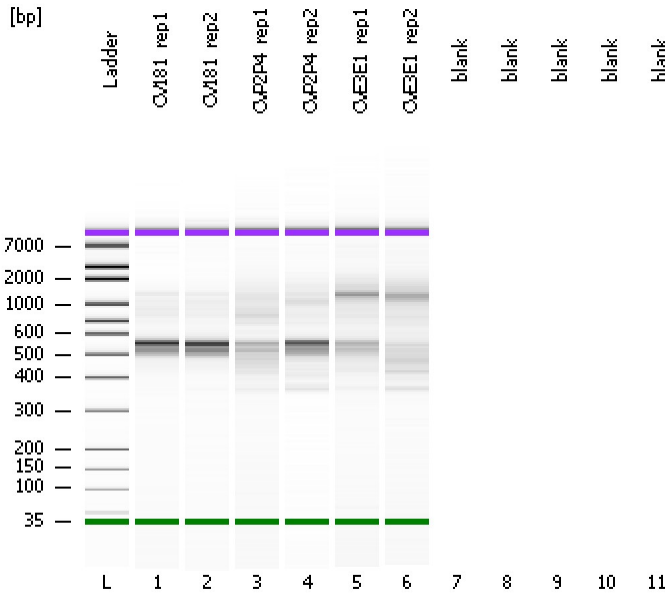


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-07\2019-11-07\_001.xad

Created: 11/7/2019 10:19:51 AM  
Modified: 11/7/2019 10:46:54 AM

**Electrophoresis File Run Summary**



Instrument Information:

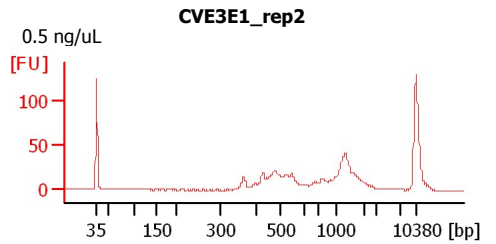
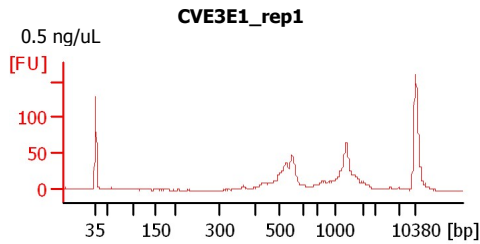
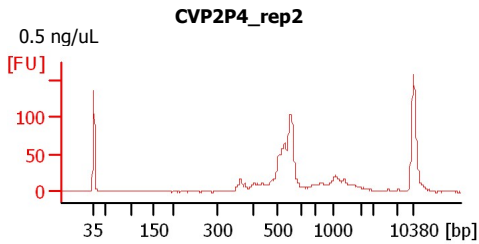
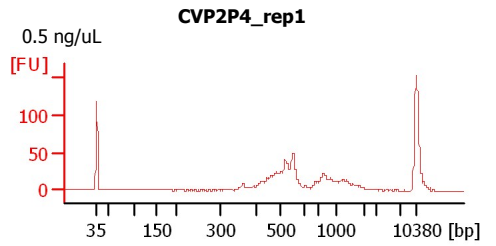
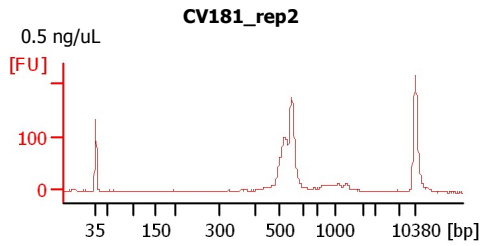
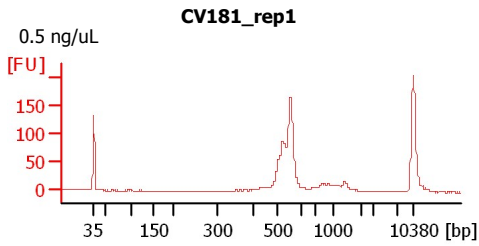
Instrument Name: DE34903152      Firmware: C.01.069  
Serial#: DE34903152      Type: G2938C

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:\... bioanalyzer\2100 expert\data\2019-11-07\2019-11-07\_001.xad

Created: 11/7/2019 10:19:51 AM  
 Modified: 11/7/2019 10:46:54 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
CV181_rep1	0.5 ng/uL	<input type="checkbox"/>	✓			
CV181_rep2	0.5 ng/uL	<input type="checkbox"/>	✓			
CVP2P4_rep1	0.5 ng/uL	<input type="checkbox"/>	✓			
CVP2P4_rep2	0.5 ng/uL	<input type="checkbox"/>	✓			
CVE3E1_rep1	0.5 ng/uL	<input type="checkbox"/>	✓			
CVE3E1_rep2	0.5 ng/uL	<input type="checkbox"/>	✓			
blank		<input type="checkbox"/>				
blank		<input type="checkbox"/>				
blank		<input type="checkbox"/>				
blank		<input type="checkbox"/>				
blank		<input type="checkbox"/>				
Ladder		<input type="checkbox"/>	✓			

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-07\2019-11-07\_001.xad

Created: 11/7/2019 10:19:51 AM  
Modified: 11/7/2019 10:46:54 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

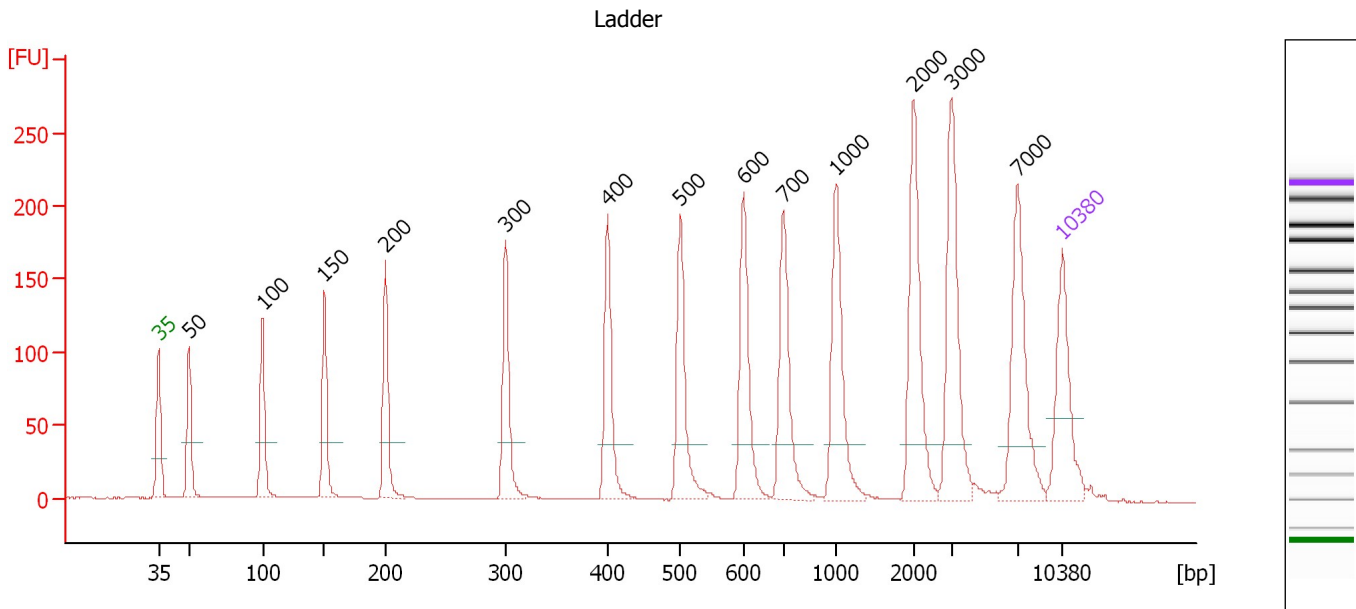
**Ladder**

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:\... bioanalyzer\2100 expert\data\2019-11-07\2019-11-07\_001.xad

Created: 11/7/2019 10:19:51 AM  
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**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.3

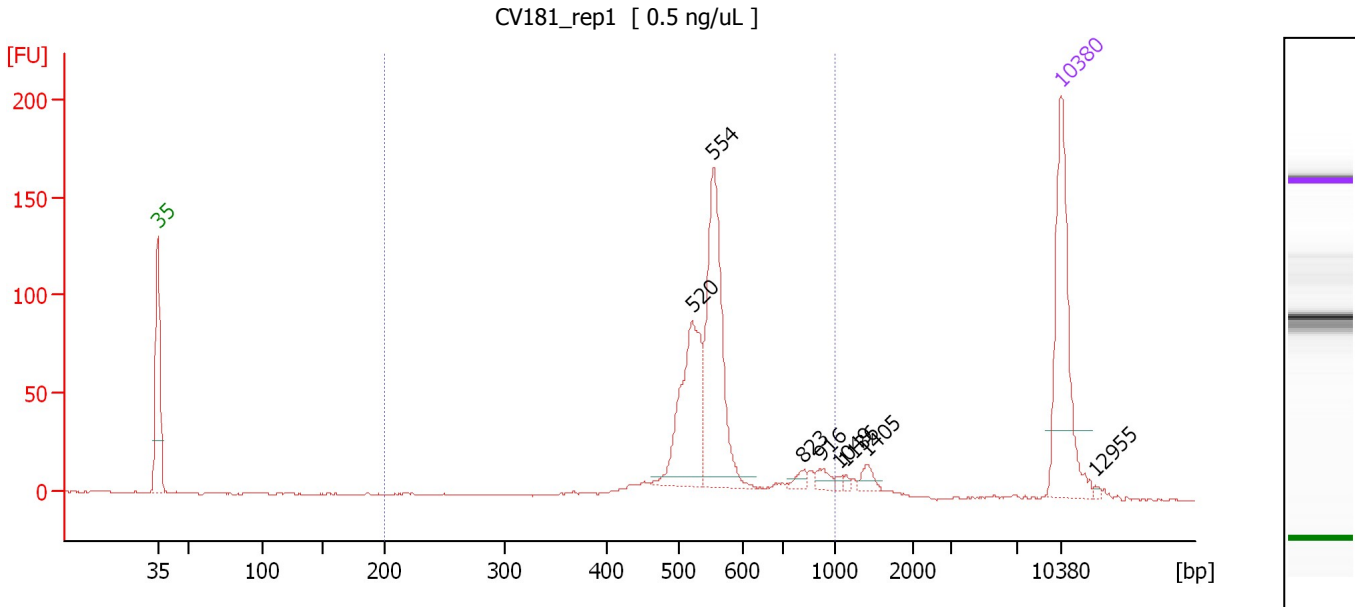
**Peak table for Ladder**

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	45.35
3	100	150.00	2,272.7	Ladder Peak	51.06
4	150	150.00	1,515.2	Ladder Peak	55.86
5	200	150.00	1,136.4	Ladder Peak	60.57
6	300	150.00	757.6	Ladder Peak	69.89
7	400	150.00	568.2	Ladder Peak	77.78
8	500	150.00	454.5	Ladder Peak	83.40
9	600	150.00	378.8	Ladder Peak	88.33
10	700	150.00	324.7	Ladder Peak	91.38
11	1,000	150.00	227.3	Ladder Peak	95.48
12	2,000	150.00	113.6	Ladder Peak	101.49
13	3,000	150.00	75.8	Ladder Peak	104.41
14	7,000	150.00	32.5	Ladder Peak	109.56
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-07\2019-11-07\_001.xad

Created: 11/7/2019 10:19:51 AM  
 Modified: 11/7/2019 10:46:54 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : CV181\_rep1**

Number of peaks found: 8                      Corr. Area 1: 616.4  
 Noise: 0.3

**Peak table for sample 1 : CV181\_rep1**

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	520	93.94	273.5		84.41
3	554	122.40	334.7		86.07
4	823	5.10	9.4		93.06
5	916	6.12	10.1		94.33
6	1,049	1.73	2.5		95.77
7	1,136	1.74	2.3		96.30
8	1,405	6.14	6.6		97.92
9	10,380	75.00	10.9	Upper Marker	113.00
10	12,955	0.00	0.0		115.62

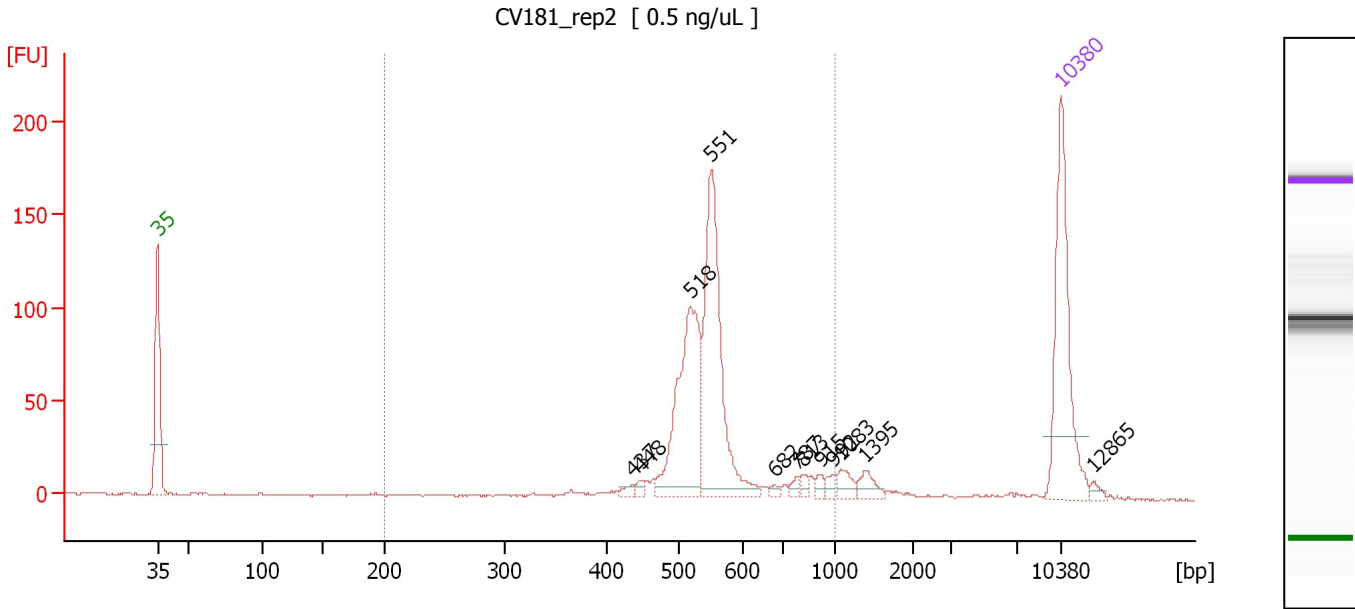
**Region table for sample 1 : CV181\_rep1**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	566	284.59	616.4	789.7	90	18.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-07\2019-11-07\_001.xad

Created: 11/7/2019 10:19:51 AM  
 Modified: 11/7/2019 10:46:54 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : CV181\_rep2**

Number of peaks found: 12                      Corr. Area 1: 677.3  
 Noise: 0.4

**Peak table for sample 2 : CV181\_rep2**

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	437	3.70	12.8		79.88
3	448	3.33	11.3		80.49
4	518	115.94	339.2		84.28
5	551	136.65	376.0		85.90
6	682	2.36	5.3		90.83
7	787	3.11	6.0		92.58
8	813	3.59	6.7		92.93
9	915	4.02	6.6		94.32
10	992	3.88	5.9		95.37
11	1,083	7.89	11.0		95.98
12	1,395	8.26	9.0		97.86
13	10,380	75.00	10.9	Upper Marker	113.00
14	12,865	0.00	0.0		115.53

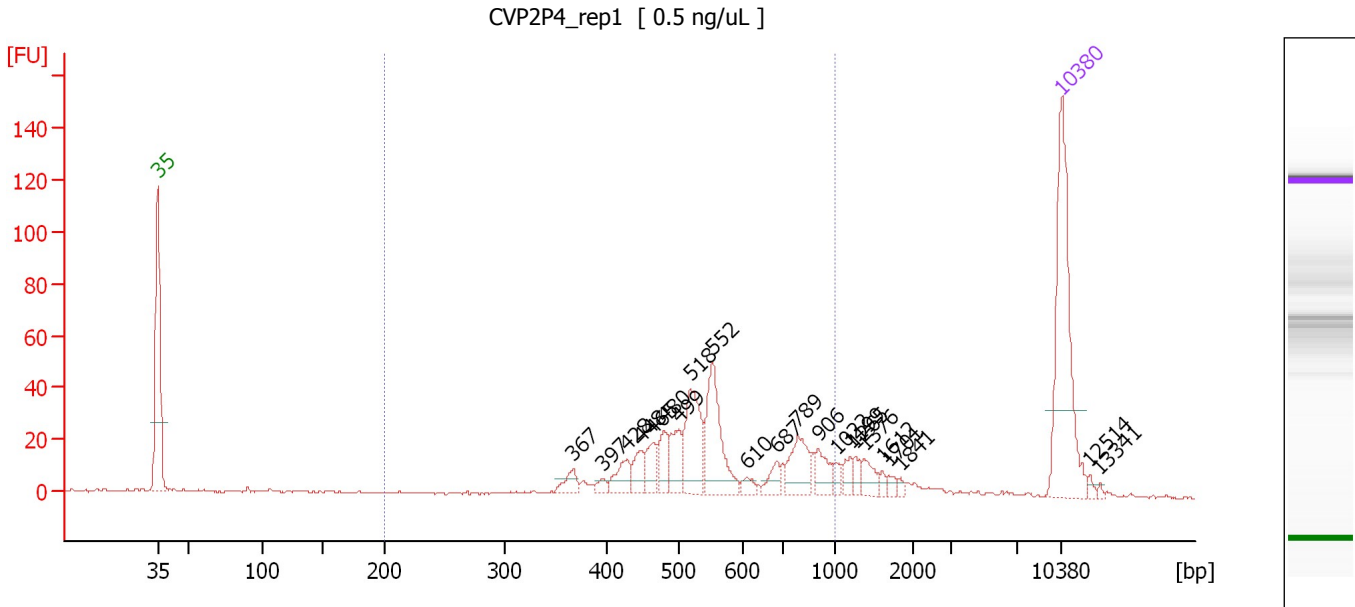
**Region table for sample 2 : CV181\_rep2**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	559	296.29	677.3	830.6	89	18.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-07\2019-11-07\_001.xad

Created: 11/7/2019 10:19:51 AM  
 Modified: 11/7/2019 10:46:54 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : CVP2P4\_rep1**

Number of peaks found: 22                      Corr. Area 1: 434.1  
 Noise: 0.5

**Peak table for sample 3 : CVP2P4\_rep1**

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	367	8.75	36.1		75.21
3	397	4.32	16.5		77.51
4	428	14.15	50.0		79.38
5	448	11.89	40.2		80.48
6	465	14.55	47.4		81.42
7	480	15.26	48.2		82.26
8	499	18.99	57.6		83.37
9	518	42.50	124.3		84.30
10	552	47.99	131.6		85.98
11	610	4.38	10.9		88.65
12	687	8.54	18.8		91.00
13	789	23.37	44.9		92.59
14	906	12.59	21.1		94.19
15	1,022	4.36	6.5		95.61
16	1,199	6.06	7.7		96.68
17	1,265	4.49	5.4		97.07
18	1,376	8.62	9.5		97.74
19	1,612	2.53	2.4		99.16
20	1,701	2.94	2.6		99.69
21	1,841	1.78	1.5		100.53
22	10,380	75.00	10.9	Upper Marker	113.00
23	12,514	0.00	0.0		115.17
24	13,341	0.00	0.0		116.02

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-07\2019-11-07\_001.xad

Created: 11/7/2019 10:19:51 AM  
Modified: 11/7/2019 10:46:54 AM

**Electropherogram Summary Continued ...**

... Region table for sample 3 : CVP2P4\_rep1

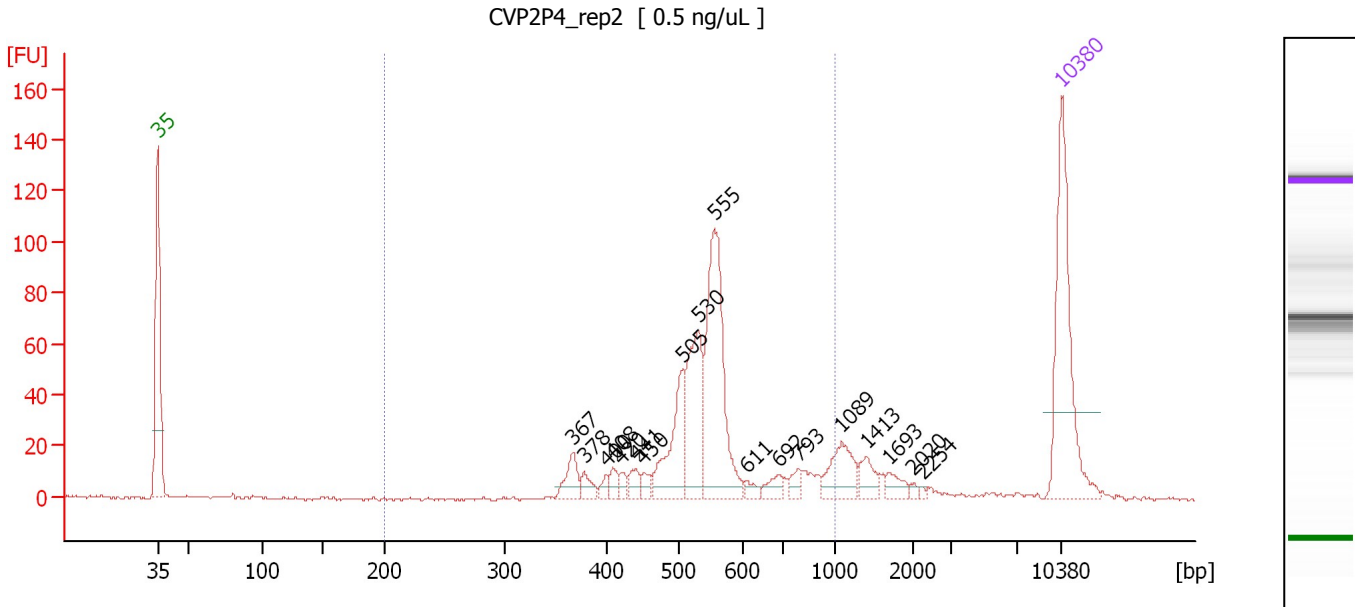
From [bp]	To [bp]	Average Size [bp]	Conc. [pg/ $\mu$ l]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	569	268.70	434.1	793.9	 74	28.0



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-07\2019-11-07\_001.xad

Created: 11/7/2019 10:19:51 AM  
 Modified: 11/7/2019 10:46:54 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : CVP2P4\_rep2**

Number of peaks found: 18                      Corr. Area 1: 528.3  
 Noise: 0.4

**Peak table for sample 4 : CVP2P4\_rep2**

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	367	16.50	68.2		75.16
3	378	8.22	32.9		76.07
4	400	5.07	19.2		77.75
5	408	6.73	25.0		78.25
6	420	5.00	18.0		78.93
7	441	8.34	28.7		80.07
8	450	5.85	19.7		80.61
9	505	47.00	141.0		83.66
10	530	61.23	175.0		84.88
11	555	111.21	303.7		86.11
12	611	4.74	11.8		88.65
13	692	8.66	19.0		91.15
14	793	6.37	12.2		92.65
15	1,089	24.49	34.1		96.01
16	1,413	11.02	11.8		97.96
17	1,693	7.34	6.6		99.65
18	2,020	1.81	1.4		101.55
19	2,254	1.23	0.8		102.23
20	10,380	75.00	10.9	Upper Marker	113.00

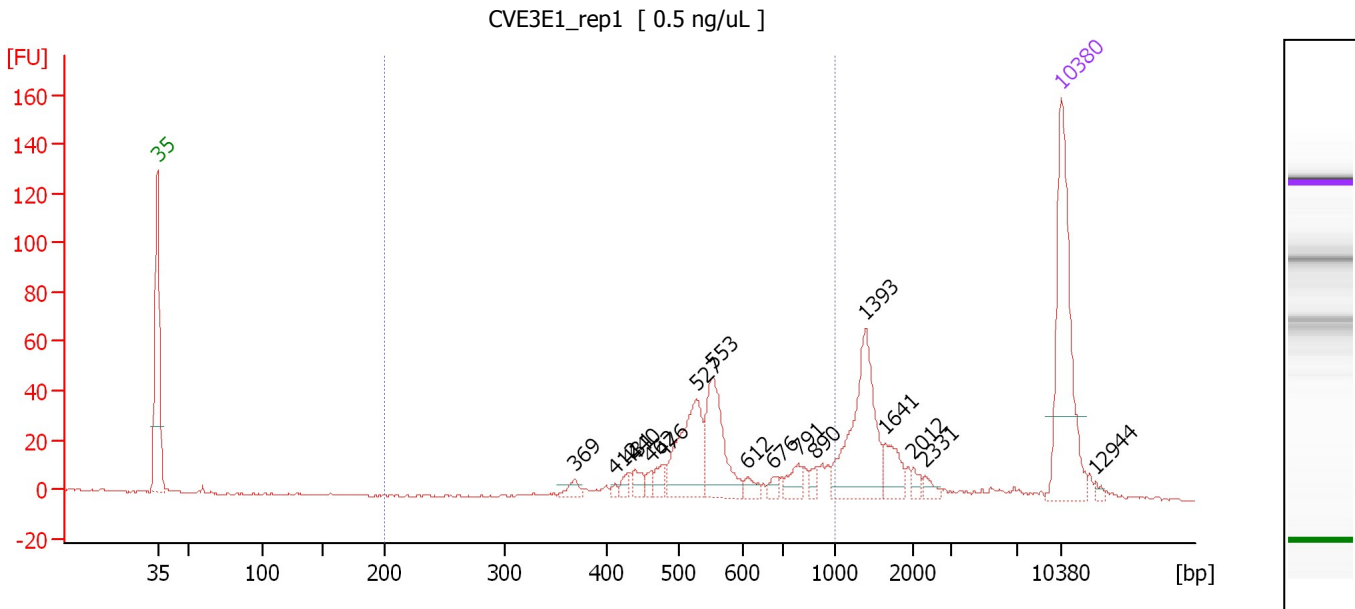
**Region table for sample 4 : CVP2P4\_rep2**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	552	305.87	528.3	884.8	83	21.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-07\2019-11-07\_001.xad

Created: 11/7/2019 10:19:51 AM  
 Modified: 11/7/2019 10:46:54 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : CVE3E1\_rep1**

Number of peaks found: 17                      Corr. Area 1: 321.3  
 Noise: 0.5

**Peak table for sample 5 : CVE3E1\_rep1**

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	369	6.21	25.5		75.32
3	412	2.31	8.5		78.44
4	431	4.84	17.0		79.52
5	440	7.48	25.8		80.03
6	462	4.53	14.9		81.24
7	476	8.86	28.2		82.08
8	527	57.18	164.4		84.74
9	553	52.22	143.2		86.00
10	612	5.63	13.9		88.70
11	676	4.58	10.3		90.66
12	791	9.88	18.9		92.62
13	890	4.13	7.0		93.97
14	1,393	66.93	72.8		97.84
15	1,641	15.63	14.4		99.34
16	2,012	3.73	2.8		101.53
17	2,331	4.10	2.7		102.46
18	10,380	75.00	10.9	Upper Marker	113.00
19	12,944	0.00	0.0		115.61

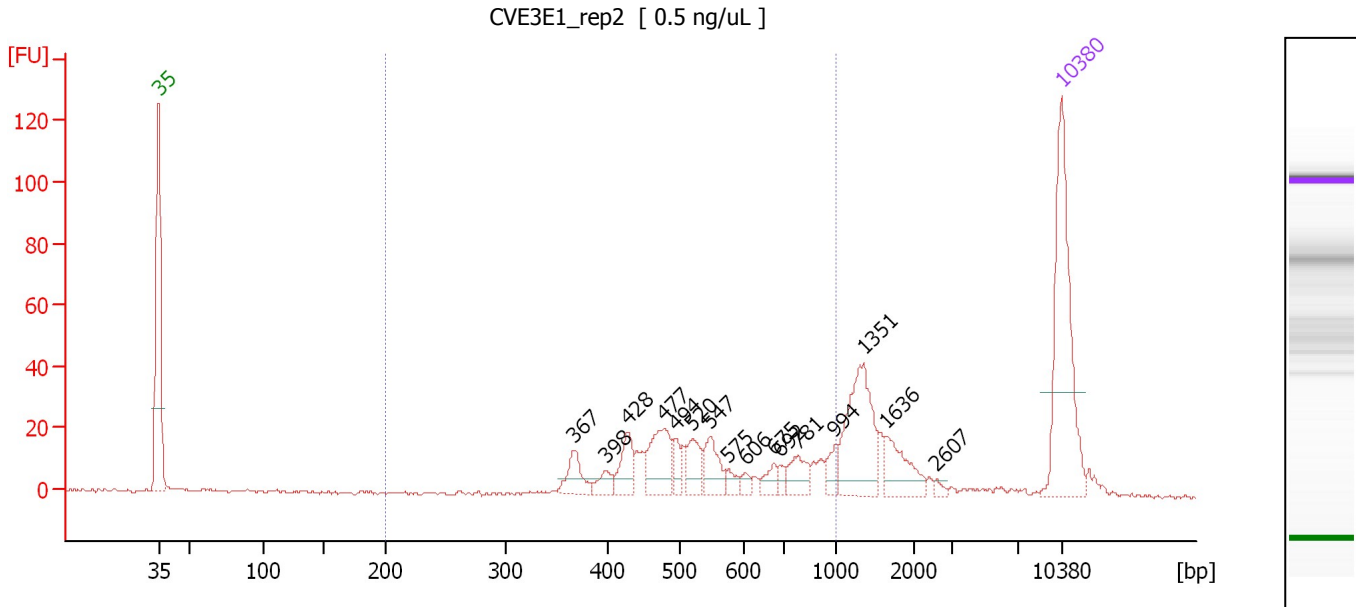
**Region table for sample 5 : CVE3E1\_rep1**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	582	181.53	321.3	504.0	58	24.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-07\2019-11-07\_001.xad

Created: 11/7/2019 10:19:51 AM  
 Modified: 11/7/2019 10:46:54 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : CVE3E1\_rep2**

Number of peaks found: 16                      Corr. Area 1: 310.8  
 Noise: 0.4

**Peak table for sample 6 : CVE3E1\_rep2**

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	367	17.61	72.8		75.16
3	398	8.65	33.0		77.59
4	428	19.32	68.4		79.36
5	477	33.13	105.2		82.13
6	494	8.88	27.2		83.08
7	520	16.93	49.4		84.37
8	547	18.93	52.5		85.71
9	575	5.83	15.4		87.09
10	606	3.86	9.7		88.52
11	675	7.68	17.2		90.62
12	692	4.65	10.2		91.15
13	781	14.41	28.0		92.48
14	994	8.24	12.6		95.39
15	1,351	54.79	61.5		97.59
16	1,636	21.60	20.0		99.31
17	2,607	2.10	1.2		103.27
18	10,380	75.00	10.9	Upper Marker	113.00

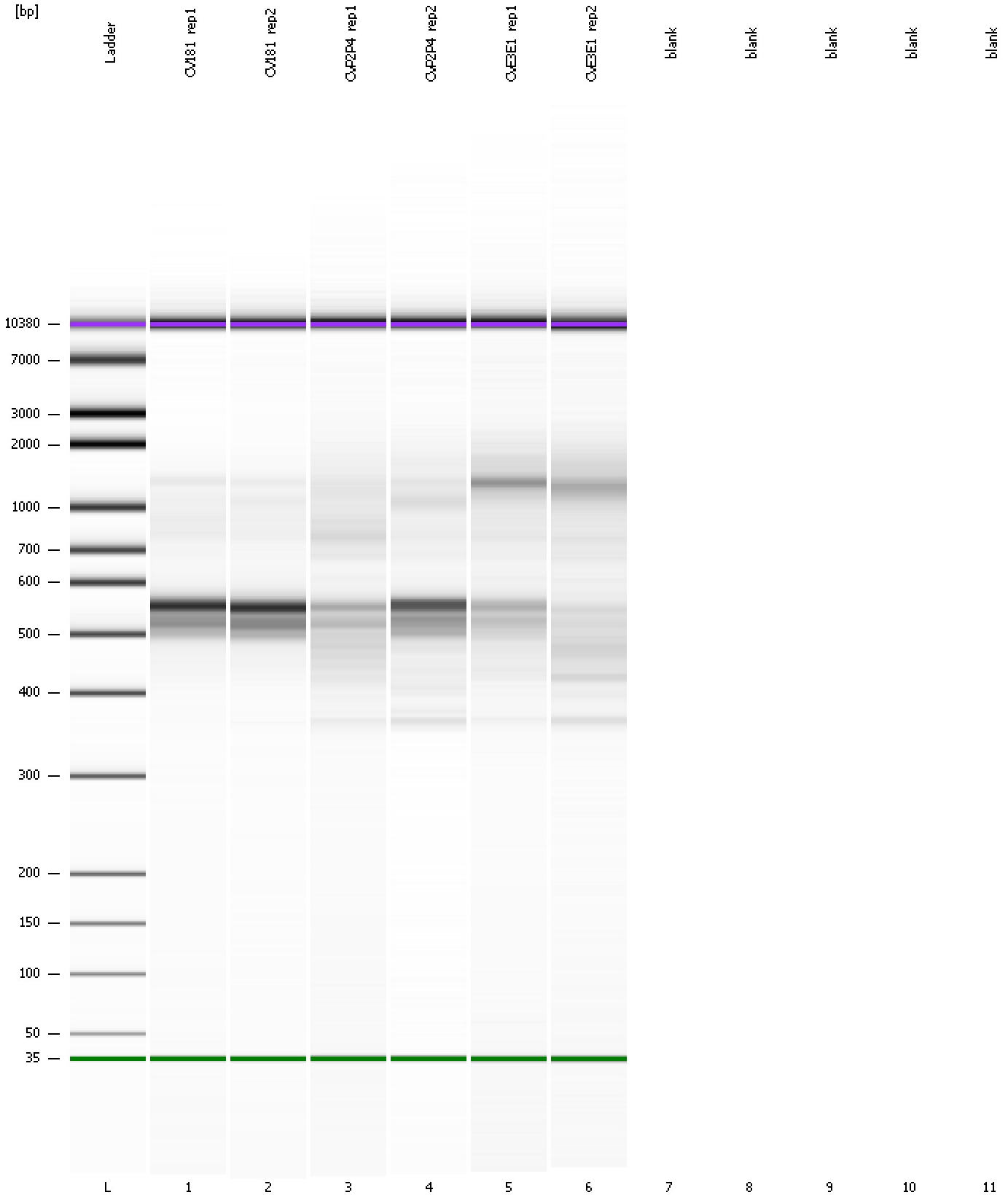
**Region table for sample 6 : CVE3E1\_rep2**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	562	205.92	310.8	615.6	58	29.7

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-07\2019-11-07\_001.xad

Created: 11/7/2019 10:19:51 AM  
Modified: 11/7/2019 10:46:54 AM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-07\2019-11-07\_001.xad

Created: 11/7/2019 10:19:51 AM  
Modified: 11/7/2019 10:46:54 AM

**Invalid Samples**

Sample 7 has not been run, no results available.

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:\... bioanalyzer\2100 expert\data\2019-11-07\2019-11-07\_001.xad

Created: 11/7/2019 10:19:51 AM  
 Modified: 11/7/2019 10:46:54 AM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 7)		Instrument	Run		11/7/2019 10:46:52 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2019-11-07\2019-11-07_001.xad)		Instrument	Run		11/7/2019 10:19:56 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		11/7/2019 10:19:56 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		11/7/2019 10:19:56 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		11/7/2019 10:19:56 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		11/7/2019 10:19:56 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		11/7/2019 10:19:56 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		11/7/2019 10:19:56 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1