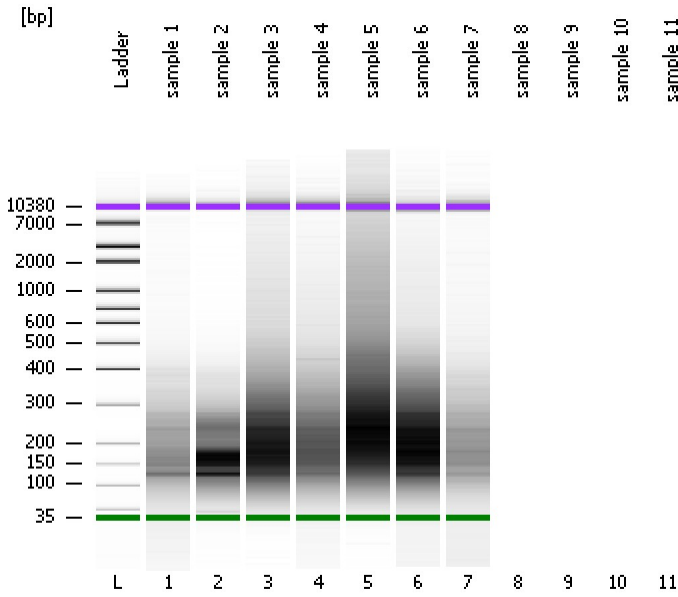


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...nalyzer\2014-12-15\2014-12-15\_003\_Grape\_WPG\_Second\_ship.xad

Created: 12/15/2014 1:54:01 PM  
Modified: 12/15/2014 2:24:42 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

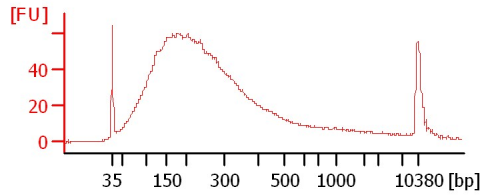
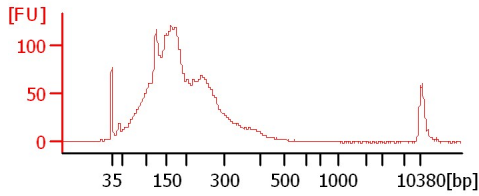
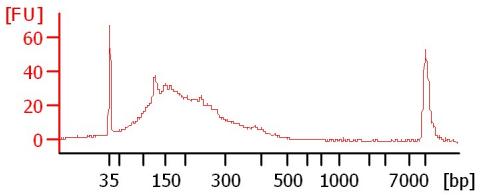
Chip Information:

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

sample 1

sample 2

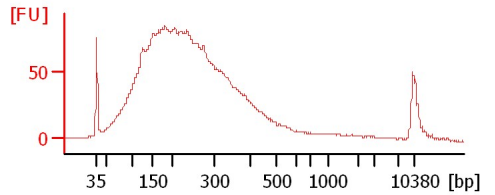
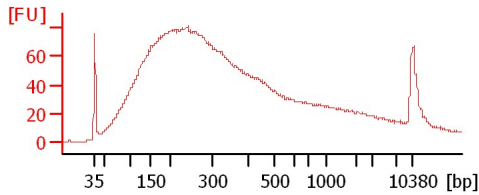
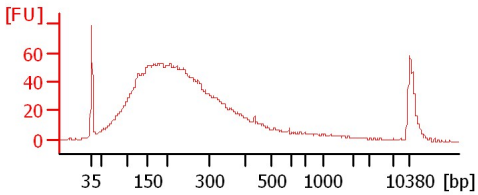
sample 3



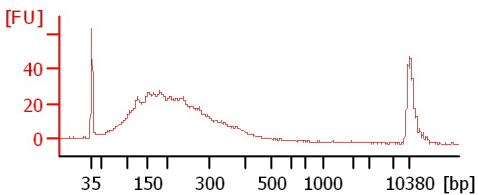
sample 4

sample 5

sample 6



sample 7



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...nalyzer\2014-12-15\2014-12-15\_003\_Grape\_WPG\_Second\_ship.xad

Created: 12/15/2014 1:54:01 PM  
 Modified: 12/15/2014 2:24:42 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:\...nalyzer\2014-12-15\2014-12-15\_003\_Grape\_WPG\_Second\_ship.xad

Created: 12/15/2014 1:54:01 PM  
Modified: 12/15/2014 2:24:42 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

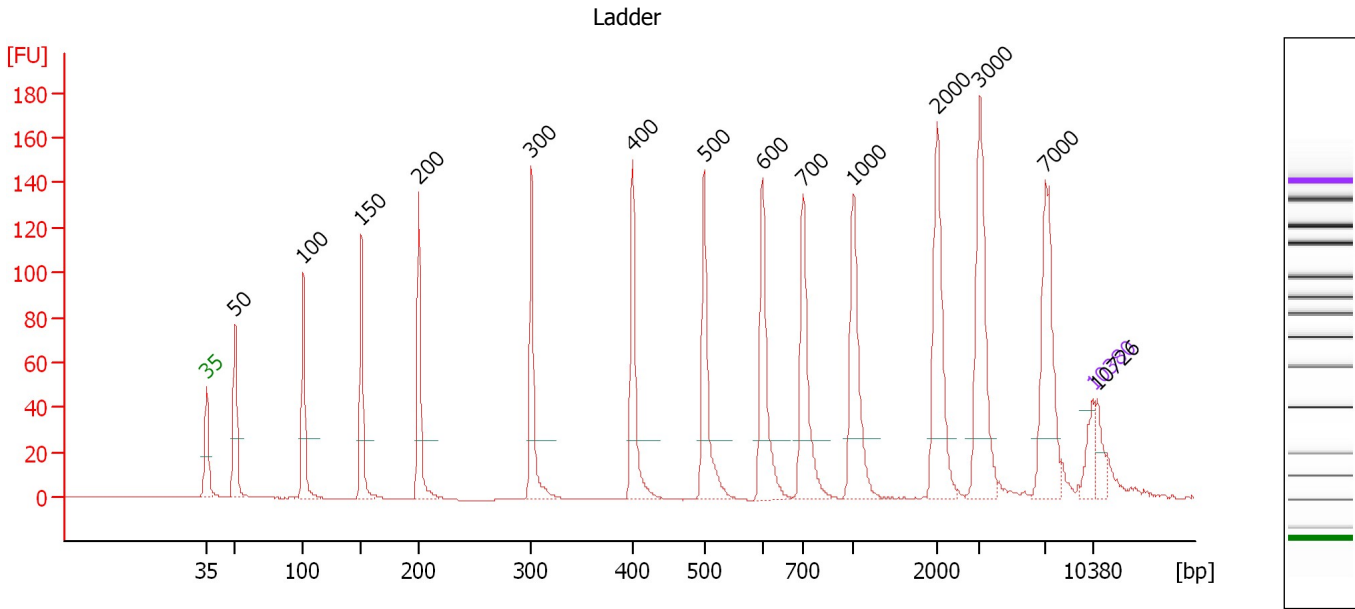
**Ladder**

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:\...alyzer\2014-12-15\2014-12-15\_003\_Grape\_WPG\_Second\_ship.xad

Created: 12/15/2014 1:54:01 PM  
 Modified: 12/15/2014 2:24:42 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

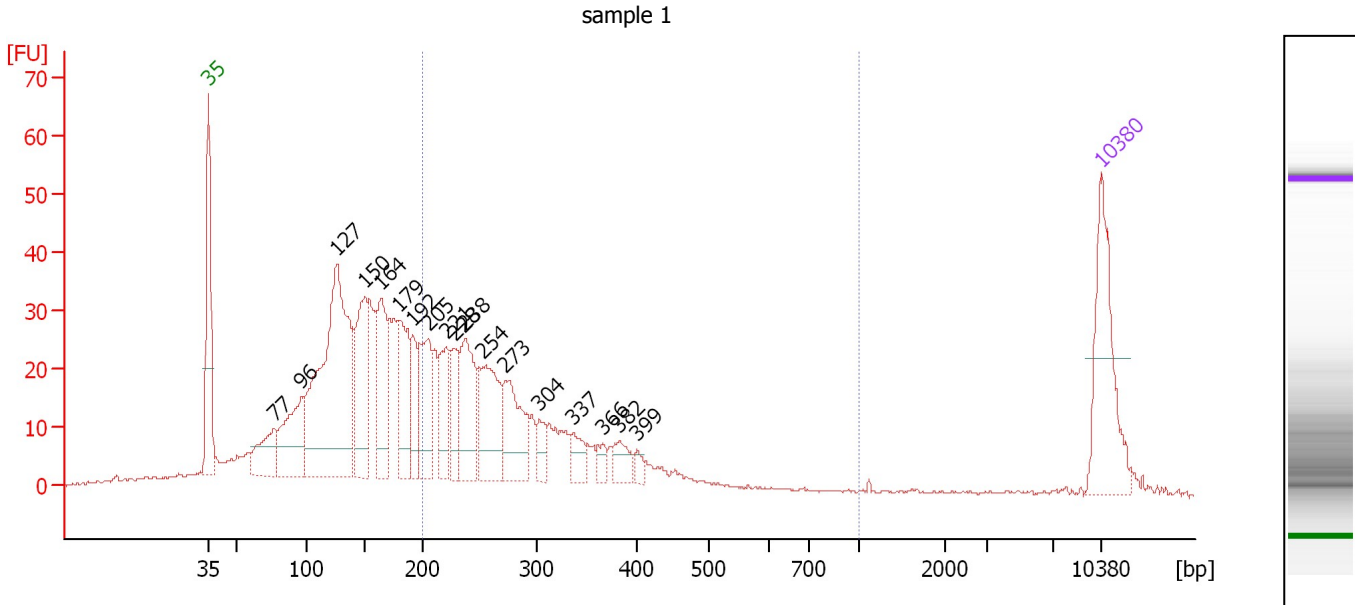
**Peak table for Ladder**

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	50.63
4	150	150.00	1,515.2	Ladder Peak	55.22
5	200	150.00	1,136.4	Ladder Peak	59.77
6	300	150.00	757.6	Ladder Peak	68.67
7	400	150.00	568.2	Ladder Peak	76.67
8	500	150.00	454.5	Ladder Peak	82.32
9	600	150.00	378.8	Ladder Peak	86.91
10	700	150.00	324.7	Ladder Peak	90.12
11	1,000	150.00	227.3	Ladder Peak	94.12
12	2,000	150.00	113.6	Ladder Peak	100.74
13	3,000	150.00	75.8	Ladder Peak	104.11
14	7,000	150.00	32.5	Ladder Peak	109.29
15	10,380	75.00	10.9	Upper Marker	113.00
16	10,726	0.00	0.0		113.38

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...analyzer\2014-12-15\2014-12-15\_003\_Grape\_WPG\_Second\_ship.xad

Created: 12/15/2014 1:54:01 PM  
 Modified: 12/15/2014 2:24:42 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : sample 1**

Number of peaks found: 18                      Corr. Area 1: 441.5  
 Noise: 0.2

**Peak table for sample 1 : sample 1**

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	77	57.07	1,128.2		48.11
3	96	98.06	1,540.7		50.24
4	127	363.99	4,349.5		53.09
5	150	109.28	1,103.6		55.22
6	164	90.93	840.9		56.48
7	179	87.77	742.9		57.86
8	192	41.48	327.5		59.03
9	205	78.07	577.4		60.21
10	221	54.46	373.6		61.63
11	228	37.83	250.9		62.30
12	238	86.42	550.6		63.14
13	254	90.06	537.6		64.56
14	273	76.54	424.6		66.28
15	304	19.23	96.0		68.96
16	337	20.14	90.5		71.64
17	366	11.47	47.5		73.94
18	382	20.33	80.7		75.19
19	399	8.57	32.5		76.62
20	10,380	75.00	10.9	Upper Marker	113.00

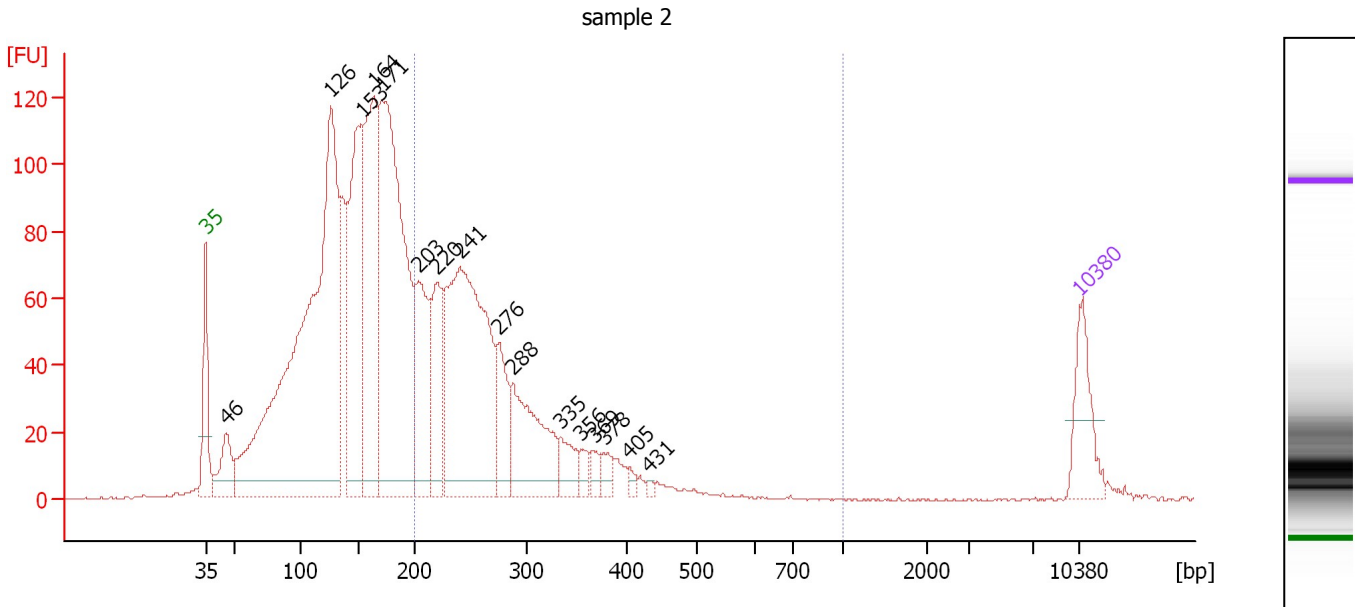
**Region table for sample 1 : sample 1**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	289	1,000	441.5	39	27.7	693.83	3,913.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...analyzer\2014-12-15\2014-12-15\_003\_Grape\_WPG\_Second\_ship.xad

Created: 12/15/2014 1:54:01 PM  
 Modified: 12/15/2014 2:24:42 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : sample 2**

Number of peaks found: 16                      Corr. Area 1: 1,065.5  
 Noise: 0.4

**Peak table for sample 2 : sample 2**

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	46	102.45	3,381.9		44.62
3	126	1,494.81	17,944.2		53.04
4	153	467.92	4,627.5		55.51
5	164	473.51	4,374.6		56.50
6	171	917.88	8,131.1		57.14
7	203	237.98	1,776.1		60.04
8	220	168.31	1,160.1		61.54
9	241	679.59	4,273.3		63.41
10	276	115.47	633.9		66.53
11	288	227.15	1,194.9		67.60
12	335	53.23	241.0		71.44
13	356	20.93	89.2		73.11
14	369	21.68	89.1		74.18
15	378	25.39	101.7		74.95
16	405	10.08	37.7		76.95
17	431	5.22	18.3		78.45
18	10,380	75.00	10.9	Upper Marker	113.00

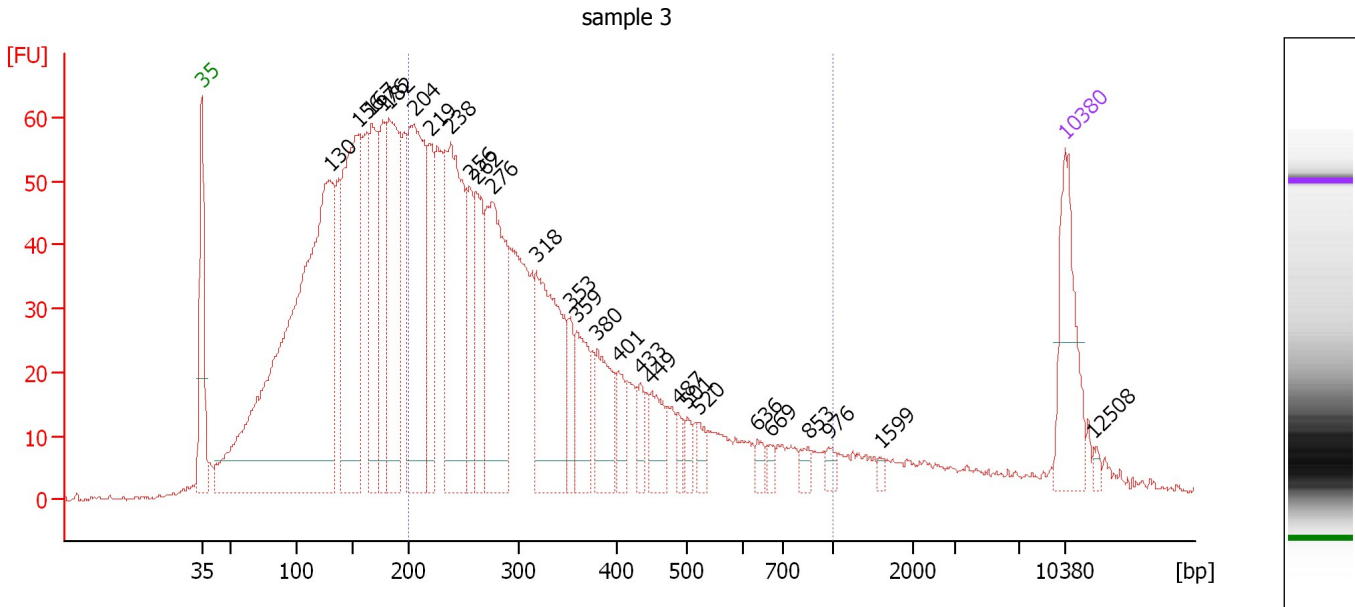
**Region table for sample 2 : sample 2**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	276	1,000	1,065.5	34	24.1	1,657.22	9,613.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...analyzer\2014-12-15\2014-12-15\_003\_Grape\_WPG\_Second\_ship.xad

Created: 12/15/2014 1:54:01 PM  
 Modified: 12/15/2014 2:24:42 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : sample 3**

Number of peaks found: 27                      Corr. Area 1: 1,297.2  
 Noise: 0.4

**Peak table for sample 3 : sample 3**

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	130	913.67	10,617.0		53.42
3	156	347.60	3,379.1		55.75
4	167	160.29	1,456.2		56.75
5	176	113.43	974.9		57.61
6	182	246.67	2,048.4		58.18
7	204	294.61	2,183.8		60.16
8	219	93.34	644.4		61.51
9	238	271.68	1,726.3		63.19
10	256	73.85	437.1		64.75
11	262	109.04	631.1		65.27
12	276	222.59	1,220.3		66.56
13	318	196.01	933.8		70.11
14	353	32.58	140.0		72.88
15	359	68.64	289.6		73.40
16	380	66.75	266.0		75.08
17	401	27.98	105.8		76.72
18	433	17.57	61.5		78.54
19	449	36.88	124.4		79.45
20	487	13.25	41.2		81.61
21	501	11.41	34.5		82.39
22	520	13.83	40.3		83.25
23	636	10.30	24.5		88.05
24	669	6.40	14.5		89.13
25	853	9.87	17.5		92.16

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...nalyzer\2014-12-15\2014-12-15\_003\_Grape\_WPG\_Second\_ship.xad


Created: 12/15/2014 1:54:01 PM  
 Modified: 12/15/2014 2:24:42 PM

### Electropherogram Summary Continued ...

#### ... Peak table for sample 3 : sample 3

Peak	Size [bp]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	976	8.23	12.8		93.80
27	1,599	3.46	3.3		98.08
28	10,380	75.00	10.9	Upper Marker	113.00
29	12,508	0.00	0.0		115.33

#### Region table for sample 3 : sample 3

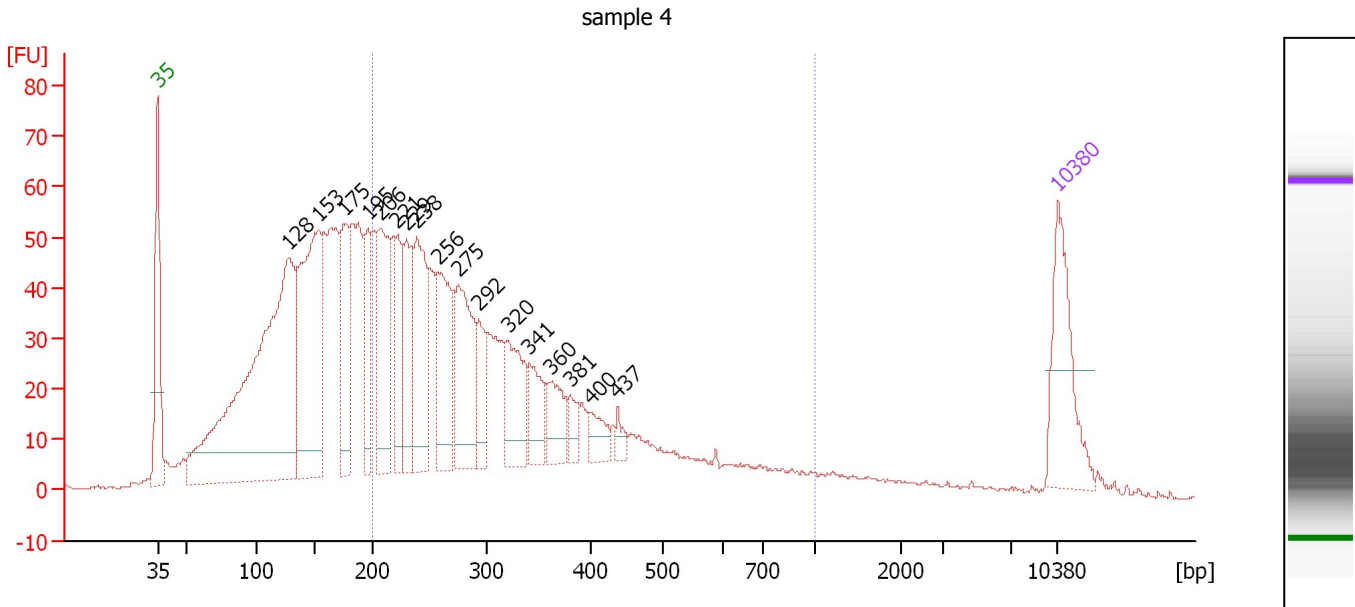
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Color
200	339	1,000	1,297.2	51	41.8	2,067.13	10,828.5	



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...analyzer\2014-12-15\2014-12-15\_003\_Grape\_WPG\_Second\_ship.xad

Created: 12/15/2014 1:54:01 PM  
 Modified: 12/15/2014 2:24:42 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : sample 4**

Number of peaks found: 17      Corr. Area 1: 1,111.2  
 Noise: 0.5

**Peak table for sample 4 : sample 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	128	612.20	7,266.0		53.17
3	153	275.95	2,724.7		55.54
4	175	114.08	987.0		57.51
5	195	74.70	579.4		59.35
6	206	137.96	1,014.3		60.31
7	221	72.07	494.4		61.63
8	229	88.81	588.3		62.33
9	238	121.29	771.8		63.16
10	256	107.31	634.3		64.78
11	275	119.47	659.2		66.41
12	292	49.64	257.7		67.94
13	320	74.78	354.1		70.26
14	341	44.95	199.9		71.93
15	360	40.37	169.7		73.51
16	381	18.00	71.6		75.13
17	400	22.36	84.7		76.66
18	437	11.00	38.1		78.77
19	10,380	75.00	10.9	Upper Marker	113.00

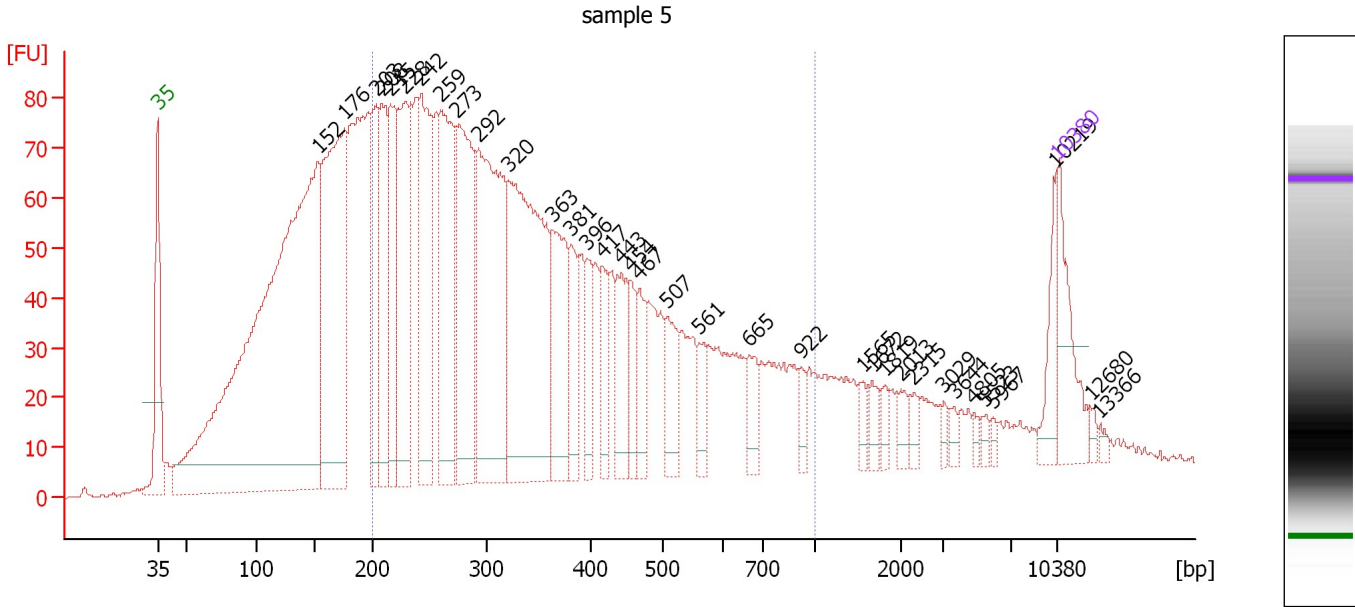
**Region table for sample 4 : sample 4**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	330	1,000	1,111.2	51	40.4	1,498.89	7,960.2	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...analyzer\2014-12-15\2014-12-15\_003\_Grape\_WPG\_Second\_ship.xad

Created: 12/15/2014 1:54:01 PM  
 Modified: 12/15/2014 2:24:42 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : sample 5**

Number of peaks found: 35                      Corr. Area 1: 2,344.4  
 Noise: 0.4

**Peak table for sample 5 : sample 5**

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	152	1,518.12	15,091.4		55.44
3	176	532.38	4,589.3		57.57
4	203	163.85	1,225.5		60.00
5	208	173.22	1,264.5		60.44
6	215	158.37	1,115.9		61.11
7	228	252.57	1,678.7		62.26
8	242	252.69	1,582.7		63.50
9	259	253.81	1,485.7		65.01
10	273	304.16	1,689.5		66.24
11	292	427.42	2,220.1		67.93
12	320	476.96	2,257.7		70.27
13	363	161.37	673.2		73.73
14	381	68.41	271.7		75.19
15	396	54.52	208.4		76.38
16	417	58.80	213.7		77.62
17	443	84.69	289.8		79.08
18	454	45.58	152.0		79.75
19	467	52.65	170.8		80.46
20	507	66.53	199.0		82.63
21	561	35.84	96.9		85.11
22	665	38.68	88.1		89.00
23	922	19.24	31.6		93.08
24	1,565	16.88	16.3		97.86
25	1,672	17.93	16.3		98.57

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...nalyzer\2014-12-15\2014-12-15\_003\_Grape\_WPG\_Second\_ship.xad


Created: 12/15/2014 1:54:01 PM  
 Modified: 12/15/2014 2:24:42 PM

**Electropherogram Summary Continued ...**

**... Peak table for sample 5 : sample 5**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	1,819	14.32	11.9		99.54
27	2,013	14.54	10.9		100.78
28	2,315	13.08	8.6		101.80
29	3,029	8.28	4.1		104.14
30	3,644	10.03	4.2		104.94
31	4,805	6.62	2.1		106.45
32	5,523	7.92	2.2		107.38
33	5,967	6.02	1.5		107.95
34	10,219	40.46	6.0		112.82
35	10,380	75.00	10.9	Upper Marker	113.00
36	12,680	0.00	0.0		115.52
37	13,366	0.00	0.0		116.28

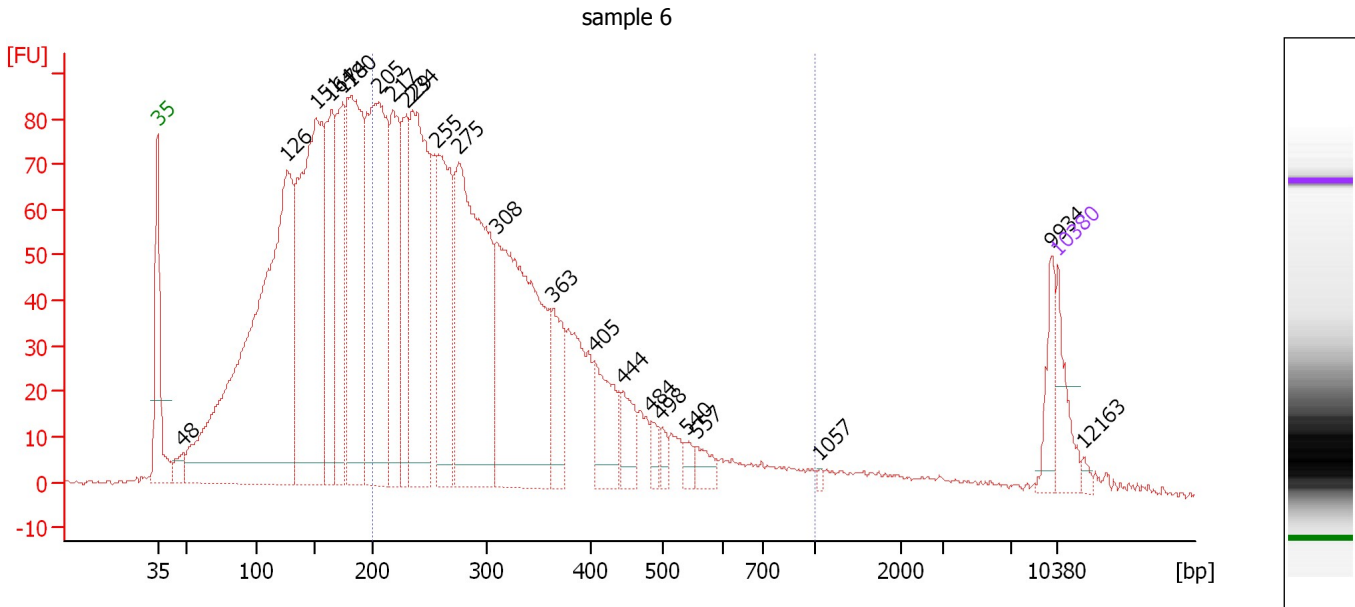
**Region table for sample 5 : sample 5**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	378	1,000	2,344.4	59	43.3	4,030.51	19,672.7	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...analyzer\2014-12-15\2014-12-15\_003\_Grape\_WPG\_Second\_ship.xad

Created: 12/15/2014 1:54:01 PM  
 Modified: 12/15/2014 2:24:42 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : sample 6**

Number of peaks found: 23                      Corr. Area 1: 1,837.8  
 Noise: 0.6

**Peak table for sample 6 : sample 6**


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	48	43.42	1,366.5		44.96
3	126	1,867.68	22,392.6		53.05
4	151	1,095.31	10,985.4		55.32
5	164	419.73	3,871.6		56.52
6	174	328.16	2,865.0		57.36
7	180	714.27	5,999.6		57.99
8	205	843.55	6,221.8		60.26
9	217	373.85	2,605.2		61.32
10	229	271.34	1,795.8		62.35
11	234	640.62	4,140.4		62.83
12	255	445.05	2,639.8		64.70
13	275	868.67	4,787.1		66.44
14	308	841.31	4,135.0		69.33
15	363	149.33	623.8		73.69
16	405	158.03	590.6		76.98
17	444	79.84	272.5		79.16
18	484	29.79	93.2		81.42
19	498	24.45	74.4		82.18
20	540	23.24	65.3		84.14
21	557	41.67	113.4		84.94
22	1,057	5.86	8.4		94.50
23	9,934	63.90	9.7		112.51
24	10,380	75.00	10.9	Upper Marker	113.00
25	12,163	0.00	0.0		114.96

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...nalyzer\2014-12-15\2014-12-15\_003\_Grape\_WPG\_Second\_ship.xad

Created: 12/15/2014 1:54:01 PM  
Modified: 12/15/2014 2:24:42 PM

**Electropherogram Summary Continued ...**

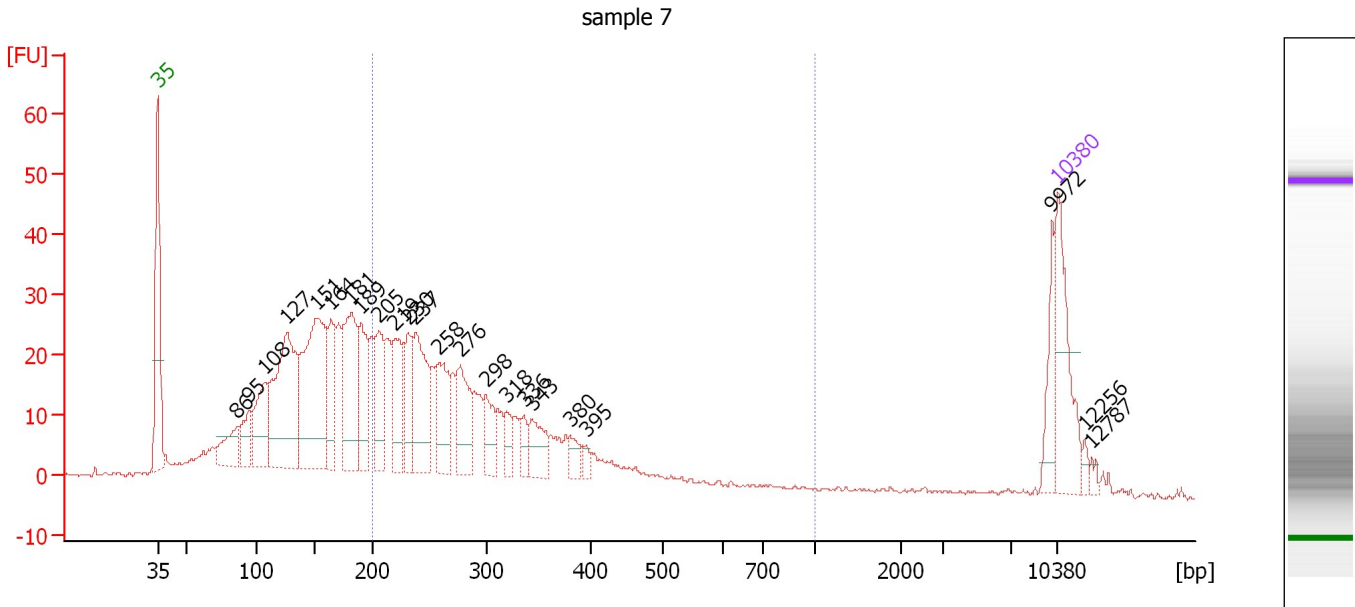
... Region table for sample 6 : sample 6

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Color
200	320	1,000	1,837.8	53	36.3	5,023.14	26,848.4	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...analyzer\2014-12-15\2014-12-15\_003\_Grape\_WPG\_Second\_ship.xad

Created: 12/15/2014 1:54:01 PM  
 Modified: 12/15/2014 2:24:42 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : sample 7**

Number of peaks found: 23                      Corr. Area 1: 450.2  
 Noise: 0.3


**Peak table for sample 7 : sample 7**

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	86	56.06	986.2		49.13
3	95	42.25	674.9		50.07
4	108	87.26	1,228.9		51.32
5	127	236.85	2,835.0		53.07
6	151	254.07	2,541.9		55.35
7	164	76.46	707.5		56.47
8	181	143.02	1,197.6		58.04
9	189	86.15	689.6		58.80
10	205	75.52	557.8		60.23
11	219	74.23	513.0		61.48
12	230	57.55	378.6		62.47
13	237	115.55	739.1		63.05
14	258	72.77	427.3		64.93
15	276	73.71	404.5		66.54
16	298	39.11	198.7		68.51
17	318	22.83	108.7		70.12
18	336	17.61	79.5		71.51
19	343	41.00	181.2		72.09
20	380	15.44	61.5		75.09
21	395	8.19	31.4		76.30
22	9,972	35.38	5.4		112.55
23	10,380	75.00	10.9	Upper Marker	113.00
24	12,256	0.00	0.0		115.06
25	12,787	0.00	0.0		115.64

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...nalyzer\2014-12-15\2014-12-15\_003\_Grape\_WPG\_Second\_ship.xad

Created: 12/15/2014 1:54:01 PM  
Modified: 12/15/2014 2:24:42 PM

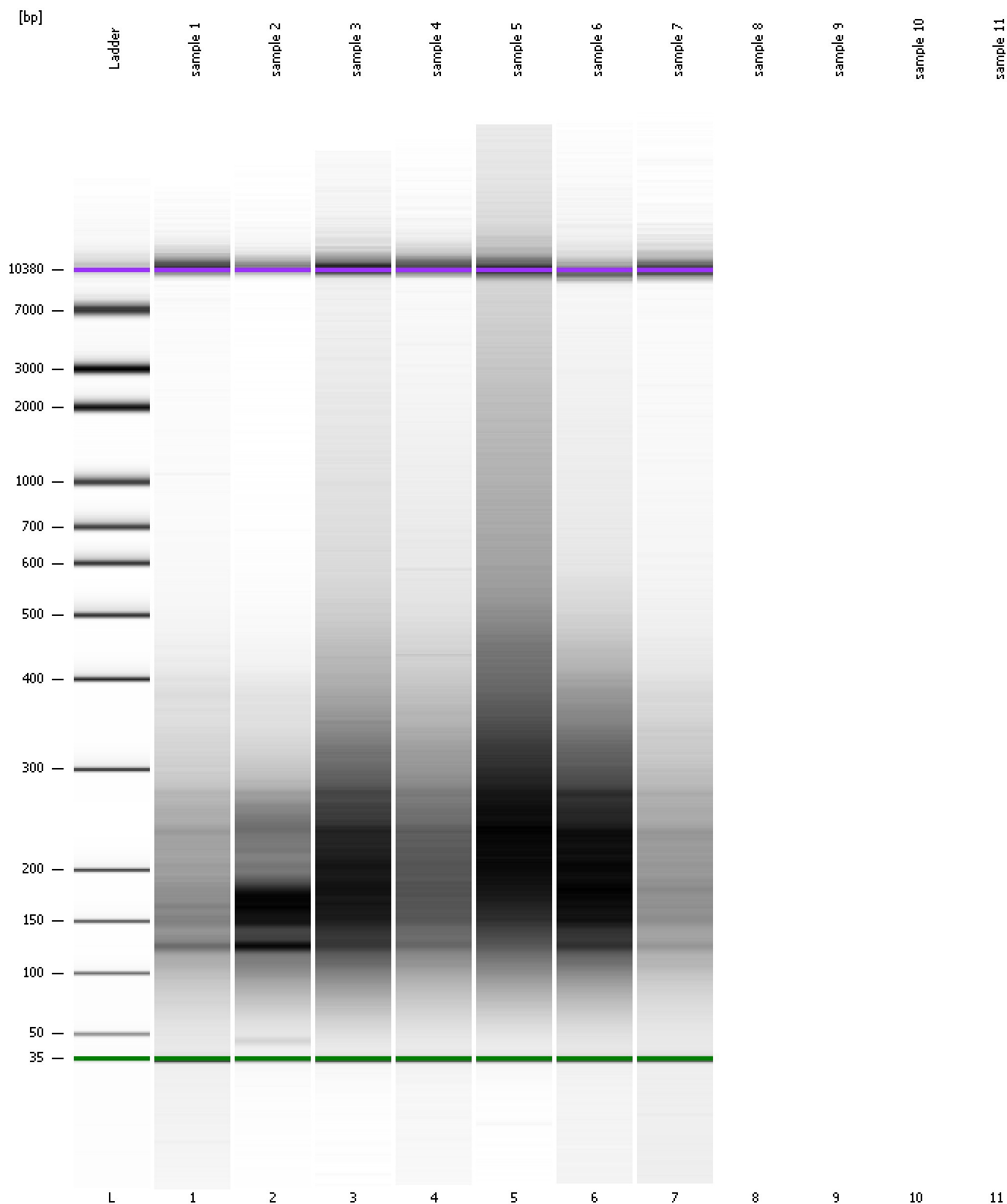
**Electropherogram Summary Continued ...****... Region table for sample 7 :      sample 7**

<b>From [bp]</b>	<b>Average Size [bp]</b>	<b>To [bp]</b>	<b>Corr. Area</b>	<b>% of Total</b>	<b>Size distribution in CV [%]</b>	<b>Conc. [pg/<math>\mu</math>l]</b>	<b>Molarity [pmol/l]</b>	<b>Co lor</b>
200	296	1,000	450.2	46	30.8	1,024.35	5,702.4	

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...nalyzer\2014-12-15\2014-12-15\_003\_Grape\_WPG\_Second\_ship.xad

Created: 12/15/2014 1:54:01 PM  
Modified: 12/15/2014 2:24:42 PM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...nalyzer\2014-12-15\2014-12-15\_003\_Grape\_WPG\_Second\_ship.xad

Created: 12/15/2014 1:54:01 PM  
Modified: 12/15/2014 2:24:42 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:\...nalyzer\2014-12-15\2014-12-15\_003\_Grape\_WPG\_Second\_ship.xad

Created: 12/15/2014 1:54:01 PM  
 Modified: 12/15/2014 2:24:42 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		12/15/2014 2:23:52 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-12-15\2014-12-15_003.xad)		Instrument	Run		12/15/2014 1:54:06 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		12/15/2014 1:54:06 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		12/15/2014 1:54:06 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		12/15/2014 1:54:06 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		12/15/2014 1:54:06 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		12/15/2014 1:54:06 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		12/15/2014 1:54:06 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1