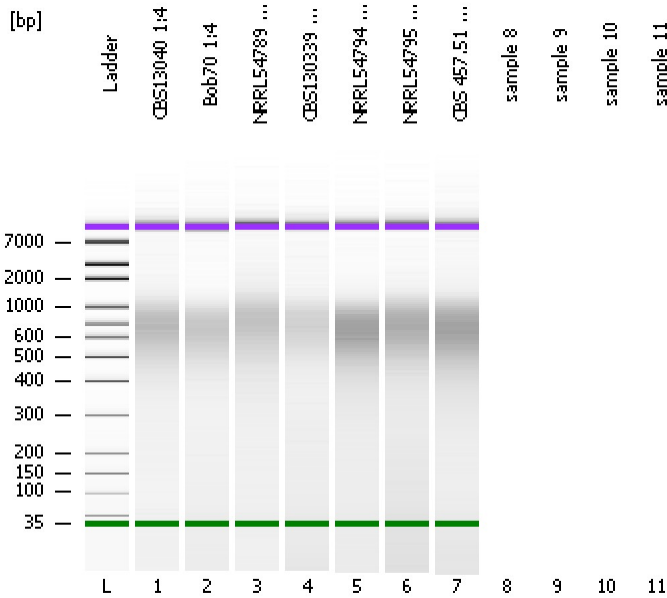


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27\_001.xad

Created: 4/27/2015 8:09:55 AM  
Modified: 4/27/2015 10:38:50 AM

**Electrophoresis File Run Summary**



Instrument Information:

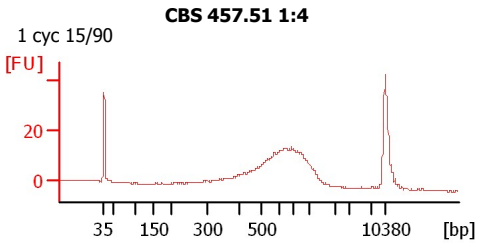
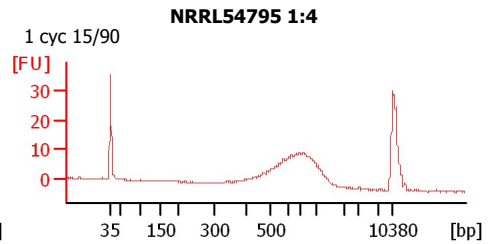
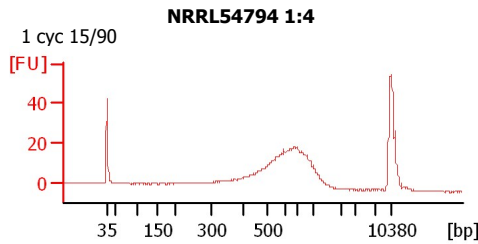
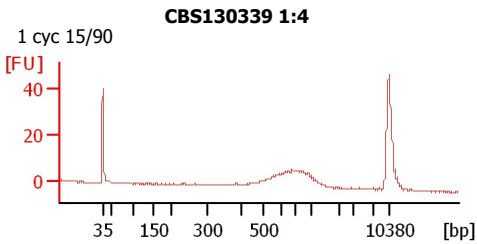
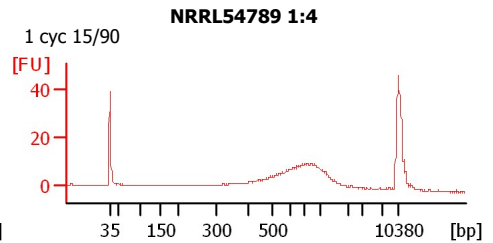
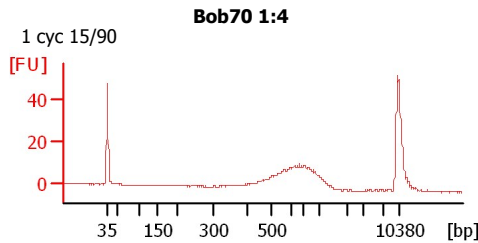
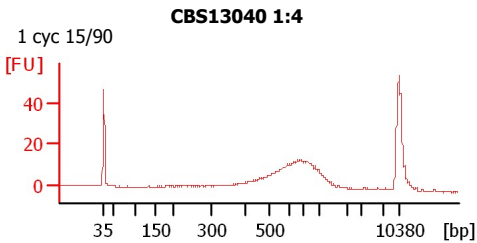
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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:



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27\_001.xad

Created: 4/27/2015 8:09:55 AM  
Modified: 4/27/2015 10:38:50 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
CBS13040 1:4	1 cyc 15/90	<input type="checkbox"/>	✓			
Bob70 1:4	1 cyc 15/90	<input type="checkbox"/>	✓			
NRRL54789 1:4	1 cyc 15/90	<input type="checkbox"/>	✓			
CBS130339 1:4	1 cyc 15/90	<input type="checkbox"/>	✓			
NRRL54794 1:4	1 cyc 15/90	<input type="checkbox"/>	✓			
NRRL54795 1:4	1 cyc 15/90	<input type="checkbox"/>	✓			
CBS 457.51 1:4	1 cyc 15/90	<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\2015-04-27\2015-04-27\_001.xad

Created: 4/27/2015 8:09:55 AM  
Modified: 4/27/2015 10:38:50 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

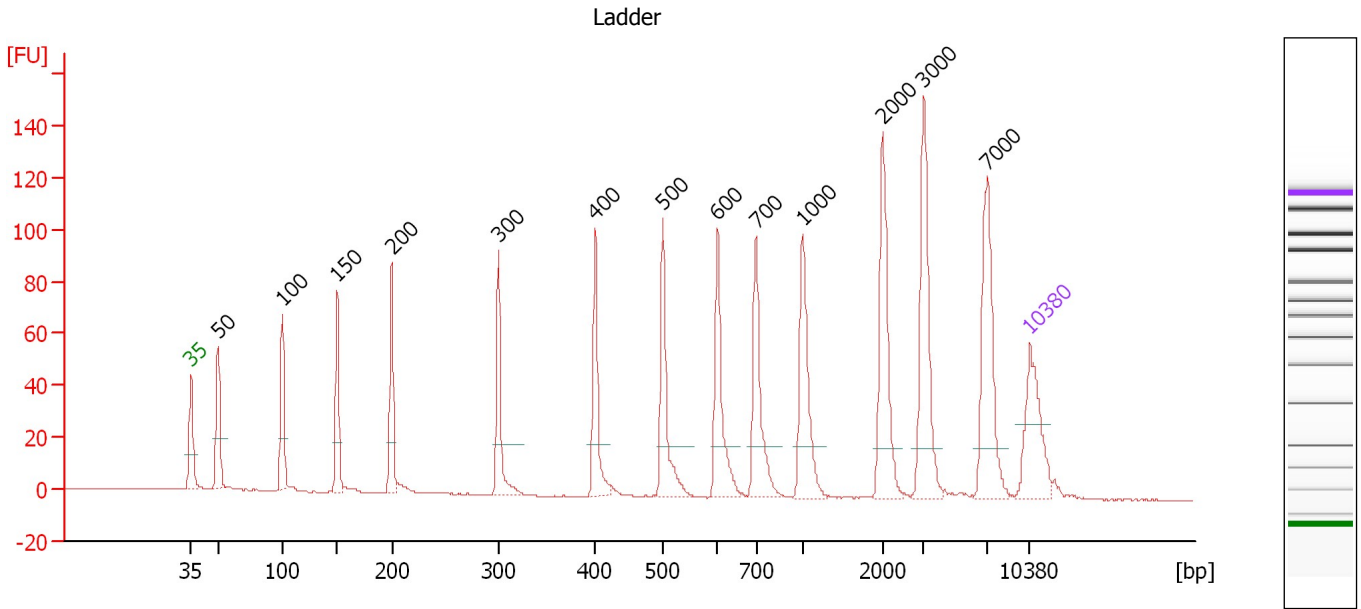
**Ladder**

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\2015-04-27\2015-04-27\_001.xad

Created: 4/27/2015 8:09:55 AM  
 Modified: 4/27/2015 10:38:50 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

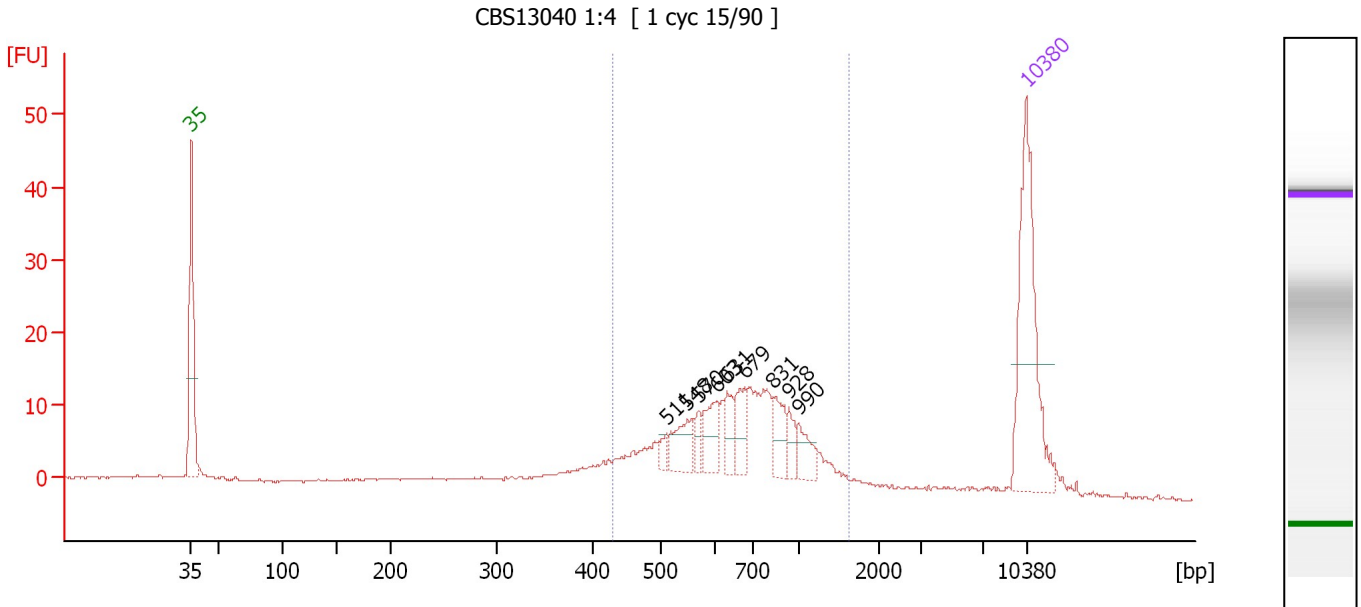
**Peak table for Ladder**

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	45.23
3	100	150.00	2,272.7	Ladder Peak	50.61
4	150	150.00	1,515.2	Ladder Peak	55.19
5	200	150.00	1,136.4	Ladder Peak	59.73
6	300	150.00	757.6	Ladder Peak	68.63
7	400	150.00	568.2	Ladder Peak	76.73
8	500	150.00	454.5	Ladder Peak	82.38
9	600	150.00	378.8	Ladder Peak	86.92
10	700	150.00	324.7	Ladder Peak	90.13
11	1,000	150.00	227.3	Ladder Peak	94.00
12	2,000	150.00	113.6	Ladder Peak	100.72
13	3,000	150.00	75.8	Ladder Peak	104.14
14	7,000	150.00	32.5	Ladder Peak	109.40
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27\_001.xad

Created: 4/27/2015 8:09:55 AM  
 Modified: 4/27/2015 10:38:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : CBS13040 1:4**

Number of peaks found: 9                      Corr. Area 1: 206.2  
 Noise: 0.1

**Peak table for sample 1 : CBS13040 1:4**

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	511	5.56	16.5		82.87
3	548	21.59	59.7		84.57
4	570	7.53	20.0		85.55
5	603	20.42	51.3		87.03
6	631	14.17	34.0		87.92
7	679	18.41	41.1		89.44
8	831	17.82	32.5		91.81
9	928	8.65	14.1		93.06
10	990	13.15	20.1		93.87
11	10,380	75.00	10.9	Upper Marker	113.00

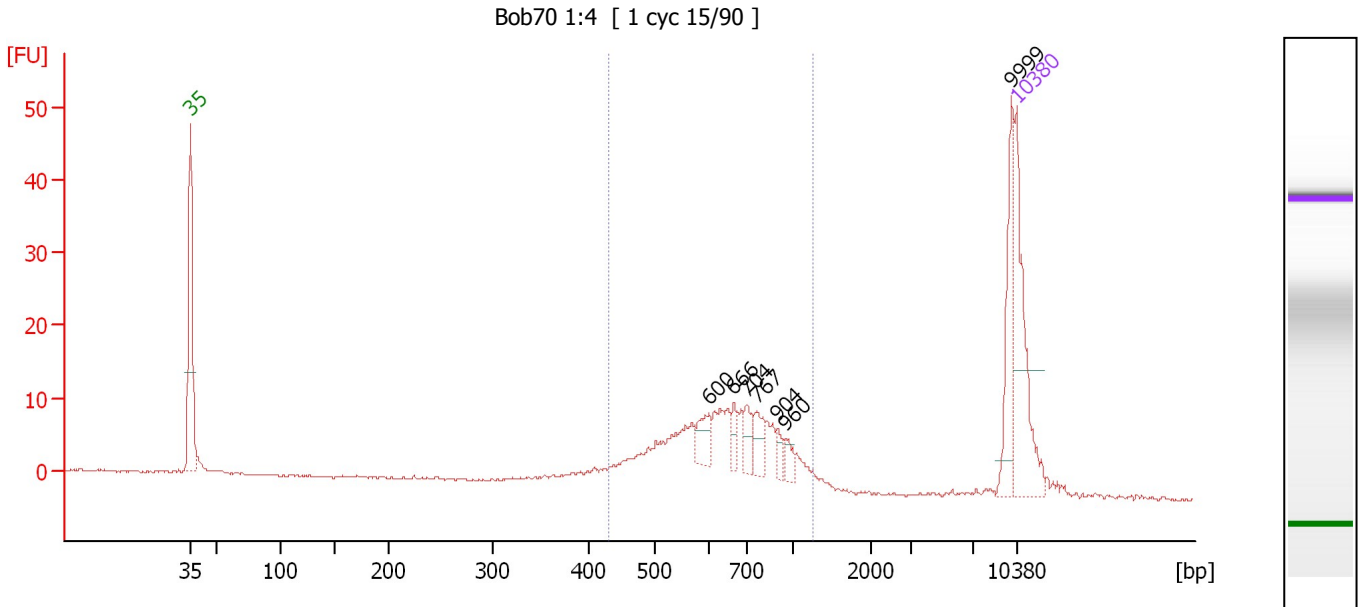
**Region table for sample 1 : CBS13040 1:4**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
428	725	1,611	206.2	631.0	71	32.7	270.87	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27\_001.xad

Created: 4/27/2015 8:09:55 AM  
 Modified: 4/27/2015 10:38:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : Bob70 1:4**

Number of peaks found: 7                      Corr. Area 1: 146.6  
 Noise: 0.2

**Peak table for sample 2 : Bob70 1:4**

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	600	21.44	54.1		86.93
3	666	12.19	27.7		89.05
4	704	17.27	37.2		90.18
5	767	19.98	39.5		90.99
6	904	8.01	13.4		92.75
7	960	9.05	14.3		93.48
8	9,999	54.34	8.2		112.59
9	10,380	75.00	10.9	Upper Marker	113.00

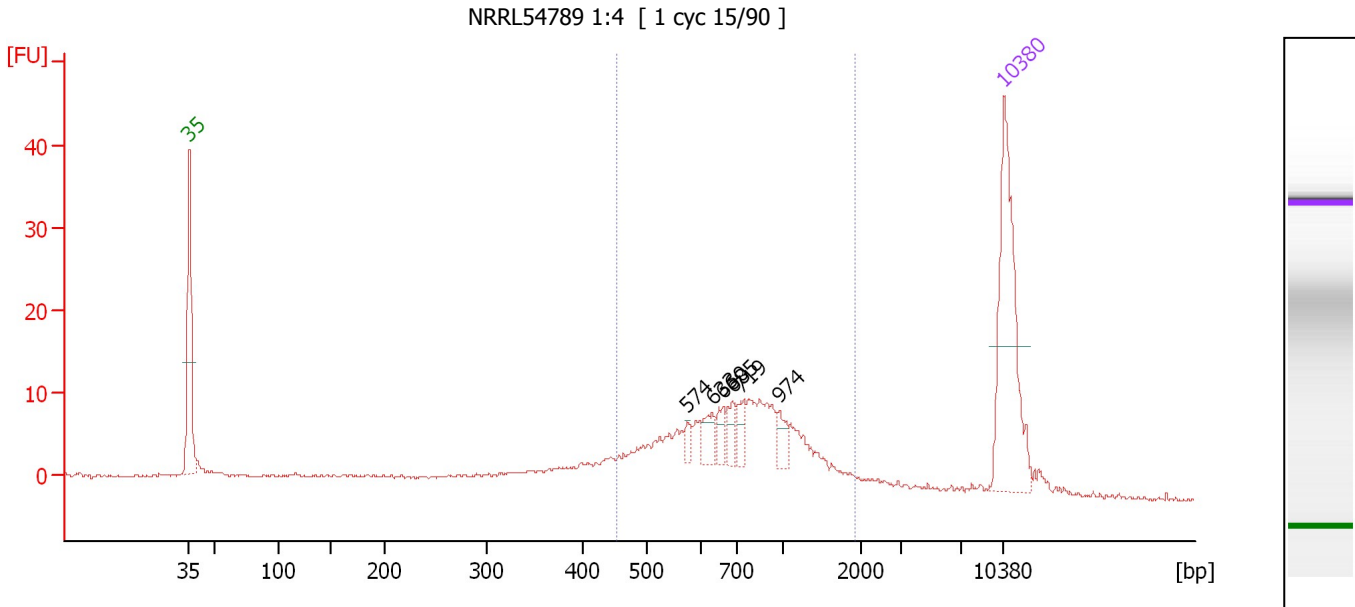
**Region table for sample 2 : Bob70 1:4**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
430	679	1,273	146.6	729.1	70	25.5	304.00	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27\_001.xad

Created: 4/27/2015 8:09:55 AM  
 Modified: 4/27/2015 10:38:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : NRRL54789 1:4**

Number of peaks found: 6                      Corr. Area 1: 162.9  
 Noise: 0.1

**Peak table for sample 3 : NRRL54789 1:4**

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	574	4.91	13.0		85.74
3	633	12.39	29.7		87.99
4	660	9.56	21.9		88.86
5	685	10.08	22.3		89.64
6	719	8.65	18.2		90.37
7	974	9.04	14.1		93.67
8	10,380	75.00	10.9	Upper Marker	113.00

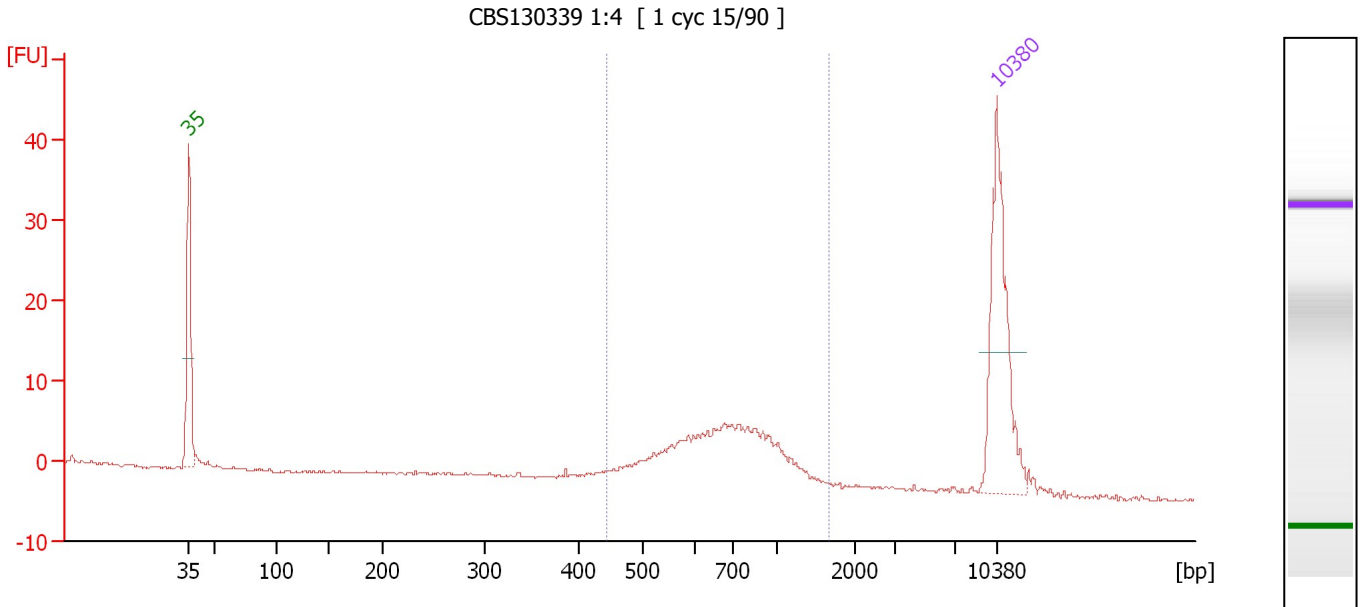
**Region table for sample 3 : NRRL54789 1:4**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
453	815	1,921	162.9	513.0	65	39.3	237.81	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27\_001.xad

Created: 4/27/2015 8:09:55 AM  
 Modified: 4/27/2015 10:38:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : CBS130339 1:4**

Number of peaks found: 0                      Corr. Area 1: 94.3  
 Noise: 0.2

**Peak table for sample 4 : CBS130339 1:4**

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	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 : CBS130339 1:4**

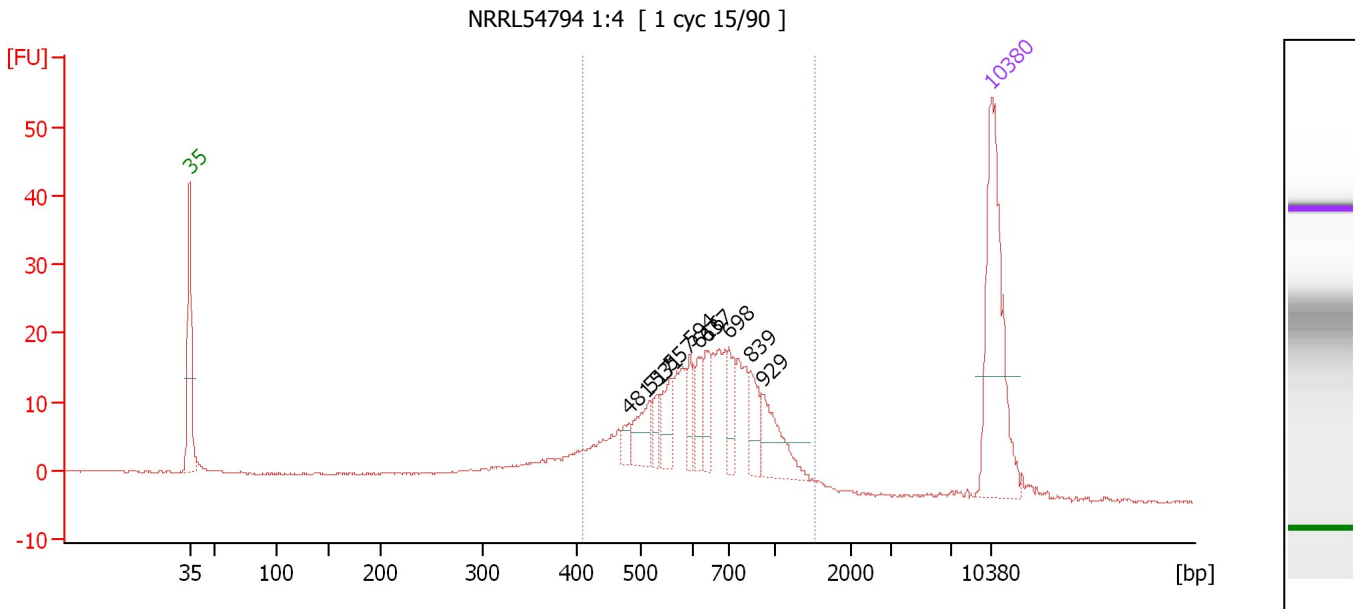
From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
442	746	1,662	94.3	306.9	87	30.9	137.28	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27\_001.xad

Created: 4/27/2015 8:09:55 AM  
 Modified: 4/27/2015 10:38:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : NRRL54794 1:4**

Number of peaks found: 10                      Corr. Area 1: 291.9  
 Noise: 0.1

**Peak table for sample 5 : NRRL54794 1:4**

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	481	7.68	24.2		81.30
3	517	19.89	58.3		83.17
4	531	10.02	28.6		83.77
5	557	20.02	54.4		84.98
6	594	12.91	32.9		86.66
7	616	15.23	37.4		87.45
8	637	15.19	36.1		88.10
9	698	18.61	40.4		90.05
10	839	17.50	31.6		91.92
11	929	27.74	45.2		93.08
12	10,380	75.00	10.9	Upper Marker	113.00

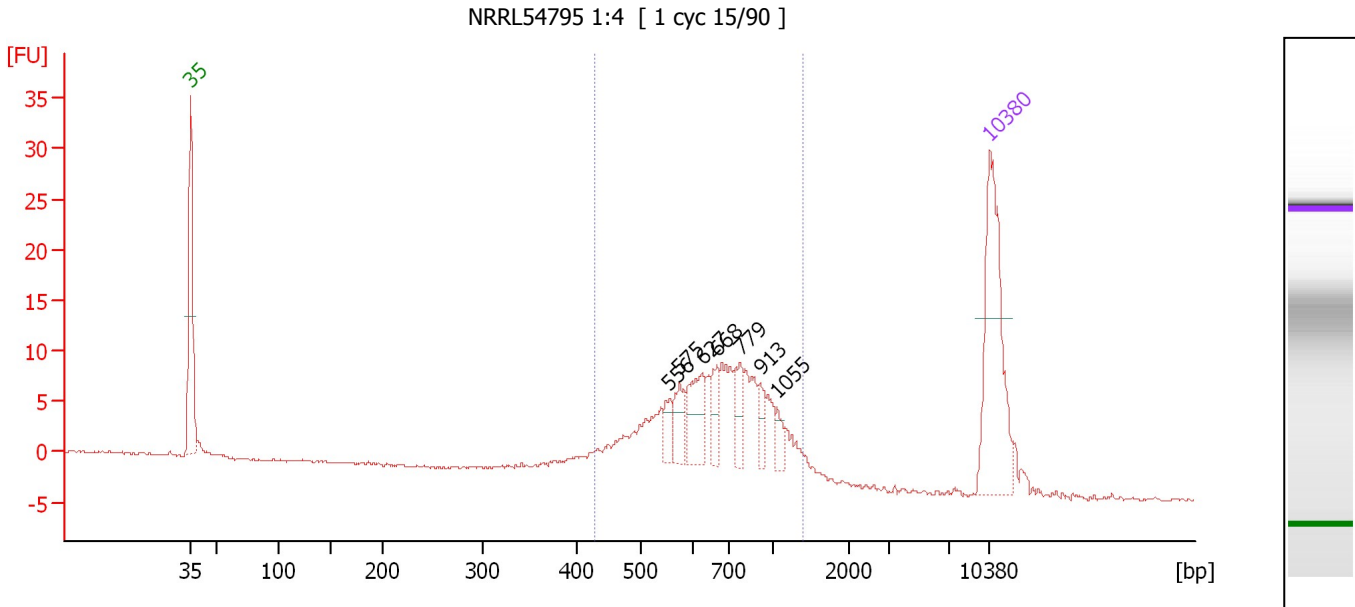
**Region table for sample 5 : NRRL54794 1:4**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
409	681	1,544	291.9	834.4	77	29.7	341.96	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27\_001.xad

Created: 4/27/2015 8:09:55 AM  
 Modified: 4/27/2015 10:38:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : NRRL54795 1:4**

Number of peaks found: 7                      Corr. Area 1: 152.8  
 Noise: 0.1

**Peak table for sample 6 : NRRL54795 1:4**

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	556	11.27	30.7		84.93
3	575	18.46	48.7		85.78
4	627	31.16	75.3		87.78
5	668	14.94	33.9		89.09
6	779	17.82	34.7		91.15
7	913	10.55	17.5		92.87
8	1,055	7.29	10.5		94.37
9	10,380	75.00	10.9	Upper Marker	113.00

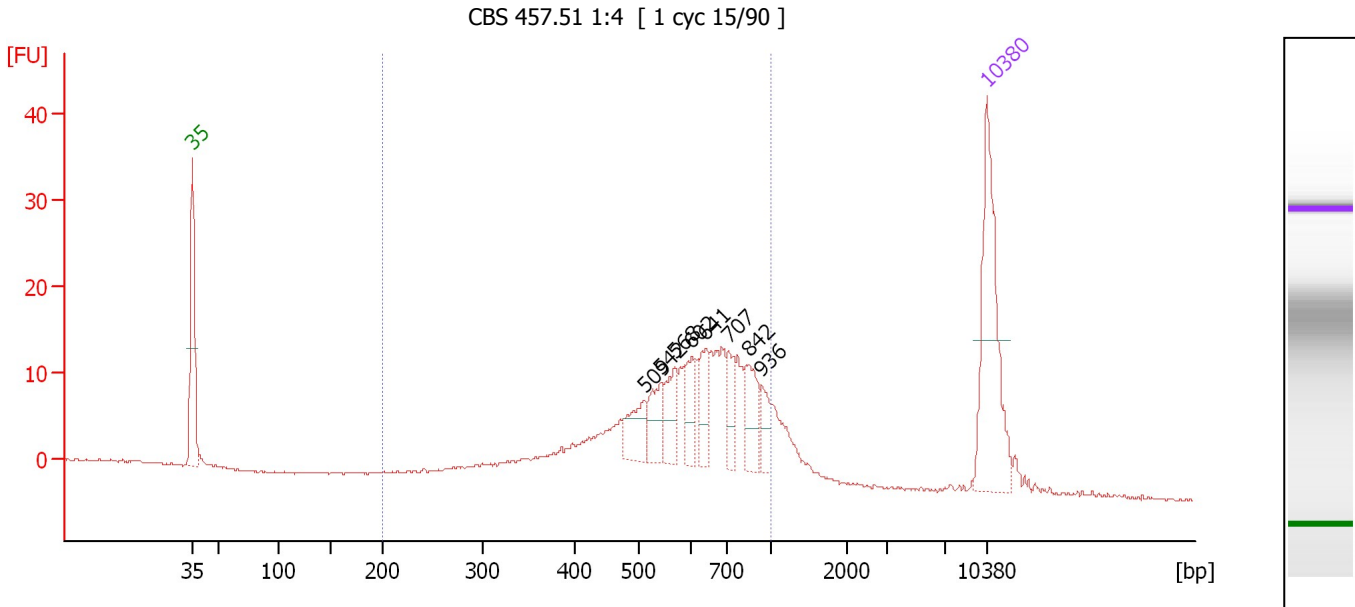
**Region table for sample 6 : NRRL54795 1:4**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
429	715	1,386	152.8	681.0	85	28.7	293.98	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27\_001.xad

Created: 4/27/2015 8:09:55 AM  
 Modified: 4/27/2015 10:38:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : CBS 457.51 1:4**

Number of peaks found: 8                      Corr. Area 1: 243.3  
 Noise: 0.1

**Peak table for sample 7 : CBS 457.51 1:4**

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	509	25.44	75.7		82.79
3	542	23.93	66.9		84.30
4	568	24.33	64.9		85.47
5	602	20.24	51.0		86.97
6	641	22.33	52.8		88.24
7	707	18.87	40.4		90.21
8	842	26.31	47.4		91.95
9	936	14.25	23.1		93.17
10	10,380	75.00	10.9	Upper Marker	113.00

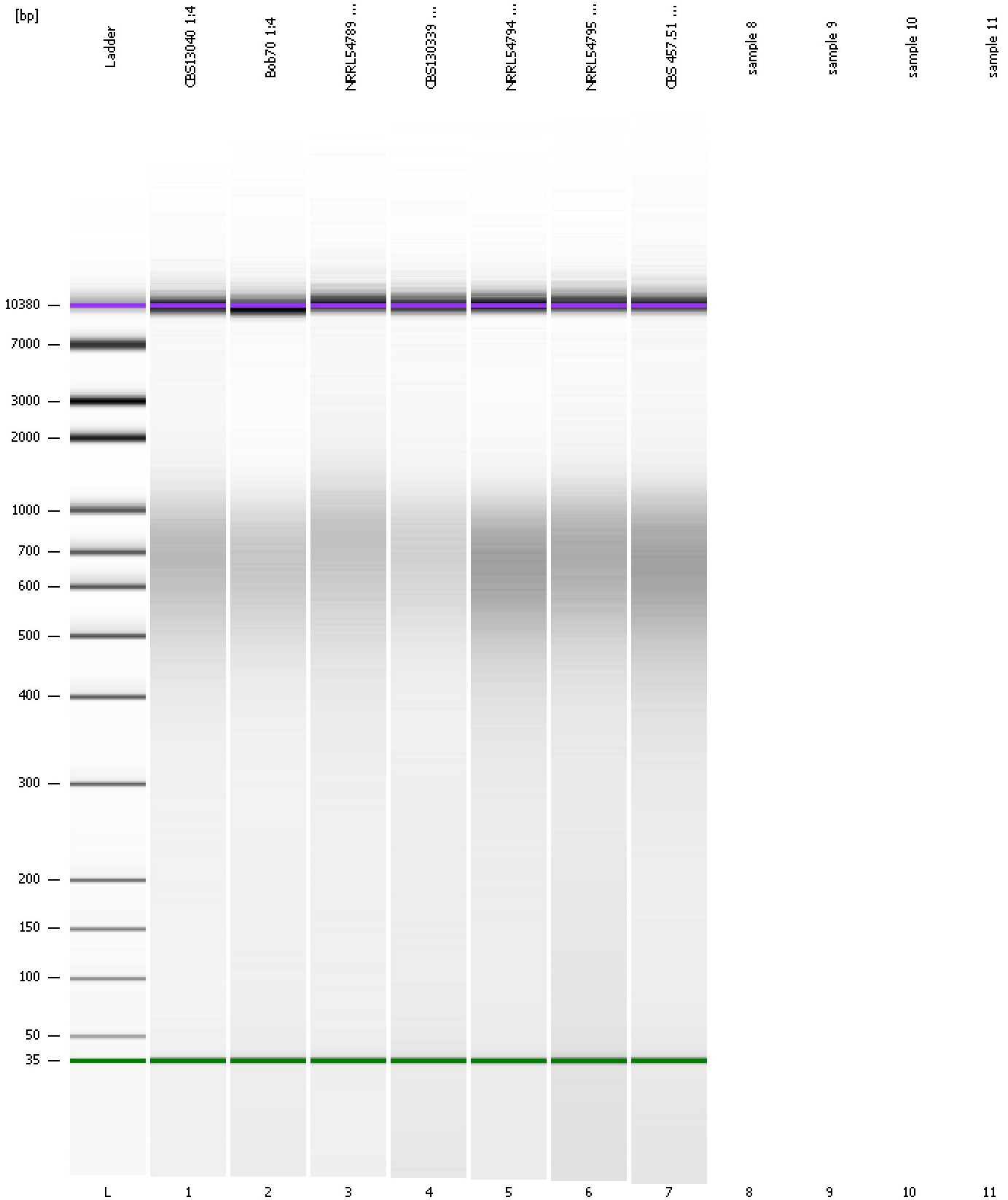
**Region table for sample 7 : CBS 457.51 1:4**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	610	1,000	243.3	1,137.8	88	27.1	409.14	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27\_001.xad

Created: 4/27/2015 8:09:55 AM  
Modified: 4/27/2015 10:38:50 AM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-27\2015-04-27\_001.xad

Created: 4/27/2015 8:09:55 AM  
Modified: 4/27/2015 10:38:50 AM

**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\2015-04-27\2015-04-27\_001.xad

Created: 4/27/2015 8:09:55 AM  
 Modified: 4/27/2015 10:38:50 AM

**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		4/27/2015 8:39:48 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-04-27\2015-04-27_001.xad)		Instrument	Run		4/27/2015 8:10:01 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/27/2015 8:10:01 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/27/2015 8:10:01 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/27/2015 8:10:01 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/27/2015 8:10:01 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/27/2015 8:10:01 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/27/2015 8:10:01 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1