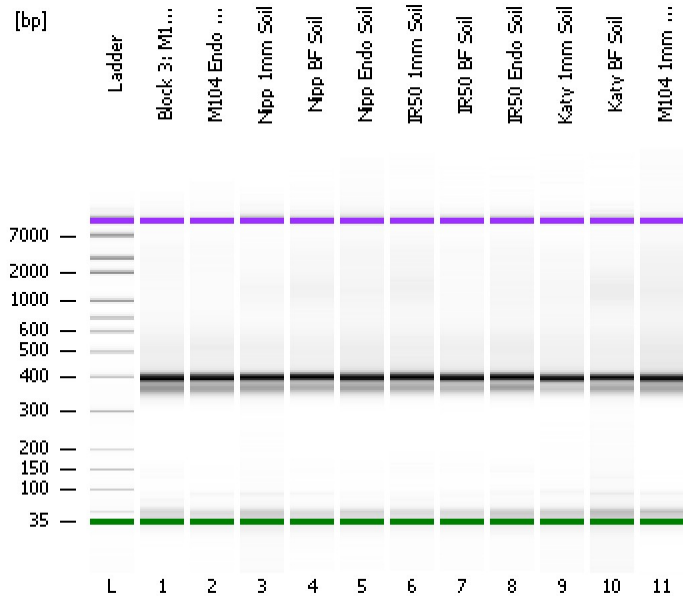


Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-07\2013-01-07_002.xad

Created: 1/7/2013 2:14:47 PM
 Modified: 1/7/2013 2:59:19 PM

Electrophoresis File Run Summary



Instrument Information:

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

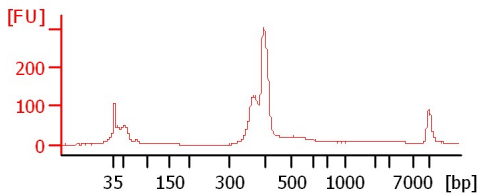
Assay Information:

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

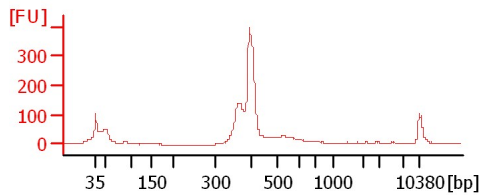
Chip Information:

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

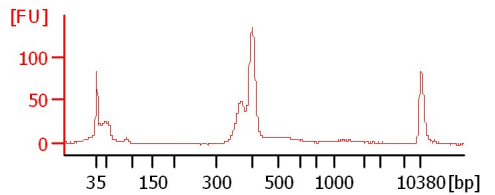
Block 3: M104 BF Root



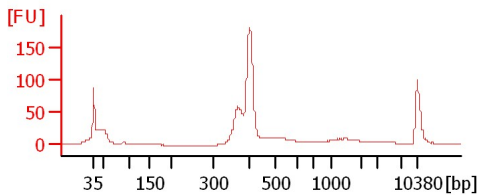
M104 Endo Root



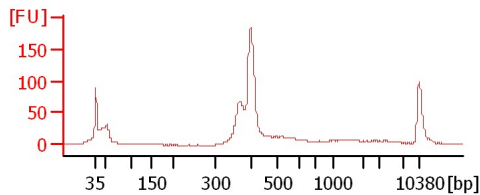
Nipp 1mm Soil



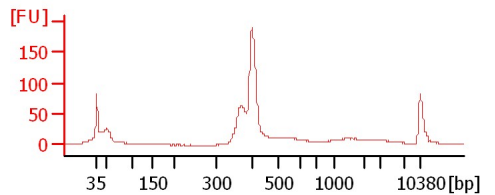
Nipp BF Soil



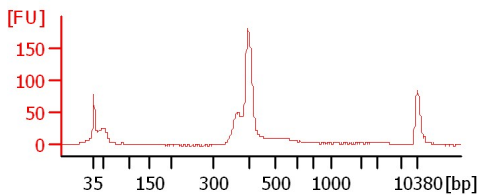
Nipp Endo Soil



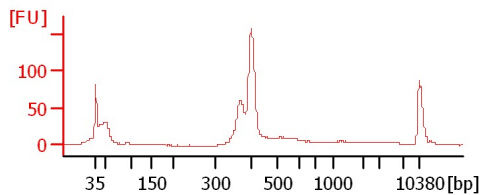
IR50 1mm Soil



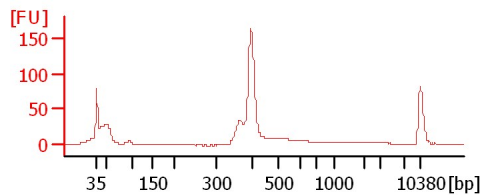
IR50 BF Soil



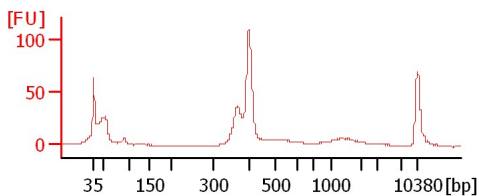
IR50 Endo Soil



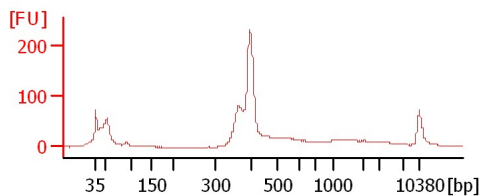
Katy 1mm Soil



Katy BF Soil



M104 1mm Soil



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-07\2013-01-07_002.xad

Created: 1/7/2013 2:14:47 PM
 Modified: 1/7/2013 2:59:19 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
Block 3: M104 BF Root		<input type="checkbox"/>	✓			
M104 Endo Root		<input type="checkbox"/>	✓			
Nipp 1mm Soil		<input type="checkbox"/>	✓			
Nipp BF Soil		<input type="checkbox"/>	✓			
Nipp Endo Soil		<input type="checkbox"/>	✓			
IR50 1mm Soil		<input type="checkbox"/>	✓			
IR50 BF Soil		<input type="checkbox"/>	✓			
IR50 Endo Soil		<input type="checkbox"/>	✓			
Katy 1mm Soil		<input type="checkbox"/>	✓			
Katy BF Soil		<input type="checkbox"/>	✓			
M104 1mm Soil		<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\2013-01-07\2013-01-07_002.xad

Created: 1/7/2013 2:14:47 PM
Modified: 1/7/2013 2:59:19 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

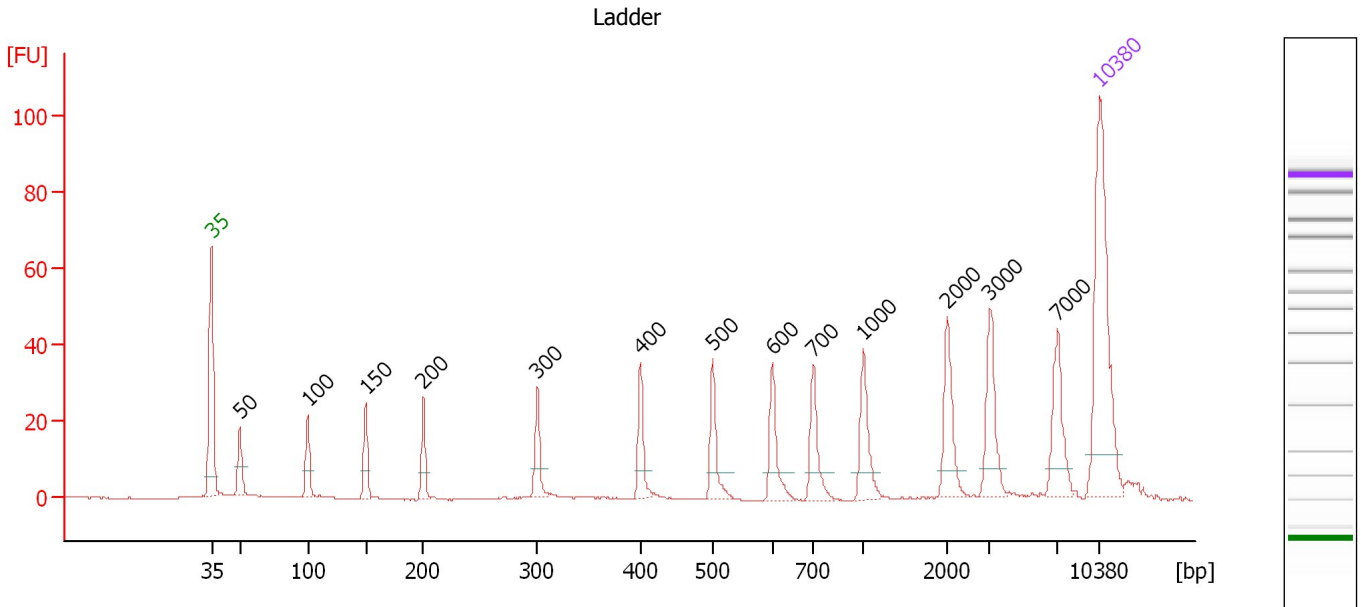
Ladder

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\2013-01-07\2013-01-07_002.xad

Created: 1/7/2013 2:14:47 PM
 Modified: 1/7/2013 2:59:19 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

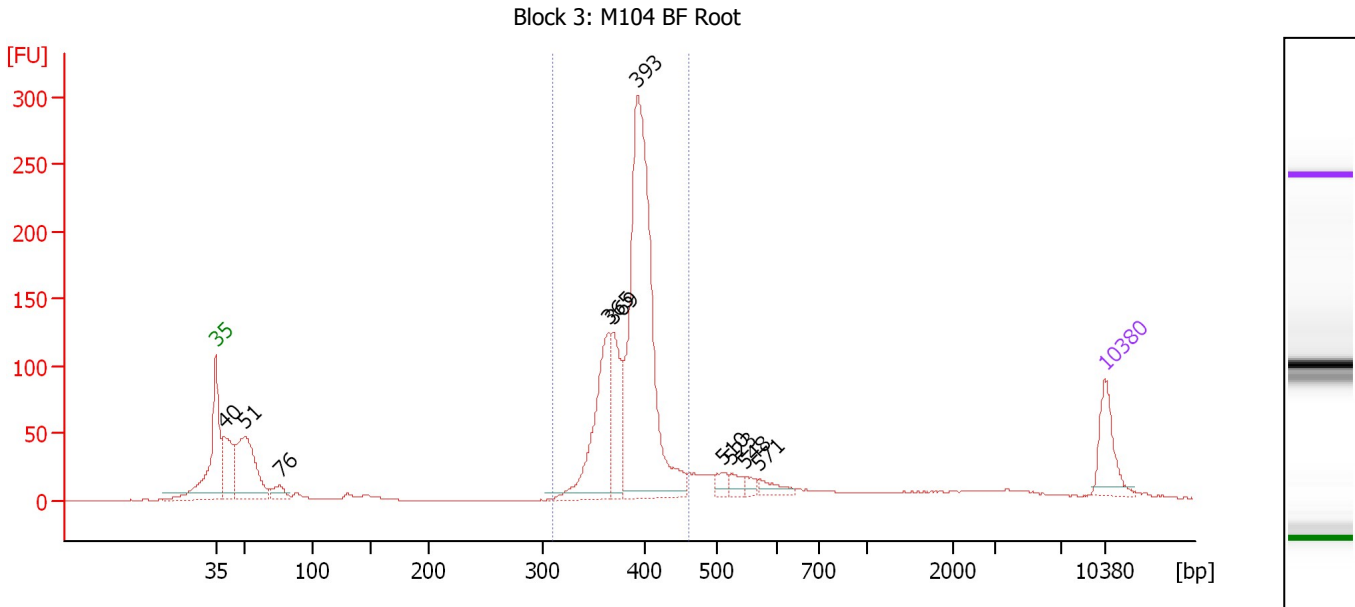
Peak table for Ladder

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\2013-01-07\2013-01-07_002.xad

Created: 1/7/2013 2:14:47 PM
 Modified: 1/7/2013 2:59:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Block 3: M104 BF Root

Number of peaks found: 10 Corr. Area 1: 1,253.5
 Noise: 0.2

Peak table for sample 1 : Block 3: M104 BF Root

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	40	181.10	6,942.3	
3	51	300.32	8,961.8	
4	76	40.96	812.8	
5	365	292.85	1,215.5	
6	369	169.51	696.6	
7	393	866.06	3,338.8	
8	510	24.35	72.3	
9	523	22.16	64.2	
10	548	15.61	43.2	
11	571	26.68	70.8	
12	10,380	75.00	10.9	Upper Marker

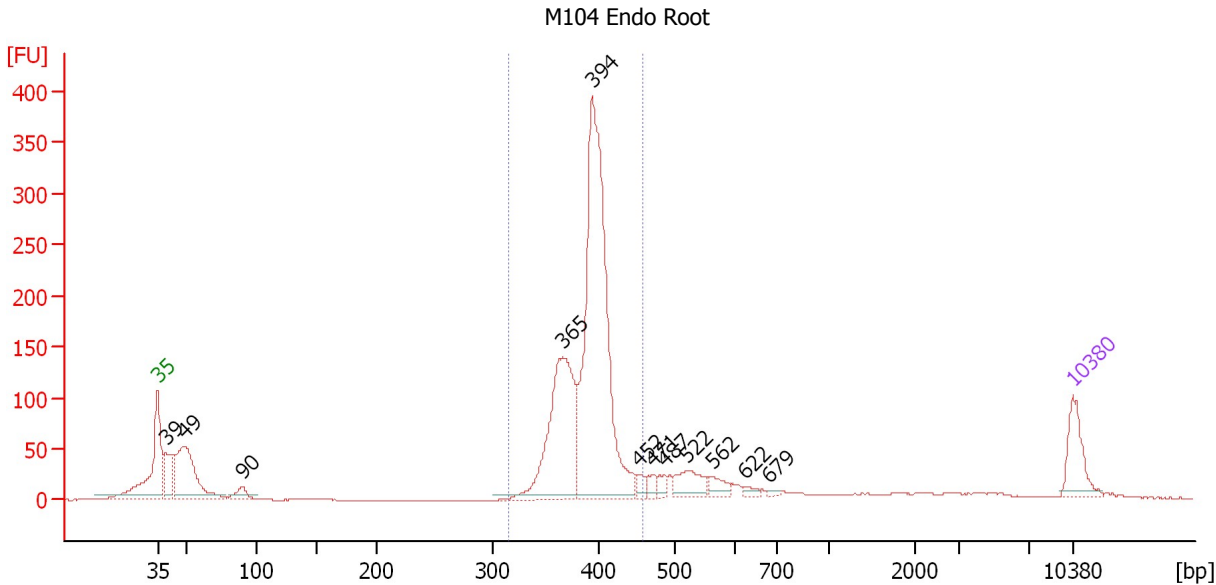
Region table for sample 1 : Block 3: M104 BF Root

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
311	461	388	5,225.9	1,333.36	1,253.5	65	6.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-07\2013-01-07_002.xad

Created: 1/7/2013 2:14:47 PM
 Modified: 1/7/2013 2:59:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : M104 Endo Root

Number of peaks found: 12 Corr. Area 1: 1,466.6
 Noise: 0.2

Peak table for sample 2 : M104 Endo Root

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	39	109.50	4,247.9	
3	49	304.10	9,476.5	
4	90	37.98	639.3	
5	365	443.12	1,837.3	
6	394	950.56	3,659.7	
7	452	20.19	67.7	
8	471	22.59	72.7	
9	487	19.98	62.1	
10	522	68.88	200.0	
11	562	29.42	79.3	
12	622	11.00	26.8	
13	679	4.78	10.7	
14	10,380	75.00	10.9	Upper Marker

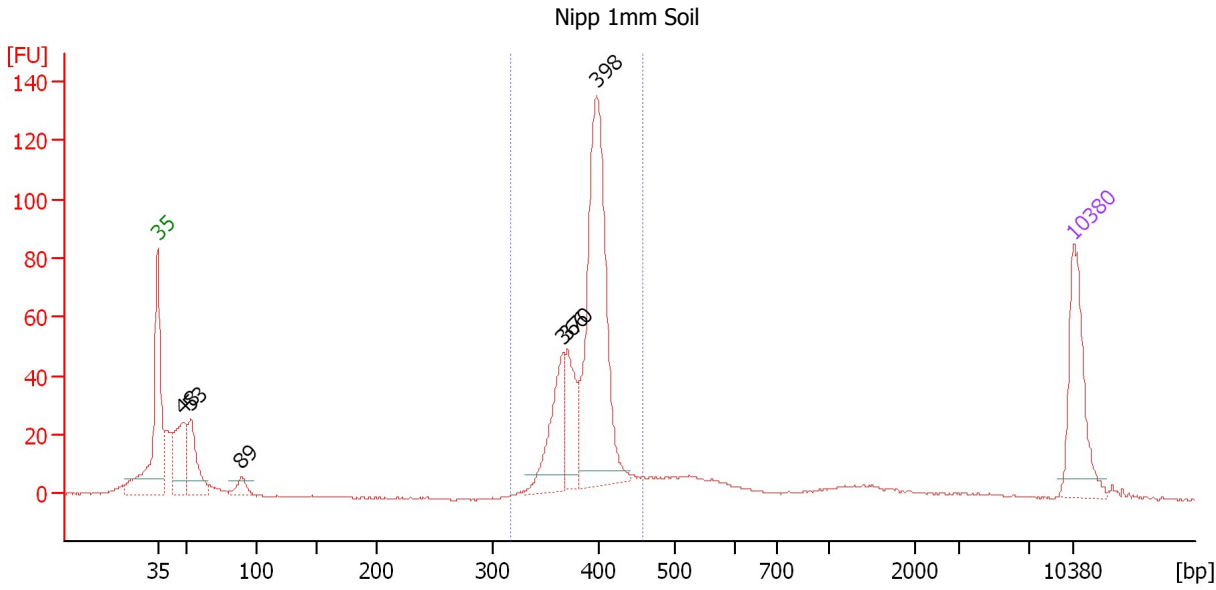
Region table for sample 2 : M104 Endo Root

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
314	459	389	5,447.0	1,396.63	1,466.6	69	5.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-07\2013-01-07_002.xad

Created: 1/7/2013 2:14:47 PM
 Modified: 1/7/2013 2:59:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : Nipp 1mm Soil

Number of peaks found: 6 Corr. Area 1: 488.6
 Noise: 0.3

Peak table for sample 3 : Nipp 1mm Soil

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	48	91.18	2,859.5	
3	53	73.53	2,102.1	
4	89	18.68	317.3	
5	366	84.50	350.0	
6	370	65.76	269.2	
7	398	310.59	1,183.3	
8	10,380	75.00	10.9	Upper Marker

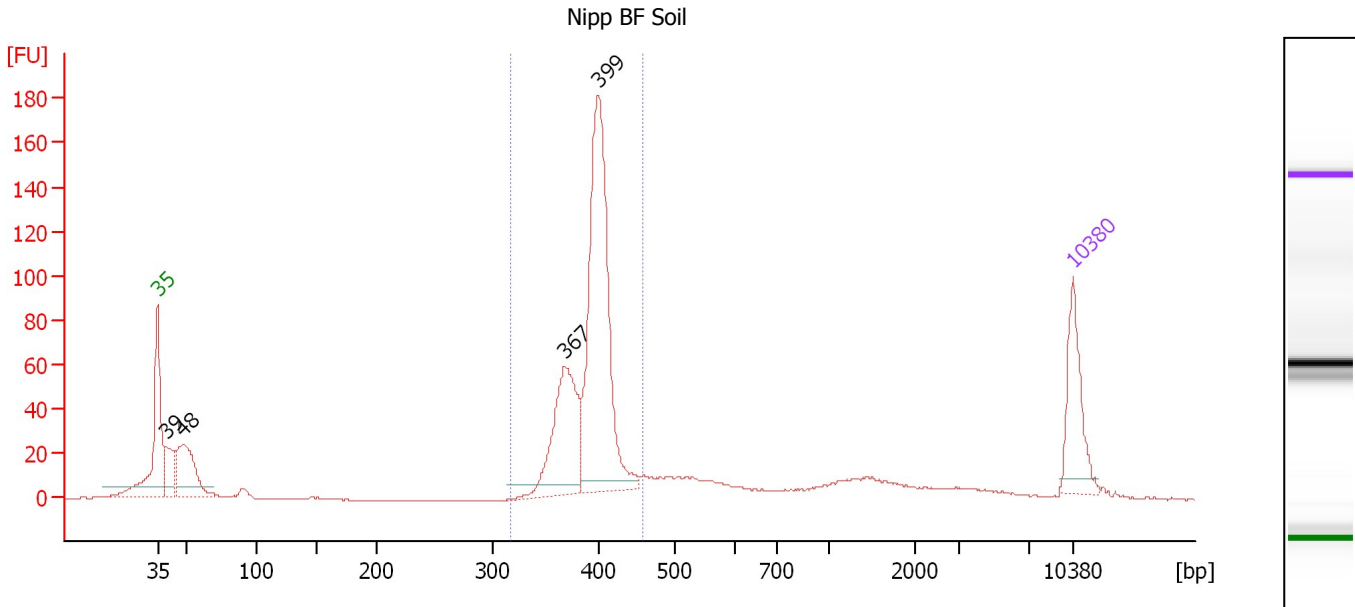
Region table for sample 3 : Nipp 1mm Soil

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
317	459	390	1,984.0	509.05	488.6	63	5.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-07\2013-01-07_002.xad

Created: 1/7/2013 2:14:47 PM
 Modified: 1/7/2013 2:59:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Nipp BF Soil

Number of peaks found: 4 Corr. Area 1: 625.3
 Noise: 0.1

Peak table for sample 4 : Nipp BF Soil

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	39	63.85	2,466.8	
3	48	133.18	4,208.6	
4	367	186.50	769.8	
5	399	421.44	1,600.2	
6	10,380	75.00	10.9	Upper Marker

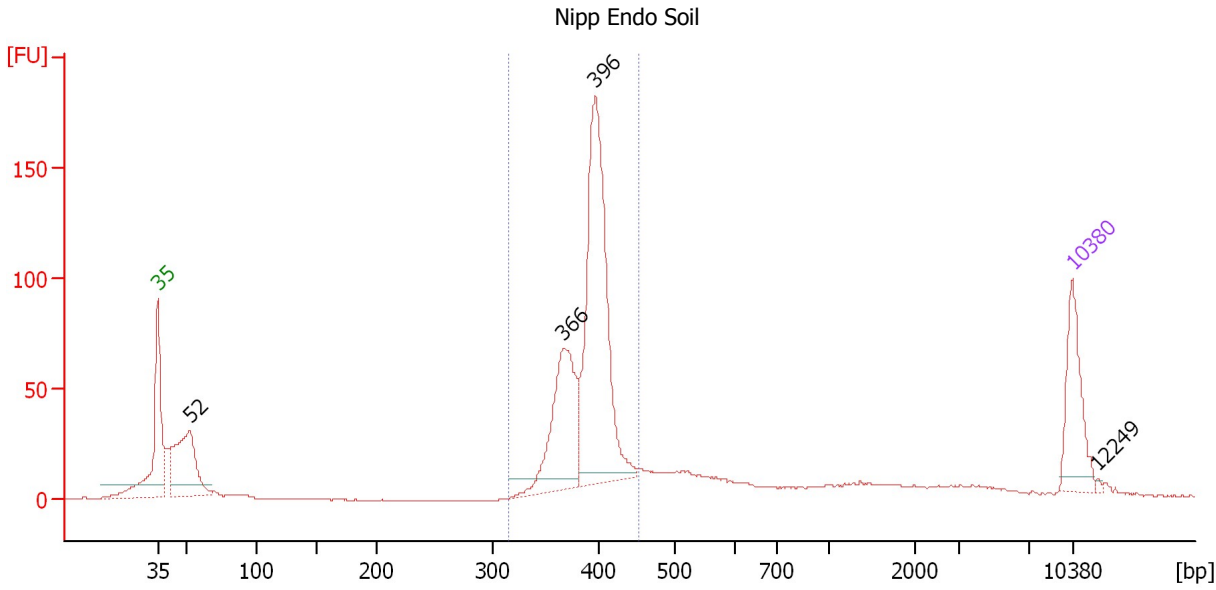
Region table for sample 4 : Nipp BF Soil

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
316	458	393	2,480.7	641.26	625.3	62	5.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-07\2013-01-07_002.xad

Created: 1/7/2013 2:14:47 PM
 Modified: 1/7/2013 2:59:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Nipp Endo Soil

Number of peaks found: 4 Corr. Area 1: 677.0
 Noise: 0.2

Peak table for sample 5 : Nipp Endo Soil

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	52	180.98	5,223.2	
3	366	190.02	787.0	
4	396	404.42	1,547.3	
5	10,380	75.00	10.9	Upper Marker
6	12,249	0.00	0.0	

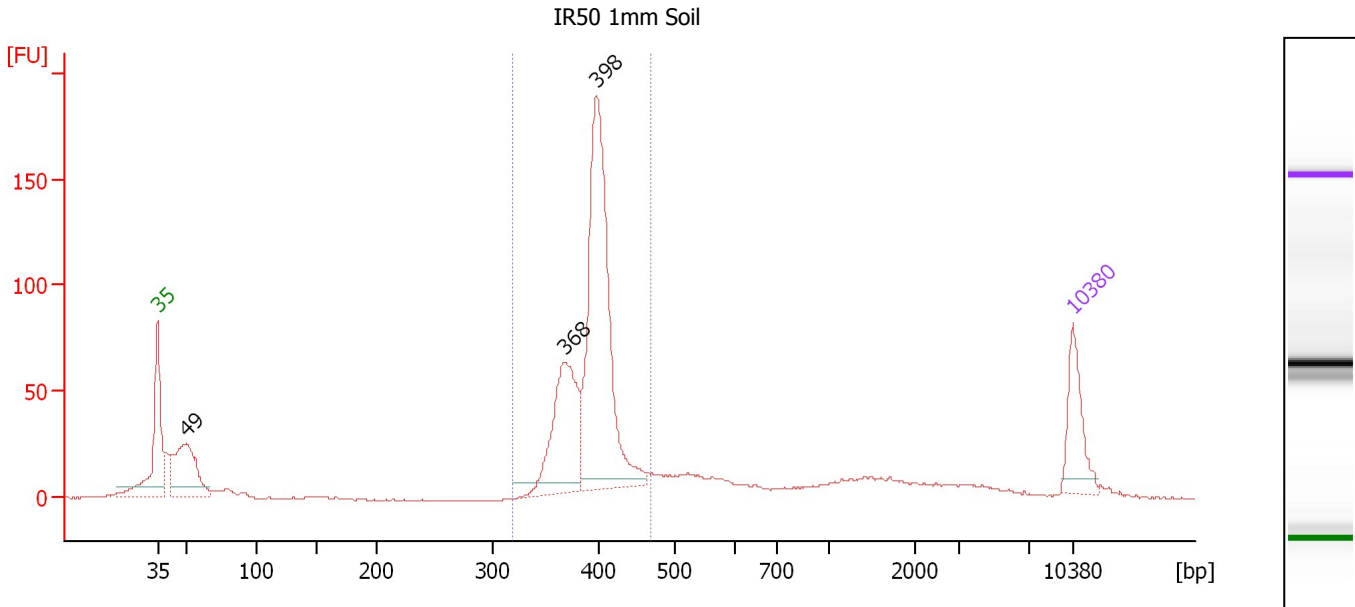
Region table for sample 5 : Nipp Endo Soil

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
315	453	390	2,570.0	660.54	677.0	62	5.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-07\2013-01-07_002.xad

Created: 1/7/2013 2:14:47 PM
 Modified: 1/7/2013 2:59:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : IR50 1mm Soil

Number of peaks found: 3 Corr. Area 1: 686.4
 Noise: 0.3

Peak table for sample 6 : IR50 1mm Soil

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	49	206.54	6,322.7	
3	368	241.43	994.3	
4	398	542.64	2,066.8	
5	10,380	75.00	10.9	Upper Marker

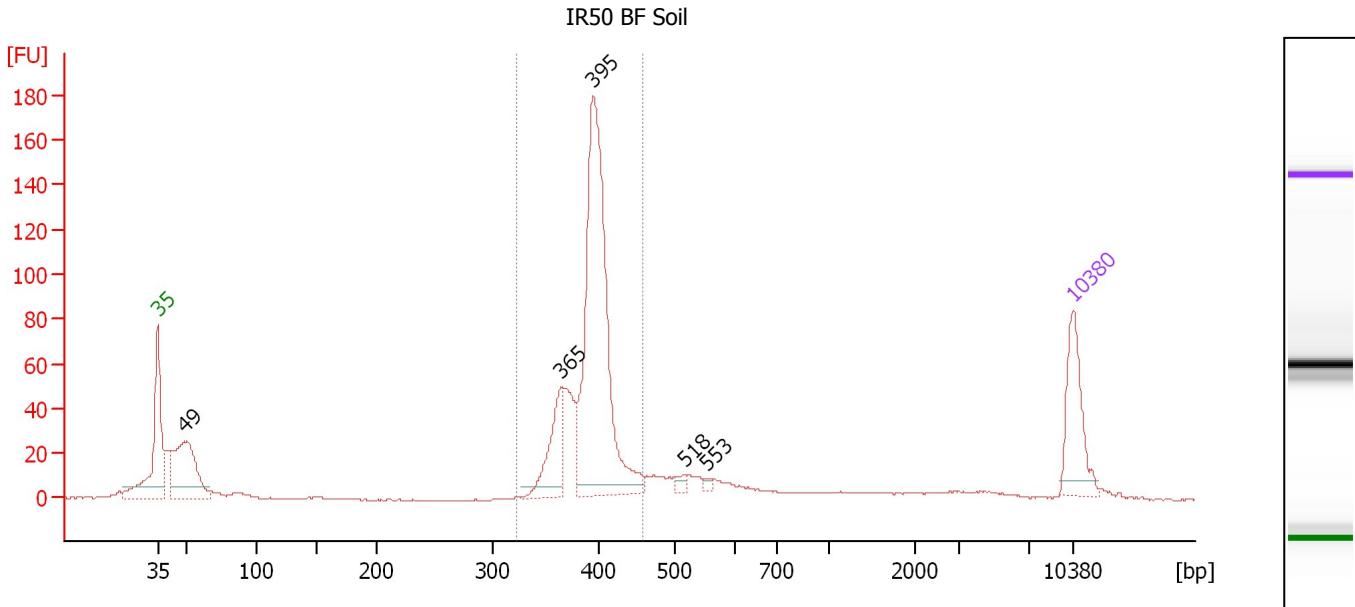
Region table for sample 6 : IR50 1mm Soil

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
318	468	394	3,230.8	837.53	686.4	63	5.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-07\2013-01-07_002.xad

Created: 1/7/2013 2:14:47 PM
 Modified: 1/7/2013 2:59:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : IR50 BF Soil

Number of peaks found: 5 Corr. Area 1: 608.8
 Noise: 0.2

Peak table for sample 7 : IR50 BF Soil

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	49	186.80	5,819.8	
3	365	92.69	385.2	
4	395	490.00	1,881.4	
5	518	9.25	27.1	
6	553	5.30	14.5	
7	10,380	75.00	10.9	Upper Marker

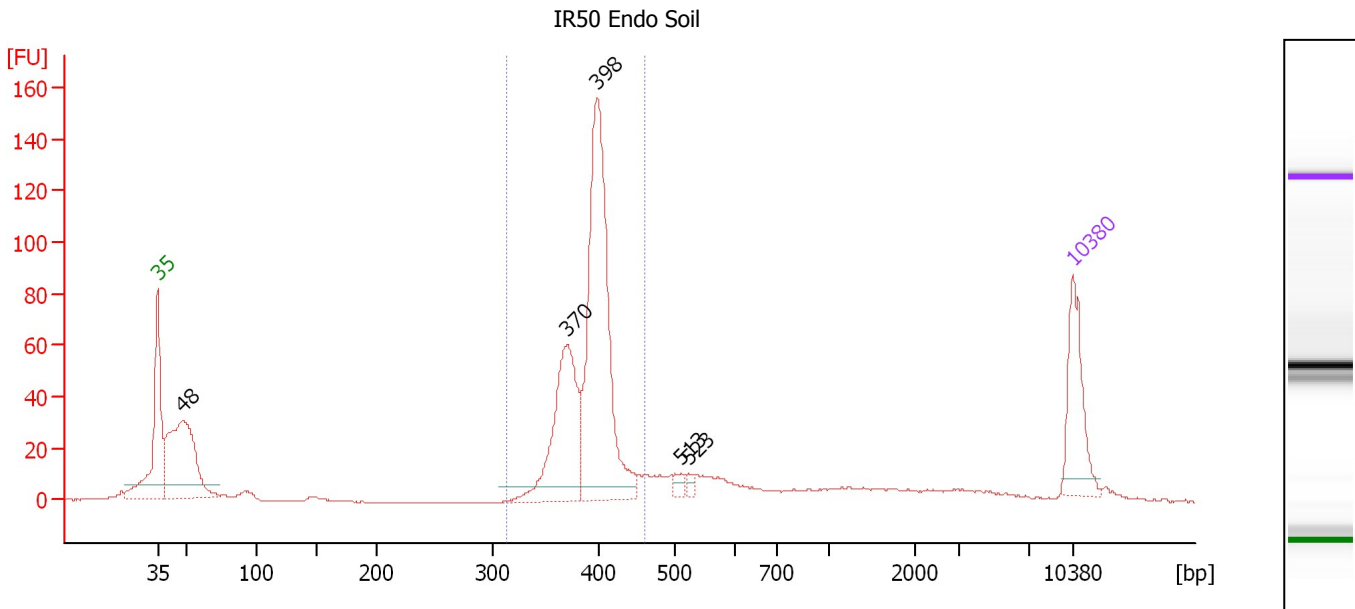
Region table for sample 7 : IR50 BF Soil

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
322	459	392	2,576.9	665.42	608.8	64	5.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-07\2013-01-07_002.xad

Created: 1/7/2013 2:14:47 PM
 Modified: 1/7/2013 2:59:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : IR50 Endo Soil

Number of peaks found: 5 Corr. Area 1: 558.0
 Noise: 0.2

Peak table for sample 8 : IR50 Endo Soil

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	48	269.00	8,536.6	
3	370	203.28	832.9	
4	398	399.77	1,523.1	
5	513	11.08	32.8	
6	523	6.61	19.2	
7	10,380	75.00	10.9	Upper Marker

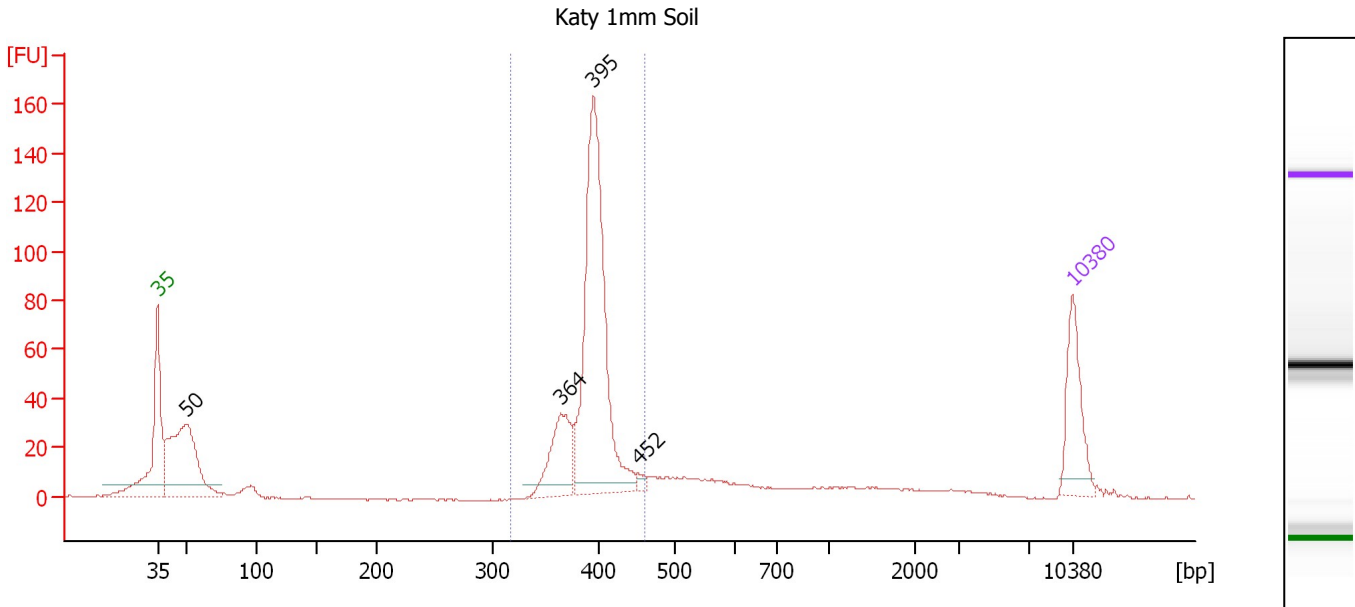
Region table for sample 8 : IR50 Endo Soil

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
312	461	392	2,400.3	618.93	558.0	58	5.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-07\2013-01-07_002.xad

Created: 1/7/2013 2:14:47 PM
 Modified: 1/7/2013 2:59:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : Katy 1mm Soil

Number of peaks found: 4 Corr. Area 1: 492.3
 Noise: 0.3

Peak table for sample 9 : Katy 1mm Soil

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	290.48	8,813.2	
3	364	104.31	434.1	
4	395	447.67	1,718.0	
5	452	8.12	27.2	
6	10,380	75.00	10.9	Upper Marker

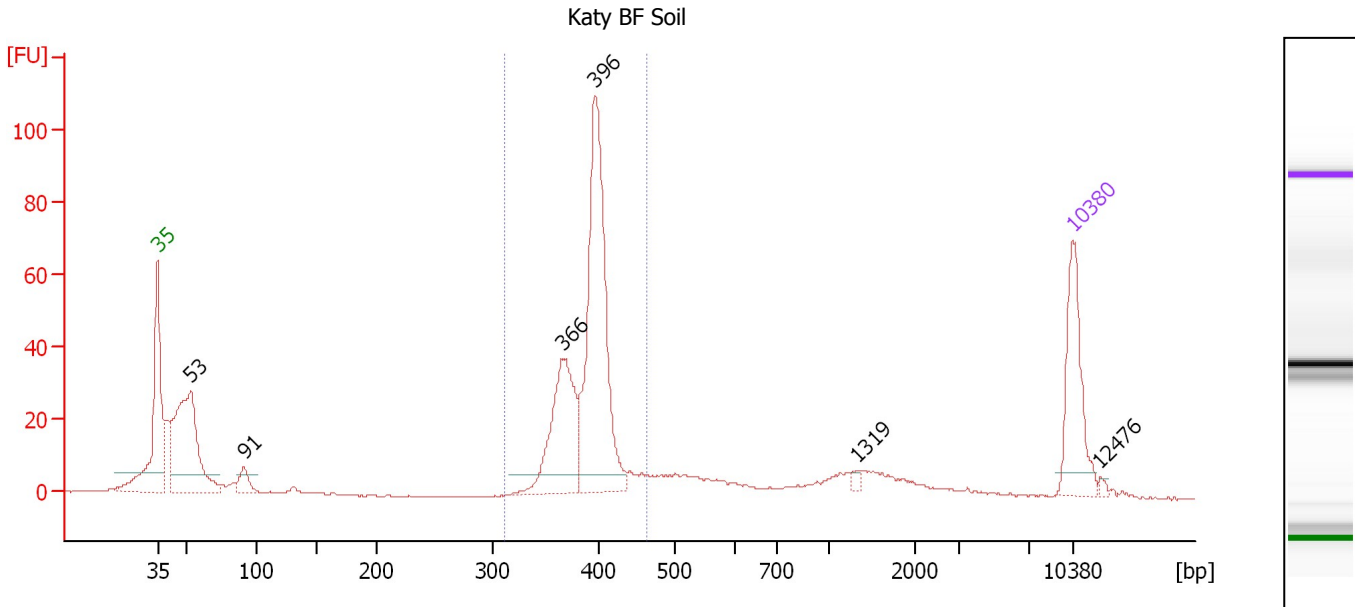
Region table for sample 9 : Katy 1mm Soil

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
317	462	393	2,257.7	584.58	492.3	58	5.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-07\2013-01-07_002.xad

Created: 1/7/2013 2:14:47 PM
 Modified: 1/7/2013 2:59:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : Katy BF Soil

Number of peaks found: 6 Corr. Area 1: 357.9
 Noise: 0.2

Peak table for sample 10 : Katy BF Soil

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	53	240.26	6,867.5	
3	91	23.23	387.7	
4	366	145.39	601.6	
5	396	298.95	1,142.5	
6	1,319	3.95	4.5	
7	10,380	75.00	10.9	Upper Marker
8	12,476	0.00	0.0	

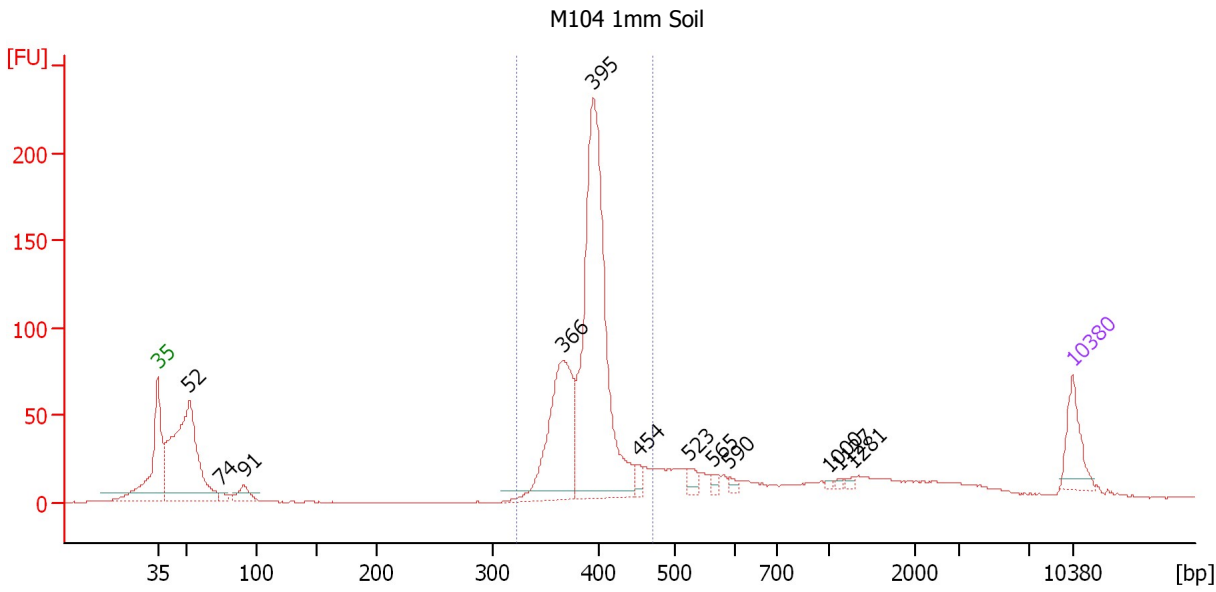
Region table for sample 10 : Katy BF Soil

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
312	463	390	1,822.8	468.34	357.9	53	5.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-07\2013-01-07_002.xad

Created: 1/7/2013 2:14:47 PM
 Modified: 1/7/2013 2:59:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : M104 1mm Soil

Number of peaks found: 12 Corr. Area 1: 858.4
 Noise: 0.2

Peak table for sample 11 : M104 1mm Soil

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	52	642.88	18,783.6	
3	74	15.47	316.2	
4	91	46.42	771.2	
5	366	398.21	1,649.1	
6	395	914.18	3,510.1	
7	454	21.90	73.2	
8	523	27.31	79.1	
9	565	11.68	31.4	
10	590	11.61	29.8	
11	1,000	5.18	7.9	
12	1,127	4.68	6.3	
13	1,281	6.54	7.7	
14	10,380	75.00	10.9	Upper Marker

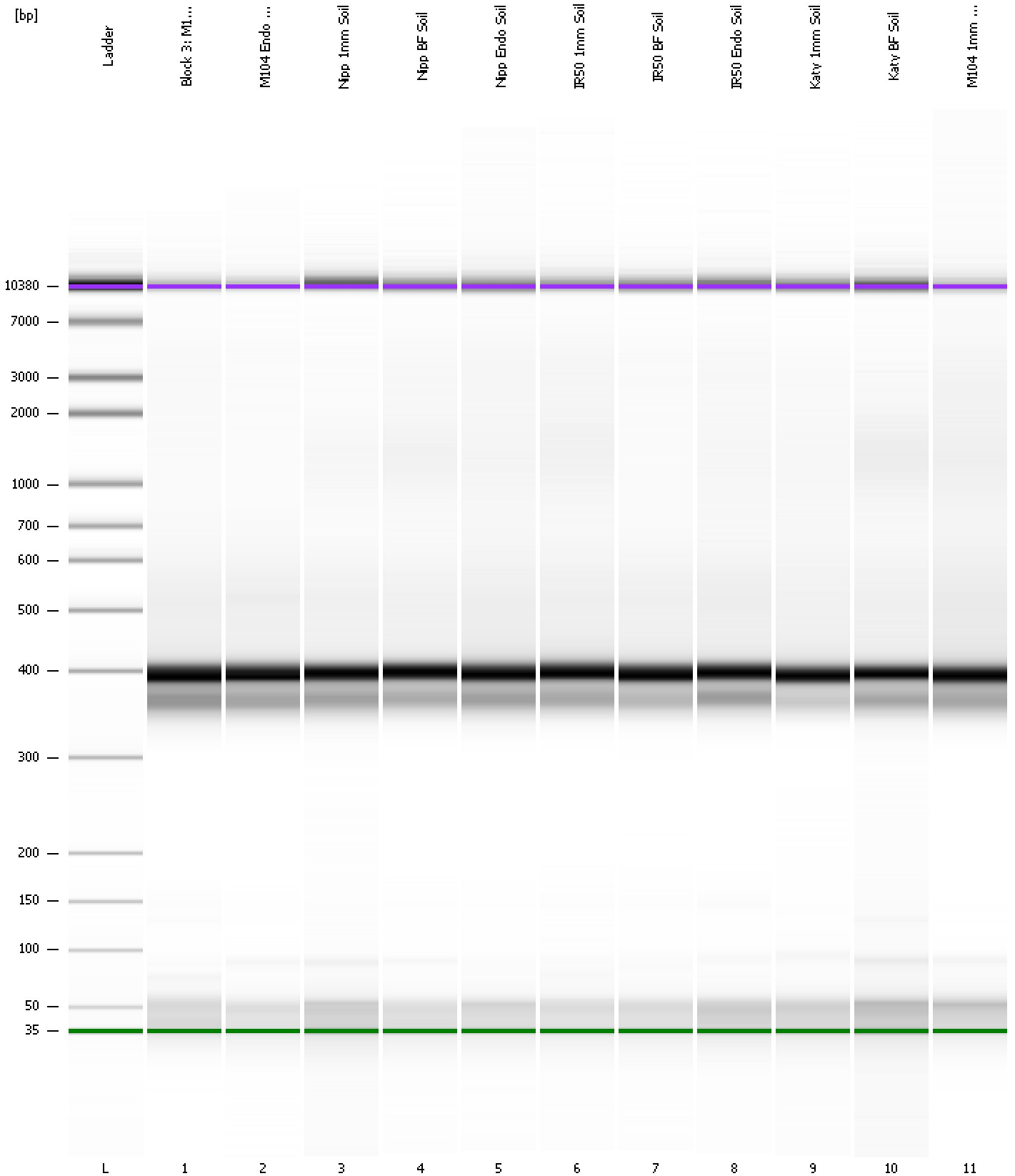
Region table for sample 11 : M104 1mm Soil

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
323	470	391	5,332.1	1,372.17	858.4	55	6.4	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-07\2013-01-07_002.xad

Created: 1/7/2013 2:14:47 PM
Modified: 1/7/2013 2:59:19 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-07\2013-01-07_002.xad

Created: 1/7/2013 2:14:47 PM
 Modified: 1/7/2013 2:59:19 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		1/7/2013 2:56:05 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-01-07\2013-01-07_002.xad)		Instrument	Run		1/7/2013 2:14:52 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		1/7/2013 2:14:52 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		1/7/2013 2:14:52 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		1/7/2013 2:14:52 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		1/7/2013 2:14:52 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		1/7/2013 2:14:52 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		1/7/2013 2:14:52 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1