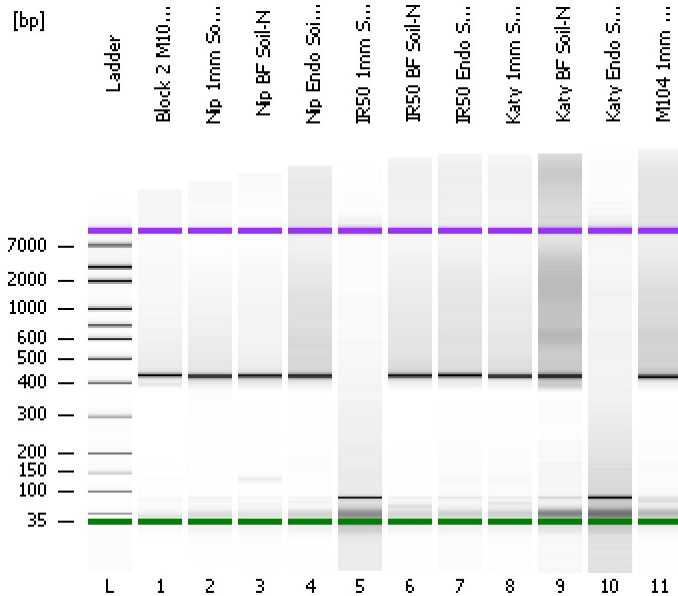


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_002.xad

Created: 12/18/2012 9:58:27 AM
Modified: 12/18/2012 10:43:21 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

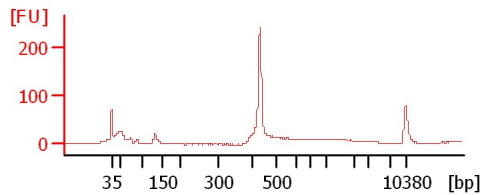
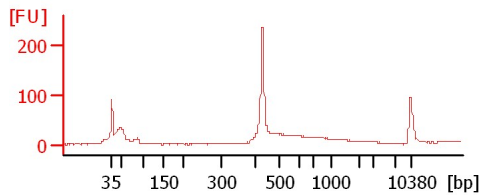
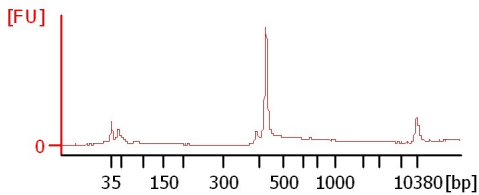
Chip Information:

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

Block 2 M104 Endo Root-N

Nip 1mm Soil-N

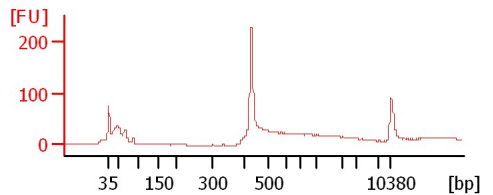
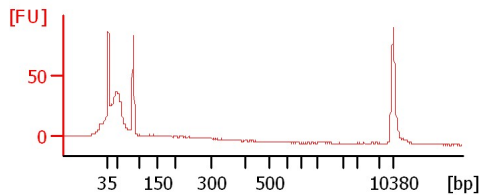
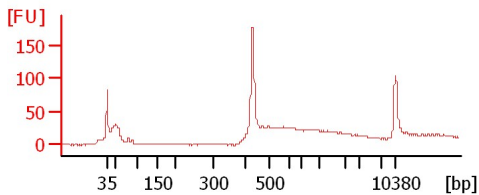
Nip BF Soil-N



Nip Endo Soil-N

IR50 1mm Soil-N

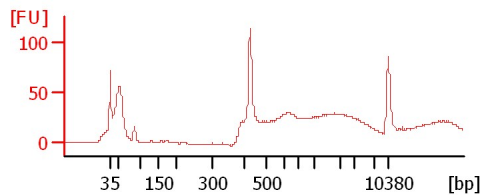
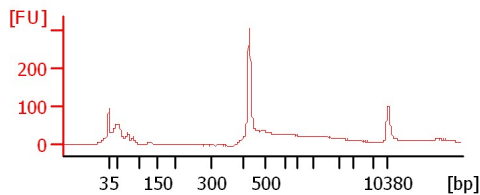
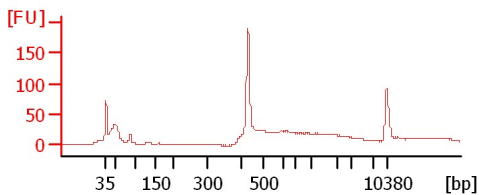
IR50 BF Soil-N



IR50 Endo Soil-N

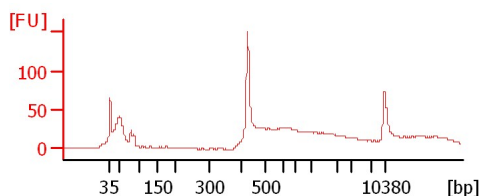
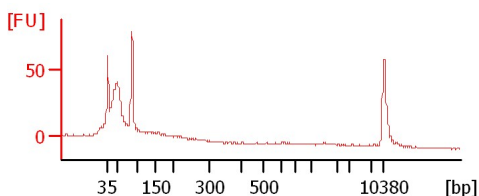
Katy 1mm Soil-N

Katy BF Soil-N



Katy Endo Soil-N

M104 1mm Soil-N



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_002.xad

Created: 12/18/2012 9:58:27 AM
 Modified: 12/18/2012 10:43:21 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
Block 2 M104 Endo Root-N		<input type="checkbox"/>	✓			
Nip 1mm Soil-N		<input type="checkbox"/>	✓			
Nip BF Soil-N		<input type="checkbox"/>	✓			
Nip Endo Soil-N		<input type="checkbox"/>	✓			
IR50 1mm Soil-N		<input type="checkbox"/>	✓			
IR50 BF Soil-N		<input type="checkbox"/>	✓			
IR50 Endo Soil-N		<input type="checkbox"/>	✓			
Katy 1mm Soil-N		<input type="checkbox"/>	✓			
Katy BF Soil-N		<input type="checkbox"/>	✓			
Katy Endo Soil-N		<input type="checkbox"/>	✓			
M104 1mm Soil-N		<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\2012-12-18\2012-12-18_002.xad

Created: 12/18/2012 9:58:27 AM
Modified: 12/18/2012 10:43:21 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

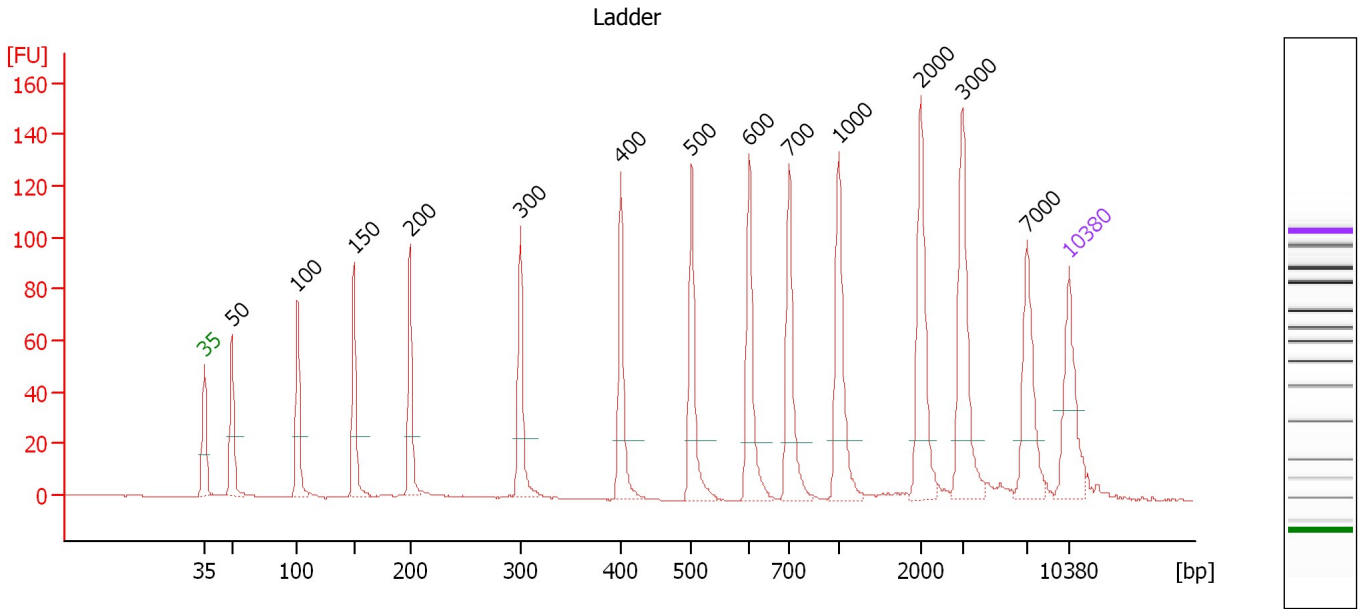
Ladder

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\2012-12-18\2012-12-18_002.xad

Created: 12/18/2012 9:58:27 AM
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Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

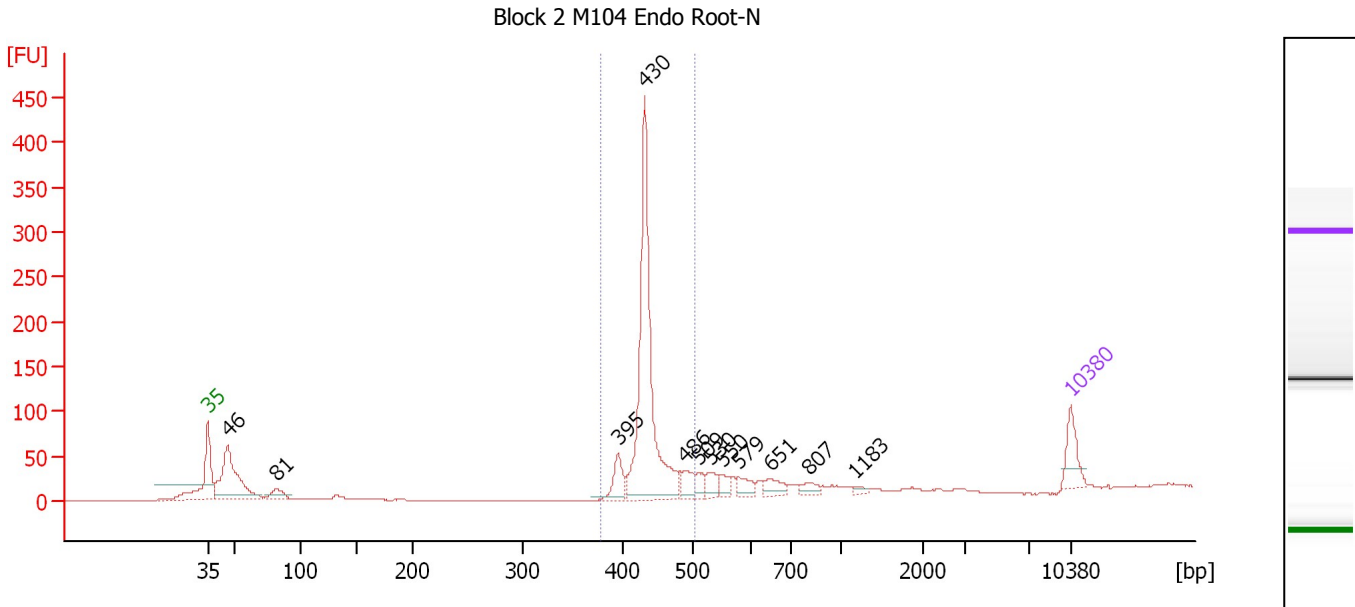
Peak table for Ladder

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\2012-12-18\2012-12-18_002.xad

Created: 12/18/2012 9:58:27 AM
 Modified: 12/18/2012 10:43:21 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Block 2 M104 Endo Root-N

Number of peaks found: 12 Corr. Area 1: 658.4
 Noise: 0.2

Peak table for sample 1 : Block 2 M104 Endo Root-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	46	432.32	14,270.1	
3	81	58.84	1,095.3	
4	395	86.25	330.9	
5	430	822.89	2,899.9	
6	486	58.37	181.9	
7	509	33.32	99.2	
8	530	43.17	123.3	
9	550	40.80	112.4	
10	579	43.11	112.9	
11	651	46.69	108.7	
12	807	28.82	54.1	
13	1,183	10.30	13.2	
14	10,380	75.00	10.9	Upper Marker

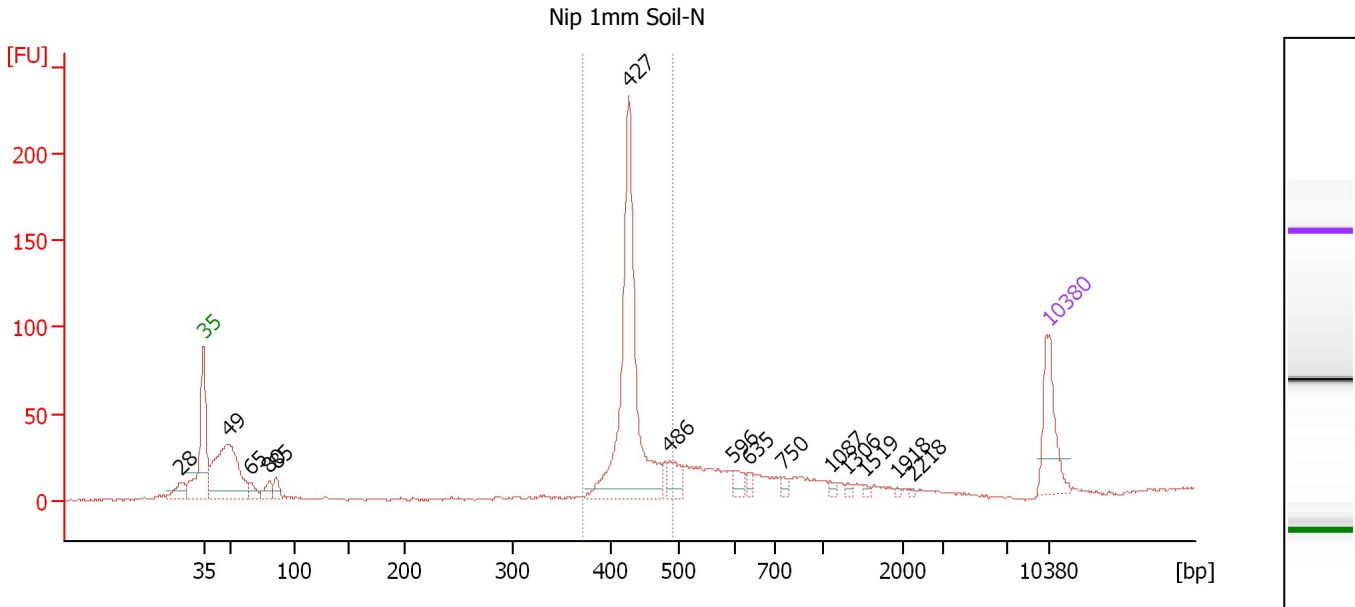
Region table for sample 1 : Block 2 M104 Endo Root-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
377	503	435	3,047.2	873.48	658.4	61	4.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_002.xad

Created: 12/18/2012 9:58:27 AM
 Modified: 12/18/2012 10:43:21 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : Nip 1mm Soil-N

Number of peaks found: 15 Corr. Area 1: 399.5
 Noise: 0.7

Peak table for sample 2 : Nip 1mm Soil-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	28	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	49	286.83	8,897.2	
4	65	21.06	487.4	
5	80	27.45	517.0	
6	85	25.33	449.3	
7	427	440.80	1,564.1	
8	486	34.66	108.1	
9	596	18.97	48.2	
10	635	9.57	22.9	
11	750	8.78	17.7	
12	1,087	5.42	7.6	
13	1,306	4.88	5.7	
14	1,519	3.41	3.4	
15	1,918	2.62	2.1	
16	2,218	2.09	1.4	
17	10,380	75.00	10.9	Upper Marker

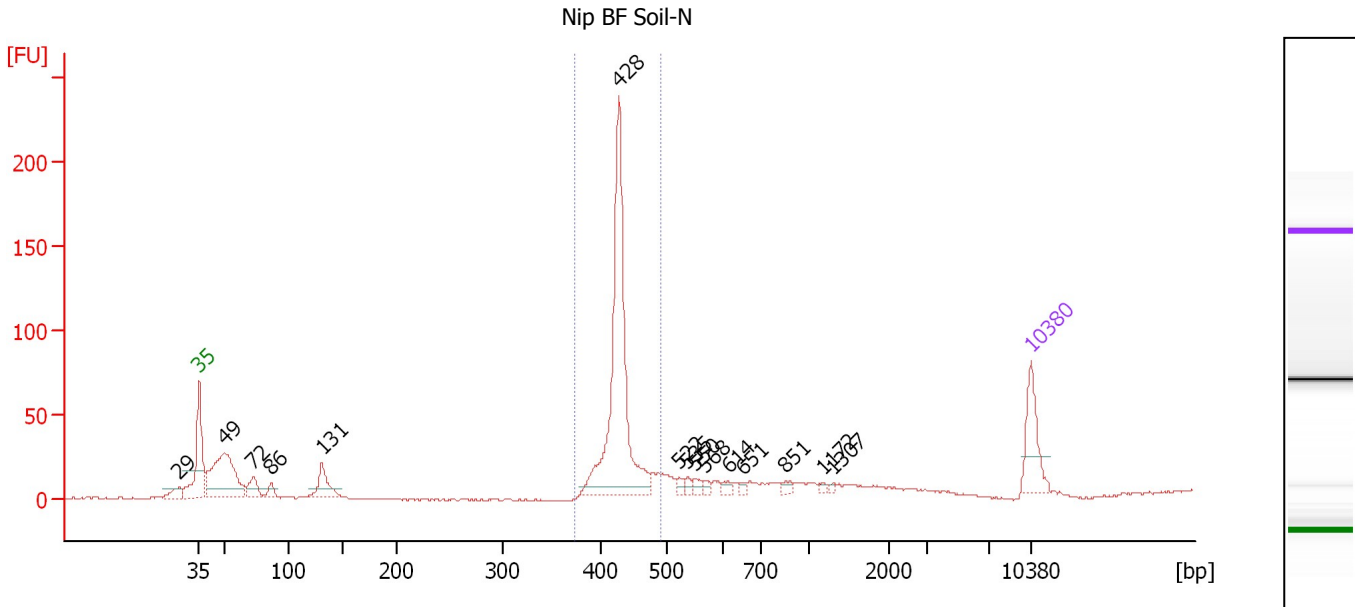
Region table for sample 2 : Nip 1mm Soil-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
372	490	430	1,555.1	441.55	399.5	46	4.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_002.xad

Created: 12/18/2012 9:58:27 AM
 Modified: 12/18/2012 10:43:21 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : Nip BF Soil-N

Number of peaks found: 15 Corr. Area 1: 385.1
 Noise: 0.5

Peak table for sample 3 : Nip BF Soil-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	29	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	49	300.61	9,225.0	
4	72	45.74	963.0	
5	86	23.74	416.7	
6	131	75.30	872.7	
7	428	552.33	1,954.2	
8	522	10.76	31.2	
9	535	9.66	27.4	
10	550	12.80	35.3	
11	568	7.62	20.3	
12	614	9.82	24.2	
13	651	6.25	14.5	
14	851	9.46	16.9	
15	1,172	6.29	8.1	
16	1,307	4.18	4.8	
17	10,380	75.00	10.9	Upper Marker

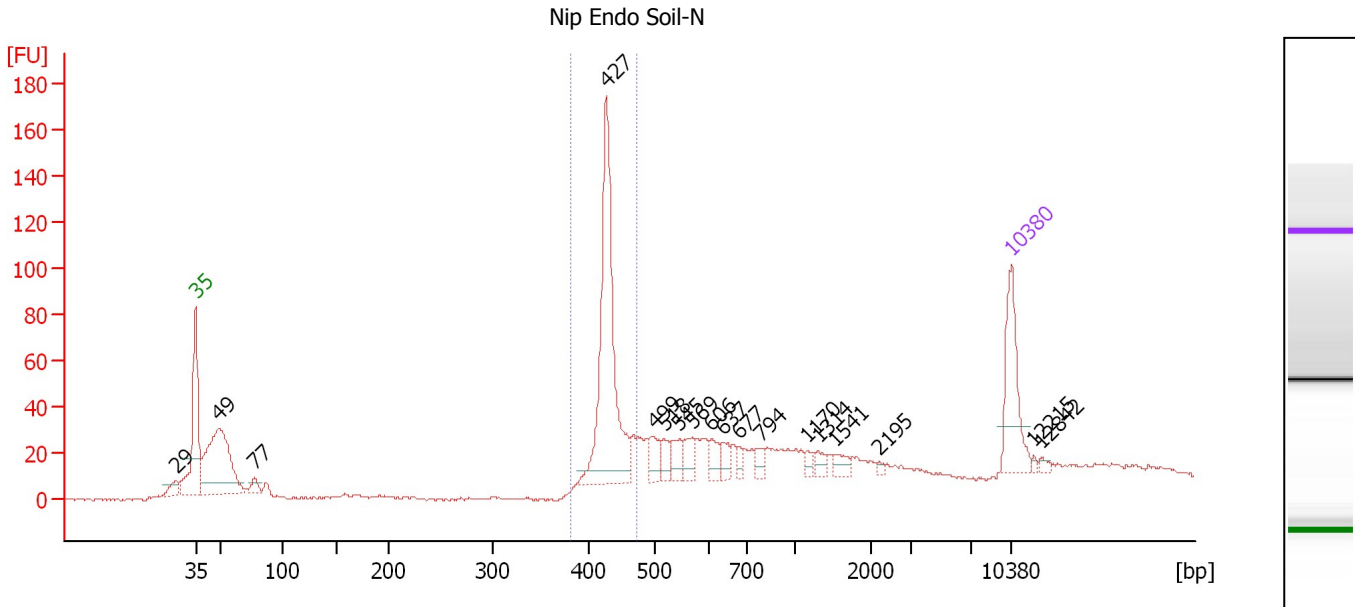
Region table for sample 3 : Nip BF Soil-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
375	490	430	1,997.9	565.93	385.1	51	4.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_002.xad

Created: 12/18/2012 9:58:27 AM
 Modified: 12/18/2012 10:43:21 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Nip Endo Soil-N

Number of peaks found: 18 Corr. Area 1: 294.6
 Noise: 0.6

Peak table for sample 4 : Nip Endo Soil-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	29	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	49	254.06	7,902.6	
4	77	16.48	324.0	
5	427	301.99	1,071.2	
6	499	29.96	91.0	
7	518	17.73	51.9	
8	545	25.38	70.5	
9	569	23.10	61.5	
10	606	20.16	50.4	
11	637	16.38	39.0	
12	677	9.99	22.4	
13	794	11.55	22.0	
14	1,170	7.02	9.1	
15	1,314	9.85	11.4	
16	1,541	11.63	11.4	
17	2,195	3.18	2.2	
18	10,380	75.00	10.9	Upper Marker
19	12,215	0.00	0.0	
20	12,842	0.00	0.0	

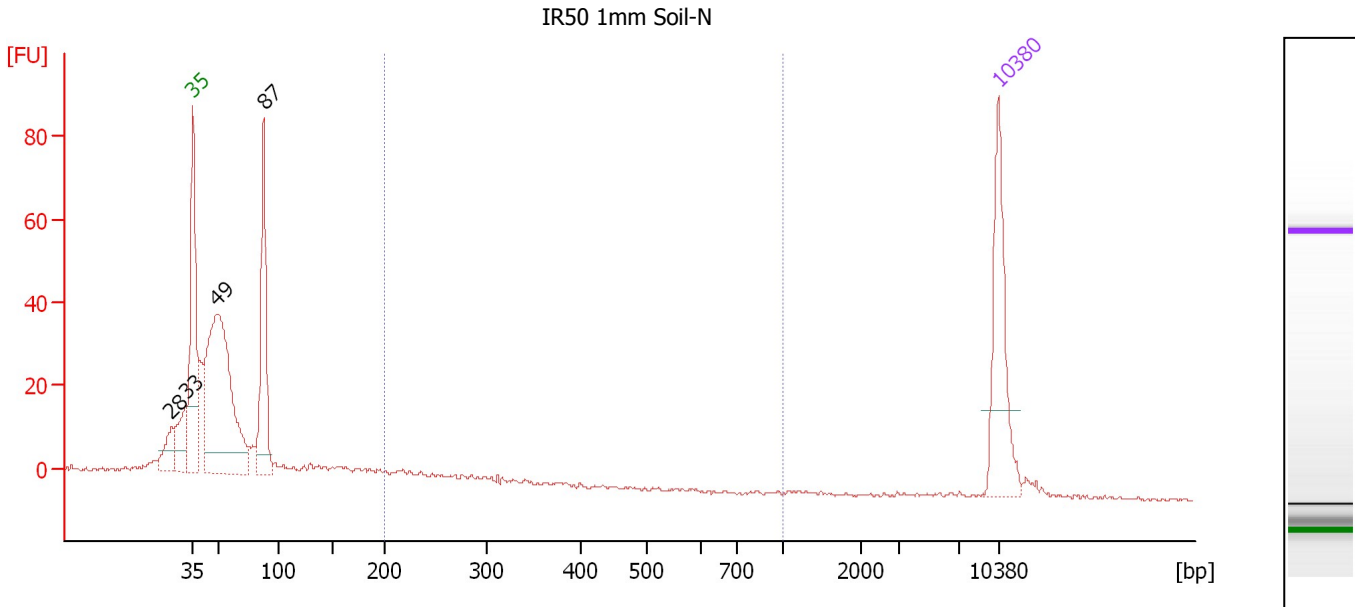
Region table for sample 4 : Nip Endo Soil-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
382	474	431	1,162.2	330.62	294.6	32	3.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_002.xad

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Electropherogram Summary Continued ...



Overall Results for sample 5 : IR50 1mm Soil-N

Number of peaks found: 4 Corr. Area 1: 12.7
 Noise: 0.5

Peak table for sample 5 : IR50 1mm Soil-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	28	0.00	0.0	
2	33	0.00	0.0	
3	35	125.00	5,411.3	Lower Marker
4	49	346.16	10,658.7	
5	87	149.64	2,596.9	
6	10,380	75.00	10.9	Upper Marker

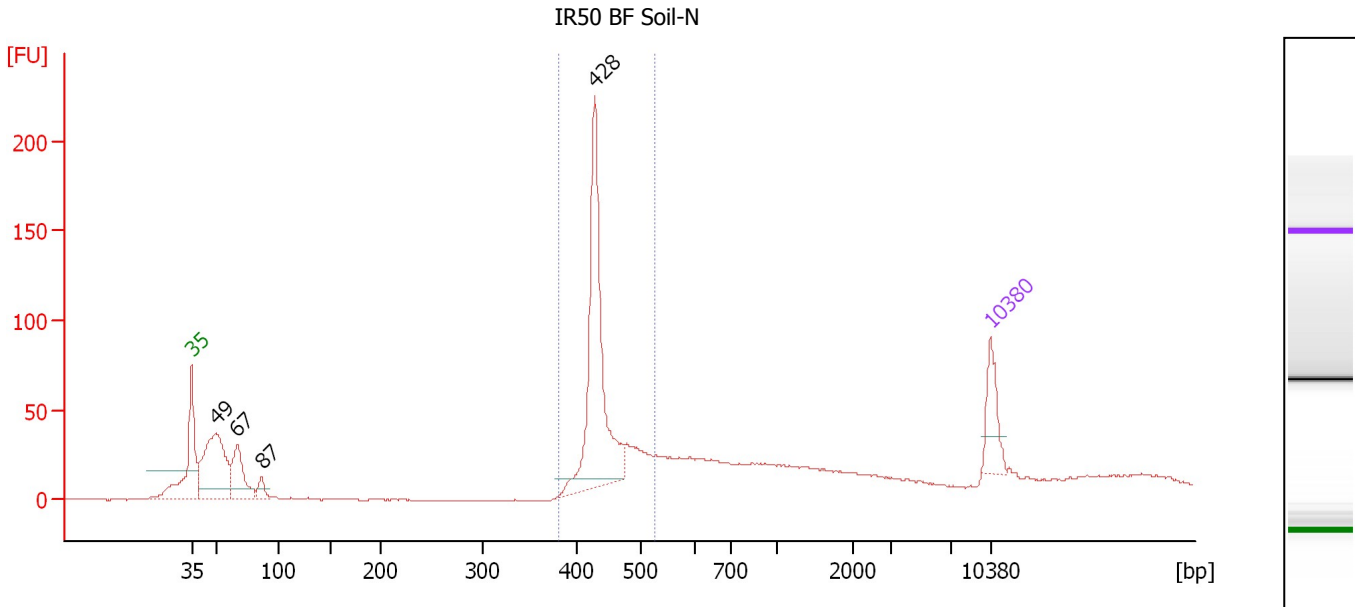
Region table for sample 5 : IR50 1mm Soil-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	245	101.0	16.17	12.7	3	13.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_002.xad

Created: 12/18/2012 9:58:27 AM
 Modified: 12/18/2012 10:43:21 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : IR50 BF Soil-N

Number of peaks found: 4 Corr. Area 1: 445.0
 Noise: 0.2

Peak table for sample 6 : IR50 BF Soil-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	49	406.16	12,474.7	
3	67	163.76	3,721.1	
4	87	36.09	629.1	
5	428	533.45	1,886.4	
6	10,380	75.00	10.9	Upper Marker

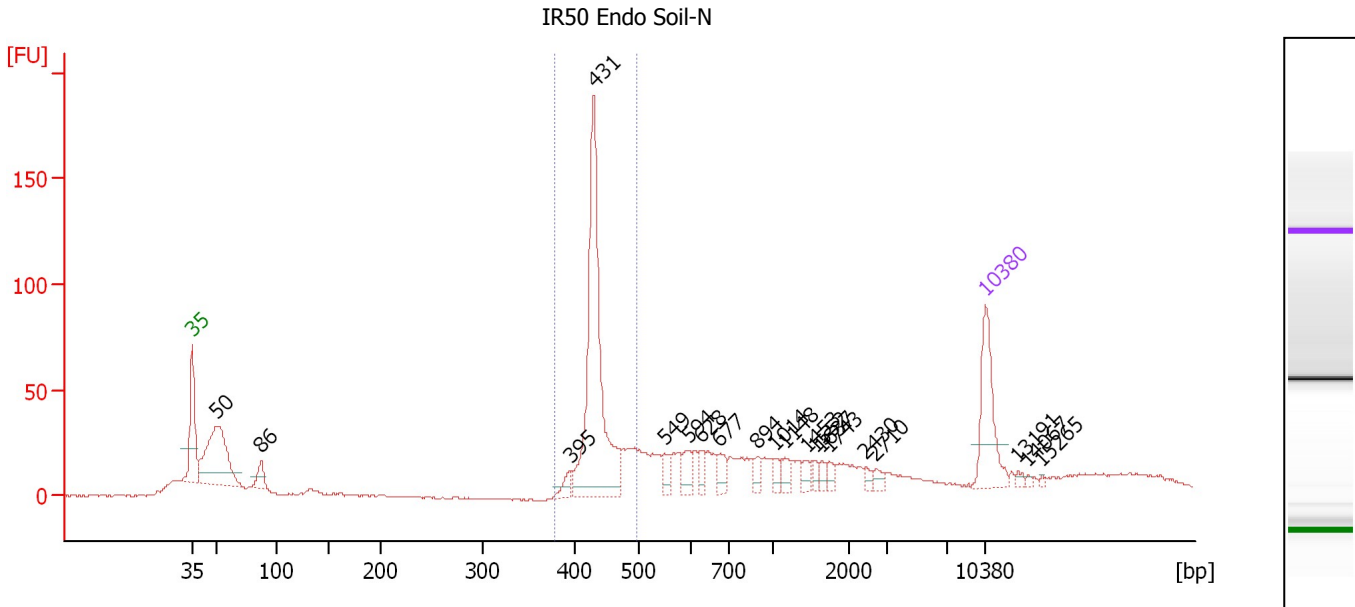
Region table for sample 6 : IR50 BF Soil-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
380	525	444	2,284.0	667.13	445.0	42	6.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_002.xad

Created: 12/18/2012 9:58:27 AM
 Modified: 12/18/2012 10:43:21 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : IR50 Endo Soil-N

Number of peaks found: 20 Corr. Area 1: 335.2
 Noise: 0.5

Peak table for sample 7 : IR50 Endo Soil-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	219.42	6,681.4	
3	86	27.03	473.6	
4	395	15.18	58.2	
5	431	349.82	1,231.0	
6	549	18.74	51.7	
7	594	23.19	59.2	
8	628	16.09	38.8	
9	677	19.38	43.4	
10	894	12.66	21.4	
11	1,014	13.54	20.2	
12	1,148	13.16	17.4	
13	1,453	12.09	12.6	
14	1,552	8.05	7.9	
15	1,637	7.61	7.0	
16	1,743	9.86	8.6	
17	2,430	5.97	3.7	
18	2,710	7.82	4.4	
19	10,380	75.00	10.9	Upper Marker
20	13,191	0.00	0.0	
21	14,067	0.00	0.0	
22	15,265	0.00	0.0	

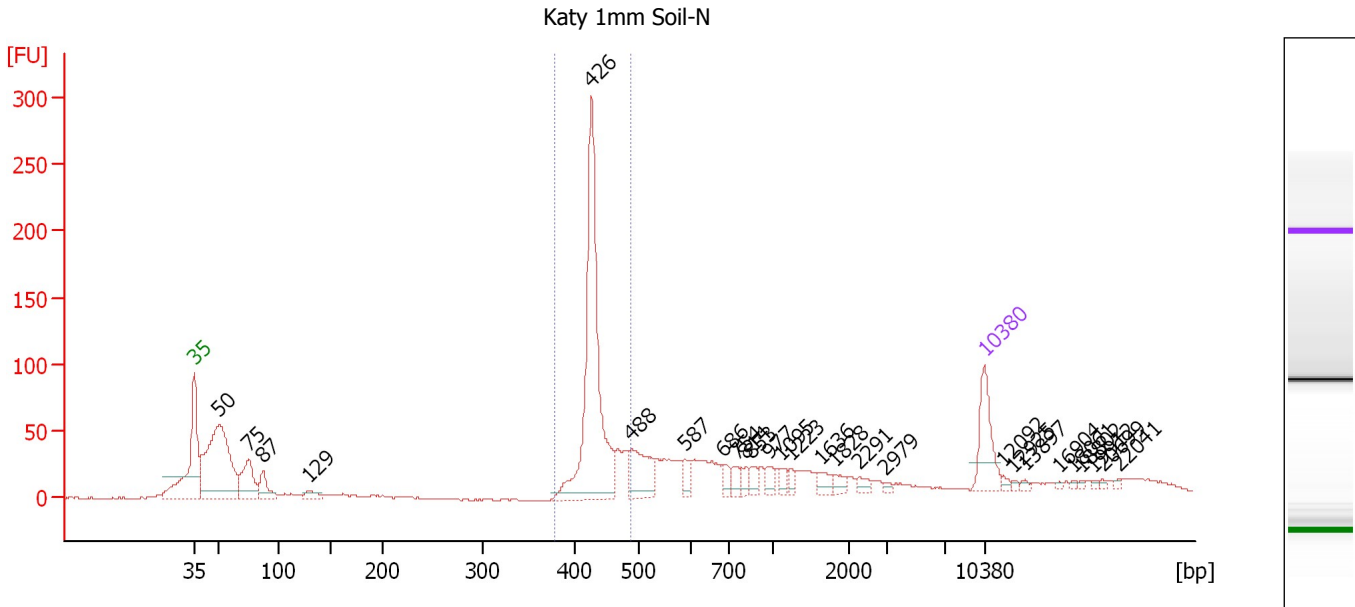
Region table for sample 7 : IR50 Endo Soil-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
378	498	438	1,307.1	377.57	335.2	34	5.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_002.xad

Created: 12/18/2012 9:58:27 AM
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Electropherogram Summary Continued ...



Overall Results for sample 8 : Katy 1mm Soil-N

Number of peaks found: 27 Corr. Area 1: 515.9
 Noise: 0.6

Peak table for sample 8 : Katy 1mm Soil-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	460.14	13,994.8	
3	75	112.18	2,276.0	
4	87	54.75	956.9	
5	129	23.68	278.1	
6	426	512.74	1,821.7	
7	488	101.52	315.3	
8	587	25.43	65.7	
9	686	19.43	42.9	
10	754	17.90	36.0	
11	814	15.82	29.4	
12	853	17.62	31.3	
13	977	16.26	25.2	
14	1,095	13.07	18.1	
15	1,223	11.42	14.2	
16	1,636	17.34	16.1	
17	1,828	13.59	11.3	
18	2,291	11.27	7.5	
19	2,979	5.23	2.7	
20	10,380	75.00	10.9	Upper Marker
21	12,092	0.00	0.0	
22	12,925	0.00	0.0	
23	13,897	0.00	0.0	
24	16,904	0.00	0.0	
25	18,061	0.00	0.0	
26	18,802	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_002.xad

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Electropherogram Summary Continued ...

... Peak table for sample 8 : Katy 1mm Soil-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	19,912	0.00	0.0	
28	20,699	0.00	0.0	
29	22,041	0.00	0.0	

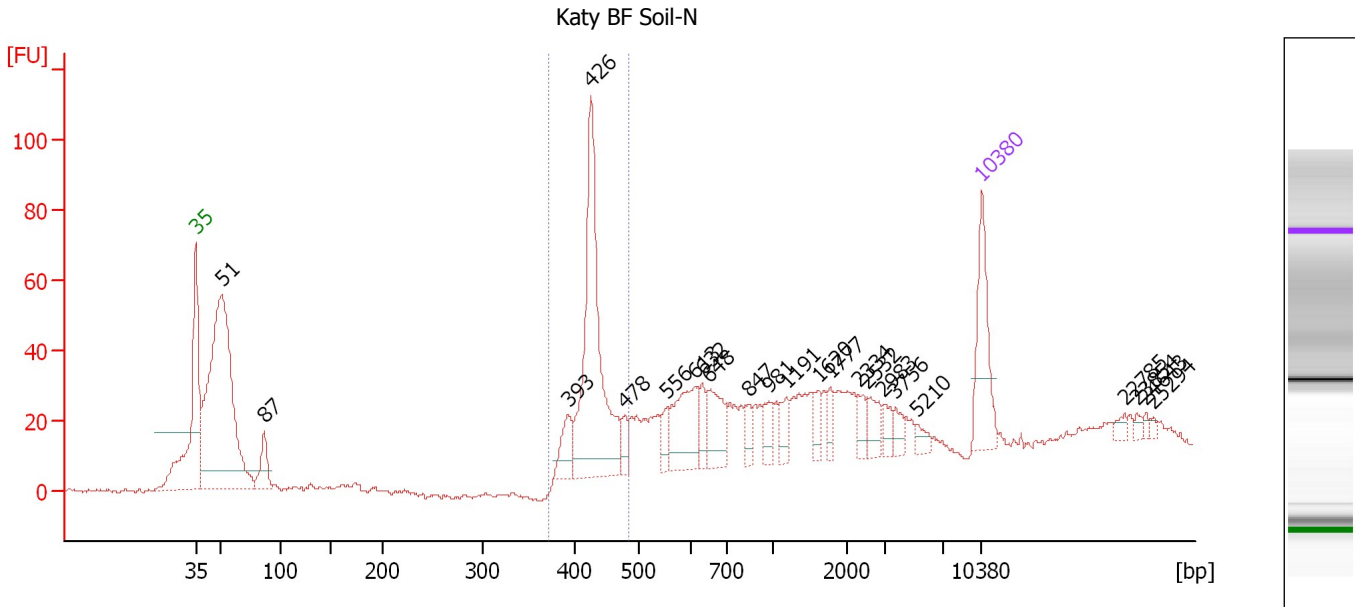
Region table for sample 8 : Katy 1mm Soil-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
378	489	434	1,918.8	548.96	515.9	34	4.6	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_002.xad

Created: 12/18/2012 9:58:27 AM
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Electropherogram Summary Continued ...



Overall Results for sample 9 : Katy BF Soil-N

Number of peaks found: 23 Corr. Area 1: 225.4
 Noise: 0.6

Peak table for sample 9 : Katy BF Soil-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	51	649.97	19,245.0	
3	87	49.83	868.5	
4	393	41.98	161.6	
5	426	310.72	1,103.9	
6	478	18.65	59.1	
7	556	19.44	53.0	
8	613	89.77	222.1	
9	632	24.53	58.8	
10	648	55.65	130.2	
11	847	17.97	32.2	
12	981	21.41	33.1	
13	1,191	20.84	26.5	
14	1,620	20.14	18.8	
15	1,777	14.27	12.2	
16	2,334	15.76	10.2	
17	2,532	24.34	14.6	
18	2,983	14.53	7.4	
19	3,756	13.19	5.3	
20	5,210	9.92	2.9	
21	10,380	75.00	10.9	Upper Marker
22	22,785	0.00	0.0	
23	23,854	0.00	0.0	
24	24,643	0.00	0.0	
25	25,294	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_002.xad

Created: 12/18/2012 9:58:27 AM
Modified: 12/18/2012 10:43:21 AM

Electropherogram Summary Continued ...

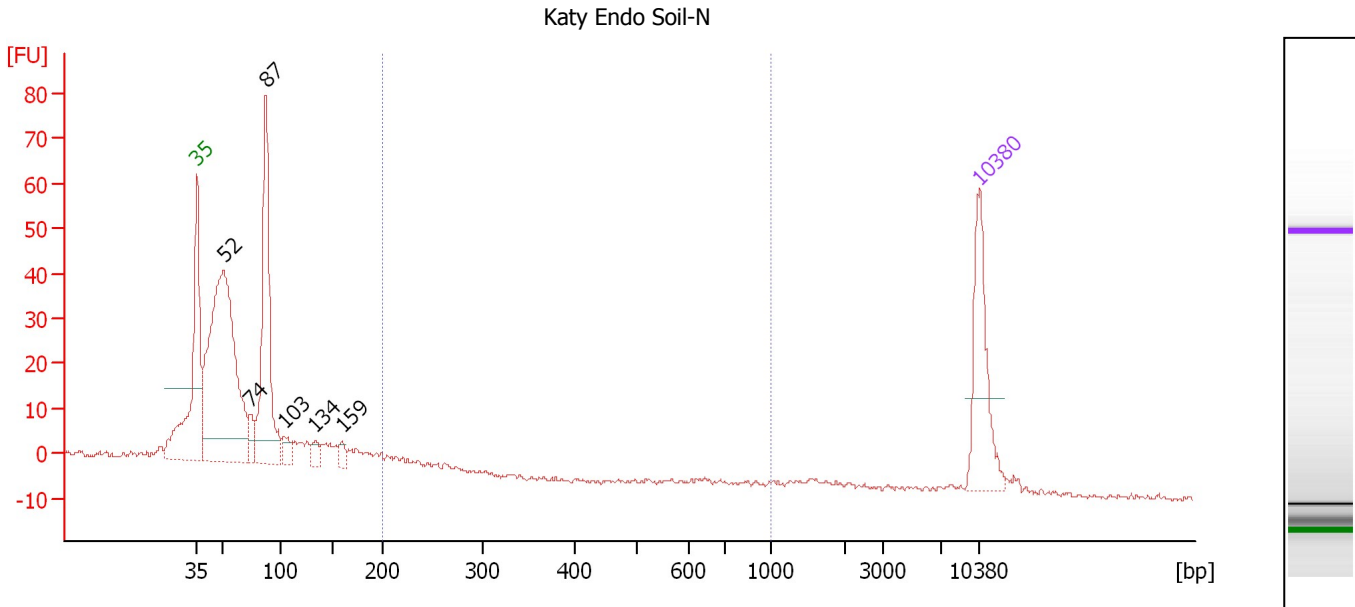
... Region table for sample 9 : Katy BF Soil-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Corr. Area	% of Total	Size distribution in CV [%]	Color
372	484	430	1,198.8	339.35	225.4	22	5.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_002.xad

Created: 12/18/2012 9:58:27 AM
 Modified: 12/18/2012 10:43:21 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : Katy Endo Soil-N

Number of peaks found: 6 Corr. Area 1: 11.8
 Noise: 0.5

Peak table for sample 10 : Katy Endo Soil-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	52	498.59	14,600.3	
3	74	25.75	525.7	
4	87	258.38	4,487.1	
5	103	19.37	285.1	
6	134	14.80	167.7	
7	159	12.16	115.6	
8	10,380	75.00	10.9	Upper Marker

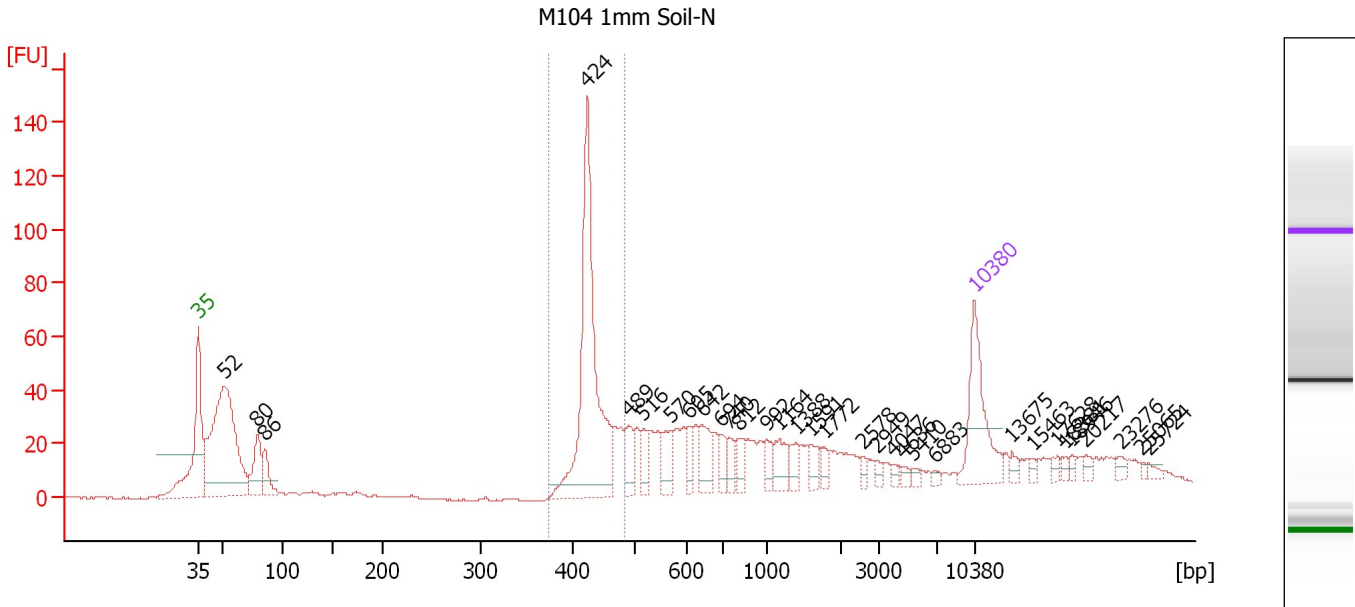
Region table for sample 10 : Katy Endo Soil-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	227	128.9	19.24	11.8	2	11.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_002.xad

Created: 12/18/2012 9:58:27 AM
 Modified: 12/18/2012 10:43:21 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : M104 1mm Soil-N

Number of peaks found: 32 Corr. Area 1: 275.2
 Noise: 0.3

Peak table for sample 11 : M104 1mm Soil-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	52	372.11	10,861.1	
3	80	61.39	1,169.4	
4	86	37.36	659.2	
5	424	299.67	1,069.8	
6	489	32.11	99.4	
7	516	20.25	59.5	
8	570	29.24	77.8	
9	605	18.54	46.4	
10	642	34.65	81.7	
11	694	17.07	37.2	
12	740	15.67	32.1	
13	812	17.01	31.7	
14	992	15.28	23.3	
15	1,164	22.64	29.5	
16	1,388	16.03	17.5	
17	1,591	11.88	11.3	
18	1,772	8.27	7.1	
19	2,578	5.70	3.4	
20	2,949	5.24	2.7	
21	4,047	4.71	1.8	
22	4,636	4.45	1.5	
23	5,410	4.14	1.2	
24	6,883	3.51	0.8	
25	10,380	75.00	10.9	Upper Marker
26	13,675	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_002.xad


Created: 12/18/2012 9:58:27 AM
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Electropherogram Summary Continued ...

... Peak table for sample 11 : M104 1mm Soil-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	15,463	0.00	0.0	
28	17,628	0.00	0.0	
29	18,381	0.00	0.0	
30	18,946	0.00	0.0	
31	20,217	0.00	0.0	
32	23,276	0.00	0.0	
33	25,065	0.00	0.0	
34	25,724	0.00	0.0	

Region table for sample 11 : M104 1mm Soil-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
374	484	434	1,085.0	310.35	275.2	24	4.6	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_002.xad

Created: 12/18/2012 9:58:27 AM
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Gel Image

