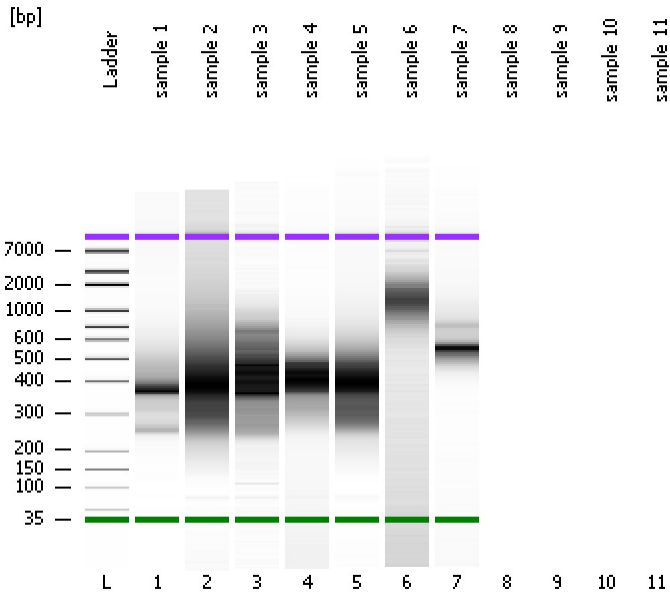


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-11\2014-04-11_002.xad

Created: 4/11/2014 12:29:19 PM
Modified: 4/11/2014 1:00:37 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

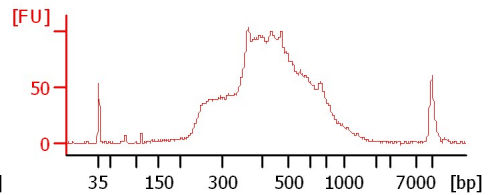
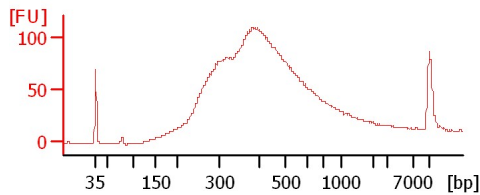
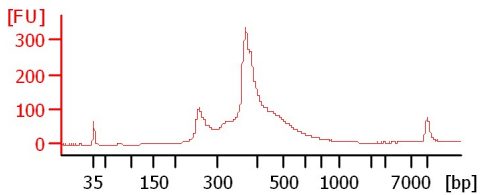
Chip Information:

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

sample 1

sample 2

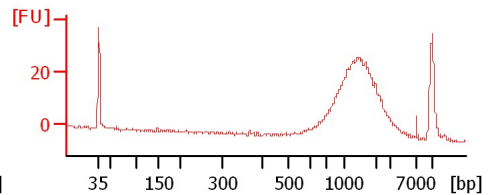
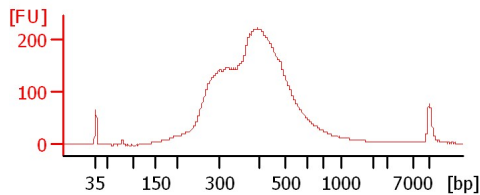
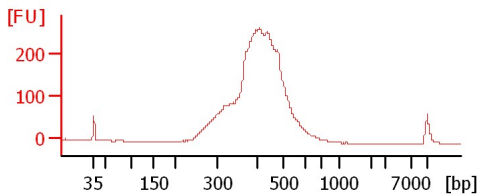
sample 3



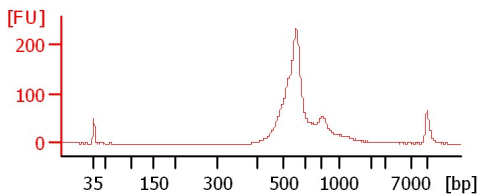
sample 4

sample 5

sample 6



sample 7



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-11\2014-04-11_002.xad

Created: 4/11/2014 12:29:19 PM
 Modified: 4/11/2014 1:00:37 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 1		<input type="checkbox"/>	✓			
sample 2		<input type="checkbox"/>	✓			
sample 3		<input type="checkbox"/>	✓			
sample 4		<input type="checkbox"/>	✓			
sample 5		<input type="checkbox"/>	✓			
sample 6		<input type="checkbox"/>	✓			
sample 7		<input type="checkbox"/>	✓			
sample 8		<input type="checkbox"/>				
sample 9		<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:\...ents and Settings\Bioanalyzer\2014-04-11\2014-04-11_002.xad

Created: 4/11/2014 12:29:19 PM
Modified: 4/11/2014 1:00:37 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

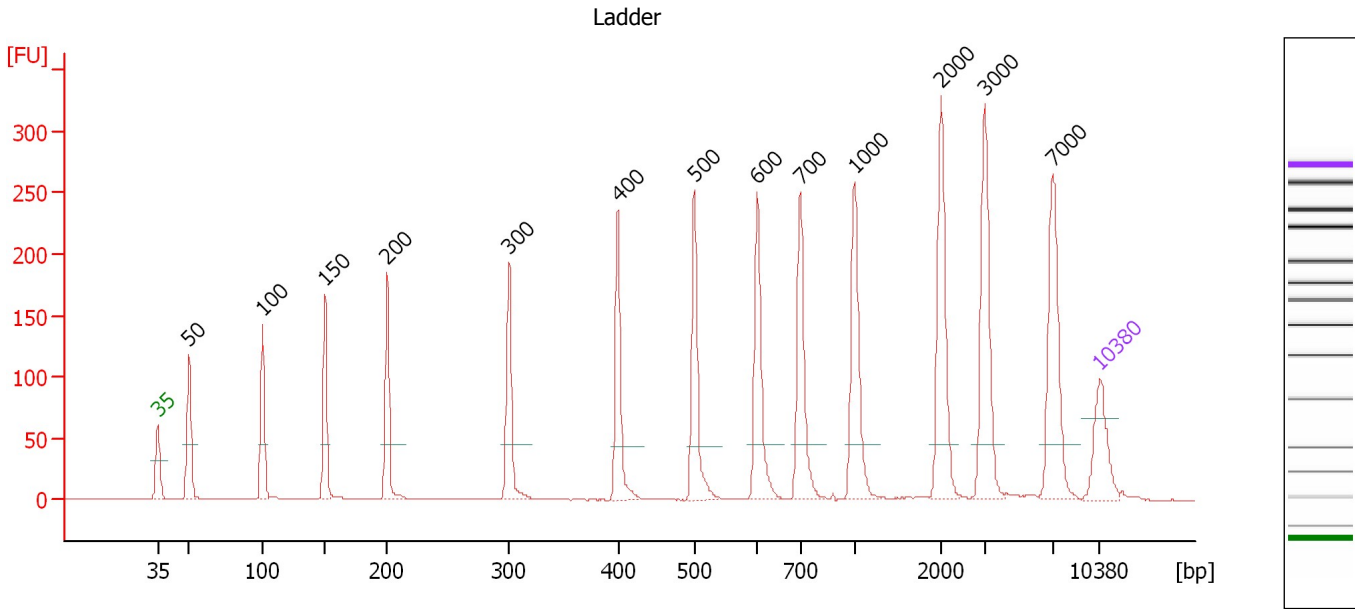
Ladder

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\2014-04-11\2014-04-11_002.xad

Created: 4/11/2014 12:29:19 PM
 Modified: 4/11/2014 1:00:37 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

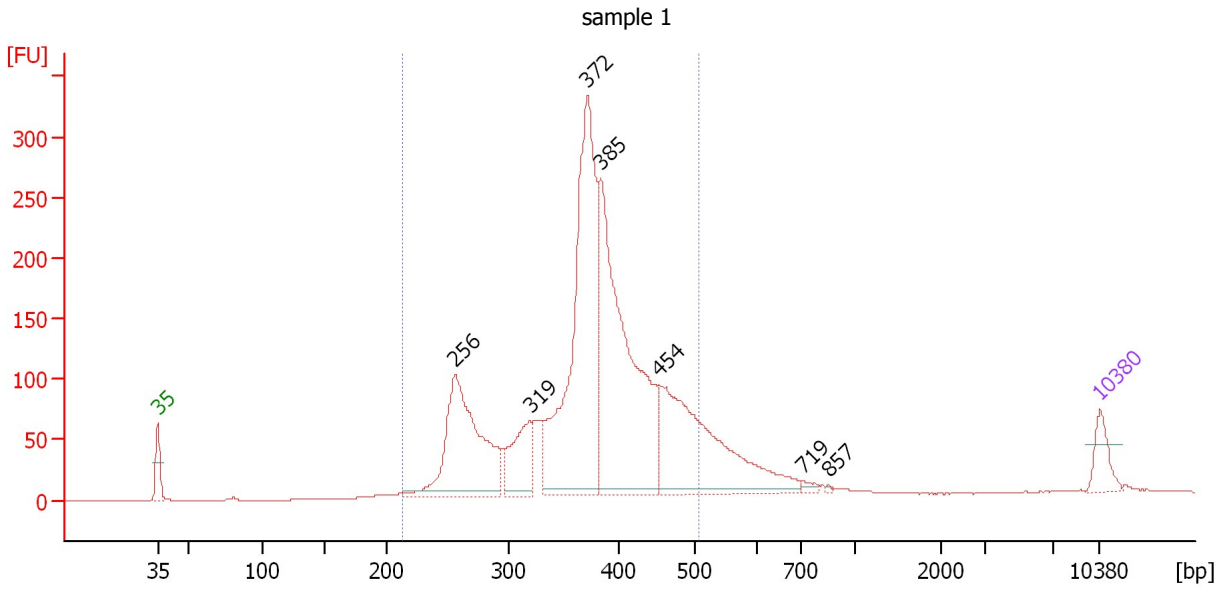
Peak table for Ladder

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	45.36	50	150.00	4,545.5	Ladder Peak
3	50.82	100	150.00	2,272.7	Ladder Peak
4	55.45	150	150.00	1,515.2	Ladder Peak
5	60.07	200	150.00	1,136.4	Ladder Peak
6	69.11	300	150.00	757.6	Ladder Peak
7	77.19	400	150.00	568.2	Ladder Peak
8	82.87	500	150.00	454.5	Ladder Peak
9	87.54	600	150.00	378.8	Ladder Peak
10	90.73	700	150.00	324.7	Ladder Peak
11	94.75	1,000	150.00	227.3	Ladder Peak
12	101.21	2,000	150.00	113.6	Ladder Peak
13	104.44	3,000	150.00	75.8	Ladder Peak
14	109.51	7,000	150.00	32.5	Ladder Peak
15	113.00	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-11\2014-04-11_002.xad

Created: 4/11/2014 12:29:19 PM
 Modified: 4/11/2014 1:00:37 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 7 Corr. Area 1: 2,798.0
 Noise: 0.3

Peak table for sample 1 : sample 1

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	65.11	256	818.85	4,851.9	
3	70.68	319	246.42	1,168.9	
4	74.93	372	1,402.41	5,712.6	
5	75.94	385	1,274.86	5,023.1	
6	80.28	454	840.12	2,801.6	
7	90.98	719	16.47	34.7	
8	92.84	857	4.53	8.0	
9	113.00	10,380	75.00	10.9	Upper Marker

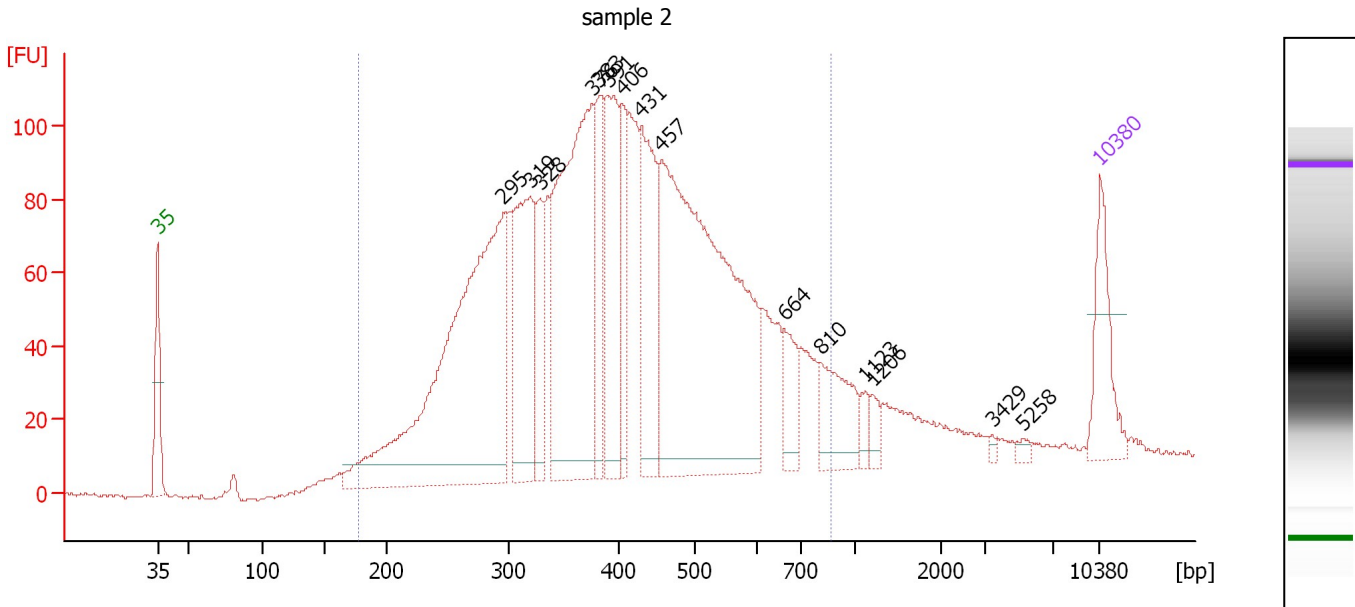
Region table for sample 1 : sample 1

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
213	507	372	18,441.0	4,316.12	2,798.0	89	17.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-11\2014-04-11_002.xad

Created: 4/11/2014 12:29:19 PM
 Modified: 4/11/2014 1:00:37 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 15 Corr. Area 1: 2,661.2
 Noise: 0.4

Peak table for sample 2 : sample 2

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	68.69	295	781.03	4,006.7	
3	70.65	319	244.91	1,163.1	
4	71.41	328	97.73	450.8	
5	75.28	376	496.39	1,998.3	
6	75.82	383	116.90	462.5	
7	76.44	391	198.50	769.8	
8	77.51	406	94.64	353.5	
9	78.94	431	191.13	672.4	
10	80.45	457	765.60	2,536.2	
11	89.58	664	55.09	125.7	
12	92.20	810	90.95	170.1	
13	95.54	1,123	17.50	23.6	
14	96.08	1,206	16.76	21.1	
15	104.98	3,429	3.72	1.6	
16	107.30	5,258	6.16	1.8	
17	113.00	10,380	75.00	10.9	Upper Marker

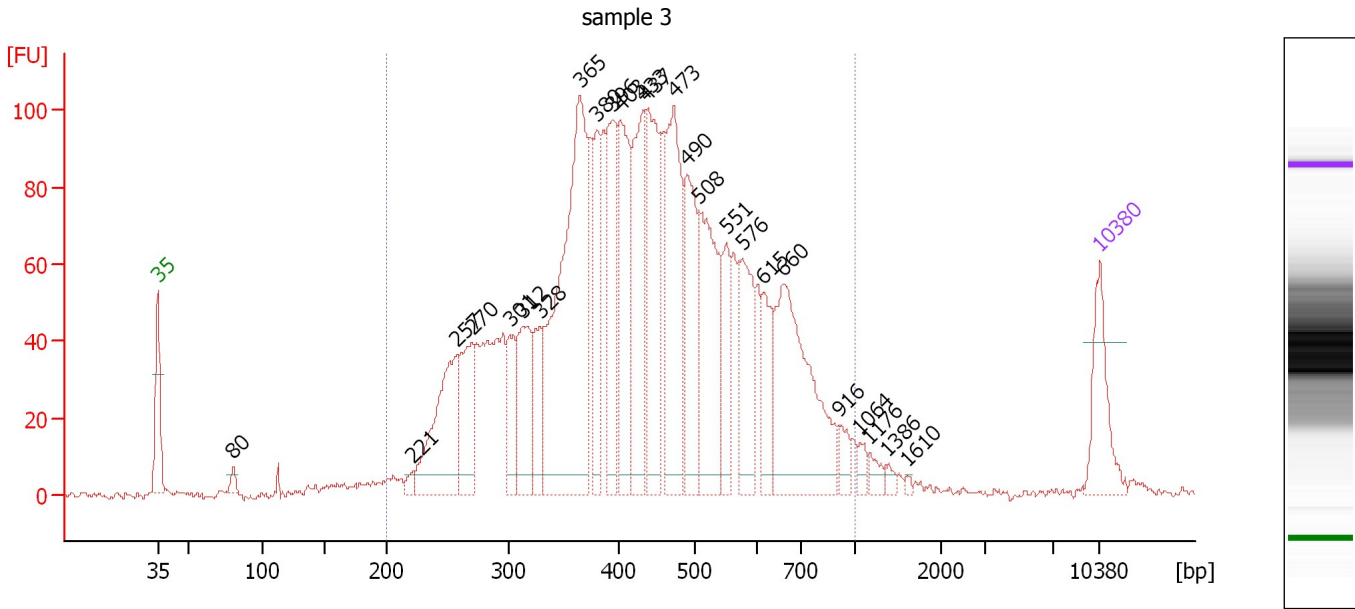
Region table for sample 2 : sample 2

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
177	867	417	14,027.6	3,387.69	2,661.2	94	30.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-11\2014-04-11_002.xad

Created: 4/11/2014 12:29:19 PM
 Modified: 4/11/2014 1:00:37 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 25 Corr. Area 1: 2,416.9
 Noise: 0.9

Peak table for sample 3 : sample 3

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	48.61	80	14.94	283.6	
3	61.97	221	11.00	75.4	
4	65.23	257	212.99	1,255.4	
5	66.36	270	134.53	756.1	
6	69.17	301	74.74	376.6	
7	70.12	312	131.86	639.4	
8	71.39	328	73.51	339.4	
9	74.38	365	542.45	2,250.8	
10	75.60	380	123.36	491.5	
11	76.87	396	169.51	648.6	
12	77.37	403	191.66	720.5	
13	79.09	433	206.65	722.5	
14	79.31	437	210.31	728.6	
15	81.35	473	263.02	842.1	
16	82.30	490	164.45	508.5	
17	83.25	508	211.31	630.0	
18	85.24	551	78.96	217.2	
19	86.42	576	126.31	332.2	
20	88.01	615	73.56	181.3	
21	89.46	660	294.31	675.6	
22	93.62	916	22.70	37.5	
23	95.16	1,064	13.71	19.5	
24	95.88	1,176	14.51	18.7	
25	97.24	1,386	7.55	8.3	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-11\2014-04-11_002.xad

Created: 4/11/2014 12:29:19 PM
 Modified: 4/11/2014 1:00:37 PM

Electropherogram Summary Continued ...

... Peak table for sample 3 : sample 3

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations
26	98.69	1,610	3.37	3.2	
27	113.00	10,380	75.00	10.9	Upper Marker

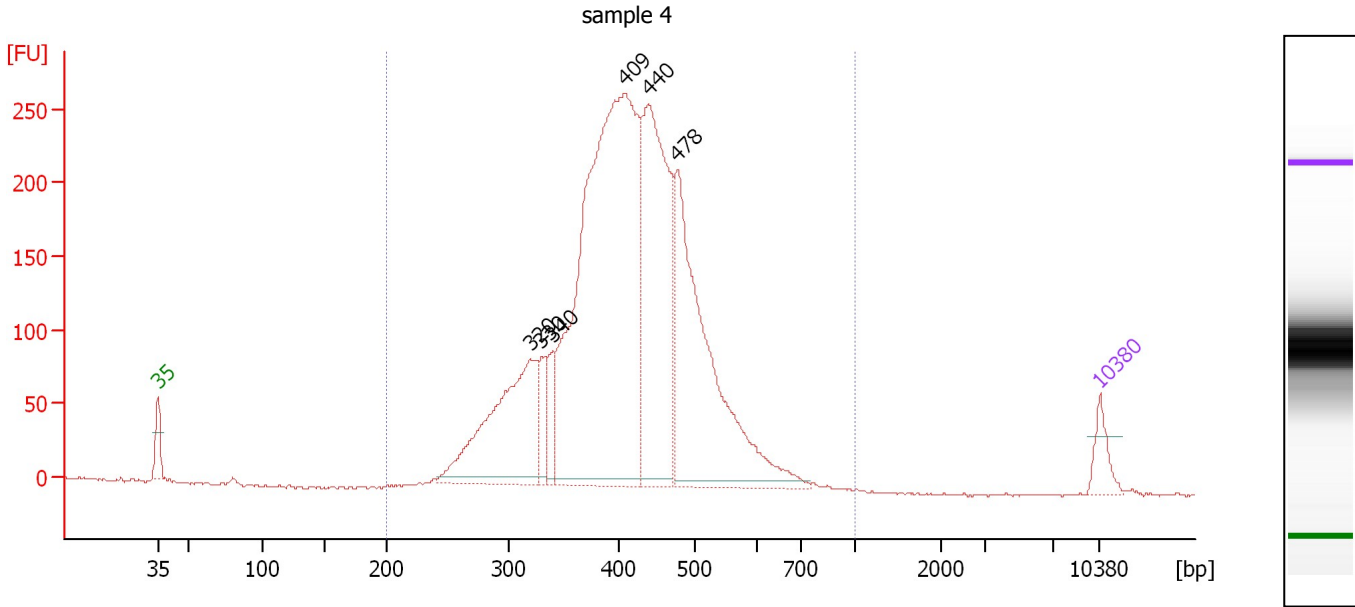
Region table for sample 3 : sample 3

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	451	15,278.1	3,995.63	2,416.9	97	30.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-11\2014-04-11_002.xad

Created: 4/11/2014 12:29:19 PM
 Modified: 4/11/2014 1:00:37 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 6 Corr. Area 1: 3,898.5
 Noise: 0.7

Peak table for sample 4 : sample 4

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	70.69	320	861.71	4,085.8	
3	71.53	330	130.25	598.2	
4	72.37	340	131.36	584.9	
5	77.72	409	2,742.41	10,151.6	
6	79.44	440	1,167.93	4,025.0	
7	81.63	478	1,275.84	4,042.6	
8	113.00	10,380	75.00	10.9	Upper Marker

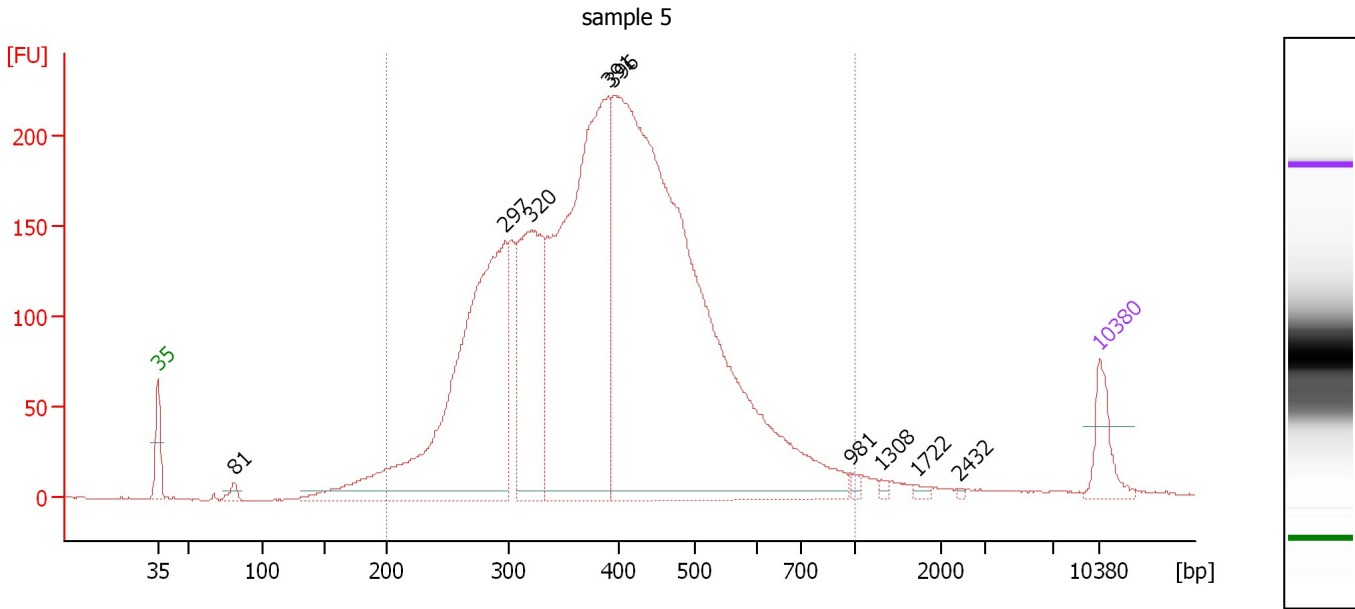
Region table for sample 4 : sample 4

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	418	24,359.8	6,420.53	3,898.5	100	18.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-11\2014-04-11_002.xad

Created: 4/11/2014 12:29:19 PM
 Modified: 4/11/2014 1:00:37 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 9 Corr. Area 1: 4,803.2
 Noise: 0.6

Peak table for sample 5 : sample 5

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	48.72	81	23.69	444.2	
3	68.84	297	1,329.78	6,783.3	
4	70.70	320	579.50	2,746.5	
5	76.47	391	1,368.17	5,300.2	
6	76.86	396	2,677.71	10,249.6	
7	94.50	981	11.14	17.2	
8	96.74	1,308	6.79	7.9	
9	99.41	1,722	8.40	7.4	
10	102.60	2,432	2.90	1.8	
11	113.00	10,380	75.00	10.9	Upper Marker

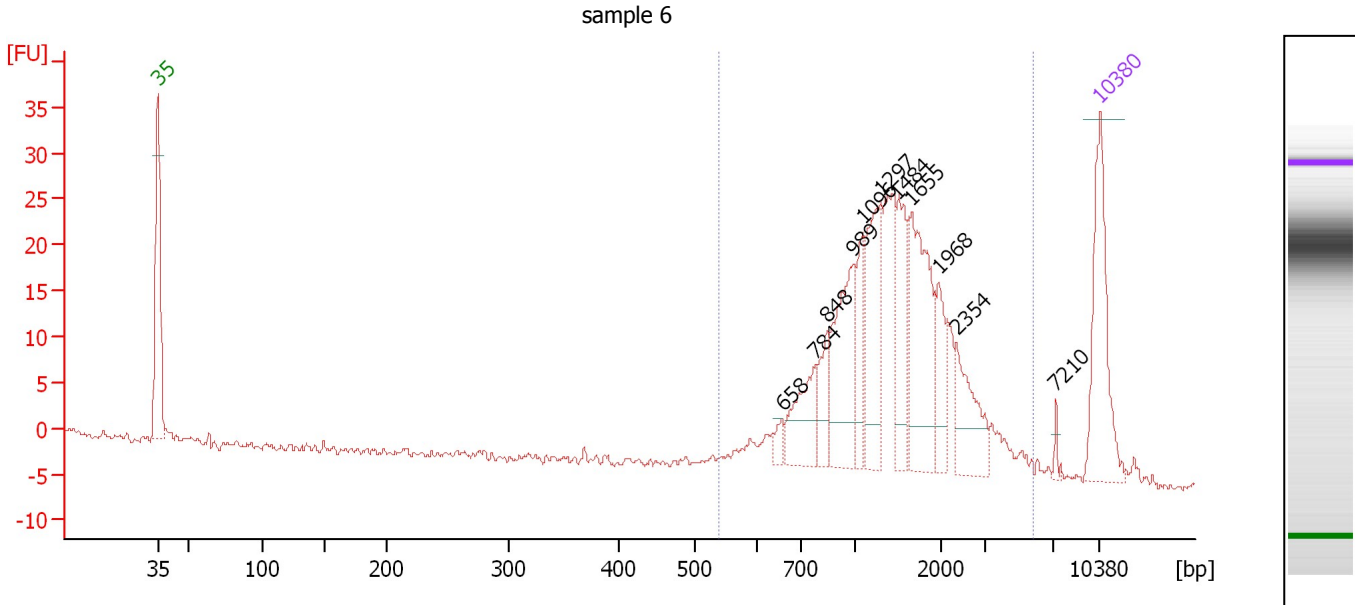
Region table for sample 5 : sample 5

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	404	24,419.5	5,901.25	4,803.2	96	28.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-11\2014-04-11_002.xad

Created: 4/11/2014 12:29:19 PM
 Modified: 4/11/2014 1:00:37 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found: 11 Corr. Area 1: 312.2
 Noise: 0.4

Peak table for sample 6 : sample 6

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	89.39	658	8.18	18.8	
3	91.85	784	46.78	90.4	
4	92.72	848	27.35	48.8	
5	94.60	989	82.10	125.8	
6	95.37	1,096	33.44	46.2	
7	96.67	1,297	70.30	82.1	
8	97.87	1,484	51.01	52.1	
9	98.98	1,655	98.90	90.5	
10	101.00	1,968	28.99	22.3	
11	102.35	2,354	42.72	27.5	
12	109.72	7,210	3.73	0.8	
13	113.00	10,380	75.00	10.9	Upper Marker

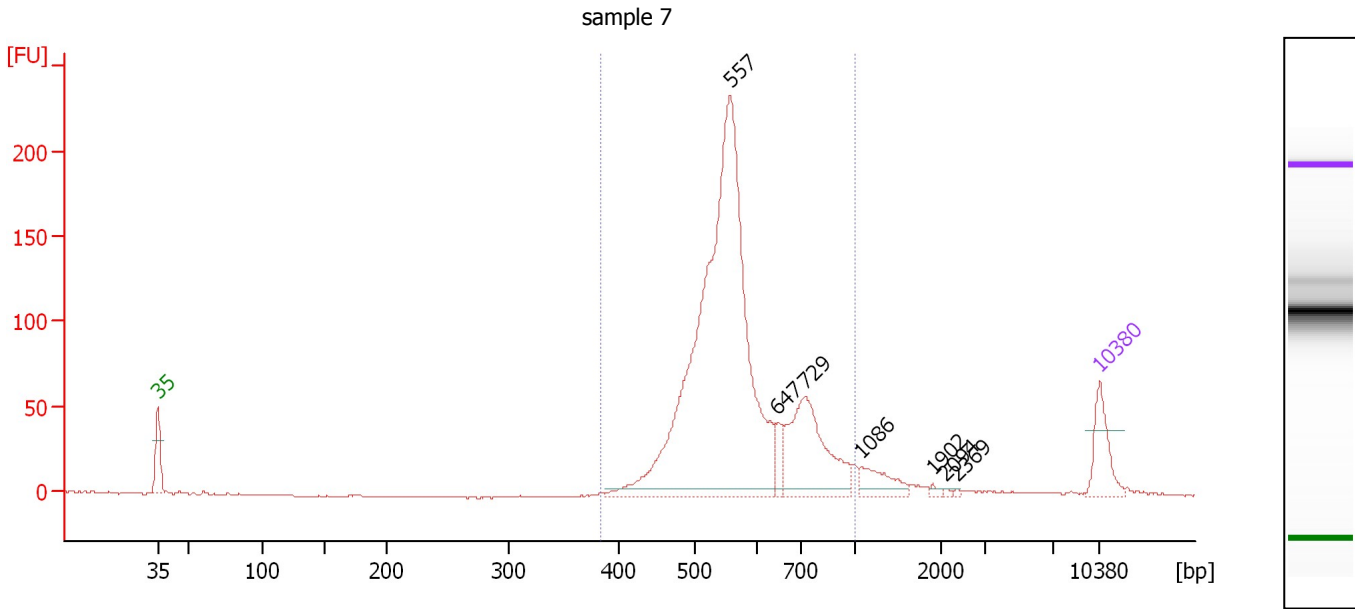
Region table for sample 6 : sample 6

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
539	5,870	1,544	782.1	639.79	312.2	95	50.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-11\2014-04-11_002.xad

Created: 4/11/2014 12:29:19 PM
 Modified: 4/11/2014 1:00:37 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7

Number of peaks found: 7 Corr. Area 1: 1,310.6
 Noise: 0.4

Peak table for sample 7 : sample 7

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	85.54	557	1,494.32	4,063.3	
3	89.04	647	42.62	99.8	
4	91.11	729	290.47	604.0	
5	95.30	1,086	60.60	84.5	
6	100.58	1,902	6.49	5.2	
7	101.51	2,094	3.19	2.3	
8	102.40	2,369	2.99	1.9	
9	113.00	10,380	75.00	10.9	Upper Marker

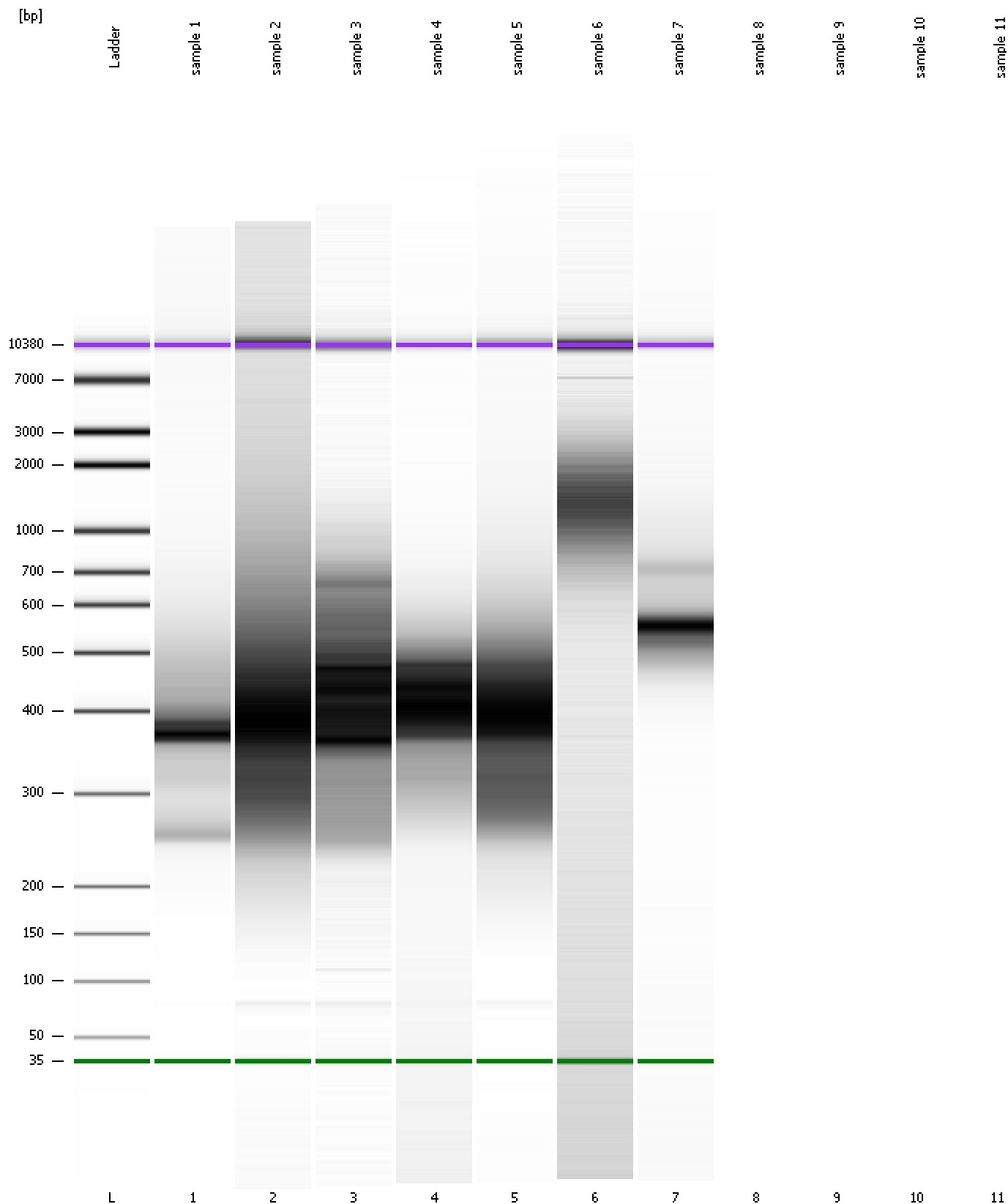
Region table for sample 7 : sample 7

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
384	1,000	582	4,943.8	1,838.78	1,310.6	90	18.0

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-11\2014-04-11_002.xad

Created: 4/11/2014 12:29:19 PM
Modified: 4/11/2014 1:00:37 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-11\2014-04-11_002.xad

Created: 4/11/2014 12:29:19 PM
Modified: 4/11/2014 1:00:37 PM

Invalid Samples

Sample 8 has not been run, no results available.

Sample 9 has not been run, no results available.

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-11\2014-04-11_002.xad

Created: 4/11/2014 12:29:19 PM
 Modified: 4/11/2014 1:00:37 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 8)		Instrument	Run		4/11/2014 12:59:11 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-04-11\2014-04-11_002.xad)		Instrument	Run		4/11/2014 12:29:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/11/2014 12:29:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/11/2014 12:29:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/11/2014 12:29:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/11/2014 12:29:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/11/2014 12:29:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/11/2014 12:29:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1