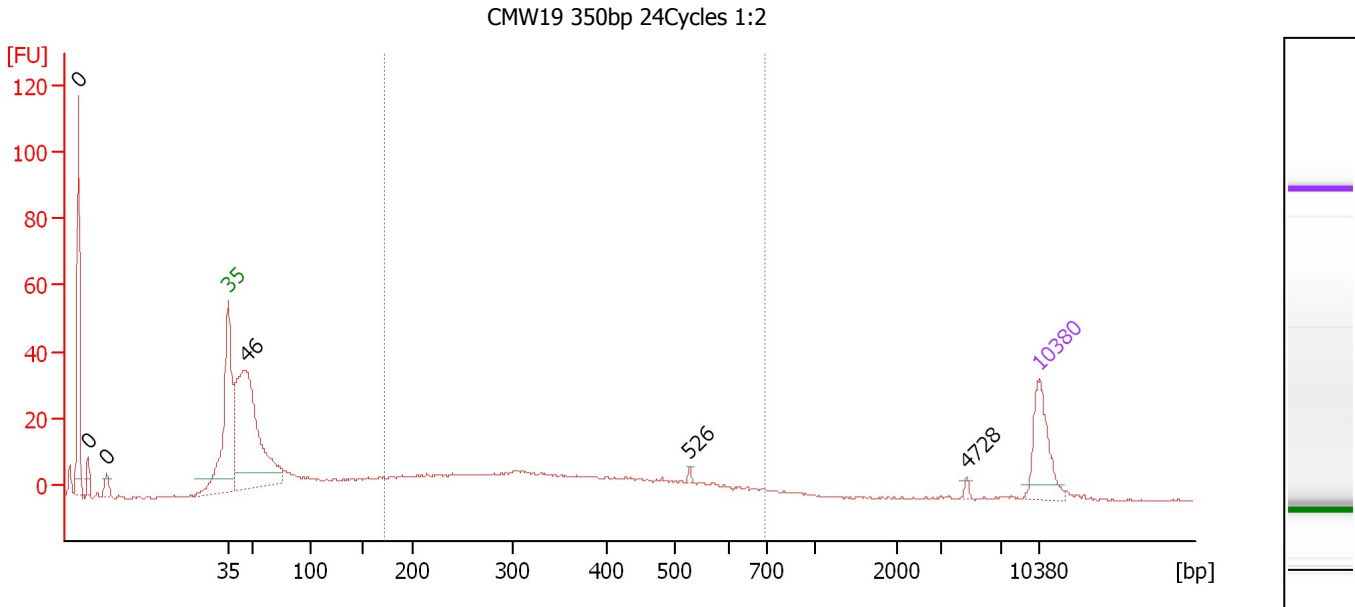
Region table for sample 6 : CMW16 350bp 23Cycles 1:5

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
277	2,216.6	479	633.61	891	155.2	16	27.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-12\2012-04-12_002.xad

Created: 4/12/2012 10:22:11 AM
 Modified: 4/12/2012 11:16:33 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : CMW19 350bp 24Cycles 1:2

Number of peaks found: 6 Corr. Area 1: 227.8
 Noise: 0.2

Peak table for sample 7 : CMW19 350bp 24Cycles 1:2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	
2	0	0.00	0.0	
3	0	0.00	0.0	
4	35	125.00	5,411.3	Lower Marker
5	46	607.85	20,147.4	
6	526	4.07	11.7	
7	4,728	4.36	1.4	
8	10,380	75.00	10.9	Upper Marker

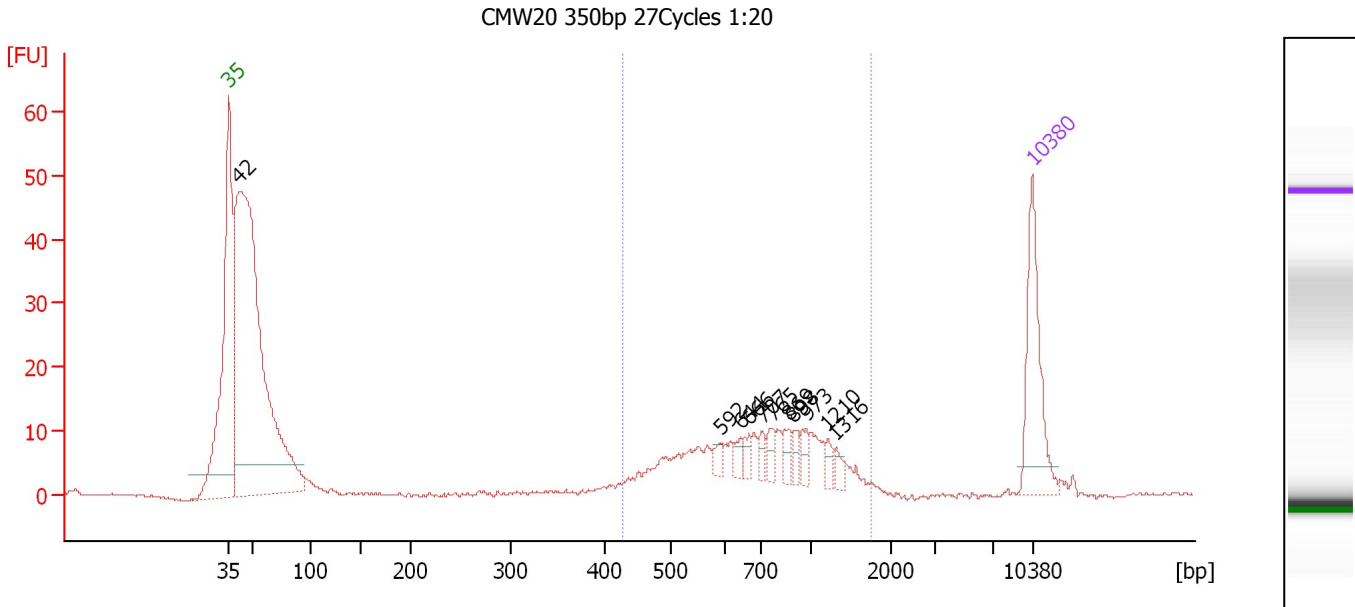
Region table for sample 7 : CMW19 350bp 24Cycles 1:2

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
172	2,849.9	359	565.59	695	227.8	37	34.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-12\2012-04-12_002.xad

Created: 4/12/2012 10:22:11 AM
 Modified: 4/12/2012 11:16:33 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : CMW20 350bp 27Cycles 1:20

Number of peaks found: 11 Corr. Area 1: 157.2
 Noise: 0.1

Peak table for sample 8 : CMW20 350bp 27Cycles 1:20

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	42	874.10	31,869.5	
3	592	8.58	22.0	
4	644	8.68	20.4	
5	666	8.69	19.8	
6	707	9.51	20.4	
7	765	12.31	24.4	
8	869	12.73	22.2	
9	898	9.82	16.6	
10	973	11.54	18.0	
11	1,210	8.01	10.0	
12	1,316	7.97	9.2	
13	10,380	75.00	10.9	Upper Marker

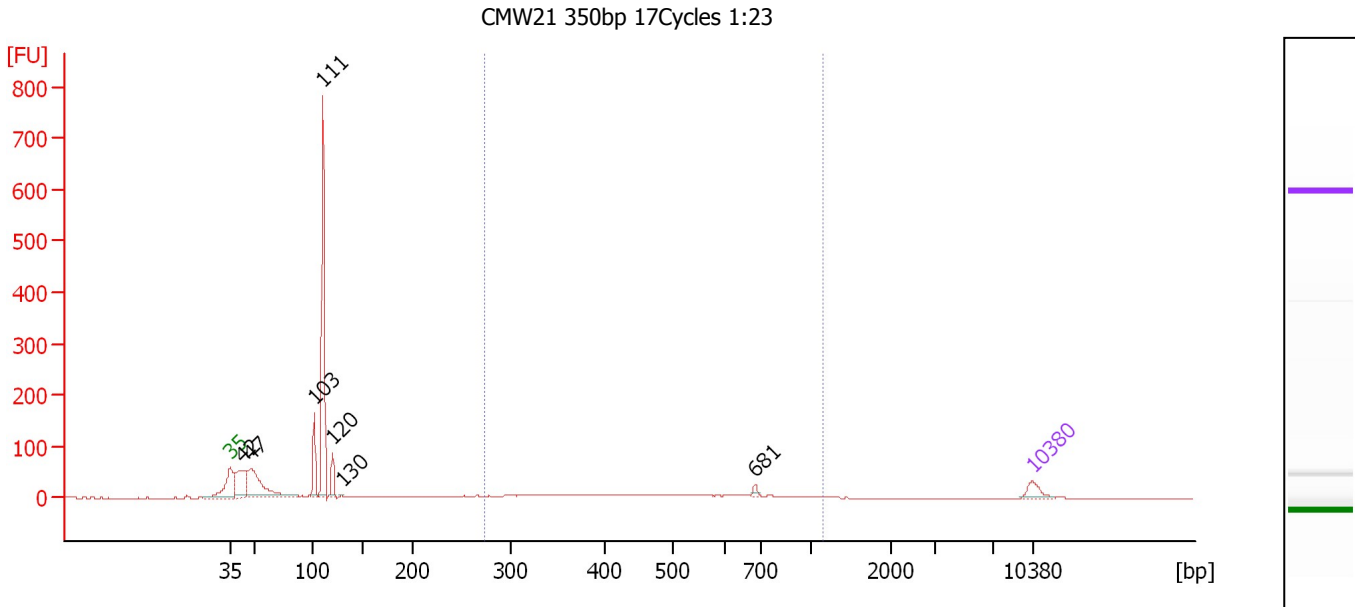
Region table for sample 8 : CMW20 350bp 27Cycles 1:20

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
427	603.4	796	274.76	1,742	157.2	35	36.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-12\2012-04-12_002.xad

Created: 4/12/2012 10:22:11 AM
 Modified: 4/12/2012 11:16:33 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : CMW21 350bp 17Cycles 1:23

Number of peaks found: 7 Corr. Area 1: 196.5
 Noise: 0.2

Peak table for sample 9 : CMW21 350bp 17Cycles 1:23

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	42	437.72	15,705.9	
3	47	790.59	25,227.3	
4	103	336.49	4,971.8	
5	111	1,545.33	21,102.5	
6	120	165.04	2,076.6	
7	130	10.13	118.1	
8	681	26.19	58.3	
9	10,380	75.00	10.9	Upper Marker

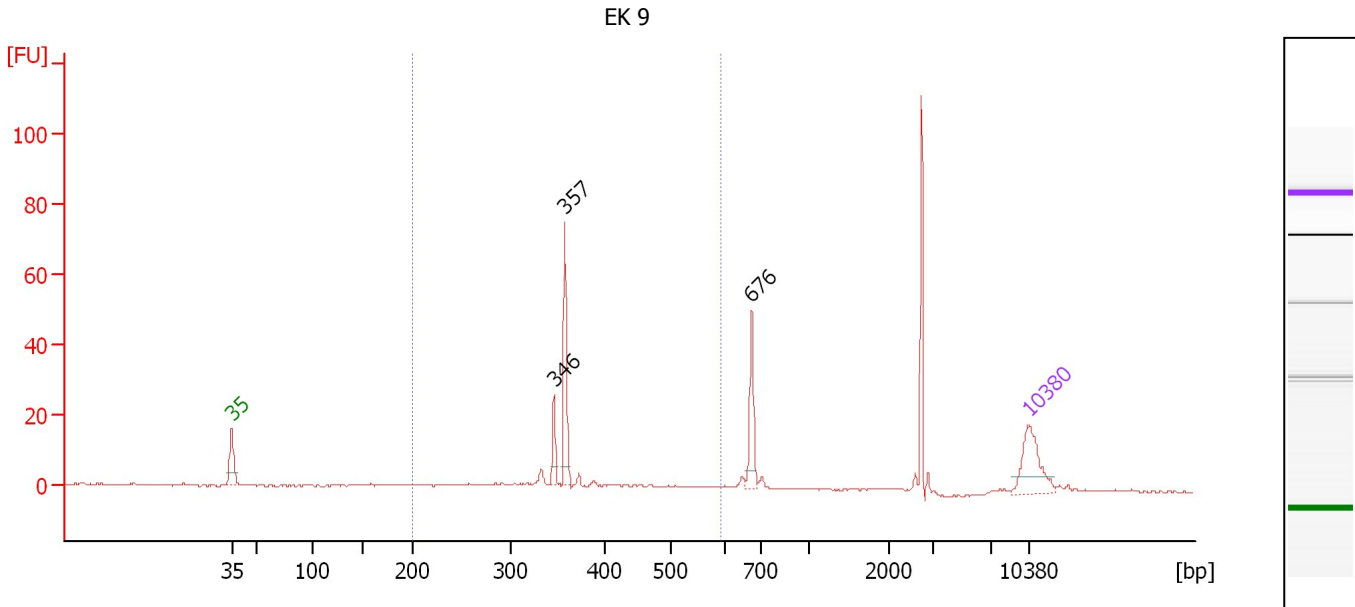
Region table for sample 9 : CMW21 350bp 17Cycles 1:23

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
272	1,825.1	517	528.31	1,142	196.5	17	35.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-12\2012-04-12_002.xad

Created: 4/12/2012 10:22:11 AM
 Modified: 4/12/2012 11:16:33 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : EK 9

Number of peaks found: 3 Corr. Area 1: 74.5
 Noise: 0.2

Peak table for sample 10 : EK 9

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	346	39.64	173.7	
3	357	123.08	522.0	
4	676	78.35	175.6	
5	10,380	75.00	10.9	Upper Marker

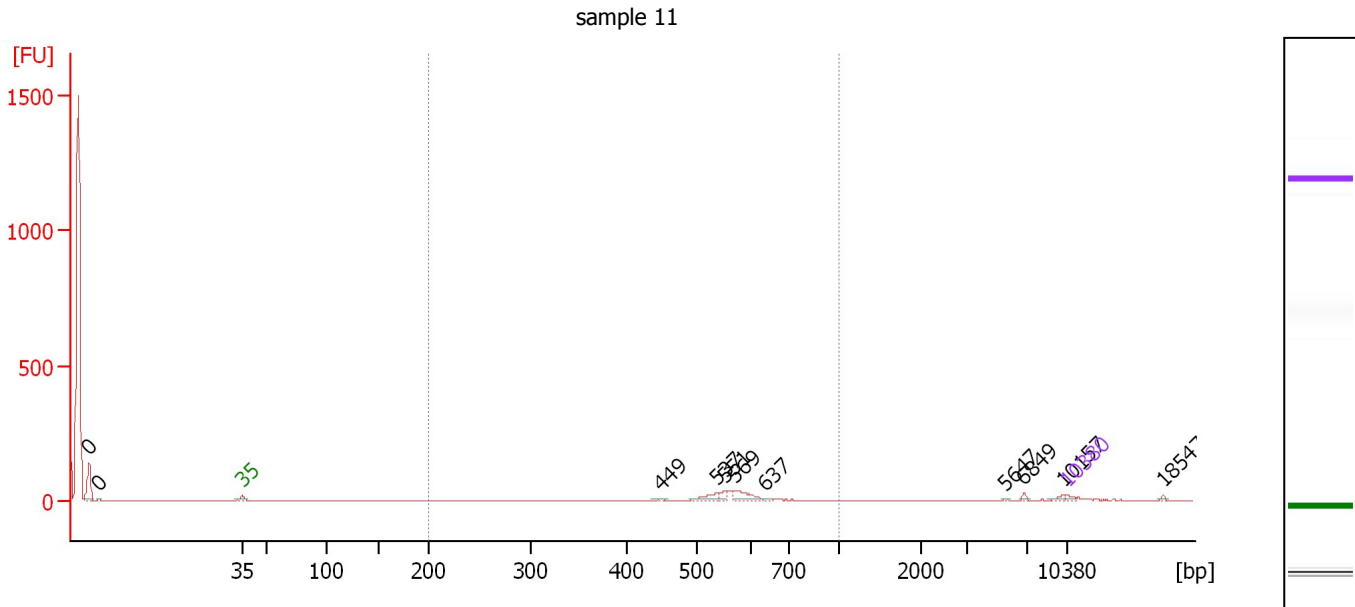
Region table for sample 10 : EK 9

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,233.1	360	281.52	595	74.5	51	17.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-12\2012-04-12_002.xad

Created: 4/12/2012 10:22:11 AM
 Modified: 4/12/2012 11:16:33 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 11

Number of peaks found: 11 Corr. Area 1: 0.0
 Noise: 0.1

Peak table for sample 11 : sample 11

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	
2	0	0.00	0.0	
3	35	125.00	5,411.3	Lower Marker
4	449	46.32	156.2	
5	537	309.21	872.8	
6	551	154.49	424.7	
7	569	477.28	1,270.1	
8	637	41.36	98.3	
9	5,647	15.00	4.0	
10	6,849	56.16	12.4	
11	10,157	66.05	9.9	
12	10,380	75.00	10.9	Upper Marker
13	18,547	0.00	0.0	

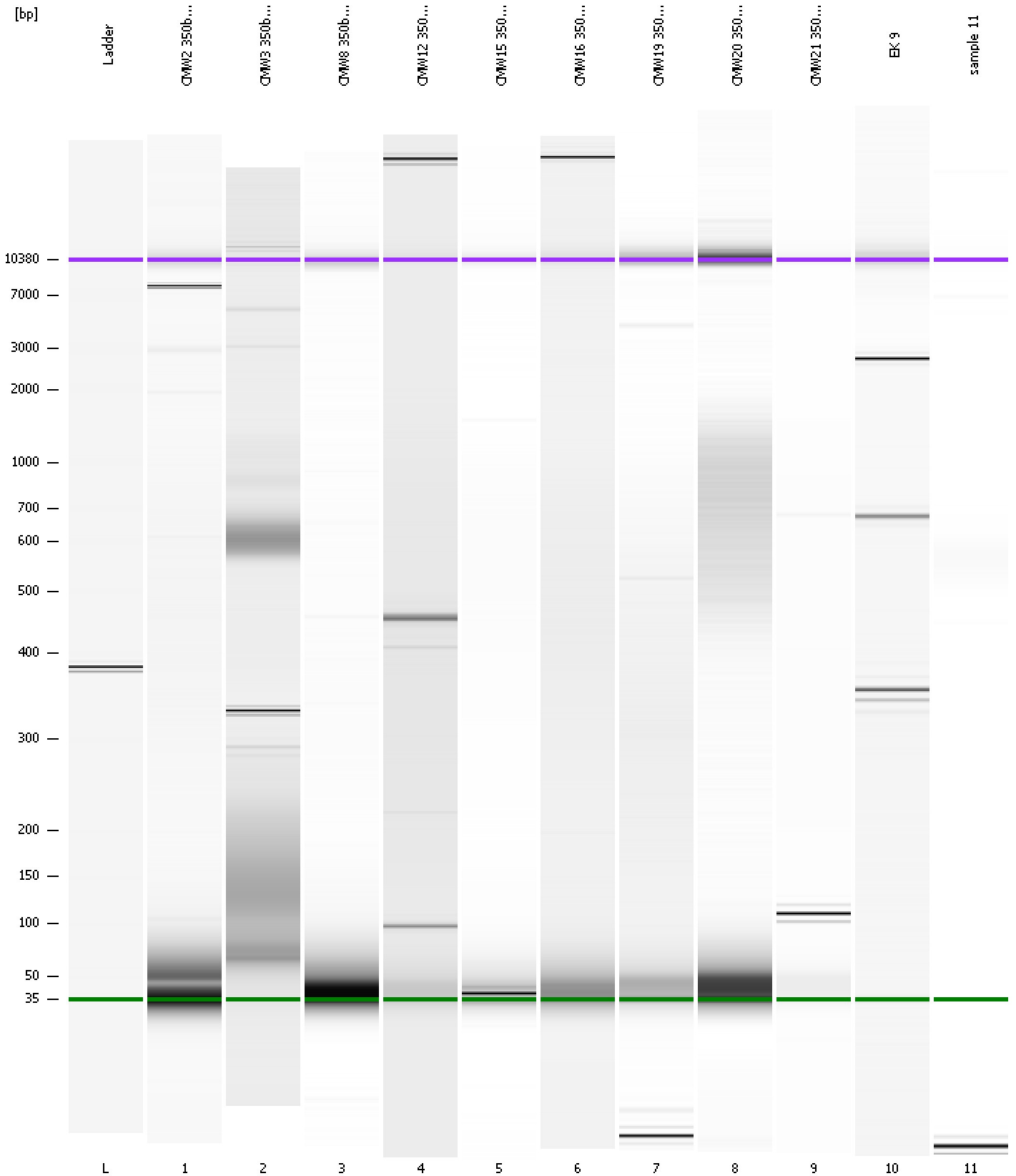
Region table for sample 11 : sample 11

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	0.0	0	0.00	1,000	0.0	0	0.0	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-12\2012-04-12_002.xad

Created: 4/12/2012 10:22:11 AM
Modified: 4/12/2012 11:16:33 AM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-12\2012-04-12_002.xad

Created: 4/12/2012 10:22:11 AM
 Modified: 4/12/2012 11:16:33 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		4/12/2012 11:03:30 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2012-04-12\2012-04-12_002.xad)		Instrument	Run		4/12/2012 10:22:17 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/12/2012 10:22:17 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/12/2012 10:22:17 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/12/2012 10:22:17 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/12/2012 10:22:17 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/12/2012 10:22:17 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/12/2012 10:22:17 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1