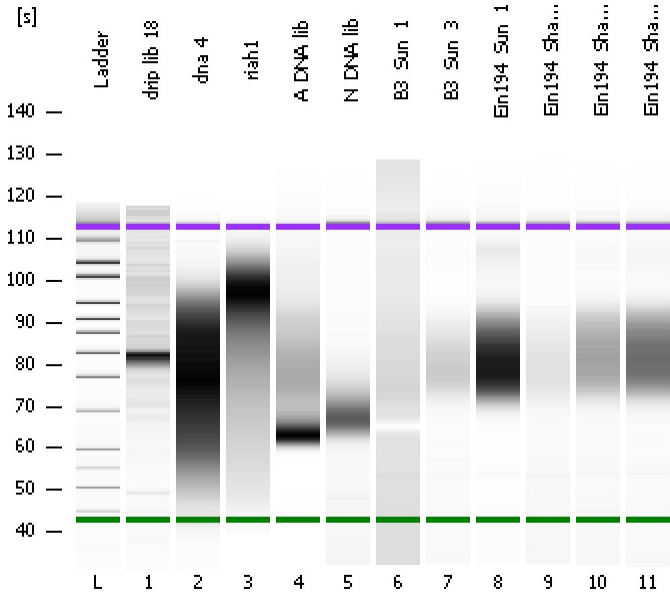


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-19\2013-04-19_002.xad

Created: 4/19/2013 11:25:54 AM
Modified: 4/19/2013 12:08:38 PM

Electrophoresis File Run Summary



Instrument Information:

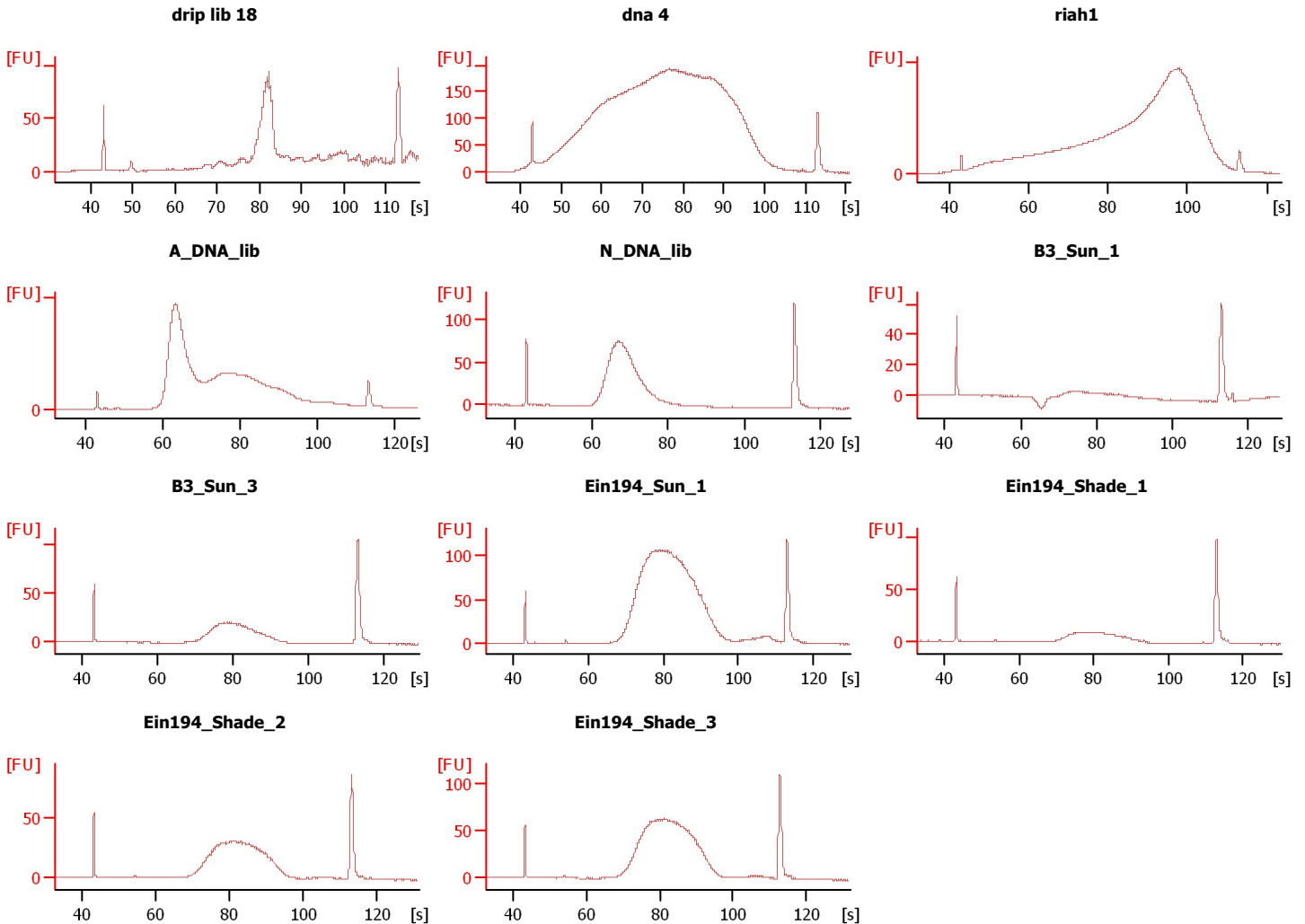
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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:



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-19\2013-04-19_002.xad

Created: 4/19/2013 11:25:54 AM
Modified: 4/19/2013 12:08:38 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
drip lib 18		<input type="checkbox"/>	✓			
dna 4		<input type="checkbox"/>	✓			
riah1		<input type="checkbox"/>	✓			
A_DNA_lib		<input type="checkbox"/>	✓			
N_DNA_lib		<input type="checkbox"/>	✓			
B3_Sun_1		<input type="checkbox"/>	✓			
B3_Sun_3		<input type="checkbox"/>	✓			
Ein194_Sun_1		<input type="checkbox"/>	✓			
Ein194_Shade_1		<input type="checkbox"/>	✓			
Ein194_Shade_2		<input type="checkbox"/>	✓			
Ein194_Shade_3		<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\2013-04-19\2013-04-19_002.xad

Created: 4/19/2013 11:25:54 AM
Modified: 4/19/2013 12:08:38 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

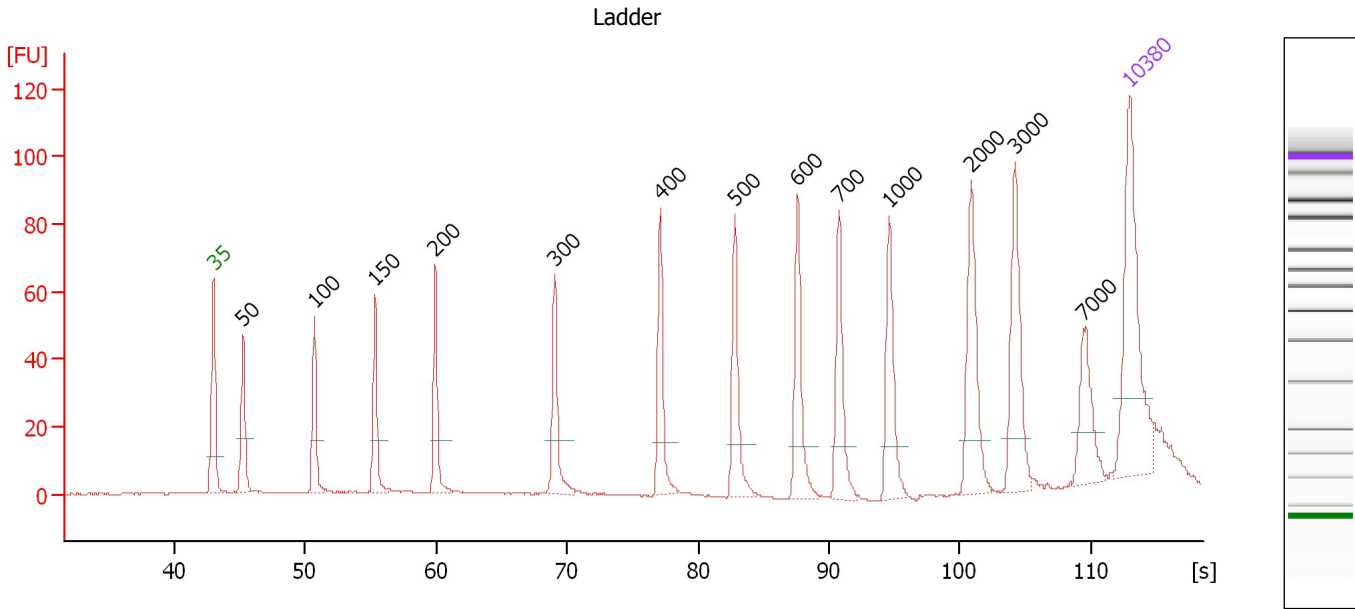
Ladder

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\2013-04-19\2013-04-19_002.xad

Created: 4/19/2013 11:25:54 AM
 Modified: 4/19/2013 12:08:38 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

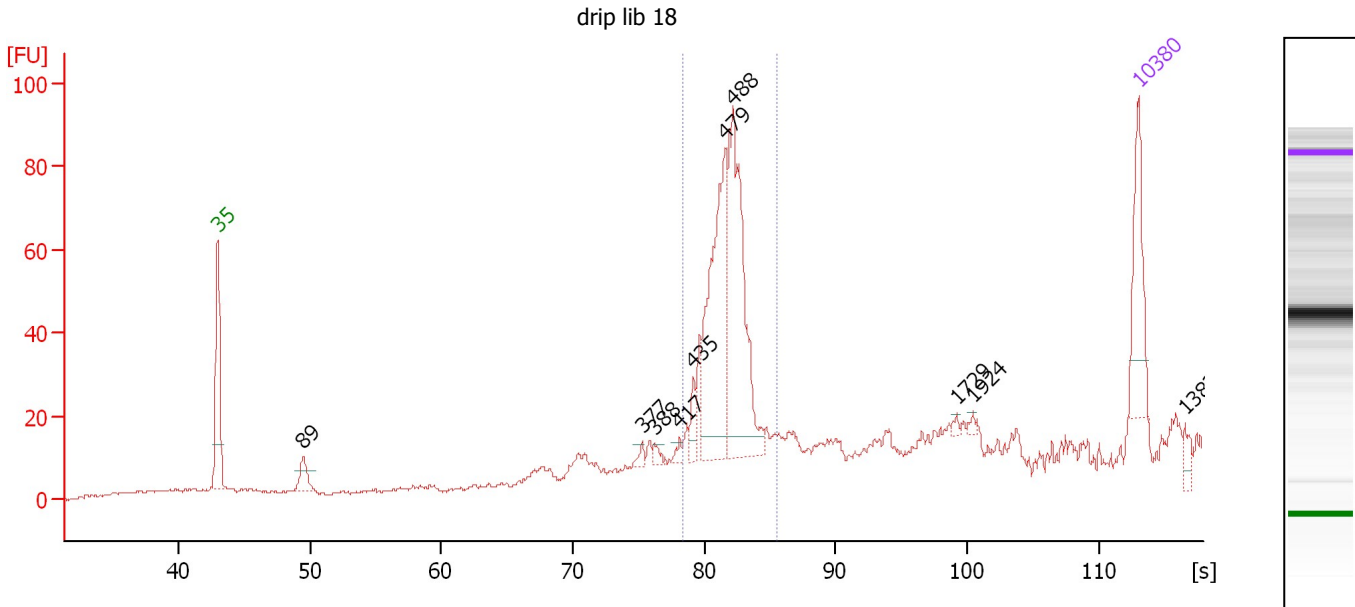
Peak table for Ladder

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\2013-04-19\2013-04-19_002.xad

Created: 4/19/2013 11:25:54 AM
 Modified: 4/19/2013 12:08:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : drip lib 18

Number of peaks found: 10 Corr. Area 1: 337.7
 Noise: 0.4

Peak table for sample 1 : drip lib 18

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	89	32.81	557.8	
3	377	7.79	31.3	
4	388	7.99	31.2	
5	417	7.14	25.9	
6	435	20.99	73.2	
7	479	253.43	802.2	
8	488	278.79	865.5	
9	1,729	3.64	3.2	
10	1,924	4.03	3.2	
11	10,380	75.00	10.9	Upper Marker
12	13,823	0.00	0.0	

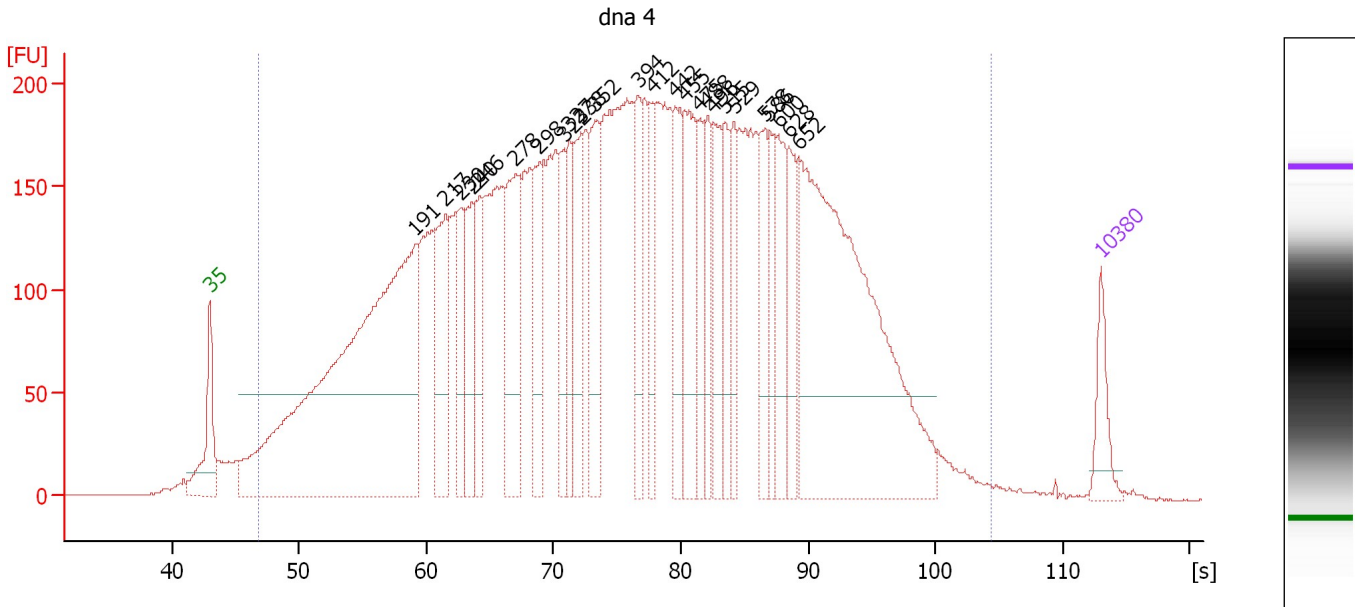
Region table for sample 1 : drip lib 18

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
78.31	85.50	480	1,985.2	627.79	337.7 68	5.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-19\2013-04-19_002.xad

Created: 4/19/2013 11:25:54 AM
 Modified: 4/19/2013 12:08:38 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 2 : dna 4

Height Threshold [FU] : 50

Overall Results for sample 2 : dna 4

Number of peaks found: 25 Corr. Area 1: 10,292.2
 Noise: 0.2

Peak table for sample 2 : dna 4

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	191	2,318.56	18,349.2	
3	217	334.41	2,336.5	
4	230	175.91	1,157.4	
5	240	253.84	1,602.5	
6	246	188.27	1,157.2	
7	278	397.76	2,171.5	
8	298	223.16	1,133.2	
9	322	168.03	791.5	
10	327	169.01	783.4	
11	338	231.75	1,039.3	
12	352	271.55	1,169.1	
13	394	188.19	723.3	
14	412	157.75	580.3	
15	442	209.12	716.2	
16	455	295.43	983.6	
17	475	154.35	492.1	
18	488	141.83	440.5	
19	496	203.37	621.2	
20	515	155.88	459.0	
21	529	141.93	406.9	
22	578	167.33	438.5	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-19\2013-04-19_002.xad

Created: 4/19/2013 11:25:54 AM
 Modified: 4/19/2013 12:08:38 PM

Electropherogram Summary Continued ...

... Peak table for sample 2 : dna 4

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
23	586	127.86	330.6	
24	600	175.46	443.1	
25	628	161.41	389.4	
26	652	1,292.88	3,004.2	
27	10,380	75.00	10.9	Upper Marker

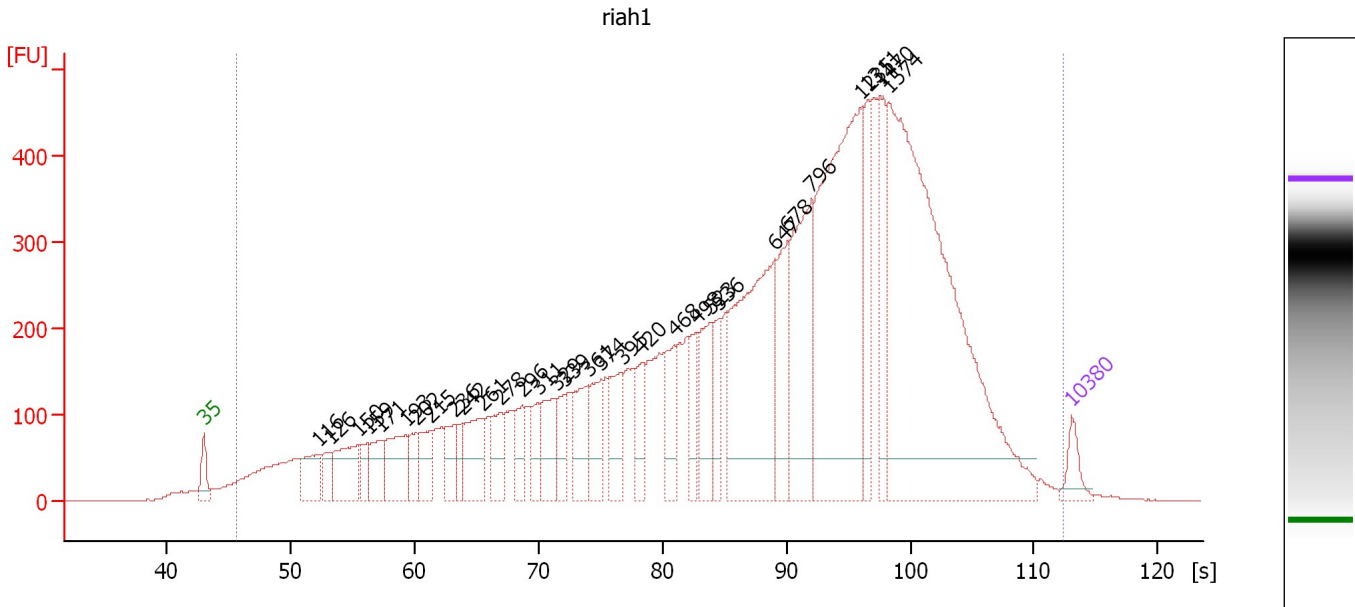
Region table for sample 2 : dna 4

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
46.85	104.43	463	71,483.5	12,399.50	10,292.2	98	70.4	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-19\2013-04-19_002.xad

Created: 4/19/2013 11:25:54 AM
 Modified: 4/19/2013 12:08:38 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 3 : riah1

Height Threshold [FU] : 50

Overall Results for sample 3 : riah1

Number of peaks found: 31 Corr. Area 1: 14,222.4
 Noise: 0.3

Peak table for sample 3 : riah1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	116	270.99	3,533.4	
3	126	141.28	1,693.6	
4	150	376.40	3,789.5	
5	159	125.71	1,194.4	
6	171	221.45	1,964.7	
7	193	344.95	2,708.9	
8	202	144.78	1,086.4	
9	215	208.46	1,467.4	
10	236	180.07	1,157.5	
11	242	107.56	672.4	
12	261	329.94	1,916.0	
13	278	212.79	1,161.5	
14	296	183.82	942.0	
15	311	140.10	682.1	
16	329	271.52	1,250.9	
17	339	142.31	636.9	
18	361	278.28	1,167.8	
19	374	220.99	894.2	
20	395	262.29	1,006.5	
21	420	187.38	675.6	
22	468	201.62	653.2	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-19\2013-04-19_002.xad


Created: 4/19/2013 11:25:54 AM
 Modified: 4/19/2013 12:08:38 PM

Electropherogram Summary Continued ...

... Peak table for sample 3 : ria1

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
23	498	181.34	551.4	
24	523	295.58	856.2	
25	536	208.89	590.0	
26	647	1,122.02	2,628.8	
27	678	367.73	821.5	
28	796	668.93	1,273.4	
29	1,235	1,505.54	1,846.4	
30	1,311	278.12	321.3	
31	1,470	235.39	242.6	
32	1,574	2,419.32	2,329.2	
33	10,380	75.00	10.9	Upper Marker

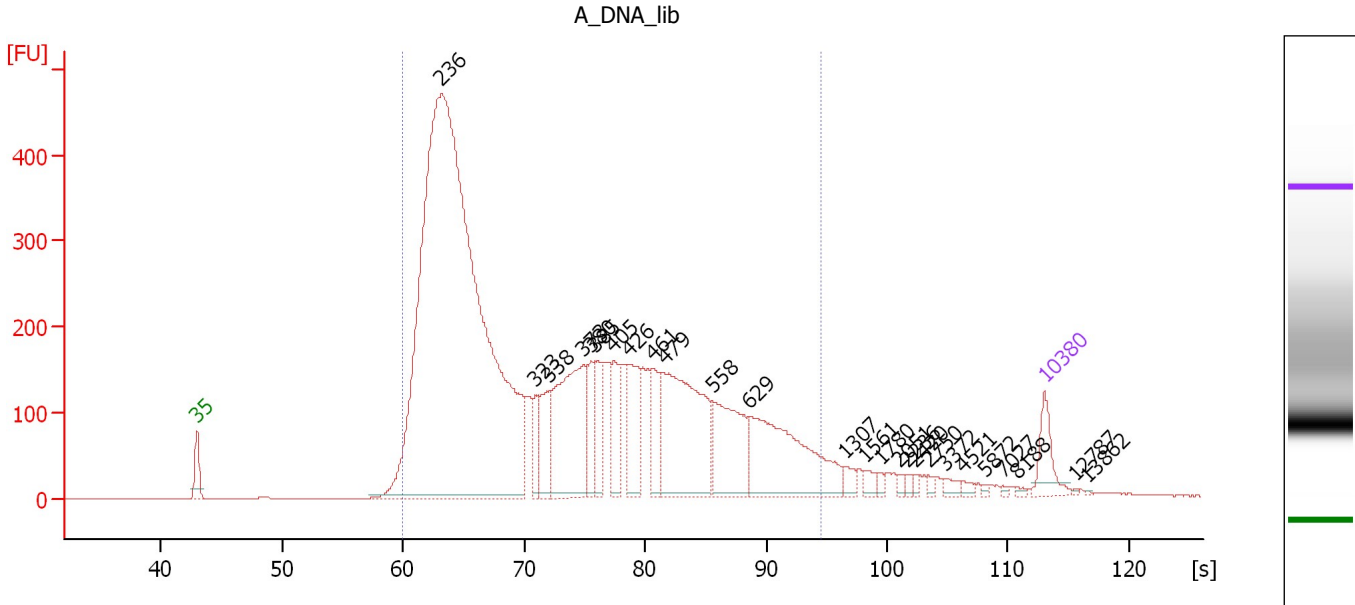
Region table for sample 3 : ria1

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
45.69	112.30	1,140	64,005.8	14,740.75	14,222.4	99	100.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-19\2013-04-19_002.xad

Created: 4/19/2013 11:25:54 AM
 Modified: 4/19/2013 12:08:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : A_DNA_lib

Number of peaks found: 26 Corr. Area 1: 8,129.0
 Noise: 0.3

Peak table for sample 4 : A_DNA_lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	236	4,593.27	29,546.5	
3	323	93.92	440.0	
4	338	158.35	710.5	
5	373	523.60	2,128.1	
6	380	109.03	434.2	
7	385	117.07	460.9	
8	405	143.56	537.0	
9	426	199.88	710.6	
10	461	129.67	426.5	
11	479	583.62	1,847.3	
12	558	295.39	802.8	
13	629	474.86	1,143.9	
14	1,307	26.99	31.3	
15	1,561	23.29	22.6	
16	1,780	12.99	11.1	
17	2,051	9.49	7.0	
18	2,236	9.43	6.4	
19	2,420	9.84	6.2	
20	2,750	10.38	5.7	
21	3,372	17.67	7.9	
22	4,521	11.81	4.0	
23	5,872	4.66	1.2	
24	7,027	4.85	1.0	
25	8,188	4.71	0.9	
26	10,380	75.00	10.9	Upper Marker


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-19\2013-04-19_002.xad

Created: 4/19/2013 11:25:54 AM
Modified: 4/19/2013 12:08:38 PM

Electropherogram Summary Continued ...**... Peak table for sample 4 : A DNA lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	12,787	0.00	0.0	
28	13,862	0.00	0.0	

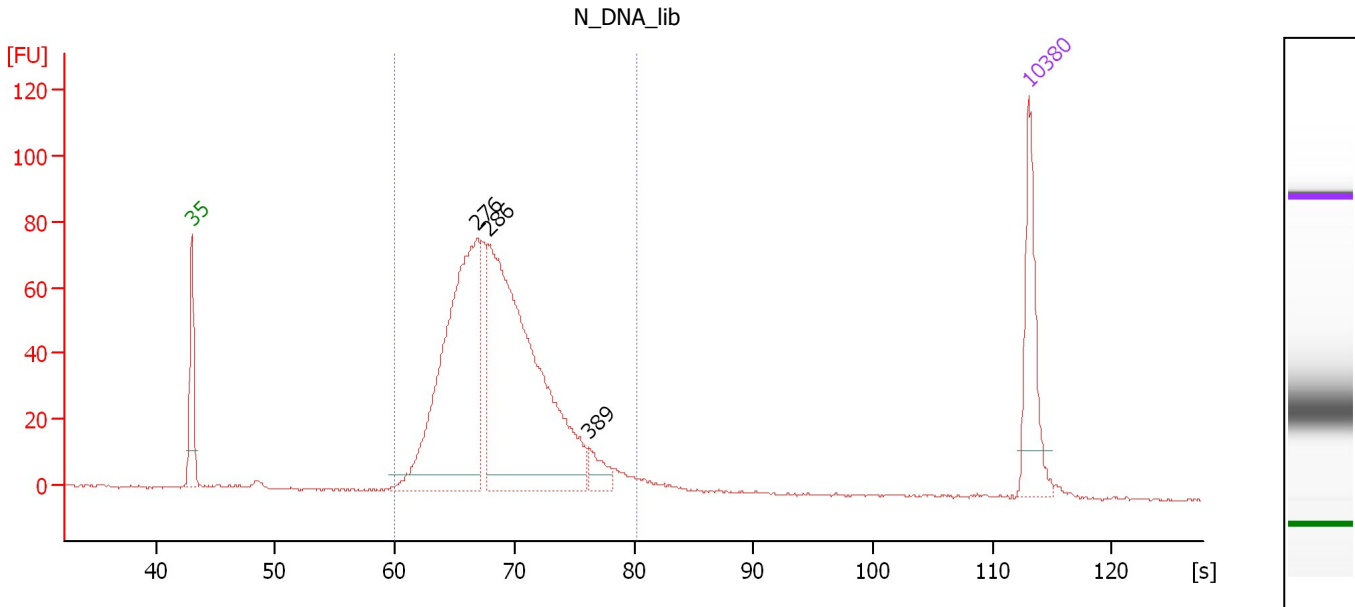
Region table for sample 4 : A DNA lib

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
59.95	94.62	376	37,523.1	7,570.35	8,129.0 94	42.6	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-19\2013-04-19_002.xad

Created: 4/19/2013 11:25:54 AM
 Modified: 4/19/2013 12:08:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : N_DNA_lib

Number of peaks found: 3 Corr. Area 1: 1,048.7
 Noise: 0.4

Peak table for sample 5 : N_DNA_lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	276	461.92	2,532.4	
3	286	572.60	3,031.0	
4	389	25.99	101.2	
5	10,380	75.00	10.9	Upper Marker

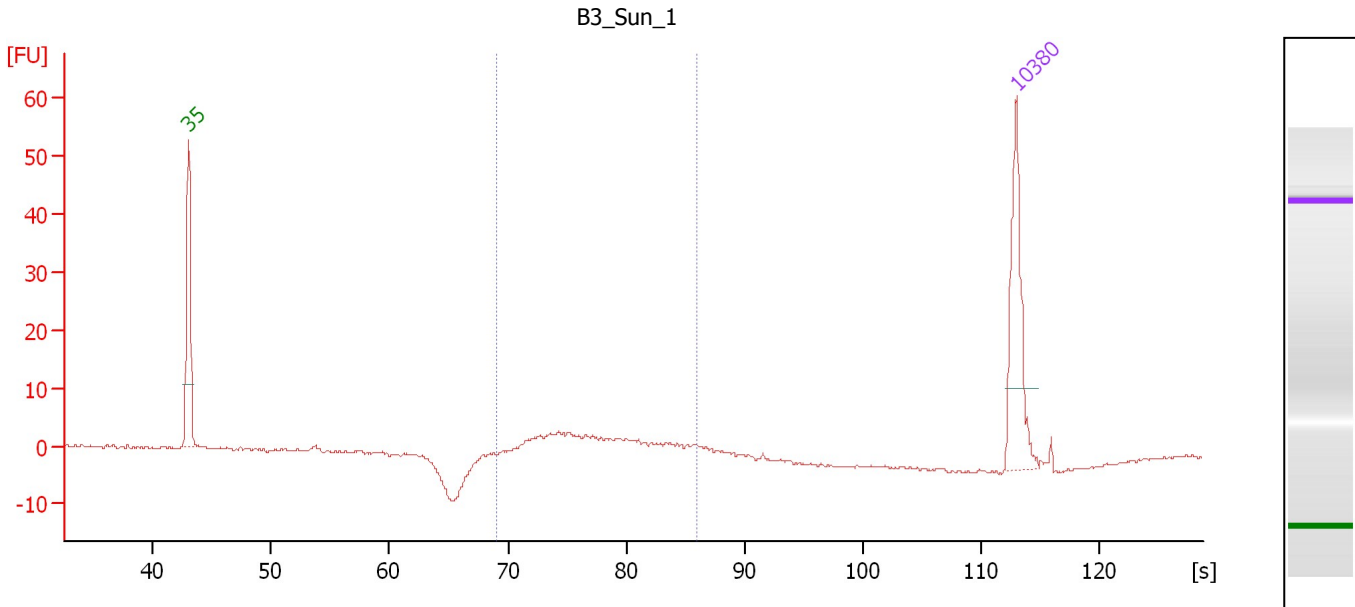
Region table for sample 5 : N_DNA_lib

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.95	80.18	298	5,793.6	1,110.38	1,048.7	98	15.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-19\2013-04-19_002.xad

Created: 4/19/2013 11:25:54 AM
 Modified: 4/19/2013 12:08:38 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 6 : B3 Sun 1

Height Threshold [FU] : 1

Overall Results for sample 6 : B3 Sun 1

Number of peaks found: 0 Corr. Area 1: 38.2
 Noise: 0.2

Peak table for sample 6 : B3 Sun 1

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

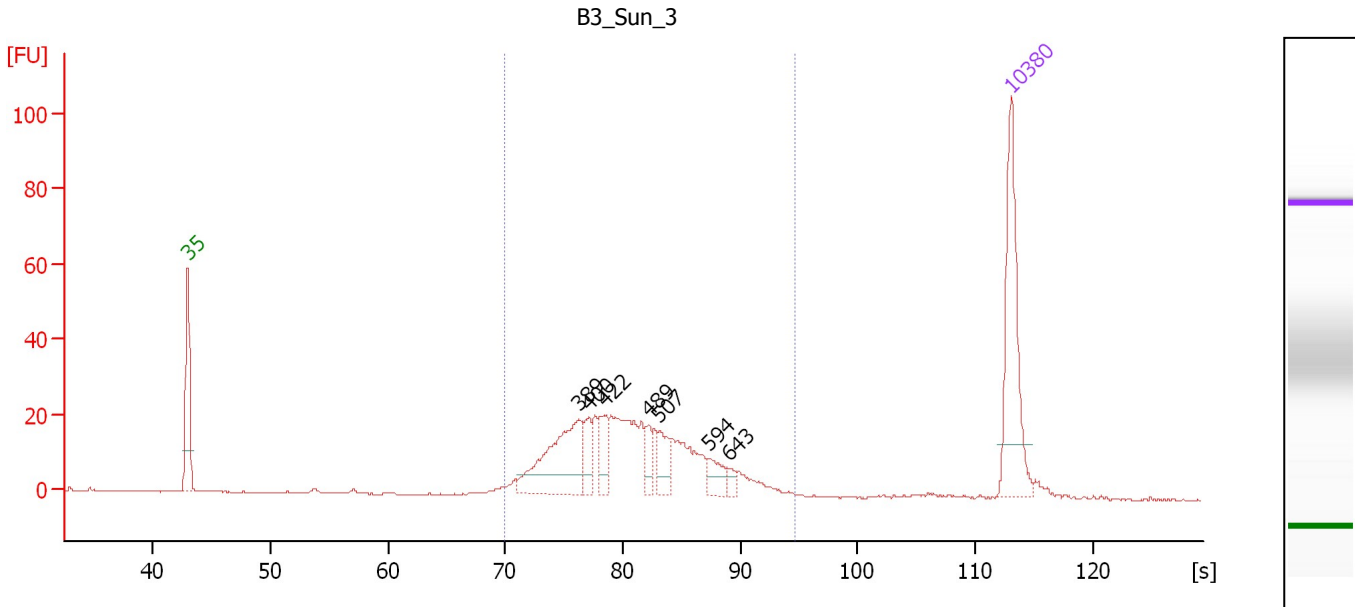
Region table for sample 6 : B3 Sun 1

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color	
69.10	85.98	414	262.8	69.83	38.2	94	15.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-19\2013-04-19_002.xad

Created: 4/19/2013 11:25:54 AM
 Modified: 4/19/2013 12:08:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : B3_Sun_3

Number of peaks found: 7 Corr. Area 1: 374.7
 Noise: 0.2

Peak table for sample 7 : B3_Sun_3

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	389	92.73	361.0	
3	400	20.86	79.0	
4	422	23.90	85.7	
5	489	13.52	41.9	
6	507	20.83	62.3	
7	594	16.07	41.0	
8	643	5.98	14.1	
9	10,380	75.00	10.9	Upper Marker

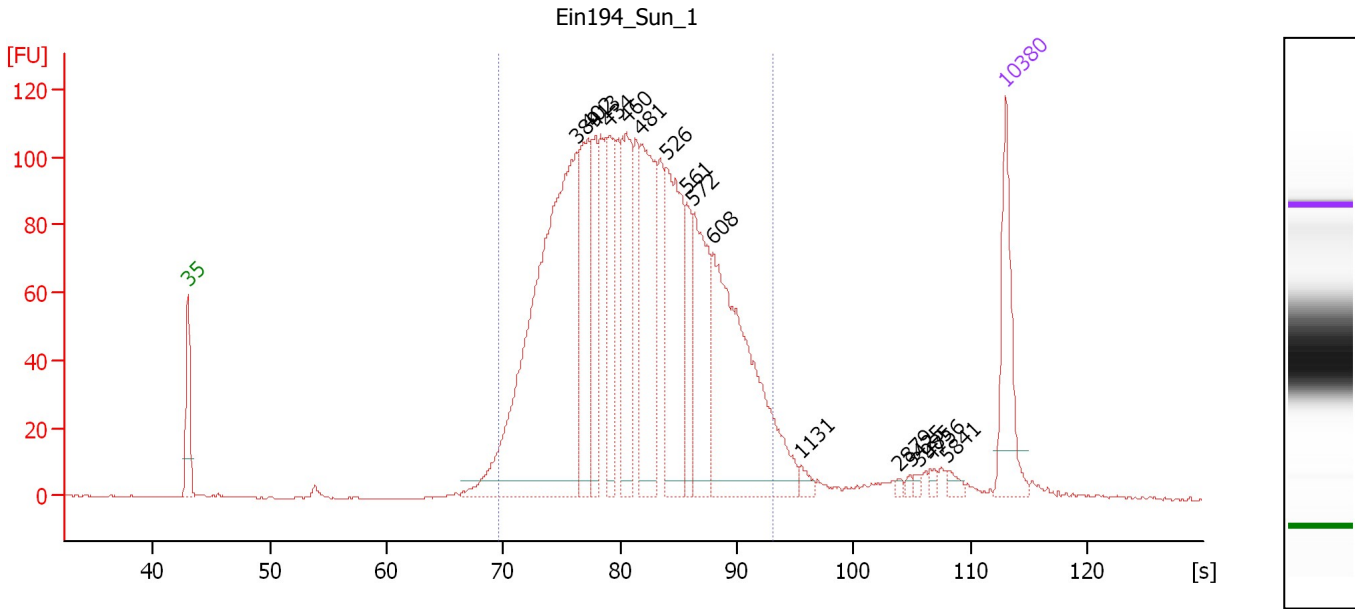
Region table for sample 7 : B3_Sun_3

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
69.91	94.62	474	1,260.7	372.29	374.7 95	22.3	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-19\2013-04-19_002.xad

Created: 4/19/2013 11:25:54 AM
 Modified: 4/19/2013 12:08:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : Ein194 Sun 1

Number of peaks found: 16 Corr. Area 1: 2,313.3
 Noise: 0.2

Peak table for sample 8 : Ein194 Sun 1

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	389	609.53	2,375.5	
3	402	154.88	584.0	
4	413	84.34	309.3	
5	434	108.85	379.8	
6	460	149.88	493.4	
7	481	194.58	612.4	
8	526	188.01	541.9	
9	561	58.00	156.7	
10	572	130.81	346.4	
11	608	313.22	780.2	
12	1,131	8.52	11.4	
13	2,879	2.59	1.4	
14	3,425	2.73	1.2	
15	3,985	3.53	1.3	
16	4,756	4.50	1.4	
17	5,841	7.03	1.8	
18	10,380	75.00	10.9	Upper Marker

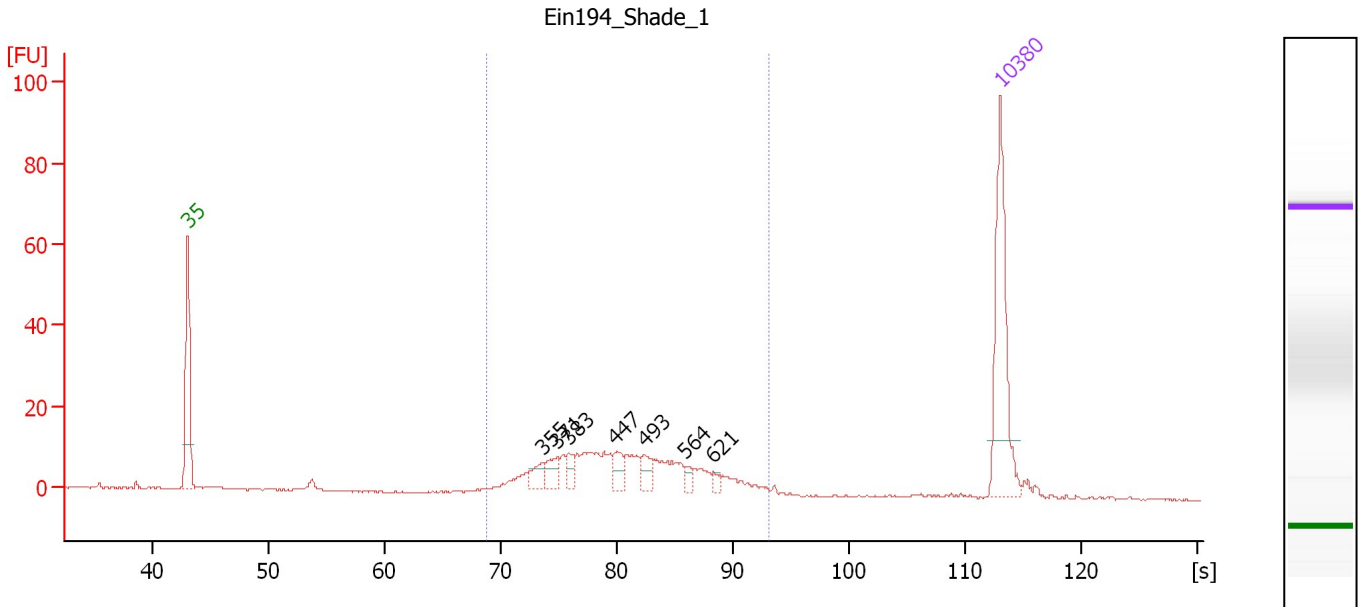
Region table for sample 8 : Ein194 Sun 1

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area % of Total	Size distribution in CV [%]	Color
69.55	93.13	485	7,688.1	2,296.36	2,313.3 93	23.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-19\2013-04-19_002.xad

Created: 4/19/2013 11:25:54 AM
 Modified: 4/19/2013 12:08:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : Ein194 Shade 1

Number of peaks found: 7 Corr. Area 1: 204.5
 Noise: 0.2

Peak table for sample 9 : Ein194 Shade 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	355	12.74	54.3	
3	371	14.93	61.0	
4	383	9.27	36.6	
5	447	12.36	41.9	
6	493	11.62	35.7	
7	564	5.00	13.5	
8	621	4.14	10.1	
9	10,380	75.00	10.9	Upper Marker

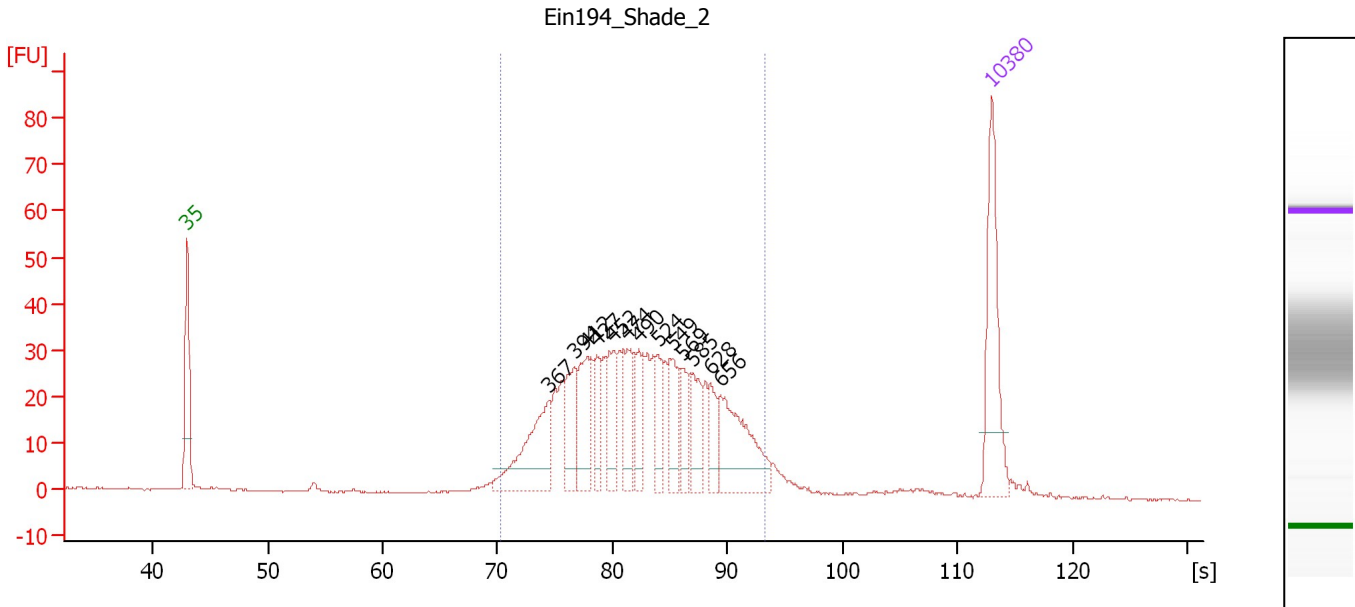
Region table for sample 9 : Ein194 Shade 1

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
68.67	93.11	473	814.9	238.62	204.5 89	22.9	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-19\2013-04-19_002.xad

Created: 4/19/2013 11:25:54 AM
 Modified: 4/19/2013 12:08:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : Ein194 Shade 2

Number of peaks found: 13 Corr. Area 1: 649.9
 Noise: 0.1

Peak table for sample 10 : Ein194 Shade 2

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	367	92.38	381.7	
3	394	48.73	187.5	
4	412	61.10	224.8	
5	427	30.01	106.5	
6	452	44.37	148.6	
7	474	51.35	164.2	
8	490	34.08	105.3	
9	524	29.41	85.0	
10	549	40.81	112.5	
11	569	23.24	61.9	
12	585	33.94	87.9	
13	628	24.18	58.4	
14	656	90.77	209.7	
15	10,380	75.00	10.9	Upper Marker

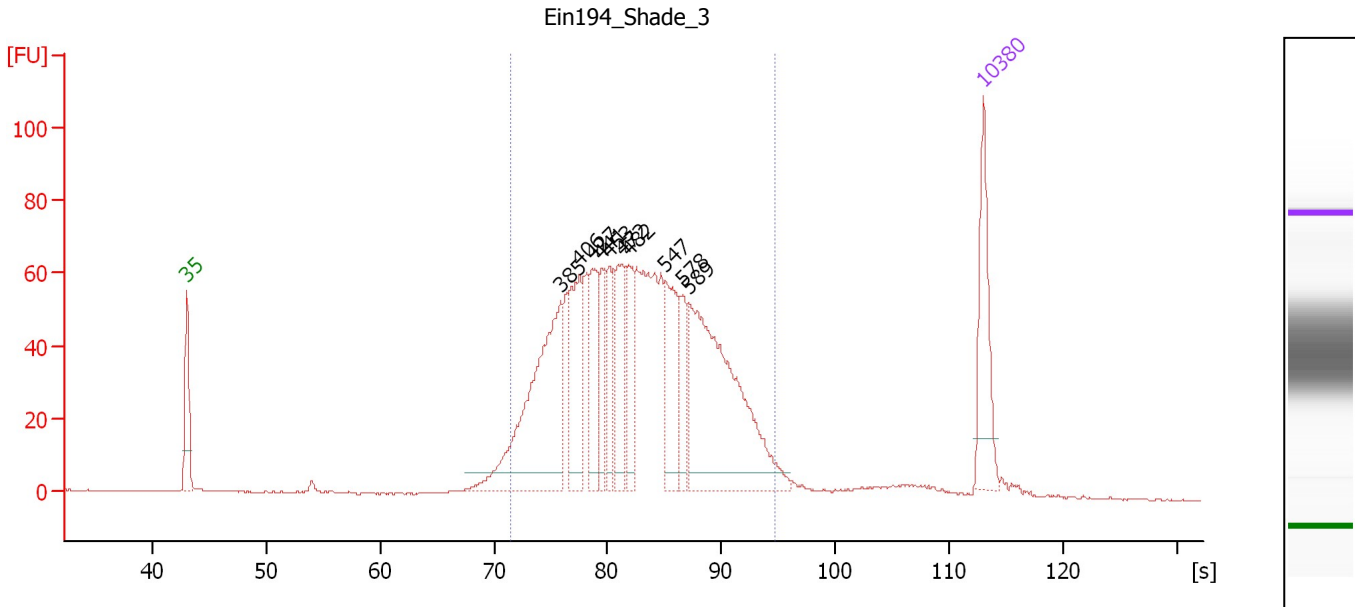
Region table for sample 10 : Ein194 Shade 2

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area % of Total	Size distribution in CV [%]	Color
70.22	93.31	505	2,670.5	830.82	649.9 93	23.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-19\2013-04-19_002.xad

Created: 4/19/2013 11:25:54 AM
 Modified: 4/19/2013 12:08:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : Ein194 Shade 3

Number of peaks found: 10 Corr. Area 1: 1,339.2
 Noise: 0.1

Peak table for sample 11 : Ein194 Shade 3

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	385	273.27	1,076.3	
3	406	107.62	401.2	
4	427	73.96	262.3	
5	441	56.07	192.8	
6	453	55.88	186.8	
7	472	89.96	288.6	
8	482	71.92	225.9	
9	547	98.45	272.9	
10	578	47.96	125.8	
11	589	310.04	796.9	
12	10,380	75.00	10.9	Upper Marker

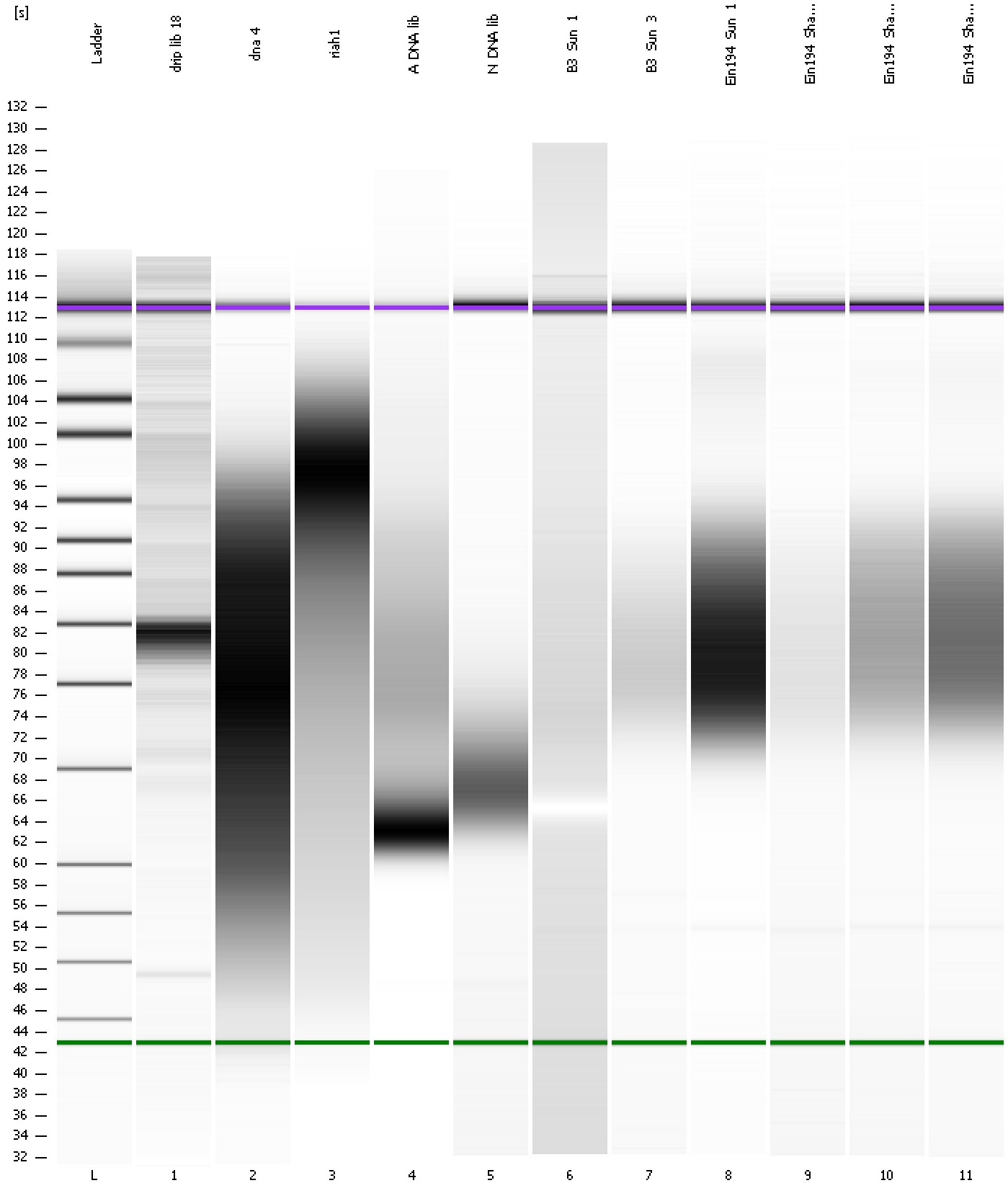
Region table for sample 11 : Ein194 Shade 3

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
71.44	94.62	514	4,847.5	1,527.29	1,339.2 93	25.1	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-19\2013-04-19_002.xad

Created: 4/19/2013 11:25:54 AM
Modified: 4/19/2013 12:08:38 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-19\2013-04-19_002.xad

Created: 4/19/2013 11:25:54 AM
 Modified: 4/19/2013 12:08:38 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		4/19/2013 12:07:13 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-04-19\2013-04-19_002.xad)		Instrument	Run		4/19/2013 11:25:59 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/19/2013 11:25:59 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/19/2013 11:25:59 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/19/2013 11:25:59 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/19/2013 11:25:59 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/19/2013 11:25:59 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/19/2013 11:25:59 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1